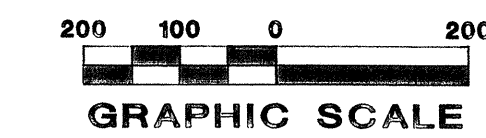
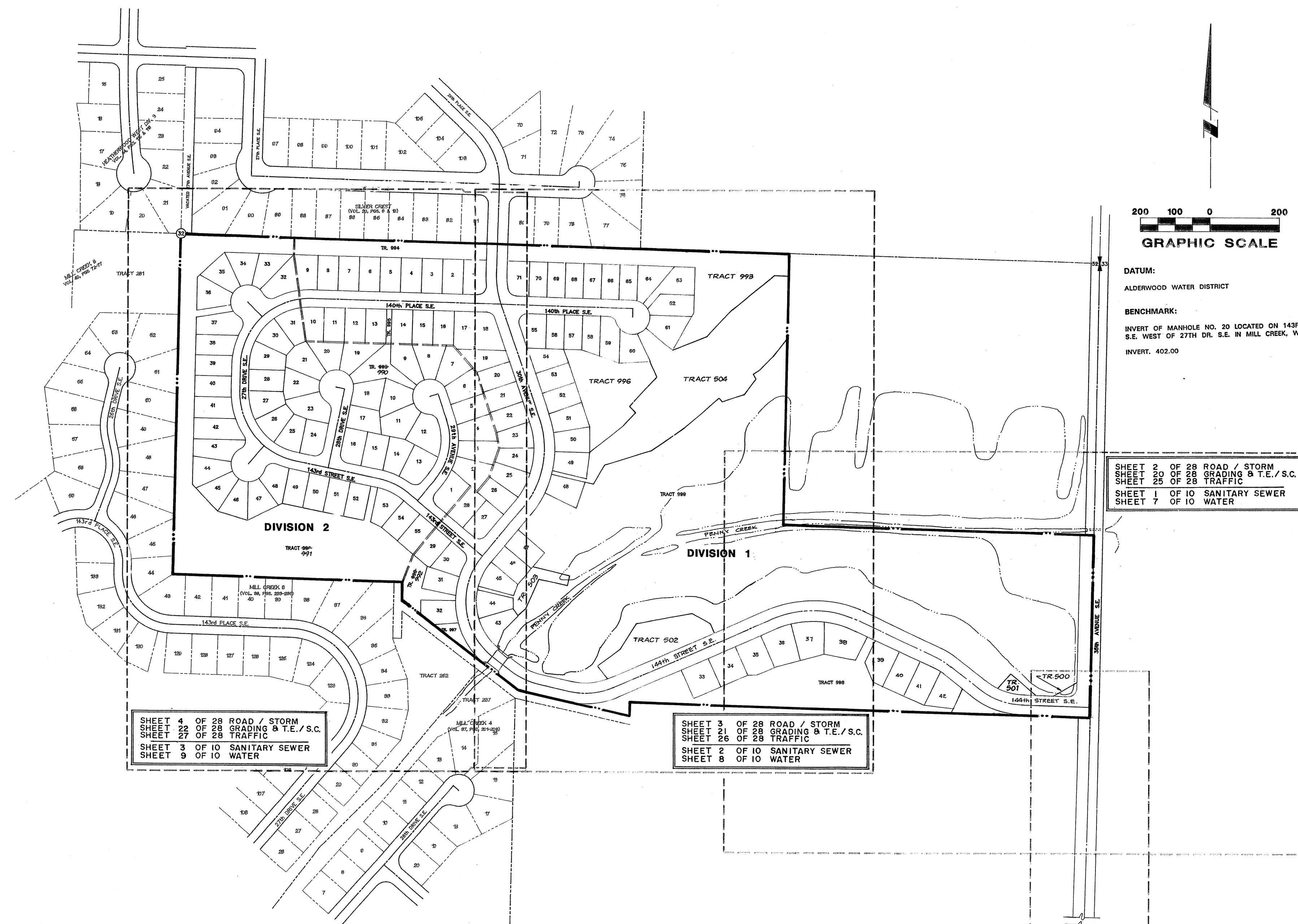


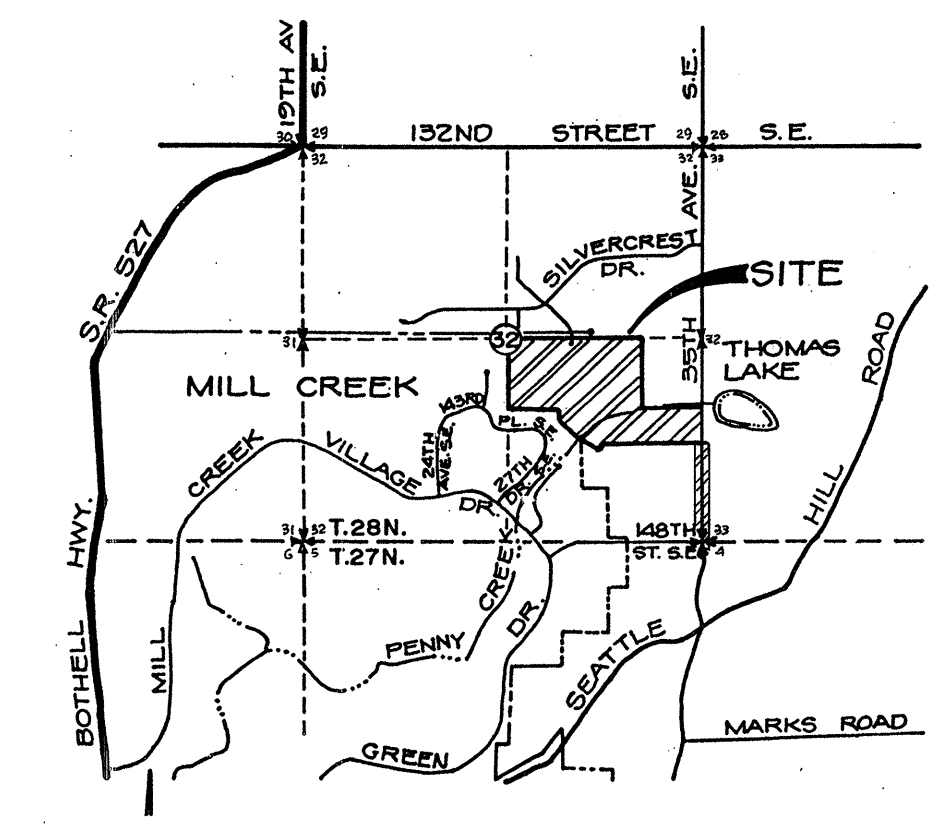
# RHOD-A-ZALEA GARDENS

IN SE1/4, SECTION 32, T. 28 N., R. 5 E., W.M.  
SNOHOMISH COUNTY, WASHINGTON



DATUM:  
ALDERWOOD WATER DISTRICT

BENCHMARK:  
INVERT OF MANHOLE NO. 20 LOCATED ON 143RD PL. S.E. WEST OF 27TH DR. S.E. IN MILL CREEK, WA.  
INVERT. 402.00



RECORD DRAWING DECLARATION (DIVISION 2)  
WE HEREBY DECLARE THAT THE ROAD AND STORM DRAINAGE IMPROVEMENTS ARE LOCATED AS SHOWN ON THESE RECORD DRAWINGS.  
BY: *[Signature]* DATE: 1/10/95  
PROJECT ENGINEER/SURVEYOR

BY: *[Signature]* DATE: 1/10/95  
PLANNING DEVELOPER

RECORD DRAWING DECLARATION (DIVISION 1)  
WE HEREBY DECLARE THAT THE ROAD AND STORM DRAINAGE IMPROVEMENTS ARE LOCATED AS SHOWN ON THESE RECORD DRAWINGS.  
BY: *[Signature]* DATE: 1/10/95  
PROJECT ENGINEER/SURVEYOR

BY: *[Signature]* DATE: 1/10/95  
PLANNING DEVELOPER

## INDEX OF DRAWINGS

ROAD; STORM DRAINAGE; TRAFFIC; GRADING AND TESC PLANS	SANITARY SEWER AND WATER PLANS
SHEET 1 VICINITY MAP, SITE PLAN, SHEET INDEX	SHEET 1 SANITARY SEWER PLAN
SHEET 2 ROAD AND STORM DRAINAGE PLAN	SHEET 2 SANITARY SEWER PLAN
SHEET 3 ROAD AND STORM DRAINAGE PLAN	SHEET 3 SANITARY SEWER PLAN
SHEET 4 ROAD AND STORM DRAINAGE PLAN	SHEET 4 SANITARY SEWER PROFILE
SHEET 5 ROAD AND STORM DRAINAGE PROFILES	SHEET 5 SANITARY SEWER PROFILE
SHEET 6 ROAD AND STORM DRAINAGE PROFILES	SHEET 6 SANITARY SEWER PROFILE
SHEET 7 ROAD AND STORM DRAINAGE PROFILES	SHEET 7 WATER PLAN
SHEET 8 ROAD AND STORM DRAINAGE PROFILES	SHEET 8 WATER PLAN
SHEET 9 DETENTION POND "A" PLAN	SHEET 9 WATER PLAN
SHEET 10 DETENTION POND "A" DETAILS	SHEET 10 OFFSITE WATER PLAN
SHEET 11 DETENTION POND "B" PLAN	
SHEET 12 DETENTION POND "B" DETAILS	
SHEET 13 ROAD AND STORM DRAINAGE DETAILS	
SHEET 14 ROAD AND STORM DRAINAGE DETAILS	
SHEET 15 ROAD AND STORM DRAINAGE DETAILS	
SHEET 16 GUARD RAIL PLAN	
SHEET 17 GUARD RAIL DETAILS	
SHEET 18 GUARD RAIL DETAILS	
SHEET 19 OFFSITE PEDESTRIAN WALKWAY PLAN	
SHEET 20 GRADING AND T.E. & S.C. PLAN	
SHEET 21 GRADING AND T.E. & S.C. PLAN	
SHEET 22 GRADING AND T.E. & S.C. PLAN	
SHEET 23 GRADING AND T.E. & S.C. DETAILS	
SHEET 24 GRADING AND T.E. & S.C. DETAILS	
SHEET 25 TRAFFIC CONTROL PLAN	
SHEET 26 TRAFFIC CONTROL PLAN	
SHEET 27 TRAFFIC CONTROL PLAN	
SHEET 28 WETPOND PLANTING PLAN	
SHEET 29 REPLANTING PLAN	
SHEET 30 REPLANTING PLAN	
	SHEET 1 PENNY CREEK BRIDGE PLAN
	SHEET 2 PENNY CREEK BRIDGE DETAILS

## DEVELOPERS

**EHELBARGER LAND COMPANY**  
P.O. BOX 30  
LYNNWOOD, WASHINGTON 98036  
TELEPHONE: 206-774-0205

**LOVELL-SAUERLAND & ASSOCIATES, INC.**  
19400 33RD AVENUE WEST SUITE 200  
LYNNWOOD, WASHINGTON 98036  
TELEPHONE: 206-775-1591

## ENGINEER

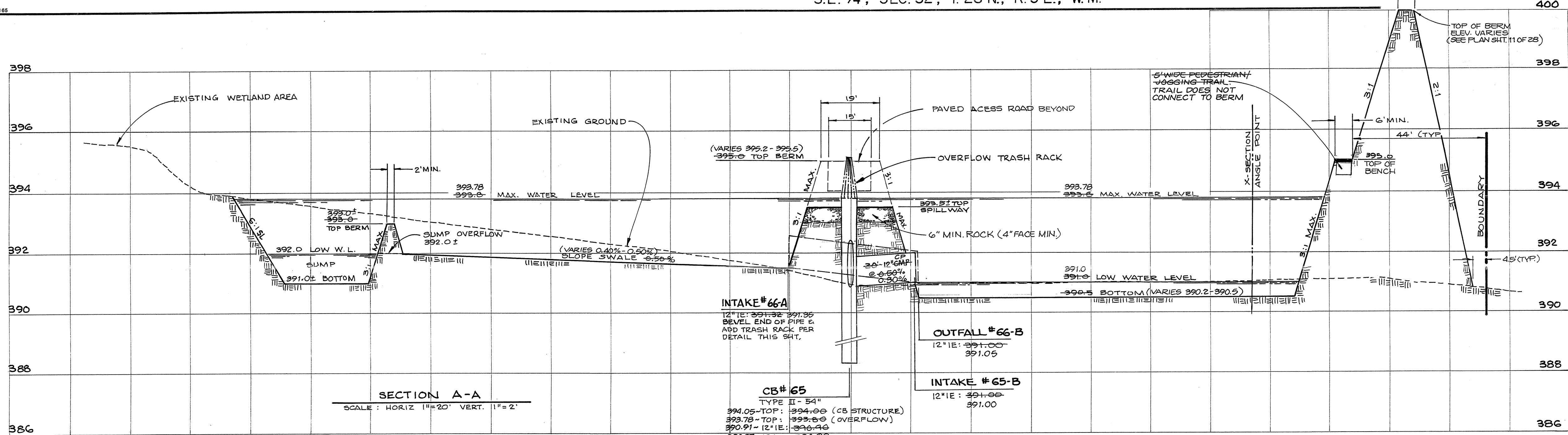
**LOVELL-SAUERLAND & ASSOCIATES, INC.**  
19400 33RD AVENUE WEST SUITE 200  
LYNNWOOD, WASHINGTON 98036  
TELEPHONE: 206-775-1591

**HDEV-700**

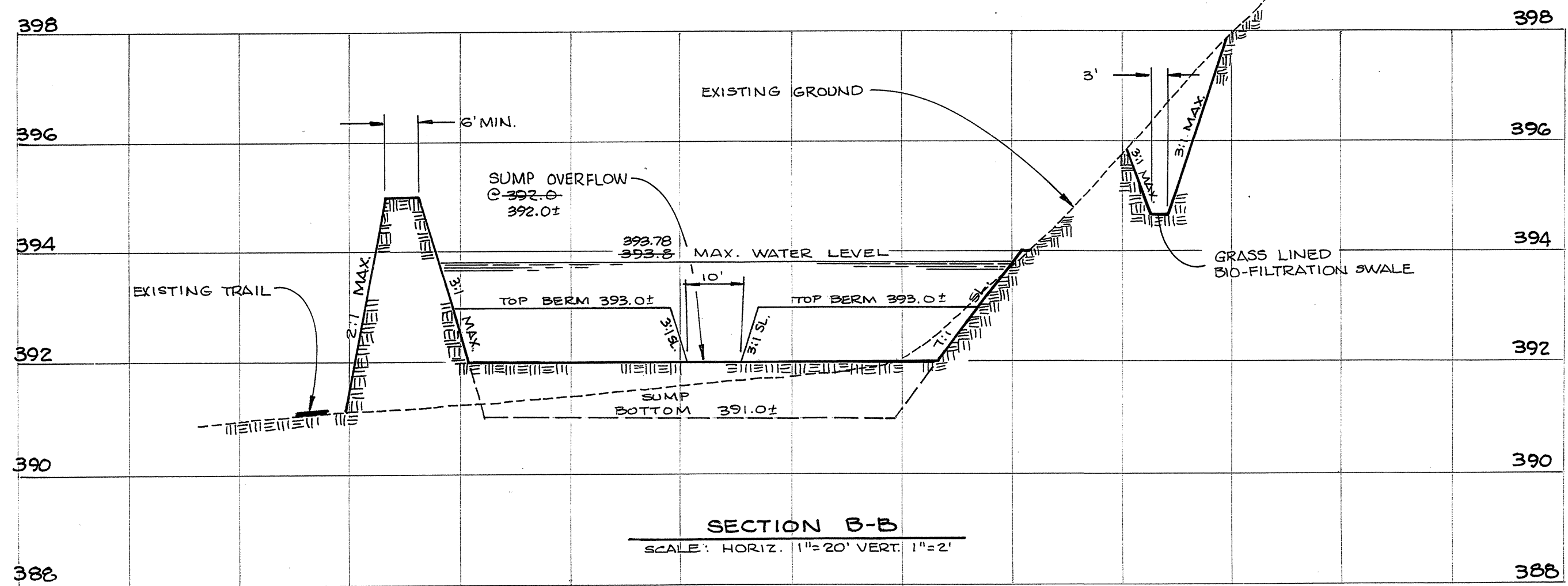
**LEGAL DESCRIPTION**  
ALL THAT PORTION OF THE W 1/2 OF THE SE 1/4 OF SECTION 32, TOWNSHIP 28 NORTH, RANGE 5 EAST, W.M., DESCRIBED AS FOLLOWS:  
BEGINNING AT THE NORTHWEST CORNER OF SAID SE 1/4; THENCE S 1°16'53" W, ALONG THE WEST LINE THEREOF 878.94 FEET; THENCE S 88°14'24" E, 662.96 FEET; THENCE S 1°14'39" W, 84.31 FEET; THENCE S 52°15'32" E, 412.85 FEET; THENCE S 76°54'58" E, 338.82 FEET TO THE EAST LINE OF THE W 1/2 OF SAID SE 1/4; THENCE N 1°12'27" E, ALONG THE EAST LINE THEREOF 1373.49 FEET TO THE NORTHEAST CORNER OF THE NW 1/4 OF SAID SE 1/4; THENCE WEST ALONG THE NORTH LINE THEREOF 1324.63 FEET TO THE POINT OF BEGINNING; EXCEPT THE SOUTHWESTERLY 25.00 FEET OF THE EAST 638.985 FEET THEREOF AS MEASURED ALONG THE NORTH LINE THEREOF;  
TOGETHER WITH THE NE 1/4 OF THE SE 1/4 OF SAID SECTION 32; LESS THE NORTH 779.95 FEET AS MEASURED ALONG THE EAST LINE THEREOF; OF THE EAST 894.84 FEET, AS MEASURED ALONG THE NORTH LINE THEREOF;  
EXCEPT COUNTY ROAD.

## KEY MAP

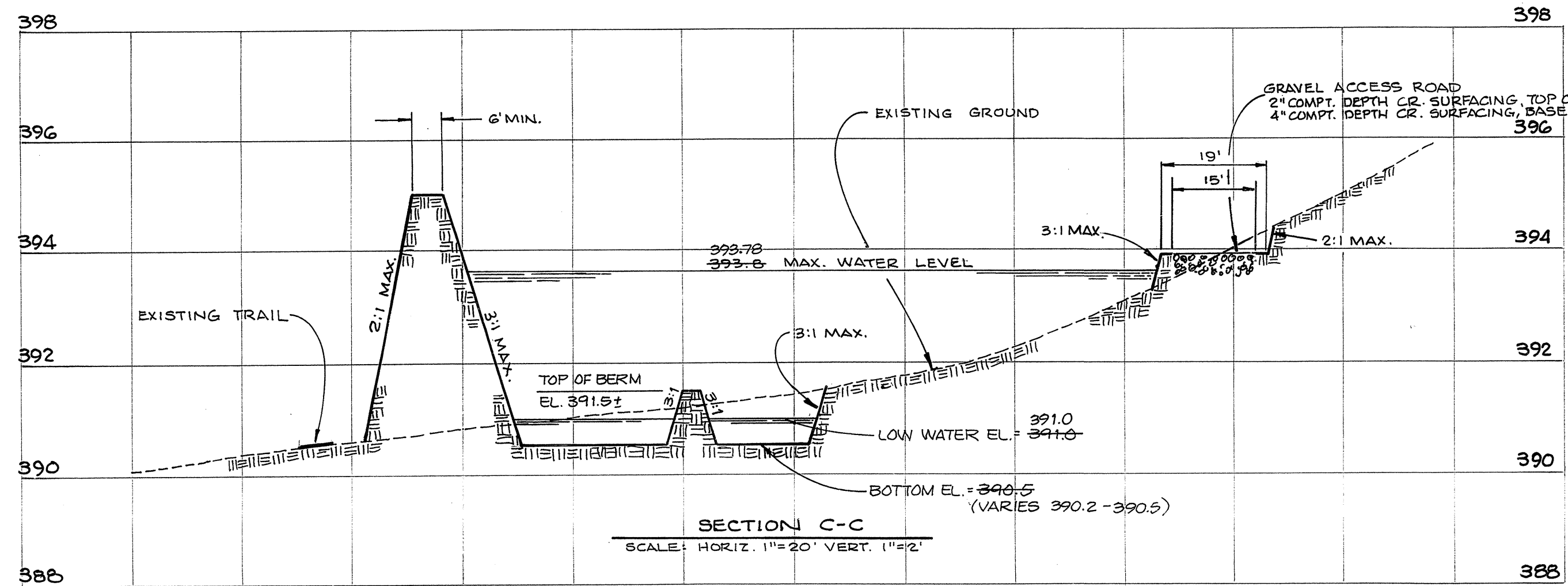
NO.	PER COUNTY AS-BUILT COMMENTS	DATE	BY
5	PER COUNTY AS-BUILT COMMENTS	28 FEB 95	RCN
4	FINAL AS-BUILTS, DIV. 2	10 JAN 95	RCN
3	AS-BUILT, DIV. 1	6 APRIL 94	RCN
2	REVISED ROAD & LOT ALIGNMENT 144TH ST. S.E.	24 AUG '93	ALV
1	REVISED PER ENG. CO. REVIEW	2 AUG '93	ALV



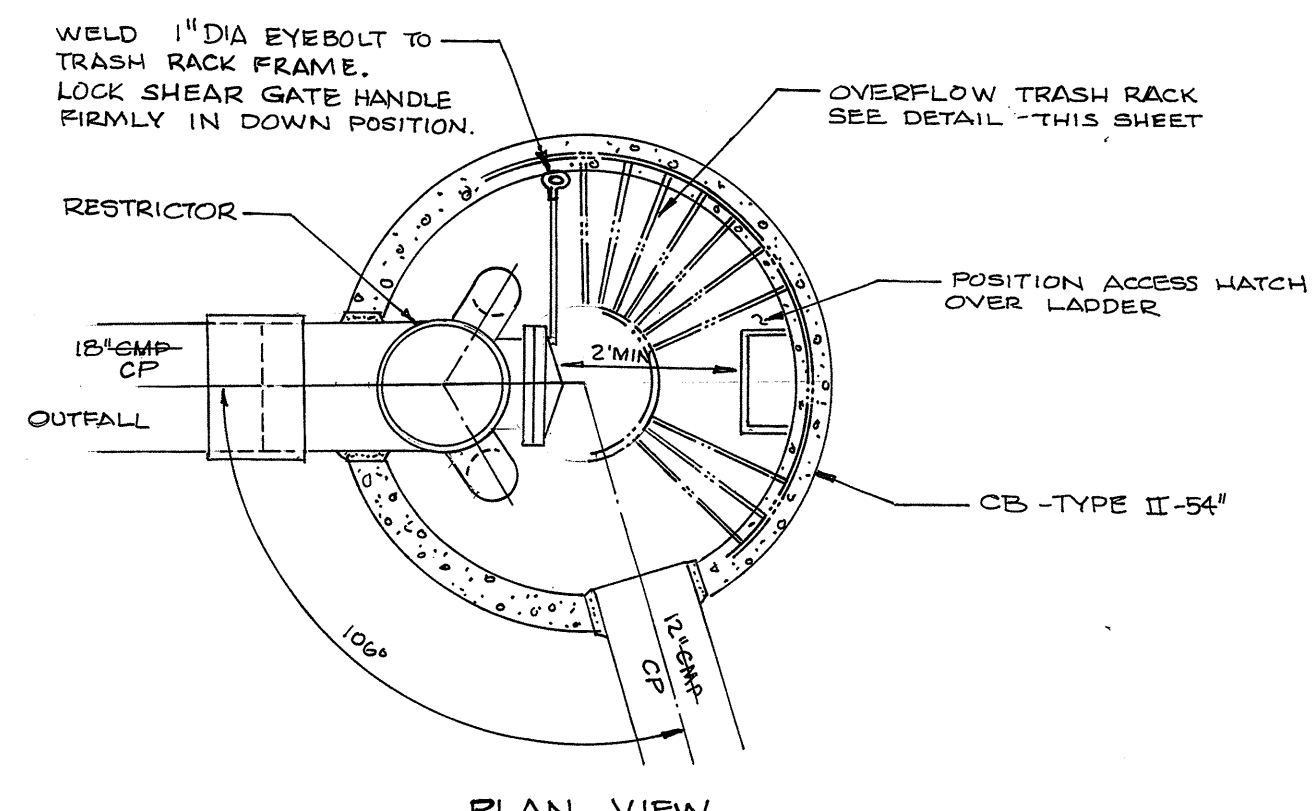
SECTION A-A  
SCALE: HORIZ. 1"=20' VERT. 1"=2'



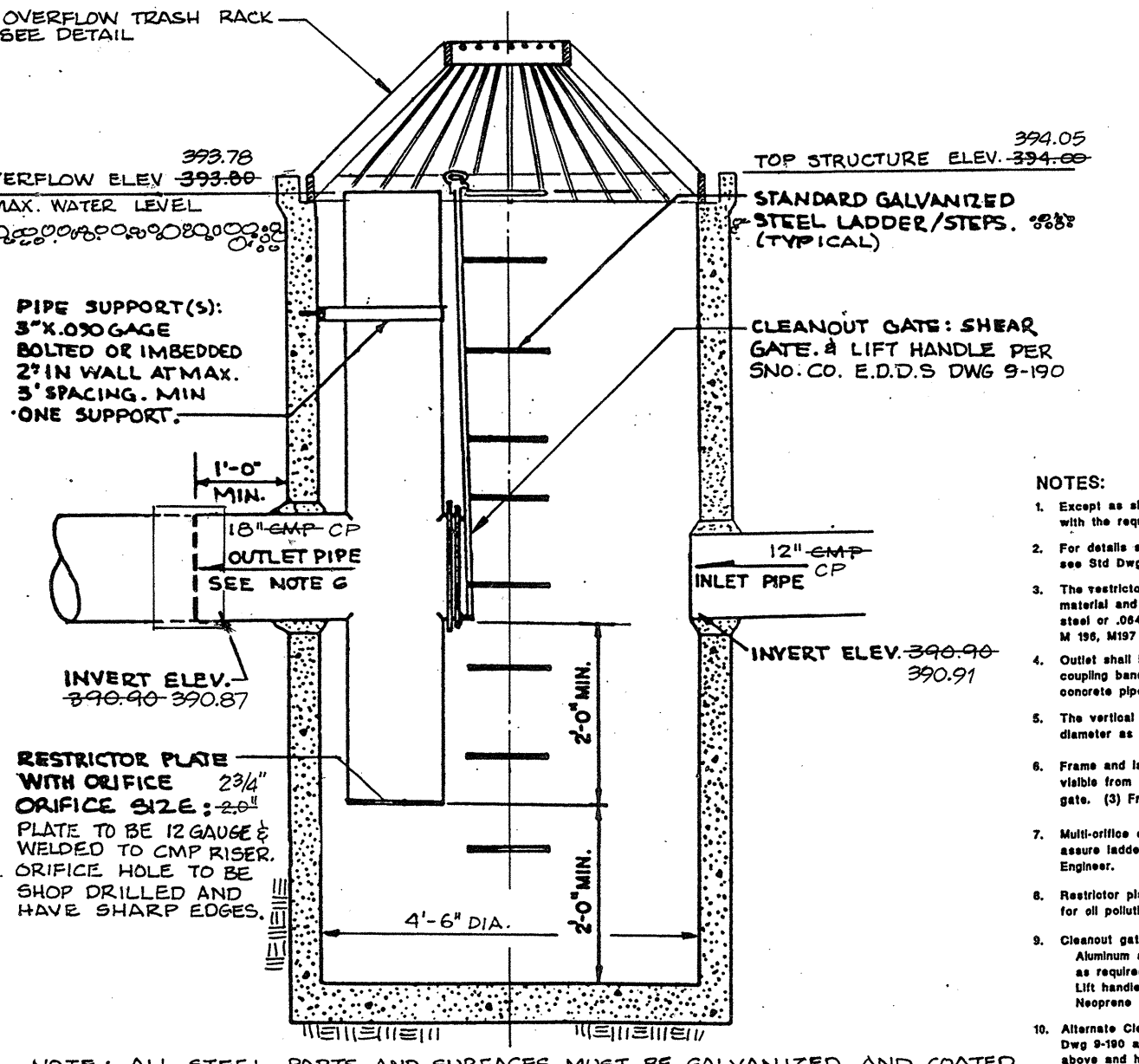
SECTION B-B  
SCALE: HORIZ. 1"=20' VERT. 1"=2'



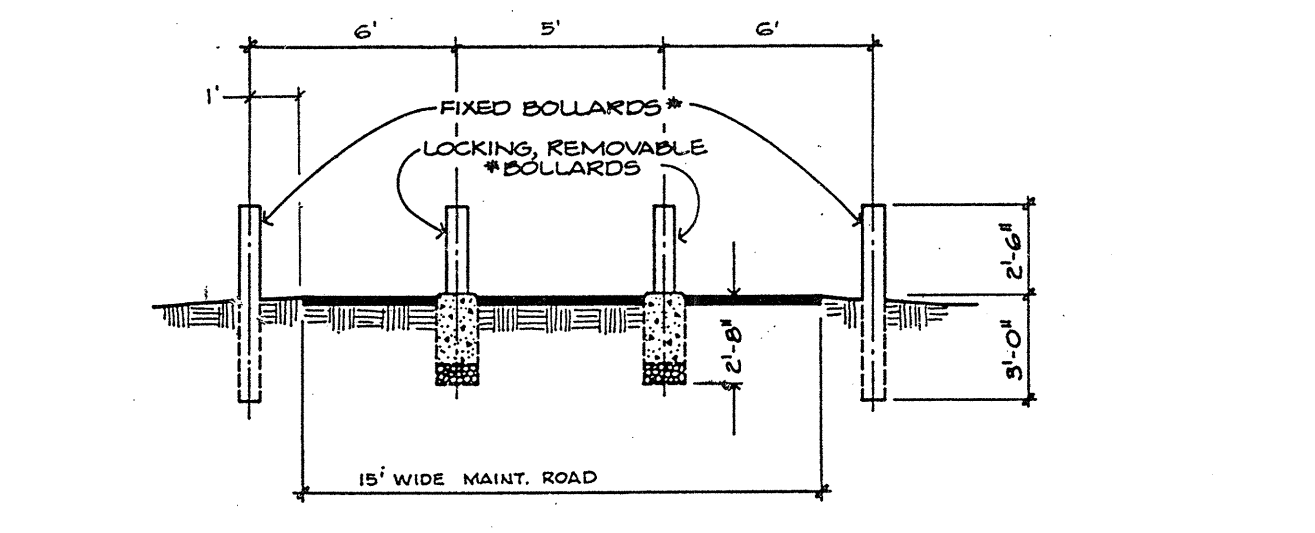
SECTION C-C  
SCALE: HORIZ. 1"=20' VERT. 1"=2'



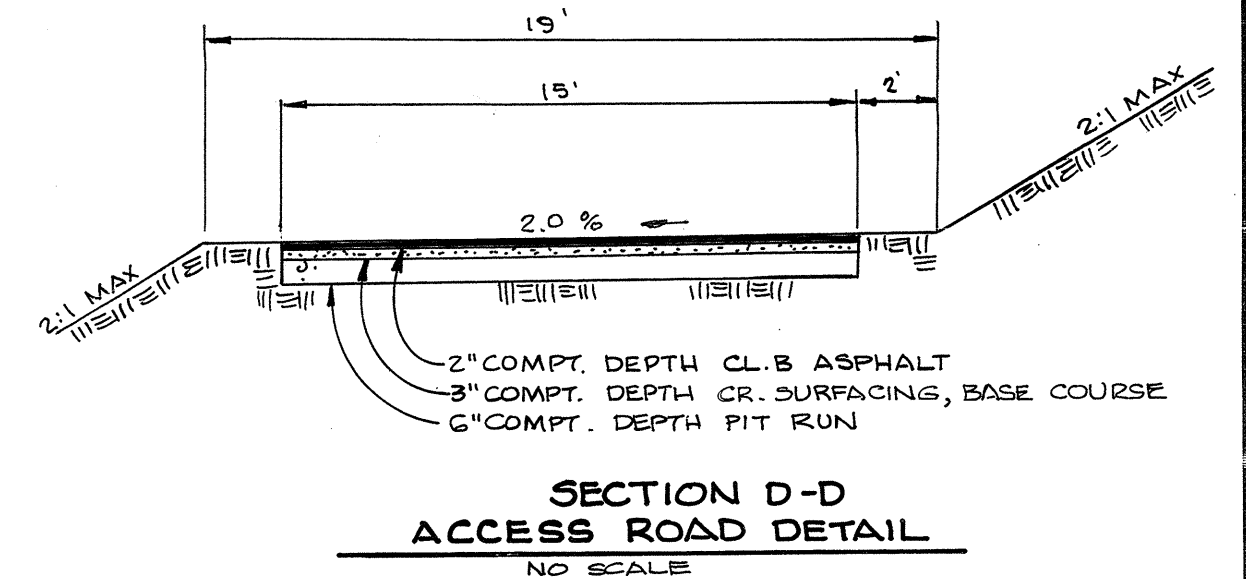
PLAN VIEW



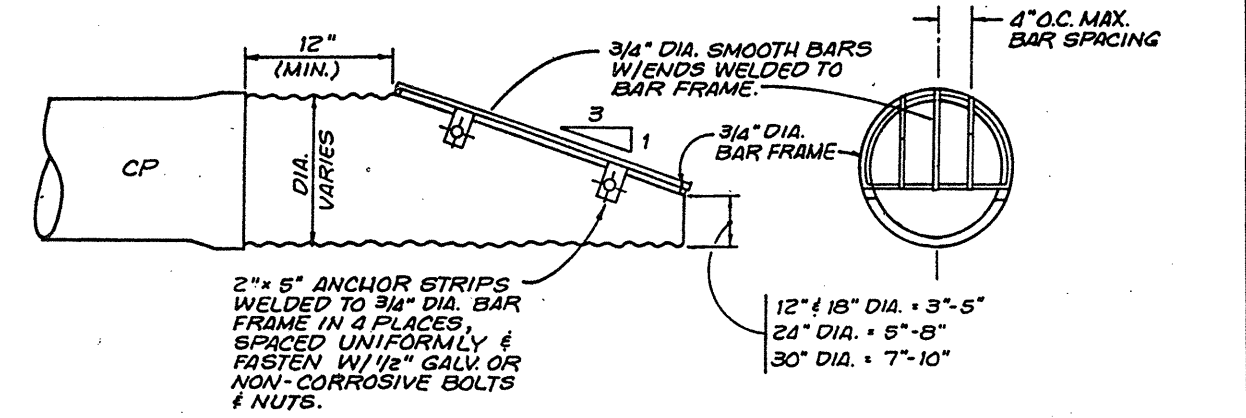
ELEVATION  
CB#65 - RESTRICTOR DETAIL  
SCALE: 1"=2'



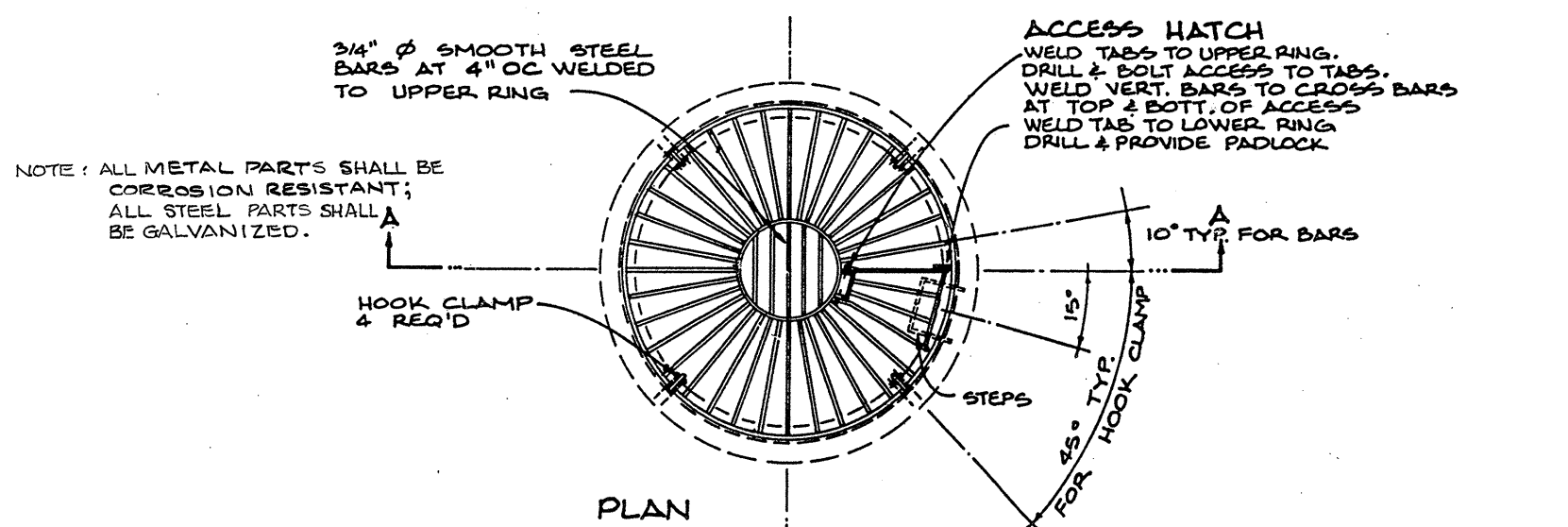
BOLLARD DETAIL  
N.T.S.



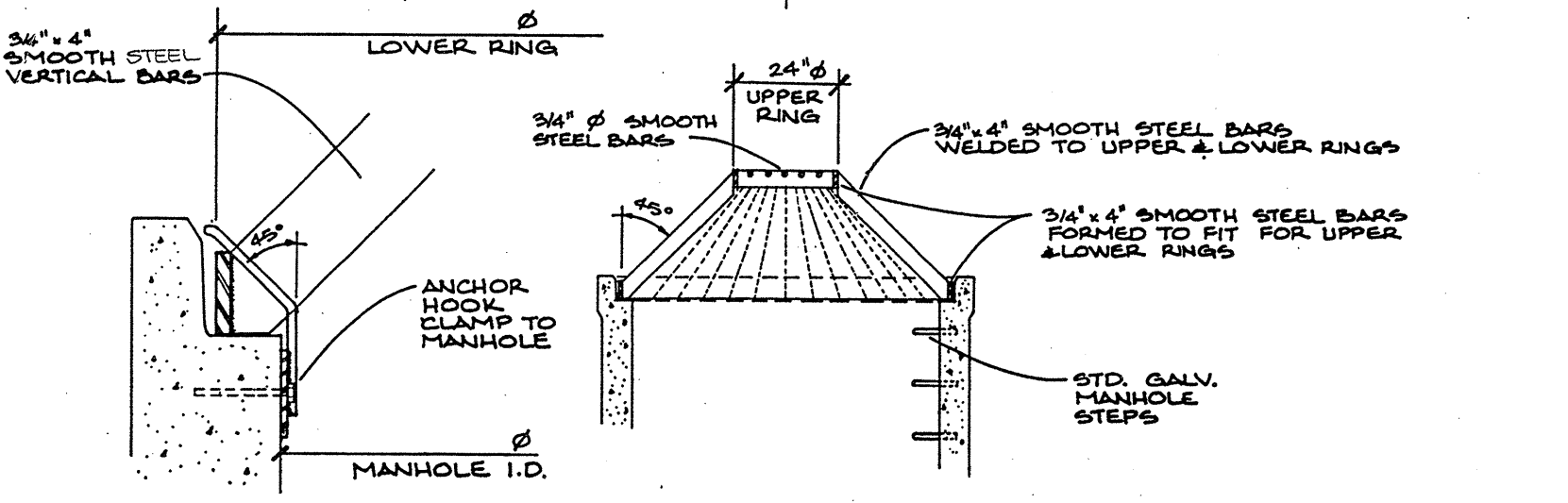
SECTION D-D  
ACCESS ROAD DETAIL  
NO SCALE



TRASH RACK DETAIL  
NO SCALE



PLAN



SECTION A-A  
OVERFLOW TRASH RACK DETAIL  
NO SCALE

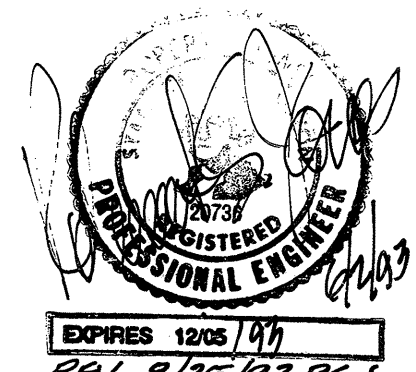
- NOTES:
1. Except as shown or noted, units shall be constructed in accordance with the requirements for Cast Iron Pipe Type 2, 14" minimum diameter.
  2. For details showing grade, ring, ladder, steps, handholds and top skids, see SNO. CO. E.D.S. "Cast Iron Details".
  3. The restrictor/separator and pipe supports shall be of the same material and shall be fabricated from 20" aluminum or 20" aluminum clad or 20" galvanized steel pipe in accordance with SNO. CO. E.D.S. M 195, M 197 and M 274. Galvanized steel shall have Treatment 1.
  4. Outlet shall be connected to restrictor or sewer pipe with a standard coupling band for corrugated metal pipe or gasket into the end of concrete pipe.
  5. The vertical floor area of the restrictor/separator shall be the same diameter as the horizontal outlet pipe with a 6" minimum size.
  6. Frame and ladder or steps to be fitted so that (1) Cleanout gate is visible from top, (2) Clean-down access is clear of riser and cleanout gate, (3) Frame is clear of both (1) and (2).
  7. Multi-throw valves may be located as shown on one side of riser to assure ladder clearance. Size of elbows to be determined by the Engineer.
  8. Restrictor plate with orifice as specified in the plans. Orifice shall only be for pollution control. Specified opening to be not round and smooth.
  9. Cleanout gate/sher gate: Aluminum alloy per ASTM B-21-20-21 or cast iron ASTM A48 Class 300 as required. LSI handles either solid or tubing with adjustable hook as required. Neoprene rubber gaskets required between flanges.
  10. Alternative Cleanout gate/sher gate to the design shown on SNO. CO. E.D.S. 9-190 are acceptable provided they meet the material specifications above and have a 6" dia. 10" dia. hole for bolting to the flange connection. 6" diameter stainless steel expansion bolts shall be used.
  11. Restrictor Tube may be fabricated (fabrication welded) from stainless-steel (carbon insert) corrugated pipe meeting the requirements of Section 9-24(d) of these Standards. Pipe supports for the restrictor shall be fabricated from these materials listed in note 3 above. The outlet shall be connected to restrictor or sewer pipe with a premium coupling, by using a ball elbow, adapter or other type of pipe - or by fabricating a smooth or tapered outlet to slip inside of the restrictor or sewer pipe.

SNOHOMISH COUNTY  
COMMUNITY DEVELOPMENT DIVISION  
APPROVED FOR CONSTRUCTION  
*Randolph R. Sleight*  
FOR RANDOLPH R. SLEIGHT, P.E., L.S.  
DATE: 10/19/93  
RAW PERMIT NO. RW1254

DETENTION POND "B" DETAILS  
FOR  
RHOD-A-ZALEA GARDENS

IN S.E. 1/4 OF SECTION 32, T. 28 N., R. 5 E., W.M.  
SNOHOMISH COUNTY, WASHINGTON

ZA 8802041  
712  
HDEV-~~312~~



3 PER COUNTY AG-BUILT REVIEW	3 MAY 94	RCN
2 FINAL AG-BUILTS, DIV. 1	6 APRIL 94	RCN
1 REVISED PER SNO. CO. REVIEW	8 AUG '93	MM

**LSA** Lovell-Sauerland & Associates, Inc.  
Engineers/Surveyors/Planners/Development Consultants

19400 33rd Avenue W., Suite 200 • Lynnwood, WA 98036 • (206) 775-1591 • (206) 340-0830

DRAWN	CHECKED	DATE	F.B.	SCALE	FILE NO.
ALV	RSJ	JAN., 1993		AS NOTED	2866

**DRAINAGE NOTES**

- ALL STORM DRAIN PIPE MAY BE CONSTRUCTED OF ONE OF THE FOLLOWING MATERIALS UNLESS OTHERWISE SPECIFIED IN THE PLANS. ALL PIPE JOINTS MUST BE GASKETED AND MUST BE OF THE SAME MATERIAL AS THE PIPE. ALL PIPE SHALL HAVE A MINIMUM COVER AS SHOWN BELOW AND SHALL BE ADEQUATELY PROTECTED DURING CONSTRUCTION (REFER TO THE MANUFACTURER'S RECOMMENDATIONS FOR MINIMUM COVER FOR HEAVY EQUIPMENT LOADINGS).
  - \*COVER REQUIREMENTS FOR 18" OR SMALLER PIPE
    - < 1.0' - REQUIRES RCP (REINFORCED CONCRETE PIPE) MINIMUM 1.0' x 1.5' - REQUIRES CP (CONCRETE PIPE) MINIMUM
    - > 1.5' - REQUIRES 16 GAUGE CMP (CORRUGATED METAL PIPE) MINIMUM OR HDPE
  - \*CMP INDICATES CORRUGATED METAL, CONCRETE, OR HDPE PIPE MAY BE USED.
  - \*C INDICATES CONCRETE OR HDPE PIPE MAY BE USED (SUBJECT TO COVER REQUIREMENTS)
  - \*BCE INDICATES REINFORCED CONCRETE PIPE IS REQUIRED.
- CORRUGATED METAL PIPE (CMP) TO BE AASHTO M230 TYPE 1 & TYPE 2 GALVANIZED STEEL WITH TREATMENT 1 ASPHALT COATING OR BETTER OR AASHTO M247-70 ALUMINIZED STEEL. ALL PIPES HAVE COUPLING BANDS WITH NEOPRENE GASKETS.
  - B. CONCRETE 6" THRU 21" DIAMETER PIPE SHALL BE NON-REINFORCED, BELL AND SPIGOT WITH RUBBER GASKET JOINTS, CONFORMING TO ASTM C-14 OR CONCRETE 12" THRU 21" DIAMETER PIPE MAY BE REINFORCED, BELL AND SPIGOT WITH RUBBER GASKET JOINTS, CONFORMING TO ASTM C-76 CLASS II.
  - CONCRETE 24" DIAMETER AND LARGER PIPE SHALL BE REINFORCED, BELL AND SPIGOT WITH RUBBER GASKET JOINTS, CONFORMING TO ASTM C-76 CLASS II.
- HIGH DENSITY POLYETHYLENE (HDPE) 12" THROUGH 24" DIAMETER PIPE SHALL BE CORRUGATED EXTERIOR SMOOTH INTERIOR CONFORMING TO AASHTO M230 TYPE S. PIPE SHALL CONFORM TO ASTM D3350. FITTINGS SHALL BE EXTRUSION WELDED. COUPLINGS TO MEET REQUIREMENTS OF ASTM F667 WITH ADDITION OF CLOSED CELL NEOPRENE GASKETS MEETING REQUIREMENTS OF ASTM D1056. GASKETS TO BE INSTALLED TO FULLY ENCLOSE PIPE JOINT. INSTALLATION SHALL BE ACCORDING TO ASTM D2321, STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF FLEXIBLE THERMOPLASTIC PIPE. USE ADS-112, OR EQUAL MEETING SNOHOMISH COUNTY AND WSDOT/APWA REQUIREMENTS FOR MATERIALS, BEDDING & INSTALLATION.

**GENERAL NOTES**

- LOCATIONS OF EXISTING UTILITIES AND IMPROVEMENTS SHOWN ARE APPROXIMATE ONLY AND IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXACT LOCATION(S) OF ALL UTILITIES AND IMPROVEMENTS TO AVOID DAMAGE OR DISTURBANCE.
- FOR AID IN UTILITY LOCATION CALL 1-800-424-5555 PRIOR TO BEGINNING CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS FOR ROAD AND UTILITY CONSTRUCTION.
- ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH SNOHOMISH COUNTY STANDARDS AND SPECIFICATIONS AND WASHINGTON STATE DEPARTMENT OF TRANSPORTATION 1991 STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION AND THE 1989 WSDOT HYDRAULICS MANUAL.
- ALL WORK WITHIN THE SITE AND COUNTY RIGHT-OF-WAY SHALL BE SUBJECT TO THE INSPECTION OF THE COUNTY INSPECTOR OR HIS DESIGNATED REPRESENTATIVE.
- PRIOR TO ANY SITE CONSTRUCTION TO INCLUDE CLEARING/LOGGING OR GRADING THE SITE/LOT CLEARING LIMITS SHALL BE LOCATED AND FIELD IDENTIFIED BY THE PROJECT SURVEYOR/ENGINEER AS REQUIRED BY THESE PLANS. THE PROJECT SURVEYOR/ENGINEER'S NAME AND TELEPHONE NUMBER ARE LOVELL-SAUERLAND & ASSOCIATES, INC., 775-1591.
- THE DEVELOPER/PROJECT ENGINEER IS RESPONSIBLE FOR WATER QUALITY AS DETERMINED BY THE MONITORING PROGRAM, ESTABLISHED BY THE PROJECT ENGINEER. THE PROJECT ENGINEER'S NAME AND PHONE NUMBER ARE LOVELL-SAUERLAND & ASSOCIATES, INC., 775-1591.
- PRIOR TO ANY SITE WORK, THE CONTRACTOR SHALL CONTACT THE CHIEF INSPECTOR FOR LAND DEVELOPMENT DIVISION AT (206) 388-3385 TO SCHEDULE A PRECONSTRUCTION CONFERENCE. DUE TO FIELD CHANGES (REVISIONS), ENGINEER AS-BUILTS SHALL BE REQUIRED PRIOR TO SITE GRADING.
- THE TEMPORARY EROSION/SEDIMENTATION CONTROL FACILITY SHALL BE CONSTRUCTED PRIOR TO ANY GRADING OR EXTENSIVE LAND CLEARING IN ACCORDANCE WITH THE APPROVED TEMPORARY EROSION/SEDIMENTATION CONTROL PLAN. THESE FACILITIES MUST BE SATISFACTORILY MAINTAINED UNTIL CONSTRUCTION AND LANDSCAPING IS COMPLETED AND THE POTENTIAL FOR ON-SITE EROSION HAS PASSED.
- TRENCH BACK FILL OF NEW UTILITIES AND STORM DRAINAGE FACILITIES SHALL BE COMPACTED TO 95% MAXIMUM DENSITY (MODIFIED PROCTOR) UNDER ROADWAYS AND 90% MAXIMUM DENSITY (MODIFIED PROCTOR) OFF ROADWAYS, AS SPECIFIED IN SECTION 2-03.3141C COMPACTING EARTH EMBANKMENTS METHOD B.
- NON COMPLIANCE WITH THE EROSION CONTROL REQUIREMENTS, WATER QUALITY REQUIREMENTS AND CLEARING LIMITS VIOLATIONS MAY RESULT IN REVOCATION OF PROJECT PERMITS, PLAN APPROVAL AND BOND FORFEITURES.

2 2/3x1/2 IN. CORRUGATION:		3x1 IN. CORRUGATION:	
DIAMETER (INCHES)	ARCH PIPE (INCHES)	DIAMETER (INCHES)	ARCH PIPE (INCHES)
12"-54"	17x33 THRU 42x29	16 (A)	64"x120"
60"	49x33	14 24"	126"-138"
66"-90"	57x38 THRU 64x43	12 24"	144"
96"	71x47	10 24"	174" TO 137x87
	77x52 THRU 83x57	8 24"	142x91

2 2/3x1/2 IN. CORRUGATION:		3x1 IN. CORRUGATION:	
DIAMETER (INCHES)	ARCH PIPE (INCHES)	DIAMETER (INCHES)	ARCH PIPE (INCHES)
12"-54"	17x33 THRU 42x29	16 (A)	64"x120"
60"	49x33	14 24"	126"-138"
66"-90"	57x38 THRU 64x43	12 24"	144"
96"	71x47	10 24"	174" TO 137x87
	77x52 THRU 83x57	8 24"	142x91

ANNULAR RECORRUGATED ENDS OR ANNUAL CORRUGATED PIPES DIAMETER  
 12" 12"-84" TYPES B, D, & F\*  
 NOTE: SAME GAGE AS PIPE'S  
 \*TYPE F IS 10 1/2" WIDE

2 2/3x1/2 IN. CORRUGATION:		3x1 IN. CORRUGATION:	
DIAMETER (INCHES)	ARCH PIPE (INCHES)	DIAMETER (INCHES)	ARCH PIPE (INCHES)
12"-54"	17x33 THRU 42x29	16 12"	38"-60"
30"-36"	28x20 TO 35x24	14 21"	66"-72"
42"-54"	42x29 TO 49x43	12 21"	78"-96"
60"	57x38 TO 64x43	10 24"	108"-144"
			103x71 TO 112x75

SPIRAL RIB PIPE:		ANNULAR RECORRUGATED ENDS OR ANNUAL CORRUGATED PIPES DIAMETER:	
DIAMETER (INCHES)	ARCH PIPE (INCHES)	DIAMETER (INCHES)	ARCH PIPE (INCHES)
18"-42"	16 12"	12"-84" TYPES B,D & F*	
48"-60"	14 21"	NOTE: SAME GAGE AS PIPE'S	
66"-84"	12 21"	*TYPE F IS 10 1/2" WIDE.	

ALL NON PERFORATED METAL PIPE SHALL HAVE NEOPRENE GASKETS AT THE JOINTS. O-RING GASKETS MAY BE USED FOR TYPE F COUPLING BAND.

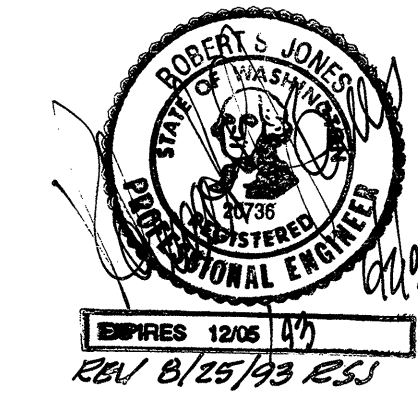
- ALL PIPE SHALL BE PLACED ON STABLE EARTH, OR IF IN THE OPINION OF THE COUNTY INSPECTOR, THE EXISTING FOUNDATION IS UNSATISFACTORY, THEN IT SHALL BE EXCAVATED BELOW GRADE AND BACK FILLED WITH A GRAVEL MATERIAL TO SUPPORT THE PIPE.
- THE BACKFILL SHALL BE PLACED EQUALLY ON BOTH SIDES OF THE PIPE OR PIPE-ARCH IN LAYERS WITH A LOOSE AVERAGE DEPTH OF 6". MAXIMUM DEPTH 9". THOROUGHLY TAMPING EACH LAYER. THESE COMPACTED LAYERS MUST EXTEND FOR ONE DIAMETER ON EACH SIDE OF THE PIPE OR TO THE SIDE OF THE TRENCH. MATERIALS TO COMPLETE THE FILL OVER PIPE SHALL BE THE SAME AS DESCRIBED (REFER TO WSDOT STANDARD SPECIFICATION 7-04.313) AND STANDARD SPECIFICATION 2-03.3141C, METHOD B & C.
- ALL GRATES (INLET AND CATCH BASIN) SHALL BE DERESSED 0.1 FEET BELOW PAVEMENT LEVEL.
- ALL CATCH BASINS TO BE TYPE 1 UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING ALL MANHOLE, INLET, AND CATCH BASIN FRAMES AND GRATES JUST PRIOR TO POURING OF CURBS AND PAVING.
- ALL CATCH BASINS WITH A DEPTH OVER 5.0 FEET TO THE FLOW LINE SHALL BE A TYPE II CB (MANHOLE).
- ALL TYPE II CATCH BASIN MANHOLES AND ALL INLET AND CATCH BASINS SHALL HAVE LOCKING LIDS. ROLLED GRATES ARE NOT APPROVED FOR OUTSIDE OF COUNTY RIGHT-OF-WAY OR FOR USE WITH TYPE II MANHOLE.
- STANDARD LADDER STEPS SHALL BE PROVIDED IN ALL CATCH BASINS/MANHOLES EXCEEDING 5 FEET IN DEPTH.
- CATCH BASIN FRAME AND GRATES SHALL BE OLYMPIC FOUNDRY MODEL SM 50, SM 52, OR SM 44, LOCKING TYPE OR EQUAL. MODEL SM 52 IS REFERRED TO AS A "THROUGH CURB INLET" ON THE PLAN. MODEL SM 44 IS REFERRED TO AS A "ROLLED GRATE INLET" IN THE PLAN.
- DETENTION PONDS WITH SIDE SLOPES STEEPER THAN 3:1 SHALL REQUIRE A PERMETER FENCE PER SNOHOMISH COUNTY CODE. SIDE SLOPE AVERAGING SHALL NOT BE ALLOWED.
- PRIOR TO SIDEWALK CONSTRUCTION, CONSTRUCT THE LOT DRAINAGE AND STUB OUTS AND/OR BEHIND SIDEWALK DRAINS AS REQUIRED. STUB OUTS SHALL BE MARKED WITH A 2" X 4" AND LABELED "STORM". LOCATIONS OF THESE INSTALLATIONS SHALL BE PLACED ON THE AS-BUILT CONSTRUCTION PLANS AND SUBMITTED TO THE COUNTY.
- STORM WATER RETENTION/DETENTION FACILITIES, STORM DRAINAGE PIPE AND CATCH BASINS SHALL BE FLUSHED AND CLEANED PRIOR TO SNOHOMISH COUNTY ACCEPTANCE.
- T.E.S.C. MEASURES SHALL BE INSTALLED PRIOR TO ANY SITE WORK.

**ROAD AND STORM DRAINAGE DETAILS FOR RHOD-A-ZALEA GARDENS**

IN S.E. 1/4 OF SECTION 32, T. 28 N., R. 5 E., W.M. SNOHOMISH COUNTY, WASHINGTON

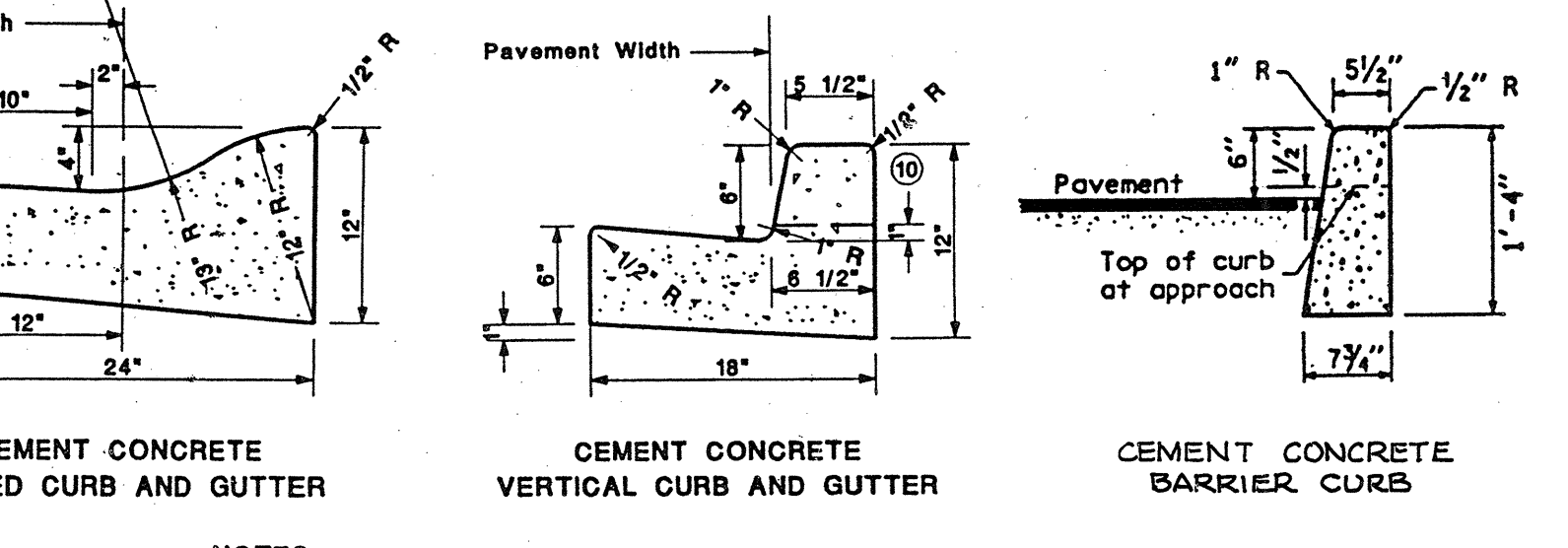
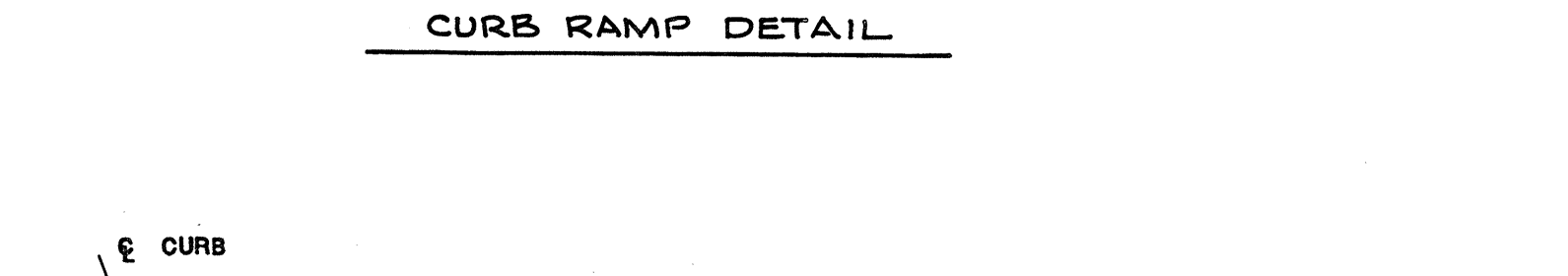
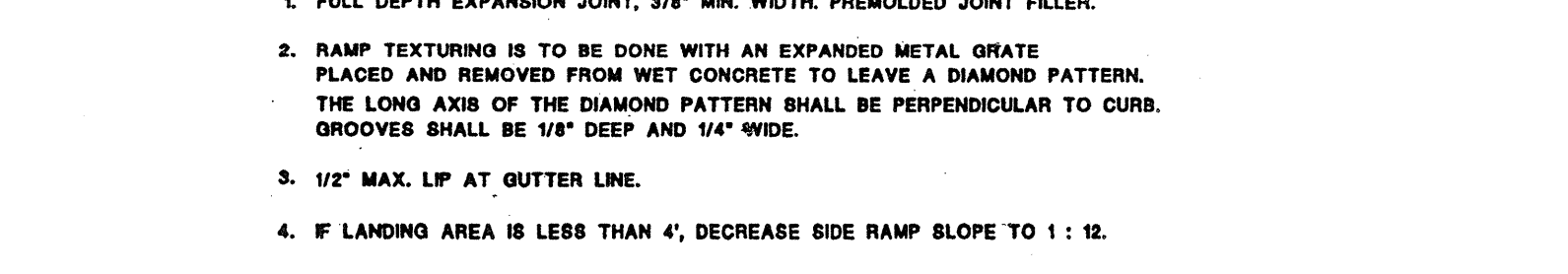
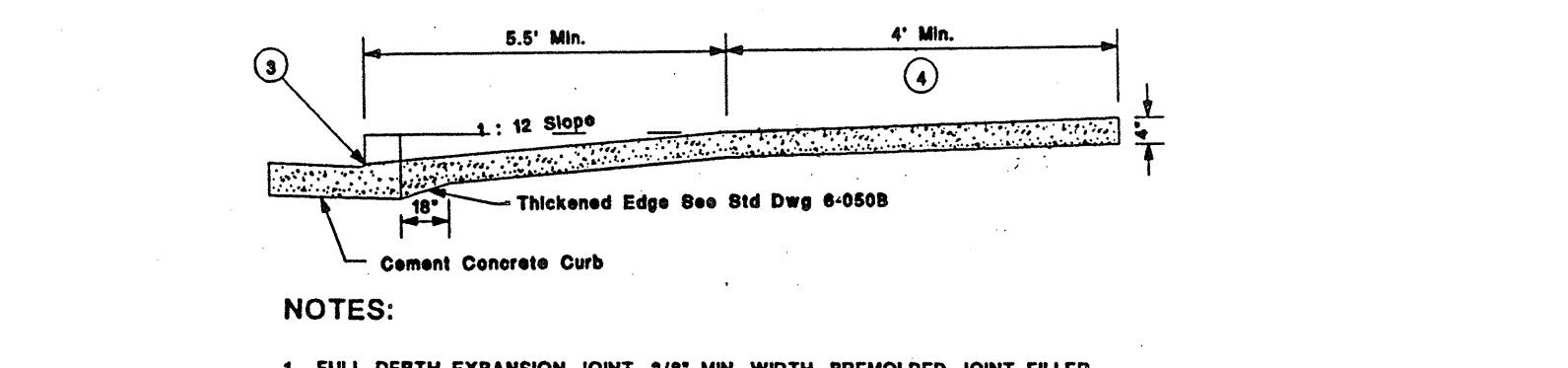
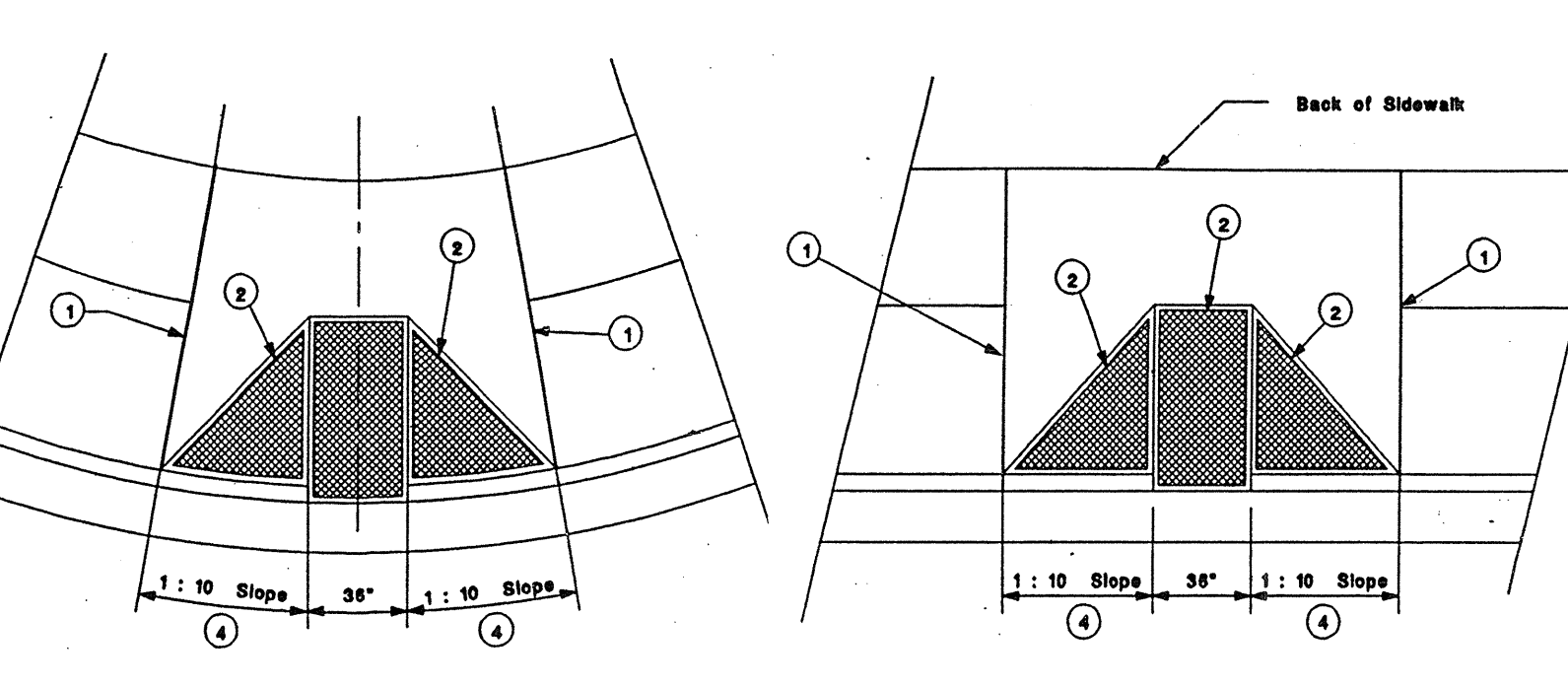
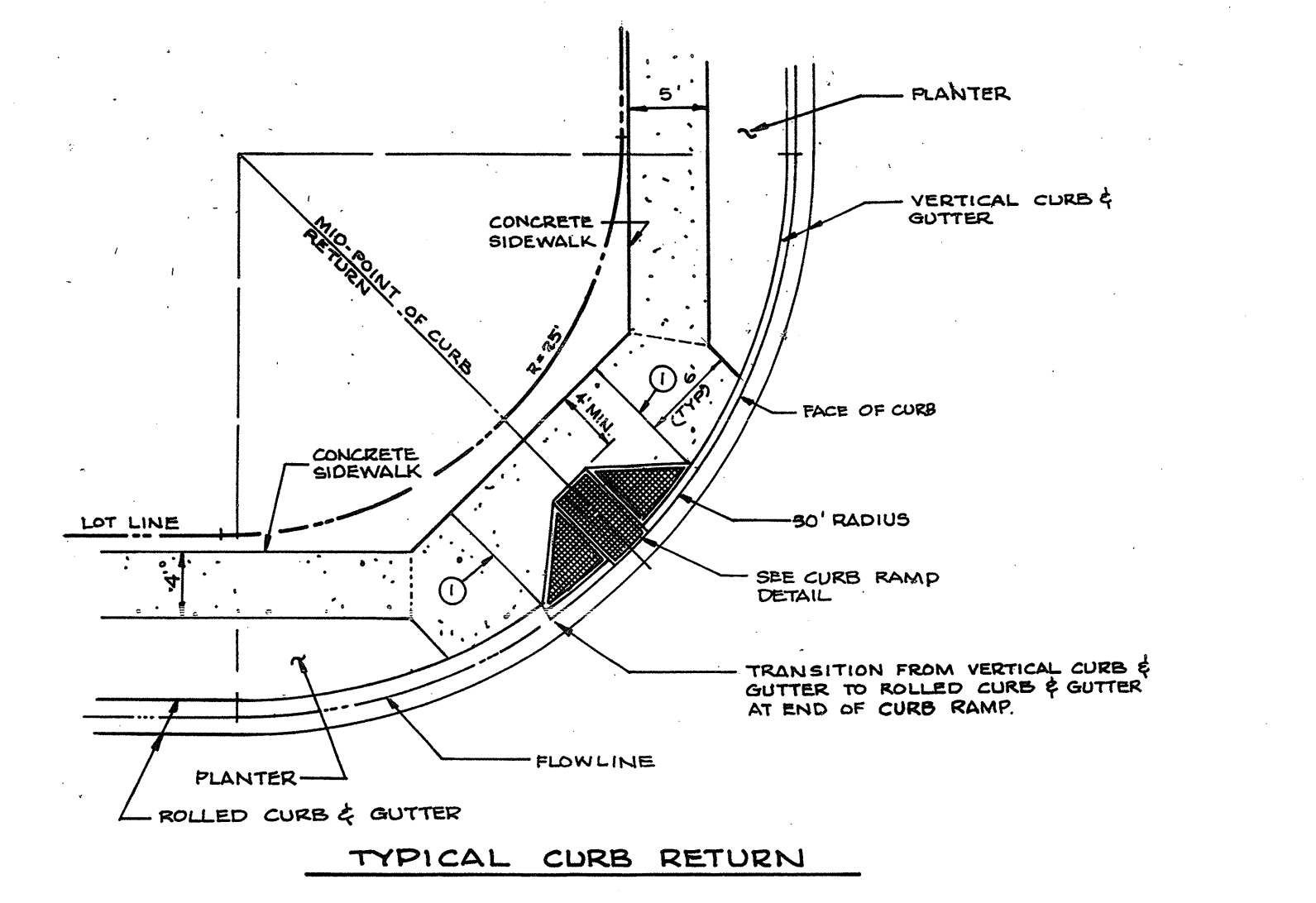
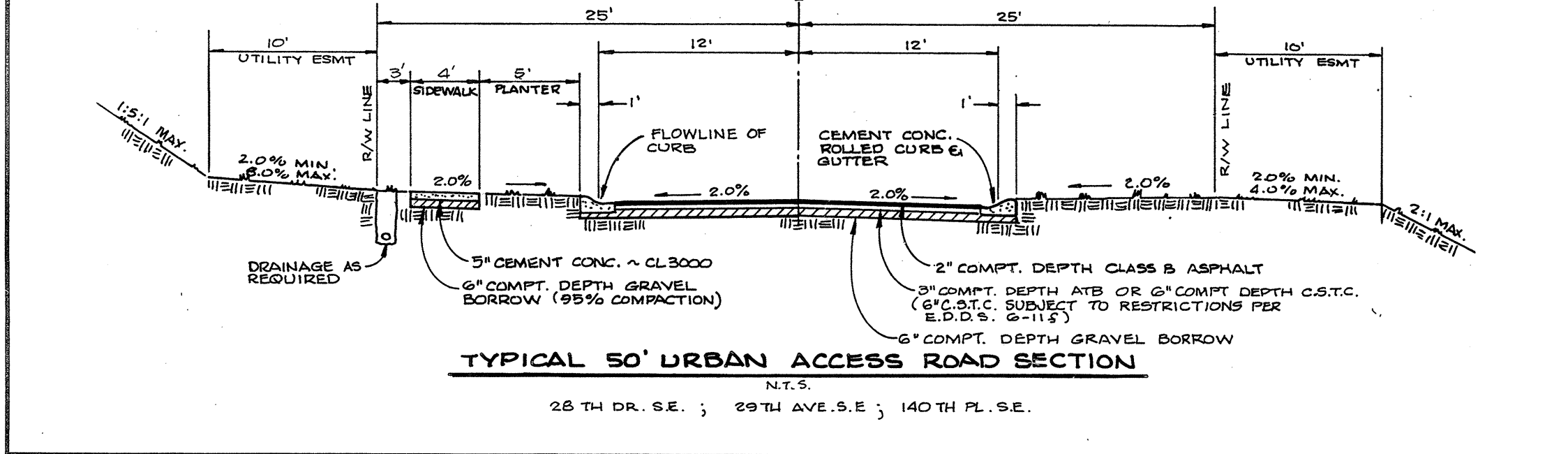
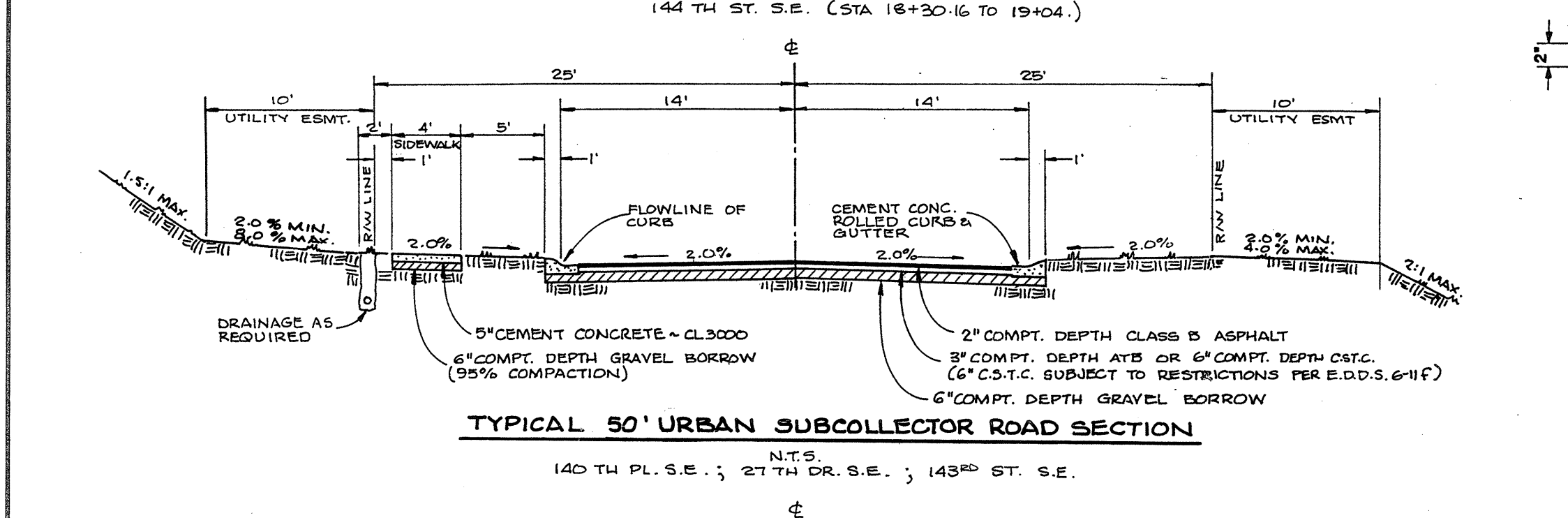
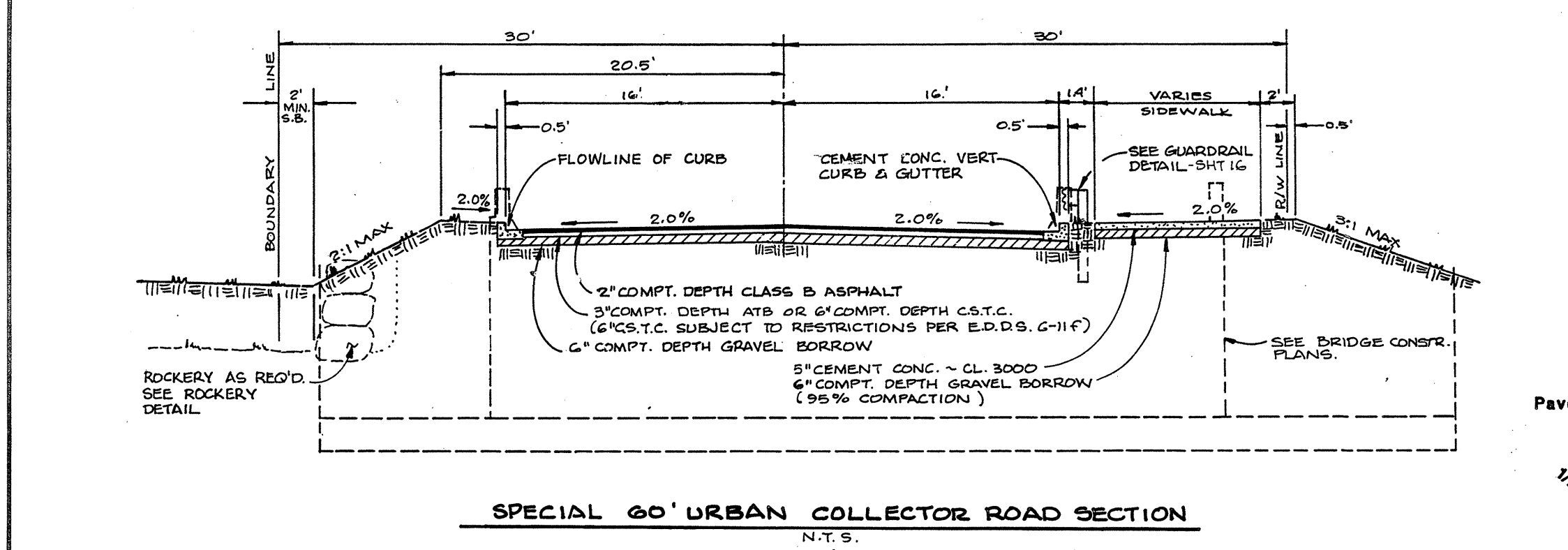
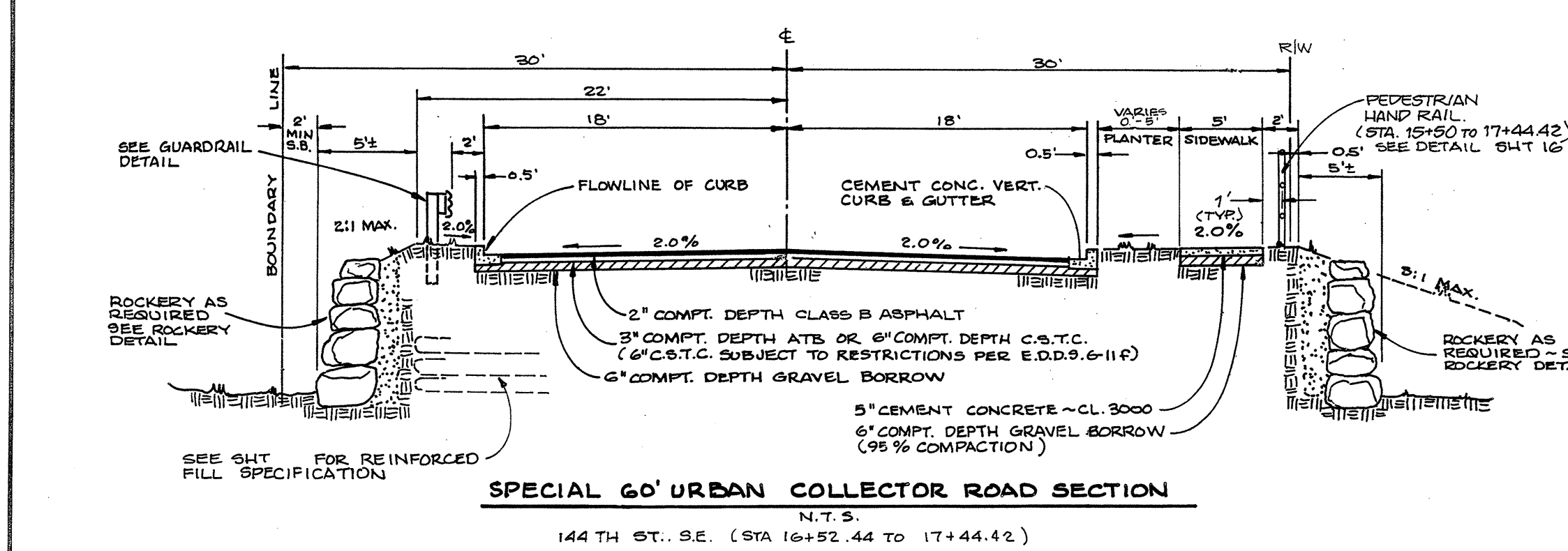
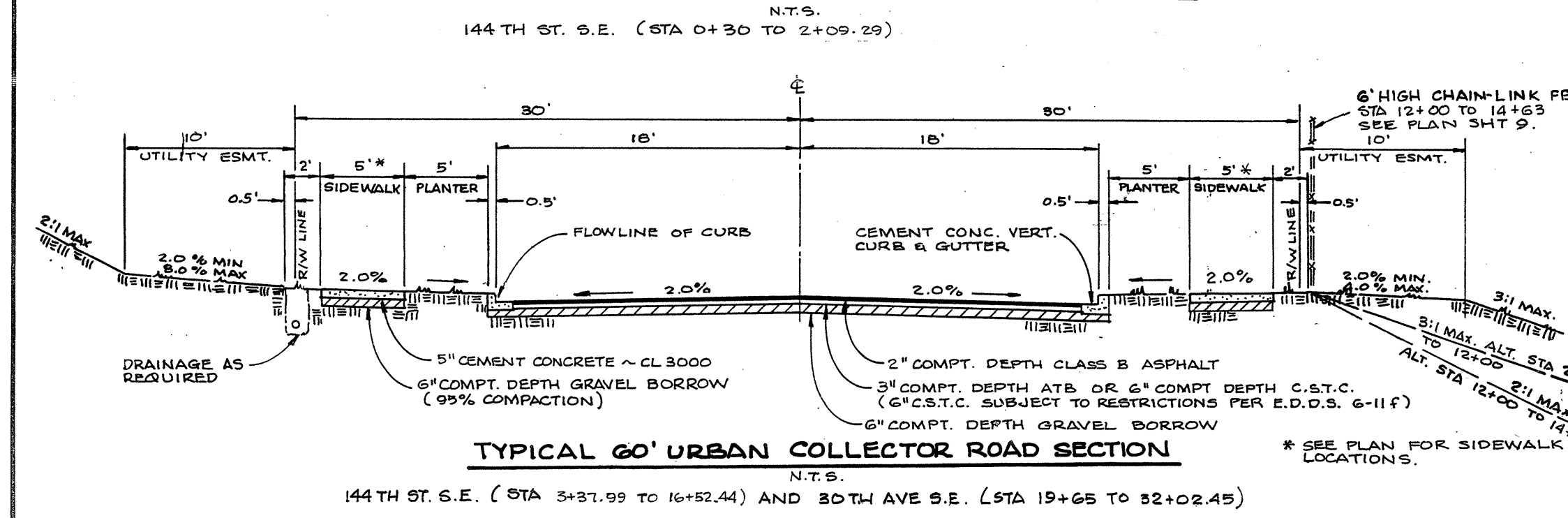
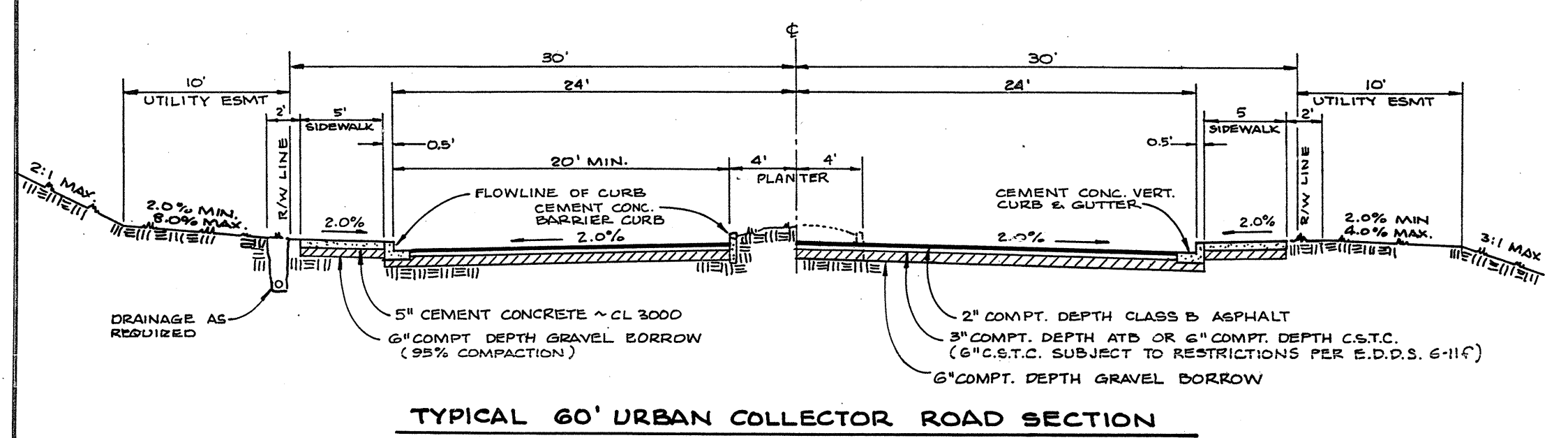
ZA 8802041

**HDEV-713**

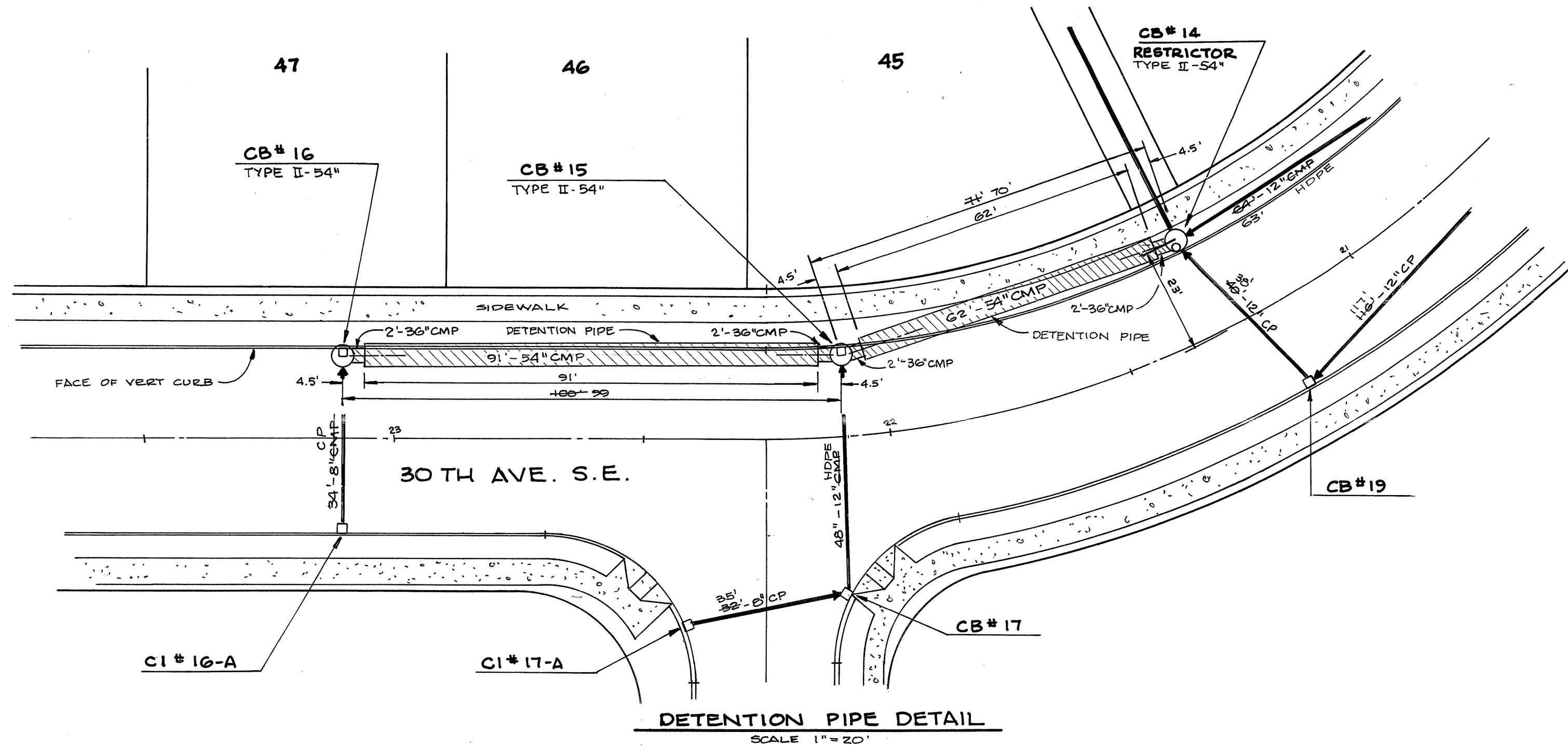


**LSA Lovell-Sauerland & Associates, Inc.**  
 Engineers/Surveyors/Planners/Development Consultants  
 19400 33rd Avenue W., Suite 200 • Lynnwood, WA 98036 • (206) 775-1591 • (206) 340-0830

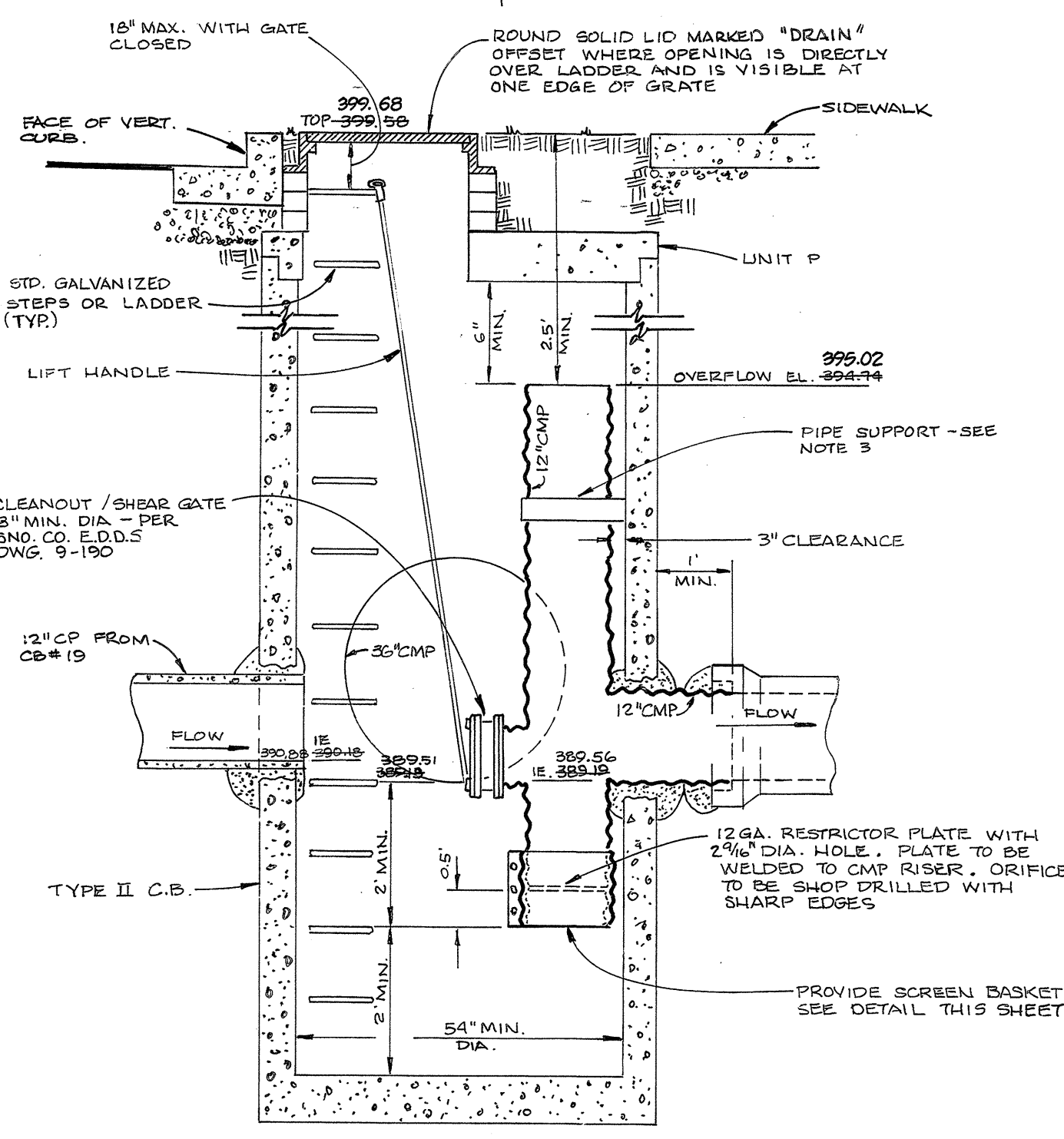
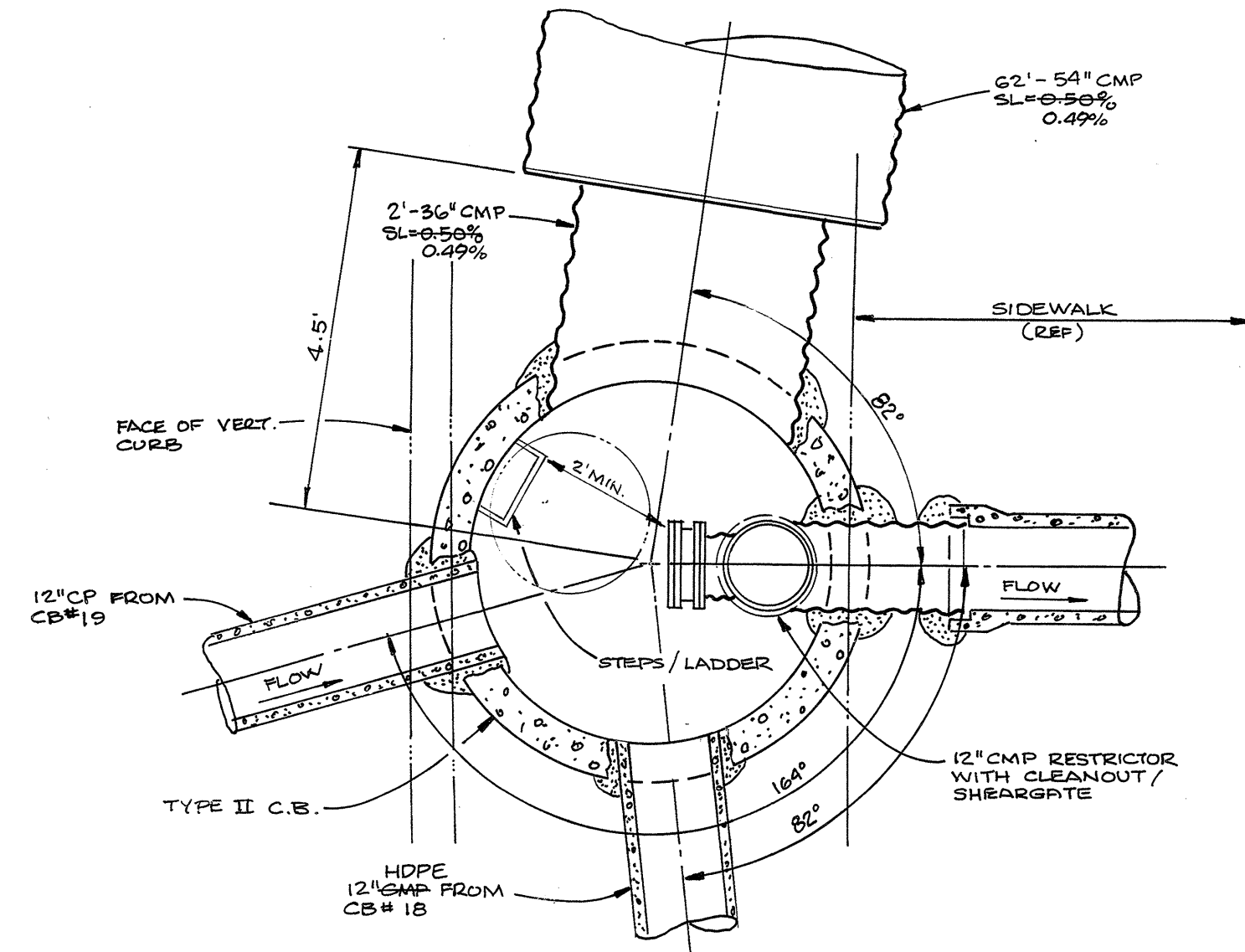
2	REVISED ROAD SECTIONS PER ROAD REALIGN.	24	AUG '93	ALV	
1	REVISED PER SNO. CO. REVIEW	3	AUG '93	MM	
DRAWN	CHECKED	DATE	P.B.	SCALE	FILE NO.
ALV	RSJ	MAR., 1993		AS NOTED	2866



- NOTES:**
- CONSTRUCTION OF CURB DETAILS SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION AS PUBLISHED BY THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION AND THE AMERICAN PUBLIC WORKS ASSOCIATION (WSDOT/APWA SPECIFICATIONS) UNLESS OTHERWISE NOTED BELOW.
  - ALL CONCRETE SHALL BE AIR ENTRAINMENT CONCRETE CLASS 3000.
  - FORMS SHALL BE TRUE TO LINE AND GRADE AND SECURELY STAKED. STEEL FORMS ONLY SHALL BE USED ON TANGENT SECTIONS. WOOD FORMS MAY BE USED ON CURVED SECTIONS.
  - FULL DEPTH EXPANSION JOINTS CONSISTING OF 3/8" MINIMUM PREMOLDED JOINT MATERIAL SHALL BE PLACED ADJACENT TO CATCH BASINS, INLETS AND AT POINTS OF TANGENCY ON STREETS AND DRIVEWAY RETURNS. MAXIMUM SPACING SHALL BE 20 FEET.
  - CONTRACTION JOINTS (DUMMY JOINTS) CONSISTING OF 3/8" MIN. X 2" OF PREMOLDED JOINT MATERIAL SHALL BE CONSTRUCTED AT INTERVALS OF 10 FEET.
  - ALL JOINTS SHALL BE CLEAN AND ERODED.
  - FINISH SHALL BE A LIGHT BROOM FINISH.
  - FINISHED CURBS AND GUTTERS SHALL BE SPRAYED WITH A CLEAR CURING COMPOUND.
  - VERTICAL CURBS WILL BE REQUIRED IN ALL CASES EXCEPT ON ACCESS AND AND SUBCOLLECTOR STREETS. FOR THESE STREETS, VERTICAL OR ROLLED CURBS WILL BE ALLOWED AT THE DISCRETION OF THE DEVELOPER.
  - TOP OF CURB AT ACCESS POINT APPROACH.



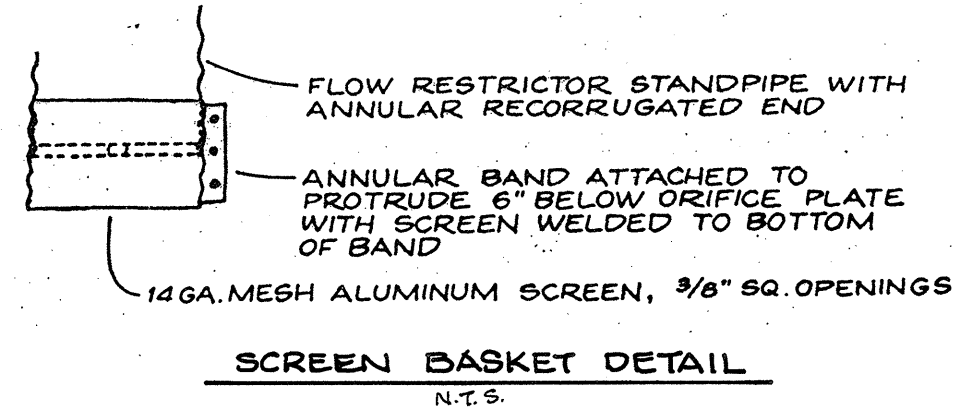
DETECTION PIPE DETAIL  
SCALE 1" = 20'



CB# 14 - RESTRICTOR DETAIL  
SCALE 1" = 2'

- NOTES:
- Except as shown or noted, units shall be constructed in accordance with the requirements for Catch Basin Type 2, 54" minimum diameter.
  - For details showing grade ring, ladder, steps, handholds and top slabs, see Std Dwg 9-074, "Catch Basin Details".
  - The restrictor/separators and pipe supports shall be of the same material and shall be fabricated from .060" aluminum or .064" aluminumized steel or .064" galvanized steel pipe in accordance with AASHTO M 30, M 196, M197 and M274. Galvanized Steel shall have Treatment 1.
  - Outlet shall be connected to culvert or sewer pipe with a standard coupling band for corrugated metal pipe or grouted into the ball of concrete pipe.
  - The vertical riser stem of the Restrictor/Separator shall be the same diameter as the horizontal outlet pipe with a 8" minimum size.
  - Frame and ladder or steps to be offset so that (1) Cleanout gate is visible from top. (2) Climb-down space is clear of riser and cleanout gate. (3) Frame is clear of curb (if any exists).
  - Multi-office elbows may be located as shown on one side of riser to assure ladder clearance. Size of elbows to be determined by the Engineer.
  - Restrictor plate with orifice as specified in the plans. Omit plate if only for oil pollution control. Specified opening to be cut round and smooth.
  - Cleanout gate/Shear gate:  
Aluminum alloy per ASTM B-28-ZG-32a or cast iron ASTM A48 Class 30B as required.  
Lift handle either solid or tubing with adjustable hook as required.  
Neoprene rubber gaskets required between flanges.
  - Alternate Cleanout gates/Shear gates to the design shown on Std Dwg 9-190 are acceptable provided they meet the material specifications above and have a six bolt, 10-3/8" bolt circle for bolting to the flange connection. 5/8" diameter stainless steel expansion bolts shall be used.
  - Restrictor Tees may be fabricated (extrusion welded) from double-walled (smooth interior) corrugated polyethylene pipe meeting the requirements of Section 9-04(1) of these Standards. Pipe supports for the restrictor shall be fabricated from those materials listed in note 3 above. The outlet shall be connected to culvert or sewer pipe with a premium coupling, by using a heat shrink adapter to other types of pipe, or by fabricating a smooth or tapered outlet to slip inside of the culvert or sewer pipe.

WSDOT/APWA PLAN B-3



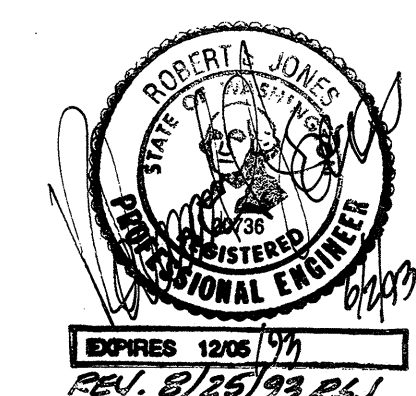
SCREEN BASKET DETAIL  
N.T.S.

NOTE: ALL STEEL PARTS AND SURFACES MUST BE GALVANIZED AND COATED W/ ASPHALT TREATMENT 1 OR BETTER.

SNOHOMISH COUNTY  
COMMUNITY DEVELOPMENT DIVISION  
APPROVED FOR CONSTRUCTION:  
*Randy W. Sleight* DATE: 10/14/93  
FOR RANDOLPH SLEIGHT, P.E., S.E.  
RAW PERMIT NO. RW1234

ROAD AND STORM DRAINAGE DETAILS  
FOR  
**RHOD-A-ZALEA GARDENS**  
IN S.E. 1/4 OF SECTION 32, T. 28 N., R. 5 E., W.M.  
SNOHOMISH COUNTY, WASHINGTON  
ZA 8802041

**HDEV-714**

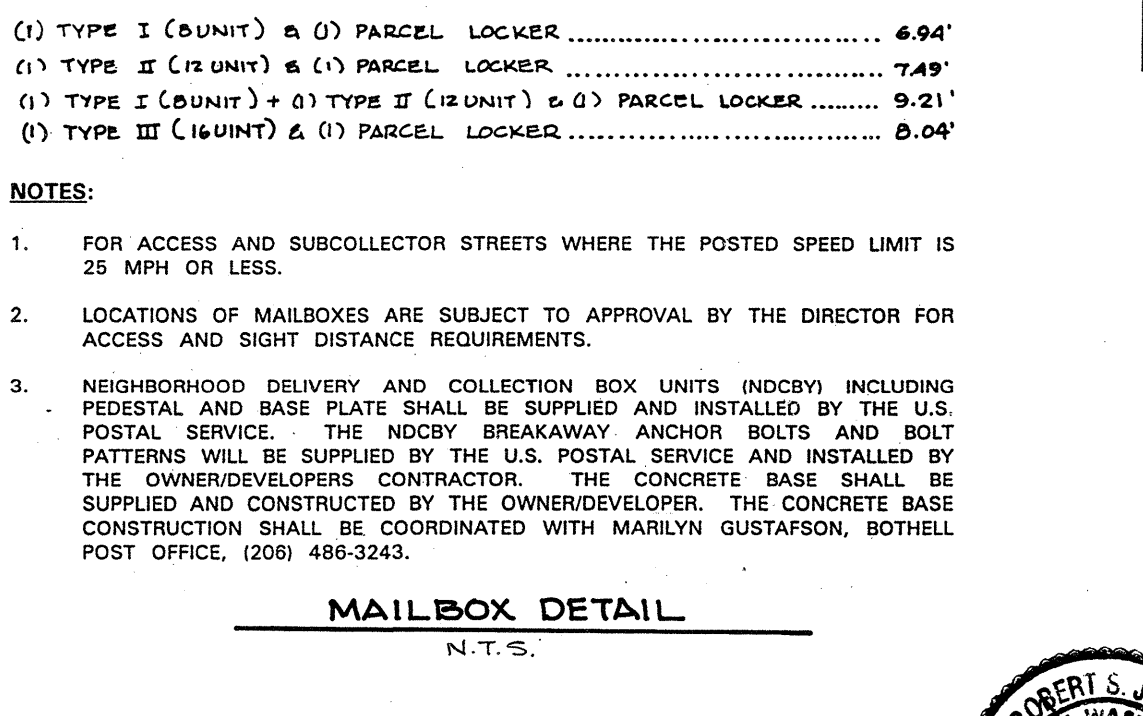
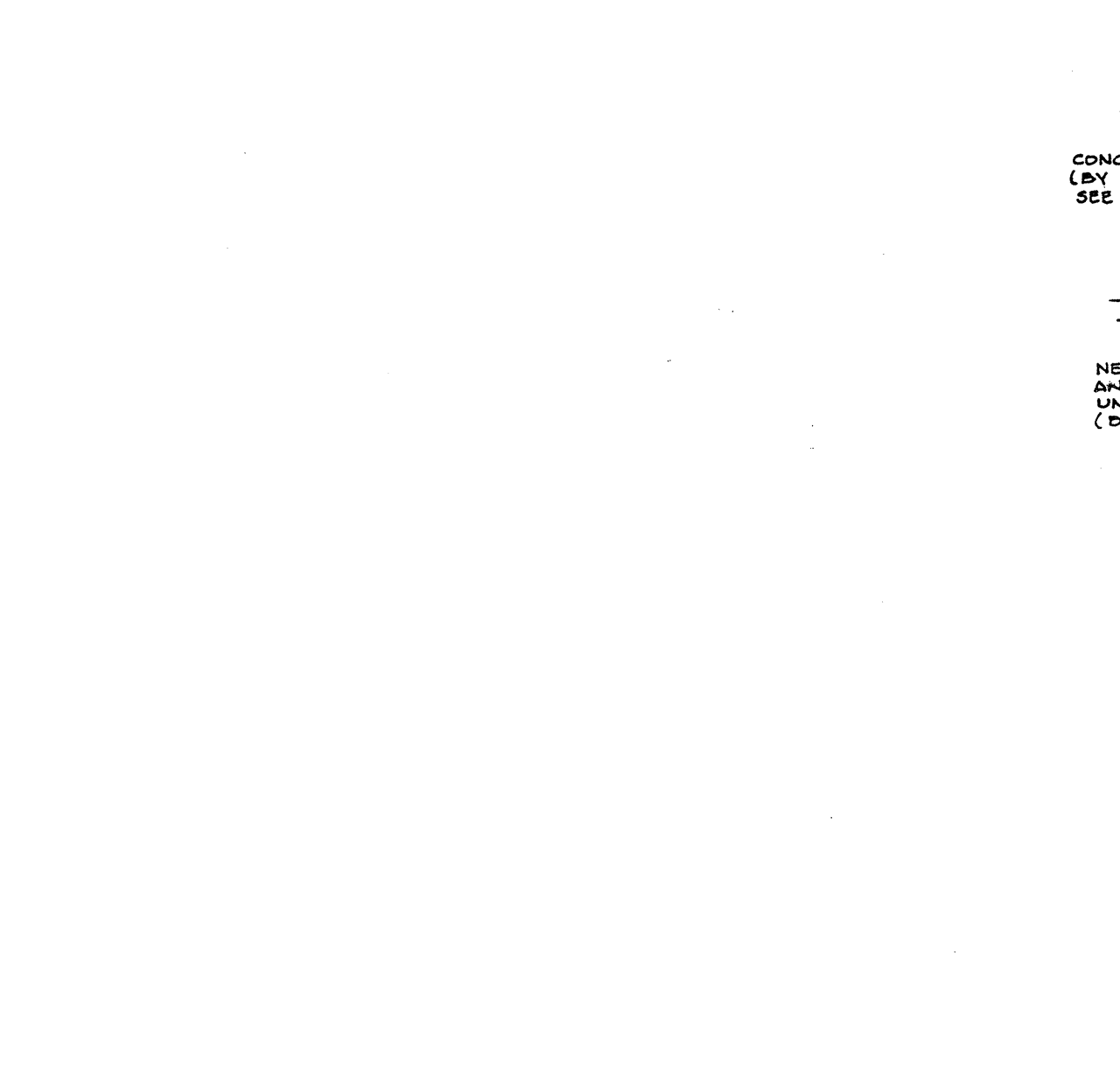
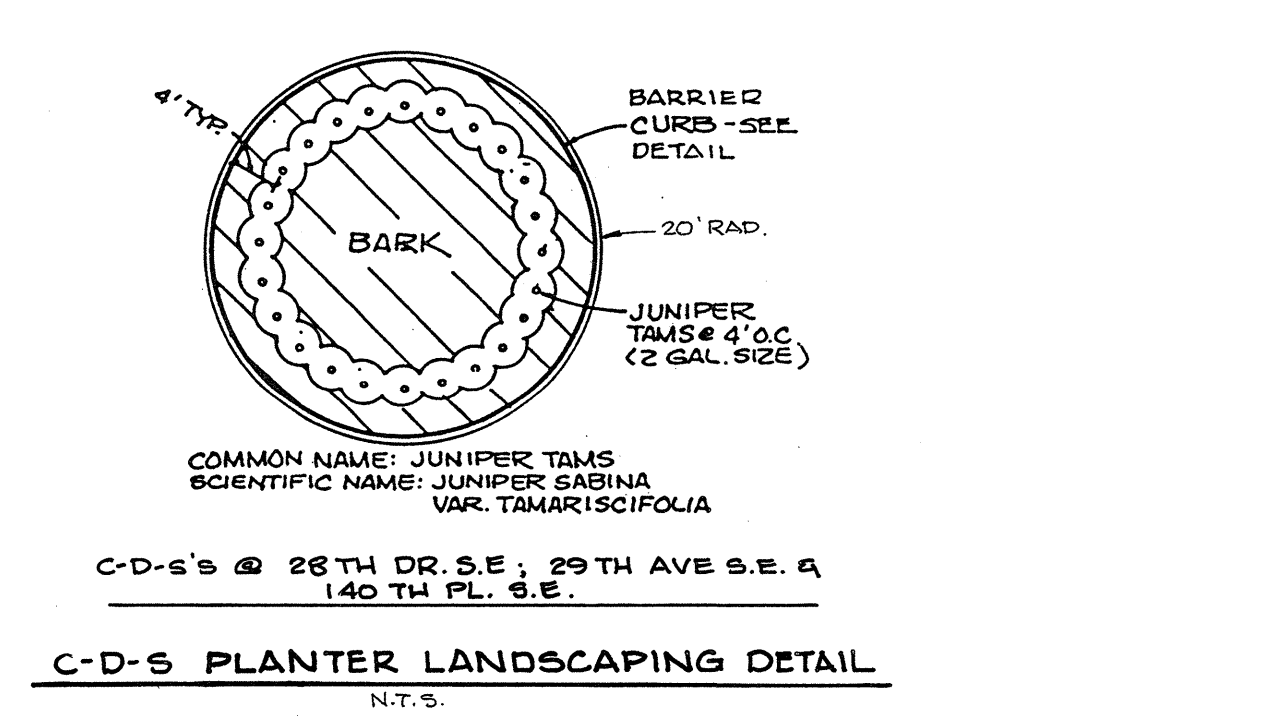
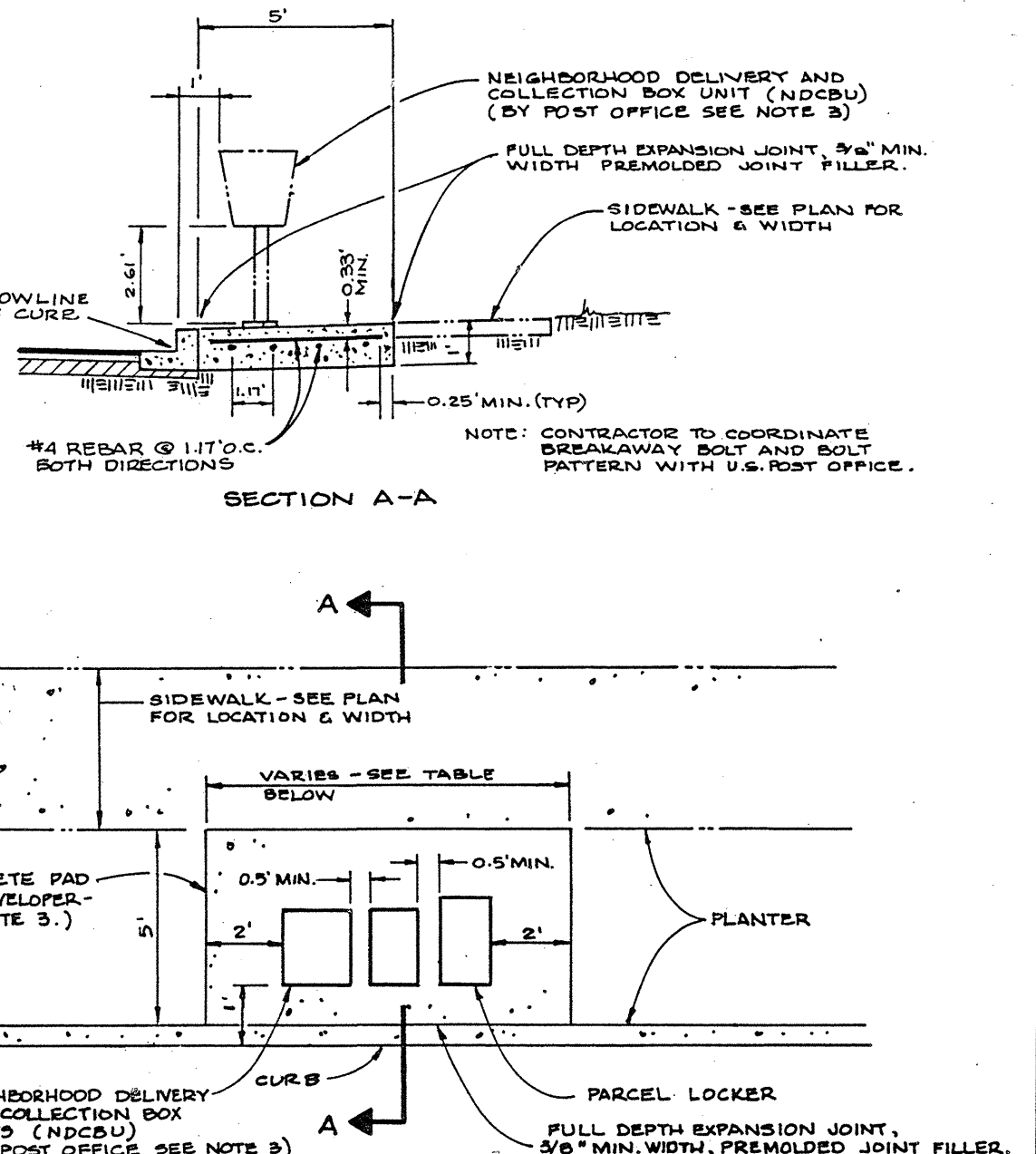
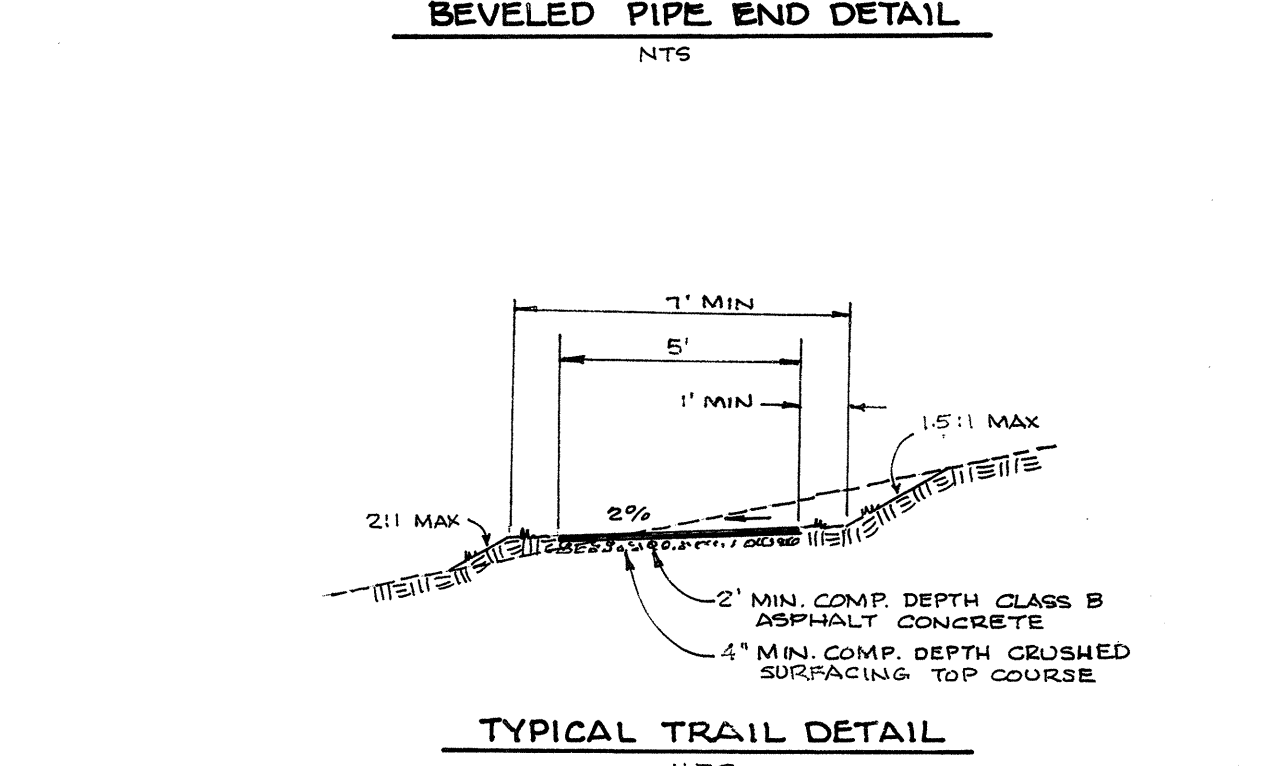
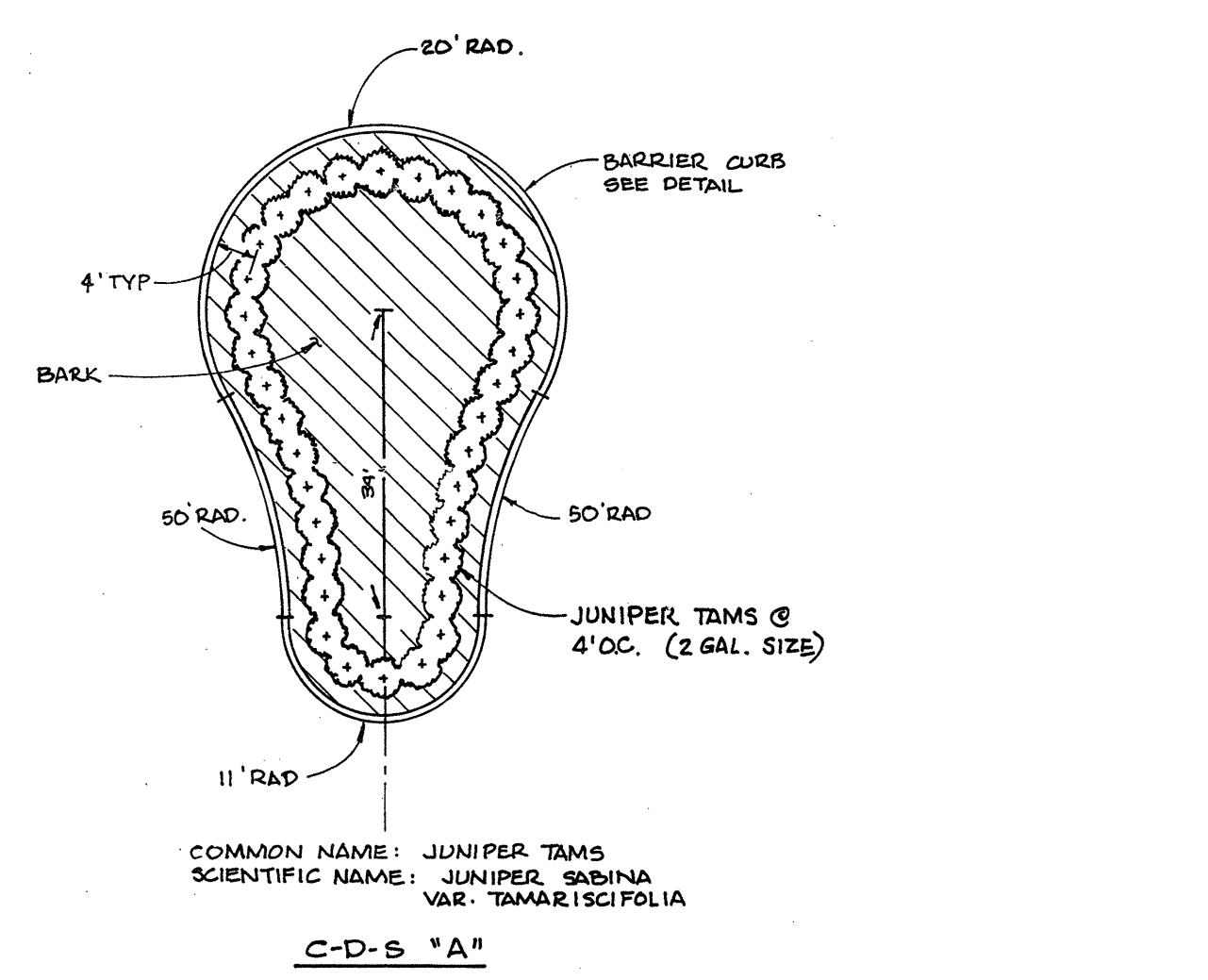
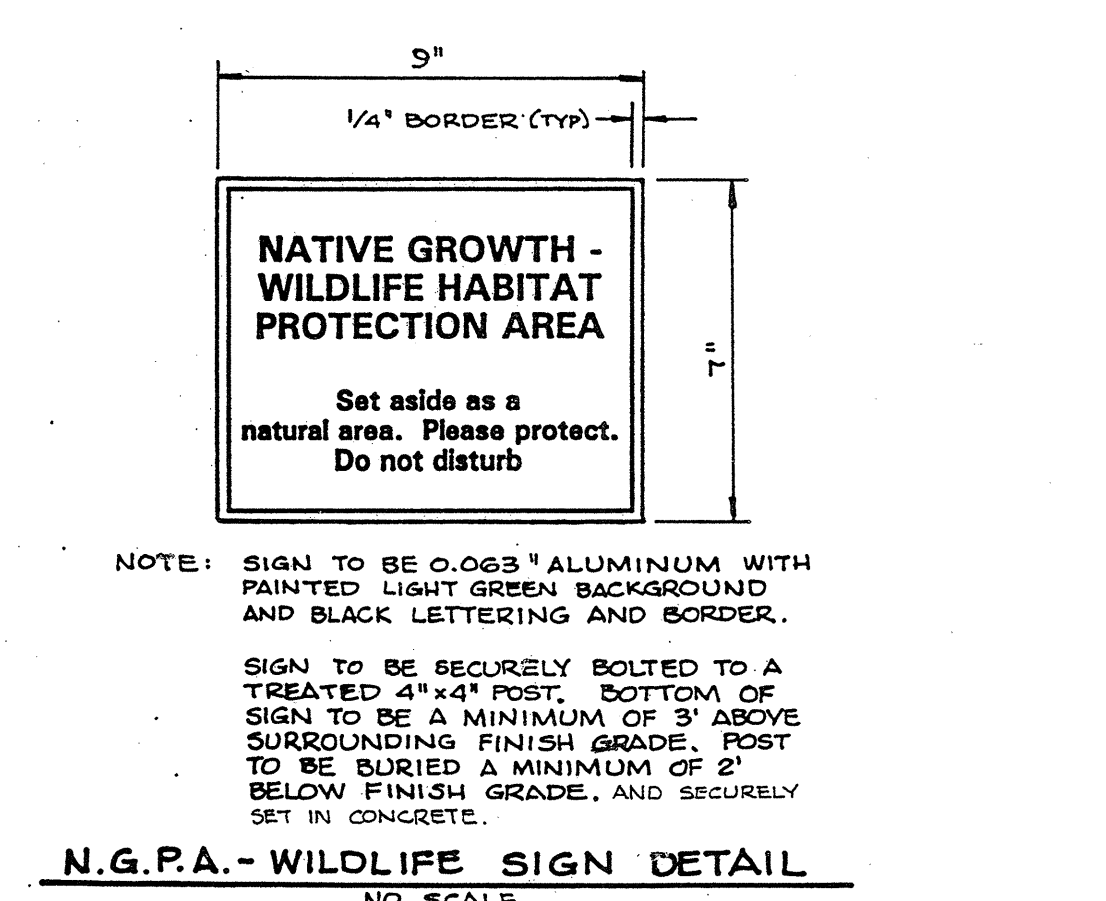
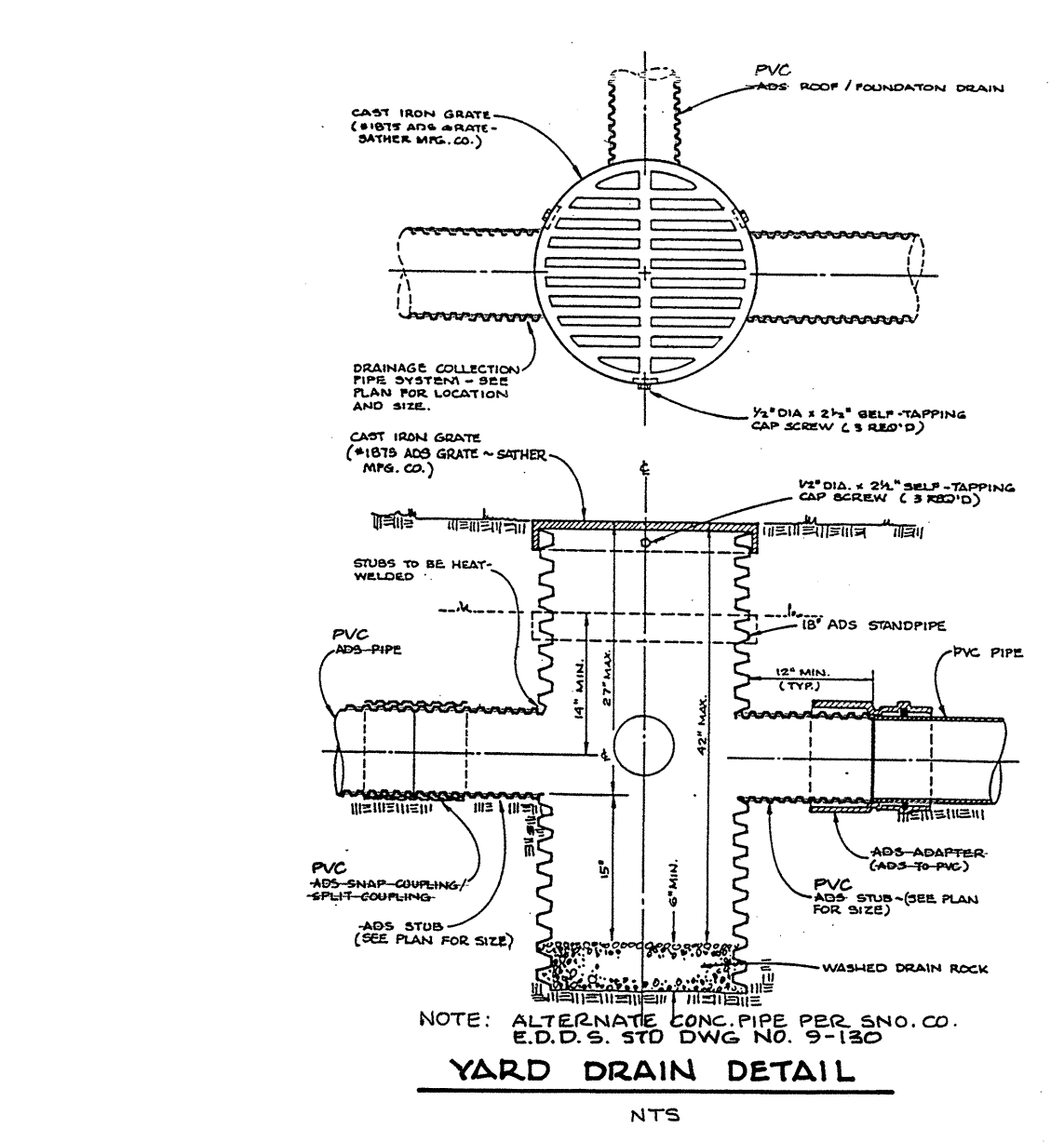
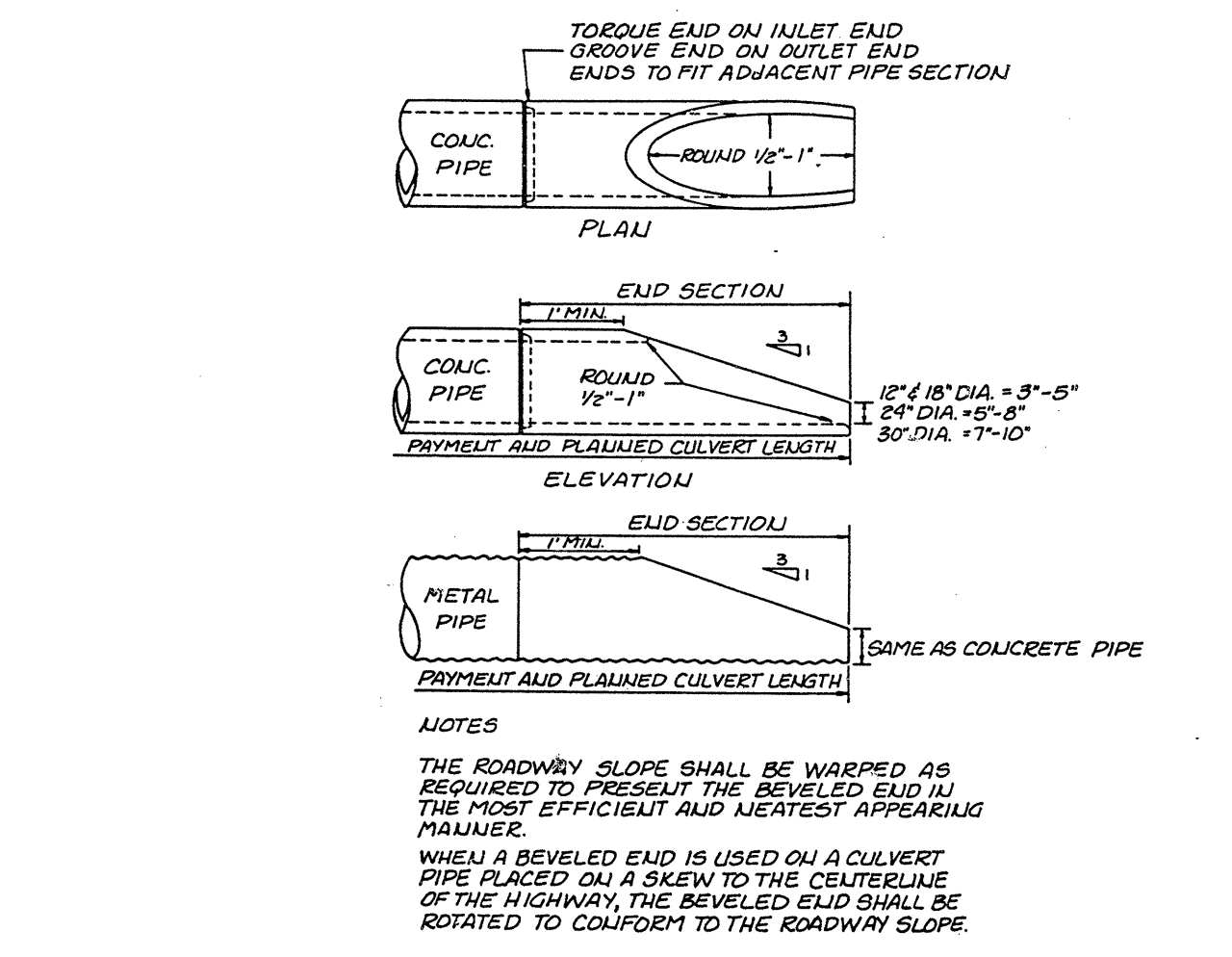
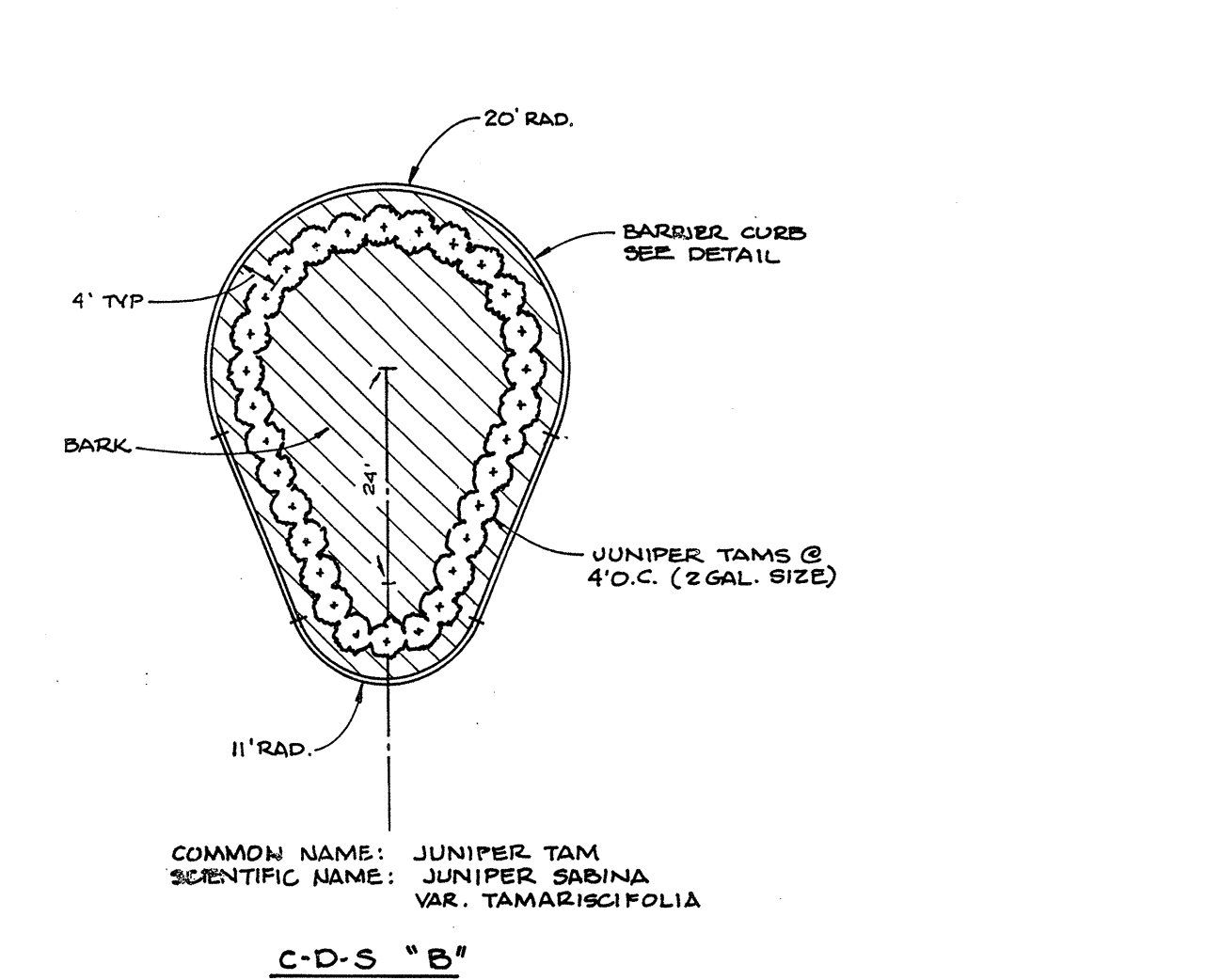
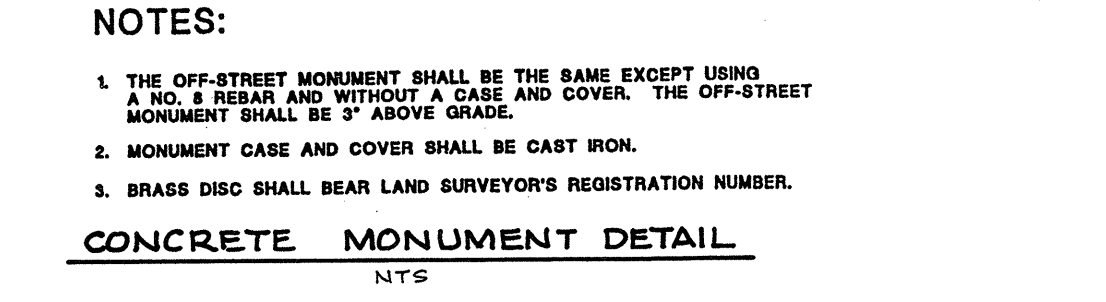
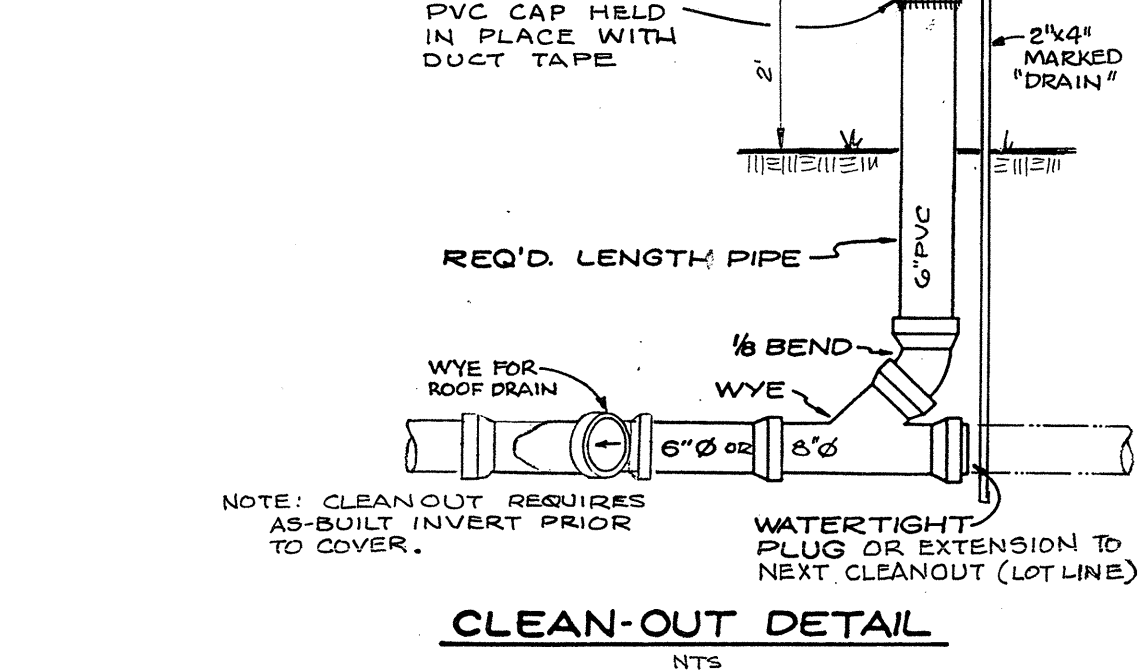
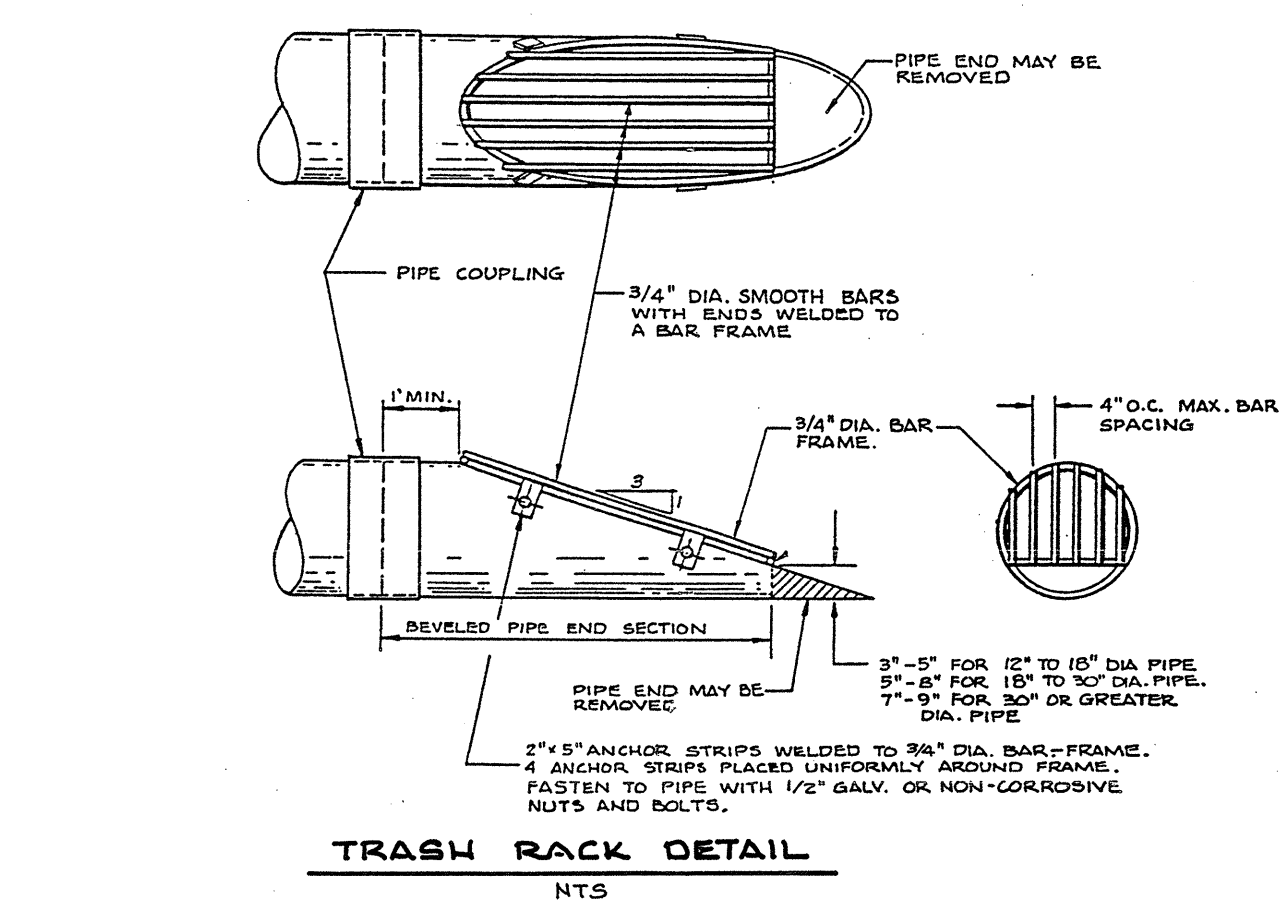
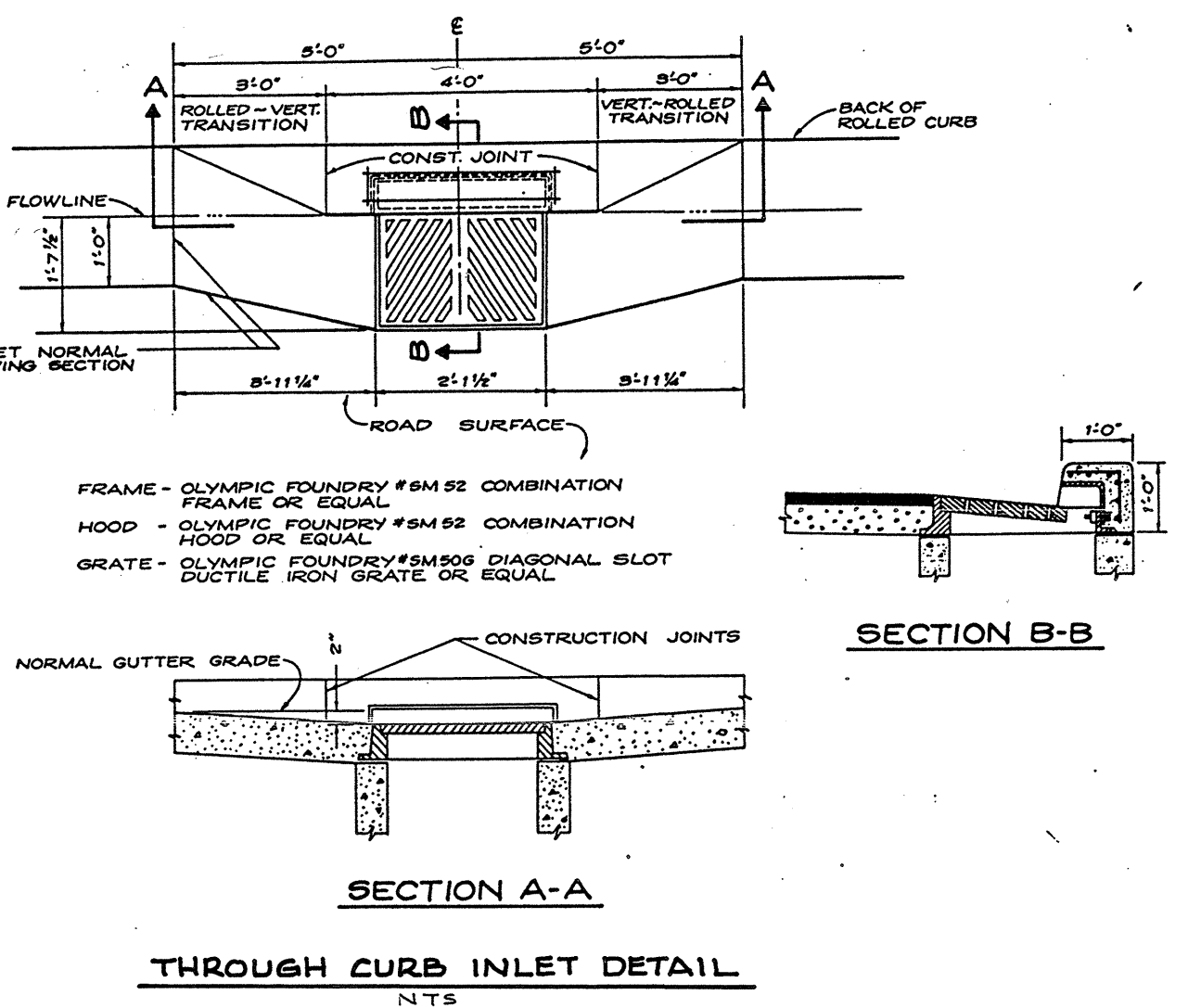
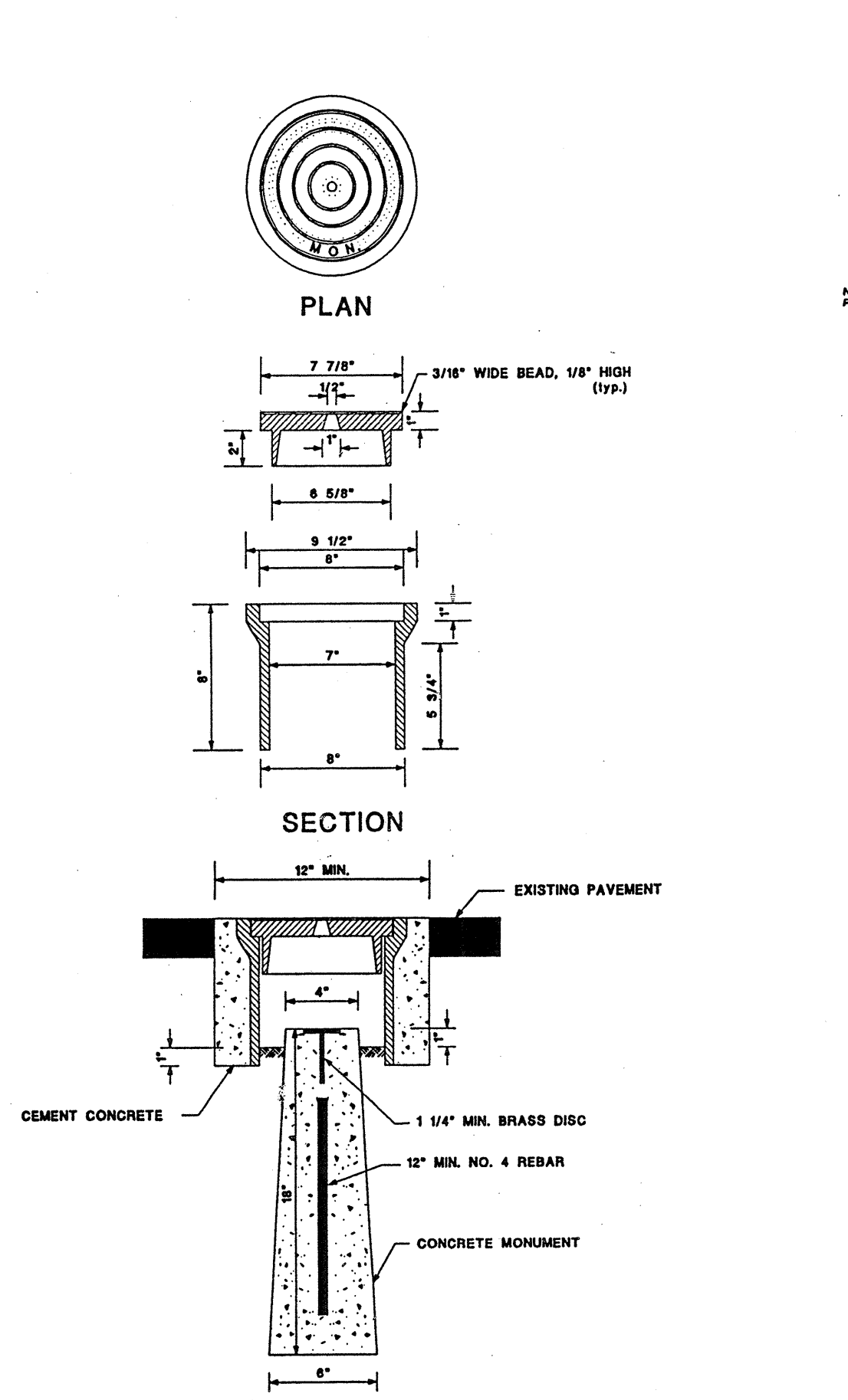


3	PER COUNTY AS-BUILT REVIEW	3 MAY 94	RCN
2	FINAL AS-BUILTS, D.W.I.	6 APRIL 94	RCN
1	ADDED STORM AS-BUILT DATA	19 JAN 94	ALV

**LSA** Lovell-Sauerland & Associates, Inc.  
Engineers/Surveyors/Planners/Development Consultants  
19400 33rd Avenue W., Suite 200 • Lynnwood, WA 98036 • (206) 775-1591 • (206) 340-0830

DRAWN	CHECKED	DATE	FR.	SCALE	FILE NO.
ALV	RSJ	MAY, 1993		AS NOTED	2866

14185



DIVISION 1 CLEANOUT / YARD DRAIN SCHEDULE				DIVISION 2 CLEANOUT / YARD DRAIN SCHEDULE					
LOT NO.	TOP	INV.	REMARKS	LOT NO.	TOP	INV.	REMARKS		
1	416.0	416.8	Y.D.	TOP 416.29 INV. 416.12	1	409.0	407.2	Y.D.	TOP 409.4 INV. 409.25
2	418.1	415.0	Y.D.	TOP 418.41 INV. 416.11	2	413.0	410.0	Y.D.	TOP 412.4 INV. 409.90
3	421.2	419.0	Y.D.	TOP 421.30 INV. 418.98	3	414.4	412.2	Y.D.	TOP 414.2 INV. 411.61
4	428.2	424.0	Y.D.	TOP 422.92 INV. 422.17	4	415.7	413.6	Y.D.	TOP 415.8 INV. 413.48
5	424.5	422.3	Y.D.	TOP 425.92 INV. 422.17	5	416.5	414.3	Y.D.	TOP 416.7 INV. 414.52
6	425.8	424.1	Y.D.	TOP 426.96 INV. 423.59	6	417.7	414.6	C.O.	TOP 419.9 INV. 415.94
7	428.9	424.7	Y.D.	TOP 425.96 INV. 424.58	7	418.4	414.9	C.O.	MIN. CRAWL SPACE ELEV. 418.2
8	428.0	425.8	Y.D.	TOP 427.96 INV. 425.66	8	418.7	416.1	C.O.	MIN. CRAWL SPACE ELEV. 418.4
9	428.6	426.4	Y.D.	TOP 428.48 INV. 427.01	9	419.4	416.8	C.O.	MIN. CRAWL SPACE ELEV. 418.6
10	428.4	426.4	Y.D.	TOP 428.49 INV. 426.96	10	418.5	416.2	Y.D.	TOP 418.6 INV. 416.65
11	427.6	425.4	Y.D.	TOP 427.78 INV. 425.10	11	416.6	414.4	Y.D.	TOP 416.6 INV. 415.90
12	428.5	424.3	Y.D.	TOP 426.42 INV. 423.32	12	416.7	414.5	Y.D.	TOP 416.7 INV. 415.96
13	428.3	423.1	Y.D.	TOP 425.79 INV. 423.11	13	417.1	414.9	Y.D.	TOP 417.1 INV. 416.22
14	428.8	421.9	Y.D.	MIN. CRAWL SPACE ELEV. 422.1	14	417.1	414.9	Y.D.	TOP 417.1 INV. 416.22
15	421.8	419.6	Y.D.	MIN. CRAWL SPACE ELEV. 421.1	15	417.1	414.9	Y.D.	TOP 417.1 INV. 416.22
16	419.0	415.8	C.O.	MIN. CRAWL SPACE ELEV. 416.0	16	417.1	414.9	Y.D.	TOP 417.1 INV. 416.22
17	418.7	414.5	Y.D.	TOP 416.65 INV. 414.12	17	418.4	414.2	Y.D.	TOP 418.4 INV. 414.50
18	419.3	411.1	Y.D.	TOP 419.26 INV. 411.90	18	418.4	414.2	Y.D.	TOP 418.4 INV. 414.50
19	419.0	410.8	Y.D.	TOP 412.85 INV. 412.98	19	418.4	414.2	Y.D.	TOP 418.4 INV. 414.50
20	419.5	410.3	Y.D.	TOP 412.61 INV. 410.85	20	418.4	414.2	Y.D.	TOP 418.4 INV. 414.50
21	412.0	409.8	Y.D.	TOP 412.01 INV. 410.01	21	418.4	414.2	Y.D.	TOP 418.4 INV. 414.50
22	411.6	409.4	Y.D.	TOP 411.85 INV. 409.45	22	418.4	414.2	Y.D.	TOP 418.4 INV. 414.50
23	408.7	406.5	Y.D.	TOP 408.75 INV. 406.31	23	418.4	414.2	Y.D.	TOP 418.4 INV. 414.50
24	404.8	402.6	Y.D.	TOP 404.78 INV. 402.60	24	418.4	414.2	Y.D.	TOP 418.4 INV. 414.50
25	401.2	399.0	Y.D.	TOP 402.20 INV. 399.52	25	418.4	414.2	Y.D.	TOP 418.4 INV. 414.50
26	399.5	397.3	Y.D.	TOP 400.94 INV. 398.02	26	418.4	414.2	Y.D.	TOP 418.4 INV. 414.50
27	398.4	396.2	Y.D.	TOP 400.21 INV. 397.43	27	418.4	414.2	Y.D.	TOP 418.4 INV. 414.50
28	401.5	399.3	Y.D.	TOP 401.77 INV. 399.52	28	418.4	414.2	Y.D.	TOP 418.4 INV. 414.50
29	401.5	399.3	Y.D.	TOP 401.78 INV. 398.83	29	418.4	414.2	Y.D.	TOP 418.4 INV. 414.50
30	398.2	396.1	Y.D.	TOP 399.92 INV. 396.86	30	418.4	414.2	Y.D.	TOP 418.4 INV. 414.50
31	398.1	395.9	Y.D.	TOP 399.64 INV. 396.85	31	418.4	414.2	Y.D.	TOP 418.4 INV. 414.50
32	398.0	396.1	Y.D.	TOP 399.19 INV. 397.03	32	418.4	414.2	Y.D.	TOP 418.4 INV. 414.50
33	405.4	403.2	Y.D.	TOP 405.82 INV. 402.67	33	418.4	414.2	Y.D.	TOP 418.4 INV. 414.50
34	404.4	402.2	Y.D.	TOP 404.87 INV. 401.47	34	418.4	414.2	Y.D.	TOP 418.4 INV. 414.50
35	403.9	400.0	Y.D.	TOP 404.16 INV. 401.59	35	418.4	414.2	Y.D.	TOP 418.4 INV. 414.50
36	403.6	401.6	Y.D.	TOP 403.95 INV. 401.00	36	418.4	414.2	Y.D.	TOP 418.4 INV. 414.50
37	403.4	401.2	Y.D.	TOP 403.59 INV. 400.66	37	418.4	414.2	Y.D.	TOP 418.4 INV. 414.50
38	403.6	401.6	Y.D.	TOP 404.07 INV. 401.65	38	418.4	414.2	Y.D.	TOP 418.4 INV. 414.50
39	406.1	403.8	Y.D.	TOP 406.05 INV. 403.93	39	418.4	414.2	Y.D.	TOP 418.4 INV. 414.50
40	407.6	405.4	Y.D.	TOP 407.90 INV. 405.10	40	418.4	414.2	Y.D.	TOP 418.4 INV. 414.50
41	408.1	405.9	Y.D.	TOP 407.71 INV. 404.44	41	418.4	414.2	Y.D.	TOP 418.4 INV. 414.50
42	408.9	406.1	Y.D.	TOP 406.62 INV. 404.98	42	418.4	414.2	Y.D.	TOP 418.4 INV. 414.50
43	397.9	395.6	Y.D.	MIN. CRAWL SPACE ELEV. 395.5	43	418.4	414.2	Y.D.	TOP 418.4 INV. 414.50
44	397.1	395.6	Y.D.	MIN. CRAWL SPACE ELEV. 395.1	44	418.4	414.2	Y.D.	TOP 418.4 INV. 414.50
45	398.6	396.4	Y.D.	MIN. CRAWL SPACE ELEV. 396.9	45	418.4	414.2	Y.D.	TOP 418.4 INV. 414.50
46	398.7	396.5	Y.D.	MIN. CRAWL SPACE ELEV. 397.0	46	418.4	414.2	Y.D.	TOP 418.4 INV. 414.50
47	399.1	396.8	Y.D.	MIN. CRAWL SPACE ELEV. 397.3	47	418.4	414.2	Y.D.	TOP 418.4 INV. 414.50
48	399.0	396.8	Y.D.	TOP 399.63 INV. 397.26	48	418.4	414.2	Y.D.	TOP 418.4 INV. 414.50
49	400.5	398.3	Y.D.	TOP 399.73 INV. 398.34	49	418.4	414.2	Y.D.	TOP 418.4 INV. 414.50
50					50	418.4	414.2	Y.D.	TOP 418.4 INV. 414.50
51	411.0	408.8			51	418.4	414.2	Y.D.	TOP 418.4 INV. 414.50
52	411.4	408.2	Y.D.	TOP 411.31 INV. 408.41	52	418.4	414.2	Y.D.	TOP 418.4 INV. 414.50
53	412.0	408.8	Y.D.	TOP 412.18 INV. 410.00	53	418.4	414.2	Y.D.	TOP 418.4 INV. 414.50
54	412.0	410.1	Y.D.		54	418.4	414.2	Y.D.	TOP 418.4 INV. 414.50
55	411.5	410.3	Y.D.	TOP 411.54 INV. 411.24	55	418.4	414.2	Y.D.	TOP 418.4 INV. 414.50
56	412.0	410.1	Y.D.	TOP 412.75 INV. 410.40					
57	411.0	409.8	Y.D.	TOP 412.00 INV. 409.60					
58	409.0	408.8	Y.D.	TOP 410.05 INV. 407.67					
59	408.5	404.3	Y.D.	TOP 406.70 INV. 404.32					
60	408.0	403.8	Y.D.	TOP 406.17 INV. 403.77					
61									
62									
63									
64	410.7	408.4	C.O.	MIN. CRAWL SPACE ELEV. 408.9					
65	410.9	408.5	C.O.	TOP 412.05 INV. 406.37					
66	412.9	408.1	C.O.	MIN. CRAWL SPACE ELEV. 409.8					
67	412.9	408.8	C.O.	MIN. CRAWL SPACE ELEV. 408.8					
68	412.7	410.4	C.O.	MIN. CRAWL SPACE ELEV. 409.1					
69	412.7	408.6	C.O.	MIN. CRAWL SPACE ELEV. 409.1					
70	412.0	411.4	Y.D.	TOP 413.05 INV. 410.57					
71	414.0	412.4	Y.D.	TOP 414.25 INV. 411.68					

**YARD DRAIN - CLEANOUT DATA TABLES**

**ROAD AND STORM DRAINAGE DETAILS FOR RHOD-A-ZALEA GARDENS**

IN S.E. 1/4 OF SECTION 32, T. 28 N., R. 5 E., W.M. SNOHOMISH COUNTY, WASHINGTON

ZA 8802041 **HDEV-715**

6	PER COUNTY AS-BUILT COMMENTS	28 FEB 95	RCN
5	FINAL AS-BUILTS - DIV 2	11 JAN 95	RCN
4	PER COUNTY AS-BUILT REVIEW, DIV 1	3 MAY 94	RCN
3	FINAL AS-BUILTS, DIV. 1	2 APRIL 94	RCN
2	REVISED DIV. 1 YARD DRAINS # 34 TO #42 PER ROAD ALIGN. CHANGE	25 AUG 93	ALV
1	REVISED PER. SNO. CD. REVIEW	4 AUG 93	ALV

**LSA Lovell-Sauerland & Associates, Inc.**  
Engineers/Surveyors/Planners/Development Consultants  
19400 33rd Avenue W., Suite 200 • Lynnwood, WA 98036 • (206) 775-1591 • (206) 340-0830

DRAWN: ALV CHECKED: RSJ DATE: MAR, 1993 FILE NO: 2866

**HIGHLAND TRAILS** SHEET 15 OF 30

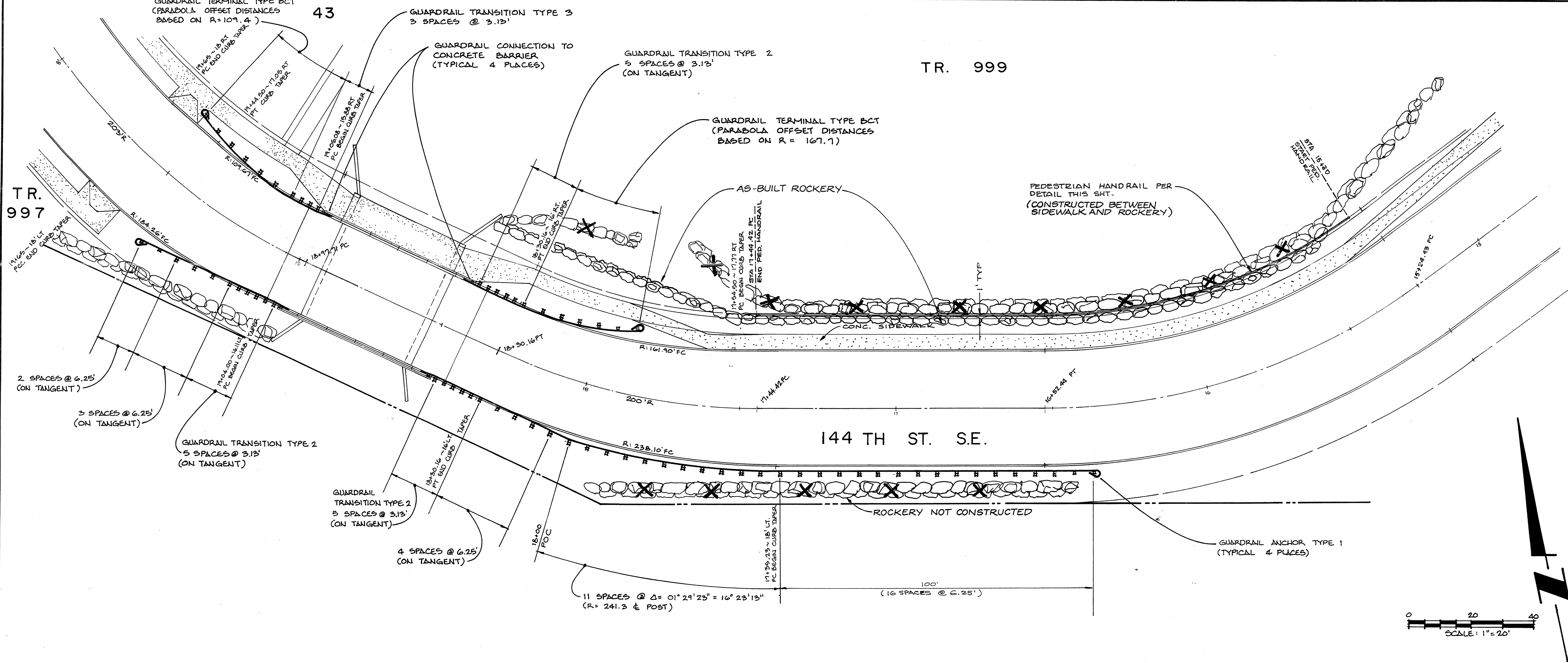
SNHOMISH COUNTY COMMUNITY DEVELOPMENT DIVISION APPROVED FOR CONSTRUCTION

DATE: 10/14/93

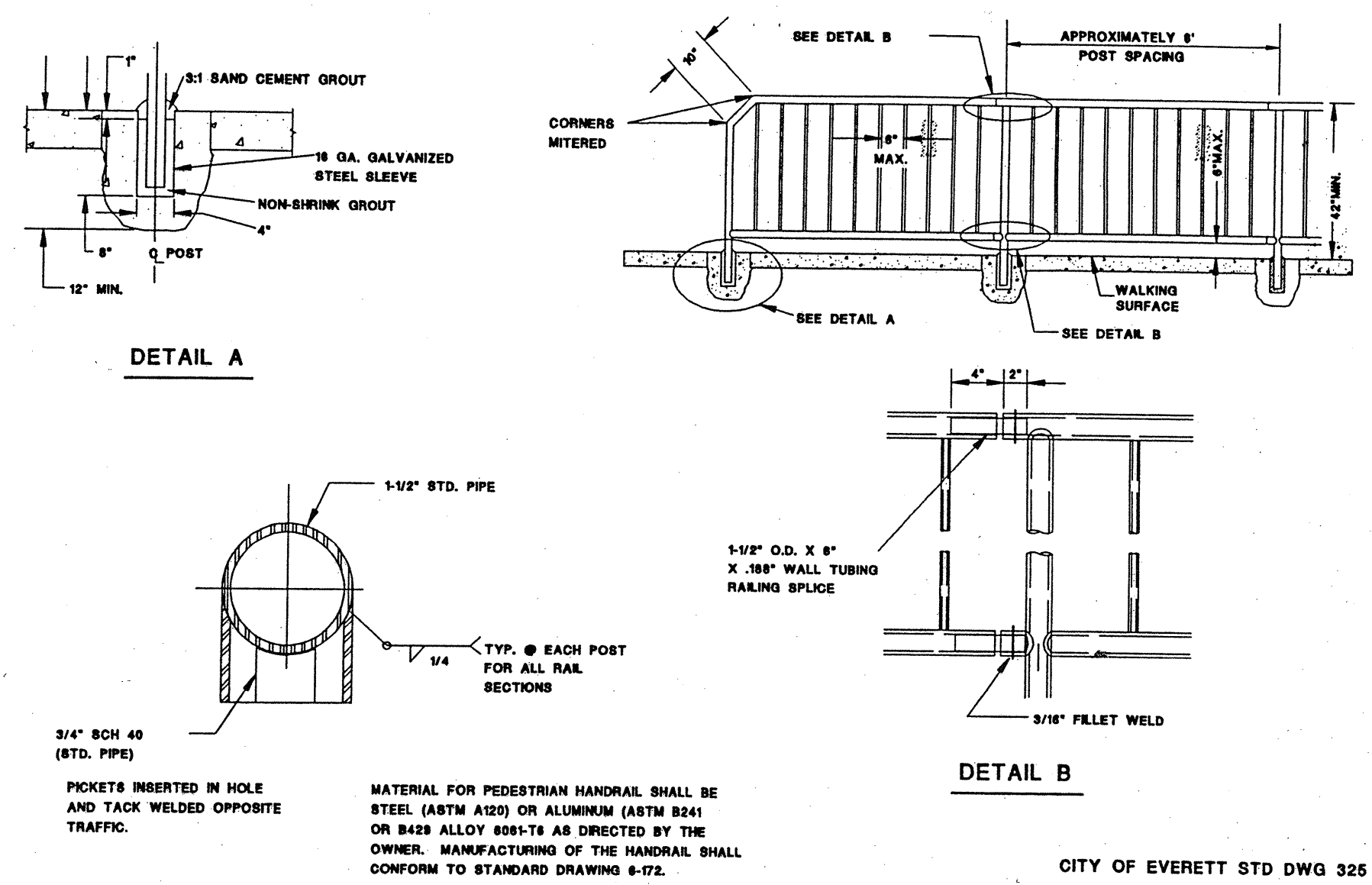
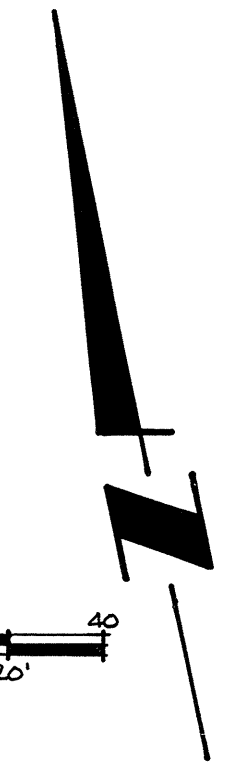
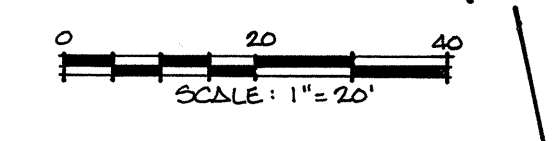
FOR RANDOLPH SLEIGHT, P.E.

EXP. 1205 10/14/93

EXP. 8/25/93 R.V.



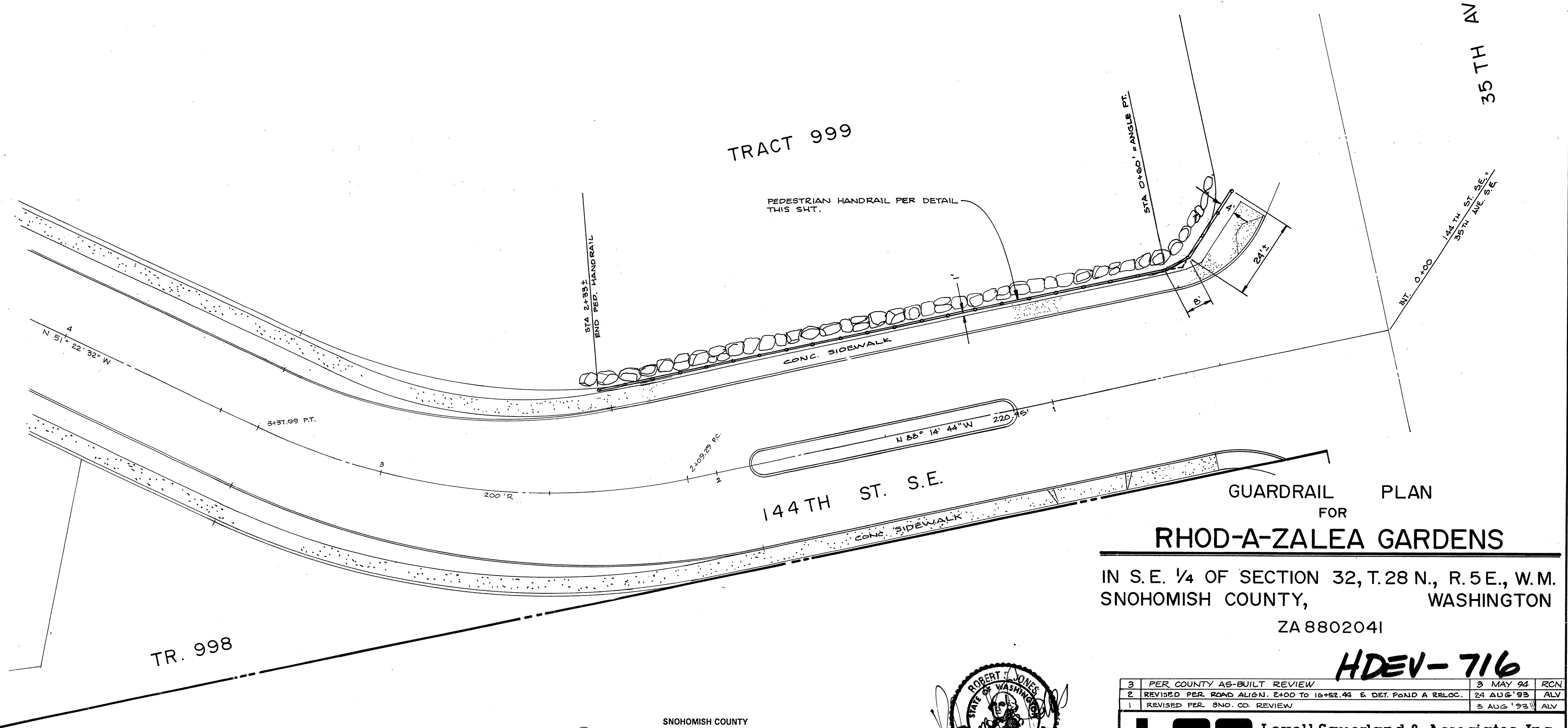
- GUARDRAIL NOTES**
- SEE GUARDRAIL DETAILS SHEETS 16 AND 17 FOR GUARDRAIL DETAILS.
  - SEE WSDOT/APWA STANDARD PLANS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION LATEST EDITION FOR ADDITIONAL GUARDRAIL DETAILS NOT SHOWN HEREON.
  - SEE PENNY CREEK BRIDGE PLANS SHEETS 1 AND 2 FOR CONCRETE BARRIER, CONCRETE APPROACH AND BRIDGE CONSTRUCTION DETAILS AND PLANS. COORDINATE CONNECTION OF GUARDRAIL WITH SAID PLANS.
  - SEE REMAINDER OF ROAD AND STORM DRAINAGE PLANS FOR INFORMATION NOT SHOWN HEREON.



**PEDESTRIAN RAIL (GALV. STEEL)**  
 GALVANIZED PEDESTRIAN RAIL SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH THESE SPECIAL PROVISIONS AND STANDARD DRAWING 8-172.  
 GALVANIZED STEEL PEDESTRIAN RAIL SHALL CONFORM TO ASTM DESIGNATION A106. ALL WELDS SHALL CONFORM TO AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE AWS D1.7. AFTER FABRICATION EACH SECTION OF RAILING SHALL BE HOT-DIPPED GALVANIZED WITH A MINIMUM ZINC COATING OF 2 OUNCES PER SQUARE FOOT. ALL BURRS AND SHARP EDGES SHALL BE REMOVED PRIOR TO GALVANIZING.  
 FIELD WELDS SHALL BE GALVANIZED WITH "GALVALLOY" OR APPROVED EQUAL PAINTING OF WELDS WILL NOT BE PERMITTED.  
 HORIZONTAL RAILS AND VERTICAL SUPPORT POSTS SHALL BE 2 INCH DIAMETER AND BALUSTERS SHALL BE 1 INCH DIAMETER STANDARD WEIGHT GALVANIZED STEEL PIPE. RAILS, POSTS & BALUSTERS SHALL BE MACHINE CUT TO PROVIDE A UNIFORM LENGTH PRIOR TO ASSEMBLY.  
 RAILING SHALL BE ERECTED AND ADJUSTED, IF NECESSARY, TO ASSURE A CONTINUOUS LINE AND GRADE. FINISHED HEIGHT IS TO BE 42 INCHES ABOVE PEDESTRIAN SURFACE. EXPANSION JOINTS SHALL BE PROVIDED AT INTERVALS SHOWN ON THE STANDARD DRAWING.

**PEDESTRIAN RAIL (ALUMINUM)**  
 ALUMINUM PEDESTRIAN RAIL SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH THESE SPECIAL PROVISIONS AND STANDARD DRAWING 8-172.  
 ALUMINUM PEDESTRIAN RAIL SHALL BE NATURAL ALUMINUM COLOR.  
 IF ANODIZATION IS SPECIFIED, ALL ALUMINUM PARTS SHALL BE GIVEN A CLEAR ANODIC COATING AT LEAST 0.0008 INCH THICK AND SHALL BE SEALED TO MEET THE REQUIREMENTS OF ASTM B 138 AND SHALL HAVE A UNIFORM FINISH.  
 WELDS OF ALUMINUM SHALL BE IN ACCORDANCE WITH THE "STRUCTURAL WELDING CODE-ALUMINUM, AWS D 17".  
 ALL MATERIALS USED IN THE FABRICATION OF ALUMINUM PEDESTRIAN RAIL SHALL MEET THE REQUIREMENTS OF ASTM B241 OR B429 ALLOY 6061-T6 SCHEDULE 40 (STD. PIPE).  
 HORIZONTAL RAILS AND VERTICAL SUPPORT POSTS SHALL BE 1 1/2" O.D. AND BALUSTERS SHALL BE 1 1/2" O.D. STANDARD WEIGHT ALUMINUM PIPE. RAILS, POSTS & BALUSTERS SHALL BE MACHINE CUT TO PROVIDE A UNIFORM LENGTH PRIOR TO ASSEMBLY.

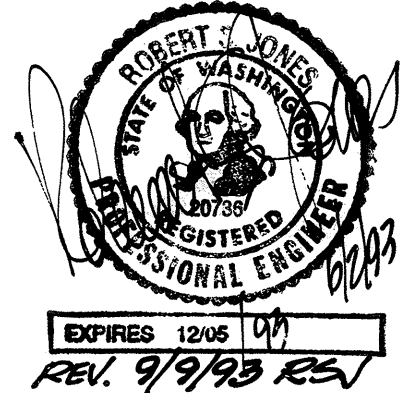
**PEDESTRIAN HANDRAIL DETAIL**  
 NO SCALE



**GUARDRAIL PLAN**  
 FOR  
**RHOD-A-ZALEA GARDENS**  
 IN S.E. 1/4 OF SECTION 32, T.28 N., R.5 E., W.M.  
 SNOHOMISH COUNTY, WASHINGTON  
 ZA 8802041

**HDEV-716**

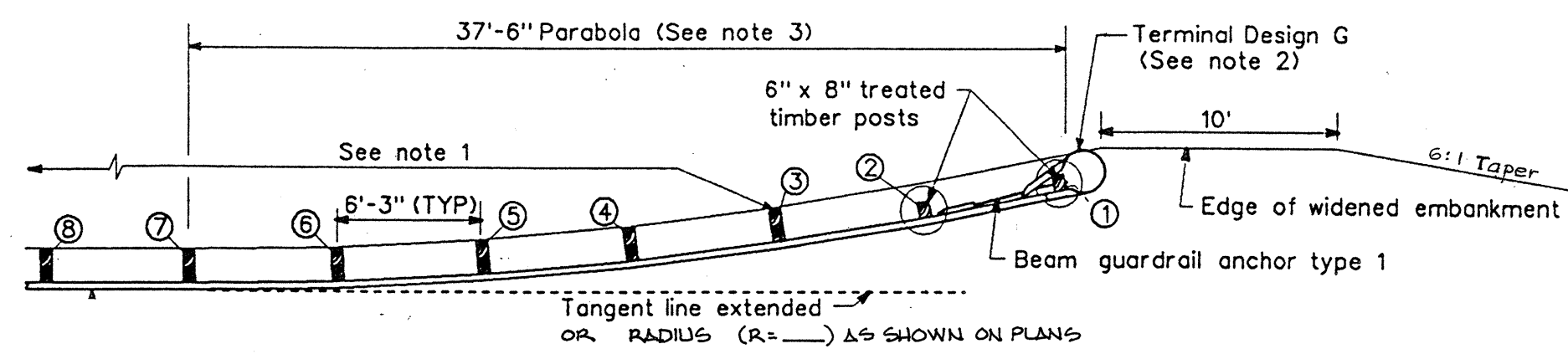
SNOHOMISH COUNTY  
 COMMUNITY DEVELOPMENT DIVISION  
 APPROVED FOR CONSTRUCTION  
 BY *Robert J. Young* DATE 10/14/93  
 FOR RANDOLPH R. SLEIGHT, P.E., P.L.  
 RAW PERMIT NO. RW 1256



3	PER COUNTY AS-BUILT REVIEW	3	MAY 94	RCN
2	REVISED PER ROAD ALIGN. 2400 TO 16+82.43 & DET. POND A RELOC.	24	AUG 93	ALV
1	REVISED PER SNO. CO. REVIEW	5	AUG 93	ALV

**LSA** Lovell-Sauerland & Associates, Inc.  
 Engineers/Surveyors/Planners/Development Consultants  
 19400 33rd Avenue W. Suite 200 • Lynnwood, WA 98036 • (206) 775-1591 • (206) 340-0830

DRAWN	CHECKED	DATE	P.B.	SCALE	FILE NO.
GB	R.S.J.	25 MAY 93	399	1"=20'	2866

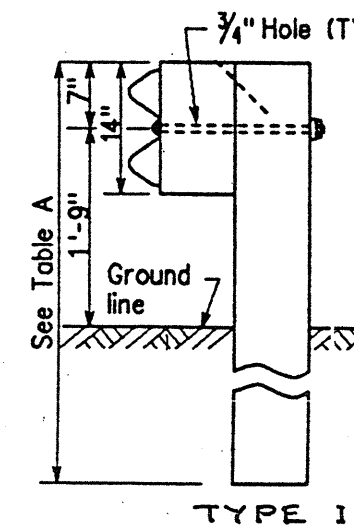


NOTES

- 6" x 8" or 8" x 8" treated timber posts and blocks. For steel posts and block alternates see applicable Standard Plans.
- For terminal section detail see TERMINAL DESIGN G.
- Parabola offset distances:

POST NO.	(7)	(6)	(5)	(4)	(3)	(2)	(1)
OFFSET DISTANCE	0.00'	0.11'	0.44'	1.00'	1.78'	2.78'	4.00'

GUARDRAIL TERMINAL TYPE BCT



TYPE 1  
 1 1/4" x 18" button head bolt with 1/2" oval grip, and recessed hex nut.  
 TYPE I (SPECIAL)  
 5/8" x 10 1/2" BUTTON HEAD BOLT WITH 1/2" OVAL GRIP, AND RECESSED HEX NUT.  
 See notes 3 & 4.  
 NOTE: BLOCK DELIMITED TYPE I (SPECIAL)  
 3/4" x 1 1/4" button head splice bolt with 1/2" oval grip and recessed hex nut. (8 required per splice). Screw slot or milled wrench shoulders in bolt head optional.

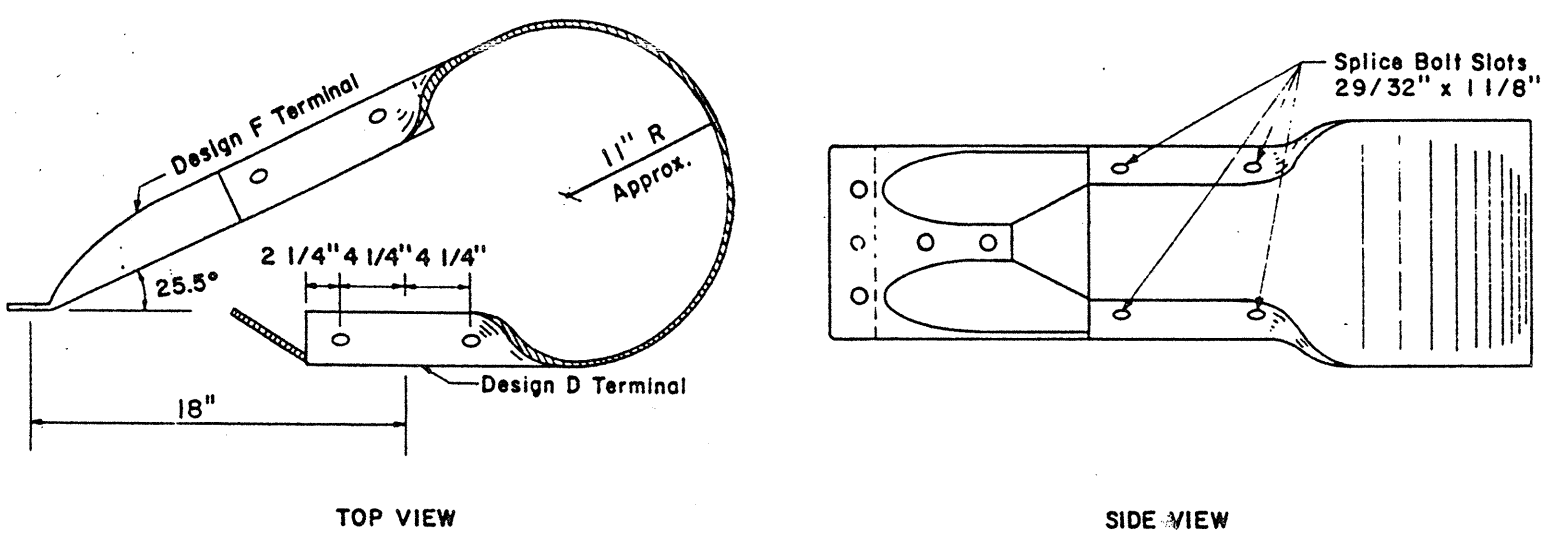
WOOD POST ASSEMBLY DETAILS

TABLE A

GUARDRAIL TYPE	STEEL POSTS	
	WOOD POSTS AUGER & BACKFILL	DRIVEN
1	6'	7'

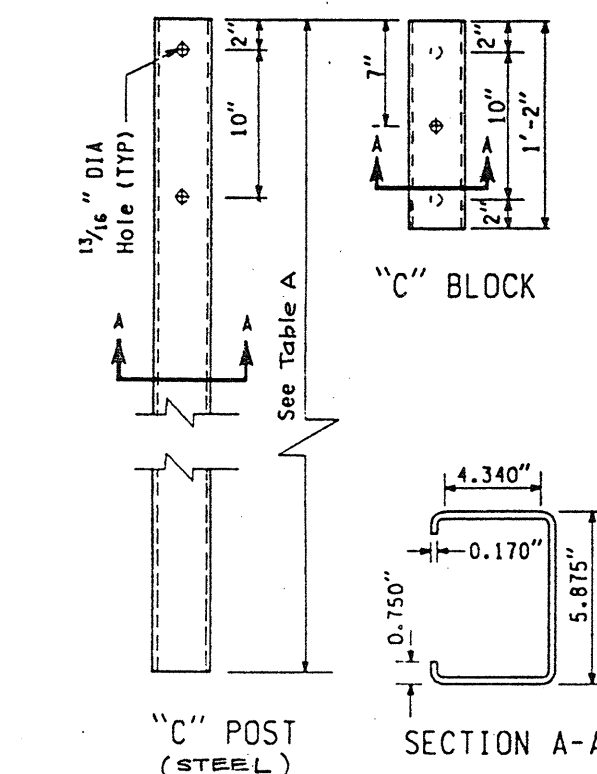
NOTES:

- Guardrail post spacing for all types shall be 6'-3" on centers.
- A tolerance of 3 percent on any dimension of the rail element will be allowed.
- Timber block shall be toe nailed to post with a 16d galvanized nail to restrict block rotation.
- Post and blocks may be 6" x 8" or 8" x 8" treated timber or W6 x 9 or "C" shape 5.875" x 4.340" galvanized steel unless otherwise noted. For steel posts details see Standard Plan "Steel Post and Block For Beam Guardrail". Treated timber posts and blocks may be S4S or rough sawn.
- Orient "C" Posts with closed face toward approaching traffic.
- Rail mounts to block with bolt on approaching traffic side of block and post web.
- Block mounts to post with 2 bolts (staggered). For lower bolt use hole on approaching traffic side of block and post web. W6 x 15 block is mounted to post with 4 bolts.
- When Beam Guardrail Type 1, Foot Long Post, is specified in the contract, the steel post length shall be marked with numbers to ensure permanent identification of the location where the letter "H" is shown on the detail. The marking will be 1 1/2" MIN height.

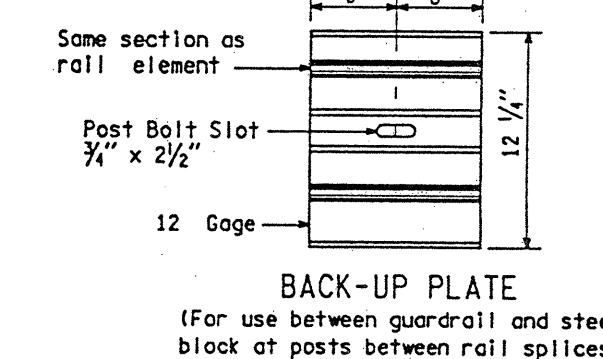


TERMINAL DESIGN G

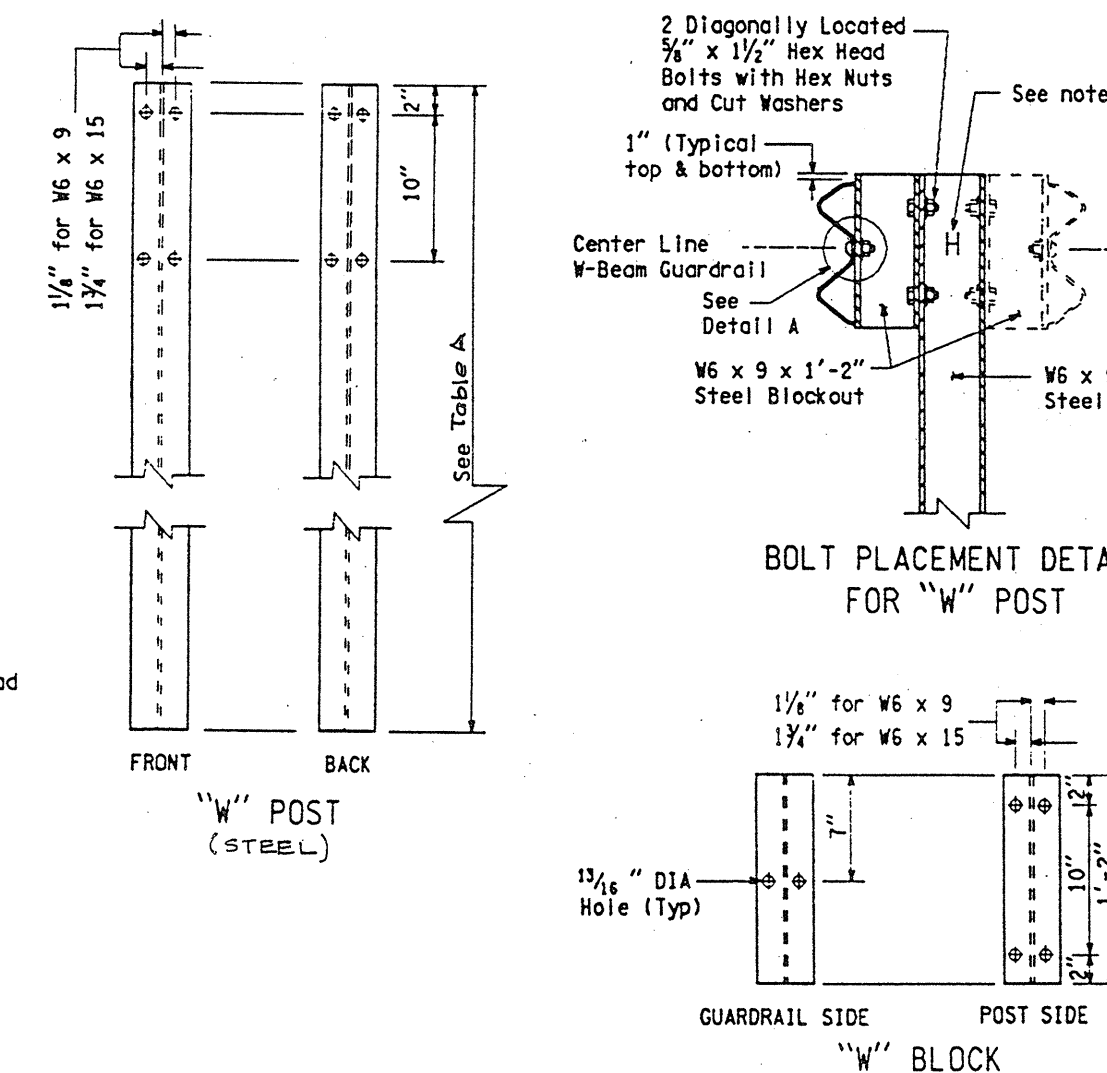
- NOTES:
- Terminal Section Design G shall be used for all Type 1, 2 and 3 Beam Guardrail unless shown otherwise on the plans.
  - Bolts shall be 7/8" @ AASHTO M 164 chemically bonded anchors. Anchor installation shall be per manufacturer's recommendations, in dry conditions.
  - A single plate having similar dimensional shape to Design G and mating with the W-beam guardrail is an alternate.



"C" POST (STEEL)

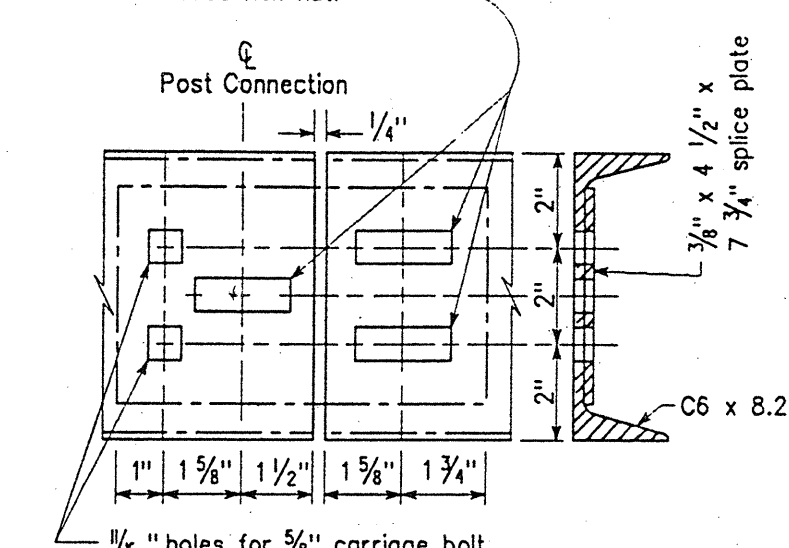


BACK-UP PLATE  
 (For use between guardrail and steel block of posts between rail splices)

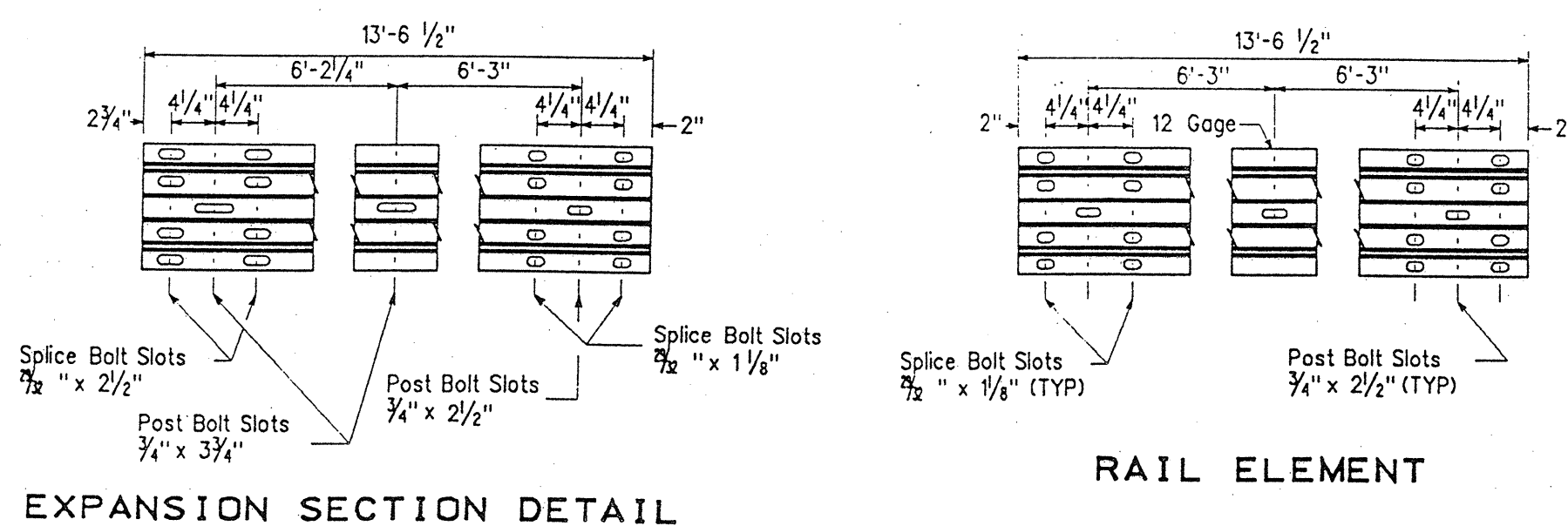


BOLT PLACEMENT DETAIL FOR "W" POST

1/4" x 2" slot in channel and splice plate for 3/4" carriage bolt with hex nut and washer. Center line post connection shall have 1/4" x 2" slot in channel and splice plate for 3/4" button head bolt with 1/2" oval grip and recessed hex nut.

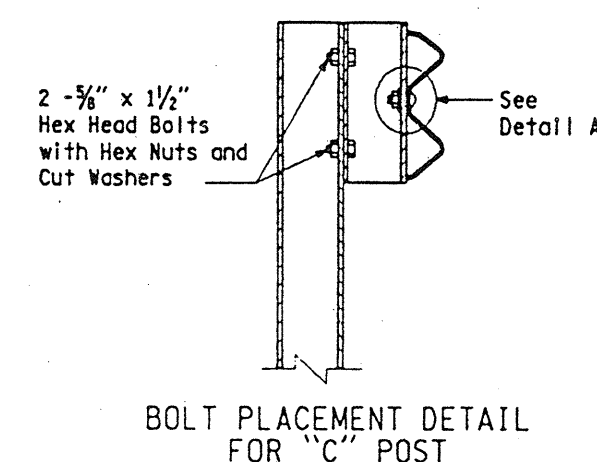


CHANNEL RAIL SPLICE



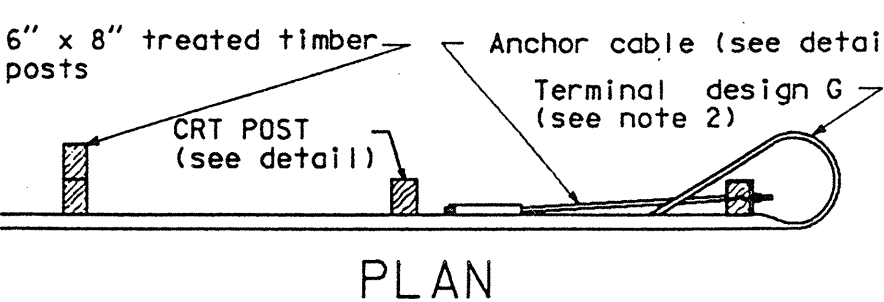
EXPANSION SECTION DETAIL

RAIL ELEMENT



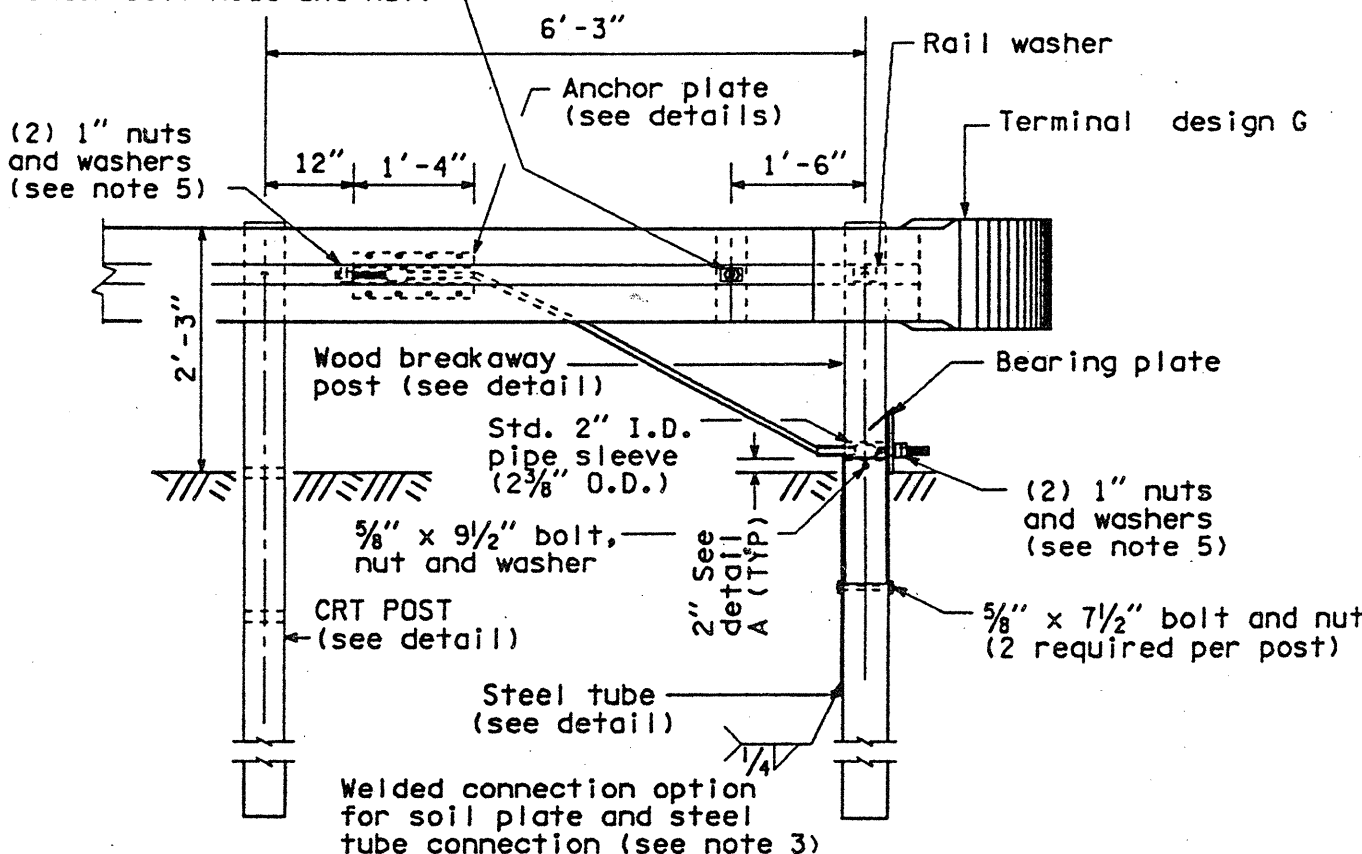
BOLT PLACEMENT DETAIL FOR "C" POST

GUARDRAIL TYPE 1

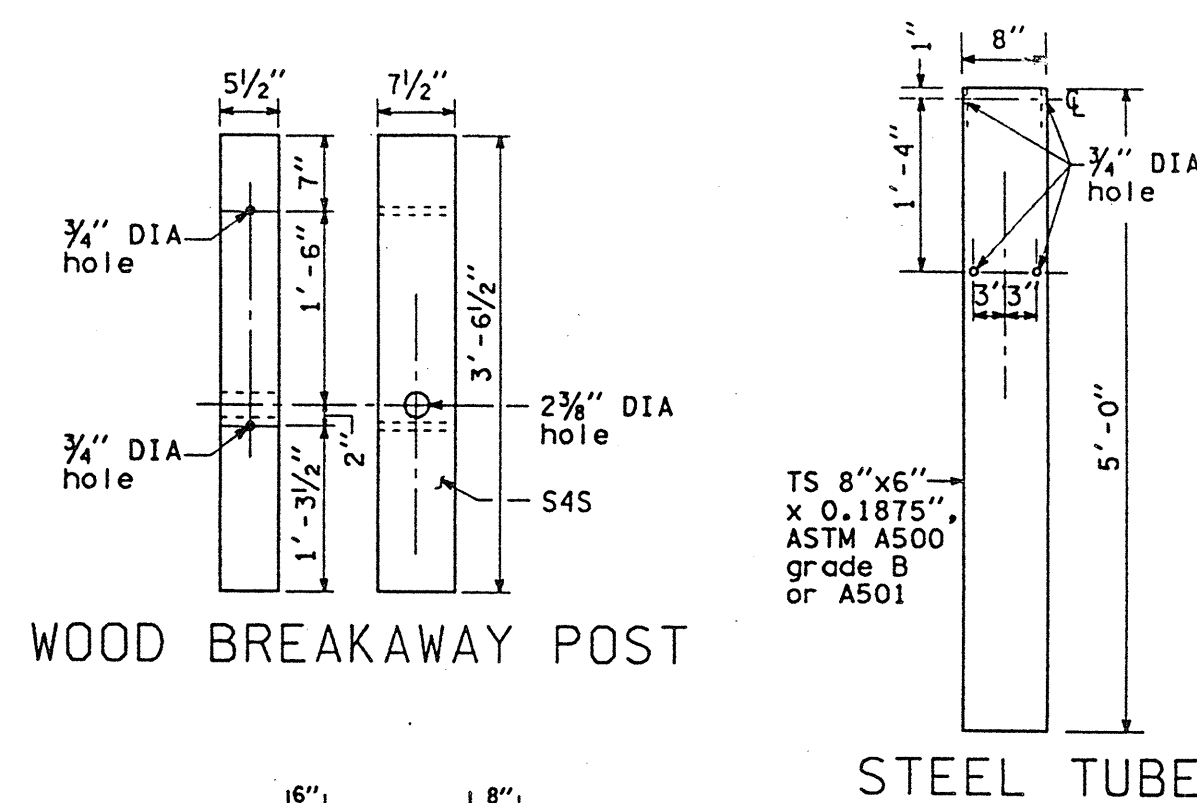


PLAN

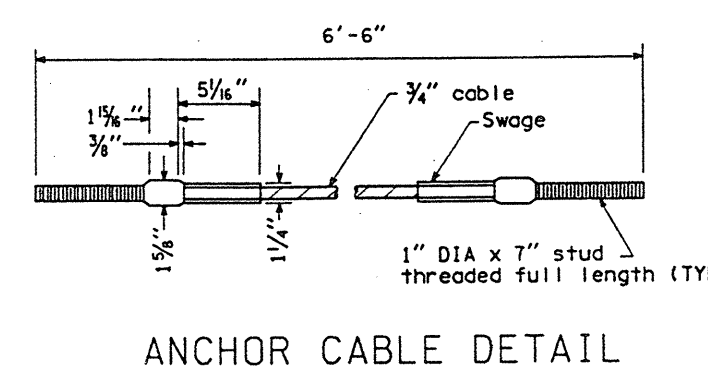
3/4" x 1 1/2" hex head bolt and hex nut with rail washer under bolt head and nut.



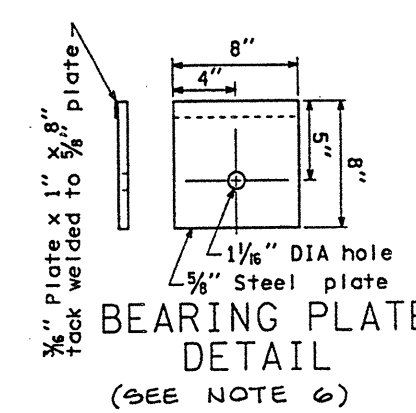
CONTROLLED RELEASING TERMINAL (CRT) POST



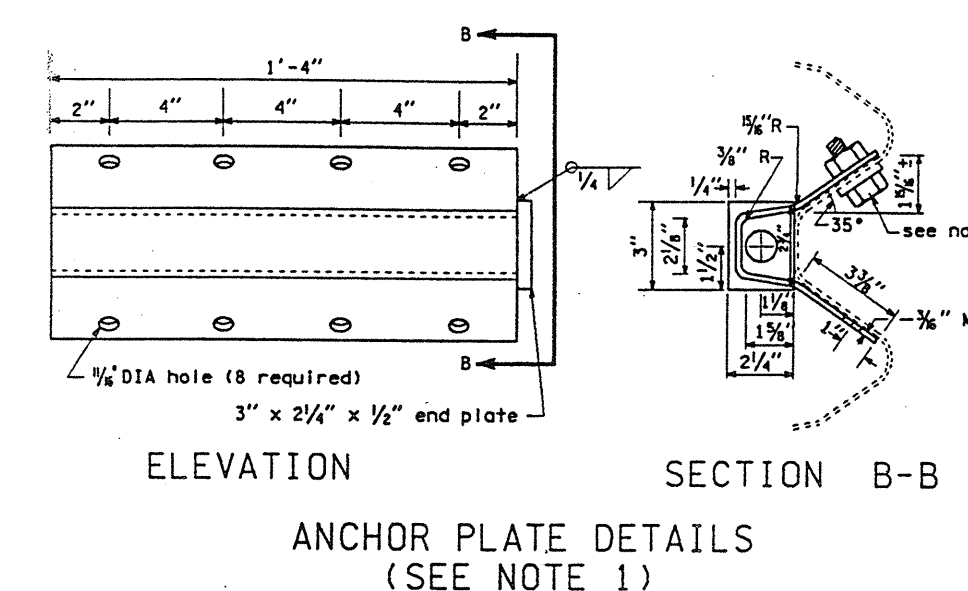
STEEL TUBE



ANCHOR CABLE DETAIL



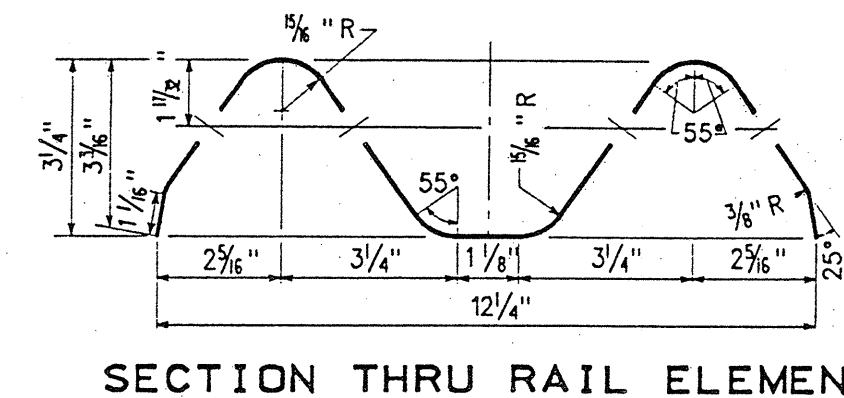
BEARING PLATE DETAIL (SEE NOTE 6)



ANCHOR PLATE DETAILS (SEE NOTE 1)

NOTES

- Anchor plate may be constructed from 1/4" plates welded to equal strength and dimensions as shown on plans.
- For terminal section detail see TERMINAL DESIGN G.
- When welded option is selected, Soil plate connection holes are not required.
- Eight 3/4" x 1 1/2" machine bolts with hex nut and washer. Place washer on face side of rail.
- Outside nut shall be torqued against inside nut a minimum of 100 FT-lbs.
- Toenail bearing plate with 10d nail at corners to prevent turning.

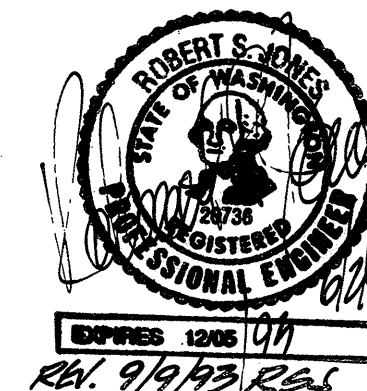


SECTION THRU RAIL ELEMENT

SNOHOMISH COUNTY COMMUNITY DEVELOPMENT DIVISION  
 APPROVED FOR CONSTRUCTION  
 BY: *Randolph R. Slight* DATE: 10/14/93  
 FOR RANDOLPH R. SLIGHT, P.E., S.  
 R/W PERMIT NO. RW1256

GUARDRAIL DETAILS FOR RHOD-A-ZALEA GARDENS

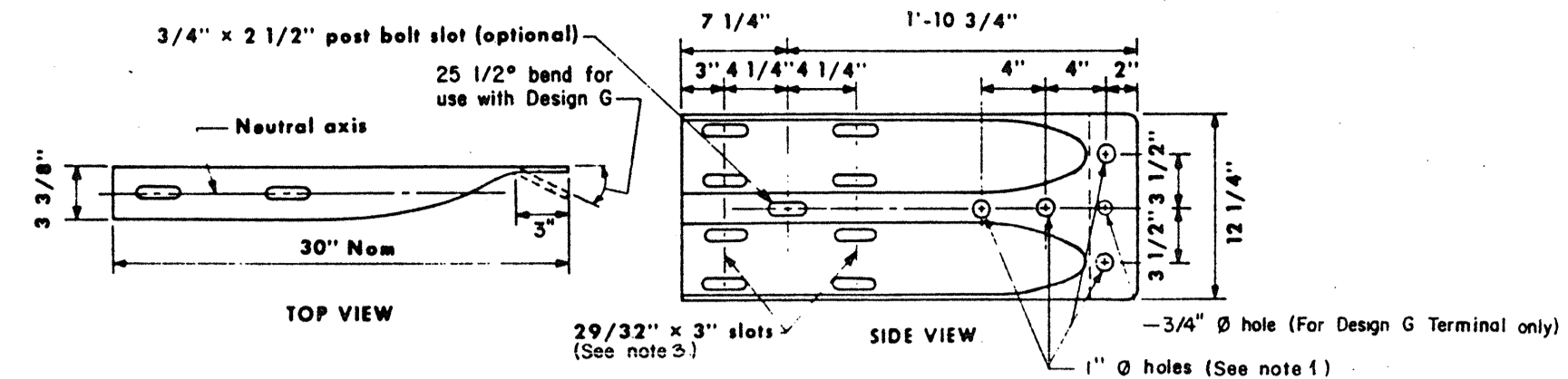
IN S.E. 1/4 OF SECTION 32, T. 28 N., R. 5 E., W.M. SNOHOMISH COUNTY, WASHINGTON  
 ZA 8802041



REVISED PER SNO.CD. REVIEW 2 AUG 93

DRAWN	CHECKED	DATE	FR	SCALE	FILE NO.
GB	R.S.J.	28 MAY 93	399	NONE	2866

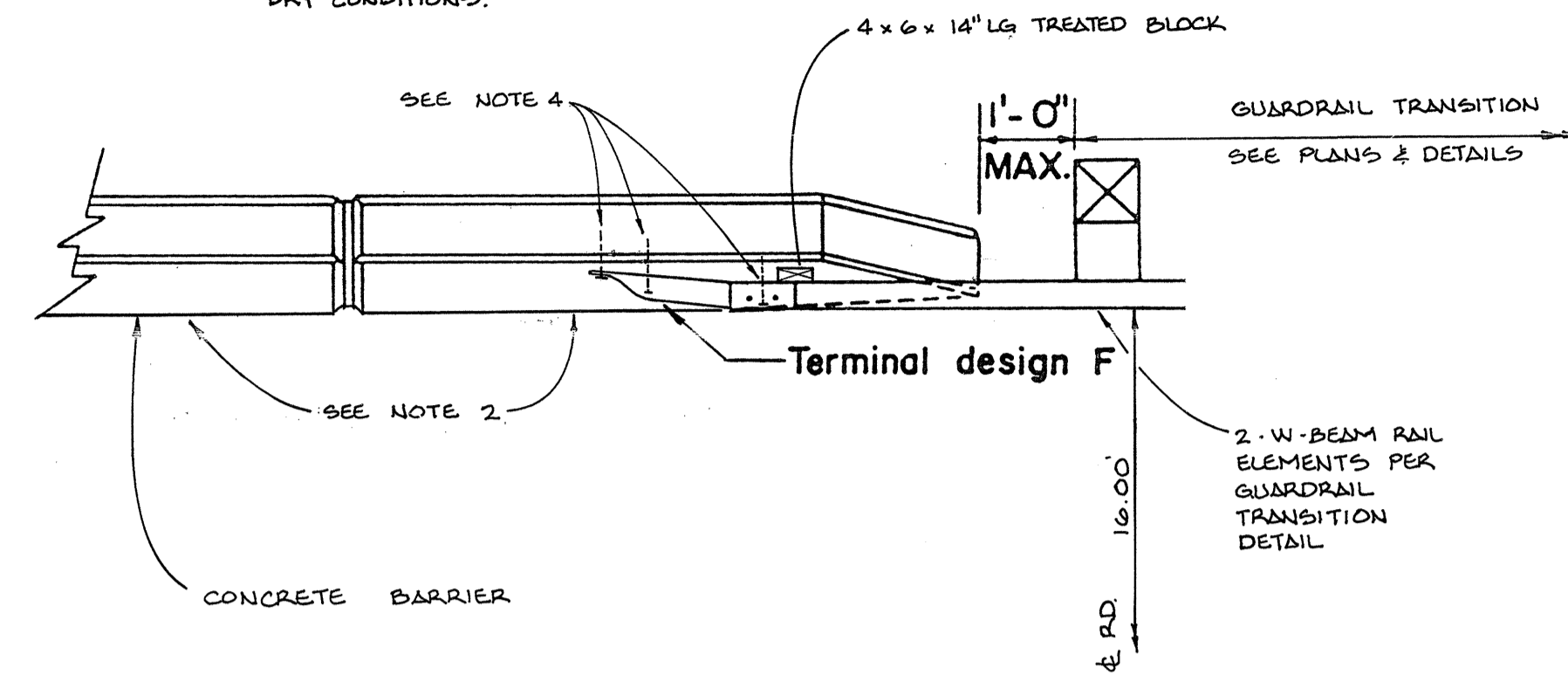
154185



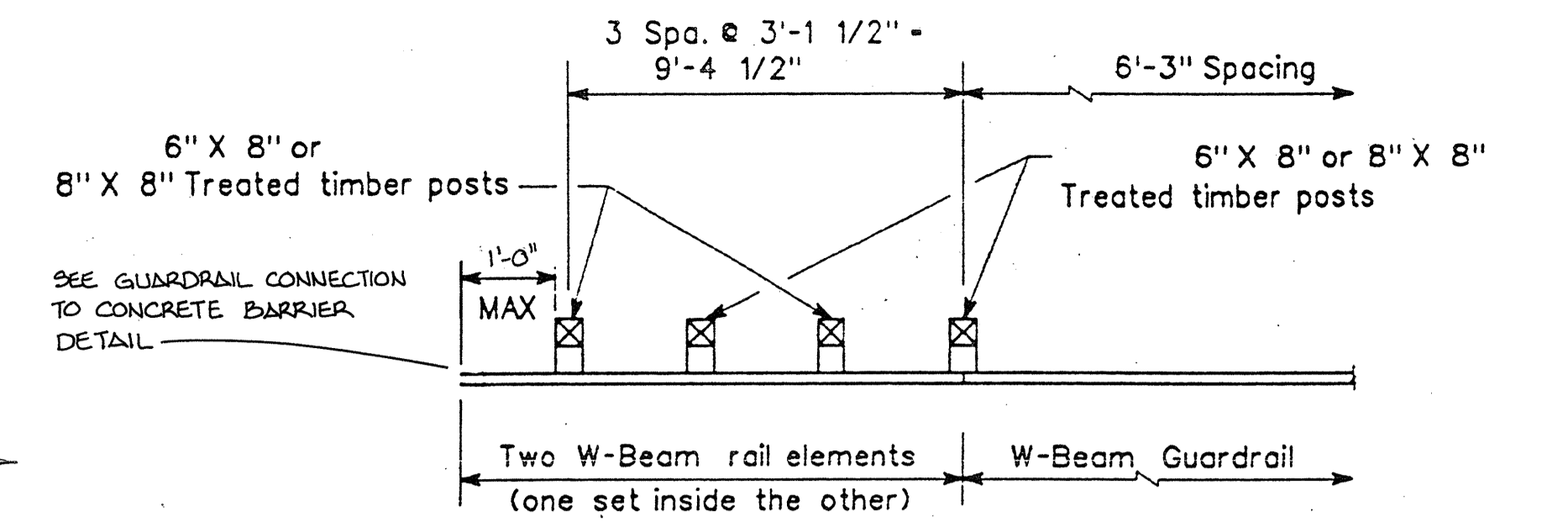
TERMINAL DESIGN F

- NOTES
1. Bolts shall be 7/8" AASHTO M 164 chemically bonded anchors. Anchor installation shall be per manufacturer's recommendations, in dry conditions.
  2. Design F shall be 10 gage steel.
  3. In cases where Design F terminal is lapped on the outside of the guardrail, a galvanized 1" I.D., 2" O.D., 0.134" thick, narrow Type A Plain Washer or a rail washer will be placed under the splice bolt heads.

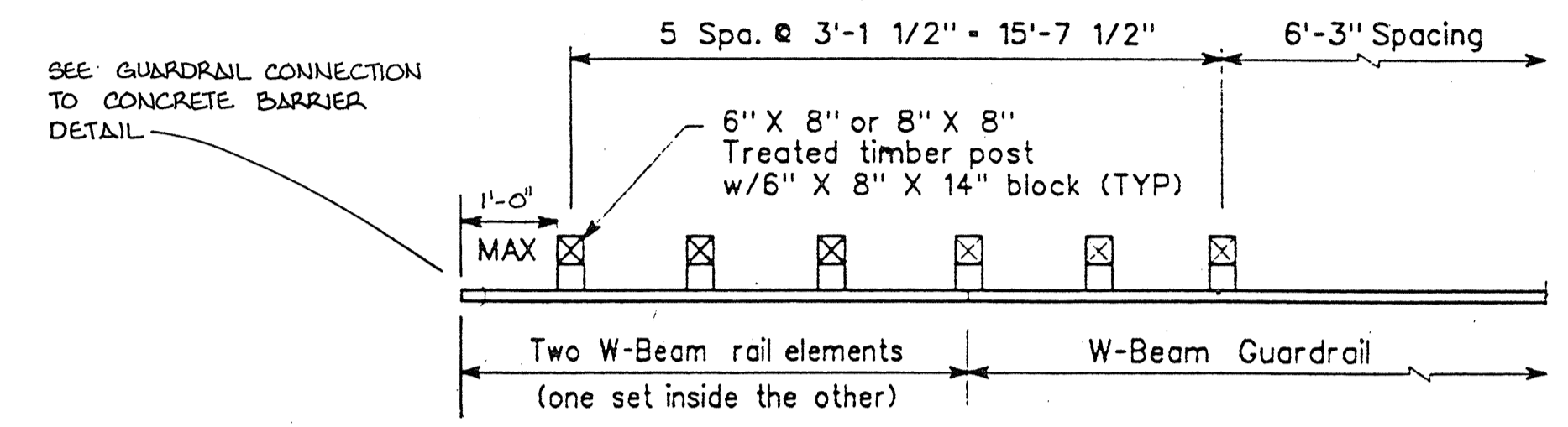
- NOTES
1. SEE WSDOT/APWA STANDARD PLANS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION LATEST EDITION FOR ADDITIONAL GUARDRAIL DETAILS NOT SHOWN HEREON.
  2. SEE PENNY CREEK BRIDGE PLANS SHEETS 19 AND 20 FOR CONCRETE BARRIER, CONCRETE APPROACH AND BRIDGE CONSTRUCTION DETAILS AND PLANS. COORDINATE CONNECTION OF GUARDRAIL WITH SAID PLANS.
  3. SEE REMAINDER OF ROAD AND STORM DRAINAGE PLANS FOR INFORMATION NOT SHOWN HEREON.
  4. ATTACH GUARDRAIL TO CONCRETE BARRIER WITH 7/8" DIA. AASHTO M 164 CHEMICALLY BONDED ANCHORS. ANCHOR INSTALLATION SHALL BE PER MFR RECOMMENDATIONS, IN DRY CONDITIONS.



GUARDRAIL CONNECTION TO CONCRETE BARRIER



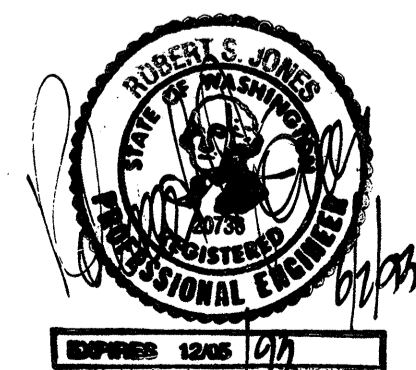
GUARDRAIL TRANSITION TYPE 3



GUARDRAIL TRANSITION TYPE 2

SNOHOMISH COUNTY  
COMMUNITY DEVELOPMENT DIVISION  
APPROVED FOR CONSTRUCTION  
BY: *Randolph R. Sleigh* DATE: 10/14/93  
FOR RANDOLPH R. SLEIGHT, P.E., P.S.  
RW PERMIT NO. RW1254

GUARDRAIL DETAILS  
FOR  
**RHOD-A-ZALEA GARDENS**  
IN S.E. 1/4 OF SECTION 32, T.28 N., R.5 E., W.M.  
SNOHOMISH COUNTY, WASHINGTON  
ZA 8802041

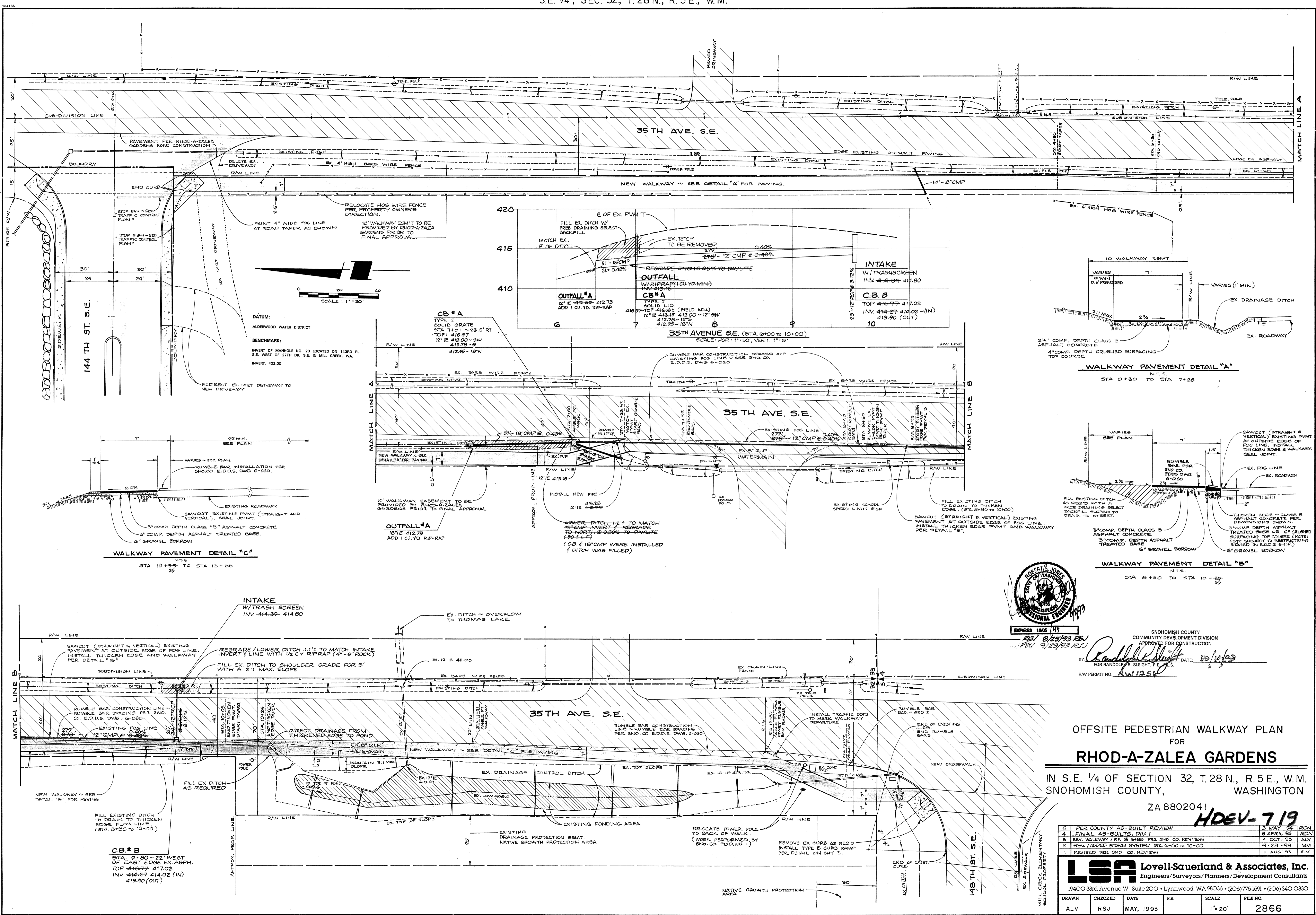


HDEV-718

**LSA** Lovell-Sauerland & Associates, Inc.  
Engineers/Surveyors/Planners/Development Consultants  
19400 33rd Avenue W, Suite 200 • Lynnwood, WA 98036 • (206) 775-1591 • (206) 340-0830

DRAWN	CHECKED	DATE	P.R.	SCALE	FILE NO.
GB	R.S.J.	28 MAY 93	299	NONE	2866





144 TH ST. S.E.

35 TH AVE. S.E.

35 TH AVE. S.E.

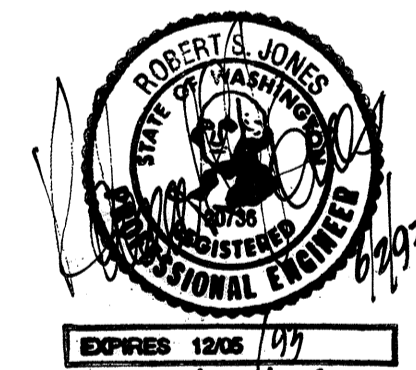
OFFSITE PEDESTRIAN WALKWAY PLAN  
FOR  
**RHOD-A-ZALEA GARDENS**  
IN S.E. 1/4 OF SECTION 32, T.28 N., R.5 E., W.M.  
SNOHOMISH COUNTY, WASHINGTON  
ZA 8802041

**HDEV-719**

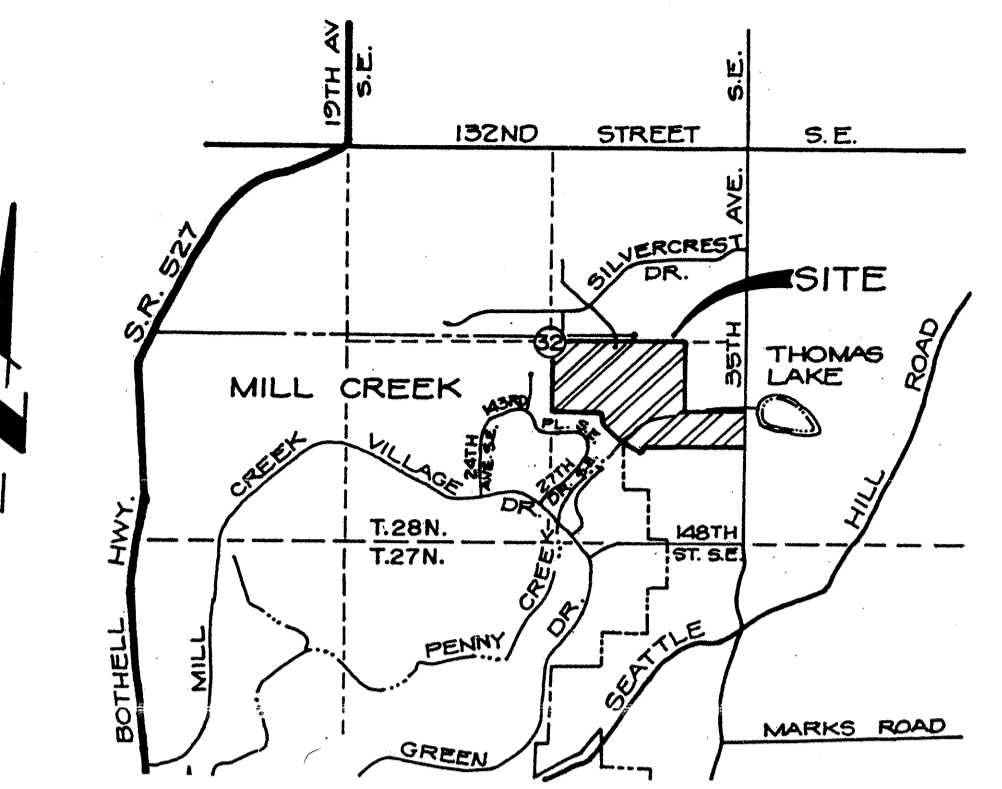
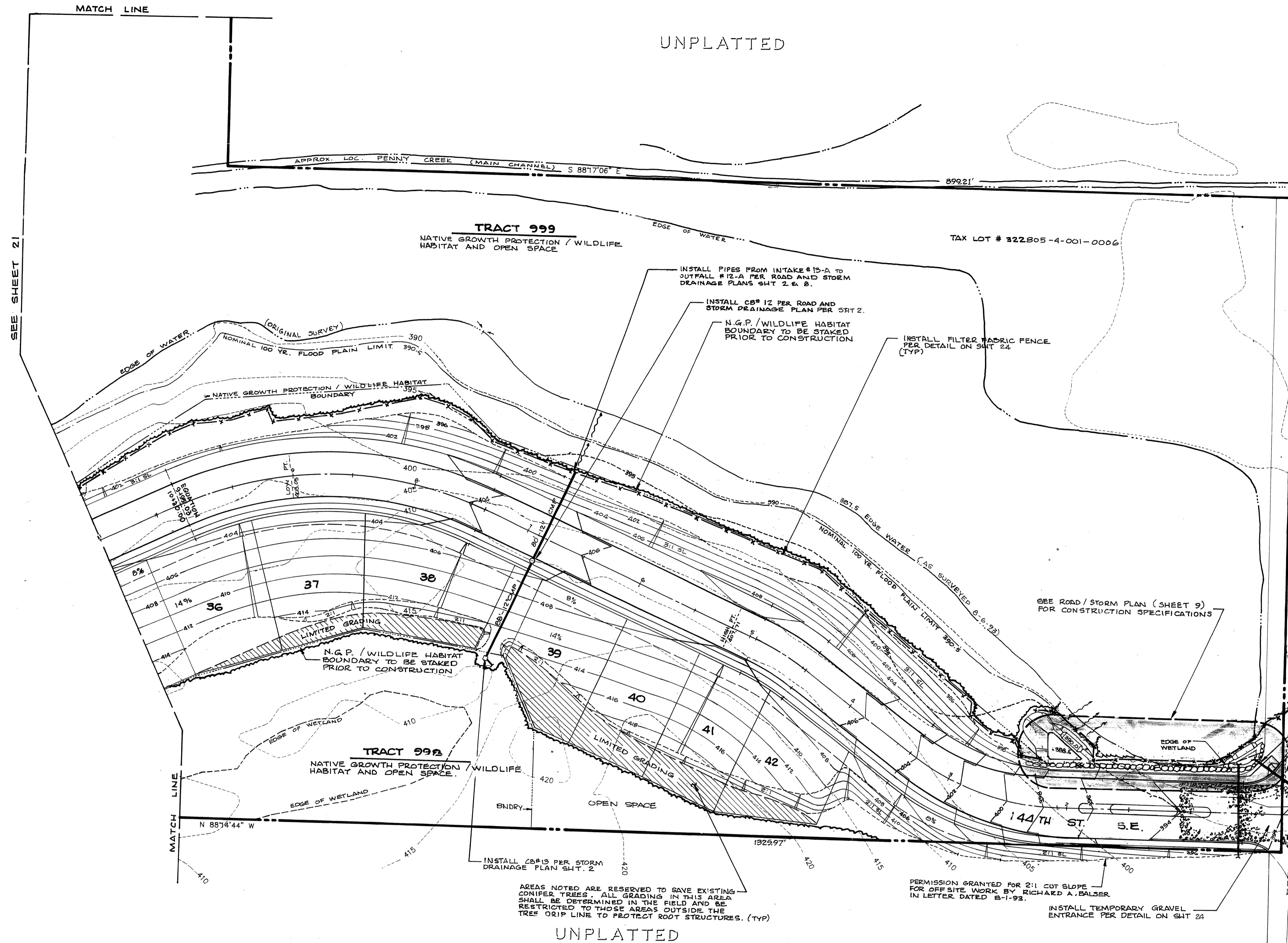
5	PER COUNTY AS-BUILT REVIEW	3 MAY 95	RCN
4	FINAL AS-BUILT REVIEW	6 APRIL 94	RCN
3	REV. WALKWAY / R.P. @ 6"BD PER SNO. CO. REVIEW	4 OCT - 95	ALV
2	REV / ADDED STORM SYSTEM STA 6+00 TO 10+00	9-23-93	MM
1	REVISED PER SNO. CO. REVIEW	11 AUG. 93	ALV

**LSA** Lovell-Sauerland & Associates, Inc.  
Engineers/Surveyors/Planners/Development Consultants  
19400 33rd Avenue W., Suite 200 • Lynnwood, WA 98036 • (206)775-1591 • (206)340-0830

DRAWN	CHECKED	DATE	FS	SCALE	FILE NO.
ALV	RSJ	MAY, 1993		1"=20'	2866



SNOHOMISH COUNTY  
COMMUNITY DEVELOPMENT DIVISION  
APPROVED FOR CONSTRUCTION  
DATE: 10/16/93  
FOR RANDOLPH A. SLEIGHT, P.E., S.E.  
RW PERMIT NO. RW1256



DATUM: ALDERWOOD WATER DISTRICT
BENCHMARK: INVERT OF MANHOLE NO. 20 LOCATED ON 143RD PL. S.E. WEST OF 27TH DR. S.E. IN MILL CREEK, WA.
INVERT: 402.00

APPLICANTS:
Echelbarger Land Co.
PO. BOX 30
LYNNWOOD WA. 98036
TELEPHONE: 206-774-0205
Lovell - Sauerland & Associates, Inc.
19400 - 33rd Ave. W., Suite 200
LYNNWOOD WA. 98036
TELEPHONE: 206-775-1591



Randy Sleight
Snohomish County
Community Development
5th Floor
3050 Rockefeller
Everett, WA 98201
Re: Sidewalk Excavation Along Common Property Line Between Rhod-A-Zalea and Property Owned by Dick Balser South of Rhod-A-Zalea

SNOHOMISH COUNTY
COMMUNITY DEVELOPMENT DIVISION
APPROVED FOR CONSTRUCTION

BY: Danell Lerman DATE: 7-28-93
FOR RANDOLPH R. SLEIGHT, P.E., P.L.S.
RW PERMIT NO. RW1256

Dear Randy:
I was recently contacted by Bob Jones of Lovell-Sauerland concerning a county requirement to construct a sidewalk along the south side of the main access road to 144th Avenue Southeast within the new plat of Rhod-A-Zalea. The access road is numbered 144th Street Southeast and runs along the common property line between Rhod-A-Zalea and my property. Bob Jones asked me if I would grant permission to cut the grade for the sidewalk and property to avoid a need to construct a retaining wall that no one wants on the property line. Please consider this letter as written permission to cut the common bank back as needed to construct the aforementioned property.

If you have any questions concerning this please call me at 776-2634.

Sincerely,
Richard A. Balser, President

GRADING AND T.E.S.C. PLAN
FOR
RHOD-A-ZALEA GARDENS
IN N1/2, SE1/4 OF SECTION 32, T.28N., R.5 E., W.M.
SNOHOMISH COUNTY, WASHINGTON
ZA 8802041

NATIVE GROWTH PROTECTION / WILDLIFE HABITAT ESMT. RESTRICTIONS

"ALL NATIVE GROWTH / WILDLIFE HABITAT PROTECTION AREAS SHALL BE LEFT IN A SUBSTANTIALLY NATURAL STATE. NO CLEARING, GRADING, FILLING, BUILDING CONSTRUCTION OR PLACEMENT, FENCE CONSTRUCTION, OR ROAD CONSTRUCTION OF ANY KIND SHALL OCCUR WITHIN THESE AREAS; PROVIDED THAT UNDERGROUND UTILITY LINES AND DRAINAGE DISCHARGE SWALES MAY CROSS SUCH AREAS UTILIZING THE SHORTEST ALIGNMENT POSSIBLE IF AND ONLY IF NO FEASIBLE ALIGNMENT IS AVAILABLE WHICH WOULD AVOID SUCH A CROSSING. REMOVAL OF VEGETATION BY THE PROPERTY OWNER SHALL BE LIMITED TO THAT WHICH IS DEAD, DISEASED OR HAZARDOUS. NO ADJUSTMENT TO THE BOUNDARY OF ANY SUCH AREA SHALL OCCUR UNLESS FIRST APPROVED THROUGH THE FORMAL REPLAT PROCESS."

OPEN SPACE EASEMENT RESTRICTIONS

"ALL OPEN SPACE AREAS SHALL BE LEFT IN A SUBSTANTIALLY NATURAL STATE. NO CLEARING, GRADING, FILLING, BUILDING CONSTRUCTION OR PLACEMENT, OR ROAD CONSTRUCTION OF ANY KIND SHALL OCCUR IN THESE AREAS; PROVIDED THAT COMMUNITY RECREATION FACILITIES MAY BE DEVELOPED IN OPEN SPACE AREAS; AND PROVIDED FURTHER, THAT UNDERGROUND UTILITY AND DRAINAGE DISCHARGE SWALES MAY CROSS SUCH AREAS UTILIZING THE SHORTEST ALIGNMENT POSSIBLE IF AND ONLY IF NO FEASIBLE ALIGNMENT IS AVAILABLE WHICH WOULD AVOID SUCH A CROSSING. REMOVAL OF TREES BY THE PROPERTY OWNER SHALL BE LIMITED TO THOSE WHICH ARE DEAD, DISEASED OR HAZARDOUS. NO ADJUSTMENT TO THE BOUNDARY OF ANY SUCH AREA SHALL OCCUR UNLESS FIRST APPROVED THROUGH THE FORMAL REPLAT PROCESS."

HYDRAULIC PROJECT
APPROVAL
R.C.W. 75.20.100
R.C.W. 75.20.103
June 27, 1993

Table with columns: DEPARTMENT OF FISHERIES, PROJECT NO., DATE, and other project details.

NOTE: A separate Hydraulic Project Approval is required for stormwater management.

- 1. A positive delineation of the Native Growth Protection Area (NGPA) shall be made prior to any other work to assure riparian integrity of the NGPA.
2. Disturbance of the NGPA shall be kept to the minimum necessary to access the bridge site. Any vegetation removed outside of the access area shall be immediately and fully replaced with suitable riparian vegetation.
3. Erosion control methods shall be installed and maintained before, during, and after construction, as needed to prevent any dirt or sediment from leaving the work site and entering the stream.
4. Equipment shall operate on the banks and shall not enter or operate in the flowing water.
5. The bridge and log control fish ladder shall be constructed as Rhod-A-Zalea Gardens, Lovell-Sauerland & Associates, Inc., June 2, 1993.
6. Removal of the beaver dam shall be conducted slowly so that no large pieces of wood are dislodged. The dam shall not be lowered more than one (1) vertical foot per day.

HYDRAULIC PROJECT
APPROVAL
R.C.W. 75.20.100
R.C.W. 75.20.103
June 27, 1993

Table with columns: DEPARTMENT OF FISHERIES, PROJECT NO., DATE, and other project details.

NOTE: A separate Hydraulic Project Approval is required for stormwater management.

- 7. The work area shall be isolated from the flowing water by constructing coffer dams with sandbags, filled with clean sand, and using a temporary dike to bypass the flowing water. The dike shall be constructed to prevent any sediment, silt, or debris from entering the stream.
8. No dirt, sediments, petroleum products, cement, or other materials deleterious to fish shall enter the stream.
9. Any dewatering of the footings shall be to an upland disposal site. The water must be free of sediments before reentering the stream.
10. All excavated materials shall be deposited outside of the flood plain.
11. All concrete forms shall be completely sealed to prevent concrete from seeping into the stream.
12. All bare earth areas shall be protected from erosion and re-vegetated.
13. It is the owner's responsibility to maintain the log control fish way so that it effectively provides fish passage to the existing fish way. The log control fish way shall be installed and maintained to provide fish passage.
14. The medical habitat reviewer shall be contacted a minimum of 10 working days prior to the start of construction.
15. Turn west off of 25th Avenue Southeast on to Silver Creek Drive, turn south off of Silver Creek on to 144th Street. The stream is immediately downstream (west) of the bridge site.

THIS APPROVAL IS TO BE AVAILABLE ON THE JOB SITE AT ALL TIMES AND BY THE PERSONS FOLLOWING BY THE PERMITTEE AND OPERATOR PERFORMING THE WORK.

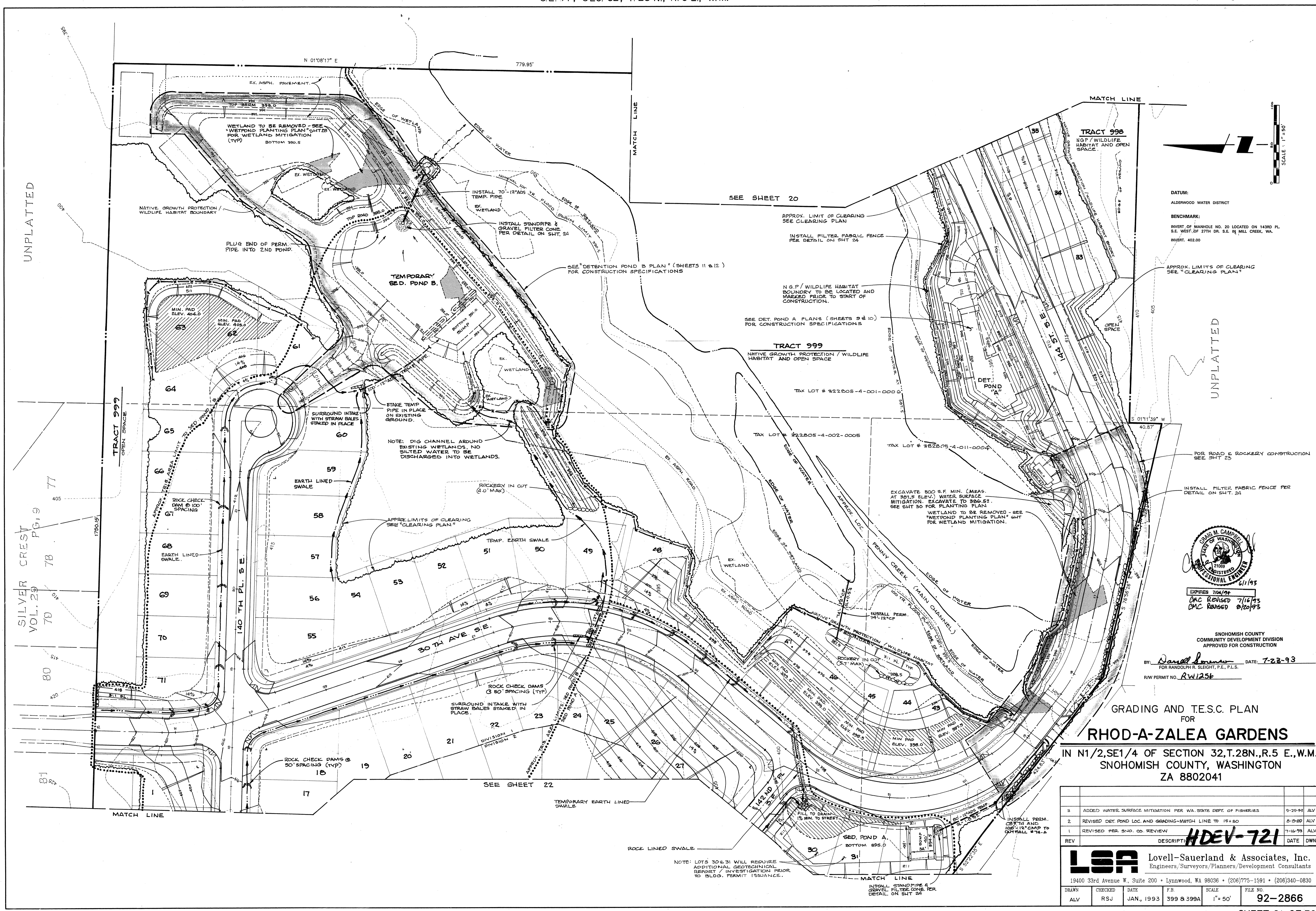
THE PERSONS TO WHOM THIS APPROVAL IS ISSUED MAY BE HELD LIABLE FOR ANY LOSS OR DAMAGE TO FISH OR FISH HABITAT WHICH RESULTS FROM FAILURE TO COMPLY WITH THE PROVISIONS OF THIS APPROVAL.

FAILURE TO COMPLY WITH THE PROVISIONS OF THIS APPROVAL COULD RESULT IN A CIVIL PENALTY OF UP TO ONE HUNDRED DOLLARS PER DAY OR A GROSS MISDEMEANOR CHARGE, POSSIBLY PUNISHABLE BY FINE OR IMPRISONMENT.

ALL HYDRAULIC PROJECT APPROVALS ISSUED PURSUANT TO RCW 75.20.100 ARE SUBJECT TO ADDITIONAL RESTRICTIONS, CONDITIONS, OR REVOCATION IF THE DEPARTMENT OF FISHERIES OR DEPARTMENT OF WILDLIFE DETERMINE THAT NEW BIOLOGICAL OR PHYSICAL INFORMATION INDICATES THE NEED FOR SUCH ACTION. THE PERMITTEE HAS THE RIGHT PURSUANT TO CHAPTER 34A RCW TO APPEAL SUCH DECISIONS. ALL HYDRAULIC PROJECT APPROVALS ISSUED PURSUANT TO RCW 75.20.100 MAY BE MODIFIED BY THE DEPARTMENT OF FISHERIES OR DEPARTMENT OF WILDLIFE DUE TO CHANGED CONDITIONS AFTER CONSULTATION WITH THE PERMITTEE. PROVIDED HOWEVER, THAT SUCH MODIFICATIONS SHALL BE SUBJECT TO APPEAL TO THE HYDRAULIC APPEALS BOARD ESTABLISHED IN RCW 75.20.10.

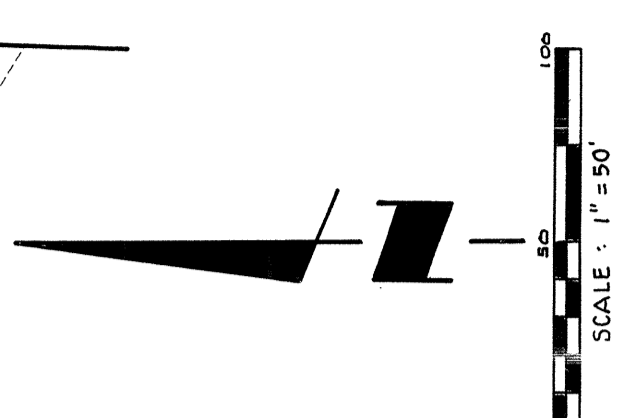
THIS APPROVAL PERTAINS ONLY TO THE PROVISIONS OF THE FISHERIES AND WILDLIFE CODES. ADDITIONAL AUTHORIZATION FROM OTHER PUBLIC AGENCIES MAY BE NECESSARY FOR THIS PROJECT.

LSA Lovell-Sauerland & Associates, Inc.
Engineers/Surveyors/Planners/Development Consultants
19400 33rd Avenue W., Suite 200 • Lynnwood, WA 98036 • (206)775-1591 • (206)340-0830
DRAWN: RSJ, CHECKED: RSJ, DATE: JAN, 1993, SCALE: 1"=50', TITLE NO: 92-2866
REVISIONS: 2. REVISED DET. ROAD LOC., ROAD, AND ALL GRADING FROM STB. 2-4-93 TO MATCH LINE. 6-20-93 ALV. 1. REVISED PER GND. CO. REVIEW. 7-16-93 ALV.



UNPLATTED

UNPLATTED



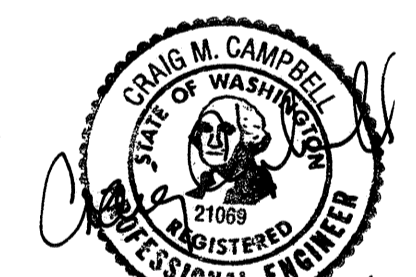
DATUM:  
ALDERWOOD WATER DISTRICT

BENCHMARK:  
INVERT OF MANHOLE NO. 20 LOCATED ON 143RD PL. S.E. WEST OF 27TH DR. S.E. IN MILL CREEK, WA.  
INVERT: 402.00

APPROX. LIMITS OF CLEARING  
SEE "CLEARING PLAN"

FOR ROAD & ROCKERY CONSTRUCTION  
SEE SHT 25

INSTALL FILTER FABRIC FENCE PER  
DETAIL ON SHT. 24



EXPIRES 7/1/94  
CNC REVISED 7/16/93  
CNC REVISED 8/20/93

SNOHOMISH COUNTY  
COMMUNITY DEVELOPMENT DIVISION  
APPROVED FOR CONSTRUCTION

BY: *Daniel Lomen* DATE: 7-23-93  
FOR RANDOLPH R. SLEIGHT, P.E., P.L.S.  
RAW PERMIT NO. RW1256

GRADING AND T.E.S.C. PLAN  
FOR  
**RHOD-A-ZALEA GARDENS**

IN N1/2, SE1/4 OF SECTION 32, T.28 N., R.5 E., W.M.  
SNOHOMISH COUNTY, WASHINGTON  
ZA 8802041

REV	DESCRIPTION	DATE	DWN
3	ADDED WATER SURFACE MITIGATION PER WA. STATE DEPT. OF FISHERIES	9-20-93	ALV
2	REVISED DET. POND LOC. AND GRADING-MATCH LINE TO 16+50	8-19-93	ALV
1	REVISED PER SNO. CO. REVIEW	7-16-93	ALV
REV	DESCRIPTION: <b>HDEV-721</b>	DATE	DWN

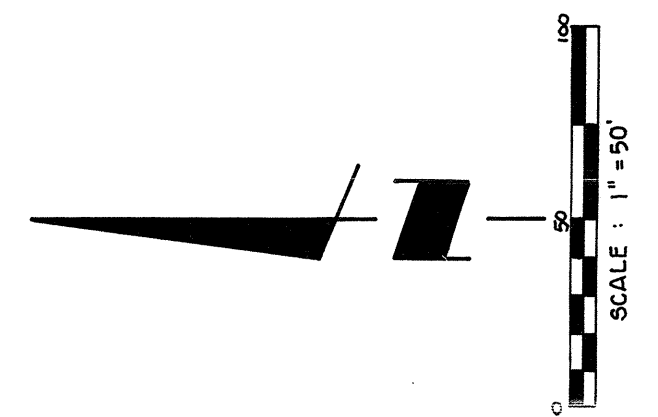
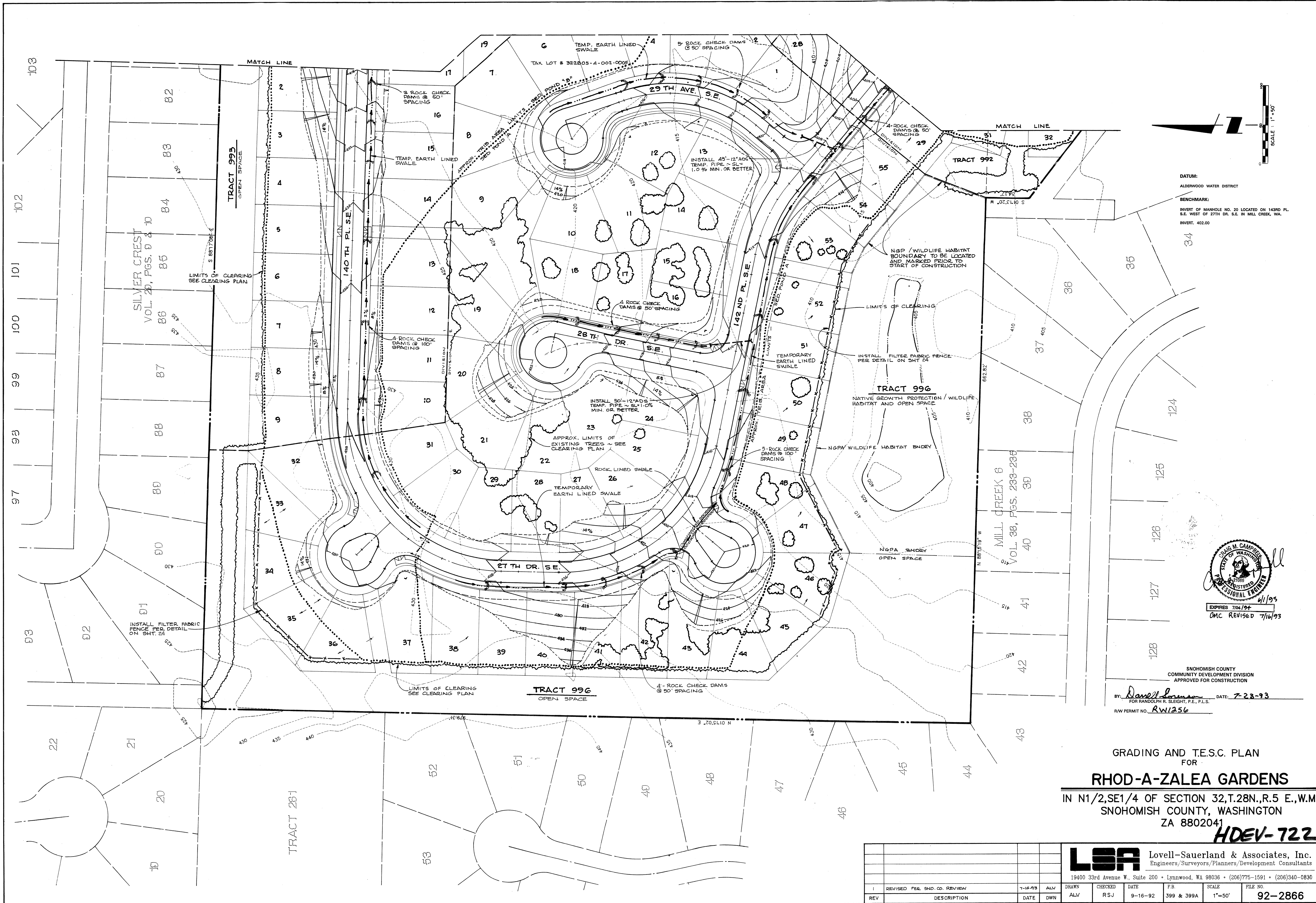
**LSA** Lovell-Sauerland & Associates, Inc.  
Engineers, Surveyors/Planners/Development Consultants

19400 33rd Avenue W., Suite 200 • Lynnwood, WA 98036 • (206)775-1591 • (206)340-0830

DRAWN	CHECKED	DATE	F.B.	SCALE	FILE NO.
ALV	RSJ	JAN., 1993	399 & 399A	1" = 50'	92-2866

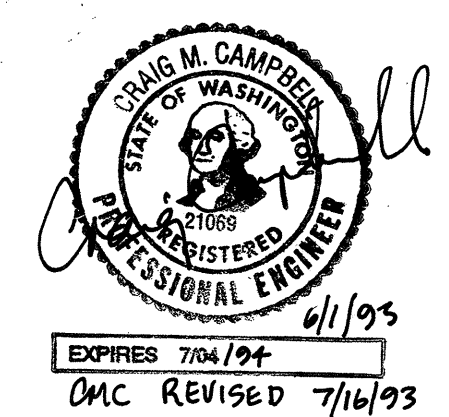
NOTE: LOTS 30&31 WILL REQUIRE  
ADDITIONAL GEOTECHNICAL  
REPORT / INVESTIGATION PRIOR  
TO S.D.G. PERMIT ISSUANCE.

INSTALL STAND PIPE &  
GRAVEL FILTER CONE PER  
DETAIL ON SHT 24



DATUM:  
ALDERWOOD WATER DISTRICT

BENCHMARK:  
INVERT OF MANHOLE NO. 20 LOCATED ON 143RD PL. S.E. WEST OF 27TH DR. S.E. IN MILL CREEK, WA.  
INVERT: 402.00



SNOHOMISH COUNTY  
COMMUNITY DEVELOPMENT DIVISION  
APPROVED FOR CONSTRUCTION

BY: *Daniel R. Slight* DATE: 7-23-93  
FOR RANDOLPH R. SLIGHT, P.E., P.L.S.  
RW PERMIT NO. RW1236

GRADING AND T.E.S.C. PLAN  
FOR  
**RHOD-A-ZALEA GARDENS**  
IN N1/2,SE1/4 OF SECTION 32,T.28N.,R.5 E.,W.M.  
SNOHOMISH COUNTY, WASHINGTON  
ZA 8802041  
**HDEV-722**

19400 33rd Avenue W., Suite 200 • Lynnwood, WA 98036 • (206)775-1591 • (206)340-0830																							
<table border="1"> <tr> <th>REV</th> <th>DESCRIPTION</th> <th>DATE</th> <th>DWN</th> <th>ALN</th> <th>DRWN</th> <th>CHECKED</th> <th>DATE</th> <th>F.B.</th> <th>SCALE</th> <th>FILE NO.</th> </tr> <tr> <td>1</td> <td>REVISED PER SNO CO REVIEW</td> <td>7-16-93</td> <td>ALN</td> <td>DRWN</td> <td>ALM</td> <td>RSJ</td> <td>9-16-92</td> <td>399 &amp; 399A</td> <td>1"=50'</td> <td>92-2866</td> </tr> </table>	REV	DESCRIPTION	DATE	DWN	ALN	DRWN	CHECKED	DATE	F.B.	SCALE	FILE NO.	1	REVISED PER SNO CO REVIEW	7-16-93	ALN	DRWN	ALM	RSJ	9-16-92	399 & 399A	1"=50'	92-2866	<p><b>LSA</b> Lovell-Sauerland &amp; Associates, Inc. Engineers, Surveyors, Planners/Designers</p>
REV	DESCRIPTION	DATE	DWN	ALN	DRWN	CHECKED	DATE	F.B.	SCALE	FILE NO.													
1	REVISED PER SNO CO REVIEW	7-16-93	ALN	DRWN	ALM	RSJ	9-16-92	399 & 399A	1"=50'	92-2866													

43

TRACT 999

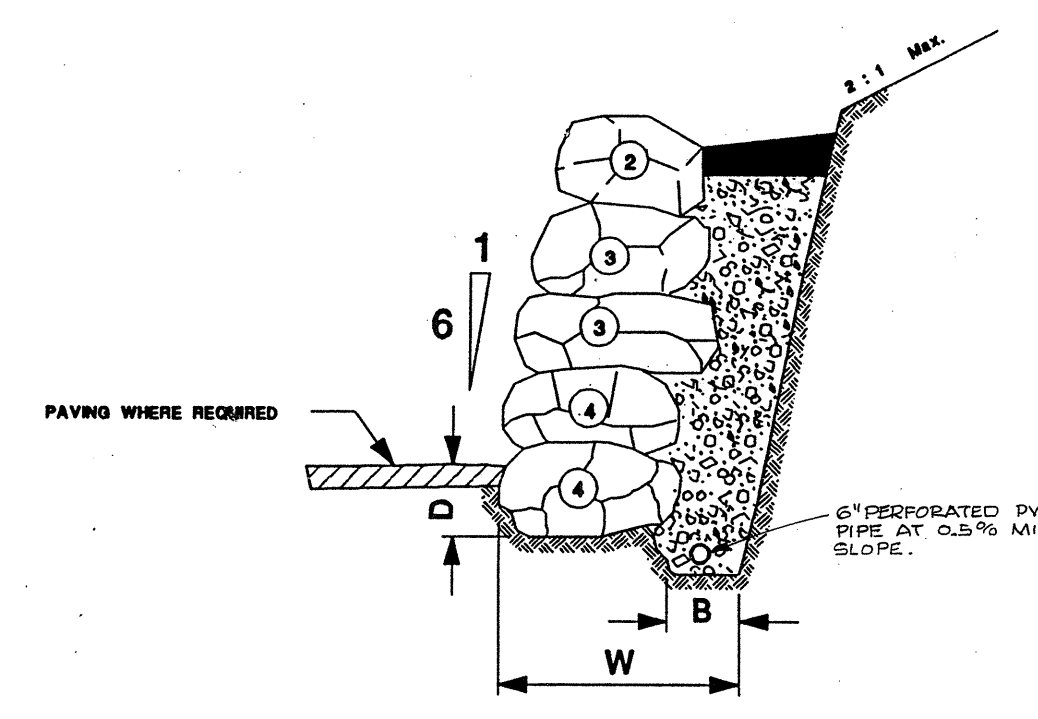
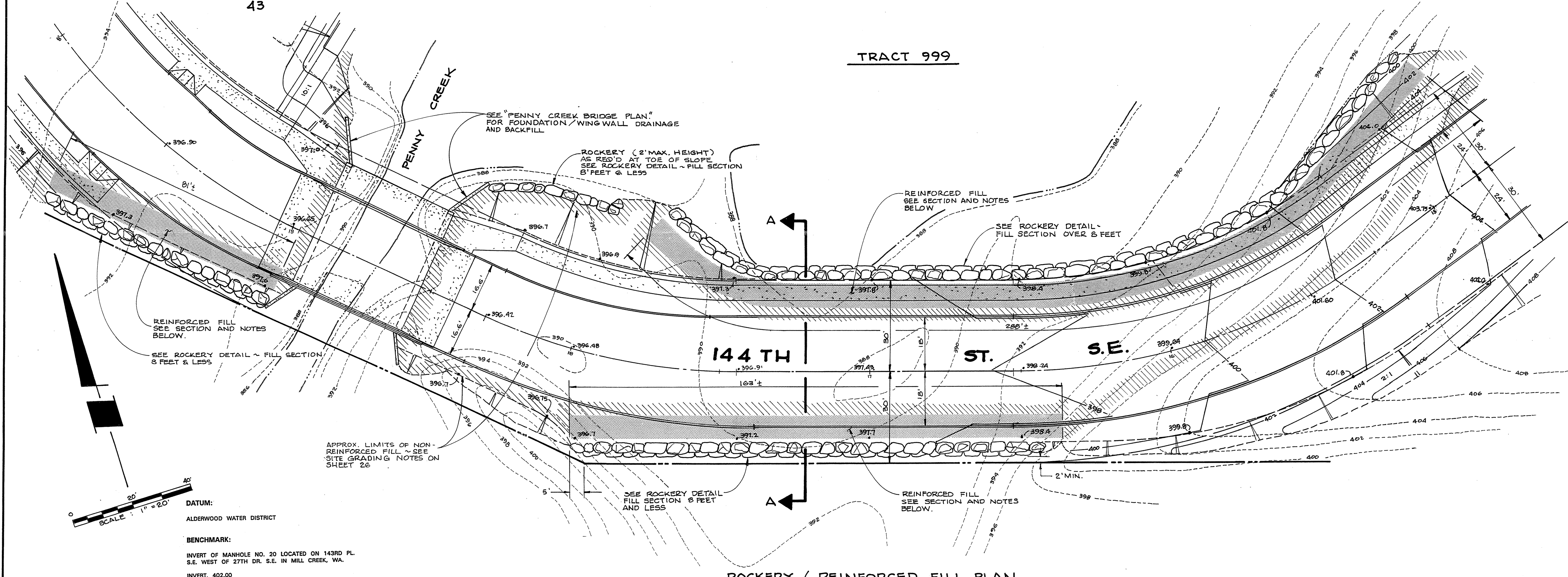
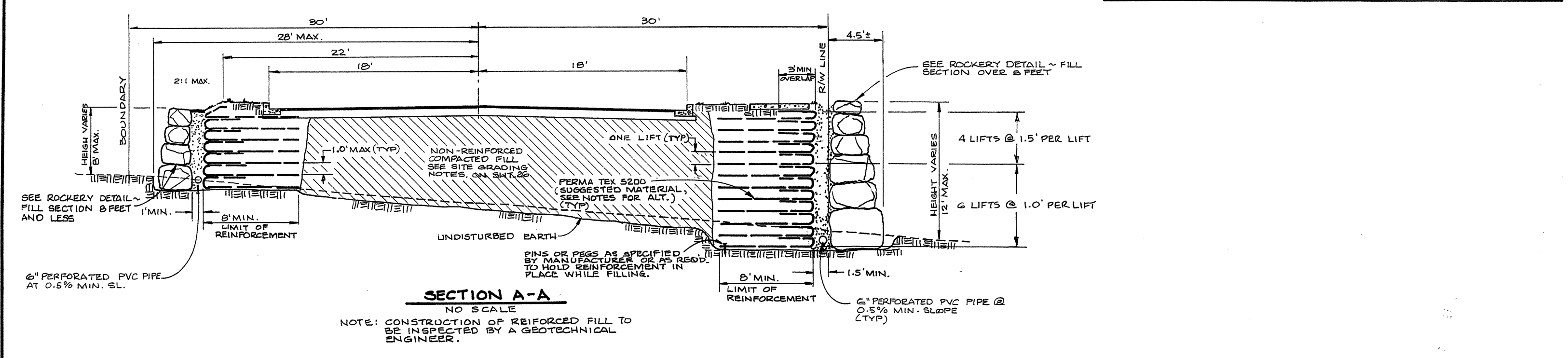


Table with columns: SIZE, APPROXIMATE WT. - LBS, APPROXIMATE DIA. It lists specifications for different sizes of rock (1 MAN to 8 MAN).

- LEGEND: 2 INCH TO 4 INCH QUARRY SPALLS FREE OF ORGANIC... SURFACE SEAL MAY CONSIST OF IMPERVIOUS SOIL... UNDISTURBED FIRM NATIVE SOIL... DESIGNATES SIZE OF ROCK REQUIRED IN 4 MAN... MINIMUM 4 INCH DIAMETER UNDERDRAIN PIPE...

- NOTES: 1. MAXIMUM INCLINATION OF THE SLOPE ABOVE AND BEHIND ROCKERIES SHOULD BE 2:1 (HORIZONTAL:VERTICAL)... 2. MINIMUM THICKNESS OF FILTER FABRIC LAYER B = 1/2 INCHES... 3. MINIMUM EMBEDMENT D = 12 INCHES UNDISTURBED NATIVE SOIL... 4. ROCKERS GREATER THAN 8 FEET IN HEIGHT TO BE INSTALLED UNDER PERIOD OF FULL OBSERVATION OF THE GEOTECHNICAL ENGINEER...

TYPICAL ROCKERY DETAIL - CUT SECTION NO SCALE

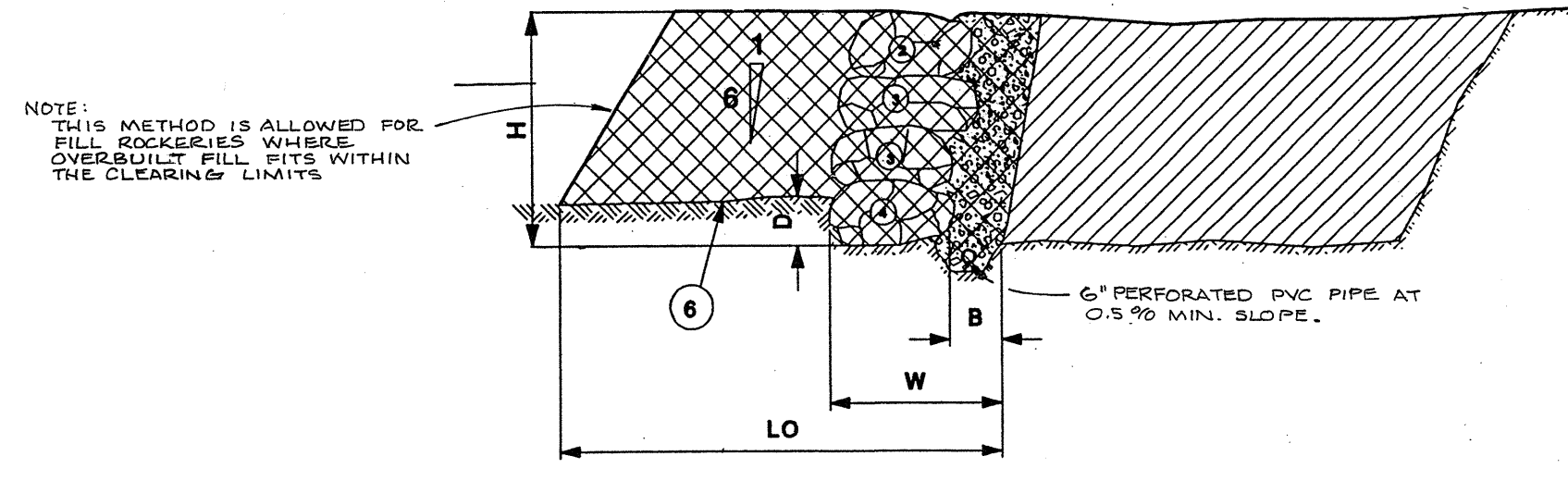


- LEGEND: 2 INCH TO 4 INCH QUARRY SPALLS FREE OF ORGANIC... COMPACTED STRUCTURAL FILL OVERBUILT COMPACTED TO AT LEAST 95% OF MAXIMUM DRY DENSITY... UNDISTURBED FIRM NATIVE SOIL... DESIGNATES SIZE OF ROCK REQUIRED IN 4 MAN... MINIMUM 4 INCH DIAMETER UNDERDRAIN PIPE...

- NOTES: 1. ALL FILL SHALL BE PLACED IN THIN LIFTS NOT EXCEEDING 6 INCHES IN LOOSE THICKNESS... 2. THICKNESS OF CHANGED FILTER FABRIC LAYER B SHALL BE NO LESS THAN 1/2 INCHES... 3. DEPTH OF BURIAL OF BASAL LAYER OF ROCK D SHALL BE NO LESS THAN 12 INCHES...

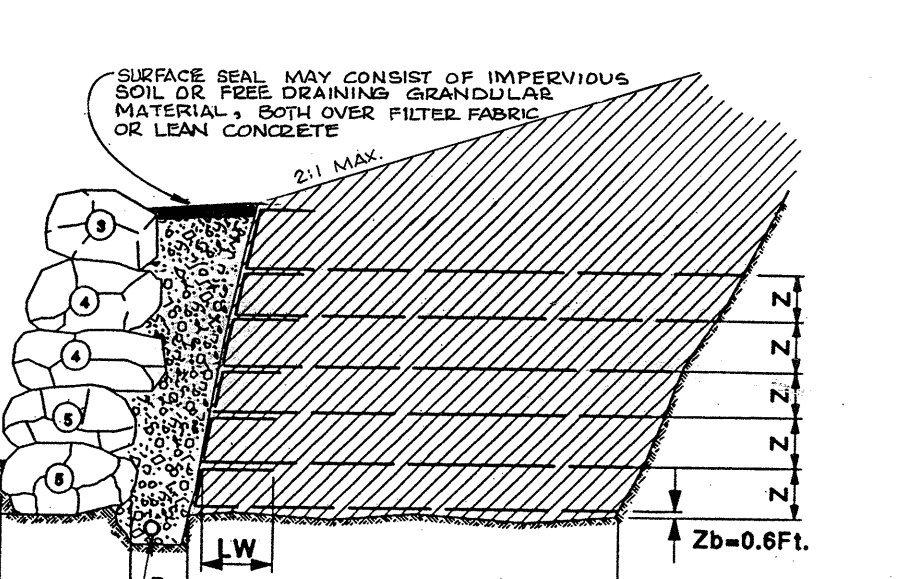
- ROCKERY-FACED GEOSYNTHETIC-REINFORCED EARTH RETAINING WALL CONSTRUCTION REQUIREMENTS 1. THESE CONSTRUCTION REQUIREMENTS MAY BE MODIFIED ON THE BASIS OF MANUFACTURER'S PUBLISHED DESIGN DATA AND RECOMMENDATIONS... 2. ULTRAVIOLET PROTECTION PRIOR TO INSTALLATION, THE GEOSYNTHETIC REINFORCEMENT MATERIAL SHALL BE KEPT AND PROTECTED AS RECOMMENDED BY THE MANUFACTURER... 3. FOUNDATION PREPARATION THE BASE SURFACE SHALL BE PREPARED AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER... 4. CONSTRUCTION STANDARDS WALL CONSTRUCTION SHALL BEGIN AT THE LOWEST PORTION OF THE EXCAVATION AND EACH LAYER SHALL BE PLACED HORIZONTALLY AS SHOWN IN THE PLANS... 5. REINFORCEMENT ZONE BACKFILL A. THE MINIMUM COMPACTED BACKFILL LIFT THICKNESS OF THE FIRST LIFT ABOVE EACH REINFORCEMENT LAYER SHALL BE 6 INCHES... B. EACH FILL LIFT SHALL BE COMPACTED TO 95 PERCENT OF MAXIMUM DENSITY... C. BACKFILL MATERIAL SHALL HAVE A PLASTICITY INDEX (PI) EQUAL TO OR LESS THAN 12... D. CONSTRUCTION METHOD... E. REINFORCEMENT STRENGTH... F. GEOSYNTHETIC HANDLING... G. DAMAGED REINFORCEMENT... H. SEAMS... I. NON-REINFORCED EMBANKMENT FILL... J. FACING MATERIAL... K. ALTERNATES...

- SUGGESTED CONSTRUCTION METHOD USING TEMPORARY FACING FORM 1. PREPARE SUBGRADE 2. PLACE FABRIC-LIFT FACING FORM 3. UNROLL AND POSITION FABRIC SO THAT AT LEAST 3 FEET EXTENDS OVER FORM... 4. BACKFILL WITH THE SPECIFIED FILL MATERIAL AND COMPACT TO THE SPECIFIED DENSITY... 5. REMOVE THE WOODEN FORM AND SET IN POSITION ON TOP OF THE FABRIC LIFT JUST COMPLETED... 6. REPEAT STEPS 2 THROUGH 5 AS REQUIRED TO ATTAIN THE NECESSARY WALL HEIGHT... 7. IF THE WALL IS HIGHER THAN 5 TO 6 FEET, SCAFFOLDING MAY BE REQUIRED TO HANDLE THE FORM... MATERIAL SPECIFICATIONS 1. THE REINFORCEMENT MATERIAL USED IN THIS CONSTRUCTION SHALL BE SPECIFICALLY RECOMMENDED BY THE MANUFACTURER FOR USE IN REINFORCED EARTH WALLS... 2. THE REINFORCEMENT LONG TERM ALLOWABLE DESIGN LOAD SHALL BE 360 LB/SFT OR BETTER... 3. REINFORCEMENT MATERIAL IS SPECIFIED IN THE PLANS FOR USE IN REINFORCED EARTH WALLS... NOTES 1. ALL FILL SHALL BE PLACED IN THIN LIFTS NOT EXCEEDING 6 INCHES IN LOOSE THICKNESS... 2. THICKNESS OF CHANGED FILTER FABRIC LAYER B SHALL BE NO LESS THAN 1/2 INCHES... 3. DEPTH OF BURIAL OF BASAL LAYER OF ROCK D SHALL BE NO LESS THAN 12 INCHES... 4. WITH DISSECTION OF UPPER LAYER, DRIVING REINFORCEMENT SHALL BE UNWRAPPED AROUND EXPOSED FILL FACE AND LAPPED BACK BENEATH OVERLAPPING FILL LAYER A DISTANCE LW OF AT LEAST 8 FEET... 5. LENGTH OF REINFORCING GEOPHANO, LR... 6. SPACING REINFORCEMENT LAYER SPACING, L... 7. MINIMUM WIDTH OF KEYWAY EXCAVATION, W, SHALL BE EQUAL TO THE THICKNESS OF THE BASAL ROCK, PLUS 6"... 8. WHERE REQUIRED, EXTEND PAVING TO ROCKERY FACE.



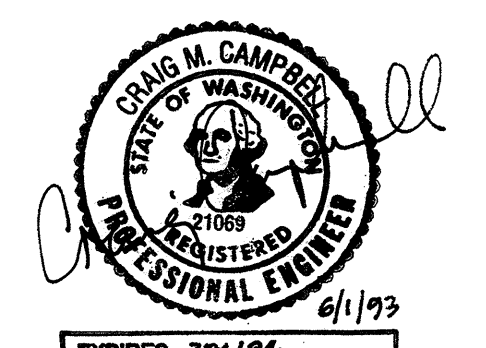
TYPICAL ROCKERY DETAIL ~ FILL SECTION 8 FEET & LESS NO SCALE

- LEGEND: 2 INCH TO 4 INCH QUARRY SPALLS FREE OF ORGANIC... COMPACTED STRUCTURAL FILL OVERBUILT COMPACTED TO AT LEAST 95% OF MAXIMUM DRY DENSITY... UNDISTURBED FIRM NATIVE SOIL... DESIGNATES SIZE OF ROCK REQUIRED IN 4 MAN... MINIMUM 4 INCH DIAMETER UNDERDRAIN PIPE...



- NOTES: 1. ALL FILL SHALL BE PLACED IN THIN LIFTS NOT EXCEEDING 6 INCHES IN LOOSE THICKNESS... 2. THICKNESS OF CHANGED FILTER FABRIC LAYER B SHALL BE NO LESS THAN 1/2 INCHES... 3. DEPTH OF BURIAL OF BASAL LAYER OF ROCK D SHALL BE NO LESS THAN 12 INCHES... 4. WITH DISSECTION OF UPPER LAYER, DRIVING REINFORCEMENT SHALL BE UNWRAPPED AROUND EXPOSED FILL FACE AND LAPPED BACK BENEATH OVERLAPPING FILL LAYER A DISTANCE LW OF AT LEAST 8 FEET... 5. LENGTH OF REINFORCING GEOPHANO, LR... 6. SPACING REINFORCEMENT LAYER SPACING, L... 7. MINIMUM WIDTH OF KEYWAY EXCAVATION, W, SHALL BE EQUAL TO THE THICKNESS OF THE BASAL ROCK, PLUS 6"... 8. WHERE REQUIRED, EXTEND PAVING TO ROCKERY FACE.

TYPICAL ROCKERY DETAIL ~ FILL SECTION OVER 8 FEET NO SCALE



SNOHOMISH COUNTY COMMUNITY DEVELOPMENT DIVISION APPROVED FOR CONSTRUCTION BY: Danell Johnson DATE: 7-23-93 FOR RANDOLPH R. SLEIGHT, P.E., P.L.S. RW PERMIT NO. RW1256

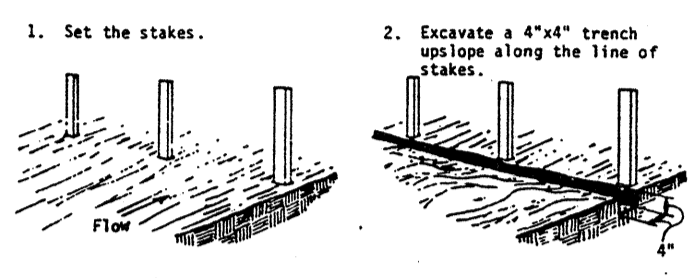
GRADING AND T.E.S.C. DETAILS FOR RHOD-A-ZALEA GARDENS IN S.E. 1/4 OF SECTION 32, T.28 N., R.5 E., W.M. SNOHOMISH COUNTY, WASHINGTON ZA 8802041

HDEV-723

Table with columns: DRAWN, CHECKED, DATE, FR., SCALE, FILE NO. It lists project details: DRAWN: ALV, CHECKED: RSJ, DATE: APR, 1993, SCALE: AS NOTED, FILE NO.: 92-2866.

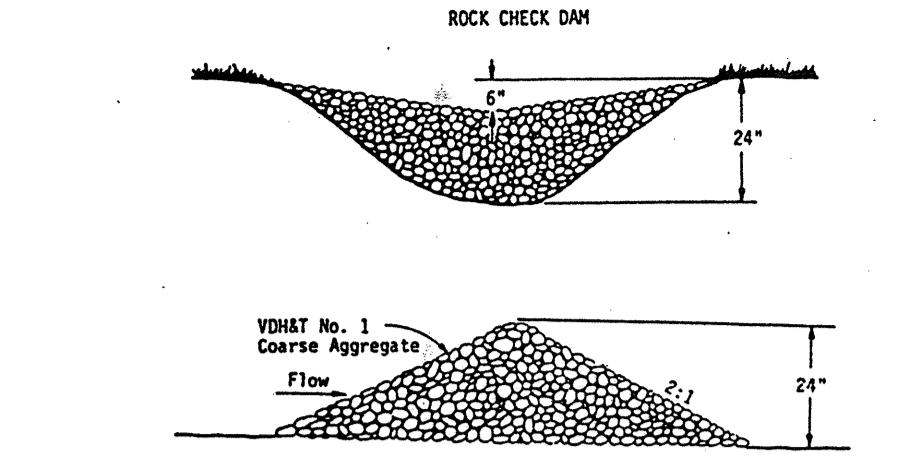
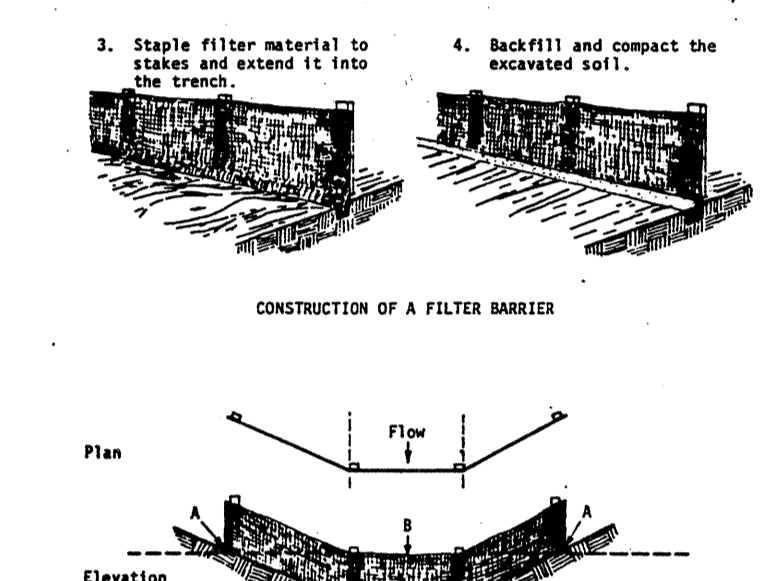
- GENERAL NOTES**
- LOCATIONS OF EXISTING UTILITIES AND IMPROVEMENTS SHOWN ARE APPROXIMATE ONLY AND IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXACT LOCATIONS OF ALL UTILITIES AND IMPROVEMENTS TO AVOID DAMAGE OR DISTURBANCE.
  - FOR AID IN UTILITY LOCATION CALL 1-800-424-5555 PRIOR TO BEGINNING CONSTRUCTION.
  - THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS FOR ROAD AND UTILITY CONSTRUCTION.
  - ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH SNOHOMISH COUNTY STANDARDS AND SPECIFICATIONS AND WASHINGTON STATE DEPARTMENT OF TRANSPORTATION 1991 STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION AND THE 1988 WSOT HYDRAULICS MANUAL.
  - ALL WORK WITHIN THE SITE AND COUNTY RIGHT-OF-WAY SHALL BE SUBJECT TO THE INSPECTION OF THE COUNTY INSPECTOR OR HIS DESIGNATED REPRESENTATIVE.
  - PRIOR TO ANY SITE CONSTRUCTION TO INCLUDE CLEARING/LOGGING OR GRADING THE SITESLOT CLEARING LIMITS SHALL BE LOCATED AND FIELD IDENTIFIED BY THE PROJECT SURVEYOR/ENGINEER AS REQUIRED BY THESE PLANS. THE PROJECT SURVEYOR/ENGINEER'S NAME AND TELEPHONE NUMBER ARE LÖVELL-SAUERLAND & ASSOCIATES, INC. 775-1591.
  - THE DEVELOPER/PROJECT ENGINEER IS RESPONSIBLE FOR WATER QUALITY AS DETERMINED BY THE MONITORING PROGRAM, ESTABLISHED BY THE PROJECT ENGINEER. THE PROJECT ENGINEER'S NAME AND PHONE NUMBER ARE LÖVELL-SAUERLAND & ASSOCIATES, INC. 775-1591.
  - PRIOR TO ANY SITE WORK, THE CONTRACTOR SHALL CONTACT THE CHIEF INSPECTOR FOR LAND DEVELOPMENT DIVISION AT (206) 388-3388 TO SCHEDULE A PRECONSTRUCTION CONFERENCE. DUE TO FIELD CHANGES (REVISIONS), ENGINEERED AS-BUILTS SHALL BE REQUIRED PRIOR TO SITE APPROVAL.
  - THE TEMPORARY EROSION/SEDIMENTATION CONTROL FACILITY SHALL BE CONSTRUCTED PRIOR TO ANY GRADING OR EXTENSIVE LAND CLEARING IN ACCORDANCE WITH THE APPROVED TEMPORARY EROSION/SEDIMENTATION CONTROL PLAN. THESE FACILITIES MUST BE SATISFACTORILY MAINTAINED UNTIL CONSTRUCTION AND LANDSCAPING IS COMPLETED AND THE POTENTIAL FOR ON-SITE EROSION HAS PASSED.

- HYDROSEEDING GENERAL NOTES**
- CONSTRUCTION ACCEPTANCE: WILL BE SUBJECT TO A WELL ESTABLISHED GROUND COVER THAT FULFILLS THE REQUIREMENT OF THE APPROVED CONSTRUCTION PLANS AND TITLE 24, SNOHOMISH COUNTY DRAINAGE ORDINANCE.
  - ALL DISTURBED AREAS SUCH AS RETENTION FACILITIES, ROADWAY BACK-SLOPES, ETC. SHALL BE SEEDED WITH A PERENNIAL GROUND COVER TO MINIMIZE EROSION. GRASS SEEDING WILL BE DONE USING AN APPROVED HYDROSEEDER OR AS OTHERWISE APPROVED BY SNOHOMISH COUNTY.
  - PREPARATION OF SURFACE: ALL AREAS TO BE SEEDING SHALL BE CULTIVATED TO THE SATISFACTION OF THE COUNTY INSPECTOR. THIS MAY BE ACCOMPLISHED BY DISKING, RAKING, HARROWING OR OTHER ACCEPTABLE MEANS.
  - IMMEDIATELY FOLLOWING FINISH GRADING, PERMANENT VEGETATION (CONSISTING OF RAPID, PERENNIAL AND LEGUME) WILL BE APPLIED. (MINIMUM 80% PER ACRES TO INCLUDE THE FOLLOWING: 20% ANNUAL PERENNIAL OR HYBRID RYE GRASS, 40% CRISPBERG RED FESCUE, 40% WHITE CLOVER HYDROSEED REQUIRED.
  - FERTILIZER: SHALL BE APPLIED AT 400# PER ACRE OF 10-20-20 (10 POUNDS PER 1100 SQUARE FEET) OR EQUIVALENT.
- MAINTENANCE OF SITUATION BARRIERS**
- SITUATION BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED BALES, END RUNS AND UNDERCUTTING BENEATH BARRIERS. NECESSARY REPAIRS TO BARRIERS OR REPLACEMENT OF BALES SHALL BE ACCOMPLISHED PROMPTLY. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH RAINFALL. THEY MUST BE REMOVED WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRACE, PREPARED AND SEED.

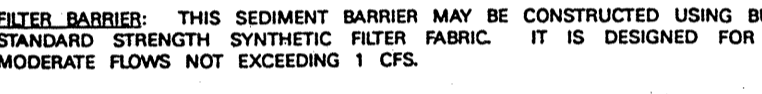
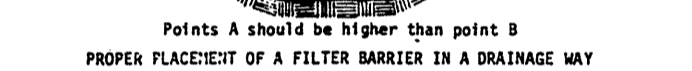
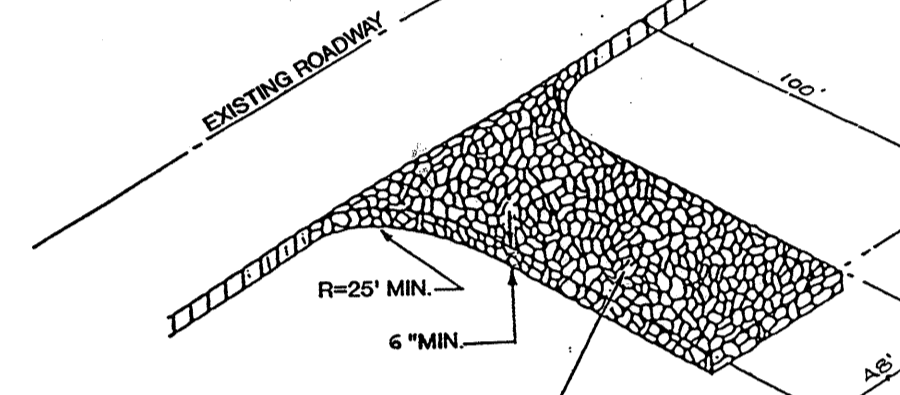


**SITE GRADING AND T.E.S.C.P. NOTES**

- NON COMPLIANCE WITH THE EROSION CONTROL REQUIREMENTS, WATER QUALITY REQUIREMENTS AND CLEARING LIMITS VIOLATIONS MAY RESULT IN REVOCATION OF PROJECT PERMITS, PLAN MARKINGS AND ORDURES.
- PRIOR TO ANY SITE CONSTRUCTION TO INCLUDE CLEARING/LOGGING OR GRADING THE SITESLOT CLEARING LIMITS SHALL BE LOCATED AND FIELD IDENTIFIED BY THE PROJECT SURVEYOR/ENGINEER AS REQUIRED BY THESE PLANS. THE PROJECT SURVEYOR/ENGINEER'S NAME AND TELEPHONE NUMBER ARE LÖVELL-SAUERLAND & ASSOCIATES, INC. 775-1591.
- THE DEVELOPER/PROJECT ENGINEER IS RESPONSIBLE FOR WATER QUALITY AS DETERMINED BY THE MONITORING PROGRAM, ESTABLISHED BY THE PROJECT ENGINEER. THE PROJECT ENGINEER'S NAME AND PHONE NUMBER ARE LÖVELL-SAUERLAND & ASSOCIATES, INC. 775-1591.
- PRIOR TO ANY SITE WORK, THE CONTRACTOR SHALL CONTACT THE CHIEF INSPECTOR FOR LAND DEVELOPMENT DIVISION AT (206) 388-3388 TO SCHEDULE A PRECONSTRUCTION CONFERENCE. DUE TO FIELD CHANGES (REVISIONS), ENGINEERED AS-BUILTS SHALL BE REQUIRED PRIOR TO SITE APPROVAL.
- THE TEMPORARY EROSION/SEDIMENTATION CONTROL FACILITY SHALL BE CONSTRUCTED PRIOR TO ANY GRADING OR EXTENSIVE LAND CLEARING IN ACCORDANCE WITH THE APPROVED TEMPORARY EROSION/SEDIMENTATION CONTROL PLAN. THESE FACILITIES MUST BE SATISFACTORILY MAINTAINED UNTIL CONSTRUCTION AND LANDSCAPING IS COMPLETED AND THE POTENTIAL FOR ON-SITE EROSION HAS PASSED.

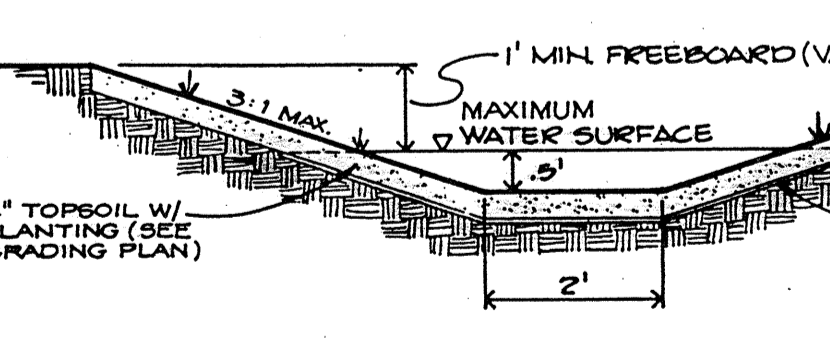


- ROCK CHECK DAM**
- STONE CHECK DAMS SHOULD BE CONSTRUCTED OF 2- TO 3-INCH STONE. THE STONE SHOULD BE PLACED ACCORDING TO THE CONFIGURATION AND MECHANICAL PLACEMENT WILL BE NECESSARY TO ACHIEVE COMPLETE COVERAGE OF THE DITCH OR SWALE AND TO INSURE THAT THE CENTER OF THE DAM IS LOWER THAN THE EDGES.
- MAINTENANCE**
- CHECK DAMS SHOULD BE CHECKED FOR SEDIMENT ACCUMULATION AFTER EACH SIGNIFICANT RAINFALL. SEDIMENT SHOULD BE REMOVED WHEN IT REACHES ONE HALF OF THE ORIGINAL HEIGHT OR BEFORE.
- REMOVAL**
- CHECK DAMS MUST BE REMOVED WHEN THEIR USEFUL LIFE HAS BEEN COMPLETED. IN TEMPORARY DITCHES AND SWALES, CHECK DAMS SHOULD BE REMOVED AND THE DITCH FILED IN WHEN IT IS NO LONGER NEEDED. IN PERMANENT STRUCTURES, CHECK DAMS SHOULD BE REMOVED WHEN A PERMANENT LINING CAN BE INSTALLED. IN THE CASE OF GRASS-LINED DITCHES, CHECK DAMS SHOULD BE REMOVED WHEN THE GRASS HAS MATURED SUFFICIENTLY TO PROTECT THE DITCH OR SWALE. THE AREA BENEATH THE CHECK DAMS SHOULD BE SEEDED AND MULCHED IMMEDIATELY AFTER THEY ARE REMOVED.



- Filter Barrier:** THIS SEDIMENT BARRIER MAY BE CONSTRUCTED USING BURLAP OR STANDARD STRENGTH SYNTHETIC FABRIC. IT IS DESIGNED FOR LOW OR MODERATE FLOWS NOT EXCEEDING 1 CFS.
- THE HEIGHT OF A FILTER BARRIER SHALL BE A MINIMUM OF 15 INCHES AND SHALL NOT EXCEED 18 INCHES.
  - BURLAP OR STANDARD STRENGTH FILTER BARRIER SHALL BE PURCHASED IN A CONTINUOUS ROLL AND CUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS AND TO IMPROVE THE STRENGTH AND EFFICIENCY OF THE BARRIER.
  - THE STAKES SHALL BE SPACED A MAXIMUM OF 3 FEET APART AT THE BARRIER LOCATION AND DRIVEN SECURELY INTO THE GROUND (MINIMUM OF 8 INCHES).
  - A TRENCH SHALL BE EXCAVATED APPROXIMATELY 4 INCHES WIDE AND 4 INCHES DEEP ALONG THE LINE OF STAKES AND UPSLOPE FROM THE BARRIER.
  - THE FILTER MATERIAL SHALL BE STAPLED TO THE WOODEN STAKES, AND 8 INCHES OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. HEAVY DUTY WIRE STAPLES AT LEAST 12-INCH LONG SHALL BE USED. FILTER MATERIAL SHALL NOT BE STAPLED TO EXISTING TREES.
  - THE TRENCH SHALL BE BACKFILLED AND THE SOIL COMPACTED OVER THE FILTER MATERIAL.
  - IF A FILTER BARRIER IS TO BE CONSTRUCTED ACROSS A DITCH LINE OR SWALE, THE BARRIER SHALL BE OF SUFFICIENT LENGTH TO ELIMINATE END FLOW, AND THE PLAN CONFIGURATION SHALL RESEMBLE AN ARC OR HORSESHOE WITH THE ENDS ORIENTED UPSLOPE.
  - FILTER BARRIERS SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.

- MAINTENANCE**
- SILT FENCES AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
  - SHOULD THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL IS NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
  - SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
  - ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRACE, PREPARED AND SEED.

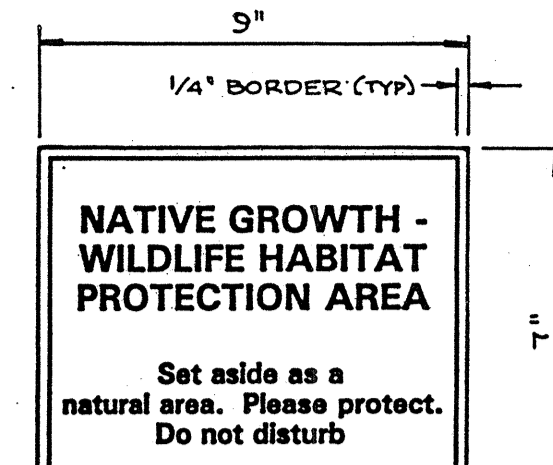


- NATIVE GROWTH/WILDLIFE HABITAT PROTECTION AREA (N.G./W.H.P.A.)**
- \*ALL NATIVE GROWTH/WILDLIFE HABITAT PROTECTION AREAS SHALL BE LEFT IN A SUBSTANTIALLY NATURAL STATE. NO CLEARING, GRADING, FILLING, BUILDING CONSTRUCTION OR PLACEMENT, FENCE CONSTRUCTION, OR ROAD CONSTRUCTION OF ANY KIND SHALL OCCUR WITHIN THESE AREAS. PROVIDED THAT UNDERGROUND UTILITY LINES AND DRAINAGE DISCHARGE SWALES MAY CROSS SUCH AREAS UTILIZING THE SHORTEST ALIGNMENT POSSIBLE IF AND ONLY IF NO FEASIBLE ALIGNMENT IS AVAILABLE WHICH WOULD AVOID SUCH A CROSSING. REMOVAL OF VEGETATION BY THE PROPERTY OWNER SHALL BE LIMITED TO THAT WHICH IS DEAD, DISEASED OR HAZARDOUS. NO ADJUSTMENT TO THE BOUNDARY OF ANY SUCH AREA SHALL OCCUR UNLESS FIRST APPROVED THROUGH THE FORMAL REPLAT PROCESS.\*
- AREAS TO BE CLEAR CUT STUMPS REMOVED**
- ENTIRE PROJECT ROAD & FUTURE UTILITY EASEMENTS TO A WIDTH NECESSARY FOR THE FUTURE PLACEMENT OF ROAD AND UTILITY IMPROVEMENTS.
  - BUILDING SITE AREAS EXCLUDING ALDER, WHERE PRACTICAL, RETAIN DESIRABLE NON-SCRUB OVERSTORY 6" DIAMETER OR LESS WITHIN SIDE AND REAR YARD AREAS.
- AREAS TO REMAIN IN NATURAL STATE**
- ALL AREAS OUTSIDE THE LIMITS OF CLEARING.
  - NO STOCKPILING OF TOPSOIL, TIMBER OR STUMPS WITHIN ANY AREA TO REMAIN IN A NATURAL STATE.

**PLANT LIST FOR DRAINAGE SWALES**

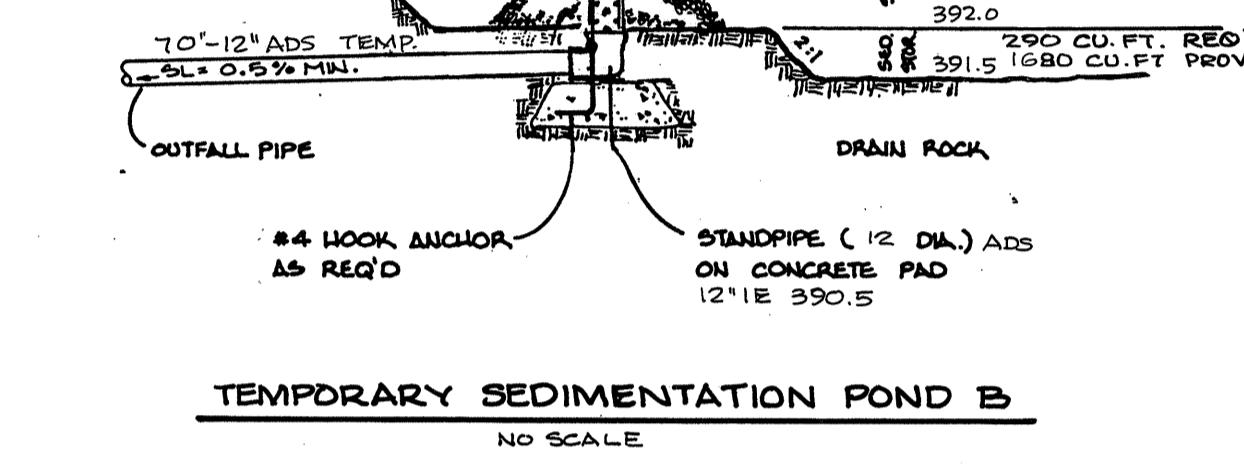
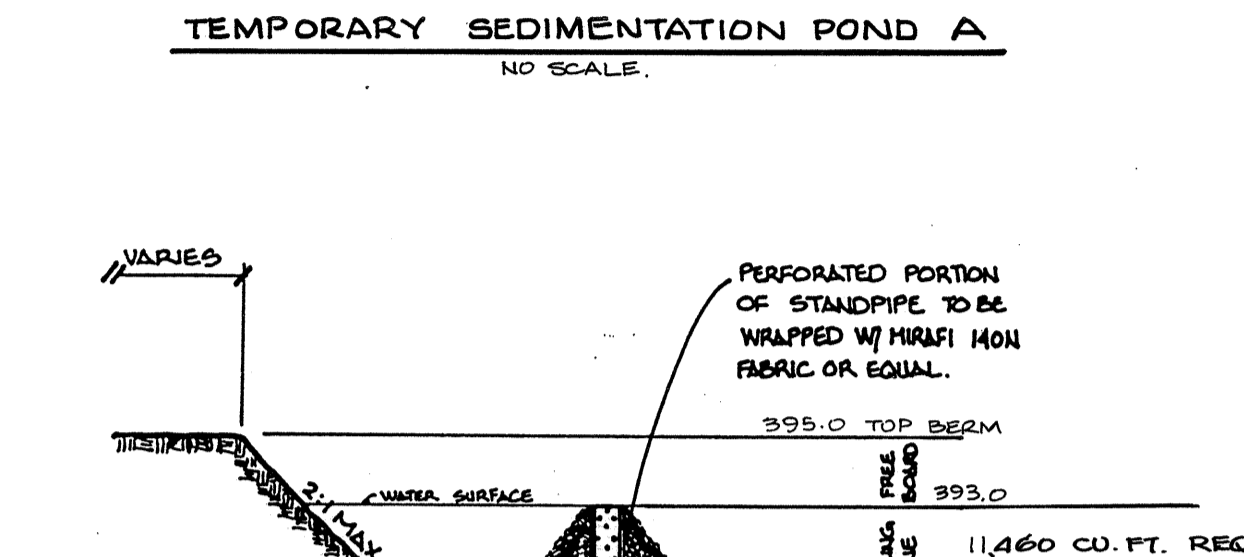
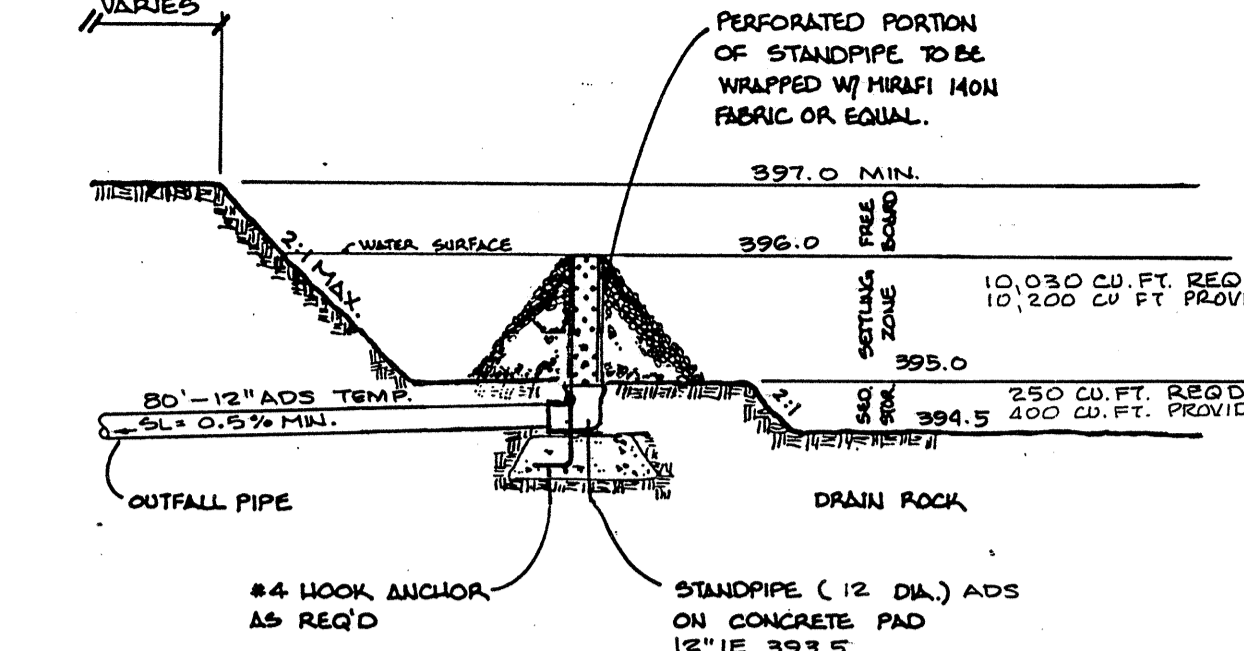
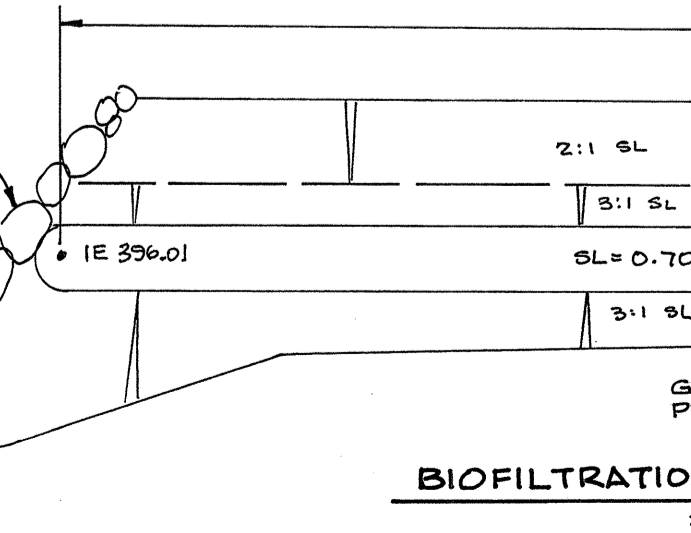
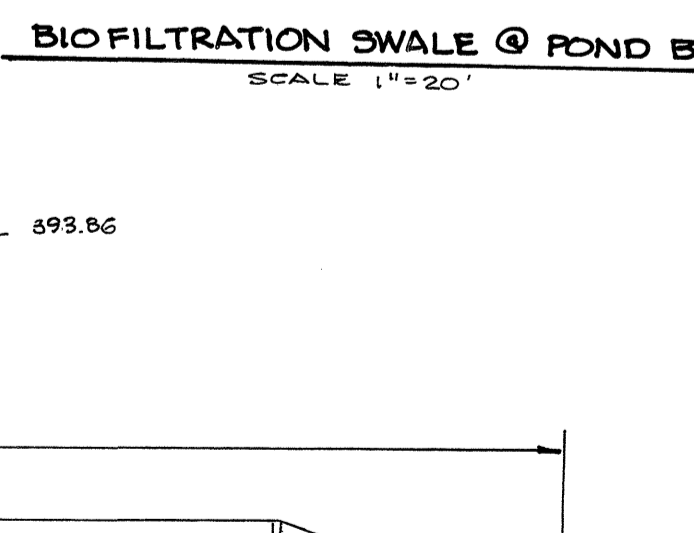
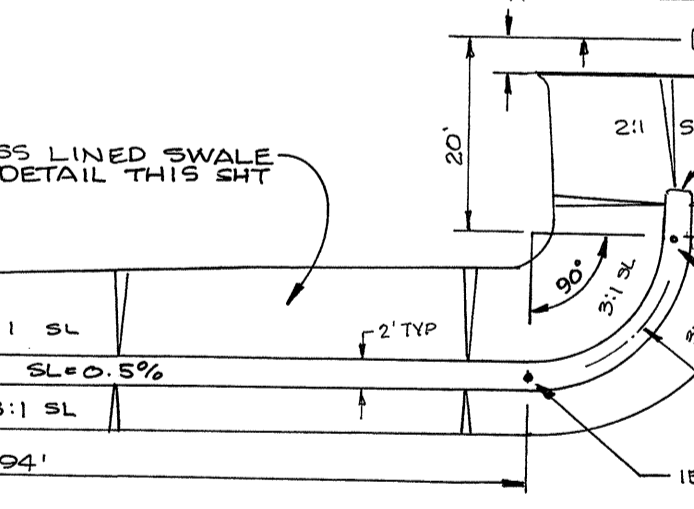
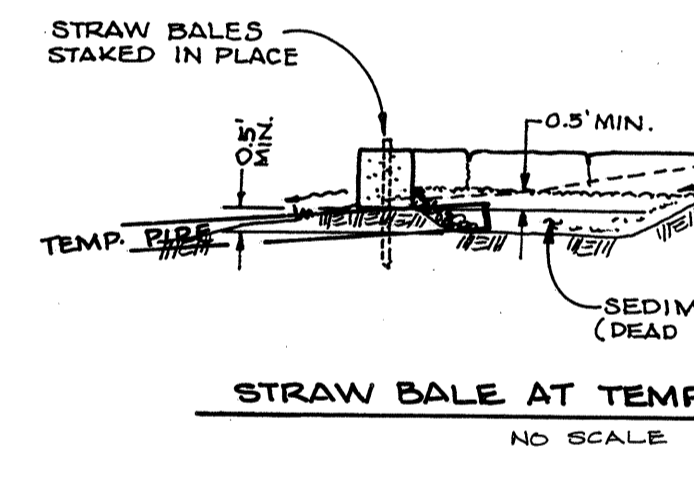
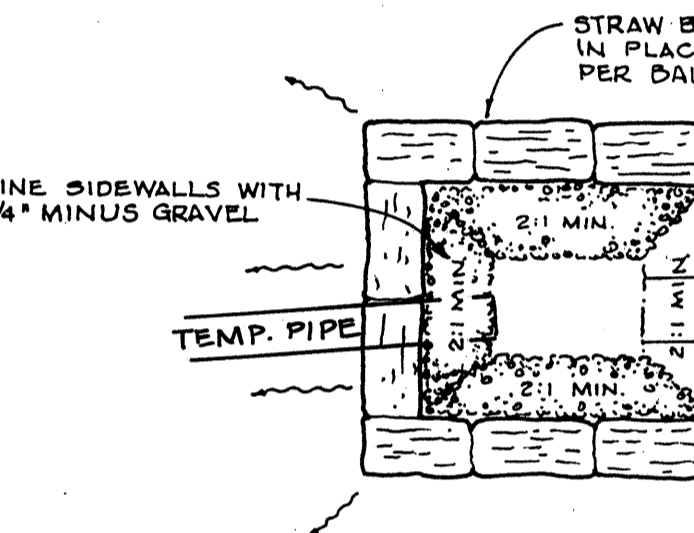
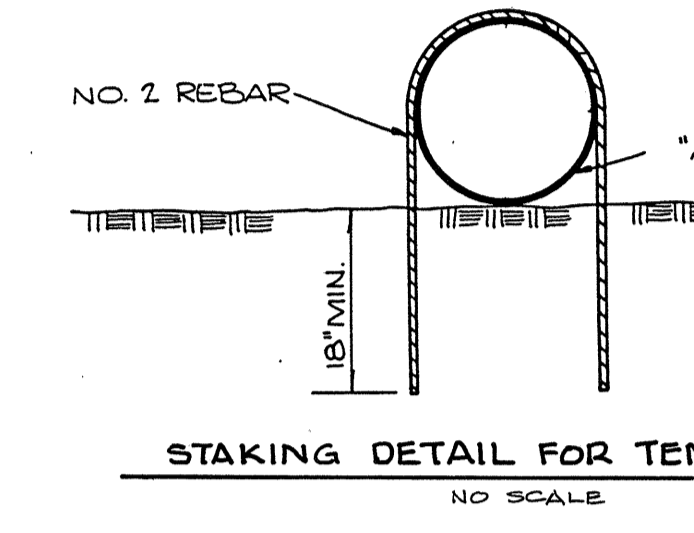
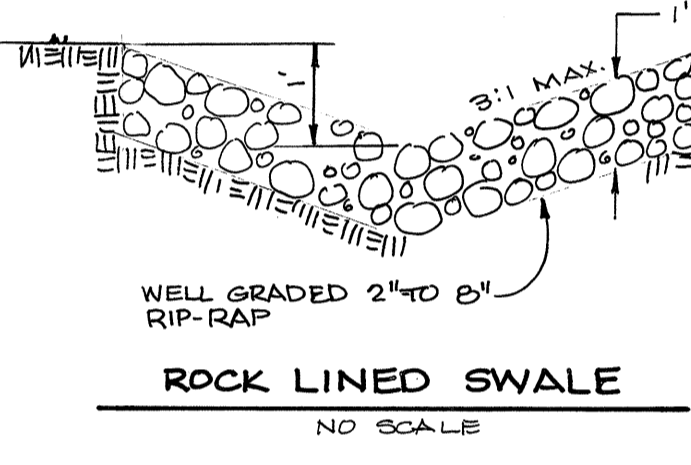
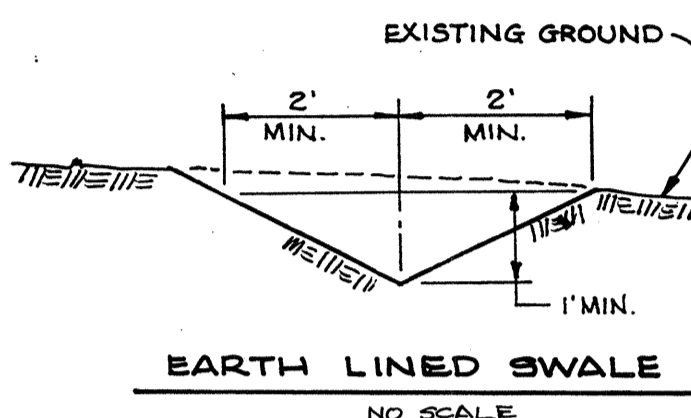
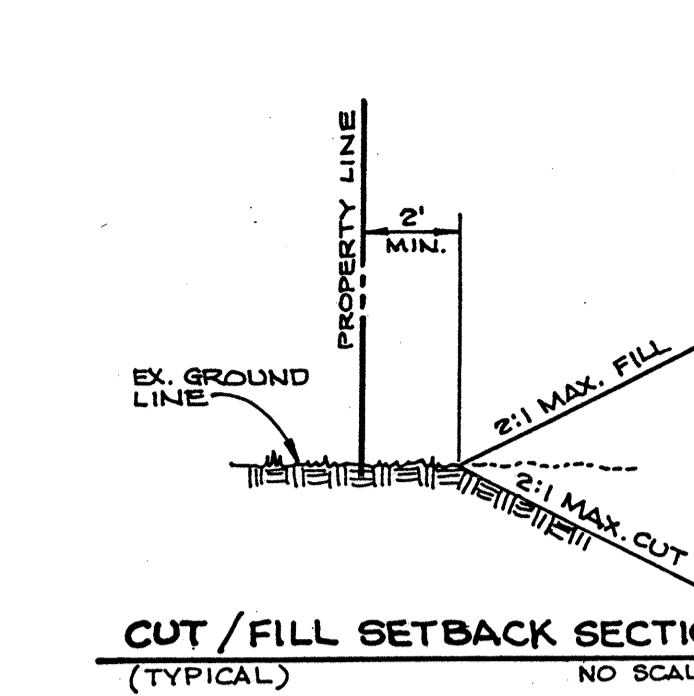
SCIENTIFIC NAME	COMMON NAME
<i>Alopecurus pratensis</i>	Meadow Foxtail
<i>Alopecurus arundineus</i> Poir.	Creeping Foxtail
<i>Agrostis alba</i>	Redtop
<i>Festuca rubra</i>	Creeping Red Fescue
<i>Lolium sp., L. multiflorum</i>	Angling Ryegrass(es)
<i>Phalaris amabilis</i>	Angling Ryegrass
<i>Poa pratensis</i>	Timothy
<i>Trifolium repens</i>	'New Zealand' White Clover

*Grasses and Legumes for Soil Conservation in the Pacific Northwest and Great Basin States, National Research No. 37, Soil Conservation Service, U.S. Department of Agriculture, August 1971.*



NOTE: SIGN TO BE 0.063" ALUMINUM WITH PAINTED LIGHT GREEN BACKGROUND AND BLACK LETTERING AND BORDER. SIGN TO BE SECURELY BOLTED TO A TREATED 4"X4" POST. BOTTOM OF SIGN TO BE A MINIMUM OF 3" ABOVE SURROUNDING FINISH GRADE. POST TO BE BURIED A MINIMUM OF 2' BELOW FINISH GRADE, AND SECURELY SET IN CONCRETE.

**N.G.P.A. - WILDLIFE SIGN DETAIL**  
NO SCALE



APPROXIMATE QUANTITIES OF EXCAVATION AND FILL (SEE NOTE 1, BELOW)

EXCAVATION: \_\_\_\_\_ CUBIC YARDS  
FILL: \_\_\_\_\_ CUBIC YARDS

NOTES:

- THE QUANTITIES OF EXCAVATION AND FILL ARE APPROXIMATE AND ARE SHOWN ONLY FOR THE PURPOSE OF OBTAINING A GRADING PERMIT AND SHALL NOT BE USED FOR CONTRACTUAL PURPOSES.

- CONSTRUCTION SEQUENCE SCHEDULE**
- ROCK CONSTRUCTION ENTRANCES.
  - INSTALL ALL EROSION CONTROL MEASURES AS SHOWN ON TEMPORARY EROSION AND SEDIMENTATION CONTROL PLAN.
  - GRADING.
  - INSTALL DRAINAGE SYSTEM AND OTHER UTILITIES PER PLAN.
  - PLACE CURB, GUTTER AND SIDEWALK.
  - PAVE ALL ROADS.
  - HYDROSEED AS REQUIRED.

SNOHOMISH COUNTY  
COMMUNITY DEVELOPMENT DIVISION  
APPROVED FOR CONSTRUCTION

By: *Danell Sorenson* DATE: 7-23-93  
FOR RANDOLPH R. SLEIGHT, P.E., P.L.S.  
RAW PERMIT NO. RW1256

GRADING AND T.E.S.C. DETAILS  
FOR  
**RHOD-A-ZALEA GARDENS**  
IN S.E. 1/4 OF SECTION 32, T.28 N., R.5 E., W.M.  
SNOHOMISH COUNTY, WASHINGTON  
ZA 8802041

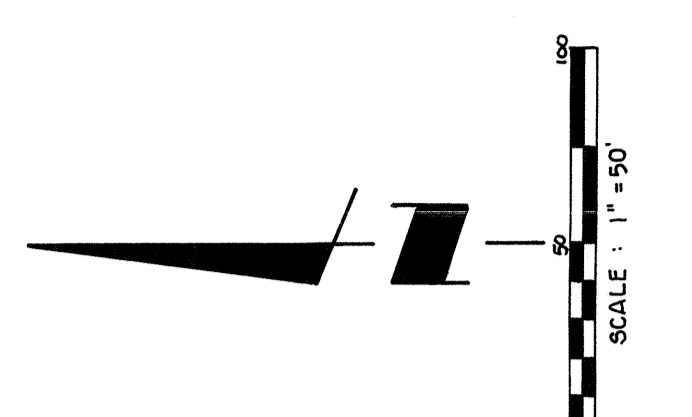
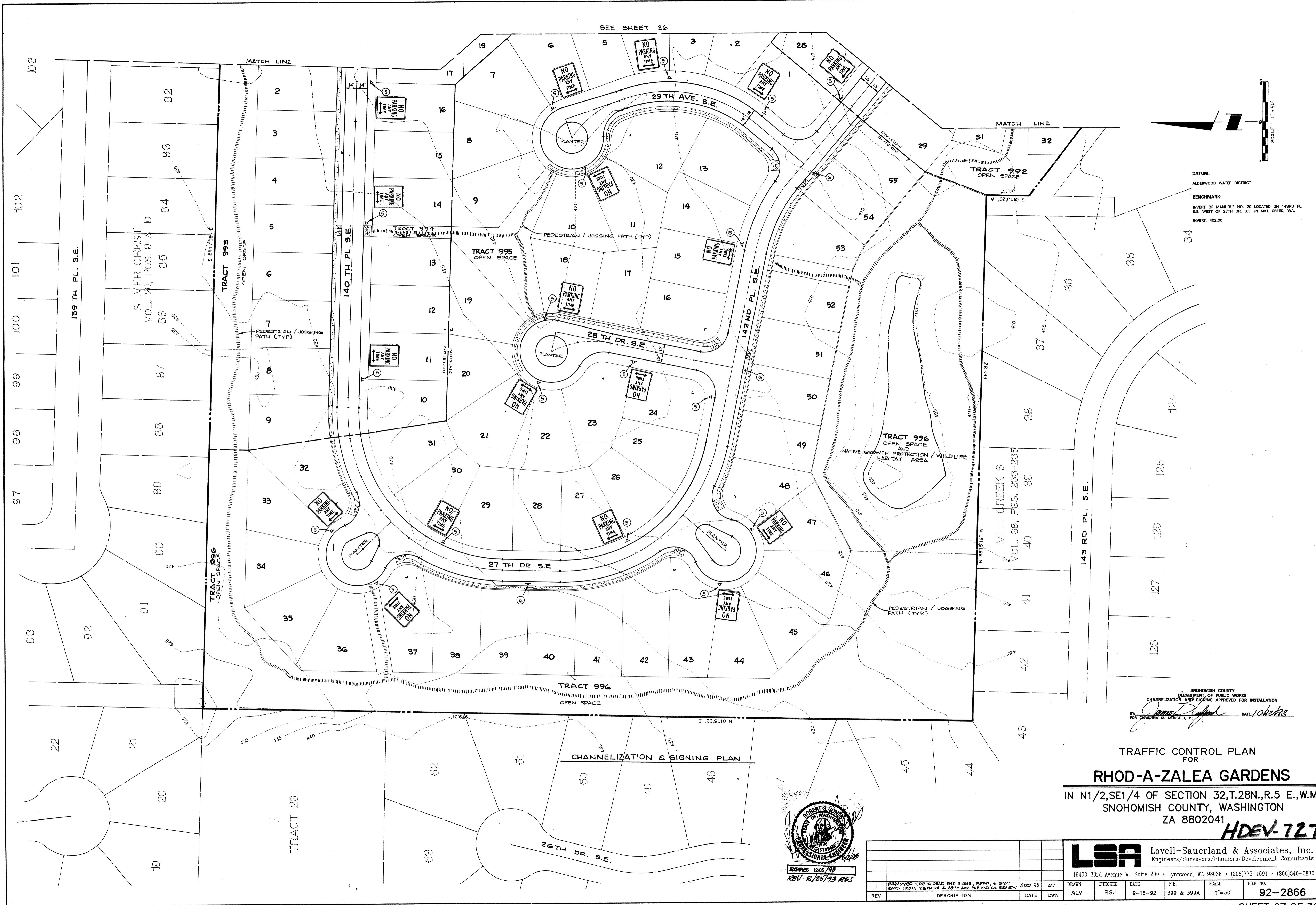
**HDEV-724**

**LSA Lovell-Sauerland & Associates, Inc.**  
Engineers/Surveyors/Planners/Development Consultants  
19400 33rd Avenue W., Suite 200 • Lynnwood, WA 98036 • (206) 775-1591 • (206) 340-0830

DRAWN	CHECKED	DATE	FB	SCALE	FILE NO.
ALV	RSJ	APR., 1993		AS NOTED	92-2866

EXPIRES 7/04/97  
DATE REVISED 7/16/93

SEE SHEET 26



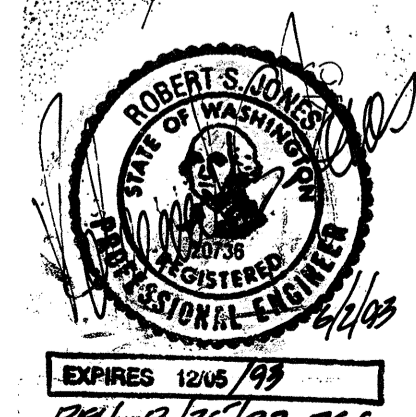
DATUM:  
ALDERWOOD WATER DISTRICT

BENCHMARK:  
INVERT OF MANHOLE NO. 20 LOCATED ON 143RD PL. S.E. WEST OF 27TH DR. S.E. IN MILL CREEK, WA.  
INVERT. 402.00

SNOWHISH COUNTY  
DEPARTMENT OF PUBLIC WORKS  
CHANNELIZATION AND SIGNING APPROVED FOR INSTALLATION

BY: *[Signature]* DATE: 10/16/92  
FOR: CHRISTINA M. MCGOTT, P.E.

TRAFFIC CONTROL PLAN  
FOR  
**RHOD-A-ZALEA GARDENS**  
IN N1/2, SE1/4 OF SECTION 32, T.28N., R.5 E., W.M.  
SNOWHISH COUNTY, WASHINGTON  
ZA 8802041  
**HDEV-727**



REV	DESCRIPTION	DATE	DWN	ALY	RSJ	DATE	F.B.	SCALE	FILE NO.
1	REMOVED STOP & DEAD END SIGNS, R.F.M.S. & STOP SIGNS FROM 26TH DR. & 27TH AVE FOR SNO.CO. REVIEW	4 OCT 93	AV			9-16-92	399 & 399A	1"=50'	92-2866

SPECIFICATIONS

THIS WORK SHALL CONSIST OF FURNISHING ALL MATERIALS, LABOR, EQUIPMENT AND RELATED ITEMS NECESSARY FOR PLANTING AND WARRANTING FOR A 365 DAY LANDSCAPE ESTABLISHMENT PERIOD. HERBS AND OTHER PLANT MATERIALS AS SPECIFIED IN THE CONTRACT DOCUMENTS...

THE WETPOND PLANTING PLAN FOR RHOD-A-ZALEA GARDENS PORTRAYS THE GENERAL CONCEPTS OF THE PROJECT AND, TOGETHER WITH THE DETAILS CONTAINED IN THE FINAL MITIGATION PLAN AND ADDENDUM TO THE FINAL MITIGATION PLAN TEXTS, PRESENT THE SPECIFICS OF PERFORMANCE STANDARDS AND PROCEDURES FOR THE MITIGATION PROJECT.

NO CONSTRUCTION WORK WILL TAKE PLACE UNTIL A PRE-CONSTRUCTION MEETING IS HELD BETWEEN THE CONTRACTOR, PROJECT BIOLOGIST, OWNER'S REPRESENTATIVE AND SNOHOMISH COUNTY REPRESENTATIVES.

PROJECT BIOLOGIST SHALL PROVIDE CONSTRUCTION MANAGEMENT SERVICES FOR ALL LANDSCAPING ACTIVITIES AND WILL DIRECT ALL FIELD ACTIVITIES, INCLUDING PLANT LOCATIONS, FIELD MODIFICATIONS AND PLANTING TECHNIQUES.

CONTRACTOR SHALL GIVE THE PROJECT BIOLOGIST SEVEN (7) DAYS NOTICE PRIOR TO INTENTION TO PROCEED WITH CONSTRUCTION. THE PROJECT BIOLOGIST MAY BE CONTACTED BY TELEPHONE AT (206) 775-1591 OR (206) 340-0830.

CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT EXISTING SITE IMPROVEMENTS. DAMAGE SHALL BE REPAIRED TO THE OWNER'S SATISFACTION AND AT NO ADDITIONAL COST TO THE OWNER.

ALL WORK SHALL CONFORM TO THE TEMPORARY EROSION AND SEDIMENTATION CONTROL PLAN AND OTHER CONSTRUCTION REQUIREMENTS AND STANDARDS CONTAINED IN THE CONSTRUCTION PLANS.

THE CONTRACTOR SHALL STOCKPILE ANY EXCAVATED WETLANDS SOILS CONTAINING ROOTSTOCK AND SEEDSTOCK UNDER PROTECTIVE COVER ON THE SITE AS DIRECTED BY PROJECT BIOLOGIST.

THE CONTRACTOR SHALL NOTIFY PROJECT BIOLOGIST OF ADVERSE DRAINAGE CONDITIONS AFFECTING PLANT GROWTH OR OTHER ADVERSE CONDITIONS WHICH MAY AFFECT PLANT GROWTH. IF CONTRACTOR ENCOUNTERS UNUSUAL CONDITIONS LIKELY TO BE DETRIMENTAL TO NEW PLANTINGS, NOTIFY PROJECT BIOLOGIST IMMEDIATELY.

AT THE TIME OF INITIATING PLANTING, CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND FIELD STAKING OF PLANTING ZONE LIMITS RELATIVE TO THE KNOWN ELEVATION OF THE CONTROL STRUCTURE AND SHALL ASSIST THE PROJECT BIOLOGIST IN THE VERIFICATION OF ADHERENCE TO SUCH ELEVATIONS.

EXISTING GRADE WITHIN THE PLANTING ZONES IN THE EMERGENT WETLAND MITIGATION AREAS SHALL BE OVEREXCAVATED BELOW FINAL GRADE TO A MINIMUM DEPTH OF 12 INCHES. WETLAND SOILS EITHER STOCKPILED FROM WETLANDS APPROVED FOR REMOVAL ON-SITE OR FROM APPROVED OFF-SITE SOURCES SHALL BE USED TO MEET GRADE IN WETLANDS PLANTING AREAS.

CONTRACTOR SHALL BE RESPONSIBLE FOR BRINGING EMERGENT WETLAND PLANTING AREA TO FINISHED GRADE, PERFORMING FINAL LEVELLING BY HAND TO REMOVE EQUIPMENT TRACKS AND OTHER IRREGULARITIES.

SPECIFICATIONS

PRIOR TO PLANTING IN THE PAVEMENT REPLACEMENT AREAS, EXISTING PAVED TRAIL AND APRON SHALL BE REMOVED AND UNDERLYING SOIL REMOVED TO A DEPTH OF 12 INCHES.

TOPSOILS FROM SITE PREPARATION MAY BE USED IN CONSTRUCTION OF THE TOP 24 INCHES OF THE BERM AREA OUTSIDE THE WETLAND PLANTING AREAS AND SOIL REPLACEMENT OF THE TOP 12 INCHES OF THE PAVEMENT REPLACEMENT AREAS, PROVIDED THAT SUCH TOPSOIL IS FREE OF WOODY DEBRIS AND OTHER DELETERIOUS MATERIAL.

SUBGRADE WITHIN THE BERM AREA OUTSIDE THE WETLAND PLANTING AREAS SHALL BE ESTABLISHED TO A MINIMUM DEPTH OF 12 INCHES BELOW GRADE, WHERE COMPACTED.

FOLLOWING ESTABLISHMENT OF SUBGRADE IN THE BERM AREAS, TOPSOILS SHALL BE ADDED TO A MINIMUM DEPTH OF 12 INCHES IN THREE EQUAL LIFTS TO MEET GRADE. WITH THE FIRST AND SECOND LIFTS TO BE ROTATED TO A DEPTH OF 12 INCHES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR BRINGING BUFFER ENHANCEMENT AREA TO FINISHED GRADE, PERFORMING FINAL LEVELLING BY HAND TO REMOVE EQUIPMENT TRACKS AND OTHER IRREGULARITIES.

ALL WETLAND PLANTING WORK SHALL BE PERFORMED BY PERSONS FAMILIAR WITH WETLANDS LANDSCAPE INSTALLATION AND ALL WETLAND, BERM AND PAVEMENT REPLACEMENT AREA PLANTING SHALL BE UNDER THE SUPERVISION OF A QUALIFIED LANDSCAPE FOREMAN AND THE PROJECT BIOLOGIST.

PLANT LOCATIONS ON PLANTING PLAN ARE DIAGRAMMATIC AND MAY BE SUBJECT TO ADJUSTMENT IN THE FIELD BY THE PROJECT BIOLOGIST. QUANTITIES IN THE PLANT SCHEDULE ARE FOR THE CONTRACTOR'S CONVENIENCE; IF THERE IS A DISCREPANCY, THE DIAGRAMMATIC REPRESENTATION ON THE PLANS SHALL GOVERN.

ALL PLANTS SHALL BE NURSERY GROWN OR TRANSPLANTED FROM SITE AREAS APPROVED FOR REMOVAL OR OTHER APPROVED AREAS AND MEET AMERICAN STANDARDS FOR NURSERY STOCK AND AMERICAN NURSERYMAN ASSOCIATION STANDARDS. ALL TREES SHALL HAVE WELL-BRANCHED TOPS WITH REASONABLY STRAIGHT, WELL DEVELOPED SINGLE LEADERS.

PLANT MATERIAL FURNISHED SHALL BE AT LEAST THE MINIMUM SIZE SPECIFIED. LARGER STOCK MAY BE ACCEPTABLE AT NO ADDITIONAL COST, AND PROVIDING THAT THE LARGER PLANTS WILL NOT BE CUT BACK TO SIZE INDICATED.

ALL SUPPLIED PLANTS SHALL BE DUG, PACKED AND TRANSPORTED IN A MANNER WHICH ENSURES AGAINST INJURY. PLANTS SHALL BE STORED IN A MANNER WHICH RESPONDS TO THEIR INDIVIDUAL HORTICULTURAL REQUIREMENTS.

THE PROJECT BIOLOGIST SHALL INSPECT PLANT MATERIALS TO VERIFY PLANT CHARACTERISTICS AND CONFORMANCE TO THE PLANT SCHEDULE AND SHALL RESERVE THE RIGHT TO REQUIRE REPLACEMENT OR SUBSTITUTION OF PLANTS JUDGED UNACCEPTABLE.

PLANT MATERIAL SHALL NOT BE INSTALLED WHEN AMBIENT AIR TEMPERATURE MAY DROP BELOW 35° OR ABOVE 80° F OR WHEN WIND VELOCITY EXCEEDS 30 KNOTS.

THE CONTRACTOR SHALL EXCAVATE PLANT PITS WITH VERTICAL SIDES, TO A MINIMUM OF TWICE THE SIZE OF THE ROOTBALL FOR WETLANDS PLANTING OR THREE TIMES THE SIZE OF THE ROOTBALL FOR UPLANDS PLANTING.

SPECIFICATIONS

DURING UPLANDS PLANTING, THE CONTRACTOR SHALL SCARIFY SIDES OF PLANTING PITS AND BACKFILL PLANT PITS WITH A MIXTURE OF TRANSPILERANT FERTILIZER, SOIL MOISTURE RETENTION AGENTS AND TOPSOIL.

Table with 5 columns: Plant Size, 4-2-2 Agro Slow Release, or Equivalent, 20-10-5 Plant Tabs, 5g., Soil Moist., or Equivalent, Soil Amendment (Stercor., or equivalent). Rows include 1 gal., 2 gal., 5 gal., and trees.

CONTRACTOR SHALL PROVIDE A SAMPLE OF TRANSPILERANT FERTILIZER, SOIL MOISTURE RETENTION AGENTS AND PLANT TABLETS FOR APPROVAL PRIOR TO INSTALLATION.

UPLAND PLANT PITS SHALL BE FINISHED WITH A RIM TO ENCOURAGE WATER-HOLDING. IMMEDIATELY AFTER PLANTING, PLANTING LOCATIONS SHALL BE SATURATED TO PRECLUDE CAPILLARY STRESS.

MULCH SHALL BE DECOMPOSED SAWDUST, STEERCO\* OR EQUIVALENT. GROUND BARK IS NOT ACCEPTABLE MULCH. CONTRACTOR SHALL SUBMIT MULCH SAMPLE TO THE PROJECT BIOLOGIST FOR APPROVAL PRIOR TO INSTALLATION.

UPLAND PLANTING AREAS SHALL BE HYDROSEED AT PROJECT BIOLOGIST'S DIRECTION TO REDUCE EROSION POTENTIAL. HYDROSEED MIXTURE FOR AREA INSIDE BERM BETWEEN WETLANDS AND TRAIL, PAVEMENT REPLACEMENT AREA AND IN SPORTS COURTS AREAS SHALL CONSIST OF 88 PERCENT MEADOW FESCUE (FESTUCA PRATENSIS).

CONTRACTOR SHALL WATER NEWLY INSTALLED PLANTS TO ENSURE SURVIVABILITY AND SHALL MAINTAIN THE PLANTINGS UNTIL FINAL APPROVAL BY OWNER AND/OR SNOHOMISH COUNTY. DURING DRY PERIODS, AND UPON CONCURRENCE WITH THE PROJECT BIOLOGIST, IT MAY BE NECESSARY TO PROVIDE FOR AND IMPLEMENT A WATERING SCHEDULE.

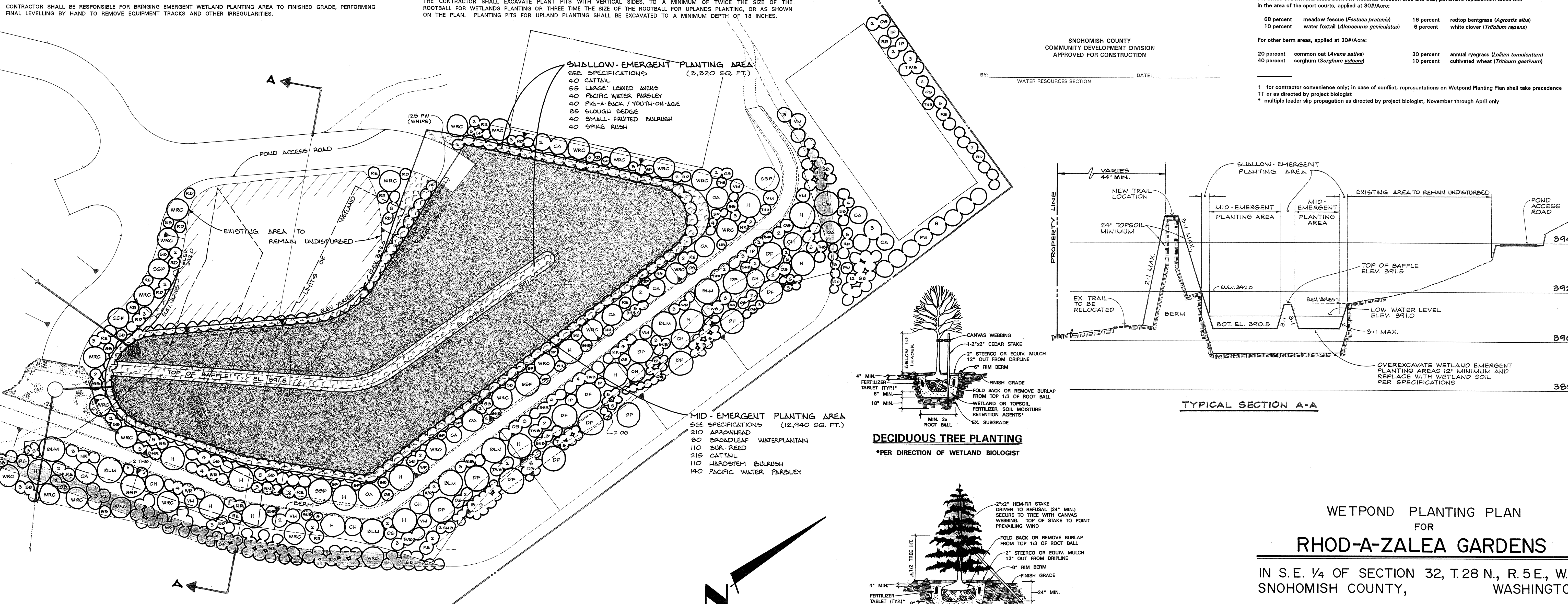
BEFORE FINAL INSPECTION, CONTRACTOR SHALL DELETERIOUS MATERIAL AND DEBRIS, RAKE PLANTING AREAS NEATLY AND TO EVEN FINISH GRADES AND REMOVE FLAG LABELS FROM PLANTINGS.

PLANT SCHEDULE

Table with columns: Symbol, Qty, Common Name, Scientific Name, Size, Spacing (O.C.). Categories include Trees, Shrubs, and Herbs.

For inside of berm and areas between wetlands creation area and trail, pavement replacement areas and in the area of the sport courts, applied at 30#/Acre: 68 percent meadow fescue (Festuca pratensis)...

\* for contractor convenience only; in case of conflict, representations on Wetpond Planting Plan shall take precedence over those on any other documents...

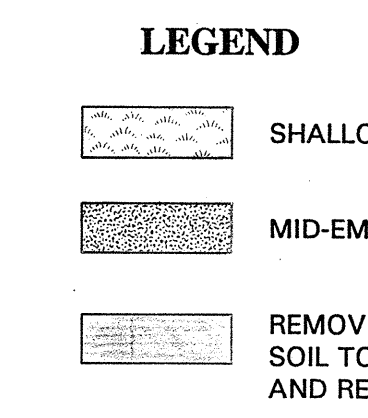
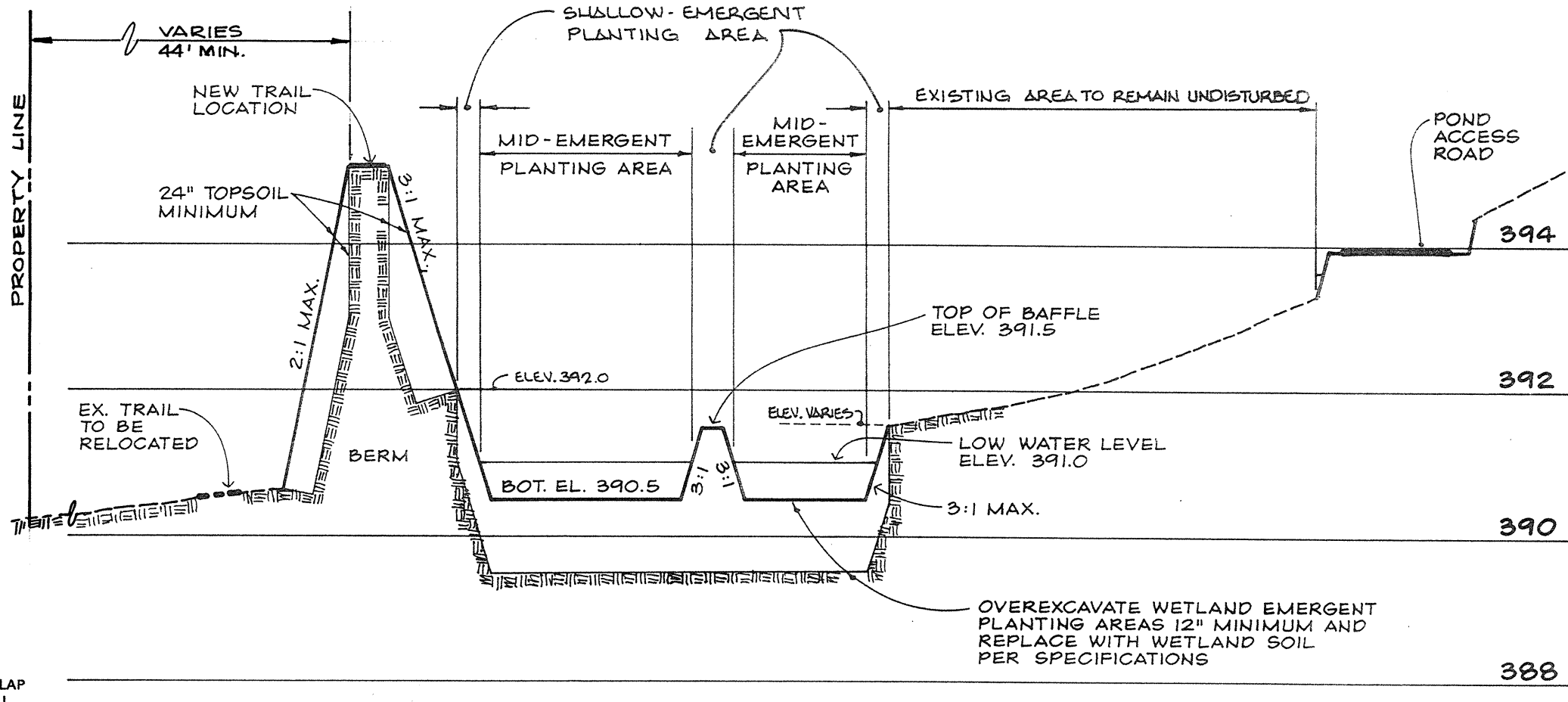
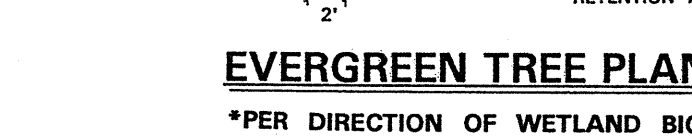
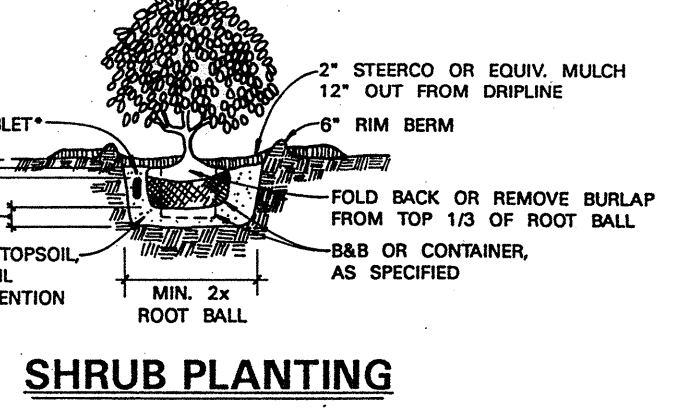


SHALLOW-EMERGENT PLANTING AREA (9,920 SQ. FT.) SEE SPECIFICATIONS 40 CATTAIL 55 LARGE LEAVED AWENS 40 PACIFIC WATER PARSLY 40 PIG-BACK / YOUTH-ON-A-GE 95 SLOUGH SEDGE 40 SMALL FRUITED BULRUSH 40 SPIKE RUSH

MID-EMERGENT PLANTING AREA (12,940 SQ. FT.) SEE SPECIFICATIONS 210 ARROWHEAD 80 BROADLEAF WATERPLANTAIN 110 BWA-FEED 215 CATTAIL 110 HARDSTEM BULRUSH 140 PACIFIC WATER PARSLY

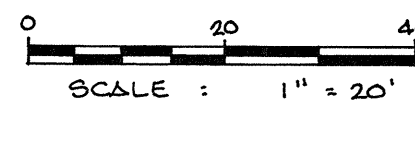
DECIDUOUS TREE PLANTING \*PER DIRECTION OF WETLAND BIOLOGIST

EVERGREEN TREE PLANTING \*PER DIRECTION OF WETLAND BIOLOGIST



SHRUB PLANTING \*PER DIRECTION OF WETLAND BIOLOGIST

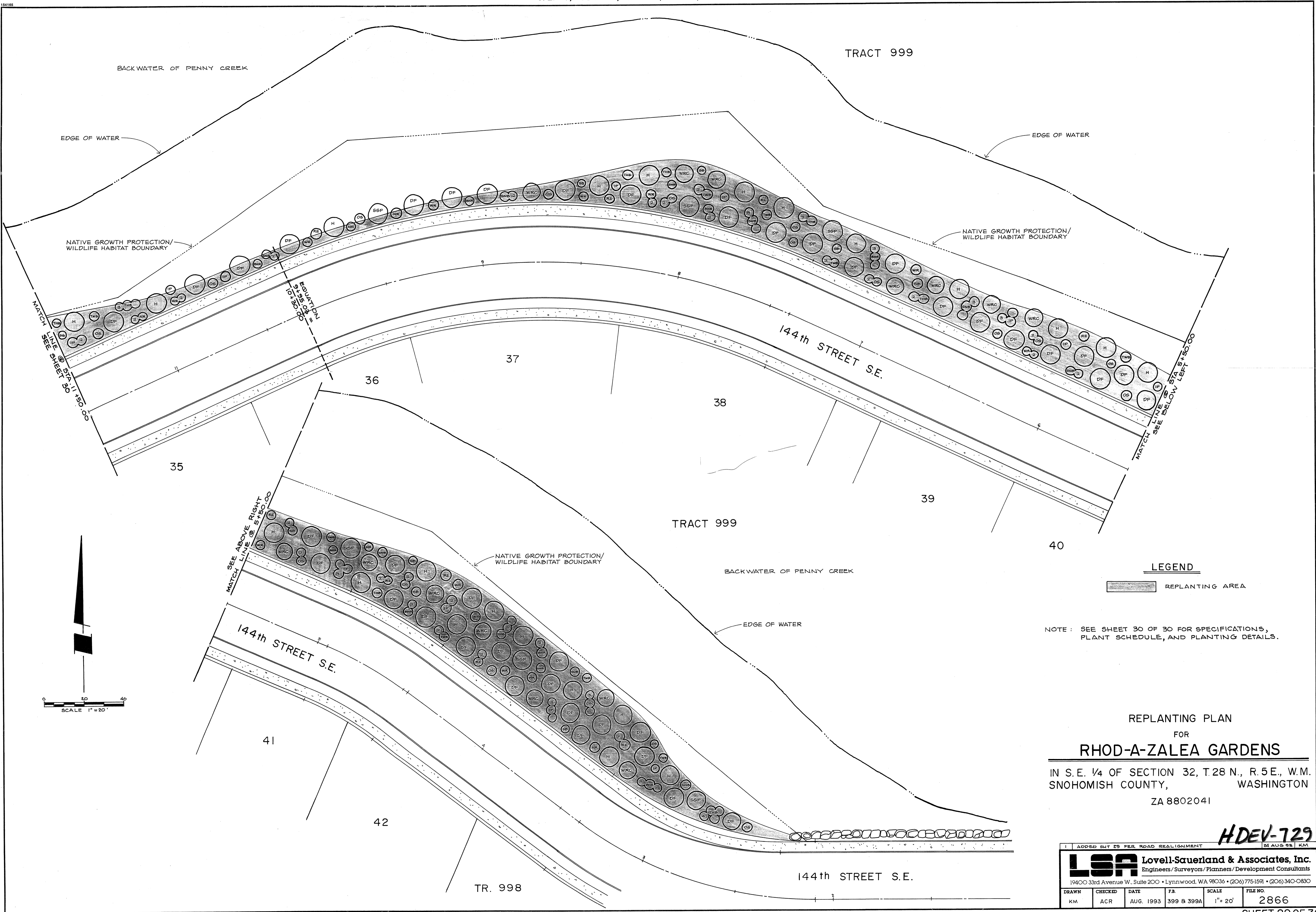
DATUM: ALDERWOOD WATER DISTRICT BENCHMARK: INVERT OF MANHOLE NO. 20 LOCATED ON 143RD PL. S.E. WEST OF 27TH DR. S.E. IN MILL CREEK, WA. INVERT: 402.00



WETPOND PLANTING PLAN FOR RHOD-A-ZALEA GARDENS IN S.E. 1/4 OF SECTION 32, T.28 N., R. 5 E., W.M. SNOHOMISH COUNTY, WASHINGTON ZA 8802041

LSA Lovell-Sauerland & Associates, Inc. Engineers/Surveyors/Planners/Development Consultants. HDEV-728 REVISED PER COUNTY COMMENTS 8-10-93 KM. DRAWN: GB, CHECKED: A.C.R., DATE: 28 MAY 93, FILE NO: 2866. HIGHLAND TRAILS SHEET 28 OF 30





**LEGEND**

REPLANTING AREA

NOTE: SEE SHEET 30 OF 30 FOR SPECIFICATIONS, PLANT SCHEDULE, AND PLANTING DETAILS.

**REPLANTING PLAN**

FOR

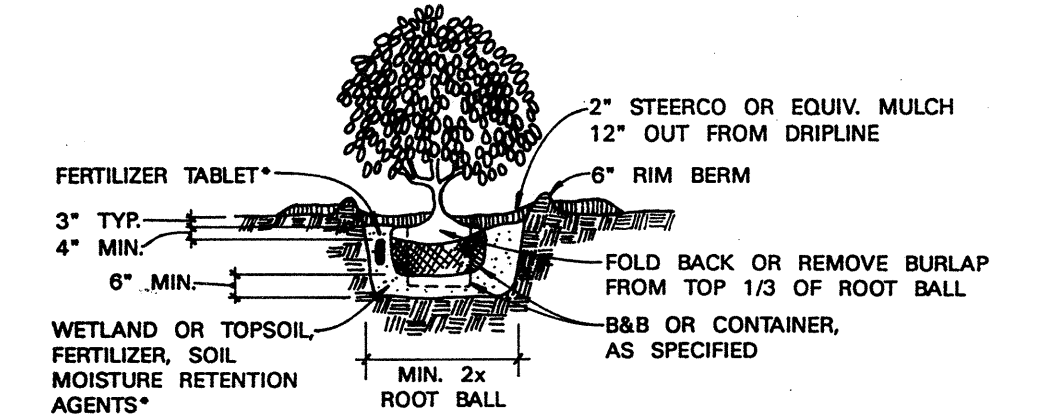
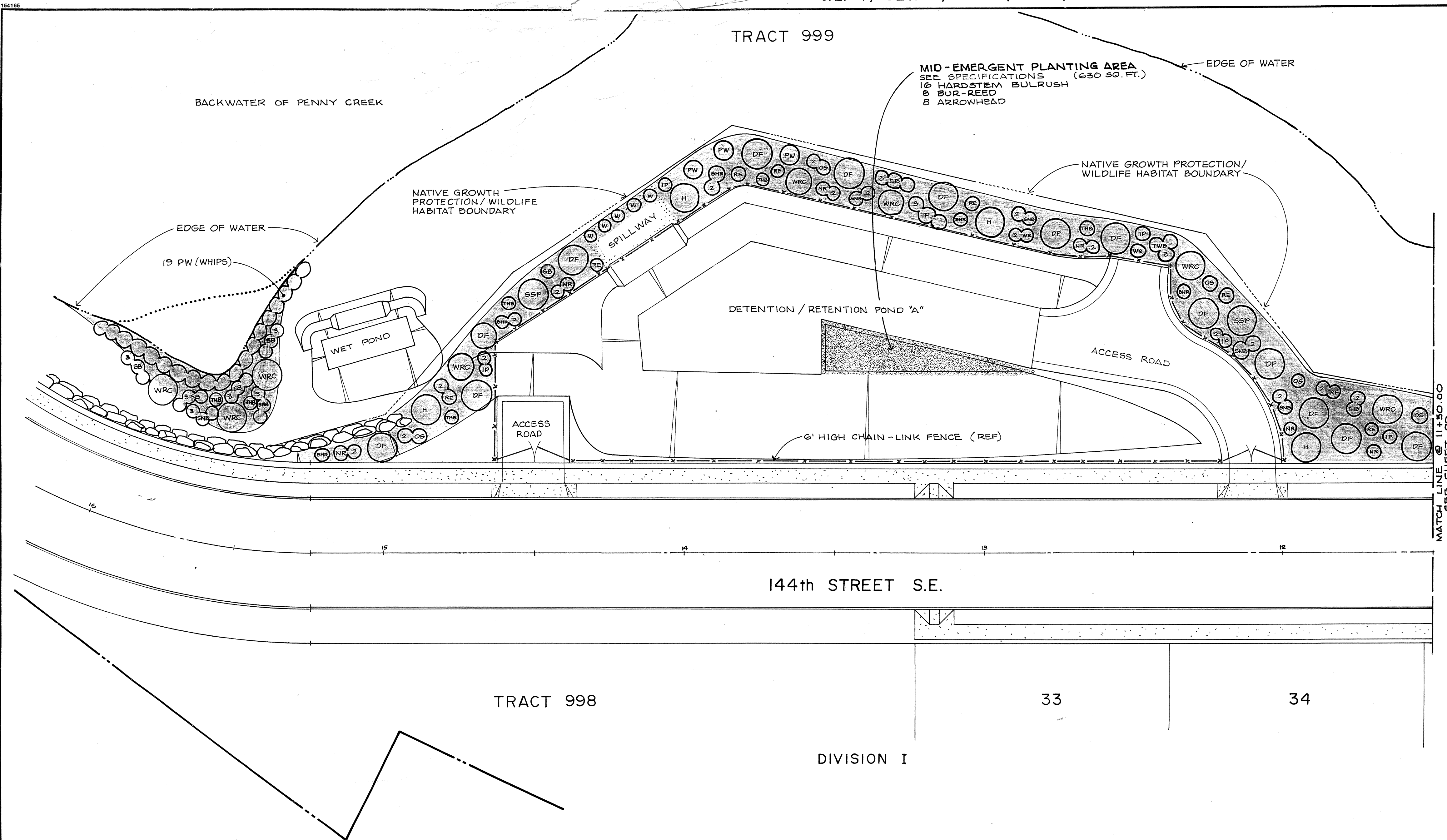
**RHOD-A-ZALEA GARDENS**

IN S.E. 1/4 OF SECTION 32, T.28 N., R.5 E., W.M.  
SNOHOMISH COUNTY, WASHINGTON

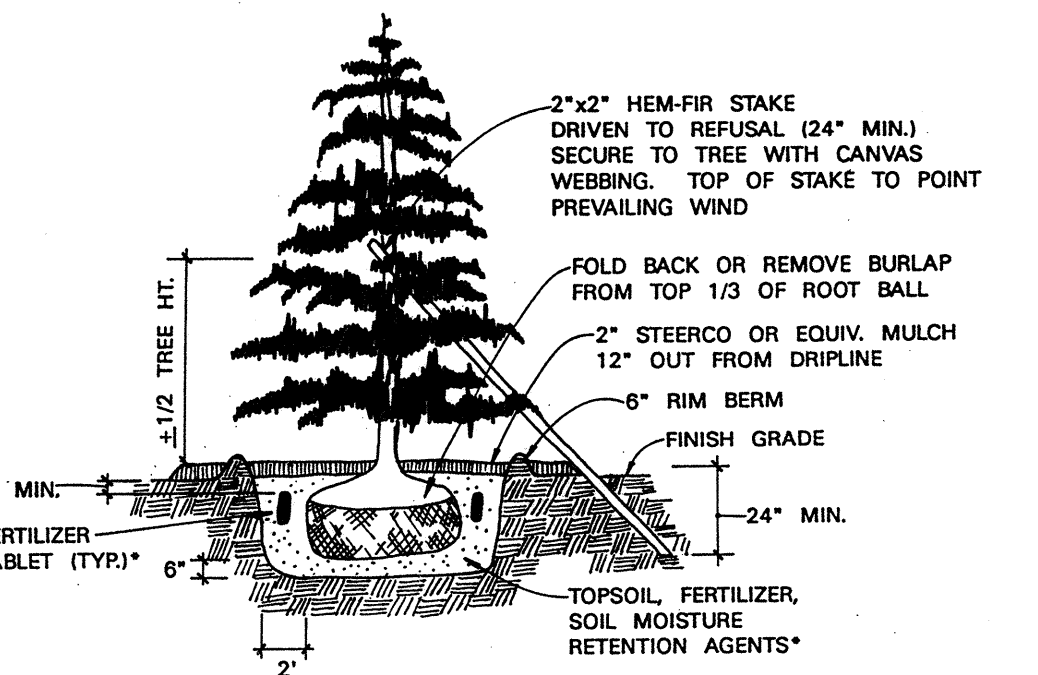
ZA 8802041

**HDEV-729**

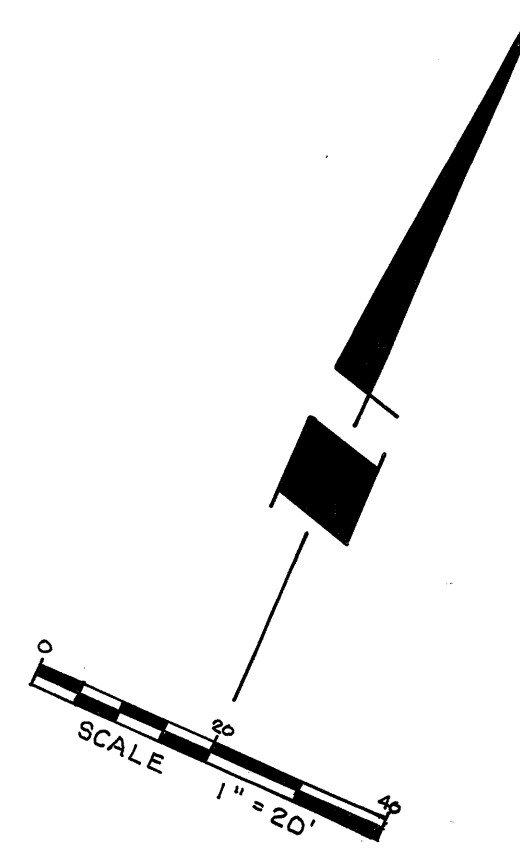
DRAWN		CHECKED	DATE	BY	SCALE	FILE NO.
KM		ACR	AUG. 1993	399 & 399A	1" = 20'	2866



**SHRUB PLANTING**  
\*PER DIRECTION OF WETLAND BIOLOGIST



**EVERGREEN TREE PLANTING**  
\*PER DIRECTION OF WETLAND BIOLOGIST



**LEGEND**  
REPLANTING AREA

**SPECIFICATIONS**

THIS WORK SHALL CONSIST OF FURNISHING ALL MATERIALS, LABOR, EQUIPMENT AND RELATED ITEMS NECESSARY FOR PLANTING AND WARRANTING FOR A 365 DAY LANDSCAPE ESTABLISHMENT PERIOD AND OTHER PLANT MATERIALS AS SPECIFIED IN THE CONTRACT DOCUMENTS. THE WORK INCLUDES, BUT IS NOT LIMITED TO, TREATMENT OF SUBGRADE, PREPARATION OF EXISTING SOIL, PLACEMENT AND GRADING OF PREPARED SOIL AND/OR IMPORTED SOIL, AND TRIMMING, INSTALLATION OF SPECIFIED PLANT MATERIALS, SEEDING, CLEANUP, DEBRIS REMOVAL, PROTECTIVE MAINTENANCE AND GUARANTEE.

TREES AND SHRUBS WILL HEREAFTER BE REFERRED TO COLLECTIVELY AS "PLANTS" OR "PLANT MATERIAL".

NO CONSTRUCTION WORK WILL TAKE PLACE UNTIL A PRE-CONSTRUCTION MEETING IS HELD BETWEEN THE CONTRACTOR, PROJECT BIOLOGIST, OWNER'S REPRESENTATIVE AND SNOHOMISH COUNTY REPRESENTATIVES. TRANSPORTING TECHNIQUES, PLANTING LOCATIONS AND OTHER SPECIFICS SHALL BE DISCUSSED AND AGREED UPON DURING THE PRE-CONSTRUCTION MEETING.

PROJECT BIOLOGIST SHALL PROVIDE CONSTRUCTION MANAGEMENT SERVICES FOR ALL LANDSCAPING ACTIVITIES AND WILL DIRECT ALL FIELD ACTIVITIES, INCLUDING PLANT LOCATIONS, FIELD MODIFICATIONS AND PLANTING TECHNIQUES.

CONTRACTOR SHALL GIVE THE PROJECT BIOLOGIST SEVEN (7) DAYS NOTICE PRIOR TO INTENTION TO PROCEED WITH CONSTRUCTION. THE PROJECT BIOLOGIST MAY BE CONTACTED BY TELEPHONE AT (206) 775-1591 OR (206) 340-0830.

CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT EXISTING SITE IMPROVEMENTS. DAMAGE SHALL BE REPAIRED TO THE OWNER'S SATISFACTION AND AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXISTING VEGETATION AND BUFFERS WITHIN THE NATIVE GROWTH PROTECTION AREAS TO REMAIN (AS INDICATED BY PROJECT BIOLOGIST) DURING CONSTRUCTION.

ALL WORK SHALL CONFORM TO THE TEMPORARY EROSION AND SEDIMENTATION CONTROL PLAN AND OTHER CONSTRUCTION REQUIREMENTS AND STANDARDS CONTAINED IN THE REPLANTING PLAN.

THE CONTRACTOR SHALL NOTIFY PROJECT BIOLOGIST OF ADVERSE DRAINAGE CONDITIONS AFFECTING PLANT GROWTH OR OTHER ADVERSE CONDITIONS WHICH MAY AFFECT PLANT GROWTH. IF CONTRACTOR ENCOUNTERS UNUSUAL CONDITIONS LIKELY TO BE DETRIMENTAL TO NEW PLANTINGS, NOTIFY PROJECT BIOLOGIST IMMEDIATELY. PROJECT BIOLOGIST WILL APPROVE ANY CHANGES IN RESPONSE TO SUCH CONDITIONS.

TOPSOILS FROM SITE PREPARATION MAY BE USED IN CONSTRUCTION OF THE TOP 24 INCHES OF THE REPLANTING AREA, PROVIDED THAT SUCH TOPSOIL IS FREE OF WOODY DEBRIS AND OTHER DELETERIOUS MATERIAL. ANY ADDITIONAL TOPSOIL REQUIRED FOR PLANTING SHALL BE COMPRISED OF TWO PARTS SANDY LOAM, ONE PART BUILDERS SAND AND ONE PART NON-WOODY FERTILE MULCH AND OBTAINED FROM AN APPROVED SOURCE. ALL TOPSOILS SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY PROJECT BIOLOGIST PRIOR TO INSTALLATION.

FOLLOWING ESTABLISHMENT OF SUBGRADE IN THE REPLANTING AREA, TOPSOILS SHALL BE ADDED TO A MINIMUM DEPTH OF 12 INCHES IN THREE EQUAL LIFTS TO MEET GRADE. WITH THE FIRST AND SECOND LIFTS TO BE ROTOTATED TO A DEPTH OF 12 INCHES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR BRINGING BACK TO FINISHED GRADE, PERFORMING FINAL LEVELLING BY HAND TO REMOVE EQUIPMENT TRACKS AND OTHER IRREGULARITIES.

ALL REPLANTING WORK SHALL BE UNDER THE SUPERVISION OF A QUALIFIED LANDSCAPE FOREMAN AND THE PROJECT BIOLOGIST.

PLANT LOCATIONS ON REPLANTING PLAN ARE DIAGRAMMATIC AND MAY BE SUBJECT TO ADJUSTMENT IN THE FIELD BY THE PROJECT BIOLOGIST. QUANTITIES IN THE PLANT SCHEDULE ARE FOR THE CONTRACTOR'S CONVENIENCE; IF THERE IS A DISCREPANCY, THE DIAGRAMMATIC REPRESENTATION ON THE PLANS SHALL GOVERN.

ALL PLANTS SHALL BE NURSERY GROWN OR TRANSLANTED FROM SITE AREAS APPROVED FOR REMOVAL OR OTHER APPROVED AREAS AND MEET AMERICAN STANDARDS FOR NURSERY STOCK AND AMERICAN NURSERYMAN ASSOCIATION STANDARDS. ALL TREES SHALL HAVE WELL-BRANCHED TOPS WITH REASONABLY STRAIGHT, WELL DEVELOPED SINGLE LEADERS. WITH THE EXCEPTION OF BARE ROOT STOCK (IF USED), ALL NURSERY GROWN TREES AND SHRUBS SHALL BE CONTAINERIZED OR BALLED AND BURLAPPED. ALL PLANT MATERIALS USED SHALL BE NATIVE TO THE PACIFIC NORTHWEST REGION, PREFERABLY THE PUGET SOUND AREA. SUBSTITUTION OF PLANT VARIETIES DUE TO LACK OF AVAILABILITY IS SUBJECT TO APPROVAL BY THE PROJECT BIOLOGIST. ALL PLANTS SHALL BE WEED FREE AT THE TIME OF PLANTING.

PLANT MATERIAL FURNISHED SHALL BE AT LEAST THE MINIMUM SIZE SPECIFIED. LARGER STOCK MAY BE ACCEPTABLE AT NO ADDITIONAL COST, AND PROVIDING THAT THE LARGER PLANTS WILL NOT BE CUT BACK TO SIZE INDICATED. ANY UNDERGRADE PLANTS SHALL BE REMOVED AND REPLACED PRIOR TO ACCEPTANCE.

ALL SUPPLIED PLANTS SHALL BE DUG, PACKED AND TRANSPORTED IN A MANNER WHICH ENSURES AGAINST INJURY. PLANTS SHALL BE STORED IN A MANNER WHICH RESPONDS TO THEIR INDIVIDUAL HORTICULTURAL REQUIREMENTS, INCLUDING HELM STORAGE IF NECESSARY FOR PROTECTION OF ROOT BALLS AND PREVENTION OF DEHYDRATION.

**SPECIFICATIONS**

THE PROJECT BIOLOGIST SHALL INSPECT PLANT MATERIALS TO VERIFY PLANT CHARACTERISTICS AND CONFORMANCE TO THE PLANT SCHEDULE AND SHALL RESERVE THE RIGHT TO REQUIRE REPLACEMENT OR SUBSTITUTION OF PLANTS JUDGED UNACCEPTABLE.

PLANT MATERIAL SHALL NOT BE INSTALLED WHEN AMBIENT AIR TEMPERATURE MAY DROP BELOW 35° OR ABOVE 80° F OR WHEN WIND VELOCITY EXCEEDS 30 KNOTS.

THE CONTRACTOR SHALL EXCAVATE PLANT PITS WITH VERTICAL SIDES, TO A MINIMUM OF THREE TIMES THE SIZE OF THE ROOTBALL, OR AS SHOWN ON THE PLAN. PLANTING PITS FOR UPLAND PLANTING SHALL BE EXCAVATED TO A MINIMUM DEPTH OF 18 INCHES.

THE CONTRACTOR SHALL SCARIFY SIDES OF PLANTING PITS AND BACKFILL PLANT PITS WITH A MIXTURE OF TRANSPANTER FERTILIZER, SOIL MOISTURE RETENTION AGENTS AND TOPSOIL, AT THE FOLLOWING RATIOS AND PER DETAILS.

Plant Size	4-2-2 Agro Slow Release, or Equivalent	20-10-5 Plant Tabs, Sp.	Soil Moist., or Equivalent	Soil Amendment (Sterco, or equivalent)
1 gal.	2-3 oz.	2	1-2 tsp.	1 shovelful
2 gal.	2-3 oz.	3	1-2 tsp.	1-2 shovelfuls
5 gal.	4 oz.	5	2-3 tsp.	2-3 shovelfuls
trees	4 oz.	6	4 tsp.	2-3 shovelfuls

CONTRACTOR SHALL PROVIDE A SAMPLE OF TRANSPANTER FERTILIZER, SOIL MOISTURE RETENTION AGENTS AND PLANT TABLETS FOR APPROVAL PRIOR TO INSTALLATION.

ALL PLANT PITS SHALL BE FINISHED WITH A RIM TO ENCOURAGE WATER-HOLDING. PLANTING ON SLOPES MAY REQUIRE A COMBINATION OF EXCAVATION INTO THE SLOPE AND BUILD-UP OF SOIL MATERIAL TO CREATE A LEVEL PLANTING AREA AND RIM. IMMEDIATELY AFTER PLANTING, PLANTING LOCATIONS SHALL BE SATURATED TO PRECLUDE CAPILLARY STRESS. TREES SHALL BE STAKED AS NOTED ON THE PLAN, TO THE EXTENT NECESSARY TO KEEP TREES IN PLUMB POSITION UNTIL THE TREE IS ESTABLISHED.

MULCH SHALL BE DECOMPOSED SAWDUST, STERCO® OR EQUIVALENT. GROUND BARK IS NOT ACCEPTABLE MULCH. CONTRACTOR SHALL SUBMIT MULCH SAMPLE TO THE PROJECT BIOLOGIST FOR APPROVAL PRIOR TO INSTALLATION. DEPTH OF MULCH AROUND PLANTINGS OF TREES AND SHRUBS SHALL BE 2 INCHES. MULCH SHALL EXTEND HORIZONTALLY A MINIMUM OF 12 INCHES BEYOND THE DRIP LINE OF PLANT MATERIAL, 5 TIMES THE DIAMETER OF THE ROOTBALL OR AS DIRECTED BY PROJECT BIOLOGIST AND SHALL BE PULLED BACK 2 INCHES FROM LEADERS OF TREES AND SHRUBS.

REPLANTING AREA SHALL BE HYDROSEED AT PROJECT BIOLOGIST'S DIRECTION TO REDUCE EROSION POTENTIAL. HYDROSEED MIXTURE SHALL CONSIST OF 20 PERCENT COMMON OAT (*Avena sativa*), 30 PERCENT ANNUAL RYEGRASS (*Lolium temulentum*), 40 PERCENT SORGHUM (*Sorghum vulgare*) AND 10 PERCENT CULTIVATED WHEAT (*Triticum aestivum*). ALL SEED SHALL BE APPLIED AT THE RATE OF THIRTY (30) POUNDS PER ACRE.

CONTRACTOR SHALL WATER NEWLY INSTALLED PLANTS TO ENSURE SURVIVABILITY AND SHALL MAINTAIN THE PLANTINGS UNTIL FINAL APPROVAL BY OWNER AND/OR SNOHOMISH COUNTY. DURING DRY PERIODS, AND UPON CONCURRENCE WITH THE PROJECT BIOLOGIST, IT MAY BE NECESSARY TO PROVIDE FOR AND IMPLEMENT A WATERING SCHEDULE IN BERM AND PAVEMENT REPLACEMENT AREAS. CONTRACTOR SHALL WARRANT ALL PLANT MATERIALS FOR SURVIVABILITY AND HEALTHY CONDITION FOR A PERIOD OF ONE YEAR FOLLOWING COMPLETION AND ACCEPTANCE OF PLANTING BY PROJECT BIOLOGIST AND/OR THE COUNTY. DURING THAT PERIOD, THE CONTRACTOR SHALL REPLACE ALL DEAD OR UNHEALTHY PLANTS DEEMED SO BY THE PROJECT BIOLOGIST, WITHIN 10 DAYS OF SUCH NOTIFICATION. SUCH REPLACEMENT WILL BE GOVERNED BY PLANS AND SPECIFICATIONS AS DIRECTED BY THE PROJECT BIOLOGIST.

BEFORE FINAL INSPECTION, CONTRACTOR SHALL DELETERIOUS MATERIAL AND DEBRIS, RAKE PLANTING AREAS NEATLY AND TO EVEN FINISH GRADES AND REMOVE FLAG LABELS FROM PLANTS.

**PLANT SCHEDULE**

Symbol	Qty	Common Name	Scientific Name	Size	Seeding (O.G.)
<b>Trees</b>					
DF	54	Douglas-fir	<i>Pseudotsuga menziesii</i>	3'-4'	as shown
H	26	western hemlock	<i>Tsuga heterophylla</i>	3'-4'	as shown
PW	3	Pacific willow	<i>Salix lasioandra</i>	3'-4'	as shown
W (Whips)	5	Pacific willow	<i>Salix lasioandra</i>	whips*	as shown
SSP	8	Sitka spruce	<i>Picea sitchensis</i>	4'-5'	as shown
WRC	22	western redcedar	<i>Thuja plicata</i>	4'-6'	as shown
<b>Shrubs</b>					
BHR	22	bald-hip rose	<i>Rosa gymnocarpa</i>	3'-4'	as shown
IP	30	Indian plum/cosberry	<i>Oemleria carolinensis</i>	3'-4'	as shown
NR	17	Nootka rose	<i>Rosa nutkana</i>	3'-4'	as shown
OS	32	oceanspray	<i>Holodiscus discolor</i>	3'-4'	as shown
RE	22	red elderberry	<i>Sambucus racemosa</i>	3'-4'	as shown
SB	26	salmoberry	<i>Rubus spectabilis</i>	3'-4'	as shown
SNB	32	snowberry	<i>Symphoricarpos albus</i>	3'-4'	as shown
THB	26	thimbleberry	<i>Rubus parviflorus</i>	3'-4'	as shown
TWB	15	twiberry	<i>Lonicera involucrata</i>	3'-4'	as shown
WR	16	Wood's rose	<i>Rosa woodsii</i>	3'-4'	as shown
<b>Hydroseed</b>					
For replanting areas, applied at 30#/Acre:					
20 percent	common oat ( <i>Avena sativa</i> )	30 percent	annual ryegrass ( <i>Lolium temulentum</i> )		
40 percent	sorghum ( <i>Sorghum vulgare</i> )	10 percent	cultivated wheat ( <i>Triticum aestivum</i> )		
<b>Herbs</b>					
a	arrowhead	<i>Sagittaria</i> sp.	tubers	48" x 11"	
b	bur-reed	<i>Sparganium</i> sp.	clump	48" x 11"	
is	hardstem bulrush	<i>Scirpus acutus</i>	clump	48" x 11"	

11 or as directed by project biologist

**REPLANTING PLAN**  
FOR  
**RHOD-A-ZALEA GARDENS**

IN S.E. 1/4 OF SECTION 32, T.28 N., R.5 E., W.M.  
SNOHOMISH COUNTY, WASHINGTON

ZA 8802041

**HDEV-730**

2	ADDED PLANTING WEST OF WET POND & DET. POND SWAMP.	29 SEPT. 93	ALV		
1	ADDED SHT 80 PER ROAD REALIGNMENT	24 AUG 93	K.M.		
<b>LSA Lovell-Sauerland &amp; Associates, Inc.</b> Engineers/Surveyors/Planners/Development Consultants 19400 33rd Avenue W., Suite 200 • Lynnwood, WA 98036 • (206) 775-1591 • (206) 340-0830					
DRAWN	CHECKED	DATE	F.B.	SCALE	FILE NO.
	ACR	AUG. 1993	399 8 399A	HOR: 1" = 20' VER: 1" = 2'	2866