Marion Railroad Overpass/Underpass Feasibility Study

August 31, 2015

PREPARED FOR:

SOUTHERN ILLINOIS METROPOLITAN PLANNING ORGANIZATION

PREPARED BY:



CRAWFORD, MURPHY & TILLY, INC. 2750 W. Washington St. Springfield, IL. 62702 217.787.5050

TEAMED WITH:



CLARIDA & ZEIGLER ENGINEERING, CO

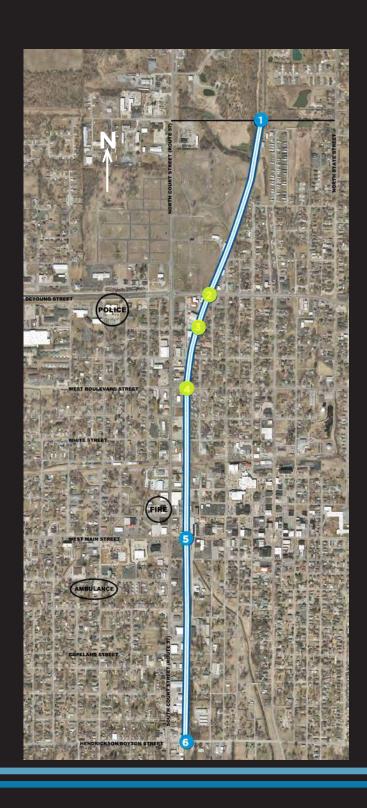


Table of Contents

SECT	ION 1 - INTRODUCTION	
A.	Purpose of the Study:	
B.	Project History & Previous Studies	
C.	Project Location and Study Area	2
SECT	ION 2 - EXISTING SETTINGS AND CONDITIONS	3
A.	Description of Project Area	-
В.	Project Limits (Logical Termini)	
C.	Land Use	
D.	Existing and Projected Traffic Volumes (Capacities and Deficiencies)	
E.	Crash Statistics	
F.	Alignment and Profile Deficiencies	
G.	Utility Conflicts	8
SECT	ION 3 - DESIGN GUIDELINES	10
A.	Design Criteria and Common Design Features	
Д. В.	Structure Summary	
C.	Railroad Summary	
D.	Local Requirements	
E.	Complete Streets	
	·	
SECT	ION 4 - ALTERNATIVES CONSIDERED	
Α.	Initial Alternative Screening	
B.	Secondary Alternative Screening	
a.		
b.	 	
C.		
d.		
e. f.	Boyton Street / Hendrickson Street	
C.	·	
o. a.		
b.		
C.		
d.		
e.		
f.	Boyton Street / Hendrickson Street	
0=0=		
	ION 5 - ANALYSIS OF ALTERNATIVES RETAINED FOR FURTHER STUDY Traffic Utilization	
A. B.		
Б. С.	Cost Estimates	
D.	Evaluation Matrix	
Ъ.	LValuation Matrix	20
SECT	ION 6 - SUMMARY OF PUBLIC INVOLVEMENT	
A.	Coordination with Illinois Commerce Commission (4/15/15)	
B.	Stakeholder Meeting (4/21/15)	
C.	Public Information Meeting (5/13/15)	
D.	Identification of Criteria for Implementing Next Step of Study	30
SECT	ION 7 – RECOMMENDATIONS AND CONCLUSIONS	24
A.	Recommended Alternatives	
А. В.	Design Exceptions	
C.	Traffic Management During Construction	
D.	Closing Existing At-Grade Crossings	
E.	Project Implementation	

Summary of Exhibits:

Exhibit 1 City of Marion Map

Exhibit 2 Crash Map

Exhibit 3 Roadway Functional Classification Map

Exhibit 4 Public Involvement Meeting Information

Exhibit 5 U.S.G.S. Map

Exhibit 6 IDOT Average Daily Traffic (ADT) Volumes

Exhibit 7 Proposed Final Alternative Corridor Plan & Profiles

7a. DeYoung Street (IL Route 13) Overpass

7b. Belcher Street Overpass7c. Belcher Street Underpass7d. Boulevard Street Underpass

Exhibit 8 Flood Insurance Rate Maps

Exhibit 9 Utility Facility Maps

Exhibit 10 Project Site Photos

Exhibit 11 Record Railroad Right-of-Way Maps

Exhibit 12 Marion Historic Places

Exhibit 13 Stakeholder Coordination

SECTION 1 - INTRODUCTION

A. Purpose of the Study:

The purpose of this report is to investigate the feasibility and preferred location of a new grade separation structure (overpass or underpass) across the Union Pacific Railroad (UP) within the City of Marion, Illinois. Presently, all railroad crossings within the city limits of Marion are at-grade. The closest UP Railroad grade separation structure to Marion is an overpass carrying both the Burlington Northern Santa Fe (BNSF) Railroad and UP Railroad over Interstate 24, approximately ten miles south of Marion. This crossing is outside the city limits and is maintained by IDOT. IDOT has recently constructed a grade separation structure carrying IL Route 13 over the BNSF Railroad, approximately 2.8 miles west of the UP Railroad crossing. The City has identified a need for a grade separation structure over the UP Railroad to provide:

- 1) uninterrupted automobile traffic flow across the existing railroad tracks;
- 2) reduce the barrier effect that the railroad corridor has on the city;
- 3) eliminate at-grade railroad crossing(s) and the hazards associated with them;
- 4) improved highway and rail safety by eliminating train and vehicle/pedestrian conflicts; and
- 5) improved emergency response activities currently disrupted by train traffic.

Three railroads travel through the City of Marion with nearly all crossings occurring at-grade. The Union Pacific Railroad, the subject railroad of this study, travels north-south through the center of the historic central portion of Marion. The Burlington Northern Santa Fe Railroad also travels north-south, but further west through the newer commercial area of Marion. The Crab Orchard & Egyptian Railroad travels east-west through the middle of Marion. The BNSF and UP have a variable number of trains running through town on a daily basis. In their efforts to provide a more cost effective service to their customers, they have increased the lengths of trains. Most freight trains have in excess of 100 cars and are greater than one mile in length.

While the city views the existence of these rail lines as an asset and economic resource to the community, they also add to the ongoing constraint and disruption of vehicular traffic flow. This leads to concerns about providing emergency services in a timely manner and the delays in the movement of vehicles and people in either direction when at-grade crossings are blocked by trains. Most of the emergency services facilities including a police station, a fire department and hospitals are predominately located on the west side of the tracks, while the town square and large commercial and residential areas are located on the east side of the tracks.

B. Project History & Previous Studies

Marion is the county seat of Williamson County and an important economic center of the region. The community of Marion has a long history of commercial and industrial stability, even at a time when other small rural towns were experiencing a decline. The City of Marion population is growing at 1% per year, a rate higher than the statewide average and faster than the population of Williamson County. Marion is the second largest city in southern Illinois with a population of 17,193 (2010 census). Williamson County is one of five counties within the Metro Lakeland area (Jackson, Williamson, Franklin, Saline and Perry counties). The Metro Lakeland area has a population of approximately 210,000.

Throughout the years there have been attempts by the City to initiate a grade separation project. A preferred location for the grade separation has not previously been identified. This grade separation feasibility study includes all reasonable corridors within the City of Marion.

C. Project Location and Study Area

This study will consider each of the existing UP railroad crossings within the City of Marion, as well as potential new roadways. There are eleven existing crossings, which are described in Section 4. These crossings have an Average Daily Traffic (ADT) ranging from 200 (Copeland Street) to 20,500 (DeYoung Street – IL Route 13).

The highest traveled corridor of the existing crossings is IL Route 13 (DeYoung Street). Illinois Route 13 connects several major communities in the area; Murphysboro, Carbondale, Carterville, Marion and Harrisburg, Illinois. Illinois Route 13 is a 4-lane principal arterial that was recently widened to 6-lanes on either side of the I-57 interchange. Murphysboro is 22 miles west of the I-57 interchange and has a population of 13,295. Carbondale is the largest city in southern Illinois with a population of 20,681 and lies 14 miles to the west. Harrisburg is 23 miles to the east and has a population of 9,860.

Interstate 57 is the primary north-south highway within southern Illinois. Several communities lie along the I-57 corridor. Mount Vernon is 45 miles to the north with a population of 16,358. Smaller communities between Mount Vernon and Marion include Benton, West Frankfort and Johnston City.

The IL Route 13 and I-57 interchange is one of three interchanges that serve the City of Marion, Illinois. The interchange of Old Illinois Route 13 (West Main Street) is a recently reconstructed two-quadrant, partial cloverleaf interchange approximately 0.8 miles to the south. The other interchange that serves Marion is the interchange of I-57 and The Hill.

The population for the City of Marion has increased by 7.1 percent since the 2000 census. A majority of the population is White at 87.8 percent with the next largest race being Black or African American at 7.4%. This compares to the statewide average of 71.5% White and 14.6% Black or African American. Marion's population is also older than the statewide average, as shown in the following table.

Population Percentage By Age	Marion, Illinois	State of Illinois	National
Persons 0 to 24 years	30.9%	34.1%	34.0%
Persons 25 to 44 years	28.4%	31.0%	30.3%
Persons 45 to 64 years	25.1%	26.1%	26.4%
Persons 65 years and over	18.9%	12.5%	13.0%

The estimated median household income in 2012 was \$37,397, which is 32% below the statewide average of \$55,137. The estimated median home value is also below the statewide average at \$111,293 compared to the statewide value of \$170,600. The unemployment rate of 11.9% in 2010 was higher than the statewide (8.6%) and national averages (7.9%). Approximately 14.9% of the population have income below the poverty level, which is higher than the state average of 10.7%.

Marion has a high percentage of high school graduates, but a lower number of college graduates. 87.7% of the population 25 years old and over in Marion have a high school degree or higher, which is higher than the state average of 87.3%. For a bachelor's degree of higher, the City of Marion 24.2% is below both the state (31.4%) and national averages (28.8%).

SECTION 2 - EXISTING SETTINGS AND CONDITIONS

A. Description of Project Area

The improvement being considered is an overpass or underpass grade separation of the Union Pacific R.R. that runs through Marion in a north-south direction. The railroad generally lies approximately 250 feet east of and parallel to Court Street (IL Route 37) from Concord Street north to Stockton Street. This close proximity of a major north-south route to the railroad is a constraint for raising or lowering the cross street to grade separate the crossing. The small separation could result in grade changes on Court Street (IL Route 37) in order to make the necessary approach to the grade separation on the side street.

Near Stockton Street the railroad starts veering in a northeasterly direction away from IL Route 37. At the existing DeYoung Street (IL Route 13) crossing the railroad lies approximately 600 feet east of IL Route 37.

Most of the area from Concord Street on the south up to IL Route 13 on the north is commercial with businesses located west of the railroad. East of the railroad and north of White Street the area is predominately residential. The area south of White Street is predominately business/commercial down to Concord Street.

There are sidewalks on both sides of Court Street (IL Route 37) and some of the routes that cross the railroad. The description of the crossing routes in Section 4.A includes whether or not any of the cross streets include sidewalks. There is also a shared use path along IL Route 13 that starts at Court Street and continues westward, it is located behind the back of curb for the first block and then separates into a standard 5 foot sidewalk with an on road bike accommodation. There are no other dedicated bicycle facilities along any of the remaining existing cross street corridors and no formal bicycle plan exists for the city.

B. Project Limits (Logical Termini)

In initial stages of the study, potential crossings were considered from Robinson Street on the north to Concord Street on the south. After the initial Public Hearing, Robinson Street and Concord Street were dropped from consideration due to the distance away from the emergency services and the length of travel required when the mainline roads/streets were blocked by train movements. Consequently, the limits of the study were refined to include IL Route 13 on the north to Boyton/Hendrickson Street on the south.

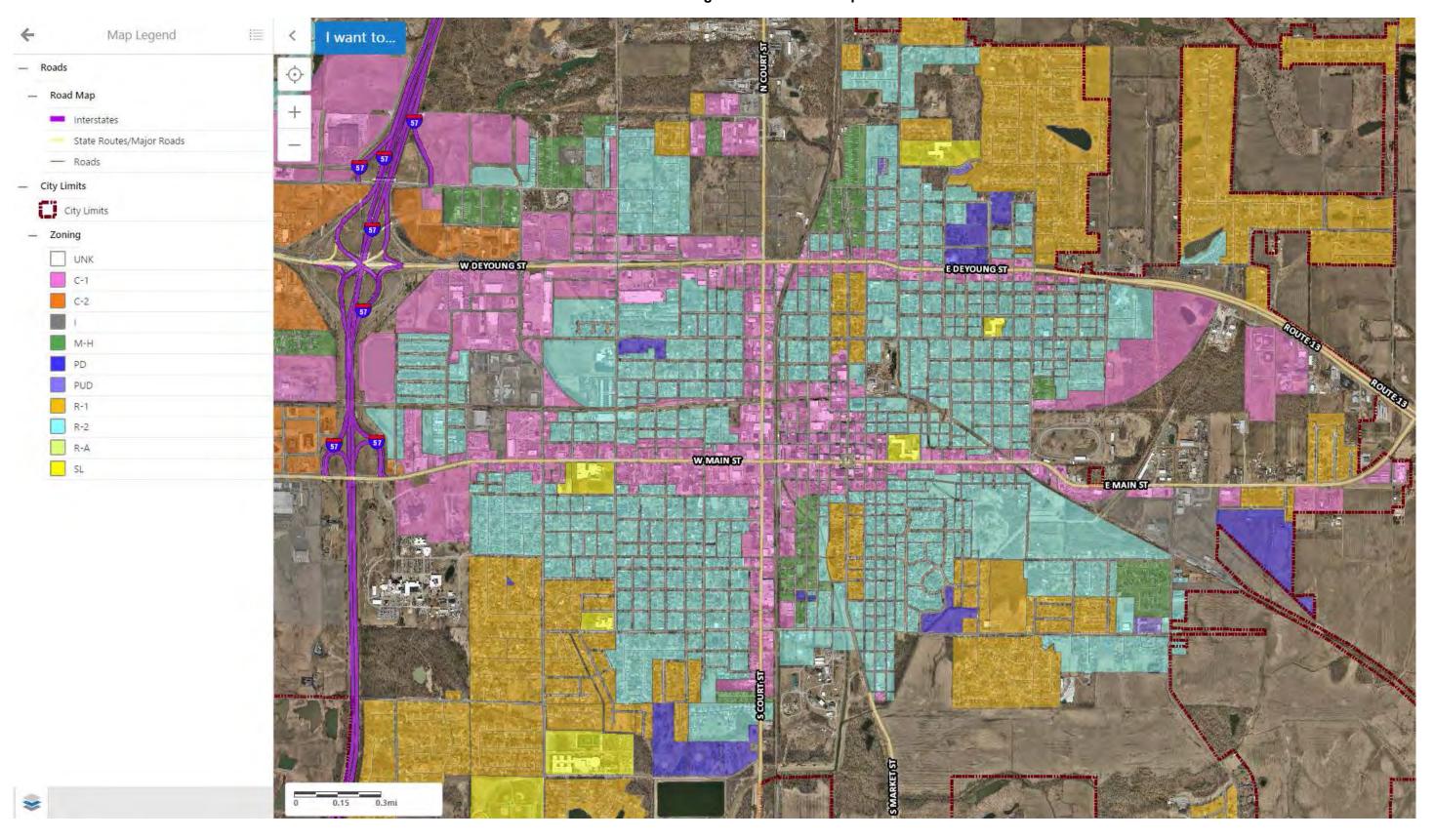
C. Land Use

Figure 1 shows the Land Use Map for the City of Marion. Commercial zoning exists along DeYoung Street (IL Route 13), Court Street (IL Route 37) and Main Street. Additional commercial areas surround the town square. The west side of the railroad is commercial throughout the corridor. The east side of the railroad includes commercial and residential portions.

The City of Marion map shown in **Exhibit 1** includes locations of Parks, Schools, Municipal Facilities, Emergency Services, Hospitals, and main road thoroughfares through the City. Emergency services are situated at the following locations:

- VA Medical Center Main Street & I-57 (West of UP Railroad)
- Heartland Regional Medical Center IL Route 13 & Bainbridge Trail (West of UP Railroad)
- Fire Station Union Street & Court Street (West of UP Railroad)
- Police Station IL Route 13 & Highland (West of UP Railroad)

Figure 1 - Land Use Map



Page 4 Marion Railroad Crossing Feasibility Study

D. Existing and Projected Traffic Volumes (Capacities and Deficiencies)

Vehicular Traffic Data:

Existing traffic counts were obtained from the Illinois Department of Transportation for the years 2011-2012¹. Truck percentages for each crossing were provided in the railroad crossing inventory². The percent of trucks ranges from 0-25 percent.

Historic traffic data is available along IL Route 13. The average annual growth rate for these locations is 0.7%, with the highest location being at Halfway Road where the traffic along IL Route 13 grew at an average of 1.3% annually. The historic traffic data shows a general slowing of the traffic growth along IL Route 13 over the last five to ten years.

Train Traffic Data:

There are currently four reported trains per day on the UP Railroad³. However, the majority of train traffic and customer contracts are set on a monthly basis. At any given time there could be either an increase or decrease in train traffic based on customer needs and contracts. Recent observations by local residents and businesses have identified over ten trains a day in recent years. The reported train speed through Marion is 49 miles per hour.

E. Crash Statistics

Crash data was collected for the study area from 2010 to 2013. A graphical representation of the crash data is shown in **Exhibit 2**. Analysis of this data reveals that crashes occur more frequently on the higher volume routes and are more concentrated at signalized intersections.

A grade separated crossing would have a positive impact on roadway safety. In addition to reducing potential vehicle-train conflicts, vehicular crashes could be reduced as well. Traffic congestion that occurs from train blockage contributes to rear end accidents. In addition to congestion on the routes crossing the railroad, the local network can also become congested as traffic attempts to avoid blocked crossings. Attempts to avoid blocked crossings can often lead to more aggressive driving behaviors, which can be a contributing factor to crashes.

Train accident data was received from the Federal Railroad Administration - Office of Safety Analysis and covers all of the accident data recorded at the at-grade crossings as shown in **Table 1**.

The at-grade crossings in Marion have seen 3 fatalities and 26 injuries during the reporting period (1955-2012). Two of the fatalities are recent occurring in 2008 at the Boulevard crossing and in 2012 at the Boyton Crossing. The Main Street crossing has the highest number of injuries with 7 occurring during 6 collisions.

¹ http://www.gettingaroundillinois.com/gai.htm?mt=aadt

² http://safetydata.fra.dot.gov/OfficeofSafety/publicsite/Query/PublicGradeCrossingInventoryByStateCounty.aspx

³ http://safetydata.fra.dot.gov/OfficeofSafety/publicsite/Query/PublicGradeCrossingInventoryByStateCounty.aspx

Table 1 - Historic Crossing Accident Data

Crossing	Date / Time	ADIE 1 - HIS Reported By	Fat.	Inj.	RR- Equip	Vehicle	Accident Type	Warning Device	Weather
Longstreet	6/29/1977 7:25	CEI / C	0	1	Frght	Truck	Veh-Trn	Unk	Clear
	11/24/1979 16:30	MP / CC	0	0	Frght	Auto	Trn-Veh	Unk	Clear
	5/29/1986 7:44	MP / CC	0	0	Frght	Truck	Trn-Veh	Xbuck	Clear
	SUBTOTAL	•	0	1		•		•	
DeYoung	12/4/1956 19:35	CEI / C	0	1	Frght	Ped	Ped	Unk	Unknwn
(IL 13)	12/9/1958 17:50	CEI / C	0	0	Frght	Truck	Trn-Veh	Unk	Unknwn
	6/30/1969 15:15	CEI / C	0	0	Frght	Auto	Veh-Trn	Unk	Clear
	1/7/1975 9:45	CEI / C	0	0	Frght	Auto	Trn-Veh	Unk	Clear
	2/12/1976 18:30	CEI / C	0	1	Frght	Auto	Trn-Veh	Unk	Clear
	3/24/1980 15:49	MP / CC	0	1	Frght	Auto	Trn-Veh	Unk	Clear
	2/11/1981 23:05	MP / CC	0	2	Swtch	Truck	Trn-Veh	Flash	Clear
	7/30/1990 11:05	UP / CC	0	0	Frght	Auto	Trn-Veh	Cant	Clear
	10/27/1992 16:05	UP / CC	0	0	Frght	Auto	Trn-Veh	Cant	Clear
	5/1/1993 2:00	UP / CC	0	0	Frght	Auto	Veh-Trn	Cant	Cloudy
	11/19/1997 5:23	UP / CC	0	0	Other	Truck	Trn-Veh	Cant	Clear
	SUBTOTAL		0	5					
Boulevard	2/1/1955 13:00	CEI / C	0	0	Frght	Auto	Trn-Veh	Unk	Unknwn
	5/21/1973 16:05	CEI / C	0	0	Frght	Auto	Veh-Trn	Unk	Clear
	1/13/1975 15:10	CEI / C	0	1	Frght	Auto	Trn-Veh	Unk	Clear
	6/15/1982 8:20	MP / CC	0	0	Frght	Truck	Veh-Trn	Xbuck	Clear
	8/30/1982 8:15	MP / CC	0	1	Frght	Auto	Trn-Veh	Xbuck	Cloudy
	4/15/1986 16:40	MP / CC	0	0	Frght	Auto	Trn-Veh	Xbuck	Clear
	10/24/1996 3:37	UP / CC	0	1	Frght	Truck	Trn-Veh	Flash	Clear
	6/23/2008 4:54	UP /	1	1	Frght	Truck	Trn-Veh	Flash	Cloudy
	SUBTOTAL		1	4					
Goodall St	1/18/1963 16:10	CEI / C	0	0	Frght	Auto	Trn-Veh	Unk	Unknwn
White St	4/22/1966 7:10	CEI / C	0	0	Frght	Auto	Trn-Veh	Unk	Cloudy
	11/24/1993 16:53	UP / CC	0	1	Frght	Truck	Trn-Veh	Xbuck	Clear
	SUBTOTAL		0	1					
Jackson St	There is no collisio	n history for	this cro	ssing.					
Union St	9/17/1958 13:30	CEI / C	0	0	Frght	Truck	Trn-Veh	Unk	Unknwn
	1/17/1976 13:15	CEI / C	0	0	Frght	Truck	Trn-Veh	Unk	Clear
	12/19/1977 16:39	MP / CC	0	1	Frght	Auto	Trn-Veh	Unk	Clear
	8/17/1983 19:05	MP / CC	0	2	Other	Auto	Trn-Veh	Xbuck	Clear
	SUBTOTAL		0	3					

Table 1 (con't)

Crossing	Date / Time	Reported By	Fat.	Inj.	RR- Equip	Vehicle	Accident Type	Warning Device	Weather
W Main St	8/23/1955 9:35	CEI / C	0	1	Other	Truck	Veh-Trn	Unk	Unknwn
	10/11/1958 1:48	CEI / C	0	1	Pass	Truck	Trn-Veh	Unk	Unknwn
	11/17/1973 10:30	CEI / C	0	0	Frght	Auto	Trn-Veh	Unk	Clear
	11/15/1977 21:45	MP / CC	0	0	Frght	Auto	Trn-Veh	Unk	Cloudy
	11/10/1979 8:00	MP / CC	0	1	Frght	Auto	Trn-Veh	Unk	Cloudy
	10/1/1981 15:25	MP / CC	0	1	Frght	Auto	Trn-Veh	Flash	Clear
	2/18/1982 0:35	MP / CC	0	0	Frght	Truck	Veh-Trn	Flash	Fog
	3/23/1984 11:30	MP / CC	0	2	Frght	Auto	Trn-Veh	Cant	Clear
	5/11/2008 14:05	UP /	0	1	Frght	Auto	Trn-Veh	Cant	Cloudy
	11/21/2008 5:45	UP /	0	0	Frght	Truck	Veh-Trn	Cant	Clear
	SUBTOTAL		0	7					
College St	7/16/1962 12:01	CEI / C	0	0	Frght	Auto	Trn-Veh	Unk	Unknwn
	3/4/1969 18:25	CEI / C	0	0	Frght	Auto	Trn-Veh	Unk	Clear
	12/9/1978 16:45	MP / CC	0	1	Frght	Truck	Trn-Veh	Unk	Cloudy
	3/27/1981 14:20	MP / CC	0	1	Frght	Truck	Trn-Veh	Xbuck	Clear
	10/16/1982 14:00	MP / CC	0	0	Frght	Truck	Trn-Veh	Xbuck	Clear
	12/22/1990 10:00	UP / CC	0	0	Frght	Auto	Veh-Trn	Xbuck	Snow
	5/16/1991 14:40	UP / CC	0	0	Frght	Auto	Trn-Veh	Xbuck	Clear
	1/22/1994 15:15	UP / CC	0	1	Frght	Auto	Trn-Veh	Xbuck	Cloudy
	SUBTOTAL		0	3					
Copland St	2/1/1980 14:30	MP / CC	0	1	Other	Auto	Veh-Trn	Unk	Clear
Boyton	1/22/1956 22:15	CEI / C	1	0	Frght	Auto	Trn-Veh	Unk	Unknwn
	4/1/1957 23:15	CEI / C	0	1	Frght	Truck	Veh-Trn	Unk	Unknwn
	3/2/2012 23:40	UP /	1	0	Frght	Ped	Ped	C & G	Clear
	SUBTOTAL		2	1					
TOTAL			3	26					

F. Alignment and Profile Deficiencies

Existing roadway alignments and profiles were reviewed based on current geometric design policy as provided in the Illinois Department of Transportation *Bureau of Design and Environment Manual -* 2014 for the IL Route 13 corridor and the Illinois Department of Transportation *Bureau of Local Roads and Streets Manual* for the remaining local road corridors.

Due to the relatively flat roadway profile and the predominately tangent alignments, there were no identified deficiencies within the existing corridors.

G. Utility Conflicts

Each potential corridor was reviewed to determine the type and size of utilities within the corridor that could become a conflict for a potential overpass or underpass structure. See **Exhibit 9** for record utility facility maps. The following is a summary of the utilities identified:

DeYoung Street

- 6" & 10" water lines crossing UPRR
- 8" water line along Railroad Street & Cemetery at DeYoung Street
- Additional 10" water line just east of tracks on DeYoung Street
- Overhead Ameren Utility (south side).
- 6" sewer line crossing UPRR
- 8" sanitary sewer line along Railroad Street at DeYoung Street
- 6" sanitary sewer line along Granite Street at DeYoung Street
- 6" storm sewer line along Railroad Street at DeYoung Street
- 8" storm sewer along DeYoung Street east of Granite Street

Belcher Street

- 8" water line along Railroad Street at Belcher Street
- 6" & 2" along Granite Street at Belcher Street
- Overhead Ameren Utility (south side).
- 8" sanitary sewer line along Railroad Street at Belcher Street
- 6" sanitary sewer line along Granite Street at Belcher Street
- 6" storm sewer line along Railroad Street at Belcher Street
- 6" storm sewer line along Granite Street at Belcher Street

Boulevard Street

- 4" water line crossing UPRR
- 4" water line along Court Street at Boulevard Street
- 8" water line along Granite Street at Boulevard Street
- Overhead Ameren Utility (north side).
- 6" sanitary sewer line crossing UPRR
- 8" sanitary sewer line along Court Street at Boulevard Street
- 8" sanitary sewer line along Granite Street at Boulevard Street
- 8" storm sewer line along Court Street at Boulevard Street

• 6" storm sewer line along Granite Street at Boulevard Street

Goodall Street

- 8" water line along Court Street at Goodall Street
- 8" water line along Granite Street at Goodall Street
- Overhead Ameren Utility (south side west of Court Street, north side east of Court St).
- 8" & 4" sanitary sewer lines along Court Street at Goodall Street
- 8" & 4" sanitary sewer lines along Granite Street at Goodall Street
- 12" storm sewer line along Court Street at Goodall Street
- 10" storm sewer line along Granite Street at Goodall Street

White Street

- 4" water line crossing UPRR
- 8" water line along Court Street at White Street
- 8" water line along Granite Street at White Street
- 4" sanitary sewer line crossing UPRR
- 8" & 4" sanitary sewer lines along Court Street at White Street
- 8" & 4" sanitary sewer lines along Granite Street at White Street
- 12" storm sewer line along Court Street at Goodall Street
- 10" storm sewer line along Granite Street at Goodall Street

Jackson Street

- 8" water line along Court Street at Jackson Street
- 2" water line along Granite Street at Jackson Street
- 10" water line along Holland Street at Jackson Street
- 8" sanitary sewer line along Court Street at Jackson Street
- 12" storm sewer line along Court Street at Jackson Street

 14" storm sewer line along Granite Street at Jackson Street

Union Street

- 6" water line crossing UPRR
- 8" water line along Court Street at Union Street
- 10" water line along Holland Street at Union Street
- Overhead Ameren Utility (north side).
- 6" sanitary sewer crossing UPRR
- 8" sanitary sewer line along Court Street at Union Street
- 12" storm sewer line along Court Street at Union Street
- 14" storm sewer line along Granite Street at Union Street

Main Street

- 6" water line crossing UPRR
- 6" & 8" water lines along Court Street at Main Street
- 10" water line along Holland Street at Main Street
- 4' Concrete Pipe Storm Sewer
- 20' x 6' Concrete Channel Storm Sewer
- Overhead Ameren Utility (north side west of Court Street, south side east of Court St).
- 6" sanitary sewer crossing UPRR
- 6" sanitary sewer line along Court Street at Union Street
- 10" sanitary sewer line along Holland Street at Union Street
- 12" storm sewer line crossing UPRR
- 12" storm sewer line along Court Street at Main Street
- 14" storm sewer line along Granite Street at Main Street

College Street

- 6" water line along Court Street at College Street
- 10" water line along Holland Street at College Street
- 6" sanitary sewer line along Court Street at Union Street
- 10" sanitary sewer line along Holland Street at Union Street
- 12" storm sewer line along Court Street at Main Street
- 14" storm sewer line along Granite Street at Main Street

Copeland Street

- 10" water line crossing UPRR
- 4" & 6" water lines along Court Street at Copeland Street
- 10" water line along Holland Street at Copeland Street

Boyton Street

- 6" water line crossing UPRR
- 4" & 6" water lines along Court Street at Boyton Street
- 10" water line along Holland Street at Boyton Street
- Overhead Ameren Utility (south side west of Court Street, north side east of Court St).
- 6" sanitary sewer crossing UPRR
- 4" sanitary sewer line along Court Street at Boyton Street
- 4" sanitary sewer line along Holland Street at Boyton Street
- 10" storm sewer line crossing UPRR
- 6" storm sewer line along Court Street at Boyton Street
- 6" storm sewer line along Granite Street at Boyton Street

SECTION 3 - DESIGN GUIDELINES

A. Design Criteria and Common Design Features

Design guidelines for a proposed roadway / structure facility plays an important role in ensuring that the final infrastructure improvement meets the needs for the traveling public in a safe and efficient manner. For most roadway and bridge projects, design guidelines are generally governed by the following items:

1.) Funding source;
2.) Functional classification of the facility;
3.) Jurisdictional agency the facility is covered by; and 4.) Type of improvement. Because the corridors being studied differ in many of these categories, the design guidelines vary slightly for each.

Funding source plays an important role in determining the necessary design criteria. Funding for the design and construction has not been determined or secured. If the City anticipates pursuing Federal funding for this project on a local road, the proposed design will need to be consistent with the Federal - Aid Procedures for Local Highway Improvements, Figure 5-8g, Design Guidelines for Urban Streets.

Functional classification is one of the most important determining factors in roadway planning and design. The concept recognizes that the public highway network in Illinois serves two basic and conflicting functions; access to property and travel mobility. The functional classification system provides the foundation for highway planning functions and the framework for determining the geometric design of roadways and streets. Once the function of the highway facility is defined, the designer can select an appropriate design speed, roadway width, roadside safety elements, amenities and other design guidelines/procedures. See **Exhibit 3** for Functional Classification Map.

Another design consideration for the development of a proposed roadway facility is the jurisdictional agency the roadway is operated and maintained by. Since DeYoung Street (IL Route 13) and Court Street (IL Route 37) are both state routes under the jurisdiction of the Illinois Department of Transportation, all design considerations shall be in accordance with the IDOT Bureau of Design and Environment (BDE) Manual, in addition to the Federal-Aid Procedures for Local Highway Improvements, (FAPHLI) Figure 5-8g, Design Guidelines. The remaining roadways are local roads under the jurisdiction of the City of Marion. Therefore, the design shall comply with the IDOT Bureau of Local Roads and Streets (BLRS) Manual along with any City of Marion ordinance requirements, which typically has greater flexibility in design criteria since the roadways are of a lesser functional classification and will be owned and operated by the local agency constructing the improvement.

To a lesser extent, the type of improvement being constructed also has an impact on the design criteria. For projects in urban areas with right-of-way constraints or other minor improvements like widening and resurfacing, design allowances can be considered per IDOT design manuals and sometimes allow more lenient criteria when providing full design policy is not feasible. These "design allowances" should be evaluated on a case by case basis by the designer and the review agencies involved.

For the most part, the FAPHLI guidelines in conjunction with the BDE Manual and the BLRS Manual will serve as the design policies for the proposed roadway improvements. See **Table 2** for the proposed design criteria.

Table 2 - Design Criteria

	IL 13	IL 37	Boulevard	Belcher
	Urban			
	Arterial	Urban	Urban	Urban
Functional Classification	(Expressway)	Arterial	Major Collector	Local Street
Design Speed (mph)	40	35	30	25
Level of Service	С	С	D	D
Lane Width (desirable)	12 ft	12 ft	12 ft	12 ft
Curb and Gutter Type	B6.24	B6.24	B6.18	B6.18
Clear Zone (Urban)	1.5 ft	1.5 ft	1.5 ft	1.5 ft
Minimum Radii	535 ft	371 ft	230 ft	145 ft
Sidewalk Width (min.)	5 ft	5 ft	4 ft	4 ft
Maximum Sidewalk Grade	5%	5%	5%	5%
Minimum Total Width F to F	Exist.	Exist.	30'	30'
Stopping Sight Distance	305 ft	250 ft	200 ft	155 ft
Intersection Sight Distance	445 ft	445 ft	335 ft	280 ft
Maximum Vertical Grade	8%	8%	9%	9%
Maximum Vertical Grade (des.)	6%	6%	7%	7
Minimum Vertical Grade	0.3%	0.3%	0.3%	0.3%
Rate of Vertical Curvature				
Crest	44	29	19	12
Sag	64	49	37	26
Sag- Under lighted bridge	35	N/A	20	N/A
Bridge Clearance				
Railroad over roadway	16'-6"	N/A	14'-9"	14'-9"
Roadway over railroad	23'-4"	N/A	23'-4"	23'-4"

Notes:

- 1.) Criteria for the design of city streets will be in accordance with the requirements for new construction/reconstruction in IDOT's "Bureau of Local Roads Manual", pending more restrictive city of Marion Standards and Ordinances.
- 2.) Criteria for the design of state highways will be in accordance with the requirements for new construction/reconstruction in IDOT's "Bureau of Design and Environment Manual".
- Criteria for the design of new or reconstructed rail line will be in accordance with the requirements of the operating railroad company, the Federal Railroad Administration (FRA), or the American Railway Engineering and Maintenance of Way Association (AREMA).

B. Structure Summary

All proposed bridge structures shall be designed to the applicable State and Federal guidelines. Additionally, all necessary railroad design guidelines, including clearances and local agency requirements, would need to be coordinated and design concurrence obtained.

C. Railroad Summary

All corridors cross the Union Pacific Railroad. Coordination with the railroad agency will be required to ensure that the railroad's design criteria and preferences are being met. Any structure constructed over railroad facilities should allow for additional rail lines and necessary clearances. All crossings with the UP Railroad shall be completed in accordance with their "Guidelines for Railroad Grade Separation Projects" as available from their web site⁴. Criteria for the design of new or reconstructed rail line will be in accordance with the operating railroad company, the Federal Railroad Administration (FRA), or the American Railway Engineering and Maintenance-of-Way Association (AREMA).

D. Local Requirements

The City of Marion does not have a comprehensive roadway design guideline, nor do they have specific design guidelines established within their local ordinances. It is anticipated that all roadway and bridge guidelines will follow the necessary design standards and criteria established by the Illinois Department of Transportation in order to qualify the project for either Federal or State funding. As this project continues to develop, it may be necessary to include specific requests and/or design elements proposed by the City that are above and beyond the minimum Federal or State requirements.

E. Complete Streets

The conceptual designs considered in this analysis include utilizing the cross section of the existing roadway. Inclusion of complete street enhancements to the proposed corridors would increase the total cost of each alternative. The addition of a sidewalk and multiuse path would increase the bridge width (overpass) or bridge length (underpass) by a least 15 feet. Additionally the earthwork, retaining wall, and right of way cost would also increase. The total impact to the project cost could reach or exceed 15-20 percent with these additional considerations.

As an alternative to providing a sidewalk and/or multiuse path accommodations along the corridor, enhancements could be made to an adjacent corridor. This could prove to be a less expensive alternative and would not concentrate all of the vehicular and non-motorized (ped and bike) traffic into one corridor, which increases the potential for conflicts or crashes.

_

⁴ http://www.up.com/cs/groups/public/documents/document/pdf_rr_grade_sep_projects.pdf

SECTION 4 - ALTERNATIVES CONSIDERED

There were a wide range of initial alternative locations for the proposed grade separation considered as part of the feasibility study. The existing at-grade railroad crossings were all considered as well as two new crossings, for a total of 13 locations.

A. Initial Alternative Screening

In an effort to focus the scope of this feasibility study, a tiered screening process was used to reduce the number of potential crossings to evaluate in detail. The following section and **Table 3** summarizes the 11 existing crossing locations in Marion presented in order from north to south.

Longstreet Road

The Longstreet Road is a two lane asphalt roadway on the northern end of Marion. The roadway width is approximately 22 feet and does not have paved shoulders and has open The roadway is lightly drainage. traveled with an ADT of 1,000 vehicles per day and does not have longitudinal pavement markings. The area around Longstreet is lightly developed with a VFW Hall on the west side of the crossing and power company facility on the east side of the crossing. The



remainder of land use in the area is primarily agricultural and residential.

DeYoung Street (IL 13)

The DeYoung Street (IL Route 13) crossing is the most heavily traveled crossing in the City of Marion, with an ADT of 20,500. IL Route 13 is five lanes wide at the crossing with a pavement width of approximately 62 feet. There are sidewalks along portions of DeYoung Street, but there are some gaps in the sidewalk network. IL Route 13 is a major commercial corridor through Marion



and connects several major communities in the area. IL Route 13 is a 4-lane principal arterial that was recently widened to 6-lanes west of the study area. There is a large cemetery on the northwest quadrant of the railroad crossing. Impacts to the cemetery would need to be avoided or minimized.

Boulevard Street

Boulevard Street is a two lane roadway at the UP Railroad crossing. East of the crossing it is an asphalt roadway. West of the crossing, Boulevard Street is constructed of concrete pavement and widens to a three lane roadway with a left turn lane at the signalized Court Street (IL 37) intersection. The roadway width is approximately



30 feet at the crossing with concrete curbs and sidewalks. The roadway is one of the more heavily traveled with an ADT of 5,300 vehicles per day. Most of the buildings are offset from Boulevard Street by at least 45 feet from the edge of pavement. Adjacent land use is commercial to the west of the crossing and residential to the east.

Goodall Street

Goodall Street is a two lane asphalt roadway at the UP Railroad crossing. West of the crossing Goodall Street intersects Court Street (IL 37) and is offset from the remainder of Goodall Street by 50 feet. The roadway width is approximately 20 feet at the crossing with open drainage and sidewalks. The roadway is lightly



traveled with an ADT of 550 vehicles per day. Adjacent land use is commercial to the west of the crossing and residential to the east. The discontinuous alignment to the west makes this route less traveled and less attractive for a crossing enhancement.

White Street

White Street is a two lane asphalt roadway at the UP Railroad crossing. White Street crosses the UP Railroad near the intersection with the Crab Orchard and Egyptian Railway. A second track crosses White Street that allows for train traffic to turn from one set of tracks to the other. The roadway width is



approximately 22 feet at the crossing. There are sidewalks along most of White Street. The roadway is lightly traveled with an ADT of 500 vehicles per day. Adjacent land use is commercial to the west of the crossing and residential to the east. The second railroad track at this location would require a wider bridge to accommodate both lines, making this a location less attractive for a crossing enhancement.

Jackson Street

Jackson Street is a two lane concrete roadway at the UP Railroad crossing. Jackson Street terminates one block west of the crossing at Court Street (IL 37). The roadway width is approximately 30 feet at the crossing. The roadway is lightly traveled with an ADT of 750 vehicles per day. Adjacent land use is commercial and industrial. Jackson Street's T-intersection



at Court Street would minimize the utilization of a grade separated crossing at this location.

Union Street

Union Street is a two lane asphalt roadway with open drainage at the UP Railroad crossing. The roadway width is approximately 27 feet at the crossing. The right of way is narrow with several buildings close to the edge of the roadway. The roadway is lightly traveled with an ADT of 700 vehicles per day. Adjacent



land use is commercial and industrial. Union Street's narrow right of way and adjacent structures would cause grade separating this crossing to incur high right of way and displacement costs.

Main Street

Main Street is a two lane asphalt roadway at the UP Railroad crossing, but widens to a three lane roadway immediately west of the crossing. There are sidewalks on both sides of Main Street. The roadway width is approximately 35 feet at the crossing. Main Street is the second highest volume crossing in Marion with an ADT of 10,400



vehicles per day. Adjacent land use is primarily commercial along the corridor with several businesses located immediately adjacent to the roadway and sidewalk. Marion's town square is approximately 1,200 feet east of the railroad crossing. A large drainage channel is buried underneath the intersection of Court Street and Main Street.

College Street

College Street is a two lane asphalt roadway at the UP Railroad crossing. There are sidewalks on both sides of College Street. College Street terminates one block west of the crossing at Court Street (IL 37). The roadway width is approximately 20 feet at the crossing. College Street has an ADT of 1,850 vehicles per day. A large drainage channel crosses the railroad just north



of College Street and then crosses College Street immediately east of the railroad crossing. Adjacent land use is primarily residential along the corridor with some commercial along the western end. The drainage channel at this location would make an underpass infeasible and an overpass challenging.

Copeland Street

Copeland Street is a two lane asphalt roadway at the UP Railroad crossing without shoulders or sidewalk and with open drainage. The roadway width is approximately 18 feet at the crossing. Copeland Street is the narrowest crossing in Marion and has the lowest volume with an ADT of 200 vehicles per day. remnants of a second track still



exist at this crossing. Adjacent land use is primarily residential along the corridor with some commercial immediately west of the crossing. There are several residential and commercial buildings close to the roadway.

Boyton Street

Boyton Street is a two lane concrete roadway at the UP Railroad crossing with curbs. The roadway width is approximately 37 feet at the crossing. Left turn lanes exist west of the crossing at the Court Street (IL 37) intersection. Boyton Street is the southernmost crossing in Marion and has the third largest volume



with an ADT of 7,000 vehicles per day. The crossing has overhead signals in addition to gates. The remnants of a second track still exist at this crossing. Adjacent land use is primarily residential along the corridor with some commercial/industrial immediately west of the crossing. There are several residential and commercial buildings close to the roadway.

Based upon the existing characteristics described herein, four of the existing crossing locations were retained for further evaluation. The factors considered for the initial screening included functional classification, traffic volume and typical roadway width of the crossing. These factors revealed the crossings that have the most utilization and would potentially provide the greatest benefit for a potential grade separated crossing. The four crossings with ADT over 5,000 are:

- DeYoung Street (IL 13)
- Boulevard Street
- W Main Street
- Boyton Street

Two new crossing locations were also identified for further evaluation. These locations are on either side of DeYoung Street (IL 13), the highest volume crossing within Marion accounting for 42% of the traffic crossing the UP Railroad in Marion. To the north, the closest feasible location is an extension of Robinson Road, a half mile north of IL 13. The presence of Rosehill Cemetery makes a crossing closer to IL 13 not feasible.

To the south of IL 13, the extension of Belcher Street is a potential location for a grade separated crossing. This location would be one block (approximately 500 feet) south of IL 13.

Six proposed crossings (4 existing and 2 new) were carried forward for further evaluation and were presented at the public meeting.

Table 3 – Existing Railroad Crossing Data

			Table 3	- Existing	Railroad C	lossing D	ala				
Street Name:	LONGSTREET RD	DEYOUNG ST (IL 13)	BOULEVARD	W GOODALL ST	W WHITE ST	JACKSON	W UNION ST	W MAIN ST	W COLLEGE ST	W COPELAND ST	BOYTON
Number of Main Tracks:	1	1	1	1	1	1	1	1	1	1	1
Number of Other Tracks:	0	0	0	0	0	1	1	0	0	0	1
Description of Other Tracks:						SIDNG	SIDNG				SIDNG
Crossing Surface Type:	Timber	Concrete	Concrete	Timber	Timber	Timber	Timber	Concrete	Timber	Timber	Concrete
Average Number of Daily Trains:	4	4	4	4	13	4	4	4	4	4	4
Train Speed - Timetable:	49	49	49	49	49	49	49	49	49	49	49
Train Speed - Minimum Likely:	5	5	5	5	5	5	5	5	5	5	5
Train Speed - Maximum Likely:	49	49	49	49	49	49	49	49	49	49	49
Maximum Warning Devices:	Gates	AFLS- Gates- Cant-over*	Gates	Gates	Gates	Gates	Gates	AFLS- Gates- Cant-over*	Gates	Gates	AFLS- Gates- Cant-over*
Highway - Railroad Interconnect:	None	CWT	None	None	None	CWT	None	CWT	None	None	DC/AFO
Channelization:	Unknown	All Approaches	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
AADT:	1000	20500	5300	550	500	750	700	10000	1850	200	7000
Traffic Lanes:	2	2	2	2	2	2	2	2	2	2	2
Roadway Width:	22	62	30	20	22	30	27	35	20	18	37
Truck Percent:	1	4	0	7	14	0	11	3	5	25	0
Land Use:	Industrial	Commercial	Residential	Residential	Residential	Commerc ial	Commerc ial	Commercial	Residential	Commercial	Residential
Highway Type:	Non-Federal- Aid	Other NHS	Other Fed- Aid Hwy	Non- Federal- Aid	Non- Federal-Aid	Other Fed-Aid Hwy	Non- Federal- Aid	Other Fed- Aid Hwy	Non- Federal-Aid	Non- Federal-Aid	Other Fed- Aid Hwy
FHWA Road Class:	Local, urban	Other Principal Arterial, rural	Collector, urban	Local, urban	Local, urban	Collector, urban	Local, urban	Minor Arterial, urban	Local, urban	Local, urban	Collector, urban
On State Highway:	No	Yes	No	No	No	No	No	No	No	No	No
Roadway Paved:	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Pavement Markings:	Both- Line/Symbl	None	Both- Line/Symbl	None	Both- Line/Symbl	None	Stop Lines	Both- Line/Symbl	Both- Line/Symbl	None	Both- Line/Symbl
Advanced Warning Signs:	No	Yes	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes

^{*}AFLS – Automatic Flashing Lights and Signals; Cant-over – Cantilever Truss Overhead

B. Secondary Alternative Screening

Preliminary designs for a grade separated crossing were developed for each of the six selected alternatives. The following sections summarize the concepts that were developed for each location.

a. Robinson Road

The Robinson Road crossing is the northern most location evaluated. This location is one half mile north of IL Route 13 and would serve as a bypass for traffic along IL Route 13 and could spur additional development on the north side of town. The crossing would be an extension of Robinson Road from Court Street (IL 37) to North State Street. Robinson Road is currently a two-lane paved roadway with open drainage. At the intersection with Court Street it is a 28 foot wide concrete roadway. Further to the west Robinson Road is asphalt pavement and varies in width from 22-26 feet.

The extension of Robinson Road would be approximately 2,500 feet long with a bridge over the UP Railroad near the middle of the extension. Approximately half of the extension will be at or near existing grade, while the other half will be elevated with fill for roadway approaches to the new bridge over the railroad. **Figure 2** shows the potential Robinson Road overpass.



Figure 2 - Robinson Road Overpass

The proposed alignment of Robinson Road would impact two ponds and may need to be modified to minimize these impacts if this crossing is further considered. The Robinson Road corridor is on the north side of town away from the emergency services which are generally located along Main Street or DeYoung Street. In most cases, emergency vehicles would experience excessive adverse travel in order to use this overpass.

b. DeYoung Street (IL Route 13)

The DeYoung Street crossing is the most heavily traveled crossing evaluated. This location would serve the highest volume of traffic, but would be the most expensive due to the number of lanes and adjacent land uses. The reconstruction and elevation of DeYoung Street would be approximately 2,000 feet long with a bridge over the UP Railroad. Court Street (IL Route 37) would need to be raised approximately 10 feet at the intersection with IL Route 13, resulting in approximately 950 feet of reconstruction along Court Street to elevate the roadway. **Figure 3** shows the potential DeYoung Street overpass.



Figure 3 - DeYoung Street (IL Route 13) Overpass

Elevating IL Route 13 would require a retaining wall along the perimeter of the cemetery in order to minimize impacts. The elevation of the roadway would not reasonably allow for the connection of the side streets nearest to the railroad bridge. This would cause Monroe Street to be closed at IL Route 13 to the east of the tracks and the closure of Railroad Street to the west. Several businesses would likely need to be acquired and displaced in order to elevate the roadway due to loss of access or visibility.

c. Belcher Street

The Belcher Street crossing is a new proposed roadway crossing one block south of IL Route 13. The figure below shows an overpass option where the bridge spans both the railroad and Court Street (IL Route 37). Other options at this location could include an underpass and an overpass that only spans the railroad. For this option the reconstruction and elevation of Belcher Street would be approximately 1,400 feet long, including a 570 foot long bridge over the UP Railroad and Court Street. Belcher Street would be improved for an additional 170 on the western end to continue the improvements to Highland Avenue. **Figure 4** shows the potential Belcher Street overpass.



Figure 4 - Belcher Road Overpass

Elevating Belcher Street would require reconstruction of Johnson Street approximately 350 feet in order to match the proposed elevated Belcher Street. On the eastern end Monroe Street would be reconstructed about 250 feet. Several residential displacements would likely be required in order to elevate the roadway.

d. Boulevard Street

The Boulevard Street corridor is a major crossing in the City of Marion. The figure below shows an underpass option where Boulevard Street would be lower and a new bridge carrying the railroad over Boulevard Street. Most of the buildings along Boulevard Street are offset from the roadway, which would allow lowering of Boulevard Street and utilization of retaining walls to minimize right of way impacts. The retaining walls also minimize the length of the railroad bridge. The lowering of Boulevard Street would require the closure of Railroad Street and Granite Street. For this option the reconstruction and lowering of Boulevard Street would be approximately 920 feet long. **Figure 5** shows the potential Boulevard Street underpass.



Figure 5 - Boulevard Street Underpass

The lowering of Boulevard Street would require reconstruction of Court Street (IL Route 37) approximately 400 feet in order to match the elevation Boulevard Street, which is lowered approximately six feet.

e. Main Street

The Main Street crossing is the second most heavily traveled crossing in the City of Marion. The figure below shows an underpass option where Main Street would be lowered below both Court Street (IL Route 37) and under the UP Railroad. Lowering of Main Street under Court Street eliminates the need to lower Court Street, which would likely require large right of way impacts. The presence of buildings adjacent to Main Street would result in high right of way and displacement costs. The properties could not be avoided with retaining walls due to the proximity of the buildings to Main Street. The lowering of Main Street would require the closure of Railroad Street and Granite Street. There is a large enclosed drainage ditch that flows beneath the intersection of Main Street and Court Street. Lowering of Main Street would impact this ditch, which makes this option not feasible. For this option the reconstruction and lowering of Main Street would be approximately 1,100 feet long. **Figure 6** shows the potential Main Street underpass.



Figure 6 – Main Street Underpass

f. Boyton Street / Hendrickson Street

The Boyton Street crossing is the southernmost crossing in the City of Marion. The figure below shows an underpass option where Boulevard Street would be lower and a new bridge carrying the railroad over Boyton Street. Some of the buildings along Boyton Street are close to the roadway, which would be impacted with the lowering of Boyton Street. The properties could not be avoided with retaining walls due to the proximity of the buildings to Boyton Street. The lowering of Boyton Street would not require the closure of additional streets along Boyton Street. For this option the reconstruction and lowering of Boyton Street would be approximately 920 feet long. **Figure 7** shows the potential Boyton Street underpass.

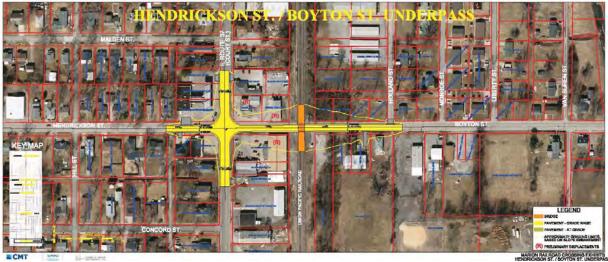


Figure 7 - Boyton Street Underpass

The lowering Boyton Street would require reconstruction of Court Street (IL Route 37) approximately 450 feet in order to match the elevation of Boyton Street, which is proposed to be lowered approximately seven feet. The Boyton Street corridor is on the south side of town away from the emergency services which are generally located along Main Street or DeYoung Street. In most cases, emergency vehicles would incur large adverse travel to use this overpass.

C. Selection of Alternatives to Retain for Further Study

Preliminary designs for a grade separated crossing were studied for each of the six selected alternates to further decrease the number viable alternatives. These designs were analyzed to determine the relative feasibility and usefulness of each proposed location. One of the major factors in the evaluation of the crossing locations is the construction cost estimate. The follow table shows the conceptual construction cost estimates developed at the time of the public meeting for relative comparison for the six remaining crossing locations:

Crossing Location	Crossing Type	Conceptual Cost Estimate
Robinson Road	Overpass	\$4,460,000
DeYoung Street (IL Route 13)	Overpass	\$11,500,000
Belcher Street	Overpass	\$5,020,000
Boulevard Street	Underpass	\$7,600,000
Main Street	Underpass	\$10,220,000
Boyton Street	Underpass	\$7,380,000

The following sections summarize the analysis and public feedback that was conducted for each location.

a. Robinson Road

Robinson Road was estimated as the least expensive crossing location. The usefulness of this crossing location however is limited by its location. The crossing is a half mile north of DeYoung Street (IL Route 13) and in a lightly developed part of the City of Marion. In order for traffic on DeYoung Street to use the crossing a 1.5 mile detour would be required (a half mile north to Robinson Road, a half mile along Robinson Road, and a half mile south back to DeYoung Street). Based upon adverse travel required at this location, Robinson Road was not retained for further analysis.

b. DeYoung Street (IL Route 13)

The DeYoung Street (IL Route 13) has the highest functional classification and highest design speed. These higher design requirements result in a larger footprint for the proposed improvements, thus resulting in increased cost. This additional cost does allow for a greater benefit though by directly accommodating a higher traffic volume.

With the presence of the cemetery along DeYoung Street an underpass is not a feasible alternative. The excavation required for the underpass would likely impact the cemetery, which would make this alternative costly to construct. A temporary runaround (shoo-fly) would also be required with an underpass alternative in order to provide uninterrupted rail service to accommodate train traffic. The initial construction and maintenance of this type of temporary facility, given the volume of vehicular traffic on IL Route 13, make this option undesirable and not feasible.

The UP Railroad curves to the east in the vicinity of IL Route 13, which increases the separation between IL Route 37 and the railroad. This increased separation allows for less elevation change at IL 37, thus minimizing the amount of reconstruction required on IL 37. This increased separation increases the cost of an option to span both IL Route 37 and the railroad with a single structure. Grade separating IL 37 is also not a feasible alternative at this location given the turning movements between the existing roadways.

Only an overpass option over the UP Railroad was retained for further analysis.

c. Belcher Street

The Belcher Street crossing would be a new crossing of the UP Railroad. This location has the advantages of being in close proximity to the highly traveled IL Route 13 corridor with a larger separation distance between IL Route 37 and the railroad. Three grade separation alternatives were considered at this location, two overpass options and an underpass.

The first overpass option spans both the railroad and Court Street (IL Route 37). This option ties in on the west side between Highland Avenue and Johnson Street. Johnson Street would be elevated to provide access to Belcher Street. Access to DeYoung Street (IL Route 13) would be via Highland Avenue, which is an unsignalized intersection at DeYoung Street. The lack of a signal at this location could limit the usefulness of this option, especially during peak hours when left turns onto DeYoung Street would be difficult. The eastern end for all options of the Belcher Street location ties in at Monroe Street, but requires some grade changes along Monroe Street to raise or lower the roadway to match the new Belcher Street.

The second overpass option spans only the railroad and requires the elevation of Court Street (IL Route 37) to be raised in order to provide a better connection between DeYoung Street and Belcher Street. The grade difference at the intersection with Court Street and the existing profile would require extended reconstruction of Court Street. On the north side, this reconstruction would include parts of the DeYoung Street intersection. A significant amount of right of way would also be required along Court Street. Based upon these factors, this option for the Belcher Street location was not retained for further analysis.

The underpass option allows for the western end of the improvements of Belcher Street to be at Court Street. This results in no change to the profile of Court Street and eliminates the property impacts along Court Street. This option provides a good connection between DeYoung Street and Belcher Street on the west end via Court Street.

Two options were retained for further analysis at the Belcher Street location; an overpass over both the railroad and Court Street and the underpass option.

d. Boulevard Street

The Boulevard Street crossing was initially designed as an underpass option. This option has fewer right of way impacts along the corridor due to the set back of buildings off of the roadway. The use of retaining walls would limit the direct impact to adjacent properties. While the retaining walls would limit the impacts to properties, access would be impacted through the closure of Railroad Street and Granite Street. The reconstruction along Court Street remains reasonable with the underpass option.

An overpass was also considered at this location. Due to the higher vertical clearance required over the railroad based on vertical design criteria, the impacts along Boulevard Street would be longer with the overpass option. The elevation change at the intersection of Court Street would also be greater than the underpass option, increasing the amount of reconstruction and property impacts along Court Street.

The underpass option at Boulevard Street was retained for further analysis.

e. Main Street

The Main Street crossing was considered due to its high traffic volume and importance as a main thoroughfare through the city. This location would have large right of way costs with the presence of many buildings close to the roadway. This location was initially designed as an underpass option. There is a large drainage channel that passes underneath the intersection of Main Street and Court Street. The lowering of this intersection is not feasible due to this channel enclosure of West End Creek.

An overpass option would have more construction and property impacts due to the higher vertical clearance required over the railroad based on vertical design criteria. Neither of these two options were retained for further analysis, and the Main Street location was eliminated.

f. Boyton Street / Hendrickson Street

The Boyton Street location is the southernmost in the City. The usefulness of this crossing location is limited by its location. The crossing is a 1.3 miles south of DeYoung Street (IL Route 13), the heaviest traveled route in the City. This location is also 0.6 miles south of Main Street, the second highest route. Based upon adverse travel required at this location, Boyton Street was not retained for further analysis.

The three locations that were retained for further analysis (DeYoung Street, Belcher Street, and Boulevard Street) were agreed to by the Southern Illinois Metropolitan Planning Organization (SIMPO) and the Study Oversight Team.

SECTION 5 - ANALYSIS OF ALTERNATIVES RETAINED FOR FURTHER STUDY

The final four alternatives were further studied and evaluated to estimate the benefits and costs associated with each alternative. See **Exhibit 7** for a Plan & Profile of each final alternative.

A. Traffic Utilization

Time savings was estimated In order to quantify the effectiveness of each alternative location. Various train blockage times were analyzed to determine the amount of delay savings each alternate would generate. The time savings was calculated using the estimated peak hour volume for each crossing through the city and factoring the amount of time it would take to travel to the proposed grade separation location. Travel time along the north-south routes to get to the various crossing locations was estimated using an average speed of 25 miles per hour. For the shorter train blockage times, most of the neighboring crossings were too far away to make a detour feasible.

Train Blockage (min) DeYoung St (IL 13) **Belcher Street Boulevard St** 1 34 20 10 2 150 128 93 3 343 341 361 729 727 726 4 5 1,249 1,248 1,265 6 1,909 1,940 1,996 10 6,365 6,417 6,510

Table 4 - Vehicle Minutes Saved

Table 4 shows that with shorter train blockage times, the grade separation structure at DeYoung Street (IL 13) results in the most travel time savings. This is due to the lack of detour required for the heaviest traveled crossing in Marion. As the train blockage time increases to 5 or more minutes, the Boulevard Street crossing results in a higher travel time savings. This is due to its location being closer to many of the other crossings within the City of Marion.

B. Safety

Reducing the number of at-grade crossings and improving crossings are two successful ways to improve safety at railroad crossings. The anticipated number of vehicle-train crashes for each UP railroad crossing was predicted using FRA's Highway-Rail Crossing Web Based Accident Prediction System (WBAPS) as shown in **Table 5**.

Table 5 - Vehicle-Train Collision Prediction

Crossing	Predicted Collisions	Rank
	(per year)	
Longstreet Road	0.005075	9
DeYoung Street (IL 13)	0.016538	2
Boulevard	0.009132	5
Goodall Street	0.004915	10
White Street	0.004786	11
Jackson	0.005359	8
Union Street	0.013064	3
Main Street	0.012239	4
College Street	0.006873	7
Copeland Street	0.008630	6
Boyton	0.032797	1

Alternatives that replace an at-grade crossing with a grade separation structure will have the largest impact on reducing the number of predicted collisions. The DeYoung Street and Boulevard alternatives should eliminate all of the predicted collisions at that crossing and have a small impact on the number of collisions at adjacent crossings as traffic is diverted. The number of predicted collisions at DeYoung Street is almost double that of the Boulevard crossing.

If a grade separation project moves forward it is likely that Illinois Commerce Commission (ICC) will expect one or two at-grade crossings to be closed within Marion.

C. Cost Estimates

Project costs were enhanced for the final four alternatives. Preliminary estimates of total project costs, including roadway improvements, bridge structural improvements, right-of-way, commercial/residential displacements and engineering costs, have been summarized and are provided herein. All estimated costs are in 2015 dollars. Construction costs were estimated from the preliminary designs created for the four alternates. Estimates for the total project cost for each alternative are presented in Table 6

Table 6 - Alternative Cost Estimates

Location	DeYoung St (IL Route 13)	Belcher Street	Belcher Street	Boulevard Street
Crossing Type	Overpass	Overpass	Underpass	Underpass
Construction Cost	\$15,400,000	\$7,600,000	\$8,000,000	\$8,400,000
Engineering Cost	\$3,100,000	\$1,500,000	\$1,600,000	\$1,700,000
Utility Impact Cost	\$2,000,000	\$500,000	\$500,000	\$1,000,000
Right of Way Cost	\$5,600,000	\$2,100,000	\$1,300,000	\$2,500,000
TOTAL	\$26,100,000	\$11,700,000	\$11,400,000	\$13,600,000

One significant project cost that has been identified outside of the typical construction activities is land acquisition. Preliminary design efforts have been made to minimize the amount of right-of-way required for the project, to minimize impacts from removal of access, and to minimize secondary impacts to adjacent property owners caused by the construction of an overpass structure. Acquisition costs were estimated using the individual property assessed valuations as provided by Williamson County. These preliminary estimates did not include a detailed assessment of business operations or individual residential impacts anticipated by the construction of the proposed roadway facilities, and were solely based on the property assessed valuations. It is recommended that during the development of the Phase I preliminary design-location studies, an appraiser specializing in evaluating highway project impacts and displacements be retained to accurately determine total right-of-way acquisition costs.

D. Evaluation Matrix

In order to summarize the various differences between the four alternatives and to more readily compare the primary selection factors, an Evaluation Matrix was produced and is presented in **Table 7**. This table summarizes both benefits and costs associated with each alternative.

Table 7 – Evaluation Matrix

Location	DeYoung St (IL Route 13)	Belcher Street	Belcher Street	Boulevard Street
Crossing Type	Overpass	Overpass	Underpass	Underpass
Vehicle Min Saved (3 min blockage)	261	343	343	341
Vehicle Min Saved (5 min blockage)	1,249	1,248	1,248	1,265
Vehicle Min Saved (10 min blockage)	6,365	6,417	6,417	6,510
Vehicle-Train Collision Prediction	0.017	N/A	N/A	0.009
Cost Estimate	\$26.1 M	\$11.7 M	\$11.4 M	\$13.6 M
Right of Way Acreage	6.9 acres	3.0 acres	3.3 acres	2.0 acres
Displacements	25	16	12	8
Project Length	2,050'	1,315'	840'	925'
Side road Length	820'	555'	350'	680'
Grade Change at Route 37	+10.5'	N/A	0'	-7'
Existing Route ADT	20,500	N/A	N/A	5,300
Roadway Jurisdiction	IDOT	City	City	City
Utility Conflicts (greater than 6" diameter)	8", 10" & 10" water 8" sanitary 8" storm	8" water 8" sanitary	8" water 8" sanitary	8" water 8" & 8" sanitary 8" storm

SECTION 6 - SUMMARY OF PUBLIC INVOLVEMENT

Through the course of this study various coordination meetings where held with public agencies, private agencies, and the general public. The following is a summary of these coordination and outreach activities. See **Exhibit 4** for Public Meeting information and **Exhibit 13** for Stakeholder Coordination.

A. Coordination with Illinois Commerce Commission (4/15/15)

The purpose of the meeting was to introduce and discuss the grade separation feasibility study. ICC representatives expressed concern for constructing an overpass or underpass south of IL Route 13 given the close proximity to Court Street (IL Route 37). The local impacts are likely to be extensive on any of the selected corridor. Some of the planning challenges will be that the UP Railroad will likely expect accommodations for future track expansion and access which will further impact adjacent properties.

ICC's Crossing Safety Improvement Program which consists of the Grade Crossing Protection Fund (GCPF) for roadways on the local system and generally includes 60% participation in the eligible grade separation costs. Typically the Railroad will participate in the range of 5-20% with the remainder to be funded by the local agency. This program is evaluated annually and a 5-year program published. Additional costs to separate adjacent roadways would not be eligible for reimbursement under this fund.

Having funding secured and in place in addition to providing a plan for implementing the project would help this project be selected for the GCPF program. Identifying location(s) where at-grade crossings can be eliminated are also very positive in the funding selection process.

B. Stakeholder Meeting (4/21/15)

A meeting was conducted with various Marion officials including the City Street Superintendent, City Administrator, Chief of Police, Chief of Fire Department and Chief of EMS to discuss the desired location for a new grade separation location in Marion. The preference indicated by these local stakeholders was to construct a new railroad overpass or underpass as close to the emergency service providers as possible to reduce adverse travel and improve response times. Somewhere is the vicinity of either Union or Stockton Streets were decided to be the preferred corridors since these streets are close to the emergency service facilities and close to the main arterials for the city.

C. Public Information Meeting (5/13/15)

The Southern Illinois Metropolitan Planning Organization (SIMPO) held an open house Public Informational Meeting to present and communicate the results of the preliminary engineering studies to engage the public on the issues associated with selecting a location and implementing a roadway grade separation facility of the Union Pacific Railroad (UPRR) in Marion, IL. The informational meeting was held at the Marion Senior Citizens Center, 507 West Main Street, Marion, IL, on Wednesday May 13, 2015 from 4:00 p.m. to 6:00 p.m. Preliminary exhibits, including maps and aerial photography, were displayed and available for inspection and viewing during the entire time. Public input was encouraged and comment forms were available for all attendees. The general consensus of the attendees at the meeting was that this grade separation project is necessary and would be an improvement for the city of Marion.

The meeting was attended by sixteen (16) people including the Mayor of Marion and one comment form was returned.

D. Identification of Criteria for Implementing Next Step of Study

Completion of the Feasibility Study will allow the City to pursue outside funding sources and continue with Phase I preliminary environmental and design-location studies if concurrence is reached on the selection of a preferred corridor. The Illinois Commerce Commission has indicated that a project must be at the feasibility stage prior to submitting an application to be considered for the Grade Crossing Protection Funds 5-year program.

SECTION 7 – RECOMMENDATIONS AND CONCLUSIONS

Based on the detailed studies of the feasible options identified herein, the evaluation matrix of the preferred alternatives that is included in Section 5 was completed to better compare the various corridors and the advantages/disadvantages of each location. A comparison was completed based on cost, impacts, safety and satisfying the purpose and need. The following is a summary of the recommendations with some conclusions related to the feasibility of a Union Pacific Overpass/Underpass Grade Separation in Marion and the process for implementing this grade separation if so desired to move forward with this project.

A. Recommended Alternatives

Each of the final selected corridors (IL Route 13, Belcher Street and Boulevard Street) provides opportunities and constraints that result is advantages and/or disadvantages of utilizing the respective corridor as the grade separation location. Each location is briefly summarized with a conditional recommendation for each based on the parameters associated with each corridor (a plan and profile of each of the recommended alternatives is included in Exhibit 7).

IL Route 13 (DeYoung Street)

The IL Route 13 (DeYoung Street) overpass alternative would accommodate the highest volume (20,500 ADT) of traffic along the state route but is also the most costly to implement. This option would create challenges to avoid impacts to the adjacent cemetery and would also require improvements along IL Route 37 (Court Street) to accommodate the necessary policy grade raise over the railroad. This state route alternative would not be eligible for ICC Grade Crossing Protection Funds and the new structure and roadway approaches would be under the jurisdiction and maintenance of the Illinois Department of Transportation. This alternative is only recommended if the grade separation is desired to be on the state route for jurisdiction and future maintenance purposes. Additionally, if mobility is considered a primary function of the proposed crossing, DeYoung Street would directly serve the most traffic. DeYoung Street currently carries 42 percent of the daily traffic crossing the UP Railroad within the City Marion.

Belcher Street

The Belcher Street alternatives developed studied both an overpass and an underpass option. The Belcher Street corridor does not currently have an at-grade railroad crossing and is located only one block south of the state route IL 13. Both the underpass and overpass alternatives at Belcher Street are comparable options with similar costs. However, the overpass option would also require a grade separation with IL Route 37 (Court Street) while the underpass option would accommodate the existing at-grade intersection of these two streets. It is recommended that the Belcher Street underpass/overpass be selected if the grade separation is desired to be on a local corridor in close proximity to IL Route 13 so that it could be utilized as a detour during long train delays. However, the limited capacity of the local roadway network for a high volume detour from DeYoung Street could cause potential secondary issues throughout the local roadway network related to congestion during a long crossing closure.

Boulevard Street

The Boulevard Street underpass alternative accommodates a relatively high volume (5,300 ADT) of traffic and is located only three blocks south of the state route IL 13 but it is the second most costly to implement of the final alternatives considered. This option would also require improvements along IL Route 37 (Court Street) to accommodate lowering the roadway profile grade to meet policy underpass clearances. This alternative is recommended if the grade separation is desired to be on a local corridor that already has an existing at-grade crossing. Similar to Belcher Street, potential secondary issues related to congestion of the local roadway network, may result from long crossing closures times. Boulevard Street however, has the benefit of being a through street with multiple connections to other routes and signalized intersections that can accommodate higher detour traffic volumes.

All of these alternatives generally fulfill the project's purpose and need for providing continual automobile traffic flow across the existing railroad tracks; eliminating at-grade railroad crossing(s) and the associated hazards and improving emergency response. Each of the alternatives can be designed to minimize impacts to the various businesses, properties and residential houses along the corridors and each has a unique benefit. In conclusion, the proposed grade separation is recommended for further study with the final alternative selection to be determined by the City of Marion with the following considerations:

IL Route 13 (DeYoung Street) – Pursue if a State Route grade separation is desired, benefits the highest traffic corridor and has the greatest potential for reduction of train/vehicle crashes.

Belcher Street (Overpass/Underpass) – Least expensive alternative, provides close proximity detour for IL Route 13, least disruption to traffic during construction.

Boulevard Street – Centrally located with good connectivity to the existing network, saves the most vehicle travel minutes for long train delays, has the least number of displacements.

B. Design Exceptions

The initial goal with all of the alternatives studied was to provide a preliminary design that would not require any Level 1 or Level 2 design criteria exceptions in order to enhance safety and improve operations of the new facility. Although the preferred alternative would require additional studies and detailed design which would include refinement of the preliminary alternative, it is anticipated that this could be completed without the need for any design exceptions.

C. Traffic Management During Construction

During construction of the new grade separation, it is assumed that train traffic would need to be maintained at all times. If an underpass is ultimately selected then a shoo-fly operation for temporary rail accommodations would need to be provided and this is included in the cost estimates shown with the underpass alternatives. If an overpass is ultimately selected then the construction means and methods would need to accommodate train traffic during construction of the new vehicular bridge.

The roadway corridor was assumed to be closed to through vehicular traffic during construction with temporary access accommodations provided to properties that would continue to maintain access after construction. The access would be acquired in advance of the project for any properties that were planned to have direct access eliminated as part of the project.

D. Closing Existing At-Grade Crossings

Illinois Commerce Commission representatives mentioned during development of the feasibility study that identifying possible existing at-grade crossings that could be relinquished and possibly eliminated would demonstrate a positive good-faith effort towards the railroad when negotiating agency participation for future funding of the grade separation. Public comments received during the stakeholder involvement process identified the following corridors as possibilities for future at-grade crossing closures that should be considered as part of the new grade separation project.

- Copeland Street
- Goodall Street
- White Street
- Union Street

All of these corridors were studied and screened for the initial selection of alternatives and none of these locations passed the first screening to be considered for further studies as a possible grade separation location.

E. Project Implementation

This Feasibility Study is the first step to identify the magnitude of the project and the anticipated costs associated with fully implementing a grade separation over the Union Pacific Railroad in Marion. If advancement of consideration for a grade separation is still desired by local officials and the Southern Illinois Metropolitan Planning Organization, then the next step would be to initiate a plan to secure funding and continue with the preliminary planning phase engineering to more accurately determine the scope and limits of improvement, impacts and costs associated with constructing a grade separation.

Possible funding breakdown for a local route grade separation facility could be as follows:

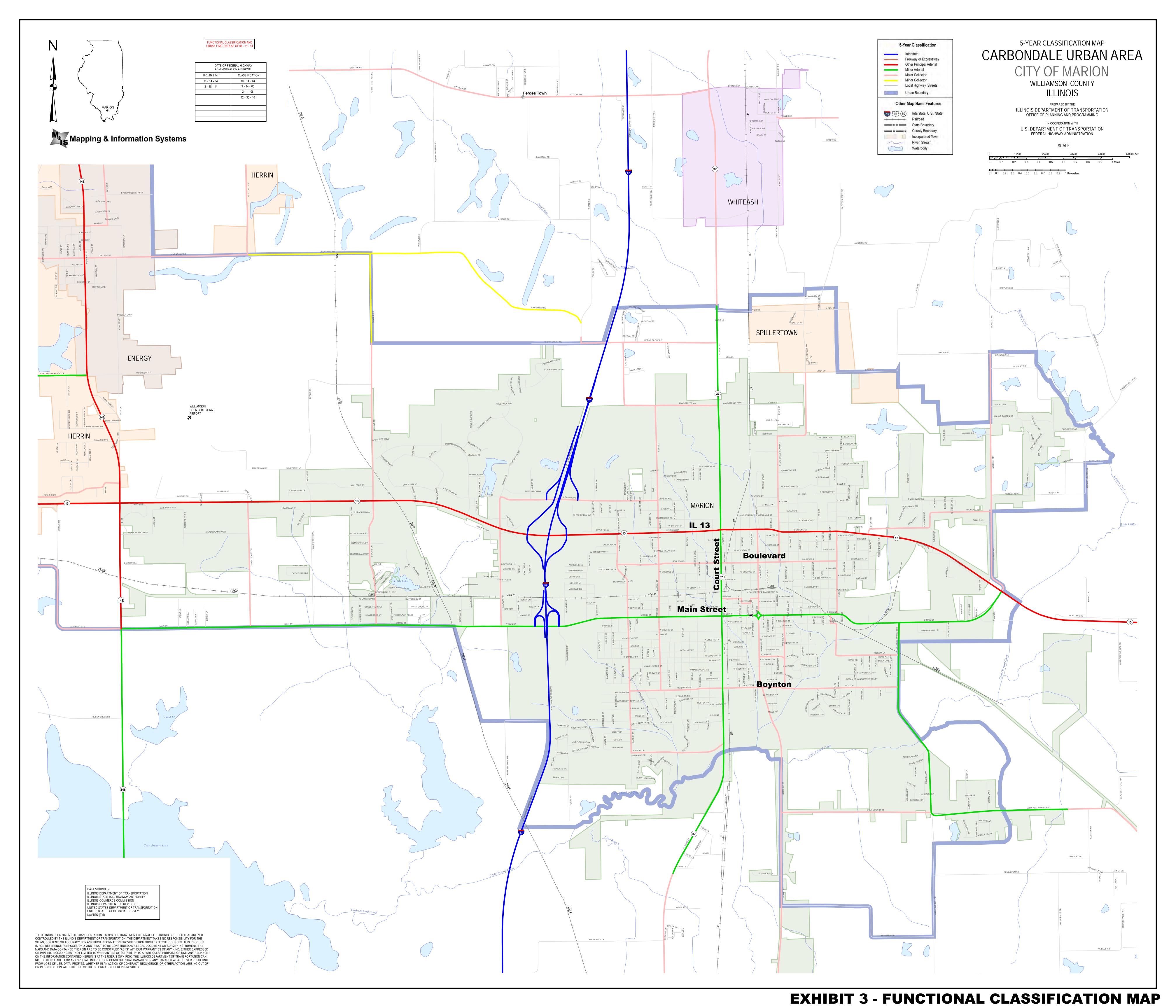
ICC Grade Crossing Protection Fund (GCPF) 60% Union Pacific Railroad 5-20% Local Share (Could include state or federal) 20-35% Total 100%

If obtaining the necessary funding is feasible then completing the necessary Phase I preliminary design and environmental studies for the project would be the next engineering step required in order to receive design approval from the granting jurisdictional agencies to allow the project to be advanced to the design phase and ultimately preparation of the construction contract bidding documents. Phase I activities would likely require 18 months to complete. Upon receipt of design approval, Phase II engineering design and land acquisition activities could begin for the final location and are estimated to last up to 24 months. It may take longer for the land acquisition activities, depending on the corridor selected and the parcels impacted. Certification of the final right-of-way for the project would allow the construction of the proposed improvements to commence. Phase III of the project is the actual construction of the improvements and it will require approximately 24 to 30 months to complete. The total time to implement this project through completion of construction from the time funding is determined to be feasible would be approximately 5 to 6 years.

Upon selection of a specific corridor, the City may consider taking the proactive steps to secure the necessary right-of-way required for the project. Recording a Corridor Protection Plan with Williamson County Recorder's office upon the development of the Phase I engineering studies may also assist in protecting the transfer of property to new owners that would eventually be acquired by the City for this project.









City of Marion – Railroad Overpass/ Underpass Feasibility Study

Marion, Illinois/Union Pacific Rail Road May 2015

Purpose of the Study...

The Southern Illinois Metropolitan Planning Organization (SIMPO) for the Jackson and Williamson County metropolitan area is conducting a feasibility study to evaluate the preferred location for a grade separated structure that will cross the Union Pacific R.R. (UPRR) within the City of Marion.

The UPRR bisects the City of Marion in a north-south direction and runs from the southern city limits to the northern city limits. When trains pass through town, 80% of the crossings are blocked at one time. Since all of the emergency services are located on the west side of town, all of the businesses and residents on the east are cut off from hospital, police and ambulance services during train progressions.

The primary scope of this study is to evaluate potential and feasible crossing locations within the City of Marion by investigating existing rail crossings and proposing new crossing corridors. The final report submittal will include conceptual engineering drawings and designs, cost estimates, and evaluation of impacts for the top three (3) alternatives as selected by the SIMPO Technical Advisory Committee.



There are many common factors and considerations that influence the selection of a corridor, along with unique requirements and constraints for each of the individual locations. While initial construction cost is a significant consideration in the selection of a corridor, other factors often weigh in the selection of the "preferred" location. These factors include suitability of the local roadway system, provisions for bicycle and pedestrian access, direct impacts/displacements of residents and businesses, change or loss in roadway access, consistency with long-term transportation/growth plans, utility impacts and facility requirements, aesthetics, and overall functionality. In addition to the public feedback generated on this project, coordination is also being conducted with the Illinois Commerce Commission, the UPRR, the Illinois Department of Transportation and the city of Marion, along with emergency service providers.

We Need Your Input...

A project that significantly impacts local and regional transportation systems requires public participation. SIMPO and the City of Marion recognize the need to improve safety for the community. The input of residents, business owners, commuters and local officials who can offer advice and can serve to represent community views and concerns is needed for a successful project. Please take the opportunity to provide your input and to encourage those that could be affected by the project to do the same.

For additional information or to provide vital input please contact any of the following:

Cary Minnis -

caryminnis@greateregypt.org - 618.997.9351

Greg Smothers -

SIMPO Technical Committee Chairperson gsmothers@williamsoncountyil.gov 618.998.2145

CMT

Julie Peterson - SIMPO Policy Committee Chairperson jpeterson@jacksoncounty-il.gov - 618.687.7271

Stan Hansen, PE, PLS - Crawford, Murphy & Tilly, Inc. shansen@cmtengr.com - 217.572.1038





Project Location Map

Initial Study Locations

- 1 Location 1 Robinson Road
- 2 Location 2 IL 13 Deyoung St.
- 3 Location 3 Belcher St.
- 4 Location 4 Boulevard St.
- 5 Location 5 West Main St.
- **6** Location 6 Hendricks St/Boyton St.

SIMPO

SOUTHERN ILLINOIS METROPOLITAN PLANNING ORGANIZATION

City of Marion- Railroad Overpass /Underpass Feasibility Study

PUBLIC INFORMATION MEETING
May 13, 2015 4 pm - 6 pm
Marion, Illinois

Marion, Illinois / Union Pacific Railroad

SIGN-IN SHEET - PLEASE PRINT

1.	Name JOMM) D. MILLER	Representing		Address	906 EAST COHEGE	Phone/email 618-997-9071-Hom E - 618-889-1007 CEA
					This address is my Residence Business Other	
2.	Name OSCAr Milos	Representing		Address	1207.5 Caurd	Phone/email 4/8 - 9 9 7 - 503 9
					This address is my Residence Business Other	
3.	Name JOE ZDANKIEWICZ	Representing	IDOT	Address		Phone/email 6/8 35/-5220
					This address is my Residence Business Other	
4.	Name J HJERPE	Representing	Secf	S, of	MARION	Phone/email
					This address is my ☐ Residence ☐ Business ☐ Other	
5.	Name PATTI HOWAZI	Representing	\$5	Address	1011 N GUART ST MARCON	Phone/email 618,986522 PATTI, HOWARS Q FRONTIER LOR
					This address is my ☐ Residence ☐ Business ☐ Other	
	Name	Representing		Address		Phone/email
0.	Name	representing		71001000	This address is my ☐ Residence ☐ Business ☐ Other	Thoronal
		a latina di sala		****		
7.	Name	Representing		Address	This address is my - Residence - Rusiness - Other	Phone/email
					This address is my ☐ Residence ☐ Business ☐ Other	
8.	Name	Representing		Address		Phone/email
					This address is my Residence Business Other	
	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		0			
9.	Name SIM MILITAR	Representing	CMT	Address	2760 W. WASHINGST SPRIDTL	Phone/email
•					This address is my Residence Business Other	
40	Name Brian Each	Representing	CMT	Address	2750 W. Washing Ton St. SPFD, IL	Phone/email
10.	Name Of 17 2 70 3	Representing		Addiess	This address is my ☐ Residence ☐ Business ☐ Other	Honorandi
					And written as A P secretarity P dubutto P dubut	
	0 11/			200	27-2	English of
11.	Name STAN HAHSEN	Representing	CMT	Address	2750 W. WASHINGTON ST SPFED	Phone/email
					This address is my Residence Business Other	

SOUTHERN ILLINOIS METROPOLITAN PLANNING ORGANIZATION

City of Marion-Railroad Overpass / Underpass Feasibility Study

PUBLIC INFORMATION MEETING
May 13, 2015 4 pm - 6 pm
Marion, Illinois

Marion, Illinois / Union Pacific Railroad

SIGN-IN SHEET - PLEASE PRINT

12.	Name Dove Phillips	Representing City of MATION	Address	Tower SQUAL PLAZA	Phone/email Strad C & ty of MAR on IC. Gov
		0		This address is my Residence Business Other	
13.	Name Cay Minnis	Representing GreaturEspot	Address	3000 W Dayong St.	Phone/email Caryminis@greaturegypt.org
				This address is my Residence Business Other	
14.	Name Liek Haye	Representing Daily Republican	Address		Phone/email I hayer @ deily republican west. com
	1111			This address is my Residence Business Other	1.16-6-
15.	Name Name	Representing City of Manism	Address	1503 GAH CONSERD MOUSE	Phone/email) weble city of maria il-gov 618-47-496
	90.			This address is my Residence Business Other	
16.	Name IV (LL)	Representing TACO John's	Address	903 N. CourT	Phone/email 10+8-993-8901
				This address is my Residence Business Other	
17.	Name Mu Mest	Representing City of Marion	Address	402 Tower Square Marian	Phone/email 618-997-2612
	1			This address is my Residence Business Other	
18.	Name Denn Clareda	Representing Clarida & Zieslar	Address	40 N. COURT ST. Morion	Phone/email 615-922-4190
				This address is my Residence Business Other	
19.	Name EDWARD O. BRIDGES	Representing CRAB ORCHARD & EGYPTZAN RR.	Address	203 W. BOULSVARD MREJON	Phone/email (618)944 1139 EBRIDGES @ PROGRESSIVE RAZE, COM
				This address is my Residence Business Other	
20.	Name	Representing	Address		Phone/email
				This address is my Residence Business Other	
0.4			Tar.		
21.	Name	Representing	Address	This address is my Residence Business Other	Phone/email
				The property of the property o	
22.	Name	Representing	Address		Phone/email
				This address is my Residence Business Other	



City of Marion - Railroad Overpass/Underpass Feasibility Study Marion, Illinois/Union Pacific Rail Road

PUBLIC INFORMATION MEETING

May 13, 2015 Marion, Illinois

COMMENT FORM - PLEASE PRINT ALL INFORMATION

	EDWARD O. BRIDGES	
Address 203 WEST E	BOULEVARD	Residence
City MARION	State/Zip	Business
Email EBRIDGES @ PR	ROGRESSIVE RAIL. COM	Other
Phone No(s) (6/8) 944		
Comment (if you need mo	ore space, please use additional sheet)	
WEST BOUZEVARD	CROSSING MAKES THE MOST SENSE FOR	THIS PROPOSED IDEA DUETO
THEOR NOT BEING M	MANY BUSINGISGS OR BUZINDINGS TO H	UNG TO RELOCATE.
	23 WOULD BE A NIGHT MARE (WE AL	
CONSTANT CONSTRUCTS OF	ON ON THAT ROAD ENGUGH FOR A WASIE	IMNO.
IF NOT WEST BOUN	GUARD, WEST BOYTON STREET WOULD B	E MY SECOND CHOICE.
S IL 13 (Dey Belcher St	young Street) 6 2 7	West Main Street Hendrickson Street/Boyton Street OtherANYOTNERS
If an existing at-grade Rank these locations 10 IL 13 Deyoung S		6 College St.
Rank these locations	from 1 (least important) to 10 (mo St Jackson St. Union St.	Copeland St.
Rank these locations 10 IL 13 Deyoung S	from 1 (least important) to 10 (mo	6 College St.

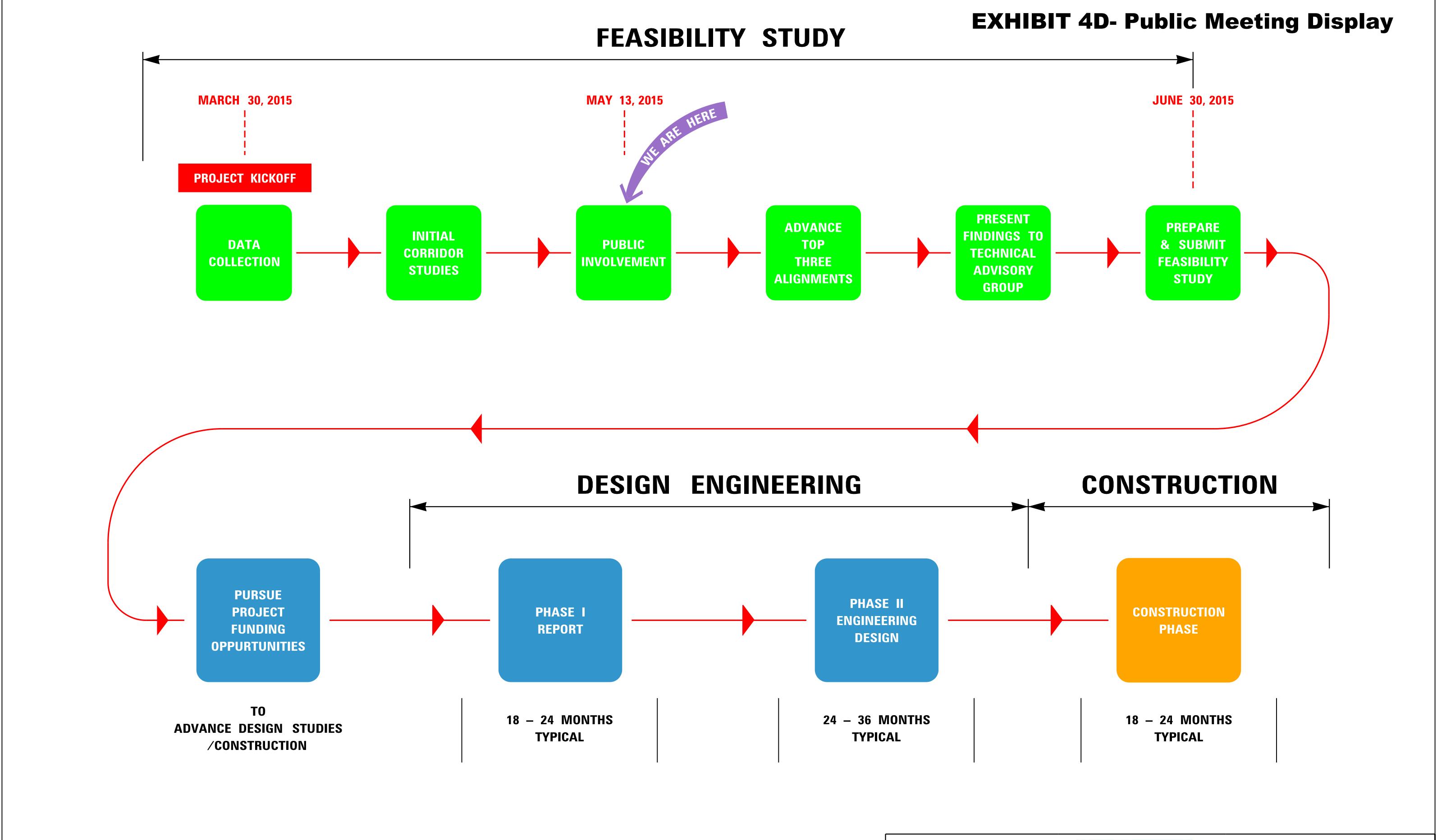
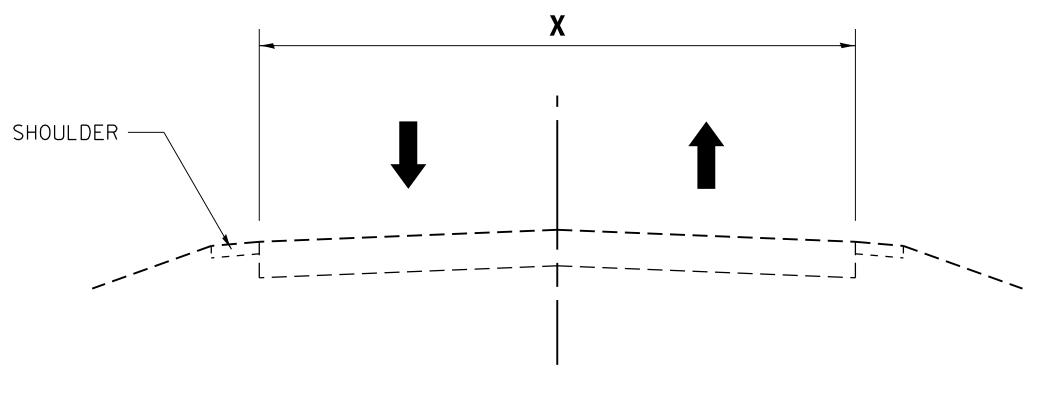








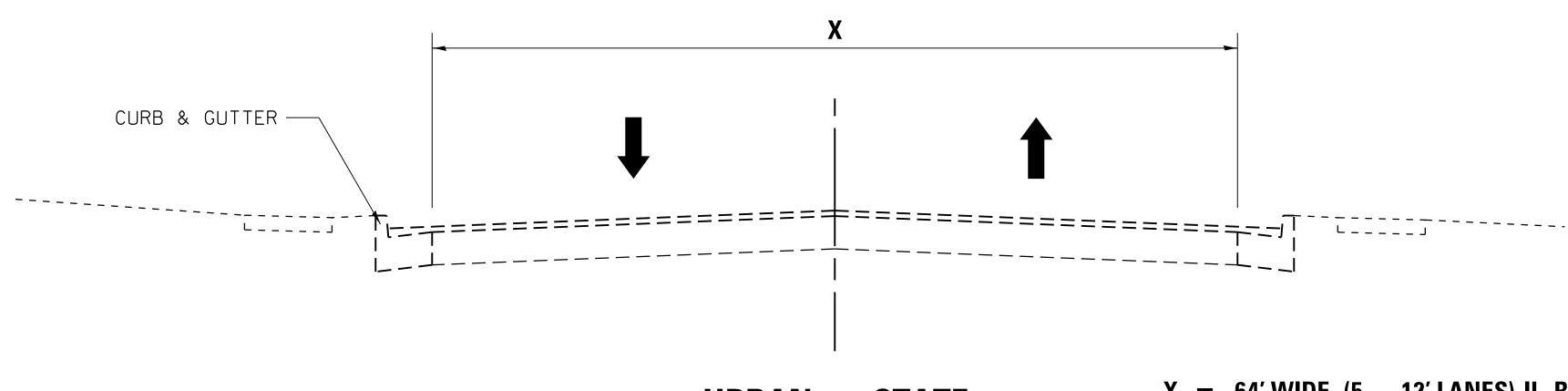
EXHIBIT 4E- Public Meeting Display



RURAL – LOCAL

X = 20' WIDE (2 - 10' LANES) BELCHER ST.

X = 24' WIDE (2 - 12' LANES) ROBINSON ST.

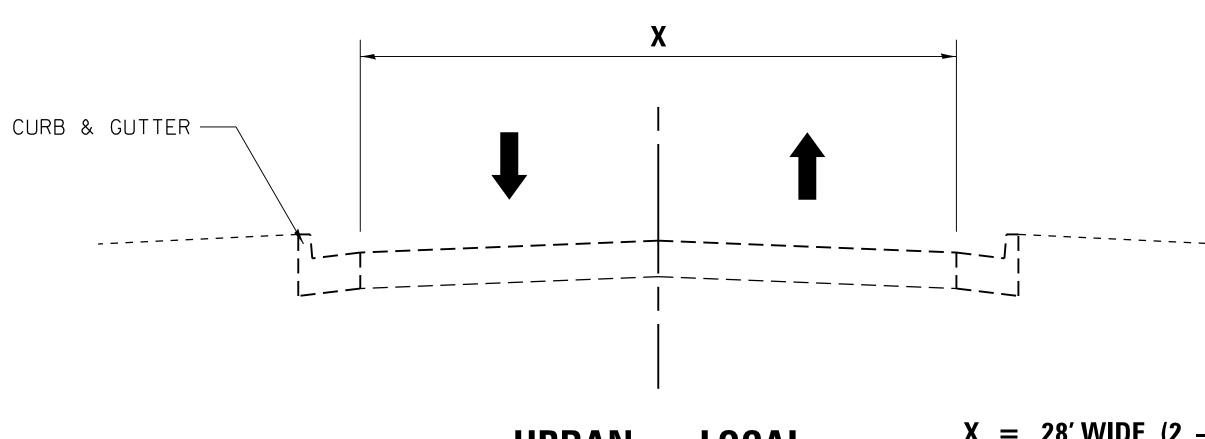


URBAN - STATE

X = 64' WIDE (5 - 12' LANES) IL RTE 13 (DEYOUNG ST.)

X = 34' WIDE (2 - 12' LANES, 10' TURN LANE – WEST SIDE) MAIN ST.

X = 34' WIDE (2 - 12' LANES, 10' ON STREET PARKING – EAST SIDE) MAIN ST.



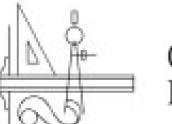
URBAN - LOCAL

X = 28' WIDE (2 - 14' LANES) BOULEVARD ST.

X = 34' WIDE (2 - 17' LANES) HENDRICKS /BOYTON ST.







CLARIDA & ZIEGLER ENGINEERING CO.

FILE NAME =	USER NAME = Rob Heady	DESIGNED -	REVISED -				F.A.S RTF	SECTION	COUNTY TOTAL SHEET
\EXHIBIT_Typical Roadway Section.dgn		DRAWN -	REVISED -	RAILROAD CROSSING STUDY		EXISTING ROADWAY TYPICAL SECTIONS	11.12.	F.A.S SECTION COUNTY TOTAL SHEETS WILLIAMSON CONTRACT NO. FED. ROAD DIST. No. 7 ILLINOIS FED. AID PROJECT	WILLIAMSON
	PLOT SCALE = 4.0000 ' / 10.	CHECKED -	REVISED -	CITY OF MARION, ILLINOIS					L L
	PLOT DATE = 5/12/2015 - 9:13:58 AM	DATE -	REVISED -		SCALE:	SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD	DIST. NO. 7 ILLINOIS FED.	

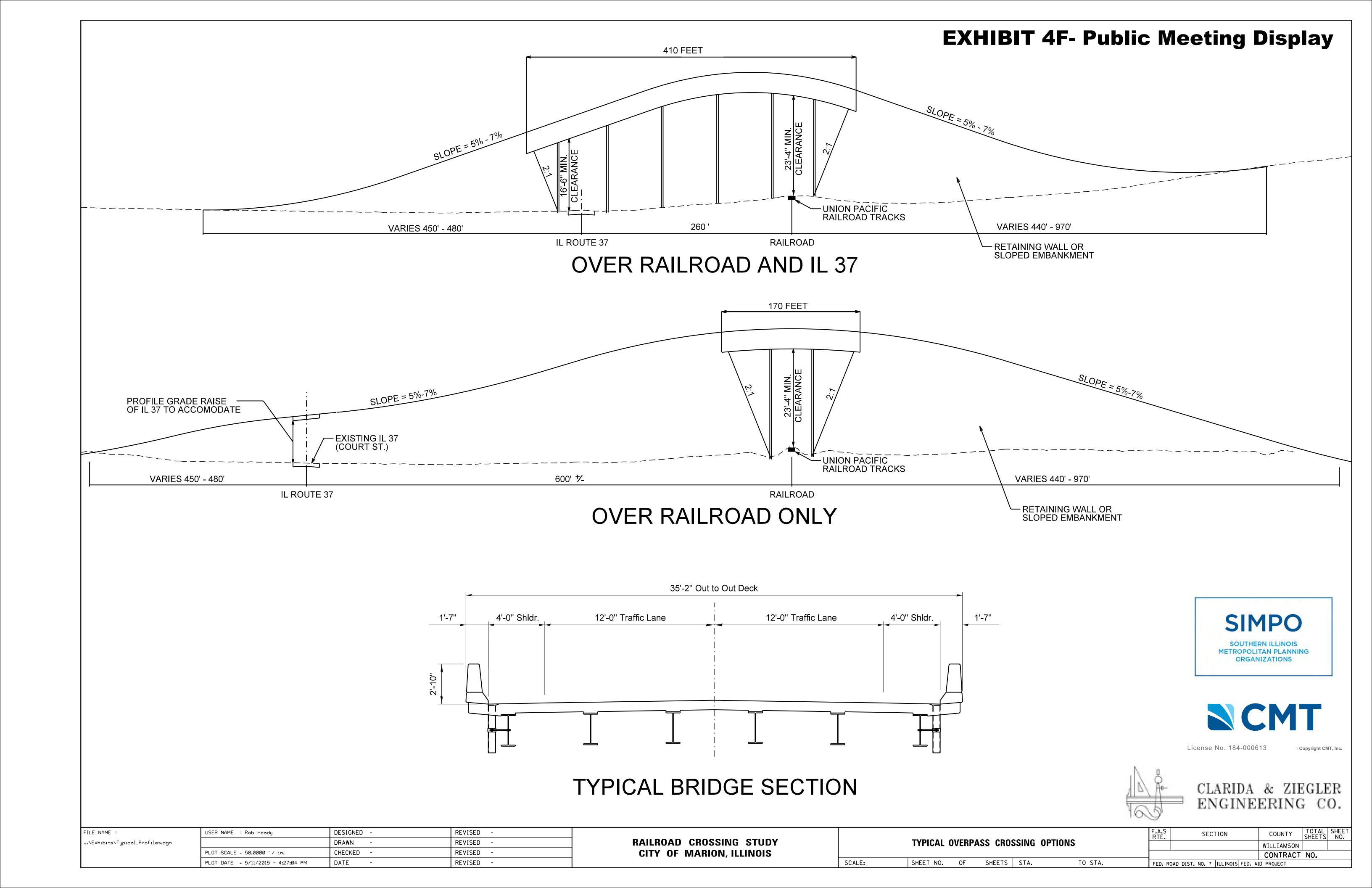


EXHIBIT 4G- Public Meeting Display MATCH — EXIST. MATCH -EXIST. ROADWAY BRIDGE CROSS SECTION RAIL ROAD BRIDGE CROSS SECTION -RETAINING WALL 285 FEET VARIES 190' - 350' VARIES 390' - 470' UNDER RAILROAD AND IL 37 RAIL ROAD BRIDGE CROSS SECTION MATCH -EXIST. MATCH EXIST. **LOWER IL ROUTE 37** - RETAINING WALL VARIES 190' - 300' 285 FEET VARIES 390' - 470' UNDER RAILROAD ONLY [C IL 37 Ç TRACK & BRIDGE 47'-2" Out to Out Deck © GIRDER 20'-0" € GIRDER 4'-0" Shldr. 4'-0" Shldr. 1'-7'' 18'-0'' 18'-0'' 1'-7'' 10'-0" 10'-0'' 12'-0" Median 12'-0" Traffic Lane 12'-0" Traffic Lane SIMPO METROPOLITAN PLANNING **ORGANIZATIONS** 2'-10" CMT License No. 184-000613 ☐ Copyright CMT, Inc.

TYPICAL ROADWAY
BRIDGE SECTION

REVISED

REVISED

CHECKED

DATE

PLOT SCALE = 50.0000 '/ in.

PLOT DATE = 5/11/2015 - 4:43:11 PM

TYPICAL RAILROAD BRIDGE SECTION

SCALE:

SHEETS STA.

TO STA.

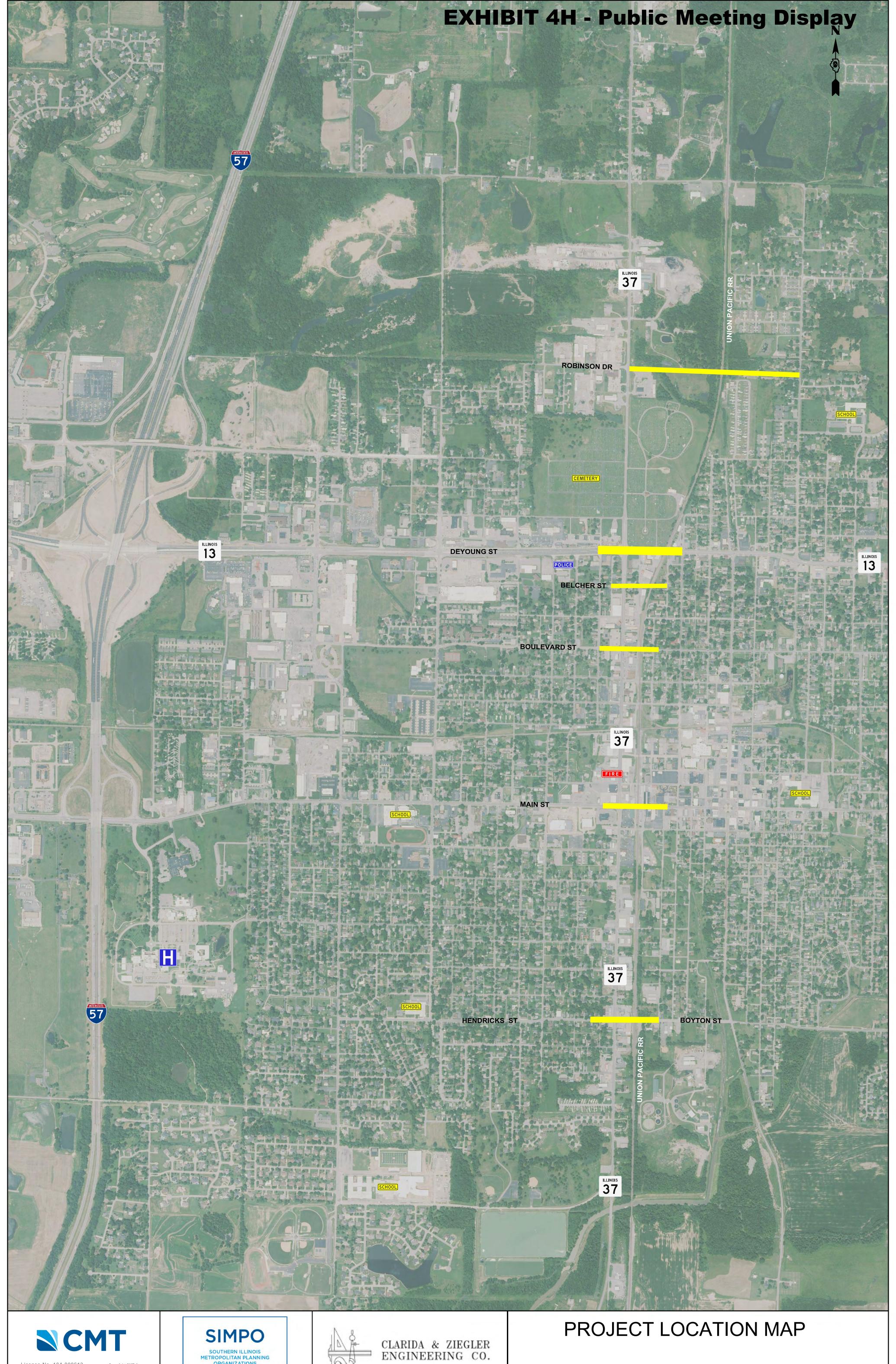


FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT

CONTRACT NO.

BRIDGE SEC			ECTION		BRIDGE SECTION	100	ENGINEERING CO.		
FILE NAME =	USER NAME = Rob Heady	DESIGNED -	REVISED -			F.A.S	SECTION	COUNTY SHEET	
\Typical_Profiles-UNDERPASS.dgn		DRAWN - REV		RAILROAD CROSSING STUDY	TYPICAL UNDERPASS CROSSING OPTIONS	111124		WILLIAMSON	

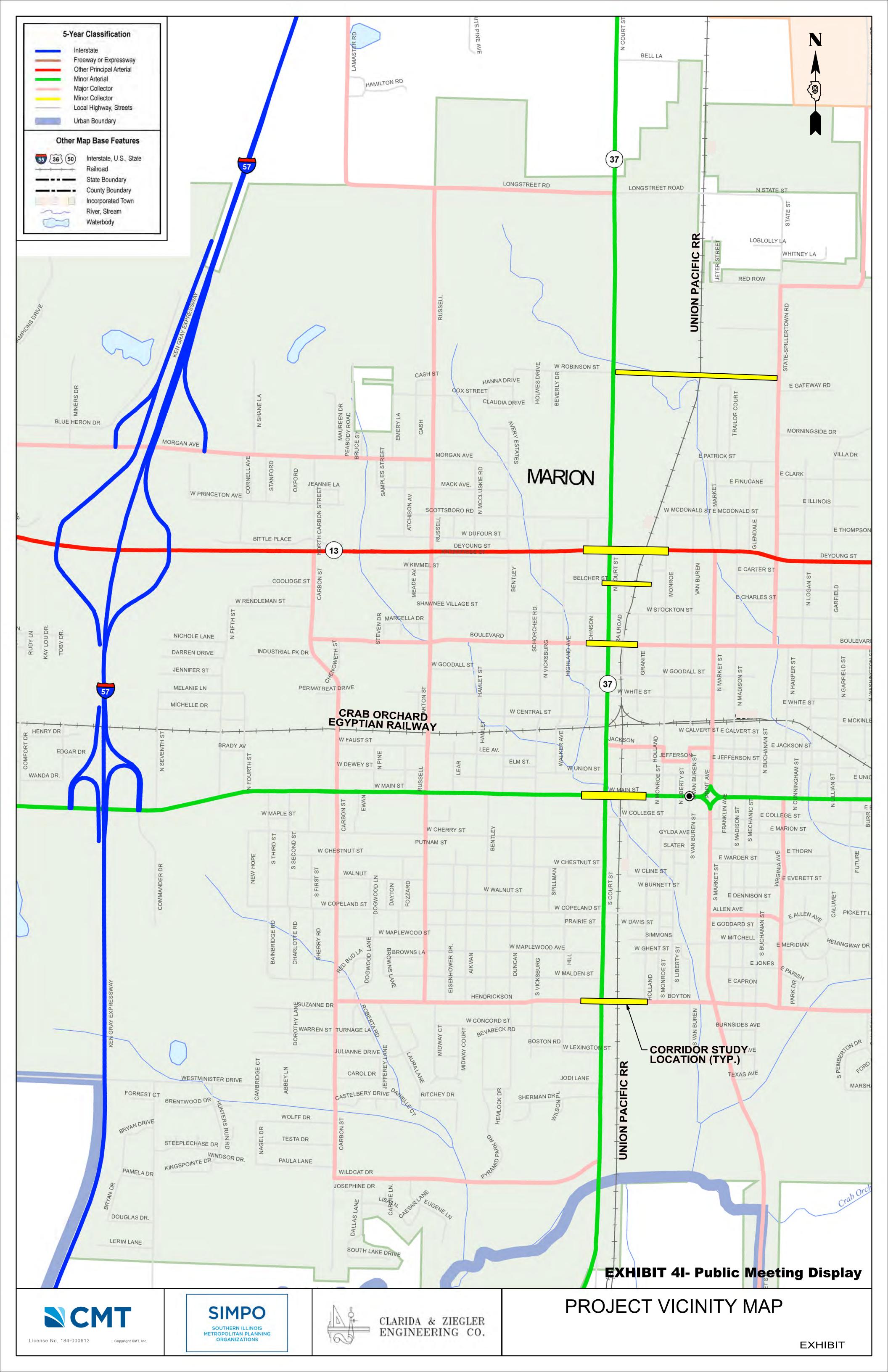
CITY OF MARION, ILLINOIS











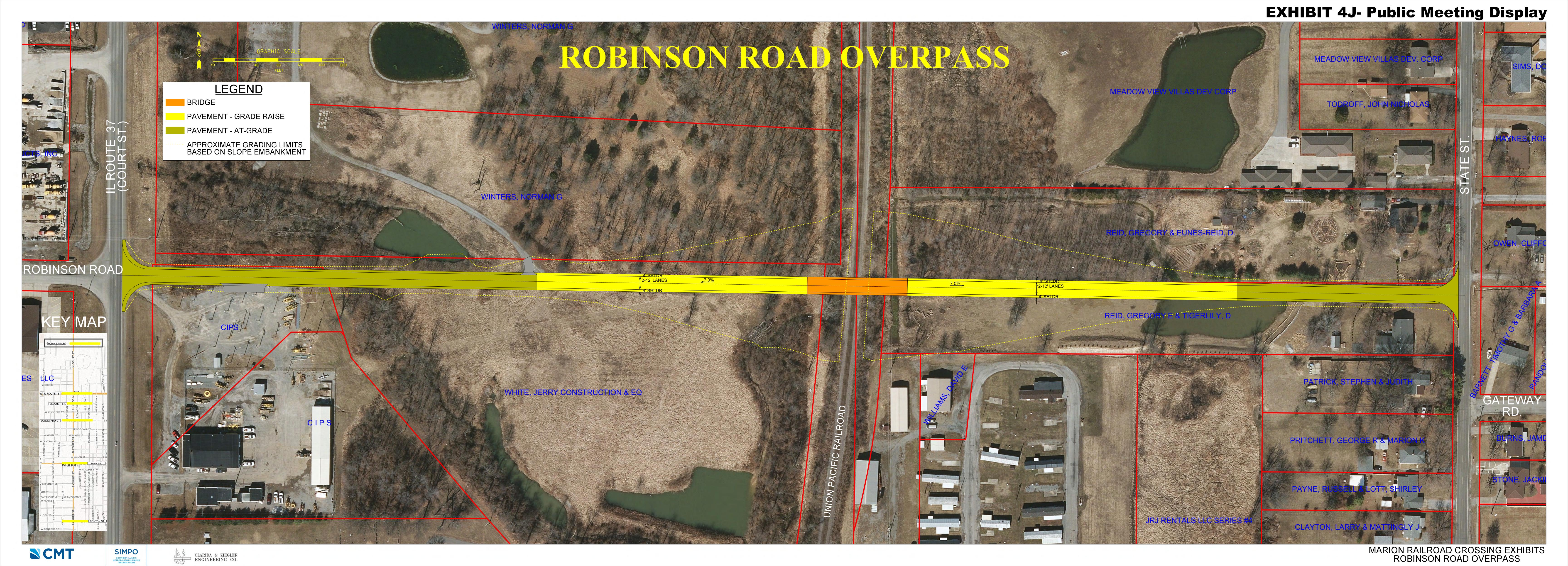


EXHIBIT 4K- Public Meeting Display

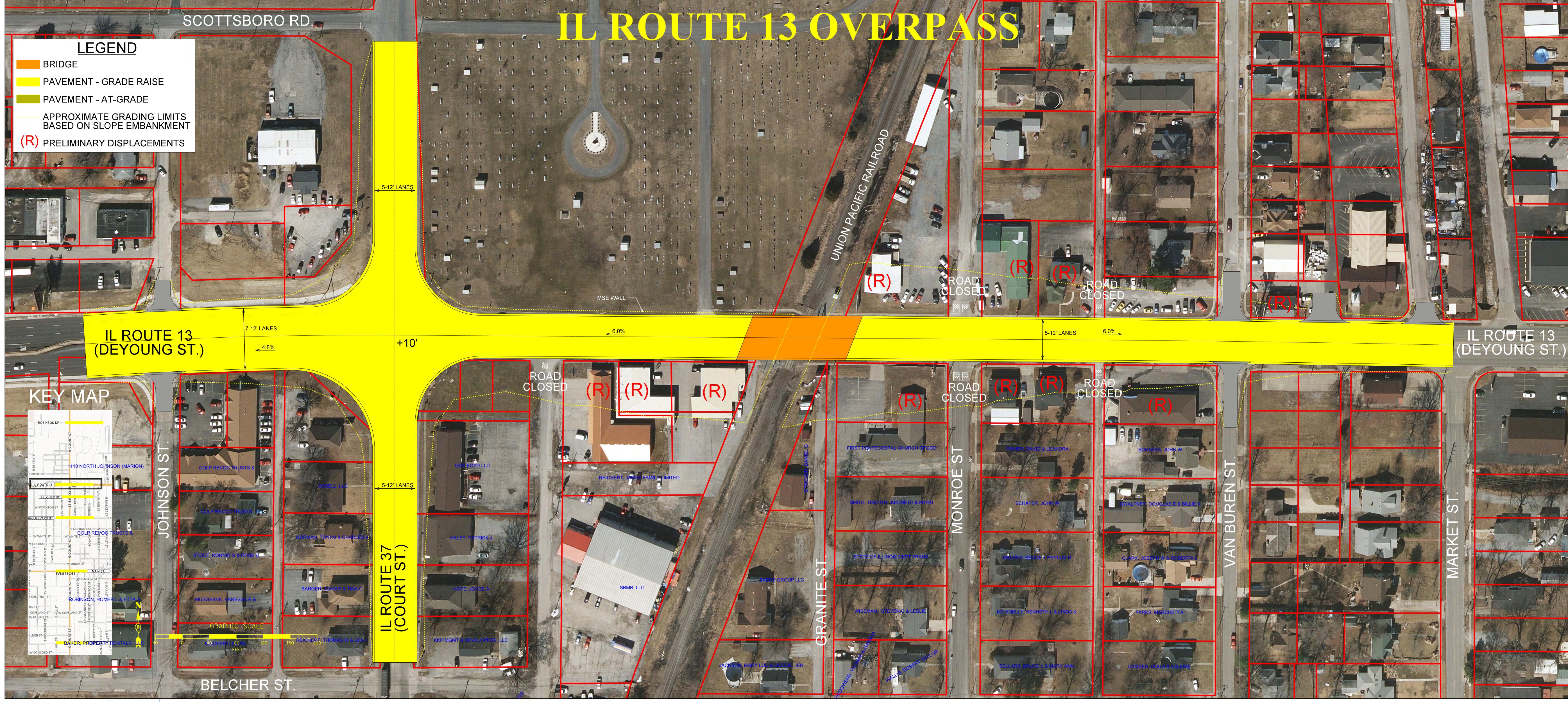


EXHIBIT 4L- Public Meeting Display



EXHIBIT 4M- Public Meeting Display

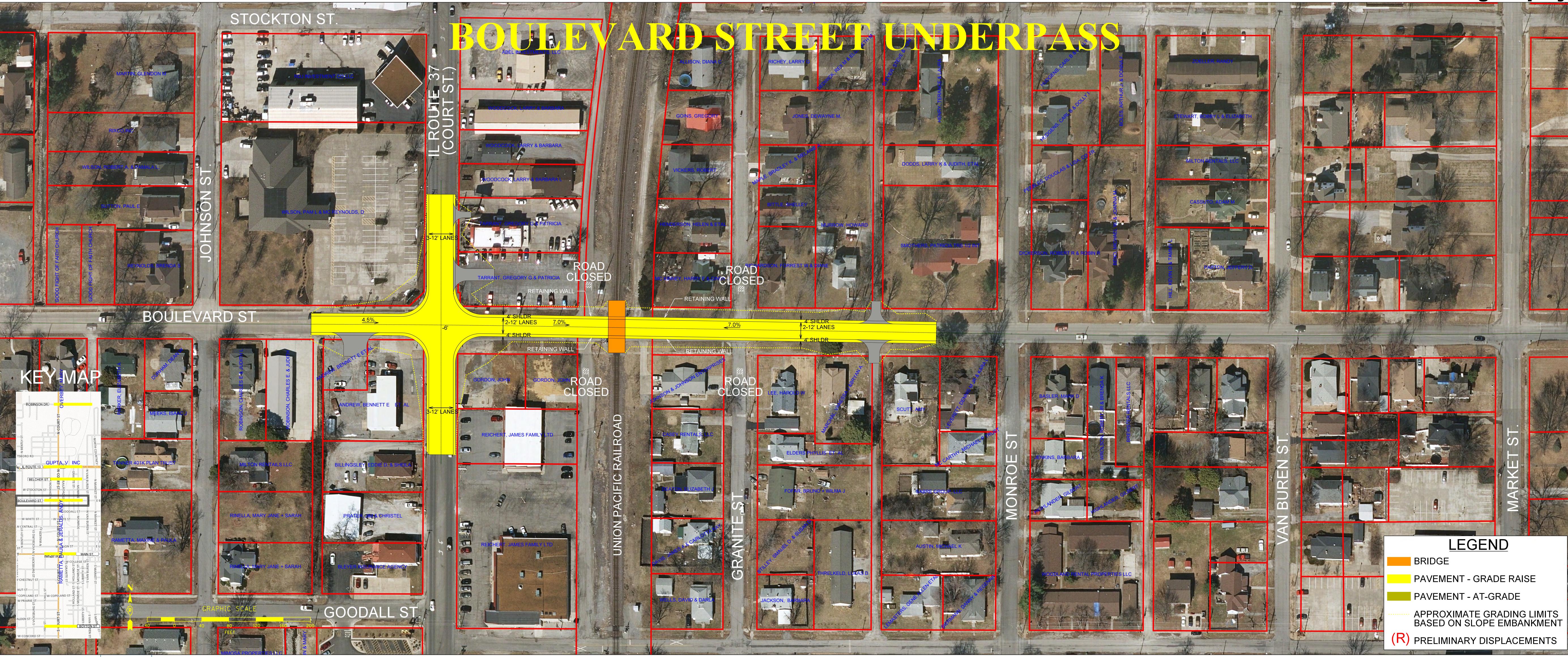


EXHIBIT 4N- Public Meeting Display

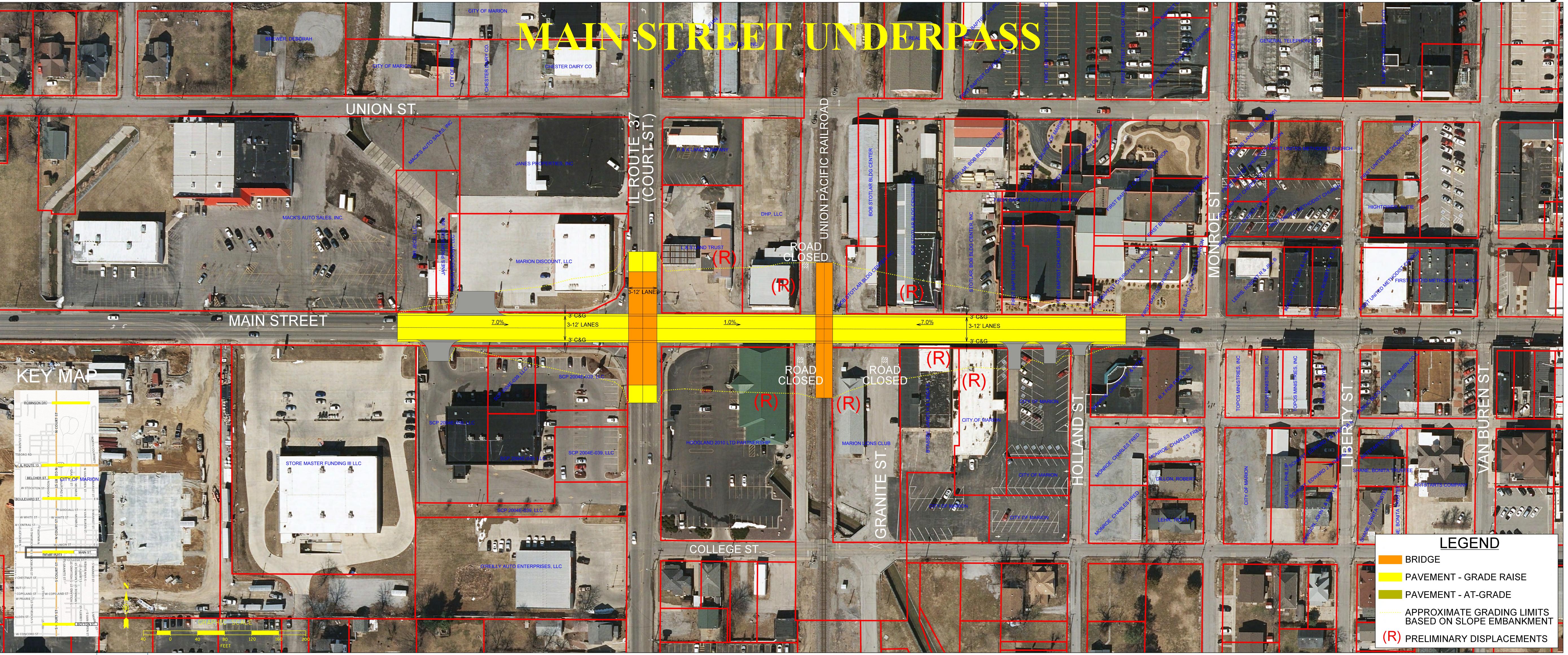
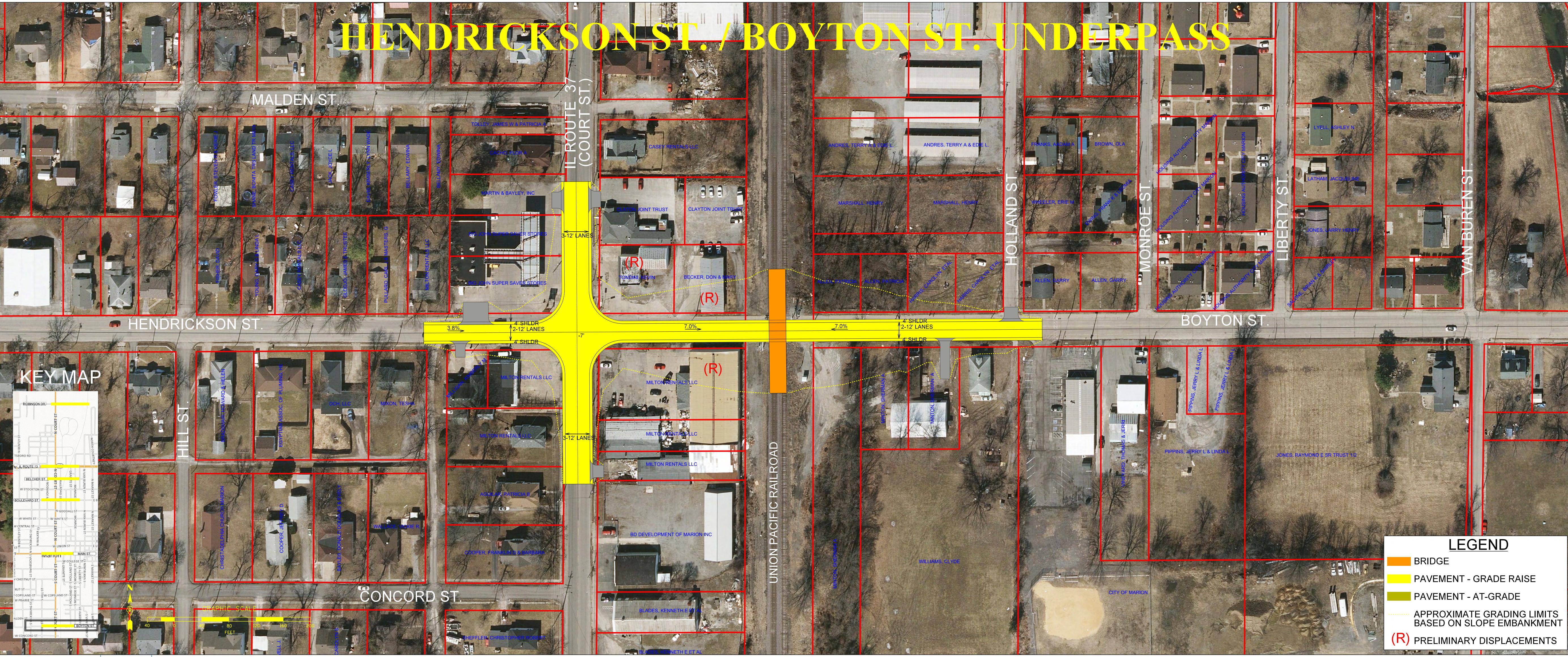


EXHIBIT 40- Public Meeting Display



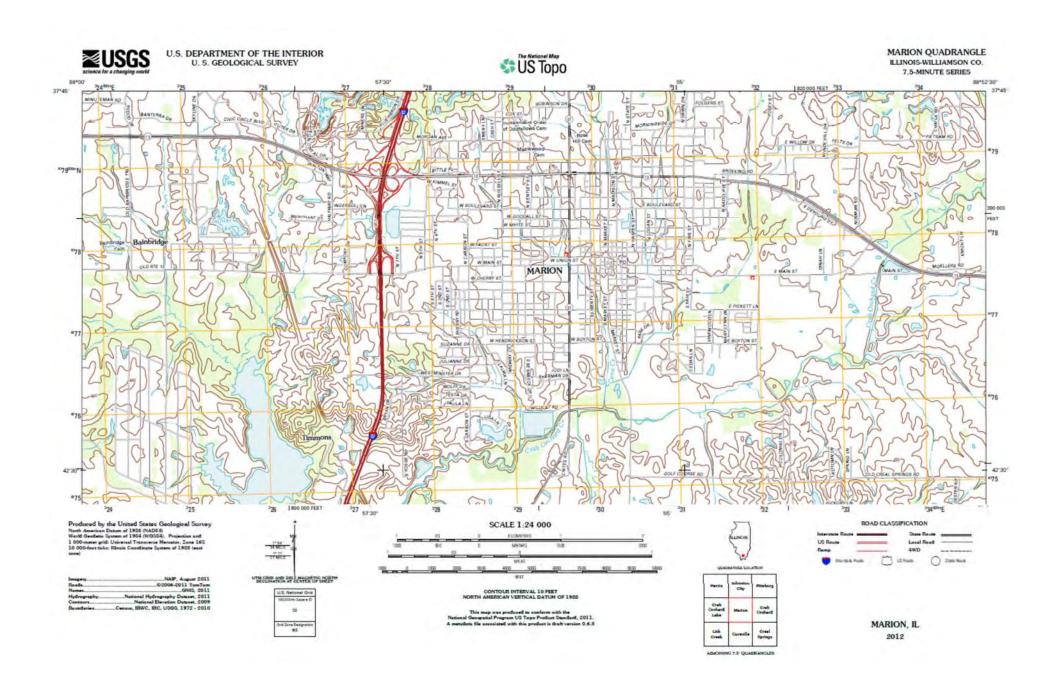
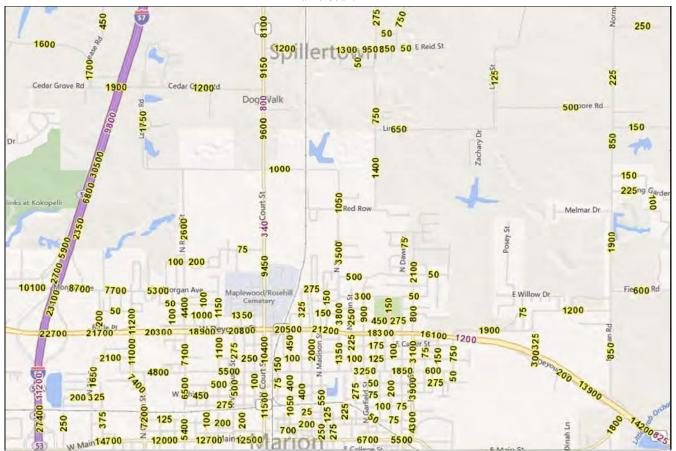


EXHIBIT 5 - USGS MAP

Traffic Count



Created by Illinois DOT, 6/29/2015

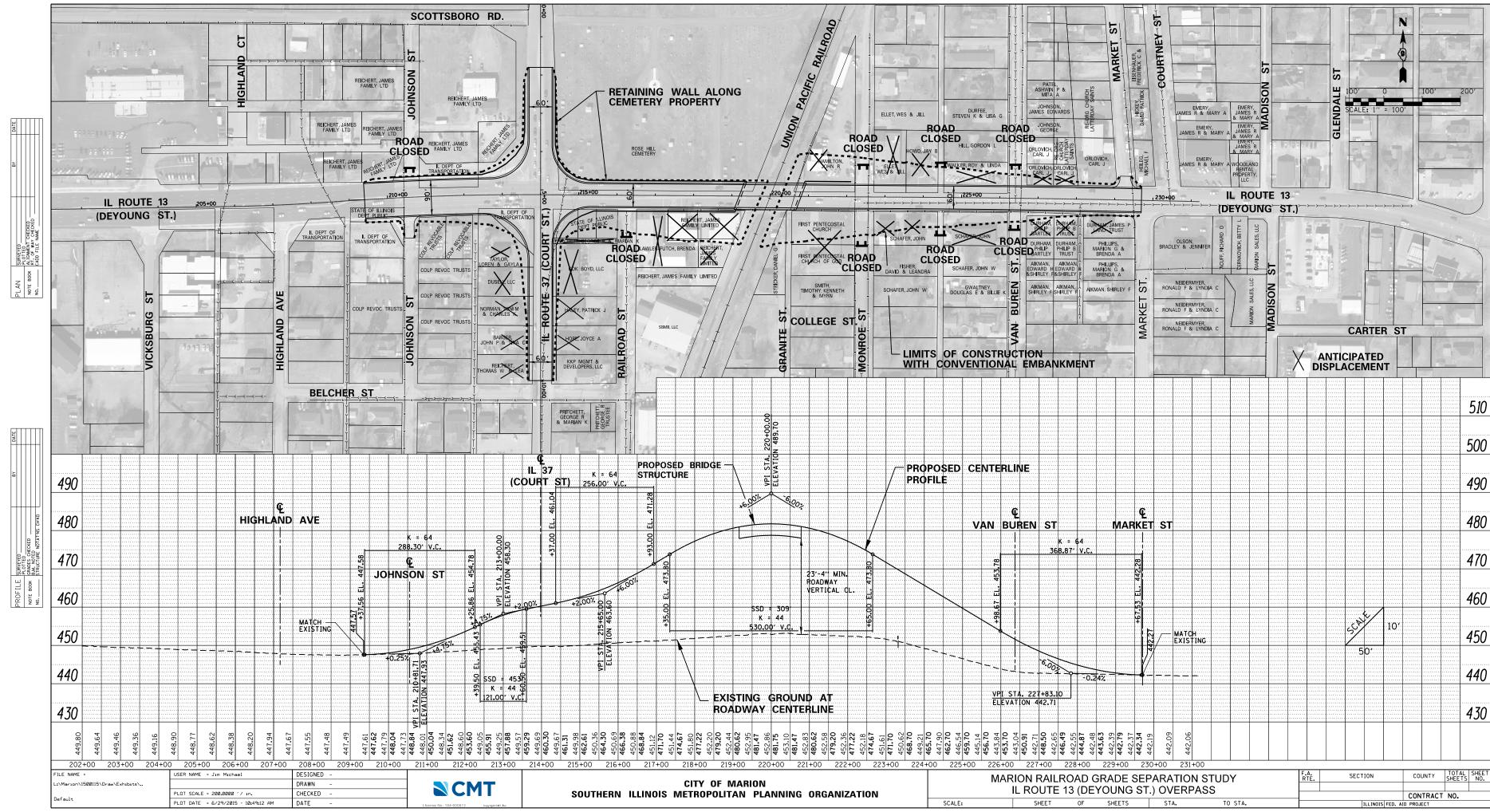
Exhibit 6A-IDOT AADT Map

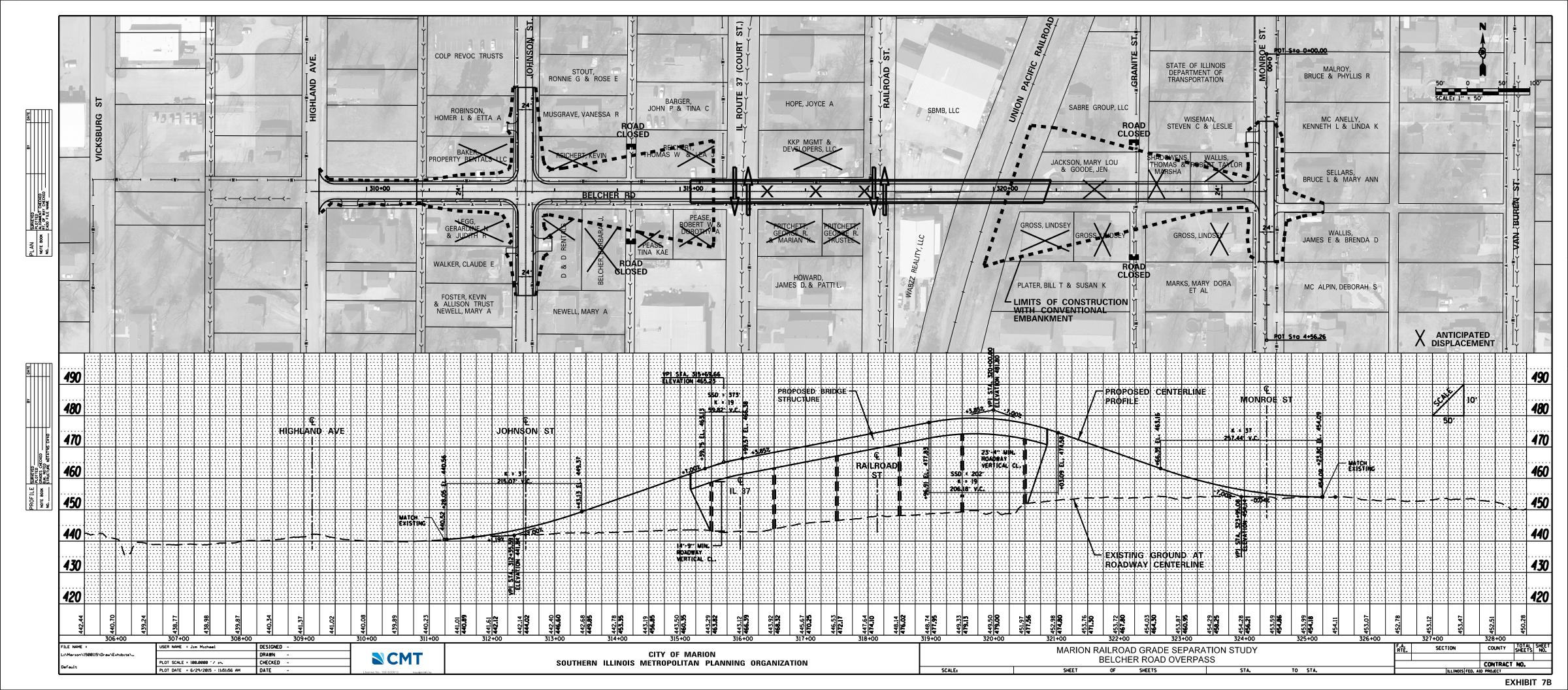
Traffic Count

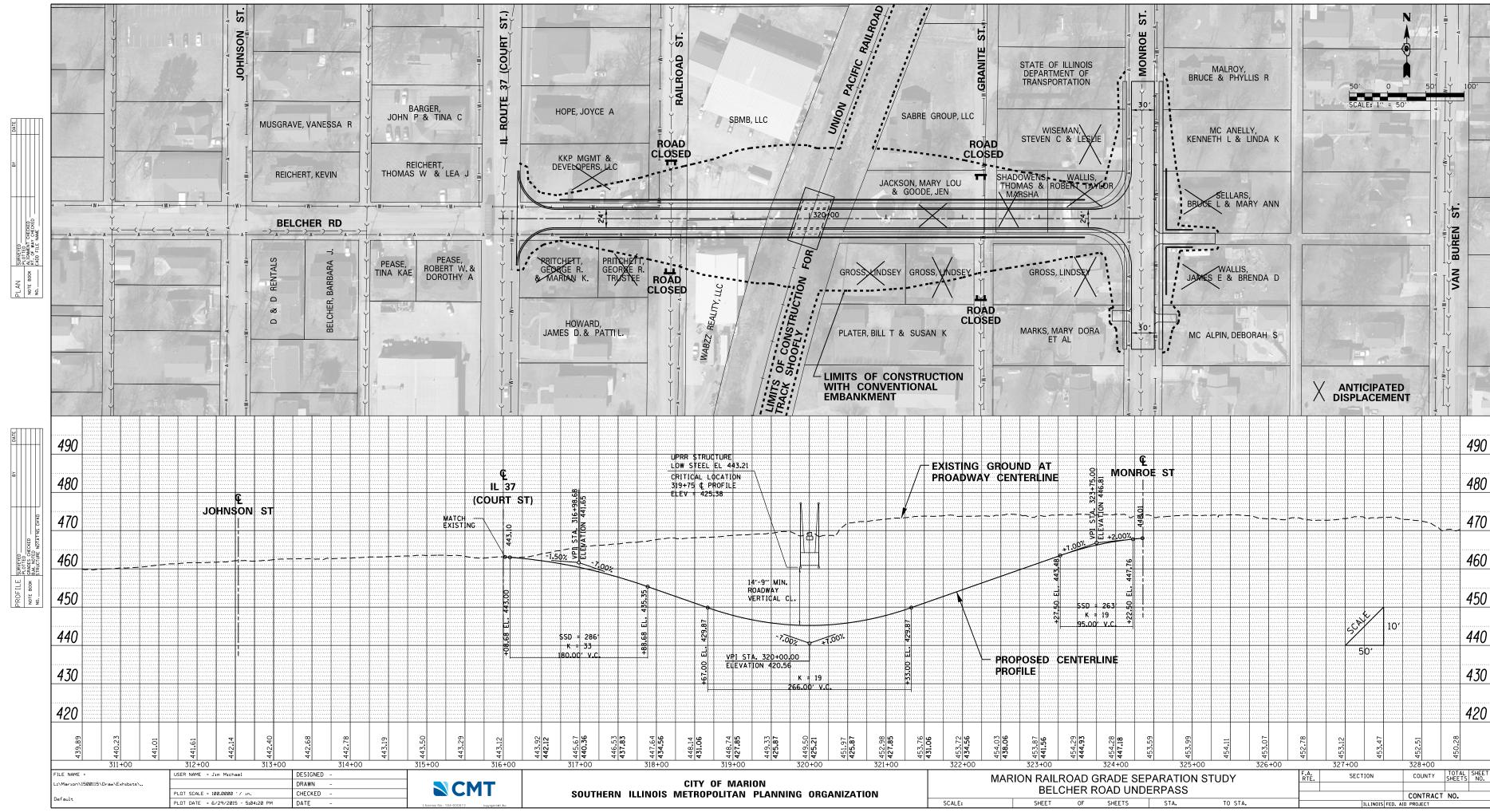


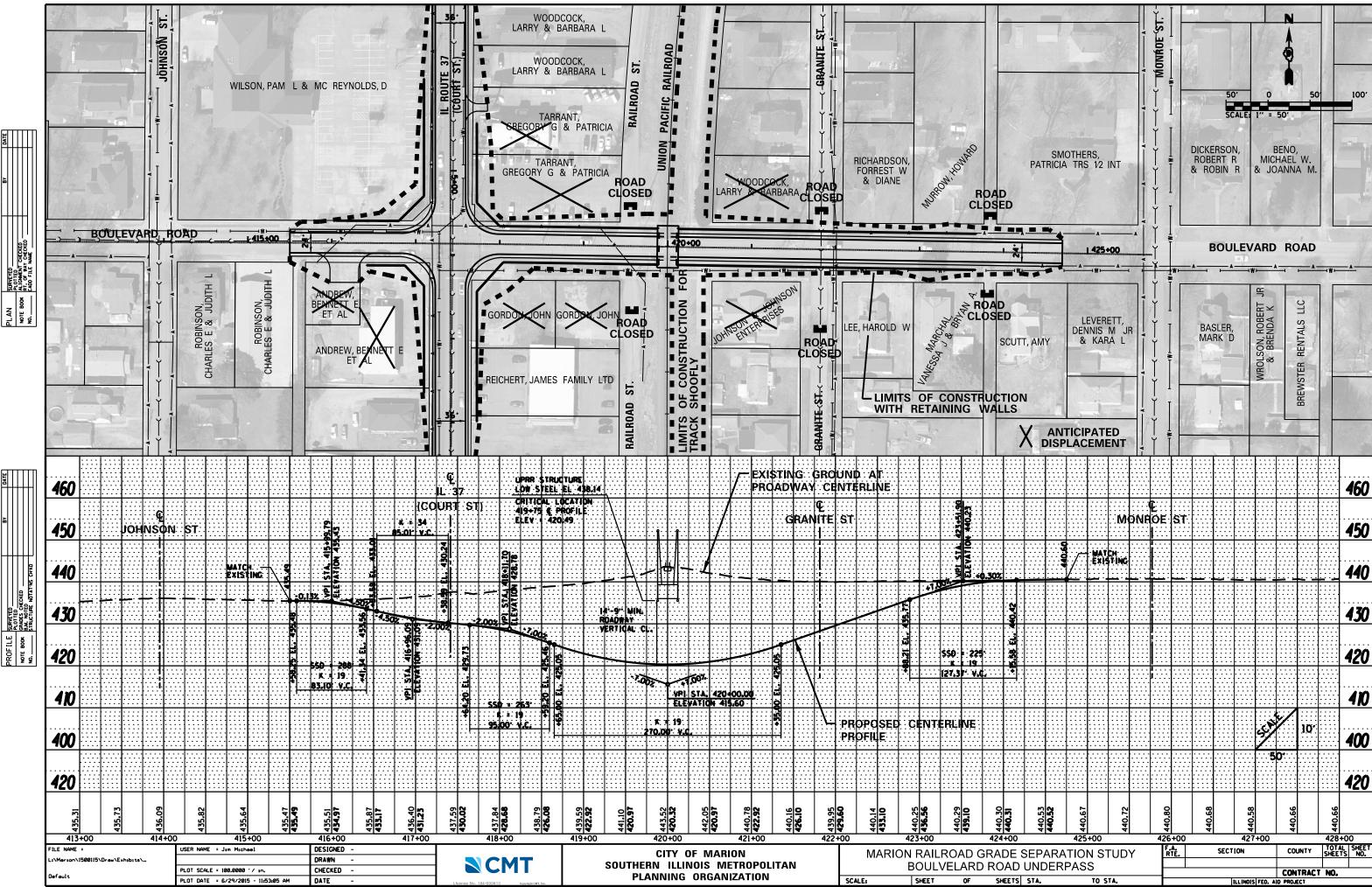
Created by Illinois DOT, 6/29/2015

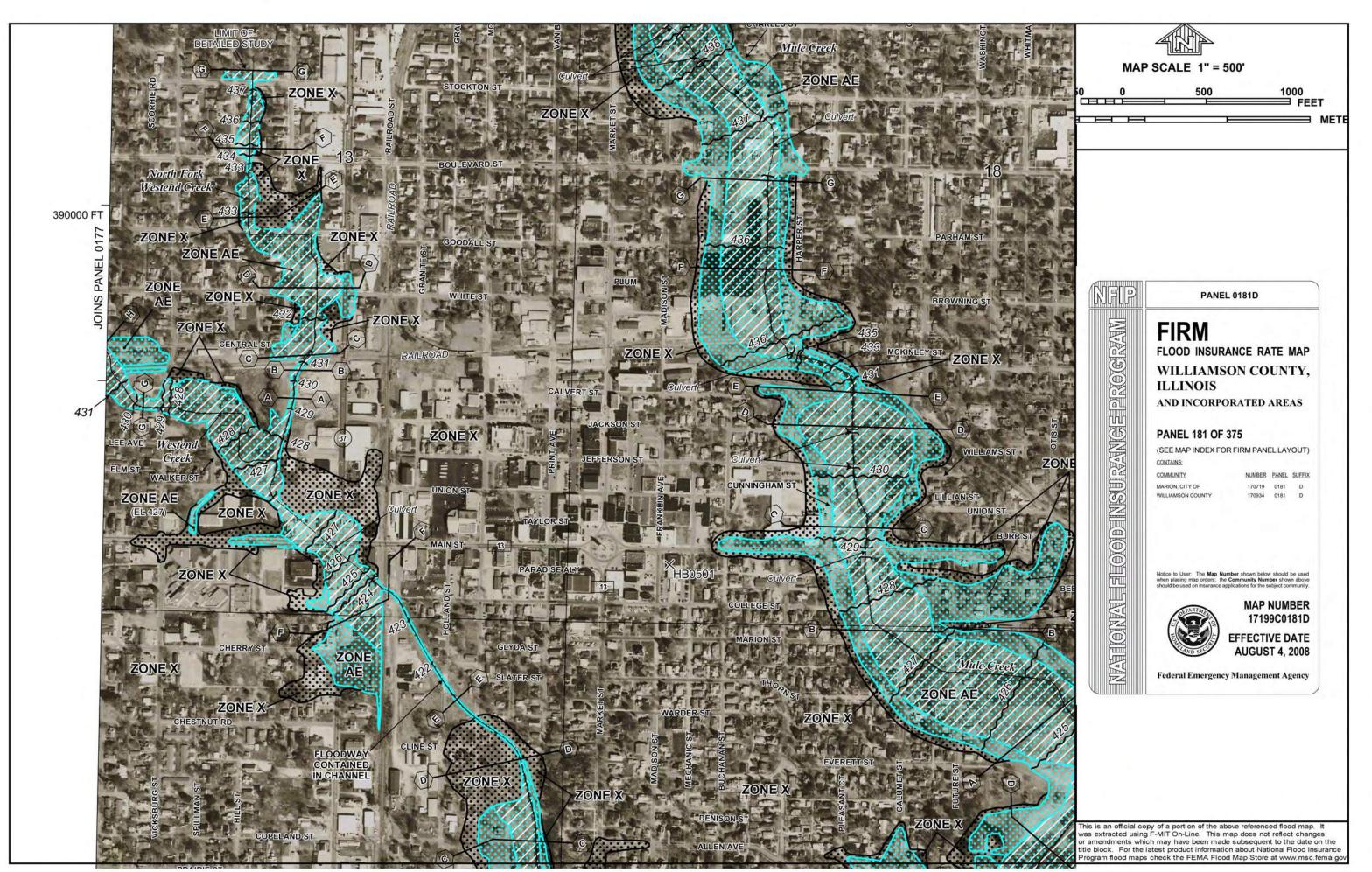
Exhibit 6B-IDOT AADT Map













LEGEND



SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A No Base Flood Elevations determined.
ZONE AE Base Flood Elevations determined.

ZONE AH Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations

determined

ZONE AO Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average

depths determined. For areas of alluvial fan flooding, velocities also

determined.

ZONE AR Special Flood Hazard Areas formerly protected from the 1% annual chance

flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide

protection from the 1% annual chance or greater flood.

ZONE A99 Area to be protected from 1% annual chance flood by a Federal flood

protection system under construction; no Base Flood Elevations determined.

ZONE V Coastal flood zone with velocity hazard (wave action); no Base Flood

Elevations determined.

ZONE VE Coastal flood zone with velocity hazard (wave action); Base Flood Elevations

determined.



FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

.....

OTHER FLOOD AREAS

ZONE X

Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X

Areas determined to be outside the 0.2% annual chance floodplain.

ZONE D

Areas in which flood hazards are undetermined, but possible.



COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS



OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

1% a 0.2%

1% annual chance floodplain boundary0.2% annual chance floodplain boundary

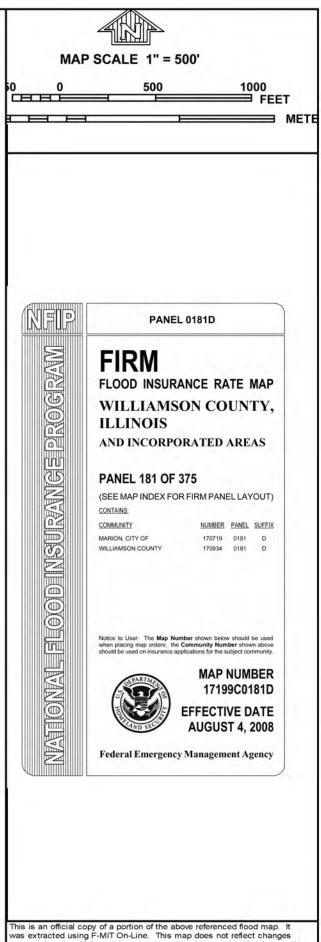
Floodway boundary

Zone D boundary
CBRS and OPA boundary

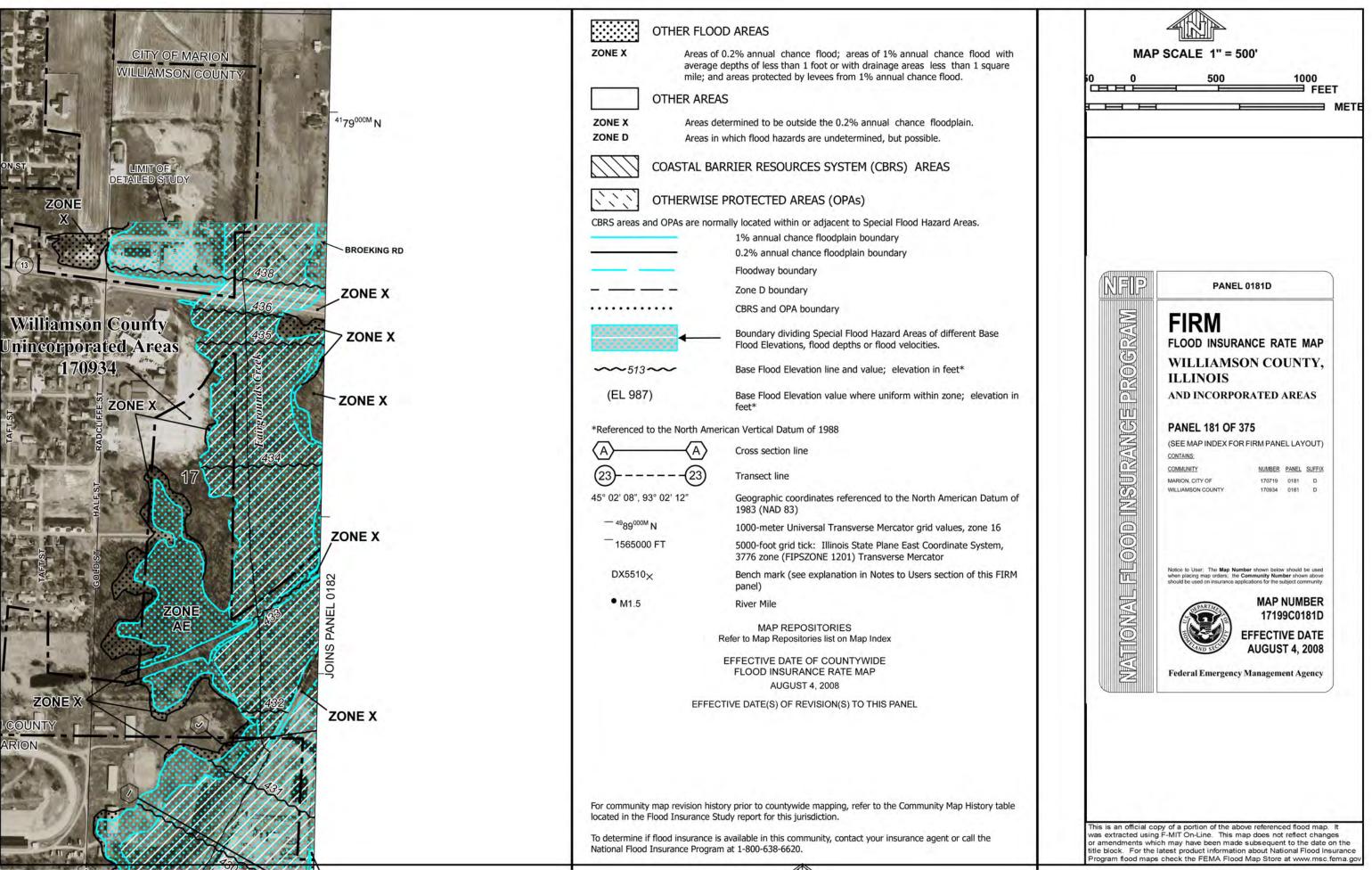


Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.

Base Flood Elevation line and value; elevation in feet*



Inis is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov



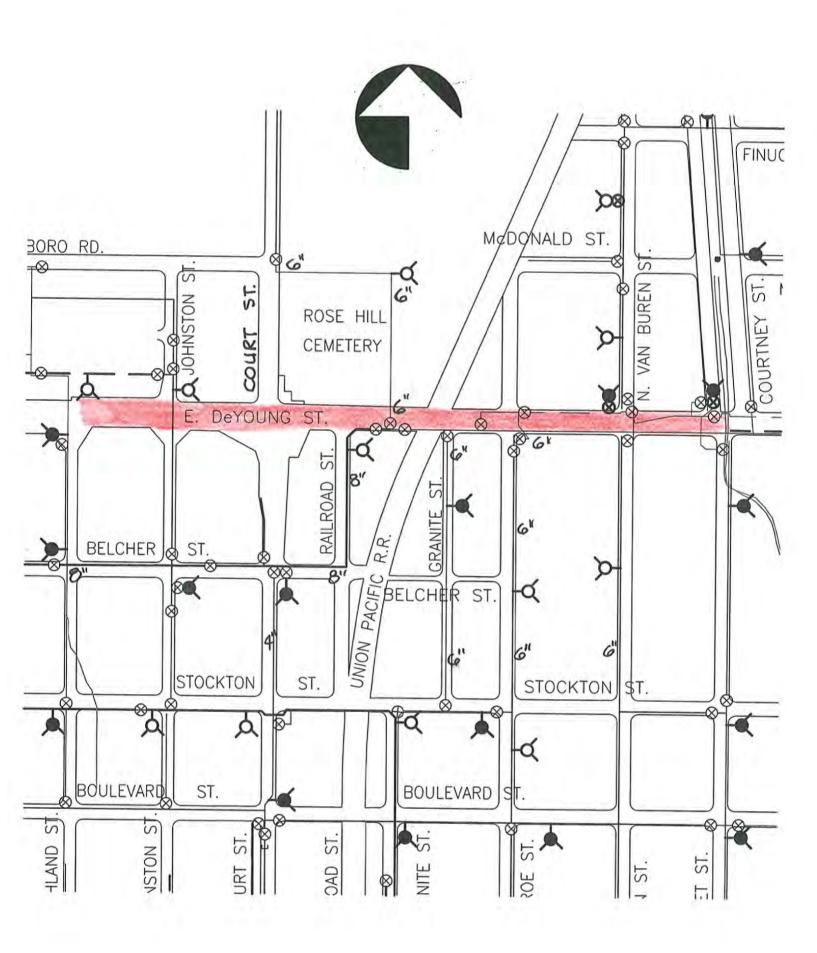
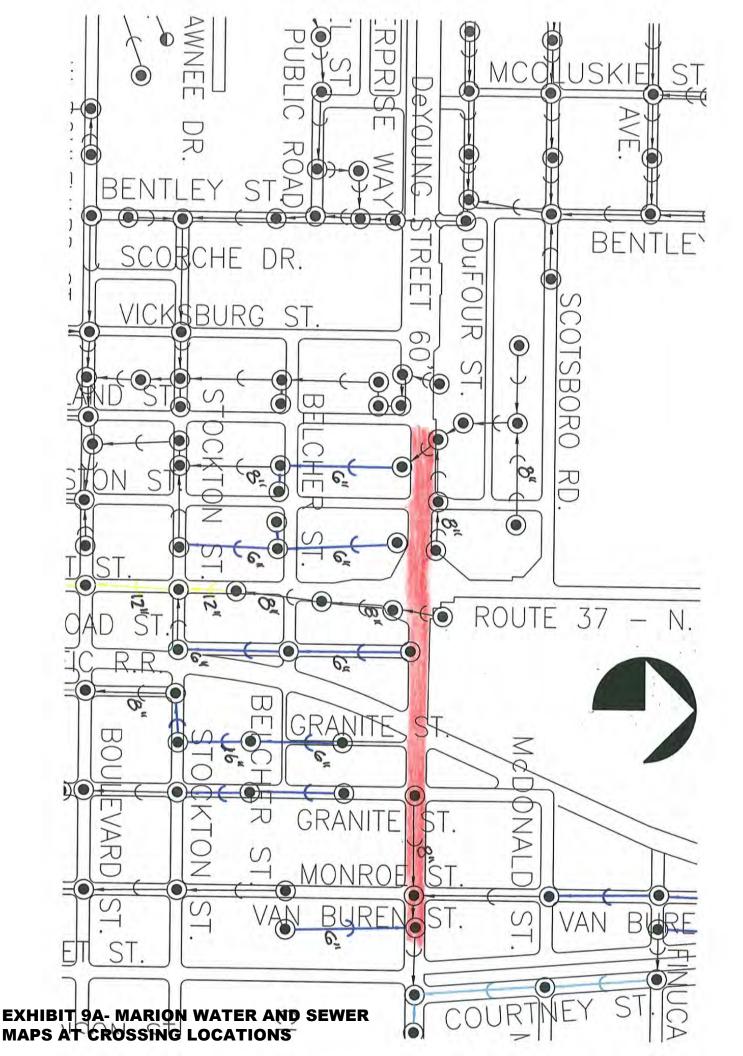


EXHIBIT 9A- MARION WATER AND SEWER MAPS AT CROSSING LOCATIONS



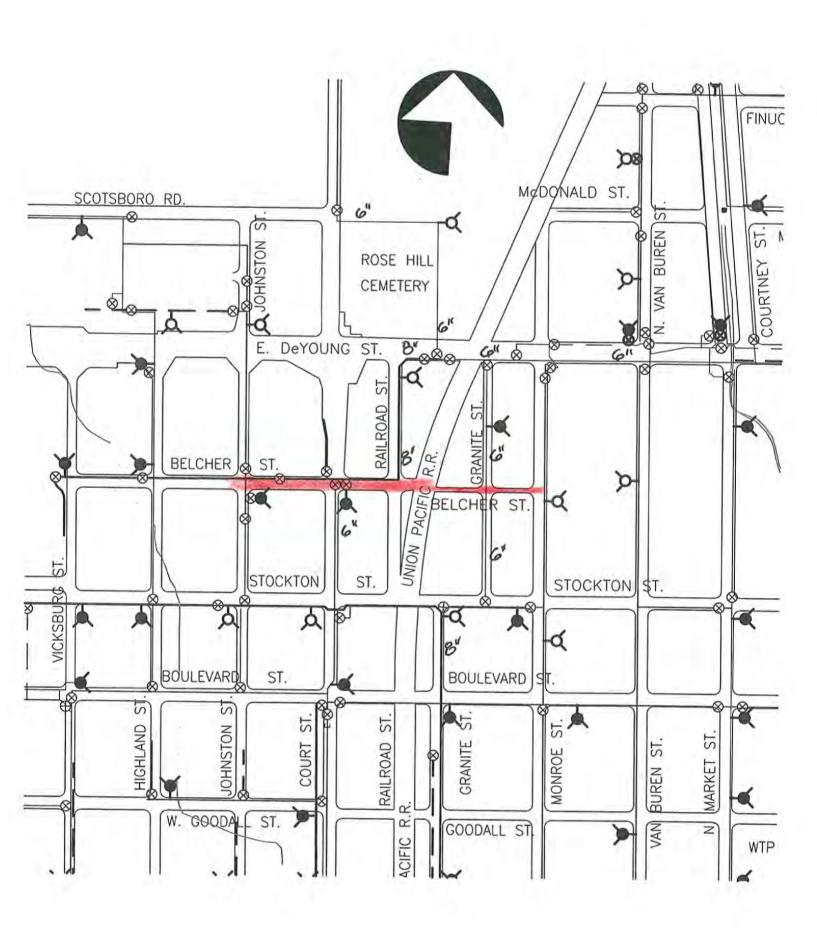
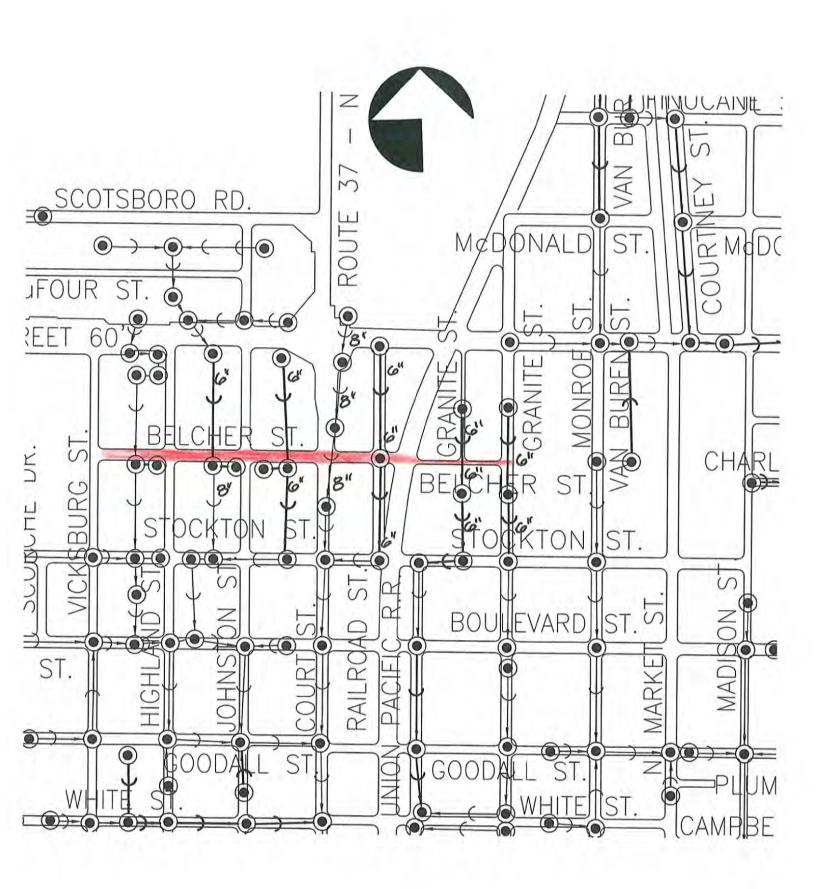


EXHIBIT 9A- MARION WATER AND SEWER MAPS AT CROSSING LOCATIONS



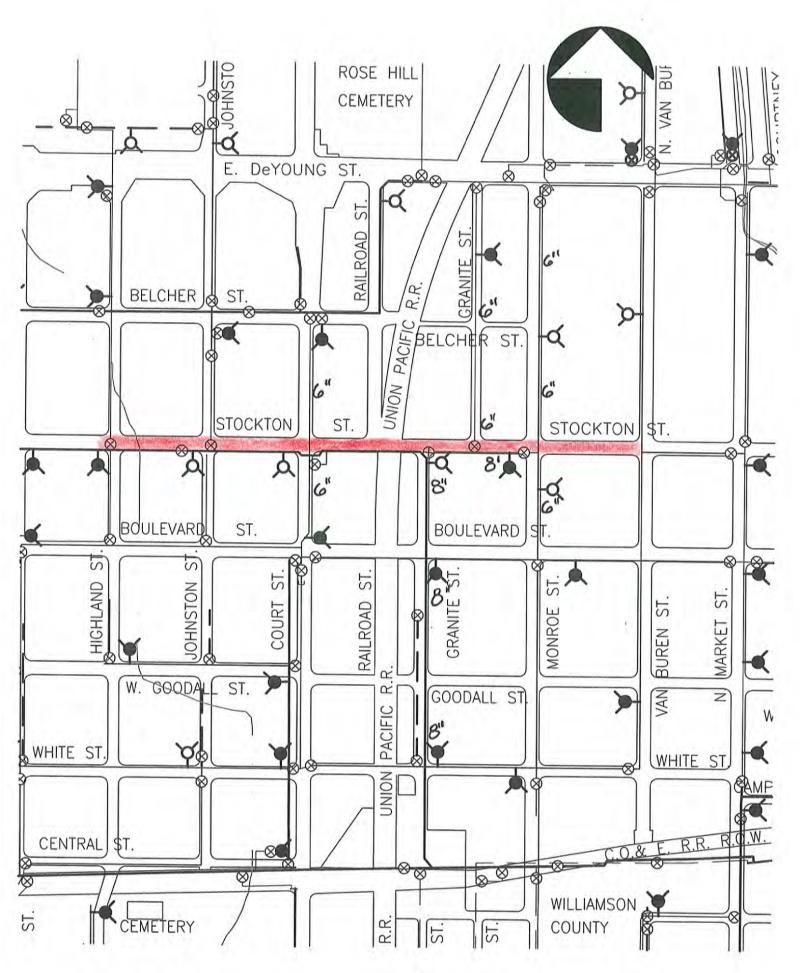
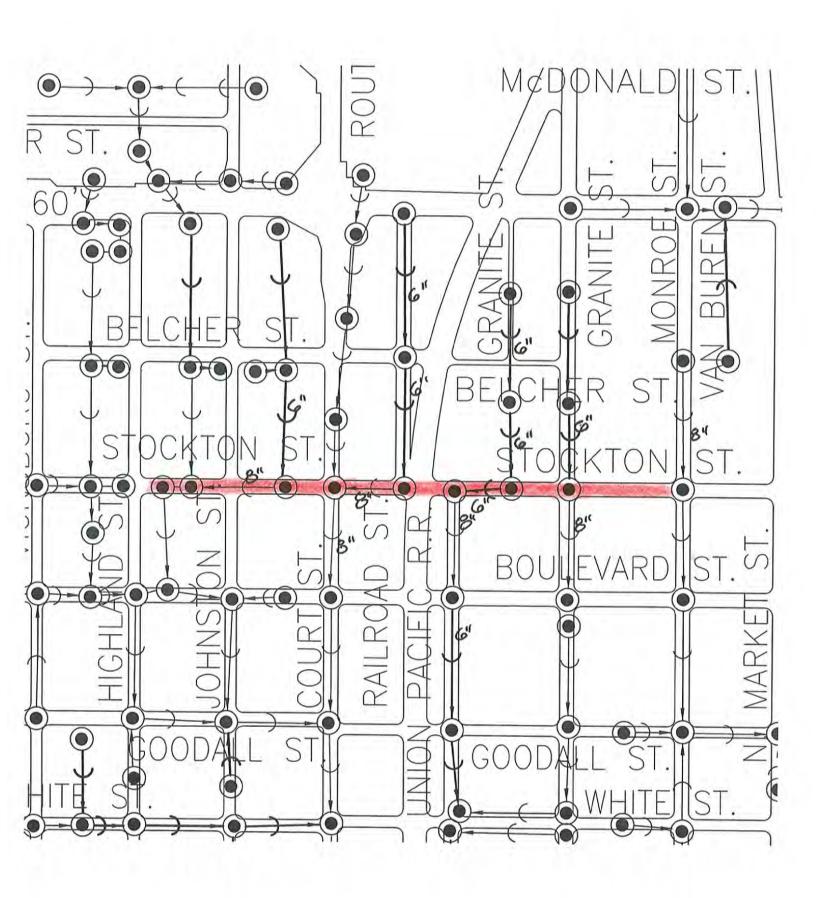
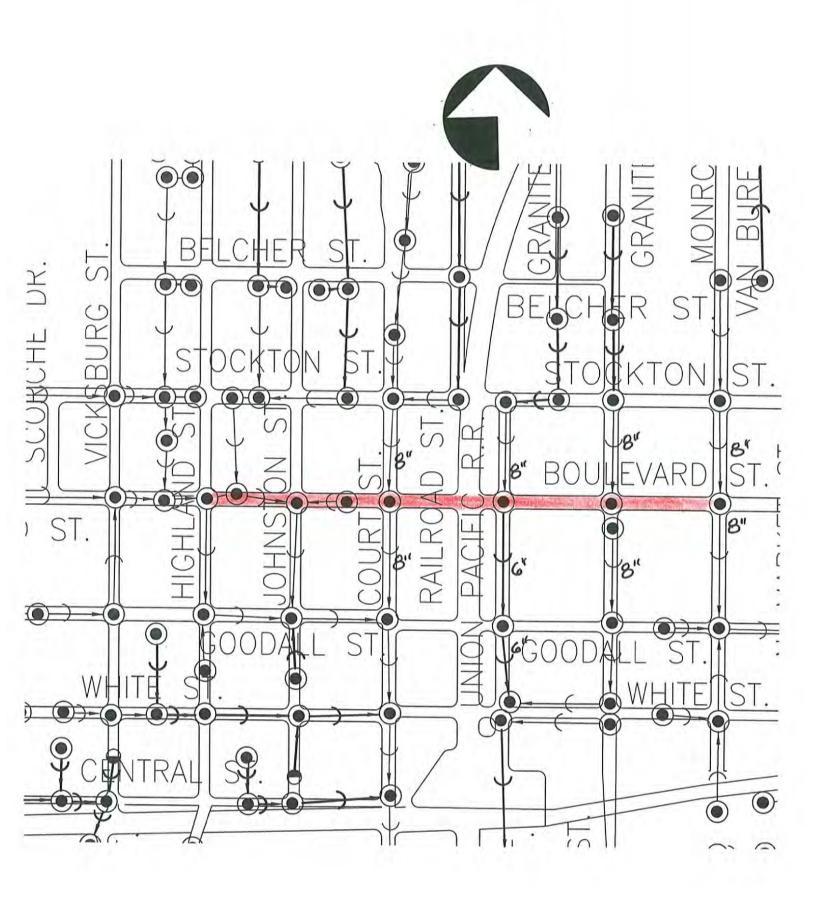
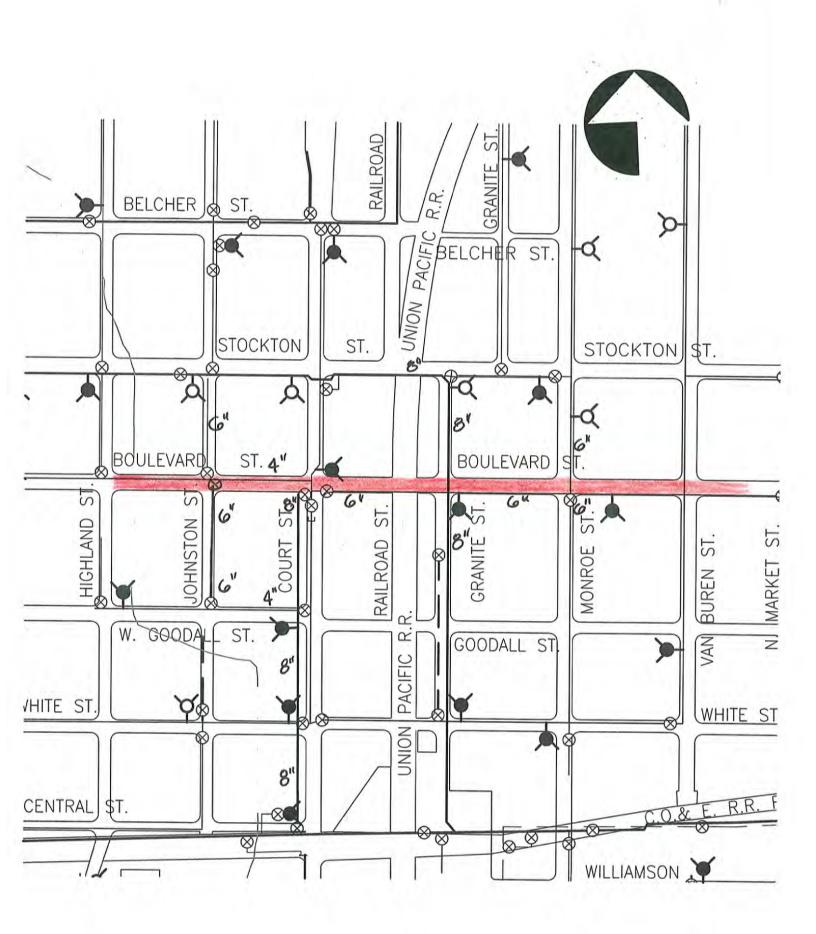
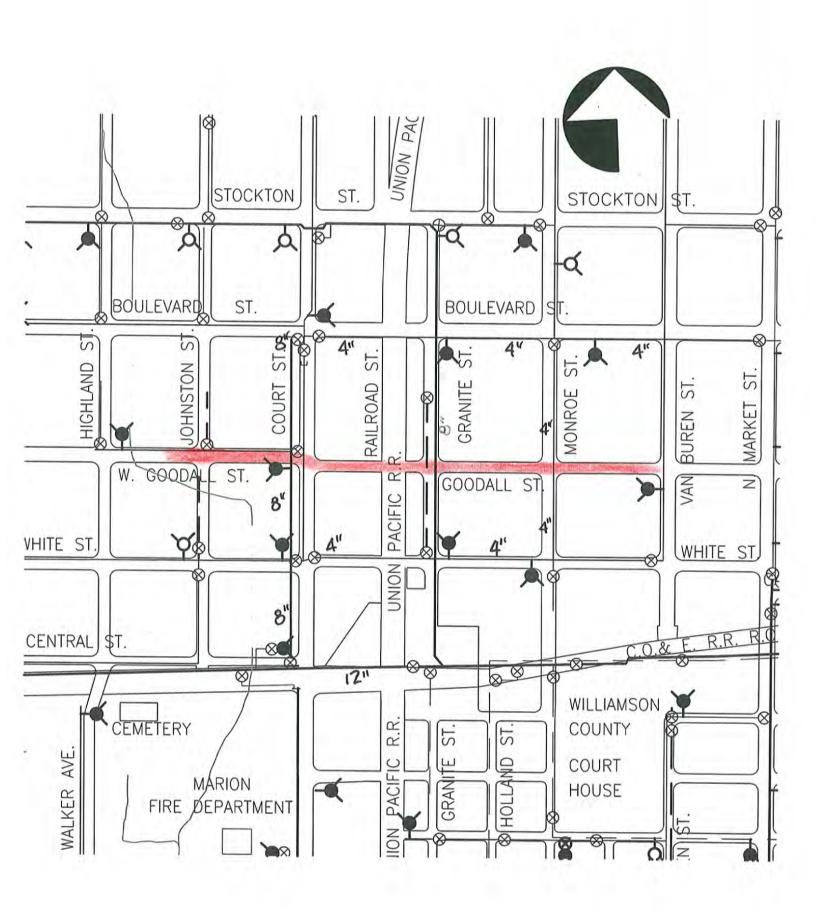


EXHIBIT 9A- MARION WATER AND SEWER MAPS AT CROSSING LOCATIONS









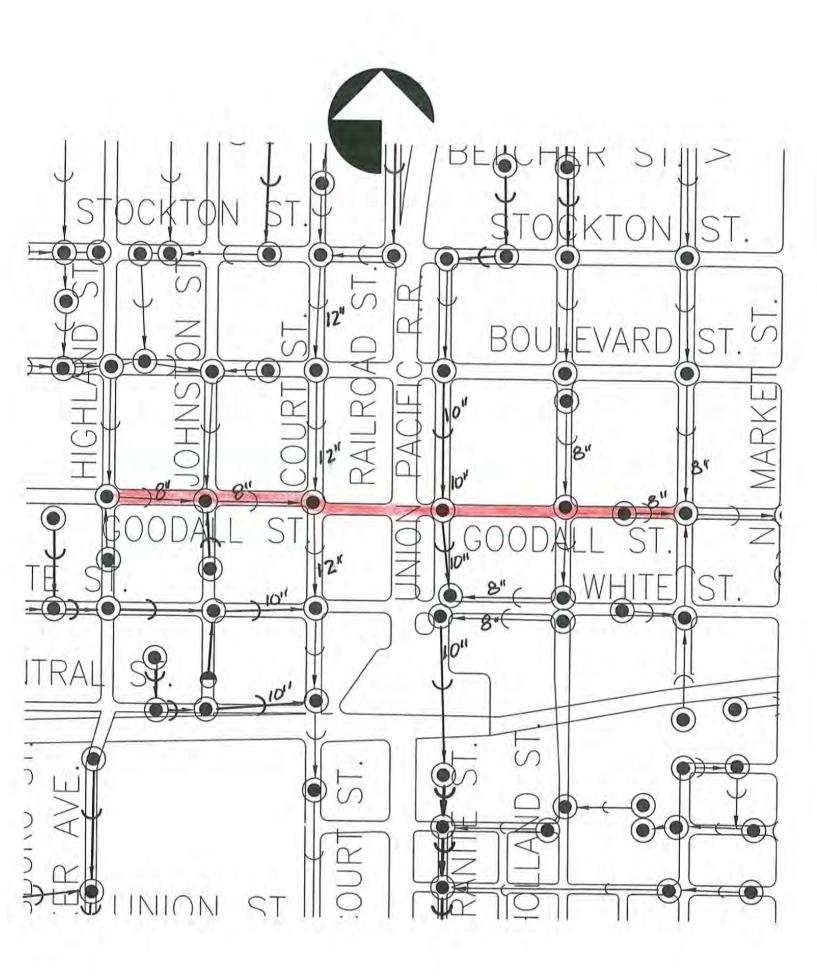


EXHIBIT 9A- MARION WATER AND SEWER MAPS AT CROSSING LOCATIONS

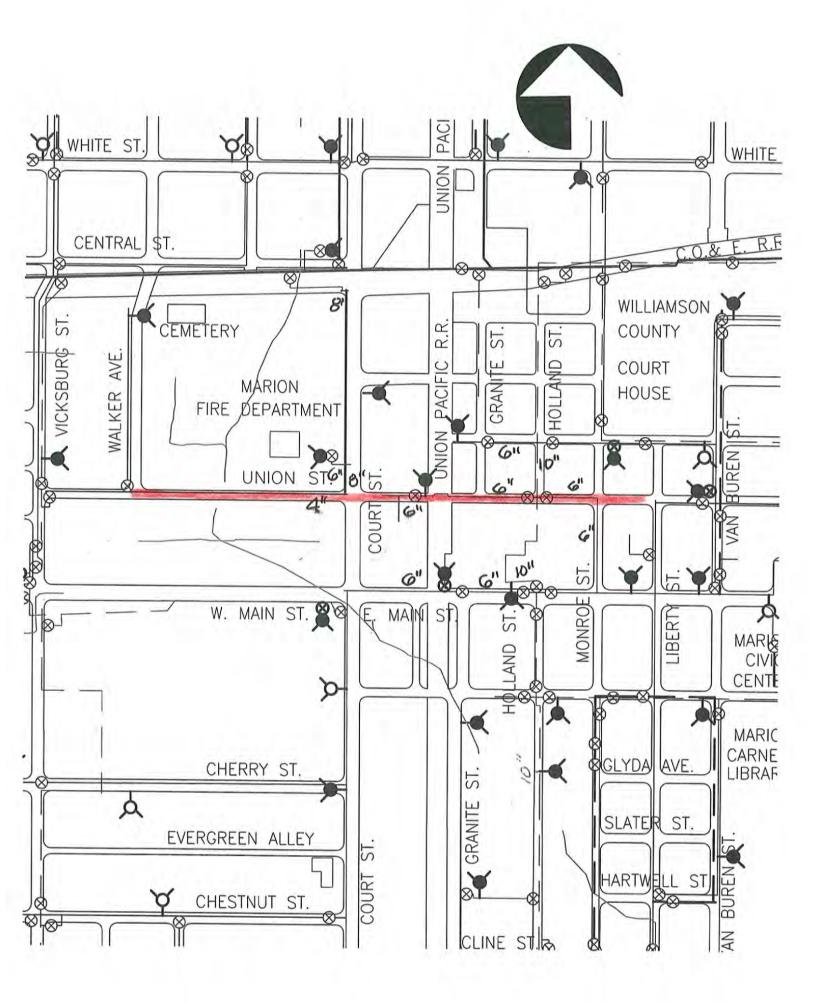


EXHIBIT 9A- MARION WATER AND SEWER MAPS AT CROSSING LOCATIONS

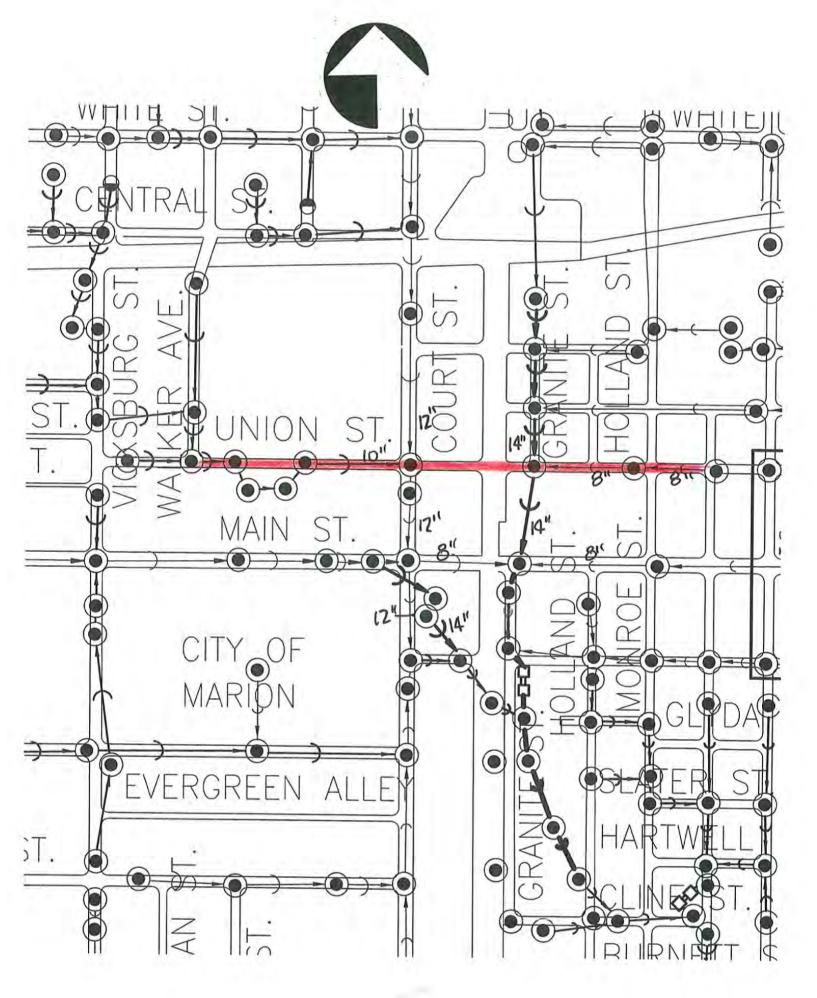


EXHIBIT 9A- MARION WATER AND SEWER MAPS AT CROSSING LOCATIONS

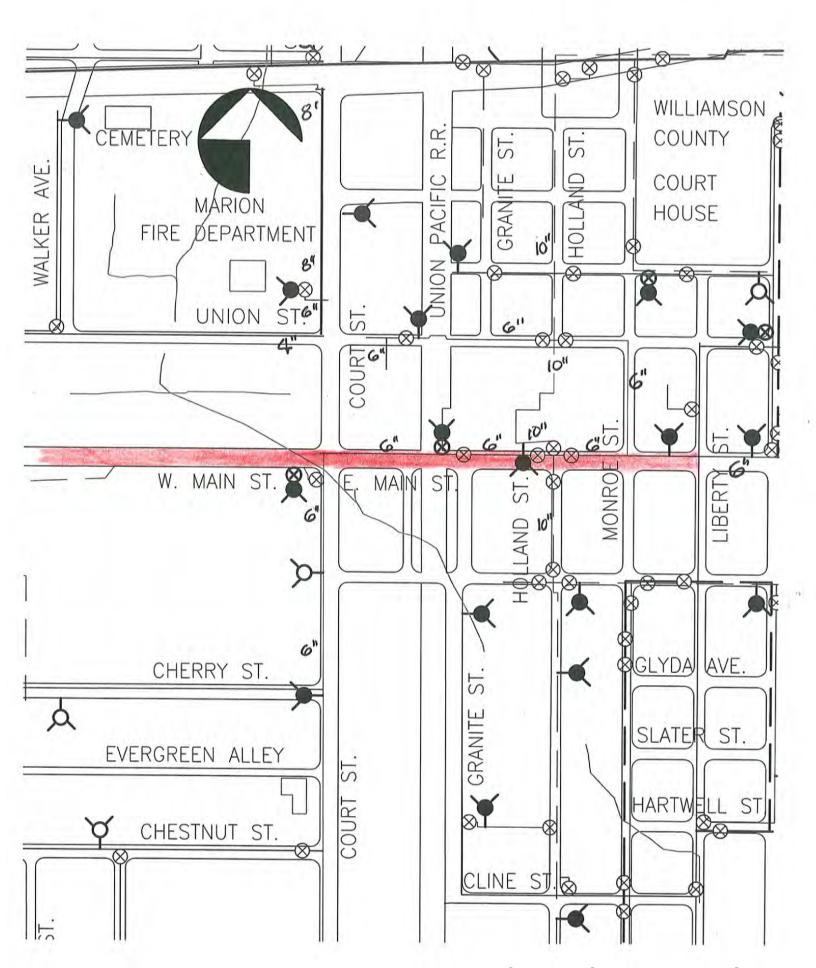
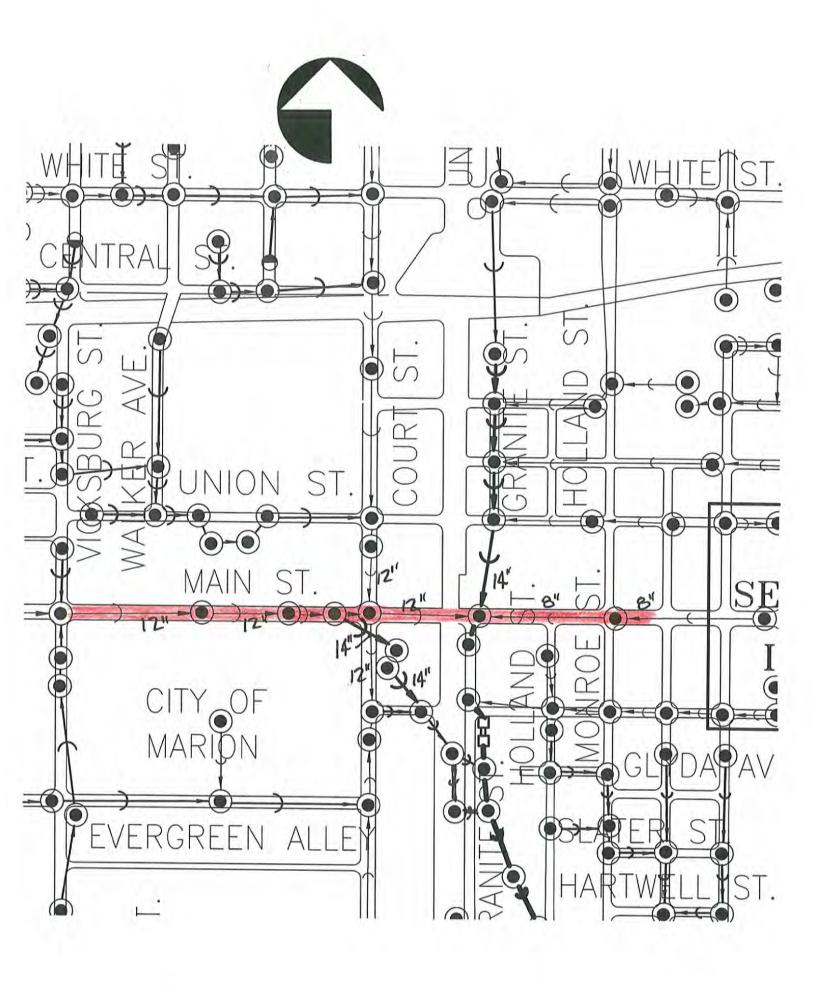


EXHIBIT 9A- MARION WATER AND SEWER MAPS AT CROSSING LOCATIONS



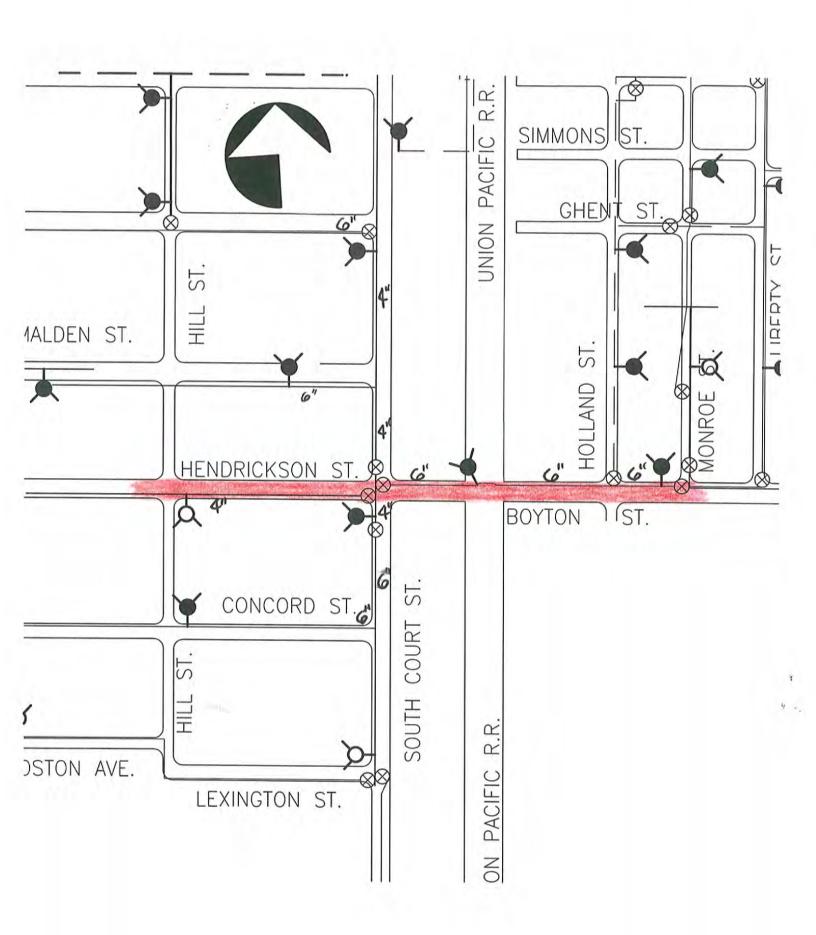


EXHIBIT 9A- MARION WATER AND SEWER MAPS AT CROSSING LOCATIONS

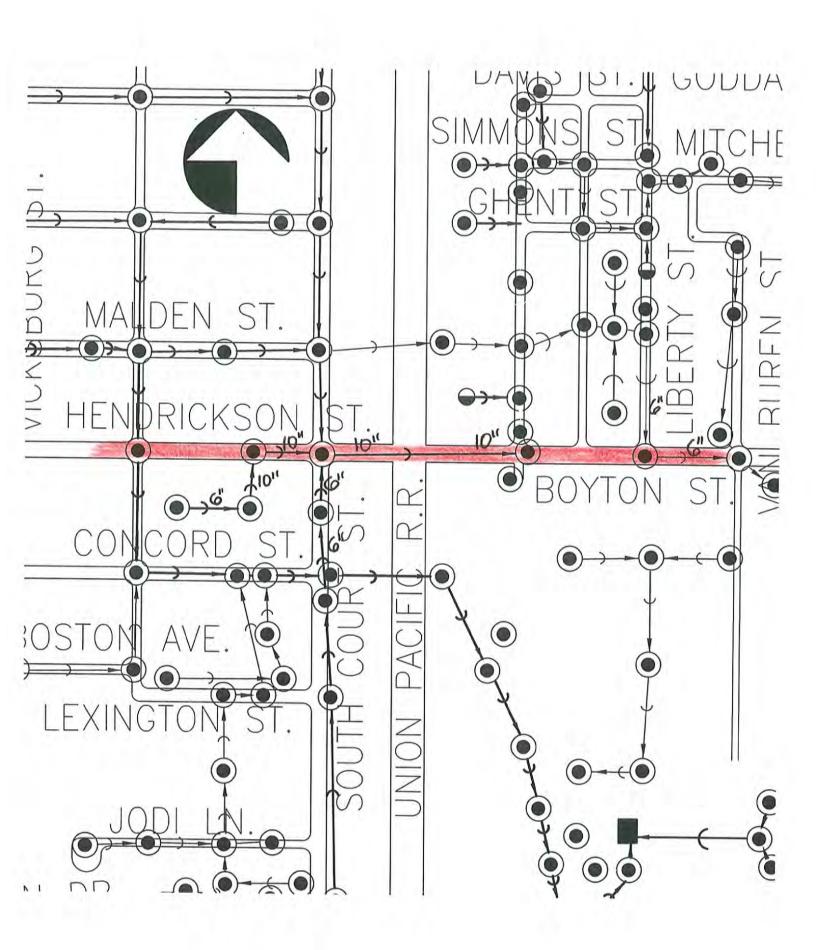


EXHIBIT 9A- MARION WATER AND SEWER MAPS AT CROSSING LOCATIONS

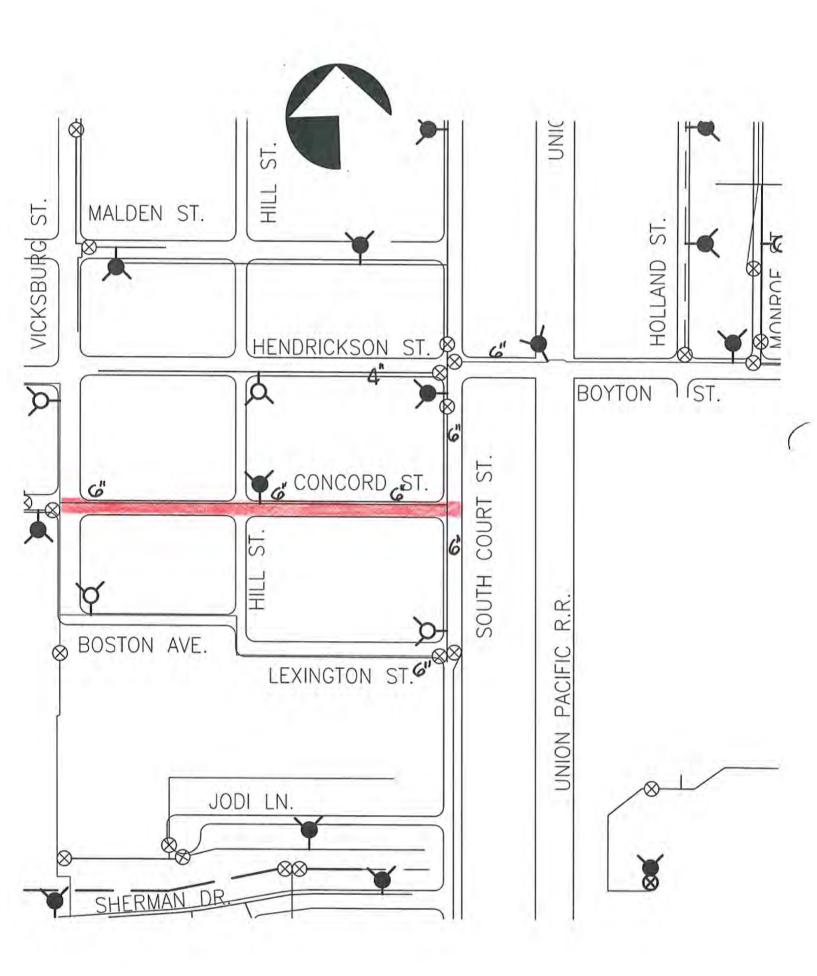


EXHIBIT 9A- MARION WATER AND SEWER MAPS AT CROSSING LOCATIONS

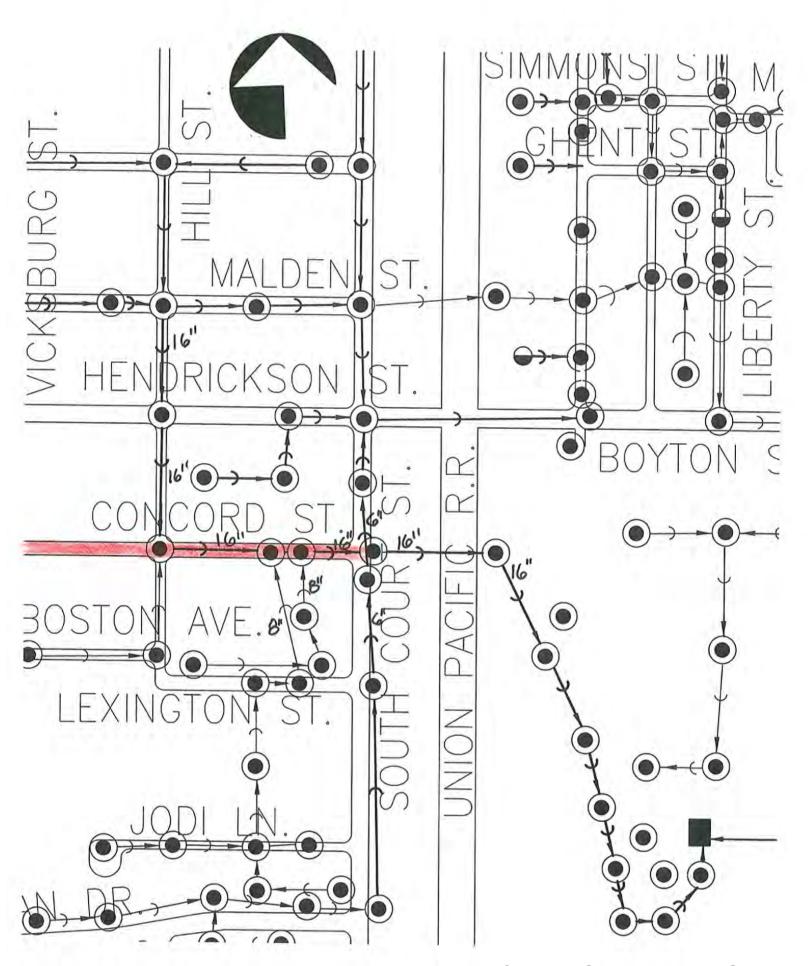


EXHIBIT 9A- MARION WATER AND SEWER MAPS AT CROSSING LOCATIONS



feet 300 meters 100



CONCORD ST. (WEST OF RR)

- 1. ROW 40' (West of IL 37)
- 2. Street Surface HMA
- 3. Streeth Width 20' E.P. to E.P.
- 4. Type of street Rural
- 5. Overhead Utility South side of street (Ameren)
 H-1 34' to E.P.
 H-2 41' to E.P.
 B-1 11" to G extended
 B-2 10' to G extended
 B-3 47' to G extended



1. No existing road or utilities

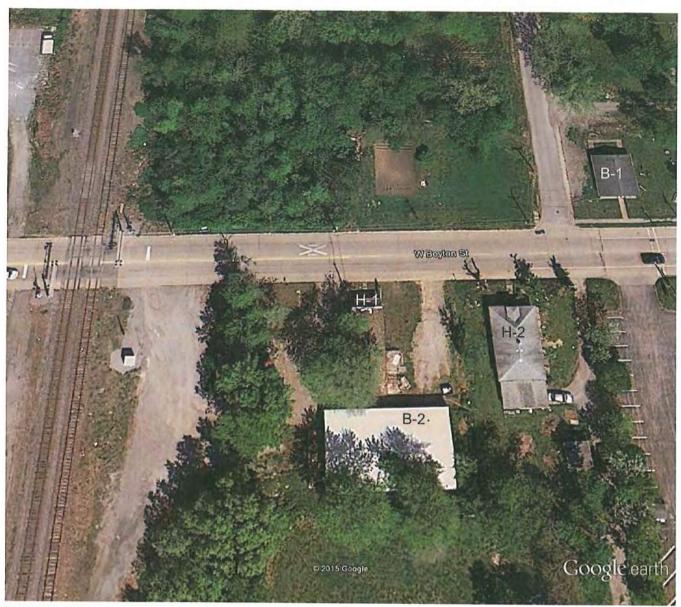


feet 300 meters 90 Boyton St. (West of RR)



- 1. ROW 50' to IL Rte 37
- 2. Street surface HMA
- 3. Street width 37.5' BC to BC west of Court St.
- 39.5' BC to BC east of Court St.

- 4. Type of sTreet Urban
- 5. Overhead Utility Ameren (south side west of Court St. north side across Court St. and east of Court St.)
- B-1 9' to E.P.
- B-2 8' to E.P.
- B-3 24' to E.P.
- B-4 50' to E.P.
- B-5 50' to E.P.



feet 100 meters Boyton St. (East of RR)



- 1. ROW 50'
- 2. Street surface Concrete
- 3. Street width 40' B.C. to B.C.
- 4. Type of street Urban
- 5. Overhead utility Ameren (north side)

H-1 9' to E.P. B-1 28' to E.P. H-2 15' to E.P. B-2 80' to E.P.



meters

West Main St. (West of RR)

1. ROW - 50' to IL Rte 37

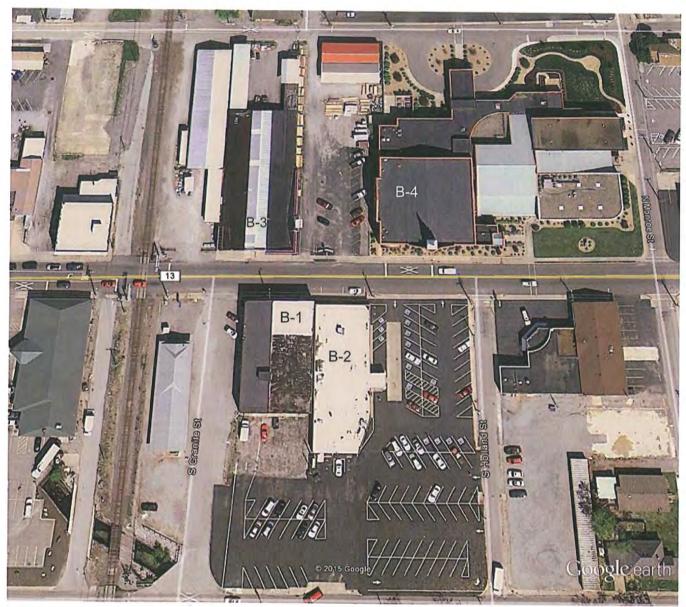
(1) 20' x 6' concrete channel

300

100

2. Street surface - HMA

- (2) 4' Ø Concrete Pipe
- 3. Street width 36' B.C. to B.C. east of Court St. 49.5' B.C. to B.C. west of Court St.
- 4. Type of street Urban
- 5. Overhead utility on south side east of Court St. and across Cour St. on north side west of Court St.
 - B-1 56' to E.P.
 - B-2 8' to E.P.
 - B-3 82' to E.P.
 - B-4 23' to E.P.



feet 300
meters 100
West Main St. (East of RR)

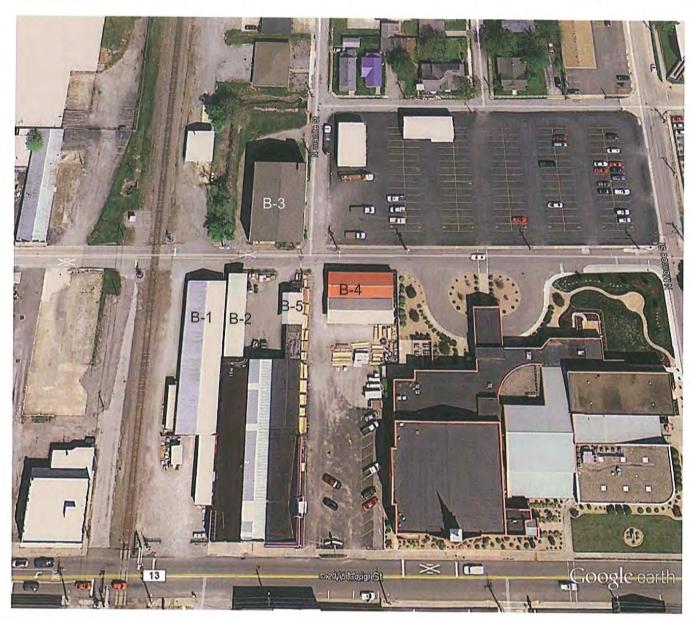


- 1. ROW
- 2. Street surface HMA
- 3. Street width 36.5' B.C. to B.C.
- 4. Type of Street Urban
- 5. Overhead Utility Ameren (South side)
 - B-1 8' to E.P.
 - B-2 12' to E.P.
 - B-3 13' to E.P.
 - B-4 12' to E.P.



feet meters -100 Union St. (West of RR)

- 1. ROW 30' ROW
- 2. Street Surface Concrete east of Court St. HMA west of Court St.
- 3. Street width 27.5' B.C. to B.C.
- 4. Type of street Urban
- 5. Overhead Utility Ameren (North side)
 - B 13' to E.P.
 - B-2 18' to E.P. B-3 31' to E.P.



300 meters 100

Union St. (East of RR)

- 1. ROW 30'
- 2. Street surface HMA
- 3. Street width 22.5' E.P. to E.P.)
- 4. Type of street Rural
- 5. Overhead utility Amerent (North side)
 - B-1 16' to E.P.
 - 7' to E.P. 7' to E.P. B-2
 - B-3
 - B-42' to E.P.
 - B-5 27' to E.P.



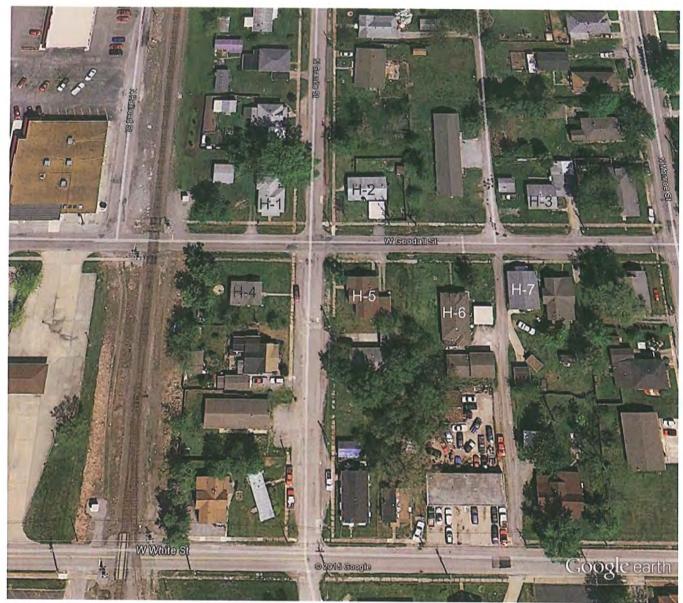
feet 300 meters



Goodall St. (West of RR)

- 1. ROW 50' to IL Rte 37
- 2. Street surface HMA over concrete
- 3. Street width 22' E.P. to E.P.
- 4. Type of street Rural
- 5. Overhead utility North side east of Court St. South side west of Court St.
 - B-1 58' to E.P.
 - B-2 81' to E.P. B-3 15' to E.P.

 - B-4 115' to E.P.



feet 300 meters 90 Goodall St. (East of RR)



- 1. ROW 50'
- 2. Street surface HMA
- 3. Street width 26.5 E.P. to E.P.
- 4. Type of street Rural
- 5. Overhead utility North side
 - H-1 20' to E.P. H-5 24' to E.P. H-2 46' to E.P. H-6 44' to E.P. H-3 32' to E.P. H-7 14' to E.P.
 - H-4 30' to E.P.



feet 300 meters 90

- Boulevard ST. (West of RR) 1. ROW - 70' (to IL Rte 37) 50' West of IL Rte 37)
- 2. Street surface Concrete east and west of Court St.
- 3. Street width 37' B.C. to B.C. to 92' east of IL Rte. 37' 31' B.C. to B.C. to 135' west of R.R. 37' B.C. to B.C. to 98' west of IL Rte.37.
- 4. Type of Street Urban
- 5. Overhead utility cross from south side to north side at railroad and then continues on north side (Ameren)
 - B-1105' to E.P.
 - 98' to E.P. B-2
 - B-360' to E.P.
 - B-440' to E.P.



feet meters 90 Boulevard St. (East of RR)



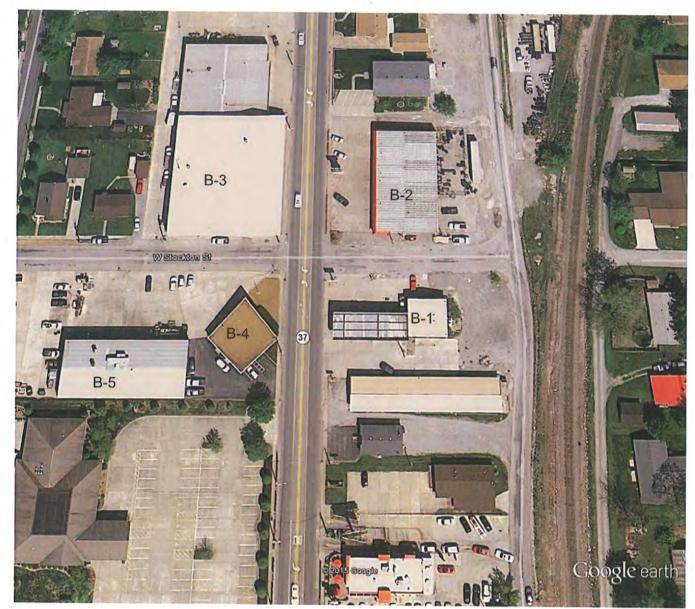
- 1. ROW 70'
- 2. Street surface HMA
- 3. Street width 29.5' B.C. to B.C.
- 4. Type of street Urban
- 5. Overhead utility North side

H-1 50' to E.P.

H-5 45' to E.P. H-6 44' to E.P.

H-2 40' to E.P.

H-3 51' to E.P. H-4 48' to E.P.



feet ______300 meters _____90



Stockton St. (West of RR)

- 1. ROW 50'
- 2. Street surface HMA
- 3. Street width 22' E.P. to E.P. west of Court St. 26' east of Court St.
- 4. Type of street NO CC&G or side ditches
- 5. Overhead utility North side (Ameren)
 - B-1 30' to E.P.
 - B-2 17' to E.P.
 - B-3 14' to E.P.
 - B-4 35' to E.P.
 - B-5 84' to E.P.

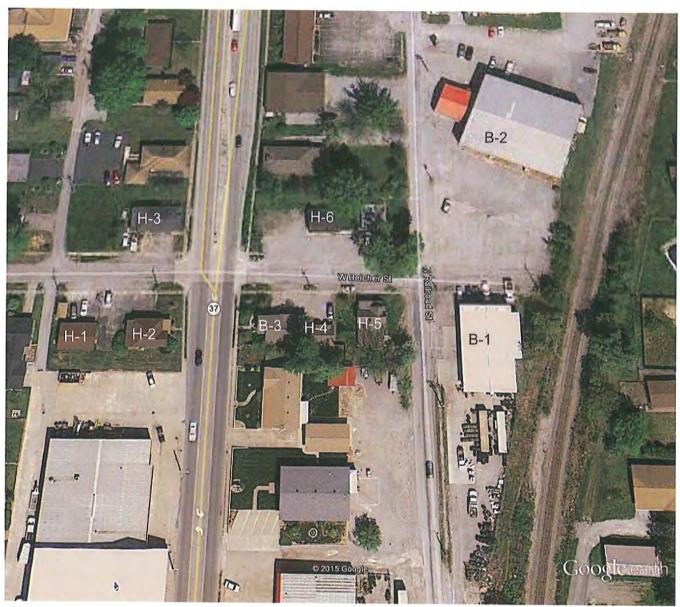


feet 300 meters 90



Stockton St. (East of RR)

- 1. ROW 50'
- 2. Street surface HMA
- 3. Street width 20.5 E.P. to E.P.
- 4. Type of street Rural
- 5. Overhead utility South side (Ameren)
 - H-1 15' to shed, 28' to house H-5 32' to E.P. H-2 38' to E.P. H-6 30' to E.P. H-7 22' to E.P. H-4 32' to E.P.

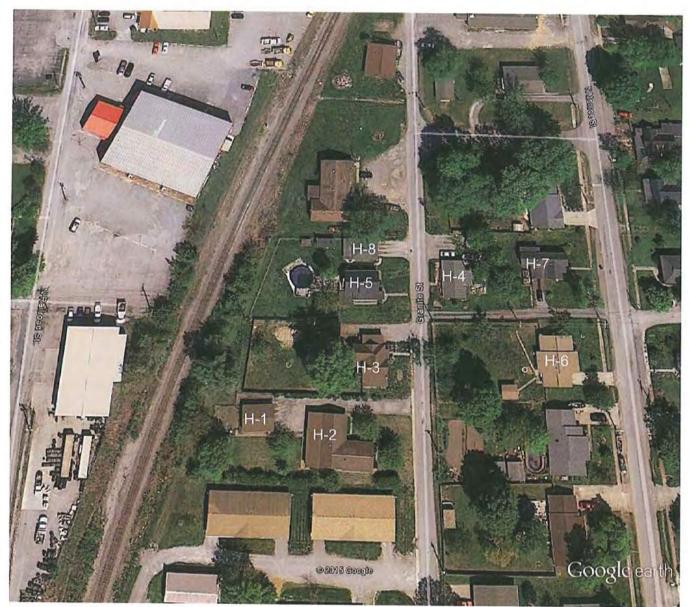


300 meters 90



Belcher St. (West of RR)

- 1. ROW 50' (between RR St. & IL Rte 37)
- 2. Street surface HMA (IL 37 to RR St.)
- 3. Street width 23' E.P. to E.P.
- 4. Type of street Rural
- 5. Overhead utility South side (Ameren)
 - H-1 45' to E.P. H-5 17' to E.P. H-2 40' to E.P. H-6 39' to E.P.
 - H-3 35' to E.P. B-1 29' to E.P. extended St.
 - Distance to extended centerline of road $% \left\{ 1,2,\ldots ,n\right\} =0$ H-4 44' to E.P. B-2 116' to E.P. extended St. Distance to extended centerline
 - B-3 35' to E.P.



feet meters 300 90



Belcher St. (East of RR)

- 1. ROW None to Granite St., 15' Alley Granite to Monroe
- 2. Street surface None to Granite St.
- 3. Overhead utility South side

H-1 83' to G extended

H-2 93' to G extended H-3 8' to G extended

H-4 14' to G extended H-5 15' to G extended H-6 18' to G extended

H-7 21' to G extended H-8 57' to G extended



feet 300 meters 90 DeYoung St. (West of RR)



- 1. ROW east to west: 85' to 82'
- 2. Street surface Concrete
- 3. Street width east to west: varioable 56' to 66"
- 4. Type of street Urban
- 5. Overhead utility South side (Ameren)
 - B-1 103' to E.P.
 - B-2 15' to E.P.
 - B-3 11' to E.P.
 - B-4 12' to E.P.



300 meters 90



DeYoung St. (East of RR)

- 1. ROW 80'
- 2. Street surface HMA
- 3. Street width 60'
- 4. Type of street Urban
- 5. Overhead utility South side (Ameren)
 - B-1 52' to E.P.
- B-6 29' to E.P.
- B-2 43' to E.P.
- B-7 44' to E.P.
- B-3 37' to E.P. B-4 24' to E.P.
- B-5 22' to E.P.

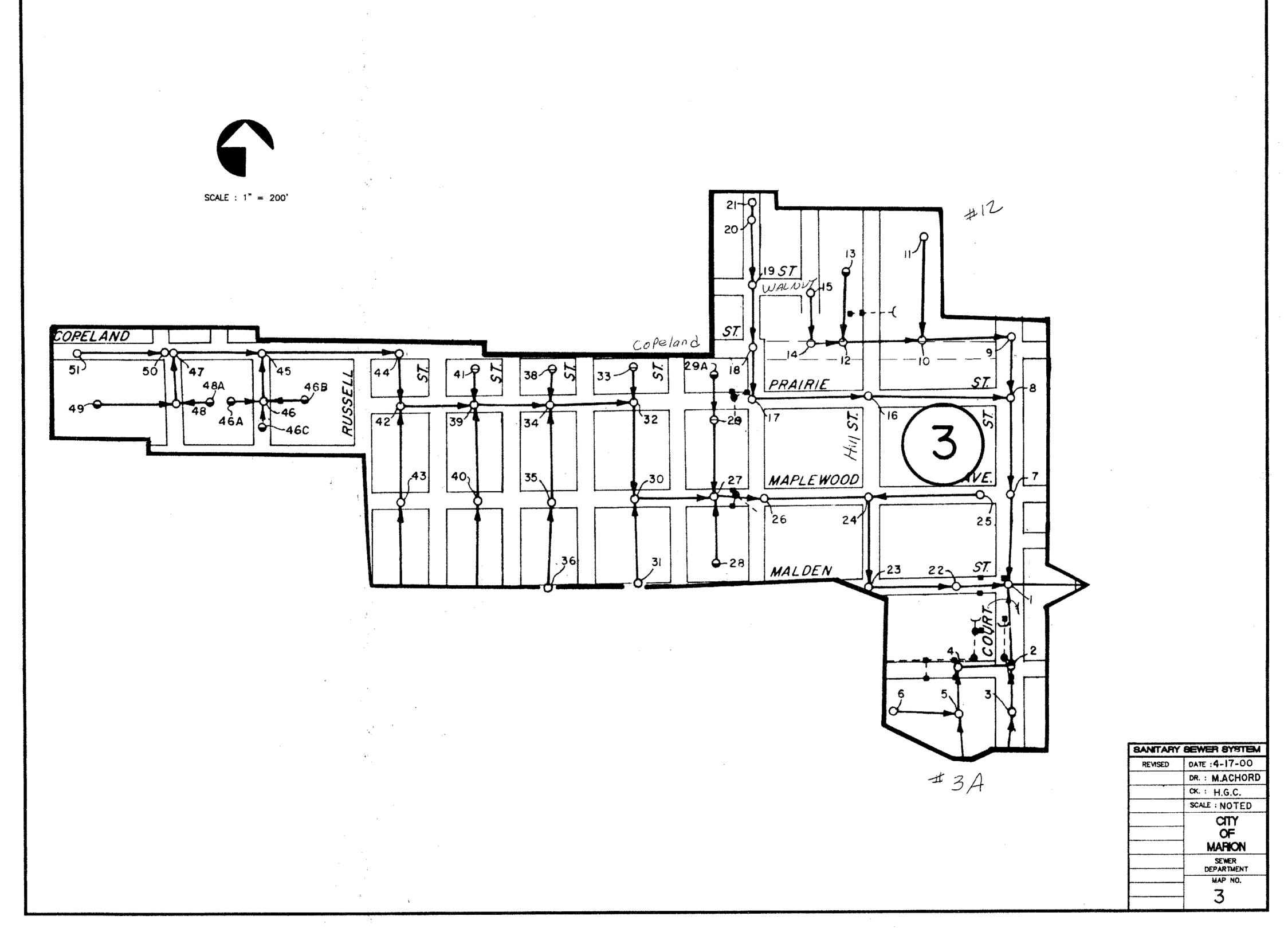


EXHIBIT 9C- Marion Sewer Map

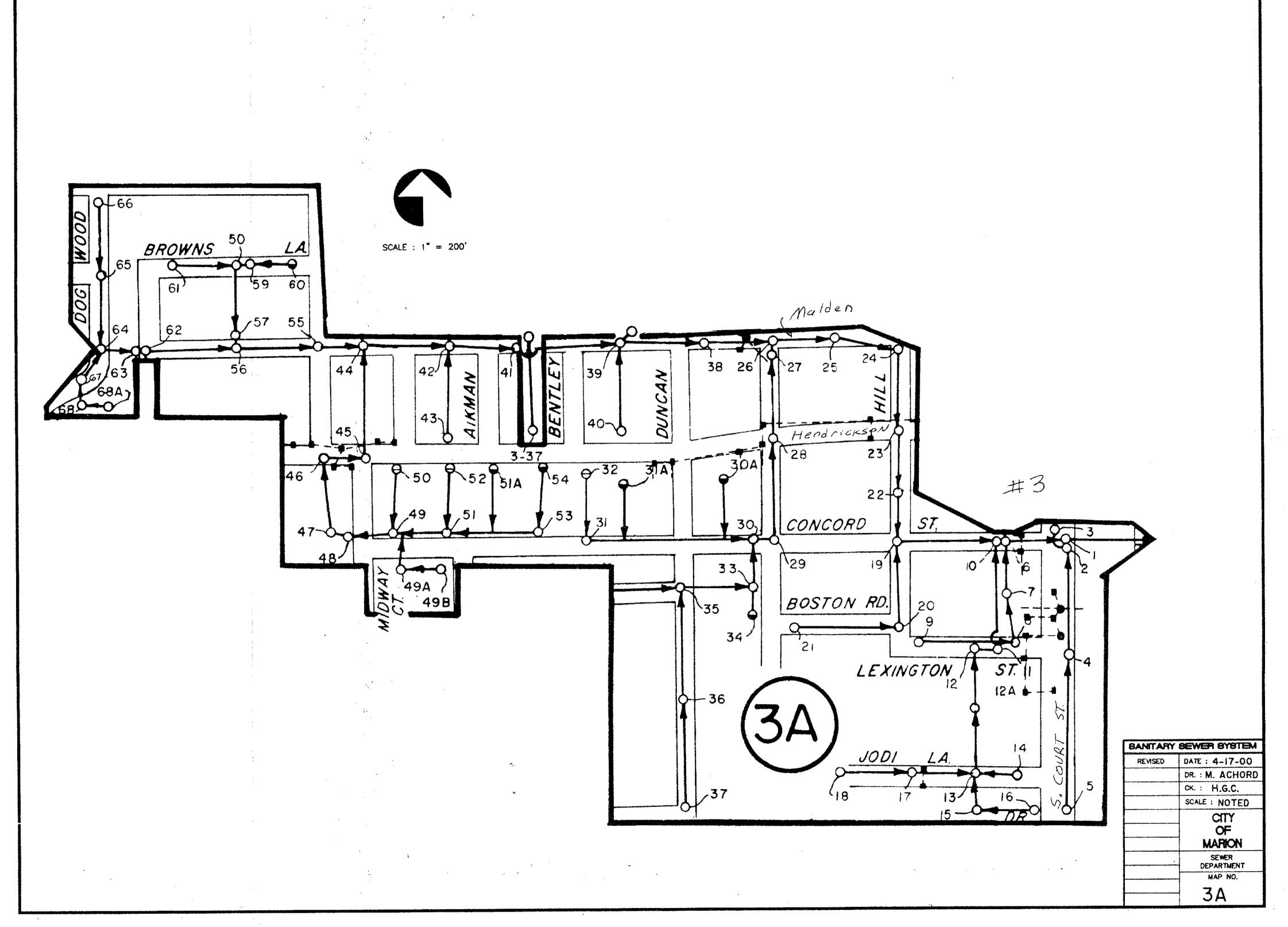


EXHIBIT 9D- Marion Sewer Map

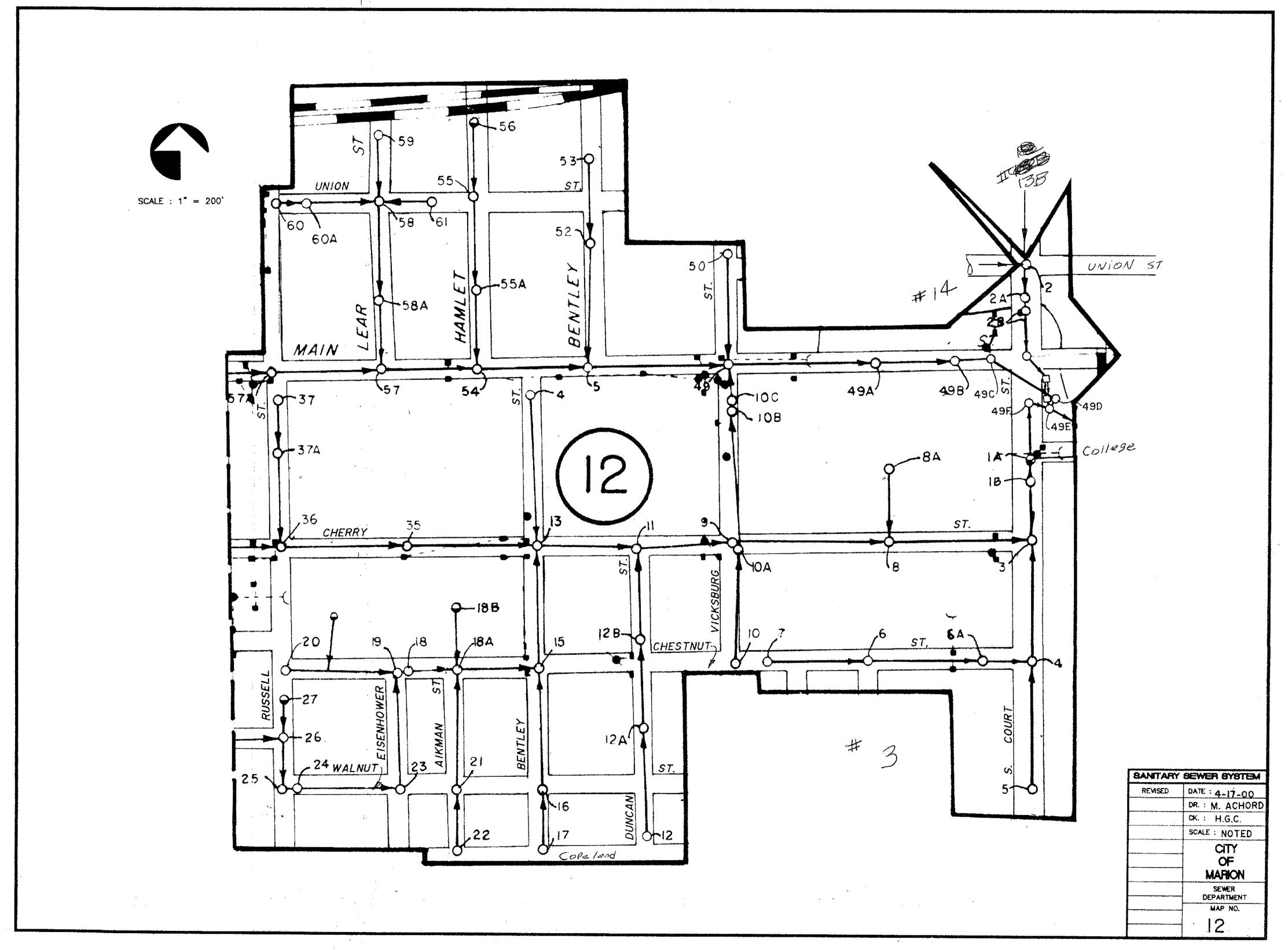
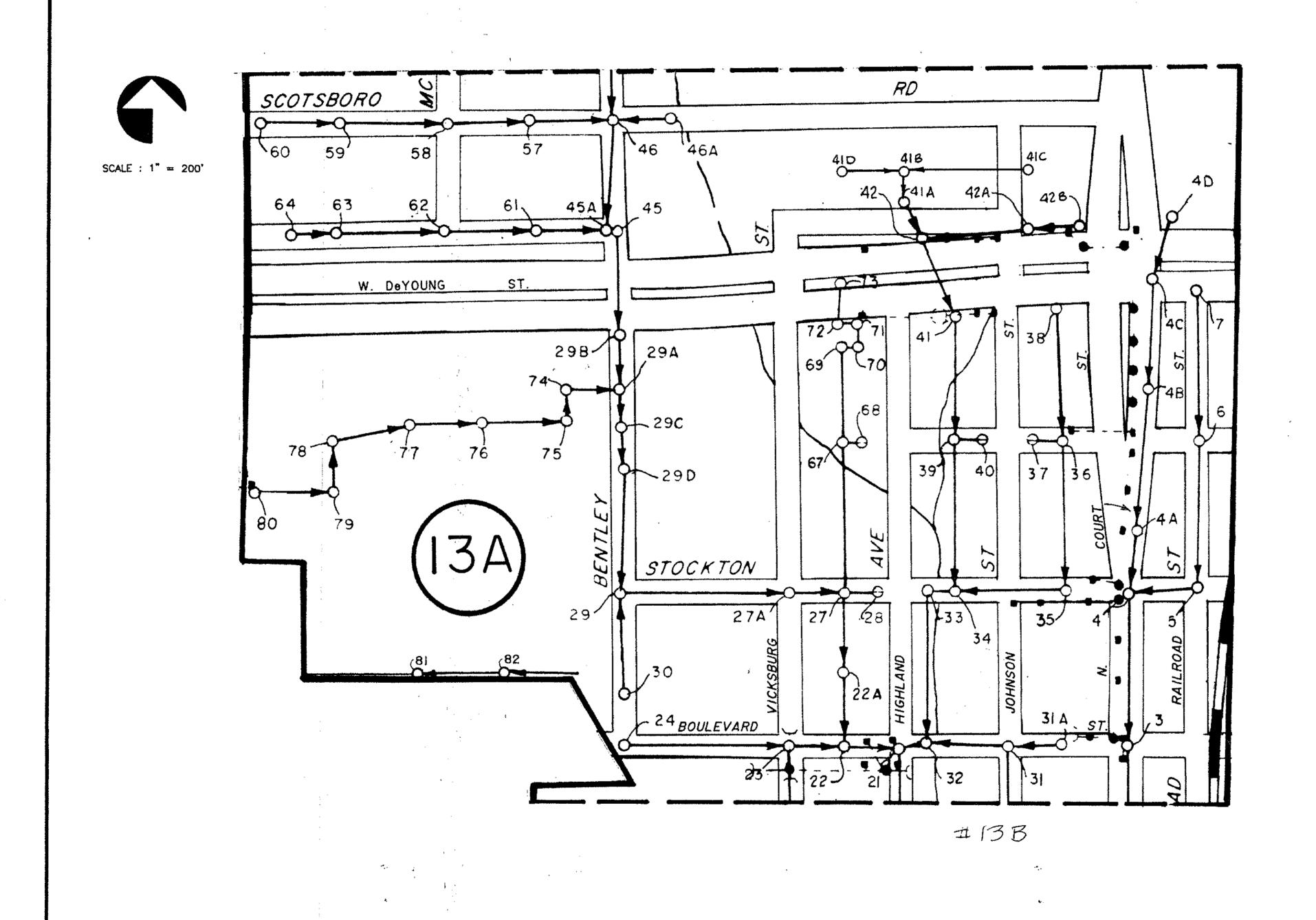
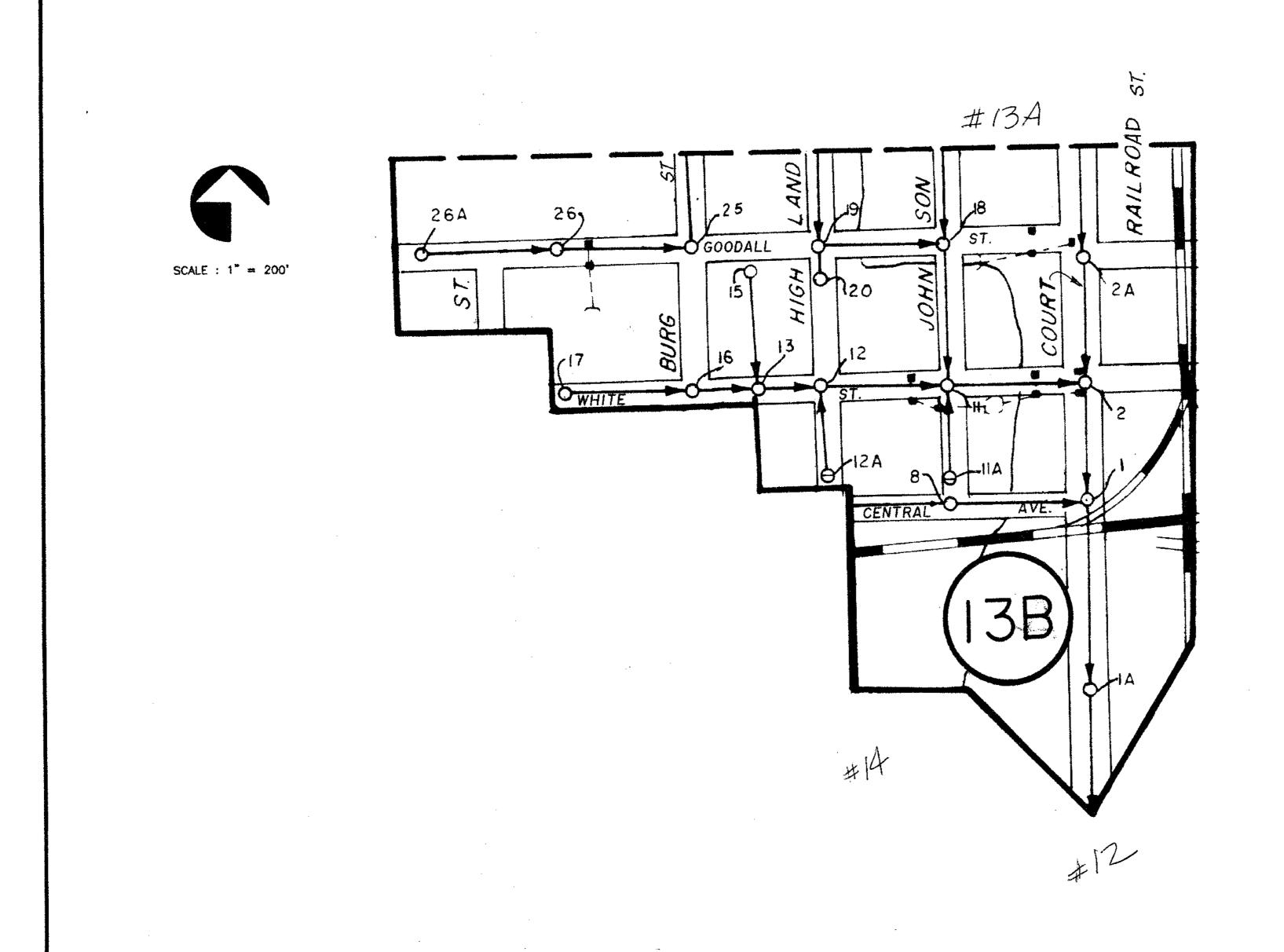


EXHIBIT 9E - Marion Sewer Map



BANITARY	BEWER BYSTEM
REVISED	DATE: 4-17-00
7-26-12	DR. : M. ACHORD
	CK.: H.G.C.
	SCALE : NOTED
·	CITY
	OF
	MARION
	SEWER DEPARTMENT
	MAP NO.
	13A



SANITARY SEWER SYSTEM	
REVISED	DATE: 4-17-00
	DR. : M. ACHORD
······································	cx.: H.G.C.
	SCALE : NOTED
	CITY
	OF
	MARION
	- SEWER DEPARTMENT
	MAP NO.
·	13B

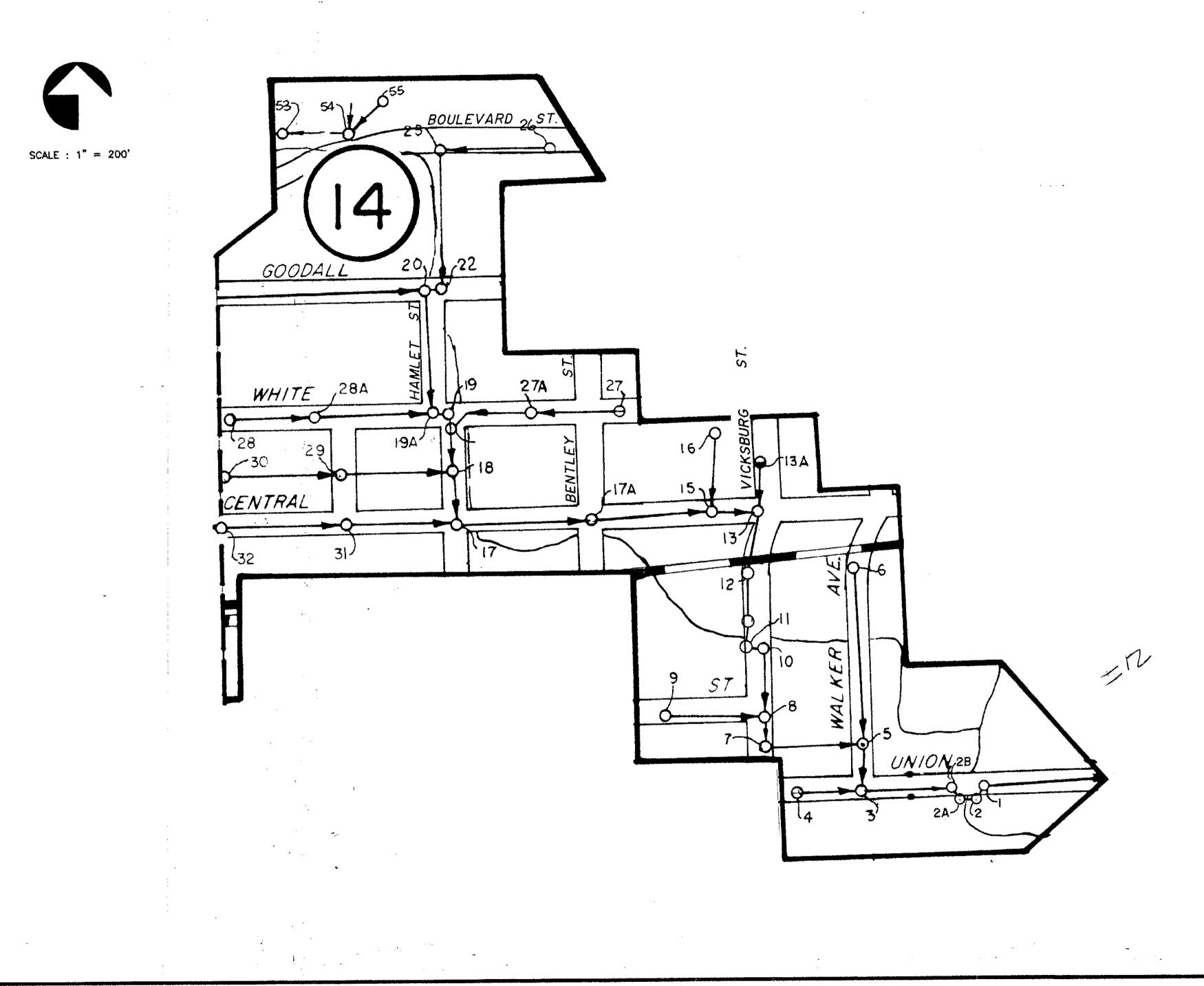


EXHIBIT 9H- Marion Sewer Map

BANITARY SEWER SYSTEM

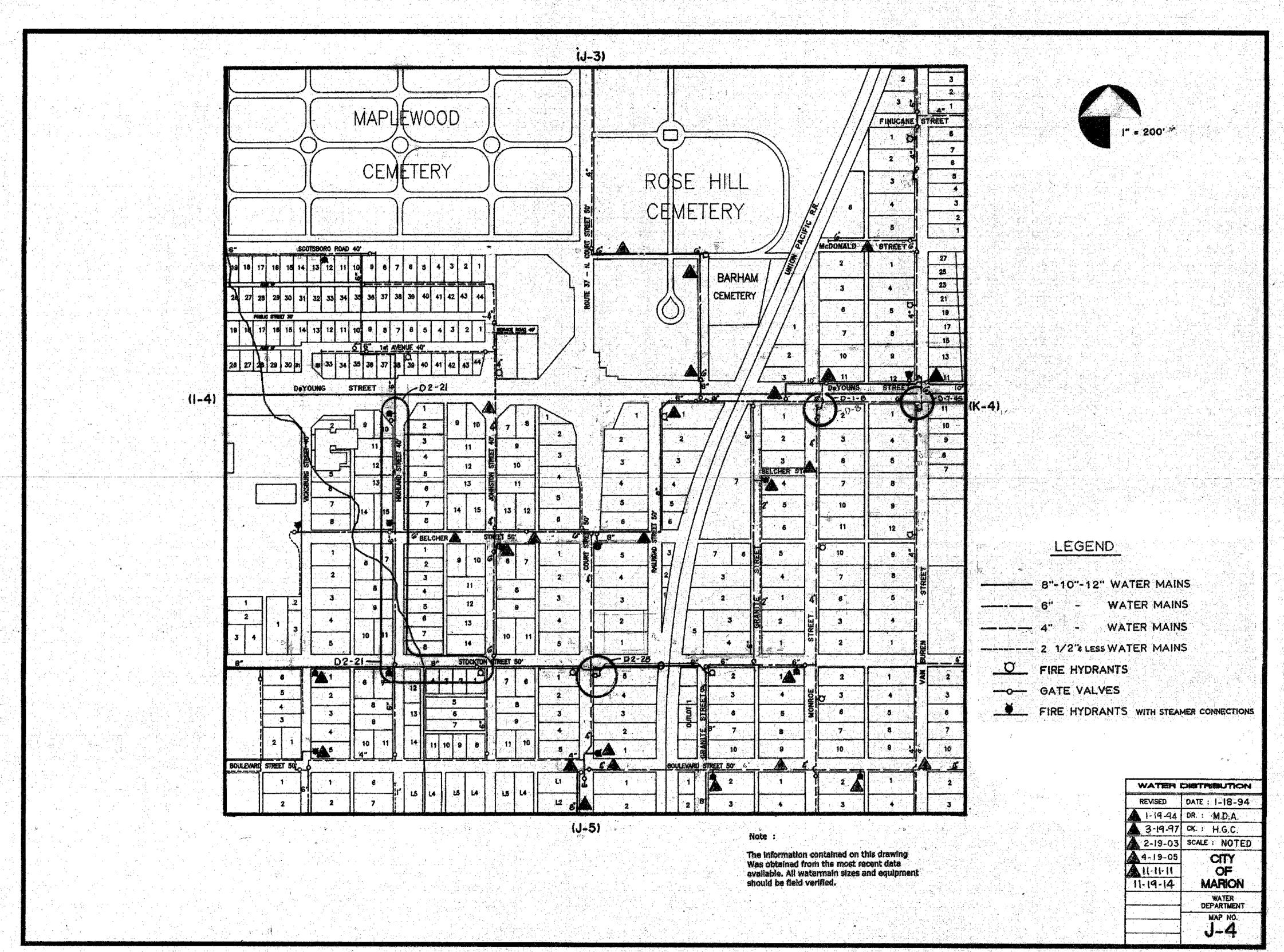
DATE: 4-17-00 DR.: M. ACHORD

> CTTY OF MARION

> SEWER DEPARTMENT MAP NO.

> > 14

CK.: H.G.C. SCALE: NOTED



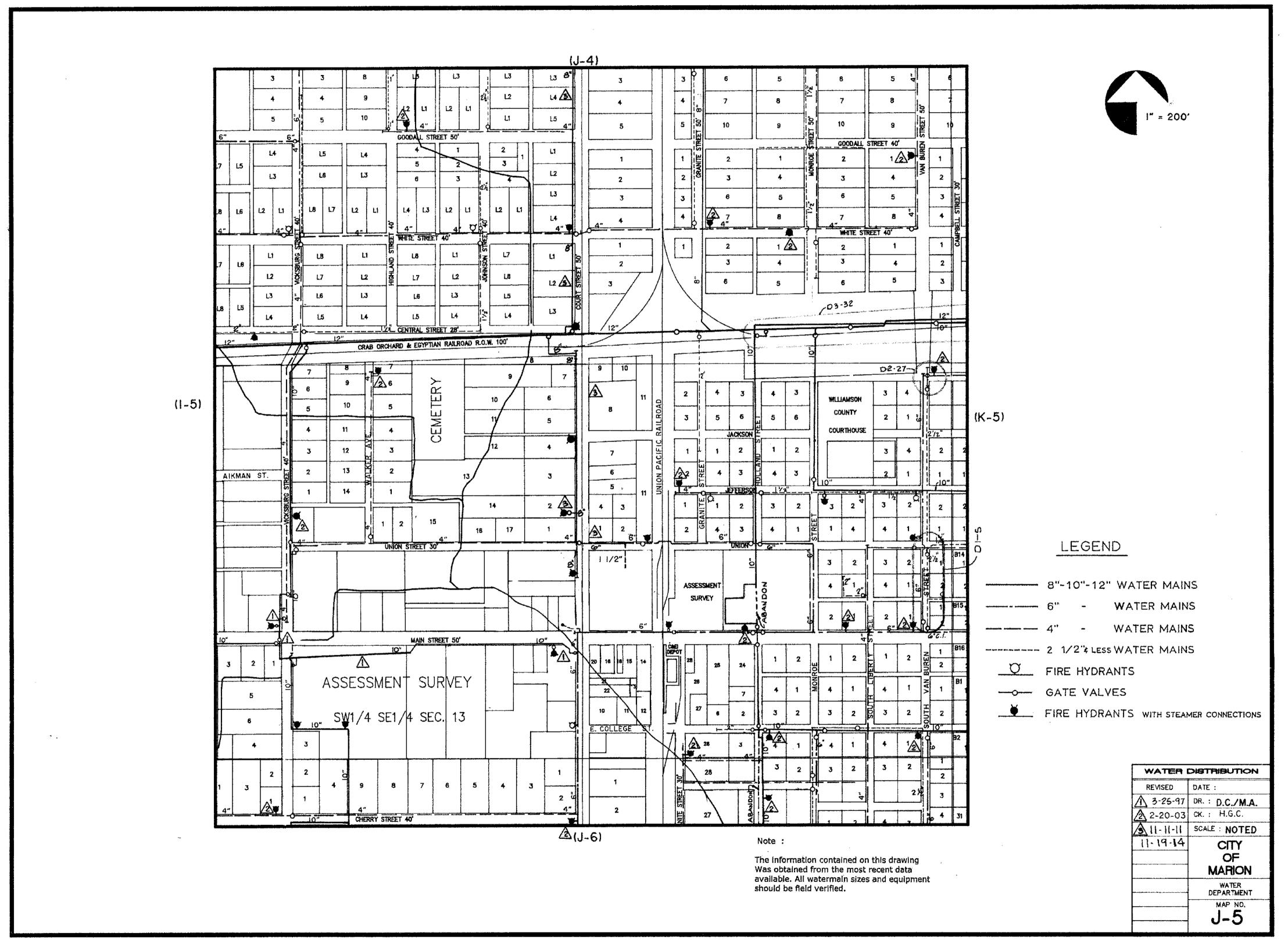
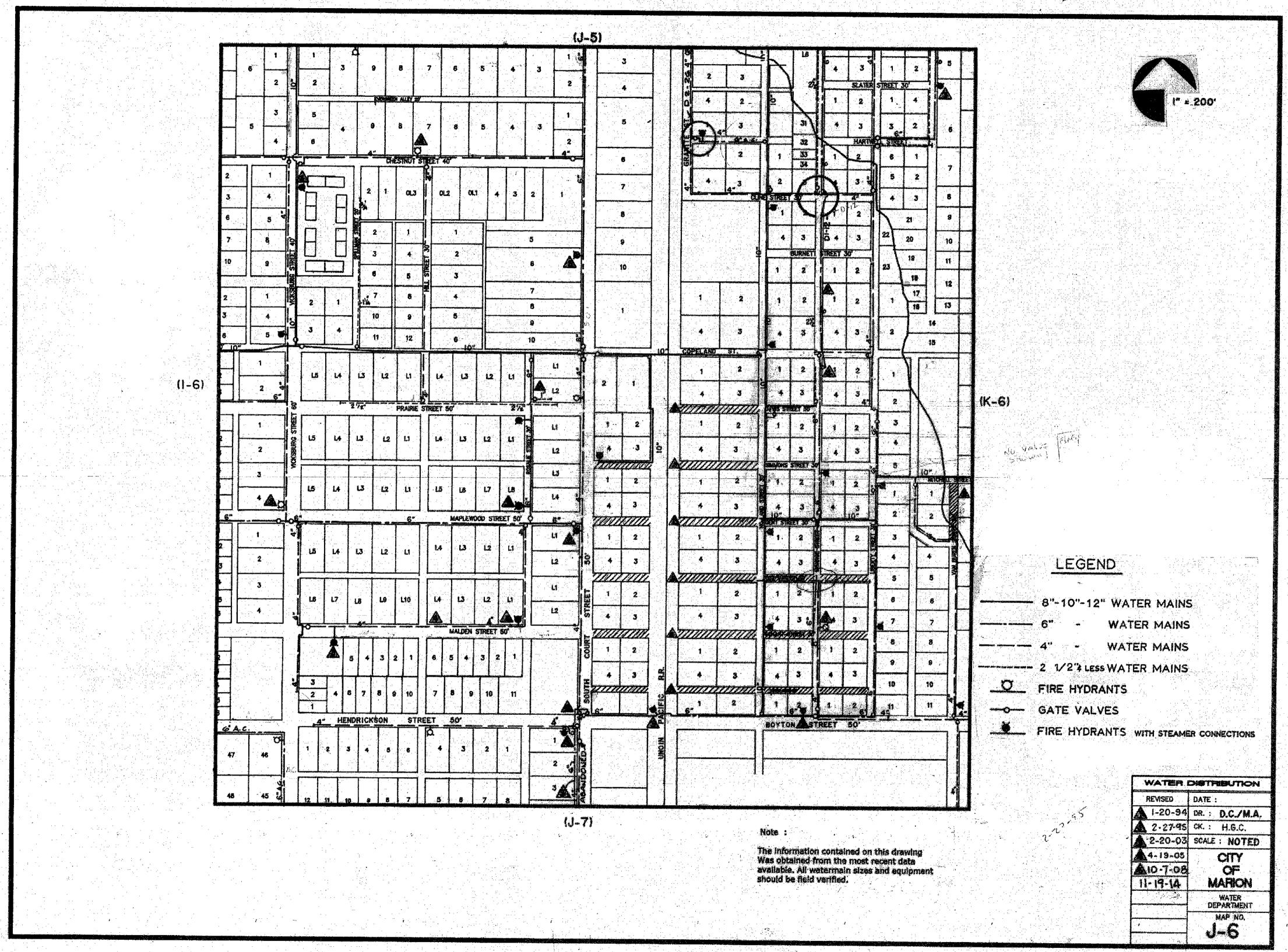


EXHIBIT 9J- Marion Water Map



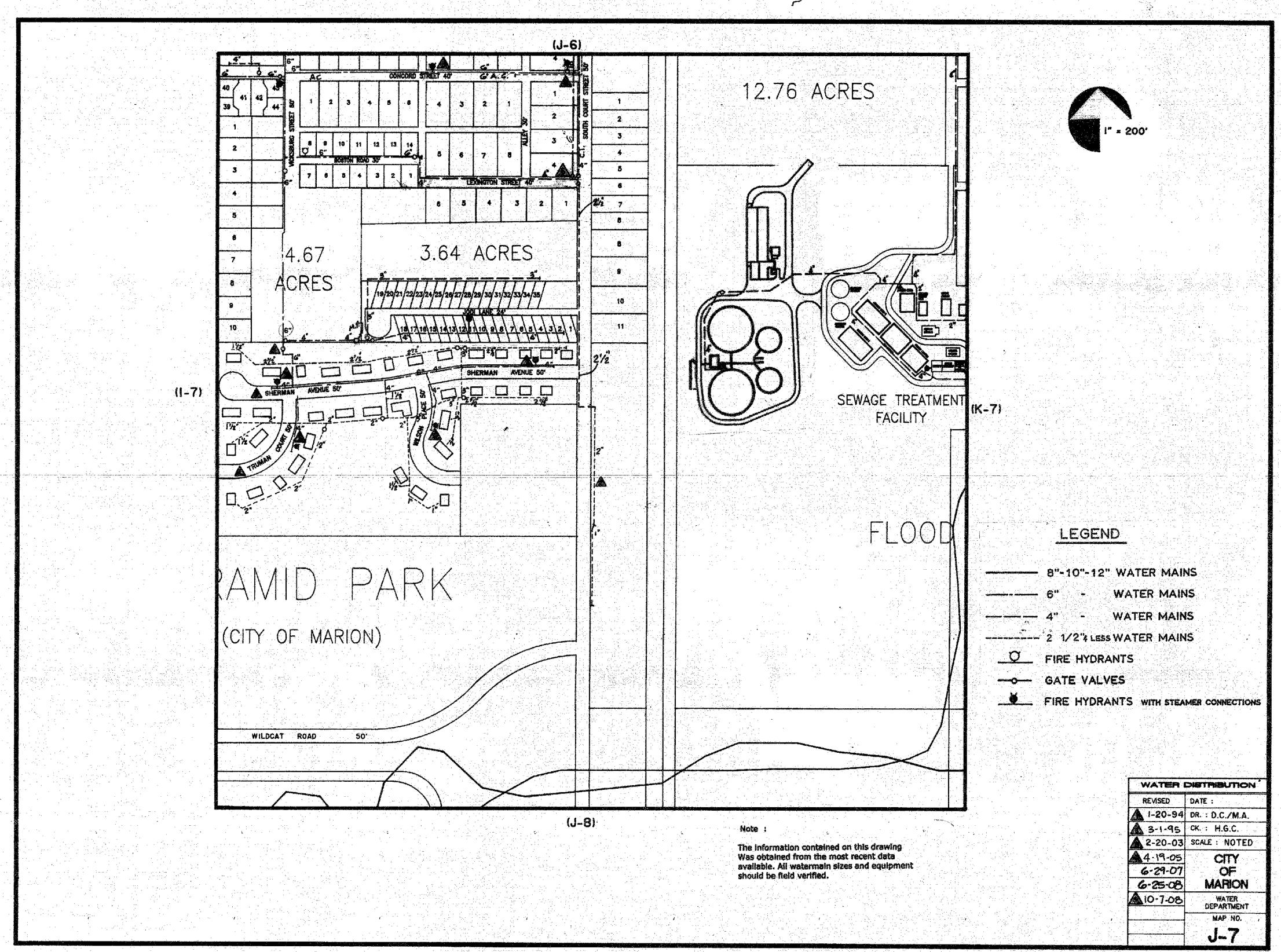


EXHIBIT 9L- Marion Water Map

























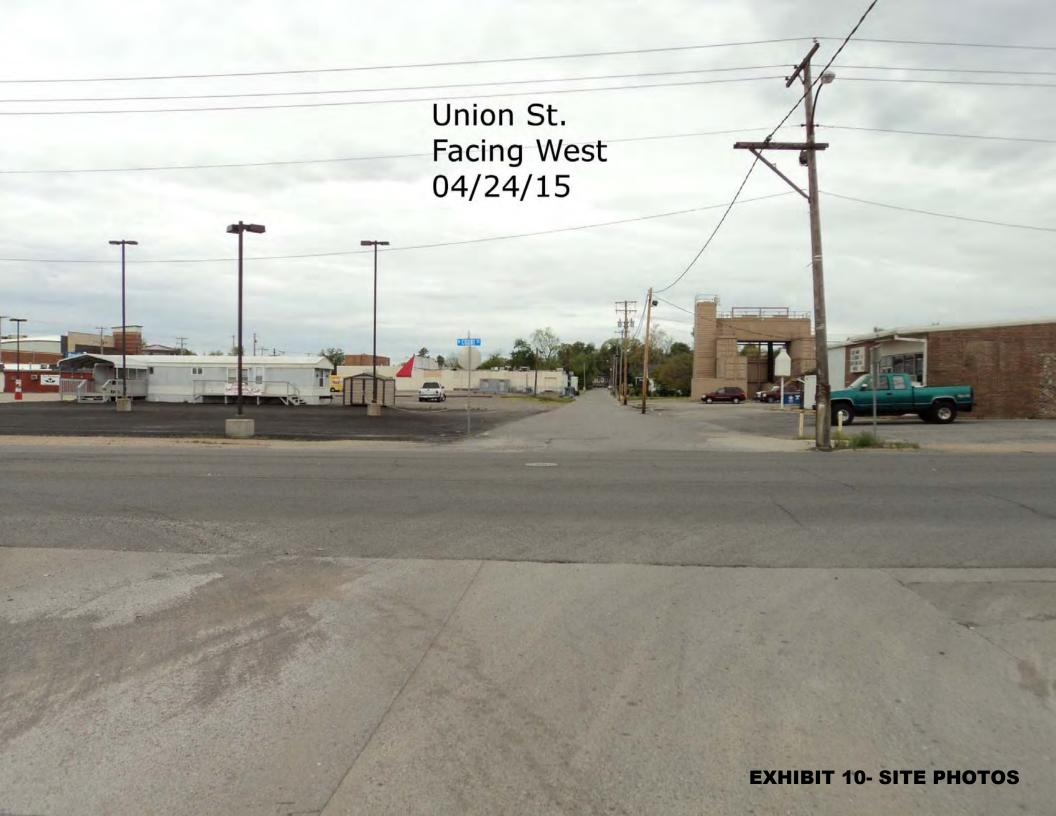












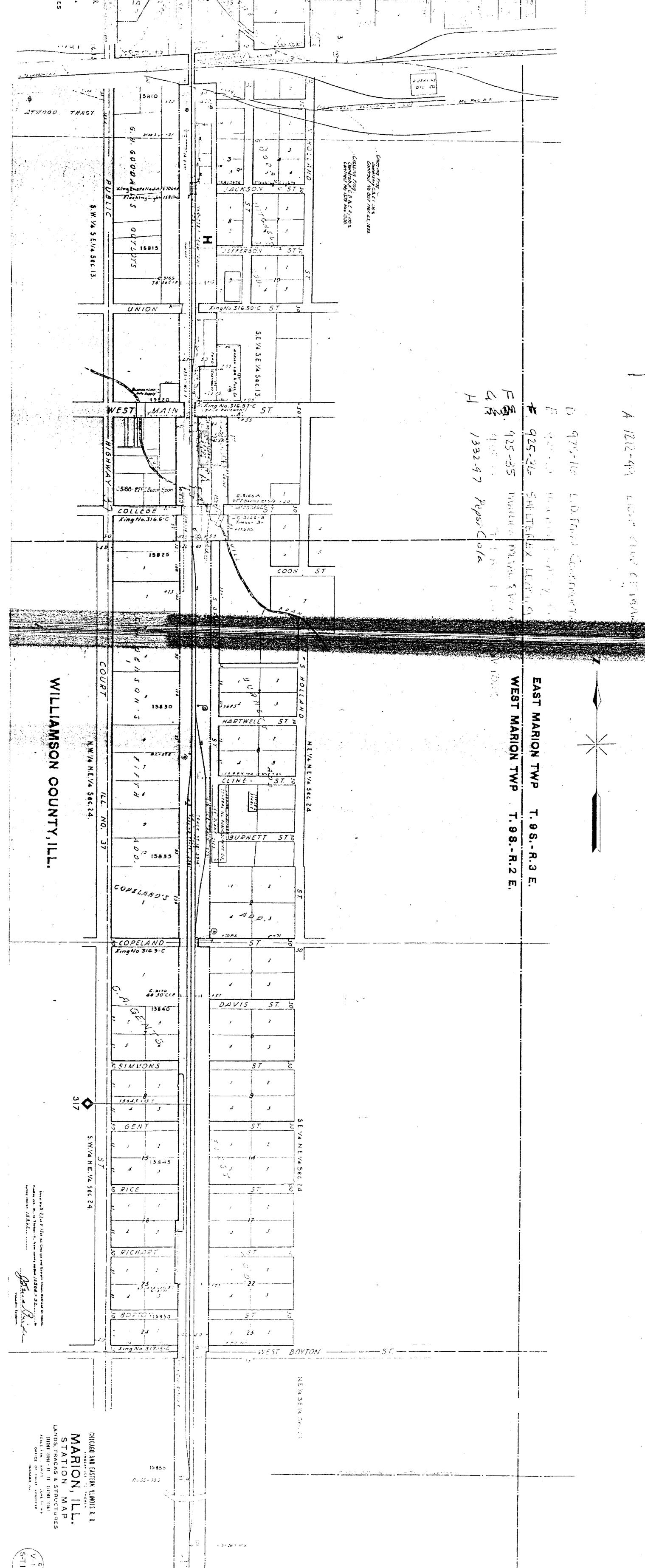
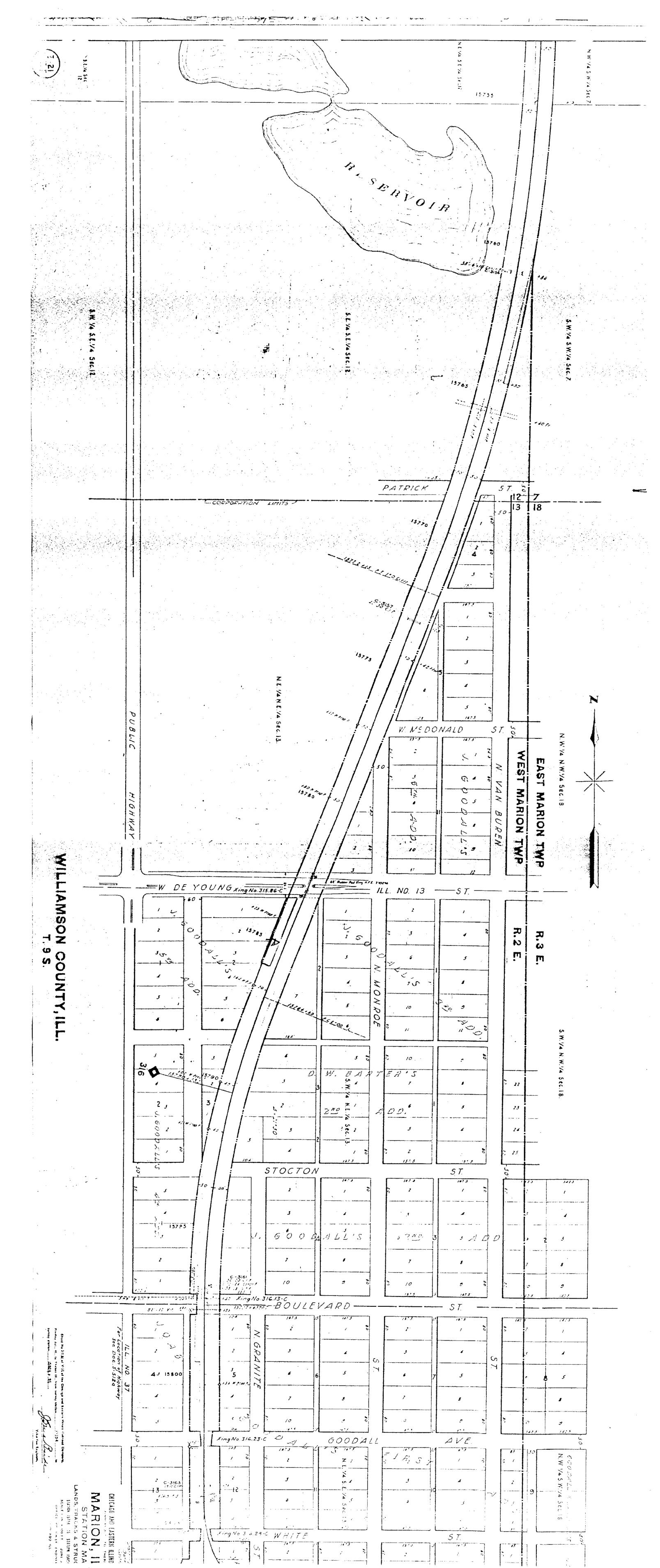
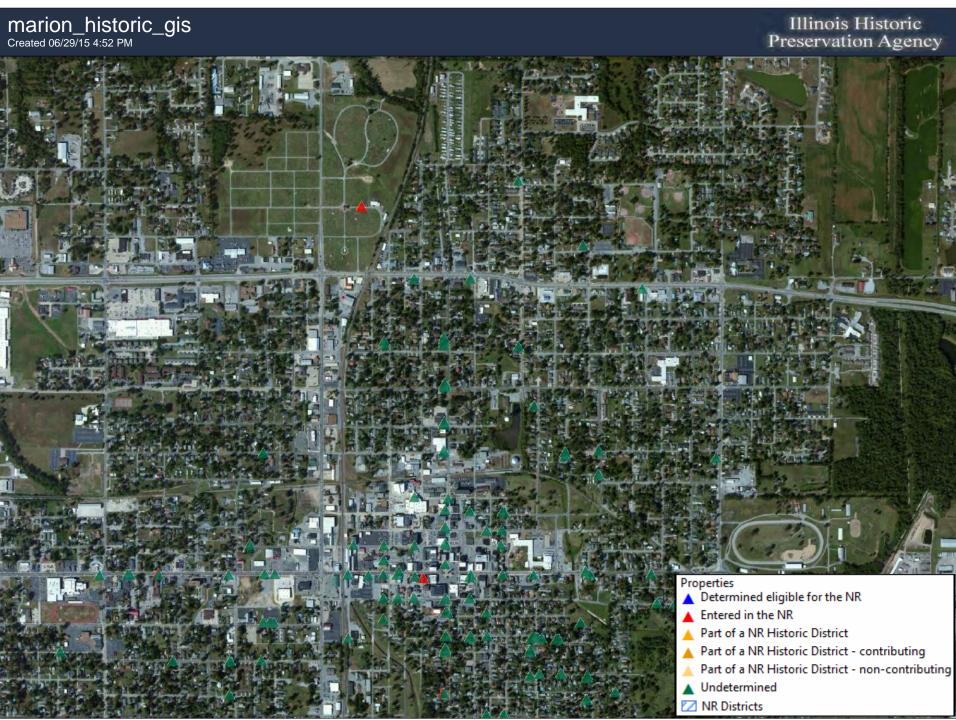


EXHIBIT 11A- Railroad RO





Copyright 2012 IHPA

EXHIBIT 13A- Stakeholder Coordination

To: SIMPO File #15061

From: Glenn Clarida

Date: 4-21-15

Subject: Railroad Crossing over Union Pacific Railroad

On above date at 10:00 A.M. the attached attendance roster indicates those in attendance to discuss the most advantageous location for an overpass or underpass location of said railroad. After much discussion, the priority rankings were Union St. Number I and Stockton St. Number II. Union because of its close proximity to the Fire Station and being one block north of W. Main St. It is also near a midpoint of the three emergency services.

Concord was chosen due to its construction would seem to cause least disturbance to existing facilities or real estate. Also it is located one block south of Hendrickson/Boyton St. which is a main thoroughfare of the City.

The emergency services representatives wanted a 3 lane road with the middle lane reserved exclusively for emergency vehicles. In case of a blocked crossing all vehicles would be looking for the overpass or underpass, thereby blocking services for emergency vehicles.

Another idea was discussed by making the overpass dedicated exclusively for emergency service vehicles and having electronically operated gates for ingress/egress. This was vetoed due to the cost of the crossing being used infrequently by the emergency service vehicles.

Discussions were also held on crossings at Robinson St. on the north side of town and Wildcat Drive on the south side of town but it was agreed that too much time would be lost to go that far out of town and there was no good connector road to connect to get across or around the City.

Meeting on Railroad Crossing

4-21-15

Attendance Sheet

Name	Title	Representing
Brian Fisher	Safety	City of Marion
Doug Phillips	Street Superintendent	City of Marion
Gail West	City Administrator	City of Marion
Dawn Tondini	Chief of Police	City of Marion
Jerry Odum	Chief of Fire	City of Marion
Kevin McConnell	Chief of EMS	Life Line EMRS Corp

EXHIBIT 13B- Stakeholder Coordination

MEETING MINUTES

DATE: April 15, 2015

TIME: 1:30 PM

LOCATION: ICC Leland Building, Springfield, IL

PROJECT: Marion Railroad Overpass / Underpass Project

SUBJECT: Coordination with Illinois Commerce Commission

Southern Illinois Metropolitan Planning Organization (SIMPO)

Grade Separation Feasibility Study

ATTENDANCE: Mike Stead, ICC

John Saladino, ICC

Stan Hansen, Crawford, Murphy & Tilly, Inc. Jim Michael, Crawford, Murphy & Tilly, Inc.

The purpose of the meeting was to introduce and discuss the grade separation feasibility study being administered by SIMPO for a new railroad overpass/underpass with the UP Railroad in Marion, IL. Based on current and anticipated train and vehicular traffic and the location of existing emergency service provider, they city is experiencing increased delays and is looking to study the feasibility of implementing a new grade separation crossing. The following items summarize the discussion.

- Mike and John reviewed the aerial exhibit of the proposed crossing locations for the
 various streets within the city. They both expressed concern for constructing an
 overpass or underpass south of IL Route 13 given the close proximity to Court Street
 (IL Route 37). The local impacts are likely to be extensive on any of the selected
 corridor. Some of the planning challenges will be that the UP Railroad will likely
 expect accommodations for future track expansion and access which will further
 impact adjacent properties.
- 2. John indicated that a grade separation on IL Route 13 or north of IL Route 13 on an extension of Robinson Road would be much easier to construct and have far less impacts, given the additional distance between the grade separation and adjacent intersections.
- 3. John explained the ICC's Crossing Safety Improvement Program which consists of the Grade Crossing Protection Fund (GCPF) for roadways on the local system and generally includes 60% participation in the eligible grade separation costs. Typically the Railroad will participate in the range of 5-20% with the remainder to be funded by the local agency. This program is evaluated annually and a 5-year program published. Mike said that additional costs to separate adjacent roadways would not be eligible for reimbursement under this fund.

- 4. Mike suggested that the ability to demonstrate having the funding in place and providing a plan for implementing the project would help in being selected for the GCPF program. Mike also mentioned that identifying location(s) where at-grade crossings can be eliminated are very positive in the funding selection process.
- 5. Stan and Jim explained a general overview of the project with the goal being to identify three railroad grade separation crossings for further studies and to develop a feasibility report with preliminary layouts and construction cost for determining a preferred location with recommendations for project advancement.
- 6. A public information meeting will be conducted in May and the time and location will be provided to the ICC in case there is interest or availability to attend.
- 7. Mike and John offered any assistance with further questions during development of the study and would be glad to provide additional input if needed.
- 8. Mike encouraged submitting an application for the GCPF program if the feasibility study is successful and a consensus is arrived at for the new crossing location.

Prepared by:

Stan Hansen, P.E., P.L.S. Crawford, Murphy & Tilly, Inc.

CLARIDA & ZIEGLER ENGINEERING CO.

410 North Court Street / P.O. Box 937 / Marion, Illinois 62959 / Telephone (618) 993-6411 FAX; (618) 993-6750

MEMO TO:

Stan Hansen, CMT

FROM:

Glenn Clarida - Dema Clacida

DATE:

April 15, 2015

Talked with representatives of Union Pacific RR on the above date and they indicated the train traffic varied 3 to 4 trains a day on the slower days and six to seven trains a day on a busy day. All of these trains all coal trains consisting of 100 plus units. They indicated this was a reduction from previous months when the count was considerably higher. They are hoping the coal demand will pick up to get back to a higher count.

EXHIBIT 13D - Stakeholder Coordination

What: Southern Illinois Metropolitan Planning Organization

Special Technical Advisory Committee Meeting

When: Monday, March 30, 2015, at 1:00 pm

Where: Greater Egypt Conference Room,

3000 West DeYoung St., Suite 800B-3, Marion, Illinois

AGENDA

- 1. Welcome and Introductions
 - Brief Summary of CMT along with Anticipated Staff & Subs
 - Primary Contacts for Project
- 2. Marion Railroad Overpass/Underpass Study

Discussion Item

- Overview of Intent of Study, Desired Outcome & SIMPO Expectations
- Discussion on Approach to Project:
 - o Data Collection (information for traffic, crashes, utilities, property, etc.)
 - o Development of Criteria and Typical Overpass/Underpass Configurations
 - Analysis of Existing Conditions
 - Public Involvement Activity
 - o Initial Screening of Alternatives to Carry Forward
 - Investigation and Studies of Identified Alternatives
 - Comparison and Evaluation of Preferred Alternatives
 - Feasibility Report with summary of Findings and Recommendations
 - Schedule for Delivery

3. Adjourn Action Item

EXHIBIT 13E - Stakeholder Coordination

What: Southern Illinois Metropolitan Planning Organization

Technical Advisory Committee Meeting

When: Monday, August 3, 2015, at 1:00 pm

Where: Greater Egypt Conference Room,

3000 West DeYoung St., Suite 800B-3, Marion, Illinois

AGENDA

1. Welcome and Introductions

2. Approval of the July 6th TAC Meeting Minutes Action Item

3. Long Range Transportation Plan - Review Comments Discussion Item

4. Marion Railroad Overpass/Underpass Study - final comments Discussion Item

5. Carbondale Bike Plan Contract – Kickoff comments by i5 Group Discussion Item

6. Approval of STU project application form and scoring criteria Action Item

7. Other MPO Business Discussion Item

8. Adjourn Action Item

Next: Policy Committee Meeting: Monday, August 10th, 2015 at 1:00 pm Next TAC Meeting: Tuesday, September 8 (tentative), 2015 at 1:00 pm



2750 W. Washington Street Springfield, Illinois 62702 p. 217.787.8050 | f. 217.787.4183

www.cmtengr.com | Centered in Value