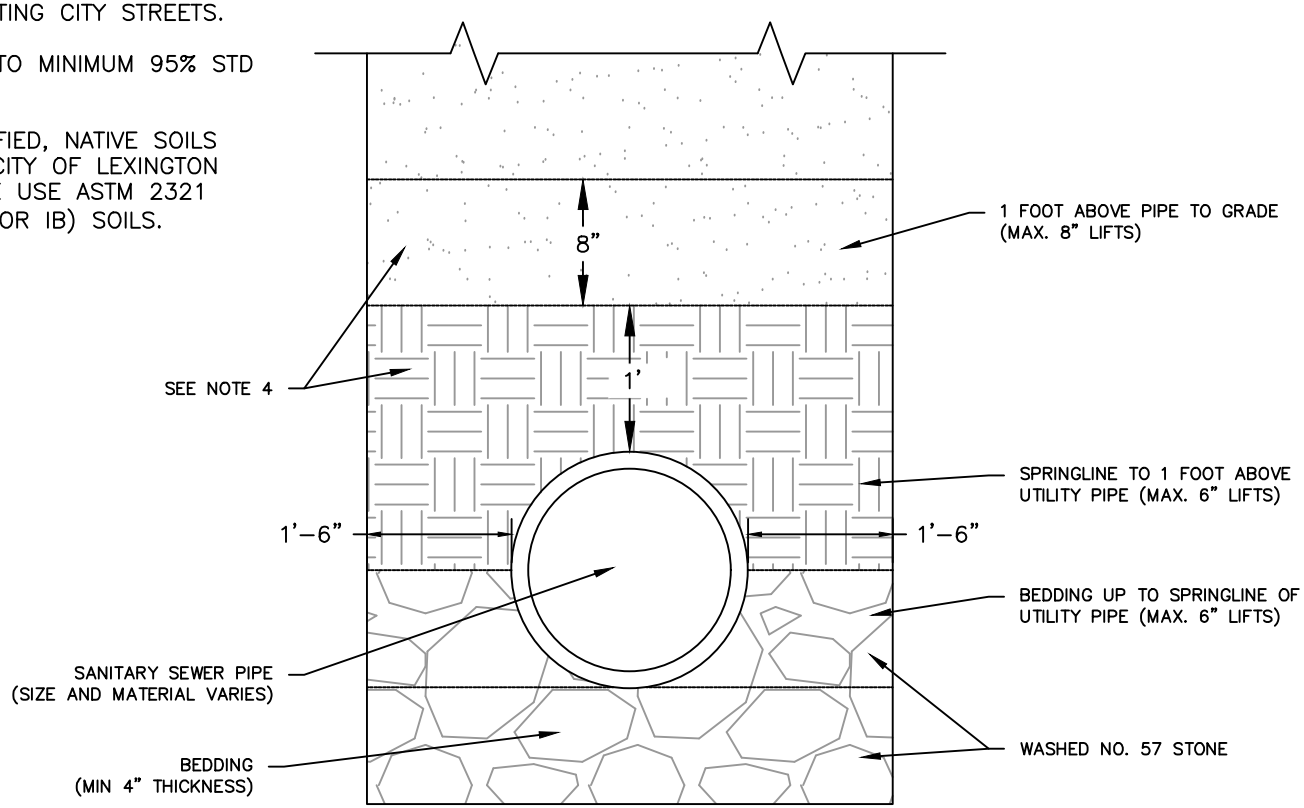
NOTES:

1. PIPES LARGER THAN 12" DIAMETER SHALL HAVE THE BEDDING MATERIAL AND THICKNESS SPECIFIED BY THE CITY ENGINEER.
2. SEE DETAIL L–100 FOR ASPHALT REPAIR REQUIREMENTS FOR SEWER INSTALLATION WITHIN EXISTING CITY STREETS.
3. ALL BACKFILL SHALL BE COMPACTED TO MINIMUM 95% STD PROCTOR DENSITY.
4. WHEN BACKFILL MATERIAL IS UNSPECIFIED, NATIVE SOILS MAY BE USED IF APPROVED BY THE CITY OF LEXINGTON CONSTRUCTION INSPECTOR. OTHERWISE USE ASTM 2321 CLASS II OR CLASS III (OR CLASS IA OR IB) SOILS.



NOT TO SCALE

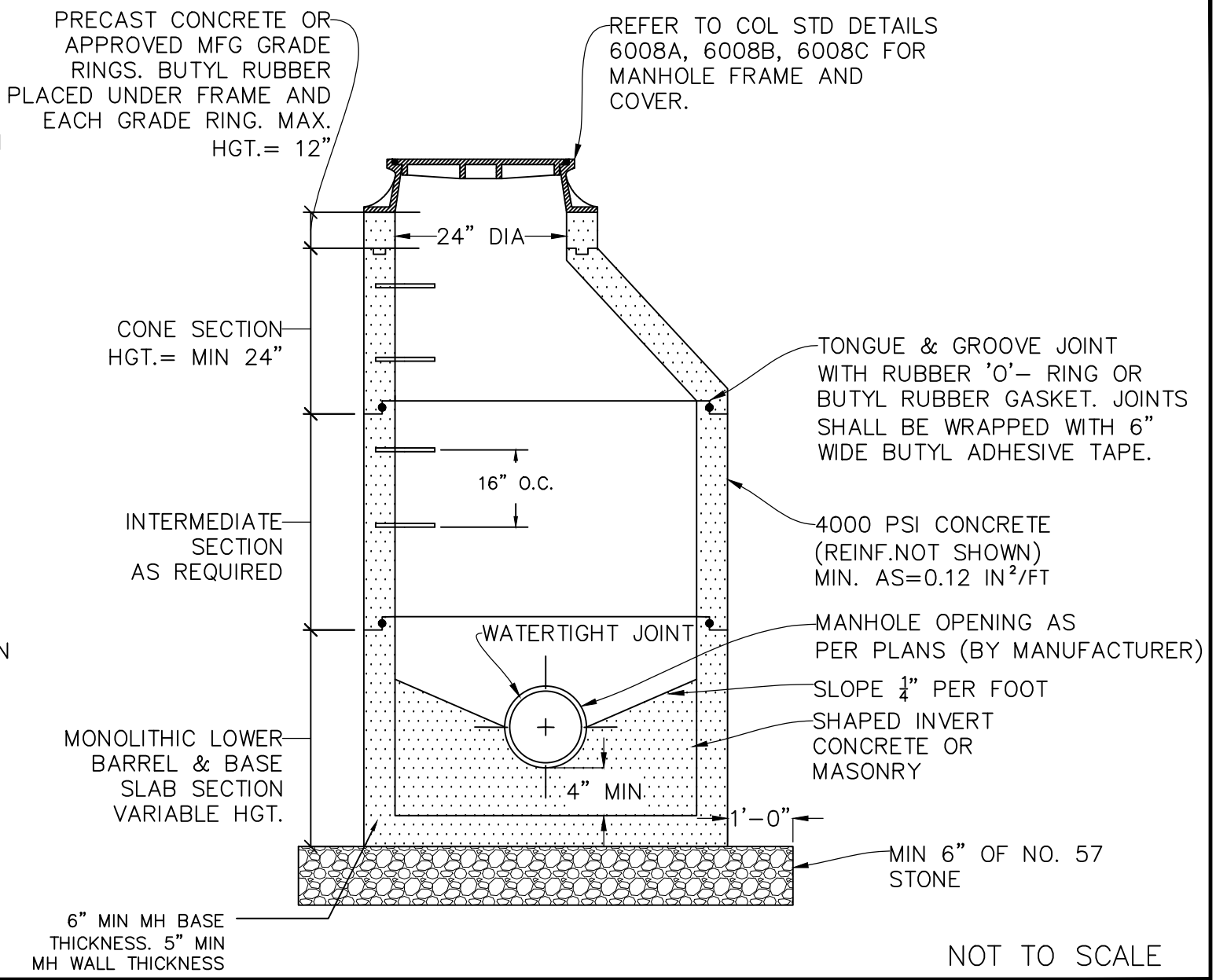
BEDDING AND BACKFILL FOR SANITARY SEWER PIPE INSTALLATION

REV.	STD. NO.
1	6001

CITY OF LEXINGTON
INFRASTRUCTURE
DEVELOPMENT STANDARDS

NOTES:

1. PRECAST CONCRETE MANHOLES SHALL CONFORM TO ASTM C-478. ALL MANHOLES MUST CURE A MIN OF 3 DAYS PRIOR TO SHIPMENT.
2. 4' DIAMETER MANHOLE SHALL BE USED WITH PIPE DIAMETERS LESS THAN 18".
3. FOR DEAD-END MANHOLES, THE INVERT SHALL BE EXTENDED THROUGH THE MANHOLE.
4. ON THE INTERIOR OF THE MANHOLE, ALL JOINTS BETWEEN SECTIONS SHALL BE PARGED WITH NON-SHRINK GROUT.
5. TOP STEP SHALL BE INSTALLED IN CONE SECTION MAX 24" FROM TOP OF FRAME. REFER TO STD 6012.
6. FLAT TOP MANHOLES MUST BE APPROVED BY CITY ENGINEER. ALL TOP SLABS SHALL BE DESIGNED FOR H-20 WHEEL LOAD.
7. ALL LIFT HOLES SHALL BE COMPLETELY FILLED WITH NON-SHRINK GROUT AFTER MH IS SET.



NOT TO SCALE

STANDARD PRECAST MANHOLE

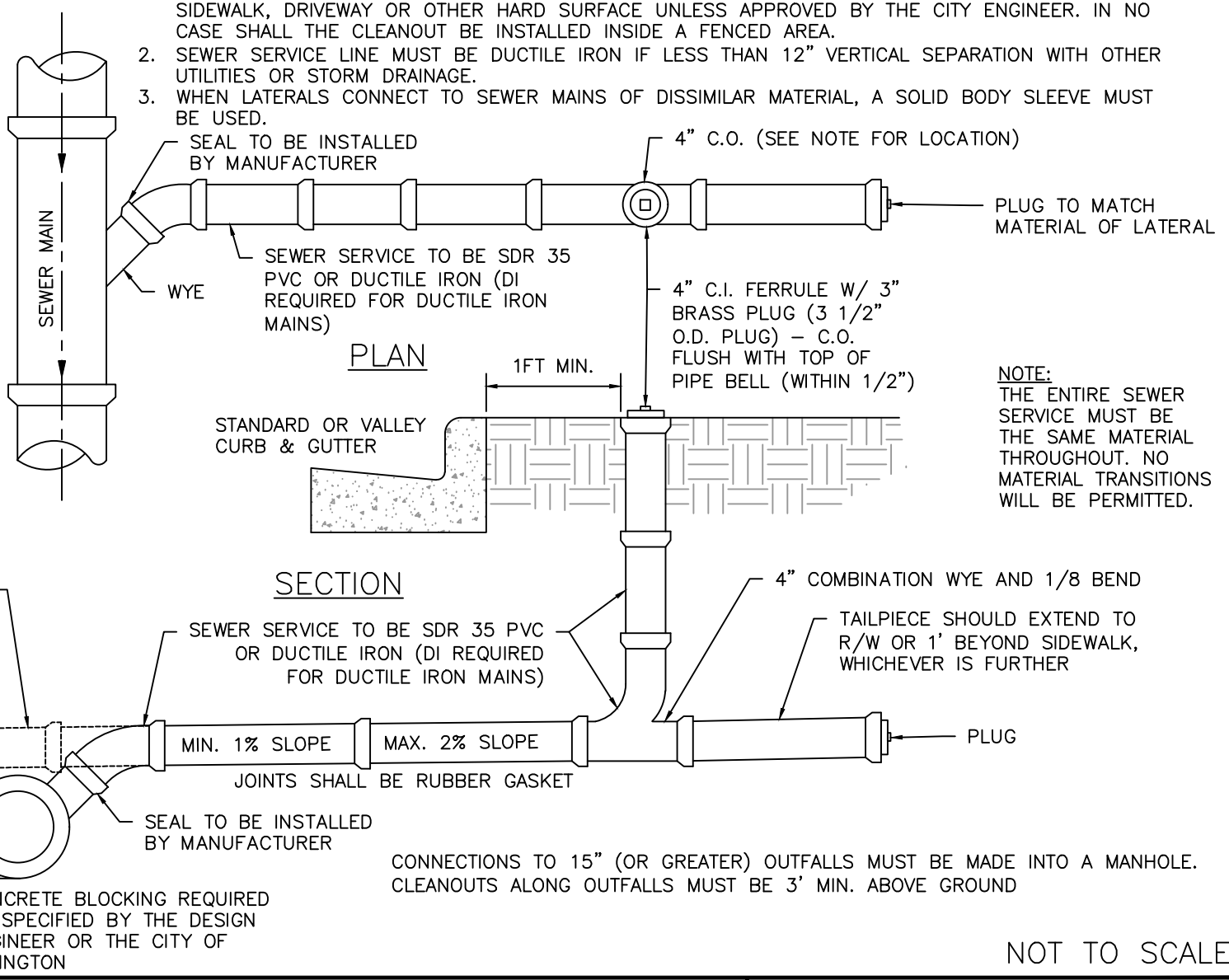
REV.	STD. NO.
1	6002

CITY OF LEXINGTON
INFRASTRUCTURE
DEVELOPMENT STANDARDS

NOTES:
1. CLEANOUT SHALL BE PLACED AS CLOSE TO THE PUBLIC RIGHTS-OF-WAY OR PUBLIC SANITARY SEWER EASEMENT BOUNDARY AS POSSIBLE. CLEANOUTS SHALL NOT BE INSTALLED WITHIN THE SIDEWALK, DRIVEWAY OR OTHER HARD SURFACE UNLESS APPROVED BY THE CITY ENGINEER. IN NO CASE SHALL THE CLEANOUT BE INSTALLED INSIDE A FENCED AREA.
2. SEWER SERVICE LINE MUST BE DUCTILE IRON IF LESS THAN 12" VERTICAL SEPARATION WITH OTHER UTILITIES OR STORM DRAINAGE.
3. WHEN LATERALS CONNECT TO SEWER MAINS OF DISSIMILAR MATERIAL, A SOLID BODY SLEEVE MUST BE USED.

THE CITY OF LEXINGTON WILL INSTALL ALL TAPS ON EXISTING MAINS UNLESS OTHERWISE APPROVED BY THE CITY.

ALL SEWER SERVICES MUST HAVE NO. 12 GAUGE SOLID COPPER TRACER WIRE INSTALLED FROM THE MAIN TO THE CLEANOUT. A (1LB MIN.) MAGNESIUM ANODE WILL BE REQUIRED AT THE TAP WHEN NO TRACER IS PRESENT ON THE EXISTING MAIN.



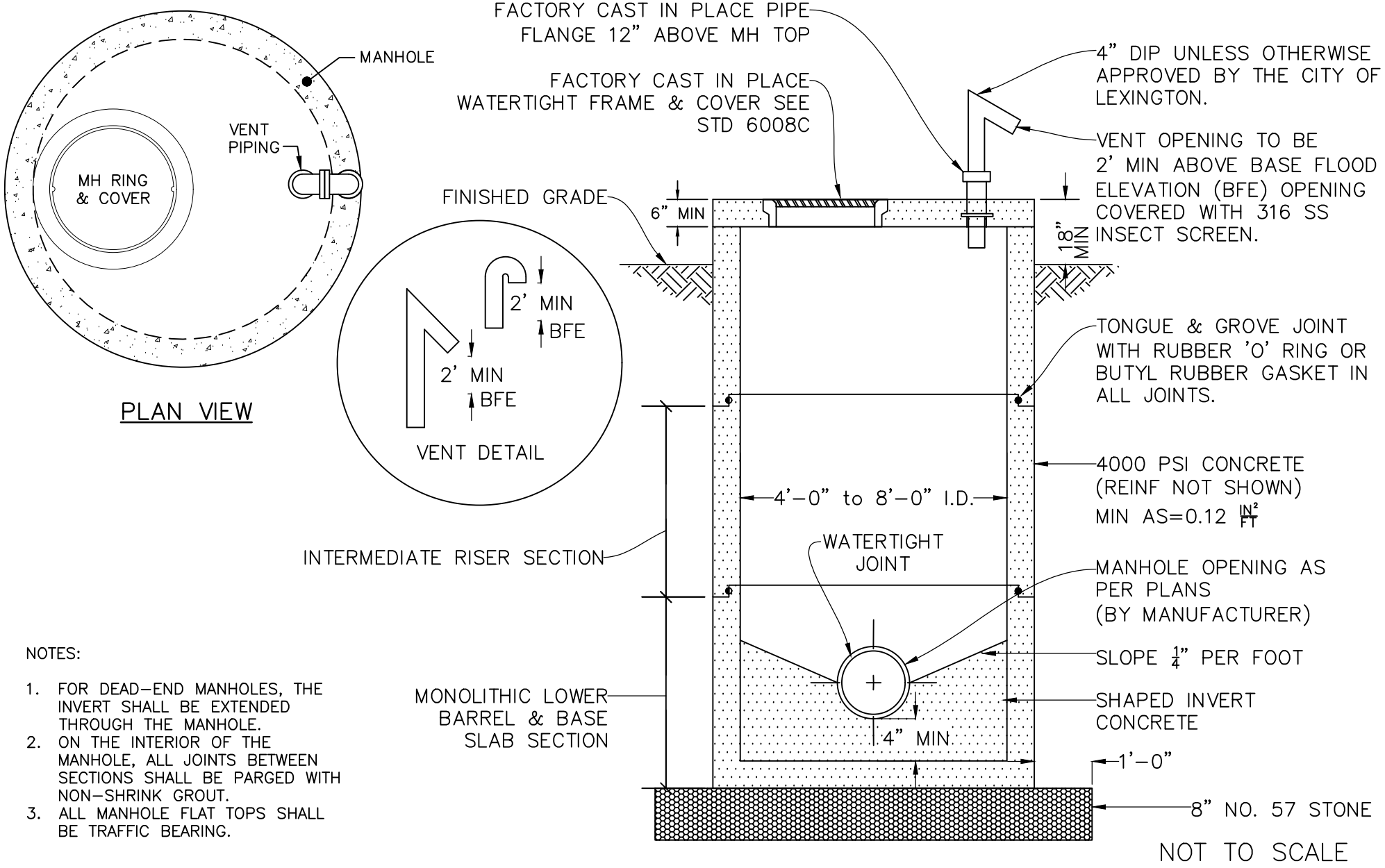
CONNECTIONS TO 15" (OR GREATER) OUTFALLS MUST BE MADE INTO A MANHOLE. CLEANOUTS ALONG OUTFALLS MUST BE 3' MIN. ABOVE GROUND

NOT TO SCALE

4-INCH SEWER SERVICE

REV.	STD. NO.
1	6003

CITY OF LEXINGTON
INFRASTRUCTURE
DEVELOPMENT STANDARDS



NOTES:

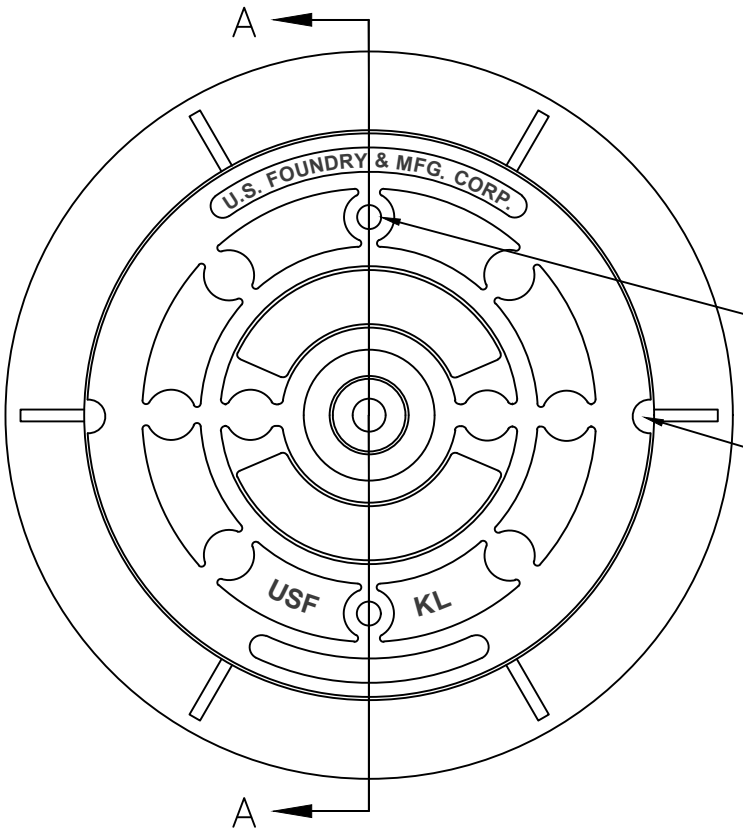
1. FOR DEAD-END MANHOLES, THE INVERT SHALL BE EXTENDED THROUGH THE MANHOLE.
2. ON THE INTERIOR OF THE MANHOLE, ALL JOINTS BETWEEN SECTIONS SHALL BE PARGED WITH NON-SHRINK GROUT.
3. ALL MANHOLE FLAT TOPS SHALL BE TRAFFIC BEARING.

NOT TO SCALE

SEALED VENTED WATER TIGHT MANHOLE

REV.	STD. NO.
1	6004

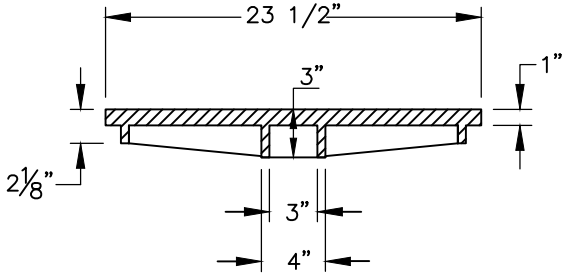
CITY OF LEXINGTON
INFRASTRUCTURE
DEVELOPMENT STANDARDS



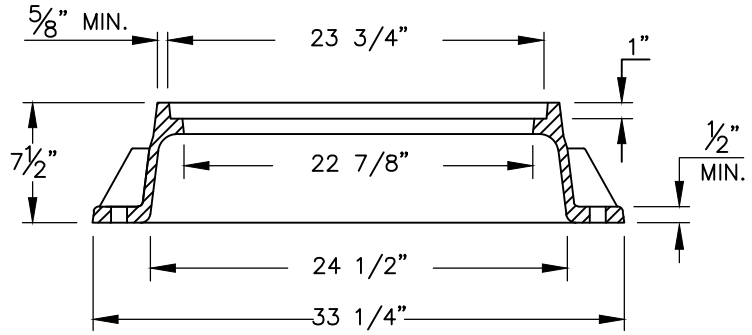
(2) 1" CORED VENT/PICK HOLES

(2) 1" NON-PENETRATING PICK HOLES

PLAN



SECTION A–A (COVER)



SECTION A–A (RING)

NOTE:
"SANITARY SEWER" OR "WATER" SHALL BE FORGED INTO COVER AS APPROPRIATE.

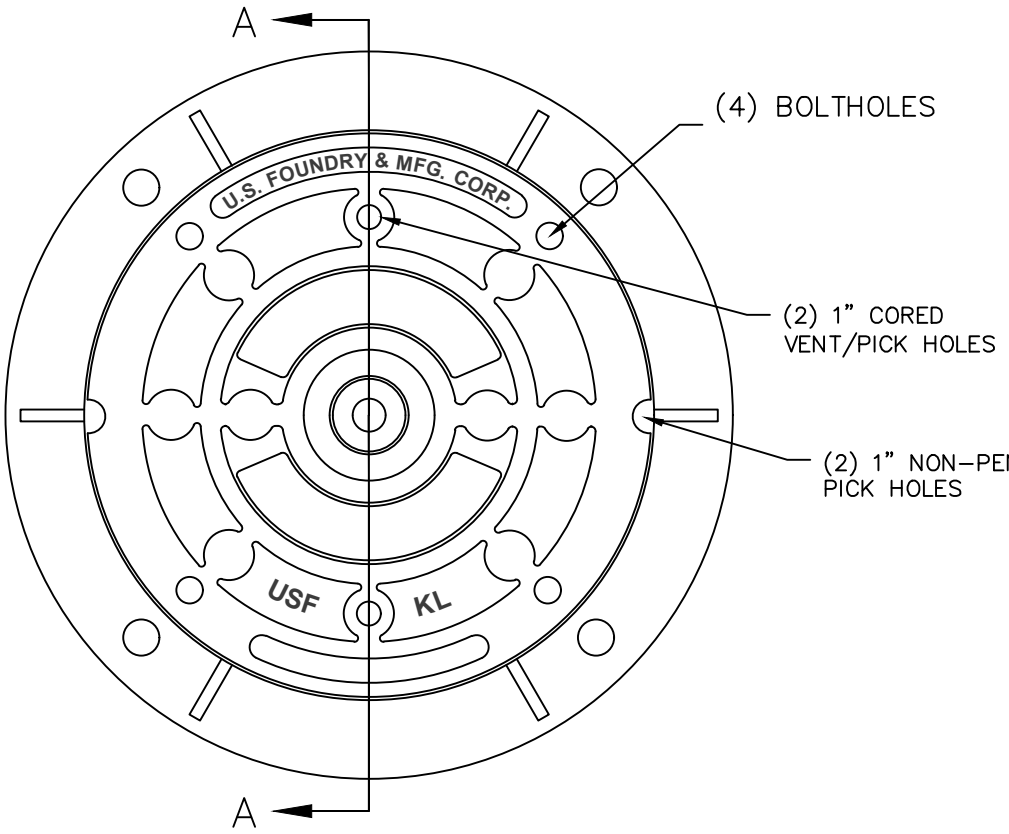
US FOUNDRY 669 RING & KL COVER OR APPROVED EQUAL.

NOT TO SCALE

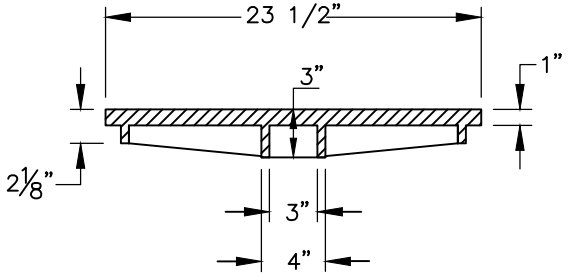
SANITARY SEWER MANHOLE RING AND COVER TYPE 1

REV.	STD. NO.
1	6008A

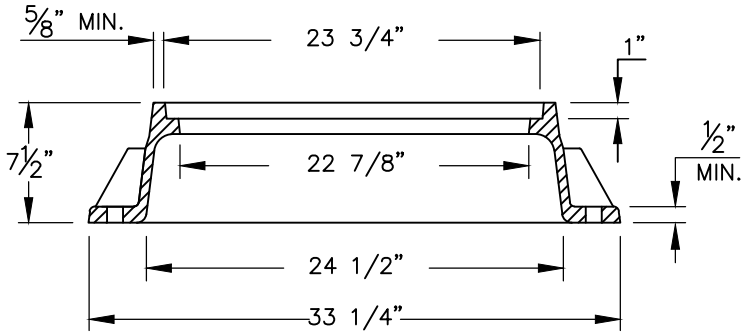
CITY OF LEXINGTON
INFRASTRUCTURE
DEVELOPMENT STANDARDS



PLAN



SECTION A–A (COVER)



SECTION A–A (RING)

NOTES:
1. "SANITARY SEWER" OR "WATER" SHALL BE FORGED INTO COVER AS APPROPRIATE.
2. FOUR (4) ½" X 2" HEXHEAD SS BOLTS (TYPE 316) TO FASTEN COVER TO RING. BOLTHEAD TO BE COUNTERSUNK INTO COVER.
3. CLEAR OPENING OF MANHOLE RING MAY BE REDUCED BY THE RECEIVING LUGS FOR THE FOUR BOLTS

US FOUNDRY 669 RING & KL COVER OR APPROVED EQUAL.

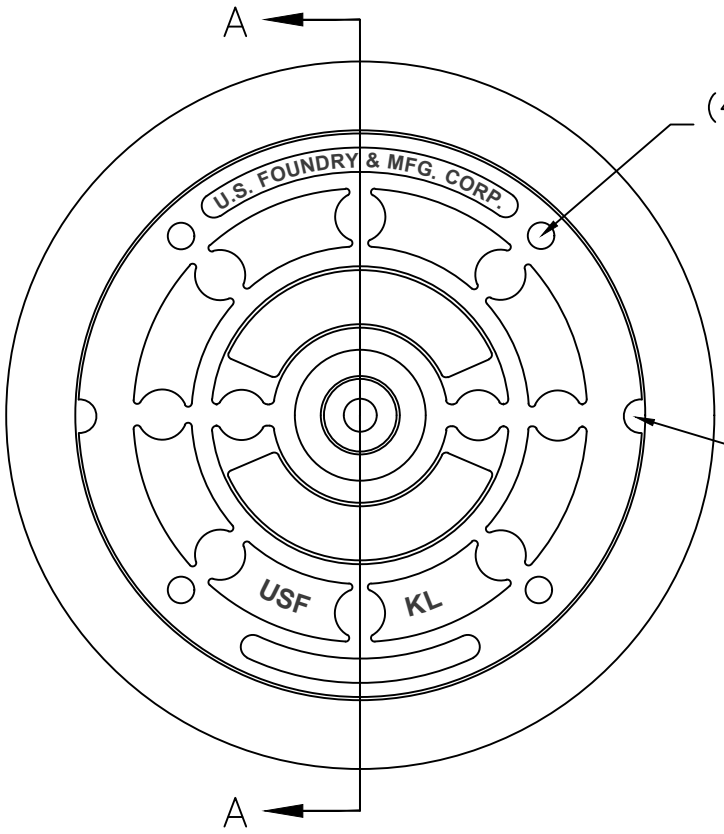
NOT TO SCALE

SANITARY SEWER MANHOLE RING AND COVER TYPE 2

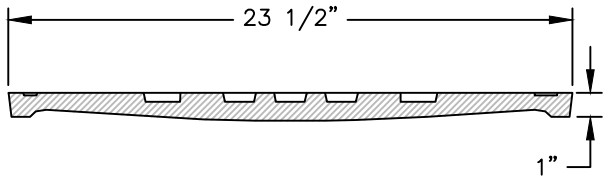
REV.	STD. NO.
1	6008B

CITY OF LEXINGTON
INFRASTRUCTURE
DEVELOPMENT STANDARDS

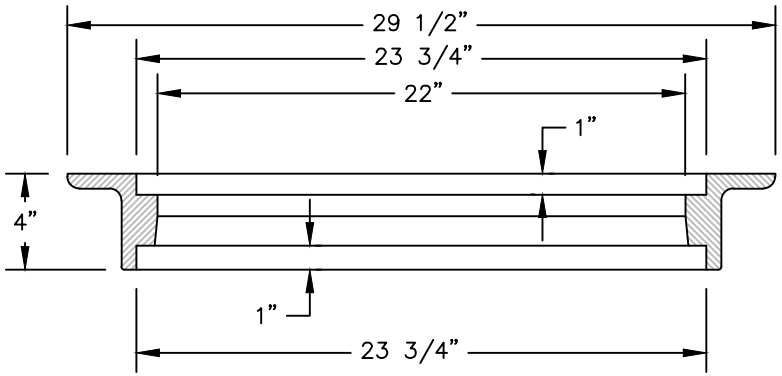
US FOUNDRY 1261 RING & KL COVER OR APPROVED EQUAL.



PLAN



SECTION A–A (COVER)



SECTION A–A (RING)

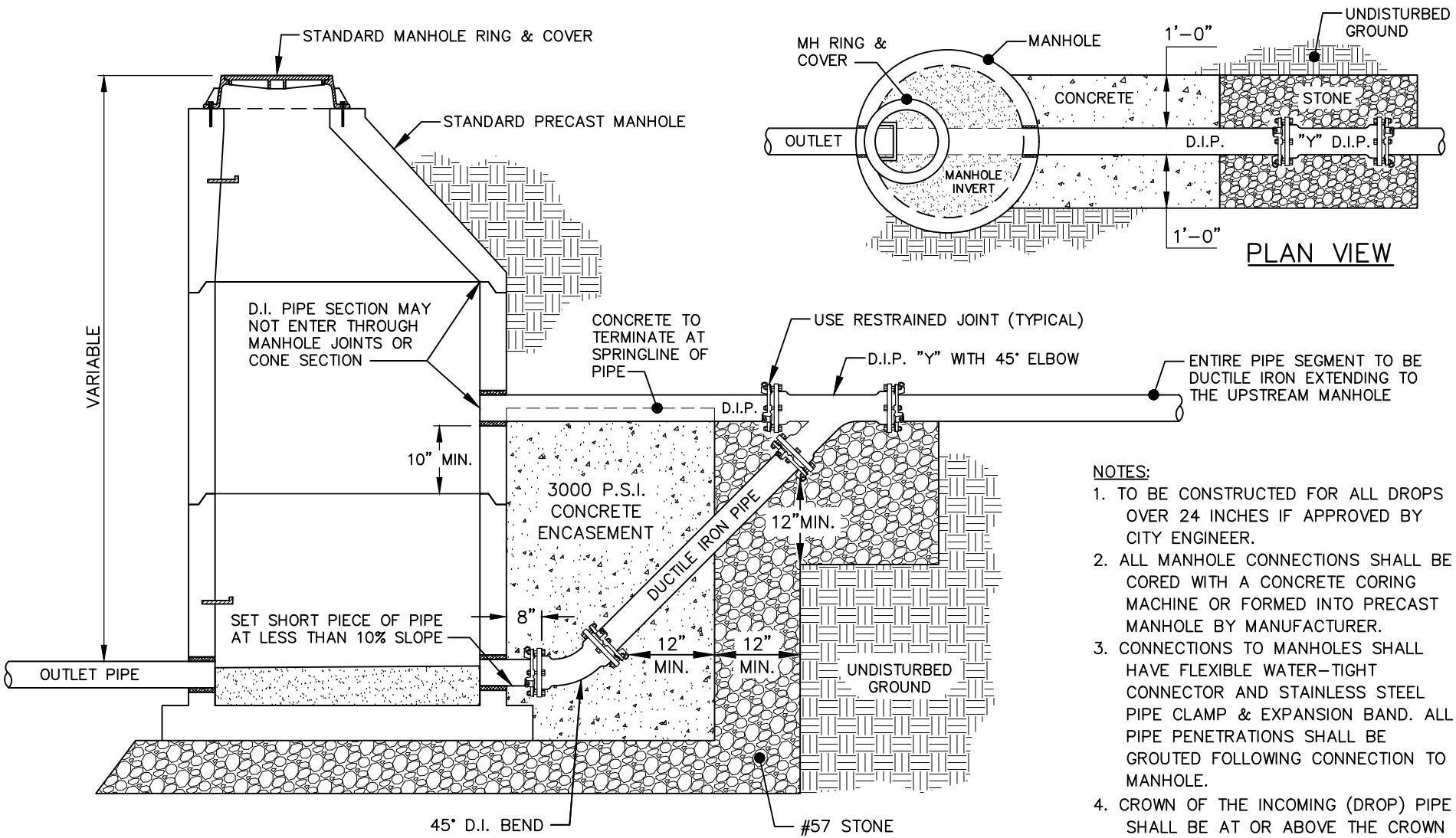
NOTES:
1. "SANITARY SEWER" OR "WATER" SHALL BE FORGED INTO COVER AS APPROPRIATE.
2. FRAME & COVER SHALL HAVE FACTORY MACHINED SEAT CONFORMING TO ASTM A48 AND BE SUPPLIED WITH CONTINUOUS NITRILE GASKET (1/8" THICK)
3. FOUR (4) $\frac{1}{2}$" X 2" HEXHEAD SS BOLTS (TYPE 316) TO FASTEN COVER TO RING. BOLTHEAD TO BE COUNTERSUNK INTO COVER.
4. CLEAR OPENING OF MANHOLE RING MAY BE REDUCED BY THE RECEIVING LUGS FOR THE FOUR BOLTS.

NOT TO SCALE

REV.	STD. NO.
1	6008C

SANITARY SEWER MANHOLE RING AND COVER TYPE 3

CITY OF LEXINGTON
INFRASTRUCTURE
DEVELOPMENT STANDARDS



SECTION VIEW

PLAN VIEW

NOTES:

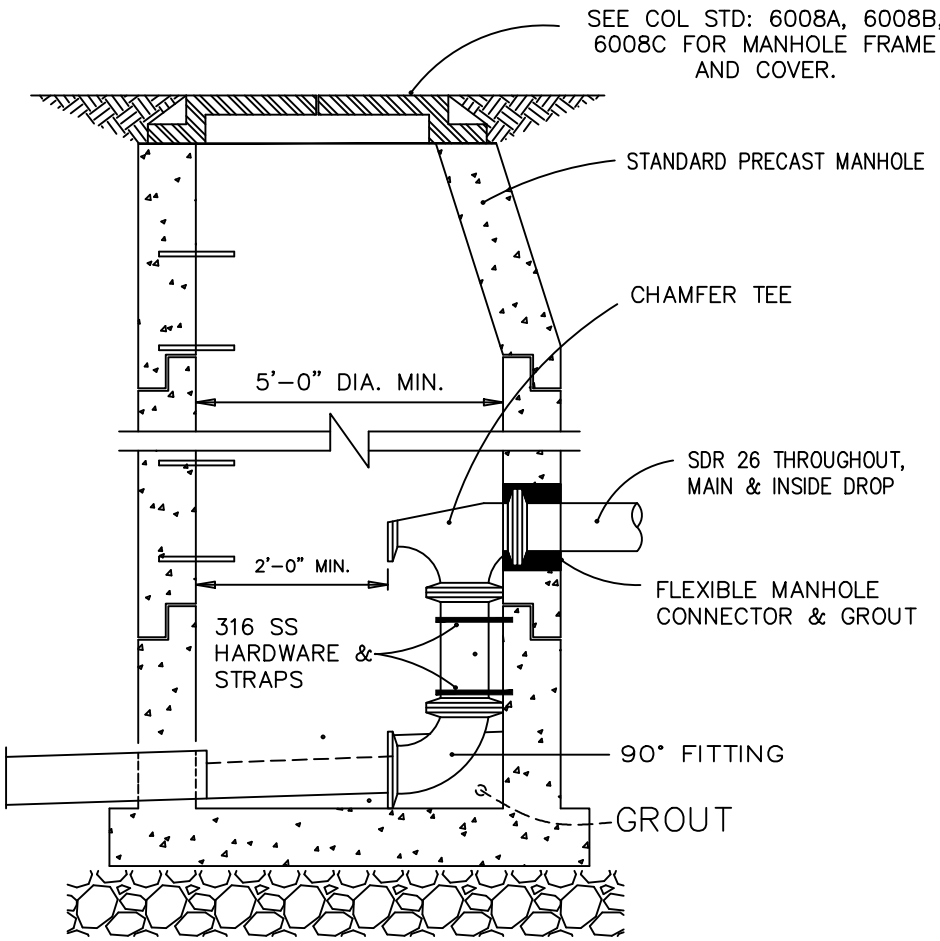
1. TO BE CONSTRUCTED FOR ALL DROPS OVER 24 INCHES IF APPROVED BY CITY ENGINEER.
2. ALL MANHOLE CONNECTIONS SHALL BE CORED WITH A CONCRETE CORING MACHINE OR FORMED INTO PRECAST MANHOLE BY MANUFACTURER.
3. CONNECTIONS TO MANHOLES SHALL HAVE FLEXIBLE WATER-TIGHT CONNECTOR AND STAINLESS STEEL PIPE CLAMP & EXPANSION BAND. ALL PIPE PENETRATIONS SHALL BE GROUTED FOLLOWING CONNECTION TO MANHOLE.
4. CROWN OF THE INCOMING (DROP) PIPE SHALL BE AT OR ABOVE THE CROWN OF THE OUTLET PIPE.

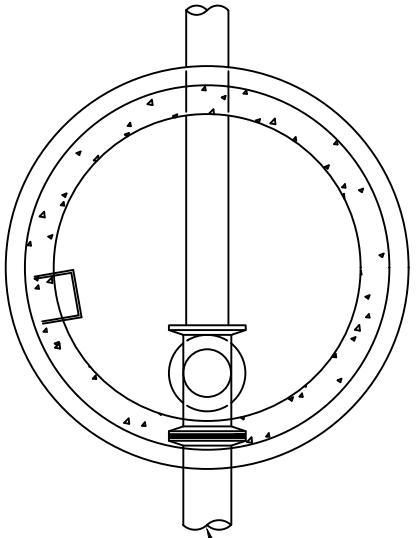
NOT TO SCALE

OUTSIDE DROP MANHOLE

REV.	STD. NO.
1	6009A

CITY OF LEXINGTON
INFRASTRUCTURE
DEVELOPMENT STANDARDS





IF UPSTREAM SEWER MAIN IS DIP, TRANSITION TO PVC WITH APPROVED TRANSITION FITTING OR SOLID SLEEVE COUPLER PRIOR TO MANHOLE.

NOTES:

1. PIPE SIZE FOR DROP TO EQUAL INLET SEWER PIPE SIZE.
2. MEGALUG, STARGRIP OR APPROVED EQUAL REQUIRED FOR PIPE & FITTING RESTRAINT THROUGH DROP.
3. ALL ANCHOR BOLTS SHALL BE INSTALLED INTO PREDRILLED HOLES PER MANUFACTURE'S RECOMMENDATIONS.
4. DROP-MANHOLE MANDATORY WHEN DIFFERENTIAL BETWEEN INVERTS IS GREATER THAN 24".
5. 316 STAINLESS STEEL HARDWARE & STRAPS SHALL BE USED ON ALL DROPS AT MIN 18" INTERVALS.
6. NEW DROP MANHOLES SHALL HAVE MFG FORMED INVERTS. BENCH AND CHANNEL MAY BE FIELD-POURED FOR DROP CONNECTION. ALL PIPES CONNECTING TO MANHOLES SHALL HAVE A FLEXIBLE WATER-TIGHT CONNECTOR AND STAINLESS STEEL PIPE CLAMP & EXPANSION BAND. ALL PIPE PENETRATIONS SHALL BE GROUTED FOLLOWING CONNECTION TO MANHOLE.

NOT TO SCALE

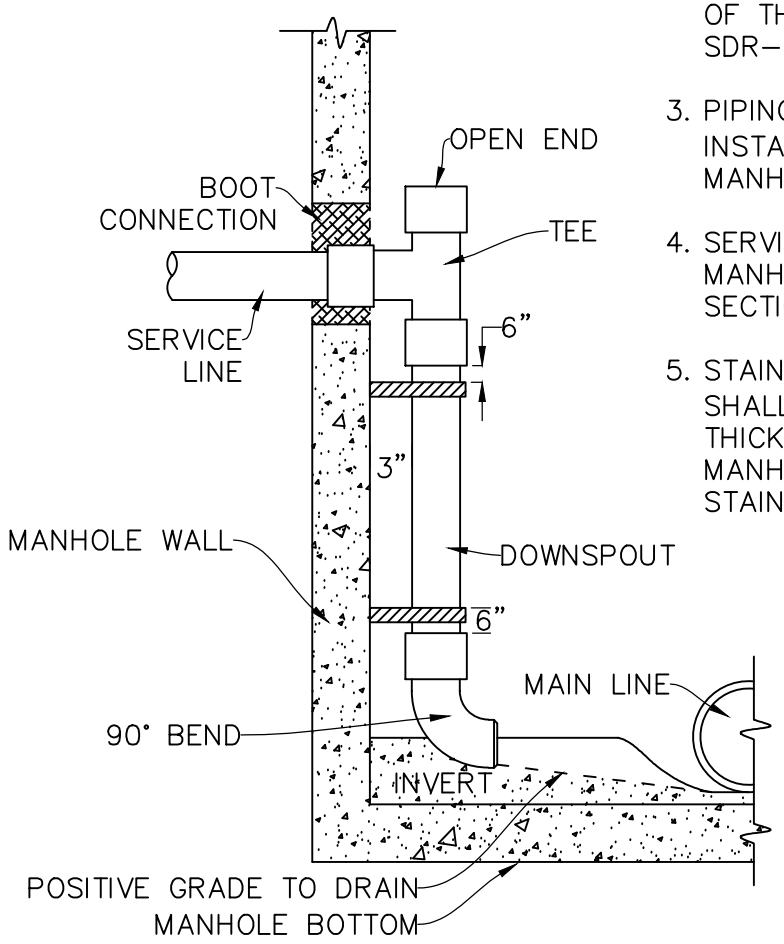
INSIDE DROP MANHOLE

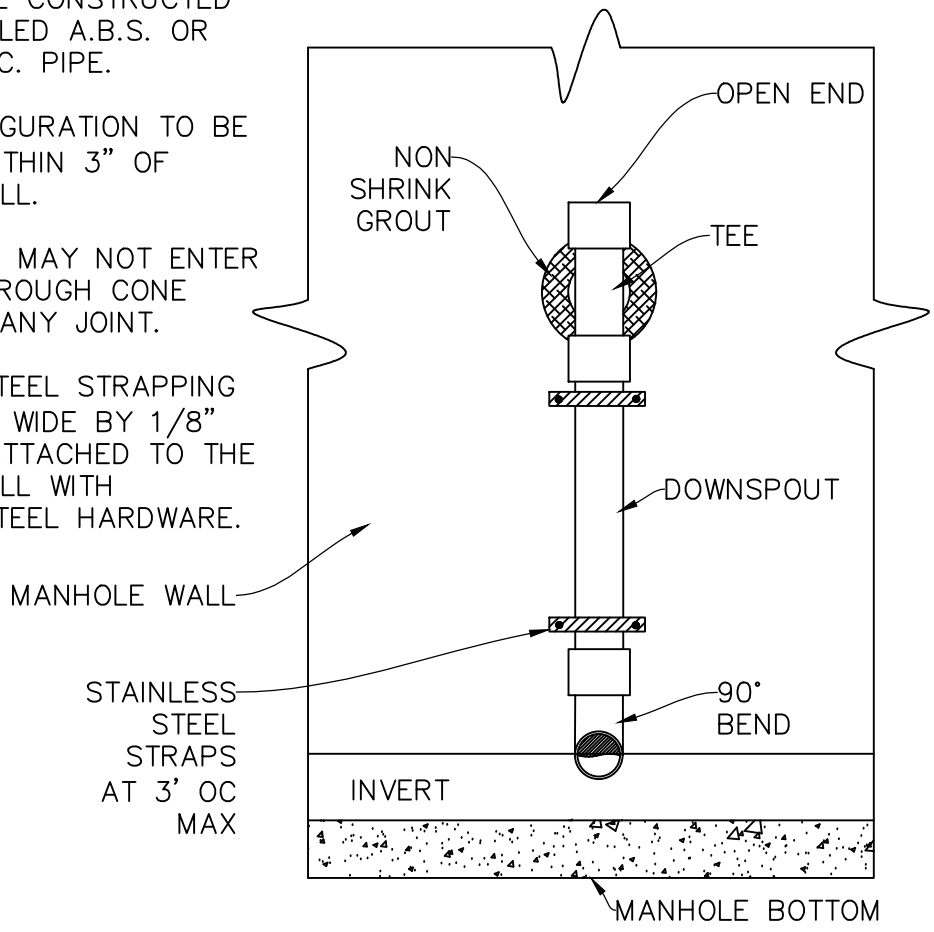
REV.	STD. NO.
1	6009B

CITY OF LEXINGTON
INFRASTRUCTURE
DEVELOPMENT STANDARDS

NOTES:

1. PIPING CONFIGURATION TO BE USED ON ALL DROPS EXCEEDING 24".
2. DROPS TO BE CONSTRUCTED OF THIN WALLED A.B.S. OR SDR–35 P.V.C. PIPE.
3. PIPING CONFIGURATION TO BE INSTALLED WITHIN 3" OF MANHOLE WALL.
4. SERVICE LINE MAY NOT ENTER MANHOLE THROUGH CONE SECTION OR ANY JOINT.
5. STAINLESS STEEL STRAPPING SHALL BE 1" WIDE BY 1/8" THICK AND ATTACHED TO THE MANHOLE WALL WITH STAINLESS STEEL HARDWARE.



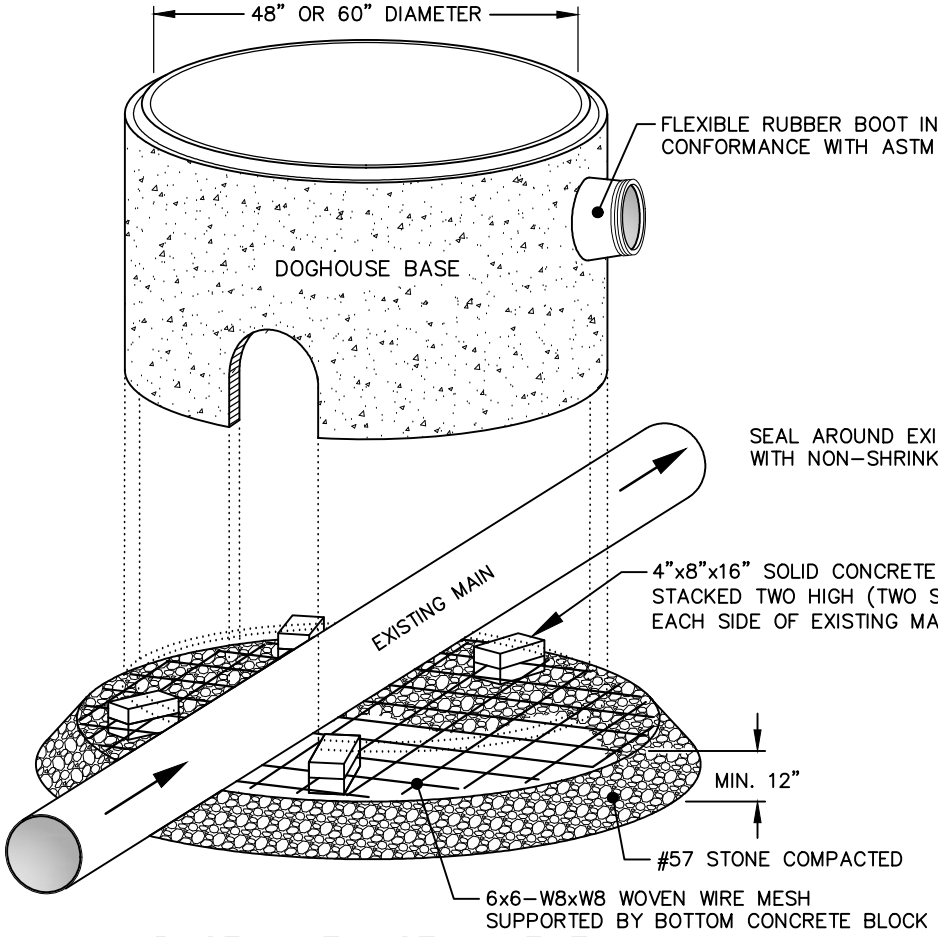


NOT TO SCALE

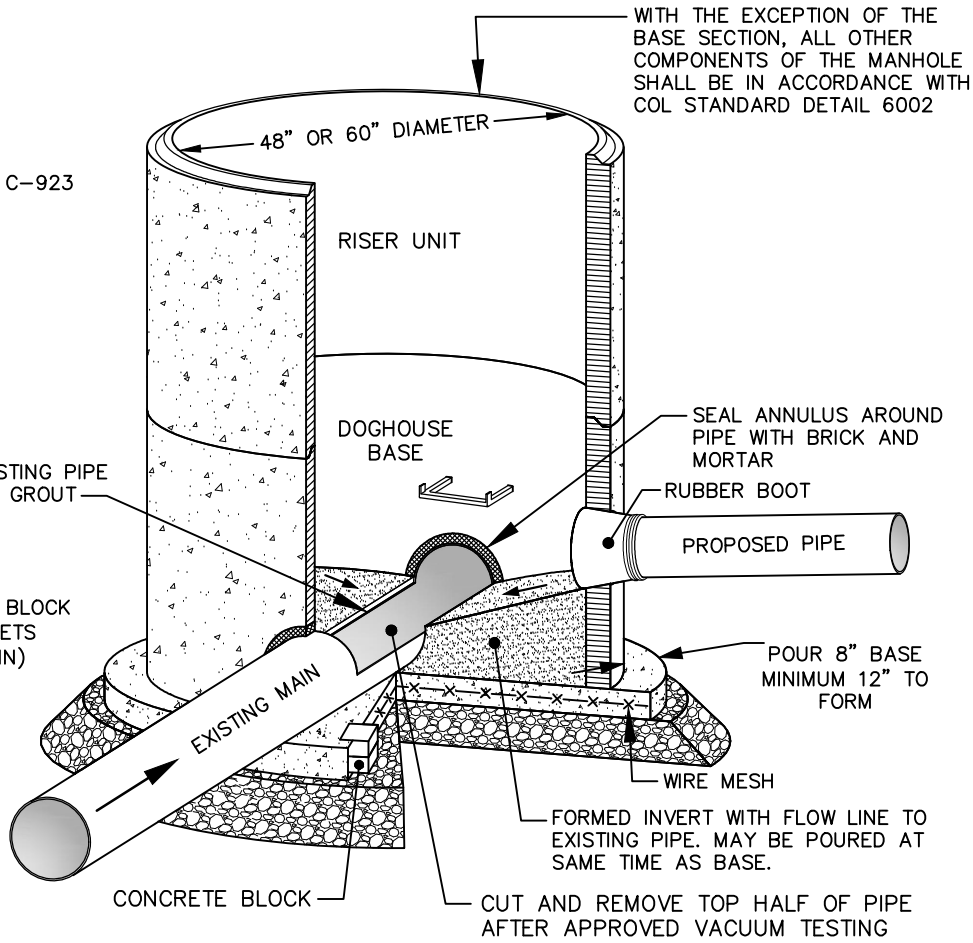
INSIDE DROP MANHOLE FOR SEWER SERVICE

REV.	STD. NO.
1	6009C

CITY OF LEXINGTON
INFRASTRUCTURE
DEVELOPMENT STANDARDS



BASE UNIT INSTALLMENT



INVERT INSTALLMENT

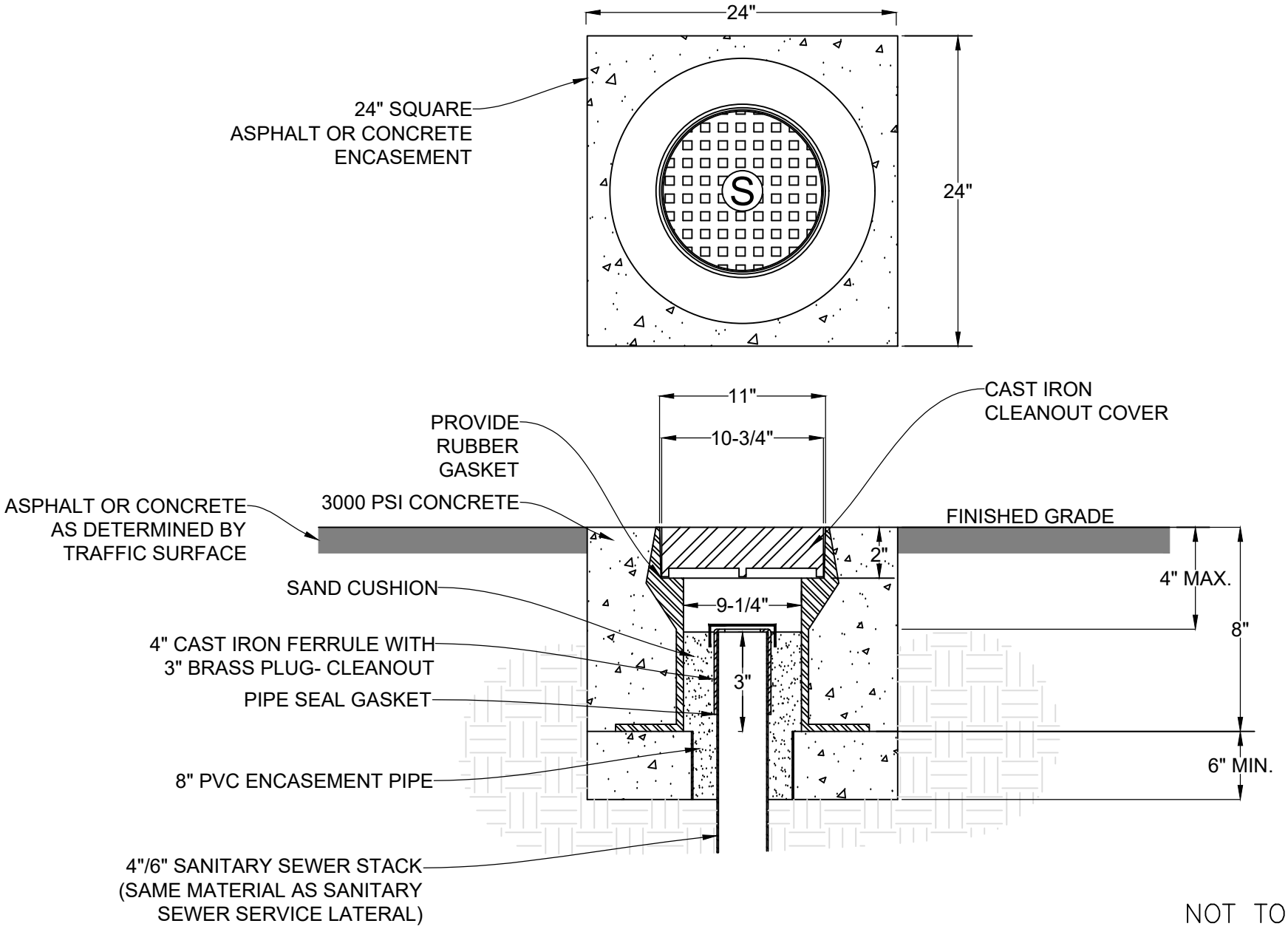
NOTES:
1. DOGHOUSE OPENINGS IN PRECAST UNITS SHALL HAVE A RADIUS OF 4 TO 8 INCHES LARGER THAN THE EXISTING PIPE DIAMETER.
2. CAST-IN-PLACE CONCRETE SHALL BE 4000 PSI, PER ASTM C-94.
3. ALL PRECAST MANHOLE COMPONENTS SHALL MEET ASTM C-478.
4. BENCH SHALL SLOPE UPWARD FROM THE SPRINGLINE TO THE PROJECTED LEVEL OF THE PIPE CROWN OR 8 INCHES ABOVE THE SPRINGLINE, WHICHEVER IS LESS.

NOT TO SCALE

STANDARD PRECAST CONCRETE DOGHOUSE MANHOLE

REV.	STD. NO.
1	6010

CITY OF LEXINGTON
INFRASTRUCTURE
DEVELOPMENT STANDARDS



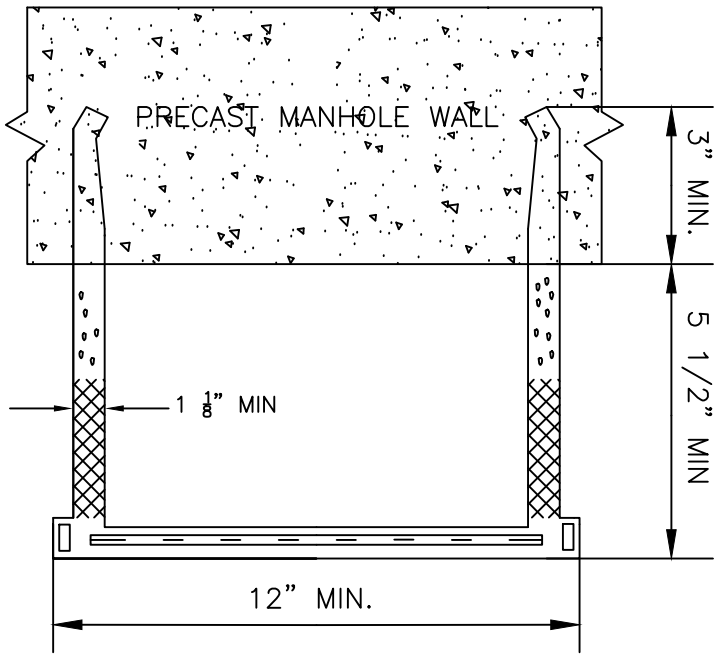
NOT TO SCALE

SANITARY SEWER CLEANOUT COVER FOR TRAFFIC BEARING AREAS

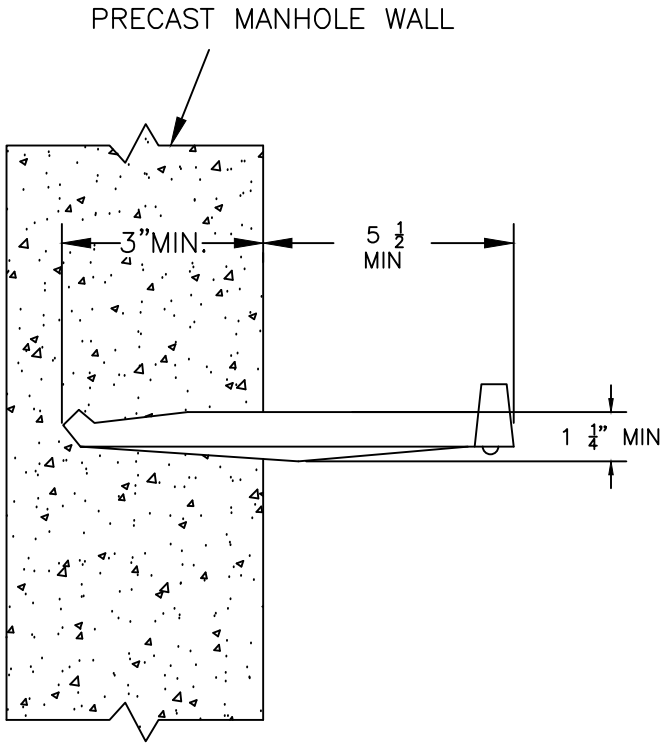
REV.	STD. NO.
1	6011

CITY OF LEXINGTON
INFRASTRUCTURE
DEVELOPMENT STANDARDS

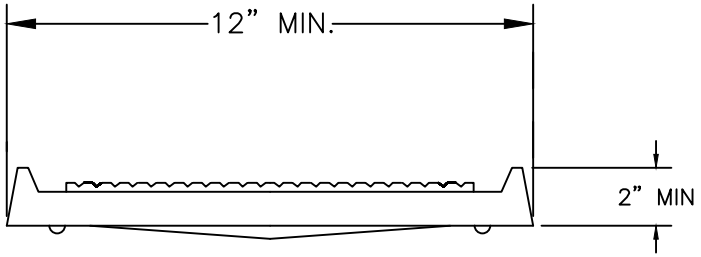
PLAN



SECTION



FRONT ELEVATION



NOTES:

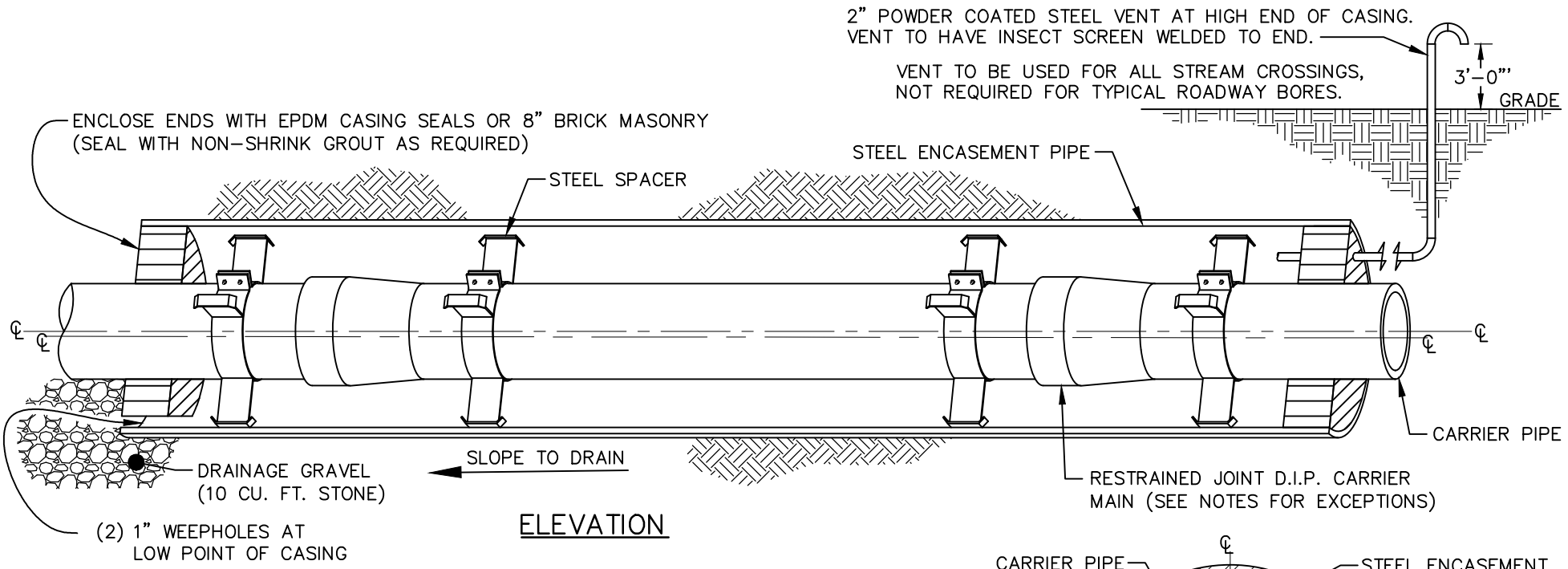
1. VERTICAL SPACING = 16" ON CENTER, ON VERTICAL WALL ONLY.
2. STEPS SHALL BE MADE OF COPOLYMER POLYPROPYLENE PLASTIC WITH ½" GRADE 60 STEEL REINFORCEMENT.
3. ALL STEPS SHALL BE POURED INTEGRALLY WITH THE MANHOLE SECTION.
4. STEPS SHALL MEET ASTM C-478 AND A HORIZONTAL PULL-OUT LOAD OF A MIN. 1000 LBS.
5. ALL STEPS SHALL BE VERTICALLY ALIGNED IN A STRAIGHT LINE.

NOT TO SCALE

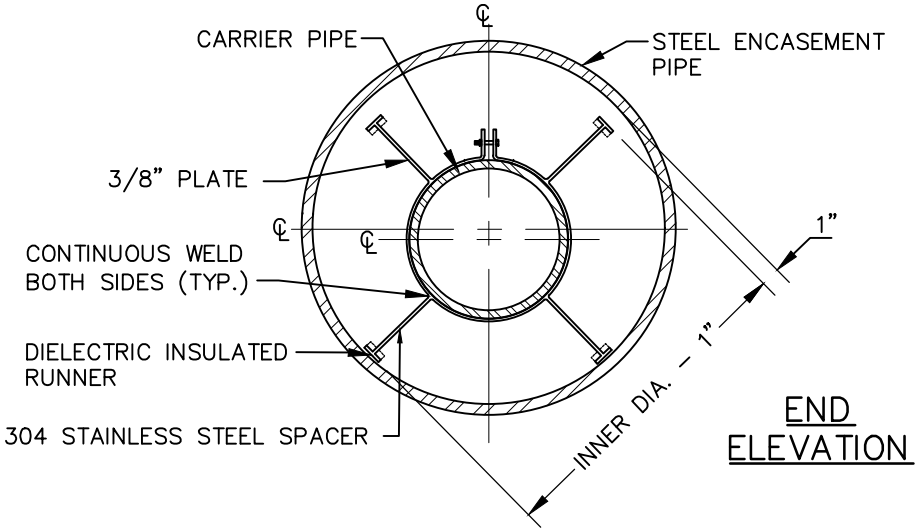
MANHOLE STEP

REV.	STD. NO.
1	6012

CITY OF LEXINGTON
INFRASTRUCTURE
DEVELOPMENT STANDARDS



ELEVATION



END
ELEVATION

NOTES:

1. STEEL SPACERS SHALL BE USED FOR SUPPORT OF THE CARRIER PIPE WITHIN THE CASING PIPE.
2. A MINIMUM SPACING OF 2 SPACERS PER JOINT OF CARRIER PIPE SHALL BE REQUIRED. 3 SPACERS ARE REQUIRED FOR CARRIER PIPE ≥ 36 INCHES.
3. THE SPACERS SHALL BE LOCATED EVENLY ALONG THE CARRIER PIPE SUCH THAT EACH SPACER SUPPORTS THE SAME UNIT WEIGHT OF THE CARRIER MAIN.
4. FOR CASING SIZE SEE UTILITY TRENCHES SECTION OF THE LEXINGTON SANITARY SEWER & WATER DESIGN AND CONSTRUCTION MANUAL.
5. VENT OPENING SHALL BE INSTALLED 24" ABOVE THE BASE FLOOD ELEVATION OR 36" ABOVE EXISTING GRADE, WHICHEVER IS HIGHER.

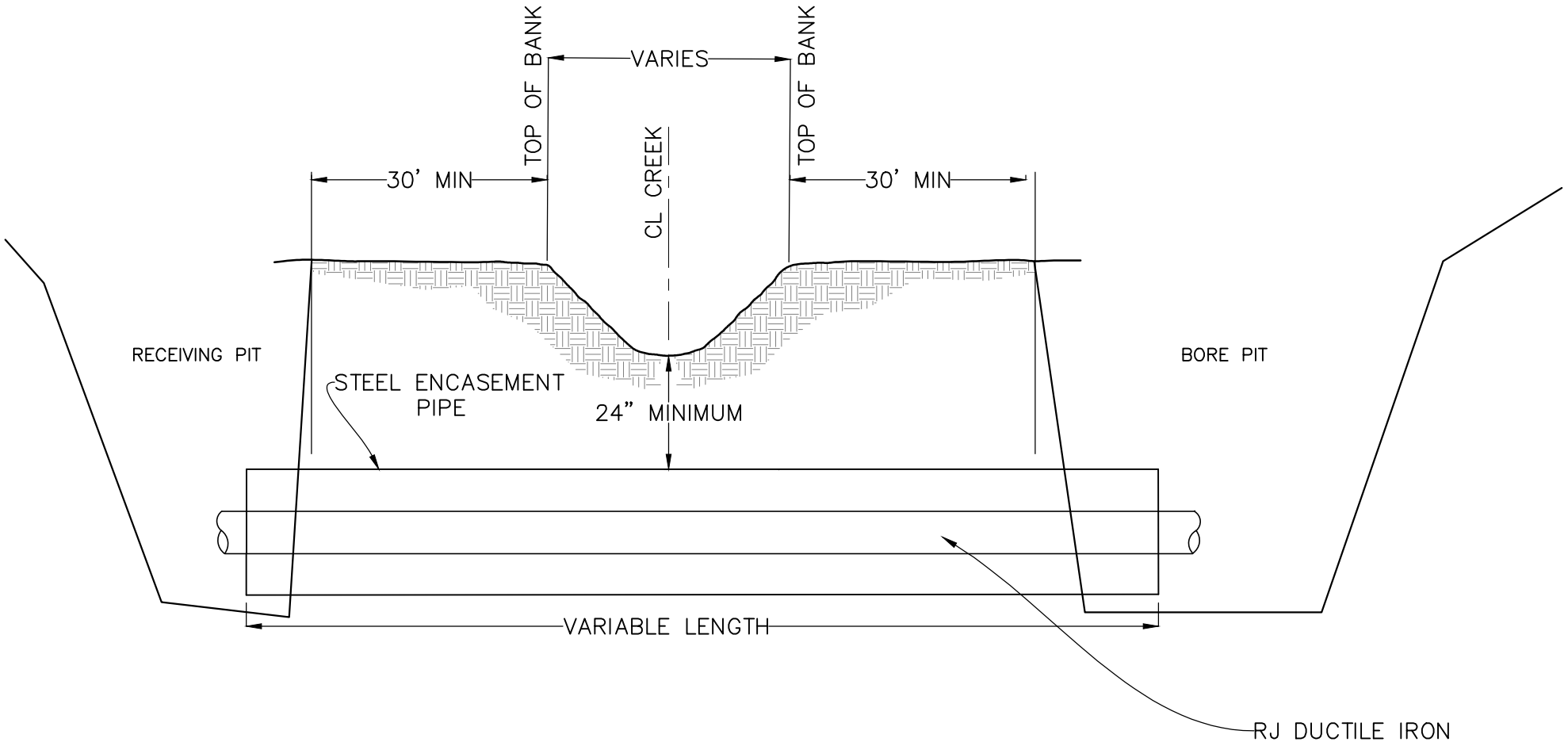
NOT TO SCALE

STEEL ENCASEMENT & CARRIER PIPE

REV.	STD. NO.
1	6013

CITY OF LEXINGTON
INFRASTRUCTURE
DEVELOPMENT STANDARDS

CROSS SECTION



NOTES:

1. ENCASEMENT SHALL BE INSTALLED AS CLOSE TO 90° TO THE STREAM CENTERLINE AS POSSIBLE, AND IN NO CASE SHALL IT BE LESS THAN 70° TO MINIMIZE IMPACTS.
2. BORE & RECEIVING PIT EXCAVATIONS SHALL BE NO CLOSER THAN 30 FEET TO TOP OF BANK.

NOT TO SCALE

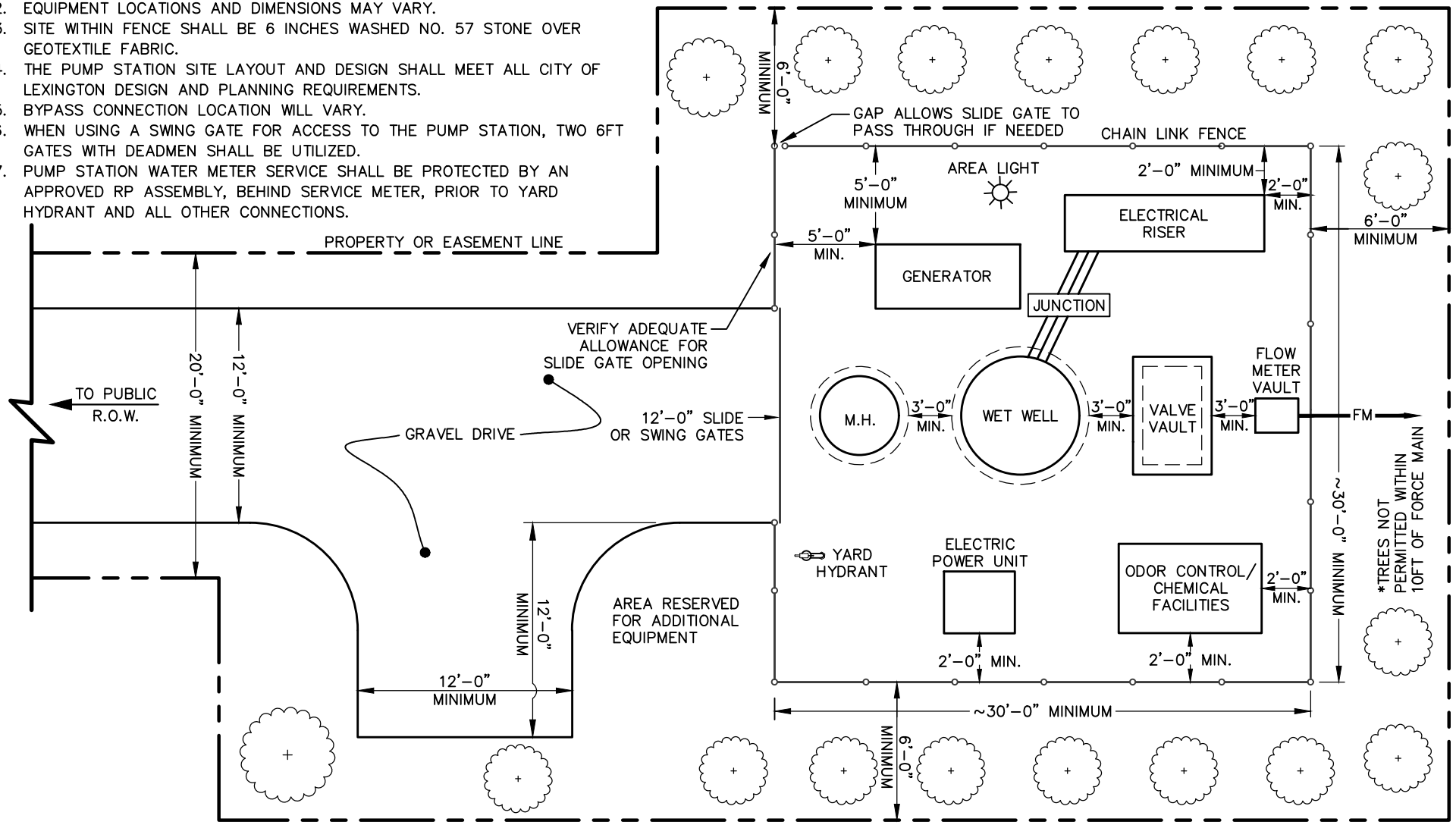
SANITARY SEWER STREAM CROSSING

REV.	STD. NO.
1	6014

CITY OF LEXINGTON
INFRASTRUCTURE
DEVELOPMENT STANDARDS

NOTES:

1. PUMP STATION PROPERTY OR EASEMENT SHALL BE 42' x 42' MINIMUM NOT INCLUDING THE ACCESS ROAD AND TURNAROUND.
2. EQUIPMENT LOCATIONS AND DIMENSIONS MAY VARY.
3. SITE WITHIN FENCE SHALL BE 6 INCHES WASHED NO. 57 STONE OVER GEOTEXTILE FABRIC.
4. THE PUMP STATION SITE LAYOUT AND DESIGN SHALL MEET ALL CITY OF LEXINGTON DESIGN AND PLANNING REQUIREMENTS.
5. BYPASS CONNECTION LOCATION WILL VARY.
6. WHEN USING A SWING GATE FOR ACCESS TO THE PUMP STATION, TWO 6FT GATES WITH DEADMEN SHALL BE UTILIZED.
7. PUMP STATION WATER METER SERVICE SHALL BE PROTECTED BY AN APPROVED RP ASSEMBLY, BEHIND SERVICE METER, PRIOR TO YARD HYDRANT AND ALL OTHER CONNECTIONS.

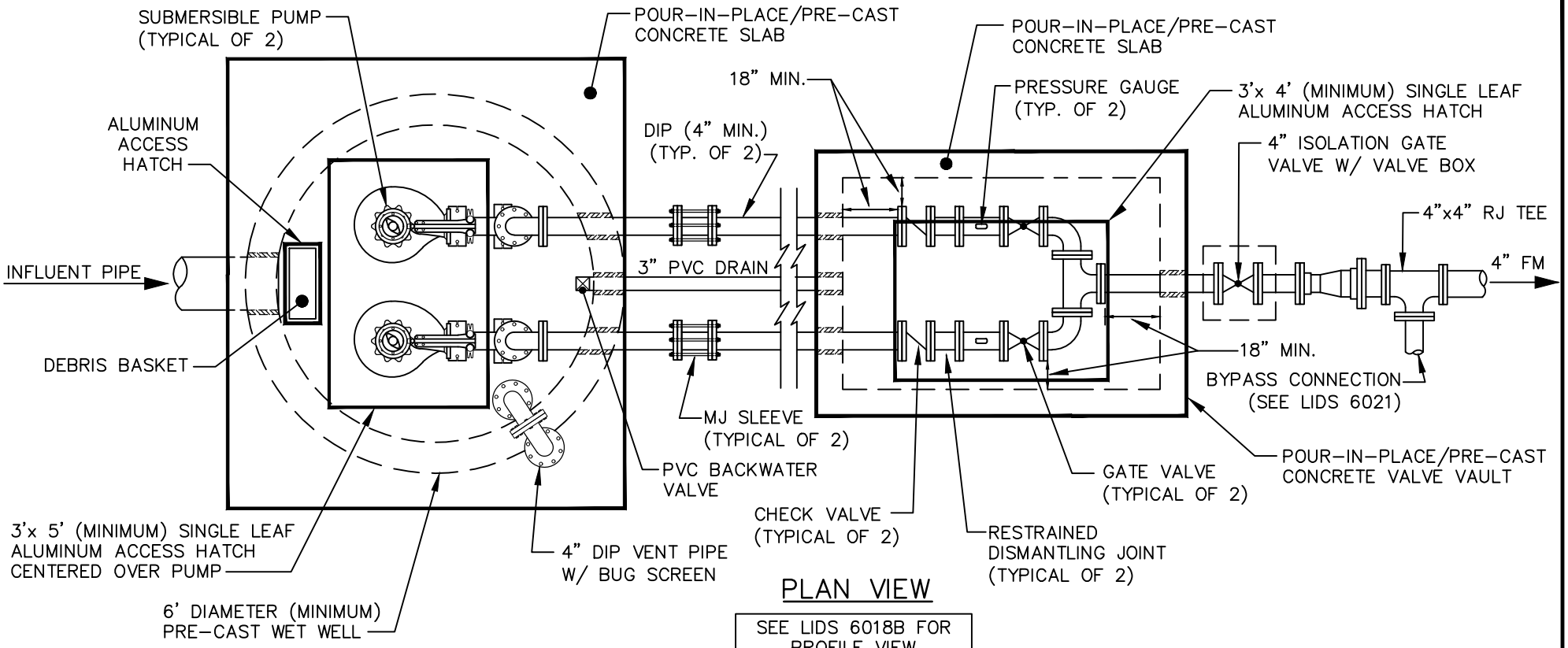


NOT TO SCALE

PUMP STATION SITE LAYOUT

REV.	STD. NO.
0	6017

CITY OF LEXINGTON
INFRASTRUCTURE
DEVELOPMENT STANDARDS



PLAN VIEW

SEE LIDS 6018B FOR PROFILE VIEW

NOTES:

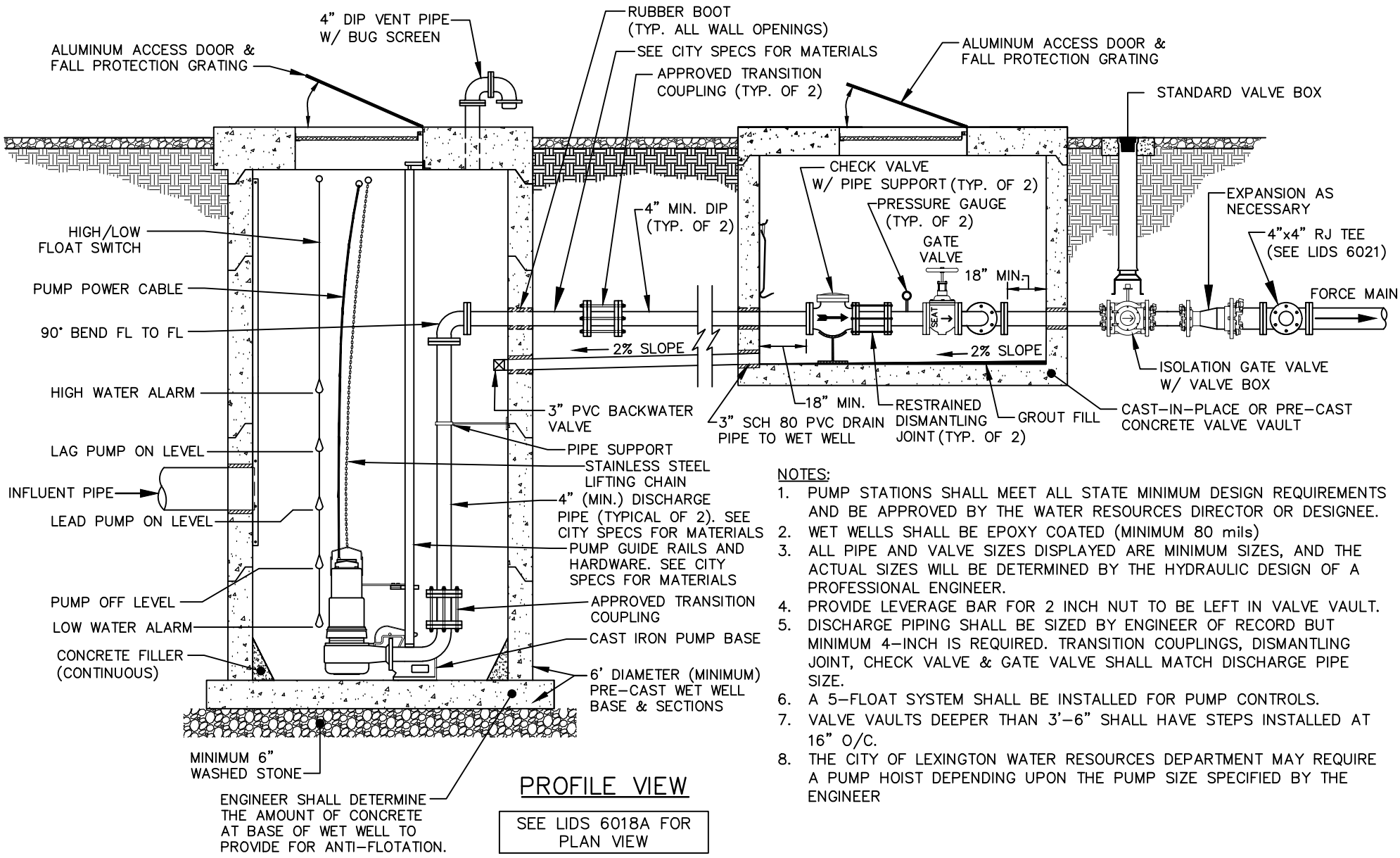
1. PUMP STATIONS SHALL MEET ALL STATE MINIMUM DESIGN REQUIREMENTS AND BE APPROVED BY THE WATER RESOURCES DIRECTOR OR DESIGNEE.
2. WET WELLS SHALL BE EPOXY COATED (MINIMUM 80 mils).
3. ALL PIPE AND VALVE SIZES DISPLAYED ARE MINIMUM SIZES, AND THE ACTUAL SIZES WILL BE DETERMINED AND SPECIFIED BY THE HYDRAULIC DESIGN OF A PROFESSIONAL ENGINEER.
4. ISOLATION VALVE WILL BE INCLUDED DOWNSTREAM OF FLOW METER VAULT WHEN A FLOW METER IS REQUIRED.
5. DISCHARGE PIPING SHALL BE SIZED BY ENGINEER OF RECORD BUT MINIMUM 4–INCH IS REQUIRED. MJ SLEEVE, CHECK VALVE & GATE VALVE SHALL MATCH DISCHARGE PIPE SIZE ACCORDINGLY.
6. THE CITY OF LEXINGTON WATER RESOURCES DEPARTMENT MAY REQUIRE A PUMP HOIST BE MOUNTED TO THE TOP SLAB OF THE WET WELL DEPENDING UPON THE PUMP SIZE SPECIFIED BY THE ENGINEER.

NOT TO SCALE

WET WELL AND VALVE VAULT

REV.	STD. NO.
0	6018A

CITY OF LEXINGTON
INFRASTRUCTURE
DEVELOPMENT STANDARDS



PROFILE VIEW

SEE LIDS 6018A FOR PLAN VIEW

NOTES:

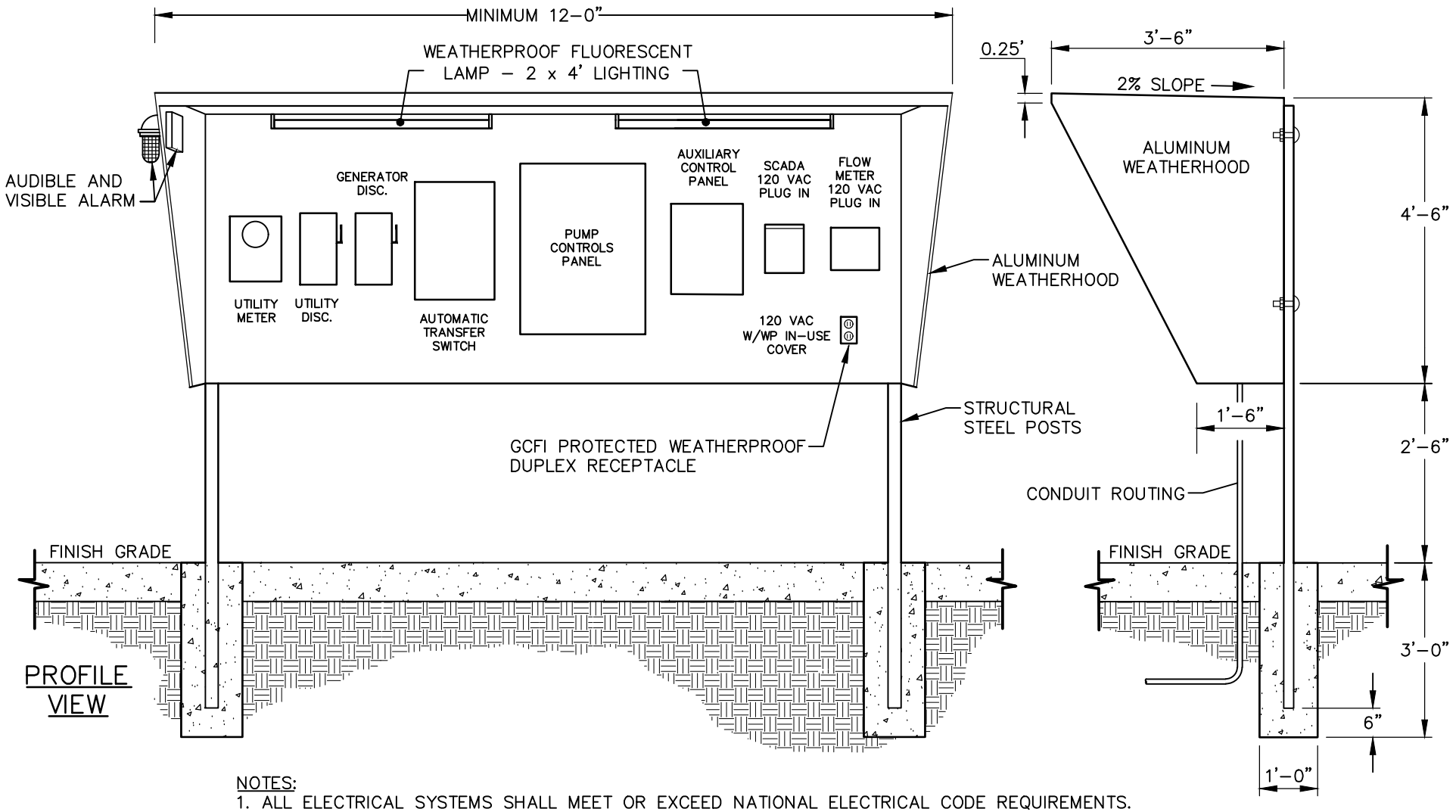
1. PUMP STATIONS SHALL MEET ALL STATE MINIMUM DESIGN REQUIREMENTS AND BE APPROVED BY THE WATER RESOURCES DIRECTOR OR DESIGNEE.
2. WET WELLS SHALL BE EPOXY COATED (MINIMUM 80 mils)
3. ALL PIPE AND VALVE SIZES DISPLAYED ARE MINIMUM SIZES, AND THE ACTUAL SIZES WILL BE DETERMINED BY THE HYDRAULIC DESIGN OF A PROFESSIONAL ENGINEER.
4. PROVIDE LEVERAGE BAR FOR 2 INCH NUT TO BE LEFT IN VALVE VAULT.
5. DISCHARGE PIPING SHALL BE SIZED BY ENGINEER OF RECORD BUT MINIMUM 4-INCH IS REQUIRED. TRANSITION COUPLINGS, DISMANTLING JOINT, CHECK VALVE & GATE VALVE SHALL MATCH DISCHARGE PIPE SIZE.
6. A 5-FLOAT SYSTEM SHALL BE INSTALLED FOR PUMP CONTROLS.
7. VALVE VAULTS DEEPER THAN 3'-6" SHALL HAVE STEPS INSTALLED AT 16" O/C.
8. THE CITY OF LEXINGTON WATER RESOURCES DEPARTMENT MAY REQUIRE A PUMP HOIST DEPENDING UPON THE PUMP SIZE SPECIFIED BY THE ENGINEER

NOT TO SCALE

WET WELL AND VALVE VAULT

REV.	STD. NO.
0	6018B

CITY OF LEXINGTON
INFRASTRUCTURE
DEVELOPMENT STANDARDS



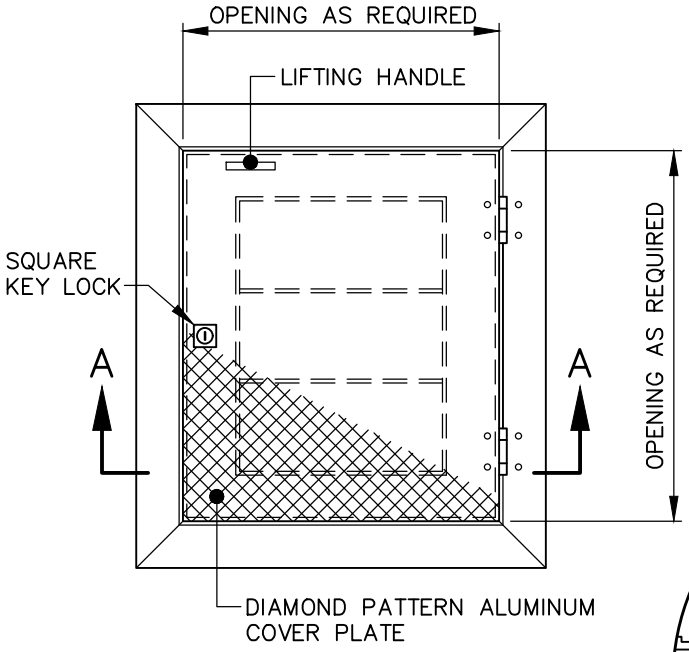
NOTES:
1. ALL ELECTRICAL SYSTEMS SHALL MEET OR EXCEED NATIONAL ELECTRICAL CODE REQUIREMENTS.
2. CONDUIT SHALL BE PVC BELOW GRADE AND PVC COATED GALVANIZED STEEL ABOVE GRADE.
3. STEEL SUPPORT POSTS SHALL BE PAINTED WITH A HIGH BUILD EPOXY POLYAMIDE PAINT DESIGNED FOR SEVERE SERVICE.
4. CONDUIT LEADING TO A CONTROL OR JUNCTION BOX MUST HAVE SEAL–OFFS.

NOT TO SCALE

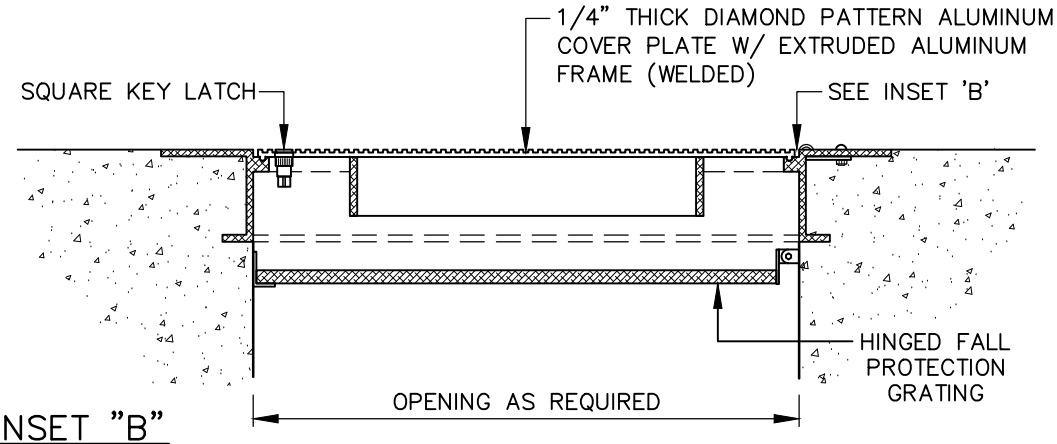
PUMP STATION CONTROL PANEL

REV.	STD. NO.
0	6018C

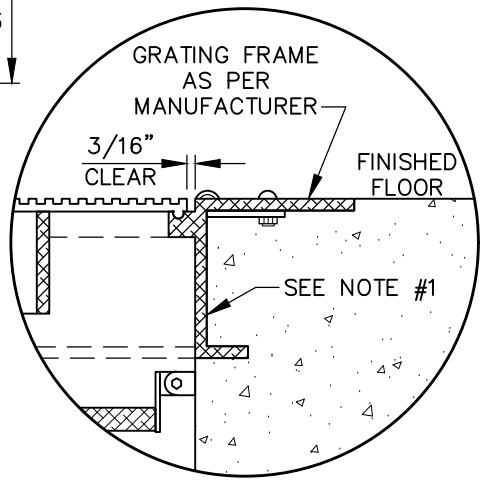
CITY OF LEXINGTON
INFRASTRUCTURE
DEVELOPMENT STANDARDS



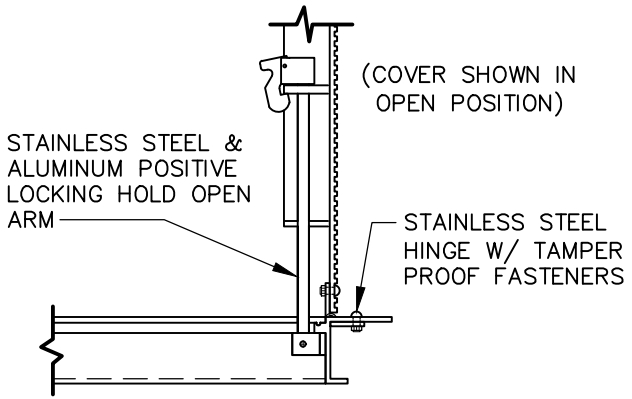
PLAN VIEW



SECTION "A–A"



INSET "B"



DETAIL

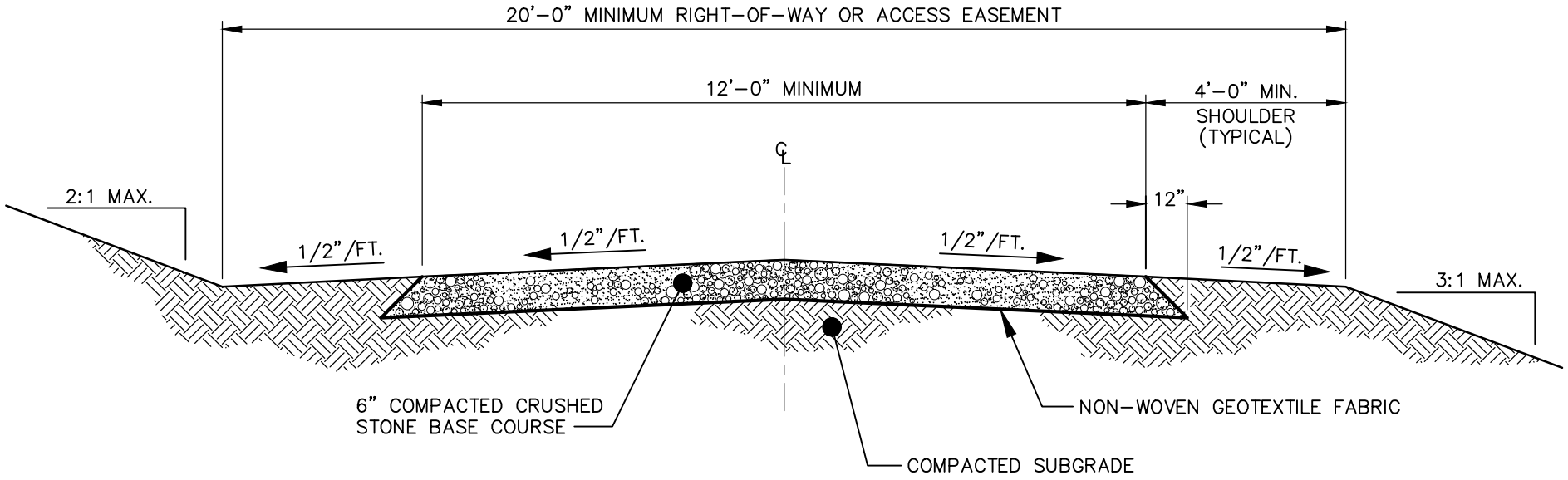
NOTES:
1. ALL ALUMINUM SURFACES IN CONTACT WITH CONCRETE OR GROUT SHALL BE COATED WITH BITUMINOUS MATERIAL FOR PROTECTION.
2. HATCHES SHALL BE SINGLE OR DOUBLE HATCH DEPENDING ON OPENING SIZE AND MANUFACTURER'S RECOMMENDATIONS.
3. HATCH SHALL BE RATED FOR H–20 LOADING.

NOT TO SCALE

ALUMINUM ACCESS HATCH FOR PUMP STATIONS

REV.	STD. NO.
1	6019

CITY OF LEXINGTON
INFRASTRUCTURE
DEVELOPMENT STANDARDS

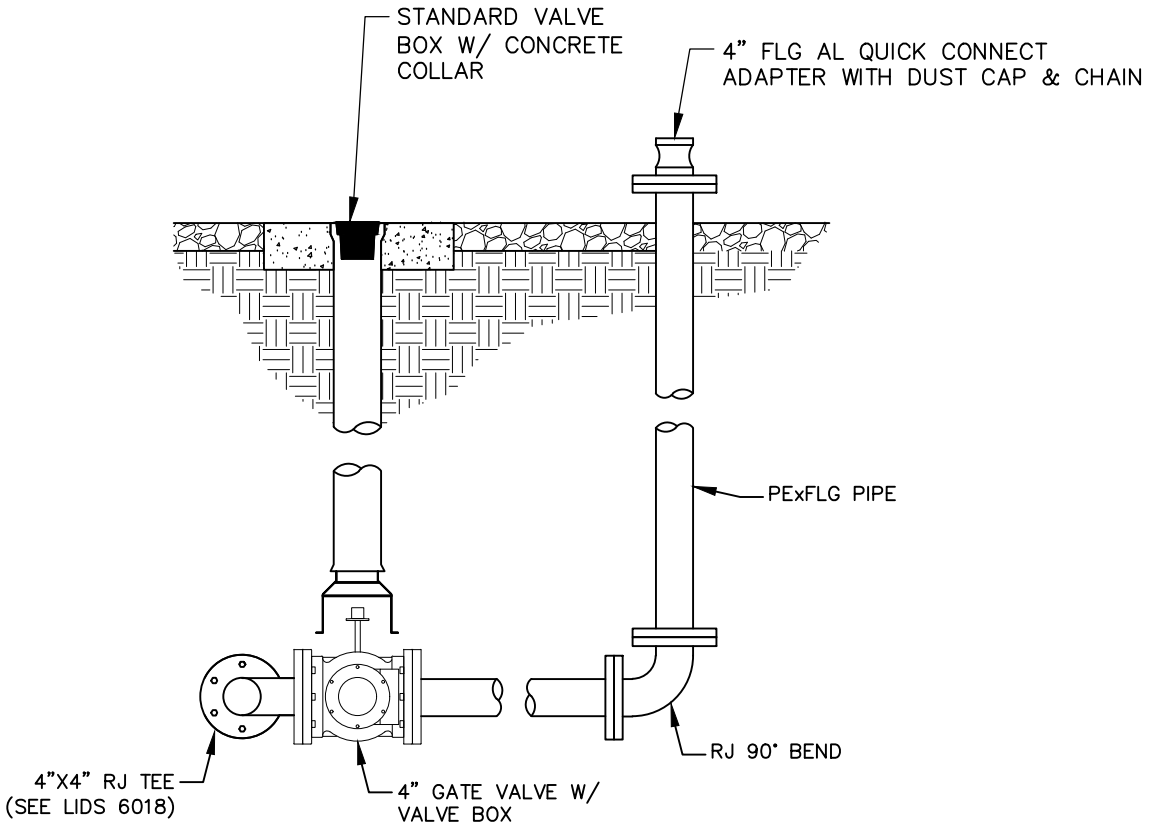


NOT TO SCALE

PUMP STATION ACCESS ROAD

REV.	STD. NO.
0	6020

CITY OF LEXINGTON
INFRASTRUCTURE
DEVELOPMENT STANDARDS



NOT TO SCALE

BYPASS CONNECTION FOR PUMP STATIONS

REV.	STD. NO.
1	6021

CITY OF LEXINGTON
INFRASTRUCTURE
DEVELOPMENT STANDARDS