

ENGINEERING SERVICES DEPARTMENT

P.O. Box 970 • 414 E. First Street • Newberg, Oregon 97132 • 503.537.1273 • www.newbergoregon.gov

Standard Drawings

















- 1. REFER TO THE CITY PLANNING DEPARTMENT APPROVED STREET TREE PLANTING LIST.
- 2. ROOT BARRIER REQUIRED WHEN HARDSCAPE OR STRUCTURE IS LOCATED WITHIN A 6' RADIUS FROM CENTER OF TREE. ROOT BARRIER TO BE 18" DEEP AND SHALL BE INSTALLED ALONG ALL BOUNDARIES WITH HARDSCAPE e.g. SIDEWALK & CURB.
- 3. LINEAR OR CIRCULAR APPLICATION OF ROOT BARRIER PERMITTED. ROOT BARRIER TO EXTENT AT MINIMUM 24" PAST CENTER OF TREE IN ALL DIRECTIONS OR HAVE A MINIMUM RADIUS OF 24" FOR CIRCULAR APPLICATION. USE CENTURY CP-SERIES ROOTBARRIER PANELS WITH INTERLOCKING JOINTS OR NDS RP SERIES ROOT BARRIER PANELS WITH INTERLOCKING JOINTS. ALL ROOT BARRIER INSTALLATIONS SHALL BE IN CONFORMANCE WITH MANUFACTURERS RECOMENDATIONS.
- 4. OPPOSITE TREE STAKES, PROVIDE TWO, 3" DIAMETER HDPE PERFORATED PIPE WATERING THROUGHS, FILLED WITH CLEAN PEA GRAVEL.
- 5. REMOVE NURSERY STAKES & INSTALL 2" DIAMETER TREATED STAKES, SET OUTSIDE ROOTBALL AND DRIVE A MINIMUM OF 12" INTO UNDISTURBED SOIL BELOW PLANTING HOLE. TRIM STAKE 6" ABOVE HIGHEST TREE TIE TO AVOID INTERFENCE WITH CANOPY.
- 6. FLEXIBLE NON-ABRASIVE TREE TIE SECURED TO STAKE WITH A NAIL. PLACE TIES 6" ABOVE THE LOWEST POINT ON THE TRUNK WHERE IT CAN BE HELD SUCH THAT THE TOP OF THE TREE SPRINGS BACK TO THE UPRIGHT POSITION WHEN BENT OR DEFLECTED.
- 7. SET CROWN OF ROOTBALL $1-\frac{1}{2}$ ABOVE FINISHED GRADE.
- 8. PLANTING HOLE TO BE TWICE THE DIAMETER OF ROOTBALL, WITH ROOTBALL RESTING ON FIRM SOIL. SCARIFY SIDES OF PLANTING HOLE.
- 9. BACKFILL WITH A MIXTURE OF $\frac{2}{3}$ NATIVE SOIL AN $\frac{1}{3}$ ORGANIC COMPOST. AREAS WITH POOR OR HEAVILY COMPACTED SOIL MAY REQUIRE ADDITIONAL AMENDMENT.

PUBLIC WORKS ENGINEERING DIVISION 414 E. FIRST STREET NEWBERG, DR 97132 PHONE: 503-537-1240	REVISIONSI MAY 2014	STREET TREE & ROOT BARRIER	SCALE DATE APPROVE BY STANDAR DRAWING	N.T.S. MARCH JAY I	2014 H.)8
FAXI 303-337-1277			L		5

(L) SEE TABLE	PROPERTY LINE	EASEMENT	
NOTES:			
1. MAINLINES SHALL BE PLACED IN PUBLIC MAY BE PLACED IN EASEMENTS WHEN NECE APPROVED BY THE CITY ENGINEER.	RIGHT OF WAY & SSARY &		
2. FOR MAINLINES PLACED IN EASEMENTS L THAN ALONG A PROPERTY LINE, THE MAINLI PLACED IN CENTER OF EASEMENT.	OCATED OTHER INE SHALL BE	२	
3. LARGER EASEMENT WIDTHS MAY BE REQU CIRCUMSTANCES SUCH AS EXCESSIVELY DEE SLOPE FROM BOTTOM OF FOUNDATION TO B PIPE TRENCH.	JIRED FOR SPECIAL P PIPES, e.g. 1:1 OTTOM EDGE OF		
4. OPEN CHANNELS SHALL HAVE EASEMENT SUFFICIENT TO COVER THE 100 YEAR FLOOD A 100 YEAR DESIGN STORM IS REQUIRED, O WATERWAY CENTERLINE, OR 10' FROM THE RECOGNIZED BANK, WHICHEVER IS GREATER. ACCESS SHALL BE PROVIDED ON BOTH SIDE CHANNEL FOR CHANNEL WIDTHS GREATER T TOP OF THE RECOGNIZED BANK.	WIDTHS PLAIN LINE WHEN R 15' FROM THE TOP OF THE A 15' WIDE S OF THE HAN 14' AT THE		
5. EASEMENT LOCATIONS FOR PUBLIC STORM DRAINS SERVING A PLANNED UNIT DEVELOPMENT, APARTMENT COMPLEX, OR COMMERCIAL/ INDUSTRIAL DEVELOPMENT SHALL BE IN PARKING LOTS, PRIVATE DRIVES, OR SIMILAR OPEN AREAS		ASEMENT WIDTH	
		T PIPE SIZE (in.)	
MAINTENANCE. 15 18" OR L			18" OR LESS
5. ALL EASEMENTS MUST BE FURNISHED ON CITY FORM, TO THE CITY FOR REVIEW AND APPROVAL PRIOR TO RECORDING. 20 OVER		OVER 18"	
6. MULTIPLE PIPES IN A COMMON EASEMENT A CASE BY CASE BASIS.	T DETERMINED ON	LARGER	WHEN REQUIRED
City of City of REVISIONS:	-		SCALE:
[≈] Newberg ≥			DATE: 01/24/2014
PUBLIC WORKS ENGINEERING DIVISION 414 E. FIRST STREET NEWBERG, OR 97132 PHONE: 503-537-1240 FAX: 503-537-1277		10	STANDARD 109

NOTES:

1. THE MINIMUM PIPE COVER SHALL BE ACCORDING TO TABLE 1, BELOW. WHEN CIRCUMSTANCES DICTATE, THEN A LESSER DESIGN COVER MAY BE CONSIDERED PER TABLE 2 BELOW.

2. PIPE COVER SHALL BE MEASURED FROM FINISHED GRADE TO THE UPPER MOST EXTERIOR SURFACE ELEVATION OF THE PIPE.

3. A PIPE UNDER A ROADWAY SHALL NOT INTRUDE INTO THE SUBGRADE AND SHALL BE PROTECTED DURING CONSTRUCTION.

4. SUFFICIENT DEPTH SHALL MEAN FROM THE TOP OF THE PIPE TO FINISHED GRADE. ALL STORM DRAINS SHALL BE LAID AT SUFFICIENT DEPTH TO PROTECT AGAINST DAMAGE FROM INTERIM CONSTRUCTION LOADS, FINAL TRAFFIC LOADS, AND TO DRAIN BUILDING FOOTINGS WHERE PRACTICAL. IN AREAS OF RELATIVELY FLAT TERRAIN, THE DESIGN ENGINEER MUST SHOW THAT SUFFICIENT DEPTH PROVIDED AT THE BOUNDARY OF THE DEVELOPMENT TO PROPERLY SERVE THE REMAINDER OF THE UPSTREAM BASIN AREA TRIBUTARY TO THE SITE.

TABLE 1 : MIN	IIMUM COVER	TABL	E 2: PIPE (COVER
WATER	36 (in.)	TYPE OF PIPE	PAVED AREAS (in.)	UNPAVED AREAS (in.)
STORM	48 (in.)	PVC C900	24	12
SEWER	8 (ft.)	PVC 3034 SDR35	36	24
		DUCTILE IRON	18	6
		*RCP CLASS II	30	18
		*RCP CLASS	24	12
		*RCP CLASS V	18	6
		* WHEN APPR	OVED	
PUBLIC WORKS ENGINEERING DIVISI 414 E. FIRST STREET NEWBERG, 0R 97 PHONE: 503-537-1240 FAX: 503-537-1277	REVISIONS:	PIPE (COVER	scale: date: 01/24/2014 approved JAY H. standard 110 drawing

201A TRENCH BACKFILL



201B PIPE BEDDING



































NOTES

- WATER MAIN SHALL BE CLEANED BEFORE ATTACHING SLEEVE.
 SLEEVE AND VALVE SHALL BE PRESSURE TESTED BEFORE MAKING TAP
 PRESSURE TEST AND TAP SHALL BE MADE IN THE PRESENCE OF AN AUTHORIZED CITY REPRESENTATIVE BY A CONTRACTOR APPROVED BY
- THE ENGINEER. 3/4"-0" CRUSHED ROCK SHALL BE PLACED AND COMPACTED TO 91% OF MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180. TAP SHALL BE MADE NO CLOSER THAN 18" FROM THE NEAREST JOINT. SLEEVE AND VALVE SHALL BE WRAPPED AND SEALED WITH 8 MIL PLASTIC. FLUSH ALL METAL SHAVINGS FROM THE TAPPING PROCESS. 4.
- 5.
- 6.
- 7.
- 8.
- STAINLESS STEEL TAPPING SLEEVE ON DUCTILE IRON PIPE COUPON MUST BE RETAINED BY TAPPING BIT AND REMOVED 9. FROM WATER MAIN.

a come con the	REVISIONS:		SCALE:	N.T.S
	05/05/2015 - ASM		DATE:	May 2015
			APPROVED BY:	K. Hofmann
PUBLIC WORKS ENGINEERING DIVISION 414 E. FIRST STREET NEVBERG, DR 97132 PHONE: 503-537-1240 FAX: 503-537-1277		SLEEVES	STANDARD DRAWING	302

FINISHED GRADE 'n VALVE BOX TO BE CONCRETE ENCASED IF NOT IN PAVED AREA 6" CAST IRON VALVE BOX, A = VARIABLE, "VANCOUVER" STYLE, m, MAXIMUM OF 11" B = 7" MINIMUM MODEL NO. 910 ح 6" PVC SEWER PIPE, ASTM 3034, SDR35 VALVE OPERATING NUT EXTENSION SHALL BE USED IF OPERATING NUT IS GREATER THAN 3' DEPTH FROM FINISHED GRADE. WATER LINE Ŵ NOTES: 1. VALVE BOXES SHALL BE CENTERED DIRECTLY OVER THE NUT IN A VERTICAL POSITION. 2. VALVE BOX SHALL BE ADJUSTED TO MEET FINISHED GRADE. 3. PVC SHALL BE ONE CONTINUOUS PIECE – NO BELLS OR COUPLERS. "VANCOUVER" 18" TALL VALVE BOX 4. SEE STANDARD DRAWING NO. 304 VALVE BOX AND COVER. N.T.S REVISIONS: SCALE: July 2004 VALVE BOX 11/26/2010 DATE: berg APPR⊡∨ED BY: D. Danicic ASSEMBLY PUBLIC WORKS ENGINEERING DIVISION 414 E. FIRST STREET NEWBERG, DR 97132 PHDNE: 503-537-1240 FAX: 503-537-1277 STANDARD DRAWING 303







Newberg : 05/04/2015 - ASM JOINT RESTRAINT	SCALE: N.T.S		RE∨ISI⊡NS:	a come and the
	DATE: May 2015		05/04/2015 - ASM	
	NI APPROVED K. Hofmann	JOINT RESTRAINT		
PUBLIC WORKS ENGINEERING DIVISION 414 E. FIRST STREET NEVBERG, DR 97132 PHONE: 503-537-1240 FAX: 503-537-1277 3	STANDARD 306	-		PUBLIC WORKS ENGINEERING DIVISION 414 E. FIRST STREET NEWBERG, DR 97132 PHONE: 503-537-1240 FAX: 503-537-1277










FIRE HYDRANT MUELLER "CENTURIC "MEDALLION" OR KE	ON", M&H 129 I, CLOW ENNEDY "GUARDIAN"	
VALVE BOX VALVE BOX SEE NOTE NO.3 6" DUCTIN GATE VALVE	LE IRON PIPE DRAIN ROCK 16"x16"X8" CONCRETE BLOCK	
 HYDRANT TO HAVE TWO 2 1/2' 6" MINIMUM PIPE SIZE SUPPLYI USE 6" MJ HOLDING SPOOL PE ADJUSTING SPOOL NOT TO BE HYDRANTS SHALL BE INSTALLE WITH CLEAN 2" DRAIN ROCK F HOLES. 30# TAR PAPER SHALL BE PL/ SEPARATE ROCK FROM NATIVE ENTIRE FIRE HYDRANT SPOOL 3 GASKETS/MEGALUGS VALVE OPERATING NUT EXTENS NUT IS GREATER THAN 3' DEP 	" AND ONE 4 1/2" OPENING (ANSI S ING HYDRANT. R DWG. 305 USED ON NEW CONSTRUCTION. D UPON A PRE-FORMED CONCRETE PLACED A MINIMUM OF 6" ABOVE DR ACED ON TOP OF THE DRAIN ROCK MATERIAL. SHALL BE RESTRAINED WITH FIELD-L SION SHALL BE USED IF OPERATING PTH FROM FINISH GRADE.	STD.). BLOCK AIN TO .OK
City of	FIRE HYDRANT ASSEMBLY	SCALE: N.T.S DATE: July 2004 APPRIVED BY: D. Danicic STANDARD DRAWING 312











- INSTALL A MIN. OF 3 PIPE SUPPORTS IN VAULT (GRINNELL NO. 264, ELCEN NO. 50 OR APPROVED EQUAL).
- ALL PIPING AND FITTINGS IN VAULT SHALL BE LEVEL AND A MINIMUM OF 12" AND A MAX. OF 48" ABOVE THE FLOOR OF VAULT.
- ONLY APPROVED RESILIENT WEDGE VALVES ARE ALLOWED.
- ALL VAULT LIDS SHALL BE EQUIPPED WITH 1 TRPL METER HOLE IN DOORS. DOORS SHALL BE LOCATED NEAREST METER, CLOSEST TO STREET OR PUBLIC R-O-W.
- VAULT SHALL BE EQUIPPED WITH AN OSHA APPROVED LADDER. IF VAULT DEPTH IS GREATER THAN 6', AN OSHA APPROVED EXTENSION LADDER SHALL BE INSTALLED.
- ALL PIPE UP TO THE CUSTOMERS GATE VALVE SHALL BE CLASS 52 DUCTILE IRON AND INSTALLED LEVEL.
- ALL FITTINGS, VALVES AND PIPING THROUGH ENTIRE VAULT SHALL BE LEVEL AT COMPLETION OF INSTALLATION.
- VAULT SHALL BE SEALED WITH "CRYSTAL SEAL" AT MANUFACTURER.
- ADJUST PIPE SIZE ACCORDING TO METER SIZE. (4" MINIMUM)

City of REVISIONS: 10/28/2008 WATER SEE	REVISIONS:		SCALE:	N.T.S
		DATE:	May 2015	
		FOR 3" AND LARGER	APPROVED BY:	K. Hofmann
PUBLIC WORKS ENGINEERING DIVISION 414 E. FIRST STREET NEWBERG, OR 97132	05/04/2015 - ASM		STANDARD	318
PHONE: 503–537–1240 FAX: 503–537–1277			DRAWING	010























NOTES

- 1.
- USE SUBURBAN TYPE FRAME IN NON-TRAFFIC AREAS ONLY. COVER AND FRAME SHALL BE CAST IRON, ASTM A-48 CLASS 30 AND MEET H-20 LOAD RATING. 2.
- 3. COVER AND FRAME TO HAVE TRUE BEARING ALL AROUND.



NOTES

- STANDARD MANHOLE TO BE USED FOR PIPES 18" 1. AND LESS.
- PRECAST CONCRETE STRUCTURES SHALL HAVE 2. STRENGTH OF 4000 PSI.
- LATERAL LINES TO MATCH TOP OF INLET PIPE AT 3. MANHOLE.
- ALL INTERIOR JOINTS AND CONNECTIONS SHALL BE WATER TIGHT, AND GROUTED WITH NON-SHRINK 4. GROUT.
- 5. IF END OF LINE MANHOLE, STEPS SHALL BE LOCATED ON DOWNSTREAM SIDE AND CHANNEL
- SHALL BE CONSTRUCTED FULL WIDTH OF INTERIOR. 6. GASKET STYLE MANHOLES ONLY, KEY-LOC STYLE IS FOR RETROFIT ONLY AND REQUIRES EXTERIOR JOINTS TO BE SEALED WITH RAPID SEAL OR INTERIOR COATING WITH RAVEN COATING.

ECCENTRIC

CONE SECTION 18" to 24"

BASE SECTION 2' to 4'

MANHOLE BASE SEE STD. DRAWING 203



REVISIONS: SCALE: N.T.S 05/05/2015 - ASM DATE: May 2015 SHALLOW MANHOLE APPROVED BY: K. Hofmann PUBLIC WORKS ENGINEERING DIVISION 414 E. FIRST STREET NEWBERG, DR 97132 PHDNE: 503-537-1240 FAX: 503-537-1277 STANDARD DRAWING 412







- 8. FLANGE MOUNTING BOLTS SHALL BE 1/2" DIAMETER STAINLESS STEEL.
- 9. SHEAR GATE MAXIMUM OPENING SHALL BE CONTROLLED BY LIMITED HINGE MOVEMENT, STOP TAB OR SOME OTHER DEVISE.
- 10. ALTERNATE SHEAR GATES DESIGNS ARE ACCEPTABLE, IF MATERIAL SPECIFICATIONS ARE MET AND FLANGE BOLT PATTERN
- MATCHES

NOTES:

1.

2.

3.

4.

5.

6.

7.

11. MANHOLE CERTIFICATION REQUIRED FOR TRAFFIC LOADING.

a come can the	REVISIONS:		SCALE:	N.T.S.
	05/05/2015 - ASM	FLOW CONTROL	DATE:	May 2015
		STRUCTURE NOTES &	APPROVED BY:	K. Hofmann
PUBLIC WORKS ENGINEERING DIVISION 414 E. FIRST STREET NEWBERG, OR 97132 PHONE: 503-537-1240 FAX: 503-537-1277		ORIFICE	STANDARD DRAWING	416B









RIPRAP:

- ROCK FOR RIPRAP SHALL BE ANGULAR IN SHAPE.
- THICKNESS OF A SINGLE ROCK SHALL NOT BE LESS THAN ONE-THIRD ITS LENGTH.

RIPRAP INSTALLATION:

- EXCAVATE BELOW FINISH GRADE TO DEPTH & DIMENSIONS SHOWN ON APPROVED PLANS.
- INSTALL WOVEN GEOTEXTILE FABRIC.
- PLACE RIP RAP TO FINISH GRADE.

• GRADE RIPRAP SHALL BE THE CLASS AND SIZE OF ROCK ACCORDING TO THE FOLLOWING:

CLASS	CLASS	CLASS	CLASS	CLASS	
50	100	200	700	2000	
					PERCENT
		WEIGHT OF	ROCK (LBS)		(BY WEIGHT)
50-30	100-60	200-140	700-500	2000-1400	20
30-15	60-25	140-80	500-200	1400-700	30
15-2	25-2	80-8	200-20	700-40	40
2-0	2-0	8-0	20-0	40-0	10

REVISIONS:	REVISIONS:	RIPRAP	SCALE:	N.T.S.
			DATE:	MARCH 2014
			APPROVED BY:	' JAY H.
PUBLIC WORKS ENGINEERING DIVISION				400
PHONE: 503-537-1240 FAX: 503-537-1277			DRAWING	422



DESIGN STEPS FOR LIDA FACILITIES:

- 1. DETERMINE THE IMPERVIOUS AREA REQUIRING TREATMENT. REFER TO CHAPTER 4 OF THE STANDARD DESIGN MANUAL FOR ASSISTANCE IN DETERMINING OR CALCULATING THE IMPERVIOUS AREA REQUIRING TREATMENT.
- 2. DEDUCT IMPERVIOUS AREA LIDA CREDITS. DEDUCT THE SITE AREAS DESIGNED WITH POROUS PAVEMENT OR GREEN ROOFS FROM THE IMPERVIOUS AREA CALCULATED IN STEP 1.
- 3. IF NEEDED, DESIGN WATER QUALITY/ QUANTITY FACILITIES FOR REMAINING UNTREATED IMPERVIOUS AREA. SIZING FACTORS FOR INFILTRATION BASED LIDA'S ASSUME EXISTING SOIL UNFACTORED INFILTRATION RATE OF GREATER THAN 2 INCHES PER HOUR. EACH FACILITY MUST BE SIZED FOR THE AMOUNT OF IMPERVIOUS AREA DRAINING ONTO IT.
- 4. THE SIZING FACTORS NOTED IN THIS SECTION ARE TO BE USED TO SIZE EACH LIDA FACILITY TREATING RUNOFF FROM A MAXIMUM OF 15,000 SQUARE FEET OF IMPERVIOUS AREA IN EACH FACILITY. FOR LARGE DEVELOPMENT SITES AND IMPERVIOUS AREAS, A REGIONAL WATER QUALITY/ QUANTITY FACILITY (VEGETATED SWALE, EXTENDED DRY BASIN OR CONSTRUCTED WATER QUALITY WETLAND) OR PROPRIETARY FACILITY MAY BE APPROPRIATE, AS DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER.

GENERAL NOTES:

- 1. FOR PLANTING REQUIREMENTS REFERENCE APPENDIX A OF THE STANDARD DESIGN MANUAL.
- 2. FOR FACILITY SIZING REFERENCE STANDARD DRAWING NO. 451, LIDA SIZING FORM.
- 3. ENERGY DISSIPATERS REQUIRED AT ALL DISCHARGE POINTS INTO THE FACILITY, MINIMUM OF 18"X18"X 6" DEEP, 4" TO 6" CLEAN ANGULAR RIPRAP.
- 4. DISCHARGES INTO NATIVE SOILS WILL REQUIRE INFILTRATION TESTING COMPLETED BY A REGISTERED DESIGN PROFESSIONAL.

GROWING MEDIUM NOTES:

THE GROWING MEDIUM SHALL BE ONE THIRD ORGANIC COMPOST, ONE THIRD GRAVELY SAND AND ONE THIRD TOP SOIL.

- ORGANIC COMPOST SHALL BE THE RESULT OF BIOLOGICAL DEGRADATION AND TRANSFORMATION 1. OF PLANT DERIVED MATERIALS UNDER CONDITIONS DESIGNED TO PROMOTE AEROBIC DECOMPOSITION, FREE OF VIABLE WEED SEEDS AND STABLE WITH REGARD TO OXYGEN CONSUMPTION AND CARBON DIOXIDE GENERATION, AND OTHERWISE CONFORMING TO THE US COMPOSTING COUNCIL STA COMPOST TECHNICAL DATA SHEET; WWW.COMPOSTINGCOUNCIL.ORG.
- 2. GRAVELY SAND SHALL BE 1" MINUS IN CONFORMANCE WITH ASTM C117/C136 (AASHTO T11/T27) STANDARDS WITH A COEFFICIENT OF UNIFORMITY (D60/D10) EQUAL TO OR GREATER THÁN 6.
- 3. TOP SOIL SHALL BE FREE OF WOOD PIECES, PLASTIC, AND OTHER FOREIGN MATTER, CHEMICAL AND BIOLOGICAL POLLUTANTS, AND CONTAIN NO VISIBLE FREE WATER.



DESIGN STEPS, **GENERAL NOTES, AND GROWING MEDIUM**

SCALE:	N.T.S.
DATE:	MARCH 2014
APPROVED 3Y:	JAY H.
STANDARD DRAWING	450

DRAWING

		(Include	e this form wit	h plan submittal)	
Project Title:					
Project Address:					
Project Taxlot/ Taxmap	#:				
Project Location:					
Contact Name/Title/Cor	npany:				
Phone/e-mail:					
STEP 1: Determine Imr	pervious Area Requiri	ng Treatment			
Total Gross Site Area (a	acres):		Pre.	Dev. Impervious Area (ft):	(X)
Proposed Net New Imp (PA)= (Y) - (X)	ervious Area (ft):](PA) Posi	: Dev. Impervious Area (ft):	(Y)
STEP 2: Deduct Imperv	vious Area LIDA Crec	lits			
Porous Pavement (sq.	ft.):		(P)		
Green Roof (sq. ft):			(G)		
Other Credits as appro	ved (sq. ft.):		(O)		
Total Credits (sq. ft.): (C)= (P)+(G)+(O)	1		(C)		
(IA)= (PA) - (C) STEP 3: Size LIDA Fac	ilities for Remaining	Impervious Area	3		
	Impervious Area Treated (sq. ft.)	SF, Si	zing Factor	LIDA Facility Size (sq. ft.)	
Infiltration Planters/ Rain Garden		0.0	045		
Flow-through Planter		0.0	060		
Public Flow-through Planter		0.0	060		
Total Impervious Area Treated (sq. ft.)		MUST E	BE EQUAL TO	(IA)	
	REVISIONS:				scale: N.T.S.
Nowhord					DATE: MARCH
				SIZING FURIVI	BY: JAY
LIC WORKS ENGINEERING DI	VISION				



414 E. FIRST STREET NEWBERG, DR 97132 PHDNE: 503-537-1240 FAX: 503-537-1277 STANDARD DRAWING 452





DESIGN NOTES:

- 1. PROVIDE BEGINNING AND END STATION FOR EACH FACILITY. PROVIDE STATIONING AND/ OR DIMENSIONS AND ELEVATIONS AT EACH INLET, OUTLET, CHECK DAM, PLANTER CORNER AND SIDEWALK NOTCHES.
- SIDEWALK ELEVATION MUST BE SET ABOVE CHECK DAM AND INLET ELEVATIONS TO ALLOW OVERFLOW TO DRAIN TO STREET BEFORE SIDEWALK.
- EXISTING UTILITY LINES MUST BE SLEEVED OR RELOCATED. PROPOSED UTILITY LINES TO BE LOCATED OUT OF FACILITY.
- LONGITUDINAL SLOPE OF PLANTER TO MATCH ROAD.
- MINIMUM INTERIOR PLANTER WIDTH IS 3 FEET. A MINIMUM OF 4 FEET IS REQUIRED FOR PLANTERS WITH STREET TREES.

RELATED DETAILS:

- 6. CONCRETE INLET, STANDARD
- DRAWING NO. 462- CURB CUT. CHECK DAM, STANDARD DRAWING NO. 465, CONCRETE CHECK DAM.
- 8. REQUIRMENTS FOR WATER LINES, METERS, AND FIRE HYDRANTS REFERENCE STANDARD DRAWING NO. 468, METER & HYDRANT LOCATIONS.
- 9. FACILITY SIZING AND TOPSOIL PER STANDARD DRAWING NO. 450, GENERAL REQUIRMENTS.
- 10. PLANTER WALL, STANDARD DRAWING NO. 466, PUBLIC PLANTER WALLS.

	REVISIONS:		SCALE:	N.T.S.
		PUBLIC PLANTER PLAN VIEW NO PARKIING	DATE:	MARCH 2014
e Mnels 🗯			APPROVED BY:	JAY H.
RKS ENGINEERING DIVISION STREET NEWBERG, OR 97132			STANDARD	151
PHONE: 503-537-1240 FAX: 503-537-1277			DRAWING	454



PHONE: 503-537-1240 FAX: 503-537-1277

DESIGN NOTES:

- PROVIDE BEGINNING AND END STATION FOR EACH FACILITY. PROVIDE STATIONING AND. OR DIMENSIONS AND ELEVATIONS AT EACH INLET, OUTLET, CHECK DAM, PLANTER CORNER AND SIDEWALK NOTCHES.
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- 9. FACILITY SIZING AND TOPSOIL PER STANDARD DRAWING NO. 451, GENERAL REQUIRMENTS.
- 10. PLANTER WALL, STANDARD DRAWING NO. 466, PLANTER WALLS.

	SCALE:	N.T.S.
	DATE:	MARCH 2014
TER	APPROVED BY:	JAY H.
RKING	STANDARD DRAWING	455





NOTES:

- 1. PROVIDE OVERFLOW CONVEYANCE SYSTEM, OVERFLOW CONVEYANCE HEIGHT TO ALLOW 6" MAXIMUM PONDING, PIPING TO A MINIMUM OF THE PLUMBING CODE OR CONVEY THE 25 YEAR STORM.
- 2. FLOW DISSIPATORS SHOULD BE USED IF ENTRY SLOPE TO THE BASIN IS GREATER THAN 5:1.
- 3. SEPARATION BETWEEN DRAIN GRAVEL AND GROWING MEDIUM SHALL BE PERMEABLE FILTER FABRIC.
- 4. TREATMENT AREA SHALL HAVE HIGH DENSITY JUTE OR COCONUT MATTING OVER 18" MINIMUM OF GROWING MEDIUM OR BASE STABILIZATION METHOD AS APPROVED BY THE CITY.
- 5. REFER TO APPENDIX A OF THE STANDARDS DESIGN MANUAL FOR PLANTING REQUIREMENTS.
- 6. TOP OF BANK OF FACILITY MUST BE LOCATED 10' FROM ANY STRUCTURE AND 3' FROM ADJACENT PROPERTY LINES.

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			DATE	MARCH 2014
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PUBLIC WORKS ENGINEERING DIVISION 414 E. FIRST STREET NEWBERG, OR 97132			STANDAR	D 167
PHDNE: 503-537-1240 FAX: 503-537-1277			DRAWING	407





*Newberg
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414 E. FIRST STREET NEWBERG, OR 97132
PHONE: 503-537-1240
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POROUS PAVEMENT










- BRANCH SPACING AND NUMBER OF BRANCHES TO BE CALCULATED BASED ON STORM FLOWS FROM IMPERVIOUS AREA BEING TREATED.
- WRAP PERFORATED PIPE WITH GEOTEXTILE TO PREVENT INFILTRATION OF FINES. 2.
- NO TREES OR DEEP ROOTED VEGETATION OVER PIPING, UNLESS LINER IS INSTALLED 3. PER DRAWING NO. 108 & PER DIRECTION OF CITY ENGINEER.
- 4. GRADE SUBGRADE TO PROVIDE MANIFOLD WITH POSITIVE DRAINAGE.
- 5. CONVEYANCE SIZED AT MINIMUM FOR 25 YEAR EVENT STORM FLOWS.
- DETENTION (IF REQUIRED) VOLUME BASED ON DEPTH OF DRAIN ROCK RESERVOIR 6. LAYER AND POSITION OF MANIFOLD WITHIN THE DRAIN ROCK LAYER.
- 7. FITTINGS TO BE SAME MATERIAL AS PERFORATED PIPE.
- PIPE SECTIONS EXPOSED TO SUNLIGHT SHALL BE OF MATERIAL NOT SUBJECT TO 8. DEGRADATION FROM THE EFFECTS OF SUNLIGHT.









PLANTER 2'-0" MIN. KOELREUTERIA PANICULATA GOLDENRAIN TREE PRUNUS VIRGINIANA 'CANADA RED' CANADA RED CHOKECHERRY STREET TREES WITH-OUT POWER LINES STORMWATER BOTANICAL NAME COMMON NAME FACILITY NYSSA SYLVATICA BLACK TUPELO TOPSOIL CELTIS OCCIDENTALIS HACKBERRY QUERCUS SHUMARDII SHUMARD OAK **EXISTING** BETULA JACQUEMONTII JACQUEMONTII BIRCH SUBGRADE QUEEN ELIZABETH HEDGE MAPLE ACER CAMPESTRE 'EVELYN' GLEDITSIA TRIACANTHOS 'SKYCOLE' SKYLINE HONEYLOCUST SCALE: N.T.S. **REVISIONS:** JUNE 2015 06/25/2015 - ASM DATE: STORMWATER FACILITY APPROVED K. HOFMANN BY: STREET TREE PUBLIC WORKS ENGINEERING DIVISION 414 E. FIRST STREET NEWBERG, OR 97132 STANDARD 467 PHONE: 503-537-1240 DRAWING FAX: 503-537-1277

	ALL TREE TYPES AND LOCATIONS TO BE APPROVED BY CITY PLANNING DIVISION.						
STREET TREES WITH POWER LINES							
	BOTANICAL NAME	COMMON NAME					
	CARPINUS CAROLINIANA	AMERICAN HORNBEAM					
[FRAXINUS PENNSYLVANICA 'JOHNSON'	LEPRECHAUN ASH					
	GLEDITSIA TRIACANTHOS 'IMPCOLE'	IMPERIAL HONEYLOCUST					

REFERENCE DO NOT INCLUDE ON PLANS. INCLUDE TREE WELL AND STREET TREE VIEWS ON PLANS. DIMENSION TOPSOIL AND ROCK

5. LAYERS ON NON-TREE SIDE TO CORRESPOND TO PLANTER SECTION.

1. SPACING BETWEEN TREES VARIES-20' TO 30' ON CENTER.

450 FOR GROWING MEDIUM.

REFER TO STANDARD DRAWING NO

STREET TREE LIST PROVIDED FOR

NOTES:

2.

3.

4.

- 6. INCLUDE LINER AND CALL-OUT IF USED, FOR TREE LINER REFERENCE
- DRAWING NO 108. REMOVE WIRE AND BURLAP FROM
- 7.
- ROOT BALL PRIOR TO BACKFILLING.
- SET TOP OF ROOT BALL 1" TO 2"
- ABOVE TOPSOIL FACILITY.
- DEEPEN SOIL SECTION MINIMUM, 4'

X 6' X 4' DEEP.





FINISHED GRADE OF





TEMPLATE 1

PLANT LEGEND 1



PLANT LEGEND 2

PLANT LEGEND 3



TEMPLATE 2

Symbol	Botanical Name				
	Common Name				
7777	Carex obnupta				
	Slough sedge				
	Deschampsia cespitosa				
\cup	Tufted hair grass				
	Cornus sericea 'Kelseyi'				
\cup	Kelsey dogwood				
	w/Iris douglasii				
Douglas' Iris- interspersed for accent					



TEMPLATE 3

NOTES:

- 1. THE ABOVE ARE APPROVED SAMPLE TEMPLATES..
- 2. AN APPROVED PLANT LIST AND QUANTITY REQUIREMENTS IS AVAILABLE IN APPENDIX A OF THE STANDARDS DESIGN MANUAL.
- 3. PLANTING TABLE REQUIRED. STATE PLANT SPECIES, SPACING, AND QUANTITIES PER PLANTER. INCLUDE THE SQUARE FOOTAGE OF PLANTER.



Symbol	Botanical Name		
	Common Name		
— —	Carex obnupta		
\bigcirc	Slough sedge		
()	Deschampsia cespitosa		
\bigcirc	Tufted hair grass		
	Juncus patens		
	Spreading rush		
<u> </u>	Carex morrowii 'Ice Dance'		
\bigcirc	Ice Dance Sedge		
	w/Camassia leichtlinii		
	Great camas- interspersed for accent		

PLANTING BY: SCALE: N.T.S. DATE: MARCH 2014 APPROVED BY: JAY H.	PLANTER LANDSCAPE TEMPLATES		400
SCALE: N.T.S. DATE: MARCH 2014	PLANTING	APPROVED BY:	JAY H.
SCALE: N.T.S.		DATE:	MARCH 2014
		SCALE:	N.T.S.

STANDARD 469 DRAWING







CURB AND GUTTER

NOTES

1.CONCRETE SHALL HAVE STRENGTH OF 3300 P.S.I. AT 28 DAYS. 2. TRANSVERSE CONTRACTION JOINTS - MAKE 1/8" x 1 1/2" DEEP CUT; SPACED AT 15'. PROVIDE CONTRACTION JOINTS AT CURB RETURN POINTS, CATCH BASINS AND DRIVEWAYS. 3.SCORE CURB OVER WEEP HOLE BLOCK OUT. 4.EXPANSION JOINTS SHALL NOT BE USED. 5.APPLY CURING COMPOUND (PETROLEUM BASED) TO FRESH CONCRETE TO RETAIN MOISTURE. 6.TOP OF CURB BRANDED WITH "S" OR "W", 2" MIN. HEIGHT FOR SEWER AND WATER LOCATIONS. HAND SCRIBING NOT ALLOWED. SCALE: REVISIONS: N.T.S. 05/05/2015 - ASM DATE: May 2015 CURB AND GUTTER APPROVED K. Hofmann BY: PUBLIC WORKS ENGINEERING DIVISION 414 E. FIRST STREET NEWBERG, DR 97132 PHDNE: 503-537-1240 FAX: 503-537-1277 STANDARD 501 DRAWING







































GEOTEXTILE SPECIFICATIONS

PROPERTY	TEST	MIN. VALUE
TENSILE STRENGTH, Ibs	ASTM D-4632	80
ELONGATION, %	ASTM D-4632	50
ASPHALT RETENTION,gal/sy	OSHD TM-817	0.20
MELTING POINT, °F	ASTM D-276	300



	RE∨ISIONS:		SCALE: N	.T.S.
			DATE: M	lay 2007
			APPROVED D BY: D	. Danicic
PUBLIC WORKS ENGINEERING DIVISION 414 E. FIRST STREET NEWBERG, OR 97132 PHDNE: 503-537-1277 FAX: 503-537-1277			STANDARD DRAWING	522

STREET WIDTH (ft.)	SERVICE TYPE	WATTAGE	LUMENS	POLE HT. (ft.)	ARM TYPE	VOLTAGE	SPACING (ft.)	TYPE
32'	RESIDENTIAL "A" SIDEWALK	100	9500	25	6' MAST	120	210	FIBERGLASS
34'	RESIDENTIAL "A" SIDEWALK	100	9500	25	6' MAST	120	210	FIBERGLASS
40'	COMMERCIAL COLLECTOR STREET	150	16000	30	6' MAST	240	155	FIBERGLASS
46'	COMMERCIAL ARTERIAL STREET	200	22000	30	6' MAST	240	180	FIBERGLASS

1.LOCATION OF STREET LIGHT IS SHOWN ON STANDARD DRAWING NO. 103
2.STREET LIGHT HIGH PRESSURE SODIUM LUMINAIRE.
3.ALL FIBERGLASS POLES SHALL BE GRAY.
4.FOR CURBSIDE SIDEWALK (TYPE'B') THE STREET LIGHT SHALL BE 2' FROM THE BACK OF THE SIDEWALK.
5.FOR SETBACK SIDEWALK (TYPE'A') THE STREET LIGHT SHALL BE 2' FROM THE FRONT OF THE SIDEWALK.

NOTES:














GEOTEXTILE SPECIFICATIONS

PROPERTY	TEST	MIN. VALUE
TENSILE STRENGTH, Ibs	ASTM D-4632	120
ELONGATION, WET %	ASTM D-4632	40
COEFFICIENT OF WATER PERMEABILITY, cm/sec	ASTM D-4491	0.10
PUNCTURE STRENGTH, Ibs	ASTM D-4833	80
MULLEN BURST STRENGTH, psi	ASTM D-3786	250

* LOCAL STREET TYPE = INTERIOR RESIDENTIAL SINGLE FAMILY DETACHED ZONES

		SCALE:	N.T.S
STRUCTURAL	DATE:	May 2007	
	STREET SECTIONS	APPR⊡∨ED BY:	D. Danicic
PUBLIC WORKS ENGINEERING DIVISION 414 E. FIRST STREET NEWBERG, DR 97132		STANDARD	527
PHDNE: 503-537-1240 FAX: 503-537-1277		DRAWING	521





















 NOTES: 1. INFORMATION PROVIDED IS MINIMUM REQUIREMENTS. MANUFACTURES REQUIREMENTS WHICH ARE MORE STRINGENT SHALL BE USED. 2. INSTALL MAT PARALLEL IN CENTER OF CHANNEL IN THE DIRECTION OF FLOW. FOR CULVERT OUTFALLS, PLACE MAT UNDER CULVERT OR RIP RAP A MINIMUM OF 12 INCHES. 3. IN CHANNEL BOTTOM, OVERLAP LENGTH ENDS A MINIMUM OF 12 INCHES. 4. LENGTH OF STAPLES SHALL BE DETERMINDED BY SOIL TYPE-COHESIVE SOIL USE 6 INCH, NON-COHESIVE SOILS 8-12 INCH. 				
PUBLIC WORKS ENGINEERING DIVISION REVISIONS: 414 E. FIRST STREET NEWBERG, OR 97132 NA PHONE: 503-537-1277 PHONE: 503-537-1277	MATTING TRENCH INSTALLATION	SCALE: N.T.S DATE: 01/10/2014 APPROVED BY: STANDARD DRAWING 609		



