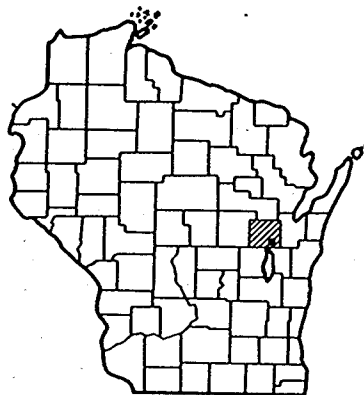


Index of Sheets

Sheet No. 1	Title
Sheet No. 2-2.4	Typical Sections and Details
Sheet No. 3-3.1	Estimate of Quantities
Sheet No. 3A	Miscellaneous Quantities
Sheet No. 4	Right of Way Plat
Sheet No. 5-5.1	Plan and Profile
Sheet No. 6-6.8	Standard Detail Drawings
Sheet No. 7	Standard Sign Plates
Sheet No. 8	Structure Plans
Sheet No. 9-9.3	Computer Earthwork Data
Sheet No. 9-9.3	Cross Sections

TOTAL SHEETS = 24



STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

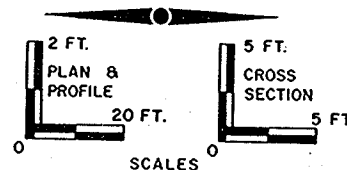
C.T.H. "N" & C.T.H. "00" INTERSECTION

VILLAGE OF LITTLE CHUTE

C.T.H. "00"

OUTAGAMIE COUNTY

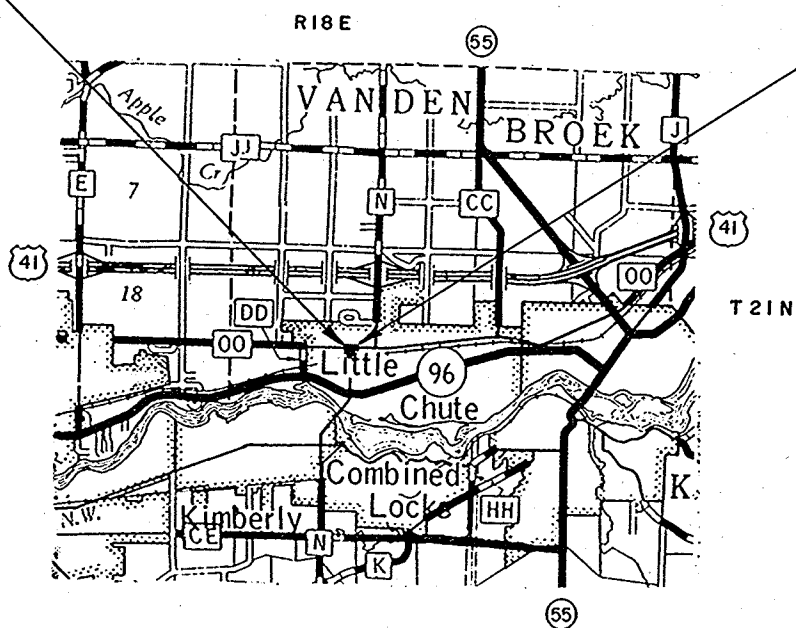
STATE PROJECT NUMBER
4990-0-06



**BEGIN PROJECT
STA. 95 + 00**

* N = 170,000 (± 200)
* E = 2,441,000 (± 200)

**END PROJECT
STA. 100 + 68**

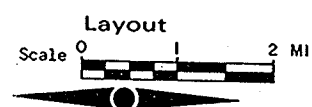


Design Designation

	C.T.H. "00"	C.T.H. "N"
A.D.T. 1982	11,300	8,300
A.D.T. 2002	20,000	14,100
D.H.V. 2002	2,490	1,580
D.	50%	50%
T.	8%	8%
V.	45 M.P.H.	25 M.P.H.

Conventional Signs

County Line	-----	Caution Symbol (Combustible fluids under pressure)	
Township or Range Line	-----	Railroads	+++++
Section Line	-----	Fence	---X---
Corporate or City Limits	=====	Culverts in Place	-----
Property line	-----	Culverts Required	-----
Lot Line	-----	Power Pole	---P---
Existing Right of Way Line	-----	Telephone or Telegraph Pole	---T---
New Right of Way Line	-----	Right of Way Markers	---M---
Base or Survey Line	-----	Marsh	-----
Slope Intercept	-----	Wooded Area	-----
Existing Roadway or Private Entrance	-----	Grade Elevation	-----



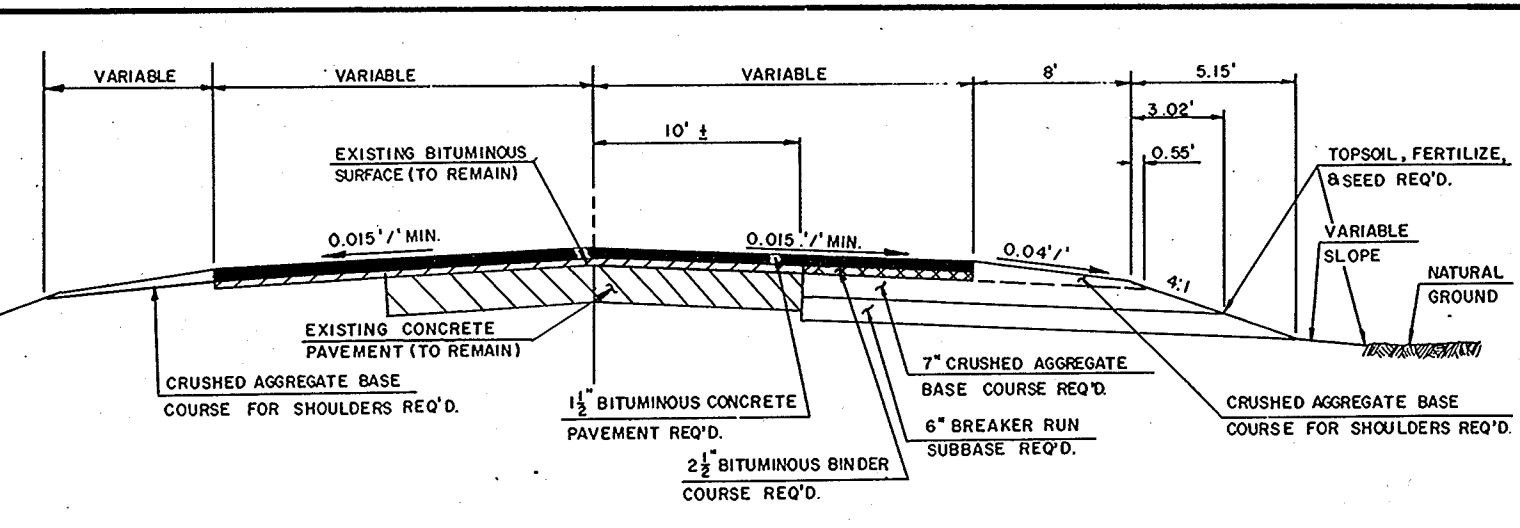
Total Net Length of Centerline = 0.108 MI. (URBAN)

* SCALED FROM U.S.G.S. TOPOGRAPHIC MAP, APPLETON QUADRANGLE, FOR IDENTIFICATION ONLY.

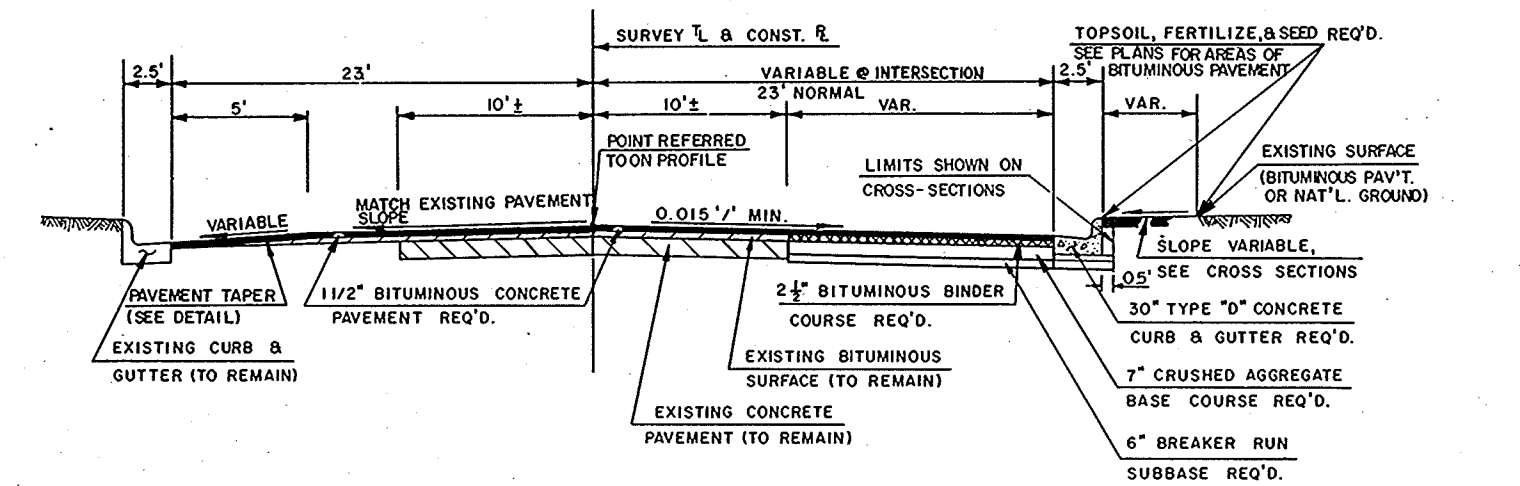
STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
4990-0-06	M 1201(6)	I

N-13

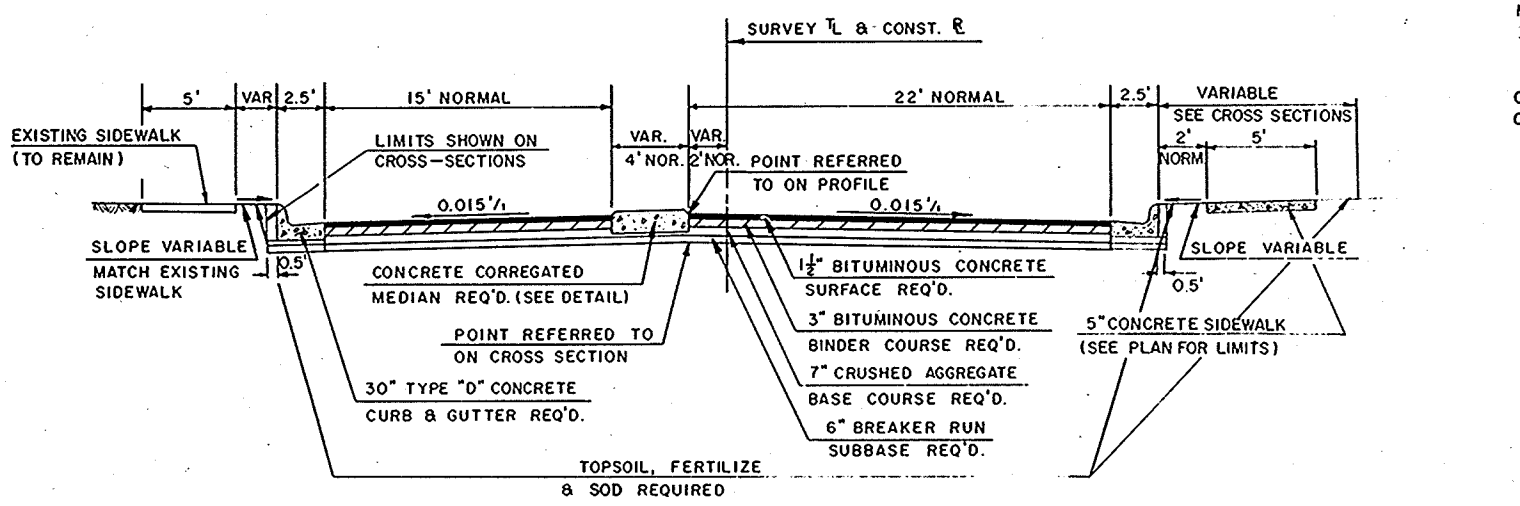
APPROVED FOR OUTAGAMIE COUNTY	
8-17-81	<i>Michaela Mander</i>
DATE	SIGNATURE OF OFFICIAL
PLANS PREPARED BY OWEN AYRES & ASSOCIATES, INC. CONSULTING ENGINEERS GREEN BAY, WISCONSIN	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
Surveyor	Design Checker W. P. W.
Designer	C. O. Chubbuck 1189
District Supervisor	J. E. F. C. O. Chubbuck 1189
Approved:	
DATE 10/14/81	<i>C. O. Chubbuck</i> P.E. DISTRICT TRANSPORTATION DIRECTOR
Approved:	
DATE 10-27-81	<i>J. E. F.</i> CHIEF TRAFFIC ENGINEER
Approved:	
DATE 10-27-81	<i>D. J. Strand</i> CHIEF DESIGN ENGINEER
Approved:	
DATE 10/27/81	<i>E. D. Rydick</i> DIRECTOR OF DEVELOPMENT
U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION REGION 5 WISCONSIN DIVISION	
Approved	
Date	



TYPICAL SECTION FOR C.T.H. "00"
STA. 95+00 - STA. 96+75



TYPICAL SECTION FOR C.T.H. "00"
STA. 96+75 - 100+68



TYPICAL SECTION FOR C.T.H. "N"
STA. 5+60 - 9+77

GENERAL NOTES

CERTAIN UTILITIES HAVE BEEN LOCATED ON THESE PLANS. THESE LOCATIONS SHALL NOT BE TAKEN AS CONCLUSIVE. VERIFICATION AS TO THE LOCATION TO THE SATISFACTION OF THE CONTRACTOR OF ALL UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, SHALL BE ASSUMED AS A CONDITION OF THE CONTRACT.

UTILITY COMPANIES SHALL ADJUST OR MOVE ALL PRIVATELY OWNED FACILITIES WHICH INTERFERE WITH THE NEW CONSTRUCTION.

THE EXACT LOCATION AND WIDTH FOR PRIVATE ENTRANCES SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

ALL DISTANCES ARE GROUND DISTANCES.

ALL TIES ON THIS PLAN ARE HORIZONTAL UNLESS DESCRIBED OTHERWISE.

CUBIC YARDS OF FILL AS SHOWN ON THE PLAN SHEETS PERTAINS TO EMBANKMENT CONSTRUCTED FROM UNCLASSIFIED EXCAVATION AND WAS COMPUTED WITH A SHRINKAGE FACTOR OF 25% BASED ON THE VOLUME OF THE FILL.

NO TREES (AND/OR SHRUBS) ARE TO BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.

THE EXACT LOCATION AND EXTENT OF BUTT JOINT AS SHOWN ON THE PLANS ARE APPROXIMATE AND SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD TO BEST FIT FIELD CONDITIONS.

FERTILIZE ALL SODDED AREAS.

THE EXACT LOCATION OF NEW SIDEWALK AND HANDICAP RAMPS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

ALL RADII ARE TO FACE OF CURB.

THE EXACT LOCATION AND EXTENT OF PAVEMENT REMOVAL AS SHOWN ON THE PLANS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD, TO BEST FIT FIELD CONDITIONS, SUCH AS GRADES, EXISTING JOINT, ETC.

STANDARD DETAIL DRAWINGS

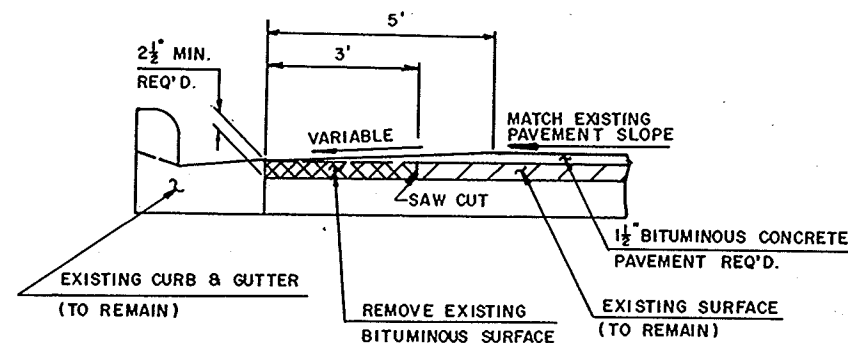
CATCH BASIN, MANHOLE & INLET COVERS.....	8A5-3b
INLETS, TYPE 1 & 2.....	8C1-3
CONCRETE CURB, CONCRETE CURB AND GUTTER, OR INTEGRAL CURB.....	8D1-5
CURB RAMPS.....	8D5-6
METAL, FIBER & P.V.C. CONDUIT.....	9B2-2
TRAFFIC SIGNAL COUNTER AND BILL BOX DETAILS.....	9B3-3
CONCRETE SURFACE DRAIN.....	9B4-2
CONSTRUCTION BARRICADES & STANDARD SIGNS.....	15C1-7
CONCRETE SURFACE DRAIN.....	8D4-1

STATE PROJECT NUMBER	SHEET NO.
4990-0-06	2
TYPICAL SECTIONS & GENERAL NOTES FOR C.T.H. "N" & "00"	
OUTAGAMIE CO.	

UTILITIES

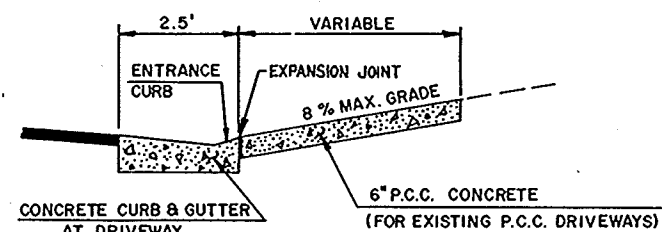
WISCONSIN TELEPHONE COMPANY	CALL CABLE LOCATING (800) 242-3316 (TOLL FREE)
MR. ROGER POST	
221 WEST WASHINGTON	
APPLETON, WI. 54913	
WISCONSIN GAS COMPANY	1 (715) 423-2800
MR. DEAN SULLIVAN	
1921 SOUTH 8TH STREET	
P. O. BOX 789	
WISCONSIN RAPIDS, WI. 54494	
CITY OF KAUKAUNA	1 (414) 766-5721
ELECTRIC & WATER DEPARTMENT	
MR. CARL VERHAGEN	
500 EAST DODGE STREET	
P. O. BOX 30	
KAUKAUNA, WI. 54130	
CHICAGO & NORTHWESTERN TRANSPORTATION CO.	1 (414) 449-4254
MR. L.G. TIEMAN	
4823 NORTH 119TH STREET	
MILWAUKEE, WI. 53225	
VILLAGE OF LITTLE CHUTE	1 (414) 788-1885
MR. MARTY JANSEN, STREET COMMISSION	
P.O. BOX 163	
LITTLE CHUTE, WI. 54140	

STATE PROJECT NUMBER	SHEET NO.
4990-0-06	2.1
CONSTRUCTION DETAILS FOR C.T.H. "N" & "O" OUTAGAMIE CO.	

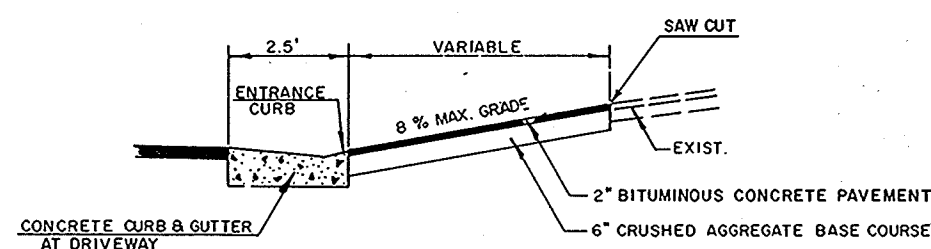


PAVEMENT TAPER

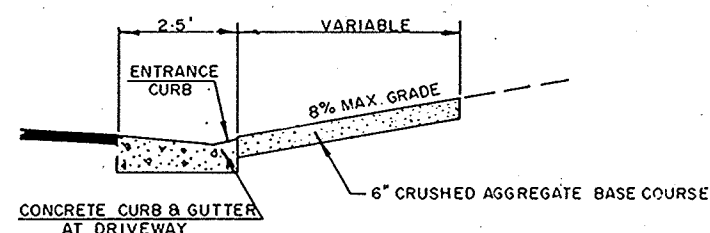
STA. 96+40 - 100+68 C.T.H. "O" LT.
STA. 5+22 - 5+40 DAYTONA LANE LT. & RT.



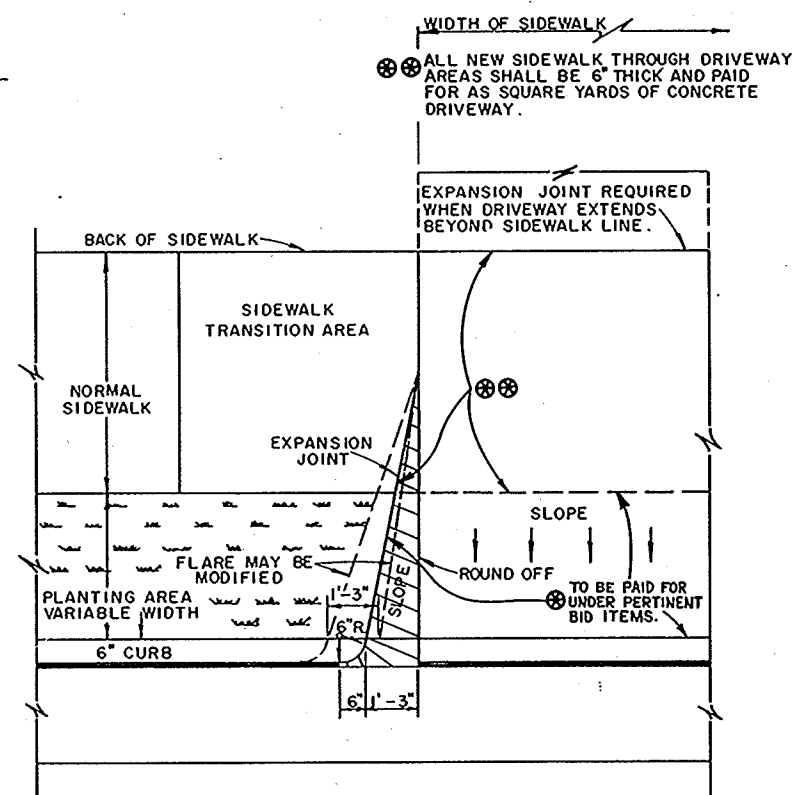
TYPICAL LONGITUDINAL SECTION AT P.C.C.
SURFACE PRIVATE ENTRANCES



TYPICAL LONGITUDINAL SECTION AT
BITUMINOUS SURFACE PRIVATE ENTRANCES

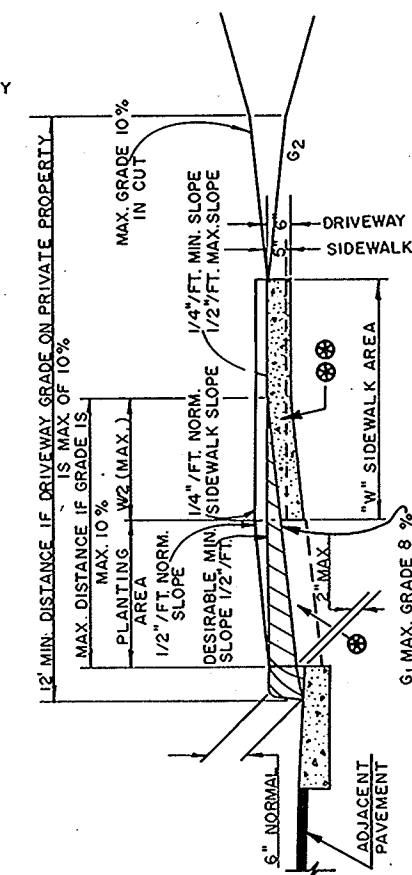


TYPICAL LONGITUDINAL SECTION AT CR. AGG.
SURFACE PRIVATE ENTRANCES



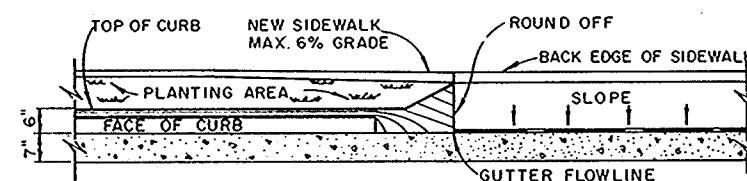
PLAN

TYPICAL DRIVEWAY DETAILS IN SIDEWALK AREAS

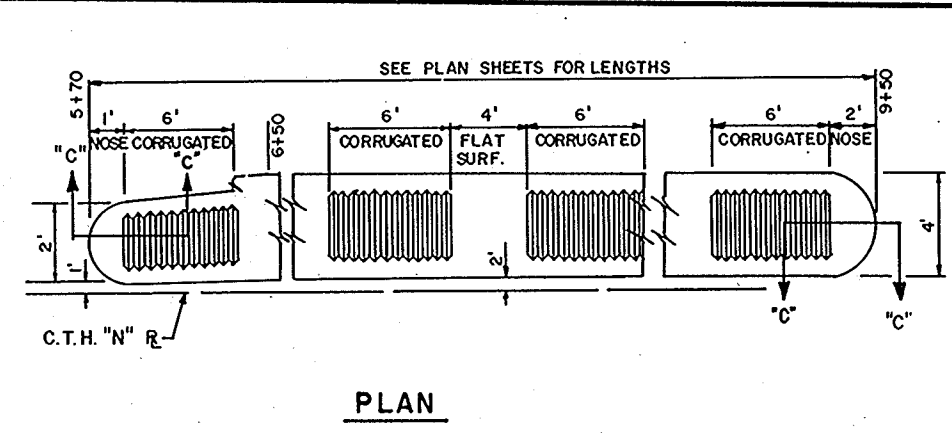
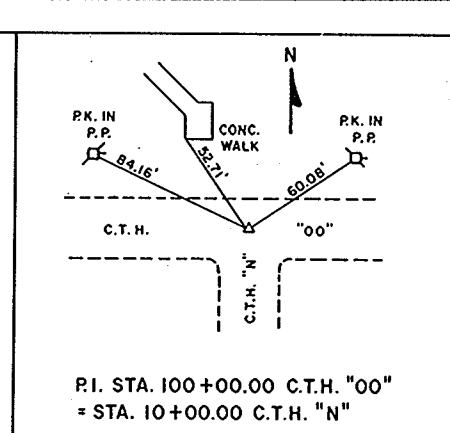
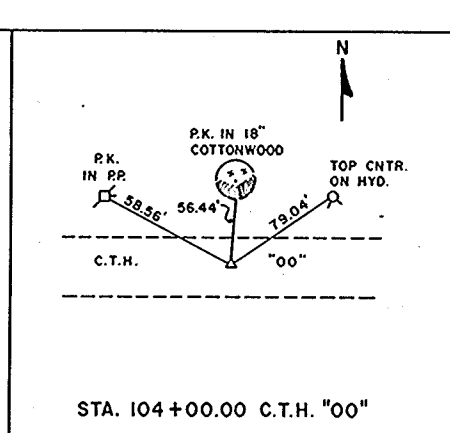
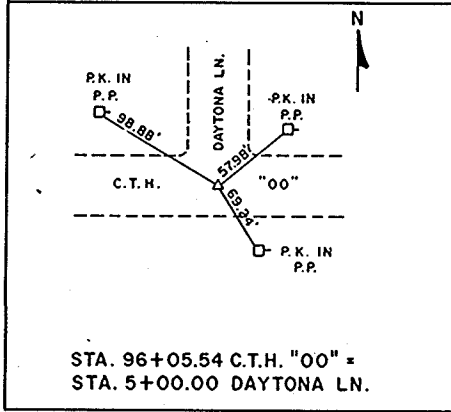
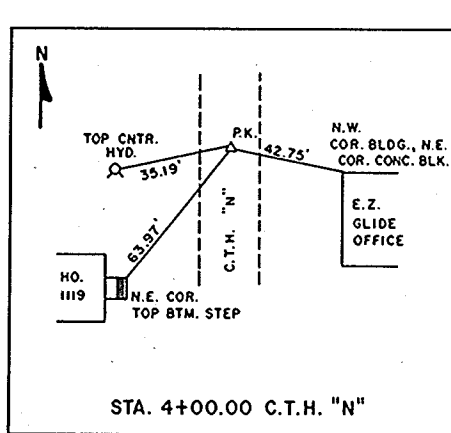


PROFILES PARALLEL TO C OF DRIVEWAY

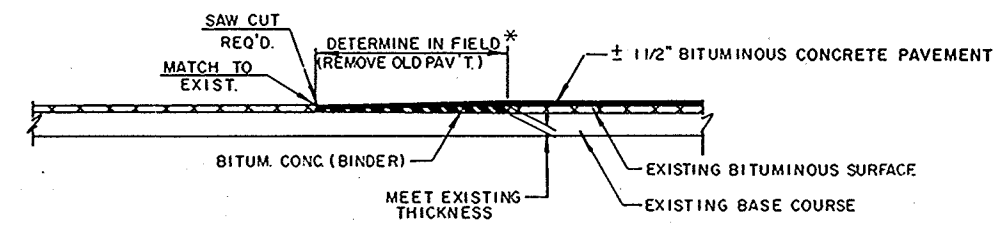
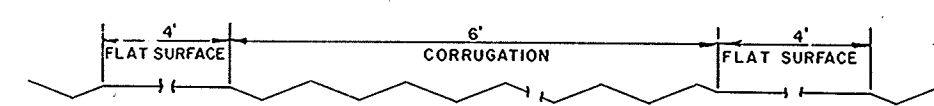
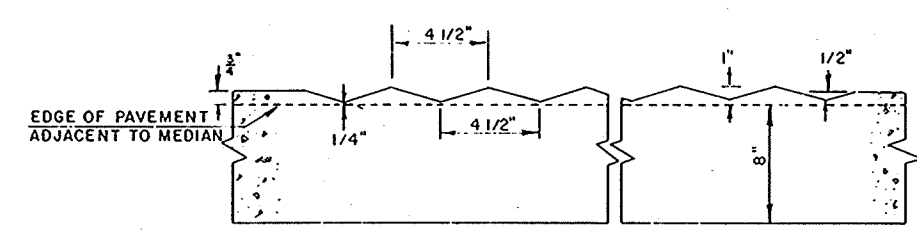
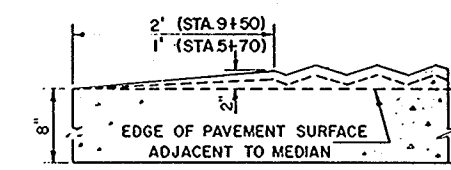
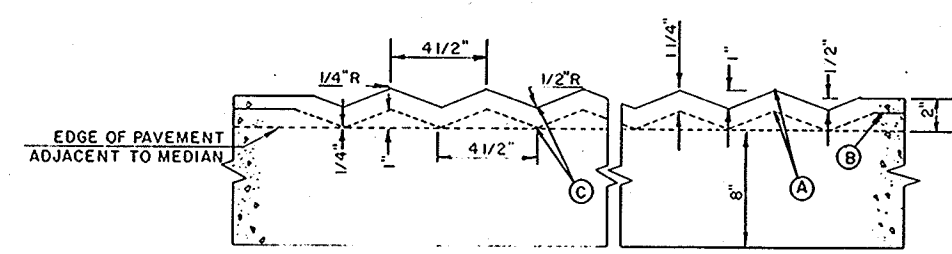
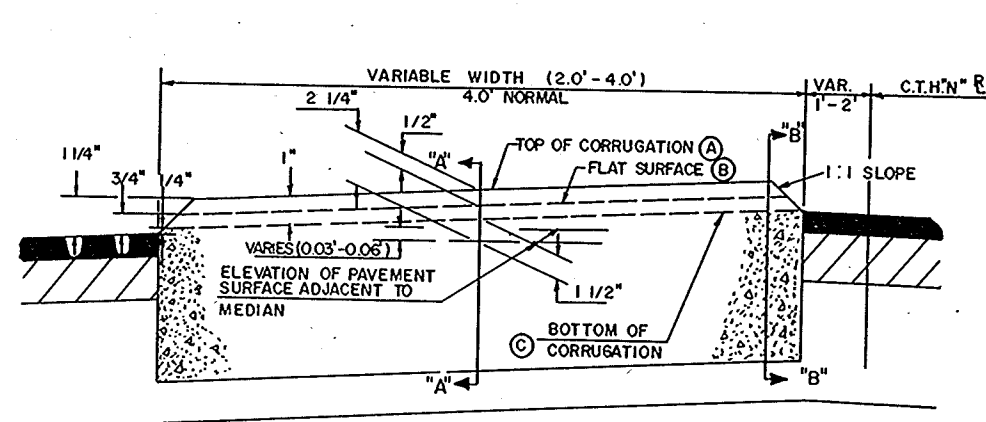
NOTE: ALGEBRAIC DIFFERENCE BETWEEN
TANGENT GRADES G₁ AND G₂ EXTENDED
IN FILLS MAX. 15%.



PROFILES PARALLEL TO CENTERLINE OF ROADWAY



STATE PROJECT NUMBER	SHEET NO.
4990-0-06	2.2
CONSTRUCTION DETAILS FOR C.T.H. "N" & "00"	
OUTAGAMIE CO.	



LONGITUDINAL SECTION FOR FLEXIBLE PAVEMENT BUTT JOINT

* PAYMENT QUANTITY BASED ON 20'

CORRUGATED MOUNTABLE MEDIAN DETAILS

STA. 5 + 70 - 9 + 50 C.T.H. "N"

NOTES: REGULATORY SIGNS TO BE INSTALLED BY OTHERS.
SIGNAL BASES TO BE INSTALLED 3' BACK OF CURB UNLESS OTHERWISE NOTED.



STUB OUT CONDUIT EAST,
CAP AND SEAL FOR FUTURE CONNECTION

LEGEND

- SIGNAL FACE 12" (R,Y, OR G) (R)
- ARROW SIGNAL FACE 12" (Y OR G) (Y)
- PEDESTRIAN SIGNAL (W, DW)
- TYPE 1 SIGNAL BASE (T-1)
- TYPE 2 SIGNAL BASE (T-2)
- SIGNAL CONTROLLER WITH TYPE 1 BASE (X)
- 2" CONDUIT WITH NUMBER OF CONDUCTORS AND LENGTH (11/C 53')
- SIGNAL HEAD NUMBER (3B)
- MASTARM AND LENGTH (12')
- PEDESTRIAN PUSH BUTTON (P.B.)

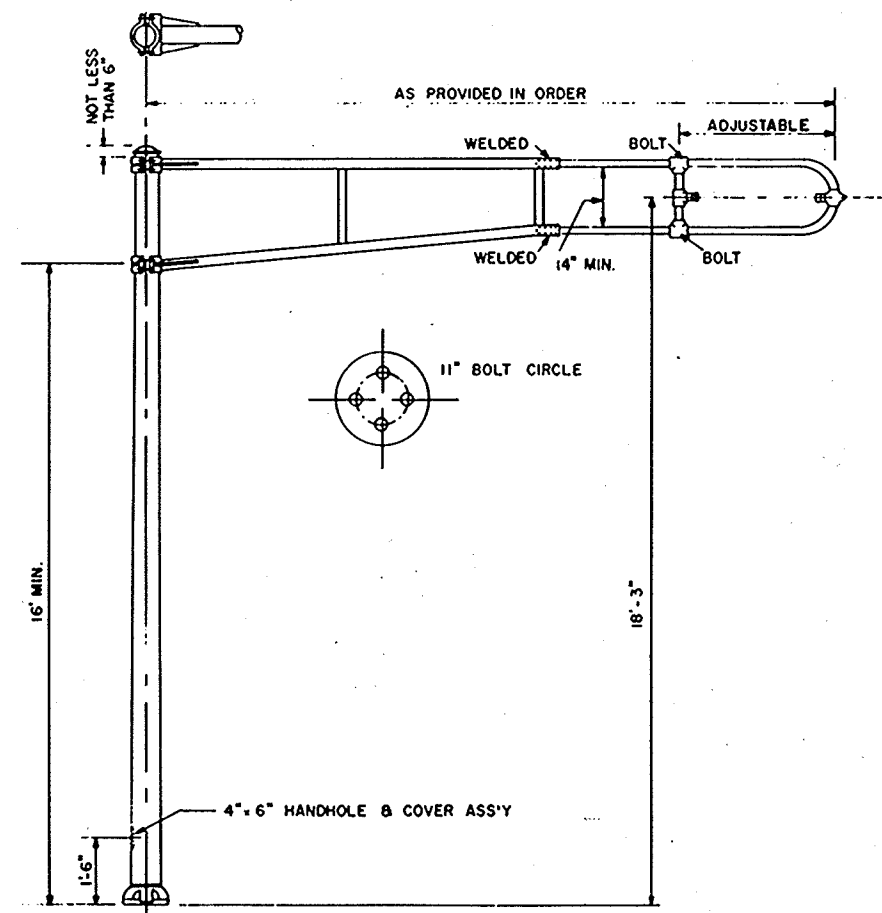
SEQUENCE OF OPERATION NO.1 - WITHOUT PEDESTRIAN ACTUATION

INTERVAL	C.T.H."00"			C.T.H."N"		PED.	TIME IN SECONDS
	1A	2A 3A	1C-3C	1B 2B	3B		
1	G	G-G	R	R-G	R	DW	13.1
2	G	G	R	R-Y	R	DW	3.5
3	G	G	G	R	R	DW	30.0
4	Y	Y	Y	R	R	DW	3.5
5	R	R	R	R	R	DW	1.1
6	R	R	R	G	G	DW	11.3
7	R	R	R	G	G	DW	12.4
8	R	R	R	Y-G	Y	DW	4.0
9	R	R	R	R-G	R	DW	1.1
FLASH	FY	FY	FY	FR	FR	-	80.0

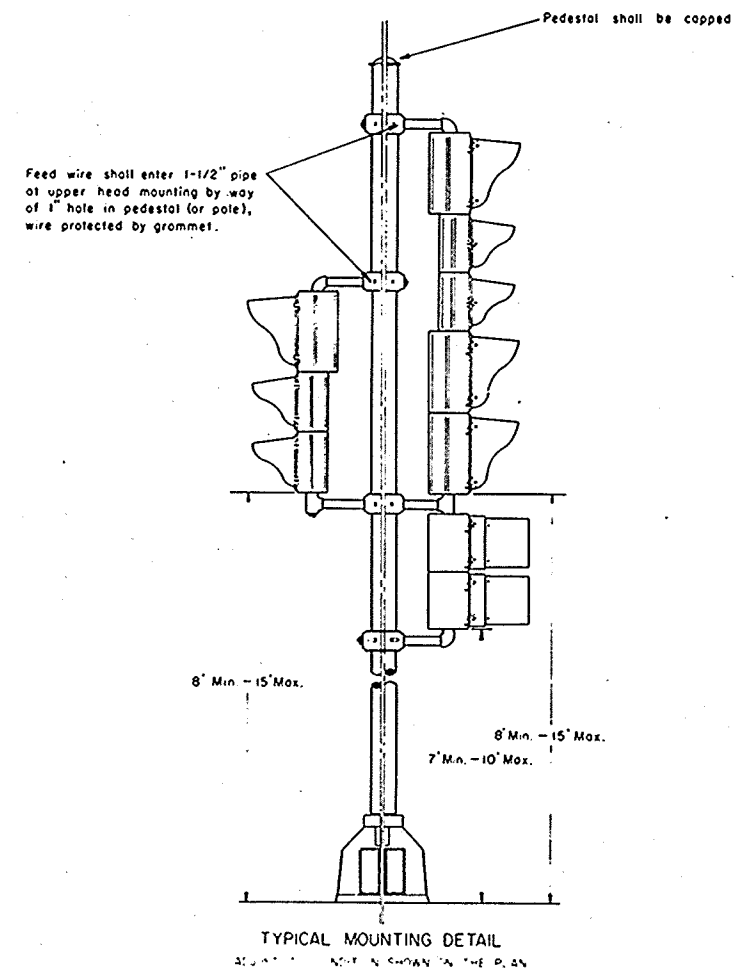
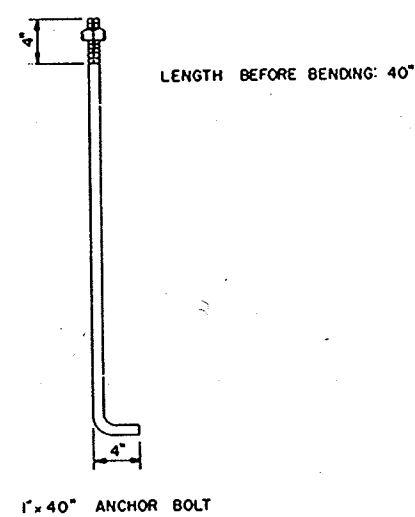
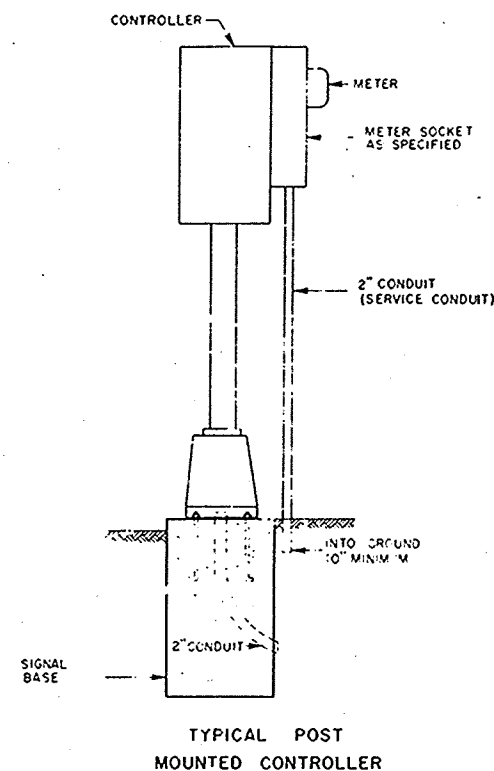
SEQUENCE OF OPERATION NO.2 - WITH PEDESTRIAN ACTUATION

INTERVAL	C.T.H."00"			C.T.H."N"		PED.	TIME IN SECONDS
	1A	2A 3A	1C-3C	1B 2B	3B		
1	G	G-G	R	G-R	R	DW	15.2
2	G	G	R	Y-R	R	DW	3.5
3	G	G	G	R	R	DW	33.4
4	Y	Y	Y	R	R	DW	3.5
5	R	R	R	R	R	DW	1.1
6	R	R	R	G	G	W	10.0
7	R	R	R	G	G	FDW	18.2
8	R	R	R	Y-G	Y	DW	4.0
9	R	R	R	R-G	R	DW	1.1
FLASH	FY	FY	FY	FR	FR	-	90

PROGRAMMED FLASHING OPERATION SHALL BEGIN AT 11:30 P.M. AND RETURN TO NORMAL OPERATION AT 5:30 A.M. THE CHANGE FROM NORMAL OPERATION TO FLASHING OPERATION SHALL BE MADE AT THE END OF INTERVAL 5 AND THE CHANGE FROM FLASHING OPERATION TO NORMAL OPERATION SHALL BE MADE AT THE BEGINNING OF INTERVAL 3.



TYPE II



**DETAILS OF TRAFFIC
SIGNAL AND
LUMINAIRE SUPPORTS**

STATE HIGHWAY COMMISSION OF WISCONSIN

APPROVED: *W. J. McCall*
ENGINEER OF TRAFFIC SERVICES, DATE 3-20-47

REVISIONS:
1. CHANGE VERTICAL CLEARANCE
2. ADDED TYPE II 5/23/69

ESTIMATE OF QUANTITIES

PROJECT ID: 4990-0-06
 OUTAGAMIE COUNTY
 C.T.H. N AND C.T.H. 00 INTERSECTION
 VILLAGE OF LITTLE CHUTE
 C.T.H. 00

ITEM	ITEM DESCRIPTION	UNIT	TOTAL	4990-00-06 QUANTITY
20402	REMOVING BITUMINOUS SURFACE	S.Y.	624.00	624.00
20405	REMOVING CURB AND GUTTER	L.F.	850.00	850.00
20406	REMOVING CONCRETE SIDEWALK	S.Y.	15.00	15.00
20409	REMOVING SURFACE DRAINS	EACH	2.00	2.00
20503	UNCLASSIFIED EXCAVATION	C.Y.	1,780.00	1,780.00
21301	FINISHING ROADWAY	L.S.	1.00	1.00
30403	CRUSHED AGGREGATE BASE COURSE	C.Y.	1,022.00	1,022.00
40501	BITUMINOUS MATERIAL FOR PLANT MIXES	TON	55.00	55.00
40701	BITUMINOUS CONCRETE PAVEMENT	TON	920.00	920.00
40931	CONCRETE DRIVEWAY	S.Y.	39.00	39.00
40934	CONCRETE SURFACE DRAINS	C.Y.	3.00	3.00
52003	CULVERT PIPE, CLASS III, 18-INCH	L.F.	50.00	50.00
52061	APRON ENDWALLS FOR CULVERT PIPE, 18-INCH	EACH	2.00	2.00
60133	CONCRETE CURB AND GUTTER, 30-INCH, TYPE D	L.F.	1,160.00	1,160.00
60205	CONCRETE SIDEWALK, 5-INCH	S.F.	1,470.00	1,470.00
60825	REINFORCED CONCRETE PIPE, CLASS III, STORM SEWER, 12-INCH	L.F.	35.00	35.00
61121	INLETS, TYPE 1	EACH	2.00	2.00
61162	INLET COVERS, TYPE B	EACH	2.00	2.00
61182	ADJUSTING MANHOLE COVERS	EACH	2.00	2.00
61313	METALLIC CONDUIT, 2-INCH	L.F.	265.00	265.00
61910	MOBILIZATION	L.S.	1.00	1.00
62001	CONCRETE CORRUGATED MEDIAN	S.F.	1,440.00	1,440.00
62501	TOPSOIL	S.Y.	700.00	700.00
62905	FERTILIZER, TYPE B	CWT.	.50	.50
63002	SEEDING	LB.	10.00	10.00
63101	SODDING	S.Y.	150.00	150.00

ITEM	ITEM DESCRIPTION	UNIT	TOTAL	4990-00-06 QUANTITY
64201	FIELD OFFICE, TYPE A	L.S.	1.00	1.00
64301	TRAFFIC CONTROL	L.S.	1.00	1.00
90003	TRAFFIC SIGNAL CONTROL CABINET BASE, TYPE 1	EACH	1.00	1.00
90004	TRAFFIC SIGNALS	L.S.	1.00	1.00
90005	PRETIMED TRAFFIC SIGNAL CONTROLLER AND CABINET	L.S.	1.00	1.00
90006	SIGNAL CONTROLLER TRAINING	L.S.	1.00	1.00
90007	PORTABLE CONTROLLER PROGRAMMER	L.S.	1.00	1.00
90008	BREAKER RUN SURBASE	C.Y.	700.00	700.00
90055	TRAFFIC SIGNAL BASES, TYPE 1	EACH	3.00	3.00
90056	TRAFFIC SIGNAL BASES, TYPE 2	EACH	2.00	2.00

STATE PROJECT NUMBER	SHEET NO.
4990-0-06	3A
MISCELLANEOUS QUANTITIES FOR	
C.T.H."N" 8'00'	OUTAGAMIE CO.

REMOVING MISCELLANEOUS STRUCTURES				
LOCATION	REMOVING BITUMINOUS SURFACE (SQ. YD.)	REMOVING CURB AND GUTTER (LIN. FT.)	REMOVING CONCRETE SIDEWALK (SQ. YD.)	REMOVING SURFACE DRAINS (EACH)
C.T.H. "OO"				
96+40 - 100+68 LT.	145	10	5	
98+00 - 99+75 RT. (PARKING LOT)	274			
AT DAYTONA AVE.	5			
95+00 - 100+68 (BUTT JOINTS)	200			
C.T.H. "N"		840	10	2

CRUSHED AGGREGATE BASE COURSE		
LOCATION	CU. YD.	FOR SHOULDERS CU. YD.
C.T.H. "OO"	249	17
C.T.H. "N"	644	
UNDER BITUMINOUS DRIVES	109	
FOR CR. AGG. DRIVES	3	

BREAKER RUN SUBBASE	
LOCATION	QUANTITY CU. YD.
C.T.H."OO"	212
C.T.H."N"	488

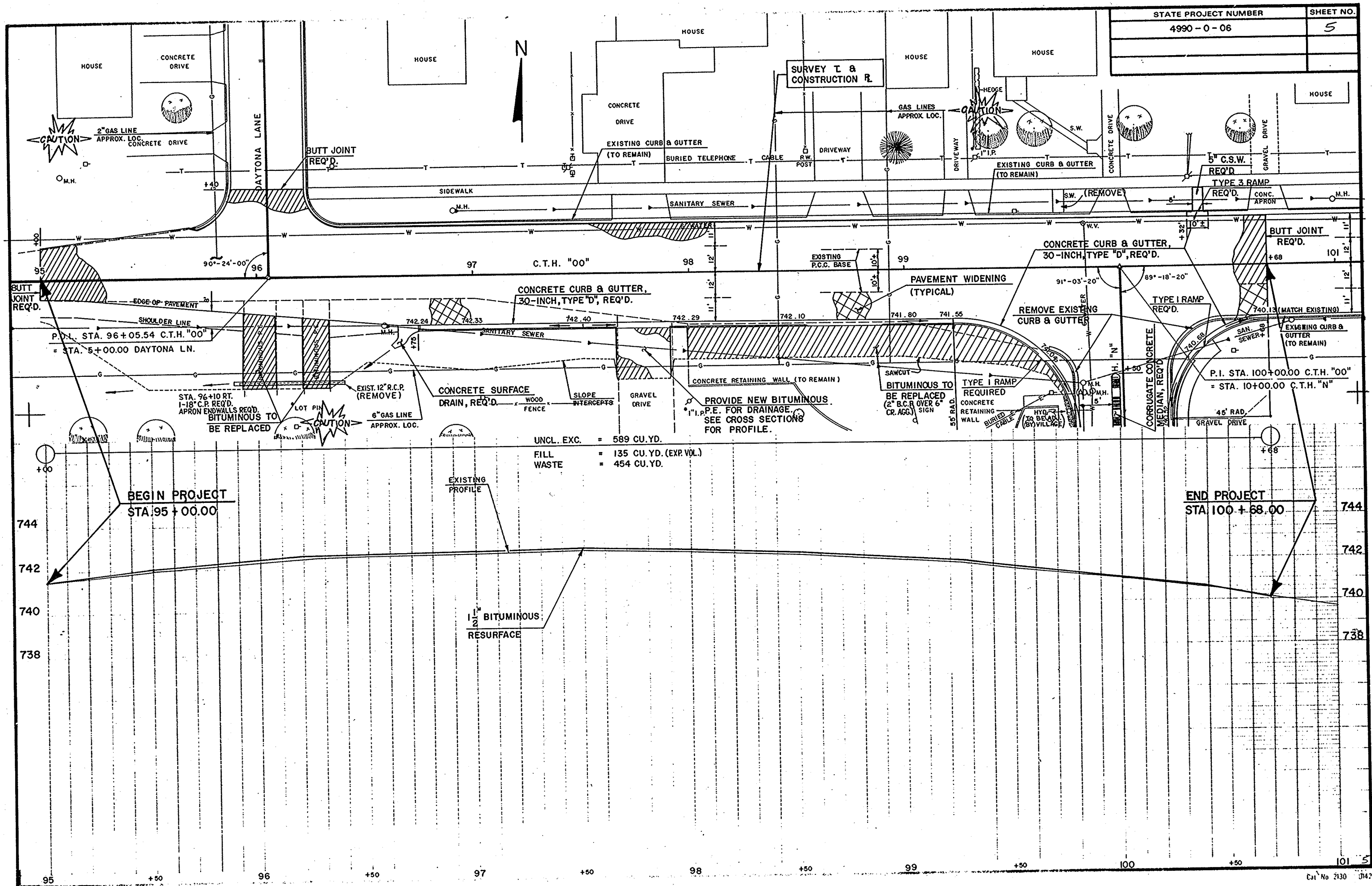
CROSS DRAINS AND PRIVATE ENTRANCE PIPES									
STA.	LOCATION	TYPE	DIAMETER	LENGTH	THICKNESS (IN.)		ELEVATIONS		APRON
					ALUM.	STEEL	INLET	DISCHARGE	ENDWALLS
96+10	P.E.'s RT.	CP CL. III	18"	50'	0.060	0.064	938.7	938.4	2

INLETS						
STRUCTURE NUMBER	LOCATION	TYPE	COVER	EDGE OF PAVEMENT ELEV.	FLOW LINE ELEV.	DEPTH FT.
①	STA. 5+62, 18' LT.	I	B	736.36	734.11	1.33
②	STA. 5+67, 18' RT.	I	B	736.31	734.06	1.33

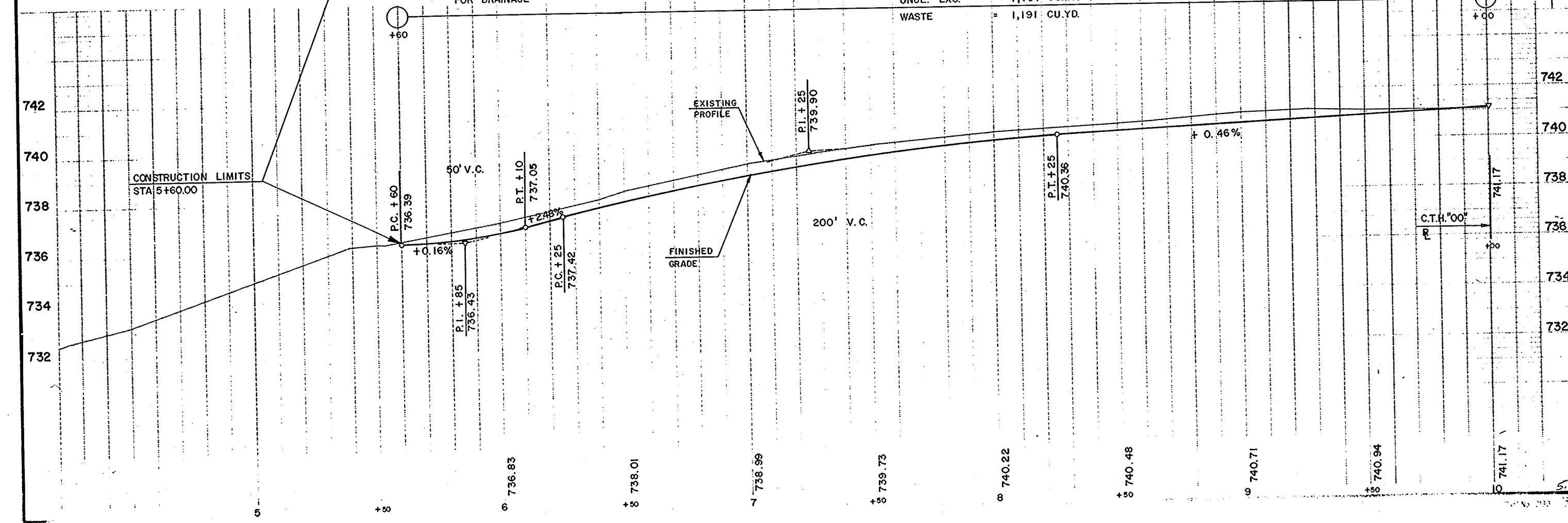
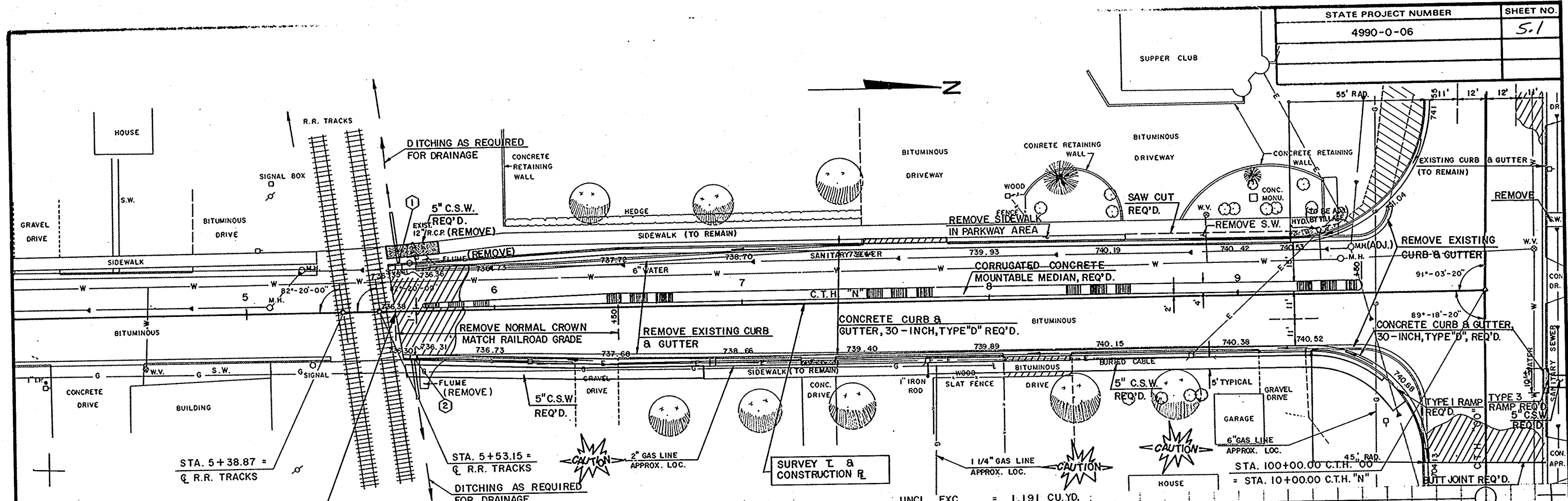
STORM SEWERS						
LOCATION FROM	TO	SIZE IN.	LENGTH FT.	TYPE	ELEVATION INL. DIS.	REMARKS
1	DISC.	12"	20'	R.C.P. CL. III STORM SEWER	734.11 734.05	DISCHARGE TO EXIST. DITCH
2	DISC.	12"	15'	" "	734.06 734.00	" "

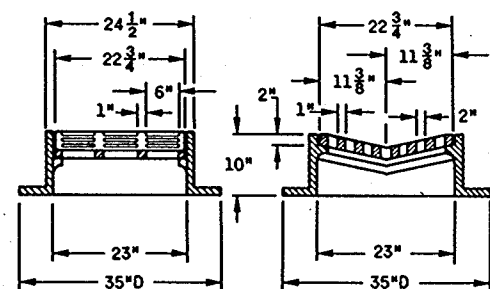
LANDSCAPE ITEMS				
LOCATION	TOPSOIL SQ. YD.	FERTILIZER CWT.	SEEDING (NO. 4) LBS.	SODDING SQ. YD.
C.T.H."OO"	550	0.40	10	
C.T.H."N"	150	0.10		150

BITUMINOUS CONCRETE PAVEMENT			
LOCATION	BITUMINOUS CONC. PAVEMENT (TONS)		BITUMINOUS MATERIALS FOR PAVEMENT (TONS)
	SURFACE (TONS)	BINDER (TONS)	
C. T. H. "OO"	308	104	25
C. T. H. "N"	155	298	27
DRIVEWAYS	55		3
TOTALS	518	402	55



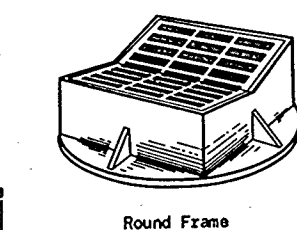
STATE PROJECT NUMBER	SHEET NO.
4990-0-06	5.1



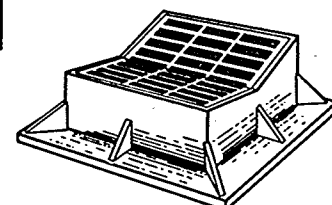


TYPE "B"

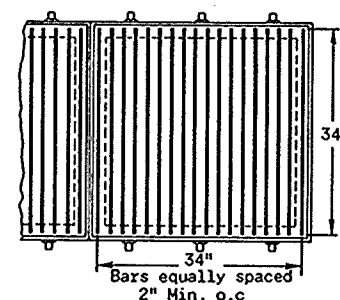
(Approximate Weight 395 lbs.)
Frame Weight 285 lbs.
Grate Weight 110 lbs.



Round Frame

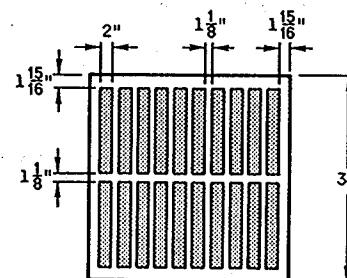


Alternate Frame
(Square type)
35" Square



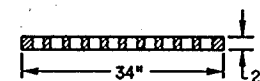
STEEL GRATE

(Approximate Weight 209 lbs.)



CAST IRON GRATE

(Approximate Grate Weight 285 lbs)



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.

Detail drawings for proposed alternate designs for Catch Basin, Manhole and Inlet Covers shall be submitted to the Engineer for approval providing that such alternate designs make provision for equivalent capacity and strength.

All Catch Basin, Manhole and Inlet Covers which are placed in vehicular traffic areas shall be "Non-Rocking" type.

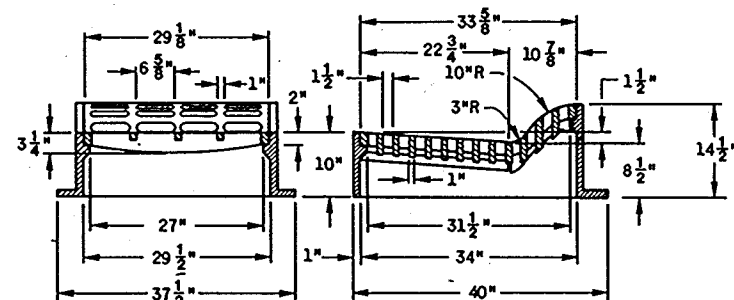
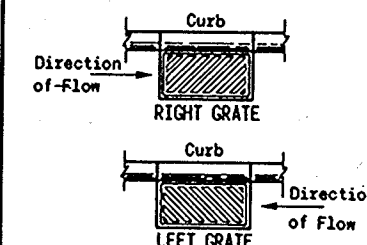
Adjustment of the cover to grade may be accomplished by the use of mortar and brick, or by precast concrete grade rings. Precast concrete grade rings shall conform to the specifications for Precast Reinforced Concrete Manhole Sections, AASHTO Designation M199, except that when such units are wet cast, they shall be made with air-entraining portland cement. Maximum adjustment shall be 8 inches.

The actual weight of covers may vary within 5 percent, plus or minus, of the approximate weight.

The Type "MS" cover may either be a cast iron grate or a steel grate and frame at the contractors option. A frame is not required with the cast iron cover.

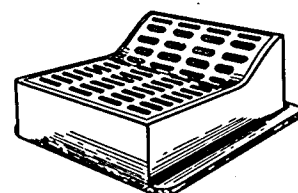
The steel grating shall be capable of carrying an H20 load on a 2'-10" max. clear span and shall have a minimum section modulus thru the main bearing bars of 3.80 inches³ per ft. of width. The grating shall be cut in such a manner that all riveted or welded connections are left intact. End banding with a 3/8" min. thickness is required. The size of the frame shall be such that when the grate is in place, the clearance between the grate and the frame will not exceed 5/8" on any side. Main bars shall be laterally supported by transverse bars. Grating and frame shall be galvanized as specified in AASHTO Designation M-111 after fabrication. Grating shall be approved by the Engineer.

Diagonal Slots shall be oriented to the direction of flow. RIGHT and LEFT grates or grates that are manufactured to be reversible and can be used as either RIGHT or LEFT grates shall be furnished depending on direction of flow. (See sketch below)



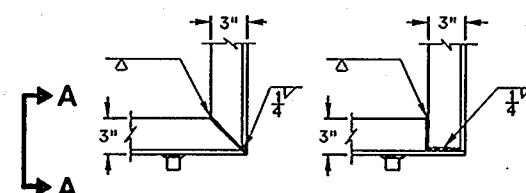
TYPE "F"

(Approximate Weight 850 lbs.)
Frame 515 lbs.
Back grate 160 lbs.
Front grate 175 lbs.

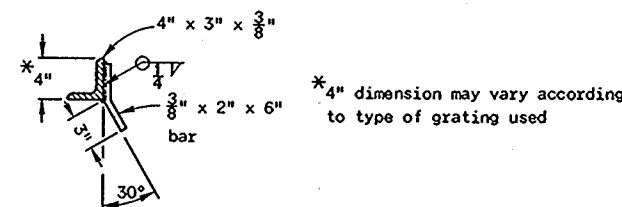


TYPE "MS"

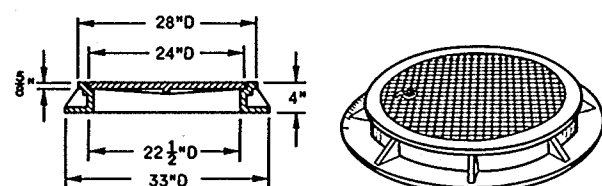
CAUTION: DO NOT USE GRATES WITH LONGITUDINAL SLOTS WHERE BICYCLE TRAFFIC IS PERMITTED.



TYPICAL CORNER OF
FRAME FOR STEEL GRATE

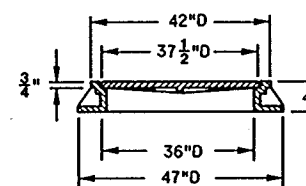


SECTION A-A



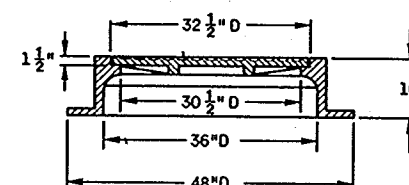
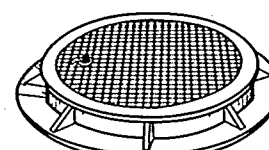
TYPE "L"

(Approximate Weight 220 lbs.)



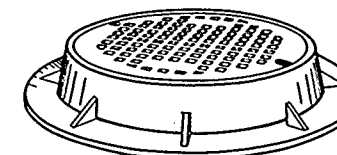
TYPE "M"

(Approximate Weight 535 lbs.)



TYPE "K"

(Approximate Weight 785 lbs.)



CATCH BASIN MANHOLE AND INLET COVERS

State of Wisconsin
Department of Transportation
Division of Highways

APPROVED
11-23-77

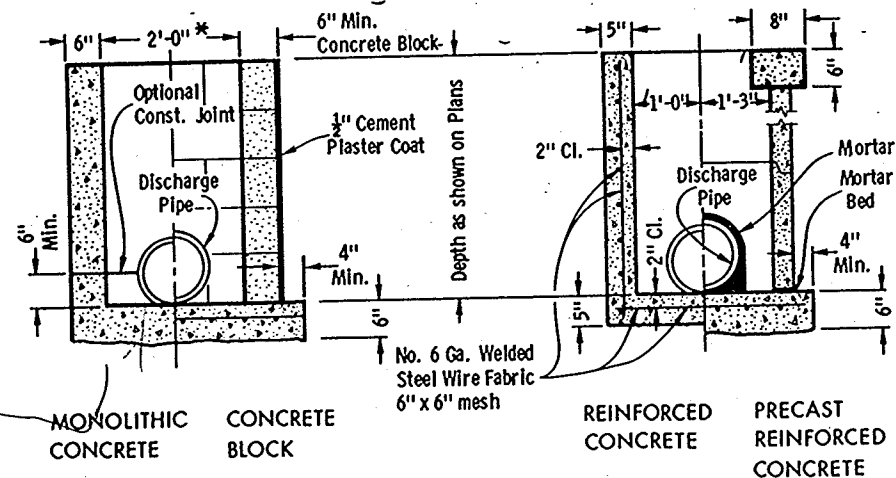
DATE
APPROVED
11-25-77

DATE
FHWA

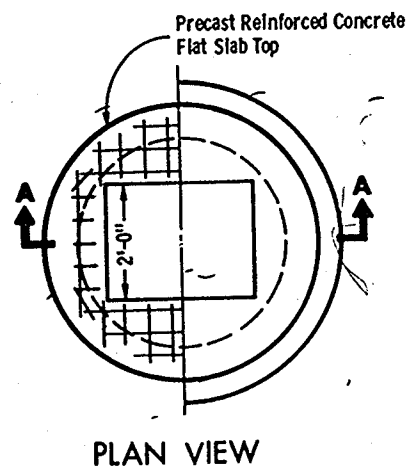
Bill Baker
SUPERVISING DEVELOPMENT ENGINEER

D. J. Althoff
CHIEF OF FACILITIES DEVELOPMENT

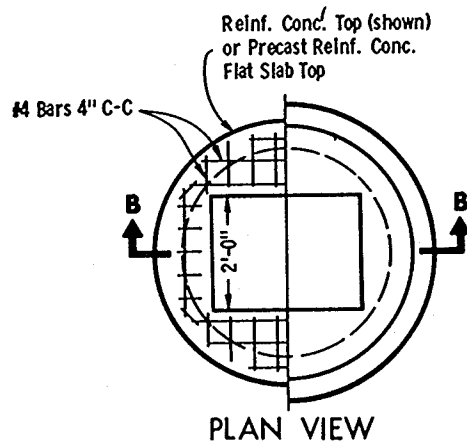
* Selection of Square or Circular Design will be based on the pipe sizes and the Inlet Cover being utilized.



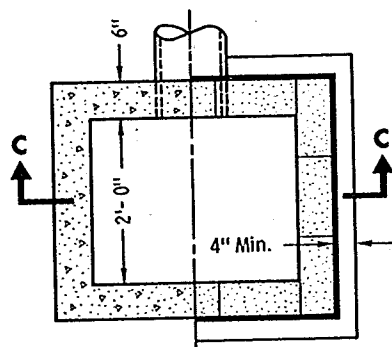
INLETS TYPE 1



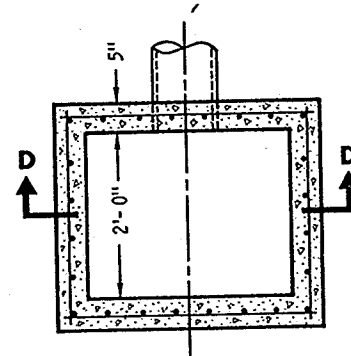
PLAN VIEW



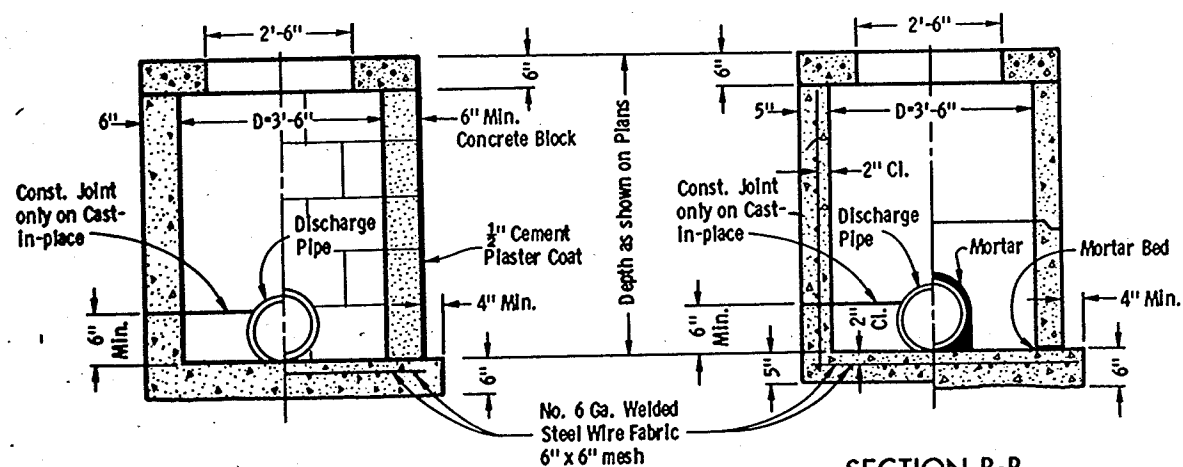
PLAN VIEW



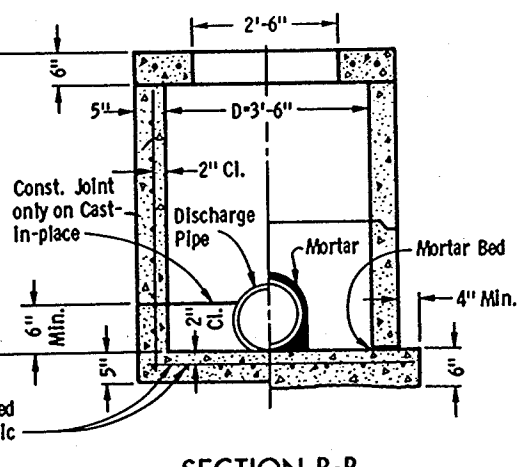
PLAN VIEW



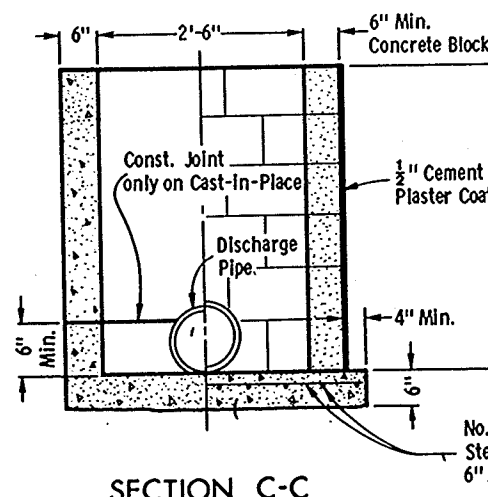
PLAN VIEW



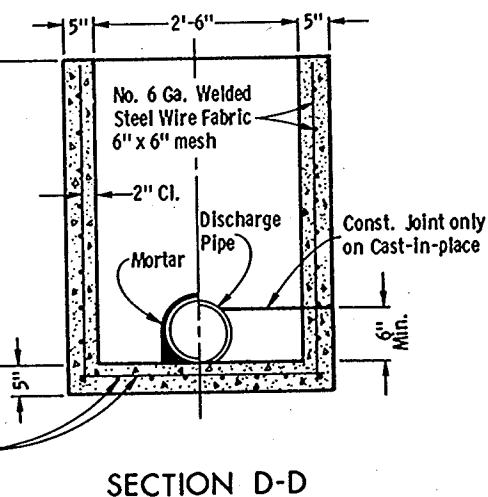
SECTION A-A
MONOLITHIC CONCRETE



SECTION B-B
REINFORCED CONCRETE PRECAST REINFORCED CONCRETE



SECTION C-C
MONOLITHIC CONCRETE



SECTION D-D
PRECAST REINFORCED CONCRETE

INLETS TYPE 2

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.

Detailed drawings for proposed alternate designs for underground drainage structures shall be submitted to the Engineer for approval providing that such alternate designs make provision for equivalent capacity and strength.

Square Precast Inlet units shall conform to the pertinent requirements of AASHTO Designation M 199.

All drainage structures are designated on the plans as "Manholes 1 - C", "Catch Basins 1 - B", "Inlets 1 - H", etc. The first digit designates the masonry portion of the structure, and the following letter designates the type of cover to be used to comprise the complete unit.

Precast Reinforced Bases shall be placed on a bed of material at least 6 inches in depth, which meets the requirements for Granular Backfill. This bedding shall be compacted and provide uniform support for the entire area of the base.

Precast Reinforced Concrete Flat Slab Tops may be used on the structures. The Tops shall be installed on a bed of mortar.

All bar steel reinforced reinforcement shall be embedded 2 inches clear unless otherwise shown or noted.

Precast Reinforced Concrete Risers may be placed with tongue up or down.

INLETS - TYPE 1 & 2

State of Wisconsin
Department of Transportation
Division of Highways

RECOMMENDED FOR APPROVAL

10-16-75
DATE

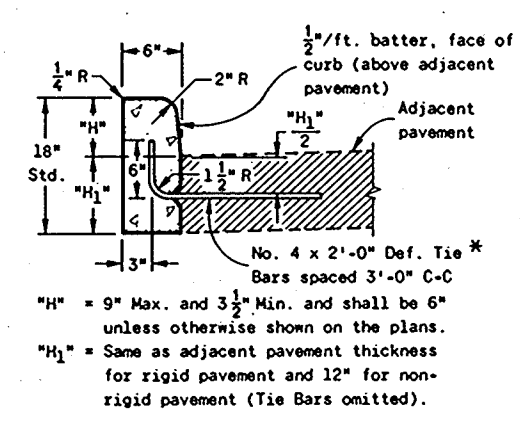
APPROVED

10-16-75
DATE

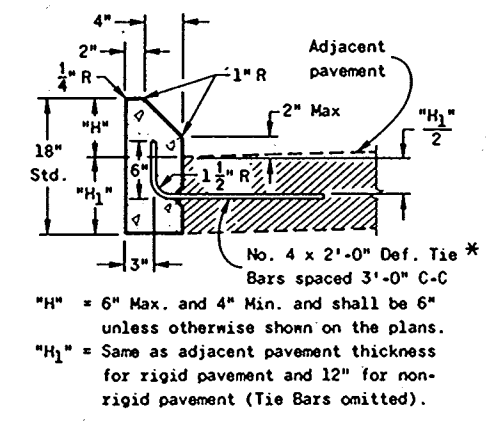
J. C. Ziemann
CHIEF OF FACILITIES DEVELOPMENT

H. J. Sinden
STATE HIGHWAY ENGINEER

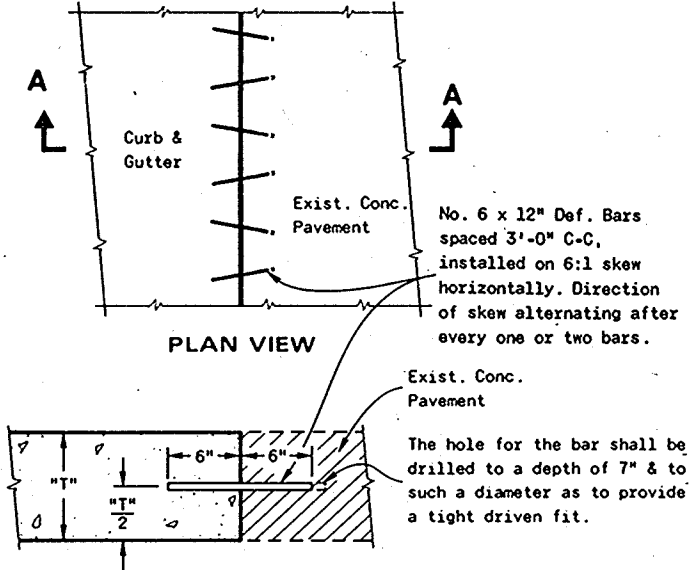
S.D.D. 8C1-3



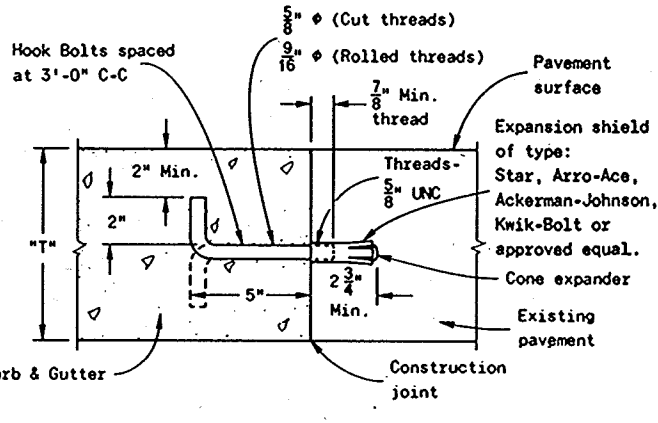
TYPE "A"
(INCLUDING TIE BARS)
CONCRETE CURB



TYPE "D"
(EXCLUDING TIE BARS)
CONCRETE CURB



SECTION A - A
PAVEMENT TIES EXISTING PAVEMENT
(Driven Tie Bar Alternate)



PAVEMENT TIES EXISTING PAVEMENT
(Hook Bolt Alternate)

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.

Joints shall not be sealed in concrete curb, or concrete curb & gutter.

* In lieu of tie bars placed during construction, the Driven Tie Bar Alternate may be used. Contractor may drill either concrete curb, concrete curb & gutter, or concrete pavement.

Where the adjacent pavement will be bituminous concrete, $\frac{3}{4}$ inch expansion joints shall be installed in the Concrete Curb or Concrete Curb & Gutter. These expansion joints shall be located about 3 feet from each end of all catch basins or inlets, at all locations where tangent and radial curb and gutter meet, and on tangent sections at a maximum spacing of 300 feet.

The bottom of the curb and gutter may be constructed parallel to subgrade or base course provided a minimum of 6 inches depth of concrete is maintained at the flow line.

INTEGRAL CURB AND GUTTER ALTERNATE
Unless otherwise specified in the contract, Integral Curb & Gutter may be built as an alternate to Curb & Gutter.

Integral Curb & Gutter shall be measured and paid for as Curb & Gutter.

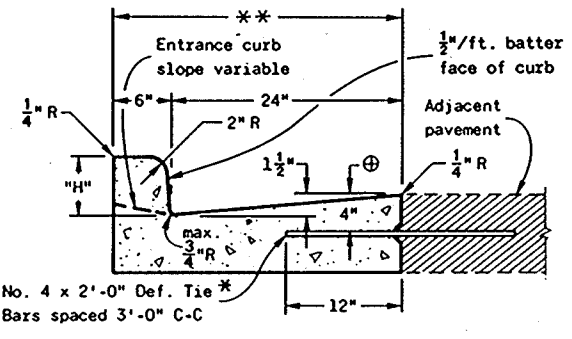
** Pay limits for Concrete Integral Curb & Gutter.

The limits of the base course, if used, are shown on the typical cross sections elsewhere in the plans. Any additional width of base course necessary to accommodate paving equipment will be at the contractor's expense.

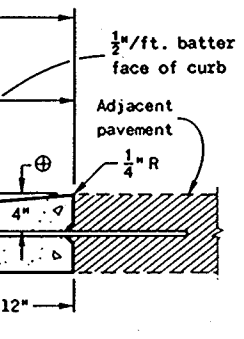
Pavement reinforcing steel and load transfer dowels will not be required within the pay limits of Integral Curb & Gutter.

Contraction, construction or expansion joints shall be continuous through the Integral Curb & Gutter. The joints in Integral Curb & Gutter shall be spaced the same as the joints in the pavement.

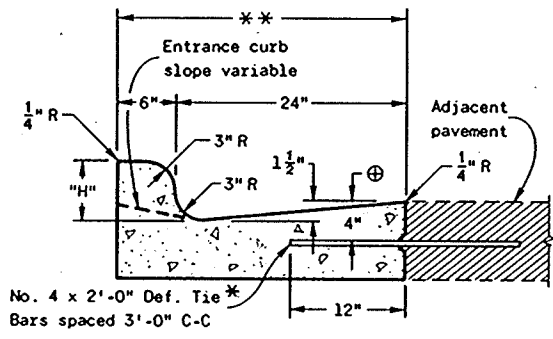
The thickness of curb & gutter at the pavement edge shall be $7\frac{1}{2}$ min. $\oplus$ = Or center of pavement, whichever is less.



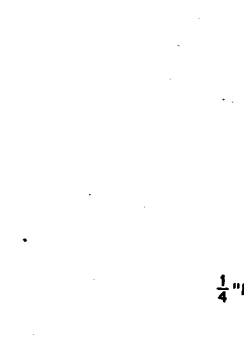
TYPE "A"
(INCLUDING TIE BARS)



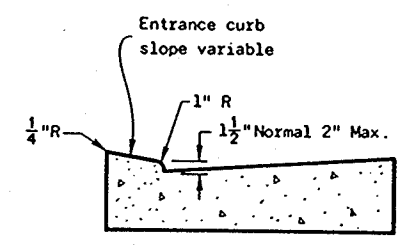
TYPE "D"
(EXCLUDING TIE BARS)



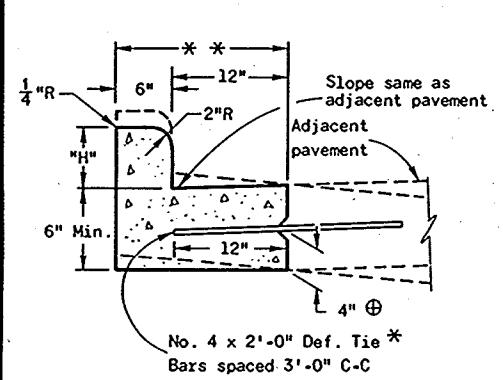
TYPE "K"
(INCLUDING TIE BARS)



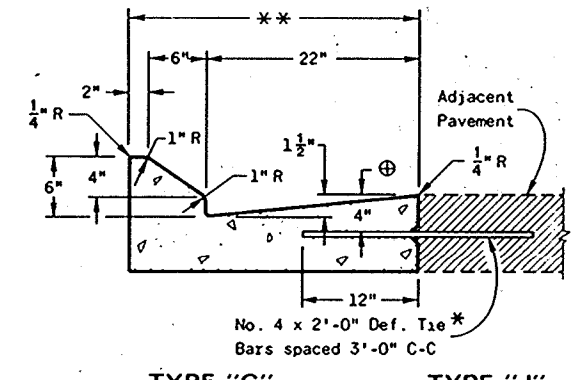
TYPE "L"
(EXCLUDING TIE BARS)



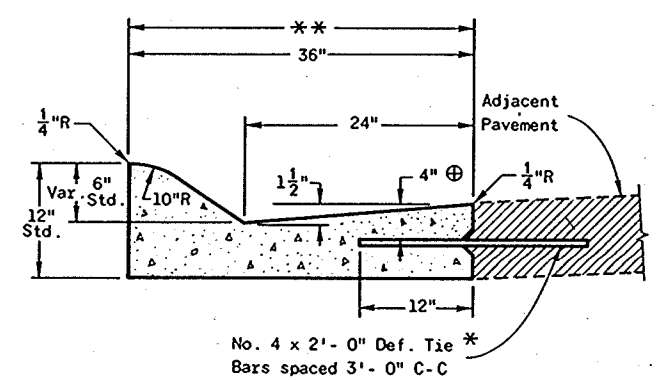
ALTERNATE ENTRANCE CURB
(When directed by the Engineer)



TYPE "A"
(INCLUDING TIE BARS)
CONCRETE CURB & GUTTER 18"



TYPE "G"
(INCLUDING TIE BARS)
CONCRETE CURB & GUTTER 30"



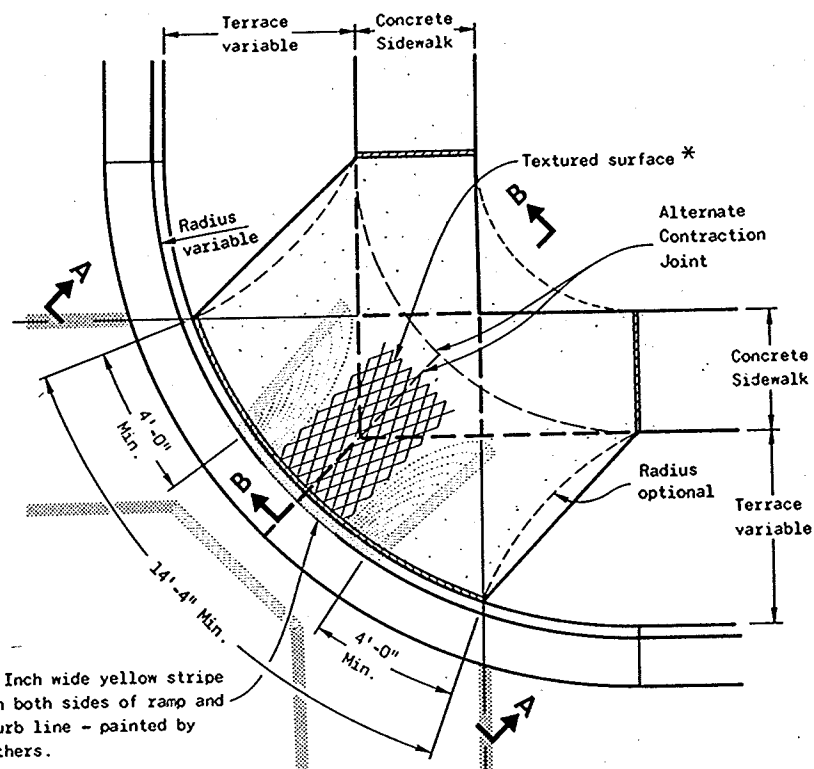
TYPE "A"
(INCLUDING TIE BARS)
CONCRETE CURB & GUTTER 36"

CONCRETE CURB & GUTTER

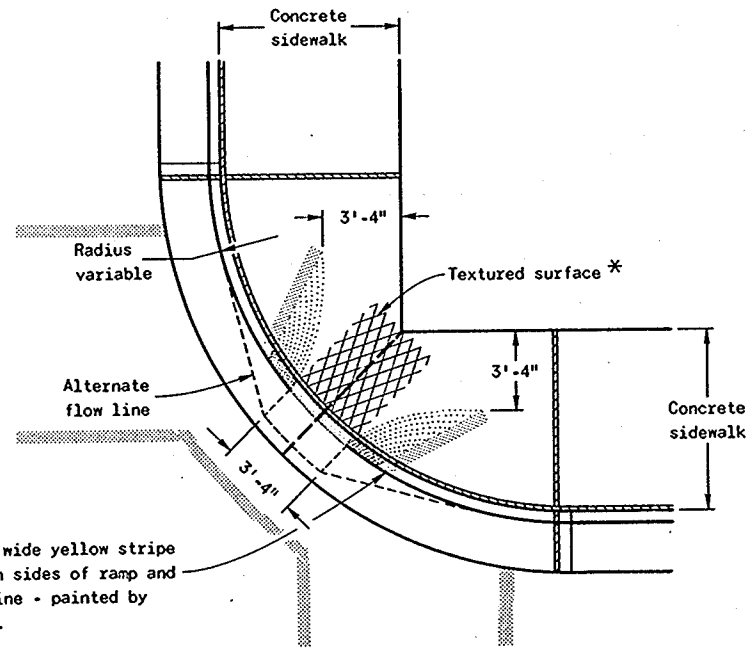
**CONCRETE CURB,
CONCRETE CURB & GUTTER,
or INTEGRAL CURB**

State of Wisconsin
Department of Transportation

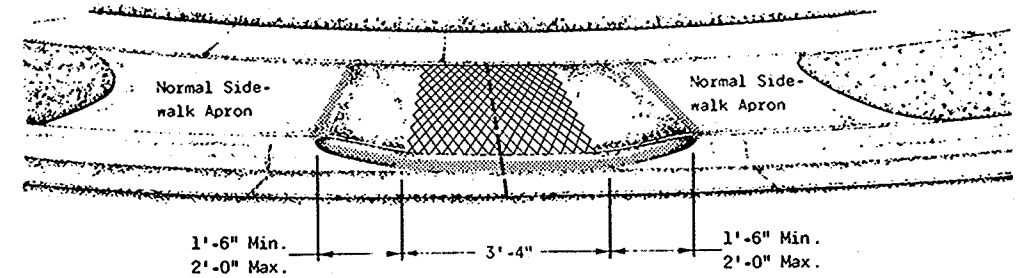
APPROVED
4-23-80
DATE
D. J. Strand
CHIEF DESIGN ENGINEER
FHWA



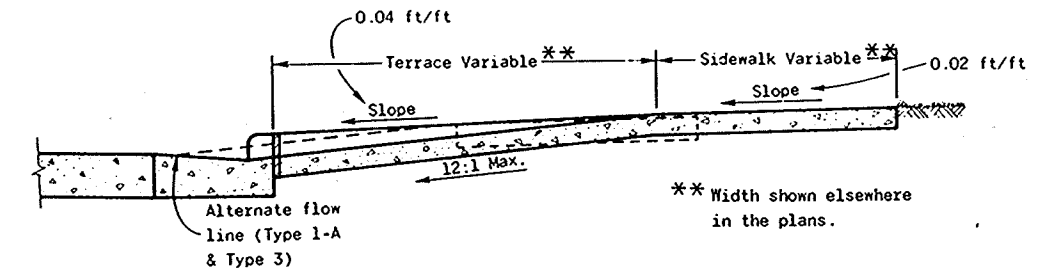
PLAN VIEW
TYPE 1 RAMP
(CENTER OF CORNER RADIUS)



PLAN VIEW
TYPE 1-A RAMP
(NO TERRACE)



VIEW A-A



SECTION B-B

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.

Ramps shall be built at 12:1 or flatter. When necessary, the sidewalk elevation may be lowered to meet the high point on the ramp.

Type 1 or Type 1-A Ramps shall have a normal sidewalk apron and curb on both sides of ramp.

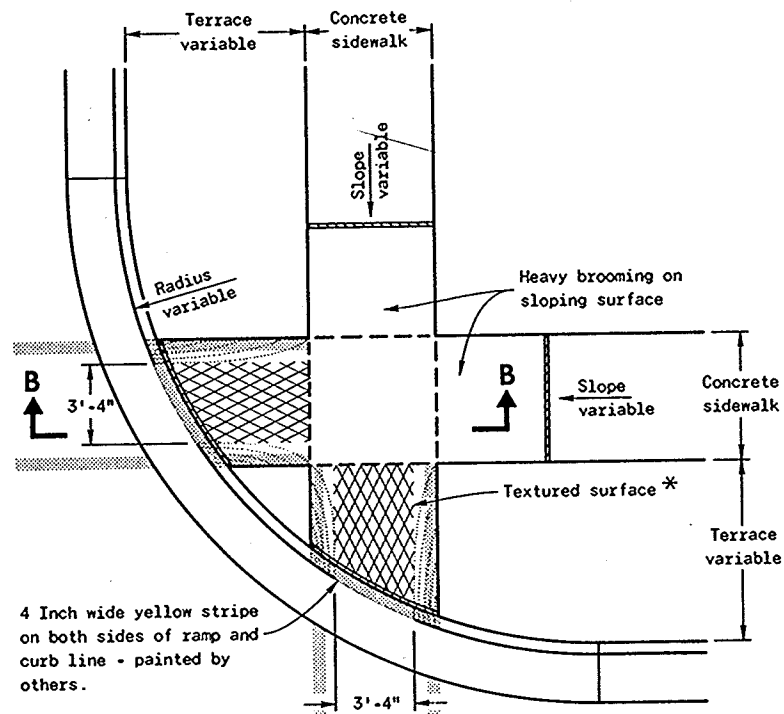
Curb ramps shall be measured and paid for as Concrete Sidewalk and Concrete Curb and Gutter.

* Surface texturing shall consist of linear impressions approximately $\frac{1}{4}$ inch to $\frac{3}{8}$ inch in depth and width, oriented to provide a uniform pattern of diamond shapes measuring approximately $1\frac{1}{4}$ inches in width by $2\frac{1}{4}$ inches in length, with the length being parallel to the direction of pedestrian movement. This surface texture may be achieved by impressing and removing a piece of expanded metal regular industrial mesh into the surface of the ramp while the concrete is in a plastic state.

Section 66.616, Wisconsin Statutes prescribes the standards for curb ramping. This drawing reflects requirements of this law.

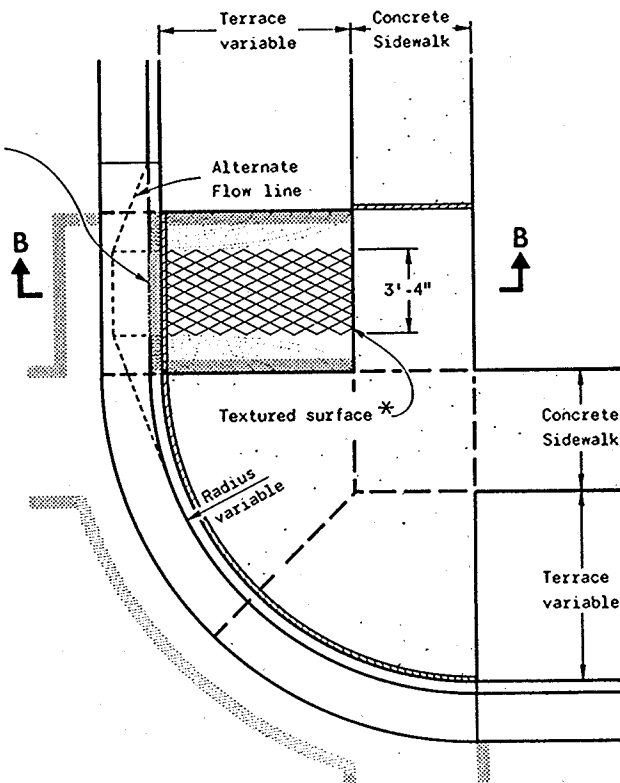
The law requires that the ramp be bordered on both sides and on the curb line with a 4 inch wide yellow stripe or with brick of a contrasting color. Normally the paint stripe alternate will be used. The municipality or the department will apply this striping.

If a municipality requires the brick alternate, special details and provisions are shown elsewhere in the plans.

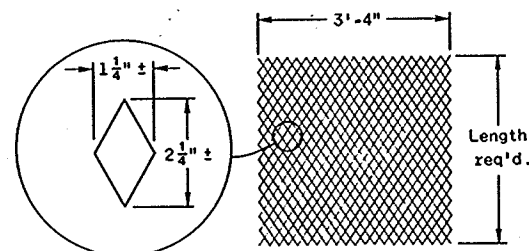


PLAN VIEW
TYPE 2 RAMP
(ON LINE WITH SIDEWALK)

4 Inch wide yellow stripe on both sides of ramp and curb line - painted by others.



PLAN VIEW
TYPE 3 RAMP
(OUTSIDE OF CROSSWALK AREA)



DETAIL OF DIAMOND PATTERN *

CURB RAMPS

State of Wisconsin
Department of Transportation

APPROVED
6-26-80
DATE

D. J. Schand
CHIEF DESIGN ENGINEER

FHWA



Diagram illustrating the installation of a traffic signal detector conduit.

The diagram shows a cross-section of the pavement and the conduit. The conduit is labeled "3" Fiber or PVC Conduit for Traffic Signal Detector". The pavement is labeled "Pavement" and "Normal Pavement Thickness". The conduit is shown being installed under the pavement, with a "Cap this end" label pointing to the closed end.

The right side of the diagram shows the conduit after installation, with a "1'-0" section of the pavement removed to reveal the conduit. The conduit is labeled "CONCRETE PAVEMENT" and "Edge of Pavement or Curb". The conduit is shown with a "Slope 1/8"/ft." and "Sand" bedding. A label "Plug this end to prevent injury to conduit." points to the open end of the conduit.

Following the removal of pavement forms, plug shall be fully exposed by removal of any concrete deposited over plug. The plug shall then be removed, conduit and plug cleaned and plug replaced prior to backfilling.

SIDE ELEVATION

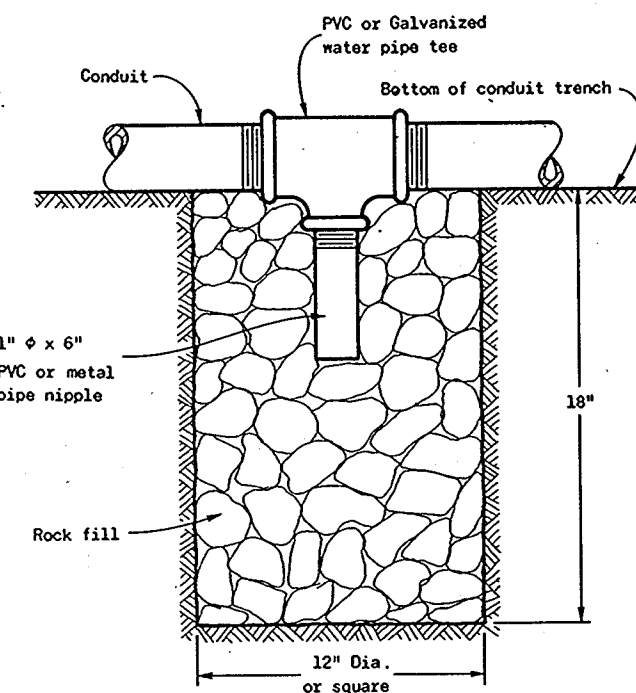
Following the removal of pavement forms, plugs shall be fully exposed by removal of any concrete deposited over plugs. The plugs shall then be removed, conduit and plugs cleaned and plugs replaced prior to backfilling.



Diagram illustrating the installation of a conduit under a rigid surface. The conduit is placed in a V-shaped trench cut into the surface. The trench is 3 inches wide at the top and 5 inches deep. The conduit is labeled "Metal, Fiber or PVC Conduit". The surface is labeled "Edge of Pavement or Curb".

PLAN VIEW

ARROW MARKER



NOTE: Install at locations where conduits cannot be pitched to drain

DRAIN SUMP FOR CONDUIT

GENERAL NOTES

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

Metal, Fiber or PVC Conduit shall be furnished and placed as shown hereon and in accord with the Standard Specifications.

For station location of conduit see Construction Plans..

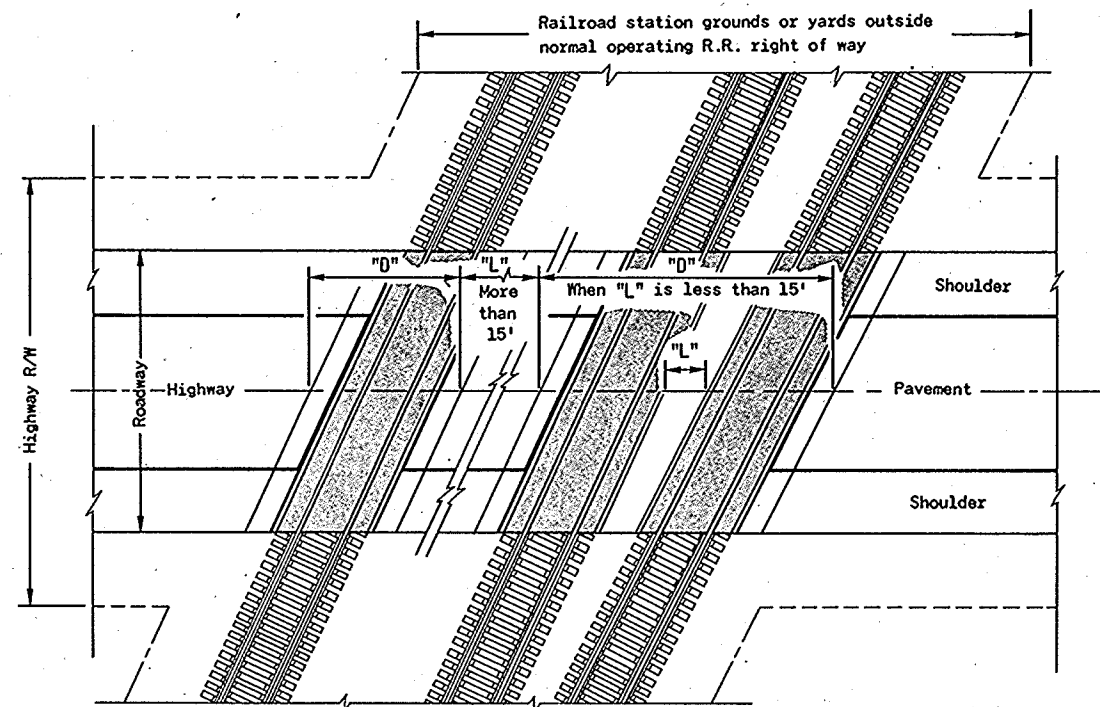
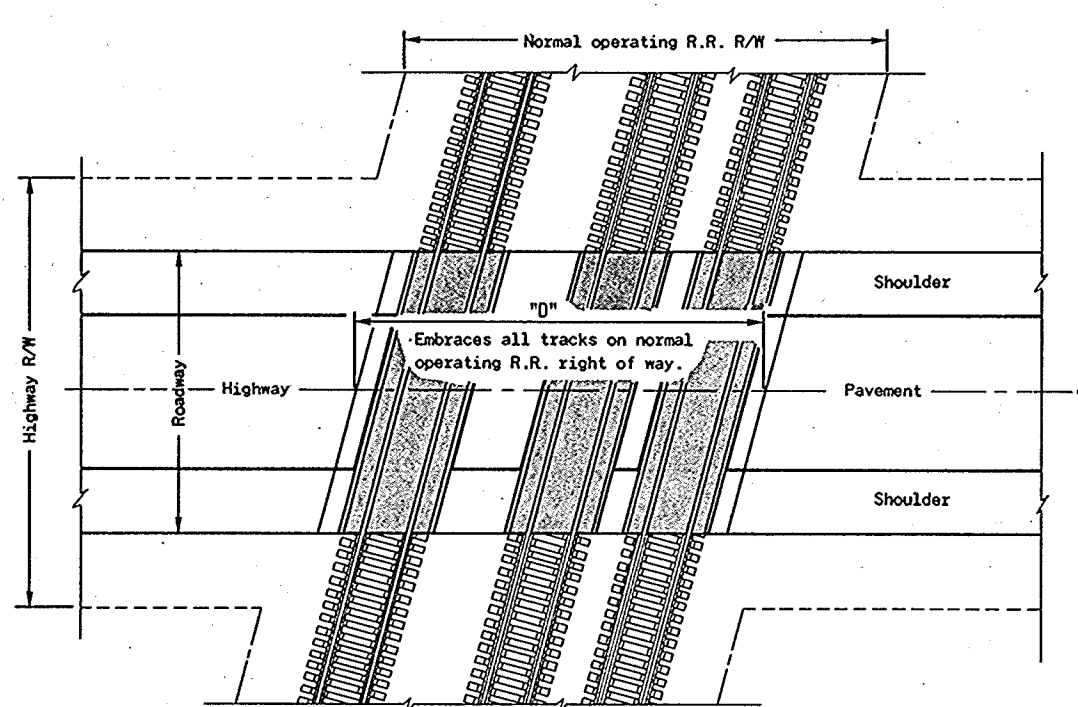
METAL, FIBER & PVC CONDUIT

State of Wisconsin
Department of Transportation
Division of Transportation Facilities

APPROVED
10-17-79

DATE

R. D. Thorne
CHIEF DESIGN ENGINEER

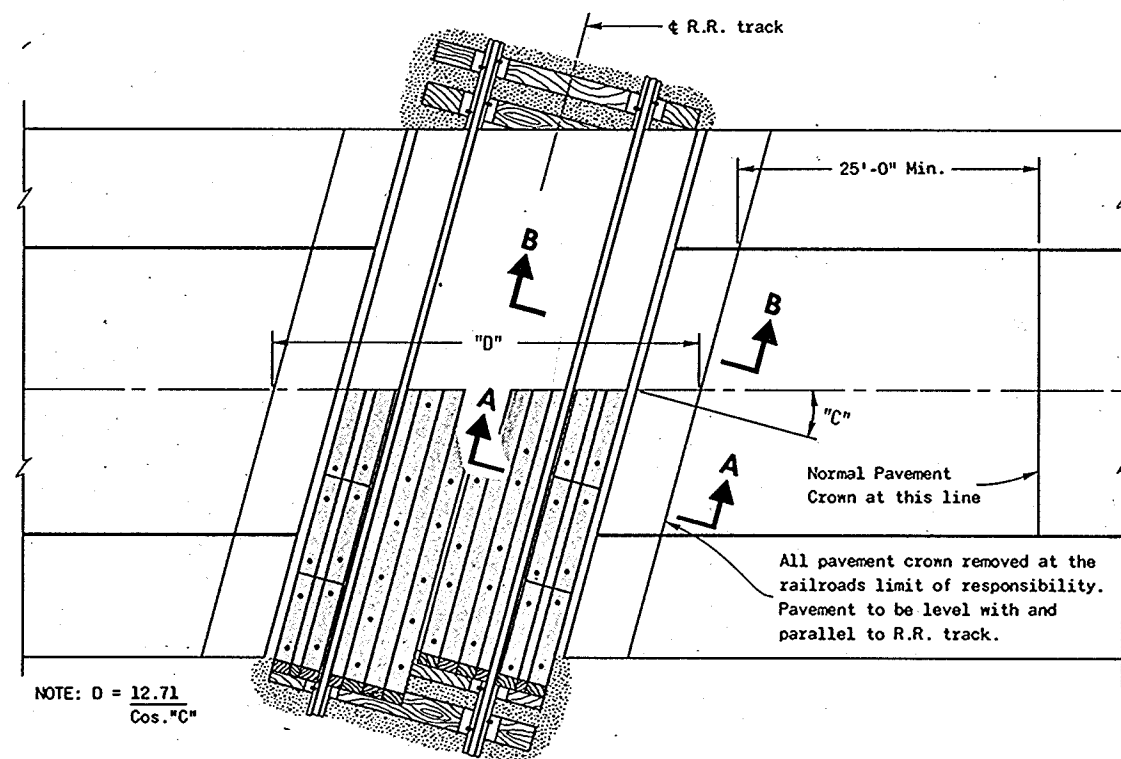


TYPICAL TYPES OF RAILROAD GRADE CROSSINGS
SHOWING THE RAILROAD'S LIMIT OF RESPONSIBILITY
AND MEASUREMENT DETAILS

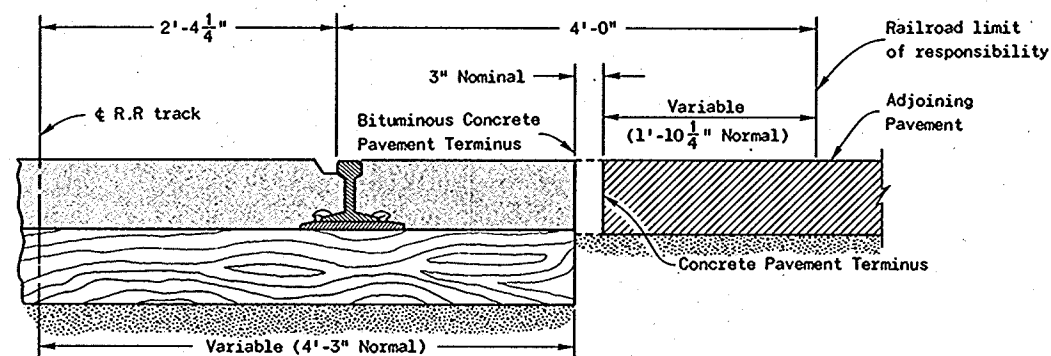
GENERAL NOTES

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.

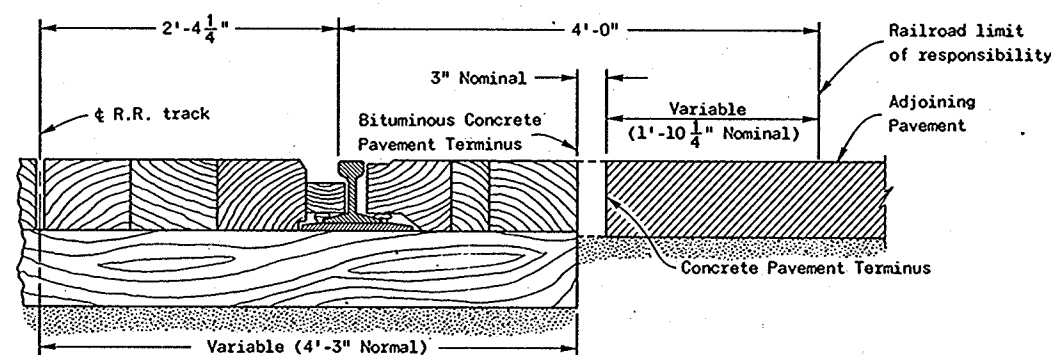
"D" = Exception to net length of ϵ . Paving or surfacing and shoulder material within limits designated by "D" to be at expense of railroad company. Trackage to industrial sites to be treated same as trackage to R.R. station grounds or yards outside of normal operating R/W.



RAILROAD APPROACH CONSTRUCTION DETAILS



SECTION B-B



SECTION A-A

PAVEMENT DETAILS FOR RAILROAD APPROACH

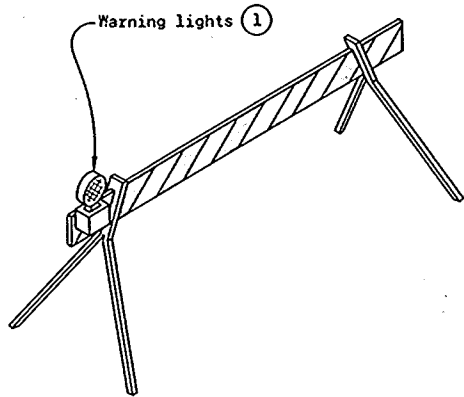
State of Wisconsin
Department of Transportation
Division of Highways

APPROVED
9-26-77
DATE
APPROVED
9-26-77
DATE
FHWA

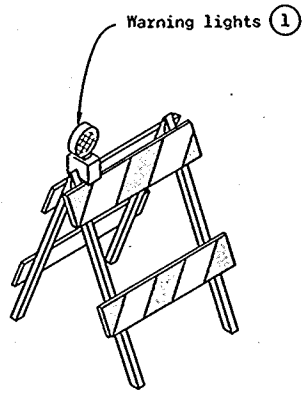
C. W. Butler
SUPERVISING DEVELOPMENT ENGINEER
D. J. Strand
CHIEF OF FACILITIES DEVELOPMENT

TABLE OF BARRICADE CHARACTERISTICS			
BARRICADE TYPE	I	II	III
Height	3' Minimum		5' Minimum
*Rail Width	8" Minimum to 12" Maximum		
Rail Length	2' Minimum		4' Minimum
**Stripe Width	6" at 45° Angle		
Stripe Colors	Reflectorized Orange & White		

* Nominal dimensions when barricade is constructed of lumber.
 ** Shall be 4" for rail lengths less than 3'.



TYPICAL TYPE I BARRICADE



TYPICAL TYPE II BARRICADE



R11-2
 48" x 30"

Black Lettering on Reflective
 White Background
 Letter Series "D"
 Letter height 8"



W20-3
 48" x 48"

Black Lettering on Reflective
 Orange Background
 Letter Series "D"
 Letter height 7"

STANDARD SIGNS - TYPE II

GENERAL NOTES

The contractor shall furnish, erect and maintain barricades and signs. Details regarding location, spacing, dimensions, fabrication, material, sign lettering, lighting devices and color of barricades and signs shall conform to this drawing, the Manual On Uniform Traffic Control Devices, the Standard Specifications, Special Provisions and/or plans.

Type III Barricades and Signs shall be erected at the termini of projects and at other road or street locations where it is necessary to control or eliminate public access to the construction area.

Type I and II Barricades shall be used on projects when traffic is to be maintained through the construction area.

The actual field location of barricade installations and advance signs shall be as directed by the Engineer.

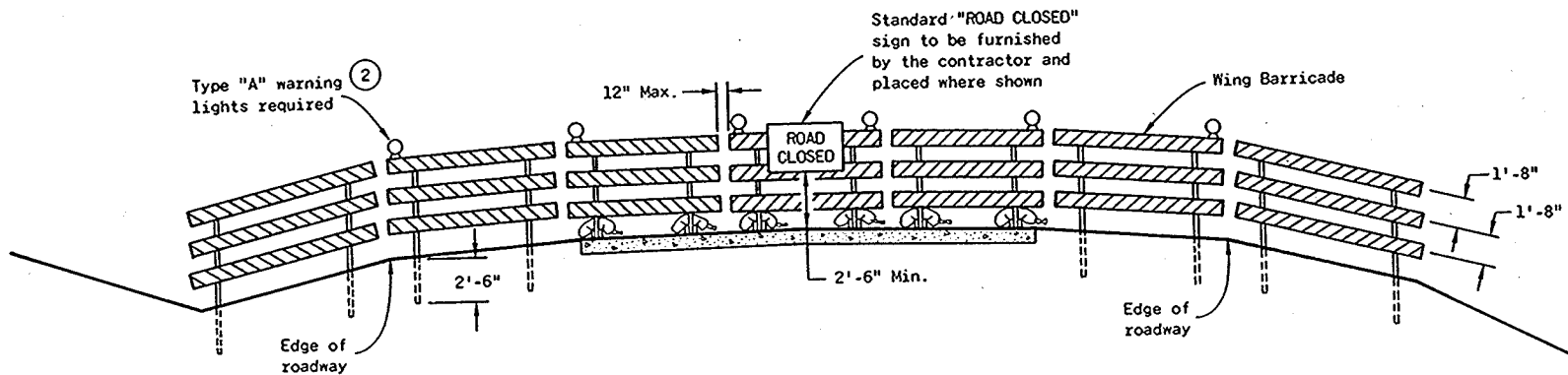
Each barricade shall have the name and telephone number of a person responsible for 24 hour emergency service printed in letters at least $\frac{1}{4}$ inch in height on the barricade rails. Prior to May 1, 1983, such information may be shown on either front or back faces of the barricade rails. After May 1, 1983, all printed information or identification markings shall be shown only on the back side of barricade rails.

Type I Barricades may include other unstriped horizontal panels necessary to provide stability.

On high speed expressways or in other situations where barricades may be susceptible to overturning in the wind, sandbags should be used for ballasting. Sandbags may be placed on lower parts of the frame or stays to provide the required ballast but shall not be placed on top of any striped rail.

- ① Unless otherwise provided elsewhere in the contract, warning lights are required on all barricades which will be located near traffic operations during periods of inclement weather or hours of darkness. Barricades used to shield isolated hazards shall be equipped with Type "A" (low intensity - flashing) lights unless Type "B" (high intensity) - flashing lights are specified elsewhere in the contract documents. Barricades used for channelization or delineation of the travel path shall be equipped with Type "C" (steady burn) lights except for the initial barricade(s) in sequence, which shall be equipped with Type "A" or "B" lights as previously noted.

- ② Two warning lights shall be provided on the center barricade and at least one warning light shall be provided on each of the other barricades within the roadway limits. Spacing of the warning lights shall be uniform to the edge of roadway as shown.



TYPICAL INSTALLATION SHOWING TYPE III BARRICADE

CONSTRUCTION BARRICADES

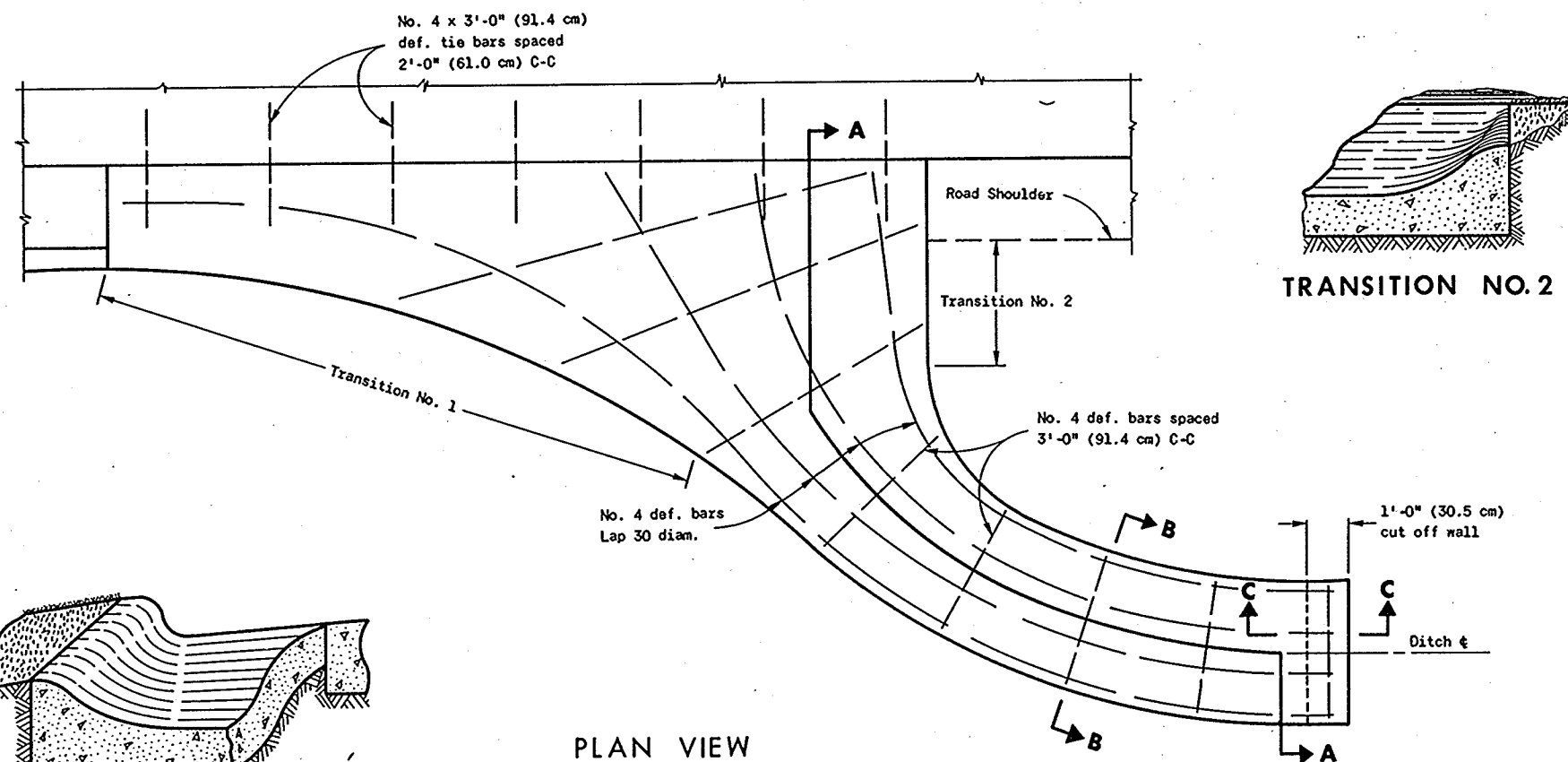
CONSTRUCTION BARRICADES & STANDARD SIGNS

State of Wisconsin
 Department of Transportation

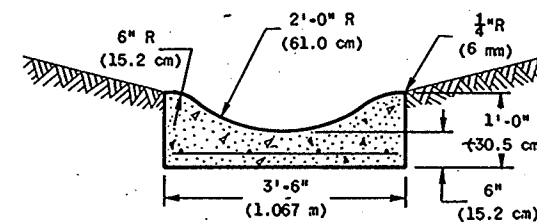
APPROVED
 9-14-81
 DATE

DD Strand
 CHIEF DESIGN ENGINEER

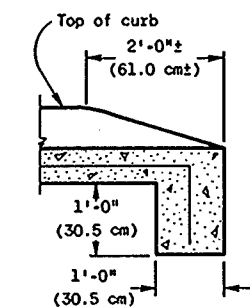
FHWA



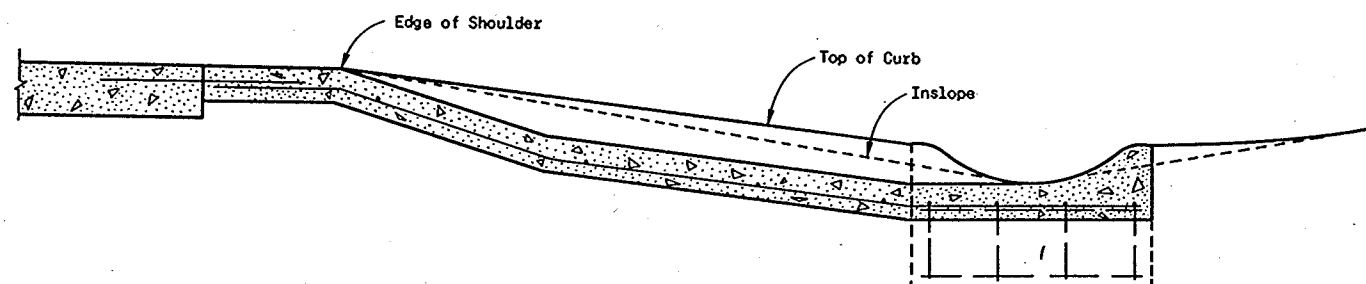
TRANSITION NO. 2



SECTION B-B



SECTION C-C



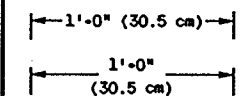
SECTION A-A

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.

Typical design only; exact design and flume length may be modified by the Engineer to meet field conditions.

METHOD OF DIMENSIONING



BASIS: 1 in. = EXACTLY 25.4 mm

CONCRETE SURFACE DRAIN

State of Wisconsin
Department of Transportation
Division of Highways

RECOMMENDED FOR APPROVAL:

1-7-74

DATE

APPROVED

1-15-74

DATE

J. C. Hennrich
CHIEF OF FACILITIES DEVELOPMENT

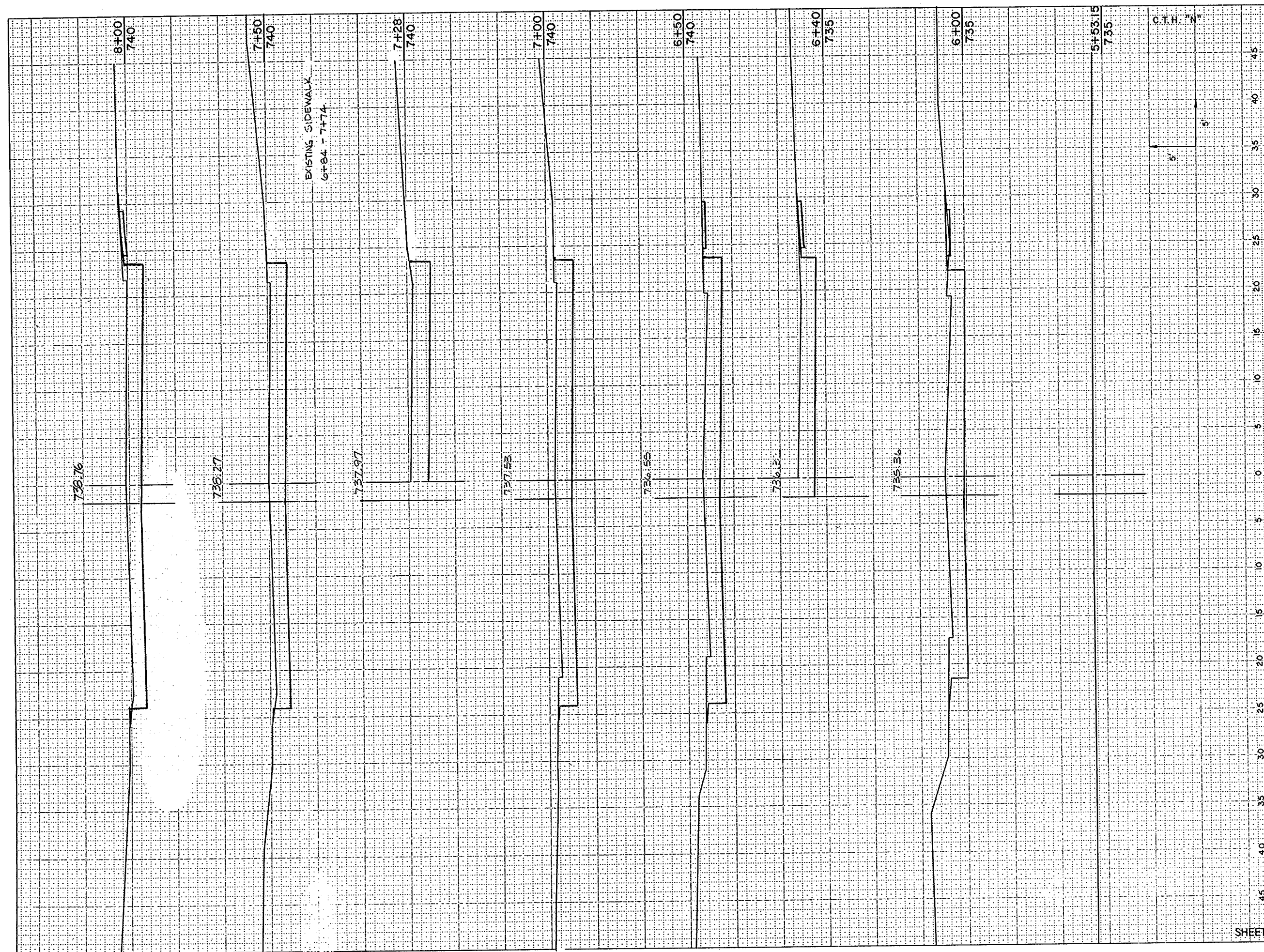
W. J. Siedler
STATE HIGHWAY ENGINEER



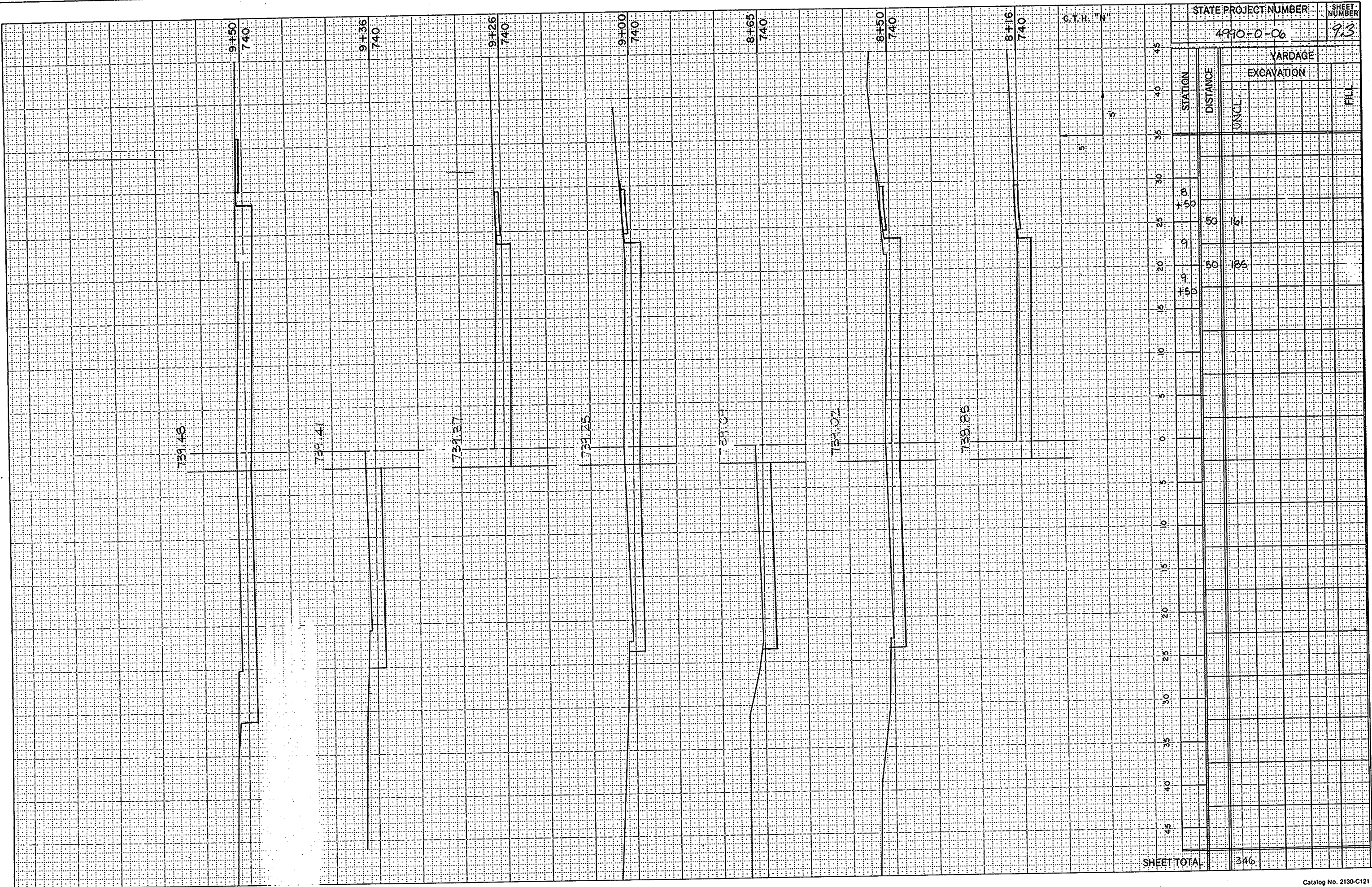
MATCH EXISTING PAVEMENT
STATION 95+00

C.T.H. "00"

STATE PROJECT NUMBER		SHEET NUMBER		
4990-0-06		9		
STATION	DISTANCE	YARDAGE		
		EXCAVATION		FILL
		UNCL.		
98				
98+50	50	39		9
99	50	37		11
99+50	50	50		9
100	50	61		4
100+50	50	63		
105+68	18	8		



STATE PROJECT NUMBER			SHEET NUMBER		
4990-0-06			9.2		
STATION	DISTANCE	YARDAGE			
		EXCAVATION			FILL
		DNCL			
5 +60					
6	40	61			
6 +50	50	161			
	50	170			
7					
7 +50	50	157			
	50	146			
8					
8 +50	50	150			



SHEET TOTAL

346