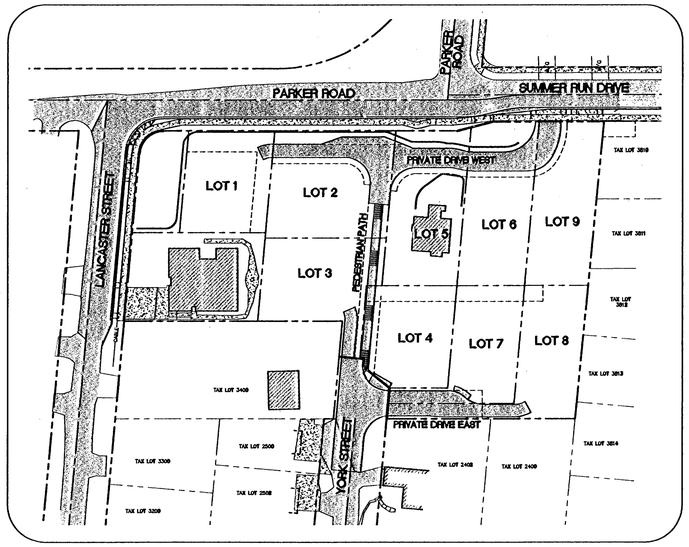
ASBUILT SITE IMPROVEMENTS FOR

SIENNA'S ESTATES

9-LOT RESIDENTIAL SUBDIVISION

LOCATED IN THE SE1/4 OF THE SW1/4 SECTION 25, T.2S., R.1E., W.M.
TAX MAP 2 1E 25CD
CITY OF WEST LINN, CLACKAMAS COUNTY, OREGON



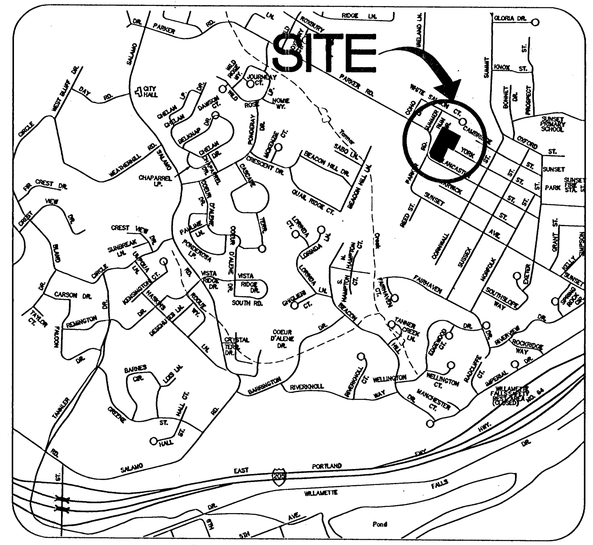
SITE MAP
SCALE: 1" = 60'

LEGEND

EXISTING		PROPOSED
	PROPERTY LINE	
	RIGHT-OF-WAY	
	LOT LINE	
553	1' CONTOUR	553
555	5' CONTOUR	555
OH POWER	OVER HEAD POWER	
TELE	TELEPHONE	
GAS	4" GAS LINE	
8"WAT	WATER LINE	
12"STM	STORM SEWER	
8"SS	SANITARY SEWER	
CABLE	CABLE TELEVISION WIRE	
	FENCE LINE	
	EDGE OF GRAVEL	
	EDGE OF AC	
	CONCRETE SURFACE	
D	STORM MANHOLE	D
	STORM CLEANOUT	
	CATCH BASIN/AREA DRAIN	
	DITCH INLET	
S	SANITARY MANHOLE	S
	SANITARY CLEANOUT	
WM	WATER METER	
	WATER VALVE	
	FIRE HYDRANT	
	POWER POLE	
	GUY WIRE/ANCHOR	
	TELEPHONE RISER	
	GATE VALVE	
	MAIL BOX	
	SIGN	
	PIPE STRUCTURE	
	OPEN CHANNEL DRAINAGE WAY	
	SETBACK LINE	
	8' PUBLIC UTILITY EASEMENT	8' PUE
	RETAINING WALL	
	4' HIGH MATTE BLACK CHAINLINK FENCE	
	SEDIMENT FENCING	
	INLET PROTECTION	
	ASPHALTIC SURFACE	
14"	CONIFEROUS TREE (SIZE)	
8"	DECIDUOUS TREE (SIZE)	

TREE PRESERVATION

TREES TO BE REMOVED
TREES TO KEEP



VICINITY MAP
SCALE: NOT TO SCALE

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C009	STREET AND STORM SEWER PLAN
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C013	STREET LIGHTING PLAN
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C018	STANDARD DETAILS
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C020	STANDARD DETAILS
C021	STANDARD DETAILS
C022	STANDARD DETAILS

PROJECT TEAM

DEVELOPER
SAM L. PAP
2799 LANCASTER STREET
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LANDSCAPE ARCHITECT
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CONTACT: DOUG STRICKLER

SURVEYOR
CONSTRUCTION MAPPING TEAM
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CONTACT: SHAUN FIDLER, PLS

ARBORIST
HALSTEADS ARBORICULTURE
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TUALATIN, OREGON 97062
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CONTACT: DAVE HALSTEAD

GEOTECH
GEOPACIFIC
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CONTACT: TIM THEIS, PE

SITE IMPROVEMENT CONTRACTOR
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PO BOX 896
CANBY, OREGON 97013
(503) 351-4412
CONTACT: JEFF KERSEY

LOCATES (48 HOURS NOTICE REQUIRED PRIOR TO EXCAVATION)

ONE CALL SYSTEM (GENERAL TELEPHONE, NORTHWEST NATURAL GAS, US WEST, US SPRING)	– (503) 246-6699
PORTLAND GENERAL ELECTRIC	– (503) 645-5454
CABLE TELEVISION – TCI	– (503) 246-6699

CALL BEFORE YOU DIG 800-332-2344

REPAIR EMERGENCIES

NORTHWEST NATURAL GAS	– (800) 882-3377
QWEST TELEPHONE CO.	– (503) 242-8496
PORTLAND GENERAL ELECTRIC	– (503) 464-7750
COMCAST	– (503) 243-7476
CITY OF WEST LINN	– (503) 656-4211

THE CONTRACTOR, IN LOCATION AND PROTECTING UNDERGROUND UTILITIES, MUST COMPLY WITH THE REGULATIONS OF O.R.S. 757.541 TO 757.571.

UTILITY COMPANIES

PORTLAND GENERAL ELECTRIC
3700 SE 17TH AVENUE
PORTLAND OR 97202
503-736-5450
CONTACT: CINDY MANSELLE

COMCAST
9605 SW NIMBUS
TUALATIN OR 97008
503-605-6000
CONTACT: KEVIN MULFORD

NORTHWEST NATURAL GAS
220 NW 2ND AVENUE
PORTLAND OR 97209
503-220-2357
CONTACT: LANCE CHEELEY

QWEST TELEPHONE
8021 SW CAPITOL HILL RD., ROOM #110
PORTLAND OR 97219
503-242-6064
CONTACT: JERRI MARIE CELLA

BENCHMARK

CITY OF WEST LINN BENCHMARK DATUM: ELEVATION = 642.25 FEET
LOCATION: MONUMENT AT CL/CL OF SOLAMO ROAD AND DAY ROAD.
STATION IS A 2" ALUMINUM, STAMPED "OTAK", CAP SET IN CONCRETE, IN A MONUMENT BOX, STAMPED "CITY OF WEST LINN, OTAK". THE MONUMENT IS LOCATED IN A SECTION OF SALAMO AND DAY ROAD.

ASBUILT CONSTRUCTION DOCUMENTS

WEST LINN CASEFILE SUB05-03 / ZC05-05 / VAR05-03

COVER SHEET
SIENNA'S ESTATES
City of West Linn, Clackamas County, Oregon

SAM L PAP
2799 LANCASTER STREET
WEST LINN, OREGON 97068
(503) 888-2254

CIVIL ENGINEERING
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PH: 503 | 238-2097
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REGISTERED PROFESSIONAL ENGINEER
OREGON
JULY 10, 2001
J. SCOTT EMMENS
EXP. 12/31/09

RECORD DRAWING
01/18/08
THESE RECORD DRAWINGS HAVE BEEN PREPARED, IN PART, ON THE BASIS OF INFORMATION COMPILED AND FURNISHED BY THE CONTRACTOR, REVISED CONSTRUCTION PLANS, AND FIELD OBSERVATIONS DURING CONSTRUCTION.

DATE	01/18/08
DRAWN	JSE
DESIGNED	JSE
CHECKED	RGN
PROJECT #	SLP04-001

SHEET TITLE
COVER SHEET

SHEET NUMBER
C001

GENERAL NOTES:

1. ALL MATERIAL, WORKMANSHIP AND CONSTRUCTION METHODS SHALL BE IN STRICT ACCORDANCE TO THE MOST RECENT VERSION OF THE CITY OF WEST LINN CONSTRUCTION AND DESGIN SPECIFICATIONS.
2. THE DESIGN ENGINEER WILL BE RESPONSIBLE FOR INSPECTION OF THE PROPOSED IMPROVEMENTS WITH OVERSIGHT FROM CITY'S PUBLIC WORKS AND ENGINEERING STAFF.
3. A WORK SCHEDULE WILL BE REQUIRED FROM THE CONTRACTOR SO THAT THE ENGINEER CAN HAVE AN INSPECTOR ONSITE AT THE APPROPRIATE TIMES. IF THE WORK SCHEDULE IS REVISED THE CONTRACTOR IS TO NOTIFY THE ENGINEER OF THE CHANGES. ADDITIONALLY THE CONTRACTOR IS TO GIVE THE ENGINEER AT LEAST 24 HOURS NOTICE OF ANY TESTING REQUIRING THE PRESENCE OF THE ENGINEER AND/OR CITY STAFF.
4. THE CONTRACTOR IS TO RECEIVE THE APPROVAL OF THE ENGINEER AND THE CITY OF WEST LINN OF ANY PROPOSED CHANGES TO THE PLANS OR STANDARD REQUIREMENTS.
5. A BUILDING DEPARTMENT PLUMBING PERMIT IS REQUIRED FOR UTILITIES BEYOND THE FIRST CLEANOUT OR METER ON PRIVATE PROPERTY.
6. A PUBLIC IMPROVEMENT GUARANTEE AGREEMENT AND A PRE-CONSTRUCTION MEETING WITH THE CITY OF WEST LINN ARE REQUIRED PRIOR TO BEGINNING CONSTRUCTION. PRIOR TO SITE CLEARING, CONSTRUCTION "SNOW" FENCING SHALL BE PLACED AROUND TREES TO BE PRESERVED 10 FEET BEYOND THE DRIPLINE OF THE TREES AND SHALL REMAIN IN PLACE THROUGHOUT THE INFRASTRUCTURE IMPROVEMENTS.
7. COARSE AND FINE AGGREGATES SHALL CONFORM TO REQUIREMENTS OF SECTION 205, MATERIALS-TYPES AND USE. REFERENCES MADE TO SECTIONS REFER TO THE CITY OF WEST LINN'S PUBLIC WORKS STANDARDS.
8. ALL FEES FOR STREET TREES SHALL BE PAID TO THE CITY OF WEST LINN PARKS AND RECREATION DEPARTMENT.
9. NO BUILDING PERMITS SHALL BE ISSUED UNTIL ALL THE IMPROVEMENTS HAVE BEEN ACCEPTED BY THE CITY.
10. THE CITY SHALL WITNESS ALL TESTING FOR THE PROJECT AND SHALL RECEIVE COPIES OF ALL TEST RESULTS.
11. THE CONTRACTOR SHALL MEET ALL THE "CITY CONSTRUCTION AND DESIGN STANDARDS" OF THE CITY OF WEST LINN.

UTILITIES:

1. IF NOT NOTED ON THE PLANS UTILITY INFORMATION AND CROSSING LOCATIONS WILL HAVE TO BE OBTAINED FROM THE UTILITIES.
2. UTILITY CONTACTS ARE AS FOLLOWS: PGE – CINDY MANSELLE, (503) 650-1411; TCI CABLE – LINDA PETERSEN, (503) 243-7497, U.S. WEST COMMUNICATIONS – JACKIE LOLLAR (503) 242--8496.
3. THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM LOCATE PAINT MARKINGS TIED IN THE FIELD SURVEY AS PROVIDED BY UTILITY COMPANIES. THESE PLANS DO NOT SHOW ANY PAINT MARKINGS PROVIDED AFTER THE FIELD SURVEY WAS COMPLETED.
4. THIS SURVEY MAKES NO GUARANTEES THAT THE EXISTING UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA. THE EXISTING UNDERGROUND UTILITIES SHOWN MAY NOT BE IN THE EXACT LOCATION AS NOTED ON THESE PLANS, BUT ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION PROVIDED. MANHOLES OTHER THAN SANITARY AND STORM SEWER WERE IDENTIFIED BY MANHOLE LIDS AND MAY NOT BE LABELED CORRECTLY.

WATER SUPPLY:

1A. CONTRACTOR TO VERIFY EXISTING LINE SIZE IN LANCASTER STREET PRIOR TO CONSTRUCTION. NOTIFY THE ENGINEER IF THE EXISTING LINE SIZE IN FIELD IS DIFFERENT THAN NOTED ON PLANS.
1. WATER MAINS SHALL BE DUCTILE IRON PIPE CONFORMING TO AWWA C151 CLASS 52. PIPE IS TO HAVE CEMENT MORTAR LINING AND BITUMINOUS SEAL COAT CONFORMING TO AWWA C104. JOINTS ARE TO BE PUSH-ON JOINT. PIPE FITTINGS ARE TO BE OF THE SAME MATERIAL AND CLASS AS PIPE AND OF DOMESTIC ORIGIN.
2. WATER MAINS TO HAVE A MINIMUM COVER OF 36".
3. THRUST BLOCKS ARE TO BE PROVIDED AT ALL CHANGES IN DIRECTION AND BRANCHES. THRUST BLOCKING CONCRETE MIN. 28 DAY STRENGTH IS TO BE 3300 PSI. SEE DETAIL WL-406 & WL-407 FOR THRUST BLOCK SIZING. PLACE THRUST BLOCKS AGAINST UNDISTURBED EARTH.
4. GATE VALVES SHALL BE A DOUBLE DISC TYPE CONFORMING TO AWWA CLASS "C" SPEC'S. BUTTERFLY VALVES SHALL BE CLASS 150 B SHORT BODY TYPE IN CONFORMANCE WITH AWWA C504. VALVE BOXES SHALL BE "VANCOUVER" TYPE MODEL 910.
5. FIRE HYDRANTS SHALL BE CLOW MEDALLION TYPE 2545 OR MUELLER CENTURION A-423 ONLY, AND SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 403.06 PLACING FIRE HYDRANT ASSEMBLIES.
6. GRANULAR BACKFILL IS TO BE COMPACTED TO 95% MAXIMUM DRY DENSITY PER AASHTO T 180 TEST METHOD AND NATIVE MATERIAL SHALL BE COMPACTED TO 85% OF IN-PLACE DRY DENSITY OF SURROUNDING SOIL. BACKFILL UNDER STREETS SHALL BE IN ACCORDANCE WITH CLASS 'B' BACKFILL AS INDICATED ON THE DETAIL SHEET OF THE PLANS. EXCAVATION, BEDDING AND BACKFILL SHALL BE IN ACCORDANCE WITH SECTION 204, EXCAVATION, EMBANKMENT, BEDDING AND BACKFILL. BACKFILL COMPACTION CAN BE 85% ONLY IN UNIMPROVED SURFACES OUTSIDE OF THE RIGHT-OF-WAY.
7. SERVICE LATERALS SHALL BE TYPE K. LATERAL SIZES SHALL BE 1". FOR DOUBLE SERVICES TWO 1" WATER SERVICE SHALL BE LAID SIDE BY SIDE. CORPORATION STOPS SHALL BE FORD OR APPROVED EQUAL. CURB STOP SHALL BE 1" FORD METER STOP. METER BOXES SHALL BE EQUAL TO BROOKS #37. METER BOXES ARE TO BE INSTALLED 3/4" ABOVE FINISH GRADE. PER STANDARD DETAIL WL-402.
8. ALL WATERLINES WILL BE PRESSURE TESTED AND PURIFICATION TESTED BEFORE CONNECTION TO THE CITY WATER SYSTEM. PRESSURE TEST SHALL MAINTAIN 180 PSI FOR ONE HOUR WITH NO LOSS.
9. DISINFECTION SHALL CONFORM WITH THE OREGON STATE HEALTH DIVISION'S PUBLICATION, "PUBLIC WATER SYSTEMS" ORS CH. 333.
10. DO NOT CONNECT NEW PIPE TO EXISTING PIPE PRIOR TO TESTING. THE CITY OF WEST LINN REQUIRES ACCEPTANCE OF NEW WATERLINE PRIOR TO CONNECTION TO EXISTING WATER SYSTEM.
11. A PLUMBING PERMIT FROM THE CITY OF WEST LINN BUILDING DEPARTMENT IS REQUIRED FOR SERVICE LATERAL INSTALLATIONS BEYOND THE WATER METER.
12. ALL MATERIALS, INSTALLATION, TESTS, AND CHLORINATION TO BE IN STRICT ACCORDANCE WITH APWA'S STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, THE SUPPLEMENTAL STANDARDS AND CODES OF THE CITY OF WEST LINN, AND THE OREGON STATE HEALTH DIVISION ADMINISTRATIVE RULES, CHAPTER 333.

STREETS:

1. NEW STREET SECTIONS ARE TO BE CLEARED OF ALL SURFACE VEGETATION AND OTHER MISCELLANEOUS STRUCTURES OR MATERIALS. GRUB IMPROVEMENT AREAS TO REMOVE ALL BURIED VEGETATIVE MATTER AND DEBRIS TO A DEPTH OF 8" BELOW SUBGRADE. PROPERLY DISPOSE OF ALL WASTE MATERIAL. PER SECTION 203, CLEARING AND GRUBBING.
2. STREET SUBGRADE SHALL CONFORM TO SECTION 501, SUBGRADE. AREAS TO RECEIVE FILL ARE TO BE INSPECTED BY CITY OF WEST LINN PERSONNEL PRIOR TO PLACEMENT OF THE FILL. THE CONTRACTOR SHALL HAVE FILL AREAS TESTED FOR COMPACTION BY A CERTIFIED TESTING LAB IN ACCORDANCE WITH AASHTO T-191. SUCH TESTING WILL BE AT THE CONTRACTOR'S EXPENSE.
3. AGGREGATE BASE ROCK SHALL CONFORM TO SECTION 205, MATERIALS-TYPE AND USE. ODOT TM106 AND TM306C. BASE COURSE SHALL BE (1 1/2"-0) CRUSHED ROCK AND LEVELING COURSE SHALL BE (3/4"-0). CITY OF WEST LINN REQUIRES A PROOF ROLL WITH A LOADED 10 YARD DUMP TRUCK OF THE SUBGRADE PRIOR TO PLACEMENT OF THE ROCK AND AGAIN AFTER PLACEMENT OF THE BASE ROCK AND PRIOR TO PAVING. ALL UNDERGROUND UTILITIES INCLUDING LATERALS, SERVICES AND POWER OR GAS CONDUITS WILL BE IN PLACE BEFORE SUBGRADE PROOF ROLL WILL TAKE PLACE.
4. ASPHALT CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF SECTION 505, ASPHALT CONCRETE PAVEMENT. 2" BASE LIFT SHALL BE CLASS 'B' A.C. AND 2" FINAL LIFT SHALL BE CLASS 'C' A.C. THE TOP LIFT OF ASPHALT CONCRETE SHALL NOT BE PLACED PRIOR TO RECEIVING PERMISSION FROM THE CITY OF WEST LINN ENGINEERING DEPARTMENT. THE DENSITY REQUIREMENT FOR ASPHALT IS 92%. USE THE GREATER THICKNESS BETWEEN THE CITY OF WEST-LINN SPECIFICATIONS AND GEOTECH REPORT FOR THIS PROJECT.
5. CONSTRUCT CURB AND GUTTER USING CLASS 'A' 3300 PSI CONCRETE WITH MAXIMUM 1 1/2" AGGREGATE SIZE. CONTRACTION JOINTS AT 15' MAXIMUM ON CENTERS. THREE INCH WEEPHOLES ARE TO BE INSTALLED ON ALL LOTS UPHILL OR EVEN WITH THE STREET. GENERALLY, WEEPHOLES SHALL BE LOCATED AT THE CENTER AND LOWEST EDGE OF CURB FOR EACH LOT. CURB DEPRESSIONS FOR HANDICAP RAMPS SHALL BE CENTERED BETWEEN CURB RETURNS AT INTERSECTIONS UNLESS OTHERWISE NOTED ON THE PLANS. CONTRACTOR SHALL STAMP LOCATION OF SEWER AND WATER CROSSINGS WITH AN (S) OR A (W).
6. ALL MATERIALS, INSTALLATION, TESTS, AND INSPECTIONS TO BE IN STRICT ACCORDANCE WITH CITY OF WEST LINN'S PUBLIC WORKS STANDARDS, AS REFERENCED BY SECTION.
7. A STREET CONSTRUCTION ENCROACHMENT PERMIT OR SIMILAR PERMIT MAY BE REQUIRED FROM THE CITY OF WEST LINN. CONSTRUCTION PERMIT FEES OR OTHER SIMILAR FEES OR BONDING REQUIRED OF THE CONTRACTOR WILL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN.

SANITARY SEWER:

0. DO NOT COMPLETE CONNECTION BETWEEN MANHOLE B-1 AND B-2 UNTIL ALL REMAINING SANITARY SEWER CONSTRUCTION FOR THE PROJECT IS COMPLETE AND TESTED PER CITY OF WEST LINN STANDARDS.
1. PIPE SHALL BE PVC SEWER PIPE CONFORMING TO ASTM D-3034-SDR 35. RUBBER GASKETS FOR PVC PIPE SHALL CONFORM TO ASTM F477.
2. MANHOLE BASE SHALL BE PRE-CAST OR POURED IN-PLACE CONCRETE BASE PER ASTM C478, AND SECTION 302, MANHOLES AND CONCRETE STRUCTURES. MANHOLE RISERS AND TOPS SHALL BE PRECAST SECTIONS WITH MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI. TOPS SHALL BE ECCENTRIC CONES EXCEPT WHERE INSUFFICIENT HEADROOM REQUIRES FLAT TOPS. INVERTS SHALL BE CONSTRUCTED SO AS TO PROVIDE SMOOTH FLOW-THROUGH CHARACTERISTICS. PVC PIPE SHALL BE CONNECTED TO MANHOLE BY MEANS OF AN ELASTOMERIC GASKET, AN APPROVED WATERSTOP, OR FLEXIBLE SLEEVE. CEMENT GROUT FOR CONNECTING PVC SEWER PIPE TO MANHOLE WILL NOT BE PERMITTED.
3. ALL MANHOLES LOCATED IN EASEMENT AREAS REQUIRE TAMPER PROOF LIDS. ALL MANHOLE RIMS NOT IN PAVEMENT AREA TO BE SET 12 INCHES ABOVE PROPOSED GRADE.
4. CLEANOUT PIPE, FITTINGS, AND JOINTS SHALL BE THE SAME SPECIFICATIONS AS FOR PIPE. CASTINGS ARE AS SHOWN ON DETAIL AND SHALL CONFORM TO ASTM A48 (GRADE 30). CLEANOUT RISER SHALL MATCH DOWNSTREAM PIPE DIAMETER.
5. GRANULAR BACKFILL IS TO BE COMPACTED TO 95% MAXIMUM DRY DENSITY PER AASHTO T-180 TEST METHOD AND NATIVE MATERIAL SHALL BE COMPACTED TO 85% OF IN-PLACE DRY DENSITY OF SURROUNDING SOIL. BACKFILL COMPACTION CAN BE 85% ONLY IN UNIMPROVED SURFACES OUTSIDE OF THE RIGHT-OF-WAY.
6. PVC SERVICE LATERALS SHALL BE 4" PIPE CONFORMING TO THE SAME SPECIFICATIONS AS THE SEWER MAINS. SERVICE LATERALS SHALL BE INSTALLED TO A POINT BEYOND THE LINE OF THE SEWER OR UTILITY EASEMENT AS SHOWN ON THE PLAN. THE SERVICE LATERAL SHALL BE PLUGGED WITH A 4" RUBBER RING PLUG, AND THE LOCATION OF THE LATERAL'S END MARKED WITH A 2" X 4" STAKE AND PAINTED GREEN, AND AT A SLOPE OF 2% MIN.
7. SANITARY SEWER PIPE AND APPURTENANCES SHALL BE TESTED FOR LEAKAGE IN ACCORDANCE WITH SECTION 301.03.09 TESTING. LEAKAGE TESTS WILL INCLUDE REQUIRED AIR TESTING PER SECTION 301.03.09F FOR SEWER LINES AND REQUIRED VACUUM TEST OF MANHOLES PER SECTION 302.03.07. ALL PVC PIPE SHALL BE TESTED FOR DEFLECTION. DEFLECTION SHALL BE TESTED WITH A MANDREL EQUAL TO 95% OF THE PIPE SIZE BEING TESTED. IN ADDITION, SEWER LINES SHALL BE VIDEO INSPECTED BY THE CONTRACTOR PER SECTION 301.03.11. ALL TESTS SHALL BE WITNESSED BY THE ENGINEER AND CITY PERSONNEL.
8. A PLUMBING PERMIT FROM THE CITY OF WEST LINN BUILDING DEPARTMENT IS REQUIRED FOR SANITARY SEWER LATERALS BEYOND THE FIRST CLEANOUT.
9. ALL MATERIALS, INSTALLATION, TESTS, AND INSPECTIONS TO BE MADE IN STRICT ACCORDANCE WITH CITY OF WEST LINN'S PUBLIC WORKS STANDARDS AND THE UNIFORM PLUMBING CODE.
10. THE NEW SANITARY SEWER LINE SHALL NOT BE CONNECTED TO THE CITY'S SYSTEM PRIOR TO TESTING AND APPROVAL.

STORM DRAINS:

1. PIPE MATERIAL SHALL BE ULTRARIB PVC PIPE CONFORMING TO ASTM F 794 FOR STORM DRAINS OF 24" OR LESS IN DIAMETER. WHERE REQUIRED ON CONSTRUCTION PLANS, DUCTILE IRON PIPE CENTRIFUGALLY CAST OF 60-42-10 IRON SHALL CONFORM TO ANSI A21.51 CLASS 150 OR AWWA C151, WITH PUSH-ON JOINT OR MECHANICAL JOINTS AS SPECIFIED, CONFORMING TO ANSI SPECIFICATION A21.11/AWWA C111. DUCTILE IRON PIPE SHALL BE LINED WITH CEMENT MORTAR AND SEAL COATED IN ACCORDANCE WITH ANSI STANDARD A21.4/AWWA C104.
2. GUTTER INLETS SHALL BE POURED IN-PLACE CONCRETE PER SECTION 205.02.02, PORTLAND CEMENT, WITH STEEL REINFORCEMENT PER SECTION 205.02.07 AND FRAME SHALL BE PER STANDARD DETAIL WL-602A.
3. MANHOLE BASE MAY BE POURED IN-PLACE CONCRETE OR PRECAST. MANHOLE RISERS AND TOPS SHALL BE PRECAST SECTIONS WITH A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI. TOPS SHALL BE ECCENTRIC CONES EXCEPT WHERE INSUFFICIENT HEADROOM REQUIRES FLAT TOPS. SOME OR ALL OF THE STORM DRAIN MANHOLES REQUIRED WILL BE OVERSIZED MANHOLES. INTERIOR DIMENSIONS NOTED ON THE PLANS ARE MINIMUMS. CHECK WITH MANHOLE MANUFACTURER FOR ACTUAL SIZE NEEDED FOR TYPE OF PIPE TO BE USED.
4. ALL MANHOLES LOCATED IN EASEMENT AREAS REQUIRE TAMPER PROOF LIDS. ALL MANHOLE RIMS NOT IN PAVEMENT AREA TO BE SET 12 INCHES ABOVE PROPOSED GRADE.
5. CLEANOUT PIPE, FITTINGS AND JOINTS SHALL BE THE SAME SPECIFICATION AS FOR PIPE. CASTINGS ARE SHOWN ON DETAIL AND SHALL CONFORM TO ASTM A 48 (GRADE 30). CLEANOUT RISER SHALL MATCH DOWNSTREAM PIPE DIAMETER.
6. GRANULAR BACKFILL IS TO BE COMPACTED TO 95% MAXIMUM DRY DENSITY PER AASHTO T-180 TEST METHOD AND NATIVE MATERIAL SHALL BE COMPACTED TO 85% OF IN-PLACE DRY DENSITY OF SURROUNDING SOIL. BACKFILL COMPACTION CAN BE 85% ONLY IN UNIMPROVED SURFACES OUTSIDE OF THE RIGHT-OF-WAY.
7. RIPRAP WHERE NOTED ON THE PLANS IS TO BE CLASS 100 IN ACCORDANCE WITH OREGON STATE HIGHWAY DIVISION SPECIFICATION 714.
8. STORM DRAINS SHALL BE TESTED FOR DEFLECTION WITH A MANDREL EQUAL TO 95% OF THE PIPE SIZE BEING TESTED. IN ADDITION, STORM LINES SHALL BE VIDEO INSPECTED BY THE CONTRACTOR. ALL TESTS SHALL BE WITNESSED BY THE ENGINEER AND CITY PERSONNEL, AND IN ACCORDANCE WITH SECTION 601.03.10 TESTING STORM DRAINS.
9. A PLUMBING PERMIT FROM THE CITY OF WEST LINN BUILDING DEPARTMENT IS REQUIRED FOR STORM DRAINS BEYOND THE FIRST CLEANOUT.
10. ALL MATERIALS, INSTALLATION, TESTS, AND INSPECTIONS TO BE IN STRICT ACCORDANCE WITH CITY OF WEST LINN'S PUBLIC WORKS STANDARDS.

EROSION CONTROL:

SUMMARY:

1. THE INTENT OF THE REQUIREMENT IS TO PREVENT SILTATION FROM REACHING STORM DRAIN SYSTEMS AND DRAINAGE WAYS.
2. THE MINIMUM MEASURES NEED TO BE MADE ON ALL PROJECTS.
   A) A GRAVEL PAD, AT LEAST 50 FEET LONG, IS REQUIRED WHERE VEHICLES WILL LEAVE THE CONSTRUCTION SITE.
   B) A SEDIMENT BARRIER IS TO BE CONSTRUCTED OF A SEDIMENT FENCE WHERE NOTED IN THE DETAILS OR WHERE SEDIMENT WILL CROSS OUTSIDE THE WORK AREA.
   C) EROSION CONTROL MEASURES MUST BE INSTALLED AND APPROVED PRIOR TO THE START OF ANY EARTHWORK/EXCAVATION.
   D) RIPRAP EXITS FROM ALL CULVERTS AND STORM DRAIN PIPES DRAINING INTO THE DITCHES OR SWALES. RIPRAP IS TO BE CLASS 50 RIPRAP OR LARGER OR AS NOTED ELSEWHERE IN THE PLANS.
   E) RESEED OR COVER DISTURBED AREAS AS SOON AS IS POSSIBLE AND PRACTICAL BUT NO LATER THAN THE COMPLETION OF CONSTRUCTION ON THE OTHER PHASES OF WORK. EROSION CONTROL MEASURES MUST REMAIN IN PLACE UNTIL SEEDED AREAS SHOW GROWTH SUBSTANTIAL TO PREVENT EROSION.
   F) EMPLOYEES FOR CONSTRUCTION SHALL PARK ON PAVED OR GRAVEL AREAS ONLY.
   G) ALL CATCH BASINS SHALL BE CLEANED OF ANY DEBRIS PRIOR TO FINAL APPROVAL.

GENERAL:

1. APPROVAL OF THIS EROSION CONTROL (ESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G. SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.)
2. THE IMPLEMENTATION OF THESE ESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE APPLICANT/CONTRACTOR UNTIL ALL CONSTRUCTION IS COMPLETED AND APPROVED, AND VEGETATION OF LANDSCAPING IS ESTABLISHED.
3. THE ESC FACILITIES ON THIS PLAN MUST BE CONSTRUCTED IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES, AND IN SUCH A MANNER AS TO ENSURE THAT SEDIMENT LADEN WATER DOES NOT ENTER THE DRAINAGE SYSTEM OR VIOLATE APPLICABLE WATER STANDARDS.
4. THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND TO ENSURE THAT SEDIMENT LADEN WATER DOES NOT LEAVE THE SITE.
5. THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE APPLICANT/CONTRACTOR AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING.
6. THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE EVERY TWO WEEKS, OR WITHIN 24 HOURS FOLLOWING A STORM EVENT.

GENERAL (CONT.):

7. AT NO TIME SHALL SEDIMENT BE ALLOWED TO ACCUMULATE MORE THAN 1/3 THE BARRIER HEIGHT. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATIONS SHALL NOT FLUSH SEDIMENT-LADEN WATER INTO THE DOWNSTREAM SYSTEM. SEDIMENTS BASINS MUST BE CLEANED WHEN THE SEDIMENT RETENTION CAPACITY IS REDUCED BY 50%.
8. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.
9. THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE CLEARLY FLAGGED IN THE FIELD PRIOR TO CONSTRUCTION. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE FLAGGED CLEARING LIMITS SHALL BE PERMITTED. THE FLAGGING SHALL BE MAINTAINED BY THE APPLICANT/CONTRACTOR FOR THE DURATION OF CONTSTRUCTION.

GENERAL GRADING AND EROSION CONTROL

1. CLEAN WASTE MATERIAL EXCAVATED FROM ROAD CUT OR TRENCHING AREAS NOT USED IN STREET FILL AREAS MAY BE SPREAD EVENLY ACROSS LOT AREAS IN DEPTHS OF LESS THAN ONE FOOT, EXCEPT WHERE NOTED OTHERWISE ON THE PLANS.
2. DURING CONSTRUCTION, CUTOFF TRENCHES OR SOME OTHER METHOD OF RUNOFF CONTROL SHALL BE USED TO PREVENT EROSION AND/OR SILTATION FROM CROSSING OUTSIDE THE WORK AREA BOUNDARIES.
3. LARGE ORGANIC MATERIAL, MISCELLANEOUS PIPE OR CONSTRUCTION MATERIAL MUST BE REMOVED FROM THE SITE AND DISPOSED OF PROPERLY.
4. NO FILLING OR CUTTING SHALL BE DONE OUTSIDE OF APPROVED GRADING AREAS, INCLUDING SPREADING OVER LOTS.
5. ALL EROSION CONTROL FACILITIES SHALL MEET THE REQUIREMENTS OF THE CLACKAMAS COUNTY DEPARTMENT OF WATER ENVIRONMENT SERVICES, EROSION PREVENTION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL, REVISED DECEMBER, 2000 AND THE OREGON ADMINISTRATIVE RULES.
6. EROSION CONTROL MEASURES DURING CONSTRUCTION SHALL BE GOVERNED BY CLACKAMAS COUNTY EROSION CONTROL STANDARDS.

SEEDING/MULCHING

1. ALL AREAS DISTURBED DURING CONSTRUCTION TO BE GRADED TO DRAIN AND COMPACTED TO A MINIMUM OF 90% OF AASHTO T-180 IMMEDIATELY AFTER INSTALLATION OF UTILITIES OR GRADING.
2. RECOMMENDED SEED MIXTURE: 80% ELKA DWARF PERENNIAL RYEGRASS AND 20% CREEPING RED FESCUE, BY WEIGHT. APPLICATION RATE SHALL BE 100 POUNDS MINIMUM PER ACRE.
3. FERTILIZER SHALL BE 12-16-8 WITH 50% OF THE NITROGEN DERIVED FROM UREA FORMALDEHYDE, AND APPLIED AT A RATE OF 400 POUNDS PER ACRE.
4. SEED AND MULCH AT A RATE OF 2000 LBS/AC WITH HEAVY BONDING AGENT OR NETTING AND ANCHORS. MULCH SHALL BE A WOOD CELLULOSE FIBER OR OTHER MATERIAL SUITABLE FOR HYDROMULCHING.
5. TEMPORARY OR PERMANENT HYDROSEEDING ARE ACCEPTABLE SEEDING AND MULCHING MUST BE PROVIDED WHENEVER PERENNIAL COVER CANNOT BE ESTABLISHED ON SITES WHICH WILL BE EXPOSED FOR 60 DAYS OR MORE.

SEDIMENT FENCE:

1. THE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM 6-INCH OVERLAP, AND BOTH ENDS SECURELY FASTENED TO THE POST.
2. THE FILTER FABRIC FENCE SHALL BE INSTALLED TO FOLLOW THE CONTOURS, WHERE FEASIBLE. THEN FENCE POSTS SHALL BE SPACED A MAXIMUM OF SIX FEET APART AND DRIVEN SECURELY INTO THE GROUND A MINIMUM OF 18 INCHES.
3. A TRENCH SHALL BE EXCAVATED, ROUGHLY 6 INCHES WIDE BY 6 INCHES DEEP, DOWNSLOPE AND ADJACENT TO THE WOOD POST TO ALLOW THE FILTER FABRIC TO BE BURIED. BURY THE BOTTOM OF THE FABRIC 6" VERTICALLY BELOW FINISHED GRADE. ALL AREAS OF FILTER FABRIC TRENCH SHALL BE COMPACTED.
4. THE FILTER FABRIC SHALL BE INSTALLED WITH STITCHED LOOPS OVER FENCE POSTS. THE FENCE POST SHALL BE CONSTRUCTED OF 2" X 2" FIR, PINE, OR STEEL. THE FENCE POST MUST BE A MINIMUM OF 48" LONG. THE FILTER FABRIC SHALL NOT BE STAPLED OR ATTACHED TO EXISTING TREES.
5. SEDIMENT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.
6. SEDIMENT FENCES SHALL BE INSPECTED BY APPLICANT/CONTRACTOR IMMEDIATELY AFTER EACH RAINFALL, AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.

CONDITIONS OF APPROVAL:

1. THE APPLICANT SHALL CONNECT THE PUBLIC WATER LINES FROM PARKER ROAD AND YORK STREET THROUGH THE PROPOSED PUBLIC PEDESTRIAN EASEMENT AREA.
2. THE APPLICANT SHALL PROTECT TREE #1382, AS IDENTIFIED IN THE SITE PLAN, IN ADDITION TO THE OTHER TREES TO BE PROTECTED. THE APPLICANT SHALL PLANT A NUMBER OF ADDITIONAL TREES, 8-10 FEET IN HEIGHT, WITH A COMBINED DHB DIAMETER OF 24 INCHES (THE DIAMETER OF TREE #1410 TO BE REMOVED), AND OF A SPECIES AND IN A LOCATION APPROVED BY THE WEST LINN CITY ARBORIST.
3. THE APPLICANT SHALL EXTEND FULL HALF-STREET IMPROVEMENTS ALONG LANCASTER STREET TO INCLUDE THE FRONTAGE OF THE PROPERTY AT 2799 LANCASTER STREET.
4. THE APPLICANT SHALL RECORD A PUBLIC PEDESTRIAN EASEMENT ALONG THE DRIVEWAY CONNECTING THE PEDESTRIAN PATHWAY TO SUMMER RUN (IN ADDITION TO THE EASEMENT OVER THE AREA OF THE PATHWAY ITSELF). THE APPLICANT SHALL PLACE A SIGN AT THE ENTRANCE TO THE SUMMER RUN COMMON DRIVEWAY IDENTIFYING THE DRIVEWAY AS A PEDESTRIAN ACCESS OPENT TO PUBLIC USE.
5. FINAL PLANS FOR THE PEDESTRIAN PATHWAY SHALL ELIMINATE THE PROPOSED STAIRWAY AND REALLOCATE THE ADDITIONAL GRADE CHANGE ALONG THE REST OF THE PROPOSED PATHWAY. THE EXCLUSIVELY PEDESTRIAN PORTION OF THE PATHWAY SHALL BE PAVED WITH A PERMEABLE SURFACE DESIGNED TO DISCOURAGE SKATEBOARDING AND REDUCE THE DRAINAGE IMPACTS OF IMPERVIOUS SURFACES.
6. THE APPLICANT SHALL DEDICATE ADDITIONAL RIGHT OF WAY AT THE END OF YORK STREET SO THAT THE ENTIRE FIRE TURNAROUND AREA REQUIRED BY CDC 85.200(A)(11) IS WITHIN PUBLIC RIGHT OF WAY.
7. THE LOCATION OF THE SANITARY SEWER LINE SERVING LOTS ALONG PARKER ROAD AND SUMMER RUN SHALL BE DETERMINED WITH REGARD AS TO THE PHYSICAL CONSTRAINTS OF THE SITE IN CONSULTATION WITH THE CITY ENGINEER AND IN ACCORDANCE WITH THE CITY OF WEST LINN DESIGN AND CONSTRUCTION STANDARDS.
8. THE PUBLIC SANITARY SEWER LINE SERVING LOTS TAKING ACCESS FROM YORK STREET SHALL END AT THE EDGE OF THE PUBLIC RIGHT OF WAY, AND ALL LINES BEYOND THIS POINT SHALL BE PRIVATELY OWNED AND MAINTAINED.
9. PUBLIC ACCESS EASEMENTS ACCESSIBLE BY CITY MAINTENANCE VEHICLES SHALL BE PROVIDED FOR ALL SANITARY SEWER MANHOLES.
10. THE STORM PIPE IN PARKER ROAD SHALL BE EXTENDED TO THE INTERSECTION OF PARKER AND LANCASTER, ENDING WITH A MANHOLE, AND ALSO PROVIDING A CATCHBASIN ON LANCASTER STREET.
11. THE APPLICANT SHALL DEDICATE A STORM WATER EASEMENT FOR THE STORM PIPE ON LOTS 1 AND 2, PROVIDING ACCESS FOR MAINTENANCE AND REPAIR OF THE PUBLIC LINE.
12. THE APPLICANT SHALL MODIFY THE CAPACITY OF THE STORM DETENTION AND TREATMENT SYSTEMS TO ACCOUNT FOR THE INCREASED RUNOFF FROM IMPROVEMENTS TO LANCASTER STREET, PARKER ROAD, AND SUMMER RUN DRIVE.
13. THE APPLICANT SHALL PROVIDE SEPARATE PRIVATE WATER SERVICE LINES FOR EACH INDIVIDUAL LOT, CONNECTING TO THE PUBLIC SYSTEM.
14. THE APPLICANT MUST DEMONSTRATE ADEQUATE ACCESS TO THE STORM DETENTION AND TREATMENT FACILITIES BY CITY UTILITY VEHICLES FOR MAINTENANCE, AND MUST ALSO PROVIDE FENCING AND LINING FOR WALLS PROTECTING ADJACENT PUBLIC STREETS.
15. THE APPLICANT SHALL CREATE FOUR GUEST PARKING SPACES, TWO ON THE PRIVATE DRIVE FROM SUMMER RUN, AND TWO ACCESSED FROM YORK STREET, WITHIN THE DEVELOPMENT, NOT WITHIN PUBLIC RIGHT-OF-WAY. THE SPACES MAY BE EITHER PARALLEL OR PERPENDICULAR, BUT MUST BE MARKED AS "GUEST SPACES AND MUST BE INCLUDED WITHIN DESIGNATED COMMON SHARED ACCESS EASEMENT AREA."
16. ALL PUBLIC IMPROVEMENTS MUST BE IN ACCORDANCE WITH THE CITY OF WEST LINN AND CONSTRUCTION STANDARDS, PROFESSIONAL ENGINEERING STANDARDS, AND ACCEPTED INDUSTRY STANDARD CONSTRUCTION PRACTICE. WHERE CONFLICT BETWEEN STANDARDS EXISTS, THE MOST STRINGENT WILL APPLY UNLESS ALLOWED BY THE CITY ENGINEER.
17. THE APPLICANT SHALL SUBMIT A LANDSCAPING PLAN FOR THE STORM DETENTION FACILITY AT THE CORNER OF LANCASTER AND PARKER TO THE SATISFACTION OF THE CITY ENGINEER AND THE PLANNING DIRECTOR DESIGNED TO PRESENT AN AESTHETICALLY ATTRACTIVE PRESENCE AT THE CORNER.

WEST LINN CASEFILE SUB05-03 / ZC05-05 / VAR05-03

ASBUILT CONSTRUCTION DOCUMENTS

CONSTRUCTION & EROSION CONTROL NOTES
SIENNA'S ESTATES
City of West Linn, Clackamas County, Oregon

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1-23-08
REGISTERED PROFESSIONAL ENGINEER
53,060
OREGON
JULY 10, 2001
SCOTT EMMENS
EXP. 12/31/09

RECORD DRAWING
01/18/08
THESE RECORD DRAWINGS HAVE BEEN PREPARED, IN PART, ON THE BASIS OF INFORMATION COMPILED AND FURNISHED BY THE CONTRACTOR, REVISED CONSTRUCTION PLANS, AND FIELD OBSERVATIONS DURING CONSTRUCTION.

DATE	01/18/08
DRAWN	JSE
DESIGNED	JSE
CHECKED	RGN
PROJECT #	SLP04-001

SHEET TITLE
CONST. AND EROS. CONTROL NOTES

SHEET NUMBER
C002

EXISTING UTILITY NOTES:

STORM DRAINAGE:

(F) CATCH BASIN: RIM=540.19
IE 12" (SW) OUT=535.04
IE 10" (W) IN =535.04
SUMP = 533.49

(G) CATCH BASIN: RIM=540.33
IE 10" (E) OUT=535.53
IE 4" W.H. =538.13
SUMP = 533.73

(H) CATCH BASIN: RIM=540.45
IE 12" CPP (NW)=536.25

(J) CATCH BASIN: RIM=542.80,

(K) CATCH BASIN: RIM=544.83
IE 12" (W) OUT= 539.68
IE 12" (S)= 539.83
SUMP= 539.33

(L) CATCH BASIN: RIM=552.64
IE 12" (N) OUT= 550.21

(M) 8" CPP OUTLET: IE = 581.15

(N) CATCH BASIN: RIM=582.45
IE 8" (N) OUT=

(P) 12" CONCRETE OUTFALL: IE 558.23

(R) STORM MANHOLE: RIM=541.40
IE 15" (NE) IN=534.70
IE 12" (SW) IN=535.20

SANITARY SEWER:

(2) SANITARY MANHOLE: RIM=541.26
IE 8" (S) IN=532.81
IE 4" (NE) LAT. =532.81
IE 4" (E) LAT. =532.81
IE 8" (W) OUT =532.16

(3) SANITARY MANHOLE: RIM=588.74
IE 6" (NW) LAT. =583.74
IE 6" (NW) LAT. =582.34
IE IN/LAT. =582.19
IE 8" (E) OUT =582.04

(4) SANITARY MANHOLE: RIM=573.26

EXISTING CONDITIONS PLAN
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DESIGNED	JSE
CHECKED	RGN
PROJECT #	SLP04-001

SHEET TITLE
EXISTING CONDITIONS PLAN

SHEET NUMBER
C003

ASBUILT CONSTRUCTION DOCUMENTS

WEST LINN CASEFILE SUB05-03 / ZC05-05 / VAR05-03

SITE DEMOLITION NOTES:

(1) EXISTING TREE TO BE REMOVED.

(2) EXISTING TREE TO REMAIN AND BE PROTECTED DURING ALL PHASES OF CONSTRUCTION.

(3) EXISTING RESIDENCE TO REMAIN.

(4) EXISTING GRAVEL DRIVEWAY TO BE REMOVED.

(5) EXISTING RESIDENTIAL CONCRETE WORK TO BE REMOVED.

(6) EXISTING WELL TO BE ABANDONED AND PROPER CERTIFICATIONS FILED WITH JURISDICTION.

(7) EXISTING CONCRETE SLAB TO REMOVED.

(8) EXISTING SIGN TO BE REMOVED.

(9) EXISTING MAILBOX TO BE REPLACED WITH NEW SUBDIVISION MAIL LOCK BOX FOR ALL HOMES. COORDINATE WITH THE UNITED STATES POSTAL SERVICE.

(10) EXISTING TRAFFIC DELINEATORS TO BE REMOVED AND REPLACED PER CITY DIRECTION AND ODOT DETAIL STD. SPECIFICATION 00225.13(c).

(11) EXISTING FENCE TO BE REMOVED.

(12) EXISTING OUTBUILDING TO BE REMOVED.

(13) EXISTING POWER POLE GUYS TO BE RELOCATED OR ADJUSTED AS NECESSARY BY PORTLAND GENERAL ELECTRIC. CONTRACTOR TO COORDINATE ADJUSTMENT OR RELOCATION WITH P.G.E. PRIOR TO WORK COMMENCEMENT.

(15) EXISTING POWER POLE TO BE REMOVED BY PORTLAND GENERAL ELECTRIC. CONTRACTOR TO COORDINATE REMOVAL WITH P.G.E. PRIOR TO WORK COMMENCEMENT.

(16) EXISTING OVERHEAD POWER LINE TO BE ABANDONED AND REMOVED BY PORTLAND GENERAL ELECTRIC. CONTRACTOR TO COORDINATE DESERVICING AND REMOVAL WITH P.G.E. PRIOR TO WORK COMMENCEMENT.

(17) EXISTING HOUSE ELECTRICAL METER TO BE MOVED TO FRONT OF HOUSE OR WITHIN 10 FEET OF FRONT ON SIDE. CONTRACTOR TO COORDINATE WITH PROERTY OWNERS AND PGE.

(18) INSTALL TREE PROTECTION FENCING. FENCING NEEDS TO BE ATTACHED TO A 7-FOOT TALL STEEL FENCE POSTS PLACED EIGHT FEET APART ON CENTER FORMING A PROTECTIVE LINE AROUND THE PRESERVED TREES AND FENCE POSTS NEED TO BE SECURELY ANCHORED IN THE SOIL TO A DEPTH OF TWO FEET.

ONCE THE FENCE HAS BEEN ESTABLISHED IT CANNOT BE ADJUSTED OR REMOVED WITHOUT THE CONSENT OF THE CONSULTING ARBORISTS. THE FENCING, AS DESCRIBED, WILL NEED TO BE MAINTAINED THROUGHOUT THE ENTIRETY OF THE PROJECT.

(19) POWER TO REMAIN IN SERVICE DURING CONSTRUCTION. COORDINATE TEMPORARY POWER POLES/SOUCE WITH PGE AND PROPERTY OWNER.

(20) EXISTING WATER SERVICE LINES FOR TAX LOT 2500 AND TAX LOT 2502 ARE TO BE REMOVED AND REPLACED WITH NEW SERVICE LINE TIED TO NEW 6" WATER LINE PER SHEET C014. COORDINATE WITH WATER DEPT. AND PROPERTY OWNER.

(21) PVC PIPE FOR OVERHEAD POWER TO BE REMOVED. COORDINATE WITH PGE FOR CONTINUED SERVICE TO EXISTING HOMES.

ASBUILT CONSTRUCTION DOCUMENTS

WEST LINN CASEFILE SUB05-03 / ZC05-05 / VAR05-03

DEMOLITION PLAN
SIENNA'S ESTATES
City of West Linn, Clackamas County, Oregon

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1-23-08
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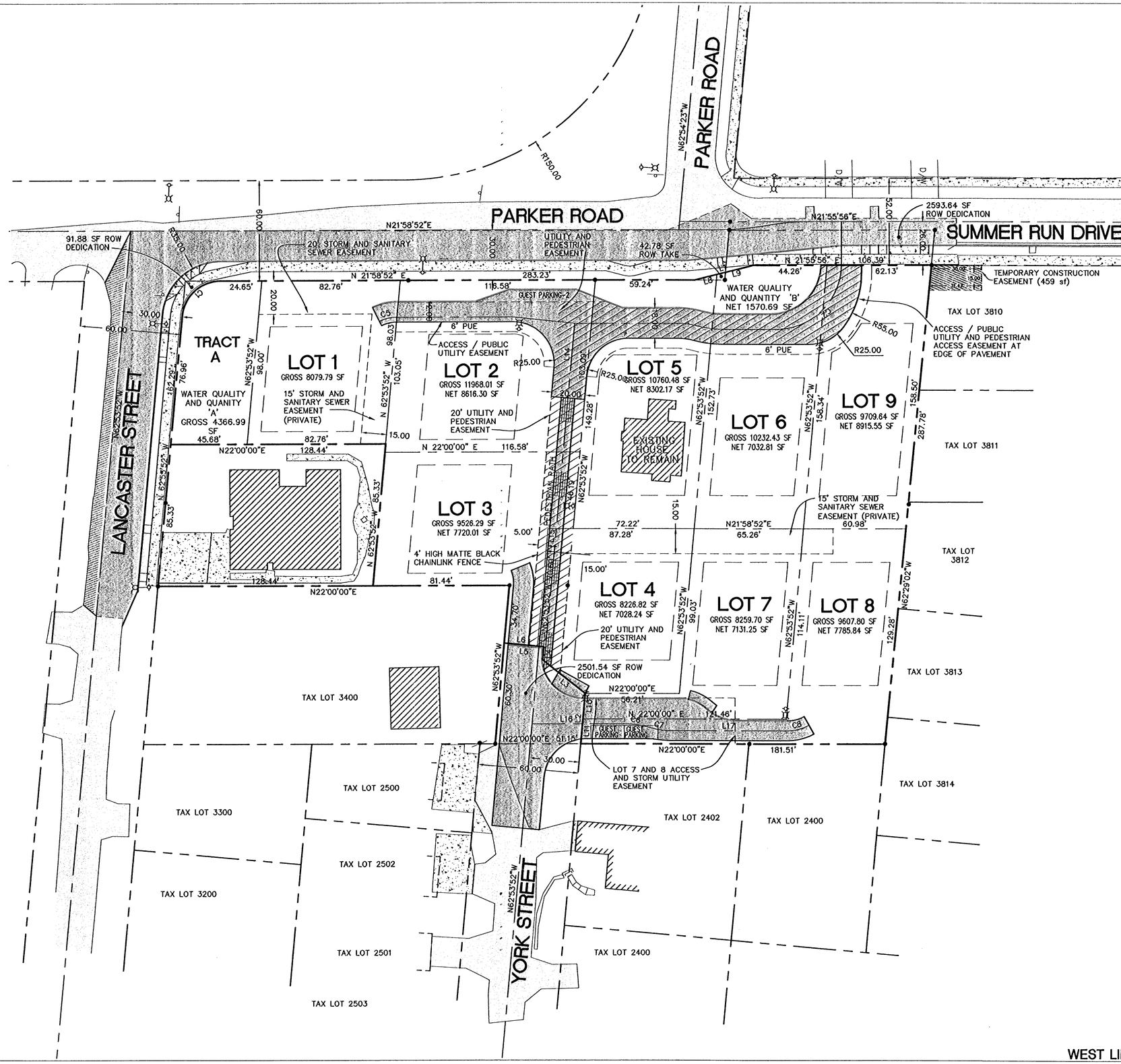
DATE	01/18/08
DRAWN	JSE
DESIGNED	JSE
CHECKED	RGN
PROJECT #	SLP04-001

SHEET TITLE
DEMOLITION PLAN

SHEET NUMBER
C004



SCALE: 1"=30'

30 0 30

LEGEND

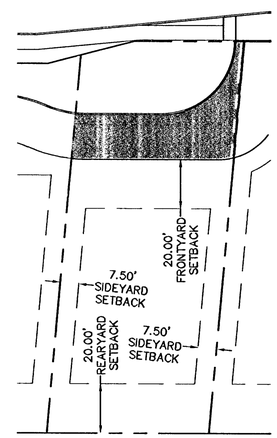
- EXISTING ASPHALTIC SURFACE
- EXISTING BOUNDARY
- EXISTING RIGHT-OF-WAY
- PROPOSED ASPHALTIC SURFACE
- PROPOSED SETBACK LINE
- PROPOSED LOT LINE
- 8' PUE — 8' PUBLIC UTILITY EASEMENT
- PROPOSED PEDESTRIAN ACCESS EASEMENT
- STREET LIGHT, SEE SHEET C013 FOR DETIALS

CURVE TABLE

CURVE	DELTA	RADIUS	LENGTH	TANGENT	CHORD BRG	CHORD
C1	84°52'44"	23.00	34.07	21.03	S20°27'30"E	31.04
C2	90°02'56"	39.00	61.29	39.03	N23°02'36"W	55.18
C3	23°04'18"	50.00	20.13	10.21	N33°31'01"E	20.00
C4	23°04'18"	50.00	20.13	10.21	S33°31'01"W	20.00
C5	26°25'38"	23.00	10.61	5.40	S08°46'03"W	10.51
C6	16°15'37"	56.00	15.89	8.00	S30°07'48"E	15.84
C7	16°15'37"	44.00	12.49	6.29	N30°07'48"E	12.45
C8	29°06'39"	26.00	13.21	6.75	N07°26'41"E	13.07

LINE TABLE

LINE	LENGTH	BEARING
L1	35.94	N07°29'27"E
L2	30.12	N62°53'52"W
L3	32.49	S60°18'00"W
L4	7.85	N62°53'52"W
L5	23.77	S27°06'08"W
L6	20.00	N27°06'08"E
L7	3.77	N27°06'08"E
L8	13.73	N07°29'27"E
L9	22.21	N07°29'27"E
L10	15.06	N62°53'52"W
L11	15.06	N62°53'52"W
L12	33.43	N21°58'52"E
L13	154.05	N21°58'52"E
L14	49.44	N62°53'52"W
L15	162.85	N62°53'52"W
L16	54.13	N22°00'00"E
L17	70.57	N22°00'00"E



TYPICAL SETBACKS
NOT TO SCALE

WEST LINN CASEFILE SUB05-03 / ZC05-05 / VAR05-03

ASBUILT CONSTRUCTION DOCUMENTS

PRELIMINARY PLAT AND SITE PLAN
SIENNA'S ESTATES
City of West Linn, Clackamas County, Oregon

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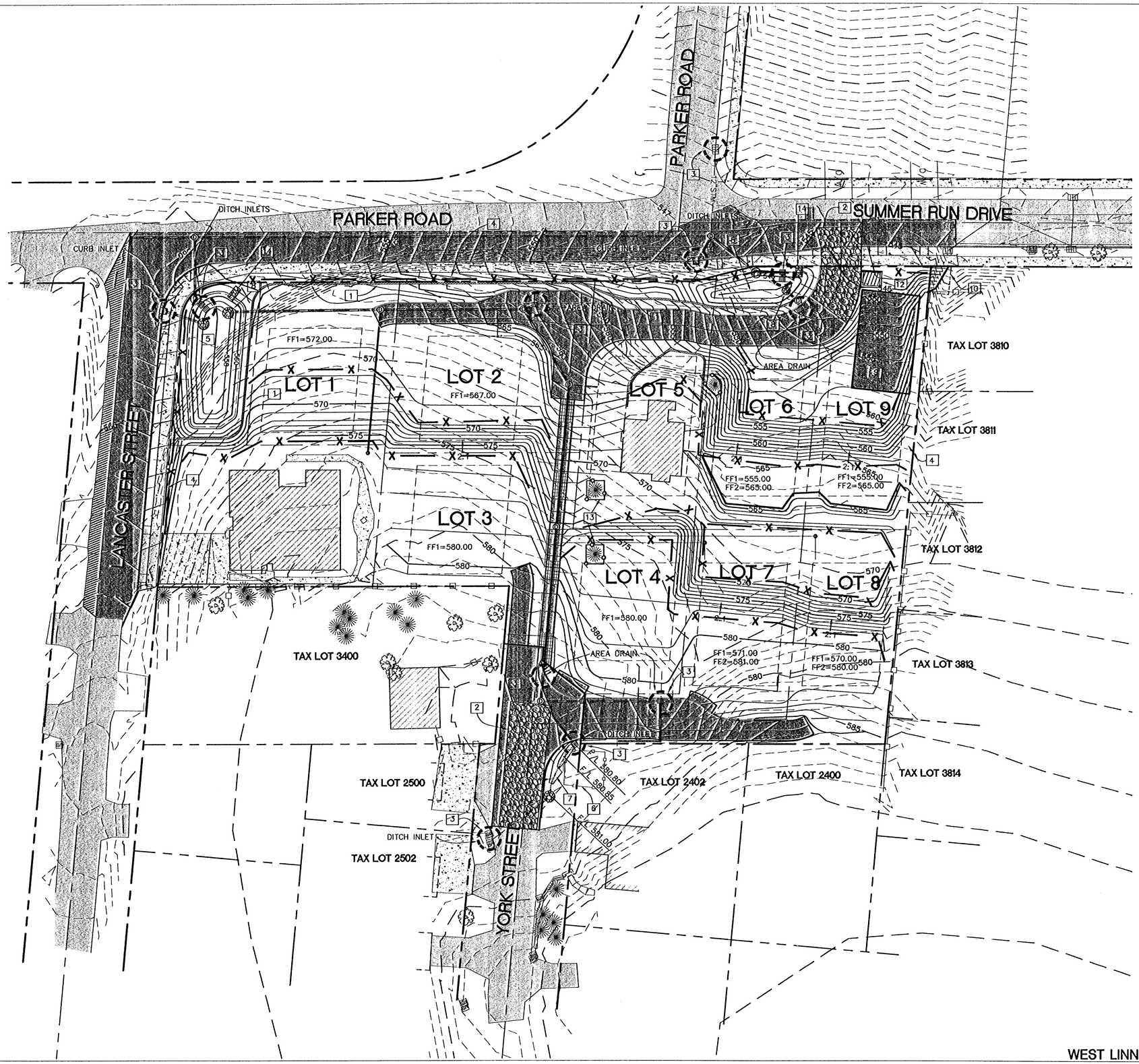
DATE	01/18/08
DRAWN	JSE
DESIGNED	JSE
CHECKED	RGN
PROJECT #	SLP04-001

SHEET TITLE
PRELIMINARY PLAT AND SITE PLAN

SHEET NUMBER
C005



SCALE: 1"=30'

30 0 30

CONTOUR INTERVAL = 1'

SITE GRADING NOTES:

1. INSTALL LOCK AND LOAD RETAINING WALL. SEE SHEET C008 FOR INFORMATION.
2. INSTALL GRAVEL CONSTRUCTION ENTRANCE. SEE DETAIL SHEET C007.
3. INSTALL BIOFILTER BAG INLET PROTECTION. SEE DETAIL SHEET C007.
4. INSTALL SEDIMENT FENCING. SEE DETAIL SHEET C007.
5. WATER QUALITY / QUANTITY FACILITY "A". SEE PLANTING PLAN ON C016 AND TYPICAL SECTION ON SHEET C017.
6. REMOVE AND RELOCATE EXISTING FENCE WITH IN YORK ST ONTO TAX LOT 2402. COORDINATE WITH PROPERTY OWNER.
7. CONSTRUCT DITCH SECTION FROM EXISTING DRIVEWAY TO NEW DITCH INLET. SEE BELOW FOR DIMENSIONS. SEE SHEET C002 FOR SEEDING INSTRUCTIONS
8. INSTALL STORM OUTFALL PER DETAIL ON SHEET C017.
9. CONSTRUCTION STAGING AREA.
10. TEMPORARY CONSTRUCTION EASEMENT AREA.
11. IF POND IS CONSTRUCTED DURING WET WEATHER MONTHS (OCT. 1 TO MAY 31), INSTALL CLASS 100 RIP RAP 1' THICK ON BOTTOM OF POND. DURING DRY WEATHER MONTHS, INSTALL POND VEGETAION PER LANDSCAPE PLAN.
12. INSTALL CONCRETE TRUCK WASHOUT PIT. 10' X 10' X 3' * DO NOT OVERFILL PIT *
13. MAINTAIN TREE PROTECTIVE FENCING. SEE SHEET C004 FOR INSTALLATION NOTES
14. INSTALL POND OVERFLOW. SEE SHEET C020 FOR DETAIL.

PERMANENT GROUND COVER MIX

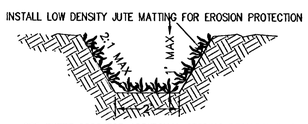
ANNUAL RYEGRASS, 40% BY WEIGHT
TURF-TYPE FESCUE, 60% BY WEIGHT
APPLICATION RATE: 100 POUNDS MINIMUM PER ACRE

TEMPORARY GROUND COVER MIX

DWARF PERENNIAL RYEGRASS, 80% BY WEIGHT
CREEPING RED FESCUE, 20% BY WEIGHT
APPLICATION RATE: 100 POUNDS MINIMUM PER ACRE

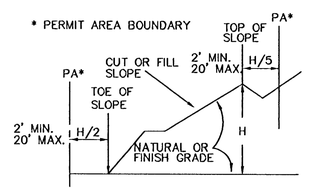
LEGEND

GRAVEL CONSTRUCTION ENTRANCE
INLET PROTECTION
SEDIMENT FENCING



SEE SHEET C002 FOR ADDITIONAL SEEDING REQUIREMENTS

YORK STREET DITCH SECTION
SCALE: NTS



GRADING SETBACK DIMENSIONS
N.T.S.

GRADING AND EROSION CONTROL PLAN
SIENNA'S ESTATES
City of West Linn, Clackamas County, Oregon

SAM L PAP
2799 LANCASTER STREET
WEST LINN, OREGON 97068
(503) 888-2254

CIVIL ENGINEERING
DEVELOPMENT CONSULTING
LANDSCAPE ARCHITECTURE
LANPACIFIC
5125 SW Macadam, Suite 140, Portland, Oregon 97239
☎ 503 | 226-2097 FAX: 503 | 226-2447
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1-23-08
REGISTERED PROFESSIONAL ENGINEER
83.068LP
OREGON
JULY 10, 2001
J. SCOTT EMERY
EXP. 12/31/09

RECORD DRAWING
01/18/08
THESE RECORD DRAWINGS HAVE BEEN PREPARED, IN PART, ON THE BASIS OF INFORMATION COMPILED AND FURNISHED BY THE CONTRACTOR, REVISED CONSTRUCTION PLANS, AND FIELD OBSERVATIONS DURING CONSTRUCTION.

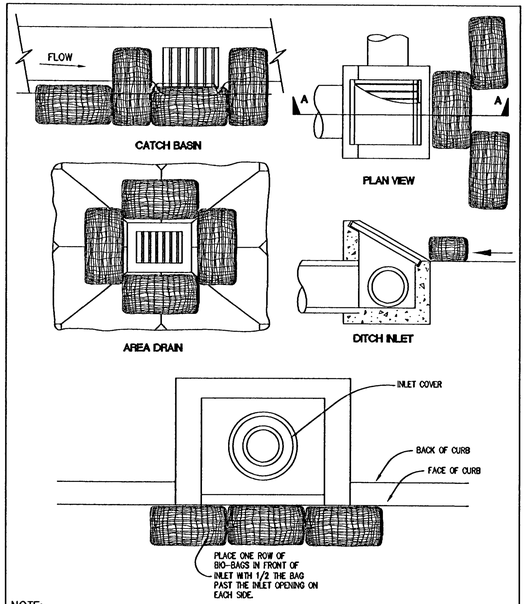
DATE	01/18/08
DRAWN	JSE
DESIGNED	JSE
CHECKED	RGN
PROJECT #	SLP04-001

SHEET TITLE
GRADING AND EROSION CONTROL

SHEET NUMBER
C006

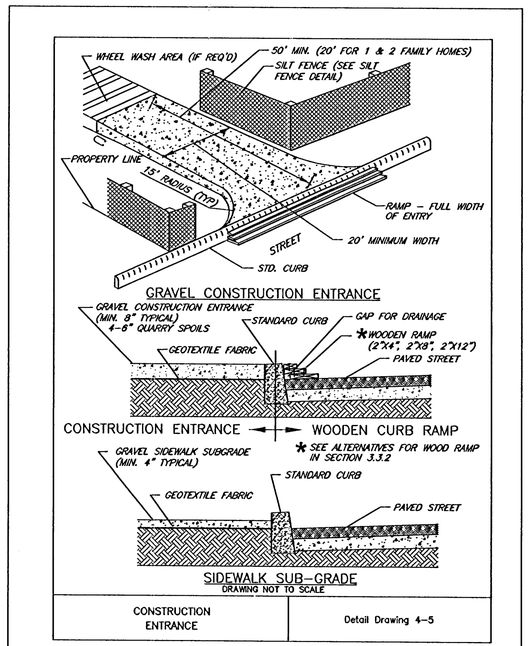
ASBUILT CONSTRUCTION DOCUMENTS

WEST LINN CASEFILE SUB05-03 / ZC05-05 / VAR05-03



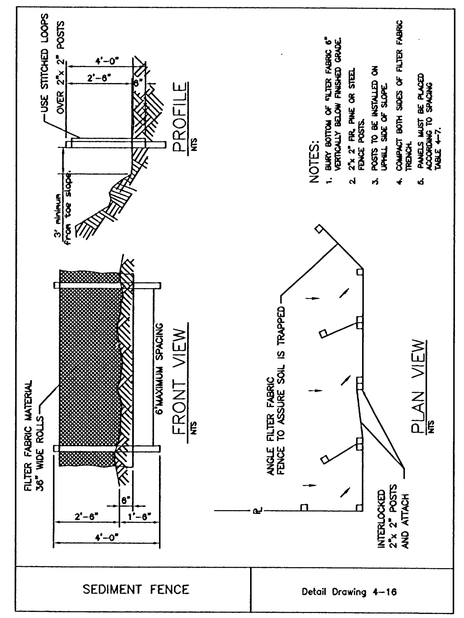
NOTE:
REPLACE BIO BAG INLET PROTECTION FOR AREA DRAINS WITH CATCH BASIN INSERT BAGS AFTER THE FIRST LIFT OF ASPHALT."

STORM DRAIN INLET PROTECTION CURB INLET CATCH BASIN BIO-BAG INLET PROTECTION	SEDIMENT CONTROL BMP SC-8



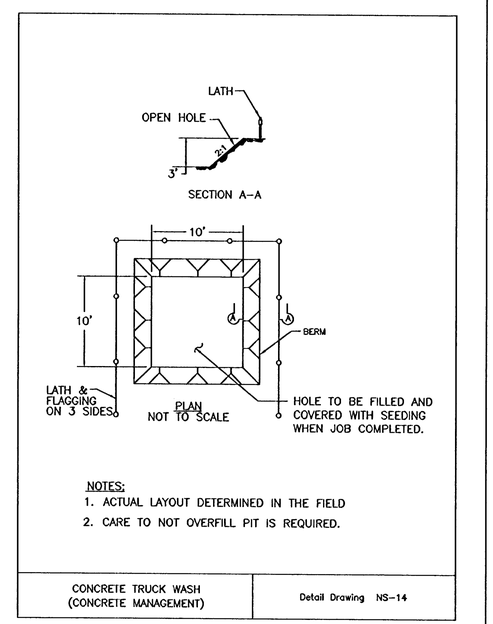
CONSTRUCTION ENTRANCE	Detail Drawing 4–5

* MODIFIED TO SHOW MORE DETAIL *



SEDIMENT FENCE	Detail Drawing 4–16

*



NOTES:
1. ACTUAL LAYOUT DETERMINED IN THE FIELD
2. CARE TO NOT OVERFILL PIT IS REQUIRED.

CONCRETE TRUCK WASH (CONCRETE MANAGEMENT)	Detail Drawing NS–14

* MODIFIED TO SHOW MORE DETAIL *

ASBUILT CONSTRUCTION DOCUMENTS

EROSION CONTROL DETAILS
SIENNA'S ESTATES
City of West Linn, Clackamas County, Oregon

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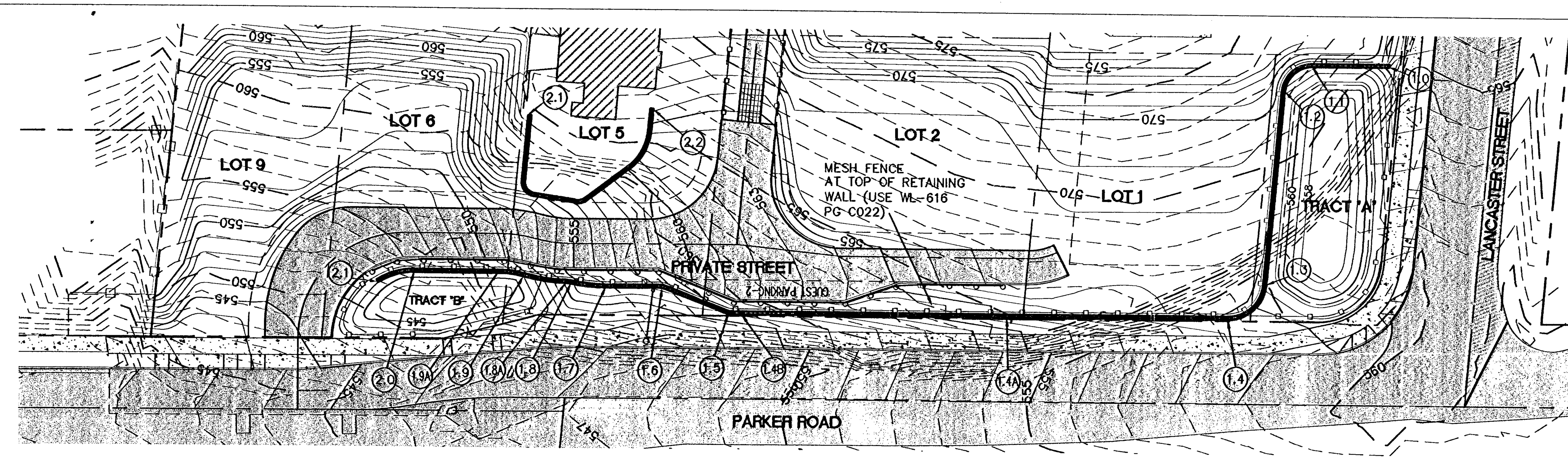
PROJECT #	SLP04–001

SHEET TITLE
EROSION CONTROL DETAILS

SHEET NUMBER
C007



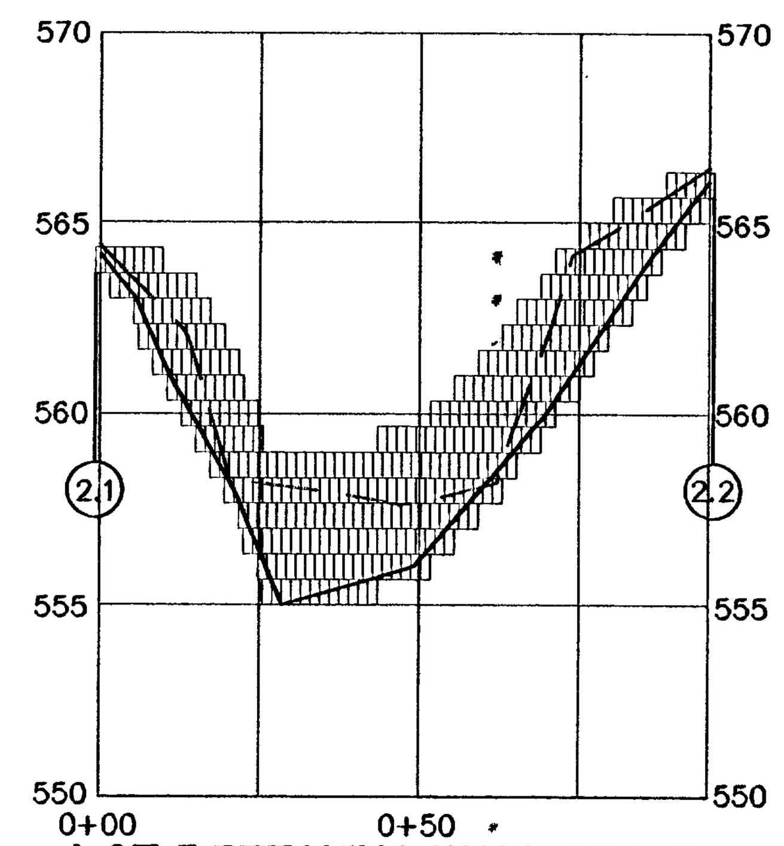
LEGEND

TOW	TOP OF WALL
BOW	BOTTOM OF WALL
	RETAINING WALL
	EXISTING 1' CONTOUR
	EXISTING 5' CONTOUR
	PROPOSED 1' CONTOUR
	PROPOSED 5' CONTOUR
	EXISTING ASPHALTIC SURFACE
	PROPOSED ASPHALTIC SURFACE
	MESH CHAIN LINK FENCING AT TOP OF RETAINING WALL (USE SURFACE WATER FACILITY FENCE WL-616 PAGE C017)

RETAINING WALL NOTES

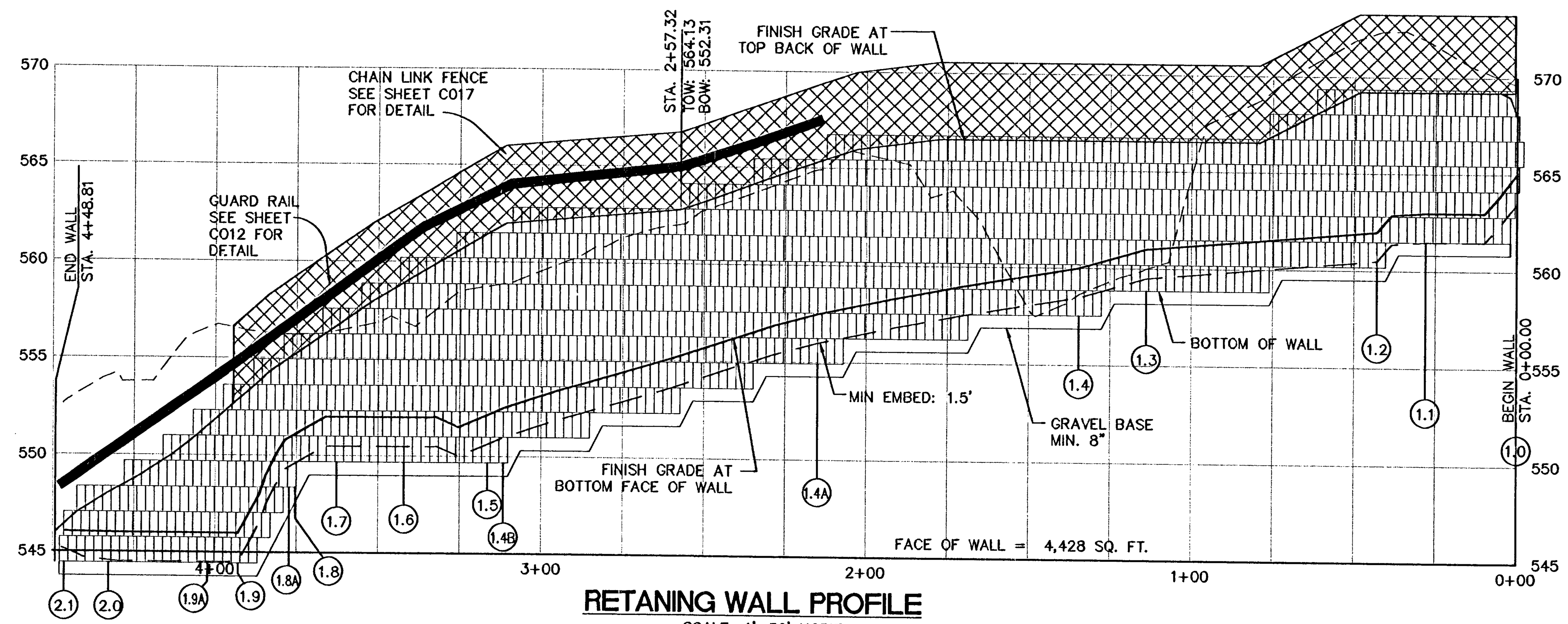
ALL STATIONS ARE GIVEN AT BOTTOM FACE OF WALL

Point	Station		TOW	BOW
1.0	STA. 0+00.00	BEGIN WALL	569.38	561.50
1.1	STA. 0+28.00	PC 10' RAD	569.38	561.50
1.2	STA. 0+42.82	PT 10' RAD	569.38	560.19
1.3	STA. 1+13.86	PC 14' RAD	566.75	558.87
1.4	STA. 1+34.60	PT 14' RAD	566.75	557.56
1.4A	STA. 2+14.95	–	565.44	554.94
1.4B	STA. 3+11.55	–	561.50	549.69
1.5	STA. 3+16.41	MID PT 10' RAD	561.50	549.69
1.6	STA. 3+42.07	MID PT 10' RAD	558.88	560.19
1.7	STA. 3+62.66	PC 61.50' RAD	557.56	549.69
1.8	STA. 3+75.36	PT 61.50' RAD, PC 10.00' RAD	556.25	548.38
1.8A	STA. 3+77.20	PT 10.00' RAD, PC 64.50' RAD	556.25	548.38
1.9	STA. 3+92.84	PT 64.50' RAD, PC 35.50' RAD	553.63	544.44
1.9A	STA. 4+02.26	PT 35.50' RAD	552.31	544.44
2.0	STA. 4+32.69	PC 24.50' RAD	548.38	544.44
2.1	STA. 4+46.42	PT 24.50' RAD, END WALL	547.06	544.44



LOT 5 RETANING WALL PROFILE

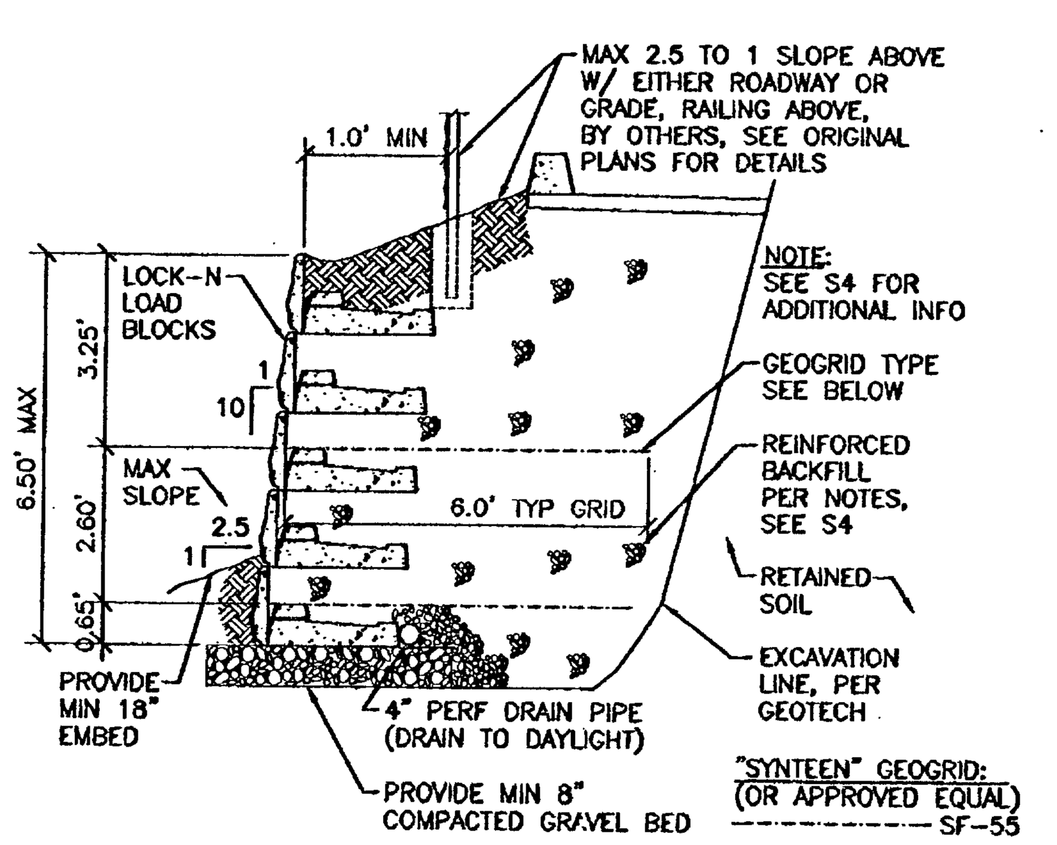
SCALE: 1'=30' HORIZ.
1"=5' VERT.



RETANING WALL PROFILE

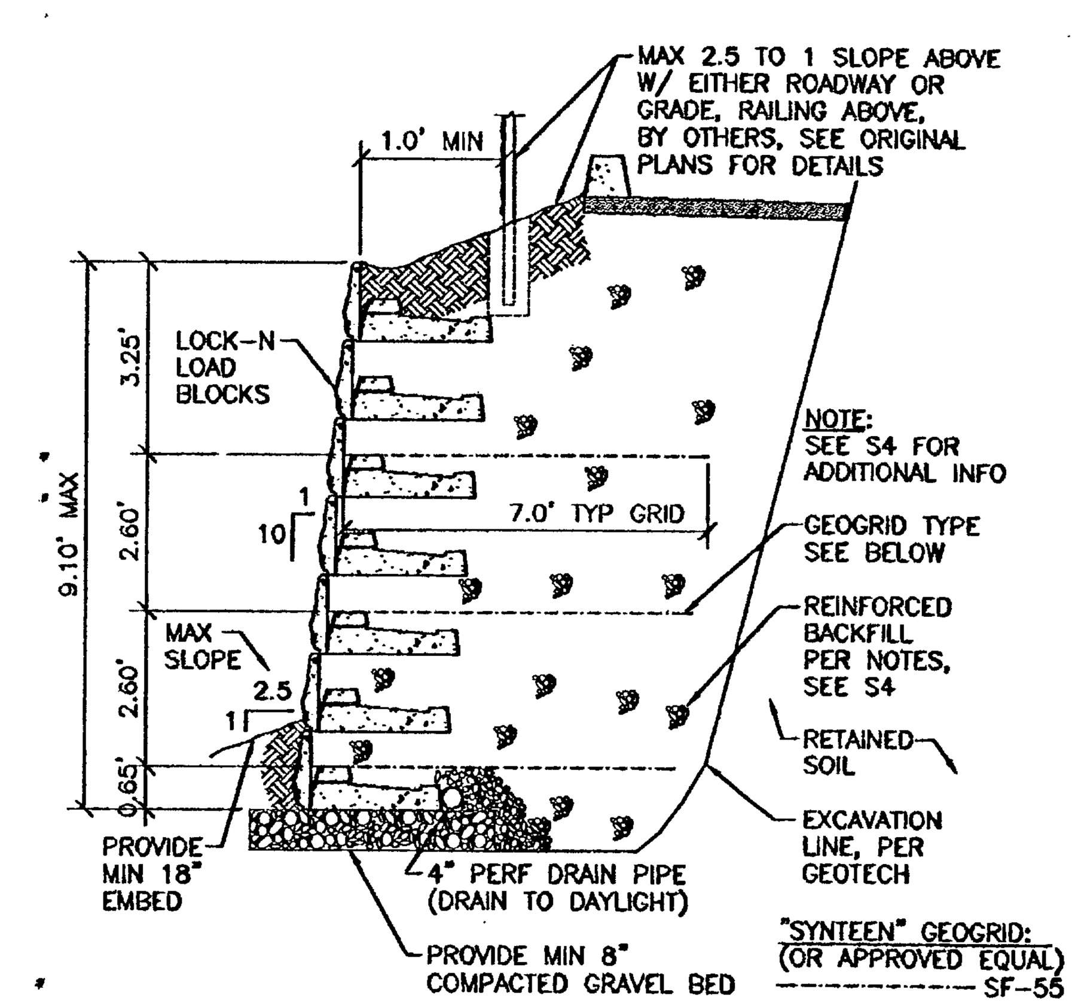
SCALE: 1'=30' HORIZ.
1"=5' VERT.

STRUCTURAL REGISTERED PROFESSIONAL ENGINEER 16,716 OREGON JULY 20, 1993 TIMOTHY J. THEIS
1/13/06
EXPIRES: 06/30/06



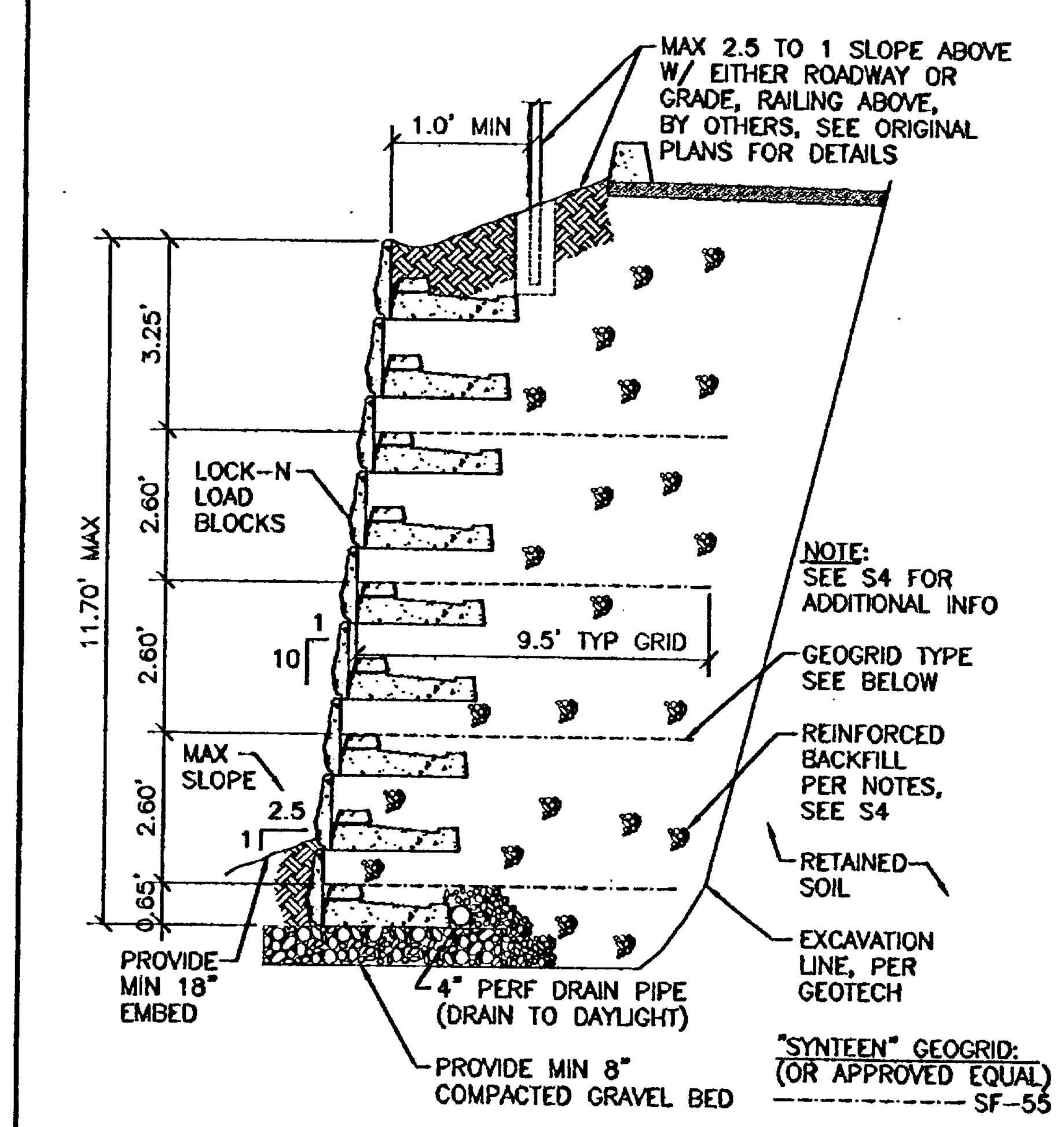
6.5 FT HIGH MSE LOCK-N-LOAD WALL WITH 2.5 TO 1 SLOPE ABOVE
1/S1 3/8" = 1'-0"
X004001

THEIS ENGINEERING, LLC | PROJECT: PARKER ROAD SUBDIVISION, PARKER ROAD AT LANCASTER STREET, WEST LINN, OREGON | CLIENT: LANPACIFIC, INC., 1001 SE WATER AVE, SUITE 360, PORTLAND, OR 97214 | SHEET TITLE: 6.5 FT HIGH LOCK-N-LOAD MSE WALL | JOB NUMBER 06-004 | DATE 1/13/06 | DRAWN BY TJT | CHECKED BY TJT | SHEET S1 1 OF 4



9.1 FT HIGH MSE LOCK-N-LOAD WALL WITH 2.5 TO 1 SLOPE ABOVE
1/S2 3/8" = 1'-0"
X004002

THEIS ENGINEERING, LLC | PROJECT: PARKER ROAD SUBDIVISION, PARKER ROAD AT LANCASTER STREET, WEST LINN, OREGON | CLIENT: LANPACIFIC, INC., 1001 SE WATER AVE, SUITE 360, PORTLAND, OR 97214 | SHEET TITLE: 9.1 FT HIGH LOCK-N-LOAD MSE WALL | JOB NUMBER 06-004 | DATE 1/13/06 | DRAWN BY TJT | CHECKED BY TJT | SHEET S2 2 OF 4



11.7 FT HIGH MSE LOCK-N-LOAD WALL WITH 2.5 TO 1 SLOPE ABOVE
1/S3 3/8" = 1'-0"
X004D03

THEIS ENGINEERING, LLC | PROJECT: PARKER ROAD SUBDIVISION, PARKER ROAD AT LANCASTER STREET, WEST LINN, OREGON | CLIENT: LANPACIFIC, INC., 1001 SE WATER AVE, SUITE 360, PORTLAND, OR 97214 | SHEET TITLE: 11.7 FT HIGH LOCK-N-LOAD MSE WALL | JOB NUMBER 06-004 | DATE 1/13/06 | DRAWN BY TJT | CHECKED BY TJT | SHEET S3 3 OF 4

DESIGN CRITERIA AND LOCK-N-LOAD INSTALLATION NOTES:

1. LOCK-N-LOAD BLOCKS AND SYNTEEN GEOGRID ARE TO BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS.
2. DESIGN IS BASED ON THE FOLLOWING: (PER GEOTECH REPORT BY GEOPACIFIC ENGINEERING, DATED 1/27/05)

ACTIVE EARTH COEFFICIENT, ka (LEVEL SLOPE):	0.280 (EFP=35 PCF)
SEISMIC EARTH COEFFICIENT, kae (LEVEL SLOPE):	0.323
ACTIVE EARTH COEFFICIENT, ka (MAX 2.5:1 SLOPE):	0.373 (EFP=47 PCF)
SEISMIC EARTH COEFFICIENT, kae (MAX 2.5:1 SLOPE):	0.479
MAXIMUM SOIL BEARING PRESSURE: (WALLS OVER 6.5 FT WILL NEED 2,600 PSF BEARING CAPACITY)	1,500 PSF
COEFFICIENT OF FRICTION AT BASE OF WALL:	0.45
UNIT WEIGHT OF ON-SITE MATERIAL:	125 PCF
INTERNAL ANGLE OF ON-SITE MATERIAL:	30 DEGREES
UNIT WEIGHT OF GRAVEL IMPORT FILL:	135 PCF
INTERNAL ANGLE OF GRAVEL IMPORT FILL:	36 DEGREES
ROADWAY VEHICLE SURCHARGE:	250 PSF

3. DESIGN IS BASED ON AASHTO/FHWA METHODOLOGY.
4. CALCULATIONS WERE PERFORMED ASSUMING 'SYNTEEN' GEOGRID, OF TO USE OTHER GEOGRIDS WITH THE FOLLOWING PROPERTY: 'SYNTEEN' SF-55 (LTDS) = 2,165 LBS/FT
5. INSTALL WALLS W/ 10 TO 1 BATTER (5.7 DEGREES). ALIGN FRONT FACE OF UNIT ABOVE WITH BACK FACE OF UNIT BELOW.
6. PROVIDE MINIMUM 18" EMBEDMENT PER PLANS.
7. MINIMUM FACTOR OF SAFETY: (REDUCED BY 1.33 FOR SEISMIC DESIGN)
   - FACTOR OF SAFETY AGAINST SLIDING: 1.5
   - FACTOR OF SAFETY AGAINST OVERTURN: 2.0
   - FACTOR OF SAFETY AGAINST GRID PULL-OUT: 1.5
8. BACKFILL MATERIAL SHALL BE CLEAN ANGULAR COMPACTED GRAVEL THAT MEETS THE PROPERTIES OUTLINED UNDER NOTE 2 ABOVE AND SHALL HAVE LESS THAN 5% PASSING THE NUMBER 200 SIEVE. GRAVEL BACKFILL AND LEVELING BED SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D-698. OVER EXCAVATION MAY BE REQUIRED TO OBTAIN PROPER BEARING CAPACITY. VERIFY CONDITIONS WITH GEOTECH OF RECORD AND REQUIRED BEARING CAPACITY WITH BEARING PRESSURES INDICATED UNDER NOTE 2. PLANTING SOIL MAY BE USED FOR THE TOP 12" OF THE GEOGRID ZONE.
9. RAILING GUARDRAIL CONTRACTOR SHALL COORDINATE REQ'D FOOTINGS W/ WALL INSTALLER TO AVOID DAMAGE OF GEOGRID. SAUNA TUBES MAY BE REQ'D AT TIME OF GEOGRID INSTALLATION, CAREFULLY CUT GEOGRID AROUND SAUNA TUBES AS REQUIRED.
10. WALLS 3.9 FEET OR LOWER DO NOT REQUIRE GEOGRID.
11. SEE ORIGINAL PLANS FOR PLAN VIEW OF WALL, RAILING REQUIREMENTS AND DETAILS AND ALL OTHER CIVIL INFORMATION.

THEIS ENGINEERING, LLC | PROJECT: PARKER ROAD SUBDIVISION, PARKER ROAD AT LANCASTER STREET, WEST LINN, OREGON | CLIENT: LANPACIFIC, INC., 1001 SE WATER AVE, SUITE 360, PORTLAND, OR 97214 | SHEET TITLE: DESIGN CRITERIA AND NOTES | JOB NUMBER 06-004 | DATE 1/13/06 | DRAWN BY TJT | CHECKED BY TJT | SHEET S4 4 OF 4

WEST LINN CASEFILE SUB05-03 / ZC05-05 / VAR05-03

ASBUILT CONSTRUCTION DOCUMENTS

RETAINING WALL PLAN / PROFILE / DETAILS

SIENNA'S ESTATES

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1-23-08
REGISTERED PROFESSIONAL ENGINEER 53,060 OREGON JULY 10, 2001 J. SCOTT EMMENS
EXP. 12/31/09

RECORD DRAWING
01/18/08

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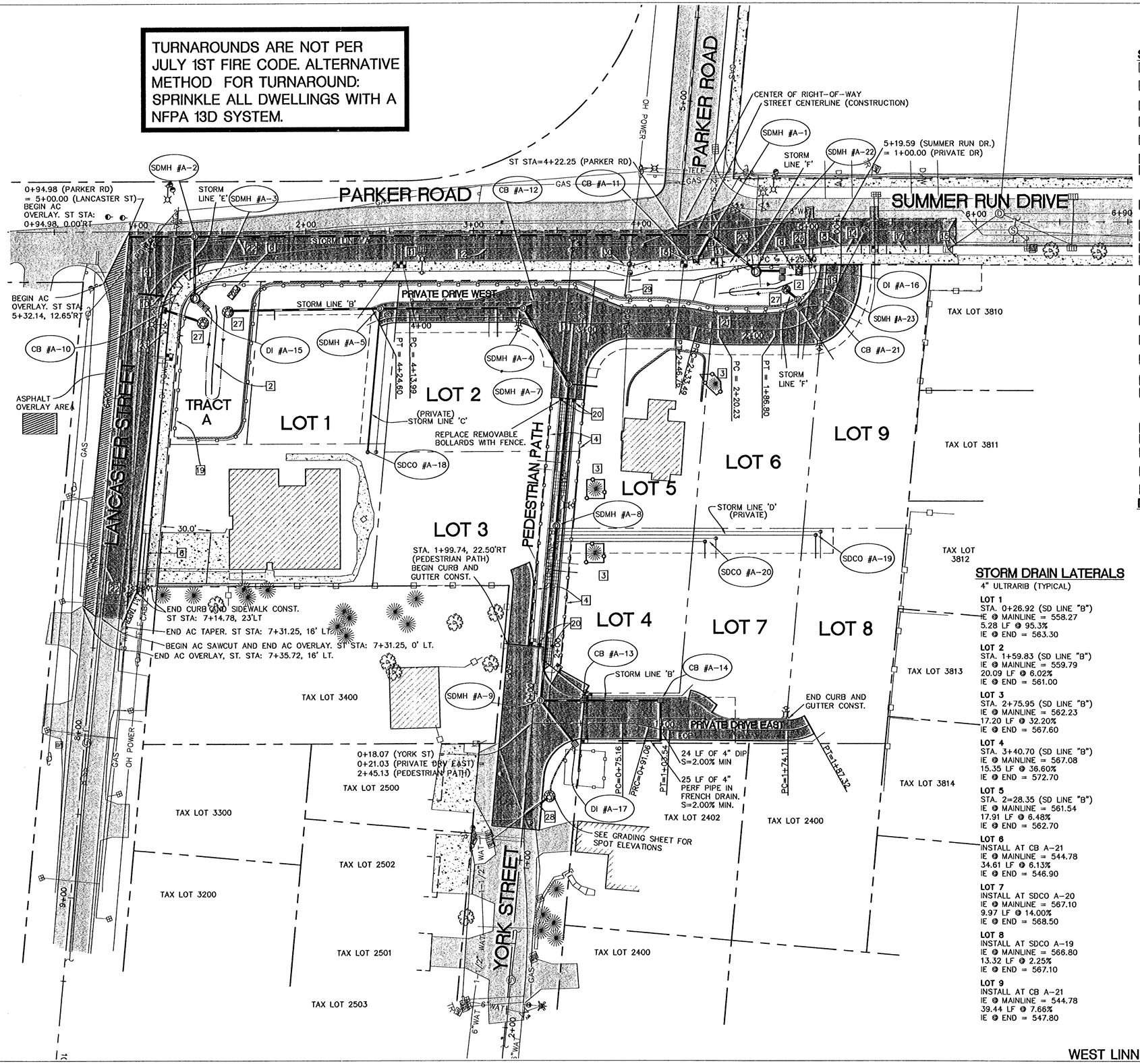
DATE	01/18/08
DRAWN	JSE
DESIGNED	JSE
CHECKED	RGN
PROJECT #	SLP04-001

SHEET TITLE
RETAINING WALLS PLAN/PROFILE

SHEET NUMBER
C008

TURNAROUNDS ARE NOT PER JULY 1ST FIRE CODE. ALTERNATIVE METHOD FOR TURNAROUND: SPRINKLE ALL DWELLINGS WITH A NFPA 13D SYSTEM.



SCALE: 1"=30'
30 0 30

STREET and STORM CONSTRUCTION NOTES

1. STREET INTERSECTION 0+00.00 PEDESTRIAN PATH = 3+07.69 PRIVATE DRIVE-WEST
2. INSTALL LANDSCAPE BERM SEPERATOR. SEE SHEET C017 FOR DETAIL.
3. PROTECT EXISTING TREES WITH TREE PROTECTION FENCING PER NOTES PAGE C004.
4. INSTALL FENCING ALONG PEDESTRIAN ACCESS EASEMENT. PARALLEL AND INSIDE EASEMENT 0.5'. SEE DETAIL ON SHEET C017
5. CURB TAPER TRANSITION. BEGIN TAPER-STA: 4+27.49, 23.00' RT END CURB TAPER - STA: 5+20.02, 14' RT.
6. INSTALL POND OVERFLOW. SEE SHEET C020 FOR DETAIL
8. CONSTRUCT 24.00' RESIDENTIAL DRIVEWAY APPROACH FOR EXISTING HOUSE. REMOVE EXISTING DRIVEWAY, REGRADE AND REPLACE DRIVEWAY. SAWCUT DRIVEWAY AS SHOWN. CL STA: 6+91.21, 23.00' LT (LANCASTER)
9. REPLACE STOP BAR STRIPING WITH 1' WIDE THERMOPLASTIC STRIPE PER CITY OF WEST-LINN STANDARDS
10. REMOVE EXISTING SIGN AND REPLACE IN NEW PLANTER STRIP.
11. REMOVE EXISTING CATCH BASIN.
12. ABANDON AND PLUG OR REMOVE EXISTING STORM DRAIN PIPE
14. CONSTRUCT 24.00' COMMERCIAL DRIVEWAY CENTER STA: 5+19.59, 14'RT (SUMMER RUN DRIVE)
15. END SAWCUT AND MATCH EXISTING AC, CURB AND SIDEWALK ST STA: 5+88.13, 2'LT, 14'RT (SUMMER RUN DRIVE)
17. CONSTRUCT 20.00' RESIDENTIAL DRIVEWAY CENTER STA: 5+56.59, 14'RT (SUMMER RUN DRIVE)
19. INSTALL WATER QUALITY CHAINLINK FENCE WITH GATE. SEE SHEET C017 FOR DETAILS.
20. PLACE A REMOVABLE BOLLARD AT BOTH ENDS OF PEDESTRIAN PATH. SEE DETAIL ON SHEET C020.
21. INSTALL GUARD RAIL. STA: 1+66.00, 11.6'RT TO STA: 2+30.90, 10'RT (PRV DRV WEST). SEE DETAIL SHEET C012.
22. REPLACE STREET STRIPING PER CITY OF WEST-LINN STD.
23. INSTALL 15.00' COMMERCIAL DRIVEWAY APPROACH FOR WATER QUALITY POND ACCESS. CL STA: 5+60.15, 23.00' LT (LANCASTER) CL STA: 4+54.83, 15.66' RT (PARKER)
26. INSTALL SIGN "PEDESTRIAN ACCESS OPEN TO PUBLIC"
27. SEE SHEET C020 FOR STORM OUTFALL DETAIL.
28. EXTEND 8" STORM LINE 17.5 LF (DIP) TO OUTFALL. SEE SHEET C020 FOR STORM OUTFALL DETAIL.
29. INSTALL PGE ANCHOR POLE. ALLOW 18.7' MINIMUM HORIZONTAL DIST. BETWEEN ANCHOR POLE AND GUY WIRE ANCOR POINT
30. ROUTE SIDEWALK BEHIND NEW ANCHOR POLE LOCATION

DITCH INLET AND CATCH BASIN DATA

DI #A-15
INSTALL DITCH INLET PER CITY STD. DWG. NO. WL-610
STA. 1+41.62, 44.66' RT (PARKER ROAD)
UPPER GRATE = 557.89
SUMP = 552.90
6.96 LF OF 12" ULTRARIB S=2.00%
LOWER GRATE = 560.30
IE IN = 558.30
IE OUT =555.40
3.74 LF OF 12" ULTRARIB S=2.00%

DI #A-17
INSTALL DITCH INLET PER CITY STD. DWG. NO. WL-603
STA. 0+28.21, 26.62' LT (YORK STREET)
GRATE = 582.29
IE OUT = 577.80
32.32 LF OF 12" DUCTILE IRON S=2.17%

CB #A-11
INSTALL GUTTER INLET TYPE 2-1/2A PER CITY STD. DWG. NO. WL-601
STA. 4+32.69, 18' RT (LANCASTER STREET)
LID (TOP CURB) = 547.10
IE OUT = 543.30
18.34 LF OF 12" ULTRARIB S=18.00%

CB #A-13
INSTALL CATCH BASIN TYPE G-1 PER CITY STD. DWG. NO. WL-602
STA. 1+99.74, 7.88' RT (PEDESTRIAN PATH)
GRATE = 581.32
IE = 577.70
SUMP IE=576.20
25.64 LF OF 12" ULTRARIB S=2.34%

CO #A-19
INSTALL STD CLEANOUT CITY STD. DWG. NO. WL-206
STA. 1+17.86, 154.47' LT (PEDESTRIAN PATH)
RIM = 569.28
IE = 566.80
155.09 LF OF 4" ULTRARIB S = 2.25%

CB #A-21
INSTALL GUTTER INLET TYPE G-1 PER CITY STD. DWG. NO. WL-602
STA. 1+67.31, 10.55' RT (PVT DR WEST)
GRATE = 545.76
IE OUT = 544.20
6.35 LF OF 8" ULTRARIB S=2.65% TO SDMH A-23

DI #A-16
INSTALL DITCH INLET PER CITY STD. DWG. NO. WL-6
STA. 4+82.41, 33.03' RT (PARKER ROAD)
UPPER GRATE = 543.92
SUMP = 538.90
7.68 LF OF 12" ULTRARIB S=2.00%
LOWER GRATE = 546.50
IE IN =
IE OUT = 555.40
16.03 LF OF 12" ULTRARIB S=2.00%

CB #A-10
INSTALL GUTTER INLET TYPE 2-1/2A PER CITY STD. DWG. NO. WL-601
STA. 5+44.91, 23.14' RT (LANCASTER STREET)
LID (TOP CURB) = 560.77
IE OUT = 558.10
19.23 LF OF 12" ULTRARIB S=0.88%

CB #A-12
INSTALL CATCH BASIN TYPE G-1 PER CITY STD. DWG. NO. WL-602
STA. 3+31.60, 9.00' RT (PRIVATE DRIVE - WEST)
GRATE = 562.37
IE OUT = 560.30
10.65 LF OF 12" DUCTILE IRON S=0.94%

CB #A-14
INSTALL CATCH BASIN TYPE G-1 PER CITY STD. DWG. NO. WL-602
STA. 0+94.36, 17.30' LT (PRIVATE DRIVE - EAST)
GRATE = 580.50
IE = 578.10 SUMP IE = 576.50
46.42 LF OF 12" ULTRARIB S=0.65%

CO #A-20
INSTALL STD CLEANOUT CITY STD. DWG. NO. WL-206
STA. 1+27.75, 89.03' LT (PEDESTRIAN PATH)
RIM = 569.90 570.64
IE = 567.00 (NO IE GIVEN)
89.39 LF OF 4" ULTRARIB S = 2.50%

STORM DRAIN LATERALS

4" ULTRARIB (TYPICAL)

LOT 1
STA. 0+26.92 (SD LINE "B")
IE @ MAINLINE = 558.27
5.28 LF @ 95.3%
IE @ END = 563.30

LOT 2
STA. 1+59.83 (SD LINE "B")
IE @ MAINLINE = 559.79
20.09 LF @ 6.02%
IE @ END = 561.00

LOT 3
STA. 2+75.95 (SD LINE "B")
IE @ MAINLINE = 562.23
17.20 LF @ 32.20%
IE @ END = 567.60

LOT 4
STA. 3+40.70 (SD LINE "B")
IE @ MAINLINE = 567.08
15.35 LF @ 36.60%
IE @ END = 572.70

LOT 5
STA. 2=28.35 (SD LINE "B")
IE @ MAINLINE = 561.54
17.91 LF @ 6.48%
IE @ END = 562.70

LOT 6
INSTALL AT CB A-21
IE @ MAINLINE = 544.78
34.61 LF @ 6.13%
IE @ END = 546.90

LOT 7
INSTALL AT SDCO A-20
IE @ MAINLINE = 567.10
9.97 LF @ 14.00%
IE @ END = 568.50

LOT 8
INSTALL AT SDCO A-19
IE @ MAINLINE = 566.80
13.32 LF @ 2.25%
IE @ END = 567.10

LOT 9
INSTALL AT CB A-21
IE @ MAINLINE = 544.78
39.44 LF @ 7.66%
IE @ END = 547.80

WEST LINN CASEFILE SUB05-03 / ZC05-05 / VAR05-03

ASBUILT CONSTRUCTION DOCUMENTS

STREET AND STORM SEWER PLAN

SIENNA'S ESTATES

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REGISTERED PROFESSIONAL ENGINEER OREGON JULY 10, 2001 SCOTT ELMERS
1-22-09
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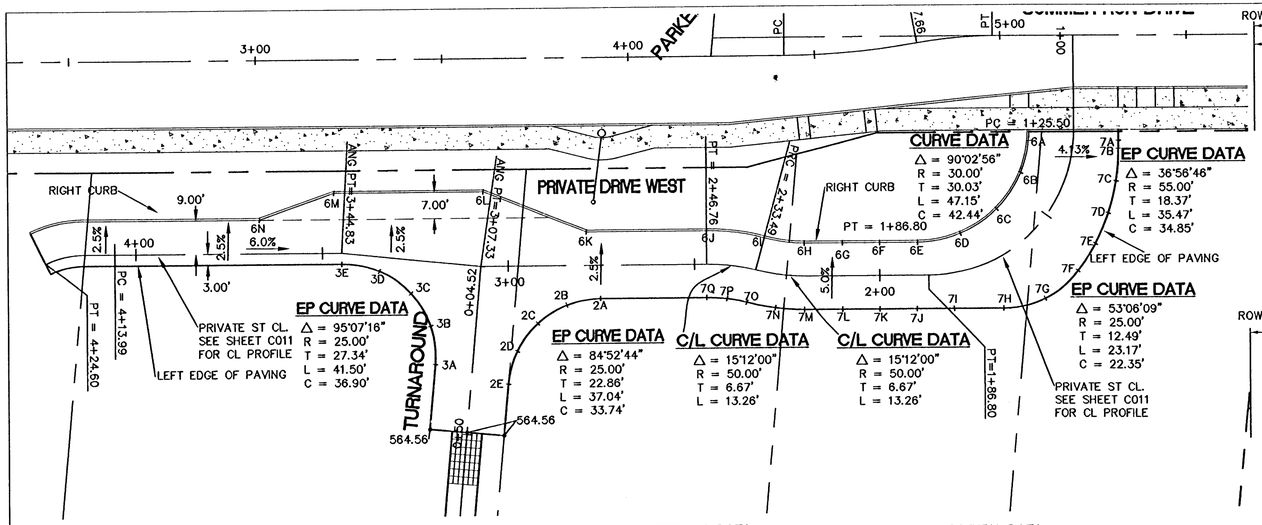
SHEET TITLE
STREET AND STORM PLAN

SHEET NUMBER
C009



CURB RETURN DATA

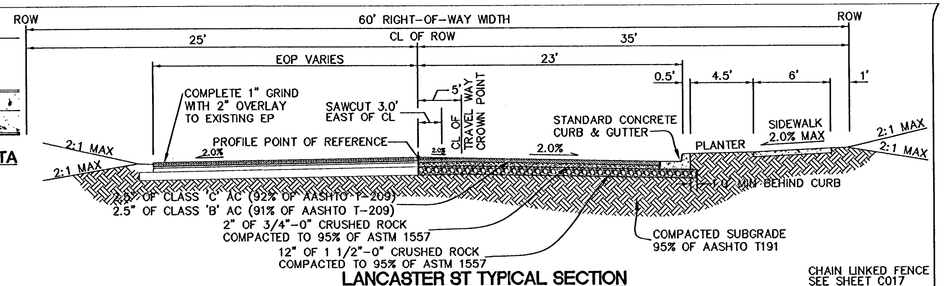
		STA / OFF		EOP ELEV.
2A	PC	2+75.23	9.0	558.60
2B	1/4Δ			559.72
2C	1/2Δ			560.94
2D	3/4Δ			562.17
2E	PT	0+35.52	10.0	563.13
3A	PC	0+31.75	10.0	562.81
3B	1/4Δ			562.40
3C	1/2Δ			562.75
3D	3/4Δ			563.47
3E	PT	3+44.51	3.0	564.05

CURB RETURN DATA

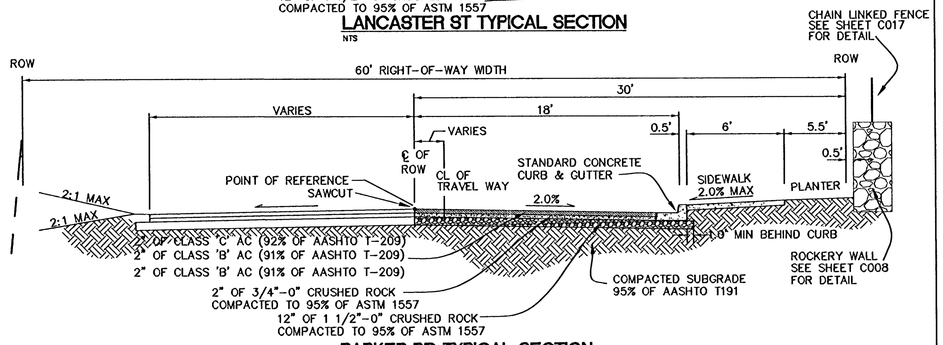
		STA / OFF		T.C. ELEV.
6A	PC	1+25.50	12.0	545.43
6B	1/4Δ	1+42.47	11.75	545.67
6C	1/2Δ	1+59.11	11.04	546.20
6D	3/4Δ	1+75.21	10.02	546.72
6E	PT	1+89.80	9.0	547.93
6F		2+00	9.0	548.80
6G		2+10	9.0	549.85
6H	PC	2+20.23	9.0	551.06
6I	PRC	2+33.49	9.0	552.89
6J	PT	2+46.76	9.0	554.88
6K	ANG PT	2+78.97	9.0	559.07
6L	ANG PT	3+08.76	19.96	561.69
6M	ANG PT	3+46.84	16.0	564.53
6N	ANG PT	3+66.84	9.0	565.59

CURB RETURN DATA

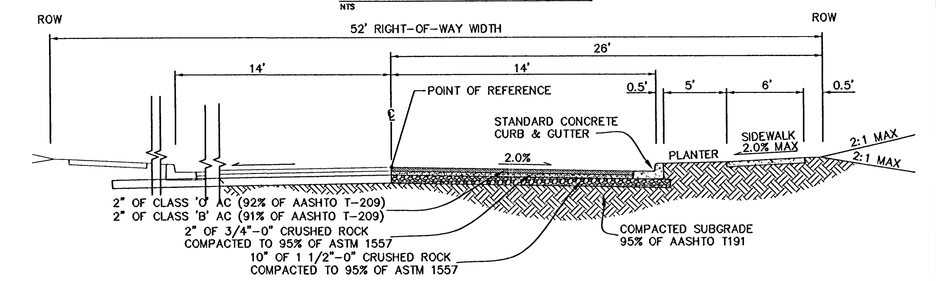
		STA / OFF		EOP ELEV.
7A		1+25.50	12.0	544.44
7B	PC	1+29.30	12.24	544.66
7C	1/4Δ	1+35.96	13.15	545.04
7D	1/2Δ	1+42.49	14.13	545.44
7E	3/4Δ	1+48.39	15.14	545.92
7F	PCC	1+55.18	16.17	546.30
7G	1/2Δ	1+63.32	16.04	546.84
7H	PT	1+71.40	13.0	547.20
7I		1+81.31	9.48	547.70
7J		1+90	9.0	548.32
7K		2+00	9.0	549.20
7L		2+10	9.0	550.25
7M	PC	2+20.23	9.0	551.46
7N	1/2Δ	2+26.86	9.0	552.29
7O	PRC	2+33.49	9.0	553.17
7P	1/2Δ	2+40.13	9.0	554.13
7Q	PT	2+46.76	9.0	555.06



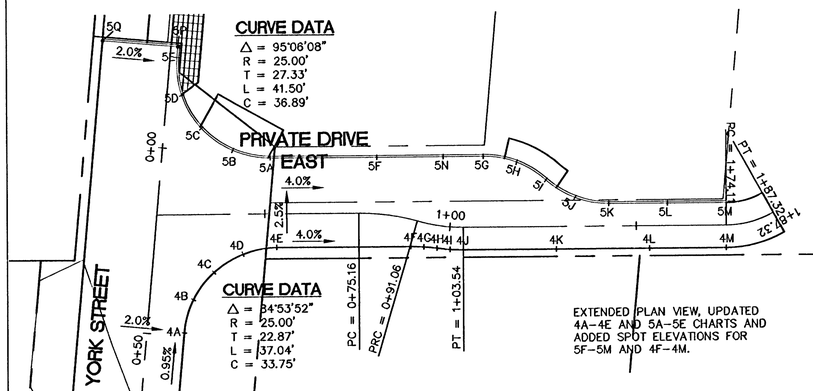
LANCASTER ST TYPICAL SECTION
NTS



PARKER RD TYPICAL SECTION
NTS



SUMMER RUN DRIVE TYPICAL SECTION
NTS



CURB RETURN DATA

		STA / OFF		FL ELEV.
5A	PC	0+51.53, 15'RT (PRIV)		582.02
5B	1/4Δ			582.42
5C	1/2Δ			582.79
5D	3/4Δ			583.08
5E	PT	-0+24.48, 1.82'LT (YORK)		583.25
5P	–	-0+27.31, 1.82'LT (YORK)		583.28
5Q	–	-0+27.31, 18.45'RT (YORK)		583.69

CURB RETURN DATA

		STA / OFF		EOP ELEV.
4A	PC	0+49.08, 10'LT (YORK)		583.36
4B	1/4Δ			583.27
4C	1/2Δ			583.12
4D	3/4Δ			582.89
4E	PT	0+53.14, 9'RT (PRIV)		582.56

EDGE OF PAVEMENT SPOT ELEVATIONS

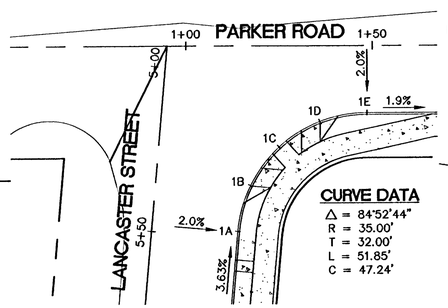
	STATION / OFFSET	EOP ELEV.
4F	0+91.21, 6.99'RT	581.15
4G	0+94.22, 6.25'RT	581.12
4H	0+97.31, 6.00'RT	581.13
4I	1+00.43, 6.00'RT	581.17
4J	1+03.54, 6.00'RT	581.23
4K	1+28.54, 6.00'RT	582.75
4L	1+53.54, 6.00'RT	584.75
4M	1+74.11, 6.00'RT	585.31

STATION OFFSET FROM PRIVATE-EAST ALIGNMENT

GUTTER SPOT ELEVATIONS

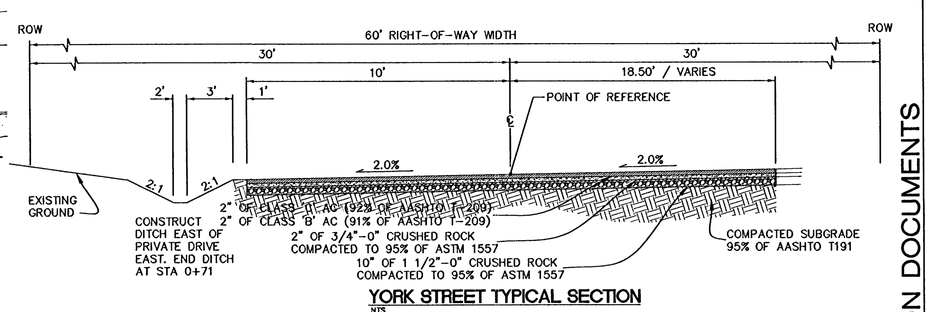
	STATION / OFFSET	FL ELEV.
5F	0+79.03, 15.17'LT	580.91
5G	1+09.00, 19.00'LT	580.79
5H	1+18.02, 17.32'LT	581.32
5I	1+25.82, 12.50'LT	582.04
5J	1+33.62, 7.68'LT	582.91
5K	1+42.64, 6.00'LT	583.76
5L	1+58.37, 6.00'LT	584.65
5M	1+74.11, 6.00'LT	585.01
5N	0+94.36, 18.45'LT	580.61

STATION OFFSET FROM PRIVATE-EAST ALIGNMENT
5N IS LOW POINT

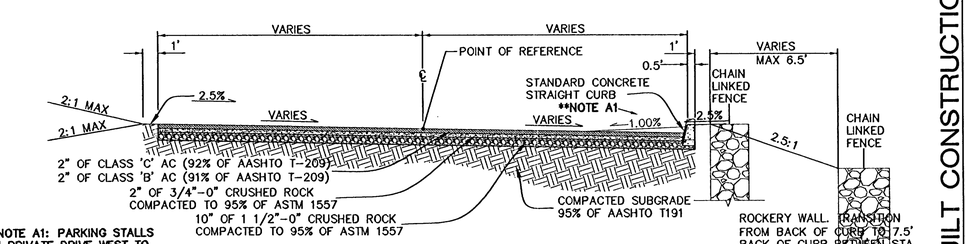


CURB RETURN DATA

		STA / OFF		T.C. ELEV.
1A	PC	5+48.01	23.0	560.73
1B	1/4Δ			560.37
1C	1/2Δ			560.21
1D	3/4Δ			560.12
1E	PT	1+48.46	18.0	559.92



YORK STREET TYPICAL SECTION
NTS



**NOTE A1: PARKING STALLS ON PRIVATE DRIVE WEST TO SHED AWAY FROM CURB AT 1.00% TO VALLEY GUTTER GRADE BREAK TRAVELING THROUGH CATCH BASIN

PRIVATE DRIVE WEST/EAST TYPICAL SECTION
NTS

WEST LINN CASEFILE SUB05-03 / ZC05-05 / VAR05-03

ASBUILT CONSTRUCTION DOCUMENTS

TYPICAL STREET SECTIONS

SIENNA'S ESTATES

City of West Linn, Clackamas County, Oregon

SAM L. PAP
2799 LANCASTER STREET
WEST LINN, OREGON 97068
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REGISTERED PROFESSIONAL ENGINEER
53,060
OREGON
JULY 10, 2001
J. SCOTT EMERSON
1-23-08
EXP. 12/31/09

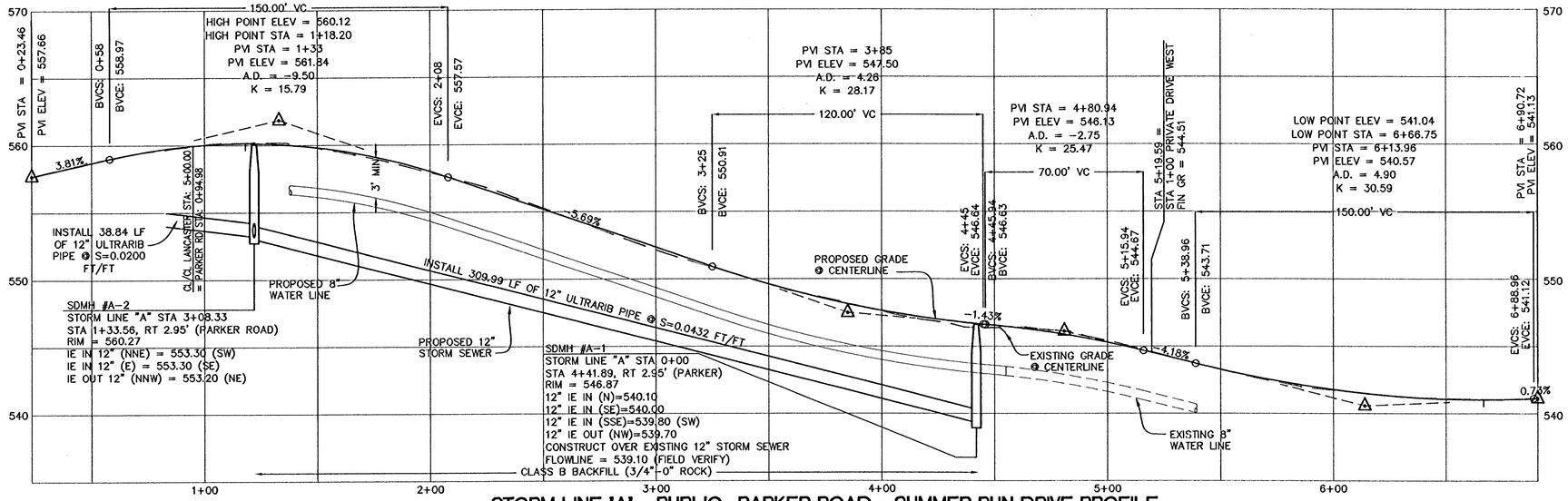
RECORD DRAWING
01/18/08

THESE RECORD DRAWINGS HAVE BEEN PREPARED, IN PART, ON THE BASIS OF INFORMATION COMPILED AND FURNISHED BY THE CONTRACTOR, REVISED CONSTRUCTION PLANS, AND FIELD OBSERVATIONS DURING CONSTRUCTION.

DATE	01/18/08
DRAWN	JSE
DESIGNED	JSE
CHECKED	RGN
PROJECT #	SLP04-001

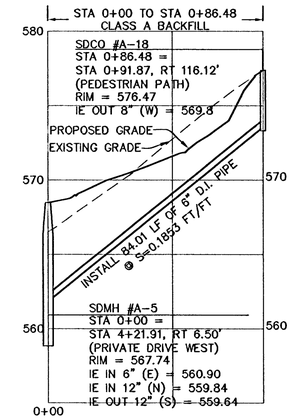
SHEET TITLE
TYPICAL STREET SECTIONS

SHEET NUMBER
C010



STORM LINE 'A' - PUBLIC- PARKER ROAD - SUMMER RUN DRIVE PROFILE

SCALE: 1"=30' HORIZ., 1"=5' VERT.

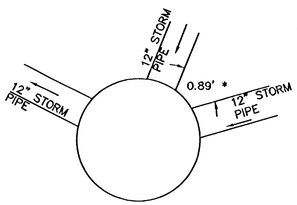


PRIVATE STORM LINE 'C' PROFILE

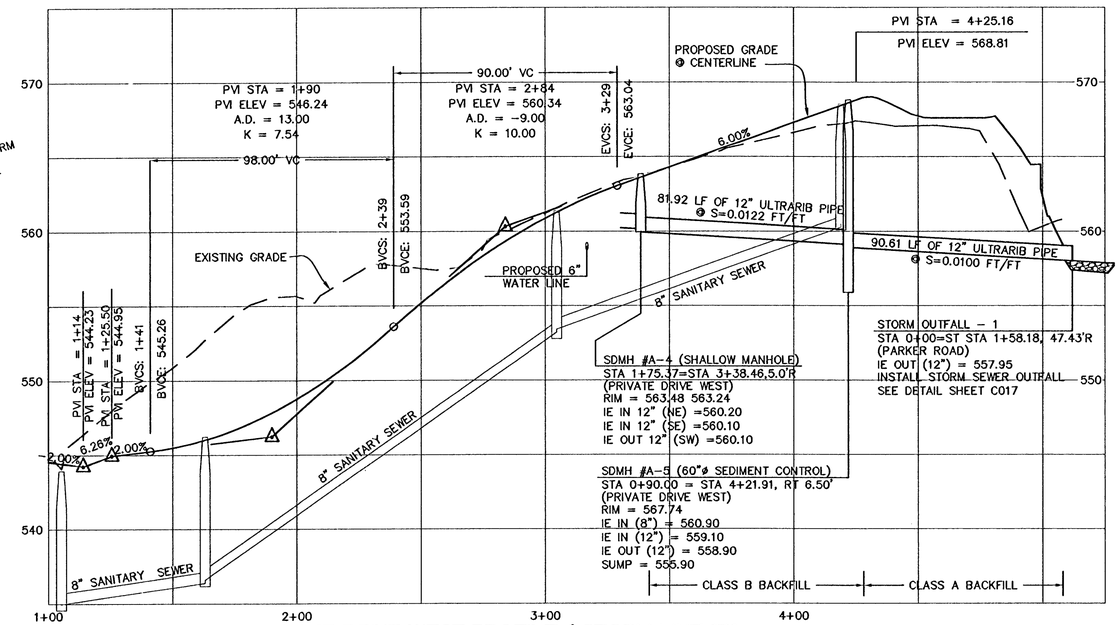
SCALE: 1"=30' HORIZ., 1"=5' VERT.

SDMH A-9 DETAIL

NOT TO SCALE

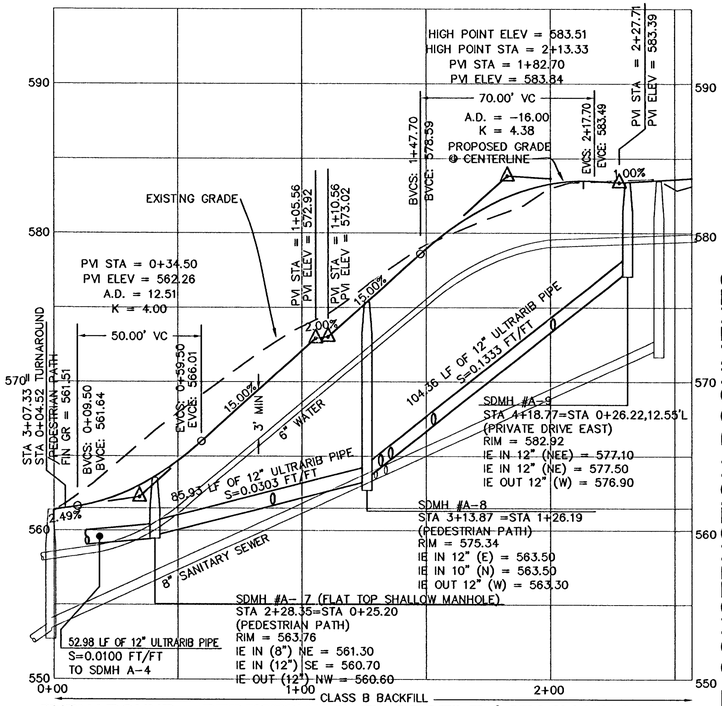


* MAINTAIN 8" CLEARANCE BETWEEN PIPES ENTERING MANHOLE.



PRIVATE DRIVE WEST PROFILE / STORM LINE 'B'

SCALE: 1"=30' HORIZ., 1"=5' VERT.



TURNAROUND - PEDESTRIAN PATH PROFILE / STORM LINE 'B'

SCALE: 1"=30' HORIZ., 1"=5' VERT.

AS BUILT CONSTRUCTION DOCUMENTS

WEST LINN CASEFILE SUB05-03 / ZC05-05 / VAR05-03

STREET AND STORM LINE "A" & "B" PROFILE
SIENNA'S ESTATES

City of West Linn, Clackamas County, Oregon

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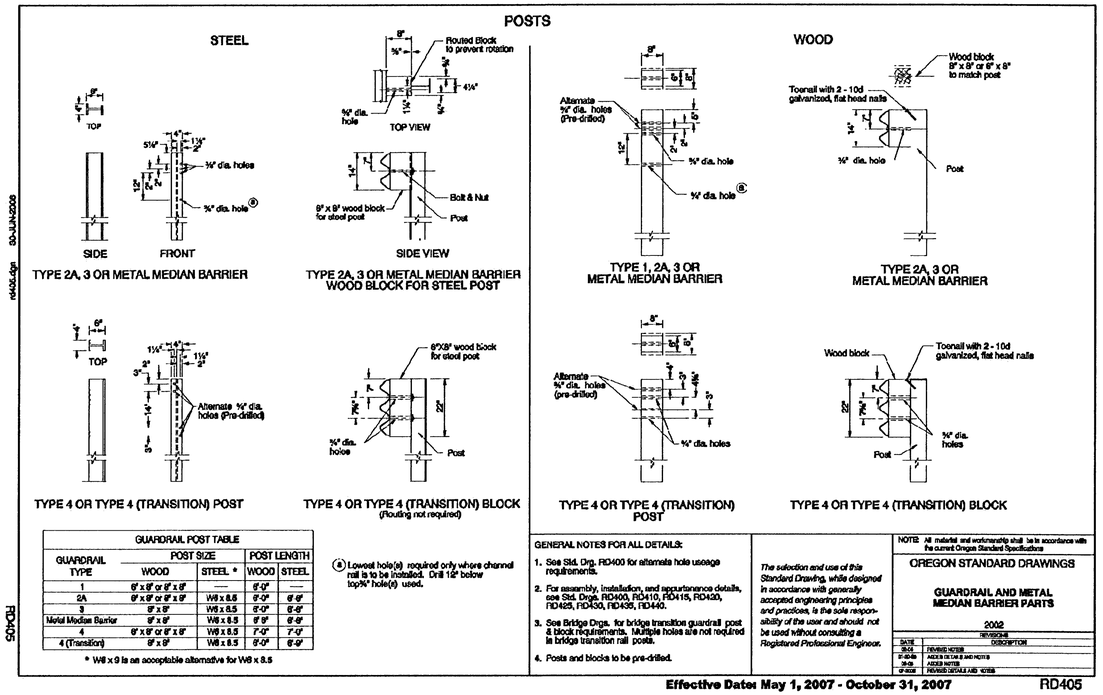
DATE	01/18/08
DRAWN	JSE
DESIGNED	JSE
CHECKED	RGN
PROJECT #	SLP04-001

SHEET TITLE
STREET PROFILES

SHEET NUMBER
C011



GUARDRAIL TYPE	POST SIZE WOOD	POST SIZE STEEL *	POST LENGTH WOOD	POST LENGTH STEEL
1	6" x 8" or 8" x 8"		6'-0"	
2A	6" x 8" or 8" x 8"	W6 x 8.5	6'-0"	6'-0"
3	8" x 8"	W6 x 8.5	6'-0"	6'-0"
Metal Median Barrier	8" x 8"	W6 x 8.5	6'-9"	6'-6"
4	6" x 8" or 8" x 8"	W6 x 8.5	7'-0"	7'-0"
4 (Transition)	8" x 8"	W6 x 8.5	6'-0"	6'-0"

* W8 x 9 is an acceptable alternative for W6 x 8.5

⑧ Lowest hole(s) required only where channel rail is to be installed. Drill 12" below top¾" hole(s) used.

GENERAL NOTES FOR ALL DETAILS:

1. See Std. Drg. RD400 for alternate hole usage requirements.
2. For assembly, installation, and appurtenance details, see Std. Drgs. RD400, RD410, RD415, RD420, RD425, RD430, RD435, RD440.
3. See Bridge Drgs. for bridge transition guardrail post & block requirements. Multiple holes are not required in bridge transition rail posts.
4. Posts and blocks to be pre-drilled.

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.

NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications

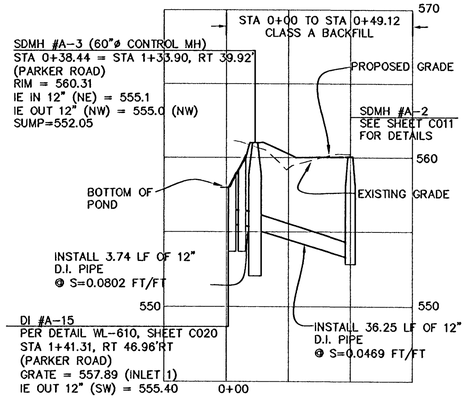
OREGON STANDARD DRAWINGS

GUARDRAIL AND METAL MEDIAN BARRIER PARTS

2002

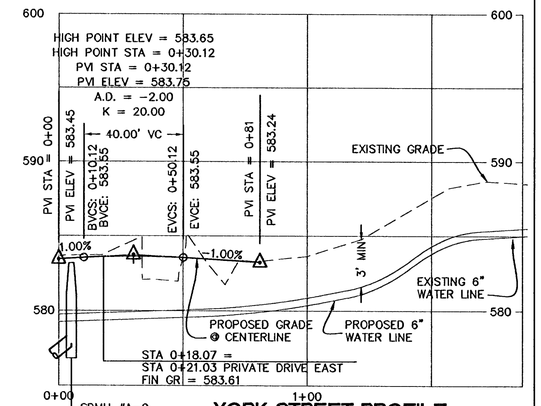
DATE	REVISIONS DESCRIPTION
08-05	REVISED NOTES
01-06	ADDED DETAIL B AND NOTE 5
04-09	ADDED NOTES
07-10	REVISED DETAILS AND NOTES

Effective Date May 1, 2007 - October 31, 2007 RD405



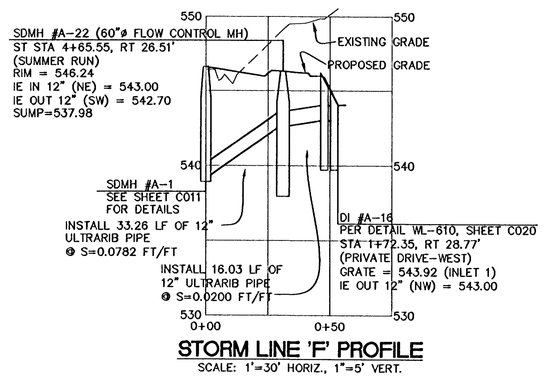
STORM LINE 'E' PROFILE

SCALE: 1'=30' HORIZ., 1"=5' VERT.



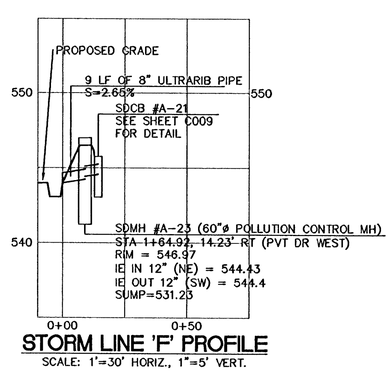
YORK STREET PROFILE

SCALE: 1'=30' HORIZ., 1"=5' VERT.



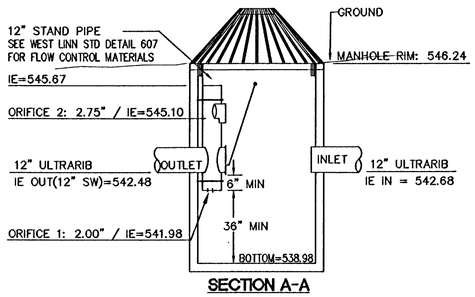
STORM LINE 'F' PROFILE

SCALE: 1'=30' HORIZ., 1"=5' VERT.

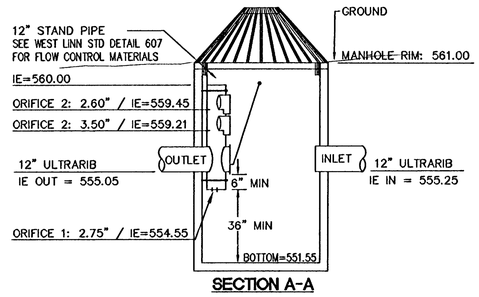


STORM LINE 'F' PROFILE

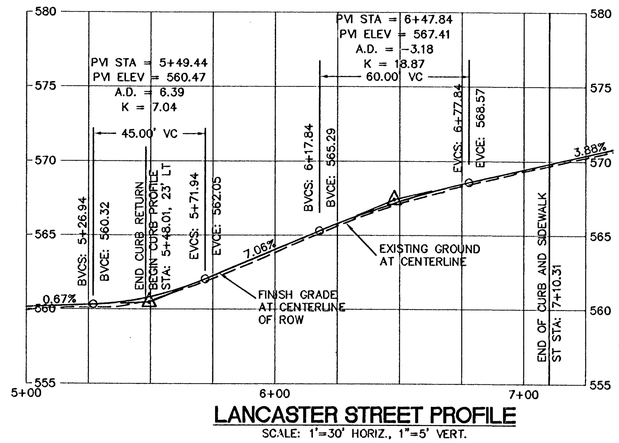
SCALE: 1'=30' HORIZ., 1"=5' VERT.



NORTH FLOW CONTROL MANHOLE A-22 ORIFICE LOCATION TEE RISER

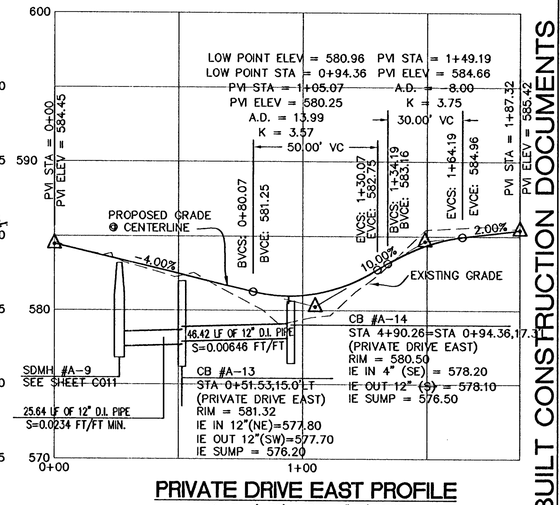


SOUTH FLOW CONTROL MANHOLE A-3 ORIFICE LOCATION TEE RISER



LANCASTER STREET PROFILE

SCALE: 1'=30' HORIZ., 1"=5' VERT.



PRIVATE DRIVE EAST PROFILE

SCALE: 1'=30' HORIZ., 1"=5' VERT.

WEST LINN CASEFILE SUB05-03 / ZC05-05 / VAR05-03

ASBUILT CONSTRUCTION DOCUMENTS

STORM SEWER PROFILES
SIENNA'S ESTATES

City of West Linn, Clackamas County, Oregon

SAM L PAP
2799 LANCASTER STREET
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REGISTERED PROFESSIONAL ENGINEER
OREGON
JULY 10, 2001
J. SCOTT EMMERS
EXP. 12/31/09

RECORD DRAWING
01/18/08

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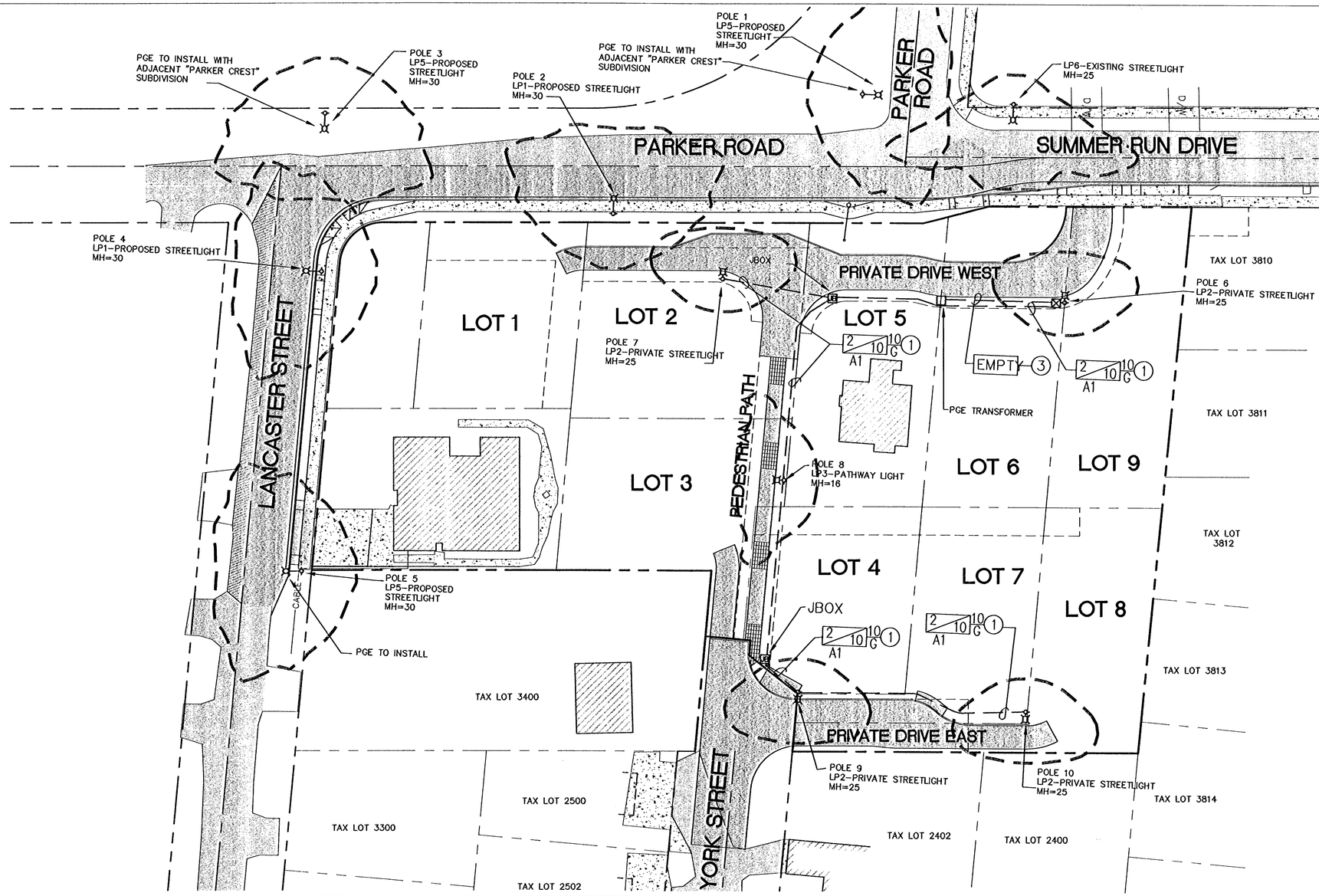
DATE	01/18/08
DRAWN	JSE
DESIGNED	JSE
CHECKED	RGN
PROJECT #	SLP04-001

SHEET TITLE
STORM SEWER PROFILES

SHEET NUMBER
C012



NUMERIC SUMMARY							
PROJECT: SIENNA ESTATES							
LABEL	CALC TYPE	UNITS	AVG	MAX	MIN	AVG/MIN	MAX/MIN
PARKER ROAD	ILLUMINANCE	Fc	0.69	3.0	0.2	3.45	15.00
LANCASTER	ILLUMINANCE	Fc	0.67	2.9	0.2	3.35	14.50
PRIVATE DRIVE WEST	ILLUMINANCE	Fc	0.40	1.5	0.1	4.00	15.00
PRIVATE DRIVE EAST	ILLUMINANCE	Fc	0.44	1.4	0.1	4.40	14.00
PATHWAY	ILLUMINANCE	Fc	0.61	2.8	0.1	6.10	28.00

LUMINAIRE SCHEDULE							
PROJECT: SIENNA ESTATES							
QTY	LABEL	DESCRIPTION	WATTS	LUMENS	ARM	ARRANGEMENT	LLF
2	LP1-PROPOSED STREETLIGHT	HPS, 'COBRA' STYLE, FLAT LENS LUMINAIRE MOUNTED ON A 30' MOUNTING HEIGHT, GRAY, FIBERGLASS POLE	150	16000	6	SINGLE	0.690
4	LP2-PRIVATE STREETLIGHT	HPS, 'SHOEBOX' STYLE LUMINAIRE MOUNTED ON A 25' MOUNTING HEIGHT, BRONZE, FIBERGLASS POLE	70	6200	1	SINGLE	0.690
1	LP3-PATHWAY LIGHT	HPS, 'SHOEBOX' STYLE LUMINAIRE MOUNTED ON A 16' MOUNTING HEIGHT, BRONZE, FIBERGLASS POLE	70	6200	1	SINGLE	0.690
3	LP5-PROPOSED STREETLIGHT	HPS, 'COBRA' STYLE, FLAT LENS LUMINAIRE MOUNTED 30' ON A WOOD POWER POLE	150	16000	6	SINGLE	0.690
1	LP6-EXISTING STREETLIGHT	HPS, 'COBRA' STYLE, DROP LENS LUMINAIRE MOUNTED ON A 25' MOUNTING HEIGHT, GRAY, FIBERGLASS POLE	100	9500	6	SINGLE	0.690

LIGHTING DESIGN PROVIDED BY:
NORTHSTAR ELECTRICAL
19450 SW CIPOLE RD. #107
TUALATIN OR 97062
V: 503-612-0840

LIGHT LEVEL REQUIREMENTS				
ROADWAY	CLASSIFICATION		LIGHT LEVEL	UNIFORMITY
PARKER	COLLECTOR (RESIDENTIAL)	TARGET	0.6 FC	4:1
		ACHIEVED	0.69 FC	3.45:1
LANCASTER	COLLECTOR (RESIDENTIAL)	TARGET	0.6 FC	4:1
		ACHIEVED	0.67 FC	3.35:1
PRIVATE DRIVE WEST	PRIVATE	TARGET	0.4 FC	6:1
		ACHIEVED	0.40 FC	4.00:1
PRIVATE DIVE EAST	PRIVATE	TARGET	0.4 FC	6:1
		ACHIEVED	0.44 FC	4.40:1
PATHWAY	PRIVATE	TARGET	0.2 FC	10:1
		ACHIEVED	0.61 FC	6.10:1

SCALE: 1"=30'
30 0 30

STREET LIGHT LOCATION CHART	
LIGHT NUMBER	STREET STATION / OFFSET
LIGHT 1	4+37.58, 25.53' RT (PARKER ROAD)
LIGHT 2	2+84.77, 26.50' RT (PARKER ROAD)
LIGHT 3	1+43.79, 21.27' RT (PARKER ROAD)
LIGHT 4	5+44.77, 23.00' RT (LANCASTER STREET)
LIGHT 5	6+55.06, 23.00' RT (LANCASTER STREET)
LIGHT 6	7+44.86, 25.50' LT (LANCASTER STREET)
LIGHT 7	1+70.29, 15.71' LT (PRIVATE DRIVE WEST)
LIGHT 8	3+46.45, 5.00' LT (PRIVATE DRIVE WEST)
LIGHT 9	1+09.61, 7.03' LT (PEDESTRIAN PATH)
LIGHT 10	0+59.84, 18.00' LT (PRIVATE DRIVE EAST)
LIGHT 11	1+59.05, 8.63' LT (PRIVATE DRIVE EAST)

WEST LINN CASEFILE SUB05-03 / ZC05-05 / VAR05-03

AS BUILT CONSTRUCTION DOCUMENTS

STREET LIGHTING PLAN

SIENNA'S ESTATES

City of West Linn, Clackamas County, Oregon

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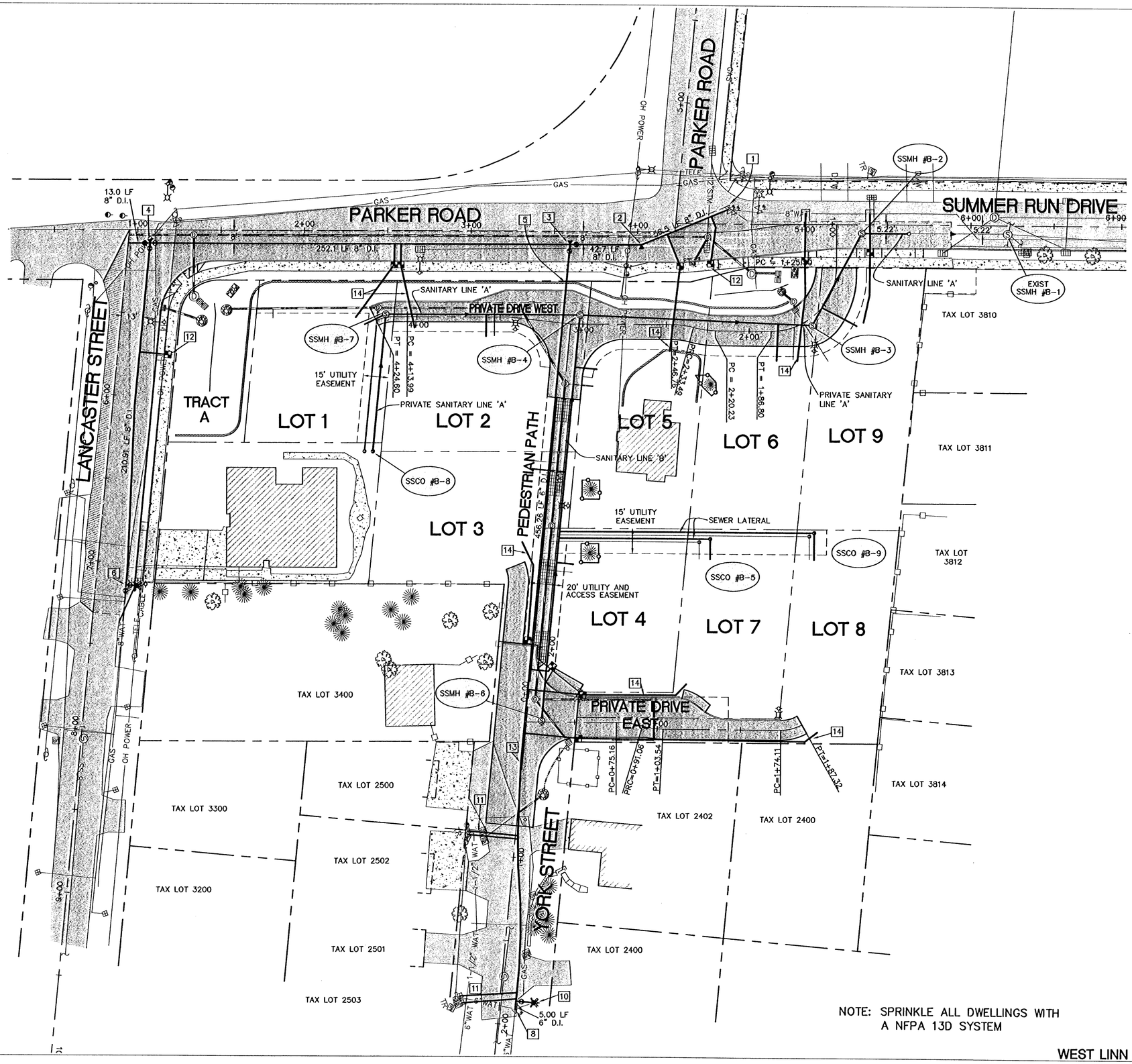
DRAWN	JSE
DESIGNED	JSE
CHECKED	RGN
PROJECT #	SLP04-001

SHEET TITLE
STREET LIGHTING

SHEET NUMBER
C013



SCALE: 1"=30'

30 0 30

SANITARY SEWER AND WATER NOTES

1. CONNECT TO EXISTING WATERLINE. STA: 4+55.07, 13.2' LT (SUMMER RUN). REMOVE EXISTING BLOW OFF AND CONNECT TO END OF PIPE.
2. INSTALL 22.5° BEND. STA: 4+02.03, 8' RT (PARKER ROAD). INSTALL THRUST BLOCKING PER WEST LINN STANDARD DWG. NO. WL-406.
3. INSTALL 8"x 8" x 6" TEE AND VALVE TO EAST STA. 3+59.37, 8' RT (PARKER ROAD). INSTALL THRUST BLOCKING PER WEST LINN STANDARD DWG. NO. WL-406 AND STANDARD VALVE BOX PER WEST LINN STANDARD DWG. NO. WL-411.
4. INSTALL 8" TEE WITH 3-8" GATE VALVES. STA: 1+07.32, 8' RT (PARKER ROAD). INSTALL THRUST BLOCKING PER WEST LINN STANDARD DWG. NO. WL-406 AND STANDARD VALVE BOX PER WEST LINN STANDARD DWG. NO. WL-411.
5. INSTALL WATER LINES UNDER RETAINING WALL WITH A MINIMUM CLEARENCE OF 3 FEET BELOW THE FOOTING. ALL VERTICAL AND HORIZONTAL JOINTS MUST BE RESTRAINED FROM THE TEE ON PARKER ROAD TO THE PEDESTRIAN PATH TO YORK STREET.
6. CONNECT TO EXISTING CAST IRON WATERLINE WITH STANDARD 6" COUPLING AND 8"X6" REDUCER. STA. 7+14.00, 18.04' LT (LANCASTER ST). INSTALL 6" TEE WITH 2-6" GATE VALVES. STA: 7+12.78, 18.04' LT (LANCASTER ST). INSTALL THRUST BLOCKING PER WEST LINN STANDARD DWG. NO. WL-406 AND STANDARD VALVE BOX PER WEST LINN STANDARD DWG. NO. WL-411. INSTALL NEW HYDRANT WITH 6.6 LF OF 6" DIP PER STD. DWG WL-401. INSTALL NEW HYDRANT AT STA: 7+12.78, 24.64'LT.
7. NOT USED
8. CONNECT TO EXISTING WATERLINE WITH STANDARD 6" COUPLING. STA. 1+86.46, 9.62' LT (YORK STREET)
9. NOT USED
10. INSTALL 6" TEE WITH 3-6" GATE VALVES. STA: 1+85.42, 9.62' LT (YORK ST). INSTALL THRUST BLOCKING PER WEST LINN STANDARD DWG. NO. WL-406 AND STANDARD VALVE BOX PER WEST LINN STANDARD DWG. NO. WL-411. INSTALL NEW HYDRANT WITH 28 LF OF 6" DIP PER STD. DWG WL-401. INSTALL HYDRANT AT STA: 1+87.90, 21'LT.
11. RECONNECT EXISTING WATER METERS TO NEW 6" LINE. TAX LOTS 2200, 2300, 2400, 2402, 2500, 2501, 2502, 2503
12. INSTALL 3/4" IRRIGATION METER. ST STA: 5+72.72, 30.00' LT. (LANCASTER), ST STA: 4+43.59, 18.90' RT. (PARKER / SUMMERUN).
13. BEGIN 3° DEFLECTION PER 20 LF OF PIPE SEGMENT. ST STA: 0+43.61, 0.95'R (YORK ST)
14. EXTEND SINGLE SERVICE WATER LINE FROM METER TO LOT SETBACK AS SHOWN FOR LOTS 1, 2, 3, 5, 6, 7, 8, 9.

NOTE: CONTRACTOR TO VERIFY EXISTING LINE SIZE IN LANCASTER STREET PRIOR TO CONSTRUCTION. NOTIFY THE ENGINEER IF THE EXISTING LINE SIZE IN FIELD IS DIFFERENT THAN NOTED ON PLANS.

NOTE: CONTRACTOR MAY USE FIELD LOCK GASKET JOINT RESTRAINTS IN LIEU OF THRUST BLOCKING UP TO A MAXIMUM BEND OF 45°. A BEND EQUAL TO OR LESS THAN 22°REQUIRES 18' MIN RESTRAINT FROM BOTH SIDES OF BEND. 45° REQUIRES A MINIMUM OF 54' OF RESTRAINT ON BOTH SIDES OF BEND.

SANITARY SEWER LATERALS

LOT 1
STA. 4+06.63 (SS LINE "A")
IE @ MAINLINE = 560.67
16.16 LF @ 18.75%
IE @ END = 563.70

LOT 2
STA. 3+46.46 (SS LINE "A")
IE @ MAINLINE = 556.72
15.15 LF @ 22.31%
IE @ END = 560.10

LOT 3
STA. 0+94.65 (SS LINE "B")
IE @ MAINLINE = 560.86
18.83 LF @ 31.01%
IE @ END = 566.7

LOT 4
STA. 1+49.39 (SS LINE "B")
IE @ MAINLINE = 565.17
9.64 LF @ 77.07%
IE @ END = 572.60

LOT 5
STA. 0+31.58 (SS LINE "B")
IE @ MAINLINE = 555.89
10.38 LF @ 29.96%
IE @ END = 559.00

LOT 6
STA. 1+71.10 (SS LINE "A")
IE @ MAINLINE = 539.02
22.05 LF @ 24.85%
IE @ END = 544.50

LOT 7
STA. 1+34.64 (SS LINE "B")
IE @ MAINLINE = 564.01
90.75 LF @ 2.00%
CLEANOUT SSCO #B-5
LID = 569.5
IE @ SSCO = 565.83
10.95 LF @ 15.25%
IE @ END = 567.50

LOT 8
STA. 1+30.63 (SS LINE "B")
IE @ MAINLINE = 563.69
152.77 LF @ 2.00%
CLEANOUT SSCO #B-9
LID = 568.5
IE @ SSCO = 566.75
13.32 LF @ 2.05%
IE @ END = 567.02

LOT 9
STA. 1+38.42 (SS LINE "A")
IE @ MAINLINE = 535.37
25.99 LF @ 32.4%
IE @ END = 543.80

ASBUILT CONSTRUCTION DOCUMENTS

WEST LINN CASEFILE SUB05-03 / ZC05-05 / VAR05-03

WATER AND SANITARY SEWER PLAN
SIENNA'S ESTATES
City of West Linn, Clackamas County, Oregon

SAM L PAP
2799 LANCASTER STREET
WEST LINN, OREGON 97068
(503) 888-2254

CIVIL ENGINEERING
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LANPACIFIC
5125 SW Macadam, Suite 140, Portland, Oregon 97239
☎ 503 | 238-2447
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REGISTERED PROFESSIONAL ENGINEER
55,060
OREGON
MAY 10, 2001
J. SCOTT EMERSON
1-23-09
EXP. 12/31/09

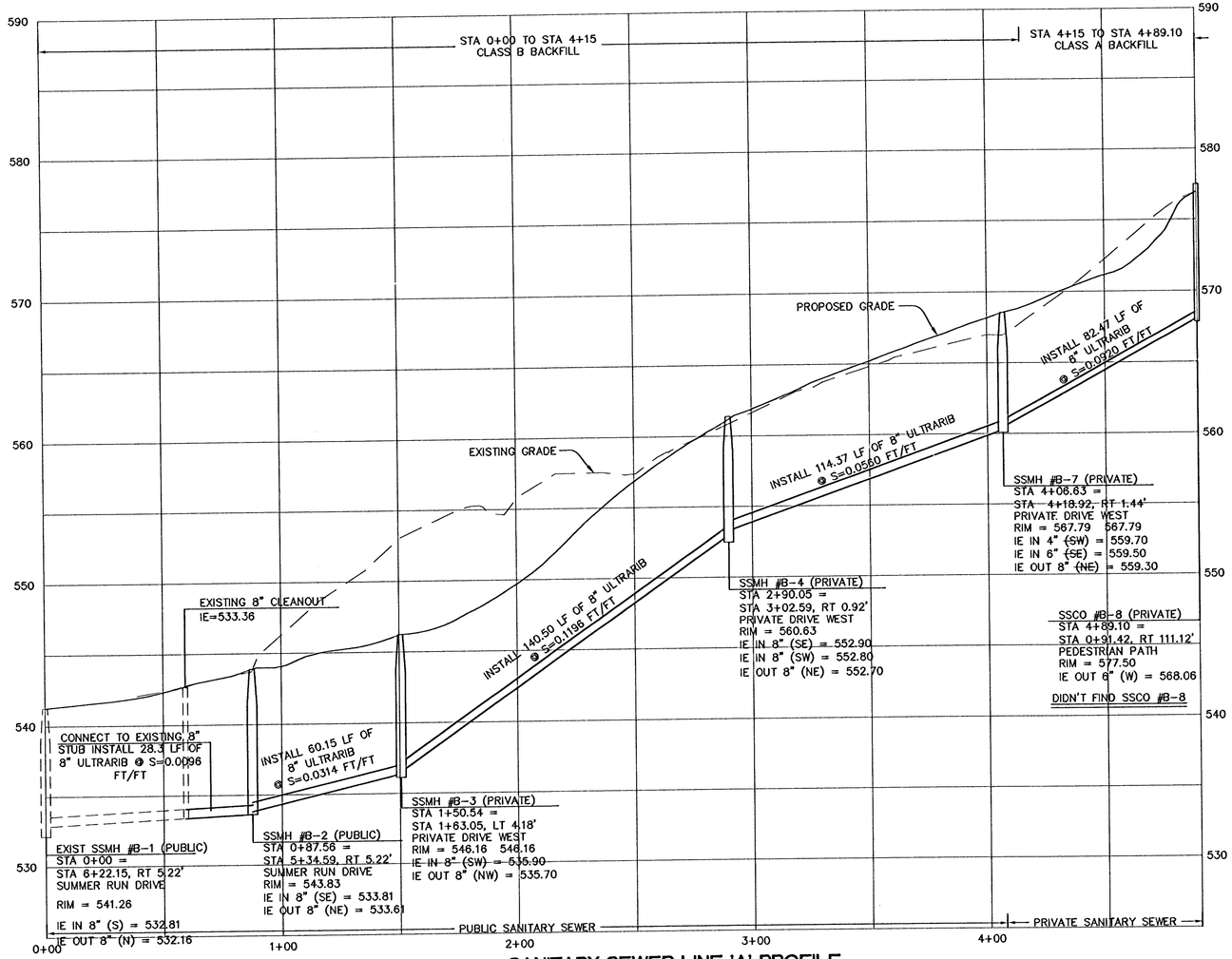
RECORD DRAWING
01/18/08

THESE RECORD DRAWINGS HAVE BEEN PREPARED, IN PART, ON THE BASIS OF INFORMATION COMPILED AND FURNISHED BY THE CONTRACTOR, REVISED CONSTRUCTION PLANS, AND FIELD OBSERVATIONS DURING CONSTRUCTION.

DATE	01/18/08
DRAWN	JSE
DESIGNED	JSE
CHECKED	RGN
PROJECT #	SLP04-001

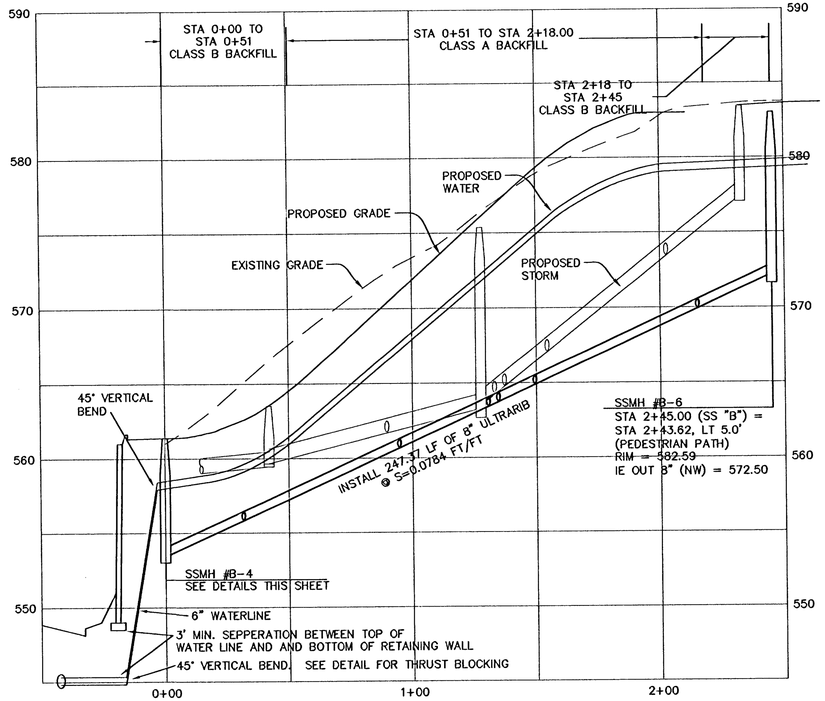
SHEET TITLE
WATER AND SANITARY SEWER PLAN

SHEET NUMBER
C014



SANITARY SEWER LINE 'A' PROFILE

SCALE: 1'=30' HORIZ.
1"=5' VERT.



SANITARY SEWER LINE 'B' PROFILE

SCALE: 1'=30' HORIZ.
1"=5' VERT.

SANITARY SEWER PROFILES
SIENNA'S ESTATES
City of West Linn, Clackamas County, Oregon

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1-23-08
REGISTERED PROFESSIONAL ENGINEER
OREGON
JULY 10, 2001
R. SCOTT EMMONS
EXP. 12/31/09

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01/18/08

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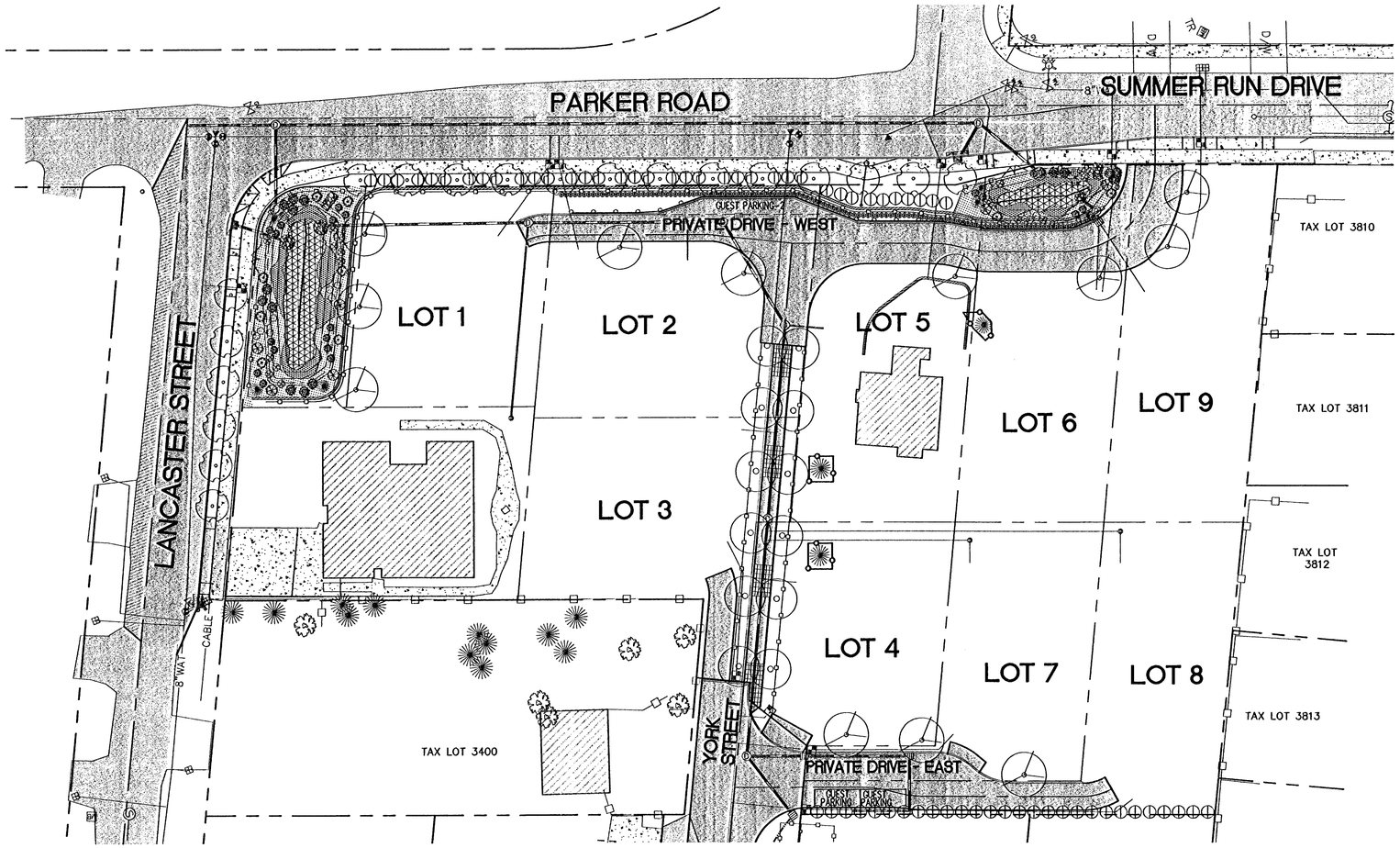
DRAWN	JSE
DESIGNED	JSE
CHECKED	RGN
PROJECT #	SLP04-001

SHEET TITLE
SANITARY SEWER PROFILES

SHEET NUMBER
C015

ASBUILT CONSTRUCTION DOCUMENTS

WEST LINN CASEFILE SUB05-03 / ZC05-05 / VAR05-03



TREES ARE TO BE 2-INCH CALIPER AND IN B&B CONDITION UNLESS OTHERWISE NOTED. FENCING SHOULD BE COATED BLACK.

SCALE: 1"=30'
30 0 30

STREET TREE TABLE

SYMBOL	QTY	SCIENTIFIC NAME	COMMON NAME
	19	Carpinus betulus 'Columnaris'	COLUMNAR EUROPEAN HORNBEAM

MITIGATION TREE TABLE

SYMBOL	QTY	SCIENTIFIC NAME	COMMON NAME
	12	Prunus serrulata 'Shogetsu'	SHUGETSU FLOWERING CHERRY

LANDSCAPE/BUFFERING TREES TABLE

SYMBOL	QTY	SCIENTIFIC NAME	COMMON NAME
	119	'Cistus'	ROCK ROASE
	67	Ligustrum japonicum 'Texanum'	WAXLEAF PRIVET
	12	Pyrus calleryana 'Capital'	CAPITAL GALLERY PEAR

POND "A"

WATER QUALITY/QUANTITY PLANTING TABLE

SYMBOL	QTY	SIZE	SPACING	BOTANICAL NAME	COMMON NAME	CONDITION
	14	1 gal.	3'-4' O.C. (as shown)	Cornus stolonifera	RED OSIER DOGWOOD	B & B
	8	1 gal.	6' O.C. (as shown)	Ribes sanquineum	RED FLOWERING CURRANT	B & B
	9	1 gal.	3'-6' O.C. (as shown)	Mahonia aquifolium	OREGON GRAPE	B & B
	7	8'	9' O.C. (as shown)	Physocarpus capitatus	PACIFIC NINEBARK	B & B
	5	8'	6' O.C. (as shown)	Fraxinus latifolia	OREGON ASH	B & B
	3	8'	12' O.C. (as shown)	Pseudotsuga menziesii	DOUGLAS FIR	B & B
	10	1 gal.	3'-4' O.C. (as shown)	Gautheria shallon	SALAL	B & B

TREATMENT AREA HYDRO-SEED MIX

SYMBOL	QTY	SPACING	BOTANICAL NAME	COMMON NAME
	6,215 plugs (2" dia. x 8" plugs)	1'-2' on center 1'-2' on center 1'-2' on center	40% Scirpus microcarpus 30% Juncus patens 30% Carex obnupta	SMALL-FRUITED BULRUSH SPREADING RUSH SLOUGH SEDGE

MIDLAND HYDRO-SEED MIX
50% Slough Sedge
25% Scirpus microcarpus
25% Scirpus microcarpus
plant: 1 lbs per 9,700 s.f.

UPLAND HYDRO-SEED MIX
40% Dwarf Tall Fescue
30% Dwarf Perenial Rye
25% Red Fescue
5% Colonial Bentgrass
plant: 1 lbs per 1,500 s.f.

POND "B"

WATER QUALITY/QUANTITY PLANTING TABLE

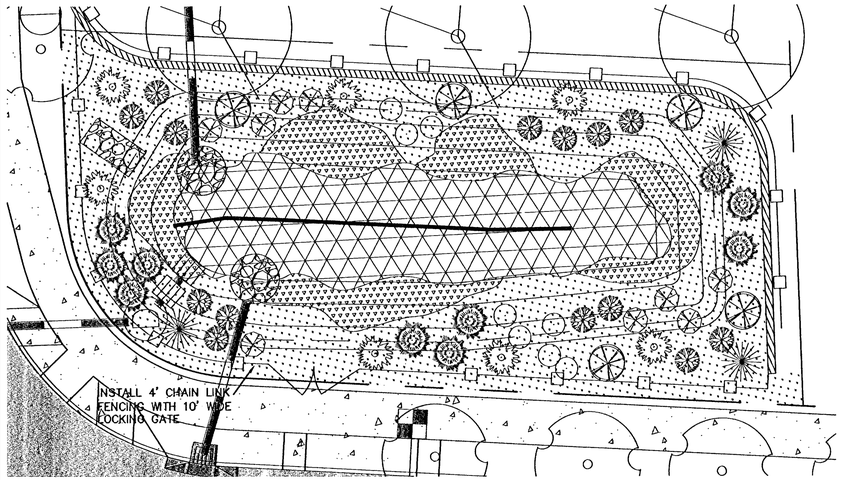
SYMBOL	QTY	SIZE	SPACING	BOTANICAL NAME	COMMON NAME	CONDITION
	6	1 gal.	3'-4' O.C. (as shown)	Cornus stolonifera	RED OSIER DOGWOOD	B & B
	5	1 gal.	6' O.C. (as shown)	Ribes sanquineum	RED FLOWERING CURRANT	B & B
	8	1 gal.	3'-6' O.C. (as shown)	Mahonia aquifolium	OREGON GRAPE	B & B
	2	8'	9' O.C. (as shown)	Physocarpus capitatus	PACIFIC NINEBARK	B & B
	2	8'	6' O.C. (as shown)	Fraxinus latifolia	OREGON ASH	B & B
	3	8'	12' O.C. (as shown)	Pseudotsuga menziesii	DOUGLAS FIR	B & B
	5	1 gal.	3'-4' O.C. (as shown)	Gautheria shallon	SALAL	B & B

TREATMENT AREA HYDRO-SEED MIX

SYMBOL	QTY	SPACING	BOTANICAL NAME	COMMON NAME
	2,450 plugs (2" dia. x 8" plugs)	1'-2' on center 1'-2' on center 1'-2' on center	40% Scirpus microcarpus 30% Juncus patens 30% Carex obnupta	SMALL-FRUITED BULRUSH SPREADING RUSH SLOUGH SEDGE

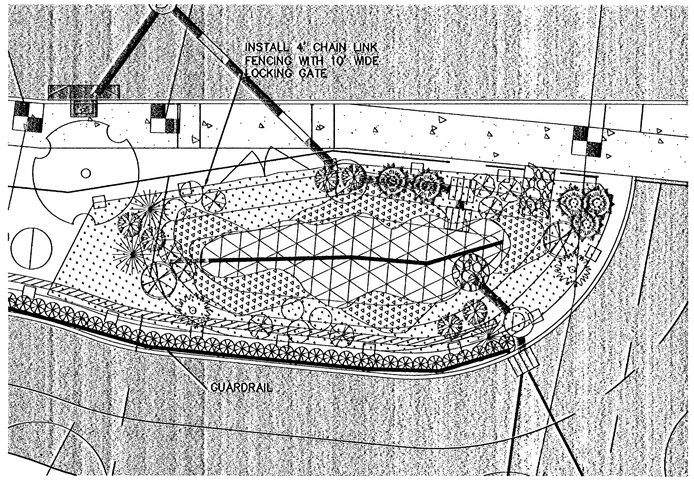
MIDLAND HYDRO-SEED MIX
50% Slough Sedge
25% Scirpus microcarpus
25% Scirpus microcarpus
plant: 1 lbs per 9,700 s.f.

UPLAND HYDRO-SEED MIX
40% Dwarf Tall Fescue
30% Dwarf Perenial Rye
25% Red Fescue
5% Colonial Bentgrass
plant: 1 lbs per 1,500 s.f.



POND "A" ENLARGEMENT

SCALE: 1"=10'
10 0 10



POND "B" ENLARGEMENT

SCALE: 1"=10'
10 0 10

WEST LINN CASEFILE SUB05-03 / ZC05-05 / VAR05-03

ASBUILT CONSTRUCTION DOCUMENTS

LANDSCAPING PLAN

SIENNA'S ESTATES

City of West Linn, Clackamas County, Oregon

SAM L PAP
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REGISTERED PROFESSIONAL ENGINEER
OREGON
JULY 10, 2001
J. SCOTT EMERSON
1-22-08
EXP. 12/31/09

RECORD DRAWING
01/18/08

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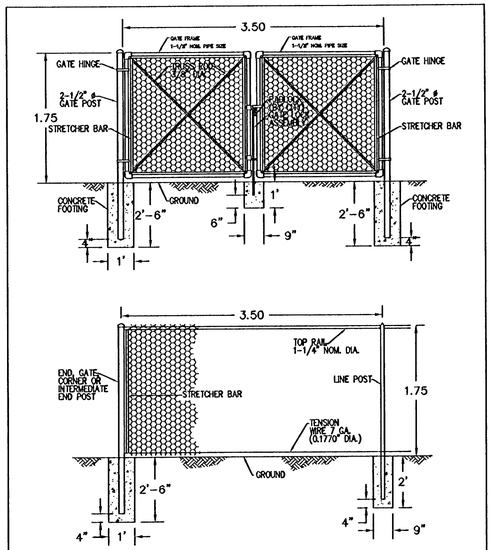
DATE	01/18/08
DRAWN	JSE
DESIGNED	JSE
CHECKED	RGN
PROJECT #	SLP04-001

SHEET TITLE
LANDSCAPING PLAN

SHEET NUMBER
C016



NOTES:

1. BLACK POWDER COATING ON ALL HARDWARE AND ACCESSORIES IS REQUIRED.
2. ALL MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE CURRENT STATE OF OREGON STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

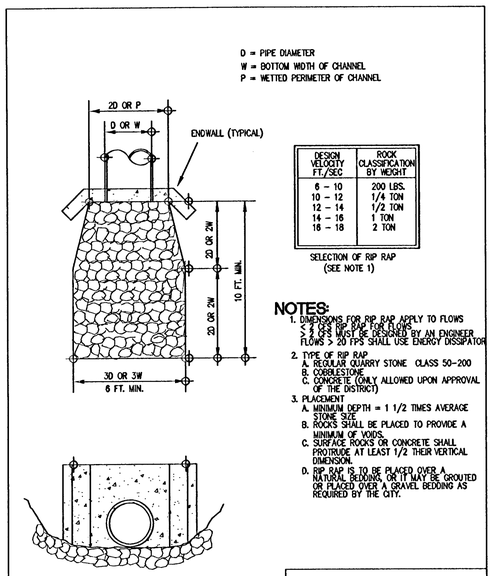
Surface Water Facility Fence

West Linn

DATED: JAN 2000
DRAWING NO.: WL-616
FILE NO.: 00-616

SURFACE WATER FACILITY FENCE DETAIL

NOT TO SCALE



DESIGN VELOCITY FT./SEC	ROCK CLASSIFICATION BY WEIGHT
6 - 10	200 LBS.
10 - 12	1/4 TON
12 - 14	1/2 TON
14 - 16	1 TON
16 - 18	2 TON

SELECTION OF RIP RAP (SEE NOTE 1)

NOTES:

1. DIMENSIONS FOR RIP RAP APPLY TO FLOWS ≤ 8 CFS. RIP RAP FOR FLOWS > 8 CFS MUST BE DESIGNED BY AN ENGINEER. FLOWS > 20 FPS SHALL USE ENERGY DISSIPATOR
2. TYPE OF RIP RAP
   A. REGULAR QUARRY STONE CLASS 50-200
   B. COBBLESTONE
   C. CONCRETE (ONLY ALLOWED UPON APPROVAL OF THE DISTRICT)
3. PLACEMENT
   A. MINIMUM DEPTH = 1 1/2 TIMES AVERAGE STONE SIZE
   B. ROCKS SHALL BE PLACED TO PROVIDE A MINIMUM OF VOIDS.
   C. SURFACE ROCKS OR CONCRETE SHALL PROTRUDE AT LEAST 1/2 THEIR VERTICAL DIMENSION.
   D. RIP RAP IS TO BE PLACED OVER A NATURAL BEDDING, OR IT MAY BE GROUTED OR PLACED OVER A GRAVEL BEDDING AS REQUIRED BY THE CITY.

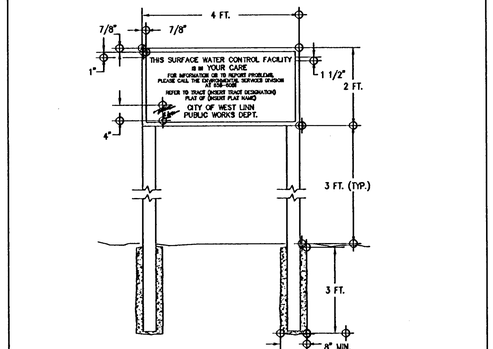
Storm Sewer Outfall

West Linn

DATED: JAN 2000
DRAWING NO.: WL-614
FILE NO.: 00-614

STORM SEWER OUTFALL DETAIL

NOT TO SCALE



SPECIFICATIONS:

SIZE: 48" BY 24"
MATERIAL: GRADE "B" OR BETTER EXTERIOR PLYWOOD
PAINT: FACE - 3 COATS OUTDOOR ENAMEL (SPRAYED).
BACK - 1 COAT OUTDOOR ENAMEL (SPRAYED).
LETTERING: SILK SCREEN ENAMEL WHERE POSSIBLE, OR HAND PAINTED ENAMELS.
COLORS: BLACK AND WHITE. WHITE BACKGROUND, LETTERING AND BORDER IN BLACK
TYPE FACE: HELVETICA. 1 1/2" TALL WITH 7/8" SPACING BETWEEN LETTERS AND OUTER BORDER. OUTER BORDER 1/2" WIDTH
INSTALLATION: SECURED TO CHAIN LINK FENCE IF AVAILABLE, OTHERWISE INSTALL ON TWO 8 FT. LONG 4" X 4" POSTS, PRESSURE TREATED, INSTALLED IN 3 FT. DEEP CONCRETE FILLED POST HOLES (8" MIN. DIA.)

Surface Water Facility Sign

West Linn

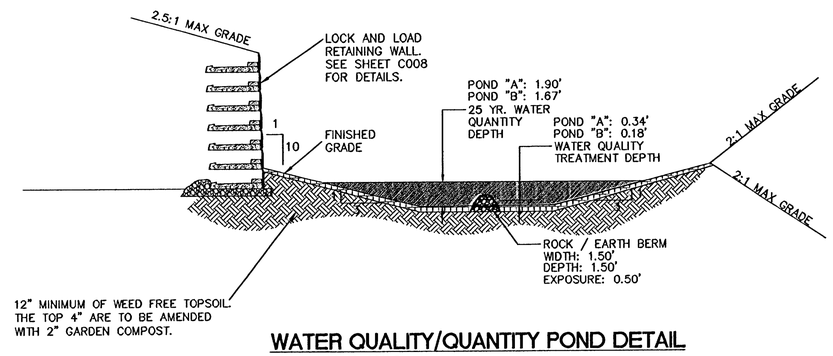
DATED: JAN 2000
DRAWING NO.: WL-615
FILE NO.: 00-615

SURFACE WATER FACILITY SIGN DETAIL

NOT TO SCALE

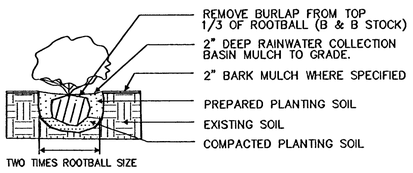
GENERAL LANDSCAPING NOTES

1. THE CONTRACTOR SHALL INSTALL PLANT MATERIALS USING TOPSOIL, WHICH CONSISTS OF ONE PART COMPOST AND TWO PARTS SANDY LOAM, AS INDICATED ON THE DETAILS.
2. ALL PLANTING AREAS SHALL RECEIVE A MINIMUM OF TWO INCHES OF MEDIUM, FINE AND NON-TOXIC BARK MULCH.
3. FERTILIZER SHALL BE STANDARD APPROVED BRAND, DELIVERED IN ORIGINAL CONTAINERS DRY AND FREE FLOWING BEARING GUARANTEED ANALYSIS OF THE MANUFACTURER. THE ORGANIC BASE SHALL BE 16-16-16.
4. COMPACT PREPARED SOIL MIX AND FLOAT LANDSCAPE AREAS TO PERIMETER ELEVATIONS REPRESENTED BY CURBS AND WALKS.
5. TOPSOIL SHALL BE FREE OF NOXIOUS WEEDS AND WEED SEEDS. CONTRACTOR SHALL GUARANTEE THAT WEEDS HAVE BEEN REMOVED PRIOR TO INSTALLATION.
6. ALL PLANTS SELECTED SHALL BE CONSISTENT WITH CURRENT AMERICAN NURSERYMEN'S STANDARDS. ANY PLANTS THAT ARE DISEASED, DEFORMED, ROOT BOUND, POORLY SHAPED AND DEFICIENT OF HEALTHY CHARACTERISTICS SHALL NOT BE ACCEPTED.
7. ALL PLANT MATERIAL SHALL BE WARRANTED FOR A PERIOD OF ONE YEAR AND SHALL BE IN A HEALTHY CONDITION AT THAT TIME. ALL PLANTS DEAD OR EXHIBITING UNHEALTHY CHARACTERISTICS SHALL BE REPLACED AT NO CHARGE TO THE OWNER.
8. ADJUST PLANTINGS AS NECESSARY TO KEEP SHRUBS AWAY FROM DOORS AND WINDOWS
9. VERIFY LOCATION OF ALL UTILITIES IN FIELD PRIOR TO COMMENCEMENT OF WORK.
10. NOTIFY LANDSCAPE ARCHITECT OF ANY AND ALL DESCREPANCIES IN EXISTING CONDITIONS OR THAT DIFFER FROM PLAN
11. CONTRACTOR TO PROVIDE PLANT QUANTITIES.



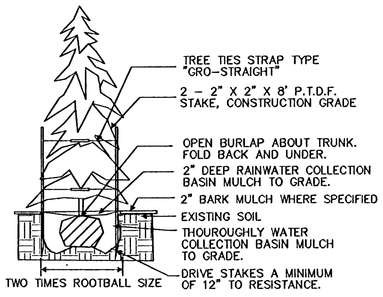
WATER QUALITY/QUANTITY POND DETAIL

SCALE: NOT TO SCALE



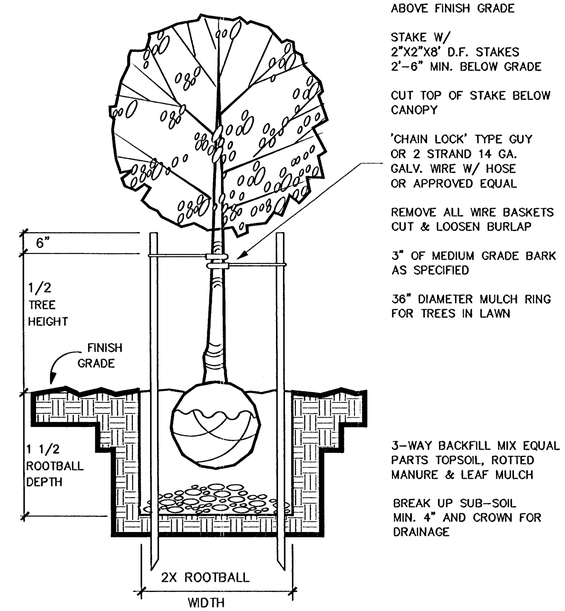
SHRUB PLANTING DETAIL

SCALE: NTS



EVERGREEN PLANTING DETAIL

SCALE: NTS



DECIDUOUS TREE PLANTING DETAIL

SCALE: NTS

WEST LINN CASEFILE SUB05-03 / ZC05-05 / VAR05-03

ASBUILT CONSTRUCTION DOCUMENTS

LANDSCAPING AND POND DETAILS

SIENNA'S ESTATES

City of West Linn, Clackamas County, Oregon

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REGISTERED PROFESSIONAL ENGINEER
OREGON
MAY 10, 2001
J. SCOTT EMERIS
EXP. 12/31/09

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01/18/08

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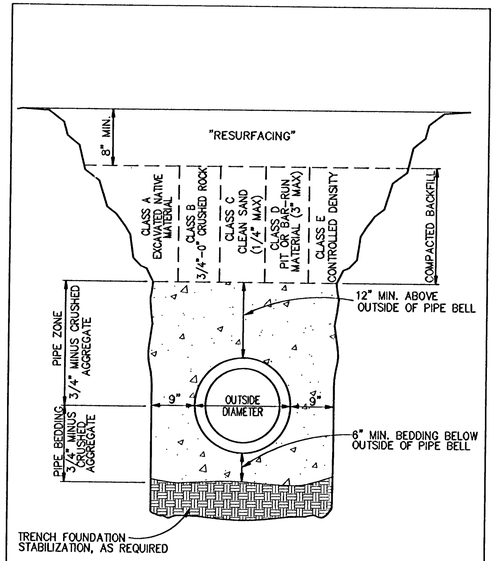
DATE	01/18/08
DRAWN	JSE
DESIGNED	JSE
CHECKED	RGN
PROJECT #	SLP04-001

SHEET TITLE
LANDSCAPING AND POND DETAILS

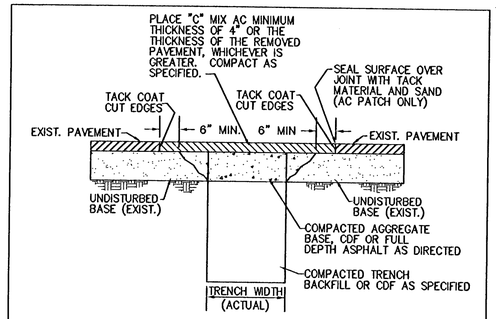
SHEET NUMBER
C017



Trench Backfill, Bedding and Pipe Zone

DATED	JAN 2000
DRAWING NO.	WL-200
FILE NO.	00-200

TRENCH BACKFILL, BEDDING AND PIPE ZONE DETAIL
NOT TO SCALE

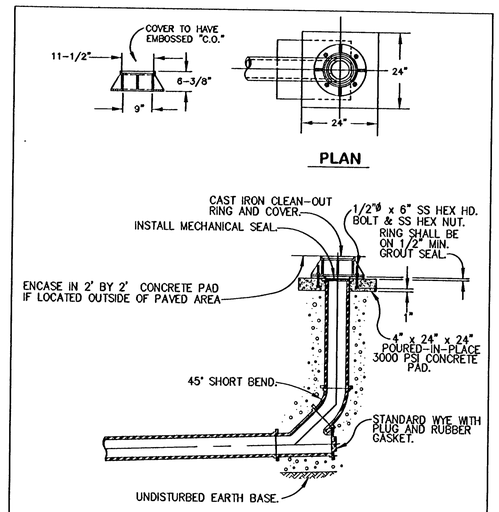


NOTES:
1. ALL EXISTING AC OR PCC PAVEMENT SHALL BE SAWCUT TO NEAT, STRAIGHT LINES PRIOR TO REPAVING.
2. CONCRETE PAVEMENT SHALL BE REPLACED WITH CONCRETE TO A MINIMUM THICKNESS OF REMOVED PAVEMENT, WHICHEVER IS GREATER.
3. IF EXISTING BASE MATERIAL IS CTB OR ATB, THEN REPLACEMENT BASE MATERIAL SHALL MATCH EXISTING.
4. ALL UTILITIES SHALL HAVE A MINIMUM COVER OF 36".
5. ALL TRENCH BACKFILL SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY PER AASHTO T-180 OR AS SPECIFIED IN THE CONTRACT DOCUMENTS.
6. ALL TRENCH BACKFILL AND PATCHING SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE CITY OF WEST LINN.
7. APPROVED CDF SHALL BE USED OR 3/4 – 0" GRAVEL BACKFILL SHALL BE PLACED AND COMPACTED IN A MAXIMUM OF 6" LIFTS.

Street T-Cut

DATED	May 2005
DRAWING NO.	WL-203
FILE NO.	00-203

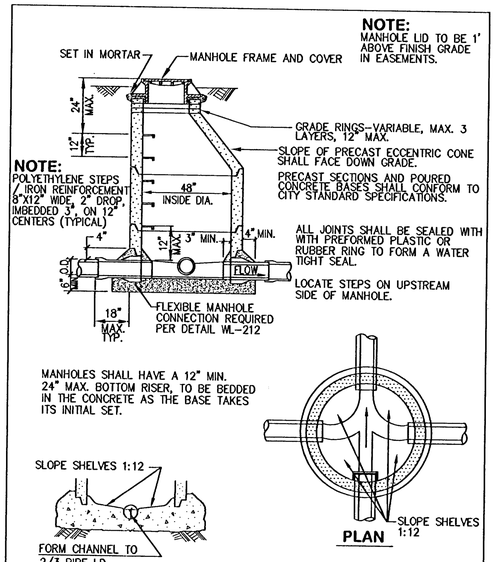
STREET T-CUT DETAIL
NOT TO SCALE



Standard Clean Out

DATED	MAY 2005
DRAWING NO.	WL-206
FILE NO.	00-206

STANDARD CLEAN OUT
NOT TO SCALE

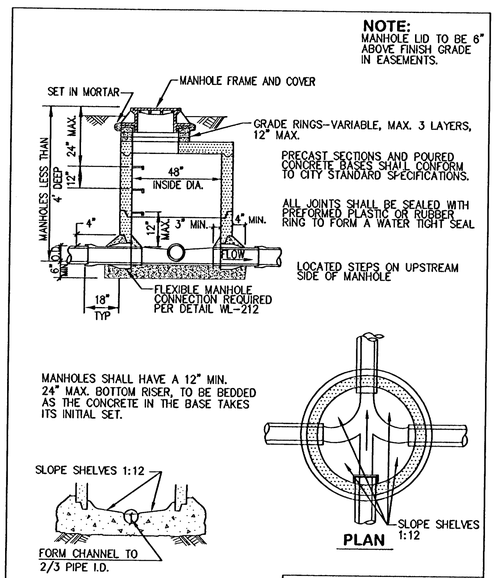


NOTE:
CHANNELS MUST BE ABLE TO PASS A 7"X30" CYLINDER INTO PIPES. SHELF SHALL NOT BE BELOW THE TOP OF THE PIPE.

Standard Manhole for Less than 36" Pipe

DATED	JAN 2000
DRAWING NO.	WL-207
FILE NO.	00-207

STANDARD MANHOLE DETAIL
NOT TO SCALE

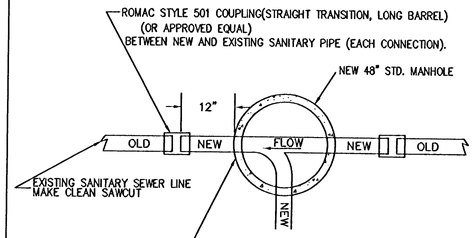


NOTE:
CHANNELS MUST BE ABLE TO PASS A 7"X30" CYLINDER INTO PIPES. SHELF SHALL NOT BE BELOW SPRING LINE OF THE PIPE.

Shallow Manhole for Less than 36" Pipe

DATED	JAN 2000
DRAWING NO.	WL-208
FILE NO.	00-208

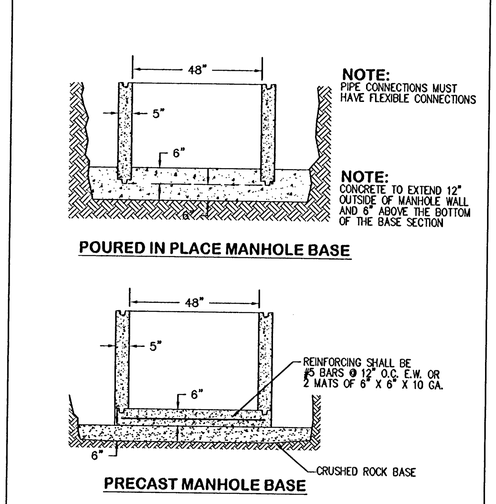
SHALLOW MANHOLE DETAIL
NOT TO SCALE



Manhole Detail - Plan View New Manhole to Existing Sewer Line Connection

DATED	JAN 2000
DRAWING NO.	WL-210
FILE NO.	00-210

NEW MANHOLE IN EXISTING LINE DETAIL
NOT TO SCALE

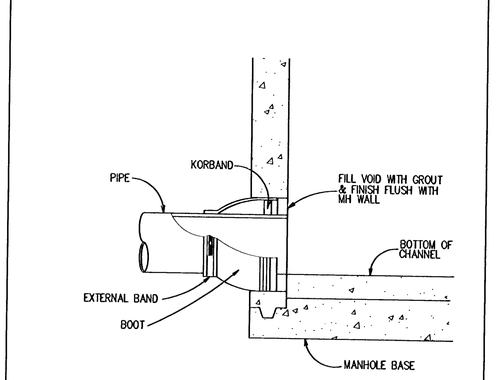


NOTE:
USE 3300 PSI CONCRETE FOR EITHER MANHOLE BASE.

Manhole Base

DATED	JAN 2000
DRAWING NO.	WL-211
FILE NO.	00-211

MANHOLE BASE DETAIL
NOT TO SCALE



FLEXIBLE MANHOLE CONNECTION
(KOR-N-SEAL OR EQUAL)

Flexible Manhole Connection

DATED	JAN 2000
DRAWING NO.	WL-212
FILE NO.	00-212

FLEXIBLE MANHOLE CONNECTION DETAIL
NOT TO SCALE

WEST LINN CASEFILE SUB05-03 / ZC05-05 / VAR05-03

CONSTRUCTION DOCUMENTS

STANDARD DETAILS
SIENNA ESTATES
City of West Linn, Clackamas County, Oregon

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1-23-08
REGISTERED PROFESSIONAL ENGINEER
83,060
OREGON
JULY 10, 2001
J. SCOTT EMERY
EXP. 12/31/09

RECORD DRAWING
1/18/08
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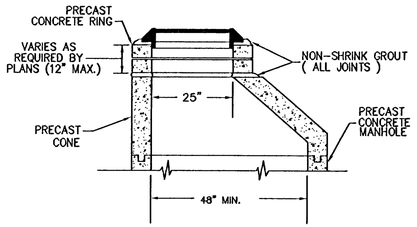
DATE	1/18/08
DRAWN	JSE
DESIGNED	JSE
CHECKED	RGN
PROJECT #	SLP04-001

SHEET TITLE
STANDARD DETAILS

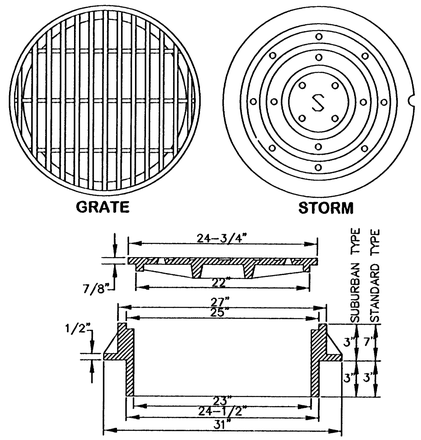
SHEET NUMBER
C018



PRECAST RING EXTENSION FOR TYPICAL MANHOLE

Precast Ring Extension	
West Linn	DATE: JAN 2000
	DRAWING NO.: WL-213
	FILE NO.: 00-213

PRECAST RING EXTENSION DETAIL
NOT TO SCALE

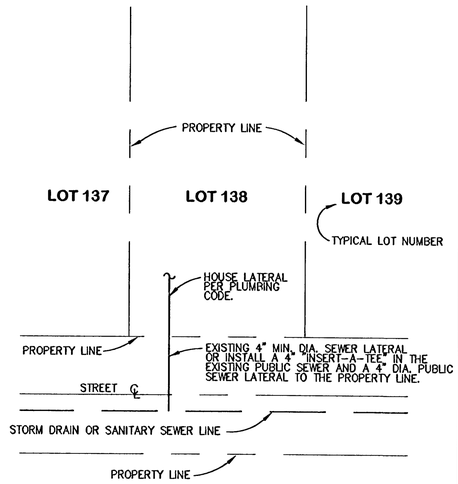


NOTES:
1. USE SUBURBAN TYPE ONLY IN NON-TRAFFIC AREAS, AND ONLY WITH APPROVAL BY THE CITY.
2. COVER AND FRAME SHALL BE GRAY CAST IRON ASTM A-48 CLASS 30.
3. COVER AND FRAME TO BE MACHINED TO A TRUE BEARING ALL AROUND.
4. NOTCH LID FOR LIFTING HOOK.
5. OPEN GRATES REQUIRE APPROVAL BY CITY, AND MUST BE BICYCLE SAFE IF USED IN TRAFFIC AREAS.

SUBURBAN AND STANDARD MANHOLE FRAME AND COVER

Manhole Covers	
West Linn	DATE: JAN 2000
	DRAWING NO.: WL-605
	FILE NO.: 00-605

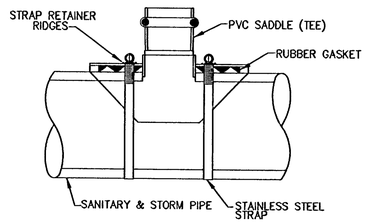
MANHOLE COVERS DETAIL
NOT TO SCALE



TYPICAL CONNECTION FOR SINGLE FAMILY RESIDENCE.

Sewer Connection Single Family	
West Linn	DATE: JAN 2000
	DRAWING NO.: WL-216
	FILE NO.: 00-216

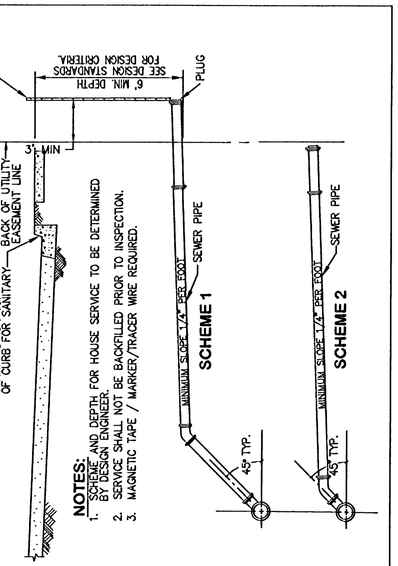
SEWER CONNECTION DETAIL
NOT TO SCALE



* PVC SADDLE SHALL BE ASTM 3034 SDR35
* PVC COMPOUNDS SHALL BE ASTM D1784 WITH CELL CLASS OF 12454-B/C OR 12364-C
* ALL ELASTOMERIC SEALS (RUBBER GASKETS) SHALL BE ASTM F477
* STAINLESS STEEL BANDS SHALL BE 300 SERIES, FULL 9/16" WIDTH BAND, 5/16' SHOULDERED HEX HEAD, SLOTTED SCREW AND IS CADIUM PLATED, CARBON STEEL.
* INSERTION HOLE SHALL BE CORE DRILLED.

PVC Gasketed Saddle	
West Linn	DATE: JAN 2000
	DRAWING NO.: WL-217
	FILE NO.: 00-217

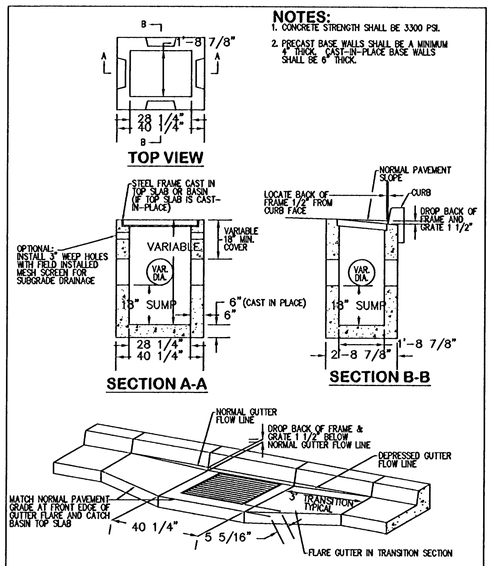
PVC GASKETED SADDLE DETAIL
NOT TO SCALE



NOTES:
1. SCHEME AND DEPTH FOR HOUSE SERVICE TO BE DETERMINED BY DESIGN ENGINEER.
2. SERVICE SHALL NOT BE BACKFILLED PRIOR TO INSPECTION.
3. MAGNETIC TAPE / MARKER/TRACER WIRE REQUIRED.

Service Branch	
West Linn	DATE: JAN 2000
	DRAWING NO.: WL-218
	FILE NO.: 00-218

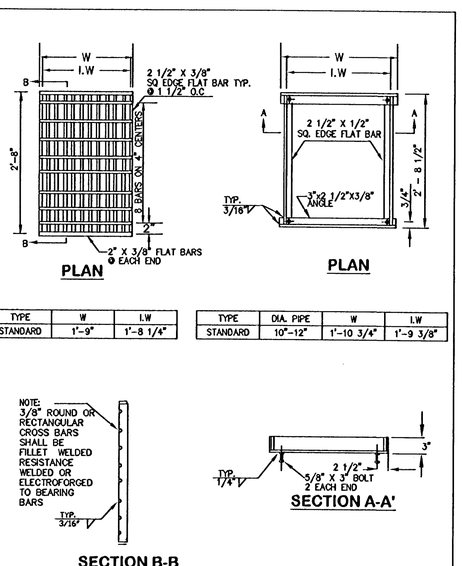
SERVICE BRANCH DETAIL
NOT TO SCALE



NOTE:
PRECAST TOP SLAB SHOWN WITH GUTTER TRANSITION FLARE. IF THE TOP SLAB IS CAST-IN-PLACE, NO FLARE IS REQUIRED IN THE TRANSITION SECTION. MATCH THE TOP OF FRONT EDGE OF THE FRAME AND THE TOP FRONT EDGE OF THE CAST-IN-PLACE TOP SLAB TO THE NORMAL PAVEMENT GRADE.

Type G-1 Catch Basin with Sump	
West Linn	DATE: JAN 2000
	DRAWING NO.: WL-602
	FILE NO.: 00-602

TYPE G-1 CATCH BASIN DETAIL
NOT TO SCALE



TYPE	W	I.W
STANDARD	1'-9"	1'-8 1/4"

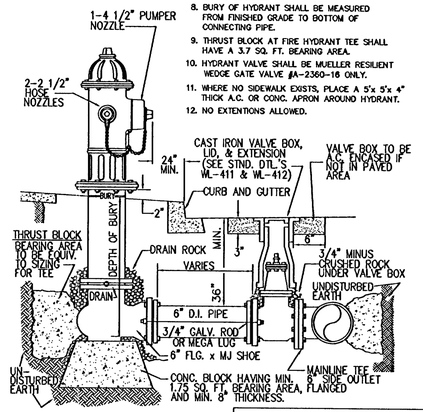
TYPE	DIA. PIPE	W	I.W
STANDARD	10"-12"	1'-10 3/4"	1'-9 3/8"

NOTE:
USE VERTICAL BEADS IN CORNERS. FILLET WELD JOINT ON BOTOM OF FRAME (GRATE MUST REST FLAT ON FRAME SURFACE.

Frame and Grate for Gutter & Curb Inlets	
West Linn	DATE: JAN 2000
	DRAWING NO.: WL-602A
	FILE NO.: 00-602A

FRAME AND GRATE FOR CURB INLETS DETAIL
NOT TO SCALE

NOTES:
1. HYDRANTS TO BE MUELLER CENTURION MOL A-423 ONLY WITH 1 1/2" OPER. NUTS OR CLOW MEDDALION F-2545.
2. HYDRANT COLOR TO BE MILLER EQUIP. ENAMEL O E 40 (SAFETY YELLOW).
3. JOINTS TO BE RESTRAINED BY 3/4" DIA. GALVANIZED STEEL RODS AND THRUST BLOCKS,OR MEGA LUGS ANYBRUST BLOCKS.
4. ALL FITTINGS IN CONTACT W/CONCRETE SHALL BE WRAPPED IN PLASTIC. HYDRANT DRAIN HOLES TO REMAIN OPEN TO DRAIN ROCK AND OPERATIONAL.
5. MIN. 4 CU. FT. OF 1 1/2"-3/4" CLEAN DRAIN ROCK SHALL BE PLACED AROUND SHOE UP TO A MIN. OF 6" ABOVE DRAIN OUTLETS.
6. WHERE PLANTER STRIP EXISTS, HYDRANT SHALL BE PLACED SO FRONT PORT IS A MINIMUM OF 24" BEHIND FACE OF CURB.
7. WHERE INTEGRAL S/W & CURB EXISTS, HYD. SHALL BE PLACED AT BACK OF SIDEWALK, OR AS DIRECTED BY ENGINEER.
8. BURY OF HYDRANT SHALL BE MEASURED FROM FINISHED GRADE TO BOTTOM OF CONNECTING PIPE.
9. THRUST BLOCK AT FIRE HYDRANT TEE SHALL HAVE A 3.7 SQ. FT. BEARING AREA.
10. HYDRANT VALVE SHALL BE MUELLER RESILIENT WEDGE GATE VALVE #A-2360-16 ONLY.
11. WHERE NO SIDEWALK EXISTS, PLACE A 5'x 5'x 4" THICK A.C. OR CONC. APRON AROUND HYDRANT.
12. NO EXTENTIONS ALLOWED.



Standard Fire Hydrant Assembly	
West Linn	DATE: JAN 2000
	DRAWING NO.: WL-401
	FILE NO.: 00-401

STANDARD FIRE HYDRANT ASSEMBLY DETAIL
NOT TO SCALE

WEST LINN CASEFILE SUB05-03 / ZC05-05 / VAR05-03

CONSTRUCTION DOCUMENTS

STANDARD DETAILS
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REGISTERED PROFESSIONAL ENGINEER
53,060
OREGON
JULY 10, 2001
J. SCOTT EMERY
1-22-08
EXP. 12/31/09

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1/18/08
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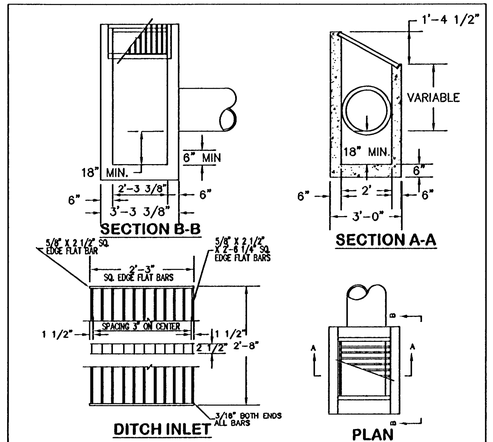
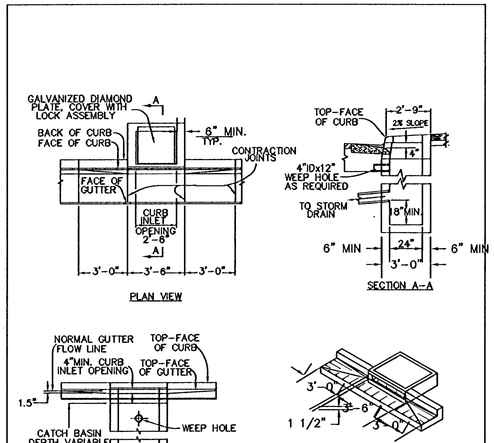
DATE	1/18/08
DRAWN	JSE
DESIGNED	JSE
CHECKED	RGN
PROJECT #	SLP04-001

SHEET TITLE
STANDARD DETAILS

SHEET NUMBER
C019



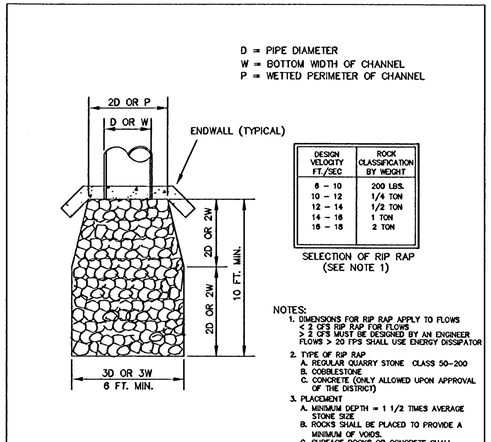
STANDARD DITCH INLET DETAIL
NOT TO SCALE



NOTES:
1. ALL FABRICATED METAL PARTS SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION.
2. CONCRETE SHALL BE CLASS 3000.
3. CURB INLET BASE MAY BE PRECAST OR CAST-IN-PLACE.
4. FOR SLOPES OF 5% OR GREATER, USE DWG. WL-601.

Gutter Inlet 2 1/2 A
DATED: JAN 2000
DRAWING NO.: WL-600
FILE NO.: 00-600

GUTTER INLET 2-1/2A DETAIL
NOT TO SCALE



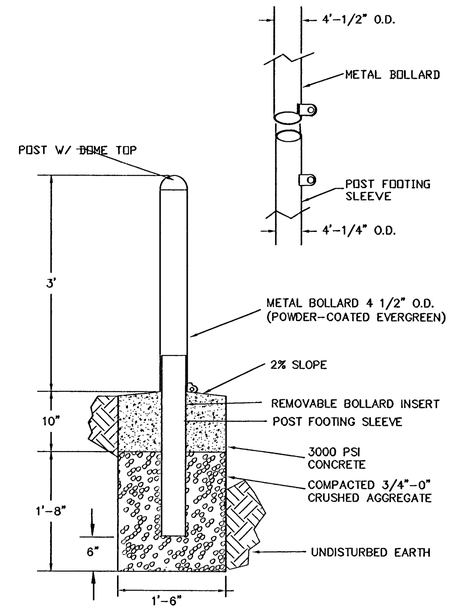
DESIGN VELOCITY FT./SEC	ROCK CLASSIFICATION BY WEIGHT
6 - 10	200 LBS.
10 - 12	1/4 TON
12 - 14	1/2 TON
14 - 16	1 TON
16 - 18	2 TON

SELECTION OF RIP RAP (SEE NOTE 1)

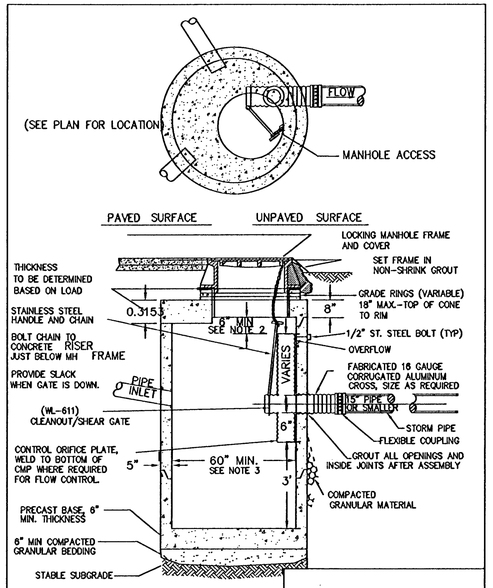
NOTES:
1. DIMENSIONS FOR RIP RAP APPLY TO FLOWS < 2 CFS RIP RAP FOR FLOWS > 2 CFS MUST BE DESIGNED BY AN ENGINEER FLOWS > 20 FPS SHALL USE ENERGY DISSIPATOR
2. TYPE OF RIP RAP
   A. REGULAR QUARRY STONE CLASS 50-200
   B. COBBLESTONE
   C. CONCRETE (ONLY ALLOWED UPON APPROVAL OF THE DISTRICT)
3. PLACEMENT
   A. MINIMUM DEPTH = 1 1/2 TIMES AVERAGE STONE SIZE
   B. ROCKS SHALL BE PLACED TO PROVIDE A MINIMUM OF VOIDS.
   C. SURFACE ROCKS OR CONCRETE SHALL PROTRUDE AT LEAST 1/2 THEIR VERTICAL DIMENSION.
   D. RIP RAP IS TO BE PLACED OVER A NATURAL BEDDING, OR IT MAY BE GROUTED OR PLACED OVER A GRAVEL BEDDING AS REQUIRED BY THE CITY.

Storm Sewer Outfall
DATED: JAN 2000
DRAWING NO.: WL-614
FILE NO.: 00-614

STORM OUTFALL
NOT TO SCALE



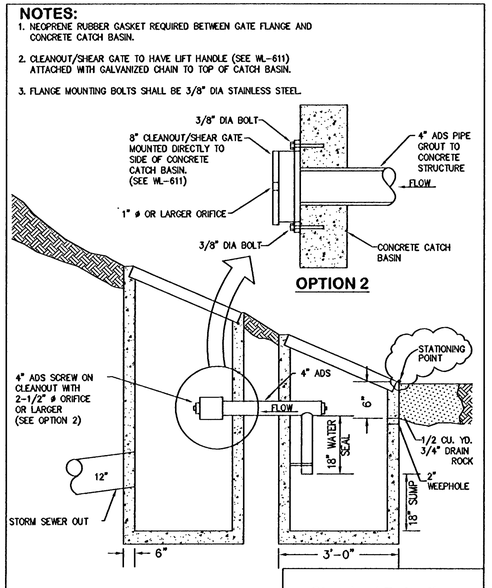
REMOVABLE BOLLARD
NOT TO SCALE



NOTES:
1. ALL PRECAST SECTIONS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C-478.
2. DISTANCE FROM TOP OF OVERFLOW TO MH RIM SHALL BE BASED ON OVERFLOW CAPACITY CALC'S BY DESIGN ENGINEER. ASSUME ORIFICE CONTROL.
3. 72" MINIMUM DIA. MANHOLE REQUIRED FOR OUTLET OR INLET > 21".
4. NO STEPS REQUIRED

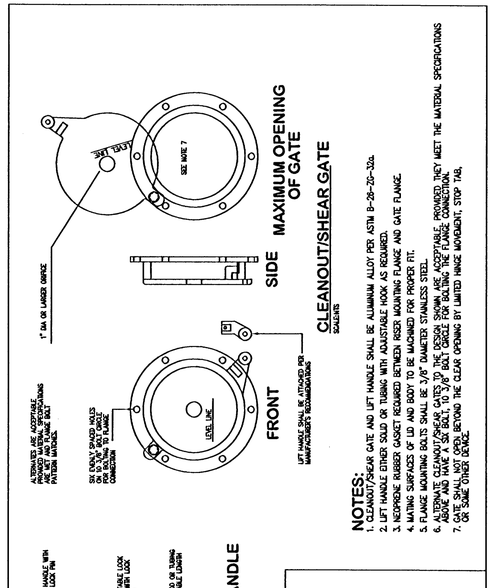
Pollution / Flow Control Manhole
DATED: MAY 2005
DRAWING NO.: WL-607
FILE NO.: 00-607

POLLUTION / FLOW CONTROL MANHOLE DETAIL
NOT TO SCALE



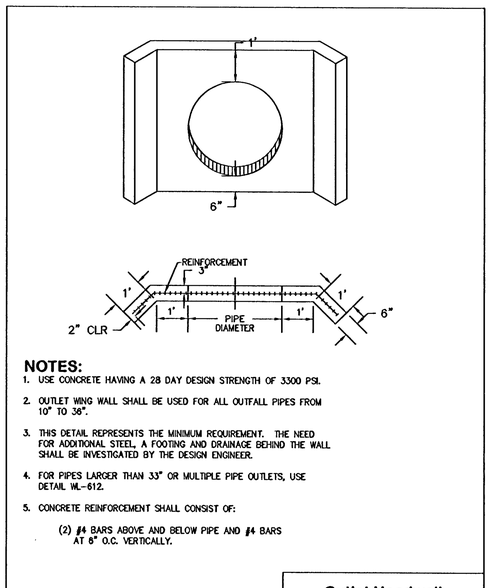
Standard Detention Pond Outlet
DATED: JAN 2000
DRAWING NO.: WL-610
FILE NO.: 00-610

STANDARD DETENTION POND OUTLET DETAIL
NOT TO SCALE



Cleanout / Shear Gate
DATED: MAY 2005
DRAWING NO.: WL-611
FILE NO.: 00-611

CLEANOUT/SHEAR GATE DETAIL
NOT TO SCALE



NOTES:
1. USE CONCRETE HAVING A 28 DAY DESIGN STRENGTH OF 3300 PSI.
2. OUTLET WING WALL SHALL BE USED FOR ALL OUTFALL PIPES FROM 10" TO 36".
3. THIS DETAIL REPRESENTS THE MINIMUM REQUIREMENT. THE NEED FOR ADDITIONAL STEEL, A FOOTING AND DRAINAGE BEHIND THE WALL SHALL BE INVESTIGATED BY THE DESIGN ENGINEER.
4. FOR PIPES LARGER THAN 33" OR MULTIPLE PIPE OUTLETS, USE DETAIL WL-612.
5. CONCRETE REINFORCEMENT SHALL CONSIST OF:
   (2) #4 BARS ABOVE AND BELOW PIPE AND #4 BARS AT 6" O.C. VERTICALLY.

Outlet Headwall (For Outlet Pipes of 10" to 33")
DATED: JAN 2000
DRAWING NO.: WL-613
FILE NO.: 00-613

OUTLET HEADWALL DETAIL
NOT TO SCALE

WEST LINN CASEFILE SUB05-03 / ZC05-05 / VAR05-03

CONSTRUCTION DOCUMENTS

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REGISTERED PROFESSIONAL ENGINEER
OREGON
JULY 10, 2001
J. SCOTT ELLIOTT
EXP. 12/31/09

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1/18/08

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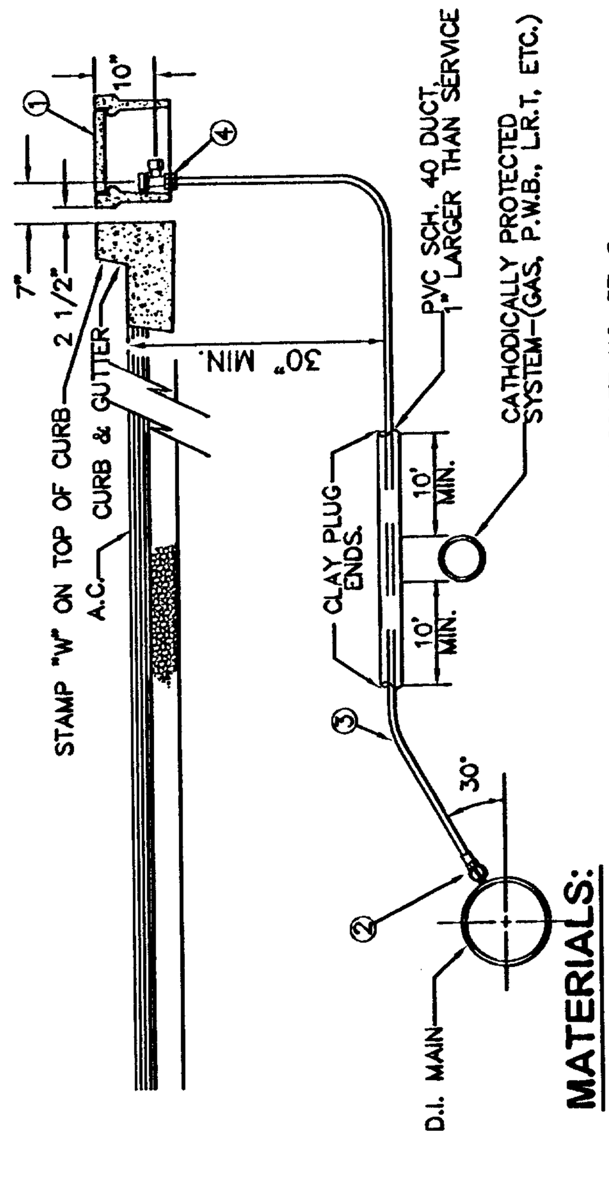
DATE | 1/18/08
DRAWN | JSE
DESIGNED | JSE
CHECKED | RGN
PROJECT # | SLP04-001

SHEET TITLE
STANDARD DETAILS

SHEET NUMBER
C020



MATERIALS:

1. BROOKS METER BOX, BODY NO. 37, LID AND COVER NO. 37-S.
2. MUELLER CORP. STOP NO. H-15008 OR FORD F1000-4Q SET CORP. STOP WITH OPERATING NUT AT 3 OR 9 O'CLOCK.
3. 1" SOFT TEMPER, TYPE 'K' COPPER TUBING COMPLYING WITH ASTM B-88.
4. MUELLER ANGLE METER STOP NO. H-14258 (FORD NO. KV43-444W-Q).

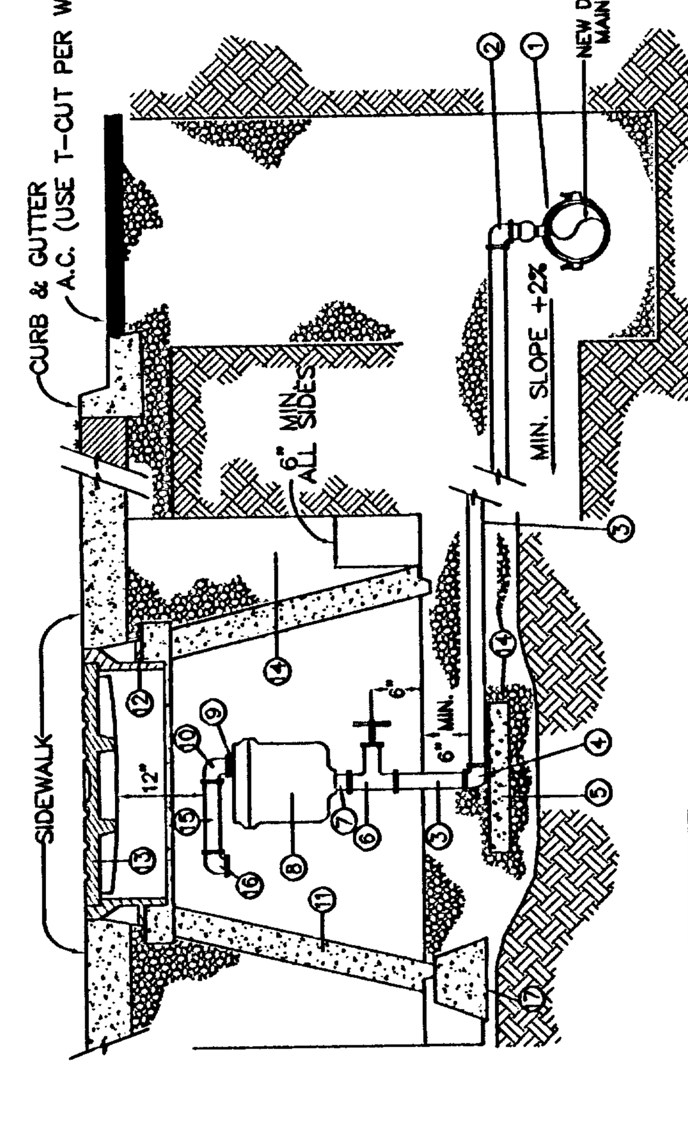
NOTES:

1. MACHINE DRILLED AND TAPPED ONLY. NO HAND DRILLING IS ALLOWED.
1. SUBSTITUTES FOR ANY MATERIALS SHOWN SHALL BE APPROVED BY THE CITY ENGINEER.
2. ALL PIPE AND STRUCTURE ZONES SHALL BE BACKFILLED USING 3/4" MINUS CRUSHED AGG. AND COMPACTED TO 95% MAX DENSITY AS DETERMINED BY AASHTO T-180.
3. WHEN AN ACTIVE CATHODIC PROTECTED SYSTEM IS ENCOUNTERED, SCH. 40 PVC SHALL BE INSTALLED AS SHOWN ABOVE WITH CLAY PLUG.
4. METER BOX SHALL BE CENTERED OVER THE COMPLETED METER ASSEMBLY.
5. FOR VACANT RESIDENTIAL LOTS, LOCATE SINGLE SERVICE 18" INSIDE SIDE LOT LINE.
6. TAPS INTO MAIN TO BE AT 18" CENTERLINE MIN.
7. ANGLE METER STOPS TO BE 18" FROM PROPERTY LINE AND NOT IN DRIVEWAY APPROACH.

Standard 1" Water Service

West Linn | DATE: MAY 2005 | DRAWING NO. WL-402 | FILE NO. 00-402

STANDARD 1" WATER SERVICE DETAIL
NOT TO SCALE



NOTES:

1. INSTALLATION LOCATED AT HIGH POINT OF MAIN
2. 48" MANHOLE BARREL SECTIONS SHALL BE USED TO INCREASE DEPTH IF NECESSARY.
3. ALL PIPE AND STRUCTURE ZONES SHALL BE COMPACTED TO 95% OF MAX. DENSITY AS DETERMINED BY AASHTO T-180 OR AS SPECIFIED IN THE CONTRACT DOCUMENTS.
4. STD. DETAIL IS NOT FOR SHALLOWER THAN TYPICAL INSTALLATIONS. CONTACT CITY WATER DEPT. FOR OPTIONS.

MATERIALS:

1. ROCKWELL NO. 317 SERVICE SADDLE WITH STAINLESS STRAPS
2. MUELLER NO. H15045 2" CORPORATION STOP WITH 1/4 BEND ADAPT (I.P.T. MUELLER 110 CTS)
3. 2" X VARIABLE LENGTH BRASS I.P.T. NIPPLE
4. 2" BRASS 90 DEGREE ELL (MUELLER 110 CTS)
5. 12" X 12" X 4" CONCRETE BLOCK
6. NIBCO NO. 113 2" BRASS GATE VALVE
7. 2" X 3" BRASS I.P.T. NIPPLE
8. 2" AIR RELEASE VALVE (VAL-MATIC #38 OR APCO #205 FOR TYPICAL INSTALLATIONS, IN SOME INSTANCES THE CITY MAY REQUIRE COMBINATION AIR RELEASE & VACUUM UNIT.) INSTALL WALL BRACKETS TO SUPPORT VALVE AS NECESSARY.
9. 1/2" X 1 1/2" OR 2" X 1 1/2" BRASS I.P.T. NIPPLE
10. 1/2" OR 2" BRASS 90 DEGREE ELL (F.M. I.P.T. X F.M. I.P.T.)
11. STD. 48" CONCRETE MANHOLE CONE
12. FRAME PER STD. DWG. WL-214.
13. TAMPERPROOF MANHOLE COVER PER STD. DWG. WL-214.
14. 3/4" MINUS CRUSHED AGG.
15. 1/2" X 6" OR 2" X 6" BRASS NIPPLE, I.P.T.
16. 1/2" OR 2" BRASS 90 DEGREE ELL WITH SCREEN ON OUTLET
17. 3 EA. 12" CONCRETE PIER BLOCKS

Standard Air Release Valve Unit

West Linn | DATE: JAN 2000 | DRAWING NO. WL-405 | FILE NO. 00-405

STANDARD AIR RELEASE VALVE UNIT DETAIL
NOT TO SCALE

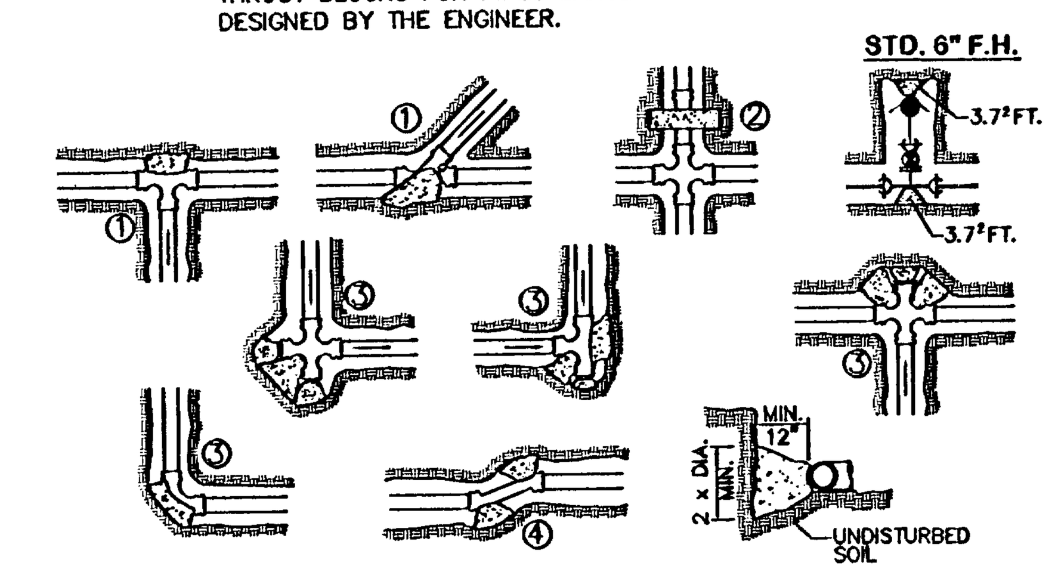
FITTING SIZE (Inches)	TEE, WYE, & ① HYDRANTS	STRADDLE BLOCK ②	90° BEND ③ PLUGGED CROSS TEE PLUGGED-RUNS	45° BEND ④	22 1/2° BEND ④	11 1/2° BEND ④
2	*	*	*	*	*	*
4	1.7	2.1	2.4	1.3	*	*
6	3.7	4.9	5.3	2.9	1.5	*
8	6.7	8.7	9.5	5.1	2.7	1.3
10	10.5	13.6	14.8	8	4.1	2
12	15.1	19.6	21.3	11.6	5.9	2.9
14						
16	26.8	34.8	37.9	20.5	10.4	5.2
18	33.9	44	47.9	25.9	12.8	6.7
LARGER	**	**	**	**	**	**

BEARING AREA OF THRUST BLOCKS (sq. ft.)

1. ALL VALUES ARE BASED ON THE FOLLOWING ASSUMPTIONS: AVG. PRESSURE = 100 PSI X 2 (safety factor); 1500 PSF SOIL BEARING CAPACITY; NORMAL DISTRIBUTION DESIGN VELOCITY NOT TO EXCEED 5 F/S.
2. ALL FITTINGS SHALL BE WRAPPED IN PLASTIC PRIOR TO PLACEMENT OF CONCRETE.
3. BEARING SURFACE OF THRUST BLOCKING SHALL BE AGAINST UNDISTURBED SOIL
4. ALL CONCRETE MIX SHALL HAVE A MIN. 28 DAY STRENGTH OF 3000 PSI.
5. ALL PIPE ZONES SHALL BE GRAVEL FILLED AND COMPACTED.
6. THRUST BLOCKS FOR PLUGGED CROSS AND PLUGGED TEE SHALL HAVE #4 REBAR LIFTING LOOPS INSTALLED AS SHOWN.
7. VERTICAL THRUST DETAILS-SEE DWG. WL-407.
8. STRADDLE BLOCK DETAILS-SEE DWG. WL-408.

* BLOCK TO UNDISTURBED TRENCH WALLS

** THRUST BLOCKS FOR PIPES LARGER THAN 18" WILL BE INDIVIDUALLY DESIGNED BY THE ENGINEER.



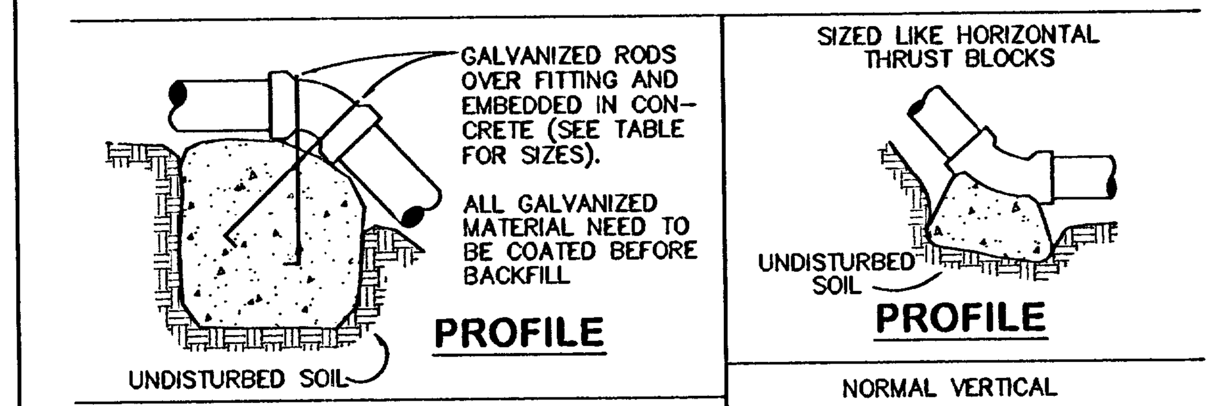
Horizontal Thrust Blocking

West Linn | DATE: JAN 2000 | DRAWING NO. WL-406 | FILE NO. 00-406

HORIZONTAL THRUST BLOCKING DETAIL
NOT TO SCALE

NOTES:

1. GRAVITY VERTICAL THRUST BLOCKS SHALL BE DESIGNED BY THE ENGINEER.
2. KEEP CONCRETE CLEAR OF JOINT AND JOINT ACCESSORIES. FITTINGS SHALL BE WRAPPED IN PLASTIC PRIOR TO PLACEMENT OF CONCRETE.
3. CONCRETE THRUST BLOCKING SHALL BE POURED AGAINST UNDISTURBED EARTH.
4. CONCRETE MIX SHALL HAVE A MIN. 28 DAY STRENGTH OF 3300 P.S.I.
5. THRUST BLOCK VOLUMES FOR VERTICAL BENDS HAVING UPWARD RESULTANT THRUSTS ARE BASED ON TEST PRESSURE OF 150 P.S.I.G. AND THE WEIGHT OF CONCRETE = 4050 LBS./CU.YD.
6. VERTICAL BENDS THAT REQUIRE A THRUST BLOCK VOLUME EXCEEDING 5 CUBIC YARDS REQUIRE SPECIAL BLOCKING DETAILS. SEE PLANS FOR VOLUMES SHOWN INSIDE HEAVY LINE IN TABLE.
7. PAYMENT SHALL BE THE SAME AS FOR HORIZONTAL THRUST BLOCKS.
8. ALL REBAR SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM-123 (MIN. 3.4 MIL). REBAR SHALL BE BENT BEFORE GALVANIZATION, AND LAST 4" OF BAR SHALL BE BENT 90 DEGREES WITH A 1/2" RADIUS BEND. REBAR SHALL BE TIGHTLY FIT TO RESTRAINED FITTING.
9. FOR HORIZONTAL THRUST BLOCK DETAILS SEE DWG NO. WL-406.



GRAVITY VERTICAL THRUST BLOCK

NORMAL VERTICAL THRUST BLOCK

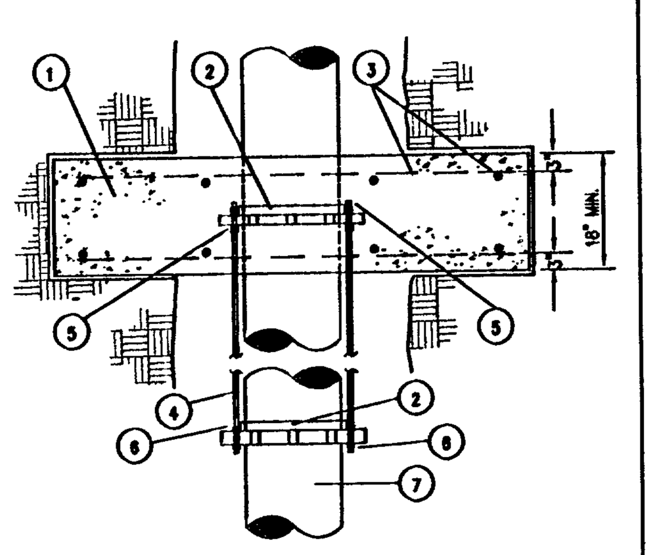
VOLUME OF THRUST BLOCK IN CUBIC YARDS (VERTICAL BENDS)			
FITTING SIZE	BEND ANGLE 45°	22 1/2°	11 1/4°
4	1.1	0.4	0.2
6	2.7	1.0	0.4
8	4.0	1.5	0.6
10	6.0	2.3	0.9
12	8.5	3.2	1.3
14	11.5	4.3	1.8
16	14.8	5.6	2.3

FITTING SIZE	ROD SIZE	EMBED-MENT
12" AND LESS	#6	30"
14" - 16"	#8	36"

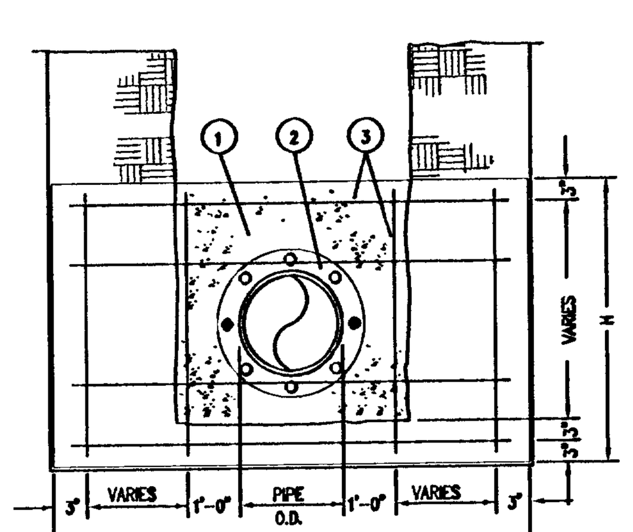
Vertical Thust Blocking

West Linn | DATE: JAN 2000 | DRAWING NO. WL-407 | FILE NO. 00-407

VERTICAL THRUST BLOCKING DETAIL
NOT TO SCALE



TOP VIEW



FRONT VIEW

MATERIALS:

1. CONCRETE STRADDLE BLOCK.
2. UNI-FLANGE, SERIES 400C, CLASS 125
3. #4 REBAR EACH WAY, 12" O/C.
4. 3/4" ALL THREAD GALVANIZED STEEL TIE RODS, QUANTITY PER ENGINEER.
5. 3/4" GALVANIZED NUTS, 2-EACH SIDE
6. 3/4" GALVANIZED NUTS, 1-EACH SIDE
7. FLANGED FITTING

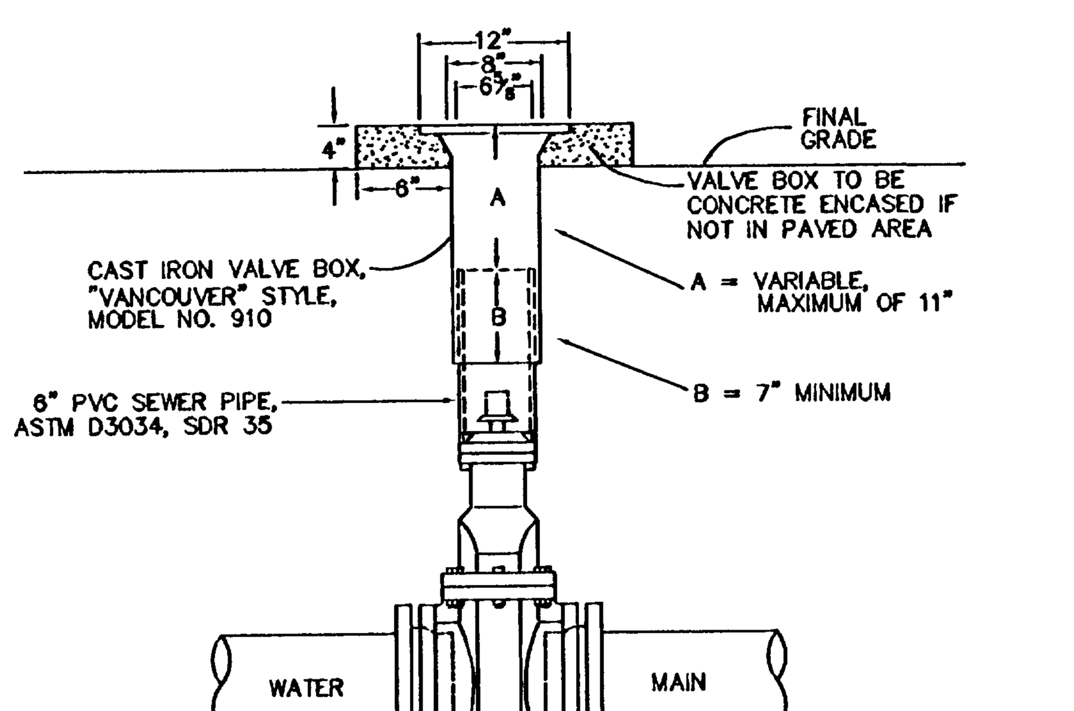
NOTES:

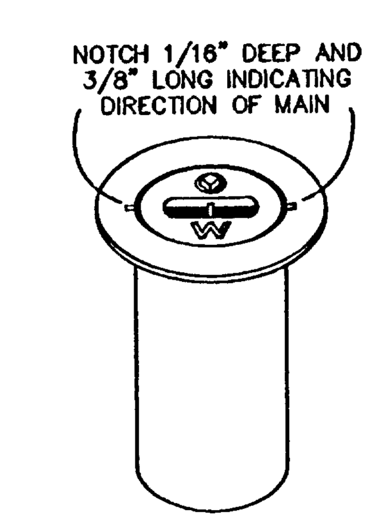
1. STRADDLE BLOCKS SHALL BE DESIGNED INDIVIDUALLY BY THE ENGINEER AND SHALL BE BASED ON THE FOLLOWING:
   a.) 200 PSI WATER PRESSURE
   b.) SOIL BRG. CAPACITY, STEEL SIZE AND SPACING BY THE ENGINEER.
2. BEARING AREA OF BLOCK SHALL BE AGAINST UNDISTURBED SOIL.
3. STRADDLE BLOCK SHALL HAVE A MINIMUM OF 18" COVER.
4. CONCRETE SHALL HAVE A MIN. 28-DAY STRENGTH OF 3300 PSI
5. ALL FITTINGS WITHIN THE CONC. SHALL BE WRAPPED IN PLASTIC OR BE COATED W/ KOPPER'S #50.
6. STRADDLE BLOCK HEIGHT(H) & WIDTH(W) SHALL BE DETERMINED BY THE ENGINEER.

Standard Straddle Block

West Linn | DATE: JAN 2000 | DRAWING NO. WL-408 | FILE NO. 00-408

STANDARD STRADDLE BLOCK DETAIL
NOT TO SCALE





"VANCOUVER" 18" TALL VALVE BOX

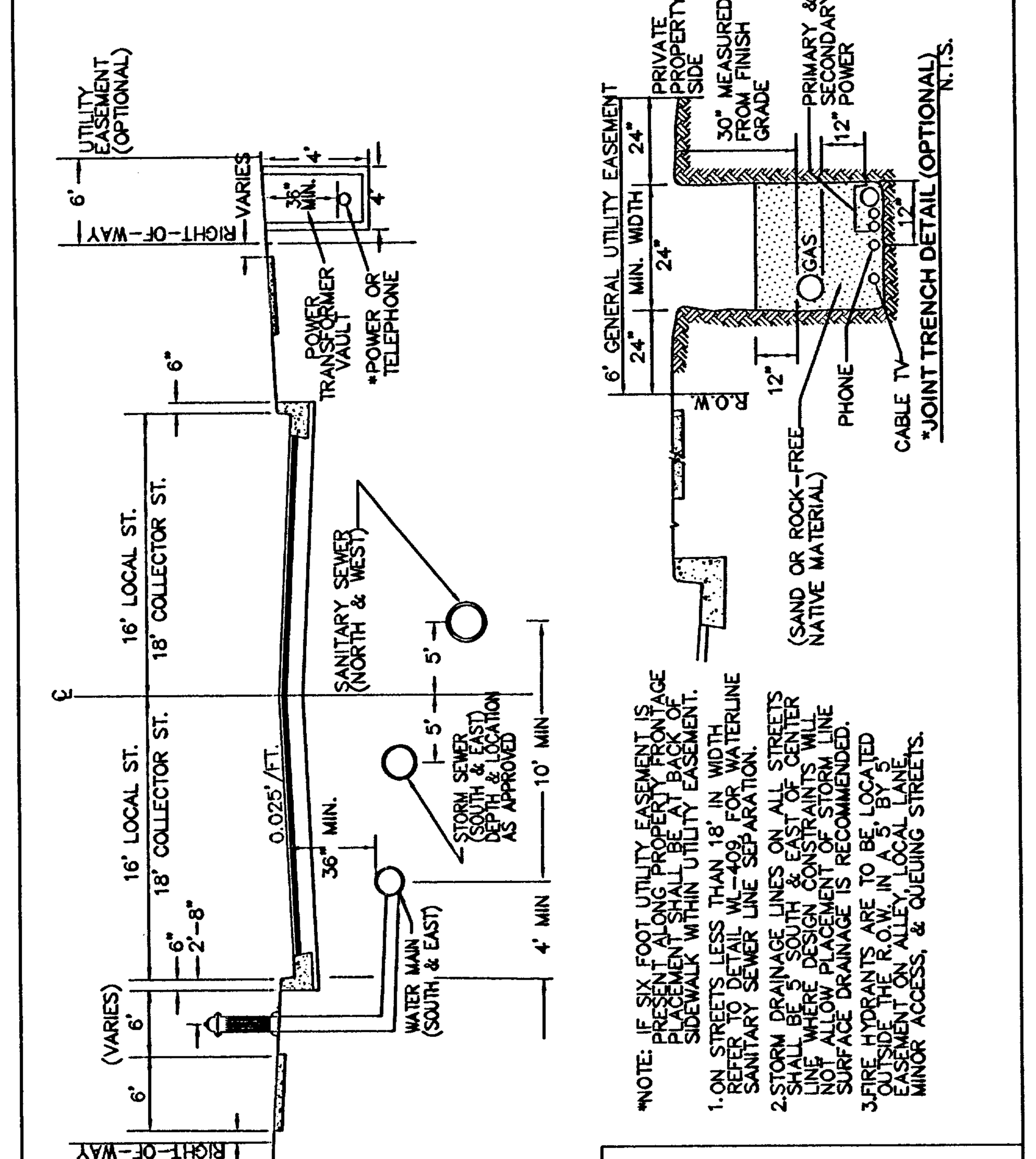
NOTES:

1. VALVE BOXES SHALL BE CENTERED DIRECTLY OVER THE VALVE NUT IN A VERTICAL POSITION .
2. VALVE BOX TOP SHALL BE ADJUSTED TO MEET FINISHED GRADE.
3. PVC SHALL BE ONE CONTINUOUS PIECE- NO BELLS OR COUPLERS.
4. ON VALVES 8" AND LARGER, PVC SHALL BE NOTCHED OVER VALVE PACKING BOLTS SO PVC SITS ON BONNET.

Standard Valve Box Detail

West Linn | DATE: JAN 2000 | DRAWING NO. WL-411 | FILE NO. 00-411

STANDARD VALVE BOX DETAIL
NOT TO SCALE



*NOTE: IF SIX FOOT UTILITY EASEMENT IS PRESENT ALONG PROPERTY FRONTAGE PLACEMENT SHALL BE AT BACK OF SIDEWALK WITHIN UTILITY EASEMENT.

1. ON STREETS LESS THAN 18' IN WIDTH REFER TO DETAIL WL-409 FOR WATERLINE SANITARY SEWER LINE SEPARATION.
2. STORM DRAINAGE LINES ON ALL STREETS SHALL BE 5' SOUTH & EAST OF CENTER LINE WHERE DESIGN CONSTRAINTS WILL NOT ALLOW PLACEMENT OF STORM LINE SURFACE DRAINAGE IS RECOMMENDED.
3. FIRE HYDRANTS ARE TO BE LOCATED OUTSIDE THE R.O.W. IN A 5' BY 5' EASEMENT ON ALLEY, LOCAL LANE, MINOR ACCESS, & QUEUING STREETS.

Typical Utility Placement Detail

West Linn | DATE: JAN 2000 | DRAWING NO. WL-500 | FILE NO. 00-500

TYPICAL UTILITY PLACEMENT DETAIL
NOT TO SCALE

WEST LINN CASEFILE SUB05-03 / ZC05-05 / VAR05-03

CONSTRUCTION DOCUMENTS

STANDARD DETAILS

SIENNA ESTATES

City of West Linn, Clackamas County, Oregon

SAM L PAP
2799 LANCASTER STREET
WEST LINN, OREGON 97068
(503) 888-2254

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CIVIL ENGINEERING
DEVELOPMENT CONSULTING
LANDSCAPE ARCHITECTURE
5125 SW Macadam, Suite 140, Portland, Oregon 97239
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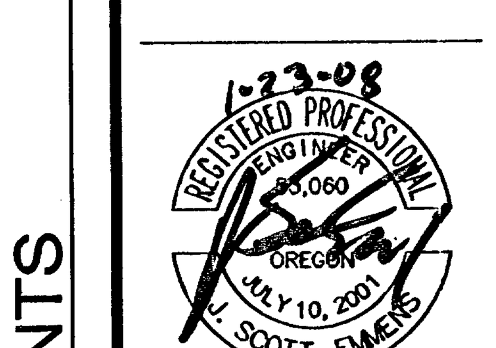


EXP. 12/31/09

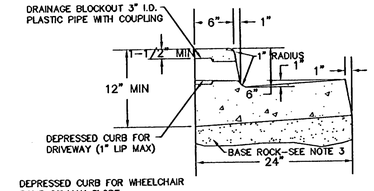
RECORD DRAWING
1/18/08

THESE RECORD DRAWINGS HAVE BEEN PREPARED, IN PART, ON THE BASIS OF INFORMATION COMPILED AND FURNISHED BY THE CONTRACTOR, REVISED CONSTRUCTION PLANS, AND FIELD OBSERVATIONS DURING CONSTRUCTION.

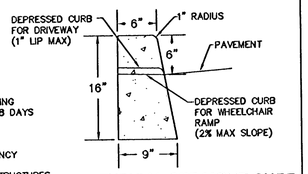
DATE	1/18/08
DRAWN	JSE
DESIGNED	JSE
CHECKED	RGN
PROJECT #	SLP04-001

SHEET TITLE
STANDARD DETAILS

SHEET NUMBER
C021



TYPICAL CURB and GUTTER



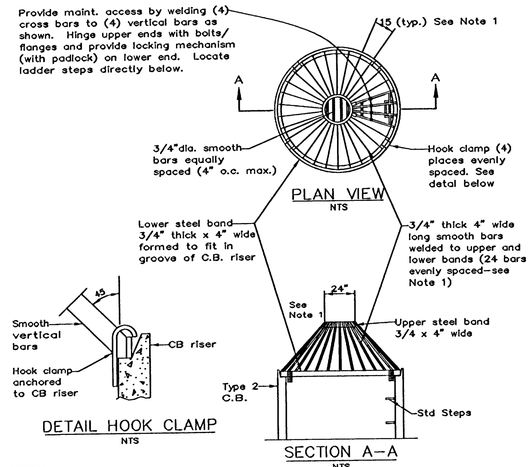
TYPICAL STRAIGHT CURB

NOTES:

1. CONCRETE SHALL HAVE A BREAKING STRENGTH OF 3300 PSI AFTER 28 DAYS
2. CONTRACTION JOINTS
   A) TO BE PROVIDED
      -AT EACH POINT OF TANGENCY
      -AT EACH COLD JOINT
      -AT EACH SIDE OF INLET STRUCTURES
      -AT BOTH SIDES OF AN APPROACH
   B) SPACING TO BE NOT MORE THAN 15 FEET
   C) THE DEPTH OF THE JOINT SHALL BE AT LEAST 1/3 OF THE THICKNESS OF CONCRETE
   D) EXPANSION JOINTS SHALL NOT BE USED
3. BASE ROCK – 1-1/2"-0", 95% COMPACTION ROCK SHALL BE TO SUBGRADE OF THE STREET SECTION OR 4" IN DEPTH, WHICHEVER IS GREATER
4. DRAINAGE BLOCK – 3" DIA. PLASTIC PIPE
   A) DRAINAGE ACCESS THROUGH EXISTING CURBS SHALL BE DONE BY:
      -CORE DRILLING
      -VERTICAL SAWCUT OF CURB 18" EACH SIDE OF DRAIN AND RE-POURED TO FULL DEPTH OF CURB
5. STAMP TOP OF CURB WITH "W" AT WATER SERVICE CROSSING AND "S" AT SANITARY LATERAL CROSSING

Typical Curbs	
West Linn	DATED: JAN 2000
	DRAWING NO.: WL-501
	FILE NO.: 00-501

TYPICAL CURBS DETAIL
NOT TO SCALE

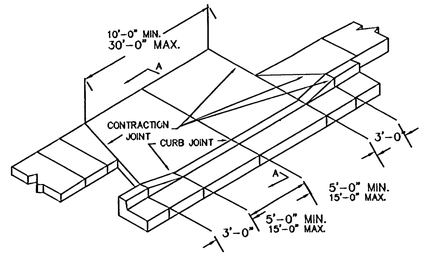


NOTES:

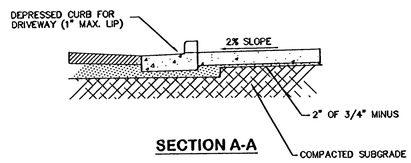
1. Dimensions are for installation on 54" dia. C.B. For different dia. C.B.'s a dimensions to maintain 45 angle on "vertical" bars and 7" O.C. max. spacing of bars around lower steel band.
2. Metal parts: corrosion resistant.
3. This debris barrier is also recommended for use on the inlet to roadway cross-culverts with high potential for debris collection (except on Class 2 s

XX
NOT TO SCALE

SIDEWALK ADJACENT TO CURB



SIDEWALK AWAY FROM CURB



SECTION A-A

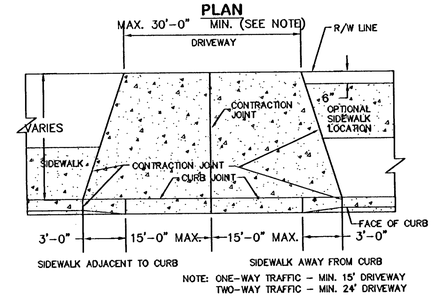
NOTES

1. CONCRETE SHALL HAVE A MINIMUM BREAKING STRENGTH OF 3300 PSI AFTER 28 DAYS, 6 SACK MIX.
2. CURB SHALL BE TROWELED JOINT WITH A MIN. 1/2" RADIUS ALONG BACK OF CURB.
3. DRIVEWAY SHALL BE A MINIMUM 6" THICK

Residential Driveway	
West Linn	DATED: JAN 2000
	DRAWING NO.: WL-503
	FILE NO.: 00-503

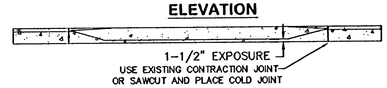
RESIDENTIAL DRIVEWAY DETAIL
NOT TO SCALE

PLAN

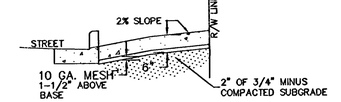


NOTE: ONE-WAY TRAFFIC – MIN. 15' DRIVEWAY
TWO-WAY TRAFFIC – MIN. 24' DRIVEWAY

ELEVATION



SECTION A-A

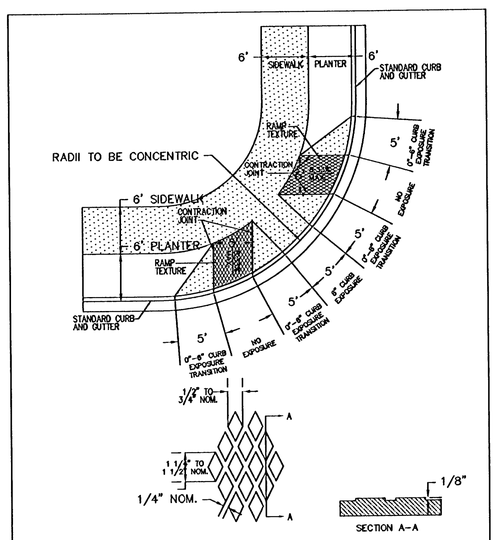


NOTES

1. CONCRETE SHALL HAVE A MINIMUM BREAKING STRENGTH OF 3300 PSI AFTER 28 DAYS, 6 SACK MIX.
2. CURB JOINT SHALL BE A TROWELED JOINT WITH A MIN. 1/2" RADIUS ALONG BACK OF CURB.
3. DRIVEWAY SHALL BE A MINIMUM 6" THICK.

Commercial Driveway	
West Linn	DATED: JAN 2000
	DRAWING NO.: WL-504
	FILE NO.: 00-504

COMMERCIAL DRIVEWAY DETAIL
NOT TO SCALE



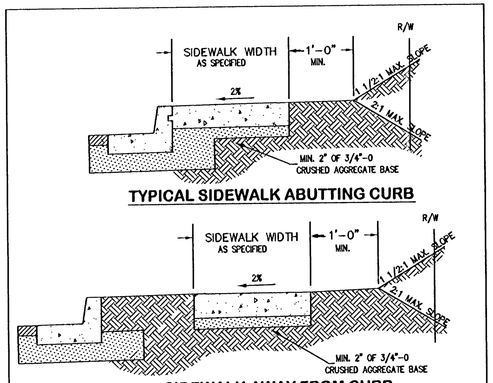
RAMP TEXTURE DETAIL

NOTES:

1. THE "AMERICANS WITH DISABILITIES ACT" (ADA) REQUIRES THAT ACCESS RAMPS TO SIDEWALKS CONFORM TO ALL FEDERAL GUIDELINES. EXCEPTIONS TO THE REQUIREMENTS IN THIS DRAWING MUST BE APPROVED BY THE CITY ENGINEER.
2. NO ABOVE GROUND UTILITIES ADRE PERMITTED WITHIN RAMP AREA.
3. RAMP SURFACE SHALL BE TEXTURED WITH RAISED DIAMOND TEXTURE. TEXTURING SHALL BE DONE WITH AN EXPANDED METAL GRATE STAMPED INTO THE CONCRETE.
4. CONCRETE STRENGTH SHALL BE 3300 PSI.
5. PLACE CONTRACTION JOINTS AS SHOWN ABOVE.
6. FOR INTERSECTING LOCAL STREETS USE DETAIL WL-507A.

Twin Curb Ramp	
West Linn	DATED: JAN 2000
	DRAWING NO.: WL-507B
	FILE NO.: 00-507B

TWIN CURB RAMP DETAIL
NOT TO SCALE

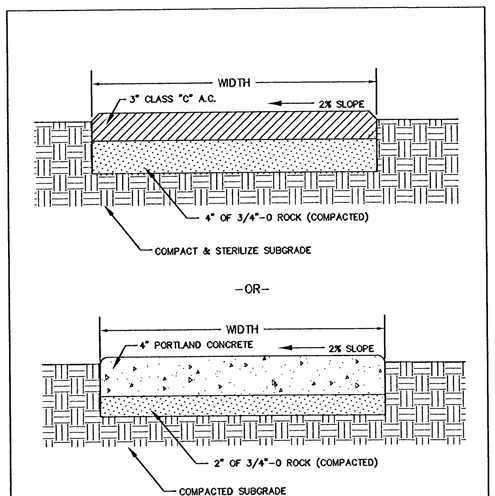


NOTES

1. CONCRETE SHALL BE 3300 PSI AT 28 DAYS, 6 SACK MIX, SLUMP RANGE OF 1 1/2" TO 3".
2. PANEL LENGTHS SHALL BE EQUAL TO THE SIDEWALK WIDTH, BUT MAY BE ADJUSTED WITH THE CITY ENGINEER'S APPROVAL.
3. CONTRACTION JOINTS (1/3RD OF THE THICKNESS OF CONCRETE) SHALL BE PLACED EVERY THIRD PANEL, WITH A MAX. SPACING OF 18 FEET. JOINTS SHALL ALSO BE PLACED AT THE SIDES OF DRIVEWAY APPROACHES, UTILITY VAULTS, AND WHEELCHAIR RAMPS.
4. A CURING COMPOUND SHALL BE USED. WHITE REFLECTIVE SHEETING SHALL BE USED IN CASE OF RAIN.
5. FOR SIDEWALKS ADJACENT TO THE CURB AND POURED AT THE SAME TIME AS THE CURB, THE JOINT BETWEEN THEM SHALL BE A TROWELED JOINT WITH A MIN. 1/2" RADIUS.
6. THE SIDEWALK SHALL HAVE A MIN. THICKNESS OF 6" IF MOUNTABLE CURB IS USED OR IF THE SIDEWALK IS INTENDED AS A PORTION OF THE DRIVEWAY. OTHERWISE, THE SIDEWALK SHALL HAVE A MIN. THICKNESS OF 4".
7. DRAIN BLOCKOUTS IN THE CURB SHALL BE EXTENDED TO THE BACK OF THE SIDEWALK WITH A 3" DIA. PLASTIC PIPE AT A 2% SLOPE. A CONTRACTION JOINT SHALL BE PLACED OVER THE PIPE.

Concrete Sidewalk Cross Section	
West Linn	DATED: JAN 2000
	DRAWING NO.: WL-508
	FILE NO.: 00-508

CONCRETE SIDEWALK CROSS SECTION DETAIL
NOT TO SCALE

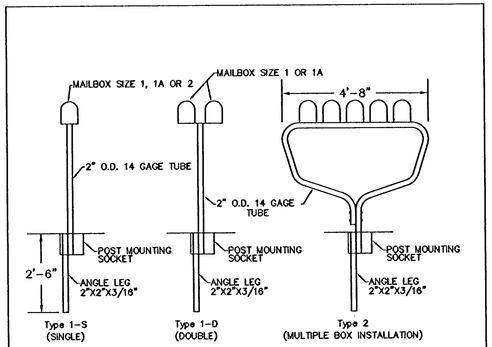


NOTES

1. CONCRETE SHALL BE 3300 PSI AT 28 DAYS , SIX SAC MIX, SLUMP RANGE OF 1 1/2"-3"
2. SIDEWALK PANELS SHALL BE SQUARE, 3/4" DEEP SCRIBES AT JOINTS, EDGED ON 4 SIDES AND HAVE A LIGHT BROOM FINISH.
3. PEDESTRIAN PATH OR BIKEWAY SHALL HAVE A MINIMUM WIDTH OF 5 FEET.

Pedestrian Path or Bikeway	
West Linn	DATED: JAN 2000
	DRAWING NO.: WL-510
	FILE NO.: 00-510

PEDESTRIAN PATH OR BIKEWAY DETAIL
NOT TO SCALE



NOTES:

1. MAILBOX INSTALLATION EQUIPMENT TO BE ORDERED FROM

   TRAFFIC SAFETY SUPPLY CO.
   2324 SE UMATILLA ST.
   PORTLAND, OR 97202
   (503) 235-8531

2. RELOCATED MAILBOX INSTALLATION DETAIL NOT TO BE USED FOR NEW CONSTRUCTION.
3. FOR MORE DETAILS OF MAILBOX INSTALLATION, SEE O.D.O.T. STANDARD MAILBOX INSTALLATION DETAIL, DRG NO. 2136, PAGE 2-18.1.
4. ALL MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE CURRENT STATE OF OREGON STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

Relocated Mailbox Installation	
West Linn	DATED: JAN 2000
	DRAWING NO.: WL-514
	FILE NO.: 00-514

STANDARD 1" WATER SERVICE DETAIL
NOT TO SCALE

WEST LINN CASEFILE SUB05-03 / ZC05-05 / VAR05-03

CONSTRUCTION DOCUMENTS

STANDARD DETAILS
SIENNA ESTATES
City of West Linn, Clackamas County, Oregon

SAM L PAP
2799 LANCASTER STREET
WEST LINN, OREGON 97068
(503) 888-2254

CIVIL ENGINEERING
DEVELOPMENT CONSULTING
LANDSCAPE ARCHITECTURE
LANPACIFIC
5125 SW Macadam, Suite 140, Portland, Oregon 97239
503 | 238-2097 FAX: 503 | 238-2447
www.lanpacific.com

REGISTERED PROFESSIONAL ENGINEER
OREGON
JULY 10, 2001
J. SCOTT EMERSON
EXP. 12/31/09

RECORD DRAWING
1/18/08
THESE RECORD DRAWINGS HAVE BEEN PREPARED, IN PART, ON THE BASIS OF INFORMATION COMPILED AND FURNISHED BY THE CONTRACTOR, REVISED CONSTRUCTION PLANS, AND FIELD OBSERVATIONS DURING CONSTRUCTION.

DATE	1/18/08
DRAWN	JSE
DESIGNED	JSE
CHECKED	RGN
PROJECT #	SLP04-001

SHEET TITLE
STANDARD DETAILS

SHEET NUMBER
C022