

Rev.	Date	By	Description

Designed by:	Date:	Rev.
J.M.S.	APRIL 2004	
Dwn by:	Design file no.	
J.M.S.	8-1-1876	
Reviewed by:	Drawing code:	
J.M.S.		
Submitted by:	File name:	
TDW	WWS001DN	
	Plot date:	
	Plot scale:	

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
KANSAS CITY, MISSOURI

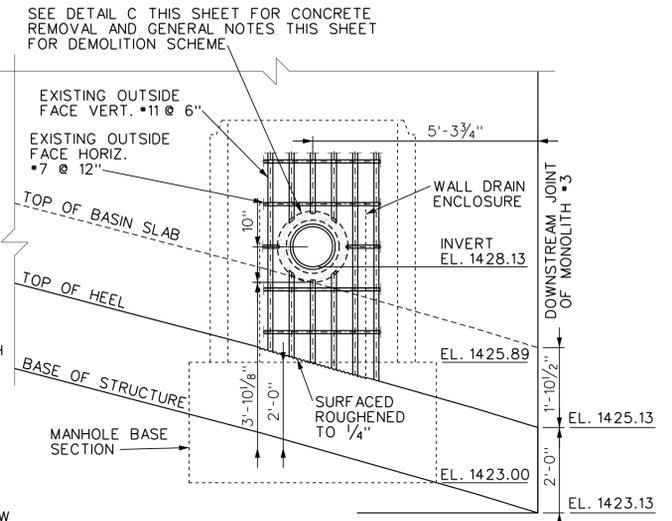
SALINE RIVER, KANSAS
WILSON LAKE
STILLING BASIN WALL REPAIR

MONOLITH NO. 3
MANHOLE AND WALL DRAIN
ORIENTATION AND DETAILS

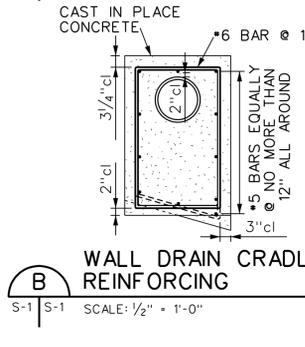
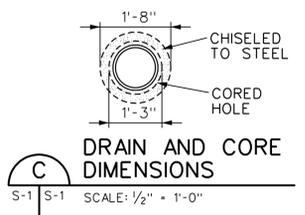
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S-1

GENERAL NOTES:

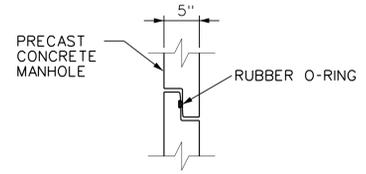
- C.J. DENOTES A CONSTRUCTION JOINT, T&B TOP AND BOTTOM, AND EW EACH WAY
- MANHOLE LID SHALL BE FLAT, STEEL, LOCKABLE, UNVENTED, AND DESIGNED TO MEET AASHTO HS-20 WHEEL LOAD REQUIREMENTS. LID DOES NOT NEED TO BE WATERTIGHT.
- NEW DRAIN HOLE SHALL BE LOCATED IN MONOLITH 3 APPROXIMATELY 5.125FT (1/4 THE LENGTH OF MONOLITH *3) FROM THE DOWNSTREAM JOINT.
- AT NEW DRAIN LOCATION, CONCRETE SHALL BE REMOVED FROM THE OUTSIDE OF THE WALL TO LOCATE VERTICAL REINFORCING. ONCE LOCATED, THE VERTICAL #11 BAR CLOSEST TO THE QUARTER POINT AND ONE BAR EACH SIDE, SHALL BE CUT AND REMOVED OR CORED THROUGH. HORIZONTAL STEEL WITHIN THE AREA TO BE CORED CAN ALSO BE CUT AND REMOVED IF DESIRED. CORING THROUGH THE STEEL WILL INCREASE WEAR TO THE BIT. THREE INCHES OF COVER SHALL BE PROVIDED ON ALL REINFORCING STEEL. REMOVAL OF THE REINFORCING STEEL WILL HELP TO ALLOW PROPER INITIATION OF HOLE. REMOVING ONLY THREE CONSECUTIVE BARS IS VITAL TO THE FUTURE STRUCTURAL INTEGRITY OF THE WALL. TO ALLOW PROPER HOLE INITIATION CONCRETE COULD BE REMOVED TO PRODUCE A VERTICAL PLANE. THE HOLE SHALL BE CORED HORIZONTAL (PARALLEL TO THE BASIN SLAB) AND PERPENDICULAR TO THE OUTSIDE FACE OF THE WALL.
- CORING CAN BE PERFORMED THROUGH THE ENTIRE WALL OR CAN BE HALTED WHEN NEARING STEEL IN OPPOSITE FACE OF WALL. A PILOT HOLE CAN BE DRILLED THROUGH THE REMAINDER OF THE WALL TO LOCATE THE CENTER OF THE DRAIN HOLE INSIDE THE BASIN. ONCE LOCATED, CONCRETE AND STEEL REMOVAL SIMILAR TO THAT ON THE OUTSIDE OF THE WALL CAN BE PERFORMED. WHEN COMPLETED, CORING CAN CONTINUE THROUGH REMAINDER OF WALL WITHOUT INCREASED WEAR OR DAMAGE TO THE BIT.
- CORE SHALL BE AT MAXIMUM 15" IN DIAMETER.
- 12" SCHEDULE 80 PVC DRAIN PIPE SHALL BE POSITIONED AND FULLY GROUTED IN THE WALL.
- MANHOLE INFILL SHALL BE SLOPED AND FINISHED TO ALLOW SMOOTH TRANSITION FLOW FROM 12" DRAIN PIPES TO 12" DRAIN PIPE IN BASIN WALL.
- CONCRETE CRADLE SUPPORTING 12" DRAIN PIPE SHALL NOT BE POURED MONOLITHICALLY WITH MANHOLE BASE SLAB. A CONSTRUCTION JOINT OR BOND BREAKING MATERIAL MUST BE USED ALONG THIS SURFACE.
- EXISTING STILLING BASIN HEEL AND WALL SURFACES SHALL BE ROUGHENED TO 1/4" BEFORE WALL DRAIN PIPE ENCASEMENT IS POURED.
- THE GROUND SURFACE BELOW THE BASE OF THE MANHOLE SHALL BE PREPARED TO PROVIDE A HORIZONTAL SURFACE. PROVIDING A HORIZONTAL BASE SLAB WITH HELP TO INSURE THE VERTICAL ALIGNMENT OF ALL RISER SECTIONS.
- THE BASE SLAB AND FIRST PRECAST RISER SECTION SHALL BE CONSTRUCTED MONOLITHICALLY OR KEYED ACCORDING TO THE CONTRACT SPECIFICATIONS.



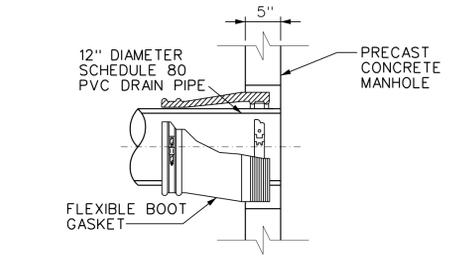
A WALL DRAIN PLACEMENT AND REBAR REMOVAL IN OUTSIDE FACE OF BASIN
S-1 | S-1 SCALE: 1/2" = 1'-0"



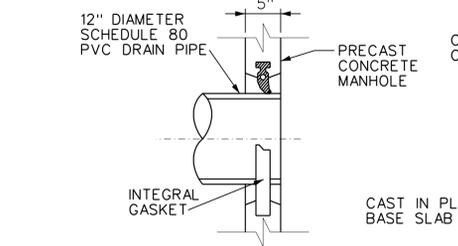
B WALL DRAIN CRADLE REINFORCING
S-1 | S-1 SCALE: 1/2" = 1'-0"



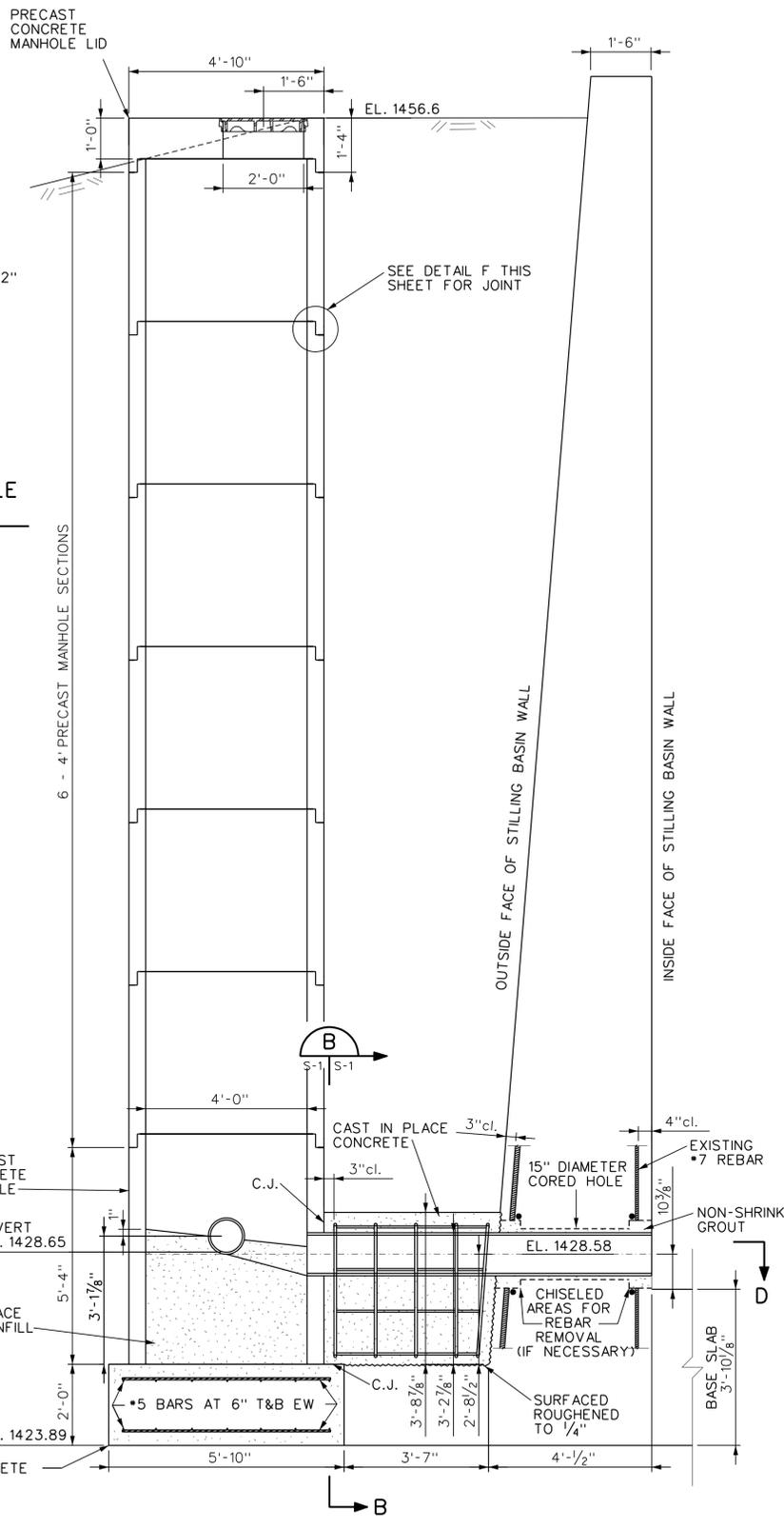
F MANHOLE RISER JOINT
S-1 | S-1 SCALE: 1" = 1'-0"



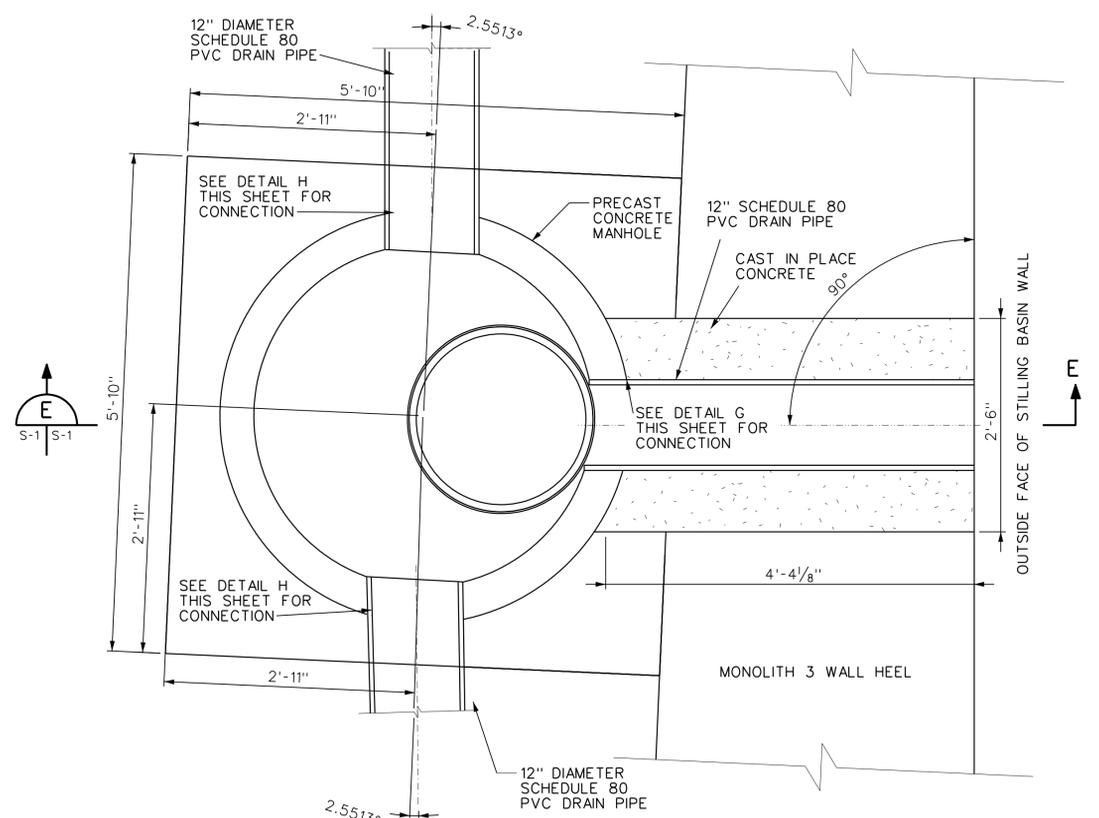
G 12" DRAIN PIPE TO RISER CONNECTION
S-1 | S-1 SCALE: 1" = 1'-0"



H 12" DRAIN PIPE TO RISER CONNECTION
S-1 | S-1 SCALE: 1" = 1'-0"



E SECTION AND ELEVATION
S-1 | S-1 SCALE: 1/2" = 1'-0"



D BASE SECTION AND PIPE ORIENTATION PLAN
S-1 | S-1 SCALE: 1" = 1'-0"

E SECTION AND ELEVATION
S-1 | S-1