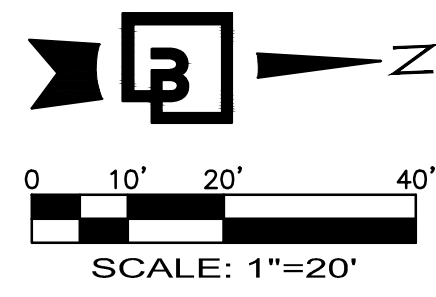




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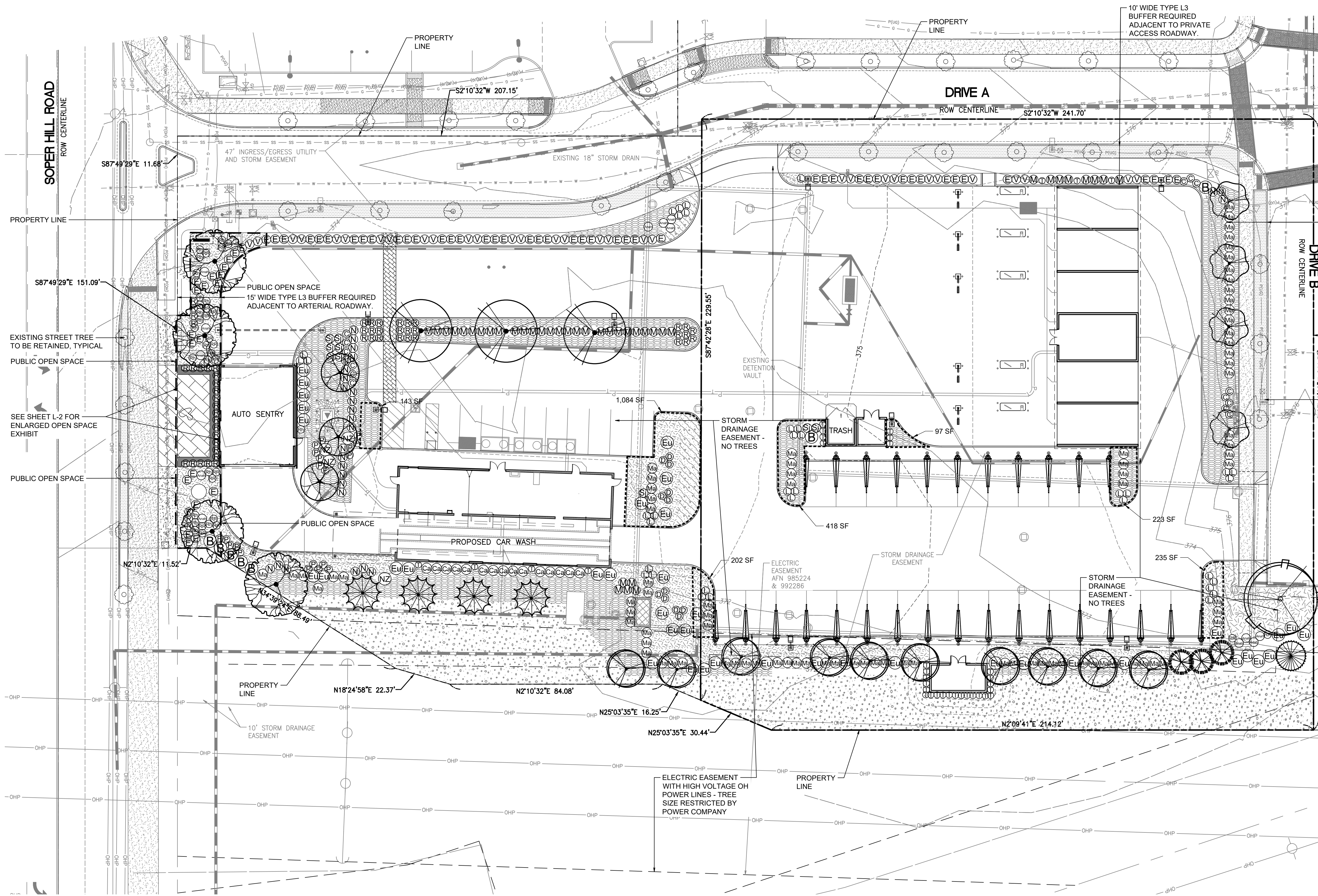


PRELIMINARY LANDSCAPE PLAN

FOR

BROWN BEAR CAR WASH

SE 1/4 OF NW 1/4 OF SEC. 1, TWN. 29 N, RGE. 5 E, W.M.
CITY OF MARYSVILLE, SNOHOMISH COUNTY, WASHINGTON



LANDSCAPE LEGEND

SYMBOL	DESCRIPTION	QUANTITY
	EXISTING TREE TO BE RETAINED	
	EXISTING LANDSCAPING TO BE RETAINED, PROTECT DURING CONSTRUCTION	
	PARKING LOT PLANTING AREA	2,402 SF
	PUBLIC OPEN SPACE AREA	2,065 SF REQUIRED 2,100 SF PROVIDED
	HYDROSEED OR SOD LAWN DROUGHT TOLERANT AND TOLERANT OF PNW CONDITIONS. INSTALL PER MANUFACTURERS SPECIFICATIONS.	389 SF
	STONE MULCH 4" DEPTH OF 3/4" TO 2" MIXED GRANITE ROUNDED RIVER ROCK OR APPROVED EQUAL. INSTALL DEWITT 50Z WEED BARRIER FABRIC IN ALL PLANT BEDS UNDER GRAVEL	85 SF
	MEADOW LOW WATER USE NATIVE GRASSES SEED MIX, ADD WILDFLOWER SEED (OPTIONAL); PROVIDE LANDSCAPE EDGING BETWEEN MEADOW AND GROUNDCOVER BEDS.	8,144 SF

SEE SHEET L2 FOR FULL PLANT SCHEDULE

Revision
No. Date By Cld. Appr.

Title:
PRELIMINARY LANDSCAPE PLAN
FOR
BROWN BEAR MARYSVILLE

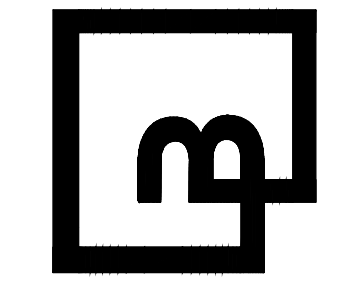
For:
CAR WASH ENTERPRISES, INC.
3977 LEARY WAY N.W.
SEATTLE, WASHINGTON 98107



Scale:
Horizontal 1"=20'
Vertical N/A

Designed LRP
Drawn LRP
Checked LP/AV
Approved JMV
Date 5/1/23

Barghausen Consulting Engineers, Inc.
18215 72nd Avenue South
Kent, WA 98032
425.251.6222
barghausen.com



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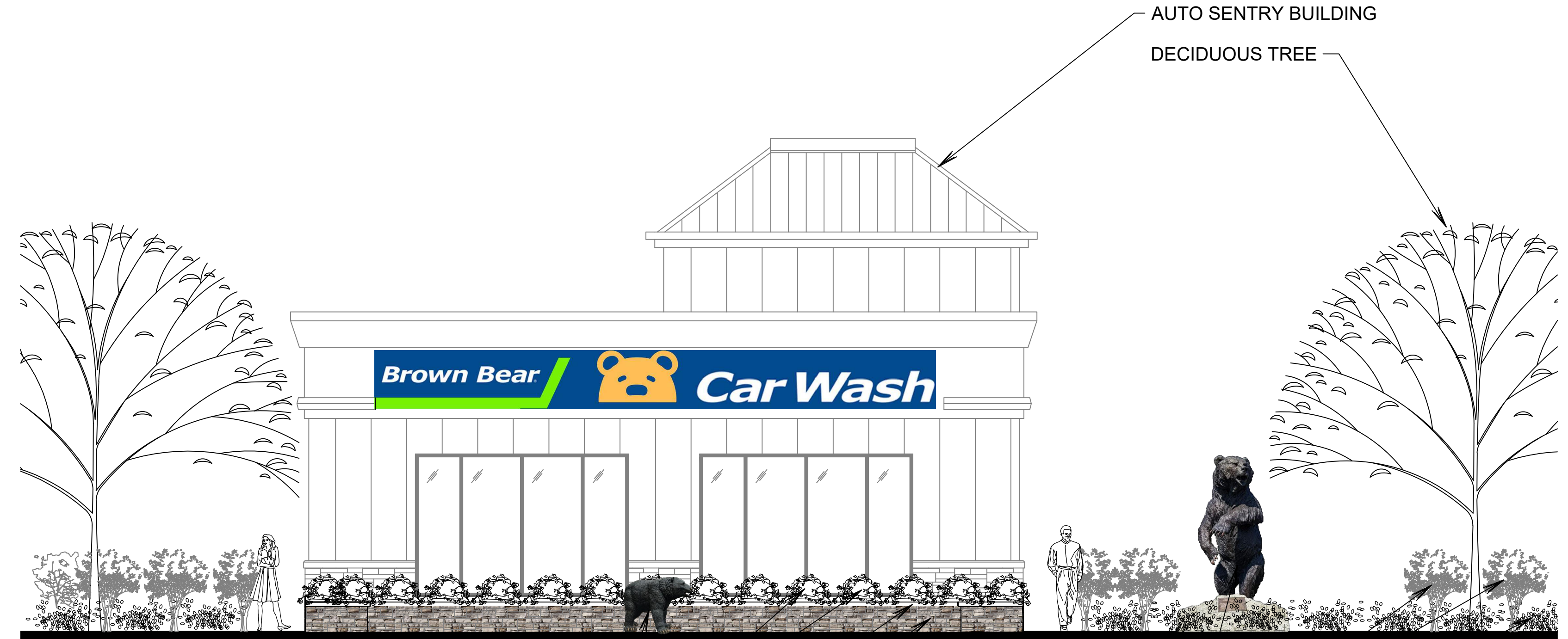
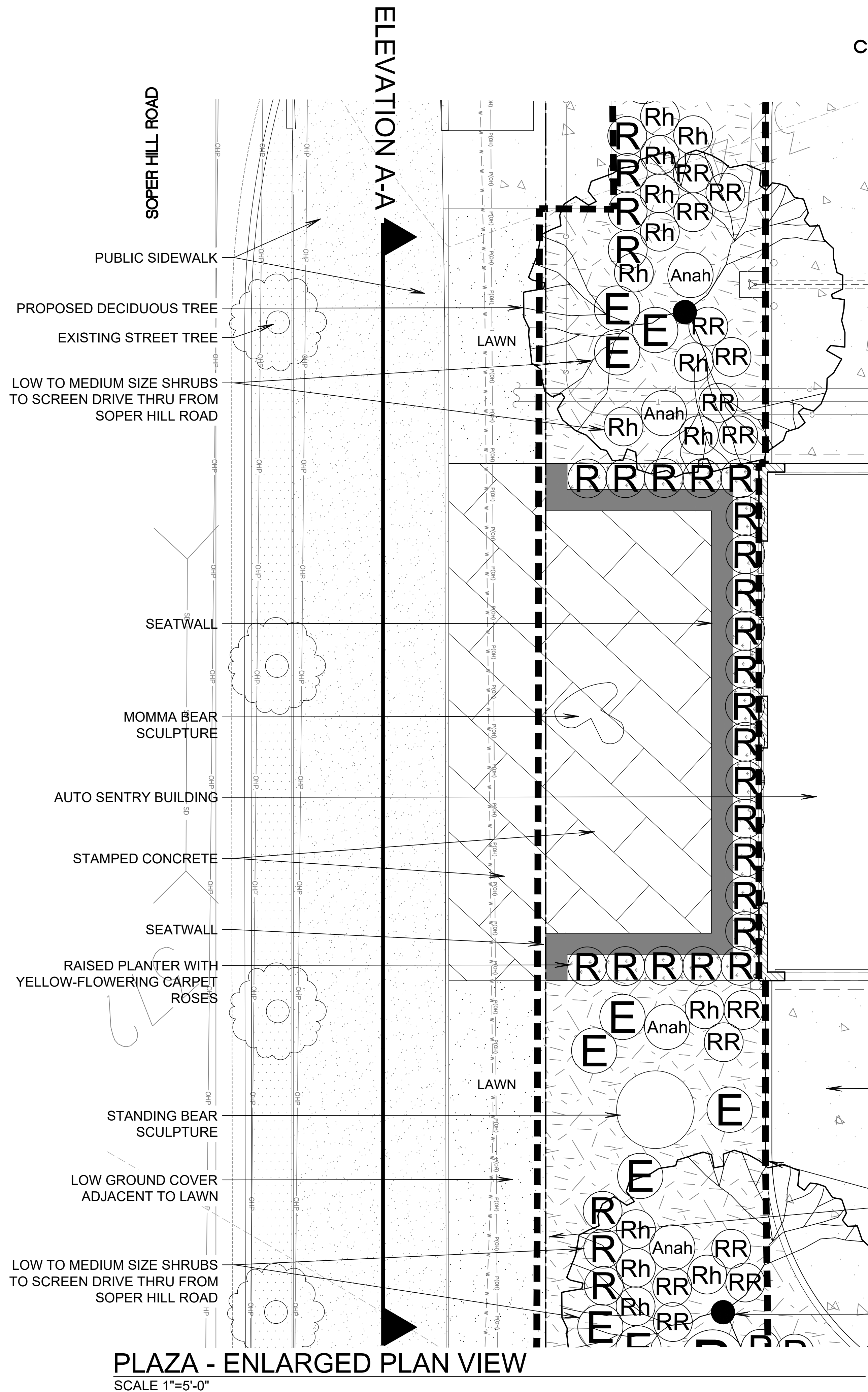
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OPEN SPACE PLAN

FOR

BROWN BEAR CAR WASH

SE 1/4 OF NW 1/4 OF SEC. 1, TWN. 29 N, RGE. 5 E, W.M.
CITY OF MARYSVILLE, SNOHOMISH COUNTY, WASHINGTON



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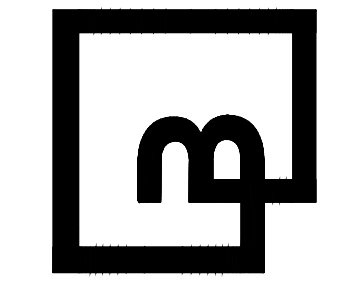
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PLANT SCHEDULE

FOR

BROWN BEAR CAR WASH

SE 1/4 OF NW 1/4 OF SEC. 1, TWN. 29 N, RGE. 5 E, W.M.
CITY OF MARYSVILLE, SNOHOMISH COUNTY, WASHINGTON

PLANT SCHEDULE

DECIDUOUS TREES	QTY	BOTANICAL / COMMON NAME	CONT.	SIZE
	10	ACER PLATANOIDES 'GLOBOSUM' / GLOBE NORWAY MAPLE NURSERY GROWN FOR STREET TREE USE. BRANCHED AT 5 FEET	B & B	1.5" - 2" CAL
	4	ACER X FREEMANII 'JEFFERSRED' / AUTUMN BLAZE® FREEMAN MAPLE	B & B	1.5" - 2" CAL
	3	CERCIS CANADENSIS 'ALBA' / WHITE EASTERN REDBUD	B & B	1.5" - 2" CAL
	3	GLEDITSIA TRIACANTHOS INERMIS 'SHADEMASTER' / HONEY LOCUST	B & B	1.5" - 2" CAL
	4	PARROTIA PERSICA 'VANESSA' / PERSIAN IRONWOOD	B & B	1.5" - 2" CAL
	1	QUERCUS RUBRA / RED OAK	B & B	1.5" - 2" CAL
EVERGREEN TREES	QTY	BOTANICAL / COMMON NAME	CONT.	SIZE
	4	CUPRESSUS ARIZONICA GLABRA 'BLUE ICE' / BLUE ICE ARIZONA CYPRESS	B & B	6' MIN. HT.
	3	PINUS FLEXILIS 'VANDERWOLF'S PYRAMID' / LIMBER PINE	B & B	6' MIN. HT.
	1	THUJA PLICATA 'EXCELSA' / EXCELSA CEDAR	B & B	6' MIN. HT.
DECIDUOUS SHRUBS	QTY	BOTANICAL / COMMON NAME	CONT.	SPACING
	15	CORNUS ALBA 'KESSELRINGII' / BLACK-TWIG DOGWOOD	2 GAL.	48" o.c.
	14	CORNUS SERICEA 'KELSEYI' / KELSEY'S DWARF RED TWIG DOGWOOD	2 GAL.	36" o.c.
	55	ROSA X 'NOALESA' / FLOWER CARPET® YELLOW ROSE	2 GAL.	36" o.c.
	9	SPIRAEA JAPONICA 'MONHUB' / LIMEMOUND® JAPANESE SPIREA	2 GAL.	42" o.c.
EVERGREEN SHRUBS	QTY	BOTANICAL / COMMON NAME	CONT.	SPACING
	7	BERBERIS DARWINII / DARWIN BARBERRY	2 GAL.	60" o.c.
	67	EUONYMUS FORTUNEI 'EMERALD GAIETY' TM / EMERALD GAIETY EUONYMUS	2 GAL.	42" o.c.
	41	EUONYMUS JAPONICUS 'ALBO-MARGINATUS' / VARIEGATED JAPANESE EUONYMUS	2 GAL.	60" o.c.
	36	LAVANDULA ANGUSTIFOLIA 'HIDCOTE BLUE' / HIDCOTE BLUE LAVENDER FULL AND BUSHY	2 GAL.	36" o.c.
	89	MAHONIA AQUIFOLIUM 'COMPACTA' / COMPACT OREGON GRAPE	2 GAL.	48" o.c.
	28	NANDINA DOMESTICA 'MOON BAY' / MOON BAY HEAVENLY BAMBOO	2 GAL.	42" o.c.
	19	RHODODENDRON KURUME 'SNOW' / SNOW KURUME AZALEA	2 GAL.	36" o.c.
	13	RHODODENDRON X 'ANAH KRUSCHKE' / ANAH KRUSCHKE RHODODENDRON	2 GAL.	42" o.c.
	4	RHODODENDRON X 'NOVA ZEMBLA' / NOVA ZEMBLA RHODODENDRON	2 GAL.	60" o.c.
	18	RHODODENDRON X 'RAMAPO' / RAMAPO RHODODENDRON	2 GAL.	36" o.c.
	29	THUJA OCCIDENTALIS 'EMERALD GREEN' / EMERALD GREEN ARBORVITAE	4'-5" HT.	30" o.c.
	32	VIBURNUM DAVIDII / DAVID VIBURNUM	2 GAL.	42" o.c.

FERNS	QTY	BOTANICAL / COMMON NAME	CONT.	SPACING
	12	DRYOPTERIS ERYTHROSORA 'BRILLIANCE' / BRILLIANCE AUTUMN FERN	2 GAL.	36" o.c.
	20	POLYSTICHUM MUNITUM / WESTERN SWORD FERN	2 GAL.	36" o.c.
GRASSES	QTY	BOTANICAL / COMMON NAME	CONT.	SPACING
	40	MISCANTHUS SINENSIS 'MORNING LIGHT' / MORNING LIGHT EULALIA GRASS	2 GAL.	42" o.c.
GROUND COVERS	QTY	BOTANICAL / COMMON NAME	CONT.	SPACING
	1,246	ARCTOSTAPHYLOS UVA-URSI / KINNIKINNICK	1 GAL.	24" o.c.
	111	ERICA X DARLEYENSIS 'KRAMER'S ROTE' / KRAMERS RED DARLEY HEATH	1 GAL.	24" o.c.
	1,501	FRAGARIA CHILOENSIS / BEACH STRAWBERRY	4" POT	24" o.c.

LANDSCAPE LEGEND

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FOR
BROWN BEAR MARYSVILLE

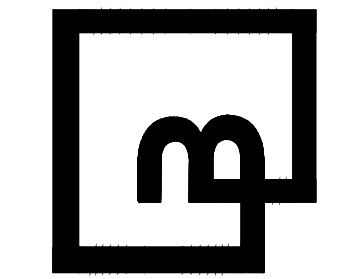
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LANDSCAPE NOTES & DETAILS

FOR

BROWN BEAR CAR WASH

SE 1/4 OF NW 1/4 OF SEC. 1, TWN. 29 N, RGE. 5 E, W.M.
CITY OF MARYSVILLE, SNOHOMISH COUNTY, WASHINGTON

LANDSCAPE PLANTING NOTES AND MATERIALS

SCOPE OF WORK

IN THE EVENT THAT ANY DIRECTION OR INFORMATION IN THESE NOTES CONFLICTS WITH CITY OF BONNEY LAKE STANDARD LANDSCAPE NOTES, THE DIRECTION OR INFORMATION CONTAINED WITHIN THE RELEVANT BONNEY LAKE STANDARD LANDSCAPE NOTES SHALL BE ADHERED TO.

FURNISH ALL MATERIALS, LABOR, EQUIPMENT AND RELATED ITEMS NECESSARY TO ACCOMPLISH TOPSOIL, TREATMENT AND PREPARATION OF SOIL, FINISH GRADING, PLACEMENT OF SPECIFIED PLANT MATERIALS, FERTILIZER, STAKING, MULCH, CLEAN-UP, DEBRIS REMOVAL, AND 30-DAY MAINTENANCE.

QUALIFICATIONS:
LANDSCAPE CONTRACTOR TO BE SKILLED AND KNOWLEDGEABLE IN THE FIELD OF WORK AND HAVE A MINIMUM OF FIVE (5) YEAR'S EXPERIENCE INSTALLING SIMILAR WORK. CONTRACTOR TO BE LICENSED TO PERFORM THE WORK SPECIFIED WITHIN THE PRESIDING JURISDICTION.

JOB CONDITIONS:
IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW THE SITE AND REPORT ANY DISCREPANCIES TO THE OWNER OR THE OWNER'S REPRESENTATIVES. ALL PLANT MATERIAL AND FINISH GRADES ARE SUBJECT TO APPROVAL BY THE OWNER.

PROTECTION:
SAVE AND PROTECT ALL EXISTING PLANTINGS SHOWN TO REMAIN. DO NOT PLANT UNTIL OTHER CONSTRUCTION OPERATIONS WHICH CONFLICT HAVE BEEN COMPLETED. IF AN IRRIGATION SYSTEM IS TO BE INSTALLED DO NOT PLANT UNTIL THE SYSTEM HAS BEEN INSTALLED, TESTED, AND APPROVED BY THE OWNER. HANDLE PLANTS WITH CARE - DO NOT DAMAGE OR BREAK ROOT SYSTEM, BARK, OR BRANCHES. REPAIR AND/OR REPLACE ITEMS DAMAGED AS A RESULT OF WORK OR WORK NOT IN COMPLIANCE WITH PLANS AND SPECIFICATIONS, AS DIRECTED BY OWNER AT NO ADDITIONAL COST TO THE OWNER.

REPAIR OF EXISTING PLANTINGS:
DURING THE COURSE OF WORK, REPAIR ALL EXISTING PLANTING AREAS BY PRUNING DEAD GROWTH, RE-ESTABLISHING FINISH GRADE AND RE-MULCHING TO SPECIFIED DEPTH.

GUARANTEE:
GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE OF THE JOB BY OWNER.

30-DAY MAINTENANCE:
CONTRACTOR TO PROVIDE OWNER WITH A SCOPE OF WORK AT TIME OF INITIAL PROJECT BID TO PROVIDE LANDSCAPE AND IRRIGATION MAINTENANCE FOR 30 DAYS FOLLOWING STORE OPENING. WORK TO INCLUDE MAINTENANCE AS DESCRIBED BELOW, IN PLANTING AND IRRIGATION MAINTENANCE.

SUBMITTALS:
SUBMIT THE FOLLOWING TO THE LANDSCAPE ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO THE START OF ANY WORK:

- DOCUMENTATION THAT ALL PLANT MATERIAL HAS BEEN ORDERED.
- TOPSOIL ANALYSIS AND RECOMMENDED AMENDMENTS.
- TREE STAKING AND GUYING MATERIALS.
- ONE (1) QUART SIZE OF TOPSOIL AND MULCH.
- PLANTING SCHEDULE INCLUDING DATES AND TIMES.
- MAINTENANCE INSTRUCTIONS FOR ONE (1) FULL YEAR.

MATERIALS:

PLANT MATERIALS:
PLANT MATERIALS TO BE GRADE NO. 1, SIZED IN ACCORDANCE WITH (AAN) AMERICAN STANDARDS FOR NURSERY STOCK (ANSI Z60.1-2004). PRUNE PLANTS RECEIVED FROM THE NURSERY ONLY UPON AUTHORIZATION BY THE LANDSCAPE ARCHITECT. "B" & "B" INDICATES BALLED AND BURLAPPED; "CONT." INDICATES CONTAINER; "BR" INDICATES BARE ROOT; "CAL" INDICATES CALIPER AT 6" ABOVE SOIL LINE; "GAL" INDICATES GALLON.

- SPECIFIED PLANT CANOPY SIZE OR CALIPER IS THE MINIMUM ACCEPTABLE CONTAINER OR BALL SIZE AND ESTABLISHES MINIMUM PLANT CONDITION TO BE PROVIDED.
- QUALITY:
PLANT MATERIAL TO COMPLY WITH STATE AND FEDERAL LAWS FOR DISEASE INSPECTION. PLANTS TO BE FULLY LIVE, VIGOROUS, WELL-FORMED, WITH WELL-DEVELOPED FIBROUS ROOT SYSTEMS. ROOT BALLS OF PLANTS TO BE SOLID AND FIRMLY HELD TOGETHER, SECURELY CONTAINED AND PROTECTED FROM INJURY AND DESICCATION. PLANTS DETERMINED BY LANDSCAPE ARCHITECT TO HAVE BEEN DAMAGED; HAVE DEFORMITIES OF STEM, BRANCHES, OR ROOTS; LACK SYMMETRY, HAVE MULTIPLE LEADERS OR "Y" CROTCHES LESS THAN 30 DEGREES IN TREES, OR DO NOT MEET SIZE OR ANSI STANDARDS WILL BE REJECTED. PLANT MATERIAL TO BE FROM A SINGLE NURSERY SOURCE FOR EACH SPECIFIED SPECIES/HYBRID. NURSERY SOURCES TO BE THOSE LOCATED IN THE SAME REGION AS THE JOB SITE.
- SUBSTITUTION:
NO SUBSTITUTION OF PLANT MATERIAL, SPECIES OR VARIETY, WILL BE PERMITTED UNLESS WRITTEN EVIDENCE IS SUBMITTED TO THE OWNER FROM TWO QUALIFIED PLANT BROKERAGE OFFICES. SUBSTITUTIONS WHICH ARE PERMITTED TO BE IN WRITING FROM THE OWNER AND LANDSCAPE ARCHITECT. THE SPECIFIED SIZE, SPECIES AND NEAREST VARIETY, AS APPROVED, TO BE FURNISHED. SUBSTITUTIONS MAY REQUIRE SUBMITTAL TO REVISED LANDSCAPE PLAN TO CITY FOR APPROVAL.
- LABEL AT LEAST ONE (1) TREE, SHRUB, AND GROUNDCOVER OF EACH VARIETY WITH A SECURELY ATTACHED WATERPROOF TAG BEARING LEGIBLE DESIGNATION OF BOTANICAL AND COMMON NAMES.
- DELIVER PLANT MATERIAL AFTER PREPARATION OF PLANTING AREAS HAVE BEEN COMPLETED AND PLANT IMMEDIATELY. IF PLANTING IS DELAYED MORE THAN SIX (6) HOURS AFTER DELIVERY, SET MATERIAL IN SHADE, PROTECT FOR WEATHER AND MECHANICAL DAMAGE, AND KEEP ROOT BALLS MOIST BY COVERING WITH MULCH, BURLAP OR OTHER ACCEPTABLE MEANS OF RETAINING MOISTURE.

SOIL PREPARATION:
TOPSOIL, AMENDMENT, AND BACKFILL, ARE GENERAL REQUIREMENTS FOR ALL LANDSCAPE AREAS, UNLESS NOTED OTHERWISE ON THE PLANS. SOIL AMENDMENTS AND FERTILIZER NOTED BELOW ARE TO BE USED FOR BID PRICE BASIS ONLY. SPECIFIC AMENDMENTS AND FERTILIZERS WILL BE MADE AFTER SOIL SAMPLES ARE LABORATORY TESTED BY THE CONTRACTOR. PROVIDE CHANGE ORDER FOR ADDITIONAL OR REDUCTION OF MATERIALS REQUIRED OR NOT REQUIRED BY THE SOILS REPORT.

SOIL FERTILITY AND AGRICULTURAL SUITABILITY ANALYSIS:
AFTER ROUGH GRADING AND PRIOR TO SOIL PREPARATION, CONTRACTOR TO OBTAIN TWO REPRESENTATIVE SOIL SAMPLES, FROM LOCATIONS AS DIRECTED BY THE LANDSCAPE ARCHITECT, TO A SOIL TESTING LABORATORY. SUBMIT RESULTS TO LANDSCAPE ARCHITECT FOR REVIEW. TESTS TO INCLUDE FERTILITY AND SUITABILITY ANALYSIS WITH WRITTEN RECOMMENDATIONS FOR SOIL AMENDMENT, FERTILIZER, CONDITIONERS, APPLICATION RATES, AND POST-CONSTRUCTION MAINTENANCE PROGRAM. TESTS TO BE CONTRACTED WITH AND PAID FOR BY THE CONTRACTOR.

- TOPSOIL:
CONTRACTOR IS RESPONSIBLE FOR SUPPLYING ALL TOPSOIL AND FOR DETERMINING THE VOLUME OF TOPSOIL REQUIRED PER THE INFORMATION ON PLANS AND NOTED HEREIN. CONTRACTOR IS RESPONSIBLE FOR ANY NECESSARY WEED CONTROL RESULTING FROM CONTAMINATED OFF SITE SOURCES.
- TOPSOIL TO CONSIST OF 1/3 BY VOLUME SANDY LOAM, 1/3 BY VOLUME COMPOSTED GARDEN MULCH, AND 1/3 BY VOLUME COARSE WASHED SAND OR EQUIVALENT.

- TOPSOIL PREPARATION AND INSTALLATION:
1. VERIFY SUBGRADES TO -9 INCHES IN LANDSCAPE AREAS OR AS INDICATED ON PLANS. THIS ACCOMMODATES, TOPSOIL, AMENDMENTS, AND MULCH. 6" IMPORTED TOPSOIL FOR LANDSCAPE BEDS.
2. ERADICATE ANY SURFACE VEGETATION ROOTED IN THE SUB-GRADE PRIOR TO SUB-GRADE PREPARATION.
3. REMOVE SOIL LUMPS, ROCK, VEGETATION AND/OR DEBRIS LARGER THAN 2 INCHES FROM ALL SUB-GRADE PRIOR TO PLACEMENT OF SPECIFIED TOPSOIL.
4. REMOVE ANY ASPHALT EXTENDING BEYOND 6 INCHES FROM CURBS INTO ADJACENT LANDSCAPE AREAS.

- TOPSOIL PLACEMENT:
1. PROVIDE A TOTAL FINISH COURSE OF 6 INCHES OF TOPSOIL FOR LANDSCAPE AREAS.
2. PLACE ADDITIONAL TOPSOIL AND SOIL MIX AS REQUIRED TO MEET FINISH ELEVATIONS.

MULCH (TOPDRESSING):
MEDIUM BARK MULCH

STAKES:
2-INCH DIAMETER BY 8-FOOT MINIMUM LODGEPOLE PINE STAKES.

GUY MATERIAL:
1-INCH WIDE POLYETHYLENE CHAIN LOCK TYPE TIES; OR, 3/8" DIAMETER RUBBER. NO WIRE.

EXECUTION:

CONTAMINANTS:
VERIFY THAT ALL SOIL CONTAMINANTS (E.G., PAINT, SEALANTS, SOLVENTS, OILS, GREASES, CONCRETE/ASPHALT SPOILS, ETC.) HAVE BEEN SATISFACTORILY REMOVED FROM ALL PLANTING AREAS. DO NOT BEGIN WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.

FINISH GRADES:
FINE GRADE AND REMOVE ROCKS, DEBRIS, AND FOREIGN OBJECTS OVER 2 INCHES DIAMETER FROM TOP SURFACE OF PREPARED LANDSCAPE AREAS. FINISH ELEVATIONS TO BE DEFINED AS 3 INCHES BELOW CURBS, WALKS AND/OR OTHER ADJACENT HARDSCAPE FOR ALL PLANTING BED AREAS AND 1-INCH BELOW CURBS, WALKS AND/OR OTHER ADJACENT HARDSCAPE FOR ALL LAWN AREAS. FINISH GRADE REFER TO GRADES PRIOR TO INSTALLATION OF MULCH OR LAWN. ALL FINISH GRADES TO BE SMOOTH EVEN GRADES, LIGHTLY COMPACTED, AS SHOWN ON THE PLAN AND DETAILED. PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDINGS AND STRUCTURES. SITE CIVIL DRAWINGS IDENTIFY FINAL ELEVATIONS. MOISTEN PREPARED AREAS BEFORE PLANTING IF SOIL IS DRY. WATER THOROUGHLY AND ALLOW SURFACE TO DRY BEFORE PLANTING. DO NOT CREATE MUDDY SOIL.

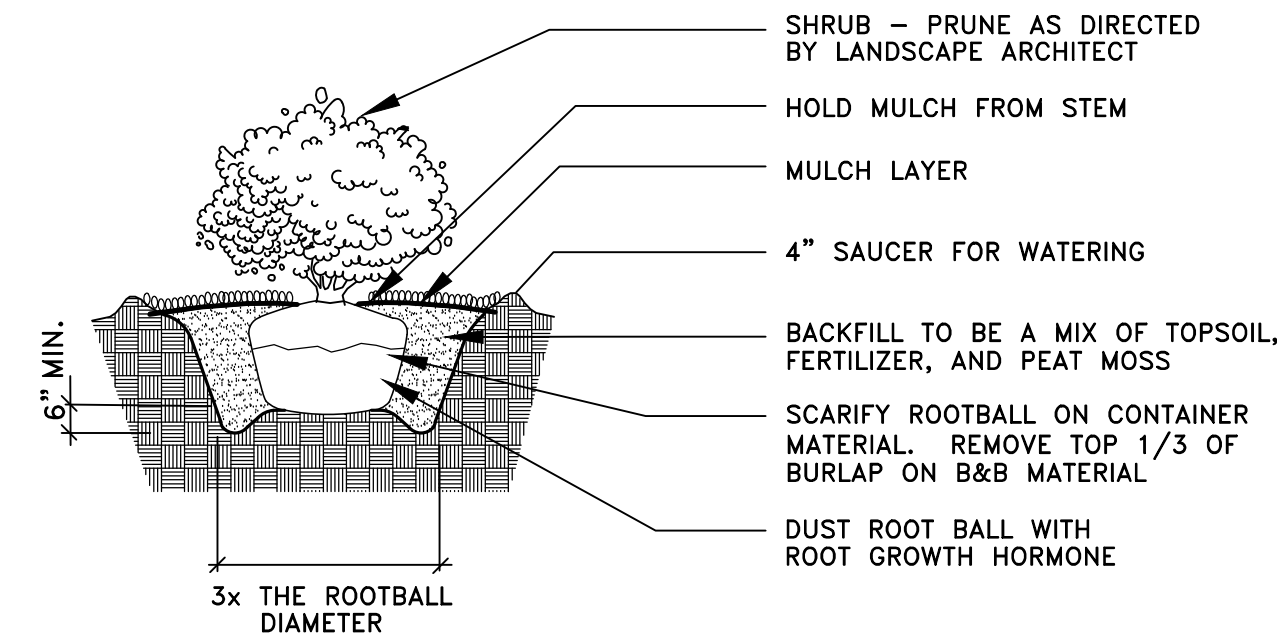
TREES AND SHRUBS:
ARRANGE TREES AND SHRUBS ON SITE IN PROPOSED LOCATIONS PER DRAWINGS. EXCAVATE PIT, PLANT AND STAKE OR GUY, AS CALLED OUT AND DETAILED. ALL TREES, SHRUBS, AND SUPPORTS TO STAND VERTICAL. BACKFILL SHALL BE PIT SPOILS. SETTLE BACKFILL USING WATER ONLY. NO MECHANICAL COMPACTION.

GROUNDCOVERS:
EXCAVATE PITS TO A MINIMUM OF 3 INCHES BELOW, AND TWICE THE ROOT BALL DIAMETER. WATER THOROUGHLY AND TAKE CARE TO ENSURE THAT ROOT CROWN IS AT PROPER GRADE, AS DETAILED.

MULCH:
MULCH ALL LANDSCAPE AREAS, MATCH DEPTH OF EXISTING MULCH. AT A MINIMUM, APPLY SUFFICIENT QUANTITY TO PROVIDE A 3 TO 4-INCH DEPTH.

CLEANUP AND PROTECTION:
DURING LANDSCAPE WORK, KEEP ALL PAVEMENT CLEAN AND WORK AREAS IN AN ORDERLY CONDITION. PROTECT LANDSCAPE WORK AND MATERIALS FROM DAMAGE DUE TO LANDSCAPE OPERATIONS AND TRESPASSERS. MAINTAIN PROTECTION DURING INSTALLATION AND MAINTENANCE PERIOD. TREAT, REPAIR, OR REPLACE DAMAGE LANDSCAPE WORK AS DIRECTED BY THE OWNER.

PLANTING MAINTENANCE:
PROVIDE FULL MAINTENANCE BY SKILLED EMPLOYEES OF LANDSCAPE INSTALLERS. CONTRACTOR TO MAINTAIN PLANTINGS THROUGH COMPLETED INSTALLATION, AND UNTIL ACCEPTANCE OF LANDSCAPE INSTALLATION. PLANTING MAINTENANCE TO INCLUDE WATERING, WEEDING, CULTIVATING, TIGHTENING AND REPAIRING OF TREE GUYS, RESETTling PLANTS TO PROPER GRADES OR POSITION, RE-ESTABLISHING SETTLED GRADES; AND MOWING LAWNS WEEKLY AFTER LAWN ESTABLISHMENT. HERBICIDE IS NOT RECOMMENDED FOR ONE YEAR FOLLOWING LANDSCAPE INSTALLATION. INCLUDED IS REPLACEMENT OF DEAD PLANTS AND PLANTS SHOWING LOSS OF 40 PERCENT OR MORE OF CANOPY.

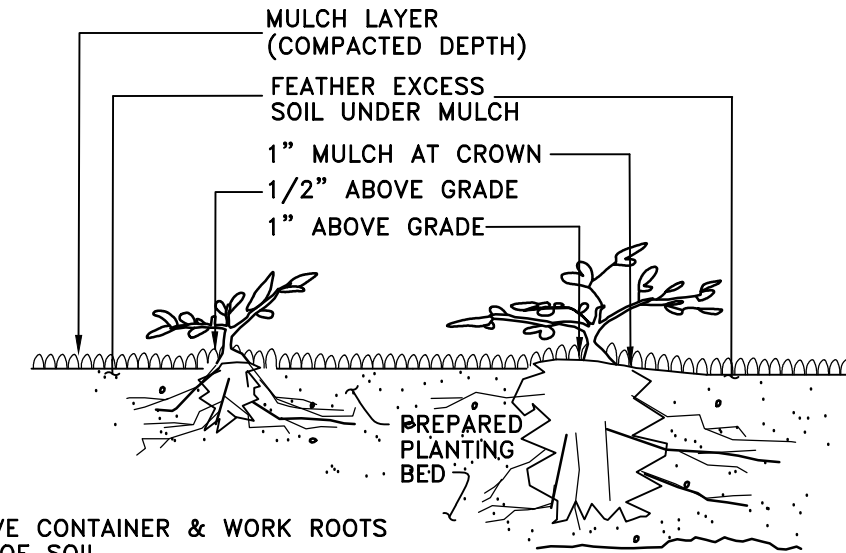


NOTE:
APPLY ADDITIONAL 4 OZ. 8-32-16 FERTILIZER INTO TOP 2" OF PLANTING MIX.

PLANT SHRUB HIGH ENOUGH TO ALLOW POSITIVE DRAINAGE AWAY FROM ROOTBALL. ROUGHEN ALL SURFACES OF PIT. CUT AND REMOVE BURLAP FROM ROOT BALL

SHRUB PLANTING DETAIL

NOT TO SCALE



NOTE:
REMOVE CONTAINER & WORK ROOTS FREE OF SOIL. BACKFILL TO BE SETTLED USING WATER ONLY SEE PLANT LIST FOR PLANT SPACING

LESS THAN 1 GAL (PLANTED BEFORE MULCH) | 1 GAL CONTAINER and LARGER (PLANTED BEFORE MULCH)

GROUNDCOVER PLANTING DETAIL

NOT TO SCALE

PRUNE DAMAGED TWIGS AFTER PLANTING
PLACE IN VERT. POSITION: DOUBLE LEADERS WILL BE REJECTED

NOTE:
KEEP ROOTBALL MOIST AND PROTECTED AT ALL TIMES. HOLD CROWN OF ROOTBALL AT OR JUST ABOVE FINISH GRADE. PROTECT TRUNK AND LIMBS FROM INJURY. BACKFILL TO BE SETTLED USING WATER ONLY - NO MECHANICAL COMPACTION. REMOVE ALL WRAP, TIES & CONTAINERS, REGARDLESS OF MATERIAL.

(2) LODGEPOLE STAKES, PLUMB WITH ELASTIC CHAIN-LOCK TYPE OR RUBBER GUYS TIED IN FIGURE EIGHT; REMOVE AFTER ONE GROWING SEASON

PROTECTIVE WRAPPING DURING SHIPMENT TO SITE AND INSTALLATION REMOVE AT COMPLETION OF PLANTING

LAWN PLANTING: PROVIDE 3' x "NO GRASS" TREE RING AND 2" DEEP MULCH LAYER IN WELL. HOLD BACK FROM TRUNK 8" TO 10"

FINISH GRADE
PREPARE PLANTING BED PER SPEC'S; AT MIN., LOOSEN AND MIX SOIL TO 18" OR DEPTH OF ROOTBALL AND 2 TIMES BALL DIAMETER

REMOVE ALL WRAP, TIES, AND CONTAINERS SCORE ROOTBALL AND WORK NURSERY SOIL AWAY FROM PERIMETER ROOTS

SET BALL ON UNDISTURBED BASE OR COMPACTED MOUND UNDER BALL

PENETRATION TO SUBBASE (+) 24"

DECIDUOUS TREE PLANTING/STAKING DETAIL

NOT TO SCALE

(2) LODGEPOLE STAKES; TIE AT APPROX. 1/3 TO 1/2 HEIGHT OF TREE WITH FLEXIBLE RUBBER TIE IN FIGURE EIGHT PATTERN. STAKES AND TREE TO BE PLUMB

3" DEEP SAUCER FOR WATER

MULCH LAYER

REMOVE ALL TIES, WRAP & CONTAINERS. FREE PERIMETER ROOTS FROM NURSERY BALL

EXCAVATE TREE PIT AT A MIN. OF 2 TIMES DIA. OF ROOTBALL AT BALL CENTER, TAPERING PIT GRADE TO FINISH GRADE

PIT SPOILS, NURSERY BALL WASTE BACKFILL

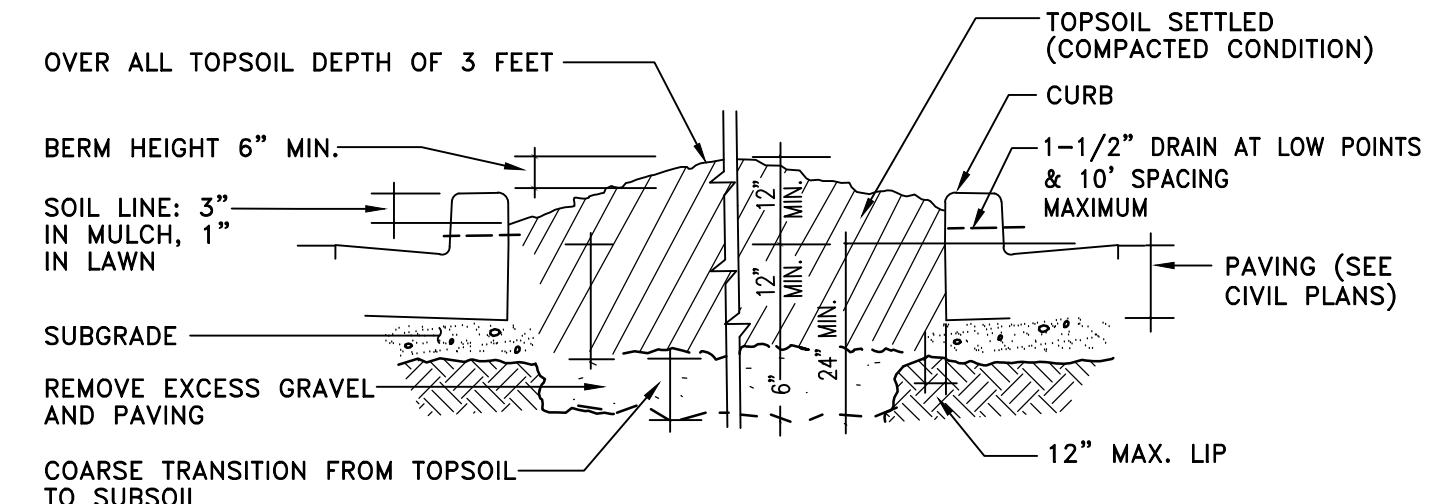
SET BALL ON UNDISTURBED SUBGRADE, OR COMPACTED SOIL.

NOTE:
LIGHT FERTILIZER OVER PLANTING BED AFTER BACKFILL ONLY; NO FERTILIZER IN PLANTING PIT. WORK PERIMETER ROOTS FREE OF NURSERY BALL. BALL & PIT TO BE COURSELY SCARIFIED.

NOTE:
OVER EXCAVATE PARKING LOT PLANTERS TO LOOSEN COMPACTED SUBBASE

EVERGREEN TREE PLANTING/STAKING DETAIL

NOT TO SCALE

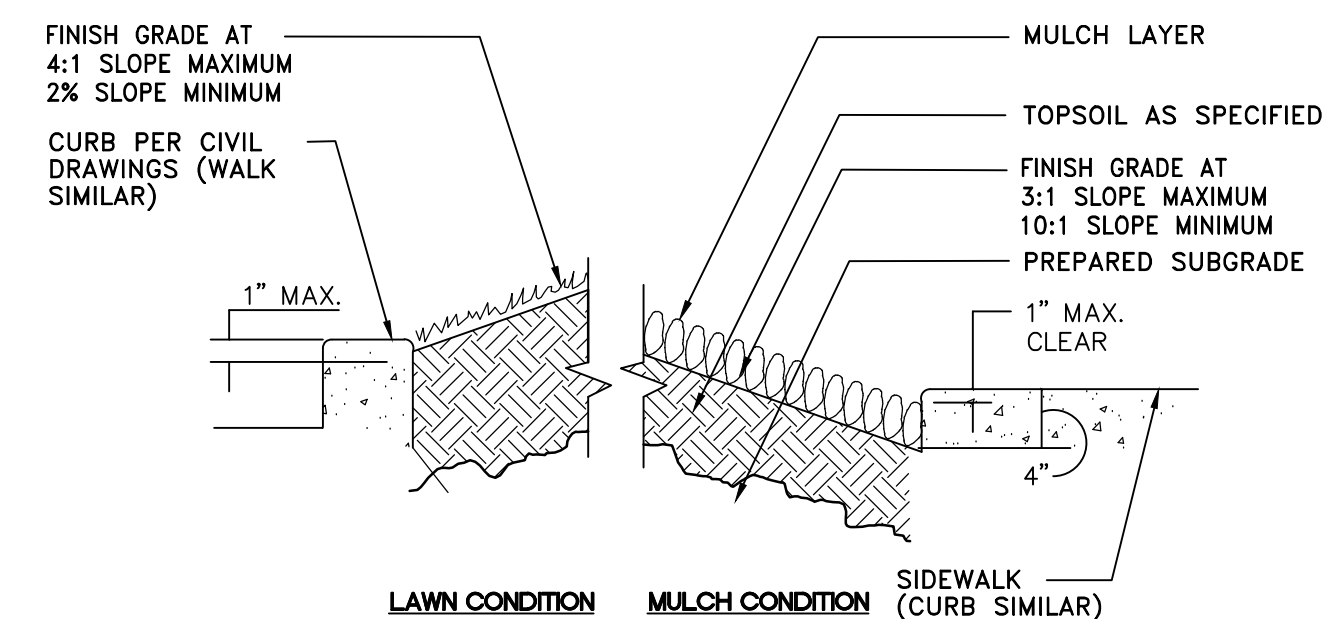


NOTE:
OVER EXCAVATE PARKING LOT PLANTERS TO LOOSEN COMPACTED SUBBASE

GRADING • PARKING LOT PLANTERS DETAIL

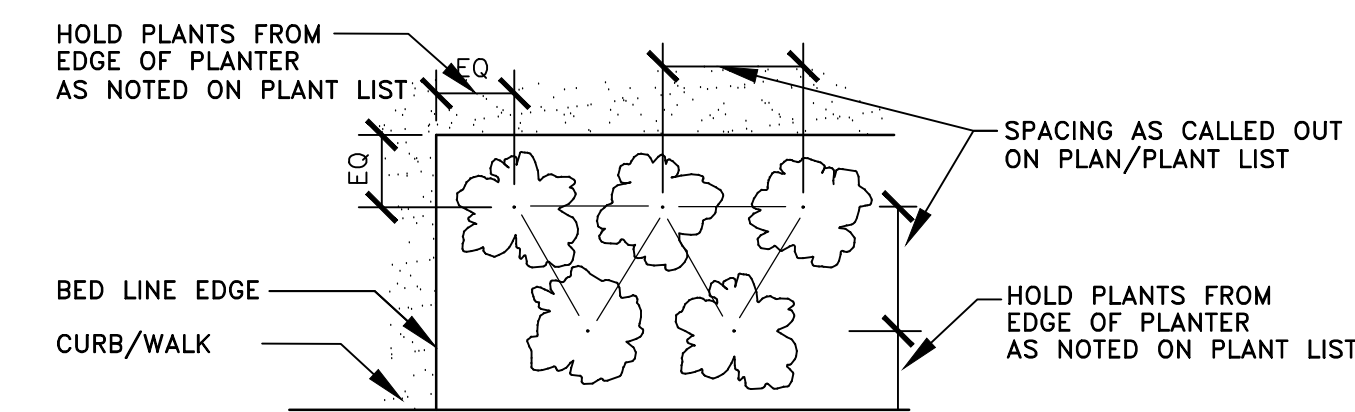
NOT TO SCALE

DEDUCT ALT #1: IF LANDSCAPE CONTRACTOR CAN DEMONSTRATE WITH A SOIL ANALYSIS (OR SIMILAR) THAT PARKING LOT ISLAND PLANTERS HAVE EXISTING SOIL THAT HAS SIMILAR QUALITIES AS THE IMPORTED TOPSOIL, 6" OF ORGANIC COMPOST CAN BE INSTALLED IN THE PLANTERS AND CULTIVATED INTO THE TOP 12"-18" OF EXISTING SOIL



PLANTER SECTION DETAIL

NOT TO SCALE



NOTE:
THIS SPACING APPLIES TO GROUNDCOVER AND FORMAL SHRUB ROW PLACEMENT.

PLANT MATERIAL SPACING DETAIL

NOT TO SCALE

Revision
No. Date By Ctd. Appr.

LANDSCAPE NOTES + DETAILS
FOR
BROWN BEAR MARYSVILLE

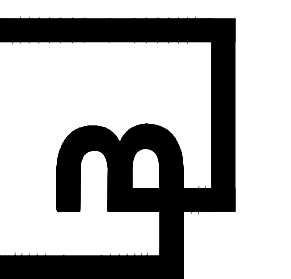
CAR WASH ENTERPRISES, INC.
3977 LEARY WAY N.W.
SEATTLE, WASHINGTON 98107



Scale:
Horizontal N/A
Vertical N/A

Designed LRP
Drawn LRP
Checked LP/AV
Approved JMV
Date 5/1/23

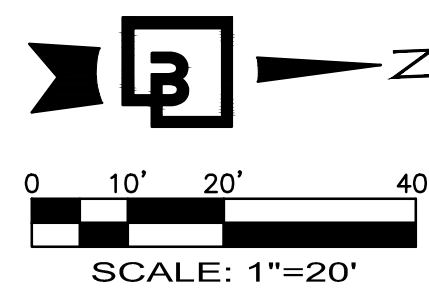
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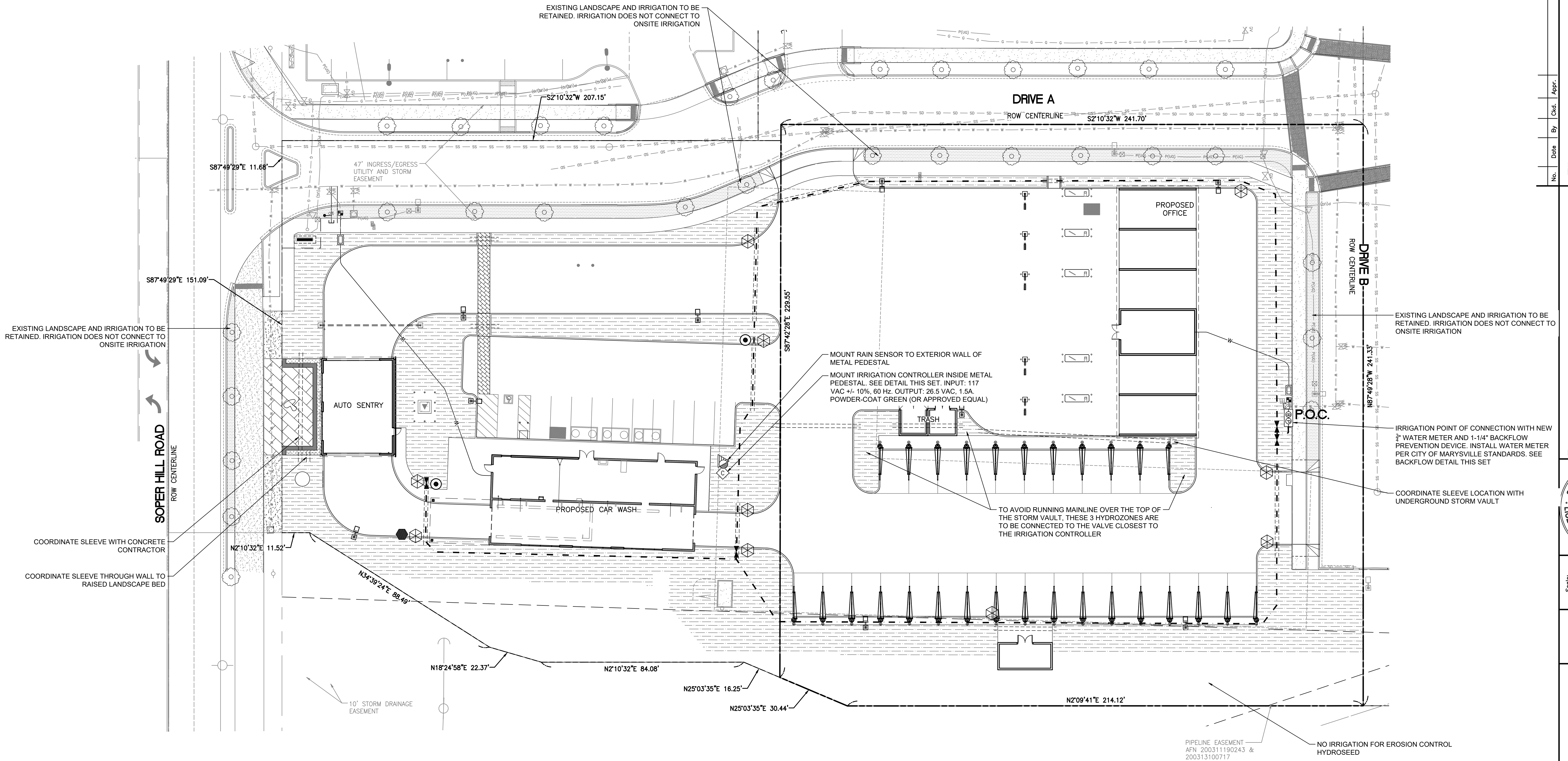


PRELIMINARY IRRIGATION PLAN

FOR

BROWN BEAR CAR WASH

SE 1/4 OF NW 1/4 OF SEC. 1, TWN. 29 N, RGE. 5 E, W.M.
CITY OF MARYSVILLE, SNOHOMISH COUNTY, WASHINGTON



No.	Date	By	Chd.	Appr.	Revision

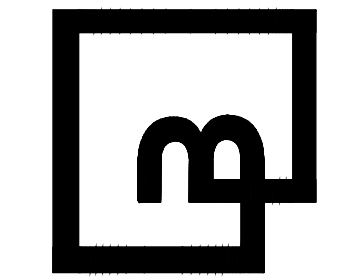
Title:
**PRELIMINARY IRRIGATION PLAN
FOR
BROWN BEAR MARYSVILLE**

For:
**CAR WASH ENTERPRISES, INC.
3977 LEARY WAY N.W.
SEATTLE, WASHINGTON 98107**



Scale:	Horizontal 1" = 20'	Vertical N/A
Designed LRP	Drawn LRP	Checked LP/AV
Approved JMV	Date 5/4/23	

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IRRIGATION NOTES & DETAILS

FOR

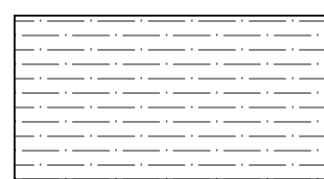
BROWN BEAR CAR WASH

SE 1/4 OF NW 1/4 OF SEC. 1, TWN. 29 N, RGE. 5 E, W.M.
CITY OF MARYSVILLE, SNOHOMISH COUNTY, WASHINGTON

IRRIGATION SCHEDULE

DESCRIPTION

DRIP IRRIGATION:



HUNTER LANDSCAPE DRIPLINE COMPONENTS

HDL-06-12-250-CV SUB-SURFACE DRIPLINE TUBING 0.6 GPH PRESSURE COMPENSATING EMITTERS WITH CHECK VALVE AT 12" ON-CENTER SPACING - ALL TUBING SHALL BE INSTALLED ON GRADE W/ 9" WIRE STAKES FOUR (4) FEET ON-CENTER; VERIFY THE LAYOUT AND 18" ON-CENTER SPACING IN THE FIELD PRIOR TO STARTING WORK. INSTALL ALL COMPONENTS PER MANUF. SPECIFICATIONS. USE HUNTER PLD-LOC FITTINGS FOR CONNECTION BETWEEN PVC LATERAL LINES AND INLINE DRIP TUBING

SPRINKLER HEADS:

HUNTER MP ROTATOR WITH PRO-SPRAY POP-UP BODY AND CV DRAIN CHECK VALVE, 4" LAWN, 6" SHRUB

SYMBOL	NOZZLE	PSI	GPM	RADIUS
	HUNTER-6Q and 6H H, Q SERIES	30	0.98, 0.51	6'
	HUNTER-1000 8-15 F, TH, TT, H, Q SERIES	35	0.65, 0.48, 0.37, 0.32, 0.16	8'
	HUNTER-1000 8-15 F, TH, TT, H, Q SERIES	35	0.65, 0.48, 0.37, 0.32, 0.16	10'
	HUNTER-1000 8-15 F, TH, TT, H, Q SERIES	35	0.65, 0.48, 0.37, 0.32, 0.16	12'
	HUNTER-2000 13-21 F, TQ, TT, H, Q SERIES	30	1.29, 0.95, 0.74, 0.63, 0.33	15'
	HUNTER ES515, SS530 SERIES	35	1.41, 0.65	5'x30' 5'x15'

DESCRIPTION

- SPRAY IRRIGATION: HUNTER ICV 101/151G REMOTE CONTROL VALVE, IN VALVE BOX, ONE VALVE PER BOX MAXIMUM 2 VALVES PER BOX
- DRIP IRRIGATION: ICZ-101/151-XL REMOTE CONTROL DRIP ZONE KIT WITH FILTER AND PRESSURE REGULATOR MAXIMUM 2 VALVES PER BOX
- HUNTER SOLAR SYNC WIRE RAIN SENSOR COMBO
- HUNTER PRO-C CONTROLLER 3 TO 15 STATIONS, (HARDWIRE CONNECTION); PROVIDE GROUND AND BATTERIES PER MANUFACTURER'S SPECIFICATIONS

P.O.C.

- WILKINS 950 XLT- 1-1/4" DOUBLE CHECK VALVE (STATE APPROVED); TEST AND CERTIFICATION BY LICENSED BACKFLOW TESTER
- WILKINS 850 - BALL VALVE, SIZE TO MATCH PIPE
- CARSON INDUSTRIES #1730 (TWO AT P.O.C.) GRADE LEVEL VAULT WITH BOLT LOCK LID
- PLASTIC BALL VALVE, MATCH LINE SIZE, IN VALVE BOX
- HUNTER HQ-33DLRC 3/4" QUICK COUPLING VALVE, IN VALVE BOX, PROVIDE TWO KEYS AND SWIVELS

----- MAINLINE - SCH 40 PVC (18" COVER); SIZE PER PLAN, 2" SIZE MINIMUM

----- LATERAL - SCH 40 PVC (12" COVER); SIZE PER PLAN, 3/4" SIZE MINIMUM

----- SLEEVE - SCH 40 PVC; 24" MINIMUM COVER AT VEHICLE CROSSINGS AND 18" MINIMUM COVER IN LANDSCAPE AREAS, 6" SIZE WHERE IRRIGATION MAINLINE TRAVELS THROUGH PIPE. 4" SIZE WHERE ONLY LATERALS TRAVEL THROUGH PIPE

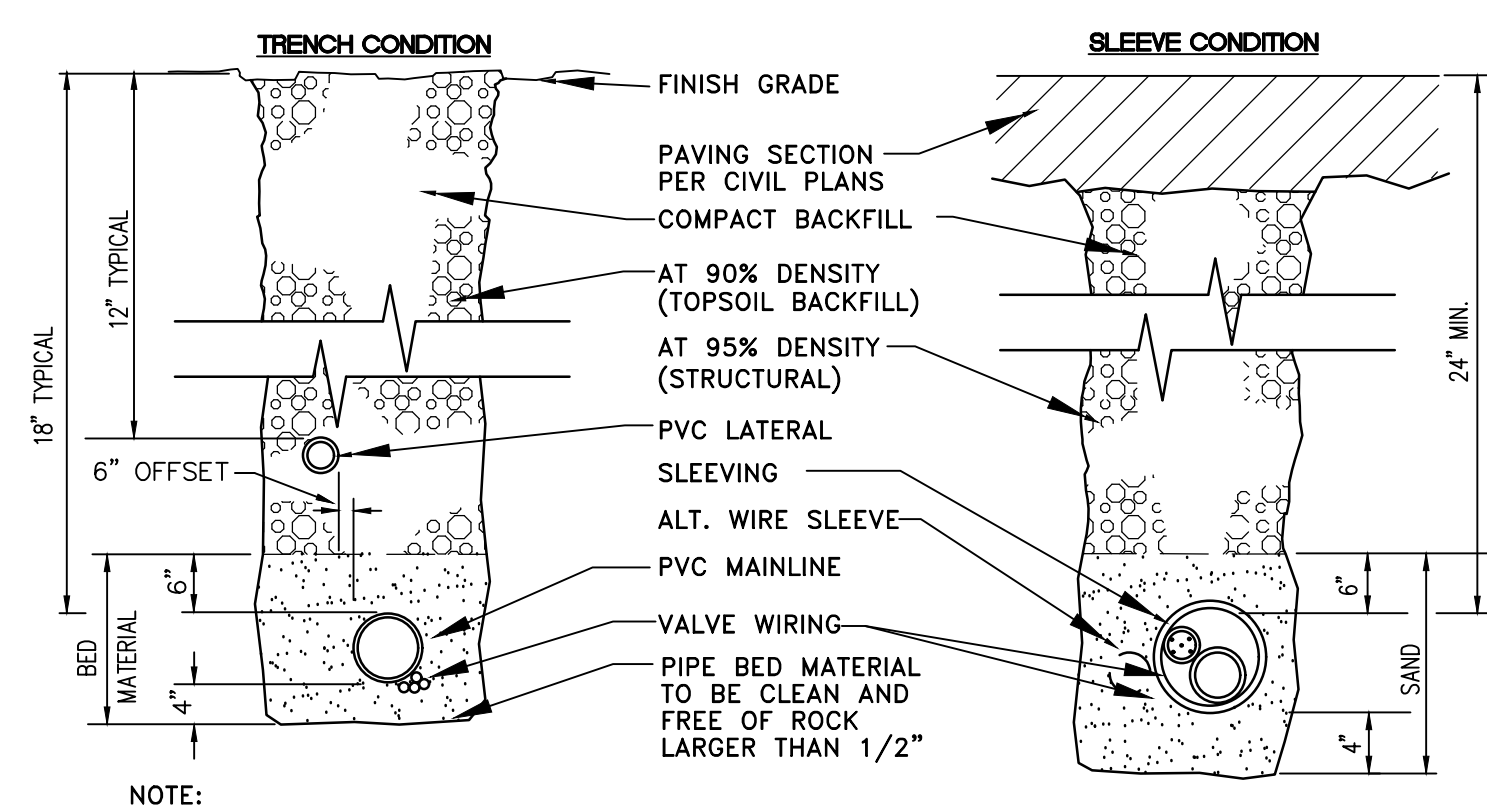
IRRIGATION SHOWN DIAGRAMMATICALLY FOR PLAN CLARITY. COMMON TRENCH AND PLACE EQUIPMENT IN LANDSCAPE; MANIFOLD GROUPED VALVES IN ADJACENT SHRUB AREAS WHERE FEASIBLE.

SCH 40 PIPE SIZING CHART

PIPE SIZE	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	
FLOW GPM	1-8	8.1-13	13.1-23	23.1-32	32.1-53	53.1-74	GPM (MAX.)

LANDSCAPE IRRIGATION NOTES

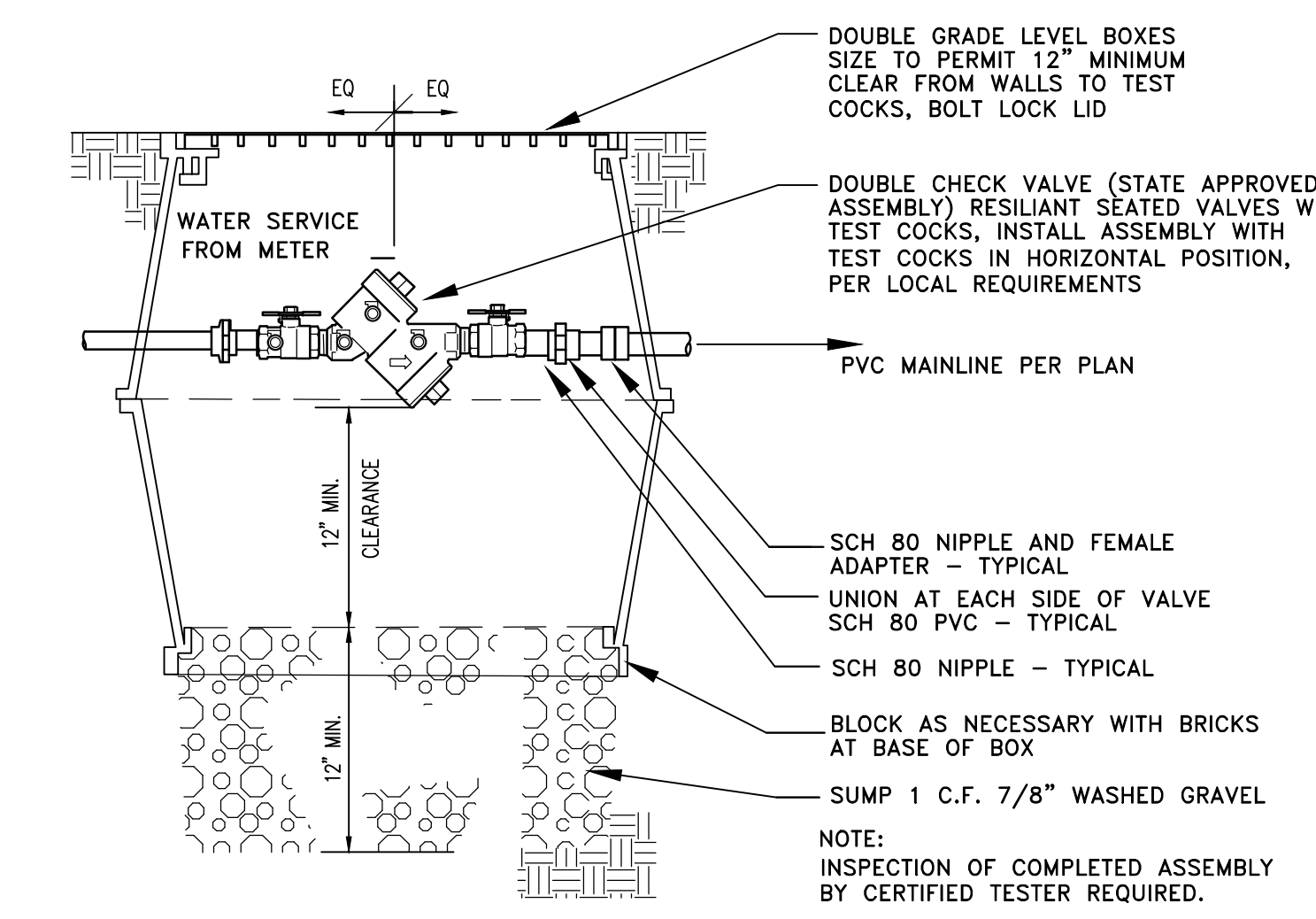
- GENERAL CONTRACTOR AND LANDSCAPE CONTRACTOR TO COORDINATE:
 - INSTALLATION OF 110V ELECTRICAL SERVICE FROM ELECTRICAL SOURCE TO AUTOMATIC CONTROLLER, INCLUDING WIRE HOOK-UP INTO MOUNTED CONTROLLER. IRRIGATION CONTRACTOR WILL MOUNT CONTROLLER PER DESIGN AND COORDINATE WITH GENERAL CONTRACTOR.
 - INSTALLATION OF IRRIGATION/SERVICE METER AND STUB TO IRRIGATION POINT OF CONNECTION, PER UTILITY PLAN(S). PROVIDE STANDARD THREADED STUB-OUT WITH THREADED CAP ON DISCHARGE SIDE OF METER. STUB-OUT TO BE INSTALLED APPROXIMATELY 18 INCHES BELOW FINISH GRADE.
 - VERIFICATION OF STATIC WATER PRESSURE AT POINT-OF-CONNECTION (P.O.C.) CONTRACTOR SHALL NOTIFY OWNER AND BARGHAUSEN CONSULTING ENGINEERS, INC., OF ANY VARIATION IN STATIC PRESSURE OVER 5 PSI GREATER/LESS THAN DESIGN PRESSURE.
 - INSTALLATION OF SLEEVING.
- PROVIDE ALL LABOR, MATERIALS, TRANSPORTATION, AND SERVICES NECESSARY TO FURNISH AND INSTALL A COMPLETE IRRIGATION SYSTEM AS INDICATED ON THE DRAWINGS AND/OR NOTES. PROVIDE A ONE (1) YEAR WARRANTY/GUARANTEE FROM FINAL ACCEPTANCE AGAINST ALL DEFECTS IN MATERIALS, EQUIPMENT, AND WORKMANSHIP.
- COORDINATE IRRIGATION INSTALLATION WITH GENERAL CONTRACTOR, ELECTRICAL CONTRACTOR, LANDSCAPE CONTRACTOR, OWNER, ARCHITECT, AND LANDSCAPE ARCHITECT.
- LANDSCAPE CONTRACTOR TO TEST AVAILABLE WATER PRESSURE PRIOR TO BEGINNING ANY WORK. PROVIDE LANDSCAPE ARCHITECT WITH WRITTEN PSI RESULTS.
- ALL WORK PER LOCAL CODE. INSTALLATION PER MANUFACTURER'S WRITTEN SPECIFICATIONS.
- CONTRACTOR TO OBTAIN AND PAY FOR ALL PERMITS, FEES, AND REQUIRED CITY INSPECTIONS.
- SUBMITTALS:
 - SUBMIT FIVE (5) COPIES OF EACH ITEM LISTED BELOW FOR LANDSCAPE ARCHITECT'S REVIEW AND APPROVAL.
 - PRODUCT DATA: FOR EACH TYPE OF PRODUCT INDICATED.
 - CONTROL WIRING PATH DIAGRAM.
 - "AS-BUILT" DRAWINGS.
 - OPERATION AND MAINTENANCE MANUALS.
- PROVIDE AND KEEP UP TO DATE A COMPLETE "AS-BUILT" RECORD SET OF PRINTS WHICH ARE TO BE CORRECTED DAILY AND SHOW EVERY CHANGE FROM THE ORIGINAL DRAWINGS AND NOTES AND EXACT "AS-BUILT" LOCATIONS, SIZES AND KIND OF EQUIPMENT. THIS SET OF DRAWINGS ARE TO BE KEPT ON SITE AND ARE TO BE USED ONLY AS THE RECORD SET. ALL WORK IS TO BE NEAT AND LEGIBLE ANNOTATIONS THEREON DAILY AS THE WORK PROCEEDS, SHOWING WORK AS ACTUALLY INSTALLED. DIMENSION FORM TWO (2) PERMANENT POINTS OF REFERENCE, BUILDING CORNERS, WALKS, OR ROAD INTERSECTIONS, ETC., THE LOCATION OF THE FOLLOWING:
 - CONNECTION TO WATER LINES (P.O.C.),
 - CONNECTIONS TO ELECTRICAL POWER,
 - GATE VALVE, QUICK COUPLERS, AND REMOTE CONTROL VALVE,
 - ROUTING OF MAINLINE (DIMENSION MAXIMUM 100' ALONG ROUTING),
 - ROUTING OF CONTROL WIRING,
 - OTHER RELATED EQUIPMENT AS DIRECTED BY THE LANDSCAPE ARCHITECT.
- PREPARE AND PROVIDE PRIOR TO COMPLETION OF CONSTRUCTION, A THREE RING BINDER CONTAINING THE FOLLOWING INFORMATION:
 - INDEX SHEET STATING CONTRACTOR'S ADDRESS, TELEPHONE NUMBER, FAX, E-MAIL AND A LIST OF EQUIPMENT WITH NAME AND ADDRESS OF LOCAL MANUFACTURER'S REPRESENTATIVES,
 - CATALOG AND PARTS SHEETS ON EVERY MATERIAL AND EQUIPMENT INSTALLED UNDER THIS, CONTRACT,
 - GUARANTEE STATEMENT,
 - COMPLETE OPERATING AND MAINTENANCE INSTRUCTIONS ON ALL MAJOR EQUIPMENT.
 - CONSTRUCTION DETAILS FROM THE PROJECT,
 - COMPLETE TROUBLE-SHOOTING GUIDE TO COMMON IRRIGATION PROBLEMS,
 - WINTERIZATION AND SPRING START-UP PROCEDURES,
 - CHART OF APPROXIMATE WATERING TIMES FOR SPRING, SUMMER, AND FALL,
 - A COPY OF THE "AS-BUILT" DRAWINGS AND CONTROLLER CHART.
- ALL VALVES TO BE PLACED IN "CARSON" GRADE LEVEL BOXES WITH BOLT-LOCK LIDS (OR APPROVED EQUIVALENT). SET BOXES 2 INCHES HIGHER THAN FINISH GRADE IN MULCH AREAS AND FLUSH WITH FINISH GRADE IN LAWN AREAS. JUMBO BOX FOR CHECK VALVE, 10" ROUND BOX FOR GATE/QUICK COUPLER/WIRE SPLICES, AND 12" STANDARD FOR CONTROL VALVES. PROVIDE BOX EXTENSIONS AS REQUIRED.
- MAINLINE PIPE TO BE BURIED 18 INCHES, LATERALS 12 INCHES, AND SLEEVES 24" INCHES BELOW FINISH GRADE. NO ROCK OR DEBRIS TO BE BACKFILLED OVER PIPE.
- HEAD AND LINE POSITIONING IS DIAGRAMMATIC ON PLAN. ADJUST IN FIELD AS NECESSARY FOR 100 PERCENT COVERAGE. VALVES TO BE POSITIONED ADJACENT TO PAVEMENT/CURBS, IN SHRUB BEDS WHERE POSSIBLE.
- FAMILIARIZE OWNERS FACILITY OPERATOR WITH IRRIGATION SYSTEM FUNCTION, CONTROLLER PROGRAMMING, SYSTEM OPERATION AND MAINTENANCE REQUIREMENTS.
- SPRINKLERS ON RISERS WILL NOT BE ALLOWED UNLESS NOTED ON PLANS.
- RADIUS REDUCTION TO BE MADE BY USE OF PRESSURE ADJUSTMENT, SCREENS, AND/OR ALTERNATE NOZZLES. IN-NOZZLE ADJUSTMENT IS LIMITED TO 10 PERCENT FOR SPRAY HEADS AND PER MANUFACTURER'S LIMITS FOR OTHER SPRINKLERS. SPRINKLER SPACING NOT EXCEED 60% OF THE DIAMETER OF THE PUBLISHED DATA.
- ALL CONTROL WIRE SPLICES TO BE MADE AT VALVE BOXES WITH WATER TIGHT ELECTRICAL SPLICES, 3M, SCOTT'S LOCK SEAL TACK 3576-78, OR EQUIVALENT.
- EACH VALVE BOX TO CONTAIN A MINIMUM OF TWO (2) SPARE ORANGE CONTROL WIRES FOR JACKETED WIRE. ROUTE SPARE WIRES FROM THE CONTROLLER TO THE LAST VALVE OF EACH MAINLINE BRANCH. COMMON WIRE TO BE WHITE. SINGLE STRAND WIRE TO BE A MINIMUM OF 14 GAUGE.
- ALL ELECTRICAL EQUIPMENT TO BE U.L. TESTED AND APPROVED, AND BEAR THE U.L. LABEL.
- CROSS CONNECTION PROTECTION INSPECTION REQUIRED. THE BACKFLOW DEVICE TO BE TESTED UPON THE ORIGINAL INSTALLATION. THE TESTING TO BE PERFORMED BY A PERSON HOLDING A CURRENT CERTIFICATE AS A BACKFLOW TESTER. THE TEST REPORT TO BE SUBMITTED TO THE LOCAL WATER DISTRICT, OR PURVEYOR, AND OWNER WITH A COPY TO BARGHAUSEN CONSULTING ENGINEERS, INC. CONTRACTOR TO INCLUDE TESTING IN THE SCOPE OF WORK. OWNER IS RESPONSIBLE FOR ANNUAL INSPECTIONS AFTER THE INTIAL INSPECTION.
- CONTRACTOR TO PROVIDE SYSTEM WINTERIZATION/SPRING SERVICE WHEN INSTALLATION HAS BEEN COMPLETED WITHIN 90 DAYS OF NOVEMBER 1 FOR WINTERIZATION, OR MAY 15 FOR SPRING SERVICE. SERVICE TO BE PERFORMED AS NEAR AS PRACTICAL TO THE ABOVE DATES, OR AS FREEZE/PRECIPITATION CONDITIONS DETERMINE SERVICE NEED.



NOTE: DIMENSIONS ARE MIN. CLEARANCES. ALL IRRIGATION SLEEVING TRENCH BACKFILL MATERIAL SHALL BE CLASS "B" OR BETTER (MAX. OF 10% PASSING NO.40 SCREEN) AND BE COMPACTED TO MIN. 95% OPTIMUM DENSITY PER ASTM D-1557-70 (MODIFIED PROCTOR)

SLEEVE/TRENCHING DETAIL

NOT TO SCALE



CHECK VALVE ASSEMBLY DETAIL

NOT TO SCALE

Revision
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IRRIGATION NOTES + DETAILS
FOR
BROWN BEAR MARYSVILLE

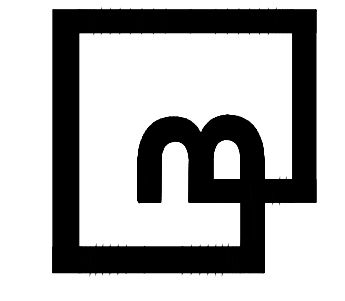
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Designed: LRP, Drawn: LRP, Checked: LP/AV, Approved: JMV, Date: 5/14/23

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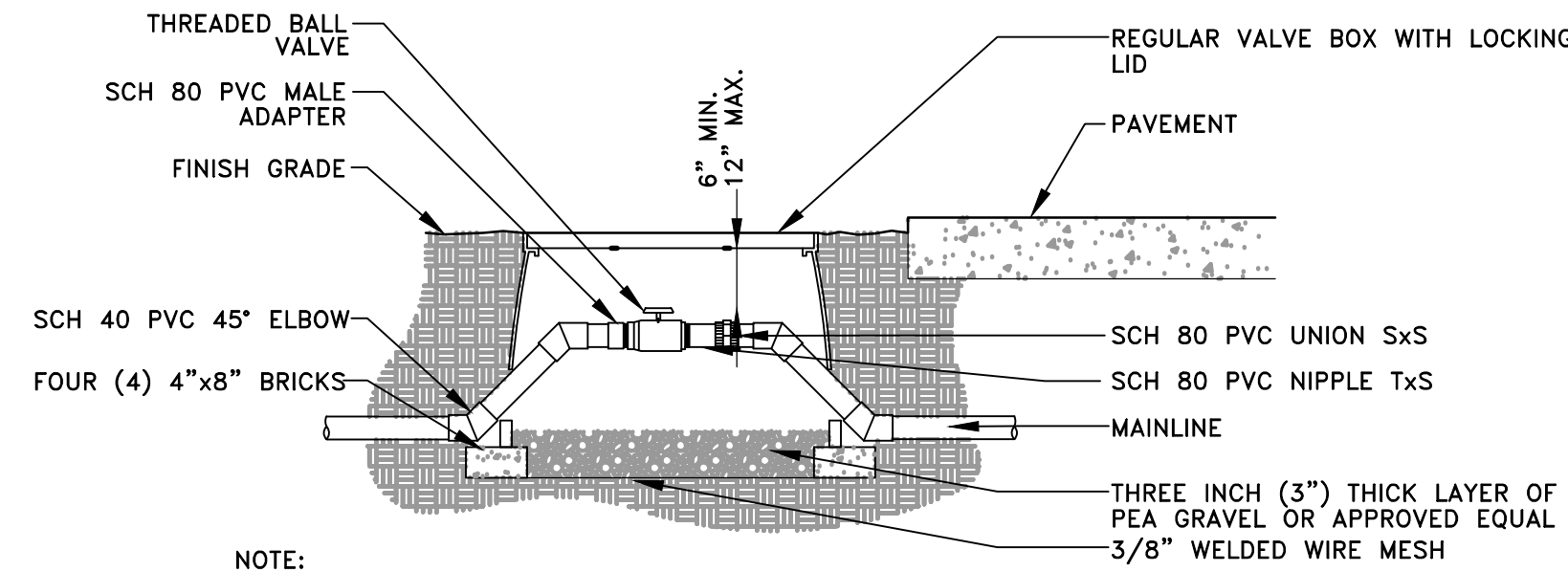
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IRRIGATION DETAILS

FOR

BROWN BEAR CAR WASH

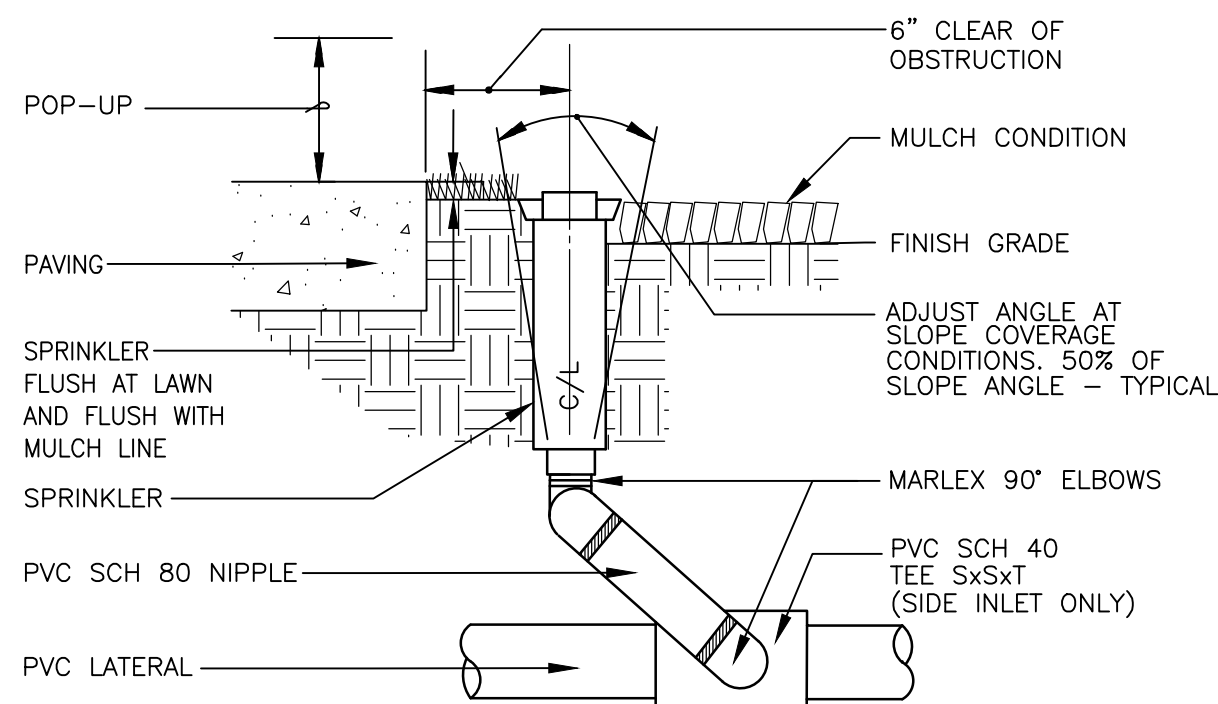
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CITY OF MARYSVILLE, SNOHOMISH COUNTY, WASHINGTON



- NOTE:
1. LOCATE VALVE BOXES IN PLANTING AREAS.
 2. WRAP VALVE BOX WITH A MINIMUM OF 3 MIL THICK PLASTIC AND SECURE IT USING DUCT TAPE OR ELECTRICAL TAPE.
 3. ALL THREADED CONNECTIONS TO BE MADE USING TEFLON TAPE.
 4. ALL CHANGES IN ELEVATION SHALL BE MADE USING SCH 40 PVC 45° ELBOWS.

BALL VALVE DETAIL

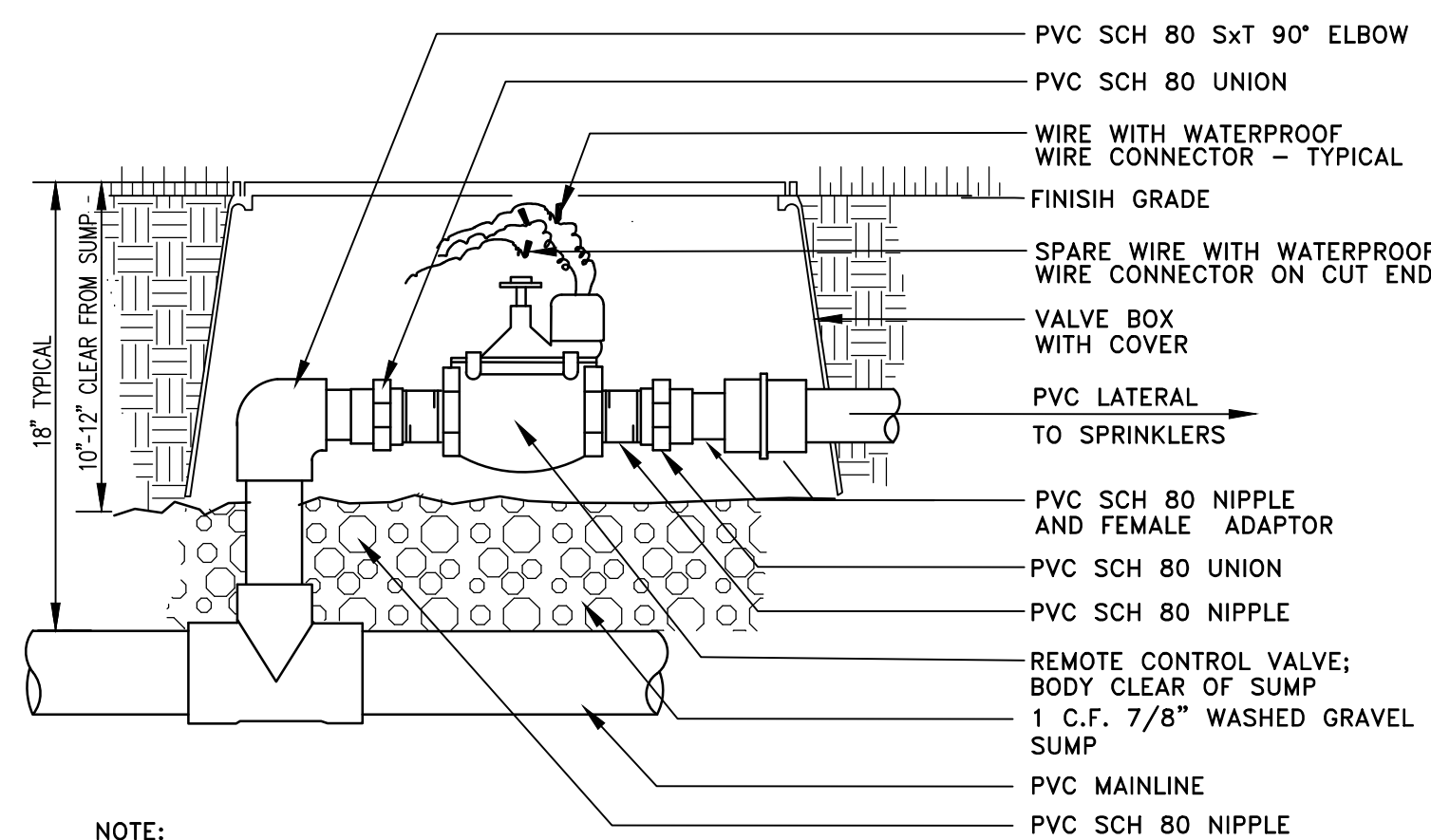
NOT TO SCALE



- NOTE:
- MANUFACTURER'S LIMITS PREVAIL FOR INSTALLATION AND ADJUSTMENTS.
PROVIDE SWING JOINT RISERS AT WALKS AND CURBS.
24" FLEXIBLE RISERS ACCEPTABLE ELSEWHERE.

POP-UP RISER ASSEMBLY

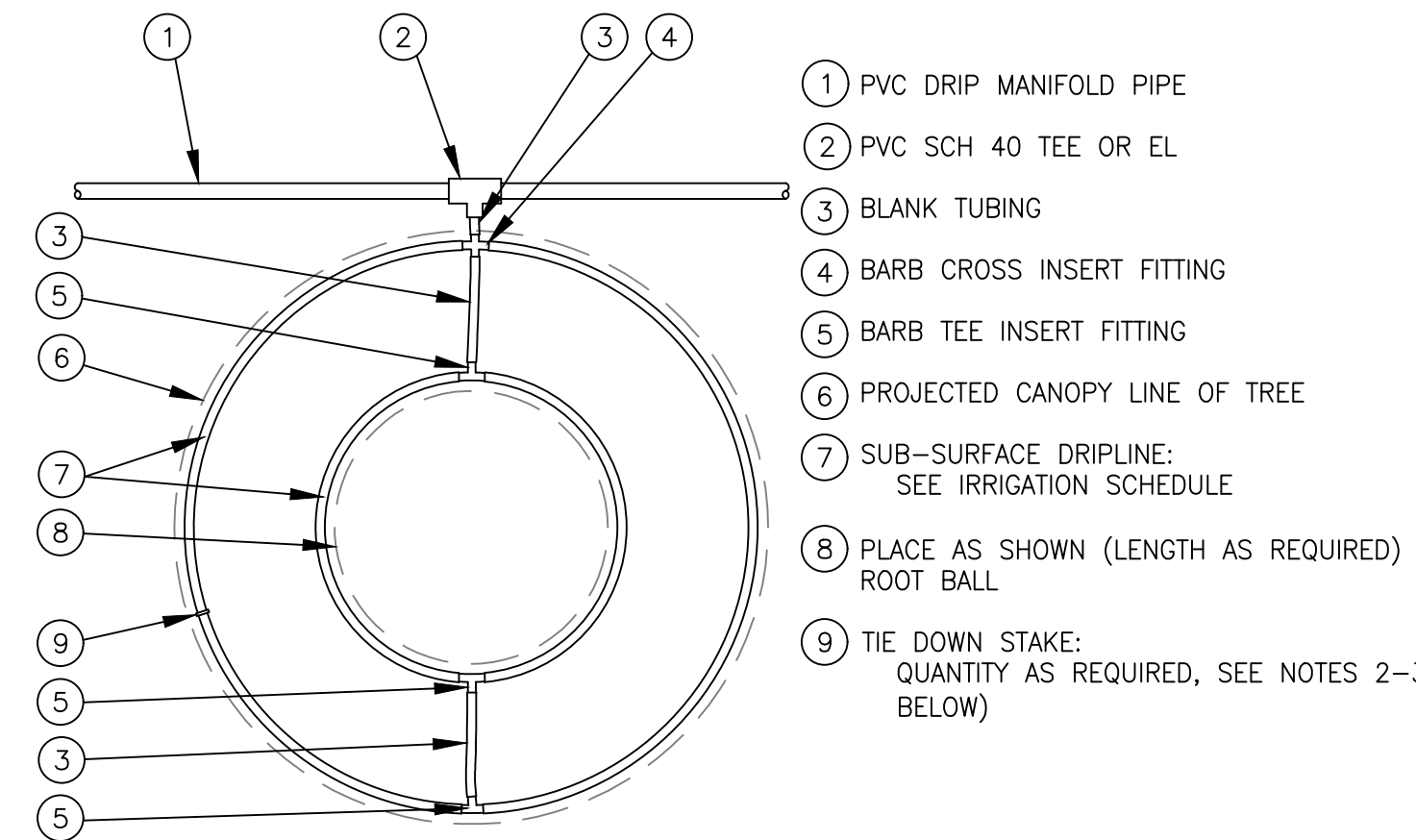
NOT TO SCALE



- NOTE:
- ONE VALVE PER BOX.
PROVIDE EXTRA COILS (18") OF EACH WIRE IN VALVE BOX.
COMPACT SOIL AROUND VALVE BOX.
USE TEFLON OR FLOWABLE SEALANT IN ALL THREADED FITTINGS, PER MANUFACTURER'S SPEC'S.

REMOTE CONTROL VALVE ASSEMBLY

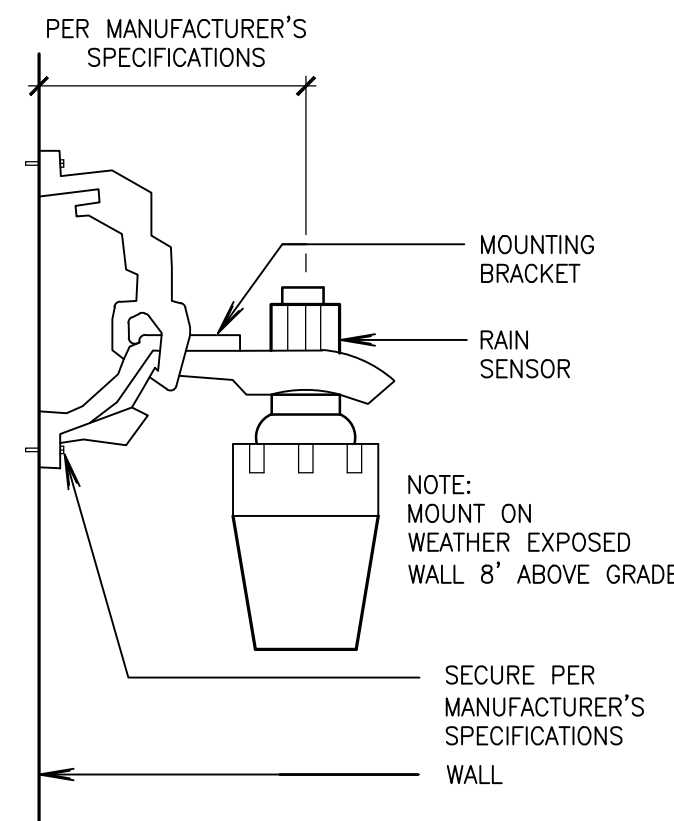
NOT TO SCALE



- NOTES:
1. DISTANCE BETWEEN LATERAL RINGS AND EMITTER SPACING TO BE BASED ON SOIL TYPE, AND TREE CANOPY. SEE MANUFACTURER DRIPLINE INSTALLATION GUIDE FOR SUGGESTED SPACINGS.
 2. PLACE TIE DOWN STAKES EVERY THREE FEET IN SAND, FOUR FEET IN LOAM, AND FIVE FEET IN CLAY.
 3. AT FITTINGS WHERE THERE IS A CHANGE OF DIRECTION SUCH AS TEES OR ELBOWS, USE TIE-DOWN STAKES ON EACH LEG OF THE CHANGE OF DIRECTION.

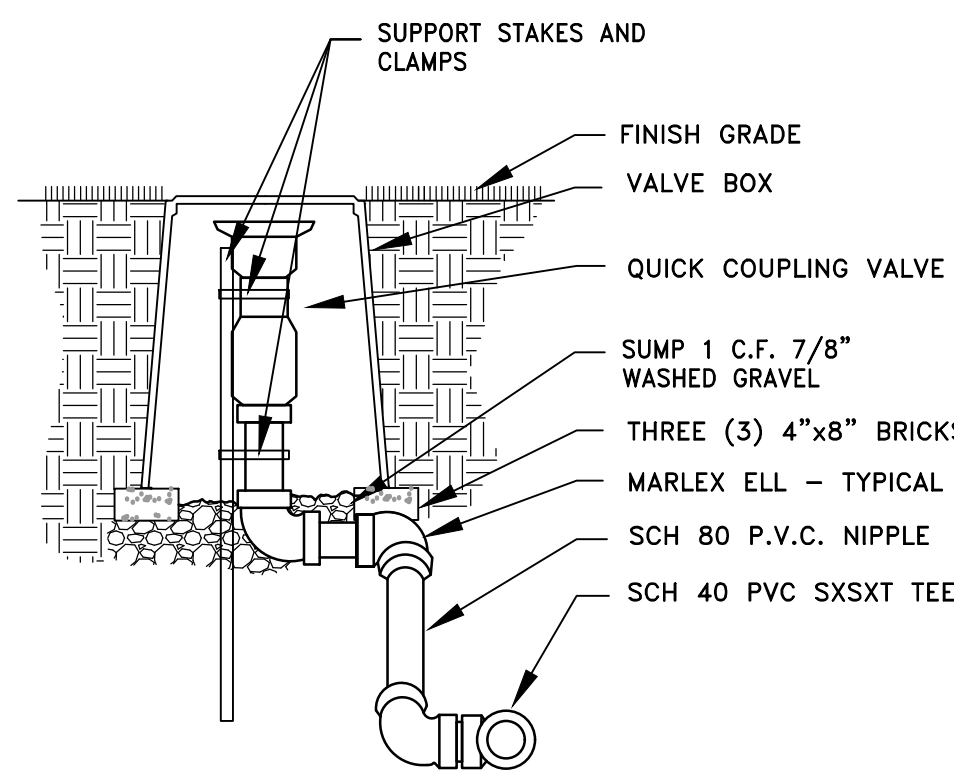
DRIPLINE AROUND TREE

NOT TO SCALE



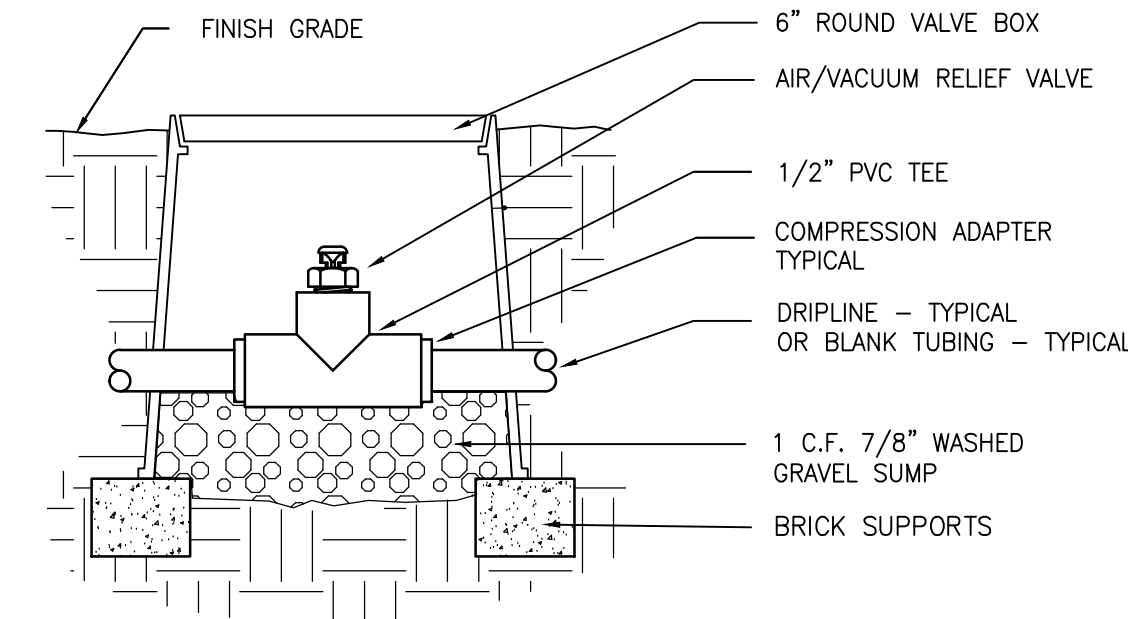
RAIN SENSOR DETAIL

NOT TO SCALE



QUICK COUPLING VALVE DETAIL

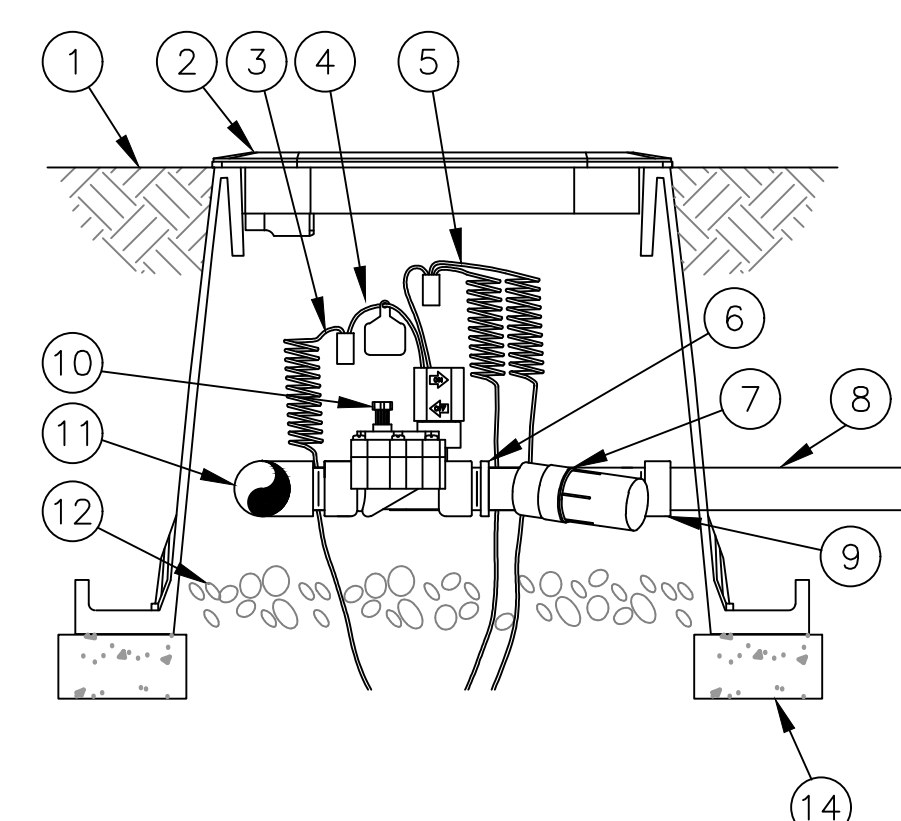
NOT TO SCALE



- NOTE:
- AIR/VACUUM RELIEF VALVE CANNOT BE CONNECTED LOWER THAN DRIPLINE LATERALS. FOR USE ON ZONES OF 7 GPM OR LESS ONLY (PLUMBED TO TUBING).

1/2" AIR/VACUUM RELIEF VALVE DETAIL

NOT TO SCALE

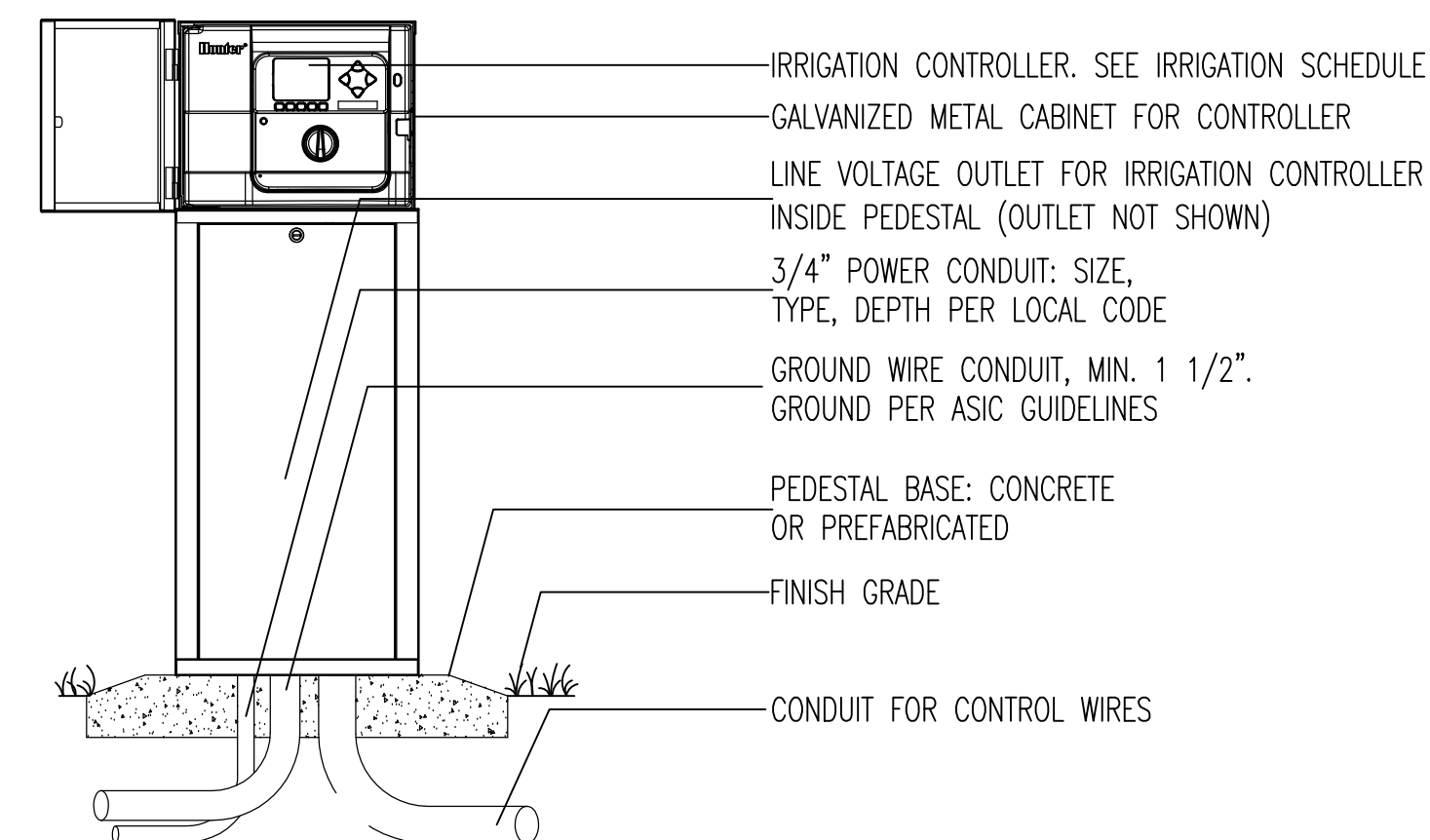


- 1 FINISH GRADE
- 2 STANDARD VALVE BOX WITH COVER:
- 3 WATERPROOF CONNECTION:
- 4 VALVE ID TAG
- 5 30-INCH LINEAR LENGTH OF WIRE, COILED
- 6 1" X 3/4" REDUCING COUPLING
- 7 PRESSURE REGULATING FILTER:
- 8 LATERAL PIPE
- 9 PVC SCH 40 FEMALE ADAPTOR OR REDUCER
- 10 REMOTE CONTROL VALVE:
- 11 PVC SCH 40 TEE OR ELL TO MANIFOLD
- 12 3-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL
- 13 MANIFOLD PIPE AND FITTINGS
- 14 MINIMUM FOUR (4) 4"x8" BRICKS

SIDE VIEW

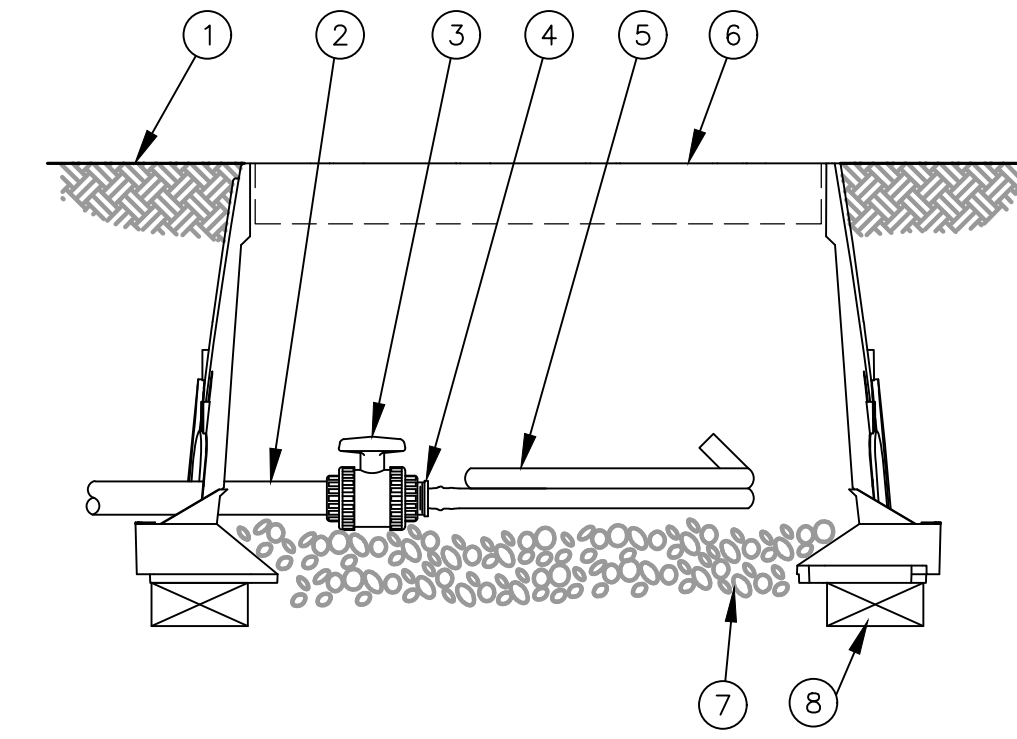
DRIP IRRIGATION VALVE

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IRRIGATION CONTROLLER - PEDESTAL MOUNT

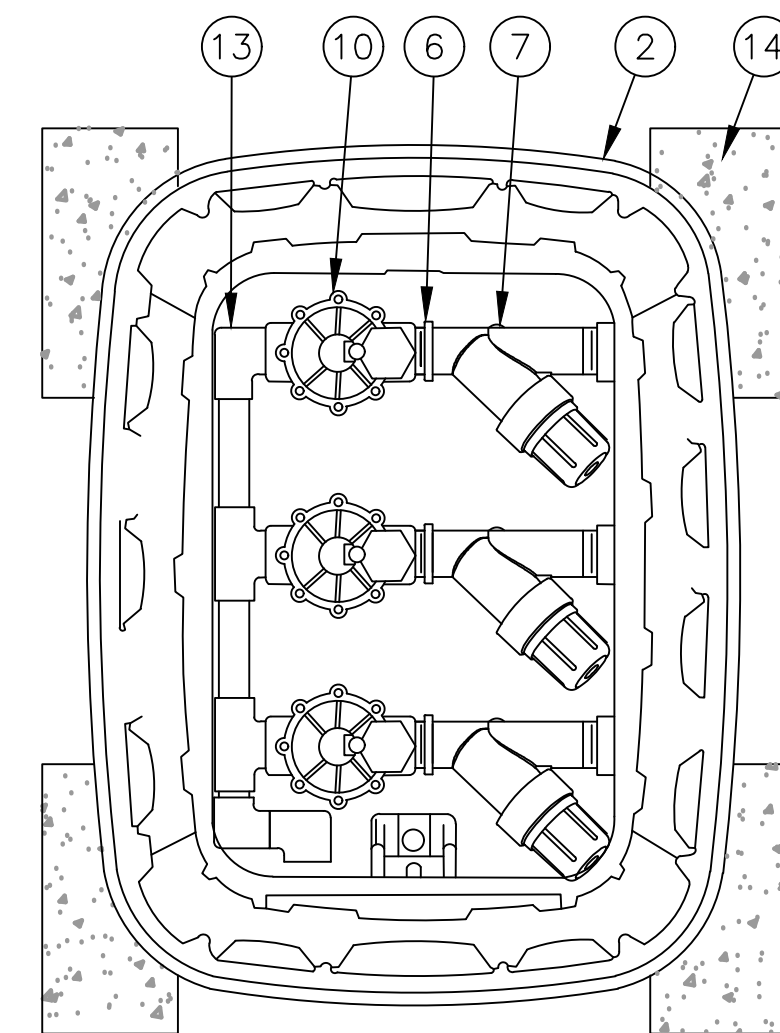
NOT TO SCALE



- NOTE:
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FLUSH POINT WITH BALL VALVE

NOT TO SCALE



TOP VIEW

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IRRIGATION DETAILS
FOR
BROWN BEAR MARYSVILLE

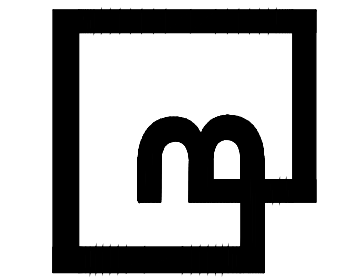
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3977 LEARY WAY N.W.
SEATTLE, WASHINGTON 98107



Scale:
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Vertical N/A

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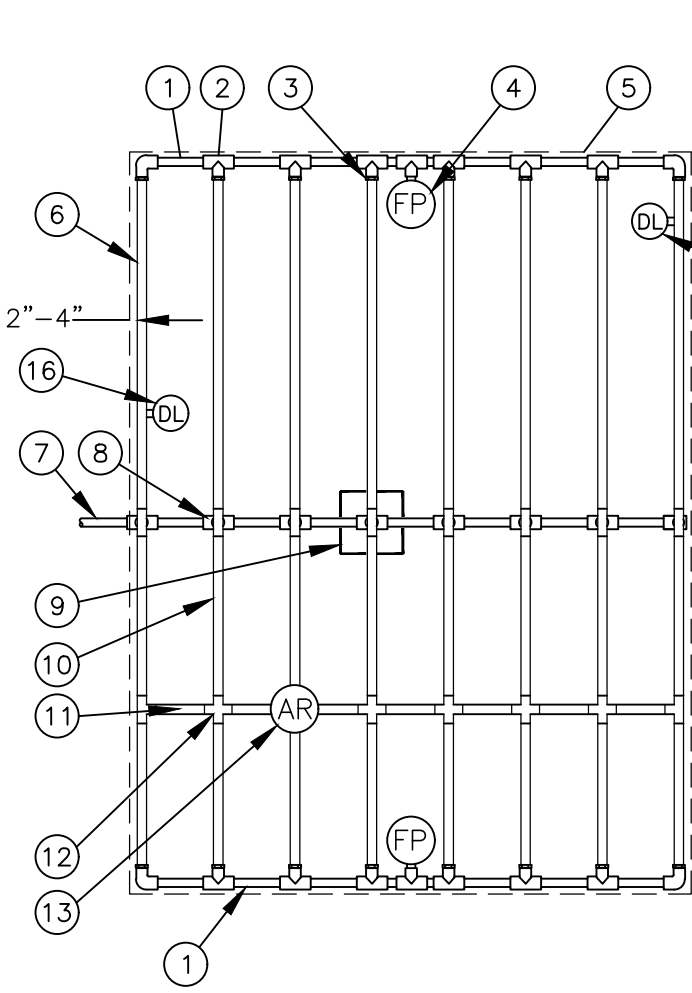
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IRRIGATION DETAILS

FOR

BROWN BEAR CAR WASH

SE 1/4 OF NW 1/4 OF SEC. 1, TWN. 29 N, RGE. 5 E, W.M.
CITY OF MARYSVILLE, SNOHOMISH COUNTY, WASHINGTON



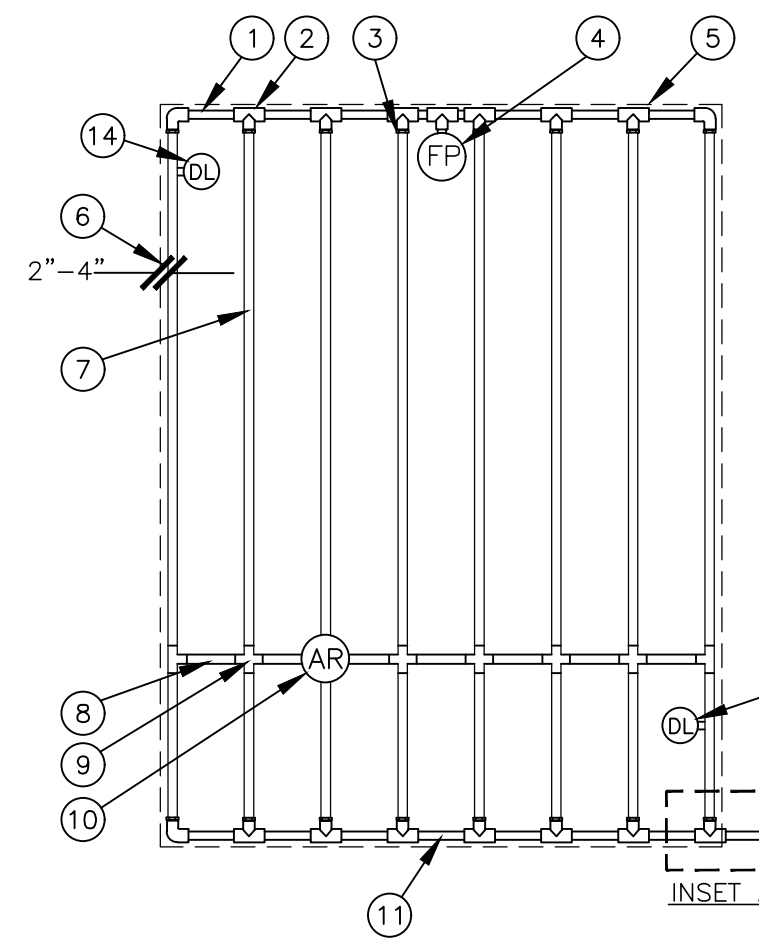
- ① PVC EXHAUST HEADER
- ② PVC SCH 40 TEE OR EL (TYPICAL)
- ③ BARB X MALE FITTING
- ④ FLUSH POINT (TYPICAL) SEE DETAIL
- ⑤ PERIMETER OF AREA
- ⑥ PERIMETER DRIPLINE PIPE TO BE INSTALLED 2"-4" FROM PERIMETER OF AREA
- ⑦ PVC SUPPLY PIPE FROM CONTROL ZONE KIT (SIZED TO MEET LATERAL FLOW DEMAND)
- ⑧ PVC SUPPLY MANIFOLD
- ⑨ CONNECTION FROM SUPPLY MANIFOLD TO DRIPLINE (TYPICAL) - SEE INSET A

- ⑩ SUB-SURFACE DRIPLINE
- ⑪ BLANK TUBING
- ⑫ BARB X BARB INSERT TEE OR CROSS
- ⑬ 1/2" AIR RELIEF VALVE
- ⑭ BARB X FEMALE FITTING
- ⑮ 3/4" PVC NIPPLE, LENGTH AS NECESSARY
- ⑯ DRIPLINE INDICATOR. SEE DETAIL FOR ADDITIONAL INFORMATION

Inlet Pressure psi	12" Spacing		18" Spacing		24" Spacing	
	Normal Flow (gph)	Max Flow (gph)	Normal Flow (gph)	Max Flow (gph)	Normal Flow (gph)	Max Flow (gph)
15	273	155	314	250	424	322
20	318	169	353	294	508	368
30	360	230	413	350	598	414
40	395	255	465	402	652	474
50	417	285	528	420	720	488
60	460	290	596	455	780	514

NOTES:
1. DISTANCE BETWEEN LATERAL ROWS AND EMITTER SPACING TO BE BASED ON SOIL TYPE, PLANT MATERIALS AND CHANGES IN ELEVATION. SEE IRRIGATION SCHEDULE FOR SPACING.
2. LENGTH OF LONGEST DRIPLINE LATERAL SHOULD NOT EXCEED THE MAXIMUM LENGTH SHOWN IN THE ACCOMPANYING TABLE.
3. AIR RELIEF VALVE TO BE INSTALLED AT HIGH POINT OF AREA.
4. WHEN USING 17MM INSERT FITTINGS WITH DESIGN PRESSURE OVER 50PSI, IT IS RECOMMENDED THAT STAINLESS STEEL CLAMPS BE INSTALLED ON EACH FITTING.

DRIPLINE CENTER FEED LAYOUT
NOT TO SCALE

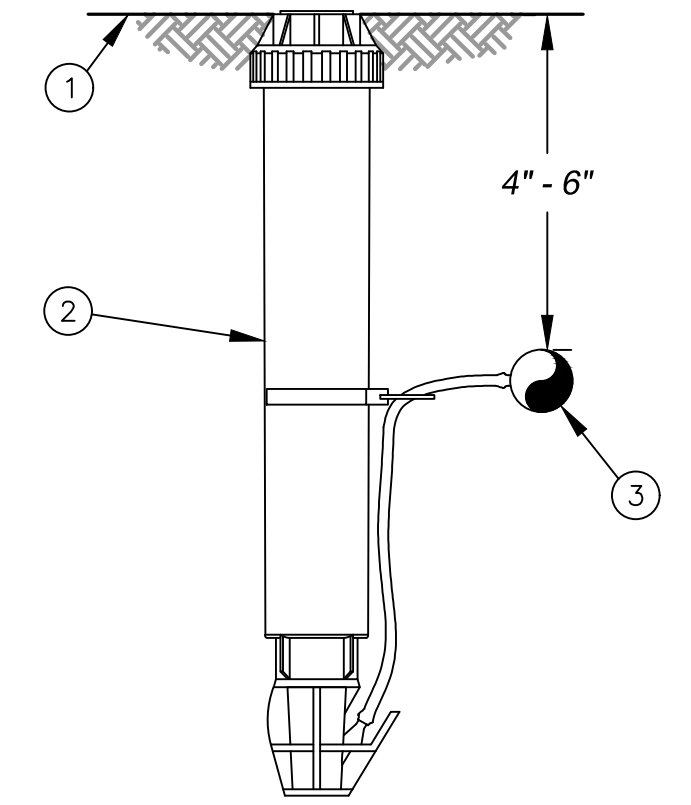


NOTES:
• DISTANCE BETWEEN LATERAL ROWS AND EMITTER SPACING TO BE BASED ON SOIL TYPE, PLANT MATERIALS AND CHANGES IN ELEVATION. SEE DRIPLINE INSTALLATION GUIDE FOR SUGGESTED SPACINGS.
• LENGTH OF LONGEST DRIPLINE LATERAL SHOULD NOT EXCEED THE MAXIMUM LENGTH SHOWN IN THE ACCOMPANYING TABLE.
• AIR RELIEF VALVE TO BE INSTALLED AT HIGH POINT OF AREA.
• WHEN USING 17MM INSERT FITTINGS WITH DESIGN PRESSURE OVER 50PSI, IT IS RECOMMENDED THAT STAINLESS STEEL CLAMPS BE INSTALLED ON EACH FITTING.

- ① PVC EXHAUST HEADER
- ② PVC SCH 40 TEE OR EL (TYPICAL)
- ③ BARB X MALE FITTING
- ④ FLUSH POINT (TYPICAL) SEE RAIN BIRD DETAIL "FLUSH POINT WITH BALL VALVE"
- ⑤ PERIMETER OF AREA
- ⑥ PERIMETER DRIPLINE PIPE TO BE INSTALLED 2"-4" FROM PERIMETER OF AREA
- ⑦ SUB-SURFACE DRIPLINE
- ⑧ BLANK TUBING
- ⑨ BARB X BARB INSERT TEE OR CROSS
- ⑩ 1/2" AIR RELIEF VALVE
- ⑪ PVC SUPPLY HEADER
- ⑫ PVC DRIP MANIFOLD FROM CONTROL ZONE VALVE KIT (SIZED TO MEET LATERAL FLOW DEMAND)
- ⑬ PVC SCH 40 RISER PIPE
- ⑭ DRIPLINE INDICATOR. SEE DETAIL FOR ADD'L INFO

Inlet Pressure psi	12" Spacing		18" Spacing		24" Spacing	
	Normal Flow (gph)	Max Flow (gph)	Normal Flow (gph)	Max Flow (gph)	Normal Flow (gph)	Max Flow (gph)
15	273	155	314	250	424	322
20	318	169	353	294	508	368
30	360	230	413	350	598	414
40	395	255	465	402	652	474
50	417	285	528	420	720	488
60	460	290	596	455	780	514

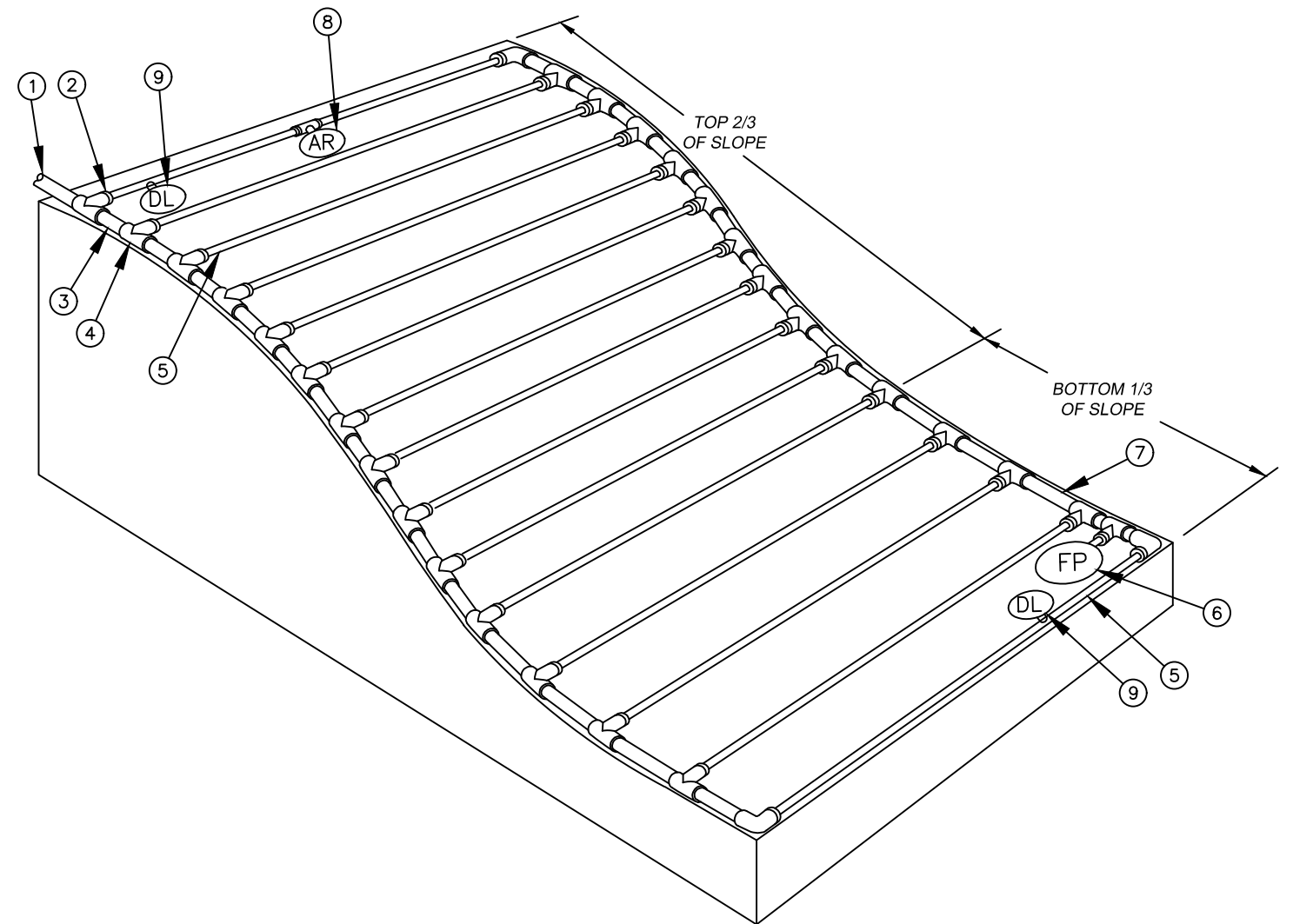
DRIPLINE END FEED LAYOUT
NOT TO SCALE



- ① FINISH GRADE/TURF
- ② OPERATION INDICATOR
- ③ SUB-SURFACE DRIPLINE: SEE IRRIGATION SCHEDULE

NOTE:
1. INSERT BARB TRANSFER FITTING DIRECTLY INTO DRIPLINE TUBING.
2. VAN NOZZLE MAY BE SET TO CLOSED, OR IF IT IS DESIRED TO SEE SPRAY FROM THE NOZZLE, SET THE ARC TO 1/4 PATTERN. THE FLOW FROM THE NOZZLE, 0.3 GPM, SHOULD BE ACCOUNTED FOR IN THE SYSTEM DESIGN.

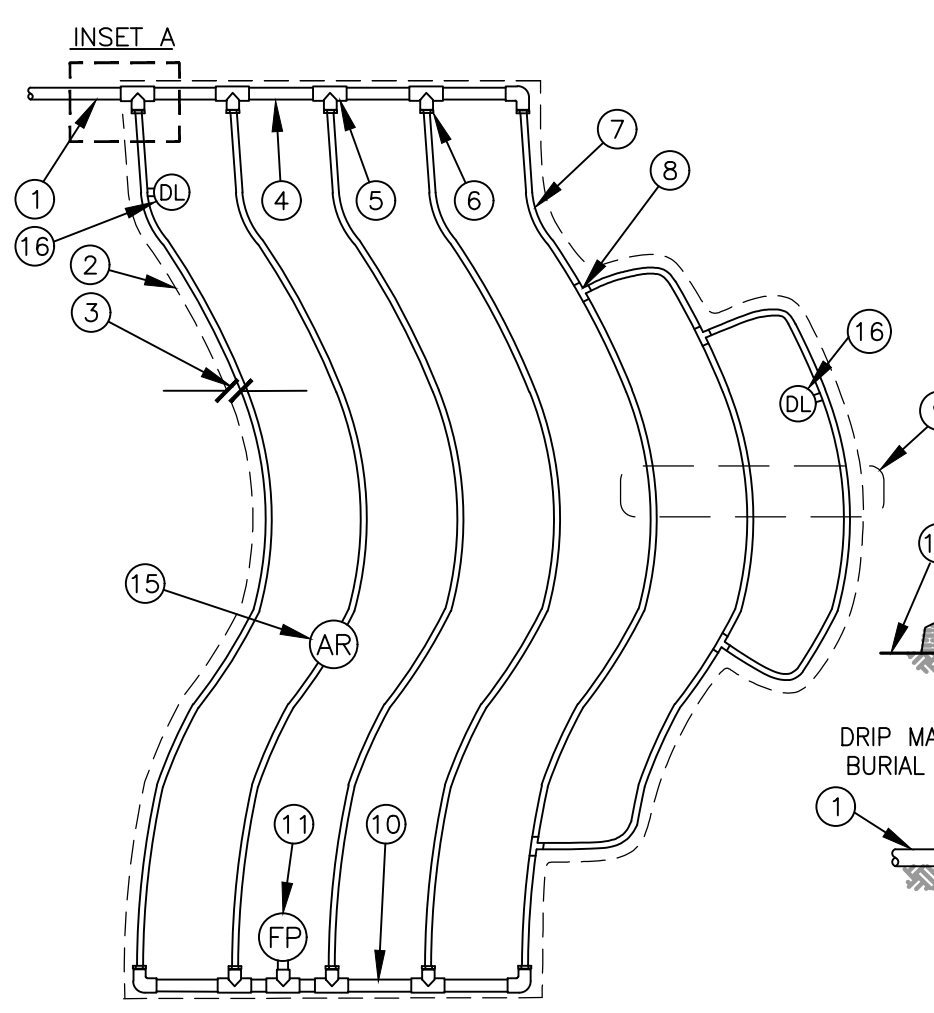
DRIPLINE INDICATOR
NOT TO SCALE



NOTES:
• DISTANCE BETWEEN LATERAL ROWS AND EMITTER SPACING TO BE BASED ON SOIL TYPE, PLANT MATERIALS AND CHANGES IN ELEVATION. DISTANCE BETWEEN LATERAL ROWS FOR BOTTOM 1/3 OF SLOPE TO BE SPACED GREATER THAN OPTIMAL ROW DISTANCE. SEE MANUFACTURER DRIPLINE INSTALLATION GUIDE FOR SUGGESTED SPACING.
• LENGTH OF LONGEST DRIPLINE LATERAL SHOULD NOT EXCEED THE MAXIMUM LENGTH SHOWN IN THE ACCOMPANYING TABLE.
• WHEN ELEVATION CHANGE EXCEEDS 8 FEET IT IS RECOMMENDED THAT A NEW DRIPLINE ZONE BE CREATED.
• INSTALL AIR RELIEF VALVE AT HIGH POINTS IN DRIP LATERAL.
• WHEN USING 17MM INSERT FITTINGS WITH DESIGN PRESSURE OVER 50PSI, IT IS RECOMMENDED THAT STAINLESS STEEL CLAMPS BE INSTALLED ON EACH FITTING.

- ① PVC DRIP MANIFOLD FROM CONTROL ZONE VALVE KIT (SIZED TO MEET LATERAL FLOW DEMAND)
- ② BARB X MALE FITTING
- ③ PVC SUPPLY HEADER
- ④ PVC SCH 40 TEE OR EL (TYPICAL)
- ⑤ SUB-SURFACE DRIPLINE: SEE IRRIGATION SCHEDULE
- ⑥ FLUSH POINT: SEE DETAIL
- ⑦ PVC FLUSH HEADER
- ⑧ 1/2" AIR RELIEF VALVE: RSEE DETAIL
- ⑨ DRIPLINE INDICATOR. SEE DETAIL FOR ADDITIONAL INFORMATION
- ⑩ PVC RISER PIPE
- ⑪ TURF OR MULCH
- ⑫ FINISH GRADE

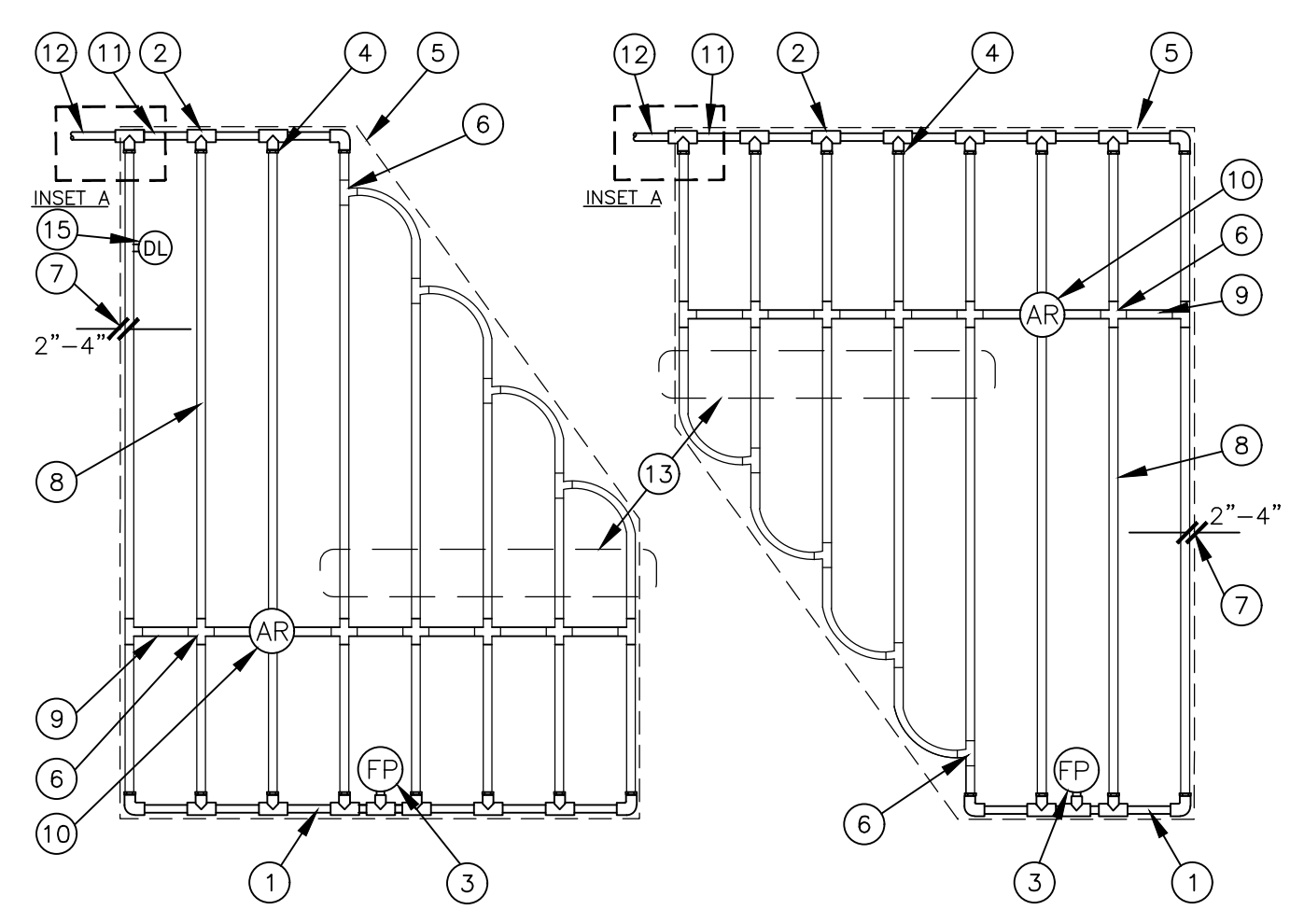
DRIPLINE SLOPED LAYOUT
NOT TO SCALE



NOTES:
1. DISTANCE BETWEEN LATERAL ROWS AND EMITTER SPACING TO BE BASED ON SOIL TYPE, PLANT MATERIALS AND CHANGES IN ELEVATION. SEE INSTALLATION SPECIFICATIONS FOR SPACING TABLE.
2. LENGTH OF LONGEST DRIPLINE LATERAL SHOULD NOT EXCEED THE MAXIMUM SPACING SHOWN IN THE ACCOMPANYING TABLE.
3. INSTALL AIR RELIEF VALVE AT HIGH POINTS IN DRIP LATERAL.
4. WHEN USING 17MM INSERT FITTINGS WITH DESIGN PRESSURE OVER 50PSI, IT IS RECOMMENDED THAT STAINLESS STEEL CLAMPS BE INSTALLED ON EACH FITTING.

- ① PVC SUPPLY PIPE FROM RAIN BIRD CONTROL ZONE KIT (SIZED TO MEET LATERAL FLOW DEMAND)
- ② PERIMETER OF AREA
- ③ PERIMETER DRIPLINE PIPE TO BE INSTALLED 2"-4" FROM PERIMETER OF AREA
- ④ PVC SUPPLY MANIFOLD
- ⑤ PVC SCH 40 TEE OR EL (TYPICAL)
- ⑥ BARB X MALE FITTING
- ⑦ SUB-SURFACE DRIPLINE: SEE IRRIGATION SCHEDULE
- ⑧ BARB X BARB INSERT TEE
- ⑨ TOTAL LENGTH OF SELECTED DRIPLINE SHOULD NOT EXCEED LENGTH SHOWN IN TABLE
- ⑩ PVC FLUSH HEADER
- ⑪ FLUSH POINT: SEE DETAIL
- ⑫ PVC RISER PIPE
- ⑬ TURF OR MULCH
- ⑭ FINISH GRADE
- ⑮ 1/2" AIR RELIEF VALVE: SEE DETAIL
- ⑯ DRIPLINE INDICATOR. SEE DETAIL FOR ADD'L INFO

DRIPLINE ODD CURVES LAYOUT
NOT TO SCALE



- ① PVC EXHAUST HEADER
- ② PVC SCH 40 TEE OR EL (TYPICAL)
- ③ FLUSH POINT (TYPICAL) SEE DETAIL
- ④ BARB X MALE FITTING
- ⑤ PERIMETER OF AREA
- ⑥ BARB X BARB INSERT TEE OR CROSS
- ⑦ PERIMETER DRIPLINE PIPE TO BE INSTALLED 2"-4" FROM PERIMETER OF AREA
- ⑧ SUB-SURFACE DRIPLINE: SEE IRRIGATION SCHEDULE
- ⑨ BLANK TUBING
- ⑩ 1/2" AIR RELIEF VALVE: SEE DETAIL
- ⑪ PVC SUPPLY MANIFOLD
- ⑫ PVC SUPPLY PIPE FROM CONTROL ZONE KIT (SIZED TO MEET LATERAL FLOW DEMAND)
- ⑬ TOTAL LENGTH OF SELECTED DRIPLINE SHOULD NOT EXCEED LENGTH SHOWN IN TABLE
- ⑭ PVC SCH 40 RISER PIPE
- ⑮ DRIPLINE INDICATOR. SEE DETAIL FOR ADD'L INFO

NOTES:
• DISTANCE BETWEEN LATERAL ROWS AND EMITTER SPACING TO BE BASED ON SOIL TYPE, PLANT MATERIALS AND CHANGES IN ELEVATION. SEE MANUFACTURER DRIPLINE INSTALLATION GUIDE FOR SUGGESTED SPACINGS.
• LENGTH OF LONGEST DRIPLINE LATERAL SHOULD NOT EXCEED THE MAXIMUM LENGTH SHOWN IN THE ACCOMPANYING TABLE.
• AIR RELIEF VALVE TO BE INSTALLED AT HIGH POINT OF AREA.
• WHEN USING 17MM INSERT FITTINGS WITH DESIGN PRESSURE OVER 50PSI, IT IS RECOMMENDED THAT STAINLESS STEEL CLAMPS BE INSTALLED ON EACH FITTING.

DRIPLINE IRREGULAR SHAPED LAYOUT
NOT TO SCALE

Revision
No. Date By Ctd. Appr.

Title:
IRRIGATION DETAILS FOR BROWN BEAR MARYSVILLE

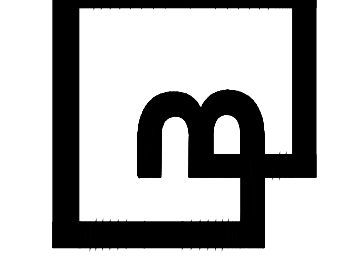
For:
**CAR WASH ENTERPRISES, INC.
3977 LEARY WAY N.W.
SEATTLE, WASHINGTON 98107**



Scale:
Horizontal N/A
Vertical N/A

Designed: LRP
Drawn: LRP
Checked: LP/AV
Approved: JMV
Date: 5/4/23

Barghausen Consulting Engineers, Inc.
18215 72nd Avenue South
Kent, WA 98032
425.251.6222
barghausen.com



Job Number: **22681**
Sheet: **8**
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