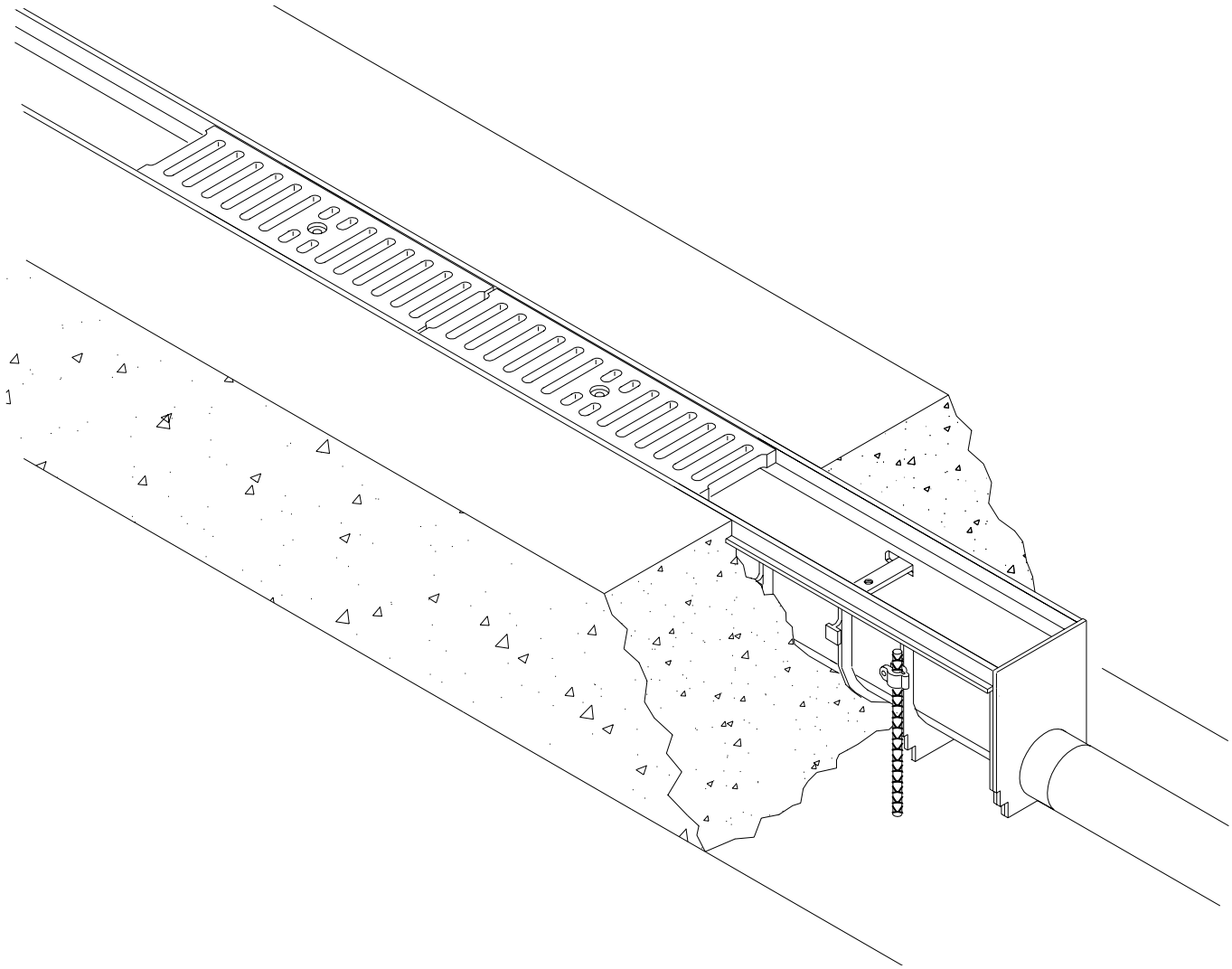
PERMA-TRENCH™

INSTALLATION INSTRUCTIONS



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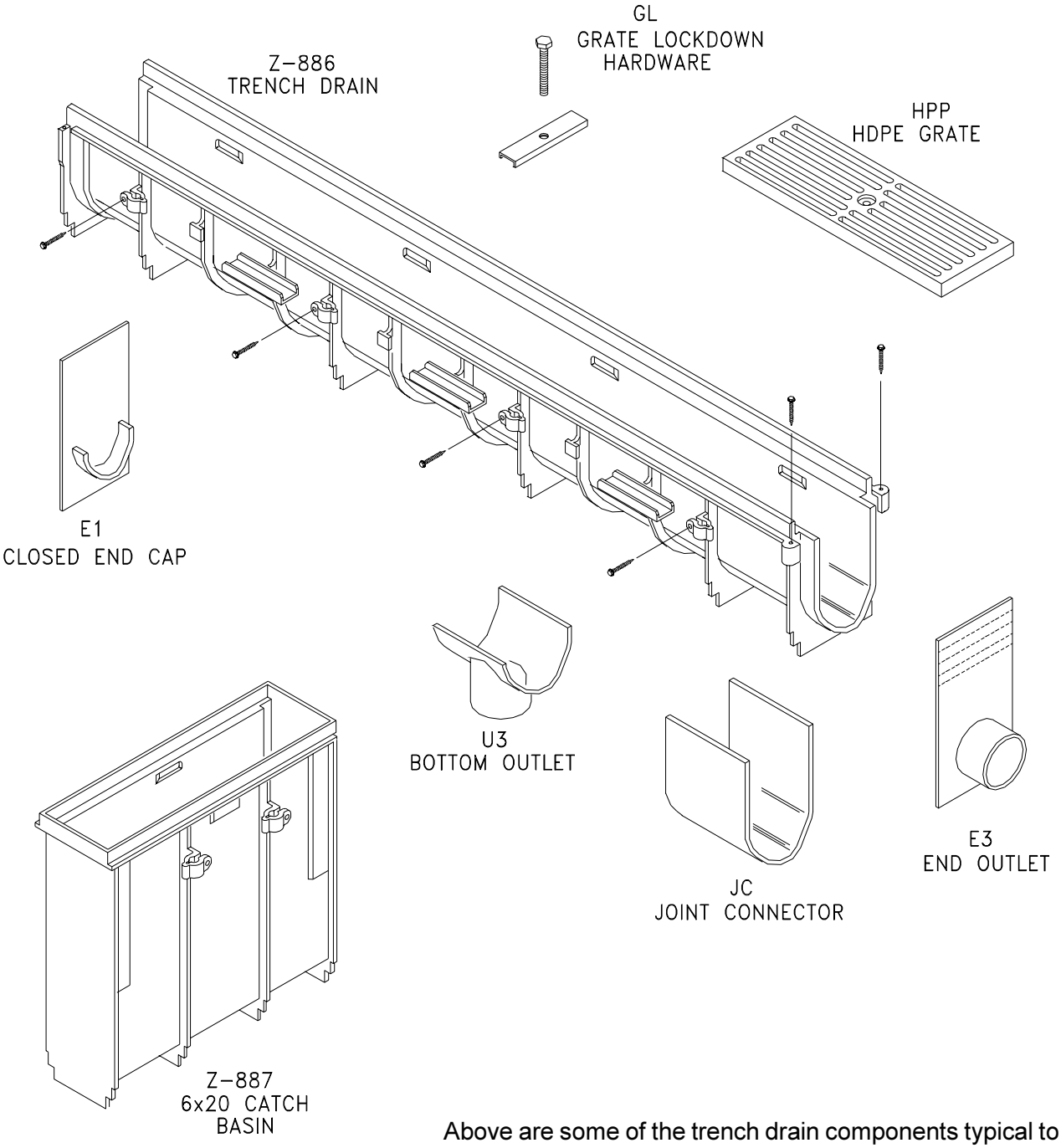
Form # FT535 **Date:** 6/28/00 **C.N. No.** 85132 **Rev.**

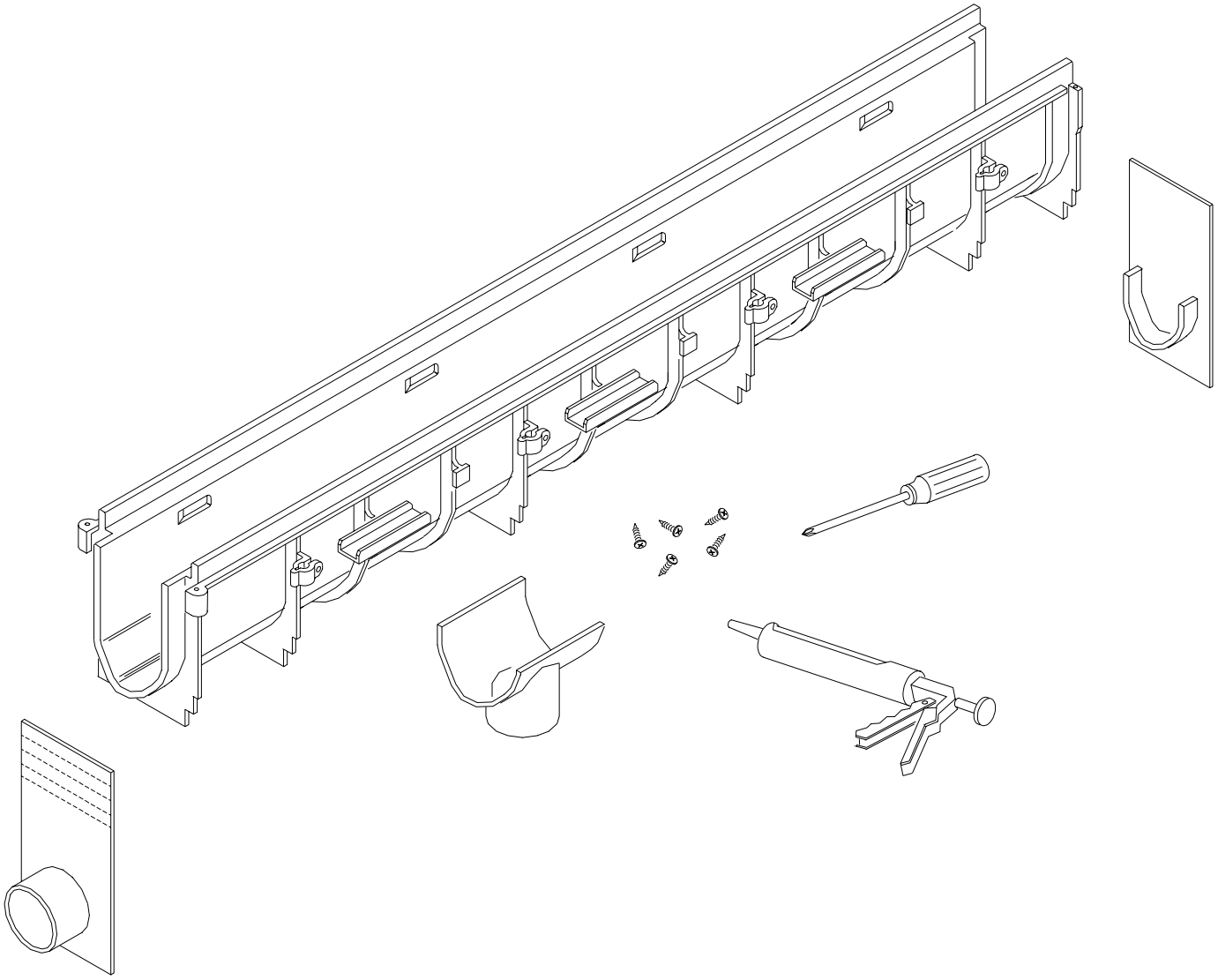
Perma Parts...



Above are some of the trench drain components typical to an installation. Double check your order to ensure that you have all components particular to your job before beginning your installation.

Contact Zurn 'Flo-Thru' at 716-665-1132 should additional material be required.

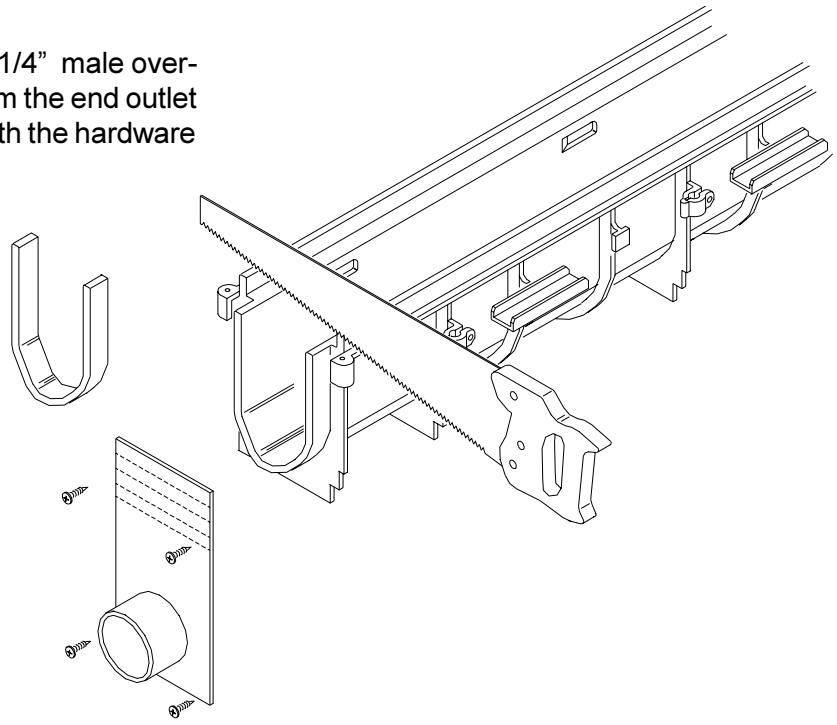
Outlets & Accessories

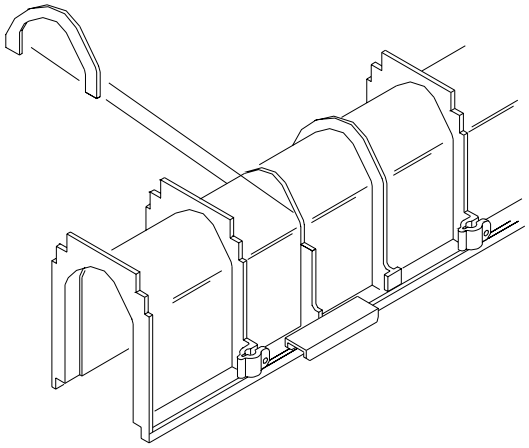


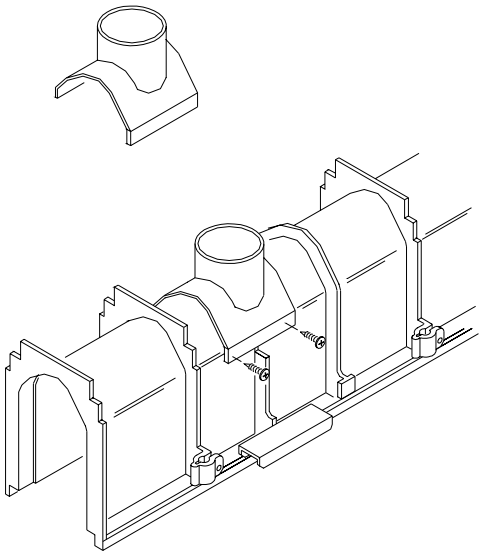
Locate the trench sections that are to receive any accessories, such as end caps, bottom outlets, and/or end outlets. These accessories can be easily attached with a silicon caulking and/or sheet metal screws. Trim the end caps to the appropriate depth prior to attaching them to the trench sections.

Outlets & Accessories Cont'd

To attach an end outlet, remove the 1-1/4" male overlap portion of the trench as shown. Trim the end outlet to the appropriate height and attach with the hardware provided.



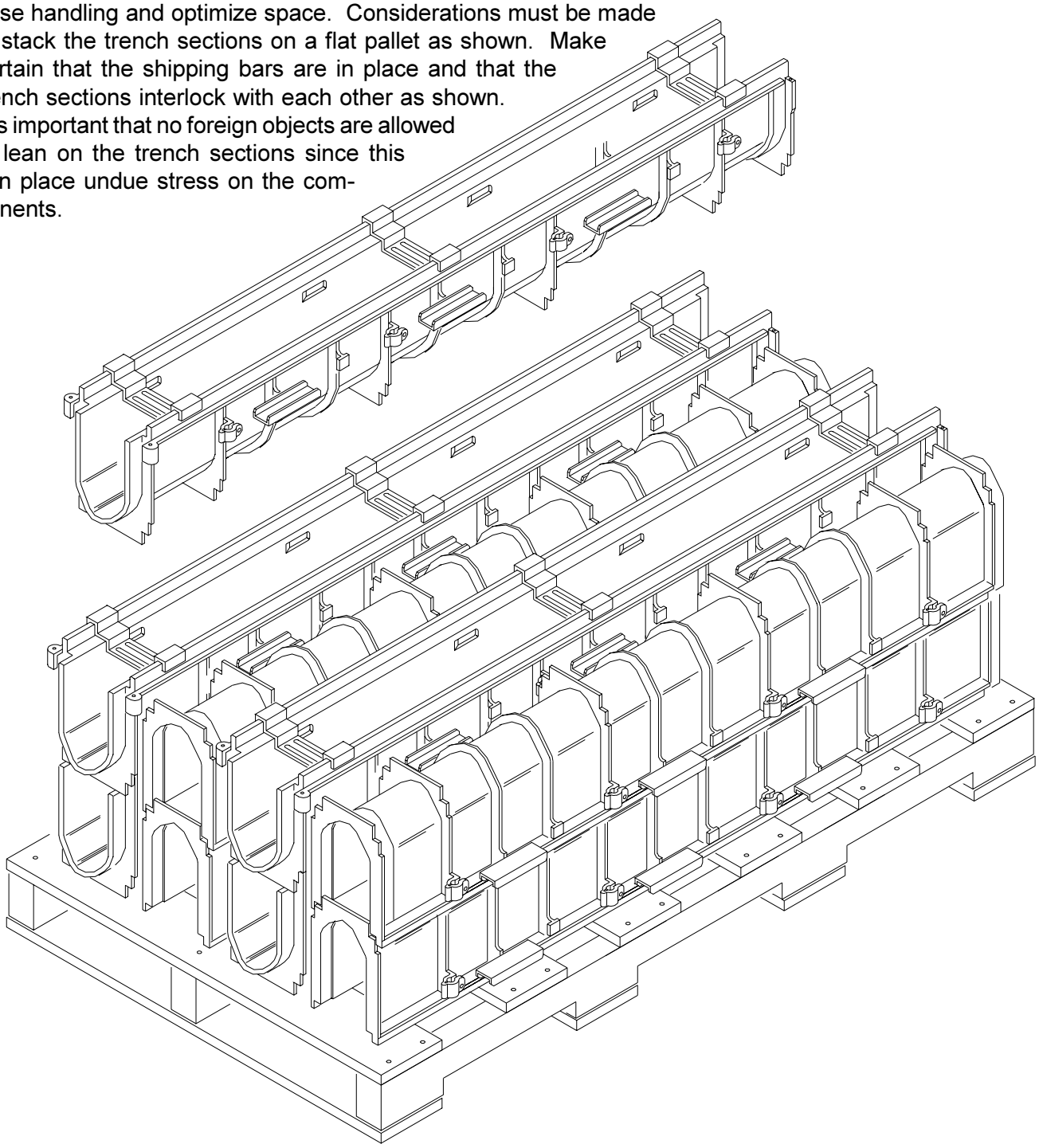




A bottom outlet is attached to the bottom side of the trench drain as shown above. If external ribbing conflicts with the location of the outlet, simply remove the ribbing with a reciprocating saw. A hole saw can be used to cut the appropriate size hole through the bottom of the trench. Attach the bottom outlet with the hardware provided.

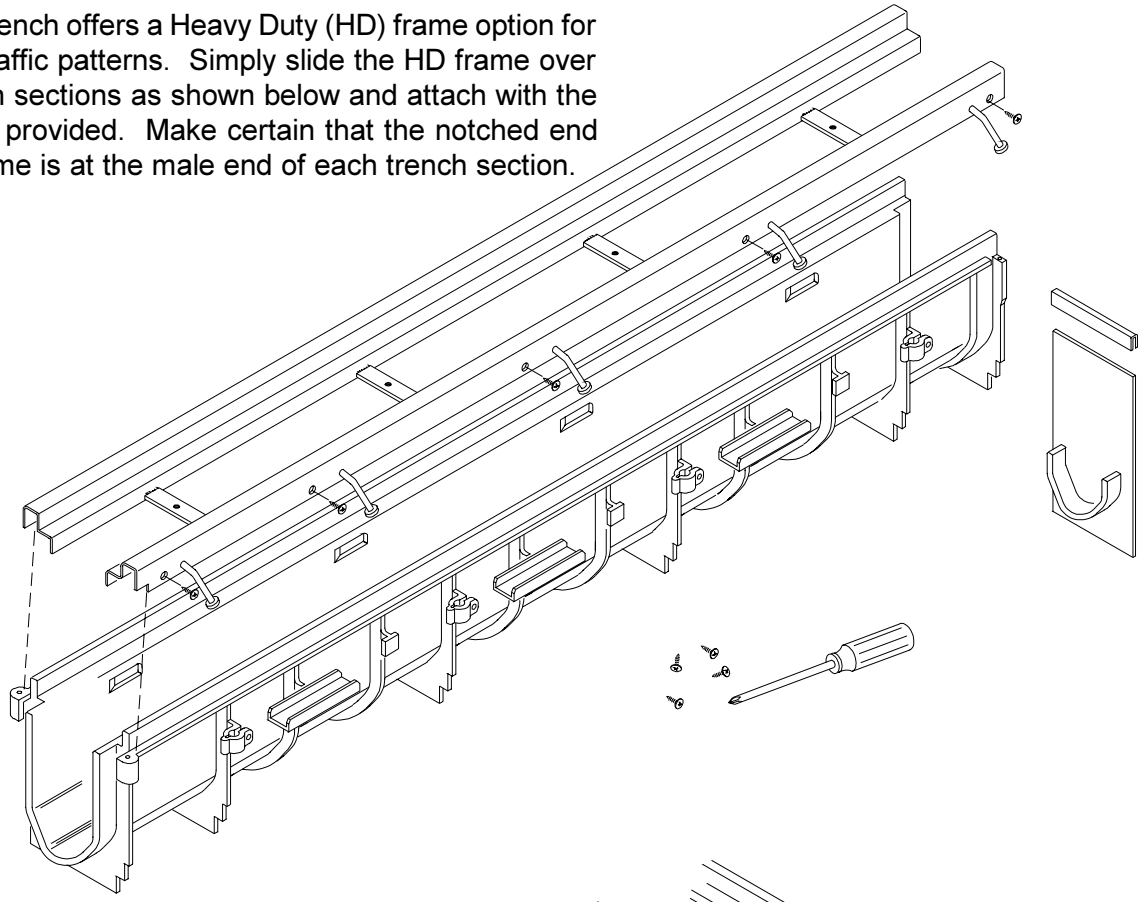
Storage and Handling

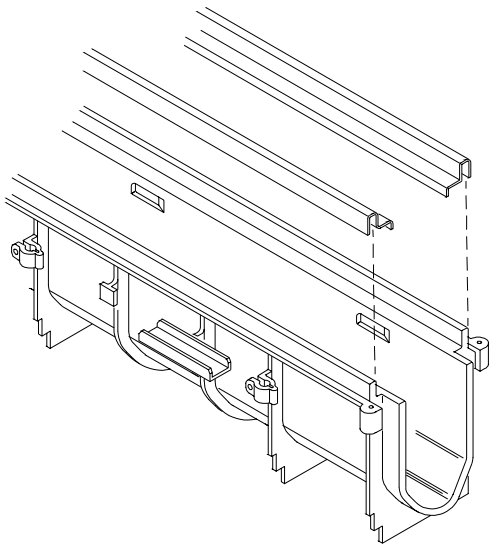
The Perma-Trench sections are designed to stack upon themselves to ease handling and optimize space. Considerations must be made to stack the trench sections on a flat pallet as shown. Make certain that the shipping bars are in place and that the trench sections interlock with each other as shown. It is important that no foreign objects are allowed to lean on the trench sections since this can place undue stress on the components.



Frame Options

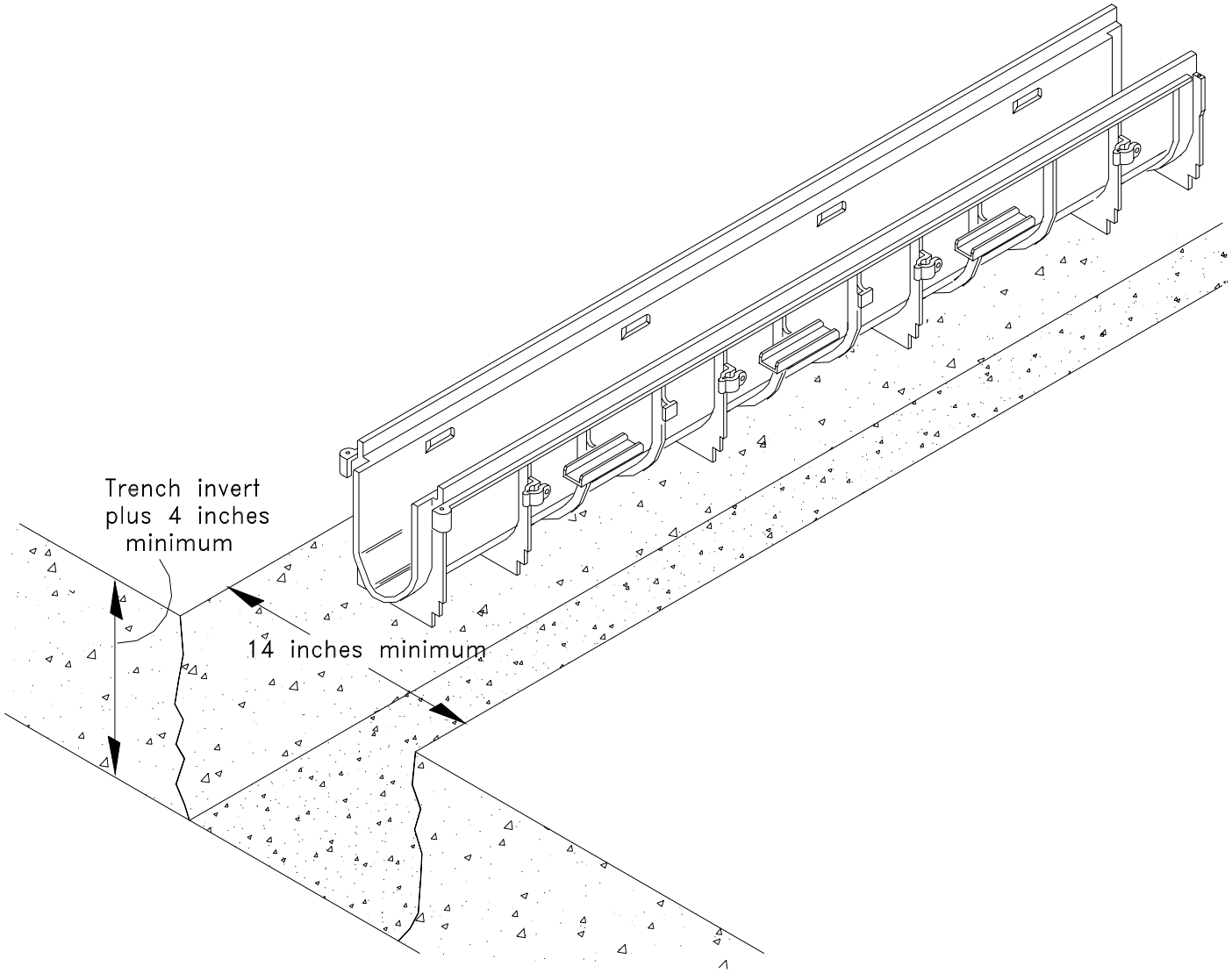
Perma-Trench offers a Heavy Duty (HD) frame option for intense traffic patterns. Simply slide the HD frame over the trench sections as shown below and attach with the hardware provided. Make certain that the notched end of the frame is at the male end of each trench section.





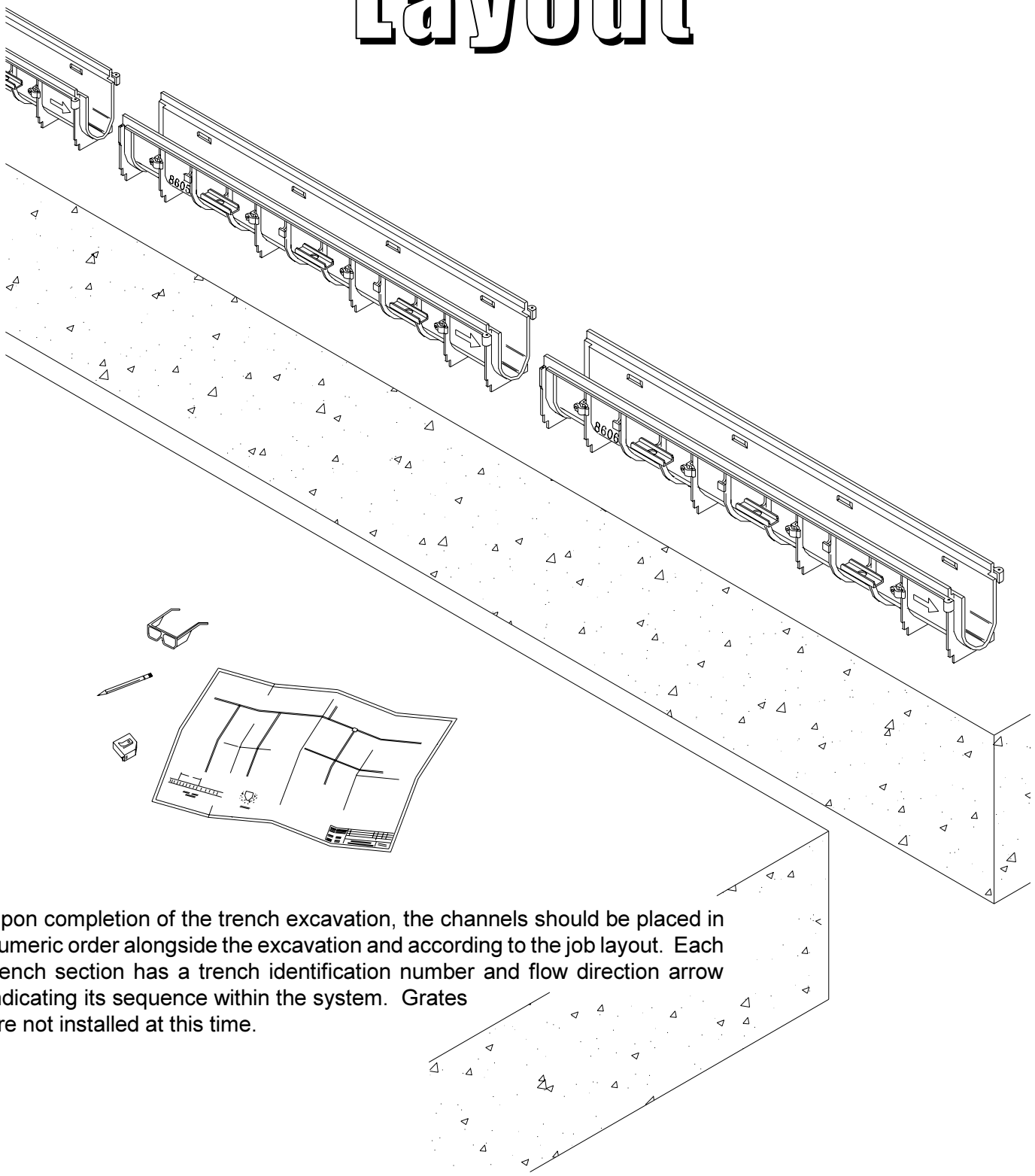
A Stainless Steel Top Veneer Frame (SVF) is also available as an option for the system. The veneer fits snug over the grate ledge of the trench to provide a stainless steel edge at the suface.

Excavation

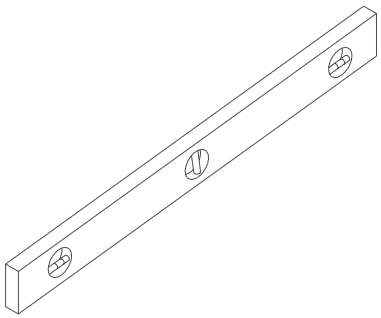


Trench excavation must be 4 inches greater than the trench depth and a minimum of 14 inches in width. Soft and/or shifting soil substrates may cause cracking of the concrete and consequent movement of the trench. It is critical that the concrete be poured on an adequate foundation.

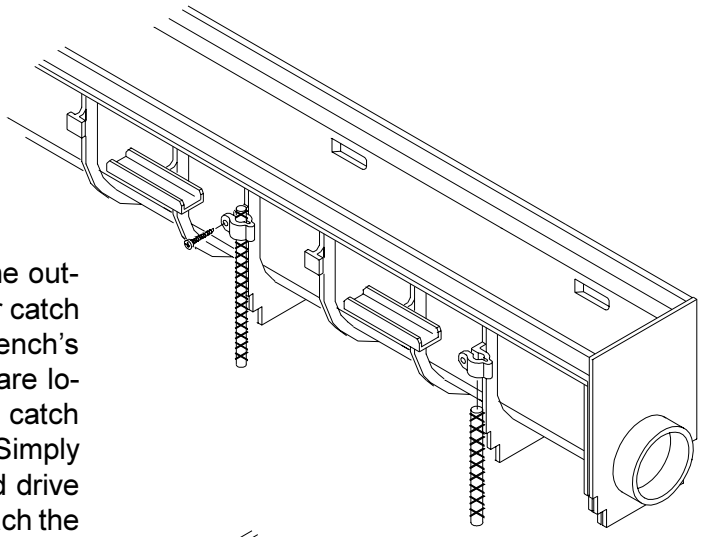
Overall Layout



Upon completion of the trench excavation, the channels should be placed in numeric order alongside the excavation and according to the job layout. Each trench section has a trench identification number and flow direction arrow indicating its sequence within the system. Grates are not installed at this time.

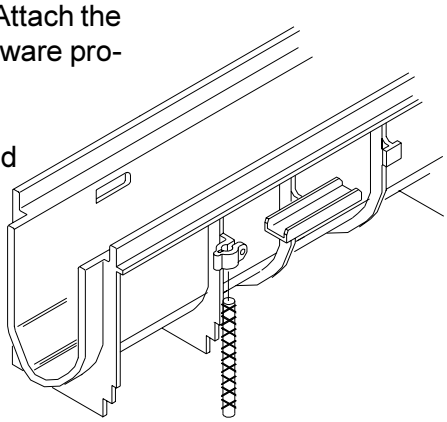


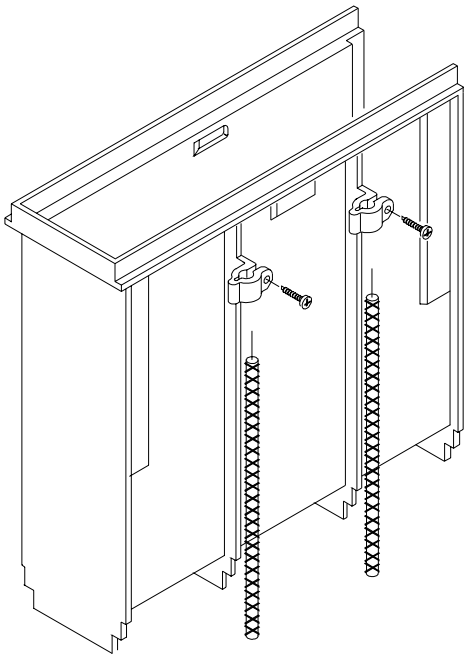
Setting the trench



Typically, a trench system is assembled from the outlet on back. Starting with the deepest section or catch basin, set the first channel utilizing Perma-Trench's unique anchoring system. Integral rebar clips are located along the length of each trench drain and catch basin for easy attachment to #4 rebar stakes. Simply align the rebar stakes with the trench drain and drive them into the ground for positive anchoring. Attach the trench drain to the rebar stakes with the hardware provided.

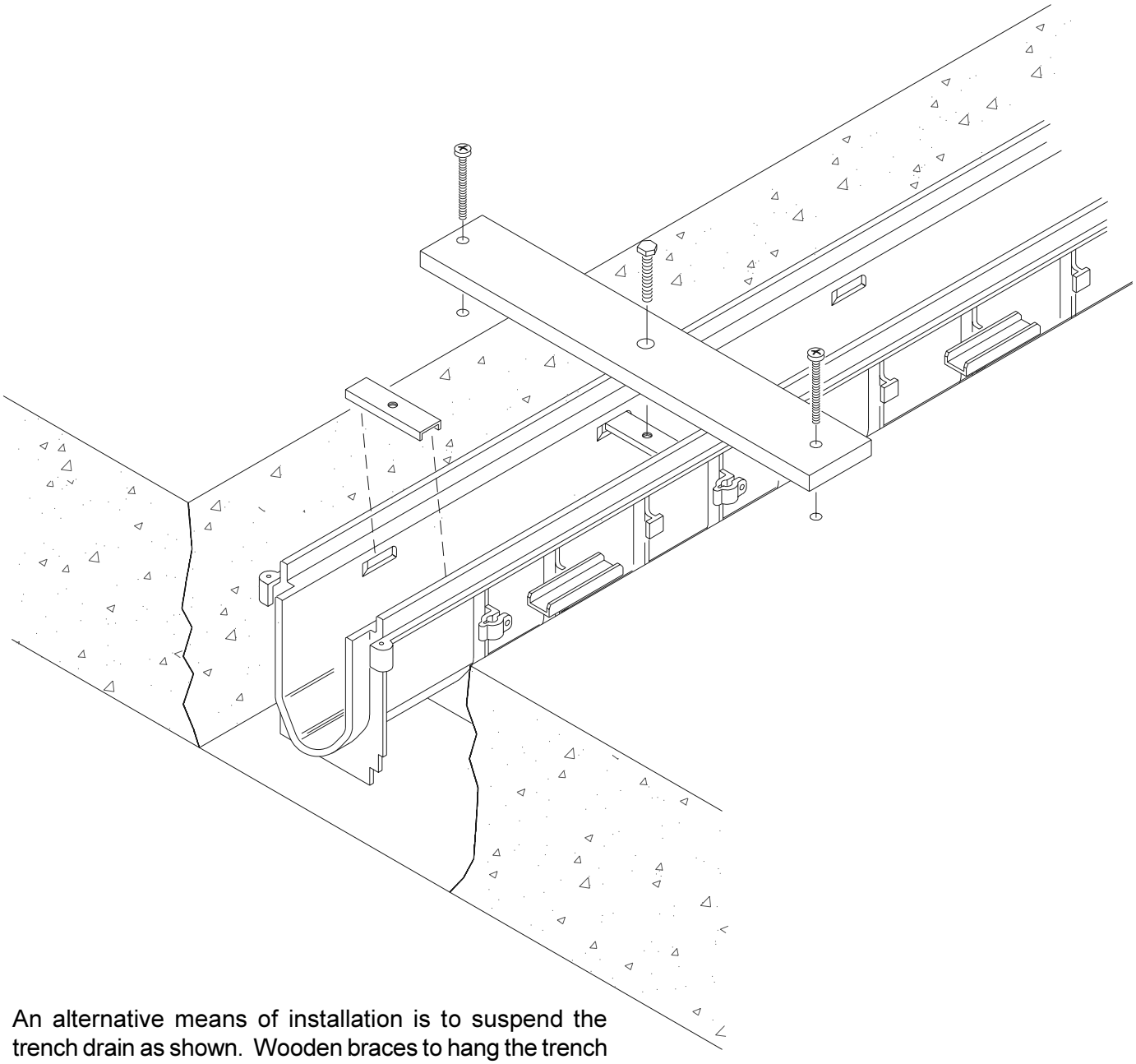
Adjust the trench to the desired elevation and continue with the adjacent section.





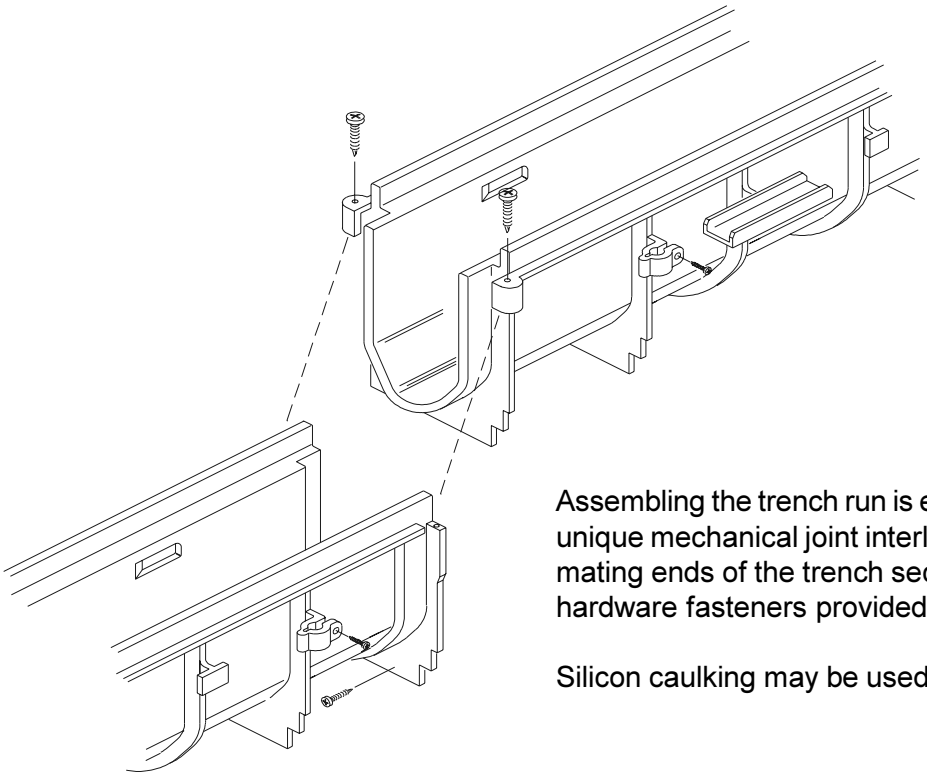
If a catch basin is included within your layout refer to step 13 for further details on catch basin preparation.

Suspended Installation



An alternative means of installation is to suspend the trench drain as shown. Wooden braces to hang the trench run can be attached to the drain body through the grate lock down bars as illustrated above.

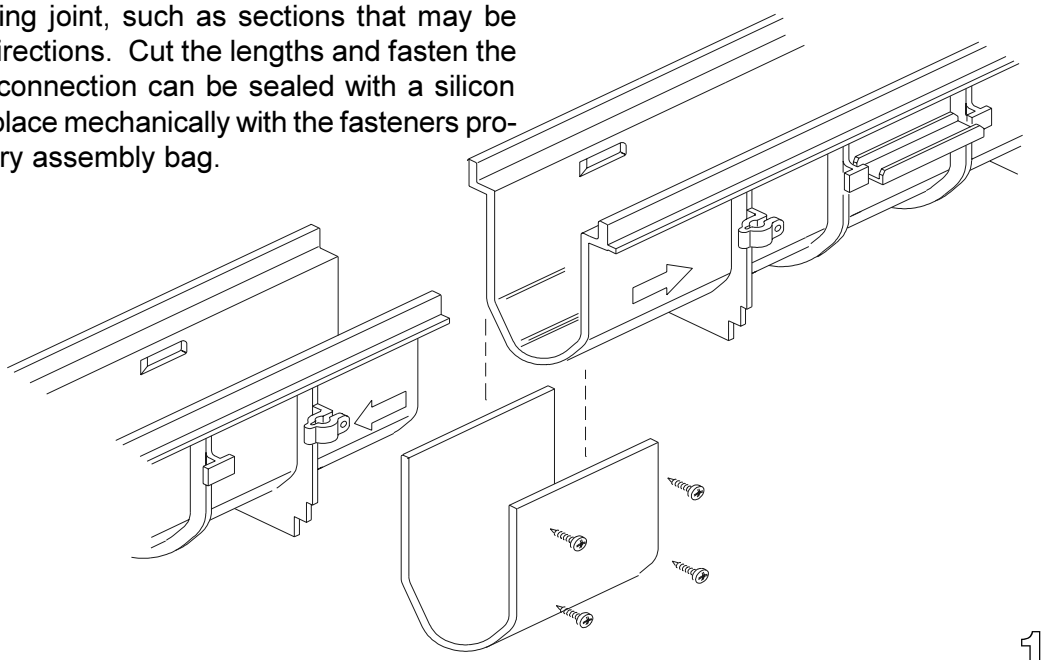
Joint Connection



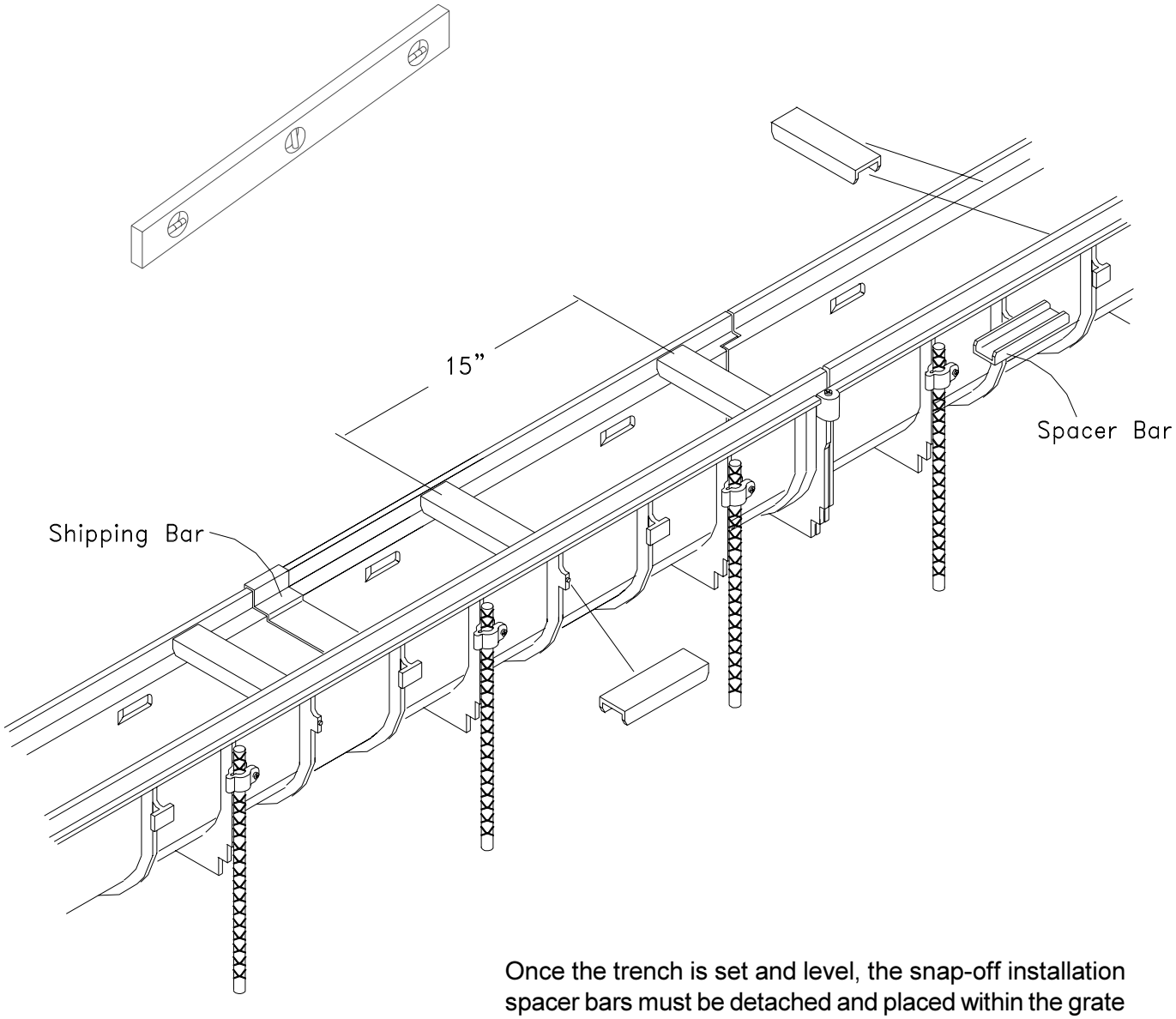
Assembling the trench run is easy with Perma-Trench's unique mechanical joint interlock. Simply align the two mating ends of the trench sections and fasten with the hardware fasteners provided.

Silicon caulking may be used at each joint as a sealer.

A joint connector (JC) is available to join two trench sections without the interlocking joint, such as sections that may be flowing in opposite directions. Cut the lengths and fasten the JC as shown. The connection can be sealed with a silicon caulking and held in place mechanically with the fasteners provided in the accessory assembly bag.



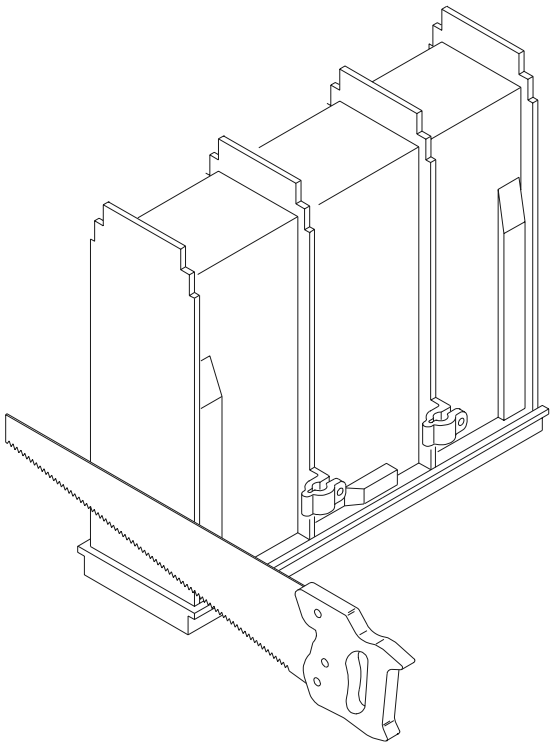
Spacer Bars



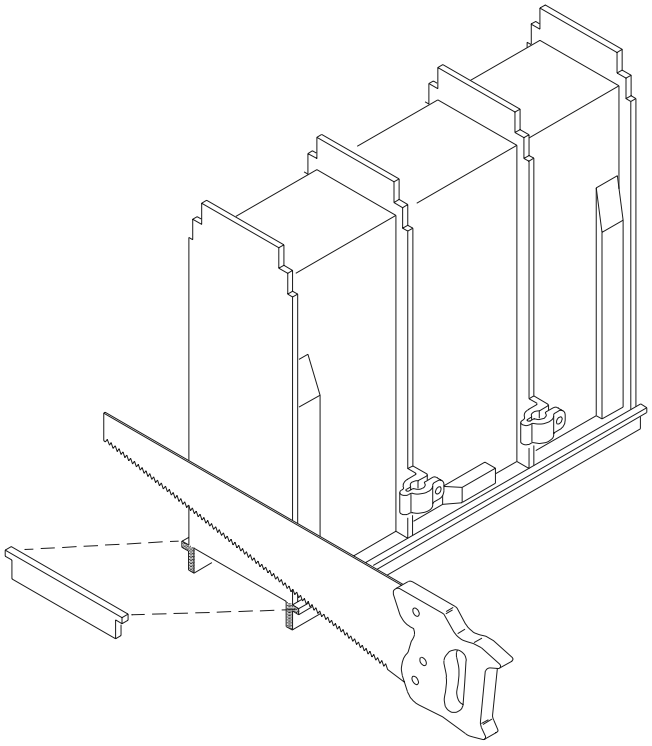
Once the trench is set and level, the snap-off installation spacer bars must be detached and placed within the grate ledge as shown. The spacer bars can be found along the outside edge of the trench between the integral rebar clips. To remove the bars simply twist and snap off.

Placement of these spacer bars should be about every 15 inches throughout the entire length of the trench run. These temporary spacer bars must remain in place until the concrete has set to ensure proper fit of the grating. Any shipping bars still left in the trench sections should be removed at this time.

Catch Basins



To make a catch basin connection, simply invert the catch basin and remove the basin end cap as shown.



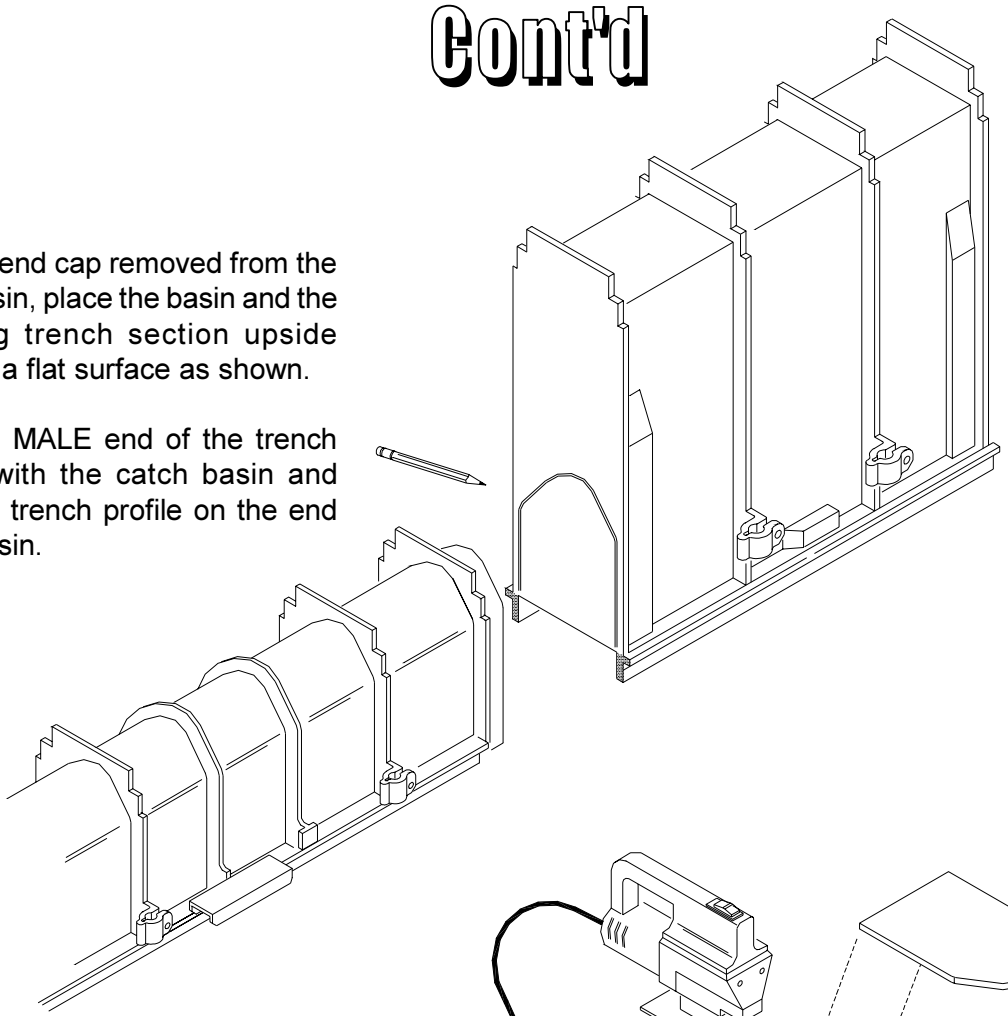
This can be easily accomplished with the use of a hand saw or power reciprocating saw. Use the bottom ledge of the end cap as a guide.

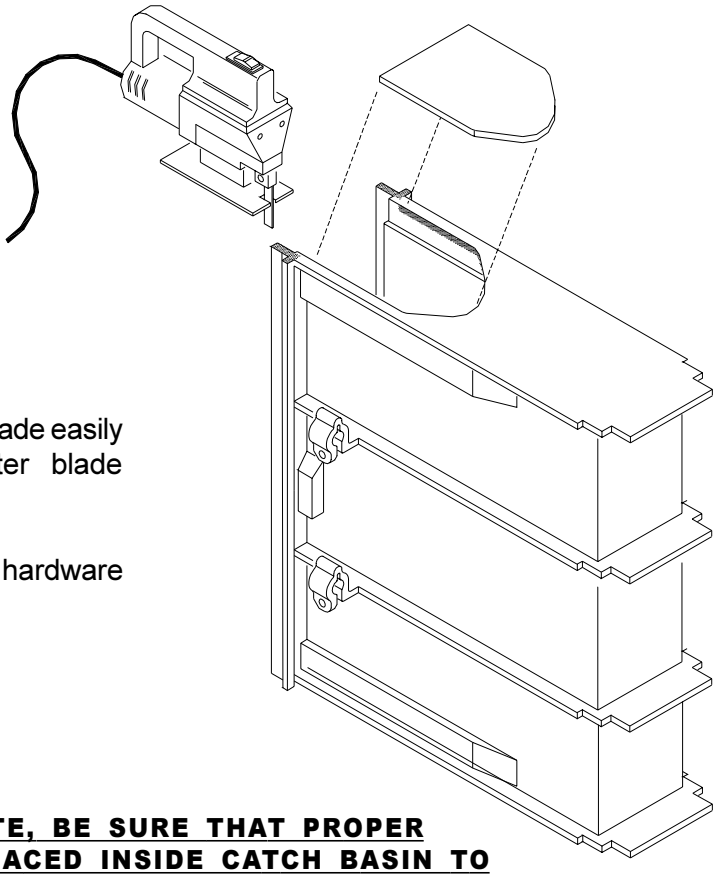
****BEFORE POURING THE CONCRETE, BE SURE THAT PROPER STYROFOAM OR WOOD BRACING IS PLACED INSIDE CATCH BASIN TO PREVENT DEFLECTION FROM THE CONCRETE ON SIDES.****

Basins
Cont'd

With the end cap removed from the catch basin, place the basin and the incoming trench section upside down on a flat surface as shown.

Align the MALE end of the trench section with the catch basin and trace the trench profile on the end of the basin.



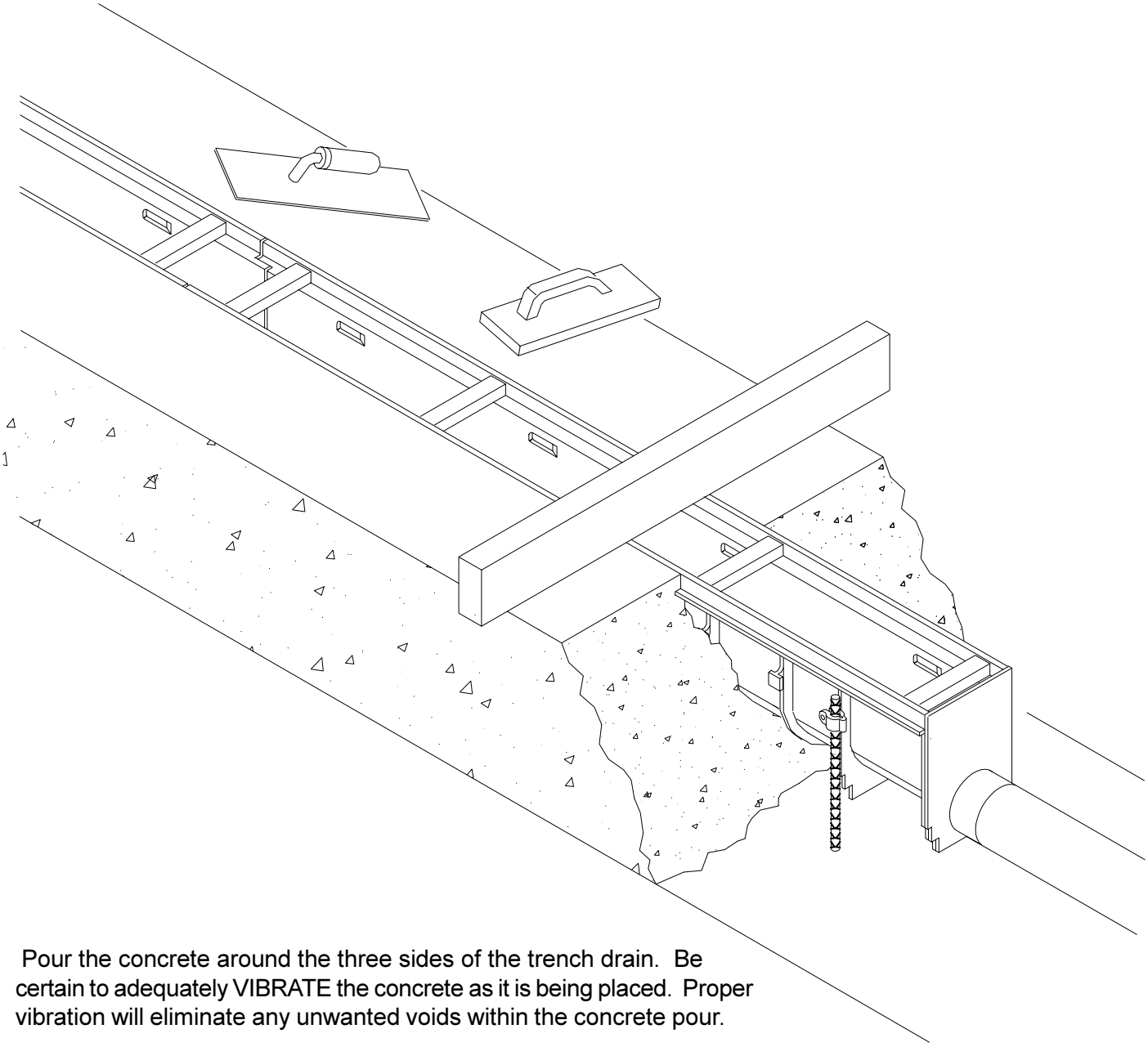


The cutout for the incoming trench can be made easily with an electric jigsaw as shown. A shorter blade about 1-inch is ideal for this cut.

Attach the incoming trench section with the hardware provided to complete the connection.

****BEFORE POURING THE CONCRETE, BE SURE THAT PROPER STYROFOAM OR WOOD BRACING IS PLACED INSIDE CATCH BASIN TO PREVENT DEFLECTION FROM THE CONCRETE ON SIDES.****

Pouring the concrete



Pour the concrete around the three sides of the trench drain. Be certain to adequately VIBRATE the concrete as it is being placed. Proper vibration will eliminate any unwanted voids within the concrete pour.

Finish troweling should be done to set the top edge of the trench drain about 1/16” below the floor grade. Remember to compensate for concrete shrink that may occur during cure so that the edge of the trench drain does not protrude above the finished floor grade.

Flo-Thru Z-886 Check List

CHANNELS

_____ #8601
_____ #8602
_____ #8603
_____ #8603N
_____ #8604
_____ #8605
_____ #8606
_____ #8606N
_____ #8607
_____ #8608
_____ #8609
_____ #8610
_____ #8611
_____ #8612
_____ #8612N
_____ #8613
_____ #8614
_____ #8615

FRAME (optional)

_____ (HD) Heavy-Duty Frame w/ Studs
_____ (HDS) S.S. Heavy-Duty Frame w/ Studs
_____ (HDG) Galv. Heavy-Duty Frame w/ Studs
_____ (SVF) S.S. Veneer Frame

ENDCAPS/OUTLETS/ACCESSORIES

_____ (E1) Closed End Cap
_____ (E2) 2"NH End Cap
_____ (E3) 3"NH End Cap
_____ (E4) 4"NH End Cap
_____ (E6) 6"NH End Cap
_____ (U2) 2" Bottom Outlet
_____ (U3) 3" Bottom Outlet
_____ (U4) 4" Bottom Outlet
_____ (U6) 6" Bottom Outlet
_____ (DB) Bottom Dome Strainer
_____ (JC) Joint Connector
_____ (T) "T" Connection Adapter
_____ (GL) Bag #840 Grate Lockdown
_____ Bag #841 Channel Assembly Screws
_____ Bag #844 Accessory Screws

GRATES

Cast Grates - 20"

_____ (CC) Solid Cast Iron
_____ (CG) Cast Iron
_____ (DG) Ductile Iron
_____ (GCG) Galvanized Cast Iron
_____ (HP) [HPD] Ductile Heel Proof
_____ (HPP) Heel Proof Polyethylene
_____ (LC) Cast Iron Longitudinal
_____ (LD) Ductile Longitudinal Slot

Fabricated Grates - 60"

_____ (FG) Galv. Slotted
_____ (RFG) Galv. Slotted (reinforced)
_____ (GC) Glav. Cast Iron
_____ (GD) Galv. Ductile
_____ (GG) Fiberglass
_____ (PG) Galv. Perf.
_____ (RPG) Galv. Perf. (reinforced)
_____ (ST) Galv. Solid Cast Iron

Stainless Grates - 60"

_____ (FS) S.S. Slotted
_____ (RFS) S.S. Slotted (reinforced)
_____ (LS) S.S. Small Slot (H.D.)
_____ (PS) S.S. Perf.
_____ (RPS) S.S. Perf. (reinforced)
_____ (SBG) S.S. Bar - 20"
_____ (SBGHP) S.S. HP Bar - 20"

Z-887

Z-887-1

_____ 6 X 20 Catch Basin
_____ (SVF) S.S. Veneer Frame
_____ (HD) Heavy Duty Frame w/ Studs

Z-887 Outlets

_____ E3/U3 (Z-887) 3" Outlet
_____ E4/U4 (Z-887) 4" Outlet

Buckets

_____ Y6 6" Galv. or S.S. Sediment Bucket
_____ Y12 12" Galv. or S.S. Sediment Bucket
_____ Y24 24" Galv. or S.S. Sediment Bucket