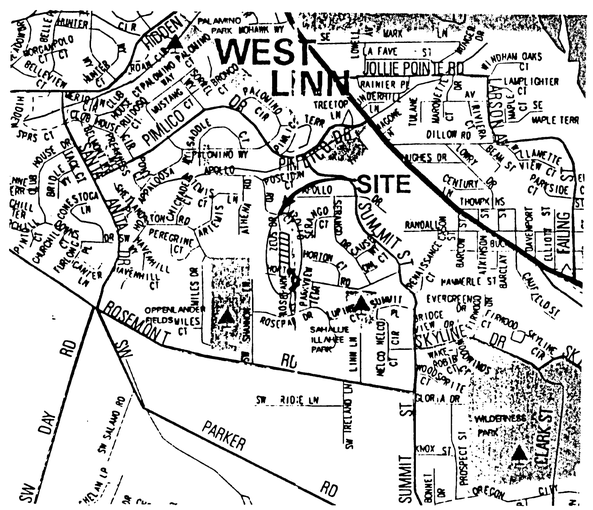
SHANNON TERRACE

OCTOBER, 1997

DEVELOPED BY

PROGRESSIVE HOLDINGS, INC.

5591 No. 3 Road
Richmond, British Columbia V6X 2C7
PHONE NO. (604) 273-6655
FAX NO. (604) 270-8238



VICINITY MAP

INDEX

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AS BUILTS

DECISION

Based upon th[illegible] [illegible]ementioned findings, including findings of [illegible] Planning Director hereby approv[illegible] application, SUB-97-03/ZC-97-02, a 15-l[illegible] Shannon Terrace. The [illegible]ing Director has determined that the follow[illegible] [illegible]TIONS OF APPROVA[illegible] [illegible]propriate.

1. Side [illegible] [illegible]tback for lots 1 and 15 shall be 7-1/2 feet [illegible] [illegible]ey at [illegible]-PUD prope[illegible]
2. The [illegible] backs of lots 10, 9, 8, and 3 shall be 20 fee[illegible] [illegible]ldin[illegible] that [illegible] area, inc[illegible]ding decks and porches.
3. Lot [illegible]2 will not permitted to extend any decks [illegible] [illegible]ures generally [illegible] [illegible]nd no[illegible] [illegible]he storm and sanitary sewer easement at t[illegible] [illegible]the [illegible]. No c[illegible] [illegible]n the easements is permitted
4. [illegible] trees identified at the east edge of lot 11 sh[illegible] [illegible]ect[illegible]. Also, [illegible]gias [illegible] north edge of lot 15 shall be saved. Protect[illegible] [illegible]e by installing a s[illegible]ow fe[illegible] [illegible]et beyond the drip lines prior to site clearing
5. All sanita[illegible] sewer and storm drainage shall be by gravi[illegible] [illegible] pump facilities will [illegible] permitted. The only exception would be where a privat[illegible] [illegible]operty owner installe[illegible] individual pump in a City approved containment facility so that no off-site noise could be detected. All utilities shall be installed as submitted and per construction code standards.
6. Street imp[illegible]ovements shall be built purusant to cross sections, profiles [illegible]nd plans of Sheet 5 (of 8) and [illegible]ursuant to CDC Chapter 92.
7. The applic[illegible]nt is hereby advised of the possibility of a water moratoriu[illegible] in this pressure zone that [illegible]ay restrict or limit the development of this subdivision.
8. Fire hydr[illegible]s shall be installed pursuant to Fire Departme[illegible] and const[illegible]tion code spacing standards
9. No grading shall occur outside of proposed grading areas [illegible]rior to issuance of building permits
10. Plat shall [illegible]entify all public utility easements and convey rights of access to City for purpose of maintenance and upgrades as needed.
11. Right-of-w[illegible]y width modification on Zeus Drive is permitt[illegible] [illegible] event that the adjacent property is subdivided. Lots may be modified accordingl[illegible] [illegible] Planning Director's review.
12. There shall be no tree removal except in graded areas or by permit.
13. All erosion control shall be in place per construction code

I/We declare to have no interest in the outcome of this decision due [illegible] some past or present involvement with the applicant, the subject property, or surrounding properties, and therefore, can render an impartial decision. The provisions of the Community Development Code Chapter 99 have been met.

8-20-97
DATE

DAN DRENTLAW, Planning Director

8-20-97
DATE

DAVE MONSON, City Engineer

Appeals to this decision must be filed with the West Linn Planning Department within 14 days of date of mailing. Appeal cost is $250 and must include specific grounds or basis for appeal. This decision shall become effective 14 days from the date of mailing below

Approval will lapse one year from the effective date of approval unless an extension is obtained.

Mailed this 21 day of Aug, 1997.

p:\devrw\staff reports\sub9703.sr

SISUL ENGINEERING
375 PORTLAND AVENUE
GLADSTONE, OR 97027

CITY OF WEST LINN
2042 8TH AVENUE
WEST LINN, OR 97068
656-4211

MOST RECENT REVISION TO THIS SET OF PLANS:
2-17-00

REGISTERED PROFESSIONAL ENGINEER
OREGON
MAY 18 1993
PATRICK A. SISUL
2/17/00

Shannon

General Notes:
1. The Design Engineer will be responsible for inspection of the proposed improvements with oversight from the City's Public Works and Engineering staff.
2. 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.
3. The contractor is to receive the approval of the Engineer and the City of any proposed changes to the plans or standard requirements.
4. A Building Department Plumbing Permit is required for utilities beyond the first cleanout or meter on private property.
5. A Public Improvement Guarantee Agreement, a pre-construction meeting with the City of West Linn, and installation of erosion control measures are required prior to beginning construction.
6. 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. A City representative must be present at all testing and the City shall be furnished a copy of all test results.
West Linn 10-11-99

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, 650-1411; TCI Cable - Linda Petersen, 605-4987, U.S. West Communications - Lori Dorney 242-4596, Northwest Natural Gas - Scott Palmer 721-2447.
West Linn 8-10-98

Construction Staking Notes:
The Developer has contracted with Gaylord Land Surveying (654-1492) to provide construction staking as outlined below. The contractor is to give the Surveyor at least a week notice of when the first construction staking will be needed. After the initial staking on the project, requests for staking should be given at least 3 working days (72 hours) in advance of when staking is desired. When called to the site for staking the Surveyor will stake each phase of the project in a manner that is most efficient for the Surveyor. Additional staking requested by the contractor or restaking required due to the contractor's carelessness will be charged to the contractor. In addition, if survey control monuments (which will be plainly identified) are destroyed by the contractor, the contractor will be charged for the re-establishment of the monuments. Staking to be provided is as follows:
1. Sanitary sewer cut stakes at the following stations, 10', 25', 50', 100', and every 100' thereafter, following each manhole.
2. Storm drain cut stakes at the following stations, 10', 25', 50', 100', and every 100' thereafter, following each manhole or catch basin.
3. Rough grade stakes for street coring set on centerline at 50 foot stations. Extra stakes will be provided in cul-de-sacs and street knuckles.
4. Set temporary front corners at water service locations and stake waterline angle points and fire hydrant locations (after street coring).
5. Set curb stakes at 50 foot stations on the tangent and 25 foot stations in the curves.
6. Mark property line locations on curbs for private utilities.
Gaylord 3-9-93
D:\SPECS\GAYLORD\STAKING

Water Supply
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 strength is to be 2000 psi. See details for thrust block sizing. Pour thrust blocks against undisturbed earth.
4. Gate valves shall be a double disc type conforming to AWWA C500. Butterfly valves shall be Class 150 B short body type in conformance with AWWA C504. Valve boxes shall be Rich Model 925 or equal.
5. Fire hydrants shall conform to and shall be installed in accordance with APWA Division IV, Section 404. Pumper outlet is to face the direction of access. Acceptable models are Mueller Centurion or Clow Medallion.
6. Granular backfill (3/4"-0) is to be compacted to 95% maximum dry density per AASHTO T 99 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 APWA Division IV, Section 401.
7. Service laterals shall be type K copper. Lateral sizes shall be 1". For double services two 1" water services 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.
8. All waterlines will be pressure tested and purification tested before connection to the city water system. Pressure test shall be conducted at 180 psi and shall meet the requirements of APWA, Division IV, Section 402.3.04.
9. Disinfection shall conform with APWA Division 4, Section 402.3.05.
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.
West Linn 10-11-99

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, straw bales, 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.
5. All erosion control facilities shall meet the requirements of the Clackamas County Department of Utilities, Erosion Prevention and Sediment Control Plans Technical Guidance Handbook, revised August, 1994 and the Oregon Administrative Rules.
West Linn 12-22-97

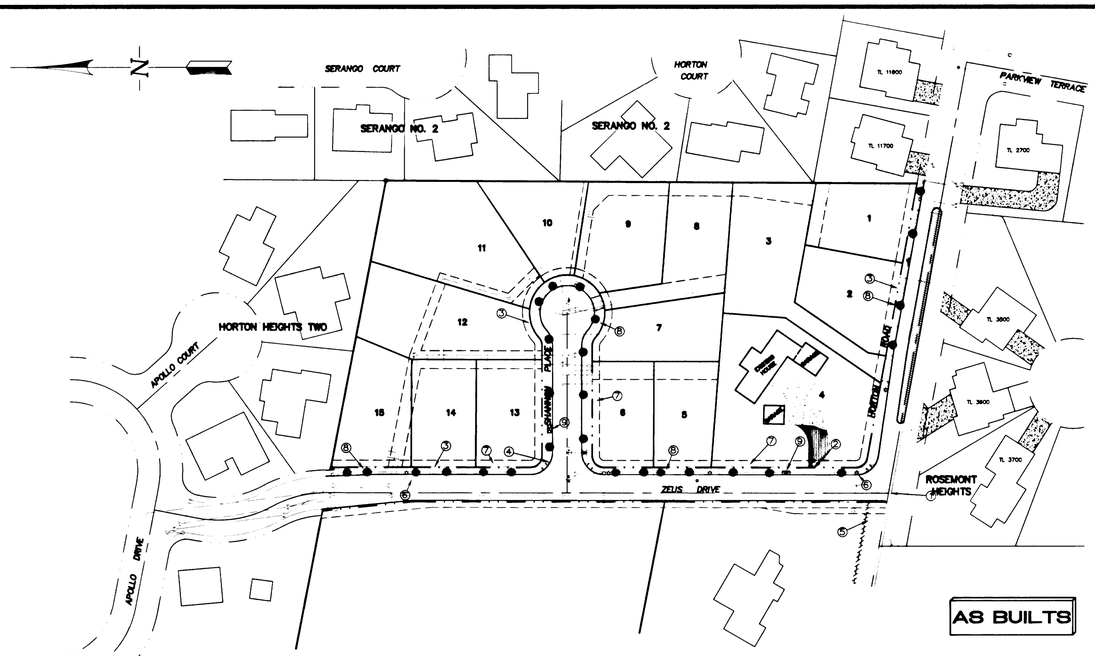
Vertical Control:
Vertical control is based upon City of West Linn sanitary sewer as-built records elevation. Sanitary Sewer Manhole 2C-4-0-15-2, located in the Horton Road right-of-way near Shannon Lane, rim elevation 620.41.
Shannon Terrace 96-091 12-29-97

Sanitary Sewer:
1. Pipe shall be PVC sewer pipe conforming to ASTM D-3034-SDR 35. Minimum stiffness shall be 46 psi and joint type shall be elastomeric gasket conforming to ASTM D-3212.
2. Manhole base shall be poured in-place concrete base with a minimum compressive strength of 2500 psi or precast. 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 (3/4"-0) is to be compacted to 95% maximum dry density per AASHTO T-99 test method and native material shall be compacted to 85% of in-place dry density of surrounding soil.
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 painted green.
7. Sanitary sewer pipe and appurtenances shall be tested for leakage in accordance with APWA Division III requirements. Leakage tests will include required APWA air pressure test for sewer lines and required APWA vacuum test of manholes. 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 APWA, Division III, Section 303.3.11. All tests shall be witnessed by the Engineer and the City of West Linn. All tests shall be passed and new line shall be accepted prior to connection to existing system.
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 Street/Utility Construction Standards, with APWA's Standard Specifications for Public Works Construction, and with the Uniform Plumbing Code.
West Linn 10-11-99

Storm Drains:
1. Ten inch and larger storm drain pipe shall be Class 3, non-reinforced, concrete pipe conforming to ASTM C14, PVC pipe conforming to ASTM D-3034 or seamless PVC pipe conforming to ASTM F794. (PW Rib). Where required, reinforced concrete pipe shall conform to ASTM C-76, Class IV. Rubber joints are required for all concrete pipe. Eight inch and smaller storm drain pipe shall conform to ASTM D-3034 PVC pipe.
2. Large diameter storm drain detention pipe shall be corrugated aluminum pipe conforming to AASHTO M-196 and M-197 (12 gauge).
3. Gutter inlets shall be poured in-place concrete with a minimum compressive strength of 3000 psi. Frame shall be fabricated of structural steel, ASTM A-7, A-36, A-273.
4. 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 will manhole manufacturer for actual size needed for type of pipe to be used.
5. 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.
6. Cleanout pipe, fittings, and joints shall be the same specifications as for pipe. Castings are shown on detail and shall conform to ASTM A48 (Grade 30). Cleanout riser shall match downstream pipe diameter.
7. Granular backfill is to be compacted to 95% maximum dry density per AASHTO T-99 test method and native material shall be compacted to 85% of in-place dry density of surrounding soil.
8. Riprap where noted on the plans is to be Class 50 in accordance with Oregon State Highway Division specification 714.
9. 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 per APWA, Division III, Section 303.3.11. All tests shall be witnessed by the Engineer.
10. A plumbing permit from the City of West Linn Building Department is required for storm drains beyond the first cleanout.
11. A backwater check valve shall be installed on the 4" roof drain service to Lot 11 and any other lot that has the end of its roof drain stub located below the detention overflow elevation. These check valves shall be a CanPlas 3284 4" ABS valve or other equal low pressure valve.
12. All materials, installation, tests, and inspections to be in strict accordance with APWA's Standard Specifications for Public Works Construction and the supplemental standards and specifications of the City of West Linn Street/Utility Design and Construction Standards.
Shannon Terrace 96-091 12-22-97

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.
2. Street subgrade shall conform to APWA Division II, Section 206. 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 APWA Division II, Section 206.3.05. Such testing will be at the contractor's expense.
3. Aggregate base rock shall conform to the requirements of APWA Division II, Section 207. 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 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 APWA Division II, Section 211. 1 1/2" base lift shall be Class 'B' A.C. and 1 1/2" final lift shall be Class 'C' A.C. as per APWA Division II, Section 211.2.01. The top lift of asphalt concrete shall not be placed prior to receiving permission from the City of West Linn Engineering Department.
5. Construct curb and gutter using 3000 psi concrete (after 28 days) 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. Handicap ramps shall be located at each curb return 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 APWA's Standard Specifications for Public Works Construction and the supplemental standards and specifications of the City of West Linn Street/Utility Design and Construction Standards.
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.
West Linn 10-11-99

General Grading and Erosion Control (Commercial/Industrial):
1. Excess excavated material from building, parking, or trench areas must be removed from the site. If noted on the civil or landscape plans, suitable native material may be used for landscape berms and other similar features. All disturbed landscape areas should be covered with strippings from the site unless specific soil preparation notes or other landscaping specifics have been noted for the landscape plans for the project.
2. During construction, straw bales, 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.
Gen. grading 11-28-97



① ELEVATION BENCH MARK MONUMENT TO BE SET AT INTERSECTION OF HORTON ROAD & ZEUS DRIVE.

② SIDEWALK ALONG LOTS 3 & 4 FRONTAGE TO BE CONSTRUCTED WITH SUBDIVISION IMPROVEMENTS.

③ REMAINING SIDEWALKS TO BE CONSTRUCTED DURING HOME BUILDING PHASE.

④ TRAFFIC CONTROL AND STREET NAME SIGNS TO BE INSTALLED BY THE CITY WITH SIGN & INSTALLATION COSTS PAID BY THE DEVELOPER.

⑤ DEAD END STREET SIGN TO BE INSTALLED BY THE CITY WITH SIGN & INSTALLATION COSTS PAID BY THE DEVELOPER.

⑥ STREET LIGHT LOCATIONS AS DESIGNED BY R.J. ROUSE ELECTRIC. INSTALLATION OF LIGHTS IS THE RESPONSIBILITY OF THE DEVELOPER.

⑦ UNDERGROUND UTILITIES TO BE LOCATED IN PUBLIC UTILITY EASEMENT. UTILITIES SHALL INCLUDE P.G.E., TCI CABLE TELEVISION, U.S. WEST TELEPHONE & NORTHWEST NATURAL GAS.

⑧ APPROXIMATE LOCATION OF STREET TREES SHOWN. FINAL STREET TREE LOCATIONS TO BE DETERMINED BY THE CITY OF WEST LINN PARKS DEPARTMENT.

⑨ APPROXIMATE LOCATION OF MAILBOXES SHOWN. FINAL LOCATIONS TO BE DETERMINED BY THE U.S. POSTAL SERVICE.

Seeding/Mulching:
1. All areas disturbed during construction to be graded to drain and compacted to a minimum of 90% of AASHTO T-99 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 or 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, upslope 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.
Erosion Control 6/29/95

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 straw bales or a sediment fence where noted in the details or where sediment will cross outside the work area.
   c) Where excavated material is placed on hard surfaces (such as streets) material must be broomed or scraped clean as soon as possible.
   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 such as hay bales and silt fences must remain in place until seeded areas show growth substantial to prevent erosion.

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 a month, or within 24 hours following a storm event.
7. At no time shall more than one foot of sediment be allowed to accumulate within a trapped catch basin. All catch basins and conveyance lines shall be cleaned prior to paving. The cleaning operation shall not flush sediment laden water into the downstream system.
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.

REGISTERED PROFESSIONAL ENGINEER
#16,951
EXP. 12/30/00
OREGON
MAY 18, 1993
PATRICK A. SISUL
2/17/00

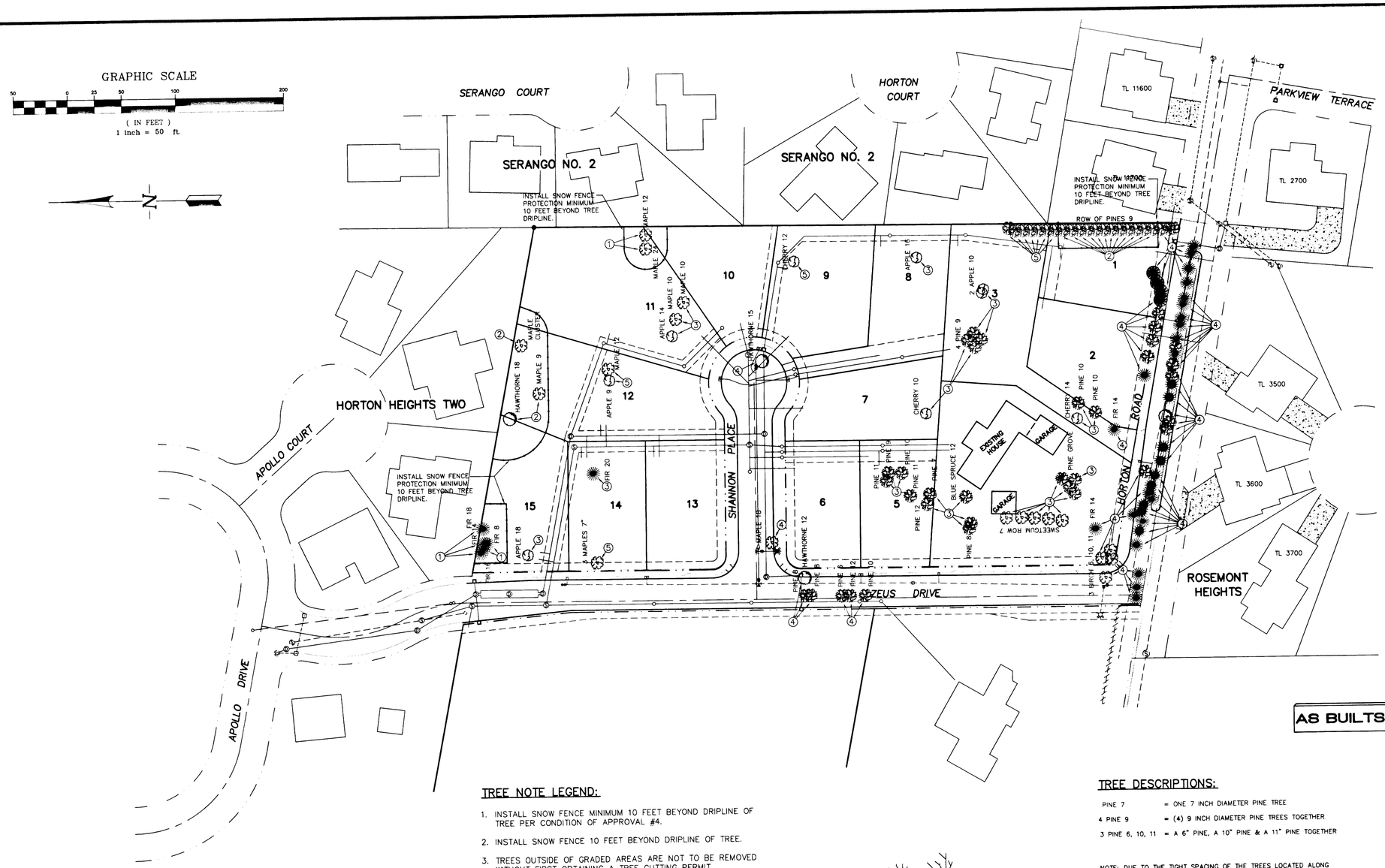
REVISIONS	BY
REVISE NOTES & ADD SITE PLAN W/ GH 92 IMPROVS PER 1st REVIEW	PS 12/24/97
REVISE STREET LIGHT LOCATIONS PER ROUSE ELECTRIC DESIGN	PS 3/5/98
REVISE PER NEIGHBORS COMMENTS 12/18/98	JH
AS-BUILT 12/31/99	LD

SHANNON TERRACE
PROGRESSIVE HOLDINGS

Notes

SISUL ENGINEERING
375 PORTLAND AVENUE
GLADSTONE, OREGON 97027
(503) 657-0188

DATE OCT. 1997
SCALE H: NA V: NA
DRAWN PS
JOB 96-091
SHEET 1 OF 10 SHEETS



AS BUILTS

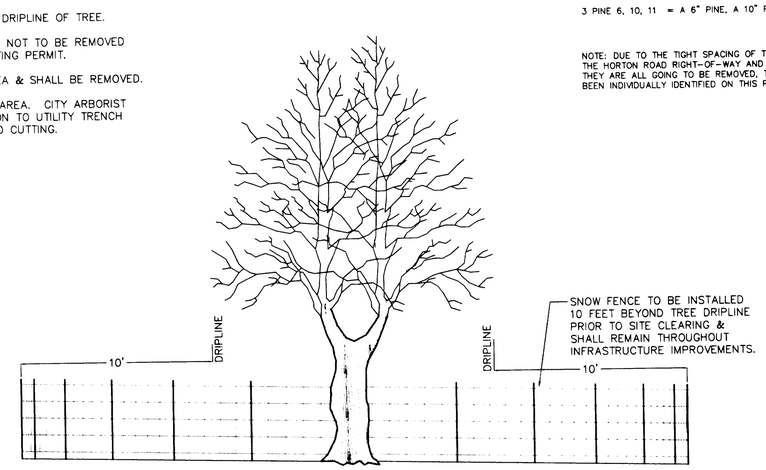
TREE NOTE LEGEND:

1. INSTALL SNOW FENCE MINIMUM 10 FEET BEYOND DRIPLINE OF TREE PER CONDITION OF APPROVAL #4.
2. INSTALL SNOW FENCE 10 FEET BEYOND DRIPLINE OF TREE.
3. TREES OUTSIDE OF GRADED AREAS ARE NOT TO BE REMOVED WITHOUT FIRST OBTAINING A TREE CUTTING PERMIT.
4. TREE LOCATED IN STREET GRADING AREA & SHALL BE REMOVED.
5. TREE LOCATED IN UTILITY EXCAVATION AREA. CITY ARBORIST TO EXAMINE TREE LOCATION IN RELATION TO UTILITY TRENCH AND APPROVE ALL REMOVALS PRIOR TO CUTTING.

TREE DESCRIPTIONS:

PINE 7	= ONE 7 INCH DIAMETER PINE TREE
4 PINE 9	= (4) 9 INCH DIAMETER PINE TREES TOGETHER
3 PINE 6, 10, 11	= A 6" PINE, A 10" PINE & A 11" PINE TOGETHER

NOTE: DUE TO THE TIGHT SPACING OF THE TREES LOCATED ALONG THE HORTON ROAD RIGHT-OF-WAY AND GIVEN THE FACT THAT THEY ARE ALL GOING TO BE REMOVED, THESE TREES HAVE NOT BEEN INDIVIDUALLY IDENTIFIED ON THIS PLAN.



SNOW FENCE DETAIL

N.T.S.

REGISTERED PROFESSIONAL ENGINEER #10,551 OREGON MAY 18, 1993 PATRICK A. SISUL

2/17/00

REVISIONS	BY
REVISE PLAN AND NOTES PER 1st CITY REVIEW	PS 2/24/97
REVISE PER NEIGHBORS COMMENTS 7/18/98	JH
AS-BUILT 12/31/99	LD

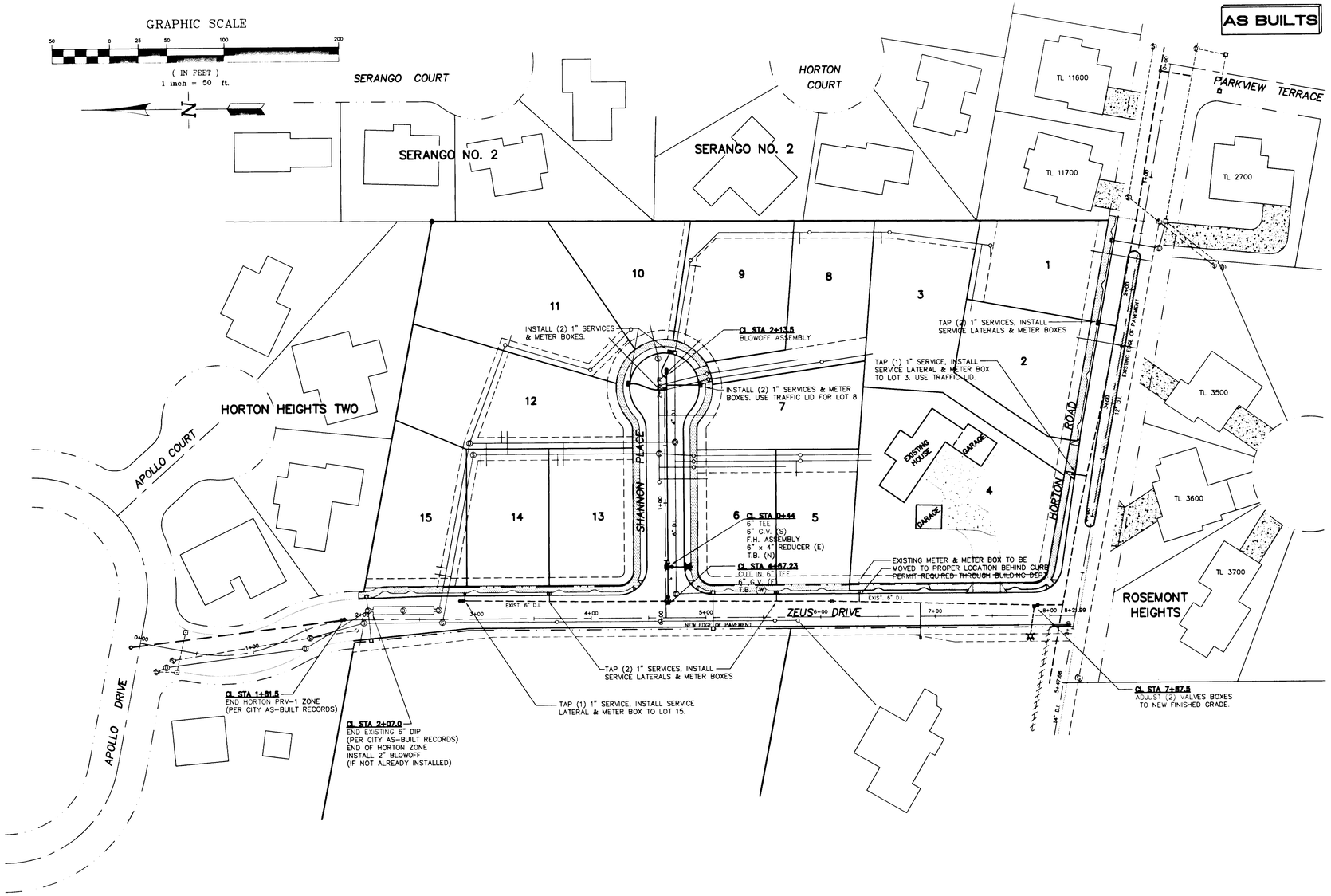
SHANNON TERRACE

PROGRESSIVE HOLDINGS

Tree Impact Plan & Protection Detail

SISUL ENGINEERING
375 PORTLAND AVENUE
GLADSTONE, OREGON 97027
(503) 657-0188

DATE	OCT. 1997
SCALE	H: 1" = 50'
DRAWN	PS
JOB	96-091
SHEET	2
OF	10 SHEETS



REVISIONS	BY
REVISE HORTON AND 6" TEE PER CITY'S 1st REVIEW	PS 12/24/97
REVISED PER NEIGHBORS COMMENTS 12/18/98	JPT
AS-BUILT 12/31/99	LD

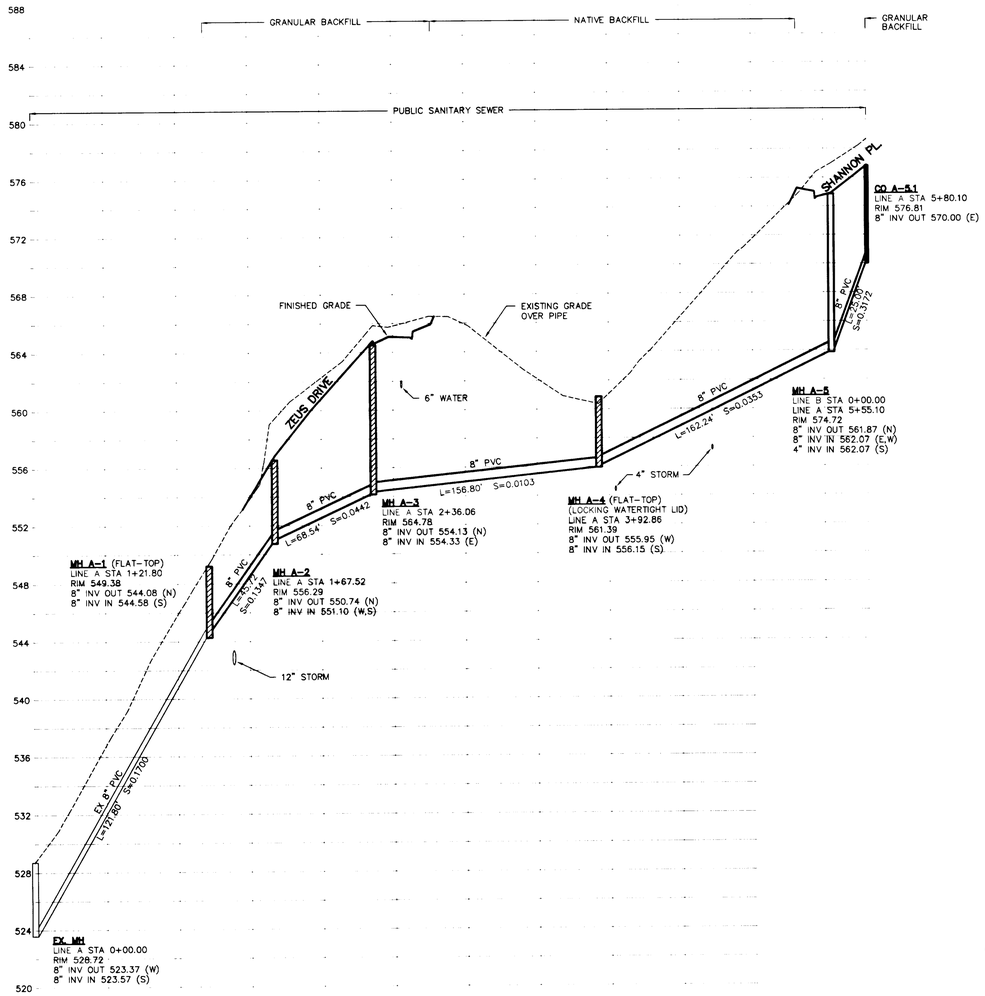
SHANNON TERRACE
PROGRESSIVE HOLDINGS

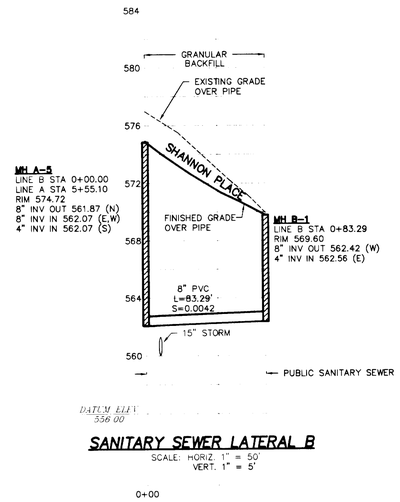
Waterline Plan

SISUL ENGINEERING
375 PORTLAND AVENUE
GLADSTONE, OREGON 97027
(503) 657-0188

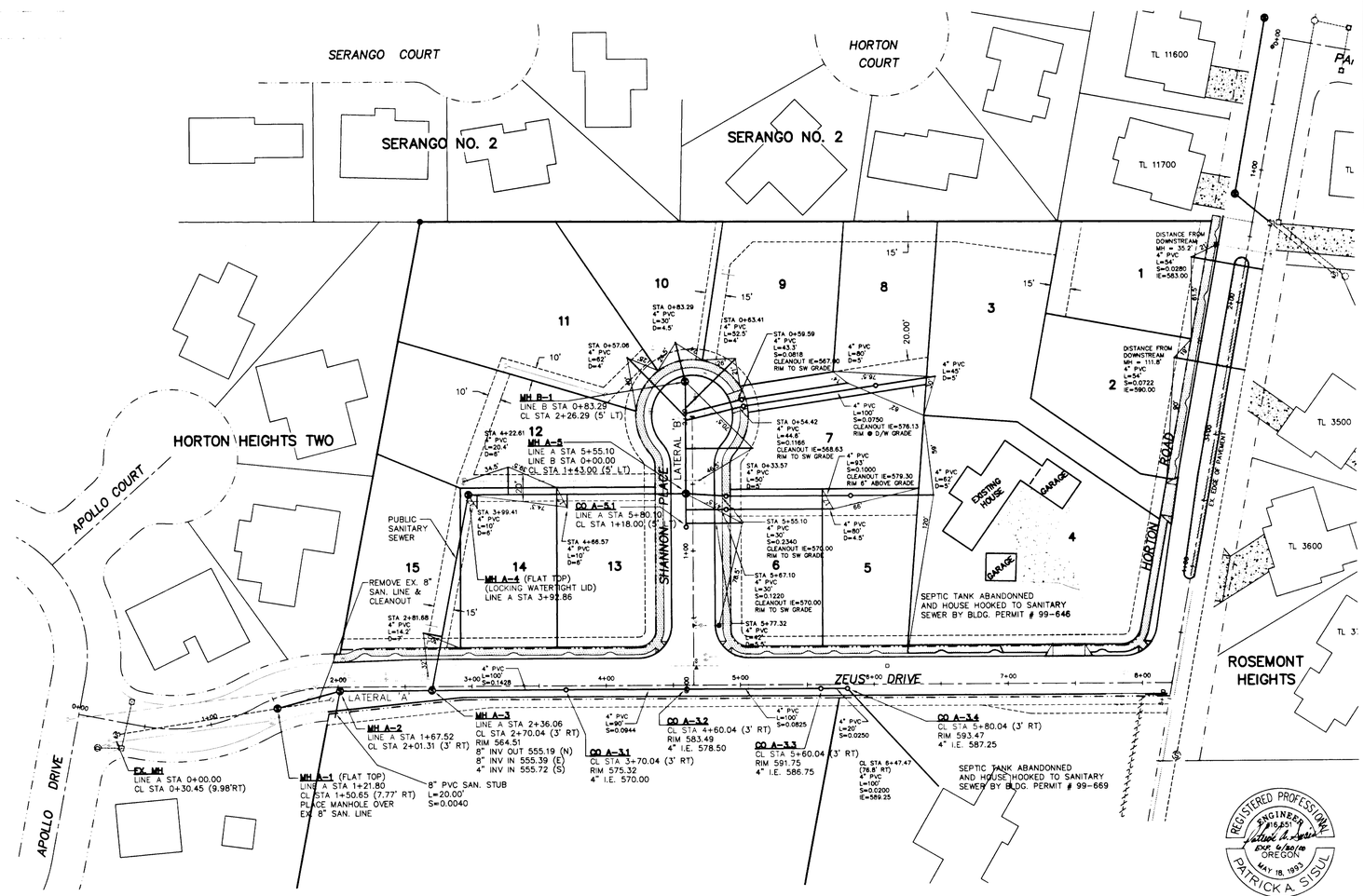
REGISTERED PROFESSIONAL ENGINEER
PATRICK A. SISUL
OREGON
MAY 18, 1982
EXP. 6/30/00
2/17/00

DATE	OCT. 1997
SCALE	H: 1" = 50'
DRAWN	PS
JOB	96-091
SHEET	3
OF	10 SHEETS





AS BUILTS



REGISTERED PROFESSIONAL ENGINEER 16,851 PATRICK A. SISUL OREGON MAY 18, 1993
2/17/00

REVISIONS	BY
REVISED PER DEQ REVIEW 1/15/98	PS
REVISED PER CITY REVIEW 03/06/98	GAW
REVISED PER NEW PLAN DESIGN AND ADDED GAS LATERAL TO PL. POINT. ADDED 1" GAS INT. ADDED SLOPE ESMT. 11/20/98	JM 11/2/98
REVISED PER NEIGHBORS COMMENTS. 12/18/98	JM
AS-BUILT 12/31/99	LD

SHANNON TERRACE
PROGRESSIVE HOLDINGS

Sanitary Sewer Plan and Profile

SISUL ENGINEERING
375 PORTLAND AVENUE
GLADSTONE, OREGON 97027
(503) 657-0188

DATE	OCT. 1997
SCALE	H: 1" = 50' V: 1" = 5'
DRAWN	PS
JOB	96-91
SHEET	4
OF	10 SHEETS

GRAPHIC SCALE

50 0 25 50 100 200

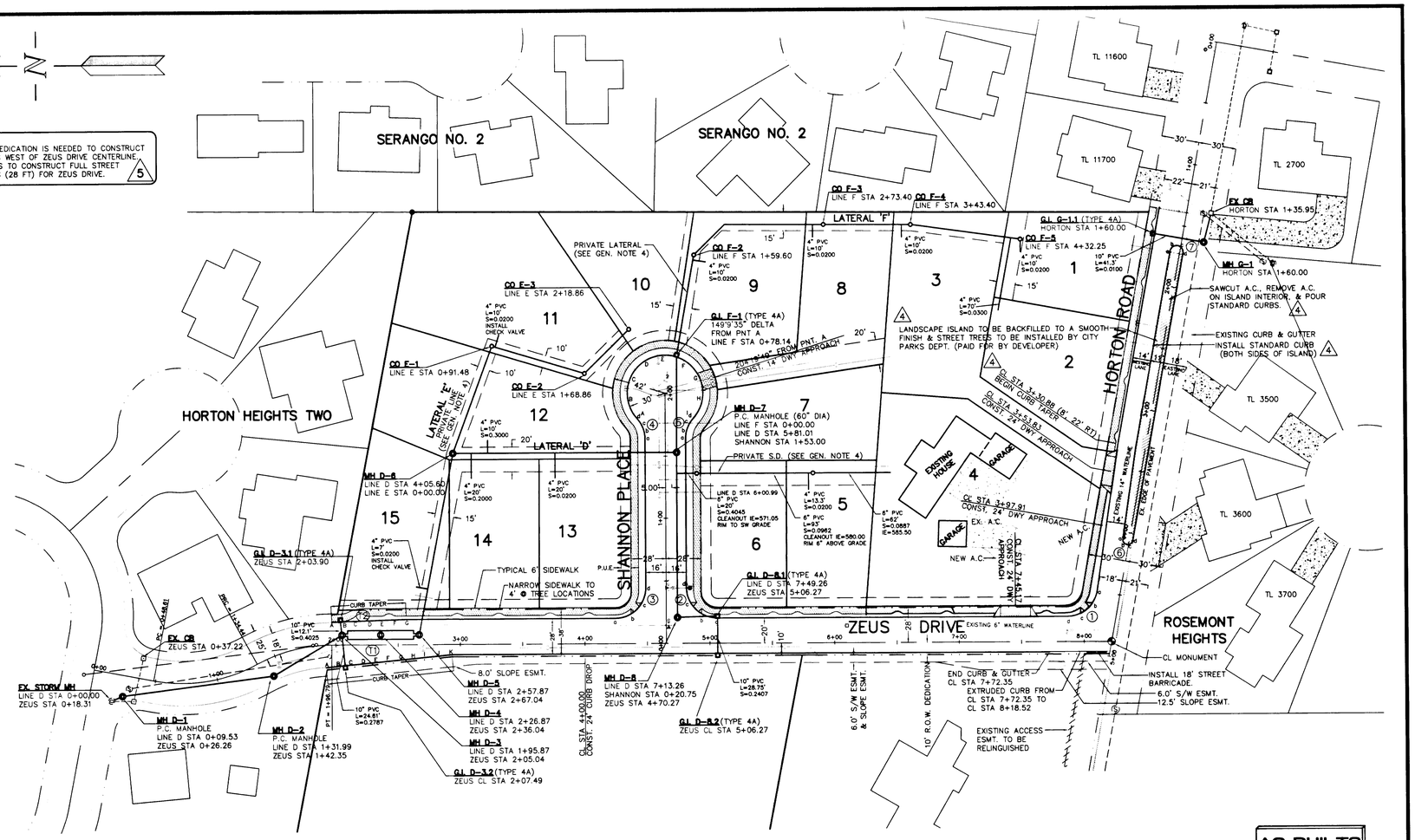
(IN FEET)
1 inch = 50 ft.

NOTES:
1. EASEMENT & DEDICATION IS NEEDED TO CONSTRUCT IMPROVEMENTS WEST OF ZEUS DRIVE CENTERLINE.
2. CONTRACTOR IS TO CONSTRUCT FULL STREET IMPROVEMENTS (28 FT) FOR ZEUS DRIVE. 5

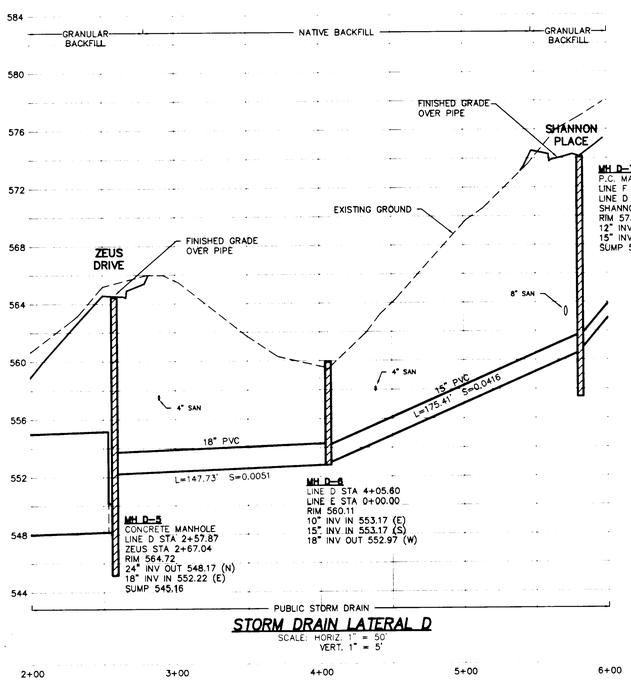
	ZEUS CURB TAPER ⑪		ZEUS CURB TAPER ⑫	
POINT	STATION & OFFSET	TC ELEV.	STATION & OFFSET	TC ELEV.
END TC	1+88.24 (17.94' RT)	554.66	1+92.07 (18.11' LT)	555.75
A	1+92.58 (17.94' RT)	555.28	1+96.79 (18.11' LT)	556.39
B	2+03.19 (17.00' RT)	556.78	2+06.79 (18.33' LT)	557.71
C	2+13.19 (16.00 RT)	558.12	2+16.79 (18.67' LT)	558.97
D	2+23.19 (15.00' RT)	559.43	2+26.79 (19.00' LT)	560.19
E	2+33.19 (14.00' RT)	561.90	2+36.79 (19.33' LT)	561.37
F	2+43.19 (13.00' RT)	563.06	2+46.49 (19.67' LT)	562.48
G	2+53.19 (12.00' RT)	563.16	2+56.79 (20.00' LT)	563.56
H	2+63.19 (11.00' RT)	564.18	------ ------	----
I	2+73.19 (10.00' RT)	565.31	------ ------	----
J	2+83.19 (9.00' RT)	566.43	------ ------	----
K	2+93.19 (8.00' RT)	567.54	------ ------	----

SHANNON PLACE CUL-DE-SAC / RADIUS = 30'		
POINT	DELTA ANGLE FROM PRC	TC ELEV.
A (PRC)	0° 00' 00"	572.14
B	32° 57' 02"	571.21
C	65° 54' 03"	570.55
D	98° 51' 05"	570.15
E	131° 48' 07"	570.02
F	164° 45' 08"	570.10
G	197° 42' 10"	570.50
H	230° 39' 11"	571.01
I (PRC)	263° 36' 13"	572.14

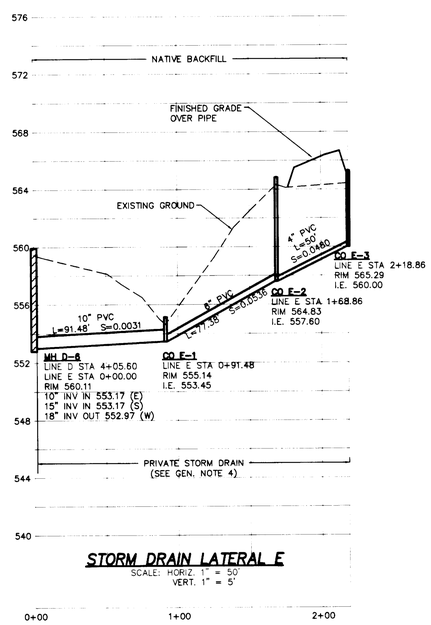
CURB RETURN DATA: (ELEVATIONS ARE TOP OF CURB)					
CURB	DATA	a	b	c	d
①	Δ = 81°41'18" R = 25.00' L = 35.64'	612.23 HORTON ROAD 4+49.04 (18' RT)	612.98	613.58	613.56 ZEUS DRIVE 7+86.36 (20' LT)
②	Δ = 90°00'00" R = 25.00' L = 39.27'	587.38 ZEUS DRIVE 5+06.27 (20' LT)	585.80	583.91	582.51 SHANNON PL. 0+44.00 (16' RT)
③	Δ = 90°00'00" R = 25.00' L = 39.27'	580.45 ZEUS DRIVE 4+24.27 (20' LT)	581.62	582.50	582.51 SHANNON PL. 0+44.00 (16' LT)
④	Δ = 41°48'07" R = 25.00' L = 18.24'	573.38 SHANNON PLACE 1+64.05 (16' LT)	572.95	572.53	572.14 PRC
⑤	Δ = 41°48'07" R = 25.00' L = 18.24'	573.38 SHANNON PLACE 1+64.05 (16' LT)	572.95	572.53	572.14 PRC
⑥	Δ = 178°05'27" R = 4.25' L = 13.21'	609.97 HORTON ROAD 4+05.72 (5.5' RT)	–	–	609.92 HORTON ROAD 4+05.58 (3' LT)
⑦	Δ = 180°00'00" R = 5.50' L = 17.28'	589.80 HORTON ROAD 1+71.42 (8' RT)	–	–	589.71 HORTON ROAD 1+71.42 (3' LT)



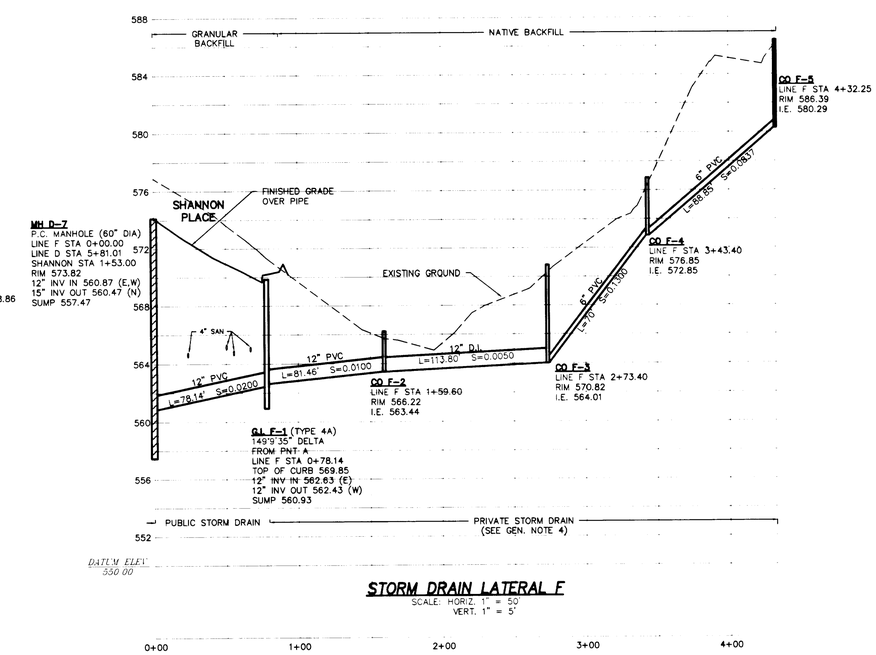
AS BUILTS



STORM DRAIN LATERAL D
SCALE: HORIZ. 1" = 50' VERT. 1" = 5'



STORM DRAIN LATERAL E
SCALE: HORIZ. 1" = 50' VERT. 1" = 5'



STORM DRAIN LATERAL F
SCALE: HORIZ. 1" = 50' VERT. 1" = 5'

REGISTERED PROFESSIONAL ENGINEER 25,818,551 OREGON MAY 18, 1993 PATRICK A. SISUL
2/17/00

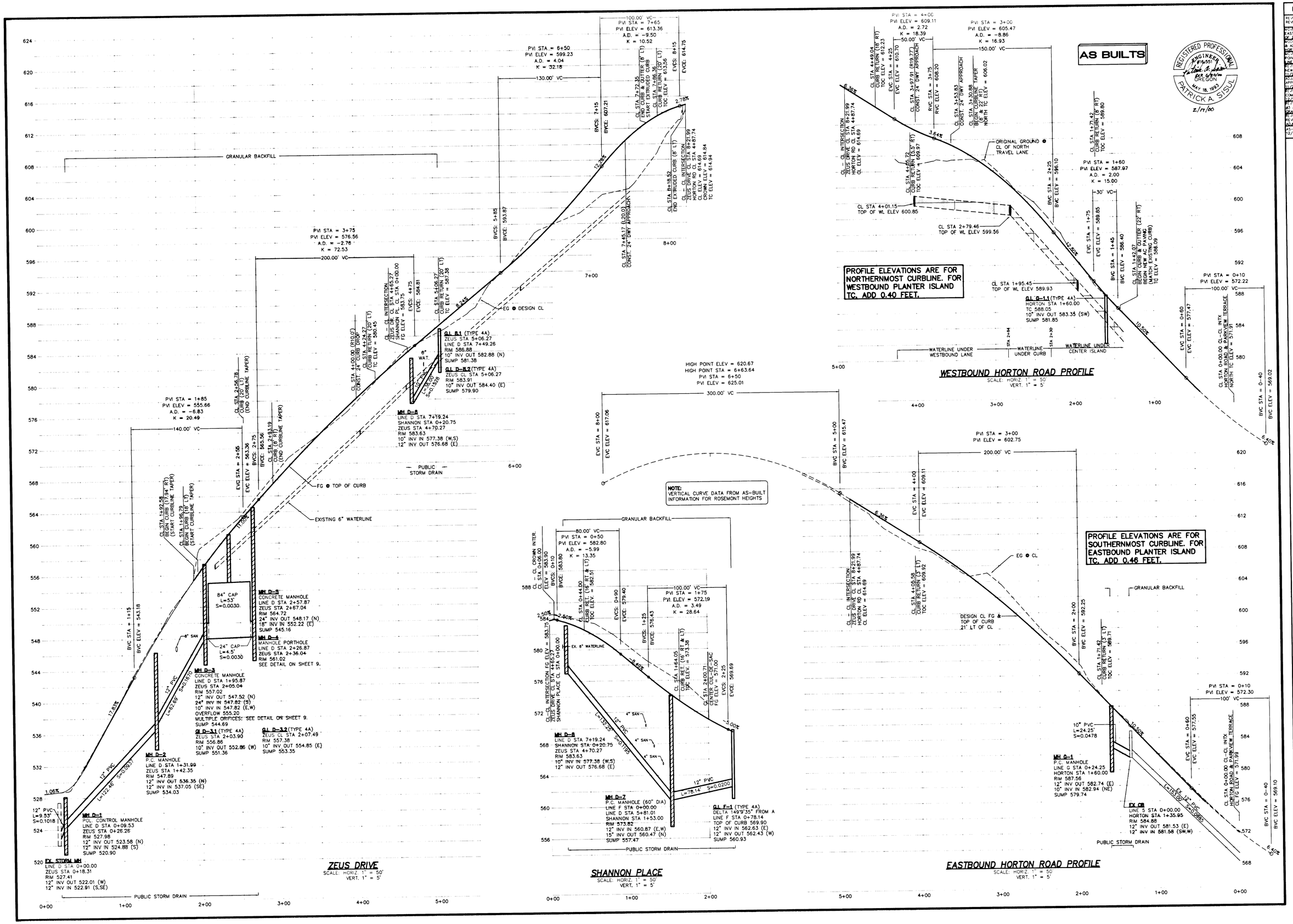
REVISIONS	BY
REVISED PER CITY REVIEW 03/06/98	GAM
ADDED SAN & SD @ EAST AT NORTH END OF ZEUS DR.	GAM 5/11/98
REVISED SLOPE TO 9' & ADD ISLAND TO HORTON RD.	PS 7/27/98
ADDED SLANT STAKE POINT & CREATED CATCH LINE ON ZEUS DRIVE	GAM 8/2/98
REVISED PER RLS PER NEW DESIGN. 11/2/98	JH
ADDED RAMP APPROACHES & ADDED SLOPE ESMT. 11/20/98	JH
REVISED PER NEIGHBORS COMMENTS. 12/18/98	JH
REVISE SLANT FOR RLS REVISE ZEUS PROFILE. ADDED CBS BETS 4-6	PS 8/18/99
AS-BUILT 12/31/99	LD

SHANNON TERRACE
PROGRESSIVE HOLDINGS

Street and Storm Drain Plan and Profile

SISUL ENGINEERING
375 PORTLAND AVENUE
GLADSTONE, OREGON 97027
(503) 657-0188

DATE	OCT. 1997
SCALE	H: 1" = 50' V: 1" = 5'
DRAWN	GAM
JOB	96-91
SHEET	5
OF	10 SHEETS



REVISIONS	BY
REVISED PER CITY REVIEW 03/06/98	GAM
MOVE SAN & SC B EAST AT NORTH END OF ZEUS DR.	PS 2/11/98
MOVE SL & SC "B" & ADD ISLAND TO HORTON RD.	PS 7/27/98
REVISED ISLAND START POINT & CREATED CATCH LINE ON ZEUS DRIVE.	GAM 9/2/98
REVISED PLANS PER NEW DESIGN. 11/2/98	JH
REVISED DRIVEWAY APPROACH LOCATIONS 11/20/98	JH
REVISED PER NEIGHBOR COMMENTS 12/18/98	JH
REVISED ISLAND PER CONC. AS AND REVISED STREET GRADES. 6/21/99	JH
REVISED PLANS FOR BIDS REVISE ZEUS PROFILE. ADJUST CBS RETS 4-6	PS 8/18/99
AS-BUILT 12/31/99	LD

REGISTERED PROFESSIONAL ENGINEER
PATRICK A. SISUL
OREGON
MAY 18, 1993
2/17/00

SHANNON TERRACE
PROGRESSIVE HOLDINGS

Street and Storm Drain Profile

SISUL ENGINEERING
375 PORTLAND AVENUE
GLADSTONE, OREGON 97027
(503) 657-0188

DATE	OCT. 1997
SCALE	H: 1" = 50' V: 1" = 5'
DRAWN	GAM
JOB	96-91
SHEET	6 OF 10 SHEETS

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

ORIGINAL GROUND 2' CONTOUR

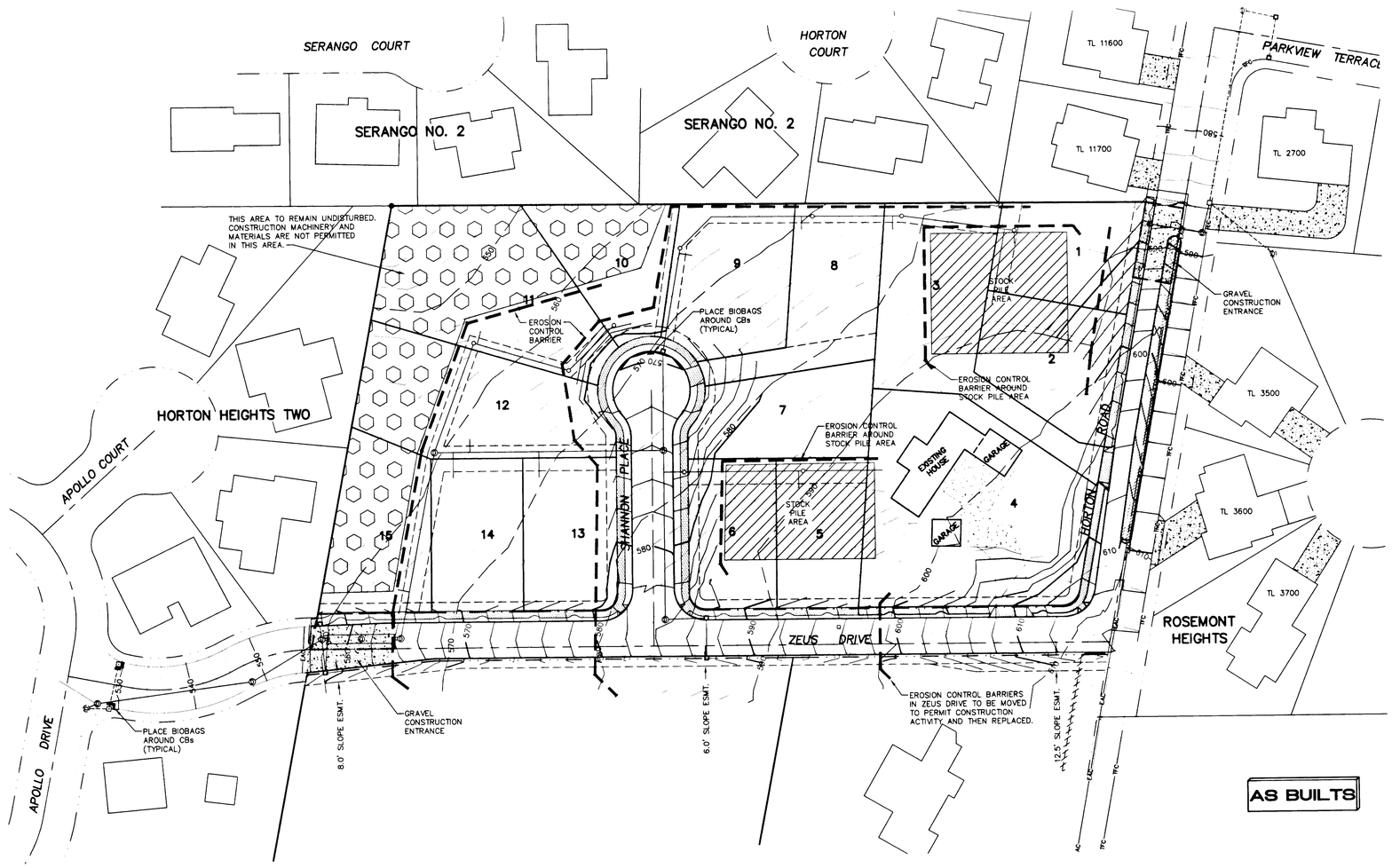
600 ORIGINAL GROUND 10' CONTOUR

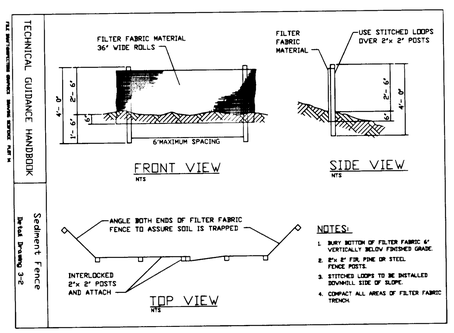
PROPOSED 2' CONTOUR

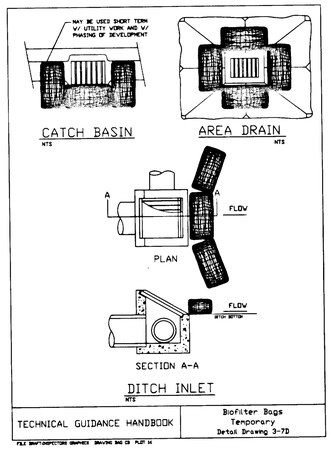
600 PROPOSED 10' CONTOUR

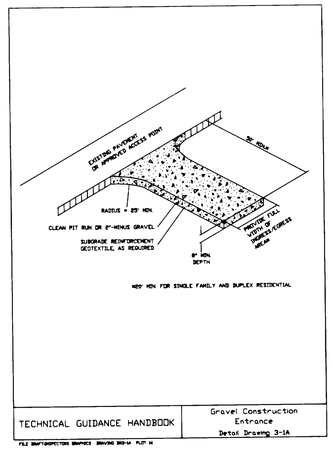
ESTIMATED EARTHWORK QUANTITIES (QUANTITIES ARE FROM EG TO SUBGRADE)	
STRIPPINGS (9" DEEP)	2150 CU. YARDS
STREET CUT TRENCHLINES	2475 CU. YARDS 2500 CU. YARDS
STREET FILL	2500 CU. YARDS
NET VOLUME (CUT)	2475 CU. YARDS

NOTE:
STRIPPINGS & EXCAVATION MATERIAL TO BE PLACED IN STOCK PILE AREA & SPREAD OUT TO A MAXIMUM OF 6" OVER DISTURBED AREAS. A BUILDING DEPARTMENT STOCKPILE PERMIT IS REQUIRED TO PUT STRIPPINGS/EMBANKMENT MATERIALS IN STOCKPILE AREAS.









REGISTERED PROFESSIONAL ENGINEER
PATRICK A. SISUL
OREGON
MAY 18, 1993
2/17/00

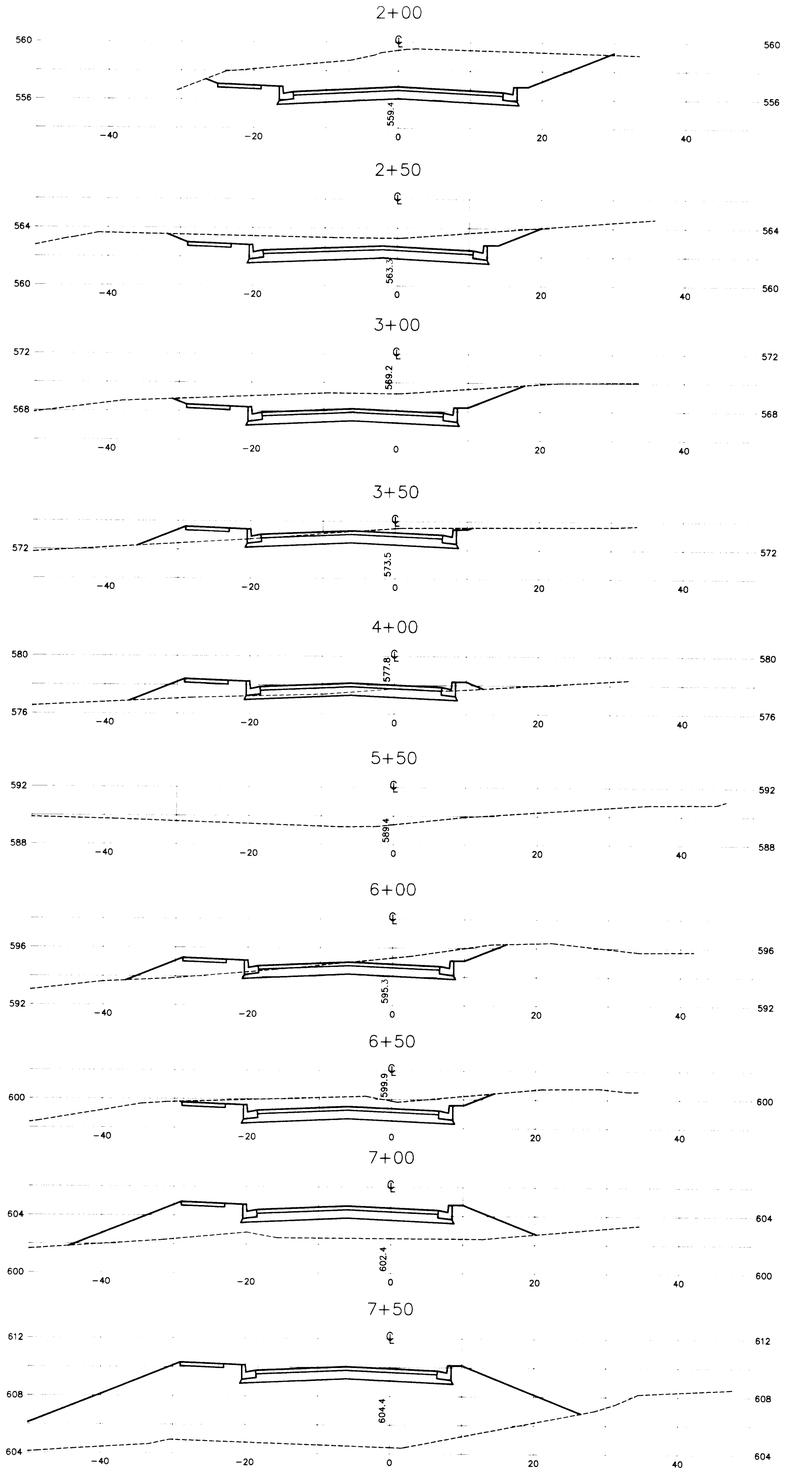
REVISIONS	BY
REVISE STOCKPILE NOTE PER CITY'S 1st REVIEW	RS 12/24/97
REVISE TO MATCH NEW STREET DESIGN 11/2/98	JH
ADJUSTED DRIVE AND ADDED SLOPE ESMT. 11/20/98	JH
REVISE PER NEIGHBORS COMMENTS 12/18/98	JH
AS-BUILT 12/31/99	LD

SHANNON TERRACE
PROGRESSIVE HOLDINGS

Grading and Erosion Control Plan

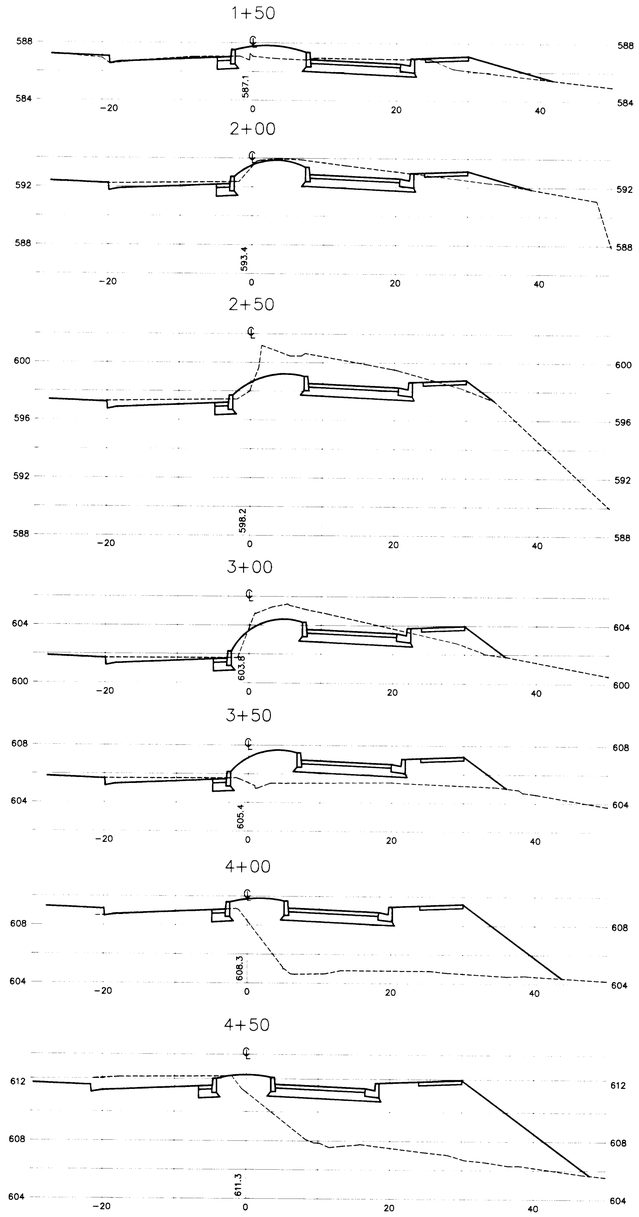
SISUL ENGINEERING
375 PORTLAND AVENUE
GLADSTONE, OREGON 97027
(503) 657-0188

DATE	OCT. 1997
SCALE	1" = 50'
DRAWN	GAM
JOB	96-91
SHEET	7
OF	10 SHEETS



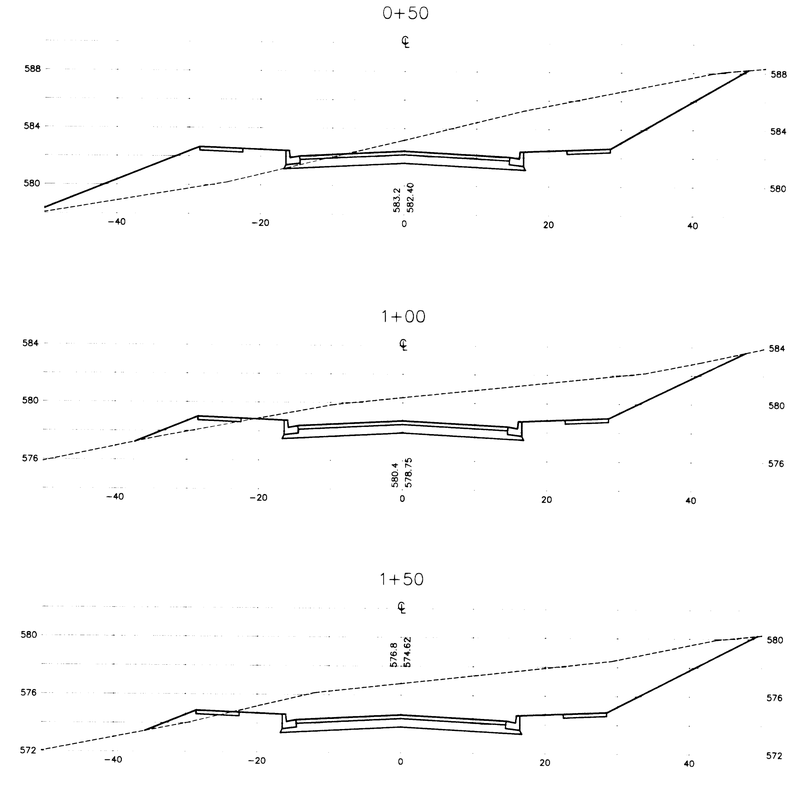
ZEUS DRIVE

SCALE: HORZ: 1" = 10'
VERT: 1" = 5'



HORTON ROAD

SCALE: HORZ: 1" = 10'
VERT: 1" = 5'



SHANNON PLACE

SCALE: HORZ: 1" = 10'
VERT: 1" = 5'

AS BUILTS

REGISTERED PROFESSIONAL ENGINEER
OREGON
MAY 18, 1993
PATRICK A. SISUL
2/17/00

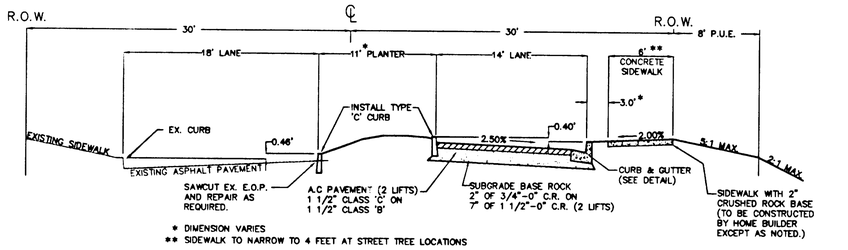
REVISIONS	BY
REVISE CROSS SECTIONS TO MATCH NEW STREET DESIGN 11/2/98	JH
AS-BUILT 12/31/99	LD

SHANNON TERRACE
PROGRESSIVE HOLDINGS

Cross Sections
(Zeus Drive, Horton Road
& Shannon Place)

SISUL ENGINEERING
375 PORTLAND AVENUE
GLADSTONE, OREGON 97027
(503) 657-0188

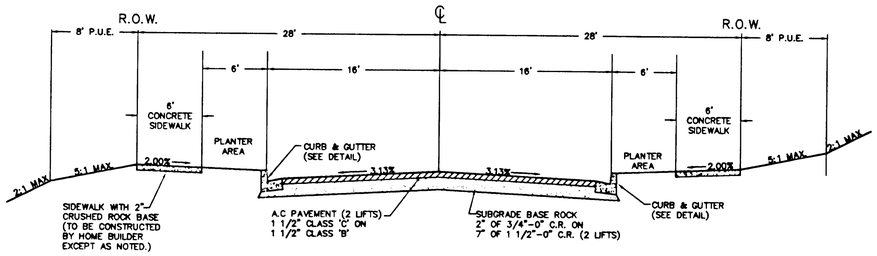
DATE OCT. 1997
SCALE H: 1" = 10' V: 1" = 5'
DRAWN GAM
JOB 96-91
SHEET 8 OF 10 SHEETS



TYPICAL CROSS SECTION

HORTON ROAD

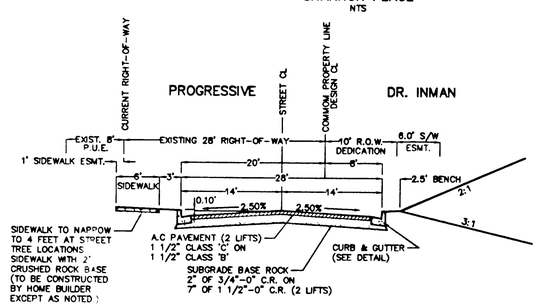
NTS



TYPICAL CROSS SECTION

SHANNON PLACE

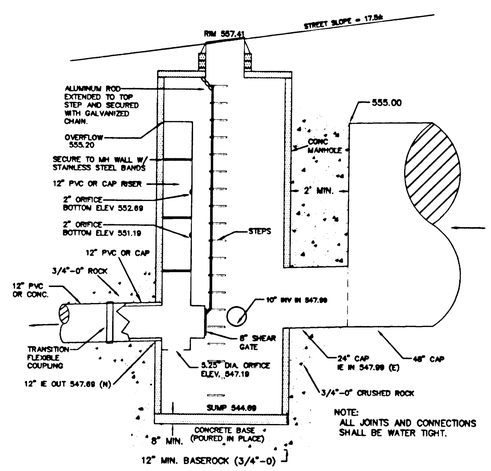
NTS



PROPOSED CROSS SECTION

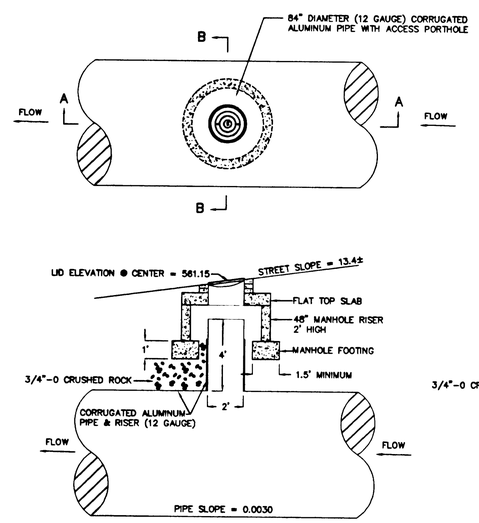
ZEUS DRIVE

NTS

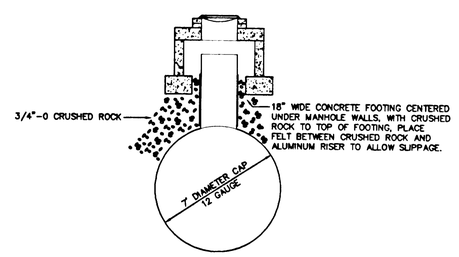


MANHOLE D-3

NTS



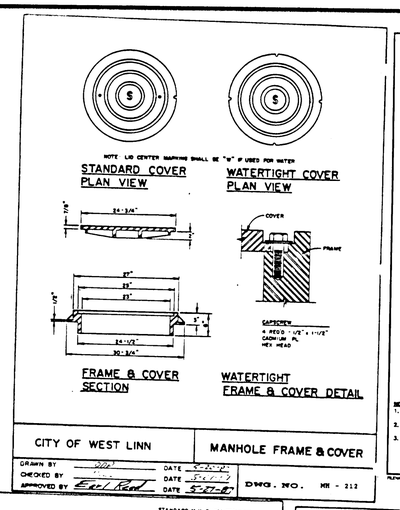
SECTION A-A

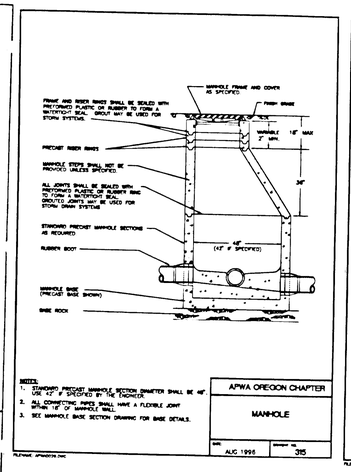


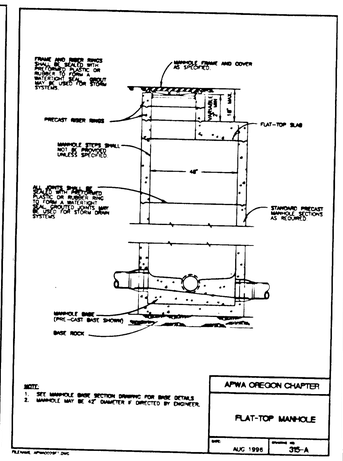
SECTION B-B

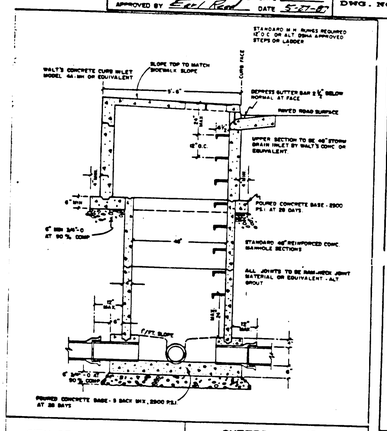
MANHOLE PORTHOLE D-4

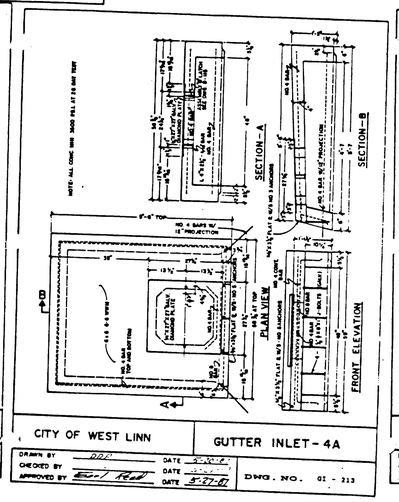
NTS

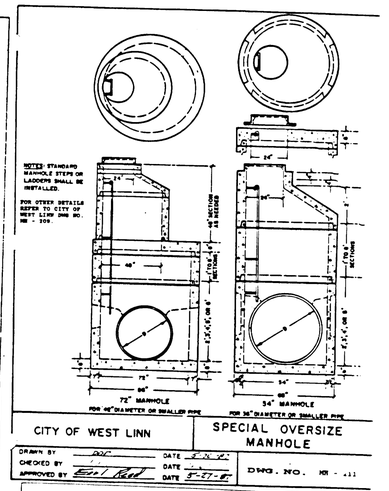


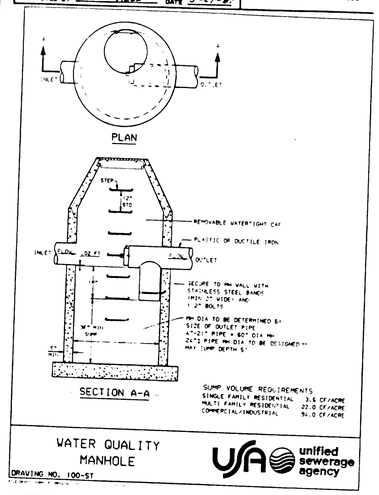












AS BUILTS

REGISTERED PROFESSIONAL ENGINEER
OREGON
MAY 18 1981
PATRICK A. SISUL
2/17/00

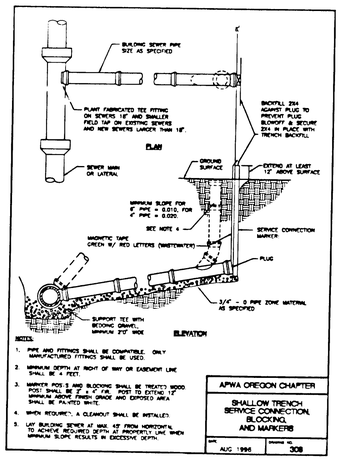
REVISIONS	BY
& MH DETAILS PER CITY	PS
MH DETAILS 12/26/97	
TO MATCH NEW STREET DESIGN 11/2/98	JH

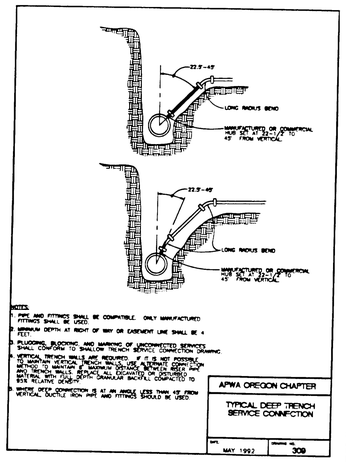
SHANNON TERRACE
PROGRESSIVE HOLDINGS

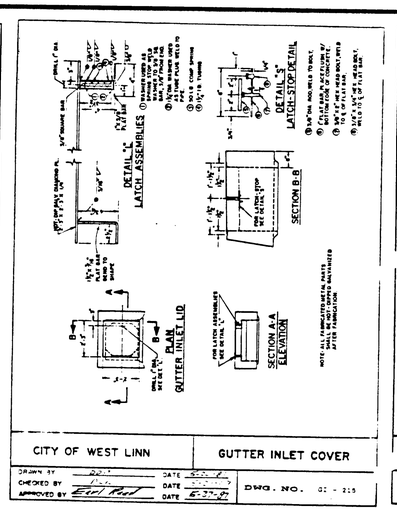
Details & Typical Cross Sections (Zeus Drive, Horton Road & Shannon Place)

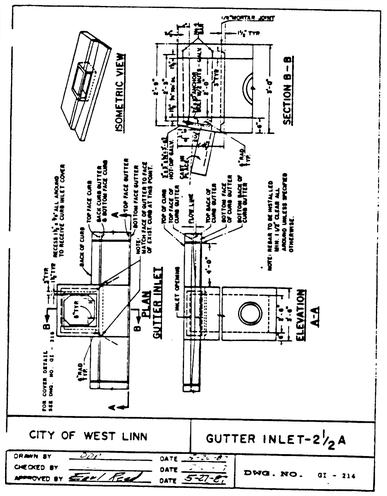
SISUL ENGINEERING
375 PORTLAND AVENUE
GLADSTONE, OREGON 97027
(503) 657-0188

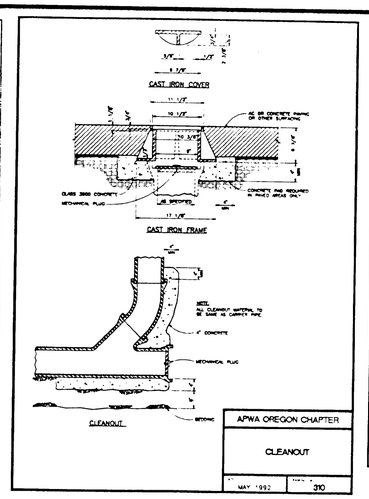
DATE	OCT. 1997
SCALE	NONE
DRAWN	GAM
JOB	96-91
SHEET	9
OF	10 SHEETS

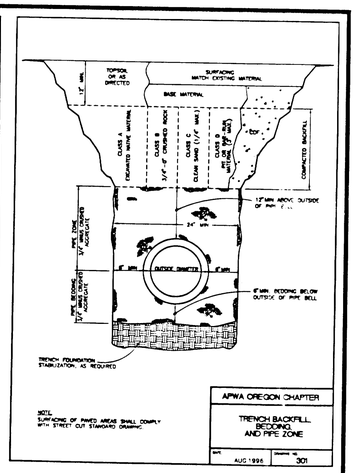


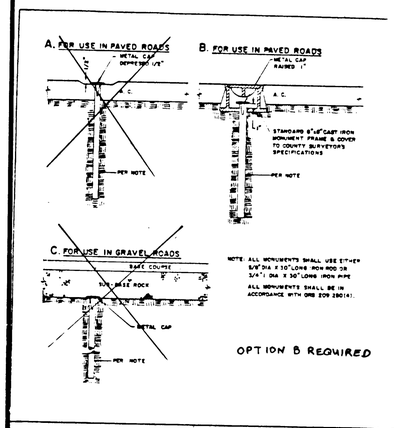


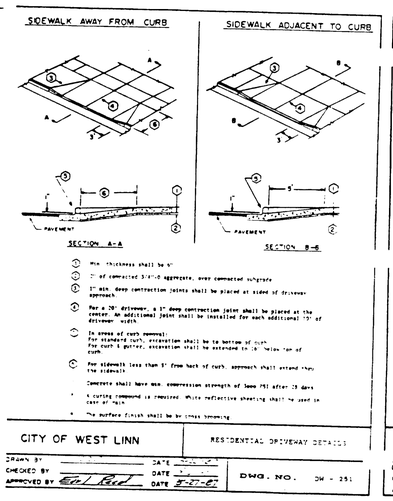


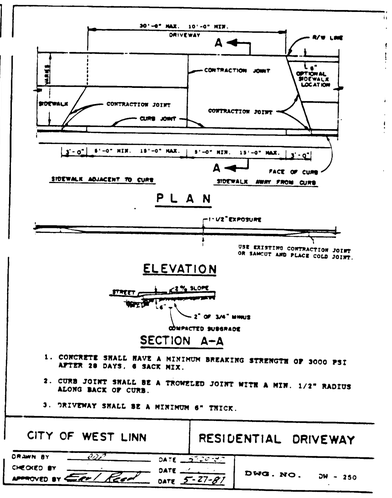


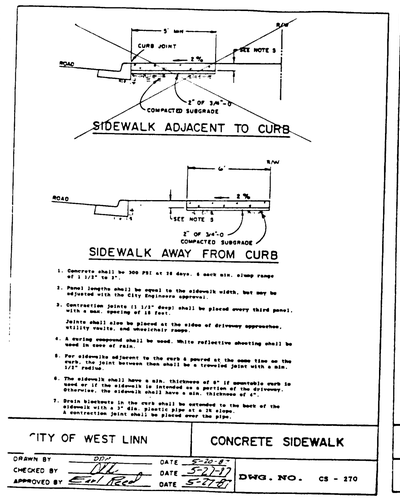


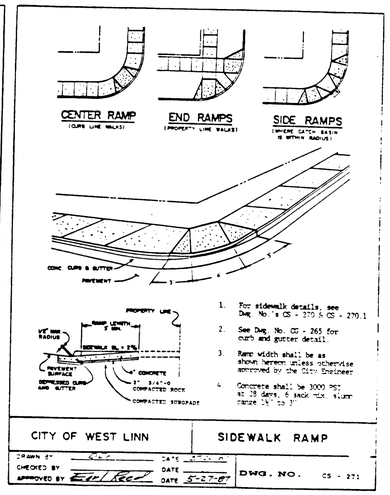


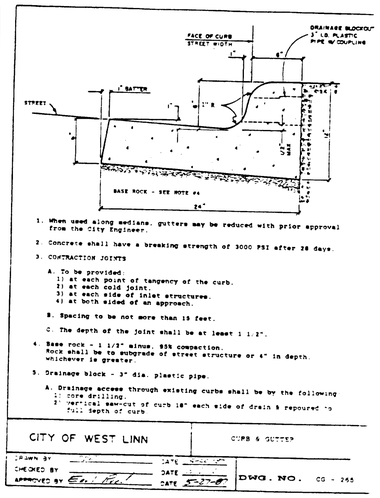


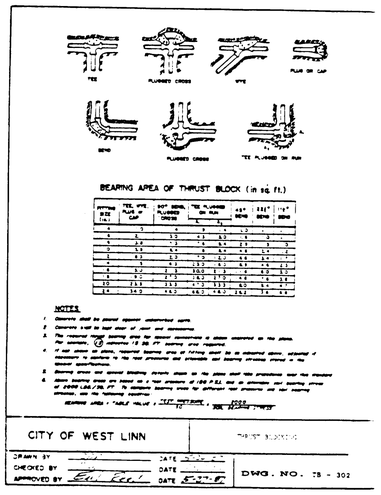


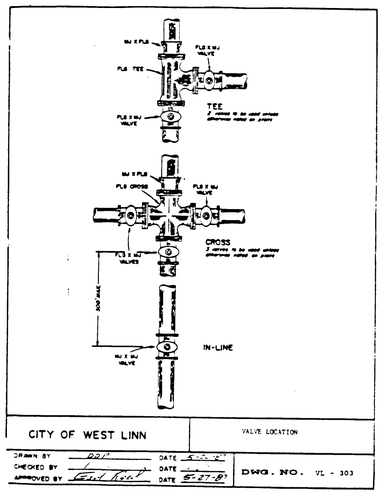


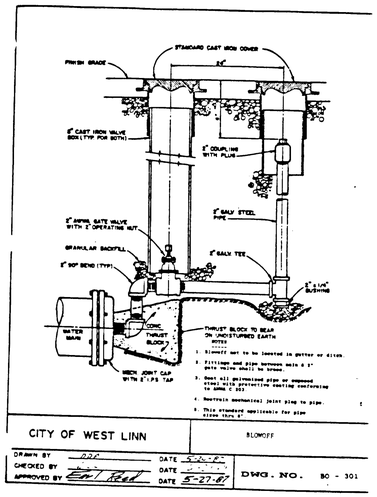


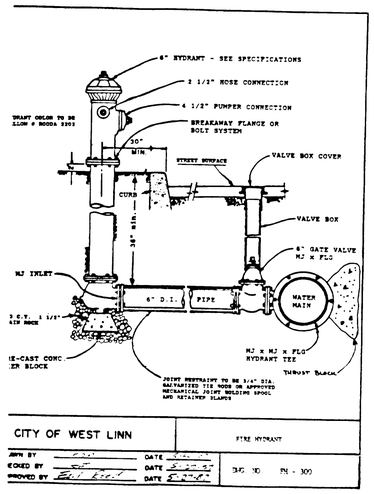


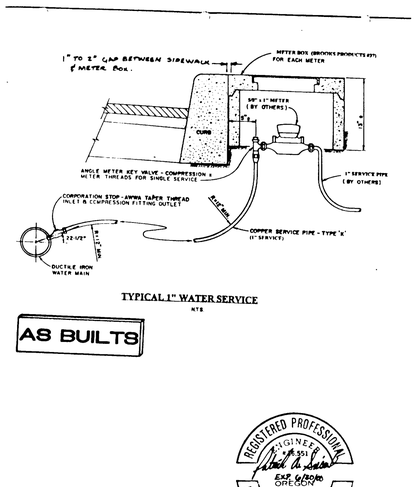












REVISIONS	BY
Revise Wordmark & Water Service Dwg. per City Im Services	DS

SHANNON TERRACE
PROGRESSIVE HOLDINGS

Details

SISUL ENGINEERING
375 PORTLAND AVENUE
GLADSTONE, OREGON 97027
(503) 657-0188

DATE	OCT. 1997
SCALE	H. NA V. NA
DRAWN	PS
JOB	96-091
SHEET	10
OF	10 SHEETS

REGISTERED PROFESSIONAL ENGINEER PATRICK A. SISUL EXP. 6/30/98 OREGON MAY 18, 1993

2/17/98