

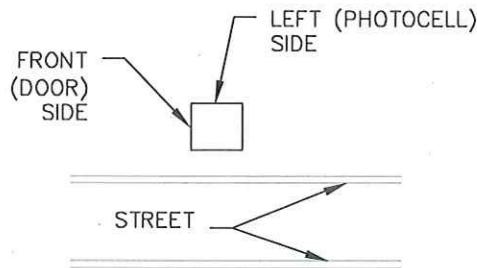
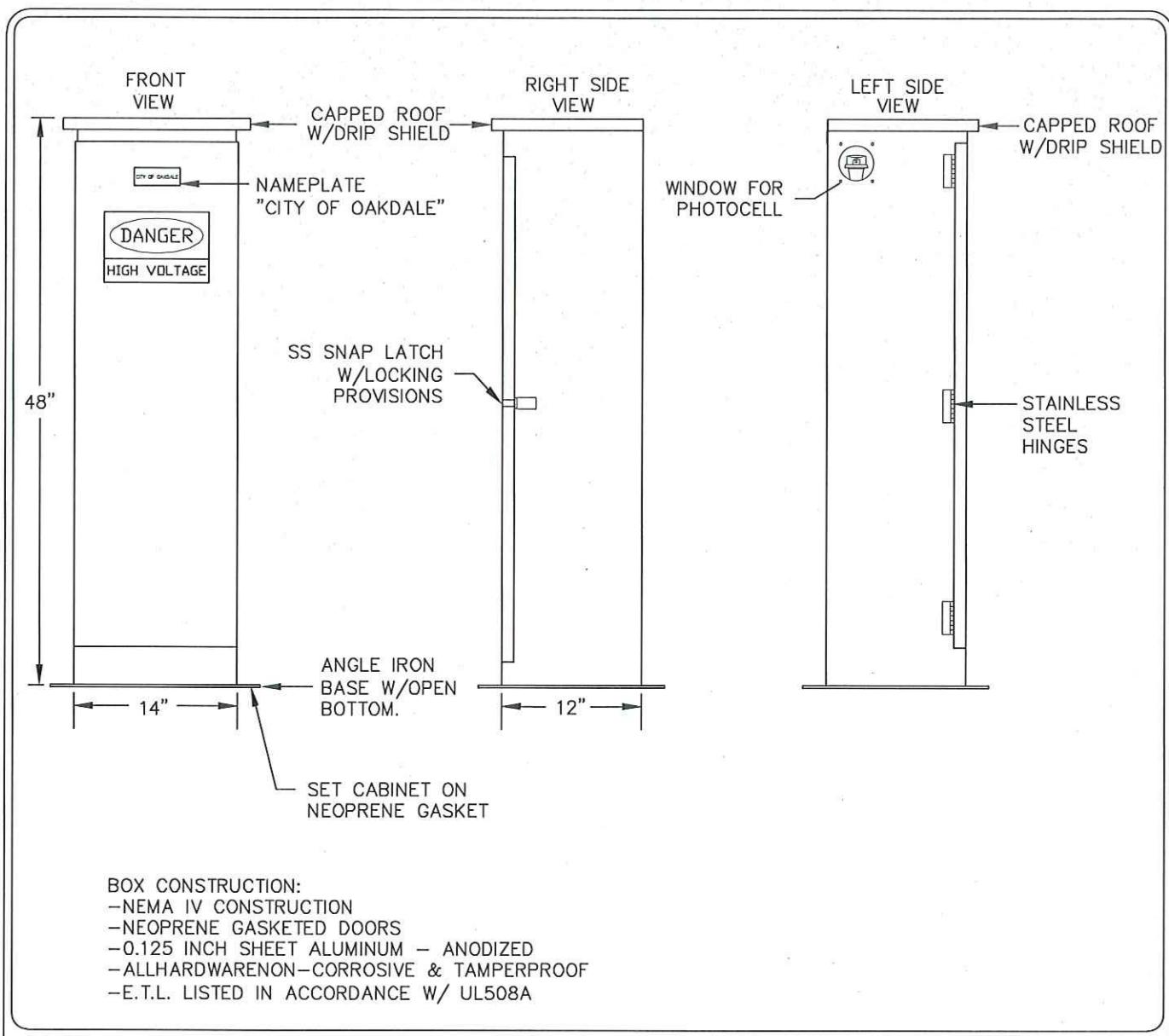


CITY OF OAKDALE

STANDARD PLATES INDEX

The following Standard Plates shall be used in the preparation of plans and specifications:

STANDARD PLATES	DESCRIPTION
LIGHTING	
LT-1	Lighting Service Cabinet
LT-2	Lighting Cabinet Circuit Detail and Foundation
LT-3	Street Light Detail - Type A Pole
LT-4	Street Light Detail - Type A Pole
LT-5	Street Light Luminaire - Type A King
LT-6	Street Light Detail - Type B
LT-7	Street Light Foundation Detail - Type B
MISCELLANEOUS	
DW-1	Silt Fence Detail
DW-2	Straw Bale Ditch Check Detail
DW-3	Trail Cross Section Detail
DW-4	Certificate of Survey Information
DW-4B	Certificate of Survey Information (Example 1)
DW-4C	Certificate of Survey Informatin (Example 2)
SANITARY SEWER	
SS-1	Sanitary Sewer Standard Manhole (eccentric)
SS-2	Sanitary Sewer Drop Manhole (outside)
SS-3	Pipe Bedding
SS-4	Sanitary Sewer Service
SS-5	Sanitary Sewer Service Riser
STORM SEWER	
ST-1	Storm Sewer Manhole - Eccentric
ST-2	Manhole /Catch Basin - Type B-1 thru G-1
ST-3	Manhole - Type B thru G
ST-4	Type "X" Catch Basin - Rectangular
ST-5	Type "X" Catch Basin - Round
ST-6	Type "Y" Catch Basin - Rectangular Casting
ST-7	Type "Y" Catch Basin - Round Casting
ST-8	Catch Basin Installation - for B-618 Curb and Gutter
ST-9	Flared End Section - with Trash Guard
ST-10	Rip Rap at R.C.P. Aprons
STREET	
STR-1	Standard Curb Details
STR-2	Typical Street Section 7-ton Design
STR-3	Typical Street Section 9-ton Design
STR-4	Valley Gutter
STR-5	Residential Driveway Detail
STR-6	Commercial Concrete Driveway Apron
STR-7	Retaining Wall Detail
WATER MAIN	
W-1	Water Service
W-1PP	Water Service (Plastic Pipe)
W-2	Hydrant & Gate Valve Installation
W-3	Hydrant & Gate Valve Specification
W-4	Typical Pressure Reducing Valve Manhole
W-5	Water Main Insulation and Water Main Crossing
W-6	Gate Valve and Box Installation
W-7	Typical MegaLug Location



NOTE:
CONTRACTOR TO MAINTAIN 10' CLEARANCE IN FRONT OF EXISTING TRANSFORMER. REVIEW PROPOSED LOCATION WITH LOCAL ELECTRIC COMPANY PRIOR TO INSTALLATION.

CABINET ORIENTATION ADJACENT TO STREET

Revisions:

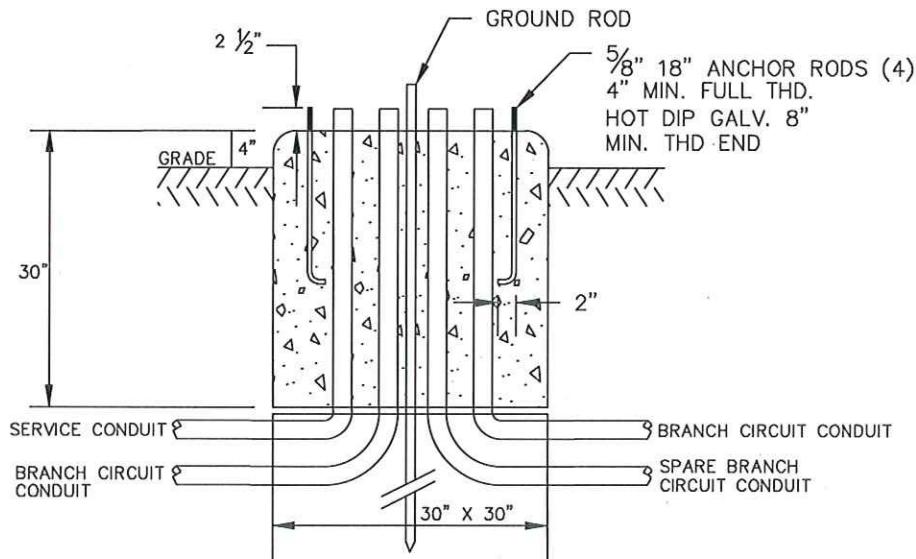
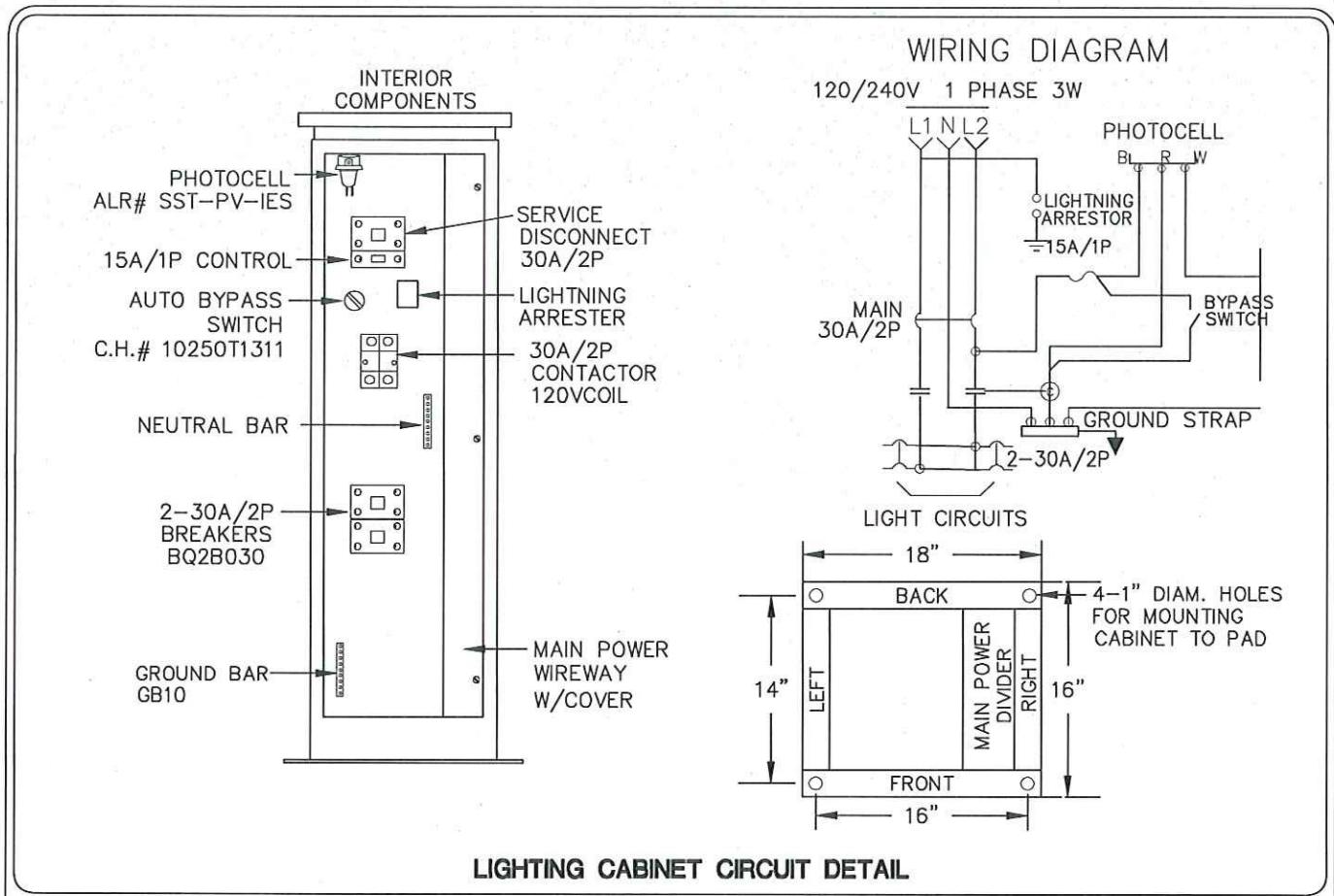
12/2010



LIGHTING SERVICE CABINET

STANDARD PLATE NO.

LT-1



NOT TO SCALE
SERVICE CABINET FOUNDATION

Rewvisions:

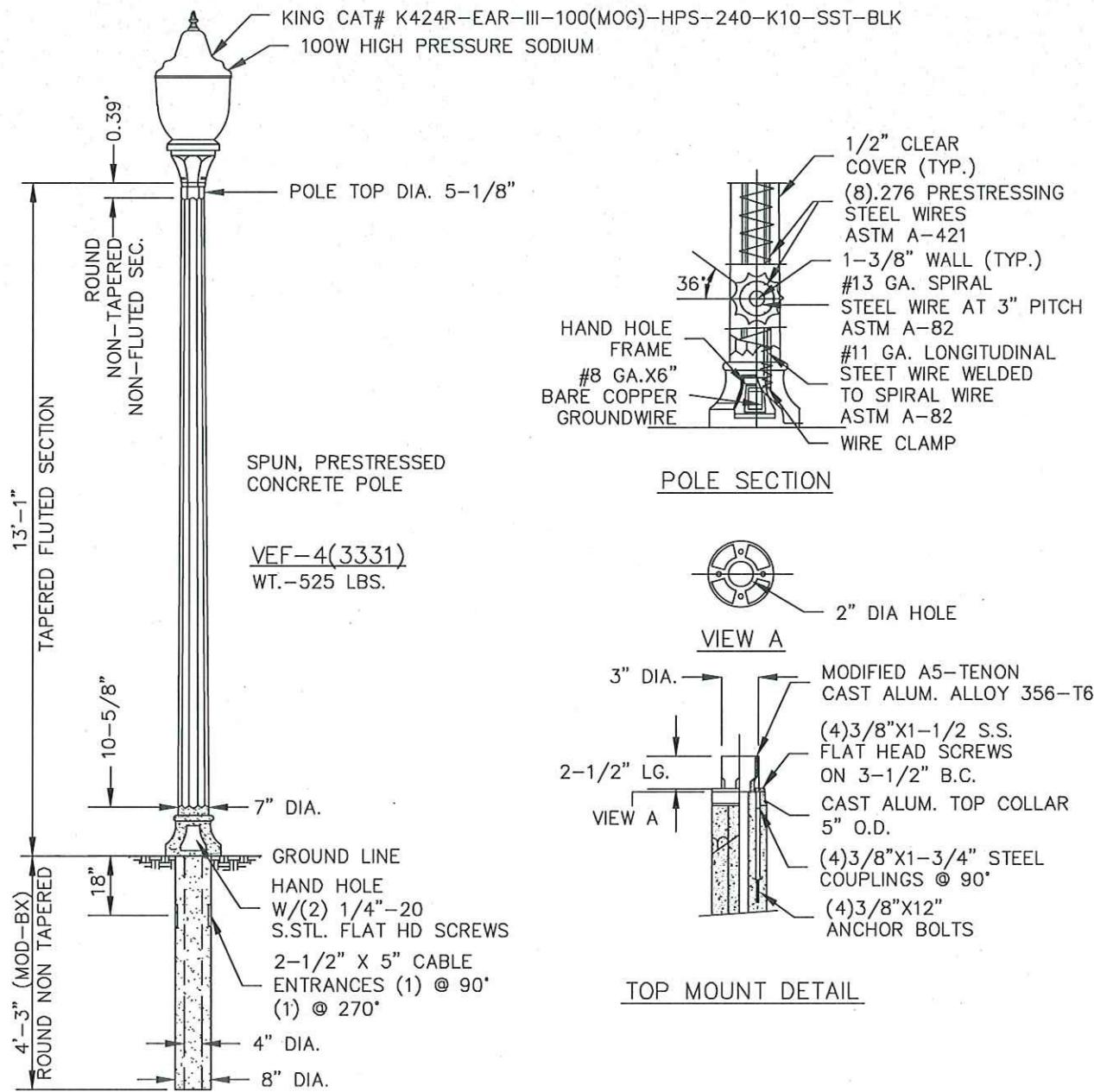
12/2010



LIGHTING CABINET CIRCUIT DETAIL + FOUNDATION

STANDARD PLATE NO.

LT-2



VICTORIAN SERIES FLUTED POLE DETAILS

SCALE: NONE

Revisions:

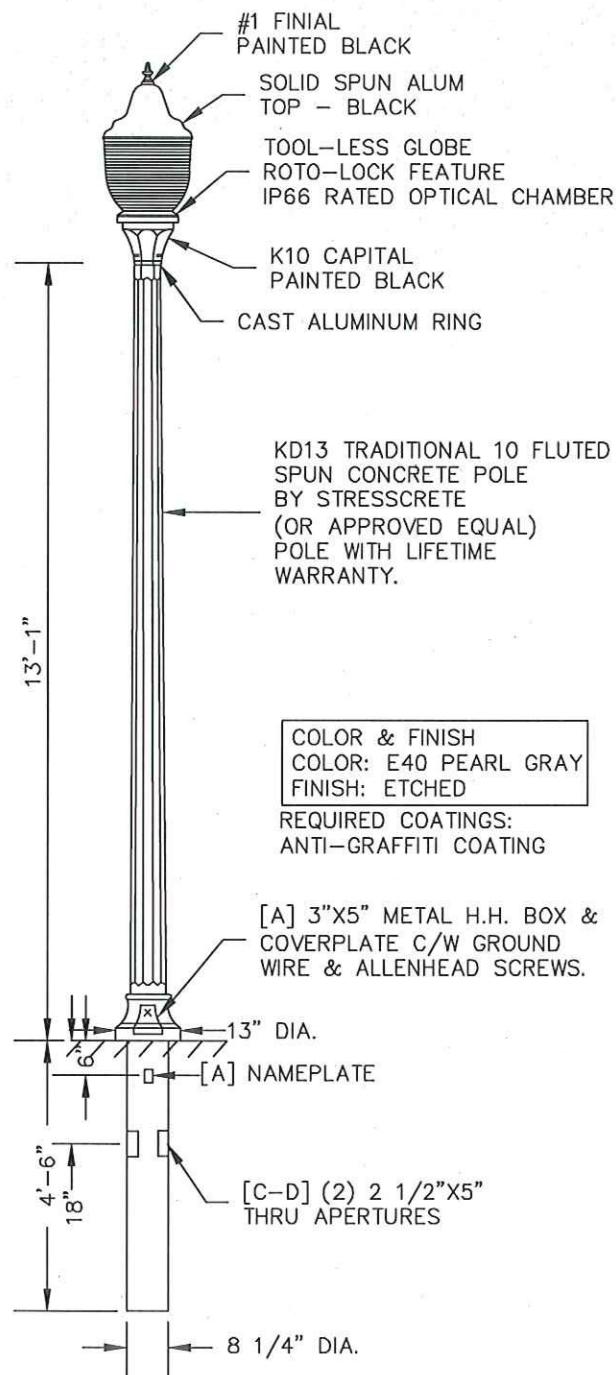
12/2010



STANDARD PLATE NO.

LT-3

STREET LIGHT DETAIL
 TYPE A

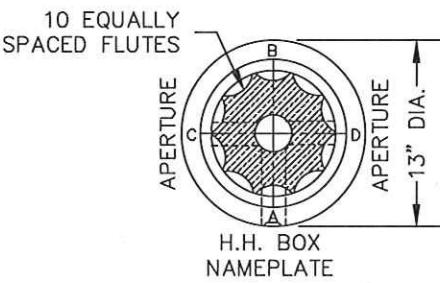


LUMINAIRE SPECIFICATIONS

CATALOG NO.: K424R-EAR-III-100(MOG)
-HPS-240-K10-SST-BLK
TBA
IP66
OPTIONS:
GLOBE MAT'L.: SOLID SPUN TOP-BLK
ACRYLIC
IES CLASSIFICATION: TYPE III
WATTAGE: 100W
LIGHT SOURCE: HIGH PRESSURE SODIUM
LINE VOLTAGE: 240
POLE ADAPTOR: K10 WITH SLEEVE
TO FIT 3' OD TENON
COLOR: BLACK CAPITAL - BLACK FINIAL

SPECIFICATIONS

CATALOG NO.: KD13-G-T-E40
TBA
SECTION: ROUND FLUTED
COLOR: E40 PEARL GRAY
FINISH: ETCHED
POLE TOP: 5" DIA.
POLE BUTT: 8 1/4" DIA.
POLE LENGTH: 17'7"
APPROX. WEIGHT: 615 LBS.
MIN. RACEWAY: 1 1/8" DIA. AT TOP



TYPICAL CROSS SECTION

Revisions:

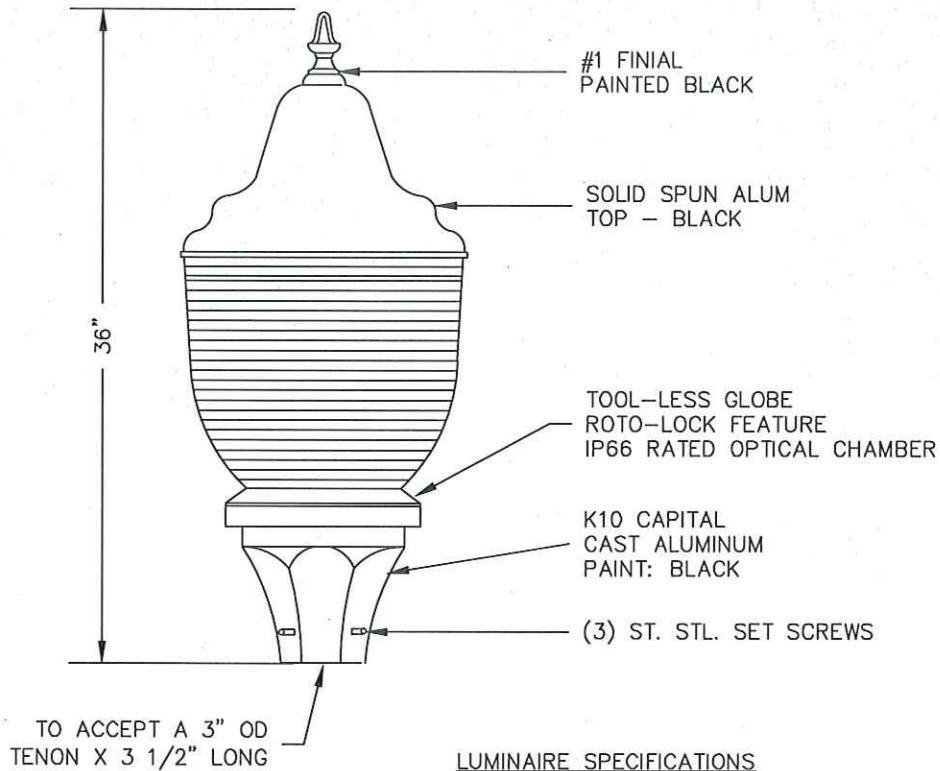
12/2010



STREET LIGHT DETAIL
TYPE A

STANDARD PLATE NO.

LT-4



LUMINAIRE SPECIFICATIONS

CATALOG NO.: K424R-EAR-III-100(MOG)
-HPS-240-K10-SST-BLK

QUANTITY: TBA
IP RATING: IP66
OPTIONS: SOLID SPUN TOP-BLK
GLOBE MAT'L.: ACRYLIC
IES CLASSIFICATION: TYPE III
WATTAGE: 100W
LIGHT SOURCE: HIGH PRESSURE SODIUM
LINE VOLTAGE: 240
POLE ADAPTOR: K10 WITH SLEEVE
TO FIT 3" OD TENON

COLOR: BLACK CAPITAL - BLACK FINIAL

BALLAST INFORMATION

BALLAST TYPE: HX-HPF
BALLAST MANUFACTURER: MAGNETEK / ADVANCE
CATALOG NO:

OPTIONS

QUICK DISCONNECT
TERMINAL BLOCK

Revisions:

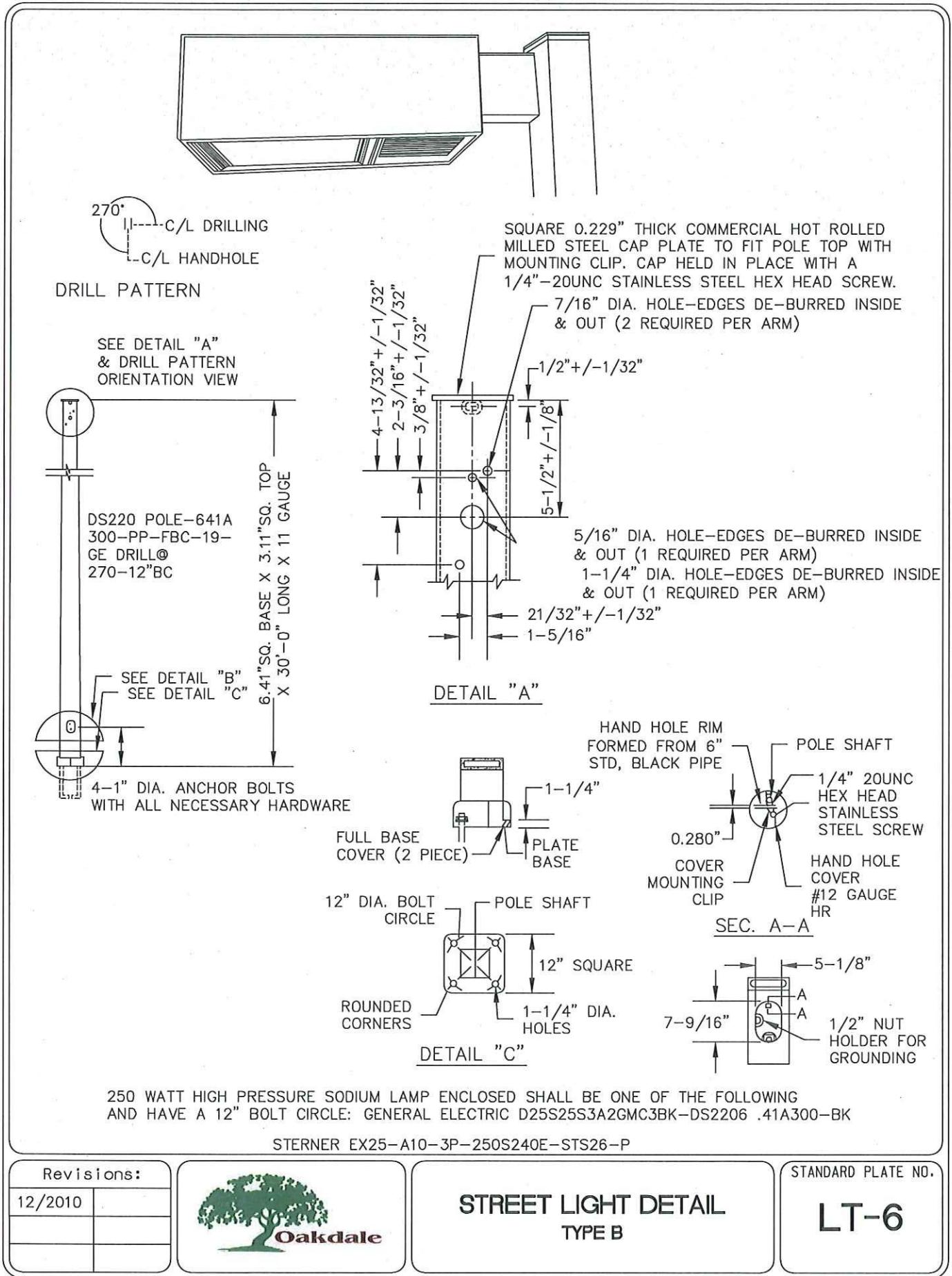
12/2010	

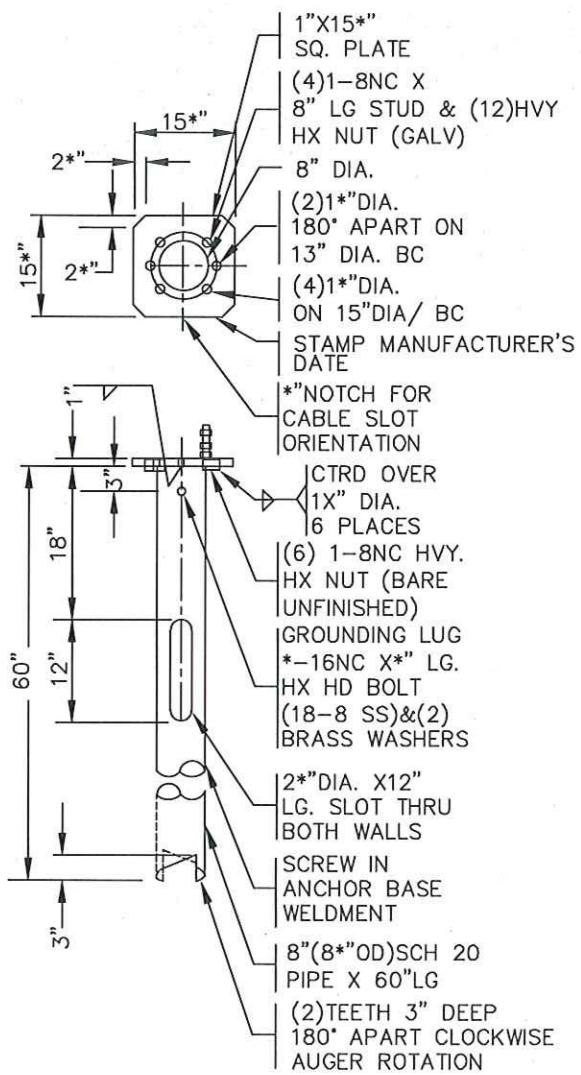


**STREET LIGHT
LUMINAIRE KING
TYPE A**

STANDARD PLATE NO.

LT-5





NOTES:

1. PLATE MATERIAL-LOW CARBON STEEL 36,000 PSI MIN. YIELD PER ASTM A36.
2. PIPE MATERIAL-8" SCH 20 PIPE 35,000 PSI MIN. YIELD PER ASTM 53 GRB.
3. ANCHOR BASE IS DESIGNED TO WITHSTAND 15,000 FT LBS OF INSTALLATION TORQUE.
4. ANCHOR BASE SHOULD BE SHIPPED WITH HARDWARE BAGGED AND SECURED TO PIPE SHAFT.
5. ANCHOR BASE TO BE HOT DIP GALVANIZED PER ASTM A123.
6. HIGH STRENGTH STUD PER ASTM F1554 GRADE 105, MATERIAL-ASTM A29 GRADE 1541 (MODIFIED) STRESS RELIEVED ROD (.91 DIA.) WITH 105,000 PSI MIN. YIELD & 125,000-150,000 PSI TENSILE STRENGTH, CLASS 2A AMERICAN STD B1.1 ROLLED THREAD & GALVANIZED PER ASTM A153.
7. HEAVY HEX NUTS PER ASTM A194 GR 2H (.03 OVER SIZED FOR GALVANIZED STUD) GALVANIZED NUTS PER ASTM A153.
8. SEE SPECIAL PROVISIONS FOR APPROVED MANUFACTURERS.

LIGHT BASE DESIGN STEEL (E)

Revisions:

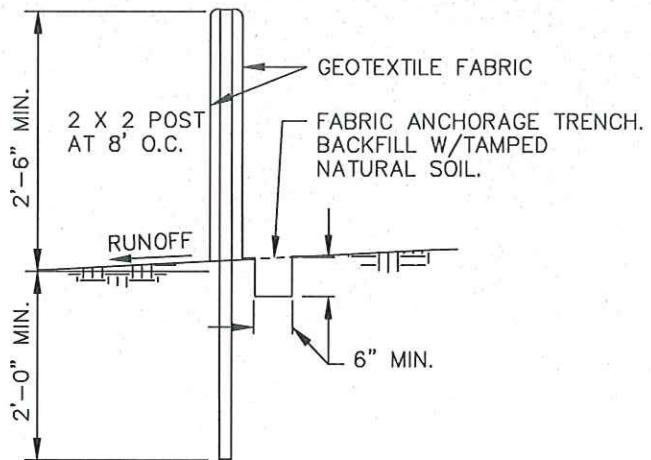
12/2010



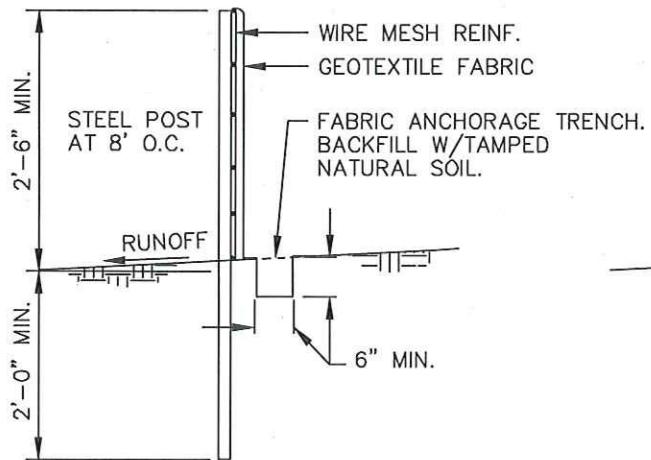
STREET LIGHT
FOUNDATION DETAIL
TYPE B

STANDARD PLATE NO.

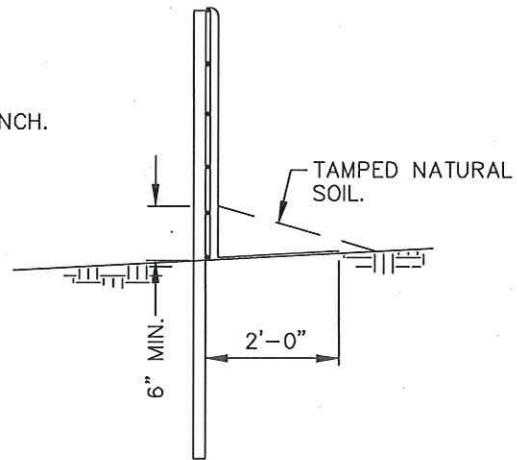
LT-7



PREASSEMBLED SILT FENCE



OPTION 1



OPTION 2

SILT FENCE-HEAVY DUTY

NOTE:

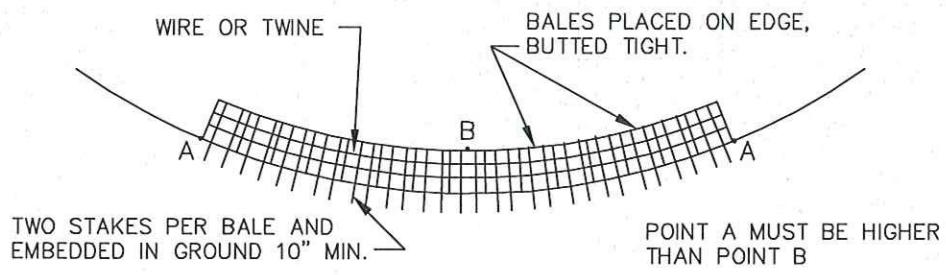
1. WHEN SEDIMENT DEPOSITS REACH ONE-HALF THE HEIGHT OF THE FENCE, THE SEDIMENT WILL BE REMOVED OR A SECOND FENCE INSTALLED.
2. DESIGN RECOMMENDATIONS PER MINNESOTA POLLUTION CONTROL AGENCY.

Revisions:	
12/2010	

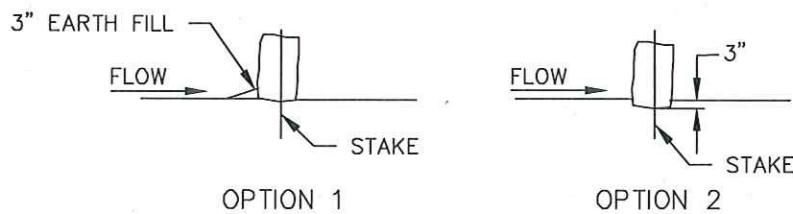


SILT FENCE DETAIL

STANDARD PLATE NO.
DW-1

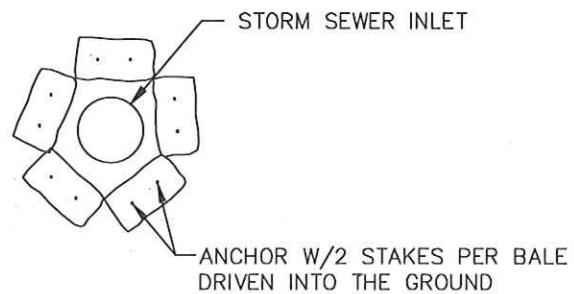


SECTION THRU DITCH



SECTIONS

HAY OR STRAW BALE DITCH CHECK



STORM SEWER INLET PROTECTION

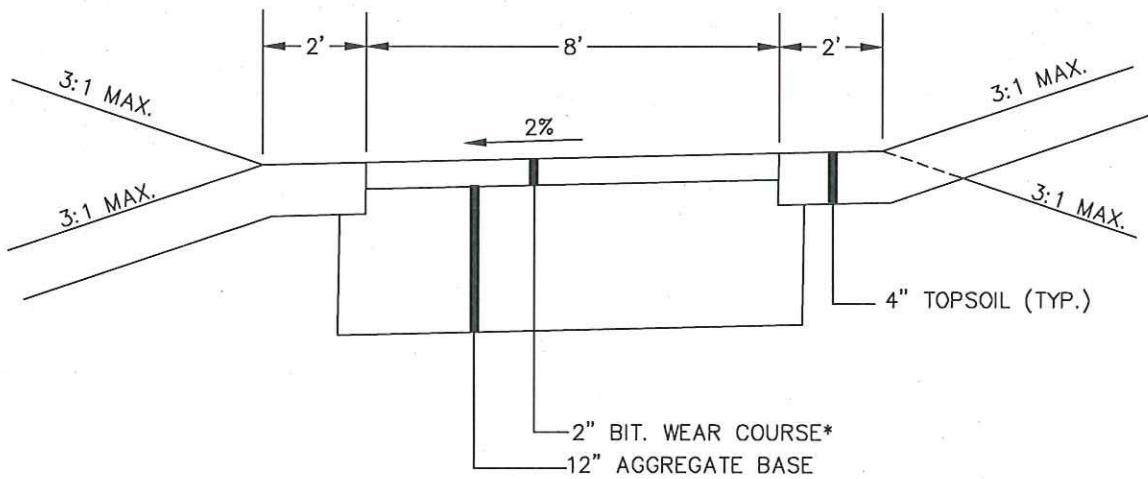
EROSION CONTROL

Revisions:	
12/2010	



**STRAW BALE DITCH
CHECK DETAIL**

STANDARD PLATE NO.	
DW-2	



* AS APPROVED BY THE CITY OF OAKDALE
ENGINEERING DEPARTMENT

NOTE:

SEE Mn/DOT STANDARD PLATE 7036C FOR PEDESTRIAN CURB RAMP.

Revisions:

12/2010	



TRAIL CROSS SECTION
DETAIL

STANDARD PLATE NO.

DW-3

CERTIFICATE OF SURVEY INFORMATION

1. Scale of drawing, north arrow, and legal description.
2. Names of all abutting streets, dimensions of all lot lines, as well as dimensions and location of all easements of record.
3. Locations of all existing buildings on the subject lot.
4. Locations of sanitary and storm manholes, hydrants, catch basins, power poles, telephone boxes, curb lines, water service and sewer service.
5. Location, including front and side yard setback dimensions to buildings located on adjacent lots.
6. Location, including front, side yard, and rear yard setback dimensions to the proposed structure. Note that rear yard setbacks on shoreline lots must show the shortest dimension from the structure to the ordinary high water contour line of the body of water.
7. Outside dimensions of proposed structure, INCLUDING decks, porches, stairways, cant, fireplaces, bay and bow windows.
8. The type of building: ie, split level, rambler, full basement, walkout, walkout windows, etc.
9. Location of stakes established by the surveyor along each side lot line at the proposed front and rear building line. The maintenance of these stakes, once established by the surveyor, shall be the responsibility of the building permit applicant.
10. Benchmark description, elevation, and location. Benchmarks are available from the City Engineer's office(651-730-2732). If manholes are used as a benchmark, invert elevations must be shown. Tip elevations will not be accepted.
11. Grade elevation to mean sea level datum (1929 NGVD) at the following points
 - a. Existing and proposed at each lot corner
 - b. Crown of each street at each lot line extended, or top of curb.
 - c. Existing and proposed at all major corners of proposed structure.
 - d. Proposed lowest floor.
 - e. Proposed top of foundation.
 - f. The top and toe of all other slopes.
 - g. The proposed mid-point or proposed critical point along each property line.
 - h. Any break in grade on adjoining lots within 25 feet (25') of the property line of the subject lot.
 - i. Existing and proposed elevations at any point along the property line intersected by an adjoining property line.
 - j. The top of foundation of any existing buildings located on adjacent lots.
12. Proposed retaining walls to be constructed as part of the final grading, showing location, top and bottom elevations (retaining walls over 48 inches of height require guard rails).
13. The proposed disposal of drainage and surface water, indicating direction of surface water drainage by arrows.
14. Garage must be noted along driveway location and percent slope. Proposed driveway slopes shall not exceed ten (10%) percent as measured in a straight line from the garage slab to the top of curb.
DRIVEWAYS SHALL BE NO LESS THAN FIVE (5') FEET FROM ANY SIDE PROPERTY LINE.
15. Proposed slope or grade of ground for a distance of not less than twenty (20') feet in front of and in back of the proposed structures. Minimum grade for drainage away from structure will be 2%.
16. All existing wetlands, ponds, streams and lakes. For ponds and lakes, the normal water level and the 100-year flood elevation must be indicated on the survey. This information can be obtained from the City Engineer's office (651-730-2732).
17. Erosion control measures. For those lots abutting lakes, streams and wetlands, the applicant may be required to submit a cash escrow to the city to insure that adequate erosion control measures are established and maintained throughout all phases of construction until permanent turf has been established on the subject property.

CERTIFICATE OF SURVEY – SITE SURVEY

Each application for a building permit for a new residential principal structure, or for a new or remodeled exterior business or industrial building, shall be accompanied by a certified land survey indicating that permanent iron monuments have been set at each lot corner. That shall include:

- A. Front and side setback stakes shall be in place at the time of footing form inspection.
- B. All iron monuments shall be visible when the footings are placed, and at the time of final occupancy inspection of the building.
- C. A two (2") inch by two (2") inch stake shall be placed near the front of the building excavation indicating the elevation of the curb in front of the lot and the proposed elevation of the top building foundation.

Revisions:		STANDARD PLATE NO.	
12/2010		DW-4	
		CERTIFICATE OF SURVEY INFORMATION	

Certificate of Survey

401/94

prepared for:

HOME BUILDERS, INC.

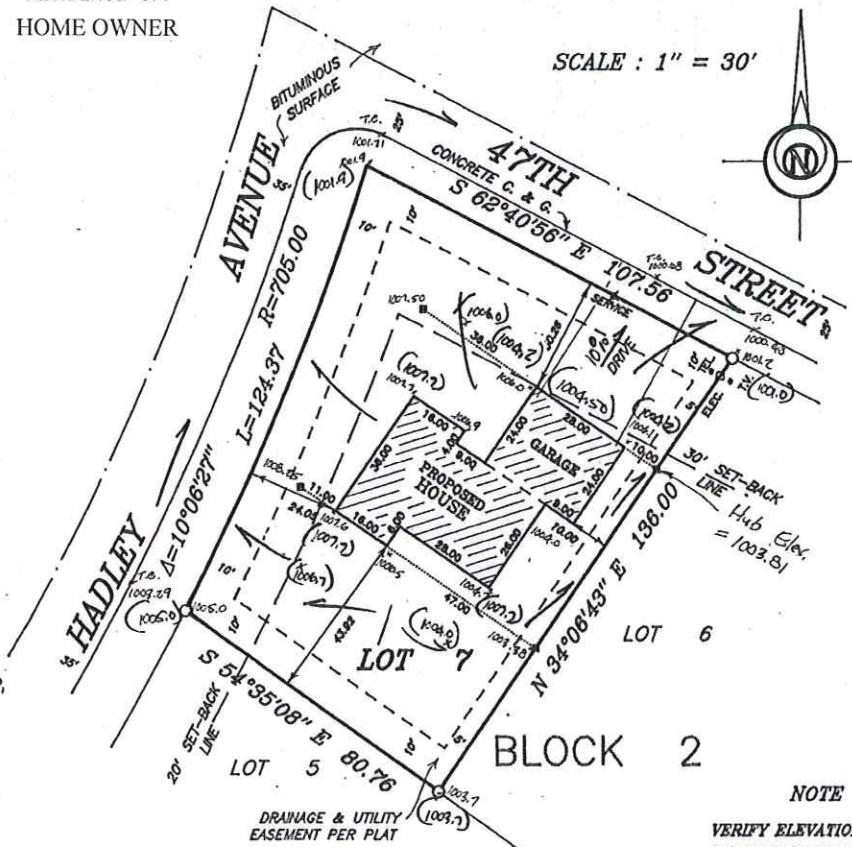
RESIDENCE OF:
HOME OWNER

Legal Description:

LOT 7, BLOCK 2,
OAKS OF DEER RUN

according to the recorded plat thereof.
WASHINGTON COUNTY, MINNESOTA

SCALE : 1" = 30'



BENCHMARK

Top Nut Hydrant -
lot 2 & 3, Block 5
Elevation 1003.26

NOTE

**VERIFY ELEVATIONS &
DIMENSIONS PRIOR TO
CONSTRUCTION**

JOHN DOE SURVEYORS, INC

----- *LAND SURVEYORS* -----

1234 MAIN STREET ANYTOWN, MINNESOTA 55044
PHONE : (612) 555-5555 FAX (612) 555-5556

o Denotes iron monument
 983.5 x Denotes existing elev.
 (987.0) Denotes proposed elev.
 ■ Denotes Off-Set hub
 08.17) = Top of block elev.
 04.50) = Top of fin. garage floor
 05.17) = Top of basement floor elev.
 Indicates direction of surface drainage

I hereby certify that this survey was prepared by me or under my direct supervision, is correct to the best of my knowledge and belief, was executed in accordance with the current Recommended Practices For The Practice Of Land Surveying adopted by the Minnesota Society of Professional Surveyors, and that I am a duly Licensed Land Surveyor under the laws of the State of Minnesota. This certificate shows the location of all buildings attached to said land, and the location of all visible encroachments, if any, there on or said land. No liability is assumed except to the extent for whom this survey was prepared, my heirs, and assigns, and said liability is assumed only for the total cost of this survey.

Field Book 14/51
Job No. J1494

Minnesota Registration No. 99999

NOTE:
SHOW LOWEST DOOR OR
WINDOW OPENING

Revisions:



**CERTIFICATE OF SURVEY
INFORMATION
(EXAMPLE 1)**

STANDARD PLATE NO.

DW-4B

CERTIFICATE OF SURVEY

FILE NAME	DATE	DRAWN BY
JERAL LISB HERITAGE OF OAKDALE TRV	4-15-2011	
SCALE	20' Fin	
JOB	1/1	
REVISION		
Sheet		

True north arrow with Trimble PC Software



ADDRESS: 6802 15TH STREET CIRCLE NORTH
OAKDALE, MN 55128

BENCH MARK: TOP NUT HYDRANT BETWEEN LOT 16 & 17, BLOCK 1,
HERITAGE OF OAKDALE EAST SIDE OF 15TH STREET CIRCLE NORTH,
ELEVATION = 1026.77' NAVD 1929
BENCH MARK: TOP NUT HYDRANT LOCATED ON EAST SIDE OF 15TH
STREET CIRCLE NORTH OF PROPOSED LOT 16, BLOCK 1, HERITAGE
OF OAKDALE. ELEVATION = 1020.59' FEET NAVD 1929.

DENOTES PROPOSED ELEVATION
DENOTES EXISTING ELEVATION
DENOTES IRON MONUMENT AT BOUNDARY CORNER
DENOTES WOOD HUB PLACED AT BLDG OFFSET
DENOTES DIRECTION OF SURFACE DRAINAGE
PROPOSED TOP OF FOUNDATION ELEVATION
PROPOSED GARAGE FLOOR ELEVATION
PROPOSED LOWEST FLOOR ELEVATION

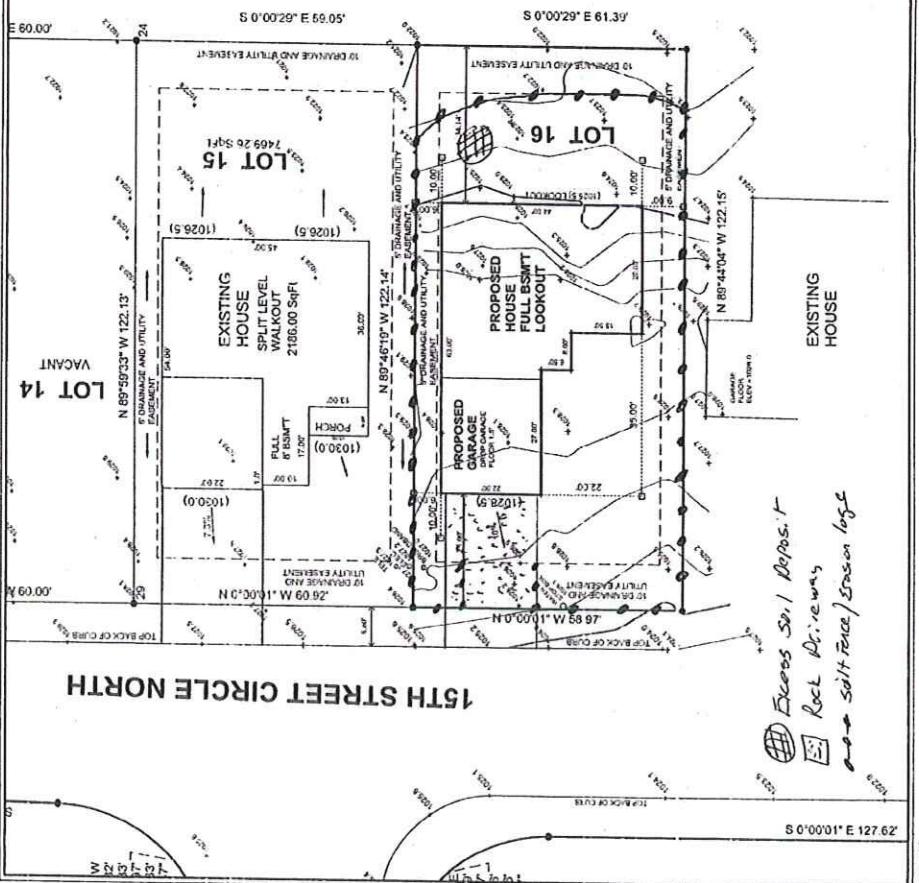
(1029.0) x 1000.5
1030.5
1028.5
1022.5

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT REPRESENTATION
OF A SURVEY OF THE BOUNDARIES OF:
LOT 16, BLOCK 1, HERITAGE OF OAKDALE, ACCORDING TO THE RECORDED
PLAT, WASHINGTON COUNTY, MINNESOTA
AND THE LOCATION OF ALL BUILDINGS, IF ANY, THEREON, AND ALL VISIBLE
ENCROACHMENTS, IF ANY, FROM OR ON SAID LAND, IT ALSO SHOWS THE
LOCATION OF THE STAKES AS SET FOR A PROPOSED BUILDING, AS
SURVEYED BY ME OR UNDER MY DIREST SUPERVISION THIS 15TH DAY OF
APRIL, 2011.

P.J. LAND SURVEYING, LLC

BY:
PAULA A. JOHNSON
LAND SURVEYOR, MINN. LIC. NO. 10938

PREPARED FOR:
CREATIVE HOME CONSTRUCTION
1301 COULEE ROAD SUITE #1
STILLWATER, MN 55082
651-303-3025
715-581-5737



NOTE:
SHOW LOWEST DOOR OR
WINDOW OPENING.

Revisions:

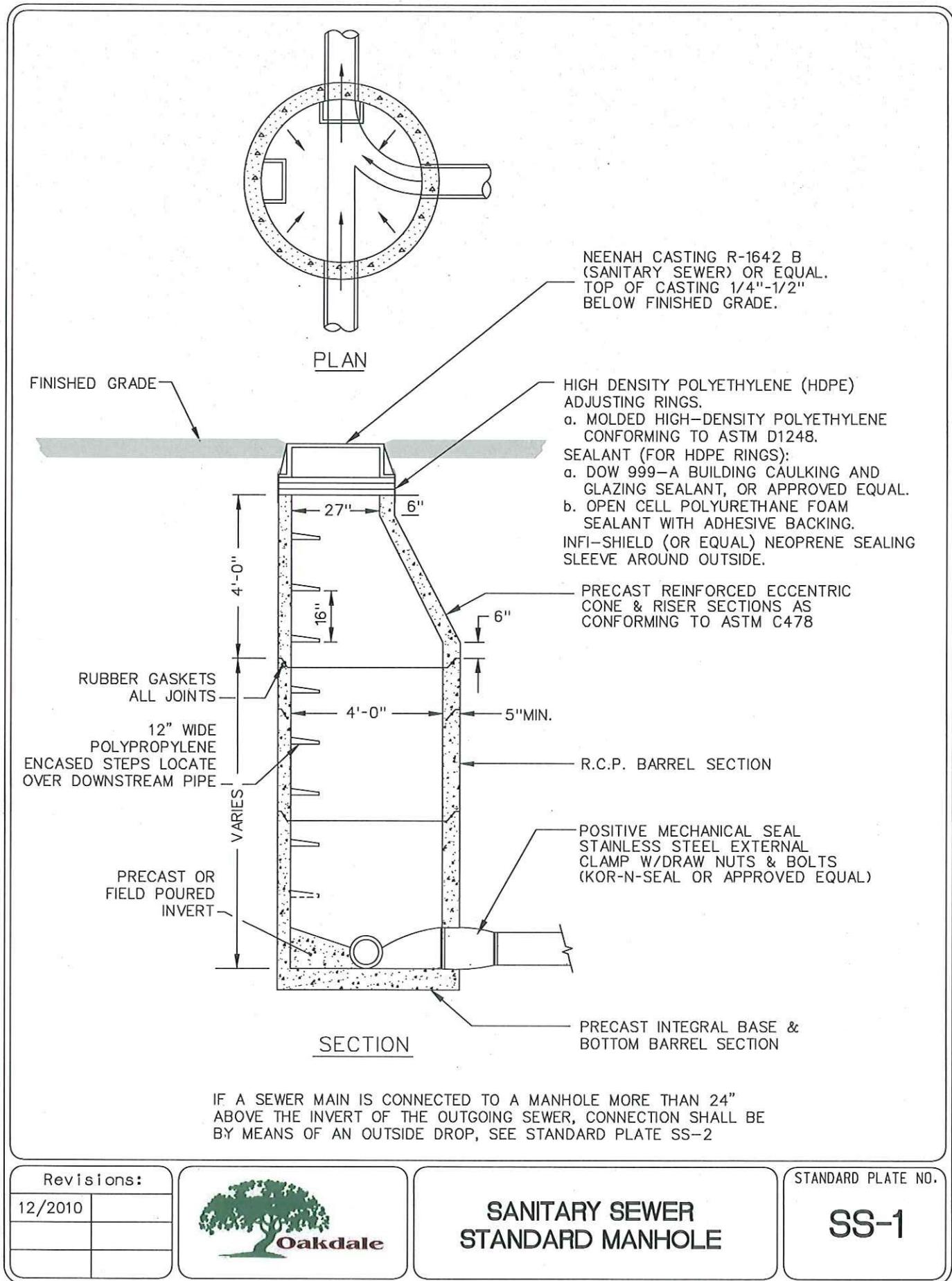
12/2010



CERTIFICATE OF SURVEY
INFORMATION
(EXAMPLE 2)

STANDARD PLATE NO.

DW-4C

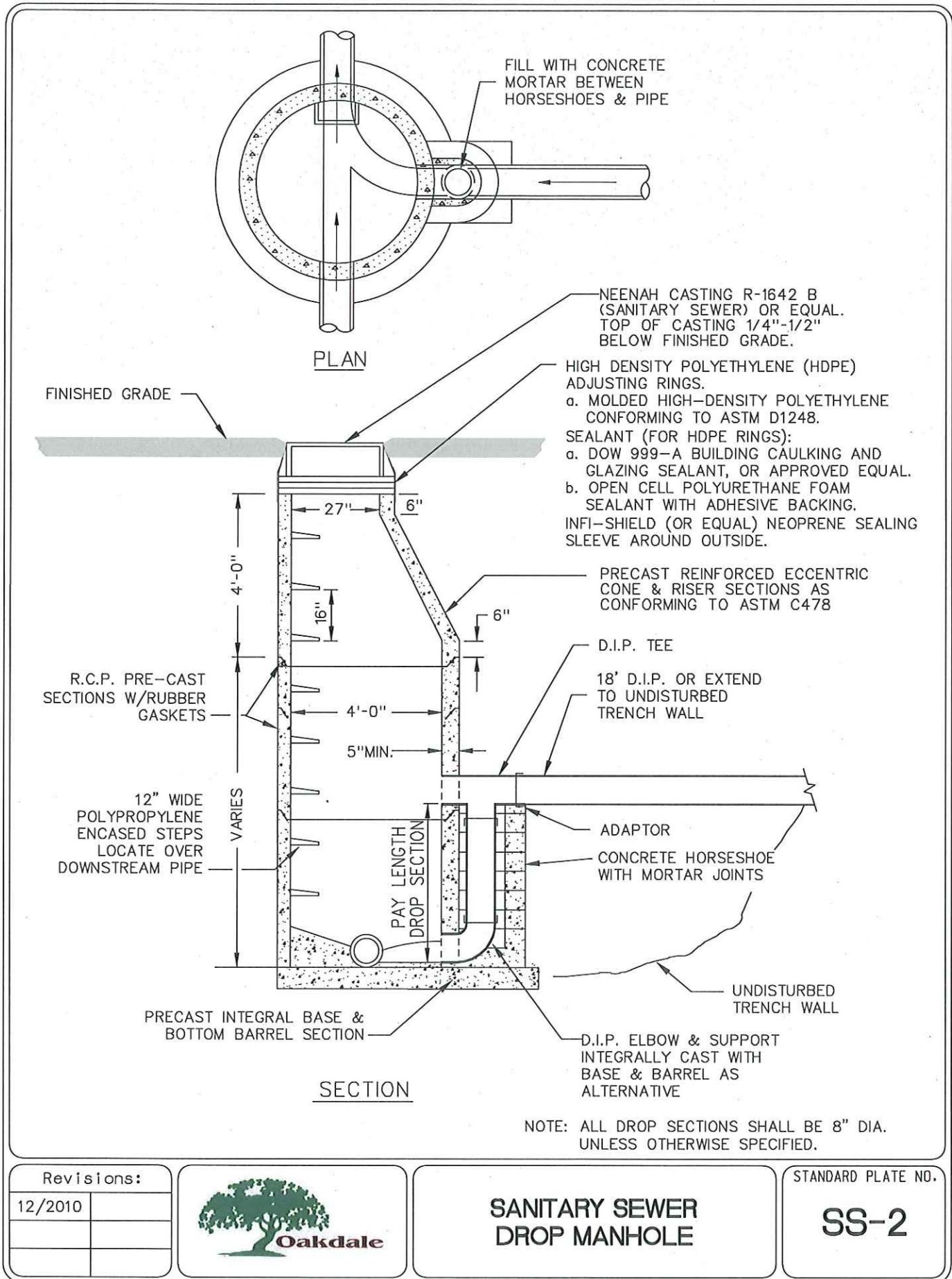


Revisions:	
12/2010	



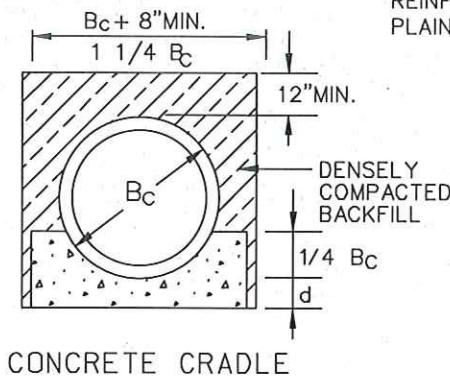
SANITARY SEWER
STANDARD MANHOLE

STANDARD PLATE NO.
SS-1



TRENCH BEDDING—CIRCULAR PIPE

CLASS A



CONCRETE CRADLE

REINFORCED $A_s = 1.0\%$ $L_f = 4.8$
REINFORCED $A_s = 0.4\%$ $L_f = 3.4$
PLAIN $L_f = 2.8$

12" MIN.

PLAIN

$L_f = 4.8$
 $L_f = 3.4$
 $L_f = 2.8$

$B_c + 8" \text{ MIN.}$

$1 1/4 B_c$

$1/8H$

$6" \text{ MIN.}$

$1/4D$

$4" \text{ MIN.}$

d

PLAIN OR REINF.
CONC. 2000 PSI MIN.

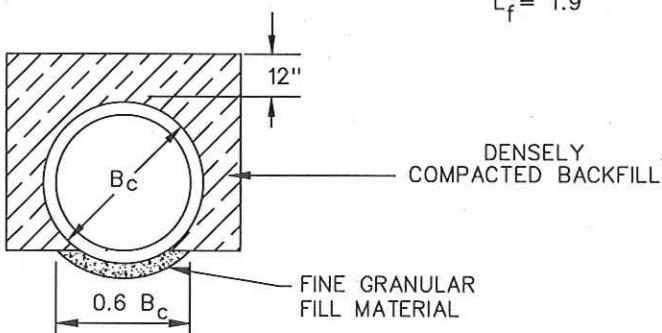
B_c

COMPACTED
GRANULAR
MATERIAL

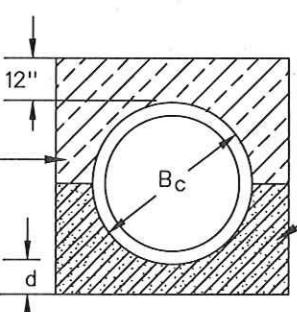
CONCRETE ARCH

CLASS B

$L_f = 1.9$



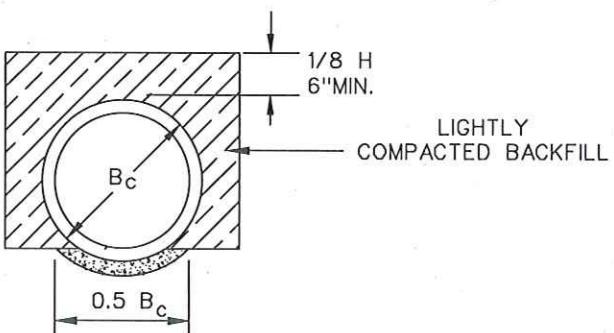
SHAPED SUBGRADE WITH
GRANULAR FOUNDATION



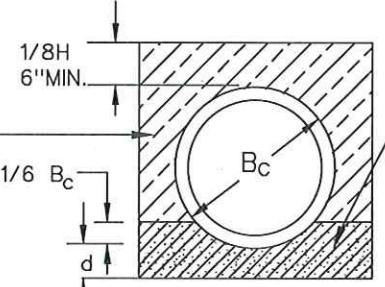
GRANULAR FOUNDATION

CLASS C

$L_f = 1.5$



SHAPED SUBGRADE



GRANULAR FOUNDATION

LEGEND

B_c = OUTSIDE DIAMETER

H = BACKFILL COVER OVER TOP OF PIPE

D = INSIDE DIAMETER

d = DEPTH OF BEDDING MATERAIL BELOW PIPE

A_s = AREA OF TRAVERSE STEEL IN THE CRADLE OR ARCH EXPRESSED AS
A PERCENTAGE OF AREA OF CONCRETE AT INVERT OR CROWN.

DEPTH OF BEDDING
MATERIAL BELOW PIPE

D	d MIN.
27" & SMALLER	3"
30" TO 60"	4"
66" & LARGER	6"

Revisions:

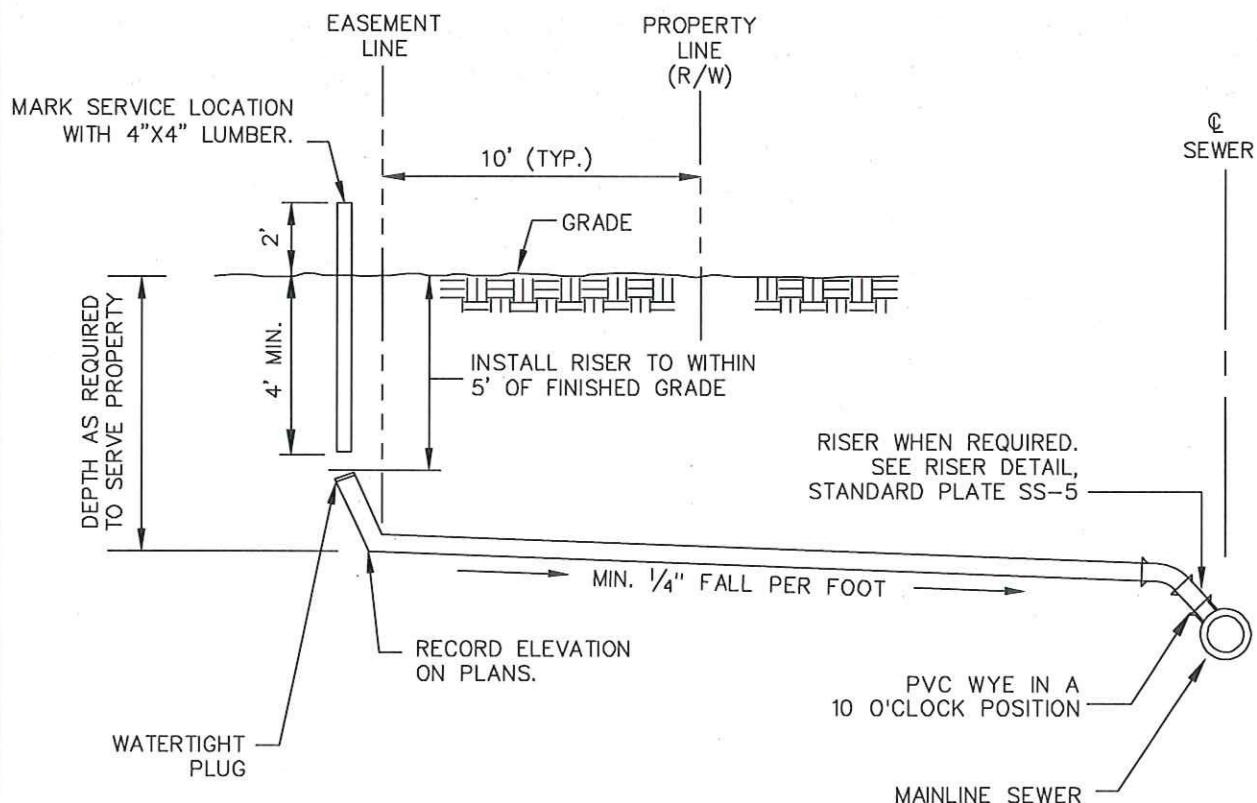
12/2010



PIPE BEDDING

STANDARD PLATE NO.

SS-3



NOTE:
ALL SERVICE MATERIALS, INCLUDING
WYES SHALL BE SDR 26 PVC

Revisions:

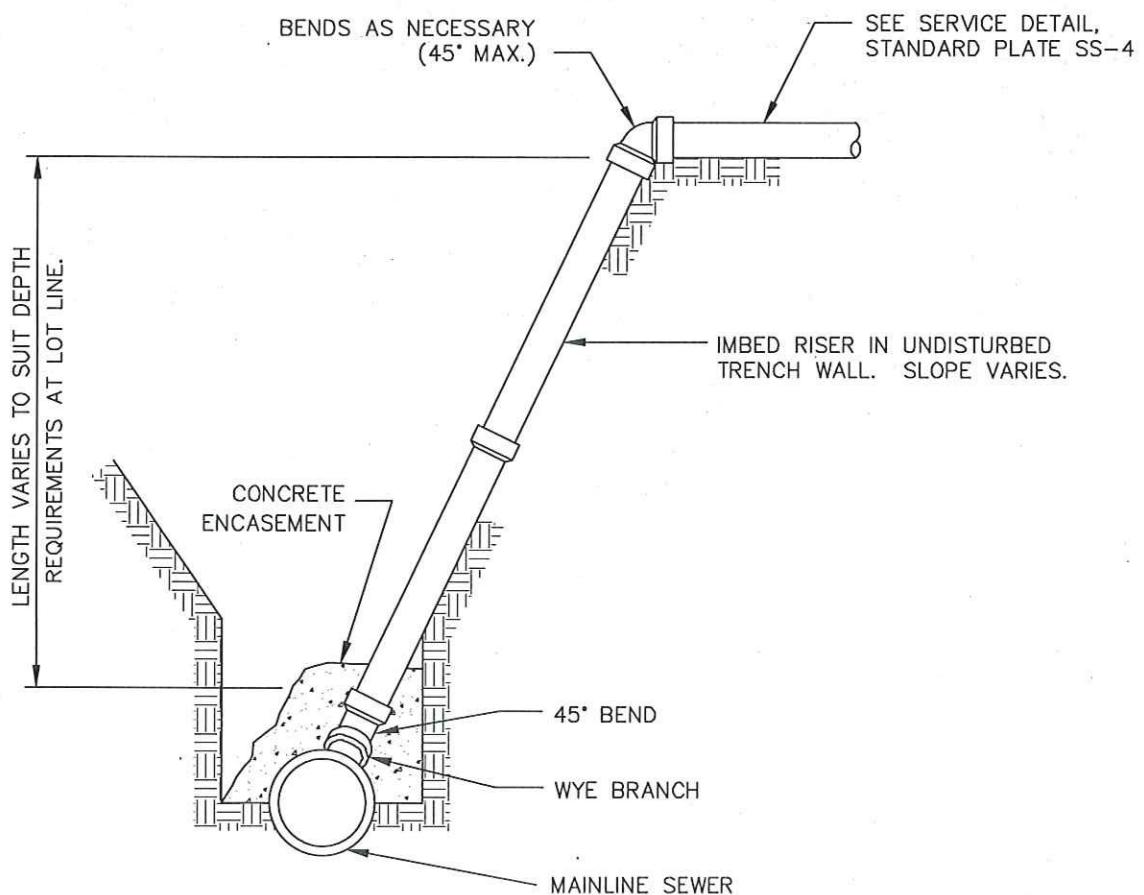
12/2010	



SANITARY SEWER
SERVICE

STANDARD PLATE NO.

SS-4



NOTE:
ALL SERVICE MATERIALS, INCLUDING
WYES SHALL BE SDR 26 PVC

Revisions:

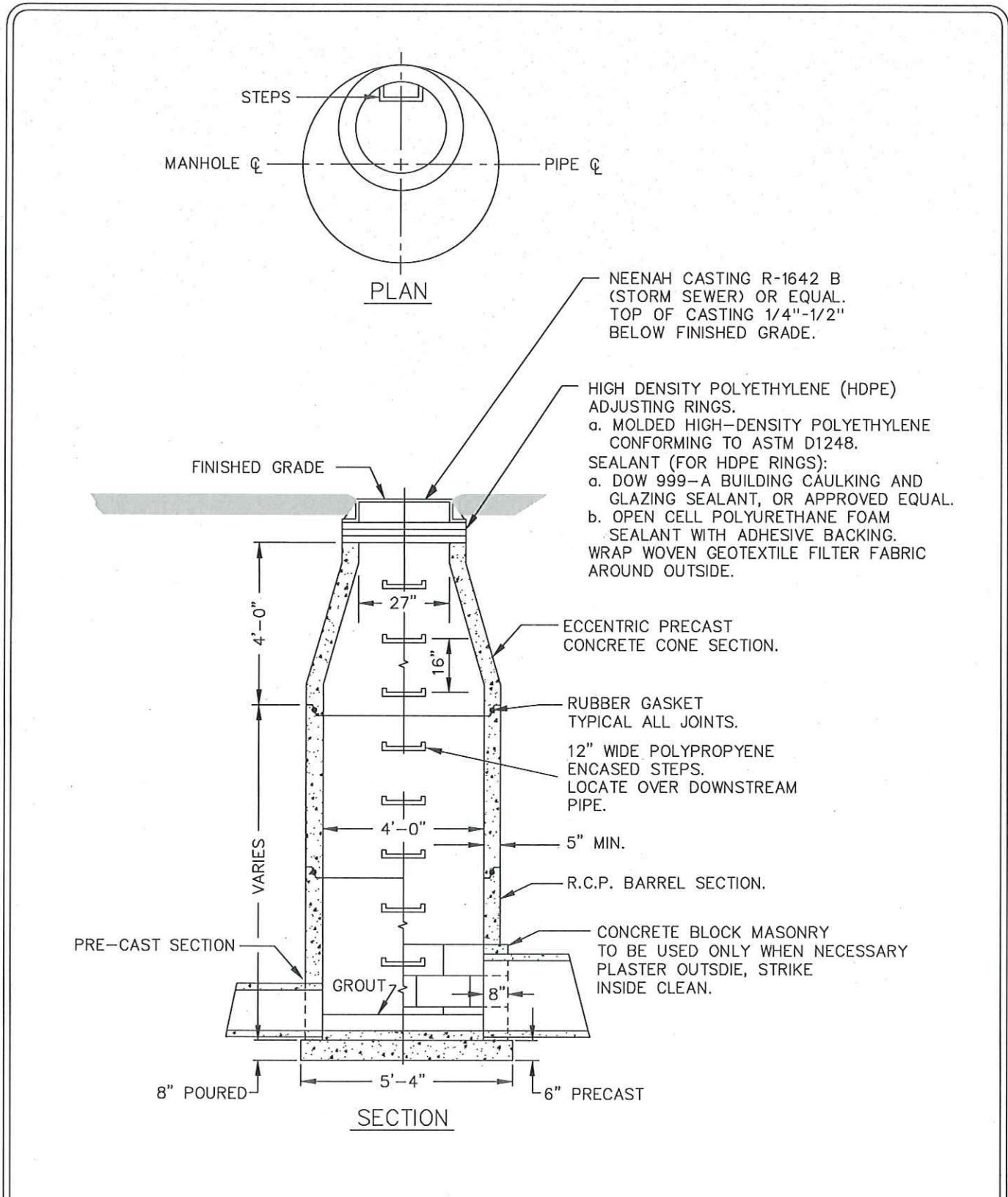
12/2010	



**SANITARY SEWER
SERVICE RISER**

STANDARD PLATE NO.

SS-5



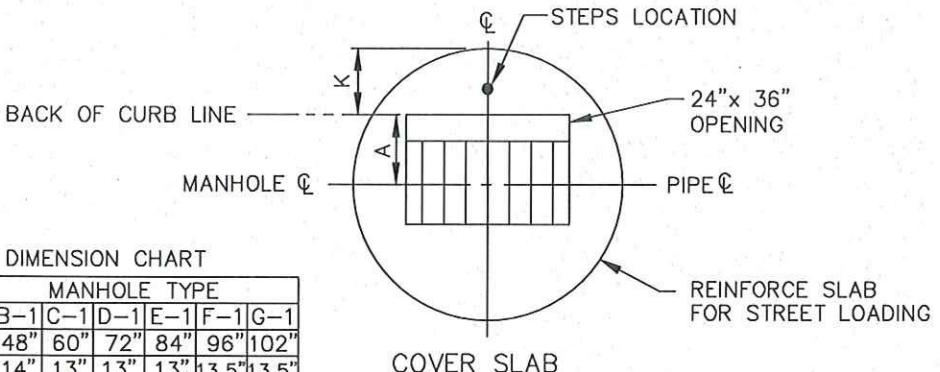
Revisions:	
12/2010	



STORM SEWER MANHOLE
(ECCENTRIC)

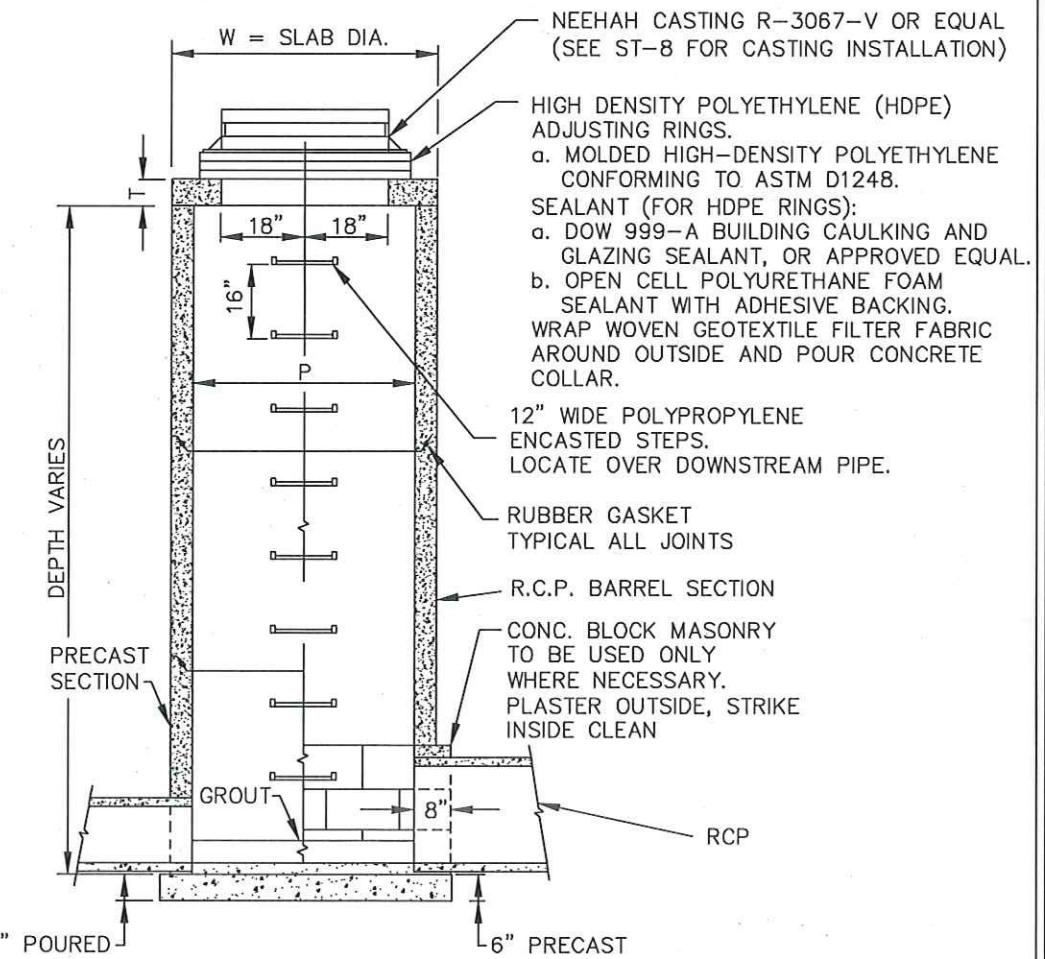
STANDARD PLATE NO.

ST-1



DIMENSION CHART

DIM	MANHOLE TYPE				
	B-1	C-1	D-1	E-1	F-1
P	48"	60"	72"	84"	96"
K	14"	13"	13"	13"	13.5"
T	6"	8"	8"	8"	8"
W	58"	72"	86"	100"	113"
A	15"	23"	30"	37"	43"
					46"



Revisions:

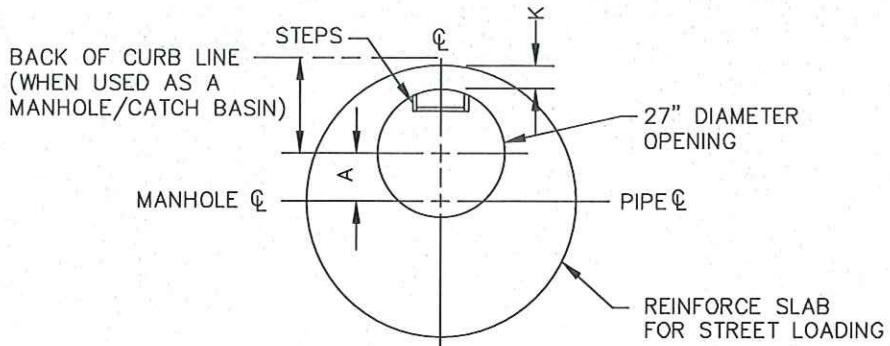
12/2010



MANHOLE/CATCH BASIN
(TYPE B-1 THRU G-1)

STANDARD PLATE NO.

ST-2

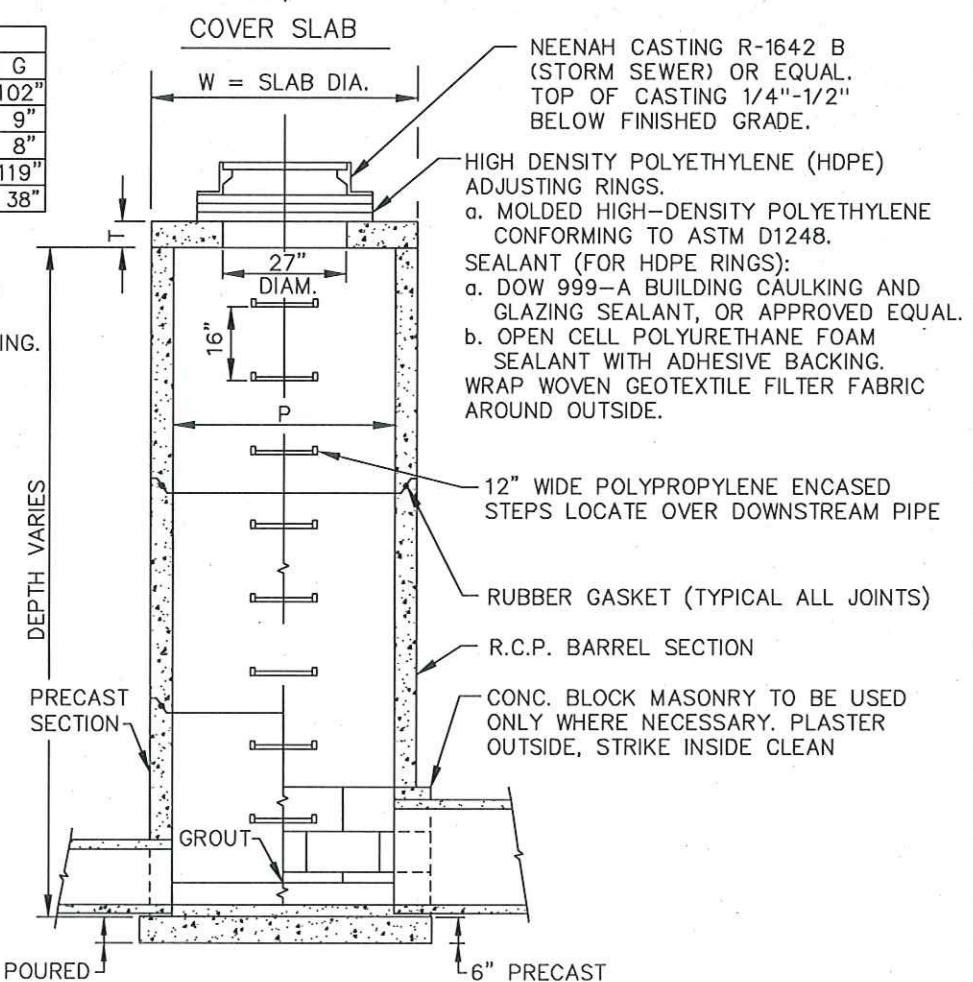


DIMENSION CHART

DIM	MANHOLE TYPE						
	B	C	D	E	F	G	
P	48"	60"	72"	84"	96"	102"	
K	6"	7"	8"	9"	9"	9"	
T	6"	8"	8"	8"	8"	8"	
W	58"	72"	86"	100"	113"	119"	
A	9.5"	15.5"	21.5"	27.5"	34.5"	38"	

NOTE:

DIMENSION "A" IN ABOVE CHART IS BASED ON A 27" DIAM. OPENING. INCREASE "A" BY 1.5" FOR 24" OPENING.



Revisions:

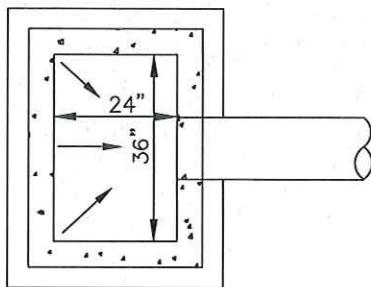
12/2010	



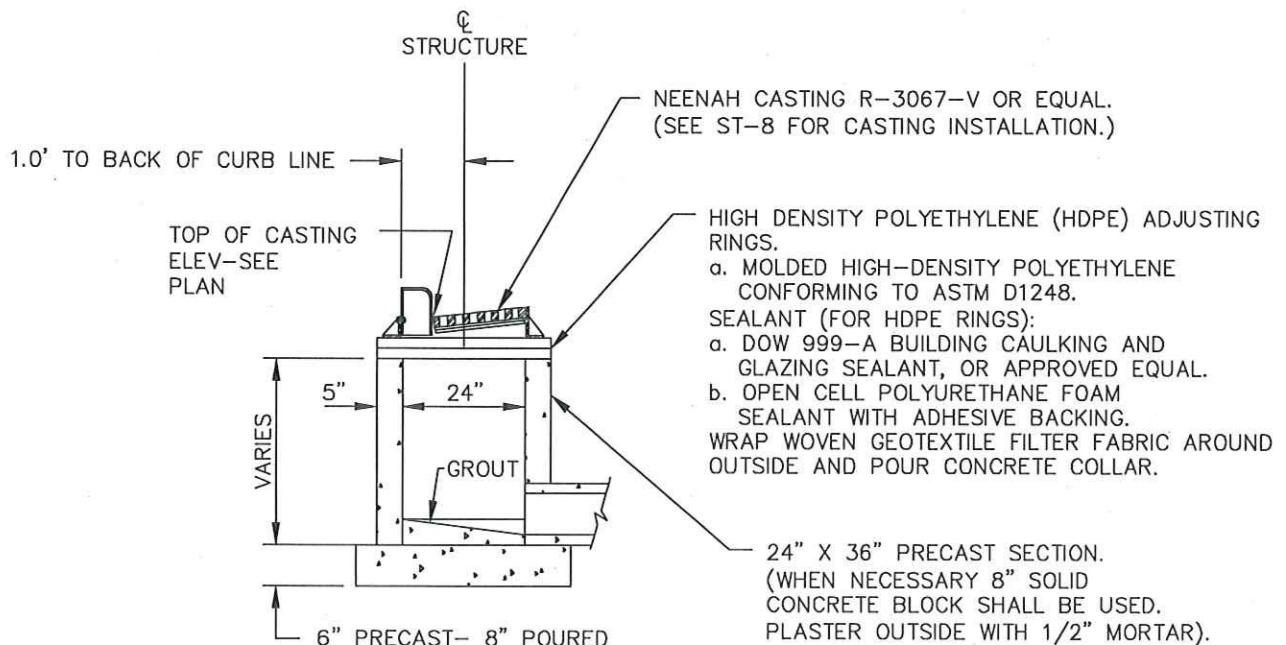
MANHOLE
(TYPE B THRU G)

STANDARD PLATE NO.

ST-3



PLAN



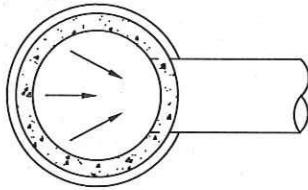
SECTION

Revisions:	
12/2010	

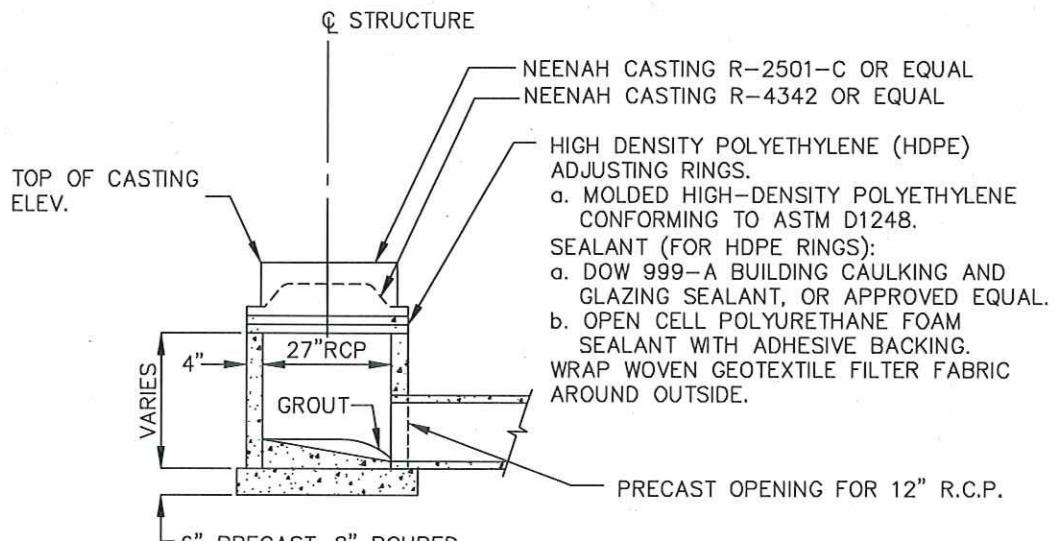


TYPE "X" CATCH BASIN
(RECTANGULAR)

STANDARD PLATE NO.
ST-4



PLAN



SECTION

CASTING
R-4342
R-2501-C

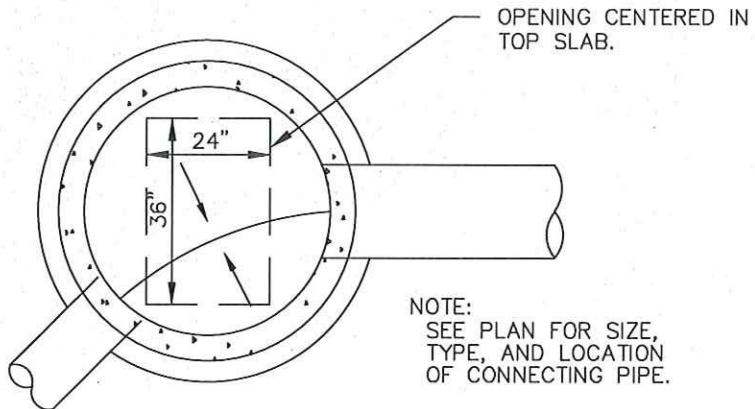
APPLICATION/DESCRIPTION
DITCH GRATE, STOOL TYPE
MOWABLE/MAINTAINED AREA, OR BITUMINOUS AREA.

Revisions:	
12/2010	

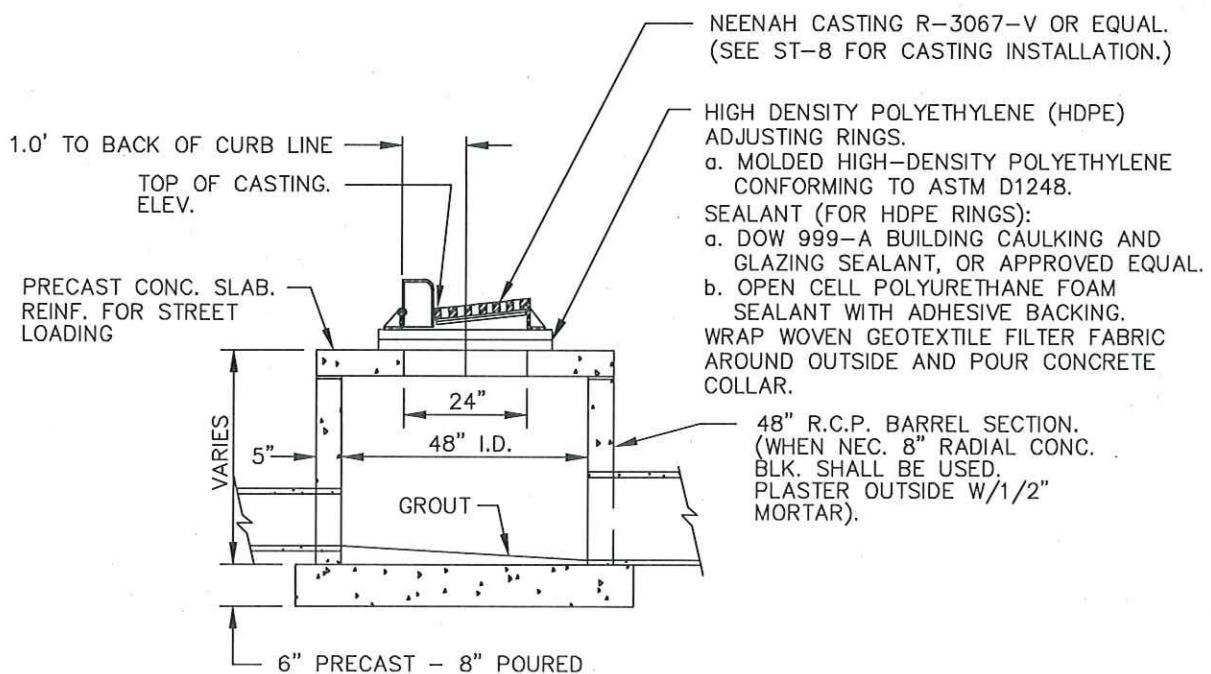


TYPE "X" CATCH BASIN
(ROUND)

STANDARD PLATE NO.
ST-5



PLAN



SECTION

Revisions:

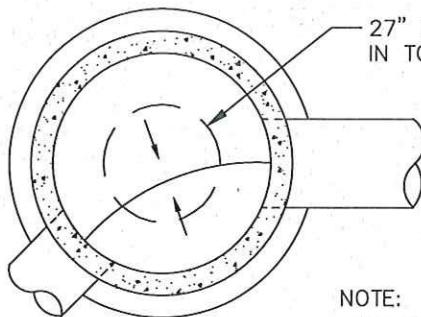
12/2010	



TYPE "Y" CATCH BASIN
(RECTANGULAR CASTING)

STANDARD PLATE NO.

ST-6



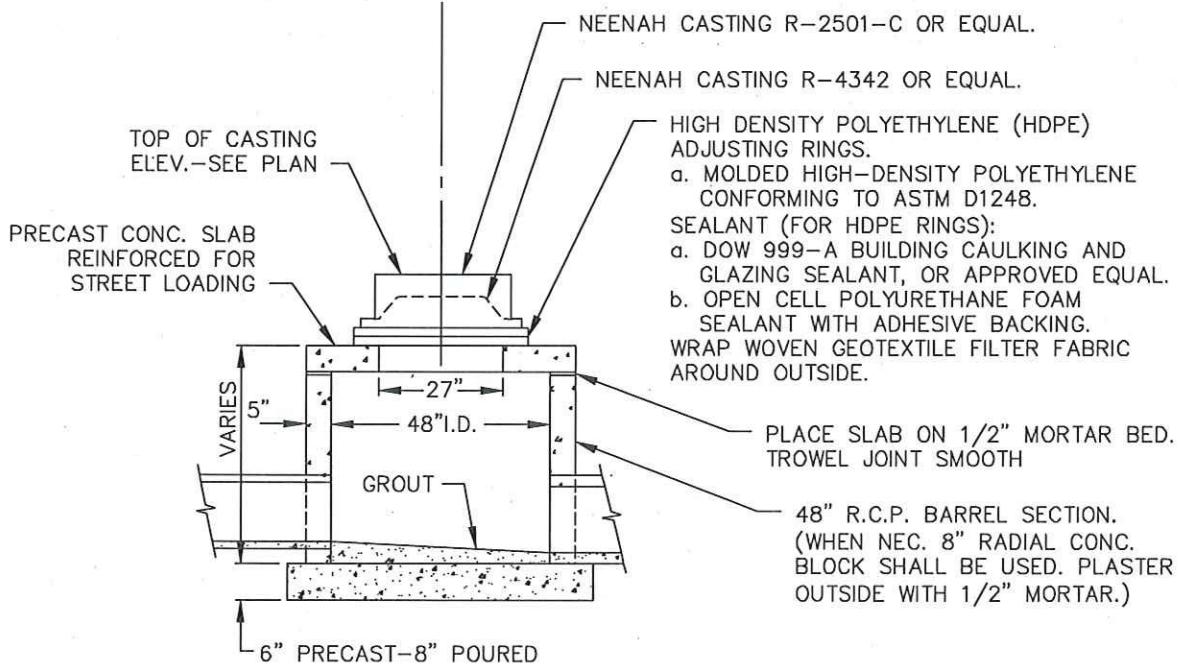
PLAN

27" DIA. OPENING CENTERED
IN TOP SLAB.

NOTE:

SEE PLAN FOR SIZE,
TYPE AND LOCATION
OF CONNECTING PIPE.

STRUCTURE



SECTION

CASTING
R-4342
R-2501-C

APPLICATION/DESCRIPTION
DITCH GRATE, STOOL TYPE
MOWABLE/MAINTAINED AREA, OR BITUMINOUS AREA.

Revisions:

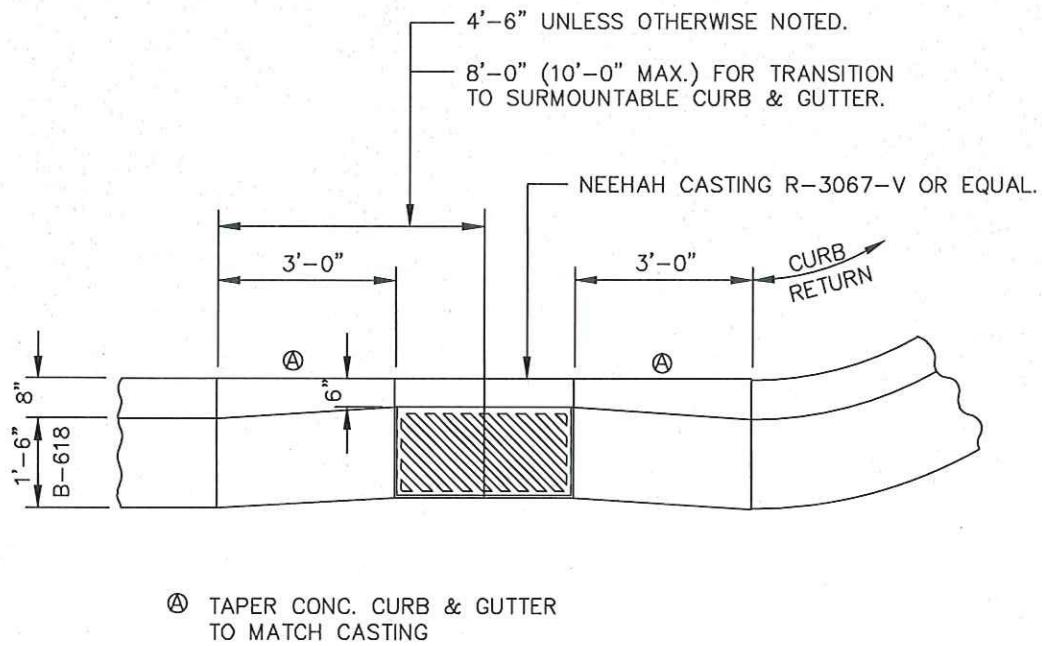
12/2010	



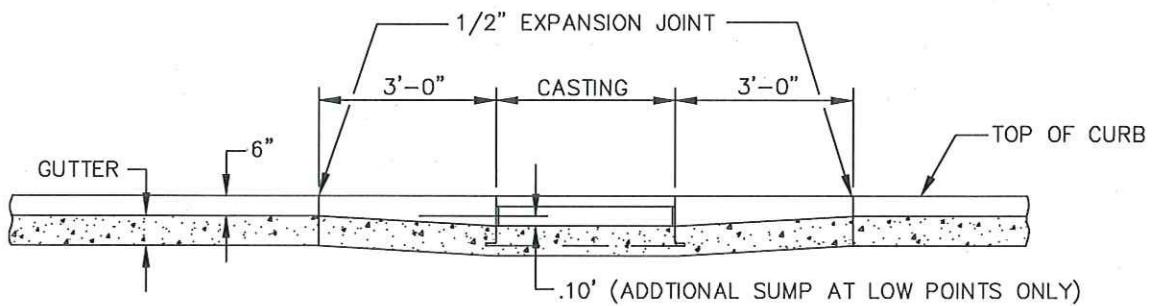
TYPE "Y" CATCH BASIN
(ROUND CASTING)

STANDARD PLATE NO.

ST-7



PLAN



SECTION

Revisions:	
12/2010	

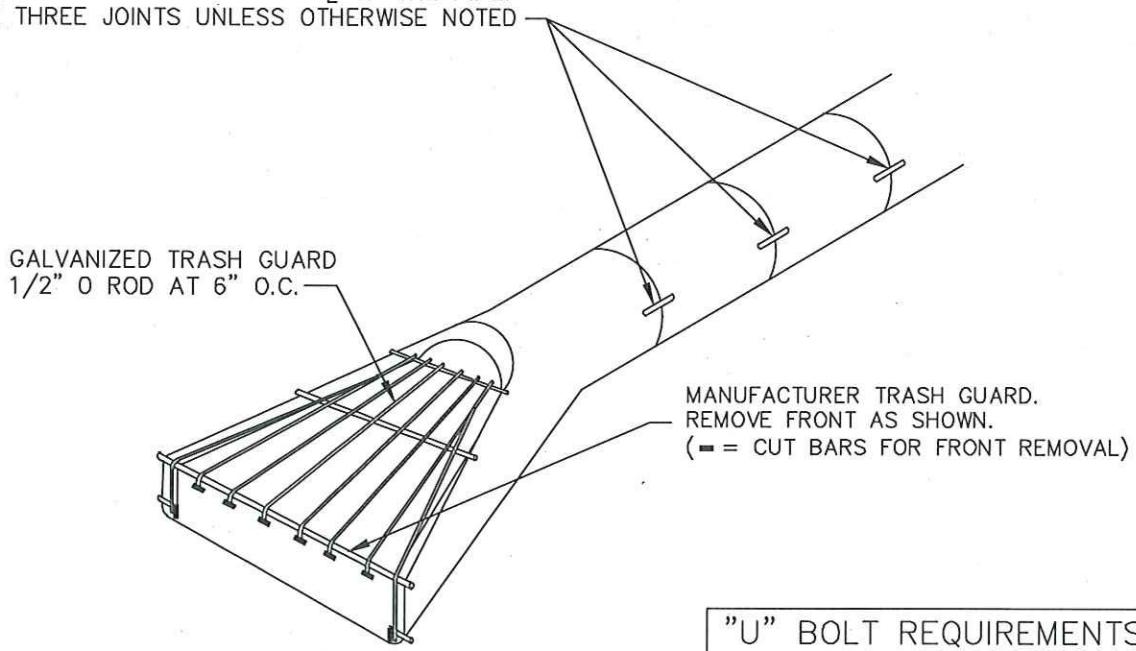


CATCH BASIN INSTALLATION
(FOR B-618 C+G)

STANDARD PLATE NO.

ST-8

GALVANIZED "U" BOLT FASTENERS – 2 PER JOINT LOCATED ON EACH SIDE OF THE PIPE AT 60° FROM THE TOP C OF THE PIPE. TIE THREE JOINTS UNLESS OTHERWISE NOTED



"U" BOLT REQUIREMENTS

PIPE SIZE	BOLT DIA.	WIDTH
21" & LESS	1/2"	24"
24" TO 36"	5/8"	24"
42" TO 54"	3/4"	24"
60" & GREATER	1"	24"

SEE STADARD PLATE ST-10
FOR RIPRAP AT R.C.P.
APRONS.

CONCRETE APRON

Revisions:

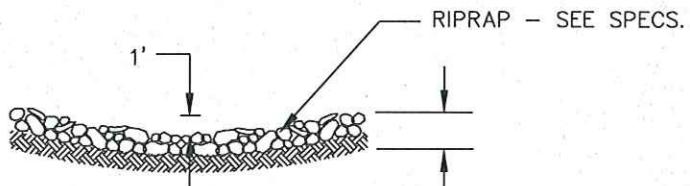
12/2010	



FLARED END SECTION (WITH TRASH GUARD)

STANDARD PLATE NO.

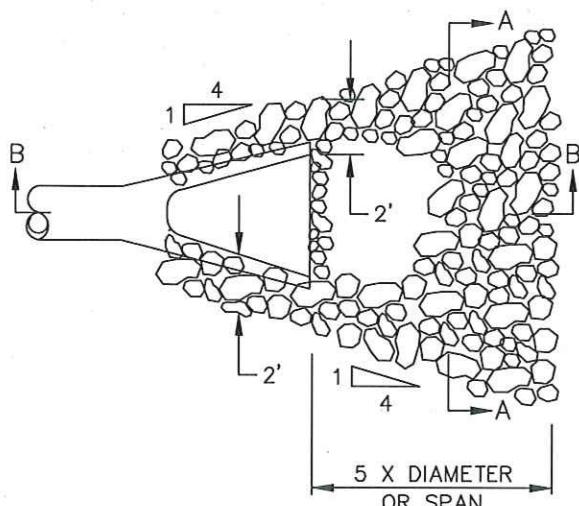
ST-9



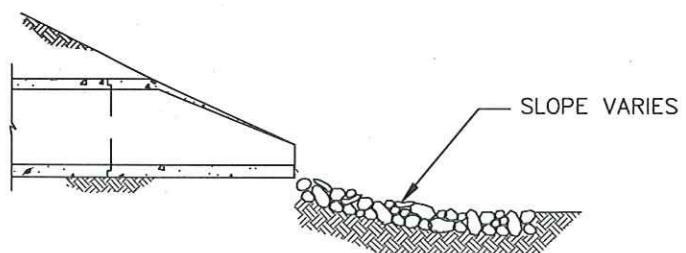
SEC. A-A

SEE PLAN FOR DEPTH AND
VOLUME OF RIPRAP REQ'D.
ALSO DEPTH AND VOLUME
OF FILTER BLANKET IF
REQUIRED.

GEOTEXTILE FILTER MATERIAL
CAN BE USED IN LIEU OF
FILTER BLANKET IF SPECIFIED.



PLAN



SEC. B-B

Revisions:

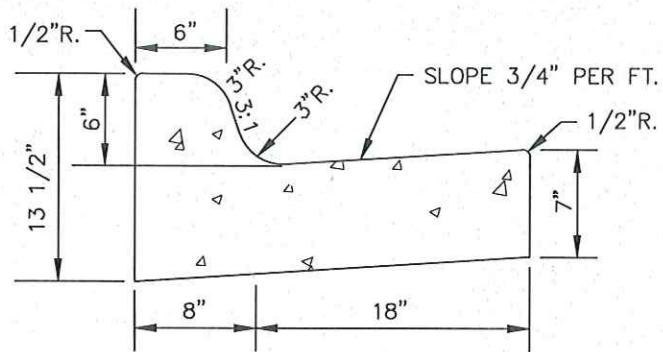
12/2010	



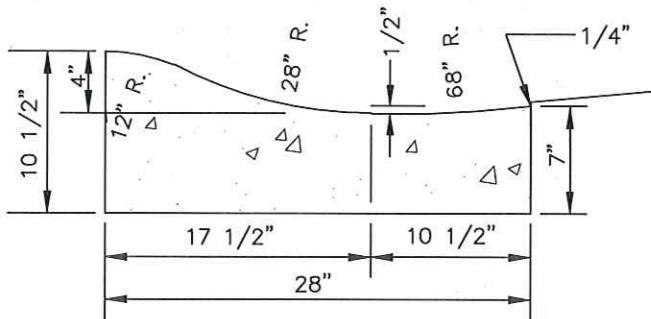
RIP RAP AT R.C.P. APRONS

STANDARD PLATE NO.

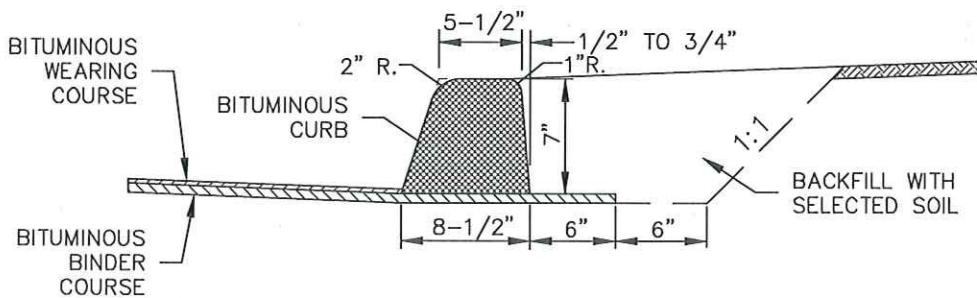
ST-10



B618 C&G



SURMOUNTABLE C&G



BITUMINOUS CURB

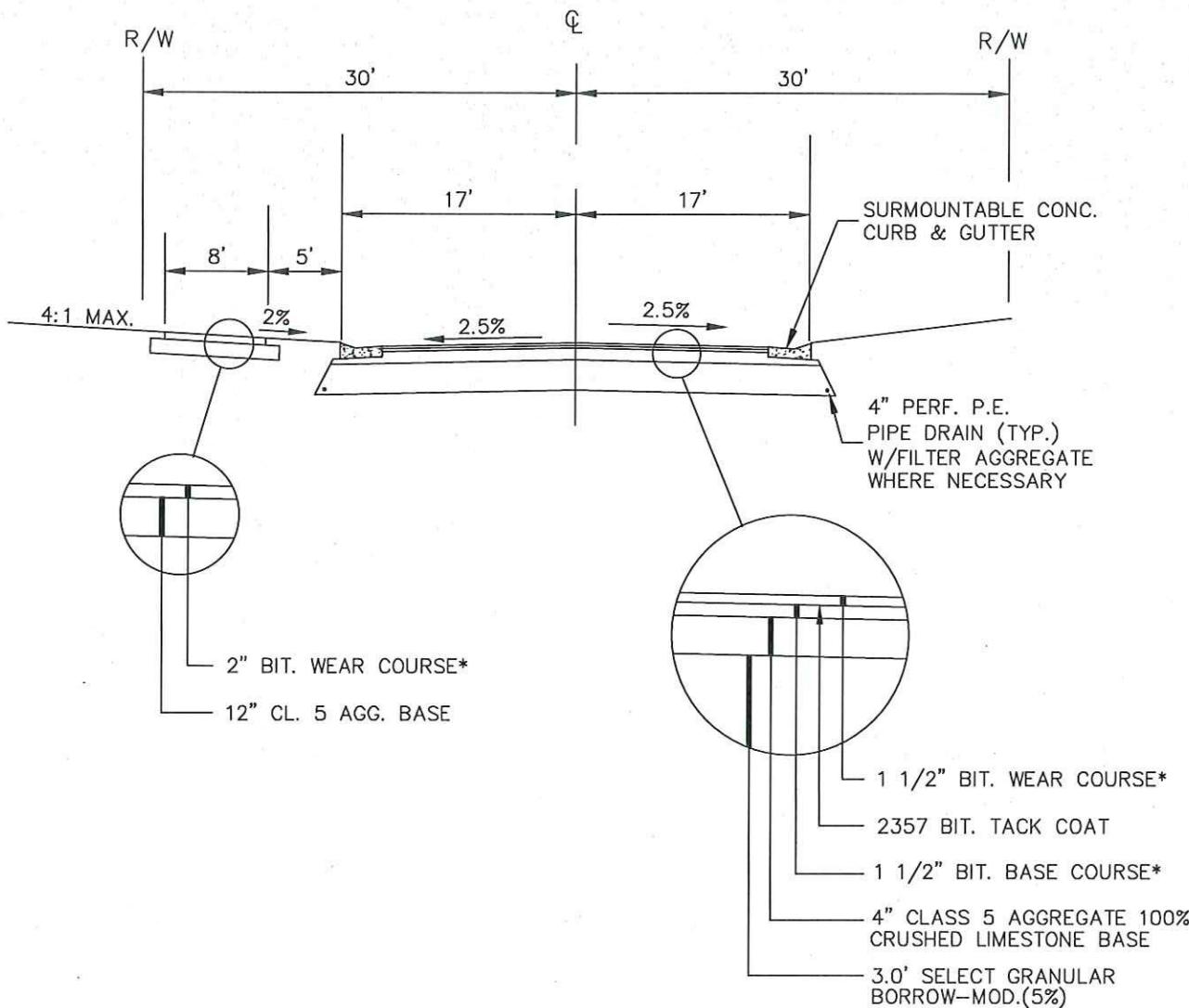
VOLUME OF CURB
0.338 CU. FT. PER LIN. FT.

Revisions:	
12/2010	



STANDARD CURB DETAILS

STANDARD PLATE NO.
STR-1



* AS APPROVED BY THE CITY OF OAKDALE ENGINEERING DEPARTMENT

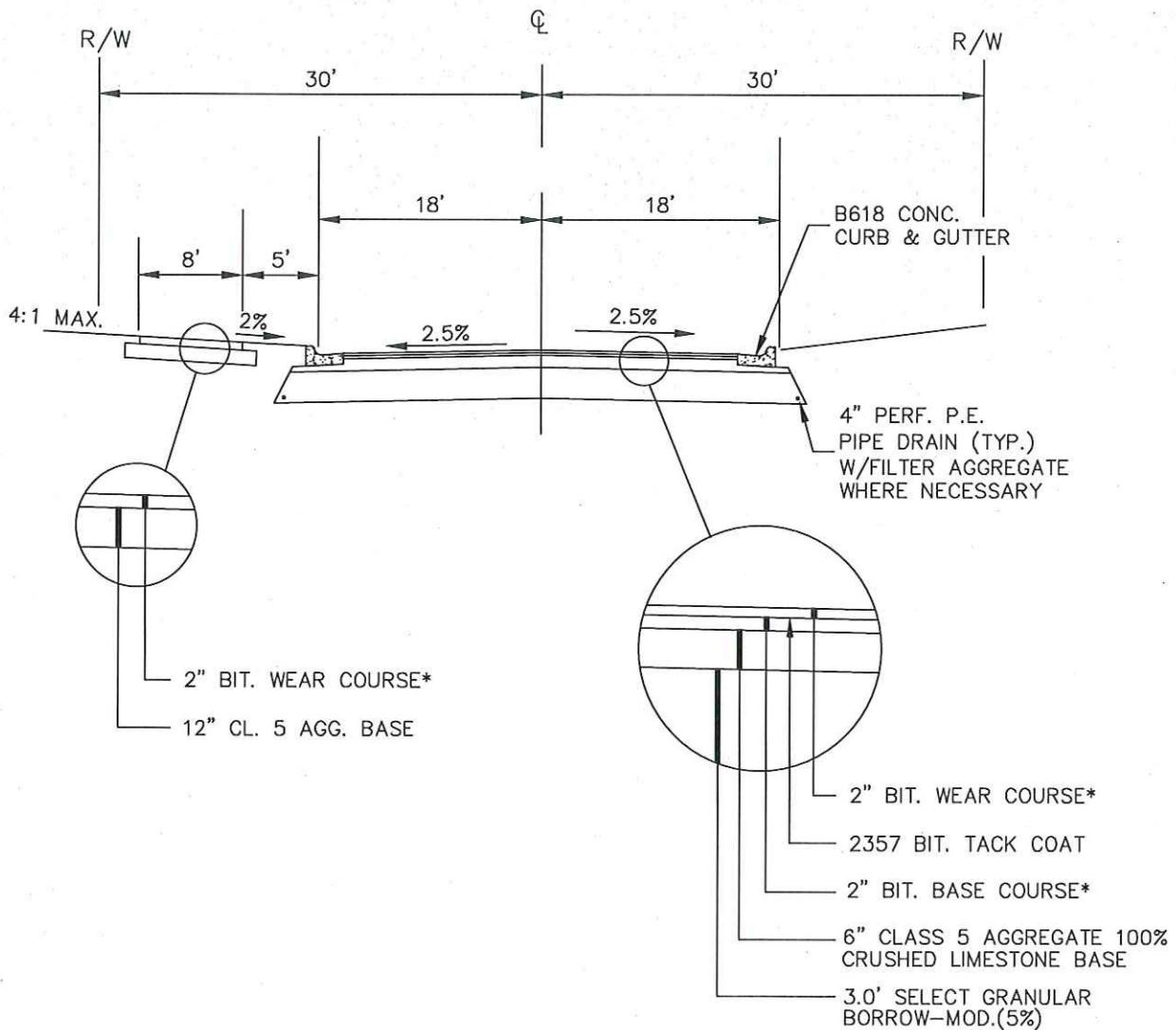
ON RECLAIMED STREETS
USE 1 1/2" WEAR AND
2" BASE.

Revisions:	
12/2010	



TYPICAL STREET SECTION
7-TON DESIGN

STANDARD PLATE NO.
STR-2



* AS APPROVED BY THE CITY OF OAKDALE ENGINEERING DEPARTMENT

Revisions:

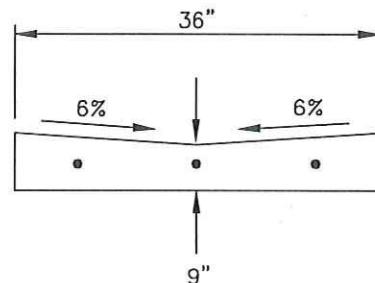
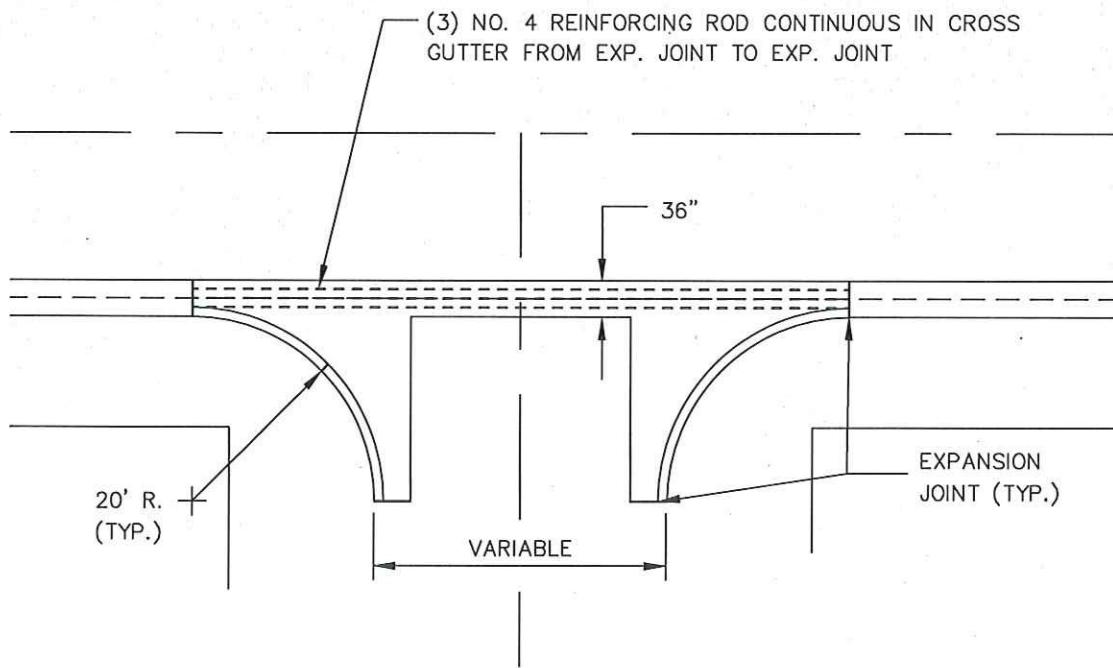
12/2010	



TYPICAL STREET SECTION
9-TON DESIGN

STANDARD PLATE NO.

STR-3



NOTE: CROSS GUTTER TO BE
HIGH EARLY STRENGTH
CONCRETE.

Revisions:

12/2010	



VALLEY GUTTER

STANDARD PLATE NO.

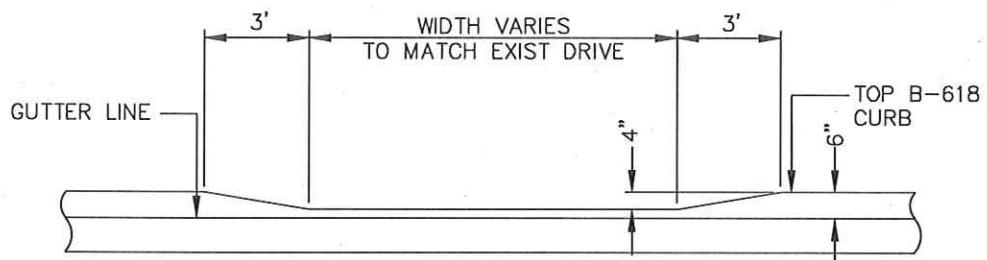
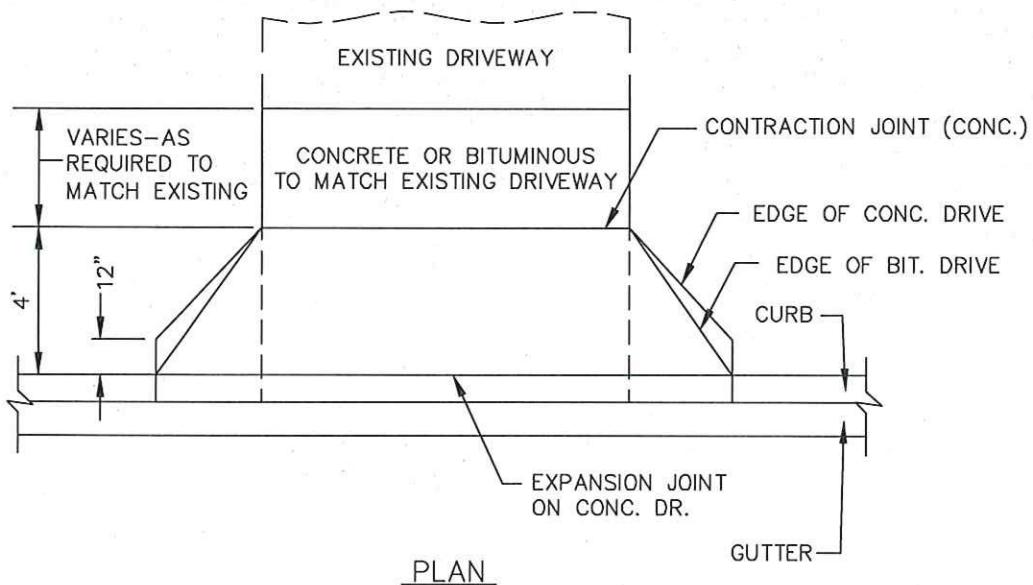
STR-4

CONC. DRIVEWAYS

6" CONCRETE PAVEMENT (RES.)
8" CONCRETE PAVEMENT (COMM.)
6" AGGREGATE BASE CL. 5

BIT. DRIVEWAYS

2 1/2" BIT. WEARING COURSE (RES.)
3" BIT. WEARING COURSE (COMM.)
OR MATCH EXISTING BITUMINOUS
8" AGGREGATE BASE CL. 5



ELEVATION

Revisions:

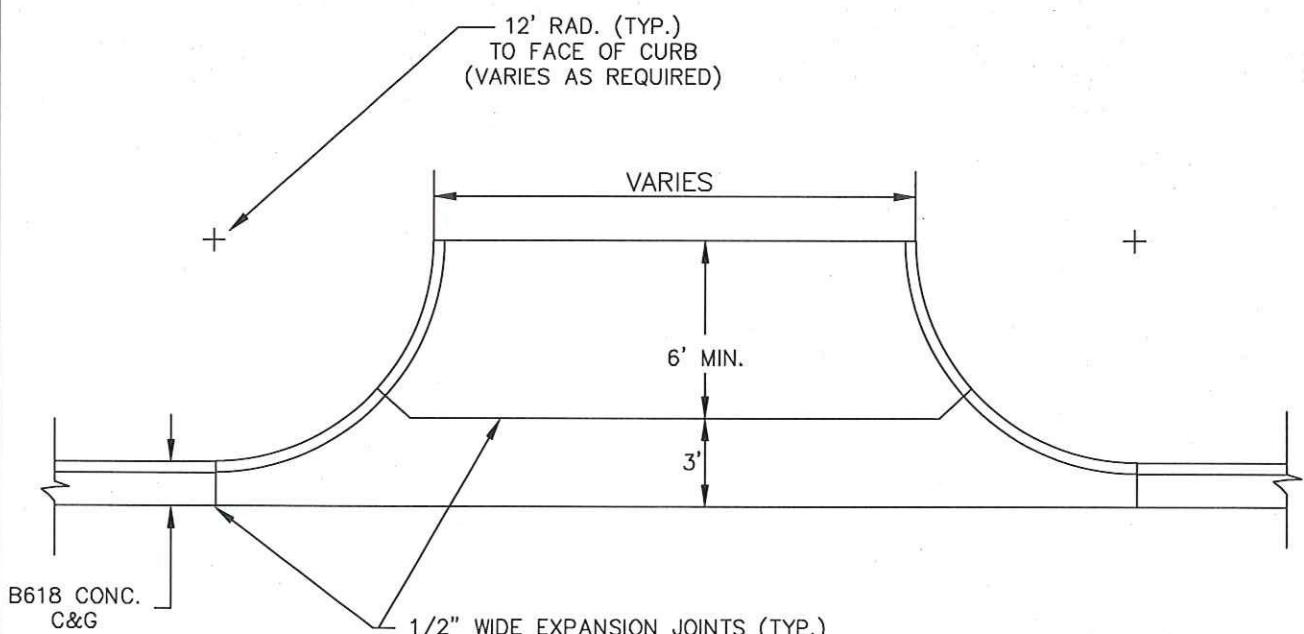
12/2010	



RESIDENTIAL DRIVEWAY
DETAIL

STANDARD PLATE NO.

STR-5



Revisions:

12/2010	



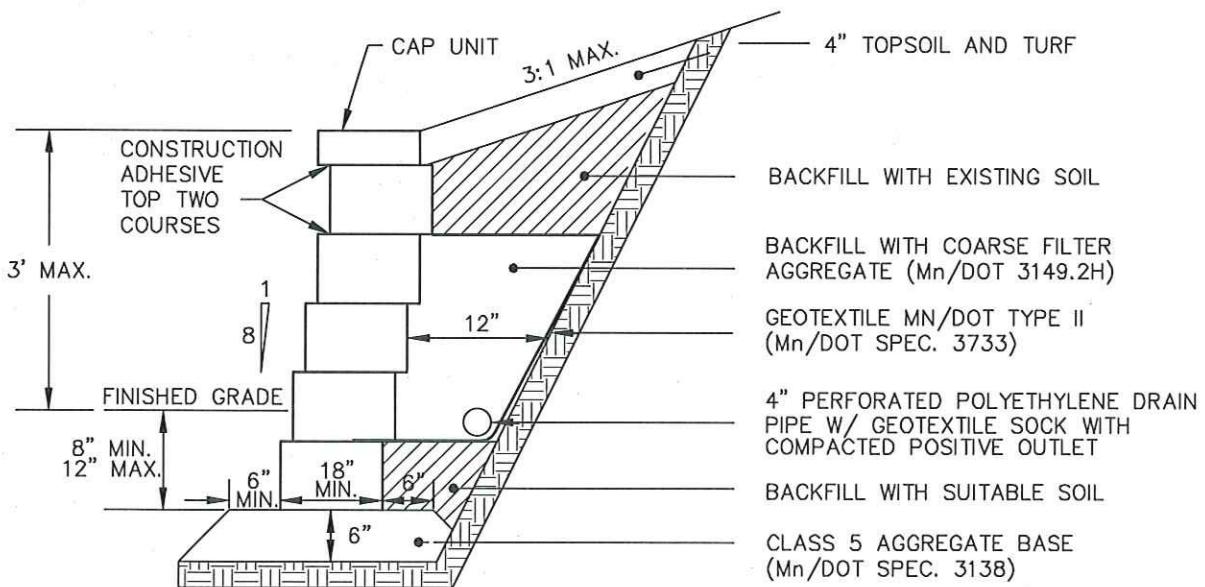
COMMERCIAL CONCRETE
DRIVEWAY APRON

STANDARD PLATE NO.

STR-6

NOTES:

1. MAXIMUM EXPOSED HEIGHT NOT TO EXCEED 3 FEET. A SPECIFIC ENGINEERED DESIGN IS REQUIRED FOR WALLS WITH AN EXPOSED HEIGHT OVER 3 FEET.
2. FILL ALL VOID AREAS IN MODULAR BLOCK UNITS WITH COARSE FILTER AGGREGATE (Mn/DOT SPEC. 3149.2H) OR PEA GRAVEL AS APPROVED BY ENGINEER.
3. MODULAR BLOCK UNITS MUST HAVE INTERLOCKING LIP OR PIN CONNECTIONS.
4. RETAINING WALL LOCATION SHOWN ON PLANS.
5. WALL BATTER MUST EXCEED 7 DEGREES.
6. PROVIDE 4" POLYETHYLENE DRAIN AS DIRECTED BY ENGINEER.
7. CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR PROPOSED MODULAR BLOCK UNITS.



Revisions:

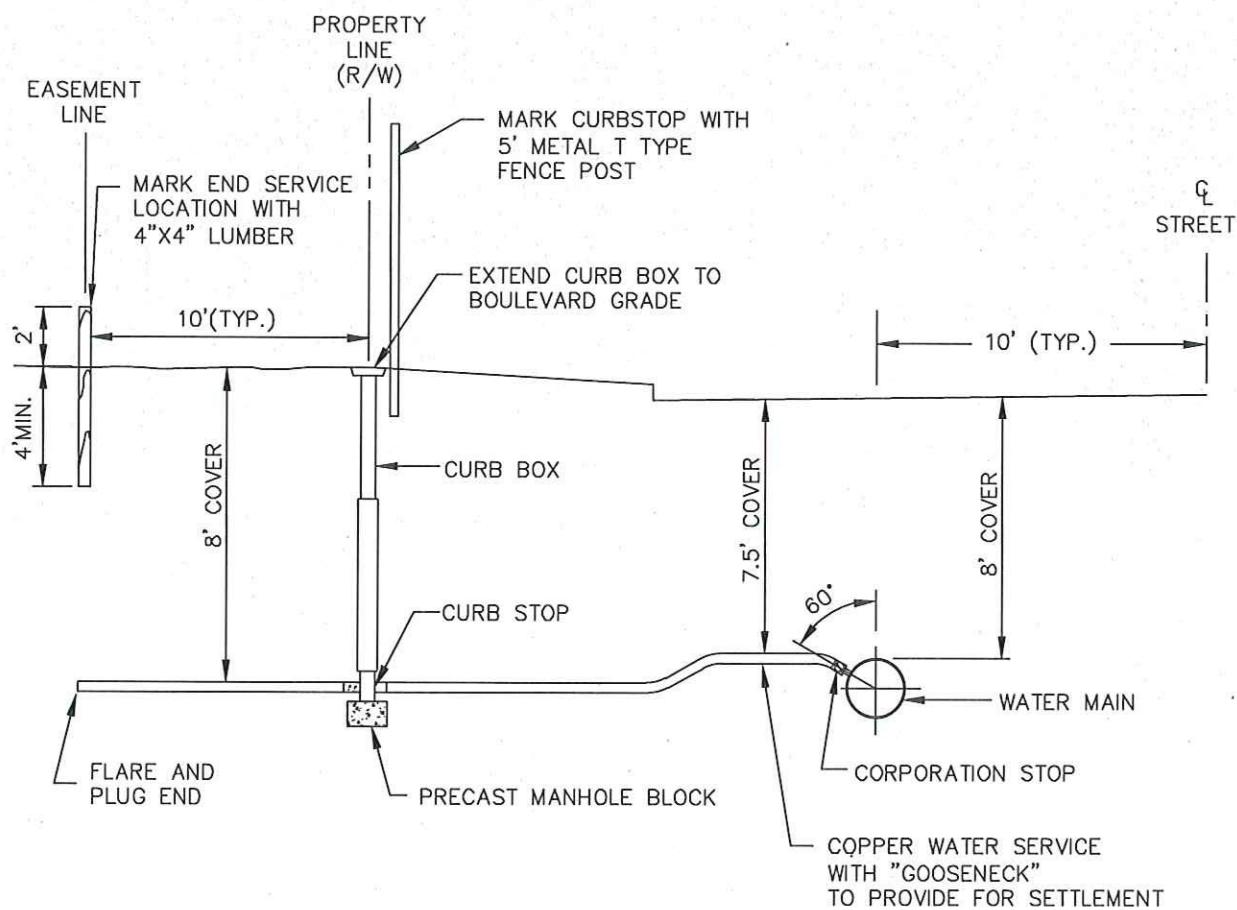
12/2010	



RETAINING WALL DETAIL

STANDARD PLATE NO.

STR-7



NOTES: 1. MAINTAIN 18" VERTICAL & 24" HORIZONTAL SEPARATION BETWEEN SEWER & WATER SERVICE LINES.
 2. WATER SERVICE TYPE K 1" COPPER
 3. COPPER SERVICE SHALL BE CONTINUOUS FROM CORPORATION STOP TO CURB STOP (I.E. NO JOINTS, COUPLINGS, ETC.)

CORPORATION STOPS:
 MUELLER - H-25000
 FORD - FB600
 McDONALD - 4701B

CURB STOP VALVES:
 MUELLER - B-25-154
 FORD - B-22-444M
 McDONALD - 6104

CURB BOXES:
 MUELLER - H10300
 FORD - EM2-75-56
 McDONALD - 5614

CAPS:
 MUELLER - 89375
 FORD - PL
 McDONALD - 5614-L WITH 1 1/4" DIAMETER BRASS CONCENTRIC PLUG.
 NTS

Revisions:

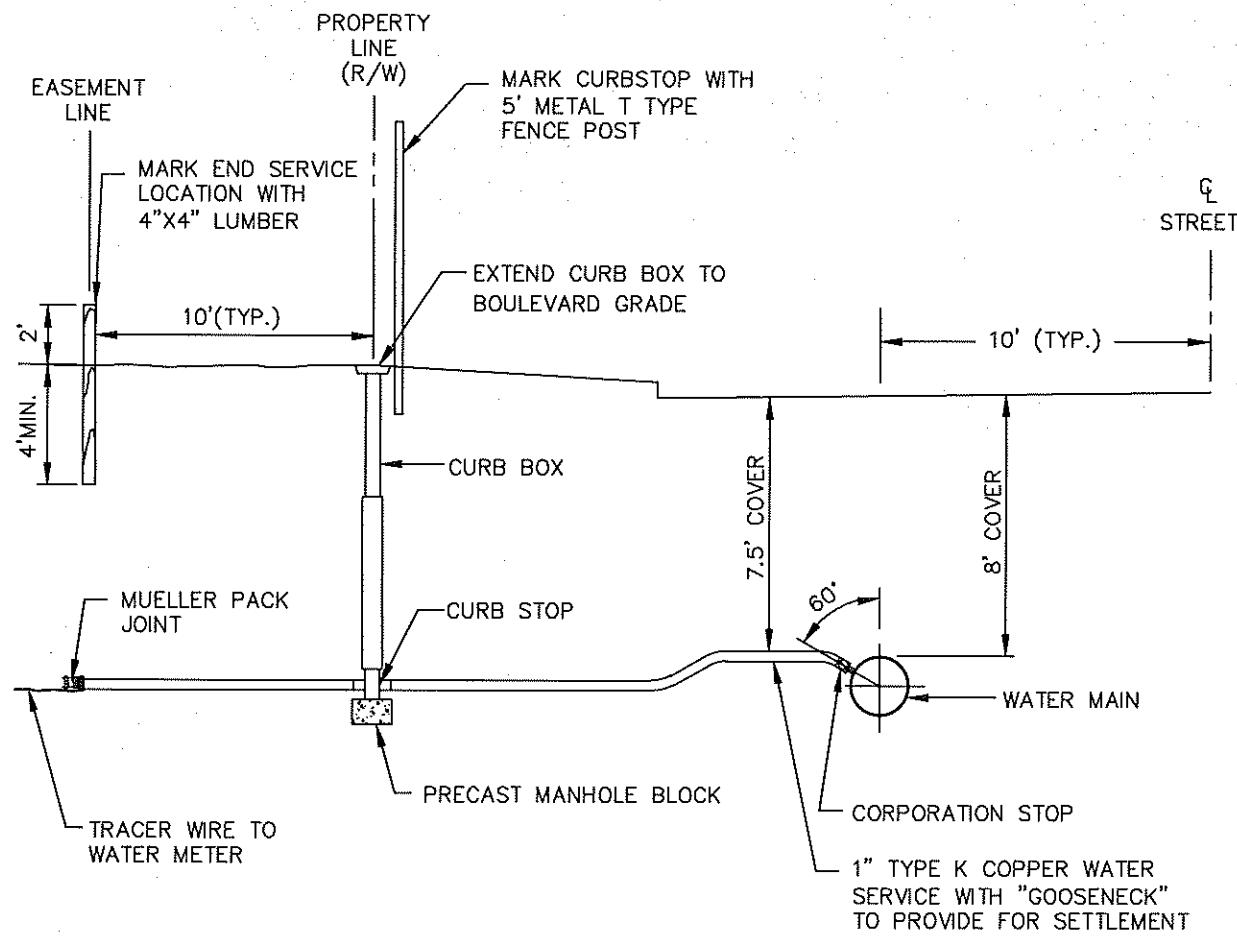
12/2010	



WATER SERVICE

STANDARD PLATE NO.

W-1



NOTES: 1. MAINTAIN 18" VERTICAL & 24" HORIZONTAL SEPARATION BETWEEN SEWER & WATER SERVICE LINES.
 2. INSTALL MUELLER PACK JOINT E-15429 TO THE END OF COPPER FITTING WITH INSERT SLEEVE.
 3. ATTACH 12 GAUGE TRACER WIRE FROM PACK JOINT TO WATER METER.
 4. CONNECTIONS TO EXISTING COPPER PIGTAIL ARE ALLOWED WITH APPROVED FITTING.

CORPORATION STOPS:
 McDONALD - 4701 (1")
 MUELLER - H15000 (1")
 FORD - F600 (1")

CURB STOPS:
 MINNEAPOLIS PATTERN
 McDONALD - 6504 (1")
 MUELLER - B15-154 (1")
 FORD - B22-444 (1")

CURB BOXES:
 McDONALD - 5631-B
 WESTERN 100

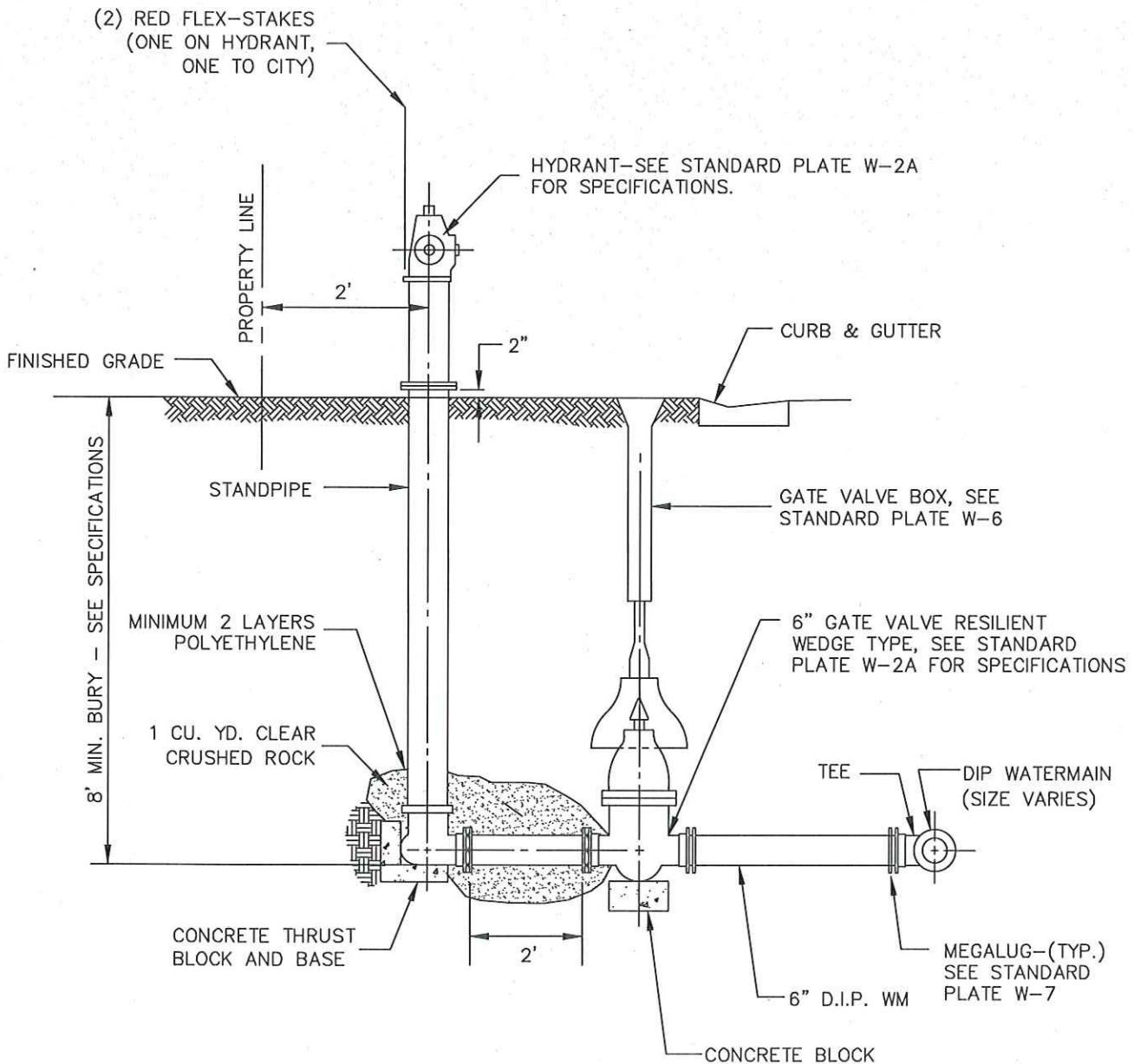
CAPS:
 McDONALD - 5627-LTW
 WITH 1 1/4" DIAMETER
 BRASS CONCENTRIC PLUG.

Revisions:	
12/2010	



**WATER SERVICE
(PLASTIC PIPE)**

STANDARD PLATE NO.
W-1 PP



Revisions:

12/2010	



HYDRANT AND GATE VALVE
INSTALLATION

STANDARD PLATE NO.

W-2

HYDRANT SPECIFICATION

HYDRANT SHALL BE WATEROUS PACER MODEL WB67-250 FIRE HYDRANTS FURNISHED IN ACCORDANCE WITH THE SPECIFICATIONS FOR THE CITY OF OAKDALE AS DESCRIBED BY WATEROUS SUBMITTAL PLATE 2002-10-02, AND INCLUDE THE FOLLOWING FEATURES:

1. COUNTERCLOCKWISE OPENING DIRECTION (OPEN LEFT)
2. TWO-PIECE, 1-1/2 INCH, PENTAGON-SHAPED OPERATING NUT
3. TWO 2-1/2 INCH NH HOSE NOZZLE OUTLETS AND ONE 4 INCH STORZ PUMPER OUTLET
4. UPPER STANDPIPE LENGTH OF 16 INCHES TO PROVIDE 32-3/8 INCH OVERALL HEIGHT FROM GRADE TO TOP OF HYDRANT
5. RED PAINT ON ABOVE-GRADE SURFACES
6. TYPE 304 STAINLESS STEEL BOLTING BELOW GRADE
7. STANDPIPE DRAINS ARE TO BE PLUGGED IN LOCATIONS WHERE GROUND WATER TABLE REACHES THE HEIGHT OF THE DRAIN OPENINGS AND AFFIXED WITH A TAG INDICATING THE NEED TO PUMP WATER FROM THE STANDPIPE AFTER USE
8. FUSION BONDED EPOXY COATED BASE AND LOWER VALVE WASHER
9. BRONZE PILOTED UPPER VALVE WASHER
10. MINIMUM BURY DEPTH OF 8 FEET

GATE VALVE SPECIFICATION

GATE VALVES SHALL BE AMERICAN FLOW CONTROL SERIES 2500 RESILIENT WEDGE GATE VALVES MANUFACTURED BY WATEROUS COMPANY, OR EQUAL, AND FURNISHED IN ACCORDANCE WITH THE SPECIFICATIONS AS DESCRIBED BY WATEROUS SUBMITTAL PLATE 95-10-10, AND INCLUDE THE FOLLOWING FEATURES:

1. MEET OR EXCEED ALL CONSTRUCTIONAL AND PERFORMANCE REQUIREMENTS OF AWWA C515-01 STANDARD FOR REDUCED WALL, RESILIENT SEATED GATE VALVES FOR WATER SUPPLY SERVICE.
2. ARE FUSION BONDED EPOXY COATED TO PROVIDE SUPERIOR CORROSION PROTECTION AND THE EPOXY COATING MATERIAL AND COATING APPLICATION PROCEDURES MEETS OR EXCEEDS THE REQUIREMENTS OF AWWA C550-01 STANDARD FOR PROTECTIVE INTERIOR COATINGS FOR VALVES AND HYDRANTS.
3. ARE EQUIPPED WITH STAINLESS STEEL BODY BOLTING THAT MEETS THE REQUIREMENTS OF ASTM F593 STANDARD SPECIFICATION FOR STAINLESS STEEL BOLTS, TYPE 304, ALLOY GROUP 1, CW CONDITION AND ASTM F594 STANDARD SPECIFICATION FOR STAINLESS STEEL NUTS, TYPE 304, ALLOY GROUP 1, CW CONDITION.
4. ARE SUPPLIED WITH NON-RISING STEM (NRS), COUNTERCLOCKWISE OPENING DIRECTION (OPEN LEFT) AND 2-INCH SQUARE OPERATION NUT.
5. HAVE AN AWWA C515 RATED WORKING PRESSURE OF 250 PSI.

Revisions:

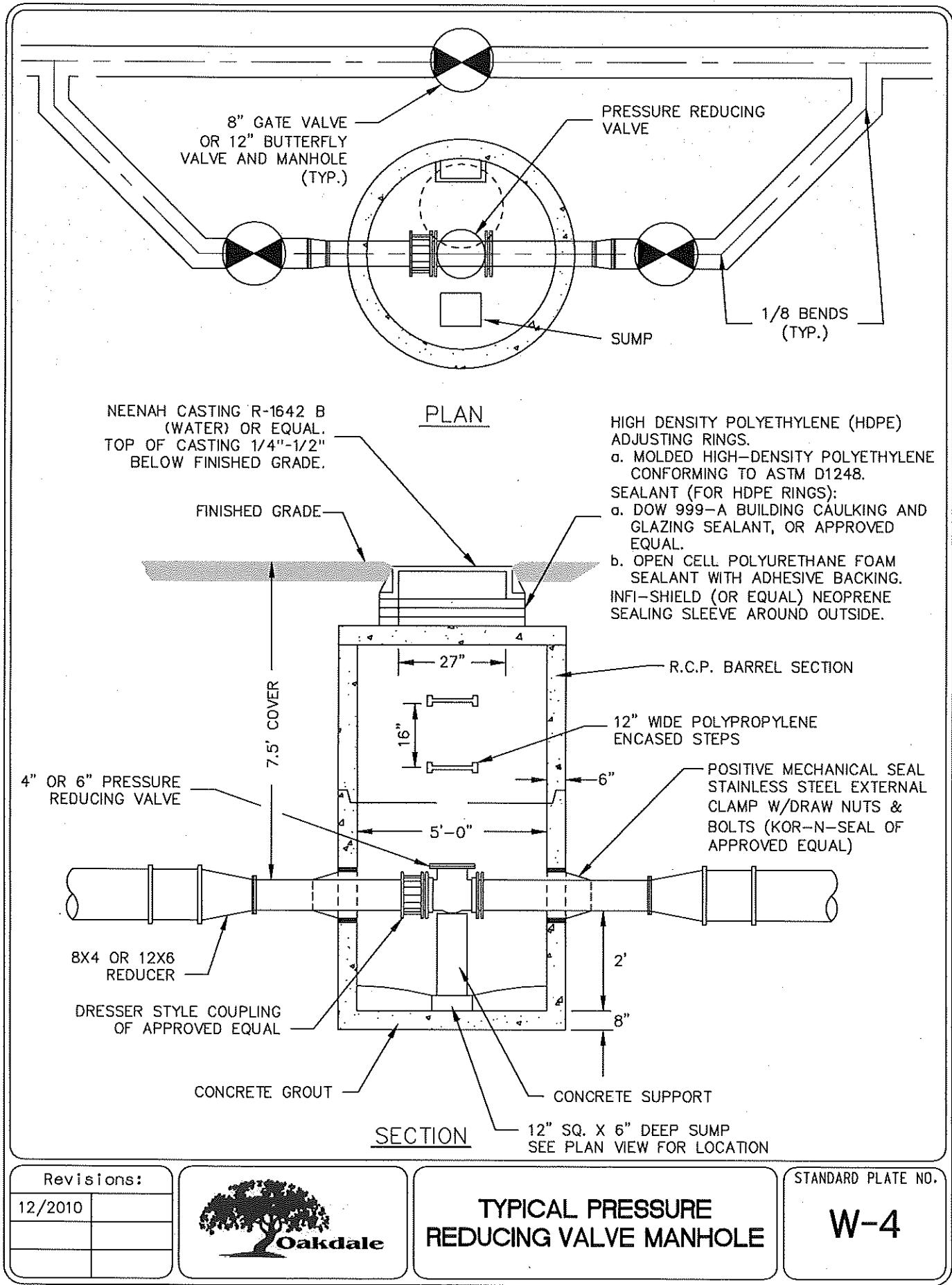
12/2010	

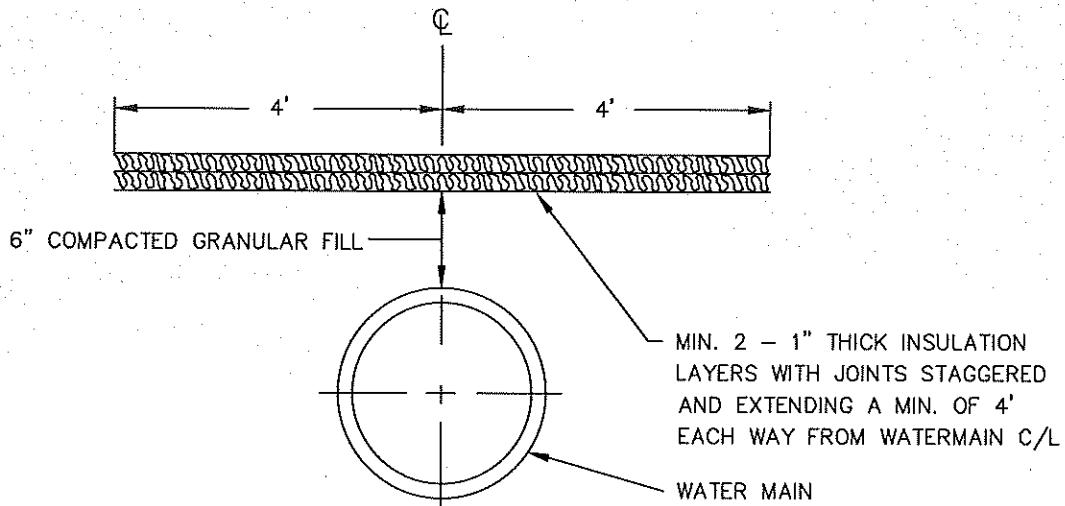


**HYDRANT AND GATE VALVE
SPECIFICATION**

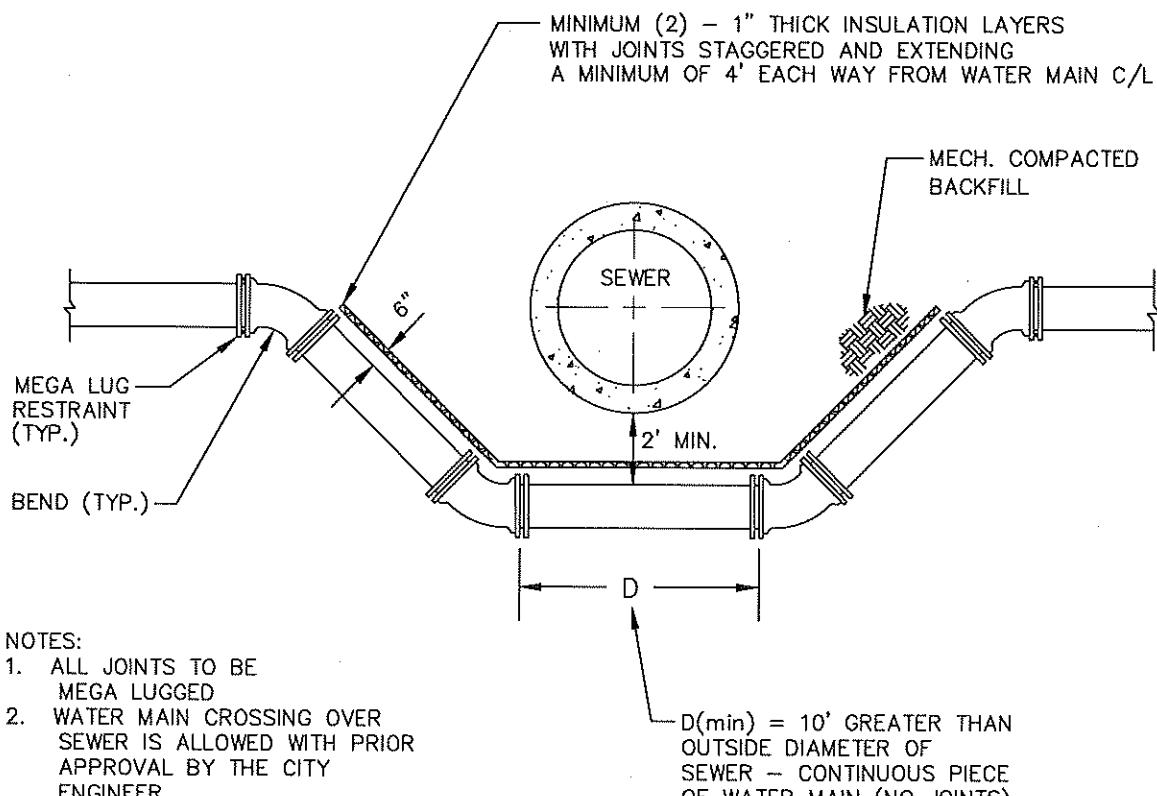
STANDARD PLATE NO.

W-3





WATER MAIN INSULATION



NOTES:

1. ALL JOINTS TO BE MEGA LUGGED
2. WATER MAIN CROSSING OVER SEWER IS ALLOWED WITH PRIOR APPROVAL BY THE CITY ENGINEER.

WATER MAIN CROSSING

Revisions:

12/2010	

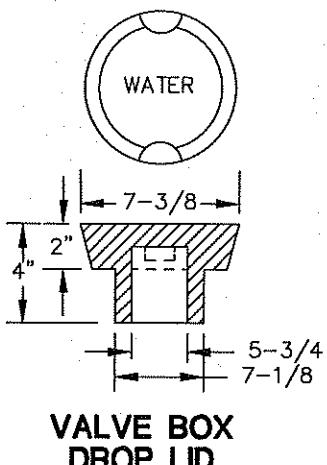


**WATER MAIN INSULATION
AND WATER MAIN CROSSING**

STANDARD PLATE NO.

W-5

TYLER 6865
MUELLER H-10361
BIBBY B-5160



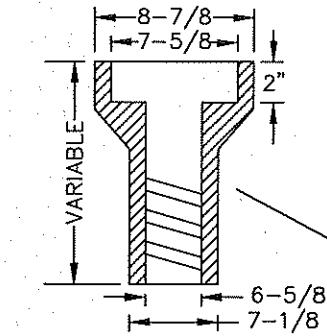
VALVE BOX
DROP LID

TYLER
(NO. 58, 59 & 60)
MUELLER
(NO. 58 & 59)
BIBBY
(NO. 57, 58, 59, & 60)

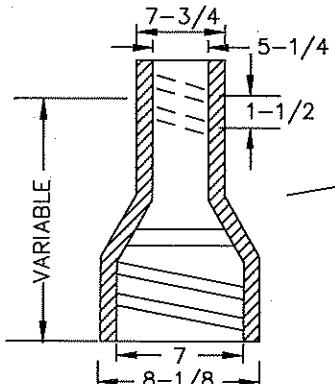
GATE VALVE BOXES

1. CAST IRON, 5-1/4-INCH SHAFT.
2. VERTICAL, 3 PIECE, BUFFALO TYPE.
3. BOX LENGTH TO PROVIDE FOR 7.5 FEET OF PIPE COVER.
4. ADJUSTABLE TO 6 INCHES UP OR DOWN FROM STANDARD BOX LENGTH.
5. FURNISH AND INSTALL GATE VALVE ADAPTOR OR BUTTERFLY VALVE ADAPTER AS MANUFACTURED BY ADAPTER, INC.

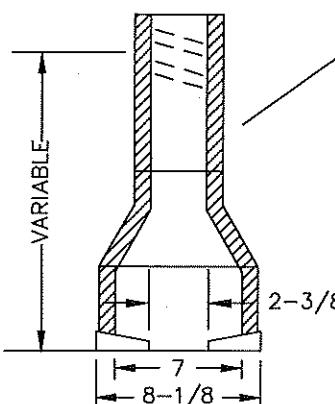
ADJUST TOP TO 1/2" BELOW BLACKTOP GRADE OR 1" BELOW FINISHED BOULEVARD GRADE.



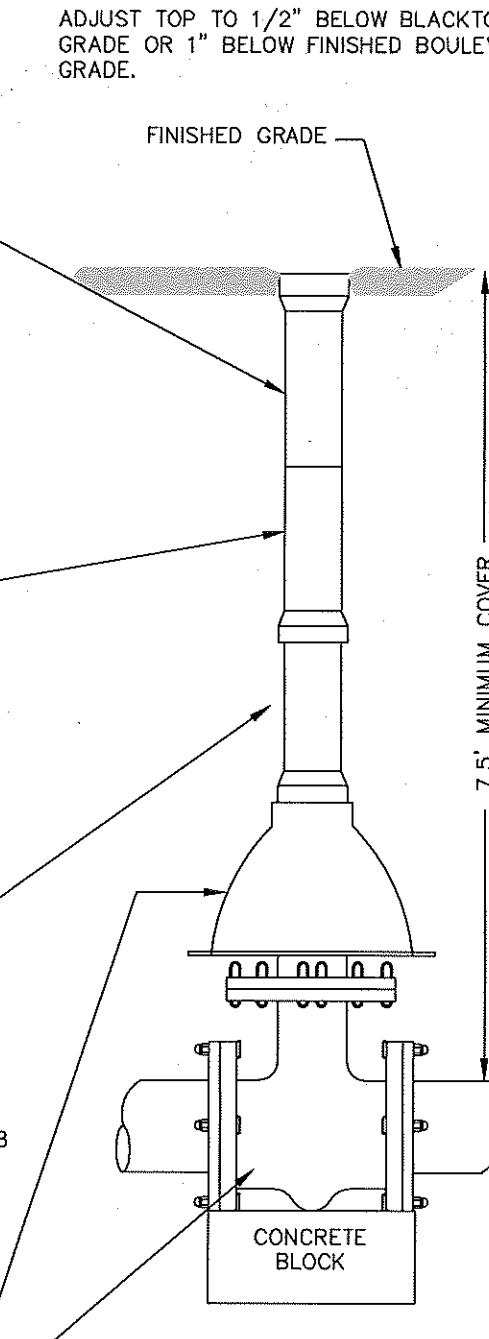
TOP SECTION



EXTENSIONS



MIDDLE SECTION



GATE VALVE RESILIENT WEDGE TYPE OR APPROVED EQUAL. SEE STANDARD PLATE W-2A FOR SPECIFICATIONS.

BUTTERFLY VALVES:

1. RUBBER SEATED: ANSI/AWWA C504.
2. CLASS: 150B
3. BODY TYPE: MECHANICAL - JOINT END WITH STAINLESS STEEL BOLTS.

NOTE: ALL BOLTS INCLUDING T-BOLTS SHALL BE STAINLESS STEEL.

NO. 6 ROUND BASE

Revisions:

12/2010	

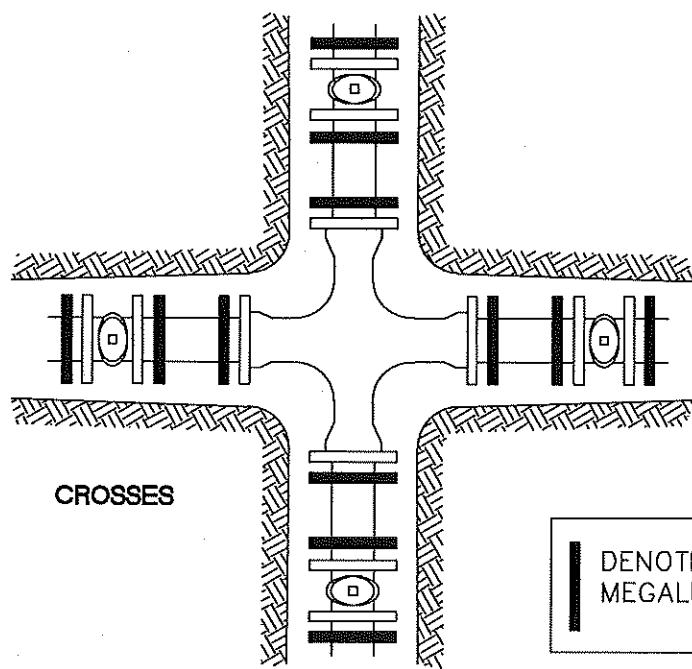
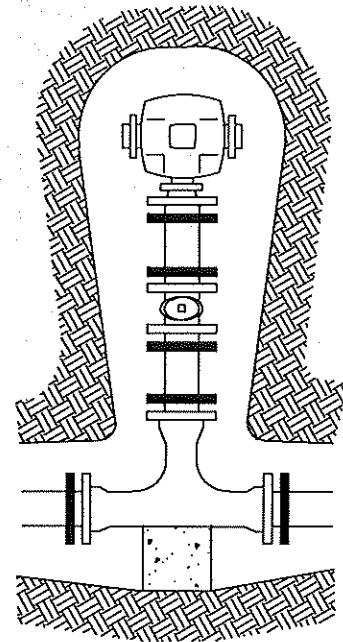
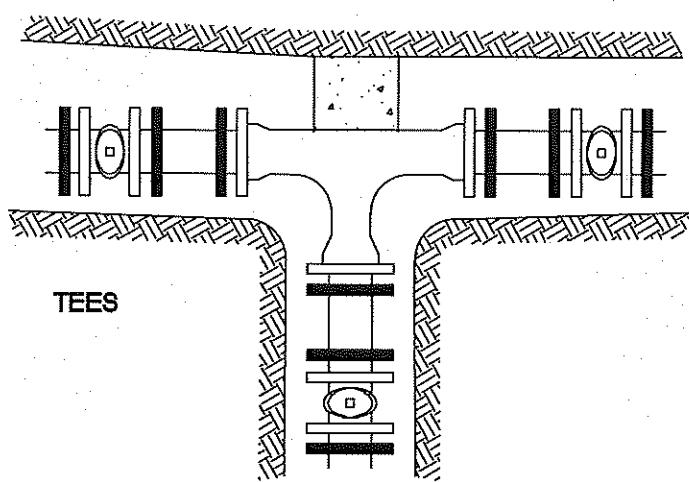


Oakdale

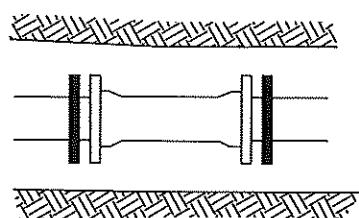
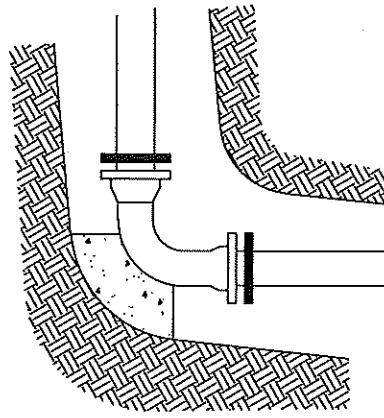
GATE VALVE AND BOX
INSTALLATION

STANDARD PLATE NO.

W-6



 DENOTES
MEGALUGS



NOTES:

1. MEGALUGS TO BE USED AT ALL MECHANICAL JOINTS.
2. PLACE CONCRETE BLOCK UNDER ALL GATE VALVES AND HYDRANTS.
3. THRUST BLOCKING AT ALL TEES, BENDS, AND AT HYDRANTS.
4. ALL BOLTS INCLUDING T-BOLTS SHALL BE STAINLESS STEEL.

Revisions:	
12/2010	



TYPICAL MEGA LUG
LOCATION

STANDARD PLATE NO.
W-7