# DROP BOX NO. 1 RT STA. 1078 + 14

This work shall be paid for at the contract unit price per Each for Drop Box No. 1 This work shall be done according to the applicable portion of 503, 508, and 540

of the Standard Specifications.

Contractor shall field verify Galvanized pipe length

Exposed edges shall be beveled  $\frac{3}{4}$ ".

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr. 60

All steel pipe shall be standard weight (Sch. 40) unless otherwise noted.

All components of the Steel Pipe Grate System shall be galvanized according to the requirements of AASHTO M 111 or M 232 as applicable.

Fabrication of the steel Pipe Grate System shall conform to the requirements in Section 505 of the Standard Specifications unless noted otherwise.

Structural steel shapes and plates shall conform to the requirements of Article 1006.04 of the Standard Specifications. Steel pipes shall conform to the requirements of ASTM A 53 (Type E or S), Grade B.

Bolts shall conform to the requirements of Article 1006.08 of the Standard Specifications. The minimum edge distance from the center of a hole to the free edge of a structural shape or plate shall be  $1\frac{1}{2}$ " unless noted otherwise.

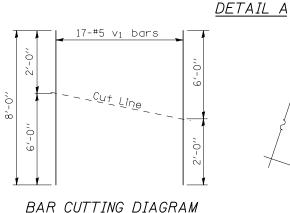
Bolts and anchor rods shall be snug tightened by a few impacts of an impact wrench or the full force of a worker using an ordinary spud wrench.

All cost associated with furnishing and installing the steel Pipe Grate system shall be included in the contract unit price of Each for Drop Box No. 1

All excavation/backfilling required for construction of the drop box as shown in these plans and in accordance with the Standard Specifications shall be included in the cost of Drop Box No. 1. Precast alternate is allowed.

See Plan & Profile Sheet for more information.

 $\frac{1}{2}$ %  $\frac{1}{2}$ % hole in  $\frac{1}{2}$ %  $\frac{1}{2}$  See Cross Section Sheet for more information.



Formed hole using

 $^{4}$   $^{3}$ / $^{4}$   $^{7}$   $^{9}$  thru bolt  $^{4}$   $^{4}$   $^{2}$ / $^{2}$   $^{7}$   $^{7}$   $^{7}$ / $^{1}$   $^{1}$ 

P washer (typ. each side)

 $\frac{3}{4}$ " Ø (Nom.) steel pipe

\*Order v<sub>1</sub> bars full length, Cut as shown and use remainder of bars in opposite wall.

# LA \$\frac{1}{2} \tag{1}{2} \tag{1} \tag{1}{2} \tag{1} \tag{1}{2} \tag{1} \tag{1}{2} \tag{1}{2} \tag{1}{2} \tag{1}{2} \tag{1}{2} \tag{1} \tag{1}{2} \tag{1}{2} \tag{1}{2} \tag{1}{2} \tag{1}{2} \tag{1} \tag{1} \tag{1}{2} \tag{1}{2} \tag{1} \tag{1} \tag{1}{2} \tag{1} \tag{1

SECTION C-C

¢ 1/8" Ø hole

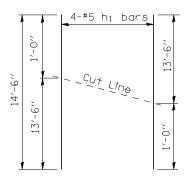
 $P \frac{1}{2}$ " ×  $5\frac{1}{2}$ " × 7"

4" Ø (Nom.) steel

pipe runner

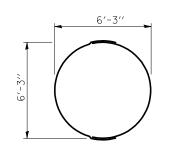
31/2'

(See Detail A for dimensions and details not shown.)

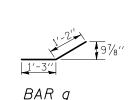


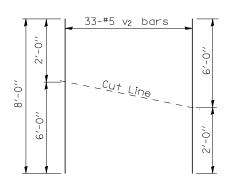
### BAR CUTTING DIAGRAM

\*Order h1 bars full length. Cut as shown and use remainder of bars in opposite face.



BAR h<sub>5</sub> (PAIR)





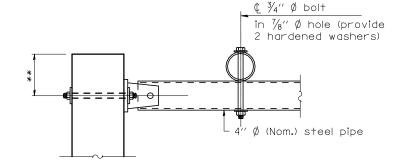
### BAR CUTTING DIAGRAM

\*Order v2 bars full length. Cut as shown and use remainder of bars in opposite wall.

4'-8"

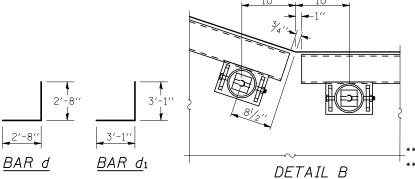
7′-5′′

BAR u



### SECTION D-D

\*\* Measured perpendicular to top of wall. In addition, formed hole shall be located a minimum of 6" measured horizontally from any vertical joints necessary for construction of the drop box.



SCALE:

SHEET

## BILL OF MATERIAL

	(F	or Intorr	mation Only)				
BAR	SIZE	NO.	LENGTH	SH	4PE		
d	5	20	5′-4′′	_			
d1	5	66	6′-2′′	_			
f	6	4	7′-5′′				
f1	5	4	18'-0''		\		
g	6	8	2′-5′′	_			
	_						
h	5	12	21′-3′′				
h1	5	8	14′-6′′				
h2	5	16	20′-3′′	_			
h3	5	48	7′-5′′				
h4	5	64	2'-9''				
h5	6	4	13′-8′′		)		
V	5	15	1'-11''				
V1	5	17	8'-0''				
			8′-0′′				
v2	5	33	80				
u	5	4	16'-9''				
DESC	RIPTION		UNIT	Q	TY		
CONCRET	E STRUCTL	JRES	CU YD	13	2.1		
REINFOF	RCEMENT BA	LB	25	570			
	DESCR	IPTION		UNIT	QTY.		
	4@ 5′-7				5′-7′′		
4" GALVANI	ZED STEEL	PIPE		2@	17'-0''		
	2@	2'-9''					
3⁄4" Ø GALV	EACH	8					
END ASSEM	EACH	4					
SIDE ASSEMBLY				EACH	EACH 8		

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THE UPCHURCH GROUP, INC.	PL					

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 $BAR f_1$ 

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

<del></del>	***	Includes	all	hardware	and	steel	tor	Assem	blies		
DRAINAGE DETAILS DROP BOX NO.1					F.A.P. RTE.		SECTION	I	COUNTY	TOTAL SHEETS	SHE
					303		129R		WINNEBAGO	968	44
Bildi Box Ite. I			CONTRACT NO. 64						498		
NO. 2 OF 2 SHEETS :	STA.	T	0 ST	Α.	THE INDIS FED. AID PROJECT						