

DESIGN DATA

Traffic	Main Street Average Daily	Est. 30th Max, Hr.
Current Traffic (1988)	7290 Pass. 510 Trucks 7800 Total	780
Traffic Forecast (2010)	14,440 Pass. 1010 Trucks 15,450 Total	1545

Hwy. #6

Current Traffic (1988)	5820 Pass.	280 Trucks	6100 Total	610
Traffic Forecast (2010)	7630 Pass.	370 Trucks	8000 Total	800

Design Speed 35 MPH

Traffic Classification "M"

Minimum Sight Distance (Stopping) 250'

Final Plans

JOB# 4

NORTH DAKOTA

DEPARTMENT OF TRANSPORTATION

MORTON COUNTY

F-RRS-1-006(005)066

GRADING, SURFACING, SEWER,
LIGHTING, SIGNALS & INCIDENTALS

FHWA REGION	STATE	PROJECT	SHEET NO.
8	N.D.	F-RRS-1-006(005)066	1

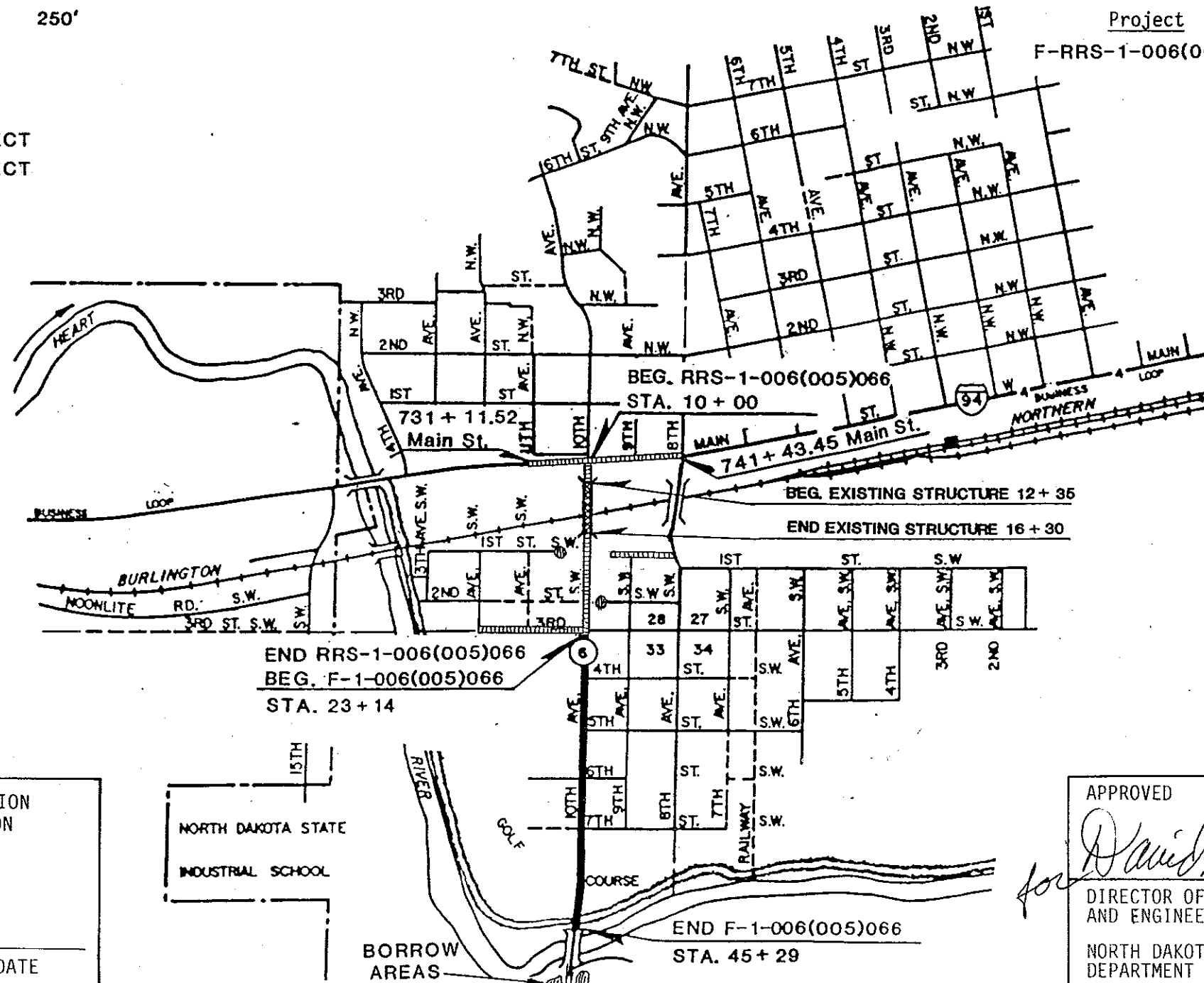
GOVERNING SPECIFICATIONS:

Standard Specifications for Road and Bridge Construction, adopted by the North Dakota State Highway Department, November 1986, shall apply to all North Dakota Department of Transportation contracts, standard drawings currently in effect, and other contract provisions submitted herein.

LENGTH OF PROJECT

Project	Miles-Gross	Miles-Net
F-RRS-1-006(005)066	0.668	0.668

RRS PORTION OF PROJECT
F PORTION OF PROJECT



MANDAN



U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED _____

DIVISION ADMINISTRATOR _____ DATE _____

NORTH DAKOTA STATE
INDUSTRIAL SCHOOL

APPROVED DATE SEPT. 1, 1990

David K. Lee P.E. #1199

DIRECTOR OF HIGHWAYS
AND ENGINEERING

NORTH DAKOTA
DEPARTMENT OF TRANSPORTATION

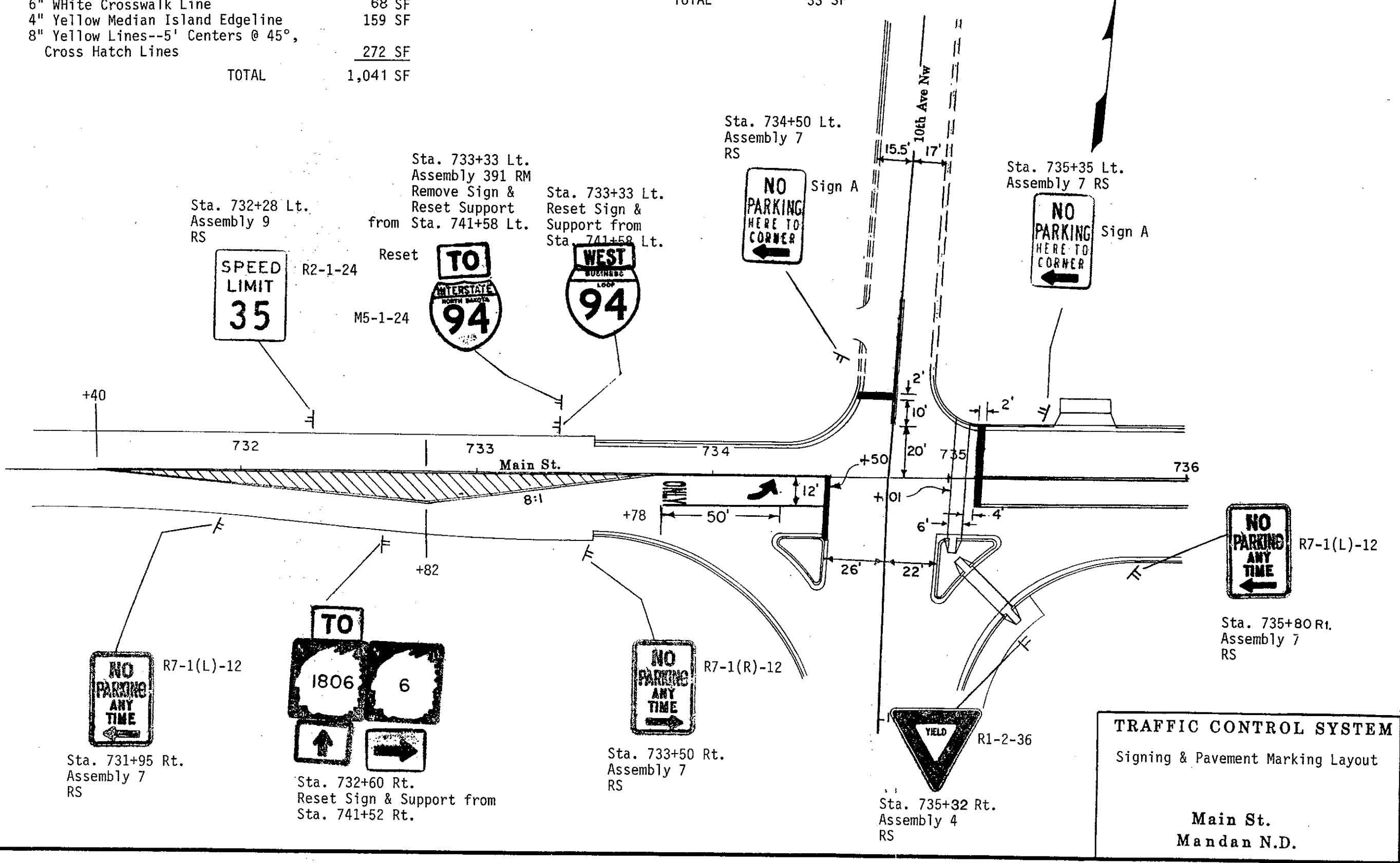
INSTALL PLASTIC PAVEMENT MARKING FILM--LINES

Dbl. 4" Yellow Barrier Line	141 SF
8" White Channel Line	101 SF
24" WHITE Stop Line	300 SF
6" White Crosswalk Line	68 SF
4" Yellow Median Island Edgeline	159 SF
8" Yellow Lines--5' Centers @ 45°, Cross Hatch Lines	272 SF
TOTAL	1,041 SF

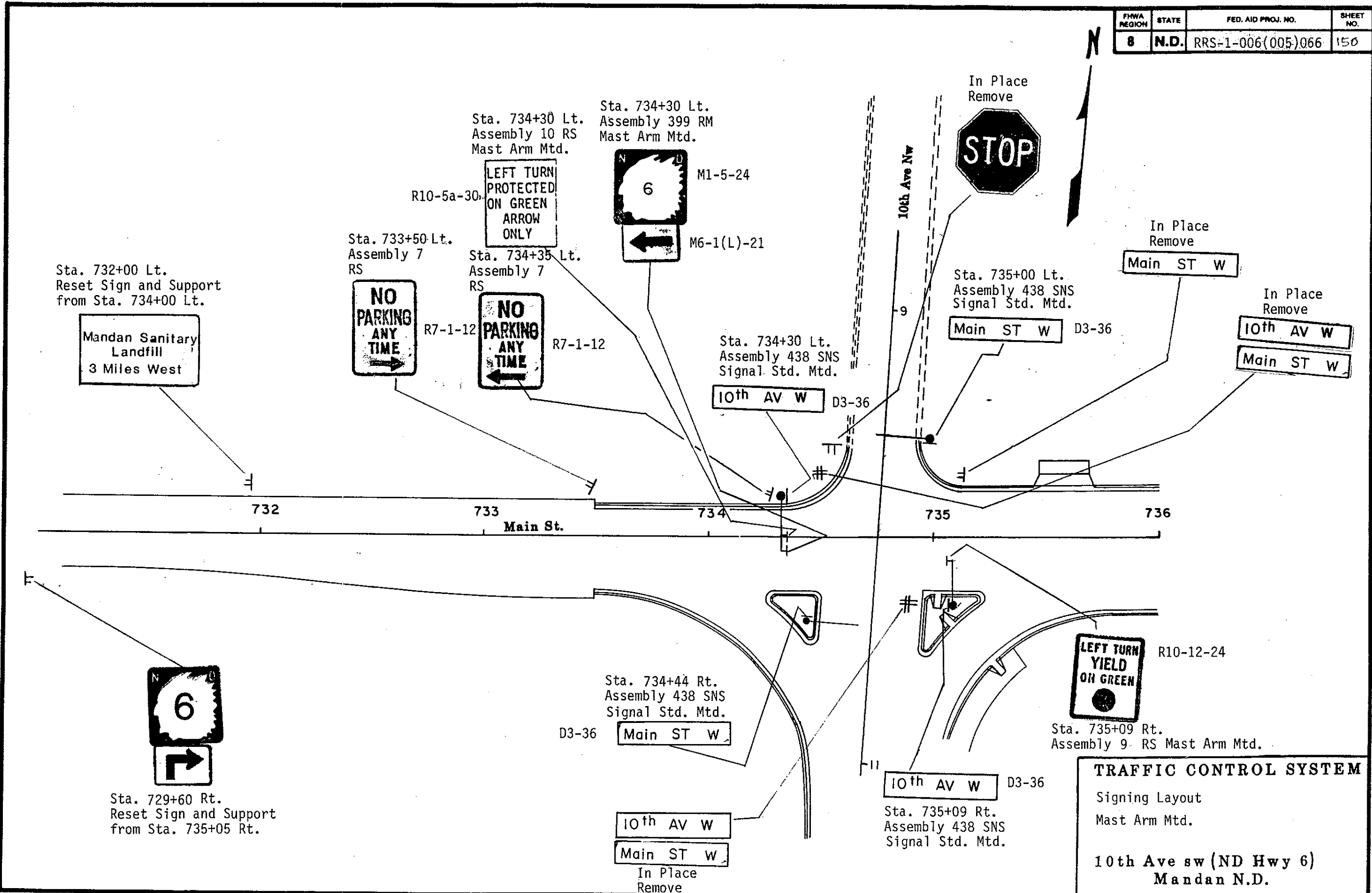
INSTALL PLASTIC PAVEMENT MARKING FILM--MESSAGE

Only	22 SF
Left Arrow	11 SF
TOTAL	33 SF

FHWA REGION	STATE	FED. AID PROJ. NO.	SHEET NO.
8	N.D.	RRS-1-006(005)066	149



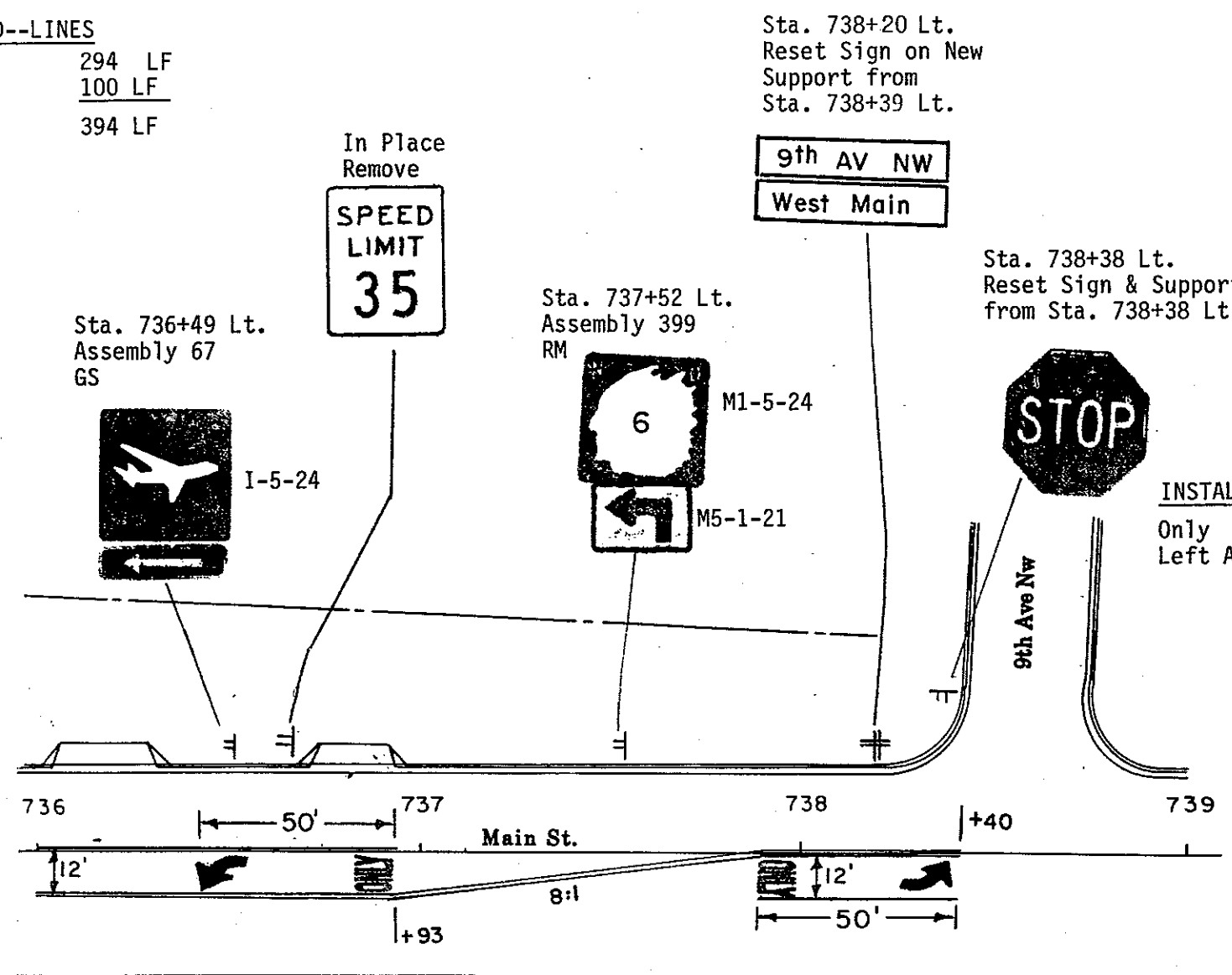
FHWA REGION	STATE	FED. AID PROJ. NO.	SHEET NO.
8	N.D.	RRS-1-006(005)066	150



TRAFFIC CONTROL SYSTEM
 Signing Layout
 Mast Arm Mtd.
 10th Ave sw (ND Hwy 6)
 Mandan N.D.

INSTALL PAVEMENT MARKING PAINTED--LINES

Dbl. 4" Yellow Barrier Lines	294 LF
8" White Channel Line	100 LF
TOTAL	394 LF



Sta. 738+20 Lt.
Reset Sign on New
Support from
Sta. 738+39 Lt.

Sta. 736+49 Lt.
Assembly 67
GS

Sta. 737+52 Lt.
Assembly 399
RM

Sta. 738+38 Lt.
Reset Sign & Support
from Sta. 738+38 Lt.

INSTALL PLASTIC PAVEMENT MARKING FILM--MESSAGES

Only Left Arrow	44 SF
	22 SF
TOTAL	66 SF

INSTALL PLASTIC PAVEMENT MARKING FILM--LINES

Dbl. 4" Yellow Barrier Lines	62 SF
8" White Channel Line	62 SF
TOTAL	124 SF

Sta. 736+37 Rt.
Reset Sign & Support from
Sta. 736+37 Rt.

Sta. 738+52 Rt.
Reset Sign & Support from
Sta. 738+52 Rt.

TRAFFIC CONTROL SYSTEM

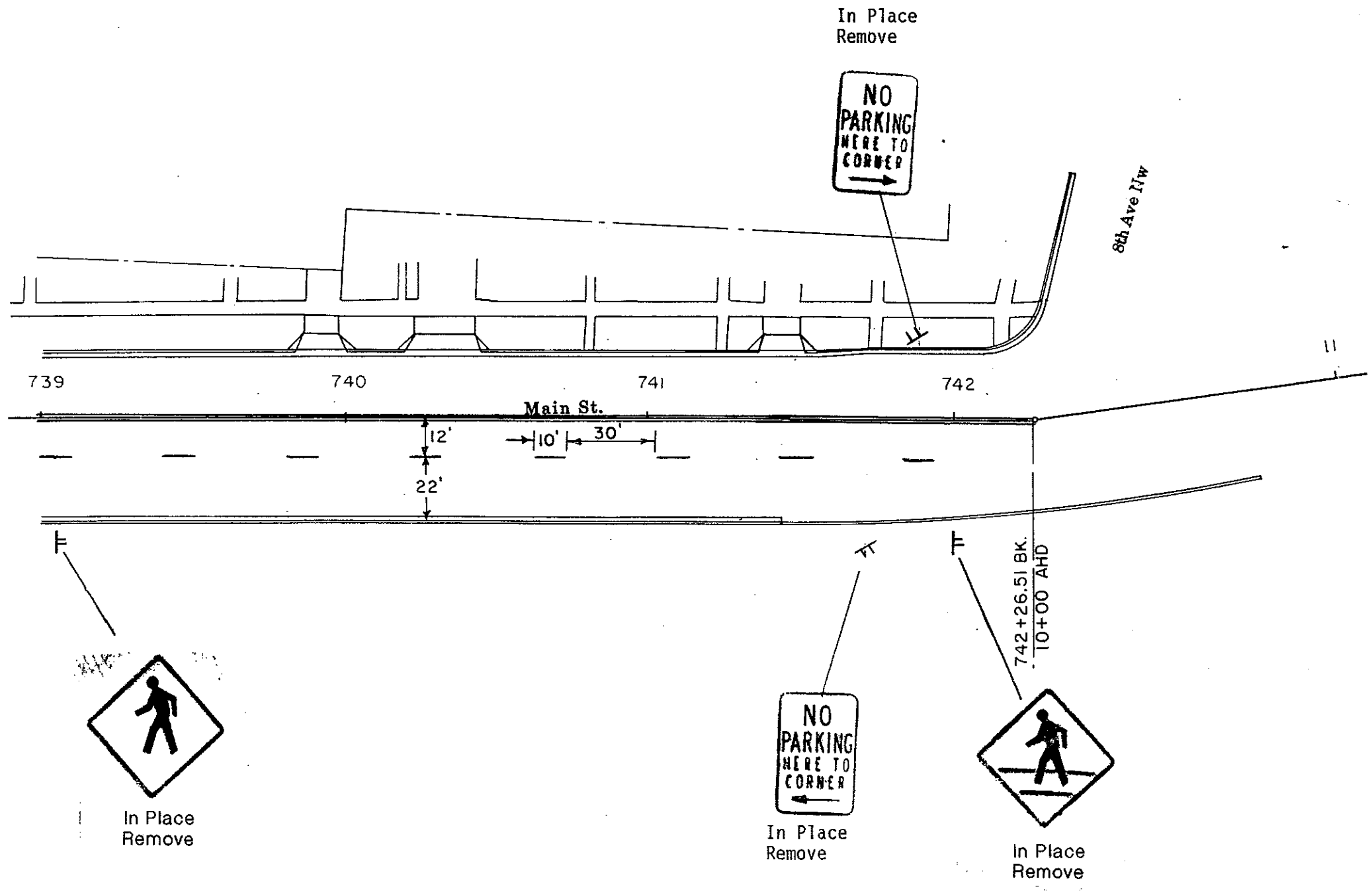
Signing & Pavement Marking Layout

Main St.
Mandan N.D.

INSTALL PAVEMENT MARKING PAINTED LINES

Db1. 4" Yellow Barrier Lines	654 LF
4" White Lane Lines, 10' Line, 30' Skip	80 LF
TOTAL	734 LF

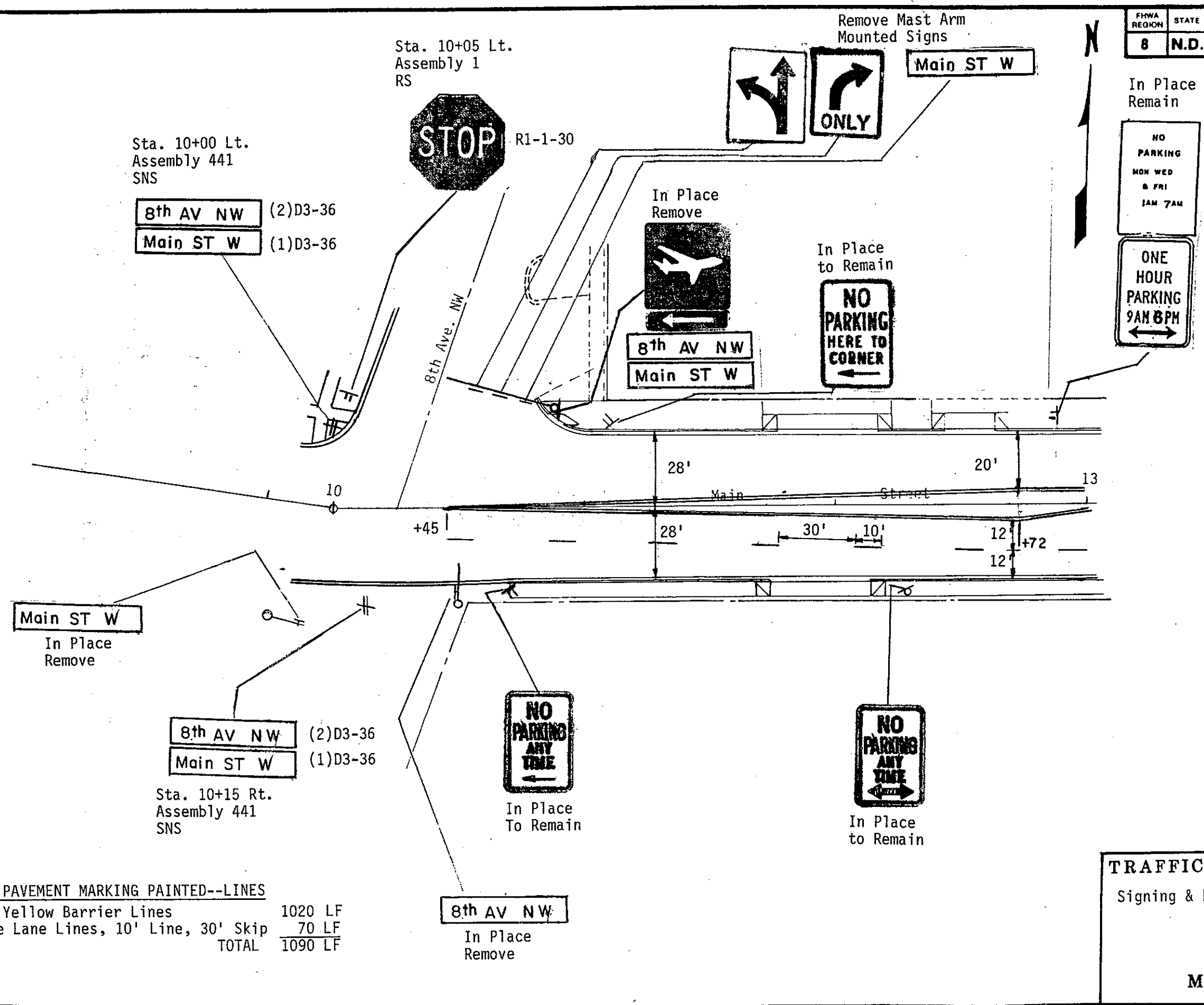
FHWA REGION	STATE	FED. AID PROJ. NO.	SHEET NO.
8	N.D.	RRS-1-006(005)066	152



TRAFFIC CONTROL SYSTEM
 Signing & Pavement Marking Layout

Main St.
Mandan N.D.

FHWA REGION	STATE	FED. AID PROJ NO	SHEET NO
8	N.D.	RRS-1-006(005)066	153



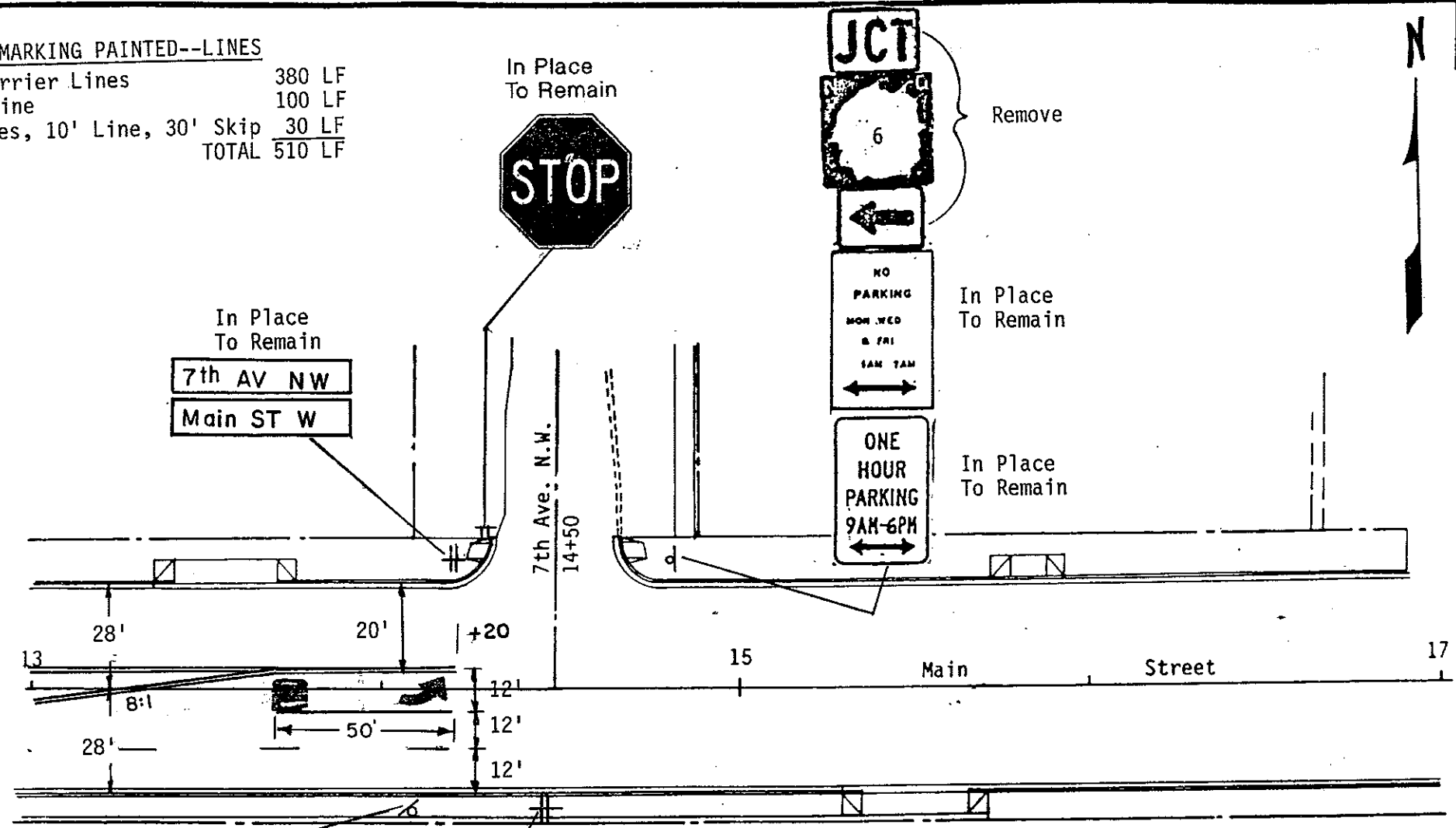
INSTALL PAVEMENT MARKING PAINTED--LINES
 Db1. 4" Yellow Barrier Lines 1020 LF
 4" White Lane Lines, 10' Line, 30' Skip 70 LF
 TOTAL 1090 LF

TRAFFIC CONTROL SYSTEM
 Signing & Pavement Marking Layout

 Main St.
 Mandan N.D.

FHWA REGION	STATE	FED. AID PROJ. NO.	SHEET NO.
8	N.D.	RRS-1-006(005)066	154

INSTALL PAVEMENT MARKING PAINTED--LINES
 Dbl. 4" Yellow Barrier Lines 380 LF
 8" White Chanel Line 100 LF
 4" White Lane Lines, 10' Line, 30' Skip 30 LF
TOTAL 510 LF



In Place
To Remain

STOP

In Place
To Remain

7th AV NW
Main ST W

JCT

6

Remove

NO
PARKING
MON. WED.
& FRI
9AM - 5PM
←

In Place
To Remain

ONE
HOUR
PARKING
9AM-6PM
←

In Place
To Remain

**NO
PARKING
ANY
TIME**

In Place
To Remain

7th AV NW
Main ST W

In Place
To Remain

PLASTIC PAVEMENT MARKING FILM MESSAGE

Only 22 S.F.
 Left Arrow 11 S.F.
TOTAL 33 S.F.

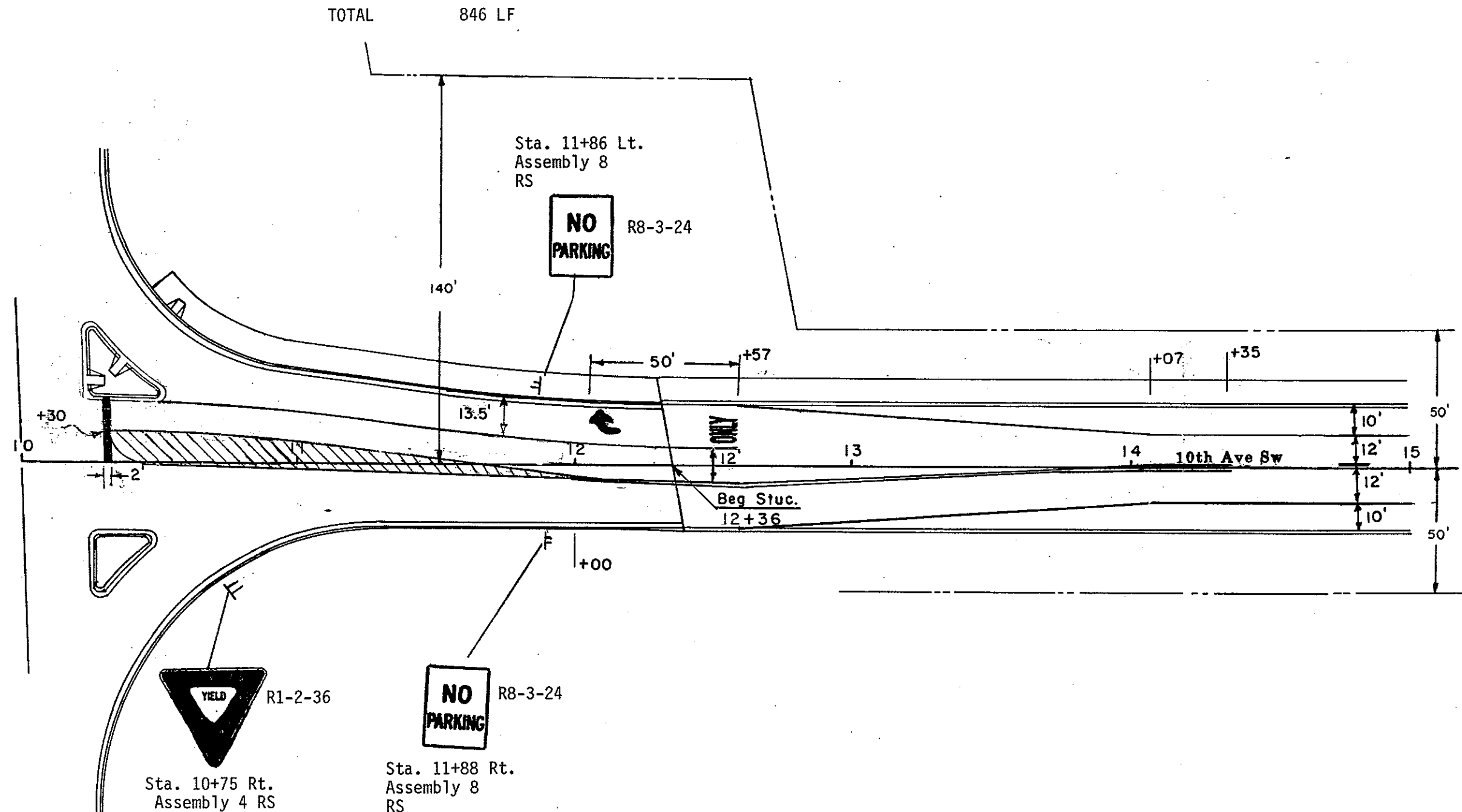
TRAFFIC CONTROL SYSTEM
 Signing & Pavement Marking Layout

Main St.
Mandan N.D.

INSTALL PAVEMENT MARKING PAINTED--LINES
 4" Yellow Lane Lines, 10' Line, 30' Skip
 Db1. 4" Yellow Barrier Line (3" Between)
 4" White Edge Line

10 LF
 350 LF
 486 LF
 TOTAL 846 LF

FHWA REGION	STATE	FED. AID PROJ. NO.	SHEET NO.
8	N.D.	RRS-1-006(005)066	155



INSTALL PLASTIC PAVEMENT MARKING FILM LINES

8" White Channel Line 137 SF
 Db1. 4" Yellow Barrier Line 33 SF
 4" Yellow Median Island Edgeline 120 SF
 8" Yellow Lines--5' Ctr. @ 45, Cross Hatch Lines 101 SF
 24" White Stop Line 48 SF
 TOTAL 439 SF

INSTALL PLASTIC PAVEMENT MARKING FILM MESSAGE

Only 22 SF
 Right Arrow 11 SF
 33 SF

TRAFFIC CONTROL SYSTEM

Signing & Pavement Marking Layout

10th Ave sw (ND Hwy 6)
 Mandan N.D.

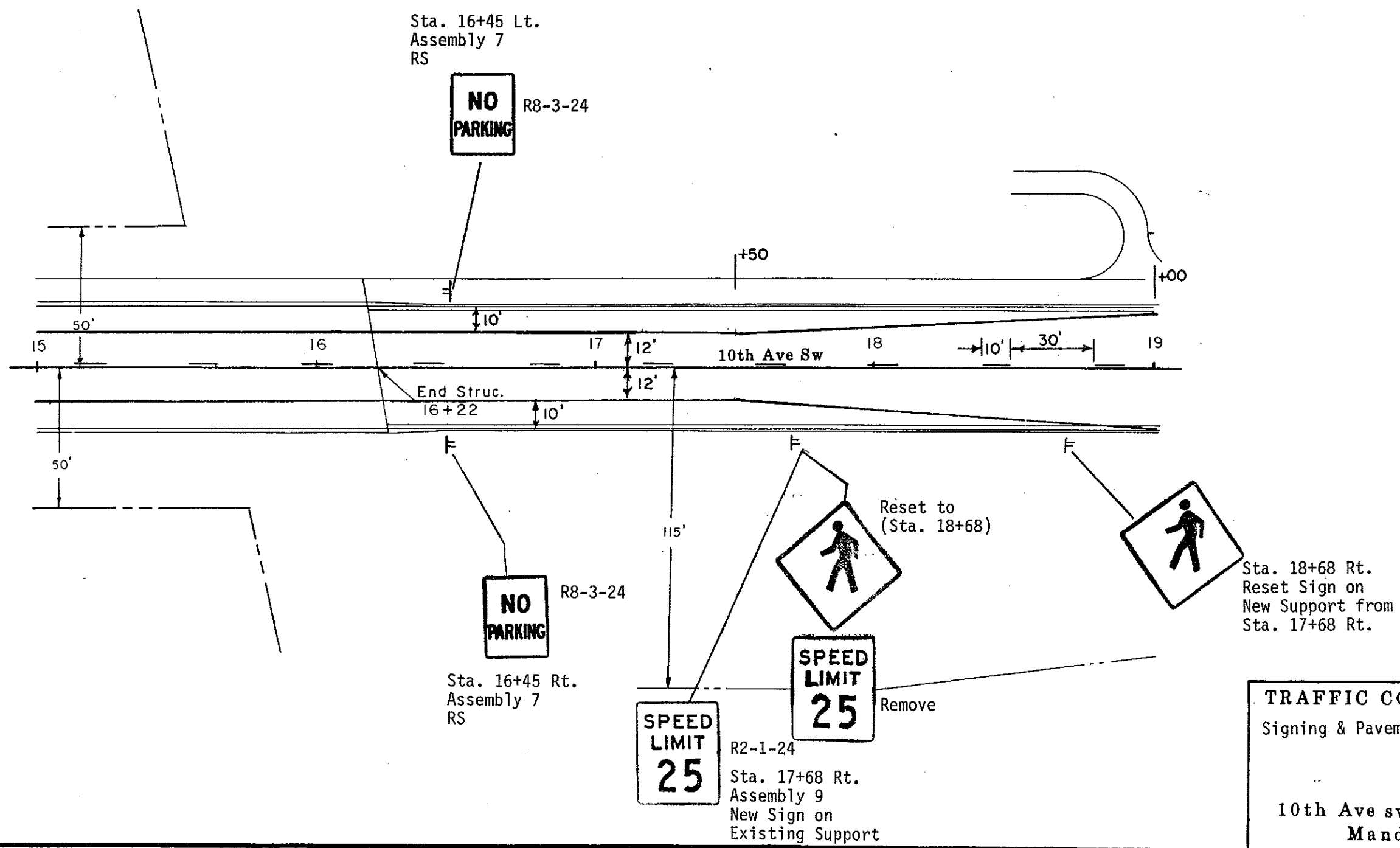
INSTALL PAVEMENT MARKING PAINTED--LINES

4" Yellow Lane Lines, 10' Line, 30' Skip
4" White Edge Line

TOTAL

100 LF
800 LF
900 LF

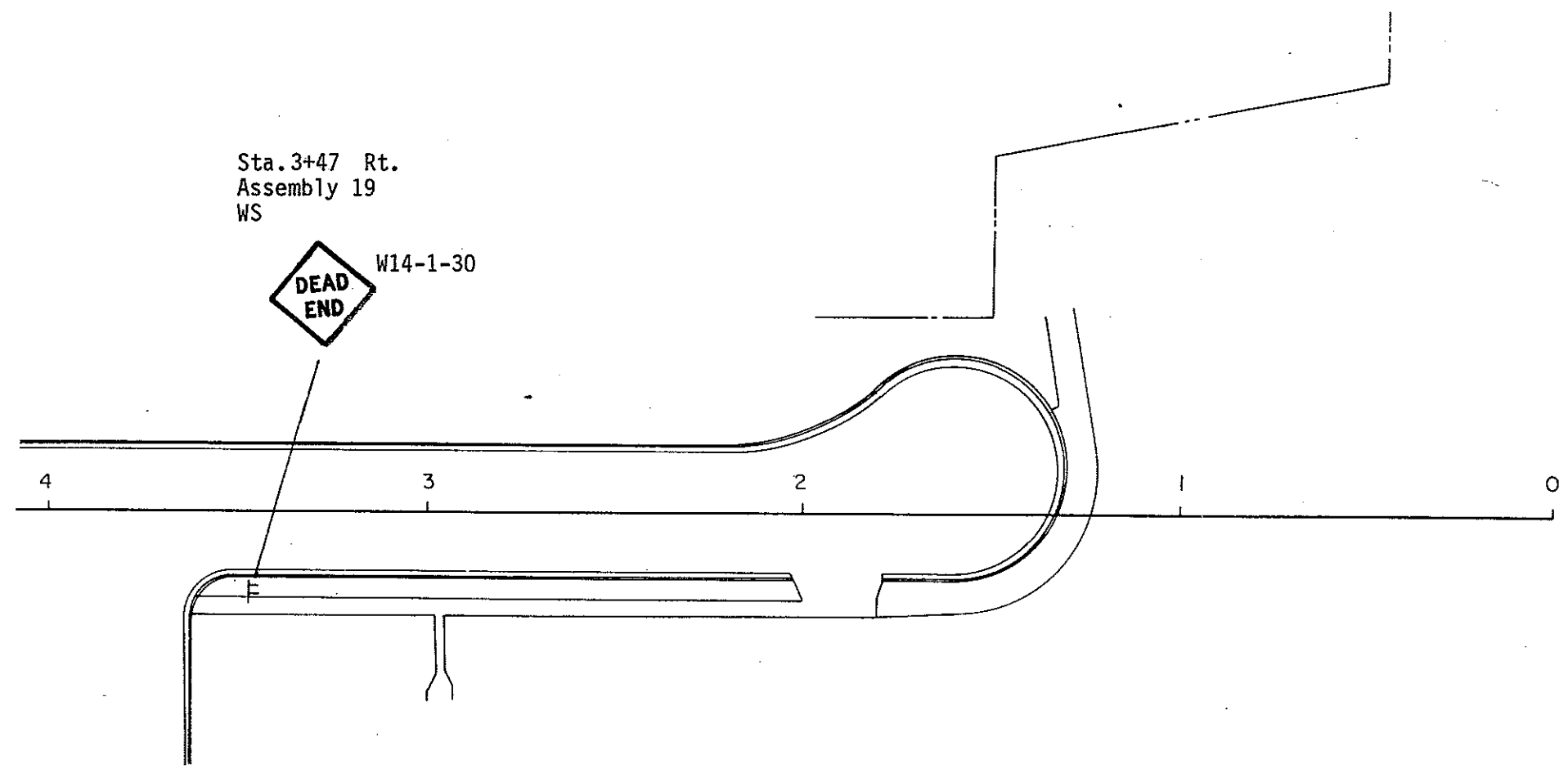
FHWA REGION	STATE	FED. AID PROJ. NO.	SHEET NO.
8	N.D.	RRS-1-006(005)066	156



TRAFFIC CONTROL SYSTEM
Signing & Pavement Marking Layout

10th Ave sw (ND Hwy 6)
Mandan N.D.

FHWA REGION	STATE	FED. AID PROJ. NO.	SHEET NO.
8	N.D.	RRS-1-006(005)066	157



Sta. 3+47 Rt.
Assembly 19
WS

DEAD
END W14-1-30

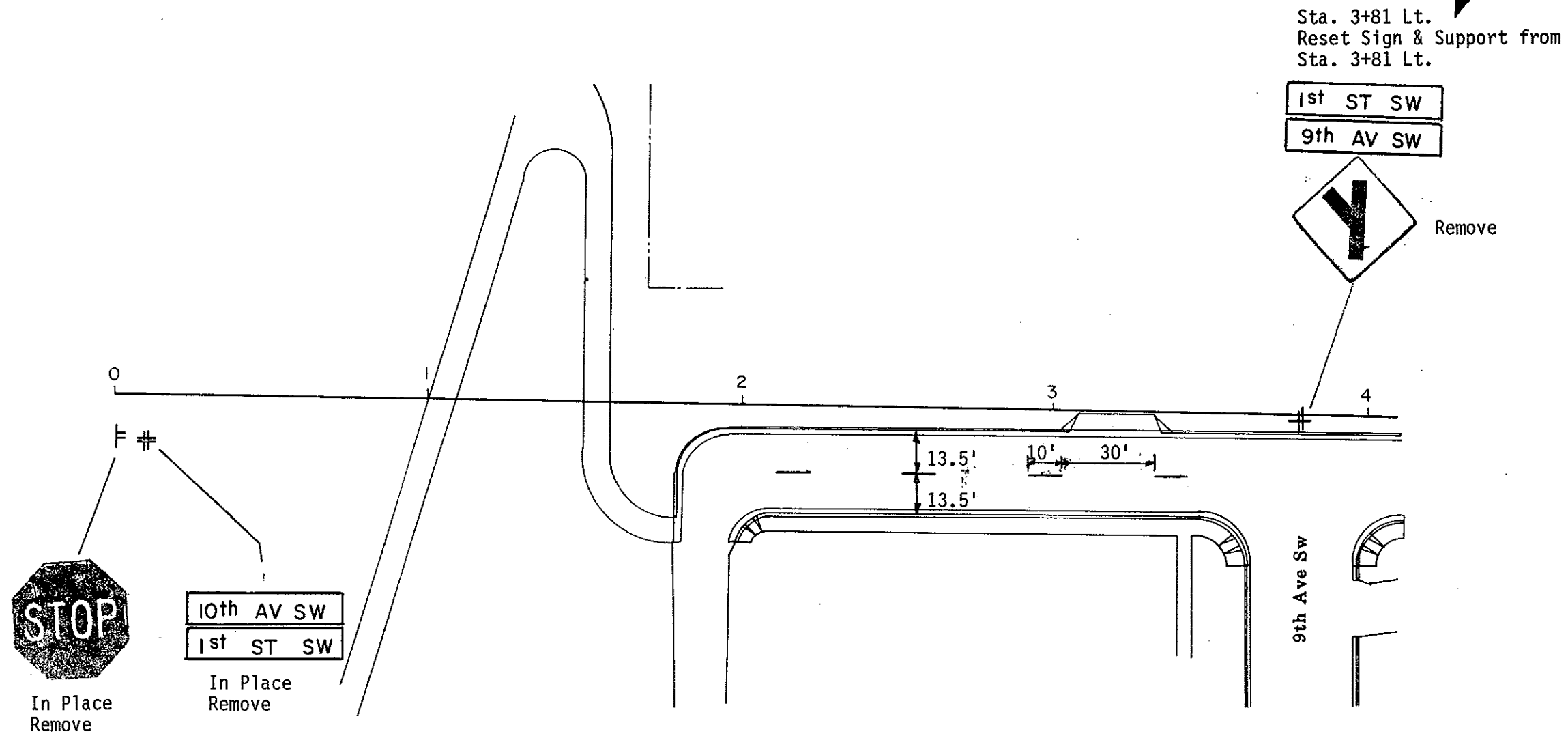
TRAFFIC CONTROL SYSTEM
Signing Layout

1st St. sw
Mandan N.D.

PAVEMENT MARKING PAINTED-LINE

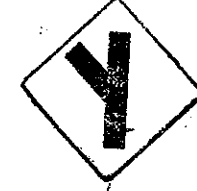
4" Yellow Lane Lines, 10' Line, 30' Skip 40 L.F.

FHWA REGION	STATE	FED. AID PROJ. NO	SHEET NO.
8	N.D.	RRS-1-006(005)066	159



Sta. 3+81 Lt.
Reset Sign & Support from
Sta. 3+81 Lt.

1st ST SW
9th AV SW



Remove

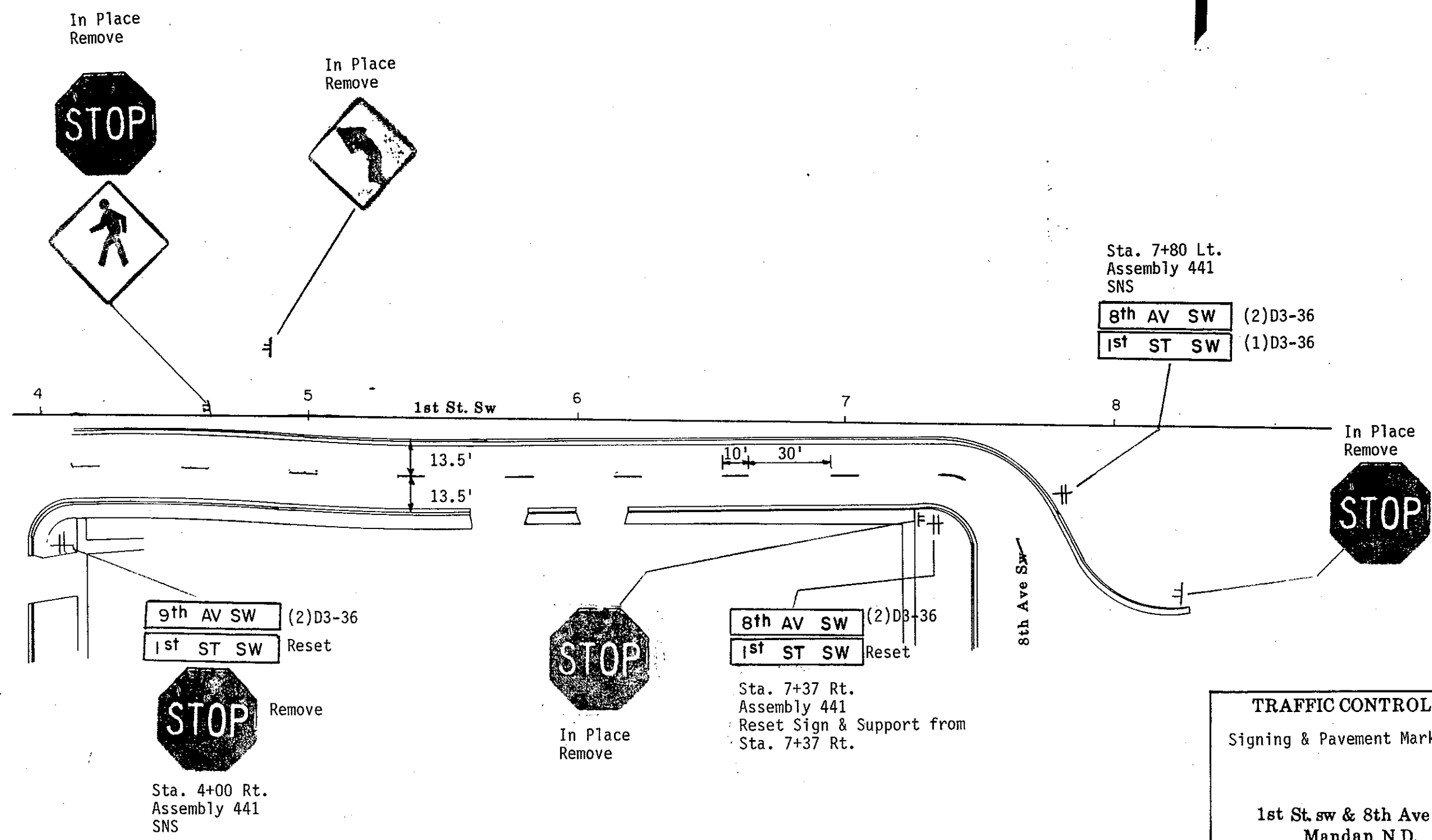
TRAFFIC CONTROL SYSTEM
Signing & Pavement Marking Layout

1st St. sw & 9th Ave sw
Mandan N.D.

FHWA REGION	STATE	FED. AID PROJ. NO.	SHEET NO.
8	N.D.	RRS-1-006(005)066	159

PAVEMENT MARKING PAINTED-LINE

4" Yellow Lane Lines, 10' Line, 30' Skip 100 L.F.

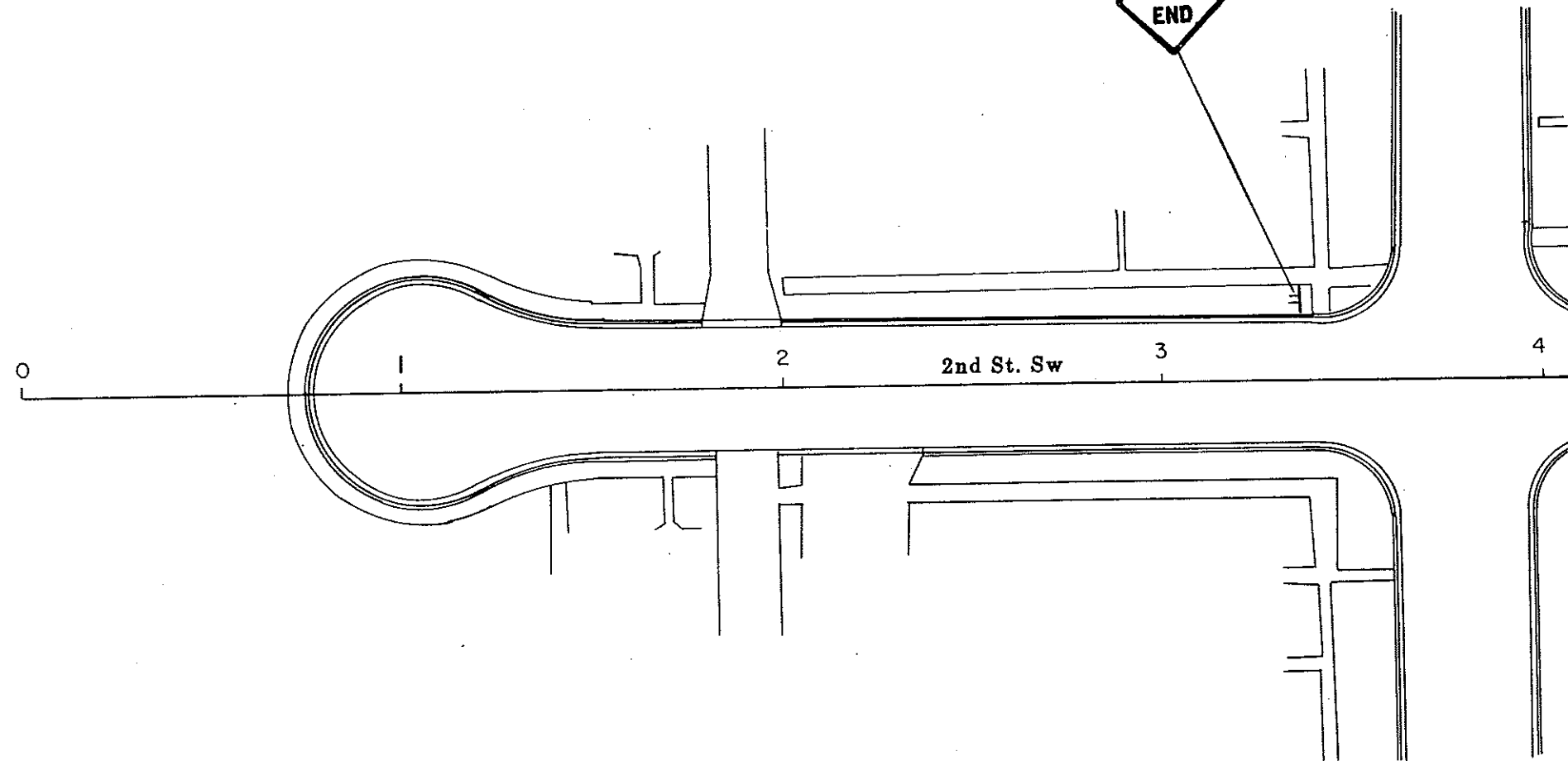


TRAFFIC CONTROL SYSTEM
 Signing & Pavement Marking Layout
 1st St. sw & 8th Ave sw
 Mandan N.D.

FHWA REGION	STATE	FED. AID PROJ. NO.	SHEET NO.
8	N.D.	RRS-1-006(005)066	160



Sta. 3+35 Lt.
 Assembly 19
 WS



TRAFFIC CONTROL SYSTEM

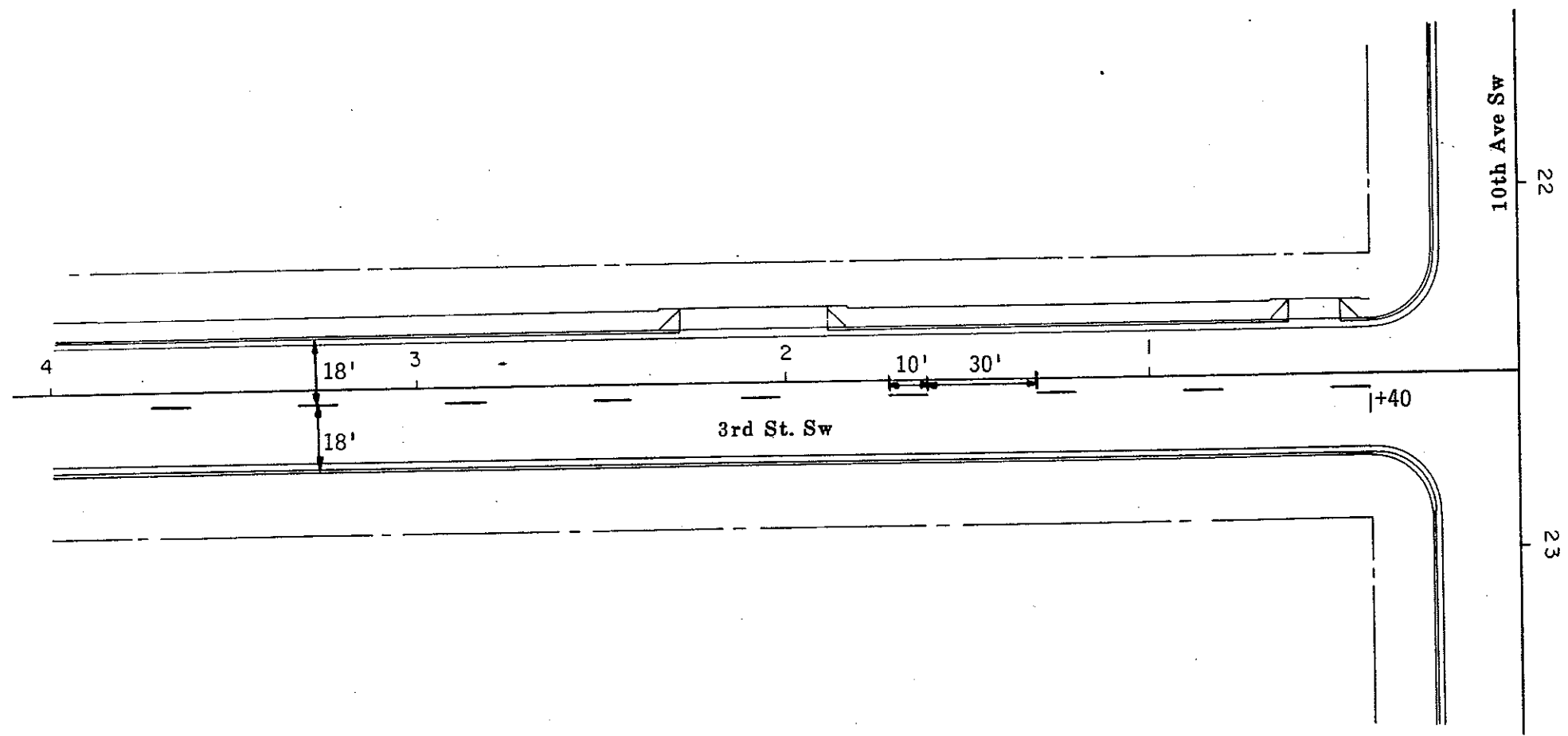
Signing Layout

2nd St. sw & 10th Ave sw
 Mandan N.D.

PAVEMENT MARKING PAINTED-LINE

4" Yellow Lane Lines, 10' Line, 30' Skip 90 L.F.

FHWA REGION	STATE	FED. AID PROJ. NO.	SHEET NO.
8	N.D.	RRS-1-006(005)066	101



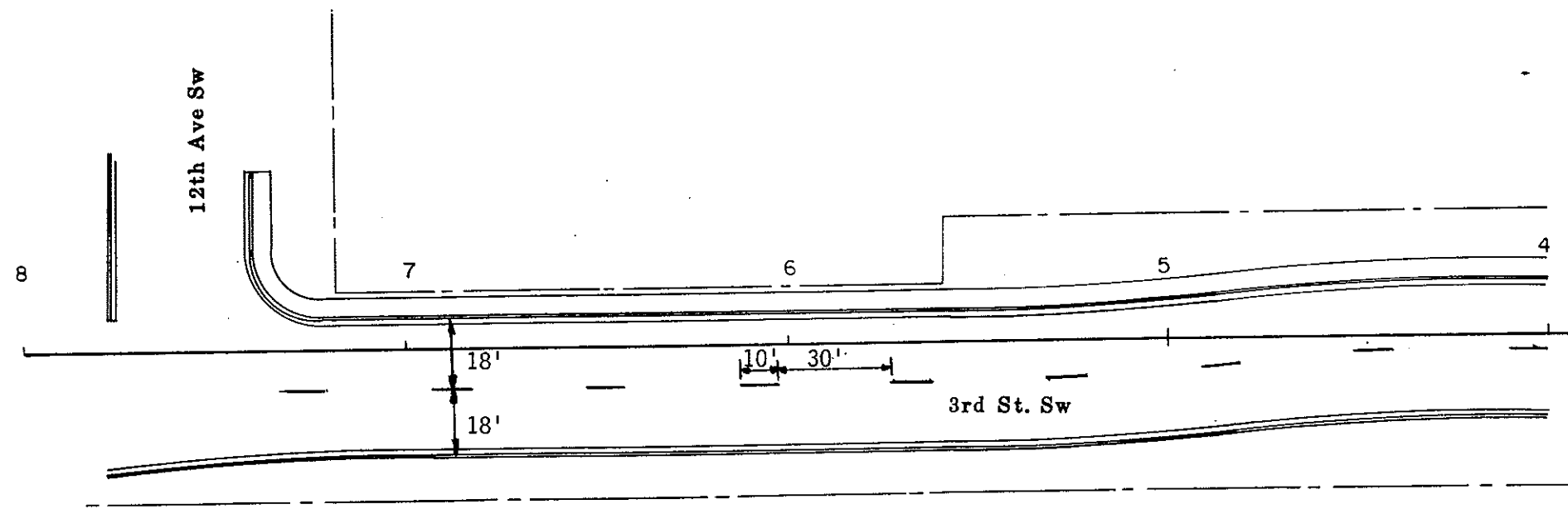
TRAFFIC CONTROL SYSTEM
Signing & Pavement Marking Layout

3rd St. sw & 10th Ave sw
Mandan N.D.

FHWA REGION	STATE	FED. AID PROJ. NO.	SHEET NO.
8	N.D.	RRS-1-006(005)066	162

PAVEMENT MARKING PAINTED-LINE

4" Yellow Lane Line, 10' Line, 30' Skip 90 L.F.



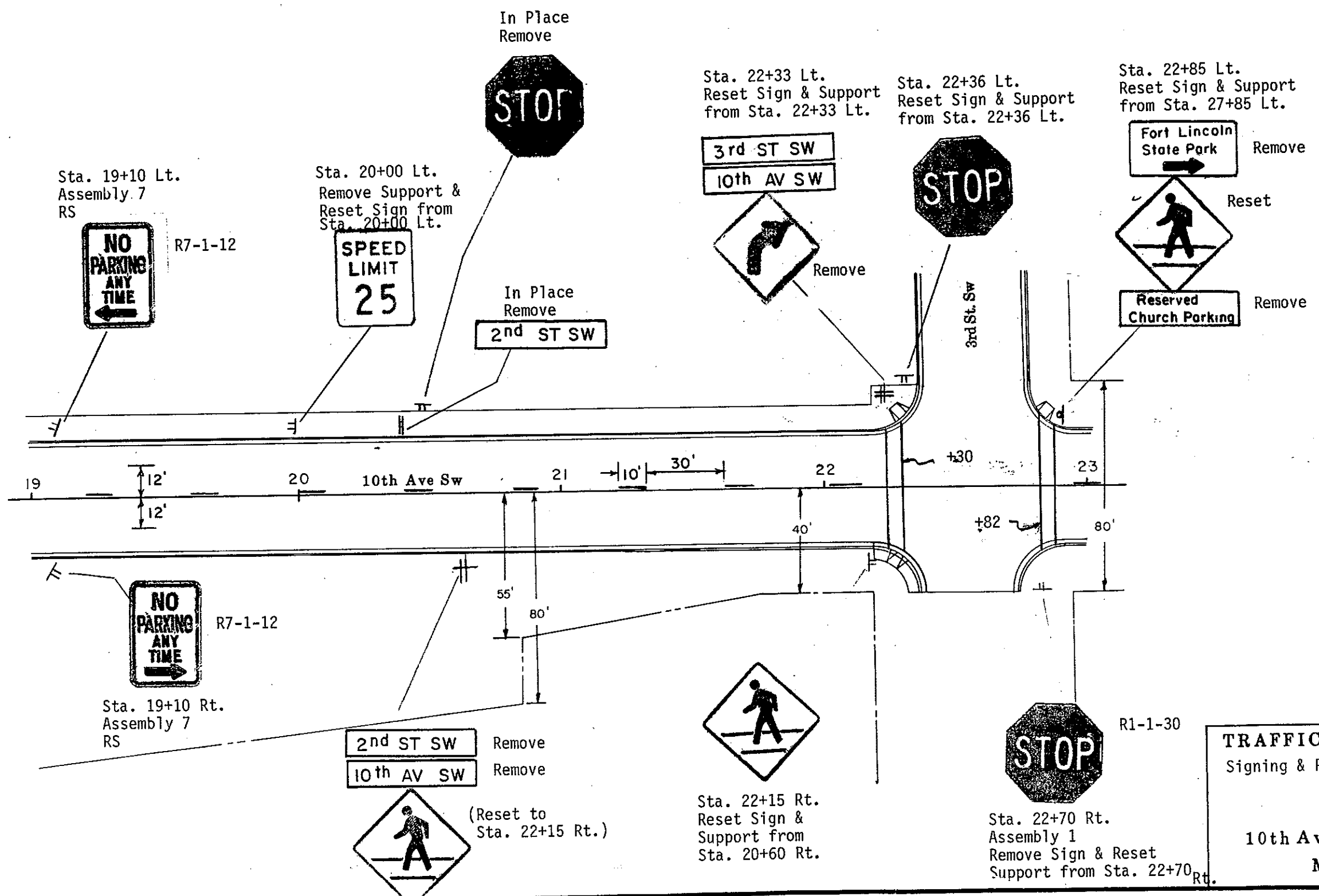
TRAFFIC CONTROL SYSTEM
 Signing & Pavement Marking Layout

3rd St. sw & 12th Ave sw
 Mandan N.D.

FHWA REGION	STATE	FED. AID PROJ. NO.	SHEET NO.
8	N.D.	RRS-1-006(005)066	163

INSTALL PAVEMENT MARKING PAINTED--LINES
 4" Yellow Lane Lines, 10' Line, 30' Skip
 6" White Crosswalk Line

90 LF
 285 LF
 TOTAL 375 LF



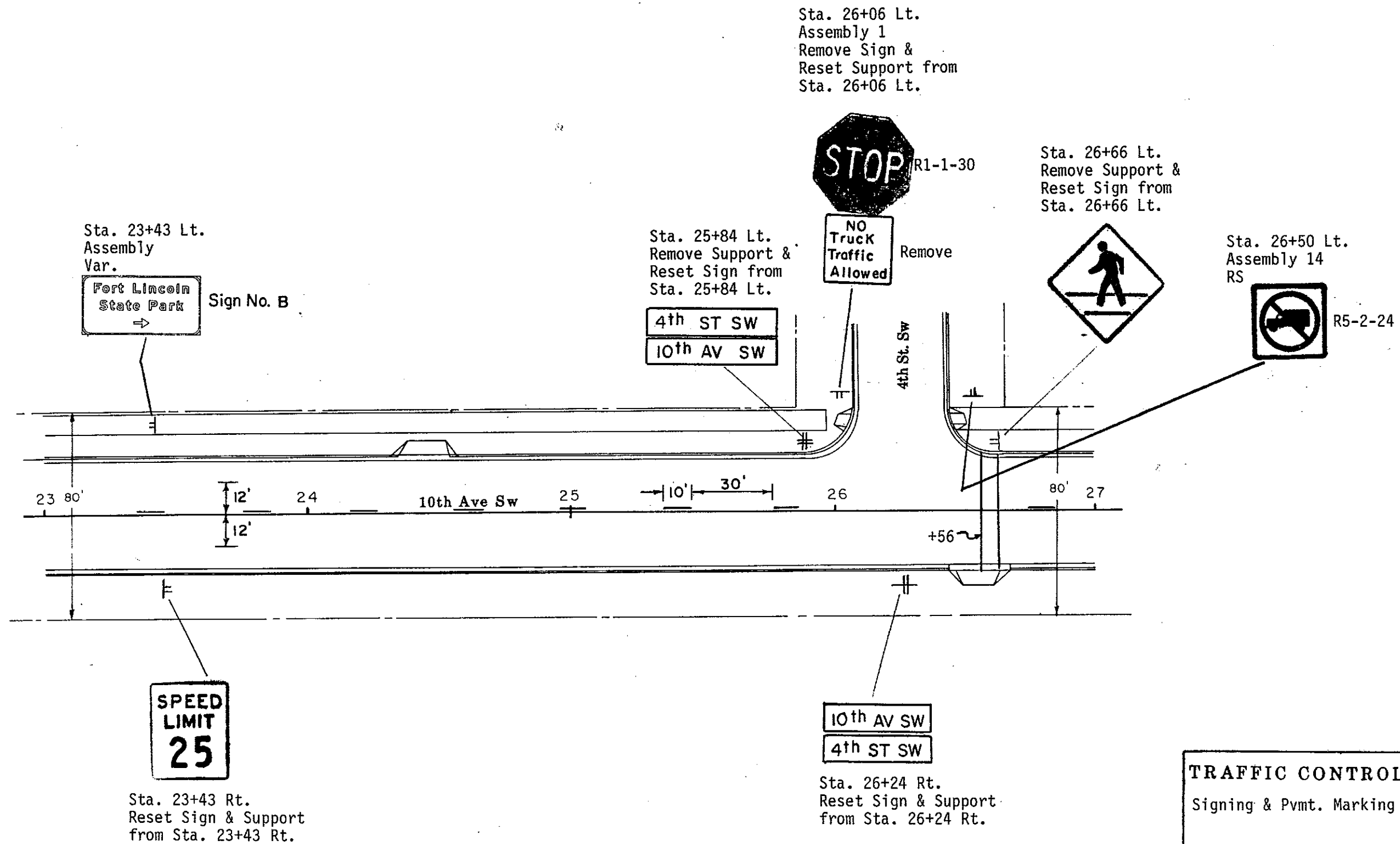
TRAFFIC CONTROL SYSTEM
 Signing & Pavement Marking Layout
 10th Ave sw (ND Hwy 6)
 Mandan N.D.

INSTALL PAVEMENT MARKING PAINTED--LINES

4" Yellow Lane Lines, 10' Line, 30' Skip
6" White Crosswalk Line

TOTAL 80 LF
132 LF
212 LF

FHWA REGION	STATE	FED. AID PROJ. NO.	SHEET NO.
8	N.D.	F-1-006(005)066	164



TRAFFIC CONTROL SYSTEM
Signing & Pvm. Marking Layout

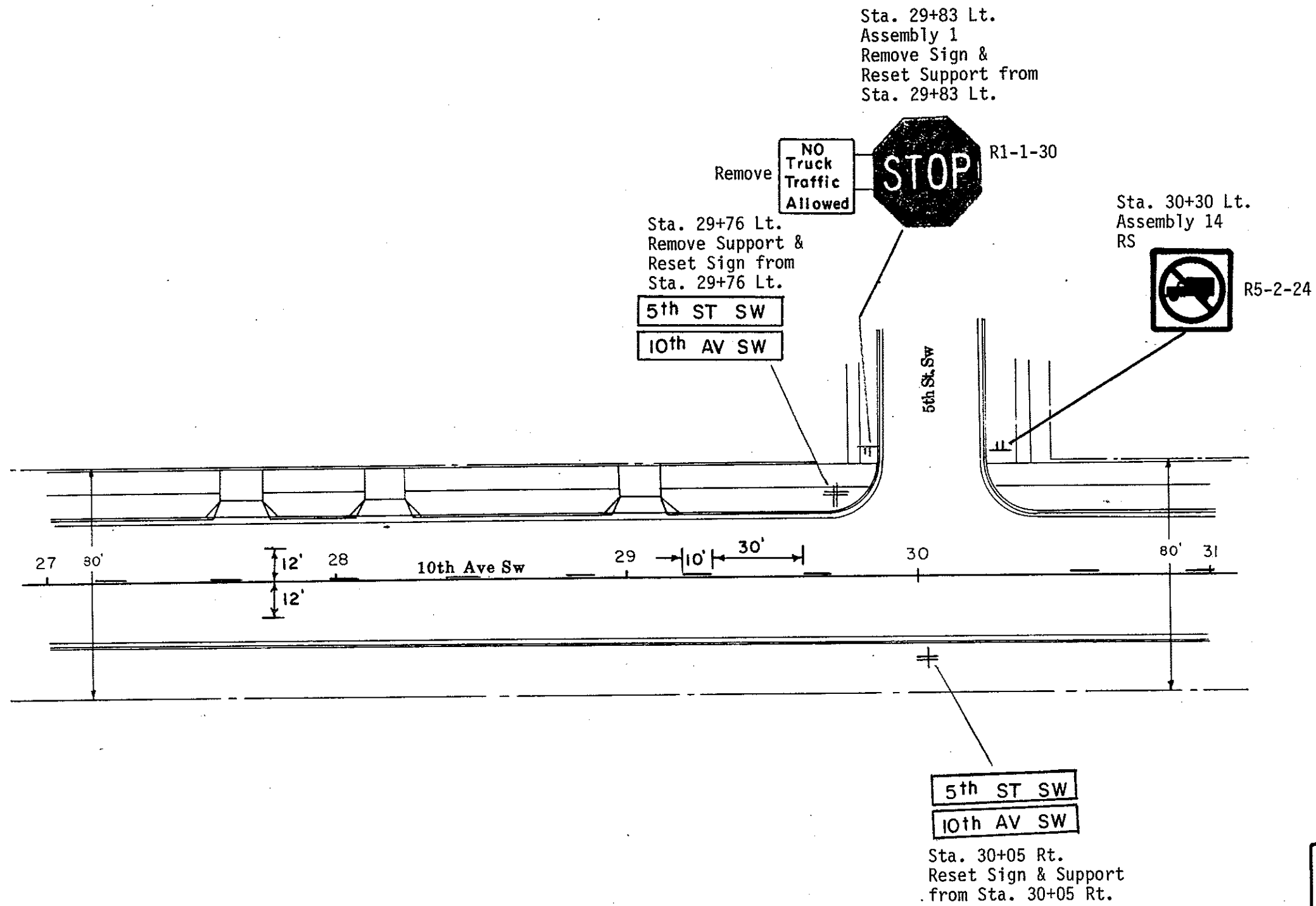
10th Ave sw (ND Hwy 6)
Mandan N.D.

INSTALL PAVEMENT MARKING PAINTED--LIENS

4" Yellow Lane Lines, 10' Line, 30' Skip

90 LF

FHWA REGION	STATE	FED. AID PROJ. NO.	SHEET NO.
8	N.D.	F-1-006(005)066	165



TRAFFIC CONTROL SYSTEM
Signing & Pavement Marking Layout

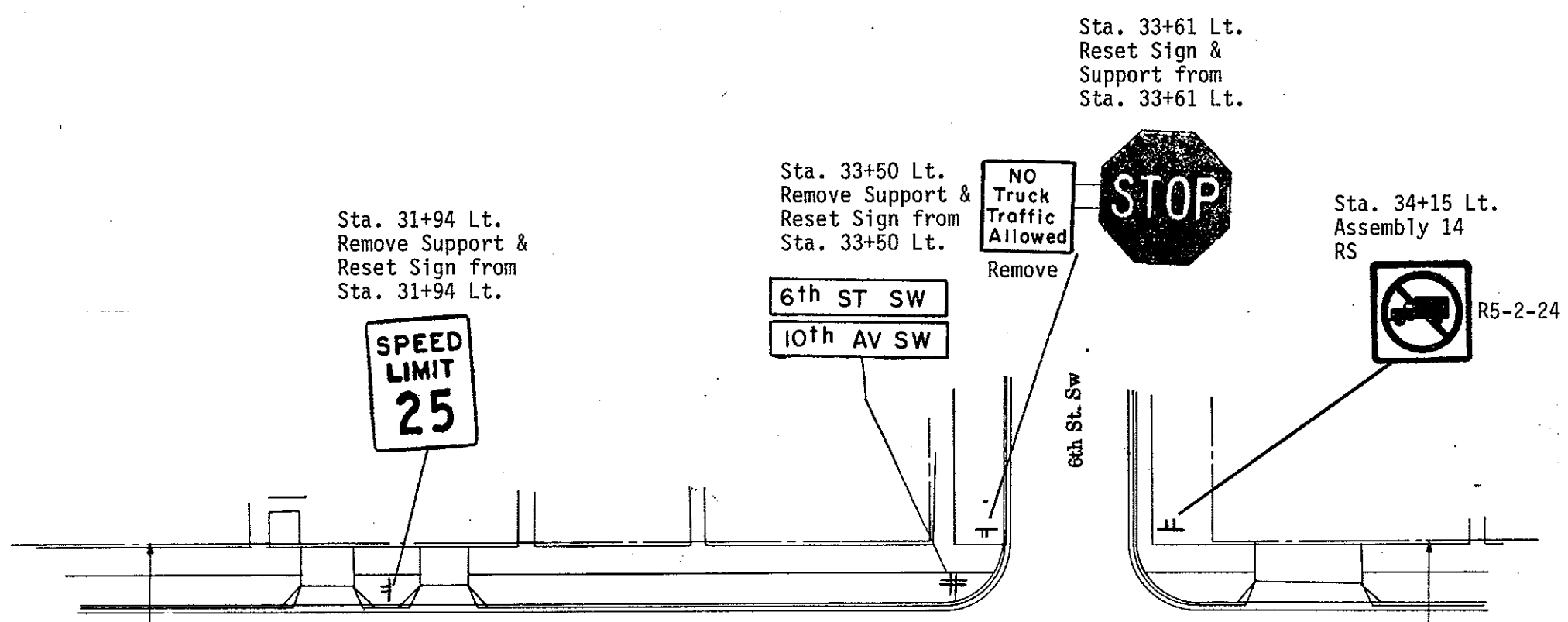
10th Ave sw (ND Hwy 6)
Mandan N.D.

INSTALL PAVEMENT MARKING PAINTED--LINES

4" Yellow Lane Lines, 10' Line, 30' Skip

80 LF

FHWA REGION	STATE	FED. AID PROJ. NO.	SHEET NO.
8	N.D.	F-1-006(005)066	166



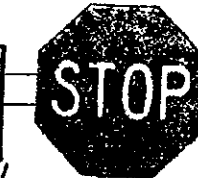
Sta. 31+94 Lt.
Remove Support &
Reset Sign from
Sta. 31+94 Lt.

SPEED
LIMIT
25

Sta. 33+50 Lt.
Remove Support &
Reset Sign from
Sta. 33+50 Lt.

6th ST SW
10th AV SW

NO
Truck
Traffic
Allowed
Remove

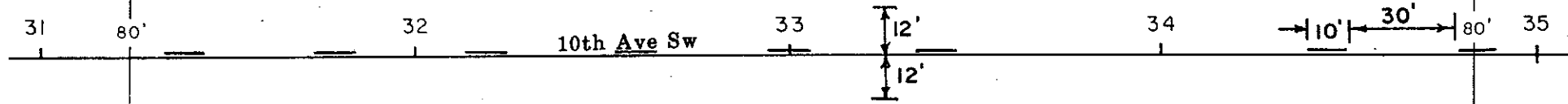


6th St. Sw

Sta. 34+15 Lt.
Assembly 14
RS



R5-2-24



Sta. 34+01 Rt.
Reset Sign &
Support from
Sta. 34+01 Rt.

6th ST SW
10th AV SW

(Reset to
Sta. 34+88 Rt.)



Sta. 34+17 Rt.
Reset Sign &
Support from
Sta. 34+17 Rt.



Sta. 34+88 Rt.
Reset Sign on
New Support from
Sta. 34+17 Rt.

TRAFFIC CONTROL SYSTEM
Signing & Pavement Marking Layout

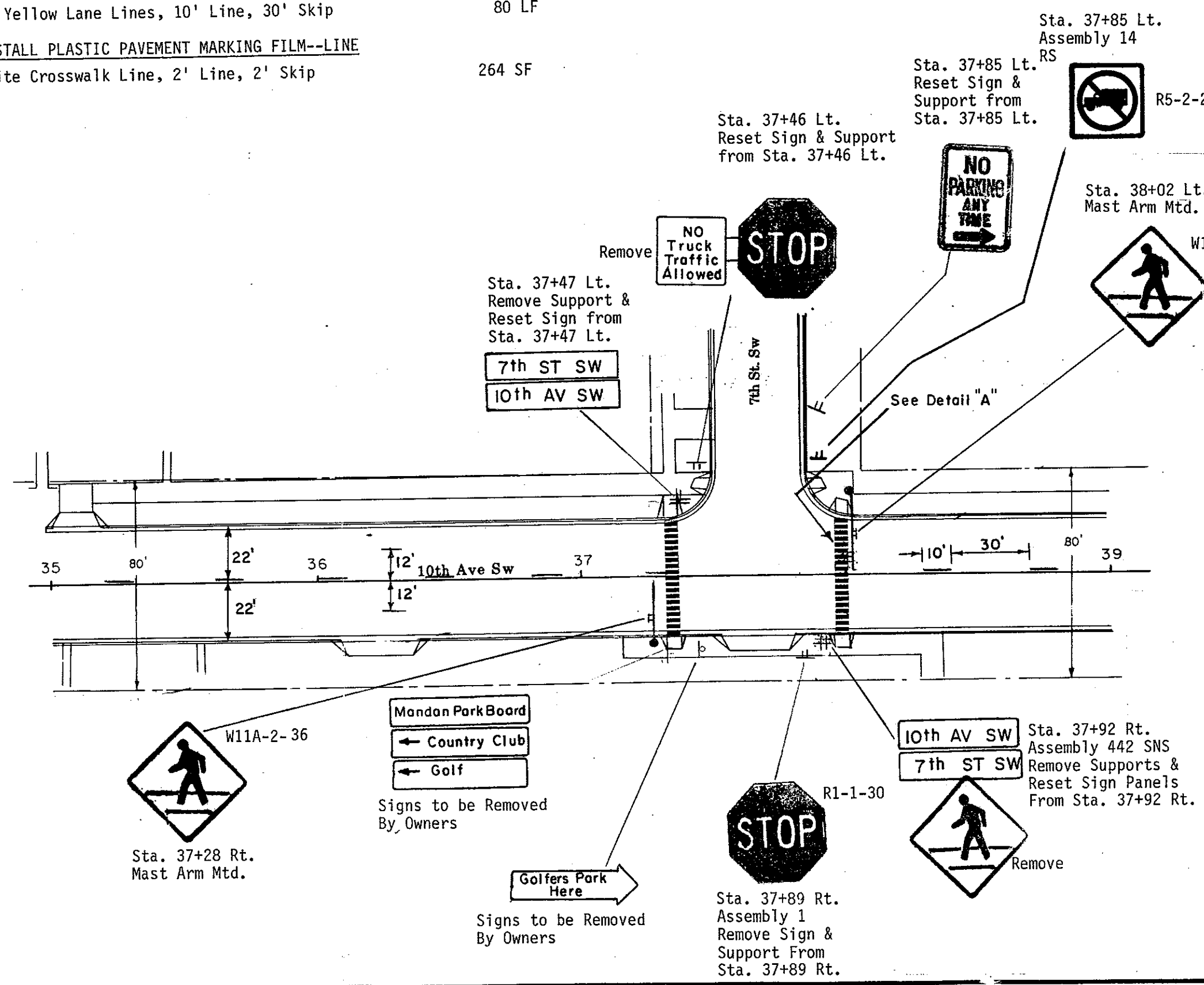
10th Ave sw (ND Hwy 6)
Mandan N.D.

INSTALL PAVEMENT MARKING PAINTED--LINES

4" Yellow Lane Lines, 10' Line, 30' Skip 80 LF

INSTALL PLASTIC PAVEMENT MARKING FILM--LINE

White Crosswalk Line, 2' Line, 2' Skip 264 SF



TRAFFIC CONTROL SYSTEM
 Signing & Pavement Marking Layout

10th Ave sw (ND Hwy 6)
 Mandan N.D.

INSTALL PAVEMENT MARKING PAINTED--LINES

4" Yellow Lane Lines, 10' Line, 30' Skip

100 LF

INSTALL PLASTIC PAVEMENT MARKING FILM--LINE

White Crosswalk Line, 2' Line, 2' Skip

132 SF

FHWA REGION	STATE	FED. AID PROJ. NO.	SHEET NO.
8	N.D.	F-1-006(005)066	168

Sta. 40+90 Lt.
Mast Arm Mtd.

Sta. 40+25 Lt.
Remove Support &
Reset Sign from
Sta. 41+19 Lt.

W11A-2-36

(Reset Sign to
Sta. 40+25)

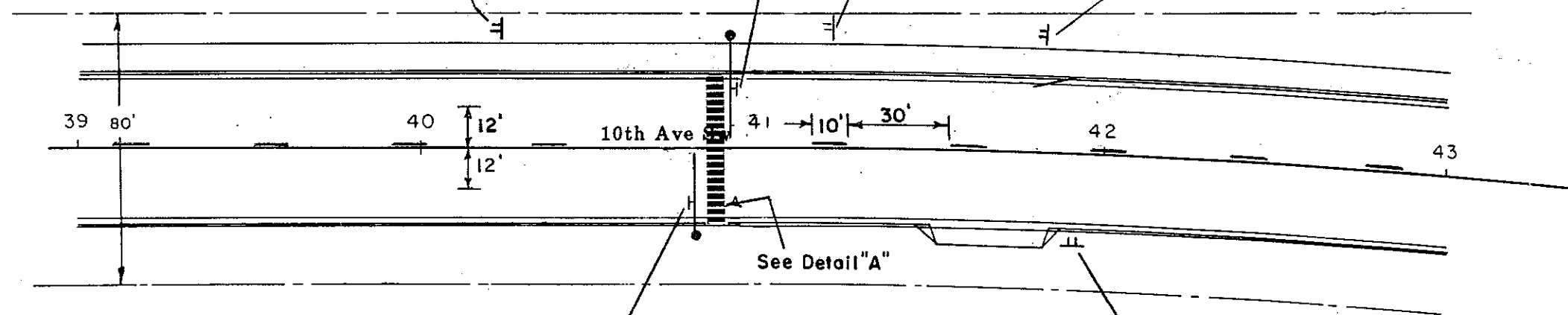
Sta. 41+19 Lt.
Reset Sign &
Support from
Sta. 41+19 Lt.

Signs to be Removed
By Owners

- Welcome
- To Mandan
- A Tree City USA

Curb Face	2" [Symbol]	12" Min to 30" Max.
2 x 6" White Line	2" [Symbol]	12"
Wheel Track	2" [Symbol]	30" Max.
Wheel Track	2" [Symbol]	12" Min. to 30" Max.
Edge of Rdwy	2" [Symbol]	30" Max.
Edge of Rdwy	2" [Symbol]	16" Min. to 15" Max.

DETAIL "A"



Sta. 40+80 Rt.
Mast Arm Mtd.



Sta. 41+86 Rt.
Reset Sign &
Support from
Sta. 41+86 Rt.

TRAFFIC CONTROL SYSTEM
 Signing, Pavement Marking, &
 Flashing Beacon Layout

 10th Ave sw (ND Hwy 6)
 Mandan N.D.