

1532-1-71 H/50

Sheet Number	Total Sheets
1	19

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Sheet No. 1	Title
Sheet No. 2-2,3,3	Typical Cross Sections
Sheet No. 3	Estimate of Quantities
Sheet No. 3A	Miscellaneous Quantities
Sheet No. -	Right of Way Plat
Sheet No. 4-16	Plan Sta. 170+00 to Sta. 433+90
Sheet No. 17-17.6	Standard Details & Sta. 501+70 to Sta. 949+00
Sheet No. -	Drainage Structures
Sheet No. 18-19	Cross Sections

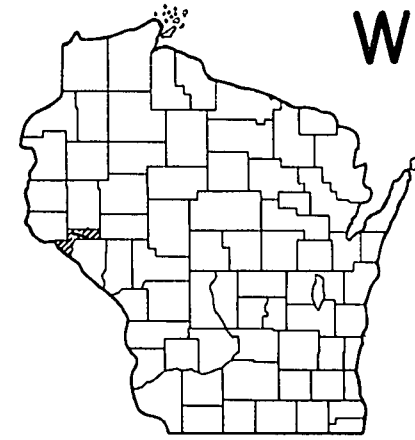
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

PLAN AND PROFILE OF PROPOSED

WEST COUNTY LINE - DURAND ROAD  
U.S.H. 10  
PEPIN COUNTY

DURAND - MONDOVI ROAD  
U.S.H. 10  
PEPIN COUNTY

AS BUILT



NUMBER WAS  
DUPLICATED ON  
A 1995 PLAN -  
THIS ID IS NOT  
LINKED TO 2ND  
PLAN ID.

PROJECT IDENTIFICATION NUMBER  
**1531-6-71**

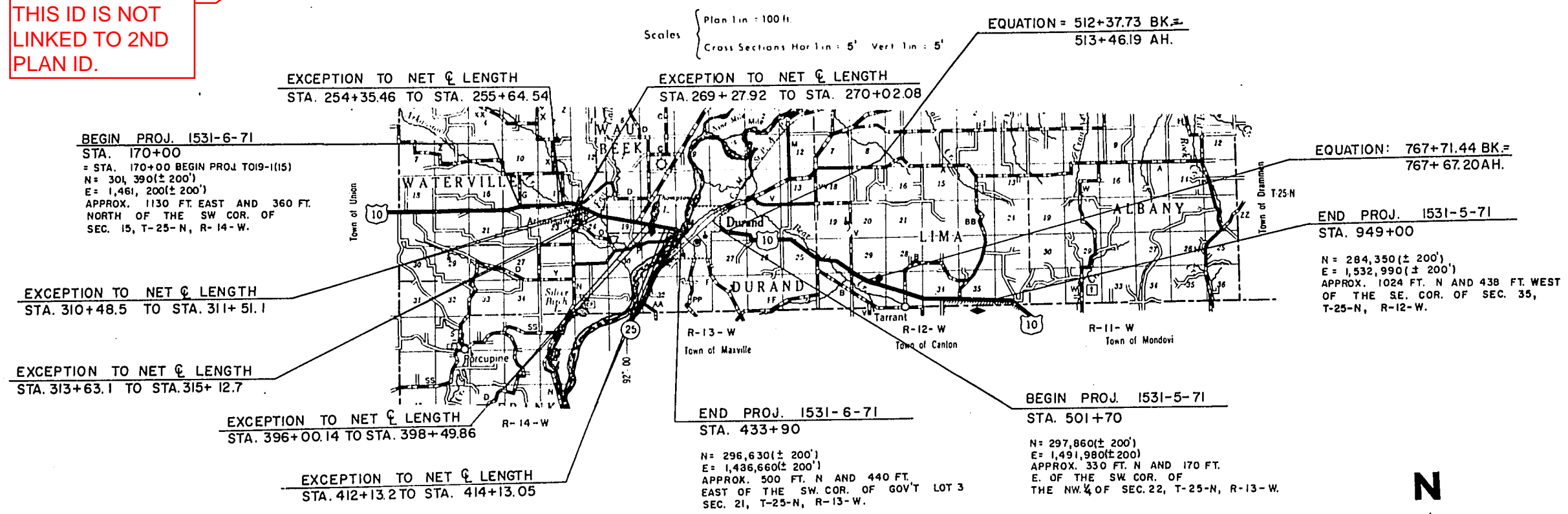
PROJECT IDENTIFICATION NUMBER  
**1531-5-71**

Design Designation  
1531-6-71

A.D.T. (1969)	= 3020
A.D.T. (1990)	= 6040
D.H.V.	= 900
D.	= 50-50
T.	= 10%
V.	= 50 M.P.H.

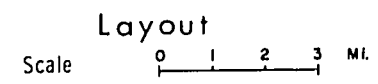
Design Designation  
1531-5-71

A.D.T. (1969)	= 2100
A.D.T. (1990)	= 4200
D.H.V.	= 630
D.	= 50-50
T.	= 10%
V.	= 50 M.P.H.



Conventional Signs	
State Line	-----
County Line	-----
Township or Range Line	-----
Section Line	-----
New Right of Way Line	-----
Present Right of Way Line	-----
Wire Fence	-----
Lot Line	-----
Corporate or City Limits	-----
Property Line	-----
Traveled Way or P.E.	-----
Railroads	-----
Base or Survey Line	-----
Culverts in Place	-----
Culverts Required	-----
Drop Inlet	-----
Power Pole	-----
Telephone or Telegraph Pole	-----
Right of Way Markers	-----
Reference Stake for Hubs Only	-----
Marsh	-----
Hedge	-----
Trees	-----
Ground Elevation	Datum Line 73.9
Grade Elevation	Datum Line 76.6

ALL CO-ORDINATES SHOWN ON THIS PLAN ARE REFERENCED TO THE WISCONSIN CO-ORDINATE SYSTEM, CENTRAL ZONE, AND ARE SCALED FROM U.S.G.S. TOPOGRAPHIC MAP, ARKANSAW AND DURAND WISCONSIN, QUADRANGLE FOR IDENTIFICATION ONLY.



PROJ. 1531-6-71	-	Net Length of Centerline	=	4.827	Mi
PROJ. 1531-5-71	-	" " " "	=	0.289	Mi.
	-	" " " "	=	8.162	"
Total Net Length of Centerline = 13.278 Mi.					

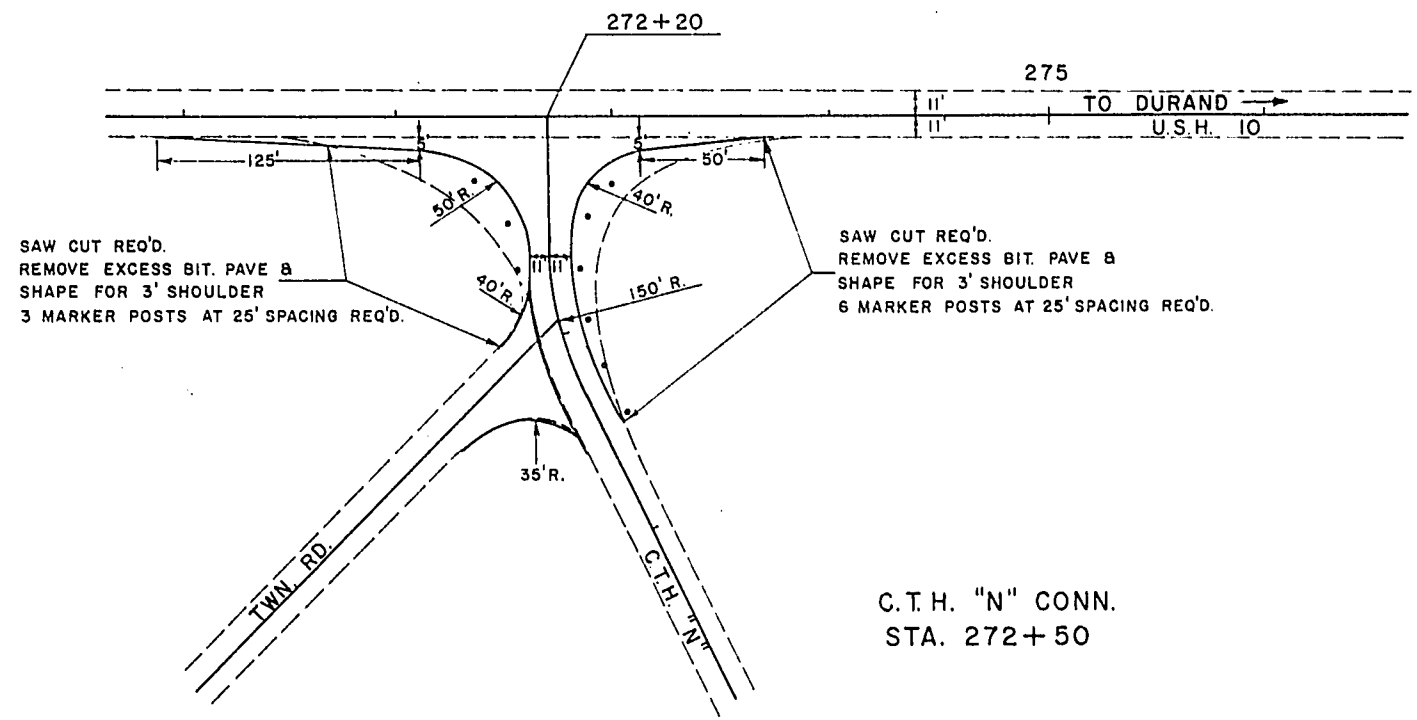
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

Surveyor: E.J.E. District Engineer: E.J.E.  
Designer: E.A.S. C.O. Checker: R.A.H.

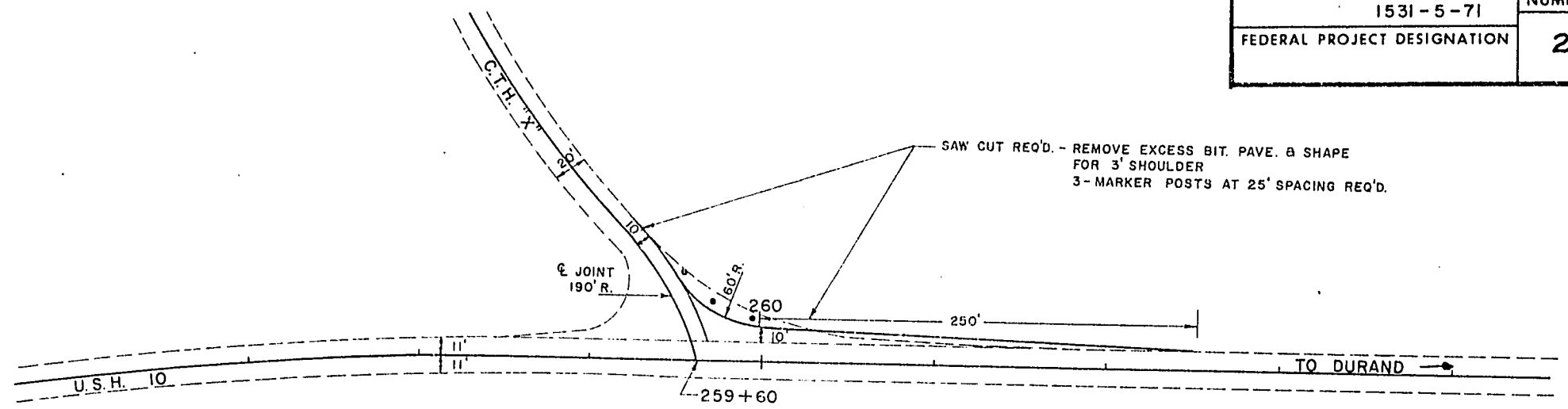
Corrected:  
Date: 12/20/71  
Recommended for Approval: [Signature]  
Date: 1/3/72  
Approved: [Signature]  
Date: 1/4/72  
State Highway Engineer

FEDERAL HIGHWAY ADMINISTRATION  
BUREAU OF PUBLIC ROADS

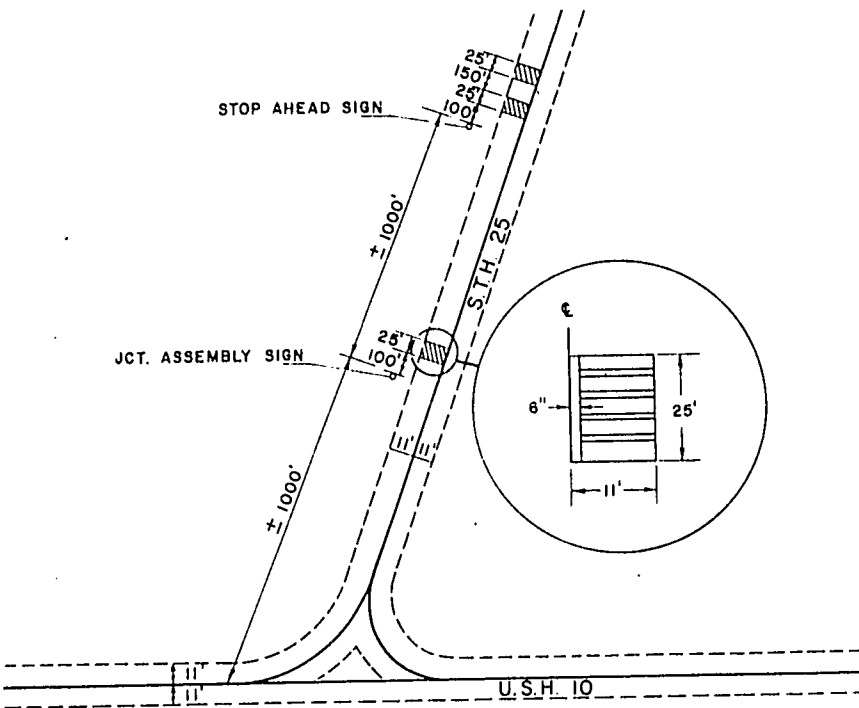
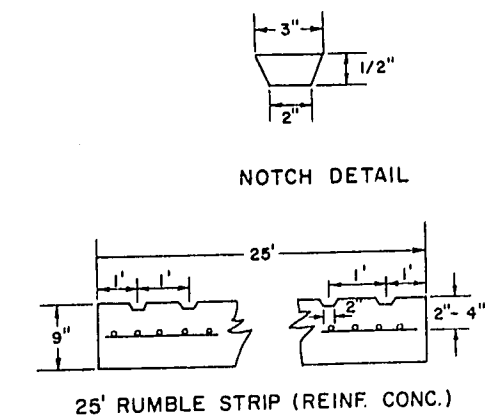
Approved:  
Date:



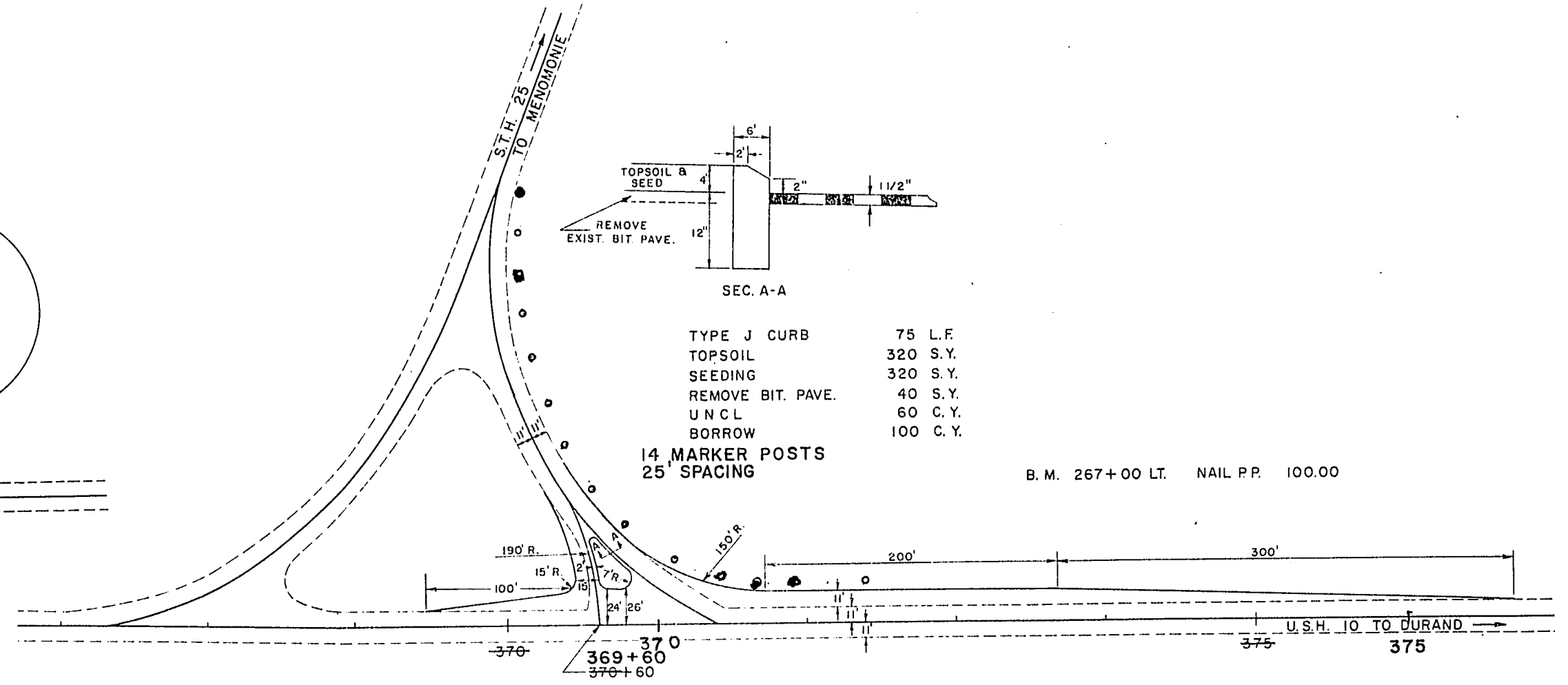
C.T.H. "N" CONN.  
STA. 272+50



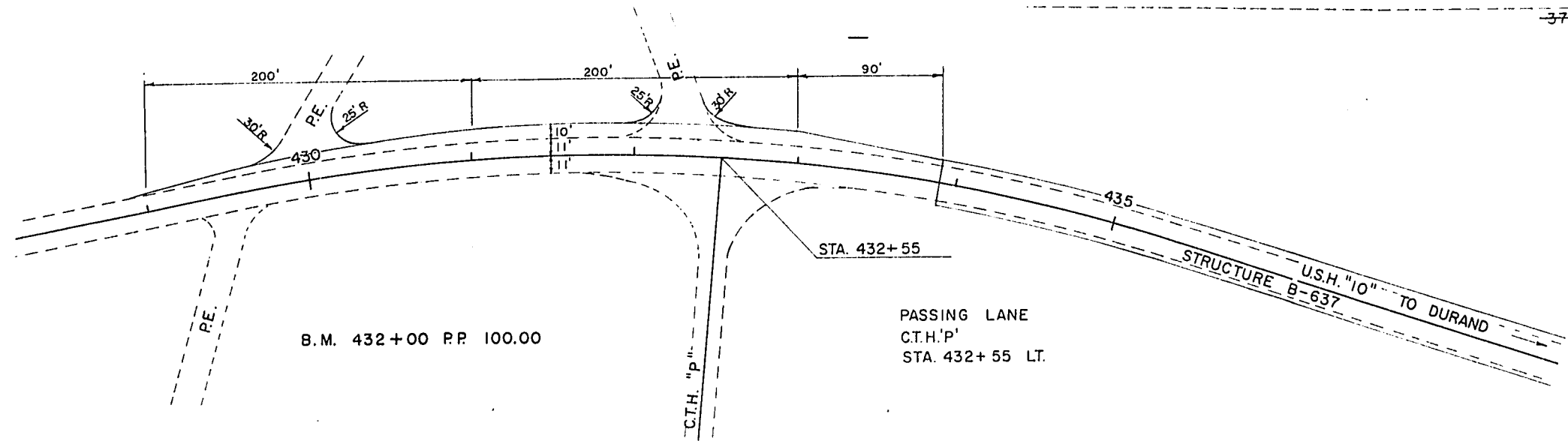
C.T.H. "X" CONN.  
STA. 259+60



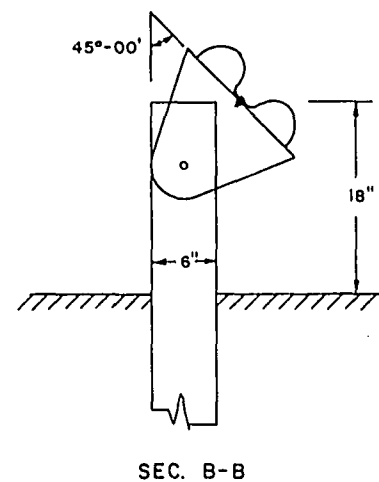
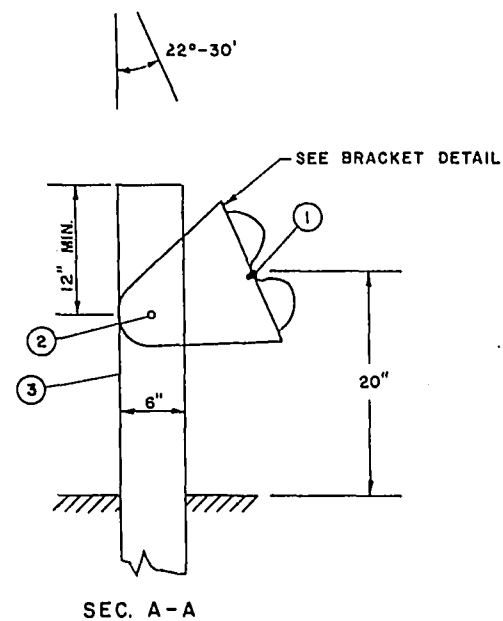
RUMBLE STRIP LAYOUT



S.T.H. "25" CONN.  
STA. 371+00 LT.

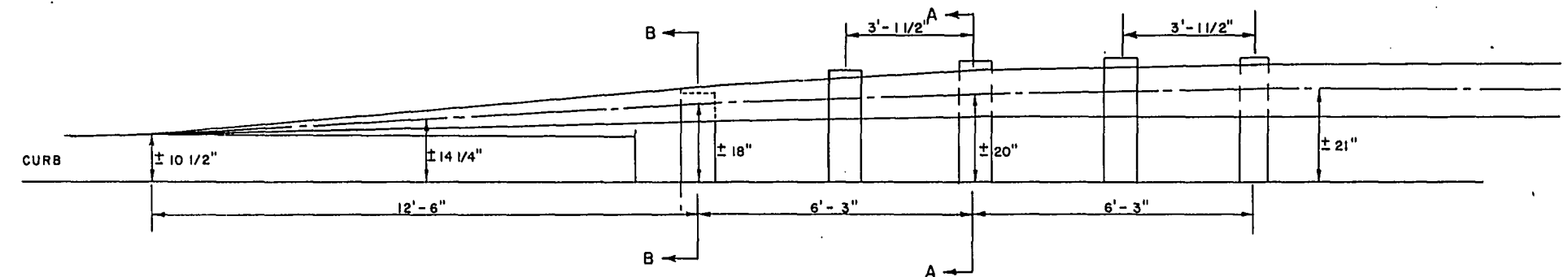
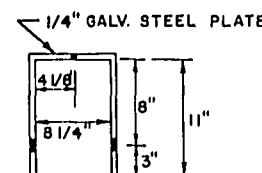
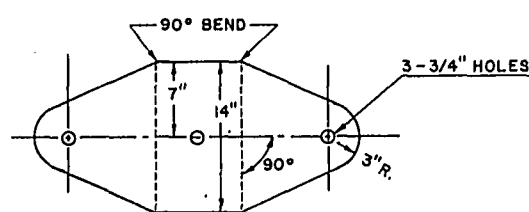


SPECIAL DETAIL  
FOR  
INTERSECTION TREATMENT.  
1531-6-71

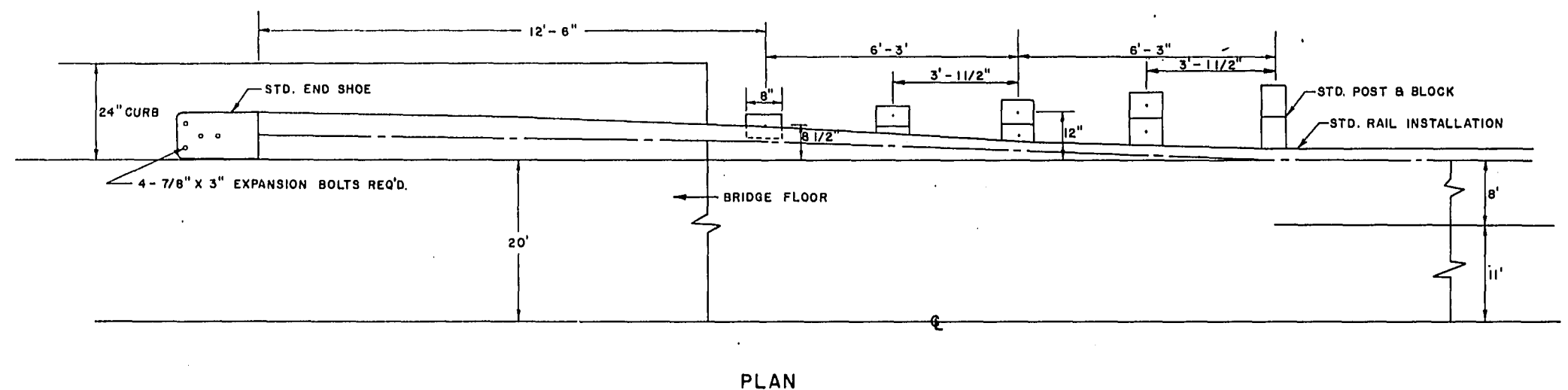


- ① 5/8" X 1 1/2" GALV. BOLT WITH NUT & WASHERS
- ② 5/8" X 9 1/2" GALV. BOLT WITH NUT & WASHERS
- ③ 6" X 8" X 6'-0" STD. WOOD POST SET. 90° TO NORMAL INSTALLATION

POST DETAILS

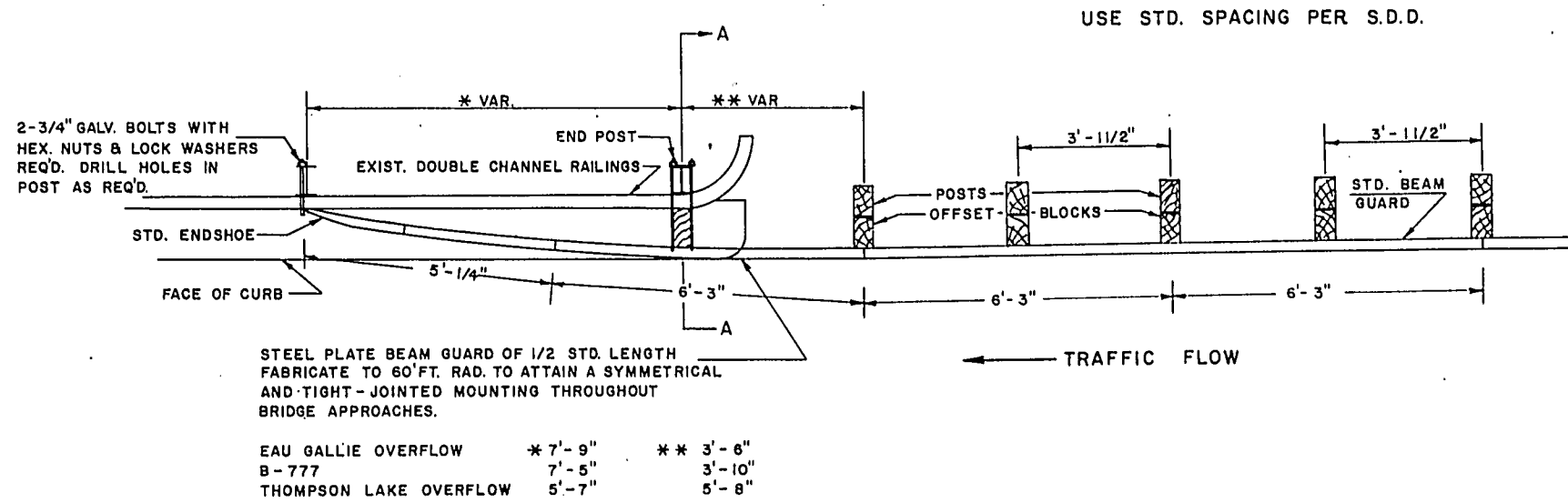


THE LAST POST PRIOR TO TWISTED SECTION MAY BE ADJUSTED 2" MAX. TO INSURE A SMOOTH CURVE. RAIL ELEMENT TO BE TWISTED 90° IN 25 FEET. USE STD. POST SPACING PER. S.D.D.

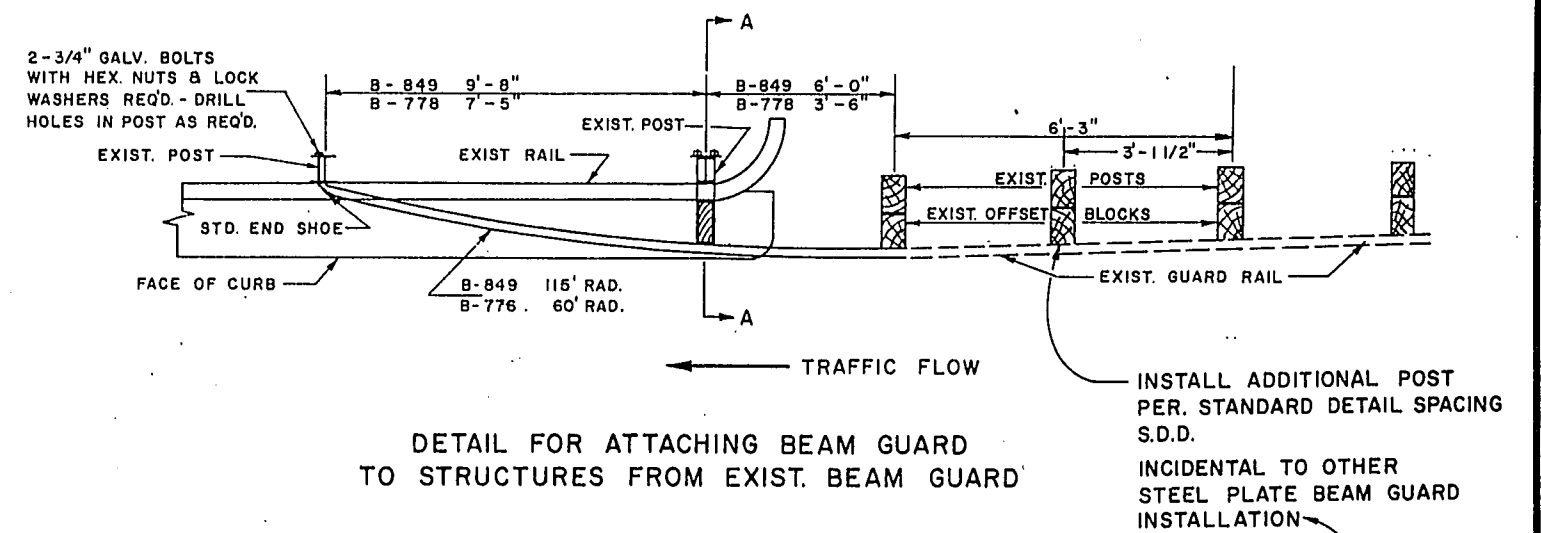


METHOD OF INSTALLATION

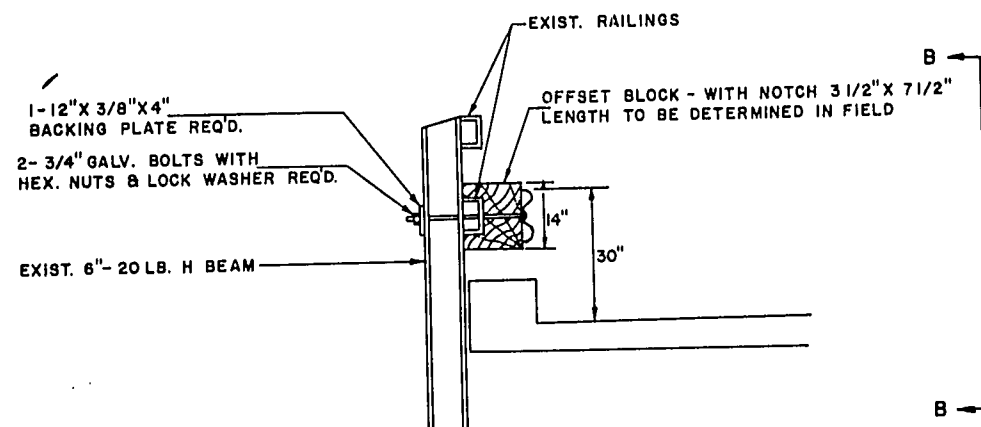
SPECIAL DETAIL  
FOR  
STEEL PLATE BEAM GUARD RAIL  
TWISTED END TREATMENT  
BEAR CREEK BRIDGE  
STA. 682+85  
1531-5-71



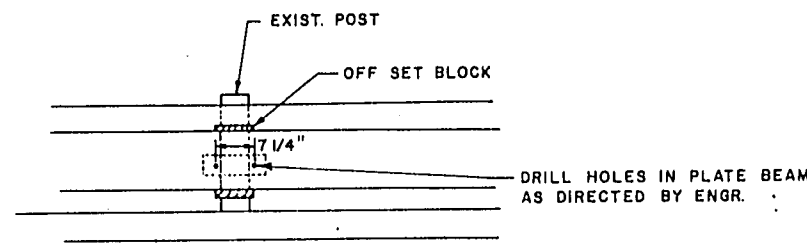
DETAIL FOR ATTACHING BEAM GUARD TO EXISTING RAILING ON STRUCTURES



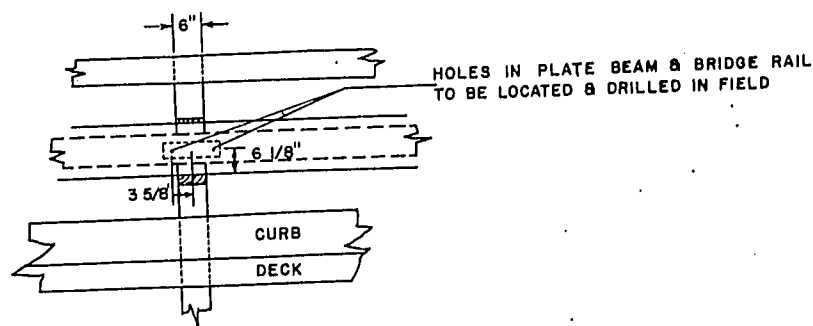
DETAIL FOR ATTACHING BEAM GUARD TO STRUCTURES FROM EXIST. BEAM GUARD



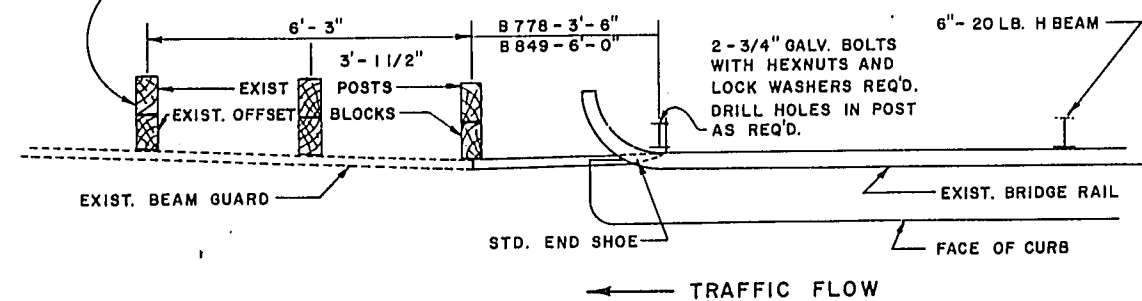
SEC. A-A



SEC B-B



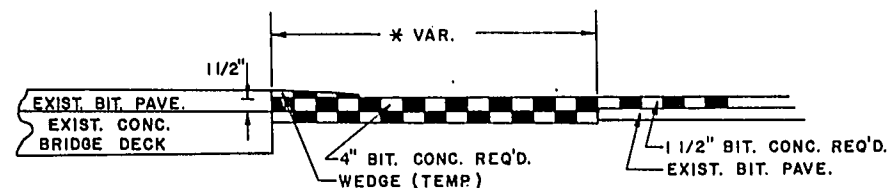
SEC. B-B



DETAIL FOR ATTACHING BEAM GUARD TO STRUCTURES FROM EXIST. BEAM GUARD

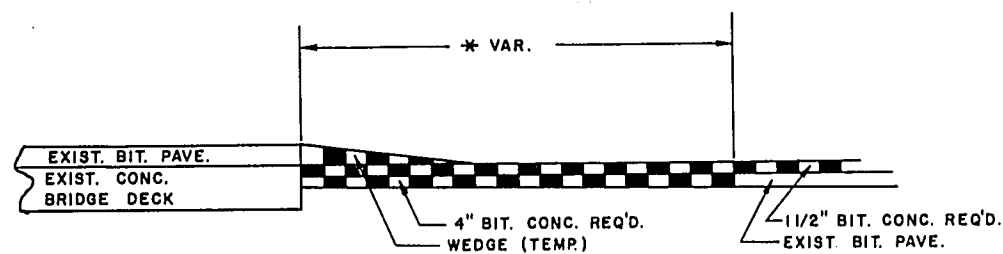
SPECIAL DETAIL FOR ATTACHING GUARD RAIL TO STRUCTURES

1531-6-71



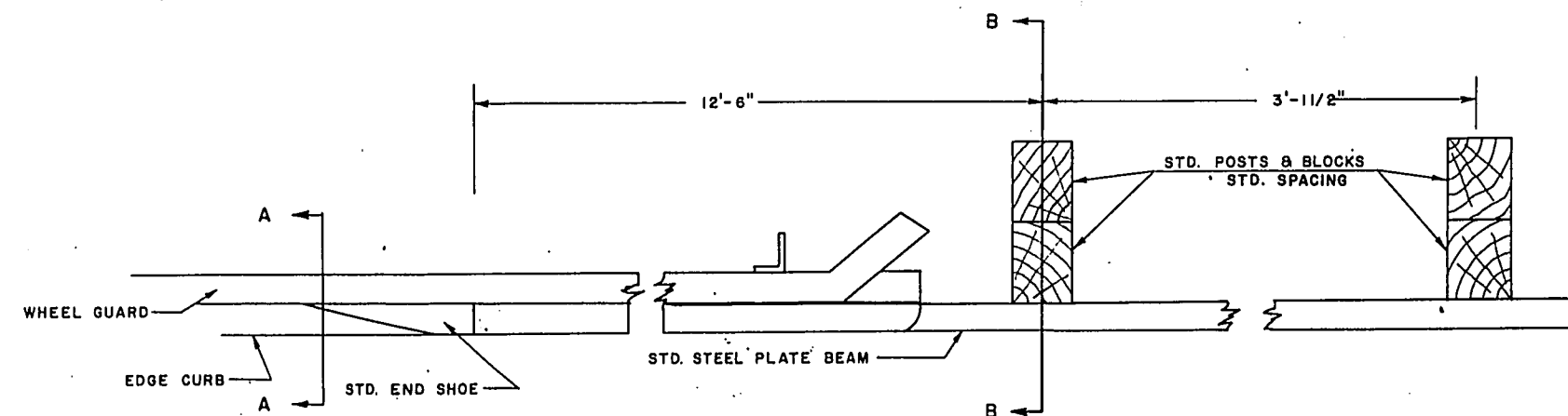
### DETAIL AT STRUCTURES WHERE BRIDGE DECKS ARE TO HAVE 1 1/2" OVERLAY IN FUTURE

\* STA. 314 + 39 B-851 ± 50 L.F. WEST ± 50' L.F. EAST  
 STA. 413 + 13 B-640 ± 50 L.F. WEST ± 50' L.F. EAST  
 EXIST. BIT. PAVEMENT TO BE REMOVED AND GRADE ADJUSTED IF NEEDED. PLACE NEW BIT. CONC. 1 1/2" ABOVE EXIST. CONC. BRIDGE DECK.

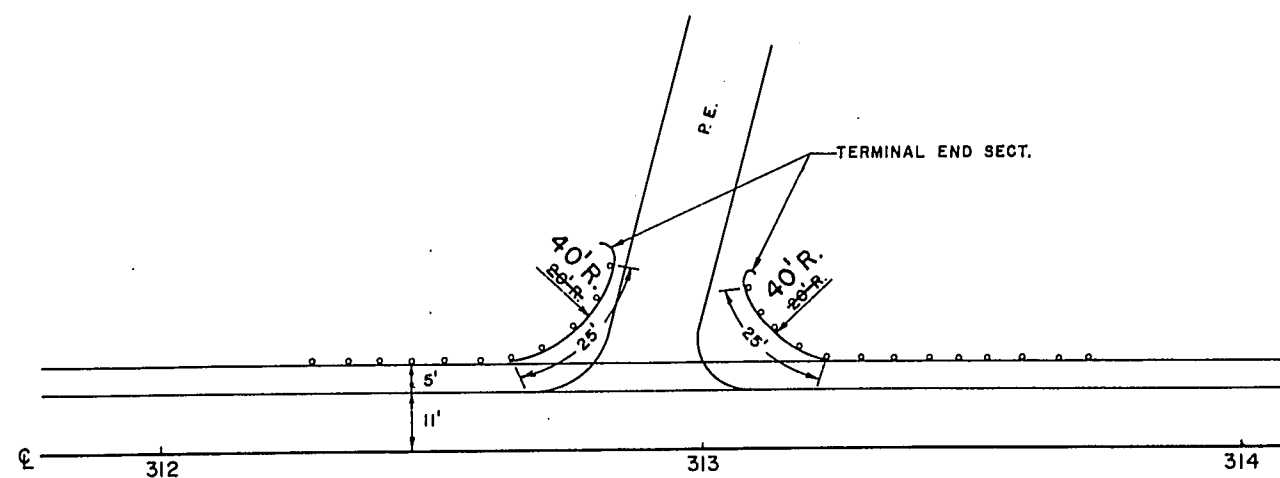
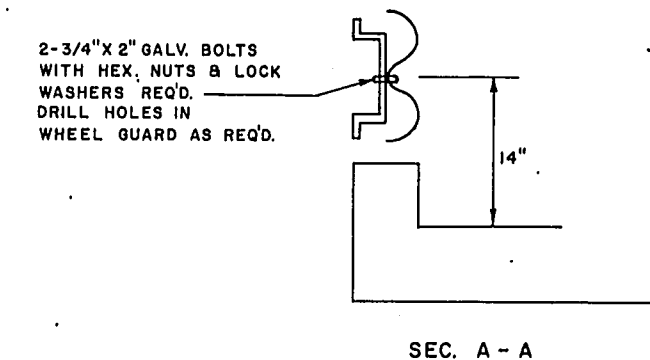
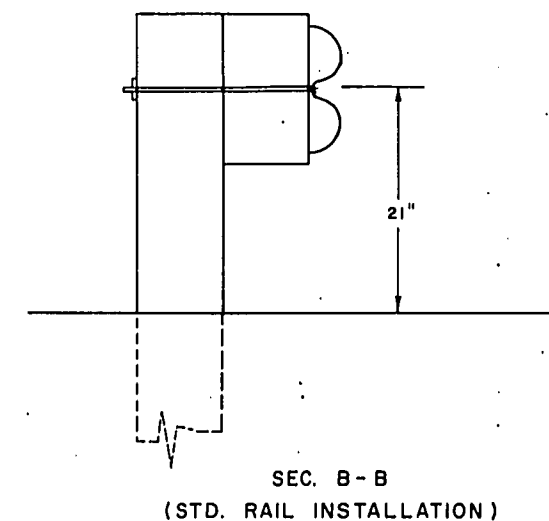


### DETAIL AT STRUCTURES WHERE BRIDGE DECKS ARE TO BE REPLACED IN FUTURE

\* STA. 255+00 B-849 ± 135 L.F. WEST ± 161 L.F. EAST  
 STA. 269+65 B-778 ± 128 L.F. WEST ± 48 L.F. EAST  
 STA. 397+25 B-777 ± 160 L.F. WEST ± 50 L.F. EAST  
 EXIST. BIT. PAVEMENT TO BE REMOVED AND GRADE ADJUSTED TO MEET EXIST. CONC. BRIDGE DECK.



### DETAIL TO ATTACH BEAM GUARD TO EAU GALLE RIVER BRIDGE



### INSTALLATION BEAM GUARD STA. 312 ± 85 LT.

### SPECIAL DETAILS

1531-6-71  
 1531-5-71

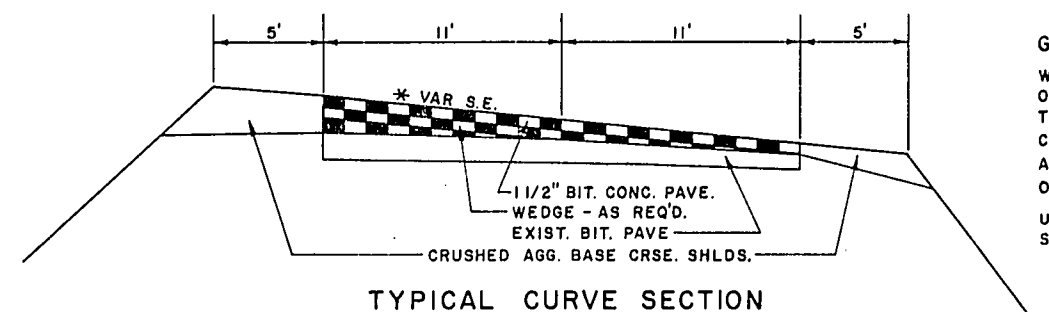
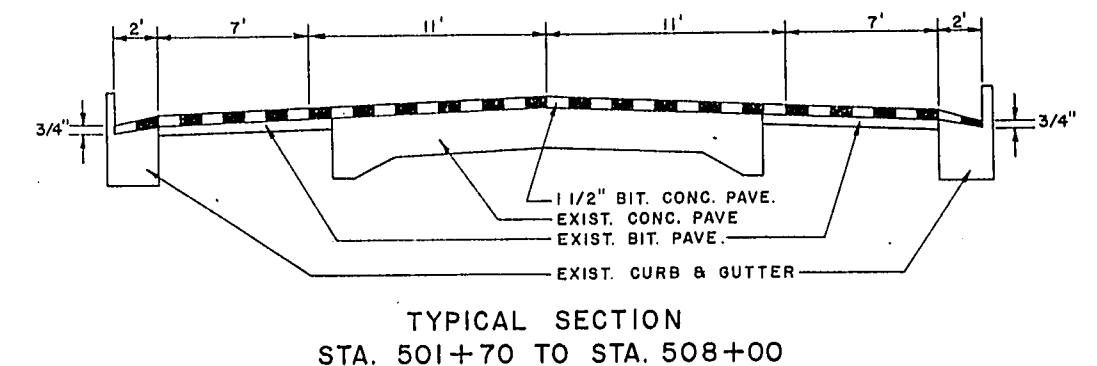
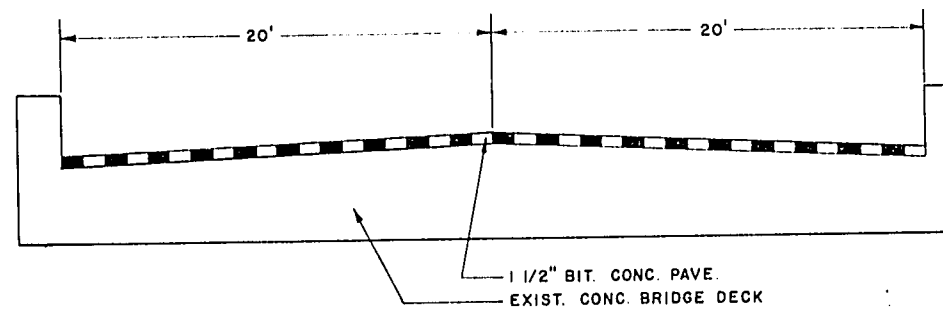
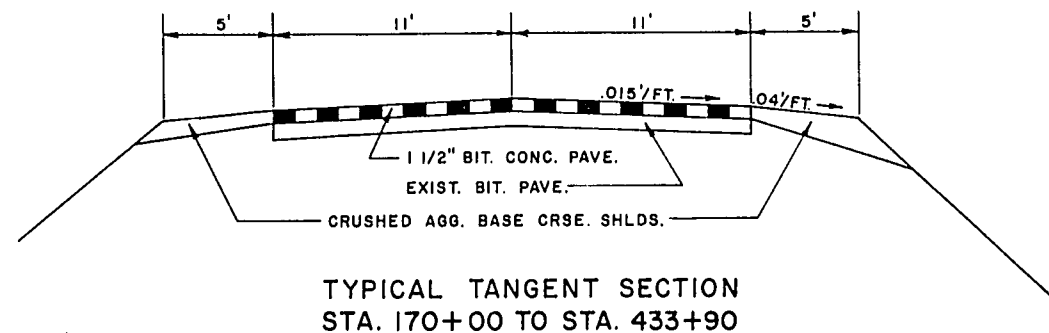
## ESTIMATE OF QUANTITIES

THIS PROJECT IS TO BE EXECUTED UNDER THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OF THE WISCONSIN DIVISION OF HIGHWAYS — EDITION OF 1969 AND SPECIAL PROVISIONS AS ATTACHED TO PROPOSALS.

CONTRACT NO. 1  
BITUMINOUS CONCRETE  
PAVEMENT

PROJECT I. D.	1531-6-71 1531-5-71	SHEET NUMBER	TOTAL SHEETS
FEDERAL PROJECT DESIGNATION		3	19

SEC.	NO.	STATION TO STATION		NET LENGTH OF CENTER LINE	REMOVING BITUMINOUS SURFACE	REMOVING GUARD RAIL	UNCLASSIFIED EXCAVATION	BORROW EXCAVATION	CRUSHED AGGREGATE BASE COURSE	BITUMINOUS CONCRETE PAVEMENT	BITUMINOUS MATERIAL FOR SURFACE COURSE	CONCRETE CURB TYPE "J"	ANCHORAGES FOR STEEL PLATE BEAM GUARD	STEEL PLATE BEAM GUARD CLASS "A"	MARKER POSTS	MAINTENANCE & REPAIR OF HAUL ROADS 1531-6-71	TOPSOIL	SEEDING	FIELD OFFICE TYPE "B"	FIELD LABORATORY	MAINTENANCE & REPAIR OF HAUL ROADS 1531-5-71	BASE PATCHING	RUMBLE STRIP
			ITEM NO.		20402	20411	20503	20801	30404	40701	40702	60104	61406	61408	61421	61802	62501	63001	64202	64210	61803	30801	90001
			UNIT	LIN. FT.	S.Y.	L.F.	C.Y.	C.Y.	TON	TON	TON	L.F.	EACH	L.F.	EACH	L.S.	S.Y.	S.Y.	L.S.	L.S.	L.S.	S.Y.	EACH
		1531-6-71																					
		170+00 - 433+90		25484.99	2780	820	90	260	7900	7400	460	75	13	1955	12	1	800	800					3
		1531-5-71																					
	U	501+70 - 518+07		1528.54		550			900	650	40		1	550									
	R	518+07 - 949+00		43097.24	420	1320			17600	10960	680		17	2780					1	1	1	200	
		1531-5-71 SUBTOTAL		44625.78	420	1870			18500	11610	720		18	3330					1	1	1	200	
		TOTALS		70110.77	3200	2690	90	260	28400	19,010	1180	75	31	5285	12	1	800	800	1	1	1	200	3



**GENERAL NOTES:**

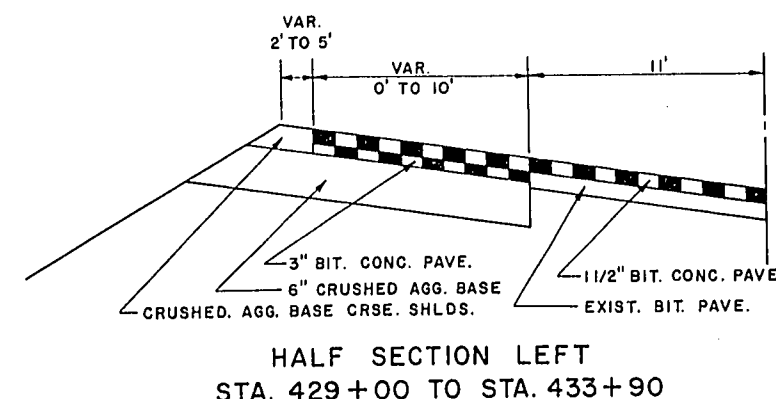
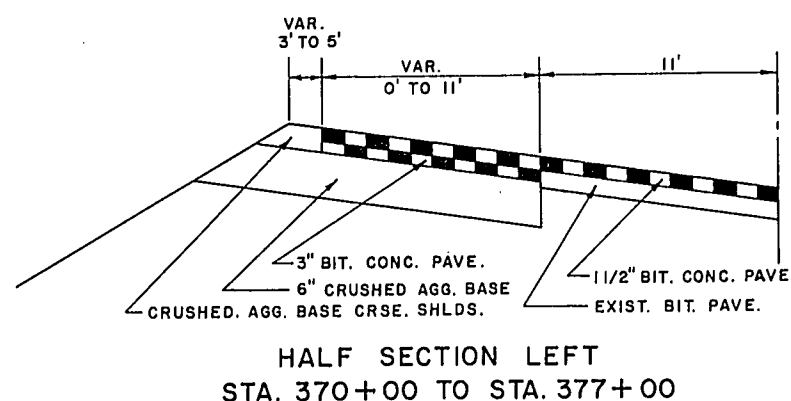
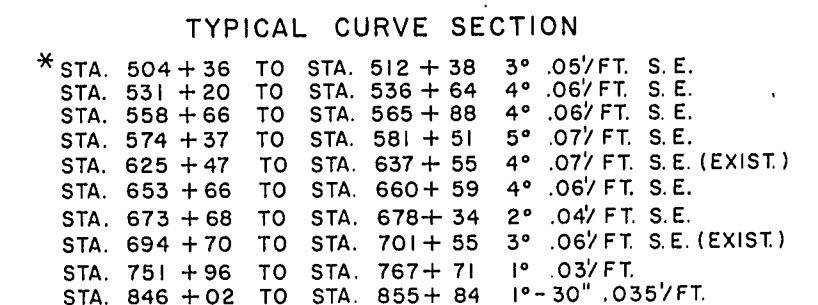
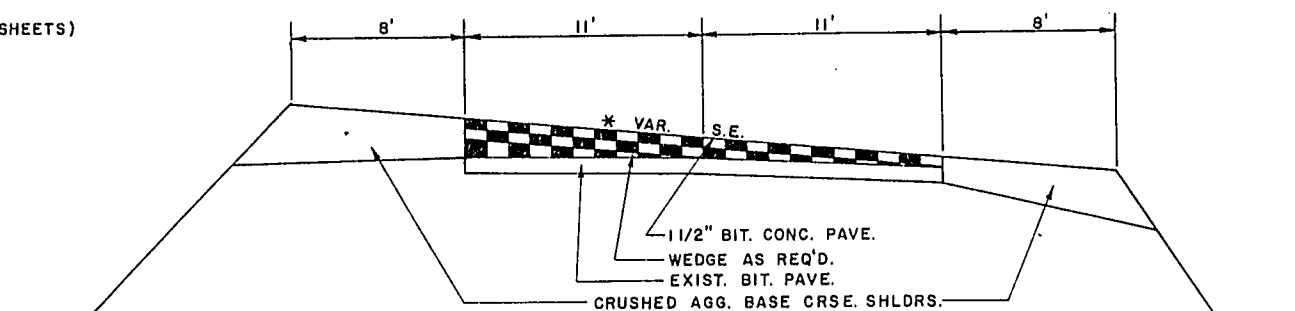
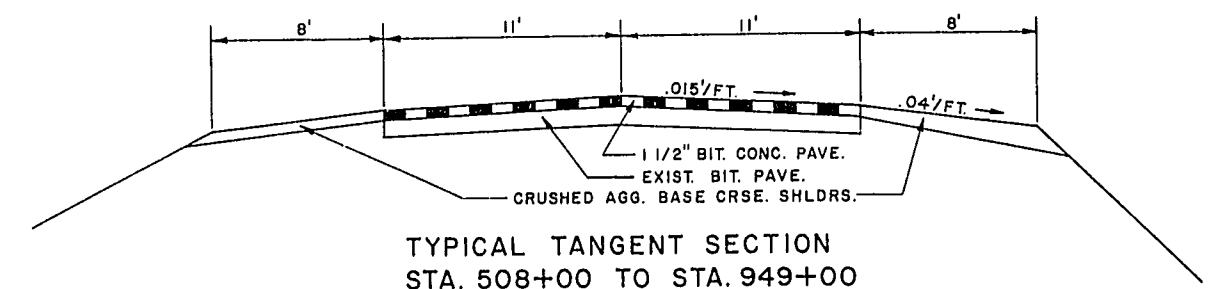
WHEN THE QUANTITY OF THE ITEMS OF SUBBASE, BASE OR SURFACE COURSE IS MEASURED FOR PAYMENT BY THE TON OR CUBIC YARD, THE DEPTH OR THICKNESS OF THE COURSE SHOWN ON THE PLANS IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

UNLESS OTHERWISE SHOWN ON PLANS, ALL INTERSECTIONS SHALL BE TYPE 'C'.

SECTION AT BEAR CREEK BRIDGE  
STA. 682+85  
NOTE. REMOVE EXISTING BIT. SURF.

## STANDARD DETAIL DRAWINGS

- |                 |   |
|-----------------|---|
| 8 DI - 1        | CONC. CURB, GUTTER, COMBINATION CURB & GUTTER, SURFACE DRAIN                |
| 9 AI - 1        | DESIGN AND LAYOUT DETAILS FOR SIDE ROAD AT GRADE INTERSECTIONS              |
| 14 B2 - 1 A & B | CLASS "A" STEEL PLATE BEAM GUARD & STEEL PLATE BEAM MEDIAN GUARD (2 SHEETS) |
| 15 AI - 1       | MARKER POST & MARKER POSTS FOR RIGHT OF WAY                                 |
| 15 CI - 1       | CONSTRUCTION BARRICADE  |
| 13 AI - 1       | CONCRETE PAVEMENT REINFORCEMENT   |



DETAIL SUMMARY SHEET OF MISCELLANEOUS QUANTITIES

PROJECT I.D.	1531-6-71 1531-5-71	SHEET NUMBER	TOTAL SHEETS
FEDERAL PROJECT DESIGNATION		3A	19

STEEL PLATE BEAM GUARD

REMOVE BITUMINOUS SURFACE

Station to Station	S.Y.
1531-6-71	
253+00 - 254+35	330
255+64 - 257+25	395
268+00 - 269+28	313
270+02 - 270+50	118
310+00 - 310+48	118
311+51 - 312+00	120
313+13 - 313+63	122
315+13 - 315+63	122
395+00 - 396+00	244
398+50 - 399+00	122
411+63 - 412+13	122
414+13 - 414+63	122
433+40 - 433+90	122
C.T.H. "X"	56
C.T.H. "N"	314
S.T.H. "25"	40
1531-5-71	
682+15 - 683+55	420

BITUMINOUS CONCRETE PAVEMENT

Station to Station	Ton
1531-6-71	
170+00 - 433+90	5760
Sd. Rd. Conn.	600
Curve Correction	600
S.T.H. "25"	100
C.T.H. "P" Extra Lane	70
S.T.H. "25" Extra Lane	70
Patching	200
1531-5-71	
501+70 - 518+07	471
518+07 - 949+00	9739
Sd. Rd. Conn.	600
Curve Correction	600
Patching	200

Station to Station L.F. Anchorages

1531-6-71 (See Details for Connections to Bridges)			
254+20 - 254+35	R	15'-8"	
255+66 - 255+81	L & R	31'-4"	
269+17 - 269+28	L & R	22'-0"	
270+02 - 270+13	L & R	22'-0"	
309+20 - 310+50	L & R	258'-0"	2
311+51 - 313+63	R	230'-0"	
311+51 - 312+61	L	140'-0"	1
313+13 - 313+63	L	75'-0"	1
315+13 - 316+43	L & R	258'-0"	2
398+50 - 399+80	L & R	258'-0"	2
410+83 - 412+13	L & R	258'-0"	2
414+13 - 415+43	L & R	258'-0"	2
* 432+60 - 433+90	L	129'-0"	1
* ATTACH TO CONC. END POST			
1531-5-71			
510+75 - 519+50	R	666'-0"	2
593+00 - 598+50	R	554'-0"	2
660+00 - 665+25	L	528'-0"	2
660+25 - 662+04	R	180'	2
** 681+24 - 682+54	L & R	358'-0"	2
** 683+10 - 684+60	L & R	358'-0"	2
696+35 - 698+65	L & R	508'-0"	4
883+50 - 885+30	R	178'-0"	2
** (See Detail for Connection to Bridge)			

REMOVING GUARD RAIL

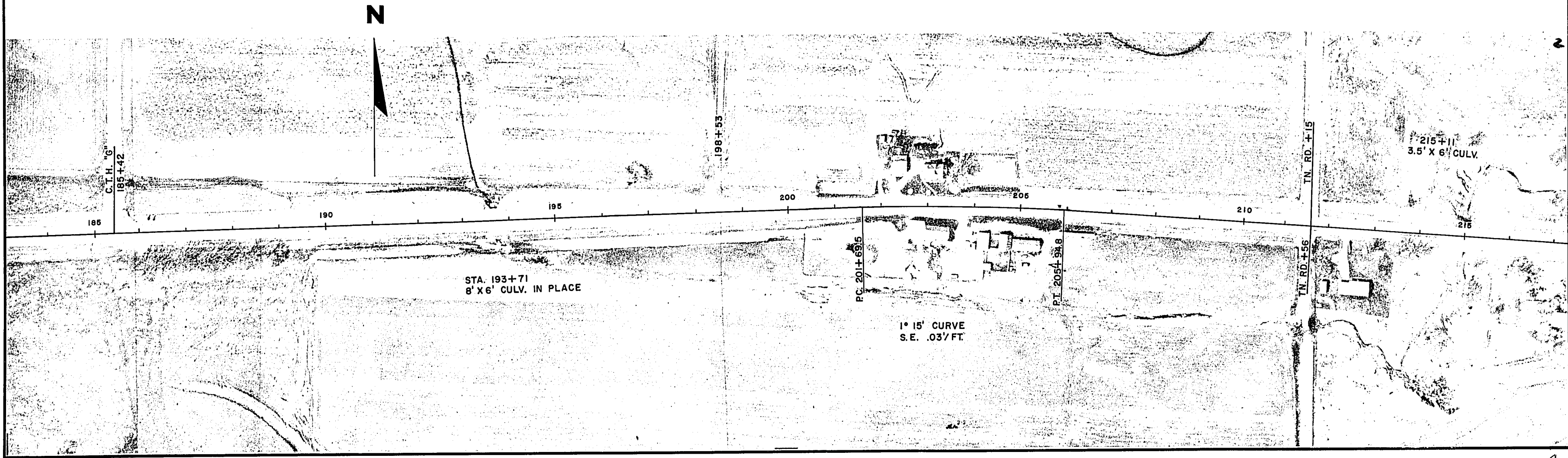
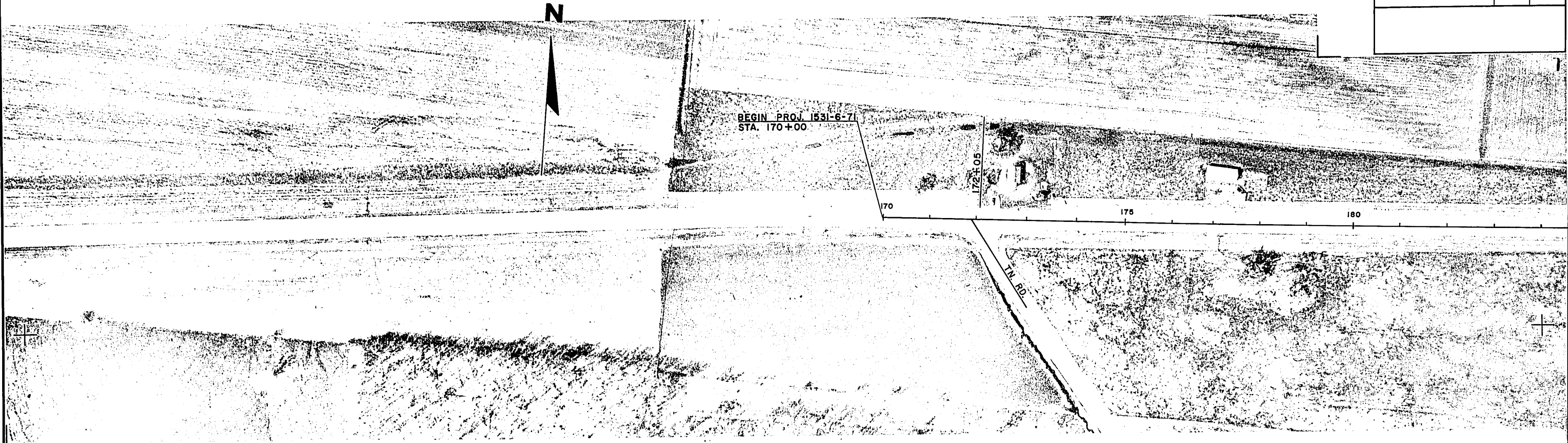
Station to Station	L.F.
1531-6-71	
310+23 - 310+48	L & R 56
313+38 - 313+63	L & R 56
311+51 - 312+51	L & R 206
315+13 - 315+75	L & R 130
398+50 - 399+00	L & R 56
411+48 - 412+13	L & R 130
414+13 - 414+65	L & R 130
433+46 - 433+90	L 56
1531-5-71	
511+00 - 518+00	R 550
595+25 - 598+00	R 270
661+50 - 664+00	L 250
681+15 - 682+65	L & R 300
683+05 - 684+35	L & R 300
697+50	L 50
696+75 - 698+25	R 150

STANDARD ABBREVIATIONS

A.D.T.	ANNUAL DAILY TRAFFIC
BIT.	BITUMINOUS
C	CENTERLINE
CONC.	CONCRETE
CO.	COUNTY
CONST.	CONSTRUCTION
C.T.H.	COUNTY TRUNK HIGHWAY
C.	CUT
CU.	CUBIC
D.H.V.	DESIGN HOURLY VOLUME
ELEV.	ELEVATION
EXIST.	EXISTING
F	FILL OR EMBANKMENT
FL.	FLOW LINE
FEET	FEET
IN.	INCHES
IN PL	IN PLACE
LIN.	LINEAR
LT.	LEFT
MI.	MILE
NO.	NUMBER
PAVE.	PAVEMENT
PROJ.	PROJECT
REQ'D.	REQUIRED
S.T.H.	STATE TRUNK HIGHWAY
STA.	STATION
STRUC.	STRUCTURE
SURF.	SURFACE
SQ.	SQUARE
YD.	YARD
SHLD'S.	SHOULDERS

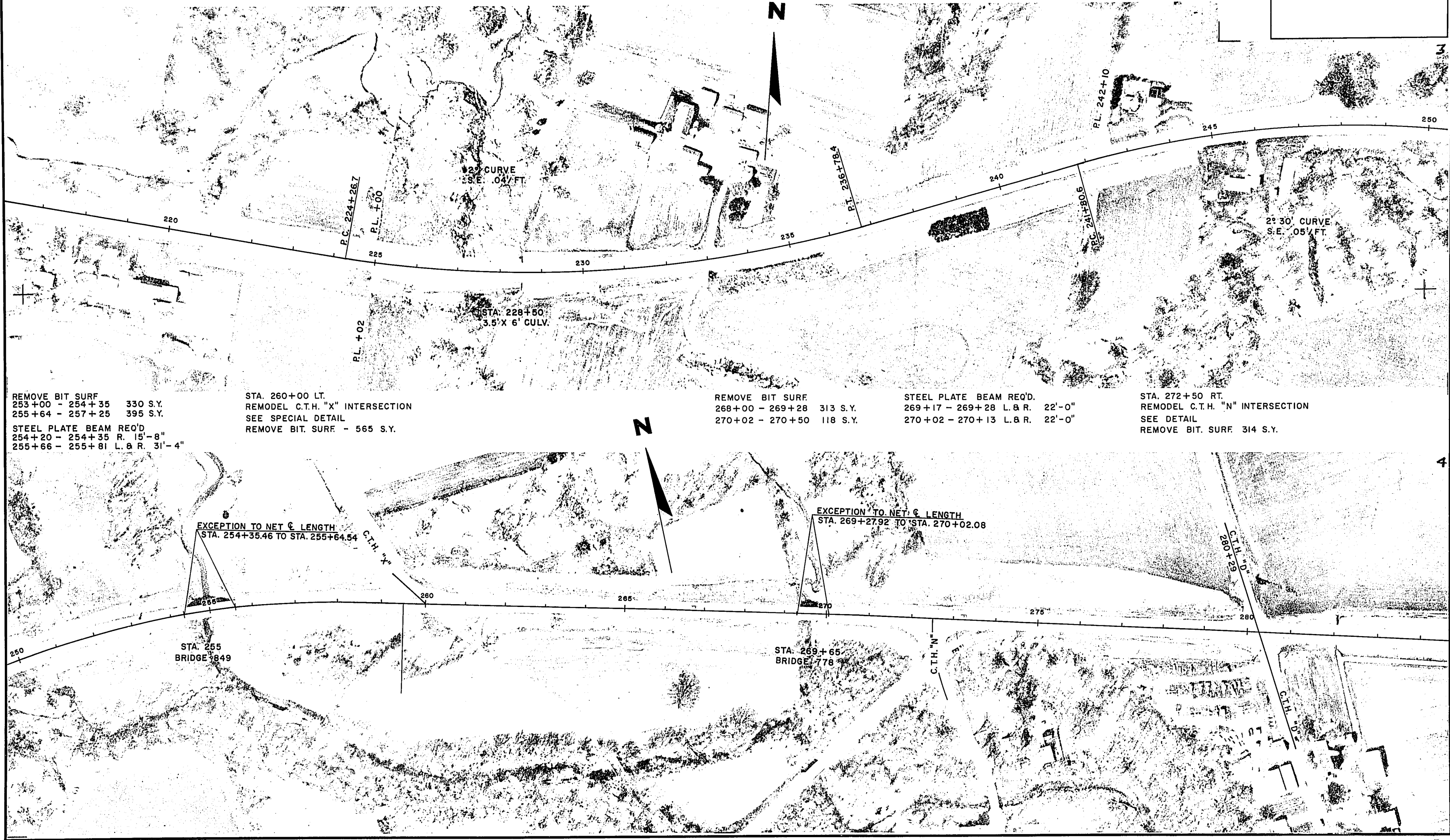


PROJECT I.D. 1531-6-71	SHEET NUMBER 4	TOTAL SHEETS 19
FEDERAL PROJECT DESIGNATION		

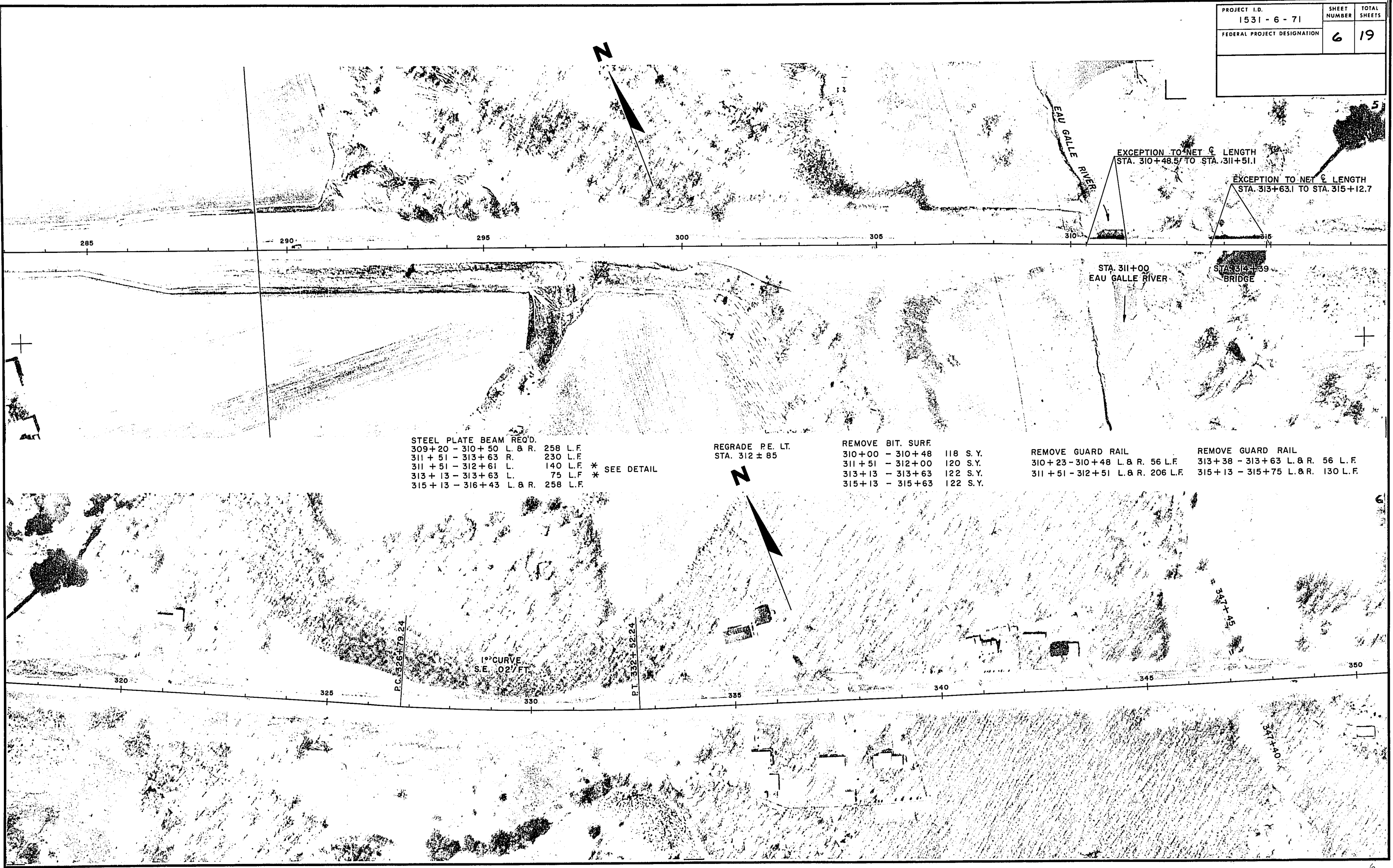




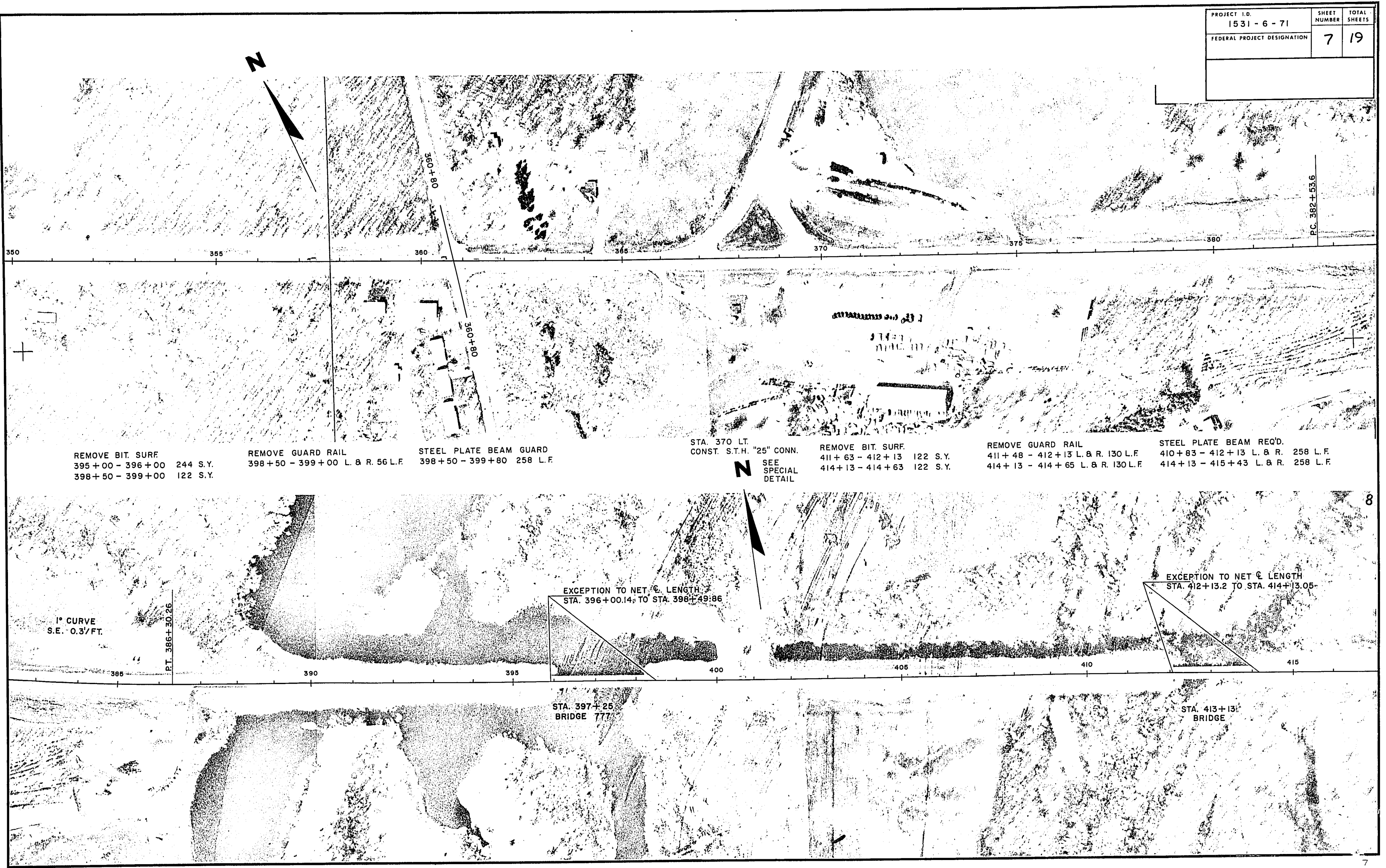
PROJECT I.D. 1531 - 6 - 71	SHEET NUMBER 5	TOTAL SHEETS 19
FEDERAL PROJECT DESIGNATION		



PROJECT I.D.	1531 - 6 - 71	SHEET NUMBER	6	TOTAL SHEETS	19
FEDERAL PROJECT DESIGNATION					



PROJECT I.D. 1531 - 6 - 71	SHEET NUMBER 7	TOTAL SHEETS 19
FEDERAL PROJECT DESIGNATION		



REMOVE BIT. SURF  
395 + 00 - 396 + 00 244 S.Y.  
398 + 50 - 399 + 00 122 S.Y.

REMOVE GUARD RAIL  
398 + 50 - 399 + 00 L. & R. 56 L.F.

STEEL PLATE BEAM GUARD  
398 + 50 - 399 + 80 258 L.F.

STA. 370 LT.  
CONST. S.T.H. "25" CONN.  
SEE  
SPECIAL  
DETAIL

REMOVE BIT. SURF.  
411 + 63 - 412 + 13 122 S.Y.  
414 + 13 - 414 + 63 122 S.Y.

REMOVE GUARD RAIL  
411 + 48 - 412 + 13 L. & R. 130 L.F.  
414 + 13 - 414 + 65 L. & R. 130 L.F.

STEEL PLATE BEAM REQ'D.  
410 + 83 - 412 + 13 L. & R. 258 L.F.  
414 + 13 - 415 + 43 L. & R. 258 L.F.

1° CURVE  
S.E. 0.3/FT.

PT. 386+30.26

EXCEPTION TO NET C. LENGTH  
STA. 396+00.14 TO STA. 398+49.86

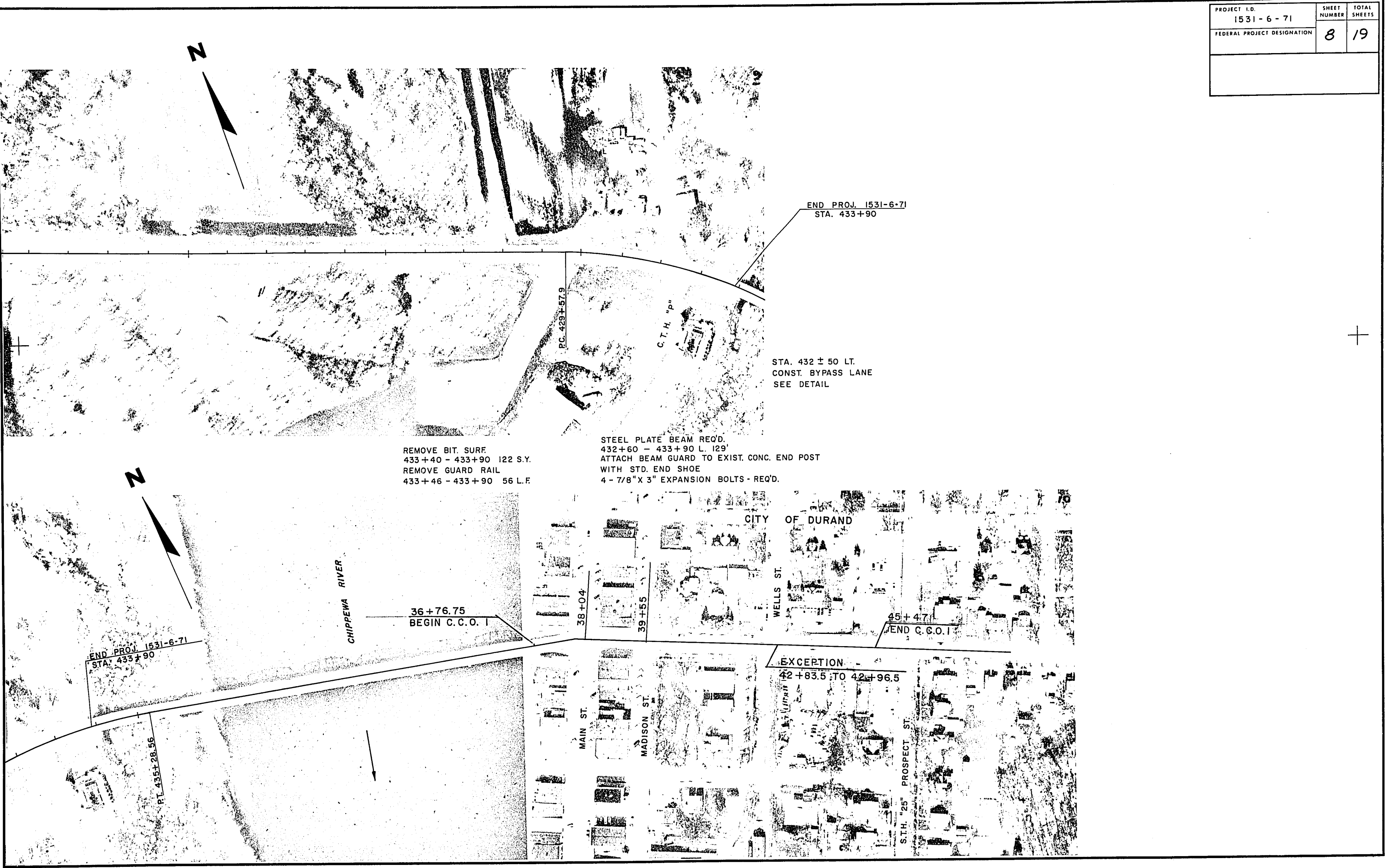
EXCEPTION TO NET C. LENGTH  
STA. 412+13.2 TO STA. 414+13.05

STA. 397+25  
BRIDGE 777

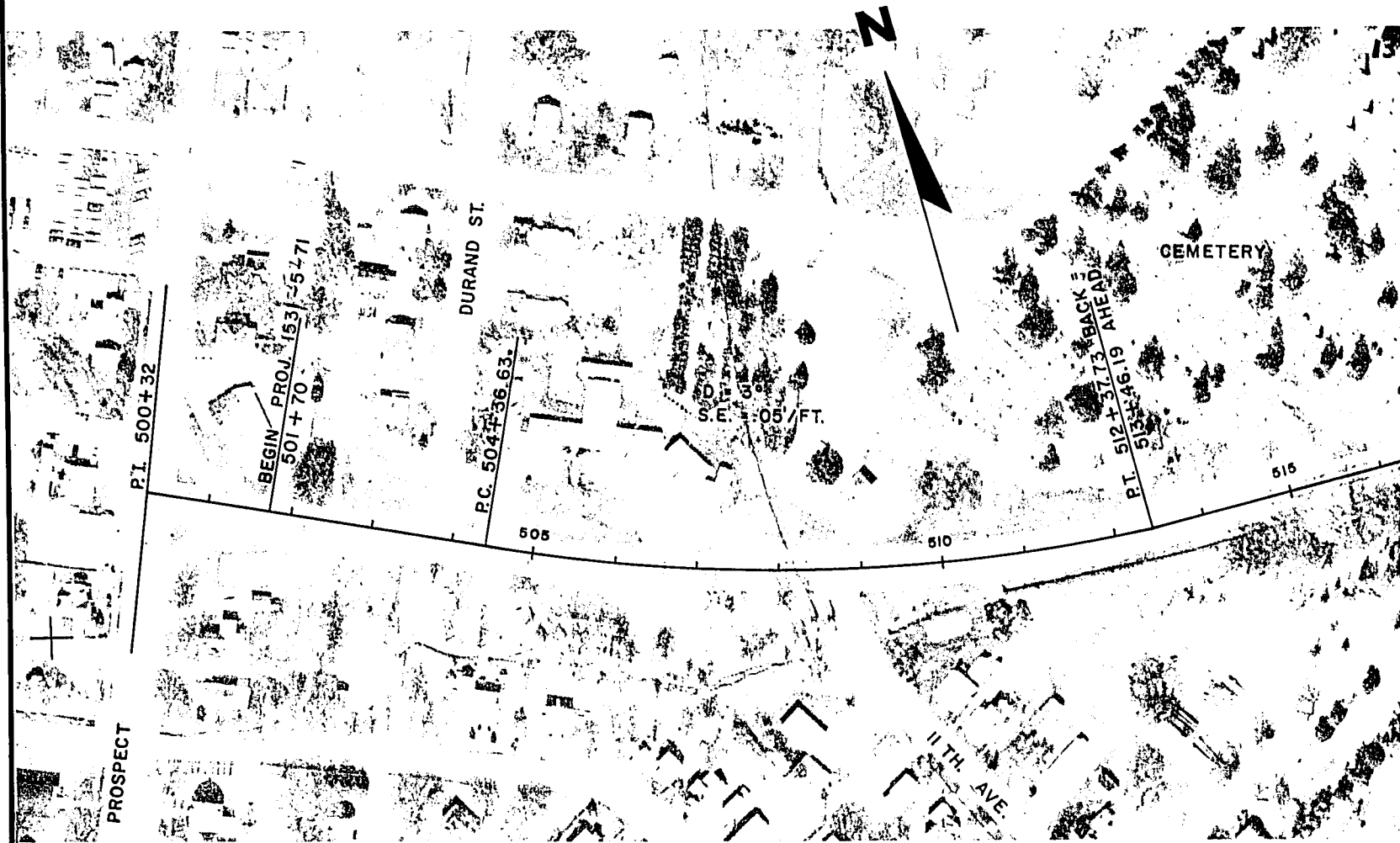
STA. 413+13  
BRIDGE



PROJECT I.D. 1531-6-71	SHEET NUMBER	TOTAL SHEETS
FEDERAL PROJECT DESIGNATION	8	19



PROJECT I.D. 1531 - 5 - 71	SHEET NUMBER 9	TOTAL SHEETS 19
FEDERAL PROJECT DESIGNATION		

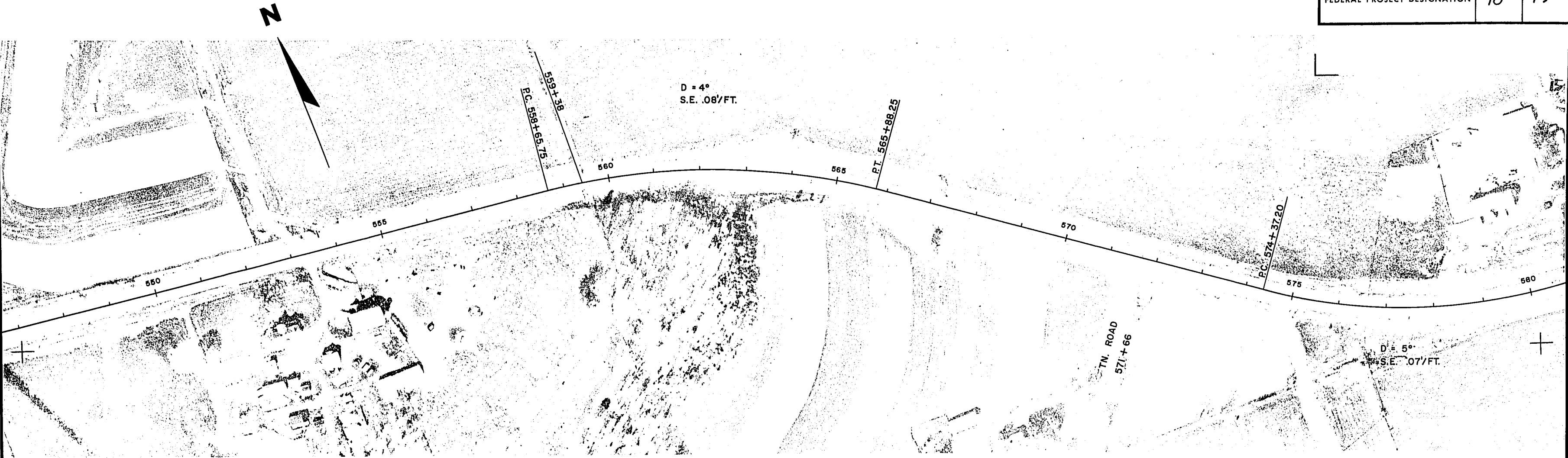


REMOVE GUARD RAIL  
511+00 - 518+00 R. 550 L.F.

STEEL PLATE BEAM REQ'D.  
510+75 - 519+50 666 L.F.



PROJECT I. D. 1531 - 5 - 71	SHEET NUMBER 10	TOTAL SHEETS 19
FEDERAL PROJECT DESIGNATION		

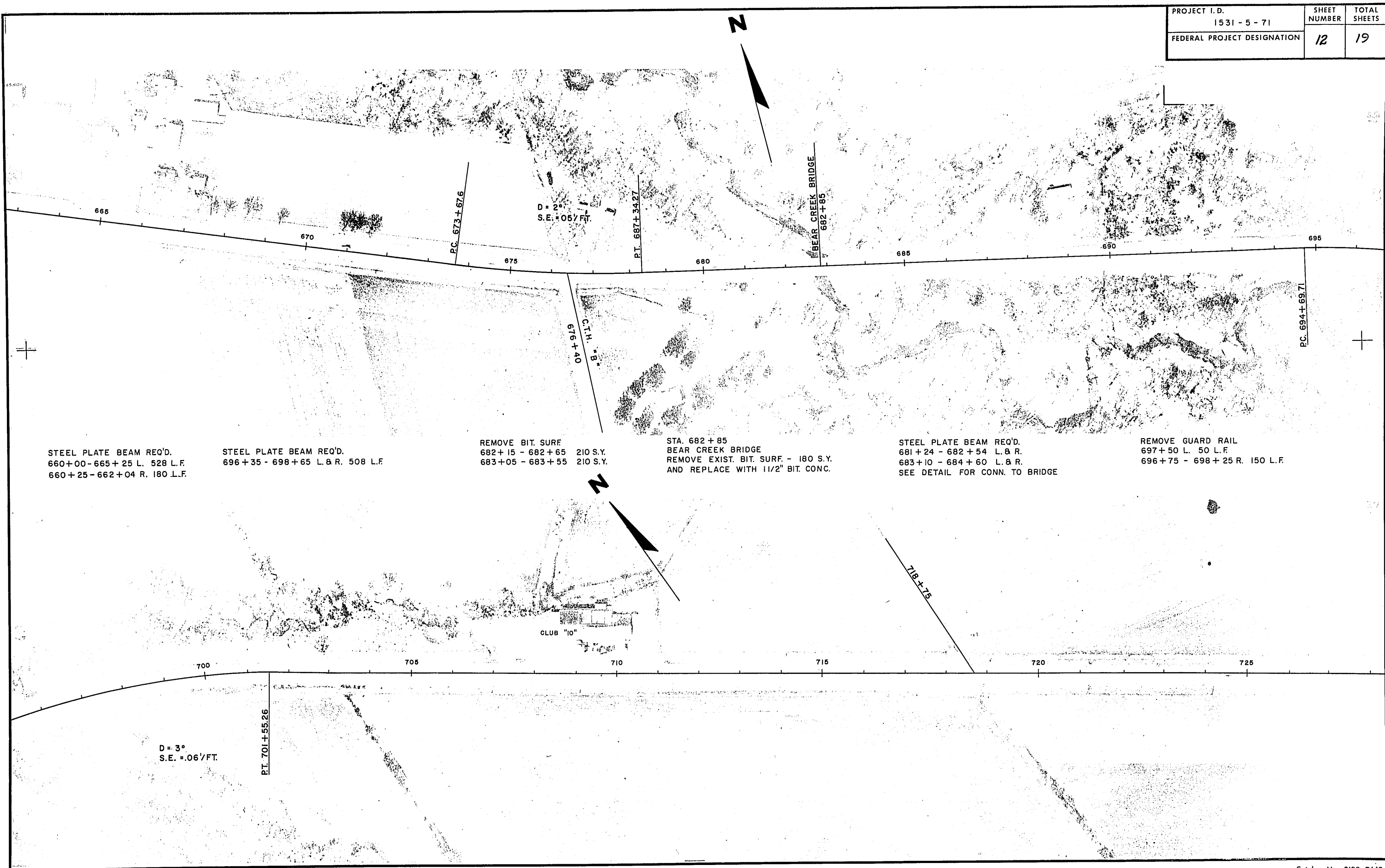




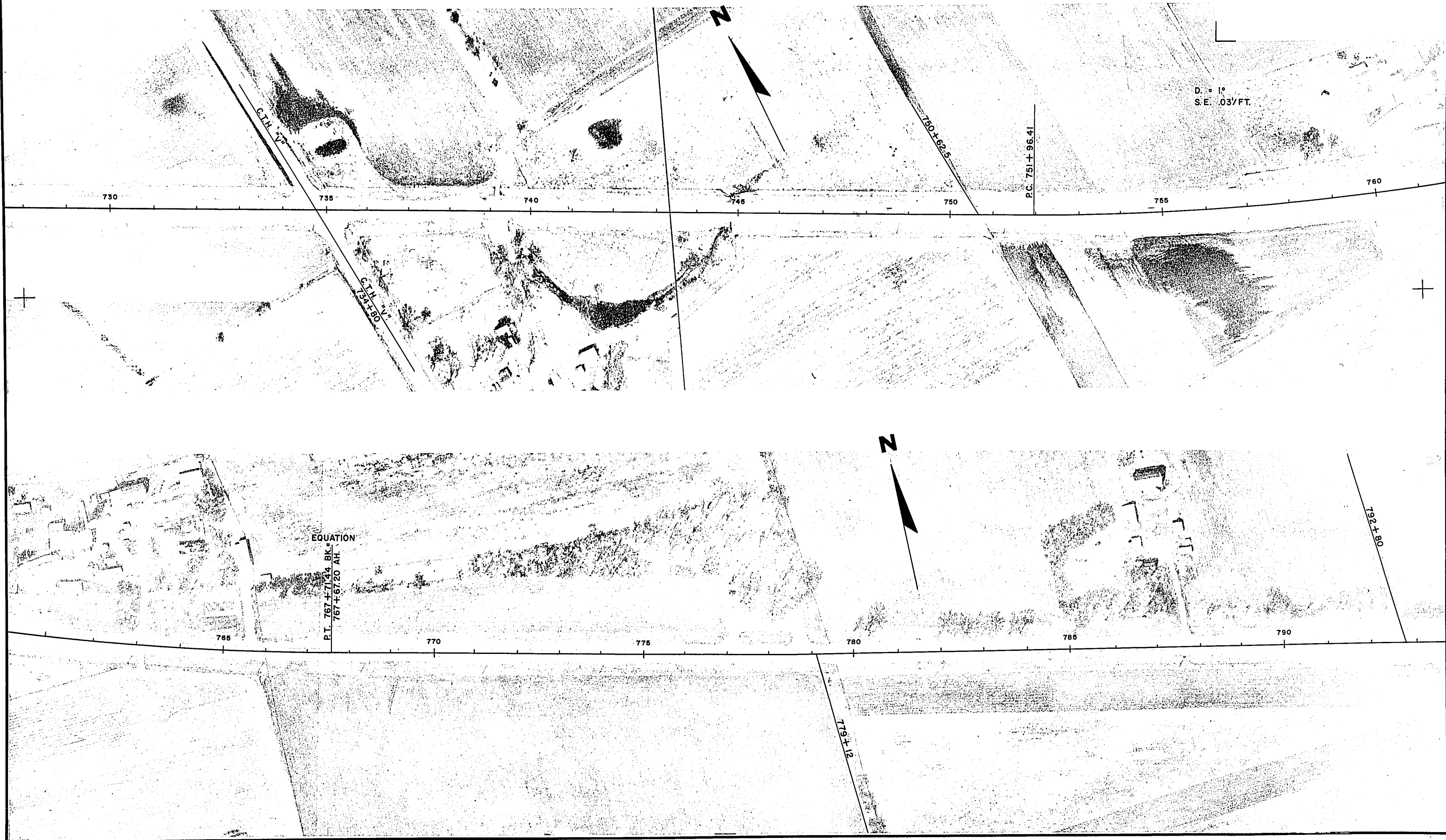
PROJECT I. D. 1531-5-71	SHEET NUMBER	TOTAL SHEETS
FEDERAL PROJECT DESIGNATION	11	19



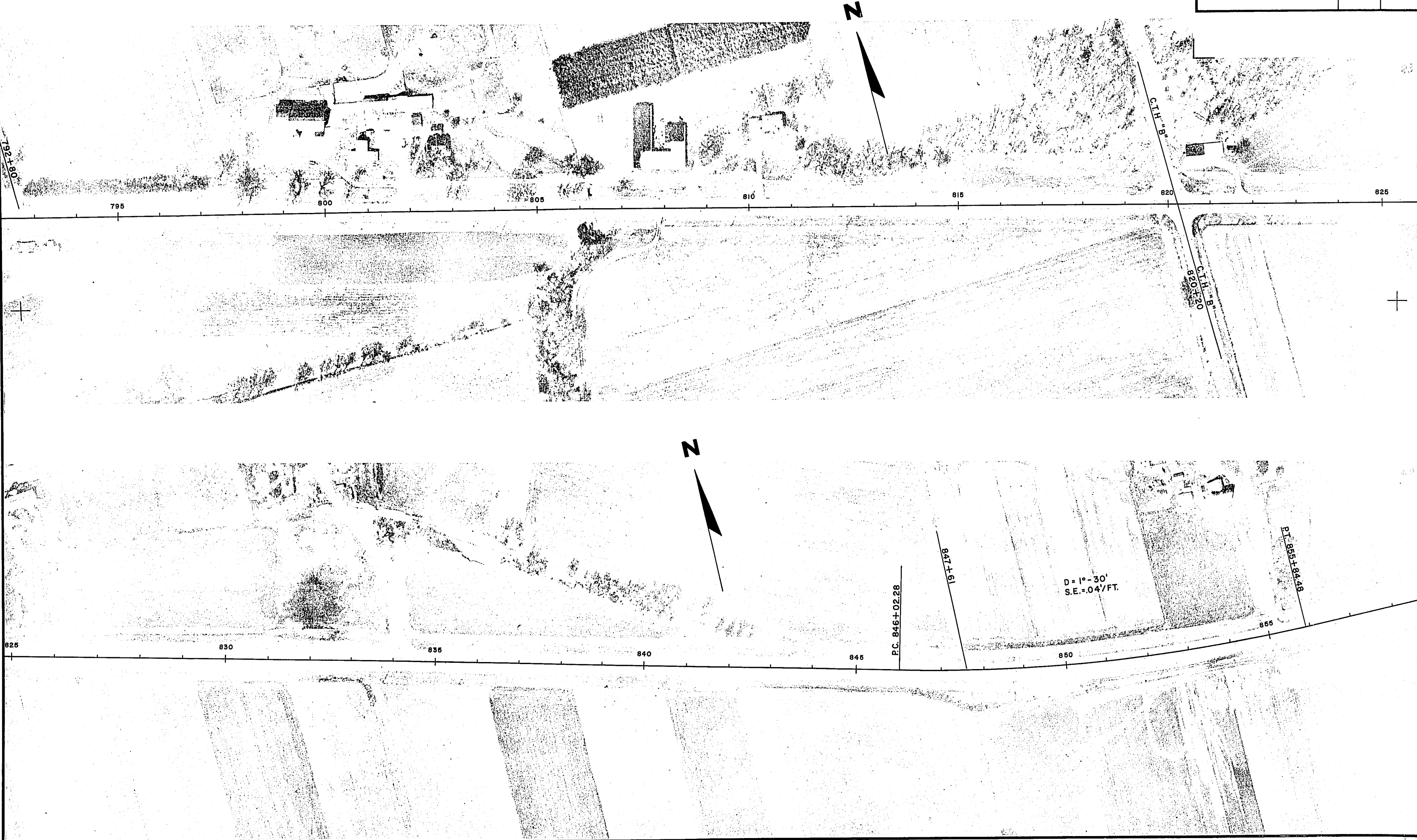
PROJECT I.D. 1531 - 5 - 71	SHEET NUMBER 12	TOTAL SHEETS 19
FEDERAL PROJECT DESIGNATION		



PROJECT I.D. 1531 - 5 - 71	SHEET NUMBER	TOTAL SHEETS
FEDERAL PROJECT DESIGNATION	13	19

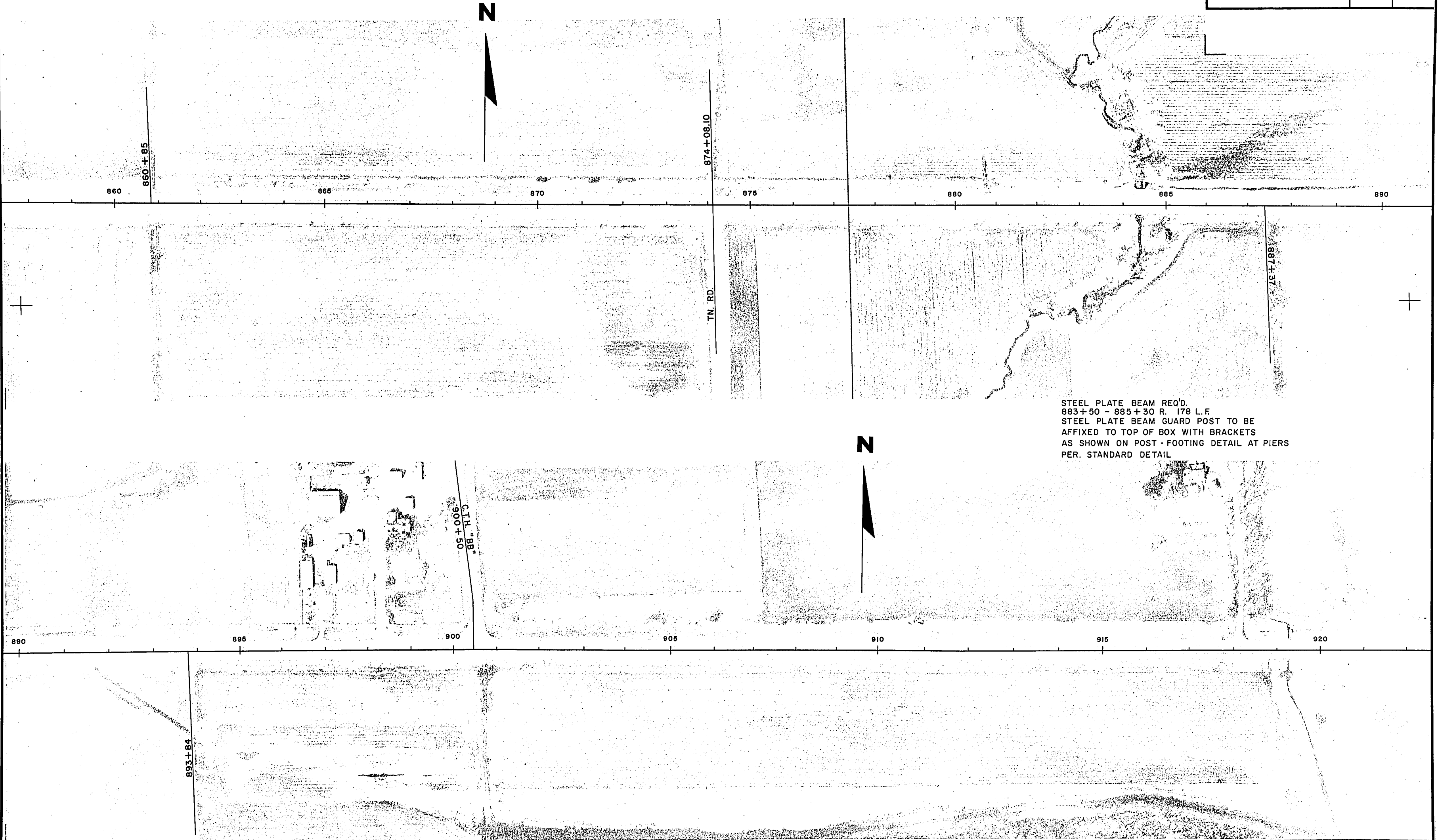


PROJECT I.D. 1531 - 5 - 71	SHEET NUMBER	TOTAL SHEETS
FEDERAL PROJECT DESIGNATION	14	19





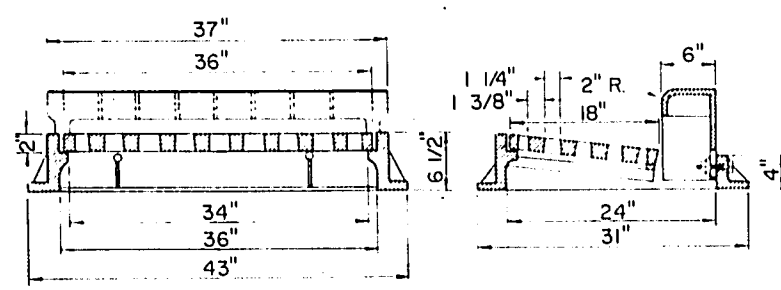
PROJECT I. D. 1531 - 5 - 71	SHEET NUMBER	TOTAL SHEETS
FEDERAL PROJECT DESIGNATION	15	19



PROJECT I. D. 1531 - 5 - 71	SHEET NUMBER	TOTAL SHEETS
FEDERAL PROJECT DESIGNATION	16	19

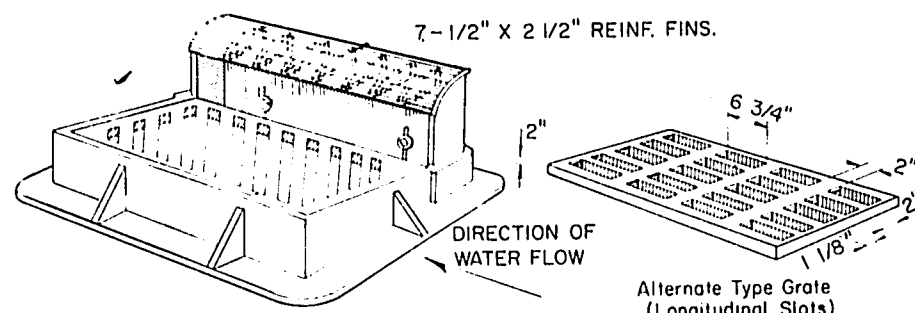






TYPE "H" (Approx. Weight 530 Lbs.)

Frame Weight - 220#  
Grate - 200#  
Box - 110#



Alternate Type Grate (Longitudinal Slots)  
Approx. Weight - 200#

**SPECIAL NOTE**

Diagonal Slots shall be oriented to the direction of flow as shown hereon. Hence RIGHT and LEFT Grates shall be furnished depending on direction of flow. (See Sketch Below)

Longitudinal slot type grates may be used ONLY where bicycles are prohibited.

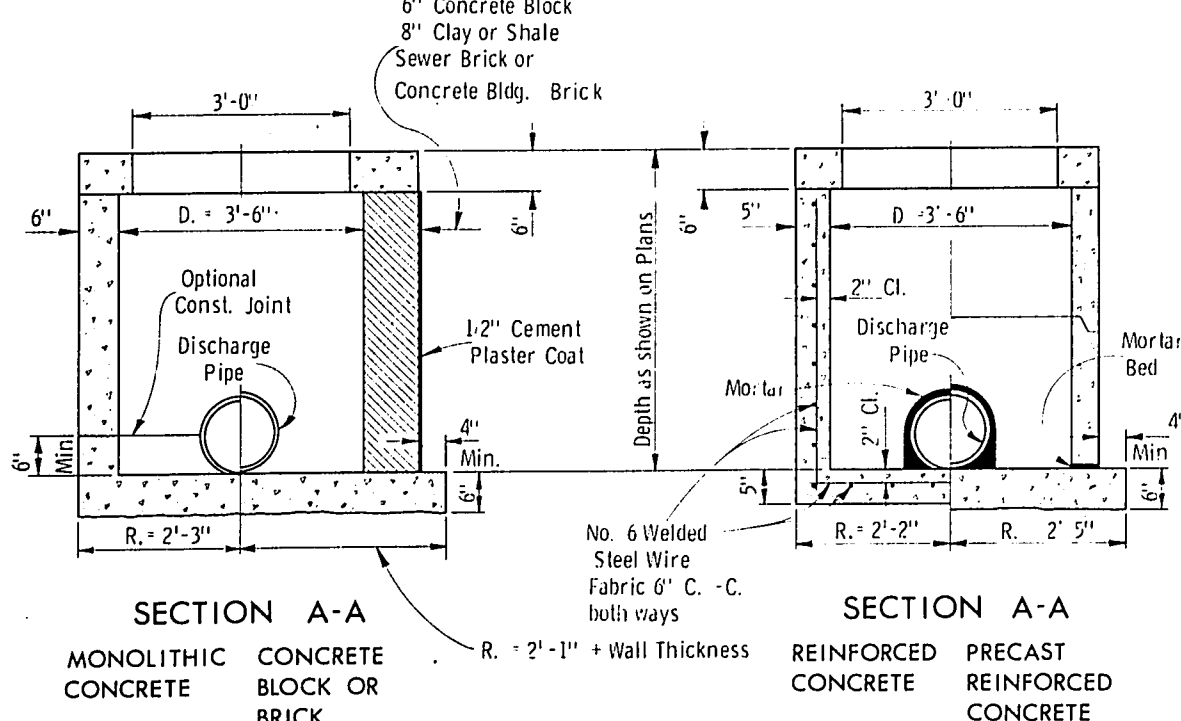
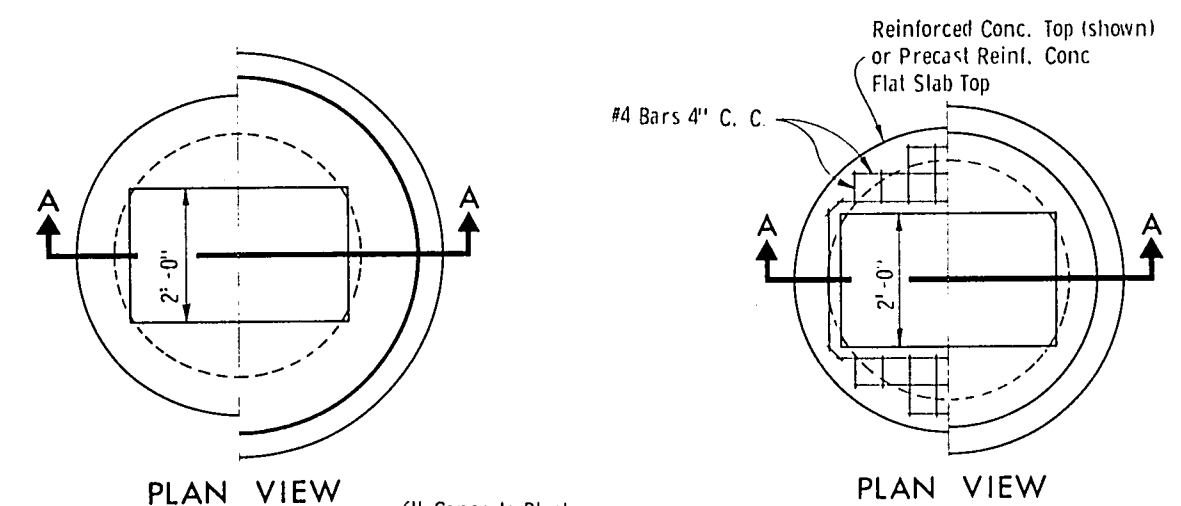
RIGHT GRATE: Shows a grate with diagonal slots oriented towards the curb. Direction of flow is indicated by an arrow pointing towards the curb.

LEFT GRATE: Shows a grate with diagonal slots oriented away from the curb. Direction of flow is indicated by an arrow pointing away from the curb.

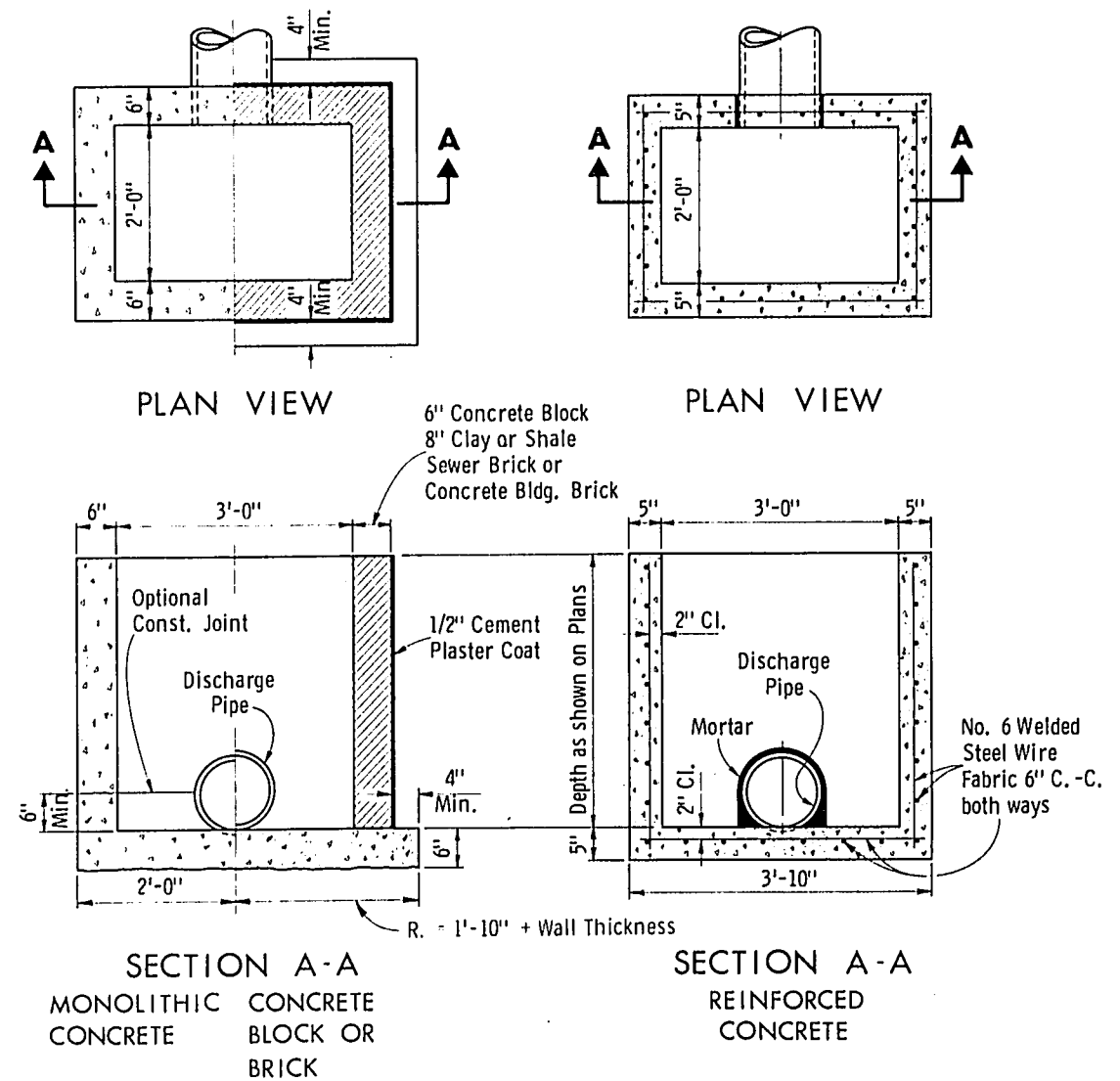
**GENERAL NOTES**

1. Details of construction, materials and workmanship not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications and the applicable Special Provisions.
2. Detailed drawings for proposed alternate designs for Inlets shall be submitted to the Engineer for approval providing that such alternate designs make provision for equivalent capacity and strength.
3. All Inlets are designated on the Plans as "Inlets, 3-H", etc. This designation is interpreted to mean that the number, or first digit, designates the masonry portion of the structure, and the following letter, designates the type of cover or iron casting to be used therewith to comprise the complete unit "Inlet" in place.
4. All bar steel reinforcement shall be embedded 2 inches clear unless otherwise shown or noted.
5. Precast Reinforced Bases may be used in lieu of cast-in-place bases. When Precast Bases are used, they shall be placed on a bed of material at least 6 inches in depth, which meets the requirements for Granular Backfill. This bedding material shall be compacted and provide uniform support for the entire area of the base.
6. All Precast Reinforced Concrete Risers, Grade Rings, and Flat Slab Tops shall conform to AASHO Designation M 199. Precast Reinforced Concrete Bases shall conform to the Flat Slab Top requirements of AASHO Designation M 199.
7. Adjustment of the cover to grade may be accomplished by the use of mortar and brick. Maximum adjustment shall be 8 inches.
8. Precast Reinforced Concrete Risers may be placed with tongue or "D" joint ends either up or down.
9. Strike all joints for brick or block construction.

**INLET COVER**



**INLETS TYPE 3**



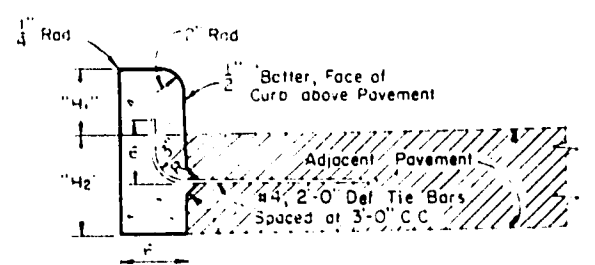
**INLETS TYPE 3 AND INLET COVER**

State of Wisconsin  
Department of Transportation  
Division of Highways

RECOMMENDED FOR APPROVAL  
DATE 4/25/69  
APPROVED  
DATE 4/25/69

E. J. Byrkit  
CHIEF DESIGN ENGINEER

M. J. Summasta  
STATE HIGHWAY ENGINEER



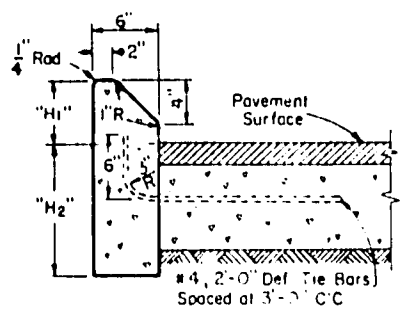
Tie Bar recess positioned in reverse when Concrete Curb is constructed first.

"H<sub>1</sub>" = 9" max and 3 1/2" min. and shall be 6" unless otherwise shown on the plans.

"H<sub>2</sub>" = Same as adjacent pavement thickness for rigid pavement and 12" for other than rigid pavement (Tie Bars Omitted).

TYPE "A" (Including Tie Bars) TYPE "D" (Excluding Tie Bars)

CONCRETE CURB

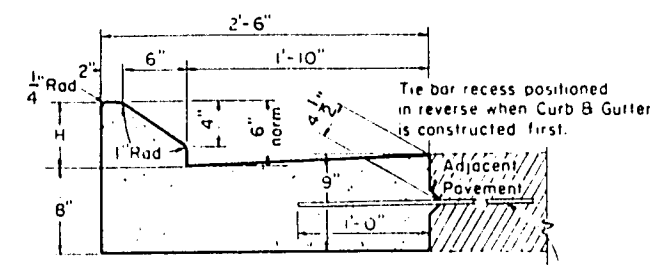


"H<sub>1</sub>" = 9" Max and 4" min and shall be 6" unless otherwise shown on plans.

"H<sub>2</sub>" = Same as adjacent pavement thickness for rigid pavement and 12" for other than rigid pavement (Tie Bars Omitted).

TYPE "G" (Including Tie Bars) TYPE "J" (Excluding Tie Bars)

CONCRETE CURB (Mountable Type)

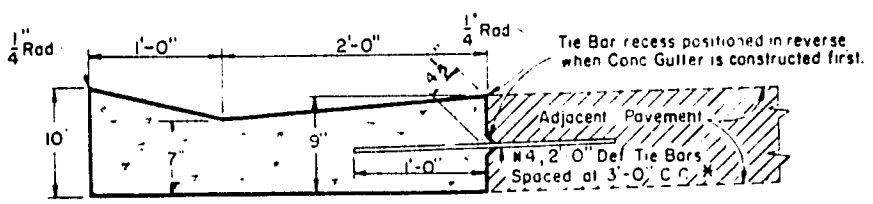


"H<sub>1</sub>" = 9" max and 4" min. & shall be 6" unless otherwise shown on the plans.

#4, 2'-0" Def. Tie Bars or alternate Bolt Type instal. may be used, spaced at 3'-0" C.C.

TYPE "G" (Including Tie Bars) TYPE "J" (Excluding Tie Bars)

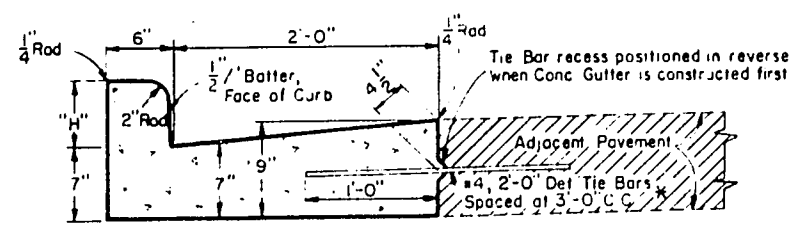
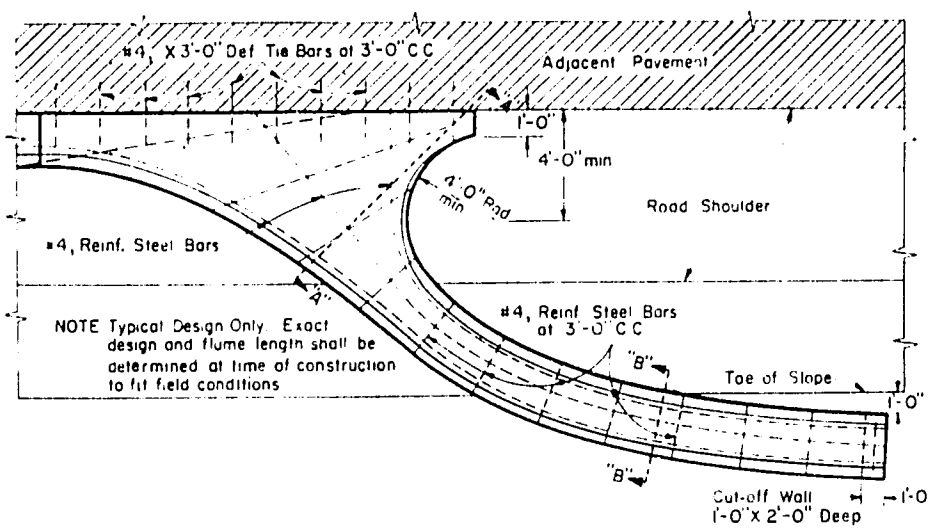
CONCRETE CURB AND GUTTER (Mountable Type)



\* Alternate Tie Bars or Bolt Type installations may be used as shown for Longitudinal Joints.

TYPE "A" (Including Tie Bars) TYPE "D" (Excluding Tie Bars)

CONCRETE GUTTER

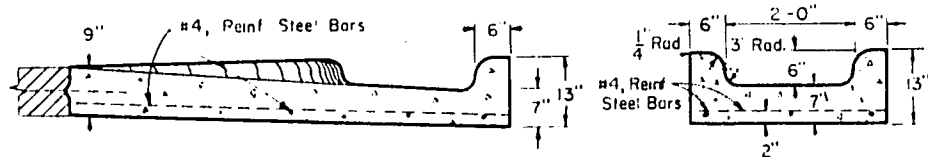


"H" = 9" Max, 3 1/2" Min. and shall be 6" unless otherwise shown on the plans.

\* Alternate Tie Bars or Bolt Type installations may be used as shown for Longitudinal Joints.

TYPE "A" (Including Tie Bars) TYPE "D" (Excluding Tie Bars)

CONCRETE CURB AND GUTTER (Barrier Type)



SECTION "A-A"

SECTION "B-B"

CONCRETE INLET OR DISCHARGE FOR CURB AND GUTTER SURFACE DRAIN

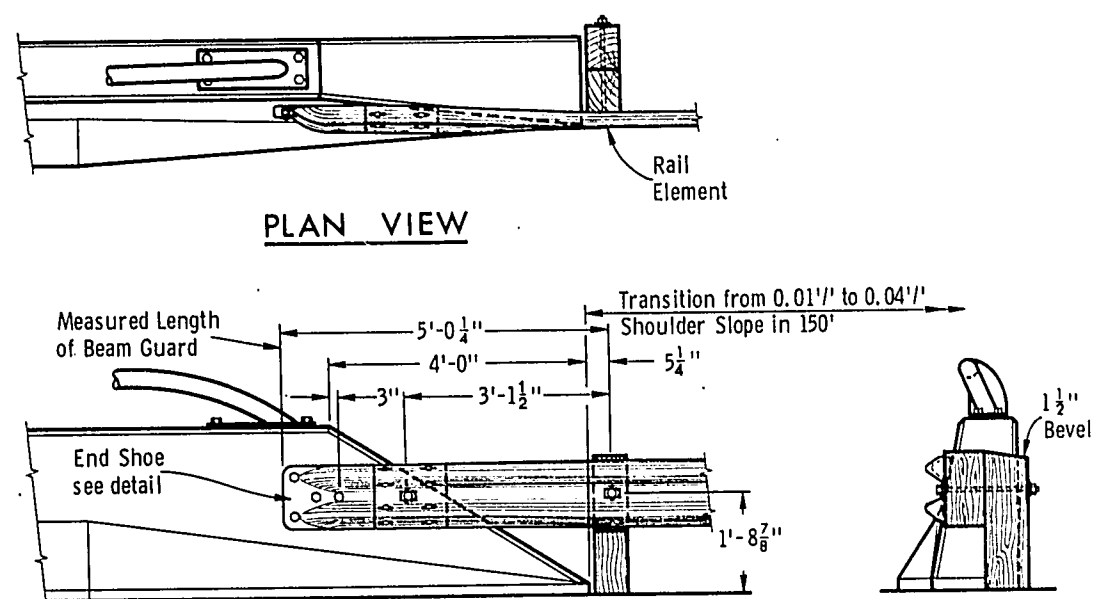
CONCRETE CURB, CONCRETE GUTTER  
CONCRETE CURB AND GUTTER AND  
CONCRETE SURFACE DRAINS

STATE HIGHWAY COMMISSION OF WISCONSIN

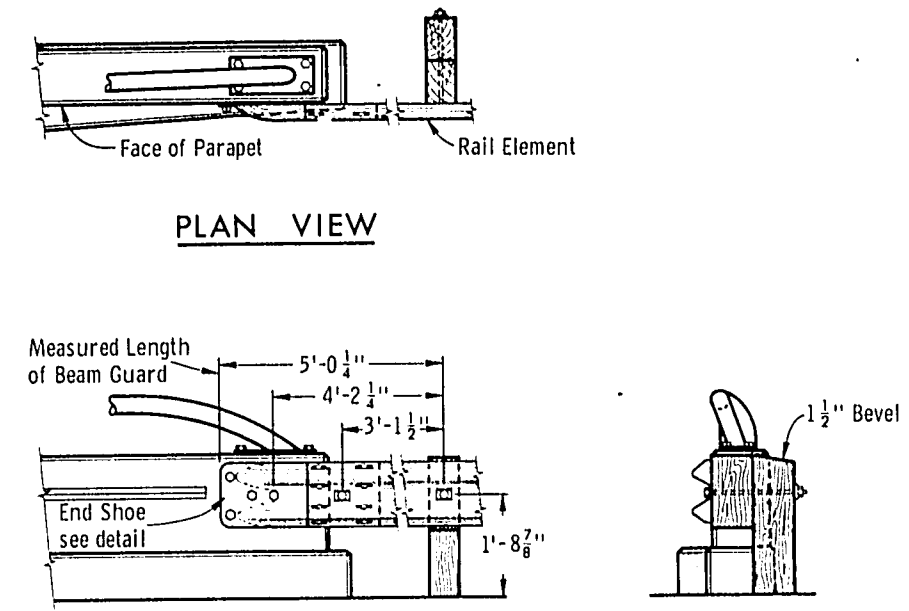
RECOMMENDED FOR APPROVAL  
DATE 2-5-63  
APPROVED: J. S. Pelt ENGINEER OF DESIGN  
DATE 2/6/63  
E. C. Rottiers STATE HIGHWAY ENGINEER



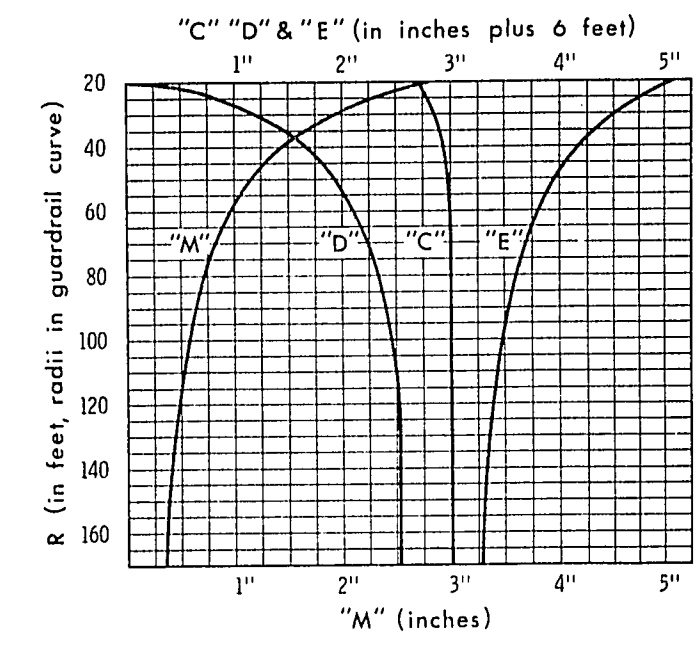
17.3-19



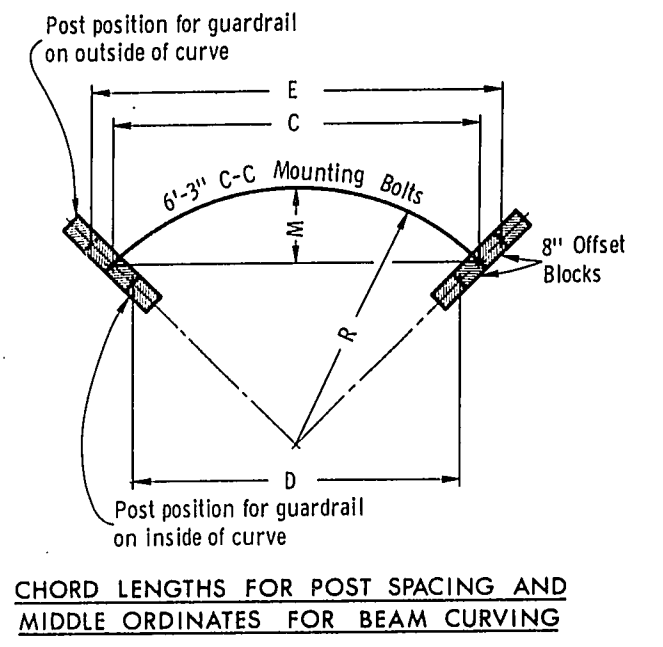
FRONT ELEVATION  
END ELEVATION  
**STRUCTURE MOUNTING DETAIL**  
**SLOPING TYPE PARAPET WALL**



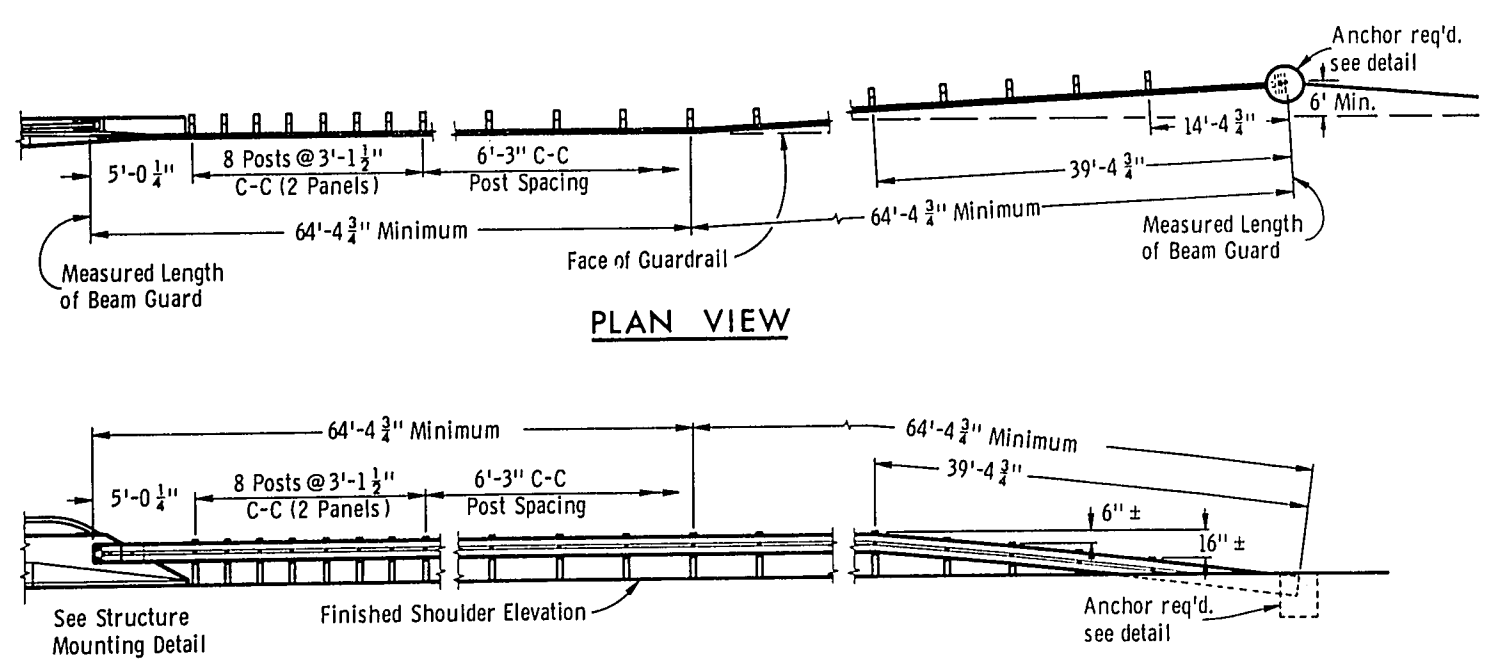
FRONT ELEVATION  
END ELEVATION  
**STRUCTURE MOUNTING DETAIL**  
**VERTICAL TYPE PARAPET WALL**



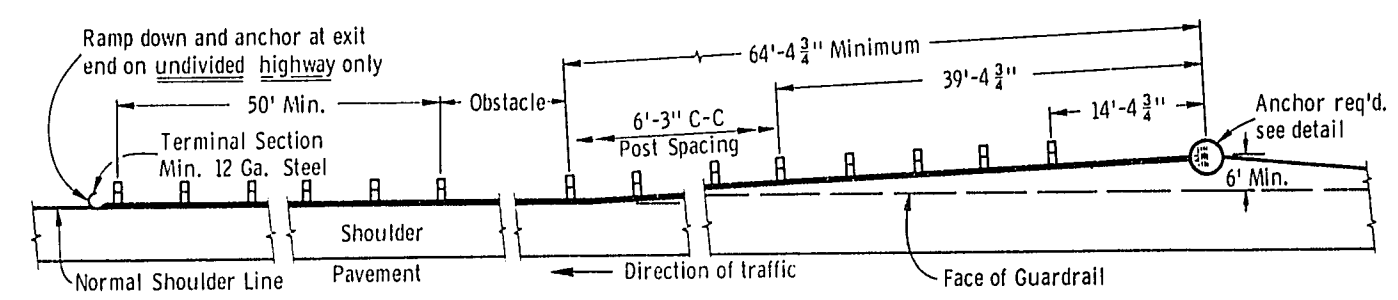
**CURVE DATA FOR POST SPACING AND BEAM CURVING**



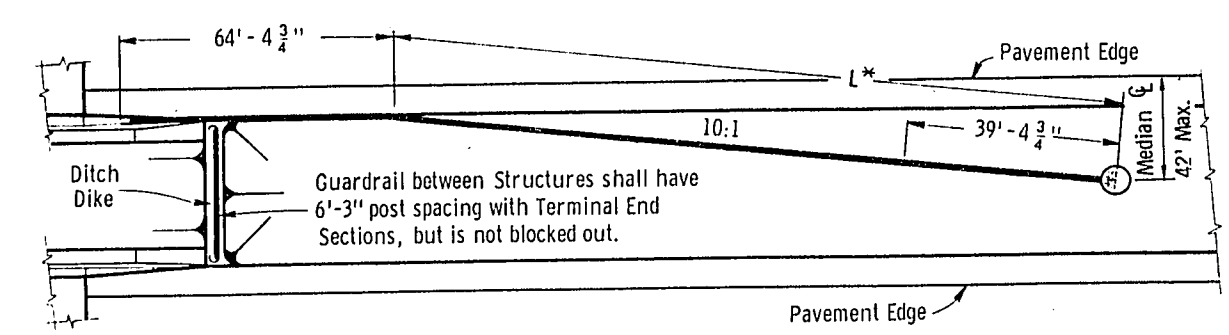
**CHORD LENGTHS FOR POST SPACING AND MIDDLE ORDINATES FOR BEAM CURVING**



FRONT ELEVATION  
**TYPICAL OUTSIDE SHOULDER INSTALLATION AT STRUCTURES**



**TYPICAL INSTALLATION AT LOCATIONS OTHER THAN STRUCTURES**



\* Variable based on Median width

**MEDIAN PROTECTION**

**GENERAL NOTES**

Details of construction, materials and workmanship not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications and the applicable Special Provisions.

The exact location of the beginning and end of each Guardrail installation shall be as shown on the plans or as directed by the Engineer.

Square anchor alternates will be permitted. Square anchors shall be a minimum of 24 inches x 24 inches.

The shoulder widening to accommodate the anchored end of the Guardrail shall be accomplished at a rate of widening not to exceed 50 to 1.

Upon approval of the Engineer, the 6 foot anchor offset may be reduced to 3 feet, for replacement installations where existing conditions will not permit the desirable offset.

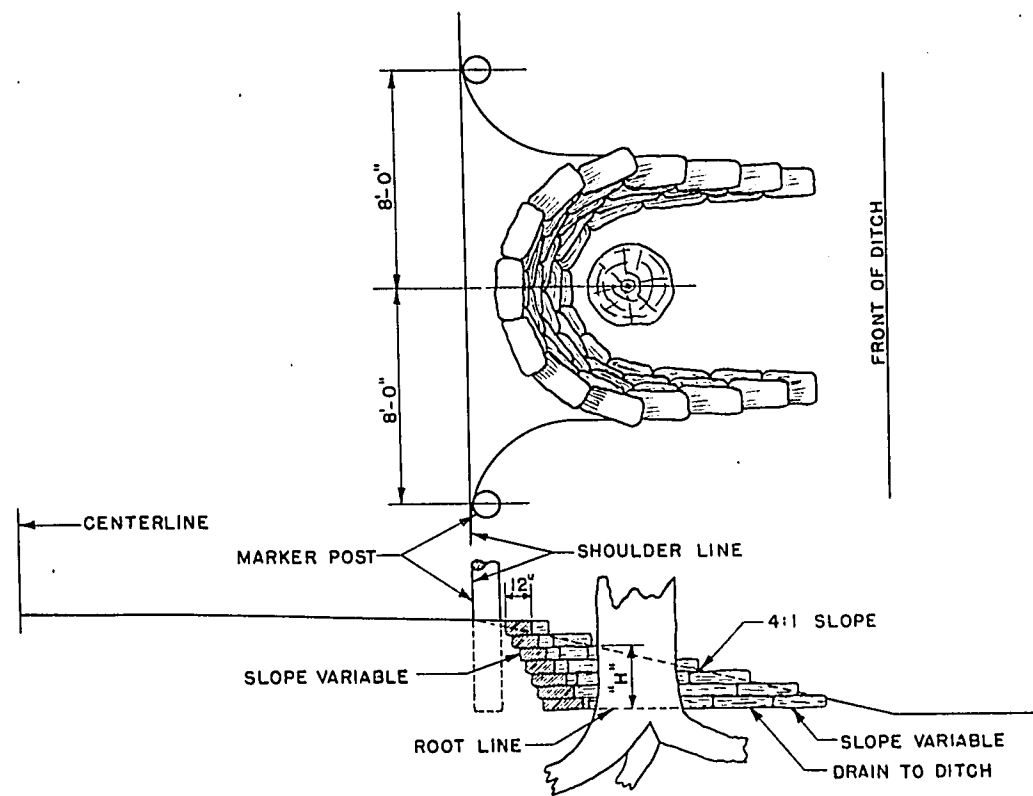
The Post Footing Details at Piers shall be used when Guardrail Posts are over structure footings and less than 3'-6" of earth is provided over the top of the footing.

**NOTE:** This Standard Detail Drawing consists of two plates, 7-2.4.14a and 7-2.4.14b. Both plates are required when this Standard is called for in the plans.

**CLASS "A"**  
**STEEL PLATE BEAM GUARD & STEEL PLATE BEAM MEDIAN GUARD**

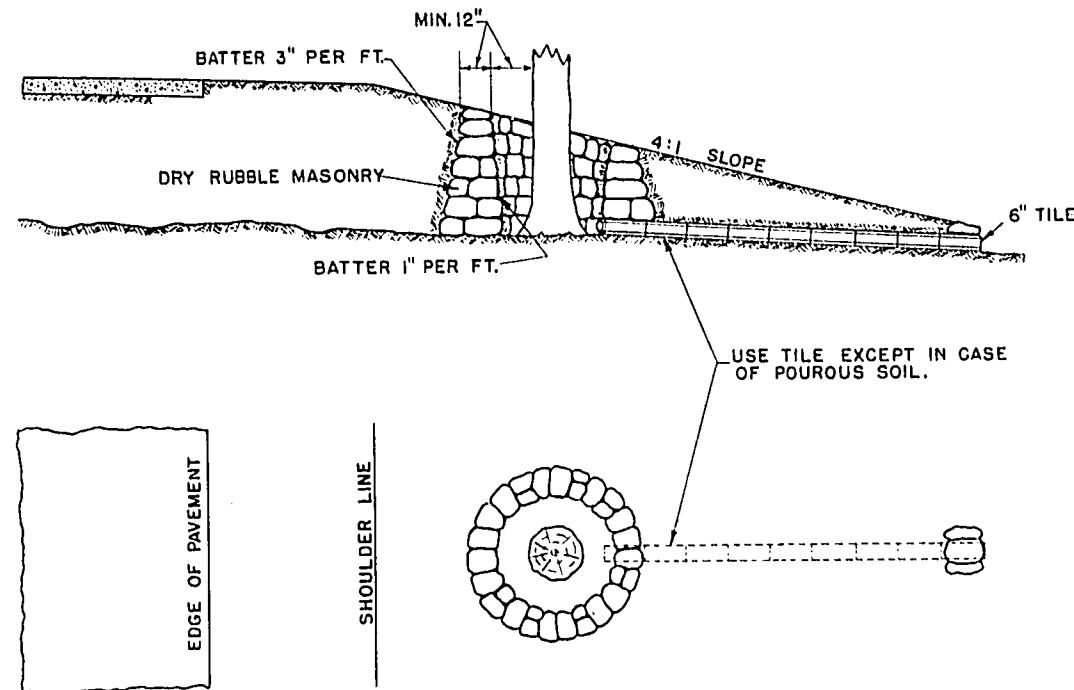
*State of Wisconsin*  
*Department of Transportation*  
*Division of Highways*



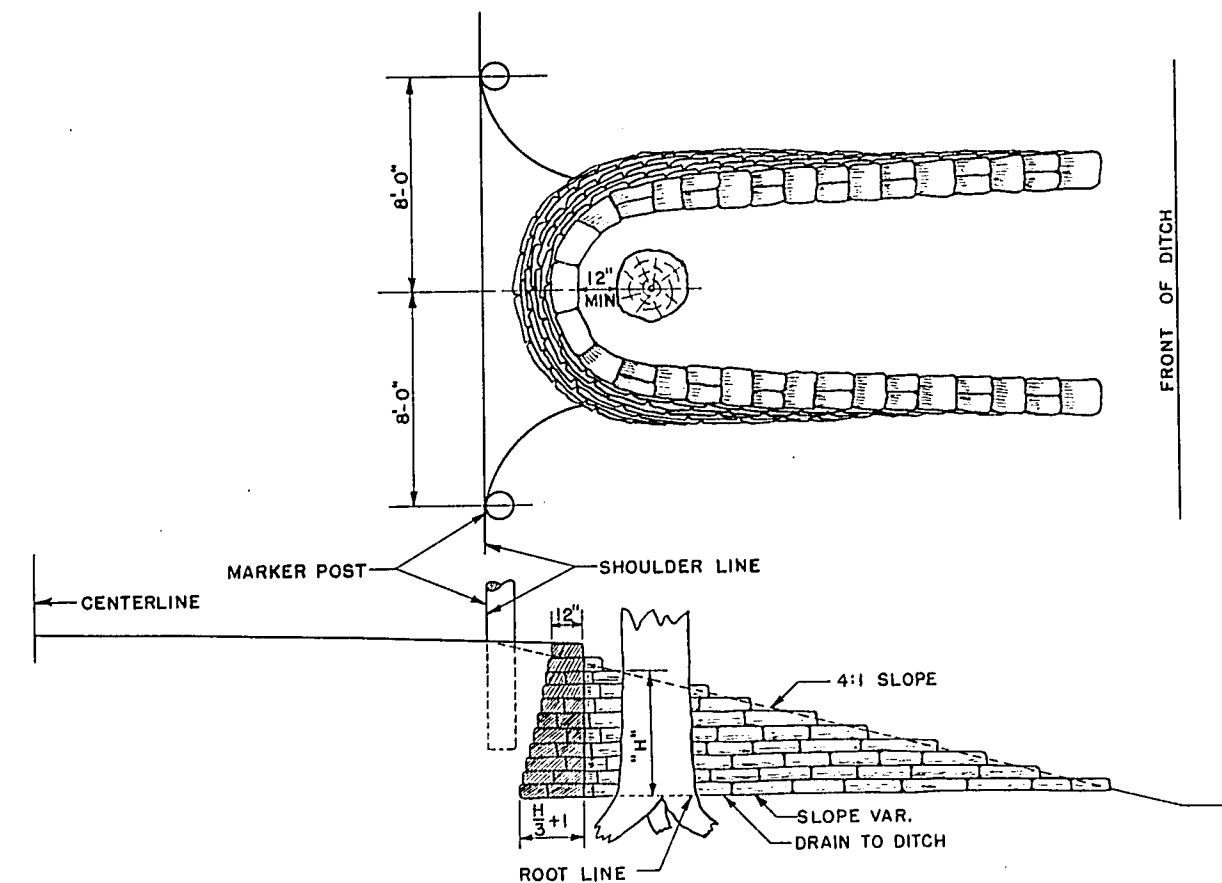


USE THIS SECTION WHEN "H" IS UNDER 3 FEET

NOT REQUIRED FOR 10" TO 15" OF GRAVEL OR SAND FILL



### FULL TREE WELL

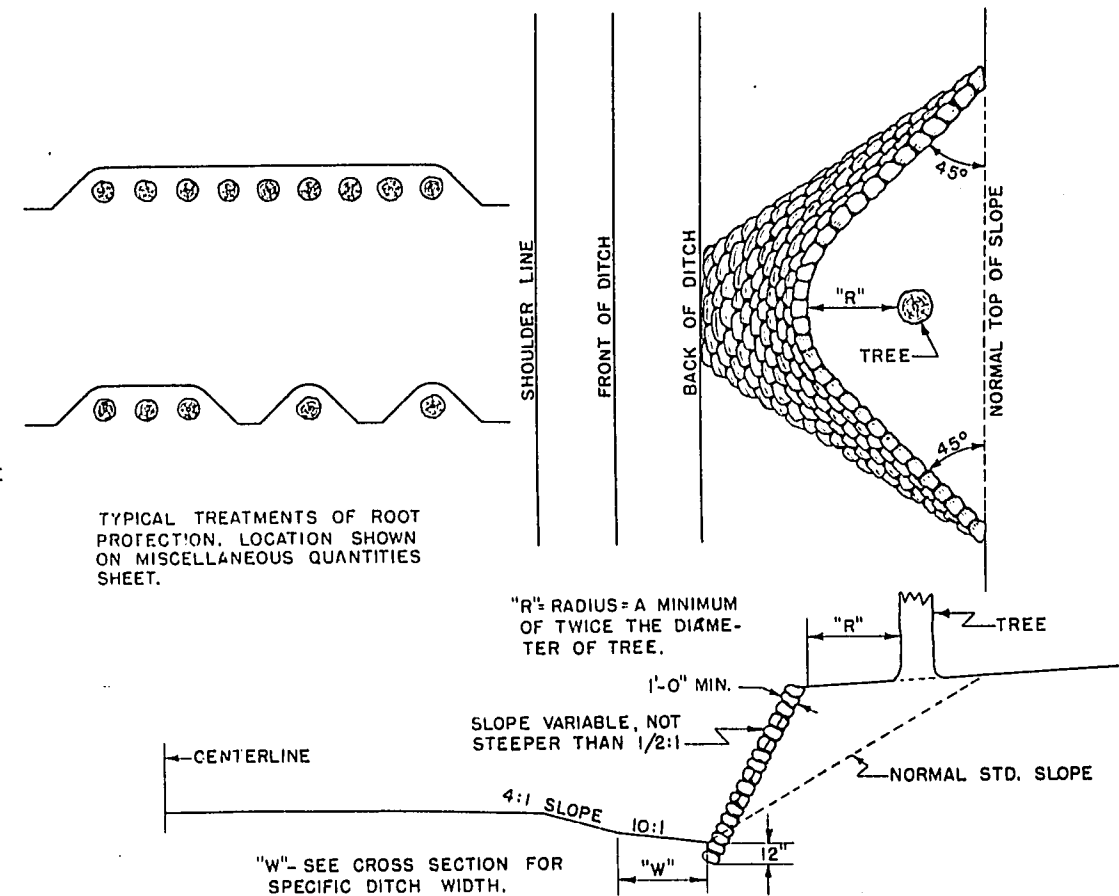


USE THIS SECTION WHEN "H" = 3' OR MORE

### TREE WELLS IN FILL SECTION

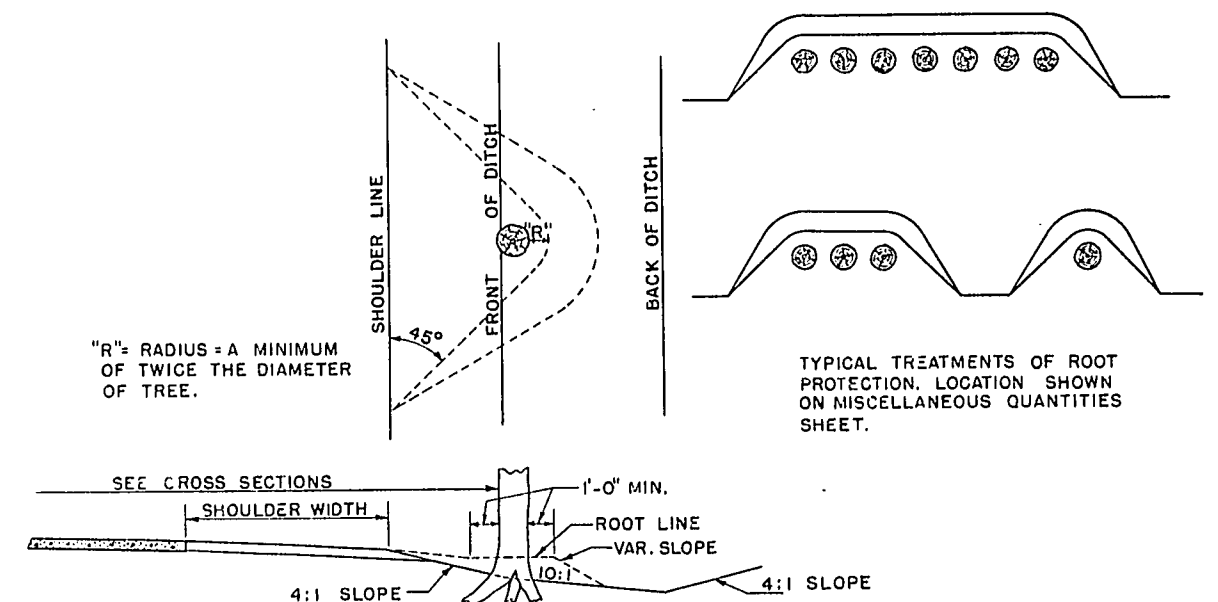
### DETAILS FOR TREE WELLS

SECTIONS SHOWING METHODS TO BE USED FOR PROTECTING AND / OR PRESERVING TREES.



### DETAILS FOR ROOT PROTECTION

SECTIONS SHOWING METHODS TO BE USED FOR PROTECTING AND / OR PRESERVING TREES.



### DETAILS OF TREE ISLAND

### GENERAL NOTES

WALLS TO BE BUILT TO APPROXIMATE SHAPE AND DIMENSIONS SHOWN. STONE TO CONFORM TO SPECIFICATIONS FOR DRY RUBBLE MASONRY AND TO BE BID AS SUCH.  
THESE DESIGNS ARE NOT INTENDED AS A CRITERION OF THE DISTANCE FROM THE CENTERLINE OR SHOULDER LINE TO WHICH TREES SHALL OR SHALL NOT BE REMOVED, BUT MERELY AS A DETAIL OF THE CONSTRUCTION TO BE USED WHEN IT IS OTHERWISE FOUND NECESSARY OR DESIRABLE TO LEAVE TREES IN THE LOCATIONS INDICATED IN THE DETAILS PORTRAYED.

### TREE PRESERVATION DETAILS

#### STATE HIGHWAY COMMISSION OF WISCONSIN

RECOMMENDED FOR APPROVAL:

*Franklin*  
DESIGN ENGINEER

*Miller*  
CONSTRUCTION ENGINEER

APPROVED:

OCT. 1, 1945

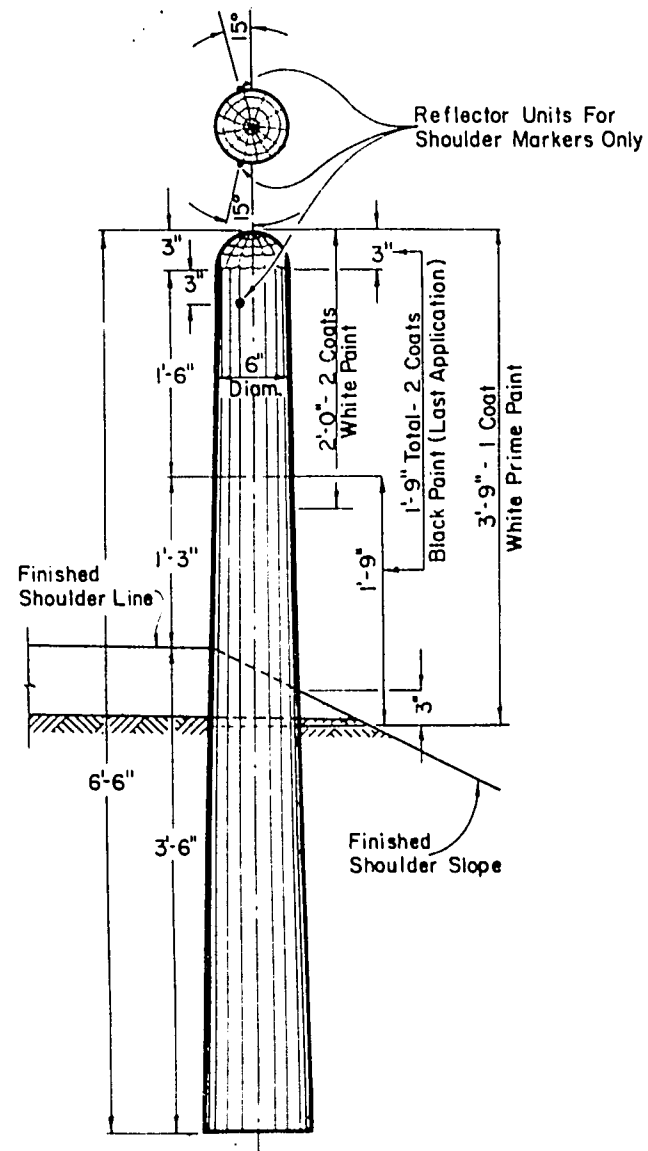
DATE

DRAWN - R.D.S.  
CHK'D - N.F.C.

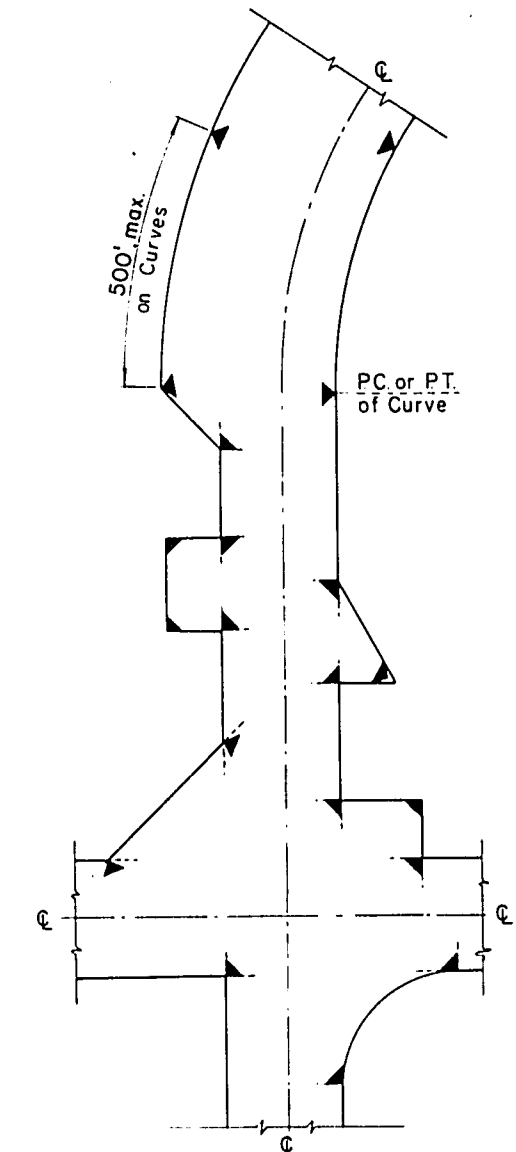
*R. L. Rugg*  
STATE HIGHWAY ENGINEER



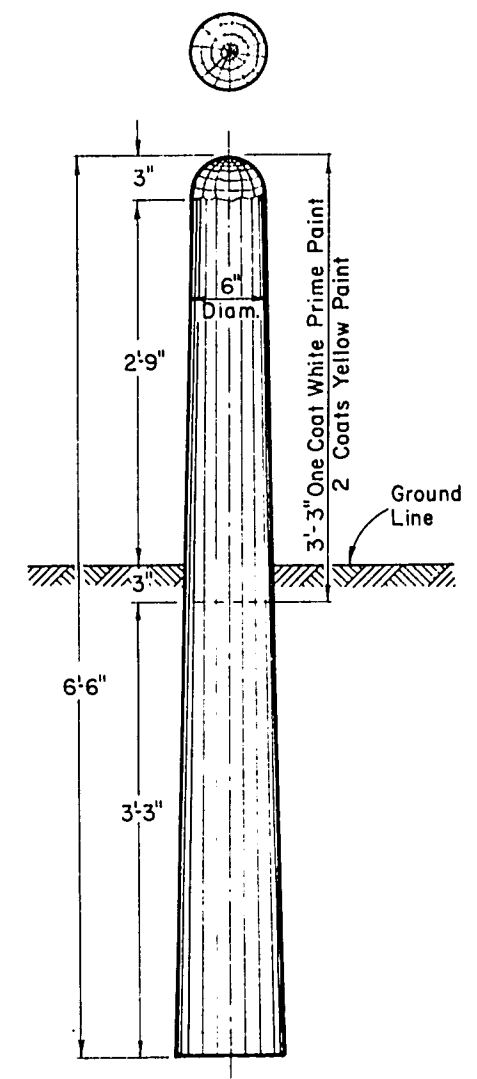
17.6-19



MARKER POST FOR  
ROAD SHOULDERS

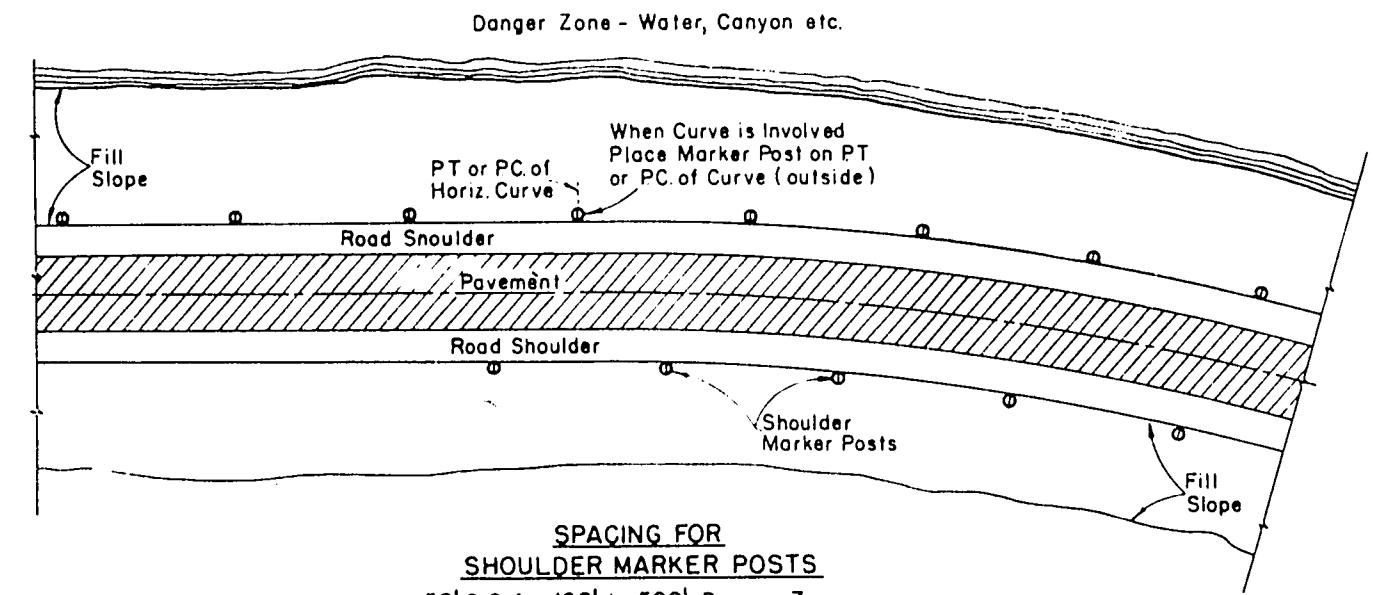


LOCATION DIAGRAM  
SHOWING TYPICAL LOCATIONS OF  
MARKER POSTS FOR RIGHT OF WAY



MARKER  
POST  
FOR  
RIGHT OF WAY

MARKER POST FOR RIGHT OF WAY



SPACING FOR  
SHOULDER MARKER POSTS  
50' C:C for 100' to 500' Danger Zones  
100' C:C for Over 500' Danger Zones

LOCATION DIAGRAM  
SHOWING RELATIVE LOCATIONS OF SHOULDER MARKER POSTS

MARKER POSTS FOR ROAD SHOULDERS

GENERAL NOTES

Details of construction not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications and the applicable Special Provisions.

MARKER POSTS FOR RIGHT OF WAY

Right of Way Marker Posts shall be erected in advance of grading operations. Posts shall be placed at the outer limits of the highway Right of Way, but entirely within the Right of Way, and shall be so placed that the outer edge of the posts shall be tangent to the Right of Way line or lines extended. The exact location of all Right of Way posts will be staked in the field by the Engineer.

REFLECTOR UNITS

Reflector Units shall be installed in road shoulder marker posts only. Reflector Units shall have plastic crystal lens 7/8" in diameter. Unit assembly shall be a minimum of 7/8" in length. Reflector Units shall be furnished with flared expanding metal clips for wood mounting. Units shall be mounted in tightest fit possible and securely stayed in posts.

MARKER POSTS & MARKER POSTS FOR RIGHT OF WAY	
State Highway Commission of Wisconsin	
RECOMMENDED FOR APPROVAL DATE 7/6/66	APPROVED DATE 7/8/66
E. J. Byrkit STATE HIGHWAY ENGINEER	
J. J. Lammert STATE HIGHWAY ENGINEER	

**GENERAL NOTES**

The contractor shall construct, place and maintain barricades as shown on the drawing and as required by the Standard Specifications or applicable Special Provisions.

**CLASS 1 BARRICADE:**

Class 1 Barricades shall be of variable length as indicated, and long barricades shall be assembled from these units. The Class 1 Barricade is the type normally required for major operations, where the barricade will remain in place for extended periods. Class 1 Barricades shall be used at points where the road is closed to traffic. Gates or movable sections of a barricade shall be provided when necessary, for access of equipment or other authorized vehicles. Wing Barricades are Class 1 Barricades erected on the shoulder on one or both sides of the pavement to give Traffic the perceptive effect of a narrowing or restricted roadway. The ends closest to traffic of all three members of a wing barricade shall be in a vertical line. If used in a series, they should start at the outer edge of the shoulder and be brought progressively closer to the pavement. Wing Barricades may be used as a mounting for the advance warning or guide signs or for flashers. When used on two-way roadways, the back of the wing barricade shall be painted reflectorized white.

**CLASS 11 BARRICADE:**

Class 11 Barricades may be used only where the hazard to traffic is relatively small, and for the more or less continuous delimiting of a restricted roadway, or for temporary daytime use.

**MATERIAL & FABRICATION:**

Lumber shall be of a grade structurally sound and sufficiently rigid to satisfactorily support and maintain the purpose and intent of a barricade facility. Metal shall be sufficiently rigid to satisfactorily support and maintain the purpose and intent of a barricade facility. The fabrication of the barricade shall be in accord with good pertinent woodworking and metalworking practices. All lumber or timber dimensions stated are nominal.

**PAINTING:**

All barricades shall be painted in alternate 4" or 6" black and white stripes at a 45° angle. The width of stripe shall be consistent for each complete barricade installation. Black stripes shall be painted with weather resistant and durable black paint. White stripes shall be primed, followed by two coats of white reflectorized paint or reflective wide angle sheeting.

**DIRECTION OF DIAGONAL STRIPES:**

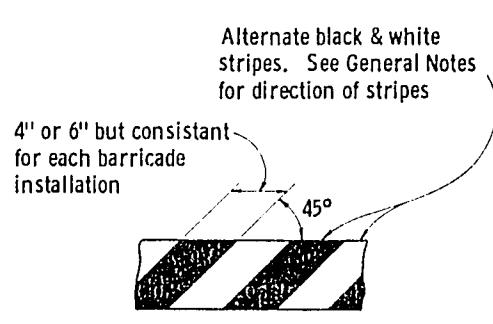
Where a barricade extends entirely across the roadway with no vehicle access provision, the stripes shall slope downward toward the highway centerline. Where vehicle access is permitted, the stripes shall slope downward in the direction toward which vehicles must turn in detouring. Where both right and left turns are provided for, the stripes shall slope downward in both directions from the center. The stripes on wing barricades shall point downward toward the roadway.

**LIGHTING:**

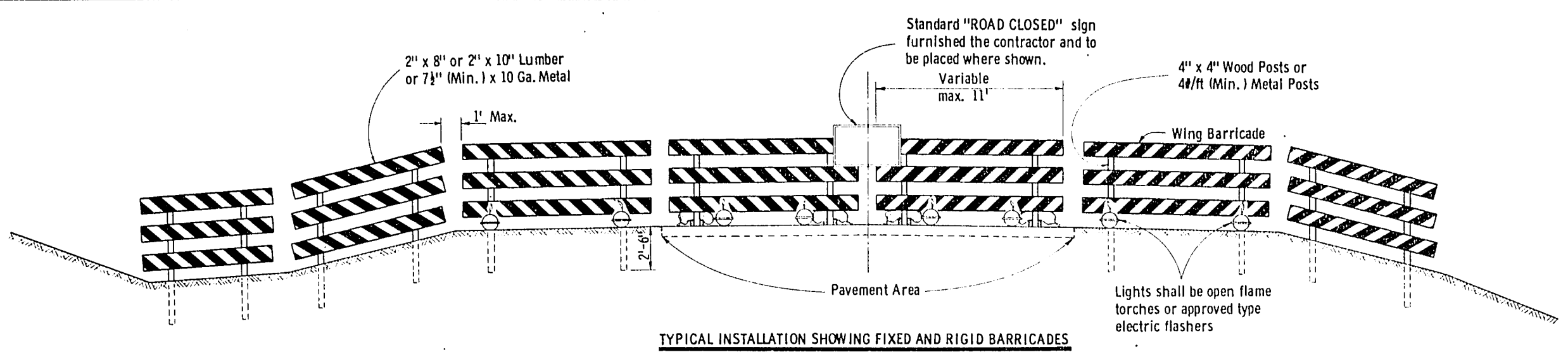
Lighting devices for barricades shall conform to the requirements of the Standard Specifications.

**MEASUREMENT & PAYMENT:**

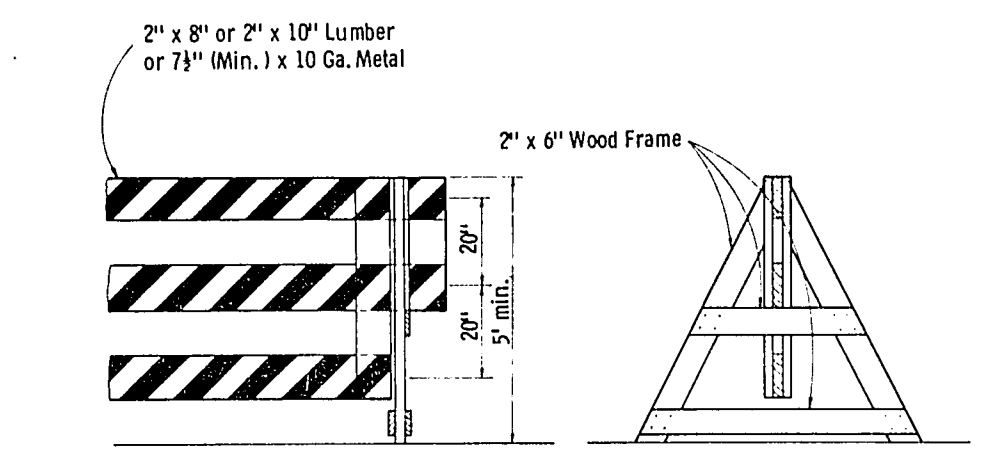
All barricades, unless otherwise provided for in the plans and/or special provisions shall be furnished, placed, and maintained as noted above, and no additional compensation will be allowed but shall be construed to be included in the price bid for other items.



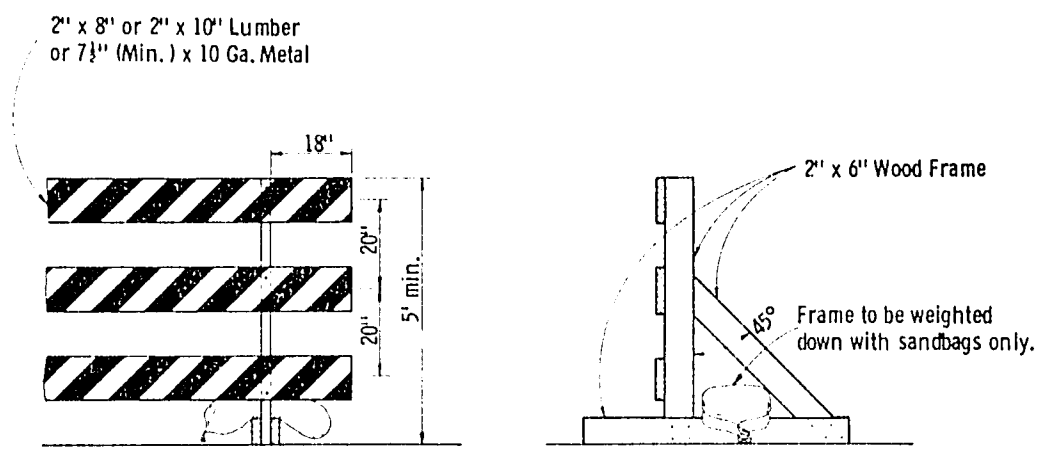
**TYPICAL DIAGONAL STRIPES**  
Applies to all Classes & Types of Barricades



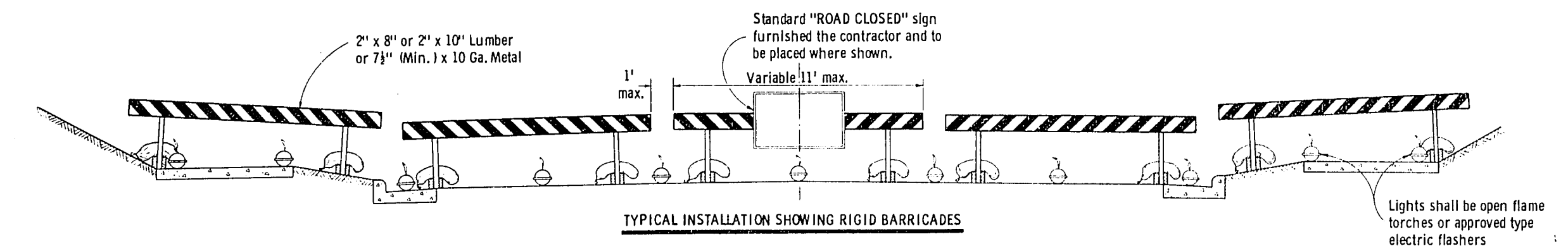
**TYPICAL INSTALLATION SHOWING FIXED AND RIGID BARRICADES**



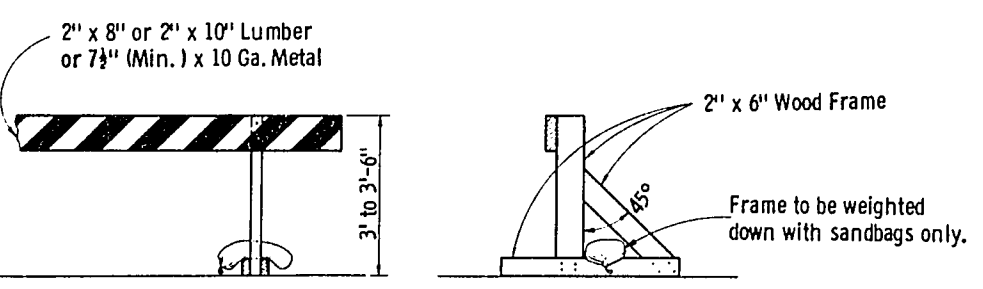
**ALTERNATE TYPE INSTALLATION (DEMOUNTABLE)**



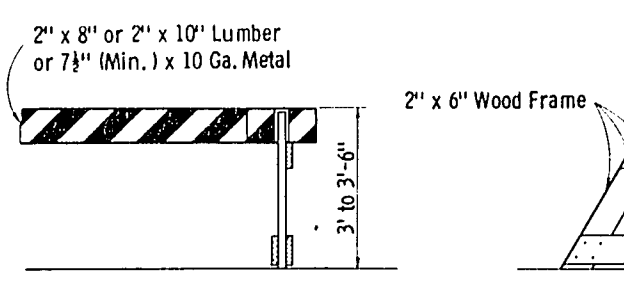
**ALTERNATE TYPE INSTALLATION (RIGID)**



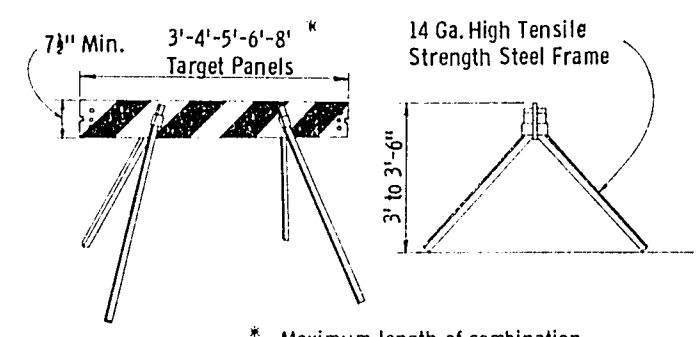
**TYPICAL INSTALLATION SHOWING RIGID BARRICADES**



**ALTERNATE TYPE INSTALLATION (RIGID)**



**ALTERNATE TYPE INSTALLATION (DEMOUNTABLE)**

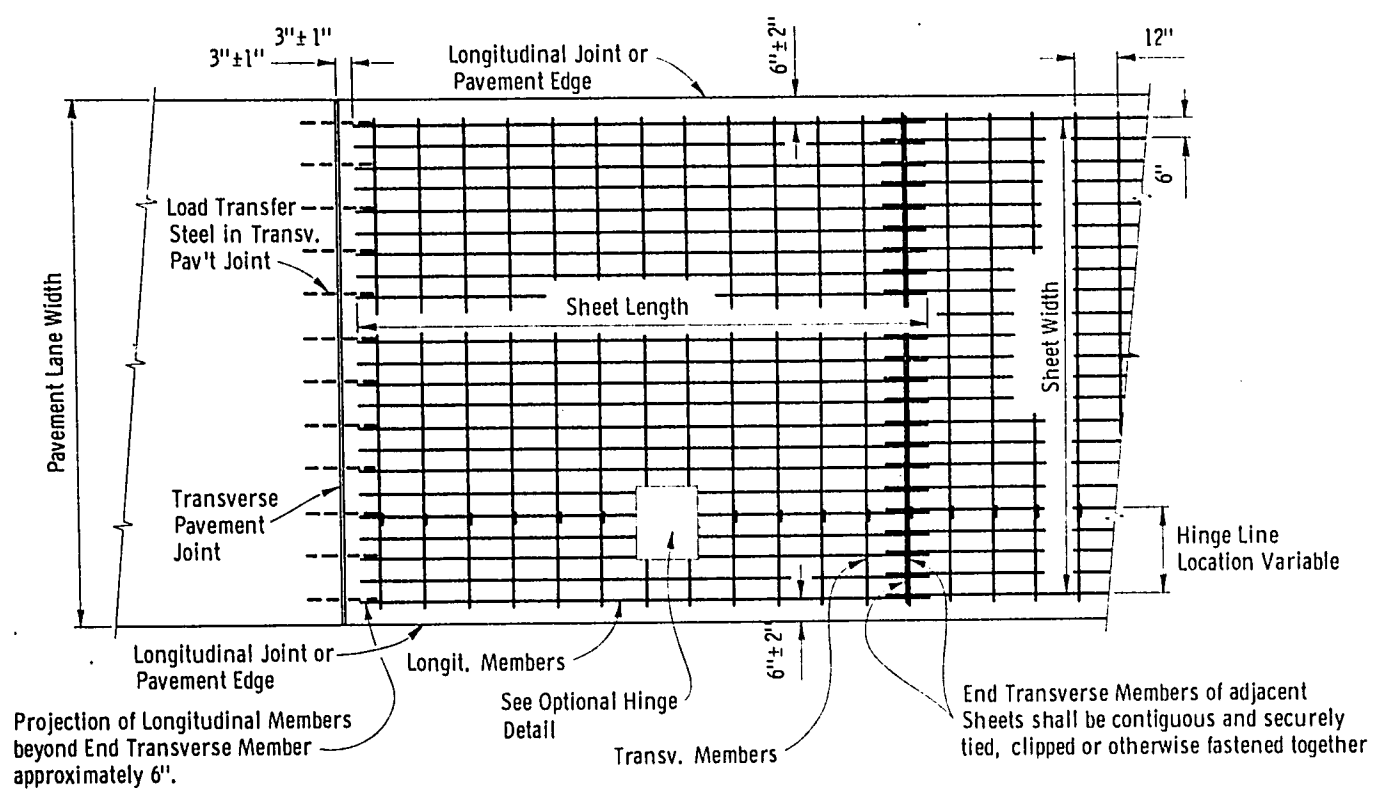


**ALTERNATE TYPE INSTALLATION (DEMOUNTABLE)**

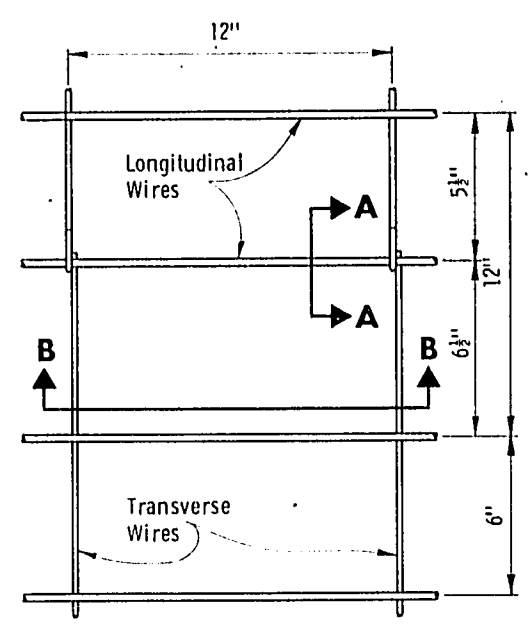
**CLASS II BARRICADES**

CONSTRUCTION BARRICADE	
State Highway Commission of Wisconsin	
RECOMMENDED FOR APPROVAL	DATE
<i>E. J. [Signature]</i>	1/11/67
DESIGN ENGINEER	
APPROVED	DATE
<i>[Signature]</i>	1/13/67
STATE HIGHWAY ENGINEER	

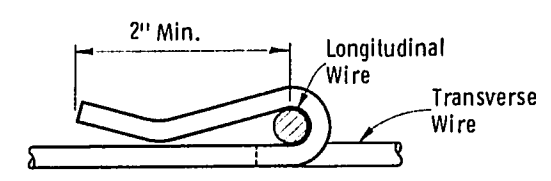
17.8-19



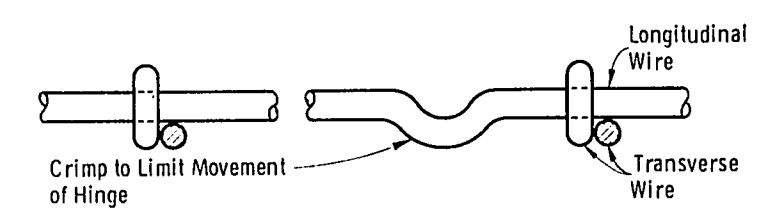
PLAN VIEW



PLAN VIEW

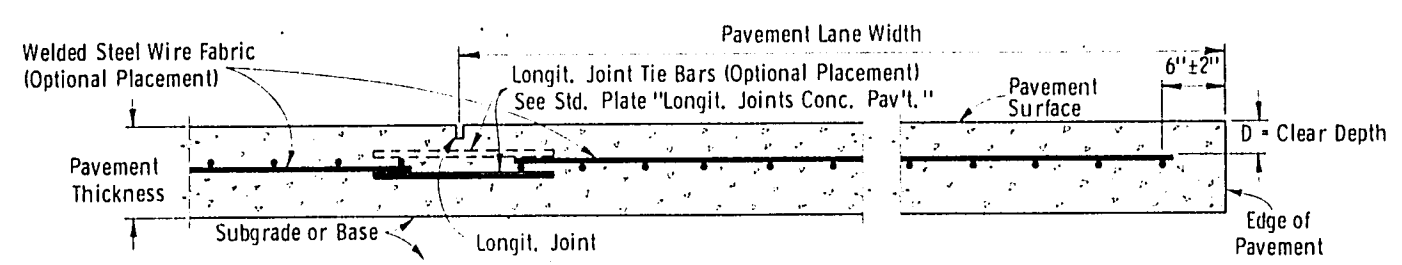


SECTION A-A



SECTION B-B

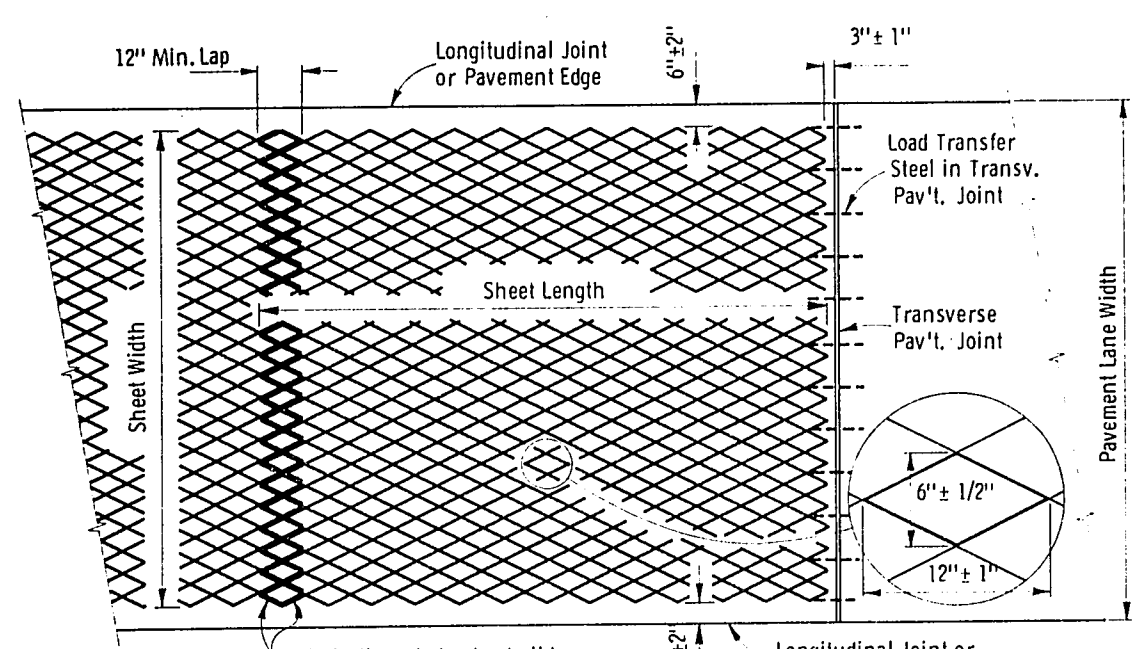
OPTIONAL HINGE DETAIL



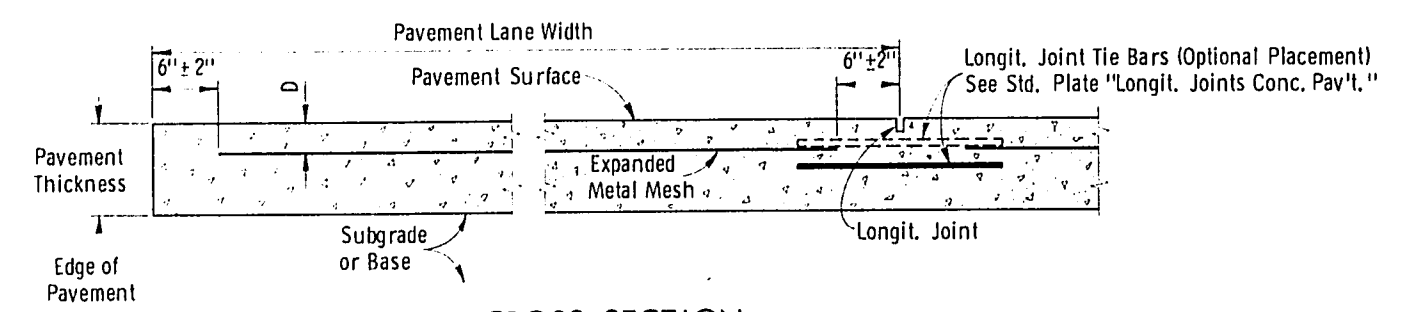
CROSS SECTION

WELDED STEEL WIRE FABRIC

Pavement Thickness	"D"
8"	2"-4"
9"	2"-4 1/2"
10"	2"-5"



PLAN VIEW



CROSS SECTION

EXPANDED METAL MESH

### GENERAL NOTES

Details of construction and materials not shown hereon shall conform to the pertinent requirements of the Standard Specifications and the applicable Special Provisions.

Alternate hinge designs may be used upon approval of the engineer.

### WELDED STEEL WIRE FABRIC

Welded Steel Wire Fabric shall conform to the requirements of the Standard Specifications for Welded Steel Fabric for Concrete Reinforcement A.A. S.H.O. Designation M55 except as shown hereon.

### Welded Steel Wire Fabric Specifications:

- Approximate Weight per 100 sq. ft. = 69.0 lbs.
- Longitudinal Steel - Gage No. 0 = 0.3065" D. at 6" C-C.
- Transverse Steel - Gage No. 4 = 0.2253" D. at 12" C-C.

Side lap of adjacent sheets shall be approximately 6".

### EXPANDED METAL MESH

Weight per 100 sq. ft. = 76.0 lbs min. Expanded Metal Mesh shall be manufactured from open hearth steel, having a phosphorus content of not more than 0.05 percent, and a yield point of not less than 55,000 p.s.i. The steel shall be sufficiently ductile to permit any strand to be bent through an angle of 180 degrees over one diam. without fracture. The diamond shaped mesh shall be fabricated by a cold drawn process which will cut and draw the steel forming uniform dimensioned strands conforming to shape and weight as shown elsewhere hereon.

Side lap of adjacent sheets shall be approximately 6".

### SPECIAL REQUIREMENTS

Welded Steel Wire Fabric or Expanded Metal Mesh Concrete Pavement Reinforcement shall be shipped to the job site in flat sheets.

One longitudinal hinge line will be permitted in each Welded Steel Wire Fabric sheet for convenience in shipping. This hinge shall encircle the longitudinal wire such that no more than one (1) inch of transverse movement of the hinge exists. The longitudinal wire around which the hinge rotates shall be crimped adjacent to the hinge such that no more than one (1) inch of longitudinal movement of the hinge exists.

### CONCRETE PAVEMENT REINFORCEMENT

State of Wisconsin  
Department of Transportation  
Division of Highways

RECOMMENDED FOR APPROVAL  
DATE 3/13/69

E. J. Byrkit  
CHIEF DESIGN ENGINEER

APPROVED  
DATE 3/27/69

J. J. Armbruster  
STATE HIGHWAY ENGINEER

BPR REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	1536-6-41	18	19

STATION	DISTANCE	YARDAGE			
		EXCAVATION			FILL
		UNCL.	BORROW		
369 +50		8			
371		9			20
372		10			40
373		13			30
374		20			10
376 +65		100			
TOTAL		60	100		100

SCALE 1" = 5'

INTERSECTION  
U.S.H. 10 & S.T.H. 25

BEGIN CONST.  
369+50

END CONST.  
376+65

96.07

97.97

99.57

100.07

$$\frac{374+00}{95.0}$$
$$\frac{373+00}{100.0}$$
$$\frac{372+00}{100.0}$$
$$\begin{array}{r} 371+00 \\ \hline 100:0 \end{array}$$



