IN ORDER TO ENSURE THAT NEW DEVELOPMENTS WITHIN THE CITY ARE DESIGNED AND CONSTRUCTED SUBSTANTIALLY IN ACCORDANCE WITH CITY REGULATIONS THE FOLLOWING INFORMATION IS REQUIRED:

FOR THE PURPOSE OF DESIGN THE FOLLOWING INFORMATION IS REQUIRED ON PLAN SHEET FOR DIRECTIONAL DRILLING.

1. PLAN SHEET SHALL INCLUDE PLAN VIEW WITH THE FOLLOWING INFORMATION: RIGHT OF WAY, PAVEMENT, CURBS AND UTILITIES SHALL BE VERIFIED AND DIMENSIONED FOR EACH STREET CROSSING.

2. DESIGN PLAN FOR DIRECTIONAL DRILL SHALL INCLUDE THE FOLLOWING INFORMATION: NOMINAL PIPE DIAMETER, PIPE DR, PIPE SIZE FITTING TYPE AND PIPE MATERIAL. LOCATION, PIPE MUST MEET THE DESIGN PRESSURE PIPE REQUIREMENTS EQUAL TO OR EXCEEDING DESIGN REQUIREMENTS OF CORRESPONDING UTILITIES. PROVIDE START AND ENDING LOCATIONS, ALIGNMENT, POINT OF SERVICE/LOCATION OF CITY MAINTENANCE.

3. PLAN SHEET SHOULD ALSO INCLUDE PROFILE OF PROPOSED DIRECTIONAL DRILL THAT DELINEATES DEPTH AND SEPARATION DISTANCES FROM EXISTING FACILITIES WITHIN THE BOUNDS OF THE STREET RIGHT OF WAY. MINIMUM PIPE DEPTH OF THE DIRECTIONAL BORE WHEN CROSSING BENEATH A ROADWAY, (TYPICALLY 10 TIMES THE BACK REAM DIAMETER AS MEASURED FROM THE EDGE OF ASPHALT, BUT TO BE NO LESS THAN 36 INCHES, UNLESS CERTIFIED BY DESIGN OF ENGINEER OF RECORD AND APPROVED BY THE CITY ENGINEER.

4. PIPE MATERIAL IS PART OF THE DESIGN PROCESS FOR DIRECTIONAL DRILLING, AND SHOULD BE PART OF THE ENGINEERING DESIGN. HOWEVER, THE PIPE MATERIAL SHALL MEET THE FOLLOWING MINIMAL STANDARDS:

MATERIAL STANDARDS FOR DIRECTIONAL DRILL INSTALLATION

MATERIAL TYPE	NON-PRESURE	PRESSURE
POLYETHYLENE (PE)	ASTM D 2447	ASTM 2513 ASTM D 2447
HIGH DENSITY POLETHYLENE (HDPE)	ASTM D 2447 ASTM D 3350 ASTM F 714	ASTM D 2447 ASTM D 3350 ASTM F 714 ASTM 2513
POLYVINYL-CHLORIDA (PVC)	ASTM F 789	N/A
STEEL	ASTM A 139 GRADE B (1)	AWWA C200 API 2B (2)

(1) NO HYDROSTATIC TEST REQUIRED
(2) DIMENSIONAL TOLERANCES ONLY

5. PIPE SHALL BE COLOR CODED IN ACCORDANCE WITH OTHER STANDARD DETAILS FOR THE USE OF THE PIPE, WATER, WASTEWATER OR REUSE.

6. LOCATING WIRE, TWO LINES, SHALL BE ATTACHED TO THE PIPE. UPON COMPLETION OF DIRECTIONAL DRILL, TESTING OF THE CONTINUITY OF THE WIRE WILL BE PERFORMED. THIS TEST SHALL BE PERFORMED IN THE PRESENCE OF CITY INSPECTOR AND/OR CITY MAINTENANCE PERSONNEL FOR THE APPROPRIATE DIVISION.

7. UPON COMPLETION OF DIRECTIONAL DRILL, HYDROSTATIC TEST SHALL BE PERFORMED ON THE PIPE. THE TEST SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS:
   PRESSURE PIPE – PIPE SHALL BE TESTED IN ACCORDANCE WITH UTILITY CARRIED.
   NON-PRESSURE PIPE – PIPE SHALL BE TESTED IN ACCORDANCE WITH UTILITY CARRIED.

8. PRIOR TO BEGINNING DIRECTIONAL DRILL, CONTRACTOR IS TO COMPLETE THE HORIZONTAL DIRECTIONAL DRILL PRE-LOG FORM, HDD STANDARD FORM NO. 101. COPY OF THIS FORM IS STANDARD DD-1B.

9. IF CONDITIONS WARRANT REMOVAL OF ANY MATERIALS INSTALLED IN A FAILED BORE PATH, AS DETERMINED BY ENGINEER, IT WILL BE AT NO COST TO THE CITY. THE VOID SHOULD BE FILLED WITH EXCAVATABLE FLOWABLE FILL.

10. IF THE HORIZONTAL DIRECTIONAL DRILL PATH ENCOUNTERS AN OBSTRUCTION WHICH PREVENTS THE COMPLETION IN ACCORDANCE WITH THE DESIGN LOCATION AND SPECIFICATIONS, THE PIPE IS TO BE TAKEN OUT OF SERVICE AND LEFT IN PLACE AT THE DISCRETION OF THE CITY ENGINEER. A NEW INSTALLATION PROCEDURE AND REVISED PLANS ARE TO BE SUBMITTED TO THE CITY FOR REVIEW. IF DURING THE PROCESS OF DIRECTIONAL DRILLING, DAMAGE IS OBSERVED TO EXISTING IMPROVEMENTS WITHIN THE RIGHT OF WAY, ALL WORK IS TO CEASE UNTIL A RESOLUTION TO MINIMIZE FURTHER DAMAGE AND A PLAN OF ACTION FOR RESTORATION IS APPROVED BY THE CITY ENGINEER.

CITY OF ORMOND BEACH FLORIDA

STANDARD CONSTRUCTION DETAIL

DRAWING REQUIREMENTS FOR HORIZONTAL DIRECTIONAL DRILL

INDEX

DD-1A

MAY 2020