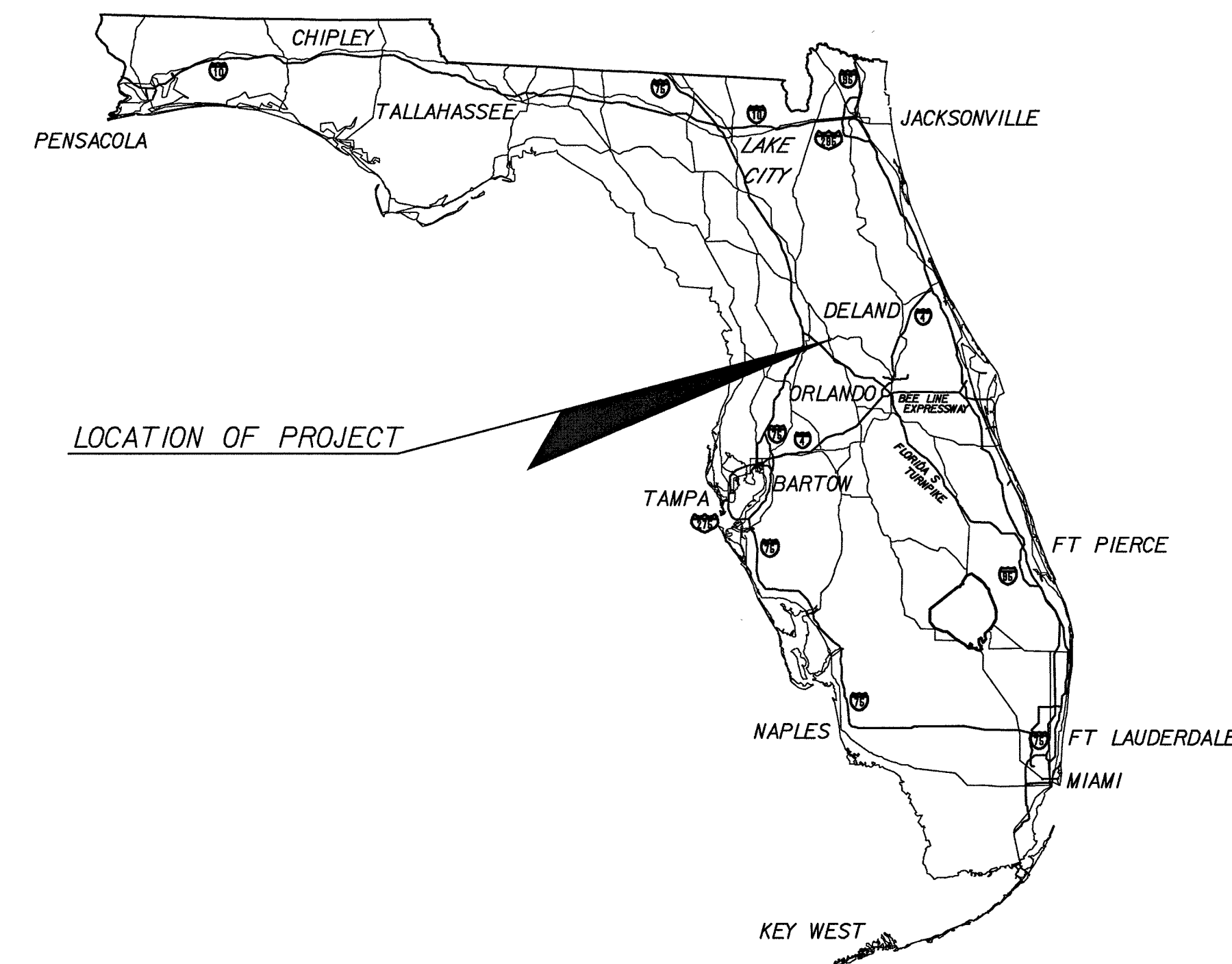
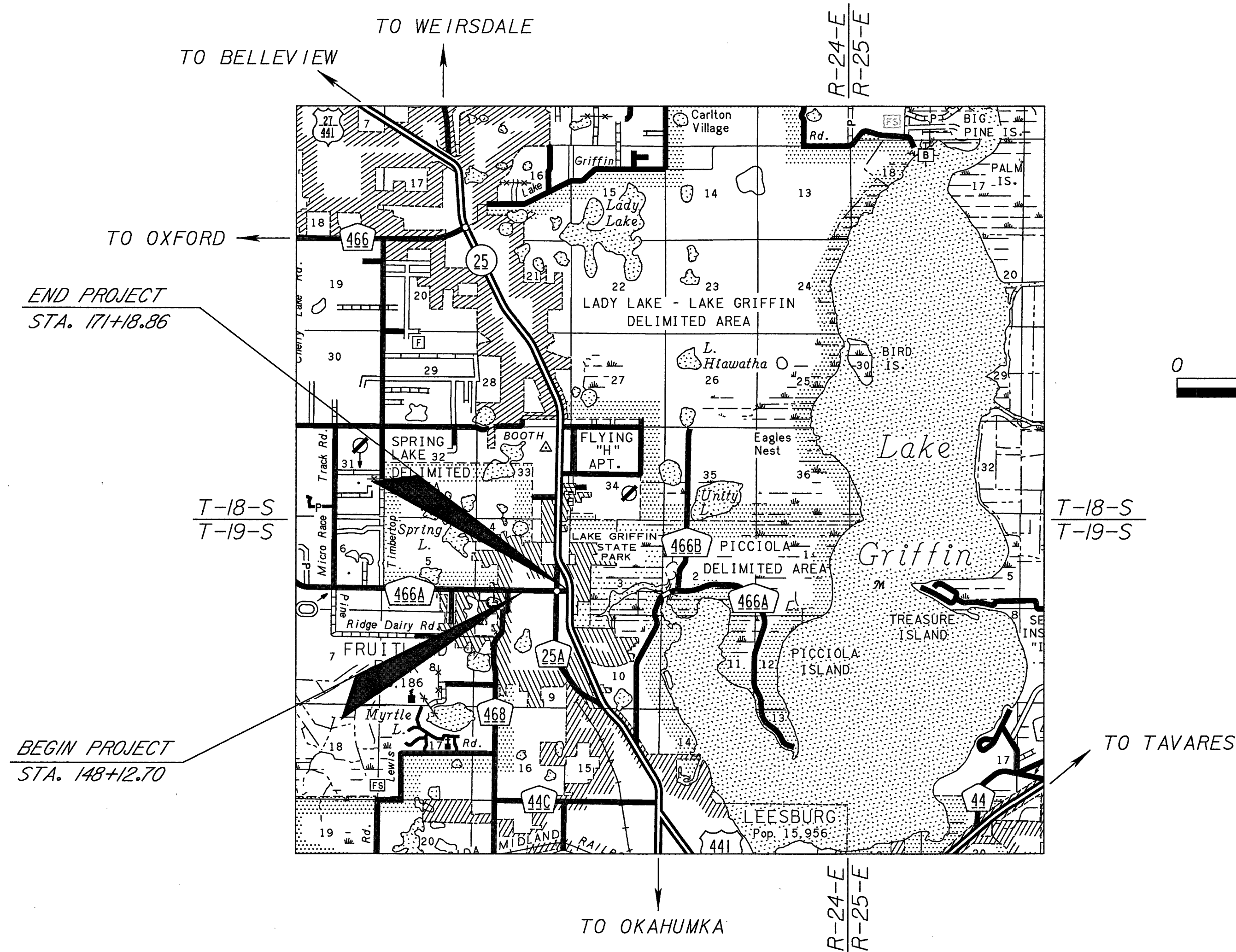


CITY OF FRUITLAND PARK COUNTY ROAD 466A PHASE 1 UTILITY ADJUSTMENT PLANS



INDEX OF UTILITY ADJUSTMENT PLANS

SHEET NO.	SHEET DESCRIPTION
U-01	KEY SHEET
U-02 - U-03	UTILITY ADJUSTMENT PLAN SHEETS
U-04 - U-05	UTILITY CROSS SECTION SHEETS
U-06 - U-10	UTILITY DETAIL SHEETS



UTILITY SHOP DRAWINGS
TO BE SUBMITTED TO:

DUANE K. BOOTH, P.E.
BOOTH, ERN, STRAUGHAN, & HIOTT, INC.
902 NORTH SINCLAIR AVENUE
TAVARES, FLORIDA 32778
(352) 343-8481

PLANS PREPARED BY:

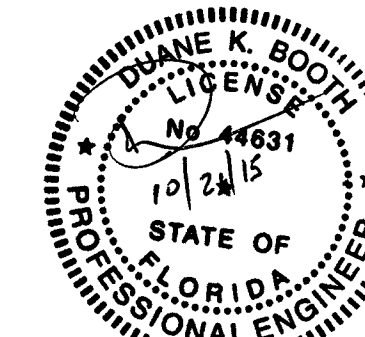


NOTE: THE SCALE OF THESE PLANS MAY
HAVE CHANGED DUE TO REPRODUCTION.

KEY SHEET REVISIONS		
DATE	BY	DESCRIPTION

UTILITY WORK BY HIGHWAY CONTRACTOR
AGREEMENT PLANS
ENGINEER OF RECORD: DUANE K., BOOTH, P.E.

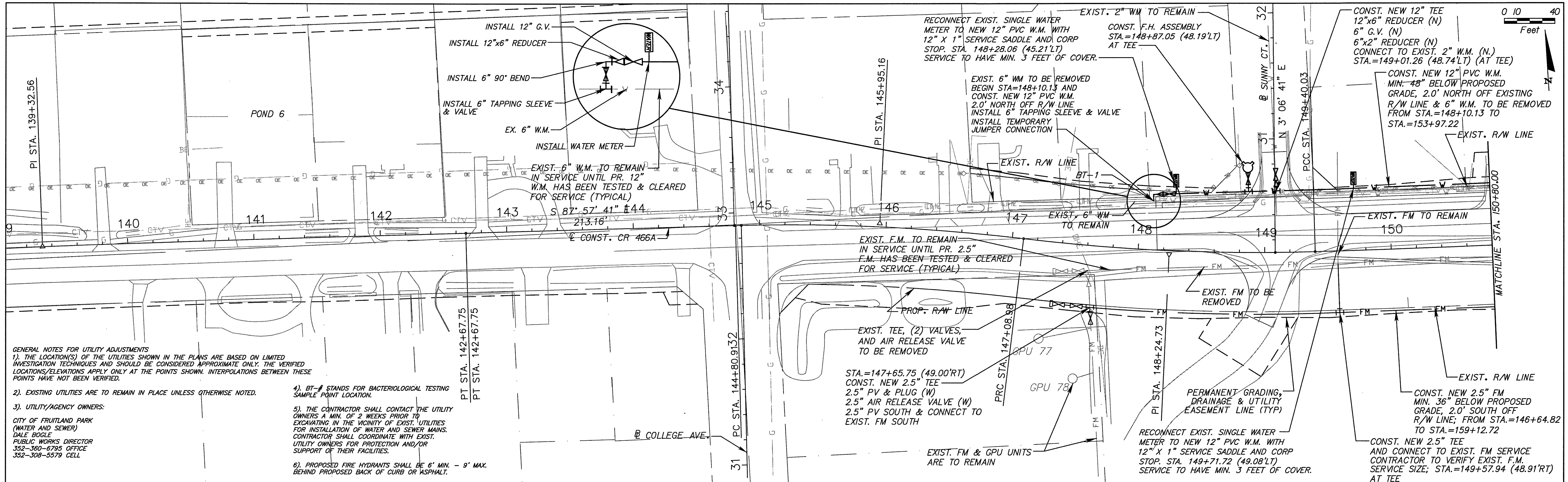
P.E. NO.: 44631



SHEET
NO.

U-01

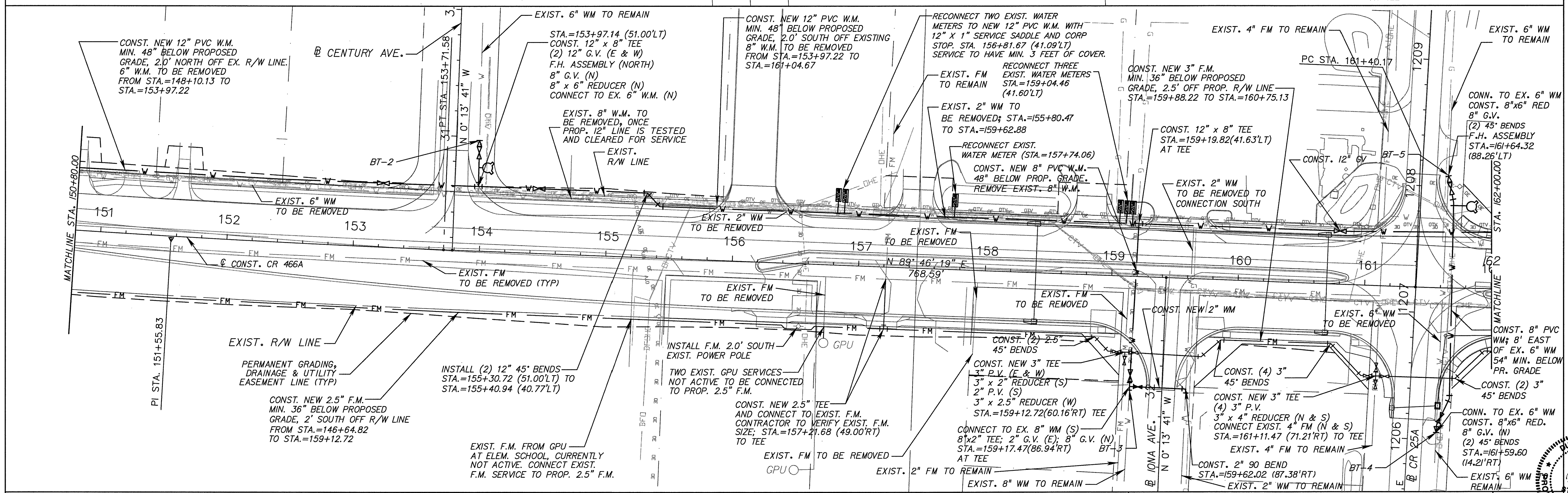
GOVERNING STANDARDS AND SPECIFICATIONS:
CITY OF FRUITLAND PARK
UTILITY CONSTRUCTION STANDARDS AND DETAILS



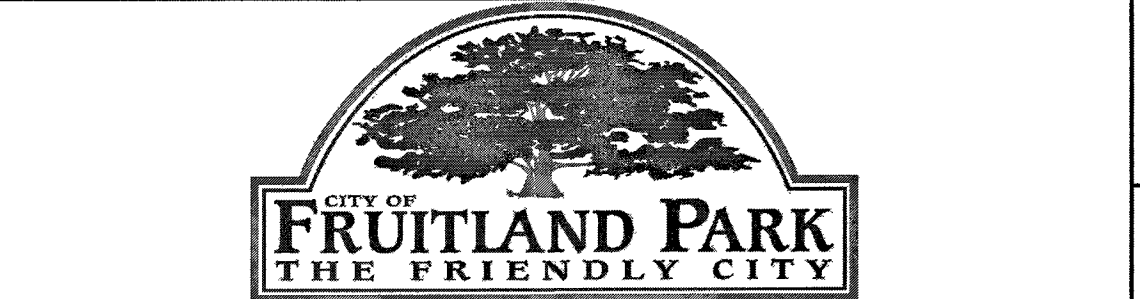
GENERAL NOTES FOR UTILITY ADJUSTMENTS

1. THE LOCATION(S) OF THE UTILITIES SHOWN IN THE PLANS ARE BASED ON LIMITED INVESTIGATION TECHNIQUES AND SHOULD BE CONSIDERED APPROXIMATE ONLY. THE VERIFIED LOCATIONS/ELEVATIONS APPLY ONLY AT THE POINTS SHOWN. INTERPOLATIONS BETWEEN THESE POINTS HAVE NOT BEEN VERIFIED.
2. EXISTING UTILITIES ARE TO REMAIN IN PLACE UNLESS OTHERWISE NOTED.
3. UTILITY/AGENCY OWNERS:
CITY OF FRUITLAND PARK (WATER AND SEWER)
DALE BOOLE
PUBLIC WORKS DIRECTOR
352-360-6795 OFFICE
352-308-5579 CELL

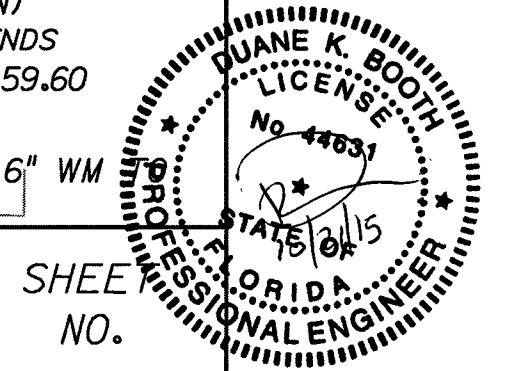
4. BT-# STANDS FOR BACTERIOLOGICAL TESTING SAMPLE POINT LOCATION.
5. THE CONTRACTOR SHALL CONTACT THE UTILITY OWNERS 4 MIN. OF 2 WEEKS PRIOR TO EXCAVATING IN THE VICINITY OF EXIST. UTILITIES FOR INSTALLATION OF WATER AND SEWER MAINS. CONTRACTOR SHALL COORDINATE WITH EXIST. UTILITY OWNERS FOR PROTECTION AND/OR SUPPORT OF THEIR FACILITIES.
6. PROPOSED FIRE HYDRANTS SHALL BE 6" MIN. - 9" MAX. BEHIND PROPOSED BACK OF CURB OR ASPHALT.



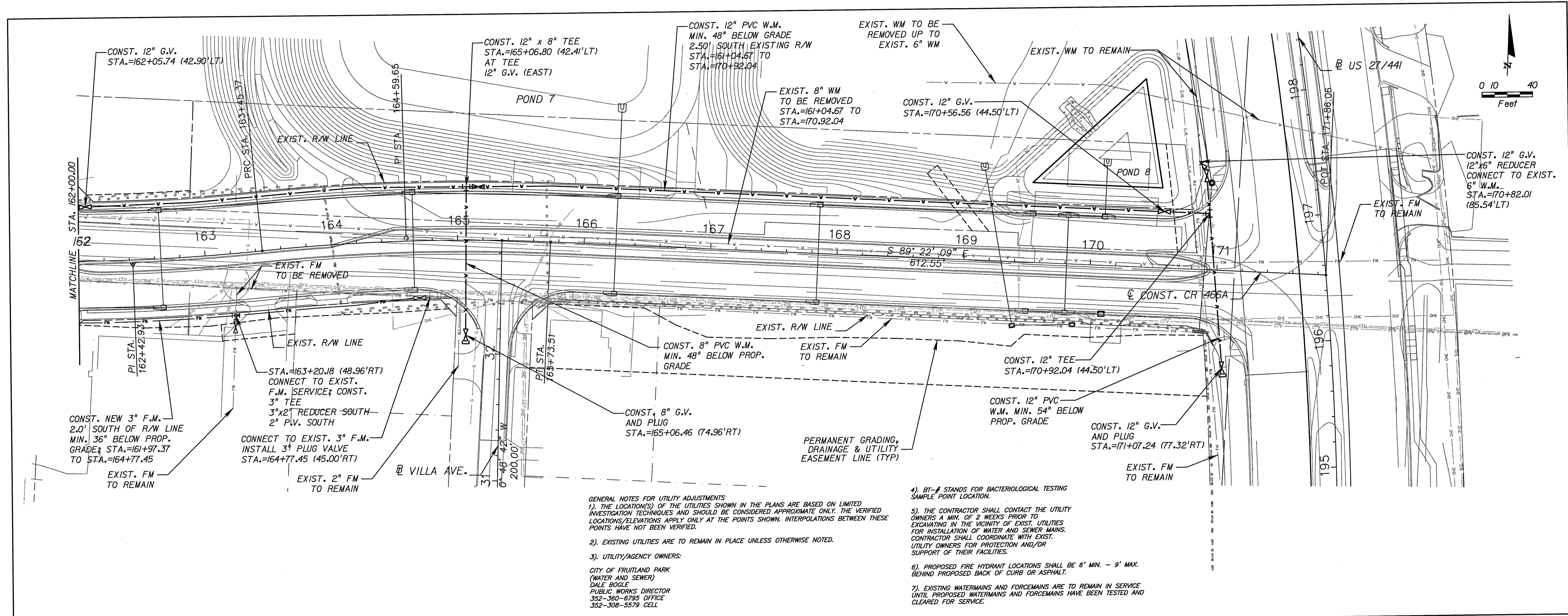
REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION



CITY OF FRUITLAND PARK
C.R. 466A-PH.1
UTILITY ADJUSTMENT PLAN



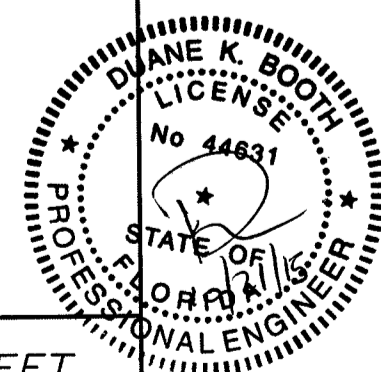
SHEET NO. U-02



GENERAL NOTES FOR UTILITY ADJUSTMENTS
 1). THE LOCATION(S) OF THE UTILITIES SHOWN IN THE PLANS ARE BASED ON LIMITED INVESTIGATION TECHNIQUES AND SHOULD BE CONSIDERED APPROXIMATE ONLY. THE VERIFIED LOCATIONS/ELEVATIONS APPLY ONLY AT THE POINTS SHOWN. INTERPOLATIONS BETWEEN THESE POINTS HAVE NOT BEEN VERIFIED.
 2). EXISTING UTILITIES ARE TO REMAIN IN PLACE UNLESS OTHERWISE NOTED.
 3). UTILITY/AGENCY OWNERS:
 CITY OF FRUITLAND PARK
 (WATER AND SEWER)
 DALE BOGLE
 PUBLIC WORKS DIRECTOR
 352-360-6795 OFFICE
 352-308-5579 CELL

- 4). BT-# STANDS FOR BACTERIOLOGICAL TESTING SAMPLE POINT LOCATION.
- 5). THE CONTRACTOR SHALL CONTACT THE UTILITY OWNERS A MIN. OF 2 WEEKS PRIOR TO EXCAVATING IN THE VICINITY OF EXIST. UTILITIES FOR INSTALLATION OF WATER AND SEWER MAINS. CONTRACTOR SHALL COORDINATE WITH EXIST. UTILITY OWNERS FOR PROTECTION AND/OR SUPPORT OF THEIR FACILITIES.
- 6). PROPOSED FIRE HYDRANT LOCATIONS SHALL BE 6' MIN. - 9' MAX. BEHIND PROPOSED BACK OF CURB OR ASPHALT.
- 7). EXISTING WATERMANS AND FORCEMANS ARE TO REMAIN IN SERVICE UNTIL PROPOSED WATERMANS AND FORCEMANS HAVE BEEN TESTED AND CLEARED FOR SERVICE.

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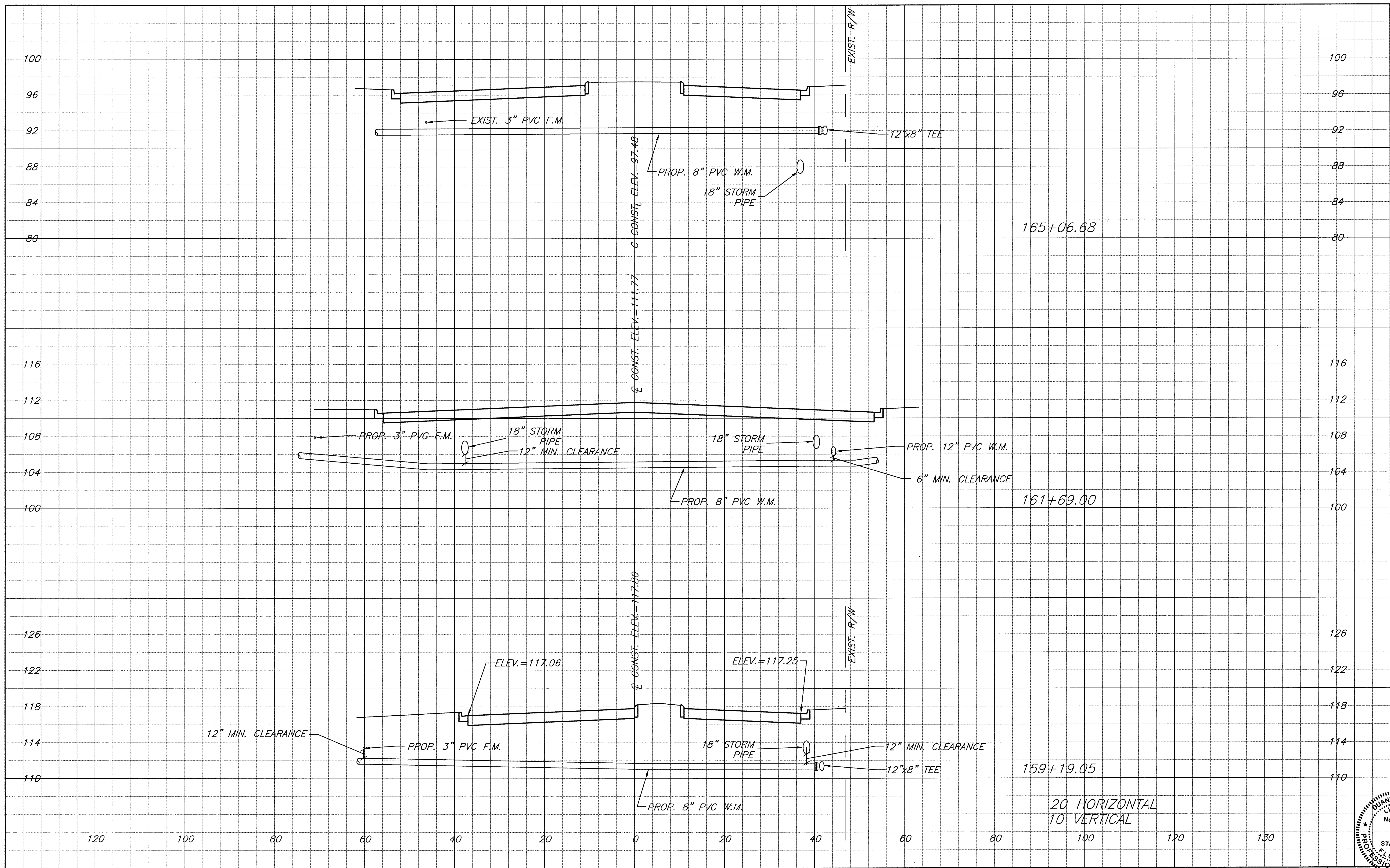


REVISIONS		REVISIONS	
DATE	BY	DATE	BY



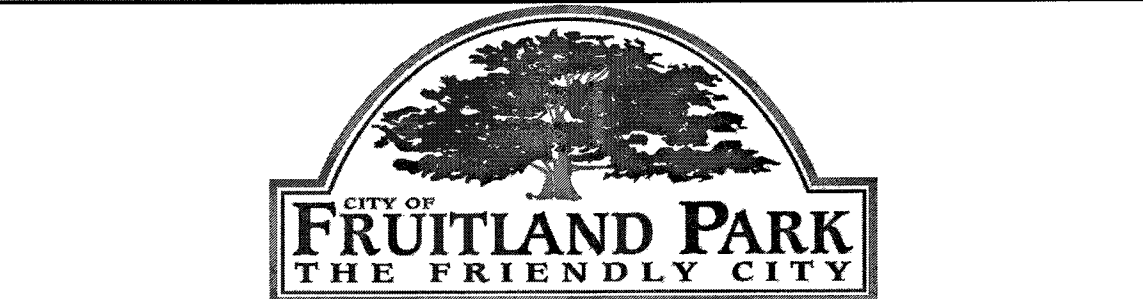
CITY OF FRUITLAND PARK
 C.R. 466A-PH.1
 UTILITY ADJUSTMENT PLAN

SHEET NO.
 U-03



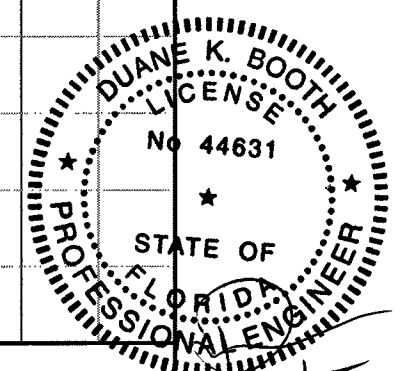
DATE	REVISIONS	DATE	REVISIONS

BESH
 BOOTH, ERN, STRAUGHAN, HOTT, INC.
 ENGINEERS • SURVEYORS • LAND PLANNERS
 350 North Sinclair Ave. Office: 352-343-8481
 Tallahassee, Florida 32378 Fax: 352-343-8495
 www.beshandh.com
 Certificate of Authorization Number: 27029

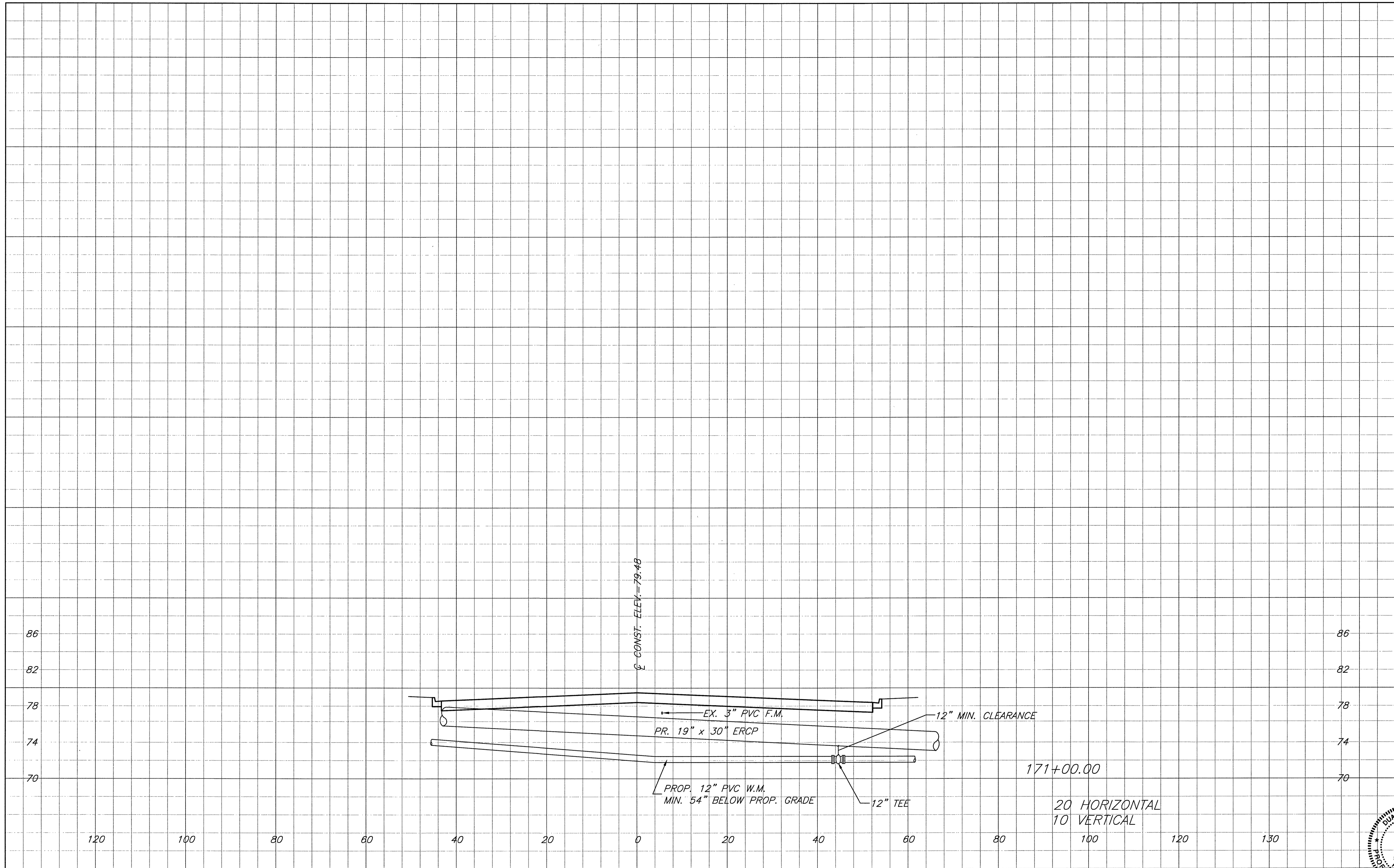


CITY OF FRUITLAND PARK
 C.R. 466A-PH.1
 CROSS SECTION

SHEET NO.
 U-04



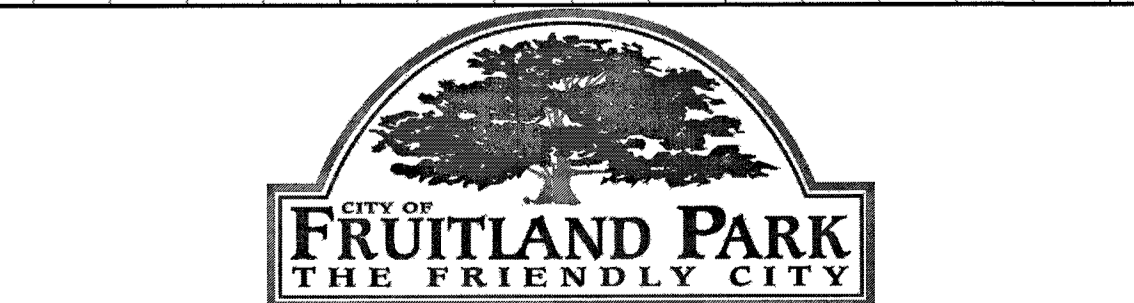
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DATE	REVISIONS	DATE	REVISIONS

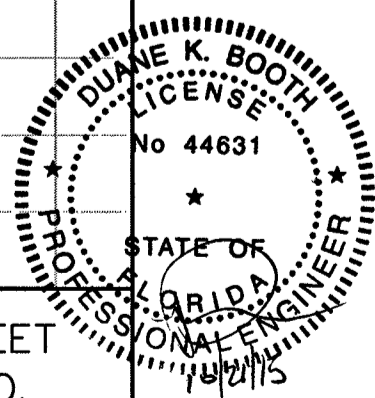
BESH
 BOOTHBY STRAUGHAN HOTT, INC.
 ENGINEERS • SURVEYORS • LAND PLANNERS
 350 North Sinclair Ave. Office: 352.343.8481
 Tallahassee, Florida 32379 Fax: 352.343.8495
 www.besh.com Certificate of Authorization Number: 27029

DUANE K. BOOTH, P.E. LICENSE NO. 44631



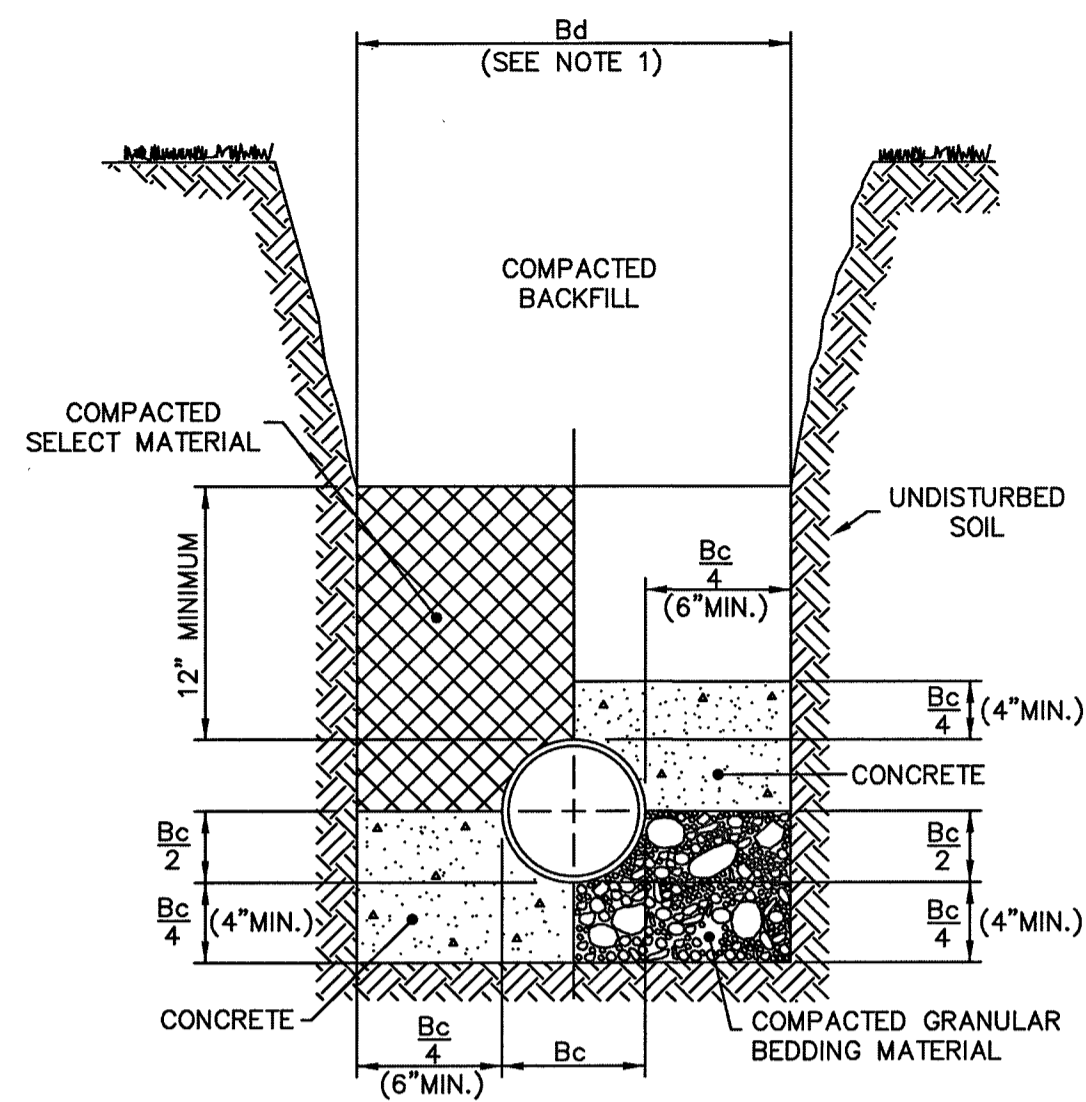
CITY OF FRUITLAND PARK
 C.R. 466A-PH.1
 CROSS SECTIONS

SHEET NO.
 U-05

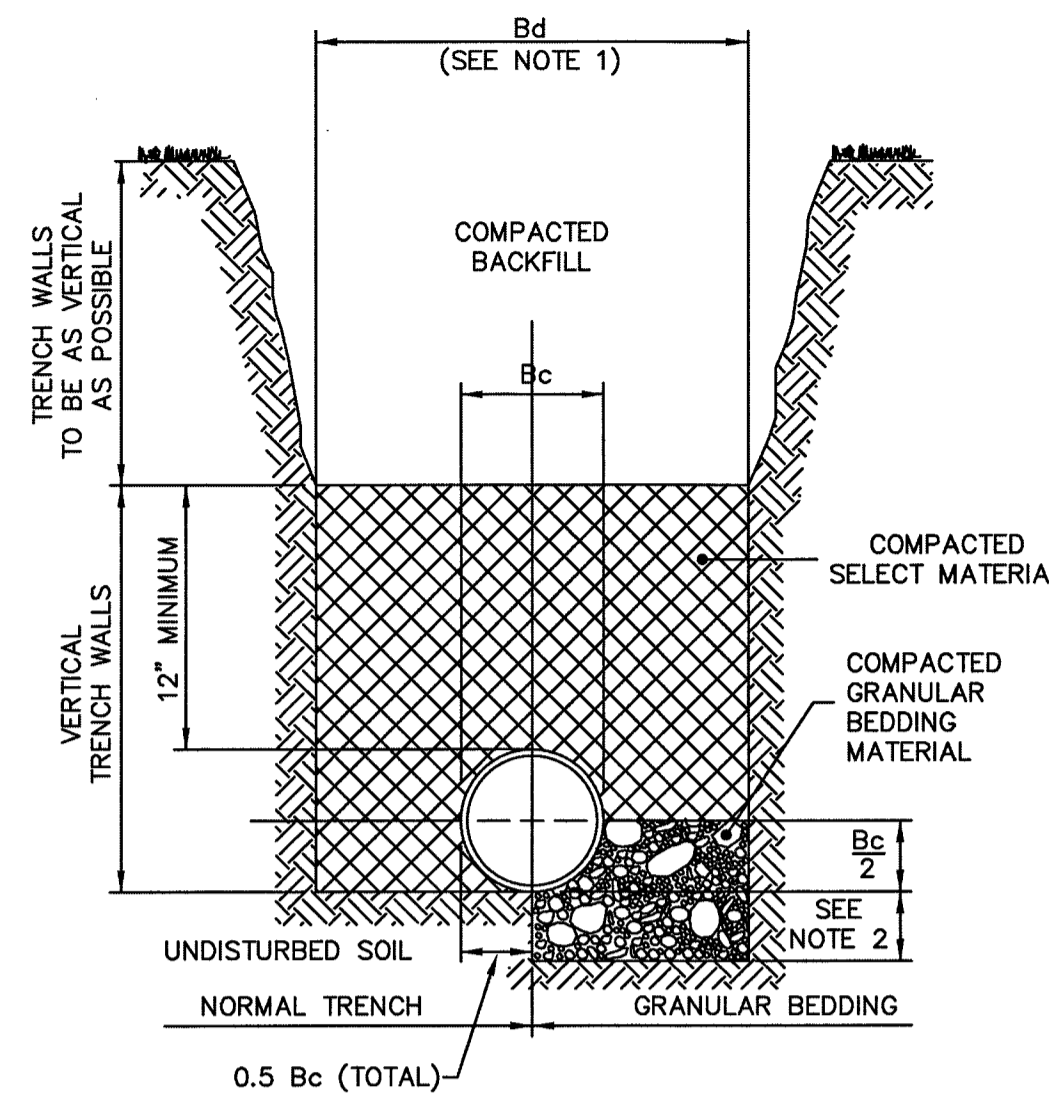


GENERAL NOTES

- ALL CONSTRUCTION SHALL CONFORM TO FDOT AND THE CITY OF FRUITLAND PARK STANDARDS.
- PROJECT BASELINE STATIONING SHOWN IS APPROXIMATE. THE CONTRACTOR SHALL LOCATE ALL PORTIONS OF THE WORK USING ALL INFORMATION PROVIDED HEREIN AND SHALL MAINTAIN RECORDS OF ALL LOCATIONS PER THE CONTRACT SPECIFICATIONS.
- STATIONING IS PROVIDED FOR THE REFERENCE IN HORIZONTAL PLANE ONLY, AND DOES NOT REFLECT VERTICAL ALIGNMENT OF PIPE.
- INFORMATION REGARDING THE LOCATION OF EXISTING UTILITIES HAS BEEN OBTAINED FROM RESPECTIVE UTILITY OWNER USING THE LATEST INFORMATION AVAILABLE. HOWEVER, THESE LOCATIONS, AS SHOWN ON THE PLANS, ARE NOT CONSIDERED TO BE ALL INCLUSIVE. THE ENGINEER HAS ATTEMPTED TO SHOW AS MUCH AS POSSIBLE ALL MAIN ELECTRICAL AND TELEPHONE UNDERGROUND CABLES AND DUCTS. THE ENGINEER HAS NOT SHOWN ELECTRICAL AND TELEPHONE SERVICE CONNECTIONS WHICH MAY EXIST WITHIN THE PRIVATE RIGHTS-OF-WAY WITHIN THIS PROJECT. THE CONTRACTOR SHALL COORDINATE THE LOCATION OF ALL UNDERGROUND FACILITIES WITH A FIELD REPRESENTATIVE OF EACH RESPECTIVE UTILITY.
- THE CONTRACTOR PRIOR TO EXCAVATING IN THE VICINITY OF A GAS PIPELINE SHALL NOTIFY THE GAS UTILITY OWNER IN ACCORDANCE WITH THE REQUIREMENTS OF FLORIDA STATUTES, PROTECTION OF UNDERGROUND PIPELINES, F.S. 553.851, CH. 77-143.
- THE CONTRACTOR SHALL INSURE ALL NECESSARY PERMITS ARE IN HAND BEFORE COMMENCEMENT OF CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR SATISFYING ALL REQUIREMENTS OF REGULATORY AGENCY PERMITS WITH REGARDS TO CONSTRUCTION ACTIVITIES AND CONDITIONS STATED THEREIN. ALL WORK WITHIN THE CITY OF FRUITLAND PARK & F.D.O.T. RIGHT-OF-WAYS SHALL CONFORM WITH ALL REQUIREMENTS AND SPECIAL CONDITIONS OF THE APPROVED CITY OF FRUITLAND PARK AND F.D.O.T. UTILITY PERMITS.
- D.I.P. LOCATED LESS THAN 10 FEET FROM A GAS MAIN SHALL BE WRAPPED IN POLYETHYLENE.
- ALL PROPOSED MAINS SHALL HAVE A MINIMUM OF 36" COVER OVER TOP OF PIPE. COVER SHALL VARY TO PROVIDE UNIFORM GRADIENT OR SLOPE TO PIPE, UNLESS OTHERWISE NOTED.
- WHERE A CONNECTION IS TO BE MADE IN THE FIELD TO AN EXISTING PIPE, THE CONTRACTOR WILL EXCAVATE THE AREA TO VERIFY THE TYPE OF PIPE AND THE PIPE SIZE, AND OBTAIN THE OWNER'S APPROVAL OF THE PROPOSED METHOD OF CONNECTION PRIOR TO ORDERING AND INSTALLING MATERIALS.
- THE CONTRACTOR SHALL MAKE EXPLORATORY EXCAVATIONS AT ALL INTERSECTIONS OF PROPOSED WORK AND EXISTING UTILITIES. THE EXPLORATORY EXCAVATIONS SHALL BE MADE 48 HOURS OR 1,000 FEET IN ADVANCE OF THE WORK, WHICHEVER IS GREATER. IF THERE IS A POTENTIAL CONFLICT, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY. INFORMATION ON THE OBSTRUCTION TO BE FURNISHED BY THE CONTRACTOR SHALL INCLUDE: LOCATION, ELEVATION, UTILITY TYPE, MATERIAL AND SIZE.
- ALL WATER OR SEWER SERVICE CONNECTIONS, INTERRUPTIONS OR RELOCATION'S SHALL BE COORDINATED IN ADVANCE WITH FIELD REPRESENTATIVES OF THE CITY OF CLERMONT.
- ALL BURIED PIPING SPECIFIED TO BE PRESSURE TESTED, EXCEPT FLANGED, WELDED, OR SCREWED PIPING, SHALL BE PROVIDED WITH RESTRAINING DEVICES AT ALL DIRECTION CHANGES, UNLESS OTHERWISE NOTED. SEE THRUST RESTRAINT SPECIFICATION DETAILS AND NOTES.
- ALL AREAS WHERE LANDSCAPING, SOD, OR IRRIGATION HAS BEEN REMOVED OR DISTURBED BY CONTRACTOR'S OPERATIONS SHALL BE RESODDED, LANDSCAPED, OR REPAIRED WITH LIKE KIND.
- ALL EXISTING PROPERTY, FENCING, DRIVEWAYS, PIPING, SIDEWALKS, SIGNS AND OTHER ITEMS SHALL BE RESTORED TO ORIGINAL LINE AND GRADE UNLESS APPROVED BY THE ENGINEER. ACCESS TO ADJOINING PROPERTY ALONG THE PROPOSED ROUTE SHALL BE MAINTAINED AT ALL TIMES.
- IN THE EVENT THAT THE POTABLE WATER SYSTEM IS CONTAMINATED (I.E., WATER DOES NOT MEET FEDERAL AND STATE REQUIREMENTS) DUE TO CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL BE RESPONSIBLE, UNDER THE DIRECTION OF THE OWNER, OR STATE AND LOCAL REGULATORY AGENCY FOR CORRECTING ANY SUCH CONTAMINATION PROBLEM INCLUDING DISINFECTION, TESTING AND OTHER CORRECTIVE ACTION.
- WHEN CONSTRUCTION ACTIVITIES DISTURB AREAS WITHIN 10 FEET OF A TOP OF BANK FOR ANY WATERWAY OR WATER SURFACE, THE CONTRACTOR SHALL PROVIDE CROSSING AND SEDIMENTATION CONTROL MEASURES AS DETAILED, SPECIFIED OR AS REQUIRED BY THE JURISDICTIONAL REGULATORY AGENCIES, WHICHEVER REQUIREMENT IS MORE STRINGENT.
- THE SHOWN LOCATIONS OF RIGHTS-OF-WAY AND UTILITIES ARE APPROXIMATE. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO EXACTLY LOCATE ALL RIGHTS-OF-WAY AND UTILITY LINES IN THE CONSTRUCTION AREA PRIOR TO EXCAVATION. ANY DAMAGE TO ANY EXISTING UTILITY, STRUCTURE OR SERVICE SHALL BE REPAIRED, AT THE CONTRACTOR'S EXPENSE, IN A MANNER APPROVED BY THE RESPECTIVE UTILITY OWNER.
- TRAFFIC SHALL BE MAINTAINED AT ALL TIMES AS PER FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, ROADWAY AND TRAFFIC DESIGN STANDARDS AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITIONS.
- REMOVAL OF TREES GREATER THEN 4-INCH BASAL DIAMETER SHALL BE ONLY AS DIRECTED BY THE OWNER/ENGINEER. CONTRACTOR SHALL LIMIT TO A MINIMUM THE AMOUNT OF TREE REMOVAL, CLEARING AND GRUBBING REQUIRED BY TRIMMING TREES WHEREVER POSSIBLE.
- CONTRACTOR SHALL NOTIFY AND COORDINATE WITH AFFECTED PROPERTY OWNERS AND OWNER/ENGINEER ONE WEEK IN ADVANCE OF TREE CLEARING AND GRUBBING. ALL DEBRIS FROM TREE CLEARING AND GRUBBING SHALL BE REMOVED, AT THE CONTRACTOR'S EXPENSE.
- ALL ELEVATIONS SHOWN ON THESE DRAWINGS REFER TO NATIONAL GEODETIC VERTICAL DATUM (NGVD): 88 DATUM.
- THE CONTRACTOR SHALL REPLACE ALL PAVING, SODDING, STABILIZED EARTH, LANDSCAPING, DRIVEWAYS, SIDEWALKS, IRRIGATION SYSTEMS, UNDERGROUND PIPING, ETC., DISTURBED OR DAMAGED BY THE CONSTRUCTION. THE CONTRACTOR SHALL REPLACE WITH EQUAL MATERIAL OR AS DIRECTED BY THE ENGINEER.
- UNLESS OTHERWISE SPECIFIED ON THE DRAWINGS OR IN THE SPECIFICATIONS, ALL ITEMS NOTED TO BE REMOVED SHALL REMAIN THE PROPERTY OF CITY OF CLERMONT (OWNER). ALL ITEMS REMOVED SHALL BE STORED BY THE CONTRACTOR ON-SITE AS DIRECTED BY THE OWNER OR ENGINEER.



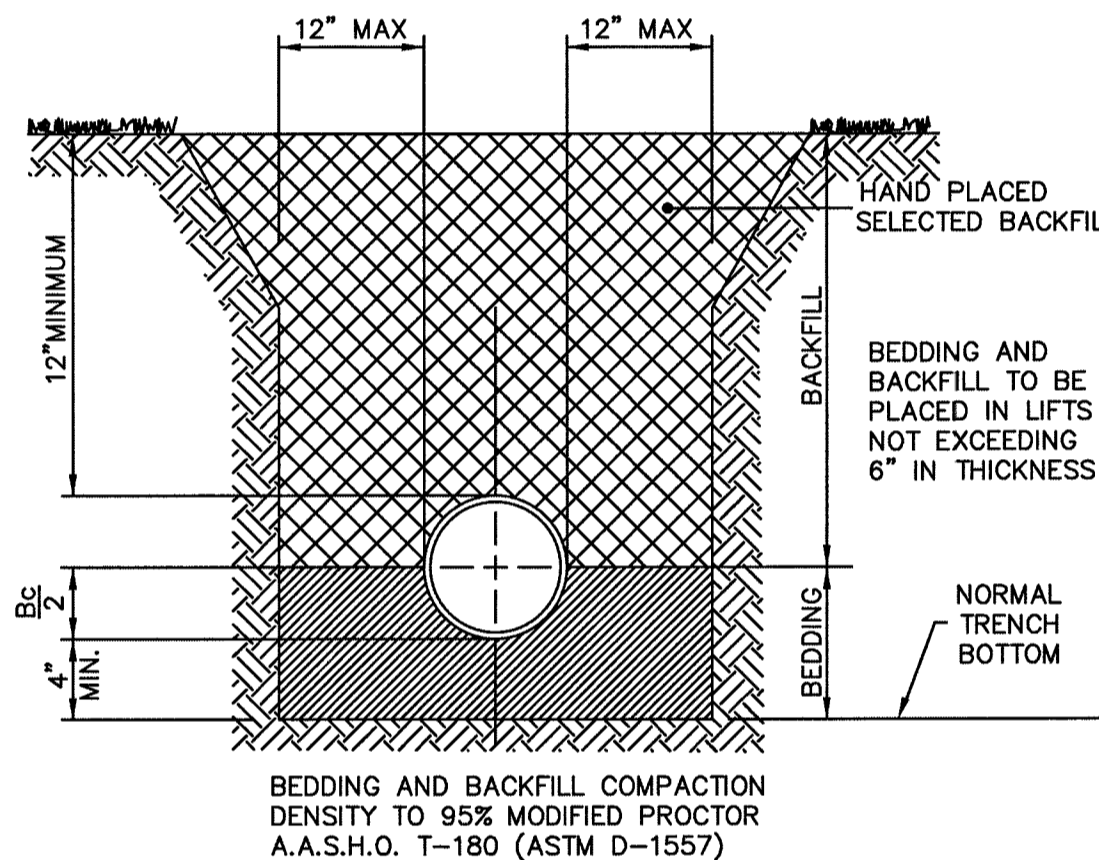
**CLASS "A" BEDDING
SPECIAL CONDITIONS**



**CLASS "B" BEDDING
NORMAL CONDITIONS**

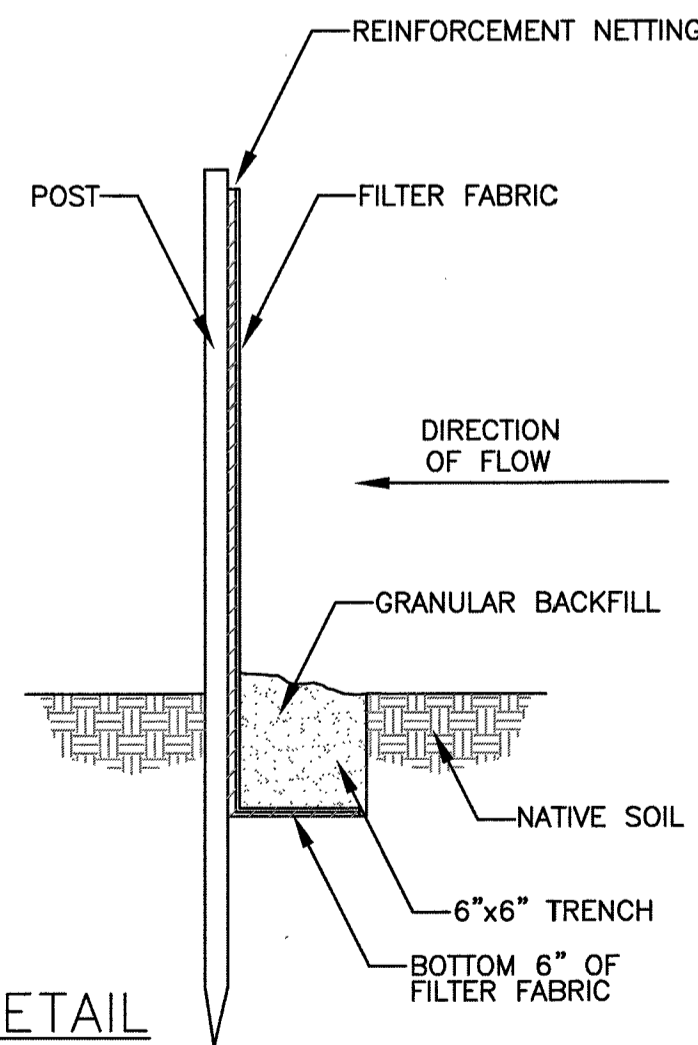
NOTES: FOR BEDDING AND TRENCHING

- Dimension Bc = Pipe O.D.
Dimension Bd = Trench Width at Top of Pipe
Maximum Bd = Bc + 30"
Minimum Bd = Maximum Dimension of Bell + 8" (Unsheeted Trench)
- Depth for removal for unsuitable material shall be as required to reach suitable foundation. For rock or other non-cushioning material, depth shall be 6" below bottom of utility.
- All backfill and select material under all roadways, drives (including dirt drives), and parking areas shall be compacted to 98% of the modified proctor maximum dry density. (AASHTO T-180). Backfill and select material under all other areas shall be compacted as follows: From bottom of trench to 12" above top of pipe - 95% of modified proctor maximum dry density (AASHTO T-180). From 12" above top of pipe to top of backfill - 90% of modified proctor maximum dry density (AASHTO T-180)

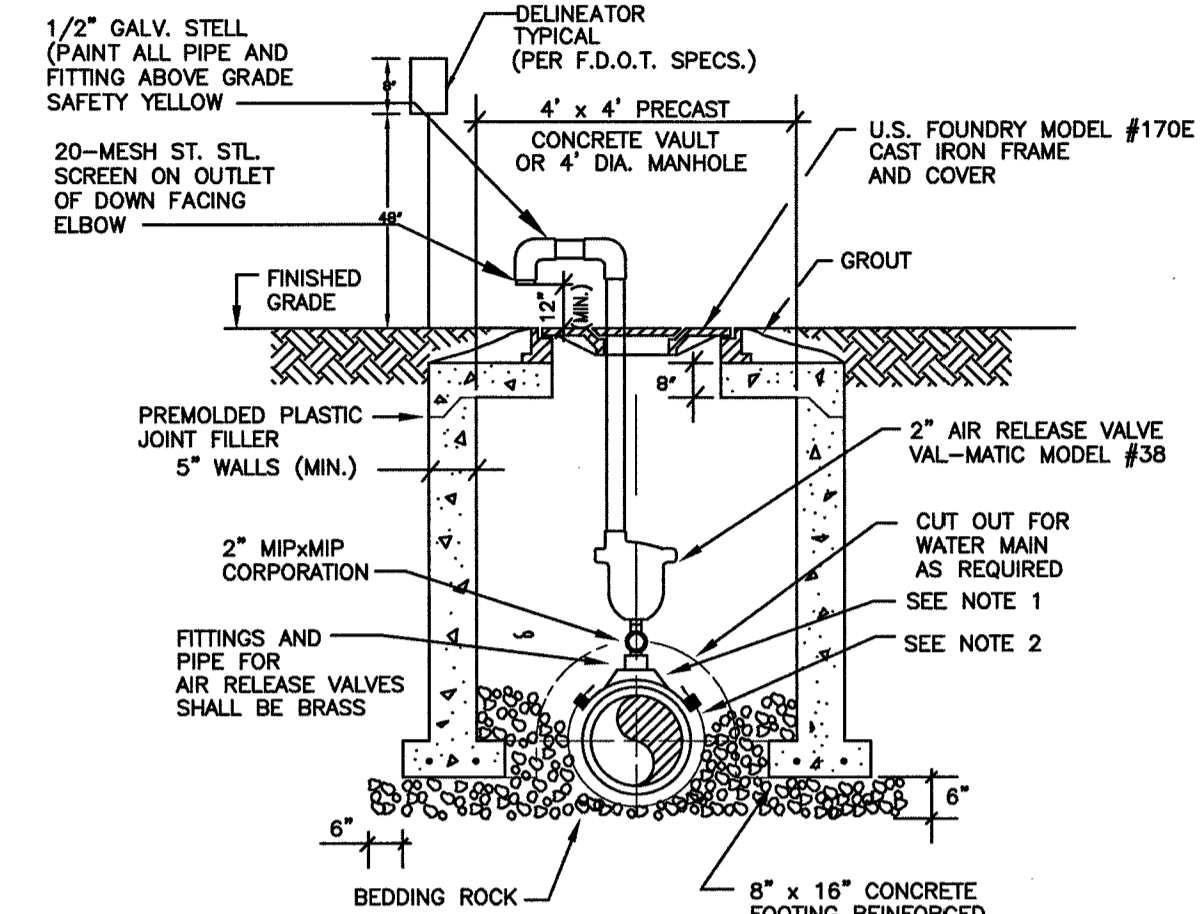


**SANITARY SEWER
PIPE BEDDING**

BEDDING DETAILS



**SILT BARRIER DETAIL
NOT TO SCALE**



- NOTES:**
- THE MINIMUM DIMENSION FROM TOP OF PIPE TO FINISHED GRADE SHALL BE 3.0 FEET.
 - DOUBLE STRAP SADDLE AND WRAP WITH TWO LAYERS OF WIDE PLASTIC OR POLY TAPE WITH STAINLESS STEEL STRAP.
 - PIPE INSTALLATION SHALL BE SUCH THAT THE VALVE IS LOCATED AT THE HIGHEST POINT IN THE RESPECTIVE SEGMENT.
 - INTERIOR AND EXTERIOR CONCRETE SURFACES SHALL RECEIVE PROTECTIVE COATING AS SPECIFIED FOR STANDARD MANHOLES.
 - CAST IRON FRAME, COVER AND ACCESS LID SHALL BE INSTALLED FLUSH WITH FINISHED GRADE.
 - COVER SHALL READ "WATER".

**AIR RELEASE VALVE AND VALVE
VAULT FOR WATER MAIN
NOT TO SCALE**

- NOTES:**
- TEMPORARY EROSION CONTROL STRUCTURE TO BE UTILIZED DURING CONSTRUCTION AT AREAS DESIGNATED BY ENGINEER OR AREAS ON-SITE WHERE UNSTABILIZED GRADES MAY CAUSE EROSION PROBLEMS. EROSION CONTROL STRUCTURE MAY BE REMOVED AFTER UPSLOPE AREA HAS BEEN STABILIZED BY SOD, OR COMPACTED AS DETERMINED BY CONTRACTOR.
 - CONSTRUCT STORMWATER SYSTEMS BEFORE ANY BUILDING OR ROAD CONSTRUCTION IS STARTED.
 - PROTECT SYSTEM FROM SILTING AND DEBRIS BY METHODS PROVIDED IN DETAILS.
 - PROTECT SWALE BOTTOM FROM SEALING BY EXCAVATING ALL SILT DEPOSITS DURING CONSTRUCTION. THIS SHALL BE DONE BEFORE SOD & SEEDING & MULCHING IS FINISHED

**EROSION CONTROL STRUCTURE
NOT TO SCALE**

THE FOLLOWING LIST REPRESENTS A BASIC EROSION AND SEDIMENT CONTROL PROGRAM WHICH IS TO BE IMPLEMENTED TO HELP PREVENT OFF-SITE SEDIMENTATION DURING AND AFTER CONSTRUCTION OF THE PROJECT.

PERMANENT EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AT THE EARLIEST PRACTICAL TIME CONSISTENT WITH GOOD CONSTRUCTION PRACTICES. ONE OF THE FIRST CONSTRUCTION ACTIVITIES SHOULD BE THE PLACEMENT OF PERMANENT AND TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES AROUND THE PERIMETER OF THE PROJECT OR THE INITIAL WORK AREA TO PROTECT THE PROJECT, ADJACENT PROPERTIES AND WATER RESOURCES.

TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE COORDINATED WITH PERMANENT MEASURES TO ASSURE ECONOMIC, EFFECTIVE AND CONTINUOUS CONTROL THROUGHOUT THE CONSTRUCTION PHASE. TEMPORARY MEASURES SHALL NOT BE CONSTRUCTED FOR EXPEDIENCY IN LIEU OF PERMANENT MEASURES.

EROSION AND SEDIMENT CONTROL MEASURES SHALL BE ADEQUATELY MAINTAINED TO PERFORM THEIR INTENDED FUNCTION DURING CONSTRUCTION OF THE PROJECT.

NECESSARY REPAIRS TO BARRIERS OR REPLACEMENT OF BARRIERS SHALL BE ACCOMPLISHED PROMPTLY.

SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH RAINFALL. THEY MUST BE REMOVED WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.

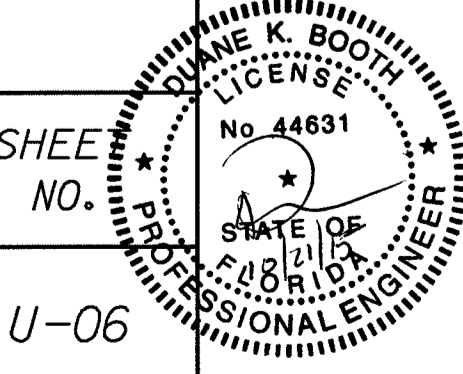
MATERIAL FROM SEDIMENT TRAPS SHALL NOT BE STOCKPILED OR DISPOSED OF IN A MANNER WHICH MAKES THEM READILY SUSCEPTIBLE TO BEING WASHED INTO ANY WATERCOURSE BY RUNOFF OR HIGH WATER.

ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE BARRIERS ARE NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.

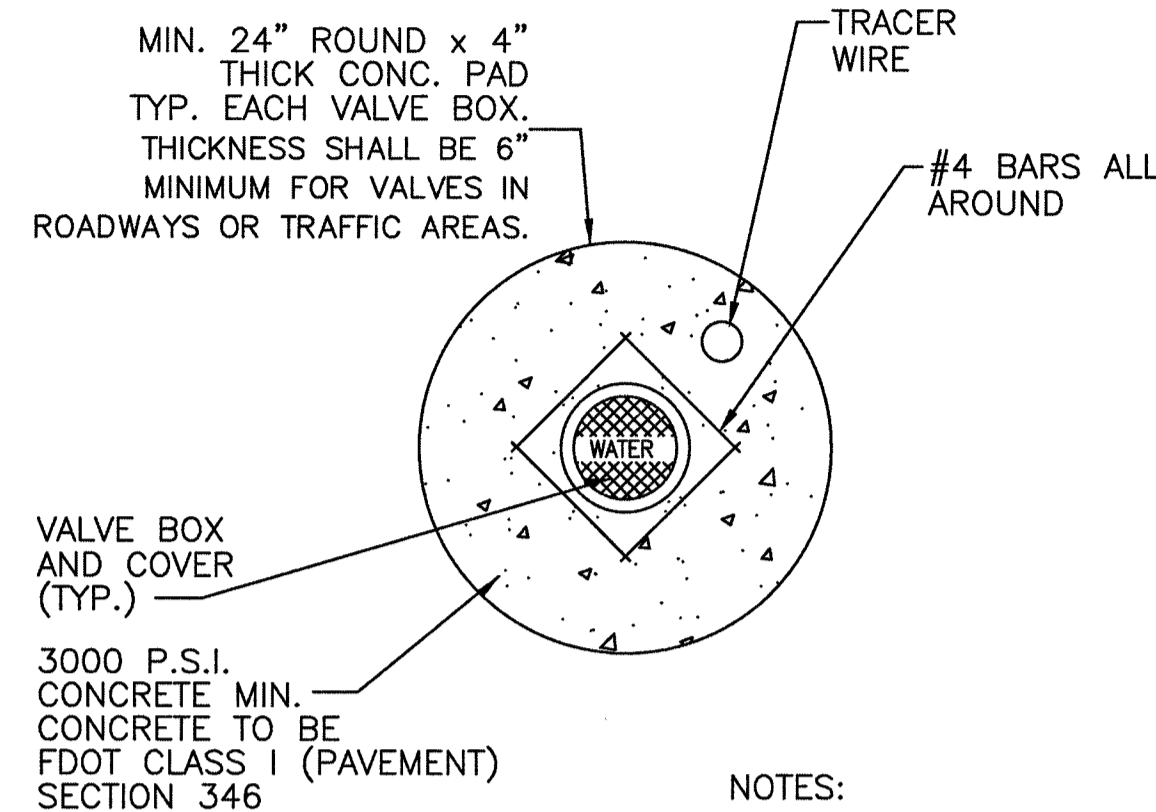
REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION



CITY OF FRUITLAND PARK
C.R. 466A-PH.1
GENERAL NOTES & DETAILS

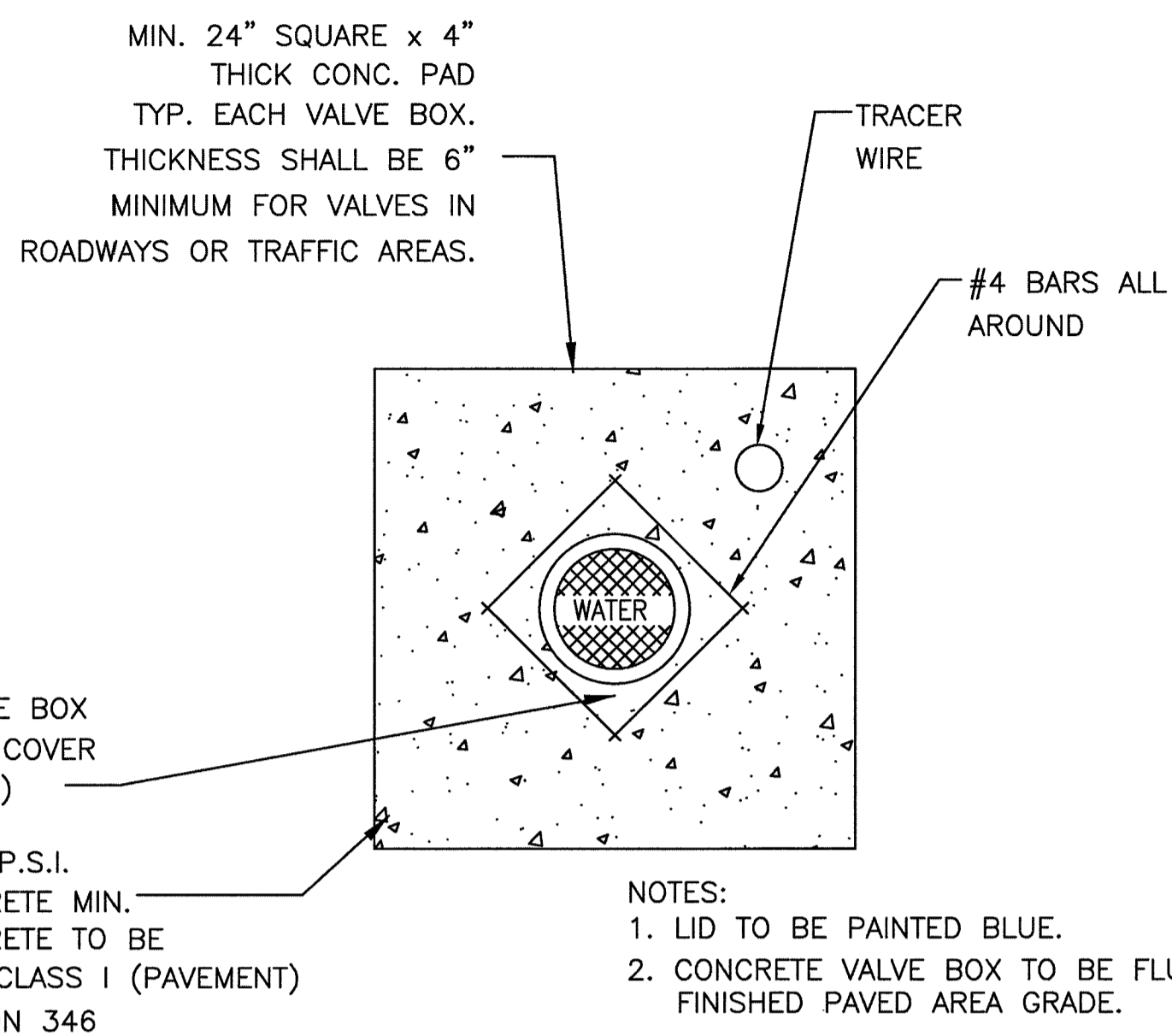


SHEET NO. U-06



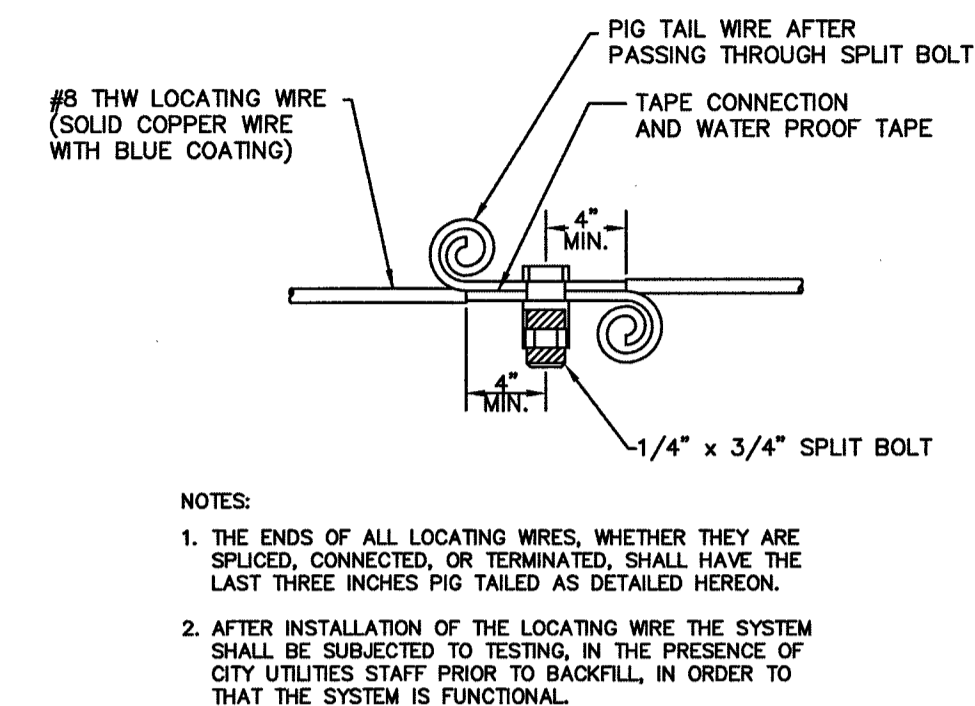
ROUND VALVE COVER FOR GRASSED AREAS

NOT TO SCALE



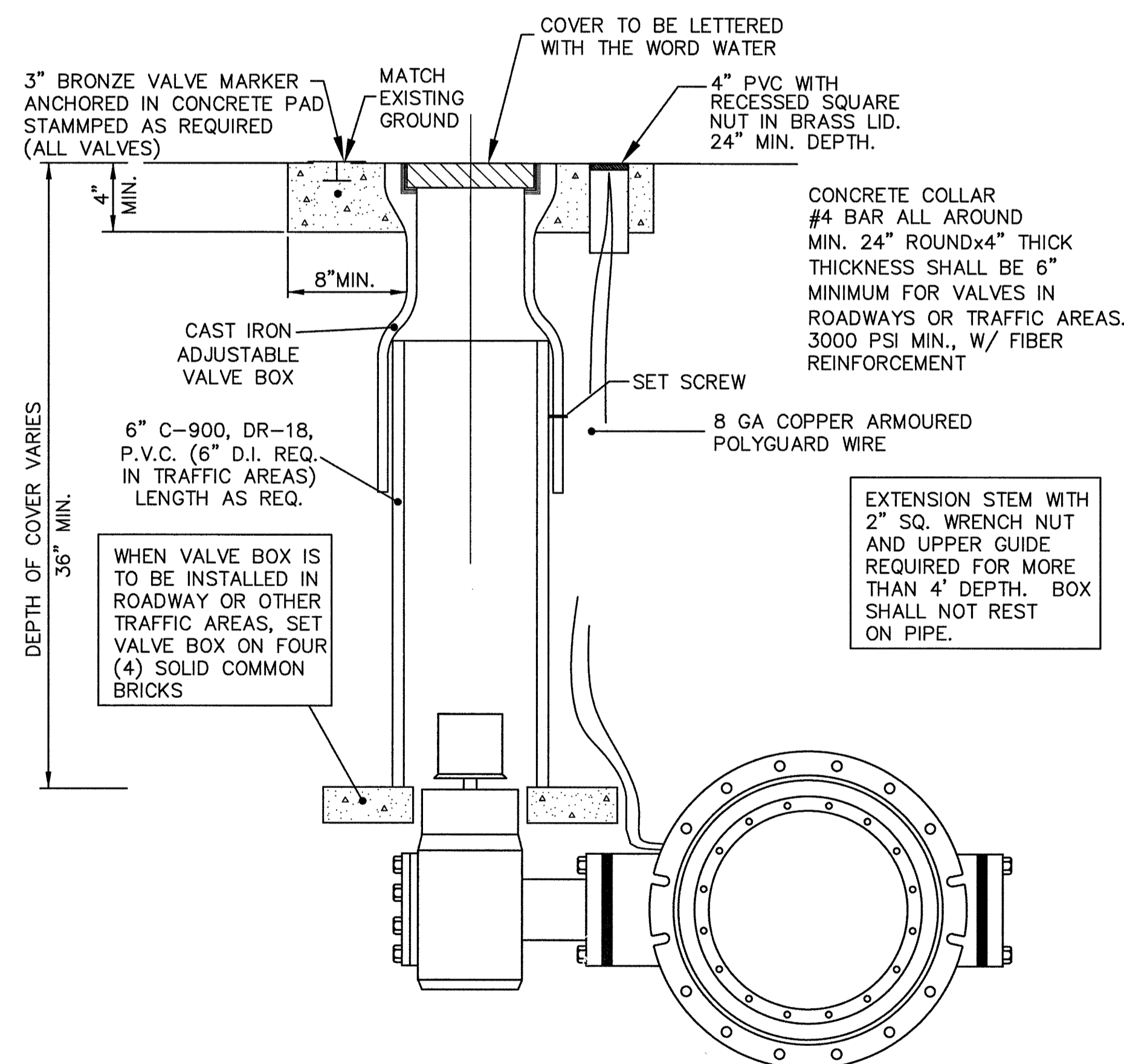
SQUARE VALVE COVER FOR PAVED AREAS

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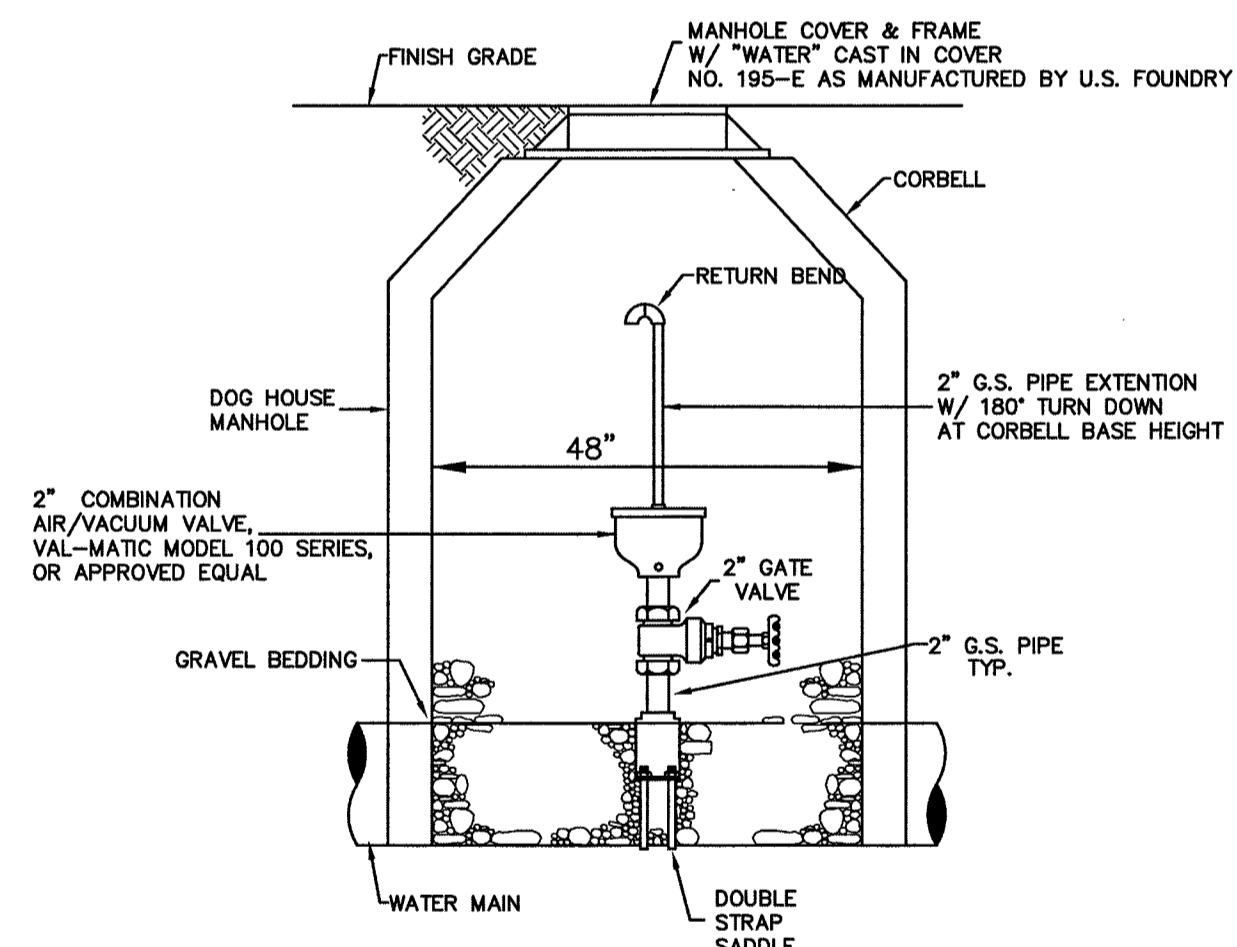
LOCATING WIRE SPLICING

NOT TO SCALE



BUTTERFLY VALVE & BOX

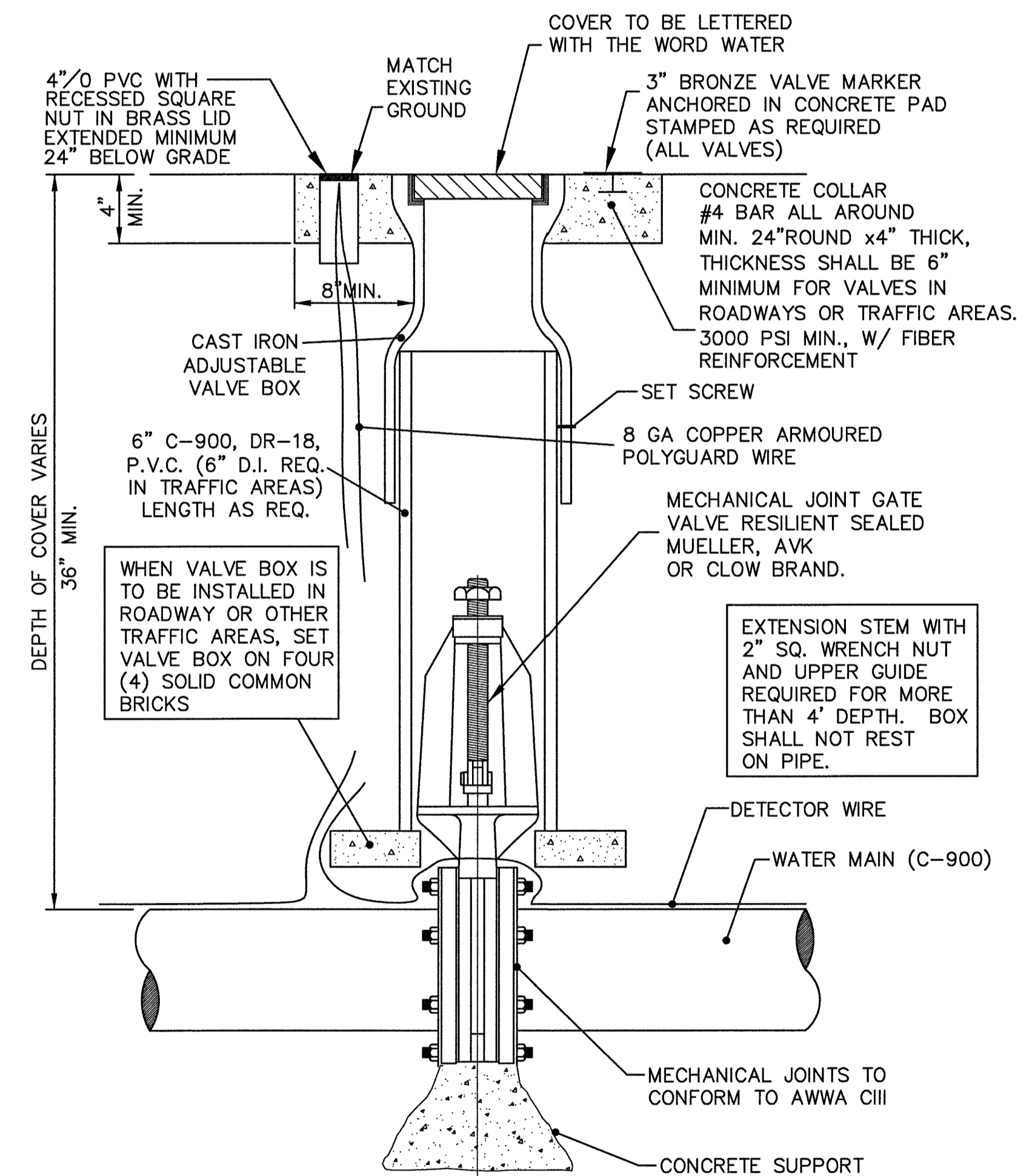
NOT TO SCALE



COMBINATION AIR RELEASE & AIR / VACUUM VALVE FOR WATER MAINS

NOT TO SCALE

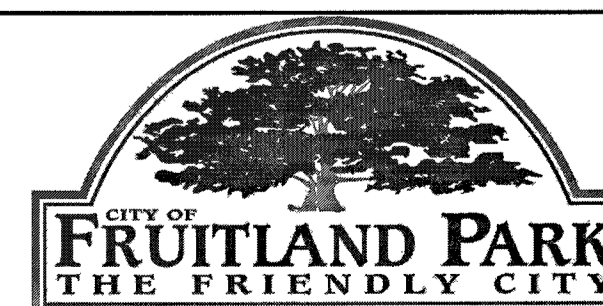
- NOTES:
1. THE MINIMUM DIMENSION FROM TOP OF PIPE TO FINISHED GRADE SHALL BE 3.0 FEET.
 2. DOUBLE STRAP SADDLE AND WRAP WITH TWO LAYERS OF WIDE PLASTIC OR POLY TAPE WITH STAINLESS STEEL STRAP.
 3. PIPE INSTALLATION SHALL BE SUCH THAT THE ARV IS LOCATED AT THE HIGHEST POINT IN THE RESPECTIVE SEGMENT.
 4. INTERIOR AND EXTERIOR CONCRETE SURFACES SHALL RECEIVE PROTECTIVE COATING AS SPECIFIED FOR STANDARD MANHOLES.
 5. CAST IRON FRAME, COVER AND ACCESS LID SHALL BE INSTALLED FLUSH WITH FINISHED GRADE.
 6. COVER SHALL READ "WATER".



GATE VALVE & BOX

NOT TO SCALE

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION



CITY OF FRUITLAND PARK
C.R. 466A-PH.1
POTABLE WATER DETAILS

SHEET NO. U-08

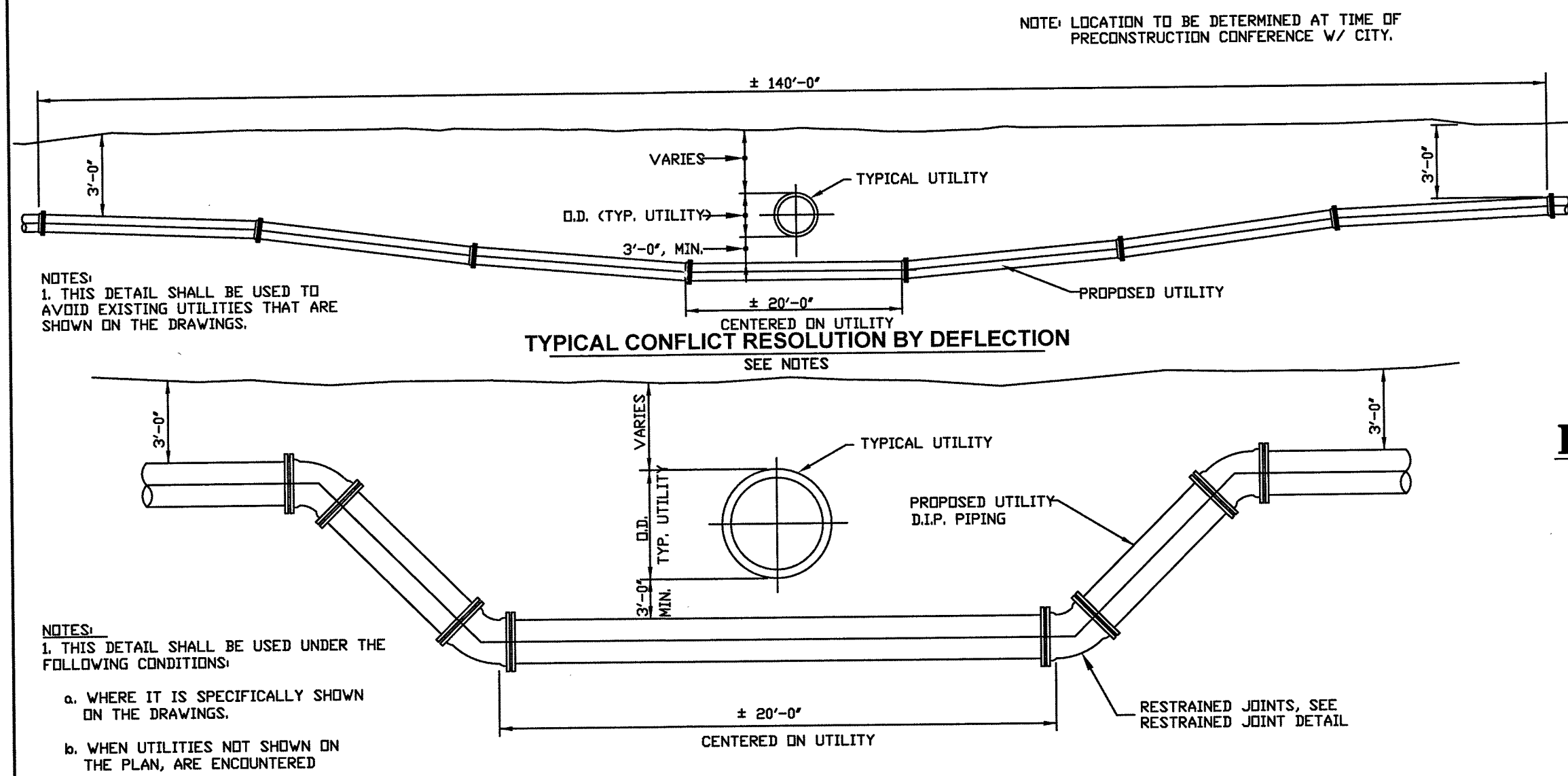
DUANE K. BOOTH
LICENSED PROFESSIONAL ENGINEER
No. 44631
STATE OF FLORIDA

SPH

8-6-2015

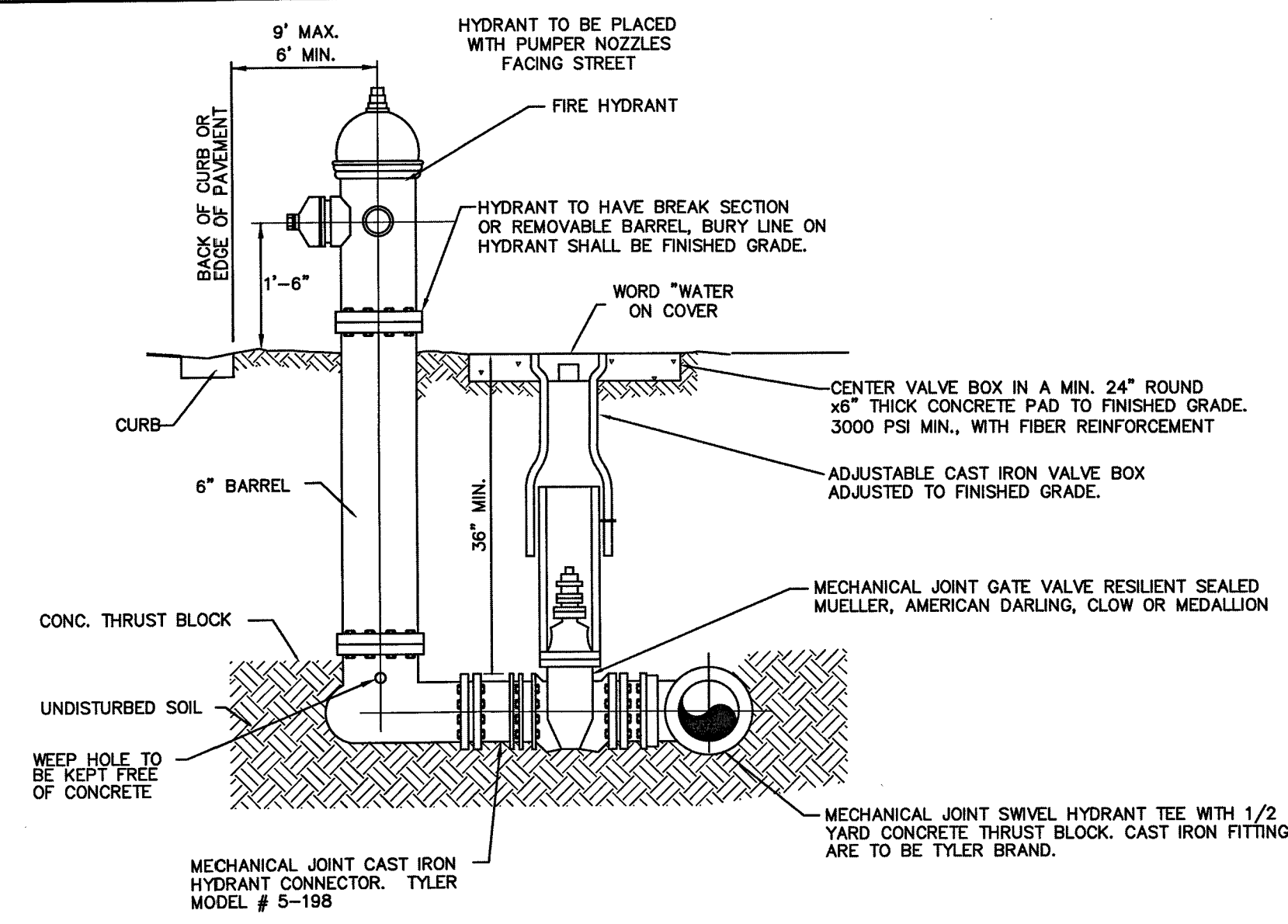
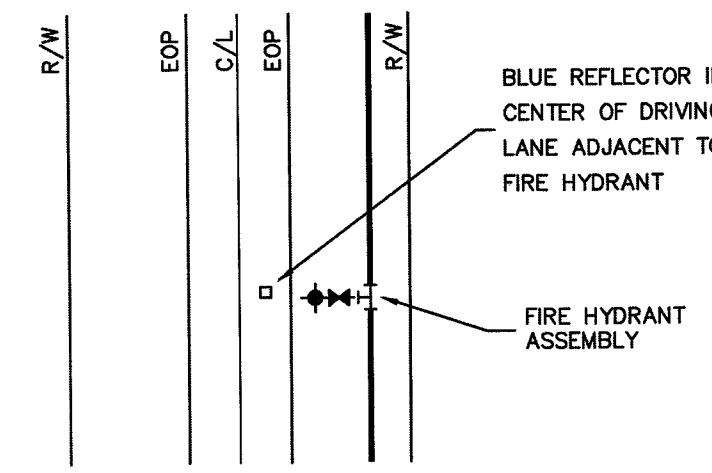
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COFPDETAILS.DWG



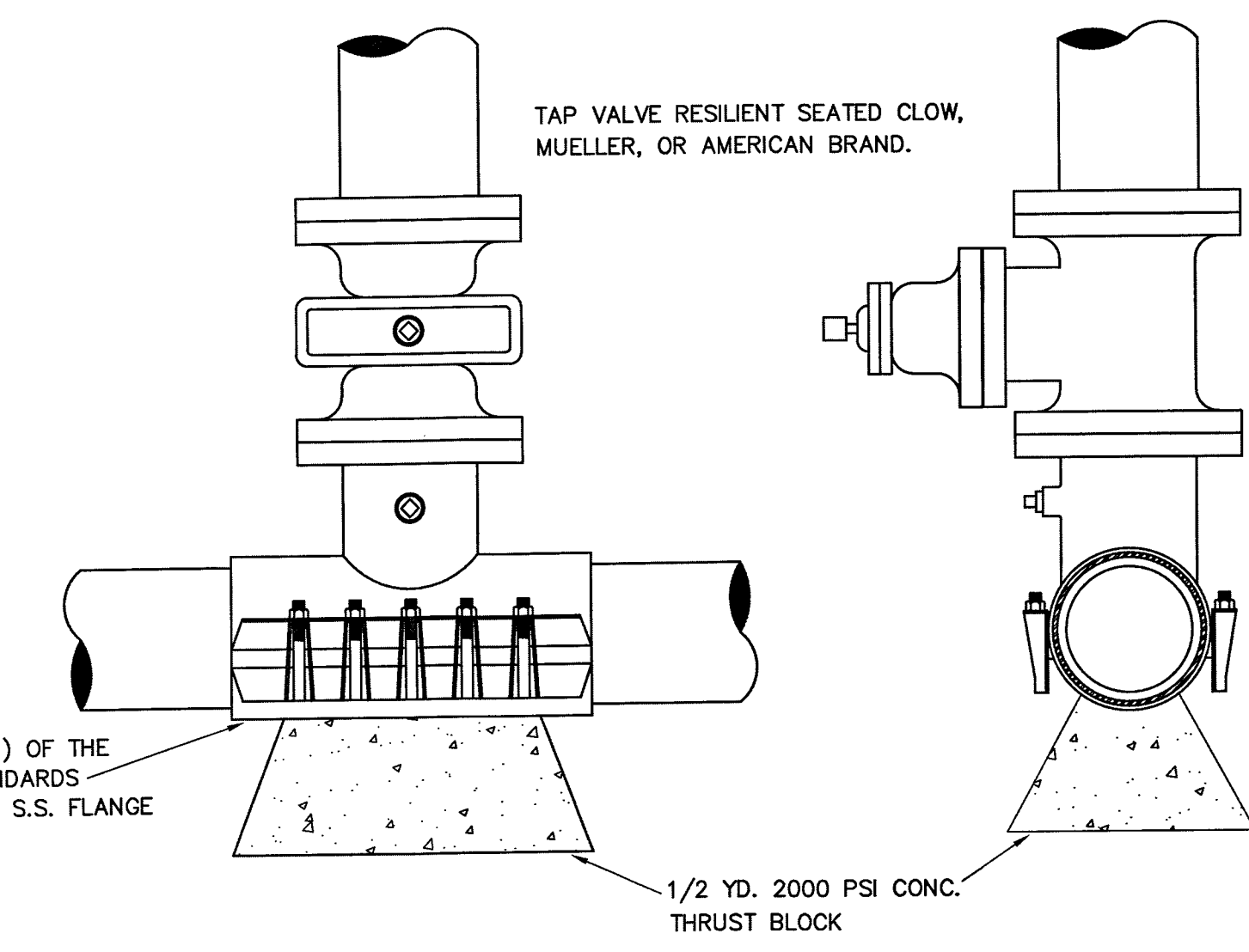
Typical Conflict Resolution By Fittings
Typical Conflict Resolution By Deflection Or Fittings

FIRE HYDRANT REFLECTOR DETAIL

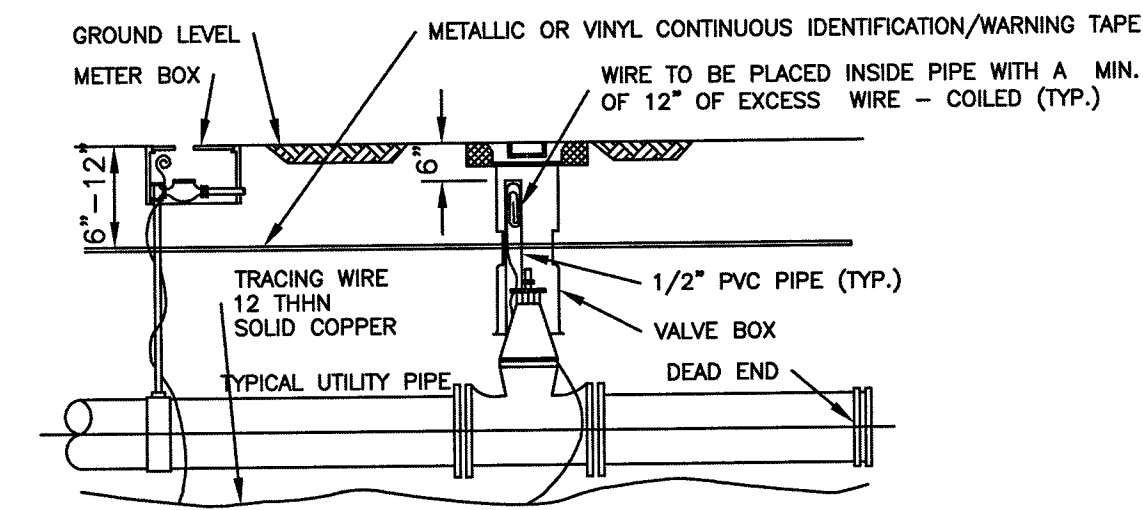
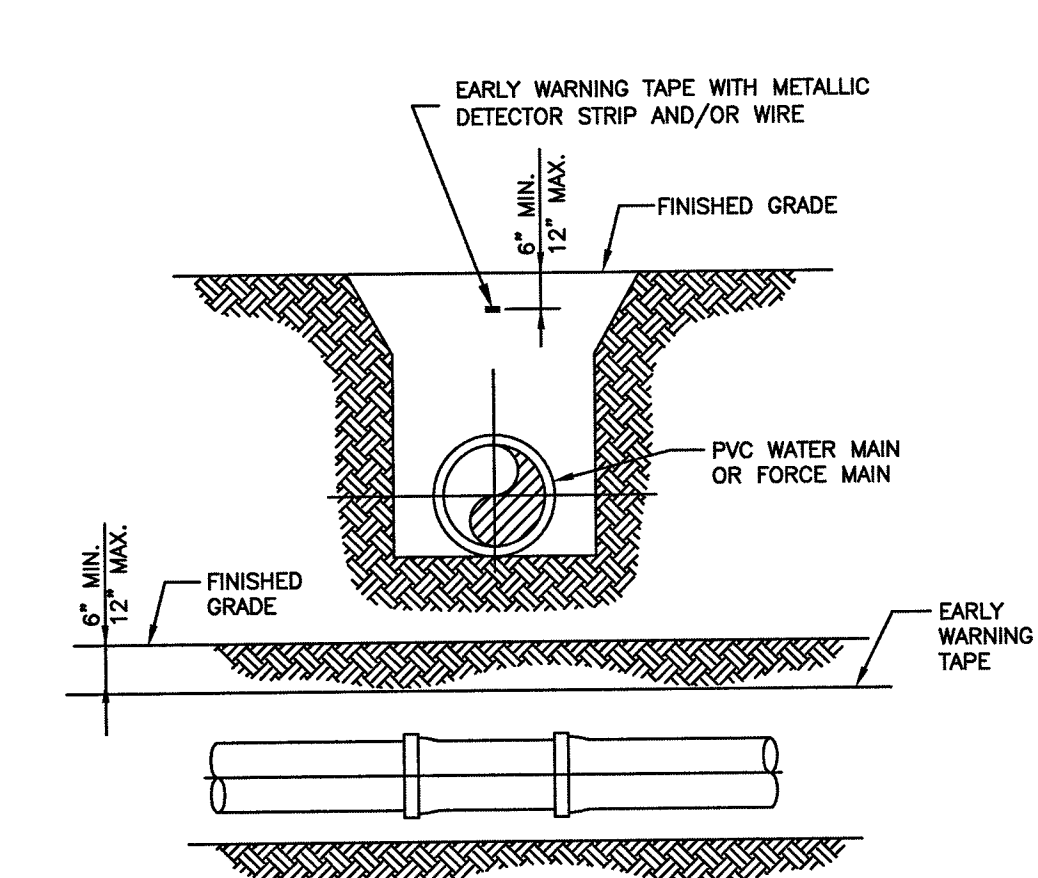


FIRE HYDRANT WITH VALVE
 (STANDARD FIRE HYDRANT ASSEMBLY)

- NOTES
- AWWA SPECIFICATIONS C-502
 - TWO 2-1/2" HOSE NOZZLE DISCHARGE
 - ONE 4-1/2" PUMPER NOZZLE DISCHARGE
 - ONE 1-1/2" OPERATING NUT, LEFT
 - APPLY TWO COATS OF SHERWIN WILLIAMS RED (SHERWIN WILLIAMS #B54R38) FOR ALL HYDRANTS
 - HYDRANTS SHALL BE FLOW TESTED BY CONTRACTOR. COORDINATE WITH CITY ENGINEER FOR TESTING PROCEDURES.
 - ALL HYDRANTS SHALL BE EQUIPPED WITH GRADE-LOK FITTINGS TO ALLOW FOR ELEVATION ADJUSTMENTS.
 - ALL HYDRANTS SHALL BE :
 - AMERICAN DARLING
 - CLOW
 - MUELLER CENTURION
 - ALL HYDRANT ASSEMBLY JOINTS TO BE THRUST RESTRAINT JOINTS, SEE DETAIL SHEET U-65.



WET TAP SLEEVE & TAP VALVE



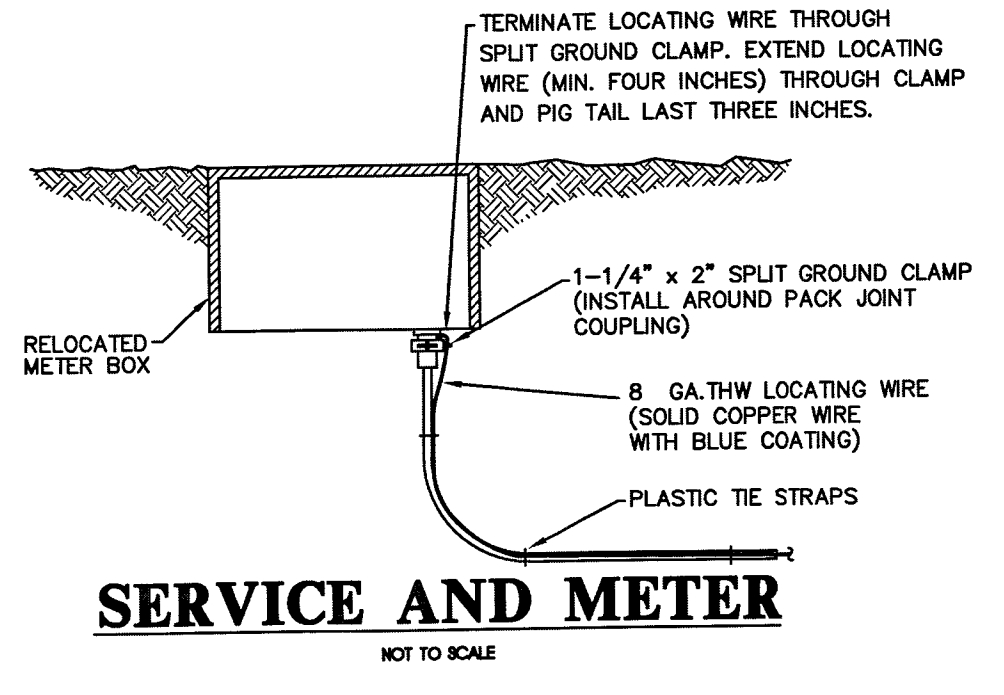
ALL PVC PIPE, OR OTHER APPROVED NONMETALLIC PIPE INSTALLED WITHIN THE AQUA UTILITIES FLORIDA'S WATER, SANITARY SEWER, OR REUSE WATER SYSTEMS, SHALL BE INSTALLED WITH 12 THIN SOLID COPPER TRACING WIRE.

THE TRACING WIRE MUST BE INSTALLED DIRECTLY BELOW THE PIPE AND BROUGHT TO THE SURFACE AT 50' MINIMUM INTERVALS. WIRE SHALL EXTEND A MINIMUM OF 12" ABOVE GRADE AT EACH INTERVAL AND BE COILED AND PLACED IN A VALVE BOX, METER BOX, MANHOLE, CLEANOUT OR OTHER APPLICABLE STRUCTURE.

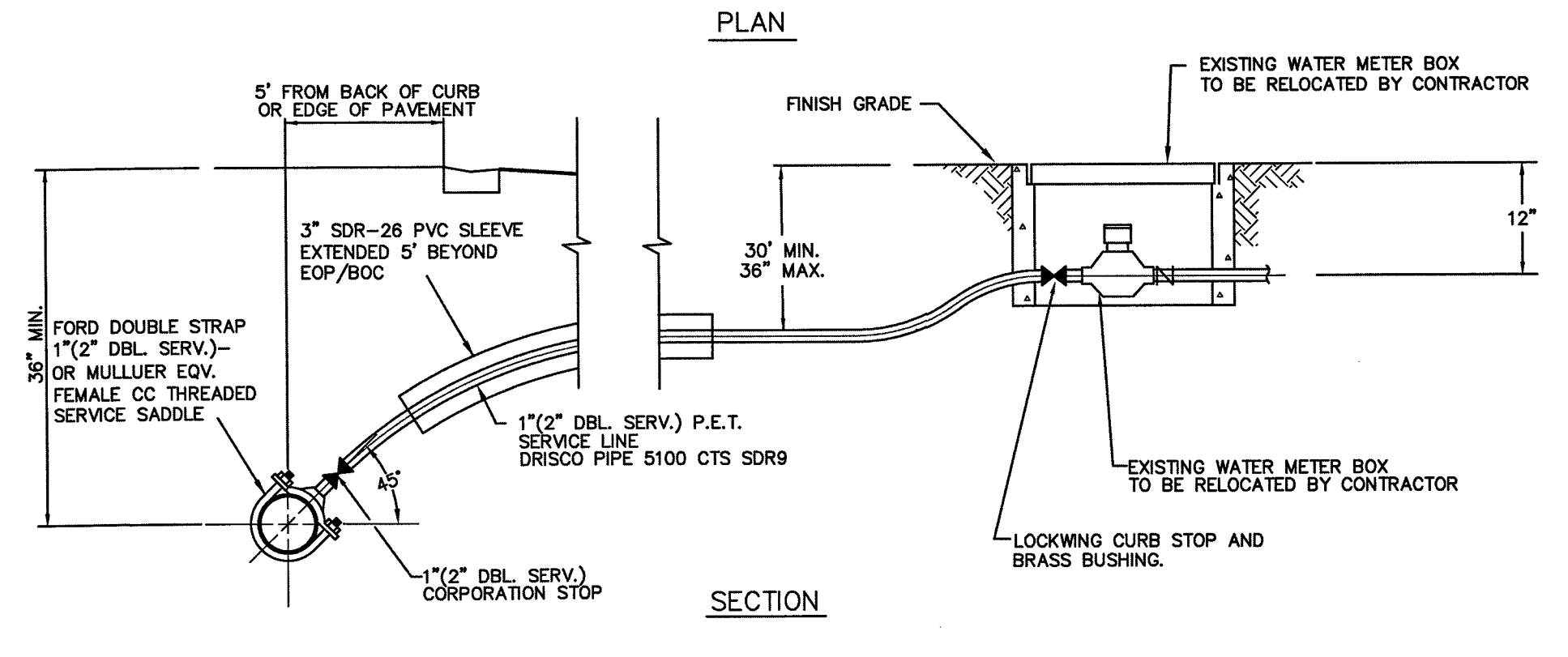
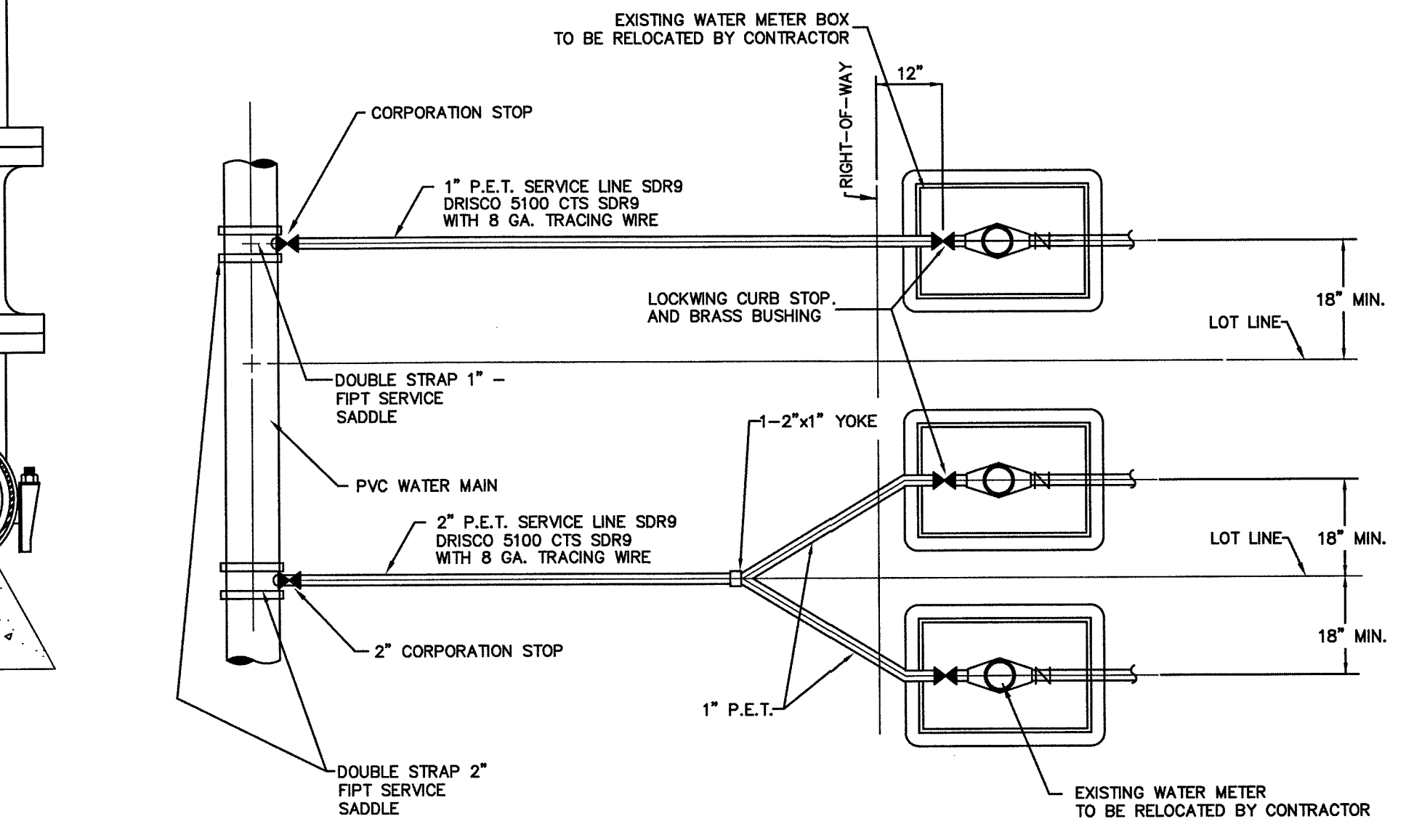
TRACING WIRE BETWEEN INTERVALS SHALL BE INSTALLED SO AS TO PROVIDE CONTINUOUS CURRENT WHEN LINE LOCATION EQUIPMENT IS CONNECTED TO THE TRACING WIRE. WIRE BRANCHING FROM MAIN LINES SHALL BE LINKED BY A FLORIDA WATER SERVICE APPROVED CONNECTOR SUCH AS KING # 2011 SAFETY COLOR CODING:

- NOTES:
- ALL MAINS INSTALLED BY OPEN CUT SHALL HAVE A "EARLY WARNING" PROTECTION TAPE AND/OR WIRE INSTALLED CONTINUOUSLY ALONG THE ALIGNMENT. THE PROTECTION TAPE SHALL BE TERRA-TAPE OR EQUAL. TAPE SHALL BE INSTALLED DURING BACKFILLING 6"-12" BELOW FINISHED GRADE DIRECTLY OVER THE PIPE AND SHALL BE CONTINUOUSLY MARKED FOR THE TYPE OF PIPE (EXAMPLE: "CAUTION, WATER MAIN BURIED BELOW"). THE TAPE SHALL HAVE A METALLIC DETECTABLE STRIP INCLUDED AND COLOR CODED AS FOLLOWS:
 - BLUE - POTABLE WATER
 - GREEN - SANITARY FORCE MAIN
 - PURPLE - EFFLUENT REUSE
 - RED - DEDICATED FIRE LINE
 - ALL PVC MAINS SHALL BE A SOLID COLOR AS DESCRIBED ABOVE.
 - ALL DUCTILE IRON MAINS SHALL BE WRAPPED WITH COLOR CODED BAGS.
 - ALL PVC POTABLE WATER PIPE SHALL BEAR THE NATIONAL SANITATION FOUNDATION (NSF) SEAL OF APPROVAL.

- POTABLE WATER SYSTEM: BLUE
 REUSE WATER SYSTEM: LAVENDER
 SANITARY SEWER FORCE AND LOW PRESSURE SEWER SYSTEMS: GREEN
- FOR LOW PRESSURE SEWER, POTABLE WATER AND REUSE WATER SYSTEMS: WIRE SHALL BE INSTALLED BELOW ALL MAINS AND SERVICE LINES AND ATTACHED TO VALVES, HYDRANTS AND FITTINGS. WIRE INSTALLED WITH SERVICE LINES SHALL CONNECT TO THE WIRE INSTALLED BELOW THE MAIN AND EXTEND TO THE CURB STOP.
 - FIRE SPRINKLER LINES: WIRE SHALL CONNECT TO THE WIRE INSTALLED BELOW THE MAIN AND EXTEND TO THE RISER CONNECTION.
 - SANITARY SEWER FORCE MAINS: WIRE SHALL BE INSTALLED BELOW THE FORCE MAIN AND ATTACHED TO ALL VALVES AND FITTINGS AND BROUGHT TO THE SURFACE AND PLACED IN A METAL, AQUA UTILITIES FLORIDA APPROVED, VALVE BOX.
 - DEAD END MAINS: WIRE SHALL BE PLACED IN A PROPERLY IDENTIFIED METAL VALVE BOX AT THE END OF THE RUN.
 - WIRE SHALL NOT BE FASTENED OR COILED TO VALVE OPERATING NUT.



SERVICE AND METER



WATER SERVICE CONNECTION DETAILS

(NOTE: WATER METERS AND BOXES TO BE RELOCATED BY CONTRACTOR.)

Utility Pipe Location Materials

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

DESH
 BOOTH SEN STRAUGHAN HOTTING
 ENGINEERS • SURVEYORS • LAND PLANNERS

802 North Sinclair Ave.
 Tallahassee, Florida 32378
 www.bsenrhd.com
 Certificate of Authorization Number: 27029

Office: 352.243.8881
 Fax: 352.243.8495

CITY OF FRUITLAND PARK
 THE FRIENDLY CITY

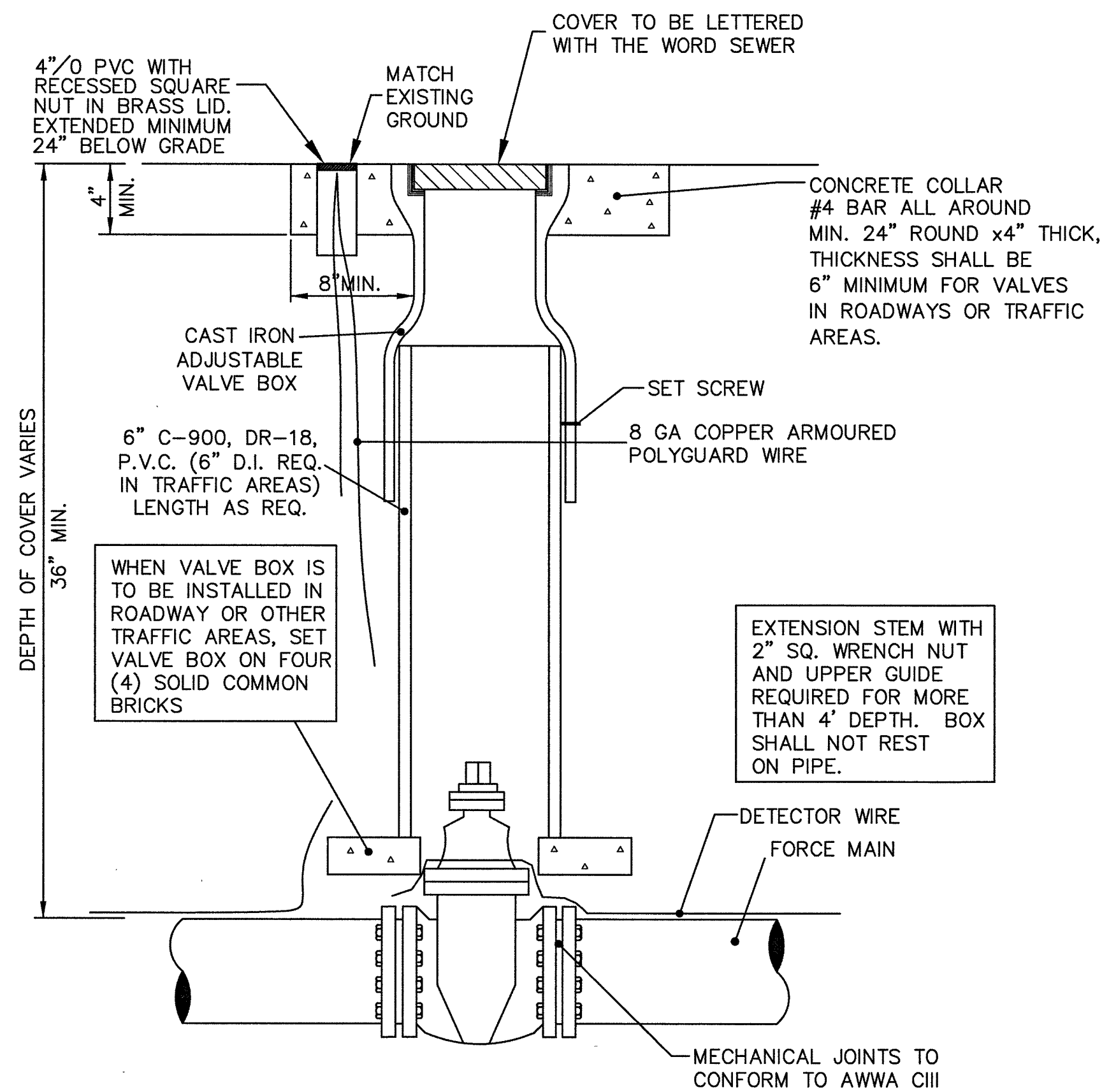
SPH

CITY OF FRUITLAND PARK
 C.R. 466A-PH.1
 POTABLE WATER DETAILS

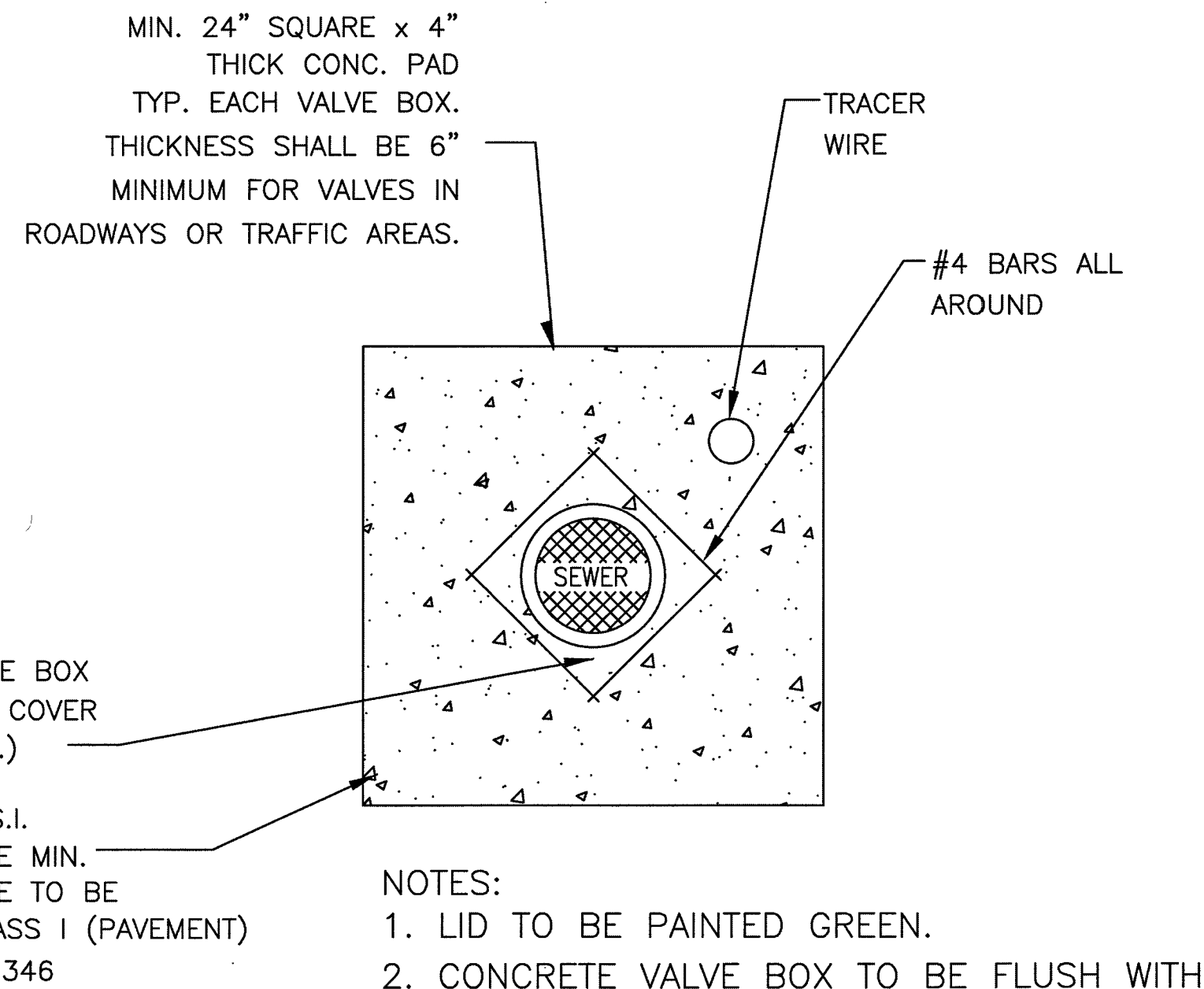
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SHEET NO. U-03

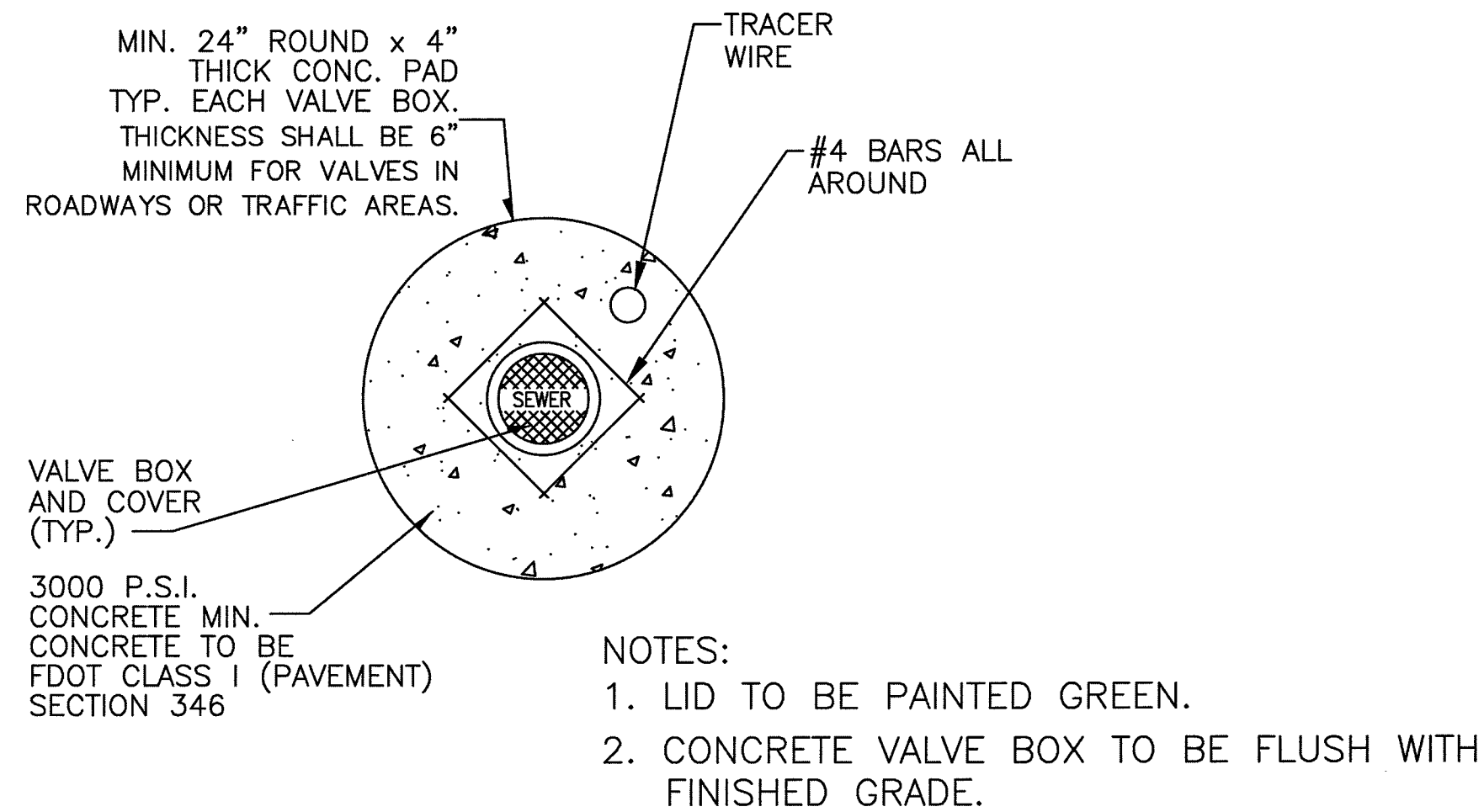
DUANE K. BOOTH
 LICENSED PROFESSIONAL ENGINEER
 No. 14887
 10/24/15
 STATE OF FLORIDA



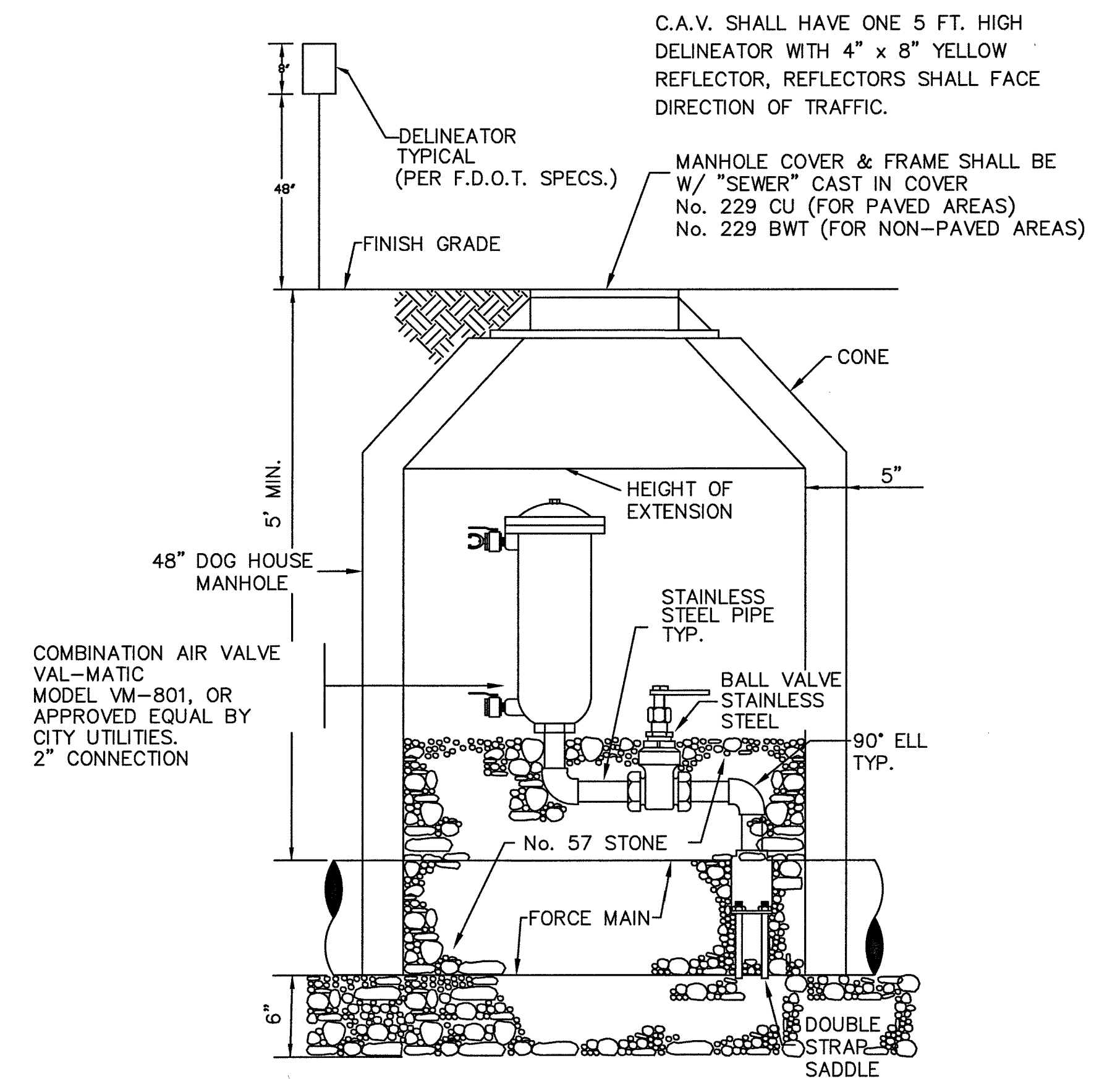
PLUG VALVE & BOX
NOT TO SCALE



SQUARE VALVE COVER FOR PAVED AREAS
NOT TO SCALE

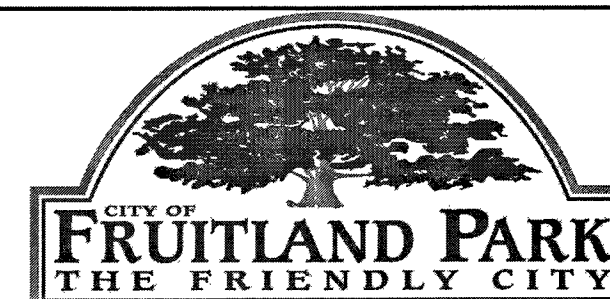


ROUND VALVE COVER FOR GRASSED AREAS
NOT TO SCALE



COMBINATION AIR VALVE FOR FORCE MAINS
NOT TO SCALE

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION



CITY OF FRUITLAND PARK
C.R. 466A-PH.1
SANITARY DETAILS

