

**Texas Department of Transportation  
Book 2 – Technical Provisions**

**Horseshoe Design-Build Project**

**Attachment 8-2  
Design Traffic, 18 Kip ESAL**

**TRAFFIC ANALYSIS FOR HIGHWAY DESIGN**

Dallas District

April 2, 2012

Description of Location	Average Daily Traffic		Dir Dist %	Base Year			ATHWLD	Percent Tandem Axles in ATHWLD	Total Number of Equivalent 18k Single Axle Load Applications One Direction Expected for a 20 Year Period (2016 to 2036)				
	2016	2036		K Factor	ADT	Percent Trucks			Flexible Pavement	S	N	Rigid Pavement	SLAB
	<u>I-35E</u>												
	From Eighth Street To I-30 Dallas County	232,900	315,900	57 -43	8.0	7.5	3.4	16,800	20	62,810,000	3	82,865,000 84,494,000 85,095,000	8" 10" 12"

**Date for Use in Air & Noise Analysis**

Vehicle Class	Base Year	
	% of ADT	% of DHV
Light Duty	92.5	96.6
Medium Duty	3.0	1.4
Heavy Duty	4.5	2.0

Description of Location	Average Daily Traffic		Dir Dist %	Base Year			ATHWLD	Percent Tandem Axles in ATHWLD	Total Number of Equivalent 18k Single Axle Load Applications One Direction Expected for a 30 Year Period (2016 to 2046)				
	2016	2046		K Factor	ADT	Percent Trucks			Flexible Pavement	S	N	Rigid Pavement	SLAB
	<u>I-35E</u>												
	From Eighth Street To I-30 Dallas County	232,900	357,400	57 -43	8.0	7.5	3.4	16,900	20	101,340,000	3	133,698,000 136,326,000 137,296,000	8" 10" 12"

**NOT INTENDED FOR CONSTRUCTION  
BIDDING OR PERMIT PURPOSES**  
William Erick Knowles, P.E.  
Serial Number 84704





**TRAFFIC ANALYSIS FOR HIGHWAY DESIGN**

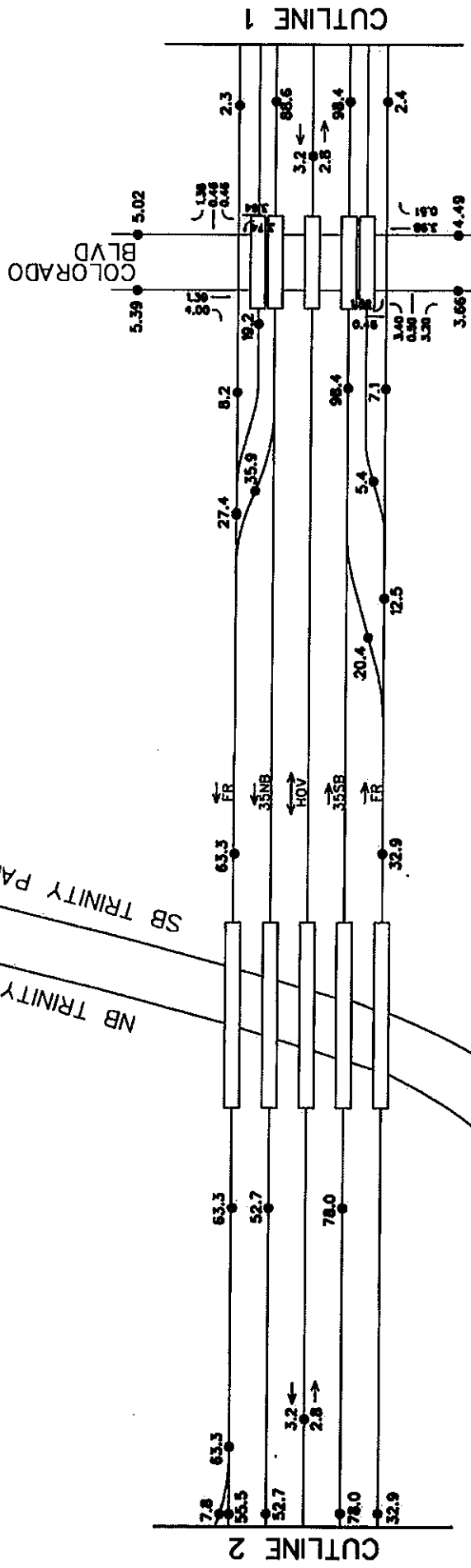
**NOT INTENDED FOR CONSTRUCTION  
DRAWING OR PERMIT PURPOSES**

William Erick Knowles, P.E.  
Serial Number 84704

April 2, 2012

Description of Location	Average Daily Traffic				Dir Dist %	Base Year			ATHWLD	Percent Tandem Axles in ATHWLD	Total Number of Equivalent 18k Single Axle Load Applications One Direction Expected for a 20 Year Period (2016 to 2036)				
	2016		2036			K Factor	ADT	DHV			Flexible Pavement	S	N	Rigid Pavement	SLAB
	2016	2036	2016	2036											
I-30 From Sylvan Ave To I-35E Dallas County	167,500	227,900	60	-40	8.8	7.7	3.5	16,500	30	46,928,000	3	61,576,000 62,767,000 63,210,000	8" 10" 12"		
<b>Date for Use in Air &amp; Noise Analysis</b>															
Vehicle Class	Base Year														
	% of ADT		% of DHV												
	Light Duty	92.3	96.5												
Medium Duty	3.0	1.4													
Heavy Duty	4.7	2.1													
Description of Location	Average Daily Traffic				Dir Dist %	Base Year			ATHWLD	Percent Tandem Axles in ATHWLD	Total Number of Equivalent 18k Single Axle Load Applications One Direction Expected for a 30 Year Period (2016 to 2046)				
	2016		2046			K Factor	ADT	DHV			Flexible Pavement	S	N	Rigid Pavement	SLAB
	2016	2046	2016	2046											
I-30 From Sylvan Ave To I-35E Dallas County	167,500	257,600	60	-40	8.8	7.7	3.5	16,600	20	75,678,000	3	99,302,000 101,223,000 101,936,000	8" 10" 12"		





**JACOBS**

DESIGNED BY: DRAWN BY: CHECKED BY:  
 Texas Department of Transportation

**PEGASUS PROJECT  
 2016 ADT VOLUMES**

FED. ROAD DISTRICT NO.	FEDERAL AID PROJECT NO.	SHEET NO.
TX	DALLAS	2 OF 8
CONTRACT NO.	SECTION NO.	HIGHWAY NO.
0427 03 02	205 TB/732	198
STATE	DIST.	COUNTY
TX	DALLAS	DALLAS

MODIFIED DATE: 3/27/2012  
 MODIFIED BY:  
**HNTB**  
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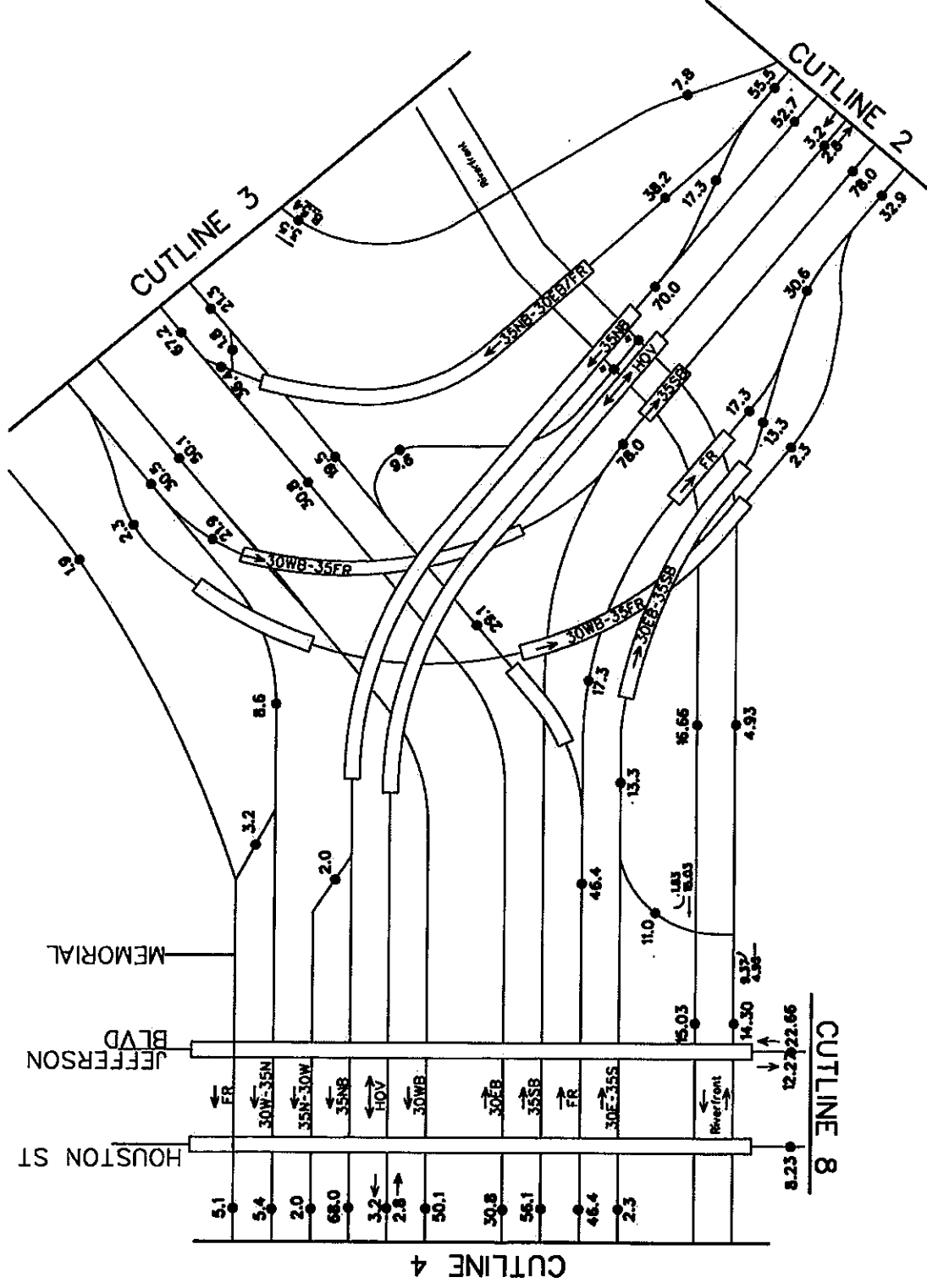
**NOT INTENDED FOR CONSTRUCTION  
 BIDDING OR PERMIT PURPOSES**  
 William Erick Knowles, P.E.  
 Serial Number 84704

Note:  
 Numbers in 1000s

CUTLINE 9

CUTLINE 2

CUTLINE 1



MODIFIED DATE: 3/27/2012	
MODIFIED BY:	
<b>HNTB</b>	
* VOLUME UNKNOWN VOLUME REDISTRIBUTED TO BEST DATA AVAILABLE	
<b>JACOBS</b>	
DESIGNED BY:	CHECKED BY:
Texas Department of Transportation	
<b>PEGASUS PROJECT</b>	
<b>2016 ADT VOLUMES</b>	
FED. RD. DIST. NO.	FEDERAL RD PROJECT NO.
STATE	DIST.
TX	DALLAS
CONTRACT NO.	SECTION NO.
0442	03
SHEET NO.	TOTAL SHEETS
3	10
COUNTY: DALLAS	
JOB NO. 186/132	
HIGHWAY NO. 105	
MILE / IN 30	

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William Erick Knowles, P.E.

Serial Number 84704

Note:  
Numbers in 1000s

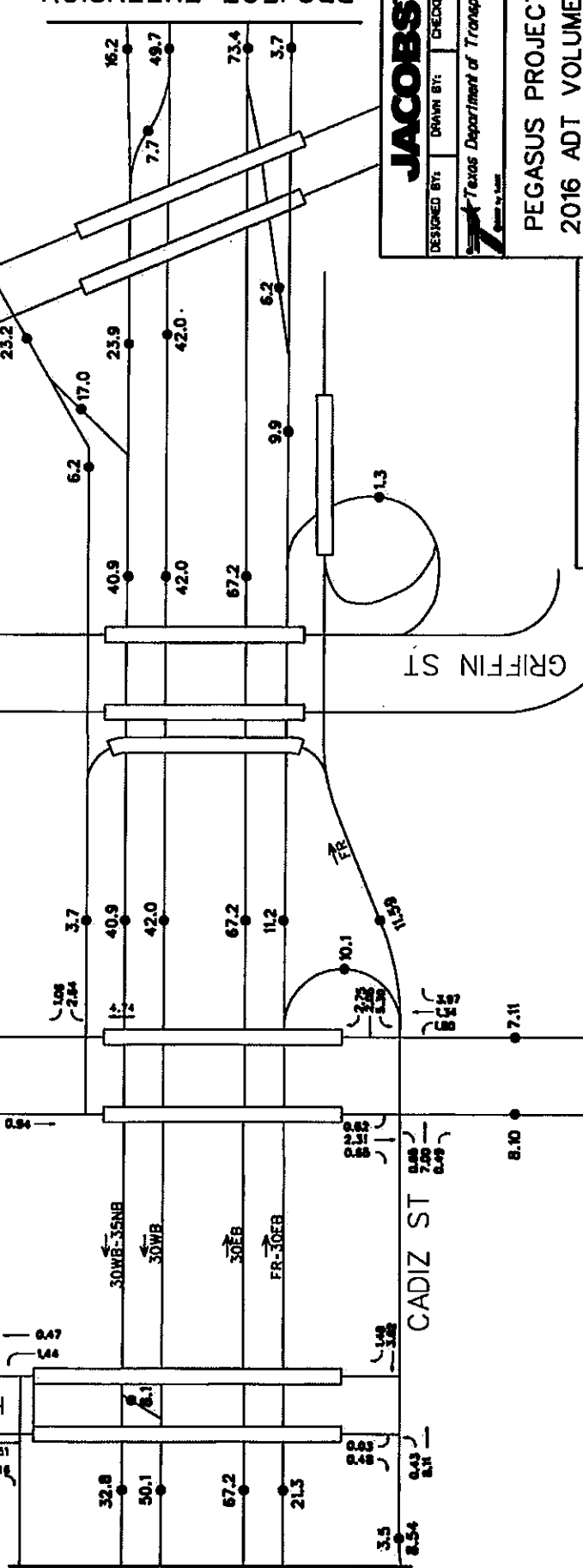




HOTEL ST  
LAMAR ST  
CANTON ST

CADIZ ST  
GRIFFIN ST  
AKARD ST  
PROJECT EXTENSION

5.80  
0.94  
0.47  
3.5  
8.54



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Texas Department of Transportation

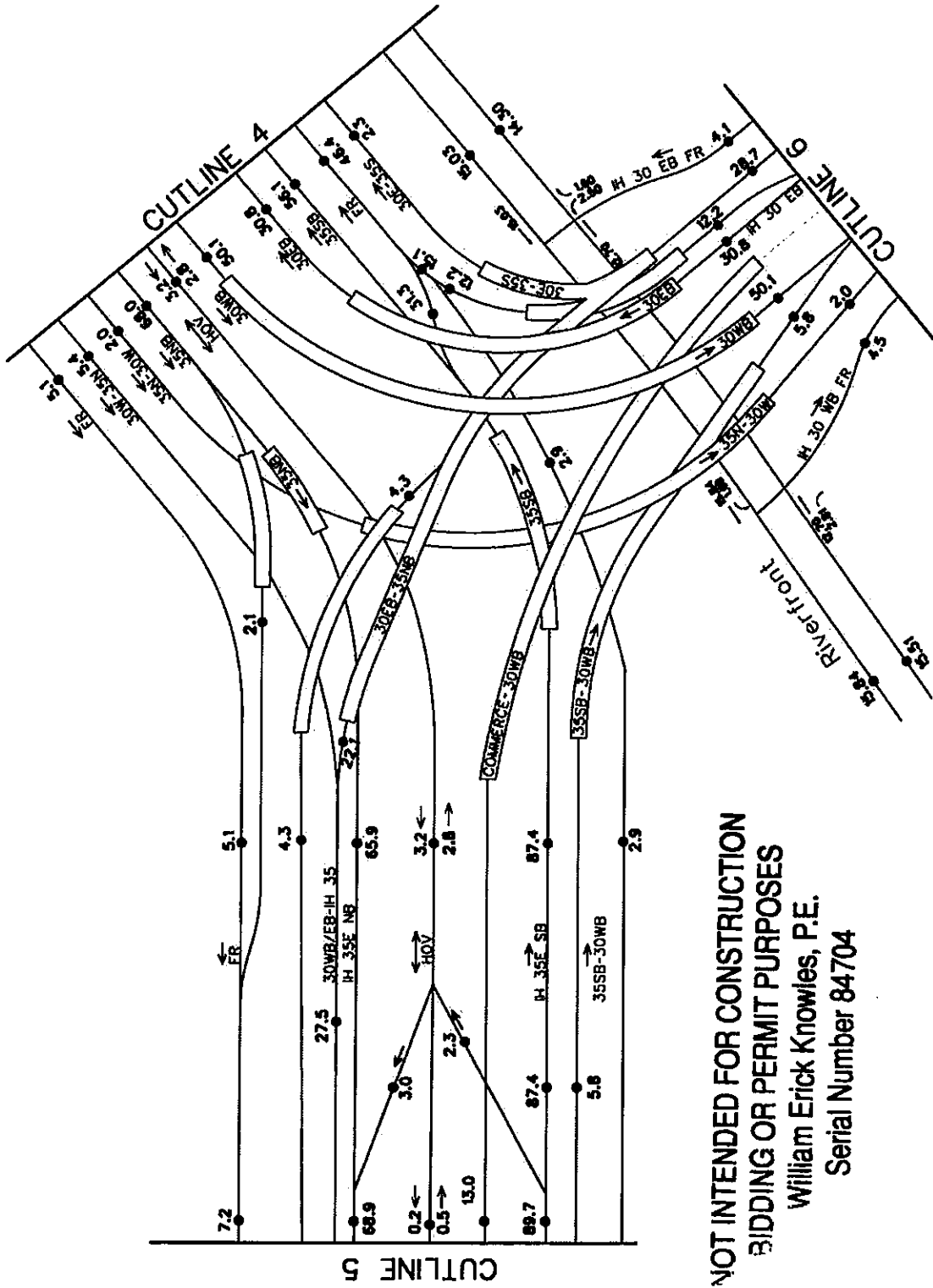
PEGASUS PROJECT  
2016 ADT VOLUMES

FED. ROAD DIST.	FEDERAL AID PROJECT NO.	SHEET NO.	% OF %
STATE	DIST.	COUNTY	
TX	DALLAS	DALLAS	
CONT. NO.	SECT.	JOB	HIGHWAY NO.
208	0437	205	135E / M 30
048	04	178	

MODIFIED DATE: 3/27/2012  
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Serial Number 84704

Note:  
Numbers in 1000s



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MODIFIED DATE: 3/27/2012

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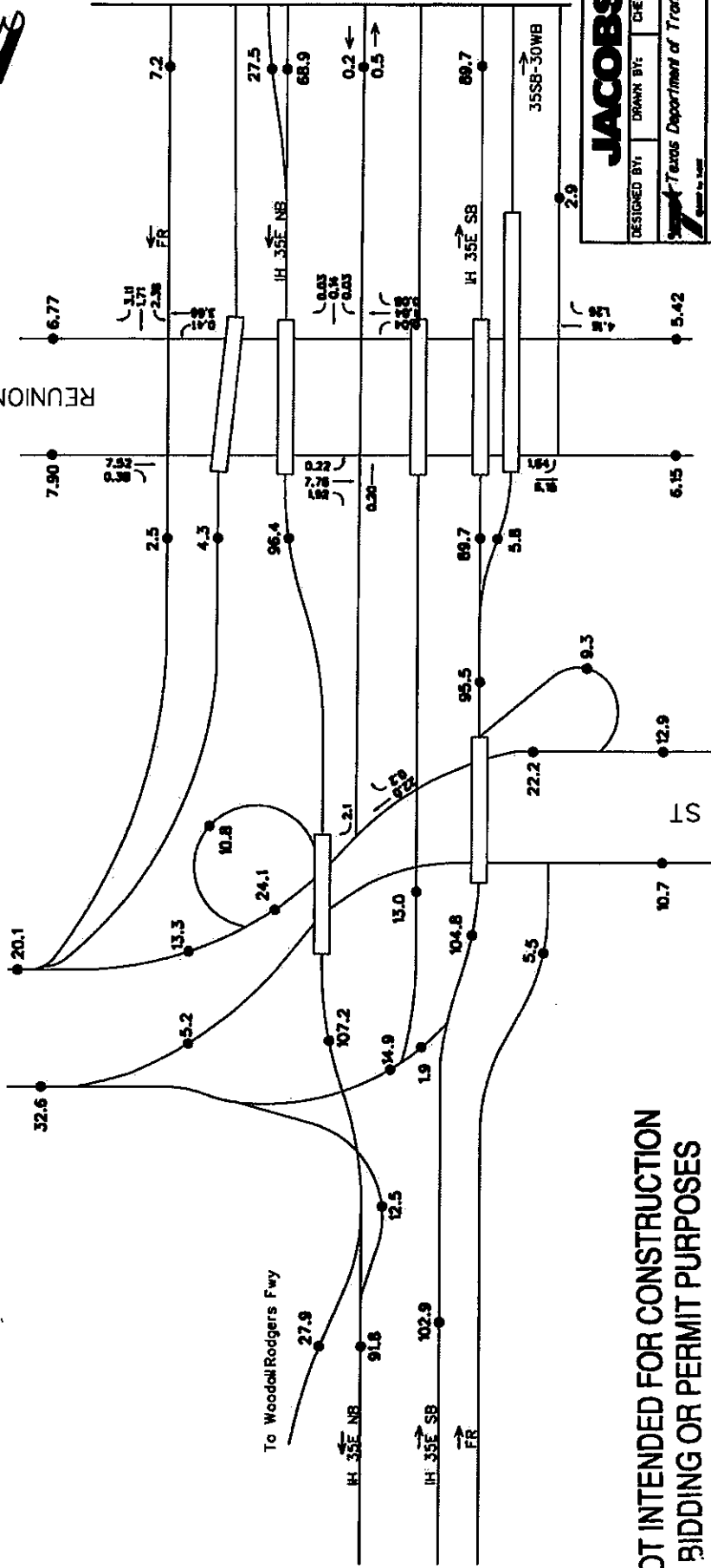
Texas Department of Transportation

PEGASUS PROJECT  
 2016 ADT VOLUMES

FED. RD. DIST. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
0442		9 OF 9
TX	DIST.	COUNTY
04	DALLAS	DALLAS
01	SECT.	JOB
02	00S	787152
02	04	MUSSE / IN 30



REUNION



END OF PROJECT

**JACOBS**

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Texas Department of Transportation  
Created by AutoCAD

PEGASUS PROJECT  
 2016 ADT VOLUMES

STATE	DIST.	COUNTY	SHEET NO.
TX	DALLAS	DALLAS	5 OF 9
CONTRACT NO.	SECTION	JOB NO.	HIGHWAY NO.
0442	03 02	706 TRIPLE	143E / IH 30
04	04	18	

MODIFIED DATE: 3/27/2012

MODIFIED BY: \_\_\_\_\_

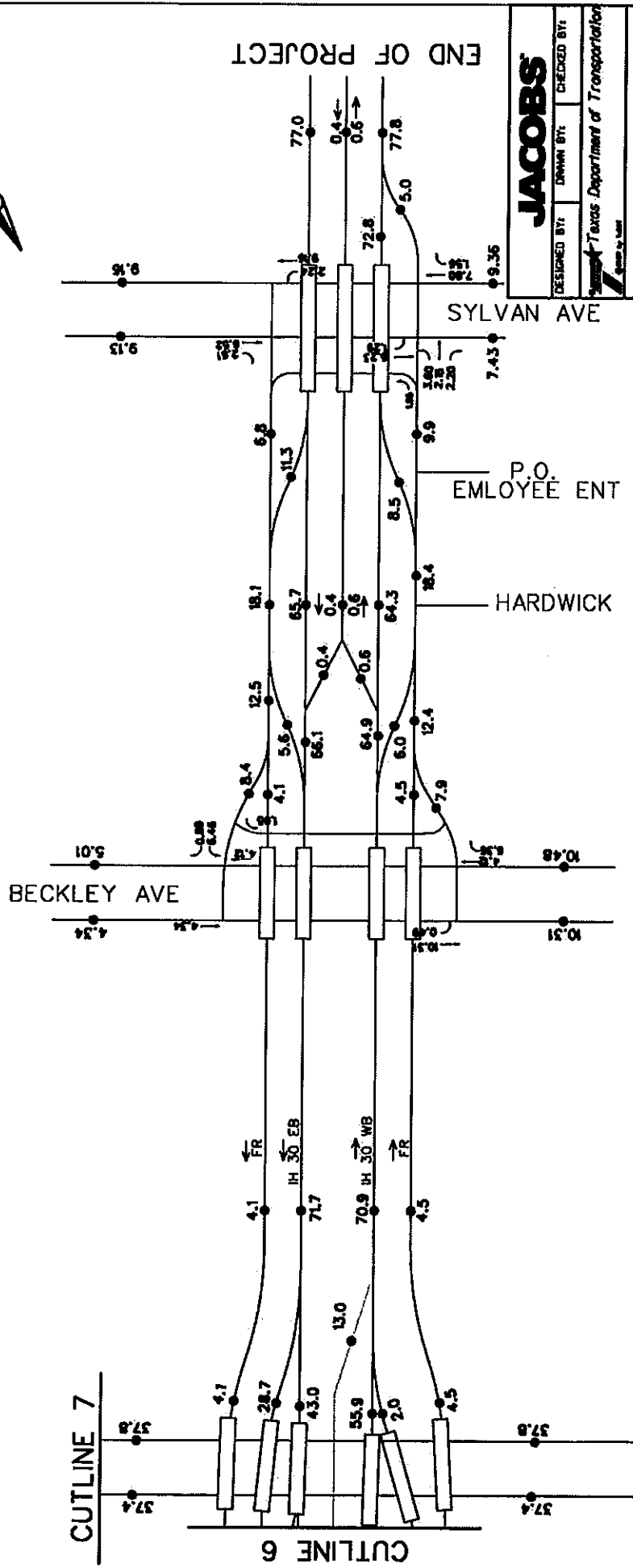
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William Erick Knowles, P.E.  
 Serial Number 84704

Note:  
 Numbers in 1000s



**JACOBS**

DESIGNED BY: DRAWN BY: CHECKED BY:

*Texas Department of Transportation*

PEGASUS PROJECT  
2016 ADT VOLUMES

FED. AID PROJECT NO.	SHEET NO.
STATE	DIST.
TX	DALLAS
COUNTY	DALLAS
SECT.	JOB
04-43	02
04	04
008	108

FED. AID PROJECT NO. \_\_\_\_\_ SHEET NO. \_\_\_\_\_ OF \_\_\_\_\_

STATE \_\_\_\_\_ DIST. \_\_\_\_\_ COUNTY \_\_\_\_\_

TX \_\_\_\_\_ DALLAS \_\_\_\_\_ DALLAS \_\_\_\_\_

COUNTY \_\_\_\_\_ SECT. \_\_\_\_\_ JOB \_\_\_\_\_

04-43 02 04 04

008 108

MODIFIED DATE: 3/27/2012

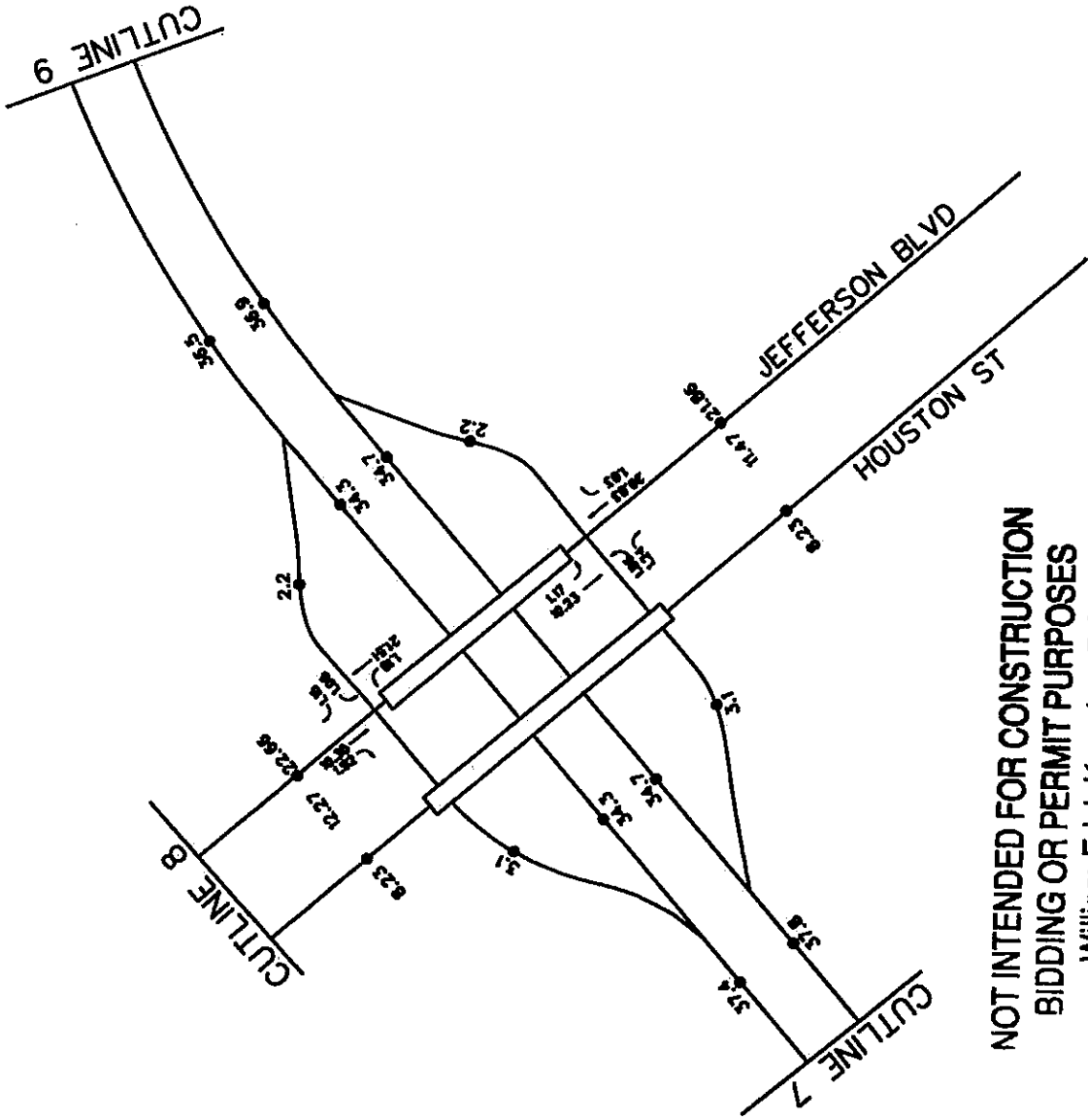
MODIFIED BY:

HNTB

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William Erick Knowles, P.E.  
Serial Number 84704

Note:  
Numbers in 1000s



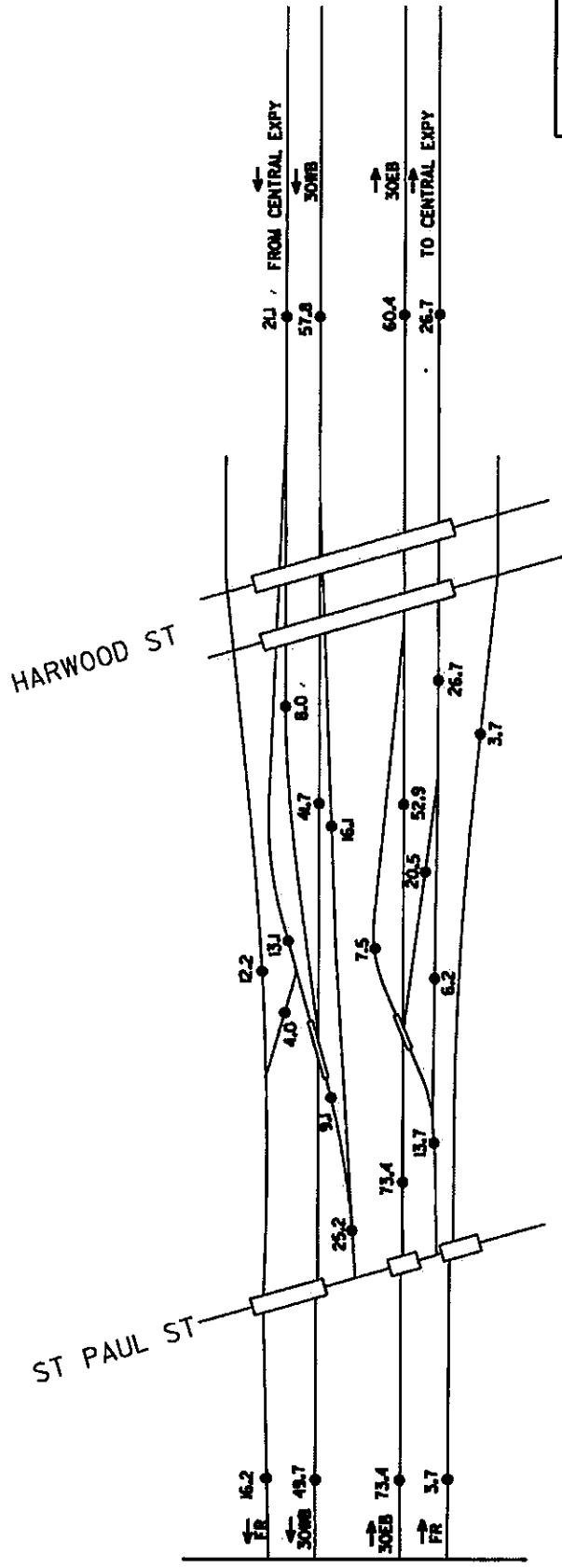
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		Texas Department of Transportation		
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2016 ADT VOLUMES				
FED. AID PROJ. NO.	FEDERAL AID PROJECT NO.	SECTION NO.	PAGE NO. OF 8	
STATE	DIST.	COUNTY		
TX	DALLAS	DALLAS		
CONTRACT NO.	SECTION NO.	JOB NO.	HIGHWAY NO.	
0442	03 02	205 TRM/132	1135E / IN 30	

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William Erick Knowles, P.E.  
Serial Number 84704

Note:  
Numbers in 1000s



PROJECT EXTENSION



NOT INTENDED FOR CONSTRUCTION  
 BIDDING OR PERMIT PURPOSES  
 William Erick Knowles, P.E.  
 Serial Number 84704

**JACOBS**

DESIGNED BY: DRAWN BY: CHECKED BY:

Texas Department of Transportation

PEGASUS PROJECT  
 2016 ADT VOLUMES

FED. AID PROJECT NO.	FED. AID DIST. NO.	9 OF 9
STATE	DIST.	COUNTY
TX	DALLAS	DALLAS
CONT. SECT.	JOB NO.	HIGHWAY NO.
0442	2016 180702	1006 / IN 30

MODIFIED DATE: 3/27/2012

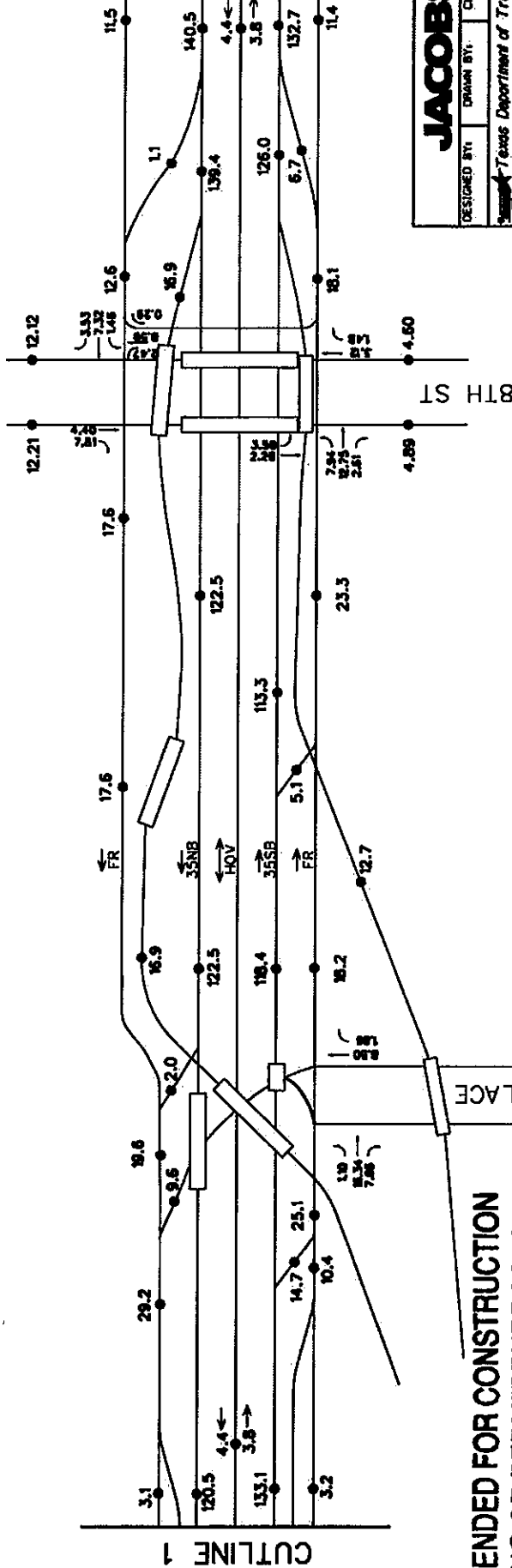
**HNTB**

VOLUME REDISTRIBUTED TO BEST DATA AVAILABLE

Note:  
 Numbers in 1000s



START OF PROJECT



CUTLINE 1

**JACOBS**

DESIGNED BY: DRAWN BY: CHECKED BY:  
 Texas Department of Transportation

PEGASUS PROJECT  
 2036 ADT VOLUMES

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
TX	DALLAS	1 OF 9
STATE	DIST.	COUNTY
TX	DALLAS	DALLAS
CONTRACT NO.	SECTION	JOB
0442	03 02	205 TR/132
DATE	DATE	DATE
04	15	1456 / IN 30

MODIFIED DATE: 3/27/2002  
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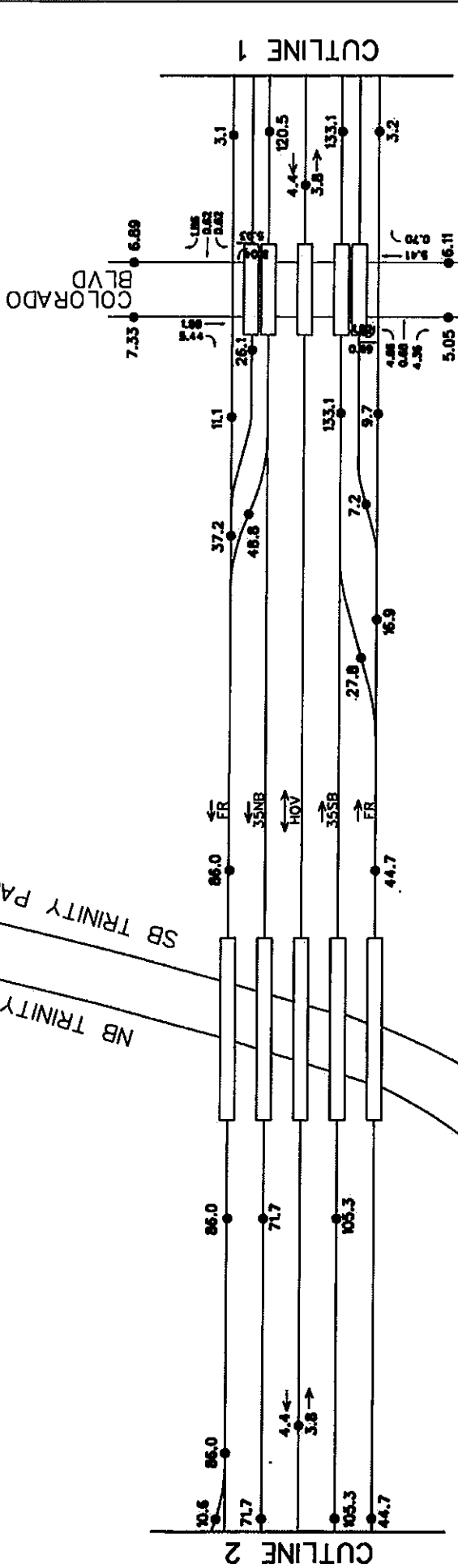
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 BIDDING OR PERMIT PURPOSES  
 William Erick Knowles, P.E.  
 Serial Number 84704

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 BIDDING OR PERMIT PURPOSES  
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Note:  
 Numbers in 1000s



NB TRINITY PARKWAY  
SB TRINITY PARKWAY



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Texas Department of Transportation

PEGASUS PROJECT  
2036 ADT VOLUMES

FED. PROJ. DIV. NO.	FEDERAL PROJ. NO.	SHEET NO.
STATE	DIST.	COUNTY
TX	DALLAS	DALLAS
CONT. NO.	SECT.	JOB NO.
0442	03	205 TR/132
DATE	SCALE	HOUSE / IN. 30
03/27/2012	1" = 100'	1/8" = 1" 30

MODIFIED DATE: 3/27/2012

MODIFIED BY:  
**HNTB**

VOLUME REDISTRIBUTED TO BEST DATA AVAILABLE

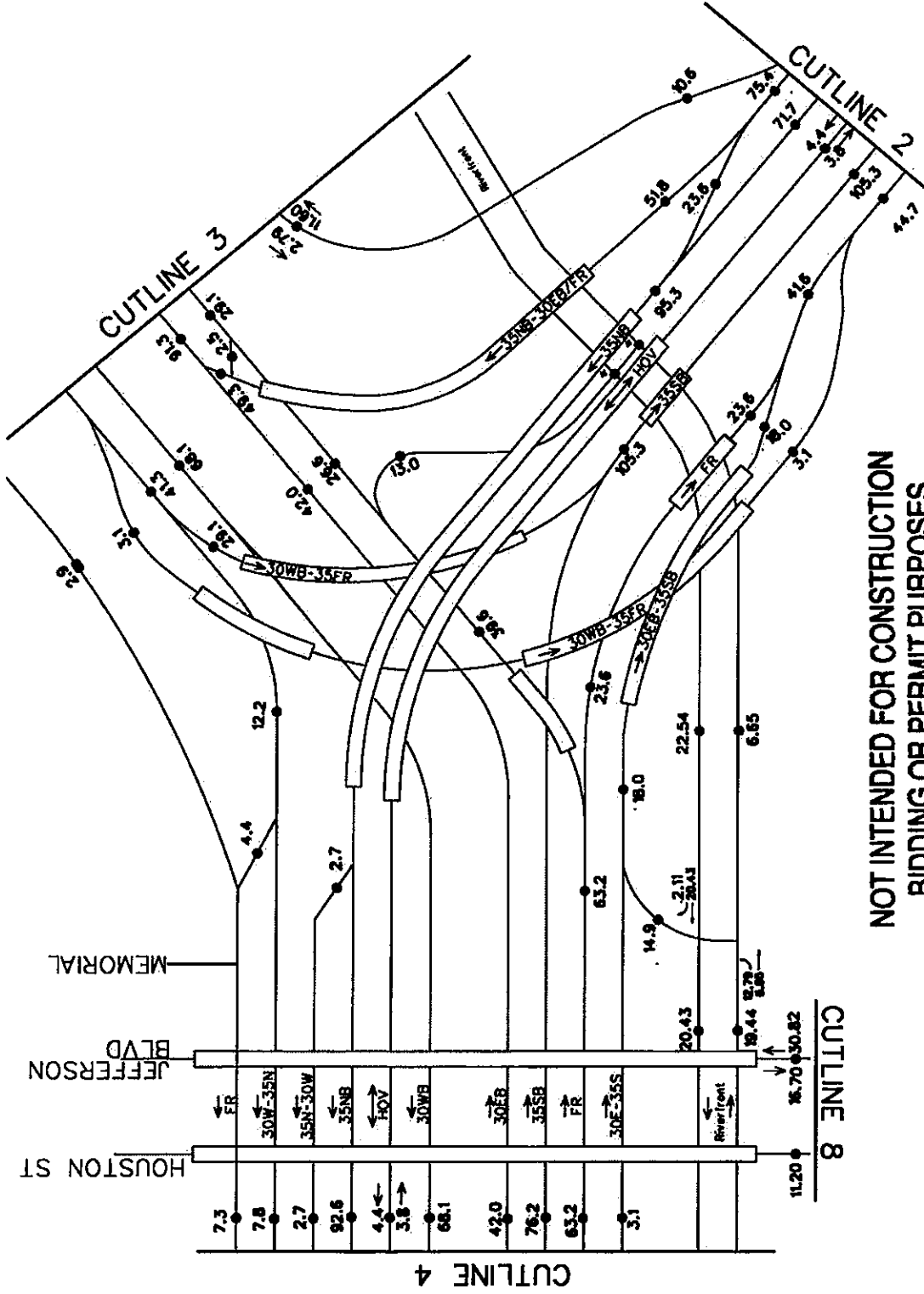
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BIDDING OR PERMIT PURPOSES**  
William Erick Knowles, P.E.  
Serial Number 84704

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Note:  
Numbers in 1000s

CUTLINE 9





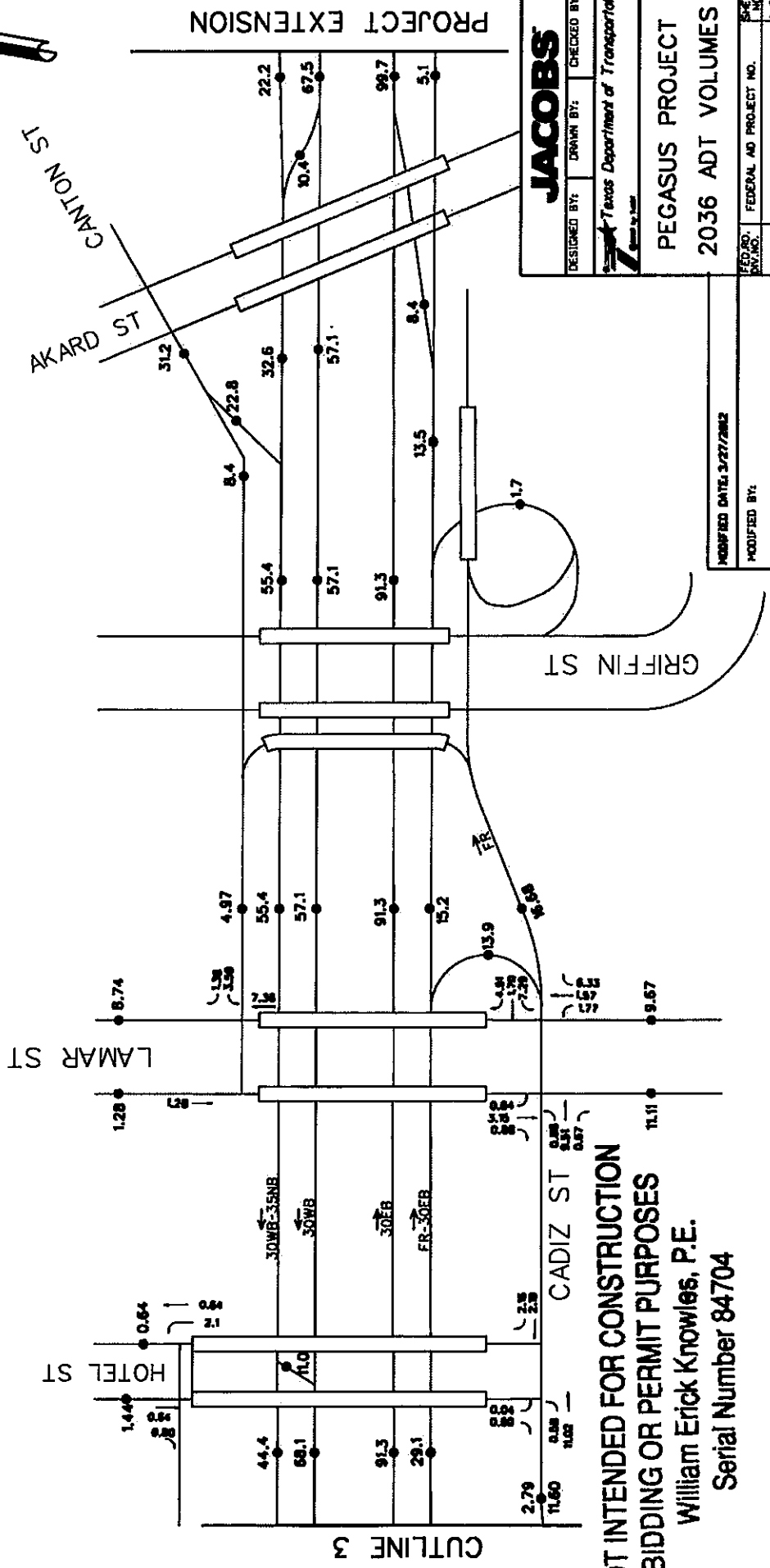
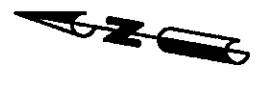
**NOT INTENDED FOR CONSTRUCTION  
 BIDDING OR PERMIT PURPOSES**

William Erick Knowles, P.E.  
 Serial Number 84704

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 BIDDING OR PERMIT PURPOSES  
 NOT INTENDED FOR CONSTRUCTION

Note:  
 Numbers in 1000s

MODIFIED DATE: 3/27/2012  
 HNTB  
 \* VOLUME UNKNOWN  
 VOLUME REDISTRIBUTED TO BEST DATA AVAILABLE  
 DESIGNED BY: [ ] DRAWN BY: [ ] CHECKED BY: [ ]  
 JACOBS  
 Texas Department of Transportation  
 FEDERAL AID PROJECT NO. [ ]  
 PEGASUS PROJECT  
 2036 ADT VOLUMES  
 STATE: TX COUNTY: DALLAS  
 DIST: DALLAS  
 CONTRACT NO.: 0442 JOB NO.: 205 TB/152 HIGHWAY NO.:  
 SHEET NO.: 15 OF 30  
 DATE: 03/27/12



**PROJECT EXTENSION**

**JACOBS**

DESIGNED BY: DRAWN BY: CHECKED BY:  
Texas Department of Transportation

**PEGASUS PROJECT  
2036 ADT VOLUMES**

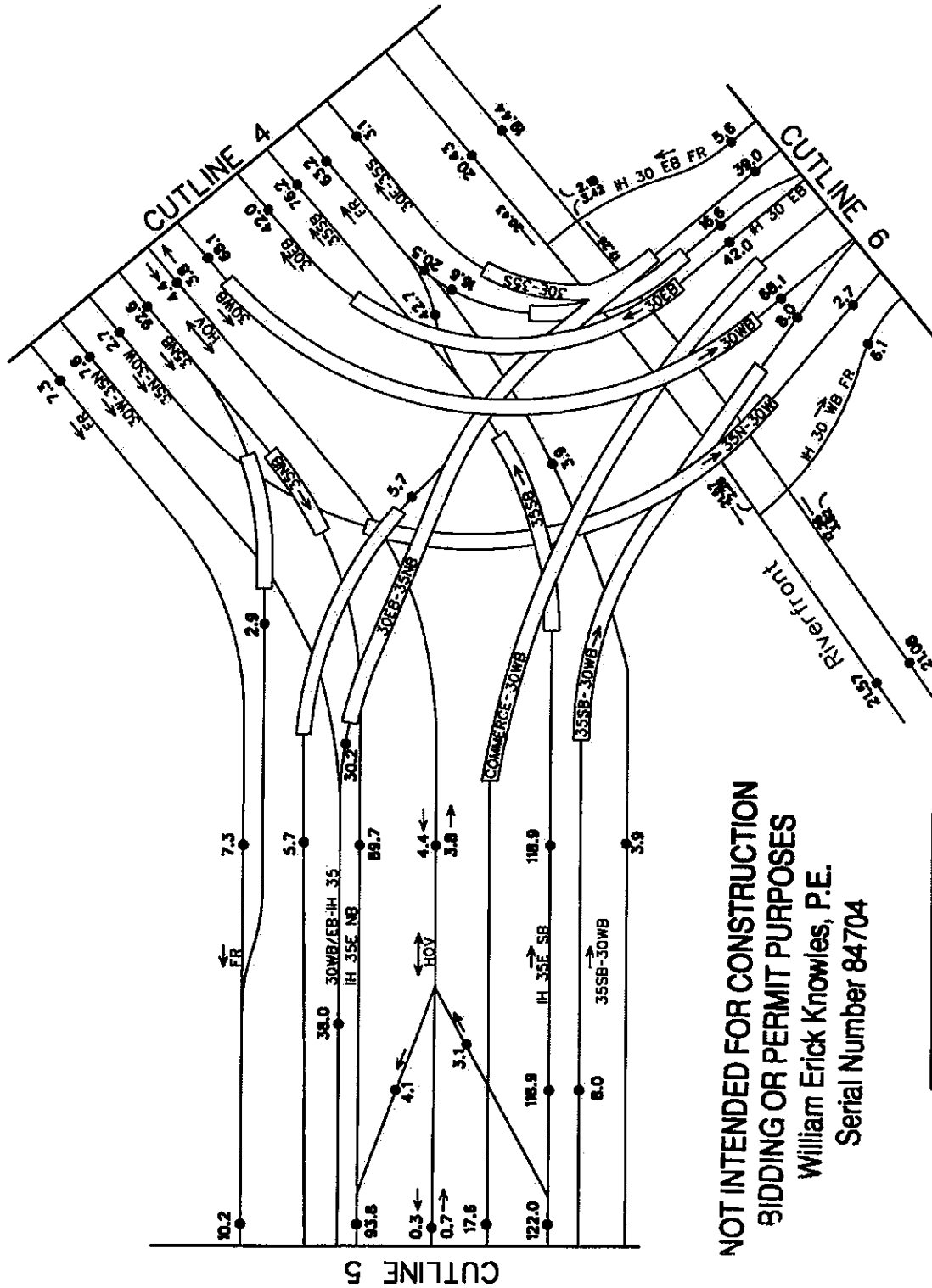
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TX	DIST.	COUNTY	
CONTRACT NO.	SECTION NO.	JOB NO.	HIGHWAY NO.
0442	03	205 TR/132	359E / H 30
0448	04		

MODIFIED DATE: 3/27/2002  
 MODIFIED BY:  
**HNTB**  
 VOLUME REDISTRIBUTED TO BEST DATA AVAILABLE

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 BIDDING OR PERMIT PURPOSES**  
 William Erick Knowles, P.E.  
 Serial Number 84704

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 BIDDING OR PERMIT PURPOSES  
 NOT INTENDED FOR CONSTRUCTION**

Note:  
 Numbers in 1000s



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 William Erick Knowles, P.E.  
 Serial Number 84704

FOR INTERIM REVIEW ONLY  
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 NOT INTENDED FOR CONSTRUCTION

Note:  
 Numbers in 1000s

ACQUIRED DATE: 3/27/2002	<b>HNTB</b>		VOLUME REDISTRIBUTED TO BEST DATA AVAILABLE
MODIFIED BY:	<b>JACOBS</b>		
DESIGNED BY:	DRAWN BY:	CHECKED BY:	
Texas Department of Transportation <small>Created by LAM</small>			
PEGASUS PROJECT		2036 ADT VOLUMES	
FED. RD. DIST. NO.	FEDERAL RD PROJECT NO.	SHEET NO.	OF
STATE	DIST.	COUNTY	
TX	DALLAS	DALLAS	
CONT. NO.	SECT. NO.	JOB NO.	HIGHWAY NO.
0442	03 02	203 TR/13	435E / IH 30
008	04	118	



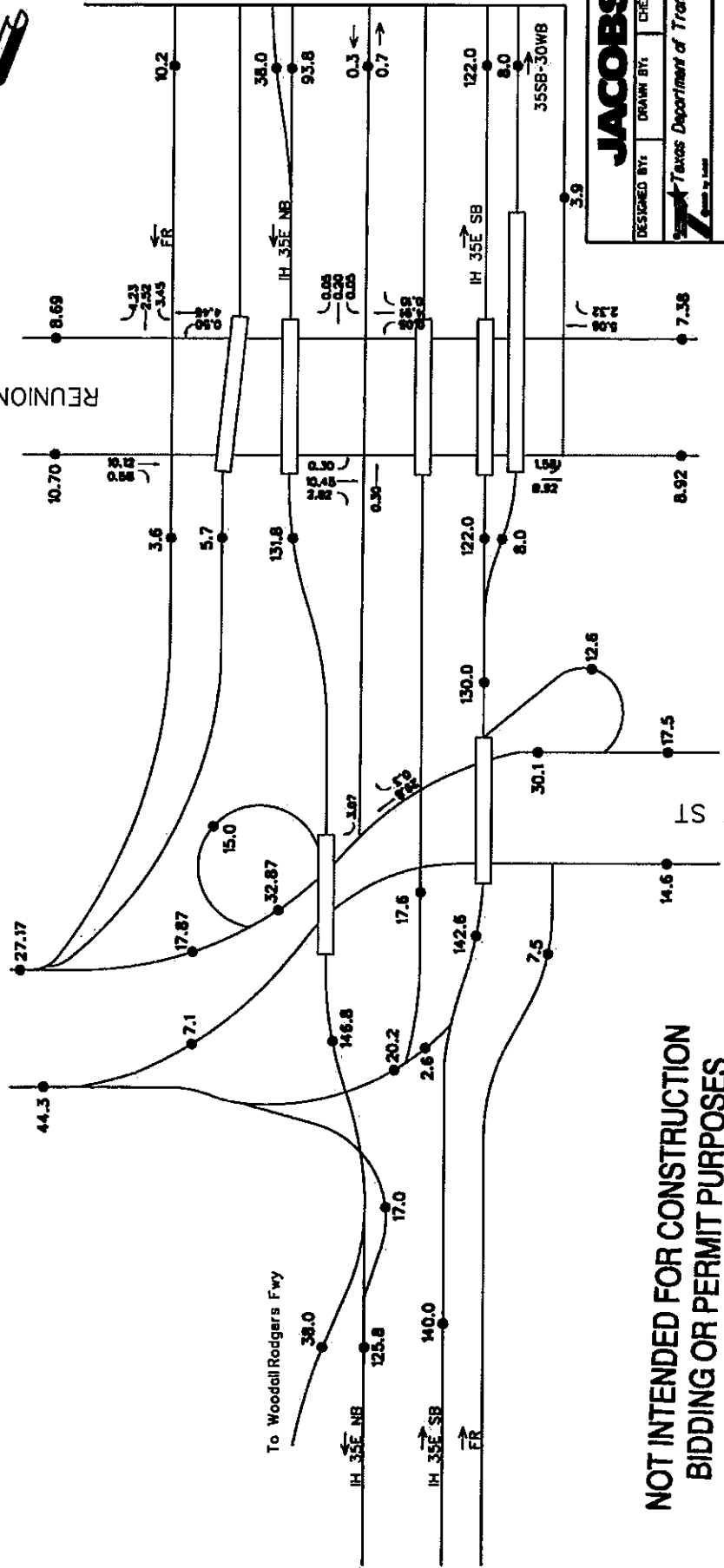
REUNION

COMMERCE ST

To Woodall Rodgers Fwy

END OF PROJECT

CUTLINE 5



**JACOBS**

DESIGNED BY: \_\_\_\_\_ DRAWN BY: \_\_\_\_\_ CHECKED BY: \_\_\_\_\_  
 Texas Department of Transportation

**PEGASUS PROJECT**  
**2036 ADT VOLUMES**

FED. RD. DIST. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
TX	DALLAS	5 OF 8
CONTRACT NO.	SECTION	JOB
0442	03 03	205 TRM/132
		HOUSE / IN 30

MODIFIED DATE: 3/27/2012

MODIFIED BY: \_\_\_\_\_

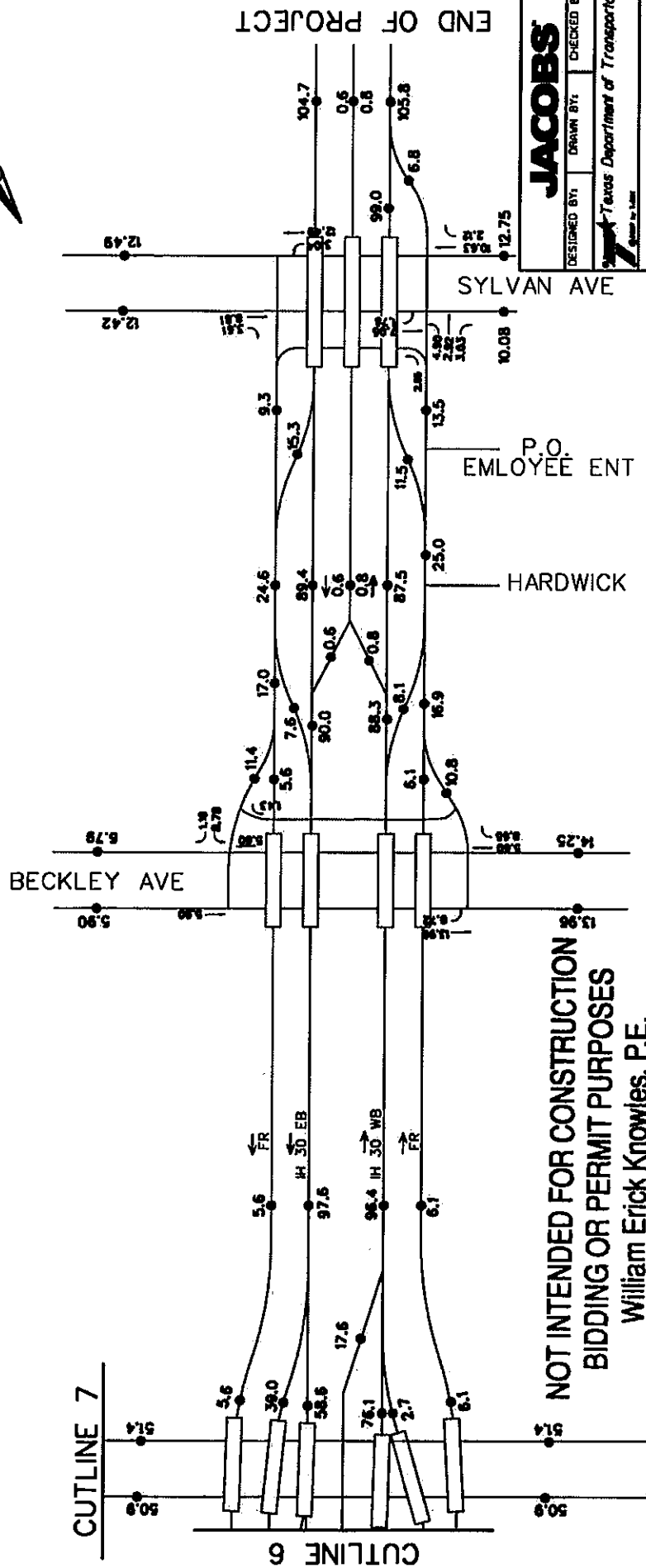
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 William Erick Knowles, P.E.  
 Serial Number 84704

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Note:  
 Numbers in 1000s



END OF PROJECT

**JACOBS**

DESIGNED BY: DRAWN BY: CHECKED BY:  
 Texas Department of Transportation  
 State of Texas

PEGASUS PROJECT  
 2036 ADT VOLUMES

FED. ROAD DIST. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
TX	DALLAS	DALLAS
STATE	DIST.	COUNTY
CONTRACT NO. 0442	JOB NO. 2036	HIGHWAY NO. 136
DATE 02/02/03	DATE 02/02/03	DATE 02/02/03

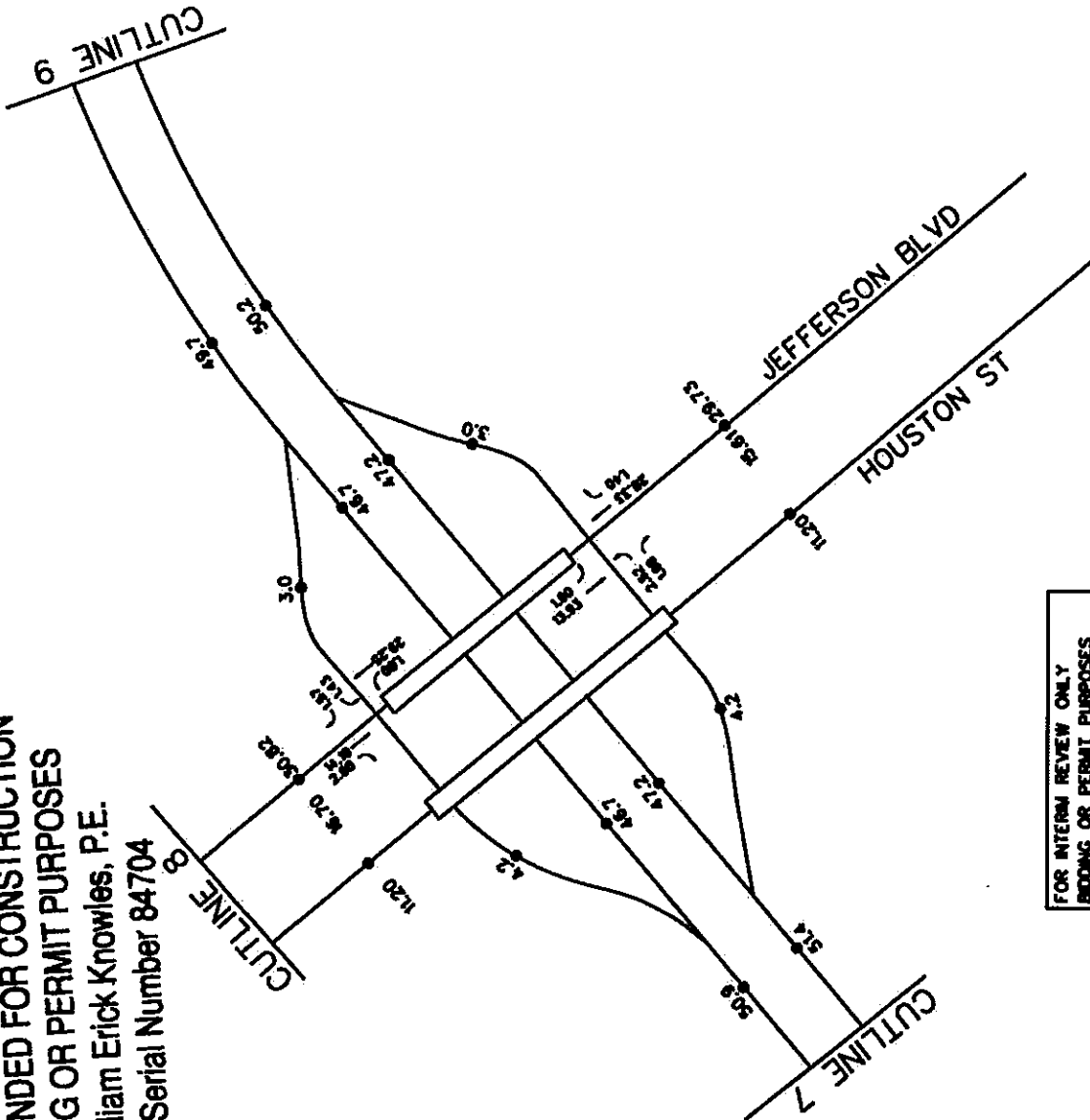
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 MODIFIED BY:  
**HNTB**  
 VOLUME REDISTRIBUTED TO BEST DATA AVAILABLE

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 William Erick Knowles, P.E.  
 Serial Number 84704

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Note:  
 Numbers in 1000s

NOT INTENDED FOR CONSTRUCTION  
 BIDDING OR PERMIT PURPOSES  
 William Erick Knowles, P.E.  
 Serial Number 84704



**JACOBS**

DESIGNED BY: DRAWN BY: CHECKED BY:

Texas Department of Transportation

PEGASUS PROJECT  
 2036 ADT VOLUMES

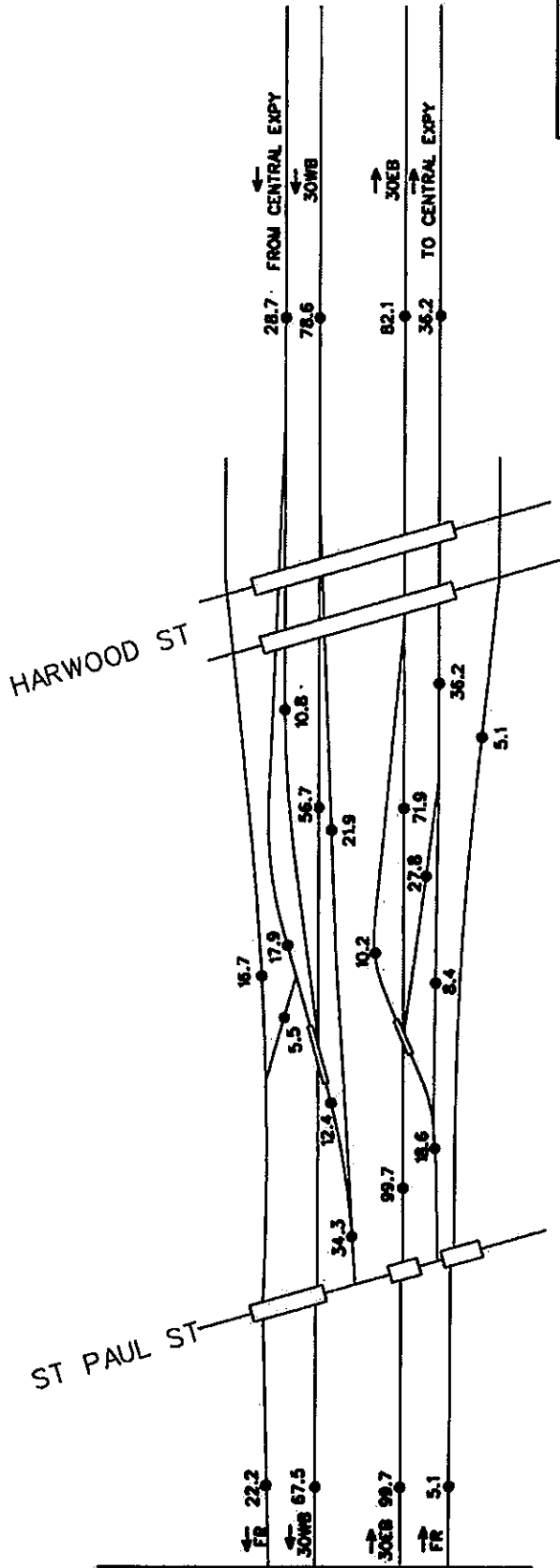
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TX	DALLAS	1	1
STATE	DIST.	COUNTY	
TX	DALLAS	DALLAS	
CONTRACT NO.	SECTION	JOB NO.	HIGHWAY NO.
8442	01 02	205-187/182	4356 / IN 30

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 BIDDING OR PERMIT PURPOSES  
 NOT INTENDED FOR CONSTRUCTION

Note:  
 Numbers in 1000s



PROJECT EXTENSION



END OF PROJECT

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 William Erick Knowles, P.E.  
 Serial Number 84704

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NOT INTENDED FOR CONSTRUCTION**

<b>JACOBS</b>		DESIGNED BY:	DRAWN BY:	CHECKED BY:
Texas Department of Transportation		FEDERAL AD PROJECT NO.		
PEGASUS PROJECT		STATE:	DIST.:	COUNTY:
2036 ADT VOLUMES		TX	DALLAS	DALLAS
		CONTRACT NO.:	SECTION NO.:	HIGHWAY NO.:
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		03	04	4356 / R1 30

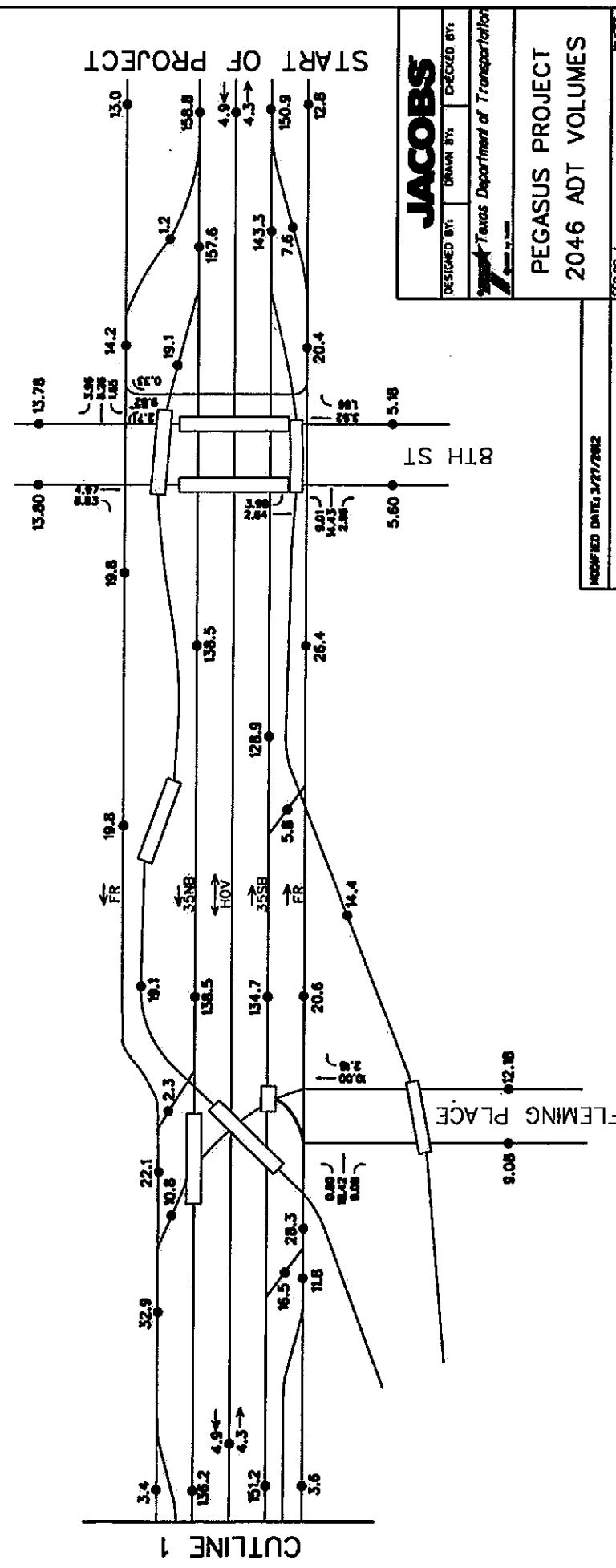
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MODIFIED BY:

**HNTB**

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**NOT INTENDED FOR CONSTRUCTION  
 BIDDING OR PERMIT PURPOSES**  
 William Erick Knowles, P.E.  
 Serial Number 84704



START OF PROJECT

**JACOBS**  
 DESIGNED BY: DRAWN BY: CHECKED BY:  
 Texas Department of Transportation

**PEGASUS PROJECT  
 2046 ADT VOLUMES**

FED. PROJ. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
		1 OF 9
STATE	DIST.	COUNTY
TX	DALLAS	DALLAS
CONTRACT NO.	SECT.	JOB
0442	03 02	205 TR/132
		108 / IN 30

MODIFIED DATE: 3/27/2002  
 MODIFIED BY:

**HNTB**

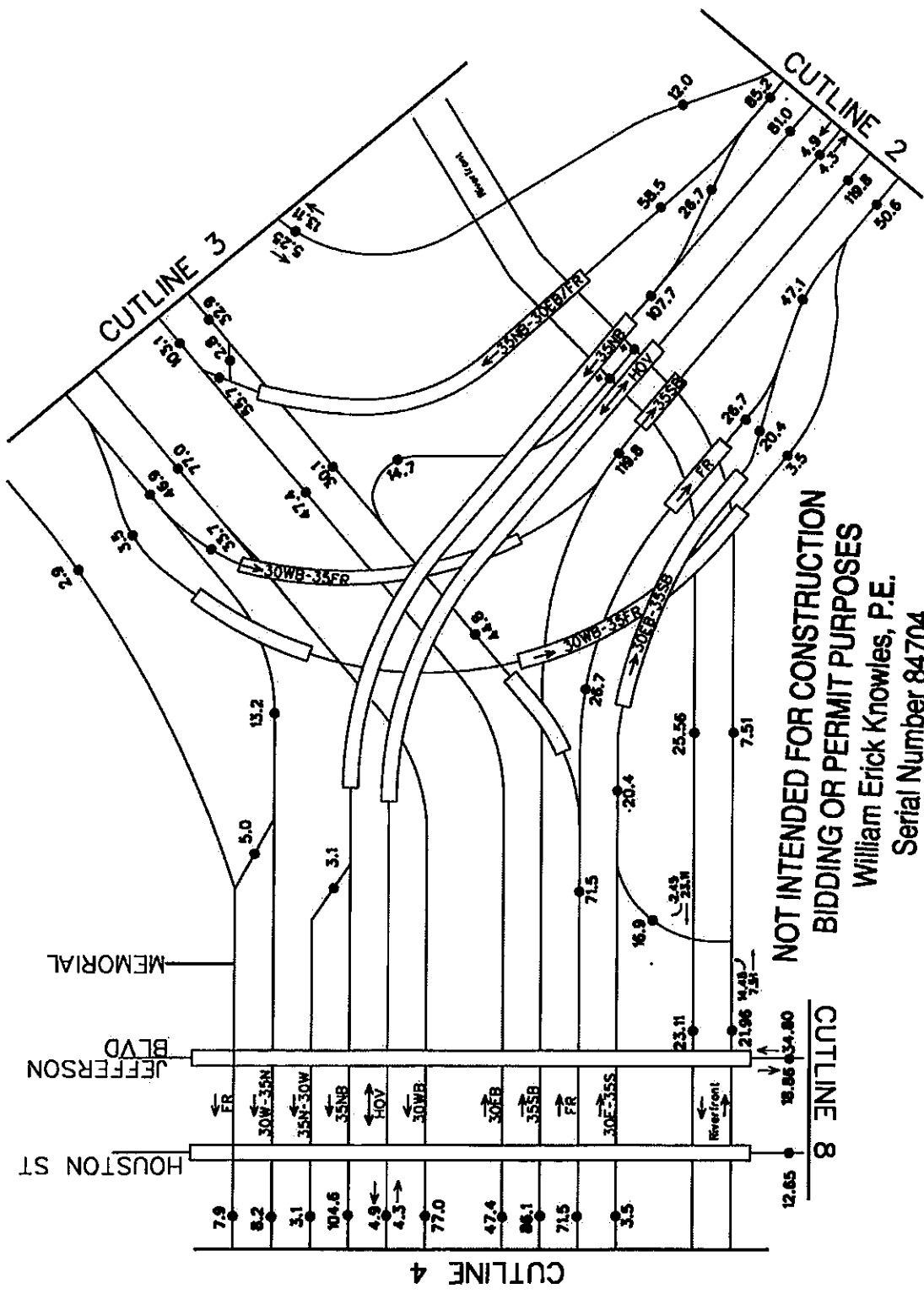
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 NOT INTENDED FOR CONSTRUCTION

Note:  
 Numbers in 1000s







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Note:  
 Numbers in 1000s

MODIFIED DATE: 3/27/2012	
MODIFIED BY: <b>HNTB</b>	
* VOLUME UNKNOWN VOLUME REDISTRIBUTED TO BEST DATA AVAILABLE	
<b>JACOBS</b>	
DESIGNED BY: DRAMM BY:	CHECKED BY:
Texas Department of Transportation	
PEGASUS PROJECT 2046 ADT VOLUMES	
FED. ROAD DIST. NO.	FEDERAL AID PROJECT NO.
STATE	DIST.
TX	DALLAS
COUNTY	DAWSON
SECTION	JOB
03 02	205 187/132
03	433E / H 30
02	08
SECRET	SHEET NO.
5	OF 9



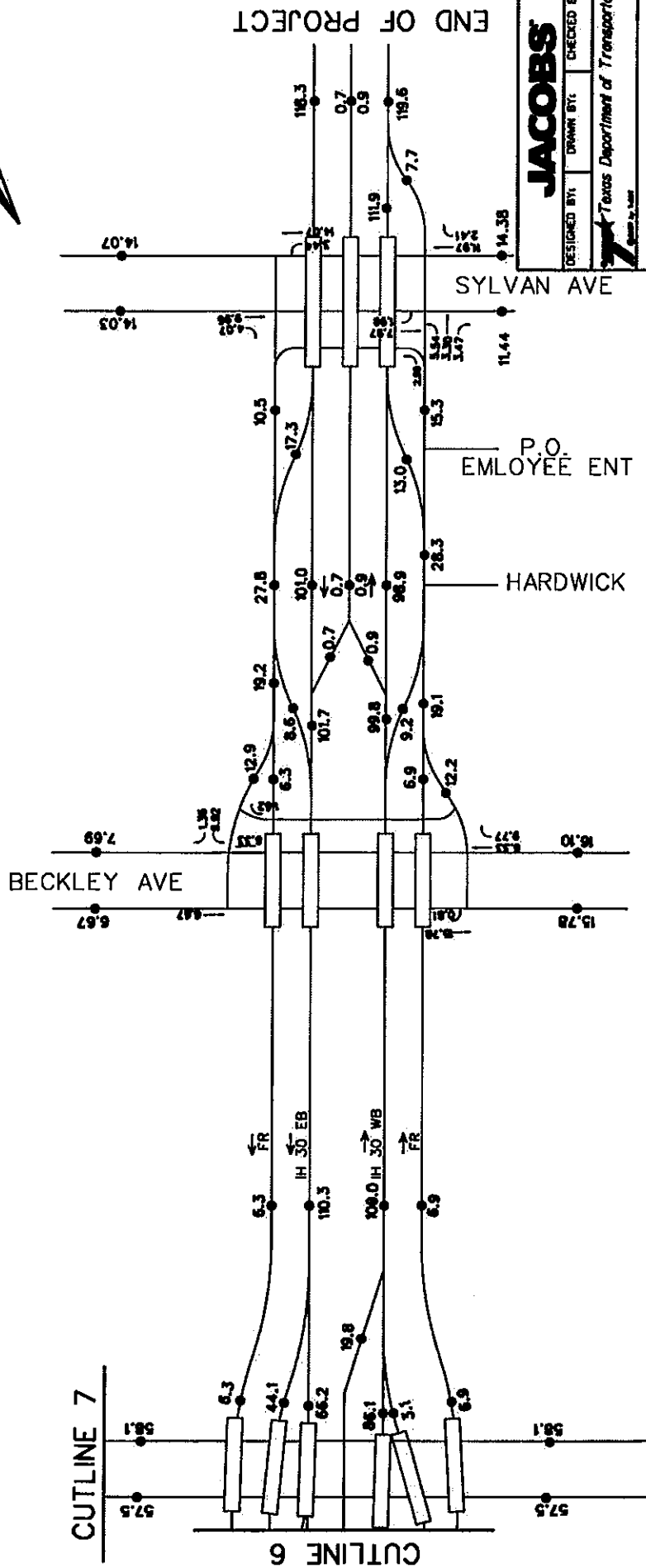




NOT INTENDED FOR CONSTRUCTION  
 BIDDING OR PERMIT PURPOSES

William Erick Knowles, P.E.

Serial Number 84704



**JACOBS**

DESIGNED BY: DRAWN BY: CHECKED BY:  
 Texas Department of Transportation

PEGASUS PROJECT  
 2046 ADT VOLUMES

MODIFIED DATE: 3/27/2002

FEDERAL AID PROJECT NO.	SHEET NO.
STATE	COUNTY
TX	DALLAS
CONTRACT NO.	SECTION NO.
0447	03 02
DATE	PROJECT NO.
04	1496 / 11 30

**HNTB**

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 NOT INTENDED FOR CONSTRUCTION

Note:  
 Numbers in 1000s



