

CITY OF HUBER HEIGHTS, OHIO

STANDARD CONSTRUCTION

DRAWINGS

ISSUED: 2017



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(937) 233-1423**

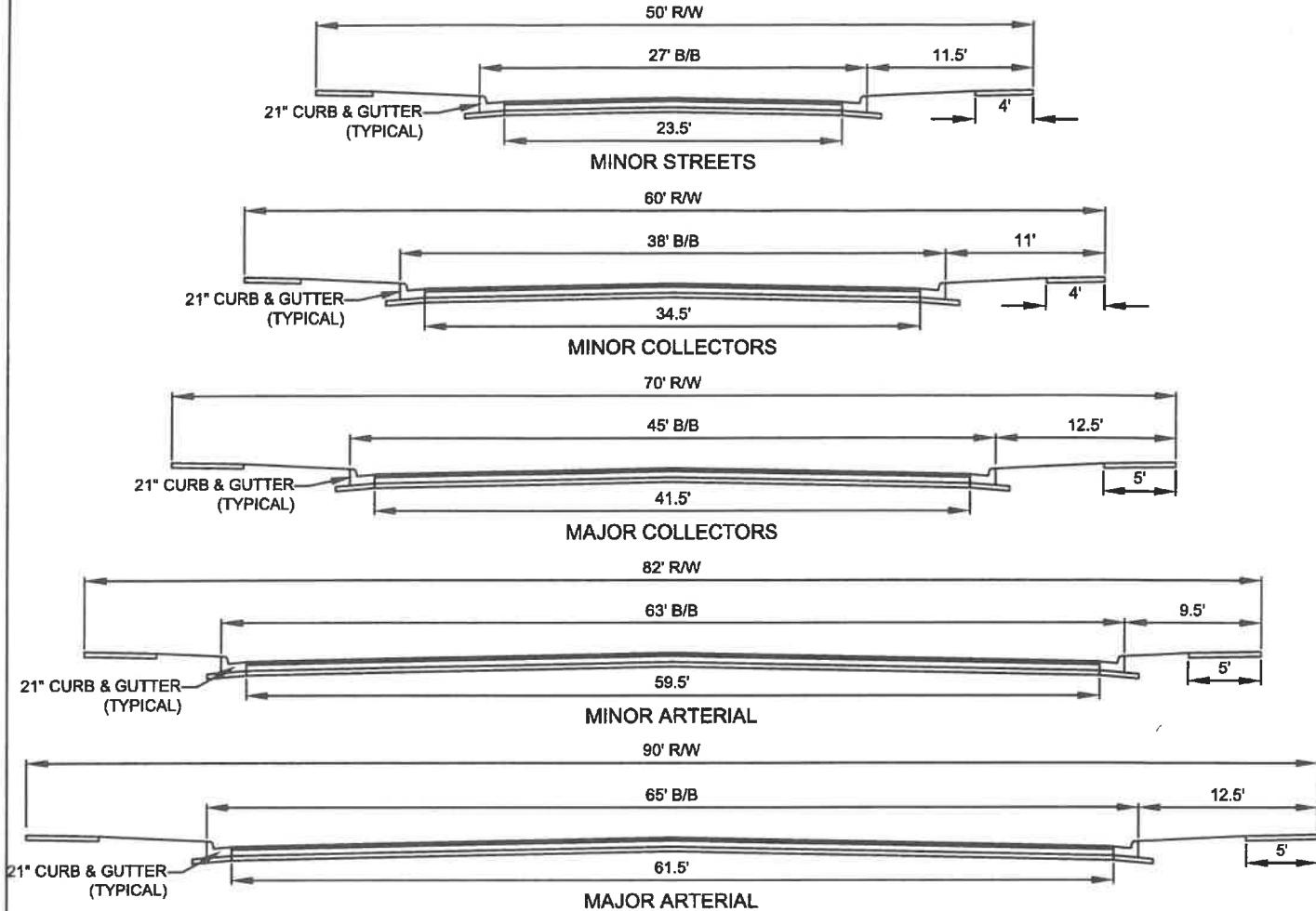
TITLE OF DRAWING:

**STANDARD CONSTRUCTION
DRAWING INDEX**

CITY OF HUBER HEIGHTS
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ISSUE DATE: 2017

DWG. No.
GN-2.0

STREET DESIGN STANDARDS



GENERAL NOTES:

1. THESE STANDARD DRAWINGS SUPPLEMENT THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIALS SPECIFICATIONS, LATEST EDITION, TO WHICH ALL ITEM NUMBERS HEREIN ARE REFERENCED.
2. ON NEW STREETS WITHIN SUBDIVISIONS, THE FINAL COURSE OF ASPHALT MAY NOT BE PLACED UNTIL AFTER THE LEVELING COURSE HAS BEEN IN PLACE FOR AT LEAST NINE MONTHS, UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER. SPECIAL PROVISIONS FOR THE COLLECTION OF SURFACE WATER RUNOFF MAY BE REQUIRED BY THE CITY DURING THE NINE MONTH PERIOD BEFORE THE FINAL COURSE OF ASPHALT IS PLACED.
3. ALL UTILITY TRENCHES WITHIN THE STREET RIGHT-OF-WAY SHALL BE BACKFILLED WITH COMPAKTED, GRANULAR MATERIAL TO SUBGRADE ELEVATION (REFER TO UTILITY TRENCH DETAIL WITHIN RIGHT-OF-WAY DETAIL)
4. MOUNTABLE CURB SHALL BE PERMITTED ONLY ON MINOR STREETS AND MINOR COLLECTOR STREETS. ALL STREETS IN INDUSTRIAL AND COMMERCIAL AREAS, AND ALL MAJOR COLLECTOR AND ARTERIAL STREETS SHALL HAVE BARRIER CURB AND GUTTER AS DETAILED HEREIN.
5. PLANS DEPICTING WORK OR ADJUSTMENTS ON PROPERTY NOT OWNED BY THE DEVELOPER WILL NOT BE APPROVED WITHOUT WRITTEN EVIDENCE THAT SUCH WORK OR ADJUSTMENTS ARE ACCEPTABLE TO THE OWNER OF THE PROPERTY. EASEMENTS MAY BE REQUIRED FOR PERMANENT IMPROVEMENTS.
6. ALL CONCRETE SHALL BE CLASS "C" 600 (4,000 PSI IN 21 DAYS).
7. ALL WORK REQUIRING TRAFFIC CONTROL IN THE PUBLIC RIGHT-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
8. ALL SIGNS AND BARRICADES, OTHER THAN REGULATORY AS DEFINED IN THE MANUAL OF UNIFORM CONTROL DEVICES, SHALL BE THE RESPONSIBILITY OF THE DEVELOPER.

TYPICAL CROSS SLOPES:

PAVEMENT: 1/4" PER FOOT

SIDEWALK: 1/4" PER FOOT

LAWN: VARIES - BACK OF WALK ELEVATION EQUALS TOP OF CURB +1/2" PER FT.



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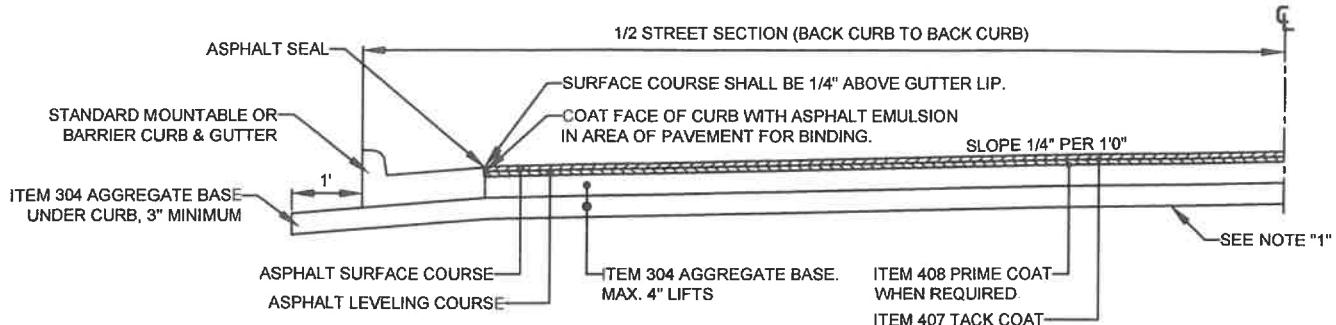
TITLE OF DRAWING:

**STREET DESIGN STANDARDS
& GENERAL NOTES**

CITY OF HUBER HEIGHTS
ENGINEERING DEPARTMENT
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DWG. No.
PV-1.0

ASPHALT PAVEMENT ON AGGREGATE BASE

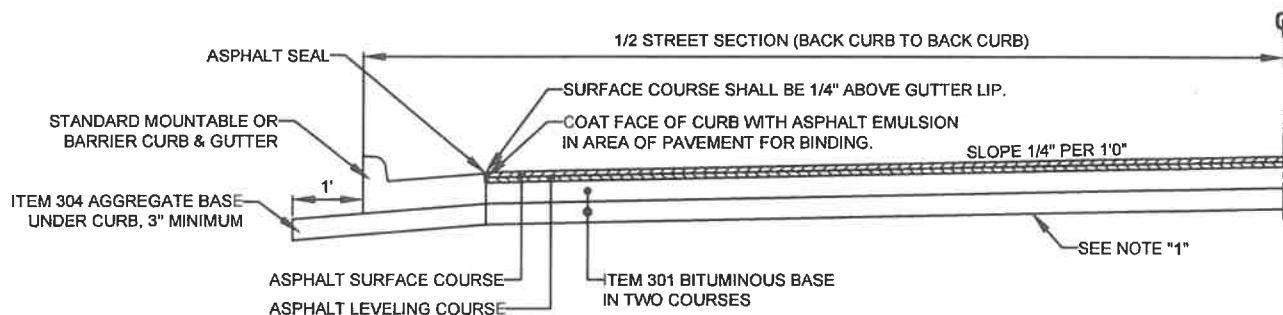


ITEM 408 BITUMINOUS PRIME COAT MC 30 @ 0.5 GALLONS PER SY. APPLY IMMEDIATELY AFTER ITEM 304 IS COMPLETED, IF DIRECTED BY THE CITY ENGINEER.

ITEM 407 TACK COAT TRACKLESS NT SS-1HM TRACKLESS TACK @ 0.1 GALLONS PER SY. APPLY JUST PRIOR TO FINAL COURSE OF ITEM 441 LEVELING COURSE IF DIRECTED BY THE CITY ENGINEER.

FOR RESIDENTIAL STREETS, ITEM 441, SURFACE COURSE SHALL NOT BE APPLIED UNTIL 441 LEVELING COURSE HAS BEEN IN PLACE AT LEAST NINE MONTHS. ANY ITEM 441 LEVELING COURSE DETERIORATION OR SETTLEMENT THAT HAS DEVELOPED DURING THIS PERIOD SHALL BE REMOVED AND REPLACED BEFORE THE SURFACE COURSE IS APPLIED.

ASPHALT PAVEMENT ON BITUMINOUS BASE



PAVEMENT DESIGN STANDARDS

ASPHALT SURFACE ON AGGREGATE BASE		
ITEM NO.	MINOR STREETS	MINOR COLLECTORS
441 (1) SURFACE COURSE	1 1/4"	1 1/2"
441 (2) LEVELING COURSE	1 3/4"	2 1/2"
304 AGGREGATE BASE	10"	10"

ASPHALT SURFACE ON BITUMINOUS BASE		
ITEM NO.	MINOR STREETS	MINOR COLLECTORS
441 (1) SURFACE COURSE	1 1/2"	1 1/2"
441 (2) LEVELING COURSE	1 1/2"	1 1/2"
301 BITUMINOUS BASE	5"	6"

ASPHALT SURFACE ON AGGREGATE BASE			
ITEM NO.	MAJOR COLLECTORS	MINOR ARTERIAL	MAJOR ARTERIAL
442 (A) SURFACE COURSE	1 1/2"	1 1/4"	2"
442 (A) LEVELING COURSE	2 1/2"	3"	3"
304 AGGREGATE BASE	12"	12"	12"

ASPHALT SURFACE ON BITUMINOUS BASE			
ITEM NO.	MAJOR COLLECTORS	MINOR ARTERIAL	MAJOR ARTERIAL
442 (A) SURFACE COURSE	2"	2"	2"
442 (A) LEVELING COURSE	2"	2"	3"
301 BITUMINOUS BASE	6"	7 1/2"	7 1/2"

GENERAL NOTES:

1. ALL SUBGRADE TO BE COMPAKTED TO 95% OF THE MATERIALS MAXIMUM DENSITY BASED ON OPTIMUM WATER CONTENT OF THE SOIL (AASHTO DESIGNATION T-180-57 METHOD "C") TO THE REQUIRED CROWN BEFORE PLACING THE BASE OR ASPHALT COURSES.
3. ALL UTILITY TRENCHES WITHIN THE STREET RIGHT-OF-WAY SHALL BE BACKFILLED WITH COMPAKTED, GRANULAR MATERIAL TO SUBGRADE ELEVATION (REFER TO UTILITY TRENCH DETAIL WITHIN RIGHT-OF-WAY DETAIL)
4. THE CITY ENGINEER RESERVES THE RIGHT TO INCREASE THE MATERIAL THICKNESS SHOWN ABOVE OR REQUIRE SOIL STABILIZATION OR OTHER MEASURES IF, IN THE OPINION OF THE CITY ENGINEER, SUBGRADE CONDITIONS WARRANT SUCH ACTION.



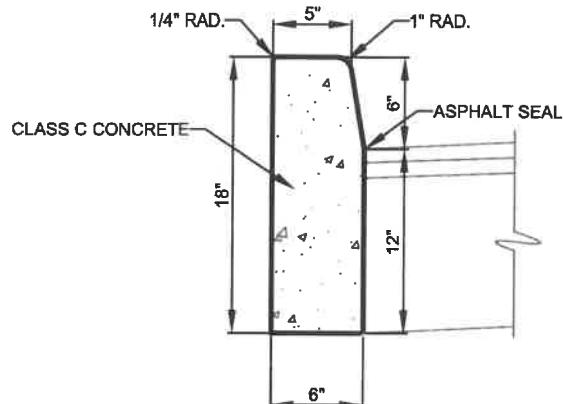
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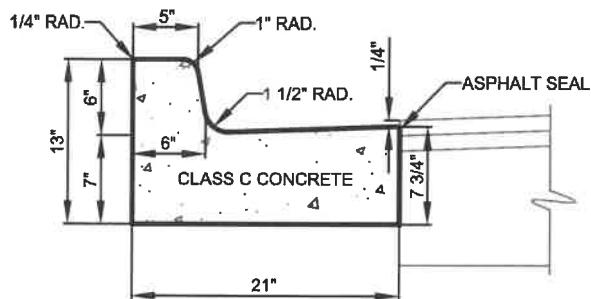
STREET PAVEMENT SECTIONS

CITY OF HUBER HEIGHTS
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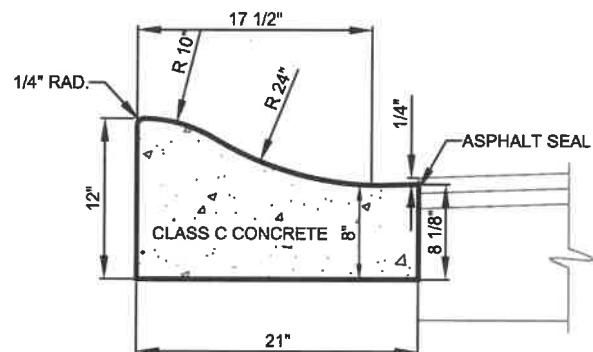
DWG. No.
PV-2.0



BARRIER CURB TYPE 6



COMBINED BARRIER CURB AND GUTTER



COMBINED MOUNTABLE (ROLL) CURB AND GUTTER

GENERAL NOTES:

1. ALL BARRIER TYPE SHALL BE DEPRESSED AT DRIVE APPROACHES. SEE CONCRETE DRIVEWAY DETAIL.
2. ALL CURB AND COMBINATION CURB AND GUTTER SHALL HAVE 1/4" CONTRACTION JOINTS CONSTRUCTED AT 5' INTERVALS. THE DEPTH SHALL AVERAGE 2" OR MORE FOR COMBINATION CURB AND GUTTER, AND FOR CURB SHALL AVERAGE 1/5 OR MORE OF THE CURB HEIGHT. ALL CONTRACTION JOINTS SHALL BE TOOLED RATHER THAN BEING SAWED AFTER BROOM FINISHING.
3. ALL CURB AND COMBINATION CURB AND GUTTER SHALL HAVE 1/2" NON-EXTRUDING EXPANSION JOINTS AT FORTY (40) FOOT INTERVALS UNLESS OTHERWISE DIRECTED BY THE CITY ENGINEER.
4. PROVIDE BROOM FINISH AND EDGING TO ALL EXPOSED SURFACES.
5. PROVIDE A MINIMUM 3" OF COMPAKTED AGGREGATE - ITEM 304 BELOW CURB AND EXTENDED 12" FROM BACK OF CURB ON THE COMPAKTED SUBGRADE. SEE STREET PAVEMENT SECTIONS.



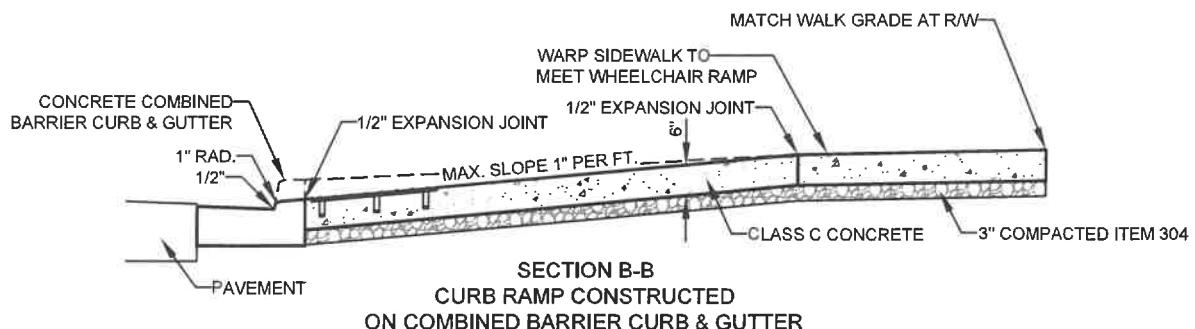
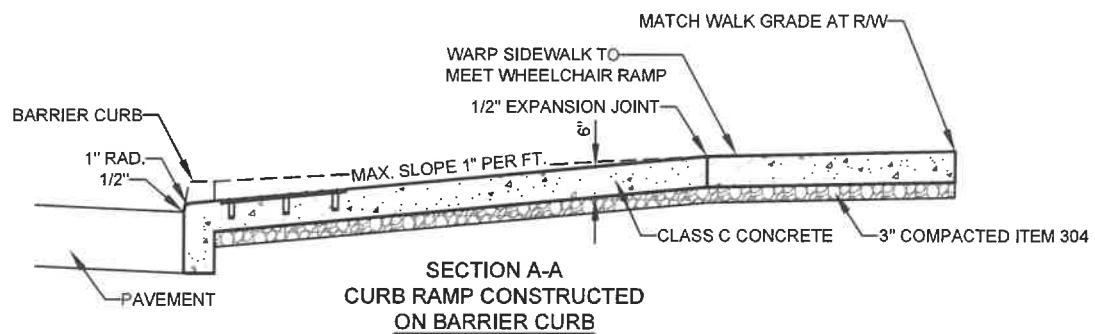
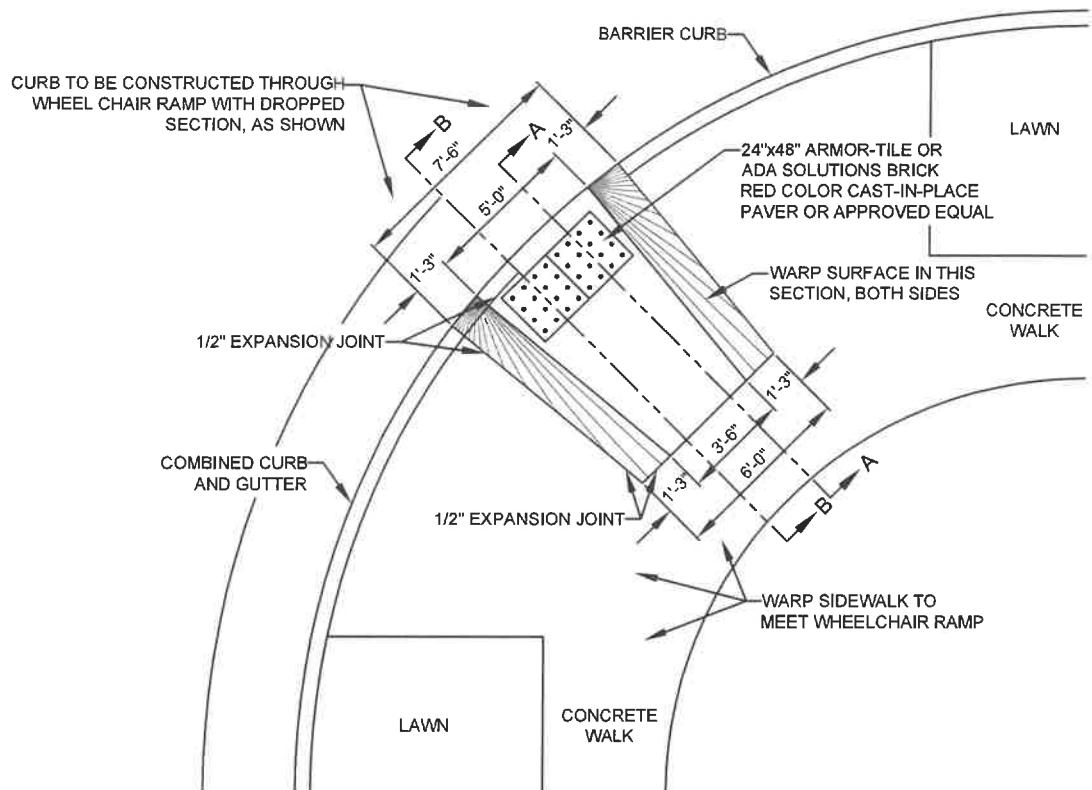
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TITLE OF DRAWING:

CURB SECTION DETAILS

CITY OF HUBER HEIGHTS
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ISSUE DATE: 2017

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PV-3.0



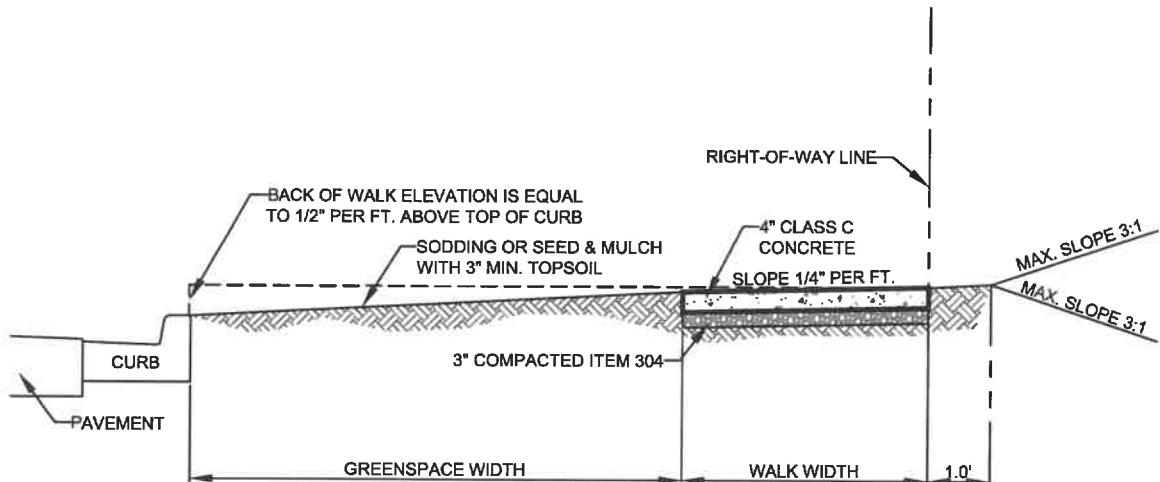
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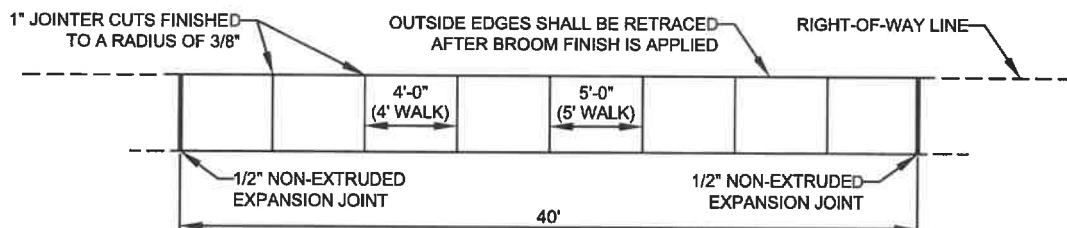
CURB RAMP

CITY OF HUBER HEIGHTS
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DWG. No.
PV-4.0



SIDEWALK CROSS-SECTION



SIDEWALK PLAN



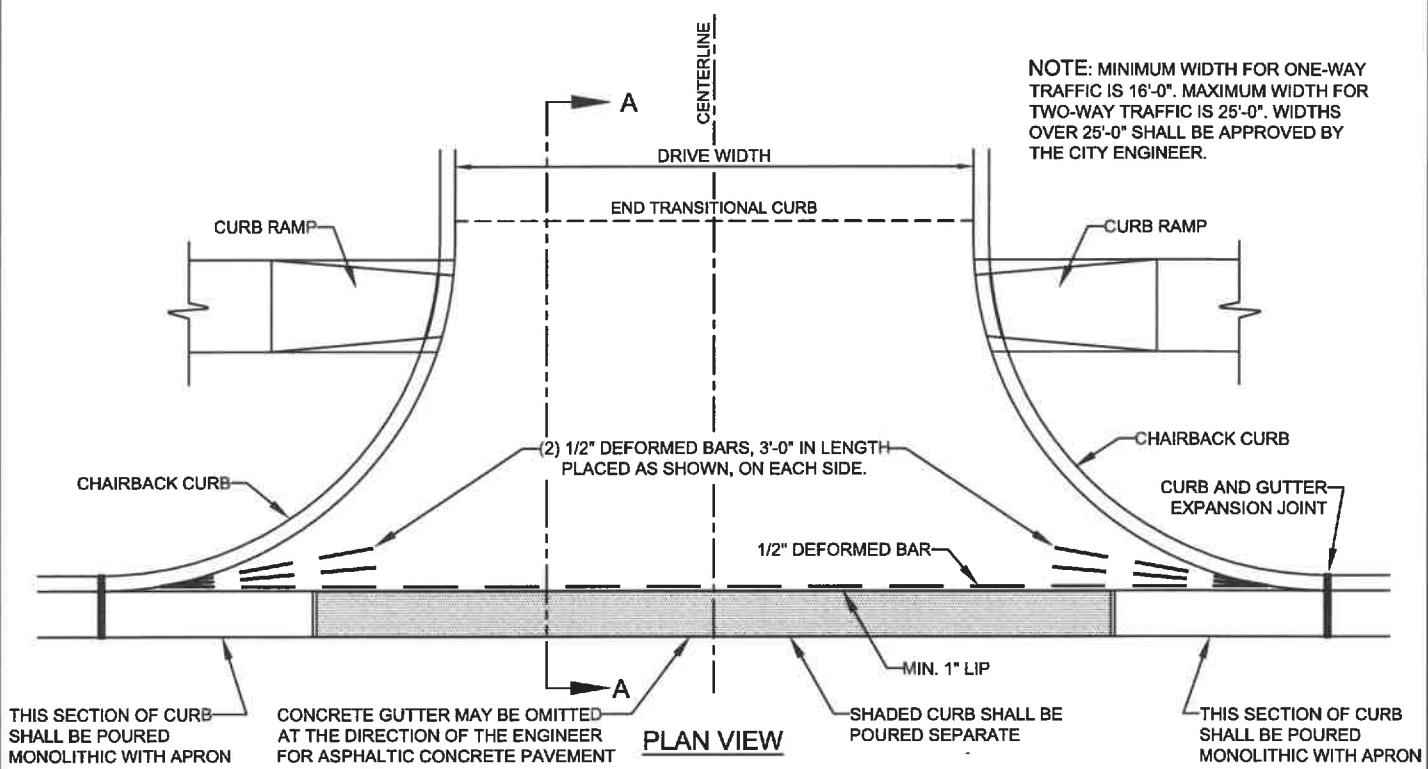
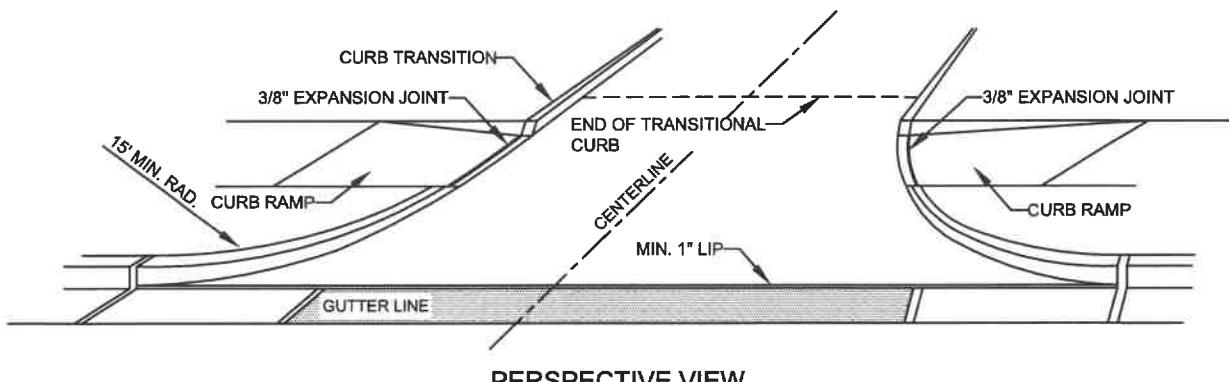
TITLE OF DRAWING:

SIDEWALK LAYOUT

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ENGINEERING DEPARTMENT
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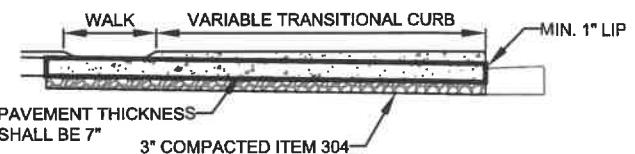
DWG. No.
PV-5.0

NOTE: WHERE DISTANCE FROM FACE OF CURB TO FRONT FACE OF WALK EXCEEDS 16' A 2" TRANSVERSE DUMMY JOINT SHALL BE PLACED AT THE RADIUS POINT, OR AS DIRECTED BY THE CITY ENGINEER.



GENERAL NOTES:

1. JOINTS SHALL BE CLEANED AND EDGED BY A 1/4" RADIUS EDGER. LONGITUDINAL JOINTS SHALL BE AS DIRECTED BY THE ENGINEER. EXPANSION JOINTS SHALL BE OF SUCH DIMENSIONS AS SHOWN ON STANDARD DRAWINGS FOR CONSTRUCTION JOINTS.
2. MATERIAL SHALL MEET THE REQUIREMENTS OF THESE SPECIFICATIONS.



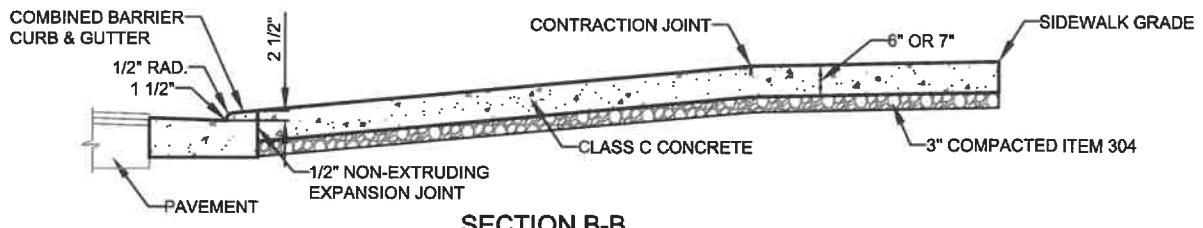
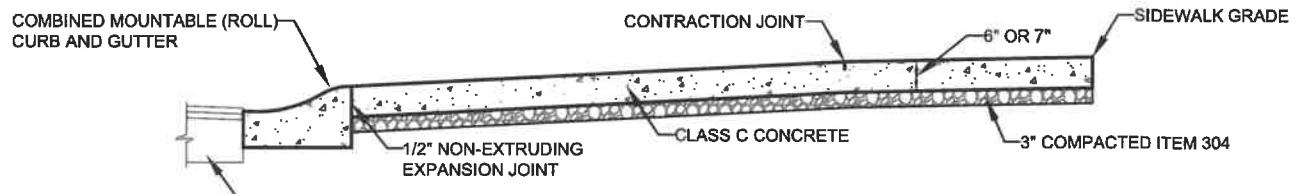
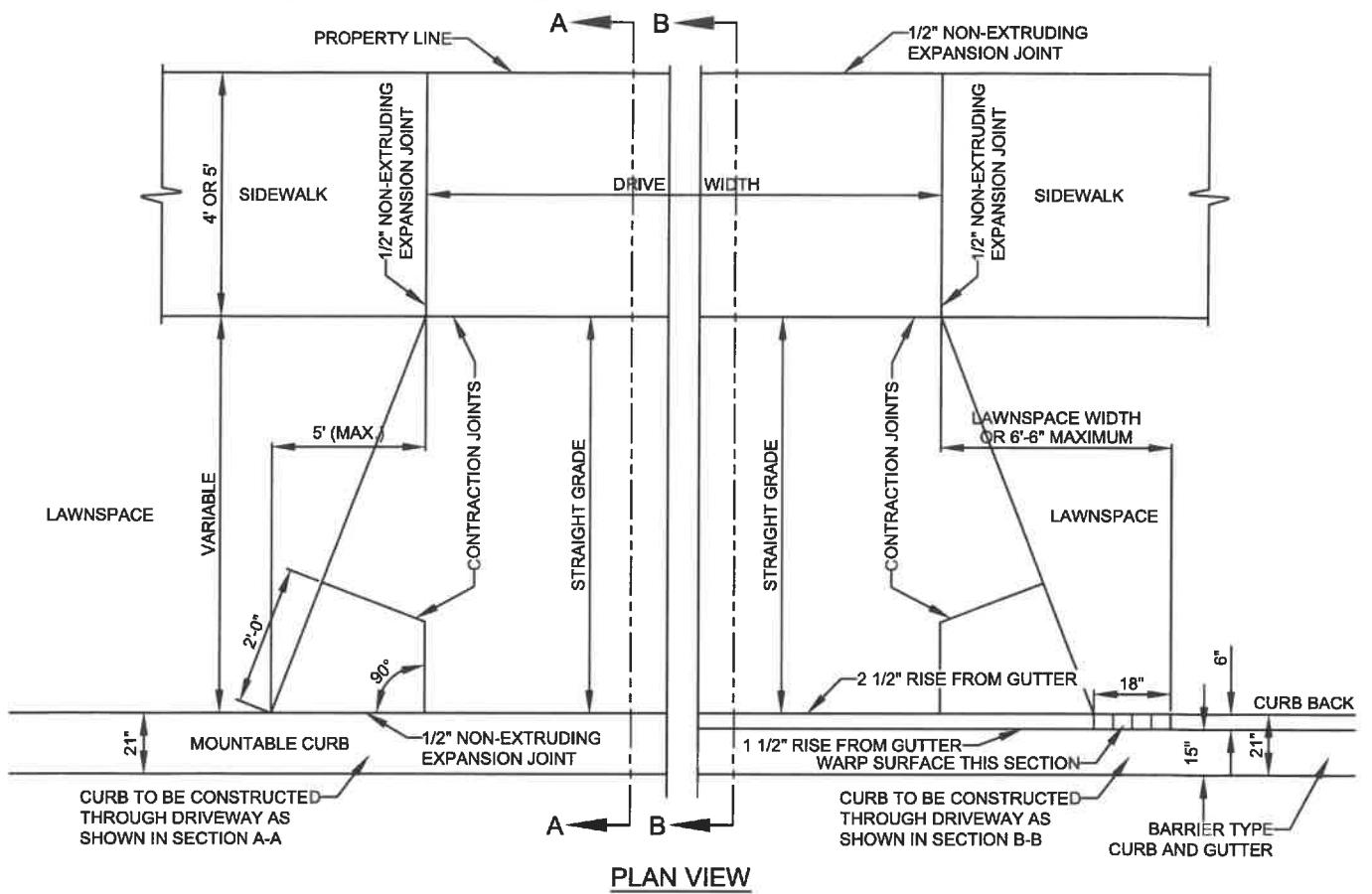
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TITLE OF DRAWING:

COMMERCIAL SERVICE
DRIVE APPROACH

CITY OF HUBER HEIGHTS
ENGINEERING DEPARTMENT
ISSUE DATE: 2017

DWG. No.
PV-6.0



GENERAL NOTES:

1. DRIVEWAYS SHALL BE CONSTRUCTED A MINIMUM OF 8'-0" IN WIDTH AND 6" IN THICKNESS.
2. RESIDENTIAL DRIVE APPROACH SHALL BE 6" THICK & COMMERCIAL DRIVE APPROACH SHALL BE 7" THICK.
3. FOR DRIVEWAYS 15'-0" OR OVER IN WIDTH, A CONTRACTION JOINT SHALL BE CONSTRUCTED IN THE CENTER FOR THE FULL LENGTH OF THE DRIVEWAY.



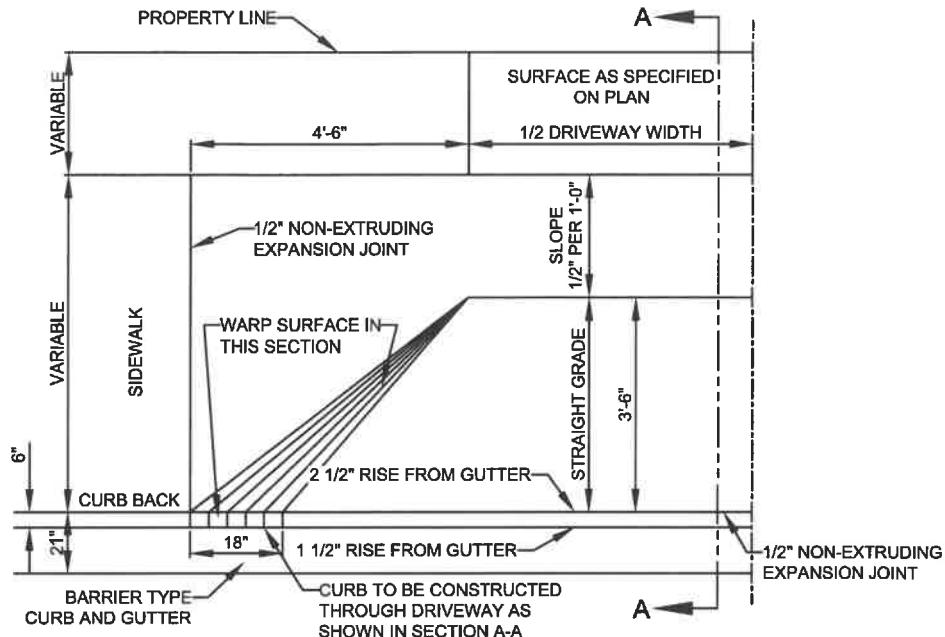
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TITLE OF DRAWING:

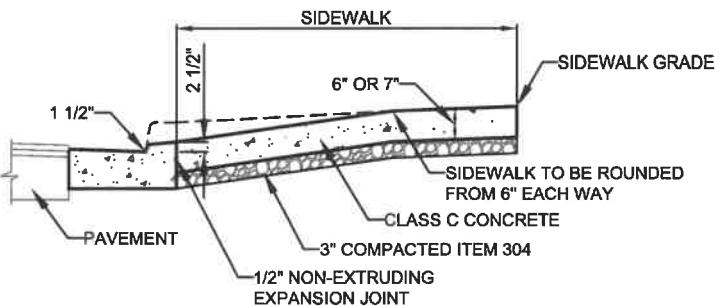
CONCRETE DRIVEWAY APPROACH

CITY OF HUBER HEIGHTS
ENGINEERING DEPARTMENT
ISSUE DATE: 2017

DWG. No.
PV-7.0



PLAN VIEW



SECTION A-A

GENERAL NOTES:

1. DRIVEWAYS SHALL BE CONSTRUCTED A MINIMUM OF 8'-0" IN WIDTH
2. RESIDENTIAL DRIVE APPROACH SHALL BE 6" THICK & COMMERCIAL DRIVE APPROACH SHALL BE 7" THICK.
3. DRIVEWAYS 15'-0" OR OVER IN WIDTH SHALL HAVE A CONTRACTION JOINT CONSTRUCTED IN THE CENTER FOR THE LENGTH OF THE DRIVEWAY.
4. WHEN ADDING DRIVES TO EXISTING CURB, THE ENTIRE EXISTING CURB MUST BE REMOVED. NO BREAKING OFF OF THE TOP PORTION OF THE CURB WILL BE ALLOWED.



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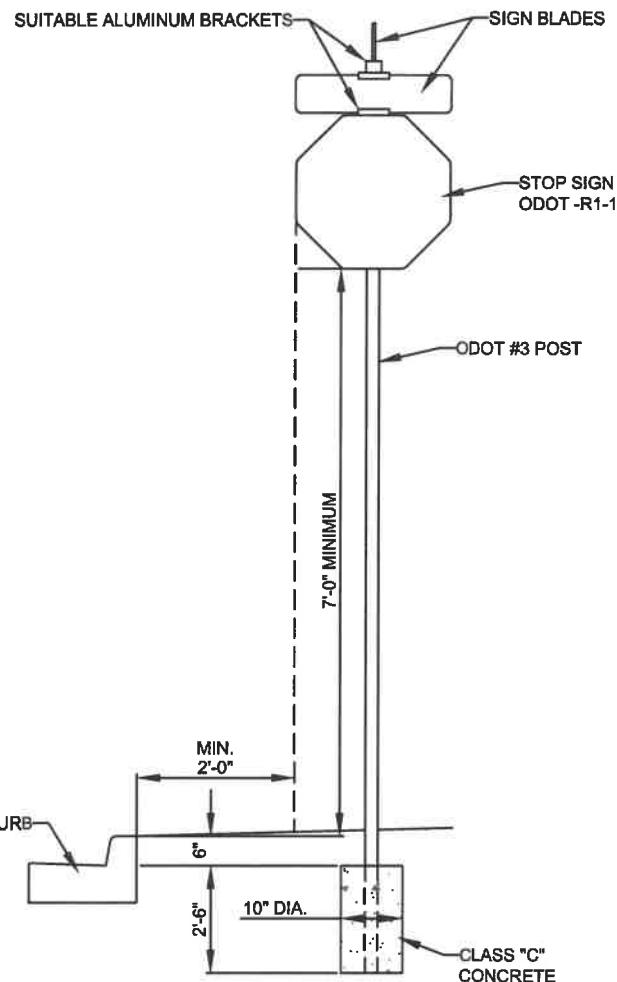
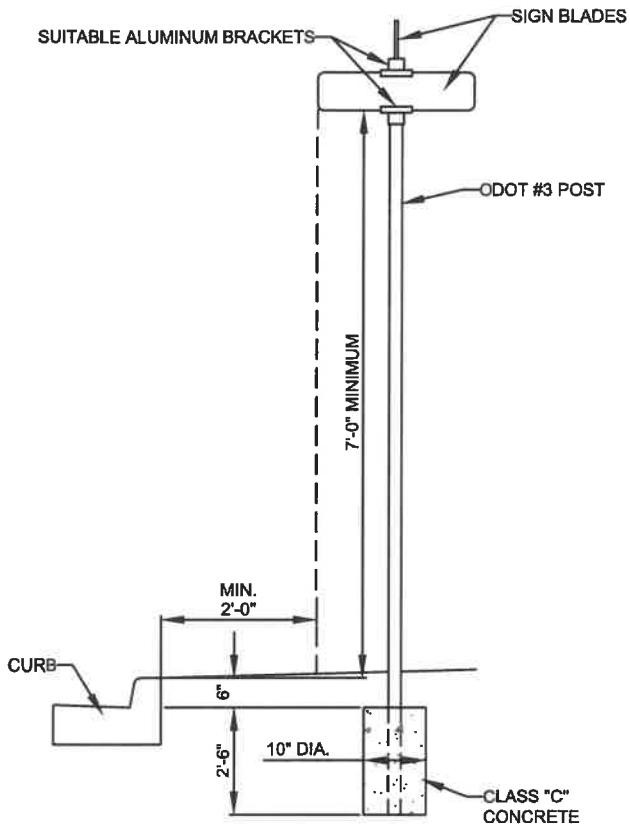
CONCRETE DRIVEWAY APPROACH
WITH SIDEWALK ABUTTING THE CURB

CITY OF HUBER HEIGHTS
ENGINEERING DEPARTMENT
ISSUE DATE: 2017

DWG. No.
PV-8.0

NOTE:

POST SHALL BE LOCATED AT THE INTERSECTION SO AS TO PROVIDE GOOD VISIBILITY OF STREET NAME SIGN FROM ALL APPROACHES



GENERAL NOTES:

1. THE SIGN FACES SHALL BE MADE OF REFLECTORIZED WHITE LETTERS ON REFLECTORIZED BLUE BACKGROUND.
2. TYPE "C" SERIES LETTERS ARE RECOMMENDED, HOWEVER, TYPE "B" SERIES LETTERS WILL BE PERMITTED. REFERENCE: OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
3. LETTERING SIZES: 4"-STREET NAME, 2"-Dr/Rd. ETC.
4. LOGO 4.25" TALL x 4.75" WIDE.
5. NO OUTLET SYMBOL 3.5" x 3.5"
6. THE 6" SIGN BLADES SHALL HAVE A NOMINAL THICKNESS OF 0.080 INCHES AND SHALL BE OF 6061-TE ALUMINUM ALLOY.
7. THE BLADE SHALL BE MADE OF EXTRUDED ALUMINUM.
8. ALL BLADES SHALL BE BONDERIZED OR ANODIZED PRIOR TO APPLYING THE REFLECTIVE SHEETING.
9. 7' MINIMUM HEIGHT FROM TOP BACK OF CURB TO BOTTOM OF SIGN (STREET SIGN, STOP SIGN, ETC.)



STREET NAME SIGN DETAIL



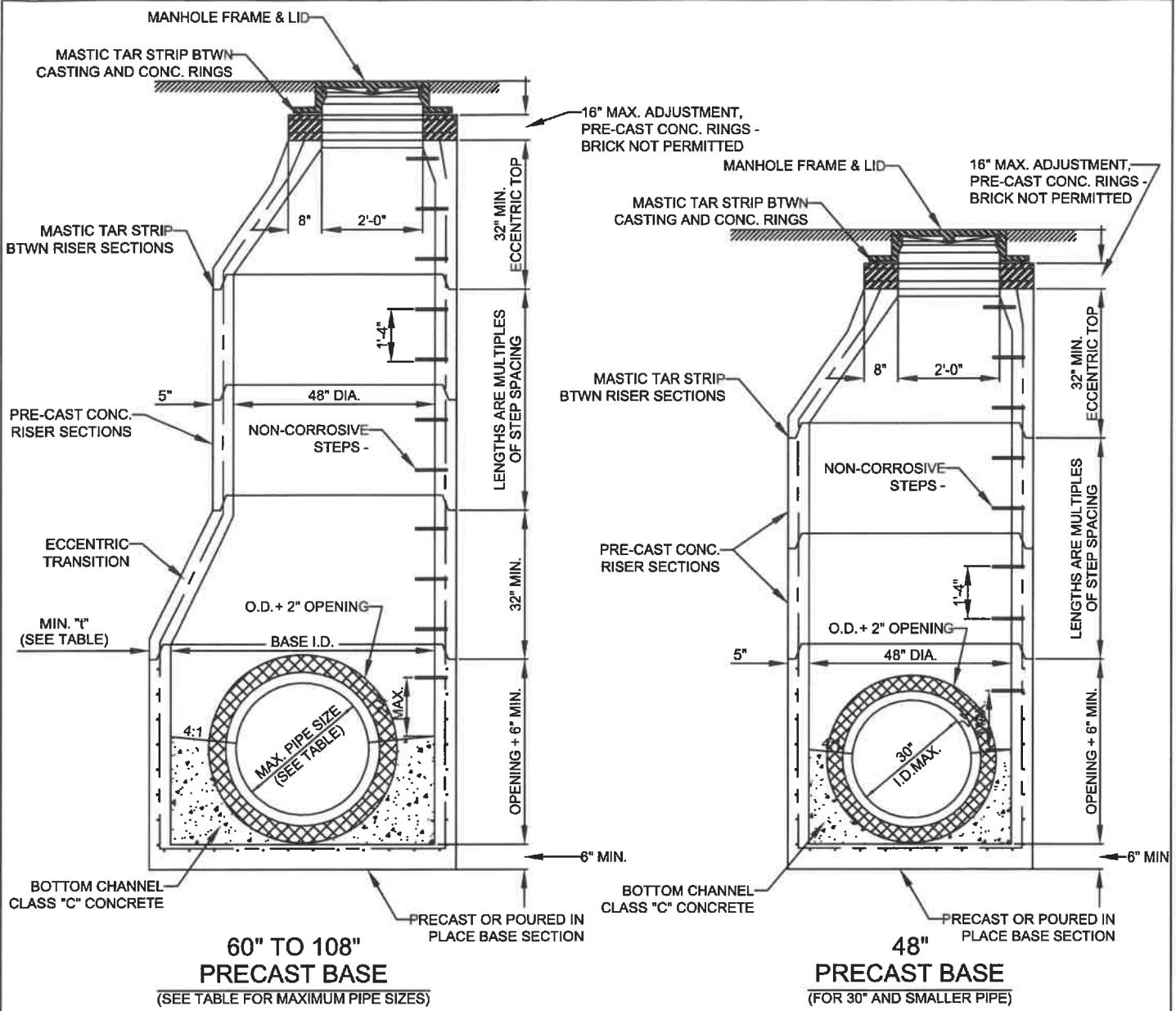
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TITLE OF DRAWING:

STREET SIGN

CITY OF HUBER HEIGHTS
ENGINEERING DEPARTMENT
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DWG. No.
PV-9.0



MAXIMUM PIPE SIZES		
BASE I.D.	MIN. "t"	MAX. PIPE SIZE
60"	5"	36"
72"	6"	48"
84"	7"	54"
90"	7 1/2"	60"
96"	8"	66"
108"	9"	72"

MANHOLE No. 3

FOR ADDITIONAL NOTES REFER TO THE LATEST EDITION OF THE ODOT HYDRAULIC STANDARD CONSTRUCTION DRAWINGS



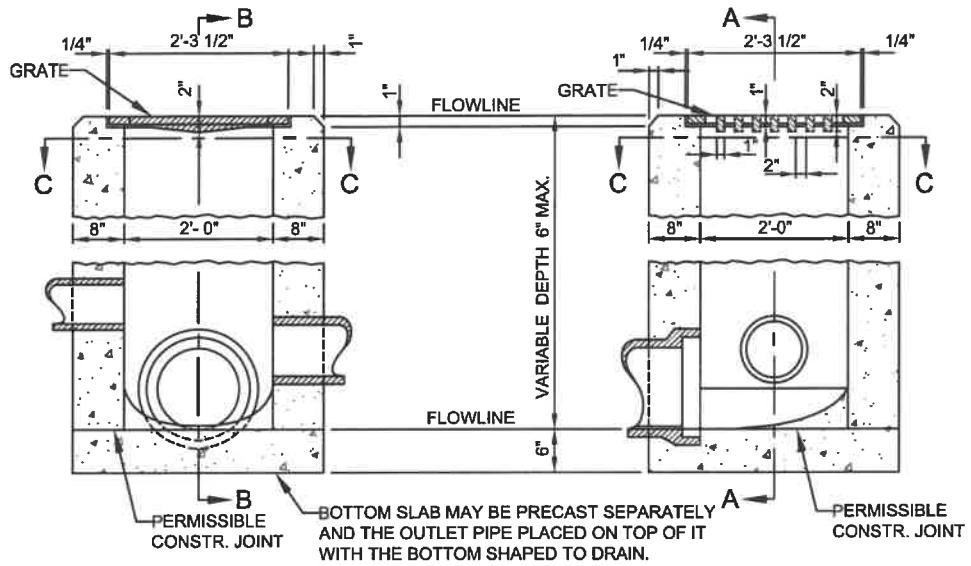
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MANHOLE No. 3

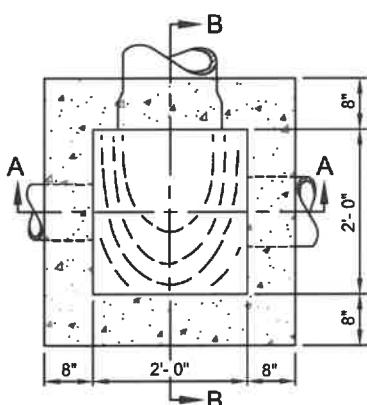
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DWG. No.
MH-1.2

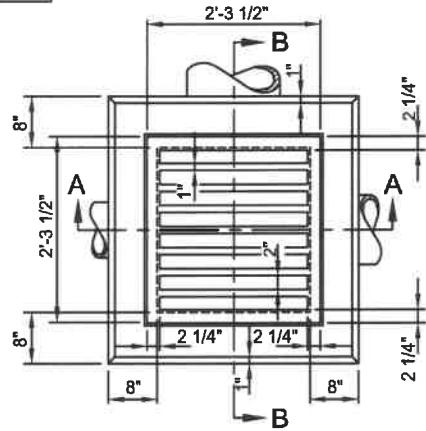


SECTION A-A

SECTION B-B



SECTION C-C



PLAN

CONCRETE: USE 4000 PSI COMPRESSIVE STRENGTH FOR CAST-IN-PLACE CONCRETE. MEET THE REQUIREMENTS OF CMS 706.13 FOR ALL PRECAST CONCRETE AND MARK WITH CATCH BASIN NUMBER.

CONSTRUCTION INFORMATION
MIN. WEIGHT OF GRATE, 120 lbs.

CATCH BASIN	OUTLET PIPE SIZE
2-2B	12" TO 21"

CATCH BASIN No. 2-2B

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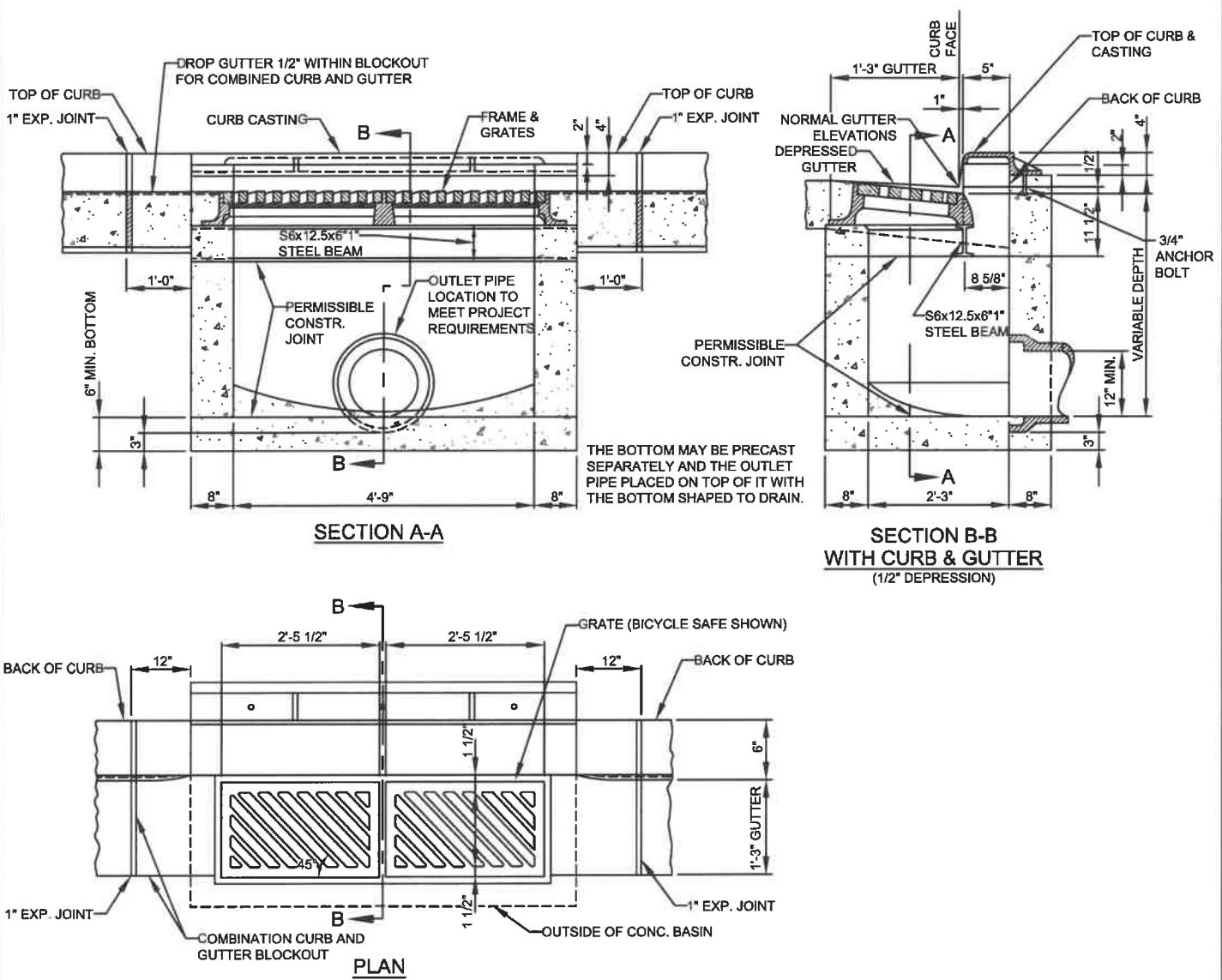
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TITLE OF DRAWING:

CATCH BASIN No. 2-2B

CITY OF HUBER HEIGHTS
ENGINEERING DEPARTMENT
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DWG. No.
CB-1.1



CATCH BASIN No. 3 MODIFIED

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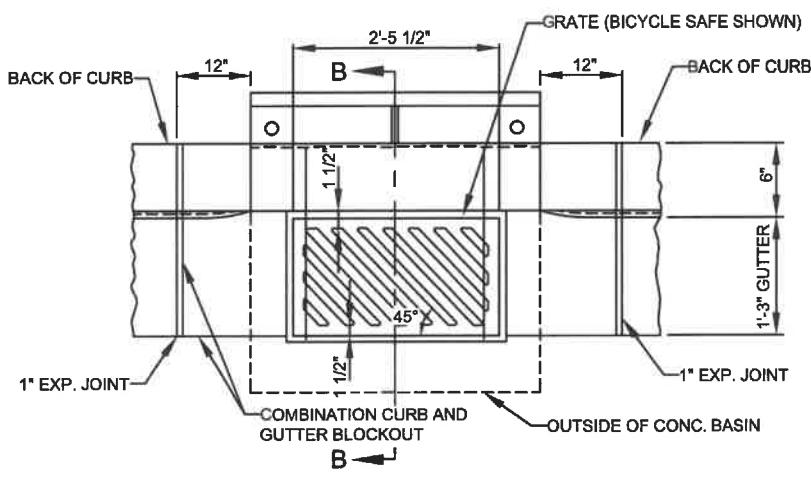
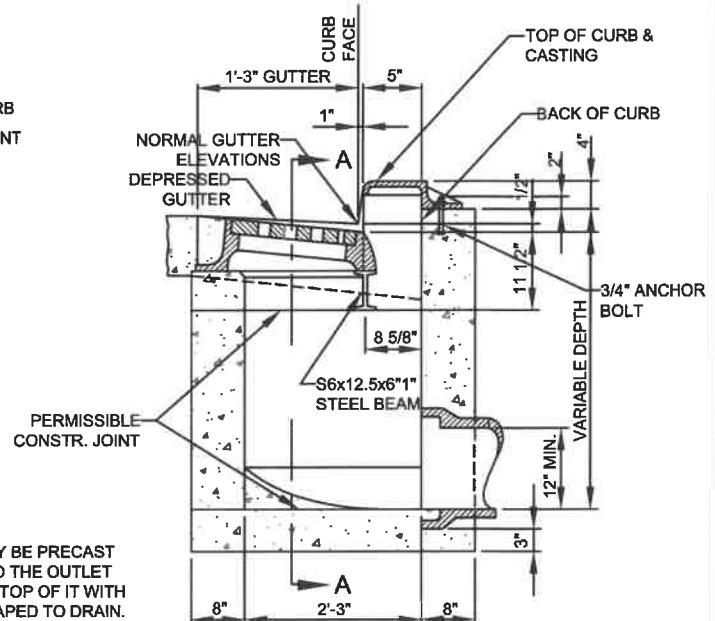
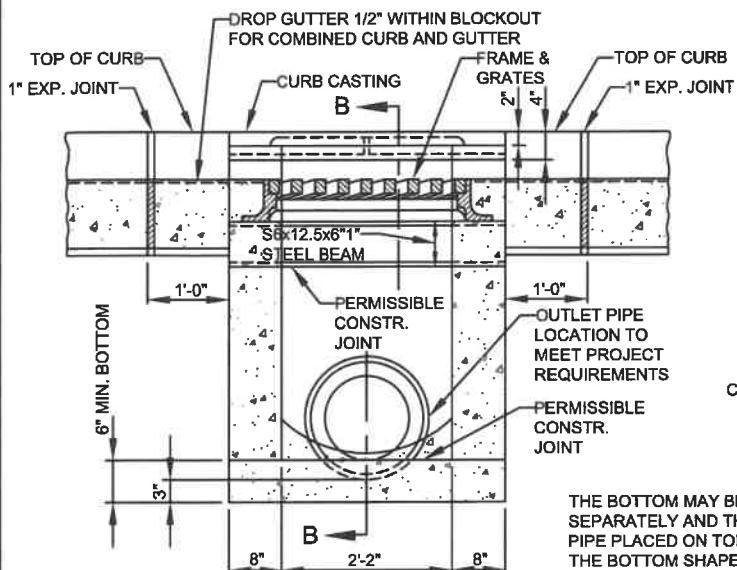
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TITLE OF DRAWING:

CATCH BASIN No. 3 MODIFIED

**CITY OF HUBER HEIGHTS
ENGINEERING DEPARTMENT
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DWG. No. **CB-2.1**



CATCH BASIN No. 3A MODIFIED

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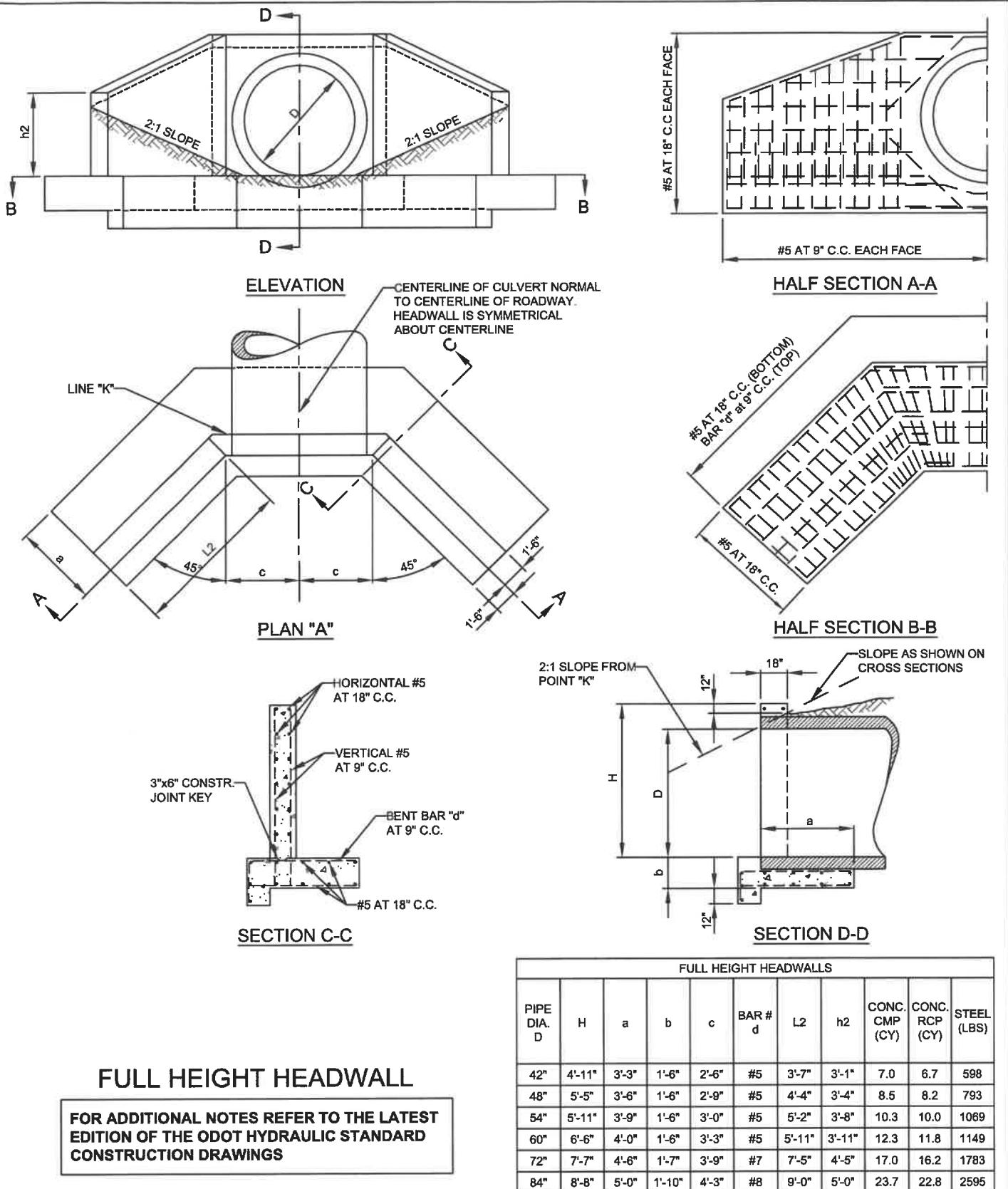
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CATCH BASIN No. 3A MODIFIED

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DWG. No.
CB-2.2



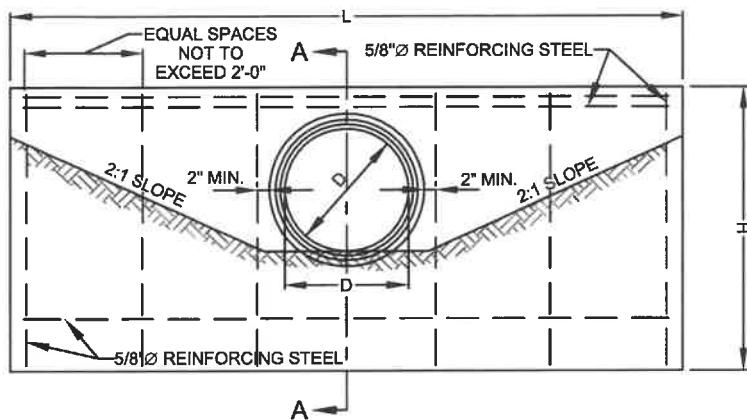
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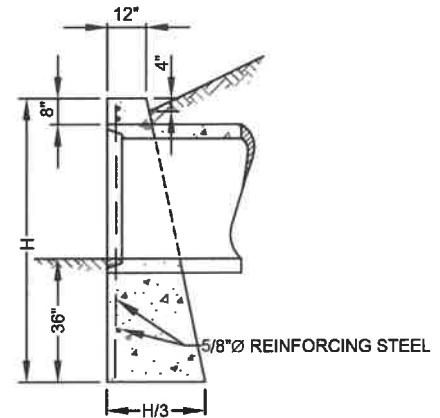
FULL HEIGHT HEADWALL

CITY OF HUBER HEIGHTS
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ISSUE DATE: 2017

DWG. No.
HW-1.1



ELEVATION



SECTION A-A

L CIRCULAR SECTIONS $= 5D + 4T$
 L ELLIPTICAL OR PIPE-ARCH $= 4R + 4T + S$
 H CIRCULAR SECTIONS $= D + T + 44"$
 H ELLIPTICAL OR PIPE-ARCH $= R + T + 44"$
 D = DIAMETER OF PIPE
 R = RISE OF PIPE
 S = SPAN OF PIPE
 T = THICKNESS OF BARREL
 L = LENGTH OF HEADWALL
 H = HEIGHT OF HEADWALL

DIMENSIONS			QUANTITIES ONE HEADWALL	
DIAMETER	H	L	CONCRETE CU. YDS.	REINFORCING STEEL
15"	5'-2"	7'-0"	1.7	41
18"	5'-5"	8'-4"	2.2	57
21"	5'-8"	9'-8"	2.8	62
24"	5'-11"	11'-0"	3.3	69
30"	6'-5"	13'-8"	4.7	92
36"	7'-0"	16'-4"	6.5	105

FULL HEIGHT HEADWALL (FOR SEWERS 36" OR LESS IN DIAMETER)

FOR ADDITIONAL NOTES REFER TO THE LATEST
EDITION OF THE ODOT HYDRAULIC STANDARD
CONSTRUCTION DRAWINGS



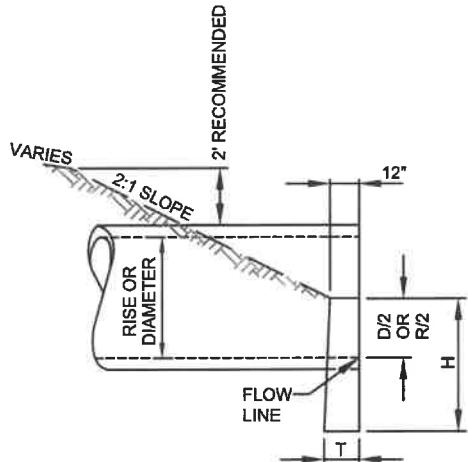
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6131 TAYLORSVILLE RD.
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(937) 233-1423

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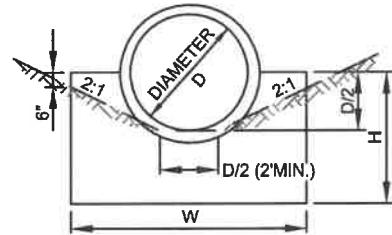
FULL HEIGHT HEADWALL
(FOR SEWERS 36" OR LESS IN DIAMETER)

CITY OF HUBER HEIGHTS
 ENGINEERING DEPARTMENT
 ISSUE DATE: 2017

DWG. No.
HW-1.2



CONCRETE PIPE PROFILE



CONCRETE PIPE

HEADWALL FOR CONCRETE PIPE				
CIRCULAR				
D	W	H	T	CONC. CU. YDS
12"	2'-0"	3'-0"	12"	20
15"	2'-6"	3'-2"	12"	25
18"	3'-0"	3'-3"	12"	31
21"	3'-6"	3'-4"	12"	37
24"	4'-0"	3'-6"	12"	43
27"	4'-6"	3'-8"	12"	49
30"	5'-0"	3'-9"	12"	56
33"	5'-6"	3'-10"	12"	62
36"	6'-0"	4'-0"	12"	69
39"	6'-6"	4'-2"	12"	77
42"	7'-0"	4'-3"	12"	84
48"	8'-0"	4'-6"	14"	109
54"	9'-3"	4'-9"	14"	132
60"	10'-6"	5'-6"	16"	193
66"	11'-9"	5'-9"	18"	242
72"	13'-0"	6'-0"	18"	277
78"	14'-3"	6'-3"	20"	337
84"	15'-6"	6'-6"	22"	405

HALF-HEIGHT HEADWALL FOR CONCRETE PIPE

FOR ADDITIONAL NOTES REFER TO THE LATEST
EDITION OF THE ODOT HYDRAULIC STANDARD
CONSTRUCTION DRAWINGS



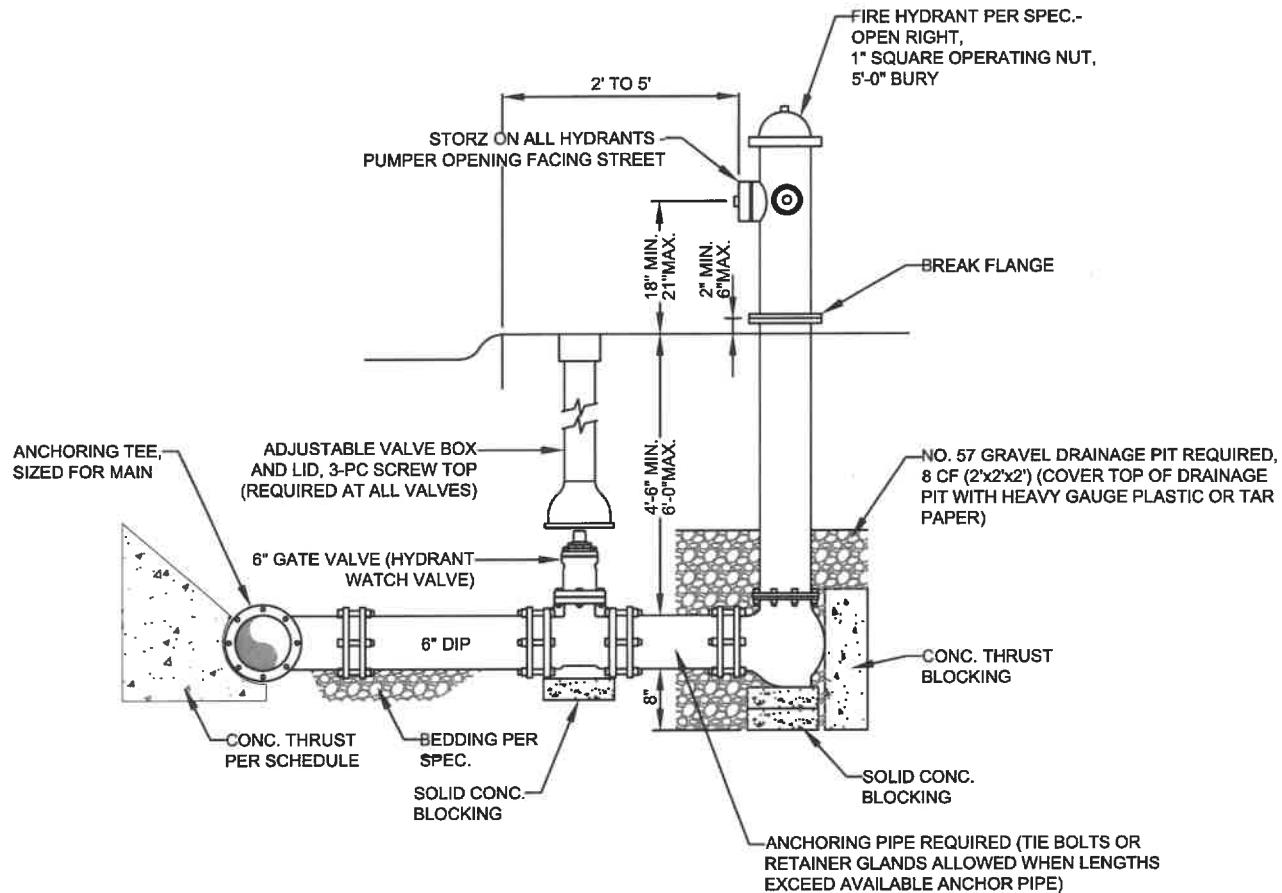
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TITLE OF DRAWING:

HALF-HEIGHT HEADWALL
FOR CONCRETE PIPE

CITY OF HUBER HEIGHTS
ENGINEERING DEPARTMENT
ISSUE DATE: 2017

DWG. No.
HW-2.2



GENERAL NOTES:

1. NO NATURAL OR MAN-MADE BARRIERS SUCH AS WALLS, FENCES, POSTS, CURBS, SHRUBBERY, OR TREES SHALL BE INSTALLED SO AS TO IMPEDE THE USE, ACCESS, OR OPERATION OF HYDRANTS. MINIMUM CLEAR DISTANCE TO HYDRANT SHALL BE THREE (3) FEET.
2. IN AREAS WHERE HYDRANT INSTALLATION IS TO BE IN ROADWAY, PARKING LOT OR OTHER AREAS WHERE VEHICULAR TRAFFIC MAY CAUSE DAMAGE TO THE HYDRANT, PROTECTIVE BARRIERS ARE TO BE INSTALLED, AS DIRECTED BY THE ENGINEER.
3. HYDRANTS ALONG STREETS SHALL BE LOCATED IN THE TREE LAWN AREA OF THE RIGHT-OF-WAY, NOT LESS THAN 2' FROM THE BACK OF CURB AND NOT MORE THAN 5'.



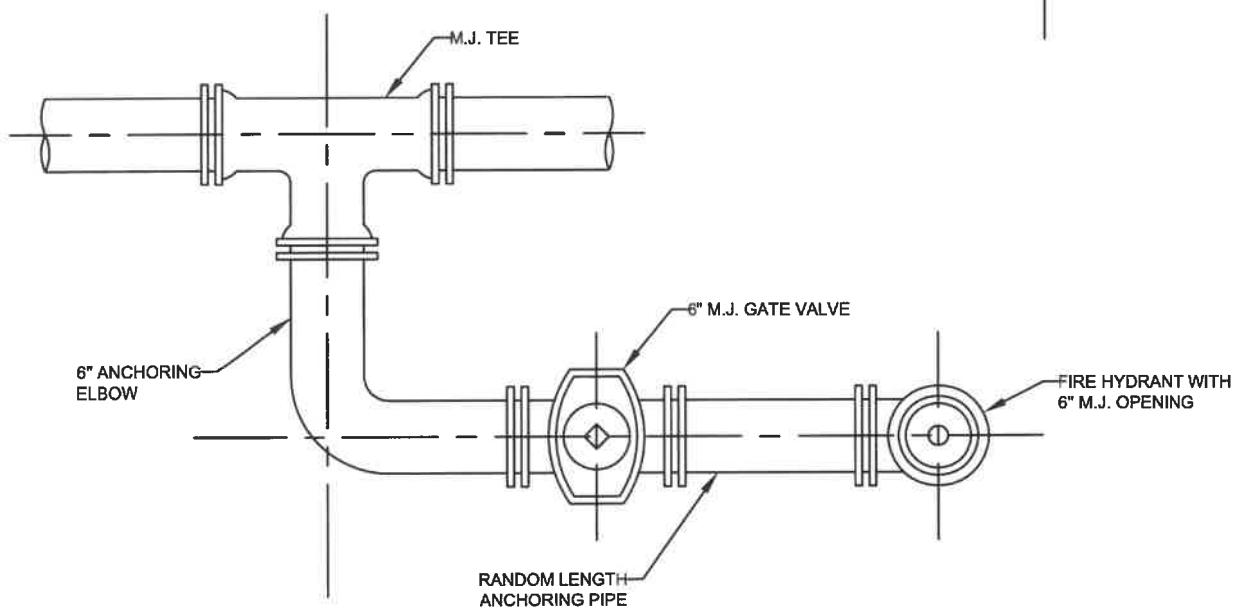
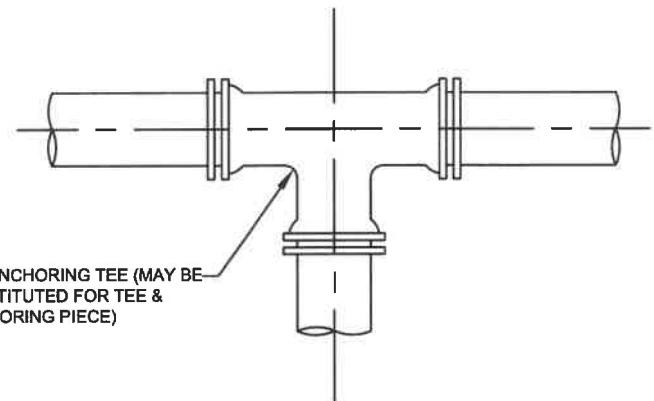
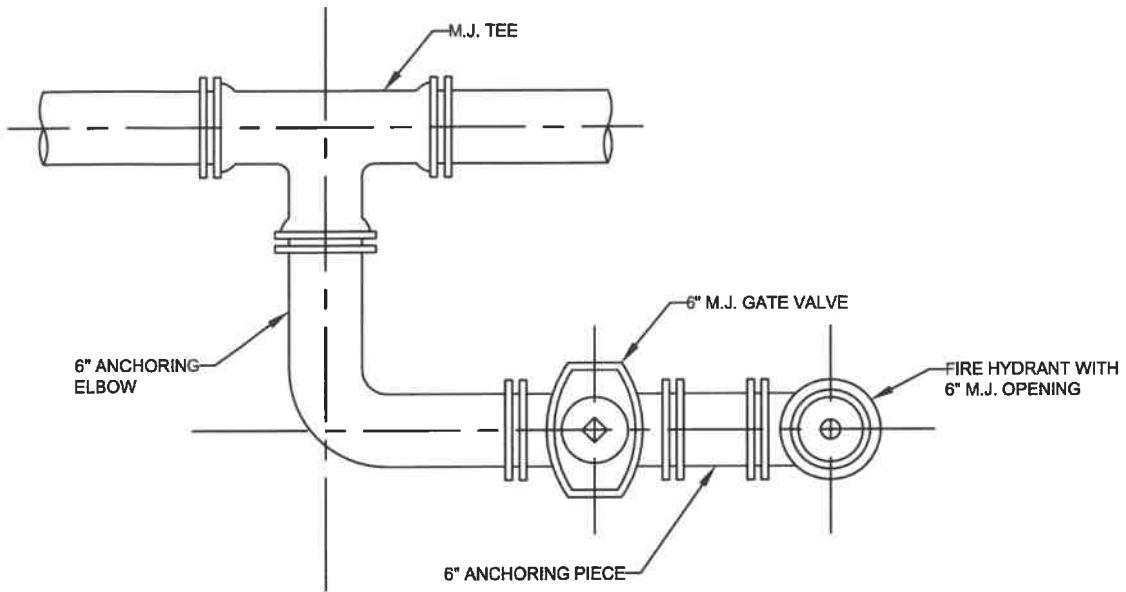
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TITLE OF DRAWING:

FIRE HYDRANT ASSEMBLY

CITY OF HUBER HEIGHTS
ENGINEERING DEPARTMENT
ISSUE DATE: 2017

DWG. No.
WT-1.0

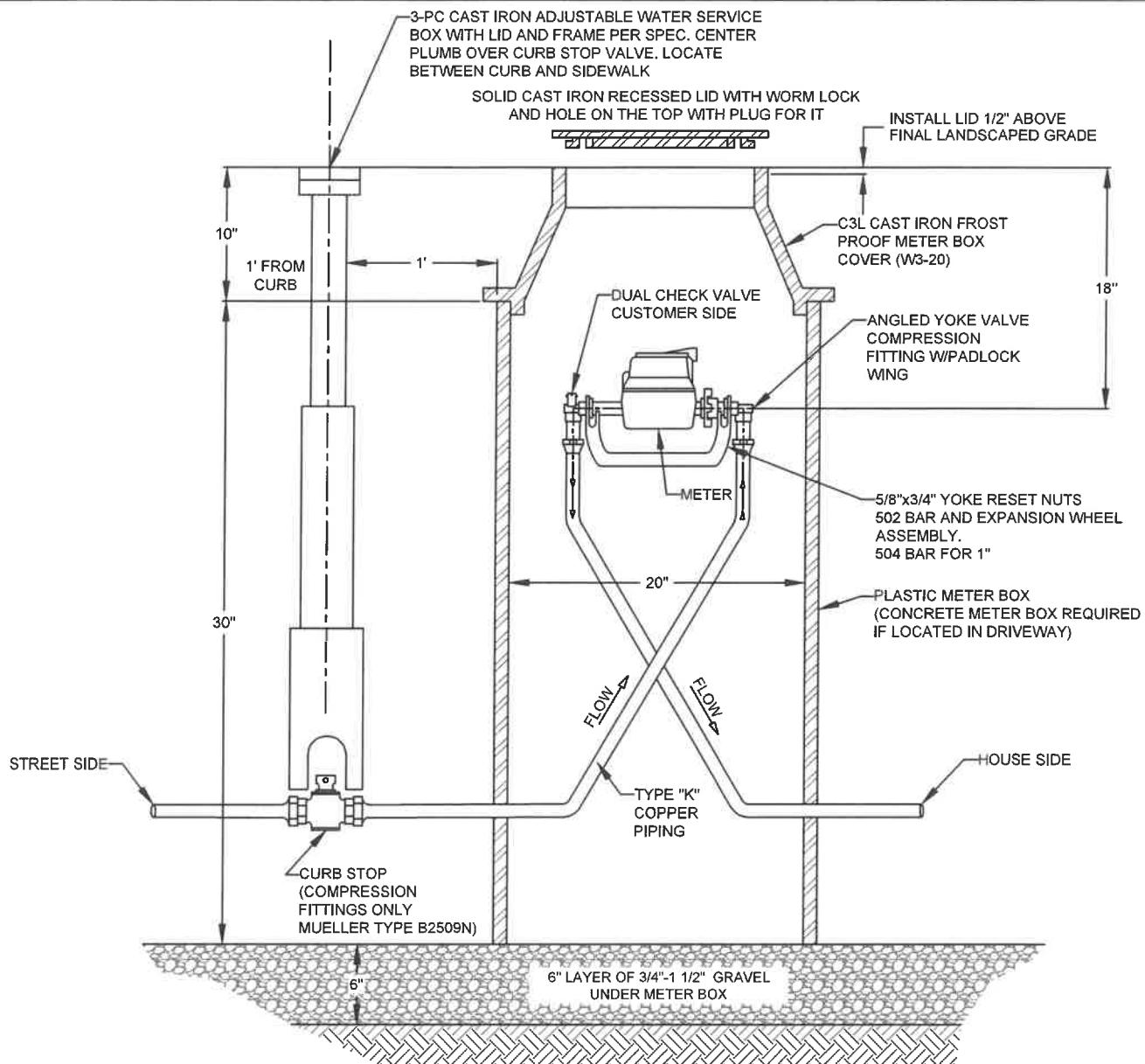


TITLE OF DRAWING:

**FIRE HYDRANT ASSEMBLY
PARALLEL TO WATER MAIN**

CITY OF HUBER HEIGHTS
ENGINEERING DEPARTMENT
ISSUE DATE: 2017

DWG. No.
WT-2.0



**REFER TO MONTGOMERY COUNTY
ENVIRONMENTAL SERVICES STANDARD
CONSTRUCTION DRAWINGS FOR WATER
METER PITS LARGER THAN ONE(1) INCH**

GENERAL NOTES:

1. INSPECTION BY THE CITY OF HUBER HEIGHTS IS REQUIRED TO TAP-IN TO THE WATER MAIN, INSTALL WATER METER AND METER PIT.
2. INSPECTION BY MONTGOMERY COUNTY IS REQUIRED TO INSTALL THE SERVICE FROM THE METER TO THE RESIDENCE.
3. FOR RESIDENTIAL USE WATER METER PIT SHOULD BE 21 1/2" TO 24" BEHIND CURB.
4. IRRIGATION METER SHOULD ALWAYS BE INSTALLED IN A SEPARATE PIT ON THE LEFT SIDE OF THE MAIN METER.
5. DO NOT INSTALL IN ANY STREET, ALLEY, PARKING AREA, DRIVEWAY, SIDEWALK, DRAINAGE DITCH OR DETENTION BASIN.
6. NO LANDSCAPING (SHRUBS, BOULDERS, ETC.) OR STRUCTURES TO BE WITHIN 4' OF THE METER BOX, OR NO TREES WITHIN 10' OF METER BOX.
7. SLOPE GROUND SURROUNDING METER BOX AWAY FROM LID AT 2% MINIMUM GRADE.
8. MULTI FAMILY HOMES SHALL BE AT LEAST 1" WITH 24" PIT MINIMUM.
9. ALL TEES AND CONNECTION FITTINGS TO BE A MINIMUM OF 5' FROM METER BOX WALL ON OUTLET SIDE.
10. GRADE ACCEPTANCE AFTER METER BOX INSTALLATION REQUIRES THAT THE OWNER ADJUST METER BOX COVER TO 1/2" ABOVE FINAL GRADE.
11. IF A PRESSURE REDUCING VALVE IS REQUIRED BY PLUMBING CODE, INSTALL VALVE INSIDE THE BUILDING, IMMEDIATELY FOLLOWING THE MAIN SHUT-OFF VALVE.



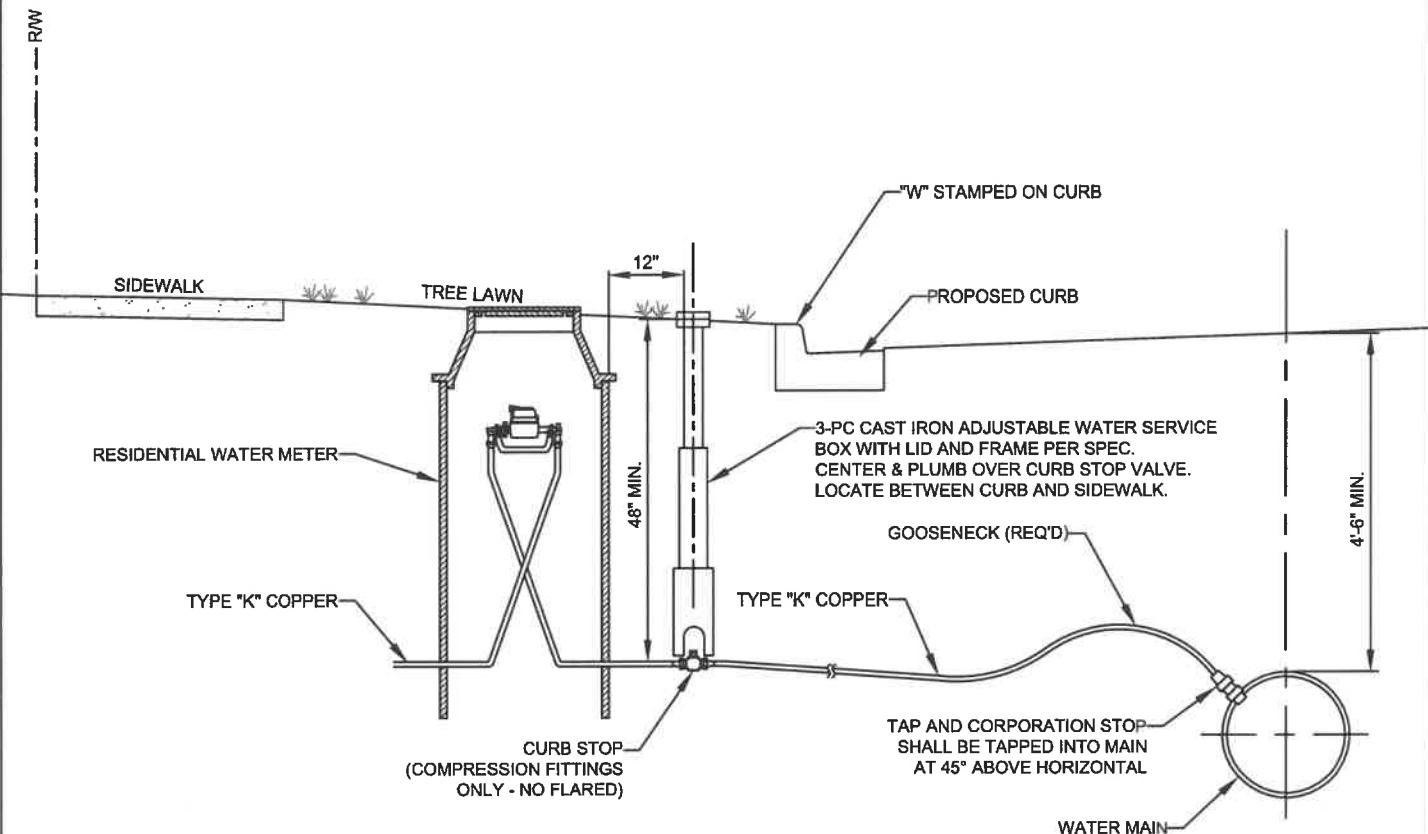
**CITY OF HUBER HEIGHTS
ENGINEERING DEPARTMENT
6131 TAYLORSVILLE RD.
HUBER HEIGHTS, OH 45424
(937) 233-1423**

TITLE OF DRAWING:

**STANDARD EXTERIOR SETTING FOR
5/8" x 3/4" & 1" RESIDENTIAL WATER
METER**

CITY OF HUBER HEIGHTS
ENGINEERING DEPARTMENT
ISSUE DATE: 2017

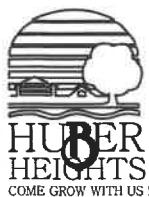
DWG. No.
WT-3.0



WATER MAIN SERVICE CONNECTION

GENERAL NOTES:

1. TYPE "K" COPPER TUBING MEETING FEDERAL REQUIREMENTS WW-T-799.
2. TAP, CORPORATION STOP & CURB STOP SHALL BE MUELLER TYPE
3. WATER SERVICES SHALL BE A MINIMUM OF 10' MEASURED HORIZONTALLY FROM SEWER SERVICE AND SHALL BE A MINIMUM OF 18" ABOVE CROWN OF THE SANITARY SEWER MAIN WHERE THE WATER SERVICE CROSSES THE SEWER MAIN. WATER SERVICES MAY BE LAID ON BENCH IN SEWER LATERAL TRENCH IF CROWN OF SEWER IS AT LEAST 18" BELOW INVERT OF WATER SERVICE.
4. ALL FITTINGS SHALL BE COMPRESSION FITTINGS ONLY.
5. INSPECTION BY THE CITY OF HUBER HEIGHTS IS REQUIRED TO TAP-IN TO THE WATER MAIN, INSTALL WATER METER AND METER PIT.
6. INSPECTION BY MONTGOMERY COUNTY IS REQUIRED TO INSTALL THE SERVICE FROM THE METER TO THE RESIDENCE.
7. FOR RESIDENTIAL USE WATER METER PIT SHOULD BE 21 1/2" TO 24" BEHIND CURB.
8. IRRIGATION METER SHOULD BE ALWAYS INSTALLED IN A SEPARATE PIT ON THE LEFT SIDE OF THE MAIN METER.
9. DO NOT INSTALL IN ANY STREET, ALLEY, PARKING AREA, DRIVEWAY, SIDEWALK, DRAINAGE DITCH OR DETENTION BASIN.
10. NO LANDSCAPING (SHRUBS, BOULDERS, ETC.) OR STRUCTURES TO BE WITHIN 4' OF THE METER BOX, OR NO TREES WITHIN 10' OF METER BOX.
11. SLOPE GROUND SURROUNDING METER BOX AWAY FROM LID AT 2% MINIMUM GRADE.
12. MULTI FAMILY HOMES SHALL BE AT LEAST 1" WITH 24" PIT MINIMUM.
13. ALL TEES AND CONNECTION FITTINGS TO BE A MINIMUM OF 5' FROM METER BOX WALL ON OUTLET SIDE.
14. GRADE ACCEPTANCE AFTER METER BOX INSTALLATION REQUIRES THAT THE OWNER ADJUST METER BOX COVER TO 1/2" ABOVE FINAL GRADE.
15. IF A PRESSURE REDUCING VALVE IS REQUIRED BY PLUMBING CODE, INSTALL VALVE INSIDE THE BUILDING, IMMEDIATELY FOLLOWING THE MAIN SHUT-OFF VALVE.



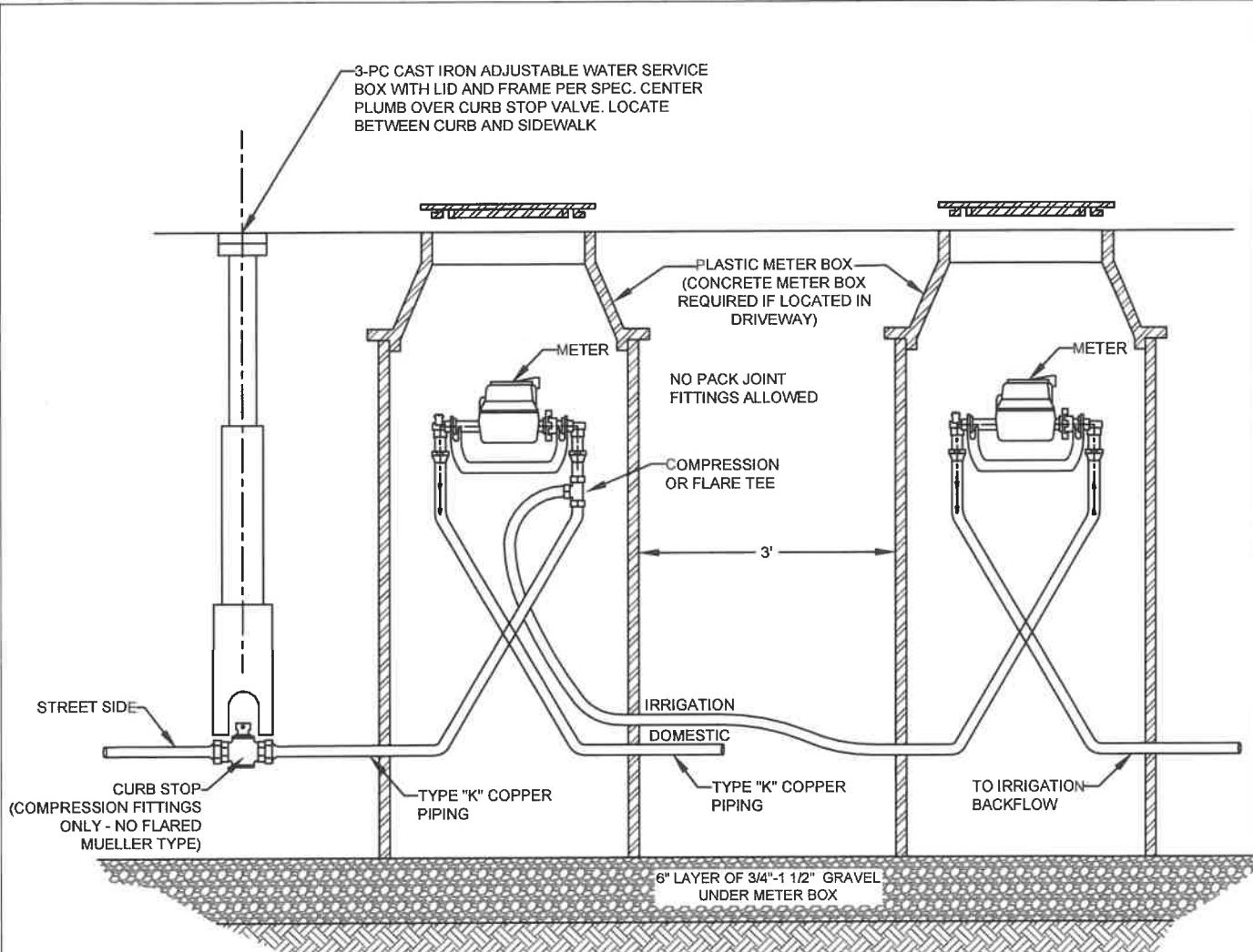
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6131 TAYLORSVILLE RD.
HUBER HEIGHTS, OH 45424
(937) 233-1423

TITLE OF DRAWING:

WATER MAIN SERVICE CONNECTION

CITY OF HUBER HEIGHTS
ENGINEERING DEPARTMENT
ISSUE DATE: 2017

DWG. No.
WT-4.0



**REFER TO MONTGOMERY COUNTY
ENVIRONMENTAL SERVICES STANDARD
CONSTRUCTION DRAWINGS FOR WATER
METER PITS LARGER THAN ONE(1) INCH**

GENERAL NOTES:

1. INSPECTION BY THE CITY OF HUBER HEIGHTS IS REQUIRED TO TAP-IN TO THE WATER MAIN, INSTALL WATER METER AND METER PIT.
2. INSPECTION BY MONTGOMERY COUNTY IS REQUIRED TO INSTALL THE SERVICE FROM THE METER TO THE RESIDENCE.
3. FOR RESIDENTIAL USE WATER METER PIT SHOULD BE 21 1/2" TO 24" BEHIND CURB.
4. IRRIGATION METER SHOULD ALWAYS BE INSTALLED IN A SEPARATE PIT ON THE LEFT SIDE OF THE MAIN METER.
5. DO NOT INSTALL IN ANY STREET, ALLEY, PARKING AREA, DRIVEWAY, SIDEWALK, DRAINAGE DITCH OR DETENTION BASIN.
6. NO LANDSCAPING (SHRUBS, BOULDERS, ETC.) OR STRUCTURES TO BE WITHIN 4' OF THE METER BOX, OR NO TREES WITHIN 10' OF METER BOX.
7. SLOPE GROUND SURROUNDING METER BOX AWAY FROM LID AT 2% MINIMUM GRADE.
8. MULTI FAMILY HOMES SHALL BE AT LEAST 1" WITH 24" PIT MINIMUM.
9. ALL TEES AND CONNECTION FITTINGS TO BE A MINIMUM OF 5' FROM METER BOX WALL ON OUTLET SIDE.
10. GRADE ACCEPTANCE AFTER METER BOX INSTALLATION REQUIRES THAT THE OWNER ADJUST METER BOX COVER TO 1/2" ABOVE FINAL GRADE.
11. IF A PRESSURE REDUCING VALVE IS REQUIRED BY PLUMBING CODE, INSTALL VALVE INSIDE THE BUILDING, IMMEDIATELY FOLLOWING THE MAIN SHUT-OFF VALVE.



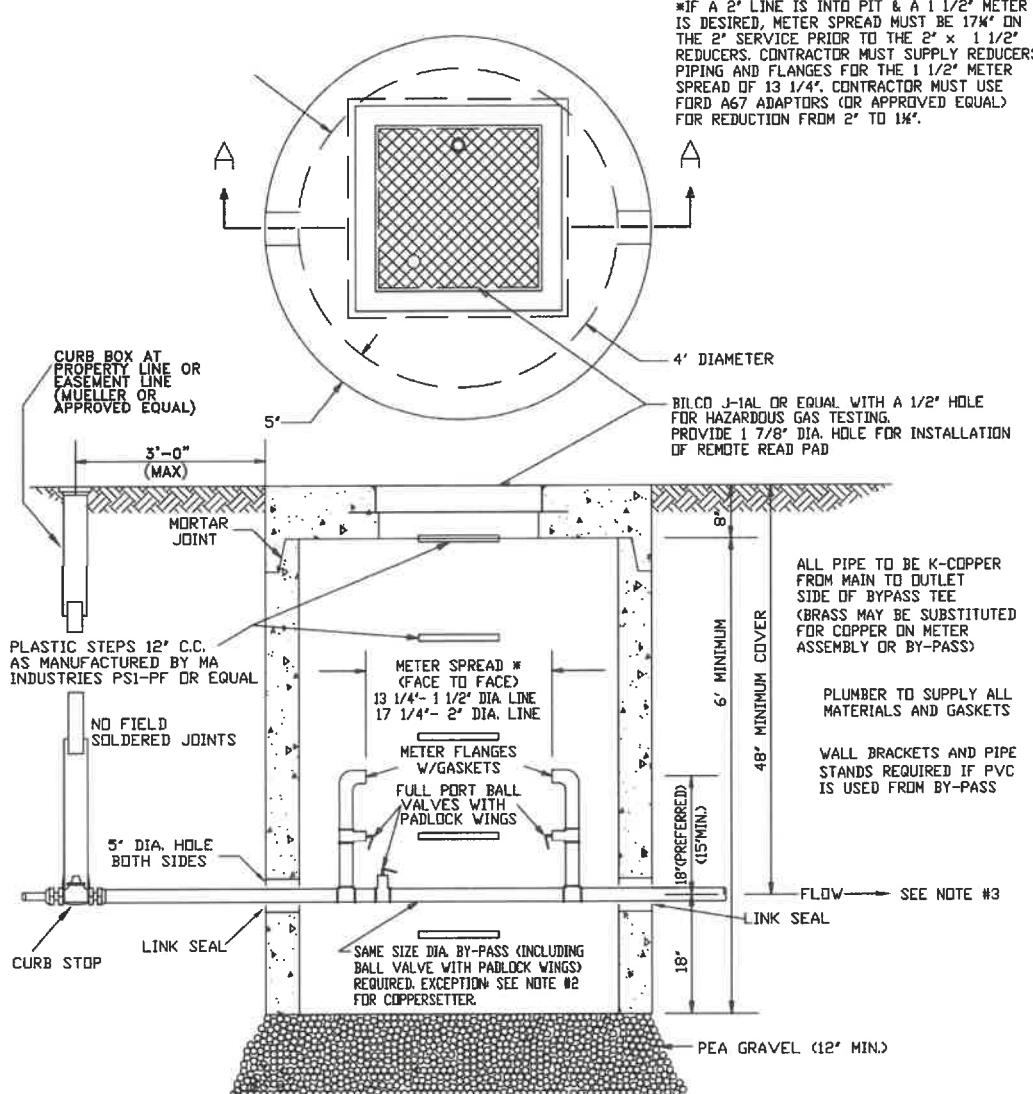
**CITY OF HUBER HEIGHTS
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6131 TAYLORSVILLE RD.
HUBER HEIGHTS, OH 45424
(937) 233-1423**

TITLE OF DRAWING:

**STANDARD 5/8" - 1" IRRIGATION
WATER METER**

**CITY OF HUBER HEIGHTS
ENGINEERING DEPARTMENT
ISSUE DATE: 2017**

**DWG. No.
WT-5.0**



SECTION "A" - "A"

NOTES:

1. ALTERNATE PIT DESIGN MAY BE SUBMITTED FOR REVIEW.
2. FORD VBB76-18B (OR 15B) x 13 1/4" (1 1/2") OR VBB77-18B (OR 15B) x 17 1/4" (2") COPPERSETTERS OR EQUAL MAY BE SUBSTITUTED. COPPERSETTER MUST HAVE 1" MIN. DIAMETER BY-PASS.
3. BACKFLOW PREVENTION DEVICE SPECIFIED BY MONTGOMERY COUNTY WATER SERVICES WILL BE REQUIRED AT SERVICE ENTRANCE.

MONTGOMERY COUNTY
WATER SERVICES



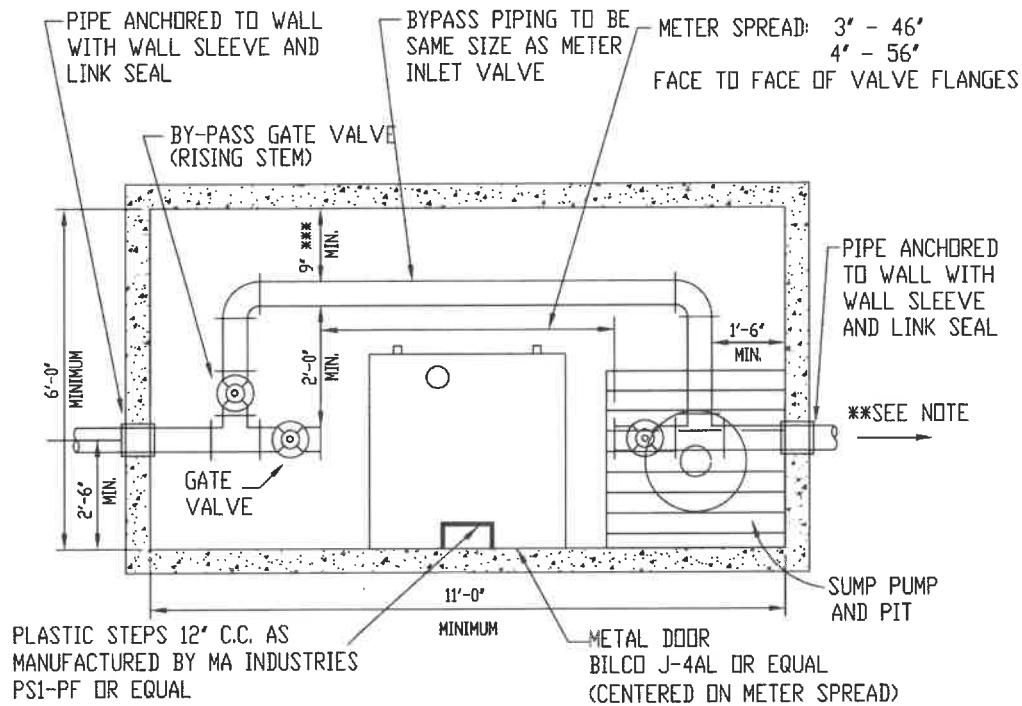
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6131 TAYLORSVILLE RD.
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(937) 233-1423

TITLE OF DRAWING:

1 1/2" & 2" WATER METER PIT
(1 1/2" & 2" SERVICE LINE)
(FOR OFF ROAD USE ONLY)

CITY OF HUBER HEIGHTS
ENGINEERING DEPARTMENT
ISSUE DATE: 2017

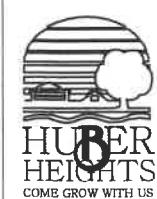
DWG. No.
WT-6.0



- NOTE: 1.) DIMENSIONS SHOWN ARE INSIDE MEASUREMENTS OF PIT.
- 2.) ALL PIPE SHALL BE FLANGED END DUCTILE CAST IRON (CL.-51).
- 3.) ALL VALVES SHALL BE FLANGED END, HANDWHEEL OPERATED, RISING STEM, DS&Y RESILIENT WEDGE - ALL MUST OPERATE IN THE SAME DIRECTION.
- 4.) PIT WORKING HEIGHT INSIDE - 6' MINIMUM.
- 5.) ALL PIPE MUST HAVE MINIMUM 48" COVER AND 18" MINIMUM FROM FLOOR
- 6.) WALLS TO BE FORMED CONCRETE OR PRE-CAST
- 7.) FLOOR TO BE CONCRETE WITH 2'x2'x2' SUMP PIT AND PERMANENT SUMP PUMP WITH MINIMUM DISCHARGE OF 500 G.P.H.
- 8.) PIPING AND METER MUST BE ADEQUATELY SUPPORTED WITH CONCRETE PIPE SUPPORTS.
- 9.) ALTERNATE DESIGN MAY BE SUBMITTED FOR REVIEW.
- 10.) METER FLANGED END MUST BE UNI-FLANGED
- 11.) 1/2" HOLE REQUIRED IN METER PIT ACCESS DOOR /LID FOR HAZARDOUS GAS TESTING. PROVIDE 1 7/8" DIA. HOLE IN DOOR FOR INSTALLATION OF REMOTE READ PAD.
- 12.) METER ONE SIZE SMALLER THAN PIPING MAY BE INSTALLED USING REDUCERS BEFORE AND AFTER METER
- 13.) METER SHALL BE SUPPLIED BY COUNTY TO CONTRACTOR TO BE INSTALLED WITH OTHER PIPING FOR PROPER ALIGNMENT. METER TO BE INSTALLED IN CENTER OF METER SPREAD.
- 14.) IF A 3" DIA. SERVICE LINE AND A 2" METER IS DESIRED, METER SPREAD MUST BE 46" ON THE 3" DIA. SERVICE PRIOR TO THE 3"x2" REDUCERS. CONTRACTOR MUST SUPPLY REDUCERS, PIPING AND FLANGES FOR THE 2" METER SPREAD OF 17 1/4".

**BACKFLOW PREVENTION DEVICE AS SPECIFIED BY MONTGOMERY COUNTY WATER SERVICES WILL BE REQUIRED AT SERVICE ENTRANCE
***9" CLEARANCE BETWEEN BY-PASS LINE AND WALL IS ACCEPTABLE IN SECTION OF BY-PASS ALONG THE WALL IF IT CONTAINS NO VALVES, METERS, ETC.; 18" CLEARANCE REQUIRED IF SECTION CONTAINS ANY VALVES, METERS, ETC.

MONTGOMERY COUNTY
WATER SERVICES



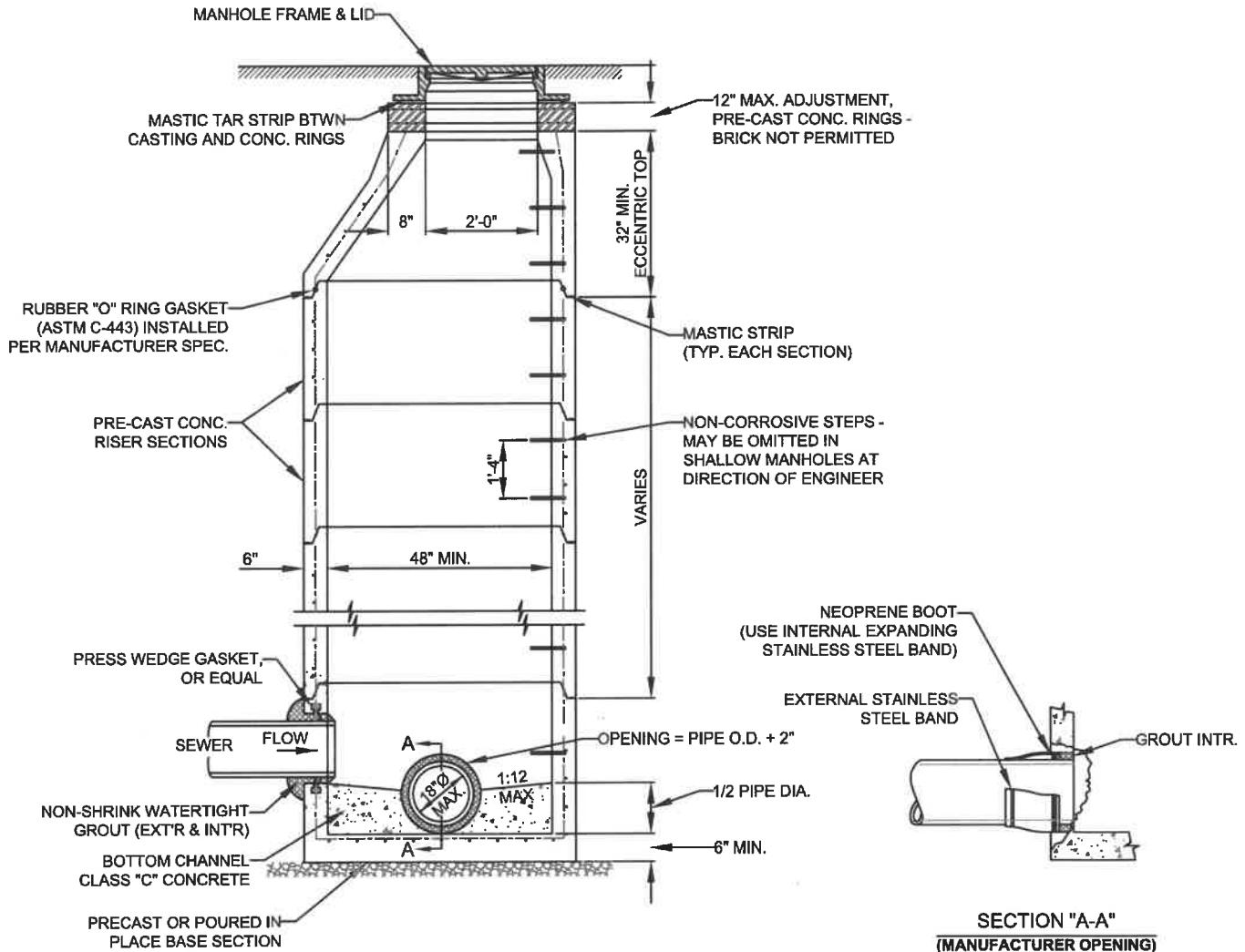
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(937) 233-1423

TITLE OF DRAWING:

3" & 4" WATER METER PIT
(FOR OFF ROAD USE ONLY)

CITY OF HUBER HEIGHTS
ENGINEERING DEPARTMENT
ISSUE DATE: 2017

DWG. No.
WT-7.0



SANITARY MANHOLE TYPE A

GENERAL NOTES:

1. FLEXIBLE JOINT SHOWN ABOVE PIPES LESS THAN OR EQUAL TO 24"Ø SHALL BE THE "PRESS WEDGE II", MANUFACTURED BY PRESS SEAL GASKET CORP., OR APPROVED EQUAL.
2. GASKETED JOINT SHALL BE FLEXIBLE TO ACCOMMODATE UP TO 9" DEFLECTION OF PIPE IN ANY DIRECTION.
3. FOR LARGER DIAMETER SEWER REFER TO LARGE MANHOLE STANDARD.
4. MANHOLES IN PAVED AREAS SHALL BE INITIALLY SET AT A LOWER THAN FINISHED BASE GRADE AND ADJUSTED TO FINAL GRADE PRIOR TO PLACING OF THE FINAL SURFACE.
5. IN PAVED AREAS MANHOLE FRAME AND LID SHALL BE EQUAL OF EAST JORDAN IRON WORKS NO. 1600, AS DIRECTED BY ENGINEER.
6. OUTSIDE OF PAVED AREA, MANHOLE FRAME AND LID MAY BE EQUAL OF EAST JORDAN IRON WORKS NO. 1610, AS DIRECTED BY ENGINEER.



CITY OF HUBER HEIGHTS
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TITLE OF DRAWING:

SANITARY MANHOLE TYPE A

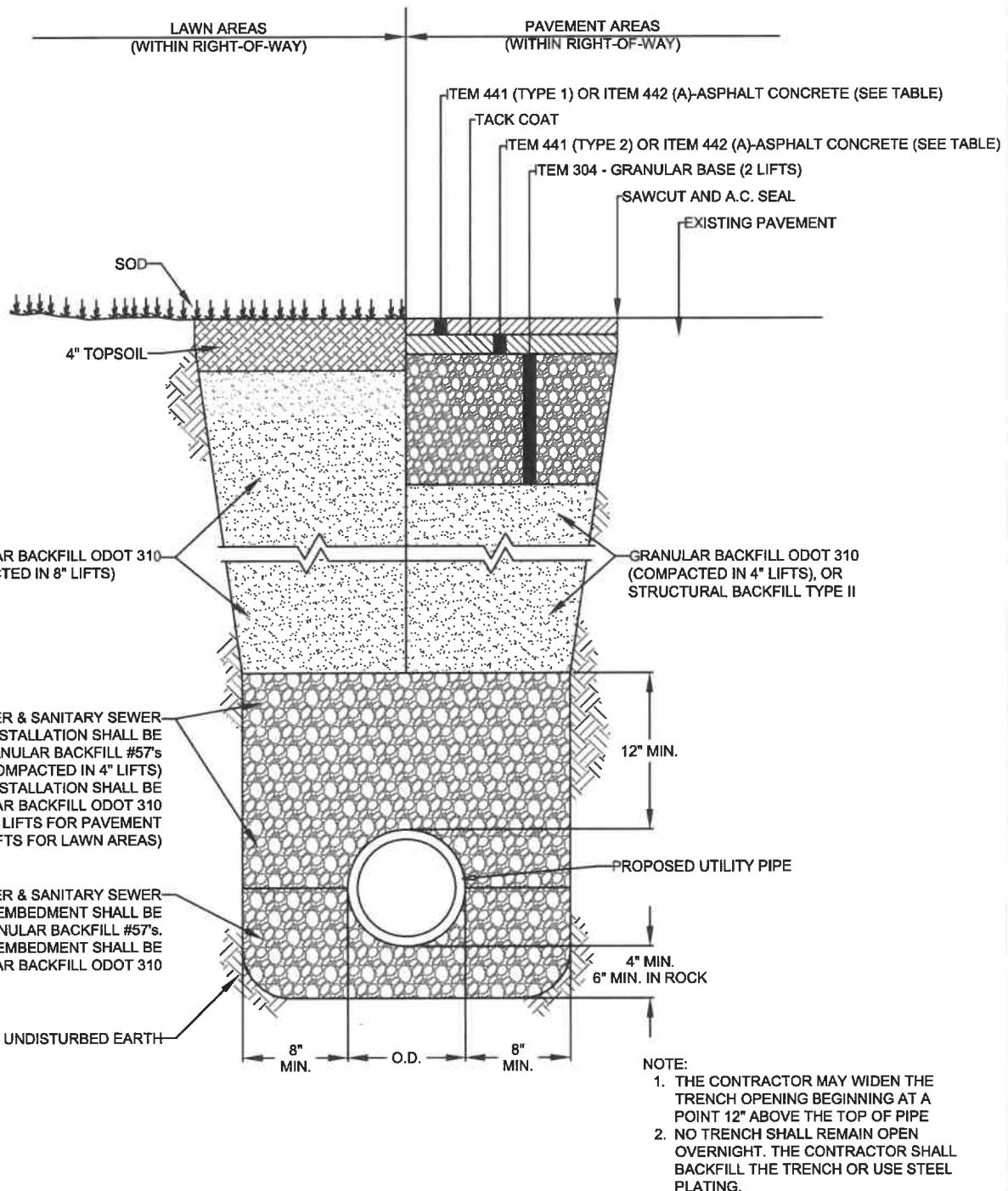
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ENGINEERING DEPARTMENT
ISSUE DATE: 2017

DWG. No.
SA-1.0

TABLE 1: PAVEMENT DESIGN STANDARDS

ASPHALT SURFACE ON AGGREGATE BASE		
ITEM NO.	MINOR STREETS	MINOR COLLECTORS
441 (1)	1 1/4"	1 1/2"
441 (2)	1 3/4"	2 1/2"
304	10"	10"

ASPHALT SURFACE ON AGGREGATE BASE			
ITEM NO.	MAJOR COLLECTORS	MINOR ARTERIAL	MAJOR ARTERIAL
442 (A)	1 1/2"	1 1/4"	2"
442 (A)	2 1/2"	3"	3"
304	12"	12"	12"



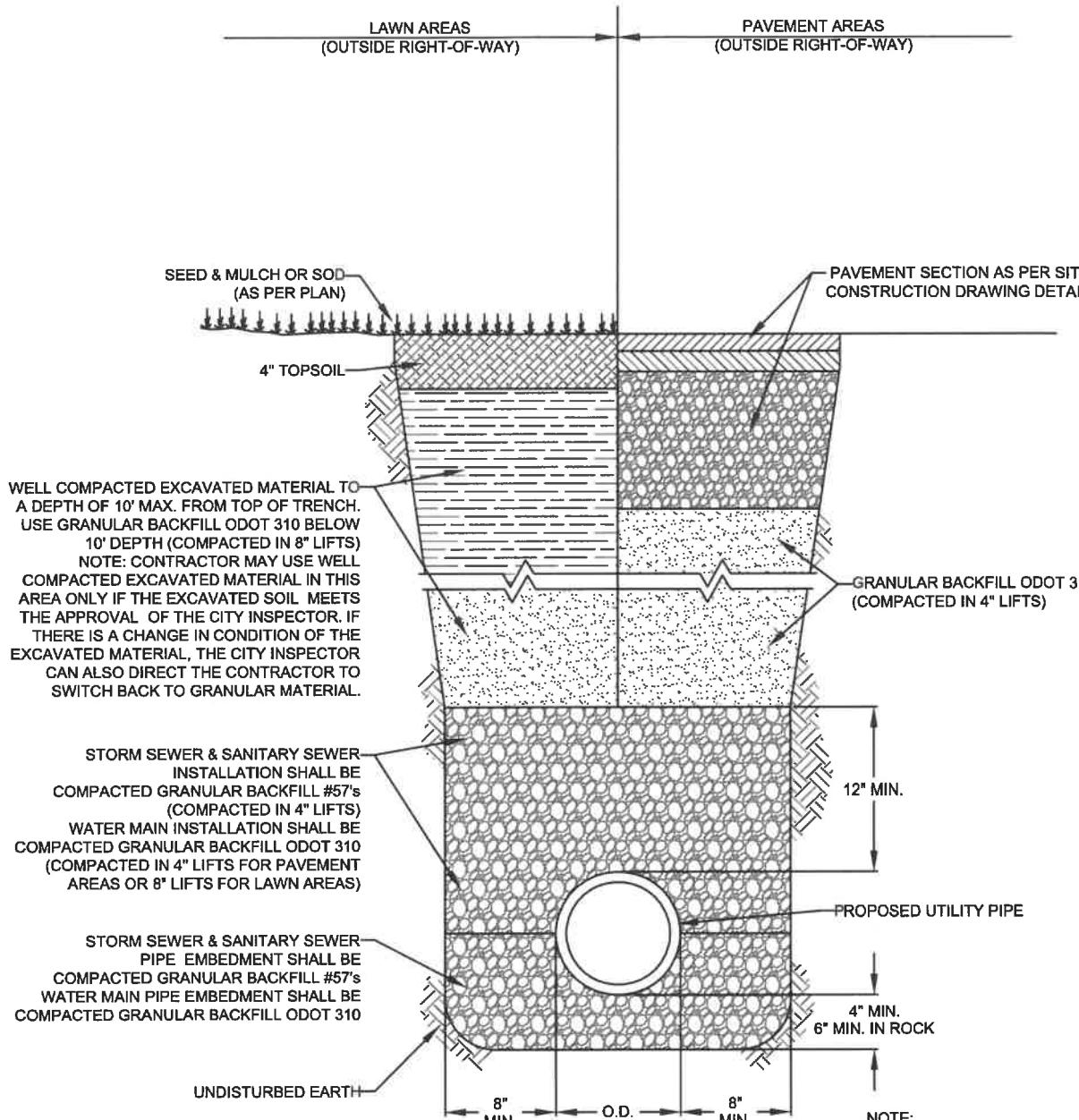
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(937) 233-1423

TITLE OF DRAWING:

**UTILITY TRENCH-DETAIL
(WITHIN RIGHT-OF-WAY)**

CITY OF HUBER HEIGHTS
ENGINEERING DEPARTMENT
ISSUE DATE: 2017

DWG. No.
MS-1.0



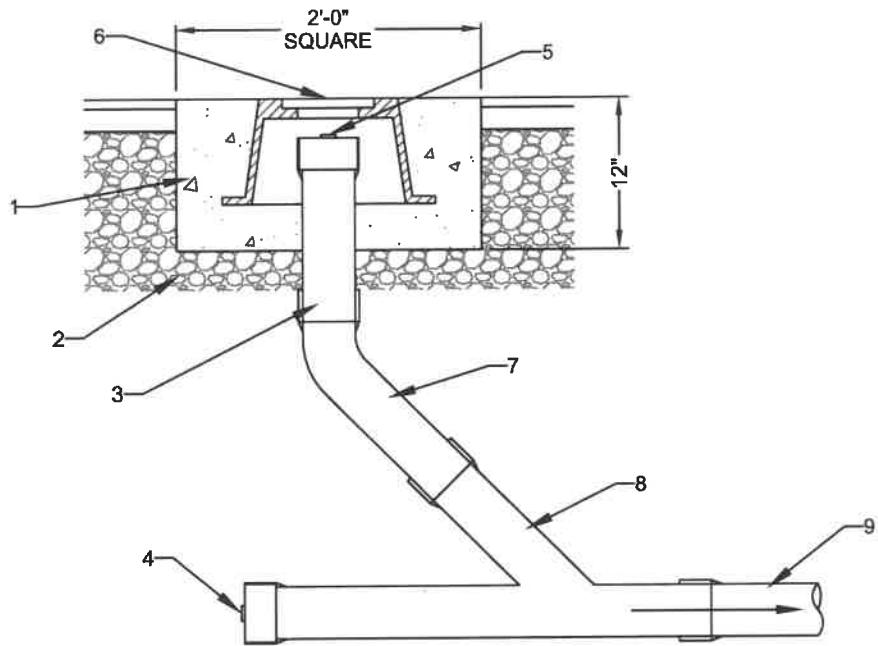
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6131 TAYLORSVILLE RD.
HUBER HEIGHTS, OH 45424
(937) 233-1423

TITLE OF DRAWING:

UTILITY TRENCH-DETAIL (OUTSIDE RIGHT-OF-WAY)

CITY OF HUBER HEIGHTS
ENGINEERING DEPARTMENT
ISSUE DATE: 2017

DWG. No.
MS-2.0



KEYED NOTES:

1. CONCRETE, MATCH PAVEMENT SPEC.
2. 6" (MIN.) AGGREGATE BASE
3. 6" DIA. CLEAN-OUT PIPE
4. CAP AND SEAL CONDUIT
5. THREADED CLEAN-OUT CAP
6. CAST-IRON MONUMENT BOX, EJIW 1570
OR APPROVED EQUAL.
7. 45°BEND
8. WYE
9. SEWER



CITY OF HUBER HEIGHTS
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6131 TAYLORSVILLE RD.
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TITLE OF DRAWING:

STANDARD CLEAN-OUT
FOR PAVEMENT AREA

CITY OF HUBER HEIGHTS
ENGINEERING DEPARTMENT
ISSUE DATE: 2017

DWG. No.
MS-3.0