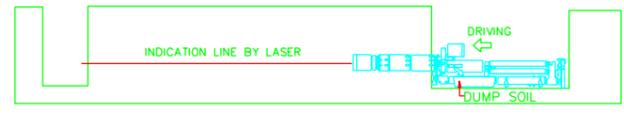
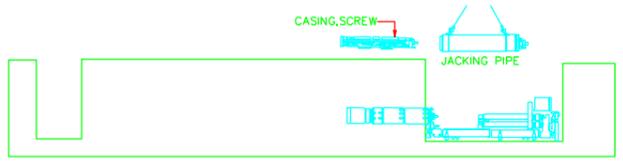


1. SETTING THE EXCAVATOR AND JACKING MACHINE



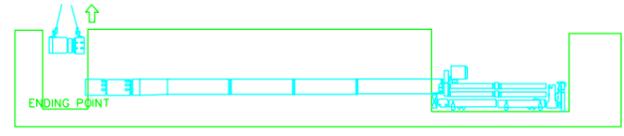
2. ROTATE DISK CUTTER AND DUMP THE SOIL



3. CONNECT CASING SCREW WITH JACKING PIPE



4. JACKS ARE OPERATED, PUSHING THE THE PIPE SECTION FORWARD. JACK RAMS ARE RETRACTED AND SPACER IS ADDED BETWEEN JACKS.



5. IT MAY BE NECESSARY TO REPEAT THE ABOVE STEPS SEVERAL TIMES UNTIL THE PIPE IS PUSHED FORWARD ENOUGH TO ALLOW ROOM FOR THE NEXT SECTION OF PIPE. THE ENTIRE PROCESS ABOVE IS REPEATED UNTIL THE OPERATION IS COMPLETE



6. WITHDRAW CASING SCREW AND FINISH

1
-4
CONCEPT DRAWING FOR SHIELD JACKING METHOD
NOT TO SCALE

NOTE
 1) CONTRACTOR SHALL SUBMIT FOLLOW DATA AND DRAWINGS (MECHANICAL & SHORING) TO DPW PRIOR TO STARTING WORK FOR SHIELD JACKING METHOD.
 A) FLOW CHART FOR SHIELD JACKING METHOD
 B) ABUTMENT DETAIL DRAWINGS
 C) WORKING PLATFORM DETAIL DRAWINGS
 D) REACTION WALL REINFORCEMENT DETAIL DRAWINGS
 E) PIPE JACKING DETAIL DRAWINGS
 F) MORTAR INJECTION DETAIL DRAWINGS
 G) SHORING ANALYSIS REPORT AND DETAIL DRAWINGS
 2) ANY REQUIRED ITEMS UN-DETAILED/ NOT SHOWN ON THE DRAWINGS SHOULD BE DEVELOPED AND CONSTRUCTED /INSTALLED BY THIS PROJECT W/O ANY ADDITIONAL COST
 3) TSZ CONSTRUCTION Co.Ltd.(www.sheetpile.co.kr), METHOD OR APPROVED EQUAL FOR THE SUBJECT SHIELD JACKING METHOD



-SYNOPSIS OF SHIELD JACKING METHOD-

SHIELD JACKING METHOD IS ONE OF THE MOST EFFECTIVE METHODS TO INSTALL DRAIN PIPELINE WITHOUT INTERRUPTING COMMERCE, OR DISTURBING THE MAZE OF UTILITIES BUIRED UNDER SURFACE OF STREETS AND RAODWAY. THE IMPORTANT POINT OF SHIELD JACKING METHOD IS REINFORCING ERODED SOIL AND FILL THE VOID OF SOIL WITH SOIL BY INJECTION DURING JACKING PROCESS. THE PROCEDURE OF SHIED JACKING METHOD IS FOLLOWINGS
 CONSTRUCT A REACTION ACCESS SHAFT AT THE BEGINING OF TUNNEL AND A RECEPTION SHAFT AT THE END OF TUNNEL, CAREFULLY EXCAVATE THE SOIL AT THE FRONT OF THE PIPES AND PUSH THE PIPELINE AHEAD INTO THE EXCAVATED OPENING WITH POWERFUL JACKS. FINALLY REINFORCE SOIL AND FILL THE VOID OF SOIL WITH MORTAR BY INJECTION

-PROCESSES OF SHIELD JACKING METHOD-



FIG-1. INSTALL JACKING PLATFORM



FIG-2. START SHIELD JACKING



FIG-3. JACKING OPERATION COMPLETED



FIG-4. INSIDE OF DRAIN PIPE AFTER JACKING

SYMBOL	ZONE	DESCRIPTION	DATE	BY	CHK.	APVD.
REVISIONS						
DEPARTMENT OF THE ARMY US ARMY INSTALLATION MANAGEMENT COMMAND HEADQUARTERS, UNITED STATES ARMY GARRISON HUMPHREYS UNIT 15228, APO AP 96271-5228						
REVIEWED BY	DESIGNED BY	REPLACE THE STORM DRAINAGE AT 3RD MI AREA				
BLOGS & GROUNDS	CHECKED BY	USAG HUMPHREYS				
UTILITIES	SUBMITTED BY	CIVIL				
FIRE PREV & PROT.	APPROVED BY	CONCEPT DRAWINGS FOR SHIELD JACKING METHOD				
INSPECTION	CHIEF ENGR. DIV. DPW	PROJECT NO.	DRAWING NO.	REF NO.		
MASTER PLAN	DATE USING AGENCY	VA-00304-9J		C-4		
	SCALE	1/100	SHEET	OF		