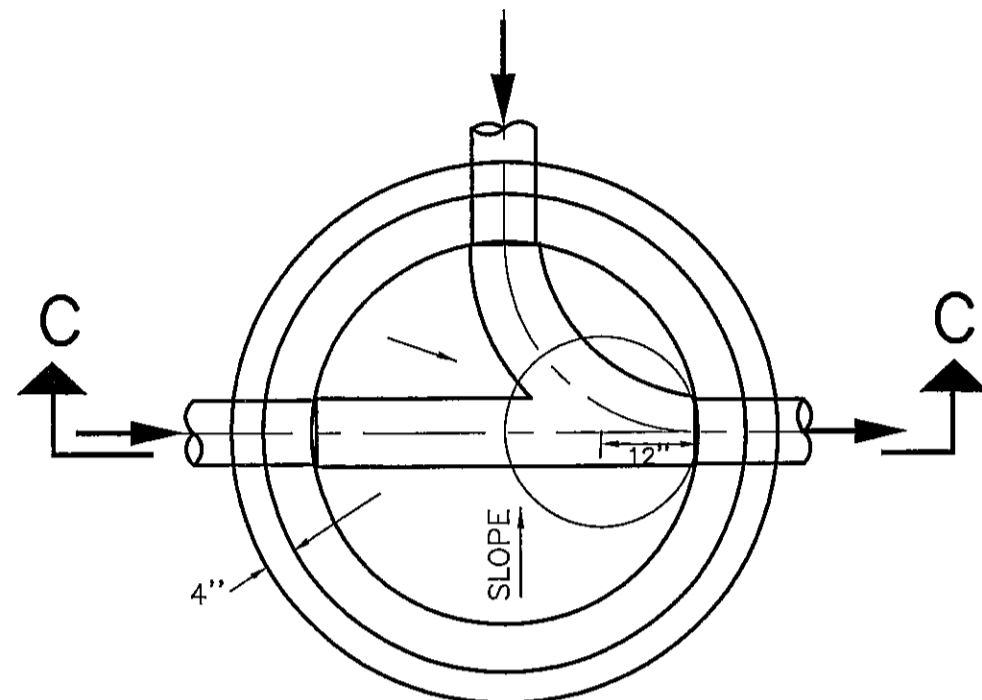


TYPICAL MANHOLE RING & COVER SECTION

DOVETAIL GROOVE DETAIL

NTS



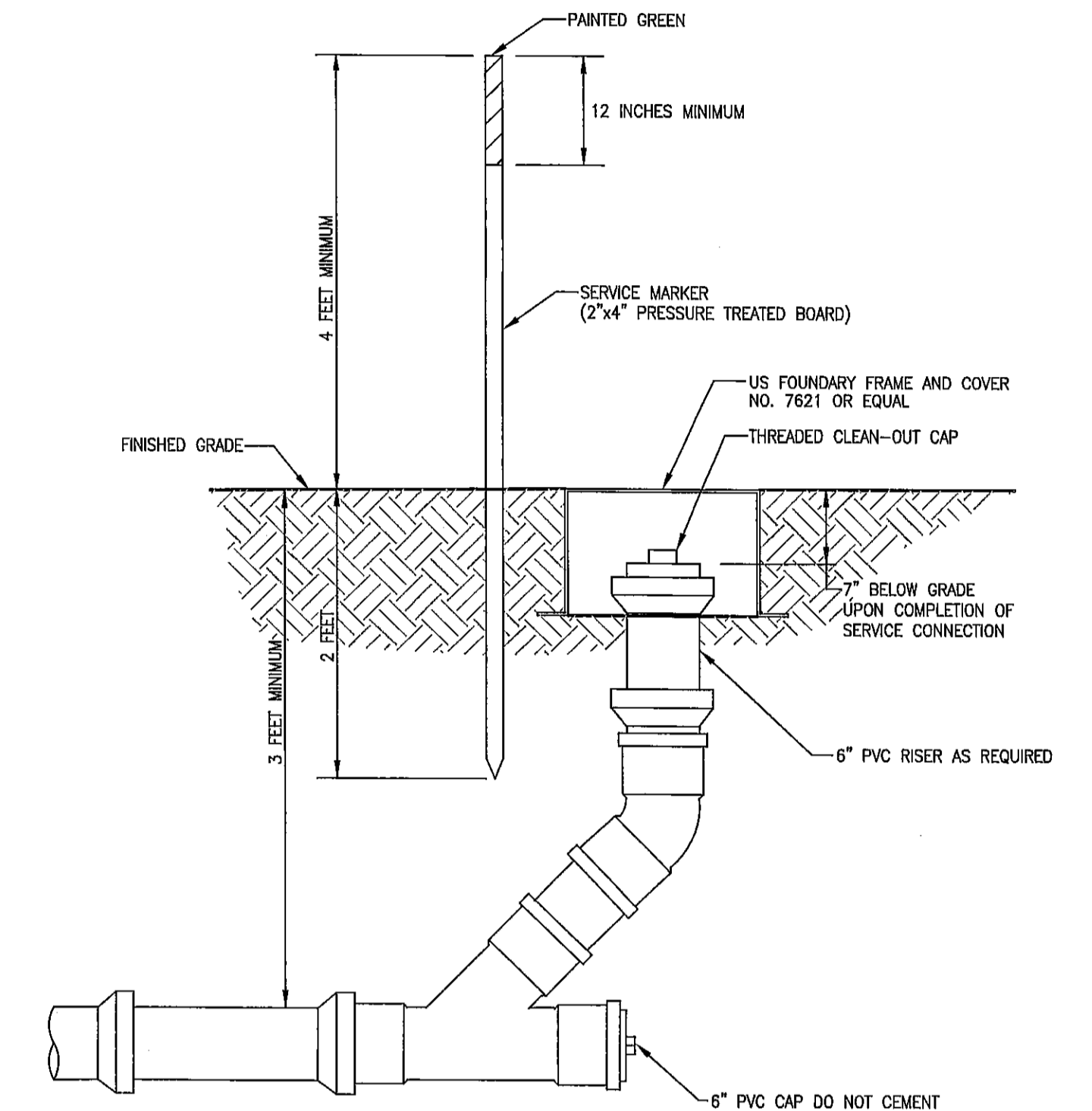
FLOW CHANNEL PLAN

MANHOLE SPECIFICATIONS:

1. MANHOLES SHALL COMPLY WITH A.S.T.M. SPECS. C-478, LATEST REVISION, "PRECAST REINFORCED CONCRETE MANHOLE SECTIONS," EXCEPT WALL THICKNESS SHALL BE MIN. 6".
2. CONCRETE SHALL BE 4000 P.S.I./28 DAY MIN. STRENGTH, WITH TYPE II CEMENT.
3. HEAVY DUTY MANHOLE RING (6" HIGH) AND COVER SHALL BE TYPE B (DWG.NO.240; OLD NO.24) WITH FRAME & DOVETAIL GROOVED COVER (325 LB) TO ACCOMMODATE 1/4" DIA., O-RING AS MANUFACTURED BY U.S.FOUNDARY CORP., MIAMI, FLORIDA, OR APPROVED EQUAL, WITH THE WORDS "WASTEWATER" CAST INTO THE COVER.
4. REINFORCING PER A.S.T.M. SPEC. C-478, LATEST REVISION.
5. LEVELING BRICKS TO BE CLAY; MORTAR TO BE 2 PARTS CLEAN SAND AND 1 PART CEMENT WITH NO MORE 1/4 HYDRATED LIME, WITH JOINTS FULL & STRUCK FLUSH.
6. NO STEPS SHALL BE USED.
7. COMPLETELY FILL SPACE BETWEEN PIPES AND MANHOLE WALL WITH CEMENT MORTAR AFTER PIPE IS SET WITH 15 LB. EMBECCO PER 100 LB. CEMENT.

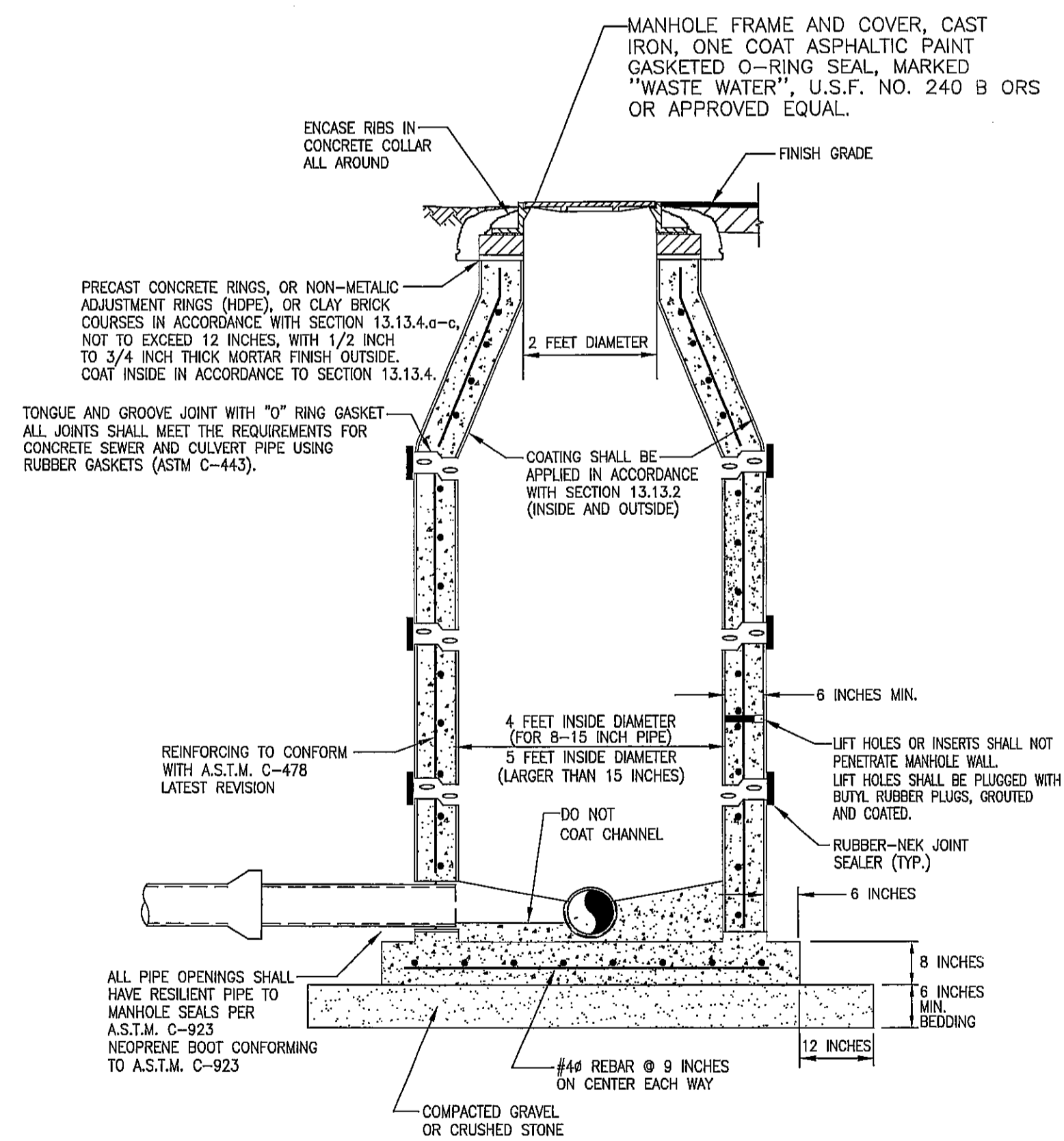
GENERAL NOTES:

1. WHERE WATER & WASTEWATER MAINS CROSS WITH LESS THAN 18" VERTICAL CLEARANCE, THE WASTEWATER PIPE SHALL BE OF EITHER DUCTILE IRON OR CONCRETE ENCASED PVC, (20' MIN.) CENTERED ON THE POINT OF CROSSING.
2. PARALLEL WATER & WASTEWATER MAINS SHALL MAINTAIN A HORIZONTAL SEPARATION OF AT LEAST 10'.
3. WHERE STORMWATER SEWERS CROSS OVER WASTEWATER SEWERS WITH LESS THAN 12" VERTICAL CLEARANCE, THE WASTEWATER PIPE SHALL BE EITHER DUCTILE IRON OR CONCRETE ENCASED PVC, 10' MIN. EITHER SIDE OF CROSSING.



CLEAN OUT DETAIL

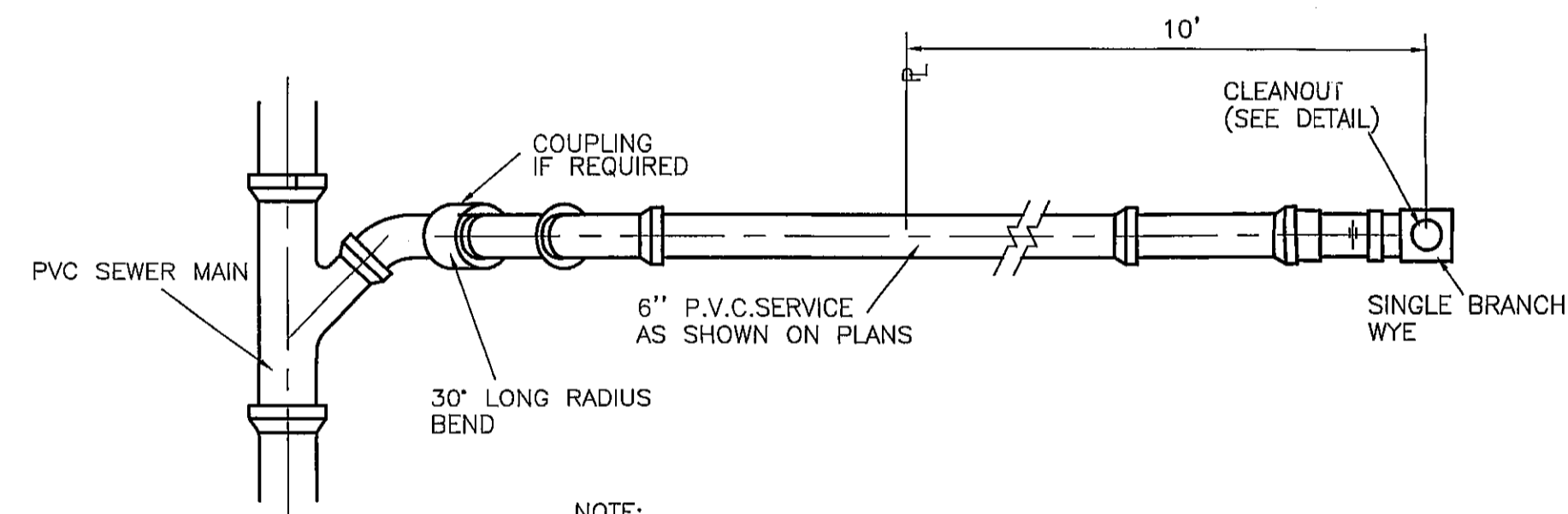
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SECTION C-C

STANDARD WASTE WATER PRE-CAST MANHOLE

N.T.S.

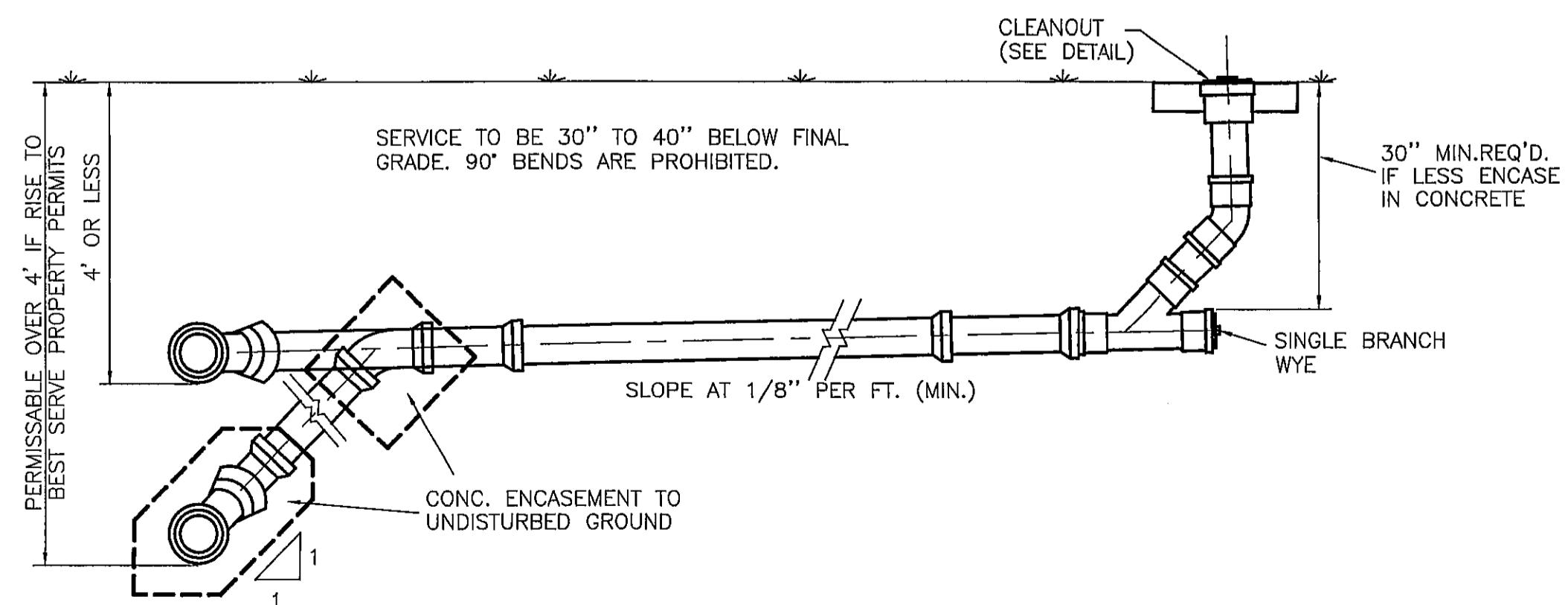


NOTE:

1. WHERE SERVICE CONNECTIONS EXCEED 8' IN DEPTH THE SERVICE WYE SHALL BE ENCASED IN CONCRETE.
2. SEWER SERVICE TO BE STAKED IN THE FIELD BY OR UNDER THE DIRECTION OF A REGISTERED ENGINEER AND/OR LAND SURVEYOR.

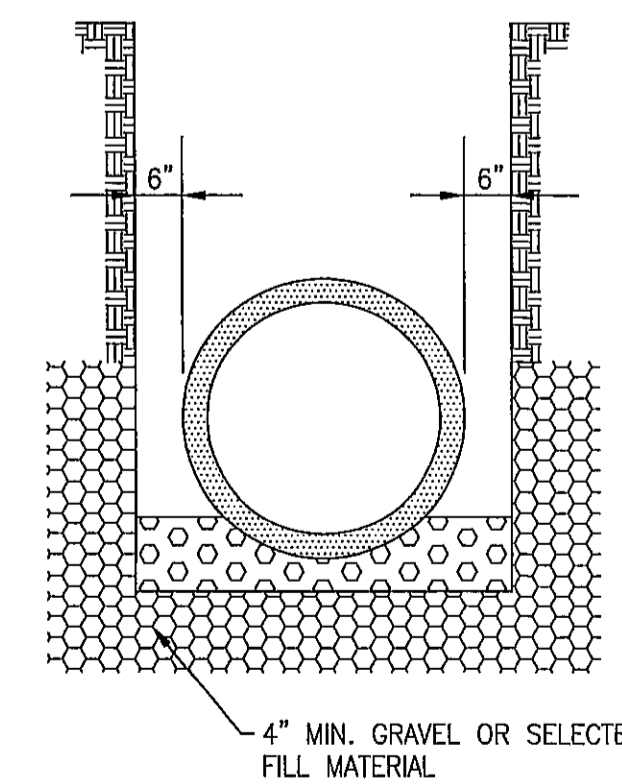
PLAN VIEW SINGLE SERVICE

NTS



TYPICAL SERVICE CONNECTION

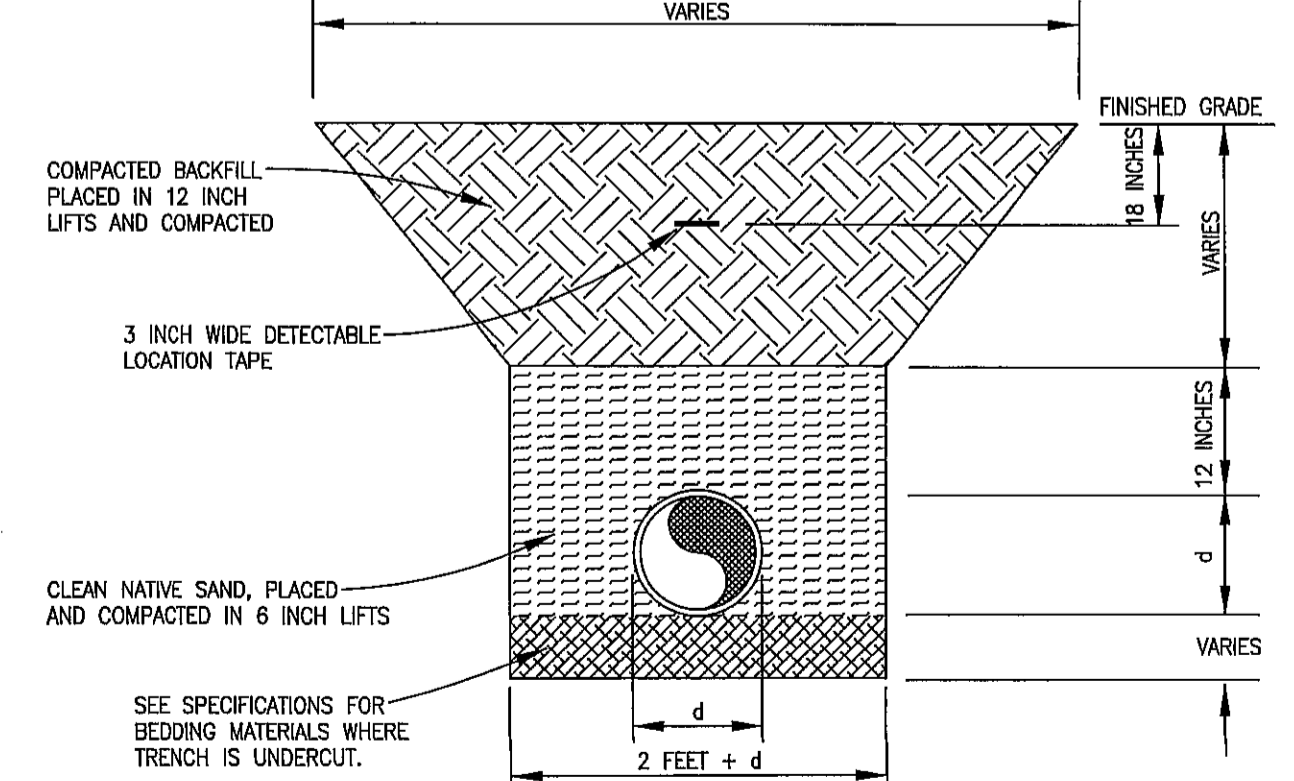
N.T.S.



TRENCH IN ROCK

N.T.S.

- NOTES:
1. TRENCH WIDTH SHALL BE APPROX. EQUAL TO THE PIPE DIA. + 2 FEET OR AS PER AWWA AND THE MANUFACTURERS RECOMMENDATIONS.
  2. PROVIDE SHEETING AND SHORING AS NECESSARY FOR SAFETY.
  3. BACKFILL MATERIALS SHALL BE APPROVED BY THE ENGINEER WHERE THE PIPE IS UNDERCUT.
  4. WATER, SEWER, AND REUSE MAINS TO BE INSTALLED WITH A MINIMUM 36 INCHES OF COVER.
  5. REFER TO LAND DEVELOPMENT REGULATIONS FOR DENSITY REQUIREMENTS.



TRENCH DETAIL

N.T.S.

| NO. | BY  | DATE    | DESCRIPTION  |
|-----|-----|---------|--|
| 1   | PSN | 2-13-03 | REVISED PER TOWN OF LONGBOAT KEY PRELIMINARY REVIEW COMMENTS |
| 2   | PSN | 2-20-03 | REVISED PER TOWN OF LONGBOAT KEY PRELIMINARY REVIEW COMMENTS |
| 3   | PSN | 5-16-03 | REVISED PER FINAL CONSTRUCTION PLAN REVIEW                   |
| 4   | PSN | 9-16-03 | REVISED PER MANATEE COUNTY COMMENTS DATED 9-15-03            |
| 5   | PSN | 10-6-04 | REVISED CLUBHOUSE FOOTPRINT AND SIDEWALKS                    |

| NO. | BY  | DATE    | DESCRIPTION                    |
|-----|-----|---------|--------------------------------|
| 6   | GJR | 5-17-07 | ADDITION OF RECORD INFORMATION |
| 7   |     |         |                                |
| 8   |     |         |                                |
| 9   |     |         |                                |
| 10  |     |         |                                |

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 78 SARASOTA CENTER BOULEVARD, SARASOTA, FLORIDA 34240  
 Since 1919 PHONE (941) 371-6362 • FAX (941) 378-3215 • E-MAIL info@georgeyoung.com

MARK A. ASLER, P.E.  
 AUG 0 1 2007  
 TASK INITIALS DATE  
 DESIGN H.F.F. 1-13-03  
 DRAWN P.S.N. 1-24-03  
 CHECKED P.C.P. 5-16-03  
 QUALITY CHK. H.F.F. 5-16-03  
 SCALE N.T.S.

PREPARED FOR:  
**LA FIRENZA, LLC**  
 9853 N. TAMAMI TRAIL, SUITE 218  
 NAPLES, FLORIDA 34108

**LA FIRENZA**  
 SANITARY SEWER DETAILS  
 R10

JOB NO.  
**0271007000**  
 SHEET NO.  
**R10**

I:\PROJECTS\ENR\030020271-0070-00\DWG\RECORD\027100700-R10-SANDET.dwg, 7/27/2007 9:00:30 AM, Pete Nicklas