

FREEING THE INVISIBLE HAND:

THE UNEXPECTED CONSEQUENCES OF LAND DEREGULATION IN QUERÉTARO, MÉXICO

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ABSTRACT

The purpose of this thesis is to study the relationship between the evolution and sudden shifts in broader political economy, and the physical transformation of cities in Mexico. This research relies on the city of Querétaro, a case study of uneven urban expansion. The research design consists of an in-depth analysis of historical land use data, as well as municipal documentation and Federal census data, to study the effects that land use deregulation has had on the form of the city. The findings show that, in recent years, the city has seen the proliferation of both informal settlements and private, gated subdivisions on formerly regulated land.

ONE

INTRODUCTION

During the 1980's decade, after years of protectionist policies that focused on import substitution and a dependence on primary goods export to the United States, the Mexican Federal government drastically shifted its approach towards economic policy. Following pressures from major international financial institutions, such as the International Monetary Fund (IMF) and the World Bank, the country started the gradual adoption of a market-oriented economy, adopting the rules and precepts of neoliberalism as a guiding economic theory. During the 1990s decade, Mexico's transformation towards market orientation reached unprecedented levels, and the rollout of market-oriented policies continued up to a critical point. In fact, after only three decades since the beginning of this drastic economic shift, "nowhere has neoliberalism been more widely implemented or its impacts been more profound than in Mexico."¹



This drastic change in direction towards a market-driven economy, derived from the adoption -or rather, imposition?- of the North American Free Trade Agreement (NAFTA), a foreign-crafted policy, brought with it a series of structural adjustments that affected many aspects of the Mexican economic, political and social landscapes, including, but not limited to: generalized privatization of government enterprises, a radical change in land ownership models and regulations, and uncontrolled city growth patterns that are characterized by a drastic segregation between incomes.²

While the free-trade model achieved a more transparent, efficient form of governance, there are serious consequences derived from its adoption that need further exploration. Today, most Mexican cities suffer from a series of urban problems that might have been exacerbated by the adoption of neoliberal policies. Gated communities that reflect deep socioeconomic disparities, and informal settlements that remain a persistent urban feature

1 Alexander, William and Weaver, Thomas (2012). *Neoliberalism and Commodity Production in Mexico*. University Press of Colorado. p. 2

2 García Peralta, Beatriz and Hofer, Andreas (2006). Housing for the Working Class on the Periphery of Mexico City: A New Version of Gated Communities. *Social Justice*: 3 (150). pp. 129-41

in the vast majority of Mexican cities, are common issues that might have, at least in part, resulted from the deregulation of land tenure, a shift that essentially transformed land into a commodity, by intensifying its transaction value, and minimizing its use value.

With this thesis, I explore this relationship. Essentially, I am interested in the ties between the evolution and sudden shifts in broader political economy in Mexico, and the physical transformation of cities in Mexico. I study the land use changes throughout the last two decades, following the most aggressive rollout of neoliberal reforms in Mexican history, and I have chosen the city of Querétaro, a typical case of uneven urban expansion.

Methodologically, I delve on the origins –causes- of a broad policy implementation and, relying on historical land use data, as well as municipal documentation and Federal census data, I study the effects that land use deregulation has had on the urban form of the city. More specifically, I explore the notion that land use changes, from protected agricultural or environmental reserves to urban uses -residential, commercial, and industrial, among others-, might contribute to the proliferation of both informal settlements and formal subdivisions at the fringes of the city, where these land use changes are occurring. In other words, I explore the notion that neoliberal regulation of land has had a direct consequence on the shape of the city by causing sprawling patterns, especially for housing developments.

Great part of the motivation of this study comes from a study conducted by Harner, et al (2009), in which they argue that global practices that promote the outright implementation of neoliberal reforms, have very tangible, local effects in local policies that shape the urban form. Reforms that followed the adoption of the neoliberal ideology, they argue, have greatly affected the production of space in urban Mexico, as they have liberalized access to credit for housing, clearly promoting and enhancing a platform to favor private property, and promoting private land development.³ However, favoring private property has turned housing into a private investment, rather than a more general social good, by enhancing its transaction value over its use value. This notion essentially excludes all those workers outside

³ Harner, John, Jiménez Huerta, Edith and Cruz Solis, Heriberto (2009). Buying Development: Housing and Urban Growth in Guadalajara, México. *Urban Geography* 30(5):465-89: 471



of the formal economy.

Ultimately, the purpose of this study is to explore, and possibly confirm, the preliminary hypothesis that the introduction of drastic deregulatory reforms has had unexpected, negative consequences in the way in which urban space is produced, transformed, and consumed.

TWO

LITERATURE REVIEW

- 2.1 The Invisible Hand: Evolution of Economic Policy in Mexico
- 2.2 Land, Housing and the Free Market: A Historical Perspective
- 2.3 Querétaro: Background and Context

There have been numerous scholarly works exploring the nexus between neoliberal reforms and urban patterns, both in the international and Mexican contexts. I find it necessary, however, to define this key concept before moving forward. Neoliberalism is a theory of political economy that suggests that the best way to advance human well-being is liberating individual entrepreneurial freedoms and skills. This theory proposes to liberate these freedoms within a specific institutional framework that favors private property rights, a free market, and free trade. The state, according to neoliberalism, should limit its intervention to create and preserve the institutional framework in which these practices can be successful.⁴ However, as neoliberalism caught on in different economies around the world, it became very apparent that its principles were –and still are– being used to justify, among other major shifts, the deregulation over private industry, the privatization of state-owned corporation, the outright frontal attack on organized labor, the reduction of corporate taxes, the shrinking and sometimes privatization of public services, and the dismantling of welfare programs.⁵

Moving on, I have identified a convergence of three broader topics to be relevant for this research:

1) The evolution of Mexican economic policy, from the creation of the modern Mexican State in the first decades of the XX century, to the eventual implementation of the neoliberal economic model. I find it necessary to weave this historical perspective into my research because the decisions, strategies and events that transpired throughout Mexico's past became the detonators of the neoliberal implementation. Essentially, if I want to understand the present economy, political decisions, and the collective idiosyncrasies in Mexico, I need to understand the past.

2) The nuances, patterns and evolution of land tenure and housing policies in the modern Mexican State. This evolution, in line with the previous reasoning, is relevant for this research because clear up why the direction and strategy in terms of broader economic policy have such profound impacts in the way space is produced in Mexico.

3) The city of Querétaro, a case study, in terms of historical develop-

⁴ Harvey, David (2005). *A Brief History of Neoliberalism*. Oxford University Press: p. 2.

⁵ Bremmer, Neil and Theodore, Nik (2002). Cities and Geographies of 'Actually Existing Neoliberalism'. *Antipode*, 34(3), p. 348-78.

ment and current urban issues. My research is based upon the study of land use in this city. As such, I find it fundamental to briefly but thoroughly explore the historical development of the city, as well as the infrastructural and institutional frameworks that have facilitated the city's transformation.

All three of these themes will be explored on this section.

2.1

The Invisible Hand: Evolution of Economic Policy in Mexico

Mexico's economic history is extremely complex. An in-depth, comprehensive analysis of such would require an entirely independent dissertation and years of research. Its relevance for this thesis lies in the fact that the only way to understand why the neoliberal model was adopted, it is necessary to understand the series of decisions and most important events that led to it. This is an account that will be condensed in the following section.

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After years of violent war, political unrest and economic stagnation, what can be considered the beginning of the modern Mexican state was born with the drafting of the Mexican Constitution in 1917, and the eventual formation of the Institutional Revolutionary Party (*Partido Revolucionario Institucional, PRI*), in 1929. The PRI ruled until the year 2000, when it was democratically ousted with the election of Vicente Fox, the first president to emerge from an opposing party in over 70 years.

Over its stay in power, the PRI managed to create a corporatist state that was skilled at controlling and organizing workers, peasants and the middle classes, the very basis of the revolution that led to its creation. By tightly controlling social liberties, buying off adversaries and even blatantly suppressing oppositional movements, the party pursued a state-led modernization and economic development model mainly focused, at least during its first decades, on import substitution and vigorous export trade with the US.⁶

Throughout the 71 years of the PRI's permanence in power, we can iden-

6 Harvey, 2006

tify five⁷ key moments that shaped Mexico's economic and political direction, as follows.

1. The Period of Reconstruction (1917- 1940)

At the time of the state-party formation, more than 70 percent of the economically active population worked in the primary sector, and only 15 percent were involved in an industrial activity. Mexico was a primarily rural economy, with most infrastructure and key economic drivers, such as railroads, oil, electricity, telephones and mining still controlled by foreign capital.⁸ At the same time, the state-party was being formed in the midst of an acute international economic depression (1929-1932),⁹ in which Mexico's revenues fell by over 25 percent. However, by 1933, the effects of the economic depression had somewhat subsided, and public spending regained strength. The finance sector also significantly expanded and formalized during the 1930's. However, the most important years of the reconstruction period happened with the tenure of President Lázaro Cárdenas, who was in power between 1934 and 1940. During his tenure, Cárdenas paid special attention to the Agrarian Reform -established in the 1917 Constitution as the political climax of the Mexican Revolution-, and large amount of land and agricultural properties were distributed among peasants and field laborers¹⁰ (this topic, fundamental for this thesis, will be explored in more detail in a subsequent section). Cárdenas also created a large amount of public enterprises, and prioritized spending as a vehicle for economic development, as during this six-year period important infrastructure projects were developed in the agriculture sector, a top priority in Cárdenas' agenda for economic development. In fact, by the end of Cárdenas' tenure, the investment on agriculture represented almost 30 percent of the public investment budget.¹¹

In addition to placing agricultural development as one of his great-

7 Gollás, Manuel, (2003). México. Crecimiento con Desigualdad y Pobreza: De la sustitución de importaciones a los tratados de libre comercio con quien se deje. *Serie de Documentos de Trabajo*, Número 3. Centro de Estudios Económicos. El Colegio de México

8 MacLeod, Dag (2004). *Downsizing the State: Privatization and the Limits of Neoliberal Reform in Mexico*. The Pennsylvania State University Press.

9 Gollás, 2003

10 Lomelí Venegas, Leonardo (2012). Interpretaciones sobre el desarrollo económico de México en el siglo XX. *Economía UNAM*. 9(27). P. 91-108.

11 Gollás, 2003

est priorities, Cárdenas managed to consolidate the Revolution's nationalistic and popular sentiments, also central to his party's rhetoric,

through pacts with various popular organizations, chief among them the peasants' confederation (Confederación Nacional Campesina, or CNC) and the workers' central trade union (Confederación de Trabajadores de México, or CTM). Through these acts the government traded protection for the social interests represented by these organizations in exchange for political support.¹²

With the support of the major worker unions, Cárdenas ensured both a long-standing peace and a firm control of most social, economic and political spheres by the Federal government, and thus the powerful PRI. The corporatist structure of the regime was consolidated.

However, the most transcendental policy undertaken under the Cárdenas administration, one which has had major political implications until present days, was the nationalization of the petroleum industry on March 18, 1938. Appealing to the symbolic importance of petroleum nationalization as a need to free Mexico from foreign economic influence,¹³ the Cárdenas administration pursued national control of the precious resource as an important source of foreign exchange that Mexico would need to push its industrial development.¹⁴

2. The Period of Import Substitution and "Inward Oriented" Growth (1940-1954)

Following the Cárdenas period, the most important objectives of Presidents Manuel Ávila Camacho, Miguel Alemán and Adolfo Ruiz Cortines, at least in terms of economic policy, were directed to the construction of transportation and telecommunications infrastructure, like roads and railroads, and the efficient production of electricity and hydrocarbon products that ensured cheap, subsidized inputs for the private industry. The period's political economy was directed towards stimulating private investments with the purpose of creating and strengthening an industrial and commer-

12 Bazdresch, Carlos and Levy, Santiago (1991) Populism and Economic Policy in Mexico, 1970-1982, pp. 223-262 in Dornbusch, Rudiger and Edwards, Sebastian, eds. The Macroeconomics of Populism in Latin America. University of Chicago Press. P. 225.

13 MacLeod, 2004

14 *ibid.*

cial agriculture economic base.¹⁵

This period was also marked by an increased demand for Mexican raw materials caused by World War II, but also by a shift towards import substitution to satisfy national demands. This shift was encouraged by the radical drop in production in industrialized countries, especially the United States, which traditionally supplied industrial goods.¹⁶

3) The Period of “Stabilizing Development” (1954-1970)

In 1954, during the presidency of Adolfo Ruiz Cortines, the Mexican peso was devalued against the American dollar, stabilizing exchange rates, and allowing for high economic development, a stability of commodity prices¹⁷ and very low inflation in the following two decades. During this period, which happened in an international environment that was highly conducive for growth, growth was centered on industrial production, causing the gradual decline of the agricultural sector that was vigorously pushed by previous administrations.

The Stabilizing Development period revolved around a control on inflation, a fundamental ingredient of the stability of exchange rates, and achieved by extremely tight control of public finances. In addition, tax policy was used to promote private investment and subsidize key sectors of the economy, such as energy, food and transportation.¹⁸

Industrial growth happened, furthermore, under a very rigid protectionist system for national industrialists, characterized by high import tariffs, permits and quotas against foreign competition, and a system of countless public firms that provided subsidized electricity and petroleum, while still providing valuable revenues to allow the Federal government to maintain a very low tax rate.¹⁹ In exchange, the private sector agreed to leave all matters of economic and social policies, and all other key activities for national

15 Gollás, 2003

16 Lomelí Venegas, 2012

17 Tello, Carlos (2010). Notas sobre el Desarrollo Estabilizador. *Economía Informa*, Num. 364. Julio-Septiembre, 2010 and Lomelí Venegas, 2012

18 Bazdresch and Levy, 1991

19 MacLeod, 2004

development, in the hands of the Federal government.²⁰

Even though economic growth was sustained, by the end of the 1960's major governance flaws started to become apparent. Uneven concentration of wealth, lagging social services associated with reduced public expenditure; agricultural insufficiency associated with an obvious urban bias in the period's economic policy; industrial inefficiency and the emergence of oligopolistic industrial structures - an alternate consequence of the strict protectionist policies-; a debilitating public sector and an extremely insufficient democratic practice, were also key characteristics of this period.²¹ These flaws were also contributors to the political crisis that exploded at the end of the 1960's, epitomized by the violent suppression of the Student Movement of 1968. The brutal killings of hundreds of organized students protesting social inequalities on October 2, 1968 both radically unbalanced the PRI's political legitimacy²², and made it clear that the regime's approach towards economic and social policy was in urgent need of reform.²³

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4) The Crisis Presidential Terms: Echeverría and López Portillo (1970-1982)

Luis Echeverría (1970-1976) took office during a sizeable political crisis, one which he made it his top priority as he settled into the presidency, and the country's approach to economic policy, traditionally cautious, was considerably modified. Echeverría promised political reform, in which he signaled a stronger government intervention in the economy in order to reduce poverty, increase investment in areas where the public enterprise was lagging, and reduce the importance of foreign firms.²⁴

For Echeverría, low inflation and nominal exchange rate stability, both inherited from the period of sustained growth, were important targets, which he combined with the promise of increasing social spending and employment.²⁵

20 Tello, 2010
21 Bazdresch and Levy, 1991 and Tello, 2010
22 Harvey, 2005
23 Bazdresch and Levy, 1991
24 *ibid.*
25 *ibid.*

However, international economic conditions challenged Echeverría's regime even further, as the global crisis that was sparked by the OPEC (Organization of Petroleum Exporting Countries) oil embargo hit Mexico badly by increasing domestic inflationary pressures.²⁶ The Federal government, fearful of further social unrest, responded by significantly extending the public sector by taking over failing private enterprises and maintaining them as sources of employment.²⁷ However, this increase in public spending happened in the absence of a significant tax reform. Interestingly, in 1972, the Echeverría administration seriously considered a fiscal reform that would increase taxes, an initiative that received a very negative response from the private sector, with capital flight threats, which would have a negative effect, in turn, on the constant nominal exchange rates that Echeverría was fixated on maintaining.²⁸

As public spending increased, public finances rapidly deteriorated. As a result, the state had to borrow to fund its expansion. During this time, as the oil crisis developed, the international capital markets and investment banks, full with petrodollars, were eager to invest in new markets. Mexico, in turn, had recently made important oil discoveries, making the country a very attractive option for investment. As a result, foreign debt increased, from \$6.8 billion in 1972 to \$58 billion in 1982.²⁹

To make matters worse, the instability of Echeverría's economic stance began to show negative results. Inflation rates started to grow uncontrollably, going from 5 percent in 1972 to 23.8 percent in 1974.³⁰ At the same time, growing budget deficits and devaluation expectations slowed private investment, and in fact, caused significant capital flight. This caused a vicious circle in which the government responded by calling for a larger role in the economy and stepping up public investment, further deteriorating its finances and public borrowing.³¹ At this point, it was clear that the fixed exchange rate, maintained since 1954, was obviously overvalued.

The vicious circle in which the country was immersed in finally led to a

26 ibid.
27 Harvey, 2005
28 Bazdresch and Levy, 1991
29 Harvey, 2005
30 Bazdresch and Levy, 1991
31 ibid.

much overdue conclusion: in September 1976, with only a few months left in his administration, Echeverría finally devalued the fixed exchange rate by 59 percent,³² and entered in an austerity agreement with the International Monetary Fund (IMF).³³

Needless to say, José López Portillo (1976-1982) took office in turbulence. As part of the IMF negotiations, public spending and real money supply were reduced by 4 percent and 2 percent, respectively. Changes in trade policy were also agreed: imports, all of which were subject to permits by the end of 1976, were to be deregulated.³⁴ Other reforms included a change in tax policy, in which added tax replaced a complicated cascading system of indirect taxes. Corporate and personal income taxes were also reformed.

After the recent discovery of oil reserves, the Federal government embarked in great efforts to increase revenues from the sale of the precious commodity; this only stimulated an increase in public spending and aggravating the already critical fiscal deficit.³⁵ On this matter, Bazdresch and Levy speculate:

Perhaps if oil had not been discovered the Mexican economy might have returned to the macro policies of stabilizing development, but with the added lesson that the structural reforms of taxation, trade and regional policy could be postponed no longer. Oil, however, was discovered; it changed all. With the benefit of hindsight we can see the unfortunate event: a temporary terms of trade improvement in a commodity that had recently been discovered to be in abundant supply turned the government's attention away from structural reforms.³⁶

The López Portillo administration was also characterized by a poor performance in non-petroleum exports. At the same time, slow domestic growth caused an increased demand for import goods, which resulted in an important commercial deficit. In consequence, the country became increasingly dependent on petroleum: by 1981, oil represented 73 percent of total exports.³⁷ At this point in time, furthermore, exchange rates had become sensitive to fluctuations in oil prices, and when a second oil shock occurred

32 *ibid.*
33 MacLeod, 2004
34 Bazdresch and Levy, 1991
35 Gollás, 2003
36 Bazdresch and Levy, 1991: p. 247
37 Gollás, 2003

in 1979, the sense of euphoria that followed undermined fiscal discipline³⁸: cheap oil prices meant a further increase in the country's fiscal deficit.

As oil prices continued to fall, numerous private companies that had their debts tied to an overvalued exchange rate went bankrupt, stimulating a massive capital flight. In response, the Federal government responded by fixing the exchange rate.³⁹ López Portillo saw devaluation and stabilization as an utter surrender to the State's enemies, as these two measures implied major adjustments to the government's economic policy.⁴⁰ López Portillo would not back down:

Let us defend our *peso*! That is the structure that is best for the country... That is the structure that I have pledged to defend like a dog!⁴¹

By 1982, oil prices kept falling, and the government's relationship with the private sector had completely soured. At the same time, foreign suppliers had begun to realize the magnitude of Mexico's outstanding obligations and deteriorated economic conditions, essentially stopping the flow of external resources.⁴² The federal reserves almost completely dried out, leaving no room to maneuver, causing the reluctant increase of some public sector prices. National bankruptcy was formally declared in August, 1982, followed by a massive nominal devaluation of 470 percent.⁴³

However, as a shocking conclusion to the López Portillo presidency, the President announced the expropriation of the banking system on September 1, 1982 during his annual presidential address, three months before leaving office, in a desperate effort to curb capital flight and to harness private interests to national development goals.⁴⁴ López Portillo's presidency ended in a very similar way as the previous one: with the signing of a stabilization program with the International Monetary Fund.⁴⁵

38 Bazdresch and Levy, 1991

39 Gollás, 2003

40 Bazdresch and Levy, 1991

41 Portion of a speech delivered by José López Portillo on August 17, 1981. Translation by author.

42 Bazdresch and Levy, 1991

43 *ibid.*

44 MacLeod, 2004

45 Bazdresch and Levy, 1991

5) The Period of Structural Reforms and Trade Liberalization

Following tradition, Miguel de la Madrid (1982-1988) began his presidential term amid a national crisis. As he assumed power, he sided with the private businesses and foreign interests that were pushing for an aggressive economic reform agenda: essentially, to revise the role of the State in the national economy, and Mexico's relationship with the global economy.⁴⁶ The bottom line is that De la Madrid was much less absorbed in the traditional politics of his party. He also had very close relations with the capitalist class, and with private foreign interests. As a result, when the International Monetary Fund, the United States Treasury, and the World Bank combined efforts to come up with a package to bail out Mexico out of outright bankruptcy, insisting for the first time in a full implementation of neoliberal reforms, De la Madrid gave in to their pressures.⁴⁷

According to the previously mentioned international finance institutions (IMF, World Bank), prominent champions of the neoliberal ideas, Mexico suffered from excessive interventionism, which had resulted in an excessive growth of the state machinery, excessive bureaucratization, and excessive spending, all aggravated by the impending corruption, inefficiency and the government elite's wasteful patterns. As such, a 'thinning of the state' was an urgent matter,⁴⁸ so they pressured De la Madrid on specific reforms that had to do with privatization of failing state enterprises, the abandonment of protectionism that had created an expensive and inefficient industry,⁴⁹ a reorganization of the financial system in ways more consistent with foreign interests, the opening of international markets to foreign capital, lowering tariff barriers, and the construction of more flexible labor markets.⁵⁰

As a result, as soon as De la Madrid took office in December, 1982, he launched the Immediate Program of Economic Reorganization (*Programa Inmediato de Reorganización Económica, PIRE*), with which he intended to reduce the public treasury's deficit by embarking on public spending cuts; to curb inflation, and to revive historical growth rates in the Mexican

46 Lomelí Venegas, 2012

47 Harvey, 2005

48 Revueltas, Andrea (1993). Las reformas del Estado en México: del Estado benefactor al Estado neoliberal. *Política y Cultura*, núm 2, invierno 1993, pp. 215-229.

49 *ibid.*

50 Harvey, 2005

economy.⁵¹ With the PIRE, De la Madrid formalized the aggressive change of course towards the neoliberal model⁵² that the IMF pushed at the end of De la Madrid's predecessor's tenure.

As the economic crisis endured, De la Madrid implemented an aggressive austerity program, in which he reduced public spending from 4.4 percent to 2.5 percent of GDP.⁵³ At the same time, expenditures on critical urban services were also cut, including transport, potable water, health services, trash collection and public education. Food subsidies were restricted to the poorest sectors.⁵⁴ Worst of all, Mexico's outstanding debts were not being reduced as was originally planned. De la Madrid concluded that the sale of public enterprises would become a key strategy to significantly reduce debt, reform public finances, and regain the trust of the alienated private sector.⁵⁵

In 1988, Carlos Salinas de Gortari (1988-1994) succeeded Miguel De la Madrid as president. During his tenure, Salinas accelerated and formalized the process of privatization started by his predecessor. It was also during Salinas' tenure that Mexico's economy completed its transformation to neoliberal orthodoxy⁵⁶: he further expanded the role of foreign investment in the domestic economy, and further diminished the power of organized labor. The latter as a key action if he was to successfully dismantle Mexican public enterprise. Public Employment was cut in half in the six years of Salinas' tenure, and the number of public firms was reduced to barely over 200 in 2000 from the more than 1,100 at the beginning of De la Madrid's presidency in 1982⁵⁷. Inflation was significantly reduced, going from 52 percent at the beginning of his administration, to 8 percent in 1993,⁵⁸ and with a flexible economy, exchange rates were reevaluated and lowered. Most importantly, however, was the fact that Salinas began, and successfully completed, the negotiations with the United States to create the North American Free Trade Agreement (NAFTA), reestablishing, at least in part, the trust of the

51 Gollás, 2003
52 Revueltas, 1993
53 *ibid.*
54 Harvey, 2005
55 MacLeod, 2004
56 Harvey, 2005
57 *ibid.*
58 Gollás, 2003

private sector on both the State and the national economy.⁵⁹

As part of the Free Trade Agreement, the banks, which had been reluctantly expropriated at the end of López Portillo's tenure in 1982, were re-privatized in 1990; NAFTA required that he open up the agricultural industry to foreign competition, acting against one of the most important pillars of the PRI's structure: the peasantry. This reform is of specific importance for this thesis, since it fundamentally changed land tenure regulations that had been in place for almost eighty years, which will be detailed in a subsequent section of this thesis.

During Salinas' tenure, macroeconomic variables followed an exemplary evolution, as he was able to reduce inflation from 160 percent in 1987 to 8 percent in 1993, for example, and the peso appreciated against CPI (Consumer Price Index) around 30 percent in the first 4 years of his tenure.⁶⁰

However, on par with these apparent successes in macroeconomic variables, Mexico maintained an accelerated fiscal deficit, reaching a maximum of 7.7 percent over GDP in 1994. This deficit, which was financed through the boost of foreign capital influx as the economy was opened to foreign investment, was directly related to two phenomena⁶¹:

- 1) The fact that the national currency had been gaining strength all throughout Salinas' tenure
- 2) Private sector savings were also on a fiscal deficit, reflecting an excess of investment in respect to real savings of private actors.

The influx of foreign capital, while boosting macroeconomic figures, also made the country financially vulnerable and dependent on foreign funds: between 1991 and 1994, Treasury Bond financing increased from 19 billion to 25 billion dollars.⁶²

On February, 1994, the United States Federal Reserve rose interest rates, from 3 percent to 3.25 percent, and continued to rise rates for a total of six

59 *ibid.*

60 Griffith-Jones, Stephany (1996). La crisis del peso mexicano. *Revista de la CEPAL*, número 60. Santiago de Chile: 151-171.

61 *ibid.*

62 *ibid.*

times this years: from 3 percent in January, to 5.6 percent in December of that year. At the same time, on March 23, 1994, the presidential candidate that was running for the PRI, to essentially take over after Salinas, was assassinated in a campaign rally in northern Mexico, signaling political instability. These two events, combined, caused a massive capital flight from the Mexican financial system.

The resulting reaction by the Salinas' team was incredibly risky: they assumed that this sudden shift in foreign capital flow was temporary, as it was following a transitory political uncertainty that would be promptly resolved. Obviously, they were wrong. Even after the elections in August, in which the PRI candidate resulted victorious, foreign capital continued to leave the country. As capital fled, the Mexican Treasury kept issuing an incredibly high amount of Treasury Bonds, a financial instrument to which the Salinas administration became completely dependent on. To make matters worse, an overvalued peso was maintained, signaling a lack of strictness in the Mexican exchange system to the international investors.

Finally, on December 20, 1994, as a desperate measure, the Salinas administration devalued the peso 15 percent. As it was too late, capital flight did not subside. In fact, it reached a critical point: in the following two days after the measure was enacted, more than 4 billion dollars of foreign investment left the country,⁶³ all in a hurry, as the international financial markets lost all faith in the Mexican economy. Furthermore, between December 20 and December 22, Mexican private investors recalled more than 4 and a half billion dollars. Between November, 1994, and February, 1995, foreign investment in the Mexican Stock Market went from around 50 billion dollars, to 18 billion dollars, causing a radical drop in stock prices as well. But, most critically, Treasury Bonds that would expire during the first months of 1995 held a value of almost 10 billion dollars. Exchange reserves, at the end of December, had fallen by almost 6 and a half billion dollars, and panic that the Mexican Treasury would not be able to pay its obligations, ensued. As a result, investment on Treasury Bonds by foreign investors came to an almost complete stop, dropping from almost 18 billion dollars at the end of 1994, to just under 2 billion dollars at the end of September, 1995.⁶⁴

63 ibid.

64 ibid.

As a bittersweet end to Salinas' tenure, the "Miracle Years" in Mexican economic policy, after masterfully bringing the biggest economic transformation in Mexican history into full fruition, Mexico suffered the worst economic crisis in the country's existence.⁶⁵

26

In this section, I explored the key moments in recent Mexican economic history that led to the eventual adoption of a neoliberal economic model, crowned with the signing of the North American Free Trade Agreement. Due to the scope of this thesis I exclusively focused on the realm of broad economic policy but, as I explained at the beginning of this chapter, it is also necessary to explore another critical perspective in order to fully construct a theoretical background for this thesis: How did land and housing management evolve throughout the studied period? And, more importantly, how were land and housing tenure modified by the structural transformations that occurred in Mexican economy during the 1980's and 1990's?

65 Gollás, 2003

2.2

Land, Housing and the Free Market

When the new Constitution was drafted at the end of the Mexican Revolutionary War in 1917, the document included a fundamental component that empowered the agrarian class, thus providing the PRI with the perfect tool to establish itself as the guardian of the Revolution⁶⁶: Article 27, which dealt with land tenure, and Article 123, which dealt with work and social provision.

Among other provisions, Article 27 stated:

... the necessary measures will be enacted for the subdivision of large estates; for the development of smallholdings; for the creation of new agricultural population centers with the lands and waters indispensable to them; for the promotion of agriculture and to avoid the destruction of natural elements and the damages that property might suffer to the detriment of society. The villages, settlements and communities that lack lands and waters, or that do not have them in sufficient quantity for the needs of their population, shall be entitled to them, taking them from adjacent properties, always respecting smallholdings.⁶⁷

In terms of ownership, Article 27 also stated:

All proceedings, dispositions, resolutions and demarcation, concession, composition, sentence, transaction, sale or auction operations that would have totally or partially deprived co-ownerships, settlements, villages, congregations, tribes and other population corporations of their lands, forests and waters, which may still exist since the Law of the 25th of June of 1856, are declared void; and similarly, all dispositions, resolutions and operations taking place hereinafter and producing the same effects, are declared void. In consequence, all lands, forests and waters

⁶⁶ Jones, Gareth and Ward, Peter (1998). "Privatizing the Commons: Reforming the Ejido and Urban Development in Mexico." *International Journal of Urban and Regional Research*, 22(1): 76-93.

⁶⁷ Mexico (1917). *Constitución Política de los Estados Unidos Mexicanos, que reforma la de 5 de Febrero de 1857*. Diario Oficial, Tomo V, 4a Época, No. 30: 149-161. Translation by Author.

from which the referred corporations have been deprived, will be restored...⁶⁸

As seen above, Article 27 introduced a quintessential form of land ownership, communal in nature, commonly referred to as the *ejido*. This form of ownership, which stemmed from the demands of the Revolution, protected the legal rights of indigenous and peasant populations, or *ejidatarios*, allowing them to collectively use land,⁶⁹ while locking-in the agrarian purposes of the land by prohibiting the sale, rent or mortgage of these properties.⁷⁰

Since the beginning of the modern Mexican State, the task of providing decent housing for the masses has been an almost impossible task. In seeking a solution for this problem, the state has since then attempted to tie social housing provision to the close relationship between the working class and their employers.⁷¹ In fact, the 1917 Constitution made it mandatory, through Article 123, for employers to provide dignified housing for their employees:

In every agricultural, industrial, mining or any other kind of work, employers will be obligated to provide for workers, comfortable and hygienic habitations, for which they may charge rents that will not exceed half a percent a month of the cadastral value of the plots.⁷²

However, these dispositions would take decades to be seriously implemented. Even so, during the first decades of the PRI regime, the Federal government was able to provide loans to public sector workers. It was also able to invest in social housing, by developing and leasing units.⁷³

The rapid urbanization that naturally followed the fast process of industrialization that was pushed during the Import Substitution period (1940-1954), made the need for land and housing apparent to the Federal government. The regime, however, centered its attention on the bureaucratic sector, an important base for political support.⁷⁴ By the early 1960's, the

68 *ibid.*

69 Harvey, 2005

70 Jones and Ward, 1998

71 García Peralta and Hofer, 2006

72 Mexico, 1917, Translation by Author

73 Velázquez Leyer, Ricardo (2015). The Development of Housing in Mexico: A Welfare Regime Approach. *Social Policy and Society*, 14(4): 523-39.

74 García Peralta, Beatriz (2010). *Vivienda Social en México (1940-1999): Actores públicos, económicos y sociales. Cuadernos de Vivienda y Urbanismo*. 3(5): 34-49

social housing programs that were adopted during the first decades of the PRI regime were abandoned, mainly because public policy shifted towards the promotion of private property, as a way to combat perceived as socialist pressures.⁷⁵ In addition, during the 1960's decade, the housing stock significantly increased 18 percent from 1960 to 1970. In this same period, however, population in Mexico increased by more than 38 percent, going from 34.9 million in 1960 to 48.2 million in 1970. Less than one percent of this housing stock increase happened with any kind of support from the state,⁷⁶ and it was still insufficient to keep up with population growth.

In 1963, the Federal government created a centralized public fund called the Housing Banking Finance and Operation Fund (*Fondo de Operación y Descuento Bancario a la Vivienda, FOVI*), an institution in charge of channeling resources through private banks for the construction and acquisition of housing units, marking the beginning of large-scale housing production for social purposes. It worked as a combination of public and private capital that was collected by obligatory fees charged to private banking institutions,⁷⁷ and that spurred the emergence of the first large-scale housing development private corporations.⁷⁸ *FOVI*, however, was limited to those families with middle and upper incomes, since these kinds of private loans were not affordable for poorer families⁷⁹ that were left with the only option of self-built housing in irregular settlements.

As I explained in the previous section, the 1970's decade was characteristically turbulent, both economically and socially, which directly translated into a political legitimacy crisis, with social movements demanding more public spending to improve basic services, and a private sector that was adamant to invest in a fragile economy. This included, of course, a complete disinterest in social housing development.⁸⁰ As a response, the Federal government under the tenure of Luis Echeverría, created the National Workers' Housing Fund Institute (*Instituto del Fondo Nacional de la Vivienda para los Trabajadores, INFONAVIT*) and the Housing Fund of the State Workers' Social Security and Services Institute (*Fondo de de la Vivienda del Instituto de*

75 Velázquez Leyer, 2015
76 García Peralta, 2010
77 *ibid.*
78 García Peralta, and Hofer, 2006
79 Velázquez Leyer, 2015
80 García Peralta, 2010

Seguridad y Servicios Sociales de los Trabajadores del Estado, FOVISSSTE) in 1972. This action represented the first time ever in which the constitutional duty of directly financing working-class housing was complied with.⁸¹ This was achieved through formal employers, which were required to place five percent over all workers' salaries on a common fund that would be used to subsidize the purchasing, construction or upgrading of housing units. It was conceived with the huge advantage of shifting money from higher-paid workers to those with higher housing needs.⁸² The Institute was conceived as a coordinator and planner of housing developments, leaving the construction process to sub-contracted private companies (Velázquez, 2015), and one of its main conception flaws is that it is limited to waged workers in the formal economy, completely excluding all those groups outside of it, like the informal sector workers, peasants and all those self-employed.

It is important to note that

Unlike social housing in Europe, Mexican social housing is not for rent. Social housing means relatively affordable housing with assistance and regulations for giving loans to people who would not otherwise be able to finance the buying of a house on the free market.⁸³

Even though the program was a great success in radically expanding the number of loans granted for social-interest housing, the process was still conducted "with high levels of clientelism, corruption and inequality [as] access to government programmes depended to a large extent on corporatist/clientelistic arrangements developed to guarantee social and political control."⁸⁴

The major economic policy shifts that began in 1982 had a major impact on every strategic area of policy and governance, including housing. Following the trend of reform in all these strategic areas, the two major housing financing institutions, INFONAVIT and FOVISSSTE, experienced radical reforms in 1992.

In order to increase transparency in the allocation of loans and fund ad-

81 García Peralta and Hofer, 2006

82 *ibid.*

83 García Peralta and Hofer, 2006: 131

84 Velázquez Leyer, 2015: p. 516

ministration, an individual account was opened for every worker, accentuating individual contributions and benefits over the collective. This way, the financing institutions would be able to keep track of each individual's contributions. At the same time, INFONAVIT and FOVISSSTE were required to pay return rates higher than the annual increase of the minimum wage. With these individual savings accounts, workers would be able to use their balance as down payments to buy a home. Both financing institutions also walked away from subcontracting firms to build housing developments, and they were transformed into purely financing institutions.⁸⁵ The adoption of the housing reforms fundamentally changed the role of the state as a provider of housing into a mere facilitator with no further responsibility in terms of planning or production; one that simply sets the right conditions for private investment to function and thrive. It essentially repositioned "citizens from public, collective, social subjects to individual, economic subjects - a change from citizen to consumer."⁸⁶ These reforms, however, neglected the needs of the poorest workers, as they privileged middle and upper income workers, because they essentially set individual account balances and wages as the criteria to establish loan eligibility.⁸⁷

Another major reform that radically affected the production of housing, while provoking an extremely disorganized growth of urban areas⁸⁸ took place in the first few years of the 1990s decade, when President Carlos Salinas de Gortari completely reformed the *ejido* system, which was detailed at the beginning of this section. President Salinas de Gortari, in line with the international financial institutions' pressures to open up the Mexican economy, established a completely new Agrarian Law, in which the collective use rights of the *ejidos* were converted into individual rights to sell, rent or mortgage otherwise communal land to other, non-*ejido* members of the community. It also allowed for setting up joint venture contracts with private companies, both domestic and foreign.⁸⁹

The Agrarian reform did not happen without major opposition. Since the *ejido* regime was the basis of collective security among indigenous and other peasant groups, the Federal government was essentially washing its

85 Velázquez Leyer, 2015

86 Harner, et al, 2009: P. 468

87 Velázquez Leyer, 2015

88 ibid.

hands from the responsibilities to maintain said security. Furthermore, the Free Trade Agreement included lowering import barriers, a fact that delivered another blow to the peasant communities, as cheap imports from the United States, with a substantially more efficient and highly-subsidized agribusiness, lowered the price of corn and other basic products to the critical point where only the most efficient and affluent Mexican producers could compete. The rest, were forced off the land, increasing the pool of unemployed and causing a significant growth in the informal sectors of the economy.⁹⁰

Additionally, popular opposition to the Agrarian Reform became notorious all around the world on January 1, 1994, when a peasant rebellion in the southern state of Chiapas, led by the EZLN (National Zapatista Liberation Army), questioned the so-called successful implementation of the neoliberal reforms. Their main outcry was, as it was mentioned, that foreign imports of grain under NAFTA would dramatically undermine agrarian communities.⁹¹

At the time of the reform, there were almost thirty thousand *ejidos* in Mexico, representing over 55 percent of the total national land area.⁹² Most of the nation's metropolitan cities were, and still are, surrounded by what used to be land in this type of tenure.

At this point in time, the two major housing financing institutions, which had previously determined the location, architecture, price and target groups of its investments, were being turned into a purely financial, quasi-public institutions, leaving the assignment of all the previous criteria to exclusively private agents with high return expectations. Because most potential buyers have limited resources, they were -and still are- very sensitive to price, so only large-scale developments on cheap land were able to fulfill developer return expectations.⁹³

Thus, the Agrarian Reform fit perfectly into the wider economic transformation, as it made a large amount of land, immediately adjacent to

90 Harvey, 2005
91 Macleod, 2004
92 Velázquez Leyer, 2015
93 García Peralta, 2006

cities, suddenly available for purchase, trading and developing, as private real estate developers could now legally buy *ejidos*. However, as was previously mentioned, developers could only realize their profit expectation by purchasing tracts of land further away from urban centers because it was cheaper, even if it lacked basic services like water, electricity, adequate roads or other means of transportation.⁹⁴ As a result, between 1980 and 2000, the urban population in Mexico doubled, but the urban footprint was multiplied by a factor of seven.⁹⁵

The active “privatization” of the social-housing market perfectly paired with radical neoliberal transformations of economic policy have resulted in a very unbalanced production of space in urban Mexico. Housing is now viewed as a private investment rather than a public good. As a result, it excludes most workers that are not part of the formal economy.⁹⁶ Measuring the number of Mexican workers that are excluded from the formal economy is a challenging task, with the only objective metric available being the percent of the national economy that can be attributed to the informal sector. According to the national census, in 2014, more than 26 percent⁹⁷ of the national Gross Domestic Product could be attributed to the informal sector. While this is not a direct translation, we could make the assumption that, at least, 1 in 4 active workers in Mexico do not have a formal job with formal benefits, including housing.

Furthermore, as housing funds originate from compulsory “fees” from every single worker in the formal economy, these policies might end up hurting the poorest workers, mainly because only middle-class families can truly benefit from the system, as these are the families that can practically qualify for housing loans.⁹⁸

Measured in quantity terms, the housing financing institution reforms have been successful by significantly increasing housing supply. However, informal settlements persist as a permanent issue on the Mexican urban landscape. Informal settlements originate as a consequence to the complex

94 Velázquez Leyer, 2015

95 *ibid.*

96 Harner, et. al, 2009

97 INEGI (2014). Medición de la Economía Informal, 2014 Preliminar. Año Base 2008. <http://www.inegi.org.mx/est/contenidos/proyectos/cn/informal/>

98 García Peralta, 2006

social dislocation in which Mexico is now engulfed. In Mexico, the vast majority of informal settlements are not, in fact, “squatter” settlements - those that result from the invasion of private or public lands in the form of squatter settlements, as it occurs in other developing countries. They are, on the other hand, settlements that emerge after private land that cannot legally be sold is subdivided and sold to low-income families.⁹⁹ These kinds of settlements are attractive to low-income groups because of the flexibility in which payments for land and construction materials is handled, as it allows them to spread out payments for long periods of time.¹⁰⁰

Traditionally, the Mexican Federal government has viewed informal settlement regularization as a key component in the maintenance of political stability,¹⁰¹ as the PRI widely used land regularization as an effective populist strategy since the 1970's.¹⁰²

34

At this point, a historical perspective on both economic and housing policy has been detailed. A third, final perspective is needed, however, to complete the background that holds this research together: an exploration of the historical and urban context of the city of Querétaro, which will provide the reader an understanding of why this city has been chosen as a case study.

99 Harner, et al, 2009: 469

100 *ibid.*

101 Varley, Ann (1994). ¿Clientelismo o tecnocracia? La lógica política de la regularización de la tierra urbana, 1970-1988. *Revista mexicana de Sociología*, 56(4): 135-164

102 Harner, et al, 2009: 470

2.3

Querétaro: Background and Context

The research conducted on this thesis is centered on the city of Santiago de Querétaro, otherwise known simply as Querétaro; a city located in a fertile valley approximately 130 miles to the northwest of Mexico City. The relevance of Querétaro to the themes explored in this thesis lies on the fact that many historiographers and urban researchers identify a clear causal relationship between Querétaro's physical expansion, social dynamics and physical morphology, with its industrial and economic growth.¹⁰³ These characteristics will be explored throughout this section, starting with a review of the city's evolution.

Shortly after Querétaro's foundation in 1531, large amounts of silver were mined in Zacatecas, Guanajuato and San Luis Potosí, to the north and west of the new settlement, causing an increasing influx of Spanish immigrants to the area. By 1582, there were more than 200 Spanish-born inhabitants -referred to as *peninsulares* in the complicated caste system that was established by the Spanish monarchy for its new world colonies -, and by 1635, there were more than 2,000 *peninsulares* living in the thriving city.¹⁰⁴

As nearby mining activities intensified, commerce in the city, especially in those industries that were natural suppliers for the mines in the northern provinces -which produced wool and other textiles, for example-, followed the same pattern of rapid growth and expansion. At the same time, *peninsulares* became powerful landowners, and agricultural activity became another important source of income in the region.

¹⁰³ González Gómez, Carmen Imelda (n.d.). Querétaro Metropolitano, una lectura sobre su nuevo crecimiento. Universidad Autónoma de Querétaro.

¹⁰⁴ Bolis, Guillermo (1993). *Dos nuevas ciudades novo-hispanas en el siglo XVI: Querétaro y Puebla*. Posgrado en Arquitectura, UNAM.

During the last century of Spanish domination (XVII Century), Querétaro and its surrounding region of *El Bajío*, a temperate plain that averages an altitude of 1,600 meters (5,250 feet) above sea level, had become the most important agricultural producer in the Kingdom of New Spain. At the same time, due to its strategic location along The Silver Route - a trade route that transported raw materials from the northern mines to the central areas around Mexico City, the seat of the Viceroy-, Querétaro also became an important manufacturing center.¹⁰⁵ At the end of the colonial era, Querétaro was one of the main population centers in New Spain.¹⁰⁶ After the war for independence -1810-1821-, Querétaro became the capital of the state that carries the same name.

During the period known as El Porfiriato, which corresponds to the years between 1876 and 1910 when Porfirio Díaz ruled the country, Querétaro followed the new national model of industrial progress to boost the mainly agricultural economy of the region. During this time, the state's government introduced the telephone, the telegraph and electricity; gas lamps were installed throughout the city, and the existing water distribution network was completely overhauled, substituting the outdated pipelines and repairing the colonial aqueduct. It was also during the Porfiriato years that the city introduced a differentiated space for vehicles and pedestrians: the first sidewalks were constructed.¹⁰⁷

Another fundamental transformation that occurred during the final decades of the nineteenth Century took place with the introduction of the railroad lines that connected Querétaro with Mexico City, *El Bajío*, and the Northern regions; and the introduction of the Urban Railroad, also called the Animal Traction Tram - *Tranvía de Tracción Animal* -, an urban transportation system that was mounted on rails but pulled by mules, that interconnected the most important points of the city. When the Revolution that overthrew Diaz' regime ended in 1917, Querétaro lived two decades of economic recession and practically no growth in any dimension.¹⁰⁸ However, the city was already prepared to become one of the preferred locations to carry out Mexico's industrialization that would begin in the mid-1930's.

105 Arvizu García, Carlos (2005). *Evolución urbana de Querétaro: 1531-2005*. Tecnológico de Monterrey/ Municipio de Querétaro.

106 Bolis, 1993

107 Arvizu García, 2005

108 ibid.

During World War II, in an attempt to shift production and resources to support the war effort, the United States Government, the most important supplier of industrial and commercial goods -such as iron, steel products and industrial machinery- to the process of Mexican industrialization, suspended exports into Mexican territory. As a result, the federal government embarked on an intensive effort to substitute these import goods. To achieve this, a program that provided incentives to industry and commerce, in the form of attractive fiscal and administrative concessions that were collectively called the Transformation Industry Promotion Act, or Ley de Fomento a la Industria de la Transformación, was created. Naturally, Querétaro benefited from the established measures, and in the years between 1940 and 1960, the city's industrial base experienced a significant increase.¹⁰⁹

At the same time, in an effort to provide a welcoming environment to incoming industry, basic services and transport infrastructure, including electricity, water, and roadways that effectively connected the city with both Mexico City and the north of the country, were improved significantly. Technical schools, professional colleges and universities were created to prepare the growing specialized workforce.

In 1947, the Planning and Zoning Law of the State of Querétaro was enacted; with it, the first exclusively industrial zone, focused on the process foods and beverages sector,¹¹⁰ was created on the north-western limit of the city. It was a strategic position that made it easily accessible from the roads to other regions, the highway to Mexico City, and the major urban arteries. This was the first time that the city deliberately grouped and segregated the economic functions of the city from the habitation sectors, which was the beginning of Querétaro's territorial fragmentation.¹¹¹ As it was expected, the industrial sector expansion managed to attract large numbers of immigrants in a relatively short period of time¹¹²: between 1940 and 1960, Querétaro's population tripled, going from 33,629 to 103,907 inhabitants.¹¹³

109 Neri Rodríguez, Digna Rocío (2013). *Industrialización y Transformaciones Urbanas en Querétaro: Cambios y Continuidades en la Colonia Obrera, 1943-1979*. Master Thesis, Universidad Autónoma de Querétaro.

110 Aragón Domínguez, María Esperanza (n.d.). *La Conformación de la Zona Metropolitana de Querétaro*. Universidad Autónoma Metropolitana.

111 González Gómez, n.d.

112 Arvizu García, 2005

113 INEGI - Instituto Nacional de Geografía y Estadística (1940-2010). *Censos y Conteos de Población y Vivienda 1940-2010*. <<http://www.inegi.org.mx/est/contenidos/proyectos/ccpv/>>.

It was at the decade of the 1960's when the city finally started to overcrowd the compact urban form that had been more or less maintained in terms of size since the Spanish Colony, a spatial organization in which all activities revolved around a single urban core, without any clear differentiation between sectors, socioeconomic groups, or ethnicities.¹¹⁴

During the decades of the 1960s and 1970s, production shifted from traditional manufacturing of diverse basic goods into more specialized consumption goods like auto parts, electronic devices and machinery. As a result, demand for industrial expansion dramatically increased and several industrial parks were established in the peripheries to the north, the northeast and the south of the city.¹¹⁵ It was during this time that an increasingly profitable practice in land speculation began, as traditional urban spaces were essentially transferred to the private construction sector in order to feed the booming demand for industrial land and consequently, new residential developments.¹¹⁶



The quick industrialization process resulted in a radical change in Querétaro's morphology. All around the major highways that connected the city, space was transformed, fueled by the collective desire to 'modernize' the city and to accommodate production, services and housing for a booming population,¹¹⁷ which more than doubled again in a twenty year period, going from 103,907 inhabitants in 1960 to 293,586 inhabitants in 1980.¹¹⁸

As was mentioned, it was during the 1960s and 1970s decades when the manufacturing and real estate development sectors of industry gained a privileged position in the city, which motivated the expansion of the urban limits over prime agricultural land. This corresponds to a spatial growth model that prioritized financial economics. The intention of this model was to maximize the monetary return on investment with the construction of luxury housing, luxury department stores, and corporate offices, all along the peripheries of the city, causing the complete rupture of the original compact urban form that was maintained for over four centuries.¹¹⁹

114 González Gómez, n.d.

115 Aragón Domínguez, n.d.

116 González Gómez, n.d.

117 *ibid.*

118 INEGI, 1940-2010

119 González Gómez, n.d.

It is important to note that, even with the city's expansion and development furor, social housing development was kept to a minimum, as most new developments focused on middle and upper classes. This represented a severe neglect that directly translated in a lack of low-cost housing for rent, a tension that ultimately caused the emergence of illegal settlements, mostly within communal land in *ejido* ownership.¹²⁰

On September 19, 1985, Mexico City suffered the most destructive earthquake to date: with a 7.7 intensity on the Richter scale, it killed more than seven thousand people, displaced more than fifty thousand people, and destroyed around four hundred and fifty buildings. As a result, a mass exodus from the capital into neighboring cities, including Querétaro, occurred. This phenomenon, combined with the vertiginous process of industrialization and urbanization that consolidated during the previous decades and has continued until present days, resulted in the conurbation with the neighboring municipalities of Corregidora, El Marqués and, in a much lesser degree, Huimilpan.¹²¹

Spillover from both Querétaro outwards and from these neighboring municipalities in the opposite direction -motivated by the expansion requirements of Querétaro itself- fused the four municipalities into what is now known as the Querétaro Metropolitan Region (*Zona Metropolitana de Querétaro, ZMQ*) (See Fig. 1).¹²²

Even though the ZMQ has become a cohesive urban center that shares urban challenges as a single unit, the scope of this thesis will only focus on the municipality of Querétaro. With an estimated population of about 802,000,¹²³ the municipality of Querétaro accounts for 75 percent of the total Metropolitan Region population. It is by far the most populous municipality in the region, and the State of Querétaro. It is interesting to note that the total ZMQ's population of around 1.1 million people represents 60% of the total population of the State of Querétaro.¹²⁴

120 *ibid.*

121 Aragón Domínguez, n.d.

122 Arvizu García, 2005

123 INEGI - Instituto Nacional de Geografía y Estadística (2010). *Principales resultados del Censo de Población y Vivienda 2010 - Querétaro*. <http://www.inegi.org.mx/prod_serv/contenidos/espanol/bvinegi/productos/censos/poblacion/2010/princi_result/qro/22_principales_resultados_cpv2010.pdf>.

124 *ibid.*



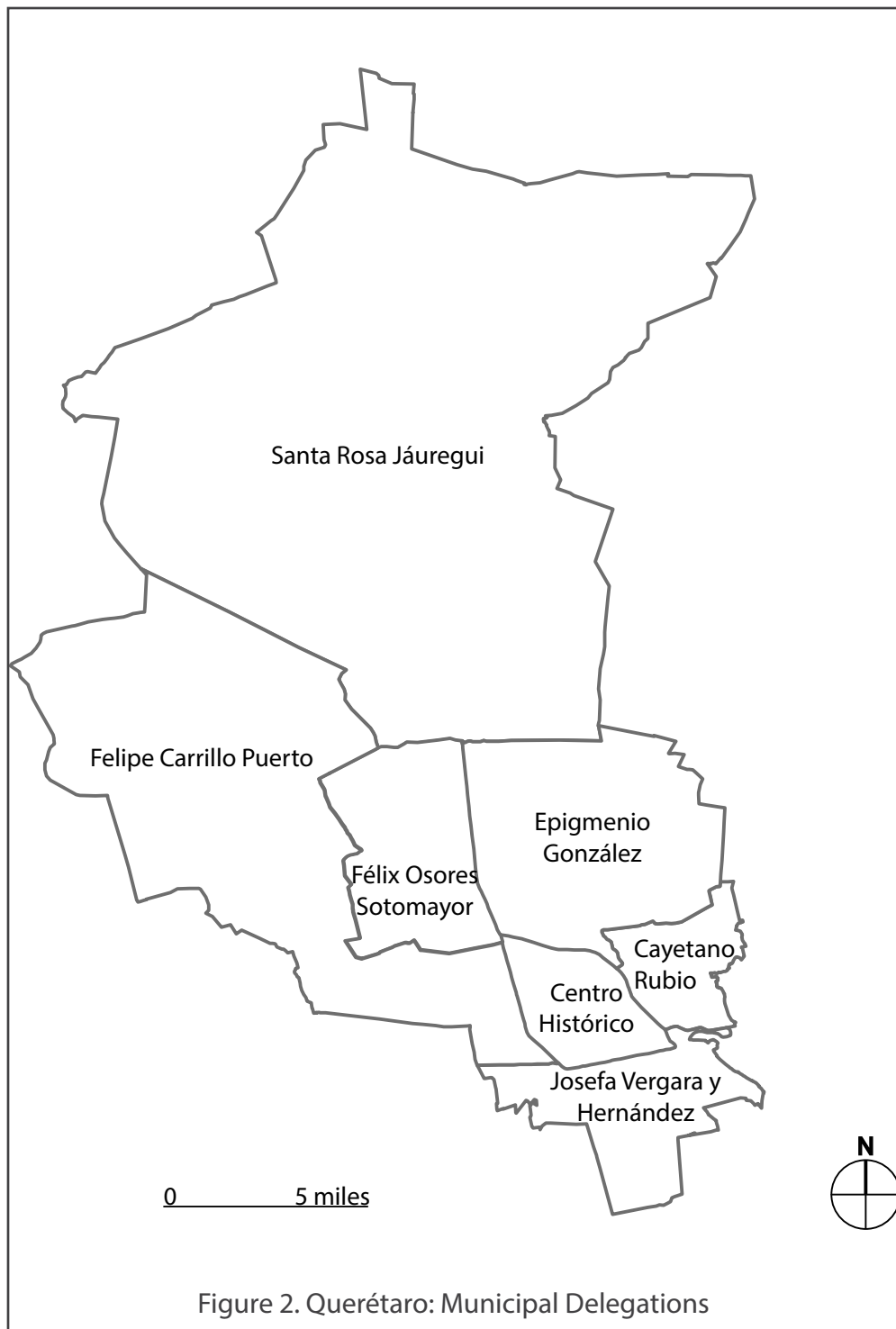


Figure 2. Querétaro: Municipal Delegations

Today, the municipality of Querétaro is divided into seven administrative zones, or delegations (See Fig. 2).

Querétaro's growth and physical transformation can be attributed to several reasons, beginning with the city's economic boom. As it has been the case since the 1950's, the industrial sector plays a fundamental role in the growth and expansion of the city, which has benefitted from a continuously evolving and diversifying industrial and commercial sector. The diversification of Querétaro's economy constitutes a strategic move that has led to the establishment of an aeronautical production and research hub, as well as service industries focused on software development and information technologies, outsourcing, and logistics services, among others.¹²⁵

Furthermore, the city's infrastructure has played a fundamental role in not only facilitating growth, but guiding it. Querétaro is location along one of the most important highway in the country, which connects Mexico City with the United States, has created facilitated the city's expansion along this route (See Fig. 3).

In addition to the favorable economic climate and infrastructure that the city has offered throughout the last decades, Querétaro has become a beacon of 'decent' quality of life, sought by many families that flee from the persistent climate of insecurity and violence, especially from the northern regions.¹²⁶ Additionally, Querétaro has become an important destination for tertiary education -the city has a solid base of both private and public higher education institutions- and young professionals -who are attracted by the constantly growing industrial and specialized service sectors-, especially those who are originally from the surrounding states.¹²⁷ As a result, Querétaro has an overwhelmingly young population, with a median age of 26.¹²⁸ In the same line, in 2014 it was estimated that there was an average influx of 68 people per day, making the yearly total over 20 thousand new residents.¹²⁹

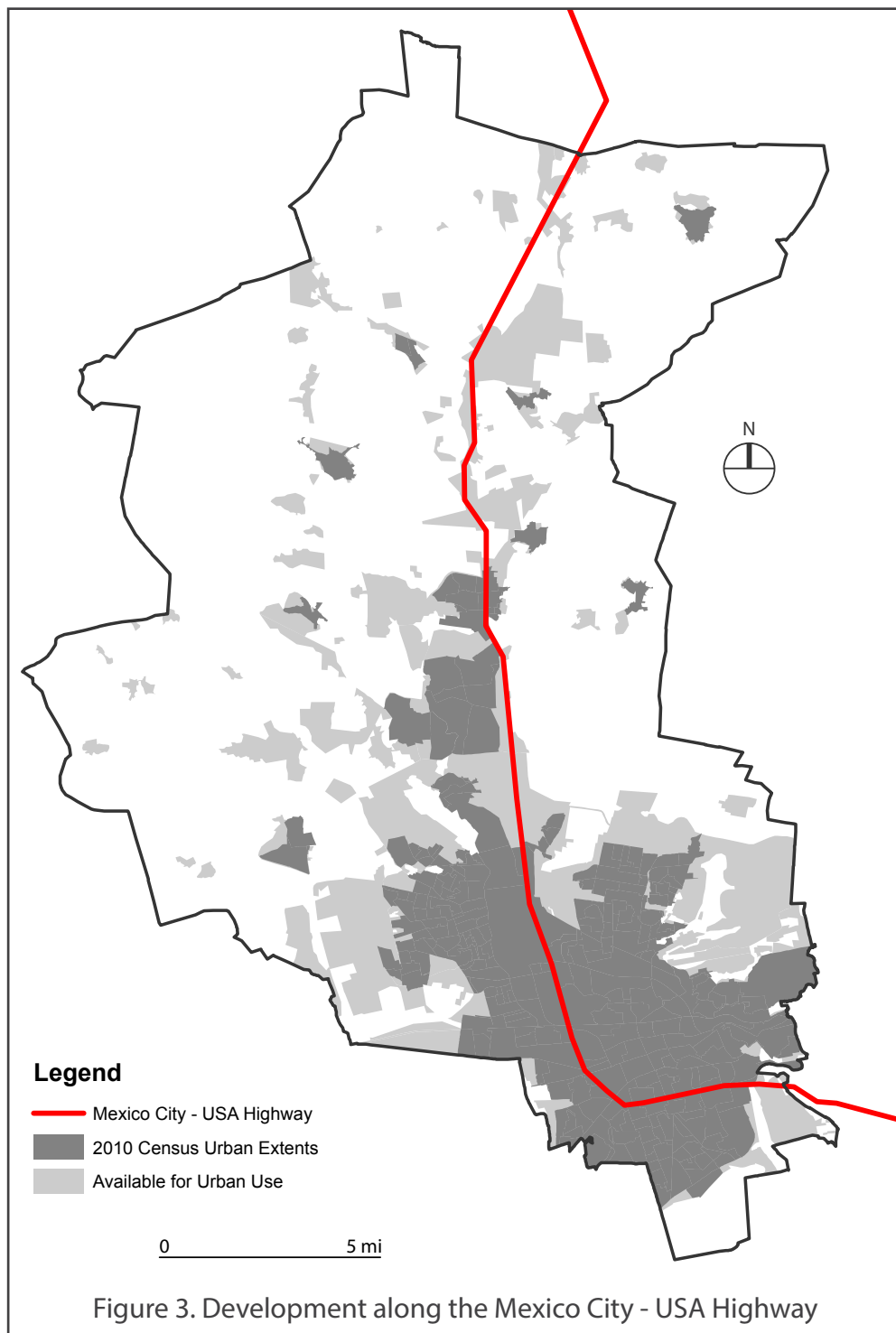
125 Aragón Domínguez, n.d.

126 Arreola, Juan José (2011, January 24). Aumenta migración a Querétaro por violencia. El Universal. Online Periodical <<http://www.eluniversal.com.mx/estados/79353.html>>.

127 Estrada, Miguel Ángel (2014, April 15). Continuará migración hacia el estado. El Universal Querétaro, Online Periodical <<http://www.eluniversalQuerétaro.mx/metropoli/31-07-2014/continuar-migracion-hacia-el-estado>>.

128 INEGI, 2010

129 Rosas, Sirse and Colin, Marvella (2014, May 30). Zona Metropolitana de Querétaro crece sin freno- El



Ultimately, however, migration patterns in the city have become a cause of economic stress for Querétaro's poor: as industry continues its specialization, there is less demand for basic jobs that unskilled workers can perform. In addition, food and transportation costs are constantly increasing, while rental prices and land values follow the same pattern.¹³⁰ As the poorer sectors are pushed out by increasing land values and a lack of low-cost housing, a pattern that was described earlier in this section occurs: informal settlements emerge, usually in areas where tenure, zoning, and environmental factors should not allow any human settlement.

The short-term solution that has been adopted by the city to try to accommodate the high influx of migrants in the city is to promote habitation uses, through the modification of the existing land use instruments, in vacant spaces most commonly located on the peripheries of the city; a development model that exacerbates uncontrolled urban expansion.

Furthermore, the increased housing demand that results from the massive migration into the city, combined with social prejudice and socioeconomic disparities, has resulted in the proliferation, all throughout the city but most notoriously on the suburban peripheries, of gated communities, a residential development typology "in which residents own or control common areas or shared amenities [which] carries with it reciprocal rights and obligations enforced by a private governing body."¹³¹

Fueled with the collective paranoia that has been induced by the climate of insecurity that the country has experienced in recent years, these types of communities cater to the upper classes that seek to 'defend themselves' against potential robbery, or even kidnapping.¹³² In addition, this type of residential segregation is actually endorsed and enforced by local planning policies. In fact, Article 282 of the Municipal Construction Regulations Document for Santiago de Querétaro (*Reglamento de Construcción para el Municipio de Querétaro*), a regulatory framework that informs the city's Partial

Financiero, Online Periodical <<http://www.elfinanciero.com.mx/economia/zona-metropolitana-de-Querétaro-crece-sin-freno.html>>.

130 Leovy, Jill (2001, February 18). A Mexican City's Middle-Class Transformation. Los Angeles Times, Online Periodical, <<http://articles.latimes.com/2001/feb/18/news/mn-27168>>.

131 Low, Setha (2001) The Edge and the center: Gated Communities and the Discourse of Urban Fear. *American Anthropologist*, 103(1): 45-58; p. 47

132 *ibid.*

Development Plan, states that “urban lots must have a surrounding wall, which in the case of a condominium, it must be of a minimum height of 2.20 meters.”¹³³ Stated in different words, it is illegal to develop a vacant lot as a condominium if it does not include a peripheral wall or fence to enclose it. “It is no wonder that in many Latin American cities, gated communities have become one of the most profitable real estate businesses of the last decade.”¹³⁴ This is an episode of private investors and banks actually financing and profiting from urban regulations that promote spatial fragmentation and social polarization. Many popular neighborhoods, including the Historic City Center, are emptying, as the poor are apparently being pushed to the peripheral informal settlements, and the middle classes are opting for modern homes and apartments,¹³⁵ most of the time in gated communities.

133 Municipio de Querétaro (2013). Reglamento de Construcción para el Municipio de Querétaro. Translation by Author.

134 Libertun de Duren, Nora (2006)- Planning á la Carte: The Location Patterns of Gated Communities around Buenos Aires in a Decentralized Planning Context. *International Journal of Urban and Regional Research*. 30(2): 308-317: p. 310

135 Leovy, 2001

THREE RESEARCH DESIGN

- 3.1 Mapping Land Use Changes:
1997-2007
- 3.2 Mapping Human Settlements in Querétaro

Having understood the complexities behind deregulation and land tenure in the Mexican context, the following section is devoted to research methodology that I propose for this thesis.

The main objective of this thesis, as I mentioned in the introduction, is to study land use changes throughout the last two decades in the city of Querétaro, the effects that these changes have had on the physical form of the city, and the possible contribution that these changes have made to the proliferation of human settlements, both informal and 'sanctioned', at the fringes of the city.

3.1

Mapping Land Use Changes: 1997-2007

Even though the city of Querétaro, in its Metropolitan Region, is comprised of 4 municipalities that share the same urban space, I limited the focus of this study to the largest of the four, the Municipality of Querétaro.

In order to analyze land use changes, I collected official land use records for the entire municipality with the assistance of Santiago de Querétaro's Secretariat for Sustainable Development, through its Urban Development Directorate. In their original format, these plans are divided into an individual plan for each of the seven delegations (See Appendix 1), within two time frames: (1) 1997 and (2) 2007, the most recent official land use plan. The reasoning behind these two dates is simple: these are the years in which the Partial Development Plans for the municipality were updated. It was impossible for me to obtain an earlier version than that of 1997 in the Municipal archives.

In their original form, I collected each delegation's plan for each year in this study on PDF format, as scans of the official records in the Municipal archive. As such, the first step in this research was to digitize these records into a format that enables spatial analysis. In this case, I traced the records in ArcMAP, a Geographic Information System (GIS), in a way that allowed me to spatially compare both datasets. I focused on the following attributes:

- 1) All those parcels that have been assigned any type of urban use, which includes, but is not limited to: residential in a variety of densities, commercial, industrial in a variety of modalities, urban equipment, and neighborhood centers. All these parcels were identified with the code "U" for processing.

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2) All those parcels that have been assigned the Urban Park category, which denotes a protected area within the urban core, which is intended for public recreation. These parcels were identified with the code "PU" for processing.

3) All those parcels that have been assigned any kind of protected use, which range from ecological protection, to archaeological site, to agricultural reserves - ejidos. These parcels were identified with the code "AP" for processing.

4) The Querétaro River, a body of water that transverses the city from west to east, was identified with the code "R".

5) All those parcels for which data is not available in either of the analyzed datasets, were identified with the code "ND".

This process was intended to produce two aggregate, municipality-wide, shapefiles, one for each time frame. Once the two shapefiles were created, I superimposed them as a way to assess which parcels have suffered land use changes from Protected, to Urban. This process followed the following steps:

1) All those parcels with either a 'Protected' code (AP) or 'Urban Park' code (PU) in 1997, were isolated to export a new Shapefile with only these attributes.

2) Similarly, all those parcels with an 'Urban' code (U), were isolated to export a new Shapefile with only these attributes.

3) Once these two Shapefiles had been created, it was possible to select all those parcels that were 'Protected' in 1997 but changed its status to 'Urban' in 2007.

The resulting Shapefile indicates the parcels around the city which suffered Land Use changes between the two years of study.

It is very important to note that the two resulting maps from the previous process only show changes in land use. They do not, in fact, show where the city is actually being built. To this effect, the 2010 Population Census proved very useful. Among the available products of the Census, data on the actual extents of the urban form down to the block level can be found. Using this dataset, I compared what is zoned for urban development, to what was ac-

tually part of the urban built environment in 2010. I also compared this map with the latest available aerial pictures in the city.

3.2

Mapping Human Settlements in Querétaro

In order to assess if there is a causal relationship between the way land use is handled by the municipality and where human settlements are occurring, this section of my analysis is devoted to mapping exactly that: human settlements in the city. The process is inspired by a section of the methodology proposed by Harner, et al.¹³⁶ In their paper, they catalogued every land-development transaction that happened between 1970 and 2000 in the four main municipalities that make up the Guadalajara Metropolitan Region. These records include project location, boundaries, number of housing units, among others. These data sets were categorized as:

- 1) Formal “social interest” or government sponsored housing
- 2) “Higher-income” housing”
- 3) Informal housing

After all these records were mapped and classified, they calculated the estimate of the total population in each housing category, using a GIS, overlaying a census data layer that contained the population in block-level statistical areas (*Área Geográfica Estadística Básica, AGEB*).

For my research, I used the previous methodology as a basic framework to study the effects of land regulation change on housing. As it is expected, I needed to modify the basic methodology so that it adapted to the available data sets, and to the particular research objectives of my analysis.

I collected data with the aid of the Sustainable Development Secretariat of the Querétaro State Government, and General Secretariat of the Querétaro

136 Research paper “Buying Development: Housing and Urban Growth in Guadalajara, Mexico” (2009).

ro Municipal Government, through its Territorial Regularization office. They provided a complete catalog of irregular human settlements within the municipal jurisdiction, which includes 207 individual records in 6 of the 7 delegations (there are no records of informal settlements in the Historic Core, Delegación Centro Histórico). Additionally, the collected data includes 376 historical records of all subdivisions and settlements that have been approved since 1949 in the municipality of Querétaro. Since this study focused on the possible effects of neoliberalization in Mexican land use policy, I only mapped records starting in 1995, to focus on the timeframe that has elapsed since the successful and complete implementation of the North American Free Trade Agreement. This corresponds to 157 records. It is important to note that the available records only include year of authorization, name of subdivision/settlement, and delegation in which they are located. As a result:

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- 1) The mapping process relied also on personal experience, and the assistance of another mapping software, Google Earth, to locate and correctly georeference the subdivisions of interest.
- 2) I did not make a distinction between 'social housing' and 'higher income housing'. In order to make such a distinction, I would have needed a certain degree of subjective interpretation - housing types in this category, as Harner et al point out, fall along a spectrum rather than into two discrete categories.

Once both types of settlements were mapped, I compared their locations with the 2010 Census Urban Extents ShapeFile, in order to assess which of the catalogued settlements had already been developed, and which were developed after the 2010 census. Essentially, this provided a clear picture of the rate of development before and after the census.

While the previous information provides a valuable baseline in assessing the municipality's expansion, what is of interest for this study is, actually, the relationship between these settlements and the land use changes that occurred in the same period of time. I intersected the ShapeFiles that resulted from the previous steps in order to assess this possible relationship. Because some of the settlements have grown, and even emerged, since the

2007 Land Use maps, some of the settlements did not fully align with the Land Use geometries. To compensate for this, I considered the centroids of the settlement geometries as their definitive location.

As a final step, I analyzed a sampled the developments that correspond to the previous intersection of Shapefiles, essentially those developments that have happened on land that has undergone a change of use in the period of study, in order to assess possible development patterns in these areas. I used both aerial and street view photography on some of these sites, looking for:

- 1) Type of subdivision:
 - a. Formal
 - i. Planned community
 - ii. Traditional subdivision
 - iii. Other
 - b. Informal
- 2) Approximate site density
- 3) Layout

FOUR FINDINGS

4.1 Summary

4.2 Mapping Land Use Changes:
1997-2007

2.3 Mapping Human Settlements in
Querétaro

4.1

Summary

My research produced several findings that are worth noting. Throughout this process, I was able to track down all those parcels within the municipality that have received land use changes in the period between 1997 and 2007. As it will be seen in detail throughout this section, more than 7 thousand hectares have undergone the process of land use change from protected, to urban land. As I drilled deeper, I also noticed that as of 2010, almost half of the land in the municipality that was zoned for urban use had not yet been built on. This fact suggests most of the land use changes happened at the end of the ten-year period, aiming for development projects that had not yet been built in 2010. Essentially, development potential in the city has exploded since the mid-2000s.

However, the most striking finding had to do with the second part of my approach to understand the city of Querétaro, in which I mapped out both all formal development that has been approved since 1995, and all catalogued informal settlements within the municipality. After the extensive mapping and analysis of aerial and street-level images, I was able to tell that the vast majority of the land that has been incorporated to the urban boundaries by changing protected land uses, is destined for private development in the form of gated communities. This suggests that we are creating a city of private enclaves of homogenous populations. Quite predictably, these new developments are following infrastructure –mainly, roads and highways– provision. Throughout the following section, I provide more detail.

4.2

Mapping Land Use Changes: 1997-2007

The municipality of Querétaro has a total extension of 78,026 hectares. In 1997, only one fifth of the municipality's total extension seems to have been allocated for urban uses. However, it is of note that almost half of the municipality's extension is missing data for this year. It is possible to hypothesize a reason for this: at the time of the Plans' drafting, planners only focused on the completely urbanized areas of the municipality, leaving large portions of Vicente Carrillo Puerto and Santa Rosa Jauregui, the two delegations with more protected land within their limits, out of the official maps. As a result, only 30% of the total municipality's extension is categorized as Protected or Urban Park (See Table 1).

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ALLOCATION	AREA (HECTARES)	AREA (PERCENT)
Protected/Urban Park	23,774	30%
Urban	16,240	21%
River	39	0.05%
No Data	37,973	48.05%
Total	78,026	100%

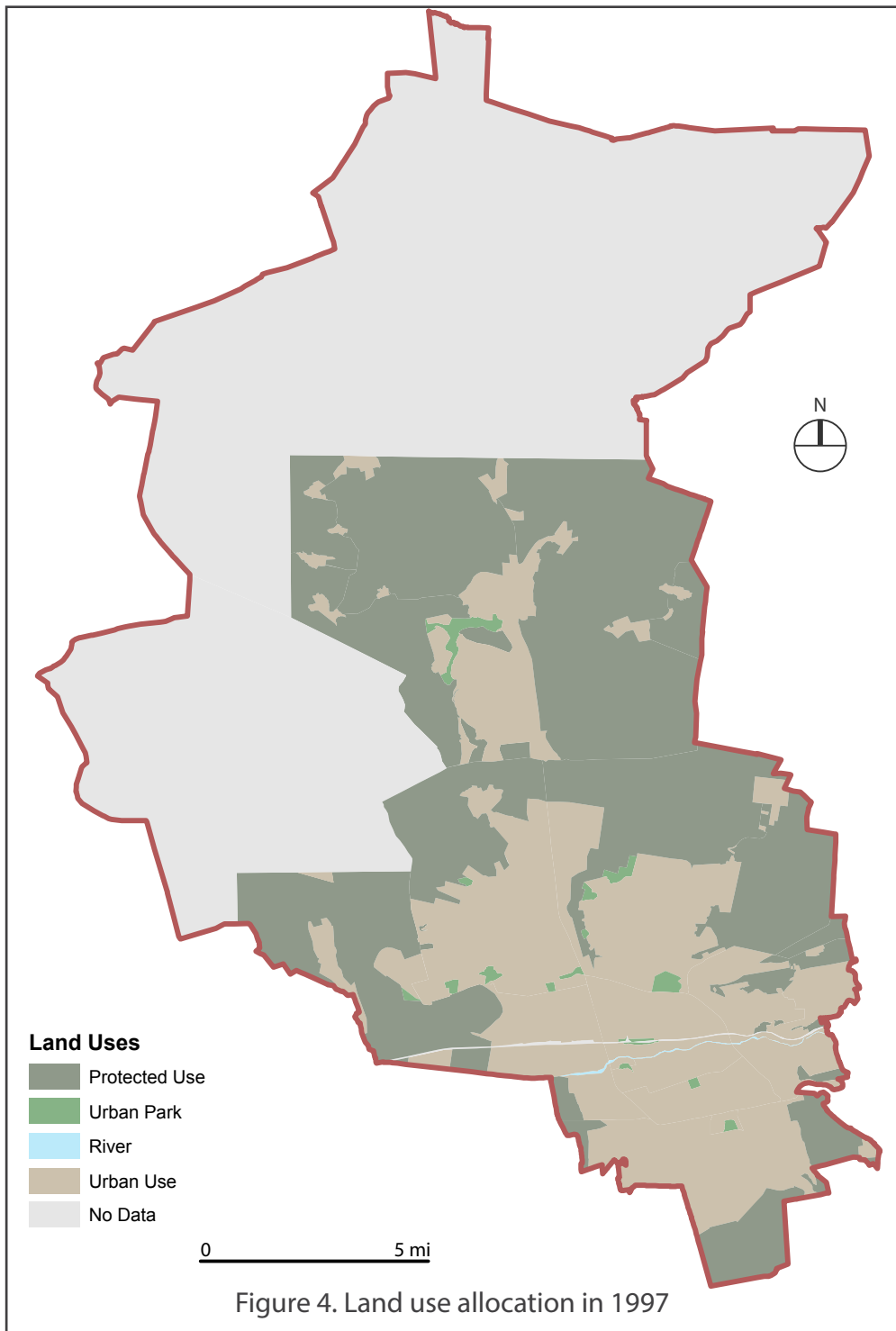
In contrast, by 2007 land allocations shifted around. The most important change that can be noticed is that the entirety of the municipality had been mapped out. As a result, all those sections that had been labeled as No data, now show a specific allocation, on either the Protected/Urban Park, or the urban categories (See Table 2).

ALLOCATION	AREA (HECTARES)	AREA (PERCENT)
Protected/Urban Park	50,796	65%
Urban	27,183	35%
River	39	0.05%
No Data	0	0%
Total	78,026	100%

Since than important part of the parcels has no land use allocation in 1997, I only evaluated land use changes on those sections of the municipality where there is actually data for both timeframes. Between 1997 and 2007, a total of 7,356 hectares received a land use change, from any kind of protected use, to an urban use that is suitable for development. Taking into account that there were originally 16,240 hectares classified as Urban, the addition of more than 7 thousand hectares represents an increase of 45% in ten years. Furthermore, this addition of urban land is, at least, 27% of the 27,183 hectares that are classified as urban land in 2007. Figures 4 and 5 show the two stages of land use, 1997 and 2007, and Figure 6 highlights, in red, all those areas that went from Protected to Urban in the period of study.

According to the 2010 National Census, the municipality of Querétaro had an urban extent of 14,620 hectares. Comparing this extension to the area of land that is actually zoned for development, or 27,183 hectares, we can assume that, in 2010, there were 12,563 hectares, or 46 percent of the total, of free land ready to build on. This is a staggering number, and can be visually appreciated on Figure 7.

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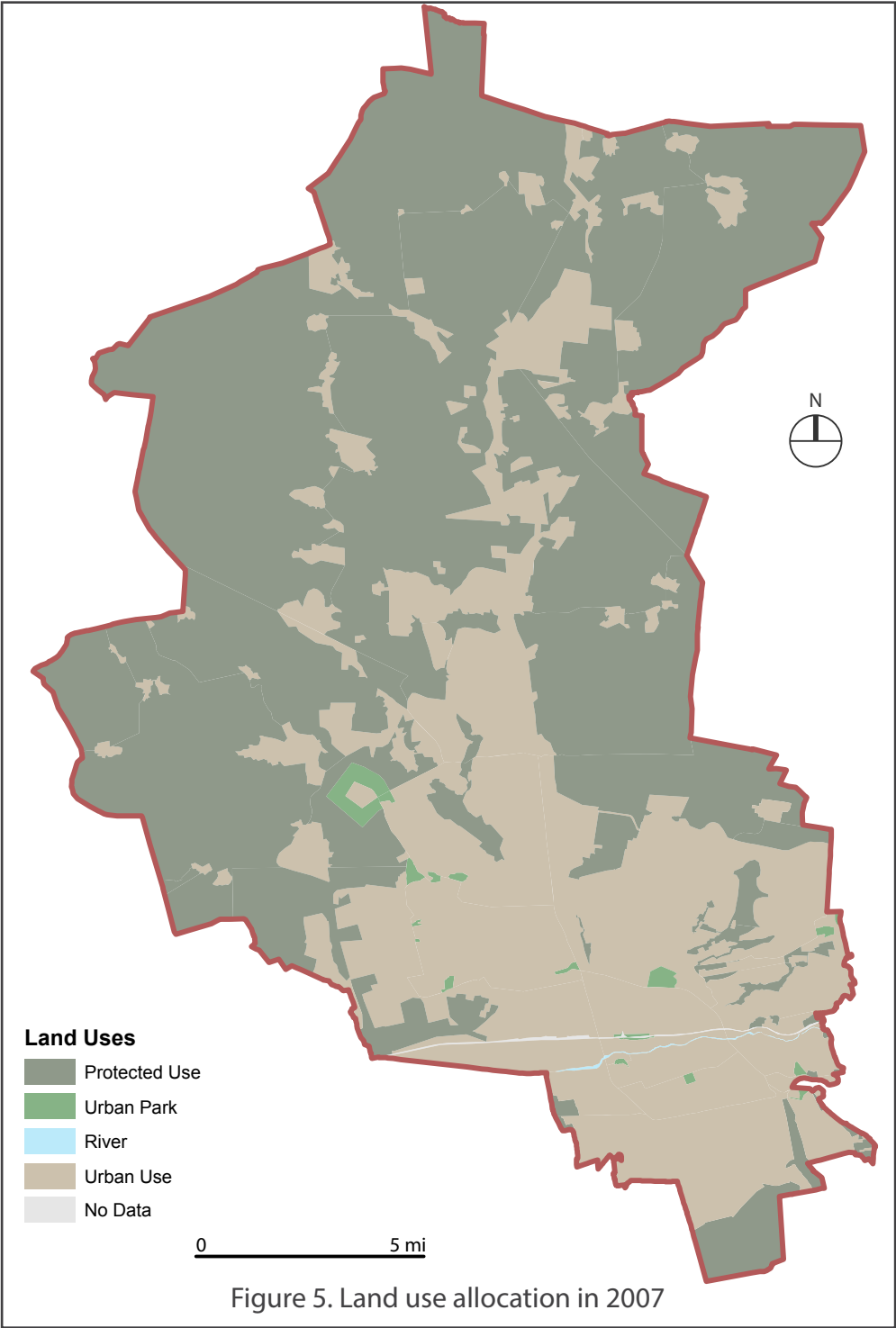
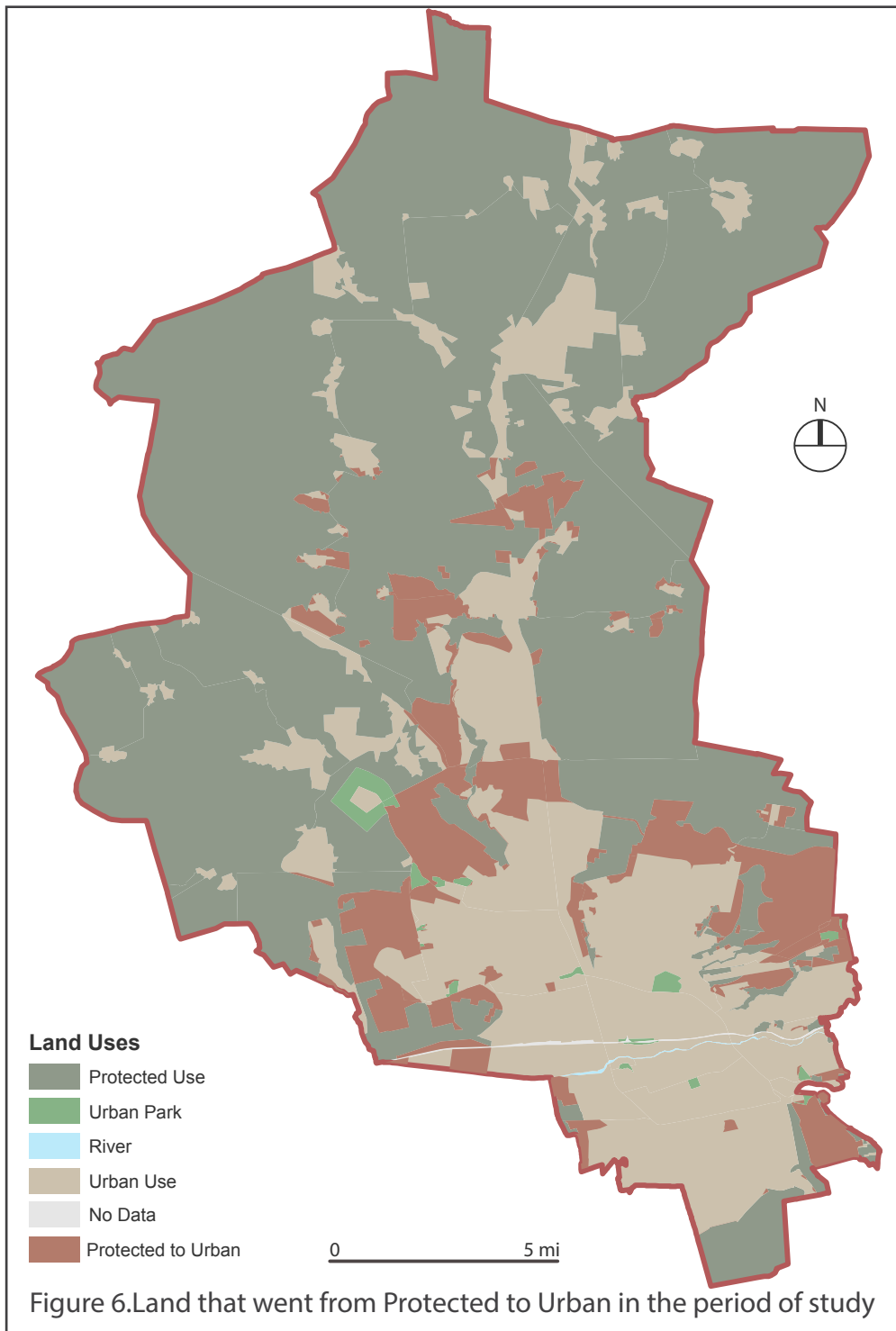


Figure 5. Land use allocation in 2007



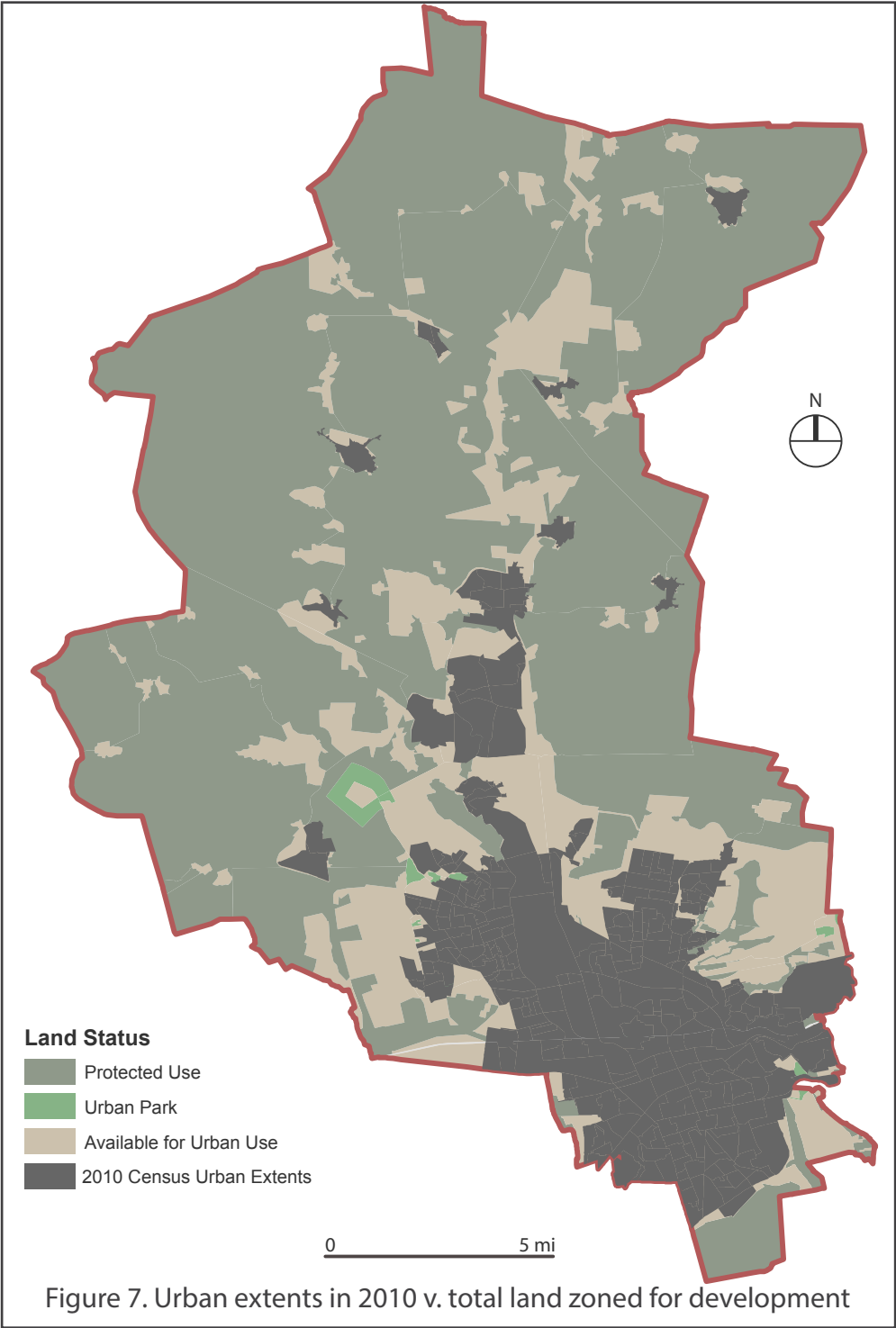


Figure 7. Urban extents in 2010 v. total land zoned for development

4.3

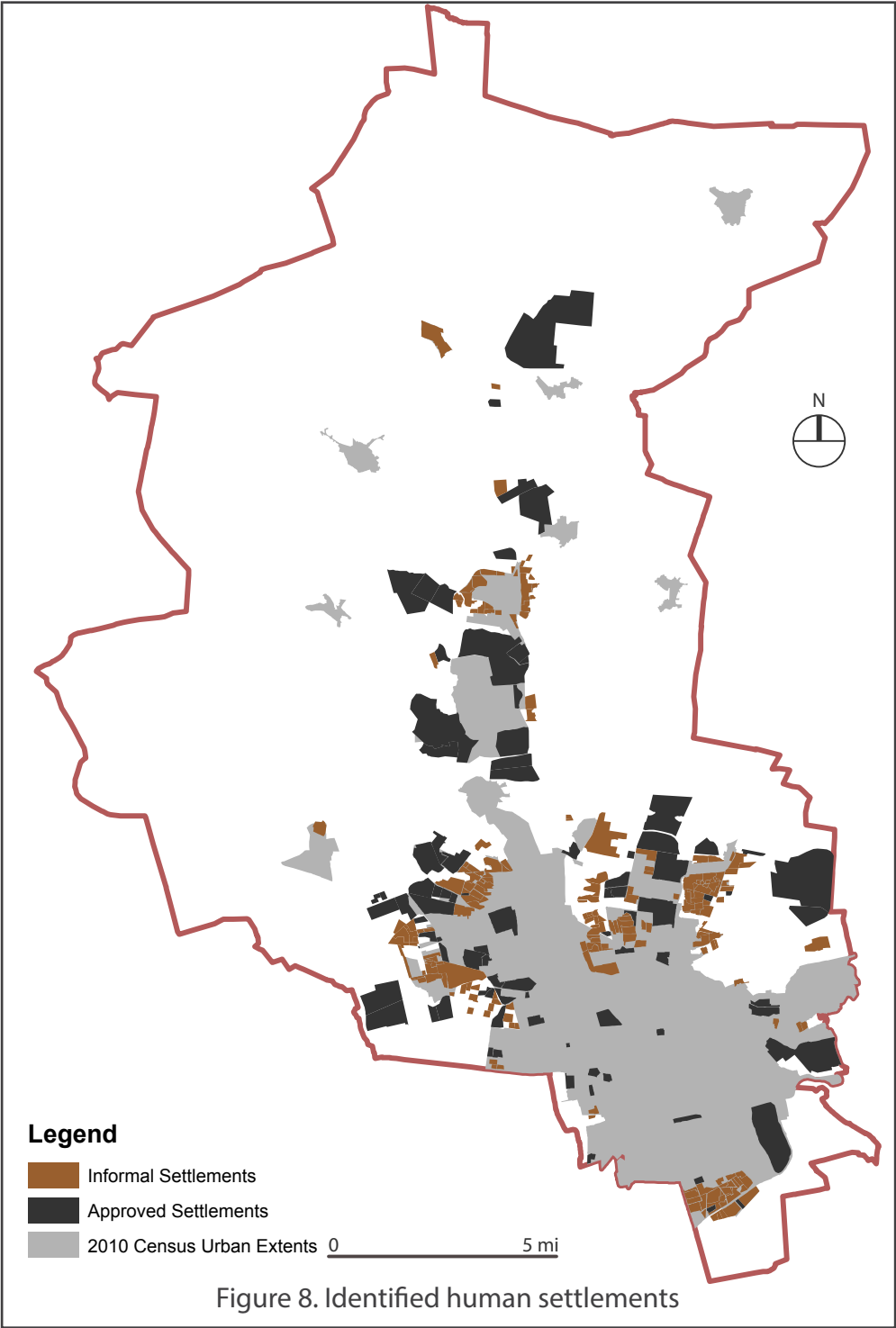
Mapping Human Settlements

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I mapped both irregular and authorized settlements on the same map as a way to visually assess their spatial distribution. Currently, there are 207 individual records of irregular settlements within the municipality, and 157 subdivisions that, according to the municipal registry, were authorized between 1995 and 2015. I was only able to locate 90 of these settlements, either because some of the provided references were too vague to locate, or because the described settlement corresponded to an irregular settlement, in which case I gave priority to that characteristic, and mapped it as part of the informal settlement group (See Fig. 8).

When compared to the 2010 Census extents, 8.7 percent of the total built area in the city corresponded to informal settlements, while almost 14 percent corresponded to ‘formal’ settlements that had been approved by the municipality and constructed¹³⁷ since 1995. Informal settlements outside of the 2010 extents amount to a growth of almost 5 percent over the original extents, and approved settlements that had not been built by 2010, but exist now, correspond to a growth of over 18 percent (See Table 3). These figures are important because they provide a general idea of what has happened in the city since 2010. Essentially, the built out area grew by, at least, 3,359 hectares in 5 years, from 14,620 hectares in 2010 to around 17,969 at the end of 2014.

¹³⁷ I make this distinction because there may be cases where certain subdivisions/settlements were approved before 2010, but had not been developed at the time of the census.



Mapped Count	207	90
Total Area (Hectares)	1,976	4,693
Area within 2010 Census Extents (Hectares)	1,275	2,035
Area developed after 2010 (Hectares)	701	2,658

Comparing both sets of settlements with the areas within the municipality in which there has been a change of use, from Protected to Urban, provided very interesting results.

Out of the 207 catalogued informal settlements, 29 are within areas that underwent a change of use. In addition, there are 9 settlements located on areas that still have a Protected use (See Table 4).

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ATTRIBUTE	COUNT / AREA (HECTARES)	PERCENTAGES: BY COUNT/BY AREA
Located in areas zoned for Urban uses in 1997	169 / 1,554.5	82% / 79%
Located in areas that underwent use change	29 / 248	14% / 12%
Located in protected areas	9 / 173.5	4% / 9%

Somewhat unexpectedly, the majority of the settlements currently catalogued as 'informal', approximately 4/5ths, are located in areas that were already zoned for urban uses in 1997. This fact leads to the logical conclusion that these settlements already existed at the time of the drafting of the 1997 Land Use plans, but the regularization process has not concluded. As for the rest of the settlements, they emerged later than 1997 on parcels that were considered protected, but have gone through land use changes - assumingly, as a last resort -, in hopes that someday these settlements, too, will be regularized.

In the case of the regular settlements, out of the 90 that I was able to successfully locate, an impressive 36 are within areas that underwent a change of use. This number becomes even more revealing when actual areas are accounted for: these 36 subdivisions have a total aggregate area of 2,464 hectares, which is at least¹³⁸ a third (33.5 percent) of the total land that received land use changes in the period of study.

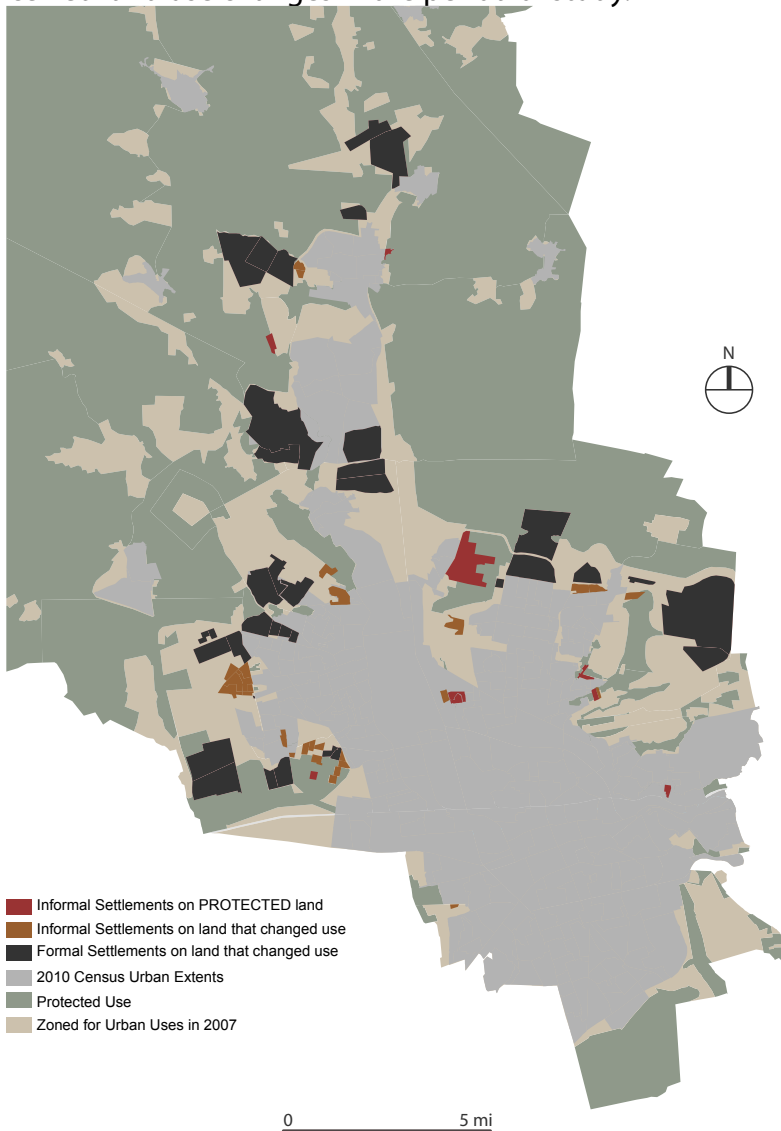


Figure 9. Human settlements on land that underwent a land use change

138 Not considering, of course, those developments that I could not successfully locate

The final step of my research, in which I sampled five of the developments¹³⁹ that have been built on tracts of land with recent land use changes, yielded interesting results:

SITE 1

- i. Type: Formal, planned community
- ii. Approximate Density: 29 dwelling units per hectare (11 du/acre)



Figure 10. Site 1: Boundaries
Source: Google Images



Figure 11. Site 1: Latest Aerial View (2015)
Source: Google Images

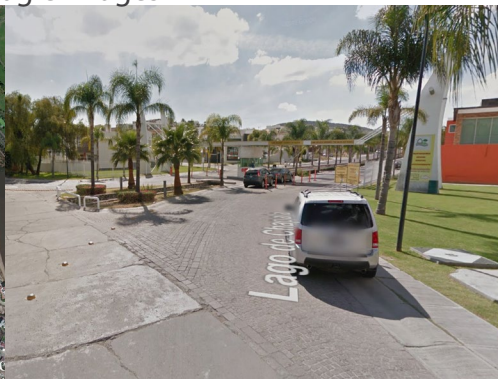


Figure 12. Site 1: Street Engagement
Source: Google Images

139 I have intentionally kept the location and any direct identifiers of these developments, confidential.

SITE 2

- i. Type: Formal, gated subdivision
- ii. Approximate Density: 90 dwelling units per hectare (36 du/acre)



Figure 13. Site 2: Boundaries
Source: Google Images



Figure 14. Site 2: Latest Aerial View (2015)
Source: Google Images

Figure 15. Site 2: Street Engagement
Source: Google Images

SITE 3

- i. Type: Informal
- II. Approximate Density: 80 dwelling units per hectare (32 du/acre)



Figure 16. Site 3: Boundaries
Source: Google Images



Figure 17. Site 3: Latest Aerial View
(2015)
Source: Google Images



Figure 18. Site 3: Street Engagement
Source: Google Images

SITE 4

- i. Type: Formal, planned community
- II. Approximate Density: 32 dwelling units per hectare (13 du/acre)



Figure 19. Site 4: Boundaries
Source: Google Images



Figure 20. Site 4: Latest Aerial View (2015)
Source: Google Images

Figure 21. Site 4: Street Engagement
Source: Google Images

SITE 5

- i. Type: Formal, gated subdivision
- ii. Approximate Density: 50 dwelling units per hectare (20 du/acre)



Figure 22. Site 5: Boundaries
Source: Google Images



Figure 24. Site 5: Latest Aerial View
(2015)
Source: Google Images

Figure 24. Site 5: Street Engagement
Source: Google Images

4.4

Discussion

This research revealed that, in the period of interest, at least 33.5 percent of the land that underwent a land use change, from Protected to Urban, was allocated to the production of housing. An aerial analysis of the corresponding polygons reveals that 35 out of the 36 subdivisions are actually destined for gated communities. The only subdivision that remains corresponds to an industrial polygon located at the northern edge of the city.

In the background section, I explained how the city prohibits the subdivision and development of tracts of land under a condominium scheme without the provision of walls. Essentially, it is impossible for developers to build condominiums if they are not gated communities. It is not surprising, then, that almost every single development that has been approved by the municipality since 1997 has taken this form. Even those developments that under a simple aerial inspection appear to be sold as social housing -essentially, that receive subsidies and are within the INFONAVIT and FOVISSSTE programs- are being developed as gated communities for the working class. As the spatial analysis I performed and mapping process that followed show, the overwhelming majority of these gated communities are being located on the peripheries of the municipality, especially on the northern edges where vast amounts of land is available for development.

Gated communities are both the unexpected consequence of economic liberalization, and the expected outcome of a savvy development industry taking control of the strategic decisions that shape and guide the growth of the city. With massive amounts of cheap land that have been made ready for development - there are still thousands of hectares of land that have been transformed from Protected reserves to Urban - it makes absolutely no financial sense to propose real estate projects that densify tracts of land close to the city in more socially and environmentally sustainable manners.



Low-density, single family homes represent the overwhelming majority of what is being produced in these closed communities. By creating secluded enclaves, socially homogenous¹⁴⁰ sectors of the population are engulfed in a socio spatial segregation process, which both severely fragments the city and consumes absurd amounts of land for relatively low quantities of people to live in.

Considering the climate of acute social polarization and extreme inequality in which Mexico is engulfed, - which is also a consequence of economic policy mishandling since the very birth of the nation-, it is completely understandable that the population seeks additional security in their homes. The development industry, of course, has picked up on this as an extremely profitable marketing tool. After all, now a days, a decreasing amount of people want to live in neighborhoods that are not protected by anti-burglary systems and are surrounded by high, windowless walls that emulate some sort of modern fortress.¹⁴¹ What's interesting about this is that these gated communities are, in fact, not catering to the rich. The development industry has brilliantly realized that selling an aspirational model that emulates a high-class, exclusive lifestyle, and offers it to the middle and even working classes¹⁴² is extremely profitable. Under this realization, the real estate industry has formed strategic alliances with the banking and social housing institutions to make this model a reality. And now the circle has come to completion, as this model is not only sanctioned, but promoted, by the local government.

I recall the very definition of Neoliberalism, in which the state is expected to limit its intervention to only providing an institutional framework that allows free trade, enhances property rights, and advances entrepreneurial freedoms. In the municipality of Querétaro, we can actually see this happening. The local government is advancing free market interests by enforcing a framework that promotes subdivision under condominium tenure, and rules out the possibility of a variety of housing typologies in any new development that occurs within its jurisdiction. The bottom line is that the city -represented by urban politicians, urban administration and urban planning has surrendered control to powerful private economic actors.¹⁴³

140 Garcia Peralta and Hofer, 2006

141 *ibid.*

142 *ibid.*

143 Borsdorf, Axel and Hidalgo, Rodrigo (2008). New dimensions of social exclusion in Latin America: From gated communities to gated cities, the case of Santiago de Chile. *Land Use Policy*, 25: 153-160.

City officials, especially those on top and in charge of making the most important city planning decisions, seem to have surrendered their political will to act in the city's best interests, which sometimes will run against these private actors, presumably because these same interests have had a big influence in their political careers.

Neoliberal implementation not only in Mexico, but around the globe, has been very successful because proponents of this model were able to effectively convince the world that a mixed model with enhanced government intervention produces corruption, and weak governance, arguing that the only way to produce economic discipline was to strengthen the market economy. They essentially missed the point. The issue here is not a matter of market against bureaucracy. It is a matter of an utter lack of competence in the state, in either scenario. In the mixed economy before neoliberalism, the Mexican example made it clear that competent governance was not one of the PRI's strengths. Right now, within a strict neoliberal framework, with an "almost theological belief in the existence of something called 'the market,'"¹⁴⁴ " the same lack of competence is shown, as the authority has completely backed off, causing a free-for-all situation in which a small minority call all the shots. Yes, we need the markets, but leaving the markets to work on their own does not work. They must be governed by competent authorities that are able to regulate and guide development in a sustainable manner.

Going back to the land regulation problem, I am convinced that the responsibility of the chaos that we have generated does not lie solely on the development industry. It lies on the incompetence of local, regional, and even Federal governments to come up with efficient regulatory solutions. In fact, I am convinced that cities depend on the private sector to thrive: property taxes, exactions, and overall economic buoyancy, not to mention that the development industry is the only one capable of meeting at least part of the growing demands for housing in the country, are great positive outcomes of a strong real estate development industry. But I also believe that the private sector needs to be regulated, and guided, towards sustainable development.

The other side of the story falls into place here. What happens to all those people that cannot afford to live in these secluded enclaves, even those intended to cater to the working sectors of society? The short answer is, the

¹⁴⁴ I attribute this term to endless conversations with my advisor, Elliott Sclar, in which we theorized about all sorts of fun topics

market prices them out, and informal housing starts to emerge.

Since the premise of informal production of housing is that it happens, as its name indicates, informally and outside the control of municipal authority, the task of analyzing these settlements is not an easy one. Even so, this research confirmed some of my initial ideas around the phenomenon of informal housing production. For instance, the fact that the vast majority of human settlements that the local government considers informal are located within land that is zoned for urban use. This leads me to conclude that either the informality of these settlements lies on the fact that land was subdivided without proper permits - which is very common in the Mexican context, or that these settlements were established prior to the drafting of the 1997 Plan, and the local authority has since then changed the land use to adapt to the new reality of the plot, but it is still in the process of fully regularizing -coming up with official property documentation, urban services, and guarantee of tenure, for example. The fact that, as I explained in the Background section, the State uses land regularization as a very effective political tool produces certain negative consequences that are relevant for my conclusions. For instance, once a certain plot or settlement has been formally regularized, it immediately falls out of the radar that monitors social welfare in informal settlements,¹⁴⁵ and making it extremely difficult to objectively assess how many people actually live in substandard conditions.

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145 Harner, et al (2009)

FIVE POLICY IMPLICATIONS

- 5.1 Regulate growth
- 5.2 Promote regional governance
- 5.3. Stimulate a stronger rental market

The findings that I laid out in the previous section confirm the initial hypothesis that liberalization in land regulation policies, and in fact a generalized liberalization of the national economy, has had unexpected consequences, like the proliferation of human settlements at the fringes of the cities in an unplanned manner. In addition, I have also found that most of the changes of land use are occurring to serve the particular interests of the real estate development industry, and the creation of the secluded enclaves known as gated communities, and that urban informality persists as a reality in the urban landscape of the municipality of Querétaro.

Throughout this section, I will explore recommendations that address the issues and findings that I touched upon in previous sections. These recommendations are made on the governance level, and their implementation will definitely depend on the willingness of relevant actors to make real and difficult political compromises in order to begin instituting change towards a more sustainable and inclusive urban growth model.

5.1

Regulate Growth

As of the 2010 Census, there were more than 12,000 hectares of available land already zoned for various urban uses. Five years after that count, this number had only decreased by around 3,400 hectares, bringing the total down to around 8,500 hectares. If the city follows this development pattern -assuming it operates in a linear fashion- these 8,500 hectares will be consumed in the next 10 to 15 years, almost doubling the current extension of the urban, built out limits. This is, undoubtedly, an extremely unsustainable model that has all sorts of direct, negative consequences, which range from the degradation of valuable agricultural land, to an increase in traffic congestion and further social polarization.

The good news is that there are ways to curb these patterns. Alas, they are not easy tasks.

Prior to the Agrarian reform, in a time when *ejido* lands could only be destined for agricultural production, their relationship with neighboring urban areas made them naturally-occurring urban containment instruments; essentially, urban growth could not happen when cities expanded to a point where they reached the boundaries of *ejido* land. In the current context, these growth boundaries have completely disappeared.

While I'm not proposing reversing land use regulation to what it was before - that would be absolutely impossible, and frankly, pointless-, I am proposing the adoption of a specific strategy for urban containment: the adoption of a strict Urban Service Areas Ordinance, or Adequate Public Facility Ordinance (APFO), a strategy that is flexible enough to be realistically implemented, but effective enough so that local and regional authorities can



make effective decisions about the future of Querétaro's urban landscape.

Essentially, APFO's guide development by requiring that infrastructure be in place before permitting development.¹⁴⁶ But deciding how, and when, to expand infrastructure, the city decides where development happens. Currently, land local land regulation is linked to political strategy: with the incentive of increasing its tax revenue, the local authority will extend urban services almost anywhere in the city. By strictly limiting urban services to a more compact area around existing development, it might be possible to begin curbing unnecessary urban sprawl. Additionally, a system of development rights transfer could also be implemented, as a way to include those parcels that are outside of the service limits in the development market, by allowing them to 'sell' the rights that their parcel would have to landowners in more convenient locations, who would receive these rights in the form of density bonuses, or tax credits, for example.

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Unfortunately, I was not able to locate a successful case study within the Mexican context in which an APFO ordinance was adopted to curb sprawl. This is a predominantly American policy response, for which no precedent in the local context exists. The same is true for density and development bonuses, another clearly American response to manage growth. However, I believe that the local normative framework could be adapted to include these policies.

In its current state, local policy promotes social exclusion by favoring the development of homogenous, single family neighborhoods in gated enclaves. This law must be amended to also promote the development of central, mixed neighborhoods, which in combination with the Urban Service Boundary that was mentioned earlier, encourages real estate developers to avoid looking at exurban locations for development projects. Before development can shift towards more central areas, exurban land supply must be considerably limited, which is where the Urban Service Boundary comes into place.

Density also comes with a price: urban congestion. This is why planning policy should also address the transportation issue, which has been totally focused on infrastructure projects that serve the private automobile. Public

¹⁴⁶ Pendall, Rolf, Martin, Jonathan, and Fulton, William (2002). Holding the Line: Urban Containment in the United States. Brookings Institution.

transit is lagging behind. But that is another story, for another time.

A severe limitation to density, which also results in the ability to create a more socially equitable urban landscape where a diversity of incomes coexist, is the current cultural perspectives and classist bias, two characteristics of the Mexican collective idiosyncrasy that are extremely difficult to change. But we must try!

5.2

Promote regional governance

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Due to research constraints, I have only focused on the municipality of Querétaro. However, the city also includes three other municipalities that are also part of the city as a single, functioning organism. Physical integration has been a reality for more than a decade now, but regional governance is still poor, if at all existent. Currently, every municipality functions and makes decisions in a vacuum state that does not take into account the region as a whole. An inter-municipal, governmental entity that addresses key strategic issues, such as migration, growth, and economic development, and that includes representatives from all the municipalities in the Metropolitan Region, should be created.

5.3

Stimulate a stronger rental market

A big consequence of leaving the market to regulate itself, as it has been mentioned earlier, is that the lowest income brackets end up being excluded from the formal housing market. Since the existing 'social housing' institutions are focused on financing and subsidizing home ownership, it is possible to conclude that a significant formal rental market that caters to the urban poor is non-existent. In fact, for the past 40 to 50 years, every move in the social housing has been towards favoring the increase of homeowners in the country.¹⁴⁷ In a similar way to Gilbert and Varley (1981), I would advocate for a shift of a portion of the resources destined for homeownership programs towards the stimulation of a rental market, targeted for the urban poor that could not otherwise afford to leave the informal settlements in which they currently reside.

¹⁴⁷ Gilbert, Alan and Varley, Ann (1991). *Landlord and Tenant: Housing the poor in urban Mexico*. Routledge, London.

SIX LIMITATIONS AND FURTHER RESEARCH

Even though this thesis has shed light on some of the consequences of neoliberal regulation, there is still many limitations in this study that are worth pointing out.

Finding an objective way to measure city expansion based on housing production, in both forms, proved very difficult. Since the city is not a static organism, we must rely on specific 'snapshots' to tell stories about urban form. This is never easy, and it relies too much on the quality of the available data. While I was able to secure useful data sets, there were certain missing attributes that would have made my research even more powerful, such as a clear distinction between what income brackets are the studied subdivisions, which would have been helpful to inform my conclusions. This represents a great opportunity to embark in further study.

Additionally, the time frame of the land use maps that I was able to secure really limited my research. The land tenure liberalization process happened between 1992 and 1995, so it would have been useful to obtain land use maps with prior dates, in order to have a more complete picture of how land use transformation happened in the city. This also represents a great area for further study.

Another area of further exploration will soon become available, as the Land Use plans will soon be updated and publicly released. Further analysis of these new maps will allow an assessment of the most recent land use changes and growth patterns, after 2007.

As for the approved subdivisions, I used the 1995-present time-frame to match the adoption of NAFTA and the available data on land use changes.



But, it would be interesting to map out the entirety of the existing data set, which dates back to 1949, in order to further assess the development pattern of the city.

Finally, since I wasn't able to locate a specific successful case study for a normative framework that regulates growth, it would be very useful to embark in research as to the best ways to adapt these US-centered responses to the Mexican context. This could include an adaptation toolkit that touches on phasing, public participation, and political strategy, for example, that would make it easier for local governments that do want to adopt progressive planning policies to do so effectively.

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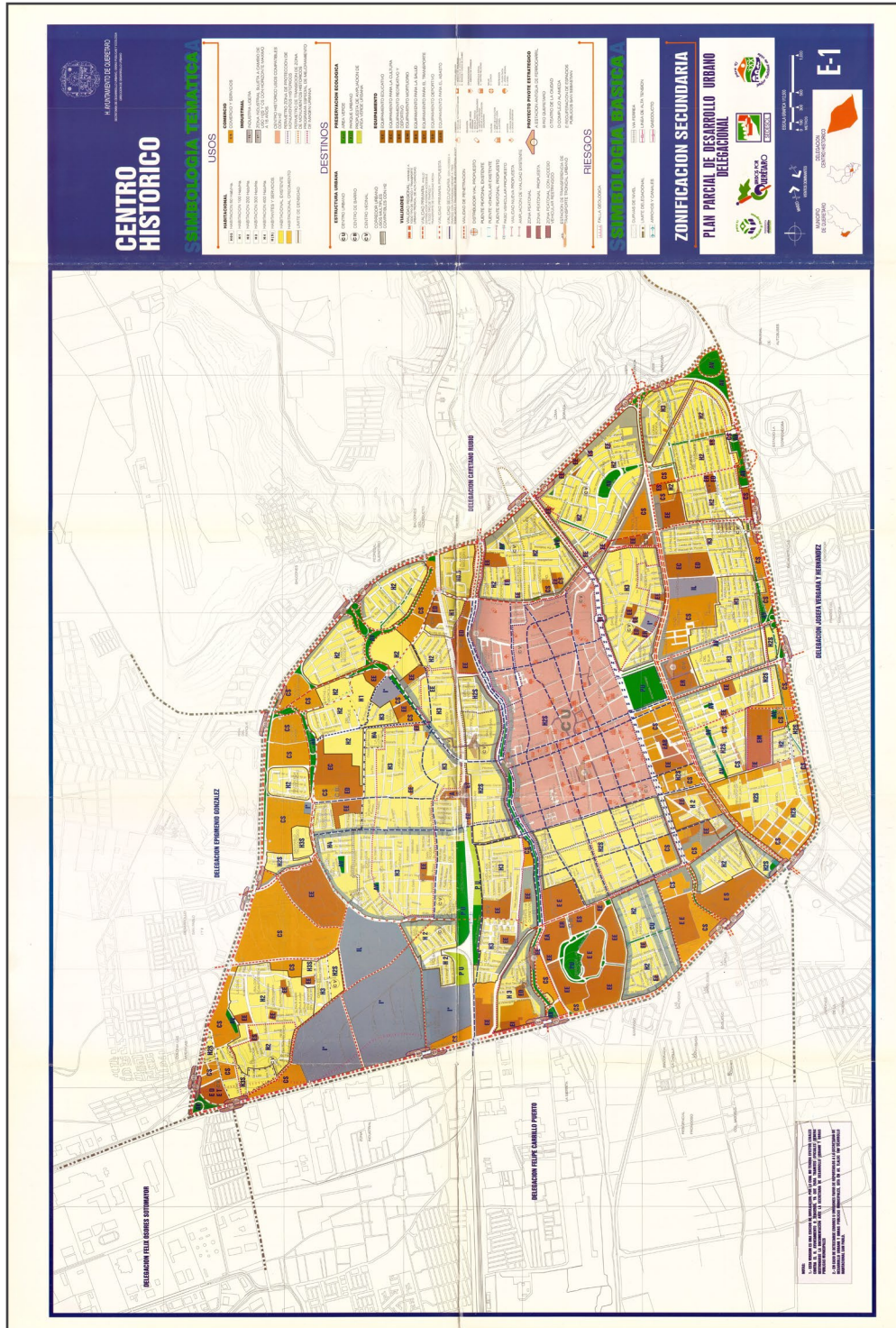
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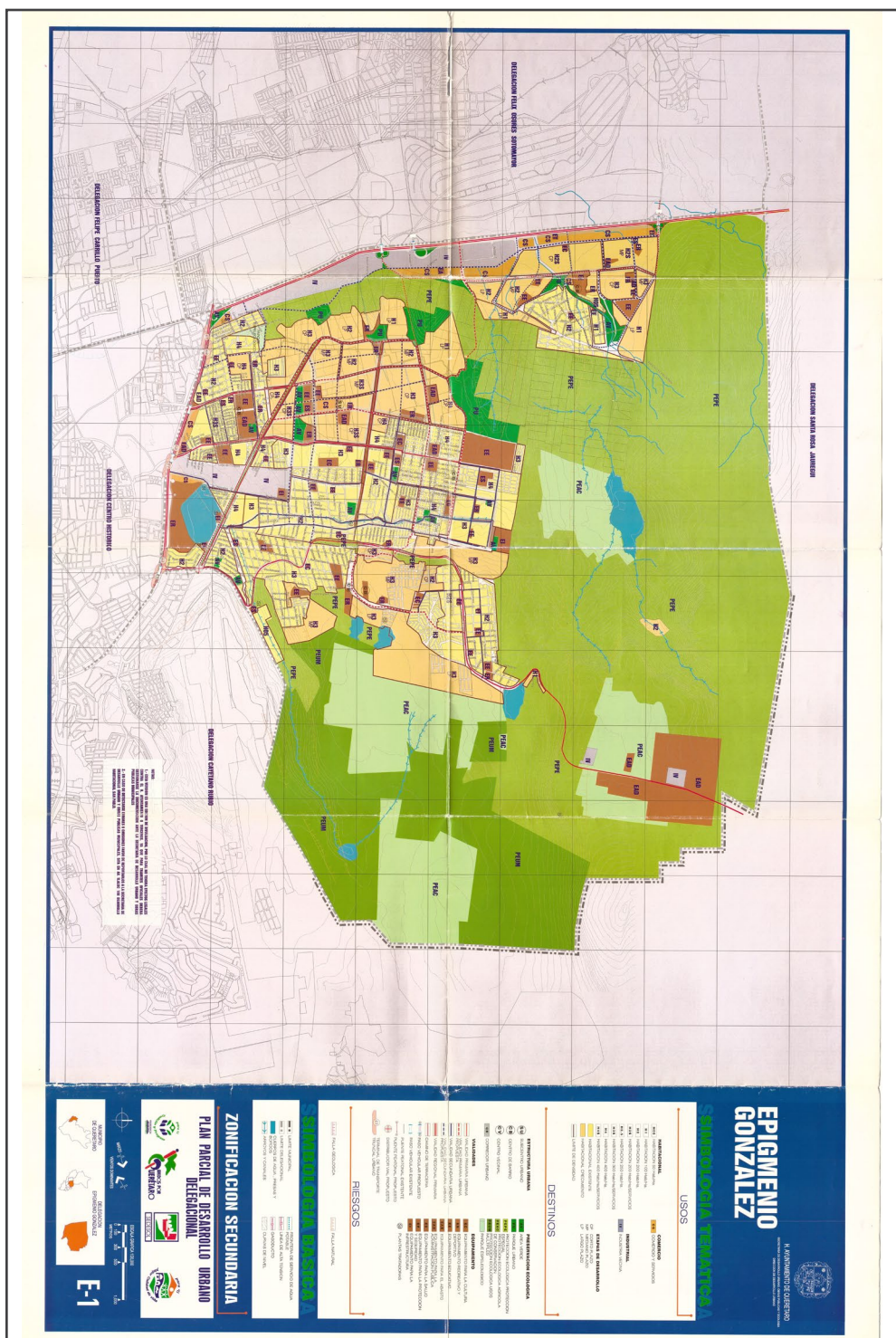
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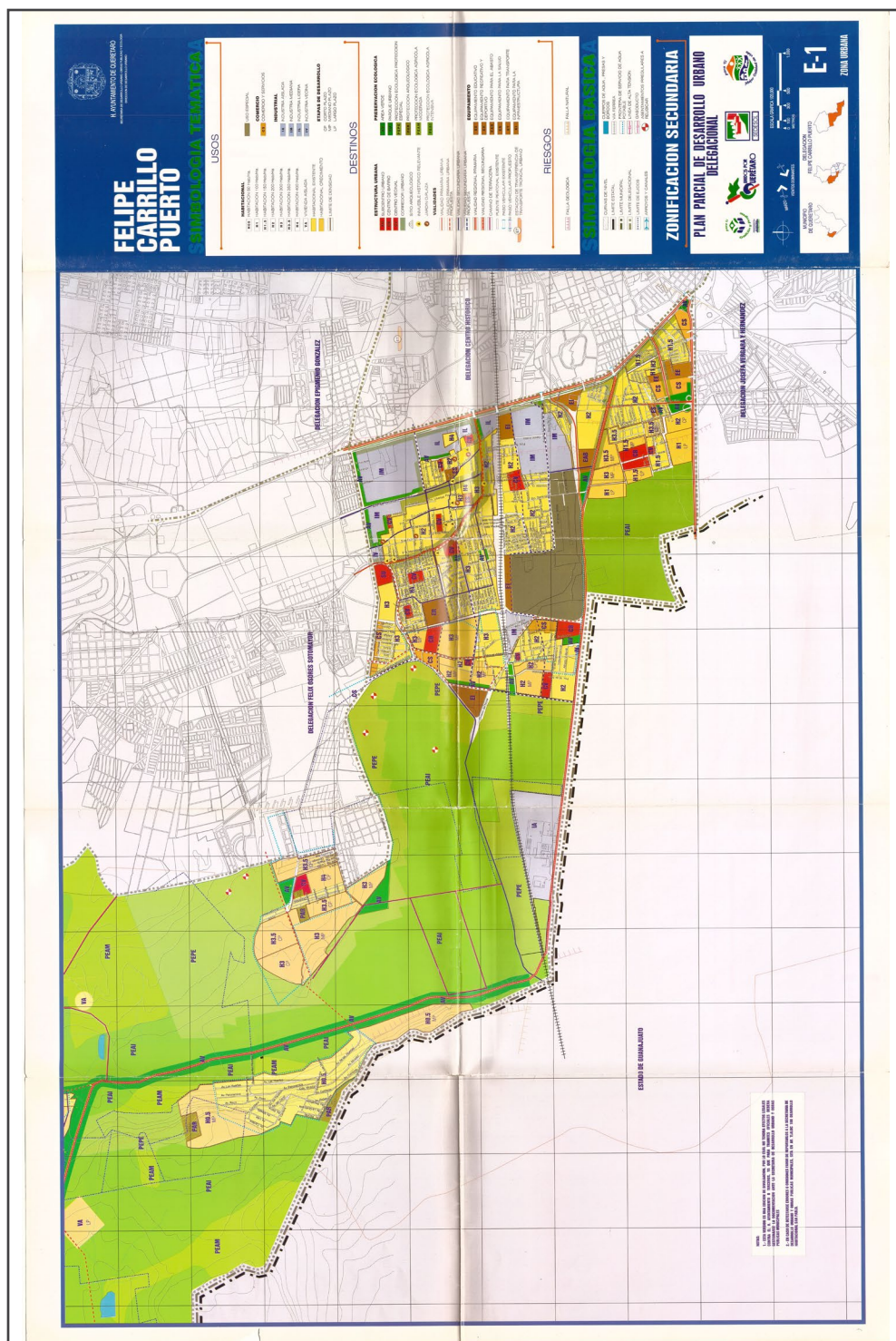
APPENDIX

1. Original Land Use Maps: 1997
2. Original Land Use Maps: 2007
3. Informal Settlements Catalogue
4. Approved Subdivisions
Catalogue

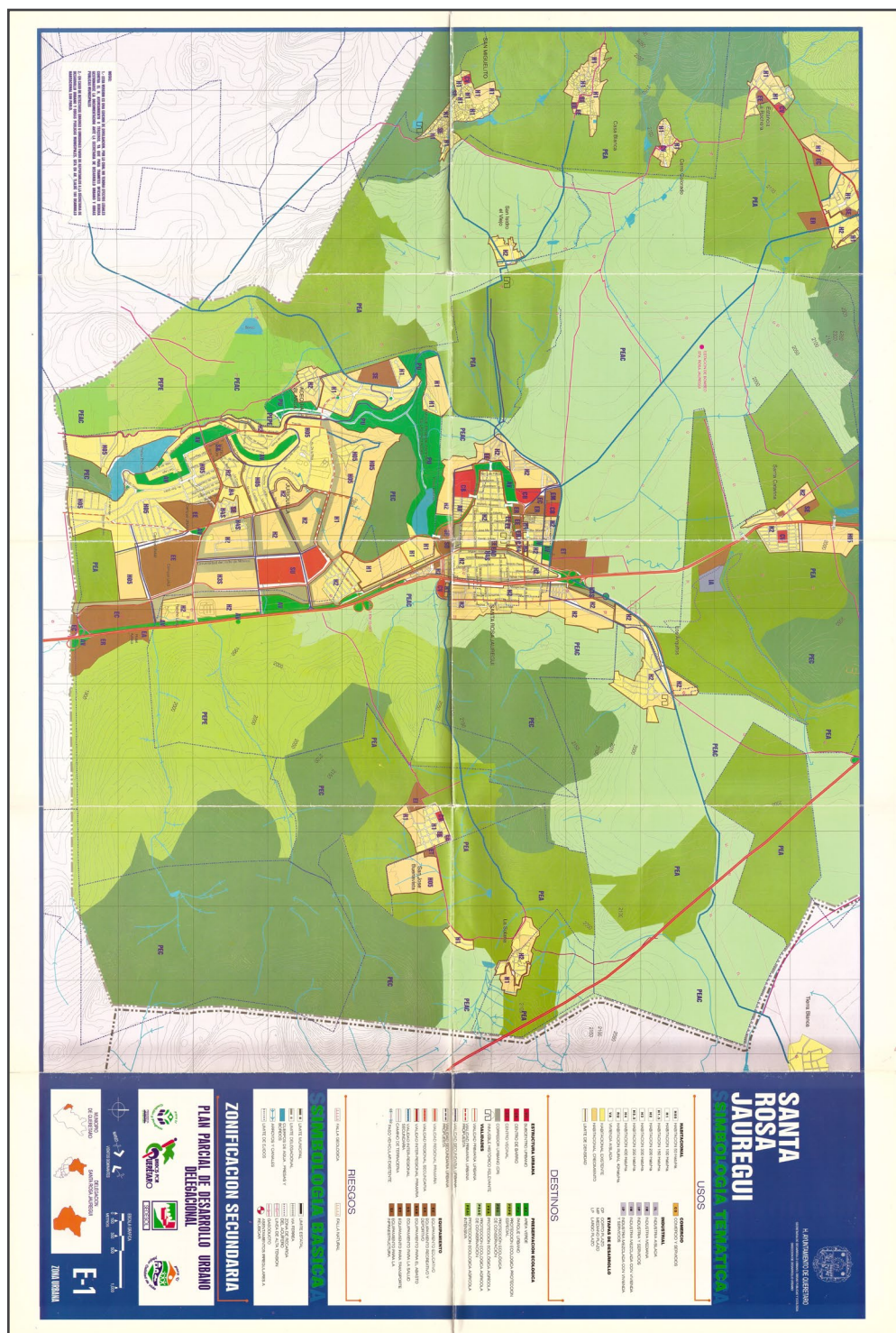


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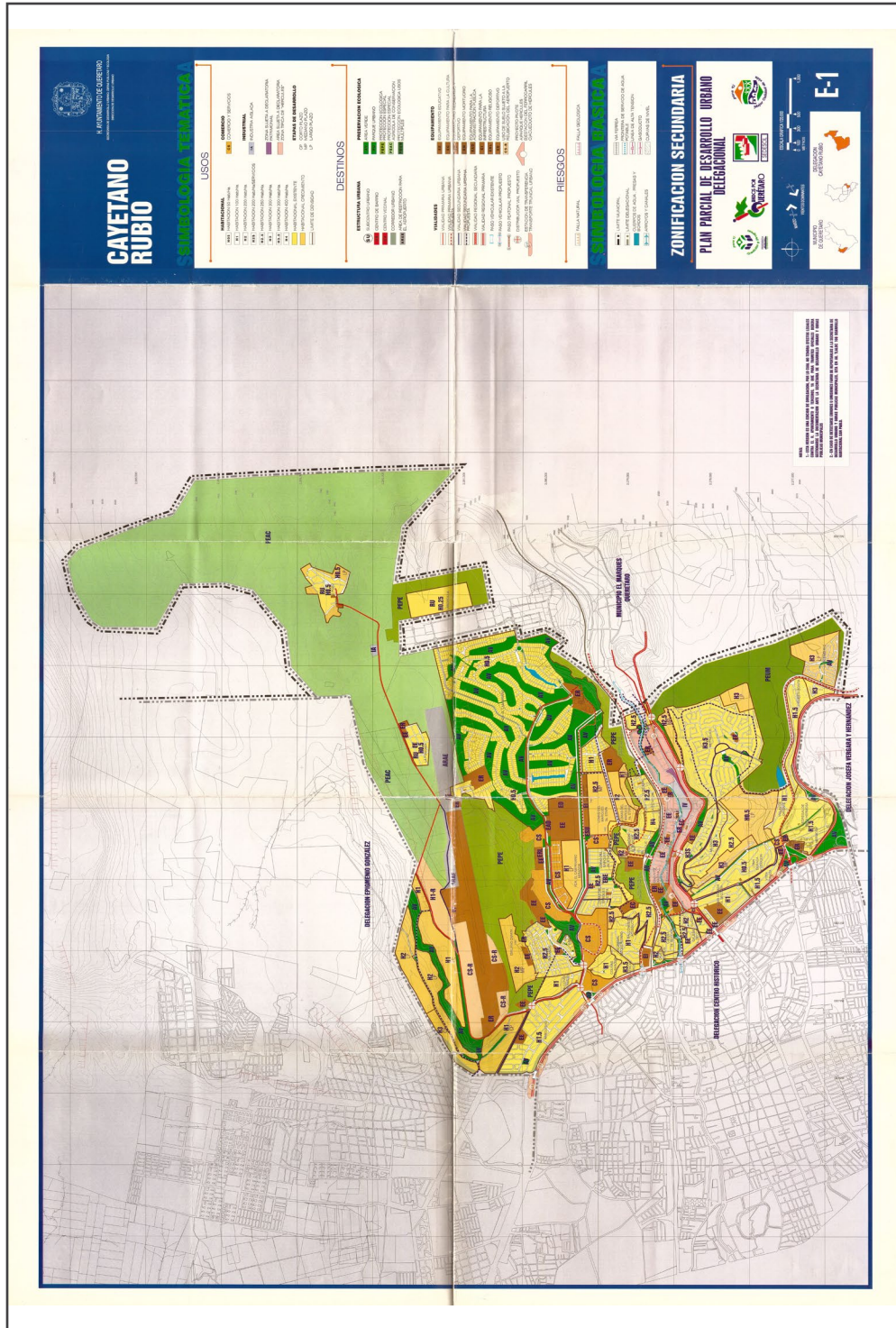


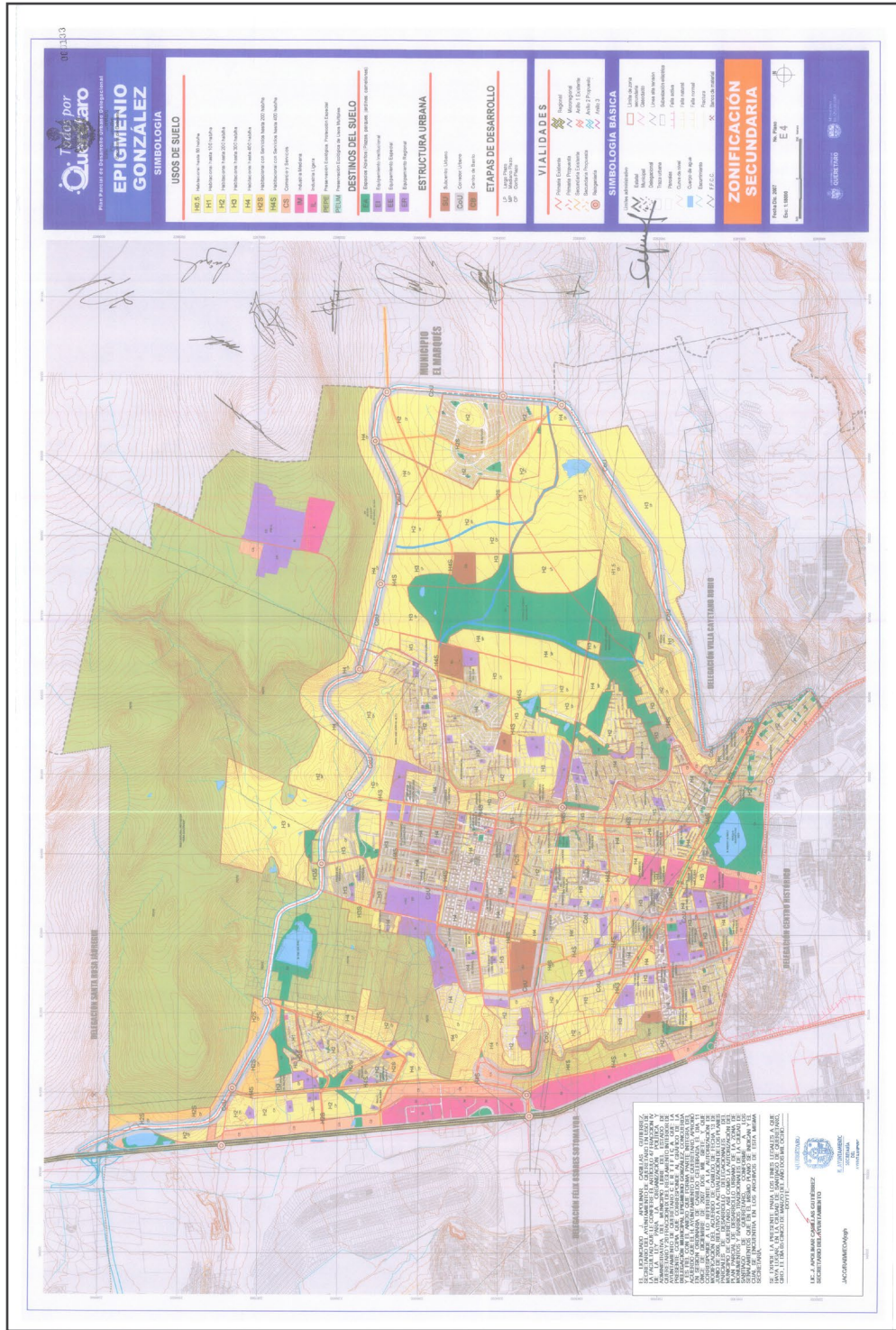


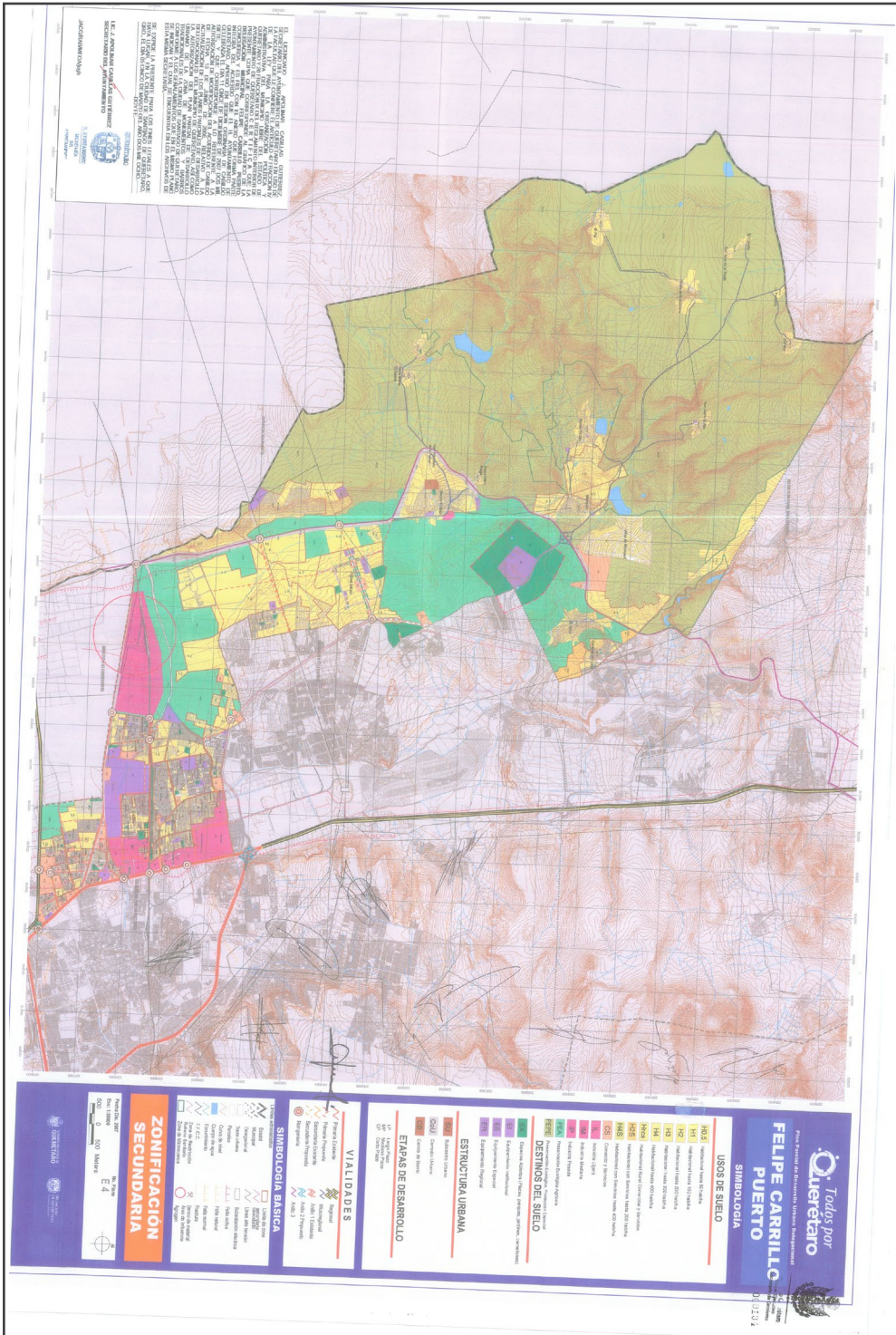




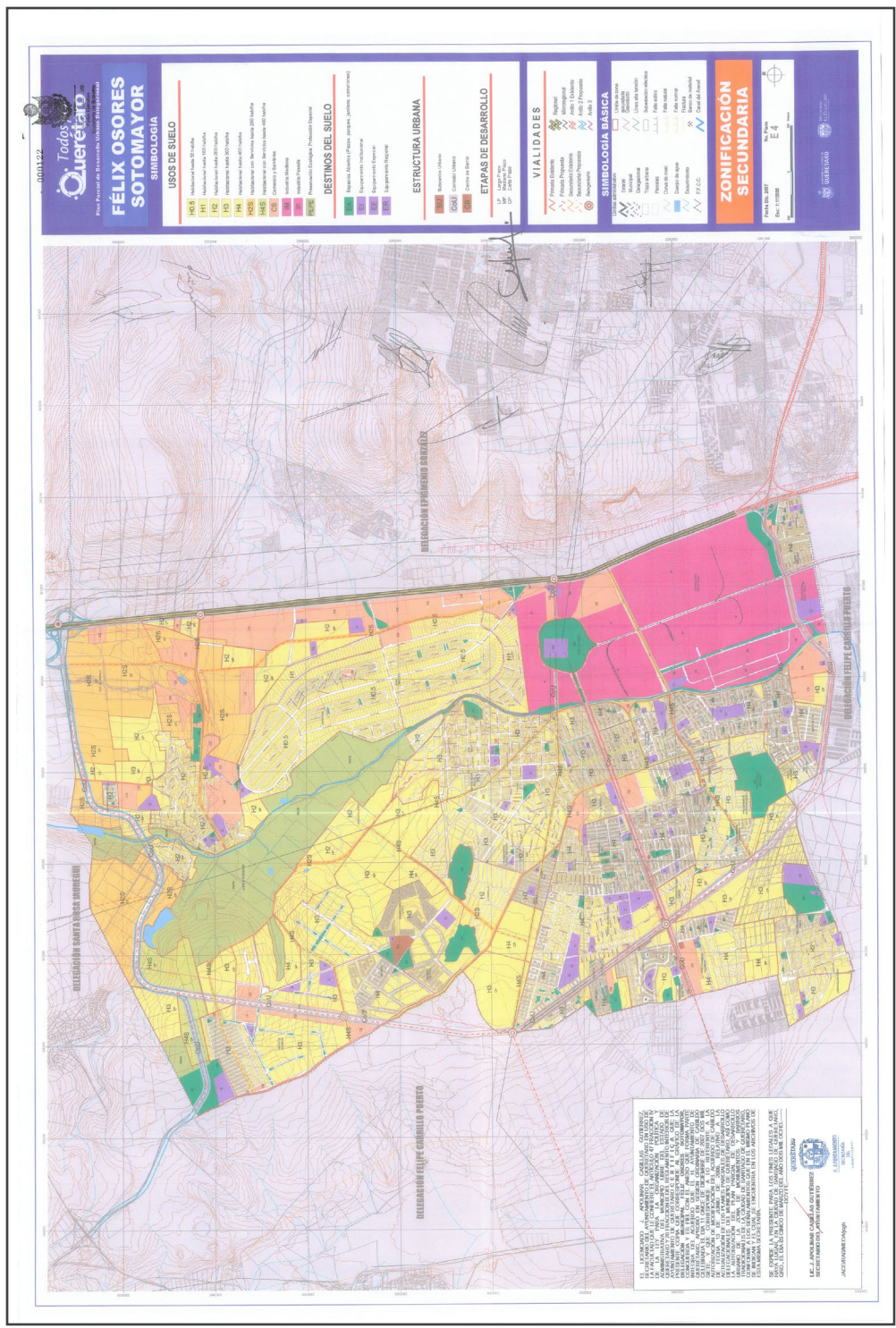
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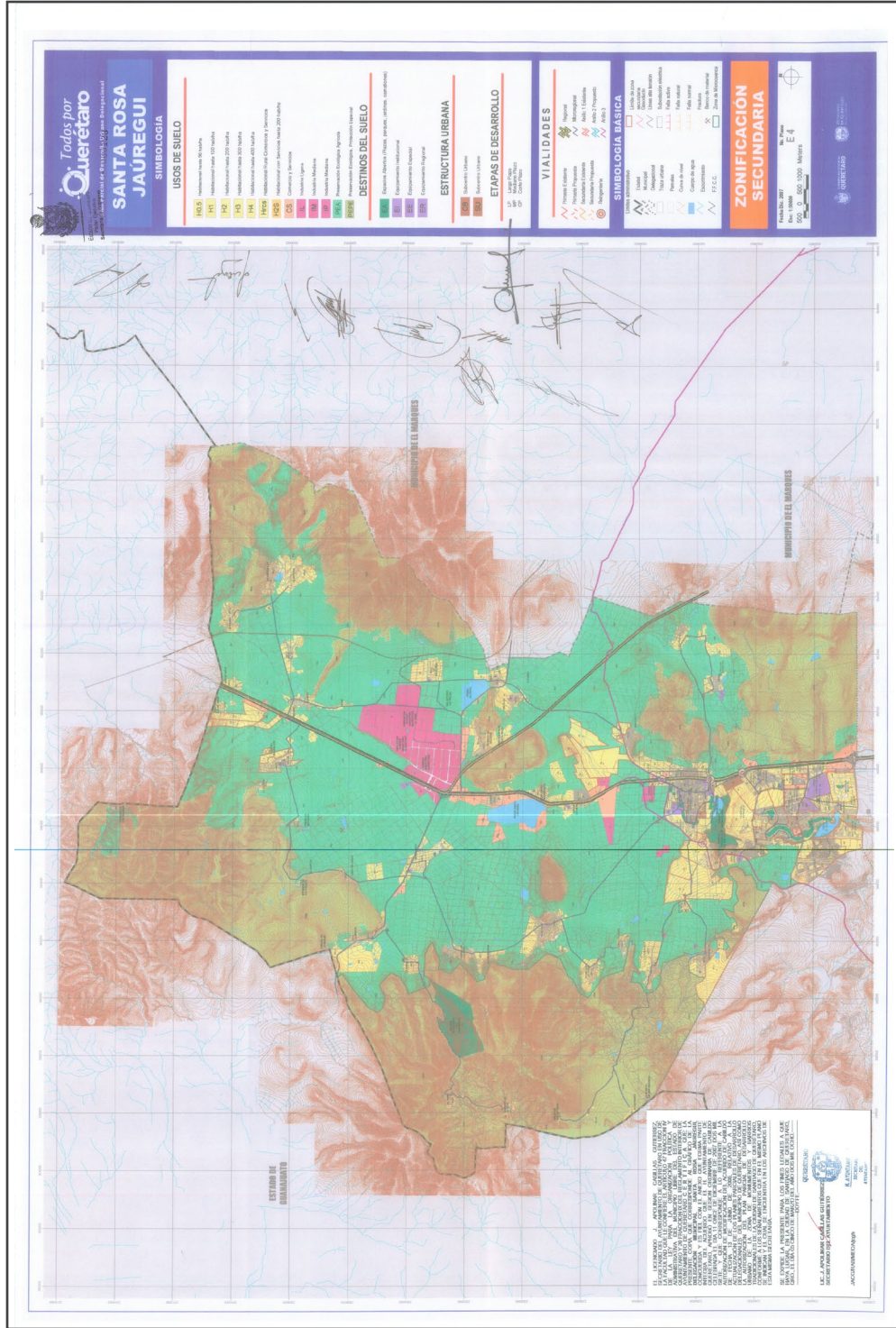


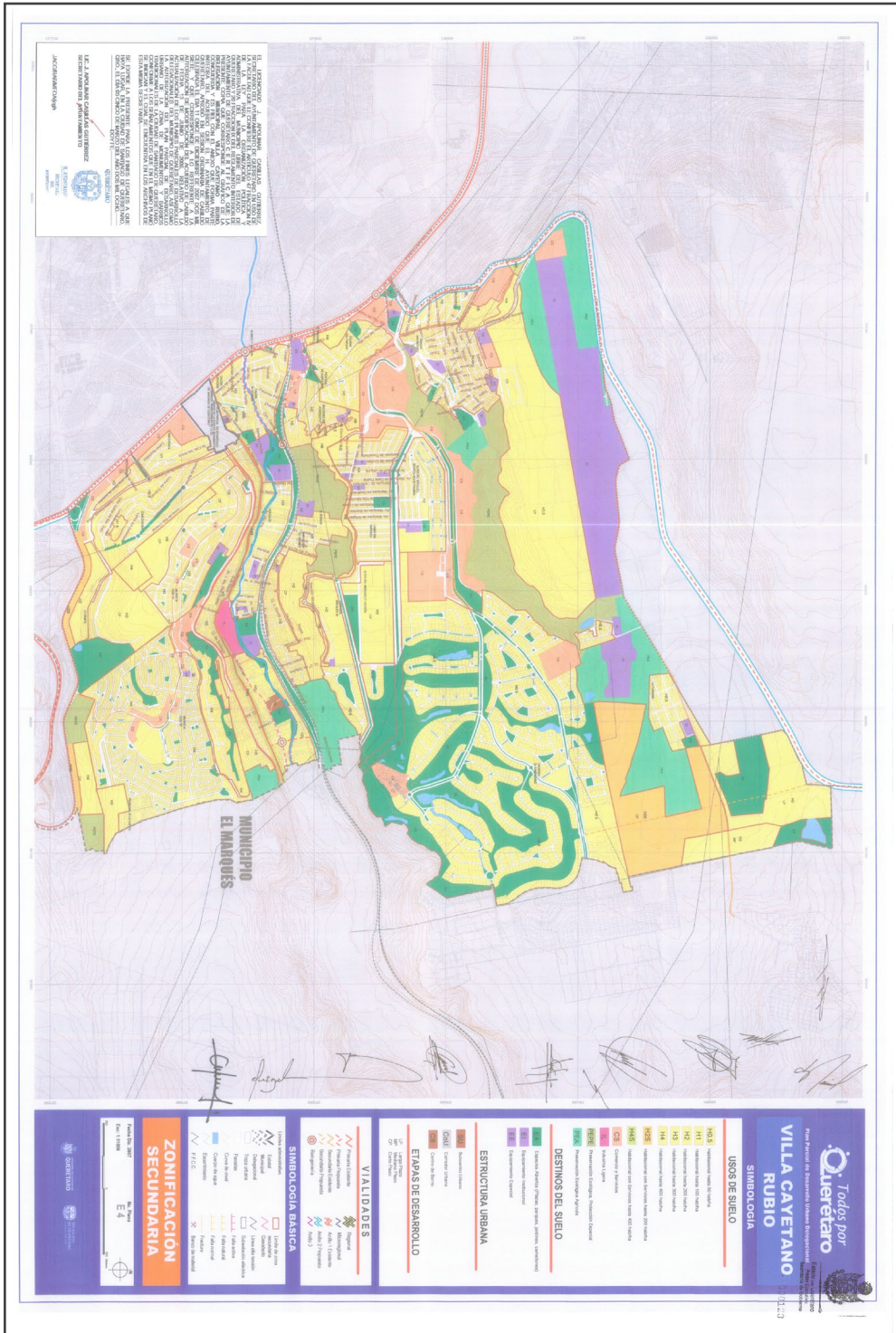


Appendix 2. Original Land Use Maps: 2007









LISTA DE ASENTAMIENTOS HUMANOS IRREGULARES



EPIGMENIO GONZALEZ

EG-01 TLANESE
EG-02 DIANA LAURA RIOJAS
EG-03 LA ESPERANZA
EG-04 UNIDAD NACIONAL
EG-05 BUENOS AIRES
EG-06 MUJERES INDEPENDIENTES
EG-07 RENACIMIENTO
EG-08 BOSQUES DE LA HACIENDA
EG-09 LA CONDESA
EG-10 RICARDO FLORES MAGON
EG-11 AMALIA SOLORZANO
EG-12 SERGIO VILLASENOR
EG-13 CUITLARIJAC EL SALTIRE
EG-14 VICTORIA POPULAR
EG-15 RINCONADA (ENRIQUE BURGOS)
EG-16 JARDINES DE SAN JOSE
EG-17 ASOCIACION SIGLO 2000
EG-18 NUEVA CREACION
EG-19 NUEVO SAN PEDRITO
EG-20 VALLE DE SAN PABLO II
EG-21 SAN FELIPE
EG-22 LAS CRUCITAS
EG-23 REAL ESPANA
EG-24 NUEVO HORIZONTE
EG-25 LAS MARGARITAS
EG-26 PARTIDO DEL TRABAJO
EG-27 PUERTAS DEL SOL
EG-28 COLINAS DEL PEDREGAL
EG-29 LIBERTAD
EG-30 INDEPENDENCIA
EG-31 LAS AMERICAS
EG-32 LIC. ALFREDO ESTRADA ROMERO
EG-33 VALLE DE SAN PABLO I
EG-34 DESARROLLO SAN PABLO I Y II
EG-35 EPIGMENIO GONZALEZ
EG-36 PARCELA 164
EG-37 ALTA VISTA
EG-38 BALCONES DE SAN PABLO
EG-39 NUEVA ESPERANZA
EG-40 LIBERTADORES DE AMERICA
EG-41 EL ARCANGEL
EG-42 MONARCA
EG-43 MONARCA
EG-44 LOS SABINOS



FELIX OSORES SOTOMAYOR

FO-01 REVOLUCION
FO-02 SANTA JUANITA
FO-03 TEOIHUACAN
FO-04 RUBEN JARAMILLO
FO-05 DESARROLLO FAMILIAR
FO-06 LA ESMERALDA
FO-07 MIGUEL HIDALGO
FO-08 CHE GUEVARA
FO-09 EL PARAISO
FO-10 FRANCISCO VILLA I
FO-11 15 DE MAYO
FO-12 COLINAS DE SANTA CRUZ
FO-13 FELIPE ANGELES
FO-14 LOMA BONITA SECC. PRADOS
FO-15 JARDINES DE JURICA
FO-16 SAN PEDRO MARTIR COMEVI
FO-17 AMPLIACION TEOIHUACAN
FO-18 INDEPENDENCIA
FO-19 FRANCISCO VILLA II
FO-20 JARDINES DEL SOL
FO-21 VILLAS DE GUADALUPE
FO-22 LUIS DONALDO COLOSSIO
FO-23 10 DE ABRIL
FO-24 MORELOS
FO-25 ROSENDO SALAZAR
FO-26 LIBERTADORES DE AMERICA
FO-27 5 DE FEBRERO
FO-28 LEYES DE REFORMA
FO-29 SANTA MARIA MAGDALENA (EJIDO)
FO-30 LAS RIZCERAS
FO-31 5 DE MAYO
FO-32 CHE GUEVARA II
FO-33 CHE GUEVARA III



FELIPE CARRILLO PUERTO

CP-01 PRADOS DEL RINCON
CP-02 FRIDA KALHO
CP-03 EL HIGO
CP-04 RECOLECTORES
CP-05 ALBORADA
CP-06 TEOIHUACAN II
CP-07 TONATLILH
CP-08 SAN JOSE 2a. SECCION
CP-09 CUAHUTEMOC
CP-10 EL TINTERO II
CP-11 PLAN NUEVO SANTA MARIA
CP-12 MESTIZAJE DE MOMPANI
CP-13 SANTA ISABEL
CP-13 SAN MARCOS



CAYETANO RUBIO

CY-01 AMPLIACION EL BOSQUE
CY-02 EMILIANO ZAPATA
CY-03 2 DE ABRIL



JOSEFA VERGARA Y HERNANDEZ

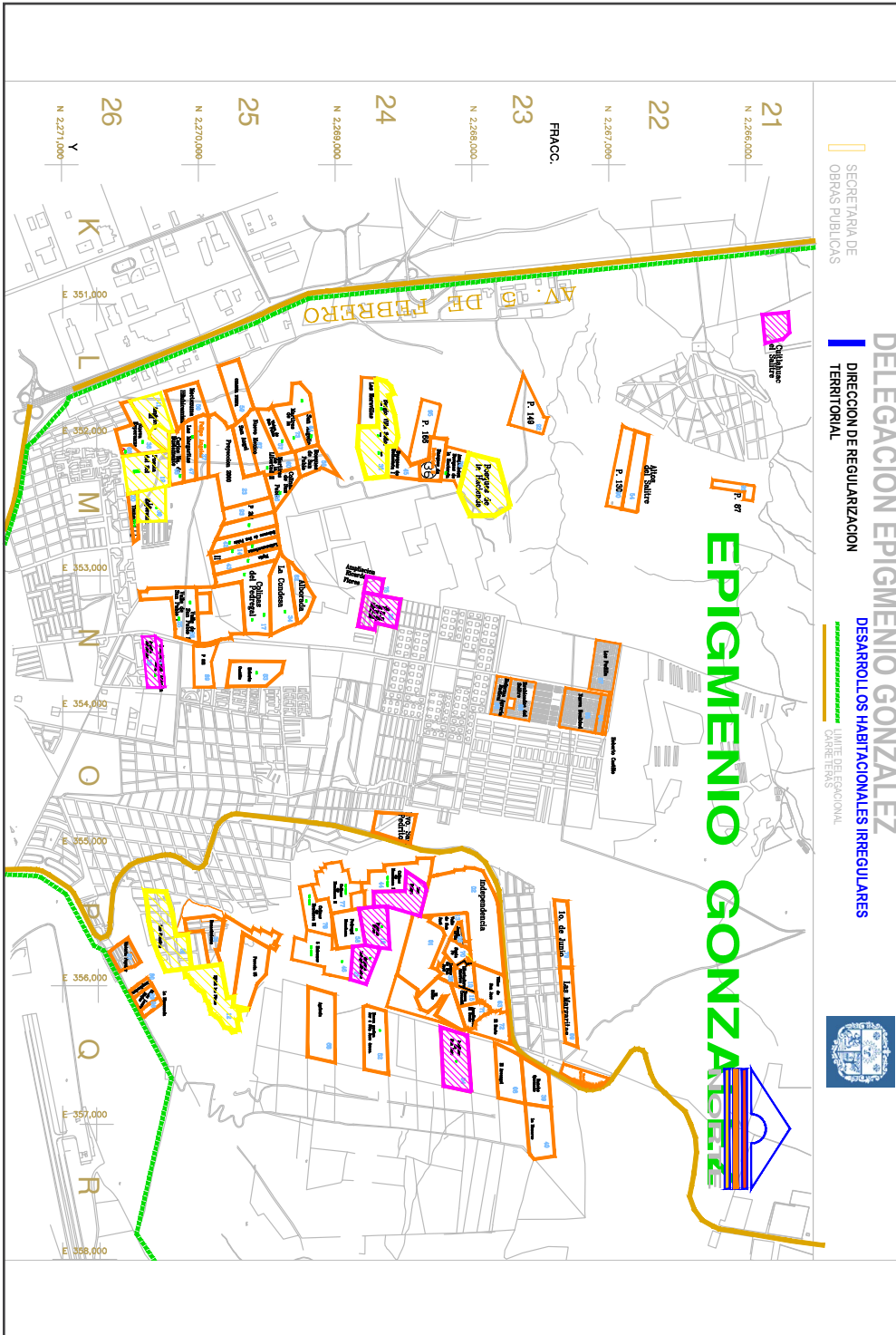
JV-01 CUITLARIJAC
JV-02 PRADERAS DEL SOL
JV-03 BOSQUES DE QUERETARO
JV-04 ALTOS DEL CIMATARIO
JV-05 LA UNION
JV-06 JARDINES DEL CIMATARIO
JV-07 BELLA VISTA
JV-08 BOSQUES DEL CIMATARIO 1a. SECC.
JV-09 CONSTELACION
JV-10 BOSQUES DEL CIMATARIO 2a. SECC.
JV-11 RINCON DEL CIMATARIO
JV-12 COLINAS DEL SUR
JV-13 LINDEROS DEL CIMATARIO
JV-14 ROMA
JV-15 VISTA DEL CIMATARIO
JV-16 SAN ANDRES
JV-17 PRADOS DE QUERETARO
JV-18 ZAPATA VIVE
JV-19 PRADOS DEL CIMATARIO
JV-20 UNIVERSO 2000
JV-21 VISTA AZUL
JV-22 PEDREGAL DEL CIMATARIO
JV-23 CAMPESTRE ITALIANA
JV-24 VILLAS DEL CIMATARIO
JV-25 VILLAS DEL RINCON
JV-26 HUERTAS DEL CIMATARIO
JV-27 MANANTIALES DEL CIMATARIO
JV-28 LOMAS ALTAS DEL CIMATARIO
JV-29 BOSQUES DE LAS LOMAS
JV-30 FUENTES DEL CIMATARIO
JV-31 RAQUEL TREJO
JV-32 JACARANDAS
JV-33 PARCELAS 56,57 Y 61 SAN ANTONIO DE LA PUNTA
JV-34 CUAHUTEMOC



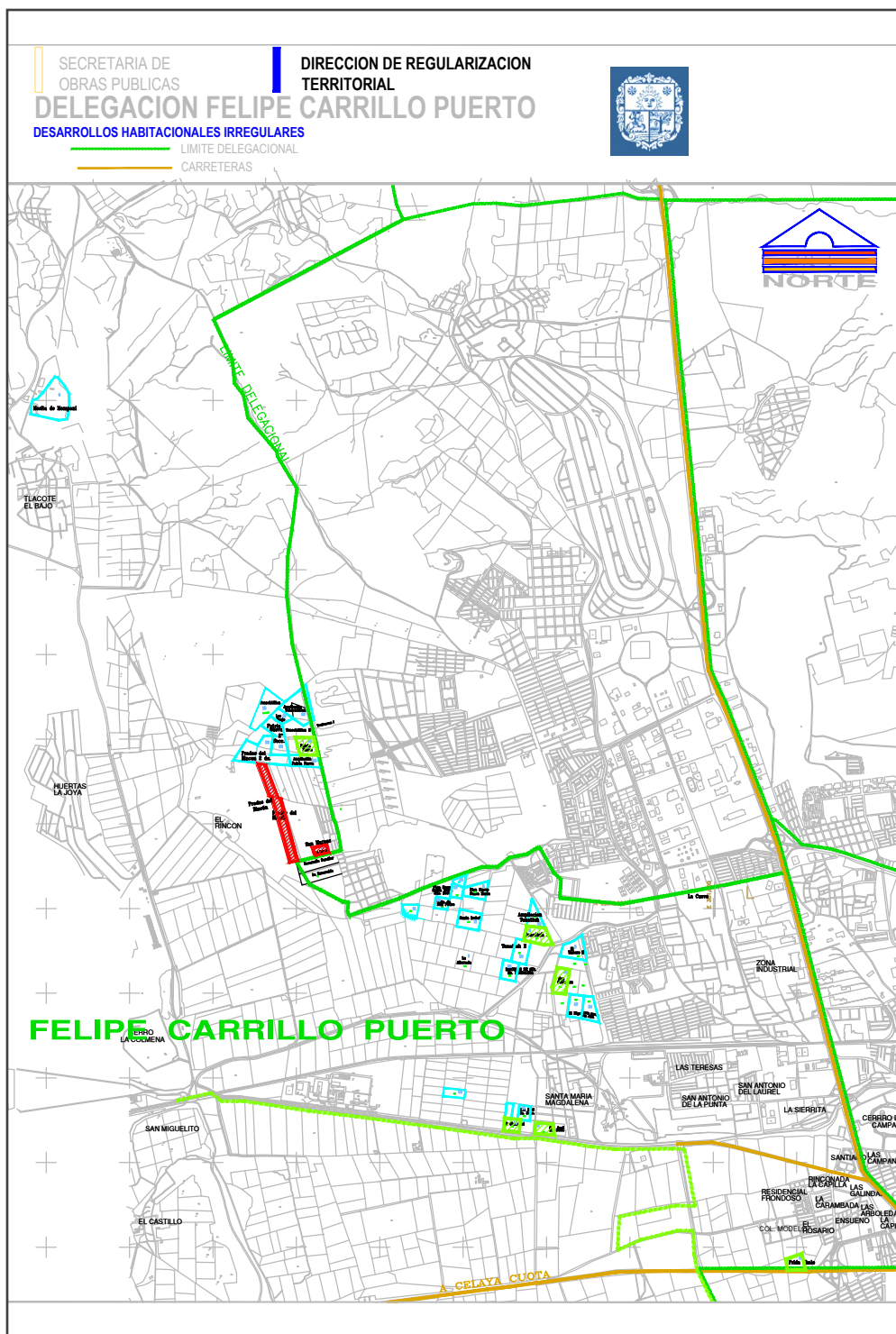
SANTA ROSA JAUREGUI

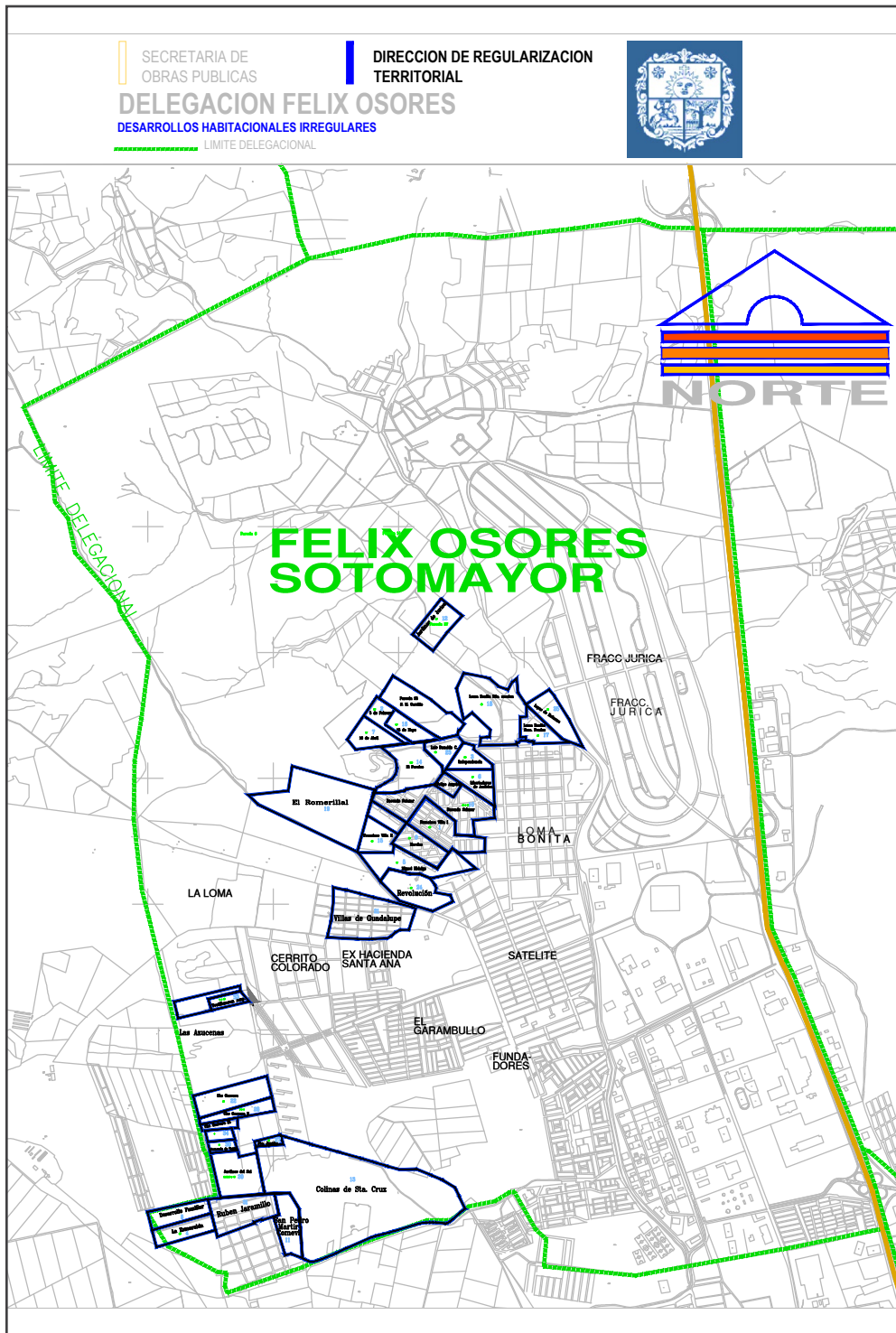
SR-01 NUEVO JURIOQUILLA
SR-02 SANTA GATARIÑA
SR-03 LOMAS DEL PEDREGAL
SR-04 LAS FLORES
SR-05 LA HUIZACHADA
SR-06 PROLONGACION INDEPENDENCIA
SR-07 LAS LAJITAS
SR-08 LAS ROSAS
SR-09 ACEQUIA BLANCA
SR-10 LA LOMA
SR-11 SANTA LUCIA
SR-12 VILLAS DE COREA
SR-13 EMILIANO ZAPATA
SR-14 INDEPENDENCIA
SR-15 BUENA VISTA
SR-16 VALLE DORADO

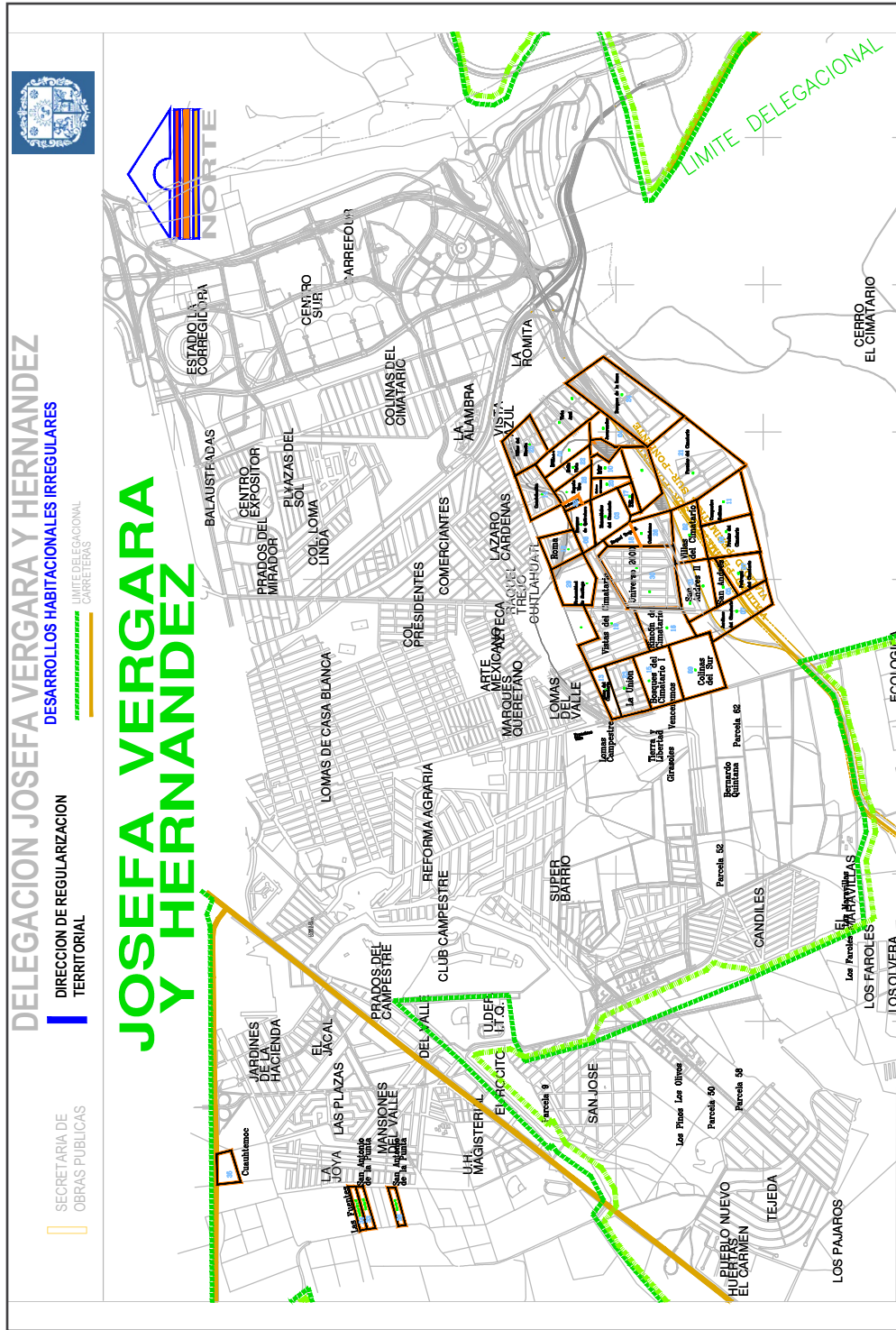
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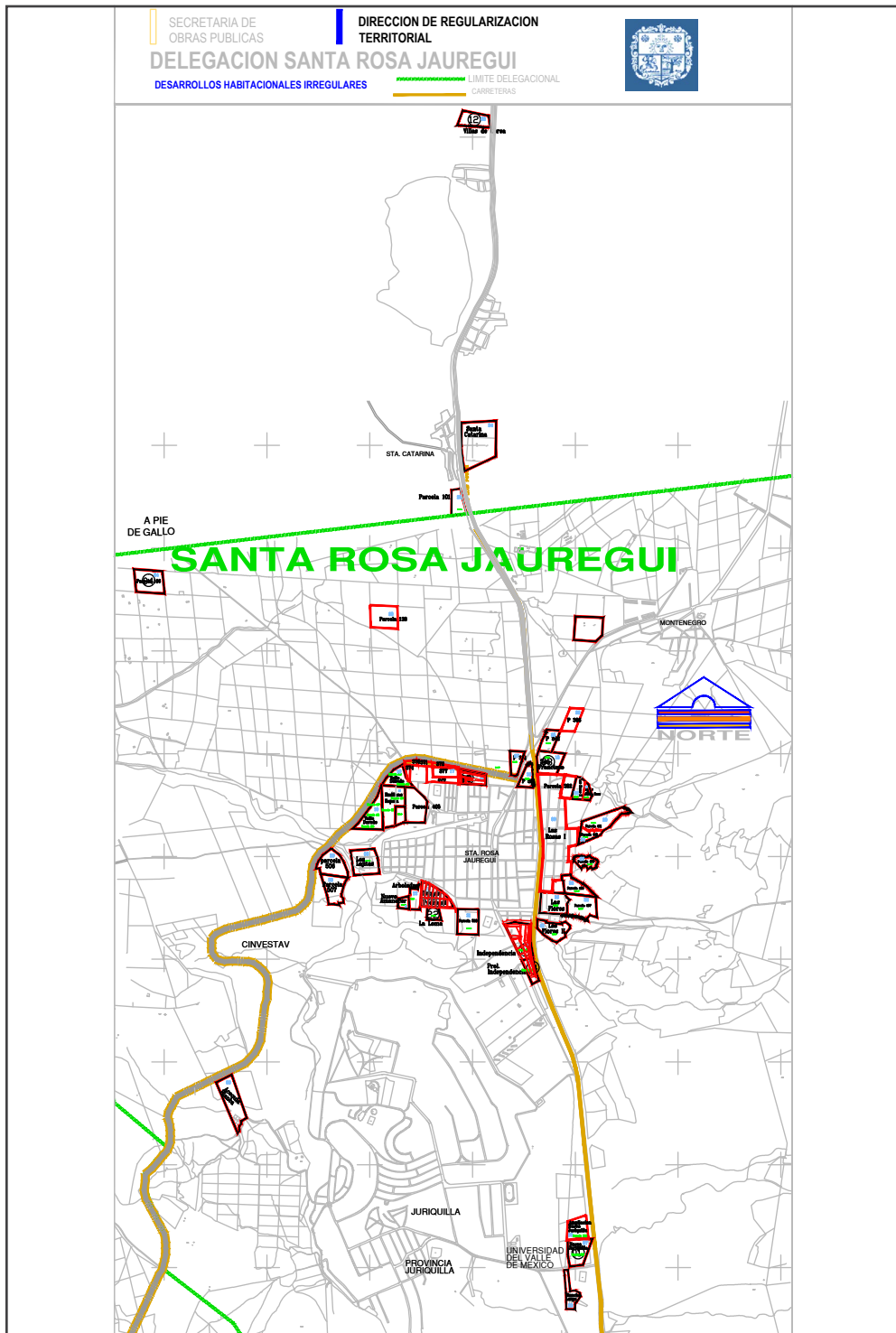


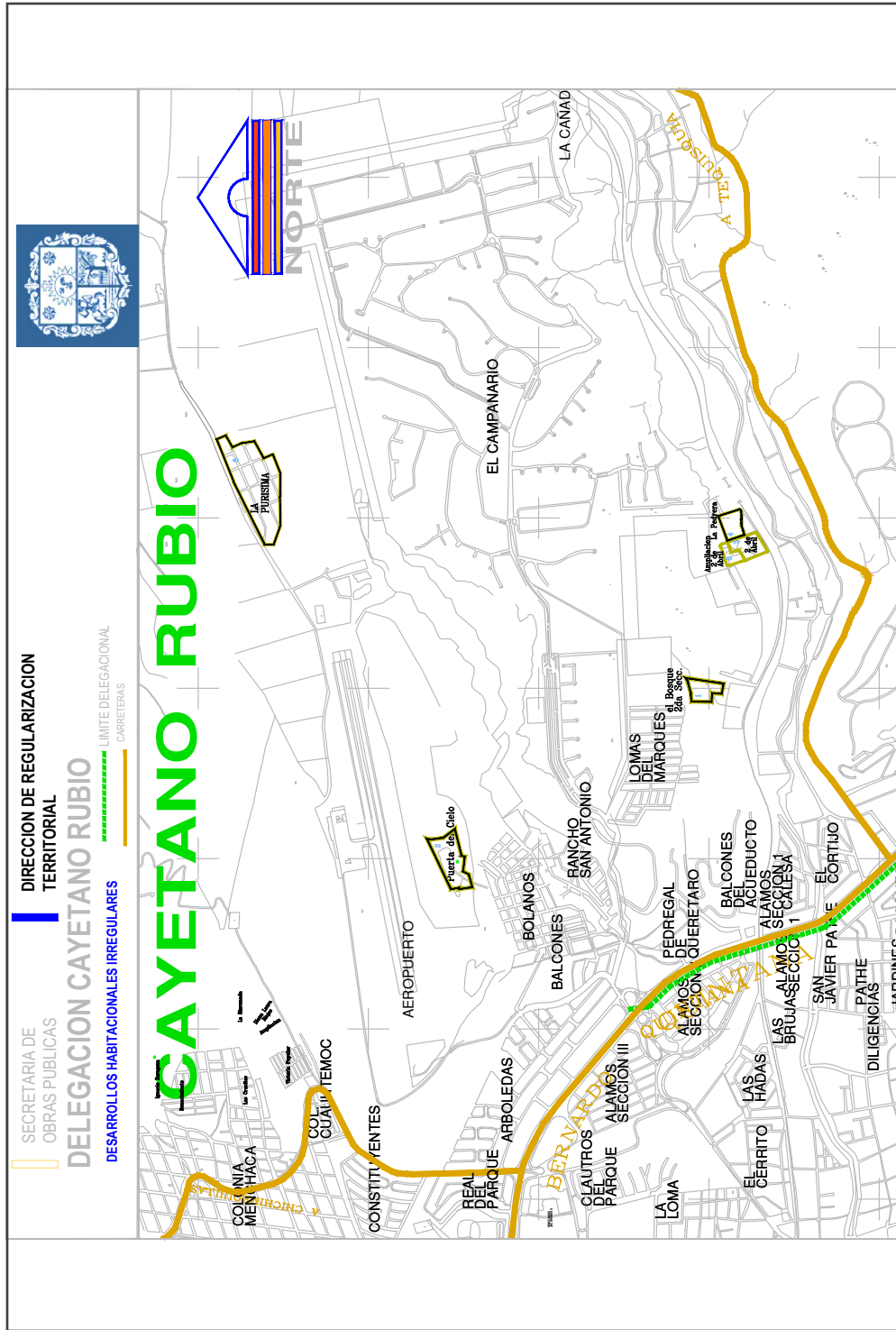
Appendix 3. Informal Settlements Catalogue











Appendix 4. Approved Subdivisions Catalogue



Listado General de fraccionamientos/asentamientos
Municipio de Querétaro



No.	AÑO DE AUTORIZACION	NOMBRE DEL FRACCIONAMIENTO/ASENTAMIENTO	DELEGACION	TIPO
219	1995	AMPLIACIÓN CLUB CAMPESTRE	JVH	FRACC
220	1995	CORREGIDORA	SRJ	FRACC
221	1995	HACIENDA EL CAMPANARIO- SECCIÓN MIRADORES	VCR	FRACC
222	1995	LAS AZUCENAS	FOS	FRACC
223	1995	PRIVADA JURIQUILLA	SRJ	FRACC
224	1996	BOSQUES DE LAS LOMAS	JVH	FRACC
225	1996	EL SOL II (LA HUERTA)	FOS	FRACC
226	1996	EL SOL III (LA LUNA)	FOS	FRACC
227	1996	EX-HDA SANTANA	FOS	FRACC
228	1996	LA HUERTA	FCP	FRACC
229	1996	LA LOMA	FOS	FRACC
230	1996	LA LUNA	FCP	FRACC
231	1996	LAS FLORES	SRJ	FRACC
232	1996	MILENIO III	VCR	FRACC
233	1996	NUEVO JURIQUILLA	SRJ	FRACC
234	1996	PARQUE INDUSTRIAL QUERETARO	SRJ	FRACC
235	1996	PUERTA DEL SOL I	FOS	FRACC
236	1996	SAN PABLO, 2A ETAPA	EGF	FRACC
237	1996	SAN PEDRITO PEÑUELAS	EGF	FRACC
238	1996	VILLAS SANTIAGO DE QUERETARO	EGF	FRACC
239	1997	AMPLIACIÓN LOMAS DEL VALLE	JVH	FRACC
240	1997	CAMPESTRE ITALIANA	JVH	FRACC
241	1997	CENTRO SUR	JVH	FRACC
242	1997	EL SALTO (REAL DE JURIQUILLA)	SRJ	FRACC
243	1997	EPIGMENIO GONZALEZ	EGF	FRACC
244	1997	FUENTES DEL CIMATARIO	JVH	FRACC
245	1997	HUERTAS DEL CIMATARIO	JVH	FRACC
246	1997	INDEPENDENCIA	SRJ	FRACC
247	1997	JARDINES DE SANTIAGO	EGF	FRACC
248	1997	PEDREGAL DE VISTA HERMOSA	JVH	FRACC
249	1997	PUERTAS DEL SOL II	FOS	FRACC
250	1997	REAL DE JURIQUILLA	SRJ	FRACC
251	1997	RESIDENCIAL ITALIA	FCP	FRACC
252	1997	SAN FRANCISCO B	SRJ	FRACC
253	1998	EL PARQUE	EGF	FRACC
254	1998	CIUDAD SATÉLITE SECCIONES A, B Y C	FOS	FRACC
255	1998	FRANCISCO JAVIER MINA	FOS	FRACC
256	1998	FUNDADORES II	FOS	FRACC
257	1999	BOSQUES DEL SOL	FCP	FRACC
258	1999	JURICA ACUEDUCTO	SRJ	FRACC
259	2000	EX-HDA EL TINTEO	FCP	FRACC
260	2000	FRACC. SANTA CATARINA	SRJ	FRACC
261	2000	FUNDADORES III	FOS	FRACC
262	2000	SAN PEDRITO LOS ARCOS	EGF	FRACC
263	2001	CAROLINA	FCP	FRACC
264	2001	LA LADERA	EGF	FRACC
265	2001	LOS CIPRECES	EGF	FRACC
266	2001	LOS ROBLES	EGF	FRACC
267	2001	PARQUE COMERCIAL PAPANOA	JVH	FRACC
268	2002	COLINAS DEL PONIENTE	FOS	FRACC
269	2002	CONJUNTO BELEN	EGF	FRACC

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Appendix 4. Approved Subdivisions Catalogue

270	2002	EL VERGEL	EGF	FRACC
271	2002	EURIPIDES	EGF	FRACC
272	2002	HACIENDA SAN MIGUEL	JVH	FRACC
273	2002	JARDINES DEL VALLE	FCP	FRACC
274	2002	PALMARES I (EJIDO EL SALITRE)	EGF	FRACC
275	2003	ALTAVISTA	JVH	FRACC
276	2003	ALTAVISTA JURIQUELLA	SRJ	FRACC
277	2003	CONJUNTO LOMAS DE PASTEUR	JVH	FRACC
278	2003	CUMBRES DEL LAGO	SRJ	FRACC
279	2003	DESARROLLO LA MONTAÑA 2000 SECCION III	CH	FRACC
280	2003	EL PALOMAR DEL REY	JVH	FRACC
281	2003	HACIENDA LA GLORIA	FCP	FRACC
282	2003	LA SOLANA II	SRJ	FRACC
283	2003	MISION FUNDADORES	FOS	FRACC
284	2003	PUNTA JURIQUELLA	SRJ	FRACC
285	2003	QUINTA ALICIA	FCP	FRACC
286	2003	REAL DE JURIQUELLA FASE B	SRJ	FRACC
287	2003	RESIDENCIAL LOS ANGELES	FCP	FRACC
288	2003	RESIDENCIAL LOS FRESNOS	CH	FRACC
289	2003	SANTA CATARINA	SRJ	FRACC
290	2003	VILLAS DE SAN MIGUEL	FOS	FRACC
291	2003	VILLAS FONTANA II	EGF	FRACC
292	2004	EL CARMEN	FOS	FRACC
293	2004	EL REFUGIO	EGF	FRACC
294	2004	LA ERMITA	VCR	FRACC
295	2004	LA LOMA VIII	FOS	FRACC
296	2005	CHULA VISTA	FOS	FRACC
297	2005	GEO PLAZAS II	FOS	FRACC
298	2005	JARDINES DE SANTIAGO FRACC. III Y IV	EGF	FRACC
299	2005	JARDINES DE SANTIAGO SECCIÓN "VISTANA"	EGF	FRACC
300	2005	LA AURORA COMERCIAL	FCP	FRACC
301	2005	LA LOMA IX	FCP	FRACC
302	2005	LA LOMA VII	FOS	FRACC
303	2005	LOMAS DEL MARQUES "VILLAS PALMIRA"	VCR	FRACC
304	2005	MISION CIMATARIO	JVH	FRACC
305	2005	RESIDENCIAL CALETTO	SRJ	FRACC
306	2005	RESIDENCIAL SANTA MAGDALENA	FCP	FRACC
307	2005	SAN MIGUEL SEGUNDA ETAPA	FOS	FRACC
308	2005	SANTA RUTH	SRJ	FRACC
309	2005	VILLAS DE SAN ANTONIO	FCP	FRACC
310	2006	AMPLIACIÓN PARQUE INDUSTRIAL 1A FASE	SRJ	FRACC
311	2006	JURIQUELLA SANTA FE	SRJ	FRACC
312	2006	LOMAS DE JURIQUELLA	SRJ	FRACC
313	2006	MISIÓN CARRILLO	FOS	FRACC
314	2006	POLIGONO EMPRESARIAL	SRJ	FRACC
315	2006	RANCHO BELLAVISTA	FCP	FRACC
316	2007	EDUARDO LOARCA CASTILLO	FOS	FRACC
317	2007	LOMA REAL DE QUERÉTARO	FOS	FRACC
318	2007	LOS HUERTOS	EGF	FRACC
319	2007	PARQUE SANTIAGO	FOS	FRACC
320	2007	PASEOS DEL PEDREGAL	EGF	FRACC
321	2007	REAL DE LA LOMA	FOS	FRACC
322	2007	VALLE DE JURIQUELLA	SRJ	FRACC
323	2007	VILLAS DE MOMPANI	FOS	FRACC
324	2008	COLINAS DE SAN PEDRO	EGF	FRACC
325	2008	EL ARCÁNGEL	FCP	FRACC
326	2008	EL ARCÁNGEL 1	FCP	FRACC
327	2008	HACIENDA SANTA ROSA	SRJ	FRACC



Appendix 4. Approved Subdivisions Catalogue

328	2008	IGNACIO PÉREZ	EGF	FRACC
329	2008	JARDINES DE SANTIAGO, 4A SECCION	EGF	FRACC
330	2008	JURICA LA SIERRA	SRJ	FRACC
331	2008	JURIQUILLA SAN ISIDRO I	SRJ	FRACC
332	2008	JURIQUILLA SAN ISIDRO II	SRJ	FRACC
333	2008	LOMAS SAN ÁNGEL	FCP	FRACC
334	2008	LOS VIÑEDOS	FCP	FRACC
335	2008	MICROINDUSTRIAL SANTA ROSA	SRJ	FRACC
336	2008	MISIÓN DE BUCARELI NORTE	EGF	FRACC
337	2008	MISIÓN DE BUCARELI SUR	EGF	FRACC
338	2008	PUERTA DE BELÉN	EGF	FRACC
339	2008	PUNTA NORTE I	FCP	FRACC
340	2008	PUNTA NORTE II	FCP	FRACC
341	2008	PUNTA SAN CARLOS	EGF	FRACC
342	2008	RANCHO SAN PEDRO, FRACCIÓN 1	FCP	FRACC
343	2008	RINCONADA SANTA ANITA	FCP	FRACC
344	2009	EDUARDO LOARCA CASTILLO 2A. ETAPA	FOS	FRACC
345	2009	EL ARCÁNGEL 2	FCP	FRACC
346	2009	FRACC. MONTENEGRO	SRJ	FRACC
347	2009	FRAY JUNIPERO SERRA	EGF	FRACC
348	2009	LA CIMA	EGF	FRACC
349	2009	LA VISTA RESIDENCIAL	EGF	FRACC
350	2009	MONTE REAL	JVH	FRACC
351	2009	PASEOS DEL PEDREGAL II	EGF	FRACC
352	2009	REAL DE JURIQUILLA FASE C	SRJ	FRACC
353	2009	SONTERRA	FCP	FRACC
354	2010	GALAXIA BUENAVISTA	SRJ	FRACC
355	2010	MISIÓN Carrillo II	FOS	FRACC
356	2010	PUERTA NAVARRA	FCP	FRACC
357	2010	RANCHO SAN PEDRO 2	FCP	FRACC
358	2010	REAL DEL MARQUÉS	FOS	FRACC
359	2011	EDUARDO LOARCA CASTILLO 3A. ETAPA	FOS	FRACC
360	2011	VALLE DE JURIQUILLA II	FOS	FRACC
361	2012	BELLAVISTA	JVH	FRACC
362	2013	CIUDAD DEL SOL, SECC. PUNTA NORTE I	FCP	FRACC
363	2013	CIUDAD DEL SOL, SECC. PUNTA NORTE II	FCP	FRACC
364	2013	CUMBRES DE JURIQUILLA	SRJ	FRACC
365	2013	LOMAS ALTAS JURIQUILLA	SRJ	FRACC
366	2013	LOS VIÑEDOS ET. 4	FCP	FRACC
367	2013	PALMAS V	SRJ	FRACC
368	2013	PRIVALIA AMBIENTA	EGF	FRACC
369	2014	ALTOZANO, EL NUEVO QUERÉTARO	EGF	FRACC
370	2014	CIUDAD DEL SOL, SECC. VALLE DE SANTIAGO, SECTOR II	FCP	FRACC
371	2014	DEL BOSQUE	EGF	FRACC
372	2014	GRAND OUTDOORS	SRJ	FRACC
373	2014	MISIÓN DEL MAYORAZGO	FCP	FRACC
374	2014	PARQUE SAN ISIDRO	SRJ	FRACC
375	2014	PUERTA DE BELÉN, ETAPAS 3 y 4	EGF	FRACC
376	2014	SONTERRA, ETAPA V	FCP	FRACC

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