

Neenah R-4990-HX Unbolted

Series

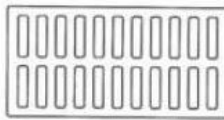
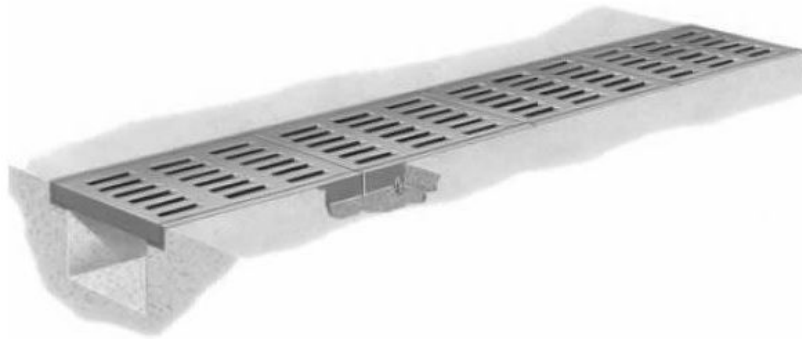
R-4990-HX

Cut Sheet

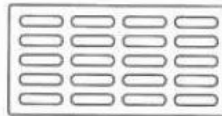
26" Wide Unbolted

26" Wide NEENAH Unbolted Heavy Duty Trench Drain Grates and Frames

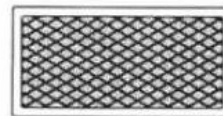
Product ID: R-4990-HX



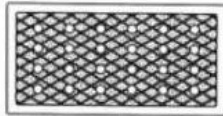
TYPE A
GRATE OPENINGS



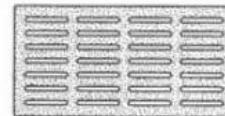
TYPE C
GRATE OPENINGS



TYPE D
SOLID LID



TYPE E
VENTED LID



TYPE Q
GRATE OPENINGS

26" Wide Unbolted Neenah R-4990-HX Series Trench Grate

26"W X 24"L X 1 1/2"D
Choose Type A,C,D,E,Q

Materials: All frames and grates/lids are furnished standard in gray iron, meeting ASTM-A48 Class 35-B for heavy-duty use. In Type A and P grates the slots are perpendicular to the trench run. In Type C and Q grates the slots are parallel with the trench run.

Neenah recommends project designers avoid the use of light duty trench installations because it is likely that applications will be subjected to heavy delivery vehicle traffic at some time. Furthermore, the use of a site could be changed to heavy duty use patterns at some unanticipated future date.

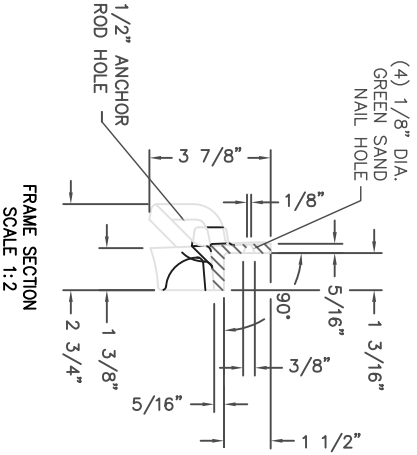
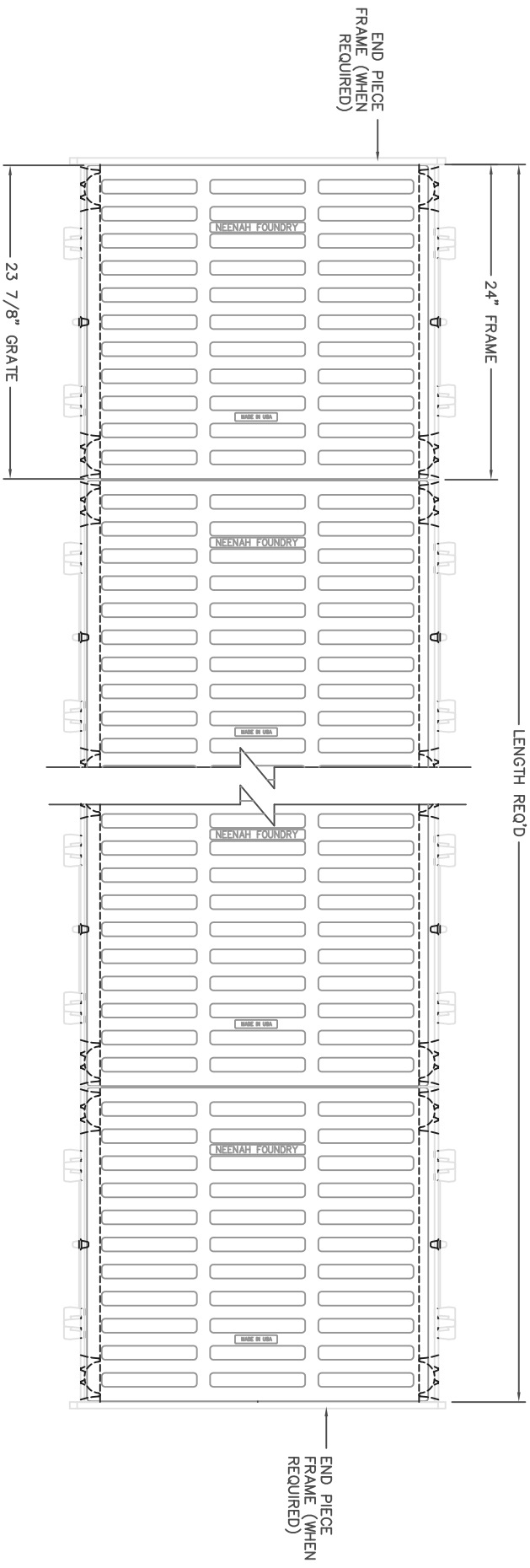


Supplied By:

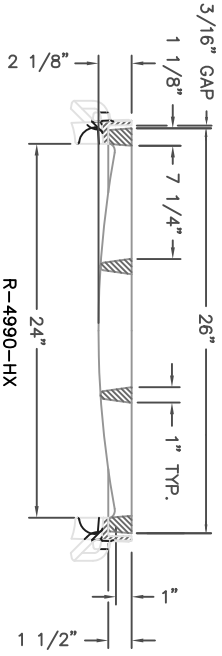
TRENCHDRAIN
S U P P L Y

877-903-7246

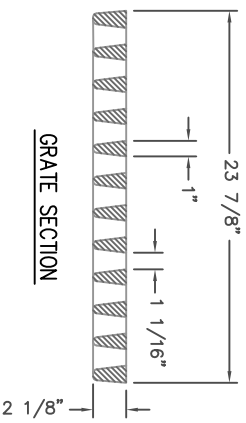
www.trenchdrainsupply.com



FRAME SECTION
SCALE 1:2



TYP. SECTION TYPE "A" GRATE
AND TYPE "B" FRAME

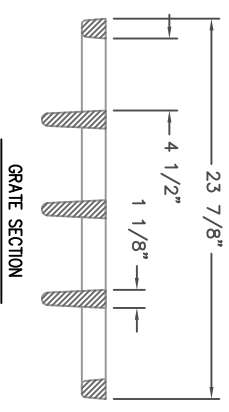
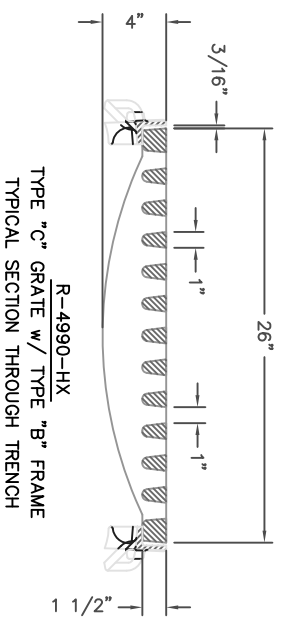
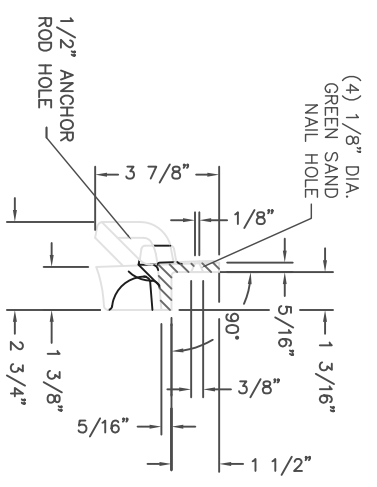
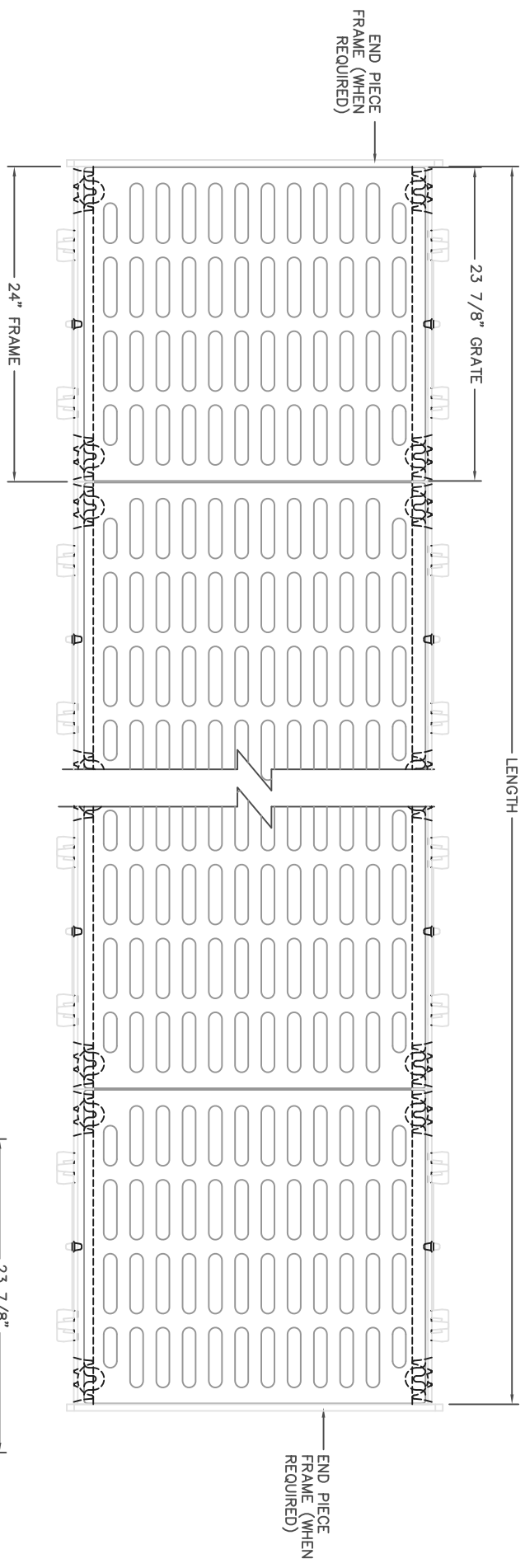


GRATE SECTION

NOTES: FRAMES AND COVERS ARE FURNISHED IN STANDARD 2'-0" INCREMENTS. SPECIAL LENGTH FRAMES AND COVERS ARE FURNISHED FOR ANY OVERALL LENGTH.
COMPONENT NOS.: GRATE 4990-3261, SIDE PC. FRAME 4999-2415,
SIDE PC. FRAMES - CAST GRAY IRON ASTM A-48, CLASS 35A
END PC. FRAMES AND GRATINGS - CAST GRAY IRON ASTM A-48, CLASS 35B
NO PAINT

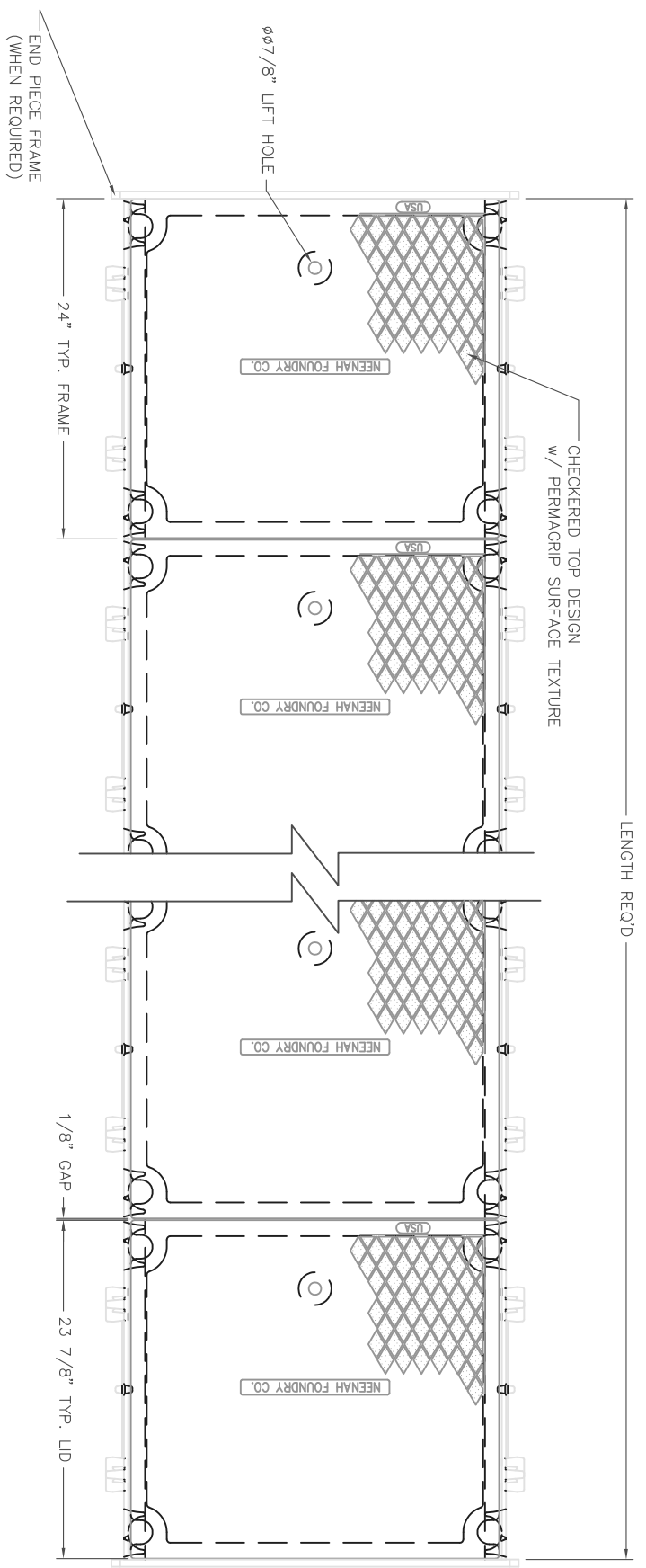
DATE	REVISION	DR	CH	APP.	DATE	SCALE	TITLE
9/25/2014	UPDATED DWG. WITH NEW FRAME	CAG	EJN	JDB	03-11-2010	1/8"=1"	R-4990-HX TRENCH ASSEMBLY TYPE "A" GRATE WITH TYPE "B" FRAME

CAD DWG. REF:4990HX A.DWG- 2

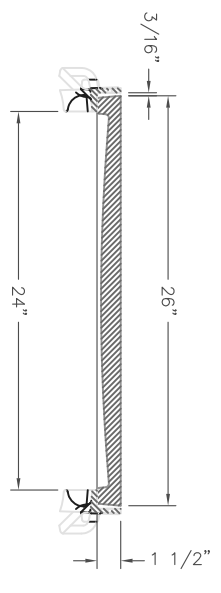


NOTES: FRAMES AND COVERS ARE FURNISHED IN STANDARD 2'-0" INCREMENTS. SPECIAL LENGTH FRAMES AND COVERS ARE FURNISHED FOR ANY OVERALL LENGTH.
 COMPONENT NOS.: GRATE 4990-3263, SIDE PC. FRAME 4999-2415, END PC. FRAME 4990-3226
 SIDE PC. FRAMES - CAST GRAY IRON ASTM A-48, CLASS 35A
 END PC. FRAMES AND GRATERS - CAST GRAY IRON ASTM A-48, CLASS 35B
 NO PAINT

DR.	K. HOGE	SCALE	1/8"=1"	TITLE	R-4990-HX TRENCH ASSEMBLY
CH.					TYPE "C" GRATE WITH TYPE "B" FRAME
APP.		DWG. CHK.	NEENAH	FOUNDRY COMPANY	NEENAH WISCONSIN 54956
DATE	03-11-2010				NF-4990HX C B
DR.		REVISED			
CH.					
APP.					
DATE	10/17/2014	REVISION	UPDATED DWG. WITH NEW FRAME		
DATE					



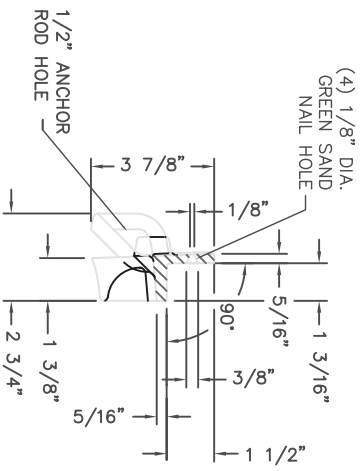
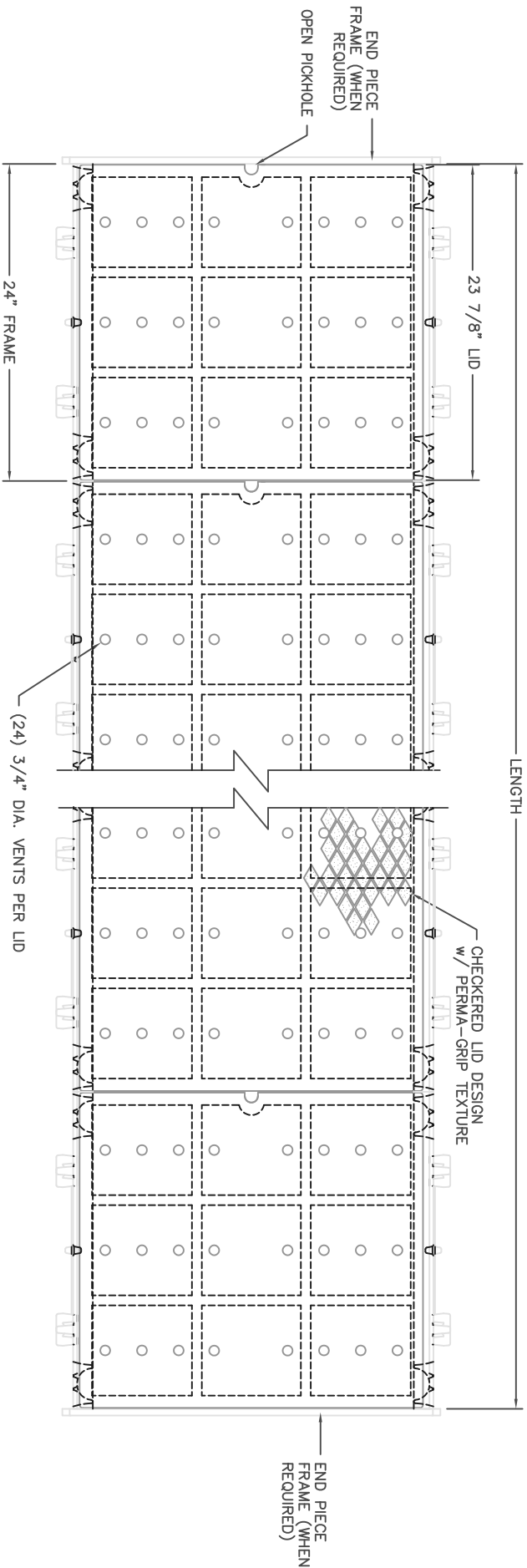
R-4990-HX
 TYPE "D" LID & TYPE "B" FRAME
 TYPICAL SECTION



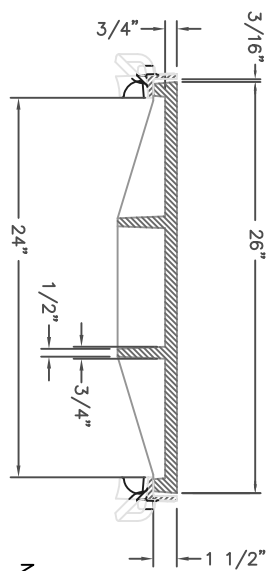
COMPONENT NOS.: SIDE P.C. FRAME 4999-2415
 END P.C. FRAME 4990-3226
 LID 4990-3264

MATERIAL: CAST GRAY IRON ASTM A-48, CLASS 35B
 FINISH: NO PAINT UNLESS SPECIFIED ON PURCHASE ORDER

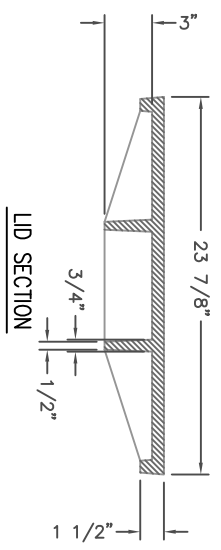
DR.	CAG	SCALE	TITLE:
CH.		1/8"=1"	R-4990-HX TRENCH
APP.		DIM CHK.	w/ TYPE "D" PLATEN LID & TYPE "B" FRAME
DATE	04-05-2013		NEENAH FOUNDRY
			NEENAH FOUNDRY 3408
			PHONE: 1-800-558-5075
			www.neenahfoundry.com
			NF-4990HX D B



FRAME SECTION
SCALE 1:2



TYPE "E" LID w/ TYPE "B" FRAME
TYPICAL SECTION THROUGH TRENCH



LID SECTION

NOTES: FRAMES AND COVERS ARE FURNISHED IN STANDARD 2'-0" INCREMENTS. SPECIAL LENGTH FRAMES AND COVERS ARE FURNISHED FOR ANY OVERALL LENGTH.
 COMPONENT NOS.: LID 4990-8265, SIDE PC. FRAME 4999-2415,
 END PC. FRAME 4990-3226
 SIDE PC. FRAMES - CAST GRAY IRON ASTM A-48, CLASS 35A
 END PC. FRAMES AND GRATES - CAST GRAY IRON ASTM A-48, CLASS 35B
 NO PAINT

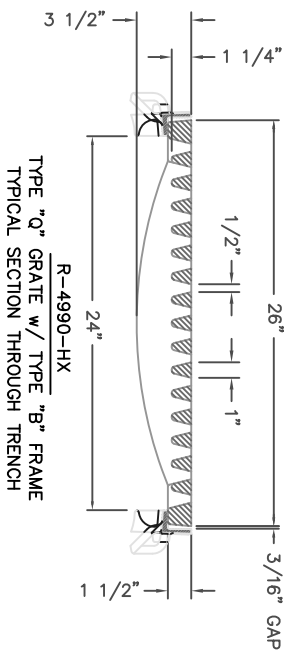
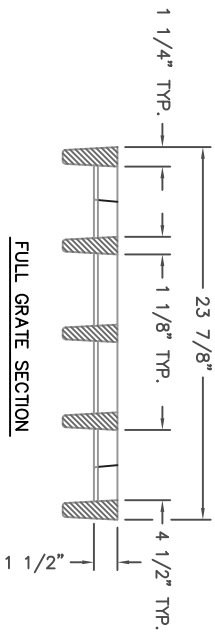
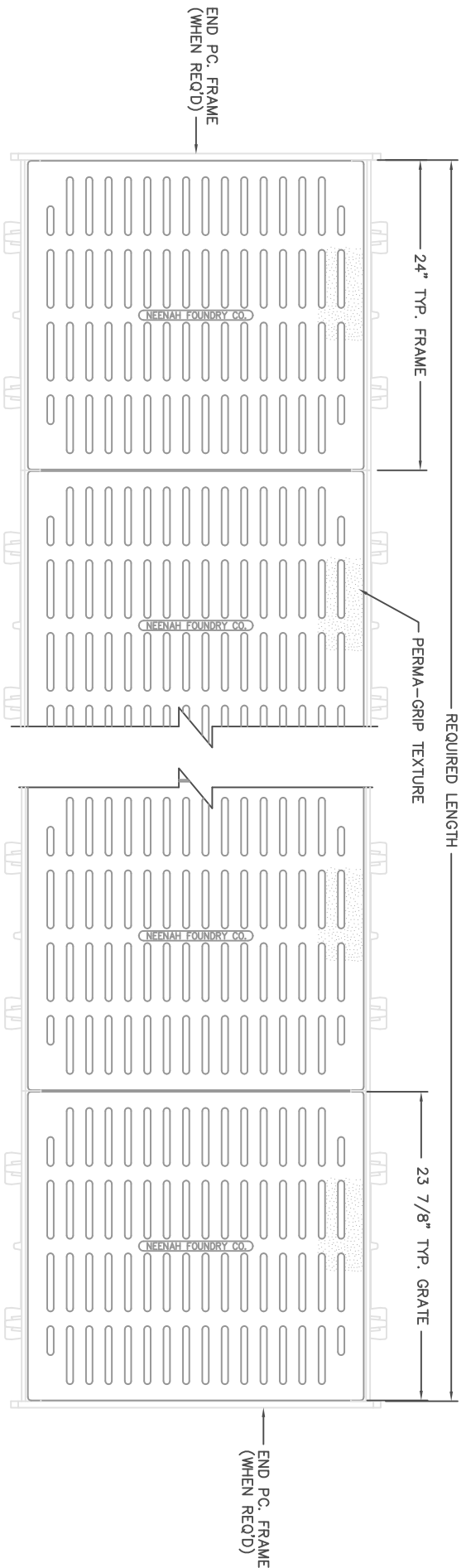
DATE	REVISION	DR	CH	APP	DATE	DR	RKB	SCALE	TITLE
10/17/2014	UPDATED DWG. WITH NEW FRAME	CAG	RKB	SPT	App.			1/8"=1"	R-4990-HX TRENCH ASSEMBLY TYPE "E" LID WITH TYPE "B" FRAME
					08-11-2009				

Supplied By:


TRENCHDRAIN
S U P P L Y

877-903-7246

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NOTE: FRAMES AND GRATES ARE FURNISHED IN STANDARD 2'-0" INCREMENTS.
SPECIAL LENGTH FRAMES AND GRATES ARE FURNISHED FOR ANY OVERALL LENGTH.
COMPONENT NOS.: FRAME 4999-2415, GRATE 4990-3267, END P.C. FRAME 4990-3226
MATERIAL: END P.C. FRAMES-CAST GRAY IRON ASTM A-48, CLASS 35B
SIDE P.C. FRAMES-CAST GRAY IRON ASTM A-48, CLASS 35A
FINISH: NO PAINT

DR.	CAG	SCALE	TITLE:
CH.	RKB	1/8"=1"	R-4990-HX TRENCH ASSEMBLY
APP.	SPT		TYPE "B" FRAME, TYPE "Q" GRATE
DATE	3/17/2014		
www.neenahfoundry.com		 NEENAH FOUNDRY NEENAH, WISCONSIN 54956 PHONE 800-358-3079 LINDOLN, NEBRASKA 68528 PHONE 800-231-7459	
NF-4990HX Q B			

R-4990 HEAVY DUTY TRENCH

Materials: All frames and grates/lids are furnished standard in gray iron, meeting ASTM-A48 Class 35-B for heavy-duty use. For extra heavy-duty use or superior durability requirements, see our ductile iron Airport and Port Grating Series on page 286.

Neenah recommends project designers avoid the use of light duty trench installations because it is likely that applications will be subjected to heavy delivery vehicle traffic at some time. Furthermore, the use of a site could be changed to heavy duty use patterns at some unanticipated future date.

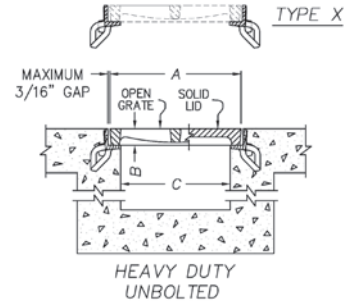
Dimensions in inches

Un-Bolted Catalog No.	A	B	C	Type A	Type C	Type D	Type E	Type P	Type Q
R-4990-AX	8	1 1/2	6	x	x	x	x	x	
R-4990-BX	10	1 1/2	8	x	x	x	x	x	
R-4990-CX	12	1 1/2	10	x	x	x	x	x	x
R-4990-DX	14	1 1/2	12	x	x	x	x	x	x
R-4990-EX	17	1 1/2	15	x	x	x	x	x	
R-4990-FX	20	1 1/2	18	x	x	x	x	x	
R-4990-GX	23	1 1/2	21	x	x*	x			
R-4990-HX	26	1 1/2	24	x	x*	x	x		x
R-4990-JX	30	2	27	x	x	x			
R-4990-KX	33	2	30	x	x	x*	x		
R-4990-LX	36	2	33	x	x	x*			
R-4990-MX	39	2	36	x	x*	x			
R-4990-NX	45	2	42	x	x*	x			
R-4990-OX	51	2	48	x		x*			

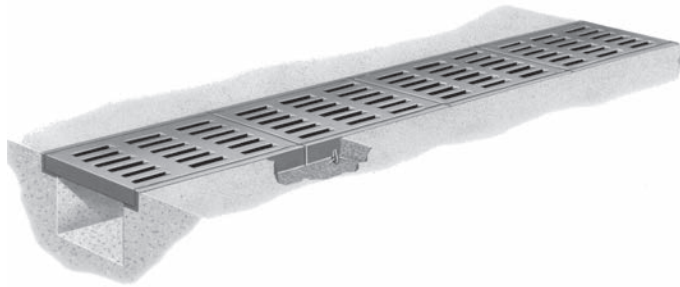
x - Indicates availability.

* Deep Ribs (consult shop drawing for dimensions).

Deep Ribs = "B" dimension times 2 or greater.



General schematic shown may not apply to all designs. Bar and rib depths, plate thicknesses and seating widths vary on different sizes and styles. If your project has design restrictions, contact your sales representative or product engineering.



Illustrating Type C trench. Trench sections are furnished in 24" standard lengths.

Note: In Type A and P grates the slots are perpendicular to the trench run. In Type C and Q grates the slots are parallel with the trench run.

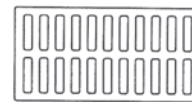
Read Carefully Before Ordering

The various standard trench drains are available with a number of alternatives. It is important to examine all of the variables carefully and specify your requirements fully. Your order will be entered correctly and promptly if it includes the following information:

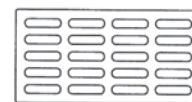
- Complete catalog number
- Frame end pieces, when required
- Type of Lid or Grate: A, C, D, E, P or Q
- Length of trench sections
- Angles and intersections *
- Load requirements

*Trenches with angles, intersections, size changes or other special requirements require detail drawings prior to ordering. Contact your sales representative or product engineering for assistance.

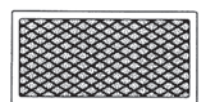
800-558-5075



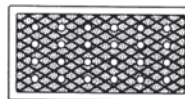
TYPE A
GRATE OPENINGS



TYPE C
GRATE OPENINGS



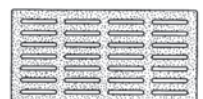
TYPE D
SOLID LID



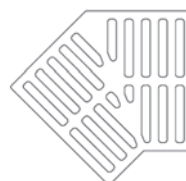
TYPE E
VENTED LID



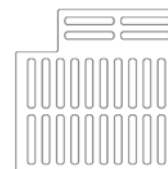
TYPE P
GRATE OPENINGS



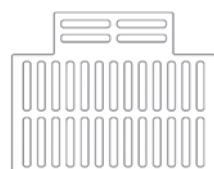
TYPE Q
GRATE OPENINGS



TYPE A
45 DEGREE
INTERSECTION PC.



TYPE A
90 DEGREE
INTERSECTION PC.



TYPE A
"T" INTERSECTION PC.

Note: 45°, 90° and "T" available in limited sizes and types.

Suggested Forming Instructions for R-4990 Frame and Grate/Lid

Unbolted Units

A typical installation is shown in Figure 1. Details and suggestions are based on using the Neenah Foundry Type X Frame.

Materials

Under normal situations, use 3/4 inch plywood for forming walls. 2x4s are suitable for studs, plates, bracing and spreaders.

Forming Procedures

Pour the floor slab of the trench according to the plans and specifications. The width of the forming, (see Figure 2) measured from the outside edges of the forms, corresponds to the "C" dimension on Figure 1. During the entire forming procedure, verify that the forms are plumb, straight, solid and level.

The height of the form corresponds to the final grade elevation. Extend the spreaders beyond the edge of the forms (see Figure 3 and 4) to provide a stop for the frame and seat form.

To attach the cast iron frame to the forming, the use of a "seat form" is recommended to assure that the frame is at the proper elevation and true. The seat form has the same dimensions as the frame, with the height corresponding to the frame height (the "B" dimension), and the width the same as the seat width of the frame. The seat width should be field measured to assure as proper fit. All Neenah frames have a slight radius at the corner of the seat and vertical face so the seat form should be beveled to accommodate the radius. Most 2x4's have this radius.

Nail the seat form to the frame using the holes in the frame. (Figures 3 & 4)

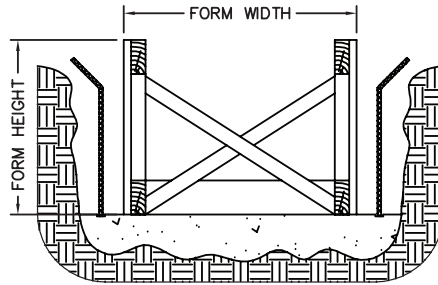
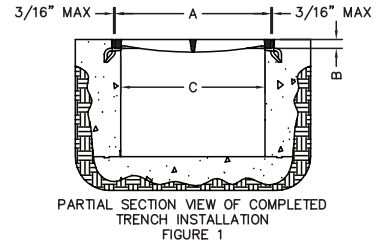


FIGURE 2

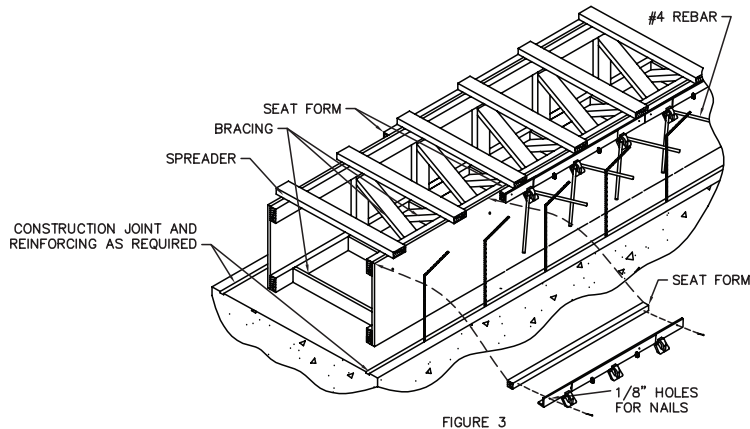


FIGURE 3

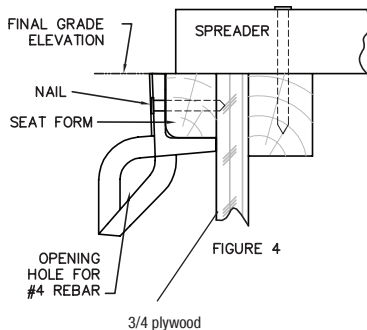


FIGURE 4

(The rebar shown in the vertical walls of the trench is for illustrative purposes only. Proper sizing and placement is the responsibility of the engineering firm providing the project design.)

Frames should butt together snugly, leaving as little gap as possible. Place a 90 degree bent #4 rebar through the holes in the anchor lugs to provide anchorage in the concrete. Verify the space between the edges of the grate and frame so grates will fit properly. There should be a gap but no greater than 3/16" (see Figure 1).

Pour concrete and use the top edge of the frame as a screed point.

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