DOUBLE STRING METHOD:

MAY BE USED ONLY WHEN OPEN CUT TRENCH TOP EXCEEDS 15 FEET AND WHEN SLOPE OF PIPE EXCEEDS 0.80%.

LASER OR BATTER BOARDS (ACC. NO. 49054) ARE REQUIRED FOR SLOPES LESS THAN 0.80%.

* PROJECTION OF STRINGS SHALL NOT EXCEED RATIO OF TWO TO ONE, i.e., IF DISTANCE FROM CLOSEST STRING TO PIPE IS 10 FEET, THEN DISTANCE BETWEEN STRINGS SHALL NOT BE LESS THAN 5 FEET. MAXIMUM OFFSET TO NEAREST STRING SHALL BE 12 FEET.

GRADE STAKE: SHALL BE SET AT THE MANHOLES AND 25' INTERVALS THEREAFTER, EXCEPT WHERE A LASER BEAM IS USED. FOR LASER BEAM CONSTRUCTION, A GRADE STAKE SHALL BE SET SET AT MANHOLE AND 50' INTERVALS THEREAFTER.

BATTER BOARD: SHALL BE A STRAIGHT WOOD BOARD, A MINIMUM OF 2"X 4", AND SHALL BE CLAMPED LEVEL, WITH THE TOP AT THE PROPER GRADE OFFSET, TO EITHER METAL OR WOOD UPRIGHTS WHICH ARE DRIVEN SECURELY INTO THE GROUND. BATTER BOARDS SHALL BE AT 25' INTERVALS WITH A MINIMUM OF 3 BEING SET UP AT ALL TIMES. BATTER BOARDS SHALL BE SET PERPENDICULAR TO THE CENTER LINE OF THE PIPE AT EACH GRADE STAKE. GRADE STRINGS SHALL BE STRETCHED BETWEEN THE 3 BATTER BOARDS TO CHECK LINE AND GRADE. FOR LASER BEAM CONSTRUCTION A BATTER BOARD SHALL BE SET EVERY 50 ' TO CHECK LINE AND GRADE.

GRADE POLE: SHALL BE A STRAIGHT POLE WITH ROUNDED EDGES, APPROXIMATELY 2"X 2", WITH LENGTH DEPENDING ON NEED. THE GRADE POLE SHALL BE EQUIPPED WITH A METAL BRACKET ON THE BOTTOM WITH PROJECTING LENGTH OF 12"±. NAILS SHALL BE PLACED INTO THE GRADE POLE FOR DEPTH OF THE FLOW LINE BELOW THE GRADE STRING AND FOR THE DEPTH OF TRENCH. SPIRIT LEVELS SHALL BE USED ON THE GRADE POLE TO DETERMINE WHEN THE GRADE POLE IS VERTICAL.

A 2"X 2" MARKED POLE, WITH PLUMB BOB SHALL BE USED FOR CENTER LINE MEASUREMENTS (ALIGNMENT).

NOTE: INSPECTOR'S COPY OF "CUT SHEET" SHALL BE ON PROJECT BEFORE PIPE IS LAID.

FOR TRENCH DETAILS AND BEDDING SECTION SEE ACCESSION NO. 49032

THE
METROPOLITAN SEWER DISTRICT
OF
GREATER CINCINNATI

ALTERNATE
BATTER BOARD

NO SCALE   DATE: AUG., 2006
APPROVED: _____
SEWERS CHIEF ENGINEER

TRS

ACC. NO. 49054-A