



"H" (M)	4'	5'	6'	7'	8'	9'	10'
"C" BARS	#5@16"	#5@16"	#5@12"	#5@12"	#5@8"	#5@7"	#6@8"

**USE**

THIS HEADWALL CAN BE USED IN A VARIETY OF LOCATIONS: CHANNEL OUTLET, BASIN OUTLET, AND SIDE CHANNEL OUTFALL. THIS STANDARD PLAN DOES NOT ADDRESS THE VARIOUS FACETS UNIQUE TO ITS PLANNED USE, E.G. THESE ITEMS SHALL BE INCLUDED IN THE SPECIFIC PROJECT CONSTRUCTION PLANS APPROVED BY THE PUBLIC WORKS DEPARTMENT.

ITEMS TO ADDRESS INCLUDE, BUT ARE NOT LIMITED TO:

- FLAPGATE DETAILS, IF REQUIRED.
- ROCK SLOPE PROTECTION (RSP) LAYOUT, TYPE AND DIMENSIONS.
- PIPE FLOWLINE ORIENTATION, DIMENSION "A", INVERT SLOPE AND TOP OF WALL ELEVATION.
- FINISH GRADES BEHIND WALLS. (A LEVEL AREA ABOVE THE HEADWALL MAY BE NEEDED TO SERVICE TRASH RACKS OR FLAPGATES.)
- TRASH RACK DETAILS, IF NEEDED.

**NOTES**

1. SLAB REINFORCEMENT NOT SHOWN FOR CLARITY.
1. UNIT STRESSES  $F=60,000$  PSI;  $F=3,000$  PSI.
2. WALLS DESIGNED FOR 2' LIVELOAD SURCHARGE, 1.5:1 SLOPING SURCHARGE NOT TO EXCEED 5' IN ELEVATION PLUS 2' LIVELOAD SURCHARGE, OR UNLIMITED 2:1 SURCHARGE.
3. DIMENSION "H" IS SHOWN ON THE PROJECT OR CONSTRUCTION PLANS.
4. WALL HEIGHT MAY BE EXCEEDED BY 6" BEFORE GOING TO NEXT GREATER "H"
5. "D" MAXIMUM=6', "D" MINIMUM=18"
6. A=9" MINIMUM FOR BASIN OR CREEK INLET STRUCTURES. FOR BASIN OUTLET STRUCTURES, PIPE FLOWLINE SHALL BE DEPRESSED TO STRUCTURE INVERT. #5 HOOPS SHALL BE PLACE IN INVERT IN SUCH INSTANCES.
7. RIPRAP TYPE SHALL BE DETERMINED BY THE ENGINEER OF RECORD.

CITY OF NAPA

PUBLIC WORKS DEPARTMENT

**DRAINAGE FLAP GATE DETAIL**

DRAWN BY: LFM  
 DATE: 06/2018  
 SCALE: NONE  
 FIELD NOTES:

CHECKED BY: JGF  
 APPROVED BY: JRL  
 DRAWING NO. D-11