City of Salisbury
Jacob R. Day, Mayor

CONSTRUCTION STANDARDS

Issued January 4, 2014

Department of Infrastructure & Development
125 N. Division St., #202 Salisbury, MD 21801
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JAMES IRETON, JR.
MAYOR

TOM STEVENSON
ACTING CITY ADMINISTRATOR

City of Salisbury
MARYLAND

Salisbury
All-America City
2010

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MICHAEL S. MOULDS, P.E.
DIRECTOR OF PUBLIC WORKS

PREFACE

This book of "Construction Standards" has been prepared by the City of Salisbury - Department of Public Works to provide Engineers, Contractors and Developers with a catalog of Construction Standards authorized by the City of Salisbury.

Any Standards previously issued by the City of Salisbury - Department of Public Works are herewith superseded as of the latest revision date shown on the pertinent Standard.

All Engineers, Land Surveyors, and Contractors involved with the construction of roadways and utilities authorized by the City of Salisbury should become thoroughly familiar with contents of this book.

All materials shall be new, standard production, and made in the U.S.A. unless otherwise approved as a substitute by the City of Salisbury before use of the material.

These Standards may be revised periodically to reflect changes in regulations and technology. Items may be added or deleted at the City's discretion. These Standards are not intended to cover all materials purchased, or construction performed by the City of Salisbury or its Contractors. The City of Salisbury reserves the right to default to the Maryland Department of Transportation State Highway Administration Standard Specifications for Construction and Materials Manual (Current Edition) for clarification and reference.

Any obvious errors found or any comments that you may have regarding these Standards are welcome and will be given due consideration. Please submit them to:

City of Salisbury
Department of Public Works
Government Office Building
125 North Division St. Rm. 202
Salisbury, Md. 21801- 4940

Telephone: 410-548-3170
Fax: 410-548-3107

Effective Date: 7-14-94
Latest Revision Date: 01-01-14

CONSTRUCTION STANDARDS
INDEX

CURB, GUTTER AND SIDEWALK - STANDARD

CURB, GUTTER AND SIDEWALK - SPECIAL

STREET DESIGNS

CONSTRUCTION STANDARDS
INDEX

(INDUSTRIAL/COMMERCIAL) WITH STANDARD CURB & GUTTER

STREET DESIGNS

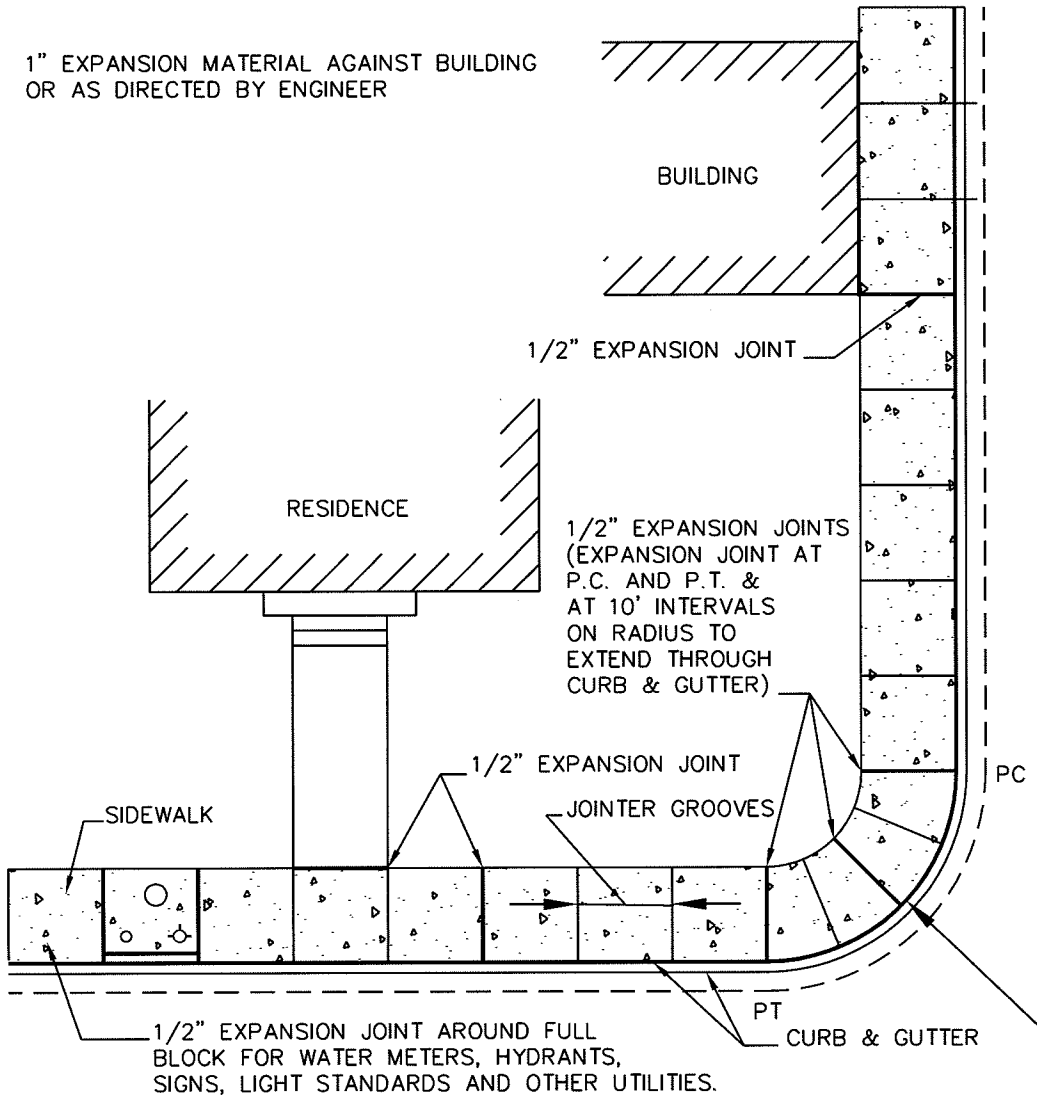
WATER SYSTEMS

SANITARY SEWER

CONSTRUCTION STANDARDS
INDEX

STORM WATER

MISCELLANEOUS DETAILS



NOTES

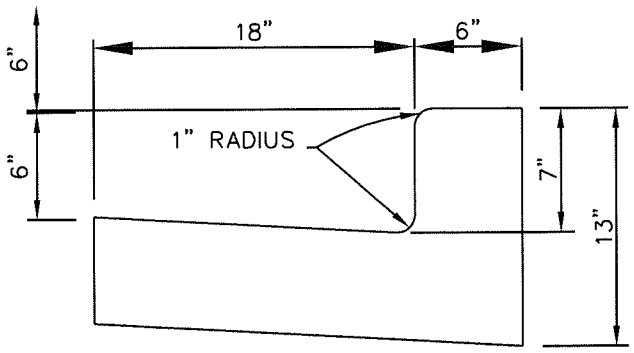
1. ALL EXPANSION MATERIAL SHALL BE OF A NON-EXTRUDING TYPE CONFORMING TO A.S.T.M. SPECIFICATION DESIGNATION D-544.
2. ALL EXPANSION JOINTS TO BE 1/2" WIDE X FULL THICKNESS OF CONCRETE UNLESS OTHERWISE SHOWN.
3. EXPANSION JOINTS SHALL BE PLACED AT 20' INTERVALS (MAX.) RADIAL JOINTS AT STREET. RETURNS SHALL BE PLACED EVERY 10' OR AS DIRECTED BY ENGINEER.
4. ALL JOINTS TO BE NEATLY TRIMMED AND PLACED SO AS TO BE 1/8" BELOW FINISHED SURFACE.
5. EXPANSION JOINTS SHALL BE PLACED IN ALL LOCATIONS SHOWN AND AS DIRECTED BY ENGINEER.
6. WHERE CURB AND SIDEWALK ONLY IS POURED, EXPANSION JOINTS SHALL EXTEND COMPLETELY THROUGH CURB.
7. NO ADDITIONAL PAYMENT FOR EXPANSION JOINTS SHALL BE MADE. THIS MUST BE INCLUDED IN PRICE BID FOR CURB, GUTTER, AND SIDEWALK.

CONCRETE WORKMANSHIP

UNLESS OTHERWISE SPECIFIED, SHALL BE AS DESCRIBED UNDER CONSTRUCTION METHODS & MATERIALS-CONCRETE IN THE "CONSTRUCTION & MATERIALS SPECIFICATION FOR UTILITY AND ROADWAY CONSTRUCTION" MANUAL LATEST REVISION.

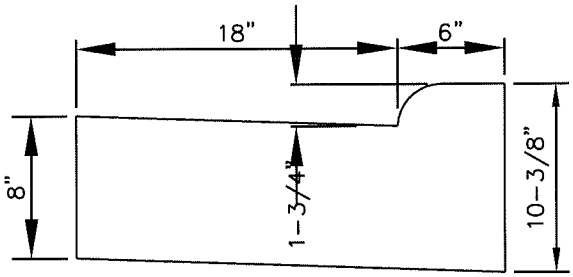
REVISED 01/01/14

CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack CITY ENGINEER	CURB, GUTTER, AND SIDEWALK EXPANSION JOINTS	DATE 1/13/77 SCALE N.T.S. DWG NO. STD10010 STD. NO 100.10



A

STANDARD CURB & GUTTER



B

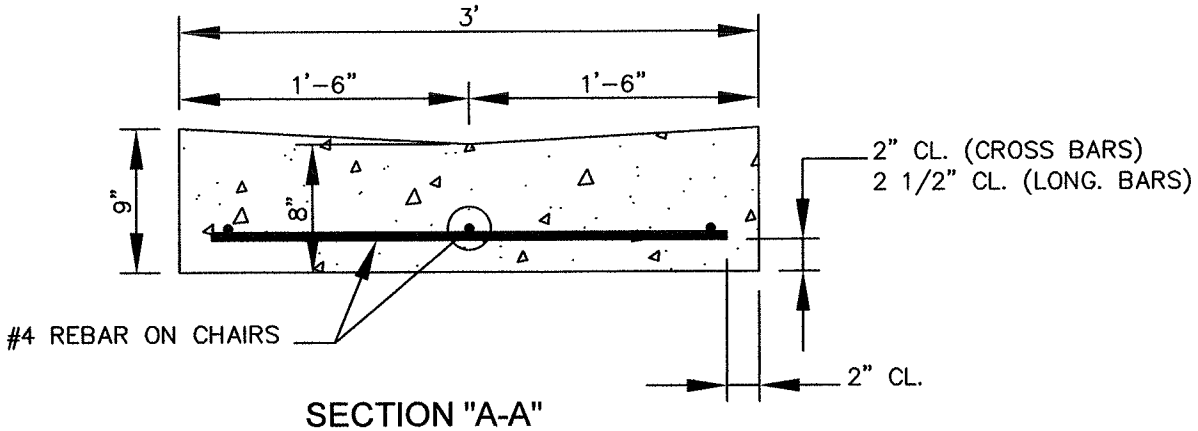
STANDARD CURB & GUTTER IN DRIVEWAYS

CONCRETE WORKMANSHIP

UNLESS OTHERWISE SPECIFIED, SHALL BE AS DESCRIBED UNDER CONSTRUCTION METHODS & MATERIALS–CONCRETE IN THE "CONSTRUCTION & MATERIALS SPECIFICATION FOR UTILITY AND ROADWAY CONSTRUCTION" MANUAL LATEST REVISION.

REVISED 01/01/14

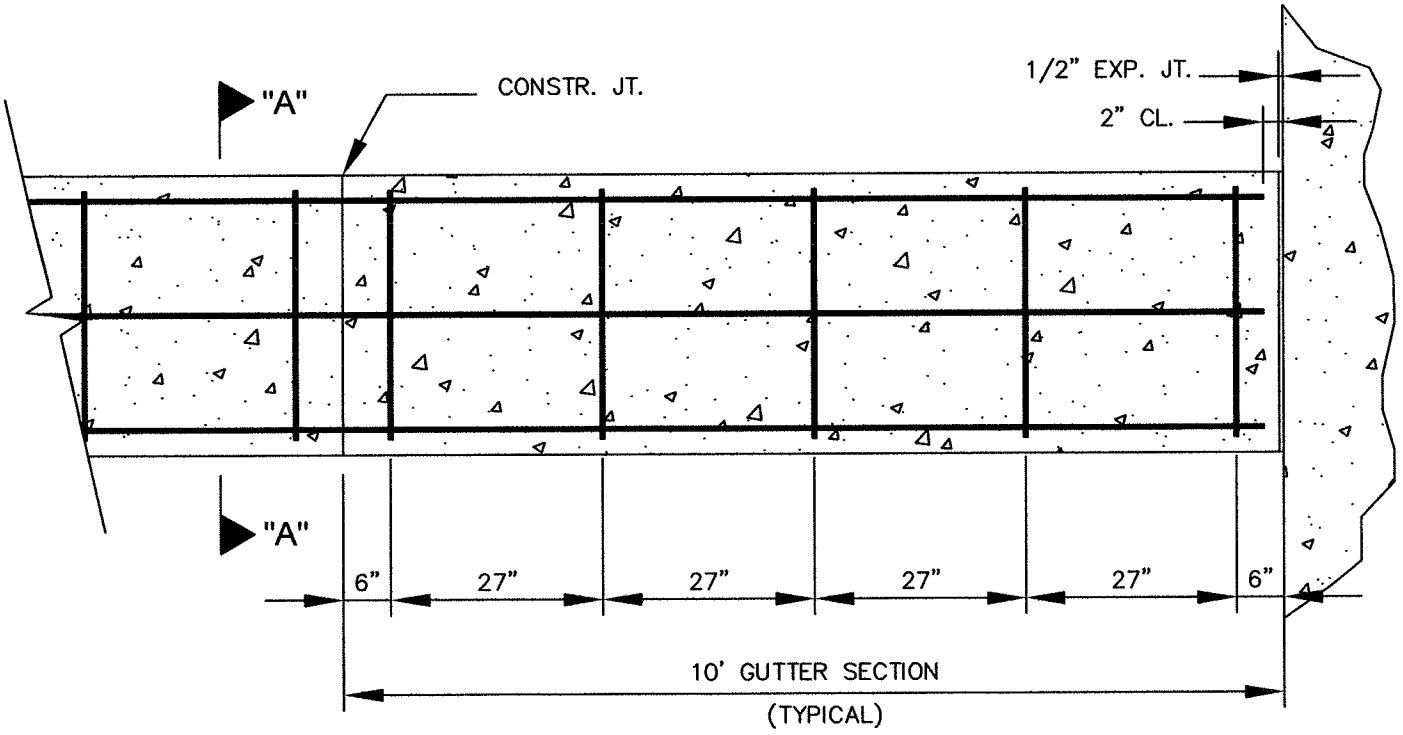
CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack CITY ENGINEER	STANDARD DETAILS FOR CURB & GUTTER	DATE 3/16/95 SCALE NONE DWG. NO. STD10011 STD. NO. 100.11



SECTION "A-A"

Scale: 1" = 1'

NOTE: 6" OF CRUSHED STONE GAB WILL BE PLACED UNDER THE VEE-GUTTER



PLAN

Scale: 1/2" = 1'

CONCRETE WORKMANSHIP

UNLESS OTHERWISE SPECIFIED, CONCRETE WORKMANSHIP SHALL BE AS DESCRIBED UNDER CONSTRUCTION METHODS & MATERIALS-CONCRETE SECTION IN THE "CONSTRUCTION & MATERIALS SPECIFICATIONS FOR UTILITY AND ROADWAY CONSTRUCTION" MANUAL LATEST REVISION.

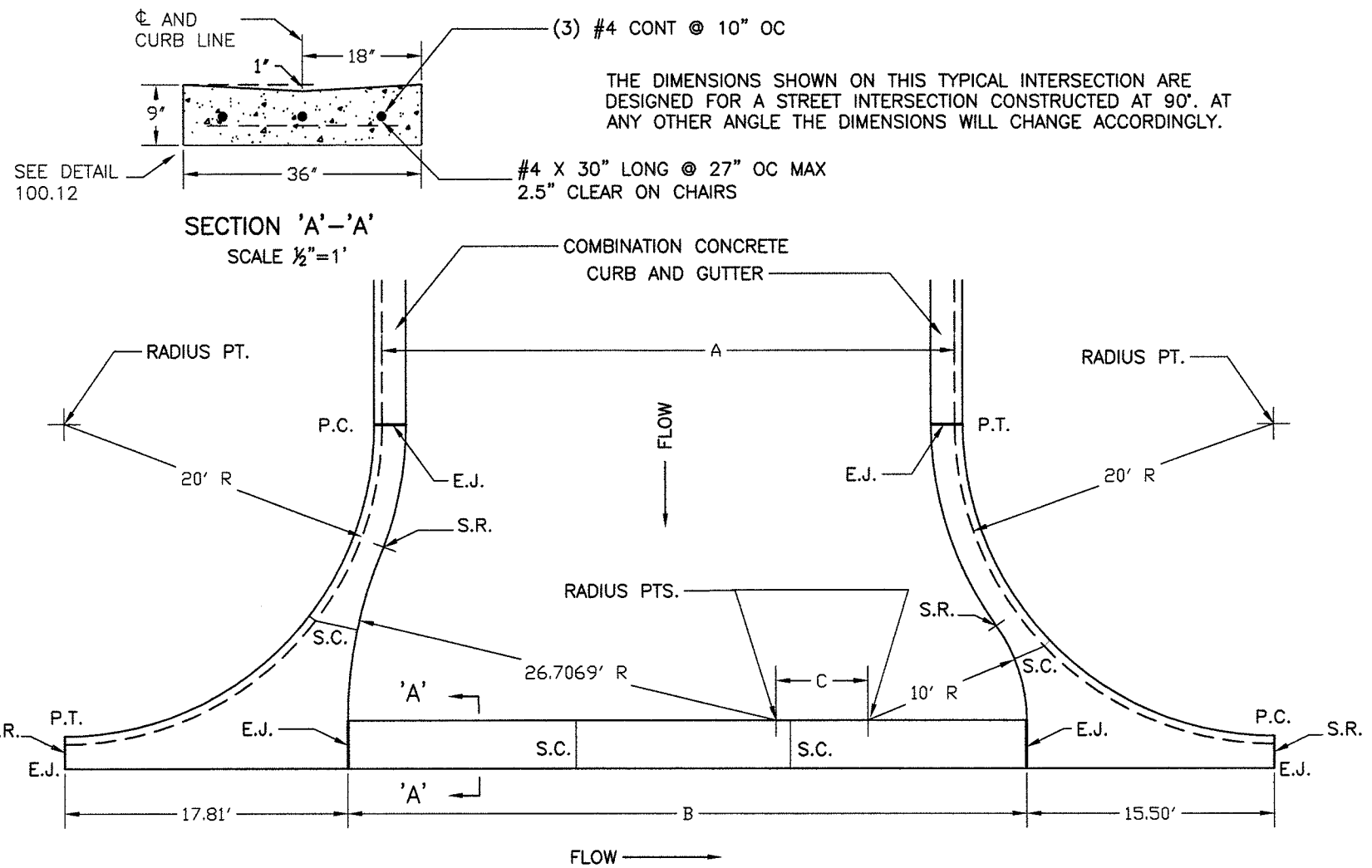
REVISED: 1/01/14

CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack CITY ENGINEER	STANDARD DETAIL FOR VALLEY GUTTER CONSTRUCTION	DATE 7/13/05 SCALE AS NOTED DWG. NO. STD10012 STD. NO. 100.12

CITY OF SALISBURY
SALISBURY, MD

APPROVED
CITY ENGINEER
1/1/14
DATE

CONCRETE VALLEY GUTTER



PLAN VIEW

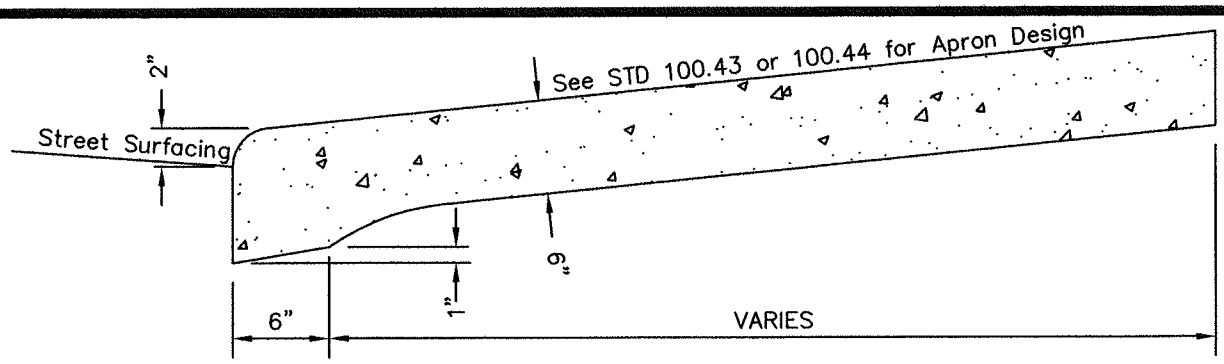
NOTES:

1. CONCRETE – MD. S.H.A. MIX NO. 3
2. FINISH – LIGHT TO MEDIUM BROOM FINISH
3. E.J. = EXPANSION JOINT WITH PREFORMED JOINT FILLER (FULL DEPTH OF CONCRETE)
4. CONTROL JOINTS AT 10' O.C. MAX. IN VALLEY GUTTER AND CURB & GUTTER.
5. S.C. = SAW CUTTING TO 1/3 DEPTH
6. SEE CITY OF SALIBURY STANDARD 100.12 FOR VALLEY GUTTER DESIGN
7. S.R. = LIMITS OF STEEL REINFORCEMENT

THE DIMENSIONS SHOWN ON THIS TYPICAL INTERSECTION ARE DESIGNED FOR A STREET INTERSECTION CONSTRUCTED AT 90°. AT ANY OTHER ANGLE THE DIMENSIONS WILL CHANGE ACCORDINGLY.

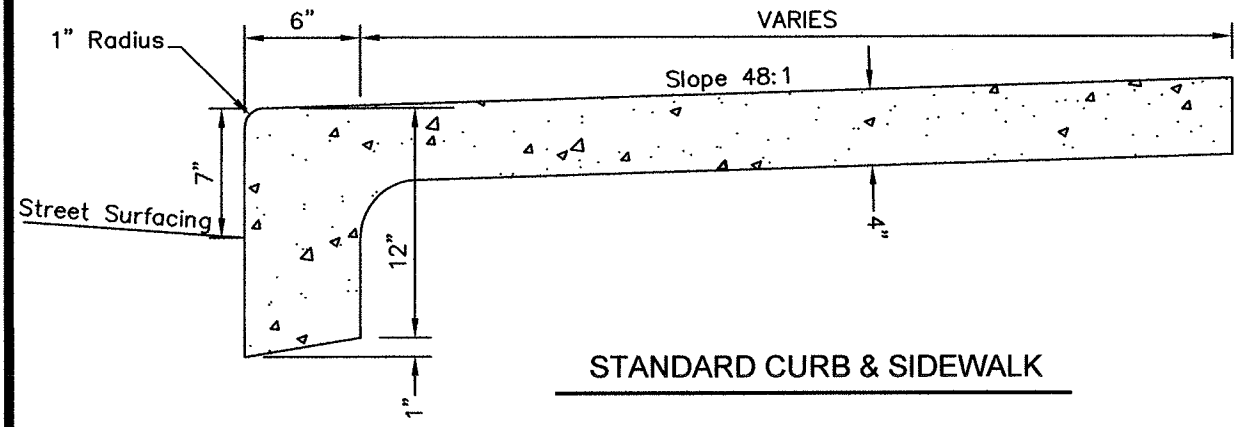
A	B	C
26'	32.69'	–4'
30'	36.69'	0'
36'	42.69'	6'
40'	46.69'	10'

DATE	SCALE	DWG. NO.	STD. NO.
1/01/14	N.T.S.	STD10014	100.14



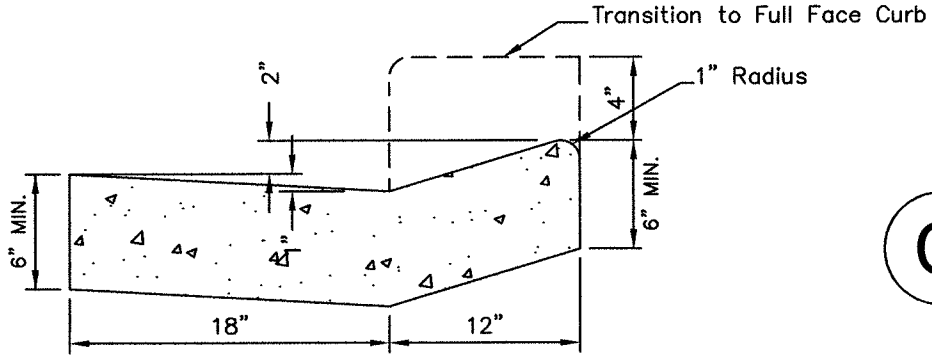
A

STANDARD CURB & SIDEWALK IN DRIVEWAYS



B

STANDARD CURB & SIDEWALK



C

STANDARD MOUNTABLE CURB & GUTTER

CONCRETE WORKMANSHIP

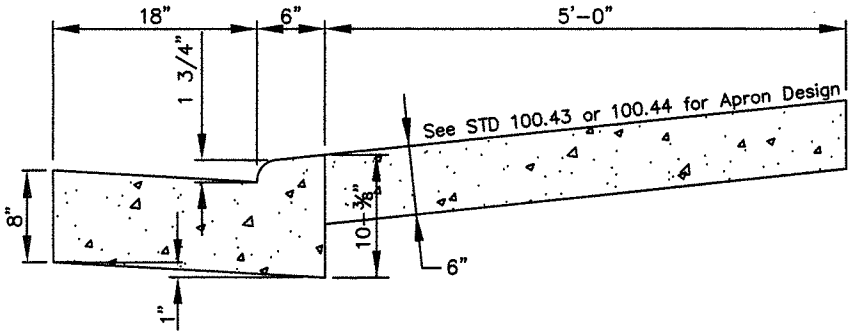
UNLESS OTHERWISE SPECIFIED, SHALL BE AS DESCRIBED UNDER CONSTRUCTION METHODS & MATERIALS–CONCRETE IN THE "CONSTRUCTION & MATERIALS SPECIFICATION FOR UTILITY AND ROADWAY CONSTRUCTION" MANUAL LATEST REVISION.

NOTE: 6" OF CRUSHED STONE GAB WILL BE PLACED UNDER THE CURB AND GUTTER.

REVISED 1/01/14

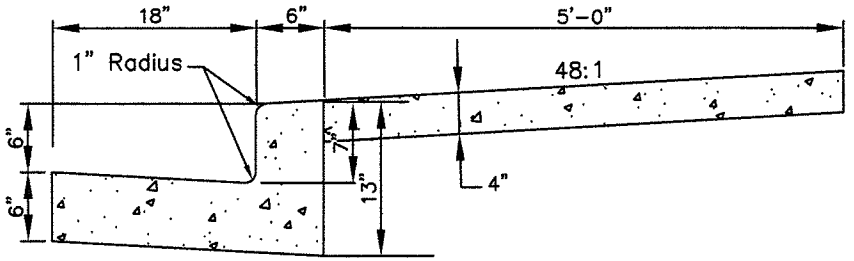
CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack CITY ENGINEER	MONOLITHIC CURB & SIDEWALK AND MOUNTABLE CURB & GUTTER DETAIL	DATE 5/22/78 SCALE NONE DWG. NO. STD10020 STD. NO. 100.20

A



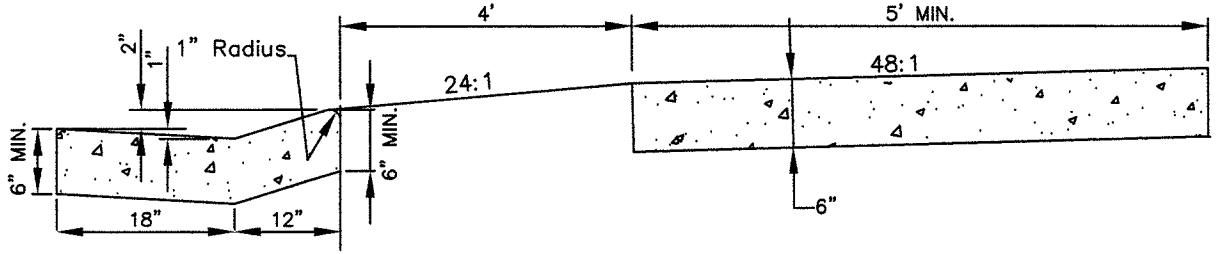
STANDARD CURB & GUTTER AND SIDEWALK IN DRIVEWAYS

B



STANDARD CURB & GUTTER AND SIDEWALK

C



MOUNTABLE CURB & GUTTER, GRASS PLOT AND SIDEWALK

CONCRETE WORKMANSHIP

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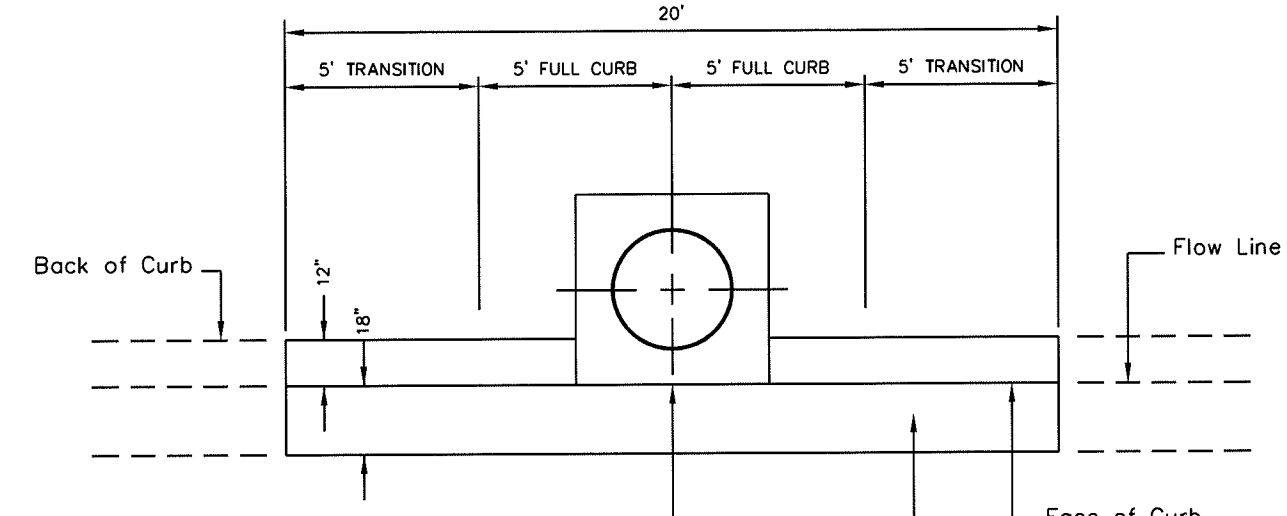
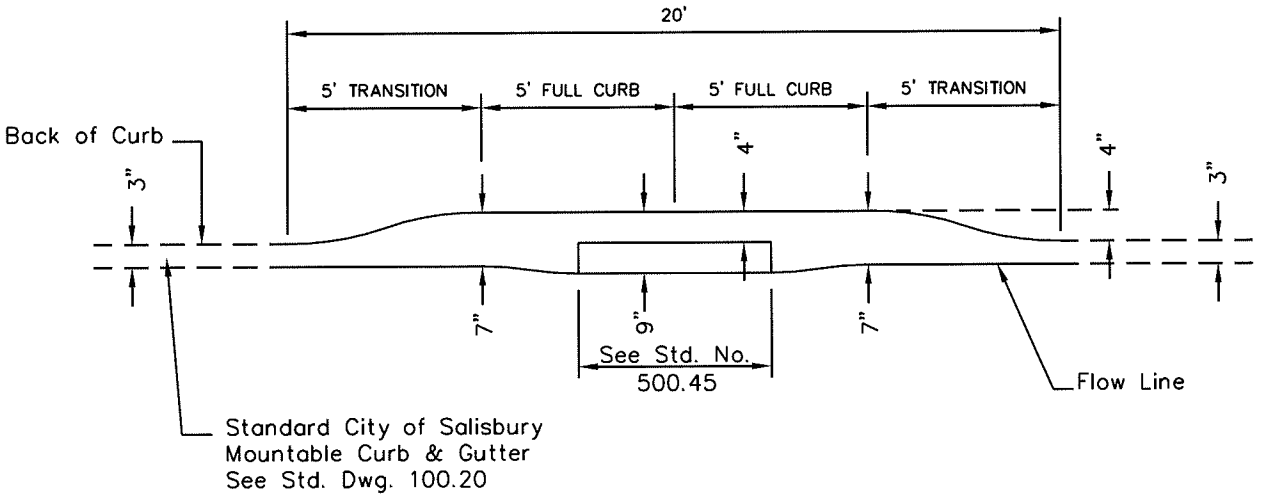
NOTE: 6" OF CRUSHED STONE GAB WILL BE PLACED UNDER THE CURB AND GUTTER.

REVISED 1/01/14

CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack CITY ENGINEER	STANDARD DETAILS FOR CURB & GUTTER AND SIDEWALK CONSTRUCTION	DATE 1/09/53 SCALE NONE DWG NO. STD10025 STD. NO 100.25

TOP VIEW





FRONT VIEW

CONCRETE WORKMANSHIP

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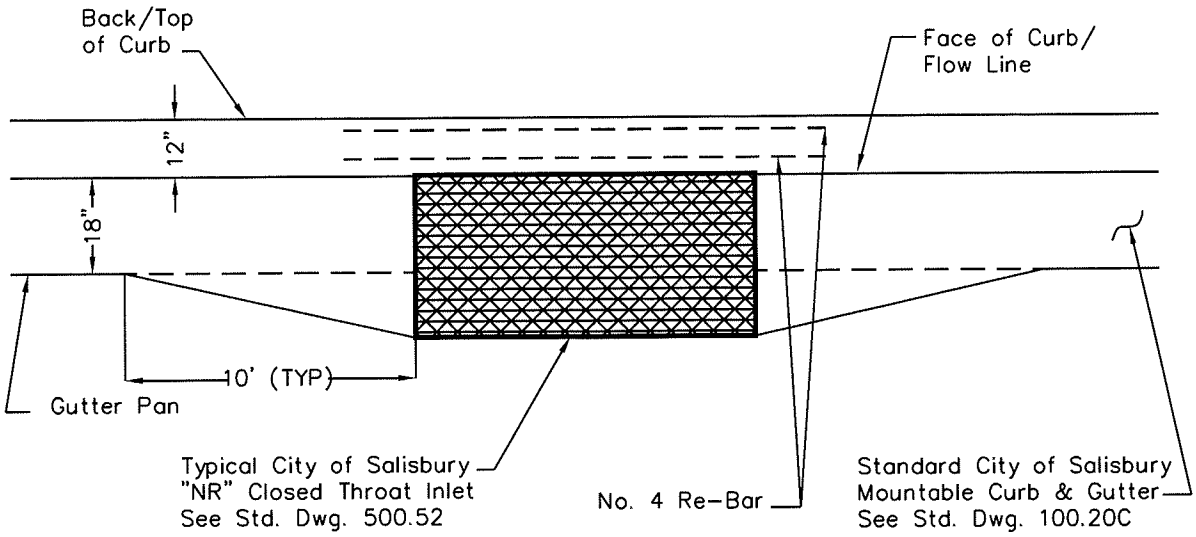
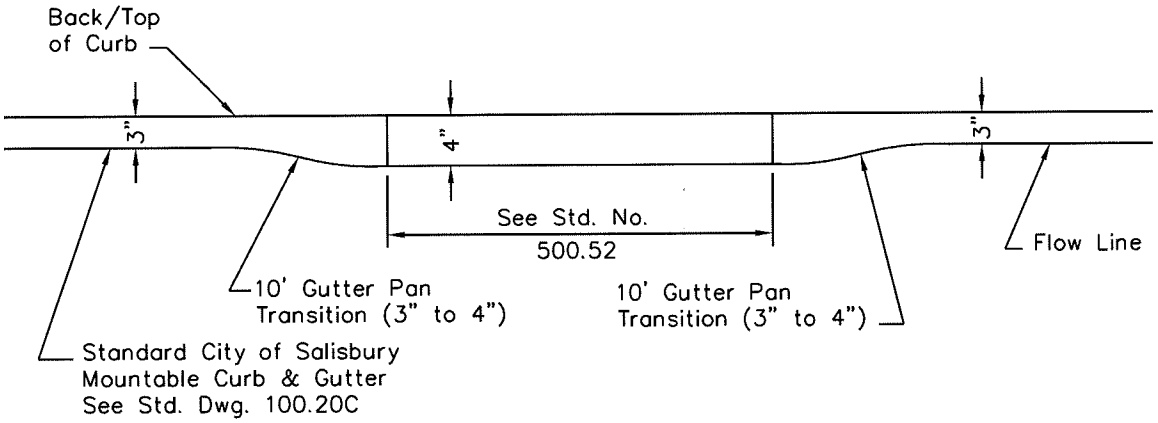
REVISED: 01/01/14

CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack CITY ENGINEER	TYPICAL MOUNTABLE CURB INLET DETAIL IN LOW POINT OF STREET	DATE 8/18/77 SCALE NONE DWG. NO. STD10030 STD. NO. 100.30



PLAN VIEW



FRONT VIEW

CONCRETE WORKMANSHIP

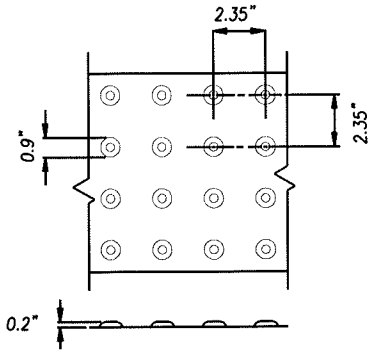
UNLESS OTHERWISE SPECIFIED, SHALL BE AS DESCRIBED UNDER CONSTRUCTION METHODS & MATERIALS–CONCRETE IN THE "CONSTRUCTION & MATERIALS SPECIFICATION FOR UTILITY AND ROADWAY CONSTRUCTION" MANUAL LATEST REVISION

REVISED: 01/01/14

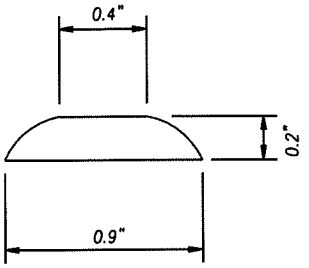
CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack CITY ENGINEER	TYPICAL MOUNTABLE CURB DETAIL USING "NR" CLOSED-THROAT INLET	DATE 7/12/90 SCALE NONE DWG. NO. STD10035 STD. NO. 100.35

MAT DETAILS

SEE PLACEMENT GUIDELINES BELOW

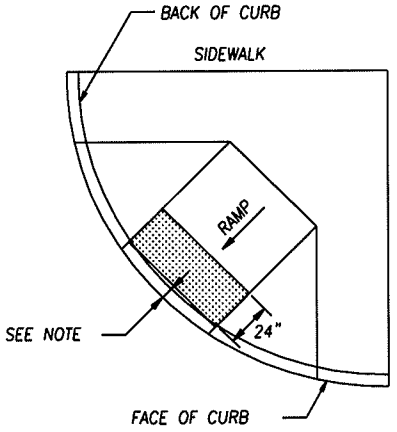


DOME SPACING

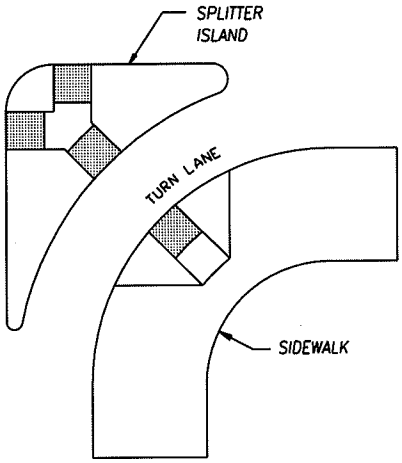


DOME SECTION

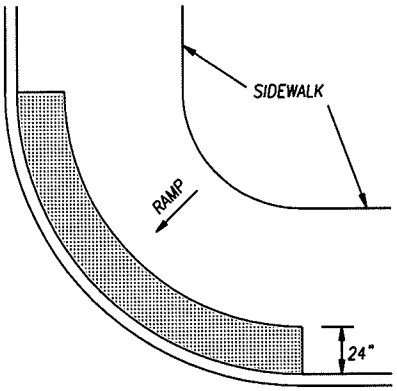
PLACEMENT GUIDELINES



SHARED CURB RAMP



REFUGE ISLAND



BLENDED CURB

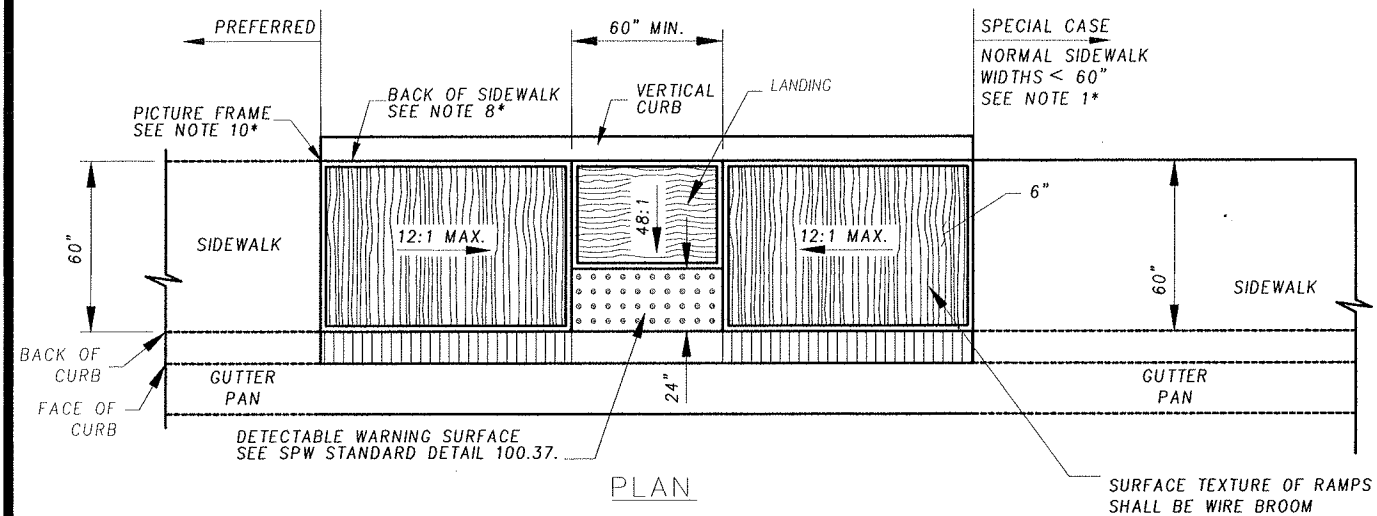
WHERE ISLANDS OR MEDIANS ARE LESS THAN 6 FEET WIDE, THE DETECTABLE WARNING SHOULD EXTEND ACROSS THE FULL LENGTH OF THE CUT THROUGH THE ISLAND OR MEDIAN

NOTES

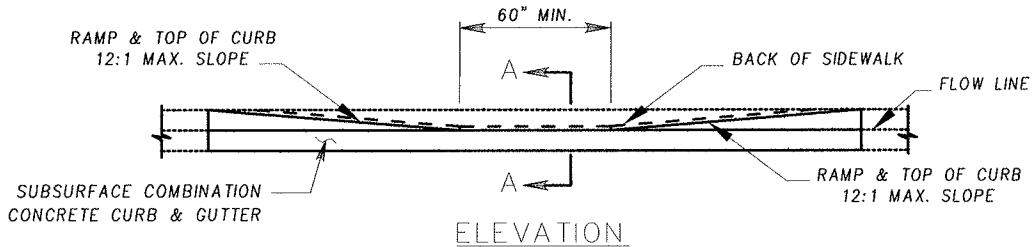
1. *THE DETECTABLE WARNING SURFACE SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE IS 6 TO 8 INCHES FROM THE FACE OF CURB.*
2. *FOR SKEWED APPLICATIONS DETECTABLE WARNING SHALL BE PLACED SUCH THAT THE DOMES CLOSEST TO THE BACK OF CURB ARE NO LESS THAN 0.5" AND NO MORE THAN 3.0" FROM THE BACK OF CURB. TRUNCATED DOME SURFACES SHALL BE FABRICATED TO PROVIDE FULL DOMES ONLY.*
3. *DETECTABLE WARNING SURFACE SHALL BE PAID FOR IN ACCORDANCE WITH SECTION 611 OF THE SPECIFICATIONS.*

REVISED: 01/01/14

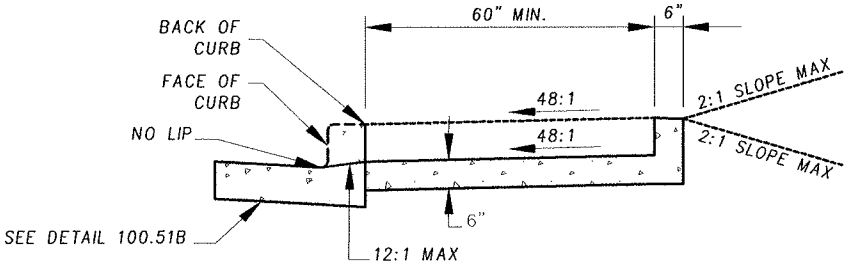
CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack CITY ENGINEER	DETECTABLE WARNING SURFACE DETAILS	DATE 5/27/2004 SCALE NONE DWG. NO. STD10037 STD. NO. 100.37



PLAN



ELEVATION

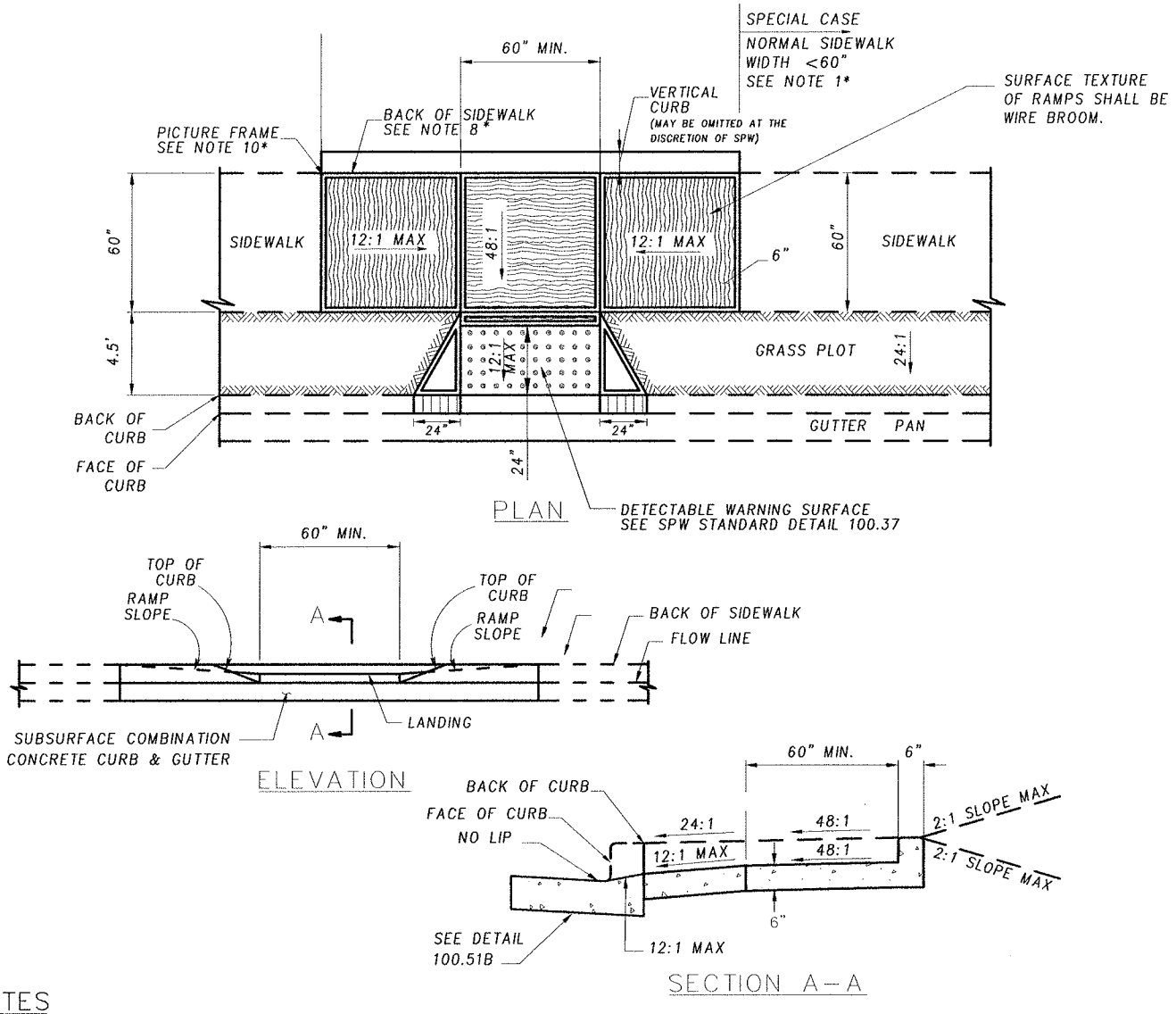


SECTION A–A

NOTES

1. IF IT IS DETERMINED THAT FULL ADA COMPLIANCE IS TECHNICALLY INFEASIBLE OR DETERMINED TO BE UNREASONABLE TO THE DESIRED DEGREE AS DESCRIBED IN THE SHA ADA GUIDELINES, A DESIGN WAIVER MUST BE REQUESTED AND APPROVED FOR EACH ELEMENT THAT IS NOT IN FULL COMPLIANCE.
2. NO TRAVERSABLE SLOPE ON THE RAMP OR SIDEWALK SHALL EXCEED 12:1 IN THE DIRECTION OF PEDESTRIAN TRAVEL. PERPENDICULAR TO THE DIRECTION OF PEDESTRIAN TRAVEL THE SLOPE WILL BE 48:1.
3. EXPANSION JOINT MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH SPW STD 100.10.
4. SIDEWALK RAMPS TO BE SHOWN ON PLANS SYMBOLICALLY AND REFERENCED WITH THE CENTER OF THE RAMP ALIGNED TO A STATION ON THE CONSTRUCTION CENTERLINE. SEPARATE DETAILS SHALL BE SHOWN WHERE PROPOSED RAMP VARIES FROM RAMP DETAILS.
5. ALL RAMPS & LANDINGS WILL BE A MINIMUM OF 6" THICK.
6. ALL SLOPES SHALL BE MEASURED INDEPENDENT TO THE SURROUNDING TERRAIN. THEREFORE, THE LENGTH OF THE RAMPS IS SOLELY DEPENDENT ON THE HEIGHT OF THE CURB (FOR EXAMPLE, A 6 IN. CURB WITH A 12:1 RAMP SLOPE SHOULD HAVE A 6 FT. LENGTH).
7. ALL SIDEWALK RAMP DIMENSIONS SHALL BE MEASURED AT OR FROM THE BACK OF SIDEWALK.
8. HANDICAP RAMPS MUST MEET THE ADA SPECIFICATIONS CALLED OUT IN THE MARYLAND SHA ACCESSIBILITY POLICY & GUIDELINES FOR PEDESTRIAN FACILITIES ALONG STATE HIGHWAYS. FOR REFERENCE, RAMP DETAILS CAN BE FOUND IN THE SHA PUBLICATION.
9. ALL SIDEWALK, RAMPS AND LANDINGS WILL BE PICTURE FRAMED 1½" TO 2".

CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack CITY ENGINEER	VERTICAL CURB SIDEWALK RAMPS	DATE 1/01/14 SCALE N.T.S. DWG. NO. STD10040 STD. NO. 100.40



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2. NO TRAVERSABLE SLOPE ON THE RAMP OR SIDEWALK SHALL EXCEED 12:1 IN THE DIRECTION OF PEDESTRIAN TRAVEL. PERPENDICULAR TO THE DIRECTION OF PEDESTRIAN TRAVEL THE SLOPE WILL BE 48:1.
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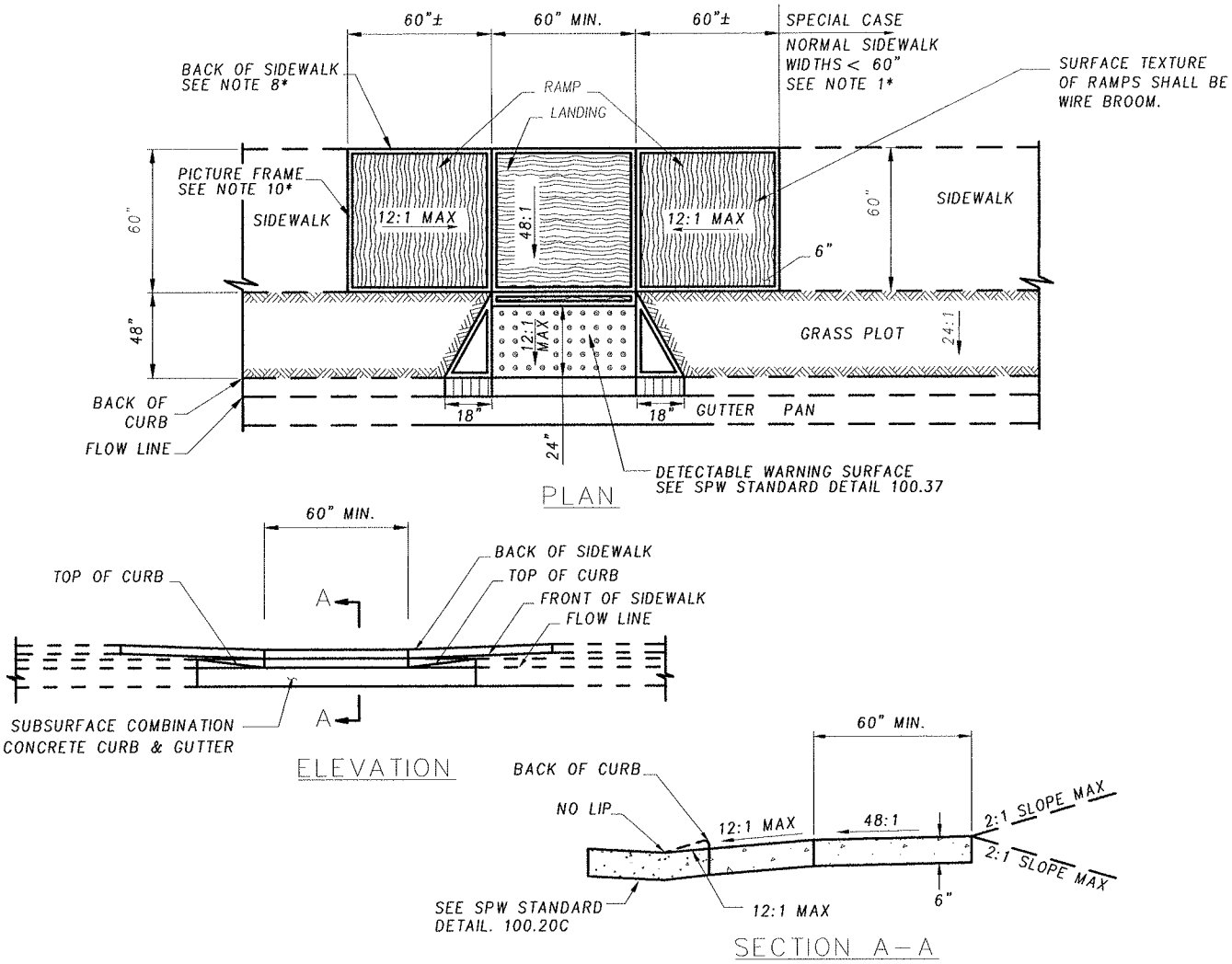
5. THE GRASS PLOT SHALL BE DESIGNED TO BE 4.5' UNLESS OTHERWISE APPROVED.
6. ALL RAMPS & LANDINGS WILL BE A MINIMUM OF 6" THICK.
7. ALL SLOPES SHALL BE MEASURED INDEPENDENT TO THE SURROUNDING TERRAIN. THEREFORE, THE LENGTH OF THE RAMPS IS SOLELY DEPENDENT ON THE HEIGHT OF THE CURB (FOR EXAMPLE, A 6 IN. CURB WITH A 12:1 RAMP SLOPE SHOULD HAVE A 6 FT. LENGTH).
8. ALL SIDEWALK RAMP DIMENSIONS SHALL BE MEASURED AT OR FROM THE BACK OF SIDEWALK.
9. HANDICAP RAMPS MUST MEET THE ADA SPECIFICATIONS CALLED OUT IN THE MARYLAND SHA ACCESSIBILITY POLICY & GUIDELINES FOR PEDESTRIAN FACILITIES ALONG STATE HIGHWAYS. FOR REFERENCE, RAMP DETAILS CAN BE FOUND IN THE SHA PUBLICATION.
10. ALL SIDEWALK, RAMPS AND LANDINGS WILL BE PICTURE FRAMED 1½" TO 2".
11. THIS DETAIL IS TO BE USED WHERE AT LEAST 7'-0" EXISTS BETWEEN THE BACK OF CURB AND THE BACK OF SIDEWALK. IF GRASS PLOT IS LESS THAN 24", WIDEN THE SIDEWALK TO THE BACK OF CURB AND THEN CONSTRUCT THE RAMP UTILIZING CITY STD 100.40.

CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack CITY ENGINEER	VERTICAL CURB & GRASS PLOT SIDEWALK RAMPS	DATE 1/01/14 SCALE N.T.S. DWG. NO. STD10041 STD. NO. 100.41



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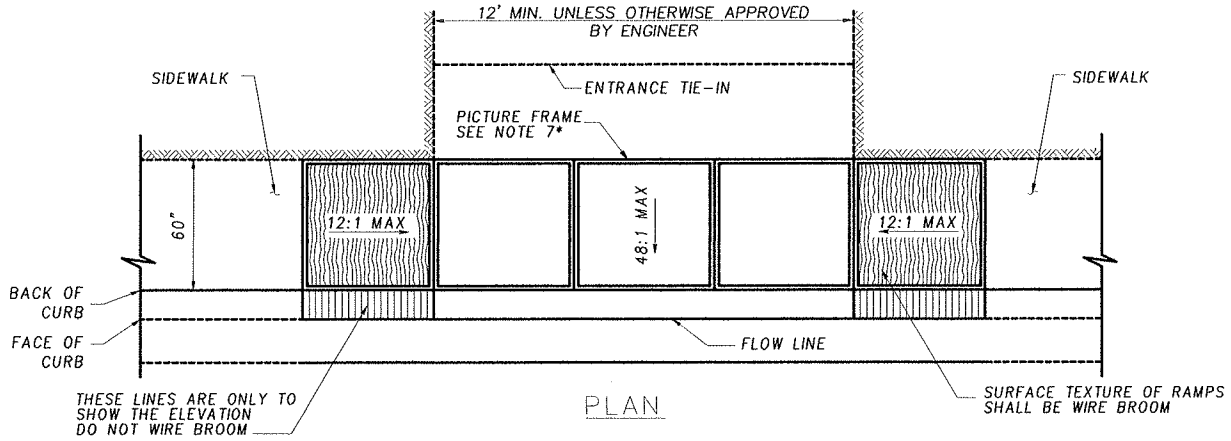
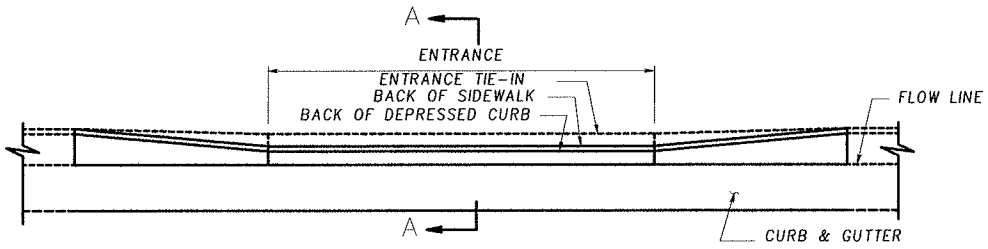
3. EXPANSION JOINT MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH SPW STD 100.10.
4. SIDEWALK RAMPS TO BE SHOWN ON PLANS SYMBOLICALLY AND REFERENCED WITH THE CENTER OF THE RAMP ALIGNED TO A STATION ON THE CONSTRUCTION CENTERLINE. SEPARATE DETAILS SHALL BE SHOWN WHERE PROPOSED RAMP VARIES FROM RAMP DETAILS.
5. THE GRASS PLOT SHALL BE DESIGNED TO BE 4' UNLESS OTHERWISE APPROVED.
6. ALL RAMPS & LANDINGS WILL BE A MINIMUM OF 6" THICK.
7. SIDEWALK RAMP SHALL MEET THE 12:1 MAXIMUM SLOPE AS MEASURED AT THE BACK OF SIDEWALK.
8. HANDICAP RAMPS MUST MEET THE ADA SPECIFICATIONS CALLED OUT IN THE MARYLAND SHA ACCESSIBILITY POLICY & GUIDELINES FOR PEDESTRIAN FACILITIES ALONG STATE HIGHWAYS. FOR REFERENCE, RAMP DETAILS CAN BE FOUND IN THE SHA PUBLICATION.
9. ALL SIDEWALKS, RAMPS AND LANDINGS WILL BE FINISHED WITH A 1½" TO 2" PICTURE FRAME.
10. THIS DETAIL IS TO BE USED WHERE AT LEAST 7'-0" EXISTS BETWEEN THE BACK OF CURB AND THE BACK OF SIDEWALK.

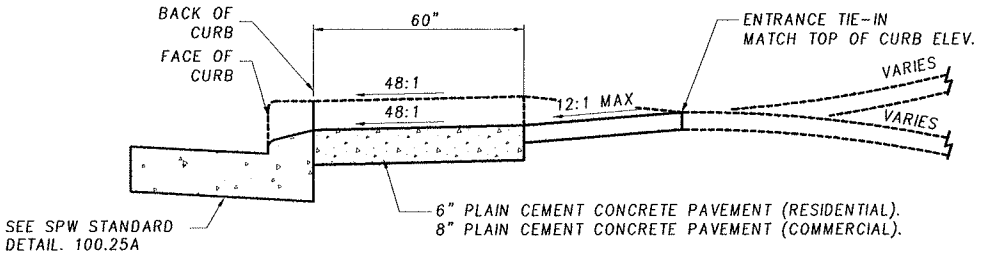
CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack CITY ENGINEER	MOUNTABLE CURB SIDEWALK RAMPS	DATE 1/01/14 SCALE N.T.S. DWG. NO. STD10042 STD. NO. 100.42



PLAN



ELEVATION

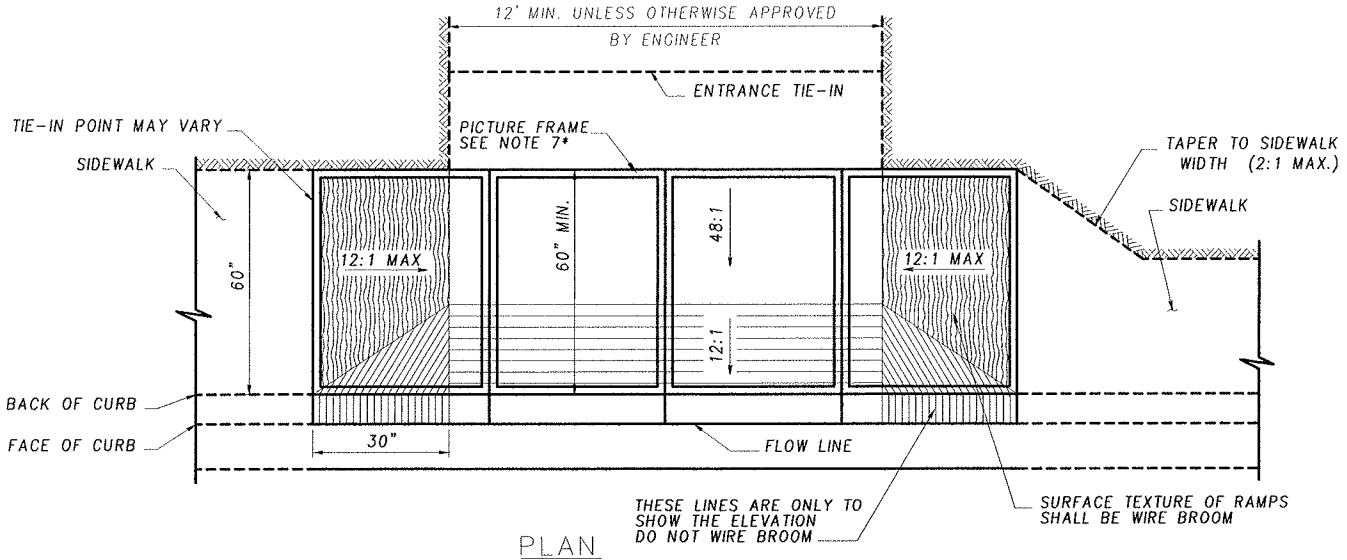


SECTION A-A

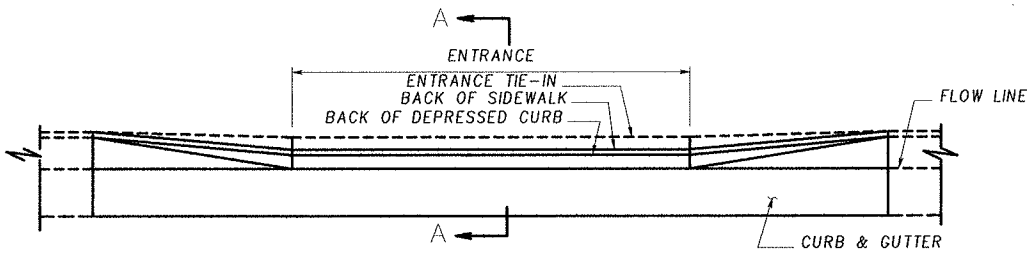
NOTES

1. IF IT IS DETERMINED THAT FULL ADA COMPLIANCE IS TECHNICALLY INFEASIBLE OR DETERMINED TO BE UNREASONABLE TO THE DESIRED DEGREE AS DESCRIBED IN THE SHA ADA GUIDELINES, A DESIGN WAIVER MUST BE REQUESTED AND APPROVED FOR EACH ELEMENT THAT IS NOT IN FULL COMPLIANCE.
2. NO TRAVERSABLE SLOPE ON THE RAMP OR SIDEWALK SHALL EXCEED 12:1 IN THE DIRECTION OF PEDESTRIAN TRAVEL. PERPENDICULAR TO THE DIRECTION OF PEDESTRIAN TRAVEL THE SLOPE WILL BE 48:1.
3. EXPANSION JOINT MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH SPW STD 100.10.
4. ALL SLOPES SHALL BE MEASURED INDEPENDENT TO THE SURROUNDING TERRAIN. THEREFORE, THE LENGTH OF THE RAMPS IS SOLELY DEPENDENT ON THE HEIGHT OF THE CURB (FOR EXAMPLE, A 6 IN. CURB WITH A 12:1 RAMP SLOPE SHOULD HAVE A 6 FT. LENGTH).
5. ALL SIDEWALK DIMENSIONS SHALL BE MEASURED AT OR FROM THE BACK OF SIDEWALK.
6. ENTRANCES MUST MEET THE ADA SPECIFICATIONS CALLED OUT IN THE MARYLAND SHA ACCESSIBILITY POLICY & GUIDELINES FOR PEDESTRIAN FACILITIES ALONG STATE HIGHWAYS. FOR REFERENCE, RAMP DETAILS CAN BE FOUND IN THE SHA PUBLICATION.
7. THE SIDEWALK WILL BE PICTURE FRAMED 1½" TO 2".

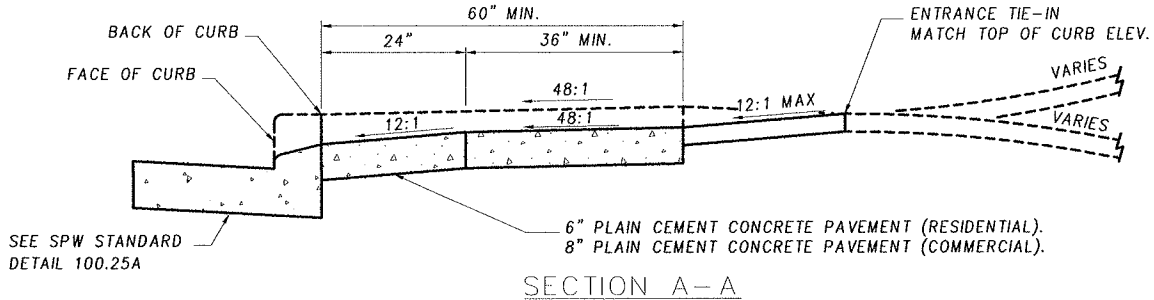
CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack CITY ENGINEER	CURBSIDE SIDEWALK STANDARD ENTRANCE RESIDENTIAL & COMMERCIAL METHOD NO. 1	DATE 1/01/14 SCALE N.T.S. DWG. NO. STD10043 STD. NO. 100.43



PLAN



ELEVATION

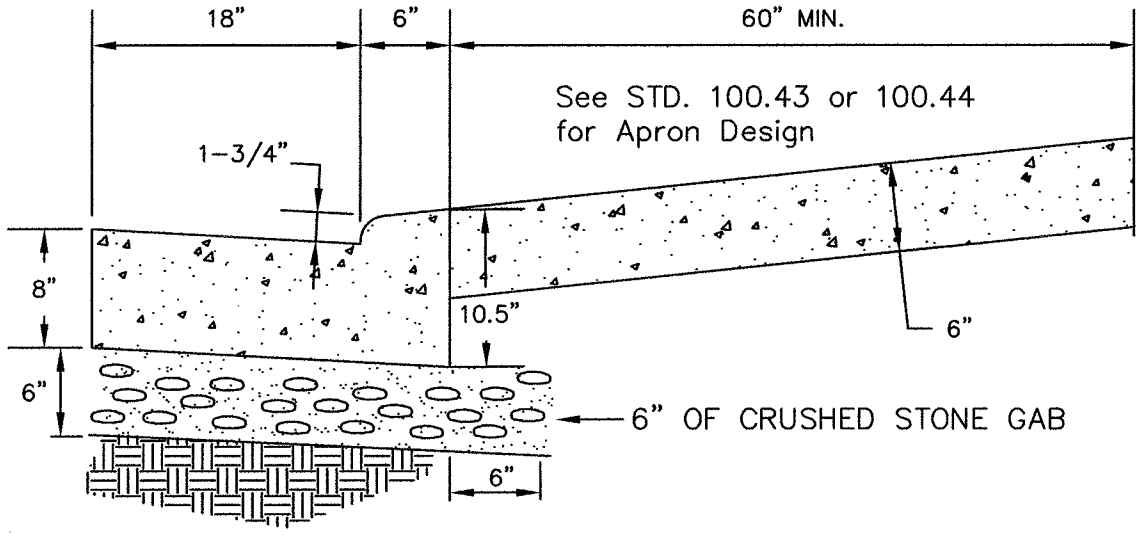


SECTION A-A

NOTES

1. IF IT IS DETERMINED THAT FULL ADA COMPLIANCE IS TECHNICALLY INFEASIBLE OR DETERMINED TO BE UNREASONABLE TO THE DESIRED DEGREE AS DESCRIBED BY THE CITY OF SALISBURY OR IN THE SHA ADA GUIDELINES, A DESIGN WAIVER MUST BE REQUESTED AND APPROVED FOR EACH ELEMENT THAT IS NOT IN FULL COMPLIANCE.
2. NO TRAVERSABLE SLOPE ON THE RAMP OR SIDEWALK SHALL EXCEED 12:1 IN THE DIRECTION OF PEDESTRIAN TRAVEL. PERPENDICULAR TO THE DIRECTION OF PEDESTRIAN TRAVEL THE SLOPE WILL BE 48:1.
3. EXPANSION JOINT MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH SPW STD 100.10.
4. ALL SLOPES SHALL BE MEASURED INDEPENDENT TO THE SURROUNDING TERRAIN. THEREFORE, THE LENGTH OF THE RAMPS IS SOLELY DEPENDENT ON THE HEIGHT OF THE CURB (FOR EXAMPLE, A 6 IN. CURB WITH A 12:1 RAMP SLOPE SHOULD HAVE A 6 FT. LENGTH).
5. ALL SIDEWALK DIMENSIONS SHALL BE MEASURED AT OR FROM THE BACK OF SIDEWALK.
6. ENTRANCES MUST MEET THE ADA SPECIFICATIONS CALLED OUT IN THE MARYLAND SHA ACCESSIBILITY POLICY & GUIDELINES FOR PEDESTRIAN FACILITIES ALONG STATE HIGHWAYS. FOR REFERENCE, RAMP DETAILS CAN BE FOUND IN THE SHA PUBLICATION.
7. THE SIDEWALK WILL BE PICTURE FRAMED 1½" TO 2".

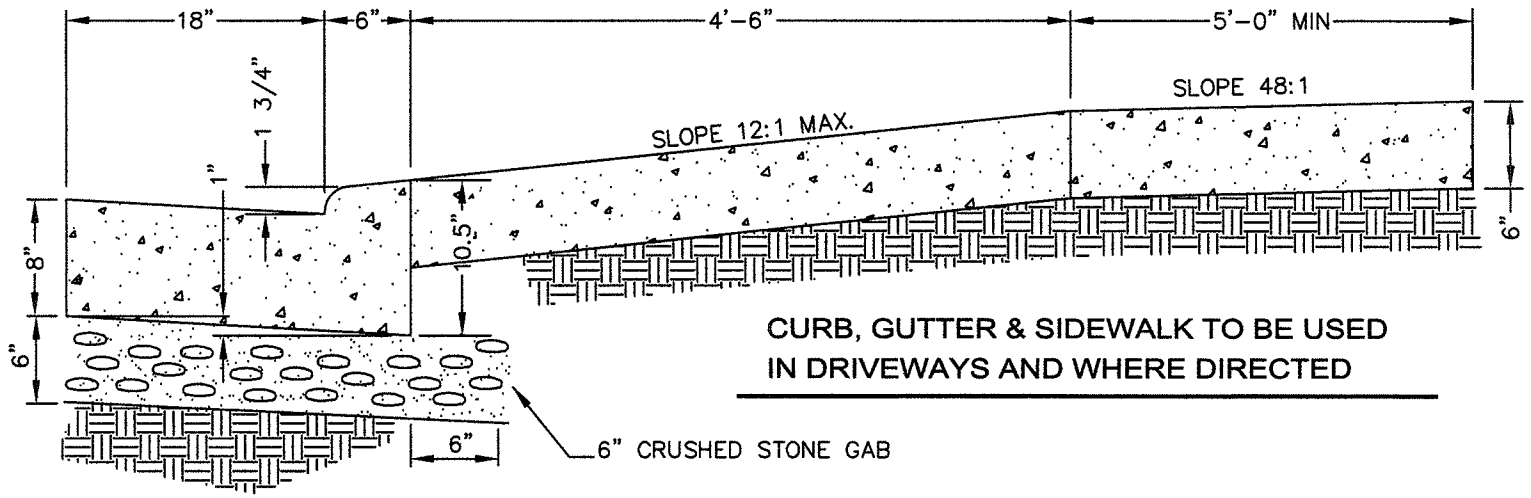
CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack CITY ENGINEER	CURBSIDE SIDEWALK STANDARD ENTRANCE RESIDENTIAL & COMMERCIAL METHOD NO. 2	DATE 1/01/14 SCALE N.T.S. DWG. NO. STD10044 STD. NO. 100.44



REVISED 1/01/14

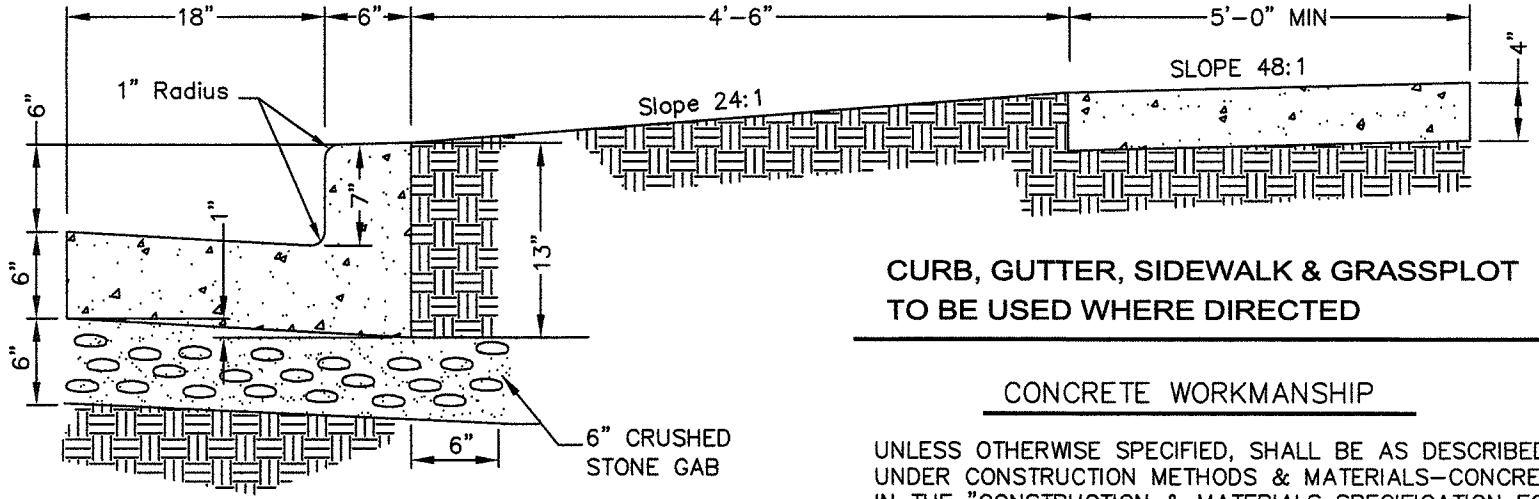
CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack CITY ENGINEER	SPECIAL CURB & GUTTER AND SIDEWALK IN INDUSTRIAL DRIVEWAYS	DATE 1/5/00 SCALE NONE DWG. NO. STD100.50 STD. NO. 100.50

A



CURB, GUTTER & SIDEWALK TO BE USED IN DRIVEWAYS AND WHERE DIRECTED

B



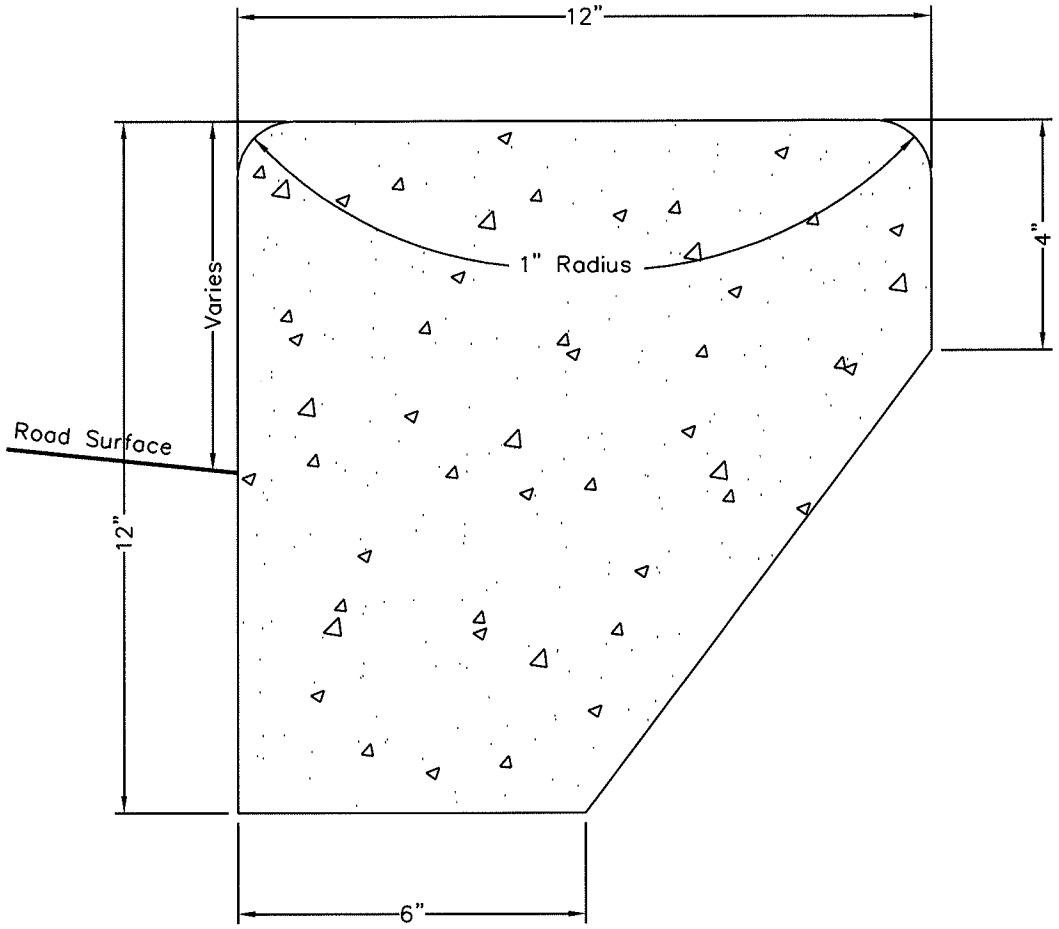
CURB, GUTTER, SIDEWALK & GRASSPLOT TO BE USED WHERE DIRECTED

CONCRETE WORKMANSHIP

UNLESS OTHERWISE SPECIFIED, SHALL BE AS DESCRIBED UNDER CONSTRUCTION METHODS & MATERIALS–CONCRETE IN THE "CONSTRUCTION & MATERIALS SPECIFICATION FOR UTILITY AND ROADWAY CONSTRUCTION" MANUAL LATEST REVISION.

Revised 1/01/14

CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack CITY ENGINEER	STANDARD DETAILS FOR CURB, GUTTER, & SIDEWALK WITH GRASSPLOT OR DRIVEWAY	DATE 4/6/92 SCALE NONE DWG NO. STD10051 STD. NO 100.51

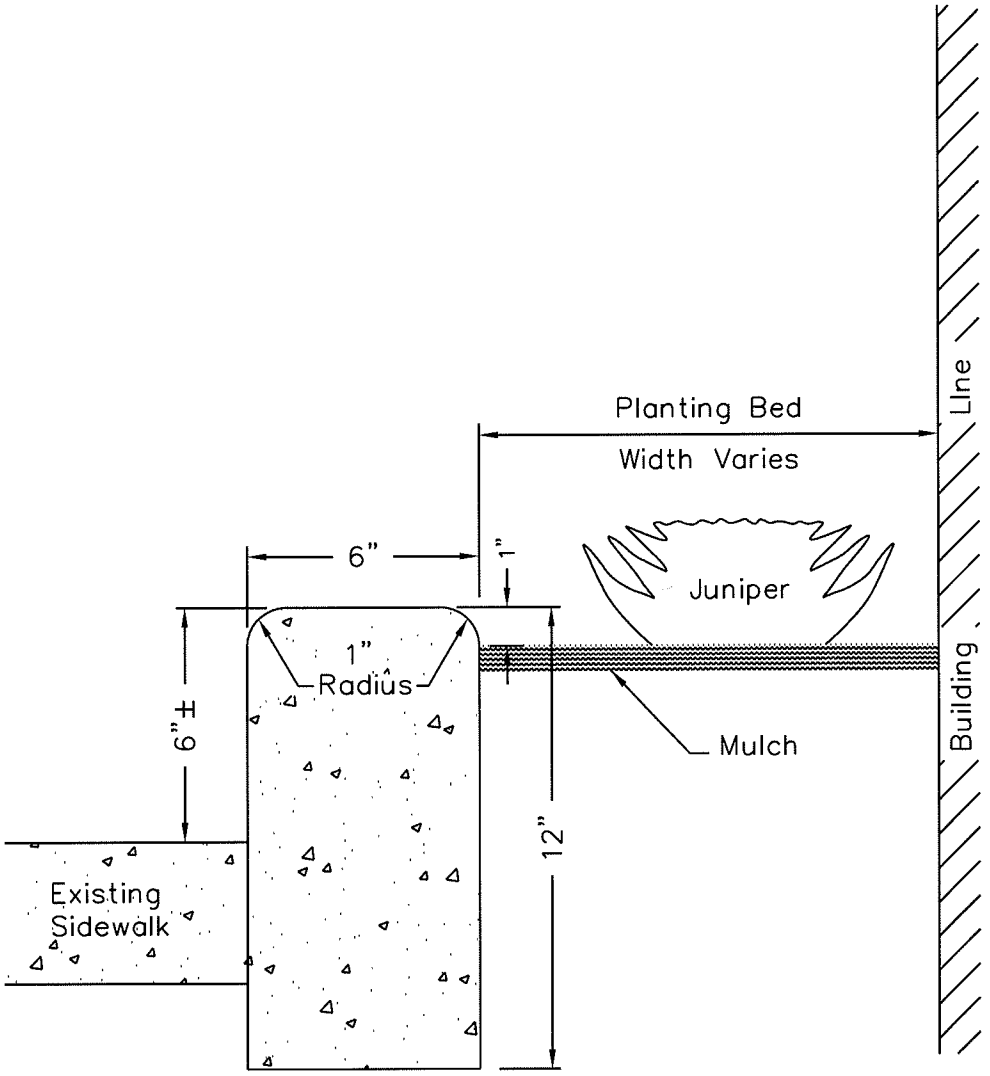


CONCRETE WORKMANSHIP

UNLESS OTHERWISE SPECIFIED, SHALL BE AS DESCRIBED UNDER CONSTRUCTION METHODS & MATERIALS–CONCRETE IN THE "CONSTRUCTION & MATERIALS SPECIFICATION FOR UTILITY AND ROADWAY CONSTRUCTION" MANUAL LATEST REVISION

REVISED: 01/01/14

CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack CITY ENGINEER	STANDARD DETAIL FOR TYPE A LANDSCAPING CURB	DATE 2/3/83 SCALE NONE DWG. NO. STD10052 STD. NO. 100.52

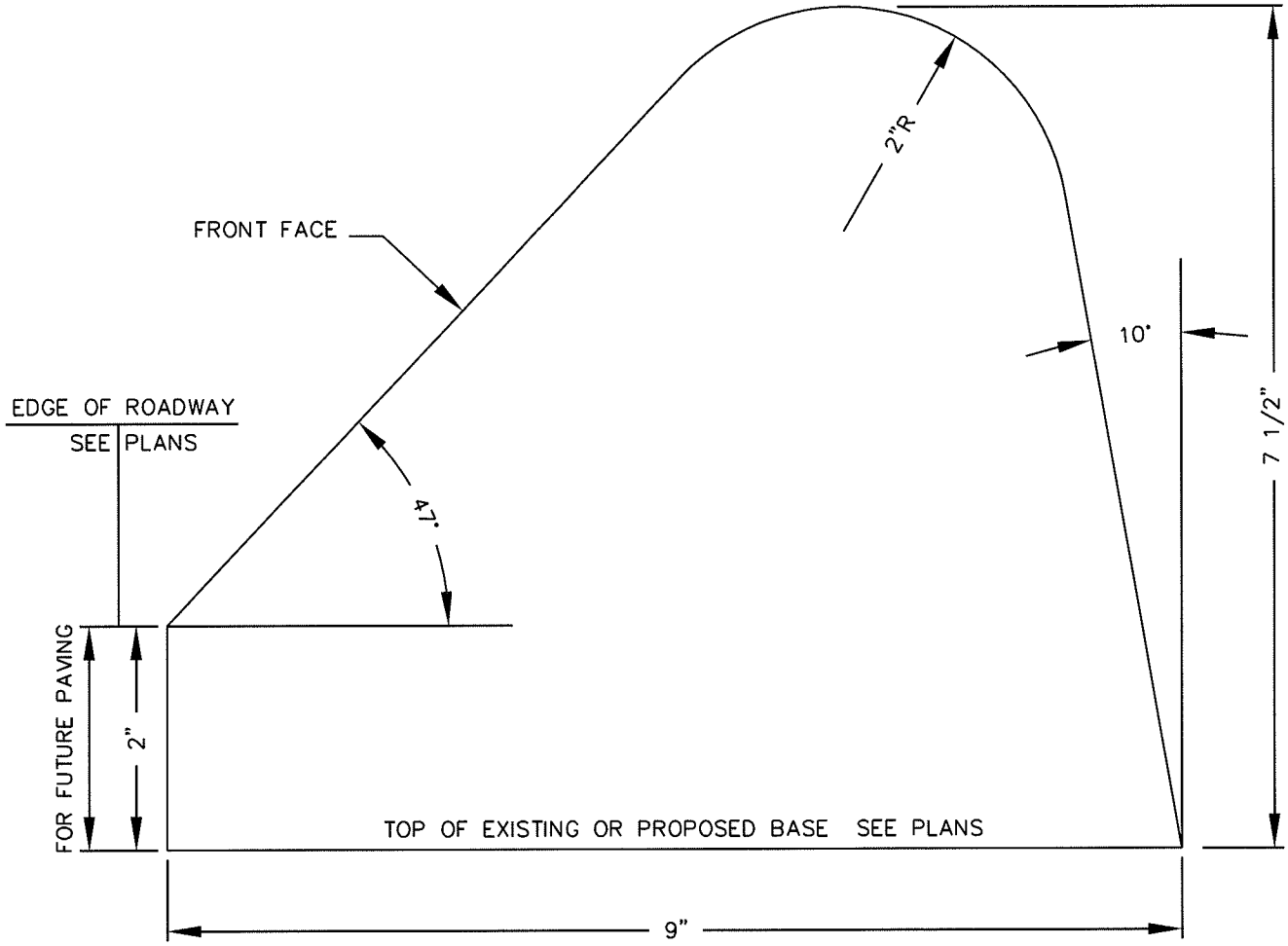


CONCRETE WORKMANSHIP

UNLESS OTHERWISE SPECIFIED, SHALL BE AS DESCRIBED UNDER CONSTRUCTION METHODS & MATERIALS–CONCRETE IN THE "CONSTRUCTION & MATERIALS SPECIFICATION FOR UTILITY AND ROADWAY CONSTRUCTION" MANUAL LATEST REVISION.

Revised: 01/01/14

CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack CITY ENGINEER	STANDARD DETAIL FOR PLANTER CURB	DATE 2/3/83 SCALE NONE DWG. NO. STD10053 STD. NO. 100.53

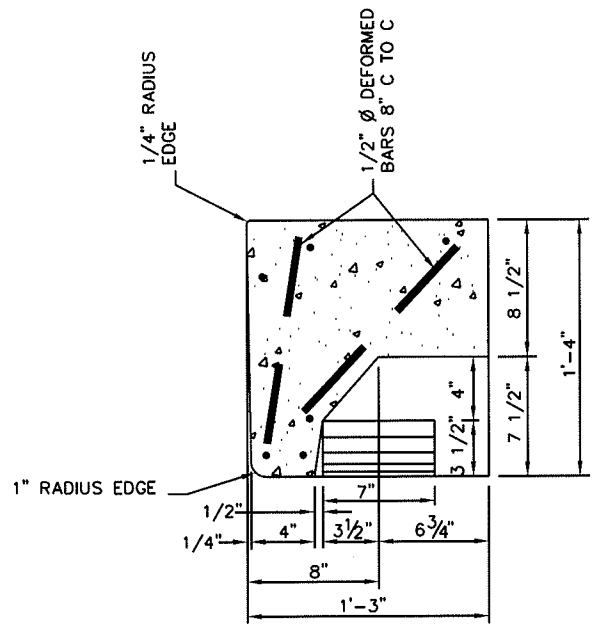


Revised: 01/01/14

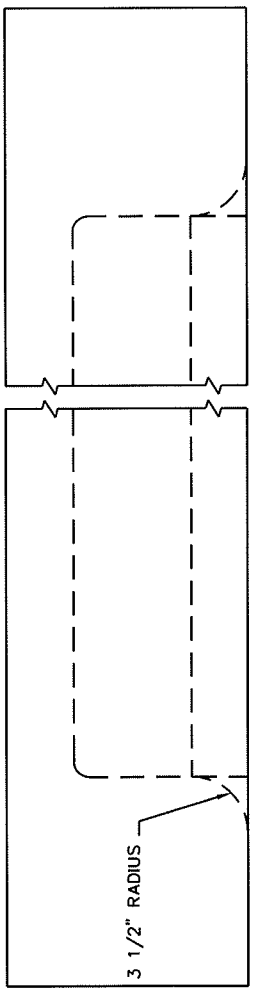
CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack CITY ENGINEER	STANDARD BITUMINOUS CONCRETE CURB	DATE 3/10/87 SCALE NONE DWG. NO. STD10054 STD. NO. 100.54

CONCRETE WORKMANSHIP

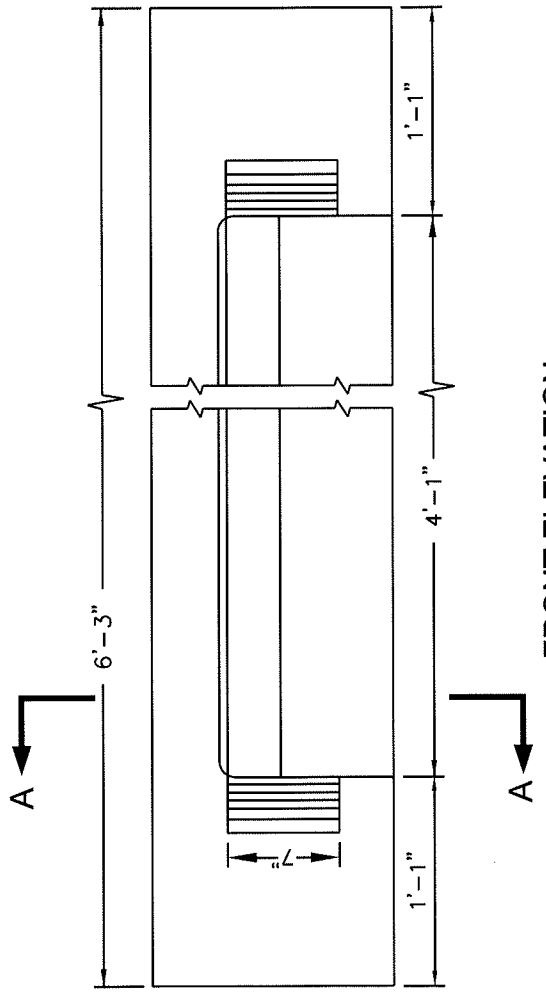
UNLESS OTHERWISE SPECIFIED, SHALL BE AS DESCRIBED UNDER CONSTRUCTION METHODS & MATERIALS–CONCRETE IN THE "CONSTRUCTION & MATERIALS SPECIFICATION FOR UTILITY AND ROADWAY CONSTRUCTION" MANUAL LATEST REVISION.



SECTION A-A



PLAN



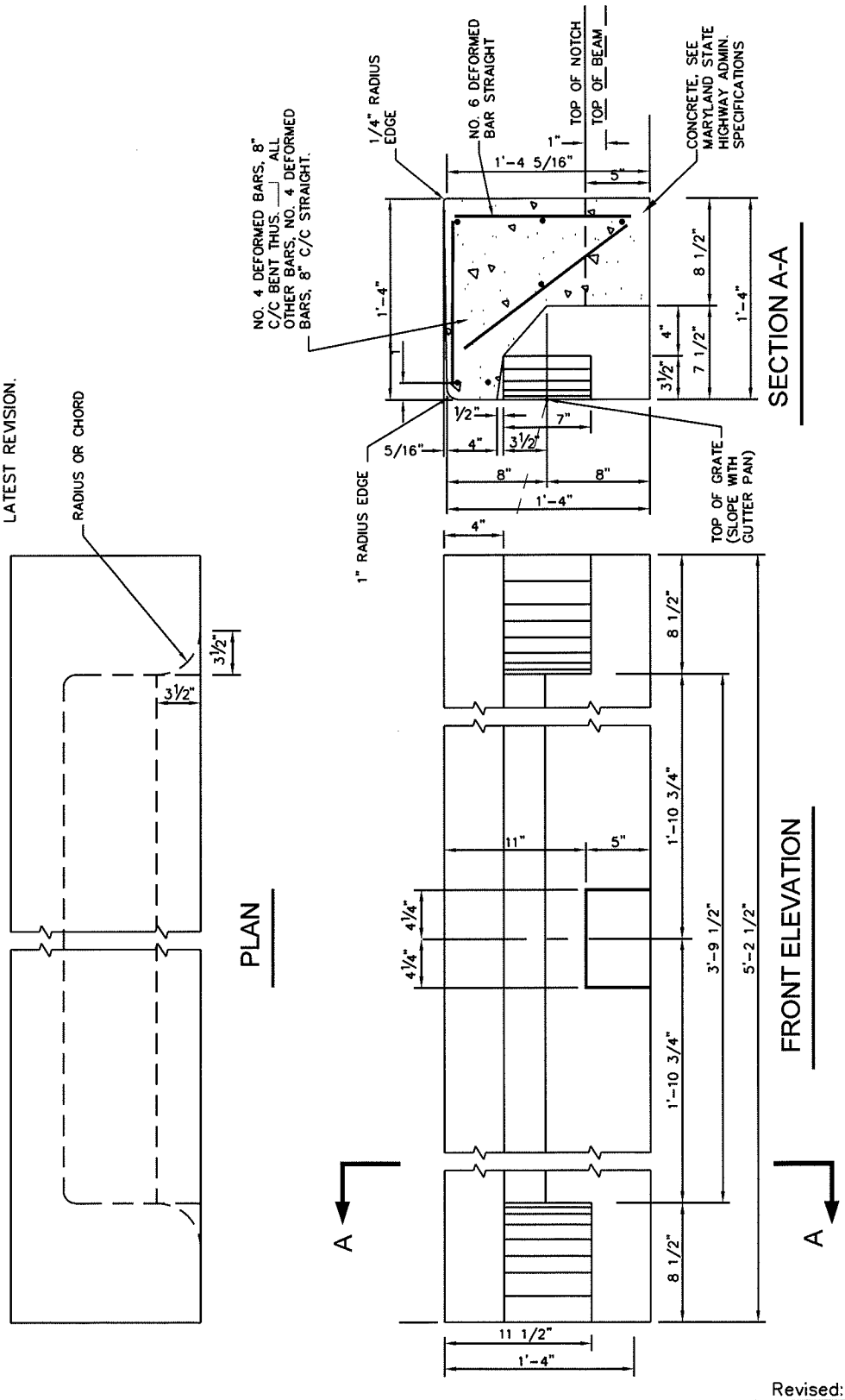
FRONT ELEVATION

Revised: 01/01/14

CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack CITY ENGINEER	SPECIAL CURB CLASS "E" COMBINATION INLET	DATE 8/29/86 SCALE NONE DWG. NO. STD10055 STD. NO. 100.55

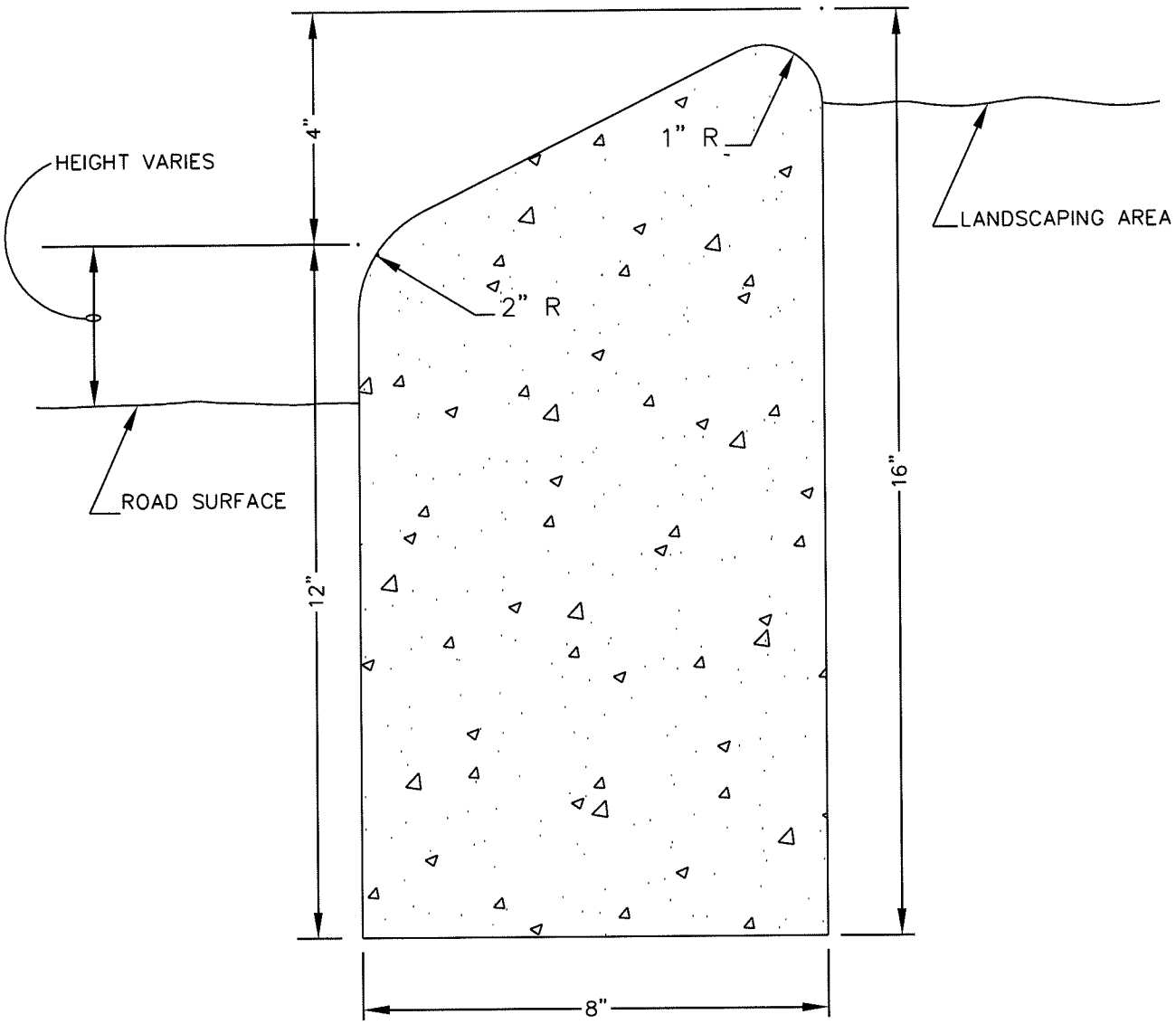
CONCRETE WORKMANSHIP

UNLESS OTHERWISE SPECIFIED, SHALL BE AS DESCRIBED UNDER CONSTRUCTION METHODS & MATERIALS–CONCRETE IN THE "CONSTRUCTION & MATERIALS SPECIFICATION FOR UTILITY AND ROADWAY CONSTRUCTION" MANUAL LATEST REVISION.



Revised: 01/01/14

CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack CITY ENGINEER	SPECIAL CURB CLASS "NR" OPEN THROAT INLET	DATE 8/29/86 SCALE NONE DWG. NO. STD100.56 STD. NO. 100.56

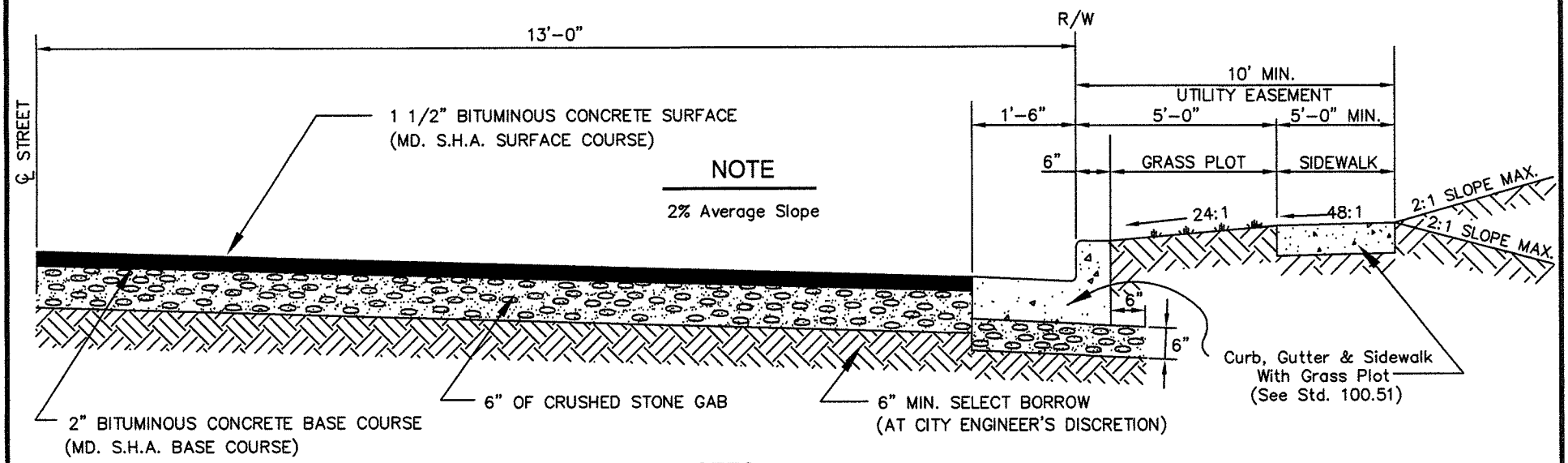


CONCRETE WORKMANSHIP

UNLESS OTHERWISE SPECIFIED, SHALL BE AS DESCRIBED UNDER CONSTRUCTION METHODS & MATERIALS–CONCRETE IN THE "CONSTRUCTION & MATERIALS SPECIFICATION FOR UTILITY AND ROADWAY CONSTRUCTION" MANUAL LATEST REVISION.

Revised: 01/01/14

CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack CITY ENGINEER	TRAFFIC ISLAND SAFETY CURB	DATE 7/12/90 SCALE NONE DWG. NO. STD10057 STD. NO. 100.57

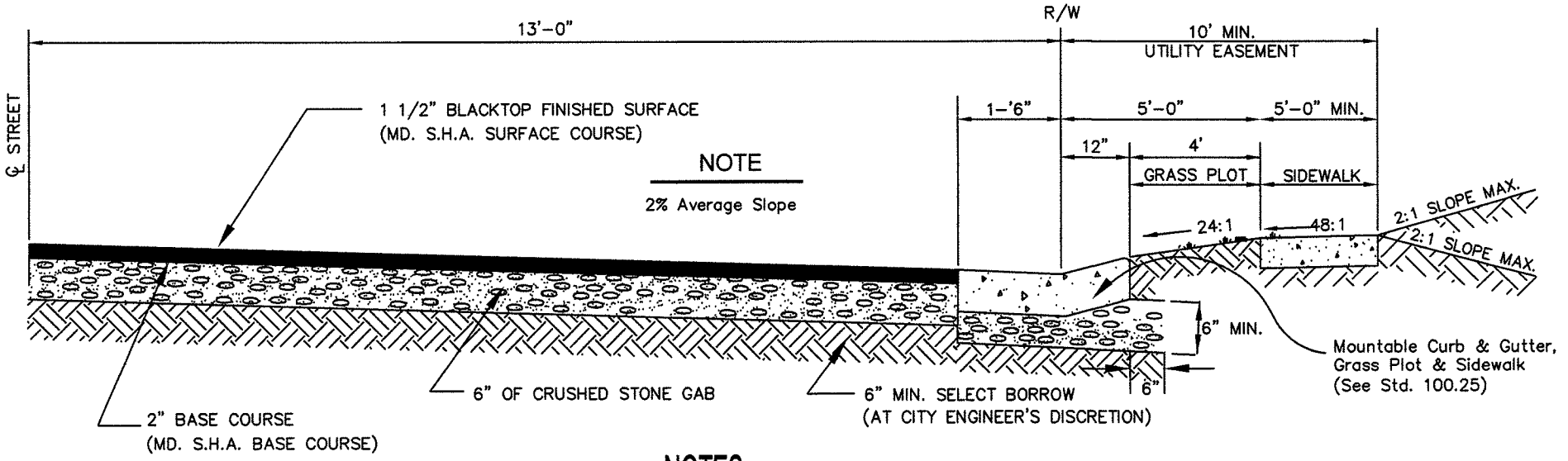


NOTES

1. Where Base Soil Is Of Unsuitable Material The Engineer, At His Discretion, May Require Removal And Replacement With Select Borrow Meeting Requirements Of B.P.R. A–1, Or A–3 Friable.
2. Where Ground Water Is Encountered, The Engineer May Require Suitable Underdrain.
3. Information Shown On Drawings Are Minimum Standards.
4. All Streets Shall Be Constructed In Accordance To "Standard Specifications For Construction And Materials", As Published By The M.D.O.T., S.H.A., Latest Edition.
5. Grass plot may be eliminated by DPW approval only. Elimination requires 5'–0" width sidewalk placed against curb.

Revised: 1/01/14

CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack CITY ENGINEER	TYPICAL SECTION TYPICAL 26' LOCAL STREET WITH STANDARD CURB & GUTTER	DATE 3/23/92 SCALE NONE DWG NO. STD20011 STD. NO 200.11

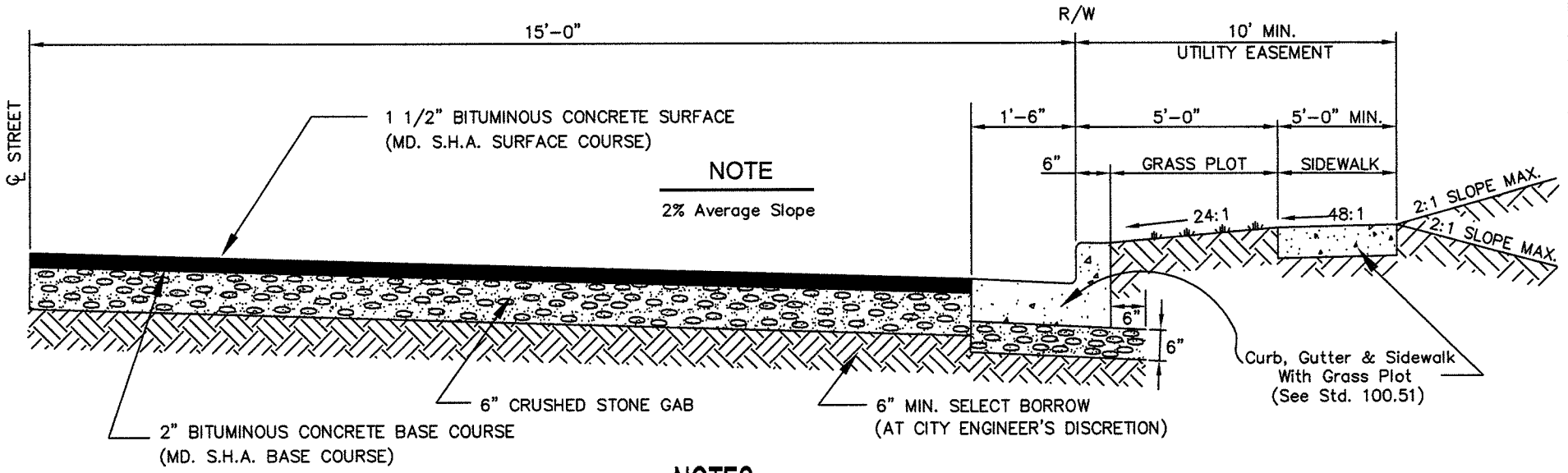


NOTES

1. Where Base Soil Is Of Unsuitable Material The Engineer, At His Discretion, May Require Removal And Replacement With Select Borrow Meeting Requirements Of B.P.R. A-1, Or A-3 Friable.
2. Where Ground Water Is Encountered, The Engineer May Require Suitable Underdrain.
3. Information Shown On Drawings Are Minimum Standards.
4. All Streets Shall Be Constructed In Accordance To "Standard Specifications For Construction And Materials", As Published By The M.D.O.T., S.H.A., Latest Edition.
5. Grass plot may be eliminated by DPW approval only. Elimination requires 5'-0" width sidewalk placed against curb.

Revised: 1/01/14

CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack CITY ENGINEER	TYPICAL SECTION TYPICAL 26' LOCAL STREET WITH MOUNTABLE CURB & GUTTER	DATE 3/23/92 SCALE NONE DWG NO. STD20013 STD. NO 200.13

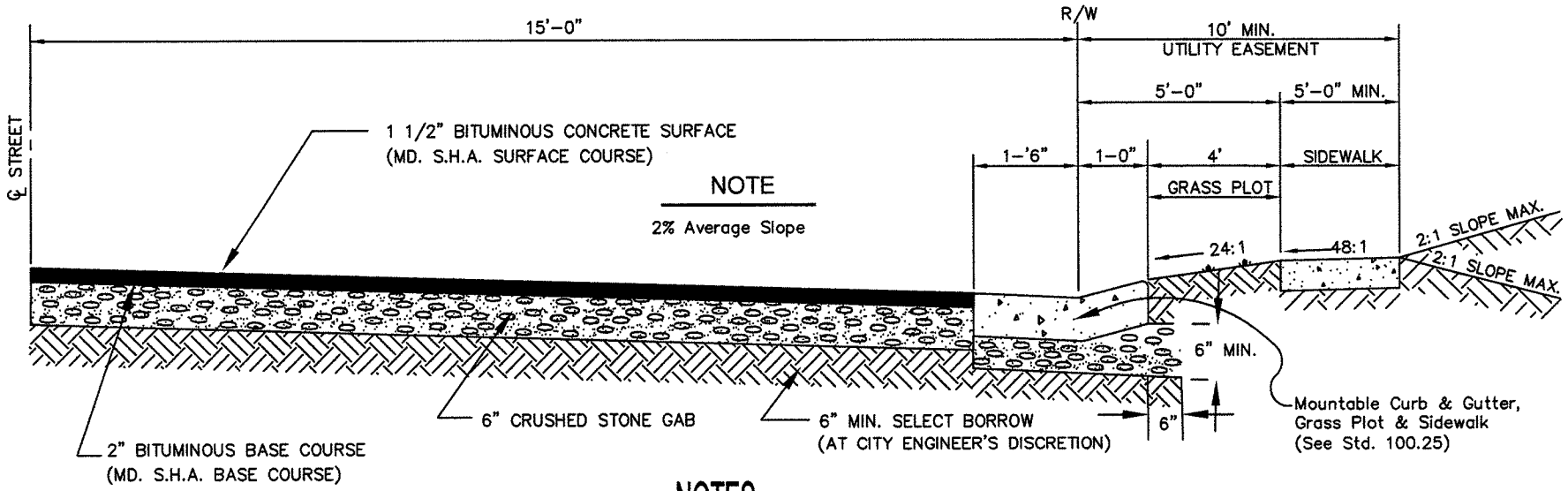


NOTES

1. Where Base Soil Is Of Unsuitable Material The Engineer, At His Discretion, May Require Removal And Replacement With Select Borrow Meeting Requirements Of B.P.R. A-1, Or A-3 Friable.
2. Where Ground Water Is Encountered, The Engineer May Require Suitable Underdrain.
3. Information Shown On Drawings Are Minimum Standards.
4. All Streets Shall Be Constructed In Accordance To "Standard Specifications For Construction And Materials", As Published By The M.D.O.T., S.H.A., Latest Edition.
5. Grass plot may be eliminated by DPW approval only. Elimination requires 5'-0" width sidewalk placed against curb.

Revised: 1/01/14

CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack CITY ENGINEER	TYPICAL SECTION TYPICAL 30' MINOR COLLECTOR STREET WITH STANDARD CURB & GUTTER	DATE 3/23/92 SCALE NONE DWG NO. STD20021 STD. NO 200.21

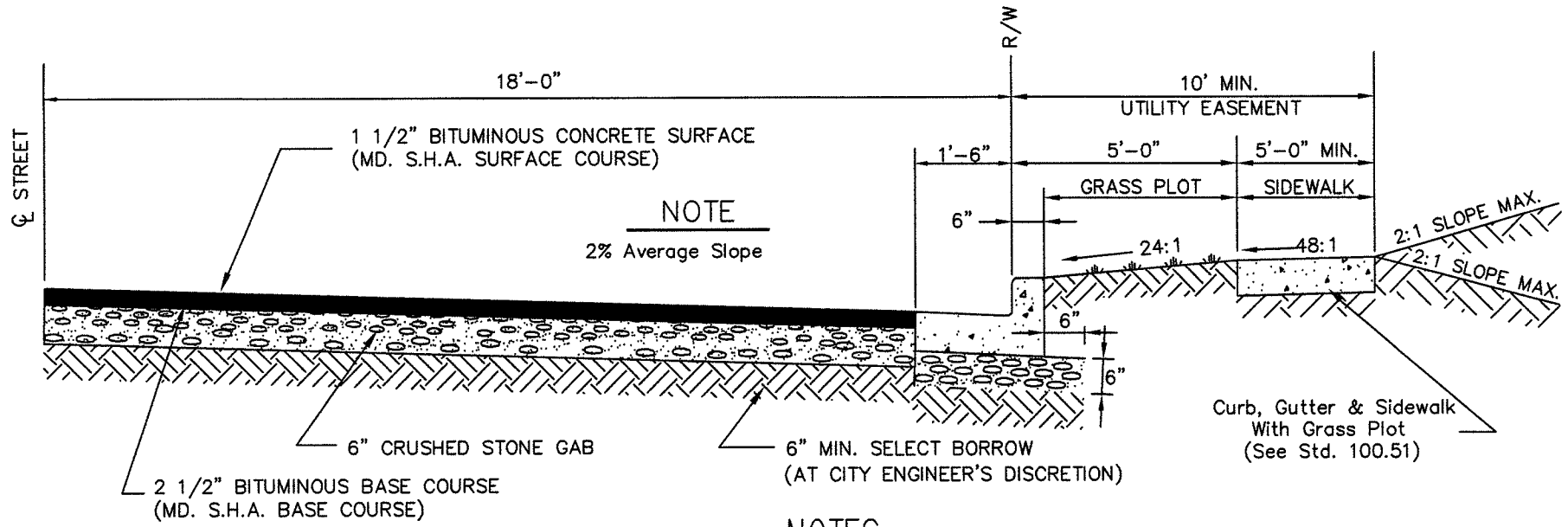


NOTES

1. Where Base Soil Is Of Unsuitable Material The Engineer, At His Discretion, May Require Removal And Replacement With Select Borrow Meeting Requirements Of B.P.R. A-1, Or A-3 Friable.
2. Where Ground Water Is Encountered, The Engineer May Require Suitable Underdrain.
3. Information Shown On Drawings Are Minimum Standards.
4. All Streets Shall Be Constructed In Accordance To "Standard Specifications For Construction And Materials", As Published By The M.D.O.T., S.H.A., Latest Edition.
5. Grass plot may be eliminated by DPW approval only. Elimination requires 5'-0" width sidewalk placed against curb.

Revised: 1/01/14

CITY OF SALISBURY SALISBURY, MD	APPROVED 4/1/14 DATE Amanda Pollack CITY ENGINEER	TYPICAL SECTION TYPICAL 30' MINOR COLLECTOR STREET WITH MOUNTABLE CURB & GUTTER	DATE 3/23/92 SCALE NONE DWG NO. STD20023 STD. NO 200.23

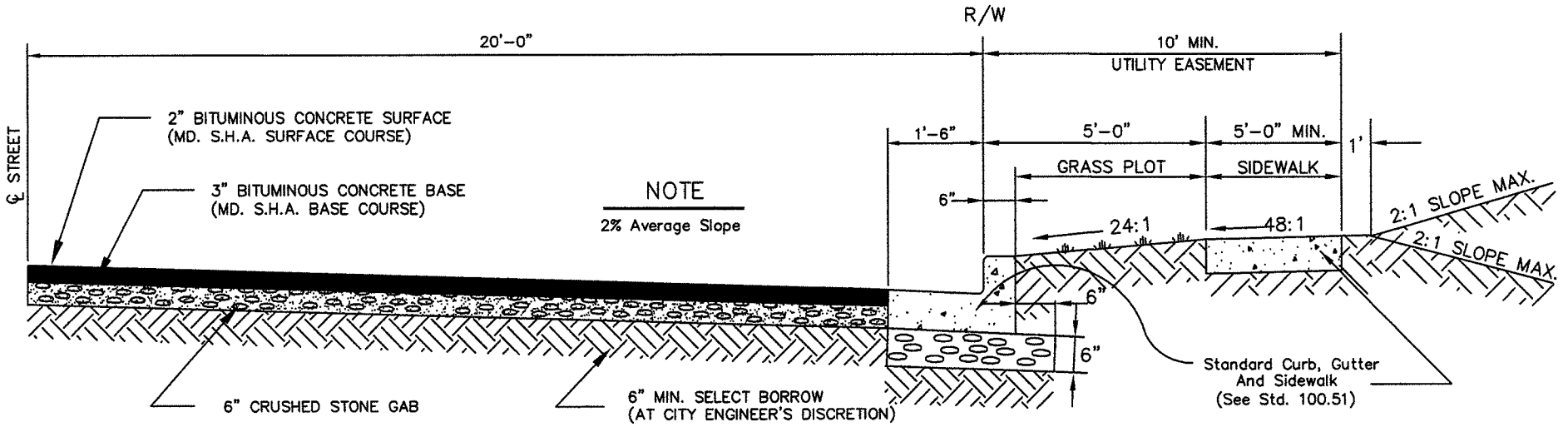


NOTES

1. Where Base Soil Is Of Unsuitable Material The Engineer, At His Discretion, May Require Removal And Replacement With Select Borrow Meeting Requirements Of B.P.R. A-1, Or A-3 Friable.
2. Where Ground Water Is Encountered, The Engineer May Require Suitable Underdrain.
3. Information Shown On Drawings Are Minimum Standards.
4. All Streets Shall Be Constructed In Accordance To "Standard Specifications For Construction And Materials", As Published By The M.D.O.T., S.H.A., Latest Edition.
5. Grass plot may be eliminated by DPW approval only. Elimination requires 5'-0" width sidewalk placed against curb.

Revised: 1/01/14

CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack CITY ENGINEER	TYPICAL SECTION TYPICAL 36' MAJOR COLLECTOR STREET WITH STANDARD CURB & GUTTER	DATE 3/23/92 SCALE NONE DWG NO. STD20035 STD. NO 200.35

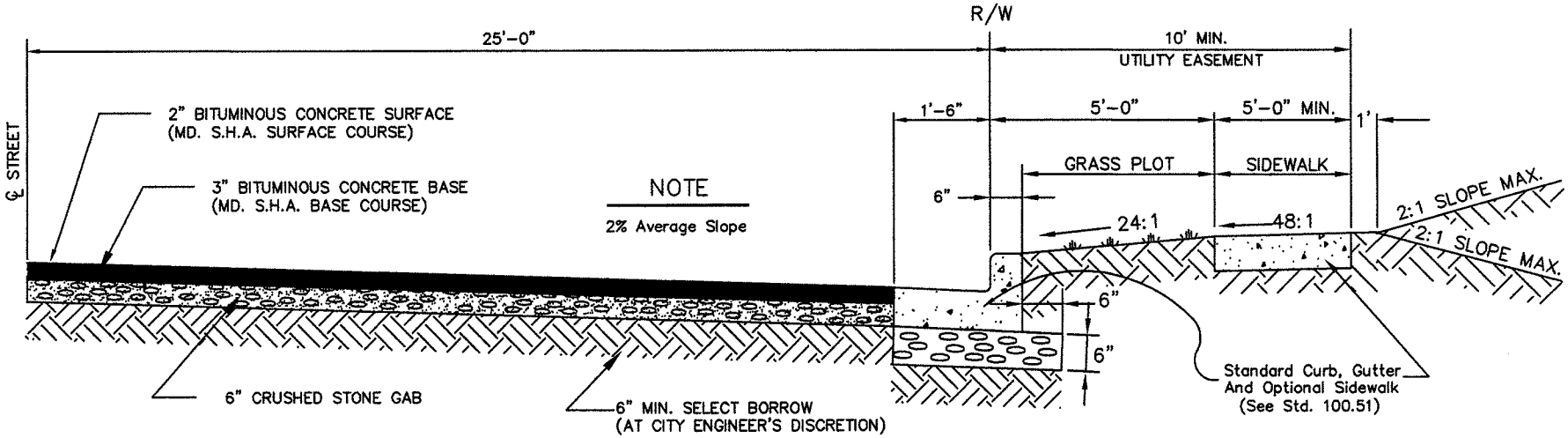


NOTES

1. Where Base Soil Is Of Unsuitable Material The Engineer, At His Discretion, May Require Removal And Replacement With Select Borrow Meeting Requirements Of B.P.R. A-1, Or A-3 Friable.
2. Where Ground Water Is Encountered, The Engineer May Require Suitable Underdrain.
3. Information Shown On Drawings Are Minimum Standards.
4. All Streets Shall Be Constructed In Accordance To "Standard Specifications For Construction And Materials", As Published By The M.D.O.T., S.H.A., Latest Edition.
5. Grass plot may be eliminated by DPW approval only.

Revised: 1/01/14

CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack CITY ENGINEER	TYPICAL SECTION TYPICAL 40' MAJOR COLLECTOR STREET WITH STANDARD CURB & GUTTER	DATE 3/23/92 SCALE NONE DWG NO. STD20041 STD. NO 200.41

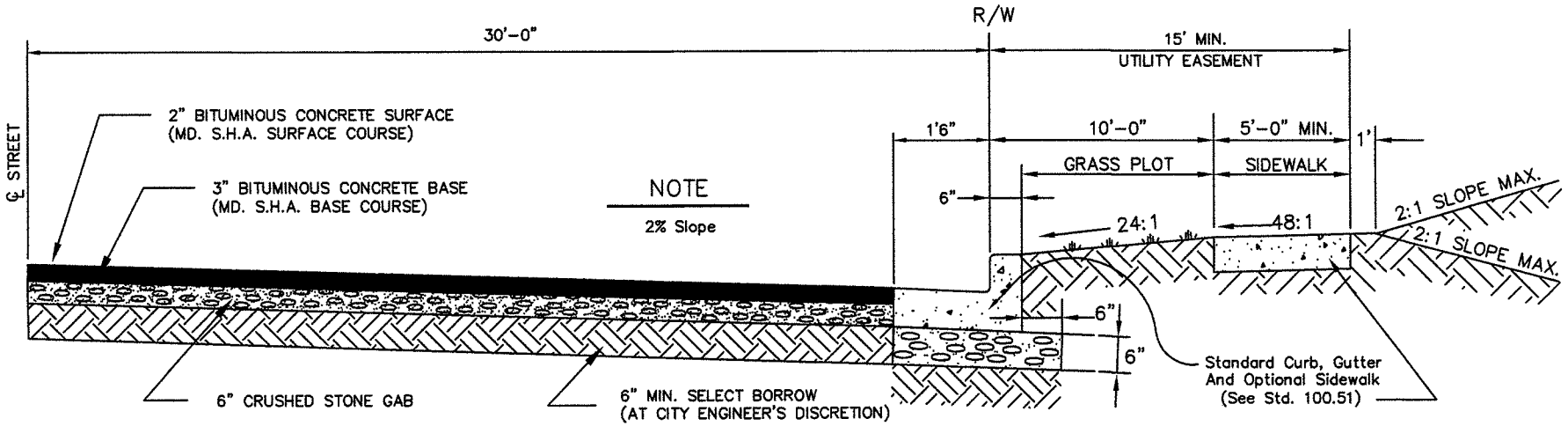


NOTES

1. Where Base Soil Is Of Unsuitable Material The Engineer, At His Discretion, May Require Removal And Replacement With Select Borrow Meeting Requirements Of B.P.R. A–1, Or A–3 Friable.
2. Where Ground Water Is Encountered, The Engineer May Require Suitable Underdrain.
3. Information Shown On Drawings Are Minimum Standards.
4. All Streets Shall Be Constructed In Accordance To "Standard Specifications For Construction And Materials", As Published By The M.D.O.T., S.H.A., Latest Edition.
5. Grass plot may be eliminated by DPW approval only.

Revised: 1/01/14

CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack CITY ENGINEER	**TYPICAL SECTION** (INDUSTRIAL/COMMERCIAL) 50' MAJOR COLLECTOR STREET WITH STANDARD CURB & GUTTER	DATE 3/23/92 SCALE NONE DWG NO. STD20051 STD. NO 200.51



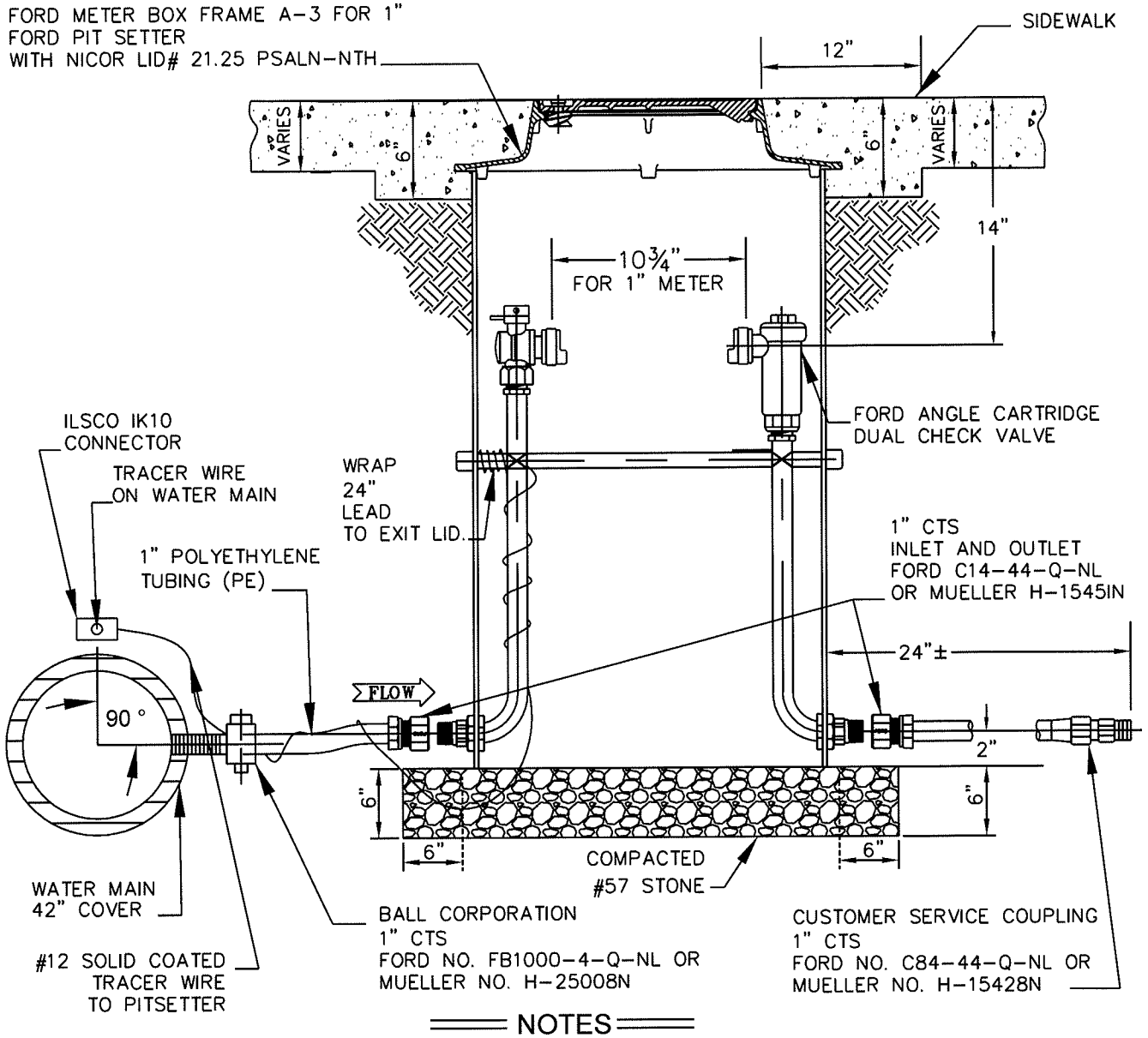
NOTES

1. Where Base Soil Is Of Unsuitable Material The Engineer, At His Discretion, May Require Removal And Replacement With Select Borrow Meeting Requirements Of B.P.R. A–1, Or A–3 Friable.
2. Where Ground Water Is Encountered, The Engineer May Require Suitable Underdrain.
3. Information Shown On Drawings Are Minimum Standards.
4. All Streets Shall Be Constructed In Accordance To "Standard Specifications For Construction And Materials", As Published By The M.D.O.T., S.H.A., Latest Edition.
5. Grass plot may be eliminated by DPW approval only.

Revised: 1/01/14

CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack CITY ENGINEER	TYPICAL SECTION TYPICAL 60' ARTERIAL STREET WITH STANDARD CURB & GUTTER	DATE 3/23/92 SCALE NONE DWG NO. STD20061 STD. NO 200.61

SINGLE LID
FORD METER BOX FRAME A-3 FOR 1"
FORD PIT SETTER
WITH NICOR LID# 21.25 PSALN-NTH



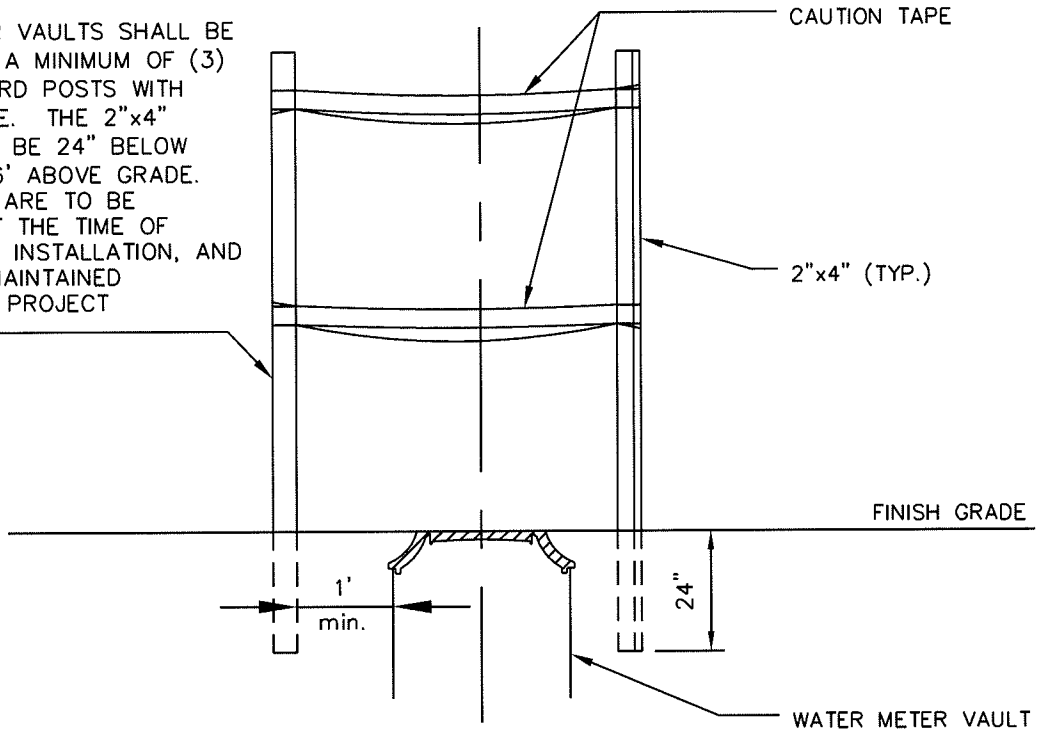
NOTES

1. WATER METER-SHALL BE SIZED, FURNISHED & INSTALLED BY CITY FORCES.
2. VAULT AREA BASE SHALL BE 6" COMPACTED #57 STONE.
3. IF WATER MAIN IS PLASTIC, USE APPROVED SADDLE FOR TAP.
4. FOR PVC MAIN 12" OR LESS:
   FORD FS313 SERIES STAINLESS STEEL SADDLE
5. MUELLER SS SERIES STAINLESS STEEL SERVICE SADDLE
   FOR 1" SERVICE SINGLE STUD 5" LENGTH
6. FORD PITSETTER-FORD
   NO. PSBHC-488-20-36-G-NL-NO BYPASS
7. PE TUBING SHALL BE CLASS 200, SDR-9, CTS-OD, 200 PSI, INSTALLED WITH #12 SOLID COATED COPPER TRACER WIRE FROM CORP. STOP TO SUPPLY SIDE ANGLE VALVE. ALL FITTINGS USED WITH PE TUBING SHALL HAVE S.S. INSERTS. SEE WATER MAIN MATERIALS, WM-6.
8. 1" PIT SETTERS INSTALLED IN UNPAVED AREAS SHALL BE FURNISHED WITH A CONCRETE COLLAR EXTENDING 1' BEYOND THE FRAME OF THE PIT SETTER LID. THE COLLAR SHALL BE 10" THICK AND BE SUPPORTED BY A 6" BASE OF CR-6 AGGREGATE WHICH IN TURN SHALL BE SUPPORTED BY SUITABLE SOIL COMPACTED TO 95% PROCTOR. SLOPE THE SURROUNDING EARTH AROUND THE COLLAR IN SUCH AWAY AS TO CREATE POSITIVE DRAINAGE.

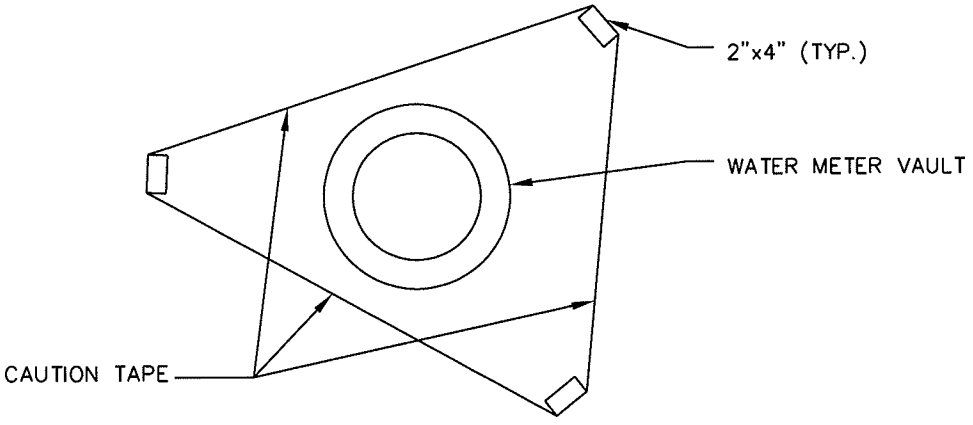
REVISED: 01/01/14

CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack DEPUTY DIRECTOR	1" WATER SERVICE W/FORD PIT SETTER	DATE 3/23/05 SCALE NONE DWG. NO. STD30014 STD. NO. 300.14

WATER METER VAULTS SHALL BE GUARDED BY A MINIMUM OF (3) 2"x4"x8' GUARD POSTS WITH CAUTION TAPE. THE 2"x4" POSTS SHALL BE 24" BELOW GRADE AND 6' ABOVE GRADE. THE GUARDS ARE TO BE INSTALLED AT THE TIME OF METER VAULT INSTALLATION, AND ARE TO BE MAINTAINED THROUGHOUT PROJECT COMPLETION.



FRONT VIEW



PLAN VIEW

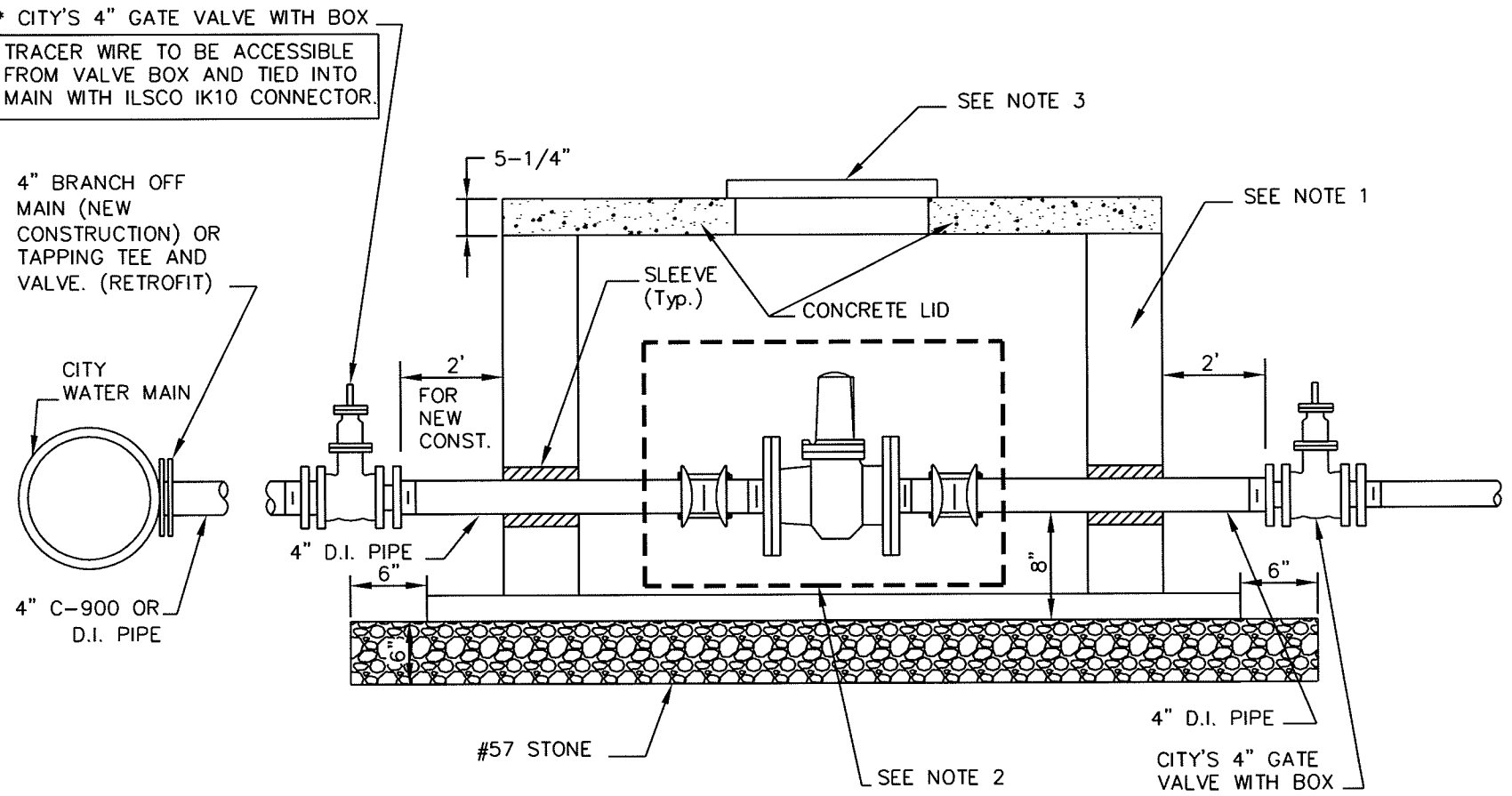
REVISED: 01/01/14

CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack DEPUTY DIRECTOR	TYPICAL WATER METER VAULT MARKER/GUARD DETAIL	DATE 1/31/06 SCALE NONE DWG. NO. STD30015 STD. NO. 300.15

CITY OF SALISBURY
SALISBURY, MD

APPROVED
DEPUTY DIRECTOR
DATE 1/1/14

TYPICAL 4" WATER SERVICE



NOTES

1. VAULT – SEE DETAIL 300.31

2. WATER METER – SHALL BE SIZED, FURNISHED & INSTALLED BY CITY FORCES.

3. CASTING – SEE DETAIL 300.30.

4. SLEEVES – PVC OR IRON PIPE–2 PIPE SIZES LARGER THAN SERVICE PIPE.

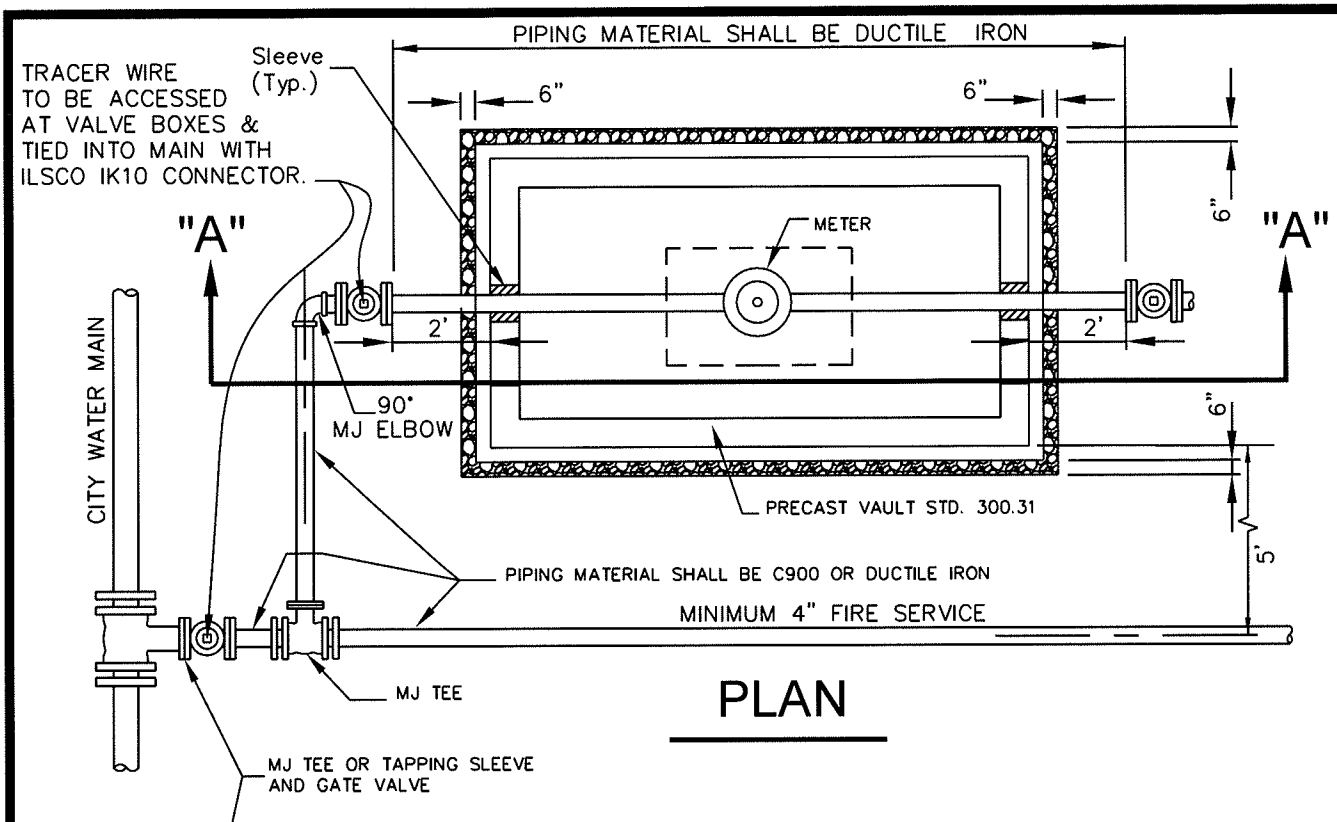
5. ANNULAR SPACE BETWEEN SLEEVES & PIPE SHALL BE FILLED WITH MATERIAL APPROVED BY THE CITY INSPECTOR.

6. VAULT AREA BASE SHALL BE 6" COMPACTED #57 STONE.

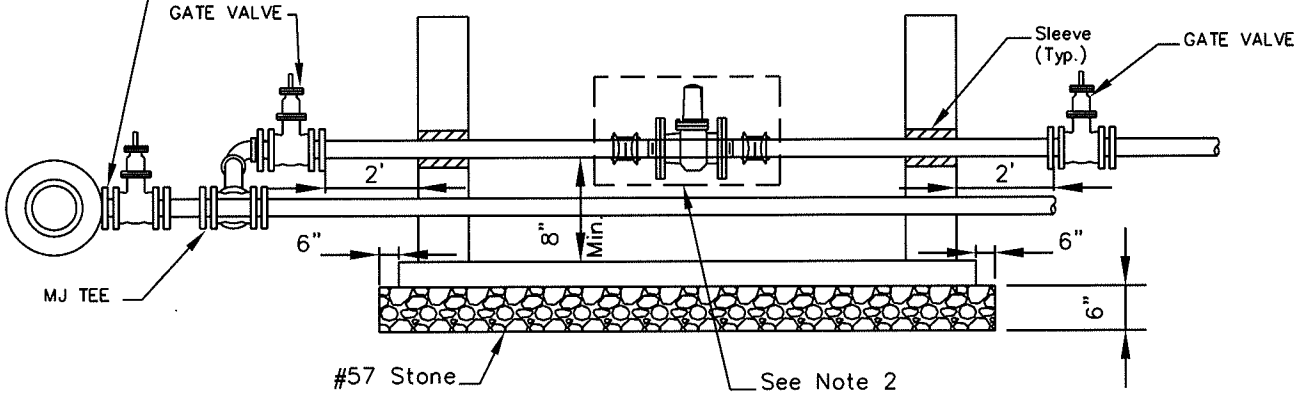
7. AN APPROVED BACKFLOW PREVENTION ASSEMBLY SHALL BE INSTALLED ON CUSTOMER SERVICE SIDE OF VAULT. TO BE OWNED AND MAINTAINED BY CUSTOMER.

Revised: 01/01/14

STD. NO.	DWG. NO.	SCALE	DATE
300.25	STD30025	NONE	3/24/99



PLAN



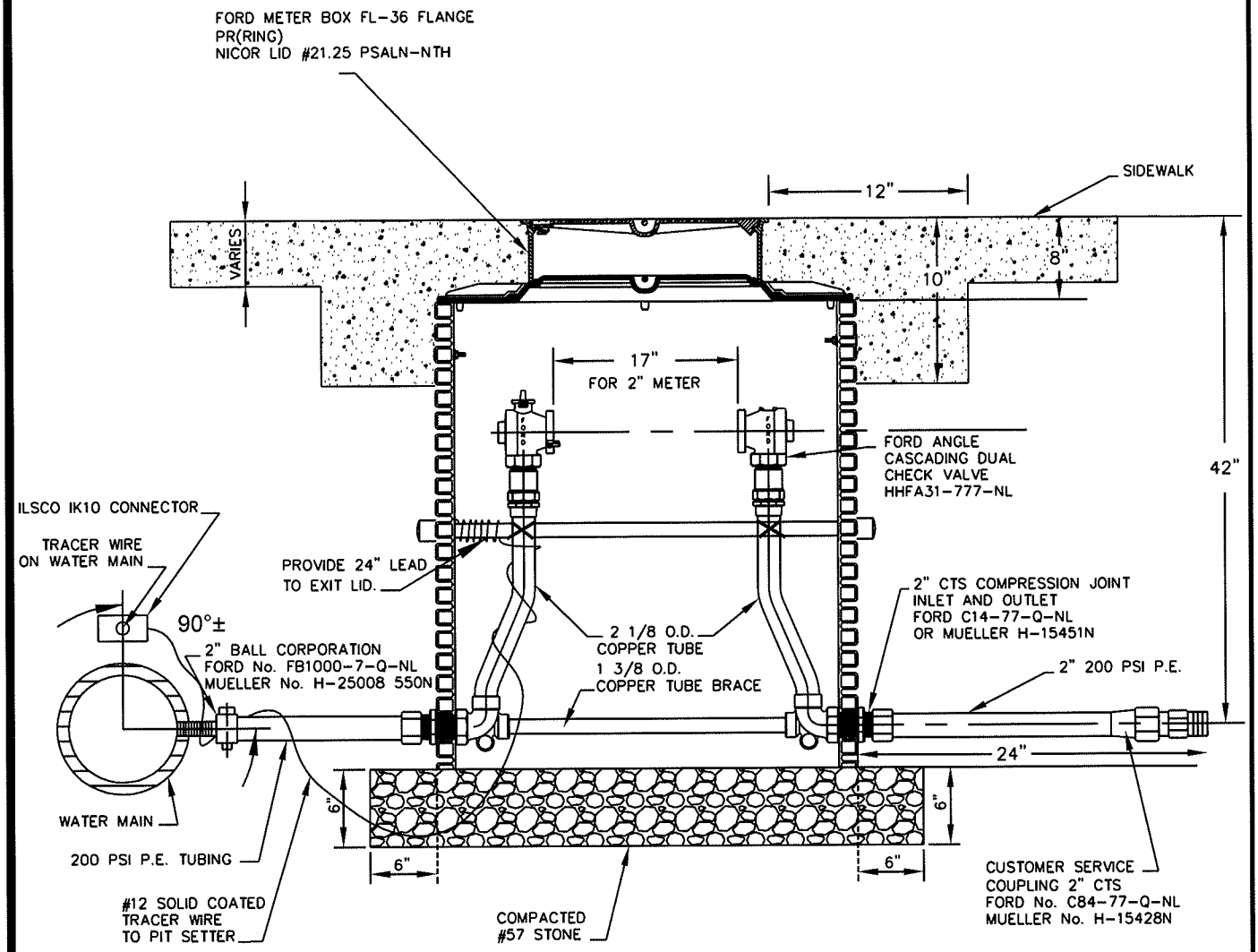
SECTION A-A

NOTES:

1. USE RETAINER GLANDS AS REQUIRED.
2. WATER METER SHALL BE SIZED, FURNISHED AND INSTALLED BY CITY FORCES.
3. SLEEVES SHALL BE PVC OR IRON PIPE 2 PIPE SIZES GREATER THAN SERVICE PIPE.
4. ANNULAR SPACE BETWEEN PIPE AND SLEEVES SHALL BE FILLED WITH MATERIAL APPROVED BY CITY INSPECTOR.
5. CASTING–SEE DETAIL 300.30.
6. MINIMUM INSIDE DIMENSIONS OF VAULT TO BE 4' WIDE X 5' LONG AND NO LESS THAN 36" TO TOP OF SERVICE PIPE, MAXIMUM 48".
7. DOMESTIC SERVICE PIPING MATERIAL SHALL BE DUCTILE IRON PIPE FROM GATE VALVE TO GATE VALVE, THROUGH PIT. REMAINDER OF PIPING MATERIAL SHALL BE C 900 OR DUCTILE IRON.

Revised: 01/01/14

CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack DEPUTY DIRECTOR	COMBINATION DOMESTIC FIRE SERVICE DOMESTIC 4" OR GREATER FIRE SERVICE 4" OR GREATER	DATE 03/24/99 SCALE NONE DWG. NO. STD30026 STD. NO. 300.26



NOTES

1. WATER METER–SHALL BE SIZED, FURNISHED & INSTALLED BY CITY FORCES.
2. VAULT AREA BASE SHALL BE 6" COMPACTED #57 STONE.
3. IF WATER MAIN IS PVC, USE APPROVED SADDLE FOR TAP.
4. FOR PVC MAIN 12" OR LESS;
   FORD FS313 SERIES STAINLESS STEEL SADDLE
   MUELLER SS SERIES STAINLESS STEEL SADDLE
   FOR 2" SERVICE DOUBLE STUD $7\frac{1}{2}$" LENGTH

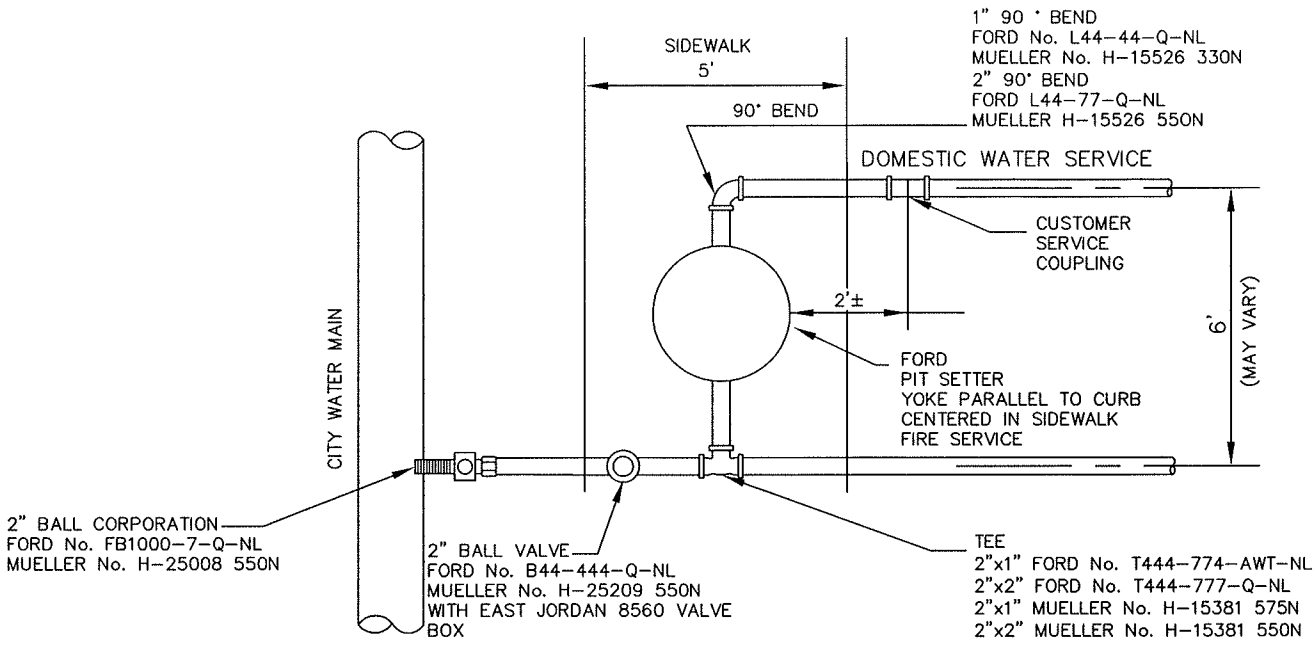
   FOR PVC MAIN GREATER THAN 12"
   FORD FC202 SERIES
   MUELLER – DR2S SERIES
   NO SADDLE REQUIRED FOR DIP OR CIP
5. FORD PITSETTER–FORD NO. PMBHH–788–36–42–Q–NL NO BYPASS
6. PE TUBING SHALL BE CLASS 200, SDR–9, CTS–OD, 200 PSI, INSTALLED WITH #12 SOLID COATED COPPER TRACER WIRE FROM CORP. STOP TO SUPPLY SIDE ANGLE VALVE. ALL FITTINGS USED WITH PE TUBING SHALL HAVE S.S. INSERTS. SEE WATER MAIN MATERIALS, WM–6.
7. 2" PIT SETTERS INSTALLED IN UNPAVED AREAS SHALL BE FURNISHED WITH A CONCRETE COLLAR EXTENDING 1' BEYOND THE FRAME OF THE PIT SETTER LID. THE COLLAR SHALL BE 10" THICK AND BE SUPPORTED BY A 6" BASE OF CR–6 AGGREGATE WHICH IN TURN SHALL BE SUPPORTED BY SUITABLE SOIL COMPACTED TO 95% PROCTOR. SLOPE THE SURROUNDING EARTH AROUND THE COLLAR IN SUCH AWAY AS TO CREATE POSITIVE DRAINAGE.

Revised: 01/01/14

CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack DEPUTY DIRECTOR	2" WATER SERVICE W/FORD PIT SETTER	DATE 12/14/01 SCALE NONE DWG. NO. STD30027 STD. NO. 300.27

NOTES

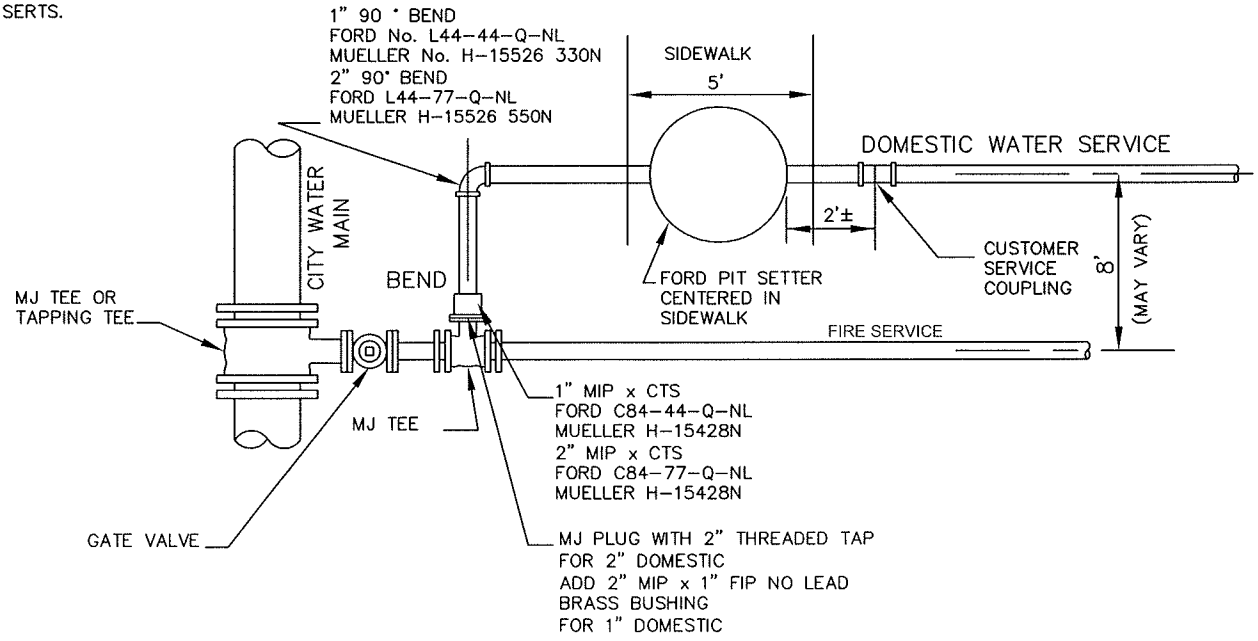
ALL FITTINGS USED WITH PE TUBING SHALL HAVE S.S. INSERTS.



DOMESTIC WATER SERVICE 1" OR 2"
FIRE SERVICE 2"

NOTES

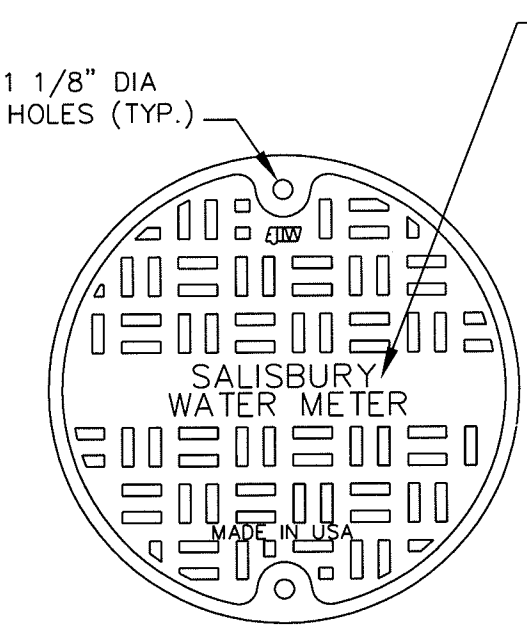
ALL FITTINGS USED WITH PE TUBING SHALL HAVE S.S. INSERTS.



DOMESTIC WATER SERVICE 1" OR 2"
FIRE SERVICE 4" OR GREATER

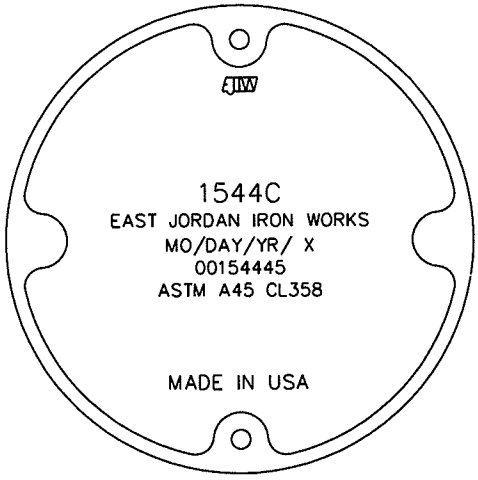
Revised: 01/01/14

CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack DEPUTY DIRECTOR	CONFIGURATION: COMBINATION DOMESTIC FIRE SERVICE "PLAN VIEW"	DATE 1/29/08 SCALE NONE DWG. NO. STD30029 STD. NO. 300.29

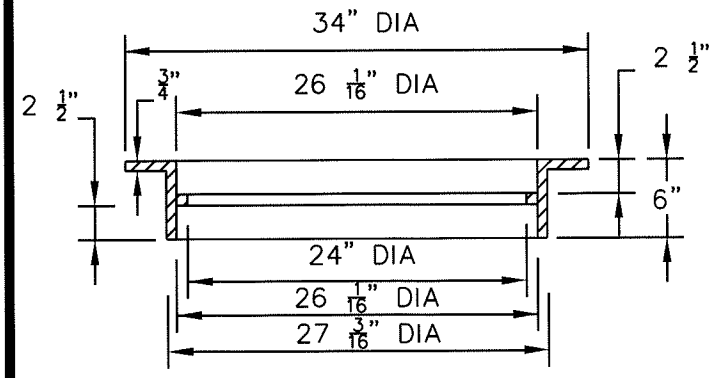


PLAN

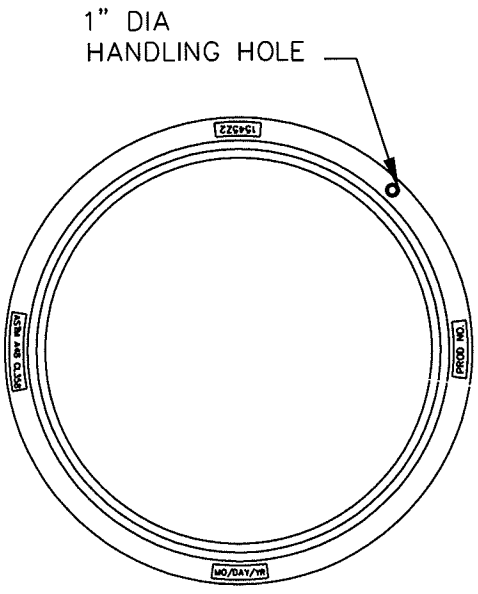
SCALE: N.T.S.



BOTTOM VIEW



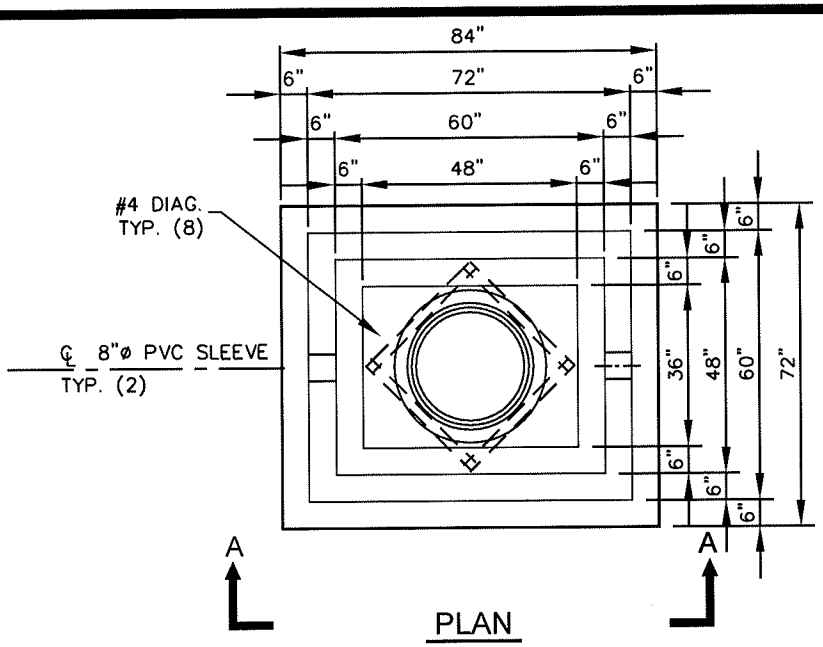
FRAME–GRAY CAST IRON
ASTM A48 CL35B



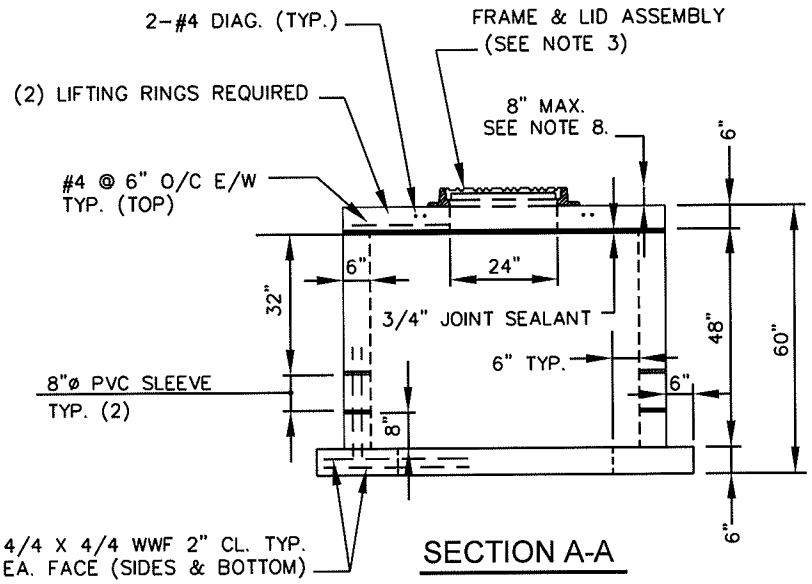
BOTTOM VIEW

REVISED: 01/01/14

CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack DEPUTY DIRECTOR	CIRCULAR FRAME & COVER FOR PRE-CAST WATER METER VAULTS	DATE 4/13/81 SCALE NONE DWG. NO. STD30030 STD. NO. 300.30



PLAN



SECTION A-A

NOTES:

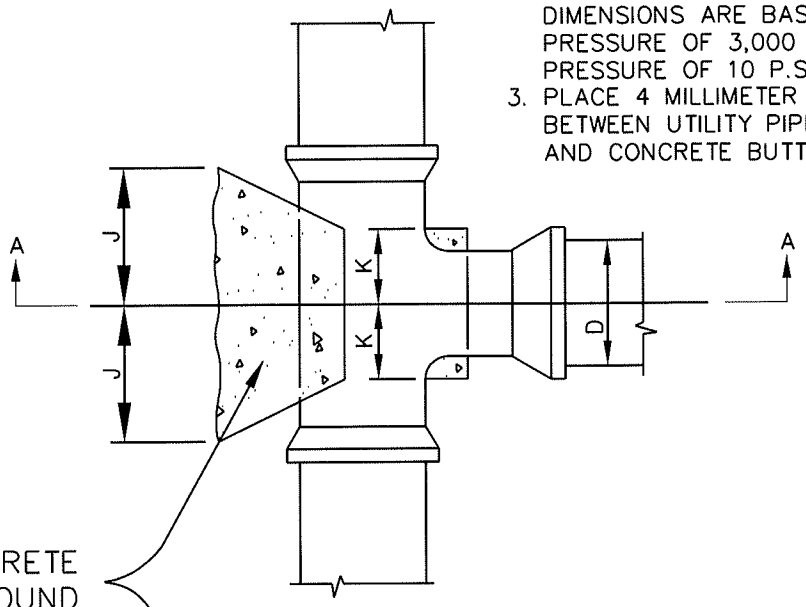
1. CONCRETE TO BE 5,000 PSI @ 28 DAYS
2. ANNULAR SPACE BETWEEN SLEEVES & PIPE SHALL BE FILLED WITH MATERIAL APPROVED BY THE CITY INSPECTOR
3. FRAME & LID ASSEMBLY SEE 300.30
4. SLEEVES SHALL BE PVC PIPE
5. VAULT AREA BASE SHALL BE 6" COMPACTED # 57 STONE
6. OPENING IN 6" THICK TOP SLAB SHALL BE 24" ROUND
7. INSIDE DIMENSIONS TO BE 4' W. X 5'L.
8. FINISHED GRADE TO BE ACCOMPLISHED USING MORTAR, OR CONCRETE RISER AND MORTAR BED.

REVISED: 01/01/14

CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack DEPUTY DIRECTOR	PRE-CAST CONCRETE WATER METER VAULT & LID	DATE 1/30/08 SCALE N.T.S. DWG. NO. STD30031 STD. NO. 300.31

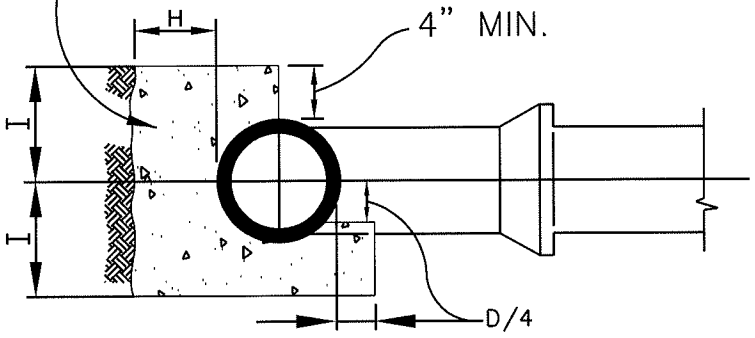
NOTES:

1. ALL CONCRETE TO BE 2,500 PSI.
2. BUTTRESS DIMENSIONS SHOWN ARE MINIMUM. DIMENSIONS ARE BASED UPON SOIL BEARING PRESSURE OF 3,000 P.S.F. AND STATIC WATER PRESSURE OF 10 P.S.I..
3. PLACE 4 MILLIMETER PLASTIC SHEETING BETWEEN UTILITY PIPE AND/OR FITTING AND CONCRETE BUTTRESS.



CARRY CONCRETE TO SOLID GROUND

PLAN



SECTION A–A

BUTTRESS FOR TEES								
SIZE OF BRANCH								
D	6"	8"	10"	12"	16"	20"	24"	30"
H	8"	9"	10"	1'–0"	1'–2"	1'–4"	1'–6"	1'–9"
I	8"	10"	1'–0"	1'–3"	1'–8"	2'–1"	2'–6"	3'–1"
J	7"	9"	1'–0"	1'–2"	1'–6"	1'–11"	2'–4"	2'–10"
K	6"	8"	8"	8"	10"	1'–2"	1'–4"	1'–6"

REVISED 01/01/14

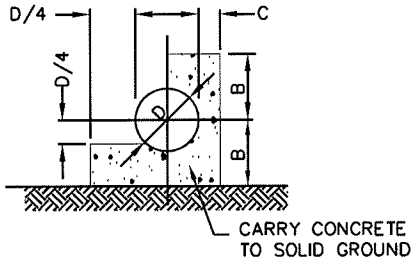
CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack DEPUTY DIRECTOR	STANDARD WATER DETAILS BUTTRESS FOR TEES	DATE 12/03/98 SCALE NONE DWG. NO. STD300.40 STD. NO. 300.40

NOTES:

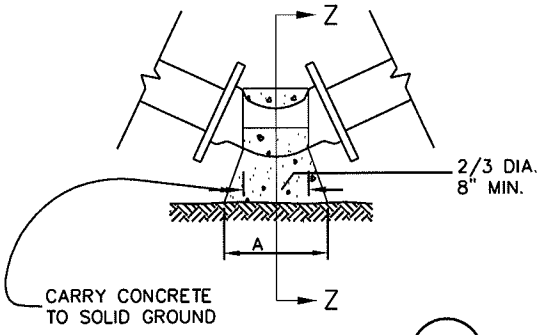
1. ALL CONCRETE TO BE 2,500 PSI.
2. BUTTRESS DIMENSIONS SHOWN ARE MINIMUM. DIMENSIONS ARE BASED UPON SOIL BEARING PRESSURE OF 3,000 P.S.F. AND STATIC WATER PRESSURE OF 10 P.S.I..

*3. PLACE 4 MILLIMETER PLASTIC SHEETING BETWEEN UTILITY PIPE AND/OR FITTING AND CONCRETE BUTTRESS.
FOR PLAN A ONLY

BEND		6"	8"	10"	12"	16"	20"	24"	30"
11 1/4°	A	8"	8"	10"	1'-0"	1'-4"	1'-8"	2'-0"	2'-6"
	B	7"	8"	9"	10"	1'-0"	1'-2"	1'-4"	1'-7"
	C	7"	7"	8"	8"	9"	10"	1'-0"	1'-1"
22 1/2°	A	9"	1'-0"	1'-6"	1'-9"	2'-3"	3'-0"	3'-6"	4'-2"
	B	7"	8"	9"	10"	1'-0"	1'-2"	1'-4"	1'-7"
	C	8"	9"	10"	11"	1'-2"	1'-4"	1'-6"	1'-9"
45°	A	1'-3"	1'-8"	2'-1"	2'-6"	3'-4"	4'-2"	5'-0"	6'-3"
	B	7"	8"	9"	11"	1'-3"	1'-6"	1'-8"	2'-0"
	C	8"	9"	10"	11"	1'-2"	1'-4"	1'-9"	2'-3"
90°	A	2'-0"	2'-6"	3'-0"	3'-6"	5'-0"	SPECIAL DESIGN		
	B	0'-6"	0'-9"	1'-0"	1'-3"	1'-6"			
	C	1'-10"	1'-9"	1'-8"	1'-7"	1'-5"			



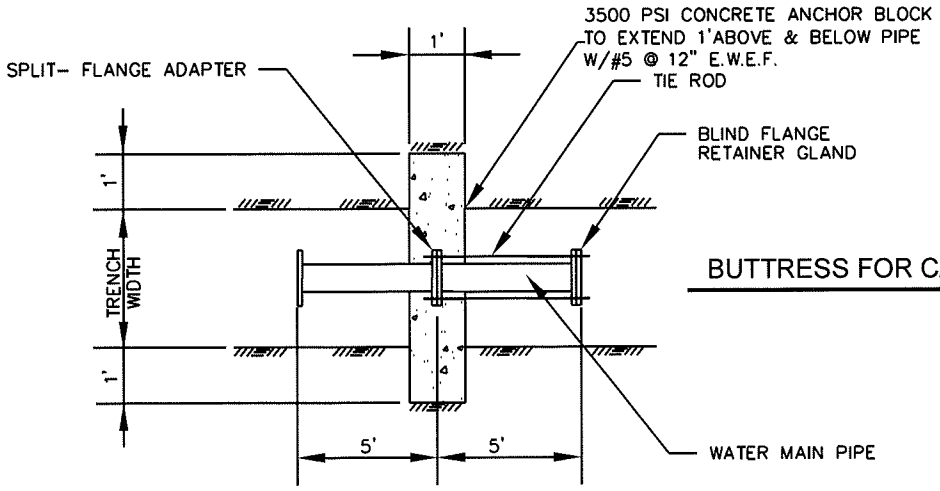
SECTION Z-Z



PLAN

A

BUTTRESS FOR HORIZONTAL BENDS



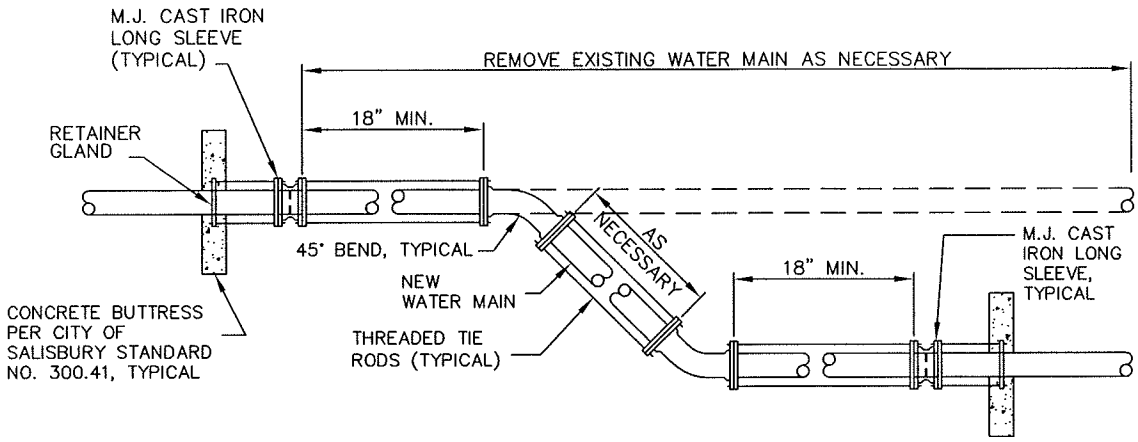
PLAN

B

BUTTRESS FOR CAPS & PLUGS

REVISED: 01/01/14

CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack DEPUTY DIRECTOR	STANDARD WATER DETAILS BUTTRESS FOR VALVES, PLUGS, CAPS AND HORIZONTAL BENDS	DATE 12/03/98 SCALE NONE DWG. NO. STD30041 STD. NO. 300.41



HORIZONTAL REALIGNMENT

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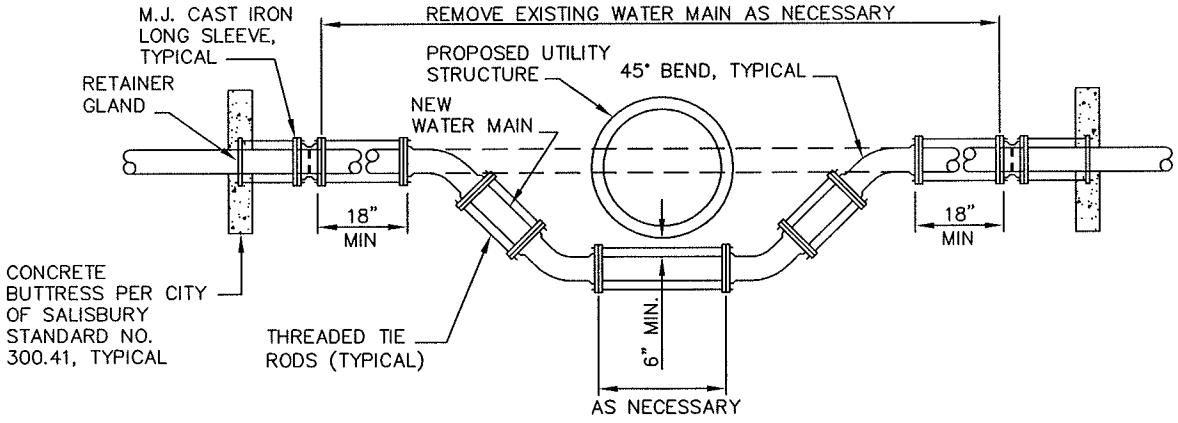

VERTICAL REALIGNMENT

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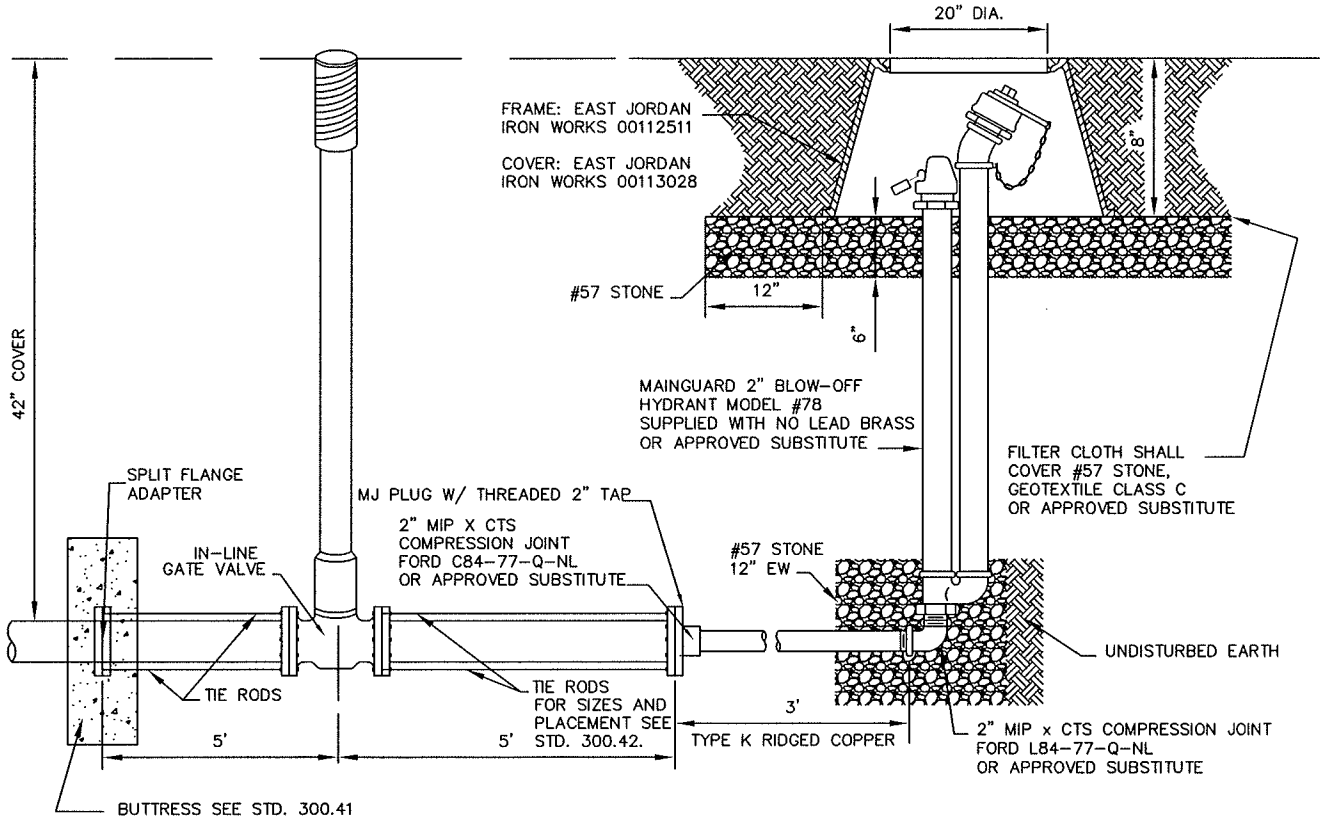
NOTES:

1. DIAMETER OF WATER MAIN TO BE LOWERED OR RAISED VARIES.
2. TO RAISE WATER MAIN USE INVERSE OR MIRROR IMAGE OF VERTICAL REALIGNMENT.
3. PIPE DIAMETER 12" OR SMALLER USE (2) 3/4" THREADED TIE RODS 180° APART.
4. PIPE DIAMETERS LARGER THAN 12" BUT SMALLER THAN 20" USE (4) 3/4" THREADED TIE RODS 90° APART.
5. PIPE DIAMETERS 20" OR LARGER USE (4) 1" THREADED TIE RODS 90° APART.

REVISED: 01/01/14

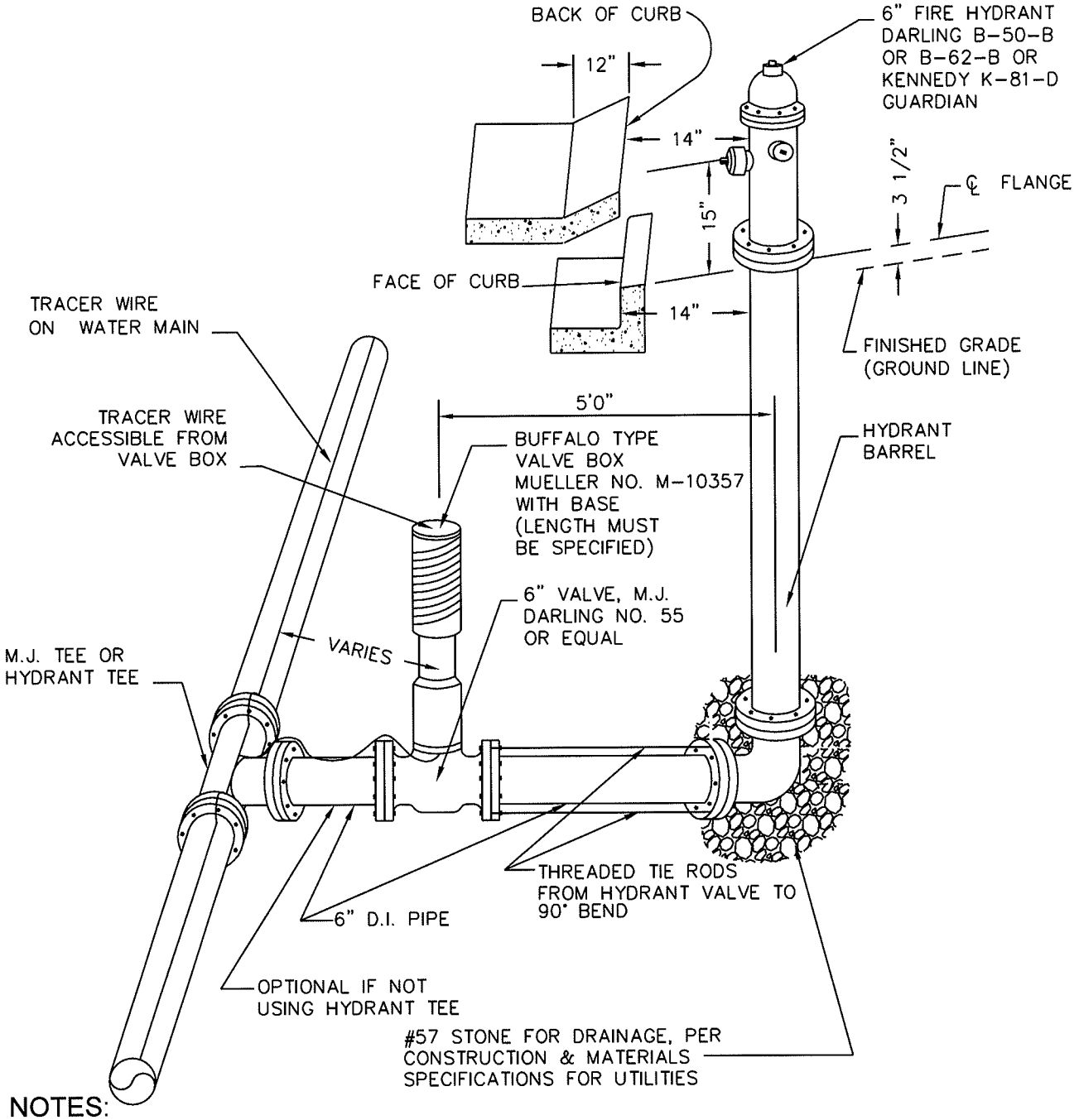
CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack DEPUTY DIRECTOR	WATER MAIN REALIGNMENT DETAILS	DATE 1/30/08 SCALE NONE DWG. NO. STA30042 STD. NO. 300.42



NOTE:
BLOW OFF HYDRANTS INSTALLED IN UNPAVED AREAS SHALL BE FURNISHED WITH A CONCRETE COLLAR EXTENDING 1' BEYOND THE FRAME OF THE BLOW OFF HYDRANT LID. THE COLLAR SHALL BE 8" THICK AND BE SUPPORTED BY A 6" BASE OF #57 STONE WHICH IN TURN SHALL BE SUPPORTED BY SUITABLE SOIL COMPACTED TO 95% PROCTOR. SLOPE THE SURROUNDING EARTH AROUND THE COLLAR IN SUCH A WAY AS TO CREATE POSITIVE DRAINAGE.

REVISED: 01/01/14

CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack DEPUTY DIRECTOR	BLOW-OFF HYDRANT	DATE 1/30/08 SCALE NONE DWG. NO. STD30051 STD. NO. 300.51



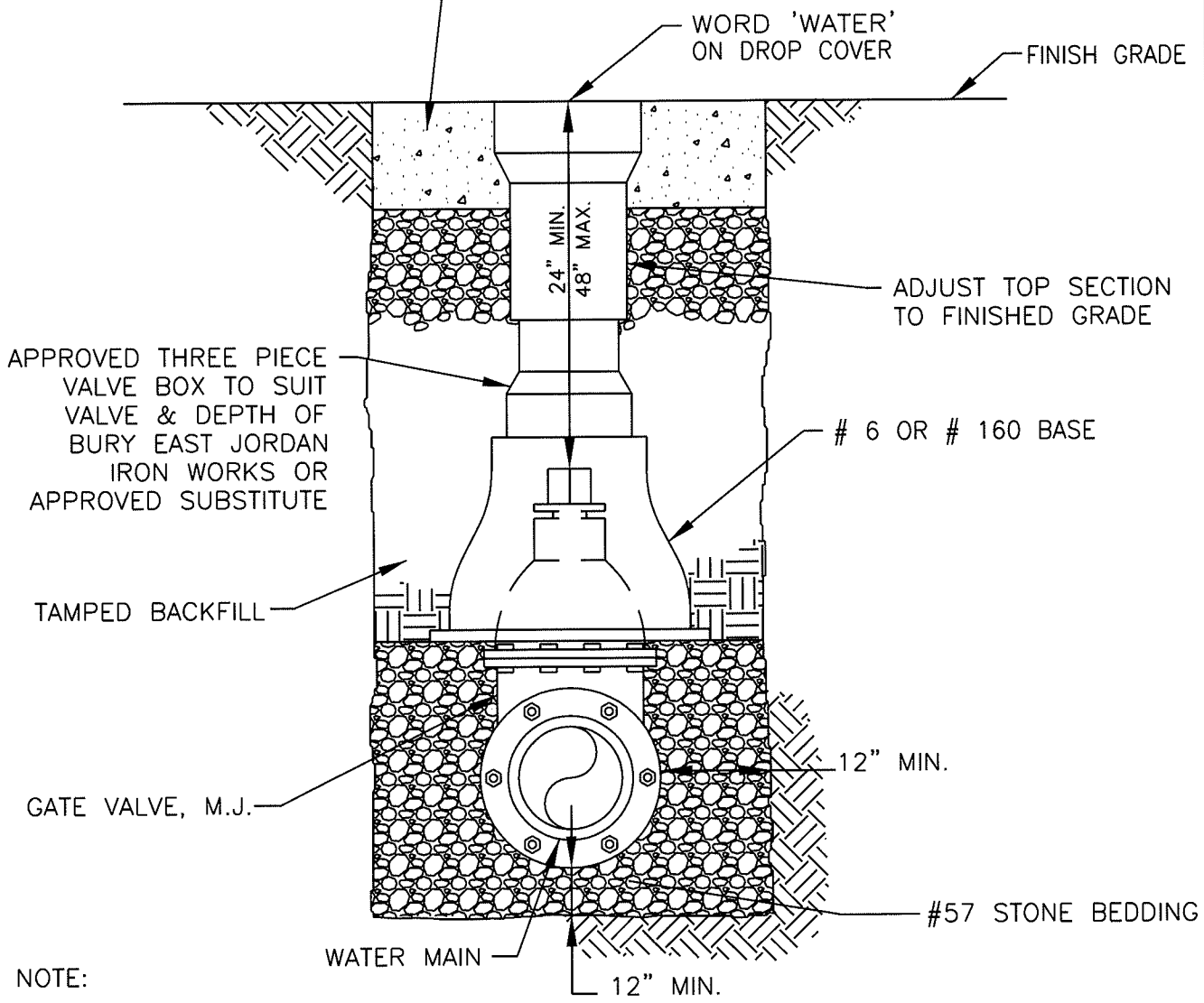
NOTES:

- HYDRANT CHAINS ARE TO BE REMOVED @ TIME OF INSTALLATION.
- MAINTAIN 3' CLEARANCE FROM CENTER OF HYDRANT FOR ALL ABOVE GROUND OBJECTS.
- HYDRANTS SHALL NOT BE PLACED IN THE QUADRANT/RADIUS AREA OF A CURB RETURN FOR STREET INTERSECTIONS AND DRIVEWAY ENTRANCES.
- HYDRANT LEAD SHALL BE DUCTILE IRON PIPE.
- RESTRAIN ALL PIPE JOINTS WITH SET-SCREW TYPE M.J. RETAINER GLANDS.
- HYDRANT LEAD SHALL USE (2) ¾" THREADED TIE RODS 180° APART.
- TRACER WIRE SHALL HAVE A MECHANICAL BARREL SPLICE (ILSCO IK10) AT ALL SPLICES. PVC WATER MAINS REQUIRE #12 SOLID COPPER COATED TRACER WIRE TAPED TO THE TOP OF THE PIPE IN 10' INTERVALS, TERMINATING AT ALL VALVE BOXES. 24" MINIMUM OVERHANG AT TOP OF VALVE BOX.

Revised: 01/01/14

CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack DEPUTY DIRECTOR	STANDARD INSTALLATION FIRE HYDRANT	DATE 08/29/86 SCALE NONE DWG. NO. STD30055 STD. NO. 300.55

ALL VALVE BOXES INSTALLED IN UNPAVED AREAS SHALL BE FINISHED WITH A CONCRETE COLLAR EXTENDING 1.0' BEYOND THE FRAME OF THE VALVE BOX LID. THE COLLAR SHALL BE 6" THICK AND BE SUPPORTED BY A 6" BASE OF CR-6 AGGREGATE WHICH IN TURN SHALL BE SUPPORTED BY SUITABLE SOIL COMPACTED TO 95% PROCTOR. CONCRETE COLLARS SHALL BE INSTALLED AFTER THE TOP OF THE VALVE BOX LIDS ARE ADJUSTED TO FINISHED GRADE. SLOPE THE SURROUNDING EARTH AROUND VALVE BOX IN A WAY AS TO CREATE POSITIVE DRAINAGE AWAY FROM THE LID.



NOTE:

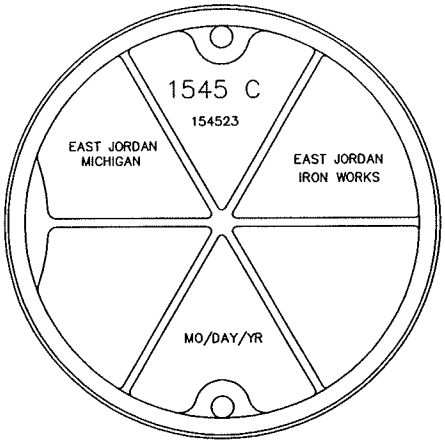
EXTEND TRACER WIRE THROUGH VALVE BOX AND TERMINATE AT 24" ABOVE FINISH GRADE. LOOP EXCESS INTO VALVE BOX.

N.T.S.

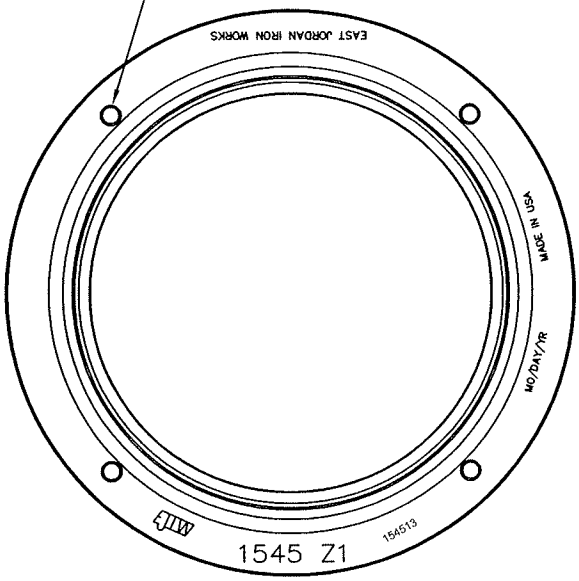
REVISED: 01/01/14

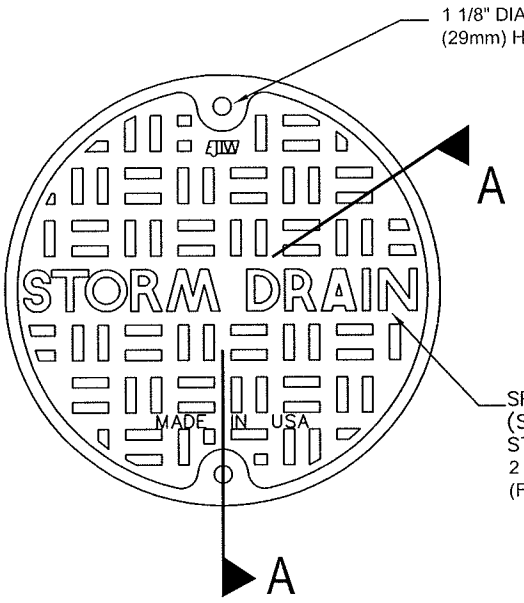
CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack DEPUTY DIRECTOR	GATE VALVE INSTALLATION	DATE 11/02/09 SCALE NONE DWG. NO. STD30012 STD. NO. 300.56

EAST JORDAN
FRAME #154514
COVER #154524 (STORM WATER)
COVER #154523 (SANITARY SEWER)
OR APPROVED SUBSTITUTE



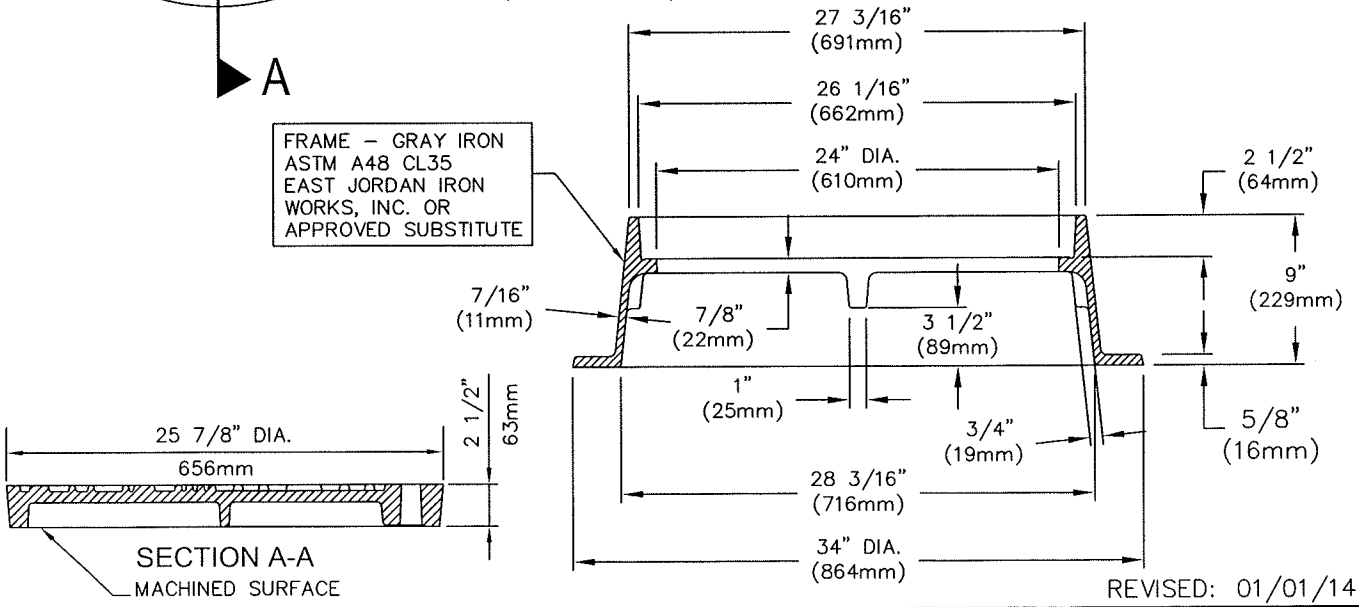
BOTTOM VIEW





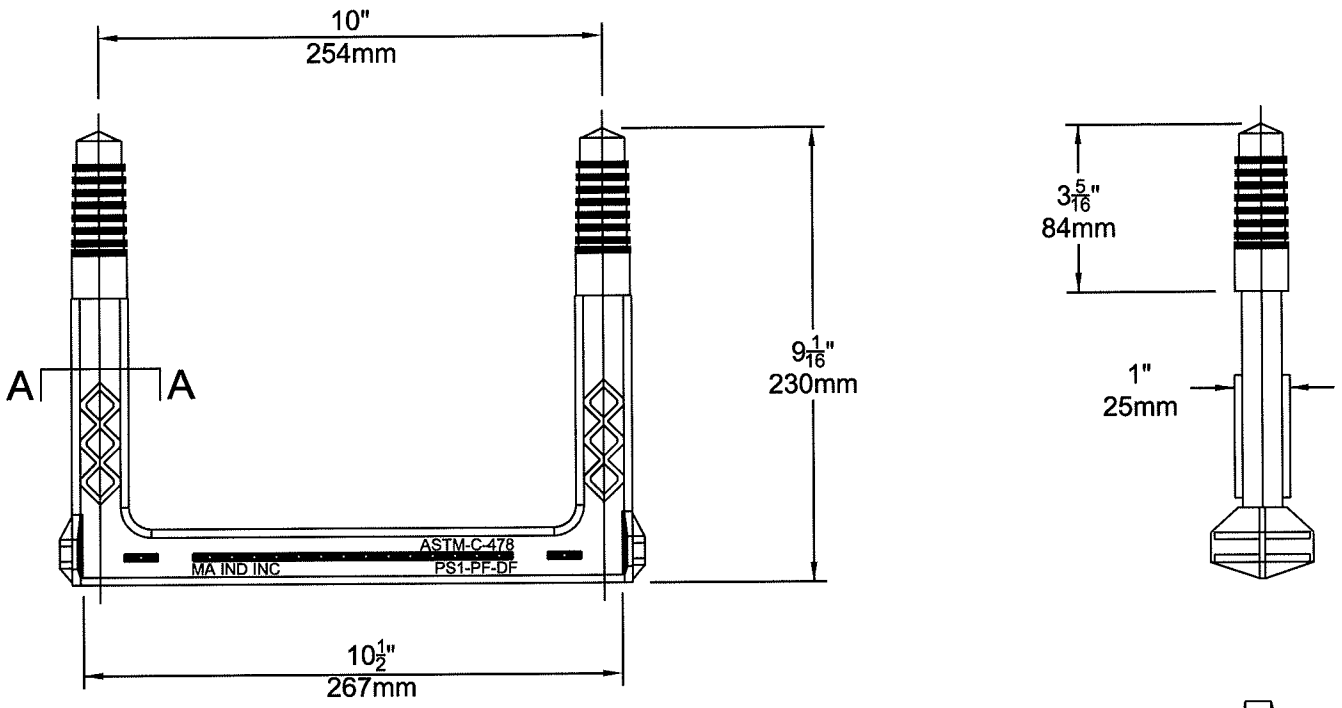
CAST IRON
MIN. AVG. WEIGHT
FRAME 180 LBS.
COVER 175 LBS.

FRAME – GRAY IRON
ASTM A48 CL35
EAST JORDAN IRON WORKS, INC. OR APPROVED SUBSTITUTE



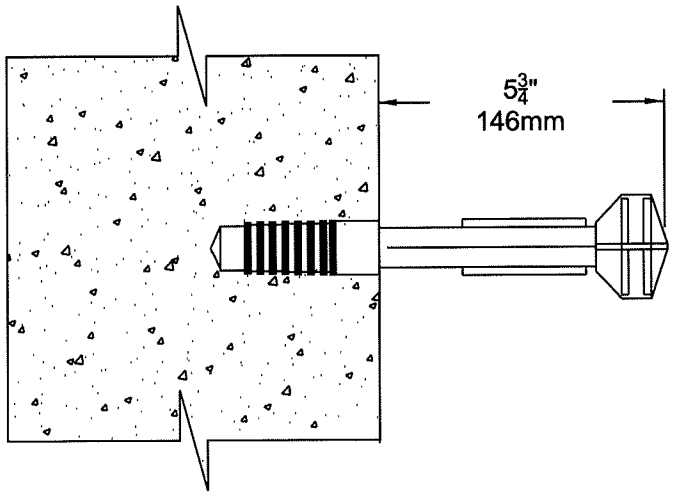
REVISED: 01/01/14

CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack DEPUTY DIRECTOR	MANHOLE FRAME & COVER SANITARY SEWER OR STORM WATER	DATE 1/04/01 SCALE NONE DWG. NO. STD40010 STD. NO. 400.10



COPOLYMER POLYPROPYLENE PLASTIC
13mm (½") GRADE 60 STEEL REINFORCEMENT

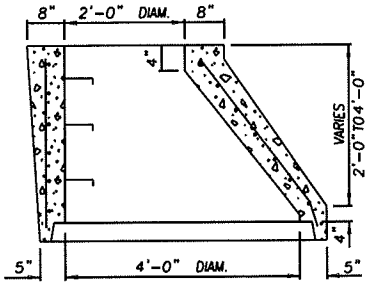
SECTION A-A



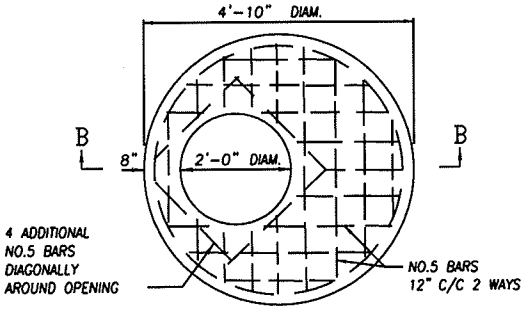
MEETS: ASTM C-478
ASTM D-4101
ASTM A-615
AASHTO M-199

REVISED: 01/01/14

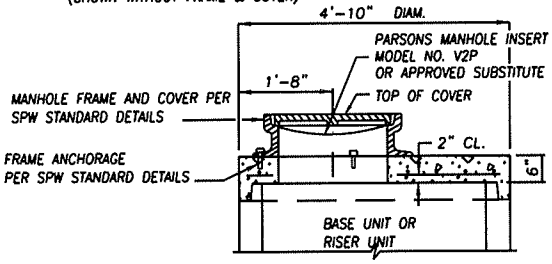
CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack DEPUTY DIRECTOR	MANHOLE STEPS SANITARY SEWER OR STORM WATER	DATE 03/01/12 SCALE NONE DWG. NO. STD40011 STD. NO. 400.11



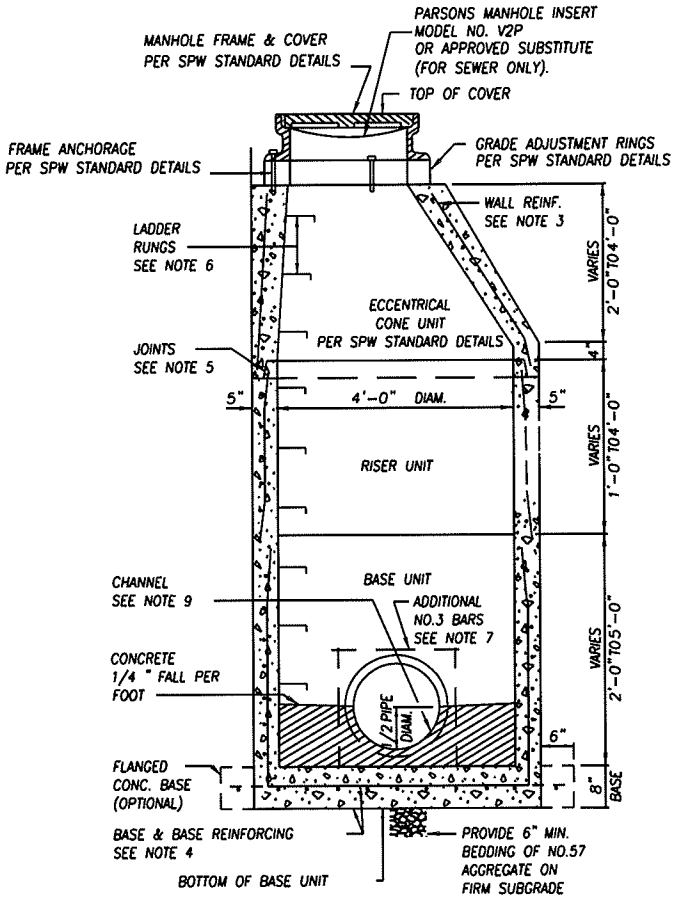
ALTERNATE ECCENTRICAL CONE UNIT



FLAT SLAB TOP
(SHOWN WITHOUT FRAME & COVER)



SECTION B-B



SECTION VIEW

NOTES

1. MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH AASHTO M 199.
2. CONCRETE SHALL BE MIX NO. 6 (4500 PSI).
3. WALL REINFORCEMENT FOR BASE UNITS. RISER UNITS AND ECCENTRICAL CONE UNITS SHALL BE REINFORCEMENT BARS OR WELDED WIRE FABRIC WITH A MINIMUM AREA OF 0.12 SQ. IN./FT FOR THE 48" DIAMETER MANHOLES. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185 AND A 82. REINFORCEMENT BARS SHALL MEET ASTM A 615.GRADE 60.
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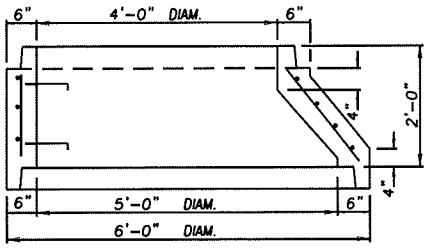
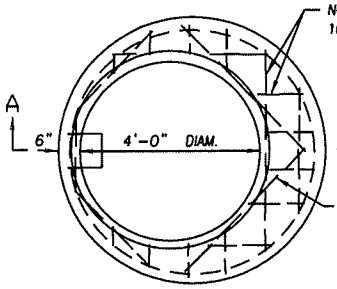
6. LADDER RUNGS SHALL BE INSTALLED PER SPW STANDARD DETAILS.
7. WHEN THE DISTANCE BETWEEN MULTIPLE OPENINGS IN THE BASE UNIT OR ANY RISER UNIT IS LESS THAN 6", ADDITIONAL NO. 3 BARS ARE REQUIRED AROUND OPENINGS.
8. LIFT HOLES OR LIFT EYES SHALL BE PROVIDED IN EACH SECTION FOR HANDLING.
9. MIX NO.2 CONCRETE FLOW CHANNEL SHALL BE PROVIDED
10. PROVIDE WITH TWO COATS OF WATERPROOF BITUMASTIC MATERIAL INSTALLED BY MANUFACTURER OF STRUCTURE, IF THE MANHOLE IS SANITARY SEWER.

REVISED: 01/01/14

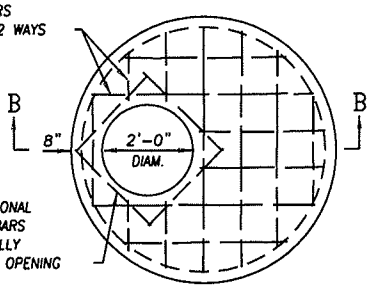
CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack DEPUTY DIRECTOR	48" DIAMETER MANHOLE FOR PIPES UP TO 24"	DATE 02/04/10 SCALE N.T.S. DWG. NO. 400.13 STD. NO. 400.13



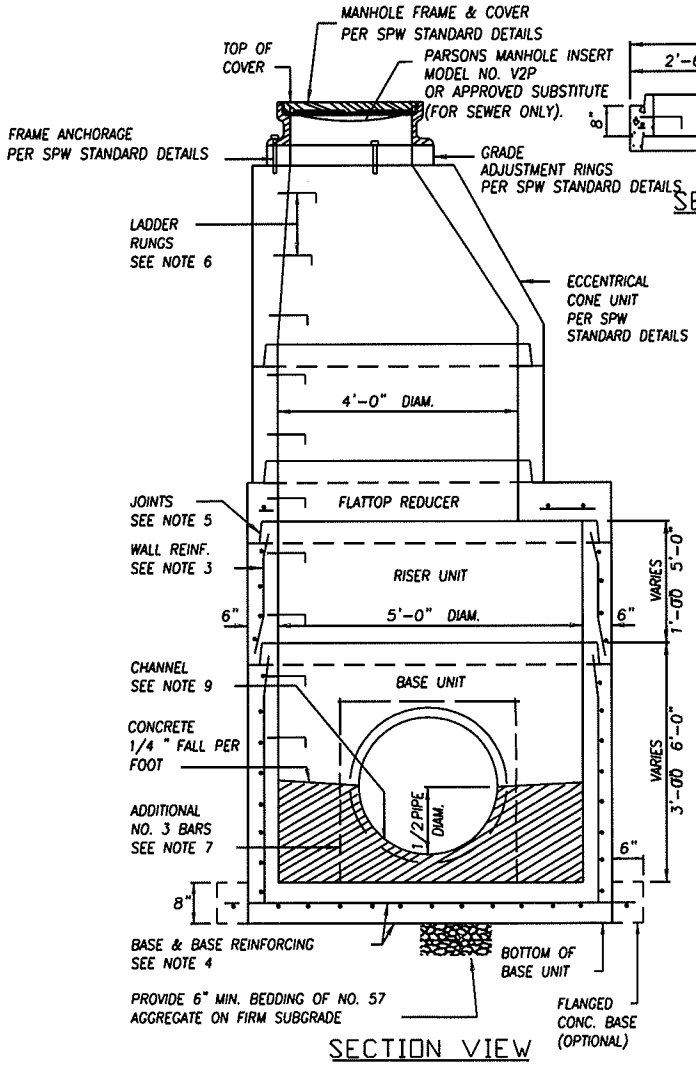
ECCENTRICAL CONE REDUCER
(ALTERNATE FOR FLATTOP REDUCER)



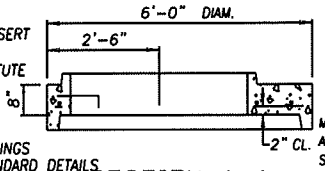
FLATTOP REDUCER



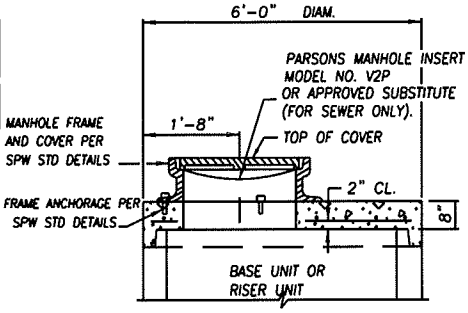
FLAT SLAB TOP
(SHOWN WITHOUT FRAME & COVER)



SECTION VIEW



SECTION A-A



SECTION B-B

NOTES

1. MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH AASHTO M 199.
2. CONCRETE SHALL BE MIX NO. 6 (4500 PSI).
3. WALL REINFORCEMENT FOR BASE UNITS, RISER UNITS AND ECCENTRICAL CONE UNITS SHALL BE REINFORCEMENT BARS OR WELDED WIRE FABRIC WITH A MINIMUM AREA OF 0.12 SQ. IN./FT FOR THE 48" DIAMETER MANHOLES. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185 AND A 82. REINFORCEMENT BARS SHALL MEET ASTM A 615.GRADE 60.
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6. LADDER RUNGS SHALL BE INSTALLED PER SPW STANDARD DETAILS.
7. WHEN THE DISTANCE BETWEEN MULTIPLE OPENINGS IN THE BASE UNIT OR ANY RISER UNIT IS LESS THAN 6", ADDITIONAL NO. 3 BARS ARE REQUIRED AROUND OPENINGS.
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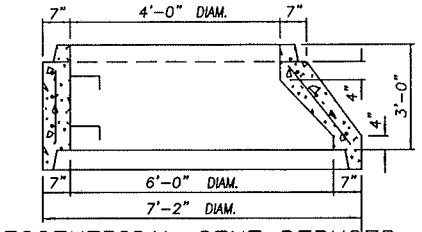
9. MIX NO.2 CONCRETE FLOW CHANNEL SHALL BE PROVIDED
10. PROVIDE WITH TWO COATS OF WATERPROOF BITUMASTIC MATERIAL INSTALLED BY MANUFACTURER OF STRUCTURE, IF THE MANHOLE IS SANITARY SEWER.

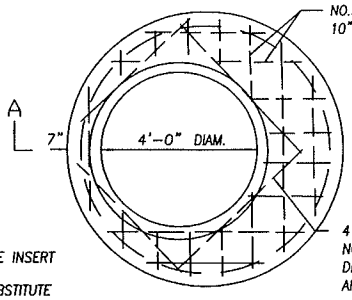
REVISED: 01/01/14

CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack DEPUTY DIRECTOR	60" DIAMETER MANHOLE FOR 27" TO 36" PIPES	DATE 02/04/10 SCALE N.T.S. DWG. NO. STD40014 STD. NO. 400.14

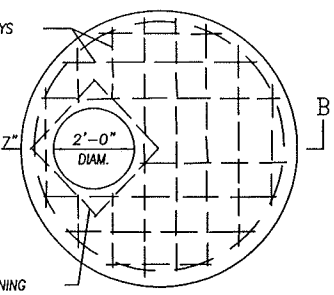


ECCENTRICAL CONE REDUCER

(ALTERNATE FOR FLATTOP REDUCER)

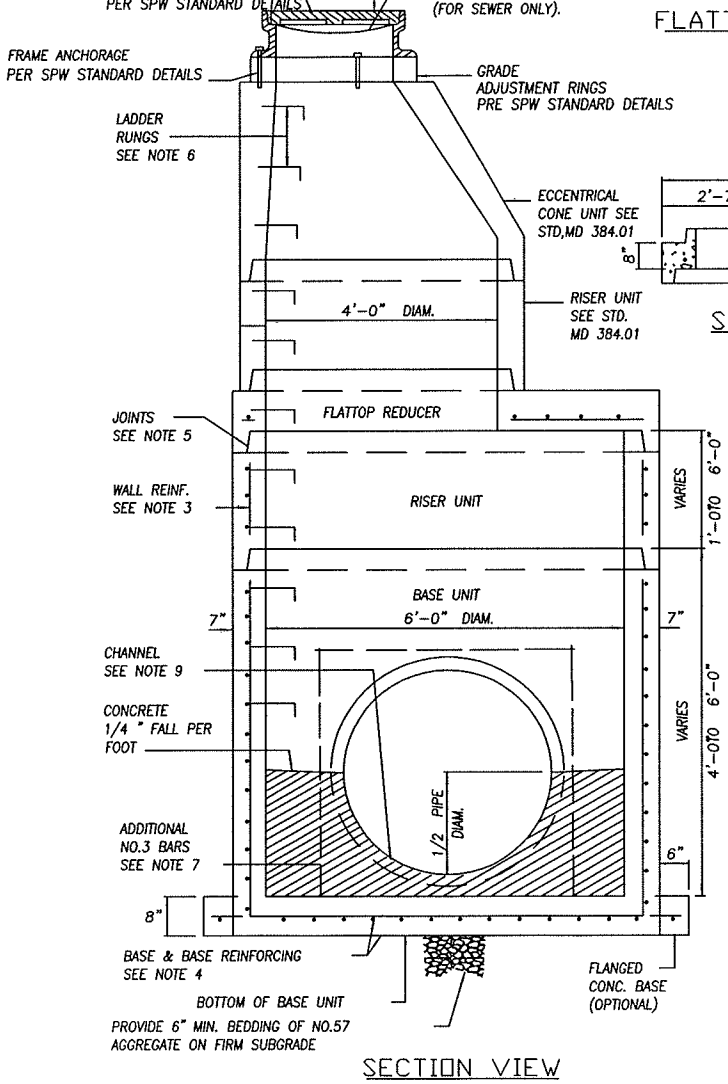


FLATTOP REDUCER

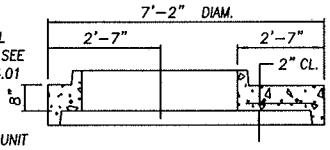


FLAT SLAB TOP

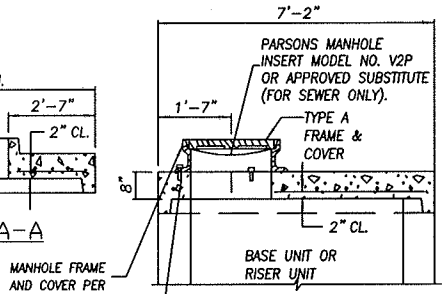
(SHOWN WITHOUT FRAME & COVER)



SECTION VIEW



SECTION A-A



SECTION B-B

NOTES

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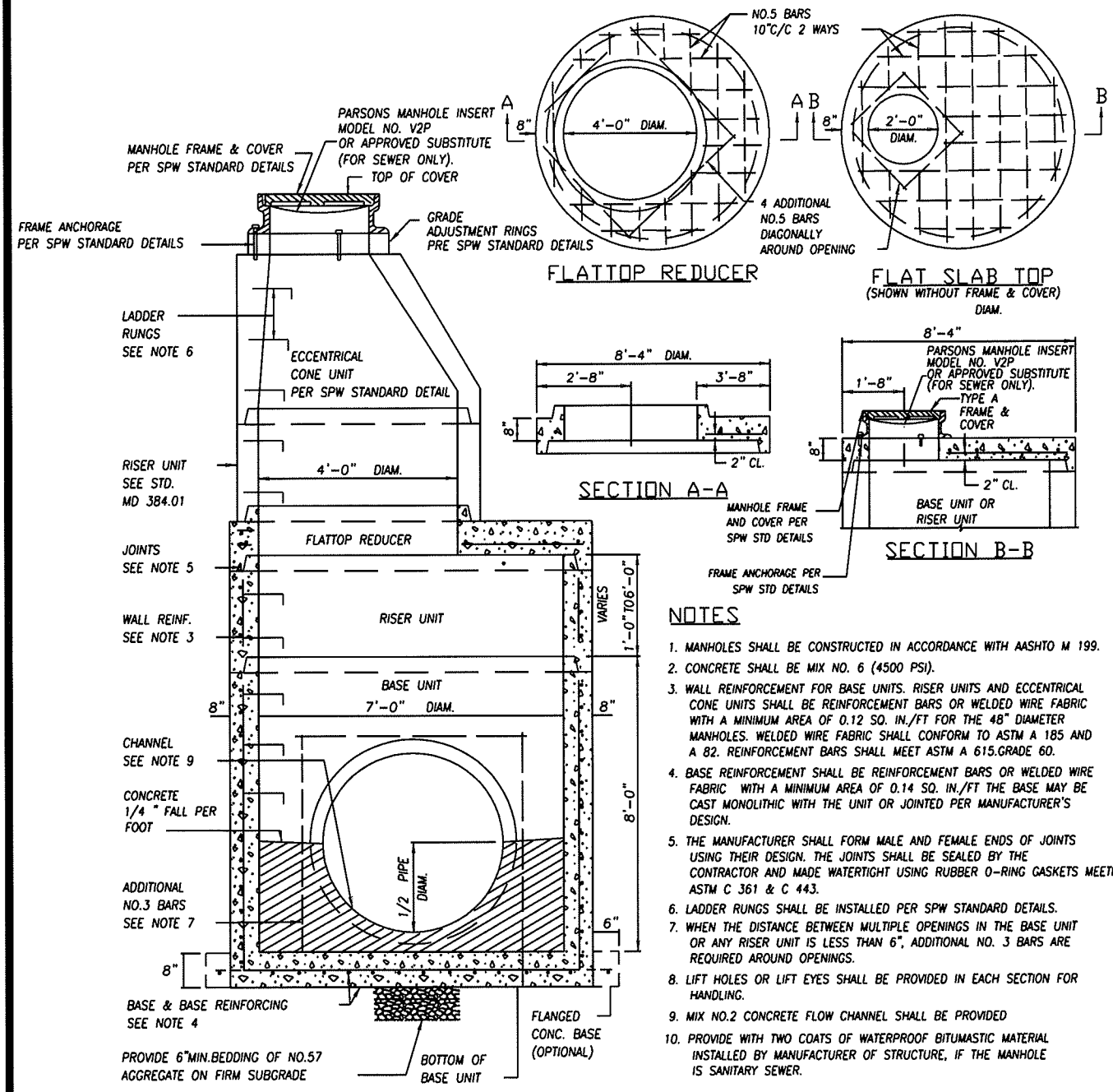
REVISED: 01/01/14

CITY OF SALISBURY
SALISBURY, MD

APPROVED
1/1/14
DATE
Amanda Pollack
DEPUTY DIRECTOR

72" DIAMETER MANHOLE FOR 42" TO 48" PIPES

DATE	02/04/10
SCALE	N.T.S.
DWG. NO.	STD40015
STD. NO.	400.15



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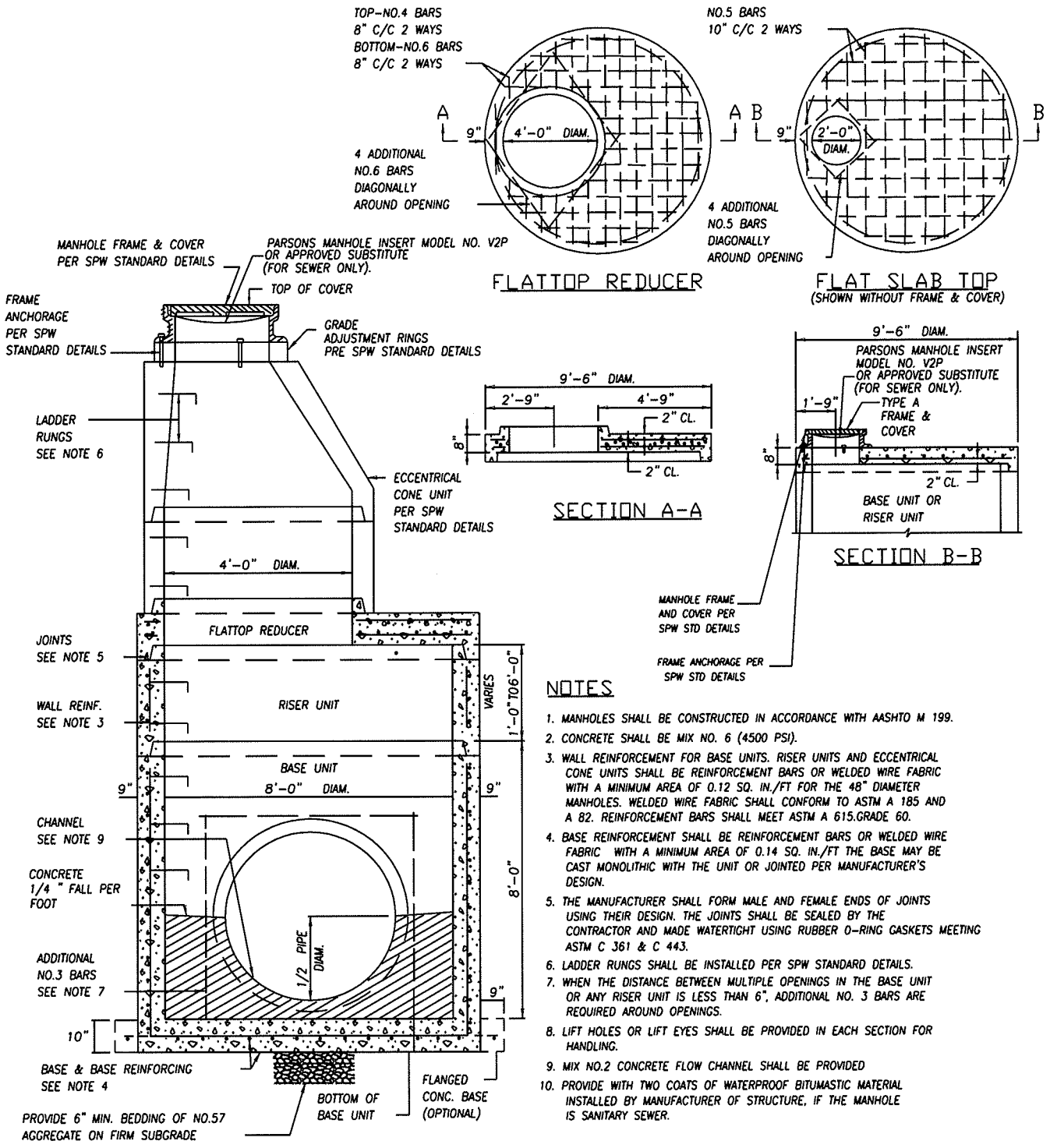
REVISED: 01/01/14

CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack DEPUTY DIRECTOR	84" DIAMETER MANHOLE FOR 54" TO 60" PIPES	DATE 02/04/10 SCALE N.T.S. DWG. NO. STD400.16 STD. NO. 400.16



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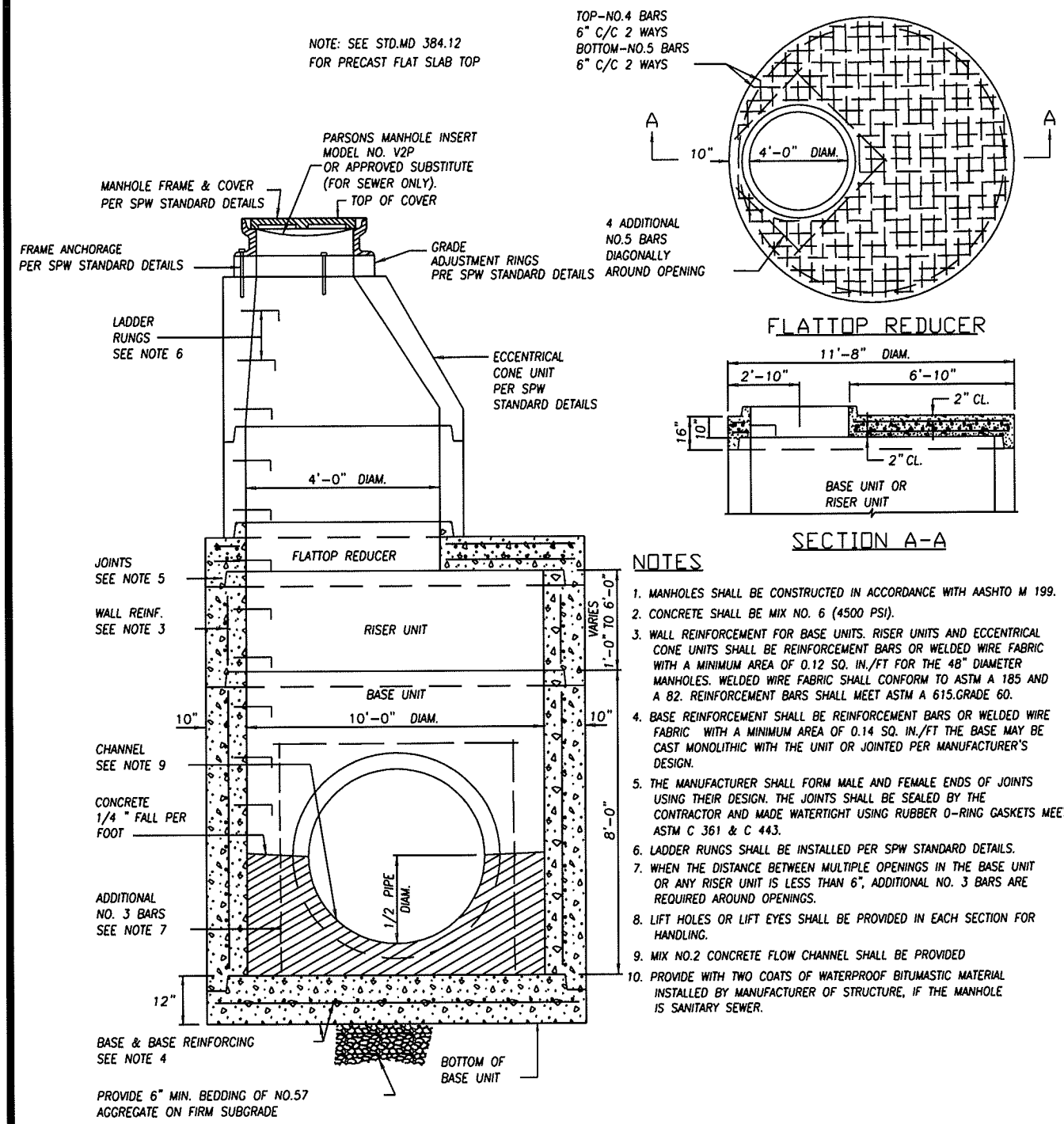
REVISED: 01/01/14

CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack DEPUTY DIRECTOR	90" DIAMETER MANHOLE FOR 72" PIPES	DATE 02/04/10 SCALE N.T.S. DWG. NO. STD40017 STD. NO. 400.17



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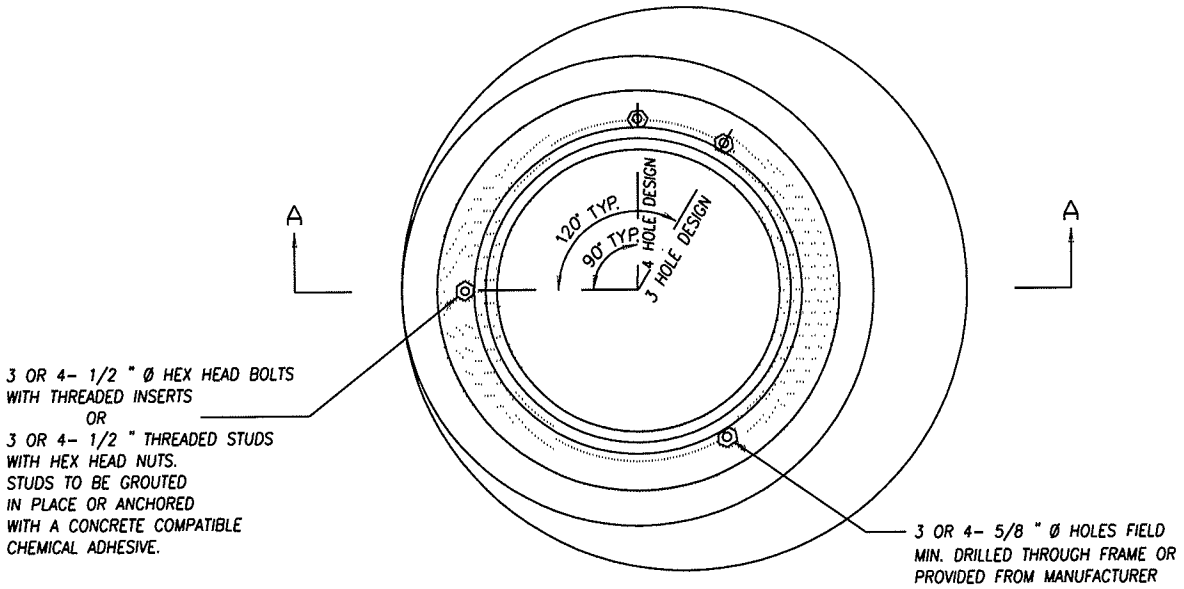
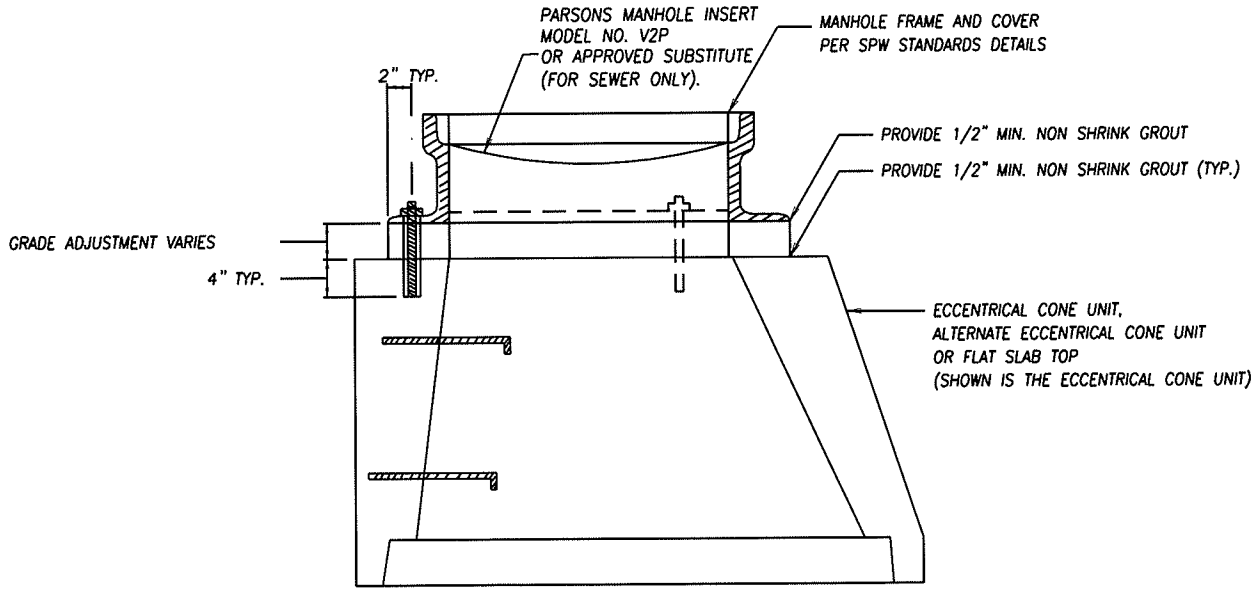
REVISED: 01/01/14

CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack DEPUTY DIRECTOR	120" DIAMETER MANHOLE FOR 78" TO 84" PIPES	DATE 02/04/10 SCALE N.T.S. DWG. NO. STD40018 STD. NO. 400.18



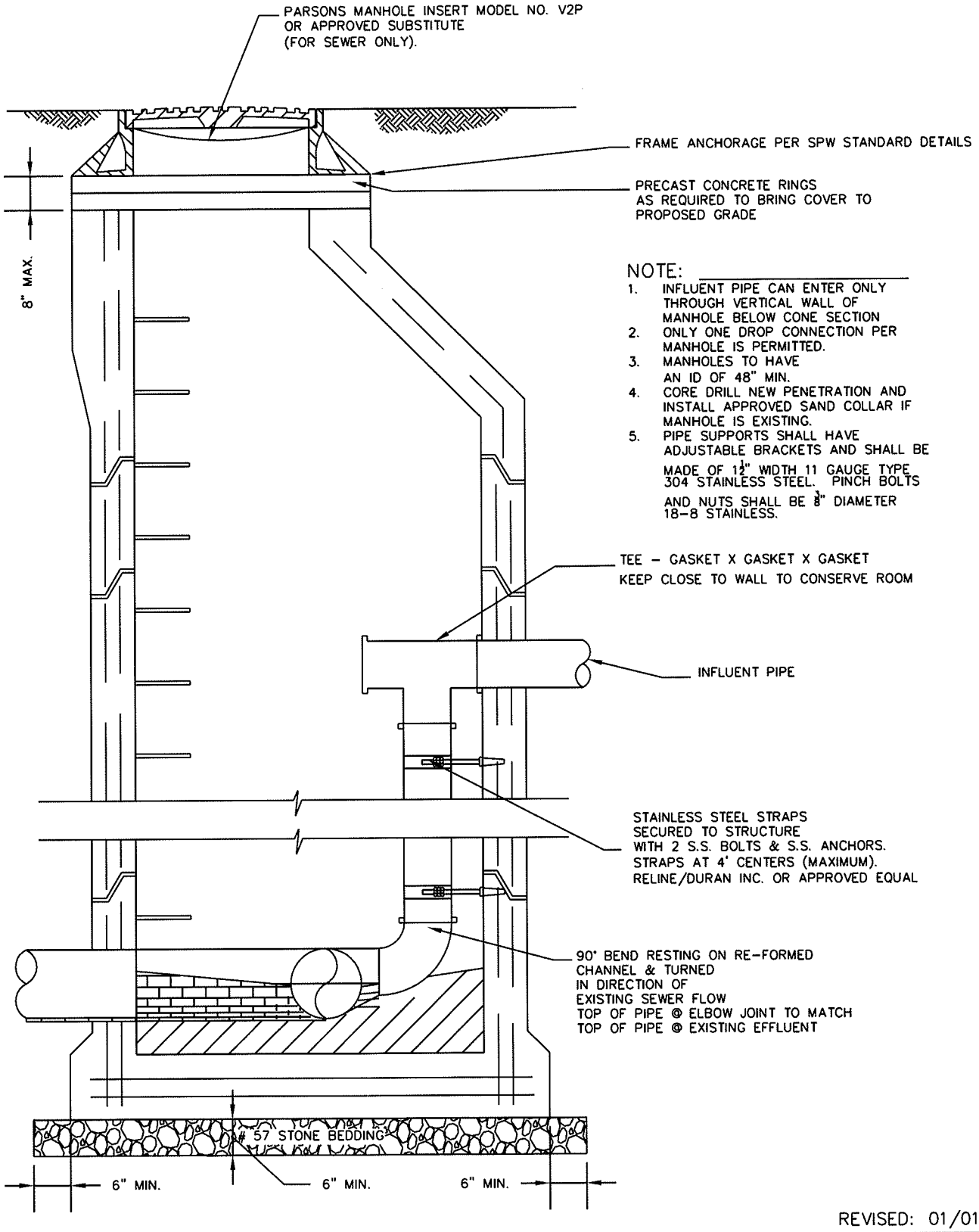
PLAN



SECTION A-A

REVISED: 01/01/14

CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack DEPUTY DIRECTOR	FRAME ANCHORAGE FOR PRECAST MANHOLES	DATE 02/04/10 SCALE N.T.S. DWG. NO. STD40019 STD. NO. 400.19



REVISED: 01/01/14

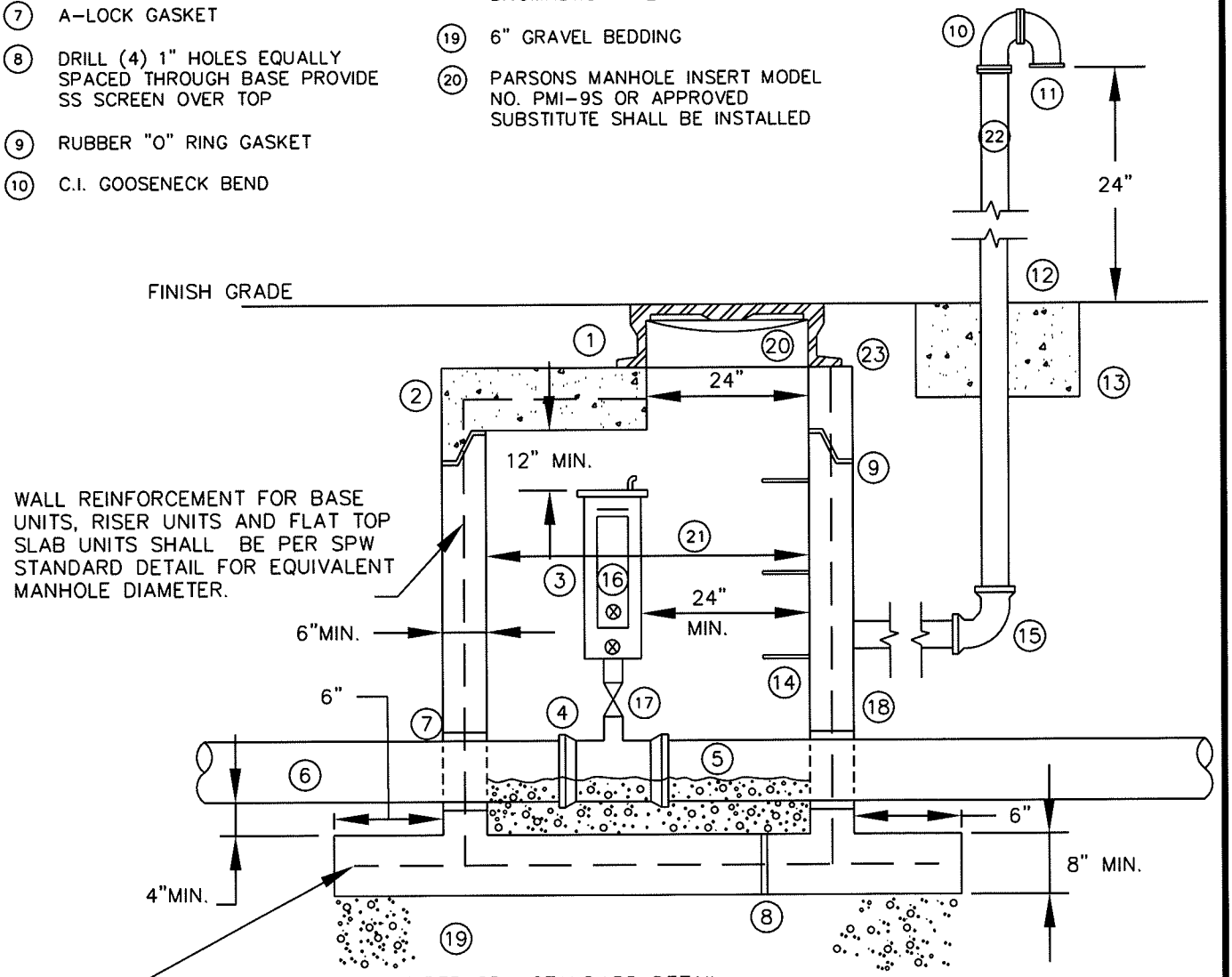
CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack DEPUTY DIRECTOR	INTERNAL DROP CONNECTION	DATE 8/11/86 SCALE NONE DWG. NO. STD40023 STD. NO. 400.23

1. FRAME, COVER, AND FRAME ANCHORAGE PER SPW STANDARD DETAILS
2. REINFORCED CONCRETE SLAB. SEE SPW STANDARD DETAIL FOR EQUIVALENT MANHOLE DIAMETER.
3. SEWAGE COMBINATION AIR RELEASE 8 VACUUM VALVE
4. TAPPED TEE AS REQUIRED
5. WASHED GRAVEL FILL TO SPRING LINE
6. FORCE MAIN
7. A-LOCK GASKET
8. DRILL (4) 1" HOLES EQUALLY SPACED THROUGH BASE PROVIDE SS SCREEN OVER TOP
9. RUBBER "O" RING GASKET
10. C.I. GOOSENECK BEND
11. 1/4" MESH ALUM. SCREEN COVER
12. D.I. VENT SHOWN OUT OF POSITION FOR CLARITY
13. 4000 P.S.I. CONCRETE 24"x 24" x 12"
14. STEPS PER SPW STANDARD DETAILS
15. C.I. MECH. VERT. 90° BEND
16. BLOW-OFF VALVE
17. SHUTOFF VALVE
18. 2 COATS WATERPROOF BITUMASTIC MATERIAL
19. 6" GRAVEL BEDDING
20. PARSONS MANHOLE INSERT MODEL NO. PMI-9S OR APPROVED SUBSTITUTE SHALL BE INSTALLED
21. MIN. 6' DIA PRECAST STRUCTURE
22. MIN. 4" DIA. PIPE
23. FRAME ANCHORAGE PER SPW STANDARD DETAILS

NOTES:

MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH AASHTO M 199.

CONCRETE SHALL BE MIX NO. 6 (4500 PSI).



REVISED: 01/01/14

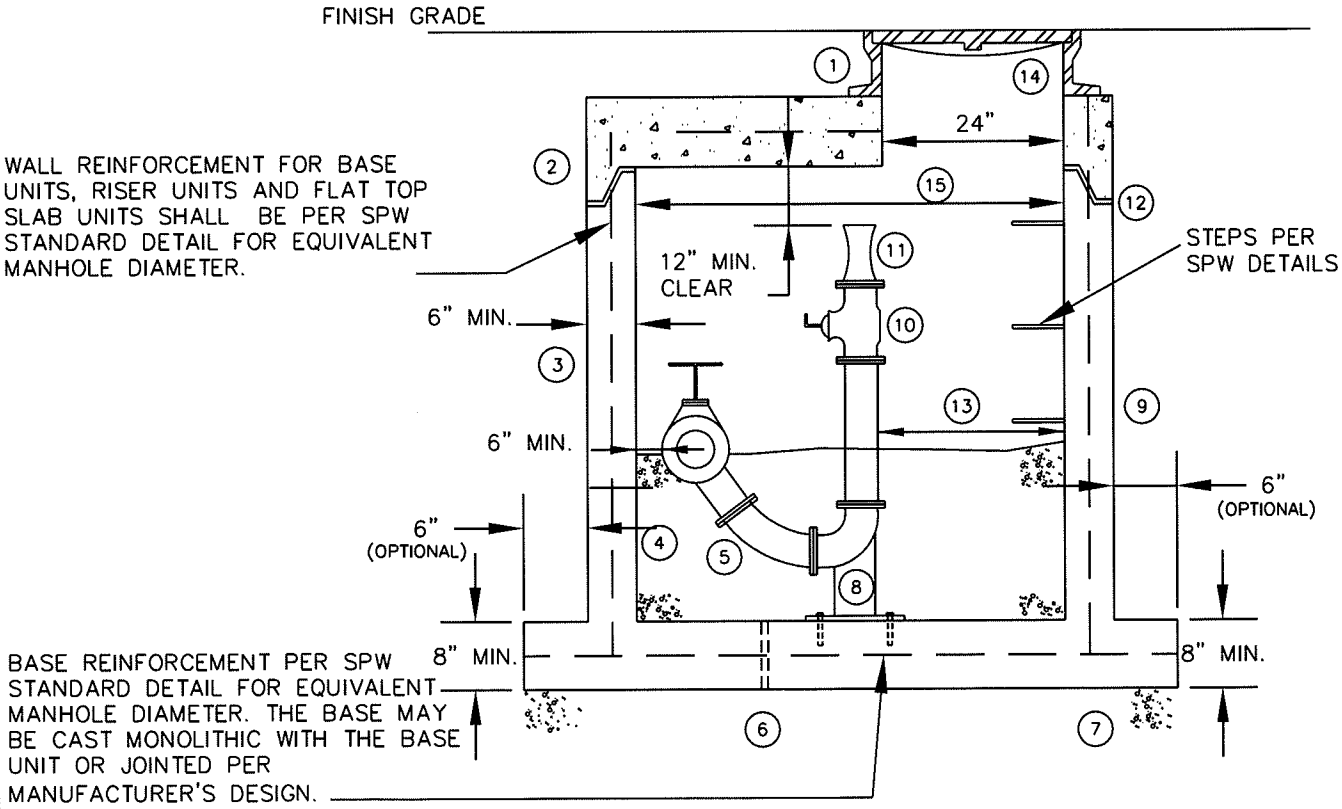
CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack DEPUTY DIRECTOR	FORCE MAIN AIR VALVE ACCESS MANHOLE	DATE 04/05/89 SCALE SCALE DWG. NO. STD40026 STD. NO. 400.26

1. FRAME, COVER, AND FRAME ANCHORAGE PER SPW STANDARD DETAILS
2. REINFORCED CONCRETE SLAB. SEE SPW STANDARD DETAIL FOR EQUIVALENT MANHOLE DIAMETER.
3. 2 COATS WATERPROOF BITUMASTIC MATERIAL
4. WASHED GRAVEL FILL TO SPRING LINE OF FORCE MAIN
5. 45° BEND
6. DRILL (4) 1" HOLES EQUALLY SPACED THROUGH BASE. PROVIDE SS SCREEN OVER TOP
7. 6" GRAVEL BEDDING
8. 90° BEND W/DRILLED BASE ANCHORED TO MANHOLE BASE W/ 3/4"ø SS BOLTS
9. CONCRETE SHALL BE MIX NO. 6 (4500 PSI).
10. PLUG VALVE WITH LEVER OPERATOR
11. QUICK DISCONNECT FITTING AND CAP
12. RUBBER "O" RING GASKET
13. POSITION PLUG VALVE AND RISER ASSEMBLY TO PROVIDE MIN. 24" CLEARANCE FROM MANHOLE OPENING TO INVERT OF STRUCTURE.
14. PARSONS MANHOLE INSERT MODEL NO. PMI-9S OR APPROVED SUBSTITUTE SHALL BE INSTALLED
15. MIN. 6' DIA PRECAST STRUCTURE

NOTES:

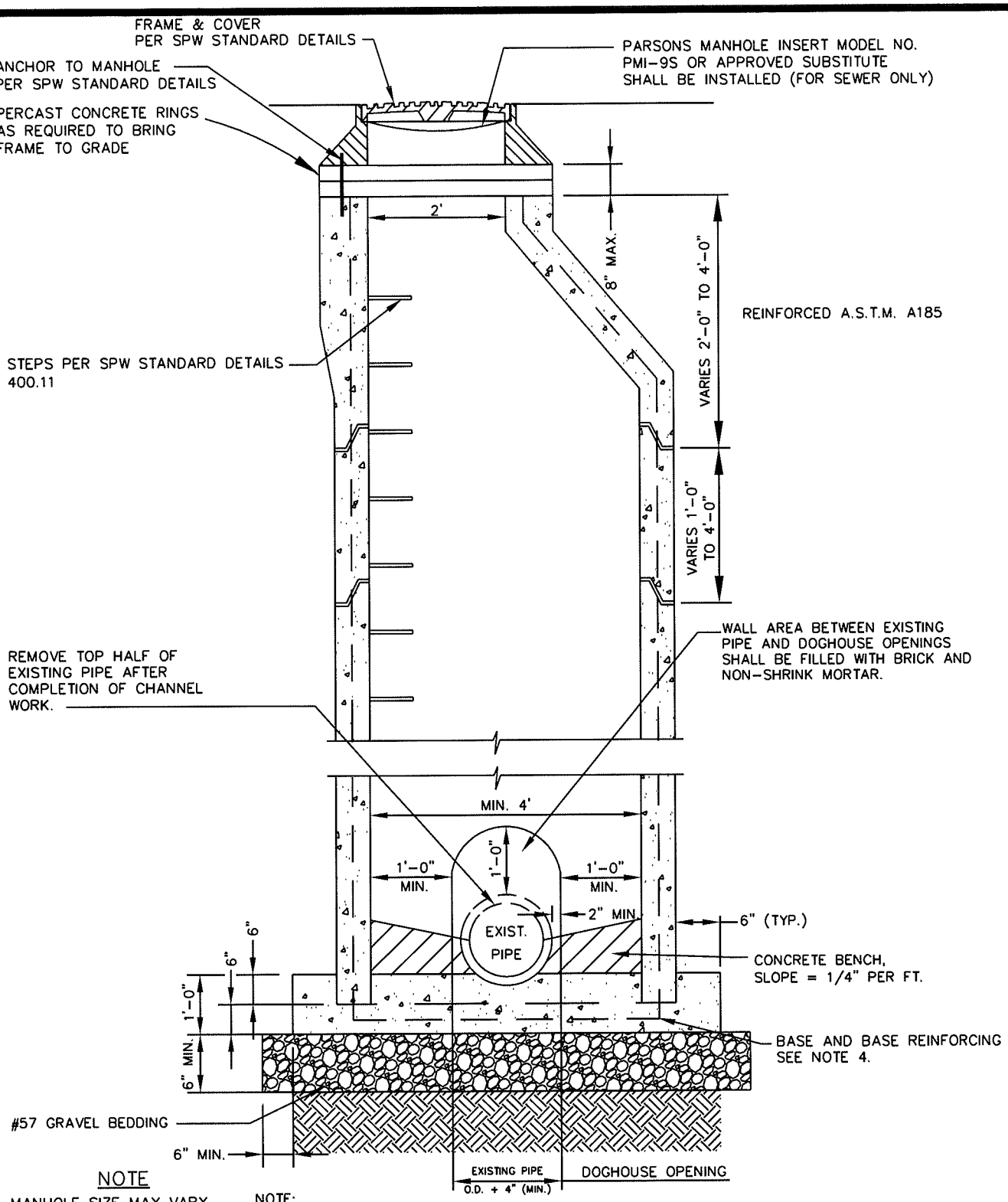
MANHOLE STEPS PER SPW STANDARD DETAILS.

MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH AASHTO M 199.



REVISION 01/01/14

CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack DEPUTY DIRECTOR	FORCE MAIN ACCESS MANHOLE	DATE 03/31/99 SCALE NONE DWG. NO. STD40027 STD. NO. 400.27



NOTE

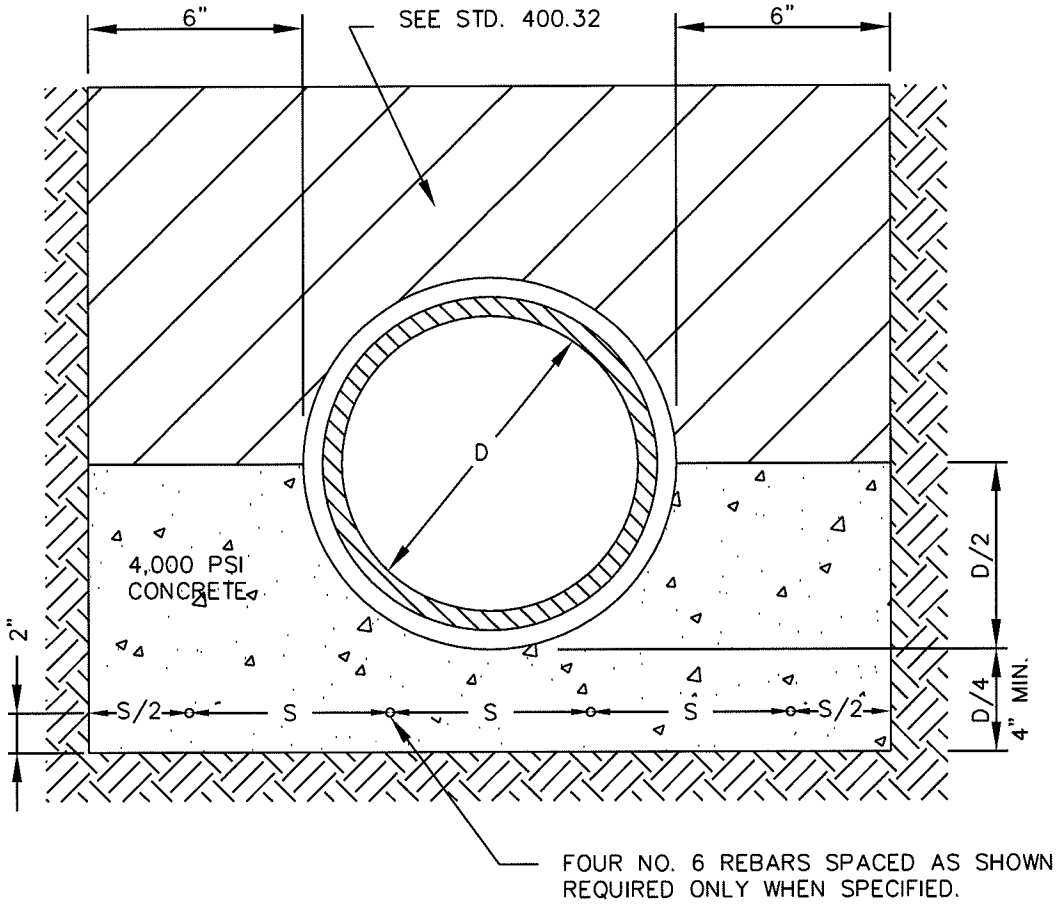
MANHOLE SIZE MAY VARY ACCORDING TO THE SIZE (O.D.) OF PIPE COMING INTO OR LEAVING THE MANHOLE. SEE APPROPRIATE STANDARD DETAIL.

NOTE:

1. IF EXISTING PIPE IS TERRA COTTA: PRIOR TO INSTALLING MANHOLE, REMOVE PIPE FROM 10' EACH WAY OF ℄ MANHOLE (20' TOTAL LENGTH) AND REPLACE WITH SDR-35 OF SAME ID AND JOIN WITH FERNCO COUPLINGS. SDR-35 PIPE SHALL BE INSTALLED WITH 12" THICK # 57 STONE BEDDING EXTENDING TO SPRINGLINE OF PIPE.
2. MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH AASHTO M 199.
3. CONCRETE SHALL BE MIX NO. 6 (4500 PSI).

REVISED: 01/01/14

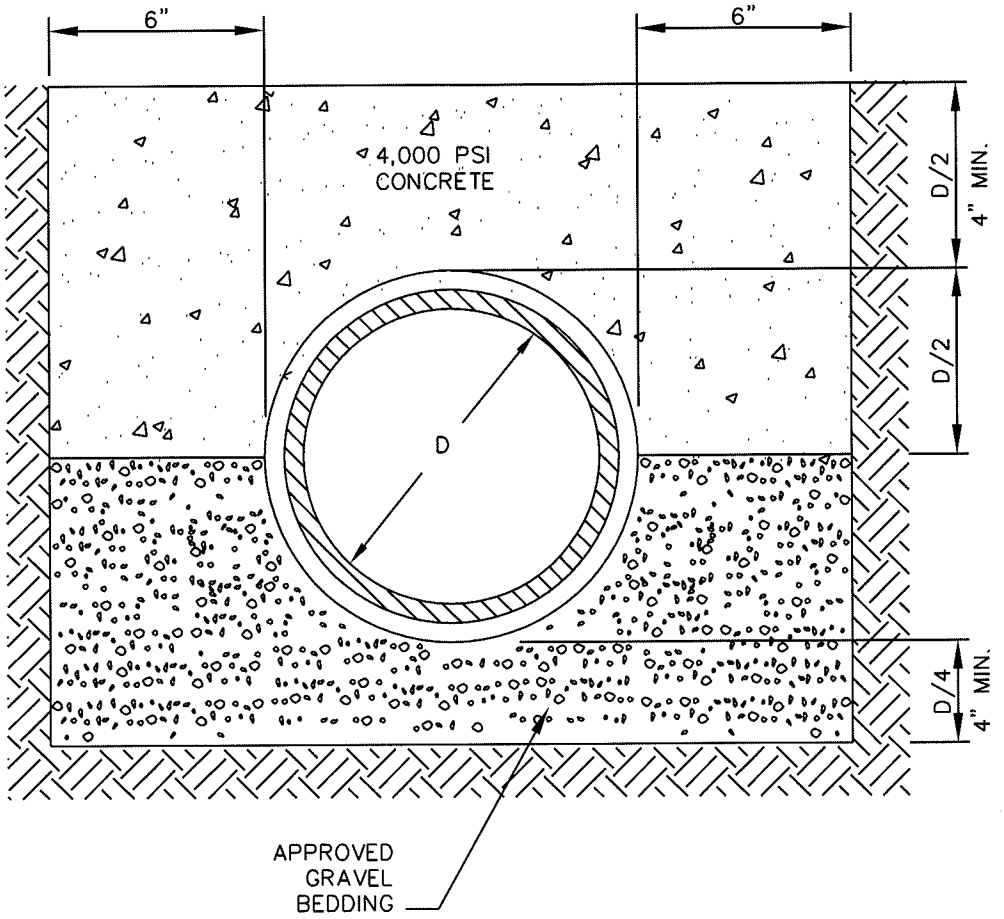
CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack DEPUTY DIRECTOR	STANDARD DOGHOUSE MANHOLE SEWER & STORM WATER	DATE 6/11/86 SCALE NONE DWG. NO. STD40028 STD. NO. 400.28



$$S = \frac{D+12"}{4}$$

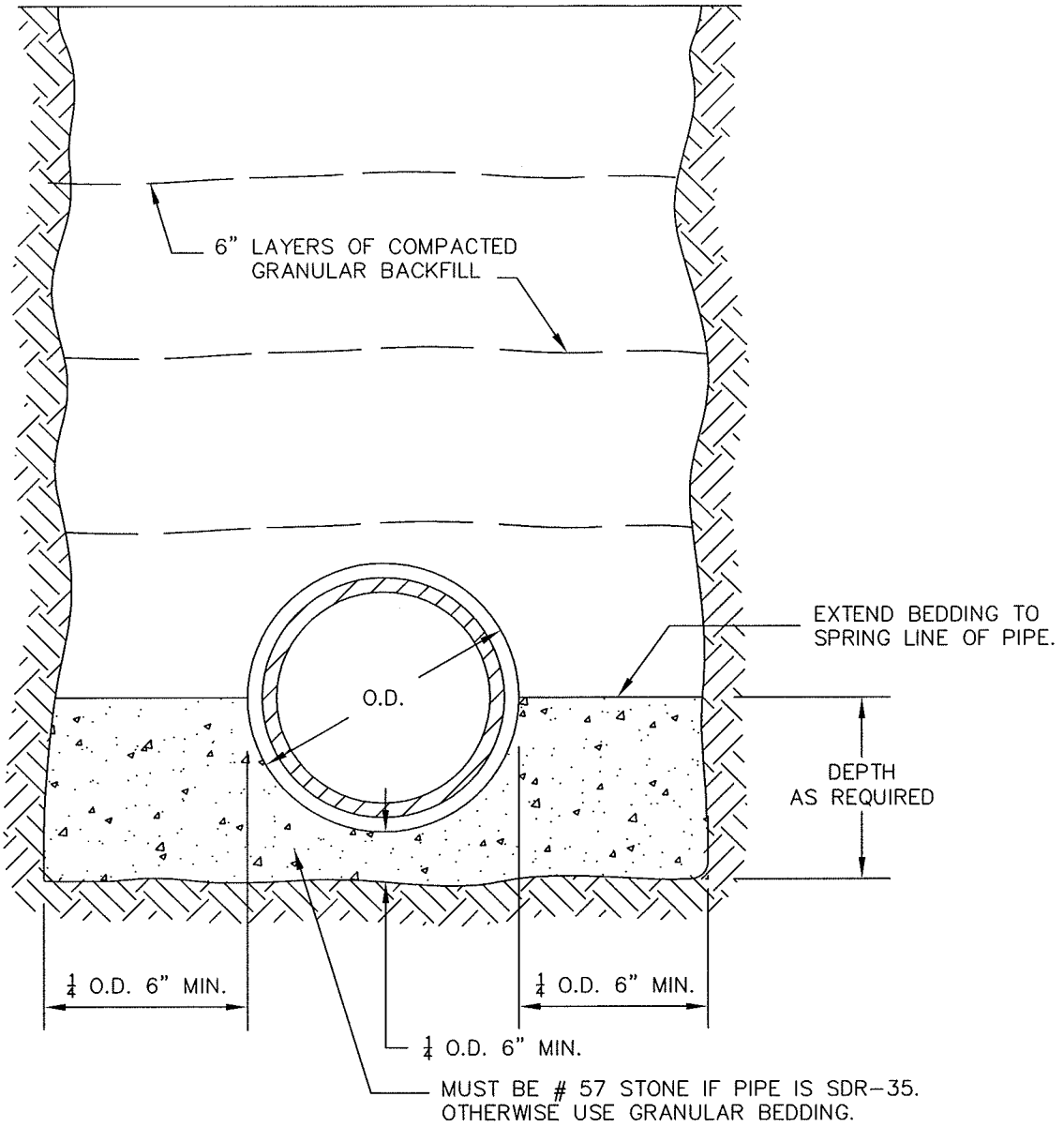
REVISED: 01/01/14

CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack DEPUTY DIRECTOR	CONCRETE CRADLE SANITARY SEWER OR STORMWATER DRAINS	DATE 08/29/86 SCALE NONE DWG. NO. STD40030 STD. NO. 400.30



REVISED: 01/01/14

CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack DEPUTY DIRECTOR	CONCRETE ARCH SANITARY SEWERS OR STORMWATER DRAINS	DATE 08/29/86 SCALE NONE DWG. NO. STD40031 STD. NO. 400.31



NOTES:

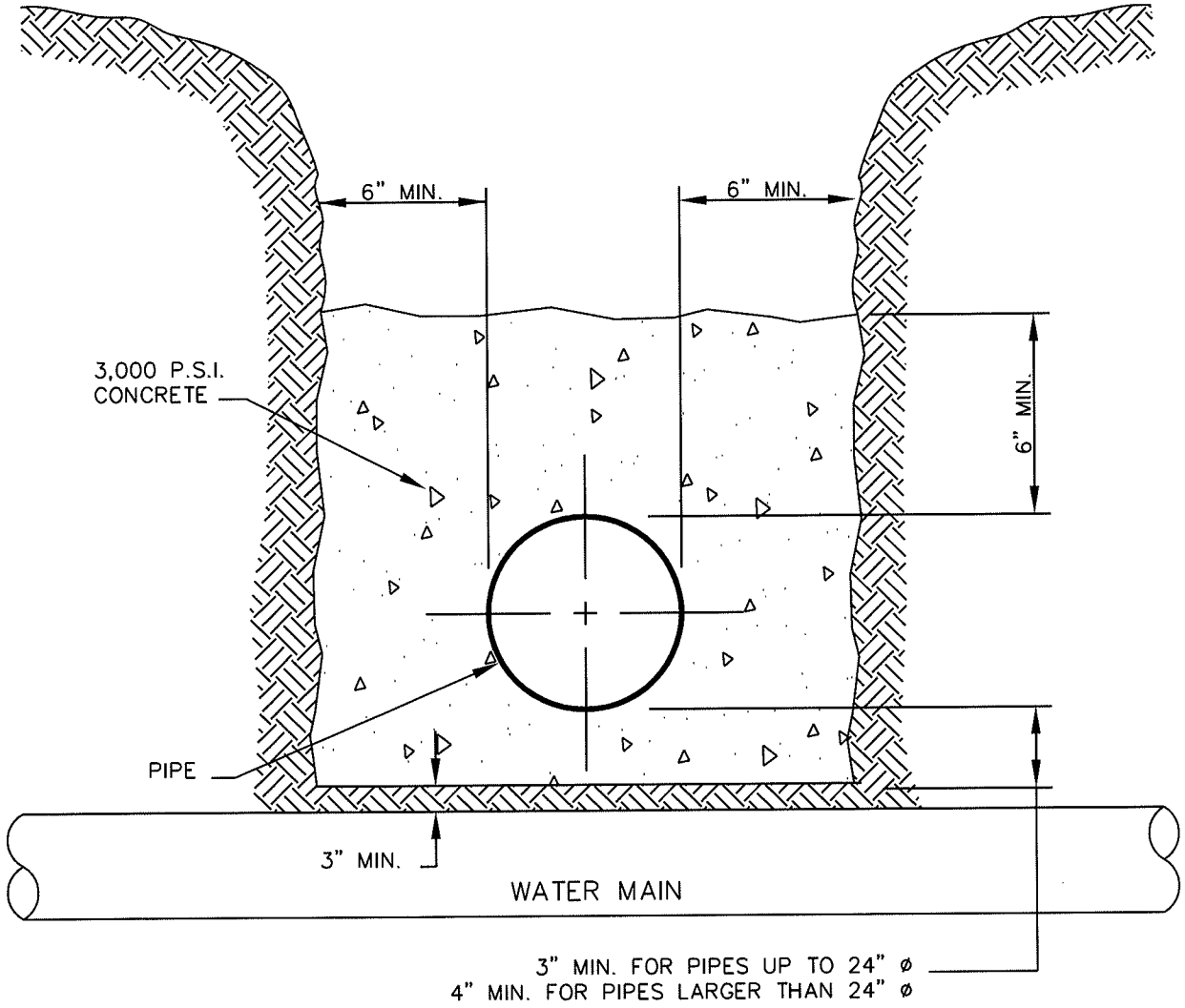
1. TRENCH WIDTH WILL GOVERN PAYMENT FOR REPAVING, BACKFILL, ETC.. UNLESS OTHERWISE SPECIFIED.
2. THE CITY RESERVES THE RIGHT TO INCREASE, DECREASE OR ENTIRELY EXCLUDE THE GRANULAR BEDDING AS DIRECTED BY THE ENGINEER. WHEN GRANULAR BEDDING IS NOT USED, BACKFILL SHALL BE TAMPED AROUND PIPE HAUNCHES TO PROVIDE SOLID AND STABLE BEDDING.
3. 97% OF MAX. SOIL DENSITY REQUIRED ON TOP 1' OF STREET SUBGRADE
   95% OF MAX. SOIL DENSITY REQUIRED BELOW TOP 1' OF STREET SUBGRADE
4. THIS DETAIL APPLIES TO ALL PUBLIC SEWER, WATER, AND STORM WATER MAINS AND LATERALS.

REVISED: 01/01/14

CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack DEPUTY DIRECTOR	TYPICAL DETAIL PIPE TRENCH & BEDDING	DATE 8/29/86 SCALE NONE DWG. NO. STD400.32 STD. NO. 400.32

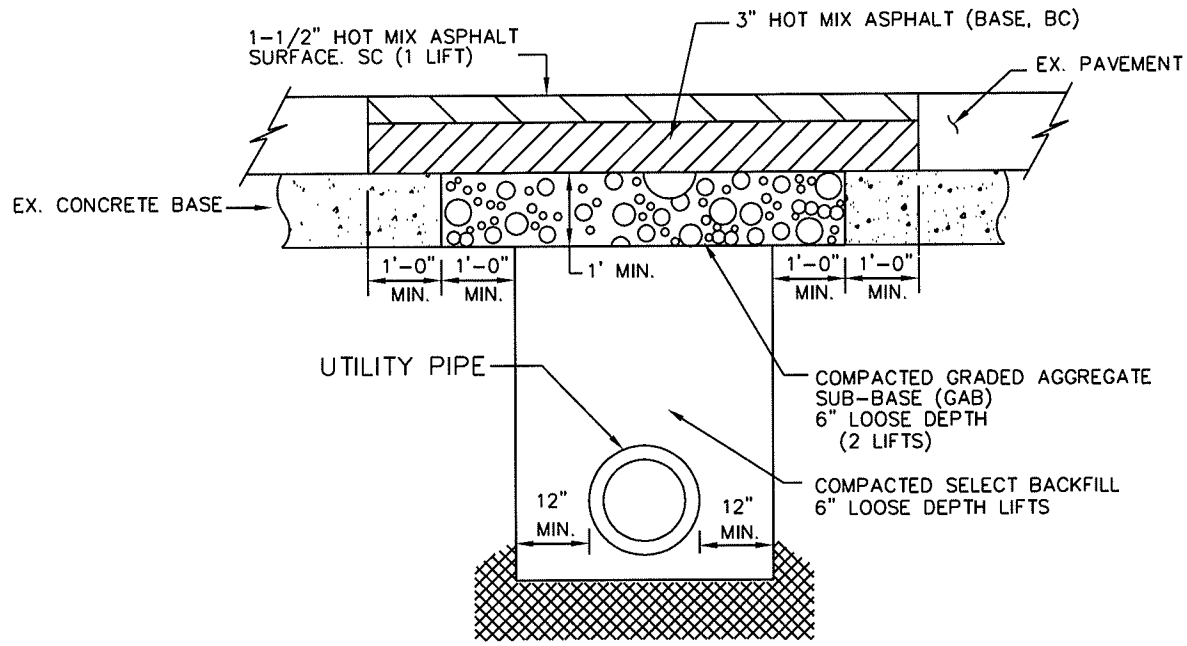
NOTES:

1. ENCASEMENT REQUIRED IF SEWER IS ABOVE WATER MAIN.
2. IF GREATER THAN 12" OF CLEARANCE BELOW WATER MAIN, NO ENCASEMENT NECESSARY. SEE DG5 I 1A.
3. EXTEND ENCASEMENT 10' EITHER SIDE OF WATER MAIN CROSSING.



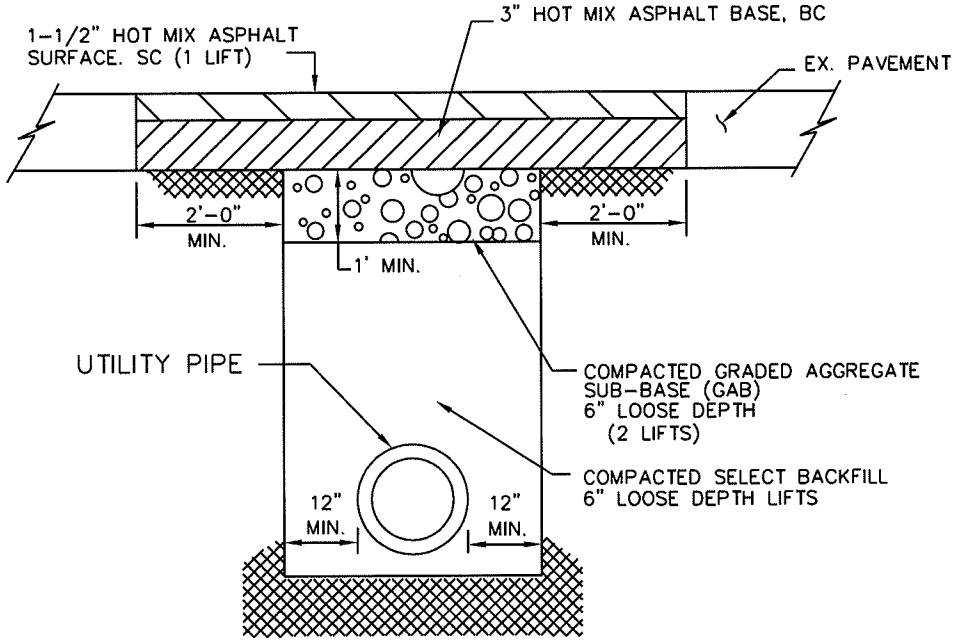
REVISION: 01/01/14

CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack DEPUTY DIRECTOR	SANITARY SEWER ENCASEMENT DETAIL	DATE 02/06/08 SCALE NONE DWG. NO. STD40033 STD. NO. 400.33



TYPICAL TRENCH REPAIR
ROADS WITH CONCRETE BASE

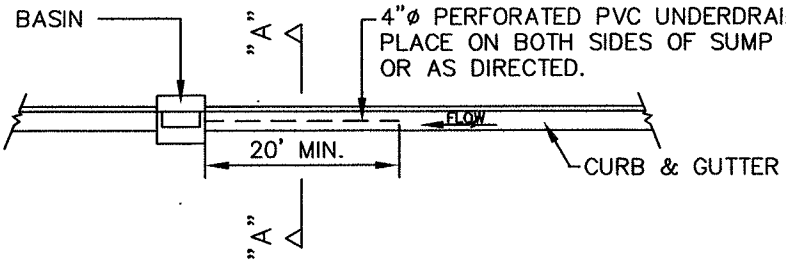
TYPICAL NOTE FOR STD.400.35:
A TEMPORARY LAYER OF 1-1/2" HOT MIX ASPHALT (BASE, BC) OR COLD PATCH SHALL BE PLACED IN ALL DISTURBED AREA BY THE END OF THAT CURRENT DAYS' WORK, UNTIL FINAL DETAIL IS INSTALLED.



TYPICAL TRENCH REPAIR (ROADS WITH BITUMINOUS CONCRETE SURFACE AND BITUMINOUS CONCRETE BASE)

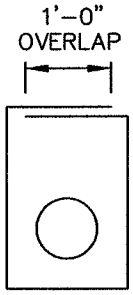
REVISION: 01/01/14

CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack CITY ENGINEER	UTILITY TRENCH REPAIR DETAILS	DATE 10/29/98 SCALE NONE DWG. NO. STD40035 STD. NO. 400.35



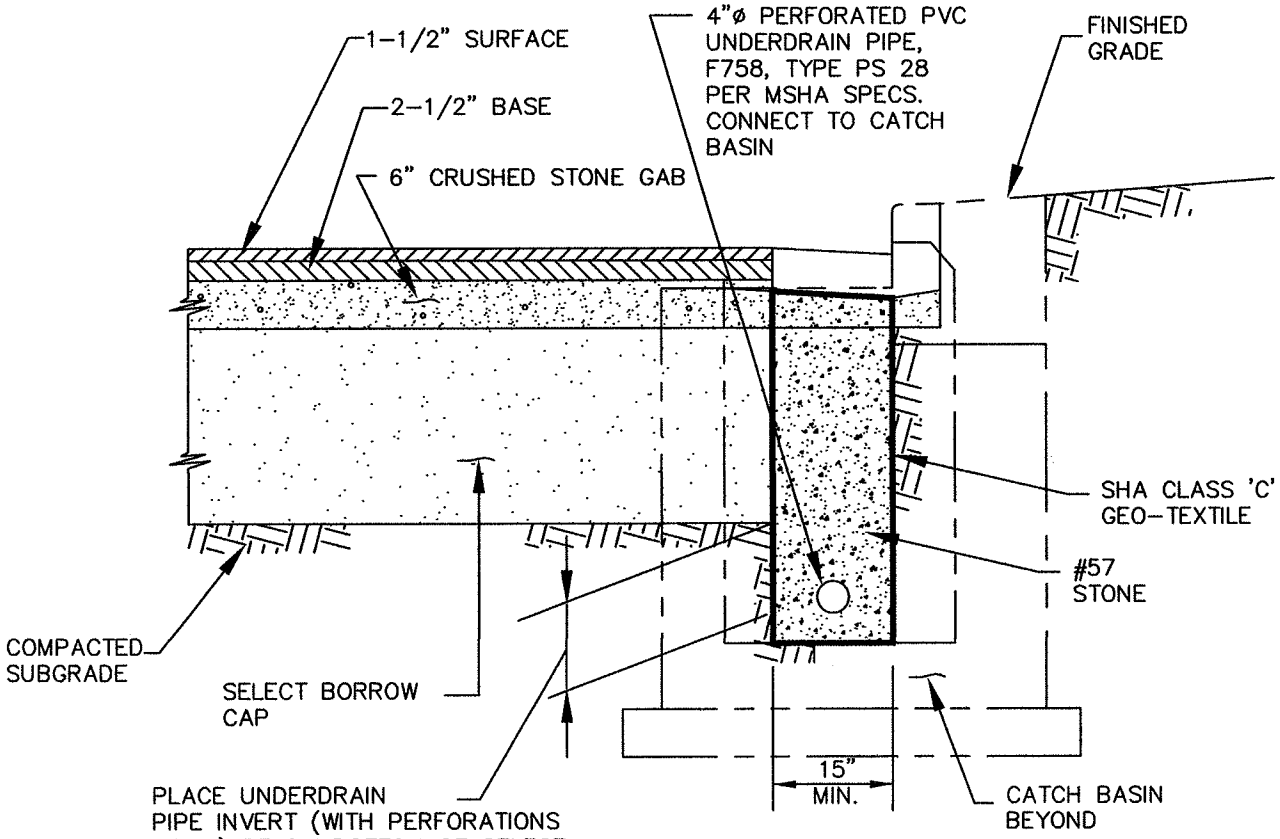
PLAN

SCALE: 1"=20'



GEOTEXTILE FABRIC

DETAIL

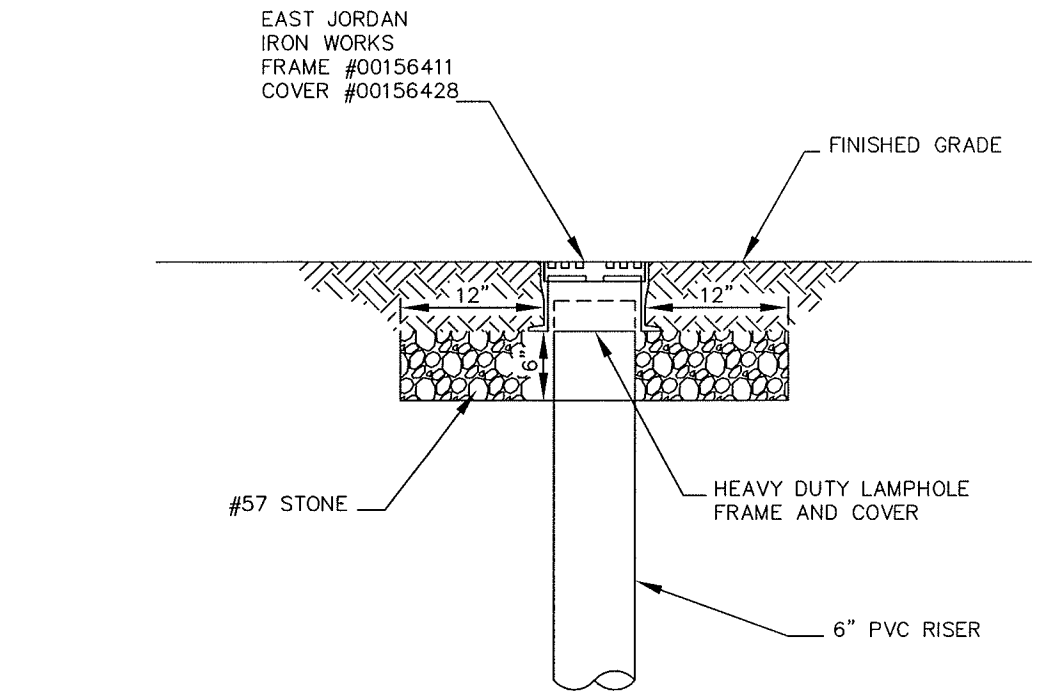


SECTION A-A

SCALE: 1"=2'

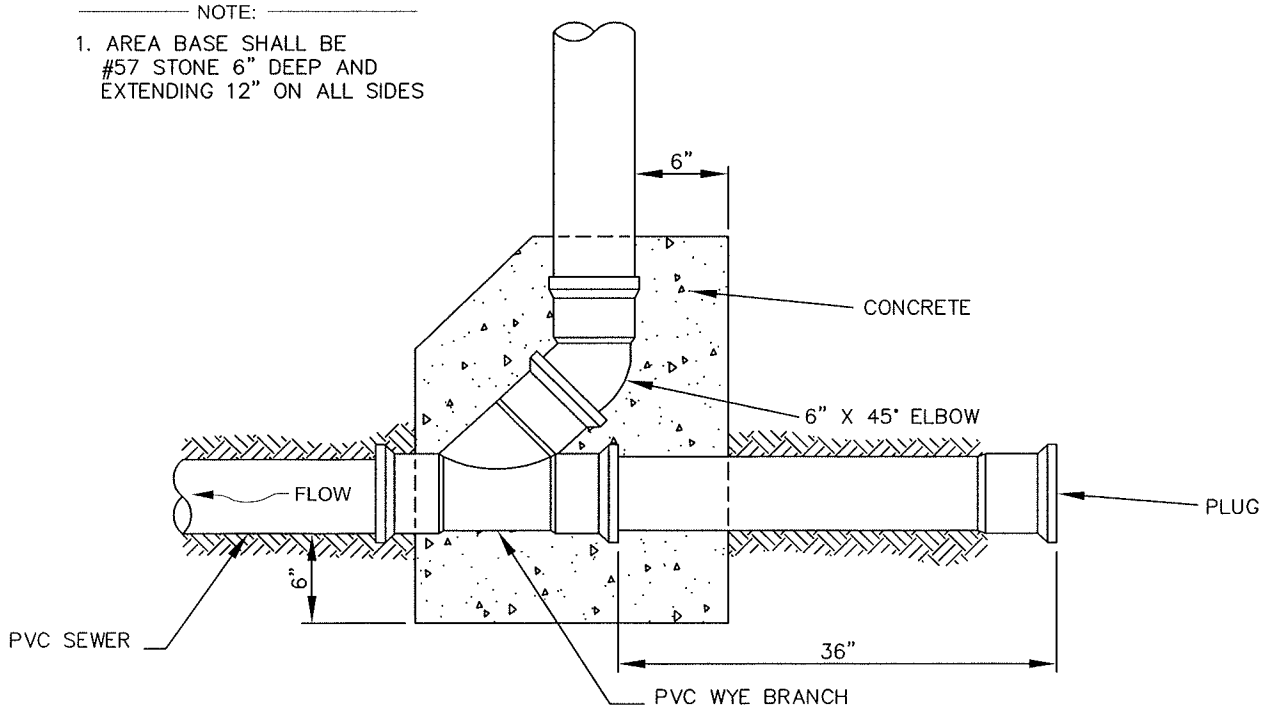
REVISED 1/01/14

CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack CITY ENGINEER	SUBGRADE UNDERDRAIN DETAIL	DATE 6/02/01 SCALE NONE DWG. NO. STD40036 STD. NO. 400.36



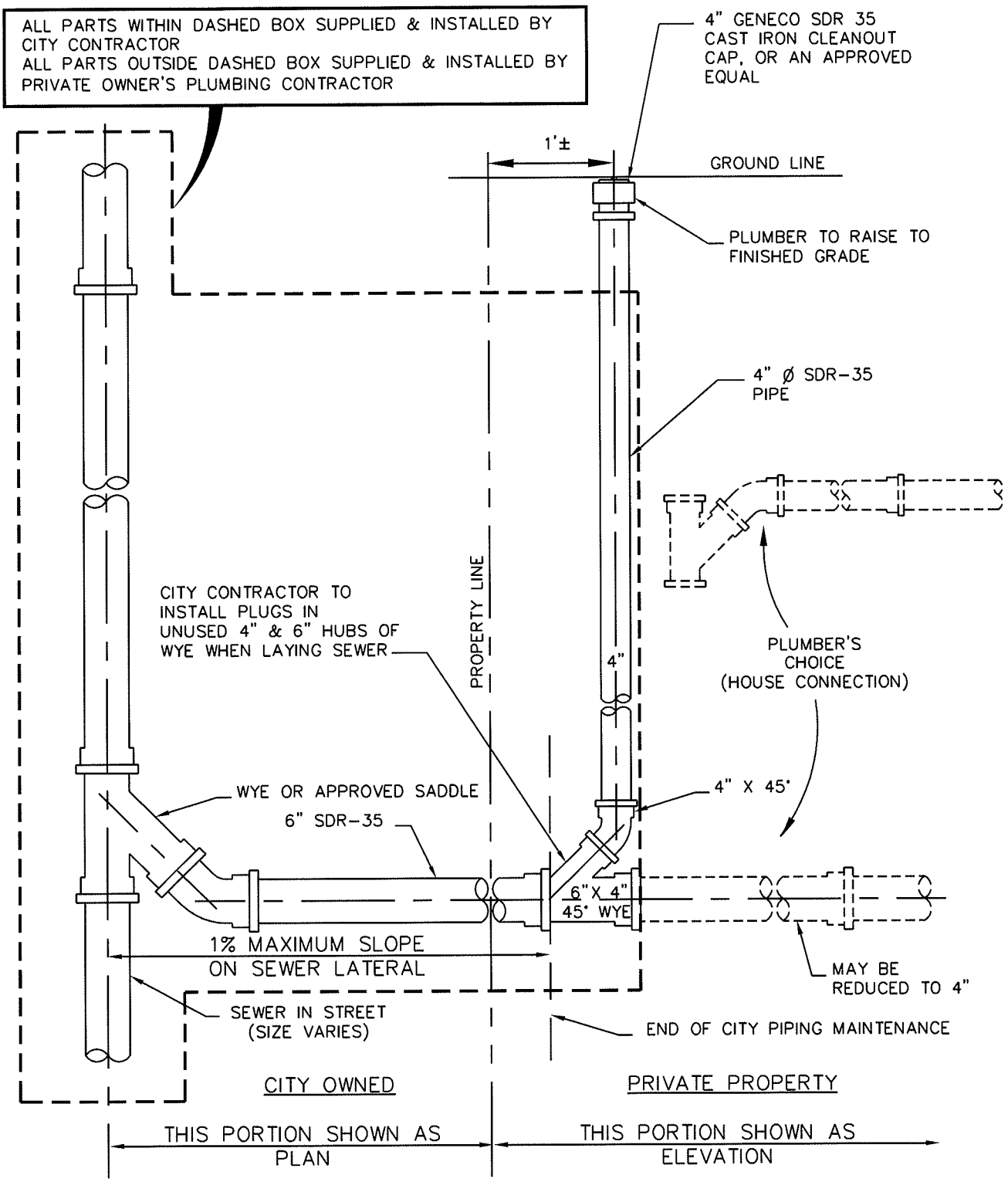
NOTE:

1. AREA BASE SHALL BE #57 STONE 6" DEEP AND EXTENDING 12" ON ALL SIDES



REVISED: 01/01/14

CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack DEPUTY DIRECTOR	STANDARD CLEANOUT FOR SEWER LINES IN CITY STREETS	DATE 3/30/94 SCALE NONE DWG. NO. STD40040 STD. NO. 400.40

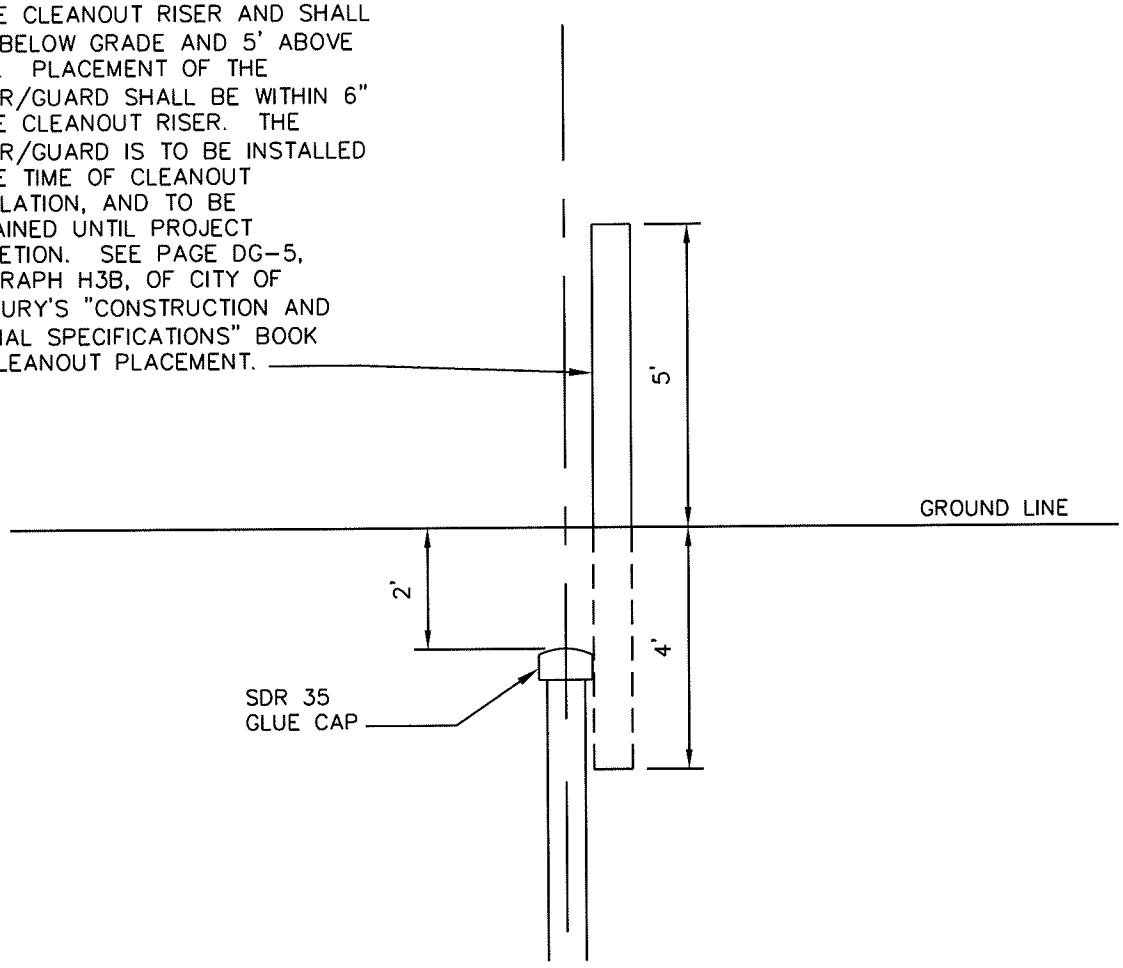


CLEANOUTS INSTALLED IN DRIVEWAYS SHALL BE FINISHED WITH A CONCRETE COLLAR EXTENDING 1.0' BEYOND THE FRAME OF THE CLEANOUT CAP. THE COLLAR SHALL BE 6" THICK AND BE SUPPORTED BY A 6" BASE OF CR-6 AGGREGATE WHICH IN TURN SHALL BE SUPPORTED BY SUITABLE SOIL COMPACTED TO 95% PROCTOR. CONCRETE COLLARS SHALL BE INSTALLED AFTER THE TOP OF THE CLEANOUT CAPS ARE ADJUSTED TO FINISHED GRADE. IF INSTALLED IN UNPAVED AREAS SLOPE THE SURROUNDING EARTH AROUND CLEANOUT IN A WAY AS TO CREATE POSITIVE DRAINAGE AWAY FROM THE CAP.

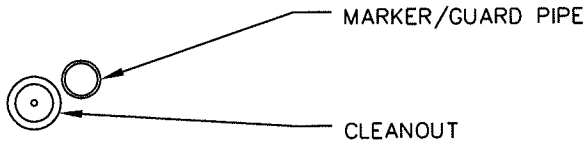
REVISED: 01/01/14

CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack DEPUTY DIRECTOR	STANDARD HOUSE SERVICE SEWER CONNECTION USING PLASTIC PIPE W/ EXISTING SEWER MAIN	DATE 6/28/06 SCALE NONE DWG. NO. STD40042 STD. NO. 400.42

SANITARY SEWER CLEANOUTS SHALL BE GUARDED BY A MARKER/GUARD PIPE. THE MARKER/GUARD PIPE SHALL BE THE SAME SIZE AND TYPE AS THE CLEANOUT RISER AND SHALL BE 4' BELOW GRADE AND 5' ABOVE GRADE. PLACEMENT OF THE MARKER/GUARD SHALL BE WITHIN 6" OF THE CLEANOUT RISER. THE MARKER/GUARD IS TO BE INSTALLED AT THE TIME OF CLEANOUT INSTALLATION, AND TO BE MAINTAINED UNTIL PROJECT COMPLETION. SEE PAGE DG-5, PARAGRAPH H3B, OF CITY OF SALISBURY'S "CONSTRUCTION AND MATERIAL SPECIFICATIONS" BOOK FOR CLEANOUT PLACEMENT.



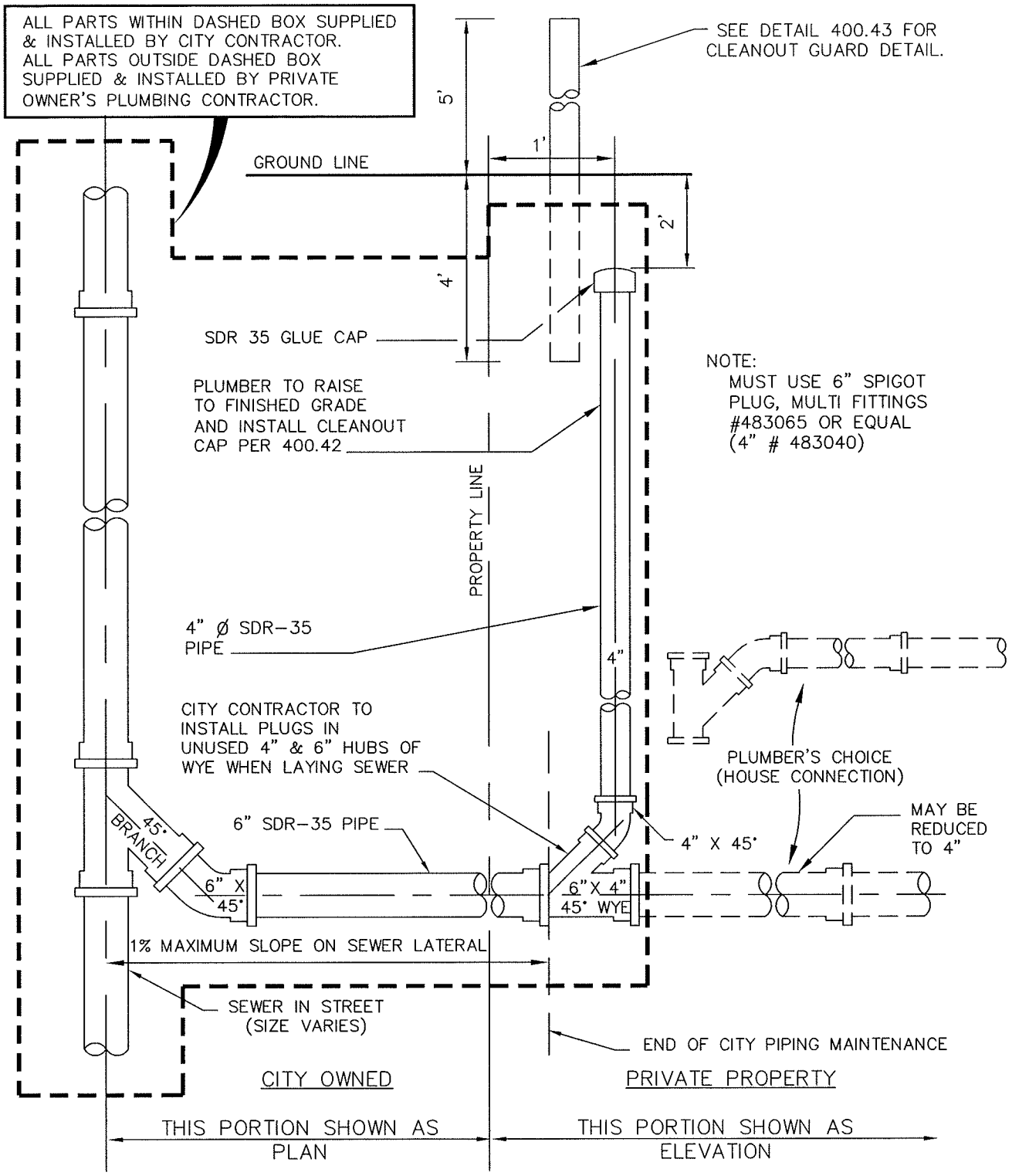
FRONT VIEW



PLAN VIEW

REVISED: 01/01/14

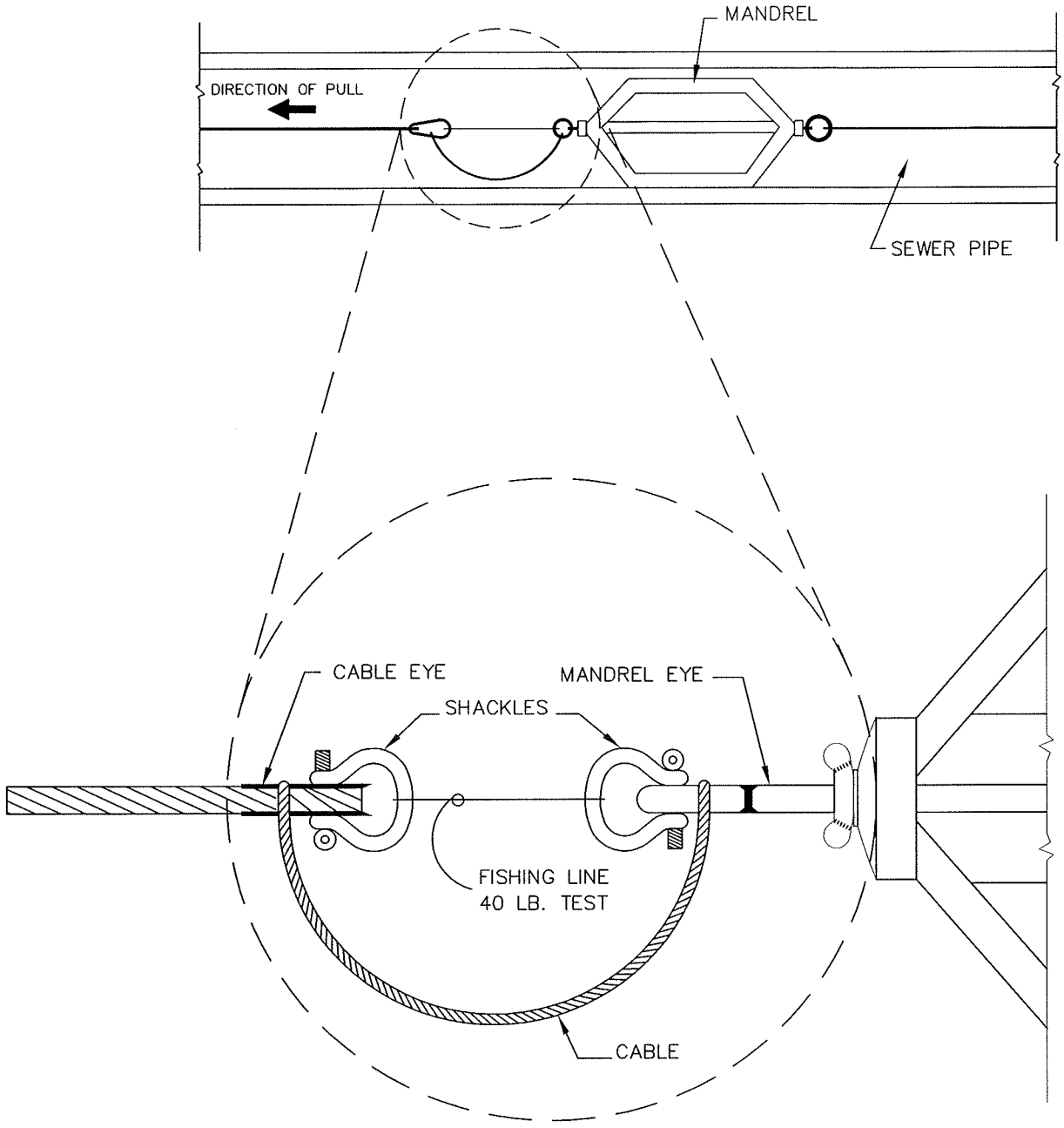
CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack DEPUTY DIRECTOR	STANDARD HOUSE SERVICE SEWER CONNECTION CLEANOUT GUARD DETAIL	DATE 01/23/06 SCALE NONE DWG. NO. STD40043 STD. NO. 400.43



CLEANOUTS INSTALLED IN DRIVEWAYS SHALL BE FINISHED WITH A CONCRETE COLLAR EXTENDING 1.0' BEYOND THE FRAME OF THE CLEANOUT CAP. THE COLLAR SHALL BE 6" THICK AND BE SUPPORTED BY A 6" BASE OF CR-6 AGGREGATE WHICH IN TURN SHALL BE SUPPORTED BY SUITABLE SOIL COMPACTED TO 95% PROCTOR. CONCRETE COLLARS SHALL BE INSTALLED AFTER THE TOP OF THE CLEANOUT CAPS ARE ADJUSTED TO FINISHED GRADE. IF INSTALLED IN UNPAVED AREAS SLOPE THE SURROUNDING EARTH AROUND CLEANOUT IN A WAY AS TO CREATE POSITIVE DRAINAGE AWAY FROM THE CAP.

Revised: 01/01/14

CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack DEPUTY DIRECTOR	STANDARD HOUSE SERVICE SEWER CONNECTION FOR NEW CONSTRUCTION USING PLASTIC PIPE	DATE 1/31/08 SCALE NONE DWG. NO. STD40045 STD. NO. 400.45



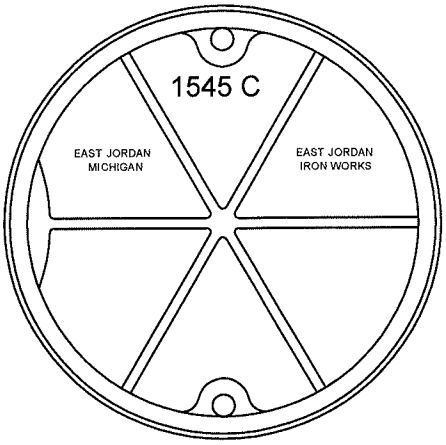
NOTE:

1. MANDREL SHALL BE APPROVED BY THE FIELD ENGINEER PRIOR TO USE.
2. MANDREL SHALL HAVE A DIAMETER EQUAL TO 95% OF THE INSIDE DIAMETER OF THE PIPE.

REVISED: 01/01/14

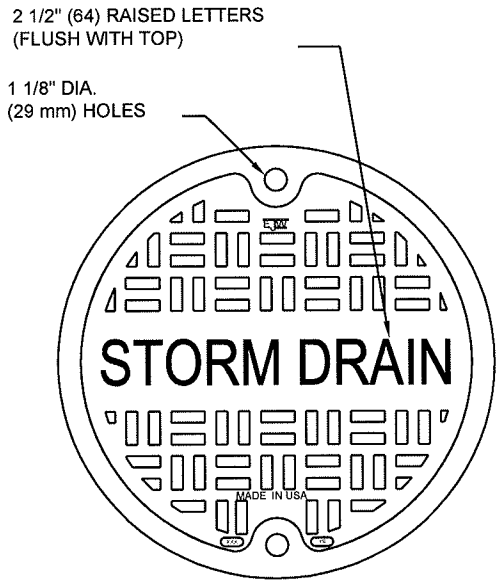
CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack CITY ENGINEER	DEFLECTION TEST MANDREL METHOD	DATE 03/01/12 SCALE NONE DWG. NO. STD40050 STD. NO. 400.50

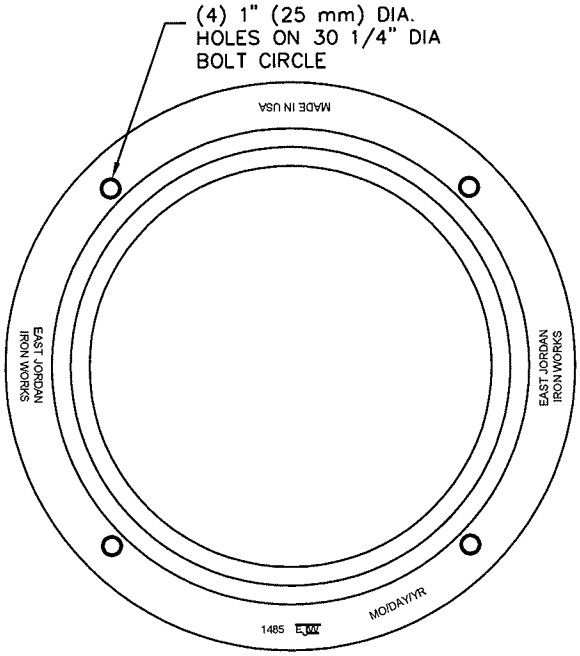
NOTE: NOT FOR USE IN PAVED AREAS.

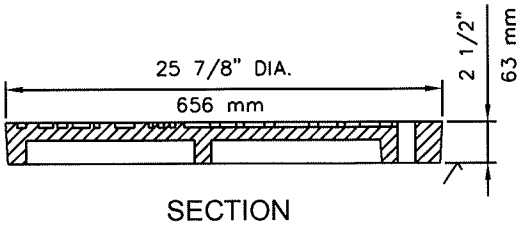


BOTTOM VIEW

EAST JORDAN
FRAME #148510
COVER #154524
OR APPROVED SUBSTITUTE

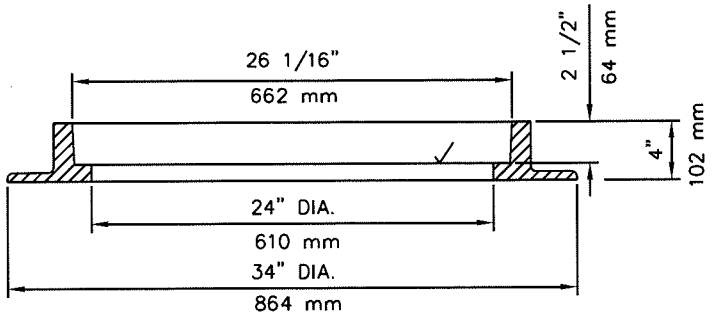






SECTION

✓ MACHINED SURFACE



REVISED: 01/01/14

CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack CITY ENGINEER	MINIMUM CLEARANCE MANHOLE FRAME & COVER STORMWATER	DATE 7/31/98 SCALE NONE DWG. NO. STD50010 STD. NO. 500.10

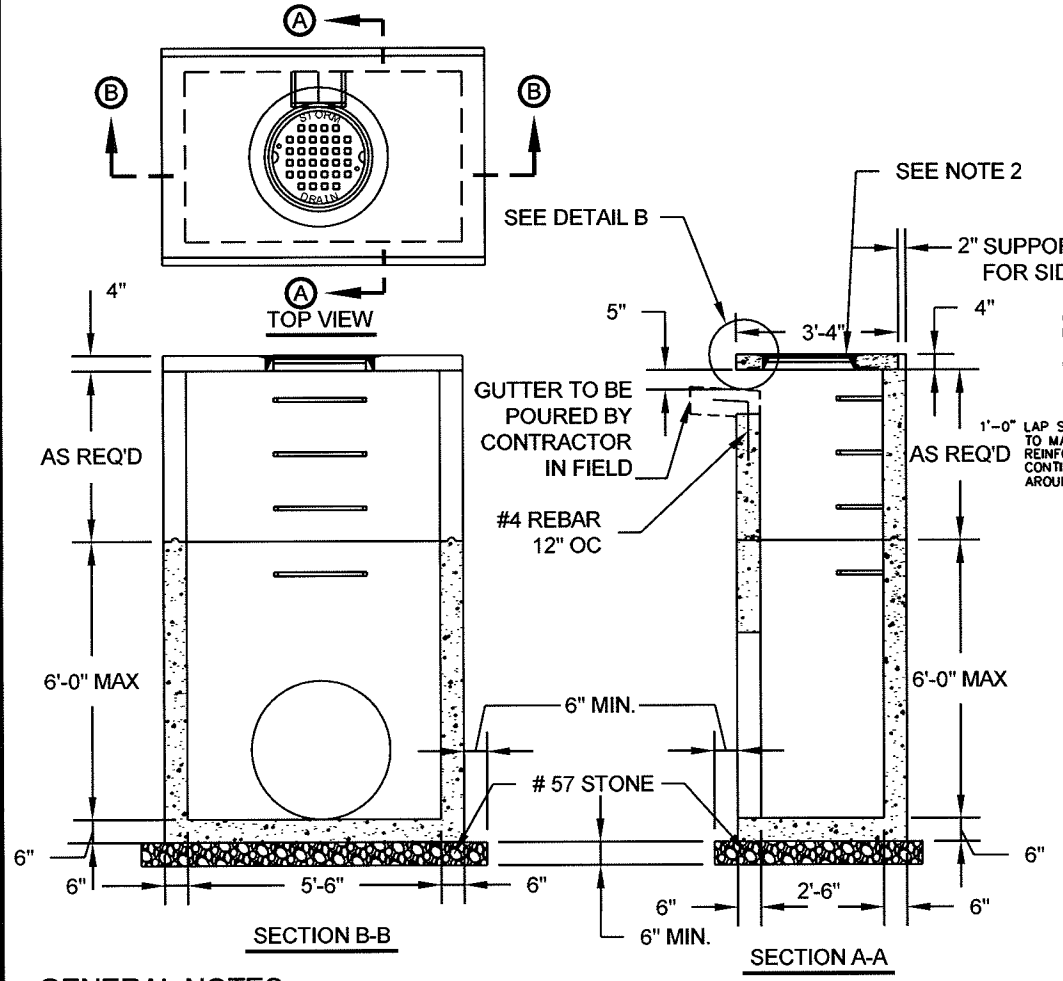
CITY OF SALISBURY
SALISBURY, MD

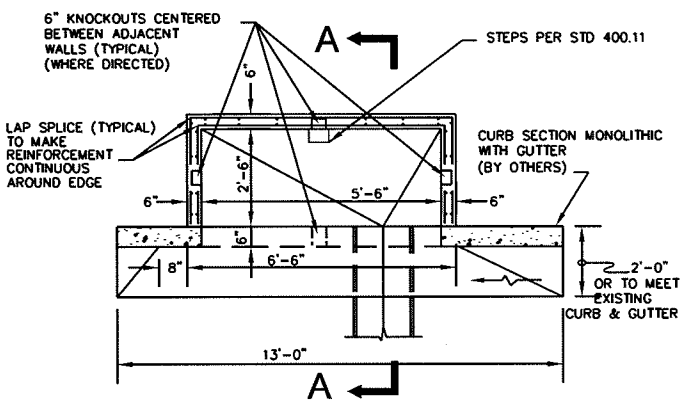
APPROVED
DEPUTY DIRECTOR
DATE 1/14/14

TYPE "A-1" INLET

DATE	1/27/10
SCALE	NONE
DWG. NO.	STD500.45
STD. NO.	500.45

REVISED: 01/01/14

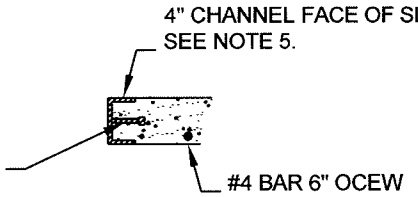




TOP VIEW

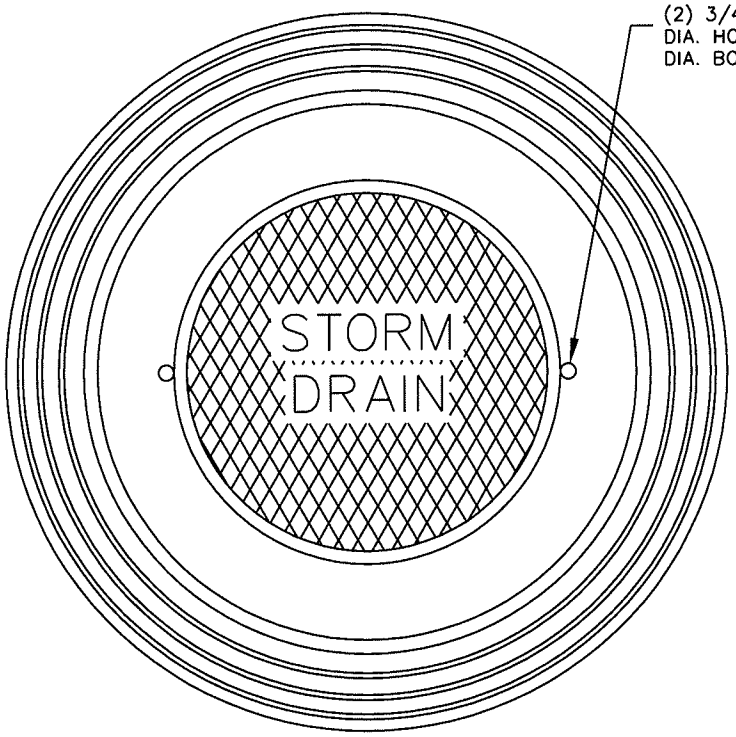
GENERAL NOTES:

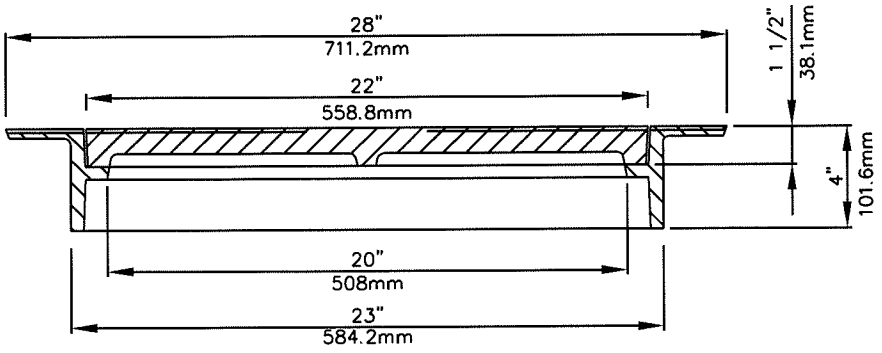
1. CONCRETE SHALL BE MDSHA MIX No. 6 - 4, 500 P.S.I.
2. SIDEWALK FRAME AND COVER TO BE NEENAH R-5915-E. OR EAST JORDAN FRAME 2935Z, COVER 2935C.
3. STEPS INCLUDED WHEN BOX IS OVER 3'-6".
4. REINFORCING TO BE 2 LAYERS OF W4xW4 WELDED WIRE FABRIC.
5. TO BE PAINTED IN FIELD WITH RUSTOLEUM 3400 SYSTEM DTM 340 VOC ALKYD ENAMEL 3482402 SILVER GRAY.
6. MINIMUM COVER SHALL BE 1 $\frac{1}{2}$" FOR ALL REINFORCEMENT UNLESS OTHERWISE NOTED.
7. (RISER SECTION) 5 FOOT MAXIMUM HEIGHT, 1 FOOT MINIMUM.
8. (BASE) 6' MAXIMUM HEIGHT, MINIMUM HEIGHT = PIPE O.D. + 6 IN. MEASURED FROM PIPE INVERT.
9. PIPE OPENINGS TO BE PROVIDED AS REQUIRED FOR SIZE, LOCATION AND INVERT ELEVATIONS. REFER TO PLANS.
10. PLACEMENT OF SUBGRADE DRAINAGE WILL BE AS DIRECTED BY THE ENGINEER OR AS NOTED ON PLANS.
11. GROUT AROUND ALL PIPES USING NON-SHRINK GROUT JOINT FILLER.
12. WHERE USED, UNDERDRAIN SHALL BE GROUTED IN PLACE IN THE PROVIDED KNOCKOUT HOLES.
13. LIFT HOLES TO BE PROVIDED FOR HANDLING RISER(S) AND BASE HOLES TO BE FILLED WITH MIX #3 CONCRETE UPON INSTALLATION.
14. INVERT TO BE CONCRETE SLOPE 2" PER FOOT TOWARD OUTLET OR AS DIRECTED. (TO BE PROVIDED IN FIELD)



DETAIL B

2" (50.8mm) LETTERS
(RECESSED FLUSH)





HEAVY DUTY
MACHINED BEARING SURFACES
MAT'L. ASTM A48 CL 35

EAST JORDAN FRAME 2935Z, COVER 2935C
OR NEENAH R-5915-E.

REVISION 01/01/14

CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack DEPUTY DIRECTOR	SIDEWALK FRAME & COVER TYPE "A-1" & "B-1" INLETS	DATE 7/27/98 SCALE NONE DWG. NO. STD50046 STD. NO. 500.46

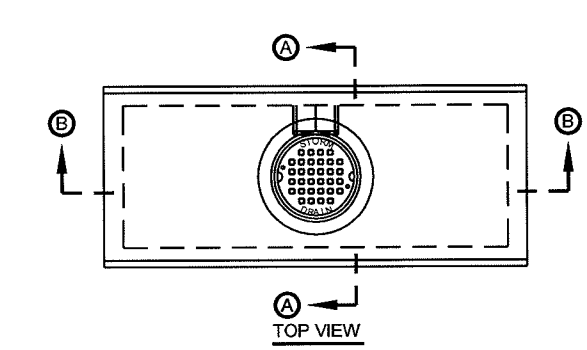
CITY OF SALISBURY
SALISBURY, MD

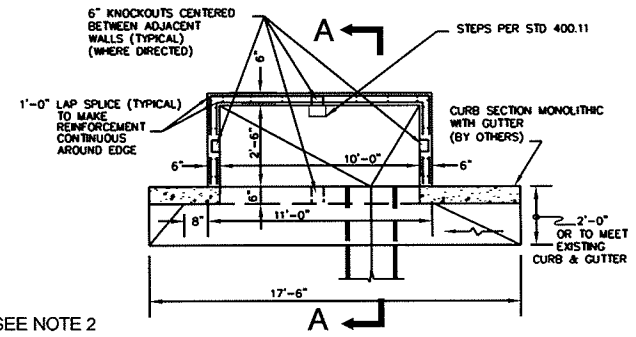
APPROVED
DEPUTY DIRECTOR
DATE 1/1/14

TYPE "B-1" INLET

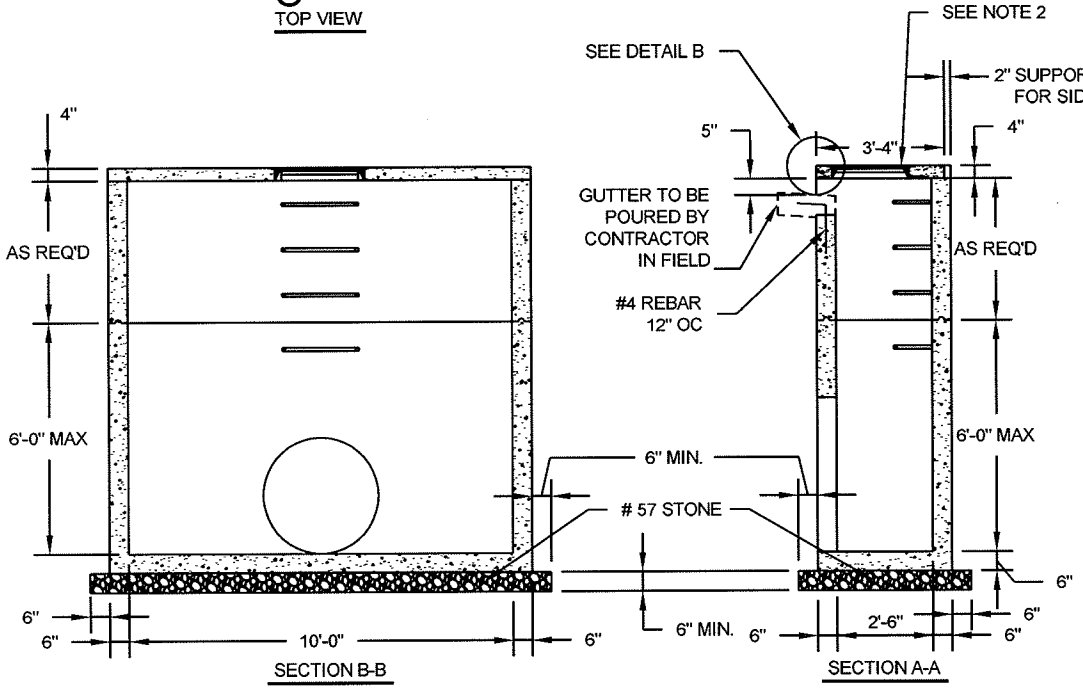
STD. NO.	DWG. NO.	SCALE	DATE
500.48	STD500.48	NONE	1/27/10

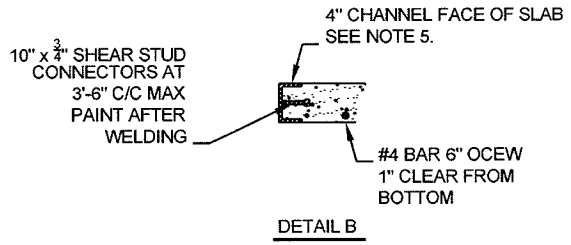
REVISION 01/01/14





TOP VIEW

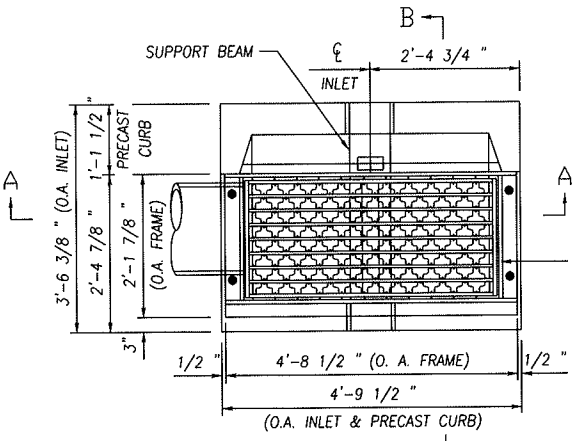




DETAIL B

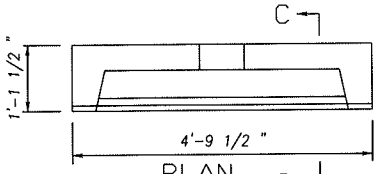
GENERAL NOTES:

1. CONCRETE SHALL BE MDSHA MIX No. 6 - 4, 500 P.S.I.
2. SIDEWALK FRAME AND COVER TO BE NEENAH R-5915-E. OR EAST JORDAN FRAME 2935Z, COVER 2935C.
3. STEPS INCLUDED WHEN BOX IS OVER 3'-6".
4. REINFORCING TO BE 2 LAYERS OF W4xW4 WELDED WIRE FABRIC.
5. TO BE PAINTED IN FIELD WITH RUSTOLEUM 3400 SYSTEM DTM 340 VOC ALKYD ENAMEL 3482402 SILVER GRAY.
6. MINIMUM COVER SHALL BE 1 1/2" FOR ALL REINFORCEMENT UNLESS OTHERWISE NOTED.
7. (RISER SECTION) 5 FOOT MAXIMUM HEIGHT, 1 FOOT MINIMUM.
8. (BASE) 6' MAXIMUM HEIGHT, MINIMUM HEIGHT = PIPE O.D. + 6 IN. MEASURED FROM PIPE INVERT.
9. PIPE OPENINGS TO BE PROVIDED AS REQUIRED FOR SIZE, LOCATION AND INVERT ELEVATIONS. REFER TO PLANS.
10. PLACEMENT OF SUBGRADE DRAINAGE WILL BE AS DIRECTED BY THE ENGINEER OR AS NOTED ON PLANS.
11. GROUT AROUND ALL PIPES USING NON-SHRINK GROUT JOINT FILLER.
12. WHERE USED, UNDERDRAIN SHALL BE GROUTED IN PLACE IN THE PROVIDED KNOCKOUT HOLES.
13. LIFT HOLES TO BE PROVIDED FOR HANDLING RISER(S) AND BASE HOLES TO BE FILLED WITH MIX #3 CONCRETE UPON INSTALLATION.
14. INVERT TO BE CONCRETE SLOPE 2" PER FOOT TOWARD OUTLET OR AS DIRECTED. (TO BE PROVIDED IN FIELD)



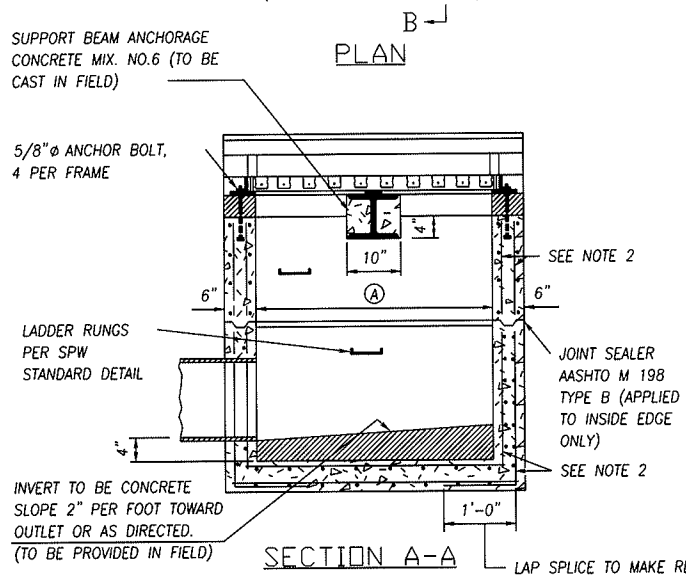
PLAN

INLET TYPE	DIMENSIONS	
	A	B
NR OPEN THROAT	3'-9 1/2"	2'-6 3/8"
NR CLOSED THROAT	3'-9 1/2"	1'-10 3/8"

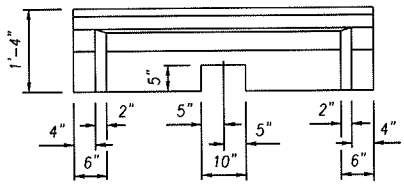


PLAN

PRECAST CURB



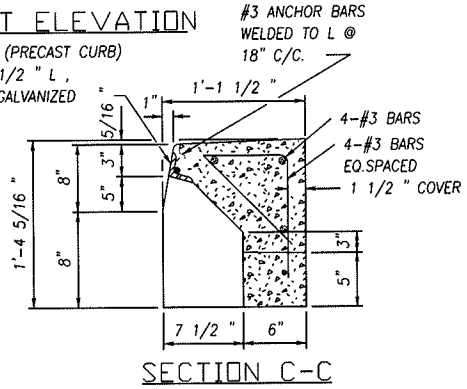
SECTION A-A



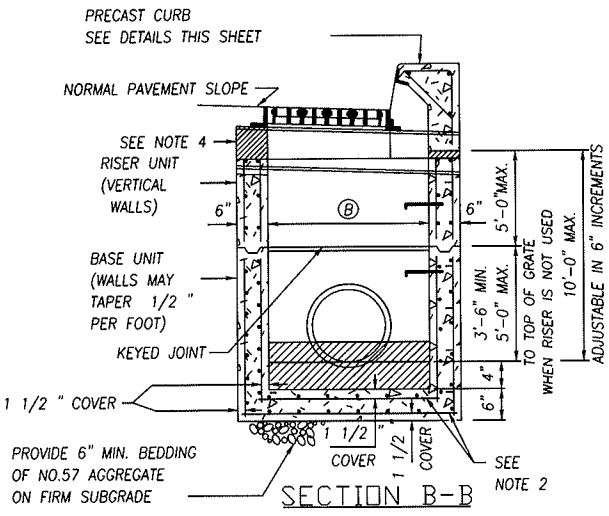
FRONT ELEVATION

(PRECAST CURB)

2 1/2 "x2 1/2 "x 1/2 " L , 4'-9 1/2 " LONG. GALVANIZED



SECTION C-C



SECTION B-B

GENERAL NOTES

1. CONCRETE TO BE MIX NO.6 (4500PSI)
2. REINFORCING-2 LAYERS OF 4x4-W4.0xW4.0 WELDED WIRE FABRIC.
3. THREADED PLASTIC INSERTS TO BE PROVIDED FOR HANDLING.
4. GRADE AND SLOPE ADJUSTMENTS COMPLETED IN THE FIELD USING CONCRETE MIX NO.6.
5. PIPE OPENINGS TO BE PROVIDED AS REQUIRED, FOR SIZE, LOCATION AND INVERT ELEVATIONS REFER TO CONSTRUCTION PLANS.
6. PLACEMENT OF SUBGRADE DRAINAGE WILL BE AS DIRECTED BY THE ENGINEER OR AS NOTED ON THE CONSTRUCTION PLANS.
7. LADDER RUNGS SHALL BE IN ACCORDANCE WITH SPW STANDARD DETAIL
8. OMIT SUPPORT BEAM W/ CLOSED THROAT VERSION

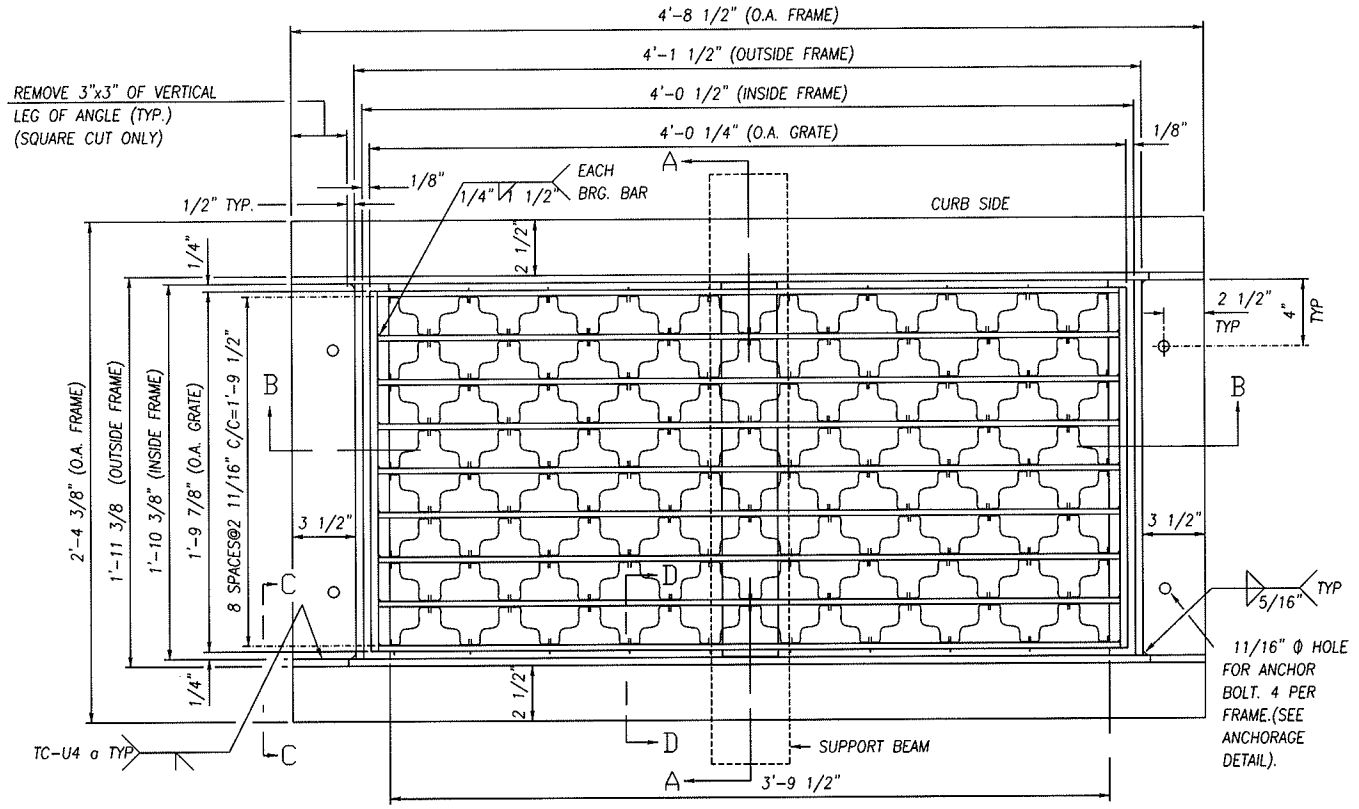
REVISION 01/01/14

CITY OF SALISBURY
SALISBURY, MD

APPROVED
1/1/14
DATE
Amanda Pollack
DEPUTY DIRECTOR

PRECAST NR INLET OPEN AND CLOSED THROAT

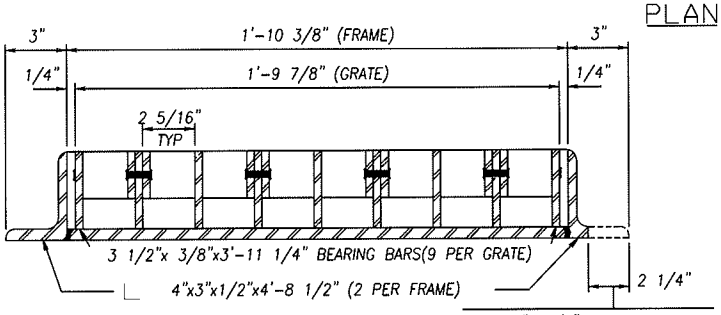
DATE	11/19/09
SCALE	NONE
DWG. NO.	STD50052
STD. NO.	500.52



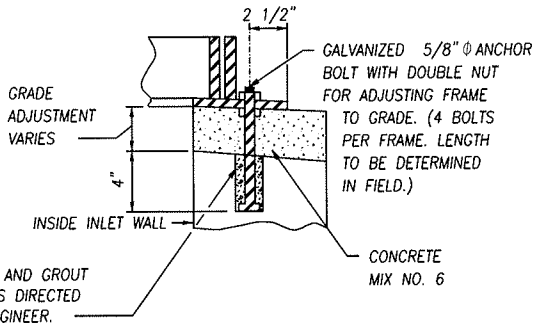
PLAN

GENERAL NOTES

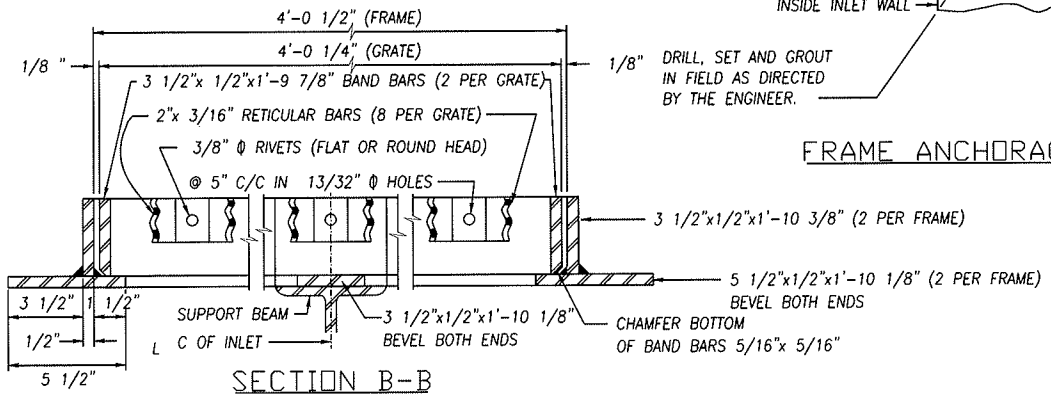
1. FRAMES & GRATES TO BE SQUARE, FLAT & TRUE.
2. STRUCTURAL STEEL SHALL BE A.S.T.M. A-36.
3. FRAMES & GRATES TO BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH A.S.T.M. A-123.



SECTION A-A



FRAME ANCHORAGE DETAIL

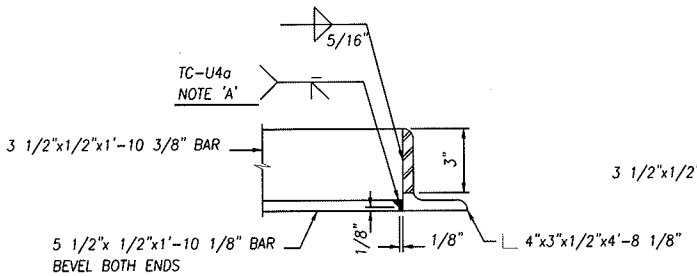


SECTION B-B

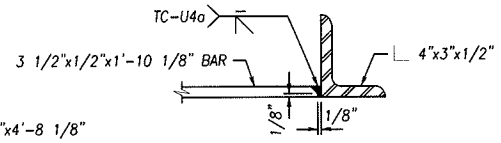
REVISION 01/01/14

CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack DEPUTY DIRECTOR	STANDARD NR INLET FRAME & GRATE	DATE 2/19/10 SCALE N.T.S. DWG. NO. STD500.53 STD. NO. 500.53

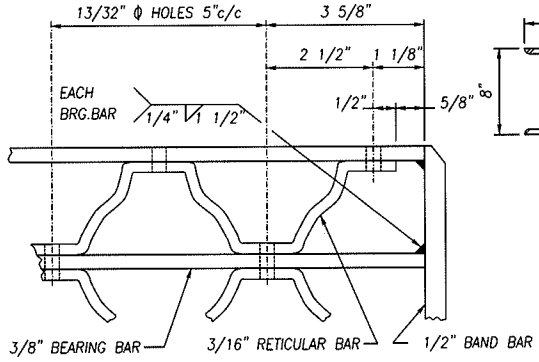
NOTE 'A' – WELD 5 1/2"x1/2" BAR TO 4"x3"x1/2" ∟ BEFORE WELDING 3 1/2"x1/2" BAR



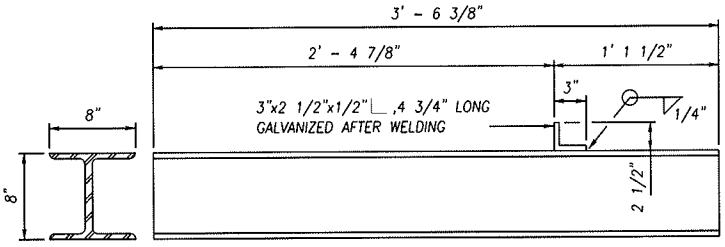
SECTION C-C



SECTION D-D
(GRATE NOT SHOWN)



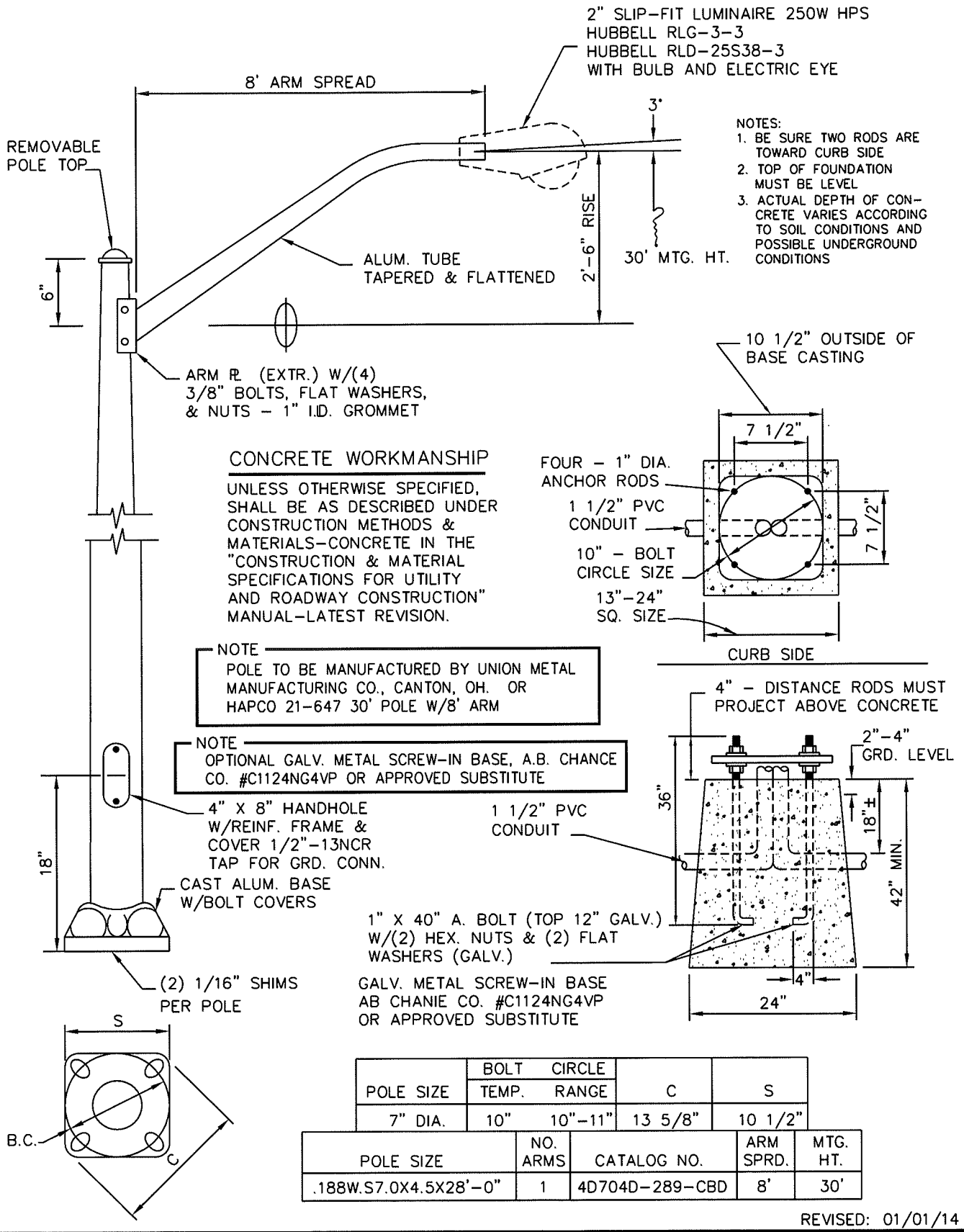
GRATING DETAIL



SUPPORT BEAM
W8x31 (GALVANIZED)

REVISION 01/01/14

CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack DEPUTY DIRECTOR	STANDARD NR INLET FRAME, GRATE AND SUPPORT BEAM DETAILS	DATE 2/19/10 SCALE N.T.S. DWG. NO. STD50054 STD. NO. 500.54



POLE SIZE	BOLT CIRCLE TEMP.	BOLT CIRCLE RANGE	C	S
7" DIA.	10"	10"-11"	13 5/8"	10 1/2"

POLE SIZE	NO. ARMS	CATALOG NO.	ARM SPRD.	MTG. HT.
.188W.S7.0X4.5X28'-0"	1	4D704D-289-CBD	8'	30'

REVISED: 01/01/14

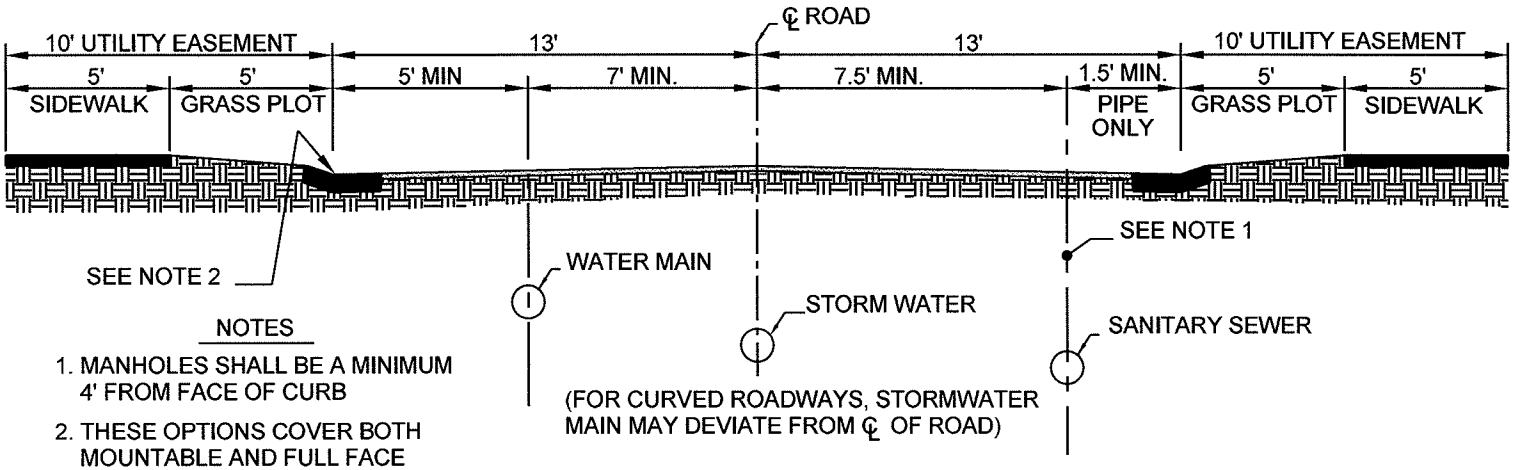
CITY OF SALISBURY
SALISBURY, MD

APPROVED
1/1/14
DATE
Amanda Pollack
CITY ENGINEER

LIGHTING POLE & FOUNDATION

DATE	10/14/85
SCALE	NONE
DWG. NO.	STD60001
STD. NO.	600.01

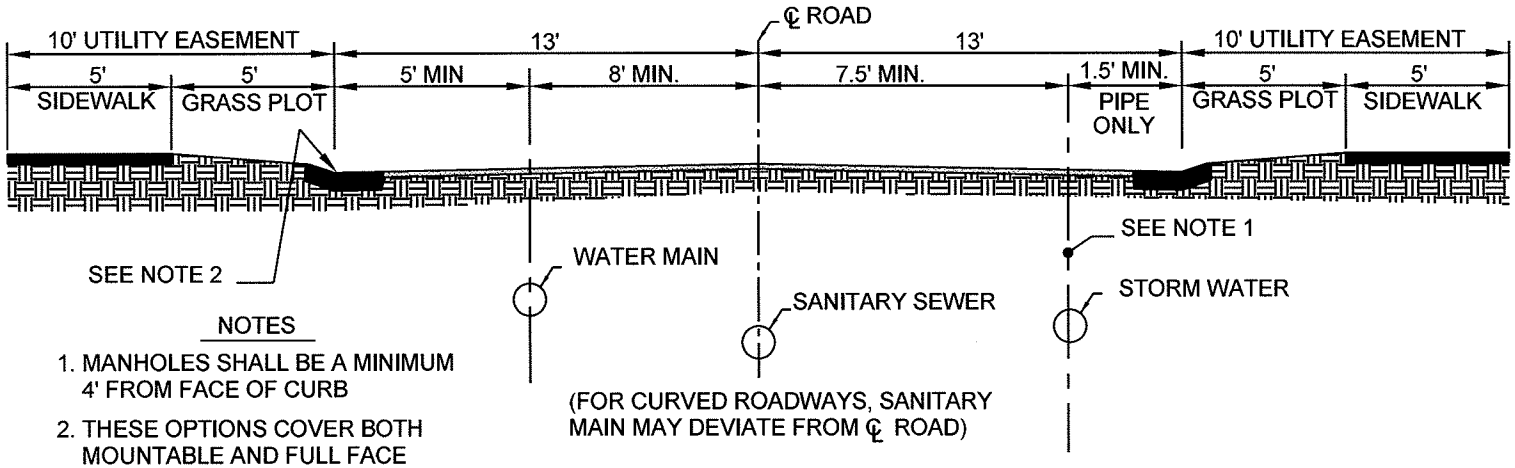
OPTION A



NOTES

1. MANHOLES SHALL BE A MINIMUM 4' FROM FACE OF CURB
2. THESE OPTIONS COVER BOTH MOUNTABLE AND FULL FACE CURB CONSTRUCTION.

OPTION B



NOTES

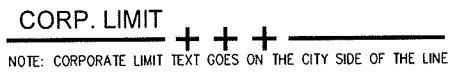
1. MANHOLES SHALL BE A MINIMUM 4' FROM FACE OF CURB
2. THESE OPTIONS COVER BOTH MOUNTABLE AND FULL FACE CURB CONSTRUCTION.

REVISED: 01/01/14

CITY OF SALISBURY SALISBURY, MD	APPROVED 1/1/14 DATE Amanda Pollack CITY ENGINEER	SAMPLE UTILITY SEPARATION TYPICAL 26' LOCAL STREET	DATE 11/08/2006 SCALE NONE DWG NO. STD60009 STD. NO. 600.09

MISCELLANEOUS

CORPORATE LIMIT



EASEMENT LINE

PROPERTY LINE W/BOUNDARY MARKERS

EDGE OF PAVEMENT

RAILWAYS

GAS MAINS

TELEPHONE

ELECTRIC: UNDERGROUND, OVERHEAD

DITCH LINE/BOTTOM OF DITCH

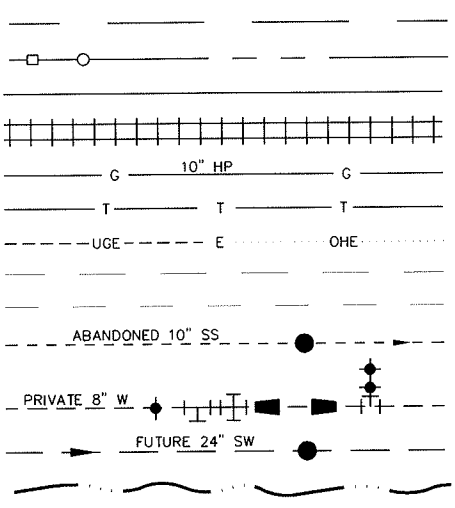
TOP OF BANK/DITCH

ABANDONED, PRIVATE, FUTURE (SAN.) SEWER

ABANDONED, PRIVATE, FUTURE WATER

ABANDONED, PRIVATE, FUTURE STORMWATER

HYDROGRAPHY (RIVERS & PONDS)



HATCH PATTERNS

SPW Utilities
ANSI31 HATCH
2 (X) SCALE

DRAINAGE ESMTS.
NET HATCH
2 (X) SCALE

PRIVATE ESMTS.
DOTS HATCH
.5 (X) SCALE

SWM
GRASS HATCH
2 (X) SCALE

FOREST CONSERVATION
HONEY HATCH
.75 (X) SCALE

EXISTING WORK

INLETS, CURB TYPE, GRATING TYPE

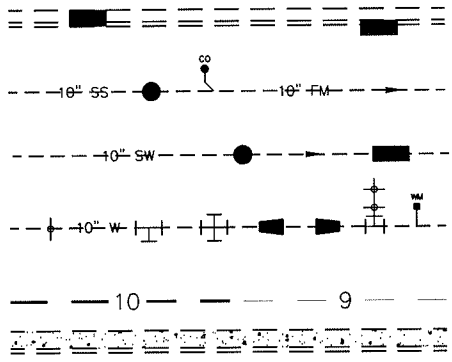
SANITARY SEWER, MANHOLE, CLEAN OUT, FORCE MAIN & FLOW ARROW

STORM WATER DRAIN, MANHOLE & FLOW ARROW

WATER MAIN, VALVE, TEE, CROSS, INCREASER, REDUCER, FIRE HYDRANT & WATER METERS

GRADES/CONTOUR LINES (INDEX, INTERMEDIATE)

CURB & SIDEWALK



PROPOSED / NEW WORK / AS-BUILT

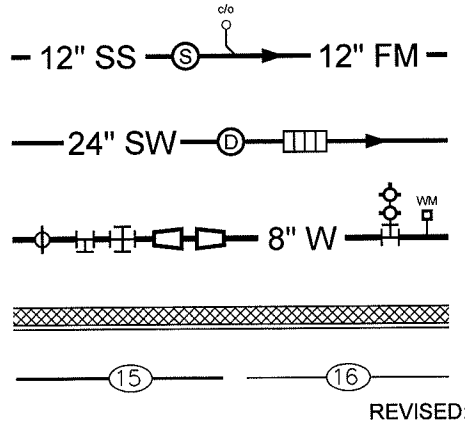
SANITARY SEWER, MANHOLE, CLEAN OUT, FLOW ARROW & FORCE MAIN

STORM WATER DRAIN, MANHOLE GRATE INLET & FLOW ARROW

WATER MAIN, VALVE, TEE, CROSS, INCREASER, REDUCER, FIRE HYDRANT & WATER METER

CURB & SIDEWALK

GRADES/CONTOUR LINES (INDEX, INTERMEDIATE)



REVISED: 01/01/14

CITY OF SALISBURY SALISBURY, MD	**APPROVED** 1/1/14 DATE Amanda Pollack DEPUTY DIRECTOR	**CAD STANDARDS FOR CONTRACT DRAWINGS**	DATE 4/05/99 SCALE NONE DWG. NO. STD60021 STD. NO. 600.21