

Inland Empire Logistics GIS Mapping Project

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1. ABSTRACT

The Inland Empire has experienced exponential growth in the area of warehousing and distribution facilities within the last decade and it seems that it will continue way into the future. Where are these facilities located? How large are the facilities? Can identification and location of these facilities be used by strategic decision makers at the commercial, governmental and military level? This pilot project gathered information from 41 cities (from Victory Valley, Coachella Valley and Riverside to the San Bernardino areas) to determine what information was available at these locations. The information collected revealed that there is no one central database for warehousing and distribution facilities. Also, from the interviews with the city economic development personnel in the 41 cities, information was gathered which helped to identify the key elements which need to be collected for the next distribution project.

2. PROJECT SIGNIFICANCE: GIS Regional Logistics Mapping Project

The Inland Empire has not only experienced exponential growth over the last several decades, it has also transformed from a regional agrarian to a global logistics, distribution and warehousing hub of global significance. As public and private decision makers and strategists begin to explore and find solutions to the myriad of changes generated by this transformation, they find themselves operating many times by guess, by hearsay or just simply stymied. Whether it is housing patterns, freeway congestion, blocked arterial routes, track and train traffic or a host of other noxious events there is a distinct lack of underlying supporting GIS dynamic applicable maps. The current analysis tends to be stochastic or temporal in nature. If strategic decision makers in the region are going to truly solve problems and develop efficient, effective solutions then it is of utmost importance that a centralized dynamic database be developed using a web-based GIS driven mapping program. Currently as best researched, except for a few narrow proprietary attempts, no central dynamic based program is currently available.

Simply put the strategic decision makers in the region need, in fact, require a useful and easily accessible database upon which viable decisions may be formulated.

The purpose of this pilot project was to solicit seed monies to commence the planning development of a logistics driven web based GIS mapping database and web portal. The thrust of this pilot project was the first stop in the development of a GIS mapping database and web portal. The project identified the necessary key elements for the logistic information required by the regions various decision makers and identified 41 different sources and sites of existing information.

3. OTHER SUPPORT

There was no other support for this proposal. However, upon completion of the project, it was determined that the 41 cities might be a source for possible support in the future.

4. WORK COMPLETED

Under the direction of Dr. C.E. Tapie Rohm, Mr. Jose L. Garcia went to 41 cities (see Attachment A) within the Inland Empire. Mr. Garcia made contact with various people in the cities. The people that ended up knowing the most about the information requested were the personnel in the Economic Development areas. The information was compiled into a matrix (see Attachment A) that can be used by others in the future. The information is very important for the future of the Inland Empire.

5. FINDINGS: Inland Empire Logistics GIS Mapping Project

The main findings of this pilot study were the gathering of the information on what questions to ask decision makers. Decision makers within the Inland Empire cannot obtain answers to their questions about the entire Inland Empire. Currently, only local decision makers can ask some questions about their own local areas; even then, the way this study was perceived, the information is not available to them. These questions, as simple as they are, can't be answered

at this time for all of the 41 communities visited from a common location. See Appendix B for the potential questionnaire list.

The Reason Behind the Questions for the Questionnaire

The first question of the questionnaire just collects the company's name and demographic information.

The second question records how large the physical location is in square feet. This information is hard to collect. Thus, having it will start the database with specific information which will be of value when coupled with other information.

The third question is extremely important, the hours of operations. This information is needed to help determine alternative ways of doing logistics in the future.

The fourth question is the number of employees. Being able to see the big picture means you have the small details like this to get an idea of how the industry is doing.

The fifth question is concerned with the services provided by the industry. There are eleven choices available. This information is crucial to the database. Sometimes this information can be obtained by a survey or other than in direct, face-to-face format, but hardly ever. Many firms don't want their information getting out. Some firms believe that any information is too much for their competitors.

The sixth question is designed to understand "how long the load takes at their location." Again, answers are not received by survey instruments we have sent out in the past. Need face-to-face meetings to pull this information out of the people.

The seventh question is designed to understand the volume of trucks or rail cars coming in and out of the facility. This is necessary information for the planning stage to be understood for an area.

The eighth question helps to understand where the container is coming from, e.g. from Asia, Europe or Africa. Point of origin is necessary to help with various security measures.

The ninth question helps to understand the number of containers leaving the area. The volume count is extremely important for planning.

The tenth question allows for us to discover where the final destination is. In understanding the final destinations, a planner can come up with various solutions on how something is moved.

The eleventh question deals strictly with throughput of the volume of freight generated by each site. Decision makers are interested in knowing who contributes to the total throughput.

The twelfth question is concerned with the use of empty containers. Half of all containers moved are empty. A better strategy is needed for this area.

The thirteenth question allows for us to learn the percentages of the transportation modalities. This answer allows for the understanding of the transportation realities.

The fourteenth question helps the planner to know if a single vendor is used. If a single vendor is used then certain options might be available.

The fifteenth question asks how many docks there are. Knowing how many docks there are at a specific location is a must for the planning purpose to help decision makers.

The sixteenth question is aimed at discovering the number of trailer spots for storage and how many. This information is used for developing planning scenarios.

The seventeenth question helps to understand the company's seasonal needs.

The eighteenth question allows for planners to understand the various warehouse jobs available and possibly on how to reduce their number.

The nineteenth question will allow for decision makers in education and training to determine what type of training and education is needed to help the company.

The twentieth question will let us know what computer software is used, if any.

APPENDIX A

Information on 41 Cities

City	Contact Economic Development	Email Telephone/ FAX	Web Address	Logistics Inform ation availab le?	Info Available and Notes	Business Hours	Warehouses > 70,000 sq foot?
Victorville	Tracy Foster (management Technician) Emily Wong (assistant Director of Economic Development and redevelopment agency)	tfoster@ci.victorville.ca.us ph: (760) 241-6425 Fax: (760) 269-0086	http://ci.victorville.ca.us/city-departments/econ-dev/index.html	No	Working with the economic development in a possible list of facilities, in their web site have their logistic profile interesting city also A city willing to participate in the project and very much into the logistics industry	N/A	Yes, Few
Apple Valley		ewong@applevalley.org ph: (760) 240 7000 ext 7900 Fax: (760) 240-7910	http://www.applevalley.org/	Yes	They have only 2 warehouses so information is easy to gather. Small city willing to participate in the project the web site has city zoning maps, and useful information for future business, this is a city that offers many incentives to attract businesses. A city with great potential for logistics for land and incentives as well it's close to the SCLA Got a list from Ted for 1 building with the characteristics of the project and transportation companies that are in the city. Small city willing to participate in the project	N/A	Yes, 2
Barstow	Ron Rector (Economic Development/ Redevelopment Manager)	rector@barstowca.org ph: (760) 255-5106 Fax: (760) 255-9063	http://www.barstowca.org/EconDev.asp?ContentID=40&nav=Economic%20Development	No		N/A	Unknown
Hesperia	Ted Shove	tshove@cityofhesperia.us ph: (760) 947-1002 Fax: (760) 947-1917	http://www.ci.hesperia.ca.us/section.cfm?id=19	yes		N/A	Yes, 1

Adelanto	Rick Gomez (interim Community Development Director)	N/a email ph: (760) 246- 2300 ext 3028 Fax:(760)246- 3406	http://207.234.208.13/index.php?option=com_frontpage&Itemid=1	Yes	Got a useful map of projects from their office. Small city easy to research in person nothing in their web site about logistics	N/A	Yes, At SCLA
Ontario	Marie Jane Olhasso (Economic Development Director) or Michael Curley (Economic Development Coordinator)	molhasso@ci.ontario.ca.us or mcurley@ci.ontario.ca.us ph: (909) 395-2197 or (909) 395-2472	http://www.ci.ontario.ca.us/index.cfm/ 2519	No	Web site provides with a project map that can be useful . Very Interesting city a hub for the logistics industry, a must for this project, however no database available about the buildings dedicated for this purpose.	Monday - Thursday, 7:30 am to 5:30 pm; Friday: 8:00 am to 5:00 pm	Yes, Many
Rancho Cucamonga	Mike Nelson (Economic Development Manager)	mnelson@ci.rancho-cucamonga.ca.us ph: (909) 477-2700 Ext 2052 Fax:(909) 477-2848 jzwack@CI.UPLAND.CA.US?subject=Economic/Redevelopment ph: (909) 931-4300	http://www.ci.rancho-cucamonga.ca.us/dept_rda.htm	May get some information from city	Web site provides little information, must gather information from zoning and redevelopment agency. Not much room for logistics growth but it's a logistics hub	Monday - Thursday: 7:00 am - 6:00 pm; Fridays closed	Yes, Many
Upland	Jeff Zwack (Redevelopment Director) Marilyn J. Staats, (Director of Redevelopment/Public Works) or Melinda Flores (Economic Development Coordinator)	mjstaats@ci.montclair.ca.us or mflores@ci.montclair.ca.us ph: (909) 625-9412 or (909) 625-9417	http://www.ci.upland.ca.us/	No	Has a zoning map that can help for future research. Very populated city, not much room for logistics growth	Monday - Thursday: 8:00 am - 6:00 pm; Fridays closed	Unknown
Montclair		E mail N/A Ph: (909) 399-5464 Fax: (909)399-5366	http://www.ci.montclair.ca.us/depts/dev_agency/economic/default.asp	No	Has a link to search for available commercial buildings. Very populated city, not much room for logistics growth	N/A	Unknown
Claremont	Anthony Witt		http://www.ci.claremont.ca.us/ps.contact.cfm?ID=1702	No	no Information about logistics. Very populated city, not much room for logistics growth	8:00 am - 5:00 pm Monday - Friday Monday - Thursday: 8:00 am - 6:00 pm;	Unknown
La Verne	Hal G. Fredericksen	N/A ph: (909) 596-8706	http://www.ci.laverne.ca.us/index.php	No	No information. Very populated city, not much room for logistics growth	Fridays closed	Unknown

San Dimas	Larry Stevens (Assistant City manager for Community development)	lstevens@ci.sandimas.ca.us ph: (909) 394-6250	http://www.cityofsandimas.com/redevelopment.cfm	No	Not much information about logistics. No much space for logistics growth GIS map, useful for zoning and further research. Not much information in their web site have to do personal research, but no seem a promising city, may have few buildings for our project	Monday - Thursday, 7:30 am to 5:30 pm; Friday: 8:00 am to 5:00 pm	Unknown
Pomona	N/A	Email N/A ph: (909) 620-2410	http://www.ci.pomona.ca.us/city_departments/redevelopment_agency/business_development.php	No	Some useful information. A city that has switched from agricultural to a logistics hub, have to go a gather further information.	Monday - Thursday: 8:00 am - 6:00 pm; Friday 8:00 am - 5:00 pm	Yes
Chino	Earl Nelson (Redevelopment/Economic development)	redevelopment@cityofchino.org ph: (909) 590-5500 Fax: (909) 464-0777	http://www.cityofchino.org/depts/redevelopment/default.asp	No	No Information. Apparently this city is focused on attracting retail business, so I don't know if they have warehouses in their city.	Monday-Friday 7:30 am - 5:30 pm Monday, Wednesdays, and Fridays from 7:30am - 3:30 pm Tuesdays from 7:30am - 7:00 pm	Yes, Many
Chino Hills	N/A	Email N/A ph: (951) 364-2740 Fax: (951) 364-2795	http://www.chinohills.org/index.asp?NID=126	No	No information. Small city easy to research in person nothing in their web site about logistics	Provides an interactive map that gives transportation routes for trucks, and provide for some information about the warehousing areas Have Some industrial zones were mayor warehouses are located, but nothing mentioned in the web site, must go there personally	Yes, Few
Norco	Brian Oulman (Economic Development Director)	boulman@ci.norco.ca.us ph: (951) 270-5645	http://www.ci.norco.ca.us/depts/community_development/economic_development/default.asp	No		N/A	Unknown
Corona	N/A	RedevelopmentDept@ci.corona.ca.us Ph: (951) 736-2260	http://www.ci.corona.ca.us/?section=City%20Departments&page=Redevelopment	No		8:00 am - 5:00 pm Monday - Friday	Yes, Many

Lake Elsinore	N/A	Email N/A ph: (951) 671-3174 Fax:(951)674-2392	http://www.lake-elsinore.org/economicupdate.asp	No	Scarce information. Room for growth	Monday - Thursday, 8:0 am to 5:00 pm; Friday: 8:00 am to 4:00 pm	Yes
Murrieta	Simone McFarland	smcfarland@murrieta.org ph:(951) 461-6012	http://www.murrieta.org/ecdev/index.asp	No	Some information. Interesting information and looking to expand its business	Monday - Thursday, 7:30 am to 5:30 pm; Friday: 8:00 am to 5:00 pm	Unknown
Temecula	N/A	Email N/A ph: (951) 694-6418	http://www.cityoftemecula.org/Government/EconomicDev/EconomicDevelopment.htm	No	No information about logistics. Interesting city has some warehouses, must visit to obtain the complete zoning areas	Monday - Friday 8:00 am - 5:00 pm	Yes
Perris	Michael McDermott	Email N/A ph: (951) 943-6100 ext 277 Fax:(951)443-1768	http://www.cityofperris.org/economic-development/	No	No information on their web site. Currently growing in the logistics industry, need to go to the city and gather more research	N/A	Yes, Many
Moreno Valley	N/A	Email N/A ph: (951) 413-3460	http://www.ci.moreno-valley.ca.us/do_business/new-development.shtml	No	Need more information about existing warehouses, map in the site would be useful	N/A	Yes
Riverside (city)	N/A	devdept@riveraideca.gov ph: (951) 826-5649	http://www.riversideca.gov/	some partial information	Some interesting information in their web site. Need to visit the commercial designed zones to create a map and obtain addresses of business for further investigation	Monday - Friday 7am to 7pm	Yes
Riverside (county)	N/A	Email N/A Ph: (951) 955-8916 Fax:(951)955-9495	http://www.rivcoed.ca.org/	No information about existing warehouses or businesses in the logistics	Site provides useful information for building search (new buildings) Need to go to the County and talk to someone in order to get a list of locations, or cities to gather further information	Monday - Friday 8:00 am - 5:00 pm	Yes, Many

Fontana	Elisa J. Grey (Economic Development Manager) and John C. Perez (administrative assistant)	egrey@fontana.org and jperez@fontana.org ph: (909) 350-6741 Fax:(909)3506610	http://www.fontana.org/index.htm	No	Not much information about logistics in their web site. Need to go back and talk with the ED department for future plans, also, to obtain a list of areas where logistics are concentrated	Monday to Thursday from 8:00 am to 6:00 pm Closed Fridays Monday - Thursday, 7:30 am to 5:30 pm; Friday: 7:30 am to 4:30 pm	Yes, Many
San Bernardino (city)	N/A	info@sbrda.org ph: (909) 663 -1044 Fax:(909)888-9413	http://www.ci.san-bernardino.ca.us/	No	Not Much, only plans but need more investigation. Need to personally go and obtain further information	Monday - Thursday, 7:30 am to 5:30 pm; Friday: 7:30 am to 4:30 pm	Yes
San Bernardino (county)	Steve Harrington (Business Development Manager)	sharrington@d.svcounty.gov ph: (909) 3874700-4210 Fax:(909)388-4210	http://www.co.san-bernardino.ca.us/	not in their web site	Need to go back to SB county and obtain further information. Must Talk to Steve about developments, plans, and zoning to visit those Zones and map the logistics areas of interest	Monday - Thursday, 7:30 am to 5:30 pm; Friday: 7:30 am to 4:30 pm	Yes
Colton	N/A	rda@coltonrda.com ph: (909) 370-5167 Fax:(909)370-5196 Rsteel@rialto.ca.gov and Glantz@rialto.ca.gov Ph: (909) 879-1140 Fax:(909)875-5467	http://www.ci.colton.ca.us/	No	Not much information about logistics. Not much information in this site, need to gather information from other sources	Monday to Thursday from 7:00 am to 6:00 pm Closed Fridays	Yes
Rialto	Greg Lantz (Development Manager), and Robb Steel (Redevelopment Director)	sberry@cityofgrandterrace.org?Subject=EconomicDevelopment Ph: (909) 879-1140 Fax:(909)875-5467	http://www.ci.rialto.ca.us/	No	Interesting plans and land for logistics expansion. Informative site, and interesting plans	N/A	Yes
Grand Terrace	Steve Berry (assistant city manager)	dhalloway@lomalinda-ca.gov ph: (909) 430-2226	http://www.cityofgrandterrace.org/	No	Some plans for logistics. Space available for logistics growth and good location No information about logistics, wants to attract other type of businesses.	N/A Monday - Thursday, 7:00 am to 5:30 pm; Friday: Closed	Yes
Loma Linda	Dennis Halloway (City Manager)	dhalloway@lomalinda-ca.gov ph: (909) 799-2810	http://www.ci.loma-linda.ca.us/	No	No much space for logistics growth	Friday: Closed	unknown

Highland	N/A Jeffrey L. Shaw (Community Development Director) and Steven H. Dukett, Interim Redevelopment Director	Email N/A ph:(909) 864-6861	http://www.ci.highland.ca.us/	No	Some useful information. Interesting information about logistics plans and a map	Monday - Thursday, 7:30 am to 5:30 pm; Friday: Closed	Unknown
Redlands		Email N/A ph:(909) 335-4755	http://www.ci.redlands.ca.us/index.php	No	Some useful information No information available for logistics. Not much information and difficult to navigate their site also no Economic development department exists there is a community development but is not useful for our project	Monday - Thursday, 7:30 am to 5:30 pm; Friday: 8:00 am to 5:00 pm (close alternate Fridays)	Unknown
Yucaipa	N/A	Email N/A ph:(909) 797-2489 Fax:(909)790-9203	http://www.yucaipa.org/index.php	No	No information available about plans and difficult to navigate their Web site	Monday - Thursday, 7:30 am to 5:30 pm; Friday: 8:00 am to 5:00 pm (close alternate Fridays)	Unknown
Beaumont	David Dillon (economic development director)	Email N/A ph:(951) 769-8520 Fax:(951)769-8526	http://www.ci.beaumont.ca.us/index.asp	No	Planning map, Zoning Restrictions, Room for growth, but no economic development department. Difficult web site to navigate and obtain information	N/A	Unknown
Banning	Oscar Orci (Director Community Planning)	oorci@ci.banning.ca.us ph:(951) 922-3125 Fax:(951) 922-3128	http://www.ci.banning.ca.us/index.asp	No	The space reserved for Economic development is full of information some for our purposes, also provide link for other economic development organizations of the area.	8:00 am - 5:00 pm Monday - Friday	Unknown
Hemet	N/A	http://www.cityofhemet.org/forms/ed_email.htm ph:(951) 765-2308 Fax:(951)765-3785	http://www.cityofhemet.org/index.htm	Not much, only plans		8:00 am - 5:00 pm Monday - Friday	Unknown

Coachella	Lorie Williams, (Economic Development Manager), and Oriana Hoffert, (Administrative Assistant)	lwilliams@coachella.org and ohoffert@coachella.org Ph: (760) 398-3502 / Fax: (760) 398-8117	http://www.coachella.org/index.asp	No, buy talk about it in their web site	Real State listings, Large Empty Lots, Room for logistics growth. Easy Site to navigate and to gather information but not much information available about logistics GIS planner for development, Marketing plan, space for logistics growth. Easy Site to navigate and to gather information but not much information available about logistics	8:00 am - 5:00 pm Monday - Friday	Unknown
Indio	Mariano Aguirre (Development Manager) and Karen Hawkesworth Economic Development Specialist)	maguirre@indio.org and khawkesworth@indio.org ph: (760)391-4120 fax:(760)391-4027	http://www.indio.org/	No	List of projects, map of projects, Statistics, room for logistics growth. Easy Web Site to navigate and to gather information, but not much information available	8:00 am - 5:00 pm Monday - Friday	Unknown
Desert Hot Springs	Steven Mendoza (Community Development Director) and Kristie Ramos (Administrative Assistant)	Email N/A Ph: (760) 329-6411 ext 240 and 260 Fax:(760)251-6857	http://www.desert-hot-springs.us/	No, only projects	Easy Site to navigate and to gather information, but not much information available	N/A	yes

APPENDIX B

Potential Questions for Questionnaire to City's Organizations

1. Name of Company:

- Phone number:
- Contact person:
- E-mail:
- Fax number:
- Website Address:

2. Size of the Building (in square foot):

3. Hours of operation:

4. Number of employees:

5. Services provided: Please Check all that apply

- Short term Storage
- Long term storage
- Full load, Partial Load, Single Pallet, Packages
- Final destination (end of the line)
- Own distribution services,
- Provide Leased services,
- Provide Contract Services
- Cold Storage
- Perishables
- Hazardous-Materials
- Other Special Services,

6. Transit time in location (time to load, unload approximately)

7. Inbound traffic (approximate number)

8. Origin of containers/Trailers:
9. Outbound traffic (approximate number)
10. Final Destination: Local, Intrastate, Regional, Nationwide, Export
11. Volume of Throughput freight
12. Is Empty container exchange allowed?
13. Percentage of rail and/or truck usage?
14. Single vendor?
15. Number of Docks
16. Trailer Storage, How many?
17. Seasonal fluctuation?
Y N What months?
18. Warehouse Jobs (list):
19. Required Skills, Degree?
20. Logistics Software?