

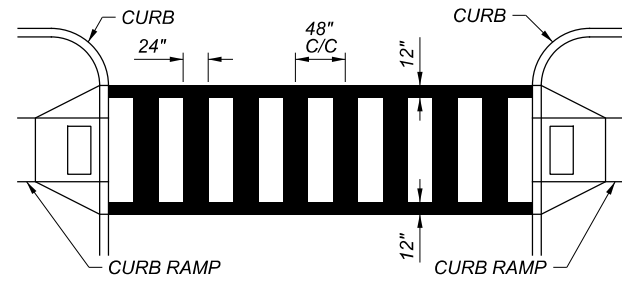
TRAFFIC CONTROL GENERAL NOTES

ITEM 644 - CROSSWALK LINE, 12", AS PER PLAN

THIS ITEM SHALL MEET ALL THE REQUIREMENTS OF ITEM 644 IN THE CMS AND THE FOLLOWING:

CROSSWALK SHALL BE LADDER STYLE. SEE LADDER STYLE CROSSWALK DETAIL ON THIS SHEET FOR DIMENSIONS OF TRANSVERSE LINES. LADDER MARKING SHALL BE PLACED FOR THE FULL WIDTH OF THE CROSSWALK.

PAYMENT FOR LADDER MARKINGS SHALL BE CONSIDERED INCIDENTAL TO AND INCLUDED WITH PAYMENT FOR ITEM 644 - CROSSWALK LINE, 12", AS PER PLAN. PAYMENT SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS NEEDED TO COMPLETE THE WORK.



LADDER STYLE CROSSWALK DETAIL

DESIGN AGENCY

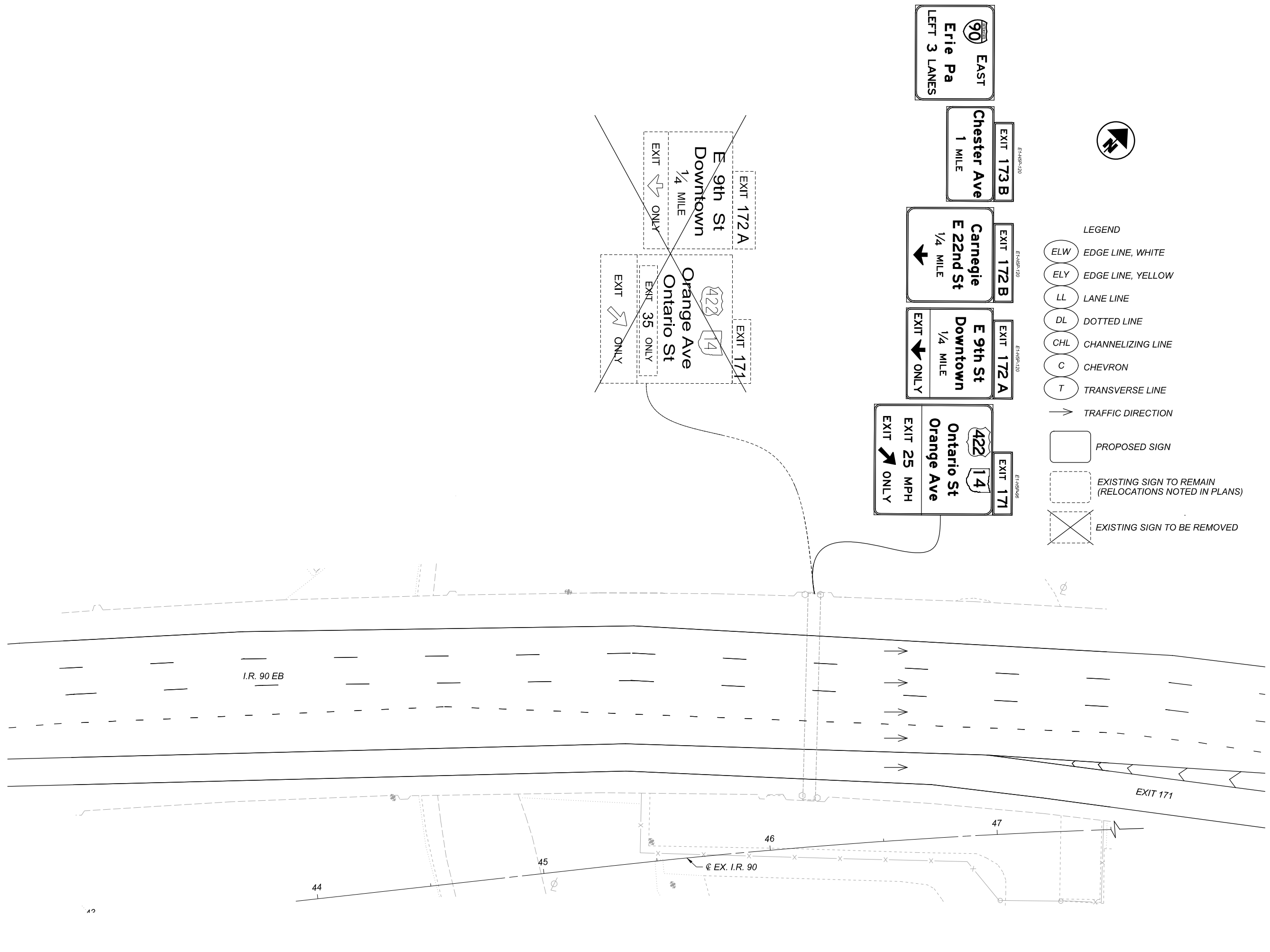
Michael Baker
INTERNATIONAL

DESIGNER
--

REVIEWER
--

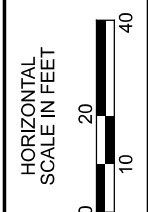
PROJECT ID
82382

SHEET	TOTAL
1222	2339



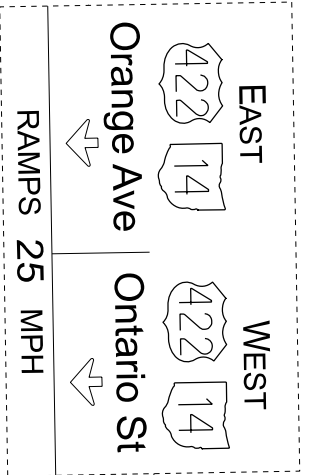
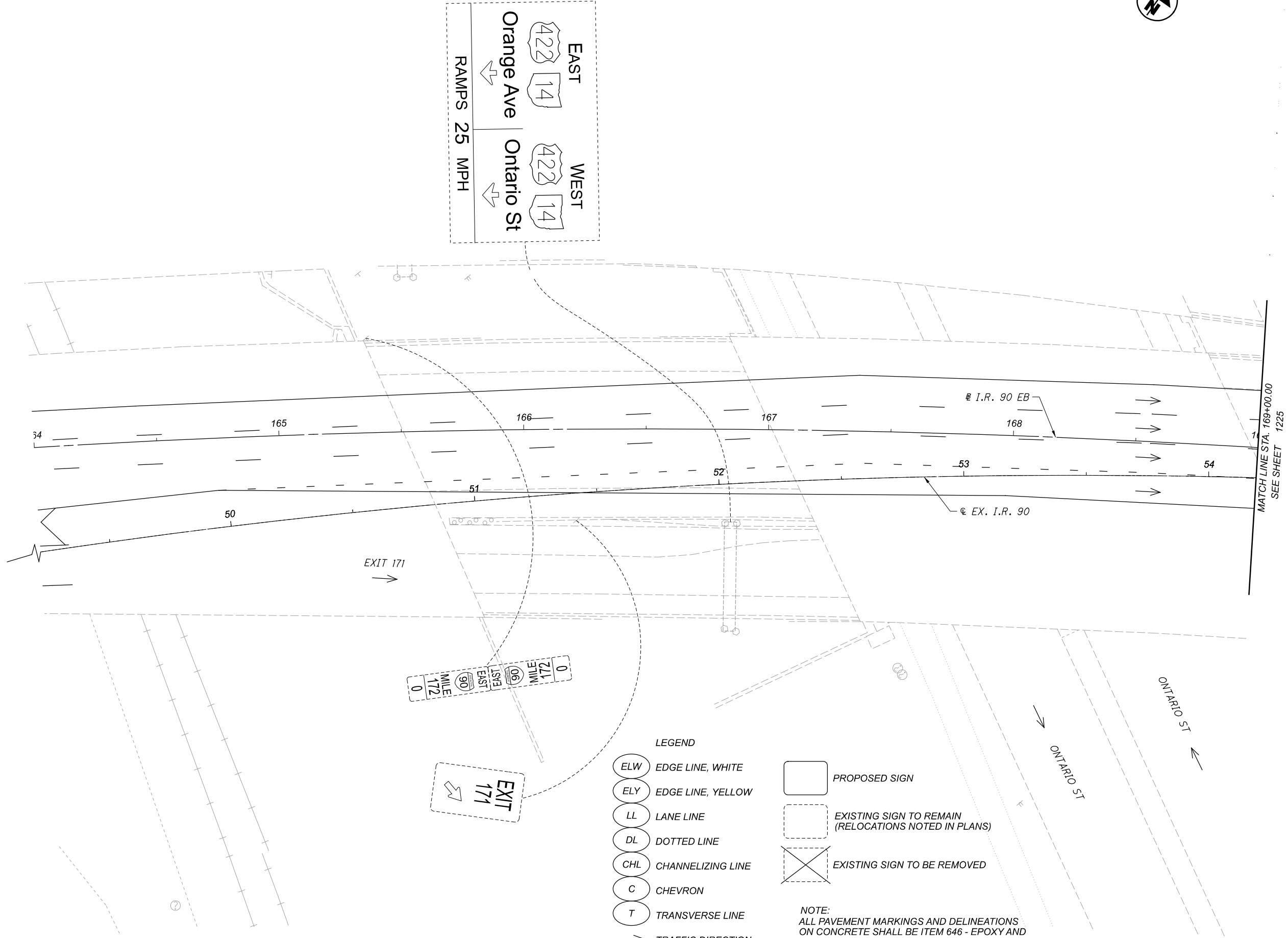
LEGEND

- (ELW) EDGE LINE, WHITE
- (ELY) EDGE LINE, YELLOW
- (LL) LANE LINE
- (DL) DOTTED LINE
- (CHL) CHANNELIZING LINE
- (C) CHEVRON
- (T) TRANSVERSE LINE
- TRAFFIC DIRECTION
- [Solid Box] PROPOSED SIGN
- [Dashed Box] EXISTING SIGN TO REMAIN (RELOCATIONS NOTED IN PLANS)
- [Crossed Box] EXISTING SIGN TO BE REMOVED



SIGNING & PAVEMENT MARKING PLAN - I.R. 90 EB
 STA. 44+00.00 TO 47+00.00

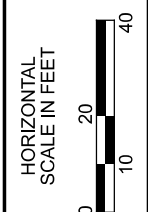
DESIGN AGENCY	BURGESS & NIPLÉ 100 WEST ERIE STREET PAINESVILLE, OHIO 44077
DESIGNER	—
REVIEWER	—
PROJECT ID	82382
SHEET	TOTAL
1223	2339



- LEGEND**
- ELW EDGE LINE, WHITE
 - ELY EDGE LINE, YELLOW
 - LL LANE LINE
 - DL DOTTED LINE
 - CHL CHANNELIZING LINE
 - C CHEVRON
 - T TRANSVERSE LINE
 - TRAFFIC DIRECTION

- PROPOSED SIGN
- EXISTING SIGN TO REMAIN (RELOCATIONS NOTED IN PLANS)
- EXISTING SIGN TO BE REMOVED

NOTE:
 ALL PAVEMENT MARKINGS AND DELINEATIONS ON CONCRETE SHALL BE ITEM 646 - EPOXY AND ALL MARKINGS ON ASPHALT SHALL BE ITEM 644 - THERMOPLASTIC



SIGNING & PAVEMENT MARKING PLAN - I.R. 90 EB
 STA. 164+00.00 TO STA. 169+00.00

DESIGN AGENCY

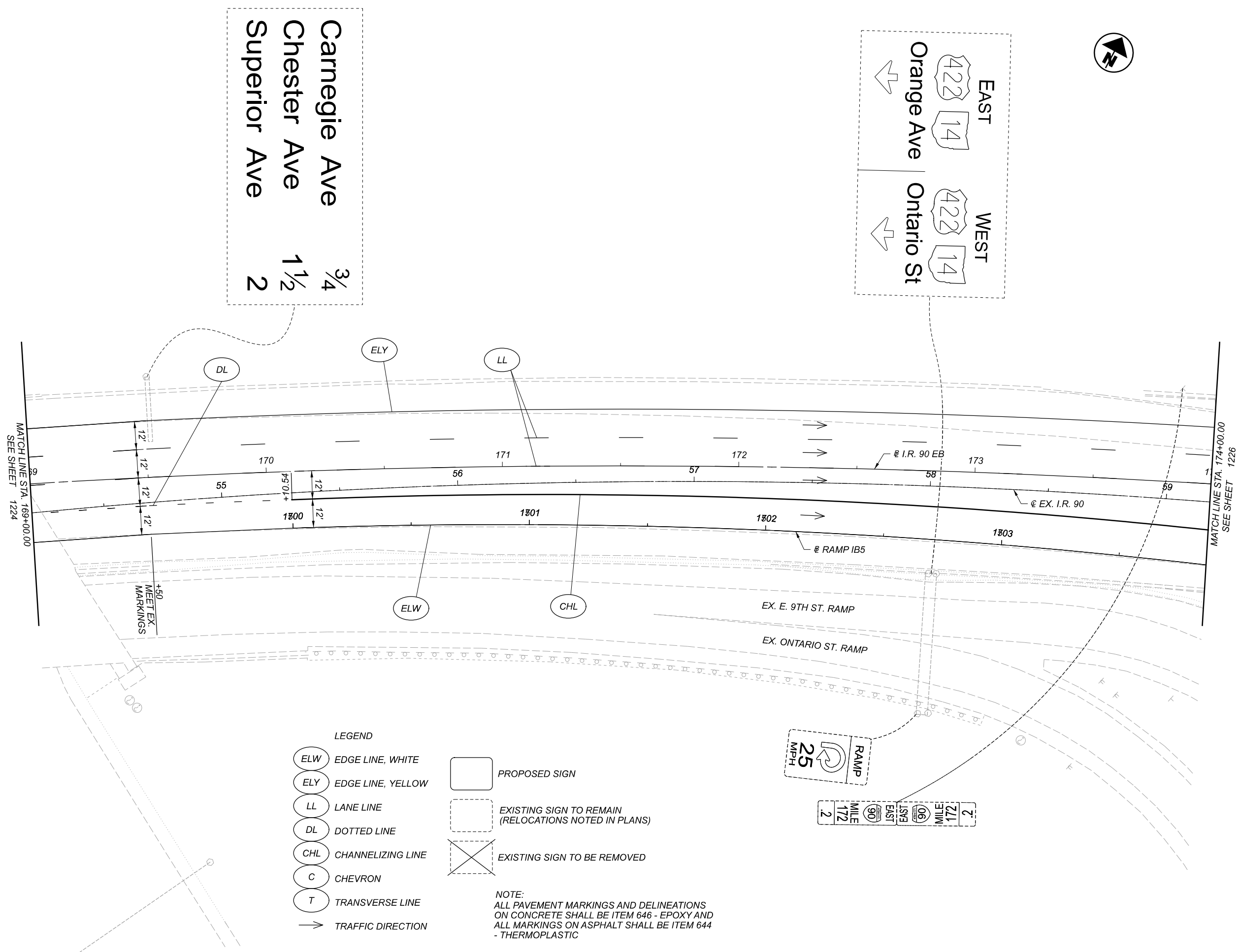
BURGESS & NIPLÉ
 100 WEST ERIE STREET
 PAINESVILLE, OHIO 44077

DESIGNER

REVIEWER

PROJECT ID
 82382

SHEET TOTAL
 1224 2339



Carnegie Ave 3/4
 Chester Ave 1 1/2
 Superior Ave 2

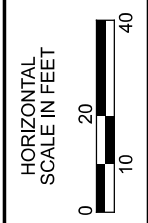
EAST WEST
 Orange Ave Ontario St



- LEGEND**
- (ELW) EDGE LINE, WHITE
 - (ELY) EDGE LINE, YELLOW
 - (LL) LANE LINE
 - (DL) DOTTED LINE
 - (CHL) CHANNELIZING LINE
 - (C) CHEVRON
 - (T) TRANSVERSE LINE
 - TRAFFIC DIRECTION

- [] PROPOSED SIGN
- [] EXISTING SIGN TO REMAIN (RELOCATIONS NOTED IN PLANS)
- [X] EXISTING SIGN TO BE REMOVED

NOTE:
 ALL PAVEMENT MARKINGS AND DELINEATIONS ON CONCRETE SHALL BE ITEM 646 - EPOXY AND ALL MARKINGS ON ASPHALT SHALL BE ITEM 644 - THERMOPLASTIC



SIGNING & PAVEMENT MARKING PLAN - I.R. 90 EB
 STA. 169+00.00 TO STA. 174+00.00

DESIGN AGENCY

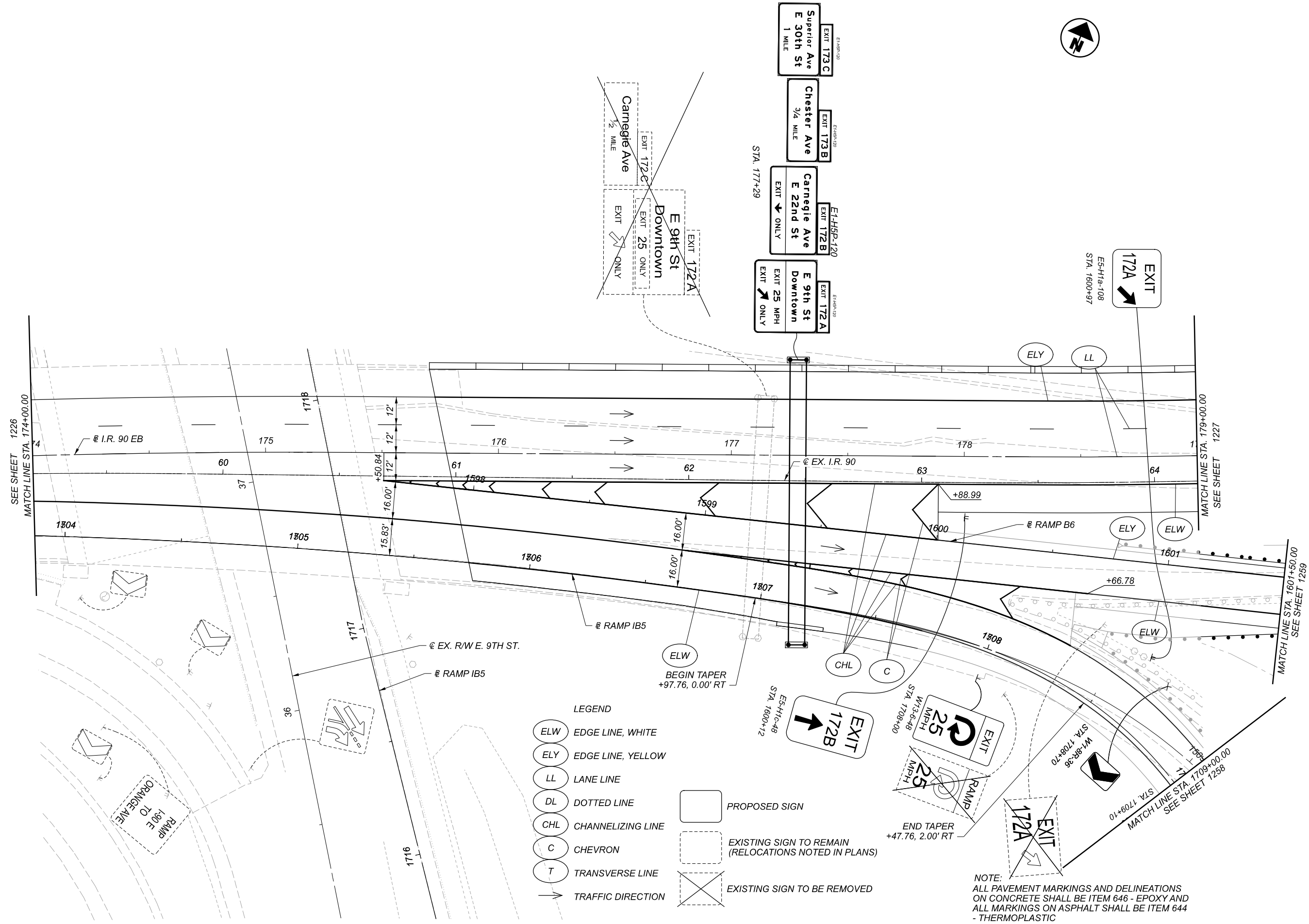
BURGESS & NIPLE
 100 WEST EIRE STREET
 PAINESVILLE, OHIO 44077

DESIGNER

REVIEWER

PROJECT ID
 82382

SHEET	TOTAL
1225	2339



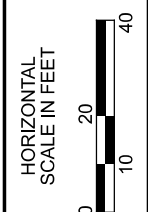
LEGEND

(ELW)	EDGE LINE, WHITE	(Proposed Sign Symbol)	PROPOSED SIGN
(ELY)	EDGE LINE, YELLOW	(Existing Sign Symbol)	EXISTING SIGN TO REMAIN (RELOCATIONS NOTED IN PLANS)
(LL)	LANE LINE	(Crossed Out Sign Symbol)	EXISTING SIGN TO BE REMOVED
(DL)	DOTTED LINE		
(CHL)	CHANNELIZING LINE		
(C)	CHEVRON		
(T)	TRANSVERSE LINE		
(Arrow)	TRAFFIC DIRECTION		

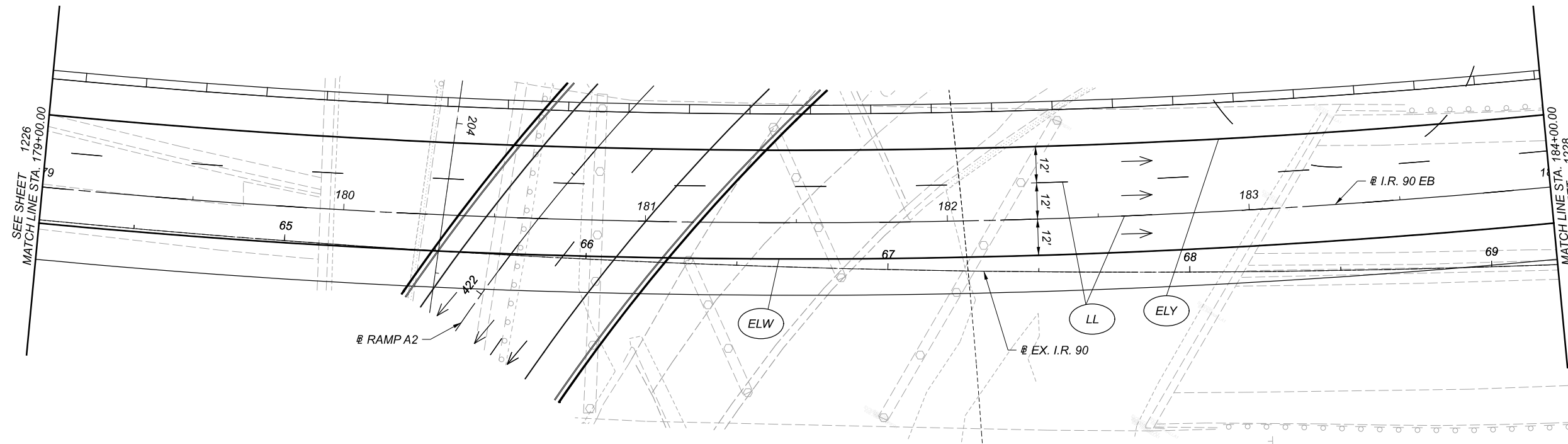
NOTE:
 ALL PAVEMENT MARKINGS AND DELINEATIONS ON CONCRETE SHALL BE ITEM 646 - EPOXY AND ALL MARKINGS ON ASPHALT SHALL BE ITEM 644 - THERMOPLASTIC














SIGNING & PAVEMENT MARKING PLAN - I.R. 90 EB
 STA. 174+00.00 TO STA. 179+00.00



DESIGN AGENCY	BURGESS & NIPLE 100 WEST ERIE STREET PARSONVILLE, OHIO 44077
DESIGNER	—
REVIEWER	—
PROJECT ID	82382
SHEET	TOTAL
1226	2339



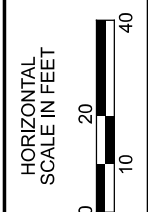
LEGEND

	EDGE LINE, WHITE		PROPOSED SIGN
	EDGE LINE, YELLOW		EXISTING SIGN TO REMAIN (RELOCATIONS NOTED IN PLANS)
	LANE LINE		EXISTING SIGN TO BE REMOVED
	DOTTED LINE		
	CHANNELIZING LINE		
	CHEVRON		
	TRANSVERSE LINE		
	TRAFFIC DIRECTION		

NOTE:
 ALL PAVEMENT MARKINGS AND DELINEATIONS
 ON CONCRETE SHALL BE ITEM 646 - EPOXY AND
 ALL MARKINGS ON ASPHALT SHALL BE ITEM 644
 - THERMOPLASTIC






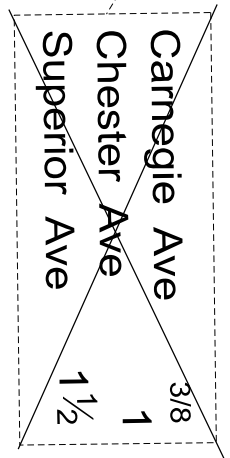
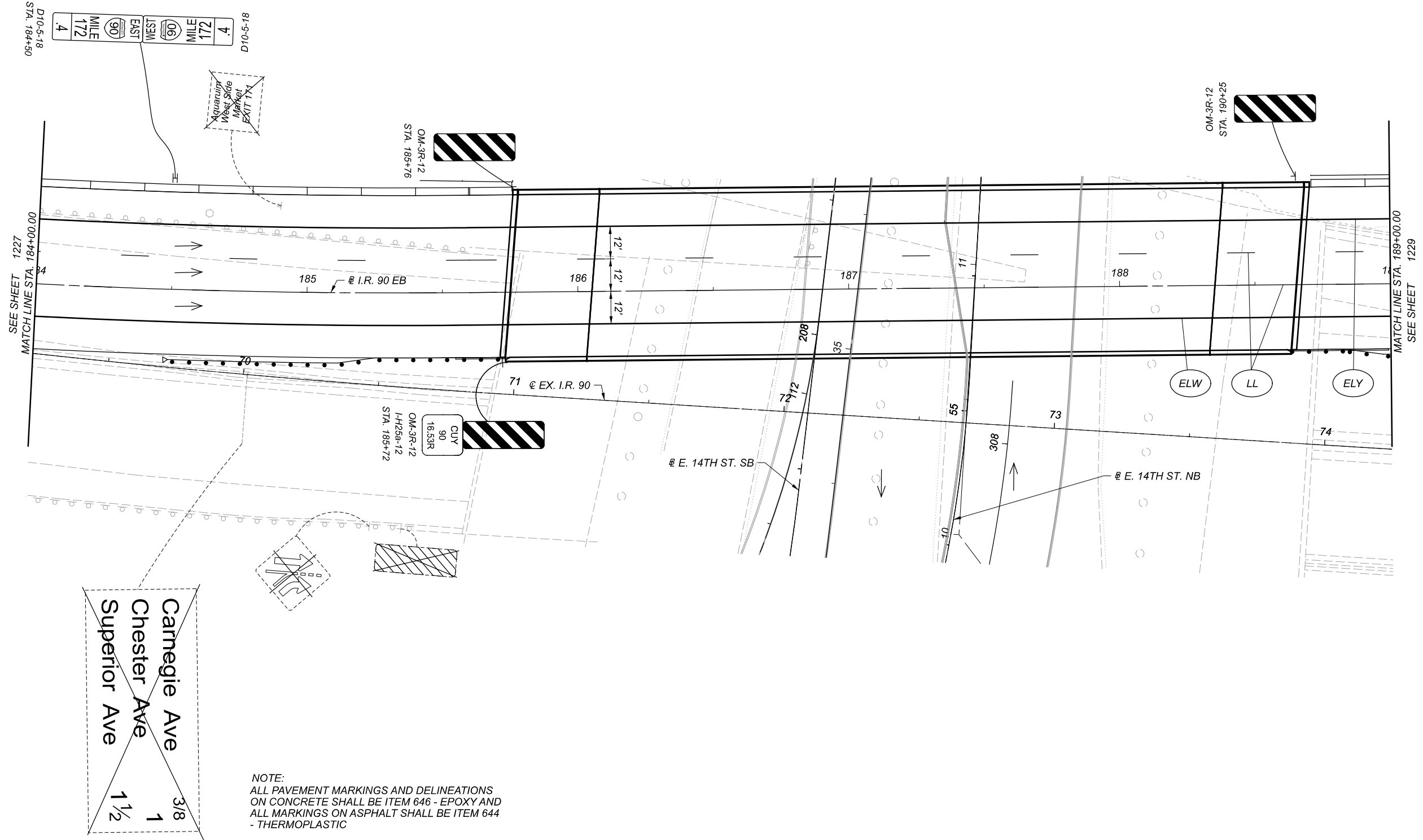
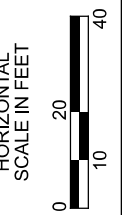
SIGNING & PAVEMENT MARKING PLAN - I.R. 90 EB
 STA. 179+00.00 TO STA. 184+00.00



DESIGN AGENCY	
DESIGNER	
REVIEWER	
PROJECT ID	82382
SHEET	TOTAL
1227	2339

LEGEND

- ELW EDGE LINE, WHITE
- ELY EDGE LINE, YELLOW
- LL LANE LINE
- DL DOTTED LINE
- CHL CHANNELIZING LINE
- C CHEVRON
- T TRANSVERSE LINE
- TRAFFIC DIRECTION
-  PROPOSED SIGN
-  EXISTING SIGN TO REMAIN (RELOCATIONS NOTED IN PLANS)
-  EXISTING SIGN TO BE REMOVED



NOTE:
 ALL PAVEMENT MARKINGS AND DELINEATIONS
 ON CONCRETE SHALL BE ITEM 646 - EPOXY AND
 ALL MARKINGS ON ASPHALT SHALL BE ITEM 644
 - THERMOPLASTIC

SIGNING & PAVEMENT MARKING PLAN - I.R. 90 EB
 STA. 184+00.00 TO STA. 189+00.00

DESIGN AGENCY












**BURGESS
 & NIPLE**
 100 WEST EIRE STREET
 PAINESVILLE, OHIO 44077

DESIGNER

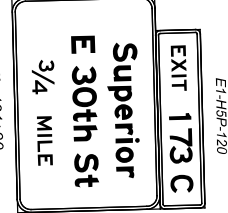
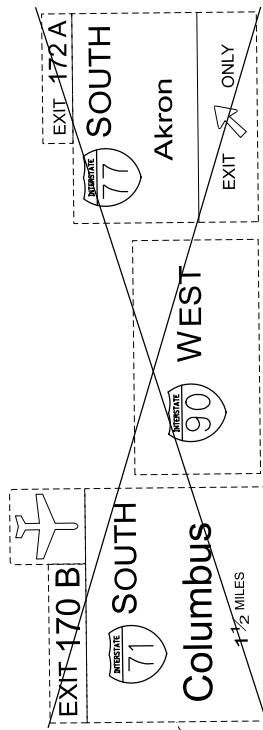
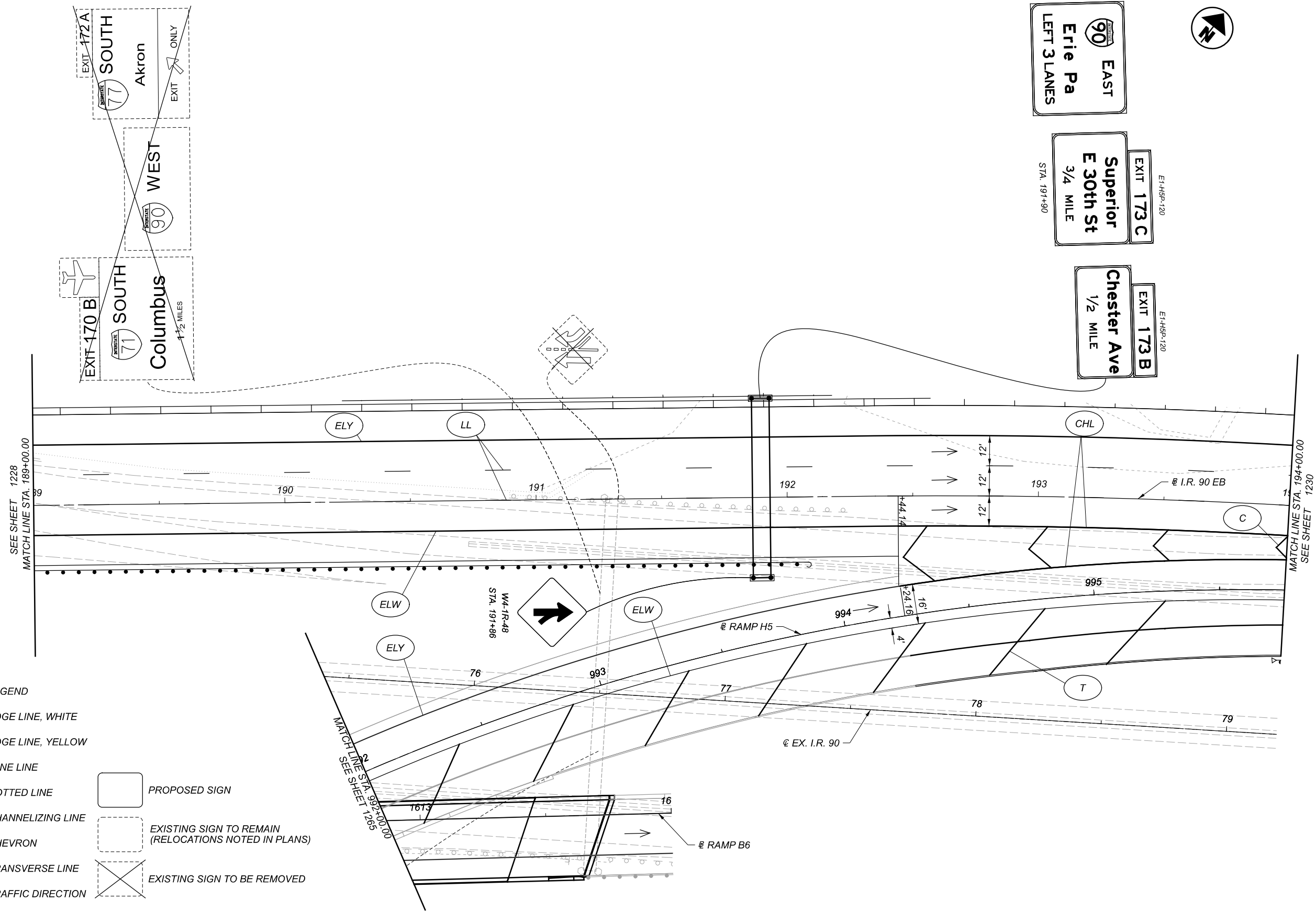
REVIEWER

PROJECT ID
 82382

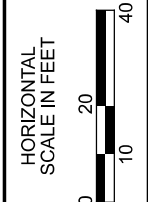
SHEET	TOTAL
1228	2339

- LEGEND**
-  EDGE LINE, WHITE
 -  EDGE LINE, YELLOW
 -  LANE LINE
 -  DOTTED LINE
 -  CHANNELIZING LINE
 -  CHEVRON
 -  TRANSVERSE LINE
 -  TRAFFIC DIRECTION
 -  PROPOSED SIGN
 -  EXISTING SIGN TO REMAIN (RELOCATIONS NOTED IN PLANS)
 -  EXISTING SIGN TO BE REMOVED

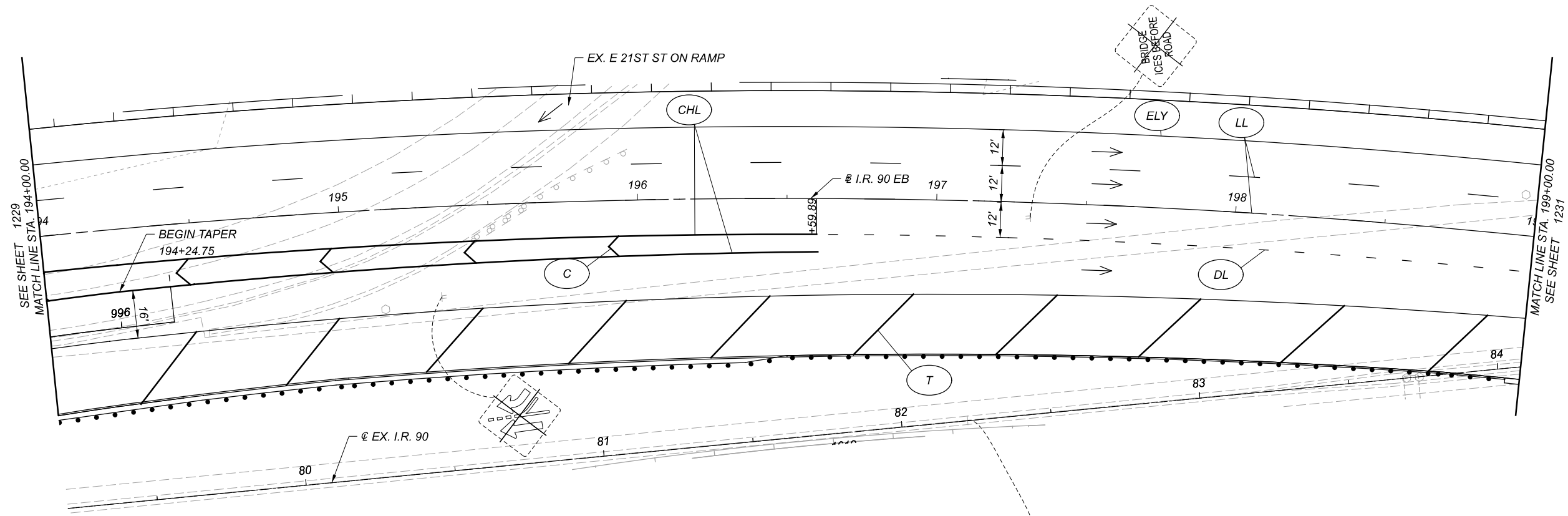
NOTE:
 ALL PAVEMENT MARKINGS AND DELINEATIONS
 ON CONCRETE SHALL BE ITEM 646 - EPOXY AND
 ALL MARKINGS ON ASPHALT SHALL BE ITEM 644
 - THERMOPLASTIC



SIGNING & PAVEMENT MARKING PLAN - I.R. 90 EB
 STA. 189+00.00 TO STA. 194+00.00

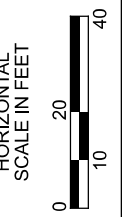
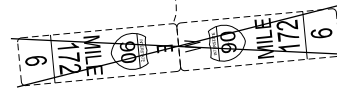


DESIGN AGENCY	BURGESS & NIPLE 100 WEST ERIE STREET PARSONSVILLE, OHIO 44077	
DESIGNER	—	
REVIEWER	—	
PROJECT ID	82382	
SHEET	TOTAL	
1229	2339	



NOTE:
 ALL PAVEMENT MARKINGS AND DELINEATIONS ON CONCRETE SHALL BE ITEM 646 - EPOXY AND ALL MARKINGS ON ASPHALT SHALL BE ITEM 644 - THERMOPLASTIC

LEGEND	
(ELW)	EDGE LINE, WHITE
(ELY)	EDGE LINE, YELLOW
(LL)	LANE LINE
(DL)	DOTTED LINE
(CHL)	CHANNELIZING LINE
(C)	CHEVRON
(T)	TRANSVERSE LINE
→	TRAFFIC DIRECTION
[Solid Box]	PROPOSED SIGN
[Dashed Box]	EXISTING SIGN TO REMAIN (RELOCATIONS NOTED IN PLANS)
[Box with X]	EXISTING SIGN TO BE REMOVED



SIGNING & PAVEMENT MARKING PLAN - I.R. 90 EB
 STA. 194+00.00 TO STA. 199+00.00

DESIGN AGENCY

BURGESS & NIPLÉ
 100 WEST ERIE STREET
 PAINESVILLE, OHIO 44077

DESIGNER

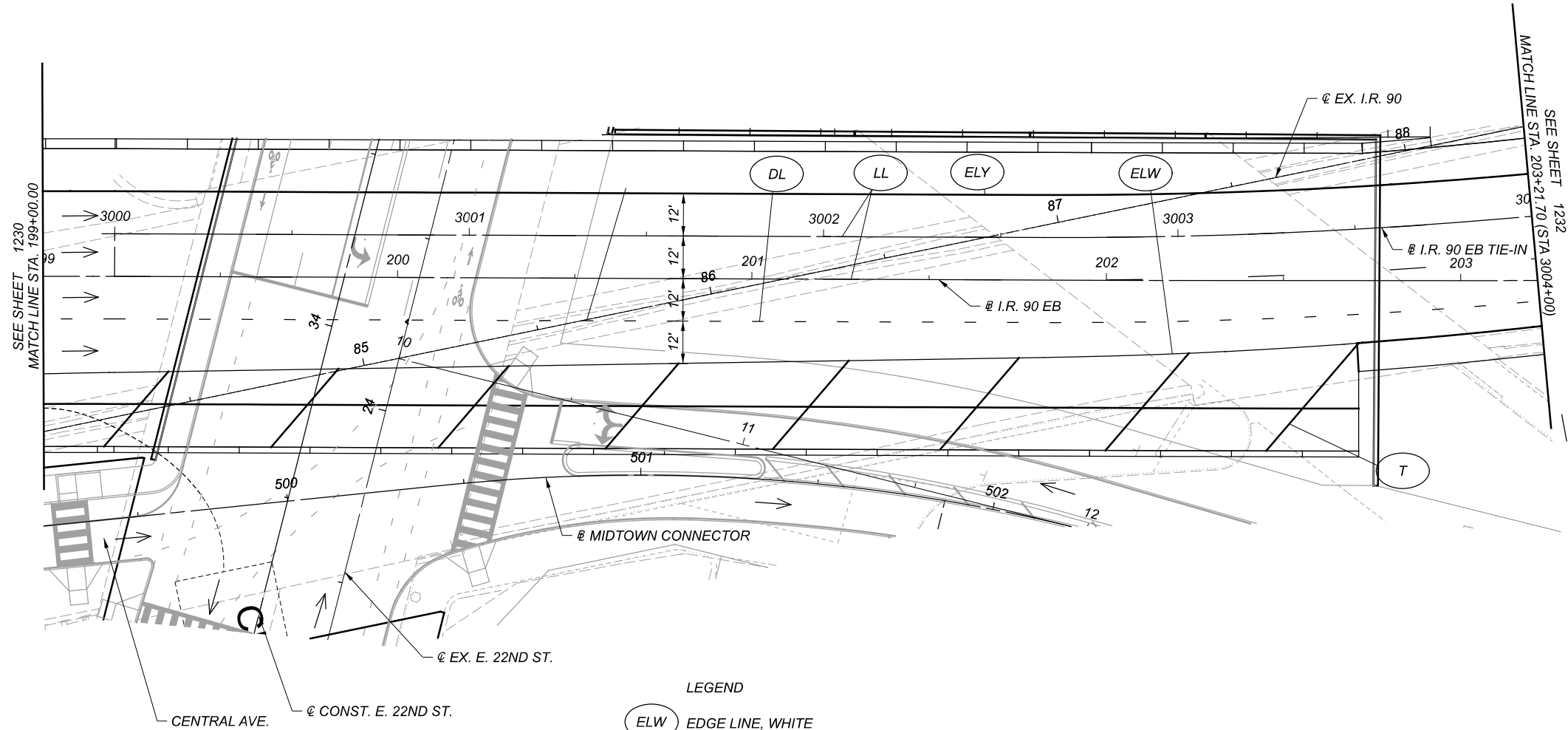
REVIEWER

PROJECT ID

82382

SHEET TOTAL

1230 2339

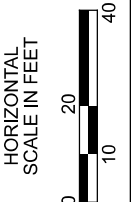


LEGEND

(ELW)	EDGE LINE, WHITE	(□)	PROPOSED SIGN
(ELY)	EDGE LINE, YELLOW	(□)	EXISTING SIGN TO REMAIN (RELOCATIONS NOTED IN PLANS)
(LL)	LANE LINE	(X)	EXISTING SIGN TO BE REMOVED
(DL)	DOTTED LINE	(→)	TRAFFIC DIRECTION
(CHL)	CHANNELIZING LINE		
(C)	CHEVRON		
(T)	TRANSVERSE LINE		

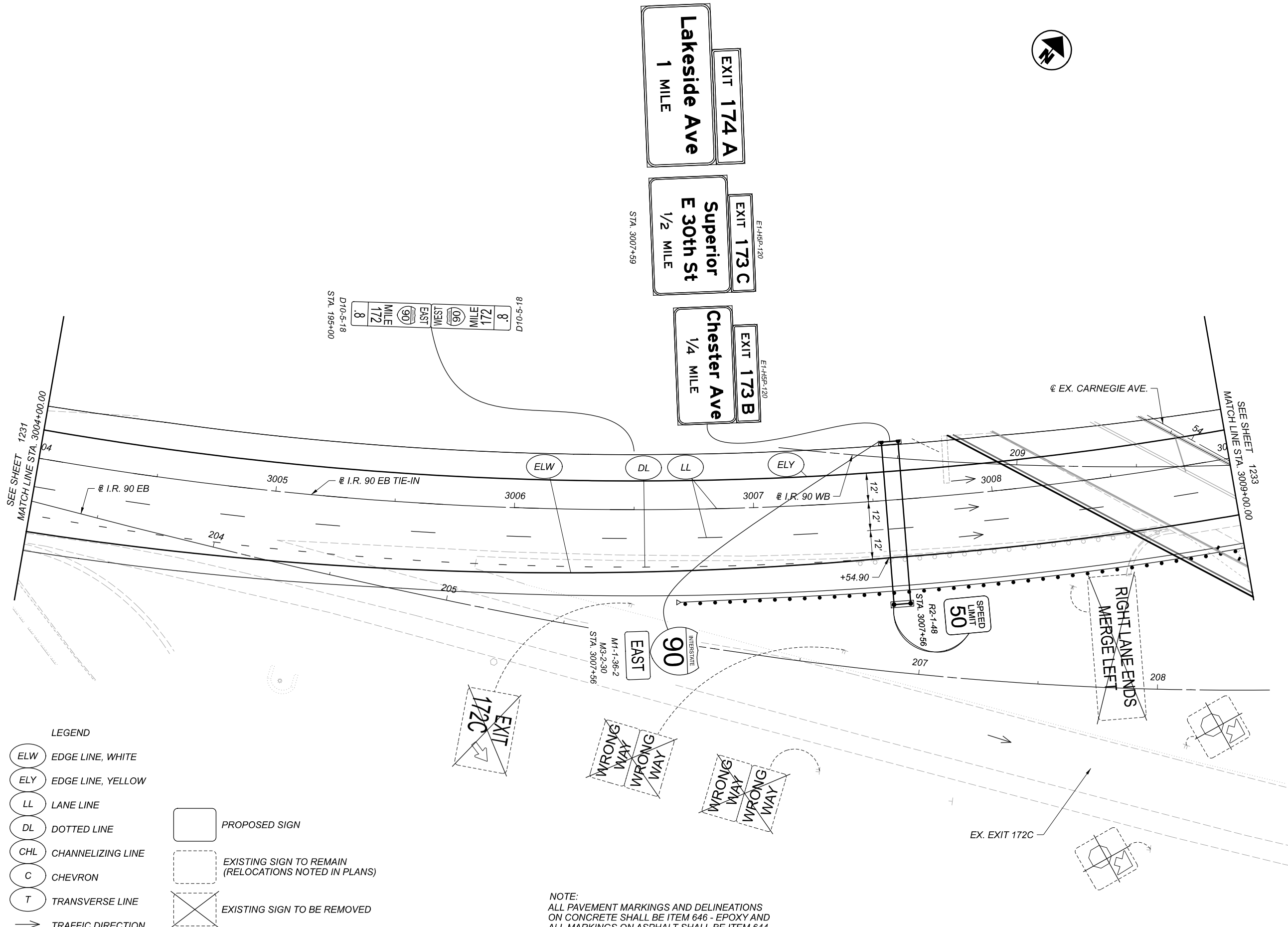
NOTE:
 ALL PAVEMENT MARKINGS AND DELINEATIONS
 ON CONCRETE SHALL BE ITEM 646 - EPOXY AND
 ALL MARKINGS ON ASPHALT SHALL BE ITEM 644
 - THERMOPLASTIC

SIGNING & PAVEMENT MARKING PLAN - I.R. 90 EB
 STA. 199+00.00 TO STA. 203+21.70 (3004+00.00)



DESIGN AGENCY		
DESIGNER		
REVIEWER		
PROJECT ID	82382	
SHEET	TOTAL	
1231	2339	

BURGESS & NIPLÉ
 100 WEST EIRE STREET
 PAINESVILLE, OHIO 44077

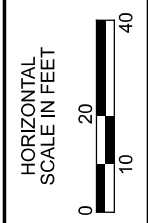


LEGEND

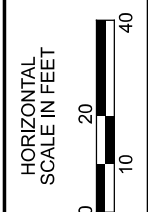
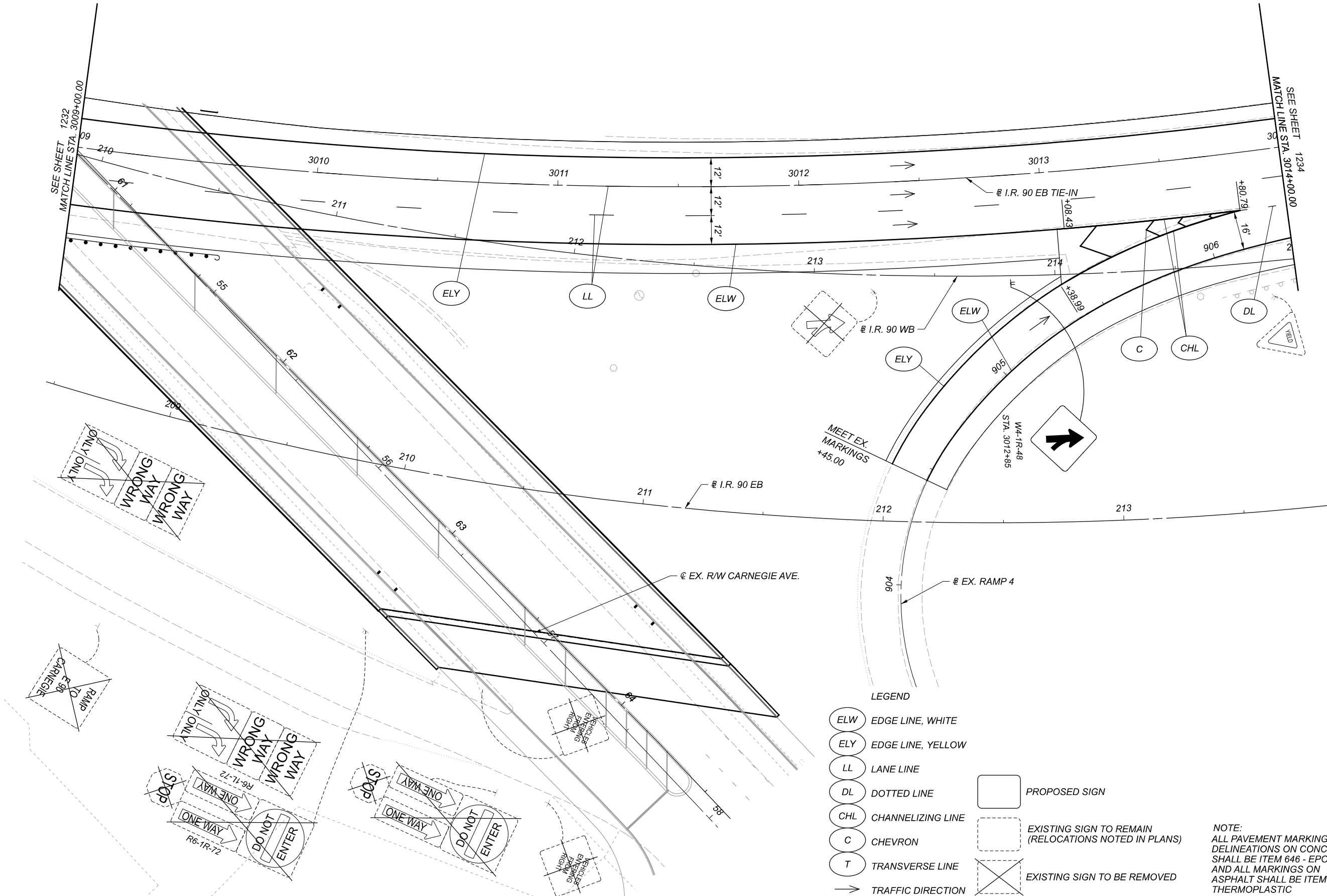
(ELW)	EDGE LINE, WHITE	[Solid Box]	PROPOSED SIGN
(ELY)	EDGE LINE, YELLOW	[Dashed Box]	EXISTING SIGN TO REMAIN (RELOCATIONS NOTED IN PLANS)
(LL)	LANE LINE	[Box with X]	EXISTING SIGN TO BE REMOVED
(DL)	DOTTED LINE		
(CHL)	CHANNELIZING LINE		
(C)	CHEVRON		
(T)	TRANSVERSE LINE		
→	TRAFFIC DIRECTION		

NOTE:
 ALL PAVEMENT MARKINGS AND DELINEATIONS ON CONCRETE SHALL BE ITEM 646 - EPOXY AND ALL MARKINGS ON ASPHALT SHALL BE ITEM 644 - THERMOPLASTIC

SIGNING & PAVEMENT MARKING PLAN - I.R. 90 EB
 STA. 3004+00.00 TO STA. 3009+00.00



DESIGN AGENCY	BURGESS & NIPLE 100 WEST ERIE STREET PARSONVILLE, OHIO 44077
DESIGNER	—
REVIEWER	—
PROJECT ID	82382
SHEET	TOTAL
1232	2339



SIGNING & PAVEMENT MARKING PLAN - I.R. 90 EB
 STA. 3009+00.00 TO STA. 3014+00.00

LEGEND

(ELW)	EDGE LINE, WHITE	(Square)	PROPOSED SIGN
(ELY)	EDGE LINE, YELLOW	(Dashed Square)	EXISTING SIGN TO REMAIN (RELOCATIONS NOTED IN PLANS)
(LL)	LANE LINE	(Crossed Square)	EXISTING SIGN TO BE REMOVED
(DL)	DOTTED LINE		
(CHL)	CHANNELIZING LINE		
(C)	CHEVRON		
(T)	TRANSVERSE LINE		
(Arrow)	TRAFFIC DIRECTION		

NOTE:
 ALL PAVEMENT MARKINGS AND
 DELINEATIONS ON CONCRETE
 SHALL BE ITEM 646 - EPOXY
 AND ALL MARKINGS ON
 ASPHALT SHALL BE ITEM 644 -
 THERMOPLASTIC

DESIGN AGENCY	
DESIGNER	
REVIEWER	
PROJECT ID	82382
SHEET	1233
TOTAL	2339

LEGEND

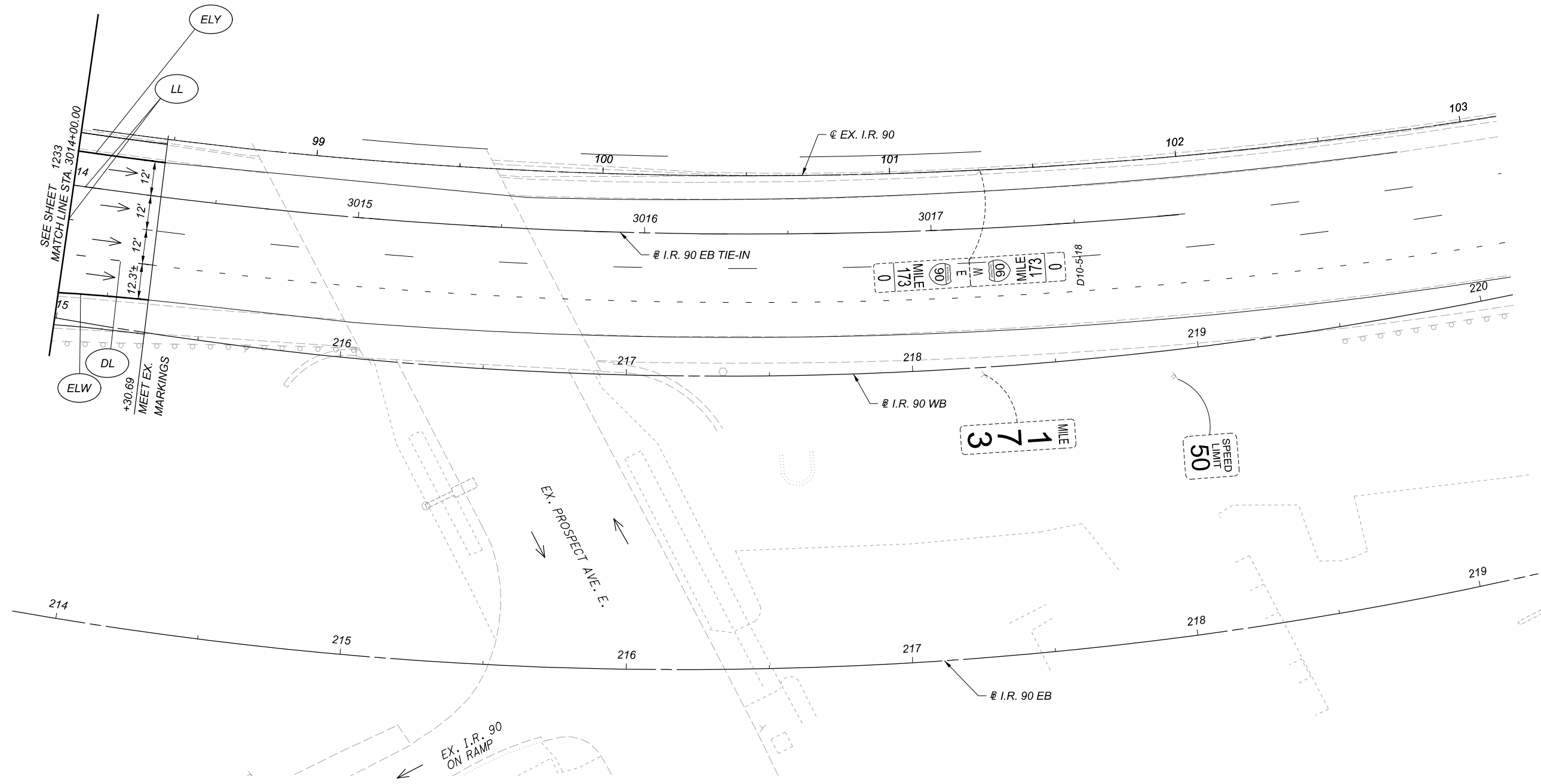
- ELW EDGE LINE, WHITE
- ELY EDGE LINE, YELLOW
- LL LANE LINE
- DL DOTTED LINE
- CHL CHANNELIZING LINE
- C CHEVRON
- T TRANSVERSE LINE
- TRAFFIC DIRECTION
- PROPOSED SIGN
- EXISTING SIGN TO REMAIN (RELOCATIONS NOTED IN PLANS)
- EXISTING SIGN TO BE REMOVED



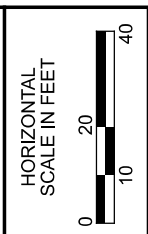
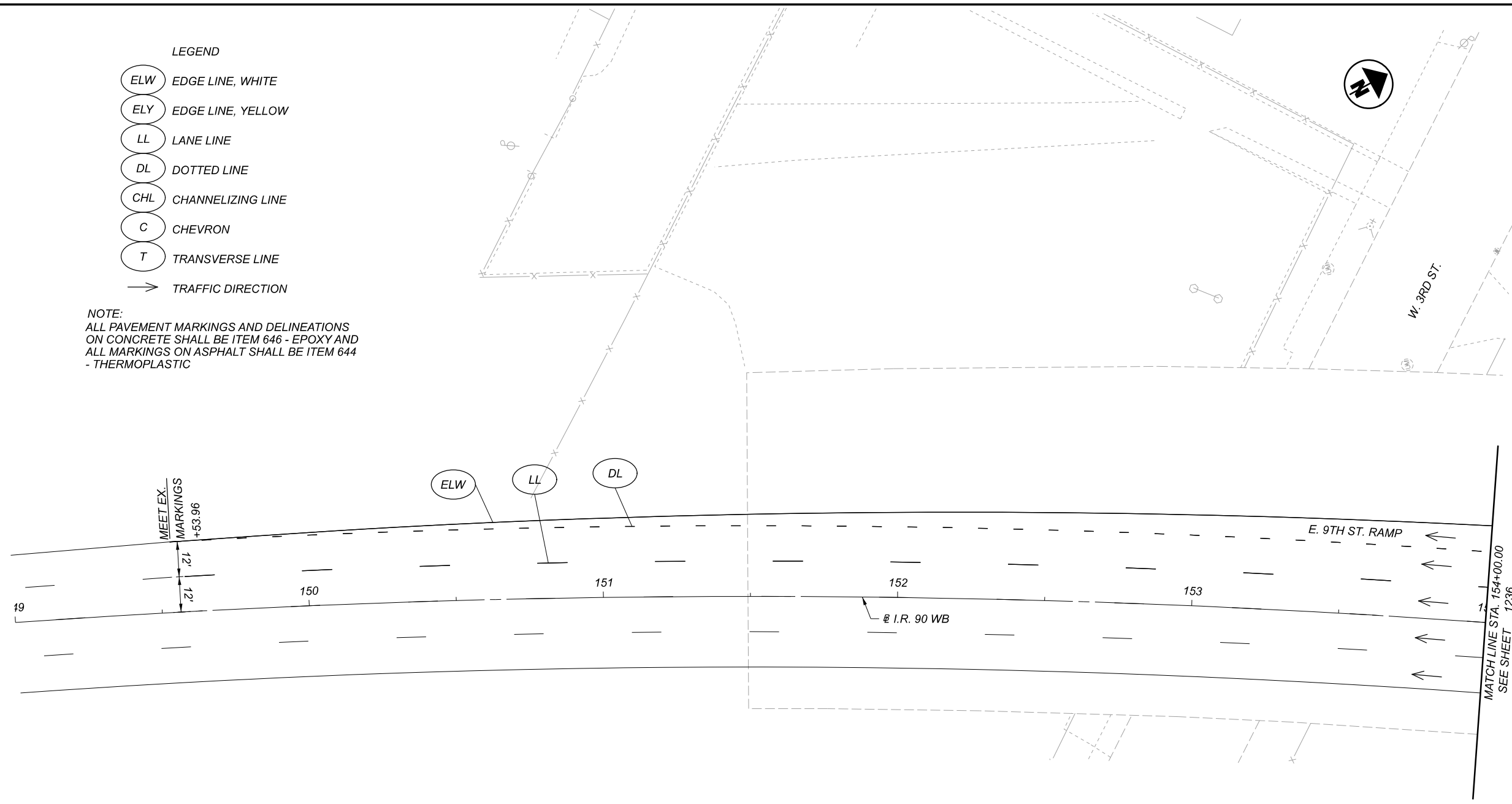
NOTE:
 ALL PAVEMENT MARKINGS AND DELINEATIONS
 ON CONCRETE SHALL BE ITEM 646 - EPOXY AND
 ALL MARKINGS ON ASPHALT SHALL BE ITEM 644
 - THERMOPLASTIC



SIGNING & PAVEMENT MARKING PLAN - I.R. 90 EB
 STA. 3014+00.00 TO STA. 3019+00.00

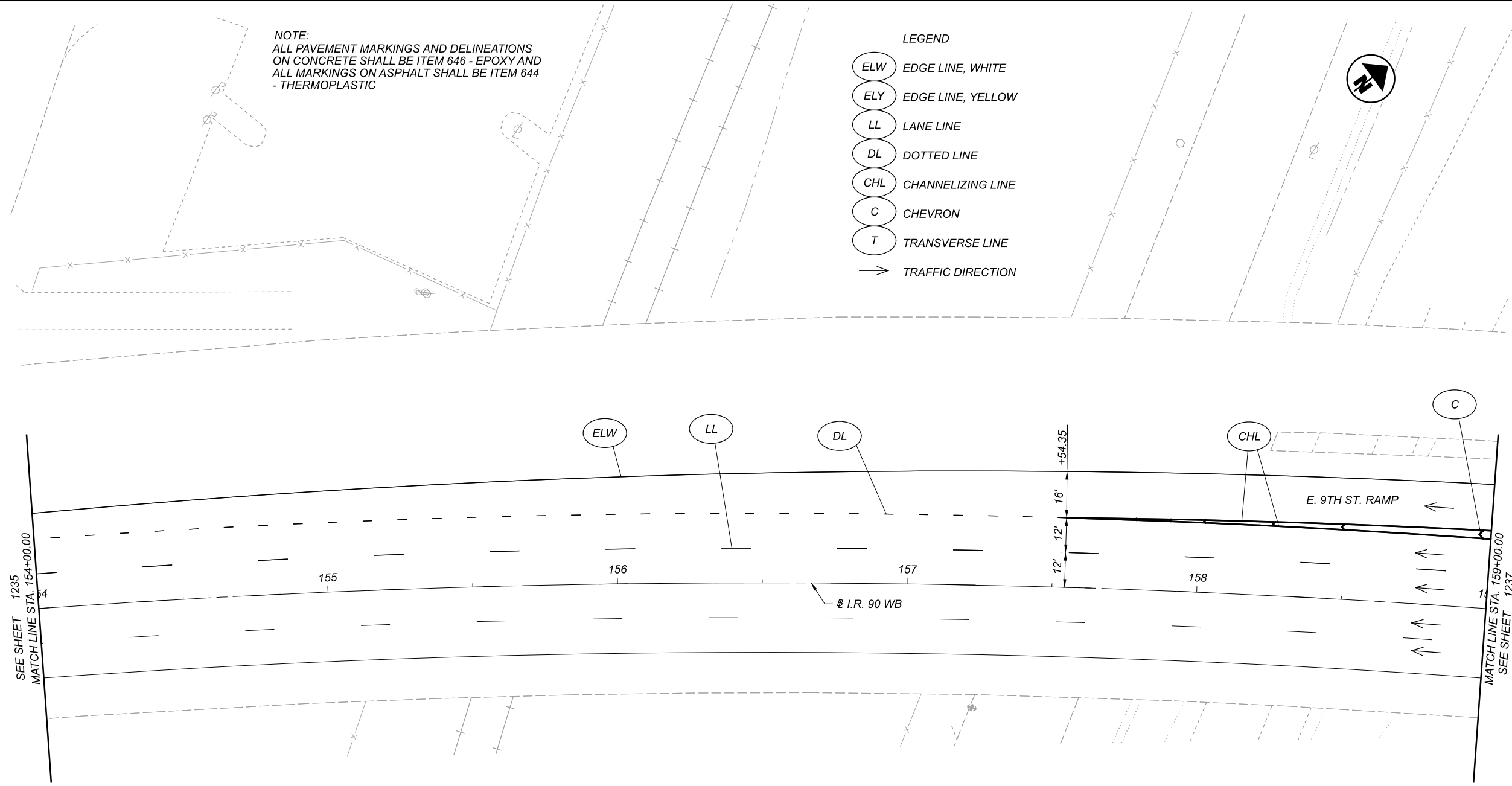


DESIGN AGENCY	
DESIGNER	
REVIEWER	
PROJECT ID	82382
SHEET	TOTAL
1234	2339



SIGNING & PAVEMENT MARKING PLAN - I.R. 90 WB
 STA. 149+00.00 TO STA. 154+00.00

DESIGN AGENCY	
BURGESS & NIPLÉ 100 WEST ERIE STREET PAINESVILLE, OHIO 44077	
DESIGNER	
—	
REVIEWER	
—	
PROJECT ID	
82382	
SHEET	TOTAL
1235	2339



NOTE:
 ALL PAVEMENT MARKINGS AND DELINEATIONS
 ON CONCRETE SHALL BE ITEM 646 - EPOXY AND
 ALL MARKINGS ON ASPHALT SHALL BE ITEM 644
 - THERMOPLASTIC

- LEGEND
- ELW EDGE LINE, WHITE
 - ELY EDGE LINE, YELLOW
 - LL LANE LINE
 - DL DOTTED LINE
 - CHL CHANNELIZING LINE
 - C CHEVRON
 - T TRANSVERSE LINE
 - TRAFFIC DIRECTION

SIGNING & PAVEMENT MARKING PLAN - I.R. 90 WB
 STA. 154+00.00 TO 159+00.00



DESIGN AGENCY

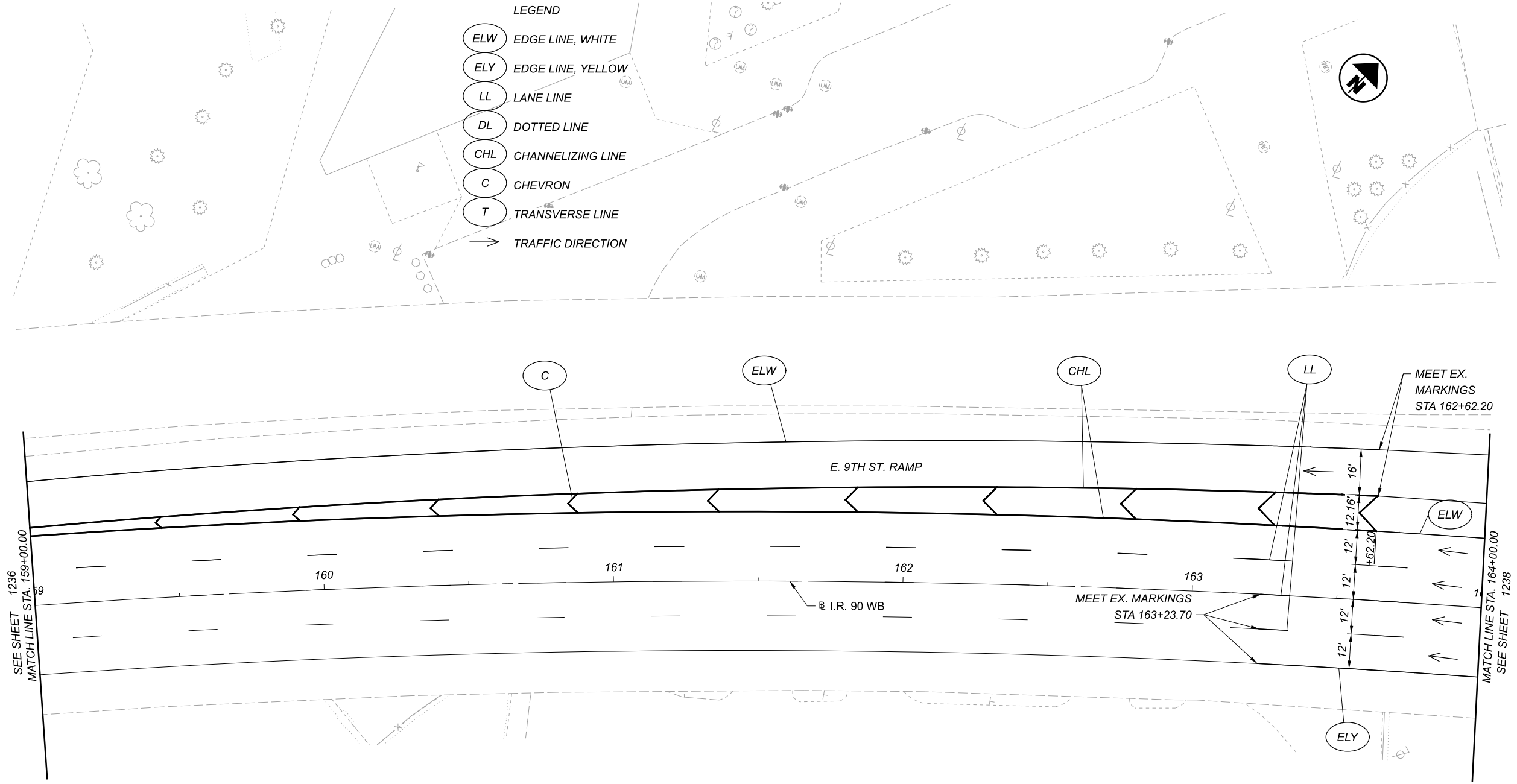
BURGESS & NIPLE
 100 WEST EIRE STREET
 PAINESVILLE, OHIO 44077

DESIGNER

REVIEWER

PROJECT ID
 82382

SHEET	TOTAL
1236	2339



NOTE:
 ALL PAVEMENT MARKINGS AND DELINEATIONS
 ON CONCRETE SHALL BE ITEM 646 - EPOXY AND
 ALL MARKINGS ON ASPHALT SHALL BE ITEM 644
 - THERMOPLASTIC



SIGNING & PAVEMENT MARKING PLAN - I.R. 90 WB
 STA. 159+00.00 TO 164+00.00

DESIGN AGENCY

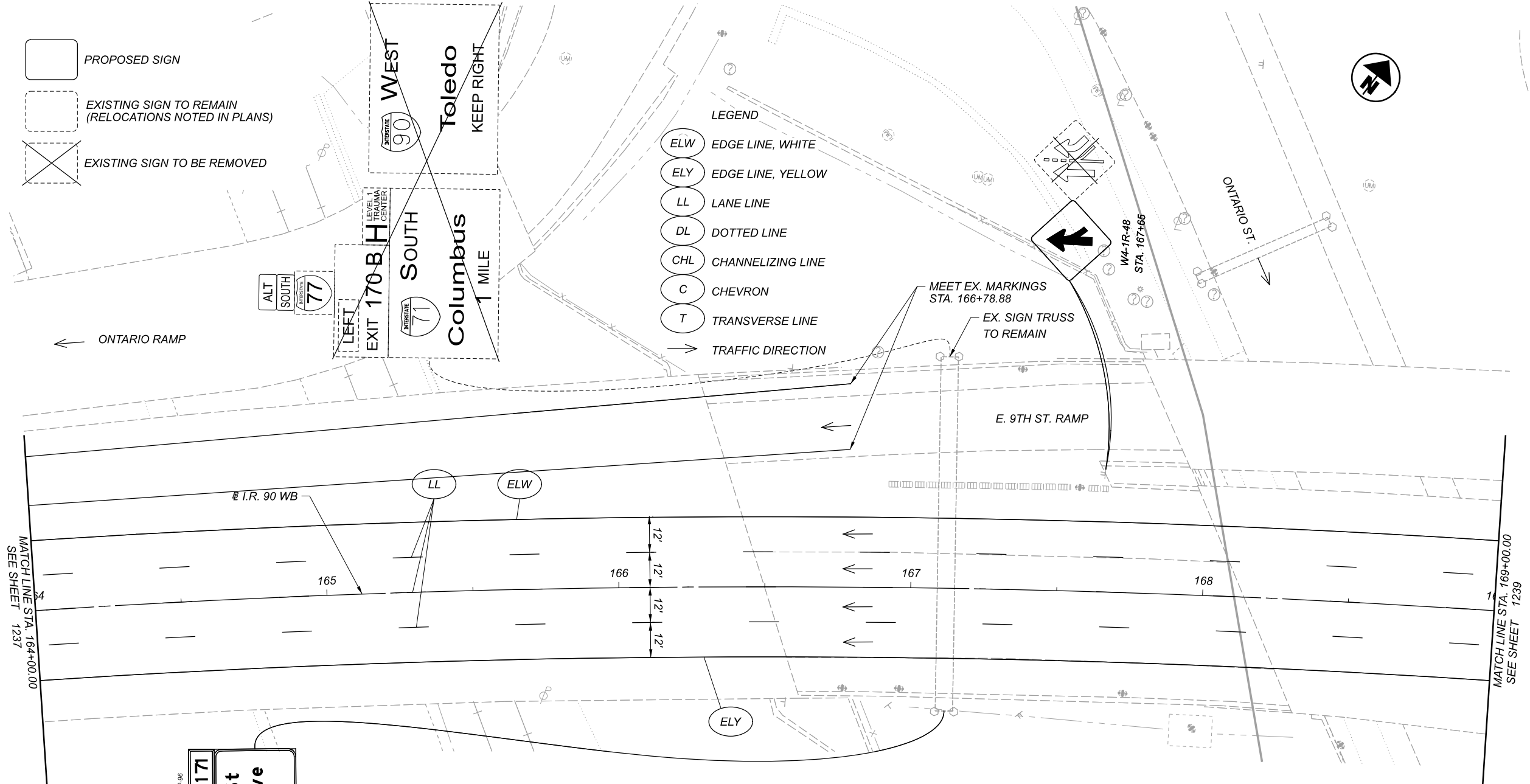
BURGESS & NIPLE
 100 WEST EIRE STREET
 PAINESVILLE, OHIO 44077




DESIGNER









REVIEWER

PROJECT ID
 82382

SHEET	TOTAL
1237	2339



-  PROPOSED SIGN
-  EXISTING SIGN TO REMAIN (RELOCATIONS NOTED IN PLANS)
-  EXISTING SIGN TO BE REMOVED

- LEGEND
-  ELW EDGE LINE, WHITE
 -  ELY EDGE LINE, YELLOW
 -  LL LANE LINE
 -  DL DOTTED LINE
 -  CHL CHANNELIZING LINE
 -  C CHEVRON
 -  T TRANSVERSE LINE
 -  TRAFFIC DIRECTION

LEFT

EXIT 170 B

H

SOUTH

Columbus

1 MILE

EXIT 17

EXIT 17

W 14th St

Abbey Ave

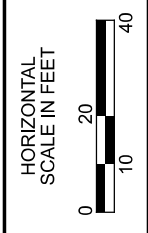
3/4 MILE

WEST

Toledo

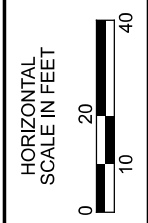
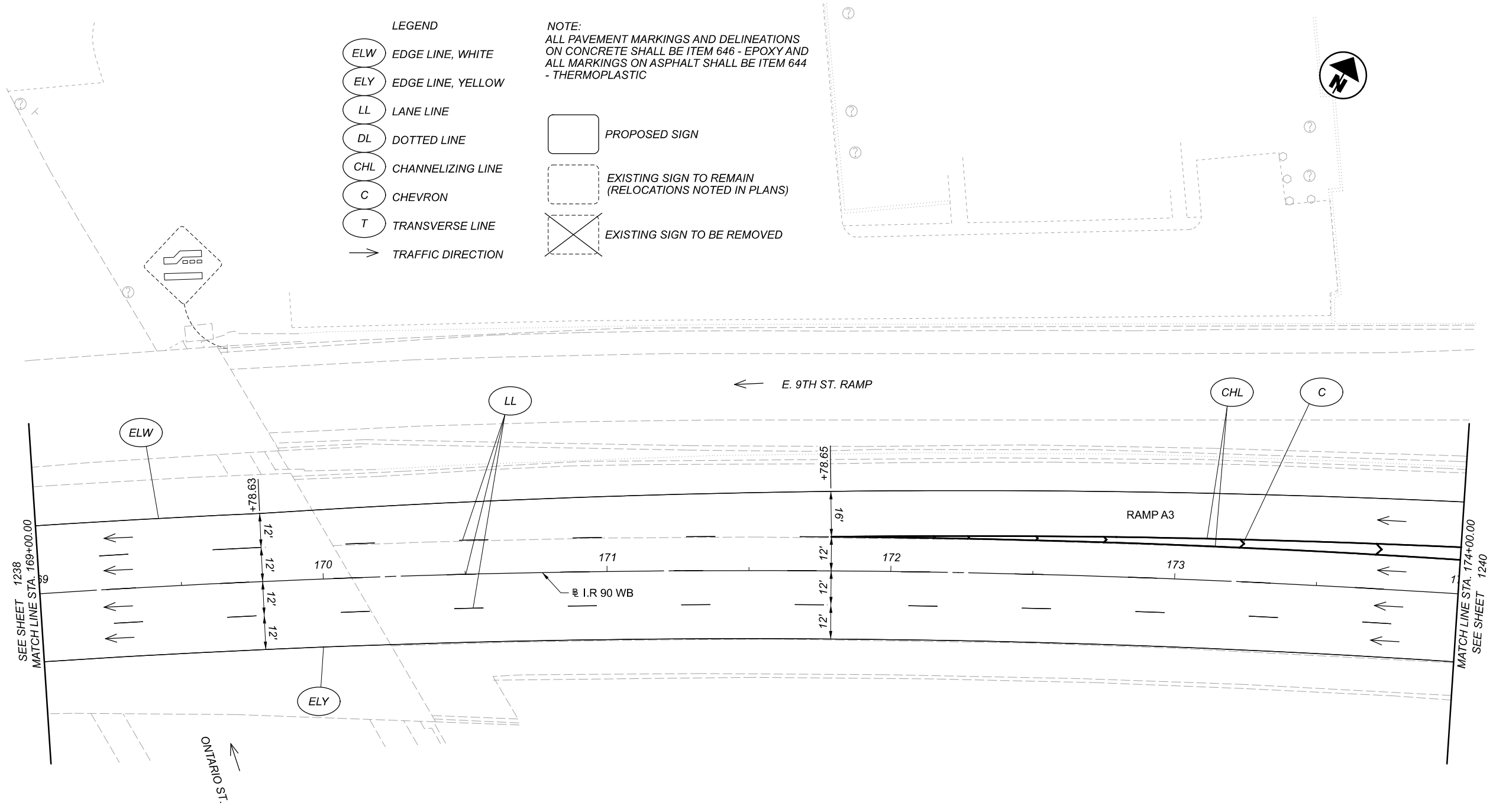
KEEP RIGHT

NOTE:
 ALL PAVEMENT MARKINGS AND DELINEATIONS
 ON CONCRETE SHALL BE ITEM 646 - EPOXY AND
 ALL MARKINGS ON ASPHALT SHALL BE ITEM 644
 - THERMOPLASTIC



SIGNING & PAVEMENT MARKING PLAN - I.R. 90 WB
 STA. 164+00.00 TO STA. 169+00.00

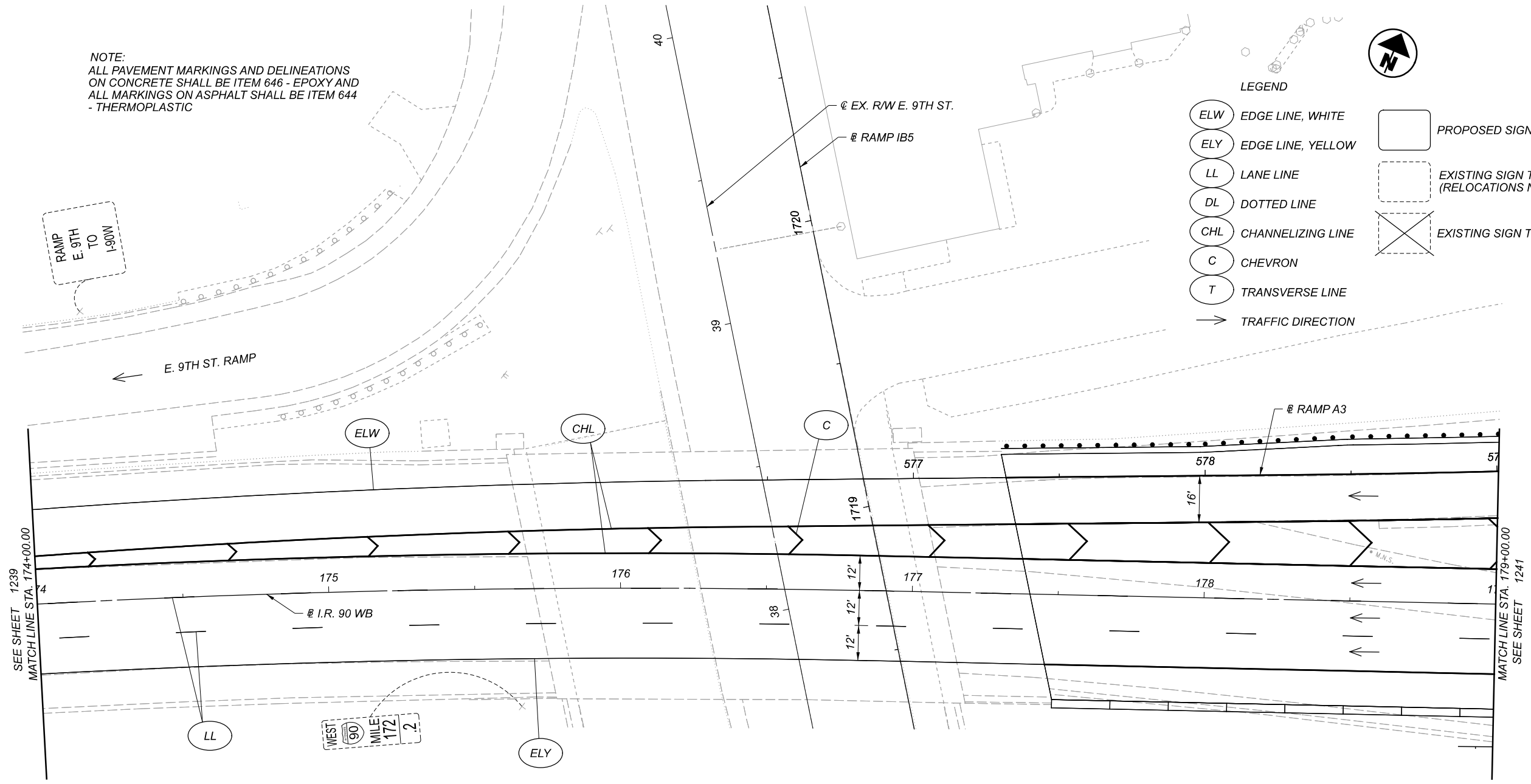
DESIGN AGENCY	
BURGESS & NIPLE <small>100 WEST EIRE STREET PAINESVILLE, OHIO 44077</small>	
DESIGNER	
—	
REVIEWER	
—	
PROJECT ID	
82382	
SHEET	TOTAL
1238	2339



SIGNING & PAVEMENT MARKING PLAN - I.R. 90 WB
 STA. 169+00.00 TO STA. 174+00.00

DESIGN AGENCY	
BURGESS & NIPLE <small>100 WEST EIRE STREET PAINESVILLE, OHIO 44077</small>	
DESIGNER	—
REVIEWER	—
PROJECT ID	82382
SHEET	TOTAL
1239	2339

NOTE:
 ALL PAVEMENT MARKINGS AND DELINEATIONS
 ON CONCRETE SHALL BE ITEM 646 - EPOXY AND
 ALL MARKINGS ON ASPHALT SHALL BE ITEM 644
 - THERMOPLASTIC



RAMP
 E. 9TH
 TO
 I-90W

E. 9TH ST. RAMP

LEGEND

- ELW EDGE LINE, WHITE
- ELY EDGE LINE, YELLOW
- LL LANE LINE
- DL DOTTED LINE
- CHL CHANNELIZING LINE
- C CHEVRON
- T TRANSVERSE LINE
- TRAFFIC DIRECTION
- PROPOSED SIGN
- EXISTING SIGN TO REMAIN (RELOCATIONS NOTED IN PLANS)
- EXISTING SIGN TO BE REMOVED

SIGNING & PAVEMENT MARKING PLAN - I.R. 90 WB
 STA. 174+00.00 TO 179+00.00

DESIGN AGENCY

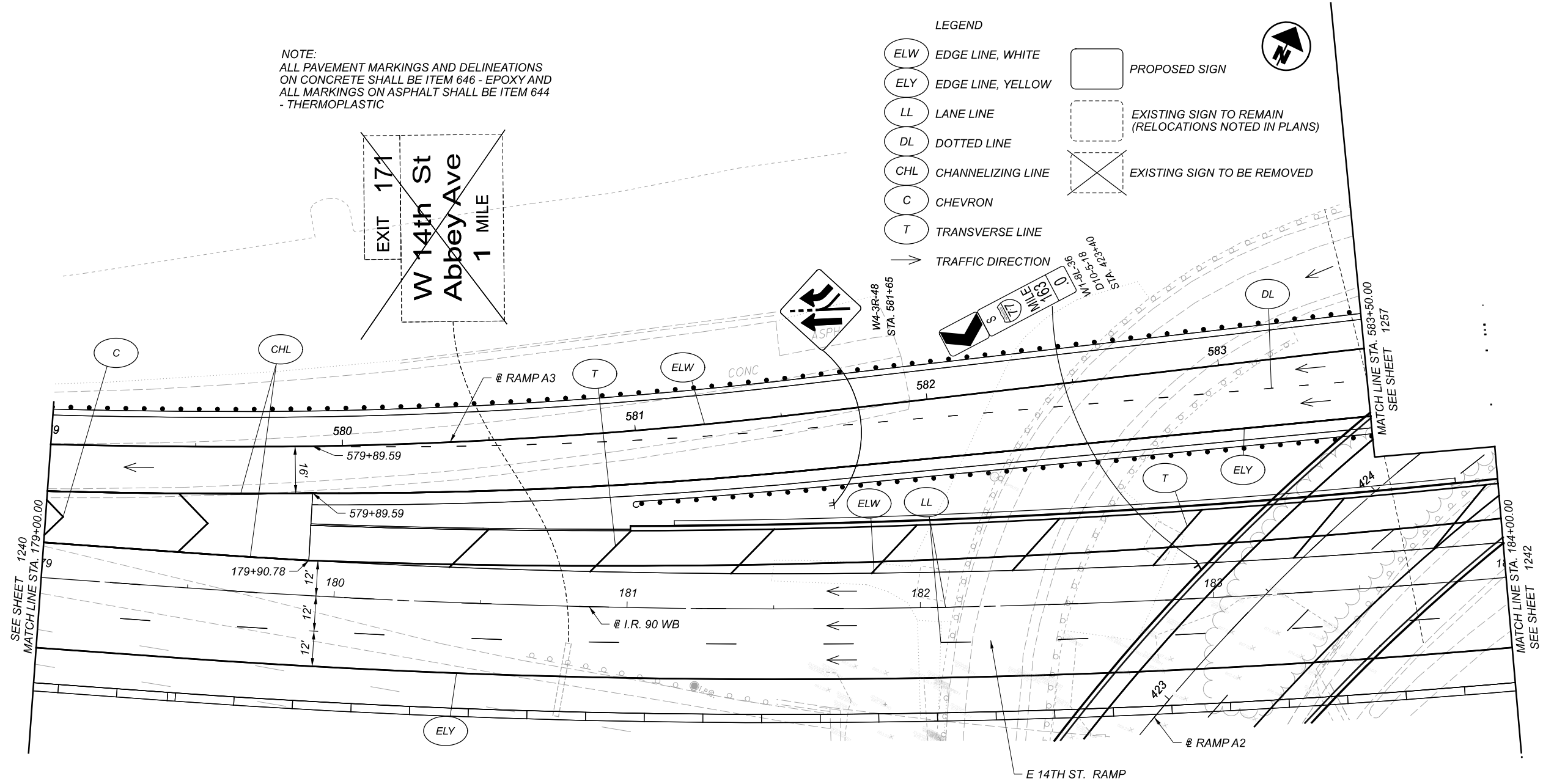
BURGESS & NIPLE
 100 WEST EIRE STREET
 PAINESVILLE, OHIO 44077

DESIGNER
 REVIEWER

PROJECT ID
 82382

SHEET	TOTAL
1240	2339

NOTE:
 ALL PAVEMENT MARKINGS AND DELINEATIONS
 ON CONCRETE SHALL BE ITEM 646 - EPOXY AND
 ALL MARKINGS ON ASPHALT SHALL BE ITEM 644
 - THERMOPLASTIC



SIGNING & PAVEMENT MARKING PLAN - I.R. 90 WB
 STA. 179+00.00 TO STA. 184+00.00

DESIGN AGENCY

BURGESS & NIPLE
 100 WEST ERIE STREET
 PAINESVILLE, OHIO 44077

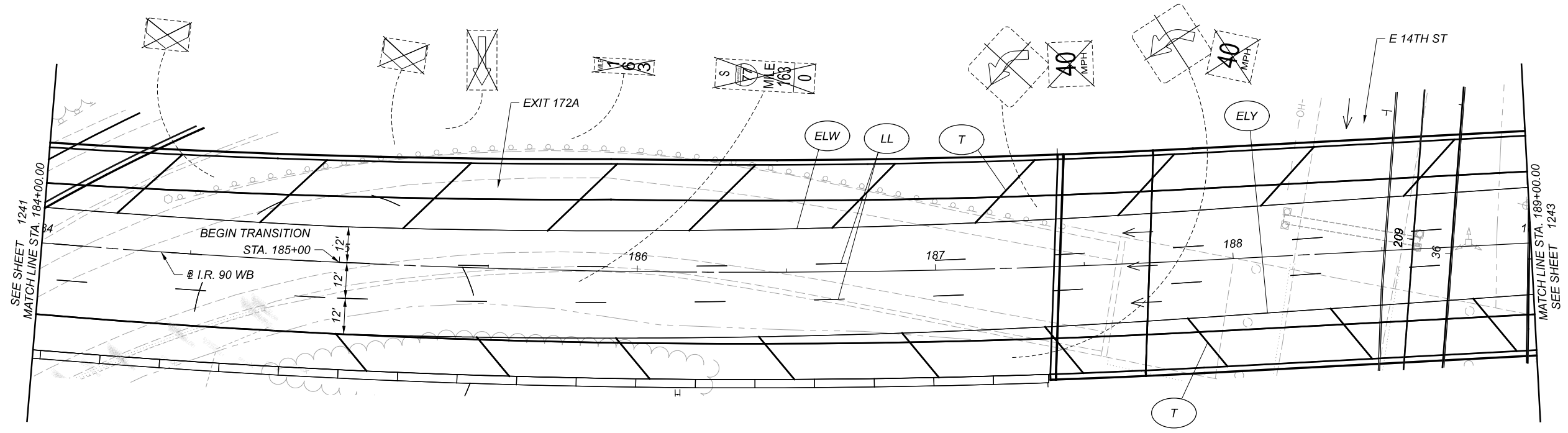
DESIGNER

REVIEWER

PROJECT ID
 82382

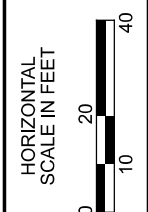
SHEET	TOTAL
1241	2339

NOTE:
 ALL PAVEMENT MARKINGS AND DELINEATIONS
 ON CONCRETE SHALL BE ITEM 646 - EPOXY AND
 ALL MARKINGS ON ASPHALT SHALL BE ITEM 644
 - THERMOPLASTIC



LEGEND

(ELW)	EDGE LINE, WHITE	[Solid Box]	PROPOSED SIGN
(ELY)	EDGE LINE, YELLOW	[Dashed Box]	EXISTING SIGN TO REMAIN (RELOCATIONS NOTED IN PLANS)
(LL)	LANE LINE	[Box with X]	EXISTING SIGN TO BE REMOVED
(DL)	DOTTED LINE		
(CHL)	CHANNELIZING LINE		
(C)	CHEVRON		
(T)	TRANSVERSE LINE		
→	TRAFFIC DIRECTION		

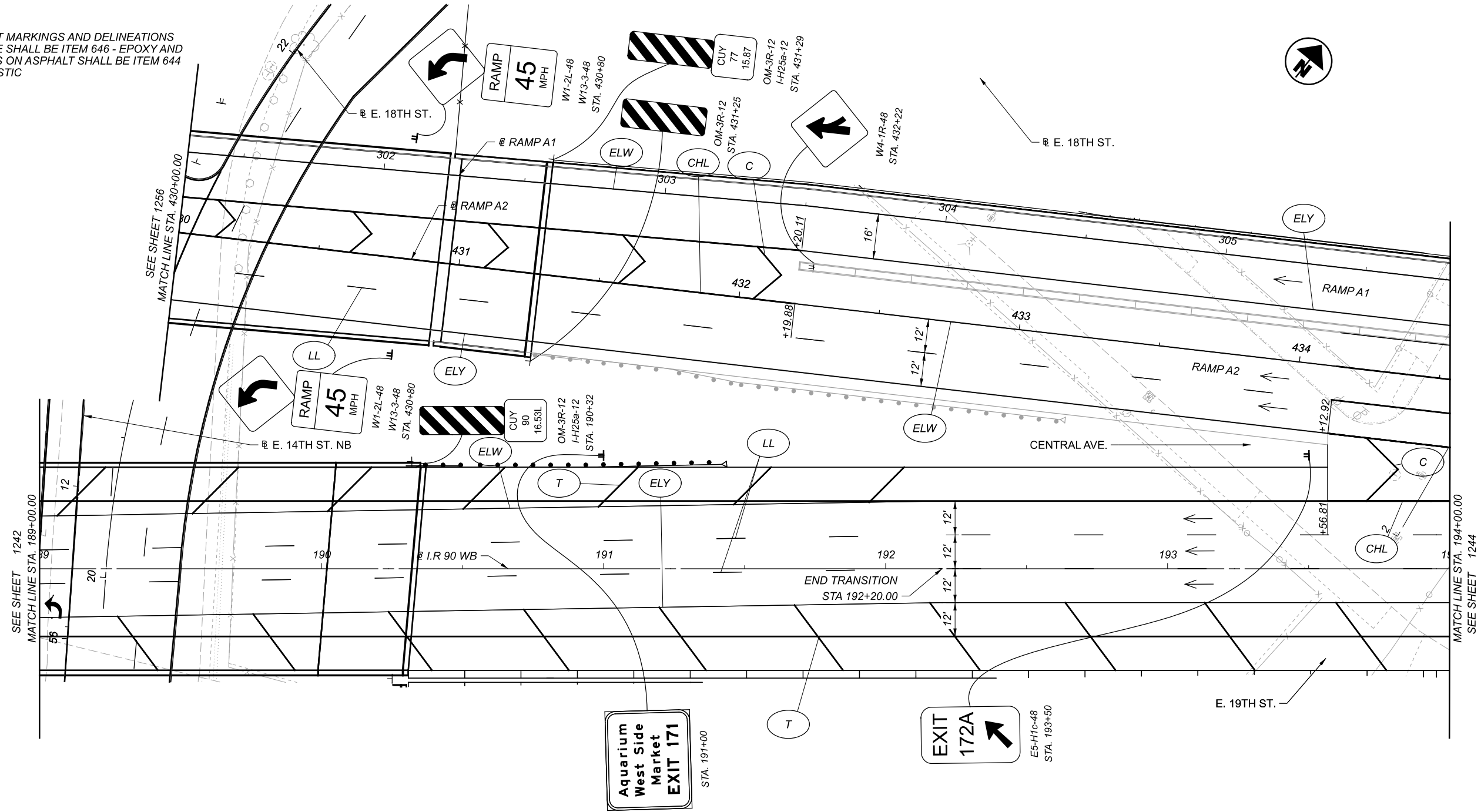


SIGNING & PAVEMENT MARKING PLAN - I.R. 90 WB
 STA. 184+00.00 TO STA. 189+00.00

DESIGN AGENCY	
DESIGNER	
REVIEWER	
PROJECT ID	82382
SHEET	1242
TOTAL	2339

BURGESS & NIPLE
 100 WEST EIRE STREET
 PAINESVILLE, OHIO 44077

NOTE:
 ALL PAVEMENT MARKINGS AND DELINEATIONS ON CONCRETE SHALL BE ITEM 646 - EPOXY AND ALL MARKINGS ON ASPHALT SHALL BE ITEM 644 - THERMOPLASTIC



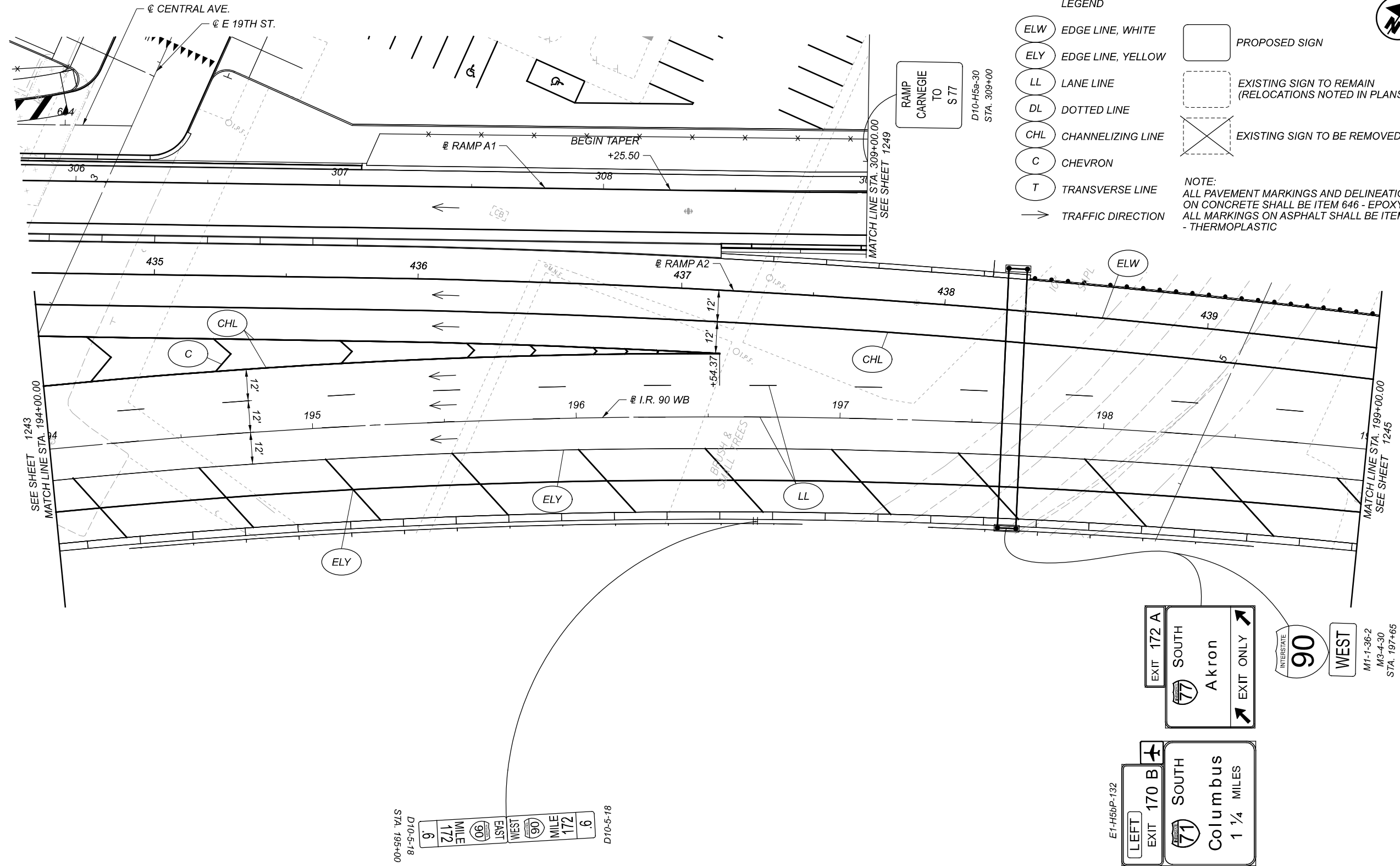
LEGEND	
	EDGE LINE, WHITE
	EDGE LINE, YELLOW
	LANE LINE
	DOTTED LINE
	CHANNELIZING LINE
	CHEVRON
	TRANSVERSE LINE
	TRAFFIC DIRECTION
	PROPOSED SIGN
	EXISTING SIGN TO REMAIN (RELOCATIONS NOTED IN PLANS)
	EXISTING SIGN TO BE REMOVED



SIGNING & PAVEMENT MARKING PLAN - I.R. 90 WB
 STA. 189+00.00 TO 194+00.00



DESIGN AGENCY	
DESIGNER	
REVIEWER	
PROJECT ID	82382
SHEET	1243
TOTAL	2339

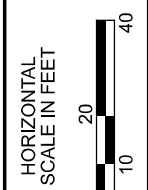


LEGEND

- ELW EDGE LINE, WHITE
- ELY EDGE LINE, YELLOW
- LL LANE LINE
- DL DOTTED LINE
- CHL CHANNELIZING LINE
- C CHEVRON
- T TRANSVERSE LINE
- TRAFFIC DIRECTION

- PROPOSED SIGN
- EXISTING SIGN TO REMAIN (RELOCATIONS NOTED IN PLANS)
- EXISTING SIGN TO BE REMOVED

NOTE:
 ALL PAVEMENT MARKINGS AND DELINEATIONS ON CONCRETE SHALL BE ITEM 646 - EPOXY AND ALL MARKINGS ON ASPHALT SHALL BE ITEM 644 - THERMOPLASTIC



SEE SHEET 1243
 MATCH LINE STA. 194+00.00

MATCH LINE STA. 309+00.00
 SEE SHEET 1249

MATCH LINE STA. 199+00.00
 SEE SHEET 1245

00+56.1 STA. 195+00.00
 D10-5-18
 81-5-01A
 .6
 MILE 172 EAST
 MILE 172 WEST
 90 EAST
 90 WEST
 MILE 172
 D10-5-18

E1-H5bP-132
 LEFT EXIT 170 B
 SOUTH Columbus 1 1/4 MILES
 EXIT 172 A
 SOUTH Akron
 WEST
 INTERSTATE 90 WEST
 M1-1-36-2
 M3-4-30
 STA. 197+65

SIGNING & PAVEMENT MARKING PLAN - I.R. 90 WB
 STA. 194+00.00 TO STA. 199+00.00

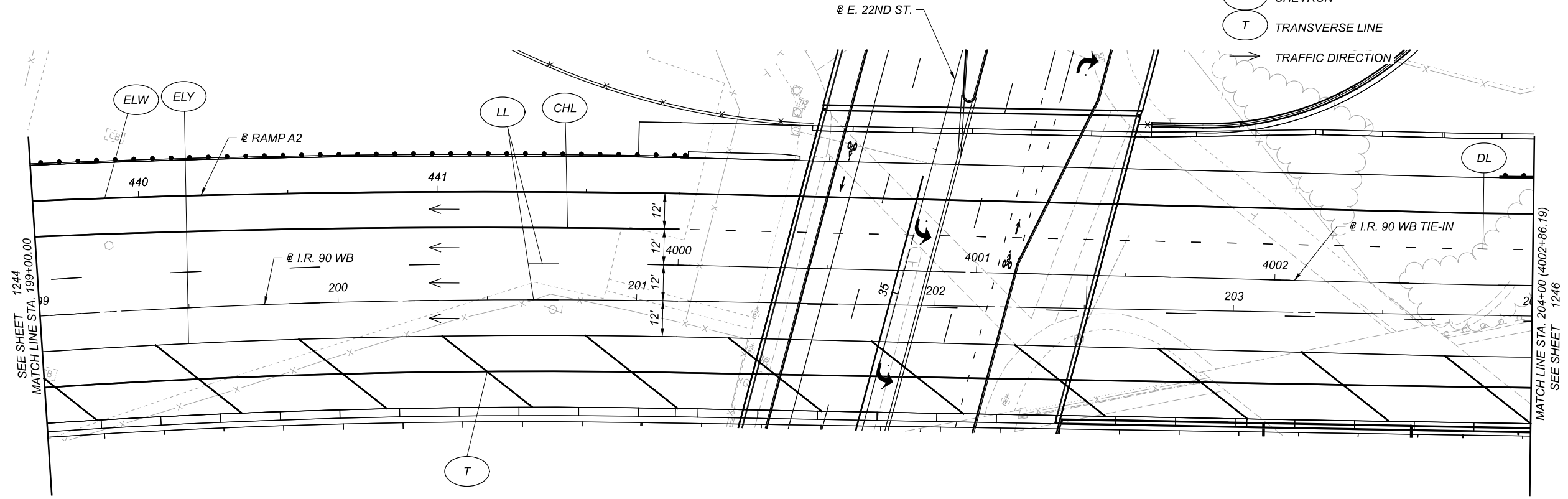
DESIGN AGENCY	BURGESS & NIPLÉ 100 WEST ERIE STREET PARSONVILLE, OH 44877
DESIGNER	---
REVIEWER	---
PROJECT ID	82382
SHEET TOTAL	1244 2339

NOTE:
 ALL PAVEMENT MARKINGS AND DELINEATIONS
 ON CONCRETE SHALL BE ITEM 646 - EPOXY AND
 ALL MARKINGS ON ASPHALT SHALL BE ITEM 644
 - THERMOPLASTIC



LEGEND

- ELW EDGE LINE, WHITE
- ELY EDGE LINE, YELLOW
- LL LANE LINE
- DL DOTTED LINE
- CHL CHANNELIZING LINE
- C CHEVRON
- T TRANSVERSE LINE
- PROPOSED SIGN
- EXISTING SIGN TO REMAIN (RELOCATIONS NOTED IN PLANS)
- EXISTING SIGN TO BE REMOVED



SIGNING & PAVEMENT MARKING PLAN - I.R. 90 WB
 STA. 199+00.00 TO STA. 204+00.00 (4002+86.19)

DESIGN AGENCY

BURGESS & NIPLÉ
 100 WEST ERIE STREET
 PAINESVILLE, OHIO 44077

DESIGNER

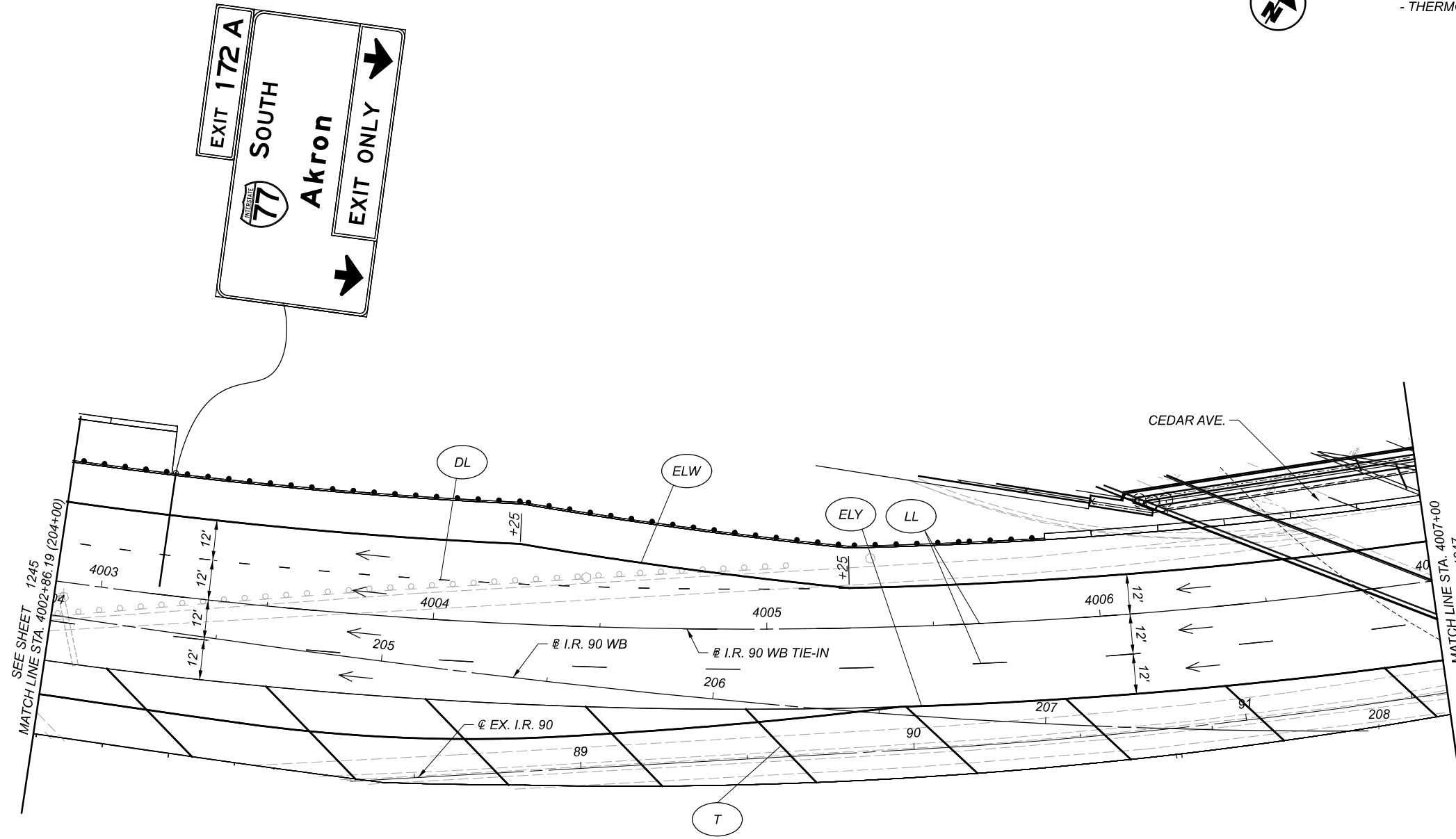
REVIEWER

PROJECT ID

82382

SHEET TOTAL

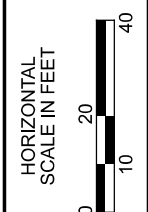
1245 2339



NOTE:
 ALL PAVEMENT MARKINGS AND DELINEATIONS
 ON CONCRETE SHALL BE ITEM 646 - EPOXY AND
 ALL MARKINGS ON ASPHALT SHALL BE ITEM 644
 - THERMOPLASTIC

- LEGEND
- (ELW) EDGE LINE, WHITE
 - (ELY) EDGE LINE, YELLOW
 - (LL) LANE LINE
 - (DL) DOTTED LINE
 - (CHL) CHANNELIZING LINE
 - (C) CHEVRON
 - (T) TRANSVERSE LINE
 - TRAFFIC DIRECTION
 - [] PROPOSED SIGN
 - [] EXISTING SIGN TO REMAIN (RELOCATIONS NOTED IN PLANS)
 - [X] EXISTING SIGN TO BE REMOVED

SIGNING & PAVEMENT MARKING PLAN - I.R. 90 WB
 STA. 4002+86.19 (204+00) TO STA. 4007+00.00

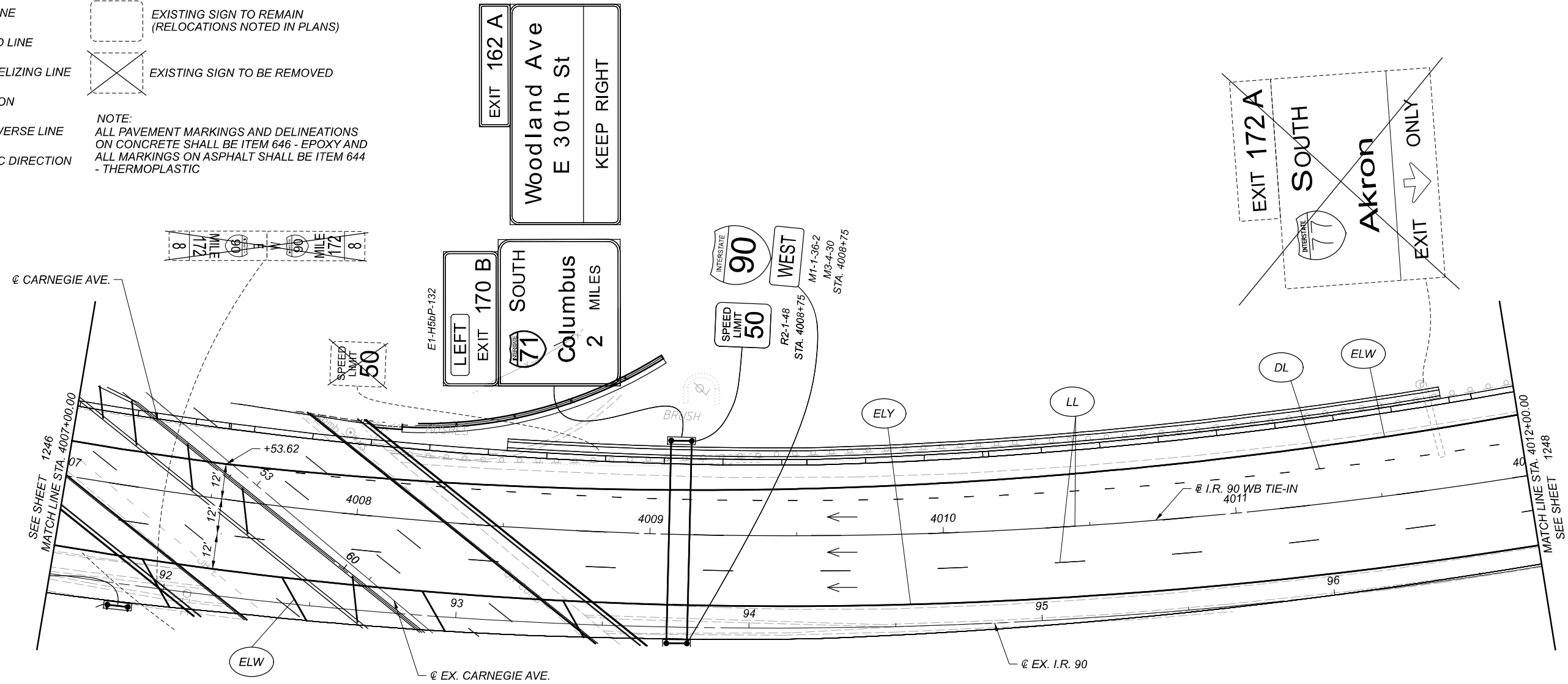


DESIGN AGENCY	
BURGESS & NIPLE 100 WEST EIRE STREET PAINESVILLE, OHIO 44077	
DESIGNER	—
REVIEWER	—
PROJECT ID	82382
SHEET	TOTAL
1246	2339

LEGEND

ELW	EDGE LINE, WHITE		PROPOSED SIGN
ELY	EDGE LINE, YELLOW		EXISTING SIGN TO REMAIN (RELOCATIONS NOTED IN PLANS)
LL	LANE LINE		EXISTING SIGN TO BE REMOVED
DL	DOTTED LINE		
CHL	CHANNELIZING LINE		
C	CHEVRON		
T	TRANSVERSE LINE		
	TRAFFIC DIRECTION		

NOTE:
 ALL PAVEMENT MARKINGS AND DELINEATIONS
 ON CONCRETE SHALL BE ITEM 646 - EPOXY AND
 ALL MARKINGS ON ASPHALT SHALL BE ITEM 644
 - THERMOPLASTIC



SIGNING & PAVEMENT MARKING PLAN - I.R. 90 WB
 STA. 4007+00.00 TO STA. 4012+00.00

DESIGN AGENCY

BURGESS & NIPLÉ
 100 WEST EURE STREET
 PAINESVILLE, OH 44077

DESIGNER

REVIEWER




PROJECT ID

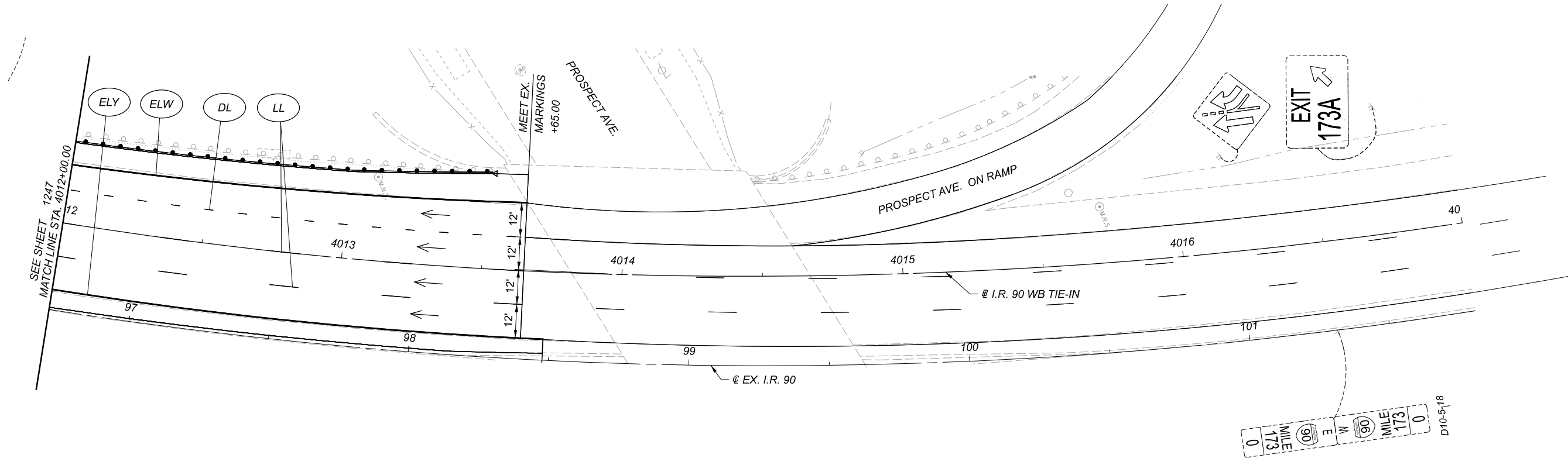
82382

SHEET TOTAL

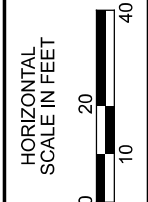
1247 2339

NOTE:
 ALL PAVEMENT MARKINGS AND DELINEATIONS
 ON CONCRETE SHALL BE ITEM 646 - EPOXY AND
 ALL MARKINGS ON ASPHALT SHALL BE ITEM 644
 - THERMOPLASTIC

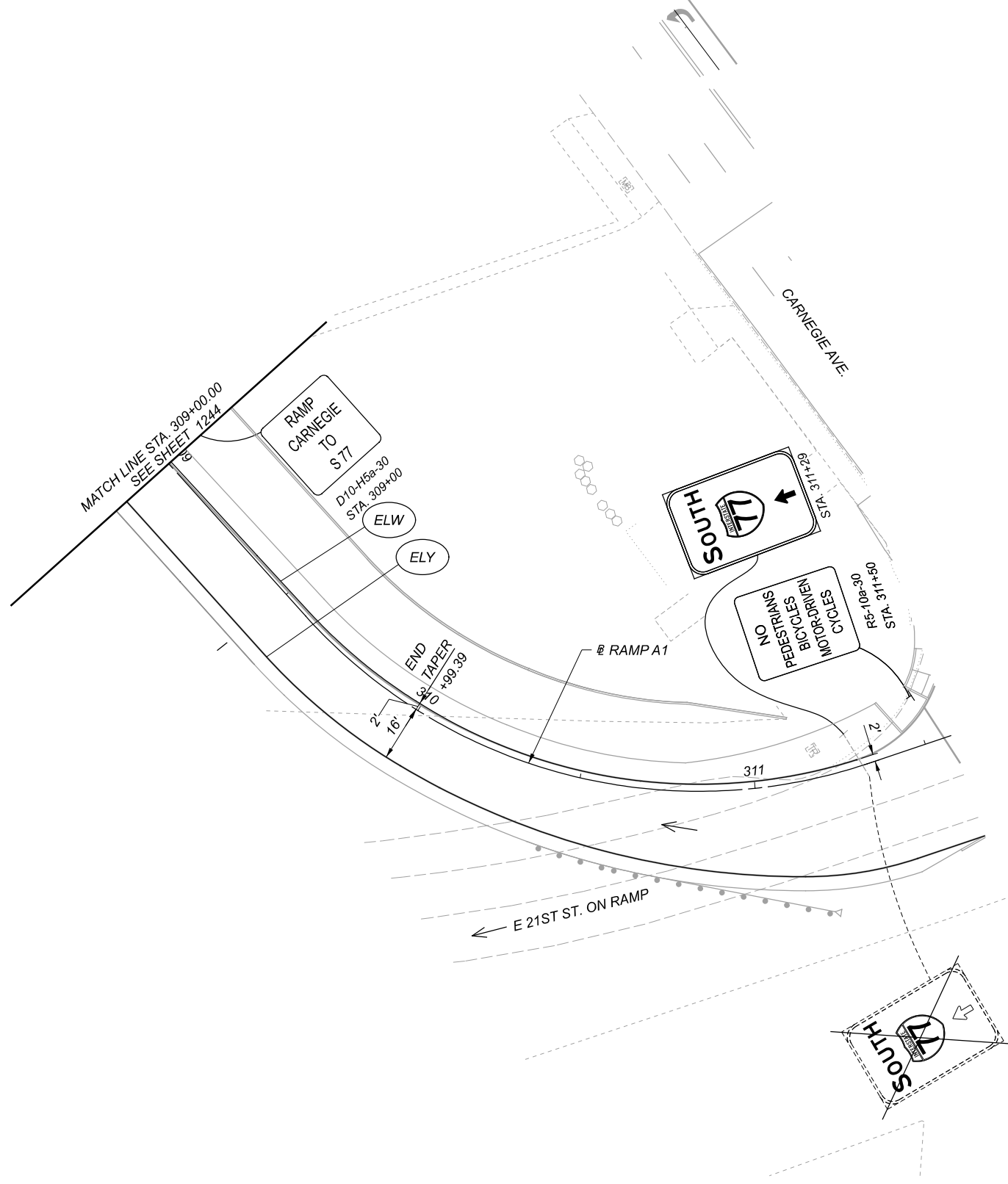
- LEGEND
- ELW EDGE LINE, WHITE
 - ELY EDGE LINE, YELLOW
 - LL LANE LINE
 - DL DOTTED LINE
 - CHL CHANNELIZING LINE
 - C CHEVRON
 - T TRANSVERSE LINE
 - TRAFFIC DIRECTION
-  PROPOSED SIGN
 -  EXISTING SIGN TO REMAIN
(RELOCATIONS NOTED IN PLANS)
 -  EXISTING SIGN TO BE REMOVED



SIGNING & PAVEMENT MARKING PLAN - I.R. 90 WB
 STA. 4012+00.00 TO STA. 4017+00.00



DESIGN AGENCY	
BURGESS & NIPLE 100 WEST ERIE STREET PAINESVILLE, OHIO 44077	
DESIGNER	—
REVIEWER	—
PROJECT ID	82382
SHEET	TOTAL
1248	2339



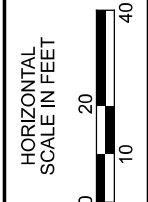
LEGEND

- ELW EDGE LINE, WHITE
- ELY EDGE LINE, YELLOW
- LL LANE LINE
- DL DOTTED LINE
- CHL CHANNELIZING LINE
- C CHEVRON
- T TRANSVERSE LINE
- TRAFFIC DIRECTION
- PROPOSED SIGN
- EXISTING SIGN TO REMAIN (RELOCATIONS NOTED IN PLANS)
- EXISTING SIGN TO BE REMOVED

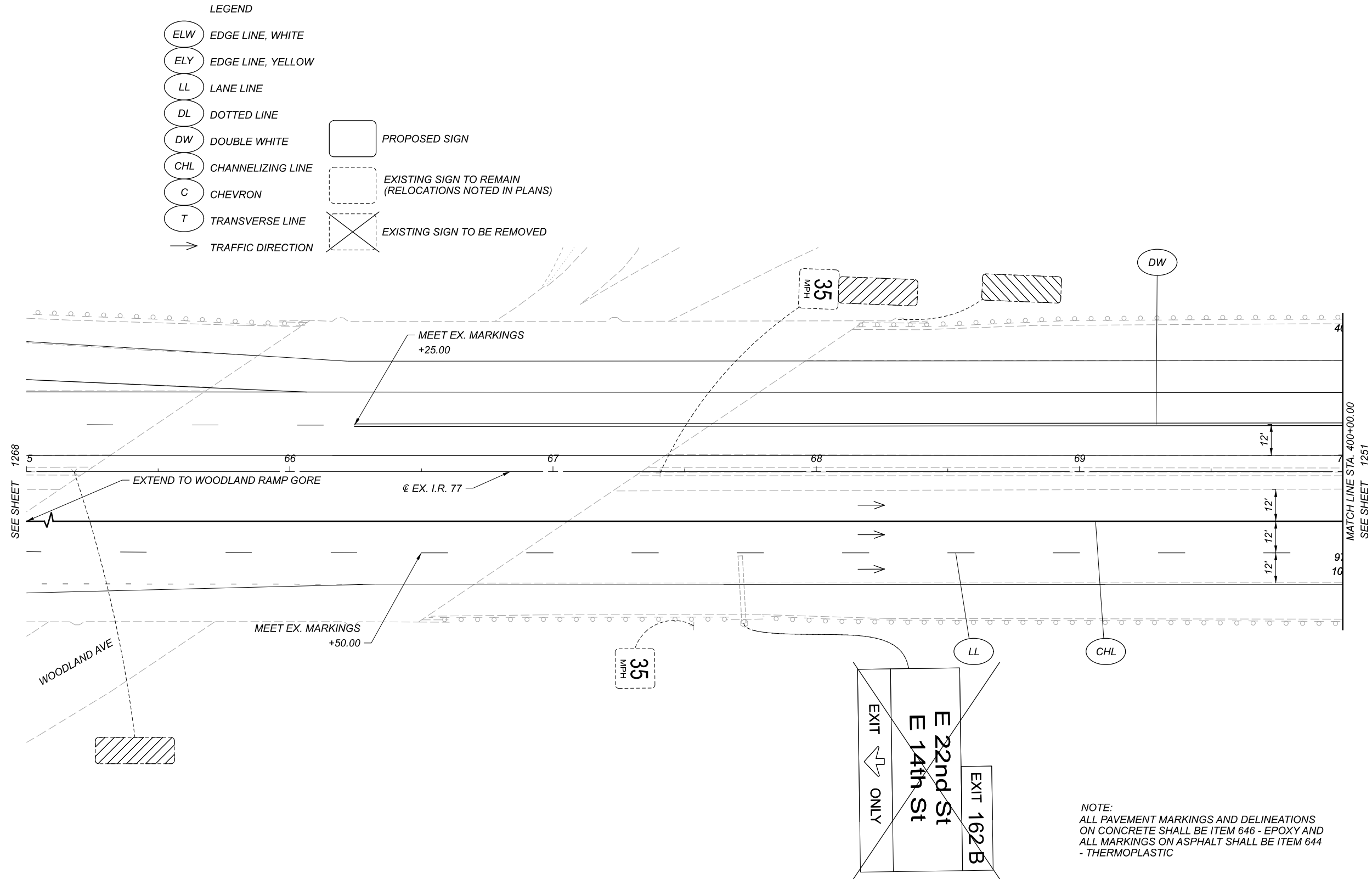
NOTE:
 ALL PAVEMENT MARKINGS AND DELINEATIONS ON CONCRETE SHALL BE ITEM 646 - EPOXY AND ALL MARKINGS ON ASPHALT SHALL BE ITEM 644 - THERMOPLASTIC



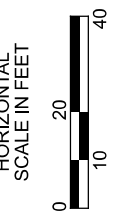
SIGNING & PAVEMENT MARKING PLAN - RAMP A1
 STA. 309+00.00 TO STA. 311+57.62



DESIGN AGENCY	
BURGESS & NIPLÉ 100 WEST EIRE STREET PARKEVILLE, OHIO 44271	
DESIGNER	
—	
REVIEWER	
—	
PROJECT ID	
82382	
SHEET	TOTAL
1249	2339



- LEGEND**
- ELW EDGE LINE, WHITE
 - ELY EDGE LINE, YELLOW
 - LL LANE LINE
 - DL DOTTED LINE
 - DW DOUBLE WHITE
 - CHL CHANNELIZING LINE
 - C CHEVRON
 - T TRANSVERSE LINE
 - TRAFFIC DIRECTION
 - PROPOSED SIGN
 - EXISTING SIGN TO REMAIN (RELOCATIONS NOTED IN PLANS)
 - EXISTING SIGN TO BE REMOVED



SIGNING & PAVEMENT MARKING PLAN - RAMP A2
 STA. 395+00.00 TO STA. 400+00.00

DESIGN AGENCY

BURGESS & NIPLÉ
 100 WEST ERIE STREET
 PAINESVILLE, OHIO 44077

DESIGNER

REVIEWER

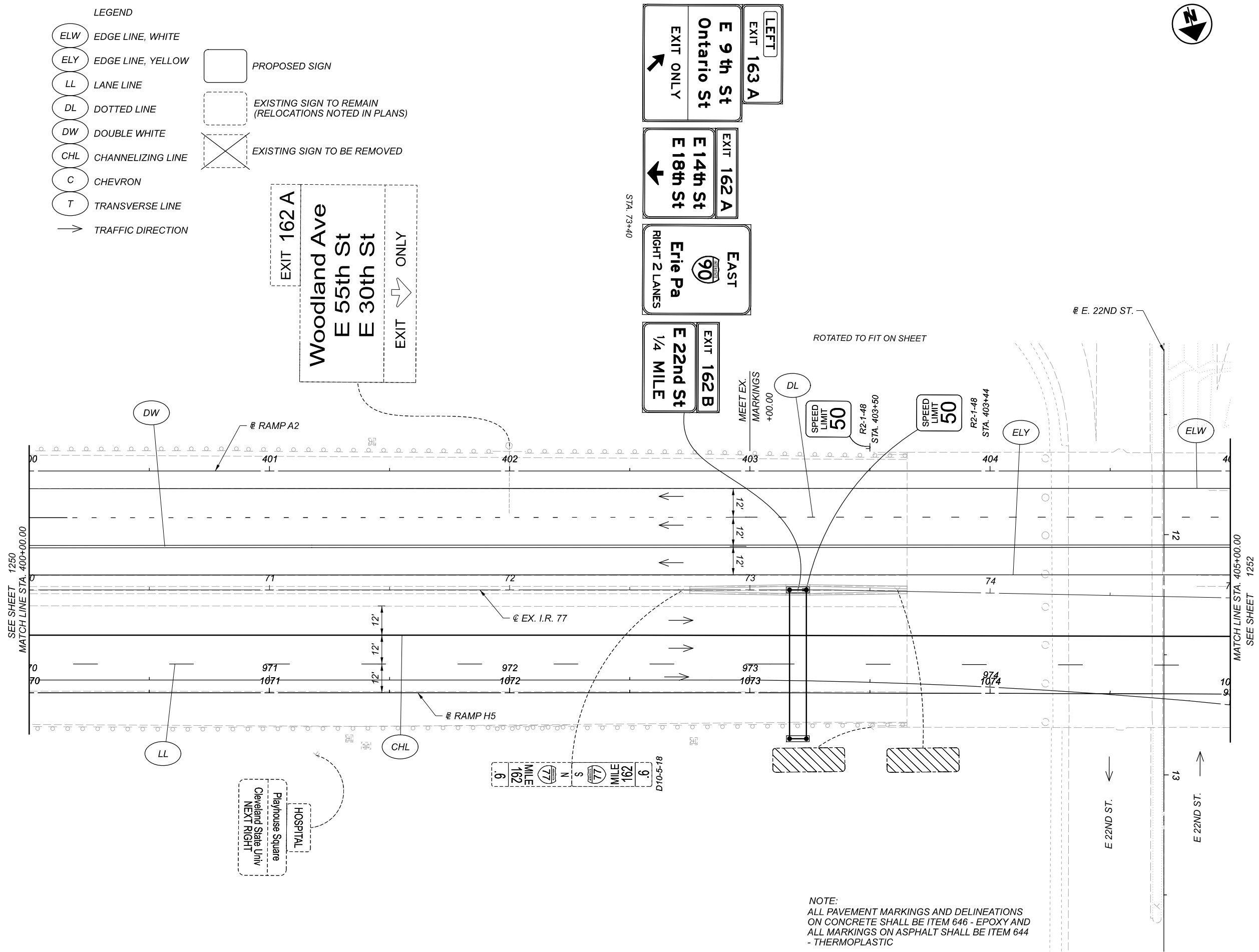
PROJECT ID

82382

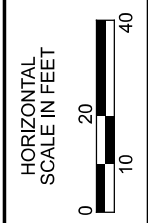
SHEET TOTAL

1250 2339

NOTE:
 ALL PAVEMENT MARKINGS AND DELINEATIONS ON CONCRETE SHALL BE ITEM 646 - EPOXY AND ALL MARKINGS ON ASPHALT SHALL BE ITEM 644 - THERMOPLASTIC



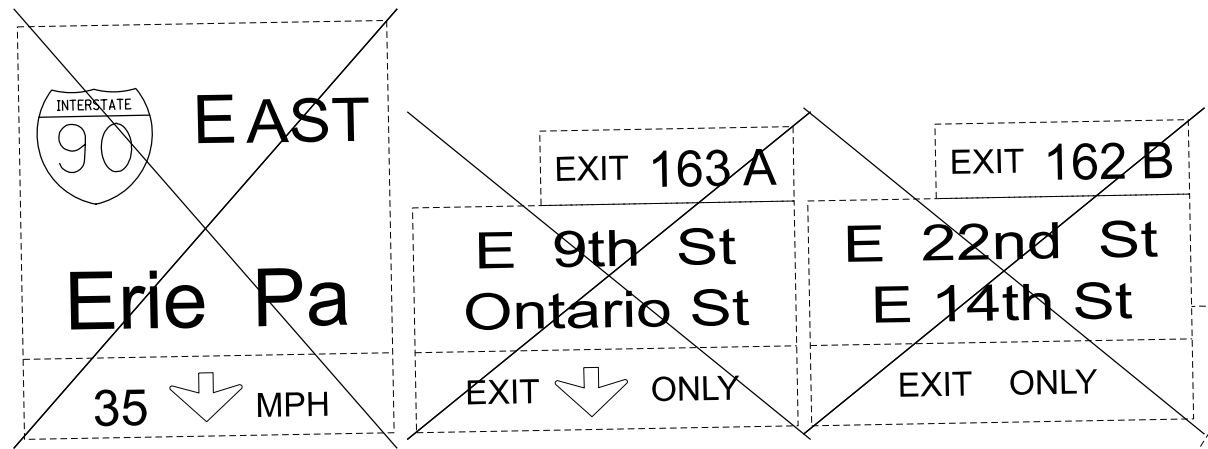
- LEGEND**
- ELW EDGE LINE, WHITE
 - ELY EDGE LINE, YELLOW
 - LL LANE LINE
 - DL DOTTED LINE
 - DW DOUBLE WHITE
 - CHL CHANNELIZING LINE
 - C CHEVRON
 - T TRANSVERSE LINE
 - TRAFFIC DIRECTION
 - PROPOSED SIGN
 - EXISTING SIGN TO REMAIN (RELOCATIONS NOTED IN PLANS)
 - EXISTING SIGN TO BE REMOVED



SIGNING & PAVEMENT MARKING PLAN - RAMP A2
STA. 400+00.00 TO STA. 405+00.00

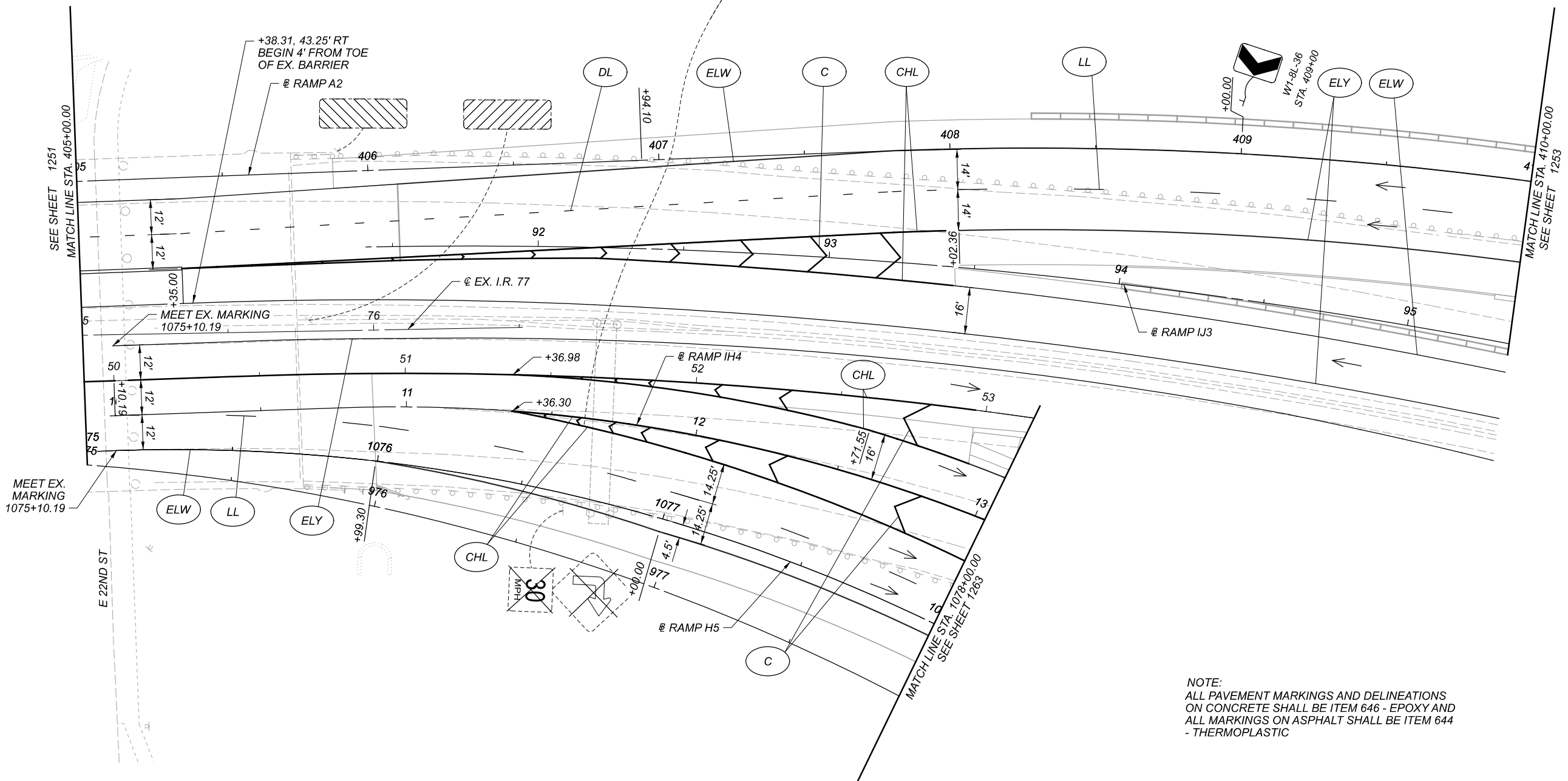
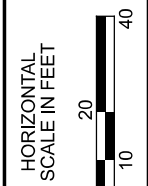
DESIGN AGENCY	BURGESS & NIPLÉ 100 WEST ERIE STREET PARMA, OHIO 44137
DESIGNER	—
REVIEWER	—
PROJECT ID	82382
SHEET TOTAL	1251 2339

NOTE:
ALL PAVEMENT MARKINGS AND DELINEATIONS ON CONCRETE SHALL BE ITEM 646 - EPOXY AND ALL MARKINGS ON ASPHALT SHALL BE ITEM 644 - THERMOPLASTIC



LEGEND

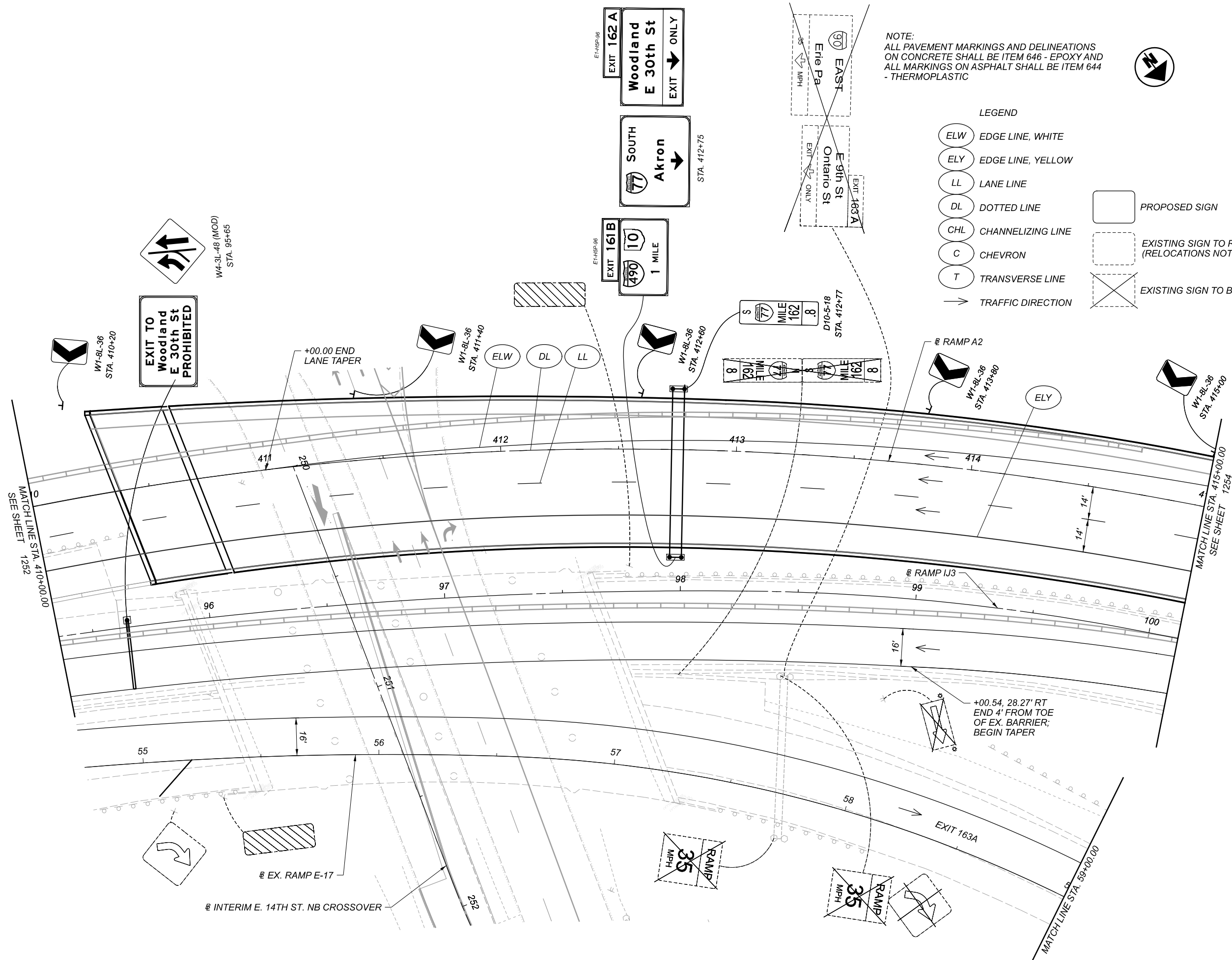
- ELW EDGE LINE, WHITE
- ELY EDGE LINE, YELLOW
- LL LANE LINE
- DL DOTTED LINE
- CHL CHANNELIZING LINE
- C CHEVRON
- T TRANSVERSE LINE
- TRAFFIC DIRECTION
- PROPOSED SIGN
- EXISTING SIGN TO REMAIN (RELOCATIONS NOTED IN PLANS)
- EXISTING SIGN TO BE REMOVED



NOTE:
 ALL PAVEMENT MARKINGS AND DELINEATIONS ON CONCRETE SHALL BE ITEM 646 - EPOXY AND ALL MARKINGS ON ASPHALT SHALL BE ITEM 644 - THERMOPLASTIC

SIGNING & PAVEMENT MARKING PLAN - RAMP A2
 STA. 405+00.00 TO STA. 410+00.00

DESIGN AGENCY	
BURGESS & NIPLE	
100 WEST ERIE STREET PARMA, OHIO 44137	
DESIGNER	
REVIEWER	
PROJECT ID	82382
SHEET	TOTAL
1252	2339

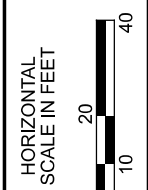


NOTE:
 ALL PAVEMENT MARKINGS AND DELINEATIONS
 ON CONCRETE SHALL BE ITEM 646 - EPOXY AND
 ALL MARKINGS ON ASPHALT SHALL BE ITEM 644
 - THERMOPLASTIC

LEGEND

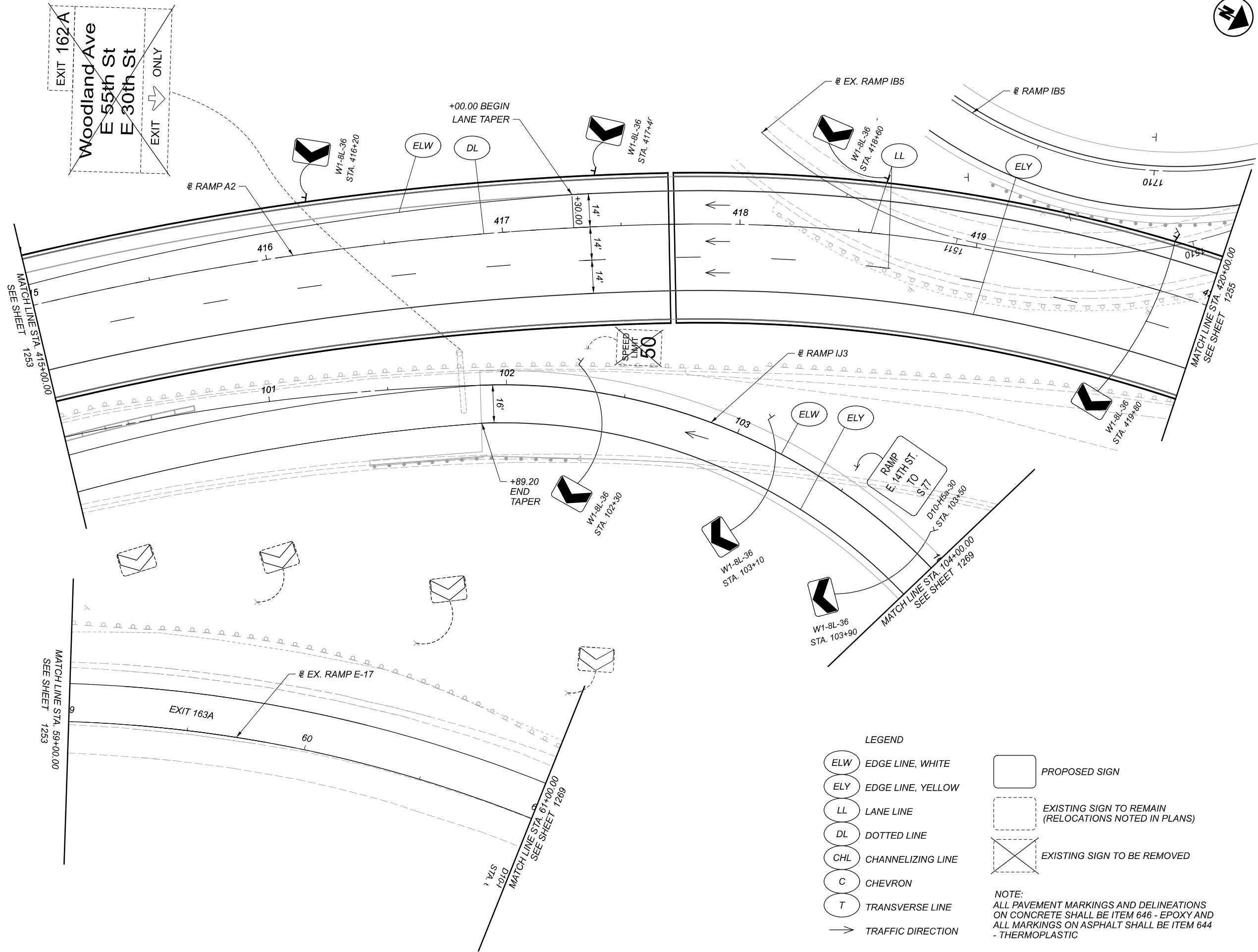
- (ELW) EDGE LINE, WHITE
- (ELY) EDGE LINE, YELLOW
- (LL) LANE LINE
- (DL) DOTTED LINE
- (CHL) CHANNELIZING LINE
- (C) CHEVRON
- (T) TRANSVERSE LINE
- (→) TRAFFIC DIRECTION

- [Solid Box] PROPOSED SIGN
- [Dashed Box] EXISTING SIGN TO REMAIN (RELOCATIONS NOTED IN PLANS)
- [Crossed Box] EXISTING SIGN TO BE REMOVED



SIGNING & PAVEMENT MARKING PLAN - RAMP A2
 STA. 410+00.00 TO STA. 415+00.00

DESIGN AGENCY	BURGESS & NIPLÉ 100 WEST ERIE STREET PAINESVILLE, OHIO 44077
DESIGNER	—
REVIEWER	—
PROJECT ID	82382
SHEET TOTAL	1253 2339



SIGNING & PAVEMENT MARKING PLAN - RAMP A2
 STA. 415+00.00 TO STA. 420+00.00

- LEGEND**
- (ELW) EDGE LINE, WHITE
 - (ELY) EDGE LINE, YELLOW
 - (LL) LANE LINE
 - (DL) DOTTED LINE
 - (CHL) CHANNELIZING LINE
 - (C) CHEVRON
 - (T) TRANSVERSE LINE
 - TRAFFIC DIRECTION
 - [Solid Box] PROPOSED SIGN
 - [Dashed Box] EXISTING SIGN TO REMAIN (RELOCATIONS NOTED IN PLANS)
 - [Crossed Box] EXISTING SIGN TO BE REMOVED
- NOTE:**
 ALL PAVEMENT MARKINGS AND DELINEATIONS ON CONCRETE SHALL BE ITEM 646 - EPOXY AND ALL MARKINGS ON ASPHALT SHALL BE ITEM 644 - THERMOPLASTIC

DESIGN AGENCY

BURGESS & NIPLÉ
 100 WEST ERIE STREET
 PAINESVILLE, OHIO 44077

DESIGNER

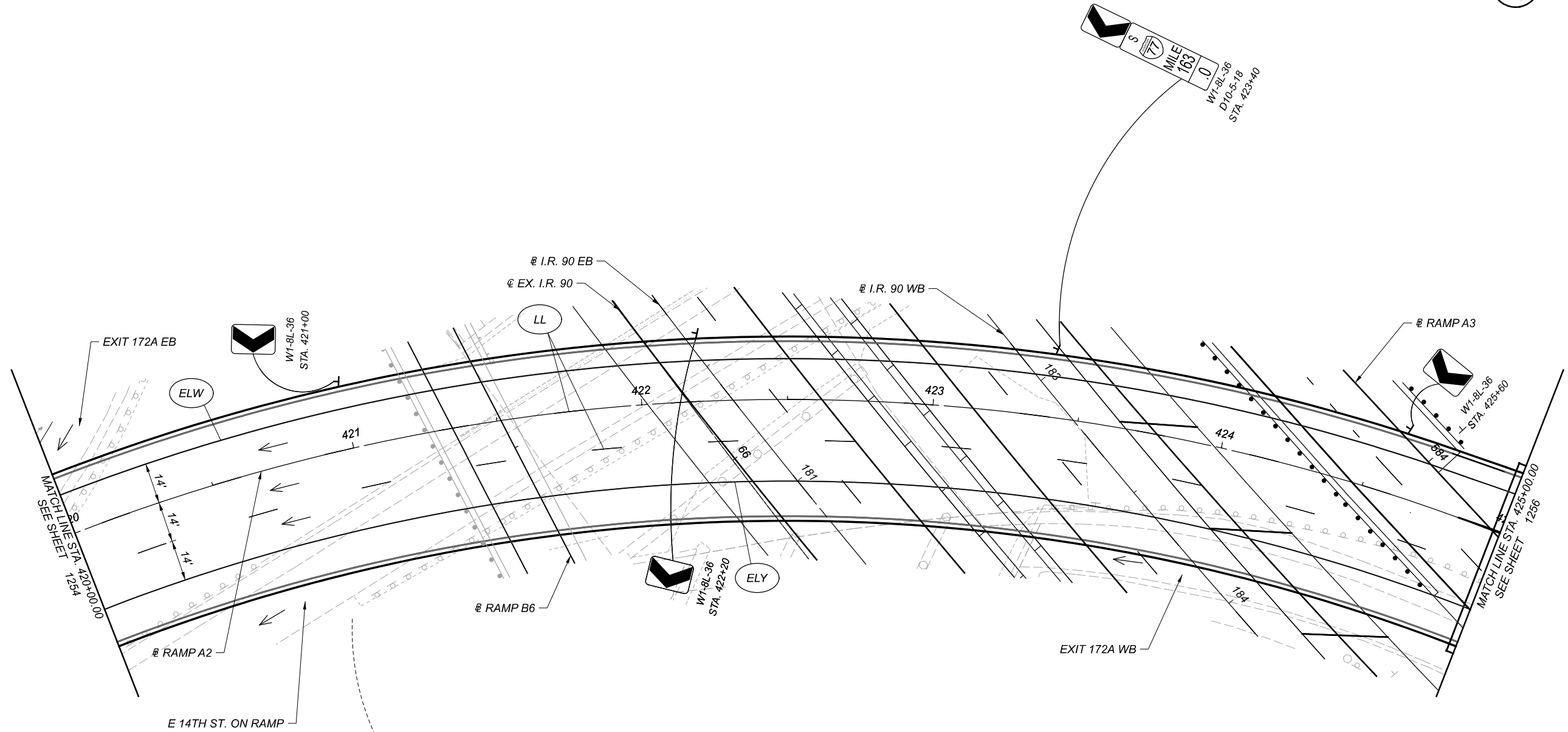
REVIEWER

PROJECT ID

82382

SHEET TOTAL

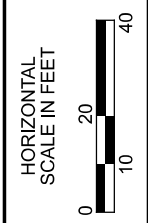
1254 2339



LEGEND

(ELW)	EDGE LINE, WHITE	(Square)	PROPOSED SIGN
(ELY)	EDGE LINE, YELLOW	(Dashed Square)	EXISTING SIGN TO REMAIN (RELOCATIONS NOTED IN PLANS)
(LL)	LANE LINE	(Dashed Square with X)	EXISTING SIGN TO BE REMOVED
(DL)	DOTTED LINE		
(CHL)	CHANNELIZING LINE		
(C)	CHEVRON		
(T)	TRANSVERSE LINE		
(Arrow)	TRAFFIC DIRECTION		

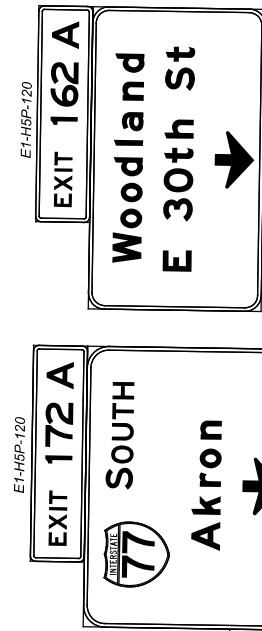
NOTE:
 ALL PAVEMENT MARKINGS AND DELINEATIONS ON CONCRETE SHALL BE ITEM 646 - EPOXY AND ALL MARKINGS ON ASPHALT SHALL BE ITEM 644 - THERMOPLASTIC



SIGNING & PAVEMENT MARKING PLAN - RAMP A2
 STA. 420+00.00 TO STA. 425+00.00

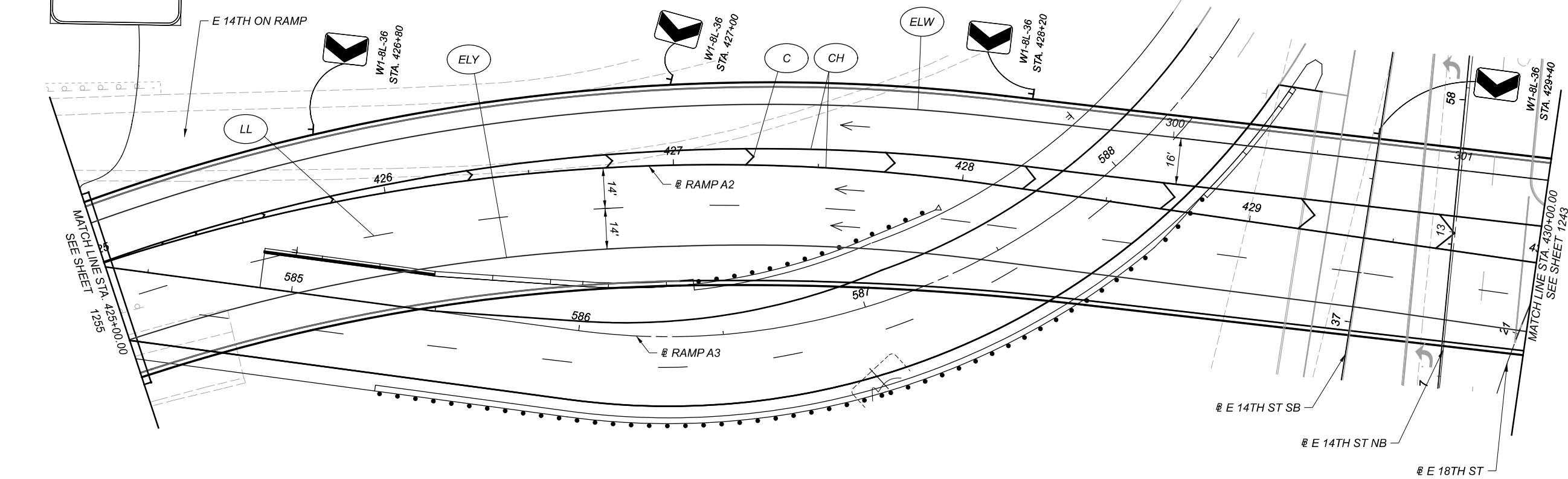
DESIGN AGENCY	BURGESS & NIPLÉ 100 WEST ERIE STREET PARADEVILLE, OHIO 44277
DESIGNER	—
REVIEWER	—
PROJECT ID	82382
SHEET	1255
TOTAL	2339

NOTE:
 ALL PAVEMENT MARKINGS AND DELINEATIONS
 ON CONCRETE SHALL BE ITEM 646 - EPOXY AND
 ALL MARKINGS ON ASPHALT SHALL BE ITEM 644
 - THERMOPLASTIC



LEGEND

(ELW)	EDGE LINE, WHITE	[Solid Line]	PROPOSED SIGN
(ELY)	EDGE LINE, YELLOW	[Dashed Line]	EXISTING SIGN TO REMAIN (RELOCATIONS NOTED IN PLANS)
(LL)	LANE LINE	[Crossed Line]	EXISTING SIGN TO BE REMOVED
(DL)	DOTTED LINE	[Arrow]	TRAFFIC DIRECTION
(CHL)	CHANNELIZING LINE		
(C)	CHEVRON		
(T)	TRANSVERSE LINE		



SIGNING & PAVEMENT MARKING PLAN - RAMP A2
 STA. 425+00.00 TO STA. 430+00.00

DESIGN AGENCY

**BURGESS
& NIPLE**
 100 WEST EIRE STREET
 PAINESVILLE, OHIO 44077

DESIGNER

REVIEWER

PROJECT ID

82382

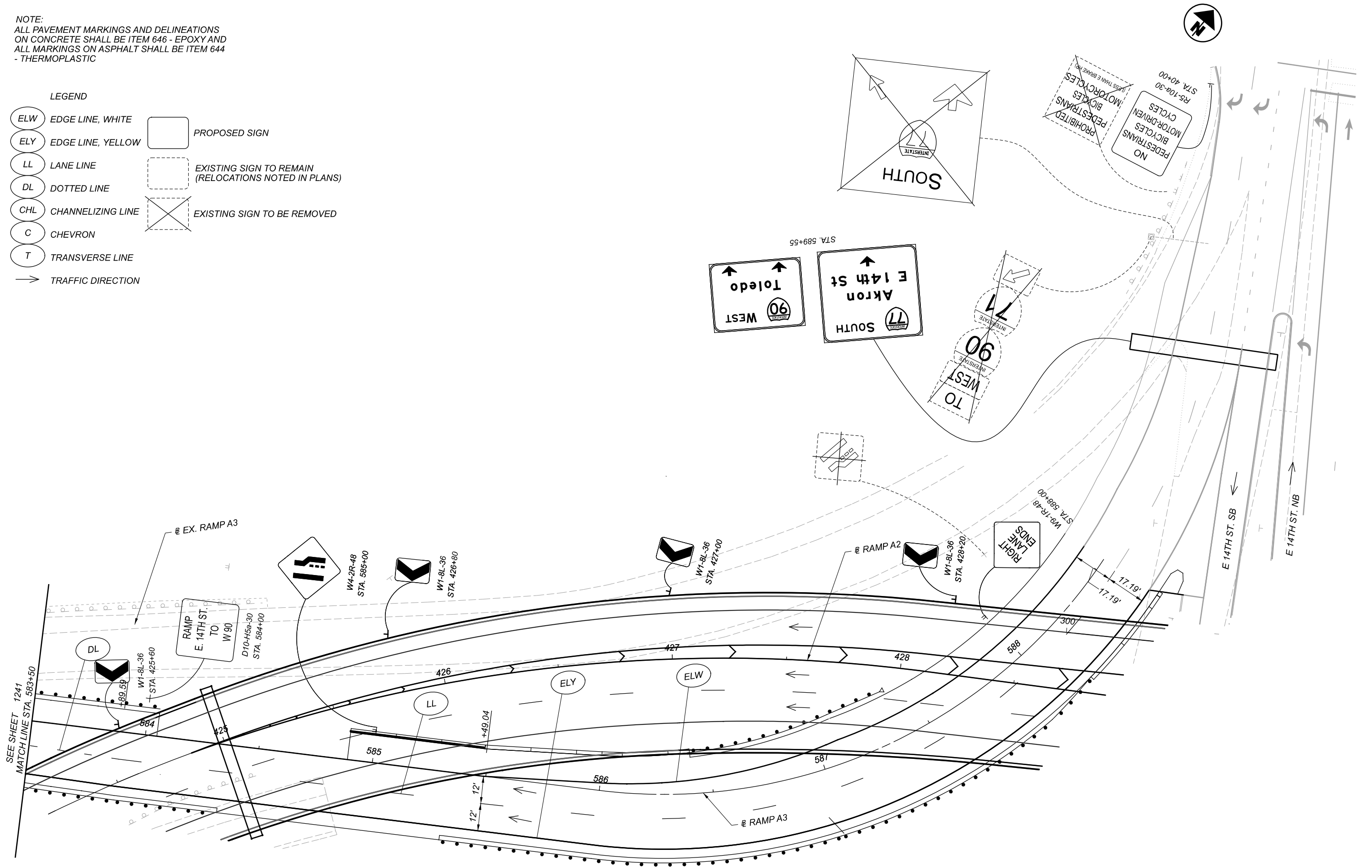
SHEET TOTAL

1256 2339

NOTE:
 ALL PAVEMENT MARKINGS AND DELINEATIONS
 ON CONCRETE SHALL BE ITEM 646 - EPOXY AND
 ALL MARKINGS ON ASPHALT SHALL BE ITEM 644
 - THERMOPLASTIC

LEGEND

- ELW EDGE LINE, WHITE
- ELY EDGE LINE, YELLOW
- LL LANE LINE
- DL DOTTED LINE
- CHL CHANNELIZING LINE
- C CHEVRON
- T TRANSVERSE LINE
- TRAFFIC DIRECTION
- PROPOSED SIGN
- EXISTING SIGN TO REMAIN (RELOCATIONS NOTED IN PLANS)
- EXISTING SIGN TO BE REMOVED



SIGNING & PAVEMENT MARKING PLAN - RAMP A3
 STA. 583+50.00 TO STA. 588+55.45



DESIGN AGENCY

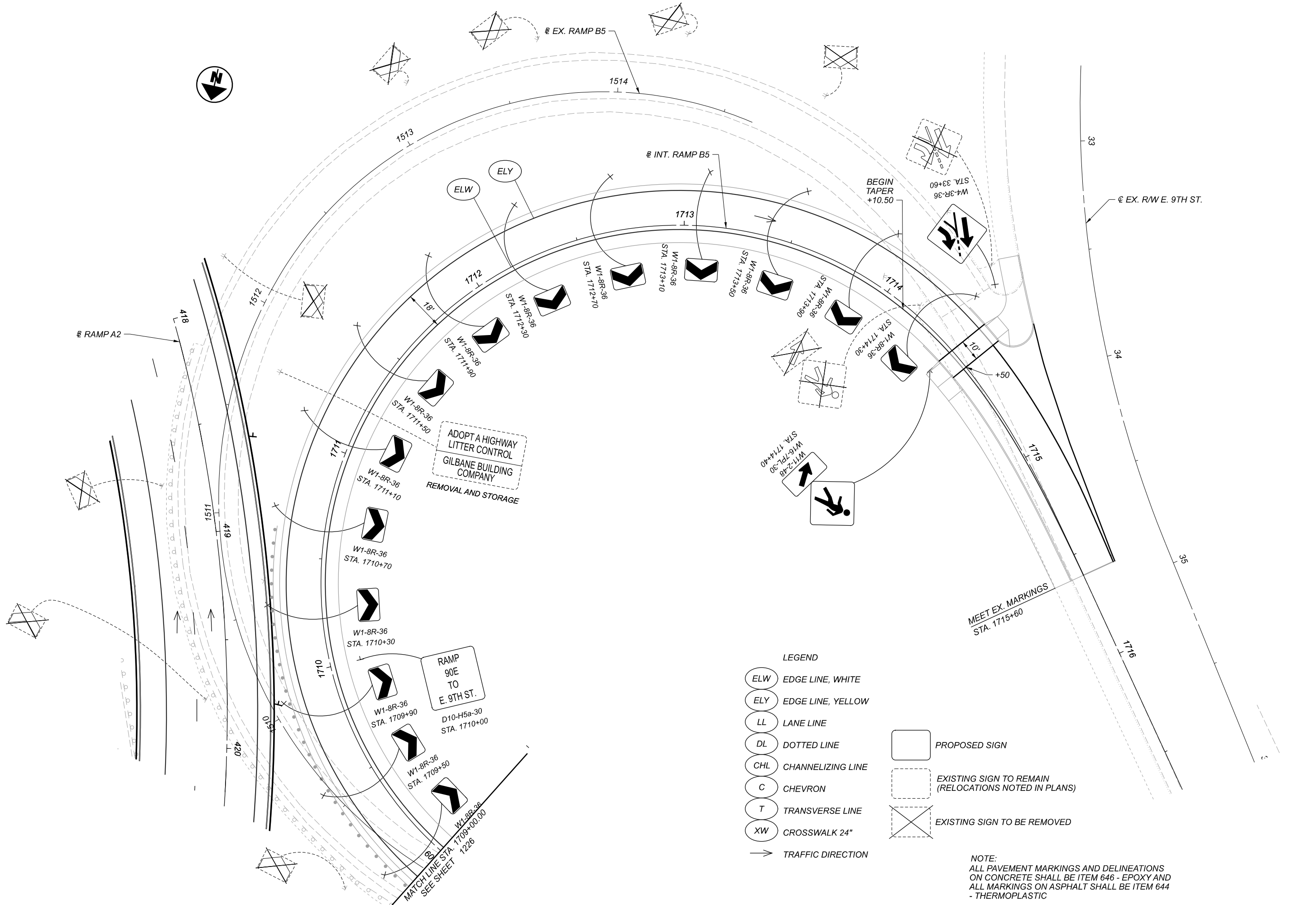
BURGESS & NIPLE
 100 WEST ERIE STREET
 PAINESVILLE, OHIO 44077

DESIGNER

REVIEWER

PROJECT ID
 82382

SHEET	TOTAL
1257	2339



ADOPT A HIGHWAY
LITTER CONTROL
GILBANE BUILDING
COMPANY
REMOVAL AND STORAGE

RAMP
90E
TO
E. 9TH ST.
D10-H5a-30
STA. 1710+00

LEGEND

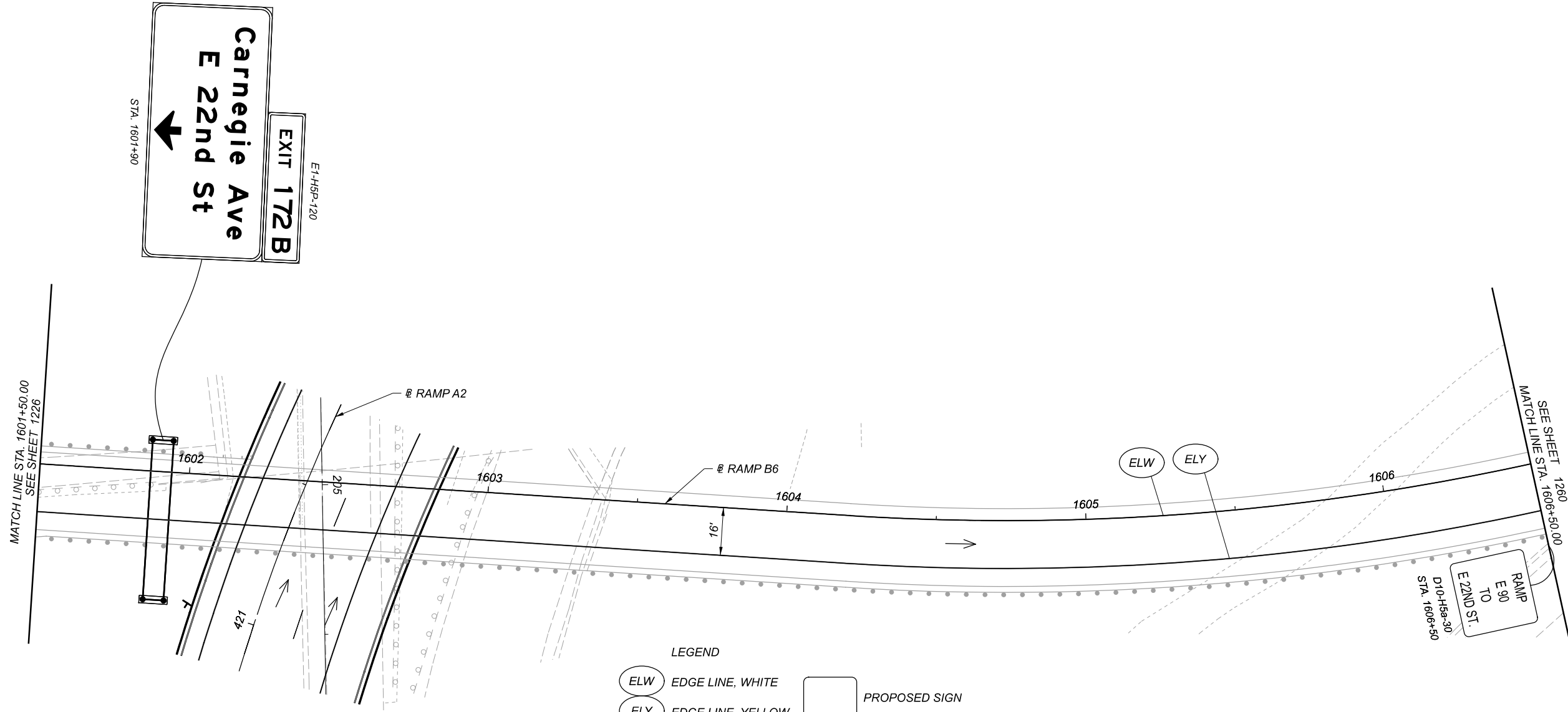
(ELW)	EDGE LINE, WHITE	(Square)	PROPOSED SIGN
(ELY)	EDGE LINE, YELLOW	(Dashed Square)	EXISTING SIGN TO REMAIN (RELOCATIONS NOTED IN PLANS)
(LL)	LANE LINE	(Crossed Square)	EXISTING SIGN TO BE REMOVED
(DL)	DOTTED LINE		
(CHL)	CHANNELIZING LINE		
(C)	CHEVRON		
(T)	TRANSVERSE LINE		
(XW)	CROSSWALK 24"		
(Arrow)	TRAFFIC DIRECTION		

NOTE:
ALL PAVEMENT MARKINGS AND DELINEATIONS
ON CONCRETE SHALL BE ITEM 646 - EPOXY AND
ALL MARKINGS ON ASPHALT SHALL BE ITEM 644
- THERMOPLASTIC



SIGNING & PAVEMENT MARKING PLAN - RAMP IB5
 STA. 1709+00.00 TO STA. 1717+00.00

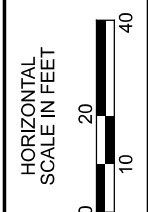
DESIGN AGENCY	
DESIGNER	
REVIEWER	
PROJECT ID	82382
SHEET	TOTAL
1258	2339



LEGEND

(ELW)	EDGE LINE, WHITE	[Solid Box]	PROPOSED SIGN
(ELY)	EDGE LINE, YELLOW	[Dashed Box]	EXISTING SIGN TO REMAIN (RELOCATIONS NOTED IN PLANS)
(LL)	LANE LINE	[Box with X]	EXISTING SIGN TO BE REMOVED
(DL)	DOTTED LINE		
(CHL)	CHANNELIZING LINE		
(C)	CHEVRON		
(T)	TRANSVERSE LINE		
→	TRAFFIC DIRECTION		

NOTE:
 ALL PAVEMENT MARKINGS AND DELINEATIONS ON CONCRETE SHALL BE ITEM 646 - EPOXY AND ALL MARKINGS ON ASPHALT SHALL BE ITEM 644 - THERMOPLASTIC



SIGNING & PAVEMENT MARKING PLAN - RAMP B6
 STA. 1601+50.00 TO STA. 1606+50.00

DESIGN AGENCY

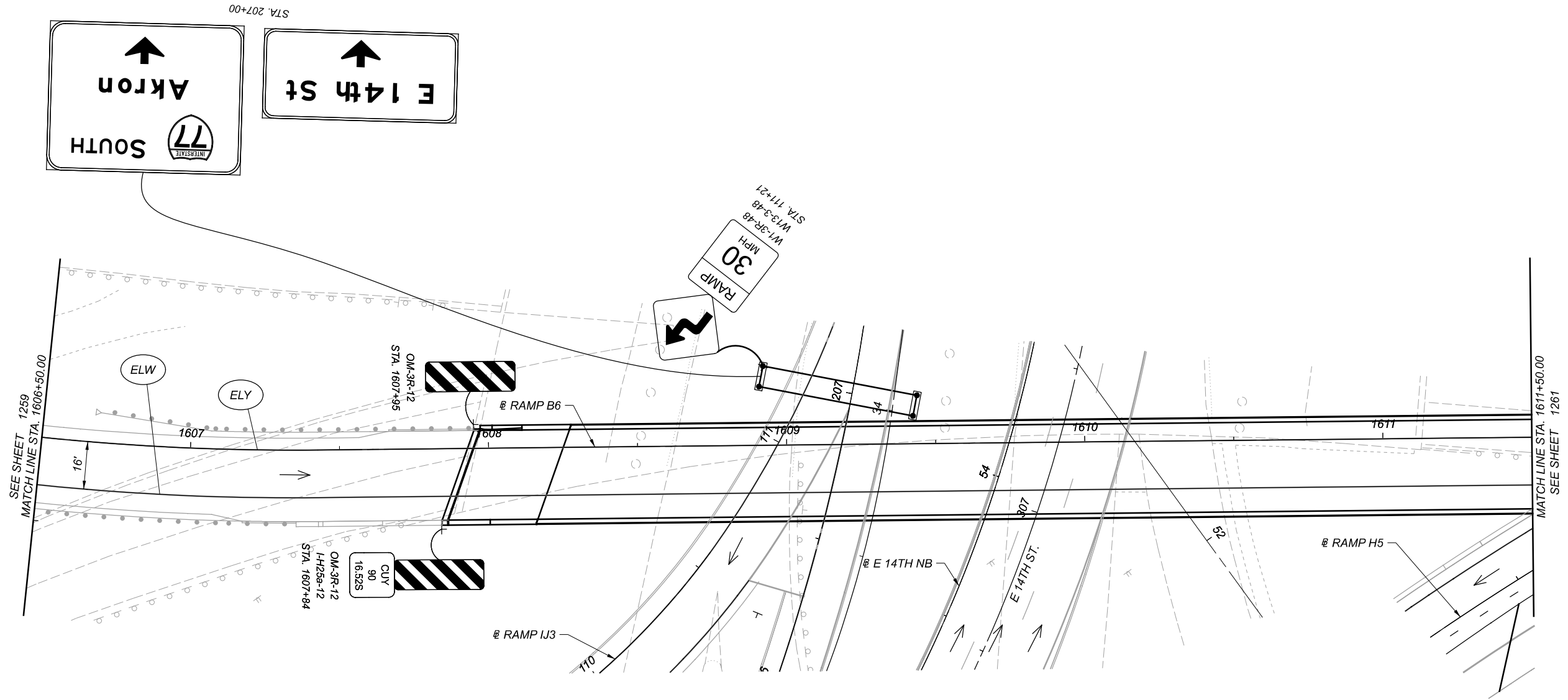
BURGESS & NIPLE
 100 WEST ERIE STREET
 PAINESVILLE, OHIO 44077

DESIGNER

REVIEWER

PROJECT ID
 82382

SHEET	TOTAL
1259	2339



NOTE:
 ALL PAVEMENT MARKINGS AND DELINEATIONS
 ON CONCRETE SHALL BE ITEM 646 - EPOXY AND
 ALL MARKINGS ON ASPHALT SHALL BE ITEM 644
 - THERMOPLASTIC

LEGEND	
(ELW)	EDGE LINE, WHITE
(ELY)	EDGE LINE, YELLOW
(LL)	LANE LINE
(DL)	DOTTED LINE
(CHL)	CHANNELIZING LINE
(C)	CHEVRON
(T)	TRANSVERSE LINE
→	TRAFFIC DIRECTION
[Solid Box]	PROPOSED SIGN
[Dashed Box]	EXISTING SIGN TO REMAIN (RELOCATIONS NOTED IN PLANS)
[Box with X]	EXISTING SIGN TO BE REMOVED

SIGNING & PAVEMENT MARKING PLAN - RAMP B6
 STA. 1606+50.00 TO STA. 1611+50.00

DESIGN AGENCY

BURGESS & NIPLÉ
 100 WEST ERIE STREET
 PAINESVILLE, OHIO 44077

DESIGNER

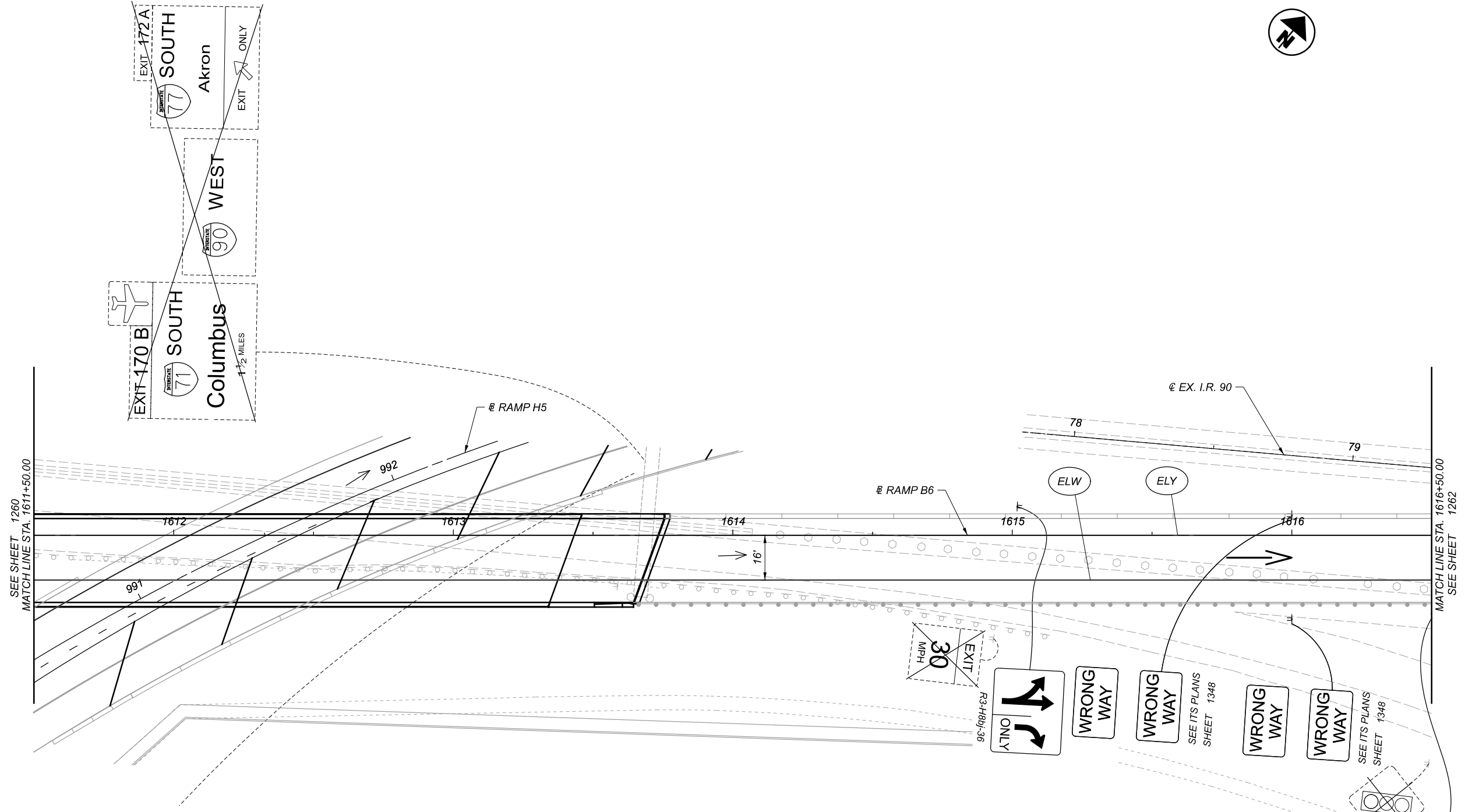
REVIEWER

PROJECT ID

82382

SHEET TOTAL

1260 2339

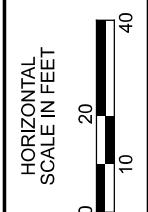
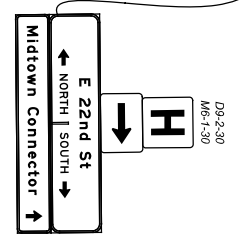


SEE SHEET 1260
MATCH LINE STA. 1611+50.00

MATCH LINE STA. 1616+50.00
SEE SHEET 1262

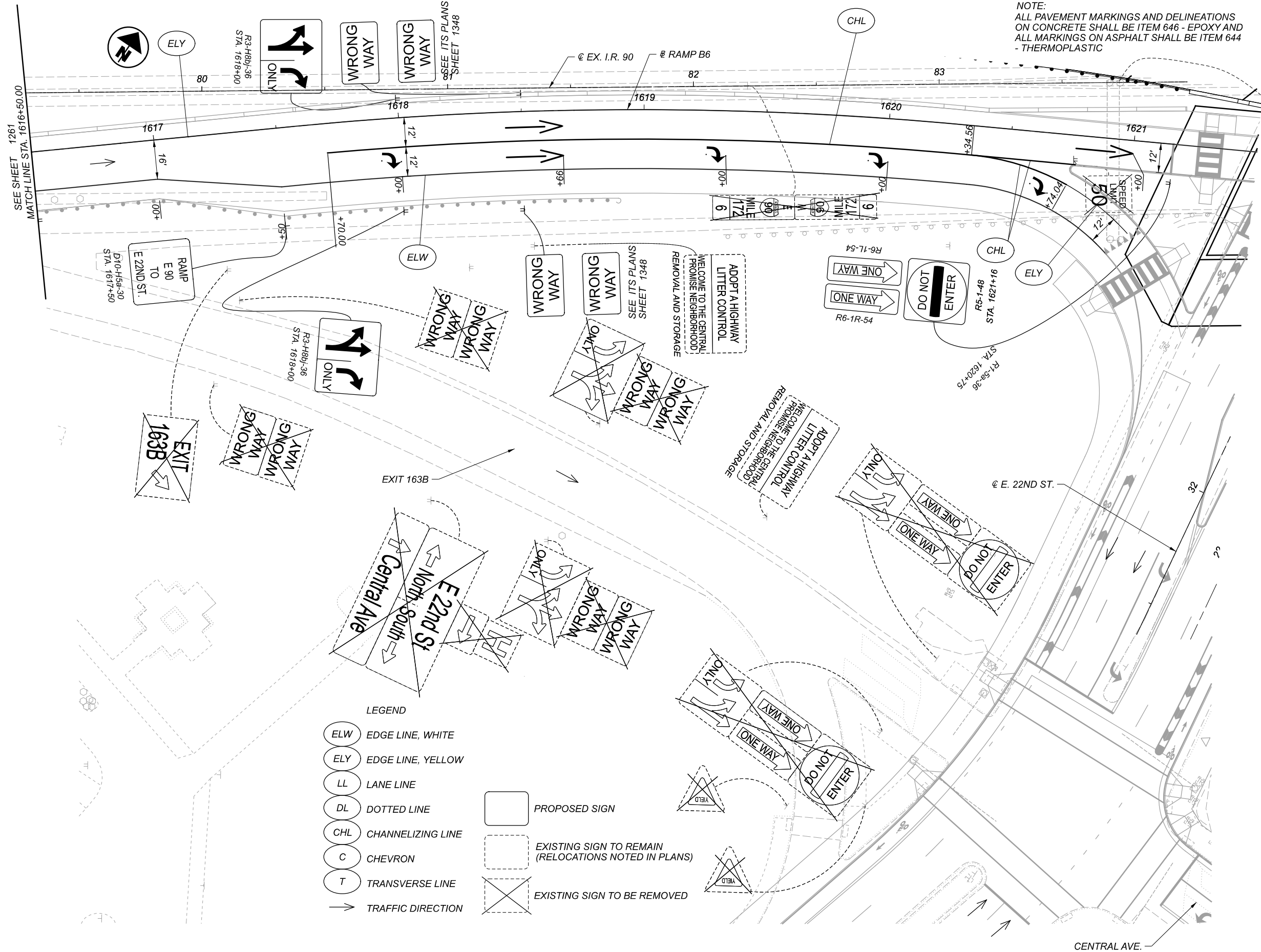
NOTE:
ALL PAVEMENT MARKINGS AND DELINEATIONS
ON CONCRETE SHALL BE ITEM 646 - EPOXY AND
ALL MARKINGS ON ASPHALT SHALL BE ITEM 644
- THERMOPLASTIC

- LEGEND**
- ELW EDGE LINE, WHITE
 - ELY EDGE LINE, YELLOW
 - LL LANE LINE
 - DL DOTTED LINE
 - CHL CHANNELIZING LINE
 - C CHEVRON
 - T TRANSVERSE LINE
 - TRAFFIC DIRECTION
 - [Solid Box] PROPOSED SIGN
 - [Dashed Box] EXISTING SIGN TO REMAIN (RELOCATIONS NOTED IN PLANS)
 - [Box with X] EXISTING SIGN TO BE REMOVED

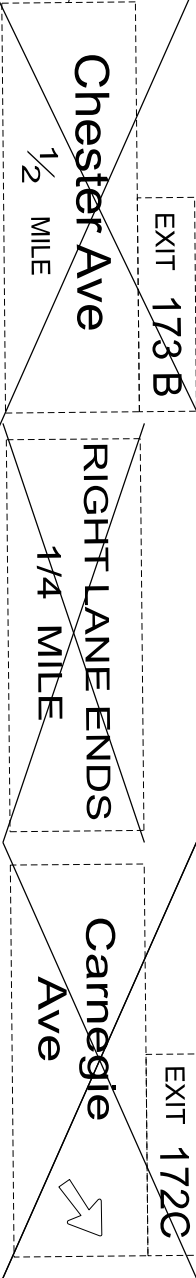
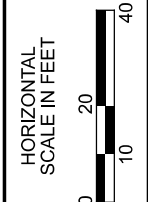


SIGNING & PAVEMENT MARKING PLAN - RAMP B6
 STA. 1611+50.00 TO STA. 1616+50.00

DESIGN AGENCY	BURGESS & NIPLÉ 100 WEST ERIE STREET PARSONVILLE, OHIO 44077
DESIGNER	—
REVIEWER	—
PROJECT ID	82382
SHEET	TOTAL
1261	2339



NOTE:
 ALL PAVEMENT MARKINGS AND DELINEATIONS
 ON CONCRETE SHALL BE ITEM 646 - EPOXY AND
 ALL MARKINGS ON ASPHALT SHALL BE ITEM 644
 - THERMOPLASTIC














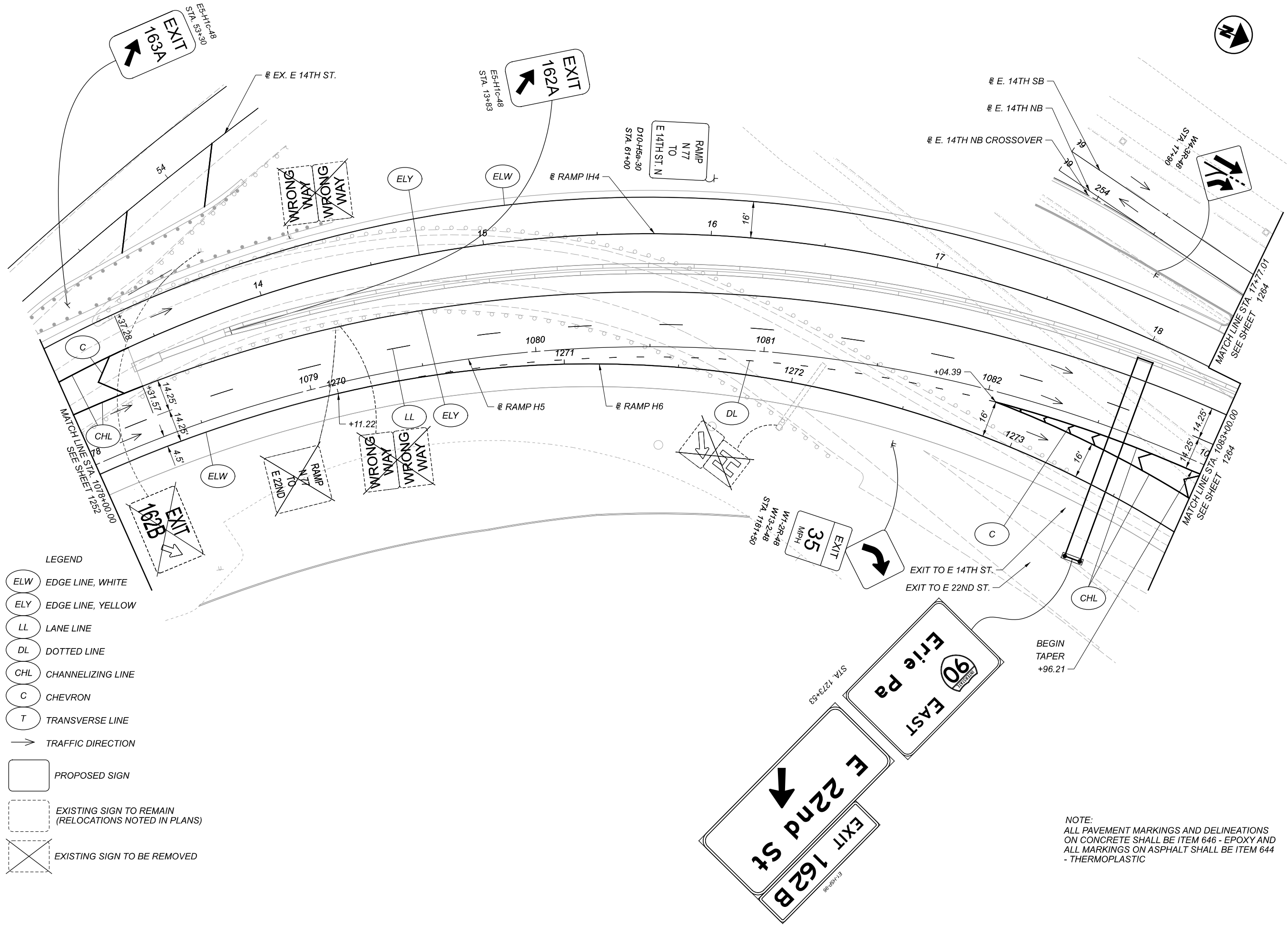
LEGEND

(ELW)	EDGE LINE, WHITE	(Square)	PROPOSED SIGN
(ELY)	EDGE LINE, YELLOW	(Dashed Square)	EXISTING SIGN TO REMAIN (RELOCATIONS NOTED IN PLANS)
(LL)	LANE LINE	(Crossed Square)	EXISTING SIGN TO BE REMOVED
(DL)	DOTTED LINE		
(CHL)	CHANNELIZING LINE		
(C)	CHEVRON		
(T)	TRANSVERSE LINE		
(Arrow)	TRAFFIC DIRECTION		

SIGNING & PAVEMENT MARKING PLAN - RAMP B6
 STA. 1616+50.00 TO STA. 1621+16.00

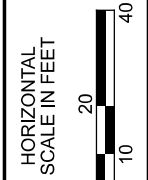
DESIGN AGENCY	BURGESS & NIPLE 100 WEST ERIE STREET PAINESVILLE, OHIO 44077
DESIGNER	—
REVIEWER	—
PROJECT ID	82382
SHEET	TOTAL
1262	2339

- LEGEND**
-  ELW EDGE LINE, WHITE
 -  ELY EDGE LINE, YELLOW
 -  LL LANE LINE
 -  DL DOTTED LINE
 -  CHL CHANNELIZING LINE
 -  C CHEVRON
 -  T TRANSVERSE LINE
 -  → TRAFFIC DIRECTION
 -  PROPOSED SIGN
 -  EXISTING SIGN TO REMAIN (RELOCATIONS NOTED IN PLANS)
 -  EXISTING SIGN TO BE REMOVED



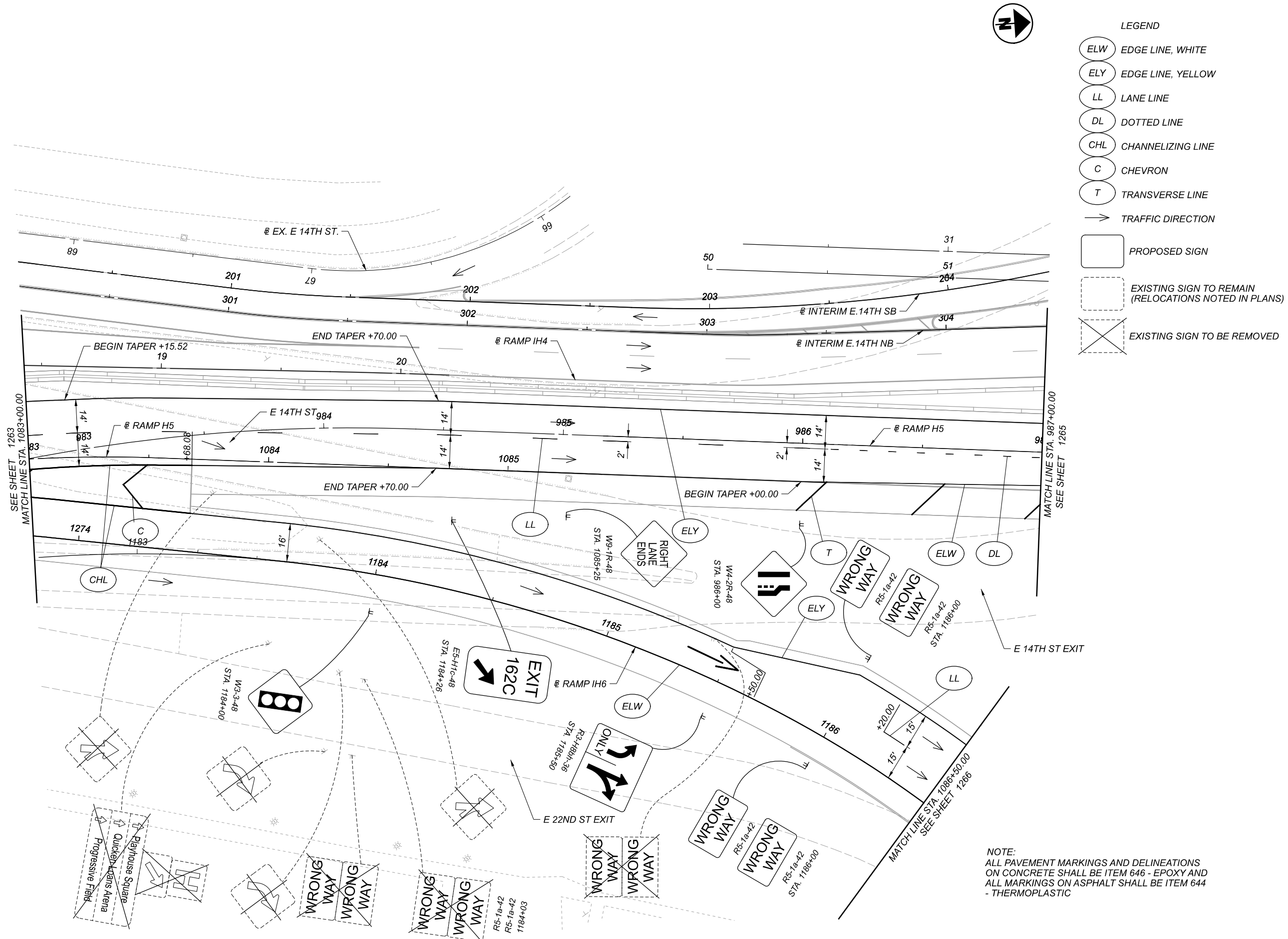
NOTE:
 ALL PAVEMENT MARKINGS AND DELINEATIONS ON CONCRETE SHALL BE ITEM 646 - EPOXY AND ALL MARKINGS ON ASPHALT SHALL BE ITEM 644 - THERMOPLASTIC

SIGNING & PAVEMENT MARKING PLAN - RAMP H5
 STA. 1078+00.00 TO STA. 1083+00.00

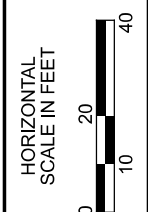


DESIGN AGENCY	
DESIGNER	
REVIEWER	
PROJECT ID	82382
SHEET	TOTAL
1263	2339

BURGESS & NIPLE
 100 WEST ERIE STREET
 PAINESVILLE, OHIO 44077



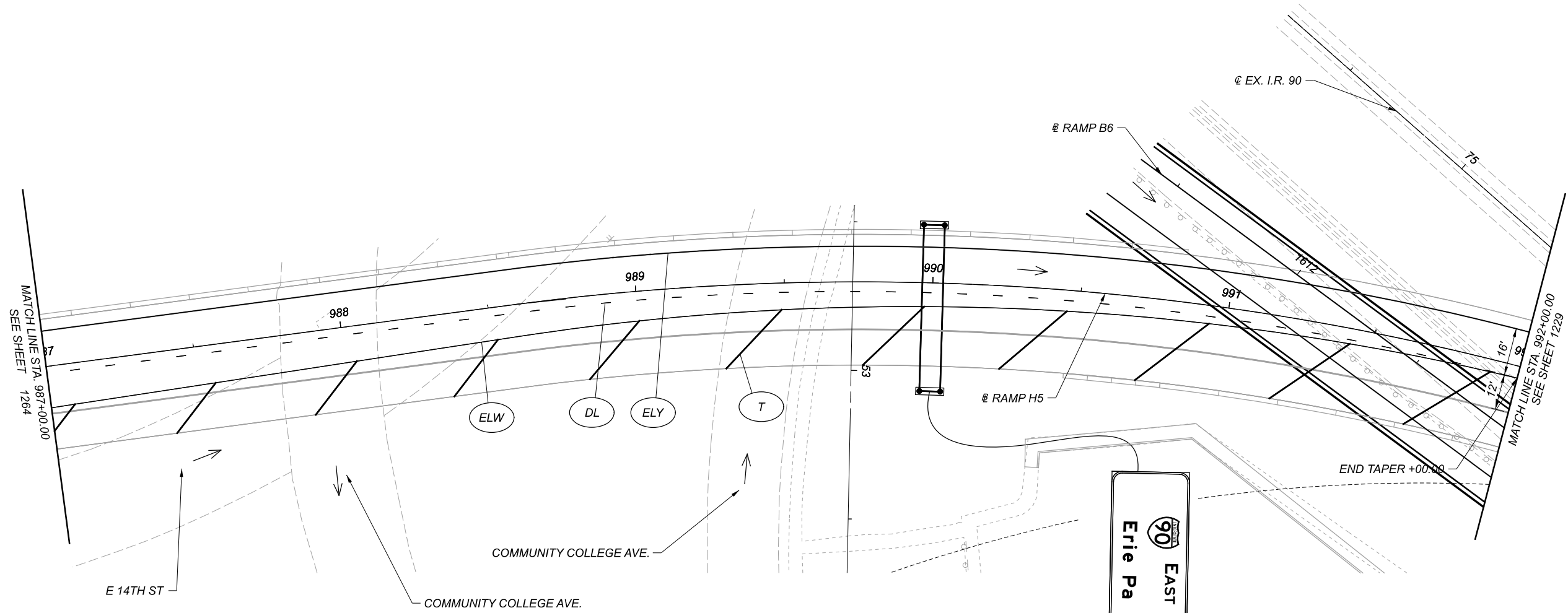
- LEGEND
- (ELW) EDGE LINE, WHITE
 - (ELY) EDGE LINE, YELLOW
 - (LL) LANE LINE
 - (DL) DOTTED LINE
 - (CHL) CHANNELIZING LINE
 - (C) CHEVRON
 - (T) TRANSVERSE LINE
 - TRAFFIC DIRECTION
 - [] PROPOSED SIGN
 - [] EXISTING SIGN TO REMAIN (RELOCATIONS NOTED IN PLANS)
 - [X] EXISTING SIGN TO BE REMOVED



SIGNING & PAVEMENT MARKING PLAN - RAMP H5
 STA. 1083+00.00 TO STA. 987+00.00

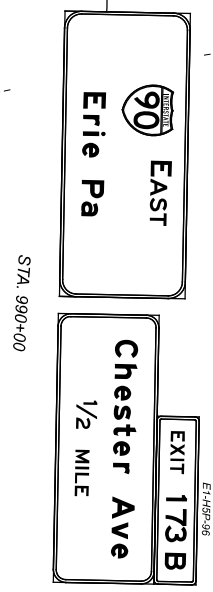
NOTE:
 ALL PAVEMENT MARKINGS AND DELINEATIONS ON CONCRETE SHALL BE ITEM 646 - EPOXY AND ALL MARKINGS ON ASPHALT SHALL BE ITEM 644 - THERMOPLASTIC

DESIGN AGENCY	BURGESS & NIPLE 100 WEST ERIE STREET PARSONSVILLE, OHIO 44377
DESIGNER	—
REVIEWER	—
PROJECT ID	82382
SHEET	1264
TOTAL	2339

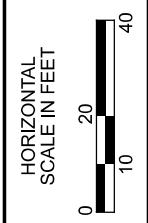


LEGEND	
(ELW)	EDGE LINE, WHITE
(ELY)	EDGE LINE, YELLOW
(LL)	LANE LINE
(DL)	DOTTED LINE
(CHL)	CHANNELIZING LINE
(C)	CHEVRON
(T)	TRANSVERSE LINE
→	TRAFFIC DIRECTION
[Solid Box]	PROPOSED SIGN
[Dashed Box]	EXISTING SIGN TO REMAIN (RELOCATIONS NOTED IN PLANS)
[Box with X]	EXISTING SIGN TO BE REMOVED

NOTE:
 ALL PAVEMENT MARKINGS AND DELINEATIONS
 ON CONCRETE SHALL BE ITEM 646 - EPOXY AND
 ALL MARKINGS ON ASPHALT SHALL BE ITEM 644
 - THERMOPLASTIC

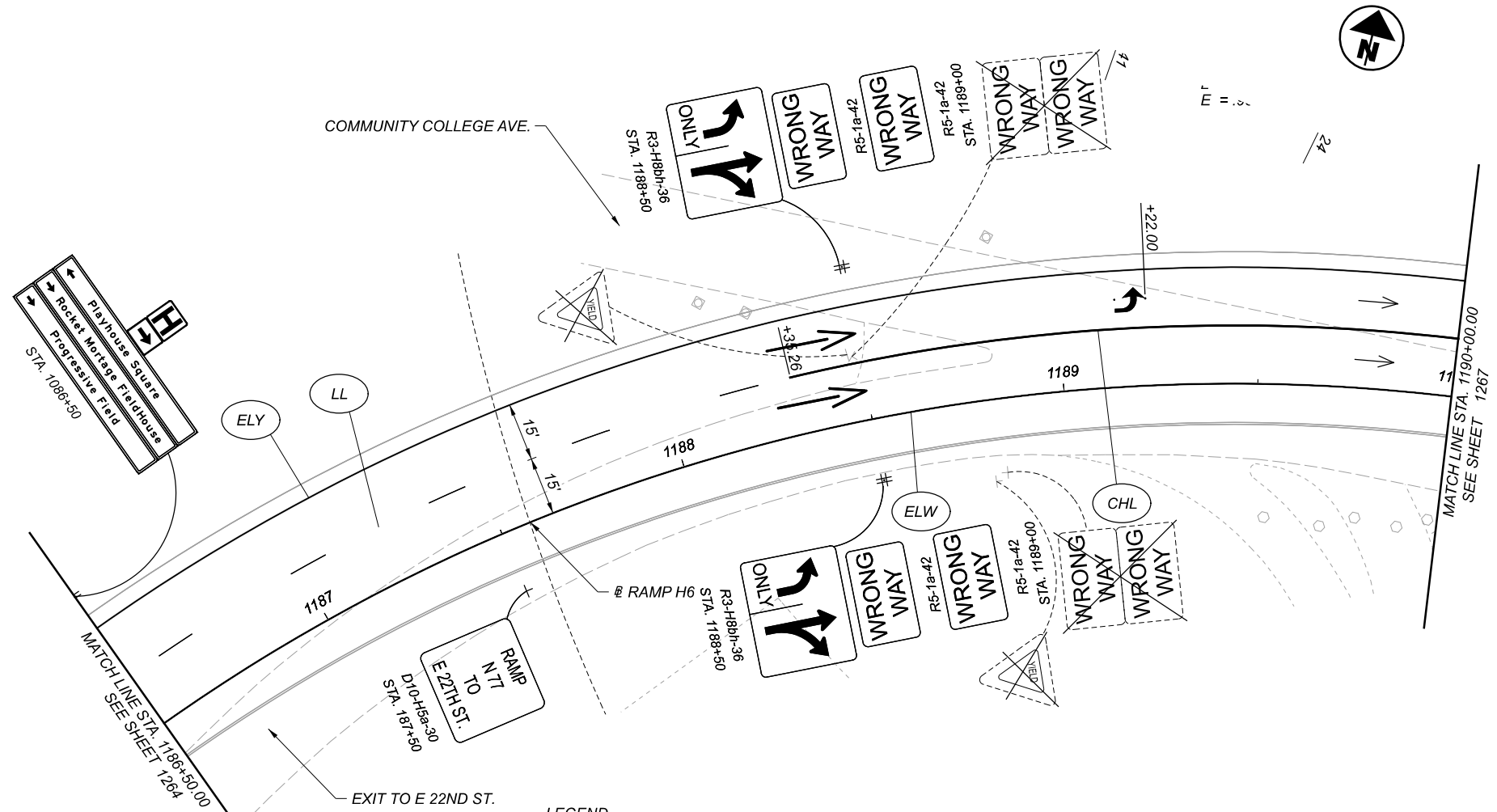


SIGNING & PAVEMENT MARKING PLAN - RAMP H5
 STA. 987+00.00 TO STA. 992+00.00



DESIGN AGENCY	
DESIGNER	
REVIEWER	
PROJECT ID	82382
SHEET	1265
TOTAL	2339

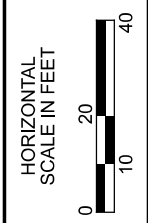
BURGESS & NIPLE
 100 WEST ERIE STREET
 PAINESVILLE, OHIO 44077



LEGEND

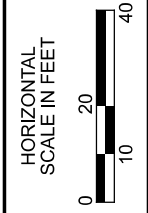
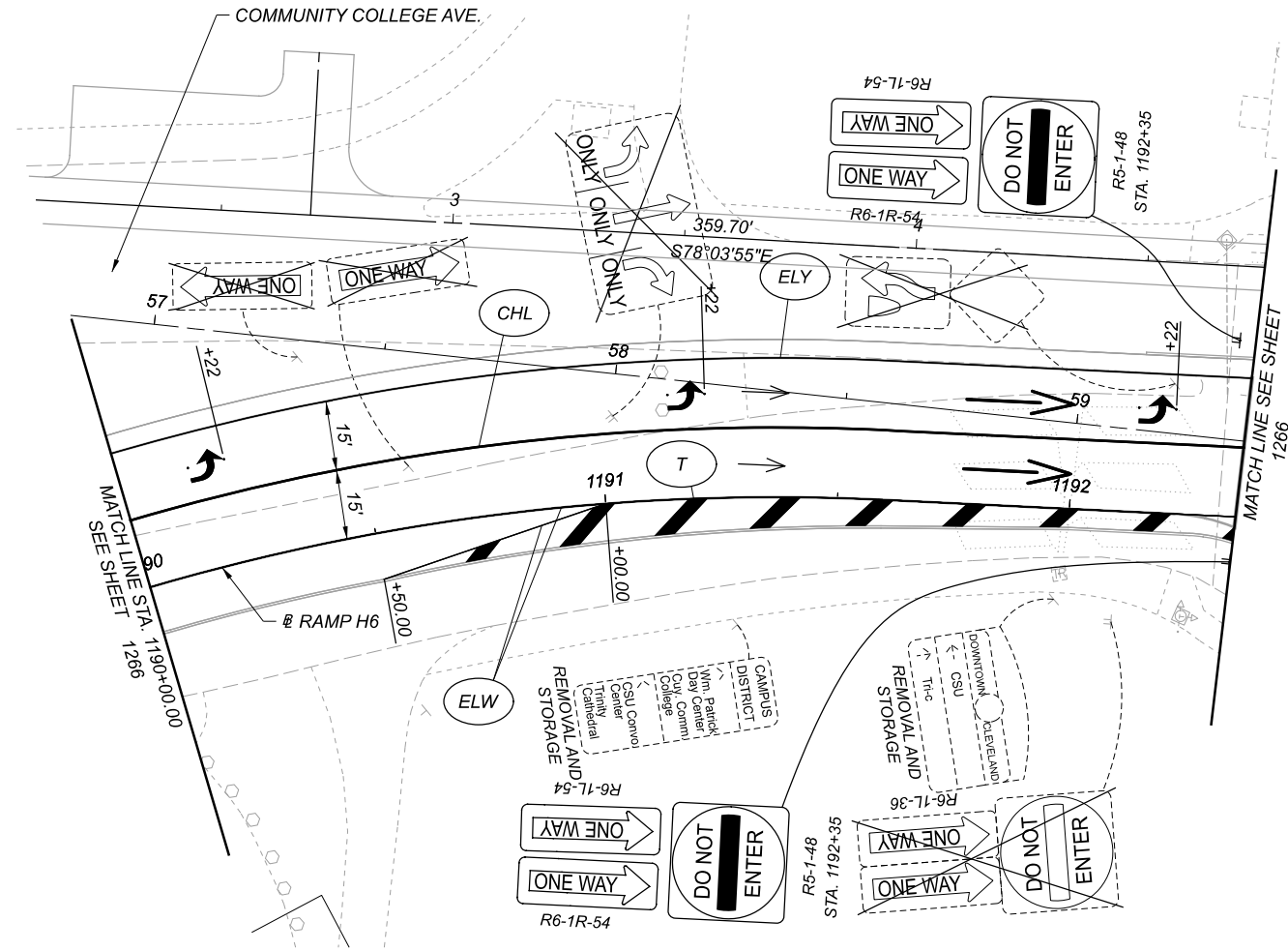
(ELW)	EDGE LINE, WHITE	[Solid Line]	PROPOSED SIGN
(ELY)	EDGE LINE, YELLOW	[Dashed Line]	EXISTING SIGN TO REMAIN (RELOCATIONS NOTED IN PLANS)
(LL)	LANE LINE	[Dashed Line]	EXISTING SIGN TO BE REMOVED
(DL)	DOTTED LINE	[Solid Line]	
(CHL)	CHANNELIZING LINE	[Dashed Line]	
(C)	CHEVRON	[Solid Line]	
(T)	TRANSVERSE LINE	[Solid Line]	
(→)	TRAFFIC DIRECTION	[Arrow]	

NOTE:
 ALL PAVEMENT MARKINGS AND DELINEATIONS
 ON CONCRETE SHALL BE ITEM 646 - EPOXY AND
 ALL MARKINGS ON ASPHALT SHALL BE ITEM 644
 - THERMOPLASTIC



SIGNING & PAVEMENT MARKING PLAN - RAMP H6
 STA. 1186+50.00 TO STA. 1190+00.00

DESIGN AGENCY	
DESIGNER	
REVIEWER	
PROJECT ID	82382
SHEET	TOTAL
1266	2339



LEGEND

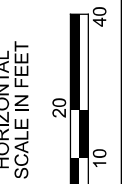
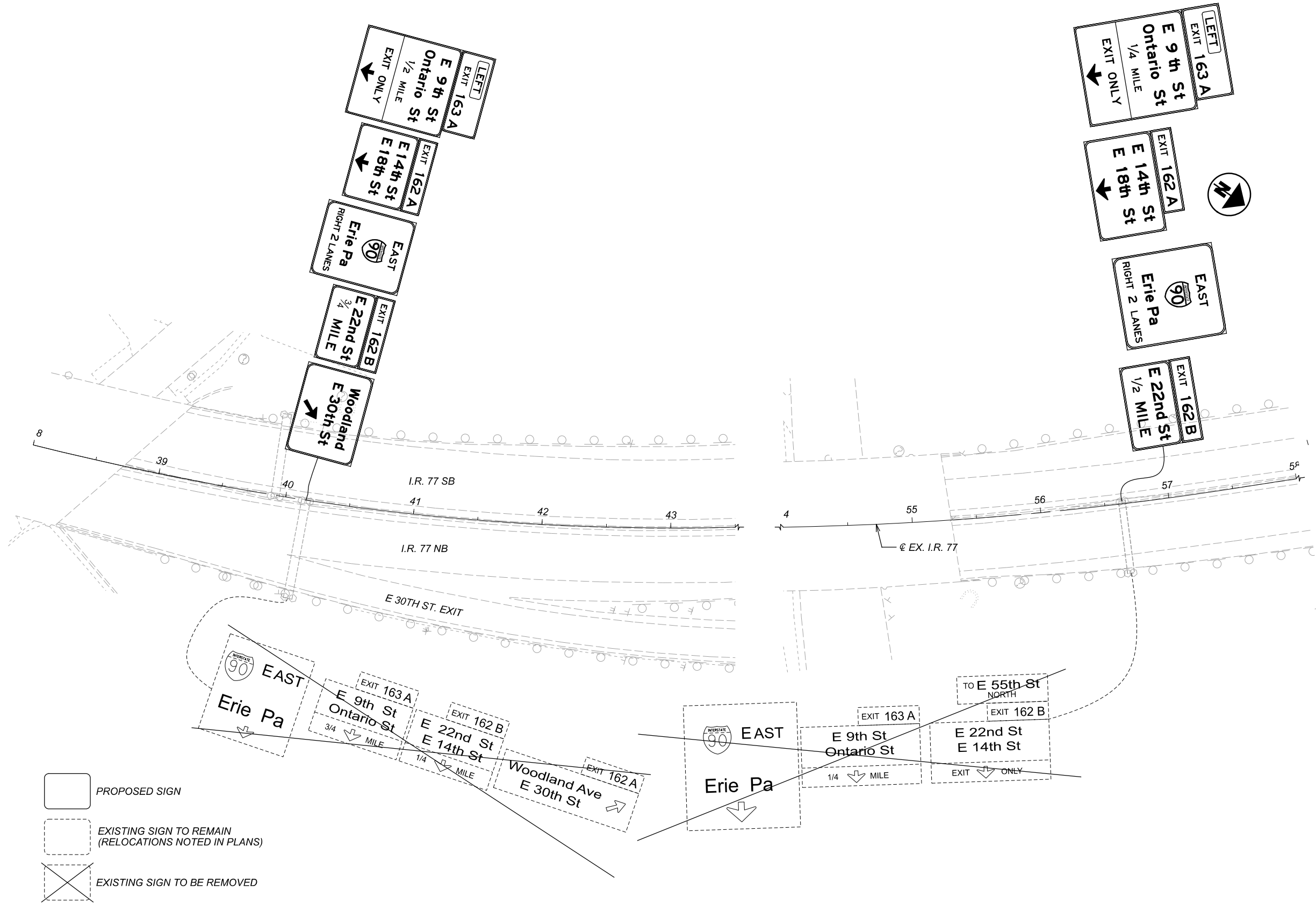
- (ELW) EDGE LINE, WHITE
- (ELY) EDGE LINE, YELLOW
- (LL) LANE LINE
- (DL) DOTTED LINE
- (CHL) CHANNELIZING LINE
- (C) CHEVRON
- (T) TRANSVERSE LINE
- (S) STOP LINE
- (CW) CROSS WALK
- (DY) DOUBLE YELLOW
- ↩ LANE ARROW
- WRONG WAY ARROW
- TRAFFIC DIRECTION
- [] PROPOSED SIGN
- [- - -] EXISTING SIGN TO REMAIN (RELOCATIONS NOTED IN PLANS)
- [X] EXISTING SIGN TO BE REMOVED

NOTE:
 ALL PAVEMENT MARKINGS AND DELINEATIONS ON CONCRETE SHALL BE ITEM 646 - EPOXY AND ALL MARKINGS ON ASPHALT SHALL BE ITEM 644 - THERMOPLASTIC

SIGNING & PAVEMENT MARKING PLAN - RAMP H6
 STA. 1190+00.00 TO END

DESIGN AGENCY	
DESIGNER	
REVIEWER	
PROJECT ID	82382
SHEET	TOTAL
1267	2339

BURGESS & NIPLE
 100 WEST ERIE STREET
 PAINESVILLE, OHIO 44077



SIGNING & PAVEMENT MARKING PLAN - I.R. 77
 STA. 38+00.00 TO 58+00.00

DESIGN AGENCY

BURGESS & NIPLE
 100 WEST ERIE STREET
 PAINESVILLE, OHIO 44077

DESIGNER

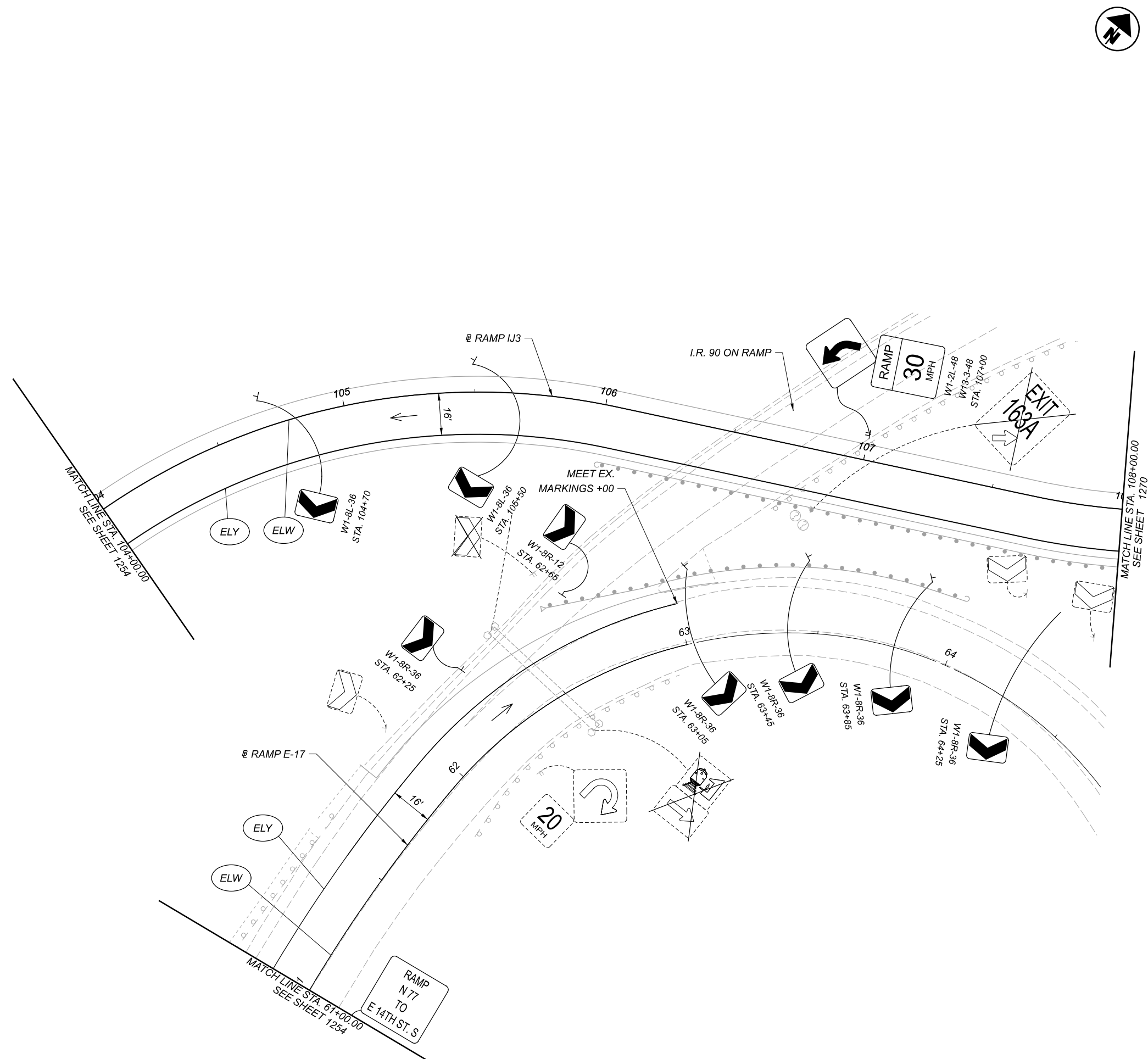
REVIEWER

PROJECT ID

82382

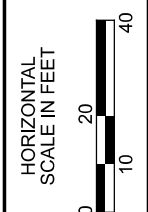
SHEET TOTAL

1268 2339



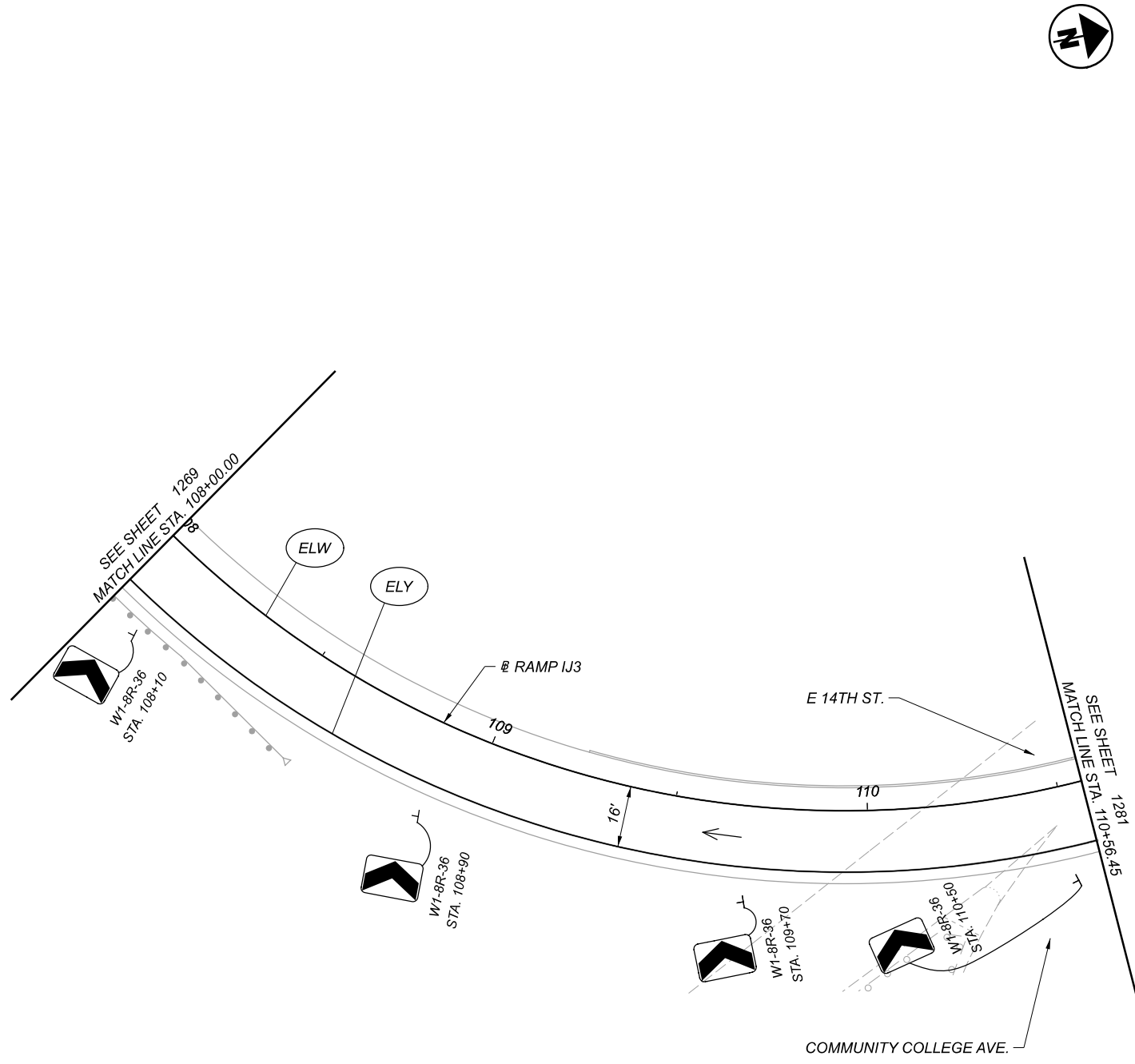
- LEGEND**
- EDGE LINE, WHITE
 - EDGE LINE, YELLOW
 - LANE LINE
 - DOTTED LINE
 - CHANNELIZING LINE
 - CHEVRON
 - TRANSVERSE LINE
 - TRAFFIC DIRECTION
 - PROPOSED SIGN
 - EXISTING SIGN TO REMAIN (RELOCATIONS NOTED IN PLANS)
 - EXISTING SIGN TO BE REMOVED

NOTE:
 ALL PAVEMENT MARKINGS AND DELINEATIONS ON CONCRETE SHALL BE ITEM 646 - EPOXY AND ALL MARKINGS ON ASPHALT SHALL BE ITEM 644 - THERMOPLASTIC



SIGNING & PAVEMENT MARKING PLAN - RAMP IJ3
 STA. 104+00.00 TO STA. 108+00.00

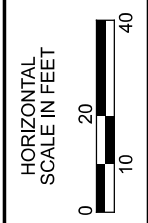
DESIGN AGENCY	
BURGESS & NIPLE 100 WEST EIRE STREET PAINESVILLE, OHIO 44077	
DESIGNER	
REVIEWER	
PROJECT ID	82382
SHEET	TOTAL
1269	2339



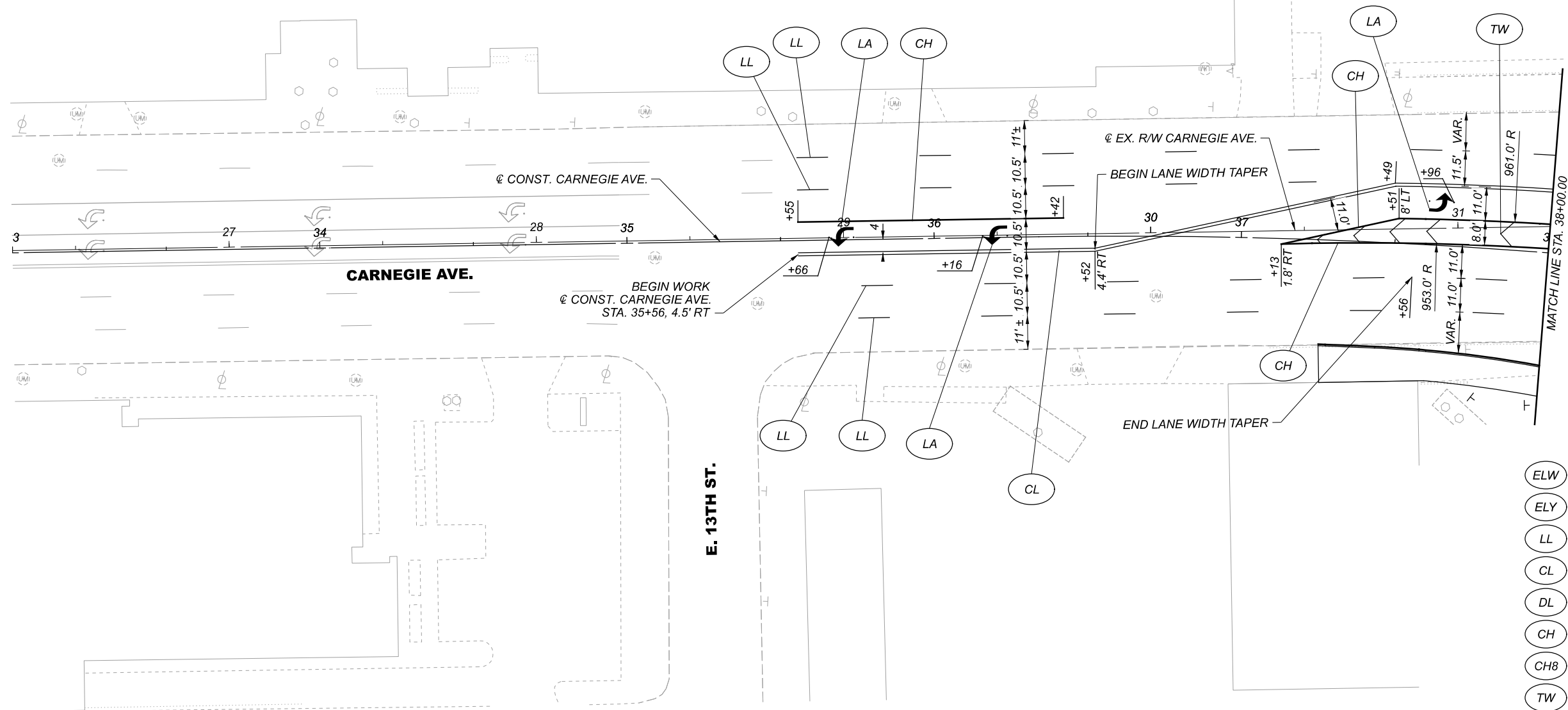
- LEGEND
- EDGE LINE, WHITE
 - EDGE LINE, YELLOW
 - LANE LINE
 - DOTTED LINE
 - CHANNELIZING LINE
 - CHEVRON
 - TRANSVERSE LINE
 - TRAFFIC DIRECTION
 - PROPOSED SIGN
 - EXISTING SIGN TO REMAIN (RELOCATIONS NOTED IN PLANS)
 - EXISTING SIGN TO BE REMOVED

NOTE:
 ALL PAVEMENT MARKINGS AND DELINEATIONS ON CONCRETE SHALL BE ITEM 646 - EPOXY AND ALL MARKINGS ON ASPHALT SHALL BE ITEM 644 - THERMOPLASTIC

SIGNING & PAVEMENT MARKING PLAN - RAMP IJ3
 STA. 108+00.00 TO STA. 110+56.45



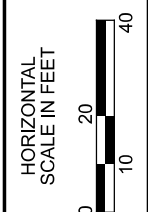
DESIGN AGENCY	
BURGESS & NIPLE 100 WEST EIRE STREET PAINESVILLE, OHIO 44077	
DESIGNER	—
REVIEWER	—
PROJECT ID	82382
SHEET	TOTAL
1270	2339



- LEGEND**
- (ELW) EDGE LINE, WHITE, 4"
 - (ELY) EDGE LINE, YELLOW, 4"
 - (LL) LANE LINE, WHITE, 4"
 - (CL) CENTER LINE, DOUBLE SOLID, 4"
 - (DL) DOTTED LINE, WHITE, 4"
2' LINE 4' GAP IN INTERSECTIONS & TAPER AREAS
3' LINE 9' GAP FOR LANE LINES
 - (CH) CHANNELIZING LINE, 4"
 - (CH8) CHANNELIZING LINE, 8"
 - (TW) TRANSVERSE/DIAGONAL LINE, WHITE, 24"
 - (TY) TRANSVERSE/DIAGONAL LINE, YELLOW, 24"
 - (SL) STOP LINE, 24"
 - (XW) CROSSWALK LINE, 12"
 - (XWA) CROSSWALK LINE, 12", AS PER PLAN
 - (YL) YIELD LINE
 - (LA) LANE ARROW
 - (BS) BIKE LANE SYMBOL
 - (DDY) DOUBLE DOTTED LINE, YELLOW, 4"
2' LINE 4' GAP
 - (IMW) ISLAND MARKING, WHITE

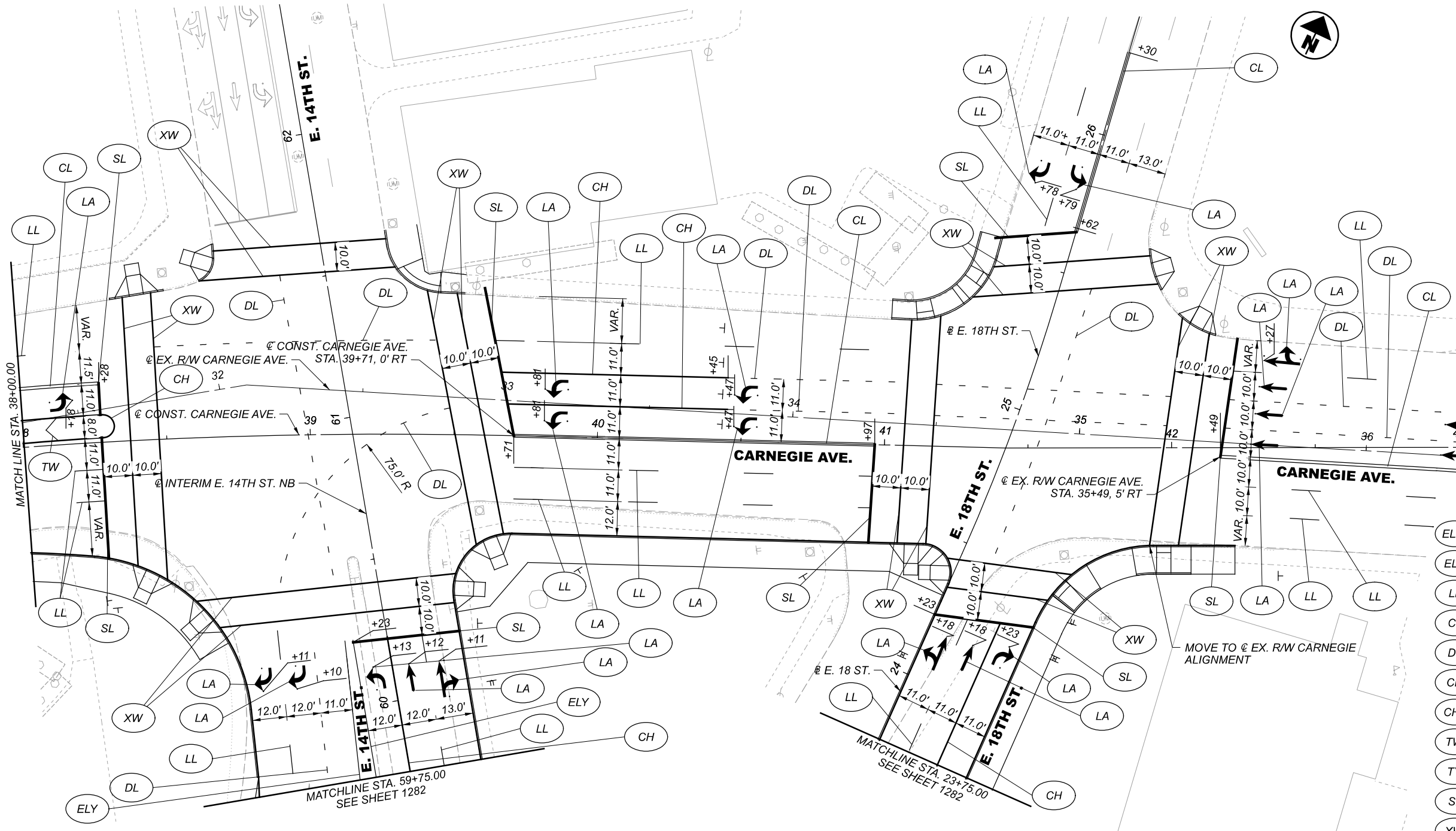
NOTE:
 ALL PAVEMENT MARKINGS AND DELINEATIONS ON CONCRETE SHALL BE ITEM 646 - EPOXY AND ALL MARKINGS ON ASPHALT SHALL BE ITEM 644 - THERMOPLASTIC.

PAVEMENT MARKINGS FOR CARNEGIE AVE. LANES ARE DIMENSIONED OFF @ CONST. CARNEGIE AVE.



PAVEMENT MARKING PLAN - CARNEGIE AVE.
 BEGIN TO STA. 38+00.00

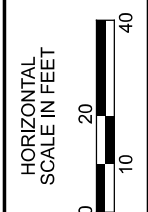
DESIGN AGENCY	
Michael Baker INTERNATIONAL	
DESIGNER	—
REVIEWER	—
PROJECT ID	82382
SHEET	TOTAL
1271	2339



LEGEND

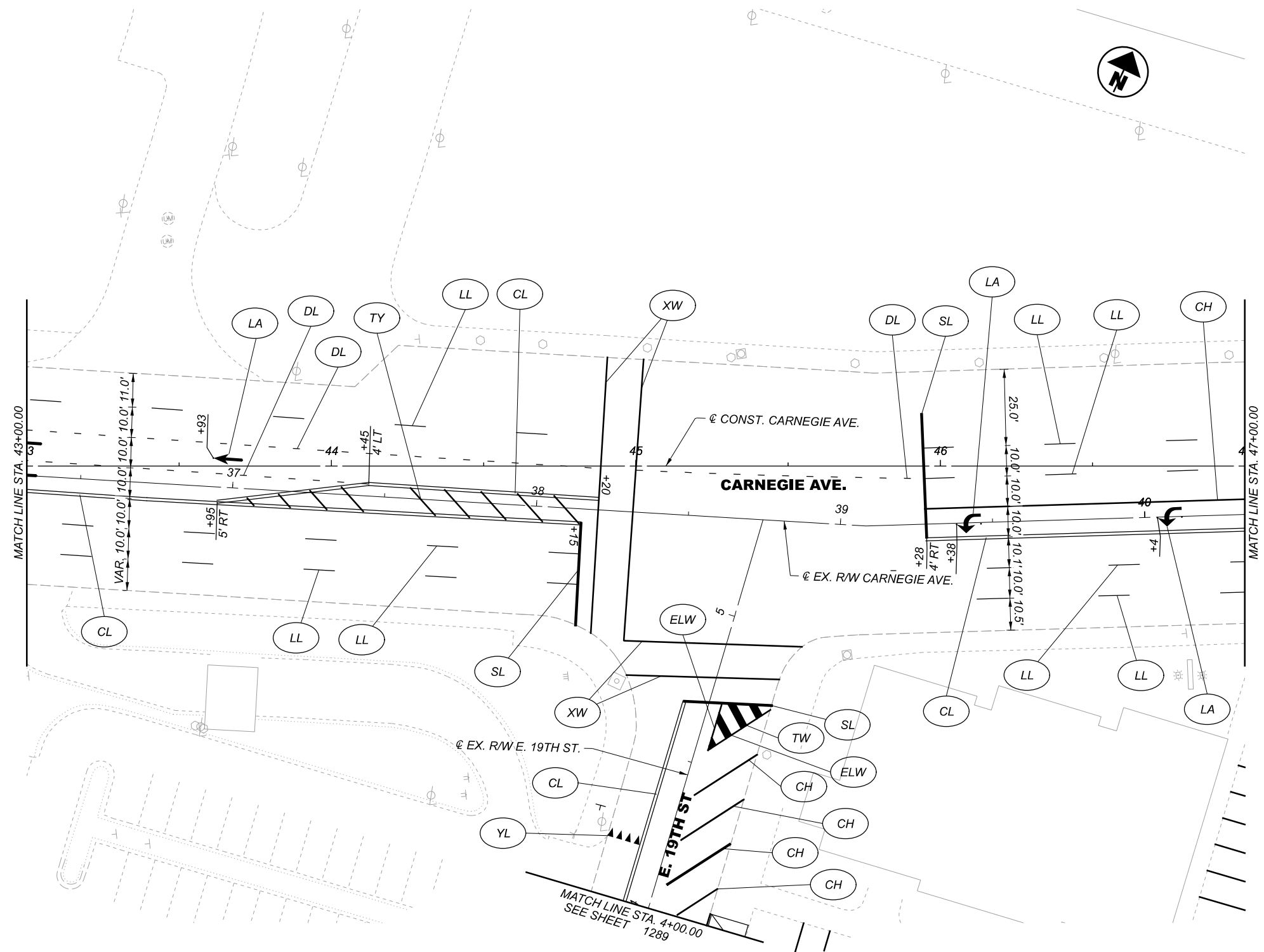
(ELW)	EDGE LINE, WHITE, 4"
(ELY)	EDGE LINE, YELLOW, 4"
(LL)	LANE LINE, WHITE, 4"
(CL)	CENTER LINE, DOUBLE SOLID, 4"
(DL)	DOTTED LINE, WHITE, 4" 2' LINE 4' GAP IN INTERSECTIONS & TAPER AREAS 3' LINE 9' GAP FOR LANE LINES
(CH)	CHANNELIZING LINE, 4"
(CH8)	CHANNELIZING LINE, 8"
(TW)	TRANSVERSE/DIAGONAL LINE, WHITE, 24"
(TY)	TRANSVERSE/DIAGONAL LINE, YELLOW, 24"
(SL)	STOP LINE, 24"
(XW)	CROSSWALK LINE, 12"
(XWA)	CROSSWALK LINE, 12", AS PER PLAN
(YL)	YIELD LINE
(LA)	LANE ARROW
(BS)	BIKE LANE SYMBOL
(DDY)	DOUBLE DOTTED LINE, YELLOW, 4" 2' LINE 4' GAP
(IMW)	ISLAND MARKING, WHITE

NOTE:
 ALL PAVEMENT MARKINGS AND DELINEATIONS ON CONCRETE SHALL BE ITEM 646 - EPOXY AND ALL MARKINGS ON ASPHALT SHALL BE ITEM 644 - THERMOPLASTIC.



PAVEMENT MARKING PLAN - CARNEGIE AVE.
 STA. 38+00.00 TO STA. 43+00.00

DESIGN AGENCY	Michael Baker INTERNATIONAL
DESIGNER	—
REVIEWER	—
PROJECT ID	82382
SHEET	1272
TOTAL	2339



LEGEND

- (ELW) EDGE LINE, WHITE, 4"
- (ELY) EDGE LINE, YELLOW, 4"
- (LL) LANE LINE, WHITE, 4"
- (CL) CENTER LINE, DOUBLE SOLID, 4"
- (DL) DOTTED LINE, WHITE, 4"
2' LINE 4' GAP IN INTERSECTIONS & TAPER AREAS
3' LINE 9' GAP FOR LANE LINES
- (CH) CHANNELIZING LINE, 4"
- (CH8) CHANNELIZING LINE, 8"
- (TW) TRANSVERSE/DIAGONAL LINE, WHITE, 24"
- (TY) TRANSVERSE/DIAGONAL LINE, YELLOW, 24"
- (SL) STOP LINE, 24"
- (XW) CROSSWALK LINE, 12"
- (XWA) CROSSWALK LINE, 12", AS PER PLAN
- (YL) YIELD LINE
- (LA) LANE ARROW
- (BS) BIKE LANE SYMBOL
- (DDY) DOUBLE DOTTED LINE, YELLOW, 4"
2' LINE 4' GAP
- (IMW) ISLAND MARKING, WHITE

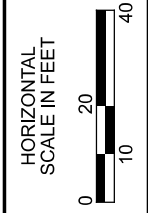
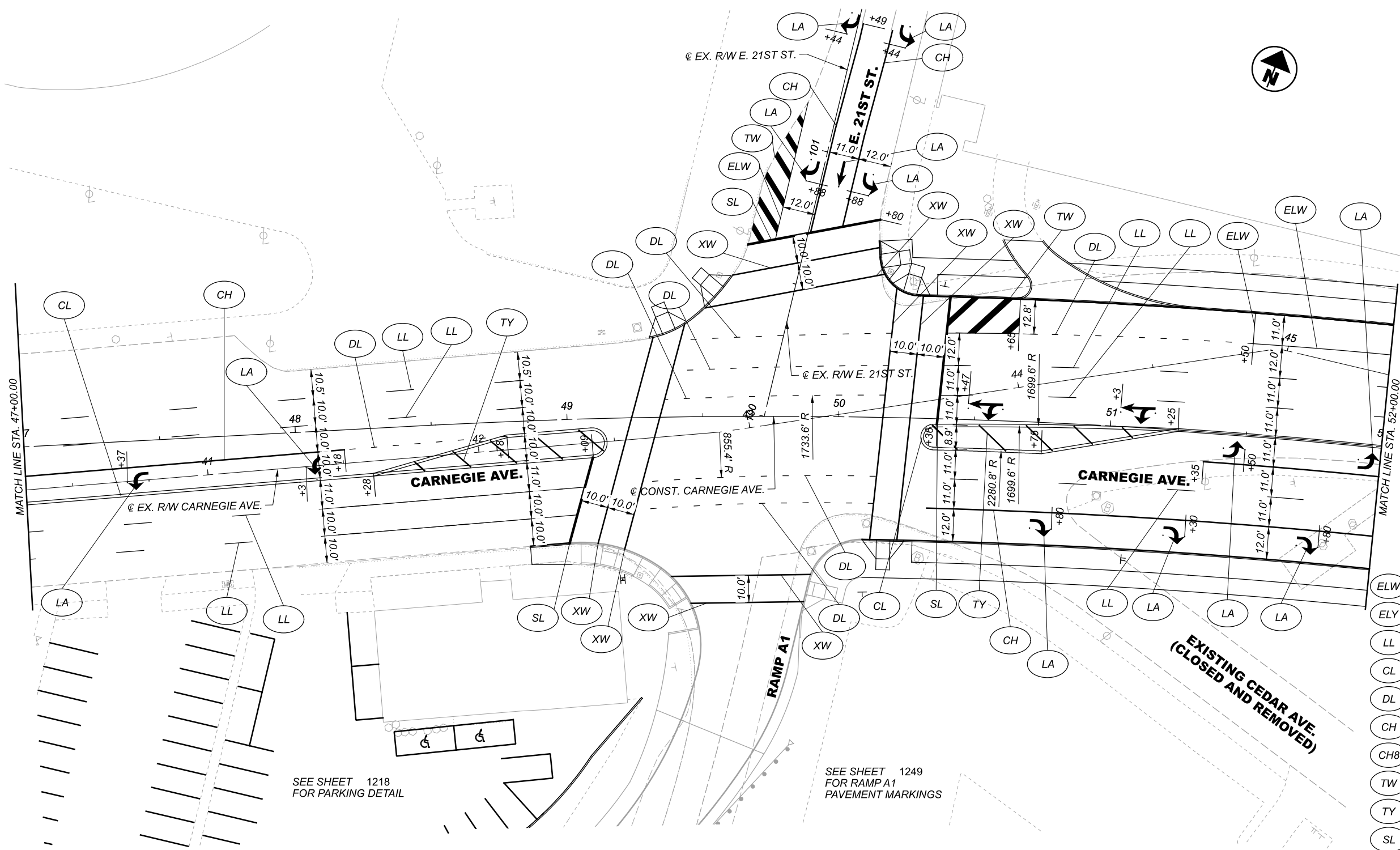
NOTE:
 ALL PAVEMENT MARKINGS AND DELINEATIONS
 ON CONCRETE SHALL BE ITEM 646 - EPOXY AND
 ALL MARKINGS ON ASPHALT SHALL BE ITEM 644 -
 THERMOPLASTIC.

PAVEMENT MARKINGS FOR CARNEGIE AVE. LANES
 ARE DIMENSIONED OFF @ EX. R/W CARNEGIE AVE.



**PAVEMENT MARKING PLAN - CARNEGIE AVE.
 STA. 43+00.00 TO STA. 47+00.00**

DESIGN AGENCY	
Michael Baker INTERNATIONAL	
DESIGNER	
REVIEWER	
PROJECT ID	82382
SHEET	TOTAL
1273	2339



PAVEMENT MARKING PLAN - CARNEGIE AVE.
 STA. 47+00.00 TO STA. 52+00.00

LEGEND

- ELW EDGE LINE, WHITE, 4"
- ELY EDGE LINE, YELLOW, 4"
- LL LANE LINE, WHITE, 4"
- CL CENTER LINE, DOUBLE SOLID, 4"
- DL DOTTED LINE, WHITE, 4"
2' LINE 4" GAP IN INTERSECTIONS & TAPER AREAS
3' LINE 9" GAP FOR LANE LINES
- CH CHANNELIZING LINE, 4"
- CH8 CHANNELIZING LINE, 8"
- TW TRANSVERSE/DIAGONAL LINE, WHITE, 24"
- TY TRANSVERSE/DIAGONAL LINE, YELLOW, 24"
- SL STOP LINE, 24"
- XW CROSSWALK LINE, 12"
- XWA CROSSWALK LINE, 12", AS PER PLAN
- YL YIELD LINE
- LA LANE ARROW
- BS BIKE LANE SYMBOL
- DDY DOUBLE DOTTED LINE, YELLOW, 4"
2' LINE 4" GAP
- IMW ISLAND MARKING, WHITE

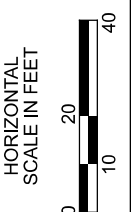
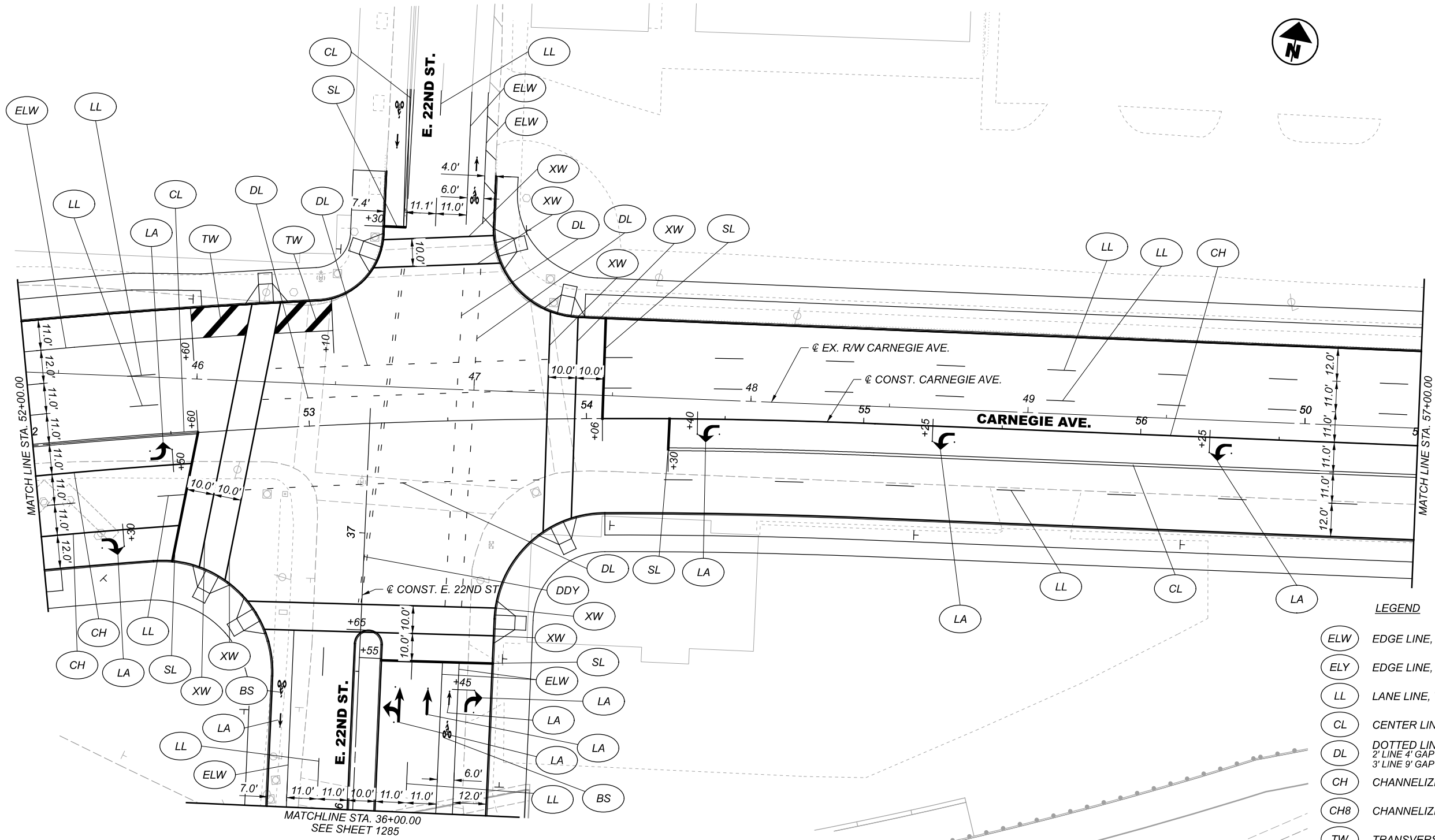
NOTE:
 ALL PAVEMENT MARKINGS AND DELINEATIONS ON CONCRETE SHALL BE ITEM 646 - EPOXY AND ALL MARKINGS ON ASPHALT SHALL BE ITEM 644 - THERMOPLASTIC.

PAVEMENT MARKINGS FOR CARNEGIE AVE. LANES ARE DIMENSIONED OFF @ CONST. CARNEGIE AVE.

SEE SHEET 1218 FOR PARKING DETAIL

SEE SHEET 1249 FOR RAMP A1 PAVEMENT MARKINGS

DESIGN AGENCY	
Michael Baker INTERNATIONAL	
DESIGNER	
REVIEWER	
PROJECT ID	82382
SHEET	TOTAL
1274	2339



PAVEMENT MARKING PLAN - CARNEGIE AVE.
 STA. 52+00.00 TO STA. 57+00.00

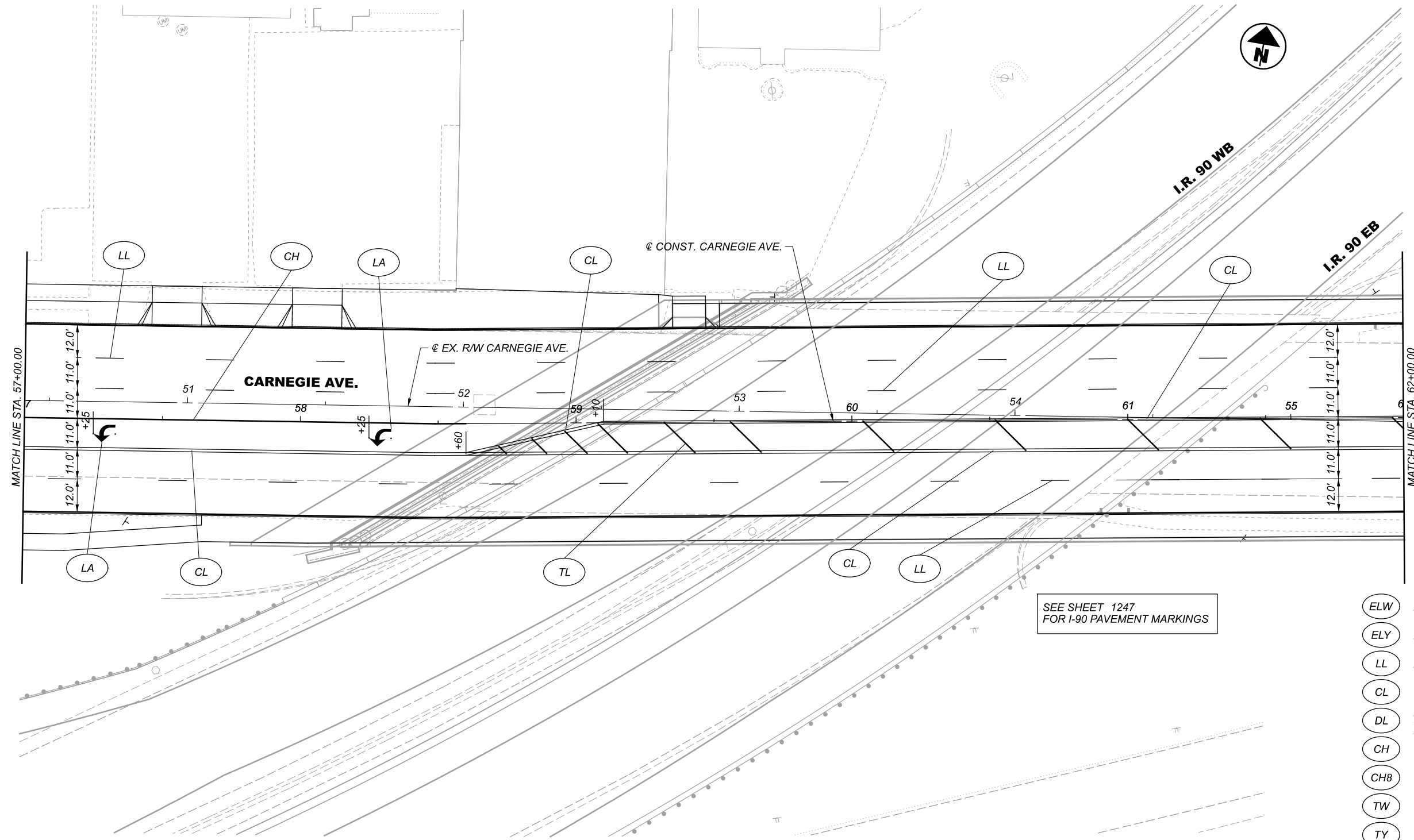
LEGEND

- (ELW) EDGE LINE, WHITE, 4"
- (ELY) EDGE LINE, YELLOW, 4"
- (LL) LANE LINE, WHITE, 4"
- (CL) CENTER LINE, DOUBLE SOLID, 4"
- (DL) DOTTED LINE, WHITE, 4"
2' LINE 4' GAP IN INTERSECTIONS & TAPER AREAS
3' LINE 9' GAP FOR LANE LINES
- (CH) CHANNELIZING LINE, 4"
- (CH8) CHANNELIZING LINE, 8"
- (TW) TRANSVERSE/DIAGONAL LINE, WHITE, 24"
- (TY) TRANSVERSE/DIAGONAL LINE, YELLOW, 24"
- (SL) STOP LINE, 24"
- (XW) CROSSWALK LINE, 12"
- (XWA) CROSSWALK LINE, 12", AS PER PLAN
- (YL) YIELD LINE
- (LA) LANE ARROW
- (BS) BIKE LANE SYMBOL
- (DDY) DOUBLE DOTTED LINE, YELLOW, 4"
2' LINE 4' GAP
- (IMW) ISLAND MARKING, WHITE

NOTE:
 ALL PAVEMENT MARKINGS AND DELINEATIONS ON CONCRETE SHALL BE ITEM 646 - EPOXY AND ALL MARKINGS ON ASPHALT SHALL BE ITEM 644 - THERMOPLASTIC.

PAVEMENT MARKINGS FOR CARNEGIE AVE. LANES ARE DIMENSIONED OFF @ CONST. CARNEGIE AVE.

DESIGN AGENCY	
Michael Baker INTERNATIONAL	
DESIGNER	—
REVIEWER	—
PROJECT ID	82382
SHEET	TOTAL
1275	2339



SEE SHEET 1247
FOR I-90 PAVEMENT MARKINGS

LEGEND

- (ELW) EDGE LINE, WHITE, 4"
- (ELY) EDGE LINE, YELLOW, 4"
- (LL) LANE LINE, WHITE, 4"
- (CL) CENTER LINE, DOUBLE SOLID, 4"
- (DL) DOTTED LINE, WHITE, 4"
2' LINE 4' GAP IN INTERSECTIONS & TAPER AREAS
3' LINE 9' GAP FOR LANE LINES
- (CH) CHANNELIZING LINE, 4"
- (CH8) CHANNELIZING LINE, 8"
- (TW) TRANSVERSE/DIAGONAL LINE, WHITE, 24"
- (TY) TRANSVERSE/DIAGONAL LINE, YELLOW, 24"
- (SL) STOP LINE, 24"
- (XW) CROSSWALK LINE, 12"
- (XWA) CROSSWALK LINE, 12", AS PER PLAN
- (YL) YIELD LINE
- (LA) LANE ARROW
- (BS) BIKE LANE SYMBOL
- (DDY) DOUBLE DOTTED LINE, YELLOW, 4"
2' LINE 4' GAP
- (IMW) ISLAND MARKING, WHITE

NOTE:
ALL PAVEMENT MARKINGS AND DELINEATIONS ON CONCRETE SHALL BE ITEM 646 - EPOXY AND ALL MARKINGS ON ASPHALT SHALL BE ITEM 644 - THERMOPLASTIC.

PAVEMENT MARKINGS FOR CARNEGIE AVE. LANES ARE DIMENSIONED OFF @ CONST. CARNEGIE AVE.



PAVEMENT MARKING PLAN - CARNEGIE AVE.
STA. 57+00.00 TO STA. 62+00.00

DESIGN AGENCY

Michael Baker INTERNATIONAL

DESIGNER

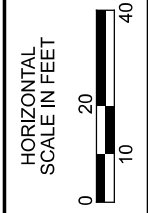
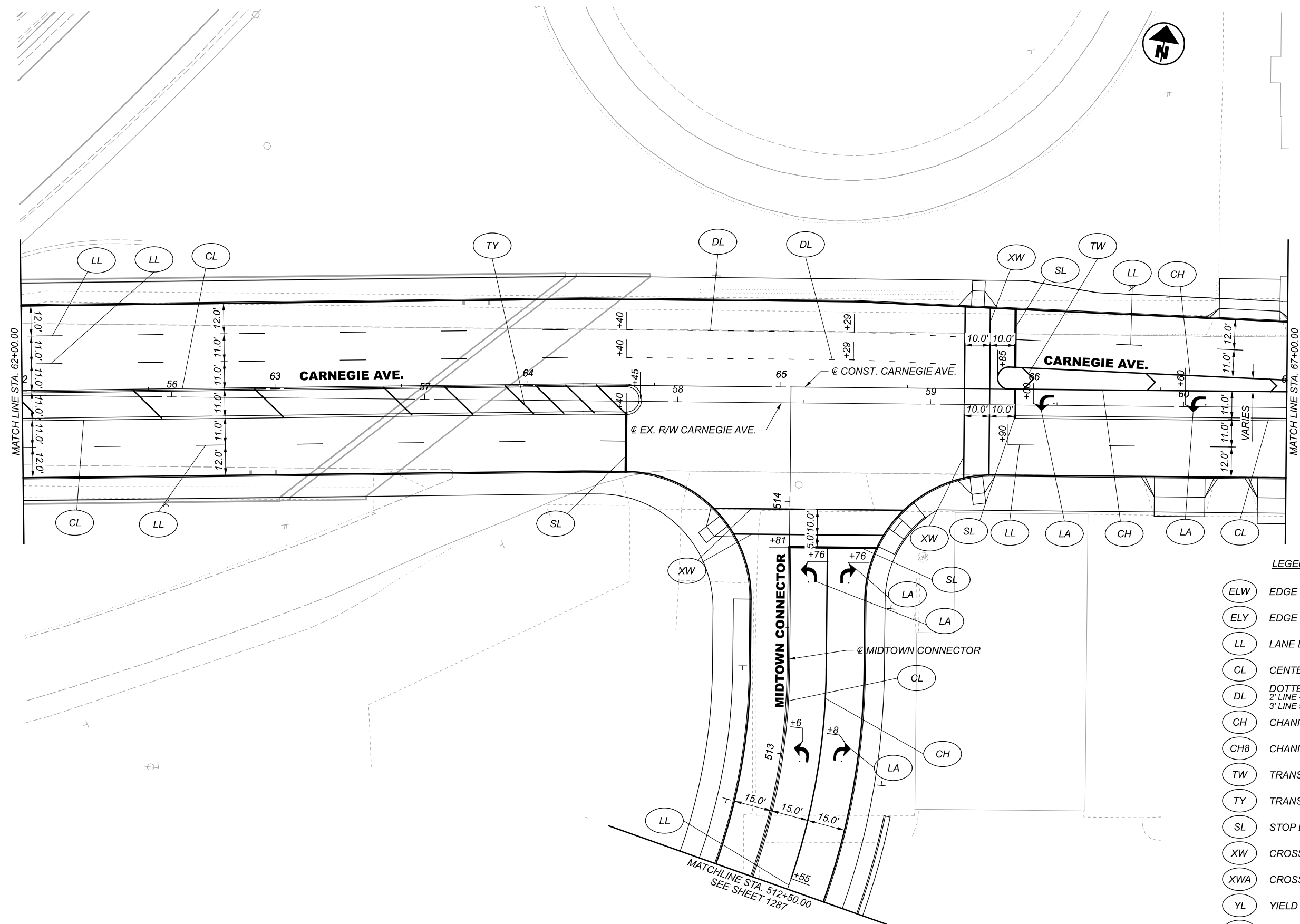
REVIEWER

PROJECT ID

82382

SHEET TOTAL

1276 2339



PAVEMENT MARKING PLAN - CARNEGIE AVE.
 STA. 62+00.00 TO STA. 67+00.00

LEGEND

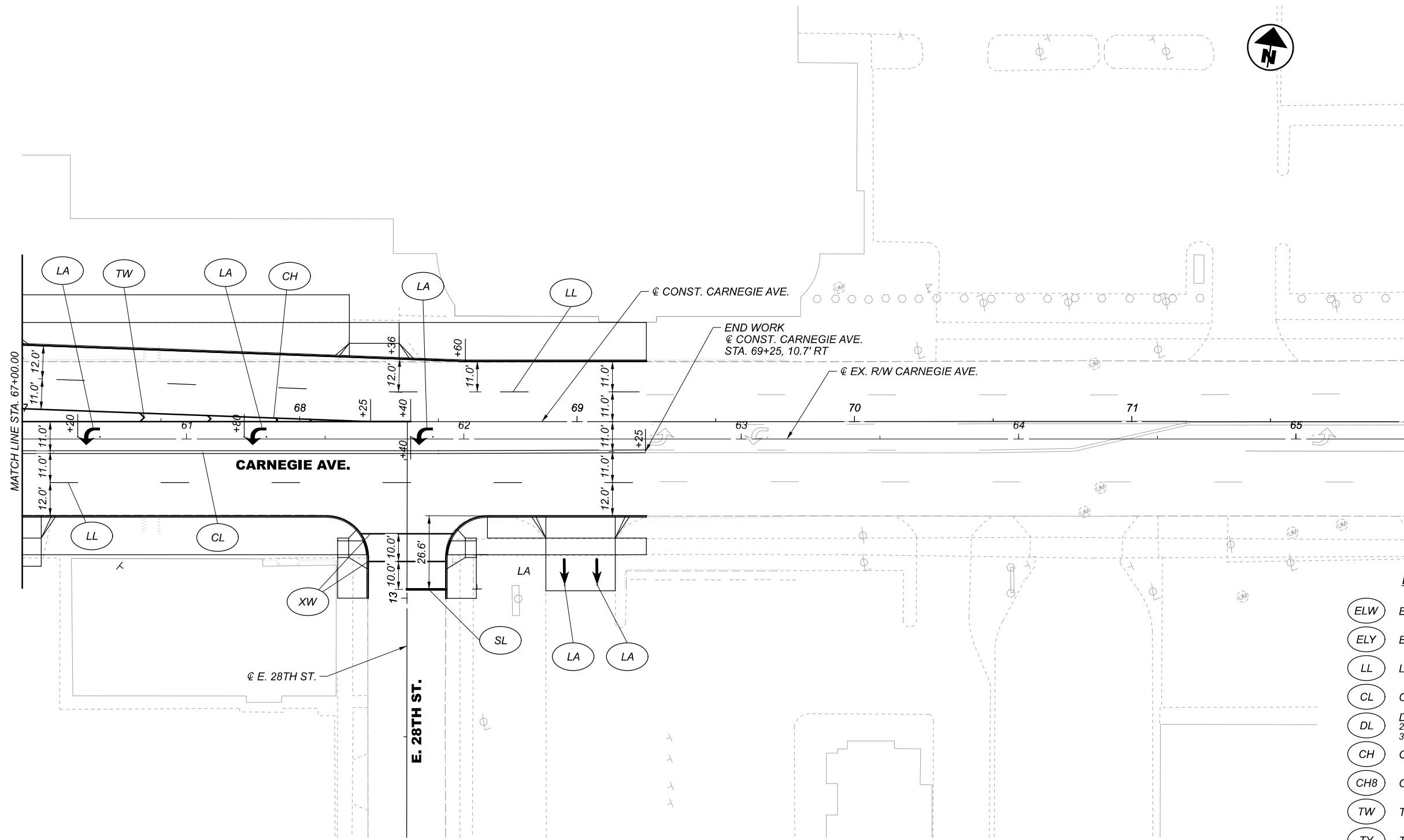
- ELW EDGE LINE, WHITE, 4"
- ELY EDGE LINE, YELLOW, 4"
- LL LANE LINE, WHITE, 4"
- CL CENTER LINE, DOUBLE SOLID, 4"
- DL DOTTED LINE, WHITE, 4"
2' LINE 4' GAP IN INTERSECTIONS & TAPER AREAS
3' LINE 9' GAP FOR LANE LINES
- CH CHANNELIZING LINE, 4"
- CH8 CHANNELIZING LINE, 8"
- TW TRANSVERSE/DIAGONAL LINE, WHITE, 24"
- TY TRANSVERSE/DIAGONAL LINE, YELLOW, 24"
- SL STOP LINE, 24"
- XW CROSSWALK LINE, 12"
- XWA CROSSWALK LINE, 12", AS PER PLAN
- YL YIELD LINE
- LA LANE ARROW
- BS BIKE LANE SYMBOL
- DDY DOUBLE DOTTED LINE, YELLOW, 4"
2' LINE 4' GAP
- IMW ISLAND MARKING, WHITE

NOTE:
 ALL PAVEMENT MARKINGS AND DELINEATIONS ON CONCRETE SHALL BE ITEM 646 - EPOXY AND ALL MARKINGS ON ASPHALT SHALL BE ITEM 644 - THERMOPLASTIC.

PAVEMENT MARKINGS FOR CARNEGIE AVE. LANES ARE DIMENSIONED OFF @ CONST. CARNEGIE AVE.

DESIGN AGENCY	
DESIGNER	
REVIEWER	
PROJECT ID	82382
SHEET	1277
TOTAL	2339

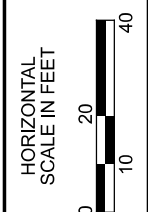
Michael Baker INTERNATIONAL



- LEGEND**
- (ELW) EDGE LINE, WHITE, 4"
 - (ELY) EDGE LINE, YELLOW, 4"
 - (LL) LANE LINE, WHITE, 4"
 - (CL) CENTER LINE, DOUBLE SOLID, 4"
 - (DL) DOTTED LINE, WHITE, 4"
2' LINE 4' GAP IN INTERSECTIONS & TAPER AREAS
3' LINE 9' GAP FOR LANE LINES
 - (CH) CHANNELIZING LINE, 4"
 - (CH8) CHANNELIZING LINE, 8"
 - (TW) TRANSVERSE/DIAGONAL LINE, WHITE, 24"
 - (TY) TRANSVERSE/DIAGONAL LINE, YELLOW, 24"
 - (SL) STOP LINE, 24"
 - (XW) CROSSWALK LINE, 12"
 - (XWA) CROSSWALK LINE, 12", AS PER PLAN
 - (YL) YIELD LINE
 - (LA) LANE ARROW
 - (BS) BIKE LANE SYMBOL
 - (DDY) DOUBLE DOTTED LINE, YELLOW, 4"
2' LINE 4' GAP
 - (IMW) ISLAND MARKING, WHITE

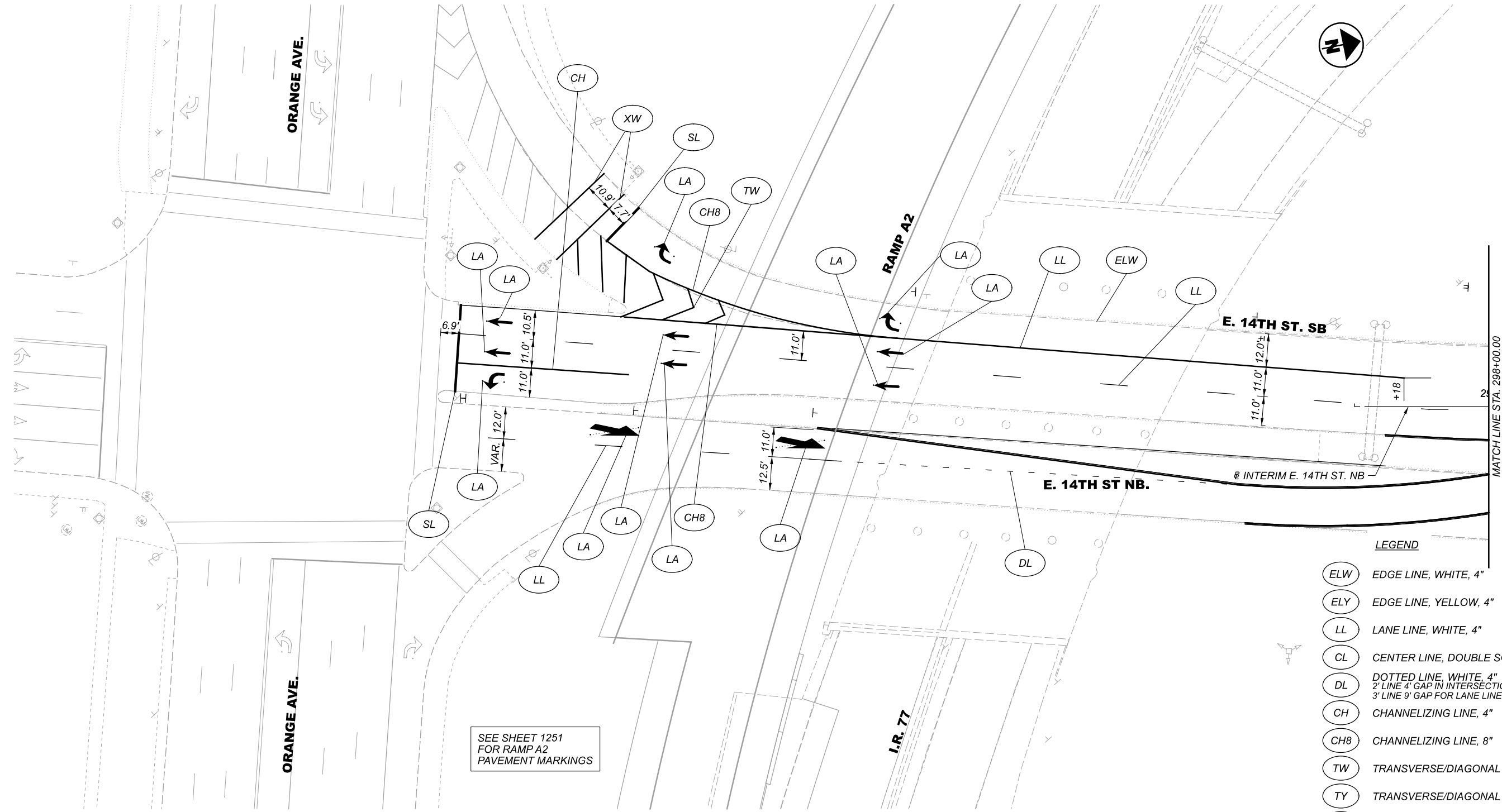
NOTE:
 ALL PAVEMENT MARKINGS AND DELINEATIONS
 ON CONCRETE SHALL BE ITEM 646 - EPOXY AND
 ALL MARKINGS ON ASPHALT SHALL BE ITEM 644 -
 THERMOPLASTIC.

PAVEMENT MARKINGS FOR CARNEGIE AVE. LANES ARE DIMENSIONED OFF @ CONST. CARNEGIE AVE.



PAVEMENT MARKING PLAN - CARNEGIE AVE.
 STA. 67+00.00 TO END

DESIGN AGENCY	
Michael Baker INTERNATIONAL	
DESIGNER	—
REVIEWER	—
PROJECT ID	82382
SHEET	TOTAL
1278	2339

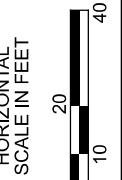


SEE SHEET 1251
 FOR RAMP A2
 PAVEMENT MARKINGS

LEGEND

- (ELW) EDGE LINE, WHITE, 4"
- (ELY) EDGE LINE, YELLOW, 4"
- (LL) LANE LINE, WHITE, 4"
- (CL) CENTER LINE, DOUBLE SOLID, 4"
- (DL) DOTTED LINE, WHITE, 4"
 2' LINE 4' GAP IN INTERSECTIONS & TAPER AREAS
 3' LINE 9' GAP FOR LANE LINES
- (CH) CHANNELIZING LINE, 4"
- (CH8) CHANNELIZING LINE, 8"
- (TW) TRANSVERSE/DIAGONAL LINE, WHITE, 24"
- (TY) TRANSVERSE/DIAGONAL LINE, YELLOW, 24"
- (SL) STOP LINE, 24"
- (XW) CROSSWALK LINE, 12"
- (XWA) CROSSWALK LINE, 12", AS PER PLAN
- (YL) YIELD LINE
- (LA) LANE ARROW
- (BS) BIKE LANE SYMBOL
- (DDY) DOUBLE DOTTED LINE, YELLOW, 4"
 2' LINE 4' GAP
- (IMW) ISLAND MARKING, WHITE

NOTE:
 ALL PAVEMENT MARKINGS AND DELINEATIONS
 ON CONCRETE SHALL BE ITEM 646 - EPOXY AND
 ALL MARKINGS ON ASPHALT SHALL BE ITEM 644 -
 THERMOPLASTIC.



**PAVEMENT MARKING PLAN - E. 14TH ST
 E. 14TH ST NB - BEGIN TO STA. 298+00.00**

DESIGN AGENCY

**Michael Baker
 INTERNATIONAL**

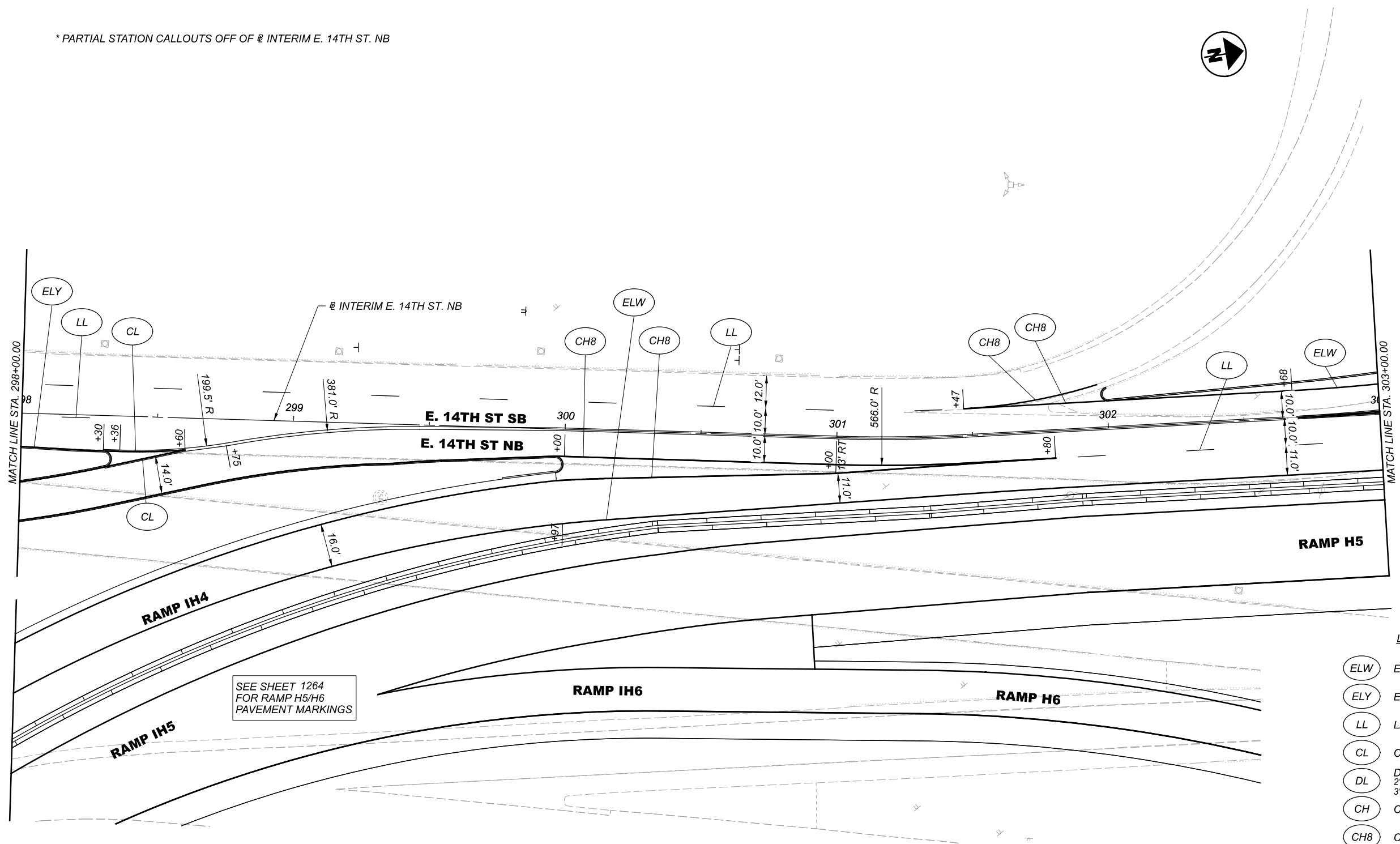
DESIGNER

REVIEWER

PROJECT ID
 82382

SHEET TOTAL
 1279 2339

* PARTIAL STATION CALLOUTS OFF OF @ INTERIM E. 14TH ST. NB

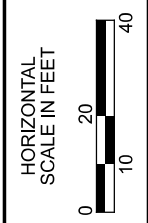


SEE SHEET 1264
 FOR RAMP H5/H6
 PAVEMENT MARKINGS

LEGEND

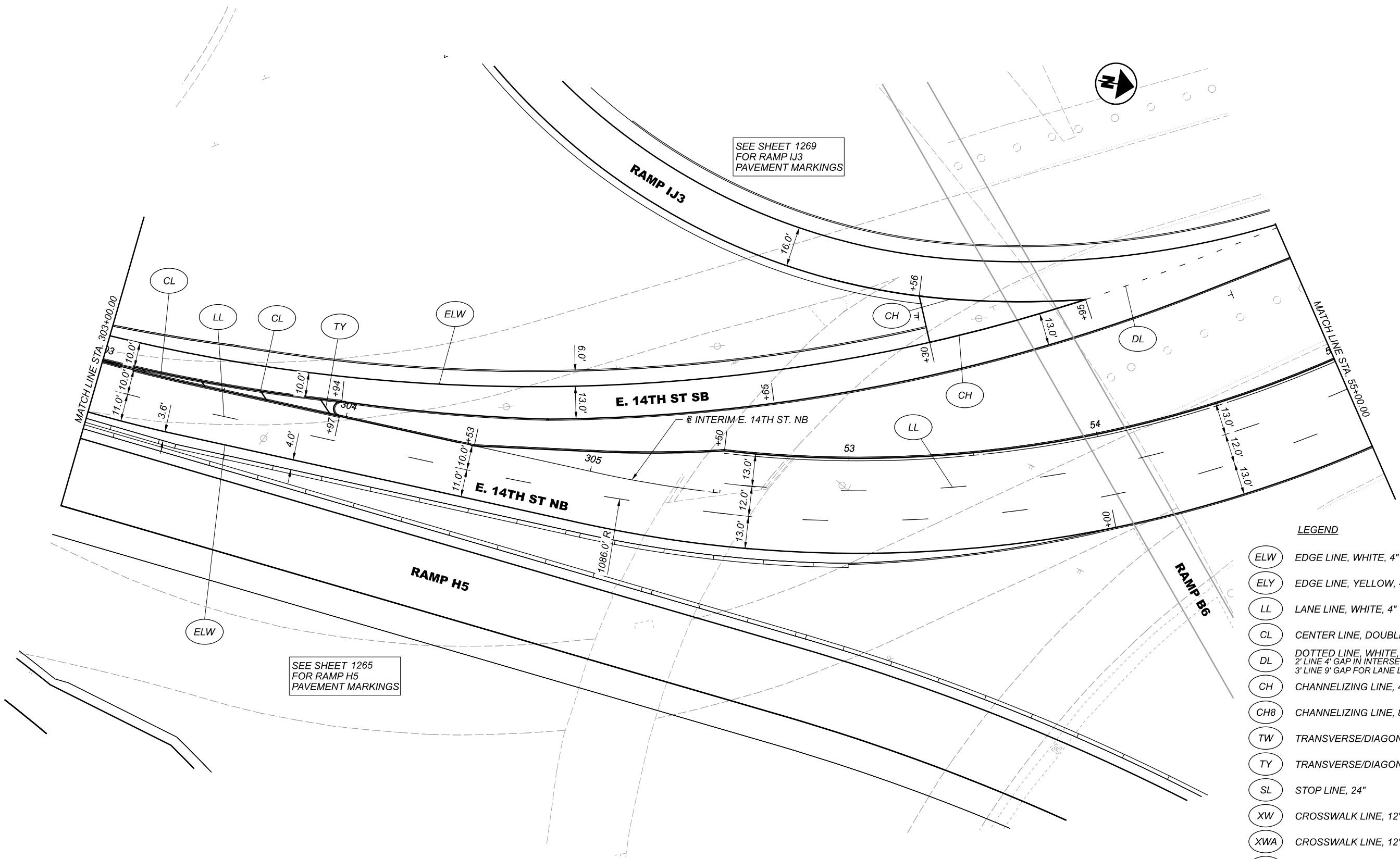
(ELW)	EDGE LINE, WHITE, 4"
(ELY)	EDGE LINE, YELLOW, 4"
(LL)	LANE LINE, WHITE, 4"
(CL)	CENTER LINE, DOUBLE SOLID, 4"
(DL)	DOTTED LINE, WHITE, 4" 2' LINE 4' GAP IN INTERSECTIONS & TAPER AREAS 3' LINE 9' GAP FOR LANE LINES
(CH)	CHANNELIZING LINE, 4"
(CH8)	CHANNELIZING LINE, 8"
(TW)	TRANSVERSE/DIAGONAL LINE, WHITE, 24"
(TY)	TRANSVERSE/DIAGONAL LINE, YELLOW, 24"
(SL)	STOP LINE, 24"
(XW)	CROSSWALK LINE, 12"
(XWA)	CROSSWALK LINE, 12", AS PER PLAN
(YL)	YIELD LINE
(LA)	LANE ARROW
(BS)	BIKE LANE SYMBOL
(DDY)	DOUBLE DOTTED LINE, YELLOW, 4" 2' LINE 4' GAP
(IMW)	ISLAND MARKING, WHITE

NOTE:
 ALL PAVEMENT MARKINGS AND DELINEATIONS
 ON CONCRETE SHALL BE ITEM 646 - EPOXY AND
 ALL MARKINGS ON ASPHALT SHALL BE ITEM 644 -
 THERMOPLASTIC.



PAVEMENT MARKING PLAN - E. 14TH ST.
 STA. 298+00.00 TO STA. 303+00.00

DESIGN AGENCY	
Michael Baker INTERNATIONAL	
DESIGNER	—
REVIEWER	—
PROJECT ID	82382
SHEET	TOTAL
1280	2339



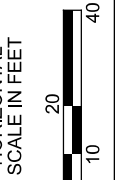
SEE SHEET 1269
FOR RAMP IJ3
PAVEMENT MARKINGS

SEE SHEET 1265
FOR RAMP H5
PAVEMENT MARKINGS

LEGEND

- (ELW) EDGE LINE, WHITE, 4"
- (ELY) EDGE LINE, YELLOW, 4"
- (LL) LANE LINE, WHITE, 4"
- (CL) CENTER LINE, DOUBLE SOLID, 4"
- (DL) DOTTED LINE, WHITE, 4"
2' LINE 4' GAP IN INTERSECTIONS & TAPER AREAS
3' LINE 9' GAP FOR LANE LINES
- (CH) CHANNELIZING LINE, 4"
- (CH8) CHANNELIZING LINE, 8"
- (TW) TRANSVERSE/DIAGONAL LINE, WHITE, 24"
- (TY) TRANSVERSE/DIAGONAL LINE, YELLOW, 24"
- (SL) STOP LINE, 24"
- (XW) CROSSWALK LINE, 12"
- (XWA) CROSSWALK LINE, 12", AS PER PLAN
- (YL) YIELD LINE
- (LA) LANE ARROW
- (BS) BIKE LANE SYMBOL
- (DDY) DOUBLE DOTTED LINE, YELLOW, 4"
2' LINE 4' GAP
- (IMW) ISLAND MARKING, WHITE

NOTE:
ALL PAVEMENT MARKINGS AND DELINEATIONS
ON CONCRETE SHALL BE ITEM 646 - EPOXY AND
ALL MARKINGS ON ASPHALT SHALL BE ITEM 644 -
THERMOPLASTIC.



PAVEMENT MARKING PLAN - E. 14TH ST.
STA. 303+00.00 TO STA. 55+00.00

DESIGN AGENCY

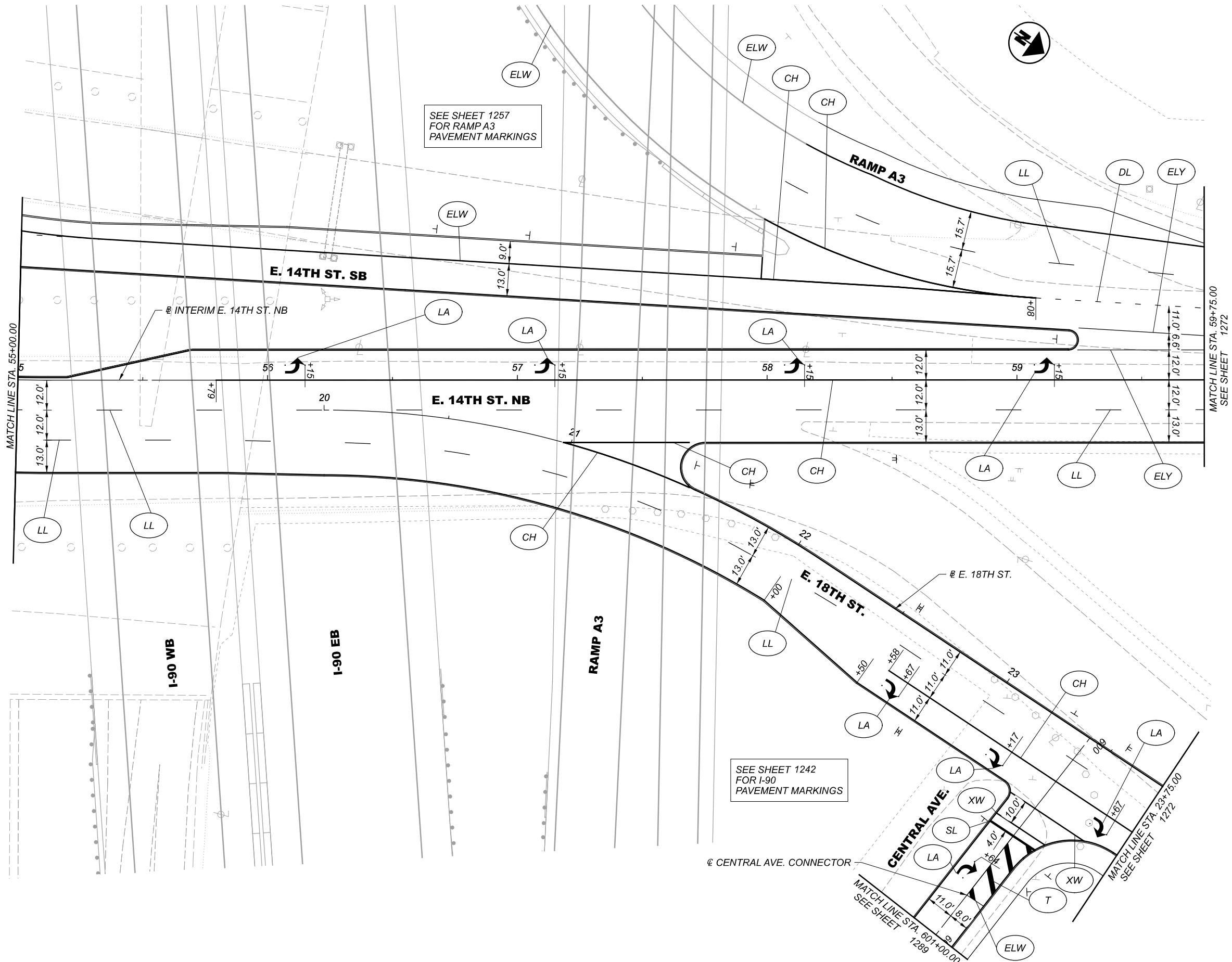
Michael Baker
INTERNATIONAL

DESIGNER

REVIEWER

PROJECT ID
82382

SHEET	TOTAL
1281	2339



SEE SHEET 1257
FOR RAMP A3
PAVEMENT MARKINGS

SEE SHEET 1242
FOR I-90
PAVEMENT MARKINGS

NOTE:
ALL PAVEMENT MARKINGS AND DELINEATIONS
ON CONCRETE SHALL BE ITEM 646 - EPOXY AND
ALL MARKINGS ON ASPHALT SHALL BE ITEM 644 -
THERMOPLASTIC.

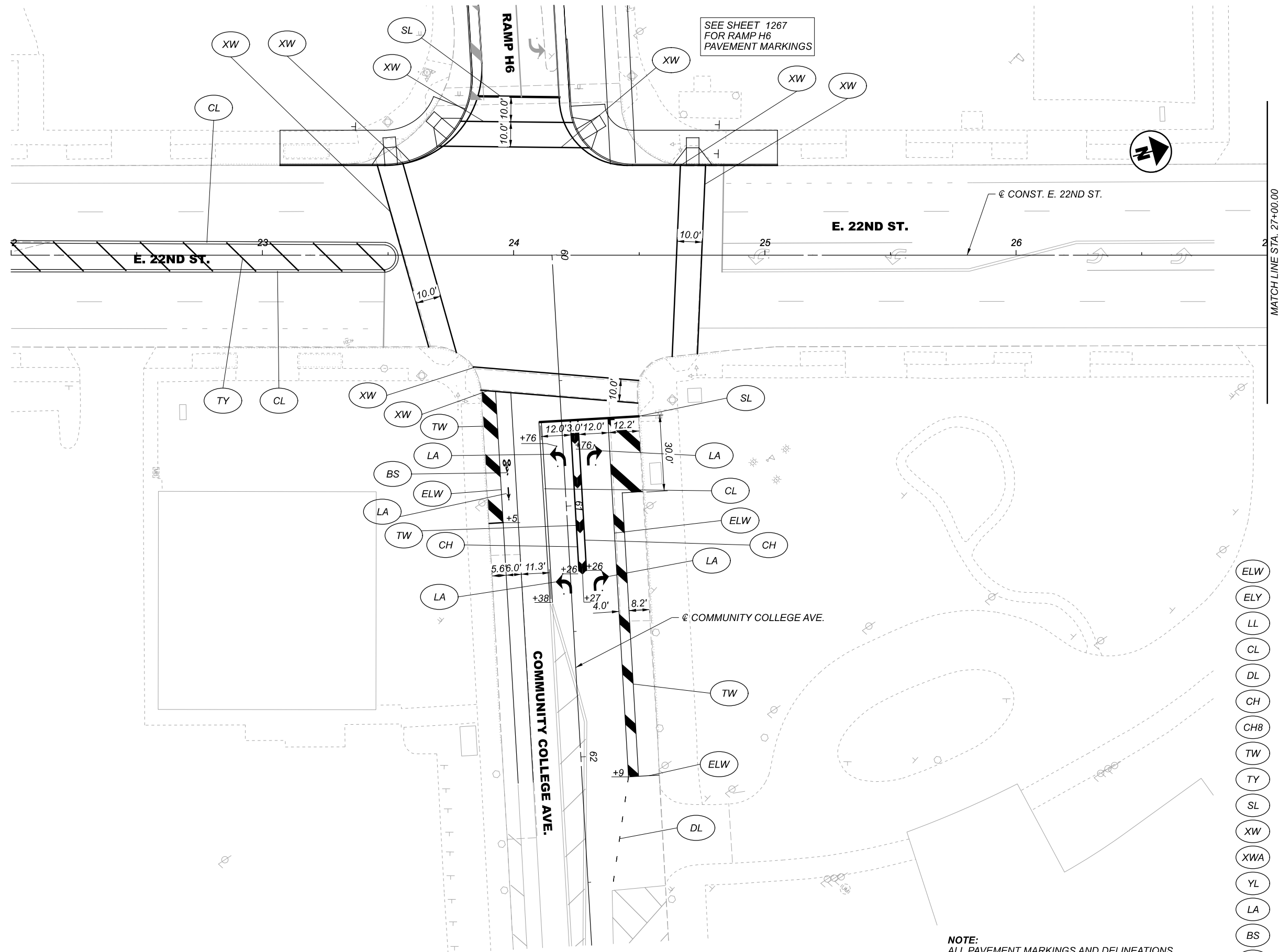
LEGEND

- (ELW) EDGE LINE, WHITE, 4"
- (ELY) EDGE LINE, YELLOW, 4"
- (LL) LANE LINE, WHITE, 4"
- (CL) CENTER LINE, DOUBLE SOLID, 4"
- (DL) DOTTED LINE, WHITE, 4"
2' LINE 4" GAP IN INTERSECTIONS & TAPER AREAS
3' LINE 9" GAP FOR LANE LINES
- (CH) CHANNELIZING LINE, 4"
- (CH8) CHANNELIZING LINE, 8"
- (TW) TRANSVERSE/DIAGONAL LINE, WHITE, 24"
- (TY) TRANSVERSE/DIAGONAL LINE, YELLOW, 24"
- (SL) STOP LINE, 24"
- (XW) CROSSWALK LINE, 12"
- (XWA) CROSSWALK LINE, 12", AS PER PLAN
- (YL) YIELD LINE
- (LA) LANE ARROW
- (BS) BIKE LANE SYMBOL
- (DDY) DOUBLE DOTTED LINE, YELLOW, 4"
2' LINE 4" GAP
- (IMW) ISLAND MARKING, WHITE



**PAVEMENT MARKING PLAN - E. 14TH ST.
STA. 55+00.00 TO STA. 59+75.00**

DESIGN AGENCY	
Michael Baker INTERNATIONAL	
DESIGNER	
REVIEWER	
PROJECT ID	82382
SHEET	TOTAL
1282	2339



SEE SHEET 1267
 FOR RAMP H6
 PAVEMENT MARKINGS

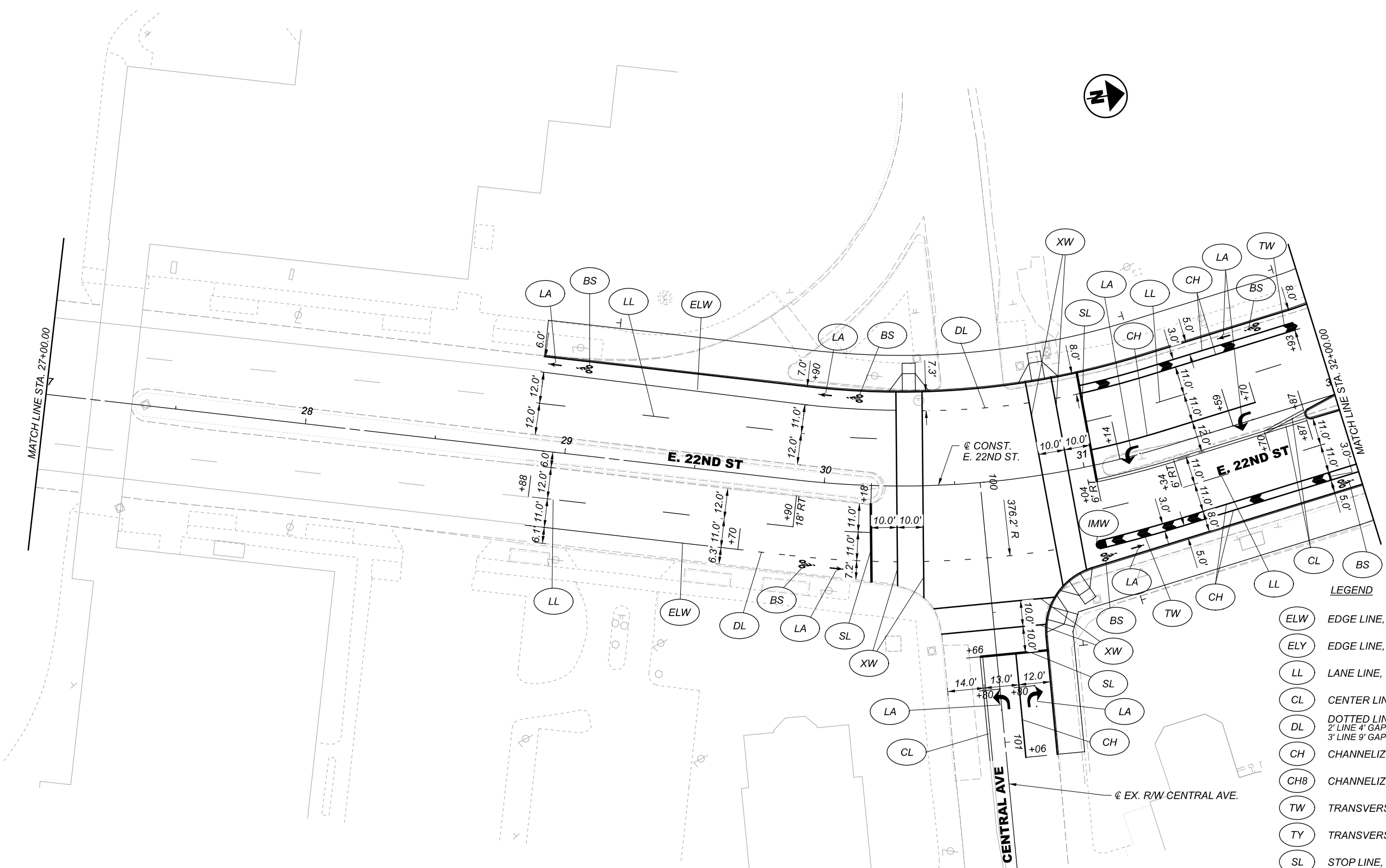


PAVEMENT MARKING PLAN - E. 22ND ST.
 BEGIN TO STA. 27+00.00

- LEGEND**
- (ELW) EDGE LINE, WHITE, 4"
 - (ELY) EDGE LINE, YELLOW, 4"
 - (LL) LANE LINE, WHITE, 4"
 - (CL) CENTER LINE, DOUBLE SOLID, 4"
 - (DL) DOTTED LINE, WHITE, 4"
 2' LINE 4' GAP IN INTERSECTIONS & TAPER AREAS
 3' LINE 9' GAP FOR LANE LINES
 - (CH) CHANNELIZING LINE, 4"
 - (CH8) CHANNELIZING LINE, 8"
 - (TW) TRANSVERSE/DIAGONAL LINE, WHITE, 24"
 - (TY) TRANSVERSE/DIAGONAL LINE, YELLOW, 24"
 - (SL) STOP LINE, 24"
 - (XW) CROSSWALK LINE, 12"
 - (XWA) CROSSWALK LINE, 12", AS PER PLAN
 - (YL) YIELD LINE
 - (LA) LANE ARROW
 - (BS) BIKE LANE SYMBOL
 - (DDY) DOUBLE DOTTED LINE, YELLOW, 4"
 2' LINE 4' GAP
 - (IMW) ISLAND MARKING, WHITE

NOTE:
 ALL PAVEMENT MARKINGS AND DELINEATIONS
 ON CONCRETE SHALL BE ITEM 646 - EPOXY AND
 ALL MARKINGS ON ASPHALT SHALL BE ITEM 644 -
 THERMOPLASTIC.

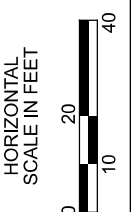
DESIGN AGENCY	Michael Baker INTERNATIONAL
DESIGNER	—
REVIEWER	—
PROJECT ID	82382
SHEET	TOTAL
1283	2339



NOTE:
 ALL PAVEMENT MARKINGS AND DELINEATIONS
 ON CONCRETE SHALL BE ITEM 646 - EPOXY AND
 ALL MARKINGS ON ASPHALT SHALL BE ITEM 644 -
 THERMOPLASTIC.

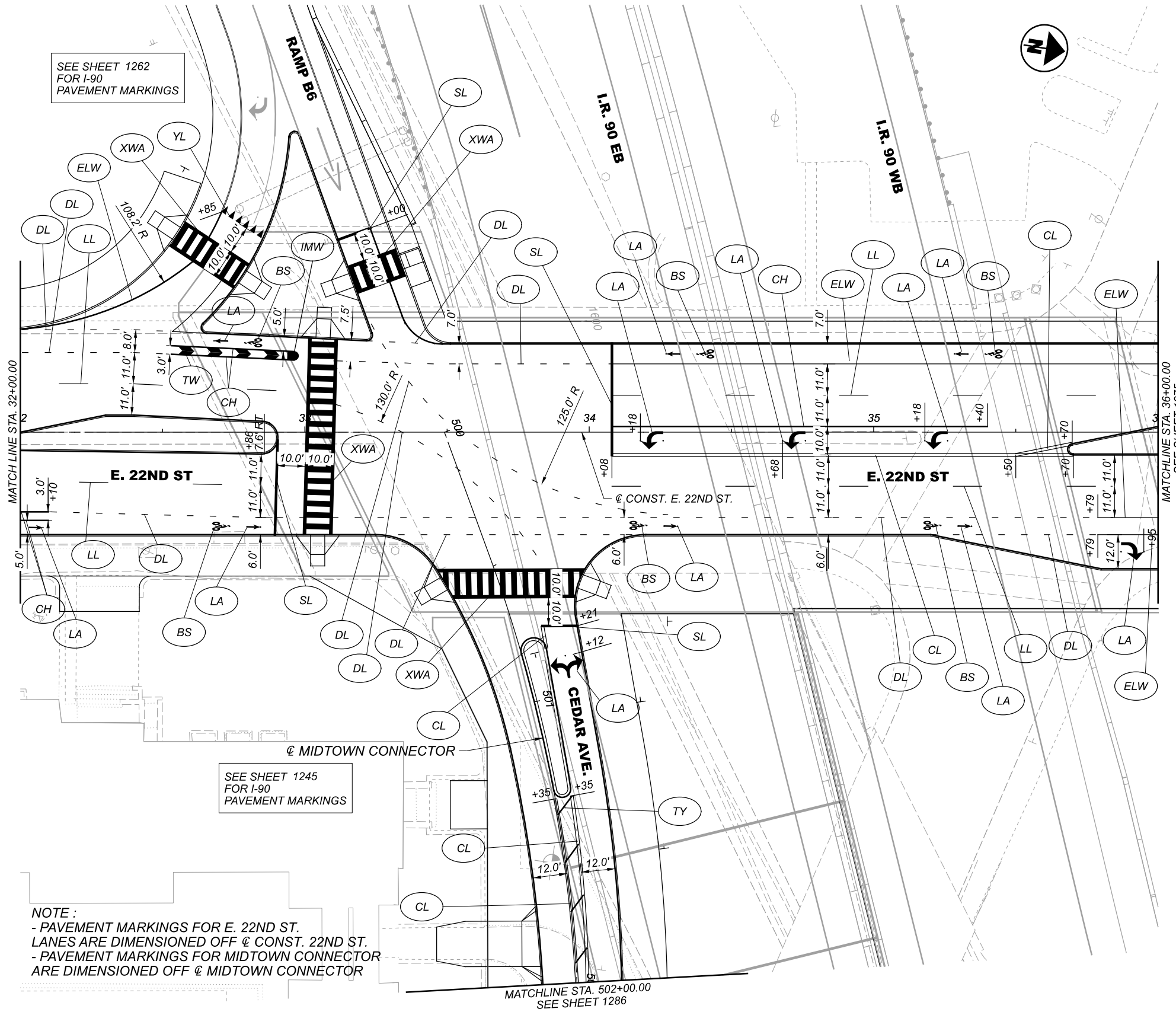
LEGEND

(ELW)	EDGE LINE, WHITE, 4"
(ELY)	EDGE LINE, YELLOW, 4"
(LL)	LANE LINE, WHITE, 4"
(CL)	CENTER LINE, DOUBLE SOLID, 4"
(DL)	DOTTED LINE, WHITE, 4" 2' LINE 4' GAP IN INTERSECTIONS & TAPER AREAS 3' LINE 9' GAP FOR LANE LINES
(CH)	CHANNELIZING LINE, 4"
(CH8)	CHANNELIZING LINE, 8"
(TW)	TRANSVERSE/DIAGONAL LINE, WHITE, 24"
(TY)	TRANSVERSE/DIAGONAL LINE, YELLOW, 24"
(SL)	STOP LINE, 24"
(XW)	CROSSWALK LINE, 12"
(XWA)	CROSSWALK LINE, 12", AS PER PLAN
(YL)	YIELD LINE
(LA)	LANE ARROW
(BS)	BIKE LANE SYMBOL
(DDY)	DOUBLE DOTTED LINE, YELLOW, 4" 2' LINE 4' GAP
(IMW)	ISLAND MARKING, WHITE



PAVEMENT MARKING PLAN - E. 22ND ST.
 STA. 27+00.00 TO STA. 32+00.00

DESIGN AGENCY	
Michael Baker INTERNATIONAL	
DESIGNER	—
REVIEWER	—
PROJECT ID	82382
SHEET	TOTAL
1284	2339



SEE SHEET 1262 FOR I-90 PAVEMENT MARKINGS

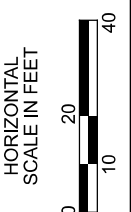
SEE SHEET 1245 FOR I-90 PAVEMENT MARKINGS

NOTE :
 - PAVEMENT MARKINGS FOR E. 22ND ST. LANES ARE DIMENSIONED OFF @ CONST. 22ND ST.
 - PAVEMENT MARKINGS FOR MIDTOWN CONNECTOR ARE DIMENSIONED OFF @ MIDTOWN CONNECTOR

NOTE:
 ALL PAVEMENT MARKINGS AND DELINEATIONS ON CONCRETE SHALL BE ITEM 646 - EPOXY AND ALL MARKINGS ON ASPHALT SHALL BE ITEM 644 - THERMOPLASTIC.

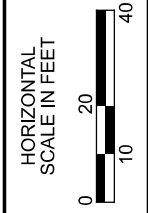
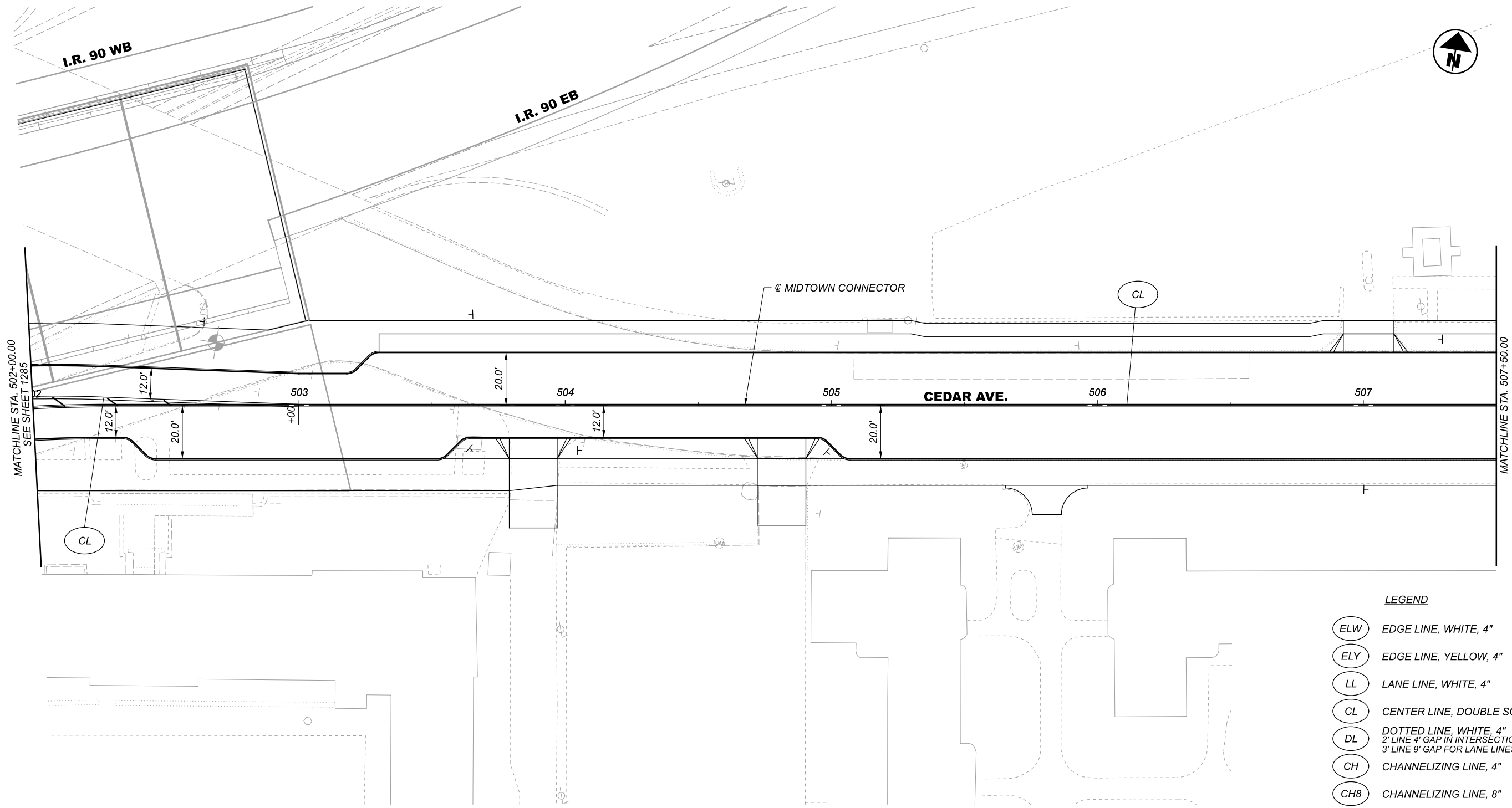
LEGEND

- (ELW) EDGE LINE, WHITE, 4"
- (ELY) EDGE LINE, YELLOW, 4"
- (LL) LANE LINE, WHITE, 4"
- (CL) CENTER LINE, DOUBLE SOLID, 4"
- (DL) DOTTED LINE, WHITE, 4"
2' LINE 4' GAP IN INTERSECTIONS & TAPER AREAS
3' LINE 9' GAP FOR LANE LINES
- (CH) CHANNELIZING LINE, 4"
- (CH8) CHANNELIZING LINE, 8"
- (TW) TRANSVERSE/DIAGONAL LINE, WHITE, 24"
- (TY) TRANSVERSE/DIAGONAL LINE, YELLOW, 24"
- (SL) STOP LINE, 24"
- (XW) CROSSWALK LINE, 12"
- (XWA) CROSSWALK LINE, 12", AS PER PLAN
- (YL) YIELD LINE
- (LA) LANE ARROW
- (BS) BIKE LANE SYMBOL
- (DDY) DOUBLE DOTTED LINE, YELLOW, 4"
2' LINE 4' GAP
- (IMW) ISLAND MARKING, WHITE



**PAVEMENT MARKING PLAN - E. 22ND ST.
 STA. 32+00.00 TO STA. 36+00.00**

DESIGN AGENCY	
Michael Baker INTERNATIONAL	
DESIGNER	
REVIEWER	
PROJECT ID	82382
SHEET	TOTAL
1285	2339



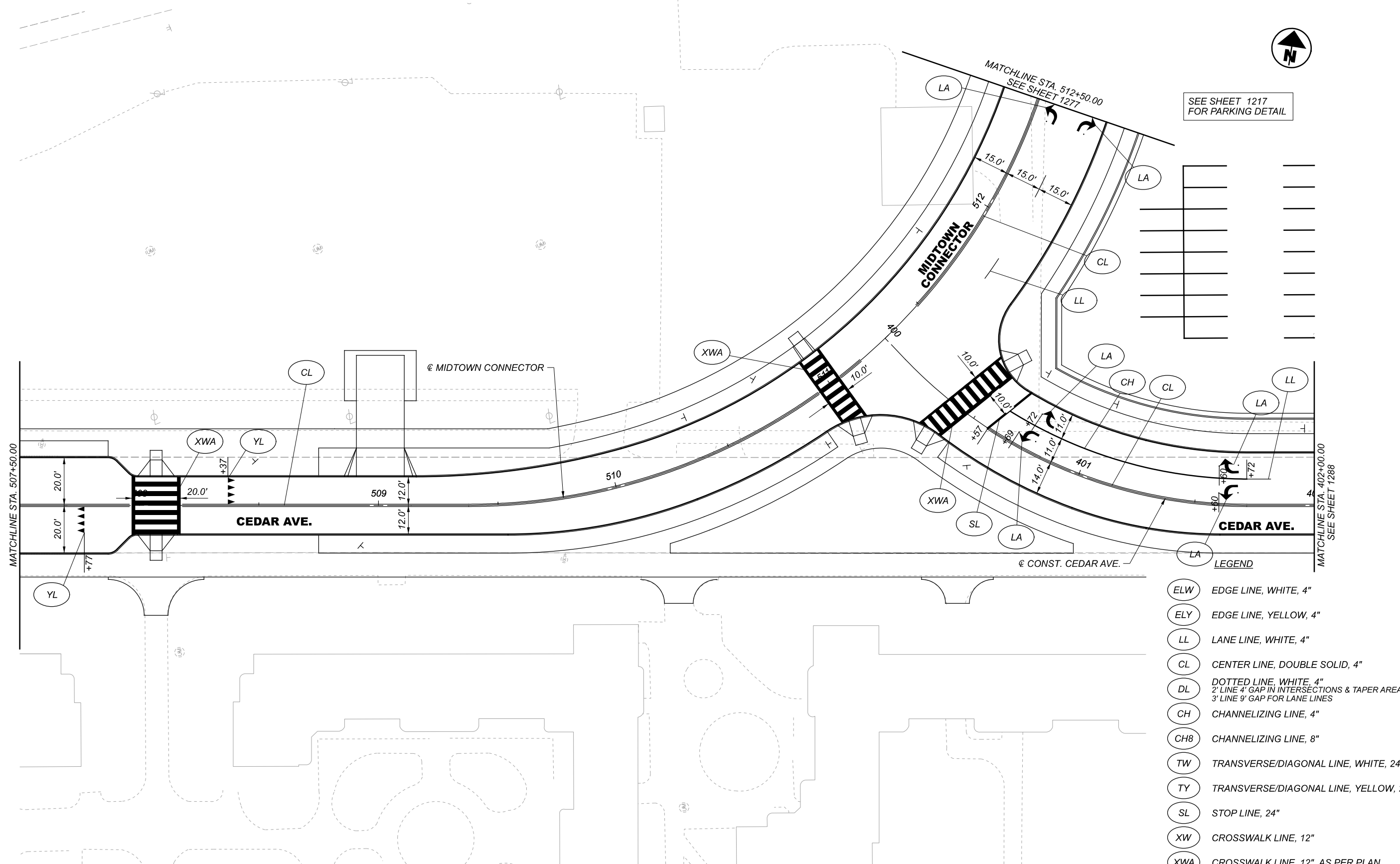
PAVEMENT MARKING PLAN - MIDTOWN CONNECTOR
 STA. 502+00.00 TO STA. 507+50.00

LEGEND

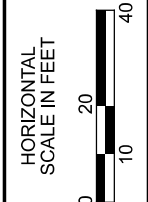
- (ELW) EDGE LINE, WHITE, 4"
- (ELY) EDGE LINE, YELLOW, 4"
- (LL) LANE LINE, WHITE, 4"
- (CL) CENTER LINE, DOUBLE SOLID, 4"
- (DL) DOTTED LINE, WHITE, 4"
2' LINE 4' GAP IN INTERSECTIONS & TAPER AREAS
3' LINE 9' GAP FOR LANE LINES
- (CH) CHANNELIZING LINE, 4"
- (CH8) CHANNELIZING LINE, 8"
- (TW) TRANSVERSE/DIAGONAL LINE, WHITE, 24"
- (TY) TRANSVERSE/DIAGONAL LINE, YELLOW, 24"
- (SL) STOP LINE, 24"
- (XW) CROSSWALK LINE, 12"
- (XWA) CROSSWALK LINE, 12", AS PER PLAN
- (YL) YIELD LINE
- (LA) LANE ARROW
- (BS) BIKE LANE SYMBOL
- (DDY) DOUBLE DOTTED LINE, YELLOW, 4"
2' LINE 4' GAP
- (IMW) ISLAND MARKING, WHITE

NOTE:
 ALL PAVEMENT MARKINGS AND DELINEATIONS
 ON CONCRETE SHALL BE ITEM 646 - EPOXY AND
 ALL MARKINGS ON ASPHALT SHALL BE ITEM 644 -
 THERMOPLASTIC.

DESIGN AGENCY	
Michael Baker INTERNATIONAL	
DESIGNER	—
REVIEWER	—
PROJECT ID	82382
SHEET	TOTAL
1286	2339



SEE SHEET 1217
FOR PARKING DETAIL



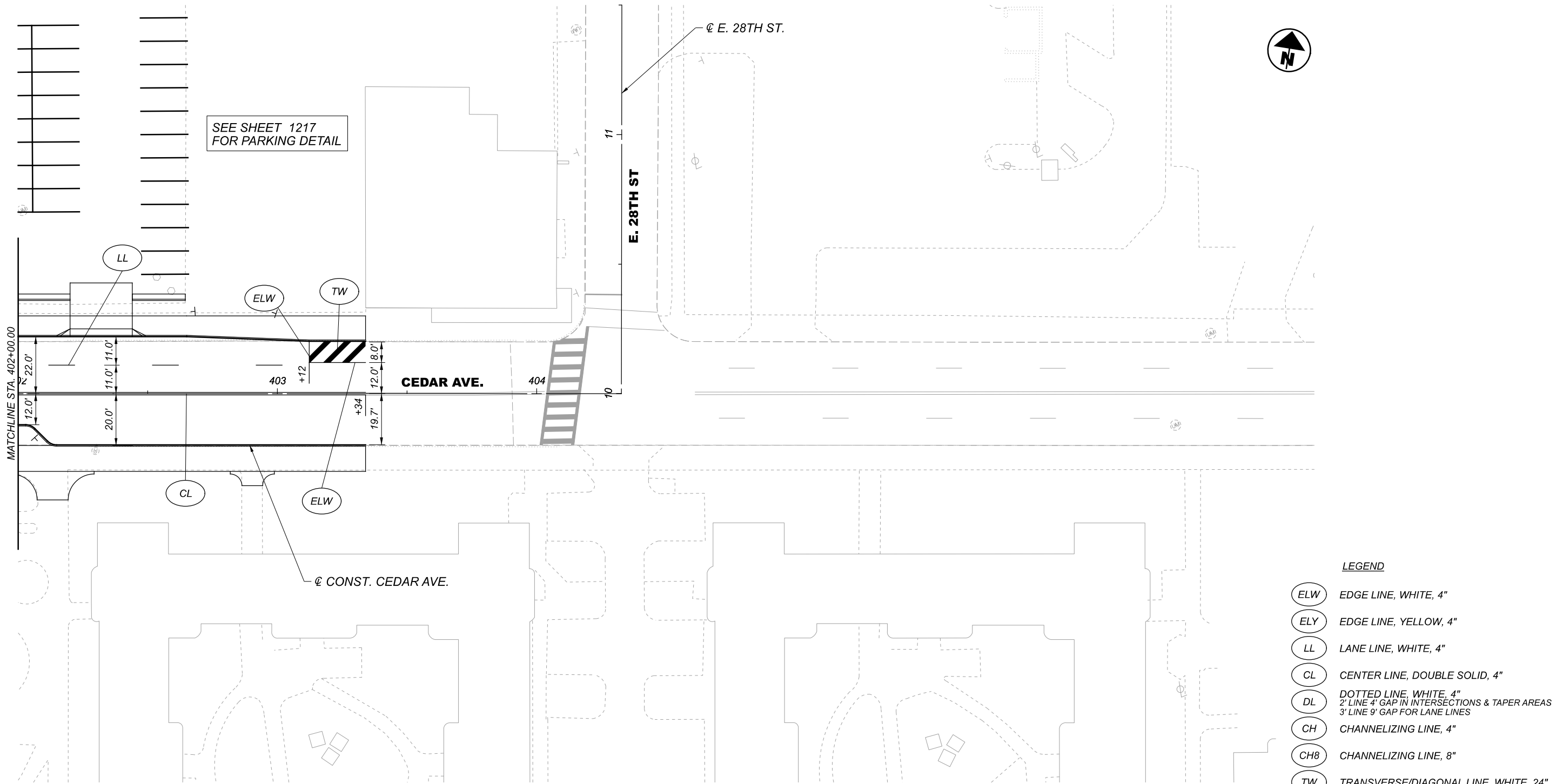
LEGEND

(ELW)	EDGE LINE, WHITE, 4"
(ELY)	EDGE LINE, YELLOW, 4"
(LL)	LANE LINE, WHITE, 4"
(CL)	CENTER LINE, DOUBLE SOLID, 4"
(DL)	DOTTED LINE, WHITE, 4" 2' LINE 4' GAP IN INTERSECTIONS & TAPER AREAS 3' LINE 9' GAP FOR LANE LINES
(CH)	CHANNELIZING LINE, 4"
(CH8)	CHANNELIZING LINE, 8"
(TW)	TRANSVERSE/DIAGONAL LINE, WHITE, 24"
(TY)	TRANSVERSE/DIAGONAL LINE, YELLOW, 24"
(SL)	STOP LINE, 24"
(XW)	CROSSWALK LINE, 12"
(XWA)	CROSSWALK LINE, 12", AS PER PLAN
(YL)	YIELD LINE
(LA)	LANE ARROW
(BS)	BIKE LANE SYMBOL
(DDY)	DOUBLE DOTTED LINE, YELLOW, 4" 2' LINE 4' GAP
(IMW)	ISLAND MARKING, WHITE

NOTE:
ALL PAVEMENT MARKINGS AND DELINEATIONS ON CONCRETE SHALL BE ITEM 646 - EPOXY AND ALL MARKINGS ON ASPHALT SHALL BE ITEM 644 - THERMOPLASTIC.

PAVEMENT MARKING PLAN - MIDTOWN CONNECTOR
STA. 507+50.00 TO STA. 512+50.00

DESIGN AGENCY	
Michael Baker INTERNATIONAL	
DESIGNER	
REVIEWER	
PROJECT ID	82382
SHEET	TOTAL
1287	2339



SEE SHEET 1217 FOR PARKING DETAIL



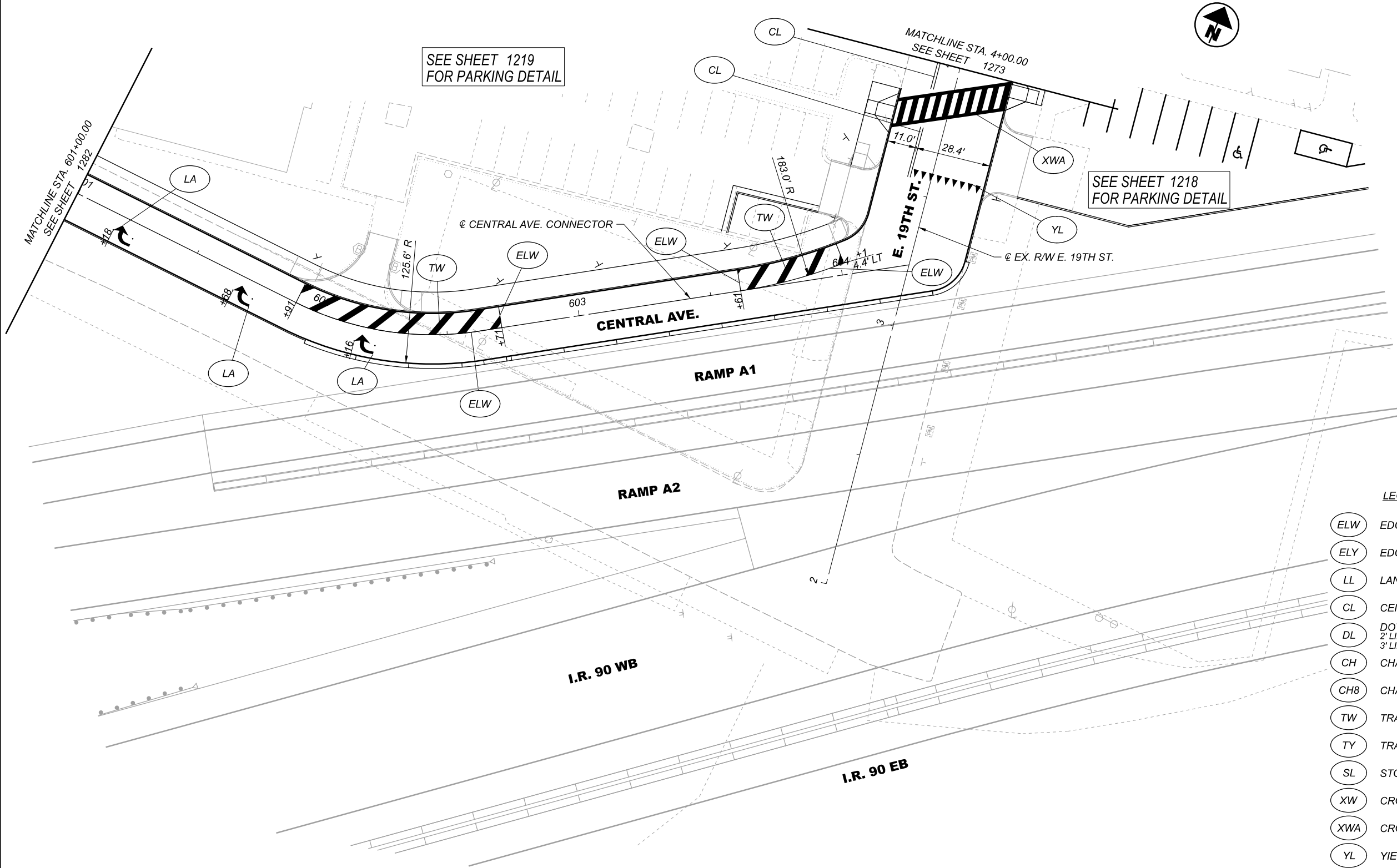
PAVEMENT MARKING PLAN - CEDAR AVE.
 STA. 402+00.00 TO END

LEGEND

- (ELW) EDGE LINE, WHITE, 4"
- (ELY) EDGE LINE, YELLOW, 4"
- (LL) LANE LINE, WHITE, 4"
- (CL) CENTER LINE, DOUBLE SOLID, 4"
- (DL) DOTTED LINE, WHITE, 4"
2' LINE 4' GAP IN INTERSECTIONS & TAPER AREAS
3' LINE 9' GAP FOR LANE LINES
- (CH) CHANNELIZING LINE, 4"
- (CH8) CHANNELIZING LINE, 8"
- (TW) TRANSVERSE/DIAGONAL LINE, WHITE, 24"
- (TY) TRANSVERSE/DIAGONAL LINE, YELLOW, 24"
- (SL) STOP LINE, 24"
- (XW) CROSSWALK LINE, 12"
- (XWA) CROSSWALK LINE, 12", AS PER PLAN
- (YL) YIELD LINE
- (LA) LANE ARROW
- (BS) BIKE LANE SYMBOL
- (DDY) DOUBLE DOTTED LINE, YELLOW, 4"
2' LINE 4' GAP
- (IMW) ISLAND MARKING, WHITE

NOTE:
 ALL PAVEMENT MARKINGS AND DELINEATIONS ON CONCRETE SHALL BE ITEM 646 - EPOXY AND ALL MARKINGS ON ASPHALT SHALL BE ITEM 644 - THERMOPLASTIC.

DESIGN AGENCY	
Michael Baker INTERNATIONAL	
DESIGNER	—
REVIEWER	—
PROJECT ID	82382
SHEET	TOTAL
1288	2339



SEE SHEET 1219 FOR PARKING DETAIL

SEE SHEET 1218 FOR PARKING DETAIL

LEGEND

(ELW)	EDGE LINE, WHITE, 4"
(ELY)	EDGE LINE, YELLOW, 4"
(LL)	LANE LINE, WHITE, 4"
(CL)	CENTER LINE, DOUBLE SOLID, 4"
(DL)	DOTTED LINE, WHITE, 4" 2' LINE 4' GAP IN INTERSECTIONS & TAPER AREAS 3' LINE 9' GAP FOR LANE LINES
(CH)	CHANNELIZING LINE, 4"
(CH8)	CHANNELIZING LINE, 8"
(TW)	TRANSVERSE/DIAGONAL LINE, WHITE, 24"
(TY)	TRANSVERSE/DIAGONAL LINE, YELLOW, 24"
(SL)	STOP LINE, 24"
(XW)	CROSSWALK LINE, 12"
(XWA)	CROSSWALK LINE, 12", AS PER PLAN
(YL)	YIELD LINE
(LA)	LANE ARROW
(BS)	BIKE LANE SYMBOL
(DDY)	DOUBLE DOTTED LINE, YELLOW, 4" 2' LINE 4' GAP
(IMW)	ISLAND MARKING, WHITE

NOTE:
 ALL PAVEMENT MARKINGS AND DELINEATIONS ON CONCRETE SHALL BE ITEM 646 - EPOXY AND ALL MARKINGS ON ASPHALT SHALL BE ITEM 644 - THERMOPLASTIC.




PAVEMENT MARKINGS FOR CENTRAL AVENUE LANES ARE DIMENSIONED OFF @ CENTRAL AVE. CONNECTOR
 PAVEMENT MARKINGS FOR E. 19TH ST. ARE DIMENSIONED OFF @ EX. R/W E. 19TH ST.

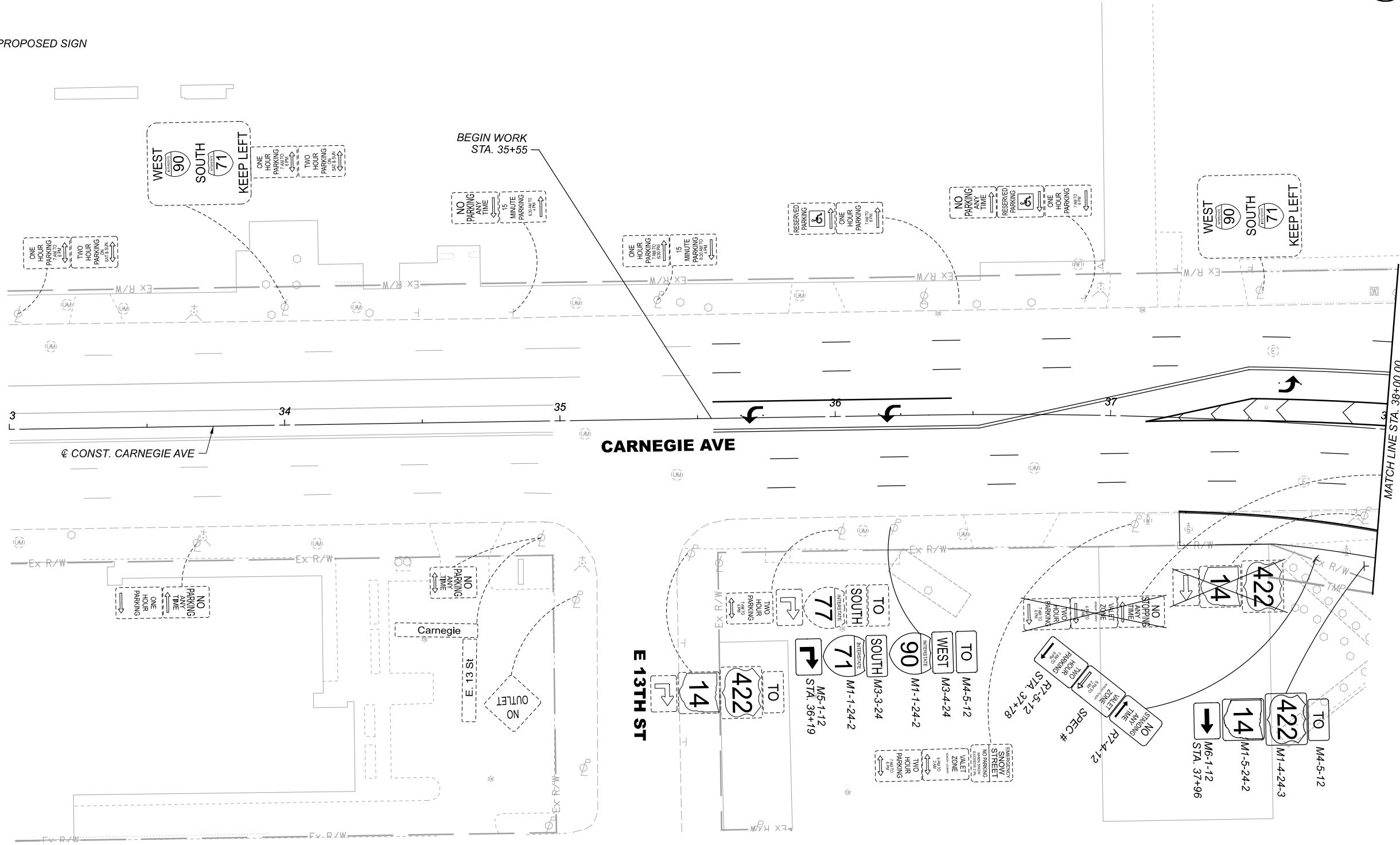


PAVEMENT MARKING PLAN - CENTRAL AVE CONNECTOR
 STA. 601+00.00 TO END

DESIGN AGENCY	
Michael Baker INTERNATIONAL	
DESIGNER	—
REVIEWER	—
PROJECT ID	82382
SHEET	1289
TOTAL	2339

LEGEND

-  - EXISTING SIGN TO REMAIN
-  - EXISTING SIGN TO BE REMOVED
-  - PROPOSED SIGN



**SIGNING PLAN - CARNEGIE AVE
 BEGIN TO STA. 38+00.00**

DESIGN AGENCY

**Michael Baker
 INTERNATIONAL**

DESIGNER

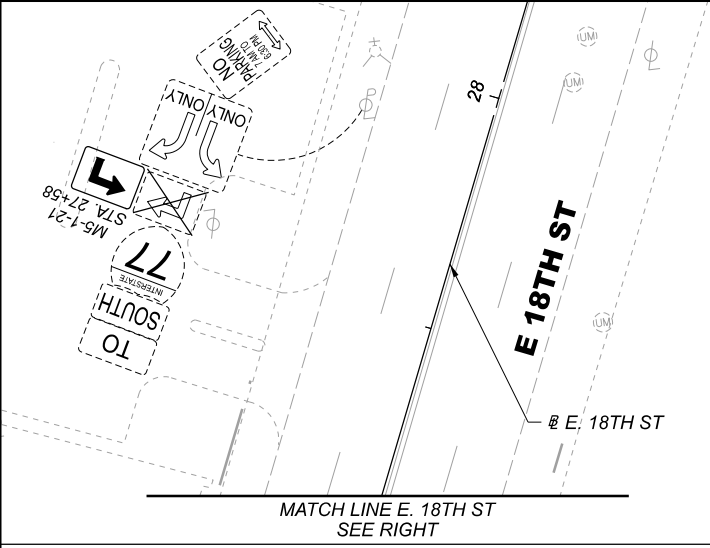
REVIEWER

PROJECT ID

82382

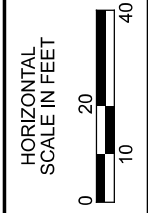
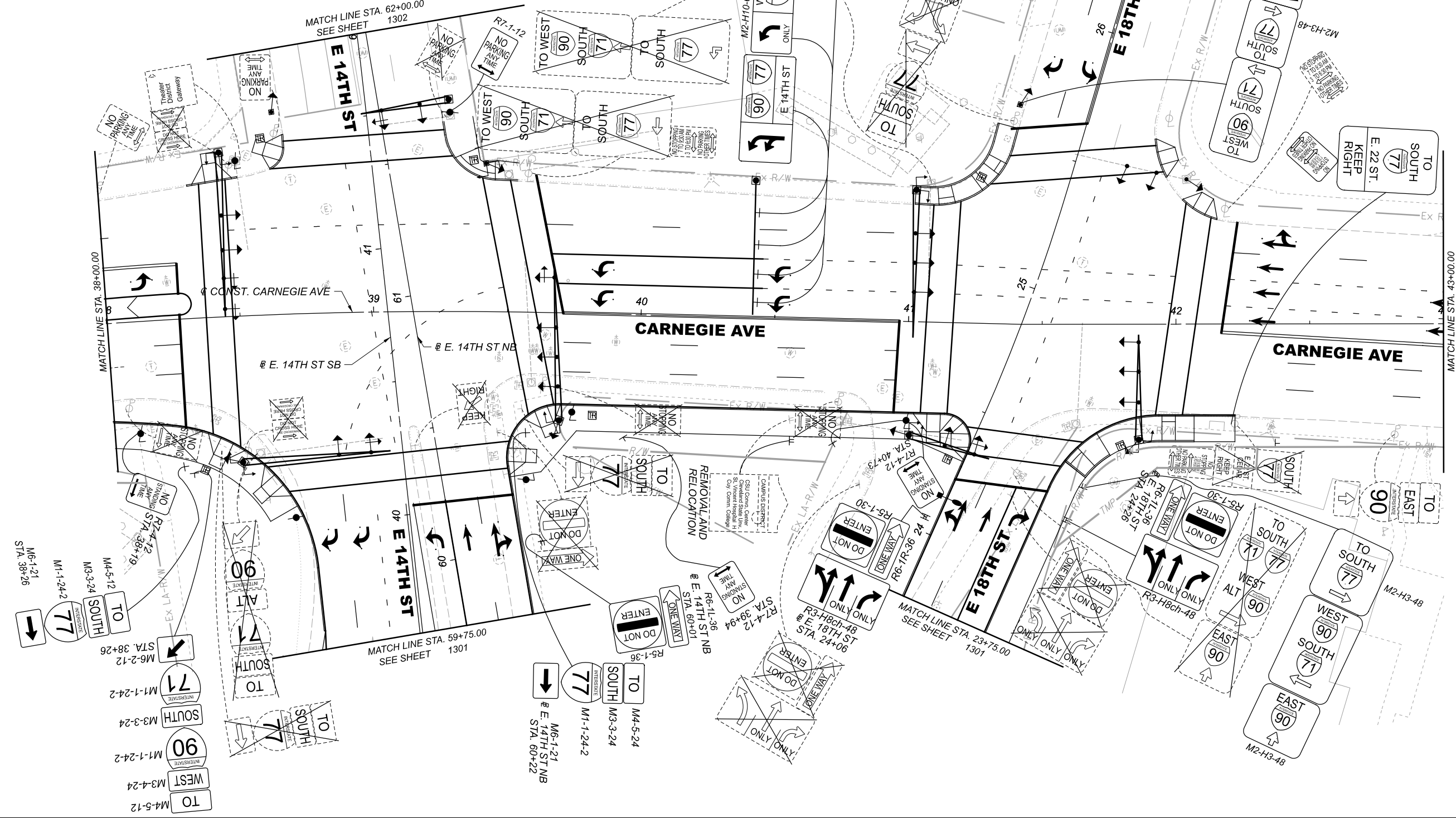
SHEET TOTAL

1290 2339



- LEGEND**
- [Square with dashed border] - EXISTING SIGN TO REMAIN
 - [Square with 'X' inside] - EXISTING SIGN TO BE REMOVED
 - [Square with solid border] - PROPOSED SIGN

NOTE:
ALL STA. CALL-OUTS DIMENSIONED OFF
@ CONST. CARNEGIE AVE UNLESS
OTHERWISE NOTED.



SIGNING PLAN - CARNEGIE AVE
STA. 38+00.00 TO STA. 43+00.00

DESIGN AGENCY

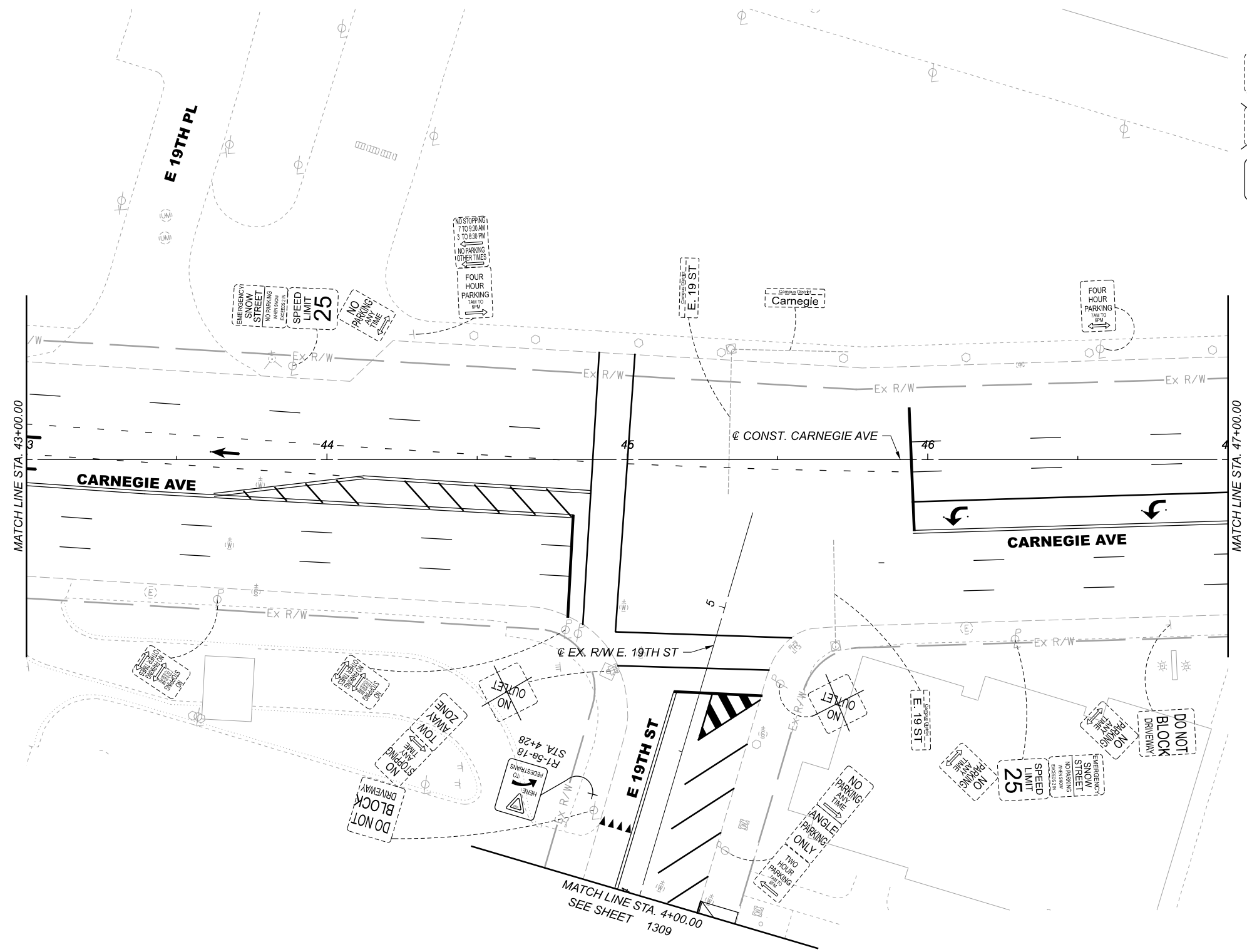
Michael Baker
INTERNATIONAL

DESIGNER




REVIEWER

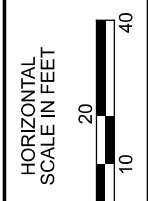
PROJECT ID
82382

SHEET TOTAL
1291 2339



LEGEND

-  - EXISTING SIGN TO REMAIN
-  - EXISTING SIGN TO BE REMOVED
-  - PROPOSED SIGN



SIGNING PLAN - CARNEGIE AVE
 STA. 43+00.00 TO STA. 47+00.00

DESIGN AGENCY

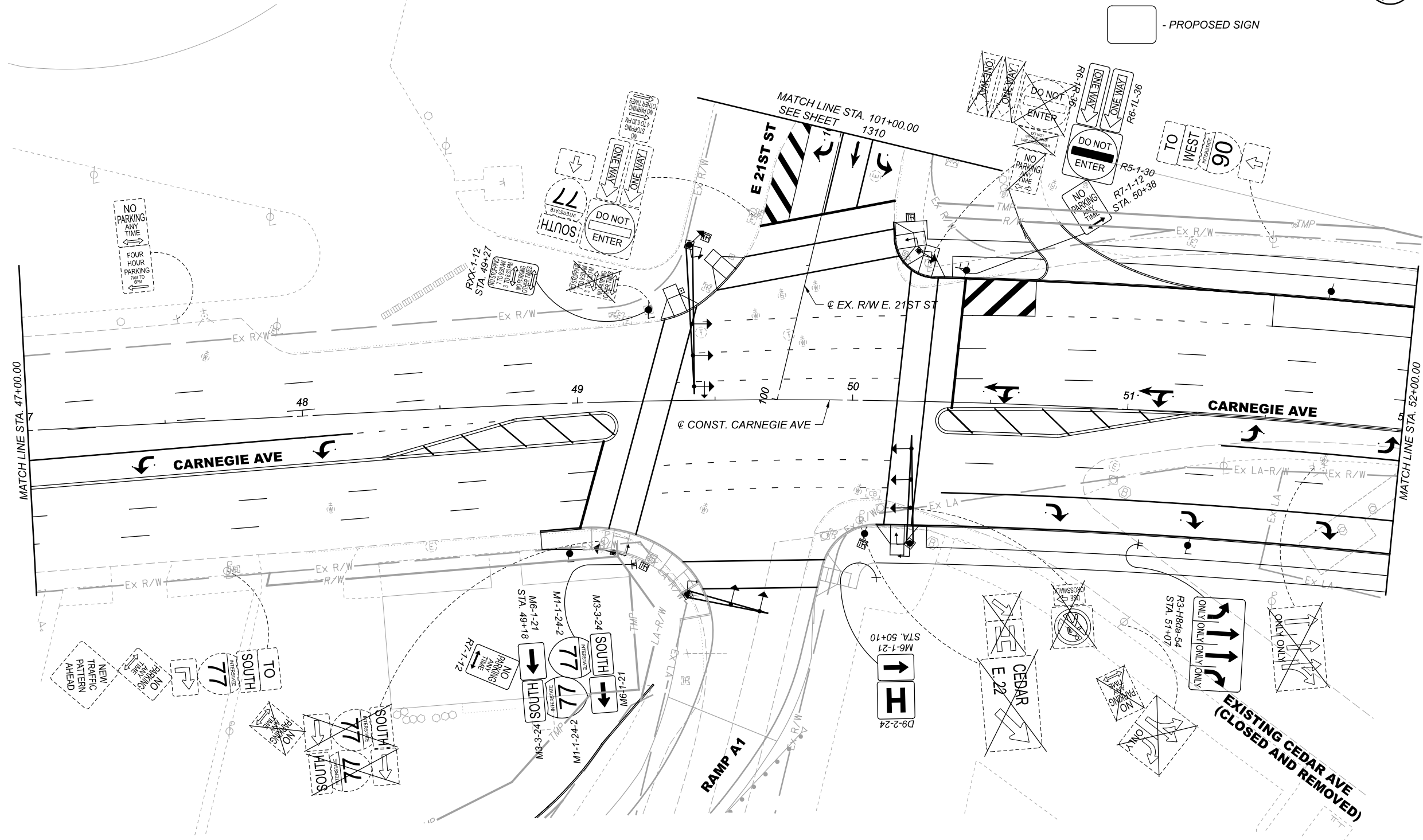
Michael Baker
 INTERNATIONAL

DESIGNER




REVIEWER

PROJECT ID
 82382

SHEET	TOTAL
1292	2339



LEGEND

-  - EXISTING SIGN TO REMAIN
-  - EXISTING SIGN TO BE REMOVED
-  - PROPOSED SIGN



SIGNING PLAN - CARNEGIE AVE
 STA. 47+00.00 TO STA. 52+00.00

DESIGN AGENCY

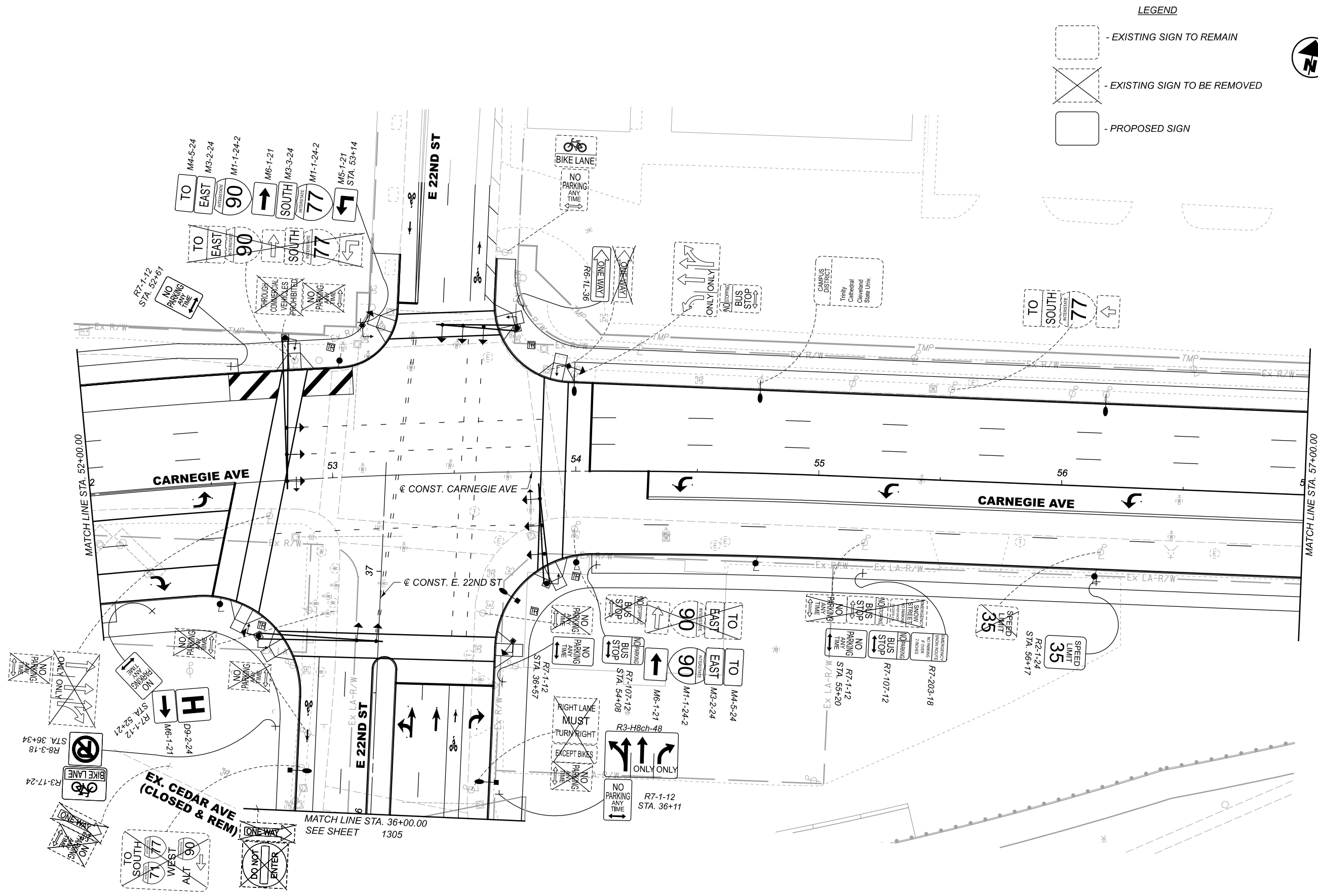
Michael Baker
 INTERNATIONAL

DESIGNER

REVIEWER

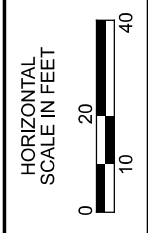
PROJECT ID
 82382

SHEET	TOTAL
1293	2339



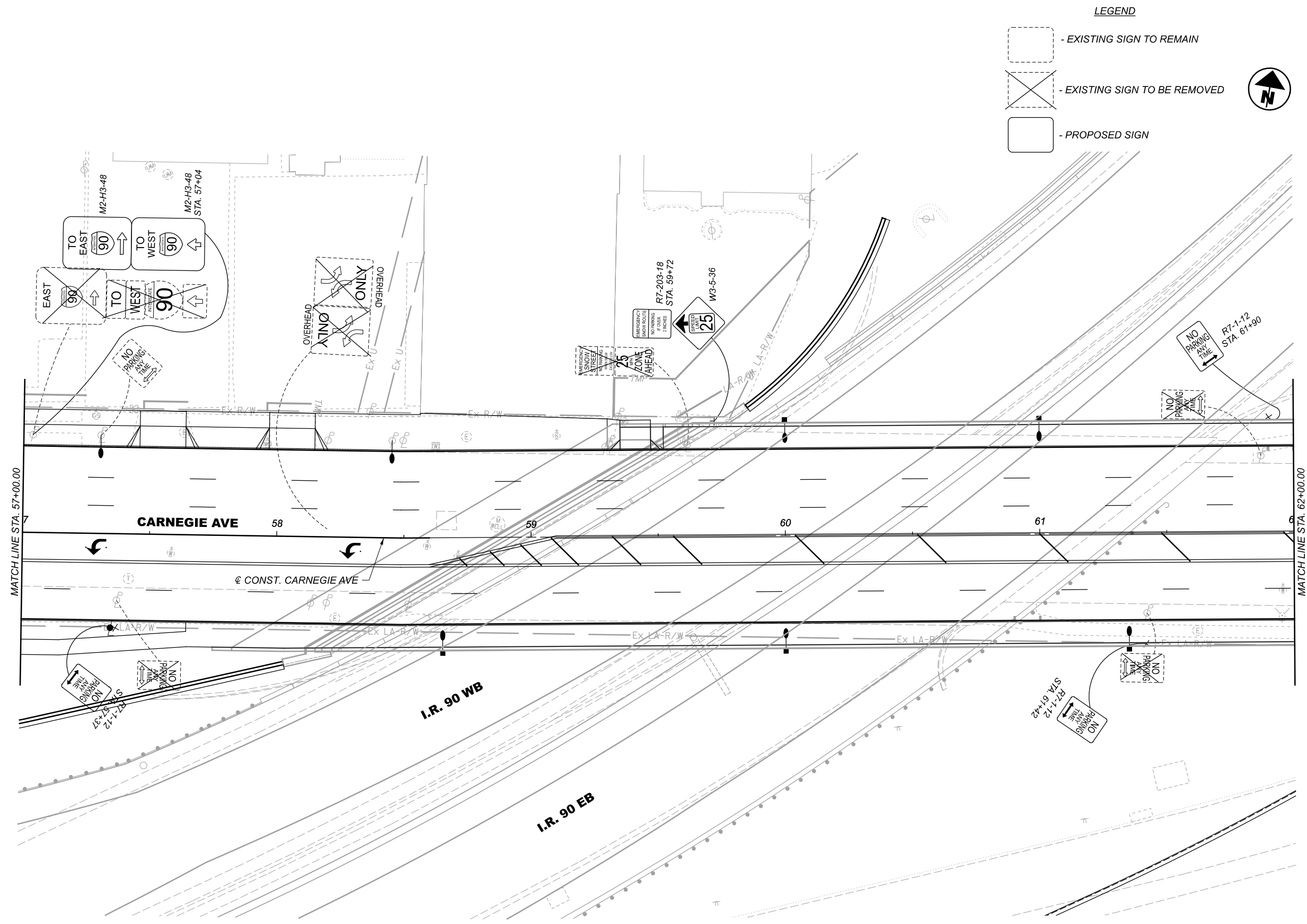
LEGEND

- EXISTING SIGN TO REMAIN
- EXISTING SIGN TO BE REMOVED
- PROPOSED SIGN






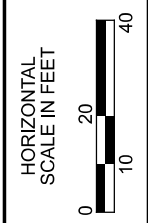
SIGNING PLAN - CARNEGIE AVE
 STA. 52+00.00 TO STA. 57+00.00

DESIGN AGENCY	Michael Baker INTERNATIONAL
DESIGNER	—
REVIEWER	—
PROJECT ID	82382
SHEET TOTAL	1294 2339



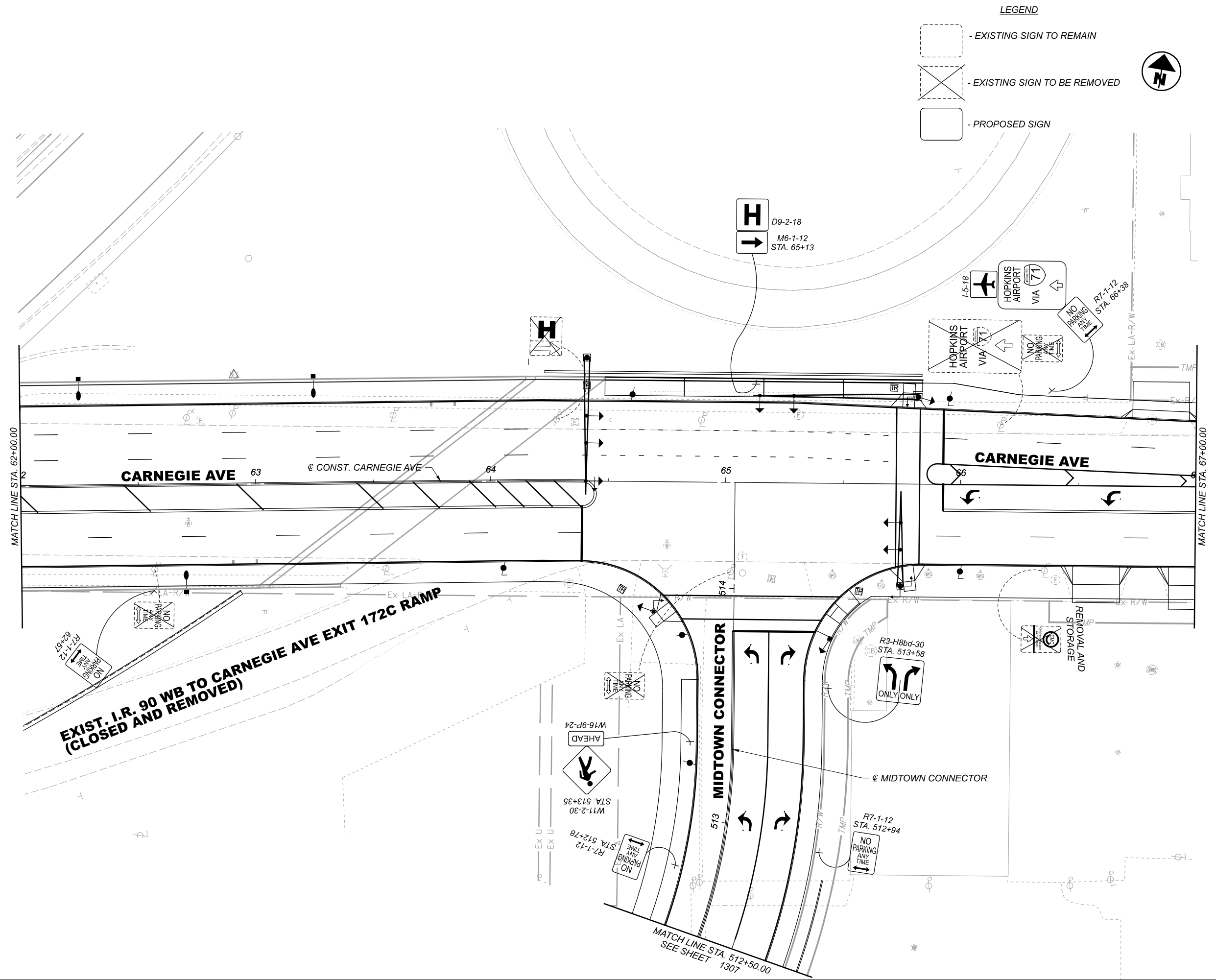
LEGEND

-  - EXISTING SIGN TO REMAIN
-  - EXISTING SIGN TO BE REMOVED
-  - PROPOSED SIGN






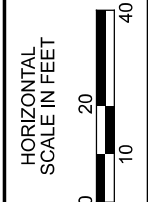
SIGNING PLAN - CARNEGIE AVE
 STA. 57+00.00 TO STA. 62+00.00

DESIGN AGENCY	Michael Baker INTERNATIONAL
DESIGNER	—
REVIEWER	—
PROJECT ID	82382
SHEET TOTAL	1295 2339



LEGEND

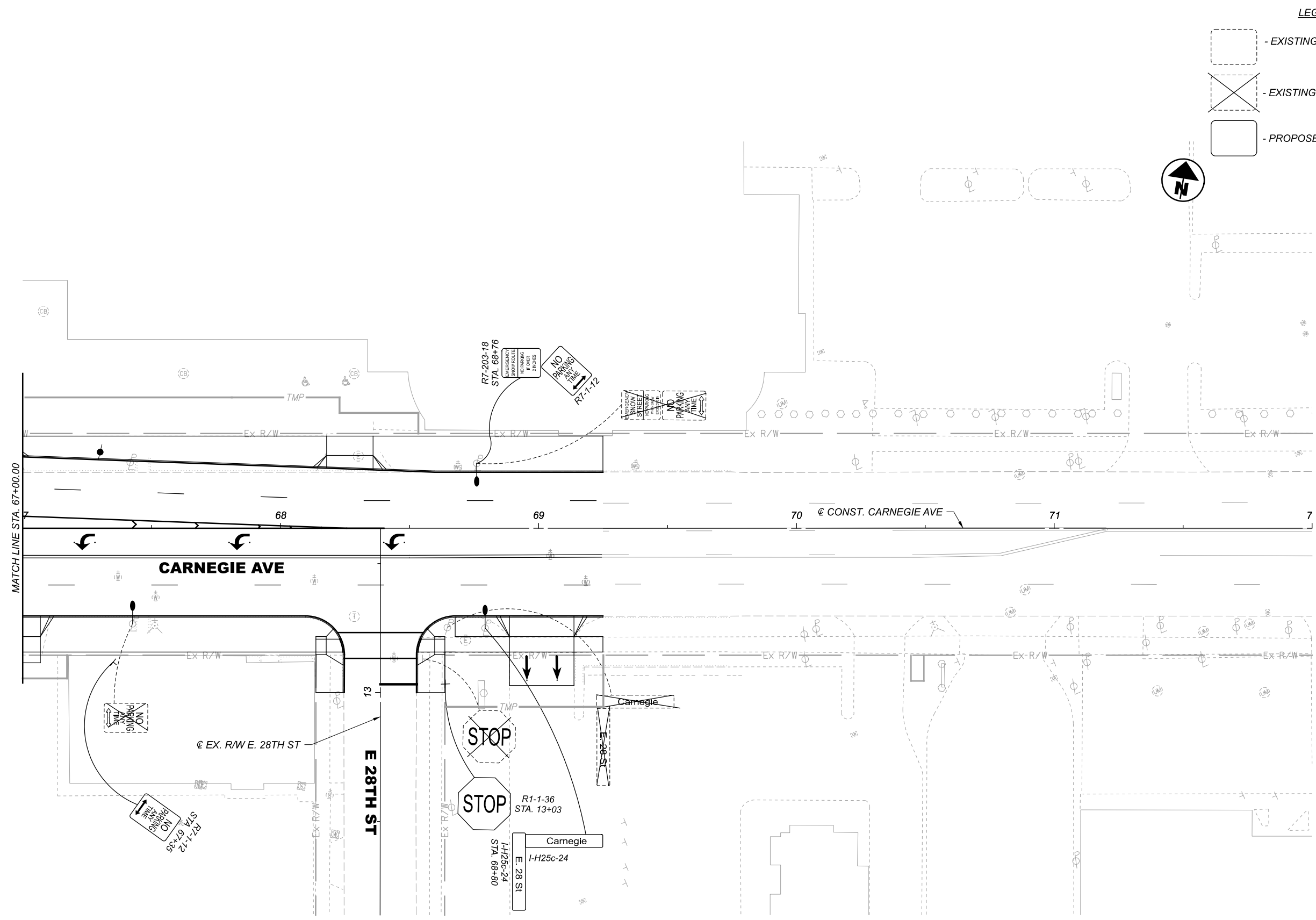
-  - EXISTING SIGN TO REMAIN
-  - EXISTING SIGN TO BE REMOVED
-  - PROPOSED SIGN



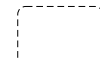
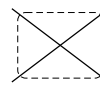

SIGNING PLAN - CARNEGIE AVE
 STA. 62+00.00 TO STA. 67+00.00

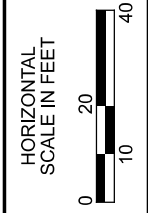
DESIGN AGENCY	
DESIGNER	
REVIEWER	
PROJECT ID	82382
SHEET TOTAL	1296 2339

Michael Baker INTERNATIONAL



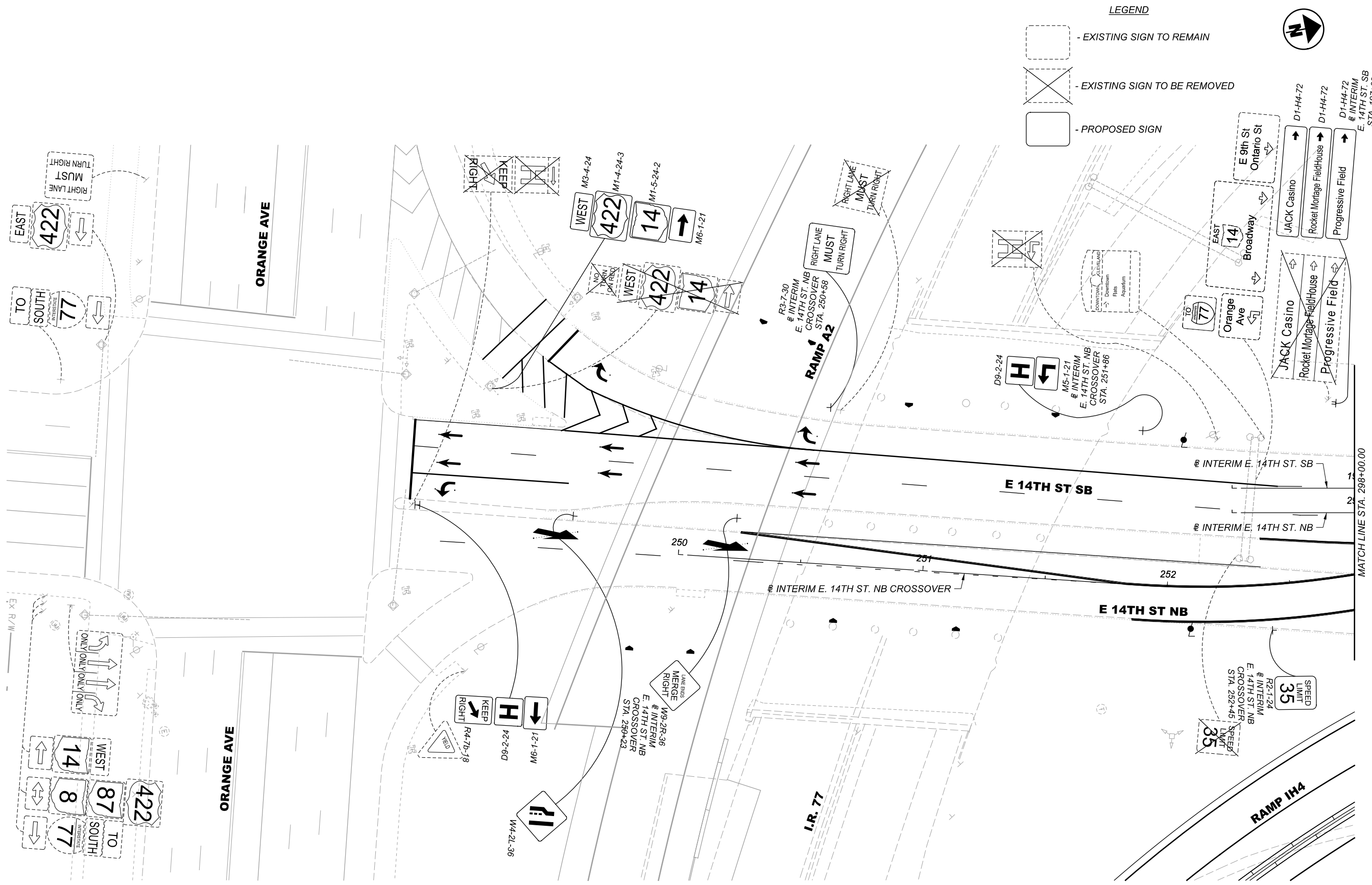
LEGEND

-  - EXISTING SIGN TO REMAIN
-  - EXISTING SIGN TO BE REMOVED
-  - PROPOSED SIGN



SIGNING PLAN - CARNEGIE AVE
 STA. 67+00.00 TO END

DESIGN AGENCY	
Michael Baker INTERNATIONAL	
DESIGNER	
REVIEWER	
PROJECT ID	82382
SHEET	TOTAL
1297	2339



SIGNING PLAN - E. 14TH ST NB
 BEGIN TO STA. 298+00.00

DESIGN AGENCY

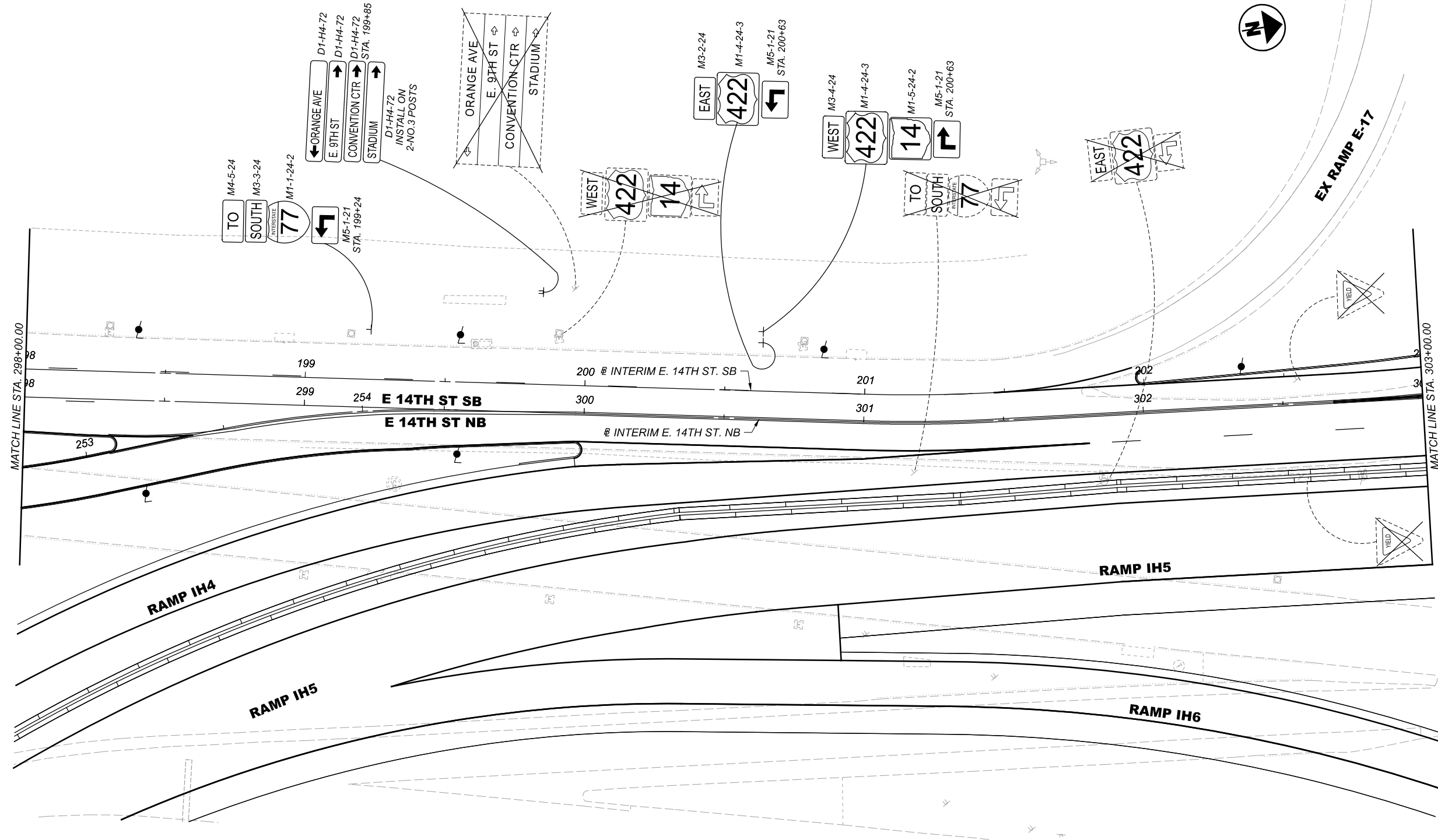
Michael Baker INTERNATIONAL

DESIGNER


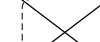

REVIEWER

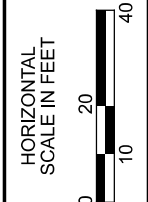
PROJECT ID
82382

SHEET	TOTAL
1298	2339



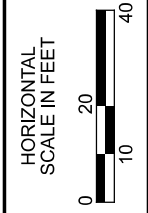
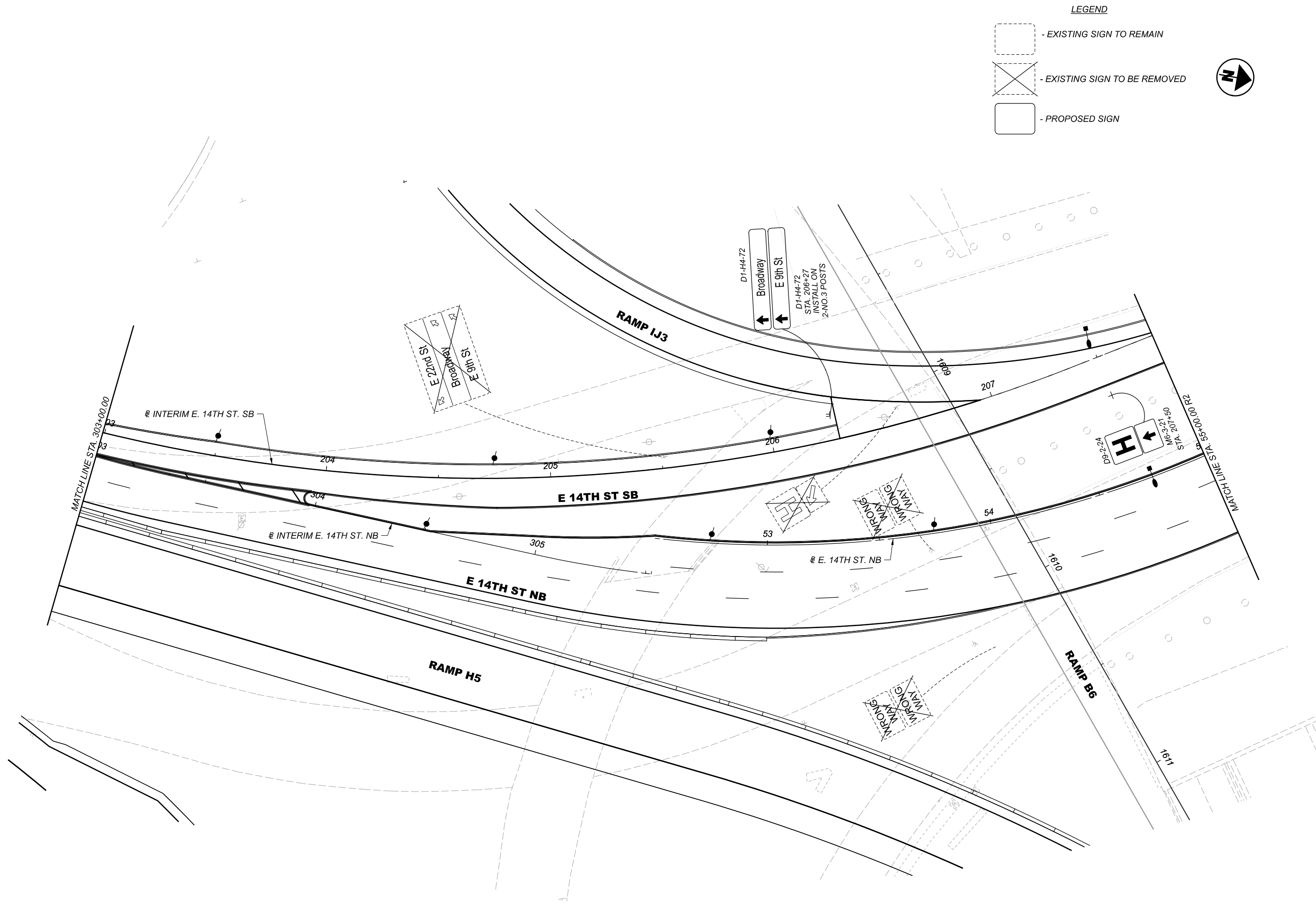
LEGEND

-  - EXISTING SIGN TO REMAIN
-  - EXISTING SIGN TO BE REMOVED
-  - PROPOSED SIGN



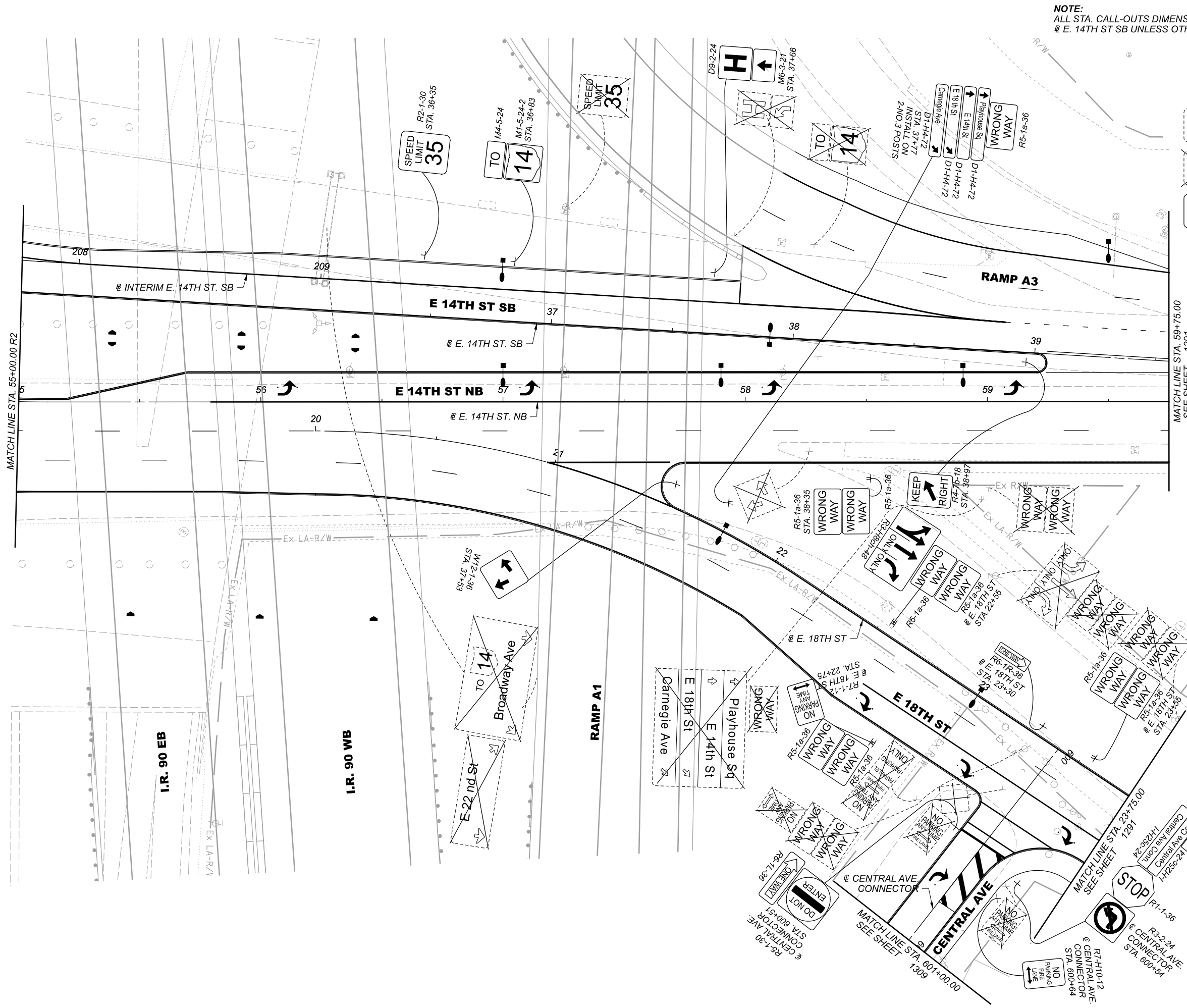
SIGNING PLAN - E. 14TH ST NB
 STA. 298+00.00 TO STA. 303+00.00

DESIGN AGENCY	
Michael Baker INTERNATIONAL	
DESIGNER	
REVIEWER	
PROJECT ID	
82382	
SHEET	TOTAL
1299	2339



SIGNING PLAN - E. 14TH ST NB
 STA. 303+00.00 TO STA. 55+00.00




DESIGN AGENCY	
Michael Baker INTERNATIONAL	
DESIGNER	
REVIEWER	
PROJECT ID	
82382	
SHEET	TOTAL
1300	2339



NOTE:
 ALL STA. CALL-OUTS DIMENSIONED OFF
 @ E. 14TH ST SB UNLESS OTHERWISE NOTED.



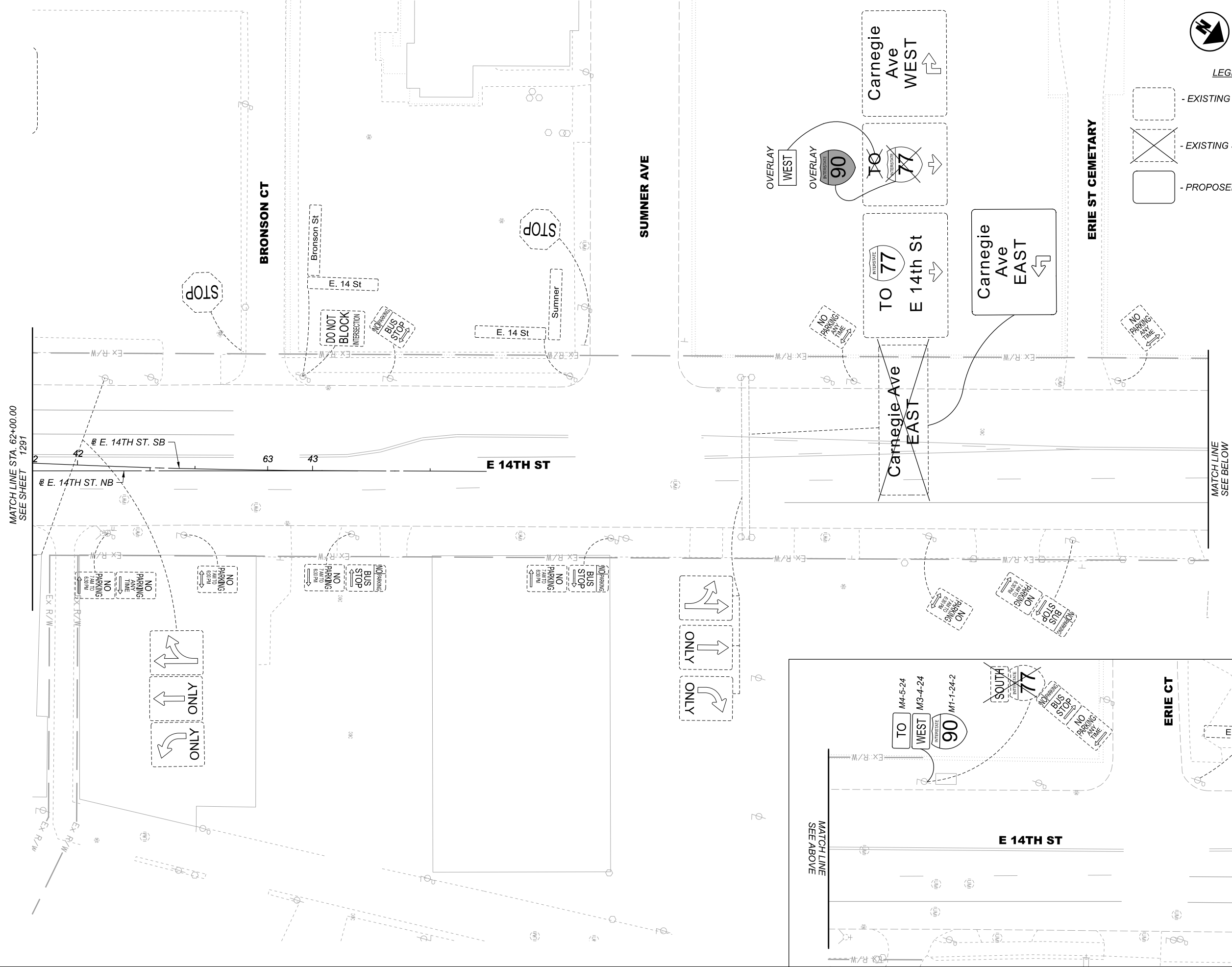
LEGEND

-  - EXISTING SIGN TO REMAIN
-  - EXISTING SIGN TO BE REMOVED
-  - PROPOSED SIGN






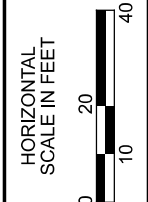
SIGNING PLAN - E. 14TH ST NB
 STA. 55+00.00 TO STA. 59+75.00

DESIGN AGENCY	Michael Baker INTERNATIONAL
DESIGNER	—
REVIEWER	—
PROJECT ID	82382
SHEET TOTAL	1301 2339



LEGEND

-  - EXISTING SIGN TO REMAIN
-  - EXISTING SIGN TO BE REMOVED
-  - PROPOSED SIGN



SIGNING PLAN - E. 14TH ST NB
 STA. 62+00.00 TO END

DESIGN AGENCY

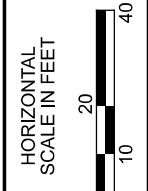
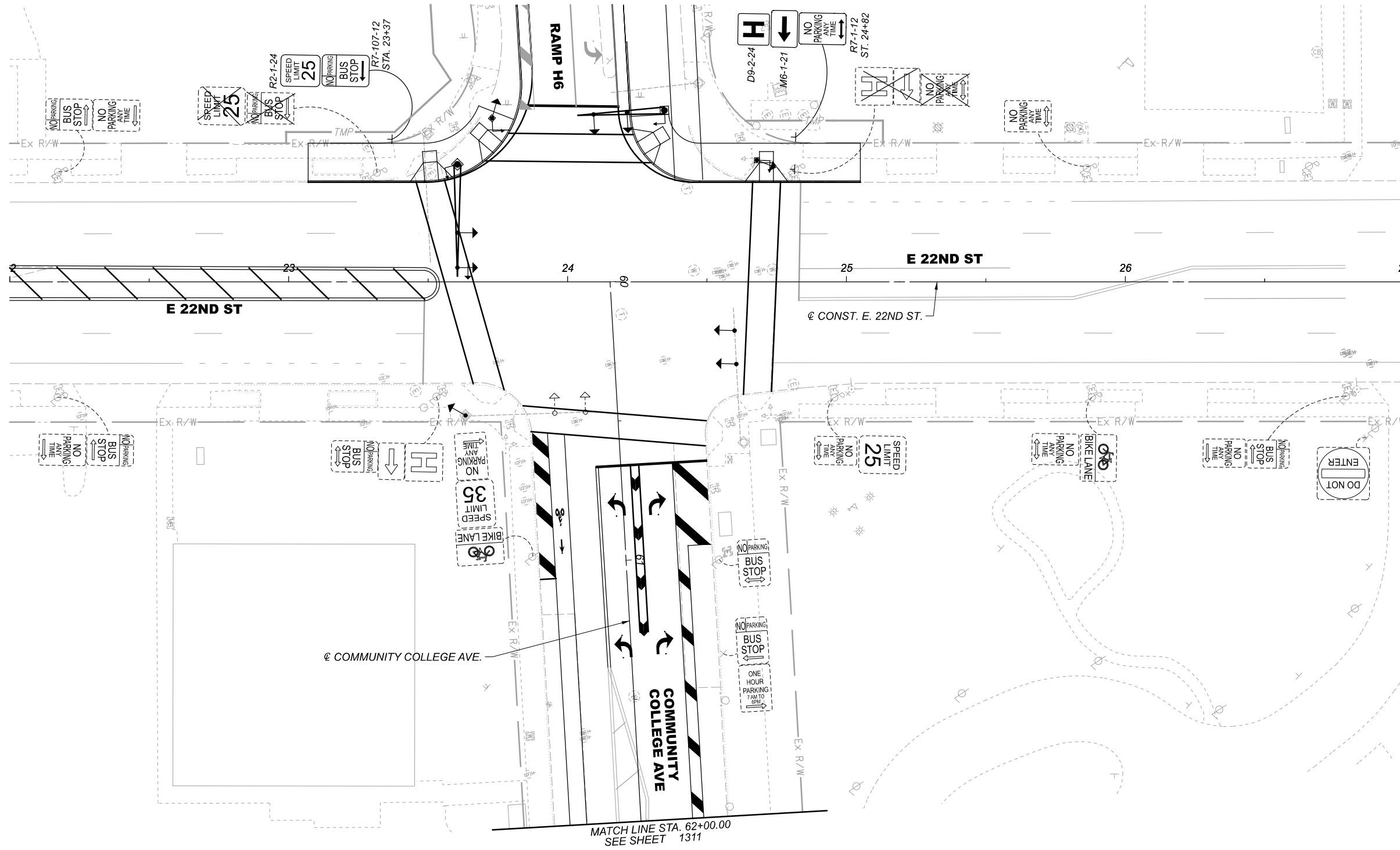
Michael Baker INTERNATIONAL

DESIGNER




REVIEWER

PROJECT ID
 82382

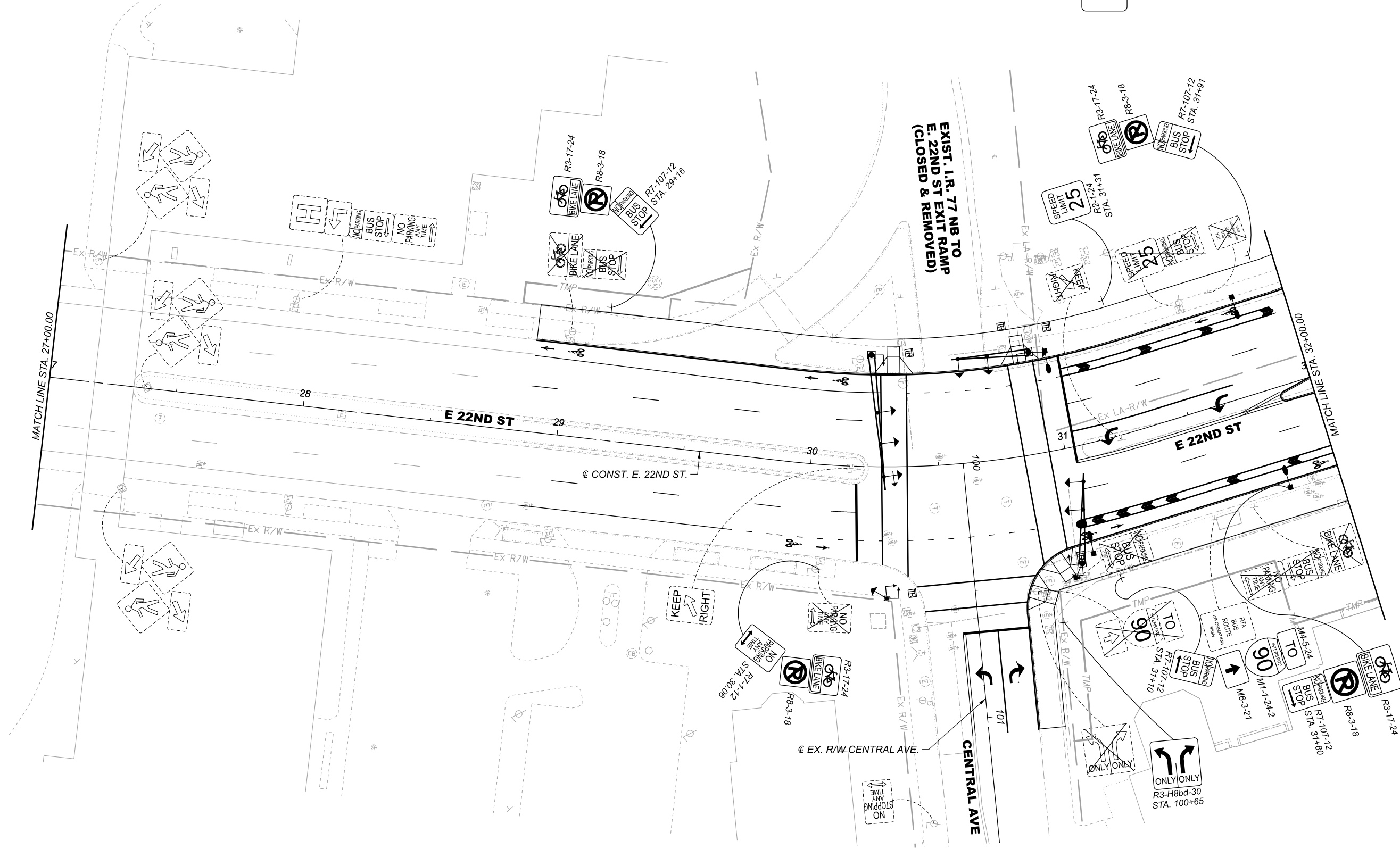
SHEET	TOTAL
1302	2339






**SIGNING PLAN - E. 22ND ST
 BEGIN TO STA. 27+00.00**

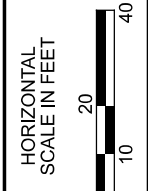
- LEGEND**
-  - EXISTING SIGN TO REMAIN
 -  - EXISTING SIGN TO BE REMOVED
 -  - PROPOSED SIGN

DESIGN AGENCY	Michael Baker INTERNATIONAL
DESIGNER	—
REVIEWER	—
PROJECT ID	82382
SHEET TOTAL	1303 2339



LEGEND

-  - EXISTING SIGN TO REMAIN
-  - EXISTING SIGN TO BE REMOVED
-  - PROPOSED SIGN



SIGNING PLAN - E. 22ND ST
 STA. 27+00.00 TO STA. 32+00.00

DESIGN AGENCY

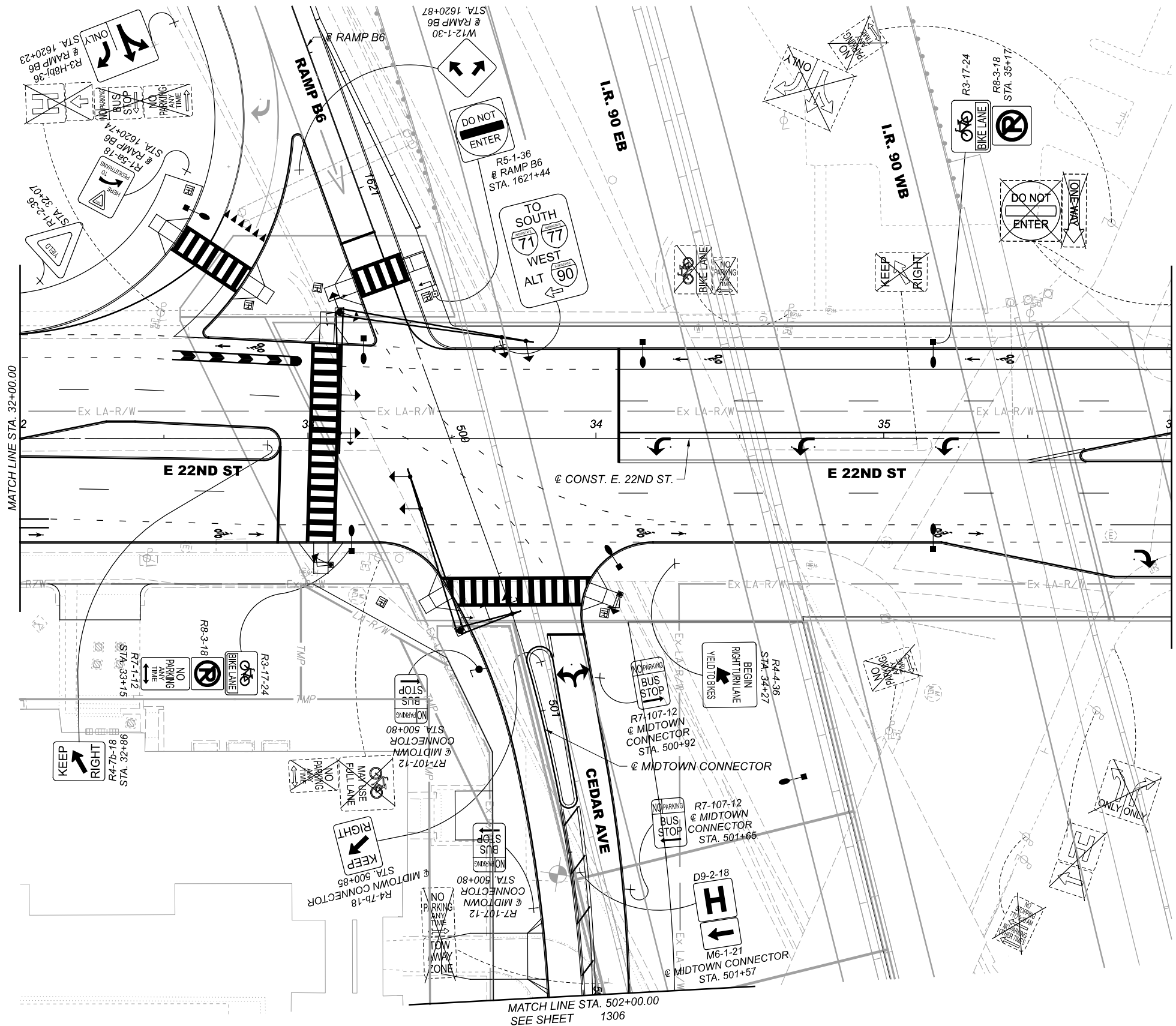
Michael Baker INTERNATIONAL

DESIGNER




REVIEWER

PROJECT ID
82382

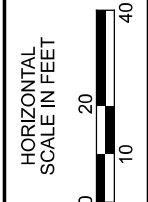
SHEET	TOTAL
1304	2339



LEGEND

-  - EXISTING SIGN TO REMAIN
-  - EXISTING SIGN TO BE REMOVED
-  - PROPOSED SIGN

NOTE:
 ALL STA. CALL-OUTS DIMENSIONED OFF
 @ CONST. E. 22ND ST. UNLESS
 OTHERWISE NOTED.



SIGNING PLAN - E. 22ND ST
 STA. 32+00.00 TO STA. 36+00.00

DESIGN AGENCY

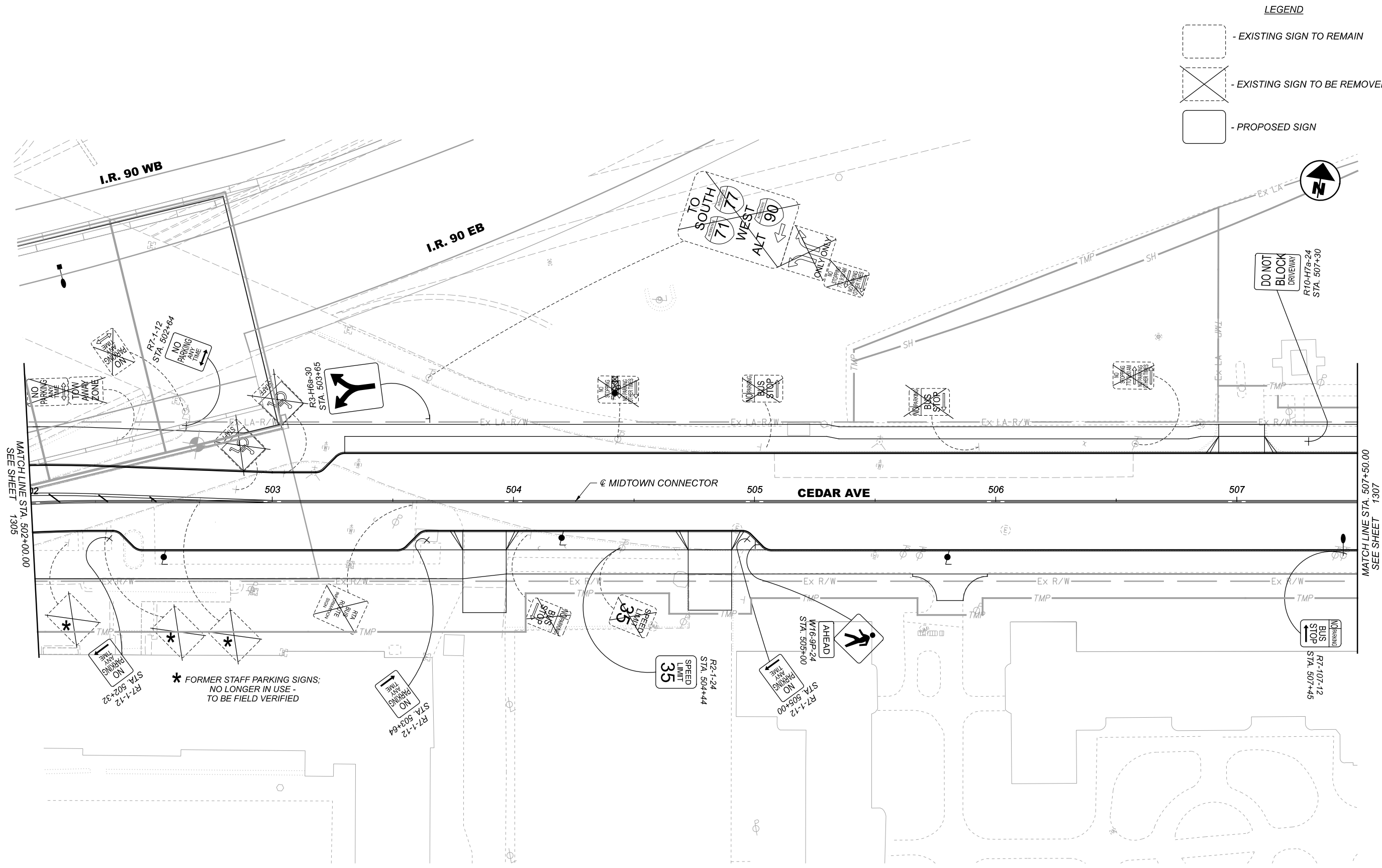
Michael Baker INTERNATIONAL

DESIGNER

REVIEWER

PROJECT ID
82382

SHEET	TOTAL
1305	2339



MATCH LINE STA. 502+00.00
SEE SHEET 1305

MATCH LINE STA. 507+50.00
SEE SHEET 1307

* FORMER STAFF PARKING SIGNS:
NO LONGER IN USE -
TO BE FIELD VERIFIED



SIGNING PLAN - MIDTOWN CONNECTOR
STA. 502+00.00 TO STA. 507+50.00

DESIGN AGENCY

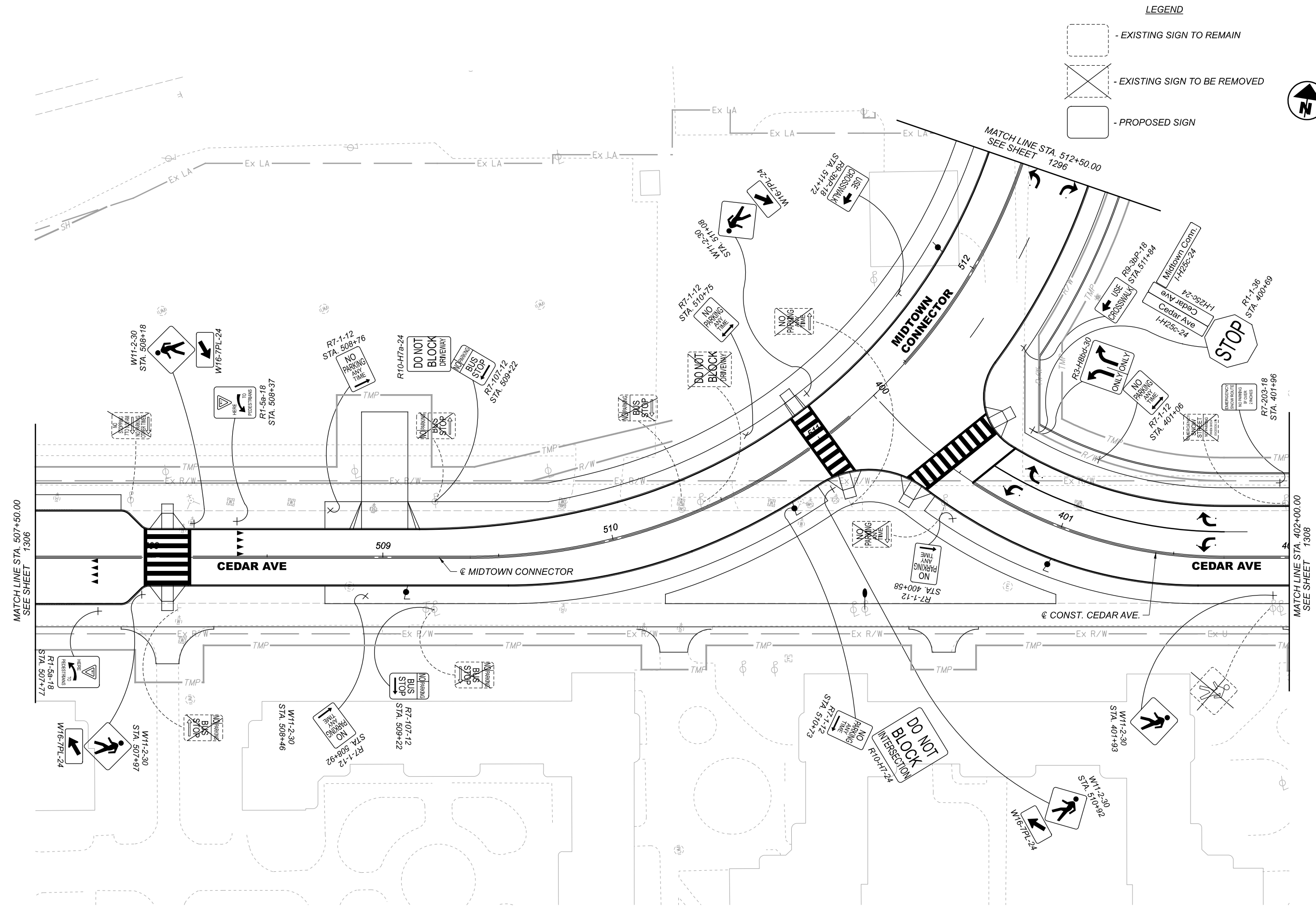
Michael Baker
INTERNATIONAL

DESIGNER

REVIEWER

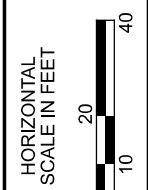
PROJECT ID
82382

SHEET	TOTAL
1306	2339



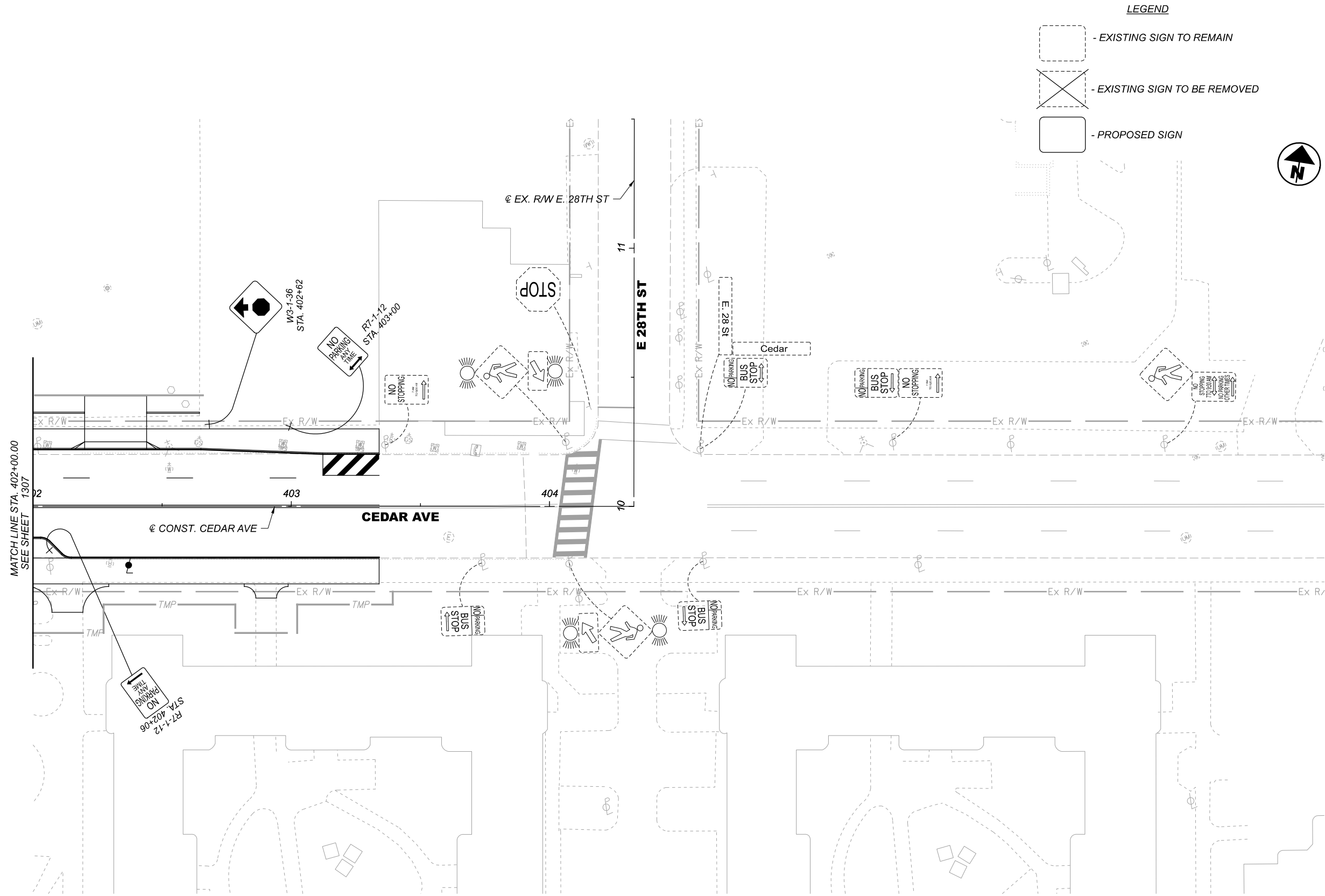
LEGEND

- EXISTING SIGN TO REMAIN
- X - EXISTING SIGN TO BE REMOVED
- PROPOSED SIGN






SIGNING PLAN - MIDTOWN CONNECTOR
 STA. 507+50.00 TO STA. 512+50.00

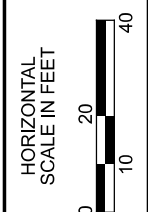
DESIGN AGENCY	
Michael Baker INTERNATIONAL	
DESIGNER	
REVIEWER	
PROJECT ID	
82382	
SHEET	TOTAL
1307	2339



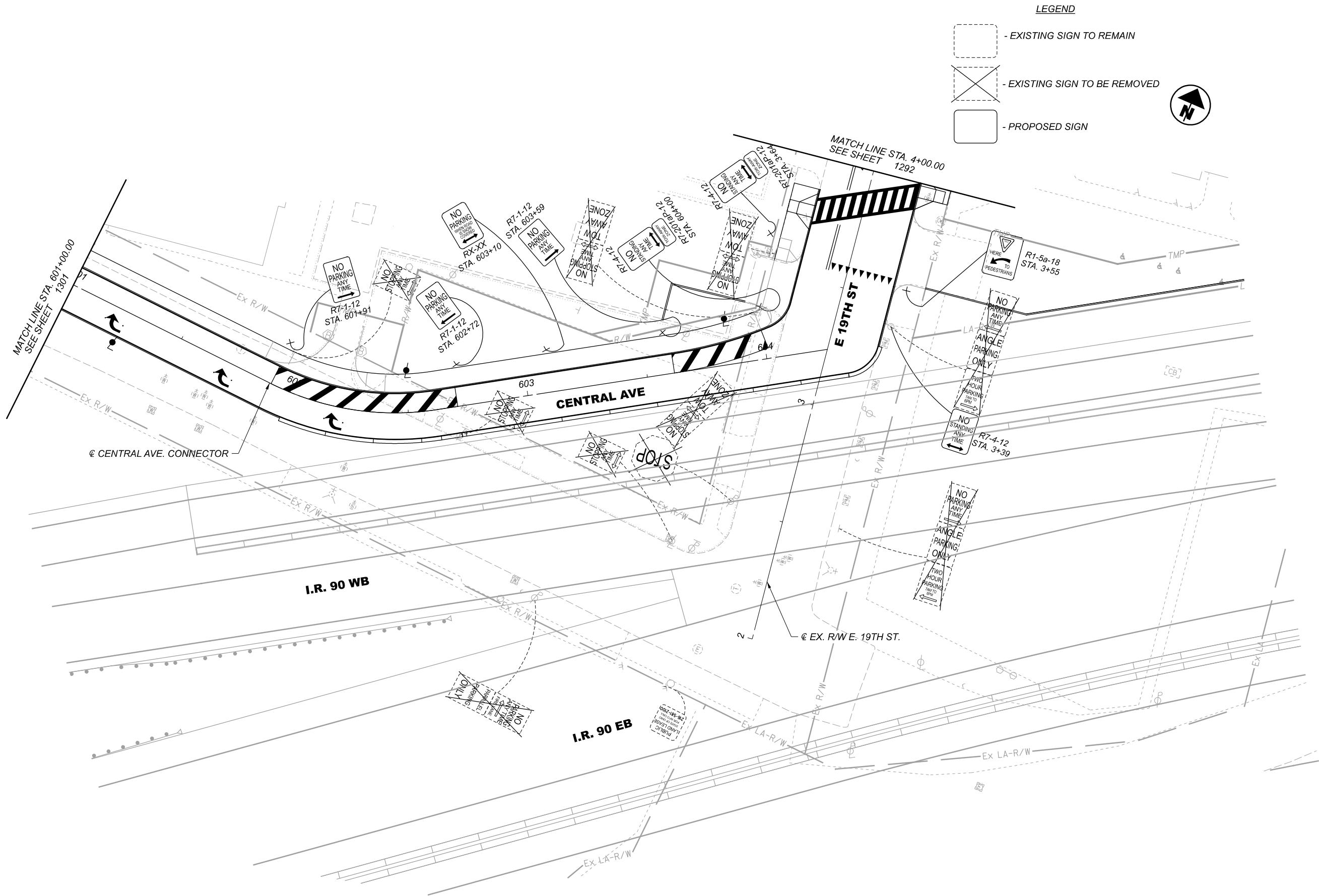
LEGEND

-  - EXISTING SIGN TO REMAIN
-  - EXISTING SIGN TO BE REMOVED
-  - PROPOSED SIGN




**SIGNING PLAN - CEDAR AVE
 STA. 402+00.00 TO END**

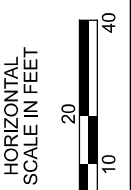


DESIGN AGENCY	
Michael Baker INTERNATIONAL	
DESIGNER	
REVIEWER	
PROJECT ID	
82382	
SHEET	TOTAL
1308	2339



LEGEND

-  - EXISTING SIGN TO REMAIN
-  - EXISTING SIGN TO BE REMOVED
-  - PROPOSED SIGN



SIGNING PLAN - CENTRAL AVE CONNECTOR
 STA. 601+00.00 TO END

DESIGN AGENCY

Michael Baker
 INTERNATIONAL




DESIGNER

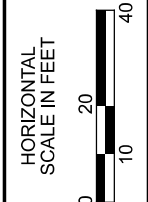
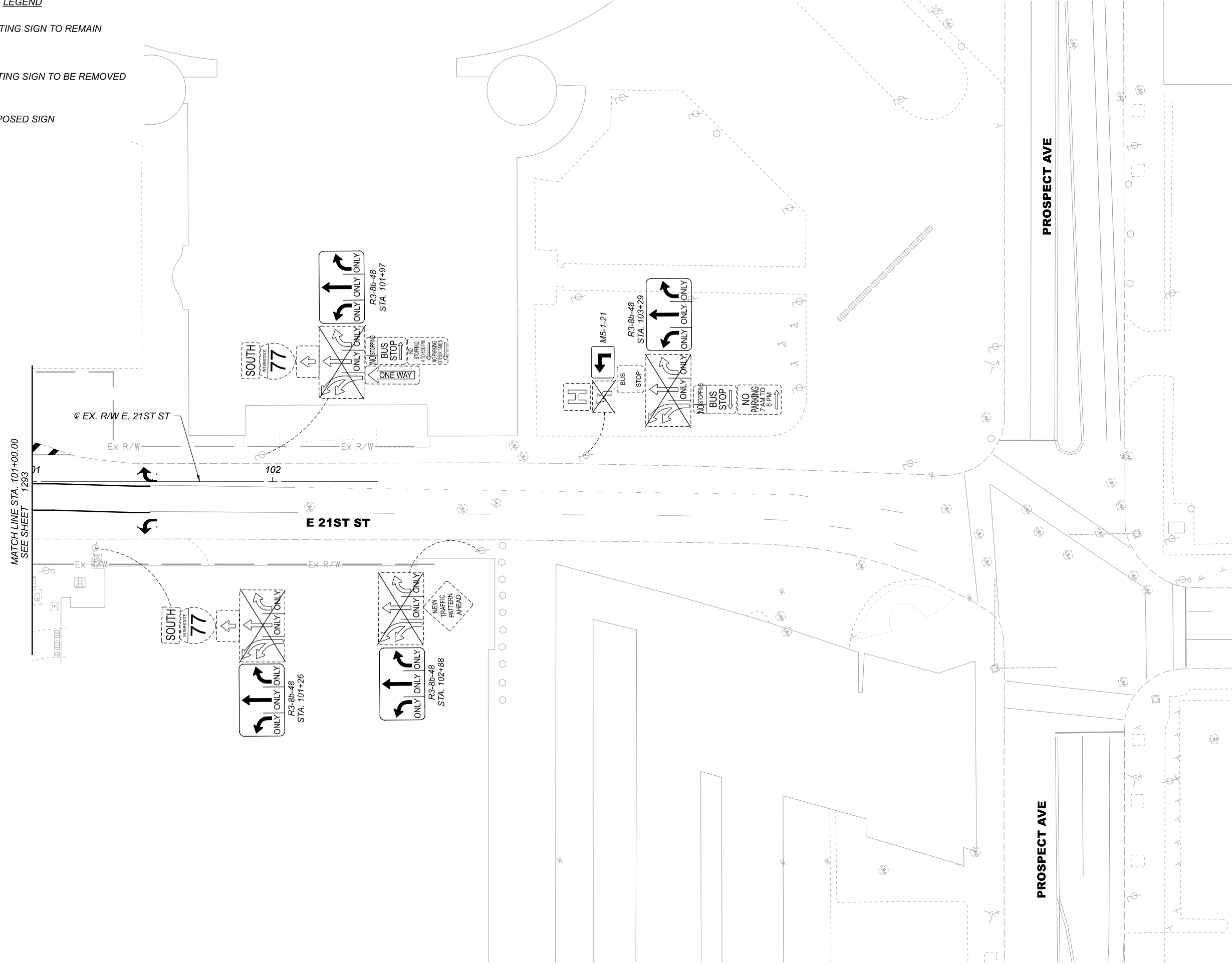
REVIEWER

PROJECT ID
 82382

SHEET	TOTAL
1309	2339

LEGEND

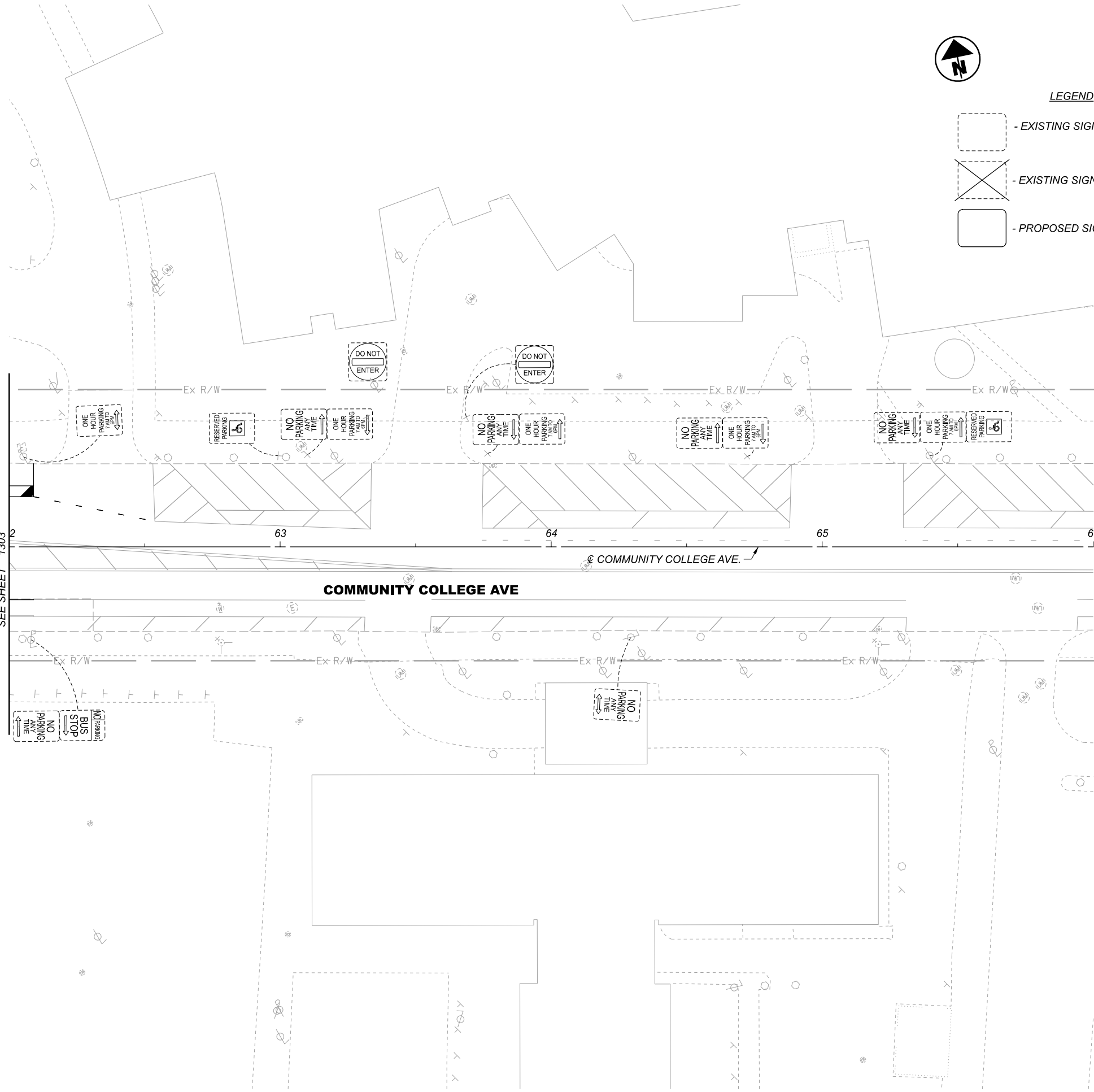
-  - EXISTING SIGN TO REMAIN
-  - EXISTING SIGN TO BE REMOVED
-  - PROPOSED SIGN






SIGNING PLAN - E. 21ST ST
 STA. 101+00.00 TO END

DESIGN AGENCY	Michael Baker INTERNATIONAL
DESIGNER	—
REVIEWER	—
PROJECT ID	82382
SHEET TOTAL	1310 2339

MATCH LINE STA. 62+00.00
 SEE SHEET 1303



LEGEND

-  - EXISTING SIGN TO REMAIN
-  - EXISTING SIGN TO BE REMOVED
-  - PROPOSED SIGN

SIGNING PLAN - COMMUNITY COLLEGE AVE
 STA. 62+00.00 TO STA. 66+00.00

DESIGN AGENCY

Michael Baker
 INTERNATIONAL

DESIGNER

REVIEWER

PROJECT ID
 82382

SHEET	TOTAL
1311	2339



PS-1, 15' PEDESTAL WITH
 (1) SIDE-MOUNTED VEHICULAR SIGNAL HEAD
 STA. 38+64.4, 75.7' LT

CONTROLLER CABINET
 STA. 38+55.1, 81.0' LT
 (2)-4" CONDUIT WITH (8)-7/C, (8)-5/C, (4)-3/C,
 AND (4)-RC, IN TRENCH = 16'

PB-1
 (1)-3" CONDUIT WITH (1)-7/C, (2)-5/C, (1)-3/C,
 AND (1)-RC, IN TRENCH = 17'

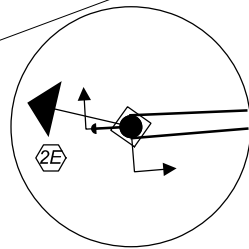
SP-1, TYPE TC-81.22, DESIGN 14 WITH
 61' MAST ARM, (1) PEDESTRIAN PUSH BUTTON "PB4B",
 (2) PEDESTRIAN SIGNAL HEADS "PH4A" AND "PH6B",
 AND (1) STOP-LINE RADAR DETECTOR "R-1"
 STA. 38+44.8, 61.4' LT

(2)-4" CONDUIT WITH (2)-7/C, (2)-5/C, (1)-3/C,
 AND (1)-RC, IN TRENCH = 126'

(1)-3" CONDUIT WITH (2)-7/C, (2)-5/C, (1)-3/C,
 AND (1)-RC, IN TRENCH = 15'

PB-2

SP-2, TYPE TC-81.22, DESIGN 13 WITH
 55' MAST ARM, (1) PEDESTRIAN PUSH BUTTON "PB4B",
 (2) PEDESTRIAN SIGNAL HEADS "PH4B" AND "PH2A",
 (1) SIDE-MOUNTED VEHICULAR SIGNAL HEAD,
 AND (1) STOP-LINE RADAR DETECTOR "R-4"
 STA. 38+48.7, 54.7' RT

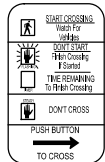


DETAIL A
 NOT TO SCALE

PULL BOX TABLE

PULL BOX #	STATION	SIDE	OFFSET	SIZE (IN.)
PB-1	38+60.0	LT	66.1	24 x 36
PB-2	38+34.2	RT	56.8	24 x 36
PB-3	39+37.2	LT	56.7	24 x 36
PB-4	39+82.7	RT	38.0	24 x 36

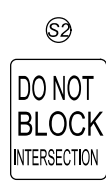
NOTE:
 1. RADAR DETECTION LOCATION IS FOR
 REFERENCE ONLY. ACTUAL PLACEMENT WILL
 BE RECOMMENDED BY MANUFACTURER.



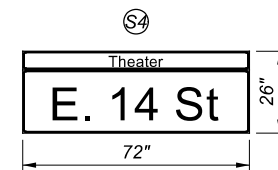
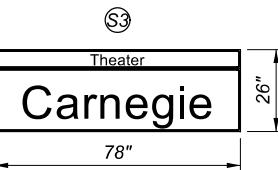
R10-3e-9
 3 - LEFT ARROWS
 (SP-2, PS-3, SP-4)
 1 - RIGHT ARROW
 (SP-1)



R3-5L-30



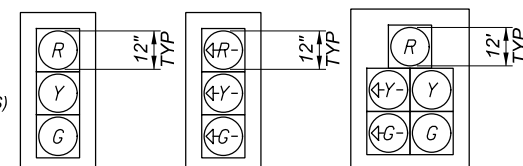
R10-7-24



PROPOSED SIGNS

PROPOSED SIGNALS

VEHICULAR SIGNAL HEADS
 (12" LENS, LED, YELLOW,
 W/ REFLECTIVE BACKPLATES)



2B, 2C, 2D, 2E,
 4B, 4C, 6C, 6D,
 6E, 8B, 8C

6A, 6B

2A, 4A, 8A



PEDESTRIAN HEADS
 (LED, COUNTDOWN,
 TYPE D2)



SP-3, TYPE TC-81.22, DESIGN 4 WITH
 33' MAST ARM AND
 (1) STOP-LINE RADAR DETECTOR "R-8"
 STA. 39+28.0, 79.3' LT

(1)-3" CONDUIT WITH (1)-7/C
 AND (1)-RC, IN TRENCH = 22'

PB-3

(1)-3" CONDUIT WITH (1)-7/C, (2)-5/C,
 AND (1)-3/C, IN TRENCH = 7'

PS-3, 15' PEDESTAL WITH
 (1) PEDESTRIAN PUSH BUTTON "PB8B",
 (2) PEDESTRIAN SIGNAL HEADS "PH8B" AND "PH6A",
 AND (1) SIDE-MOUNTED VEHICULAR SIGNAL HEAD
 STA. 39+41.6, 55.5' LT

(2)-4" CONDUIT WITH (2)-7/C, (2)-5/C, (1)-3/C,
 AND (1)-RC, IN TRENCH = 110'

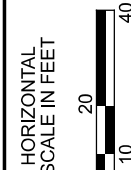
PB-4

(1)-3" CONDUIT WITH (2)-7/C, (2)-5/C, (1)-3/C,
 AND (1)-RC, IN TRENCH = 13'

SP-4, TYPE TC-81.22, DESIGN 13 WITH
 56' MAST ARM, (1) PEDESTRIAN PUSH BUTTON "PB8A",
 (2) PEDESTRIAN SIGNAL HEADS "PH8A" AND "PH2B",
 (1) SIDE-MOUNTED VEHICULAR SIGNAL HEAD,
 AND (1) STOP-LINE RADAR DETECTOR "R-5"
 STA. 39+70.2, 40.3' RT

LEGEND

- TRAFFIC SIGNAL, 3 UNIT HEAD, 12"
- TRAFFIC SIGNAL, 3 UNIT HEAD, 12" WITH ARROWS
- TRAFFIC SIGNAL, 5 UNIT HEAD, 12"
- CONTROLLER CABINET
- SIGNAL SUPPORT POLE
- PEDESTRIAN SIGNAL
- PEDESTRIAN PUSH BUTTON
- PEDESTRIAN PEDESTAL SUPPORT
- TRAFFIC PULL BOX
- SIGNAL CONDUIT



TRAFFIC SIGNAL PLAN
 CARNEGIE AVE. & E. 14TH ST.

DESIGN AGENCY

Michael Baker
 INTERNATIONAL

DESIGNER

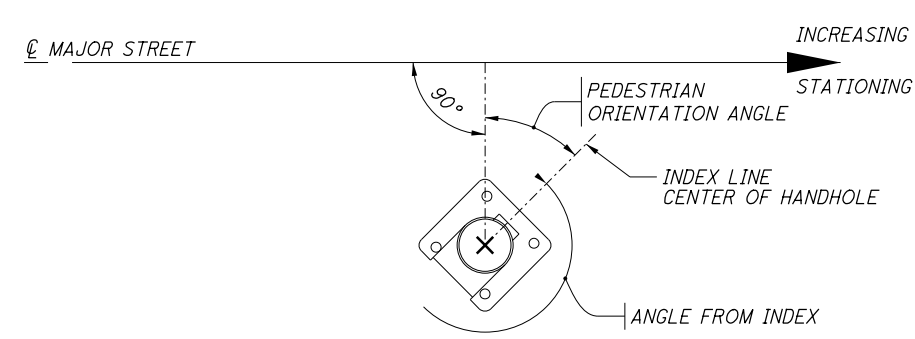
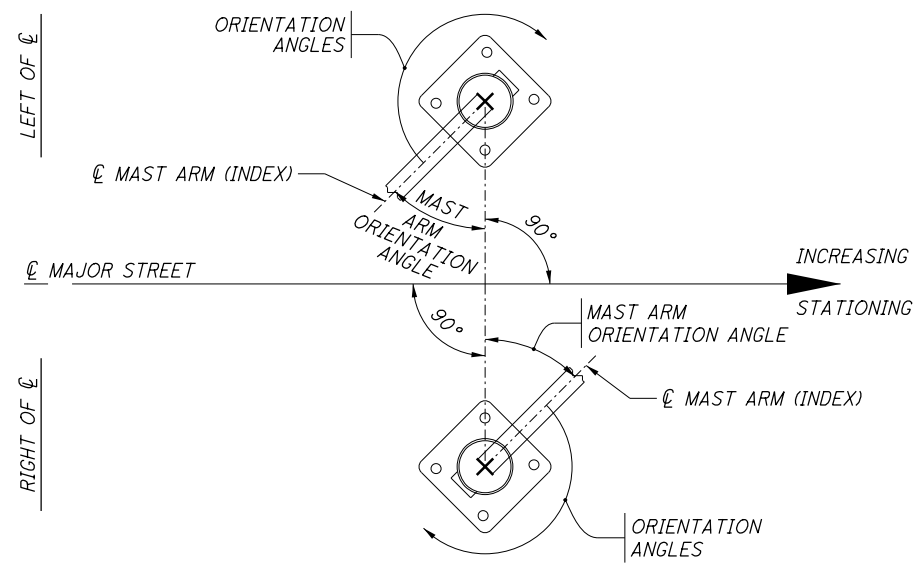
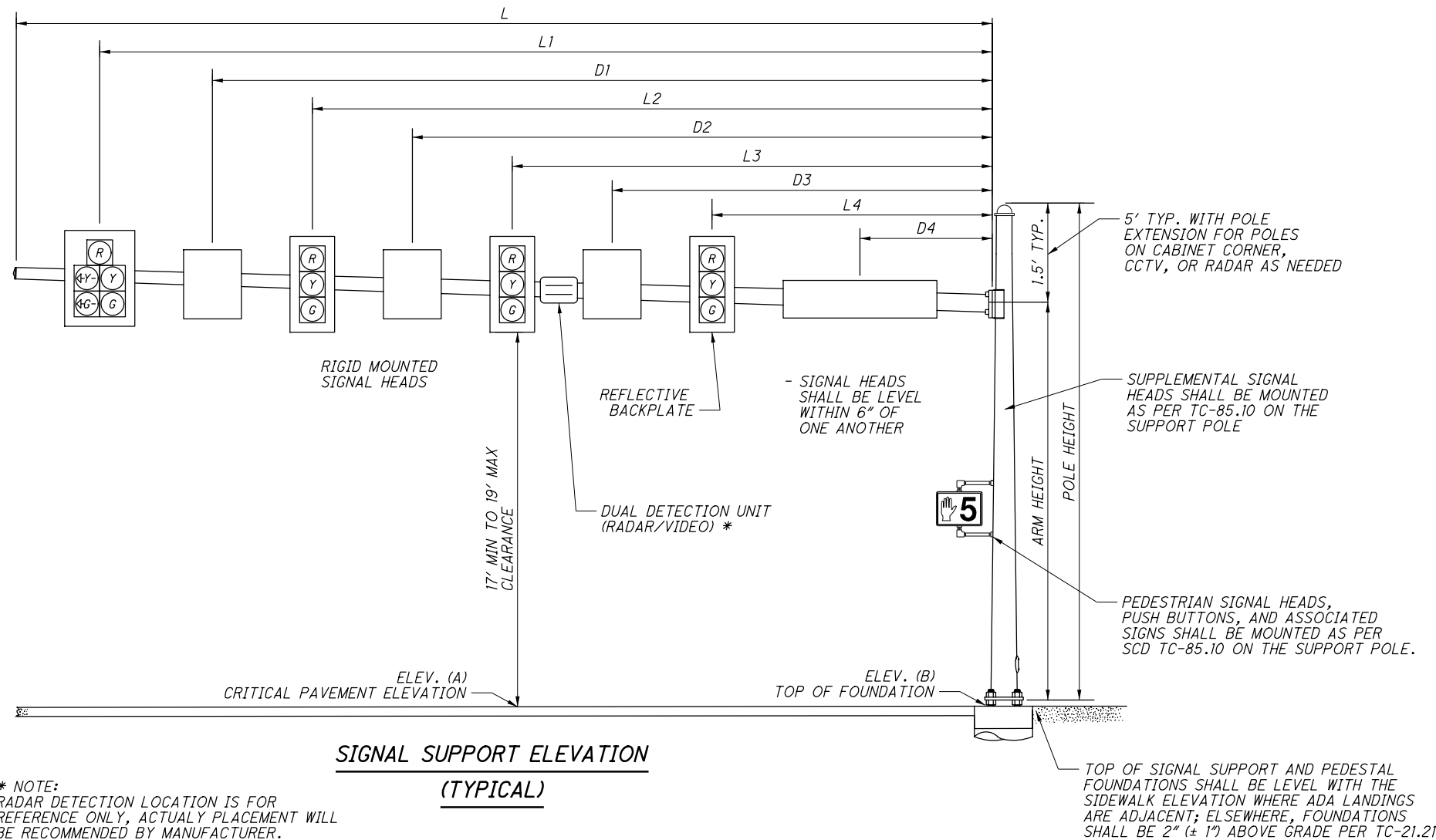
REVIEWER

PROJECT ID

82382

SHEET TOTAL

1312 2339



MAST ARM TABLE (TEM FIGURE 498-37 & 38)

SUPPORT NO.	STATION	OFFSET	ELEVATION		SIGNAL SUPPORT DETAILS												ORIENTATION ANGLES FROM MAST ARM A										
			A (PAVEMENT ELEVATION)	B (TOP OF FOUNDATION)	DESIGN TYPE	DESIGN NO.	POLE HEIGHT	ARM HEIGHT	L	L1	L2	L3	L4	D1	D2	D3	D4	MAST ARM A ANGLE	MAST ARM B ANGLE	PEDESTRIAN SIGNAL A	PEDESTRIAN SIGNAL B	PEDESTRIAN PUSH BUTTON	POWER SERVICE	SIGNAL CABINET	BRACKET ARM	HANDHOLE (PEDESTRIAN ORIENTATION ANGLE)	CABLE ENTRANCE 12" FROM TOP
							FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	DEG	DEG	DEG	DEG	DEG	DEG	DEG	DEG	DEG	DEG	DEG
SP-1	-	-	-	-	TC-81.22	14	-	-	61.0'	58.5'	47.0'	36.5'	23.5'	55.0'	43.5'	30.0'	15.5'	0	-	90	0	90	-	-	-	-	-
SP-2	-	-	-	-	TC-81.22	13	-	-	55.0'	48.0'	36.0'	-	-	53.0'	42.0'	28.0'	-	90	-	90	180	180	-	-	-	-	-
SP-3	-	-	-	-	TC-81.22	4	-	-	33.0'	25.5'	11.0'	-	-	31.5'	18.25'	5.0'	-	80	-	-	-	-	-	-	-	-	-
SP-4	-	-	-	-	TC-81.22	13	-	-	56.0'	53.5'	34.75'	23.75'	12.75'	50.0'	29.25'	6.0'	-	0	-	180	260	260	-	-	-	-	-
PS-1	-	-	-	-	-	-	15'	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PS-3	-	-	-	-	-	-	15'	-	-	-	-	-	-	-	-	-	-	-	-	0	90	0	-	-	260	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

SIGNAL TIMING CHART (TEM FORM 496-3)

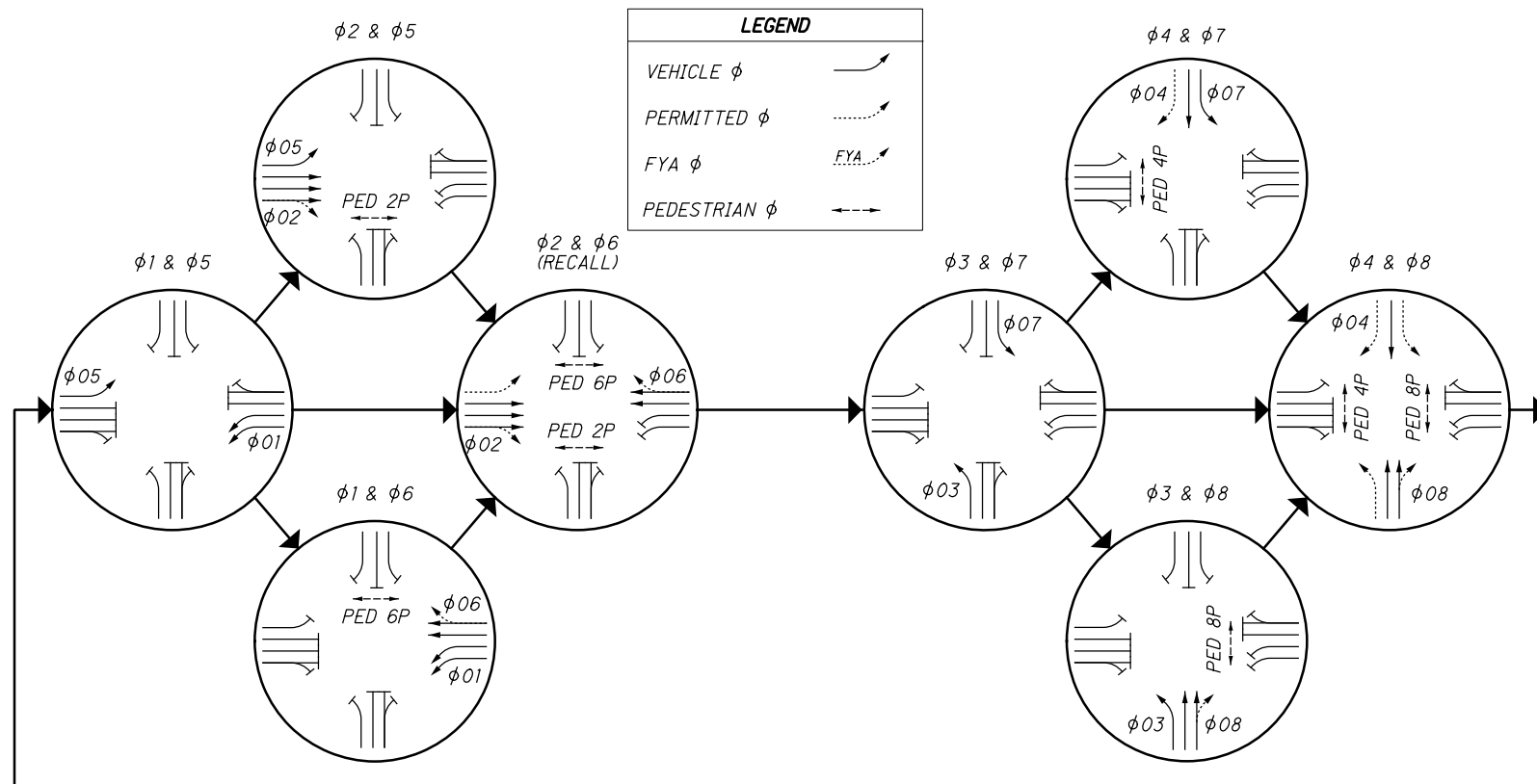
INTERSECTION: CARNegie AVE & E. 14TH ST MAINTAINING AGENCY: CITY OF CLEVELAND									
START UP		DUAL ENTRY: YES	PHASES: 2+6, 4+8						
START IN: ALL RED		REST IN RED: RING 1 - RING 2 -	OVERLAP						
TIME FOR FLASH, ALL RED: 5		PHASES							
FIRST PHASE(S): 2 + 6		PHASES							
COLOR DISPLAYED: GREEN		PHASES							
INTERVAL OR FEATURE		CONTROLLER MOVEMENT NO.							
INTERSECTION MOVEMENT (PHASE)		1	2	3	4	5	6	7	8
DIRECTION		WBL	EBT	NBL	SBT	EBL	WBT	SBL	NBT
MINIMUM GREEN (INITIAL) (SEC.)		-	-	-	-	-	-	-	-
ADDED INITIAL *(SEC./ACTUATION)		-	-	-	-	-	-	-	-
MAXIMUM INITIAL *(SEC.)		-	-	-	-	-	-	-	-
PASSAGE TIME (PRESET GAP) (SEC.)		-	-	-	-	-	-	-	-
TIME BEFORE REDUCTION *(SEC.)		-	-	-	-	-	-	-	-
MINIMUM GAP *(SEC.)		-	-	-	-	-	-	-	-
TIME TO REDUCE *(SEC.)		-	-	-	-	-	-	-	-
MAXIMUM GREEN I (SEC.)		-	-	-	-	-	-	-	-
MAXIMUM GREEN II (SEC.)		-	-	-	-	-	-	-	-
YELLOW CHANGE (SEC.)		3	4	3	4	3	4	3	4
ALL RED CLEARANCE (SEC.)		4	3	4	3	4	3	4	3
DELAYED GREEN (LPI) # (SEC.)		-	-	-	-	-	-	-	-
WALK (SEC.)		-	7	-	9	-	7	-	7
FLASHING YELLOW ARROW DELAY °		-	-	-	-	-	-	-	-
PEDESTRIAN CLEARANCE (SEC.)		-	22	-	24	-	15	-	22
RECALL	MAXIMUM (ON/OFF)	-	-	-	-	-	-	-	-
	MINIMUM (ON/OFF)	-	-	-	-	-	-	-	-
	PEDESTRIAN (ON/OFF)	-	ON	-	-	-	ON	-	-
MEMORY (ON/OFF)		-	-	-	-	-	-	-	-

*VOLUME DENSITY CONTROLS

#FOR CROSSING WITH PEDESTRIAN PUSHBUTTONS, LPI'S (LEADING PEDESTRIAN INTERVALS) MAY BE IMPLEMENTED (3-6 SEC.) IN ACCORDANCE WITH LPI DURATION TIME PER THE ODOT SIGNAL CALCULATIONS - CLEARANCE INTERVALS SPREADSHEET.

*WHEN IMPLEMENTING FYA, A MINIMUM 3 SECOND DELAY SHALL BE PROGRAMMED.

PHASING DIAGRAM



RADAR DETECTION CHART (TEM FORM 496-4)

DETECTION ZONE	MOVEMENT	WIDTH	DELAY PROGRAMMED IN CONTROLLER (SEC)	EXTENSION PROGRAMMED IN CONTROLLER (SEC)	DETECTOR NUMBER	PURPOSE	DETECTION ZONE LENGTH (FT)
RDZ1A	WBL	17	3	-	R-1	STOP-LINE	35
RDZ5A	EBL	6	3	-	R-5	STOP-LINE	35
RDZ4A	SB	25	3	-	R-4	STOP-LINE	35
RDZ8A	NB	32	3	-	R-8	STOP-LINE	35
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-

NOTE: ADVANCED DILEMMA ZONE SPEED THRESHOLD >30 MPH
PURPOSE: STOP-LINE OR ADVANCED DETECTION

TRAFFIC SIGNAL PLAN DETAILS
CARNegie AVE. & E. 14TH ST.

CUY-90-16.28 (CCG3A)

MODEL: Sheet PAPER SIZE: 11x17 (in.) DATE: 6/22/2022 TIME: 9:19:40 PM USER: Caroline.Owings
pw:\mb-us-pw-bentley.comb-us-pw-03\Documents\Cleveland_OH\01_Projects\0001\Dist\121\82382\400-Engineering\Signals\Sheets\82382_CPI002.dgn

DESIGN AGENCY

Michael Baker
INTERNATIONAL

DESIGNER

REVIEWER

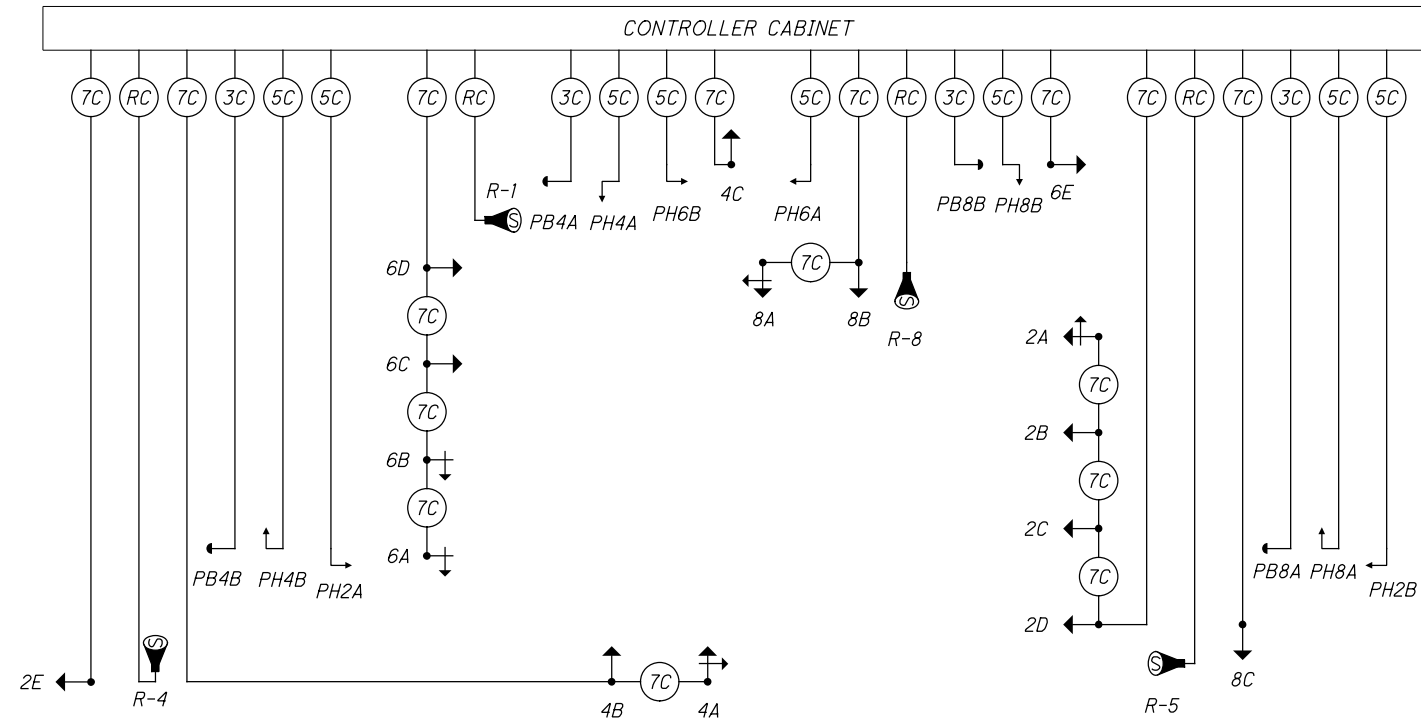
PROJECT ID

82382

SHEET TOTAL

1314 2339

WIRING DIAGRAM



FIELD WIRING HOOK-UP CHART (TEM FORM 496-16)

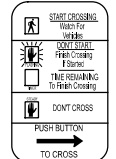
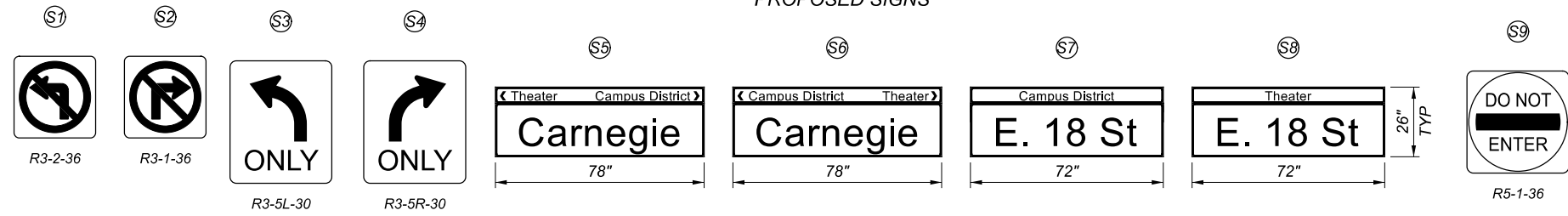
SIGNAL HEAD	INDICATION	FIELD TERMINAL	FLASH	SIGNAL HEAD	INDICATION	FIELD TERMINAL	FLASH
2A (EB)	R	φ2R	R	4C (SB)	R	φ4R	R
	Y	φ2Y			Y	φ4Y	
	G	φ2G			G	φ4G	
	<--Y--	φ5Y			R	φ8R	
2B, 2C, 2D (EB)	R	φ2R	R	8A (NB)	Y	φ8Y	R
	Y	φ2Y			G	φ8G	
	G	φ2G			<--Y--	φ3Y	
	<--G--	φ5G			<--G--	φ3G	
2E (EB)	R	φ2R	R	8B (NB)	R	φ8R	R
	Y	φ2Y			Y	φ8Y	
	G	φ2G			G	φ8G	
6A, 6B (WBL)	<--R--	φ1R	R	8C (NB)	R	φ8R	R
	<--Y--	φ1Y			Y	φ8Y	
	<--G--	φ1G			G	φ8G	
6C, 6D (WB)	R	φ6R	R	PEDESTRIAN MOVEMENTS			
	Y	φ6Y		PH2A, PH2B (EB)	W	φ2 PED / LS 13 G	OUT
	G	φ6G		DW	φ2 PED / LS 13 R		
6E (WB)	R	φ6R	R	PH6A, PH6B (WB)	W	φ6 PED / LS 14 G	OUT
	Y	φ6Y		DW	φ6 PED / LS 14 R		
	G	φ6G		PH8A, PH8B (NB)	W	φ8 PED / LS 15 G	OUT
4A (SB)	Y	φ4Y	R	DW	φ8 PED / LS 15 R	OUT	
	G	φ4G		PH4A, PH4B (SB)	W	φ4 PED / LS 16 G	OUT
	<--Y--	φ7Y		DW	φ4 PED / LS 16 R	OUT	
	<--G--	φ7G					
4B (SB)	R	φ4R	R				
	Y	φ4Y					
	G	φ4G					

* SEE TEM FIGURE 498-2 FOR COMPLETED SAMPLE OF THIS CHART.

LEGEND

	TRAFFIC SIGNAL, 4 OR 5 UNIT HEAD, 12"		LUMINAIRE, CONVENTIONAL		SERVICE CABLE, 3 CONDUCTOR, NO. X AWG
	TRAFFIC SIGNAL, 2 UNIT, 3 UNIT, OR PHB HEAD 12"		2/C NO. XX AWG (LEAD-IN CABLE)		POWER CABLE, 2 CONDUCTOR, NO. X AWG
	TRAFFIC SIGNAL, 3 UNIT HEAD, 12" WITH ARROWS		VEHICLE LOOP DETECTOR		SIGNAL SUPPORT POLE NO. ...
	PEDESTRIAN SIGNAL		SIGNAL CABLE, 5 CONDUCTOR, NO. XX AWG		METER BASE
	PEDESTRIAN PUSH BUTTON		SIGNAL CABLE, 7 CONDUCTOR, NO. XX AWG		NO. X AWG DISTRIBUTION CABLE
	DILEMMA ZONE RADAR DETECTION UNIT		RADAR DETECTION CABLE		NO. XX AWG POLE & BRACKET CABLE
	STOP LINE RADAR DETECTION UNIT		VIDEO CAMERA CABLE		DUAL LIGHTING/SIGNAL DISCONNECT SWITCH
	VIDEO DETECTION CAMERA		INTERCONNECT CABLE		FLASHER CABINET
	PTZ CAMERA		PHOTOELECTRIC CELL		UNINTERRUPTIBLE POWER SUPPLY CABLE
	ETHERNET RADIO		POWER SOURCE		

PROPOSED SIGNS



(2)-4" CONDUIT WITH (2)-7/C, (2)-5/C, (1)-3/C, AND (1)-RC IN TRENCH = 74'

CONTROLLER CABINET STA. 41+24.1, 59.7' LT

(2)-4" CONDUIT WITH (8)-7/C, (8)-5/C, (4)-3/C, AND (2)-RC, IN TRENCH = 6'

PB-1

(1)-3" CONDUIT WITH (1)-7/C, (2)-5/C, AND (1)-3/C IN TRENCH = 26'

SP-1, TYPE TC-81.22, DESIGN 13 WITH 55' MAST ARM, (1) PEDESTRIAN PUSH BUTTON "PB4A", AND (2) PEDESTRIAN SIGNAL HEADS "PH4A" AND "PH6B" STA. 41+01.8, 49.3' LT

RADAR DETECTION ZONE FOR E. 14TH INTERSECTION

(2)-4" CONDUIT WITH (4)-7/C, (4)-5/C, (2)-3/C, AND (1)-RC, IN TRENCH = 107'

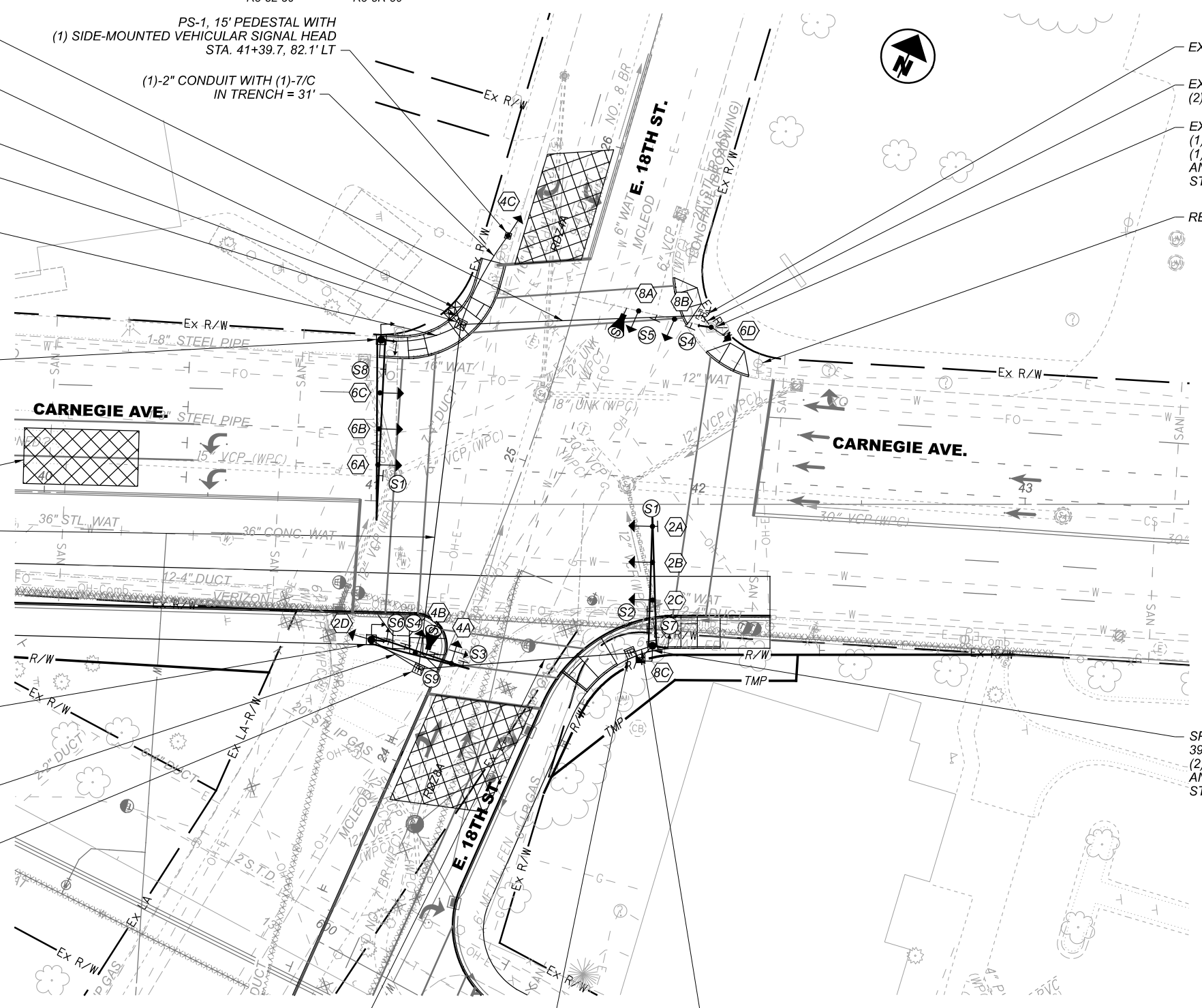
SP-2, TYPE TC-81.22, DESIGN 4 WITH 31' MAST ARM, (1) PEDESTRIAN PUSH BUTTON "PB4B", (2) PEDESTRIAN SIGNAL HEADS "PH4B" AND "PH2A", (1) SIDE-MOUNTED VEHICULAR SIGNAL HEAD, AND (1) STOP-LINE RADAR DETECTOR "R-4" STA. 41+01.2, 42.5' RT

(1)-3" CONDUIT WITH (2)-7/C, (2)-5/C, (1)-3/C, AND (1)-RC, IN TRENCH = 17'

PB-2

(2)-4" CONDUIT WITH (2)-7/C, (2)-5/C, AND (1)-3/C, IN TRENCH = 66'

(1)-3" CONDUIT WITH (2)-7/C, (2)-5/C, AND (1)-3/C, IN TRENCH = 8'



EX. PB-3

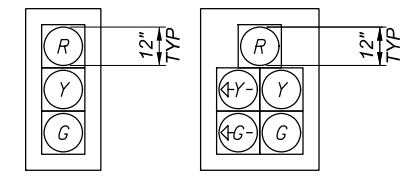
EX. (1)-3" CONDUIT WITH PROPOSED (2)-7/C, (2)-5/C, (1)-3/C, AND (1)-RC

EX. SP-3 WITH (2) EX. PEDESTRIAN SIGNAL HEADS, (1) PR. PEDESTRIAN PUSH BUTTON "PB8B", (1) PR. SIDE-MOUNTED VEHICULAR SIGNAL HEAD, AND (1) PR. STOP-LINE RADAR DETECTOR "R-8" STA. 42+04.0, 54.2' LT

REMOVE EX. PEDESTRIAN PUSH BUTTON

PROPOSED SIGNALS

VEHICULAR SIGNAL HEADS (12" LENS, LED, YELLOW, W/ REFLECTIVE BACKPLATES)



2A, 2B, 2C, 2D, 4B, 4C, 6A, 6B, 6C, 6D, 8A, 8B, 8C



PEDESTRIAN HEADS (LED, COUNTDOWN, TYPE D2)

SP-4, TYPE TC-81.22, DESIGN 12 WITH 39' MAST ARM, (1) PEDESTRIAN PUSH BUTTON "PB8A", (2) PEDESTRIAN SIGNAL HEADS "PH8A" AND "PH2B", AND (1) SIDE-MOUNTED VEHICULAR SIGNAL HEAD STA. 41+86.0, 43.3' RT

LEGEND

- TRAFFIC SIGNAL, 3 UNIT HEAD, 12"
- TRAFFIC SIGNAL, 3 UNIT HEAD, 12" WITH ARROWS
- TRAFFIC SIGNAL, 5 UNIT HEAD, 12"
- CONTROLLER CABINET
- SIGNAL SUPPORT POLE
- PEDESTRIAN SIGNAL
- PEDESTRIAN PUSH BUTTON
- PEDESTRIAN PEDESTAL SUPPORT
- TRAFFIC PULL BOX
- SIGNAL CONDUIT

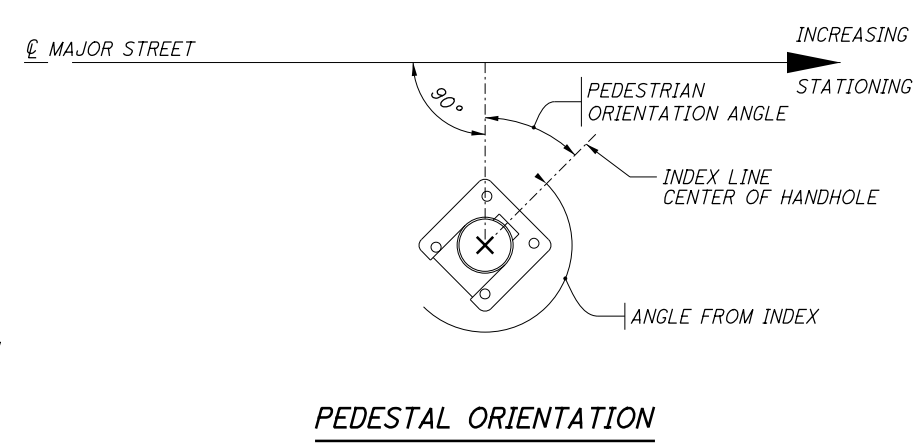
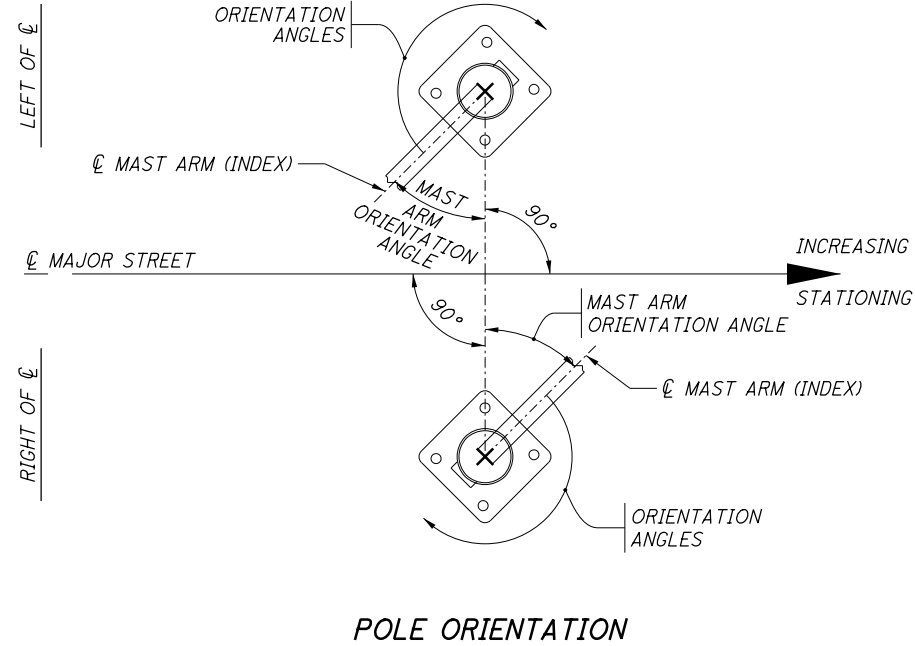
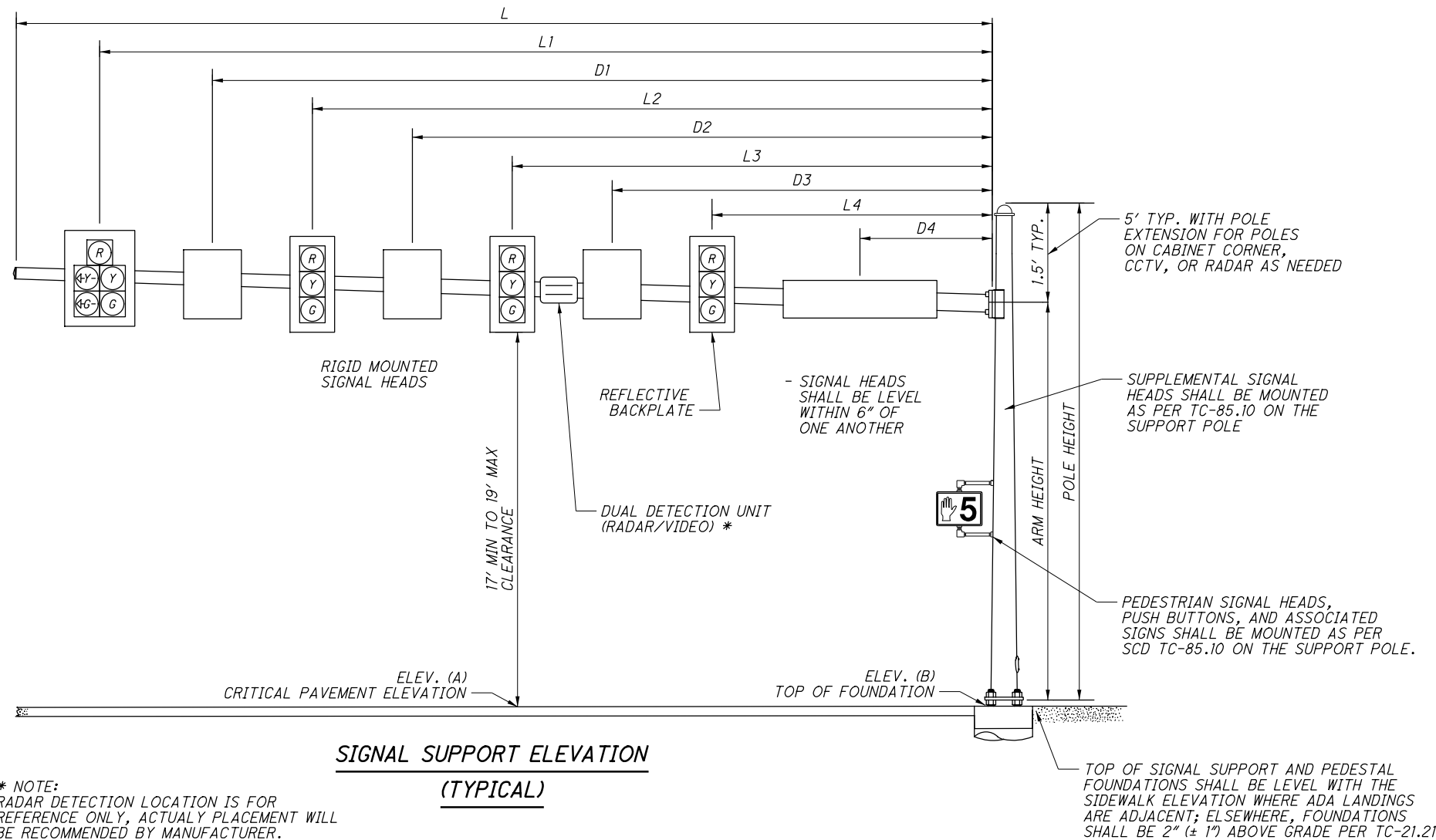
NOTE:
 1. RADAR DETECTION LOCATION IS FOR REFERENCE ONLY. ACTUAL PLACEMENT WILL BE RECOMMENDED BY MANUFACTURER.

PULL BOX TABLE

PULL BOX #	STATION	SIDE	OFFSET	SIZE (IN.)
PB-1	41+26.0	LT	54.6	24 x 36
PB-2	41+15.8	RT	51.1	24 x 36
EX. PB-3	42+01.2	LT	57.7	EX.
PB-4	41+79.3	RT	45.4	24 x 36

TRAFFIC SIGNAL PLAN
 CARNEGIE AVE. & E. 18TH ST.

DESIGN AGENCY	Michael Baker INTERNATIONAL
DESIGNER	
REVIEWER	
PROJECT ID	82382
SHEET TOTAL	1316 2339



SIGNAL SUPPORT ELEVATION (TYPICAL)

POLE ORIENTATION

PEDESTAL ORIENTATION

* NOTE: RADAR DETECTION LOCATION IS FOR REFERENCE ONLY, ACTUAL PLACEMENT WILL BE RECOMMENDED BY MANUFACTURER.

TOP OF SIGNAL SUPPORT AND PEDESTAL FOUNDATIONS SHALL BE LEVEL WITH THE SIDEWALK ELEVATION WHERE ADA LANDINGS ARE ADJACENT; ELSEWHERE, FOUNDATIONS SHALL BE 2" (+ 1") ABOVE GRADE PER TC-21.21

MAST ARM TABLE (TEM FIGURE 498-37 & 38)

SUPPORT NO.	STATION	OFFSET	ELEVATION		SIGNAL SUPPORT DETAILS													ORIENTATION ANGLES FROM MAST ARM A																				
			A (PAVEMENT ELEVATION)	B (TOP OF FOUNDATION)	DESIGN TYPE	DESIGN NO.	POLE HEIGHT	ARM HEIGHT	L	L1	L2	L3	L4	D1	D2	D3	D4	MAST ARM A ANGLE	MAST ARM B ANGLE	PEDESTRIAN SIGNAL A	PEDESTRIAN SIGNAL B	PEDESTRIAN PUSH BUTTON	POWER SERVICE	SIGNAL CABINET	BRACKET ARM	HANDHOLE (PEDESTRIAN ORIENTATION ANGLE)	CABLE ENTRANCE 12" FROM TOP											
								FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT
SP-1	-	-	-	-	TC-81.22	13	-	-	55.0'	38.25'	27.25'	16.25'	-	41.5'	9.0'	-	-	0	-	180	270	270	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SP-2	-	-	-	-	TC-81.22	4	-	-	31.0'	25.5'	14.0'	-	-	29.0'	19.75'	10.5'	5.25'	100	-	260	350	350	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EX. SP-3	-	-	-	-	-	-	-	-	EX. 22.75'	11.5'	-	-	-	17.0'	6.0'	-	-	EX.	-	EX.	EX.	EX.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP-4	-	-	-	-	TC-81.22	12	-	-	39.0'	36.5'	25.5'	14.0'	-	36.5'	10.5'	5.25'	-	0	-	100	180	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

SIGNAL TIMING CHART (TEM FORM 496-3)

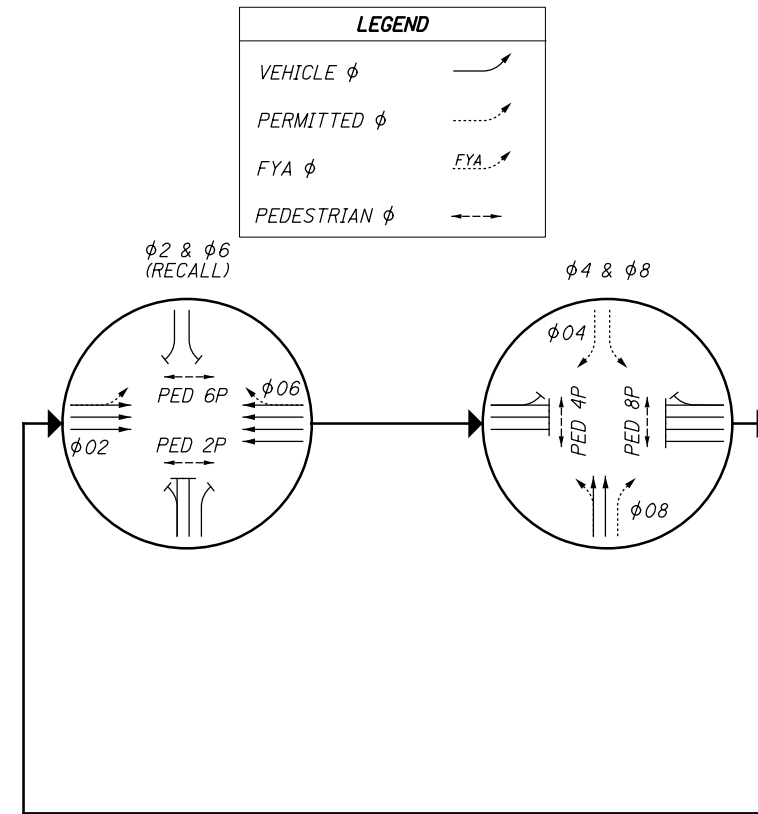
INTERSECTION: CARNEGIE AVE & E. 18TH ST MAINTAINING AGENCY: CITY OF CLEVELAND									
START UP		DUAL ENTRY: YES	PHASES: 2+6, 4+8						
START IN: ALL RED		REST IN RED: RING 1 - RING 2 -		OVERLAP		A	B	C	D
TIME FOR FLASH, ALL RED: 5		PHASES				-	-	-	-
FIRST PHASE(S): 2 + 6									
COLOR DISPLAYED: GREEN									
INTERVAL OR FEATURE		CONTROLLER MOVEMENT NO.							
INTERSECTION MOVEMENT (PHASE)		1	2	3	4	5	6	7	8
DIRECTION		-	EBT	NBL	SBT	EBL	WBT	SBL	NBT
MINIMUM GREEN (INITIAL) (SEC.)		-	-	-	-	-	-	-	-
ADDED INITIAL *(SEC./ACTUATION)		-	-	-	-	-	-	-	-
MAXIMUM INITIAL *(SEC.)		-	-	-	-	-	-	-	-
PASSAGE TIME (PRESET GAP) (SEC.)		-	-	-	-	-	-	-	-
TIME BEFORE REDUCTION *(SEC.)		-	-	-	-	-	-	-	-
MINIMUM GAP *(SEC.)		-	-	-	-	-	-	-	-
TIME TO REDUCE *(SEC.)		-	-	-	-	-	-	-	-
MAXIMUM GREEN I (SEC.)		-	-	-	-	-	-	-	-
MAXIMUM GREEN II (SEC.)		-	-	-	-	-	-	-	-
YELLOW CHANGE (SEC.)		-	4	3	4	3	4	3	4
ALL RED CLEARANCE (SEC.)		-	2	4	3	3	2	4	3
DELAYED GREEN (LPI) # (SEC.)		-	-	-	-	-	-	-	-
WALK (SEC.)		-	7	-	8	-	7	-	8
FLASHING YELLOW ARROW DELAY ° (SEC.)		-	-	-	-	-	-	-	-
PEDESTRIAN CLEARANCE (SEC.)		-	9	-	20	-	14	-	19
RECALL	MAXIMUM (ON/OFF)	-	-	-	-	-	-	-	-
	MINIMUM (ON/OFF)	-	-	-	-	-	-	-	-
	PEDESTRIAN (ON/OFF)	-	ON	-	-	-	ON	-	-
MEMORY (ON/OFF)	-	-	-	-	-	-	-	-	-

*VOLUME DENSITY CONTROLS

#FOR CROSSING WITH PEDESTRIAN PUSHBUTTONS, LPI'S (LEADING PEDESTRIAN INTERVALS) MAY BE IMPLEMENTED (3-6 SEC.) IN ACCORDANCE WITH LPI DURATION TIME PER THE ODOT SIGNAL CALCULATIONS - CLEARANCE INTERVALS SPREADSHEET.

*WHEN IMPLEMENTING FYA, A MINIMUM 3 SECOND DELAY SHALL BE PROGRAMMED.

PHASING DIAGRAM

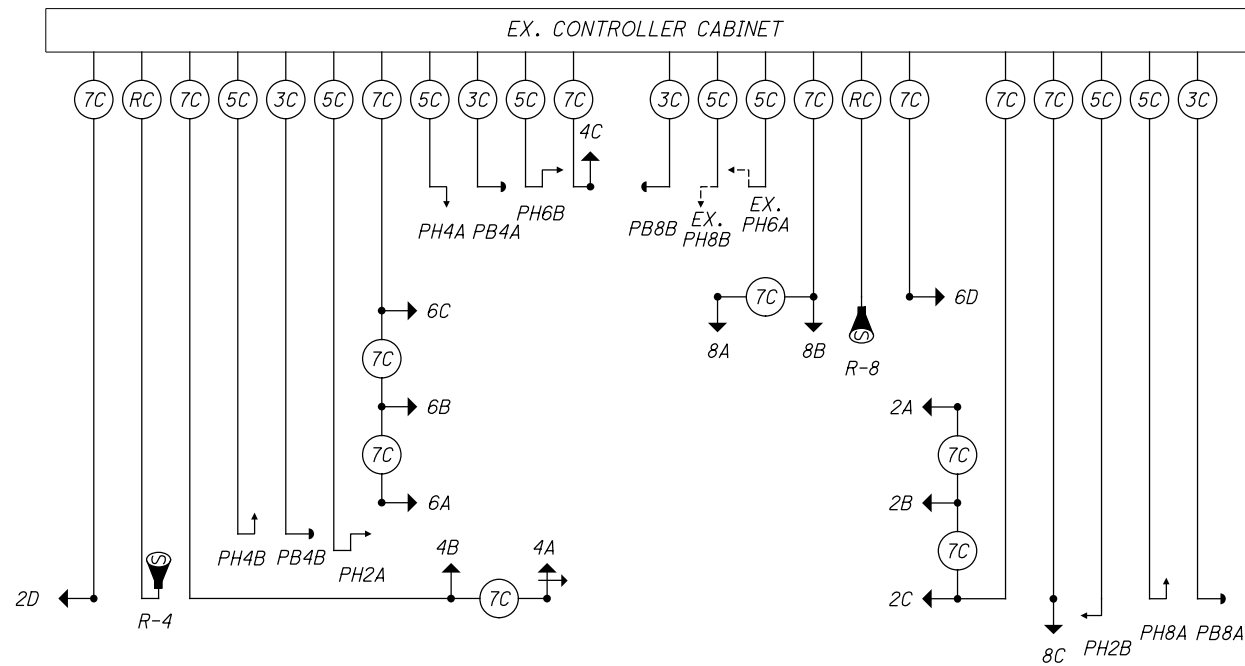


RADAR DETECTION CHART (TEM FORM 496-4)

DETECTION ZONE	MOVEMENT	WIDTH	DELAY PROGRAMMED IN CONTROLLER (SEC)	EXTENSION PROGRAMMED IN CONTROLLER (SEC)	DETECTOR NUMBER	PURPOSE	DETECTION ZONE LENGTH (FT)
RDZ4A	SB	20	3	-	R-4	STOP-LINE	35
RDZ8A	NB	30	3	-	R-8	STOP-LINE	35
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-

NOTE: ADVANCED DILEMMA ZONE SPEED THRESHOLD >30 MPH
PURPOSE: STOP-LINE OR ADVANCED DETECTION

WIRING DIAGRAM



FIELD WIRING HOOK-UP CHART (TEM FORM 496-16)

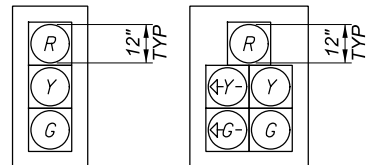
SIGNAL HEAD	INDICATION	FIELD TERMINAL	FLASH	SIGNAL HEAD	INDICATION	FIELD TERMINAL	FLASH
6A, 6B, 6C (WB)	R	φ6R	R	4C (SB)	R	φ4R	R
	Y	φ6Y			Y	φ4Y	
	G	φ6G			G	φ4G	
6D (WB)	R	φ6R	R	8A, 8B (NB)	R	φ8R	R
	Y	φ6Y			Y	φ8Y	
	G	φ6G			G	φ8G	
2A, 2B, 2C (EB)	R	φ2R	R	8C (NB)	R	φ8R	R
	Y	φ2Y			Y	φ8Y	
	G	φ2G			G	φ8G	
2D (EB)	R	φ2R	R	PEDESTRIAN MOVEMENTS			
	Y	φ2Y		PH2A, PH2B (EB)	W	φ2 PED / LS 13 G	OUT
	G	φ2G			DW	φ2 PED / LS 13 R	
4A (SB)	R	φ4R	R	EX. PH6A, PH6B (WB)	W	φ6 PED / LS 14 G	OUT
	Y	φ4Y			DW	φ6 PED / LS 14 R	
	G	φ4G		PH8A, EX. PH8B (NB)	W	φ8 PED / LS 15 G	OUT
	<--Y--	φ7Y			DW	φ8 PED / LS 15 R	
	<--G--	φ7G			PH4A, PH4B (SB)	W	
		DW	φ4 PED / LS 16 R				
4B (SB)	R	φ4R	R				
	Y	φ4Y					
	G	φ4G					

LEGEND

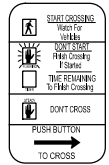
	TRAFFIC SIGNAL, 4 OR 5 UNIT HEAD, 12"		LUMINAIRE, CONVENTIONAL		SERVICE CABLE, 3 CONDUCTOR, NO. X AWG
	TRAFFIC SIGNAL, 2 UNIT, 3 UNIT, OR PHB HEAD 12"		2/C NO. XX AWG (LEAD-IN CABLE)		POWER CABLE, 2 CONDUCTOR, NO. X AWG
	TRAFFIC SIGNAL, 3 UNIT HEAD, 12" WITH ARROWS		VEHICLE LOOP DETECTOR		SIGNAL SUPPORT POLE NO. --
	PEDESTRIAN SIGNAL		SIGNAL CABLE, 5 CONDUCTOR, NO. XX AWG		METER BASE
	PEDESTRIAN PUSH BUTTON		SIGNAL CABLE, 7 CONDUCTOR, NO. XX AWG		NO. X AWG DISTRIBUTION CABLE
	DILEMMA ZONE RADAR DETECTION UNIT		RADAR DETECTION CABLE		NO. XX AWG POLE & BRACKET CABLE
	STOP LINE RADAR DETECTION UNIT		VIDEO CAMERA CABLE		DUAL LIGHTING/SIGNAL DISCONNECT SWITCH
	VIDEO DETECTION CAMERA		INTERCONNECT CABLE		FLASHER CABINET
	PTZ CAMERA		PHOTOELECTRIC CELL		UNINTERRUPTIBLE POWER SUPPLY CABLE
	ETHERNET RADIO		POWER SOURCE		

PROPOSED SIGNALS

VEHICULAR SIGNAL HEADS
 (12" LENS, LED, YELLOW,
 W/ REFLECTIVE BACKPLATES)



PEDESTRIAN HEADS
 (LED, COUNTDOWN,
 TYPE D2)



R10-36-9
 3 - LEFT ARROWS
 (SP-1, PS-3, SP-4)
 1 - RIGHT ARROW
 (PS-2)

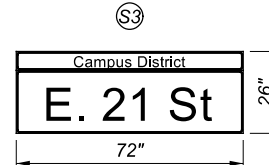


R3-2-36

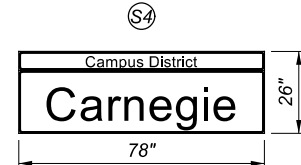


R3-1-36

PROPOSED SIGNS



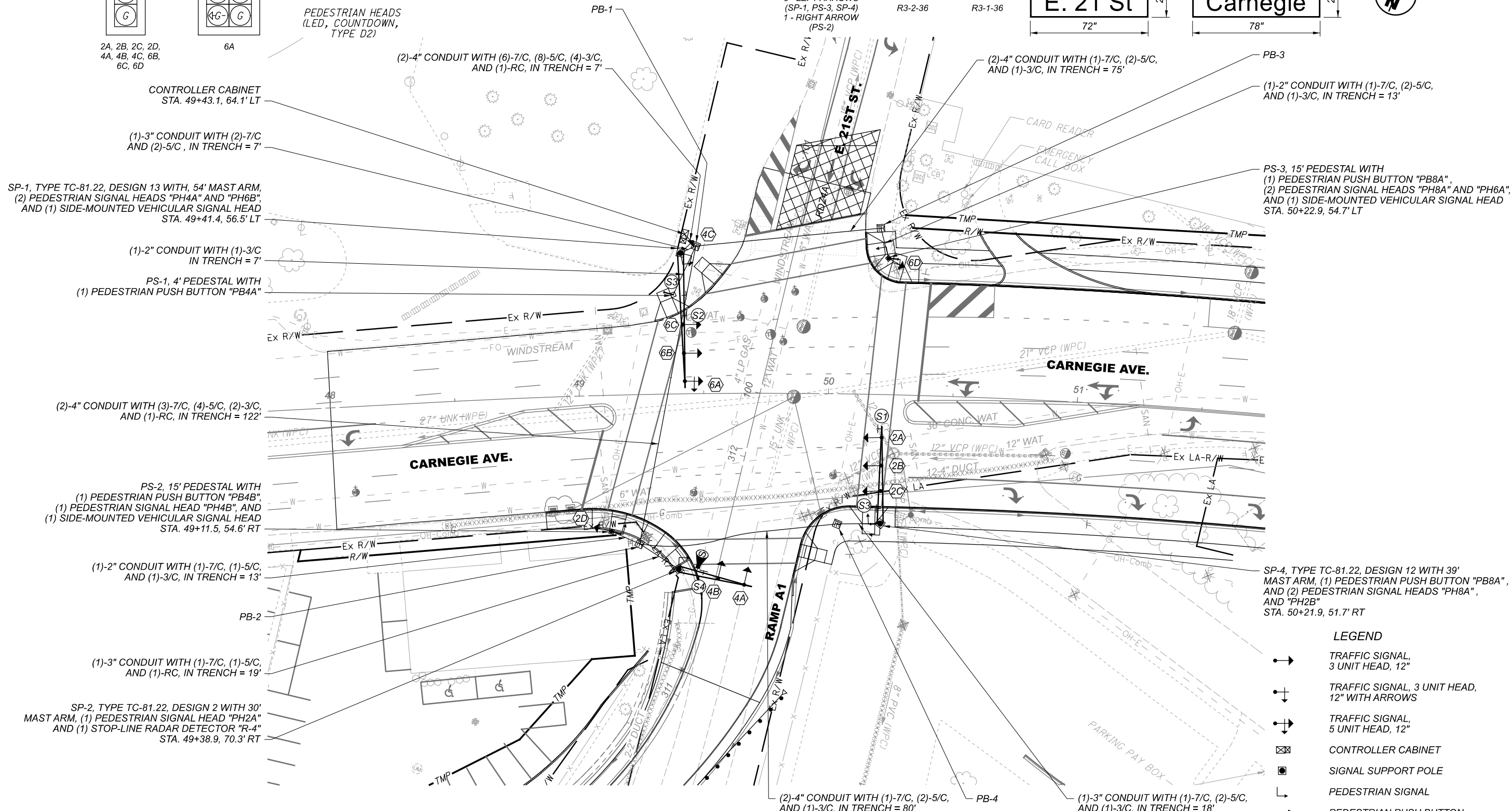
S3
 Campus District
 E. 21 St
 72" x 26"



S4
 Campus District
 Carnegie
 78" x 26"



TRAFFIC SIGNAL PLAN
 CARNEGIE AVE. & E. 21ST ST.



CONTROLLER CABINET
 STA. 49+43.1, 64.1' LT

(1)-3" CONDUIT WITH (2)-7/C
 AND (2)-5/C, IN TRENCH = 7'

SP-1, TYPE TC-81.22, DESIGN 13 WITH 54' MAST ARM,
 (2) PEDESTRIAN SIGNAL HEADS "PH4A" AND "PH6B",
 AND (1) SIDE-MOUNTED VEHICULAR SIGNAL HEAD
 STA. 49+41.4, 56.5' LT

(1)-2" CONDUIT WITH (1)-3/C
 IN TRENCH = 7'

PS-1, 4' PEDESTAL WITH
 (1) PEDESTRIAN PUSH BUTTON "PB4A"

(2)-4" CONDUIT WITH (3)-7/C, (4)-5/C, (2)-3/C,
 AND (1)-RC, IN TRENCH = 122'

PS-2, 15' PEDESTAL WITH
 (1) PEDESTRIAN PUSH BUTTON "PB4B",
 (1) PEDESTRIAN SIGNAL HEAD "PH4B", AND
 (1) SIDE-MOUNTED VEHICULAR SIGNAL HEAD
 STA. 49+11.5, 54.6' RT

(1)-2" CONDUIT WITH (1)-7/C, (1)-5/C,
 AND (1)-3/C, IN TRENCH = 13'

PB-2

(1)-3" CONDUIT WITH (1)-7/C, (1)-5/C,
 AND (1)-RC, IN TRENCH = 19'

SP-2, TYPE TC-81.22, DESIGN 2 WITH 30'
 MAST ARM, (1) PEDESTRIAN SIGNAL HEAD "PH2A"
 AND (1) STOP-LINE RADAR DETECTOR "R-4"
 STA. 49+38.9, 70.3' RT

(2)-4" CONDUIT WITH (6)-7/C, (8)-5/C, (4)-3/C,
 AND (1)-RC, IN TRENCH = 7'

(2)-4" CONDUIT WITH (1)-7/C, (2)-5/C,
 AND (1)-3/C, IN TRENCH = 75'

(1)-2" CONDUIT WITH (1)-7/C, (2)-5/C,
 AND (1)-3/C, IN TRENCH = 13'

PS-3, 15' PEDESTAL WITH
 (1) PEDESTRIAN PUSH BUTTON "PB8A",
 (2) PEDESTRIAN SIGNAL HEADS "PH8A" AND "PH6A",
 AND (1) SIDE-MOUNTED VEHICULAR SIGNAL HEAD
 STA. 50+22.9, 54.7' LT

SP-4, TYPE TC-81.22, DESIGN 12 WITH 39'
 MAST ARM, (1) PEDESTRIAN PUSH BUTTON "PB8A",
 AND (2) PEDESTRIAN SIGNAL HEADS "PH8A",
 AND "PH2B"
 STA. 50+21.9, 51.7' RT

LEGEND

- TRAFFIC SIGNAL, 3 UNIT HEAD, 12"
- TRAFFIC SIGNAL, 3 UNIT HEAD, 12" WITH ARROWS
- TRAFFIC SIGNAL, 5 UNIT HEAD, 12"
- CONTROLLER CABINET
- SIGNAL SUPPORT POLE
- PEDESTRIAN SIGNAL
- PEDESTRIAN PUSH BUTTON
- PEDESTRIAN PEDESTAL SUPPORT
- TRAFFIC PULL BOX
- SIGNAL CONDUIT

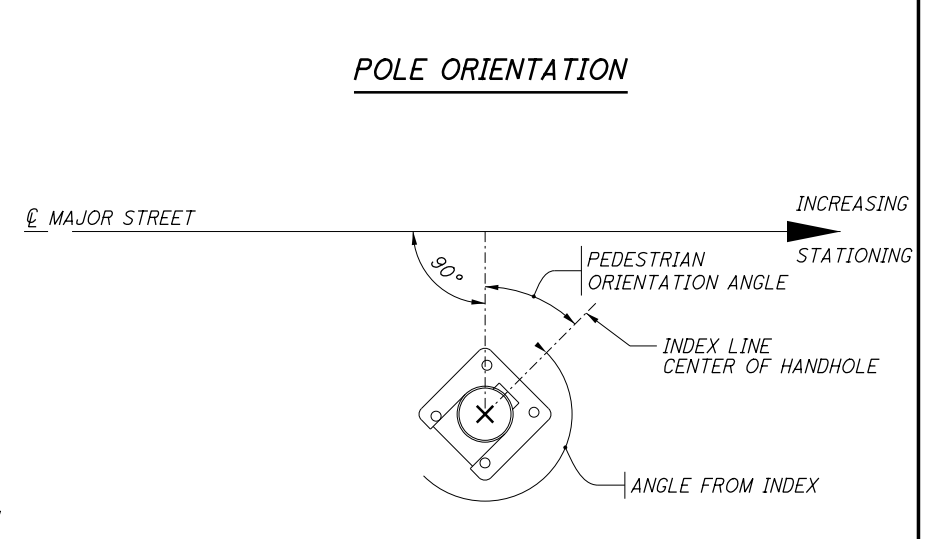
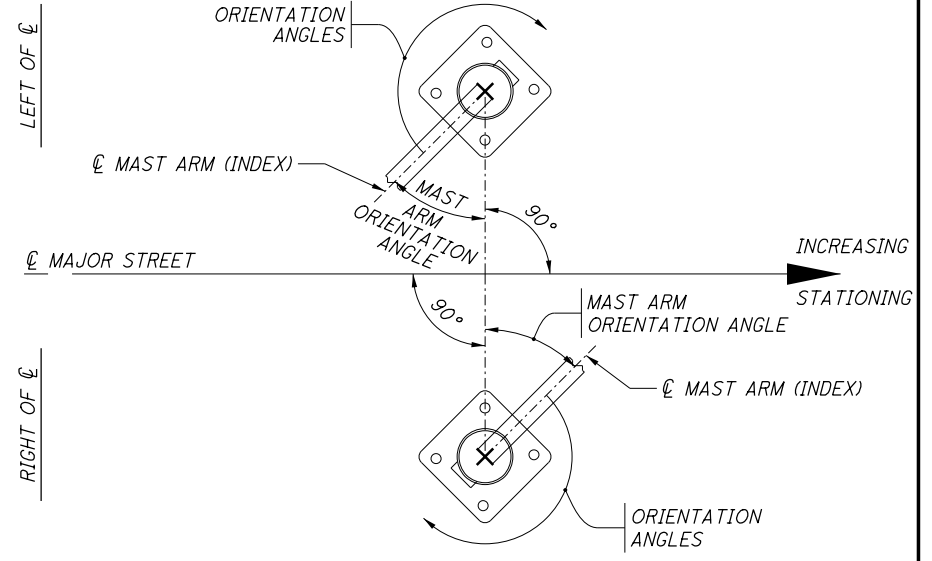
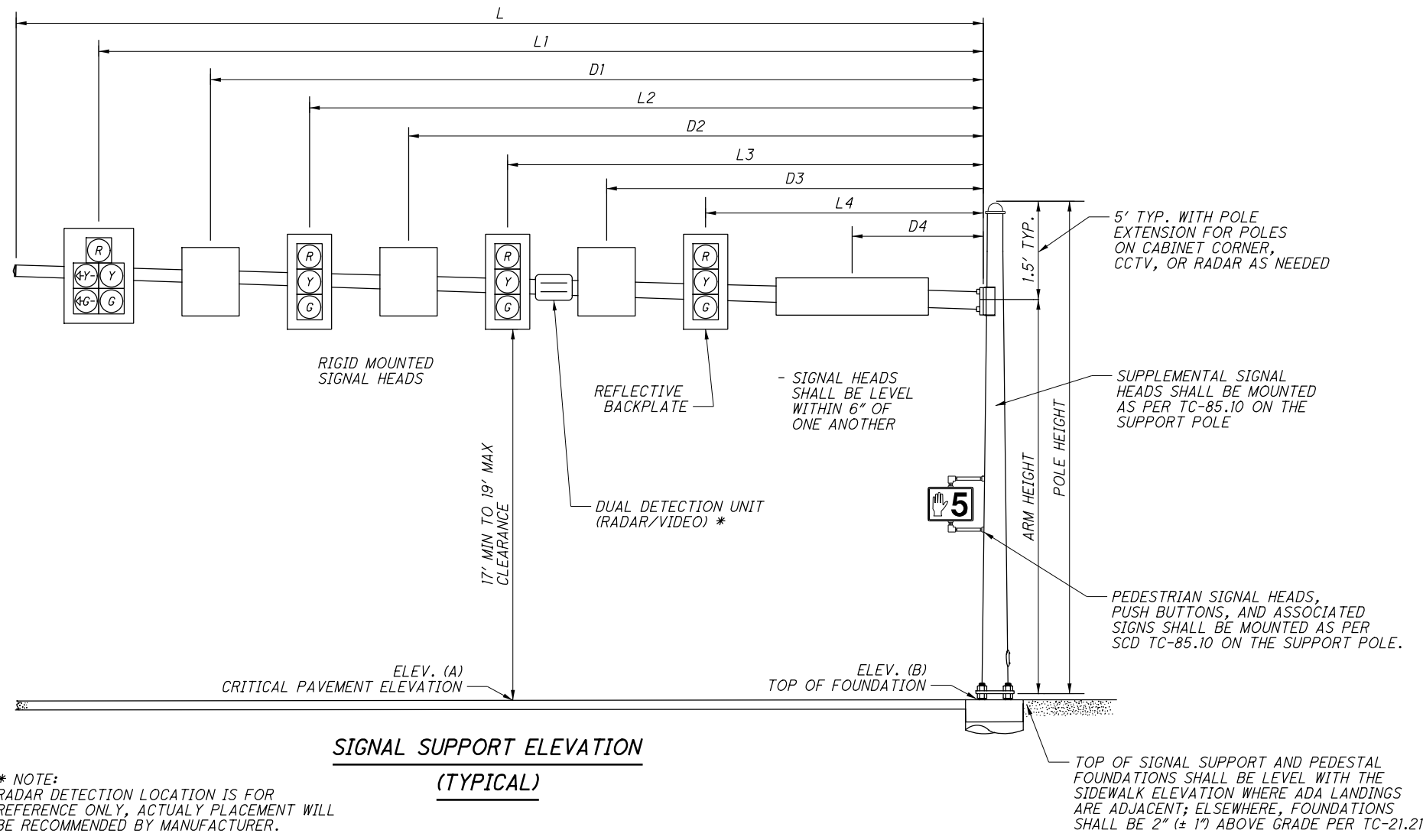
NOTE:
 1. RADAR DETECTION LOCATION IS FOR
 REFERENCE ONLY, ACTUAL PLACEMENT WILL
 BE RECOMMENDED BY MANUFACTURER

PULL BOX TABLE

PULL BOX #	STATION	SIDE	OFFSET	SIZE (IN.)
PB-1	49+47.4	LT	59.2	24 x 36
PB-2	49+23.0	RT	60.0	24 x 36
PB-3	50+19.7	LT	66.7	24 x 36
PB-4	50+04.2	RT	52.2	24 x 36

DESIGN AGENCY	Michael Baker International
DESIGNER	—
REVIEWER	—
PROJECT ID	82382
SHEET TOTAL	1320 2339

CUY-90-16.28 (CCG3A)
 MODEL: Sheet PAPER: 6/22/2022 TIME: 9:22:35 PM USER: Coroline.Owings
 p:\mb-us-pw-bentley\comb-us-pw-03\Documents\Cleveland_OH\OL\Projects\0001\Dist\12\82382_400-Engineering\Signals\Sheets\82382_CP3001.dgn



SIGNAL SUPPORT ELEVATION (TYPICAL)

* NOTE: RADAR DETECTION LOCATION IS FOR REFERENCE ONLY, ACTUAL PLACEMENT WILL BE RECOMMENDED BY MANUFACTURER.

TOP OF SIGNAL SUPPORT AND PEDESTAL FOUNDATIONS SHALL BE LEVEL WITH THE SIDEWALK ELEVATION WHERE ADA LANDINGS ARE ADJACENT; ELSEWHERE, FOUNDATIONS SHALL BE 2" (± 1") ABOVE GRADE PER TC-21.21

MAST ARM TABLE (TEM FIGURE 498-37 & 38)

SUPPORT NO.	STATION	OFFSET	ELEVATION		SIGNAL SUPPORT DETAILS													ORIENTATION ANGLES FROM MAST ARM A										
			A (PAVEMENT ELEVATION)	B (TOP OF FOUNDATION)	DESIGN TYPE	DESIGN NO.	POLE HEIGHT	ARM HEIGHT	L	L1	L2	L3	L4	D1	D2	D3	D4	MAST ARM A ANGLE	MAST ARM B ANGLE	PEDESTRIAN SIGNAL A	PEDESTRIAN SIGNAL B	PEDESTRIAN PUSH BUTTON	POWER SERVICE	SIGNAL CABINET	BRACKET ARM	HANDHOLE (PEDESTRIAN ORIENTATION ANGLE)	CABLE ENTRANCE 12" FROM TOP	
							FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	DEG	DEG	DEG	DEG	DEG	DEG	DEG	DEG	DEG	DEG	
SP-1	-	-	-	-	TC-81.22	13	-	-	54.0'	51.5'	40.25'	28.75'	-	25.25'	17.0'	-	-	0	-	350	290	-	-	-	-	-	-	
SP-2	-	-	-	-	TC-81.22	2	-	-	30.0'	27.0'	16.25'	-	-	10.0'	-	-	-	100	-	260	-	-	-	-	-	-	-	
SP-4	-	-	-	-	TC-81.22	12	-	-	39.0'	34.5'	23.25'	13.0'	-	38.0'	6.0'	-	-	0	-	270	180	270	-	-	-	-	-	
PS-1	-	-	-	-	-	-	5'	-	-	-	-	-	-	-	-	-	-	-	-	-	310	-	-	-	160	-		
PS-2	-	-	-	-	-	-	15'	-	-	-	-	-	-	-	-	-	-	-	-	270	-	270	-	-	-	190	-	
PS-3	-	-	-	-	-	-	15'	-	-	-	-	-	-	-	-	-	-	-	-	50	300	50	-	-	-	230	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TRAFFIC SIGNAL PLAN DETAILS
 CARNEGIE AVE. & E. 21ST ST.

DESIGN AGENCY	Michael Baker INTERNATIONAL
DESIGNER	-
REVIEWER	-
PROJECT ID	82382
SHEET	1321
TOTAL	2339

SIGNAL TIMING CHART (TEM FORM 496-3)

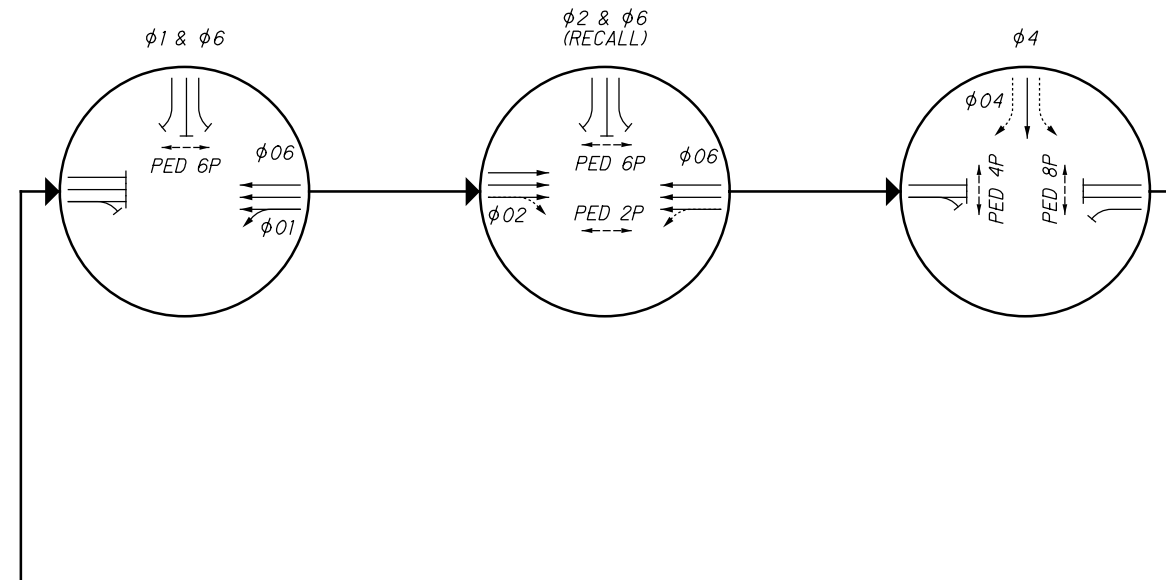
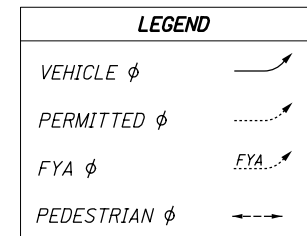
INTERSECTION: CARNEGIE AVE & E. 21ST ST MAINTAINING AGENCY: CITY OF CLEVELAND									
START UP		DUAL ENTRY: YES	PHASES: 2+6						
START IN: ALL RED		REST IN RED: RING 1	RING 2		-				
TIME FOR FLASH, ALL RED: 5		OVERLAP	A	B	C	D			
FIRST PHASE(S): 2 + 6		PHASES	-	-	-	-			
COLOR DISPLAYED: GREEN									
INTERVAL OR FEATURE		CONTROLLER MOVEMENT NO.							
INTERSECTION MOVEMENT (PHASE)		1	2	3	4	5	6	7	8
DIRECTION		WBL	EBT	-	SBT	-	WBT	-	NBT
MINIMUM GREEN (INITIAL) (SEC.)		-	-	-	-	-	-	-	-
ADDED INITIAL *(SEC./ACTUATION)		-	-	-	-	-	-	-	-
MAXIMUM INITIAL *(SEC.)		-	-	-	-	-	-	-	-
PASSAGE TIME (PRESET GAP) (SEC.)		-	-	-	-	-	-	-	-
TIME BEFORE REDUCTION *(SEC.)		-	-	-	-	-	-	-	-
MINIMUM GAP *(SEC.)		-	-	-	-	-	-	-	-
TIME TO REDUCE *(SEC.)		-	-	-	-	-	-	-	-
MAXIMUM GREEN I (SEC.)		-	-	-	-	-	-	-	-
MAXIMUM GREEN II (SEC.)		-	-	-	-	-	-	-	-
YELLOW CHANGE (SEC.)		3	4	-	4	-	4	-	-
ALL RED CLEARANCE (SEC.)		3	2	-	3	-	2	-	-
DELAYED GREEN (LPI) # (SEC.)		-	-	-	-	-	-	-	-
WALK (SEC.)		-	7	-	13	-	7	-	8
FLASHING YELLOW ARROW DELAY ° (SEC.)		-	-	-	-	-	-	-	-
PEDESTRIAN CLEARANCE (SEC.)		-	12	-	20	-	14	-	24
RECALL	MAXIMUM (ON/OFF)	-	-	-	-	-	-	-	-
	MINIMUM (ON/OFF)	-	-	-	-	-	-	-	-
	PEDESTRIAN (ON/OFF)	-	ON	-	-	-	ON	-	-
MEMORY (ON/OFF)	-	-	-	-	-	-	-	-	-

*VOLUME DENSITY CONTROLS

#FOR CROSSING WITH PEDESTRIAN PUSHBUTTONS, LPI'S (LEADING PEDESTRIAN INTERVALS) MAY BE IMPLEMENTED (3-6 SEC.) IN ACCORDANCE WITH LPI DURATION TIME PER THE ODOT SIGNAL CALCULATIONS - CLEARANCE INTERVALS SPREADSHEET.

*WHEN IMPLEMENTING FYA, A MINIMUM 3 SECOND DELAY SHALL BE PROGRAMMED.

PHASING DIAGRAM

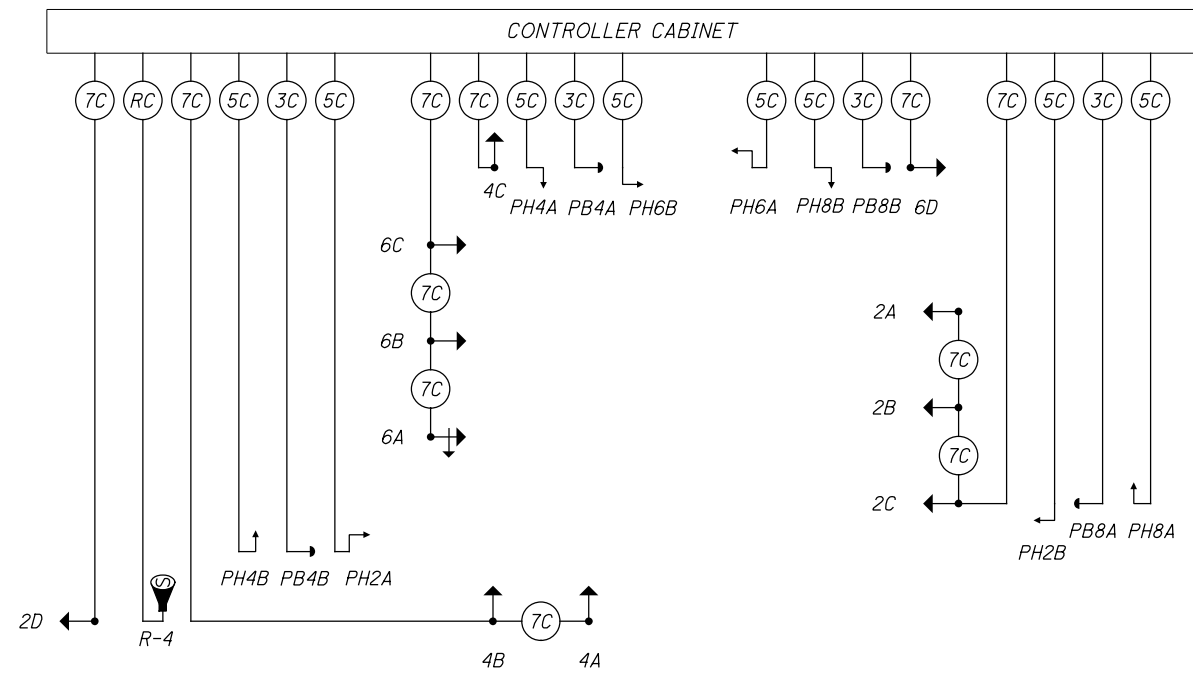


RADAR DETECTION CHART (TEM FORM 496-4)

DETECTION ZONE	MOVEMENT	WIDTH	DELAY PROGRAMMED IN CONTROLLER (SEC)	EXTENSION PROGRAMMED IN CONTROLLER (SEC)	DETECTOR NUMBER	PURPOSE	DETECTION ZONE LENGTH (FT)
RDZ4A	SB	34	3	-	R-4	STOP-LINE	35
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-

NOTE: ADVANCED DILEMMA ZONE SPEED THRESHOLD >30 MPH
PURPOSE: STOP-LINE OR ADVANCED DETECTION

WIRING DIAGRAM



FIELD WIRING HOOK-UP CHART (TEM FORM 496-16)

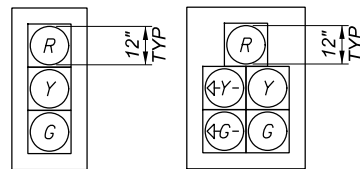
SIGNAL HEAD	INDICATION	FIELD TERMINAL	FLASH	SIGNAL HEAD	INDICATION	FIELD TERMINAL	FLASH
2A, 2B, 2C (EB)	R	φ2R	R	6D (WB)	R	φ6R	R
	Y	φ2Y			Y	φ6Y	
	G	φ2G			G	φ6G	
2D (EB)	R	φ2R	R	4A, 4B (SB)	R	φ4R	R
	Y	φ2Y			Y	φ4Y	
	G	φ2G			G	φ4G	
6A (WB)	R	φ6R	R	4C (SB)	R	φ4R	R
	Y	φ6Y			Y	φ4Y	
	G	φ6G			G	φ4G	
	<--Y--	φ1Y			PEDESTRIAN MOVEMENTS		
	<--G--	φ1G					
6B, 6C (WB)	R	φ6R	R	PH2A, PH2B (EB)	W	φ2 PED / LS 13 G	OUT
	Y	φ6Y		DW	φ2 PED / LS 13 R		
	G	φ6G		DW	φ6 PED / LS 14 R	OUT	
PH8A, PH8B (NB)	W	φ8 PED / LS 15 G	OUT	PH6A, PH6B (WB)	W	φ6 PED / LS 14 G	OUT
	DW	φ8 PED / LS 15 R			DW	φ6 PED / LS 14 R	
PH4A, PH4B (SB)	W	φ4 PED / LS 16 G	OUT	PH8A, PH8B (NB)	W	φ8 PED / LS 15 G	OUT
	DW	φ4 PED / LS 16 R			DW	φ8 PED / LS 15 R	

LEGEND

	TRAFFIC SIGNAL, 4 OR 5 UNIT HEAD, 12"		LUMINAIRE, CONVENTIONAL		SERVICE CABLE, 3 CONDUCTOR, NO. X AWG
	TRAFFIC SIGNAL, 2 UNIT, 3 UNIT, OR PHB HEAD 12"		2/C NO. XX AWG (LEAD-IN CABLE)		POWER CABLE, 2 CONDUCTOR, NO. X AWG
	TRAFFIC SIGNAL, 3 UNIT HEAD, 12" WITH ARROWS		VEHICLE LOOP DETECTOR		SIGNAL SUPPORT POLE NO. ...
	PEDESTRIAN SIGNAL		SIGNAL CABLE, 5 CONDUCTOR, NO. XX AWG		METER BASE
	PEDESTRIAN PUSH BUTTON		SIGNAL CABLE, 7 CONDUCTOR, NO. XX AWG		NO. X AWG DISTRIBUTION CABLE
	DILEMMA ZONE RADAR DETECTION UNIT		RADAR DETECTION CABLE		NO. XX AWG POLE & BRACKET CABLE
	STOP LINE RADAR DETECTION UNIT		VIDEO CAMERA CABLE		DUAL LIGHTING/SIGNAL DISCONNECT SWITCH
	VIDEO DETECTION CAMERA		INTERCONNECT CABLE		FLASHER CABINET
	PTZ CAMERA		PHOTOELECTRIC CELL		UNINTERRUPTIBLE POWER SUPPLY CABLE
	ETHERNET RADIO		POWER SOURCE		

PROPOSED SIGNALS

VEHICULAR SIGNAL HEADS
 (12" LENS, LED, YELLOW,
 W/ REFLECTIVE BACKPLATES)

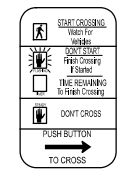


2B, 2C, 2D, 4A,
 4B, 4C, 6B, 6C,
 6D, 8A, 8B, 8C, 8D

2A, 6A



PEDESTRIAN HEADS
 (LED, COUNTDOWN,
 TYPE D2)



R10-3e-9
 2 - LEFT ARROWS
 (SP-1, SP-2)
 2 - RIGHT ARROWS
 (PS-3, SP-4)



R3-5L-30

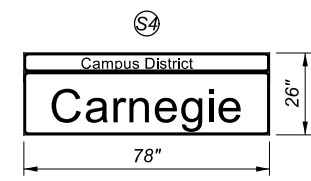


R3-5R-30

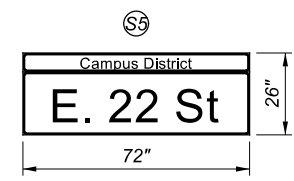


R10-12-24

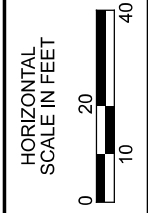
PROPOSED SIGNS



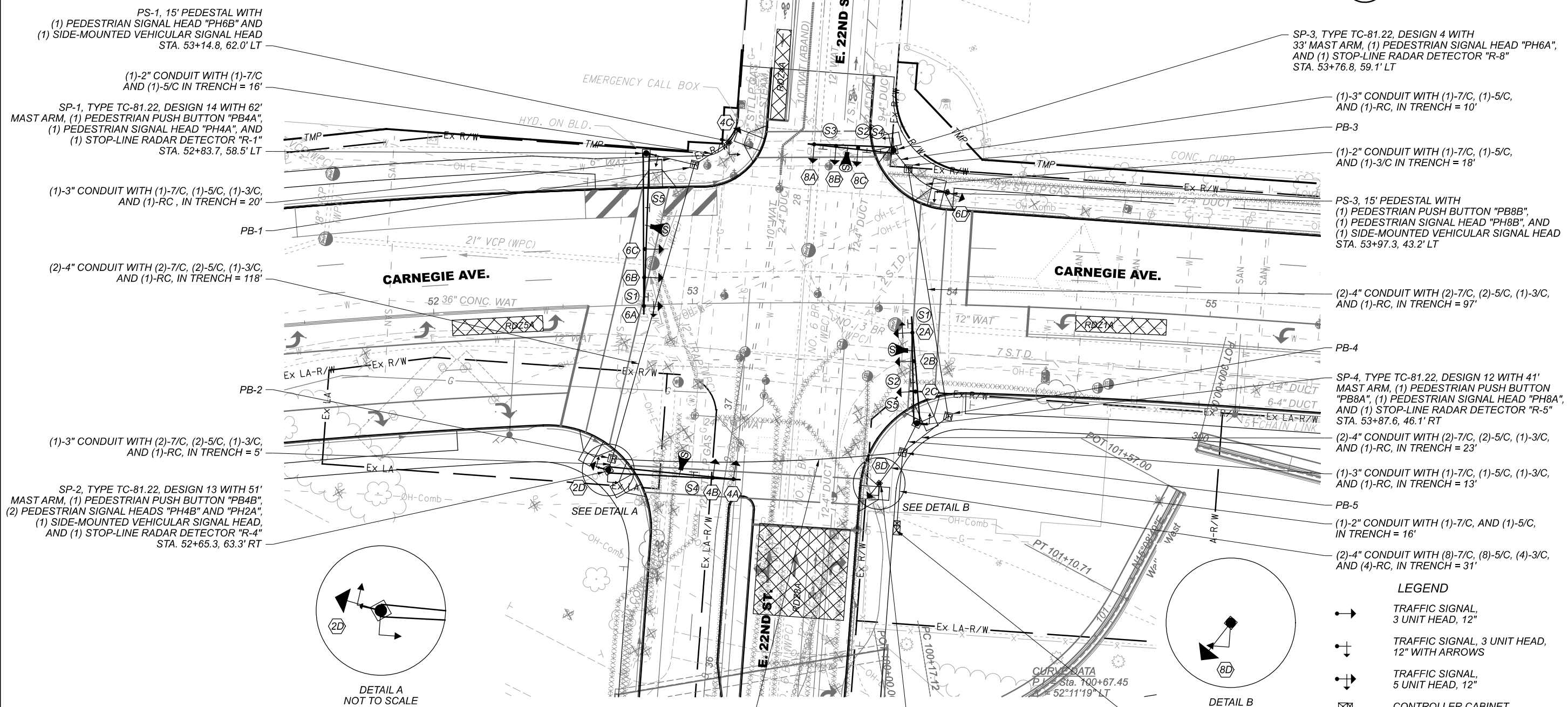
78" x 26"



72" x 26"



**TRAFFIC SIGNAL PLAN
 CARNEGIE AVE. & E. 22ND ST.**



PS-1, 15' PEDESTAL WITH
 (1) PEDESTRIAN SIGNAL HEAD "PH6B" AND
 (1) SIDE-MOUNTED VEHICULAR SIGNAL HEAD
 STA. 53+14.8, 62.0' LT

(1)-2" CONDUIT WITH (1)-7/C
 AND (1)-5/C IN TRENCH = 16'

SP-1, TYPE TC-81.22, DESIGN 14 WITH 62'
 MAST ARM, (1) PEDESTRIAN PUSH BUTTON "PB4A",
 (1) PEDESTRIAN SIGNAL HEAD "PH4A", AND
 (1) STOP-LINE RADAR DETECTOR "R-1"
 STA. 52+83.7, 58.5' LT

(1)-3" CONDUIT WITH (1)-7/C, (1)-5/C, (1)-3/C,
 AND (1)-RC, IN TRENCH = 20'

PB-1

(2)-4" CONDUIT WITH (2)-7/C, (2)-5/C, (1)-3/C,
 AND (1)-RC, IN TRENCH = 118'

PB-2

(1)-3" CONDUIT WITH (2)-7/C, (2)-5/C, (1)-3/C,
 AND (1)-RC, IN TRENCH = 5'

SP-2, TYPE TC-81.22, DESIGN 13 WITH 51'
 MAST ARM, (1) PEDESTRIAN PUSH BUTTON "PB4B",
 (2) PEDESTRIAN SIGNAL HEADS "PH4B" AND "PH2A",
 (1) SIDE-MOUNTED VEHICULAR SIGNAL HEAD,
 AND (1) STOP-LINE RADAR DETECTOR "R-4"
 STA. 52+65.3, 63.3' RT

SP-3, TYPE TC-81.22, DESIGN 4 WITH
 33' MAST ARM, (1) PEDESTRIAN SIGNAL HEAD "PH6A",
 AND (1) STOP-LINE RADAR DETECTOR "R-8"
 STA. 53+76.8, 59.1' LT

(1)-3" CONDUIT WITH (1)-7/C, (1)-5/C,
 AND (1)-RC, IN TRENCH = 10'

PB-3

(1)-2" CONDUIT WITH (1)-7/C, (1)-5/C,
 AND (1)-3/C IN TRENCH = 18'

PS-3, 15' PEDESTAL WITH
 (1) PEDESTRIAN PUSH BUTTON "PB8B",
 (1) PEDESTRIAN SIGNAL HEAD "PH8B", AND
 (1) SIDE-MOUNTED VEHICULAR SIGNAL HEAD
 STA. 53+97.3, 43.2' LT

(2)-4" CONDUIT WITH (2)-7/C, (2)-5/C, (1)-3/C,
 AND (1)-RC, IN TRENCH = 97'

PB-4

SP-4, TYPE TC-81.22, DESIGN 12 WITH 41'
 MAST ARM, (1) PEDESTRIAN PUSH BUTTON
 "PB8A", (1) PEDESTRIAN SIGNAL HEAD "PH8A",
 AND (1) STOP-LINE RADAR DETECTOR "R-5"
 STA. 53+87.6, 46.1' RT

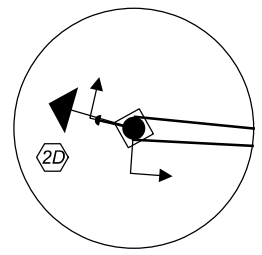
(2)-4" CONDUIT WITH (2)-7/C, (2)-5/C, (1)-3/C,
 AND (1)-RC, IN TRENCH = 23'

(1)-3" CONDUIT WITH (1)-7/C, (1)-5/C, (1)-3/C,
 AND (1)-RC, IN TRENCH = 13'

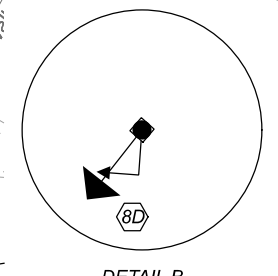
PB-5

(1)-2" CONDUIT WITH (1)-7/C, AND (1)-5/C,
 IN TRENCH = 16'

(2)-4" CONDUIT WITH (8)-7/C, (8)-5/C, (4)-3/C,
 AND (4)-RC, IN TRENCH = 31'



DETAIL A
 NOT TO SCALE



DETAIL B
 NOT TO SCALE

PULL BOX TABLE

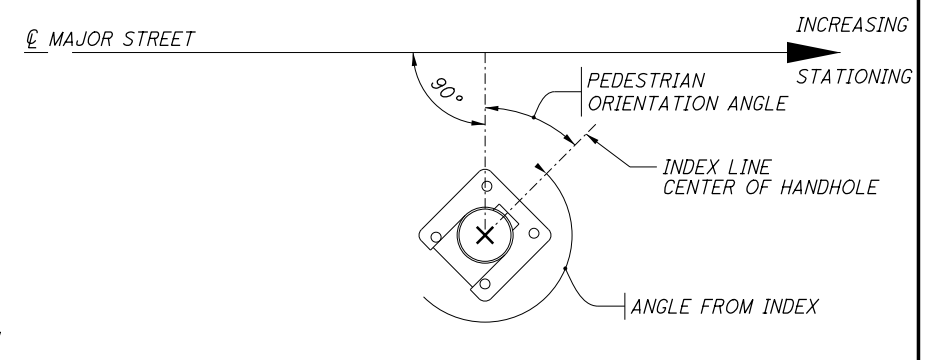
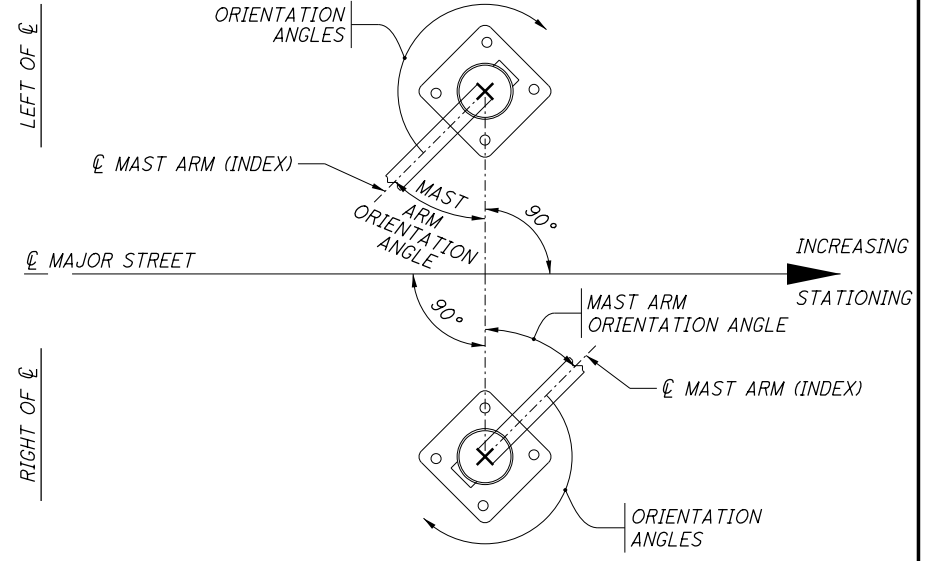
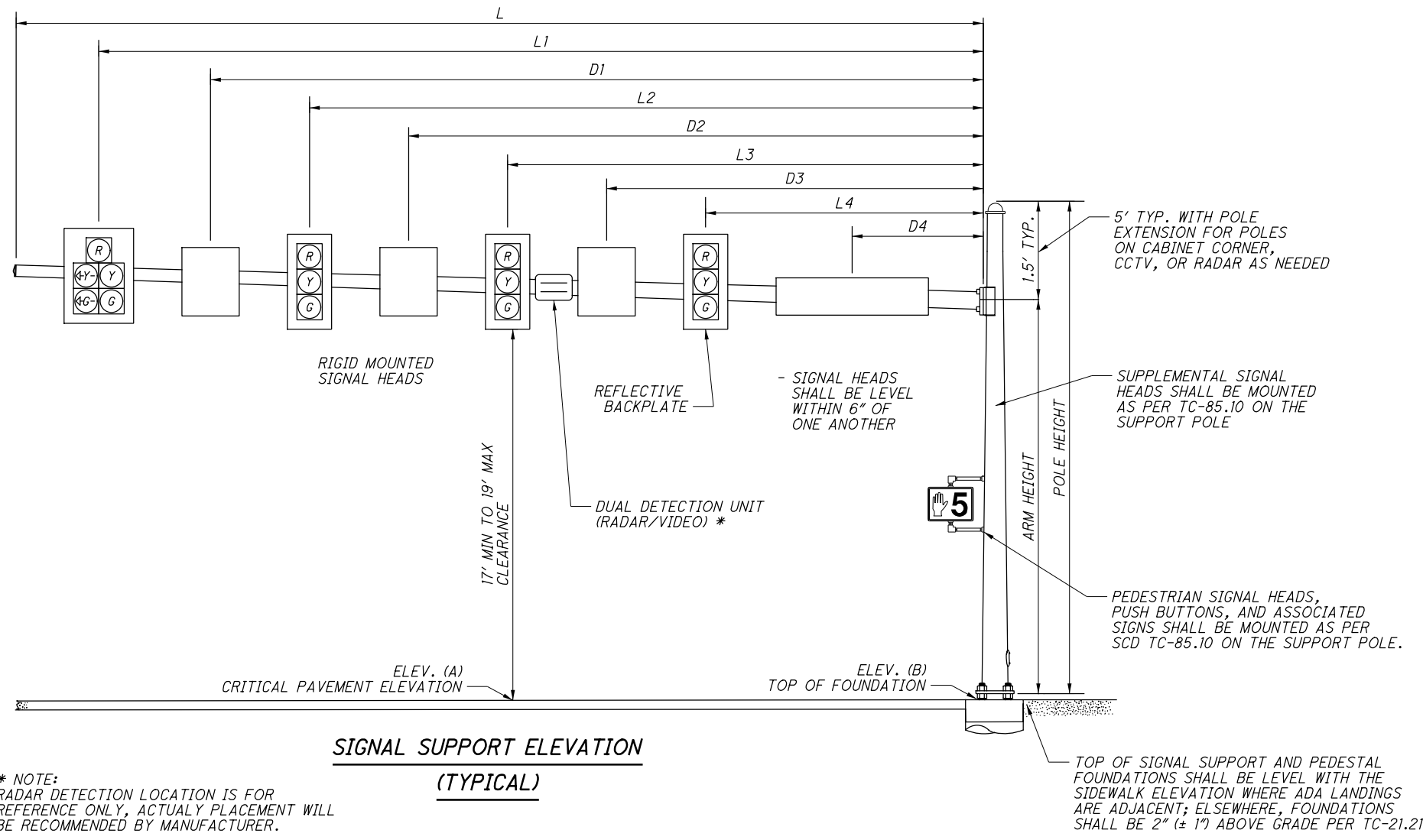
PULL BOX #	STATION	SIDE	OFFSET	SIZE (IN.)
PB-1	53+01.8	LT	53.7	24 x 36
PB-2	52+67.0	RT	59.0	24 x 36
PB-3	53+82.4	LT	52.1	24 x 36
PB-4	53+99.8	RT	43.3	24 x 36
PB-5	53+82.2	RT	57.4	24 x 36

NOTE:
 1. RADAR DETECTION LOCATION IS FOR
 REFERENCE ONLY, ACTUAL PLACEMENT WILL
 BE RECOMMENDED BY MANUFACTURER.

- LEGEND**
- TRAFFIC SIGNAL, 3 UNIT HEAD, 12"
 - TRAFFIC SIGNAL, 3 UNIT HEAD, 12" WITH ARROWS
 - TRAFFIC SIGNAL, 5 UNIT HEAD, 12"
 - CONTROLLER CABINET
 - SIGNAL SUPPORT POLE
 - PEDESTRIAN SIGNAL
 - PEDESTRIAN PUSH BUTTON
 - PEDESTRIAN PEDESTAL SUPPORT
 - TRAFFIC PULL BOX
 - SIGNAL CONDUIT

DESIGN AGENCY	Michael Baker International
DESIGNER	—
REVIEWER	—
PROJECT ID	82382
SHEET TOTAL	1324 2339

CUY-90-16.28 (CCG3A)
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MAST ARM TABLE (TEM FIGURE 498-37 & 38)

SUPPORT NO.	STATION	OFFSET	ELEVATION		SIGNAL SUPPORT DETAILS													ORIENTATION ANGLES FROM MAST ARM A														
			A (PAVEMENT ELEVATION)	B (TOP OF FOUNDATION)	DESIGN TYPE	DESIGN NO.	POLE HEIGHT	ARM HEIGHT	L	L1	L2	L3	L4	D1	D2	D3	D4	MAST ARM A ANGLE	MAST ARM B ANGLE	PEDESTRIAN SIGNAL A	PEDESTRIAN SIGNAL B	PEDESTRIAN PUSH BUTTON	POWER SERVICE	SIGNAL CABINET	BRACKET ARM	HANDHOLE (PEDESTRIAN ORIENTATION ANGLE)	CABLE ENTRANCE 12" FROM TOP					
																												FT	FT	FT	FT	FT
SP-1	-	-	-	-	TC-81.22	14	-	-	62.0'	59.0'	48.0'	37.0'	-	55.5'	21.0'	-	-	0	-	280	-	280	-	-	-	-	-	-	-	-	-	-
SP-2	-	-	-	-	TC-81.22	13	-	-	51.0'	48.5'	40.5'	-	-	33.0'	-	-	-	90	-	90	-	190	-	-	-	-	-	-	-	-	-	-
SP-3	-	-	-	-	TC-81.22	4	-	-	33.0'	30.75'	22.25	13.75'	-	27.25'	10.25'	5.0'	-	90	-	90	-	-	-	-	-	-	-	-	-	-	-	-
SP-4	-	-	-	-	TC-81.22	12	-	-	41.0'	35.0'	24.0'	12.25'	-	38.5'	15.75'	6.0'	-	0	-	100	-	100	-	-	-	-	-	-	-	-	-	-
PS-1	-	-	-	-	-	-	-	15'	-	-	-	-	-	-	-	-	-	-	-	140	-	-	-	-	-	-	-	-	220	-	-	
PS-3	-	-	-	-	-	-	-	15'	-	-	-	-	-	-	-	-	-	-	-	300	-	300	-	-	-	-	-	-	150	-	-	
PS-4	-	-	-	-	-	-	-	15'	-	-	-	-	-	-	-	-	-	-	-	60	-	-	-	-	-	-	-	120	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

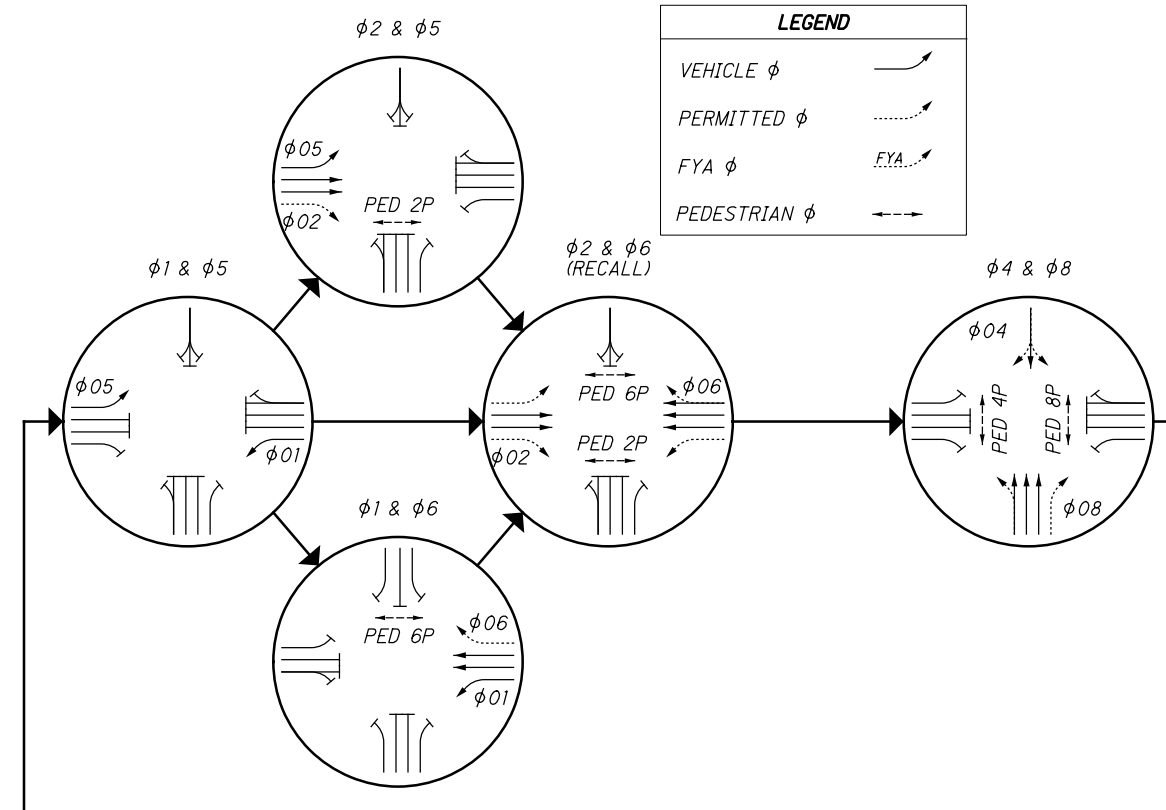
TRAFFIC SIGNAL PLAN DETAILS
 CARNEGIE AVE. & E. 22ND ST.

DESIGN AGENCY	Michael Baker INTERNATIONAL
DESIGNER	-
REVIEWER	-
PROJECT ID	82382
SHEET TOTAL	1325 2339

SIGNAL TIMING CHART (TEM FORM 496-3)

INTERSECTION: CARNEGIE AVE & E. 22ND ST									
MAINTAINING AGENCY: CITY OF CLEVELAND									
START UP		DUAL ENTRY: YES	PHASES: 2+6, 4+8						
START IN: ALL RED		REST IN RED: RING 1 - RING 2 -		OVERLAP		A	B	C	D
TIME FOR FLASH, ALL RED: 5		PHASES				-	-	-	-
FIRST PHASE(S): 2 + 6									
COLOR DISPLAYED: GREEN									
INTERVAL OR FEATURE									
INTERSECTION MOVEMENT (PHASE)									
DIRECTION	1	2	3	4	5	6	7	8	
	WBL	EBT	-	SBT	EBL	WBT	-	NBT	
MINIMUM GREEN (INITIAL) (SEC.)	-	-	-	-	-	-	-	-	
ADDED INITIAL *(SEC./ACTUATION)	-	-	-	-	-	-	-	-	
MAXIMUM INITIAL *(SEC.)	-	-	-	-	-	-	-	-	
PASSAGE TIME (PRESET GAP) (SEC.)	-	-	-	-	-	-	-	-	
TIME BEFORE REDUCTION *(SEC.)	-	-	-	-	-	-	-	-	
MINIMUM GAP *(SEC.)	-	-	-	-	-	-	-	-	
TIME TO REDUCE *(SEC.)	-	-	-	-	-	-	-	-	
MAXIMUM GREEN I (SEC.)	-	-	-	-	-	-	-	-	
MAXIMUM GREEN II (SEC.)	-	-	-	-	-	-	-	-	
YELLOW CHANGE (SEC.)	3	4	-	3	3	4	-	4	
ALL RED CLEARANCE (SEC.)	4	3	-	6	4	3	-	3	
DELAYED GREEN (LPI) # (SEC.)	-	-	-	-	-	-	-	-	
WALK (SEC.)	-	7	-	10	-	7	-	7	
FLASHING YELLOW ARROW DELAY °	-	-	-	-	-	-	-	-	
PEDESTRIAN CLEARANCE (SEC.)	-	21	-	26	-	9	-	18	
RECALL	MAXIMUM (ON/OFF)	-	-	-	-	-	-	-	
	MINIMUM (ON/OFF)	-	-	-	-	-	-	-	
	PEDESTRIAN (ON/OFF)	-	ON	-	-	-	ON	-	
MEMORY (ON/OFF)	-	-	-	-	-	-	-	-	

PHASING DIAGRAM



*VOLUME DENSITY CONTROLS

#FOR CROSSING WITH PEDESTRIAN PUSHBUTTONS, LPI'S (LEADING PEDESTRIAN INTERVALS) MAY BE IMPLEMENTED (3-6 SEC.) IN ACCORDANCE WITH LPI DURATION TIME PER THE ODOT SIGNAL CALCULATIONS - CLEARANCE INTERVALS SPREADSHEET.

*WHEN IMPLEMENTING FYA, A MINIMUM 3 SECOND DELAY SHALL BE PROGRAMMED.

RADAR DETECTION CHART (TEM FORM 496-4)

DETECTION ZONE	MOVEMENT	WIDTH	DELAY PROGRAMMED IN CONTROLLER (SEC)	EXTENSION PROGRAMMED IN CONTROLLER (SEC)	DETECTOR NUMBER	PURPOSE	DETECTION ZONE LENGTH (FT)
RDZ1A	WBL	6	3	-	R-1	STOP-LINE	35
RDZ5A	EBL	6	3	-	R-5	STOP-LINE	35
RDZ4A	SB	5.5	3	-	R-4	STOP-LINE	35
RDZ8A	NB	35	3	-	R-8	STOP-LINE	35
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-

NOTE: ADVANCED DILEMMA ZONE SPEED THRESHOLD >30 MPH
PURPOSE: STOP-LINE OR ADVANCED DETECTION

CUY-90-16.28 (CCG3A)

MODEL: Sheet PAPER SIZE: 11x17 (in.) DATE: 6/22/2022 TIME: 9:24:16 PM USER: Caroline.Owings
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TRAFFIC SIGNAL PLAN DETAILS
CARNEGIE AVE. & E. 22ND ST.

DESIGN AGENCY

Michael Baker
INTERNATIONAL

DESIGNER

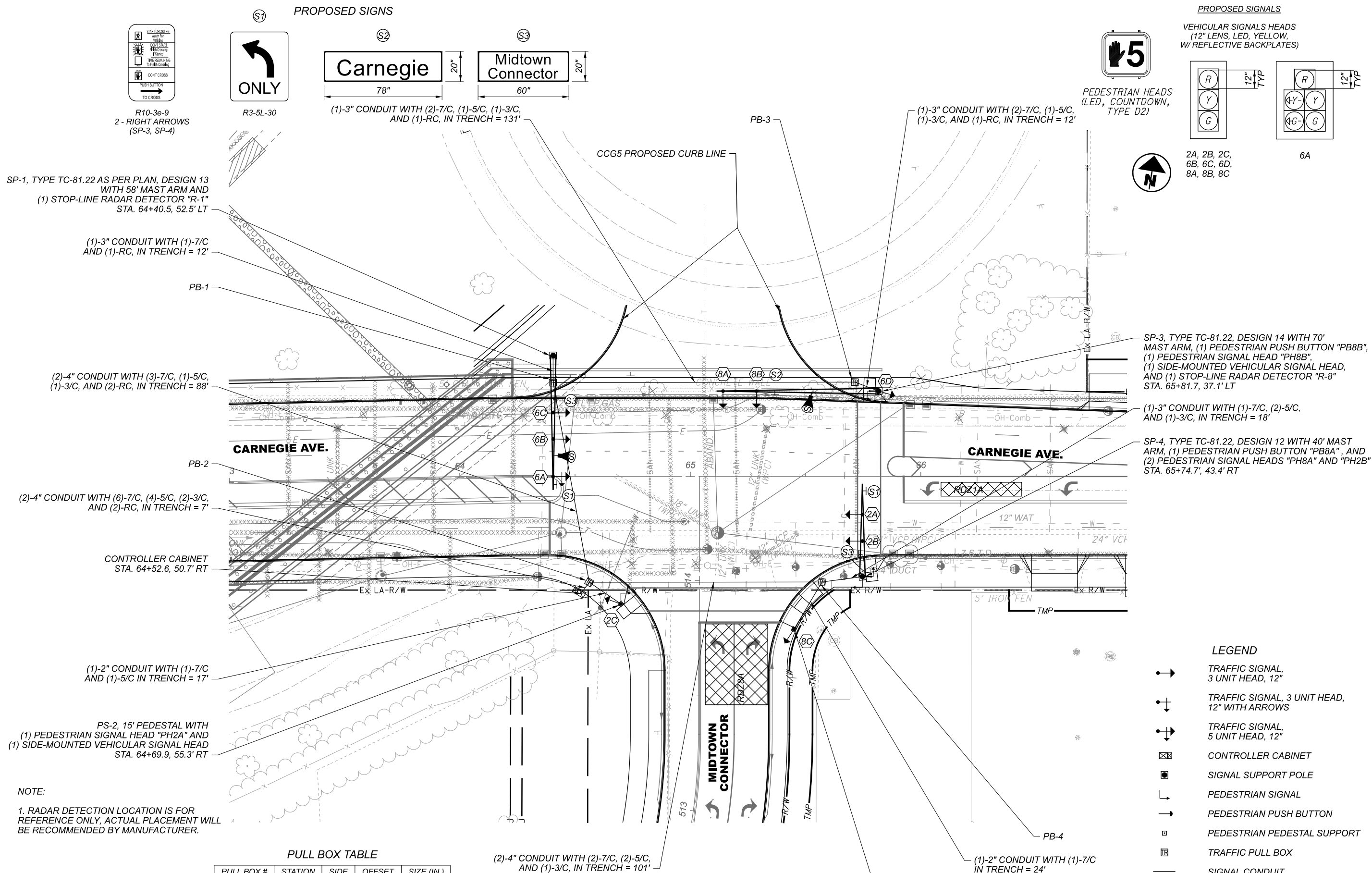
REVIEWER

PROJECT ID

82382

SHEET TOTAL

1326 2339



SP-1, TYPE TC-81.22 AS PER PLAN, DESIGN 13 WITH 58' MAST ARM AND (1) STOP-LINE RADAR DETECTOR "R-1" STA. 64+40.5, 52.5' LT

(1)-3" CONDUIT WITH (1)-7/C AND (1)-RC, IN TRENCH = 12'

(2)-4" CONDUIT WITH (3)-7/C, (1)-5/C, (1)-3/C, AND (2)-RC, IN TRENCH = 88'

(2)-4" CONDUIT WITH (6)-7/C, (4)-5/C, (2)-3/C, AND (2)-RC, IN TRENCH = 7'

CONTROLLER CABINET STA. 64+52.6, 50.7' RT

(1)-2" CONDUIT WITH (1)-7/C AND (1)-5/C IN TRENCH = 17'

PS-2, 15' PEDESTAL WITH (1) PEDESTRIAN SIGNAL HEAD "PH2A" AND (1) SIDE-MOUNTED VEHICULAR SIGNAL HEAD STA. 64+69.9, 55.3' RT

NOTE:
 1. RADAR DETECTION LOCATION IS FOR REFERENCE ONLY, ACTUAL PLACEMENT WILL BE RECOMMENDED BY MANUFACTURER.

PULL BOX TABLE

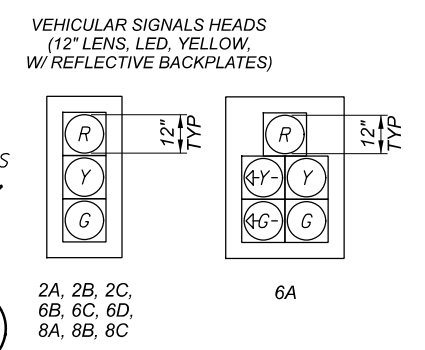
PULL BOX #	STATION	SIDE	OFFSET	SIZE (IN.)
PB-1	64+40.5	LT	40.7	24 x 36
PB-2	64+56.2	RT	45.9	24 x 36
PB-3	65+71.4	LT	40.9	24 x 36
PB-4	65+57.1	RT	45.8	24 x 36

(2)-4" CONDUIT WITH (2)-7/C, (2)-5/C, AND (1)-3/C, IN TRENCH = 101'

PS-4, 15' PEDESTAL WITH (1) SIDE-MOUNTED VEHICULAR SIGNAL HEAD STA. 65+45.0, 66.2' RT

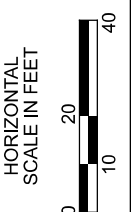
(1)-2" CONDUIT WITH (1)-7/C IN TRENCH = 24'

PROPOSED SIGNALS



2A, 2B, 2C, 6B, 6C, 6D, 8A, 8B, 8C

6A



TRAFFIC SIGNAL PLAN
 CARNEGIE AVE. & MIDTOWN CONNECTOR

LEGEND

- TRAFFIC SIGNAL, 3 UNIT HEAD, 12"
- TRAFFIC SIGNAL, 3 UNIT HEAD, 12" WITH ARROWS
- TRAFFIC SIGNAL, 5 UNIT HEAD, 12"
- CONTROLLER CABINET
- SIGNAL SUPPORT POLE
- PEDESTRIAN SIGNAL
- PEDESTRIAN PUSH BUTTON
- PEDESTRIAN PEDESTAL SUPPORT
- TRAFFIC PULL BOX
- SIGNAL CONDUIT

DESIGN AGENCY

Michael Baker INTERNATIONAL

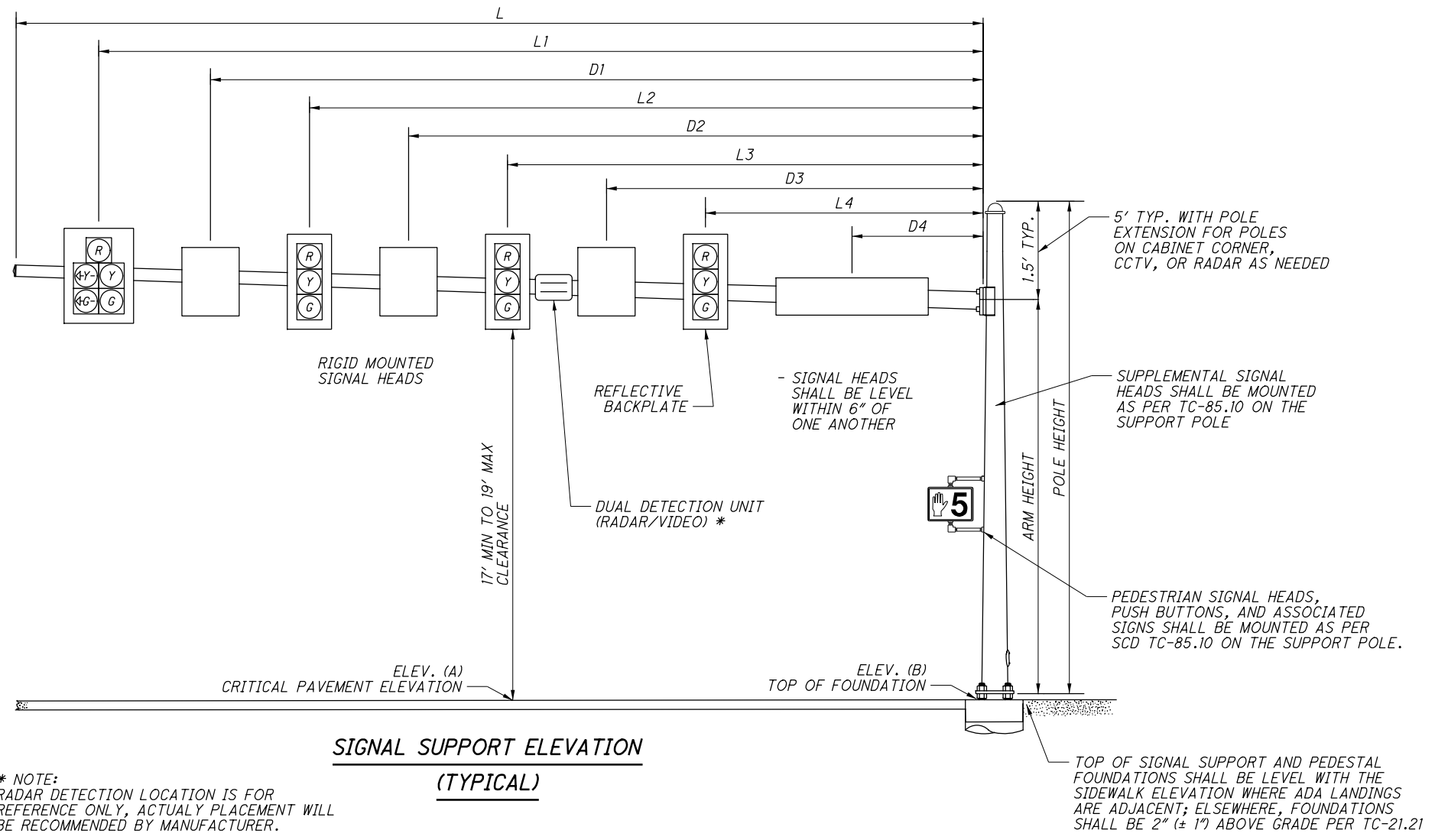
DESIGNER

REVIEWER

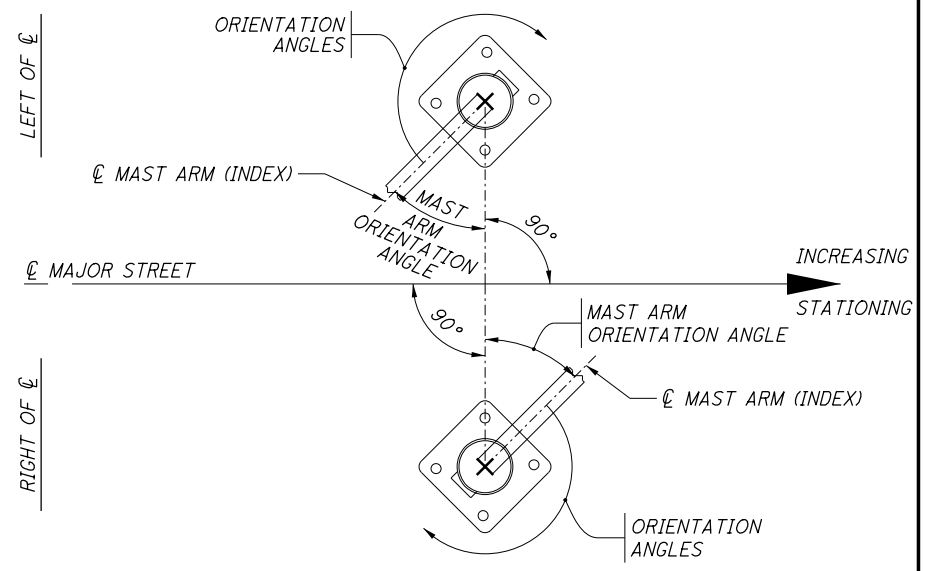
PROJECT ID
82382

SHEET TOTAL
1328 2339

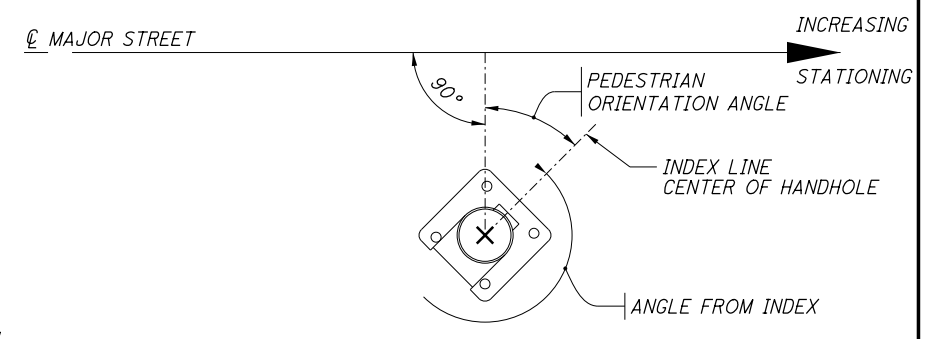
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SIGNAL SUPPORT ELEVATION (TYPICAL)



POLE ORIENTATION



PEDESTAL ORIENTATION

MAST ARM TABLE (TEM FIGURE 498-37 & 38)

SUPPORT NO.	STATION	OFFSET	ELEVATION		SIGNAL SUPPORT DETAILS												ORIENTATION ANGLES FROM MAST ARM A																
			A (PAVEMENT ELEVATION)	B (TOP OF FOUNDATION)	DESIGN TYPE	DESIGN NO.	POLE HEIGHT	ARM HEIGHT	L	L1	L2	L3	L4	D1	D2	D3	D4	MAST ARM A ANGLE	MAST ARM B ANGLE	PEDESTRIAN SIGNAL A	PEDESTRIAN SIGNAL B	PEDESTRIAN PUSH BUTTON	POWER SERVICE	SIGNAL CABINET	BRACKET ARM	HANDHOLE (PEDESTRIAN ORIENTATION ANGLE)	CABLE ENTRANCE 12" FROM TOP						
																												FT	FT	FT	FT	FT	FT
SP-1	-	-	-	-	TC-81.22, APP	13	-	-	58.0'	52.5'	36.25'	24.75'	-	56.0'	19.0'	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SP-3	-	-	-	-	TC-81.22	14	-	-	70.0'	67.5'	53.0'	-	-	45.0'	-	-	-	90	-	0	-	0	-	-	-	-	-	-	-	-	-	-	
SP-4	-	-	-	-	TC-81.22	12	-	-	40.0'	27.0'	15.5'	-	-	37.0'	9.5'	-	-	0	-	180	90	90	-	-	-	-	-	-	-	-	-	-	-
PS-2	-	-	-	-	-	-	15'	-	-	-	-	-	-	-	-	-	-	-	-	130	-	-	-	-	-	230	-	-	-	-	-	-	

TRAFFIC SIGNAL PLAN DETAILS
 CARNegie AVE. & MIDTOWN CONNECTOR

DESIGN AGENCY	Michael Baker INTERNATIONAL
DESIGNER	-
REVIEWER	-
PROJECT ID	82382
SHEET	1329
TOTAL	2339

SIGNAL TIMING CHART (TEM FORM 496-3)

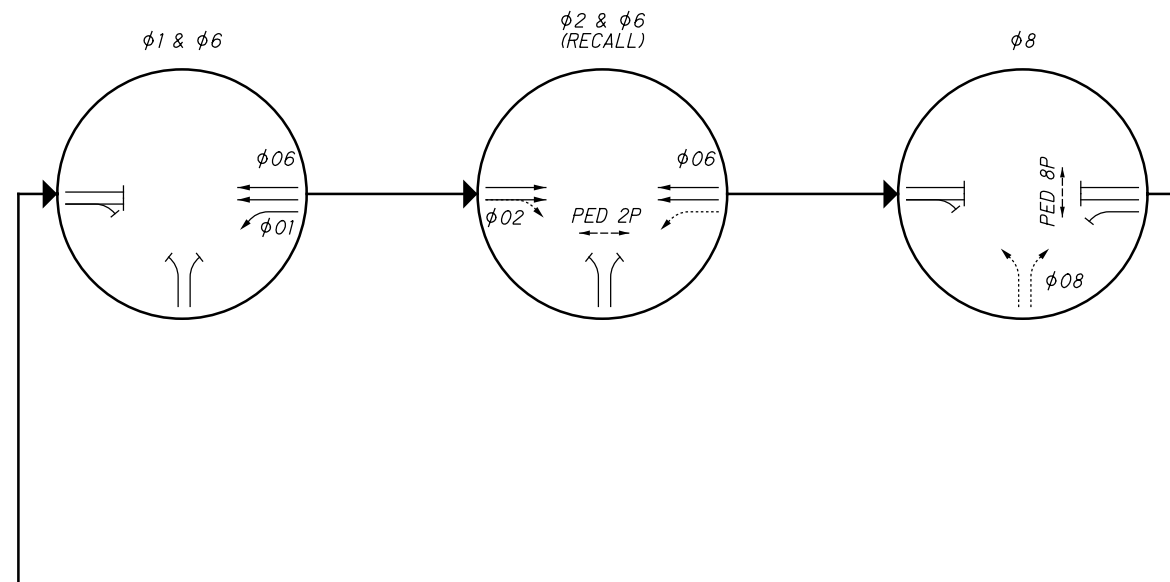
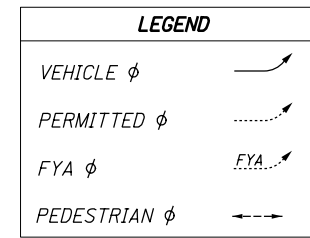
INTERSECTION: CARNegie AVE & MIDTOWN CONNECTOR										
MAINTAINING AGENCY: CITY OF CLEVELAND										
START UP		DUAL ENTRY: YES	PHASES: 2+6							
START IN: ALL RED		REST IN RED: RING 1	RING 2							
TIME FOR FLASH, ALL RED: 5		OVERLAP	A	B	C	D				
FIRST PHASE(S): 2 + 6		PHASES	-	-	-	-				
COLOR DISPLAYED: GREEN										
INTERVAL OR FEATURE			CONTROLLER MOVEMENT NO.							
INTERSECTION MOVEMENT (PHASE)			1	2	3	4	5	6	7	8
DIRECTION			WBL	EBT	-	-	-	WBT	-	NBT
MINIMUM GREEN (INITIAL) (SEC.)			-	-	-	-	-	-	-	-
ADDED INITIAL *(SEC./ACTUATION)			-	-	-	-	-	-	-	-
MAXIMUM INITIAL *(SEC.)			-	-	-	-	-	-	-	-
PASSAGE TIME (PRESET GAP) (SEC.)			-	-	-	-	-	-	-	-
TIME BEFORE REDUCTION *(SEC.)			-	-	-	-	-	-	-	-
MINIMUM GAP *(SEC.)			-	-	-	-	-	-	-	-
TIME TO REDUCE *(SEC.)			-	-	-	-	-	-	-	-
MAXIMUM GREEN I (SEC.)			-	-	-	-	-	-	-	-
MAXIMUM GREEN II (SEC.)			-	-	-	-	-	-	-	-
YELLOW CHANGE (SEC.)			3	4	-	-	-	4	-	4
ALL RED CLEARANCE (SEC.)			4	3	-	-	-	3	-	2
DELAYED GREEN (LPI) # (SEC.)			-	-	-	-	-	-	-	-
WALK (SEC.)			-	7	-	-	-	-	-	8
FLASHING YELLOW ARROW DELAY ° (SEC.)			-	-	-	-	-	-	-	-
PEDESTRIAN CLEARANCE (SEC.)			-	19	-	-	-	-	-	16
RECALL	MAXIMUM	(ON/OFF)	-	-	-	-	-	-	-	-
	MINIMUM	(ON/OFF)	-	-	-	-	-	-	-	-
	PEDESTRIAN	(ON/OFF)	-	ON	-	-	-	-	-	-
MEMORY (ON/OFF)			-	-	-	-	-	-	-	-

*VOLUME DENSITY CONTROLS

#FOR CROSSING WITH PEDESTRIAN PUSHBUTTONS, LPI'S (LEADING PEDESTRIAN INTERVALS) MAY BE IMPLEMENTED (3-6 SEC.) IN ACCORDANCE WITH LPI DURATION TIME PER THE ODOT SIGNAL CALCULATIONS - CLEARANCE INTERVALS SPREADSHEET.

*WHEN IMPLEMENTING FYA, A MINIMUM 3 SECOND DELAY SHALL BE PROGRAMMED.

PHASING DIAGRAM

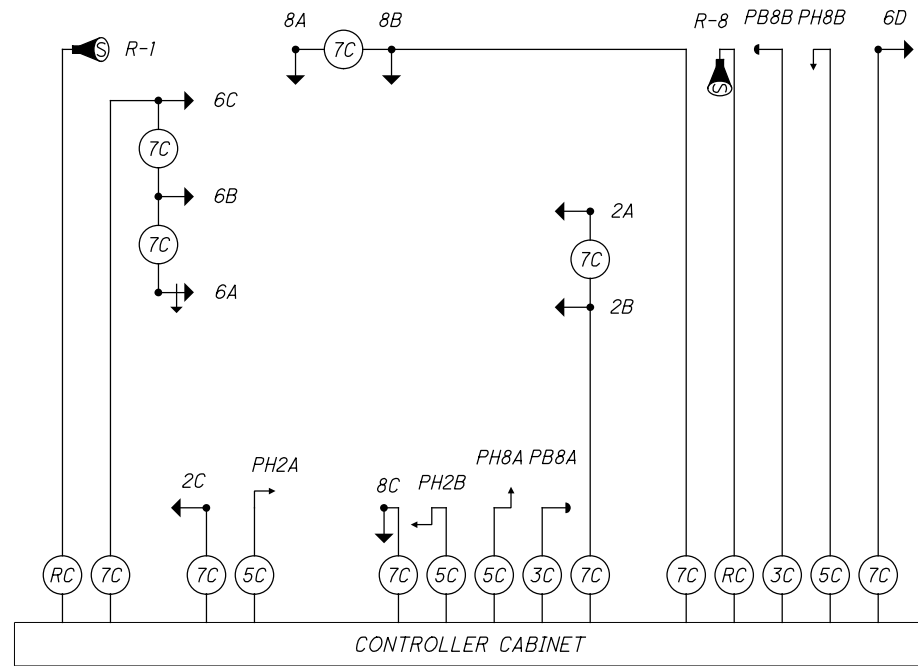


RADAR DETECTION CHART (TEM FORM 496-4)

DETECTION ZONE	MOVEMENT	WIDTH	DELAY PROGRAMMED IN CONTROLLER (SEC)	EXTENSION PROGRAMMED IN CONTROLLER (SEC)	DETECTOR NUMBER	PURPOSE	DETECTION ZONE LENGTH (FT)
RDZ1A	WBL	6	3	-	R-1	STOP-LINE	35
RDZ8A	NB	27	3	-	R-8	STOP-LINE	35
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-

NOTE: ADVANCED DILEMMA ZONE SPEED THRESHOLD >30 MPH
PURPOSE: STOP-LINE OR ADVANCED DETECTION

WIRING DIAGRAM



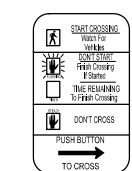
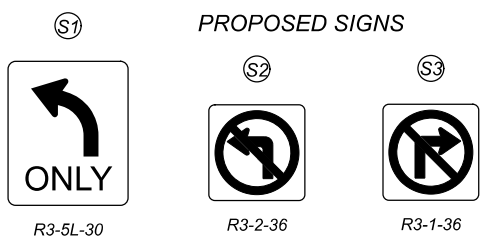
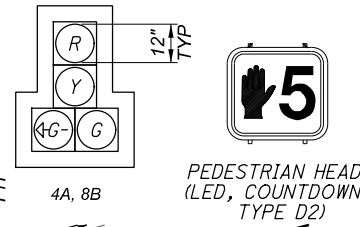
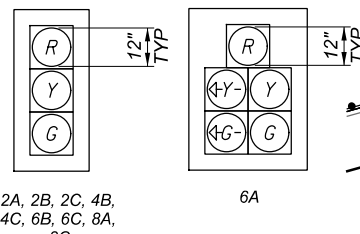
FIELD WIRING HOOK-UP CHART (TEM FORM 496-16)

SIGNAL HEAD	INDICATION	FIELD TERMINAL	FLASH	SIGNAL HEAD	INDICATION	FIELD TERMINAL	FLASH	
2A, 2B (EB)	R	φ2R	R	8A, 8B (NB)	R	φ8R	R	
	Y	φ2Y			Y	φ8Y		
	G	φ2G			G	φ8G		
2C (EB)	R	φ2R	R	8C (NB)	R	φ8R	R	
	Y	φ2Y			Y	φ8Y		
	G	φ2G			G	φ8G		
6A (WB)	R	φ6R	R	PEDESTRIAN MOVEMENTS				
	Y	φ6Y		PH2A, PH2B (EB)	W	φ2 PED / LS 13	G	OUT
	G	φ6G			DW	φ2 PED / LS 13	R	
	<--Y-->	φ1Y		PH8A, PH8B (NB)	W	φ8 PED / LS 14	G	OUT
	<--G-->	φ1G			DW	φ8 PED / LS 14	R	
6B, 6C (WB)	R	φ6R	R					
	Y	φ6Y						
	G	φ6G						
6D (WB)	R	φ6R	R					
	Y	φ6Y						
	G	φ6G						

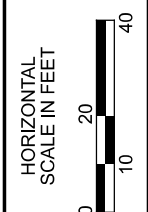
LEGEND

	TRAFFIC SIGNAL, 4 OR 5 UNIT HEAD, 12"		LUMINAIRE, CONVENTIONAL		SERVICE CABLE, 3 CONDUCTOR, NO. X AWG
	TRAFFIC SIGNAL, 2 UNIT, 3 UNIT, OR PHB HEAD 12"		2/C NO. XX AWG (LEAD-IN CABLE)		POWER CABLE, 2 CONDUCTOR, NO. X AWG
	TRAFFIC SIGNAL, 3 UNIT HEAD, 12" WITH ARROWS		VEHICLE LOOP DETECTOR		SIGNAL SUPPORT POLE NO. --
	PEDESTRIAN SIGNAL		SIGNAL CABLE, 5 CONDUCTOR, NO. XX AWG		METER BASE
	PEDESTRIAN PUSH BUTTON		SIGNAL CABLE, 7 CONDUCTOR, NO. XX AWG		NO. X AWG DISTRIBUTION CABLE
	DILEMMA ZONE RADAR DETECTION UNIT		RADAR DETECTION CABLE		NO. XX AWG POLE & BRACKET CABLE
	STOP LINE RADAR DETECTION UNIT		VIDEO CAMERA CABLE		DUAL LIGHTING/SIGNAL DISCONNECT SWITCH
	VIDEO DETECTION CAMERA		INTERCONNECT CABLE		FLASHER CABINET
	PTZ CAMERA		PHOTOELECTRIC CELL		UNINTERRUPTIBLE POWER SUPPLY CABLE
	ETHERNET RADIO		POWER SOURCE		

PROPOSED SIGNALS
 VEHICULAR SIGNAL HEADS
 (12" LENS, LED, YELLOW,
 W/ REFLECTIVE BACKPLATES)



R10-3e-9
 1 - LEFT ARROWS (PS-4)
 1 - RIGHT ARROWS (SP-1)



PS-1, 15' PEDESTAL WITH
 (1) PEDESTRIAN SIGNAL HEAD "PH6A"
 STA. 33+44.1, 50.2' LT

(1)-2" CONDUIT WITH
 (1)-5/C IN TRENCH = 3'

PB-1
 (2)-4" CONDUIT WITH
 (1)-5/C IN TRENCH = 39'

SP-1, TYPE TC-12.31, DESIGN 14 WITH
 68' MAST ARM, DESIGN 13 WITH 49' MAST ARM,
 (1) PEDESTRIAN PUSH BUTTON "PB4A",
 (2) PEDESTRIAN SIGNAL HEADS "PH4A" AND "PH6B",
 (2) SIDE-MOUNTED SIGNAL HEADS, AND
 (2) STOP-LINE RADAR DETECTORS "R-8" AND "R-1"
 STA. 33+11.0, 43.9' LT

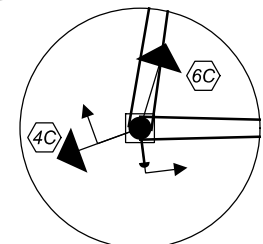
(1)-3" CONDUIT WITH (4)-7/C, (2)-5/C, (1)-3/C,
 AND (2)-RC, IN TRENCH = 12'

PB-2
 (2)-4" CONDUIT WITH (4)-7/C, (3)-5/C, (1)-3/C,
 AND (2)-RC, IN TRENCH = 26'

PB-3
 (2)-4" CONDUIT WITH (8)-7/C, (6)-5/C, (2)-3/C,
 AND (3)-RC, IN TRENCH = 45'

PB-6
 (2)-4" CONDUIT WITH (8)-7/C, (6)-5/C, (2)-3/C,
 AND (3)-RC, IN TRENCH = 7'

CONTROLLER CABINET
 STA. 32+52.2, 88.6' LT

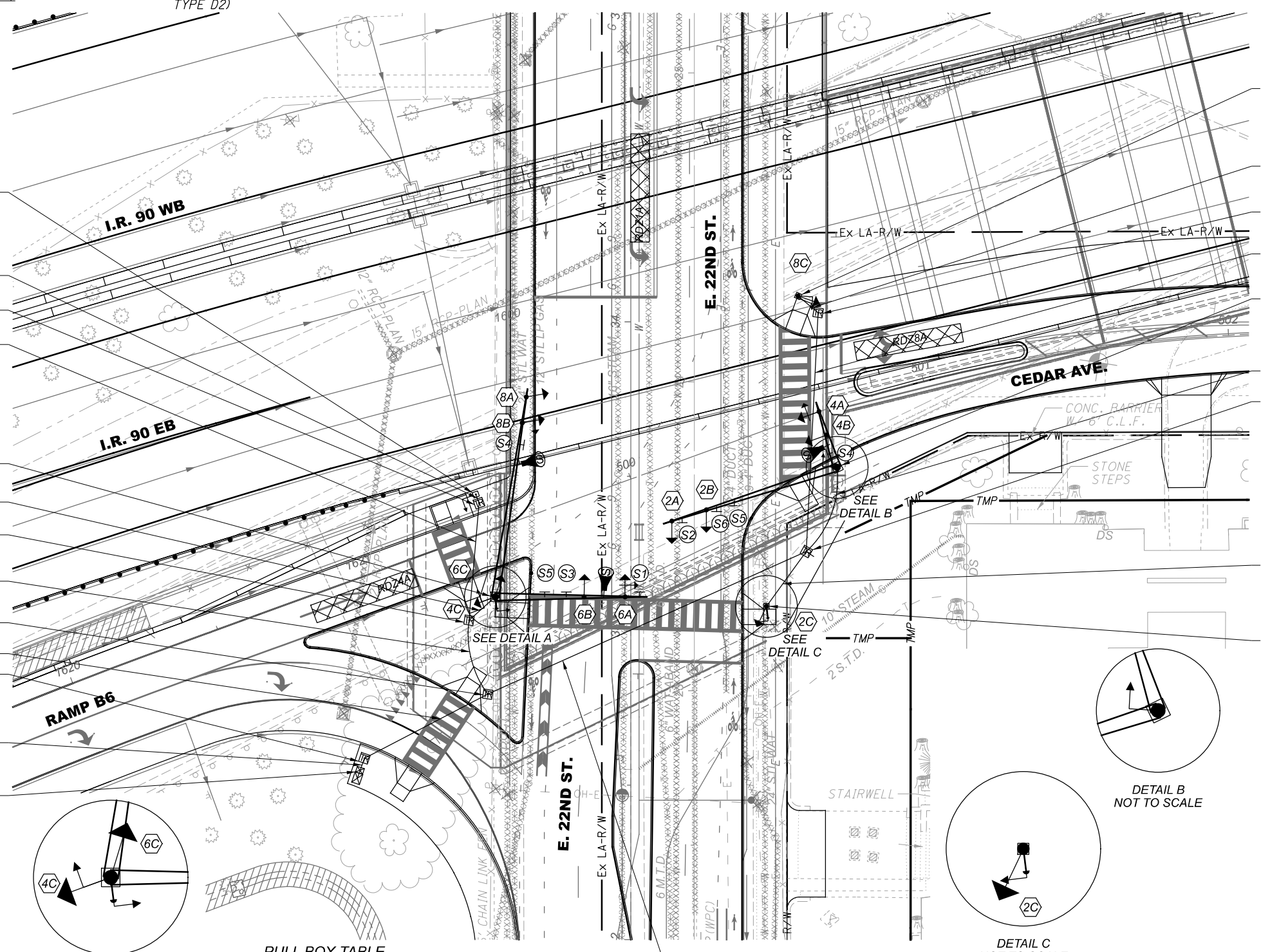


DETAIL A
 NOT TO SCALE

PULL BOX TABLE

PULL BOX #	STATION	SIDE	OFFSET	SIZE (IN.)
PB-1	33+41.3	LT	49.2	24 x 36
PB-2	33+03.4	LT	52.4	24 x 36
PB-3	32+79.5	LT	46.3	24 x 36
PB-4	33+25.6	RT	56.8	24 x 36
PB-5	34+03.0	RT	60.6	24 x 36
PB-6	32+58.7	LT	86.2	24 x 36

NOTE:
 1. RADAR DETECTION LOCATION IS FOR
 REFERENCE ONLY, ACTUAL PLACEMENT WILL
 BE RECOMMENDED BY MANUFACTURER.



PS-3, 15' PEDESTAL WITH
 (1) PEDESTRIAN SIGNAL HEAD "PH2B" AND
 (1) SIDE-MOUNTED VEHICULAR SIGNAL HEAD
 STA. 34+08.4, 54.2' RT

(1)-2" CONDUIT WITH (1)-7/C,
 AND (1)-5/C, IN TRENCH = 9'

PB-5

(2)-4" CONDUIT WITH (1)-7/C
 AND (1)-5/C IN TRENCH = 78'

SP-4, TYPE TC-12.31, DESIGN 13 WITH 59'
 MAST ARM, DESIGN 2 WITH 22' MAST ARM,
 (1) PEDESTRIAN SIGNAL HEAD "PH2A", AND
 (1) STOP-LINE RADAR DETECTOR "R-4"
 STA. 33+52.9, 66.8' RT

(1)-3" CONDUIT WITH (2)-7/C,
 (1)-5/C, AND (1)-RC, IN TRENCH = 31'

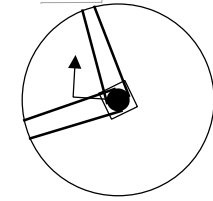
PB-4

(1)-2" CONDUIT WITH (1)-7/C, (1)-5/C,
 AND (1)-3/C, IN TRENCH = 22'

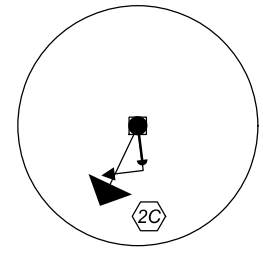
PS-4, 15' PEDESTAL WITH
 (1) PEDESTRIAN PUSH BUTTON "PB4B",
 (1) PEDESTRIAN SIGNAL HEAD "PH4B", AND
 (1) SIDE-MOUNTED VEHICULAR SIGNAL HEAD
 STA. 33+07.9, 43.9' RT

LEGEND

- TRAFFIC SIGNAL, 3 UNIT HEAD, 12"
- TRAFFIC SIGNAL, 3 UNIT HEAD, 12" WITH ARROWS
- TRAFFIC SIGNAL, 4 OR 5 UNIT HEAD, 12"
- CONTROLLER CABINET
- SIGNAL SUPPORT POLE
- PEDESTRIAN SIGNAL
- PEDESTRIAN PUSH BUTTON
- PEDESTRIAN PEDESTAL SUPPORT
- TRAFFIC PULL BOX
- SIGNAL CONDUIT

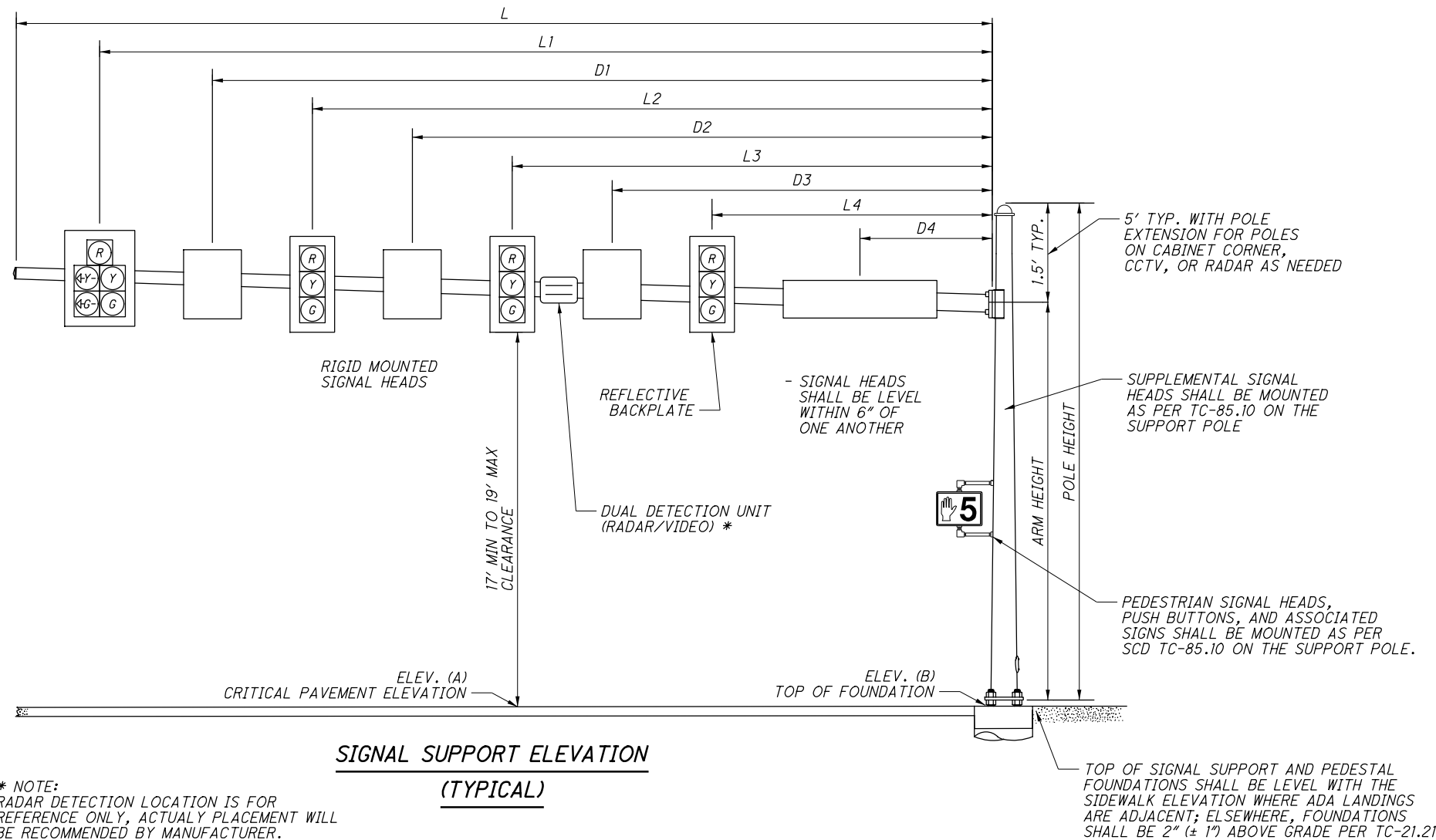


DETAIL B
 NOT TO SCALE

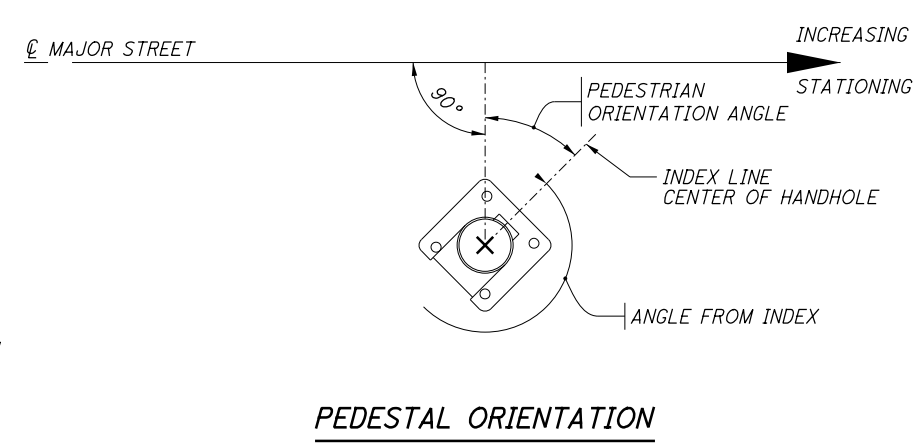
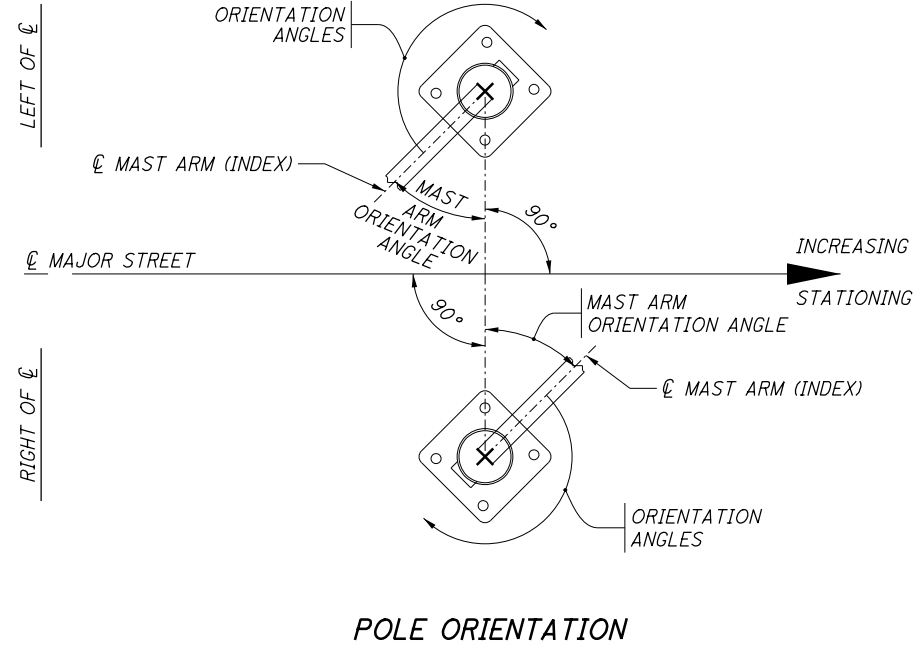


DETAIL C
 NOT TO SCALE

(2)-4" CONDUIT WITH (4)-7/C, (3)-5/C, (1)-3/C,
 AND (1)-RC, IN TRENCH = 114'



* NOTE: RADAR DETECTION LOCATION IS FOR REFERENCE ONLY, ACTUAL PLACEMENT WILL BE RECOMMENDED BY MANUFACTURER.



* MAST ARM ANGLE B IS MEASURED FROM MAST ARM ANGLE A

MAST ARM TABLE (TEM FIGURE 498-37 & 38)

SUPPORT NO.	STATION	OFFSET	ELEVATION		SIGNAL SUPPORT DETAILS												ORIENTATION ANGLES FROM MAST ARM A										
			A (PAVEMENT ELEVATION)	B (TOP OF FOUNDATION)	DESIGN TYPE	DESIGN NO.	POLE HEIGHT	ARM HEIGHT	L	L1	L2	L3	L4	D1	D2	D3	D4	MAST ARM A ANGLE	MAST ARM B ANGLE *	PEDESTRIAN SIGNAL A	PEDESTRIAN SIGNAL B	PEDESTRIAN PUSH BUTTON	POWER SERVICE	SIGNAL CABINET	BRACKET ARM	HANDHOLE (PEDESTRIAN ORIENTATION ANGLE)	CABLE ENTRANCE 12" FROM TOP
			FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	DEG	DEG	DEG	DEG	DEG	DEG	DEG	DEG	DEG	DEG	DEG
SP-1	-	-	-	-	TC-12.31	12	-	-	68.0'	65.5'	57.0'	-	-	50.0'	-	-	280	-	80	160	80	-	-	-	-	-	
SP-1	-	-	-	-	TC-12.31	10	-	-	49.0'	42.0	28.75'	-	-	46.75'	23.0'	16.0'	-	100	-	-	-	-	-	-	-	-	
SP-4	-	-	-	-	TC-12.31	10	-	-	59.0'	56.25'	44.5'	-	-	52.75'	37.0'	-	-	90	-	330	-	-	-	-	-	-	
SP-4	-	-	-	-	TC-12.31	10	-	-	22.0'	19.0'	11.0'	-	-	5.0'	-	-	-	90	-	-	-	-	-	-	-	-	
PS-1	-	-	-	-	-	-	-	15'	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	160	-	
PS-3	-	-	-	-	-	-	-	15'	-	-	-	-	-	-	-	-	-	-	70	-	-	-	-	-	120	-	
PS-4	-	-	-	-	-	-	-	15'	-	-	-	-	-	-	-	-	-	-	90	-	-	-	-	-	180	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

SIGNAL TIMING CHART (TEM FORM 496-3)

INTERSECTION: E. 22ND ST & CEDAR AVE										
MAINTAINING AGENCY: CITY OF CLEVELAND										
START UP		DUAL ENTRY: YES	PHASES: 2+6							
START IN: ALL RED		REST IN RED: RING 1 -	RING 2 -							
TIME FOR FLASH, ALL RED: 5		OVERLAP	A	B	C	D				
FIRST PHASE(S): 2 + 6		PHASES	-	-	-	-				
COLOR DISPLAYED: GREEN										
INTERVAL OR FEATURE			CONTROLLER MOVEMENT NO.							
INTERSECTION MOVEMENT (PHASE)			1	2	3	4	5	6	7	8
DIRECTION			SBL	NBT	WBL	EBT	-	SBT	EBL	WBT
MINIMUM GREEN (INITIAL) (SEC.)			-	-	-	-	-	-	-	-
ADDED INITIAL *(SEC./ACTUATION)			-	-	-	-	-	-	-	-
MAXIMUM INITIAL *(SEC.)			-	-	-	-	-	-	-	-
PASSAGE TIME (PRESET GAP) (SEC.)			-	-	-	-	-	-	-	-
TIME BEFORE REDUCTION *(SEC.)			-	-	-	-	-	-	-	-
MINIMUM GAP *(SEC.)			-	-	-	-	-	-	-	-
TIME TO REDUCE *(SEC.)			-	-	-	-	-	-	-	-
MAXIMUM GREEN I (SEC.)			-	-	-	-	-	-	-	-
MAXIMUM GREEN II (SEC.)			-	-	-	-	-	-	-	-
YELLOW CHANGE (SEC.)			3	4	3	4	-	4	3	4
ALL RED CLEARANCE (SEC.)			3	2	4	3	-	2	4	3
DELAYED GREEN (LPI) # (SEC.)			-	-	-	-	-	-	-	-
WALK (SEC.)			-	7	-	7	-	7	-	-
FLASHING YELLOW ARROW DELAY °			-	-	-	-	-	-	-	-
PEDESTRIAN CLEARANCE (SEC.)			-	10	-	19	-	2	-	-
RECALL	MAXIMUM	(ON/OFF)	-	-	-	-	-	-	-	-
	MINIMUM	(ON/OFF)	-	-	-	-	-	-	-	-
	PEDESTRIAN	(ON/OFF)	-	ON	-	-	-	ON	-	-
MEMORY		(ON/OFF)	-	-	-	-	-	-	-	-

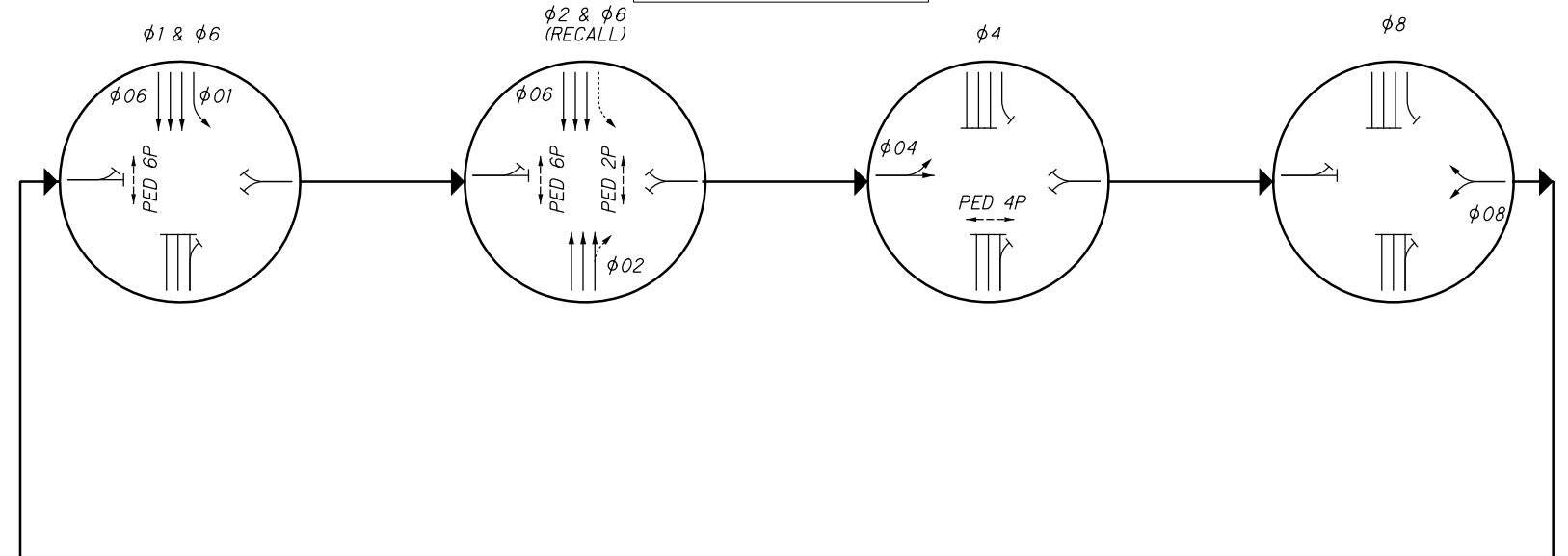
*VOLUME DENSITY CONTROLS

#FOR CROSSING WITH PEDESTRIAN PUSHBUTTONS, LPI'S (LEADING PEDESTRIAN INTERVALS) MAY BE IMPLEMENTED (3-6 SEC.) IN ACCORDANCE WITH LPI DURATION TIME PER THE ODOT SIGNAL CALCULATIONS - CLEARANCE INTERVALS SPREADSHEET.

*WHEN IMPLEMENTING FYA, A MINIMUM 3 SECOND DELAY SHALL BE PROGRAMMED.

PHASING DIAGRAM

LEGEND	
VEHICLE ϕ	
PERMITTED ϕ	
FYA ϕ	
PEDESTRIAN ϕ	

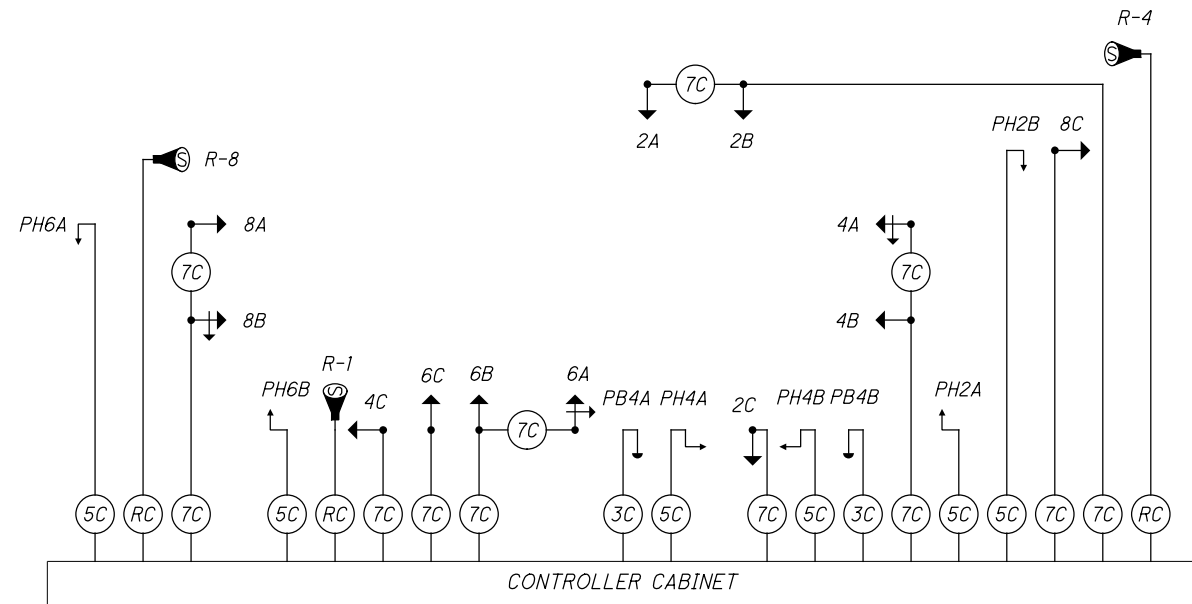


RADAR DETECTION CHART (TEM FORM 496-4)

DETECTION ZONE	MOVEMENT	WIDTH	DELAY PROGRAMMED IN CONTROLLER (SEC)	EXTENSION PROGRAMMED IN CONTROLLER (SEC)	DETECTOR NUMBER	PURPOSE	DETECTION ZONE LENGTH (FT)
RDZ1A	SBL	6	3	-	R-1	STOP-LINE	35
RDZ7A	EB	6	3	-	R-7	STOP-LINE	35
RDZ8A	WB	6	3	-	R-8	STOP-LINE	35
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-

NOTE: ADVANCED DILEMMA ZONE SPEED THRESHOLD >30 MPH
PURPOSE: STOP-LINE OR ADVANCED DETECTION

WIRING DIAGRAM



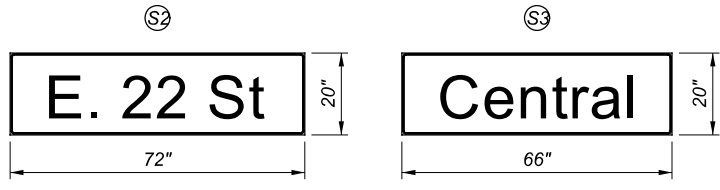
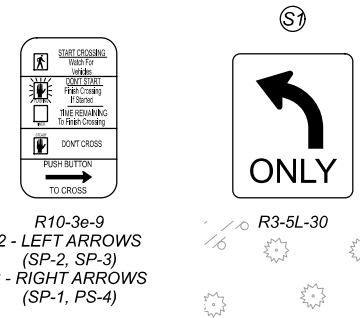
FIELD WIRING HOOK-UP CHART (TEM FORM 496-16)

SIGNAL HEAD	INDICATION	FIELD TERMINAL	FLASH	SIGNAL HEAD	INDICATION	FIELD TERMINAL	FLASH
4A (EB)	R	φ4R	R	2C (NB)	R	φ2R	R
	Y	φ4Y			Y	φ2Y	
	G	φ4G			G	φ2G	
	<--G--	φ4G		R	φ6R	R	
4B (EB)	R	φ4R	Y	φ6Y			
	Y	φ4Y	G	φ6G			
	G	φ4G	<--Y--	φ1Y			
4C (EB)	R	φ4R	R	6B (SB)	R	φ6R	R
	Y	φ4Y			Y	φ6Y	
	G	φ4G			G	φ6G	
8A (WB)	R	φ8R	R	6C (SB)	R	φ6R	R
	Y	φ8Y			Y	φ6Y	
	G	φ8G			G	φ6G	
8B (WB)	R	φ8R	R	PEDESTRIAN MOVEMENTS			OUT
	Y	φ8Y		PH4A, PH4B (EB)	W	φ4 PED / LS 13 G	
	G	φ8G		DW	φ4 PED / LS 13 R		
	<--G--	φ8G		PH6A, PH6B (SB)	W	φ6 PED / LS 14 G	
8C (WB)	R	φ8R	R	DW	φ6 PED / LS 14 R		
	Y	φ8Y		PH2A, PH2B (NB)	W	φ2 PED / LS 15 G	
	G	φ8G		DW	φ2 PED / LS 15 R		
2A, 2B (NB)	R	φ2R	R				
	Y	φ2Y					
	G	φ2G					

LEGEND

	TRAFFIC SIGNAL, 4 OR 5 UNIT HEAD, 12"		LUMINAIRE, CONVENTIONAL		SERVICE CABLE, 3 CONDUCTOR, NO. X AWG
	TRAFFIC SIGNAL, 2 UNIT, 3 UNIT, OR PHB HEAD 12"		2/C NO. XX AWG (LEAD-IN CABLE)		POWER CABLE, 2 CONDUCTOR, NO. X AWG
	TRAFFIC SIGNAL, 3 UNIT HEAD, 12" WITH ARROWS		VEHICLE LOOP DETECTOR		SIGNAL SUPPORT POLE NO. ...
	PEDESTRIAN SIGNAL		SIGNAL CABLE, 5 CONDUCTOR, NO. XX AWG		METER BASE
	PEDESTRIAN PUSH BUTTON		SIGNAL CABLE, 7 CONDUCTOR, NO. XX AWG		NO. X AWG DISTRIBUTION CABLE
	DILEMMA ZONE RADAR DETECTION UNIT		RADAR DETECTION CABLE		NO. XX AWG POLE & BRACKET CABLE
	STOP LINE RADAR DETECTION UNIT		VIDEO CAMERA CABLE		DUAL LIGHTING/SIGNAL DISCONNECT SWITCH
	VIDEO DETECTION CAMERA		INTERCONNECT CABLE		FLASHER CABINET
	PTZ CAMERA		PHOTOELECTRIC CELL		UNINTERRUPTIBLE POWER SUPPLY CABLE
	ETHERNET RADIO		POWER SOURCE		

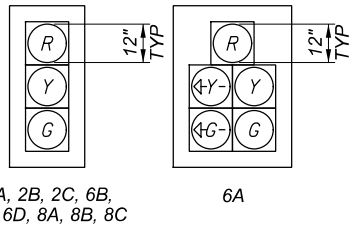
PROPOSED SIGNS



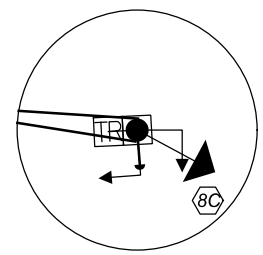
PROPOSED SIGNALS



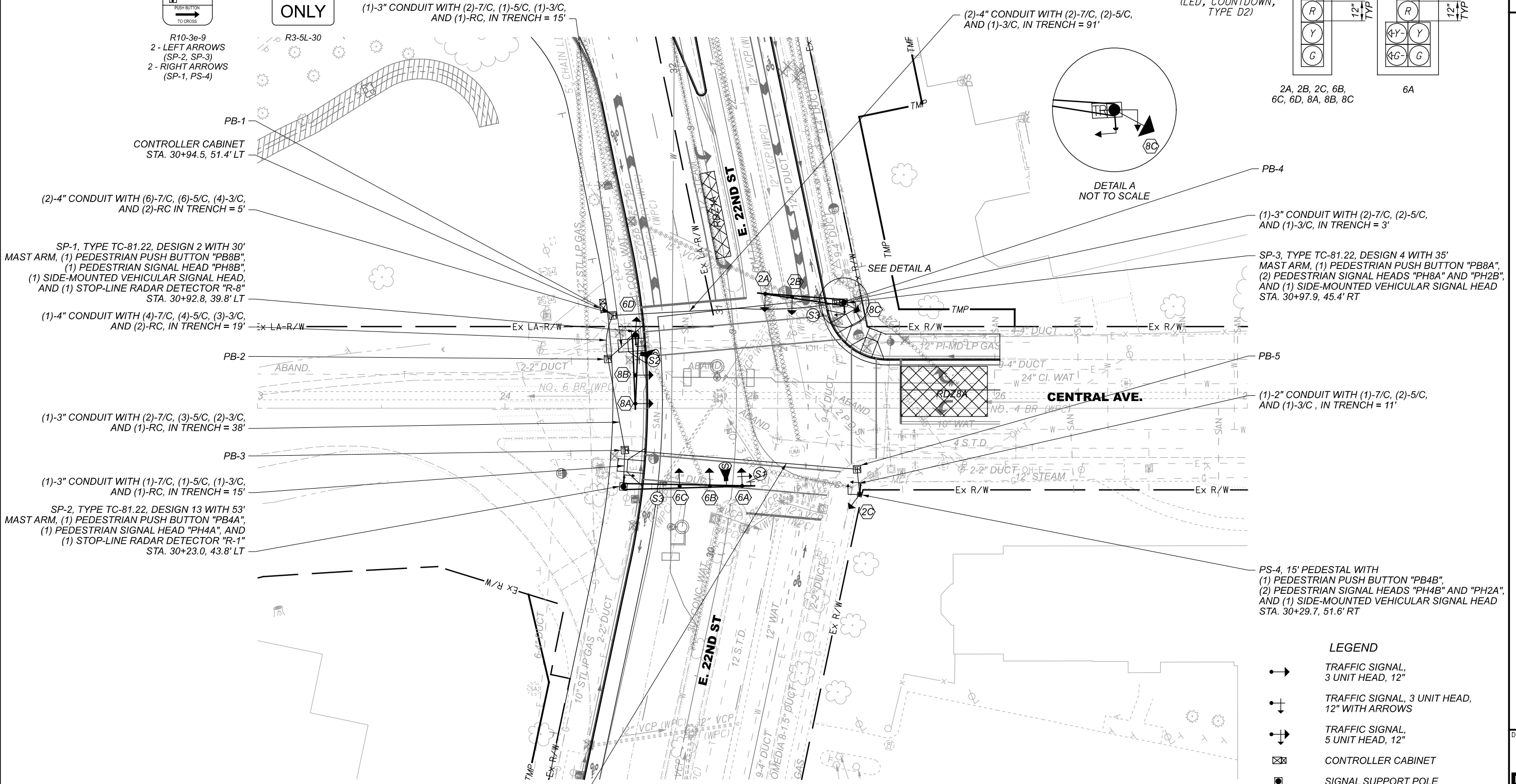
VEHICULAR SIGNAL HEADS
 (12" LENS, LED, YELLOW,
 W/ REFLECTIVE BACKPLATES)



PEDESTRIAN HEADS
 (LED, COUNTDOWN,
 TYPE D2)



DETAIL A
 NOT TO SCALE



SP-1, TYPE TC-81.22, DESIGN 2 WITH 30' MAST ARM, (1) PEDESTRIAN PUSH BUTTON "PB8B", (1) PEDESTRIAN SIGNAL HEAD "PH8B", (1) SIDE-MOUNTED VEHICULAR SIGNAL HEAD, AND (1) STOP-LINE RADAR DETECTOR "R-8" STA. 30+92.8, 39.8' LT

(1)-4" CONDUIT WITH (4)-7/C, (4)-5/C, (3)-3/C, AND (2)-RC, IN TRENCH = 19'

(1)-3" CONDUIT WITH (2)-7/C, (3)-5/C, (2)-3/C, AND (1)-RC, IN TRENCH = 38'

(1)-3" CONDUIT WITH (1)-7/C, (1)-5/C, (1)-3/C, AND (1)-RC, IN TRENCH = 15'

SP-2, TYPE TC-81.22, DESIGN 13 WITH 53' MAST ARM, (1) PEDESTRIAN PUSH BUTTON "PB4A", (1) PEDESTRIAN SIGNAL HEAD "PH4A", AND (1) STOP-LINE RADAR DETECTOR "R-1" STA. 30+23.0, 43.8' LT

(1)-3" CONDUIT WITH (2)-7/C, (2)-5/C, AND (1)-3/C, IN TRENCH = 3'

SP-3, TYPE TC-81.22, DESIGN 4 WITH 35' MAST ARM, (1) PEDESTRIAN PUSH BUTTON "PB8A", (2) PEDESTRIAN SIGNAL HEADS "PH8A" AND "PH2B", AND (1) SIDE-MOUNTED VEHICULAR SIGNAL HEAD STA. 30+97.9, 45.4' RT

(1)-2" CONDUIT WITH (1)-7/C, (2)-5/C, AND (1)-3/C, IN TRENCH = 11'

PS-4, 15' PEDESTAL WITH (1) PEDESTRIAN PUSH BUTTON "PB4B", (2) PEDESTRIAN SIGNAL HEADS "PH4B" AND "PH2A", AND (1) SIDE-MOUNTED VEHICULAR SIGNAL HEAD STA. 30+29.7, 51.6' RT

NOTE:
 1. RADAR DETECTION LOCATION IS FOR REFERENCE ONLY, ACTUAL PLACEMENT WILL BE RECOMMENDED BY MANUFACTURER.

(2)-4" CONDUIT WITH (1)-7/C, (2)-5/C, AND (1)-3/C, IN TRENCH = 95'

PULL BOX TABLE

PULL BOX #	STATION	SIDE	OFFSET	SIZE (IN.)
PB-1	31+02.9	LT	48.0	24 x 36
PB-2	30+82.6	LT	51.5	24 x 36
PB-3	30+39.9	LT	44.5	24 x 36
PB-4	30+98.0	RT	42.4	24 x 36
PB-5	30+38.5	RT	49.7	24 x 36

LEGEND

- TRAFFIC SIGNAL, 3 UNIT HEAD, 12"
- TRAFFIC SIGNAL, 3 UNIT HEAD, 12" WITH ARROWS
- TRAFFIC SIGNAL, 5 UNIT HEAD, 12"
- CONTROLLER CABINET
- SIGNAL SUPPORT POLE
- PEDESTRIAN SIGNAL
- PEDESTRIAN PUSH BUTTON
- PEDESTRIAN PEDESTAL SUPPORT
- TRAFFIC PULL BOX
- SIGNAL CONDUIT

TRAFFIC SIGNAL PLAN
 E. 22ND ST. & CENTRAL AVE.



DESIGN AGENCY

Michael Baker INTERNATIONAL

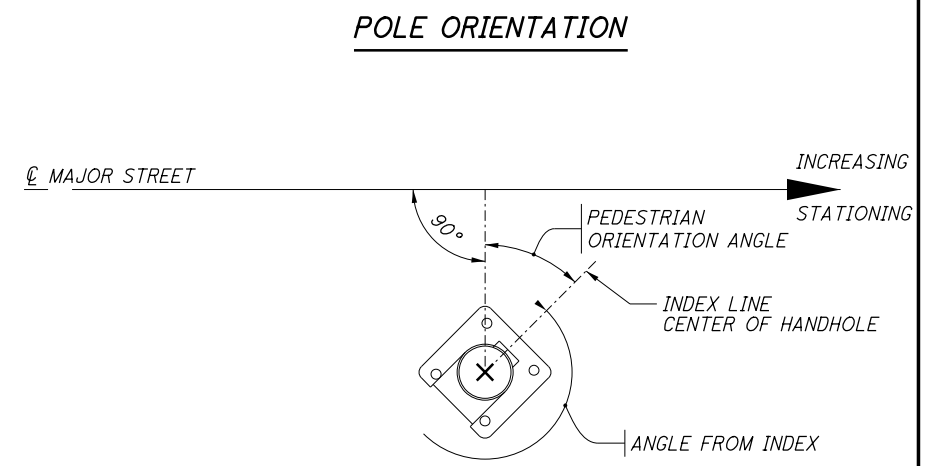
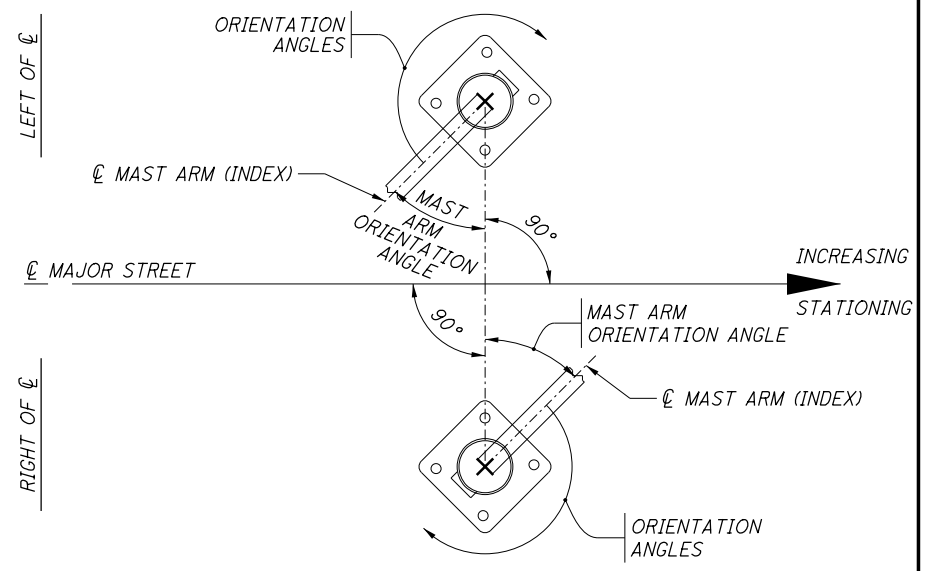
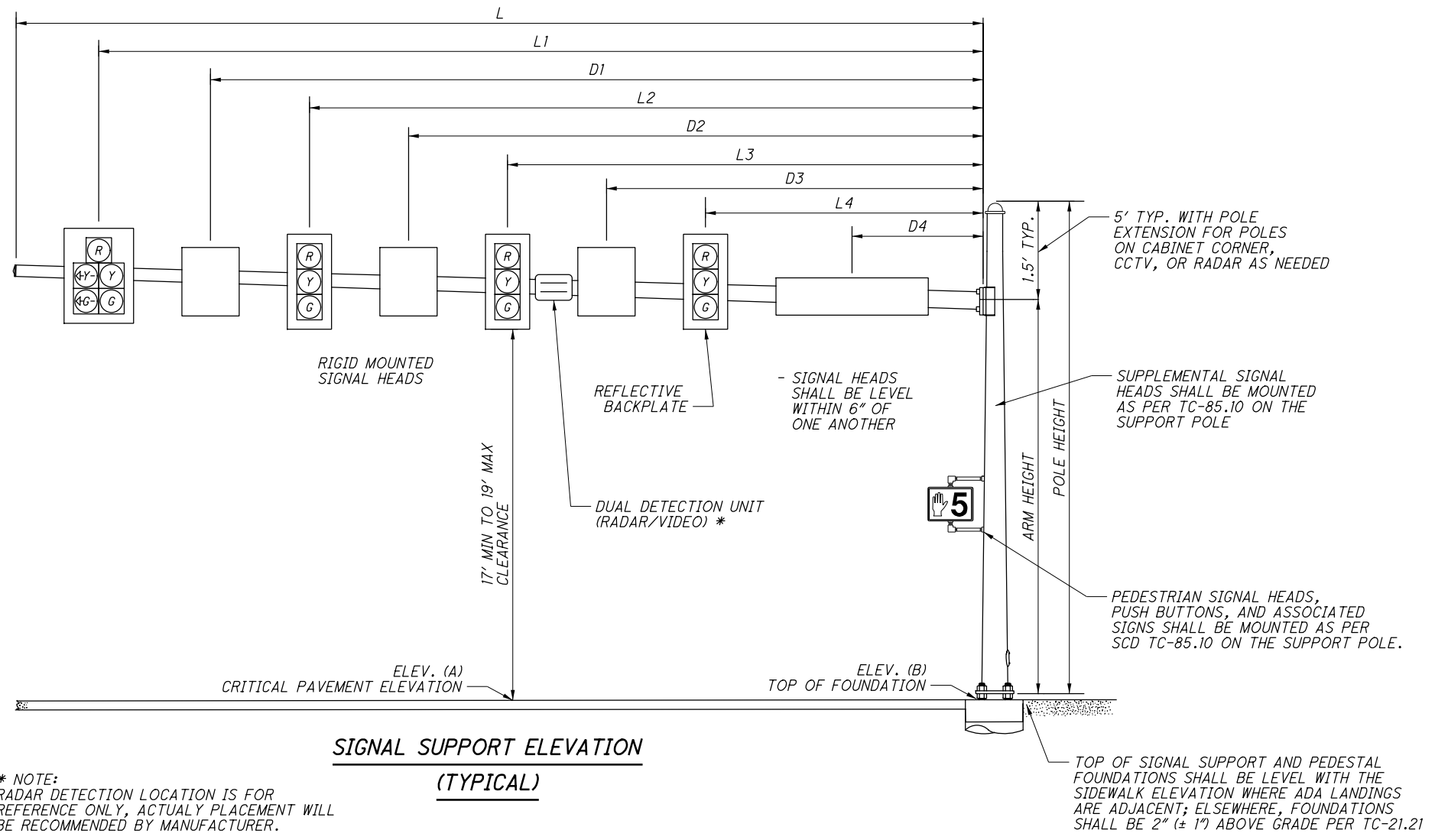
DESIGNER

REVIEWER

PROJECT ID
 82382

SHEET TOTAL
 1336 2339

CUY-90-16.28 (CCG3A)
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MAST ARM TABLE (TEM FIGURE 498-37 & 38)

SUPPORT NO.	STATION	OFFSET	ELEVATION		SIGNAL SUPPORT DETAILS												ORIENTATION ANGLES FROM MAST ARM A											
			A (PAVEMENT ELEVATION)	B (TOP OF FOUNDATION)	DESIGN TYPE	DESIGN NO.	POLE HEIGHT	ARM HEIGHT	L	L1	L2	L3	L4	D1	D2	D3	D4	MAST ARM A ANGLE	MAST ARM B ANGLE	PEDESTRIAN SIGNAL A	PEDESTRIAN SIGNAL B	PEDESTRIAN PUSH BUTTON	POWER SERVICE	SIGNAL CABINET	BRACKET ARM	HANDHOLE (PEDESTRIAN ORIENTATION ANGLE)	CABLE ENTRANCE 12" FROM TOP	
								FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	DEG	DEG	DEG	DEG	DEG	DEG	DEG	DEG	DEG	DEG	
SP-1	-	-	-	-	TC-81.22	2	-	-	30.0'	27.75'	16.25'	-	-	10.0'	-	-	-	95	-	0	-	0	-	-	-	-	-	
SP-2	-	-	-	-	TC-81.22	13	-	-	53.0'	48.0'	35.0'	22.75'	-	51.5'	16.0'	-	-	350	-	270	-	270	-	-	-	-	-	
SP-3	-	-	-	-	TC-81.22	4	-	-	35.0'	32.0'	21.0'	-	-	10.0'	-	-	-	10	-	170	260	260	-	-	-	-	-	
PS-4	-	-	-	-	-	-	15'	-	-	-	-	-	-	-	-	-	-	-	-	170	260	260	-	-	-	190	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TRAFFIC SIGNAL PLAN DETAILS
 E. 22ND ST. & CENTRAL AVE.

DESIGN AGENCY	Michael Baker INTERNATIONAL
DESIGNER	-
REVIEWER	-
PROJECT ID	82382
SHEET TOTAL	1337 2339

SIGNAL TIMING CHART (TEM FORM 496-3)

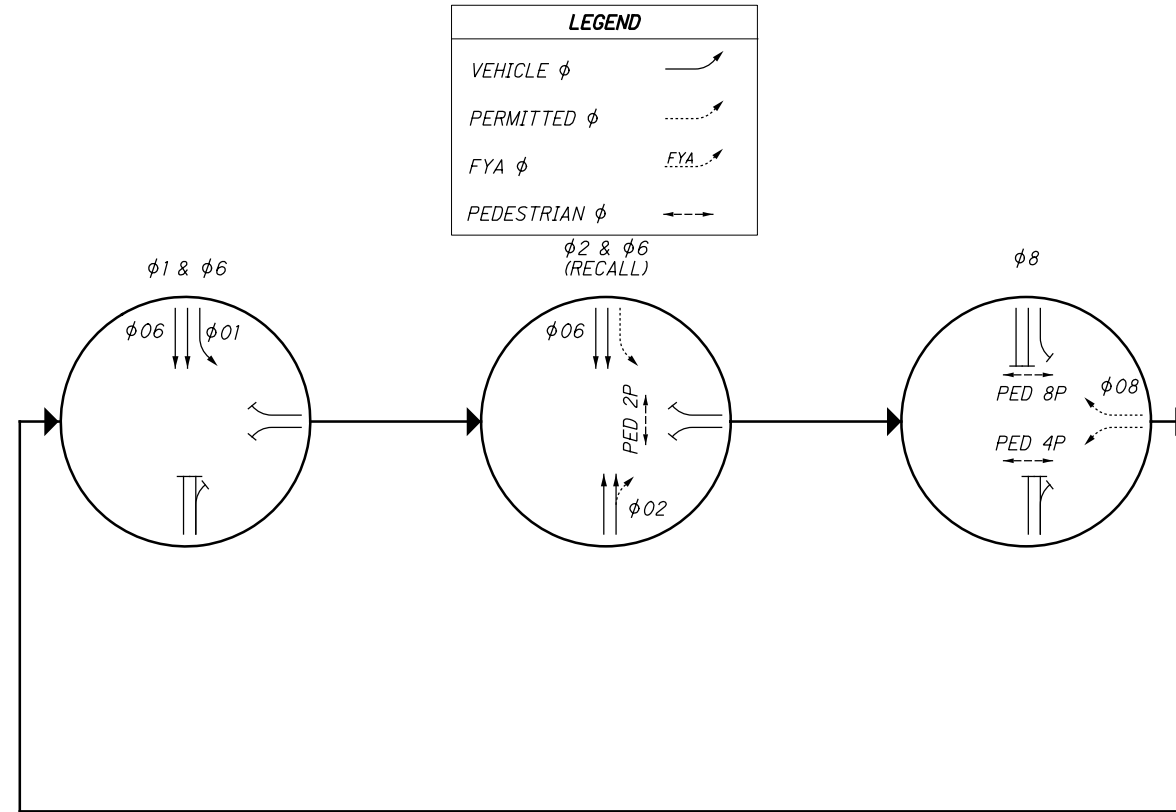
INTERSECTION: E. 22ND ST & CENTRAL AVE MAINTAINING AGENCY: CITY OF CLEVELAND										
START UP		DUAL ENTRY: YES	PHASES: 2+6							
START IN: ALL RED		REST IN RED: RING 1	RING 2		-					
TIME FOR FLASH, ALL RED: 5		OVERLAP	A	B	C	D				
FIRST PHASE(S): 2 + 6		PHASES	-	-	-	-				
COLOR DISPLAYED: GREEN										
INTERVAL OR FEATURE			CONTROLLER MOVEMENT NO.							
INTERSECTION MOVEMENT (PHASE)			1	2	3	4	5	6	7	8
DIRECTION			SBL	NBT	WBL	EBT	-	SBT	-	WBT
MINIMUM GREEN (INITIAL) (SEC.)			-	-	-	-	-	-	-	-
ADDED INITIAL *(SEC./ACTUATION)			-	-	-	-	-	-	-	-
MAXIMUM INITIAL *(SEC.)			-	-	-	-	-	-	-	-
PASSAGE TIME (PRESET GAP) (SEC.)			-	-	-	-	-	-	-	-
TIME BEFORE REDUCTION *(SEC.)			-	-	-	-	-	-	-	-
MINIMUM GAP *(SEC.)			-	-	-	-	-	-	-	-
TIME TO REDUCE *(SEC.)			-	-	-	-	-	-	-	-
MAXIMUM GREEN I (SEC.)			-	-	-	-	-	-	-	-
MAXIMUM GREEN II (SEC.)			-	-	-	-	-	-	-	-
YELLOW CHANGE (SEC.)			3	4	3	-	-	4	-	4
ALL RED CLEARANCE (SEC.)			2	2	2	-	-	2	-	2
DELAYED GREEN (LPI) # (SEC.)			-	-	-	-	-	-	-	-
WALK (SEC.)			-	7	-	8	-	-	-	7
FLASHING YELLOW ARROW DELAY °			-	-	-	-	-	-	-	-
PEDESTRIAN CLEARANCE (SEC.)			-	9	-	19	-	-	-	19
RECALL	MAXIMUM	(ON/OFF)	-	-	-	-	-	-	-	-
	MINIMUM	(ON/OFF)	-	-	-	-	-	-	-	-
	PEDESTRIAN	(ON/OFF)	-	ON	-	-	-	-	-	-
MEMORY (ON/OFF)			-	-	-	-	-	-	-	-

*VOLUME DENSITY CONTROLS

#FOR CROSSING WITH PEDESTRIAN PUSHBUTTONS, LPI'S (LEADING PEDESTRIAN INTERVALS) MAY BE IMPLEMENTED (3-6 SEC.) IN ACCORDANCE WITH LPI DURATION TIME PER THE ODOT SIGNAL CALCULATIONS - CLEARANCE INTERVALS SPREADSHEET.

*WHEN IMPLEMENTING FYA, A MINIMUM 3 SECOND DELAY SHALL BE PROGRAMMED.

PHASING DIAGRAM



RADAR DETECTION CHART (TEM FORM 496-4)

DETECTION ZONE	MOVEMENT	WIDTH	DELAY PROGRAMMED IN CONTROLLER (SEC)	EXTENSION PROGRAMMED IN CONTROLLER (SEC)	DETECTOR NUMBER	PURPOSE	DETECTION ZONE LENGTH (FT)
RDZ1A	SBL	6	3	-	R-1	STOP-LINE	35
RDZ8A	WB	20	3	-	R-8	STOP-LINE	35
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-

NOTE: ADVANCED DILEMMA ZONE SPEED THRESHOLD >30 MPH
PURPOSE: STOP-LINE OR ADVANCED DETECTION

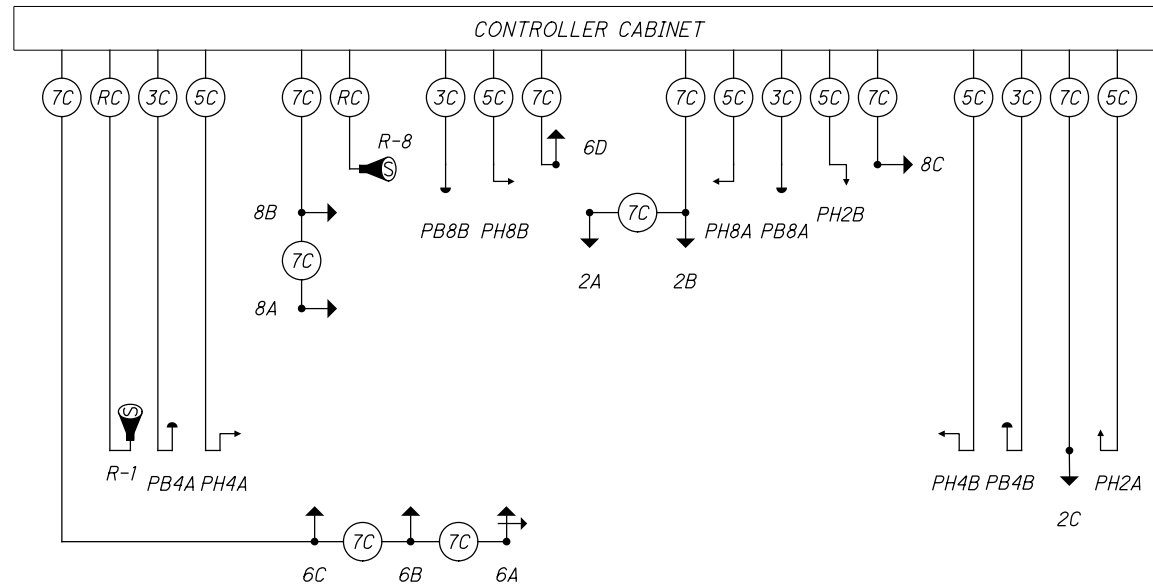
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TRAFFIC SIGNAL PLAN DETAILS
E. 22ND ST. & CENTRAL AVE.

DESIGN AGENCY	
DESIGNER	Michael Baker INTERNATIONAL
REVIEWER	
PROJECT ID	82382
SHEET	1338
TOTAL	2339

WIRING DIAGRAM

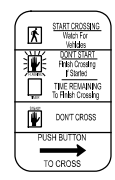


FIELD WIRING HOOK-UP CHART (TEM FORM 496-16)

SIGNAL HEAD	INDICATION	FIELD TERMINAL	FLASH	SIGNAL HEAD	INDICATION	FIELD TERMINAL	FLASH
8A, 8B (WB)	R	φ8R	R	6A (SB)	R	φ6R	R
	Y	φ8Y			Y	φ6Y	
	G	φ8G			G	φ6G	
8C (WB)	R	φ8R	R	6B (SB)	<--Y--	φ1Y	R
	Y	φ8Y			Y	φ6Y	
	G	φ8G			G	φ6G	
2A, 2B (NB)	R	φ2R	R	6C (SB)	R	φ6R	R
	Y	φ2Y			Y	φ6Y	
	G	φ2G			G	φ6G	
2C (NB)	R	φ2R	R	6C (SB)	Y	φ6Y	R
	Y	φ2Y			Y	φ6Y	
	G	φ2G			G	φ6G	
PEDESTRIAN MOVEMENTS							
PH4A, PH4B (EB)	W	φ4 PED / LS 13 G		OUT			
	DW	φ4 PED / LS 13 R					
PH8A, PH8B (WB)	W	φ8 PED / LS 14 G		OUT			
	DW	φ8 PED / LS 14 R					
PH2A, PH2B (NB)	W	φ2 PED / LS 15 G		OUT			
	DW	φ2 PED / LS 15 R					

LEGEND

	TRAFFIC SIGNAL, 4 OR 5 UNIT HEAD, 12"		LUMINAIRE, CONVENTIONAL		SERVICE CABLE, 3 CONDUCTOR, NO. X AWG
	TRAFFIC SIGNAL, 2 UNIT, 3 UNIT, OR PHB HEAD 12"		2/C NO. XX AWG (LEAD-IN CABLE)		POWER CABLE, 2 CONDUCTOR, NO. X AWG
	TRAFFIC SIGNAL, 3 UNIT HEAD, 12" WITH ARROWS		VEHICLE LOOP DETECTOR		SIGNAL SUPPORT POLE NO. ...
	PEDESTRIAN SIGNAL		SIGNAL CABLE, 5 CONDUCTOR, NO. XX AWG		METER BASE
	PEDESTRIAN PUSH BUTTON		SIGNAL CABLE, 7 CONDUCTOR, NO. XX AWG		NO. X AWG DISTRIBUTION CABLE
	DILEMMA ZONE RADAR DETECTION UNIT		RADAR DETECTION CABLE		NO. XX AWG POLE & BRACKET CABLE
	STOP LINE RADAR DETECTION UNIT		VIDEO CAMERA CABLE		DUAL LIGHTING/SIGNAL DISCONNECT SWITCH
	VIDEO DETECTION CAMERA		INTERCONNECT CABLE		FLASHER CABINET
	PTZ CAMERA		PHOTOELECTRIC CELL		UNINTERRUPTIBLE POWER SUPPLY CABLE
	ETHERNET RADIO		POWER SOURCE		



R10-3e-9
 1 - LEFT ARROWS (SP-2)
 1 - RIGHT ARROWS (PS-1)



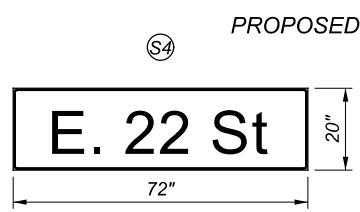
R3-5L-30



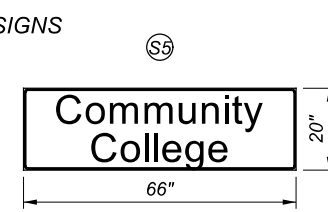
R3-1-36



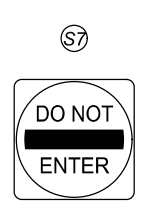
R3-2-36



EX. (2)-3" CONDUIT WITH PROPOSED (4)-7/C, (4)-5/C, (2)-3/C, AND (2)-RC



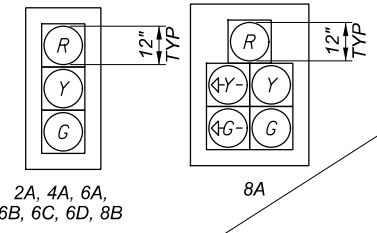
R3-5R-30



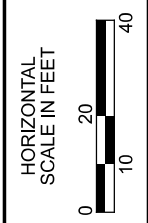
R5-1-36

PROPOSED SIGNALS

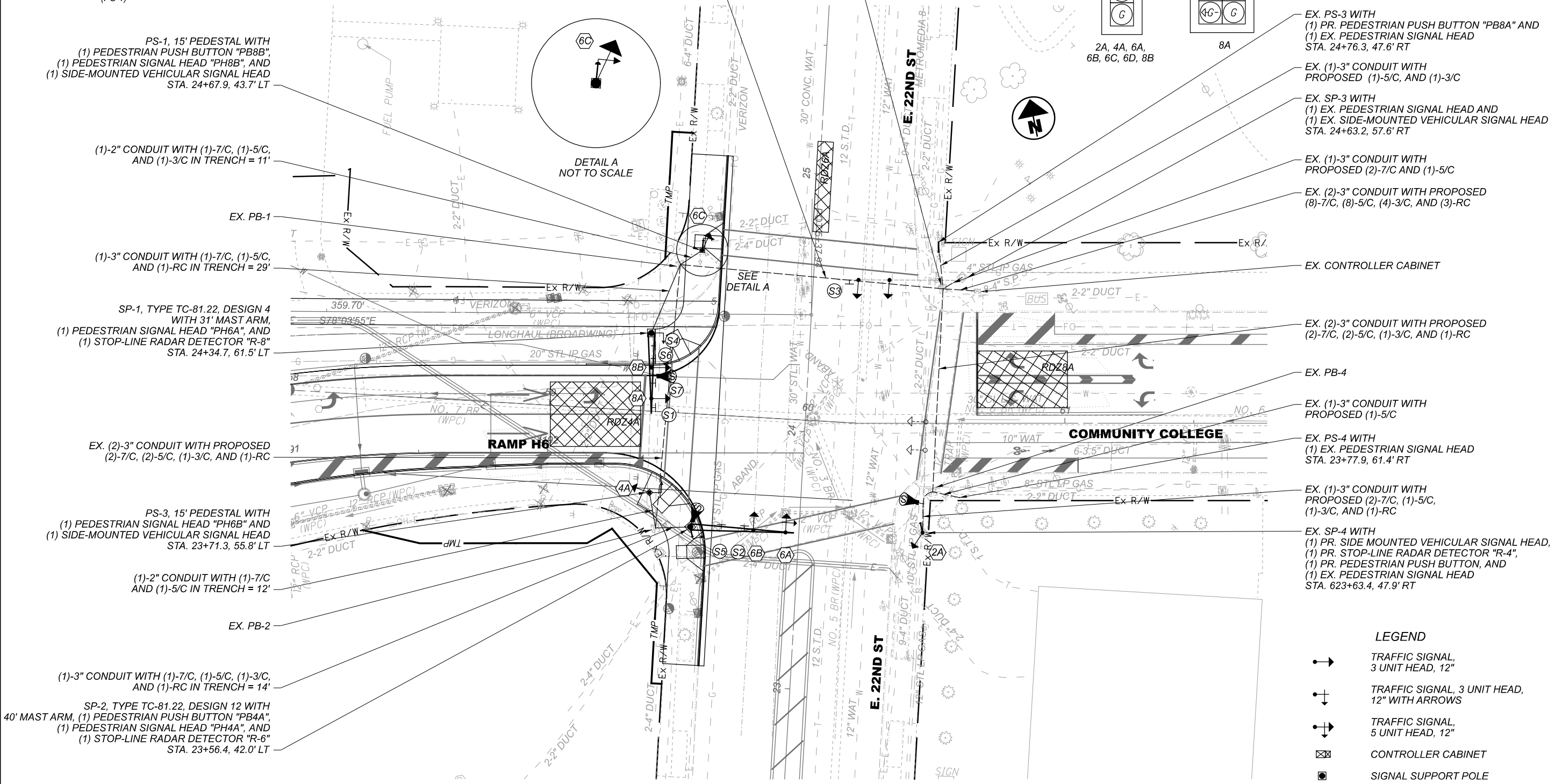
VEHICULAR SIGNAL HEADS (12" LENS, LED, YELLOW, W/ REFLECTIVE BACKPLATES)



PEDESTRIAN HEADS (LED, COUNTDOWN, TYPE D2)



TRAFFIC SIGNAL PLAN
 E. 22ND ST. & RAMP H6/COMMUNITY COLLEGE AVE.



PS-1, 15' PEDESTAL WITH (1) PEDESTRIAN PUSH BUTTON "PB8B", (1) PEDESTRIAN SIGNAL HEAD "PH8B", AND (1) SIDE-MOUNTED VEHICULAR SIGNAL HEAD STA. 24+67.9, 43.7' LT

(1)-2" CONDUIT WITH (1)-7/C, (1)-5/C, AND (1)-3/C IN TRENCH = 11'

(1)-3" CONDUIT WITH (1)-7/C, (1)-5/C, AND (1)-RC IN TRENCH = 29'

SP-1, TYPE TC-81.22, DESIGN 4 WITH 31' MAST ARM, (1) PEDESTRIAN SIGNAL HEAD "PH6A", AND (1) STOP-LINE RADAR DETECTOR "R-8" STA. 24+34.7, 61.5' LT

EX. (2)-3" CONDUIT WITH PROPOSED (2)-7/C, (2)-5/C, (1)-3/C, AND (1)-RC

PS-3, 15' PEDESTAL WITH (1) PEDESTRIAN SIGNAL HEAD "PH6B" AND (1) SIDE-MOUNTED VEHICULAR SIGNAL HEAD STA. 23+71.3, 55.8' LT

(1)-2" CONDUIT WITH (1)-7/C AND (1)-5/C IN TRENCH = 12'

EX. PB-2

(1)-3" CONDUIT WITH (1)-7/C, (1)-5/C, (1)-3/C, AND (1)-RC IN TRENCH = 14'

SP-2, TYPE TC-81.22, DESIGN 12 WITH 40' MAST ARM, (1) PEDESTRIAN PUSH BUTTON "PB4A", (1) PEDESTRIAN SIGNAL HEAD "PH4A", AND (1) STOP-LINE RADAR DETECTOR "R-6" STA. 23+56.4, 42.0' LT

NOTE:
 RADAR DETECTION LOCATION IS FOR REFERENCE ONLY. ACTUAL PLACEMENT WILL BE RECOMMENDED BY MANUFACTURER.

PULL BOX TABLE

PULL BOX #	STATION	SIDE	OFFSET	SIZE (IN.)
EX. PB-1	24+61.9	LT	51.9	24 x 36
EX. PB-2	23+59.3	LT	55.6	24 x 36
EX. PB-3	24+58.3	RT	50.4	24 x 36
EX. PB-4	23+49.5	RT	50.9	24 x 36

LEGEND

- TRAFFIC SIGNAL, 3 UNIT HEAD, 12"
- TRAFFIC SIGNAL, 3 UNIT HEAD, 12" WITH ARROWS
- TRAFFIC SIGNAL, 5 UNIT HEAD, 12"
- CONTROLLER CABINET
- SIGNAL SUPPORT POLE
- PEDESTRIAN SIGNAL
- PEDESTRIAN PUSH BUTTON
- PEDESTRIAN PEDESTAL SUPPORT
- TRAFFIC PULL BOX
- SIGNAL CONDUIT

DESIGN AGENCY

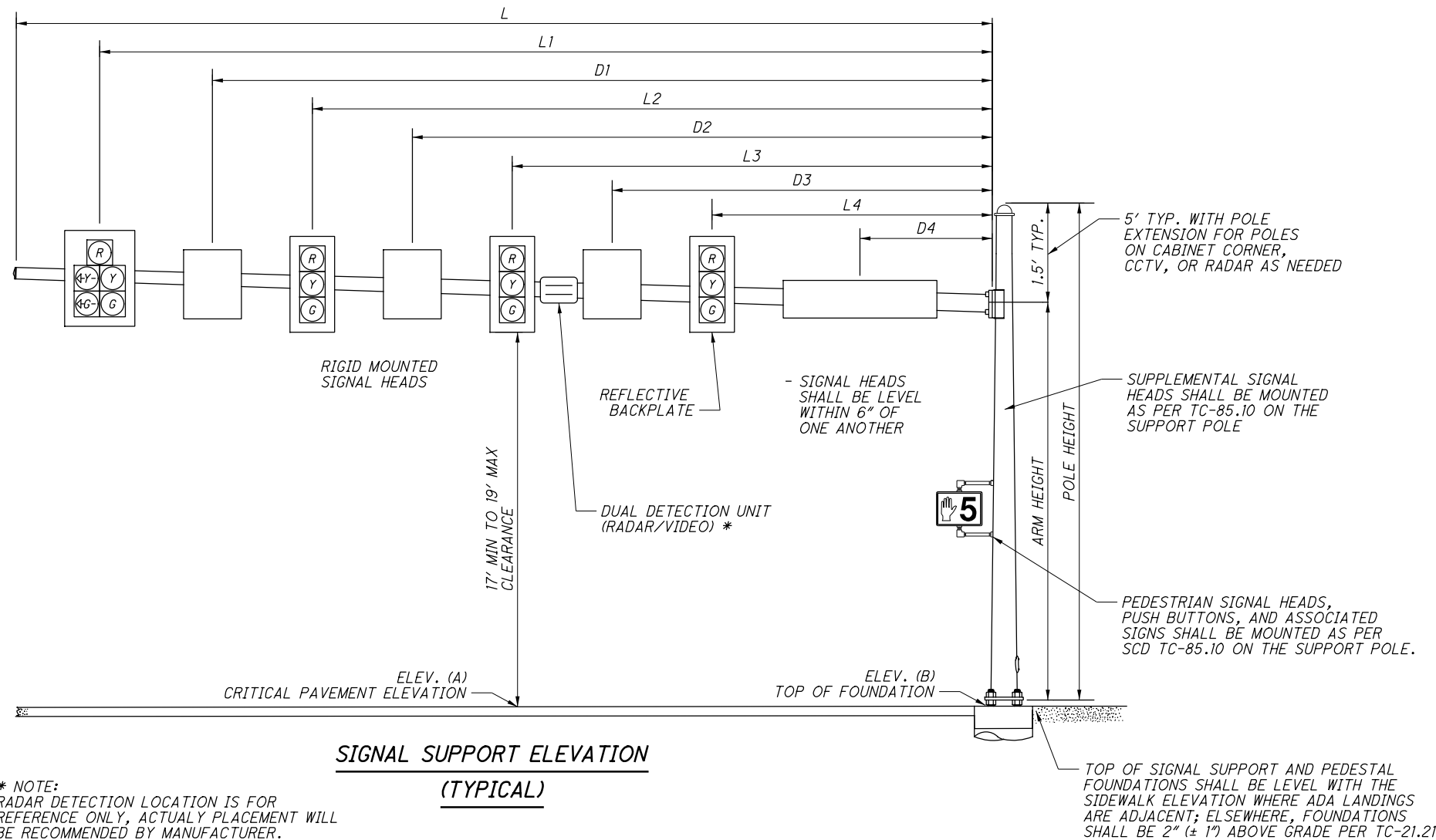
Michael Baker INTERNATIONAL

DESIGNER

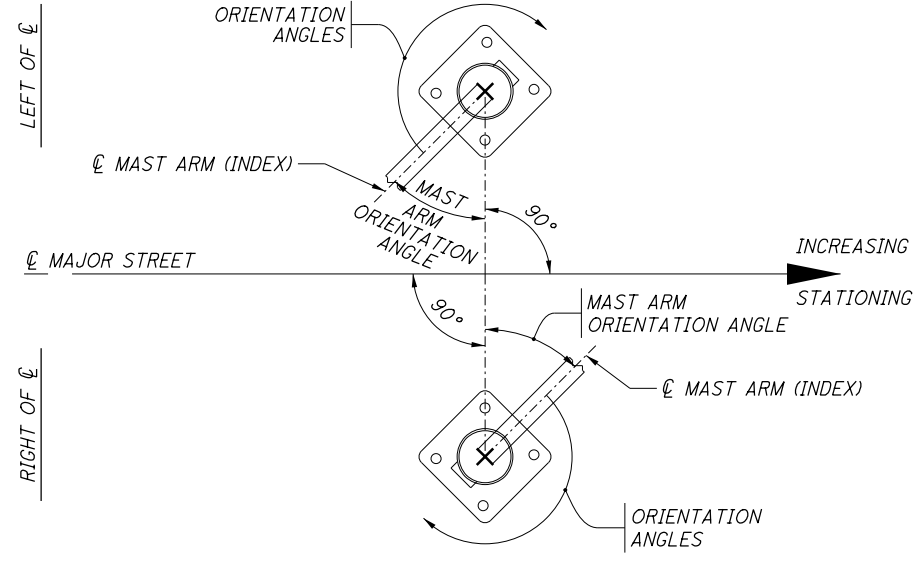
REVIEWER

PROJECT ID
82382

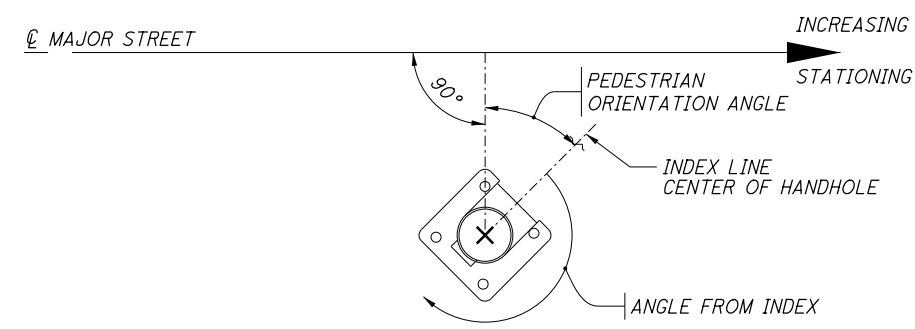
SHEET TOTAL
1340 2339



* NOTE:
 RADAR DETECTION LOCATION IS FOR REFERENCE ONLY, ACTUAL PLACEMENT WILL BE RECOMMENDED BY MANUFACTURER.



POLE ORIENTATION



PEDESTAL ORIENTATION

MAST ARM TABLE (TEM FIGURE 498-37 & 38)

SUPPORT NO.	STATION	OFFSET	ELEVATION		SIGNAL SUPPORT DETAILS													ORIENTATION ANGLES FROM MAST ARM A									
			A (PAVEMENT ELEVATION)	B (TOP OF FOUNDATION)	DESIGN TYPE	DESIGN NO.	POLE HEIGHT	ARM HEIGHT	L	L1	L2	L3	L4	D1	D2	D3	D4	MAST ARM A ANGLE	MAST ARM B ANGLE	PEDESTRIAN SIGNAL	PEDESTRIAN PUSH BUTTON	POWER SERVICE	SIGNAL CABINET	BRACKET ARM	HANDHOLE (PEDESTRIAN ORIENTATION ANGLE)	CABLE ENTRANCE 12" FROM TOP	
								FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	DEG	DEG	DEG	DEG	DEG	DEG	DEG	DEG	DEG	
SP-1	-	-	-	-	TC-81.22	4	-	-	31.0'	25.5'	13.5'	-	-	29.0'	19.5'	10.0'	5.0'	90	-	270	-	-	-	-	-	-	
SP-2	-	-	-	-	TC-81.22	12	-	-	40.0'	37.0'	24.5'	-	-	21.0'	12.0'	-	-	0	-	75	75	-	-	-	-	-	
EX. SP-3	-	-	-	-	-	-	-	-	EX.	EX.	EX.	EX.	-	42.75'	EX.	-	-	EX.	-	EX.	EX.	-	-	-	-	-	
EX. SP-4	-	-	-	-	-	-	-	-	EX.	EX.	EX.	-	-	EX.	-	-	-	EX.	-	EX.	EX.	-	-	-	-	-	
PS-1	-	-	-	-	-	-	-	15'	-	-	-	-	-	-	-	-	-	-	-	90	90	-	-	-	180	-	
PS-2	-	-	-	-	-	-	-	15'	-	-	-	-	-	-	-	-	-	-	-	230	-	-	-	-	130	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

SIGNAL TIMING CHART (TEM FORM 496-3)

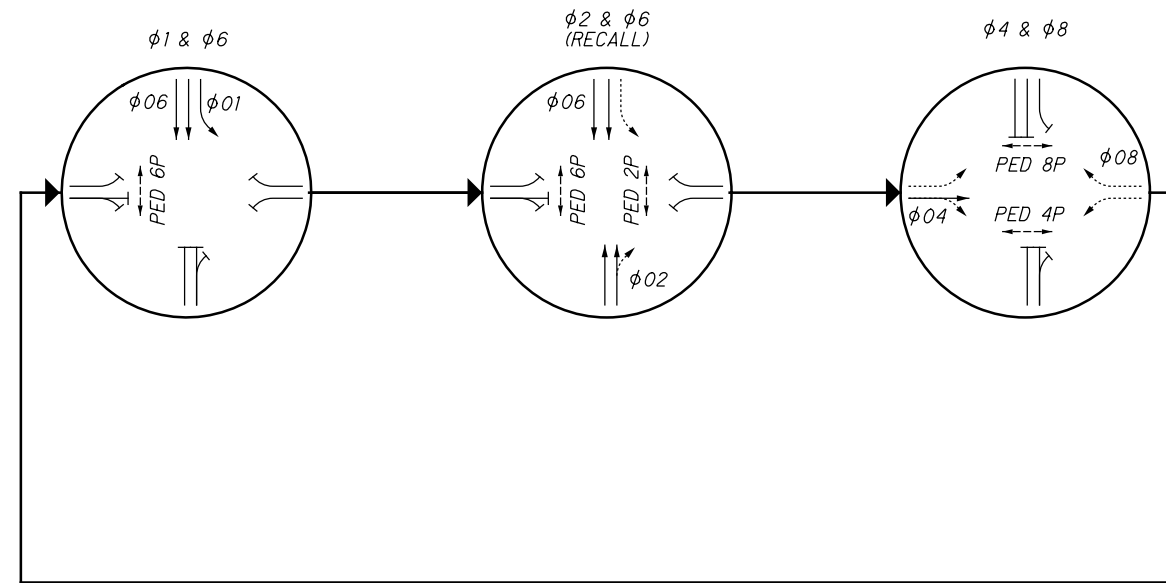
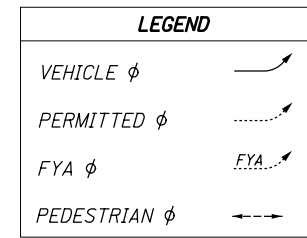
INTERSECTION: E. 22ND ST & COMMUNITY COLLEGE AVE										
MAINTAINING AGENCY: CITY OF CLEVELAND										
START UP		DUAL ENTRY: YES	PHASES: 2+6, 4+8							
START IN: ALL RED		REST IN RED: RING 1 - RING 2 -		OVERLAP		A	B	C	D	
TIME FOR FLASH, ALL RED: 5		PHASES				-	-	-	-	
FIRST PHASE(S): 2 + 6										
COLOR DISPLAYED: GREEN										
INTERVAL OR FEATURE			CONTROLLER MOVEMENT NO.							
INTERSECTION MOVEMENT (PHASE)			1	2	3	4	5	6	7	8
DIRECTION			SBL	NBT	WBL	EBT	-	SBT	EBL	WBT
MINIMUM GREEN (INITIAL) (SEC.)			-	-	-	-	-	-	-	-
ADDED INITIAL *(SEC./ACTUATION)			-	-	-	-	-	-	-	-
MAXIMUM INITIAL *(SEC.)			-	-	-	-	-	-	-	-
PASSAGE TIME (PRESET GAP) (SEC.)			-	-	-	-	-	-	-	-
TIME BEFORE REDUCTION *(SEC.)			-	-	-	-	-	-	-	-
MINIMUM GAP *(SEC.)			-	-	-	-	-	-	-	-
TIME TO REDUCE *(SEC.)			-	-	-	-	-	-	-	-
MAXIMUM GREEN I (SEC.)			-	-	-	-	-	-	-	-
MAXIMUM GREEN II (SEC.)			-	-	-	-	-	-	-	-
YELLOW CHANGE (SEC.)			3	4	3	4	-	4	3	4
ALL RED CLEARANCE (SEC.)			3	3	3	2	-	3	3	2
DELAYED GREEN (LPI) # (SEC.)			-	-	-	-	-	-	-	-
WALK (SEC.)			-	7	-	8	-	7	-	7
FLASHING YELLOW ARROW DELAY °			-	-	-	-	-	-	-	-
PEDESTRIAN CLEARANCE (SEC.)			-	15	-	18	-	12	-	18
RECALL	MAXIMUM	(ON/OFF)	-	-	-	-	-	-	-	-
	MINIMUM	(ON/OFF)	-	-	-	-	-	-	-	-
	PEDESTRIAN	(ON/OFF)	-	ON	-	-	-	ON	-	-
MEMORY		(ON/OFF)	-	-	-	-	-	-	-	-

*VOLUME DENSITY CONTROLS

#FOR CROSSING WITH PEDESTRIAN PUSHBUTTONS, LPI'S (LEADING PEDESTRIAN INTERVALS) MAY BE IMPLEMENTED (3-6 SEC.) IN ACCORDANCE WITH LPI DURATION TIME PER THE ODOT SIGNAL CALCULATIONS - CLEARANCE INTERVALS SPREADSHEET.

*WHEN IMPLEMENTING FYA, A MINIMUM 3 SECOND DELAY SHALL BE PROGRAMMED.

PHASING DIAGRAM

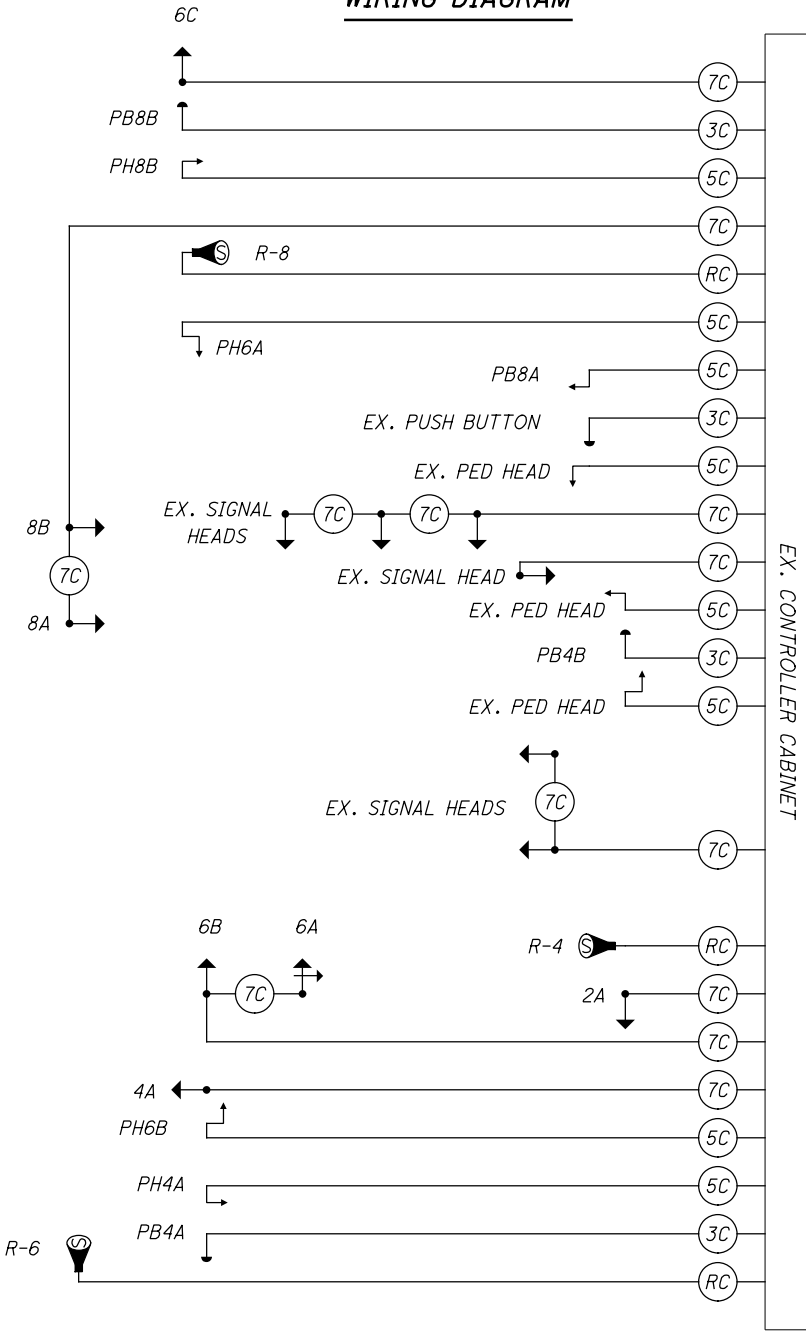


RADAR DETECTION CHART (TEM FORM 496-4)

DETECTION ZONE	MOVEMENT	WIDTH	DELAY PROGRAMMED IN CONTROLLER (SEC)	EXTENSION PROGRAMMED IN CONTROLLER (SEC)	DETECTOR NUMBER	PURPOSE	DETECTION ZONE LENGTH (FT)
RDZ4A	EB	25	3	-	R-4	STOP-LINE	35
RDZ8A	WB	22	3	-	R-8	STOP-LINE	35
RDZ6A	SB	6	3	-	R-6	STOP-LINE	35
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-

NOTE: ADVANCED DILEMMA ZONE SPEED THRESHOLD >30 MPH
PURPOSE: STOP-LINE OR ADVANCED DETECTION

WIRING DIAGRAM



FIELD WIRING HOOK-UP CHART (TEM FORM 496-16)

SIGNAL HEAD	INDICATION	FIELD TERMINAL	FLASH	SIGNAL HEAD	INDICATION	FIELD TERMINAL	FLASH
4B (EB)	R	$\phi 4R$	R	6A (SB)	R	$\phi 6R$	R
	Y	$\phi 4Y$			Y	$\phi 6Y$	
	G	$\phi 4G$			G	$\phi 6G$	
EX. (EB)	R	$\phi 4R$	R	6B (SB)	<--Y-->	$\phi 1Y$	R
	Y	$\phi 4Y$			<--G-->	$\phi 1G$	
	G	$\phi 4G$			R	$\phi 6R$	
8A, 8B (WB)	R	$\phi 8R$	R	6C (SB)	R	$\phi 6R$	R
	Y	$\phi 8Y$			Y	$\phi 6Y$	
	G	$\phi 8G$			G	$\phi 6G$	
EX. (WB)	R	$\phi 8R$	R	PEDESTRIAN MOVEMENTS			
	Y	$\phi 8Y$					
	G	$\phi 8G$					
2A (NB)	R	$\phi 2R$	R	PH4A, EX. PH4B (EB)	W	$\phi 4$ PED / LS 13 G	OUT
	Y	$\phi 2Y$		DW	$\phi 4$ PED / LS 13 R		
	G	$\phi 2G$					
EX. (NB)	R	$\phi 2R$	R	EX. PH8A, PH8B (WB)	W	$\phi 8$ PED / LS 14 G	OUT
	Y	$\phi 2Y$		DW	$\phi 8$ PED / LS 14 R		
	G	$\phi 2G$		PH6A, PH6B (SB)	W	$\phi 6$ PED / LS 15 G	
				DW	$\phi 6$ PED / LS 15 R	OUT	

LEGEND

	TRAFFIC SIGNAL, 4 OR 5 UNIT HEAD, 12"		LUMINAIRE, CONVENTIONAL		SERVICE CABLE, 3 CONDUCTOR, NO. X AWG
	TRAFFIC SIGNAL, 2 UNIT, 3 UNIT, OR PHB HEAD 12"		2/C NO. XX AWG (LEAD-IN CABLE)		POWER CABLE, 2 CONDUCTOR, NO. X AWG
	TRAFFIC SIGNAL, 3 UNIT HEAD, 12" WITH ARROWS		VEHICLE LOOP DETECTOR		SIGNAL SUPPORT POLE NO. --
	PEDESTRIAN SIGNAL		SIGNAL CABLE, 5 CONDUCTOR, NO. XX AWG		METER BASE
	PEDESTRIAN PUSH BUTTON		SIGNAL CABLE, 7 CONDUCTOR, NO. XX AWG		NO. X AWG DISTRIBUTION CABLE
	DILEMMA ZONE RADAR DETECTION UNIT		RADAR DETECTION CABLE		NO. XX AWG POLE & BRACKET CABLE
	STOP LINE RADAR DETECTION UNIT		VIDEO CAMERA CABLE		DUAL LIGHTING/SIGNAL DISCONNECT SWITCH
	VIDEO DETECTION CAMERA		INTERCONNECT CABLE		FLASHER CABINET
	PTZ CAMERA		PHOTOELECTRIC CELL		UNINTERRUPTIBLE POWER SUPPLY CABLE
	ETHERNET RADIO		POWER SOURCE		

CCTV INSTALLATIONS

THE CONTRACTOR SHALL FURNISH AND INSTALL THIS ITEM ACCORDING TO ODOT SUPPLEMENTAL SPECIFICATION 809, AS WELL AS ANY STANDARD CONSTRUCTION DRAWINGS NOTED ON THE PLANS.

VEHICLE DETECTION INSTALLATIONS

THE CONTRACTOR SHALL FURNISH AND INSTALL THIS ITEM ACCORDING TO ODOT SUPPLEMENTAL SPECIFICATION 809, AS WELL AS ANY STANDARD CONSTRUCTION DRAWINGS NOTED ON THE PLANS.

ITEM 809E25000: CONDUIT, MULTICELL, MISC.: 4",
ITEM 809E24000: CONDUIT, MULTICELL, MISC.: 4", JACKED OR DRILLED

DESCRIPTION

THIS CONDUIT IS INTENDED FOR THE USE IN UNDERGROUND OR ENCASED INSIDE CONCRETE BARRIER WALL SITUATIONS REQUIRING MORE THAN ONE SINGLE CONDUIT. THIS INCLUDES THE MAIN CONDUIT RACEWAY ALONG THE FREEWAY, CONNECTION FROM PULL BOXES TO THE ROADSIDE CABINETS AND FOR RUNS OF CONDUIT FOR MULTIPLE PURPOSES, E.G., AT RAMP METER INSTALLATIONS, FOR LOOP LEAD-IN CABLE, SIGNALS CABLE FOR RAMP METER DISPLAYS, SIGNAL CABLE FOR RAMP METER SIGNING FLASHERS & ILLUMINATION AND POWER. THE CONTRACTOR SHALL PLUG ALL UNUSED CELLS WITH CONDUIT CAPS TO ASSURE AIR AND WATER INTEGRITY OF EACH INDIVIDUAL INNERDUCT.

MATERIALS

THE TRAFFIC SURVEILLANCE RACEWAY SHALL CONSIST OF A FACTORY-ASSEMBLED SYSTEM OF FOUR (4) INNERDUCTS ASSEMBLED WITHIN A PROTECTIVE OUTER DUCT. THE CONDUIT SHALL ADHERE TO 909.14 AND BE POLYVINYL CHLORIDE (PVC) SCHEDULE 40 OR 80, HIGH DENSITY POLYETHYLENE (HDPE), OR APPROVED EQUIVALENT. THE INNERDUCTS SHALL BE A MINIMUM OF 1.10 INCH INSIDE DIAMETER. THE OUTER DUCT SHALL BE NOMINAL 4 INCH INSIDE DIAMETER AND MAXIMUM OUTSIDE DIAMETER OF 4.8 INCH.

WHERE COUPLINGS ARE NEEDED, THE COUPLING SHALL BE DESIGNED IN A MANNER TO PERMIT EASY FIELD ASSEMBLY. THE COUPLING SHALL BE MARKED OR KEYED IN A MANNER TO ENSURE THE INNERDUCTS ARE PROPERLY ALIGNED, ANY COLOR CODES ARE CONTINUED, AND THE ADJOINING SECTION IS INSERTED TO THE PROPER DEPTH IN THE BELL. ALL KEYS AND/OR MARKINGS SHALL BE VISIBLE AFTER ASSEMBLY TO ALLOW THE INSPECTION OF EACH JOINT FOR PROPER ASSEMBLY BEFORE BURIAL. THE SEALING SYSTEM SHALL BE DESIGNED TO ASSURE AIR INTEGRITY OF EACH INDIVIDUAL INNERDUCT AND WATER INTEGRITY OF THE ENTIRE SYSTEM. WHERE INNERDUCT(S) WITHIN A MULTI-CELL DUCT ARE TO REMAIN EMPTY, ONE 1/4-INCH NYLON ROPE SHALL BE INSTALLED IN EACH OF THE OPEN INNERDUCTS, THE ROPE WILL REMAIN TO BE USED FOR A FUTURE CABLE INSTALLATION. ALSO, EACH INNERDUCT SHALL BE PLUGGED TO MAINTAIN THE AIR AND WATER INTEGRITY. IN ADDITION, THE OUTER DUCT SHALL BE CAPPED TO MAINTAIN THE AIR AND WATER INTEGRITY OF THE ENTIRE SYSTEM. FOR MULTI-CELL DUCT INSTALLED IN MEDIAN WALLS, ALL ROPES AND PLUGS SHALL BE INSTALLED PRIOR TO ANY CONCRETE PLACEMENT.

ITEM 809E25000: CONDUIT, MULTICELL, MISC.: 4", (CONTINUED)
ITEM 809E24000: CONDUIT, MULTICELL, MISC.: 4", JACKED OR DRILLED (CONTINUED)

INSTALLATION

FOR PVC CONDUITS, INSTALLATION WILL BE IN 30-INCH DEEP TRENCH, EXCEPT AS NOTED ON THE PLANS. PVC CONDUITS SHALL NOT BE INSTALLED INSIDE CONCRETE BARRIER WALL. ALL PVC MULTI-CELL CONDUIT INSTALLED OUTSIDE OF THE ROADWAY IN TRENCH SHALL BE SCHEDULE 40 UNLESS DIRECTED BY THE PROJECT ENGINEER.

FOR INSTALLATIONS UNDER ROADWAYS, INSTALLATION WILL BE AT LEAST 30 INCHES DEEP, JACKED OR DRILLED UNDER PAVEMENT, EXCEPT AS NOTED ON THE PLANS. ALL JOINTS WILL BE JOINED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS, IN ORDER TO PROVIDE AN AIR-TIGHT ENCLOSURE OF THE INTERIOR DUCTS AND A WATER-TIGHT ENCLOSURE OF THE OUTER DUCT. ALL PVC MULTI-CELL CONDUIT INSTALLED UNDER THE ROADWAY SHALL BE SCHEDULE 80.

FOR HDPE CONDUITS, INSTALLATION WILL BE IN 30-INCH DEEP TRENCH, DRILLED OR PLOWED TO A MINIMUM OF 30" DEEP, ENCASED INSIDE CONCRETE BARRIER WALL, OR AS NOTED ON THE PLANS. THE HDPE CONDUIT SHALL BE INSTALLED IN CONTINUOUS LENGTHS WITHOUT JOINTS OR COUPLINGS BETWEEN PULL BOXES OR JUNCTION BOXES.

INSTALLATION WITHIN 6 FEET OF GUARDRAIL WILL BE AT LEAST 30 INCHES DEEP TRENCH AND ENCASED IN CONCRETE.

WHEN ENTERING A PULL BOX, CONDUIT SHALL BE BROUGHT IN 3 INCHES MINIMUM AND A MAXIMUM OF 6 INCHES FROM THE EDGE OF THE PULL BOX WALL KNOCKOUT.

METHOD OF MEASUREMENT

THE CONDUIT WILL BE MEASURED BY THE AMOUNT OF CONDUIT IN FEET FURNISHED AND INSTALLED OF EACH TYPE SCHEDULE 40 OR 80 MEASURED FROM CENTER-TO-CENTER OF PULL BOXES, FOUNDATION, ETC., AND WILL INCLUDE ALL FITTINGS AND APPURTENANCES, JOINTS, BENDS, GROUNDS AND CONCRETE ENCASEMENT WHERE SPECIFIED.

BASIS OF PAYMENT

THE PAYMENT FOR THESE ITEMS WILL BE MADE FOR THE ACCEPTED LINER FOOT QUANTITIES AT THE CONTRACT BID PRICE.

TRACER WIRE

THE CONTRACTOR SHALL FURNISH AND INSTALL THIS ITEM ACCORDING TO ODOT SUPPLEMENTAL SPECIFICATIONS 804/904.

COMMUNICATION CABLE MARKER

THE CONTRACTOR SHALL FURNISH AND INSTALL THIS ITEM ACCORDING TO ODOT SUPPLEMENTAL SPECIFICATIONS 804/904.

ITEM 625E29931 MEDIAN JUNCTION BOX, AS PER PLAN

THE CONTRACTOR SHALL SUPPLY THE MEDIAN BARRIER JUNCTION PULL BOXES THAT MEET THE FOLLOWING SPECIFICATIONS:

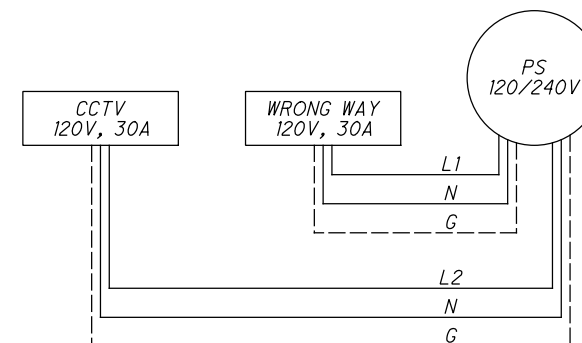
- SHALL BE OF TYPE POLYMER-CONCRETE
- SIZE: 17 INCHES (HEIGHT) X 30 INCHES (LENGTH)
- MINIMUM WALL THICKNESS: 0.5 INCH
- MINIMUM LID THICKNESS: 2 INCHES
- ANSI TIER 22 RATING WITH A MINIMUM DESIGN LOAD OF 22,000 POUNDS
- LID SHALL BE MARKED "TRAFFIC."

THE MEDIAN JUNCTION BOX SHALL BE SECURED IN THE MEDIAN BARRIER WALL USING DOWELS. (NONSHRINK GROUT MAY BE USED WHEN NECESSARY).

MAINTAINING ITS DURING CONSTRUCTION

THE CONTRACTOR SHALL MAINTAIN ALL PREEXISTING OR NEWLY INSTALLED PERMANENT ITS/TRAFFIC DEVICES AND INFRASTRUCTURE DURING CONSTRUCTION ACCORDING TO ODOT SUPPLEMENTAL SPECIFICATION 809.

CIRCUIT DIAGRAM



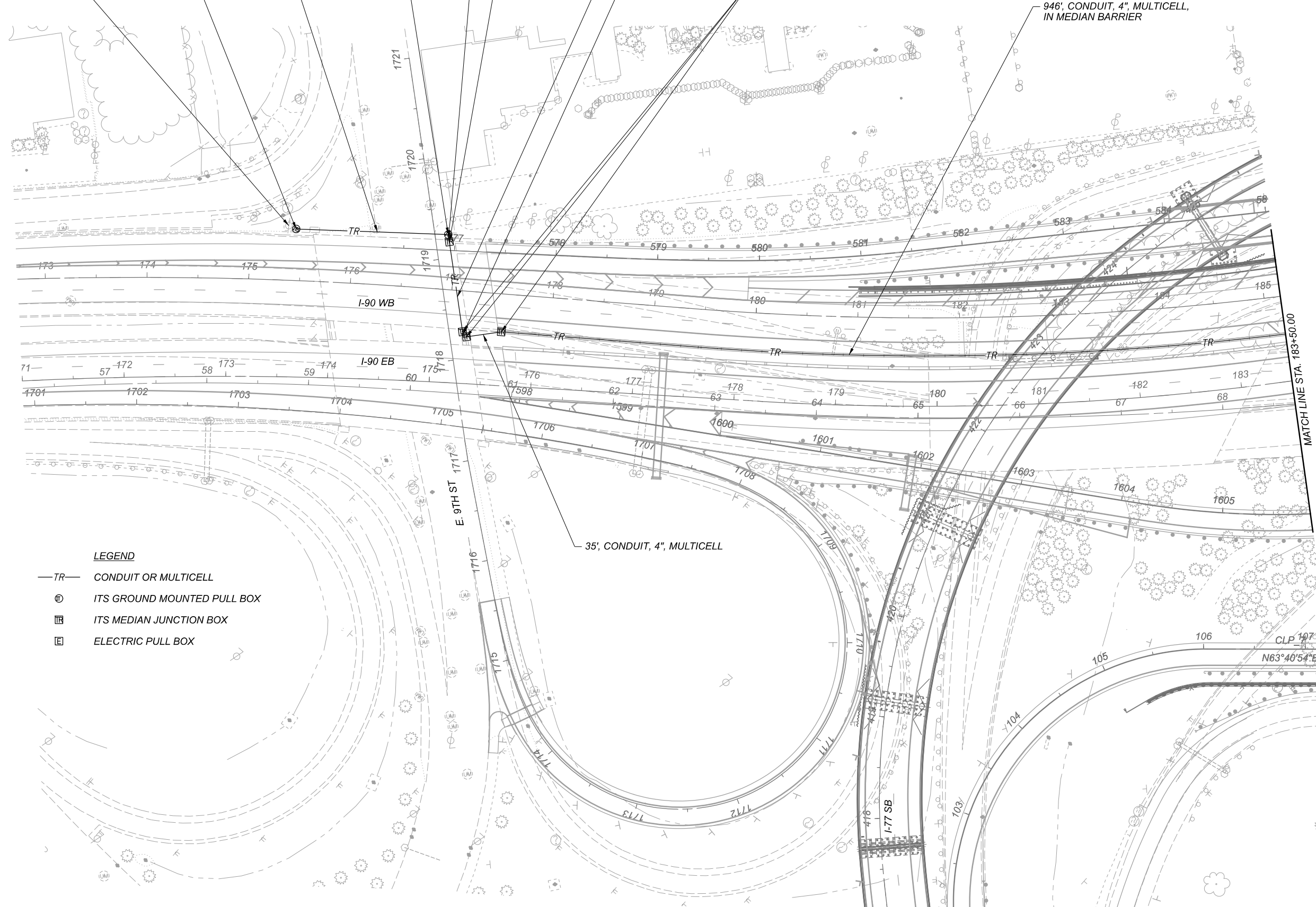
EXISTING POWER SUPPLY AT E. 22ND ST & CENTRAL AVE

NOTES:

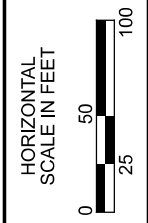
- FOR LOCATION AND DISTANCE OF CONDUCTORS, SEE ITS PLAN SHEETS

DESIGN AGENCY	
DESIGNER	Michael Baker INTERNATIONAL
REVIEWER	XXX
PROJECT ID	82382
SHEET TOTAL	1344 2339

188', CONDUIT, 4", MULTICELL, JACKED OR DRILLED
 EXISTING POLE, CCTV CAMERA, WIRELESS RADIO, AND POLE MOUNTED CABINET TO REMAIN
 EX. ITS PULL BOX TO REMAIN
 ITS PULL BOX, 32"
 20', CONDUIT, 4", MULTICELL, EPC-80
 ITS JUNCTION BOX
 90', CONDUIT, 4", MULTICELL, EPC-80 MOUNTED ALONG SLOPEWALL & ABUTMENT LEDGE
 15', CONDUIT, 4", MULTICELL, EPC-80
 ITS JUNCTION BOX
 946', CONDUIT, 4", MULTICELL, IN MEDIAN BARRIER



- LEGEND**
- TR— CONDUIT OR MULTICELL
 - ⊕ ITS GROUND MOUNTED PULL BOX
 - ⊞ ITS MEDIAN JUNCTION BOX
 - ⊞ ELECTRIC PULL BOX



ITS PLAN SHEET

DESIGN AGENCY

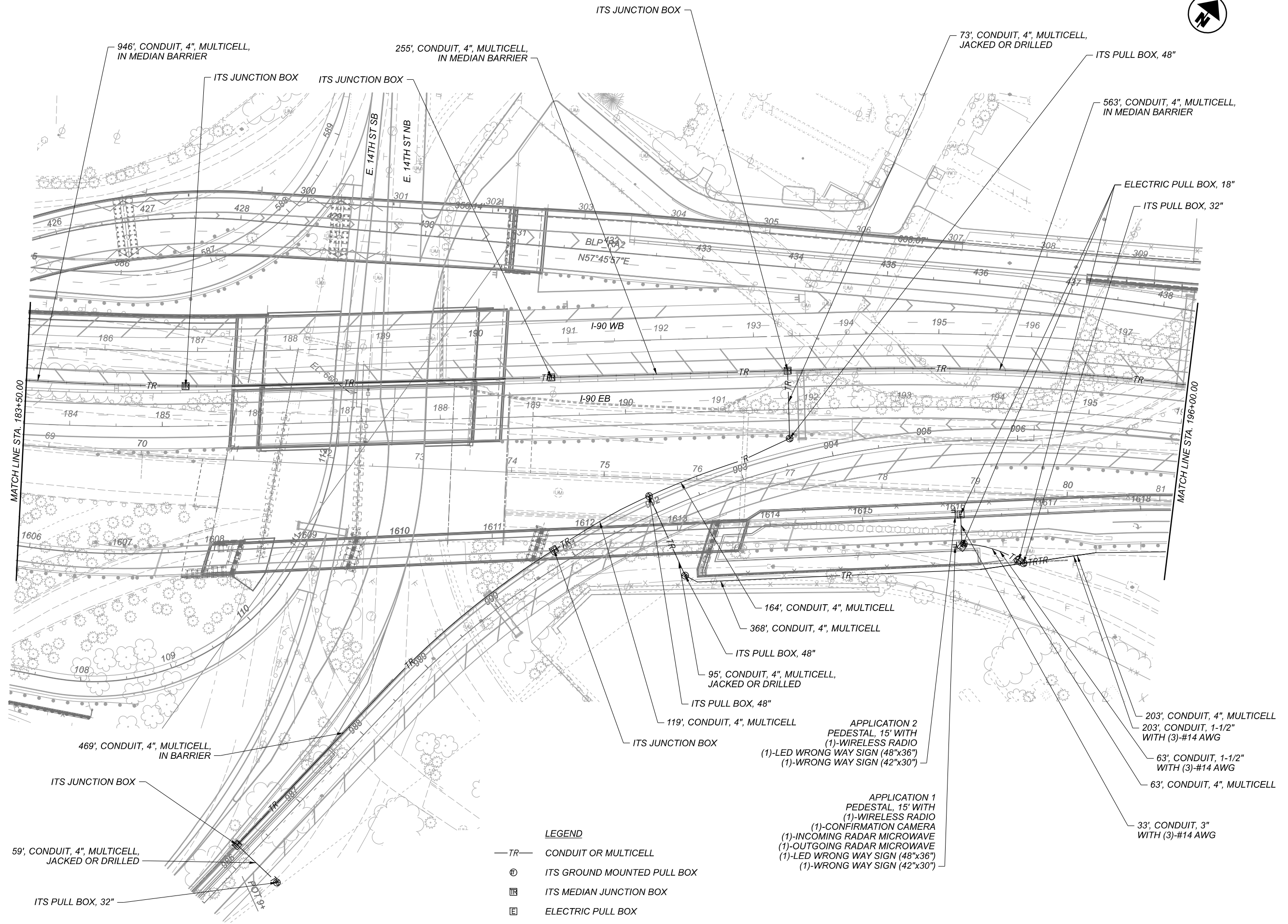
Michael Baker INTERNATIONAL

DESIGNER
XXX

REVIEWER
XXX MM-DD-YY

PROJECT ID
82382

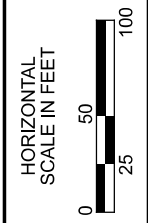
SHEET	TOTAL
1345	2339



- LEGEND**
- TR— CONDUIT OR MULTICELL
 - ⊕ ITS GROUND MOUNTED PULL BOX
 - ⊞ ITS MEDIAN JUNCTION BOX
 - ⊞ ELECTRIC PULL BOX

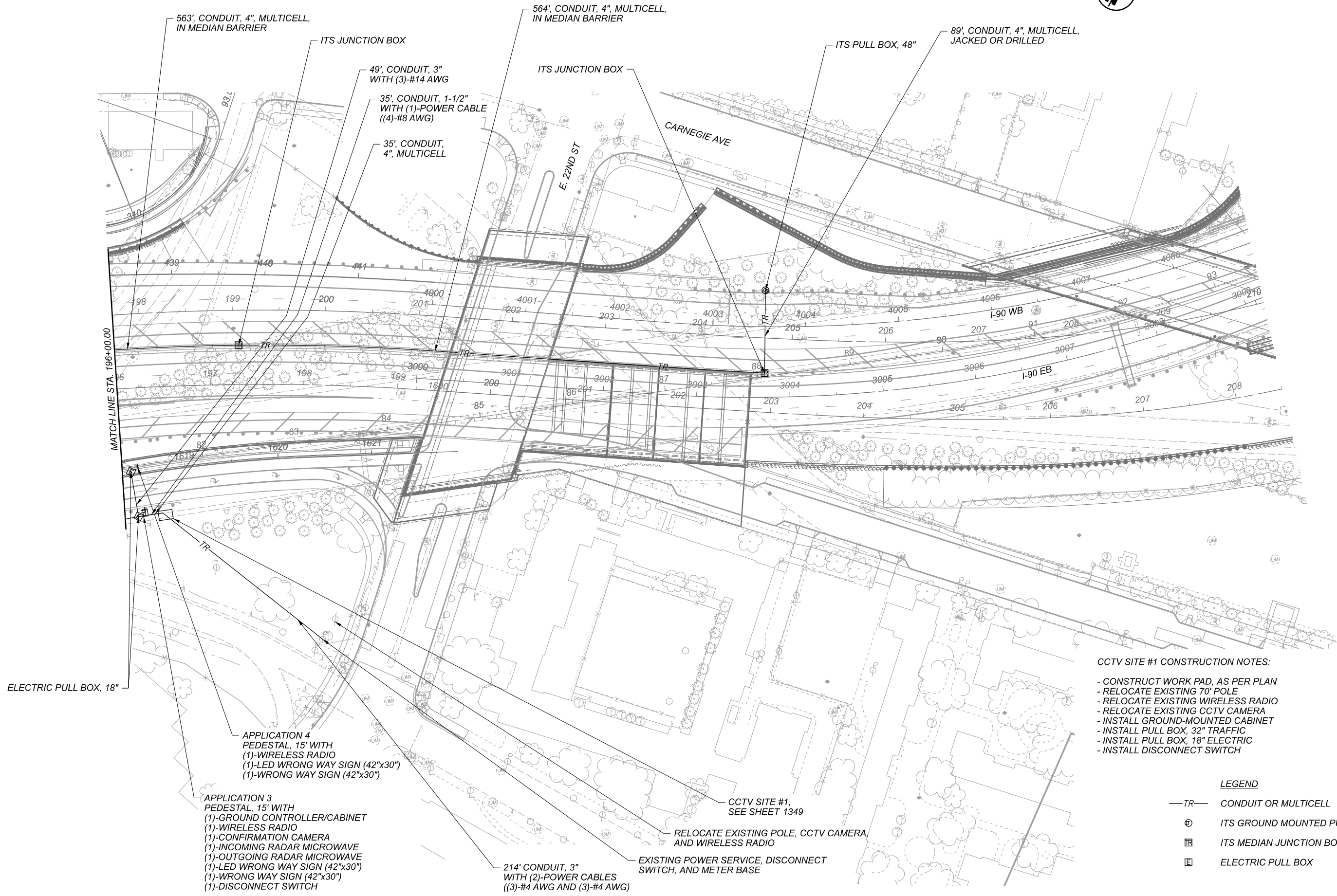
APPLICATION 2
 PEDESTAL, 15' WITH
 (1)-WIRELESS RADIO
 (1)-LED WRONG WAY SIGN (48"x36")
 (1)-WRONG WAY SIGN (42"x30")

APPLICATION 1
 PEDESTAL, 15' WITH
 (1)-WIRELESS RADIO
 (1)-CONFIRMATION CAMERA
 (1)-INCOMING RADAR MICROWAVE
 (1)-OUTGOING RADAR MICROWAVE
 (1)-LED WRONG WAY SIGN (48"x36")
 (1)-WRONG WAY SIGN (42"x30")



ITS PLAN SHEET

DESIGN AGENCY	Michael Baker INTERNATIONAL
DESIGNER	XXX
REVIEWER	XXX MM-DD-YY
PROJECT ID	82382
SHEET TOTAL	1346 2339

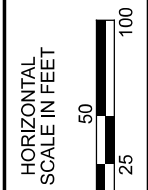


CCTV SITE #1 CONSTRUCTION NOTES:

- CONSTRUCT WORK PAD, AS PER PLAN
- RELOCATE EXISTING 70' POLE
- RELOCATE EXISTING WIRELESS RADIO
- RELOCATE EXISTING CCTV CAMERA
- INSTALL GROUND-MOUNTED CABINET
- INSTALL PULL BOX, 32" TRAFFIC
- INSTALL PULL BOX, 18" ELECTRIC
- INSTALL DISCONNECT SWITCH

LEGEND

- TR— CONDUIT OR MULTICELL
- ⊕ ITS GROUND MOUNTED PULL BOX
- ⊞ ITS MEDIAN JUNCTION BOX
- ⊞ ELECTRIC PULL BOX



ITS PLAN SHEET

DESIGN AGENCY

Michael Baker INTERNATIONAL

DESIGNER

XXX

REVIEWER

XXX MM-DD-YY

PROJECT ID

82382

SHEET TOTAL

1347 2339

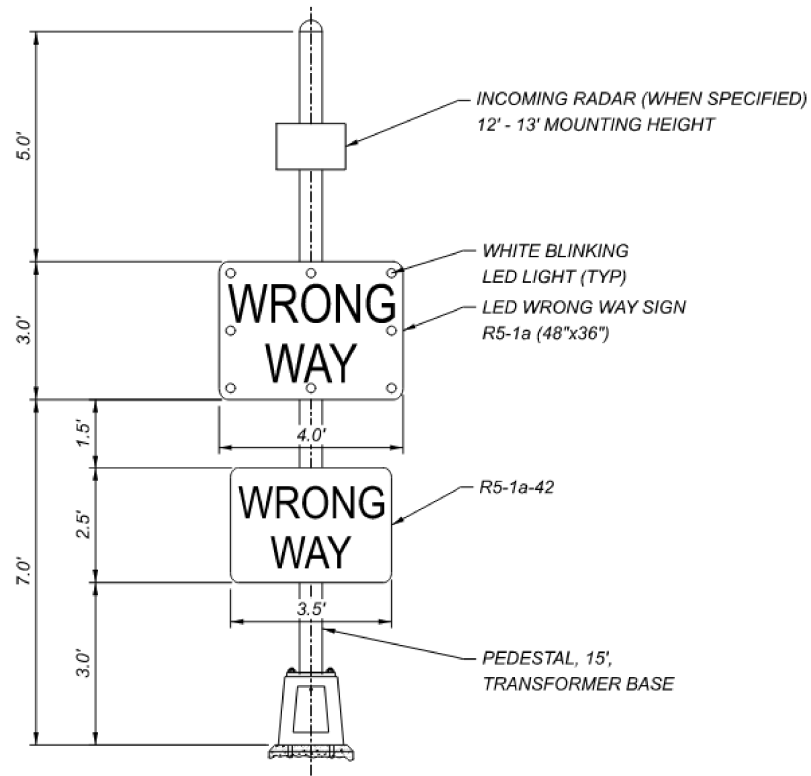
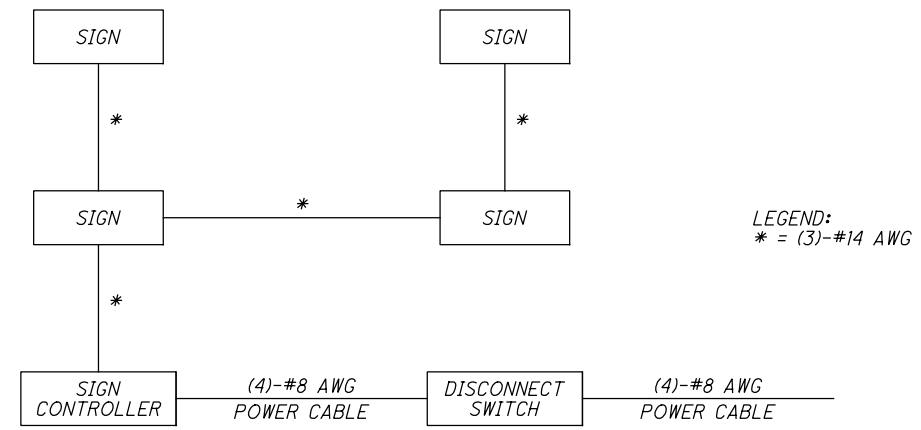
JUNCTION BOX TABLE

PULL BOX #	STATION	SIDE	OFFSET	SIZE (IN.)
JB-1	-	-	-	-
JB-2	-	-	-	-
JB-3	-	-	-	-
JB-4	-	-	-	-
JB-5	-	-	-	-
JB-6	-	-	-	-
JB-7	-	-	-	-

PULL BOX TABLE

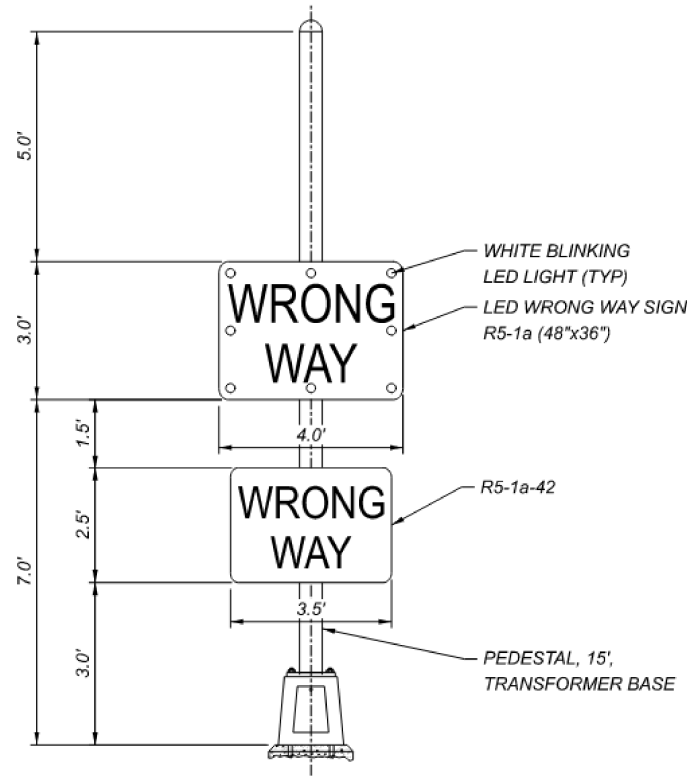
PULL BOX #	STATION	SIDE	OFFSET	SIZE (IN.)
PB-1	-	-	-	-
PB-2	-	-	-	-
PB-3	-	-	-	-
PB-4	-	-	-	-
PB-5	-	-	-	-
PB-6	-	-	-	-
PB-7	-	-	-	-
PB-8	-	-	-	-
PB-9	-	-	-	-
PB-10	-	-	-	-
PB-11	-	-	-	-
PB-12	-	-	-	-

WIRING DIAGRAM



APPLICATION 1 AND 3

NOT TO SCALE



APPLICATION 2 AND 4

NOT TO SCALE

DESIGN AGENCY

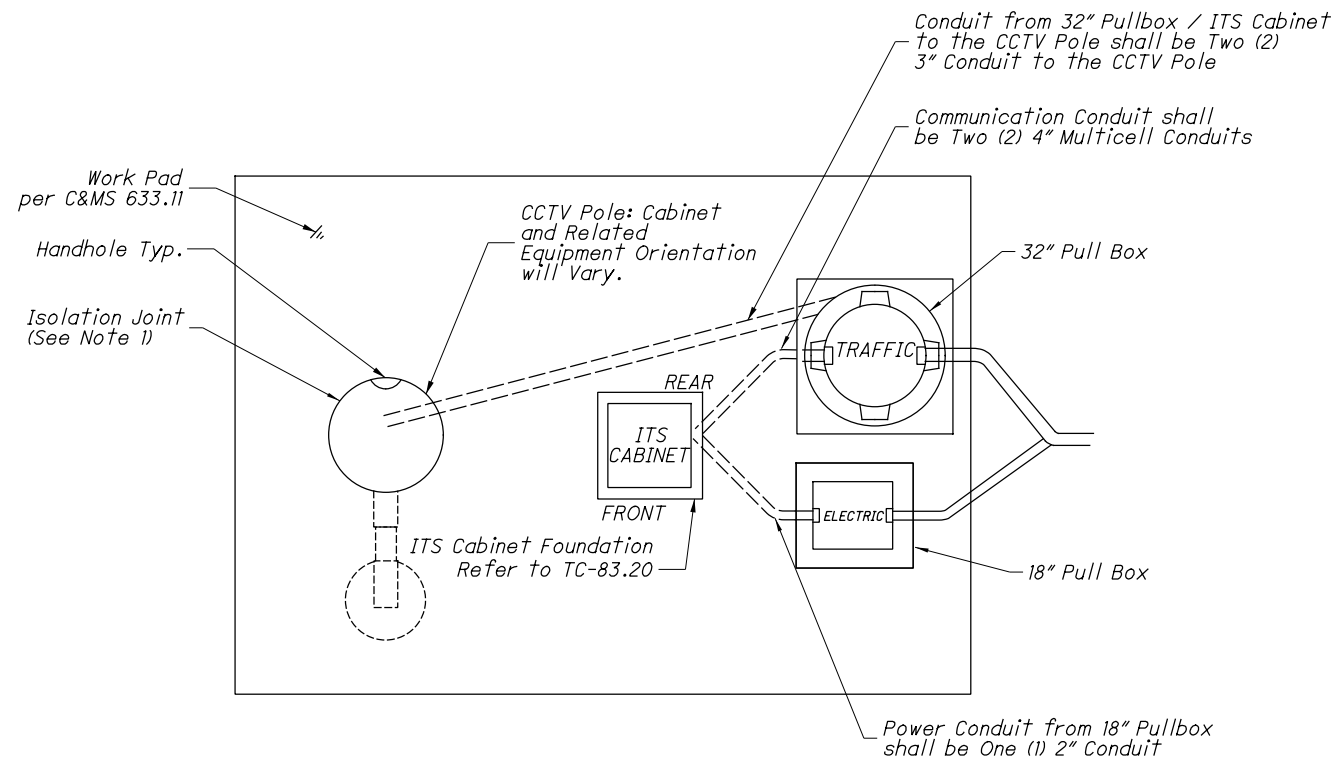
Michael Baker
 INTERNATIONAL

DESIGNER
 XXX

REVIEWER
 XXX MM-DD-YY

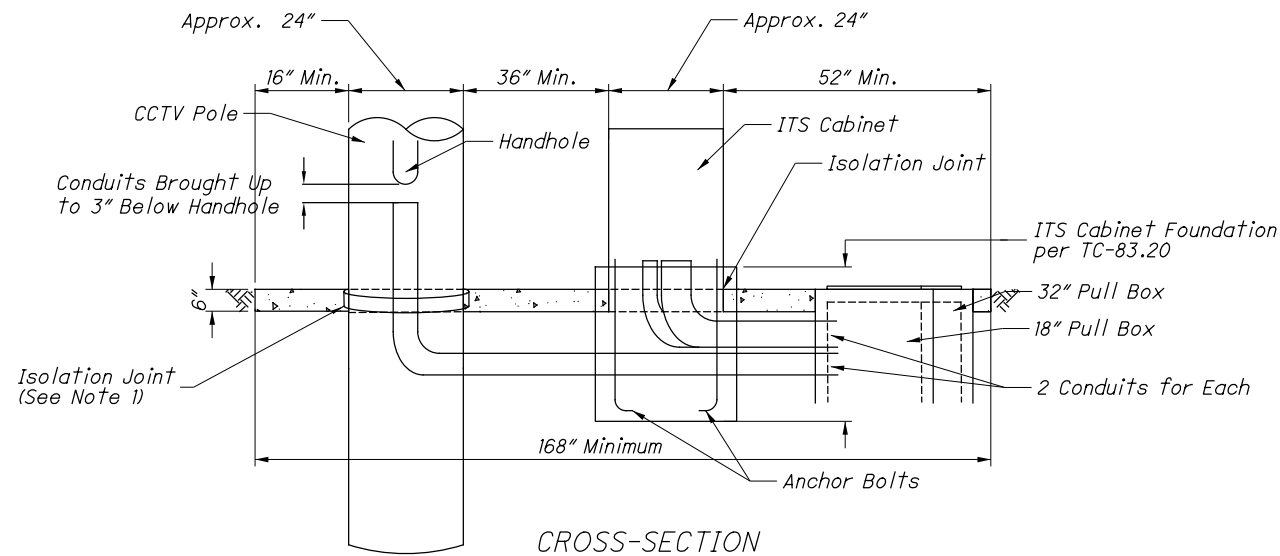
PROJECT ID
 82382

SHEET TOTAL
 1348 | 2339



**TYPICAL CCTV CAMERA POLE
 DEVICE WORK PAD DETAILS**

PLAN VIEW
 (NOT TO SCALE)

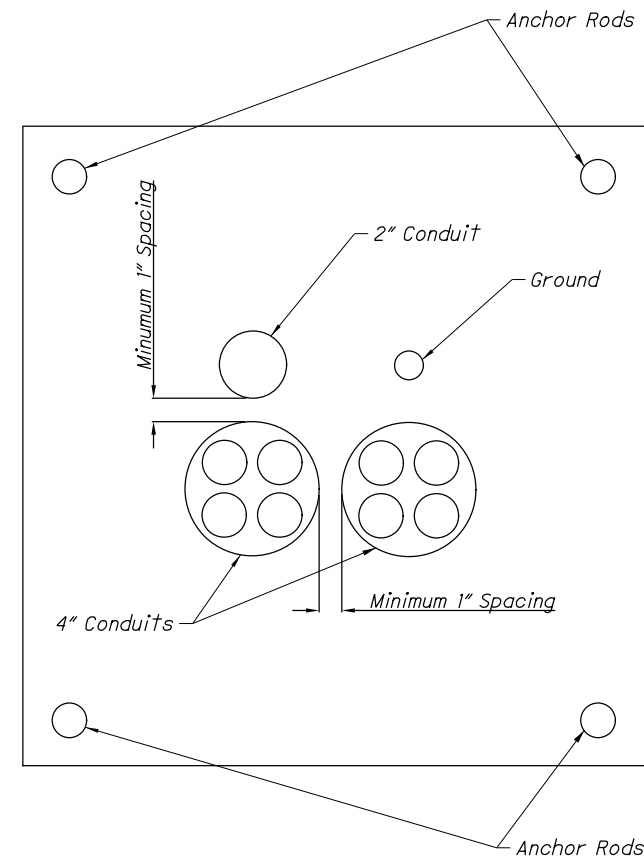


**TYPICAL CCTV CAMERA POLE
 DEVICE WORK PAD**

ELEVATION VIEW
 (NOT TO SCALE)

NOTES:

1. 1/2" preformed joint filler as per C&MS 705.03 shall be used between concrete pole and adjacent paved areas.
2. A 6" thick work pad with dimensions shown on details shall be provided unless in an otherwise paved area. In level areas, the top of the pad shall be 1" above the ground line. In steeply sloped areas (4:1 or steeper), the pad's design shall be adjusted to provide access, drainage, and safety, as approved by the Engineer. (Refer to SCD ITS-50.12 for Sloped Work Pads.)
3. For areas with less severe slopes (5:1 or less), grading or earthwork is preferred.
4. Inside the ITS Cabinet, a minimum of 1 inch spacing shall be maintained between all conduits. Conduits shall be stubbed a minimum of 3 inches and a maximum of 6 inches above the foundation. All conduits shall be capped with Flexible PVC Caps.



**TYPICAL CONDUITS ENTERING
 CABINET FOUNDATION**

PLAN VIEW
 (NOT TO SCALE)

DESIGN AGENCY

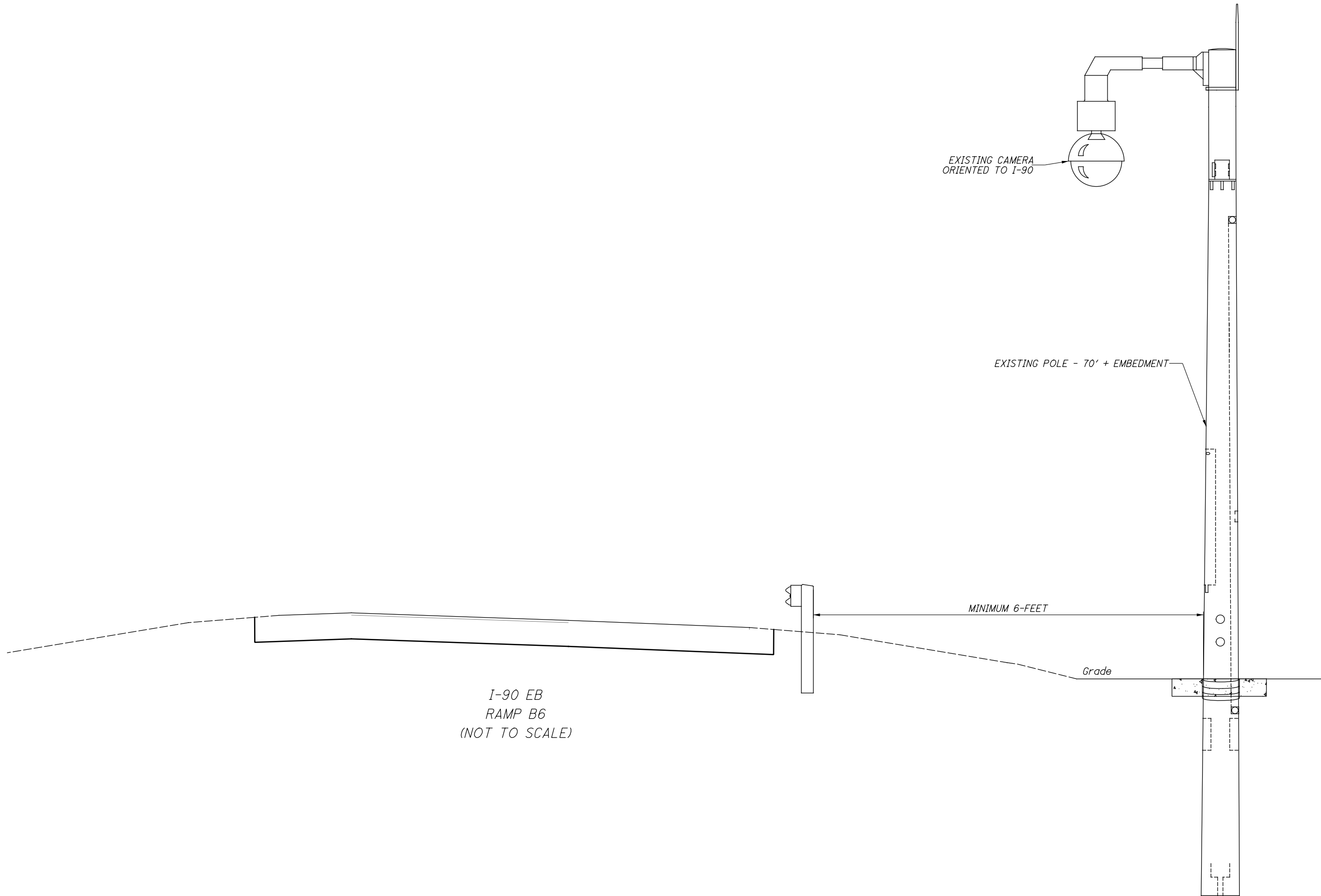
Michael Baker
 INTERNATIONAL

DESIGNER
 XXX

REVIEWER
 XXX MM-DD-YY

PROJECT ID
 82382

SHEET TOTAL
 1349 2339



(NOT TO SCALE)

ITS DETAIL SHEET
CCTV ELEVATION DETAIL

DESIGN AGENCY

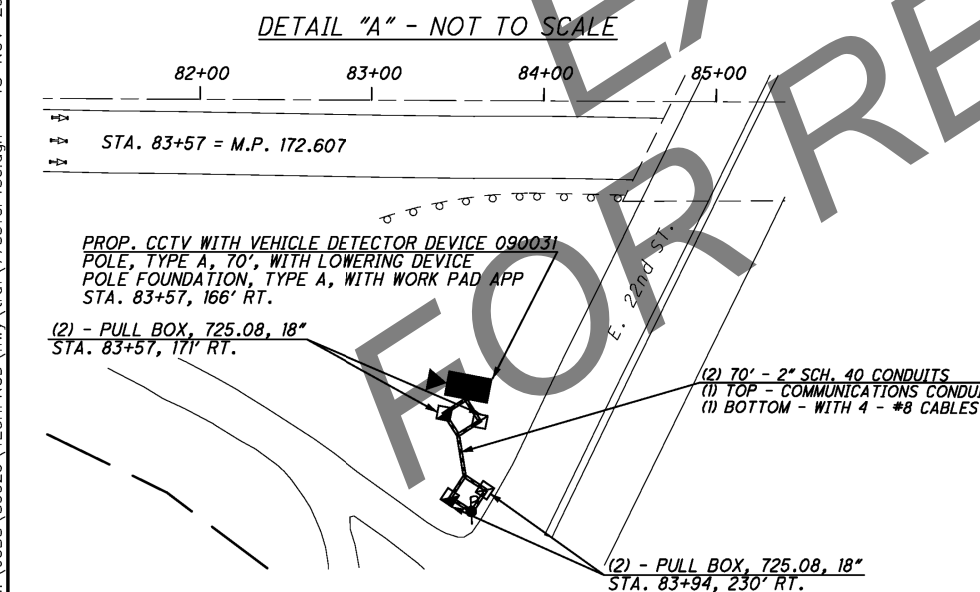
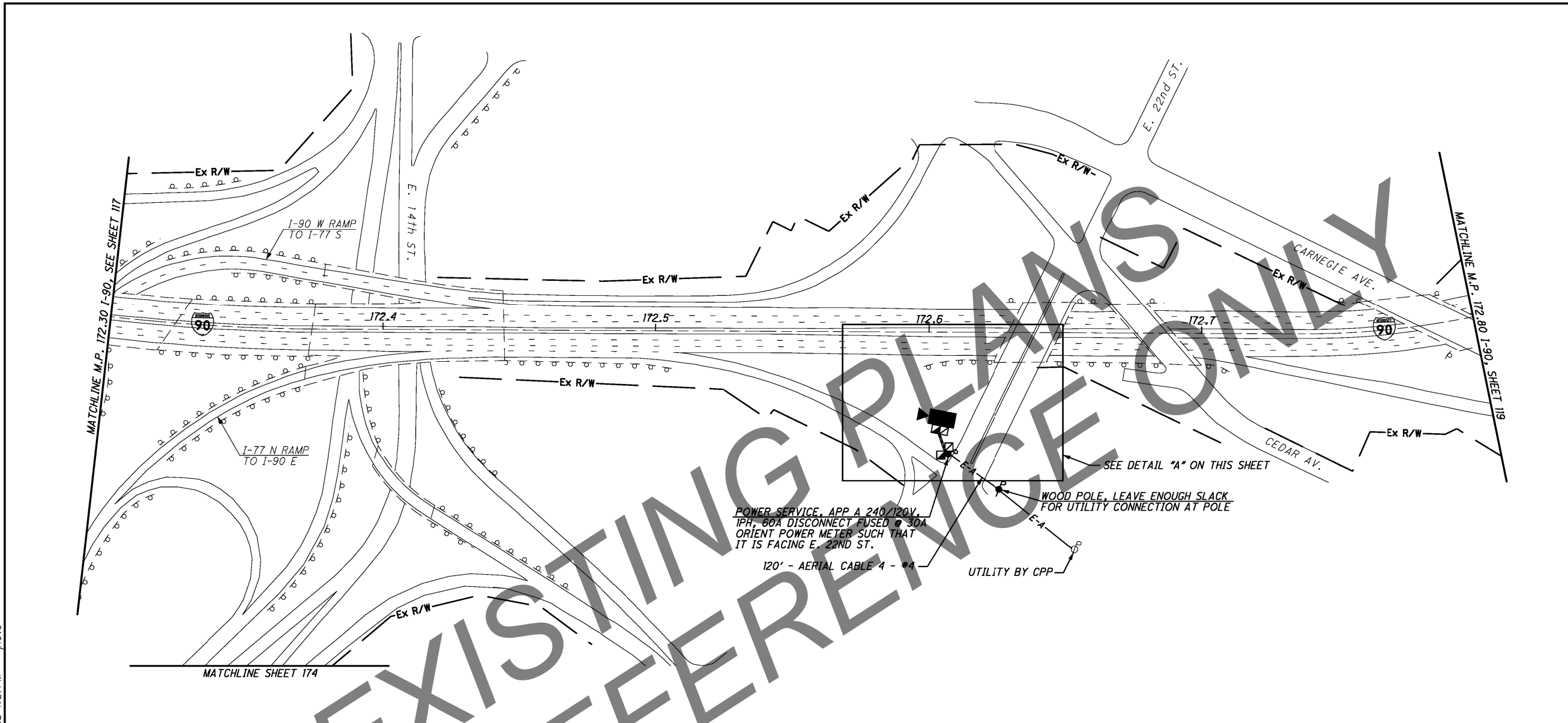
Michael Baker
INTERNATIONAL

DESIGNER
XXX

REVIEWER
XXX MM-DD-YY

PROJECT ID
82382

SHEET	TOTAL
1350	2339



POWER SERVICE, APP A 240/120V, 1PH, 60A DISCONNECT FUSED @ 30A ORIENT POWER METER SUCH THAT IT IS FACING E. 22ND ST.
 120' - AERIAL CABLE 4 - #4
 UTILITY BY CPP
 WOOD POLE, LEAVE ENOUGH SLACK FOR UTILITY CONNECTION AT POLE
 SEE DETAIL "A" ON THIS SHEET

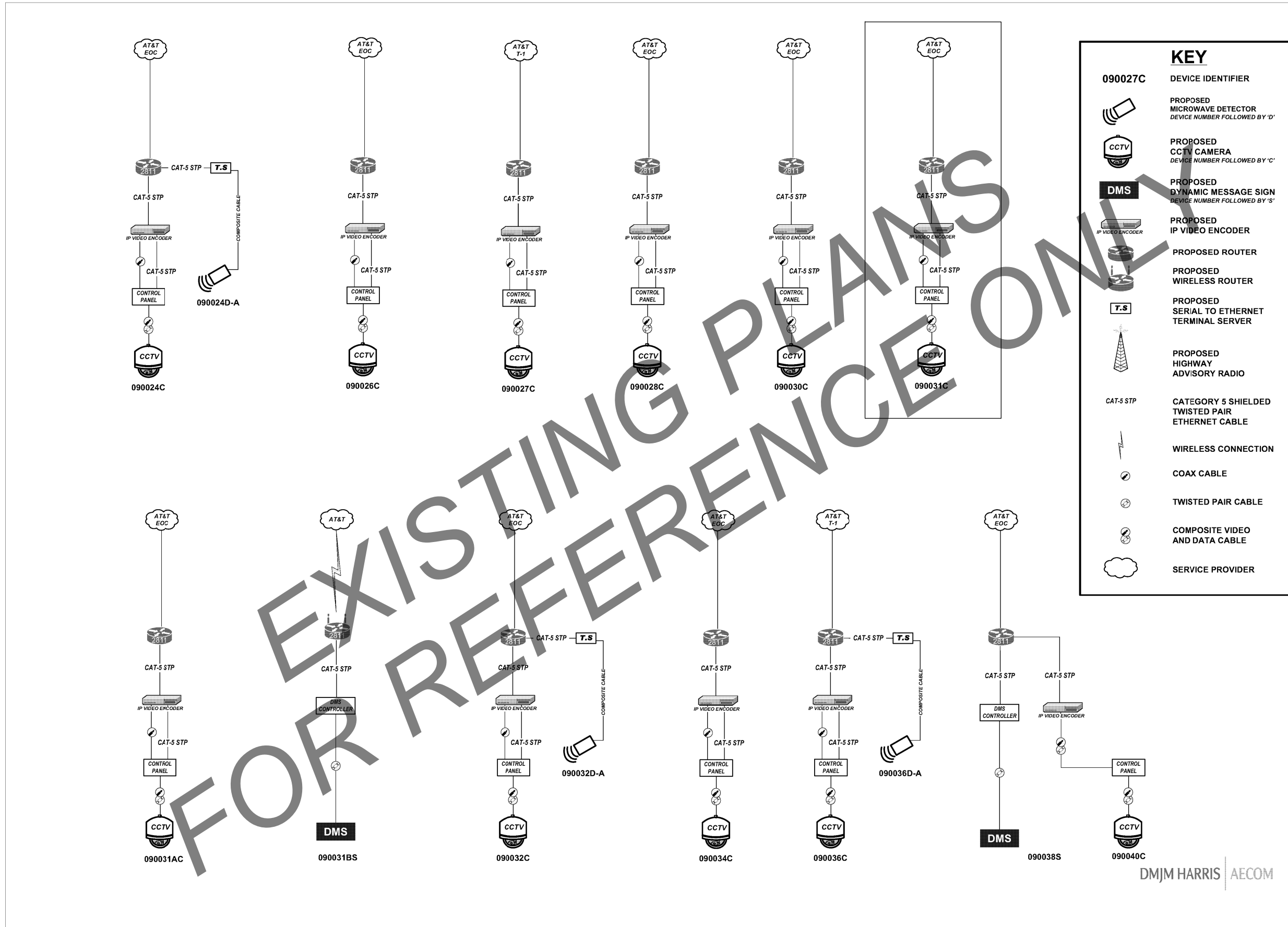
REFER TO SHEET 14 FOR CONDUIT DETAILS
 REFER TO SHEET 15 FOR PULL BOX ORIENTATION AND COMMUNICATION POLE DETAILS
 REFER TO SHEET 16 FOR TYPICAL POWER SERVICE AS PER PLAN A DETAILS
 REFER TO SHEET 23 FOR TYPICAL CCTV CAMERA DETAILS
 REFER TO SHEET 46 FOR ELECTRICAL SLACK NOTES
 REFER TO SHEET 193 FOR COMMUNICATIONS PLANS
 REFER TO SHEET 200 FOR TYPICAL CCTV EOC COMMUNICATIONS DETAILS

CCTV 090031

	CALCULATED STS CHECKED JDG
I-90 AT E. 22ND ST. (MP 172.30 TO MP 172.80) CITY OF CLEVELAND, CUYAHOGA COUNTY	
VAR-CLEVELAND FREEWAY MANAGEMENT SYSTEM	
118 207	

DESIGN AGENCY	Michael Baker INTERNATIONAL
DESIGNER	XXX
REVIEWER	XXX MM-DD-YY
PROJECT ID	82382
SHEET TOTAL	1351 2339

EXISTING ITS PLANS



KEY

- 090027C** DEVICE IDENTIFIER
- PROPOSED MICROWAVE DETECTOR
DEVICE NUMBER FOLLOWED BY 'D'
- PROPOSED CCTV CAMERA
DEVICE NUMBER FOLLOWED BY 'C'
- PROPOSED DYNAMIC MESSAGE SIGN
DEVICE NUMBER FOLLOWED BY 'S'
- PROPOSED IP VIDEO ENCODER
- PROPOSED ROUTER
- PROPOSED WIRELESS ROUTER
- PROPOSED SERIAL TO ETHERNET TERMINAL SERVER
- PROPOSED HIGHWAY ADVISORY RADIO
- CAT-5 STP CATEGORY 5 SHIELDED TWISTED PAIR ETHERNET CABLE
- WIRELESS CONNECTION
- COAX CABLE
- TWISTED PAIR CABLE
- COMPOSITE VIDEO AND DATA CABLE
- SERVICE PROVIDER

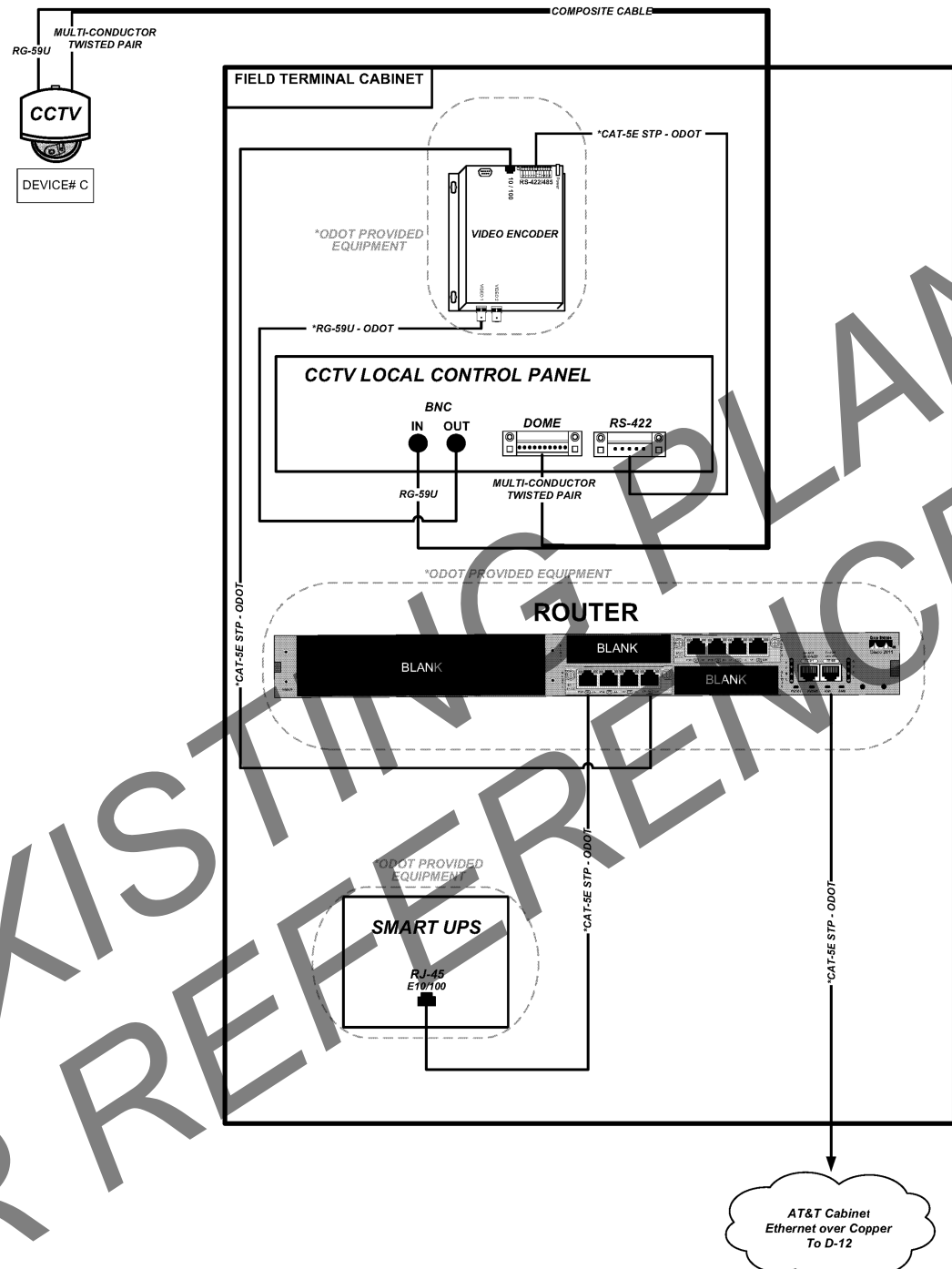
CALCULATED	RCM	CHECKED	JDG
COMMUNICATIONS PLAN ONE-LINES			
VAR - CLEVELAND FREEWAY MANAGEMENT SYSTEM			
193			
207			

DMJM HARRIS | AECOM

DESIGN AGENCY	Michael Baker INTERNATIONAL
DESIGNER	XXX
REVIEWER	XXX MM-DD-YY
PROJECT ID	82382
SHEET	TOTAL
1352	2339

EXISTING ITS PLANS

Field Cabinet Locations w/CCTV EOC	
I-71	
071007	
071011	
071027	
071031	
071035	
I-77	
077013	
077015	
077021	
077025	
I-90	
090004	
090008	
090010	
090012	
090018	
090028	
090030	
090031	
090031a	
090034	
090042	
090044	
090048	
090054	
I-271	
271007	
271009	
271019	
271020	
I-480	
480004	
480016	
480022	
I-80	
80006	



KEY

- MICROWAVE DETECTOR
DEVICE NUMBER FOLLOWED BY 'D'
- CCTV CAMERA
DEVICE NUMBER FOLLOWED BY 'C'
- DMS
DYNAMIC MESSAGE SIGN
DEVICE NUMBER FOLLOWED BY 'S'
- SERVICE PROVIDER
- WIRELESS ACCESS POINT
- HIGHWAY ADVISORY RADIO

- NOTES**
1. ODOT TO INSTALL ALL CISCO PRODUCTS, TERMINAL SERVERS, UPS AND ALL ASSOCIATED CABLING THAT CONNECTS ODOT PROVIDED EQUIPMENT.

DMJM HARRIS | AECOM

CALCULATED	RCM	CHECKED	JDG
TYPICAL FIELD TERMINAL CABINET CCTV ETHERNET OVER COPPER (EOC)			
VAR - CLEVELAND		FREeway MANAGEMENT SYSTEM	
200			
207			

DESIGN AGENCY	Michael Baker INTERNATIONAL
DESIGNER	XXX
REVIEWER	XXX MM-DD-YY
PROJECT ID	82382
SHEET	TOTAL
1353	2339

EXISTING ITS PLANS

FOR REFERENCE ONLY