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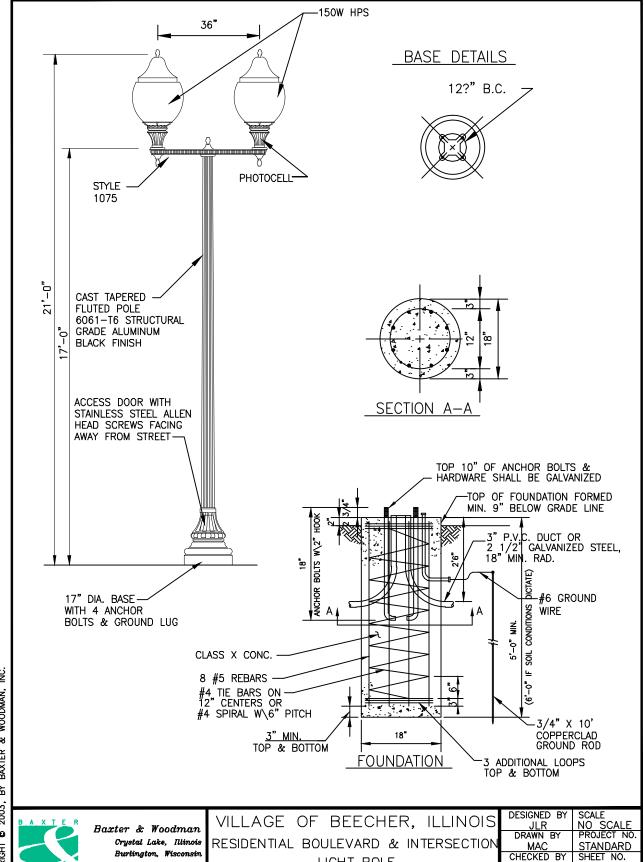
WOODMAN

Consulting Engineers

Baxter & Woodman
Crystal Lake, Illinois
Burlington, Wisconsin
Mokena, Illinois
DeKalb, Illinois

VILLAGE OF BEECHER, ILLINOIS RESIDENTIAL & COMMERCIAL MID BLOCK LIGHT POLE STANDARD

	DESIGNED BY	SCALE
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	DRAWN BY	PROJECT NO.
	MAC	STANDARD
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LIGHT POLE

STANDARD

08-20-03

Illinois

Illinois

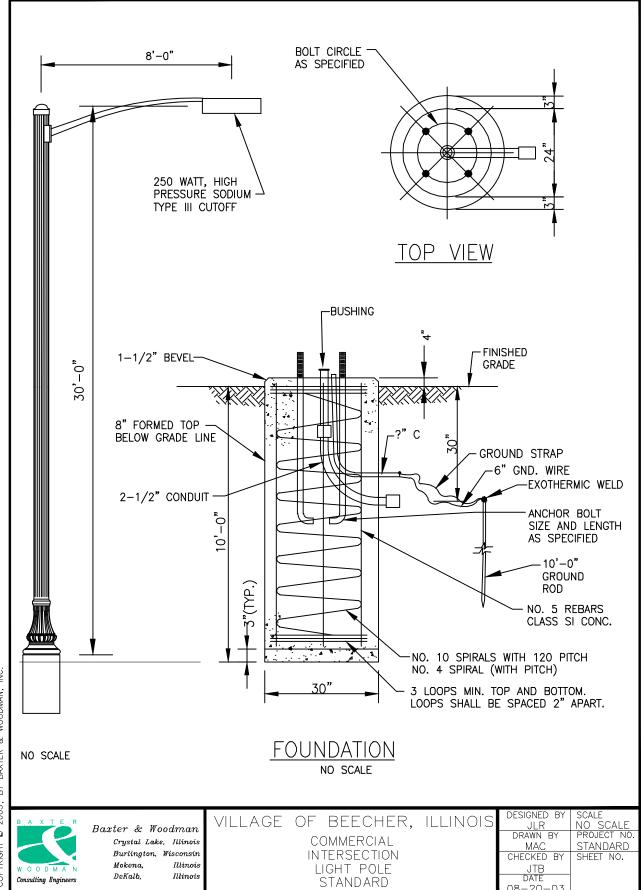
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DeKalb,

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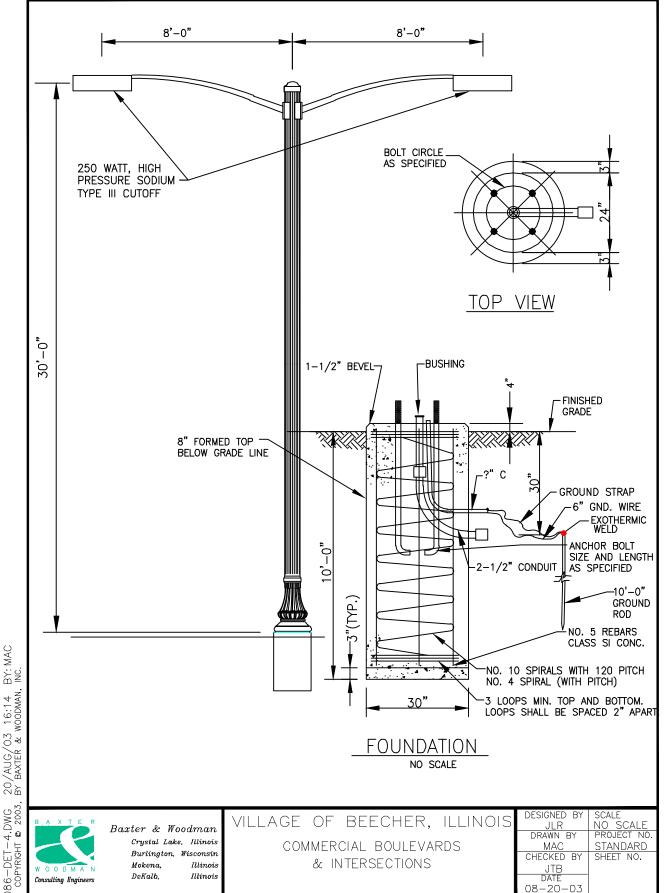
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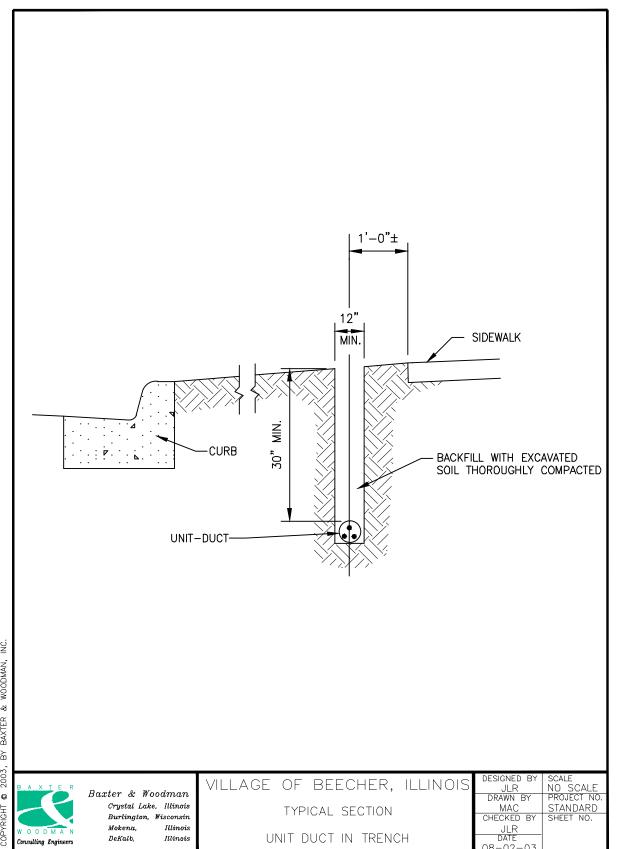
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DeKalb,

Illinois



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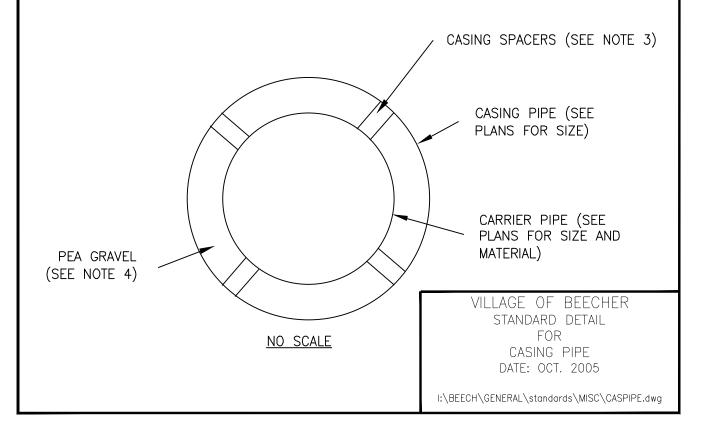
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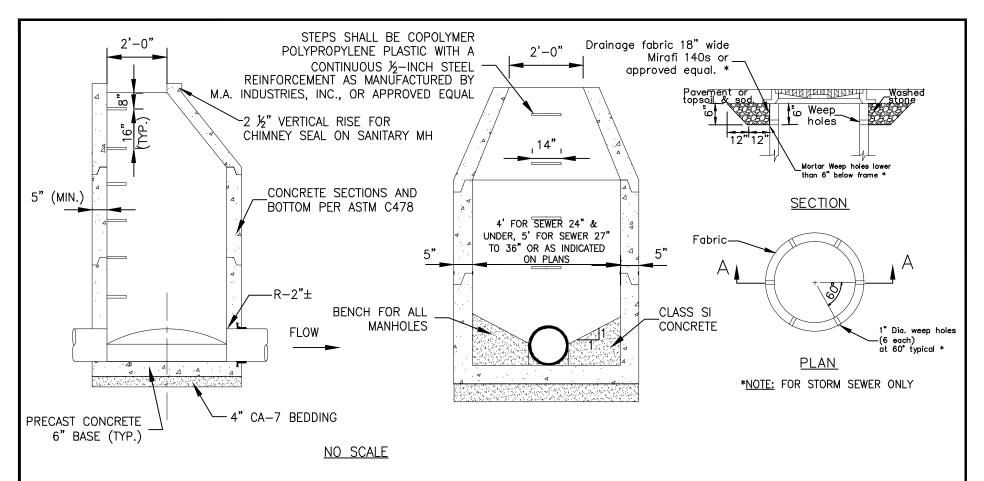
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1. CASING PIPE SHALL BE NEW PIPE CONFORMING TO ASTM C139 GRADE A WITH CONTINUOUS FIELD—WELDED BUTT JOINTS IN ACCORDANCE WITH AWWA C206, A MINIMUM YIELD STRENGTH OF 35,000 PSI, AND THE FOLLOWING MINIMUM WALL THICKNESS:

NOMINAL PIPE SIZE - INCHES		
	<u>UNDER HIGHWAY</u>	<u>UNDER RAILROAD</u>
UNDER 14	0.188	0.2500
14 AND 16	0.250	0.3125
18	0.250	0.3125
20	0.250	0.3750
24	0.312	0.4375
30	0.312	0.5000
36	0.375	0.5625
42	0.375	0.563
48	0.375	0.625
54	0.500	0.719
60	0.575	0.781
66	0.650	0.875
72	0.650	0.938

- 2. COAT EXTERIOR SURFACES OF THE CASING PIPE WITH COAL-TAR EPOXY COMPLYING WITH AWWA C210.
- 3. PROVIDE CARRIER PIPE SUPPORT SYSTEM TO POSITION CARRIER PIPE AT THE INDICATED ELEVATION AND SLOPE WITHIN THE CASING, USING POWERSEAL CASING CHOCK MODEL 4810 STAINLESS STEEL SPACERS CONSISTING OF 4 GAUGE TYPE 304 STAINLESS STEEL SHELLS, PVC LINER, HIGH MOLECULAR WEIGHT POLYMER RUNNERS, AND STAINLESS STEEL BOLTS AND LOCK NUTS, OR APPROVED EQUAL. A MINIMUM OF THREE SPACERS SHALL BE PROVIDED PER CARRIER PIPE LENGTH, ON 6-FOOT CENTERS.
- 4. FILL ANNULAR SPACE BETWEEN CARRIER AND CASING PIPES FOR ALL PIPES EXCEPT WATER MAINS WITH PEA GRAVEL.
- 5. CONSTRUCT END SEALS WITH PREMANUFACTURED RUBBER END SEALS MADE SPECIFICALLY FOR THIS PURPOSE.
- 6. FILL VOIDS AROUND EXTERIOR OF CASING PIPE WITH MEARL GEOFOAM LIQUID CONCENTRATE LOW DENSITY CELLULAR CONCRETE GROUT HAVING A MINIMUM NET DENSITY OF 45 PCF AND A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS OF 160 PSI.





- 1. SANITARY MANHOLES SHALL HAVE WATERSTOP GASKETS CAST INTO STRUCTURES AT ALL PIPE PENETRATIONS. (SEE MANHOLE PIPE CONNECTION DETAIL)
- 2. SANITARY MANHOLES SHALL HAVE CRETEX EXTERNAL CHIMNEY SEALS.
- 3. SANITARY MANHOLES SHALL HAVE INTEGRAL BASES.
- 4. MANHOLE BARREL JOINTS SHALL BE TONGUE AND GROOVE TYPE WITH TWO ROWS OF EXTRUDIBLE PREFORMED PLASTIC GASKET MATERIAL (BUTYL ROPE).
- 5. MACWRAP EXTERNAL JOINT SEALING BANDS IN ACCORDANCE WITH ASTM C-877, OR APPROVED EQUIVALENT, MUST BE PROVIDED AT SANITARY MANHOLE JOINTS.
- 6. INTERIOR JOINTS SHALL BE "BUTTERED" WITH NON-SHRINK GROUT.
- 7. STORM MANHOLES SHALL HAVE A WALL THICKNESS OF 6" FOR 5' DIAMETER STRUCTURES AND 7" FOR 6' DIAMETER STRUCTURES
- 8. SANITARY MANHOLES SHALL PASS VACUUM-TESTING PER ASTM C-1244.
- 9. SEE CASTING INSTALLATION AND ADJUSTING DETAIL FOR CASTING REQUIREMENTS.

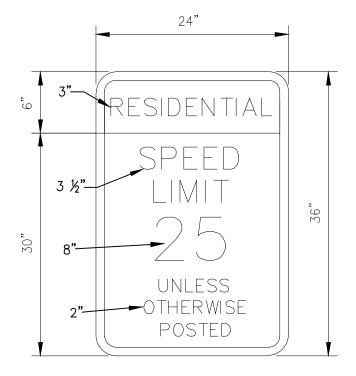
VILLAGE OF BEECHER STANDARD DETAIL FOR MANHOLE TYPE A DATE: OCT. 2005

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VILLAGE OF BEECHER STANDARD DETAIL FOR NO PARKING SIGN

DATE: NOV. 2005



- 1. PREFERRED LETTER SIZES NOTED.
- 2. PLACE ABOVE WEIGHT LIMIT SIGN ON SAME POST.
- 3. POSTED AT ALL ENTRANCES TO SUBDIVISION.

VILLAGE OF BEECHER
STANDARD DETAIL
FOR
RESIDENTIAL SPEED
LIMIT SIGN
DATE: NOV. 2005

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1. SIGN POSTS

- A. All sign posts shall be made of a square two piece quick punch assembly and shall be 12—gauge hot dipped galvanized steel.
- B. The base post shall be a minimum of 36 inches in length and shall measure a minimum of 2 inches O.D. square. The sign post length shall vary depending on the sign in order to maintain a distance of a minimum of 7 feet from grade to the bottom of the sign and shall measure a minimum of 1 $\frac{3}{4}$ inches O.D. square.
- C. The base post shall be driven plumb into undisturbed soil with a maximum of 3 inches above grade. The top of the post shall not be distorted or damaged from driving it into the soil.
- D. The assembly shall be secured with a galvanized or equal bolt, flat washer, and lock nut. The end of bolt is to be peened over so the lock nut cannot be removed.

2. SIGNS

- A. Street name sign blades shall be 9—inch wide extruded aluminum with white diamond grade sheeting. Street names shall be made of 6 inch series "B" letters. The street designation suffix shall be made of 3 inch series "B" letters. The letters shall be placed straight and evenly spaced.
- B. The base color shall be diamond grade white with green E.C. film lettering and shall vary in length according to the street name. The Village of Beecher logo shall be on the left side of the sign and shall begin 3 inches from the end of the blade. The lettering shall begin 2 inches from the logo and end 3 inches from the end of the blade.
- C. Stop signs (R1-1) shall be 30—inch with diamond grade VIP sheeting. The ALL WAY" placard (R1-4) shall be applied to all stop signs at all way stop intersections.
 - D. Stop signs (R1—1) shall be 36—inch with diamond grade VIP sheeting at all intersections with Illinois Route 1 (Dixie Highway).
 - E. Yield signs (R1-2) shall be 36-inch with diamond grade VIP sheeting.
 - F. Speed limit signs for local roads shall have black lettering and borders on a white background with diamond grade VIP sheeting.
 - 1. Speed limit signs for local roads shall be 24—inch x 36—inch with "RESIDENTIAL" "25 MPH" "UNLESS OTHERWISE POSTED" text.
 - 2. Speed limit signs (R2-1) for collector streets shall be 24-inch x 30-inch.

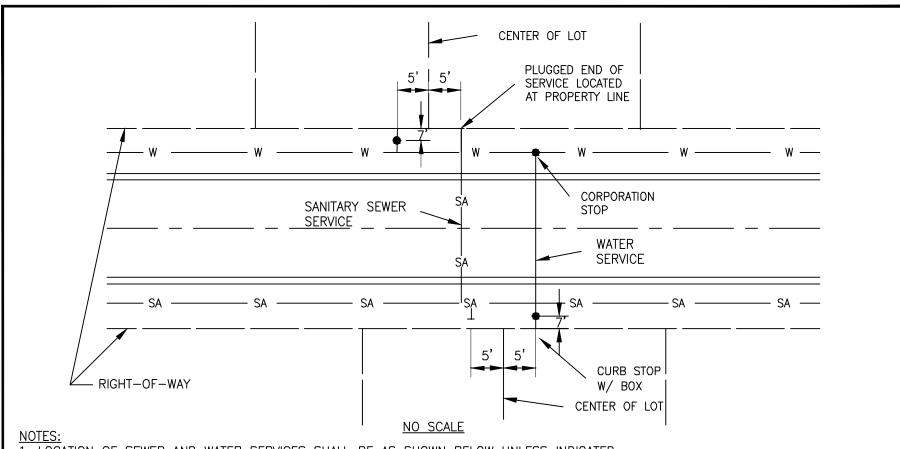
VILLAGE OF BEECHER
STANDARD DETAIL
FOR
SIGN STANDARDS
SHEET 1 OF 2
DATE: NOV. 2005

- G. WEIGHT LIMIT 5 TONS (R12-1) signs shall have black lettering and borders on a white background and shall be 24-inch x 30-inch with diamond grade VIP sheeting.
- H. Sprinkling restriction signs shall have black lettering and borders on a white background and shall be $24-inch \times 30-inch$ with diamond grade VIP sheeting with "SPRINKLING ALLOWED" "6AM TO 10AM" "6PM TO 10PM" "0DD/EVEN" text.
- I. NO PARKING ON VILLAGE STREETS AFTER 2 INCH SNOWFALL sings shall have red lettering and borders on a white background and shall be 24—inch x 30—inch with diamond grade VIP sheeting.

3. HARDWARE AND INSTALLATION

- A. All banding, buckles and clips shall be stainless steel. Banding shall have a minimum of 1/2 inch width and shall have a minimum of 30 thousands inch thickness.
- B. All street name signs shall be mounted on a street light pole using a 14 inch wing bracket for blades under 36 inches and a 24 inch wing bracket for blades 36 inches or over. All wing brackets shall be made for extruded blades; mounted to street light poles with three bands; secured using 5/16 inch by 1 1/4 inch galvanized bolts or equal, with a flat washer and lock nut; and be placed a minimum of 12 feet above grade on the light pole. Regulatory signs shall be mounted with vandal—proof hardware.
- C. All streets name signs shall be placed a minimum of 12 feet from grade and placed parallel to the street named.
- D. All sign installations shall conform to the Manual on Uniform Traffic Control Devices, 2003 Edition and shall be consistent with the approved Traffic Control, Striping, and Signage Plans. In the case of a conflict, the Village of Beecher Code shall take precedence.
- E. For new subdivision construction, permanent street signs may be mounted on a temporary post with a minimum of 2-pound green or galvanized U post and with a minimum length of 12 feet. Street signs and regulatory signs are to be erected prior to the issuance of the first building permit. The signs shall be installed in accordance with the approved signage plan. The Developer is solely responsible for the maintenance of the sign installations until the Village accepts the signs.
- F. All signs on temporary posts will be transferred to a light pole or a square post where there is no light pole. Signs must be transferred to the pole/post at the time street lighting is installed or at the request of the Village.

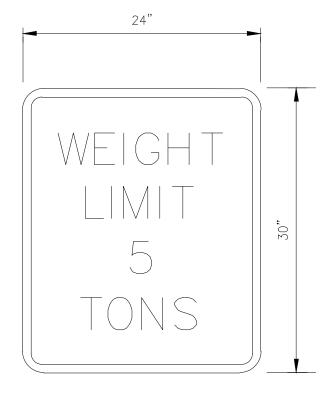
VILLAGE OF BEECHER
STANDARD DETAIL
FOR
SIGN STANDARDS
SHEET 2 OF 2
DATE: NOV. 2005



- 1. LOCATION OF SEWER AND WATER SERVICES SHALL BE AS SHOWN BELOW UNLESS INDICATED OTHERWISE ON PLANS.
- 2. THE END OF EACH WATER SERVICE SHALL BE MARKED WITH A BLUE 4"X4" POST, AND STAMPED "W" ON THE CURB.
- 3. THE END OF EACH SANITARY SEWER SERVICE SHALL BE MARKED WITH A GREEN 4"X4" POST, AND STAMPED "S" ON THE CURB.
- 4. WATER SERVICES SHALL END ONE FOOT INTO PROPERTY UNLESS OTHERWISE INDICATED ON PLANS.
- 5. B-BOXES SHALL NOT BE PLACED IN THE DRIVEWAY.

VILLAGE OF BEECHER
STANDARD DETAIL
FOR
TYPICAL SERVICE LATERALS
DATE: OCT. 2005

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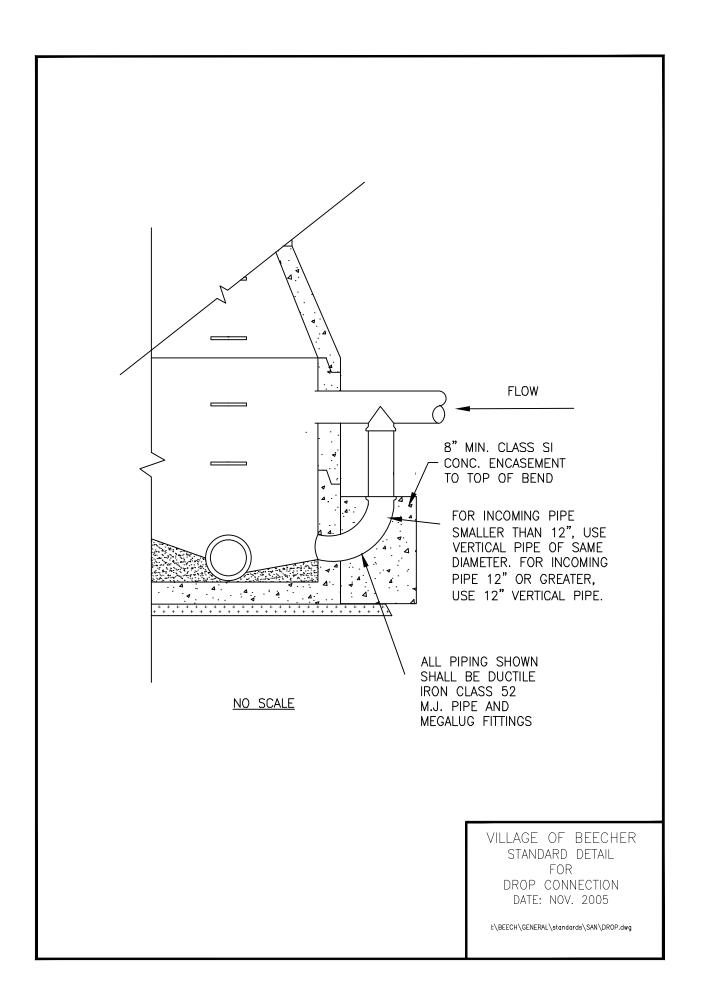


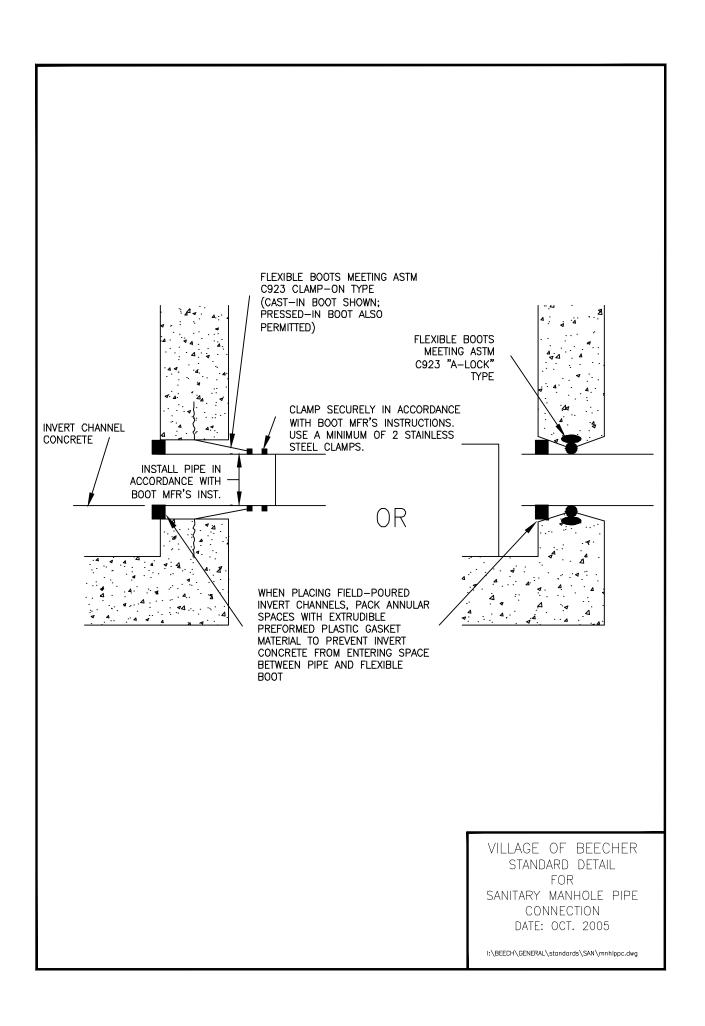
NOTE: PLACE UNDERNEATH SPEED LIMIT SIGN ON SAME POST.

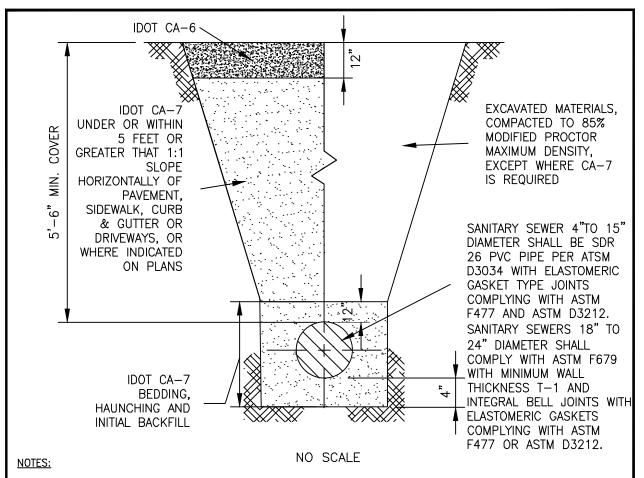
VILLAGE OF BEECHER
STANDARD DETAIL
FOR
5 TON WEIGHT LIMIT SIGN

DATE: NOV. 2005

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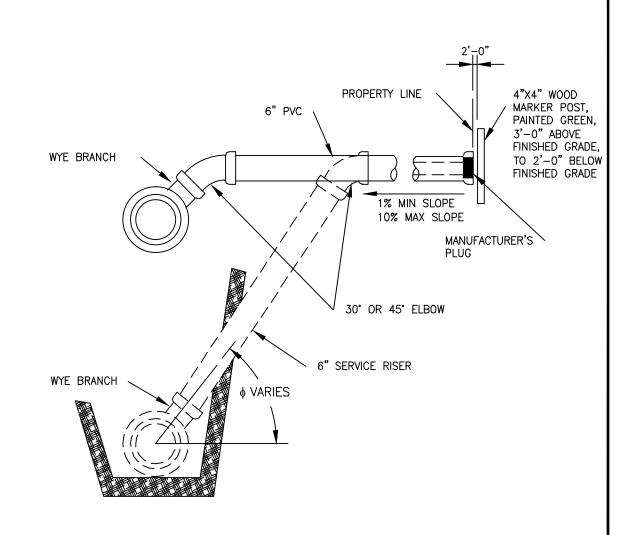




- 1. WHERE INDICATED ON THE PLANS, SANITARY SEWER PRESSURE PIPE SHALL COMPLY WITH ASTM D2241 FOR 160 PSI PRESSURE RATED PIPE SDR 26, MADE OF TYPE 1, GRADE 1 POLYVINYL CHLORIDE CONFORMING TO ASTM D1784. JOINTS SHALL USE PUSH-ON BELL AND SPIGOT TYPE WITH RUBBER RING SEAL GASKETS CONFORMING TO ASTM D3139.
- 2. GRAVITY SANITARY SEWER FITTINGS 4-INCH THROUGH 8-INCH SHALL COMPLY WITH ASTM D3034 SDR26; 10-INCH AND LARGER FITTINGS SHALL BE MOLDED OR FABRICATED IN ACCORDANCE WITH SECTION 7.11 OF ASTM D3034 WITH MANUFACTURER'S STANDARD PIPE BELLS AND GASKETS. GRAVITY SEWER RISERS AND SERVICE PIPE AND FITTINGS SHALL COMPLY WITH ASTM D3034 FOR PVC PIPE, WITH AN SDR OF 26.
- 3. PRESSURE SANITARY SEWER FITTINGS SHALL BE FACTORY FABRICATED WITH ATTACHED MAIN LINE COUPLING, WITH SAME RATING AS PIPE. PRESSURE SEWER RISERS AND SERVICE PIPE AND FITTINGS SHALL COMPLY WITH ASTM D2241, 160 PSI PRESSURE RATED, SDR 26 PIPE. SEPARATE NOTIFICATION SHALL BE PROVIDED TO PUBLIC WORKS DEPARTMENT PRIOR TO INSTALLING PRESSURE SANITARY SEWERS.
- 4. ALL SANITARY SEWERS SHALL BE PRESSURE TESTED IN ACCORDANCE WITH ARTICLE 31-1.11B(3) OF THE STANDARD SPECIFICATIONS FOR SEWER & WATER CONSTRUCTION IN ILLINOIS, FIFTH EDITION; AND DEFLECTION TESTED IN ACCORDANCE WITH ARTICLE 31-1.11B(4) OF THE STANDARD SPECIFICATIONS FOR SEWER & WATER CONSTRUCTION IN ILLINOIS, FIFTH EDITION. DEFLECTION TESTING SHALL BE DONE NO SOONER THAN 30 DAYS AFTER THE PIPE HAS BEEN BACKFILLED. NO SOONER THAN ONE YEAR AFTER SEWERS HAVE BEEN INSTALLED, THEY SHALL BE INSPECTED BY CLOSED CIRCUIT COLOR TELEVISION TO DETERMINE IF ANY PIPE INSTALLATION DEFECTS HAVE OCCURRED, AND TO DETERMINE THE LOCATION OF SERVICES. ONE COPY OF THE CD/DVD AND WRITTEN INSPECTION REPORT SHALL BE FURNISHED TO THE VILLAGE.
- 5. SEWER PLUGS SHALL BE INSTALLED AT DOWNSTREAM ENDS OF ALL NEW SEWERS AND LEFT IN PLACE UNTIL VILLAGE ACCEPTS SEWERS. SEWER PLUGS SHALL BE INSTALLED AT UPSTREAM ENDS OF NEW SEWERS AT THE END OF EACH DAY'S WORK.

VILLAGE OF BEECHER
STANDARD DETAIL
FOR
SANITARY SEWER INSTALLATION
DATE: OCT. 2005

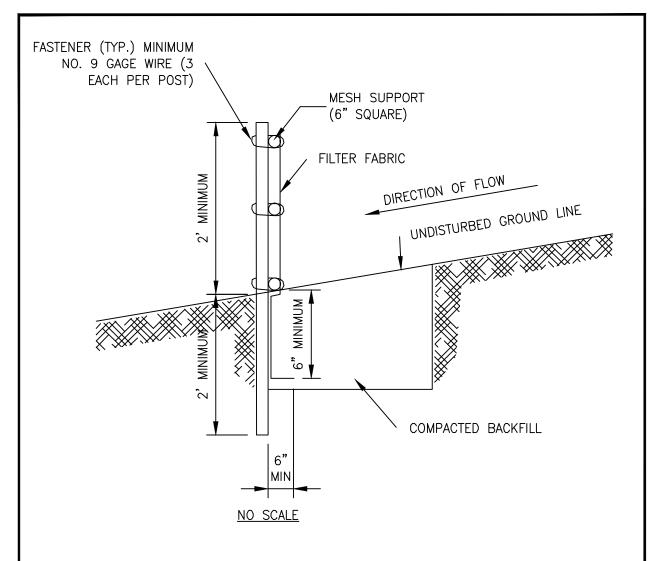
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- 1. IF $\phi < 45^{\circ}$ USE PVC PUSH-ON JOINT WYE, P.V.C. ELBOW, P.V.C. RISER PIPE & P.V.C. TOP ELBOW.
- 2. IF $\phi > 45^{\circ}$ USE DUCTILE IRON M.J. TEE WITH P.V.C./DUCTILE TRANSITION GASKET, DUCTILE IRON RISER PIPE AND DUCTILE IRON TOP ELBOW.
- 3. ALL PVC PIPE AND FITTINGS SHALL BE ASTM D3034, SDR 26, WITH ELASTOMERIC GASKET TYPE JOINTS COMPLYING WITH ASTM F477 AND ASTM D3212, OR PRESSURE—RATED PIPE AND FITTINGS PER ASTM D2241 AS NOTED ON THE PLANS.
- 4. A MINIMUM DISTANCE OF 3 FT IS REQUIRED BETWEEN 45° BENDS.
- 5. TRENCH BACKFILL SHALL BE INSTALLED PER SANITARY SEWER INSTALLATION DETAIL.

VILLAGE OF BEECHER STANDARD DETAIL FOR SEWER SERVICE DATE: OCT. 2005

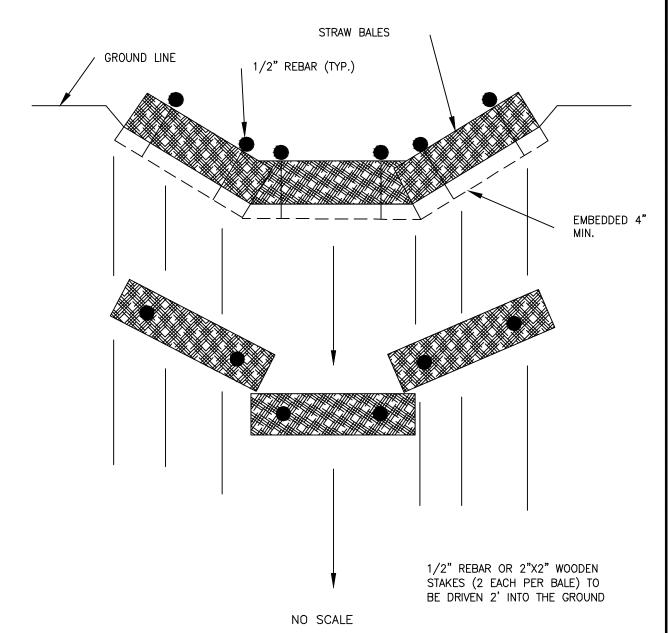
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- 1. TOP AND BOTTOM WIRES OF MESH SUPPORT SHALL BE MINIMUM GAGE NO. 9
- 2. INTERMEDIATE WIRES OF MESH SUPPORTS SHALL BE MINIMUM GAGE NO. 11
- 3. TEMPORARY SEDIMENT FENCE SHALL BE INSTALLED PRIOR TO ANY GRADING WORK IN THE AREA TO BE PROTECTED. THEY SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD AND REMOVED IN CONJUNCTION WITH THE FINAL GRADING.
- 4. FILTER FABRIC SHALL MEET THE REQUIREMENTS OF ILLINOIS URBAN MANUAL MATERIAL SPECIFICATION 592 GEOTEXTILE TABLE 1 OR 2, CLASS T WITH EQUIVALENT OPENING SIZE OF AT LEAST 30 FOR NONWOVEN AND 50 FOR WOVEN.
- 5. FENCE POST SHALL BE EITHER STANDARD STEEL POST OR WOOD POST WITH A MINIMUM SECTIONAL AREA OF 3.0 SQUARE INCHES.
- 6. THE MESH SUPPORT MAY BE OMITTED IF A MAXIMUM OF 5 FEET IS USED FOR POST SPACING, OTHERWISE, POST SPACING MAY BE UP TO TEN FEET.

VILLAGE OF BEECHER
STANDARD DETAIL
FOR
SILT FENCE
DATE: OCT. 2005

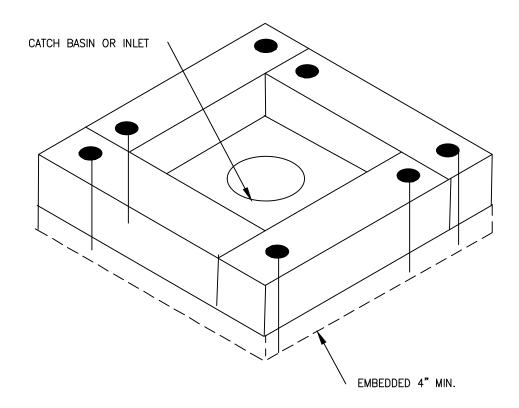
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- 1. BALES SHALL BE PLACED WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
- 2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4", AND PLACED SO THAT BINDINGS ARE HORIZONTAL.
- 3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY EITHER TWO STAKES OR TWO RE—BARS DRIVEN THROUGH THE BALE. THE FIRST STAKE IN EACH BALE SHALL BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE AT AN ANGLE TO FORCE THE BALES TOGETHER. STAKES SHALL BE DRIVEN FLUSH WITH THE BALE.
- 4. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
- 5. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

VILLAGE OF BEECHER STANDARD DETAIL FOR STRAW BALE

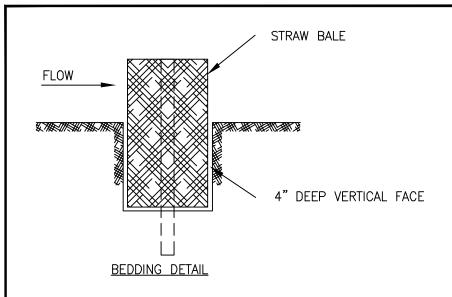
DATE: NOVEMBER 2005 SOIL EROSION\STRAWBAL1.DWG

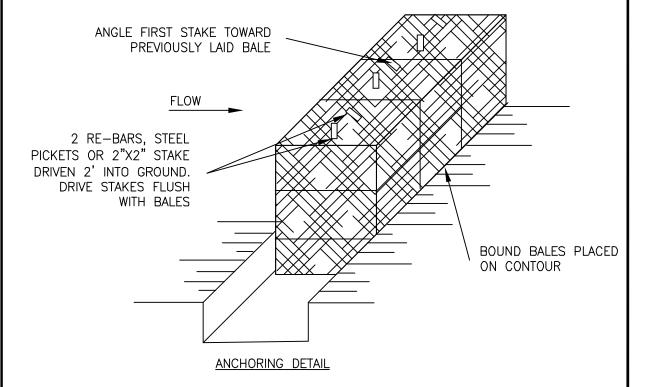


- 1. BALES SHALL BE PLACED WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
- 2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4", AND PLACED SO THAT BINDINGS ARE HORIZONTAL.
- 3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY EITHER TWO STAKES OR TWO RE—BARS DRIVEN THROUGH THE BALE. THE FIRST STAKE IN EACH BALE SHALL BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE AT AN ANGLE TO FORCE THE BALES TOGETHER. STAKES SHALL BE DRIVEN FLUSH WITH THE BALE.
- 4. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
- 5. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

VILLAGE OF BEECHER
STANDARD DETAIL
FOR
STRAW BALES AROUND DRAIN
AREA
DATE: OCT. 2005

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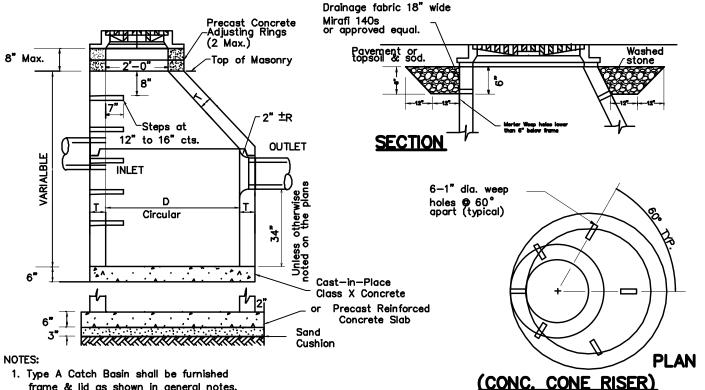
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- 1. BALES SHALL BE PLACED AT THE TOE OF SLOPE OR ON THE CONTOUR AND IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
- 2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4", AND PLACED SO THAT BINDINGS ARE HORIZONTAL.
- 3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY EITHER TWO STAKES OR TWO RE-BARS DRIVEN THROUGH THE BALE. THE FIRST STAKE IN EACH BALE SHALL BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE AT AN ANGLE TO FORCE THE BALES TOGETHER. STAKES SHALL BE DRIVEN FLUSH WITH THE
- 4. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
 5. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS
- SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

VILLAGE OF BEECHER STANDARD DETAIL FOR

STRAW BALE INSTALLATION DATE: OCT. 2005

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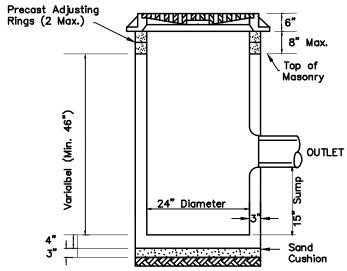


- frame & lid as shown in general notes.
- 2. All Catch Basins shall be 4'-0" in diam... unless noted on the plans.
- 3. Dimension for Precast Reinforced Concrete Risers may vary from the dimension to plus 6".
- 4. See drawings for elev. of invert & diam. of sewer.
- 5. Precast Adusting Rings, 2 ea. max. 8" in height.
- 6. Steps shall be embedded into the wall with a minimum depth of 3".

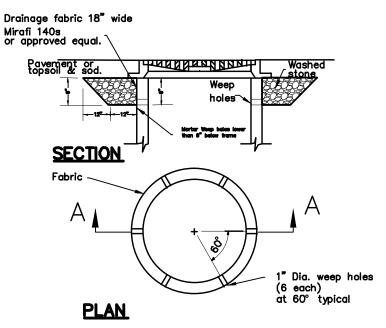
MATERIAL FOR WALLS	D	С	T (Min.)
Precast Reinforced	4'-0"	2'- 6"	4"
Concrete Risers	5'-0"	3'-9"	5"

VILLAGE OF BEECHER STANDARD DETAIL FOR CATCH BASIN TYPE A DATE: OCT. 2005

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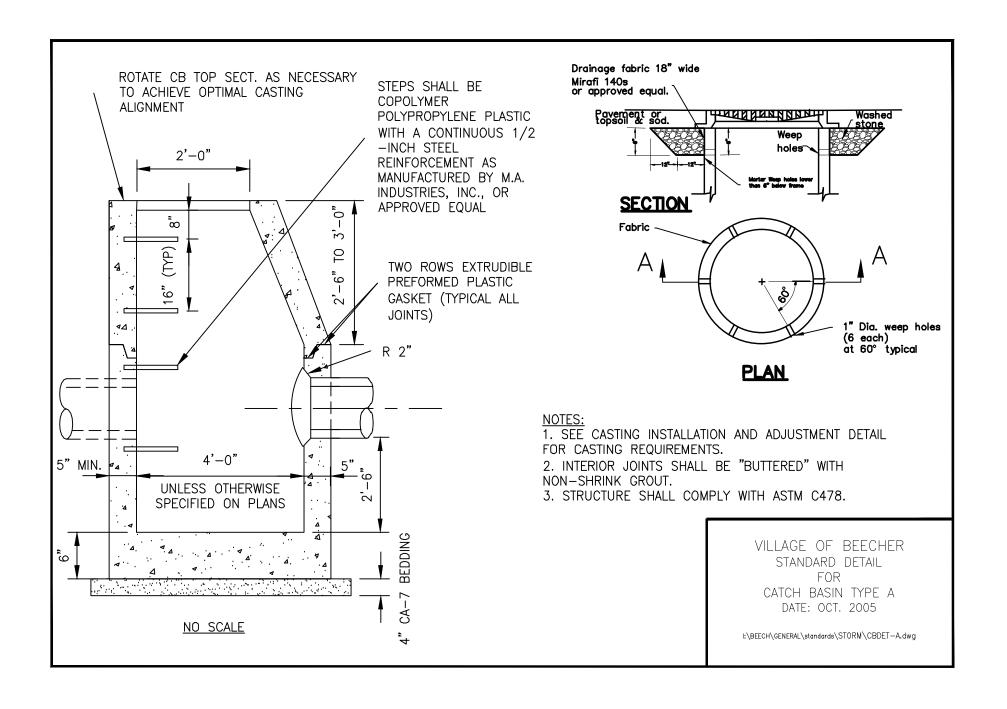


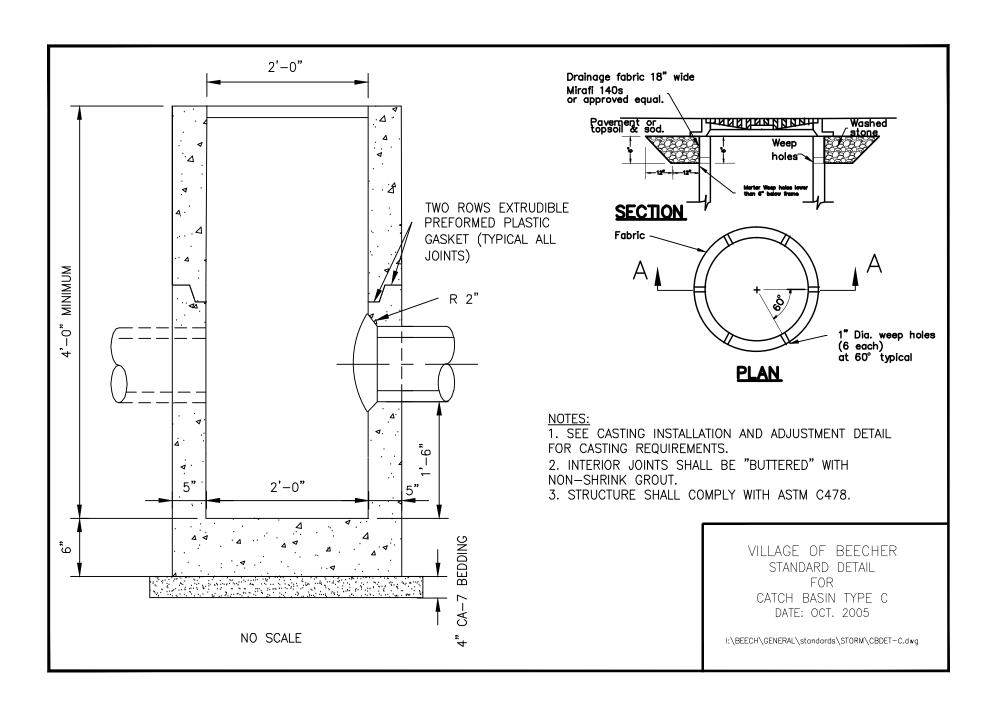
- 1. Frames and lids to be as shown in general notes.
- 2. Catch basins to be of precast reinforced concrete construction only.
- construction only.
 3. For adjustments, use only precast concrete adjusting rings, maximum of 8" total height.
 4. Adjusting rings and frames to be joined with mortar.
 5. For rim and pipe invert elevations, refer to plans.

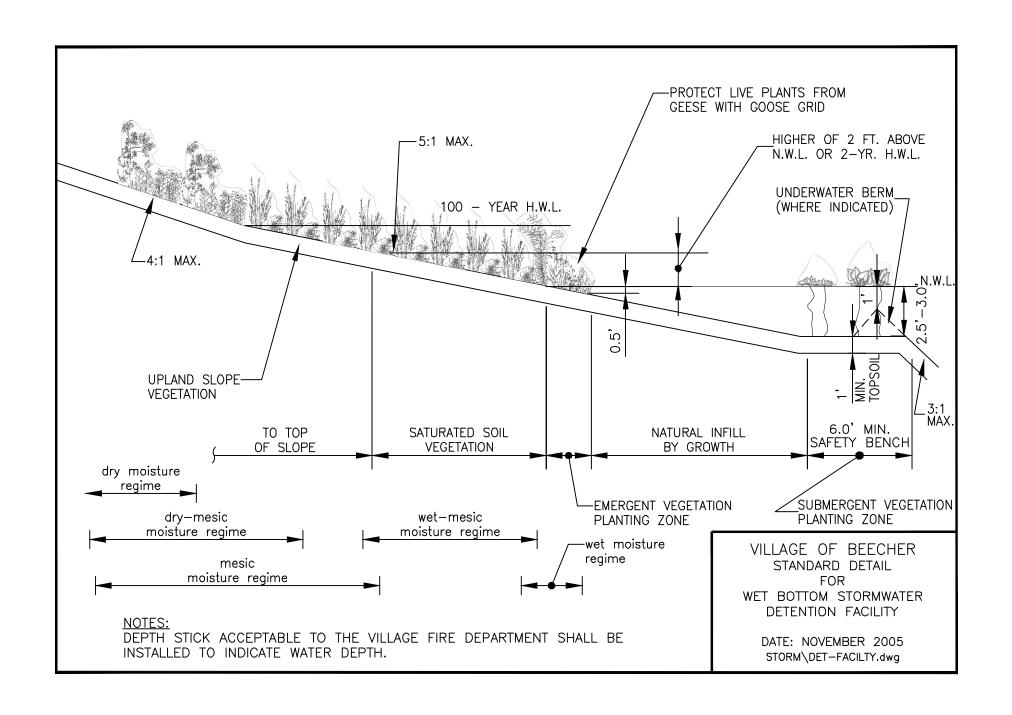


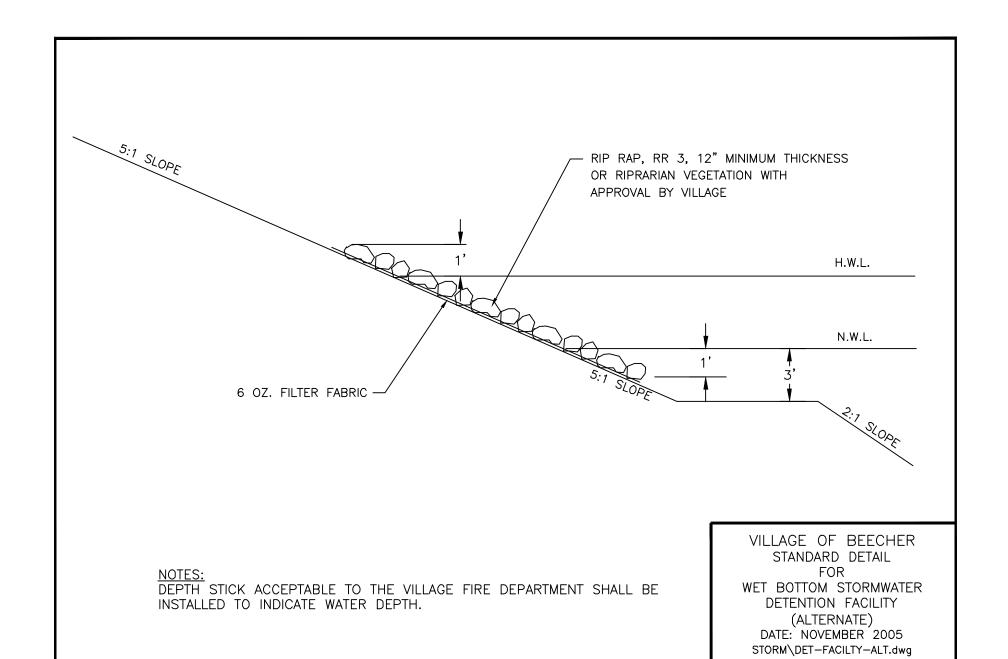
VILLAGE OF BEECHER STANDARD DETAIL FOR 24" TYPE C CATCH BASIN DATE: OCT. 2005

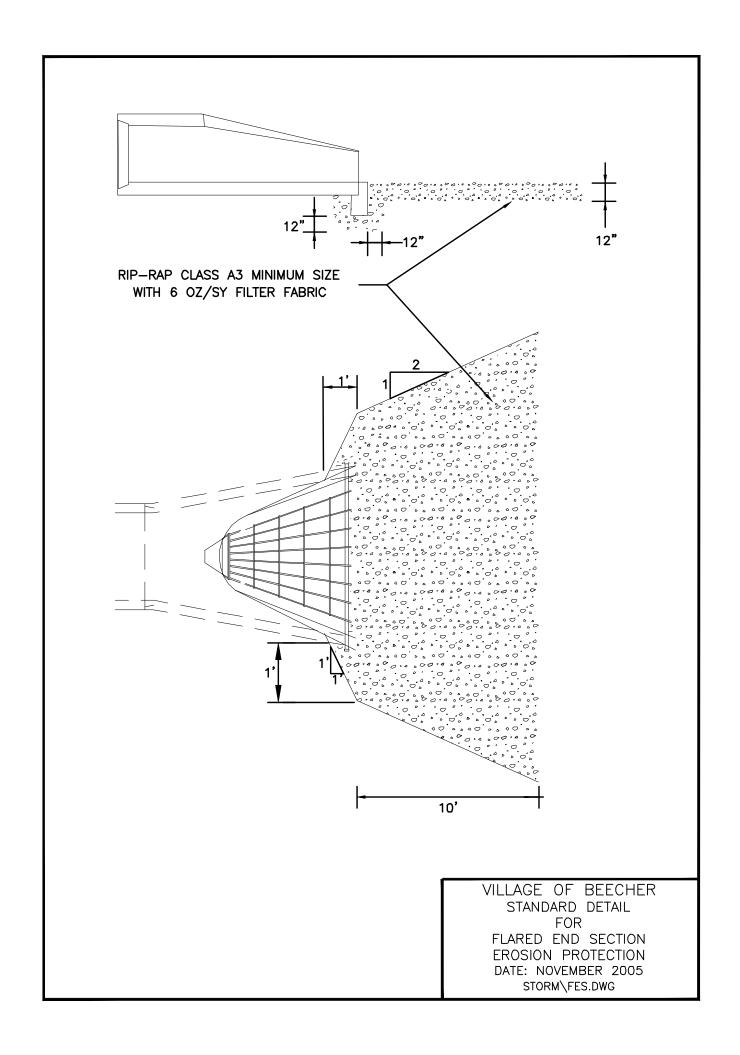
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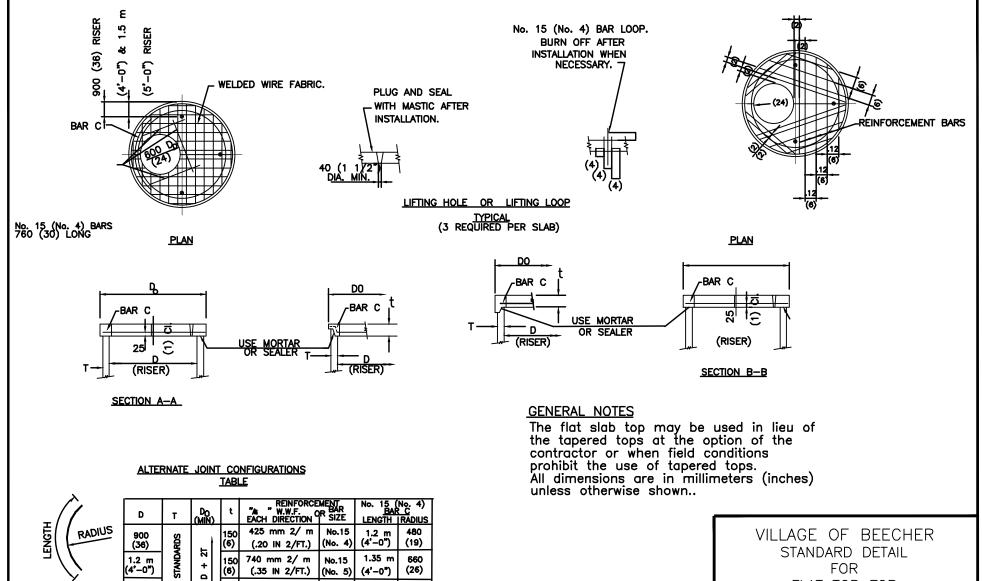












1.5 m

No.15

(No. 5) (5'-0")

740 mm 2/ m

(.35 IN 2/FT.)

1.5 m

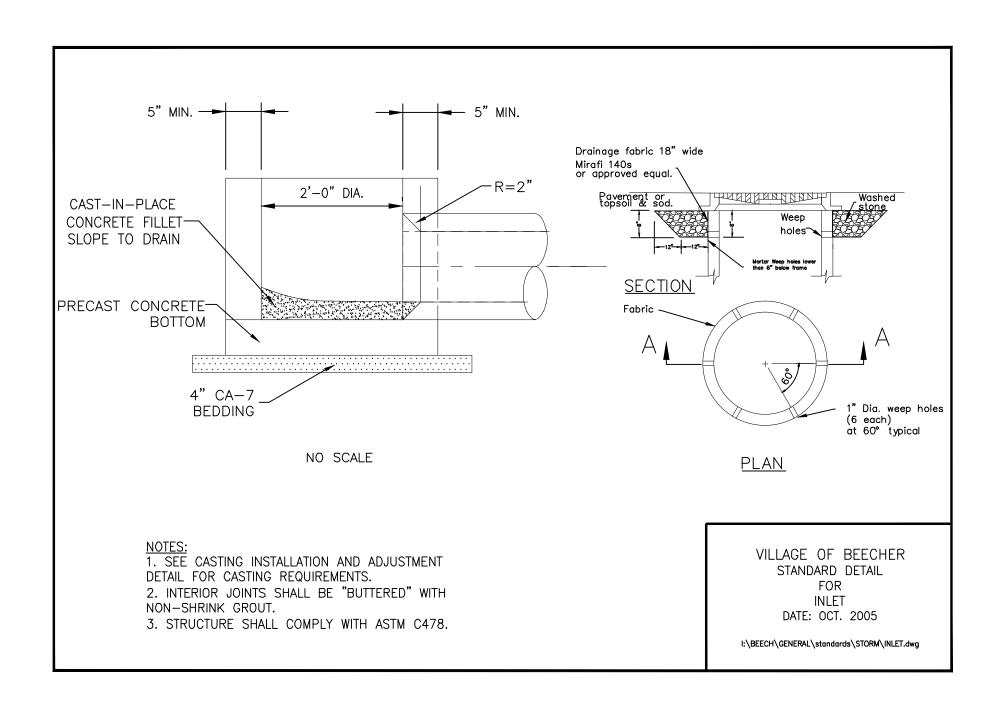
(5'-0")

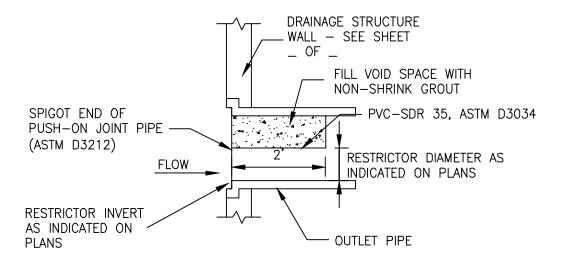
BAR C

810

FOR FLAT TOP FOR STORM MANHOLE, TYPE A

DATE: NOVEMBER 2005 STORM\FLAT-STMH.dwg





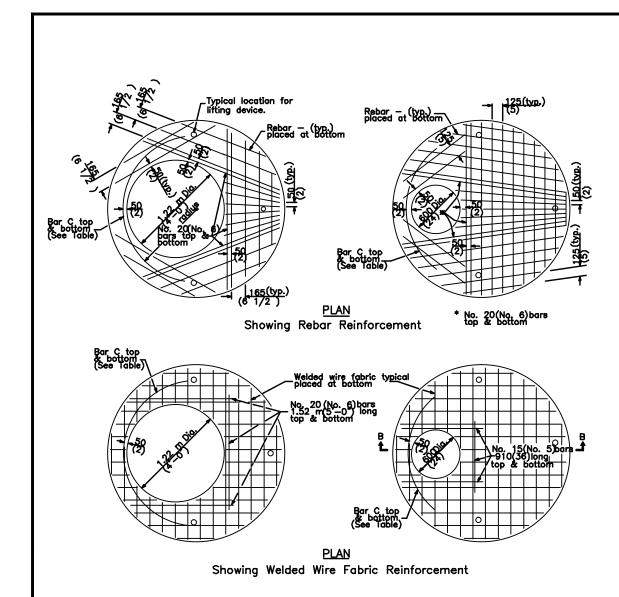
NO SCALE

VILLAGE OF BEECHER STANDARD DETAIL FOR PIPE RESTRICTOR

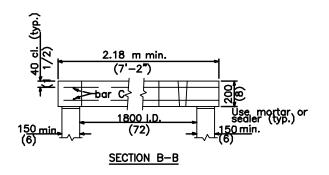
DATE: OCT. 2005

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FLAT TOP FOR STORM MANHOLE, TYPE A, 6' DIA.



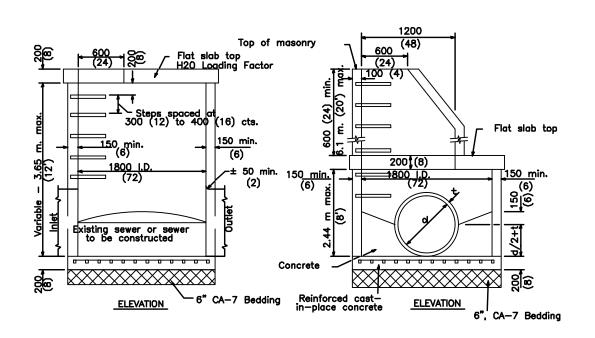
Diameter of opening	Thick- ness	Reinforcement "As" WWF Each direction	Bar Size	No. 15 Bar Length	(No. 4) Radius
600 (24)	200 (8)	2244 mm² /m (1.06) sain./ft.	₩;. 2 8	1,83 (6 = 0 T)	365 381
1.2 m (4'-0")	200 (8)	1736 mm /m (0.82) sq.in./ft.	No. 20 (No. 6)	2.74 ₀ m	(385)

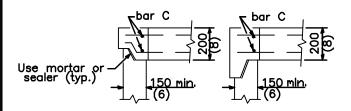


All dimensions are in millimeters (inches) unless otherwise shown.

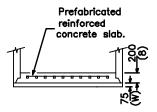
VILLAGE OF BEECHER
STANDARD DETAIL
FOR
FLAT TOP FOR
STORM MANHOLE,
TYPE A, 6' DIA.

DATE: NOVEMBER 2005 Storm\STMH.dwg





ALTERNATE JOINT CONFIGURATIONS

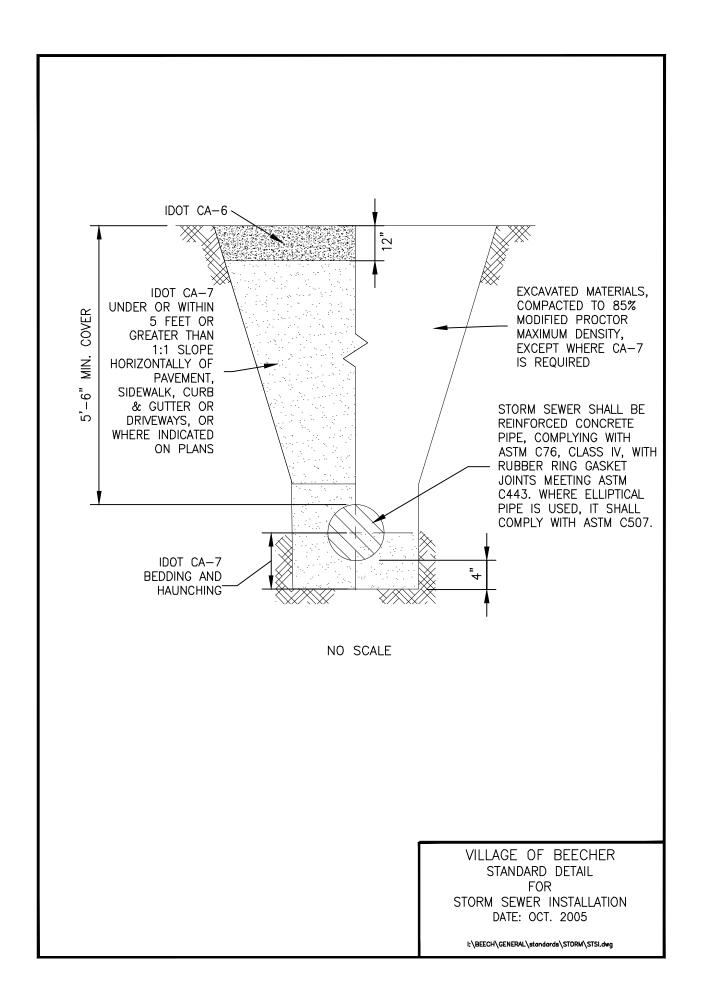


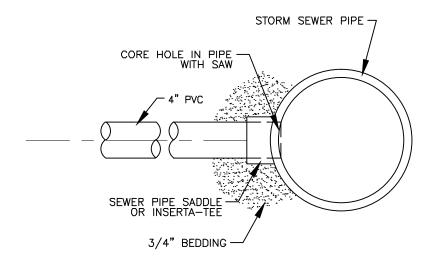
GENERAL NOTES

- Joint configuration and dimensions of flat slab top shall match and fit the riser joint detail.
- 2. Lifting devices shall be approved by the Engineer.
- 3. All dimensions are in millimeters (inches) unless otherwise shown.
- 4. Precast reinforced concrete sections shall be used for materials for walls.

VILLAGE OF BEECHER
STANDARD DETAIL
FOR
STORM MANHOLE,
TYPE A, 6' DIA.
DATE: NOVEMBER 2005

STORM\STMH2.dwg





NO SCALE

NOTES:

1. SEWER PIPE SADDLE SHALL BE INSTALLED PER MANUFACTURERS RECOMMENDATIONS FOR PIPE MATERIAL UTILIZED.

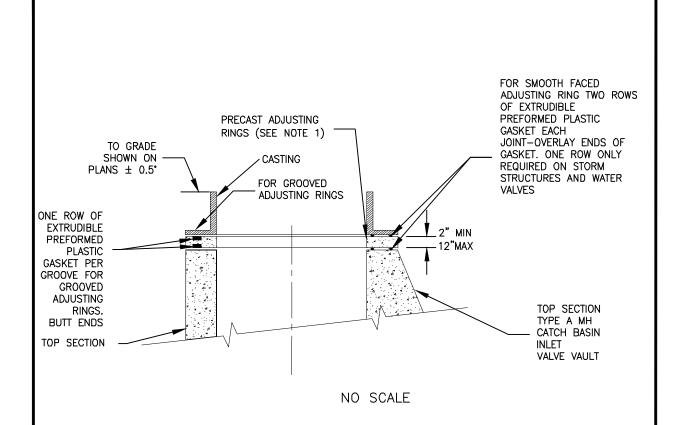
2. PVC SUMP DISCHARGE PIPING SHALL NOT EXTEND BEYOND INTERIOR WALLS OF STORM SEWER.

VILLAGE OF BEECHER STANDARD DETAIL FOR

SUMP PUMP LINE CONNECTION

DATE: NOV. 2005

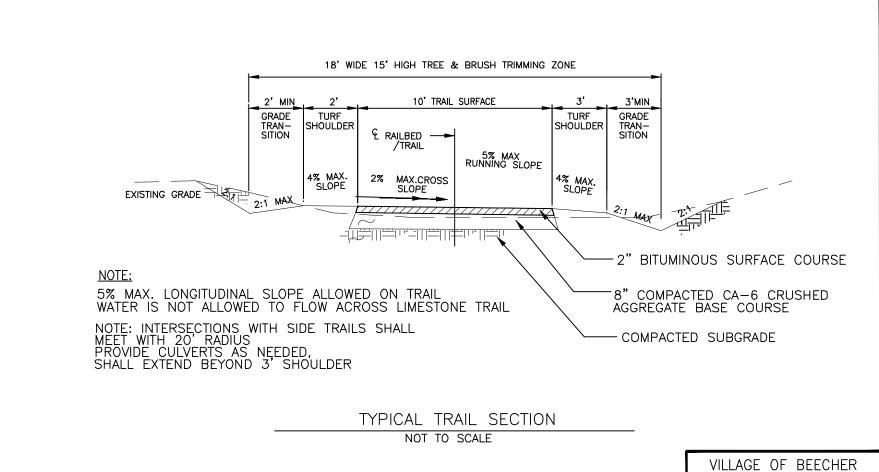
I:\BEECH\GENERAL\standards\STORM\SUMP-CON.dwg



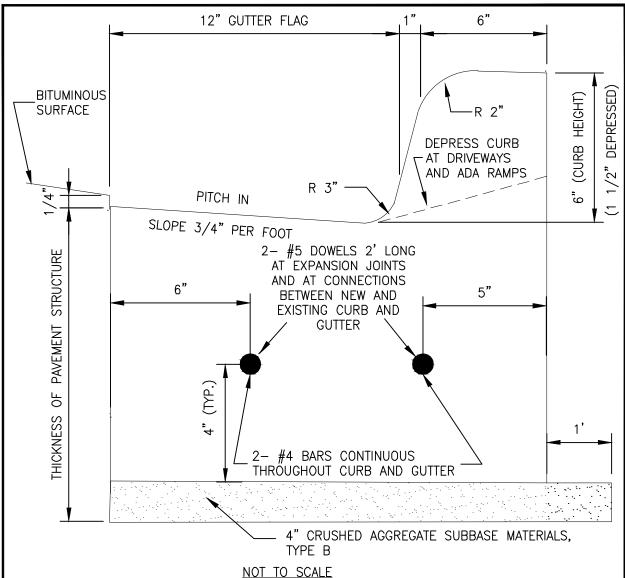
- 1. THERE SHALL BE A MAXIMUM OF 2 ADJUSTING RINGS WITH A MAXIMUM TOTAL HEIGHT OF 8".
- 2. THE FOLLOWING CASTING, OR APPROVED EQUAL, SHALL BE UTILIZED AS INDICATED:
 - A. SANITARY MANHOLES: EAST JORDAN IRON WORKS #1050, OR NEENAH R-1712 EX HD WATERTIGHT LID WITH CONCEALED PICKHOLE, O-RING GASKETS, AND "BEECHER" AND "SANITARY" CAST IN LID.
 - B. WATER VALVE VAULTS: EAST JORDAN IRON WORKS #1050, OR NEENAH R-1712 EX HD WATERIGHT LID WITH CONCEALED PICKHOLE, O-RING GASKETS, AND "BEECHER" AND "WATER" CAST IN LID. C. STORM MANHOLES: EAST JORDAN IRON WORKS #1050, EX HD LID WITH CONCEALED PICKHOLE, AND "BEECHER" AND "STORM" CAST IN LID, FOR LIDS INDICATED AS "SOLID" ON PLANS. FOR LIDS INDICATED AS "OPEN" ON PLANS, USE THE SAME CASTING, BUT WITH A TYPE M1 RADIAL FLAT GRATE. D. DRAINAGE STRUCTURES IN AREAS WITH UNPAVED SURFACES: EAST JORDAN IRON WORKS 6527, OR NEENAH R-4340-B.
 - E. WITHIN FLOOD PLAIN AREAS, PROVIDE SANITARY STRUCTURES WITH WATERTIGHT, LOCK—TYPE COVERS NEENAH R-1916—C WITH $\frac{1}{2}$ " DIA. STN. STL RODS TO ANCHOR TO PRECAST CONE WITH 3" MIN. EMBEDMENT USING EPOXY ADHESIVE (TYP. FOR 4).

VILLAGE OF BEECHER
STANDARD DETAIL
FOR
CASTING INSTALLATION AND
ADJUSTING
DATE: OCT. 2005

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VILLAGE OF BEECHEF STANDARD DETAIL FOR BITUMINOUS BICYCLE PATH PAVEMENT DATE: OCT. 2005

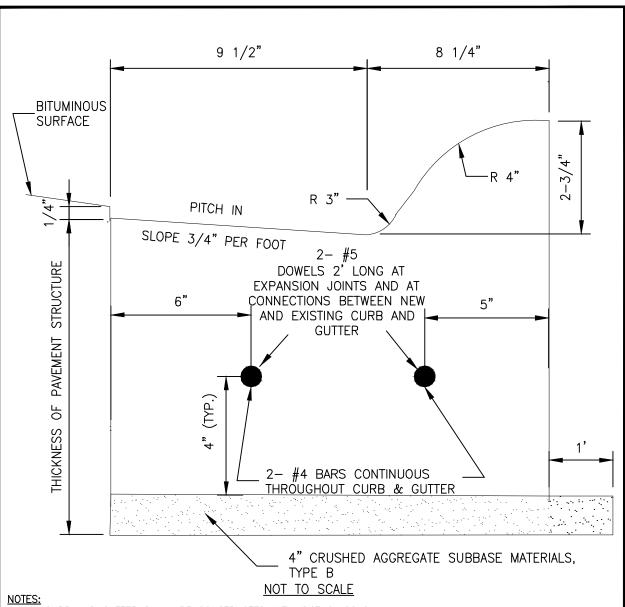


1. ALL CURB AND GUTTER SHALL BE CONSTRUCTED WITH IDOT CLASS SI CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 3500 PSI AT 14 DAYS. PROVIDE AND TEST 3 CYLINDERS FOR EACH DAY'S POUR, OR 50 CUBIC YARDS, WHICHEVER IS LESS.

- 2. CONTRACTION JOINTS SHALL BE SAW-CUT AT 20' INTERVALS AND CAULKED. 3. PREFORMED EXPANSION JOINTS, 3/4" THICK, SHALL BE PLACED FIVE FEET EITHER SIDE OF STORM STRUCTURES IN CURB AND GUTTER, AT CURB RETURNS AND AT POINTS OF CURVATURE, AT ALL CONNECTIONS BETWEEN NEW AND EXISTING CURB AND GUTTER, AND AT 100' INTERVALS ON TANGENTS.
- 4. CURB AND GUTTER AT STORM STRUCTURES SHALL BE BOXED-OUT AND HAND-FORMED BETWEEN EXPANSION JOINTS. FORMS SHALL BE PLACED AND INSPECTED BY VILLAGE PRIOR TO POURING CONCRETE. STRUCTURE FRAMES SHALL BE PLACED AND ADJUSTED PRIOR TO THIS INSPECTION. 5. THE FOLLOWING SHALL BE STAMPED IN THE CURB AT THE INDICATED
- LOCATIONS: "W" FOR WATER SERVICES
 - "S" FOR SANITARY SEWER SERVICES
 - "ST" FOR STORM SEWER SERVICES
 - "CO" FOR STORM SEWER SERVICE LINE CLEAN-OUTS
- 6. DOWELS AT EXPANSION JOINTS SHALL BE CENTERED ON THE JOINT (DRILLED INTO EXISTING CURB AND GUTTER), AND SHALL BE INSTALLED WITH GREASE CAPS ON ONE SIDE.

VILLAGE OF BEECHER STANDARD DETAIL FOR BARRIER COMBINATION CONCRETE CURB & GUTTER TYPE B-6.12 DATE: OCT. 2005

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1. ALL CURB AND GUTTER SHALL BE CONSTRUCTED WITH IDOT CLASS SI CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 3500 PSI AT 14 DAYS. PROVIDE AND TEST 3 CYLINDERS FOR EACH DAY'S POUR, OR 50 CUBIC YARDS, WHICHEVER IS LESS.

- 2. CONTRACTION JOINTS SHALL BE SAW-CUT AT 20' INTERVALS AND CAULKED. 3. PREFORMED EXPANSION JOINTS, 3/4" THICK, SHALL BE PLACED FIVE FEET EITHER SIDE OF STORM STRUCTURES IN CURB AND GUTTER, AT CURB RETURNS AND AT POINTS OF CURVATURE, AT ALL CONNECTIONS BETWEEN NEW AND EXISTING CURB AND GUTTER, AND AT 100' INTERVALS ON TANGENTS.
- 4. CURB AND GUTTER AT STORM STRUCTURES SHALL BE BOXED-OUT AND HAND-FORMED BETWEEN EXPANSION JOINTS. FORMS SHALL BE PLACED AND INSPECTED BY VILLAGE PRIOR TO POURING CONCRETE. STRUCTURE FRAMES SHALL BE PLACED AND ADJUSTED PRIOR TO THIS INSPECTION.

5. THE FOLLOWING SHALL BE STAMPED IN THE CURB AT THE INDICATED LOCATIONS:

"W" FOR WATER SERVICES
"S" FOR SANITARY SEWER SERVICES

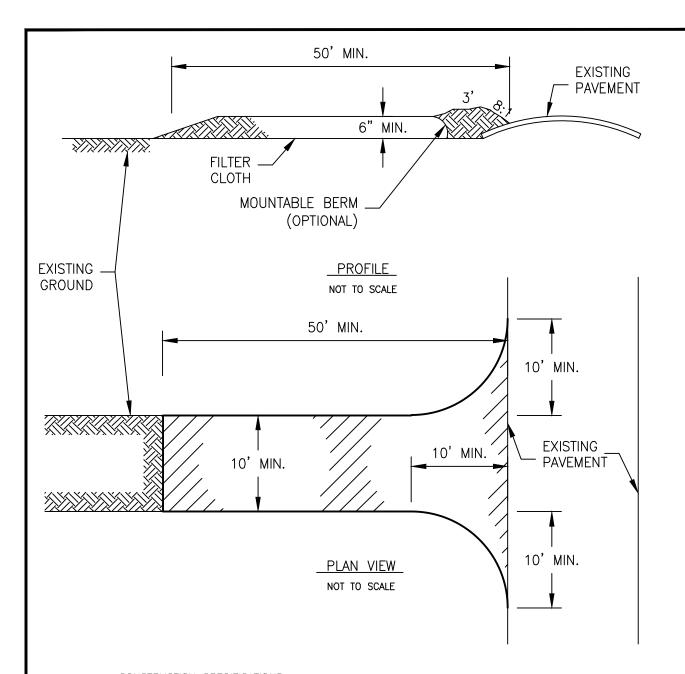
"ST" FOR STORM SEWER SERVICES

"CO" FOR STORM SEWER SERVICE LINE CLEAN-OUTS

6. DOWELS AT EXPANSION JOINTS SHALL BE CENTERED ON THE JOINT (DRILLED INTO EXISTING CURB AND GUTTER), AND SHALL BE INSTALLED WITH GREASE CAPS ON ONE SIDE.

VILLAGE OF BEECHER STANDARD DETAIL FOR MOUNTABLE COMBINATION CONCRETE CURB & GUTTER TYPE M-3.12DATE: OCT. 2005

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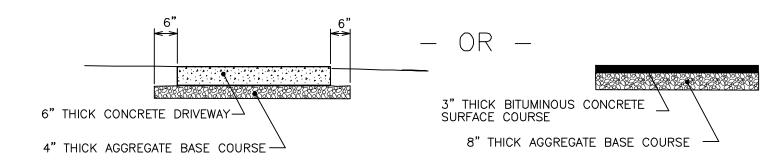


CONSTRUCTION SPECIFICATIONS

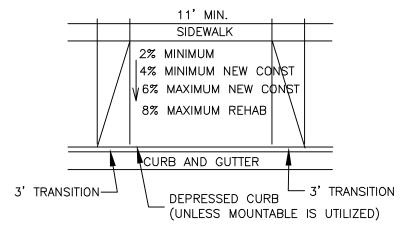
- 1. Storm Size Use 2" stone, or reclaimed or recycled concrete equivalent.
- Length As required, but not less than 50 feet (except on a single residence lot where a 30 foot minimum length would apply).
- 3. Thickness Not less than six (6) inches.
- 4. Width Ten (10) foot minimum, but not less than the full width at points where ingress or egress occurs.
- 5. Filter Cloth Will be placed over the entire area prior to placing of stone.
- Surface Water All surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a mountable berm with 5:1 slopes will be permitted.
- 7. Maintenance The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto public rights—of—way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment. All sediment spilled, dropped, washed, or tracked onto public rights—of—way must be removed immediately.
- 8. Washing Wheels shall be cleaned to remove sediment prior to entrance onto public rights—of—way. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
- 9. Periodic inspection and needed maintenance shall be provided after each rain.

VILLAGE OF BEECHER
STANDARD DETAIL
FOR
STABILIZED CONSTRUCTION
ENTRANCE

DATE: NOVEMBER 2005 trans\CONST-ENT.dwg

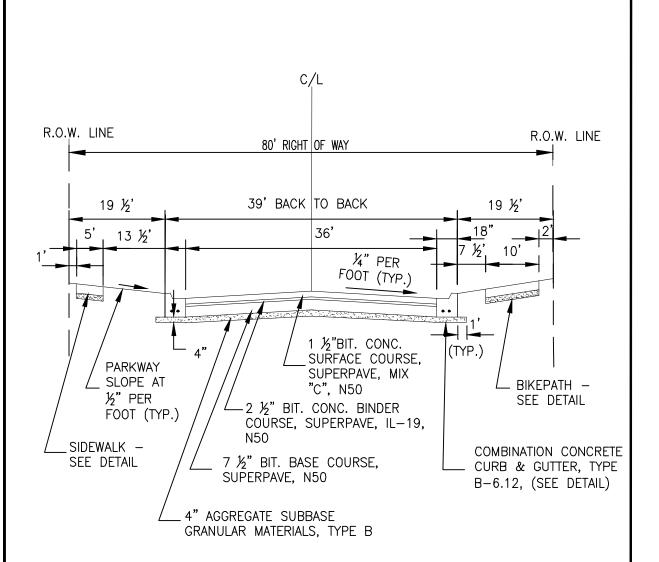


- 1.) CONCRETE SHALL BE CLASS "SI."
- 2.) BITUMINOUS SURFACE COURSE SHALL BE SUPER PAVE, MIX "C", N50.
- 3.) AGGREGATE BASE COURSE SHALL BE CA-6.
- 4.) PREMOULDED EXPANSION JOINTS SHALL BE PROVIDED AGAINST SIDEWALK AND CURB AND GUTTERS. (CONCRETE ONLY)
- 5.) BARRIER CURB AND GUTTER SHALL BE DEPRESSED AT DRIVEWAYS. BARRIER CURB AND GUTTER SHALL BE DEPRESSED AT DRIVEWAYS. A 12"-18" TRANSITION FROM FULL BARRIER TO FULL DEPRESSION SHALL BE PROVIDED ON EACH SIDE OF THE DRIVEWAY.
- 6.) MOUNTABLE CURB SHALL NOT BE CUT TO ACCOMMODATE DRIVEWAY.
- 7.) 6 X 6, 10 X 10 WELDED WIRE FABRIC SHALL BE USED IN CONCRETE DRIVEWAY PAVEMENTS



VILLAGE OF BEECHER
STANDARD DETAIL
FOR
DRIVEWAYS
DATE: OCT. 2005

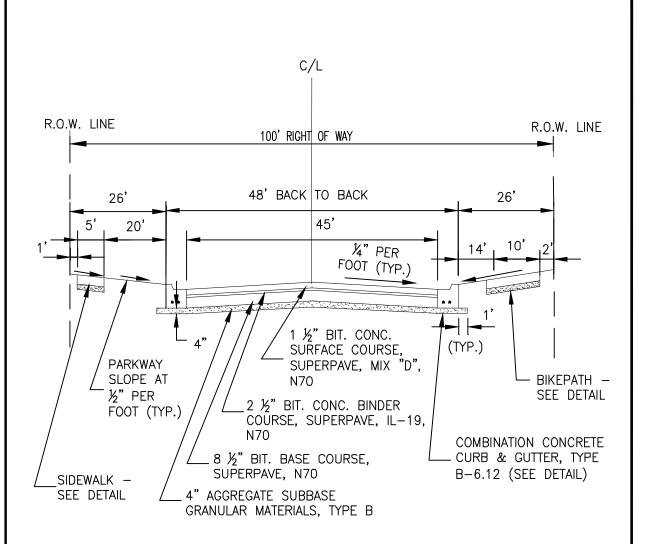
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- 1. ALL CURBS AND SIDEWALKS SHALL BE CONSTRUCTED WITH IDOT CLASS "SI" CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 3,500 PSI AT 14 DAYS.
- PARKWAYS SHALL BE FINISHED WITH A MINIMUM OF SIX INCHES OF TOPSOIL.
- 3. TESTING OF SUBGRADE AND ALL ROADWAY MATERIALS SHALL BE DONE IN ACCORDANCE WITH THE VILLAGE'S SUBDIVISION ORDINANCE.

VILLAGE OF BEECHER
STANDARD DETAIL
FOR
ROADWAY CROSS—SECTION
MINOR COLLECTOR
DATE: OCT. 2005

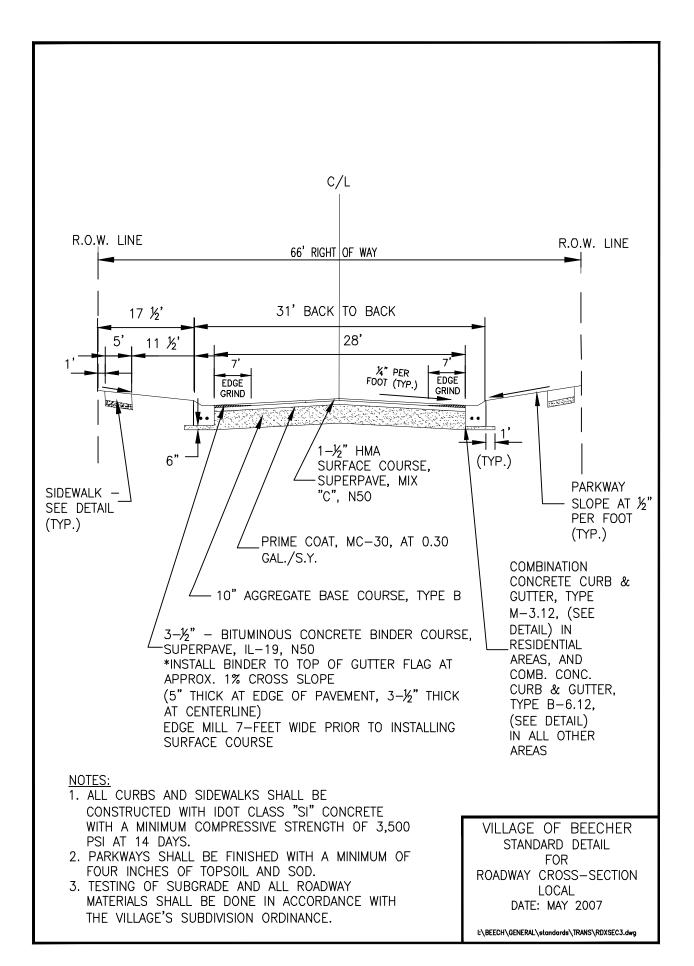
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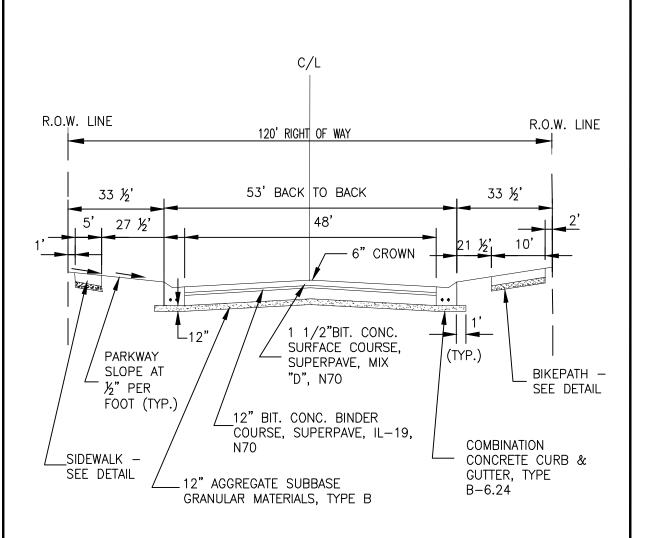


- 1. ALL CURBS AND SIDEWALKS SHALL BE CONSTRUCTED WITH IDOT CLASS "SI" CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 3,500 PSI AT 14 DAYS.
- 2. PARKWAYS SHALL BE FINISHED WITH A MINIMUM OF SIX INCHES OF TOPSOIL AND SOD.
- 3. TESTING OF SUBGRADE AND ALL ROADWAY MATERIALS SHALL BE DONE IN ACCORDANCE WITH THE VILLAGE'S SUBDIVISION ORDINANCE.

VILLAGE OF BEECHER
STANDARD DETAIL
FOR
ROADWAY CROSS—SECTION
MAJOR COLLECTOR
DATE: OCT. 2005

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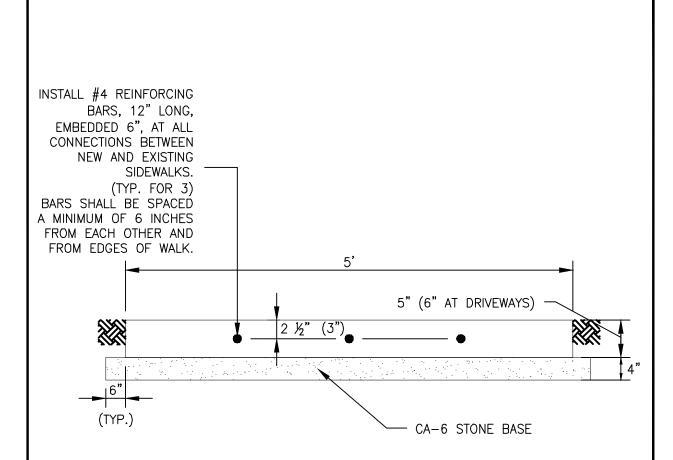


- 1. ALL CURBS AND SIDEWALKS SHALL BE CONSTRUCTED WITH IDOT CLASS "SI" CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 3,500 PSI AT 14 DAYS.
- 2. PARKWAYS SHALL BE FINISHED WITH A MINIMUM OF SIX INCHES OF TOPSOIL AND SOD.
- 3. TESTING OF SUBGRADE AND ALL ROADWAY MATERIALS SHALL BE DONE IN ACCORDANCE WITH THE VILLAGE'S SUBDIVISION ORDINANCE.

VILLAGE OF BEECHER
STANDARD DETAIL
FOR
ROADWAY CROSS—SECTION
ARTERIAL

DATE: OCT. 2005

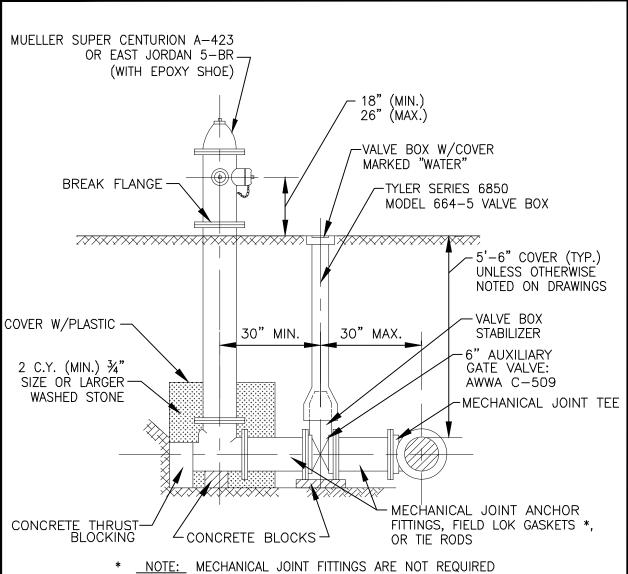
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- 1. ALL SIDEWALK SHALL BE CONSTRUCTED WITH IDOT CLASS "SI" CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 3,500 PSI AT 14 DAYS
- 2. PREFORMED EXPANSION JOINTS (3/4" THICK) SHALL BE CONSTRUCTED IN SIDEWALK EVERY 100 FEET AND AT ALL ABUTTING DRIVEWAYS AND CURB AND GUTTER.
- 3. TOOLED CONTRACTION JOINTS SHALL BE CONSTRUCTED IN SIDEWALK EVERY FIVE FEET.
- 4. SIDEWALK SHALL HAVE 1/4" PER FOOT CROSS-
- 5. WELDED WIRE FABRIC (6X6/6X6) OR FIBER MESH SHALL BE INSTALLED THROUGH DRIVEWAYS AT 2" ABOVE SLAB BOTTOM.
- 6. FORMBOARD REQUIREMENTS: MINIMUM 2" X 6".
- 7. USE 2#4 REINFORCING BARS, 10' LONG OVER ALL UTILITY TRENCHES FOR NEW SIDEWALK.

VILLAGE OF BEECHER STANDARD DETAIL FOR SIDEWALK DATE: OCT. 2005

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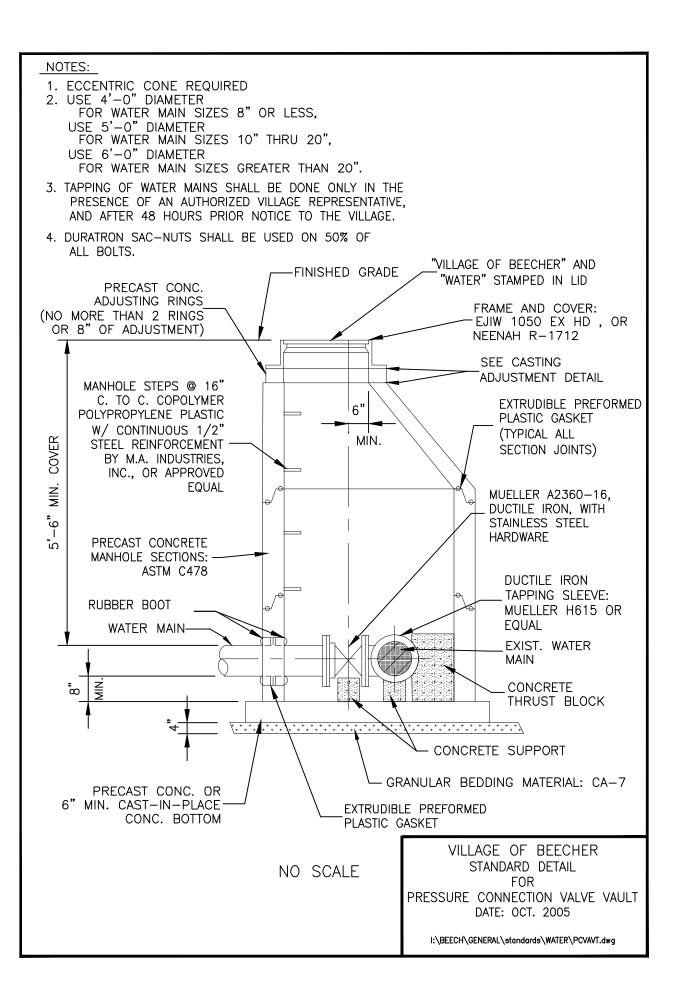
* <u>NOTE:</u> MECHANICAL JOINT FITTINGS ARE NOT REQUIRED WHERE FIELD LOK GASKETS ARE UTILIZED.

NO SCALE

NOTES:

- 1. HYDRANT SHALL BE PAINTED ACE BRAND RUST STOP SAFETY RED.
- 2. ALL BOLTS & NUTS BELOW GRADE ON FIRE HYDRANT SHALL BE STAINLESS STEEL.
- 3. ALL BOLTS & NUTS ON AUXILIARY VALVE SEAL PLATE AND BONNET SHALL BE STAINLESS STEEL.
- 4. THRUST BLOCKING SHALL BE CONSTRUCTED SO HYDRANT DRAIN HOLE IS NOT OBSTRUCTED.

VILLAGE OF BEECHER
STANDARD DETAIL
FOR
FIRE HYDRANT
DATE: NOV. 2005



- 1. USE CONCENTRIC CONE FOR GATE VALVES AND ECCENTRIC CONE FOR BUTTERFLY VALVES.
- 2. USE 4'-0" DIAMETER

FOR WATER MAIN SIZES 8" OR LESS.

USE 5'-0" DIAMETER

FOR WATER MAIN SIZES 10" THRU 20",

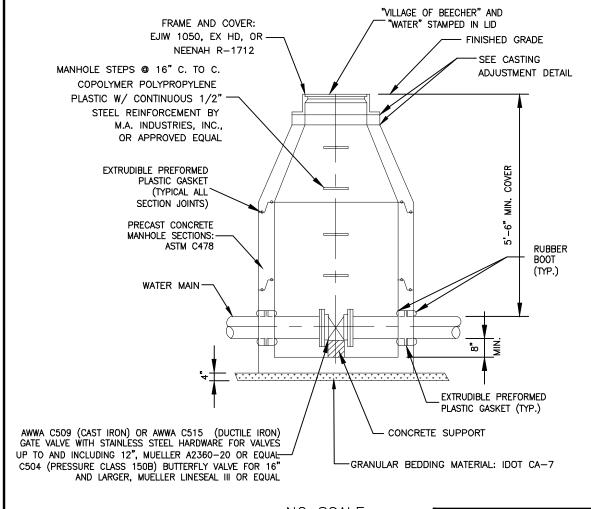
USE 6'-0" DIAMETER

FOR WATER MAIN SIZES GREATER THAN 20".

3. DURATRON SAC-NUTS SHALL BE USED ON 50% OF ALL BOLTS.

BUTTERFLY VALVES SHALL:

- 4. HAVE A CAST IRON BODY, AND BE RUBBER-SEATED, TIGHT-CLOSING TYPE SUITABLE FOR BURIED SERVICE.
- 5. HAVE ANSI CLASS 125 STANDARD FLANGE OR VICTAULIC COUPLING ENDS.
- 6. HAVE VALVE SHAFT OF EITHER 18-8 OR TYPE 304 STAINLESS STEEL, EXTENDED THROUGH VALVE DISC AND BODY INTO THE OPERATOR.
- 7. HAVE A FULLY ENCLOSED, SEALED, GREASE-PACKED INTEGRAL GEARED MANUAL OPERATOR WITH A 2-INCH SQUARE OPERATING NUT.



NO SCALE

VILLAGE OF BEECHER

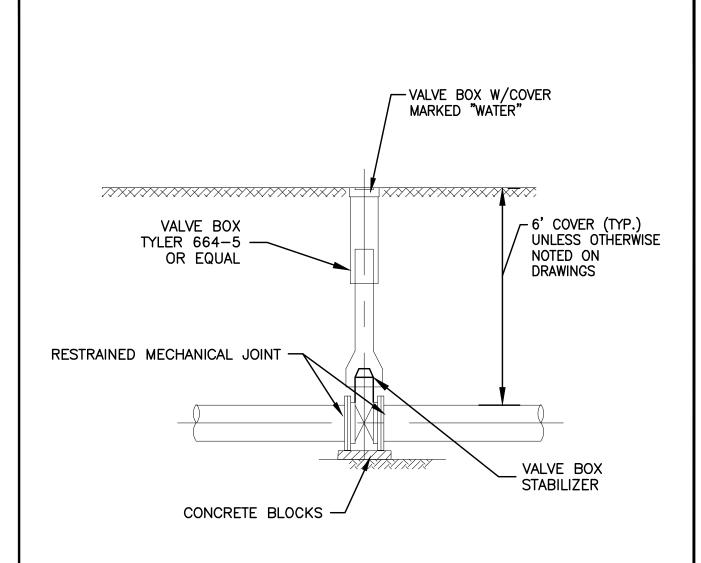
DETAIL

FOR

STANDARD VALVE

DATE: OCT. 2005

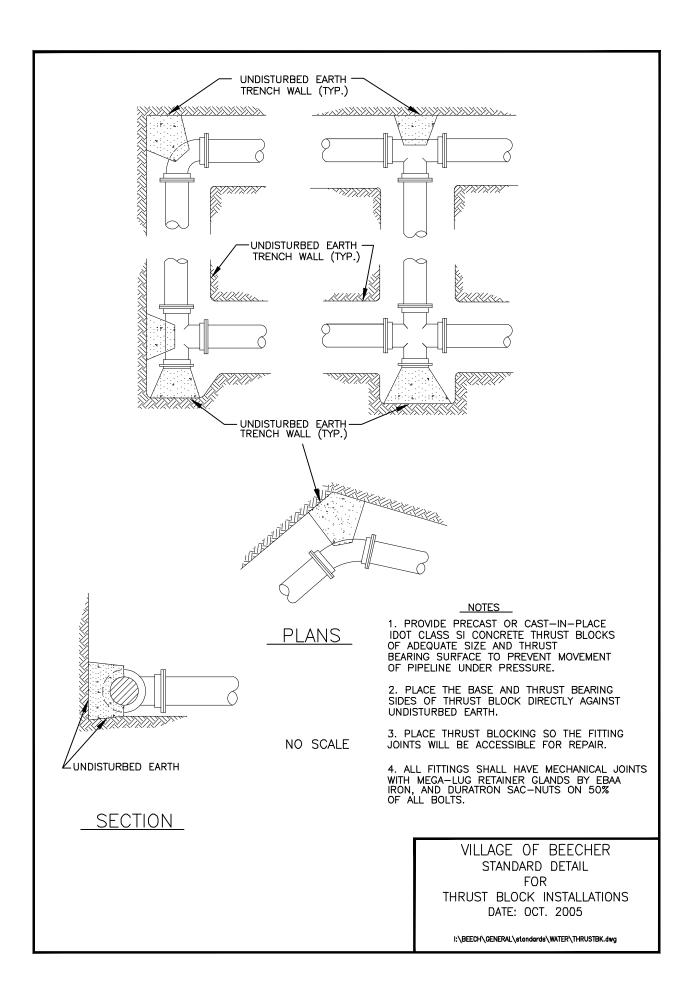
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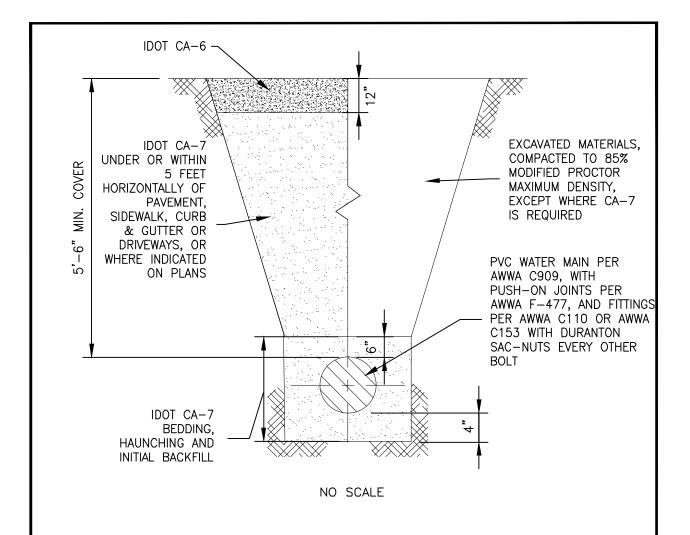


NO SCALE

VILLAGE OF BEECHER
STANDARD DETAIL
FOR
STANDARD WATER VALVE
WITH VALVE BOX

DATE: NOVEMBER 2005 Water\stdwtrvb.dwg

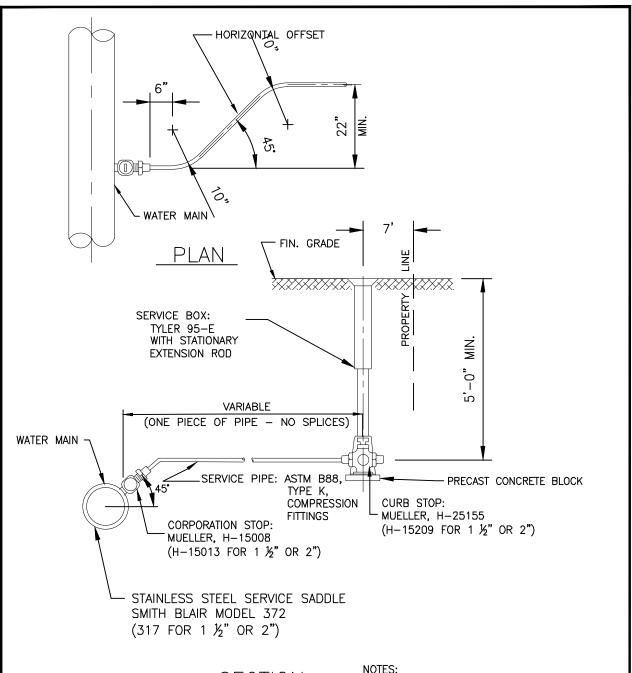




- 1. PROVIDE A NO. 10 AWG, SINGLE CONDUCTOR, INSULATED COPPER WIRE ON TOP OF PVC WATER MAIN AND ALL FITTINGS.
- 2. PRESSURE AND LEAKAGE TESTS AND CHLORINATION SHALL BE COORDINATED WITH VILLAGE ENGINEER.
- 3. MAINS SHALL BE PRESSURE TESTED AT A MINIMUM PRESSURE OF 125 PSI FOR ONE HOUR WITHOUT PRESSURE LOSS OR FURTHER PRESSURE APPLICATION. TEST SHALL BE PERFORMED IN ACCORDANCE WITH AWWA C600 AND AWWA C603. IF MAINS TO BE TESTED INCLUDE CONCRETE THRUST BLOCKING, DO NOT BEGIN TEST UNTIL AT LEAST 5 DAYS AFTER THE INSTALLATION OF THE THRUST BLOCKING.
- 4. AFTER COMPLETING A SATISFACTORY PRESSURE TEST, THE WATER MAIN SHALL BE LEAKAGE TESTED FOR A MINIMUM OF 24 HOURS, IN ACCORDANCE WITH ARTICLE 41-2.13C OF THE STANDARD SPECIFICATIONS FOR WATER & SEWER MAIN CONSTRUCTION IN ILLINOIS, FIFTH EDITION.

VILLAGE OF BEECHER
STANDARD DETAIL
FOR
WATER MAIN INSTALLATION
DATE: OCT. 2005

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SECTION NO SCALE

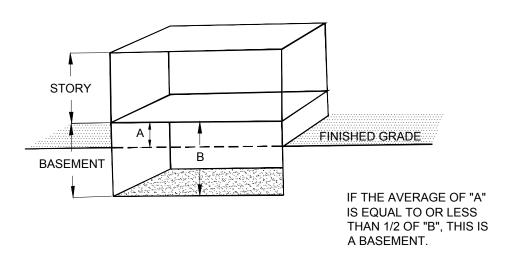
SERVICE	CORP.	CURB	SERVICE
PIPE	STOP	STOP	BOX
H 12 T			
3/4"	3/4"	3/4"	1 ¼ "
1"	1"	1"	2 ½"
	•	'	- /2
1 1/4"	1 1/4"	1 ¼"	3"
1 ½"	1 ½"	1 ½"	3"
2"	2"	2"	3"

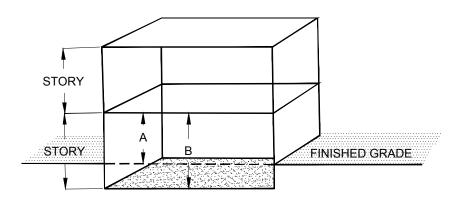
- 1. TRENCH BACKFILL SHALL BE INSTALLED PER WATER MAIN INSTALLATION DETAIL.
- PLACE AND HAND-TAMP AT LEAST 1/4 CUBIC YARDS OF SAND AROUND CORPORATION STOP.
- 3. MINIMUM DISTANCE BETWEEN SERVICE TAPS SHALL BE 18 INCHES.

VILLAGE OF BEECHER
STANDARD DETAIL
FOR
WATER SERVICE
DATE: OCT. 2005

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BASEMENT & STORY DEFINITION

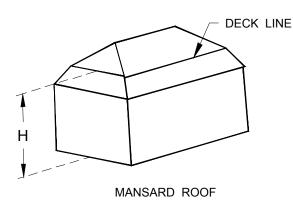


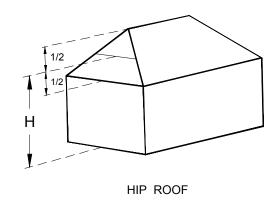


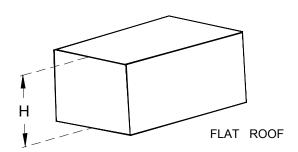
IF THE AVERAGE OF "A" IS GREATER THAN 1/2 OF "B", THIS IS A STORY.

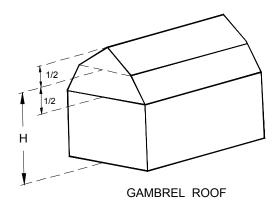
BUILDING HEIGHT REQUIREMENTS

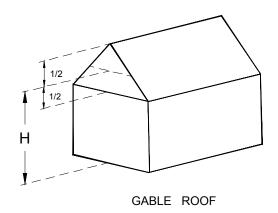
(SEE SECTION 3.02 DEFINITIONS)





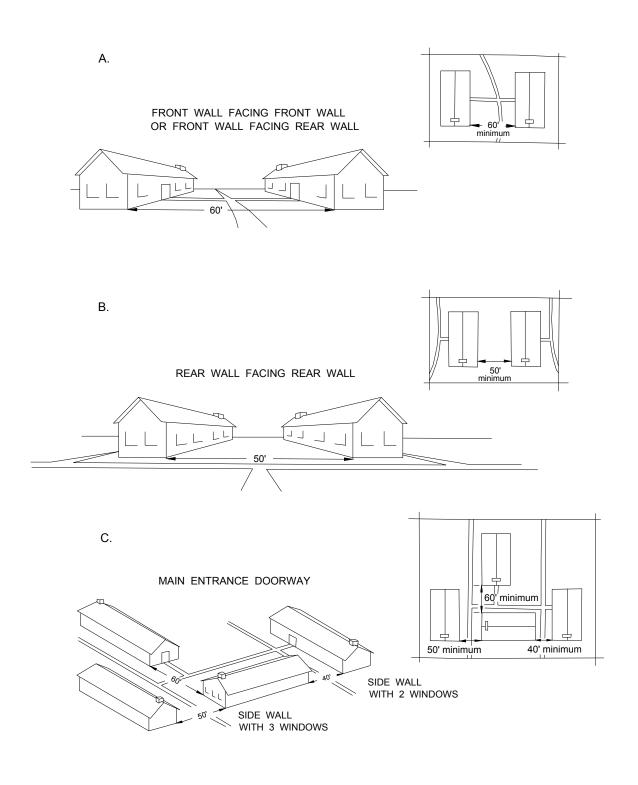




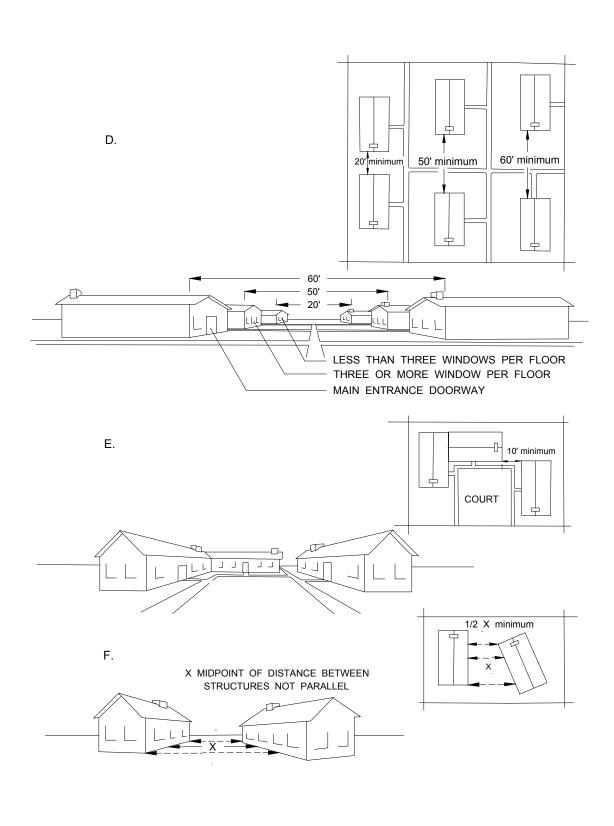


H = HEIGHT OF BUILDING

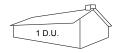
SPACING BETWEEN BUILDINGS



SPACING BETWEEN BUILDINGS (CONT.)

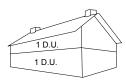


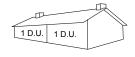
DWELLING TYPES



SINGLE - FAMILY DETACHED

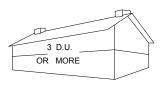
TWO - FAMILY DETACHED



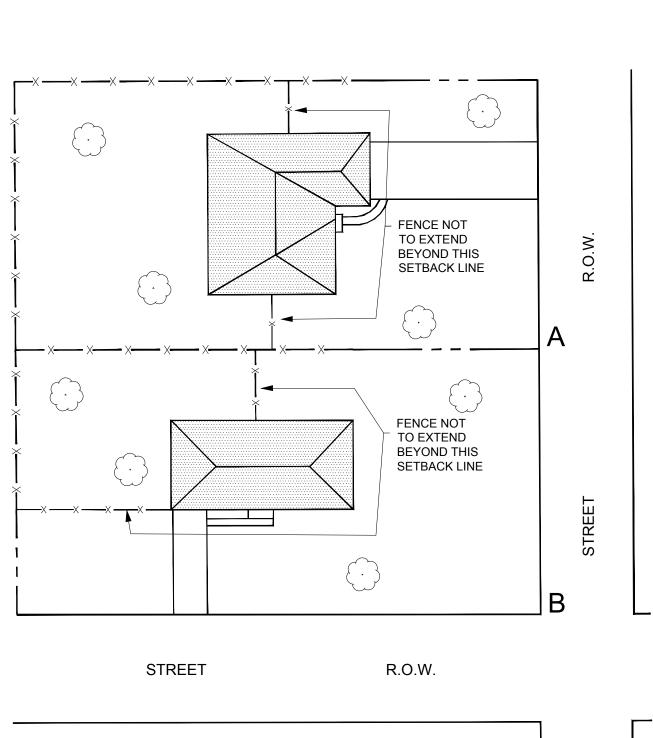


SINGLE - FAMILY SEMI - DETACHED (DUPLEX BUILDING)





MULTIPLE - FAMILY

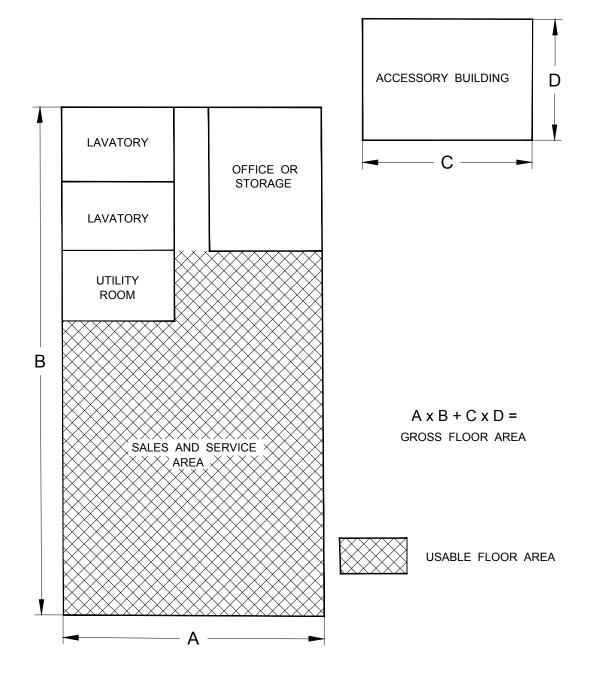


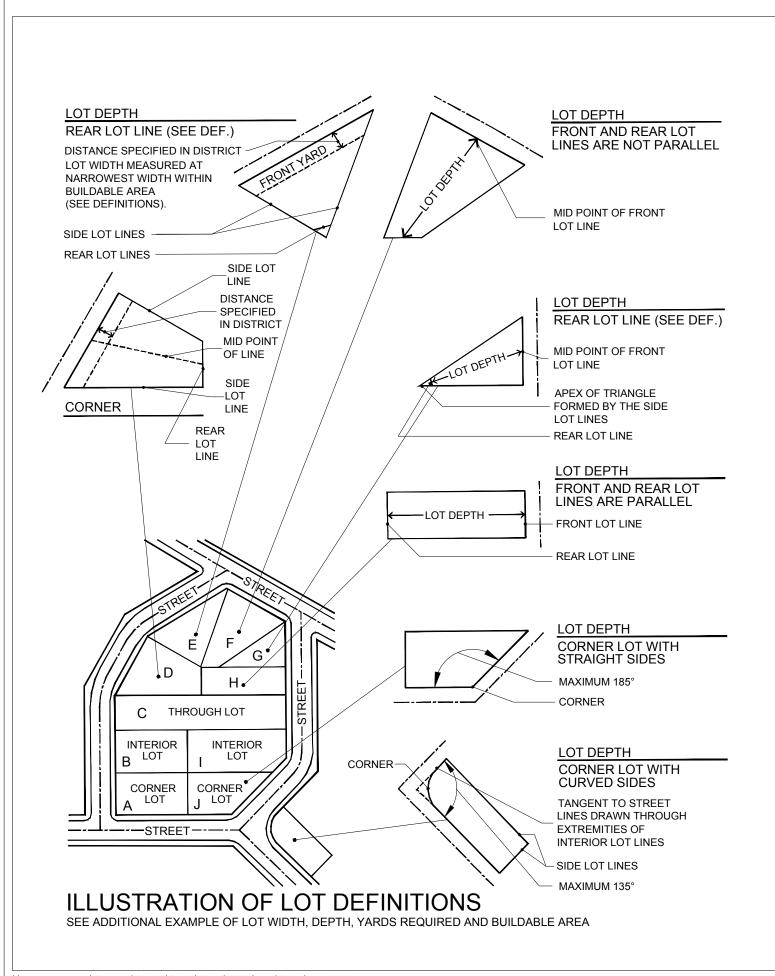
NO SCALE

FENCE LOCATION

SEE ZONING ORDINANCE SECTION 4.31 FENCES

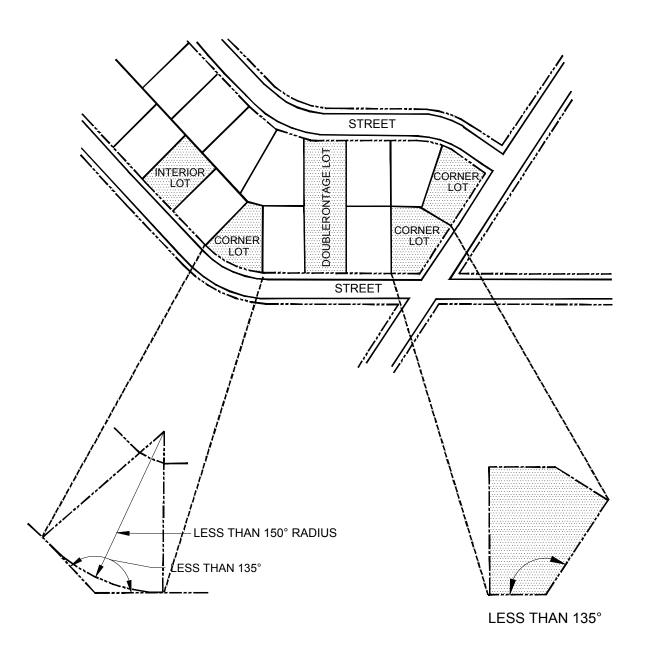
FLOOR AREA TERMINOLOGY



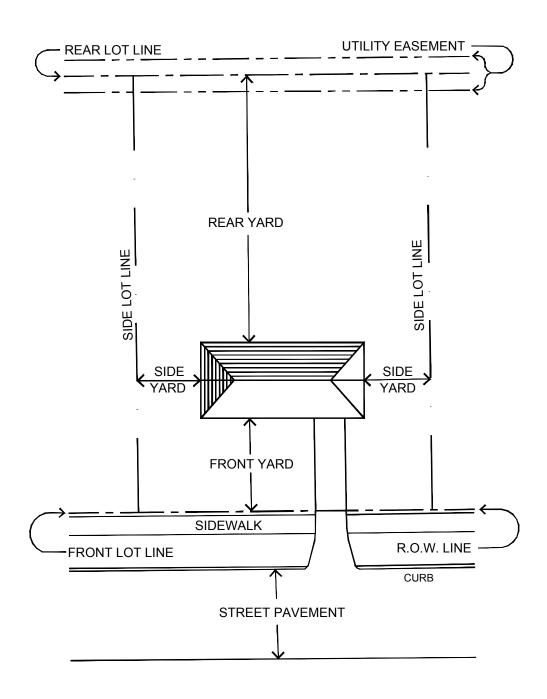


LOT DESCRIPTION

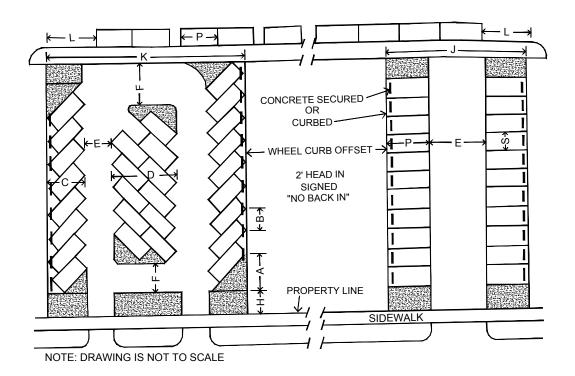
CORNER, DOUBLE FRONTAGE AND INTERIOR LOTS

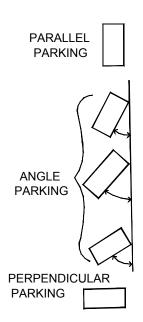


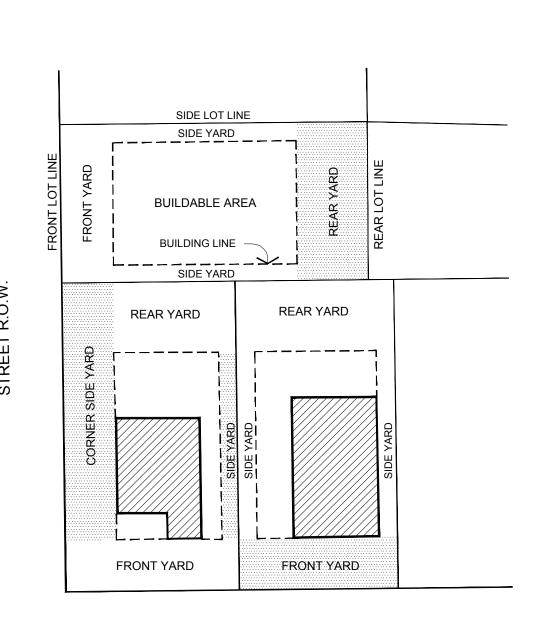
LOT TERMS



SECTION 10.06 OFF - STREET PARKING CHART

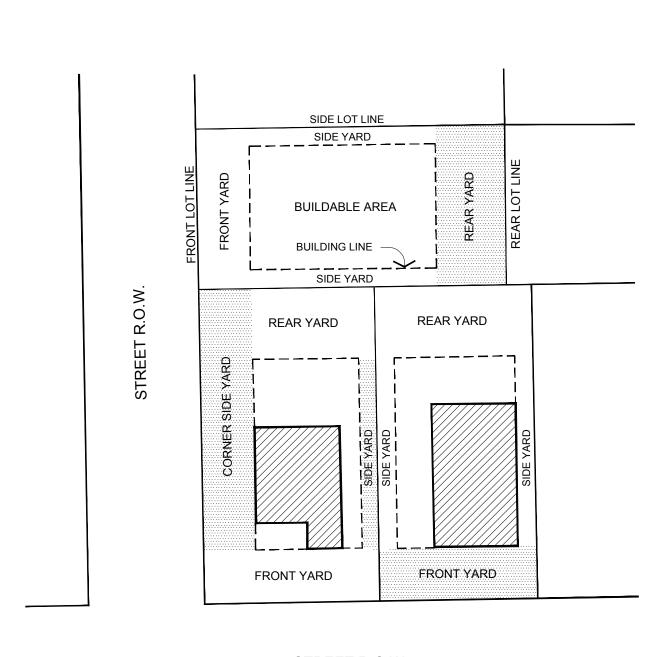




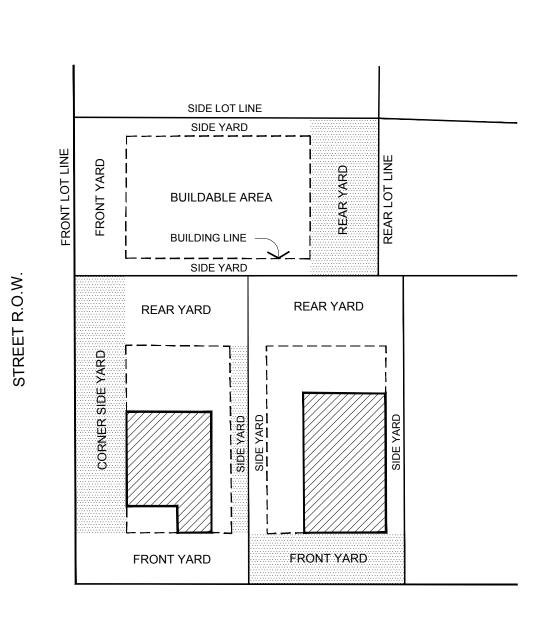


R-1 SINGLE FAMILY RESIDENCE DISTRICT

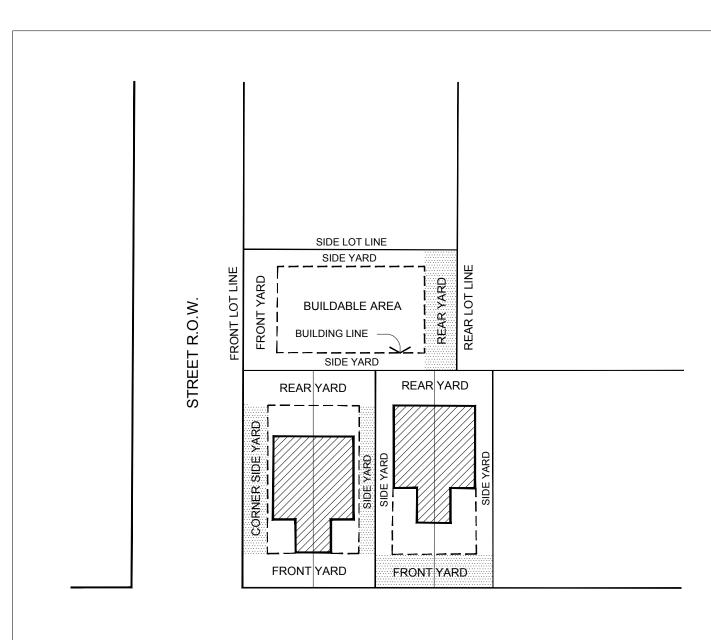
(10,000 SQ. FT.)



R-1A SINGLE FAMILY RESIDENCE DISTRICT (9,100 SQ. FT.)

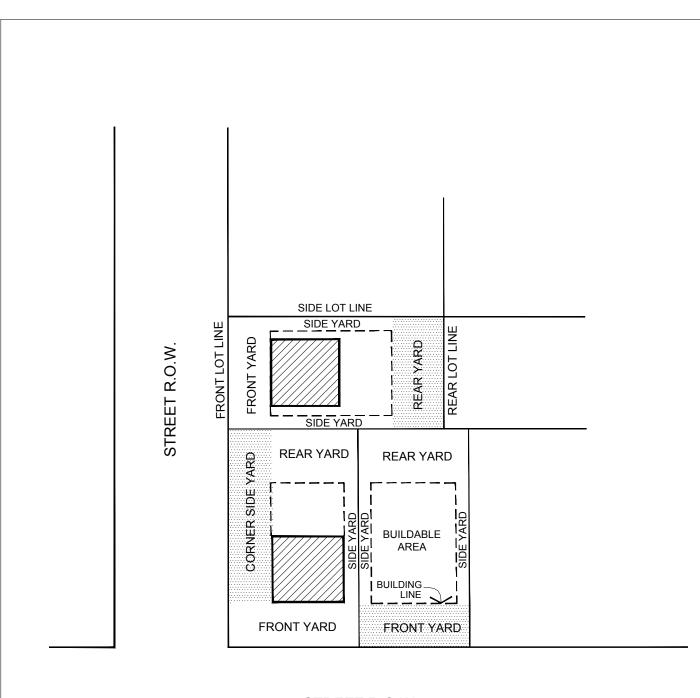


R-1B SINGLE FAMILY RESIDENCE DISTRICT (6,200 SQ. FT.)



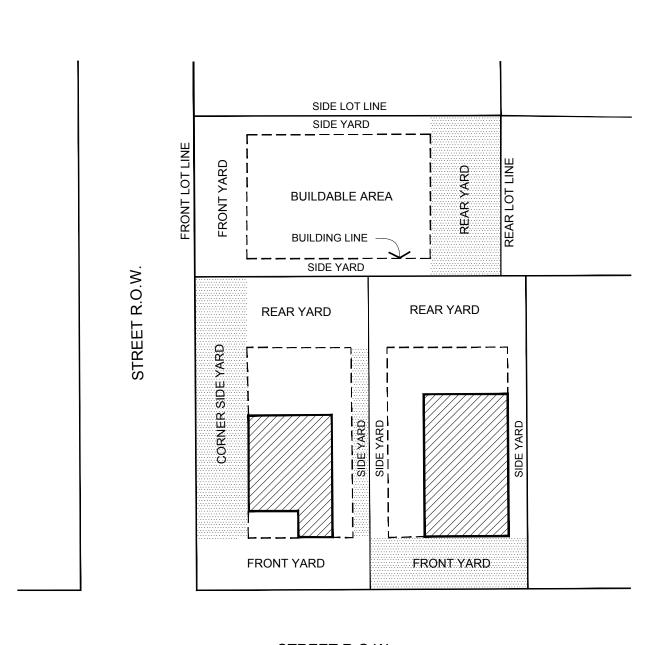
R-2 TWO-FAMILY RESIDENCE DISTRICT

10,000 SQ. FT. SEE ZONING ORDINANCE FOR YARD REQUIREMENTS



R-3 GENERAL RESIDENCE DISTRICT

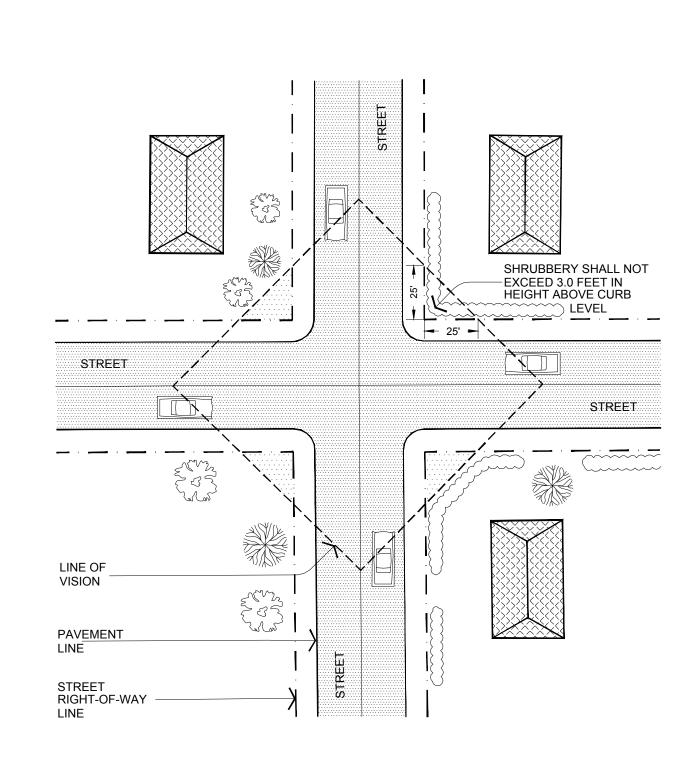
(7,500 SQ. FT.) SEE ZONING ORDINANCE FOR YARD REQUIREMENTS



STREET R.O.W.

R-E RESIDENCE ESTATE DISTRICT

(20,000 SQ. FT.) SEE ZONING ORDINANCE FOR YARD REQUIREMENTS



VISION CLEARANCE

SEE ZONING ORDINANCE - SECTION 4.05.13 LOT COVERAGE