ROYAL RIDGE TOWNHOUSES

located in the

CITY OF WEST LINN, CLACKAMAS COUNTY, OREGON

GENERAL NOTES

1 ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CITY OF WEST LINN SPECIFICATIONS, THE APWA (OREGON CHAPTER) STANDARD SPECIFICATION AND DRAWINGS (1990), THE STATE OF OREGON PLUMBING CODE, THE OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY, THE OREGON DEPARTMENT OF HUMAN RESOURCES, AND AS APPROVED AND NOTED ON THESE DRAWINGS.

2 CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS AND LICENSES BEFORE STARTING CONSTRUCTION. CONTRACTOR SHALL CONTACT THE CITY OF WEST LINN 24 HOURS PRIOR TO BEGINNING ANY WORK TO BE ACCEPTED BY THE CITY.

3 CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION ANY DISCREPANCIES BETWEEN THE CONSTRUCTION DRAWINGS AND THE ACTUAL SITE CONDITIONS SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER FOR MODIFICATION IF NECESSARY.

4 ANY ALTERATION OR VARIANCE FROM THESE PLANS, EXCEPT MINOR FIELD ADJUSTMENTS NEEDED TO MEET EXISTING CONDITIONS, SHALL FIRST BE APPROVED BY THE APPLICABLE AGENCY REPRESENTATIVE. ANY ALTERATION OR VARIENCE TO THESE PLANS SHALL BE DOCUMENTED ON CONSTRUCTION FIELD PRINTS AND TRANSMITTED TO THE PROJECT ENGINEER. ALL ALTERATIONS OR VARIANCES SHALL BE FORWARDED FROM THE PROJECT ENGINEER TO THE CITY WESTLINN FOR APPROVAL.

5 EXISTING UTILITY LOCATIONS SHOWN ARE APPROXIMATE ONLY AND MUST BE VERIFIED BY THE CONTRACTOR. ADDITIONAL UNDERGROUND UTILITIES MAY EXIST.

6 CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORATION OF ALL DAMAGE OR DESTRUCTION OF PROPERTY MONUMENTATION OR CONSTRUCTION STAKES.

7 PRIOR TO CONSTRUCTION, EROSION CONTROL MEASURES AS NOTED ON THE PLANS MUST BE INSTALLED. THE CITY RESERVES UNTO ITSELF AND UNTO THE CONSULTING ENGINEER THE RIGHT TO REQUIRE ADDITIONAL EROSION CONTROL MEASURES WHICH SHALL BE IMMEDIATELY IMPLEMENTED WHEN REQUESTED.

8 THE CONTRACTOR MUST BE LICENSED BY THE STATE OF OREGON OR ANY OTHER LICENSING POLITICAL SUBDIVISION HAVING JURISDICTION OVER THE WORK.

9 OPEN TRENCHES SHALL BE LIMITED TO A MAXIMUM OF 100 FEET WITHIN STREET R/W UNLESS LIMITED TO A LESSER AMOUNT BY PERMIT. NO TRENCHES WILL BE ALLOWED TO REMAIN OPEN AT NIGHT.

10 THE CONTRACTOR SHALL PERFORM ALL WORK NECESSARY TO COMPLETE THIS PROJECT IN ACCORDANCE WITH THE PLAN INCLUDING SUCH INCIDENTALS AS MAY BE NECESSARY TO MEET APPLICABLE AGENCY REQUIREMENTS AND OTHERS AS NECESSARY TO PROVIDE A COMPLETE PROJECT.

11 BENCHMARK: IRON ROD IN MONUMENT BOX AT THE CENTERLINE INTERSECTION OF HALL STREET AND GREENE STREET. ELEV. = 394.10

STREET CONSTRUCTION NOTES

1 CONTRACTOR SHALL REMOVE AND DISPOSE OF TREES, STUMPS, ROOTS, BRUSH, AND OTHER ORGANIC MATERIAL IN THE WORK AREA AND WHERE INDICATED ON THE PLANS. THESE MATERIALS SHALL BE DISPOSED OF, OFF SITE, IN SUCH A MANNER AS TO MEET WITH LOCAL REGULATIONS.

2 CONTRACTOR SHALL PROVIDE THE NECESSARY EROSION PROTECTION, TO INCLUDE GRADING, DITCHING, HAY BALES, AND SILT FENCING TO MINIMIZE EROSION INTO THE ADJACENT PROPERTY.

3 THE STREET SECTION SHALL BE GRADED TO THE ELEVATIONS SHOWN ON THE DRAWINGS WITH THE NECESSARY ADJUSTMENTS TO ACCOMMODATE THE FINISHED PAVEMENT AS SPECIFIED.

4 ALL STREET GRADE CONSTRUCTION SHALL BE CONSTRUCTED PER APWA REQUIREMENTS AND WITNESSED BY THE INSPECTING ENGINEER, AND CITY INSPECTOR.

5 CONTRACTOR TO NOTIFY CITY OF WEST LINN, AND THE ENGINEER, 24-HOURS PRIOR TO STARTING CONSTRUCTION ON WORK TO BE ACCEPTED BY THE CITY.

6 CONCRETE SHALL BE MIXED BASED ON A FORMULA WHICH WILL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI IN 28-DAYS.

SANITARY SEWER

1 ALL WORK AND MATERIALS SHALL CONFORM WITH THE CITY OF WEST LINN STANDARDS (1990, APWA, OREGON CHAPTER, STANDARD SPECIFICATIONS AND DRAWINGS), FOR ALL PUBLIC SANITARY SEWER LINES.

2 ALL PRIVATE SERVICE CONNECTIONS SHALL BE A MINIMUM OF 4-INCH PVC AND INSTALLED AT A MINIMUM SLOPE OF 2% UNLESS OTHERWISE NOTED.

3 CONTRACTOR SHALL "POT HOLE" EXISTING SEWER AT CONNECTION POINT PRIOR TO ACTUAL CONSTRUCTION TO VERIFY INVERT ELEVATION.

4 ALL PVC SANITARY SEWER PIPES SHALL CONFORM TO ASTM D-3034, SDR 35, UNLESS SHOWN OTHERWISE ON THE DRAWINGS. PVC SEWER PIPE SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDED INSTALLATION PROEDURES. PVC SEWER PIPE SHALL BE CONNECTED TO CONCRETE MANHOLES BY MEANS OF AN APPROVED COUPLING WITH AN ELASTOMERIC GASKET, AN APPROVED WATERSTOP OR FLEXIBLE SLEEVE. IN ADDITION TO HYDROSTATIC OR AIR TESTING, SANITARY SEWER CONSTRUCTED OF PVC SEWER PIPE SHALL BE DEFLECTION TESTED NO LESS THAN 30-DAYS AFTER THE TRENCH BACKFILL AND COMPACTION HAS BEEN COMPLETED. THE TEST SHALL BE CONDUCTED BY PULLING AN APPROVED SOLID POINTED MANDREL (95% OF INSIDE DIAMETER) THROUGH THE COMPLETED PIPE LINES.

5 CONTRACTOR SHALL CONDUCT A TV ACCEPTANCE INSPECTION UPON COMPLETION OF ALL SEWER CONSTRUCTION.

6 PIPE BEDDING AND BACKFILL SHALL CONFORM TO THE APWA REQUIREMENTS

7 TRENCHES WITHIN THE ROADWAY OR DRIVEWAYS SHALL BE BACKFILLED WITH APWA SPEC. 3/4"-0" GRANULAR AGGREGATE. THE CONTRACTOR SHALL COMPACT EACH LIFT ABOVE THE ZONE A MINIMUM OF 95% OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T99, METHOD D. WITH MECHANICAL VIBRATORS OR IMPACT TAMPERS. SUBSEQUENT SETTLEMENT OF THE FINISH SURFACE WITHIN THE WARRENTY PERIOD SHALL BE CONSIDERED TO BE A RESULT OF IMPROPER COMPACTION AND SHALL BE PROMPTLY REPAIRED BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER.

8 ALL MANHOLES OUTSIDE THE STREET RIGHT-OF-WAY SHALL HAVE TAMPER PROOF LIDS./

9 CONTRACTOR SHALL MAINTAIN AS-CONSTRUCTED DATA INCLUDING STATION, LENGTH, AND DEPTH OF SERVICE CONNECTION, AND ANY CHANGES MADE DURING CONSTRUCTION.

10 NEW SANITARY SEWER LINES SHALL NOT BE CONNECTED TO THE CITIES EXISTING SYSTEM UNTIL TESTED AND APPROVED.

11 ALL MANHOLE RIMS OUTSIDE OF PAVED AREAS AND MAINTENANCE ROADS SHALL BE SET AT 12" ABOVE FINAL GRADE (6" ON SLOPES).

WATER SYSTEM NOTES

1 ALL WORK AND MATERIALS SHALL COMPLY WITH THE CITY OF WEST LINN STANDARDS AND SPECIFICATIONS, THE OREGON STATE HEALTH DIVISION ADMINISTRATIVE RULES CHAPTER 33, APWA AND AWWA STANDARDS.

2 ALL PIPE TO HAVE A MINIMUM COVER OF 36-INCHES BELOW THE FUTURE FINISH GRADES.

3 DUCTILE IRON PIPE TO BE TYTON JOINT CEMENT MORTAR LINES, CLASS 52, AND SHALL CONFORM TO ASTM C-110, C-150, AND C-151.

4 GATE VALVES SHALL BE DOUBLE DISK TYPE CONFORMING TO AWWA C-500, WITH RESILIENT SEATS PER AWWA C-509-80. VALVE BOXES TO BE CAST IRON, RICH MODEL 925 OR EQUAL.

5 WATER SERVICES SHALL BE COPPER TUBING TYPE "K" 1-INCH DIAMETER FOR ALL SERVICES.

6 THRUST BLOCKING: ALL TEES, PLUGS, CAPS BENDS, AND AT ALL OTHER LOCATIONS WHERE UNBALANCED FORCE EXIST SHALL REQUIRE SUITABLE THRUST BLOCKING. CONCRETE TO BE POURED AGAINST UNDISTURBED EARTH AND SHALL HAVE A STRENGTH AT 28-DAYS OF 3000 PSI.

7 HYDROSTATIC TESTS: THE TEST PRESSURE SHALL BE 190 PSI AT THE LOWEST POINT IN ANY SECTION. THE DURATION SHALL BE 60-MINUTES AND SHALL BE MONITORED BY THE ENGINEER AND THE CITY OF WEST LINN.

8 STERILIZATION: PIPELINES INTENDED TO CARRY POTABLE WATER SHALL BE FLUSHED AND STERILIZED BEFORE PLACING INTO SERVICE. STERILIZING PROCEDURE SHALL CONFORM TO AWWA C-601 OR AS MODIFIED BY GOVERNING AGENCY HAVING JURISDICTION. STERILIZATION WATER SHALL BE DISPOSED OF IN SANITARY SEWER SYSTEM.

9 FIRE HYDRANTS & BLOWOFFS SHALL BE INSTALLED AT THE LOCATION SHOWN ON THE PLANS CORNFORMING TO CITY CONSTRUCTION STANDARDS AND DRAWINGS # FH-300 & BO-301.

10 NEW WATERLINES SHALL NOT BE CONNECTED TO THE CITIES EXISTING SYSTEM UNTIL TESTED AND APPROVED.

SITE GRADING NOTES

1 REMOVE AND DISPOSE OF ALL ORGANIC MATERIALS, INCLUDING TREES, STUMPS, BRUSH AND GRASS IN SUCH A MANNER AS TO MEET LOCAL REGULATIONS. THE CONTRACTOR SHALL PROTECT TREES TO REMAIN.

2 AREAS TO RECEIVE FILL MATERIALS SHALL BE STRIPPED OF ALL ORGANIC MATERIALS AND "PROOF ROLL" PRIOR TO PLACEMENT OF FILL.

3 THE SITE SHALL BE GRADED TO THE ELEVATIONS SHOWN ON THE DRAWINGS WITH THE NECESSARY ADJUSTMENTS TO ACCOMODATE THE FINISHES AS SPECIFIED. FUTURE PAVED AREAS SHALL BE SHAPED PER THE PLANS TO A SUBGRADE ELEVATION WHICH WILL ACCOMODATE FUTURE BASE ROCK AND PAVING.

4 FINISH GRADES ARE TO DRAIN AS INDICATED ON THE PLANS. ROUGH GRADING SHALL BE FINISHED BY BLADING TO REASONABLY SMOOTH CONTOURS WITH GENTLE TRANSITIONS.

5 A SAMPLE OF FILL MATERIAL SHALL BE SUBMITTED FOR ANALYSIS BY THE CONTRACTOR AT LEAST 3 DAYS PRIOR TO EMBANKMENT ACTIVITIES FOR TESTING AND ANALYSIS.

6 FILL MATERIALS TO BE PLACED IN APPROXIMATELY HORIZONTAL LAYERS OF A MAXIMUM OF 8 INCHES THICK, AND EACH LAYER SHALL BE SEPARATELY AND THOROUGHLY COMPACTED.

7 FILL MATERIALS SHALL BE MOISTURE CONDITIONED AS REQUIRED BY DICING, SCARIFYING, AERATING, PULVERIZING OR THE ADDITION OF WATER AND PLACED IN THE FILL AREA WITHIN 2% OF THE OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D-1557.

8 COMPACTION EFFORT SHALL MEET OR EXCEED THE FOLLOWING:

FUTURE ROADS AND STREETS: COMPACTION TO 95% OF STANDARD PROCTOR DENSITY (ASTM D-698).
FUTURE FOUNDATION PADS: COMPACTION TO 95% OF MODIFIED STANDARD PROCTOR DENSITY (ASTM D-1557).
LANDSCAPE AREAS: COMPACTION O 90% OF STANDARD PROCTOR DENSITY (ASTM D-698).
COMPACTION TESTS AND REPORTS: TESTS SHALL BE CONDUCTED BY A RECOGNIZED TESTING LABORATORY. TEST FREQUENCY SHALL BE PER THE ENGINEER AND TO INCLUDE TESTING AT COMMENCEMENT OF FILL ACTIVITIES AND FOR EVERY 500 CUBIC YARDS PLACED OR AS DIRECTED.
EACH FUTURE LOT PAD RECEIVING GREATER THAN 18 INCHES OF FILL SHALL HAVE AT LEAST ONE COMPACTION TEST TO DEMONSTRATE COMPACTION EFFORT. THE MAXIMUM FINISH SLOPES SHALL BE 2 HORIZONTAL TO 1 VERTICAL (2:1) PREFERRED SLOPE.

STORM SEWER NOTES

1 MATERIALS USED FOR PUBLIC IMPROVEMENTS SHALL MEET THE REQUIREMENTS OF THE CITY OF WEST LINN.

2 ALL WORK & MATERIALS FOR PRIVATE STORM DRAINS SHALL MEET REQUIREMENTS OF THE STATE OF OREGON PLUMBING CODE.

3 MATERIALS:

a CONCRETE CULVERT PIPE (CCP) SHALL CONFORM TO THE REQUIREMENTS OF ASTM C-14, CLASS 3, NONREINFORCED CONCRETE PIPE (10 INCHES OR GREATER)

b CHLORIDE PIPE (PVC) SHALL CONFORM TO THE REQUIREMENTS OF ASTM D 3034 SDR 35 (10 INCHES OR LESS)

c HIGH DENSITY POLYETHYLENE PIPE (HDPE) SHALL HAVE A CORRUGATED EXTERIOR & SMOOTH INTERIOR WITH A MANNINGS EQUALS OR BETTER THAN CONCRETE PIPE. MEETING REQUIREMENTS OF AASHTO M-294 (12-INCHES OR GREATER)

d DUCTILE IRON PIPE (DI) SHALL BE CLASS 52, PUSH-ON JOINT PIPE MEETING STANDARDS ASA STANDARD A-21.4.

e PIPE BEDDING AND TRENCH BACKFILL WITHIN PAVED AREAS OR IN RIGHT-OF-WAY AREAS SHALL BE 3/4"-0" CRUSHED ROCK. PIPE BEDDING TO EXTEND A MINIMUM OF 6-INCHES IN ALL DIRECTIONS FROM THE OUTSIDE OF THE PIPE. NATIVE BACKFILL (CLASS A) IS ACCEPTABLE FOR TRENCHES OUTSIDE THE RIGHT-OF-WAY

f ALL MANHOLES OUTSIDE THE STREET RIGHT-OF-WAY SHALL HAVE TAMPER PROOF LIDS.

4 STORM SEWER PIPES SHALL BE MANDRILL TESTED WITH APPROVED SOLID POINTED MANDRILL (95% OF INSIDE DIAMETER).

5 CONTRACTOR SHALL CONDUCT A TV ACCEPTANCE INSPECTION UPON COMPLETION OF ALL SEWER CONTRUCTION.

6 ALL MANHOLE RIMS OUTSIDE OF PAVED AREAS AND MAINTENANCE ROADS SHALL BE SET AT 12" ABOVE FINAL GRADE (6" ON SLOPES).

PLANNING AND DEVELOPMENT

PLANNING DIRECTOR'S LAND USE DECISION

FILE NO: MISC-96-13 SUBJECT: "ROYAL RIDGE" ONE YEAR EXTENSION OF SUBDIVISION APPROVAL

LEGAL DESCRIPTION: MAP 21E35D TAX LOT 603

LOCATION: SOUTH OF WILLAMETTE VIEW ESTATES

OWNER: ASPEN GROUP

APPLICANT: SAME

ZONE: R-10 PLAN DESIGNATION: LOW DENSITY RESIDENTIAL

STAFF CHECKLIST:

R.O.W. N/A STREET & S/W IMPR. N/A

UTILITY EASEMENTS N/A SQ.FT. N/A

FLOOD PLAIN CONSTRUCTION N/A WETLANDS & DRAINAGEWAYS N/A

ADDITIONAL INFO.

Based upon the approval criteria of the applicable Development Code Section 85.090 AND, the Planning Director: ATTACHED FINDINGS

[ ] APPROVED [X] APPROVED WITH CONDITIONS [ ] DENIED this application.

CONDITIONS OF APPROVAL (if applicable): 1. ALL CONDITIONS OF APPROVAL OF TENATIVE APPROVED ROYAL RIDGE SUBDIVISION SHALL REMAIN IN FORCE UNLESS MODIFIED BY AMENDMENT.
2. THIS APPROVAL SHALL ALLOW A ONE YEAR EXTENSION WHICH WILL LAPSE ON JUNE 22, 1997. THE ORIGINAL APPROVAL WAS GRANTED ON JUNE 22, 1994.
3. SIX FOOT WIDE SIDEWALKS / PLANTER STRIP REQUIRED.

FINDINGS: 1. THE PLANNING DIRECTOR FINDS THAT THERE HAVE BEEN NO CHANGES, ABSENCE OF CHANGES, OR CHANGES IN FACTS RELATIVE TO THIS TENETIVE PLAT THAT WOULD REQUIRE MODIFICATION OF THIS APPLICATION PER CH. 85.090(C)(1).
2. THE PLANNING DIRECTOR FINDS THERE HAVE BEEN AT LEAST ONE CHANGE, CHANGE IN POLICY, OR ORDINANCE PROVISIONS UPON WHICH THE APPROVAL OF THE SUBDIVISION WAS BASED, SPECIFICALLY CDC CH 85.200 A(16)(17) WHICH REQUIRES SIX FOOT WIDE SIDEWALKS & PLANTER STRIPS. THEREFORE, THE CRITERIA FOR A ONE YEAR EXTENSION IS GRANTED.

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

7-2-96 — Michael V. Butts
DATE — MICHAEL V. BUTTS, Planning Director

The West Linn Planning Commission, at its meeting of June 15, 1994, approved with conditions, Royal Ridge Townhouses, File Nos. ZC-94-04/SUB-94-04/MISC-94-11. The decision was reached after conducting a public hearing pursuant to the provisions of Chapter 99 of the West Linn Community Development Code. Based upon the public hearing and the findings contained in Exhibit "A", the following conditions of approval were established.

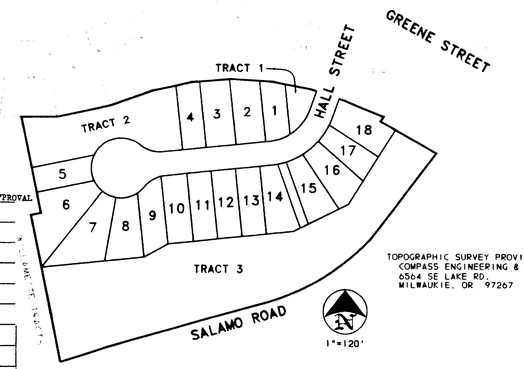
1. The development of Royal Ridge shall conform to the applicable codes and ordinances of the City of West Linn.
2. The applicant shall be responsible for half-street improvements on Salamo Road consistent with the specifications established in the Kittleson Report which envisioned three-lane configuration, two up and one down, bike path and sidewalk. A geotechnical study shall be required to determine the safe means of constructing these improvements with particular concern given to the affect of the grading and road construction and its impacts on Royal Ridge and Willamette View Estates subdivision. The applicant shall be responsible for this geotechnical study and shall also be responsible for setting aside an appropriate amount of funds to cover the improvements for this particular portion of Salamo abutting Royal Ridge subdivision. The improvements should coincide with other improvements for Salamo or take place at such time that the plan for improvements is finalized. Some of the improvements to Salamo Road may be eligible for SDC credits.
3. A six-inch waterline shall be stubbed out to the west edge of the subdivision in Tract E.
4. A notation shall appear on the final plat that a 5-foot utility easement exists at all front and rear property lines and at other locations as approved by the City Engineer to provide continuity.
5. A notation on the plat that Tracts A and C shall be prohibited from further subdivision.
6. The pedestrian access Tract E to the west be a 20-foot wide dedicated tract for the purpose of pedestrian/bicycle access and public utilities. An 8-foot wide paved path shall be provided in the tract. The tract shall be fenced with a 36-inch high black vinyl clad chainlink fence.
7. As proposed, dedication of Tracts A and C to the City of West Linn.
8. Setback lines for units 1, 2, 3, 4 and 18 shall conform to the tentative plan and shall be shown on the final plat.
9. Snow fencing or orange-web safety fencing shall be erected and maintained along the up-slope boundary of Tract A and the down-slope boundary of Tract C as well as around the drip line of trees to be retained within the townhouse development area during construction of the project. No fill or excavation shall be allowed within these areas.
10. Submit erosion control and stormwater treatment facility plans for City Engineer's review and comment prior to design review.
11. Submit development plans for public hearing on design review before the Planning Commission.

This decision shall become effective 14 days from the date of mailing of this final decision as identified below. Those parties with standing (e.g., those individuals who submitted letters into the record or provided testimony during the course of the hearing, or who signed in on the attendance sheet at the hearing) may appeal this decision to the West Linn City Council pursuant to CDC Section 99.240. Such appeals would require a fee of $350 and a completed appeal application form together with the specific grounds for appeal to the Planning Director prior to the date of final approval.

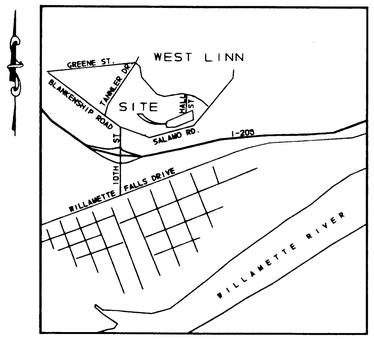
Deborah J. Shell — 6/27/94
DEBORAH SHELL, CHAIRPERSON — DATE
WEST LINN PLANNING COMMISSION

Mailed this 28th day of June, 1994.

Appeal filing deadline: 5 p.m., July 7, 1994.



TOPOGRAPHIC SURVEY PROVIDED BY:
COMPASS ENGINEERING & SURVEYING
6564 SE LAKE RD.
MILWAUKIE, OR 97267



VICINITY MAP
N. T. S.

ASBUILT
02-06-99 ASBUILT
10-26-98 revisions per owner

FINAL DECISION NOTICE

IN THE MATTER OF DESIGN REVIEW (DR-95-10) FOR TOWNHOUSES IN ROYAL RIDGE SUBDIVISION

At their regular hearing date of June 21, 1995, the West Linn Planning Commission voted to approve Jack Bristol's application for Design Review to construct townhouses in Royal Ridge subdivision/planned unit development on tax lot 603, Assessor's Map 2 1E 35D. The hearing was conducted under the provisions of CDC Chapter 99. The decision to approve was based upon findings contained in the staff report (Exhibit A).

The following conditions were imposed:

1. The applicant shall be required to satisfy the conditions of approval of ZC-94-04/SUB-94-04/MISC-94-11.
2. The development of Royal Ridge single-family attached units shall be consistent with the plans submitted by the applicant. Slight design modifications which downsize the scale of the buildings may be accepted after review by the Planning Director.
3. The applicant shall be required to construct the units with the materials identified in the materials board and using the same colors identified in the submitted color chips. Deviations from those colors and materials would only be allowed after review by the Planning Director. It is understood here that only changes which maintain or enhance the quality of the materials used, and maintain the general earthtone color scheme that is preferred in the adjacent subdivision will be acceptable.
4. The applicant shall submit to the Planning Director a landscaping plan for Tract D, B, and C. It may be appropriate to leave these tracts in native vegetation, but at the very least, the Planning Director must approve the final ground cover.
5. Any monument sign must go through design review under Chapter 52, which is an administrative process. Presumably, the monument sign would be on Tract B.
6. No structure may go over 35 feet in height. No structure may exceed 2-1/2 stories in height unless there is a differential of 10 feet between the grade at the front of the building and the back of the building. In those cases, the height would still be restricted to 35 feet in height, but may accommodate 3-1/2 stories. This condition is consistent with the Community Development Code and the Building Codes of the City of West Linn and the State of Oregon.
7. All construction vehicles and project related vehicles shall be parked on the applicant's property as far as is practical.
8. Building and Engineering Department standards for dust, mud, and debris abatement shall be followed.

NOTICE OF FINAL DECISION

This decision shall become effective 14 days from the date of mailing of this final decision as identified below. Those parties with standing (e.g., those individuals who submitted letters into the record or provided testimony during the course of the hearing, or who signed in on the attendance sheet at the hearing) may appeal this decision to the West Linn City Council within 14 days of the mailing of this decision pursuant to the provisions of Chapter 99 of the Community Development Code. Such appeals would require a fee of $350 and a completed appeal application form together with the specific grounds for appeal to the Planning Director prior to the filing deadline.

Deborah Shell — July 1, 1995
DEBORAH SHELL, CHAIRPERSON — DATE
WEST LINN PLANNING COMMISSION

Mailed this 5th day of July, 1995.

Appeal filing deadline: 5 p.m., July 19, 1995.

LEGEND

	CATCH BASIN
	MANHOLE
	CLEAN OUT
	BLOW OFF
	FIRE HYDRANT
	WATER METER
	THRUST BLOCK
—W—	WATERLINE
	STORM SEWER
—SA—	SANITARY SEWER
	CONCRETE
	EXISTING WATERLINE
	EXISTING SANITARY SEWER
1/G	EXISTING GROUND
F/G	FINISH GUTTER
1/P	EXISTING PAVEMENT
F.G.	FINISH GRADE

DEVELOPER

WINDSOR DEVELOPMENT
P.O. BOX 131
WEST LINN, OR. 97068
PH. 557-1001
CONTACT: VIC COOMBES

ENGINEER

WB WELLS AND ASSOC. INC.
4230 NE FREMONT ST.
PORTLAND, OR. 97213
PH. 284-5896
FAX. 284-8530
CONTACT: PAUL CHIU
PAULC@WBWELLS.COM

SHEET INDEX

1 COVER SHEET
2 GRADING PLAN
3 RETAINING WALL SECTION & DETAIL
4 EROSION CONTROL & TREE PROTECTION PLAN
5 SITE PROTECTION PLAN
6 STREET & STORM SEWER PLAN
7 STREET PROFILES
8 STORM SEWER PROFILES
9 STORM SEWER PROFILES
10 SANITARY SEWER AND WATER PLAN
11 SANITARY SEWER PROFILES
12 DETAILS
13 LOT SECTION DETAILS

REVISIONS
1 11-7-97 PER CITY REDLINES
2 12-18-97 PER CITY REVIEW

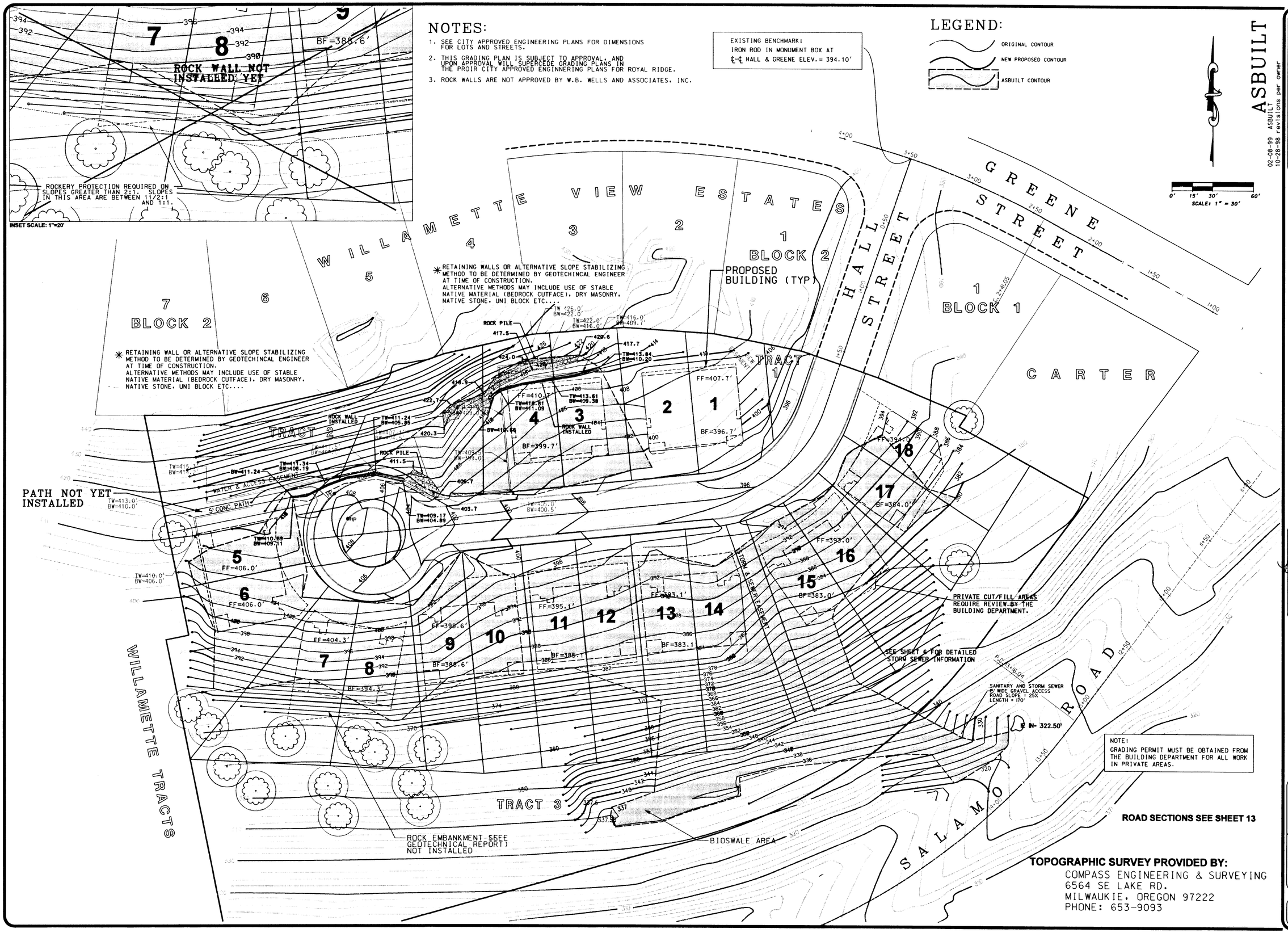
DESIGNED: P.C.C. CHECKED: P.C.C.
DRAWN: R.R.T. DATE: 9-8-97
JOB NO.: 97-016 SCALE: 1" = 80'

COVER SHEET
FOR
ROYAL RIDGE TOWNHOUSES
CITY OF WEST LINN
CLACKAMAS COUNTY, OREGON

REGISTERED PROFESSIONAL ENGINEER 17,174 OREGON July 19, 1994 PAUL C. CHIU
EXPIRES: 12/31/97

W.B. WELLS & associates, inc.
4230 NORTHEAST FREMONT STREET
PORTLAND, OREGON 97213
PHONE: (503) 284-5896 FAX: 284-8530

SHEET 1 of 13



NOTES:

1. SEE CITY APPROVED ENGINEERING PLANS FOR DIMENSIONS FOR LOTS AND STREETS.
2. THIS GRADING PLAN IS SUBJECT TO APPROVAL, AND UPON APPROVAL WILL SUPERCEDE GRADING PLANS IN THE PROIR CITY APPROVED ENGINNERING PLANS FOR ROYAL RIDGE.
3. ROCK WALLS ARE NOT APPROVED BY W.B. WELLS AND ASSOCIATES, INC.

EXISTING BENCHMARK:
IRON ROD IN MONUMENT BOX AT
℄-℄ HALL & GREENE ELEV.= 394.10'

LEGEND:

ORIGINAL CONTOUR
NEW PROPOSED CONTOUR
ASBUILT CONTOUR

NOTE:
GRADING PERMIT MUST BE OBTAINED FROM THE BUILDING DEPARTMENT FOR ALL WORK IN PRIVATE AREAS.

TOPOGRAPHIC SURVEY PROVIDED BY:
COMPASS ENGINEERING & SURVEYING
6564 SE LAKE RD.
MILWAUKIE, OREGON 97222
PHONE: 653-9093

ASBUILT
02-08-99 ASBUILT
10-28-98 revisions per owner

REVISIONS
1 9/29/97 ADD ACCESS RD & ESMT @ 14/15
2: 11-7-97 PER CITY REVIEW
3: 12-18-97 PER CITY REVIEW
4: 9-30-98 GRADING CHGS. PER OWNER

DESIGNED: PC/NMR/DRM CHECKED: NMR
DRAWN: PC/RT/DRM DATE: 7-9-98
JOB NO.: 97-016 SCALE: 1"=30'

GRADING PLAN
for
ROYAL RIDGE SUBDIVISION
CITY OF WEST LINN, CLACKAMAS COUNTY, OREGON

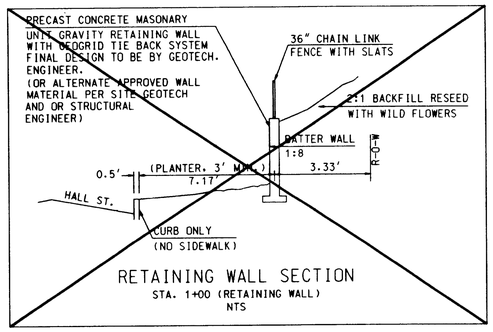
REGISTERED PROFESSIONAL ENGINEER
OREGON
CRAMLEY S. SCHLEINING
EXPIRES:

W.B. WELLS and associates inc.
ENGINEERS • SURVEYORS • PLANNERS
4230 NE FREMONT STREET
PORTLAND, OREGON 97213
PHONE (503) 284-5896
FAX. (503) 284-8530

SHEET
2 of 13

PLOT DATE: 09 FEB 1999 P:\97-016\ENG\rasbuilt\02asb_grade.dgn

NOT INSTALLED



RETAINING WALL SECTION
STA. 1+00 (RETAINING WALL)
NTS

RETAINING WALL ALTERNATIVE MATERIALS

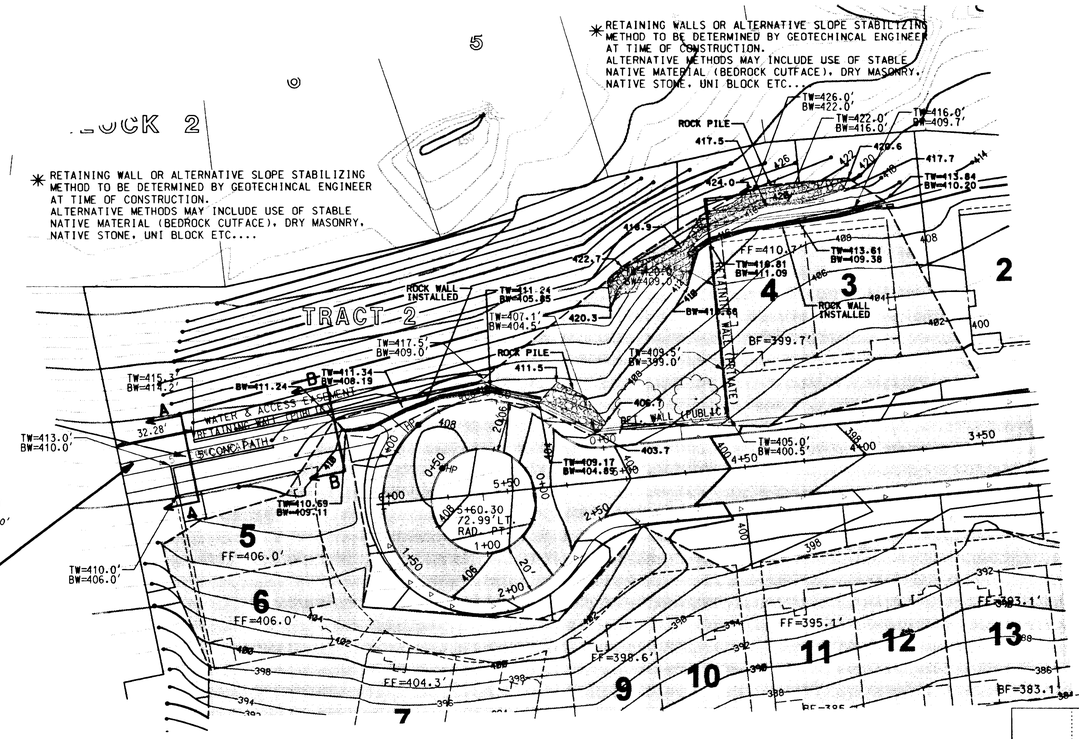
RETAINING WALLS MAY CONSIST OF AN ALTERNATIVE MATERIAL TYPE, PENDING ON-SITE CONDITIONS. ALTERNATIVE MATERIAL USAGE MUST BE PREAPPROVED BY CITY PRIOR TO CONSTRUCTION.

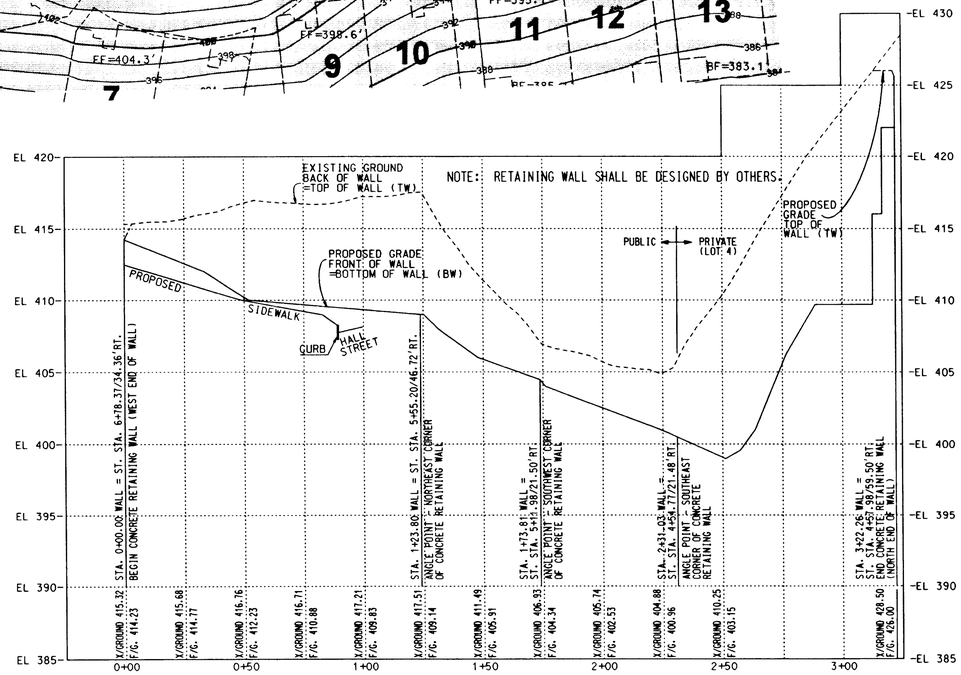
GABION WALL OR ALTERNATIVE SLOPE STABLIZATION METHOD TO BE DETERMINED BY SITE GEOTECHNICAL ENGINEER AT TIME OF CONSTRUCTION.

ALTERNATIVE METHODS MAY INCLUDE USE OF STABLE NATIVE MATERIALS (BEDROCK CUTFACE), DRY MASONRY, NATIVE STONE, ULTRABLOCK, ETC...

ASBUILT

02-09-99 ASBUILT
10-28-98 revisions per owner

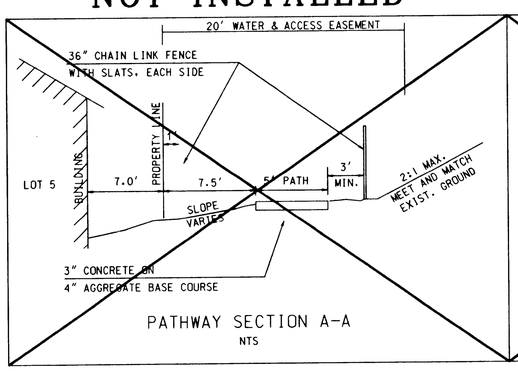




PROFILE FOR PROPOSED RETAINING WALL

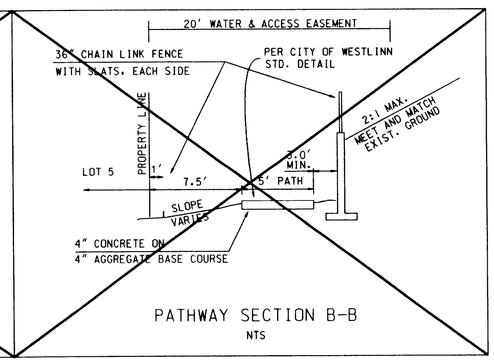
SCALE: HORIZ. 1" = 30'
VERT. 1" = 5'

NOT INSTALLED



PATHWAY SECTION A-A
NTS

NOT INSTALLED



PATHWAY SECTION B-B
NTS

REVISIONS
1 12-18-97 PER CITY REVIEW
2 8-14-98 REVISE RETAINING WALL AT CDS

DESIGNED: PC/FK CHECKED: NMR
DRAWN: DW/RT DATE: 9-8-97
JOB NO.: 97-016 SCALE: 1"=30'

RETAINING WALL SECTION & DETAIL
for
ROYAL RIDGE SUBDIVISION
CITY OF WEST LINN, CLACKAMAS COUNTY, OREGON

REGISTERED PROFESSIONAL ENGINEER 12,345 OREGON JULY 26, 1985 BRADLEY S. SCHLEINIGER
EXPIRES:

W.B. WELLS and associates inc.
ENGINEERS • SURVEYORS • PLANNERS
4230 NE FREMONT STREET
PORTLAND, OREGON 97213
PHONE (503) 284-5896
FAX. (503) 284-8530

SHEET
3 of 13

P:\97-016\ENG\asbuilt\03sb_wall.dgn
PLOT DATE: 09 FEB 1999

EROSION CONTROL NOTES

ALL EROSION CONTROL WORK WILL FOLLOW THE GUIDELINES ESTABLISHED IN OREGON SURFACE WATER QUALITY FACILITIES HANDBOOK, CLACKAMAS COUNTY AUGUST 1991.

APPROVAL OF THIS ESC PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G. SIZE AND LOCAION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.).

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 CONSRUCTION IS COMPLETED AND APPROVED AND VEGETATION/LANDSCAPING IS ESTABLISHED.

THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE CLEARLY FLAGGED IN HE FIELD PRIOR TO CONSTRUCTION. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE FLAGGED CLEARLY LIMITS SHALL BE PERMITTED. THE FLAGGING SHALL BE MAINTAINED BY THE APPLICANT/ CONTRACTOR FOR THE DURATION OF CONSTRUCTION.

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 NECESSARY FOR UNEXPECTED STORM EVENTS AND O ENSURE THAT SEDIMENT-LADEN WATER DOES NOT LEAVE THE SITE.

THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE APPLICANT/CONTRACTOR AND MAINTAINED AS NECESSARY TO ENSURE THERE CONTINUED FUNCTIONING.

THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH, OR WITHIN 48 HOURS OF A STORM EVENT.

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.

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.

UNDISTURBED BUFFERS

DOWN HILL UNDISTURBED BUFFER ON PROPERTY OF EQUAL OR GREATER AREA TO DISTURBED AREA ON 10% OR LESS SLOPES MAY BE USED AS AN ALTERNATIVE TO SEDIMENT BARRIERS.

SEDIMENT FENCE

THE FILTER FABRIC SHALL BE PURCHASED ON A CONTINUOUS ROLL CUT TO LENGTH LENGTH OF THE BARRIER TO AVOID USE OF JOINTS. WHEN JOINTS ARE NECESSARY FILTER CLOTH SHALL BE SPLICED ONLY AT A SUPPORT POST WITH A MINIMUM 6" OVERLAP, AND BOTH ENDS SECURELY FASTENED TO THE POST.

THE FILTER FABRIC FENCE SHALL BE INSTALLED TO FOLLOW THE CONTOURS, WHERE FEASIBLE. THE FENCE POSTS SHALL BE SPACED A MAXIMUM OF FIVE FEET APART AND DRIVEN SECURELY INTO THE GROUND A MINIMUM OF 30".

A TRENCH SHALL BE EXCAVATED, ROUGHLY 8" WIDE BY 12" DEEP, UPSLOPE AND ADJACENT TO THE WOOD POST TO ALLOW THE FILTER FABRIC TO BE BURIED.

WHEN STANDARD STRENGTH FILTER FABRIC IS USED, A WIRE SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY DUTY WIRE STAPLES AT LEAST 1" LONG, TIE WIRE OR HOG RINGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 4" AND SHALL NOT EXTEND MORE THAN 36" ABOVE THE ORIGINAL GROUND SURFACE.

THE STANDARD STRENGTH FILTER FABRIC SHALL BE STAPLED OR WIRED TO THE FENCE, AND 20" OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. THE FABRIC SHALL NOT EXTEND MORE THAN 36" ABOVE THE ORIGINAL GROUND SURFACE. FILTER FABRIC SHALL NOT BE STAPLED TO EXISTING TREES.

WHEN EXTRA-STRENGTH FILTER FABRIC AND CLOSER POST SPACING ARE USED, THE WIRE MESH SUPPORT FENCE MAY BE ELIMINATED. IN SUCH A CASE, THE FILTER FABRIC IS STAPLED OR WIRED DIRECTLY TO THE POSTS WITH ALL OTHER PROVISIONS OF THE ABOVE STANDARD NOTE FOR STANDARD STRENGTH FILTER FABRIC APPLYING.

SEDIMENT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.

SEDIMENT FENCES SHALL BE INSPECTED BY APPLICANT/CONTRACTOR IMMEDIATELY AFTER EACH RAINFALL, AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPARES SHALL BE MADE IMMEDIATELY.

SEEDING / MULCHING

ALL AREAS DISTURBED DURING CONSTRUCTION TO BE GRADED TO DRAIN AND COMPACTED TO A MINIMUM OF STANDARDS IMMEDIATELY AFTER INSTALLATION OF UTILITIES OR GRADING.

RECOMMENDED SEED MIXTURE:

TYPE	PERCENT BY WEIGHT
ELKA DWARF PERENNIAL RYEGRASS	80
CREEPING RED FESCUE	20
APPLICATION RATE:	100 POUNDS MINIMUM PER ACRE

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.

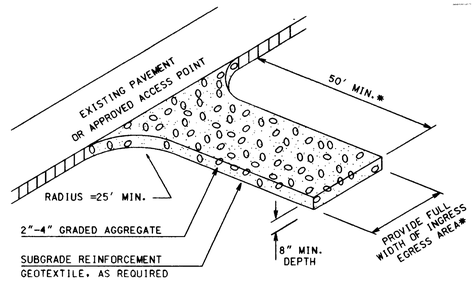
SEED AND MULCH AT A RATE OF 2000 POUNDS PER ACRE WITH HEAVY BONDING AGENT OR NETTING AND ANCHORS. MULCH SHALL BE A WOOD CELLULOSE FIBER OR OTHER MATERIAL SUITABLE FOR HYDROMULCHING.

TEMPORARY/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 OF MORE.

LEGEND

BIO-BAG INLET BARRIER

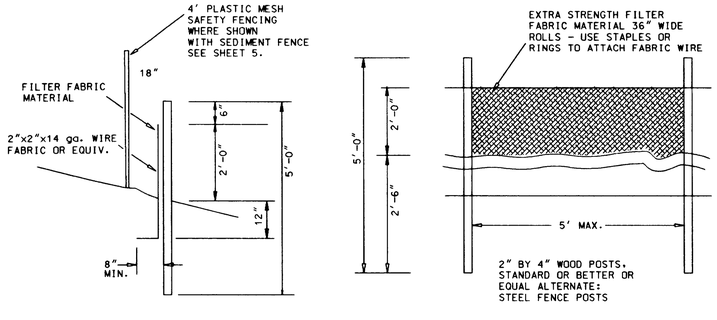
SEDIMENT FENCE



*20' MIN. FOR SINGLE FAMILY AND DUPLEX RESIDENTIAL

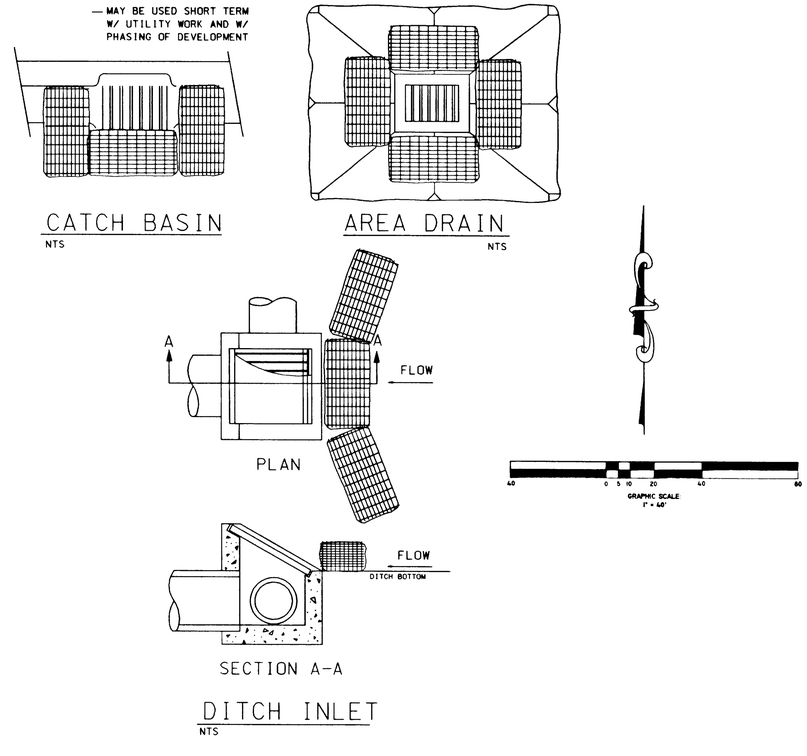
GRAVEL CONSTRUCTION ENTRANCE

Not to Scale



SEDIMENT FENCE DETAILS

Not to Scale



BIO-BAG INLET BARRIER

Not to Scale

ASBUILT

02-09-99 ASBUILT
10-28-98 revisions per owner

REVISIONS
1 12-18-97 PER CITY REVIEW
2 8-14-98 REVISE CDS & RETAINING WALL
3 10-21-98 REMOVE WALL 7&8 PER CLIENT

DESIGNED: NR/DM/PC CHECKED: NMR
DRAWN: DM/RT DATE: 9-8-97
JOB NO.: 97-016 SCALE: 1"=40'

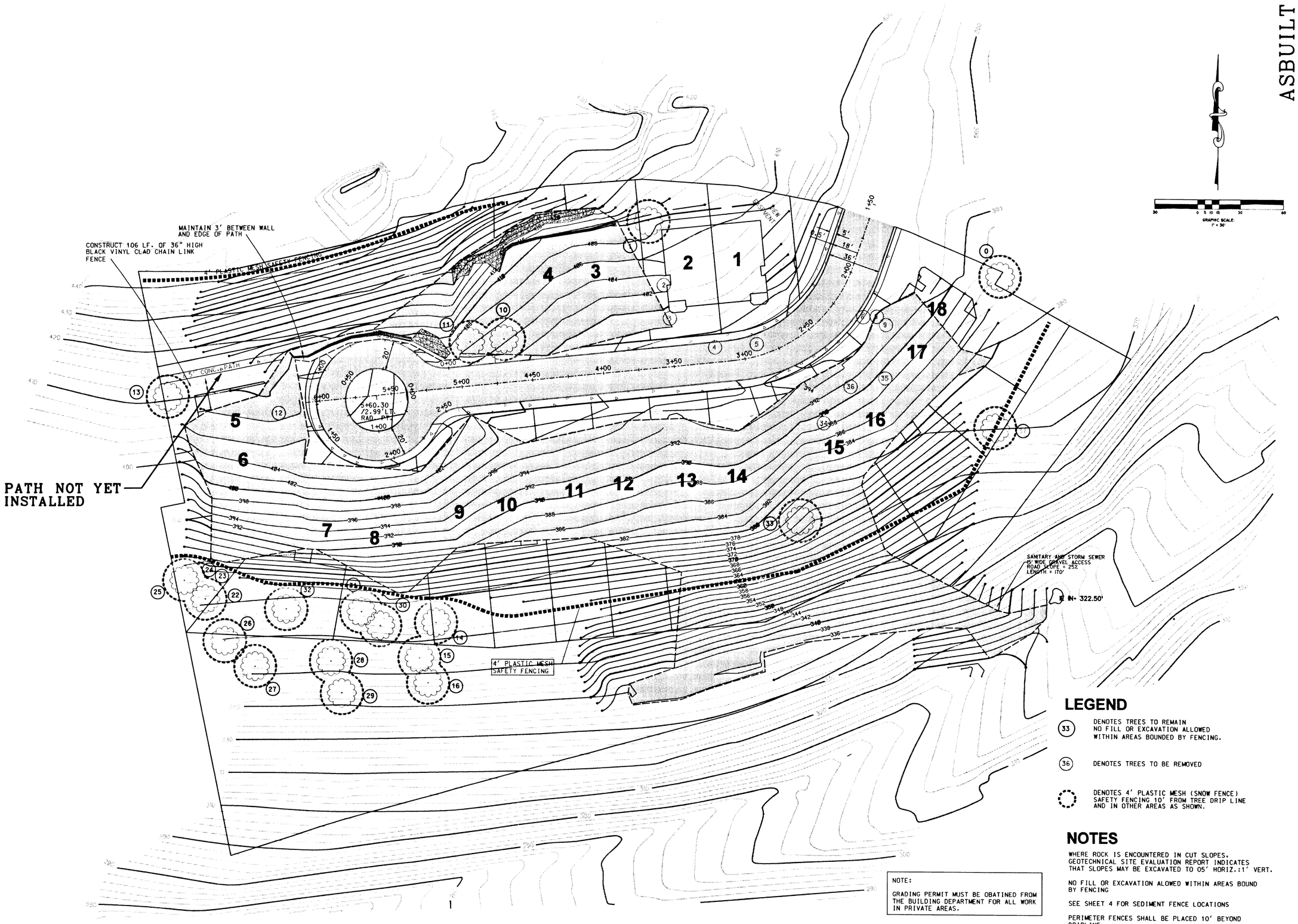
EROSION CONTROL PLAN
for
ROYAL RIDGE SUBDIVISION
CITY OF WEST LINN, CLACKAMAS COUNTY, OREGON

REGISTERED PROFESSIONAL ENGINEER 12940 OREGON JUN 26, 1983 BRADLEY S. SCHLENING
EXPIRES:

W.B. WELLS and associates inc.
ENGINEERS • SURVEYORS • PLANNERS
4230 NE FREMONT STREET
PORTLAND, OREGON 97213
PHONE (503) 284-5896
FAX. (503) 284-8530

SHEET
4 of 13

PLOT DATE 09 FEB 1999 P:\97-016\EROSIONCONTROL\asbuilt\04sb_erosion.dgn



ASBUILT

02-09-99 ASBUILT
10-28-98 revisions per owner

REVISIONS

DESIGNED: NR/DM/PC CHECKED: NMR
DRAWN: DM/RT DATE: 9-8-97
JOB NO.: 97-016 SCALE: 1"=40'

SITE PROTECTION PLAN
for
ROYAL RIDGE SUBDIVISION
CITY OF WEST LINN, CLACKAMAS COUNTY, OREGON

REGISTERED PROFESSIONAL ENGINEER
12/9/99
OREGON
JUN 26, 1985
BRADLEY S. SCHLENKER
EXPIRES:

W.B. WELLS and associates inc.
ENGINEERS • SURVEYORS • PLANNERS
4230 NE FREMONT STREET
PORTLAND, OREGON 97213
PHONE (503) 284-5896
FAX. (503) 284-8530

LEGEND

(33) DENOTES TREES TO REMAIN NO FILL OR EXCAVATION ALLOWED WITHIN AREAS BOUNDED BY FENCING.

(36) DENOTES TREES TO BE REMOVED

DENOTES 4' PLASTIC MESH (SNOW FENCE) SAFETY FENCING 10' FROM TREE DRIP LINE AND IN OTHER AREAS AS SHOWN.

NOTES

WHERE ROCK IS ENCOUNTERED IN CUT SLOPES, GEOTECHNICAL SITE EVALUATION REPORT INDICATES THAT SLOPES MAY BE EXCAVATED TO 05' HORIZ.:1' VERT.

NO FILL OR EXCAVATION ALOWED WITHIN AREAS BOUND BY FENCING

SEE SHEET 4 FOR SEDIMENT FENCE LOCATIONS

PERIMETER FENCES SHALL BE PLACED 10' BEYOND DRIPLINE.

NO FILL OR CUT SHALL BE DONE OUTSIDE OF GRADING PLAN LIMITS.

NOTE:

GRADING PERMIT MUST BE OBATINED FROM THE BUILDING DEPARTMENT FOR ALL WORK IN PRIVATE AREAS.

PLOT DATE: 09 FEB 1999
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STORM SEWER NOTES:

(1) DITCH CULVERT INLET
STA.13+50 32.5' RT.(SALAMO RD)
IE 320.50INV IE 322.3500

(2) ~~CATCH BASIN #1~~ DITCH INLET
STA. 14+12.00, 33.9' RT (SALAMO)
STA. 0+00 STM-2
GRATE=~~317.74~~ 318.70
IE IN=~~316.74INV~~ 317.05 (W)
IE IN=~~316.74INV~~ 316.70 (NE)

(3) MANHOLE #1
60" OUTLET CONTROL MANHOLE
STA.0+00.0 STM-1
~~STA.0+35.0~~ STM-2 STA.0+33.1
RIM=~~331.00~~ 330.61
IE IN=~~323.0~~(W)STM-2 322.70
IE IN=~~319.0~~(S)STM-1 319.01
IE OUT=~~319.00~~ 319.01
SUMP=316.00
SEE DETAIL SHEET 9 OF 13 (SEE SHEET 9 OF 13 FOR DETAIL)

(4) MANHOLE #2 (DETENTION PIPE ACCESS)
~~STA.0+27.01~~ STM-1 STA.0+30.03
RIM=~~330.50~~ 331.14
IE=~~319.00~~(72") +/-319.14

(5) DITCH INLET #2
~~STA.2+76.43~~ STM-1 STA.2+69.89
W/5'X5'X(2' RIP-RAP SURROUND
GRATE(@ BOTTOM)=~~336.5~~ 335.73
IE ~~331.92~~ 333.23

(6) OUTFALL #1
~~STA.3+31.70~~ STM-1 STA.3+68.48
W/5'X5' RIPRAP
IE=~~336.00~~ 337.30

(7) MANHOLE #3 (FLOW SPLITTER)
~~STA.4+67.29~~ STM-1 STA.4+55.25
~~STA.1+74.37~~ STM-2 STA.J+77.45
RIM=~~365.00~~ 369.47
IE IN=~~359.00~~(N)STM-1 359.52
SEE DETAIL SHEET 9 OF 13 IE OUT=~~359.20~~(SE)STM-2 359.52
6" IE OUT=~~360.00~~(S) (SW) 359.32
6" CAP W/ 4-3/4" ORIFICE

(8) CLEANOUT #1
~~STA.0+74.79~~ STM-4 STA.0+76.09
~~STA.2+34.30.8L'LT.~~(HALL ST.) STA.2+33.87,32.84' LT
IE=~~391.4~~ 392.78
RIM=394.28

(9) CLEANOUT #2
~~STA.J+31.84~~ STM-4 STA.J+30.71
~~STA.J+34.20.37.8L'LT.~~(HALL ST.)STA.J+32.57,37.13'LT
IE=~~392.04~~ 392.84
RIM=395.19

MANHOLE #4
60" POLLUTION CONTROL MANHOLE
~~STA.5+74.15~~ STM-1 STA.5+54.26
STA.0+00 STM-3/STM-4
~~STA.2+19.7,20.8L'LT.~~(HALL ST) STA.2+19.94,31.65'LT.
RIM=~~395.00~~ 395.4
IE IN=~~388.20~~(E) 385.56
IE IN=~~387.05~~(N) 384.96
IE IN=~~386.50.8~~(W) 385.51
IE OUT=~~387.65~~(S) 384.81

(10) CURB INLET #1
LATERAL
~~STA.0+19.57,154.7'LT.~~(HALL ST.) STA.2+92.10,13.00'LT.
EL @ TC=~~395.00~~ 395.97
IE OUT=~~392.4~~ 390.67
SUMP=~~390.9~~ 388.47

(11) CURB INLET #2
~~STA.7+21.68~~ STM-1 STA.7+05.63
~~STA.1+64.0,20.4'LT.~~(HALL ST.)STA.J+68.50,18.93'LT
EL @ TC=~~394.75~~ 395.20
IE IN=~~393.70~~ (W) 389.90
IE OUT=~~389.56~~ (SW) 389.50

(12) CURB INLET #3
~~STA.0+53.79~~ STM-1 STA.7+44.38
~~STA.1+64.0,20.4'LT.~~(HALL ST.)STA.J+67.99,18.79'RT
EL @ TC=~~395.28~~ 395.21
IE OUT=~~391.2~~ 391.16

(13) CLEAN OUT #3
~~STA.1+04.40~~ STM-3 STA.J+14.94
~~STA.1+14.0,26.0'LT.~~(HALL ST.) STA. 4+01.57,29.24'LT
RIM=~~397.63~~ 397.36
IE=~~395.13~~ 391.96

(14) ~~CLEAN OUT #4~~ BROKEN
~~STA.2+10.24~~ STM-3 STA.2+06.54
~~STA.4+07.0,37'LT.~~(HALL ST.) STA.4+92.99,30.67'LT
RIM=~~402.71~~ 401.43
IE=~~394.03~~ 777

(15) CLEAN OUT #5
~~STA.2+75.61~~ STM-3 STA.2+55.49
~~STA.5+40.4,64'LT.~~(HALL ST.) STA.5+35.61,55.01'LT
RIM=~~404.40~~ 404.17
IE=~~400.50~~ 398.29

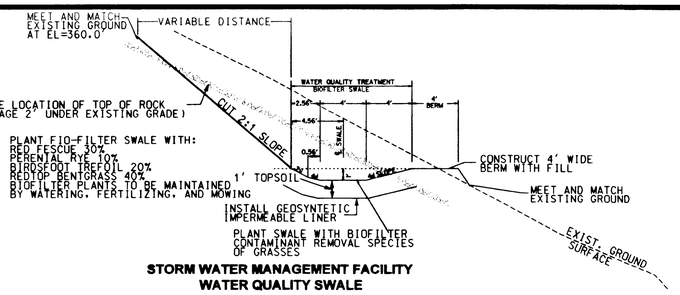
(16) CLEAN OUT #5A
STA.2+96.40 STM-3
STA.5+76.33,58.99'LT.(HALL ST.)
RIM=403.77
IE=397.67

(16A) CLEAN OUT #6
~~STA.3+40.59~~ STM-3 STA.3+39.76
RIM=~~405.64~~ 405.89
IE=~~401.95~~ 399.34

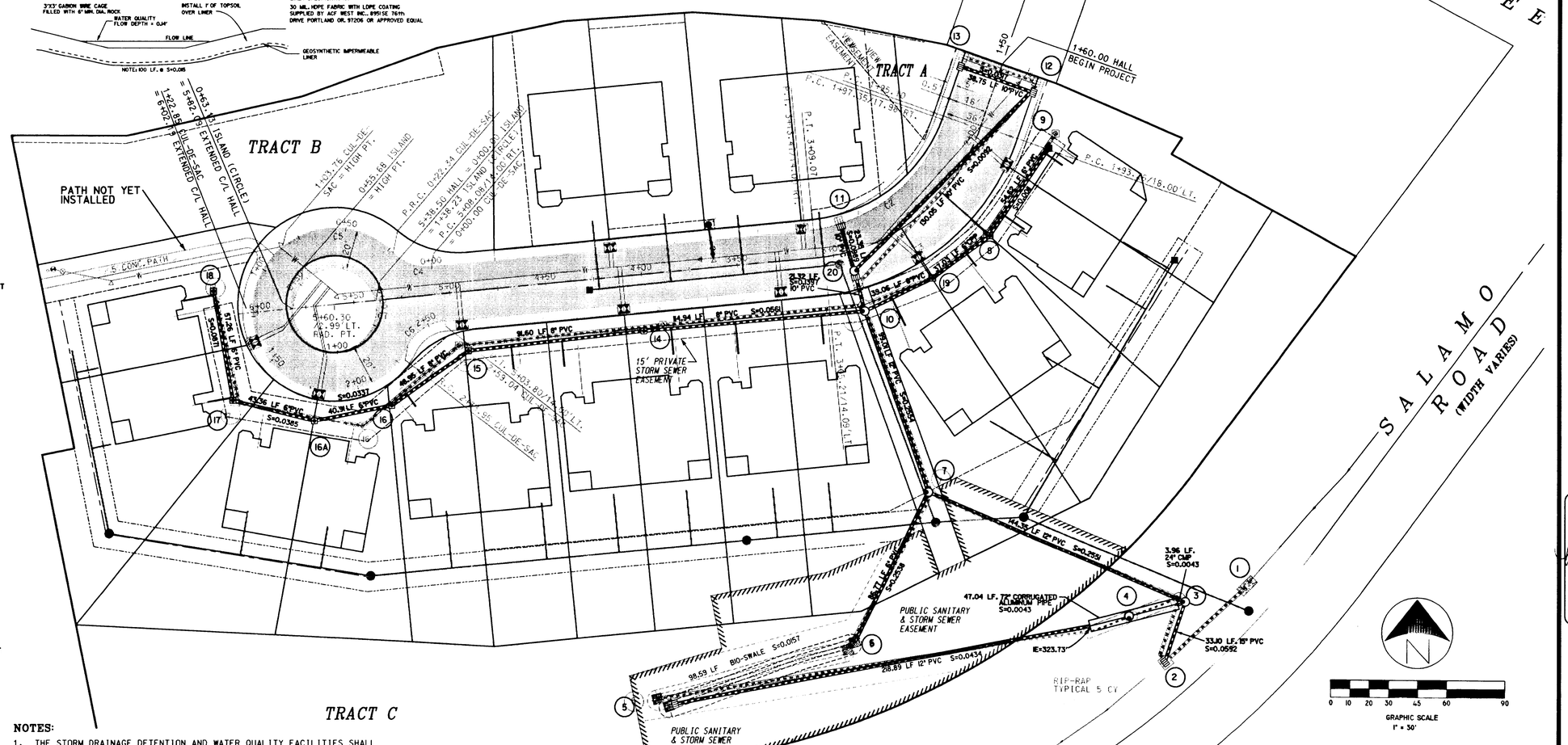
(17) CLEAN OUT #7
~~STA.3+34.49~~ STM-3 STA.3+37.02
RIM=~~408.41~~ 408.68
IE=~~406.16~~ 404.33

(18) ~~CLEAN OUT #8~~ BROKEN
~~STA.0+30.26~~ STM-4 STA.0+39.06
~~STA.2+62.3,30.4'LT.~~(HALL ST.) STA.2+62.04,30.4'LT
RIM=~~394.04~~ 395.52
IE=391.05

(19) CURB INLET #4 / MH VAULT
~~STA.5+82.02~~ STM-1 STA.5+75.58
~~STA.2+91.5,70'LT.~~(HALL ST.) STA.2+90.57,10.39'LT.
EL @ TC=~~395.91~~ 395.87
EP=~~395.4~~ 395.37
IE IN=~~388.16~~(NE) 388.15
IE OUT=~~387.96~~(S) 387.67
MH RIM=395.60
IE IN(N)=388.36

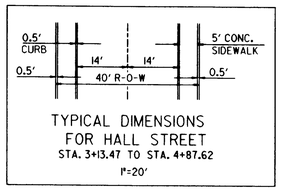


STORM WATER MANAGEMENT FACILITY
WATER QUALITY SWALE
NOT TO SCALE



NOTES:

1. THE STORM DRAINAGE DETENTION AND WATER QUALITY FACILITIES SHALL BE INSTALLED AND APPROVED PRIOR TO ANY CLEARING, GRUBBING AND/OR STORM SYSTEM CONNECTION TO THE CITY SYSTEM.
2. CPP DENOTES CORRUGATED POLYETHELENE PIPE
3. USE PIPE ANCHORS ON ALL SECTIONS OF PIPE WITH A SLOPE GREATER THAN OR EQUAL TO 20% (0.20) SEE APWA DETAIL #303(SHEET 13).
4. BUILDING DEPT. PLUMBING PERMIT WILL BE REQUIRED FOR ALL PRIVATE STORM SEWER INSTALLATION.
5. 72" DETENTION PIPE TO BE CONSTRUCTED OF 14 GAUGE CORRUGATED ALUMINUM PIPE
6. NO PARKING WILL BE PERMITTED ON HALL STREET. INSTALL SIGNS AND MARKINGS PER CITY REQUIREMENTS AS NECESSARY.
7. LOTS 5-18 BUILDING ROOF DRAINS SHALL BE PLUMBED TO PRIVATE STORM LINES ALONG STREET.
8. PVC DENOTES ASTM D-3034 PIPE. SDR 35 PIPE
9. SLOPES TO AND FROM CLEANOUTS CANNOT BE CALCULATED DUE TO INABILITY TO RECORD AN ACCURATE INVERT ELEVATION.



TYPICAL DIMENSIONS FOR HALL STREET
STA. 3+13.47 TO STA. 4+87.62
1"=20'

CURVE DATA:

CURVE #	C1	C2	C3	C4	C5	C6	C7
BEGINNING STA.(HALL) OFFSET	P.C. 1+95.10 @CENTERLINE	P.C. 1+97.35 /17.98'RT.	P.C. 1+93.26 /18.00'LT.	P.C. 5+08.08 /14.00'RT.	P.R.C. 5+27.57 /23.33'RT.	P.R.C. 5+24.88 /25.56'LT.	P.C. 5+38.50 @CENTERLINE
ENDING STA.(HALL) OFFSET	P.T. 3+09.07 @CENTERLINE	P.T. 3+13.47 /14.00'RT.	P.T. 3+05.21 /14.09'LT.	P.R.C. 5+27.57 /23.33'RT.	P.R.C. 5+24.88 /25.56'LT.	P.T. 5+03.80 /14.00'LT.	P.T.-ISLAND 5+38.50 @CENTERLINE
RADIUS	100.00'	86.00'	114.00'	25.00'	42.00'	25.00'	22.00'
ARC LENGTH	113.97'	98.01'	129.93'	22.34'	211.61'	25.08'	138.23'LOOP
DELTA	65-18'00"	65-18'00"	65-18'00"	51-11'49"	288-40'52"	57-29'03"	360-00'00"
CH. LENGTH	107.90'	92.80'	123.01'	21.60'	48.97'	24.04'	N/A
BEARING	S51-39'43"W	S51-39'43"W	S51-39'43"W	N70-05'22"W	S08-49'53"E	N55-34'12"E	N/A

ASBUILT
02-09-99 ASBUILTS

REVISIONS
9-16-98 grading chgs. per owner
10-28-98 changes per owner

DESIGNED: PC CHECKED:
DRAWN: PC/RT DATE: 7-9-98
JOB NO.: 97-016 SCALE: 1"=30'

STREET & STORM SEWER PLAN
for
ROYAL RIDGE SUBDIVISION
CITY OF WEST LINN, CLACKAMAS COUNTY, OREGON

REGISTERED PROFESSIONAL ENGINEER 12949 OREGON JULY 26, 1985 BRADLEY S. SCHLEINING
EXPIRES:

W.B. WELLS and associates inc.
ENGINEERS • SURVEYORS • PLANNERS
4230 NE FREMONT STREET
PORTLAND, OREGON 97213
PHONE (503) 284-5896
FAX. (503) 284-8530

SHEET 6 of 13

PLOT DATE: 09 FEB 1999 p:\97-016\eng\asbuilts\06asb_stm.dgn
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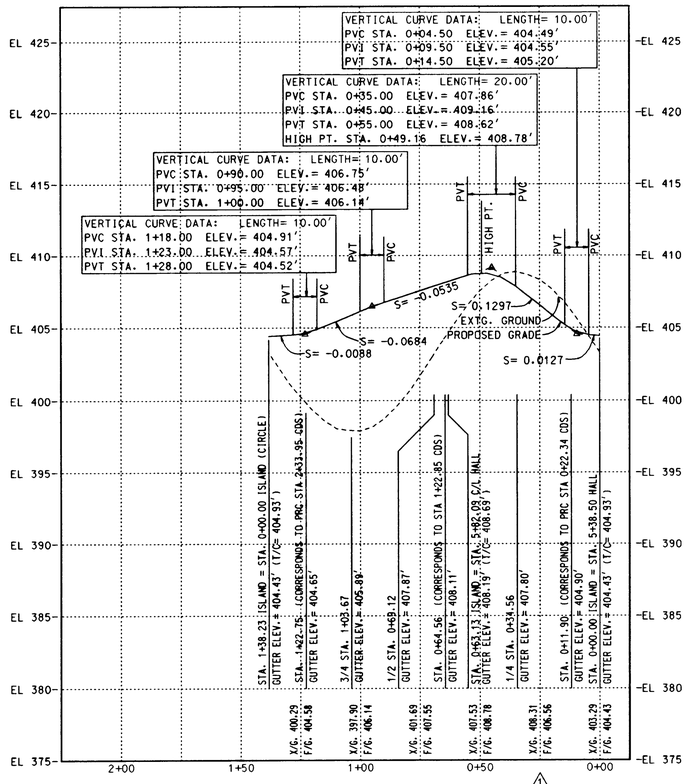
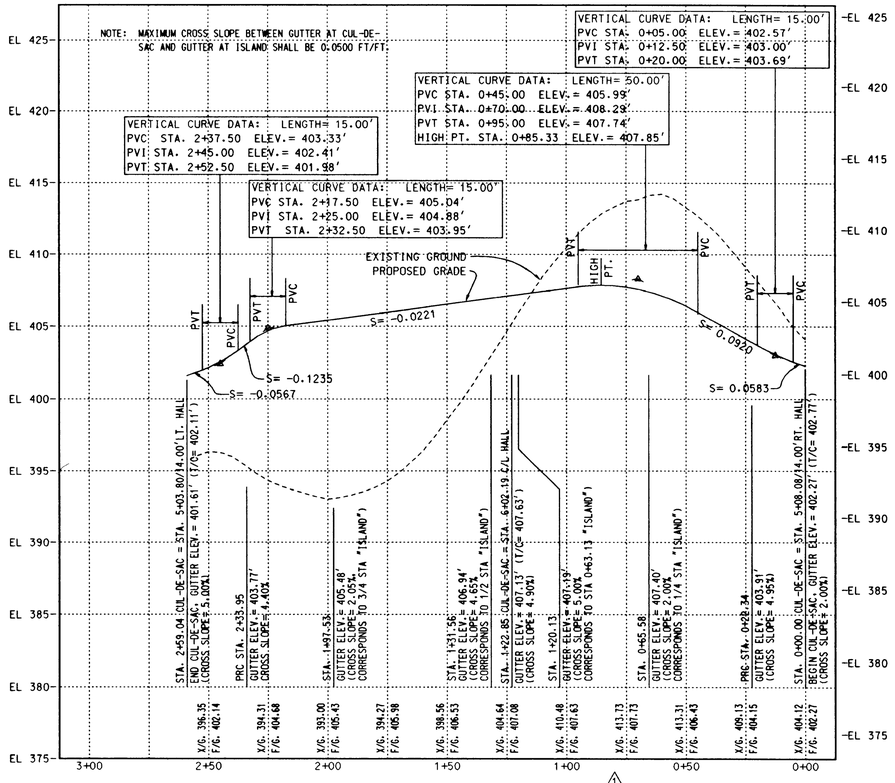


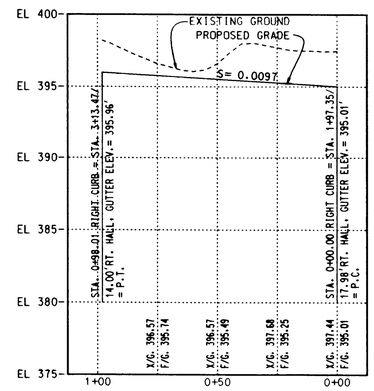
GUTTER PROFILE FOR ISLAND (CIRCLE)

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



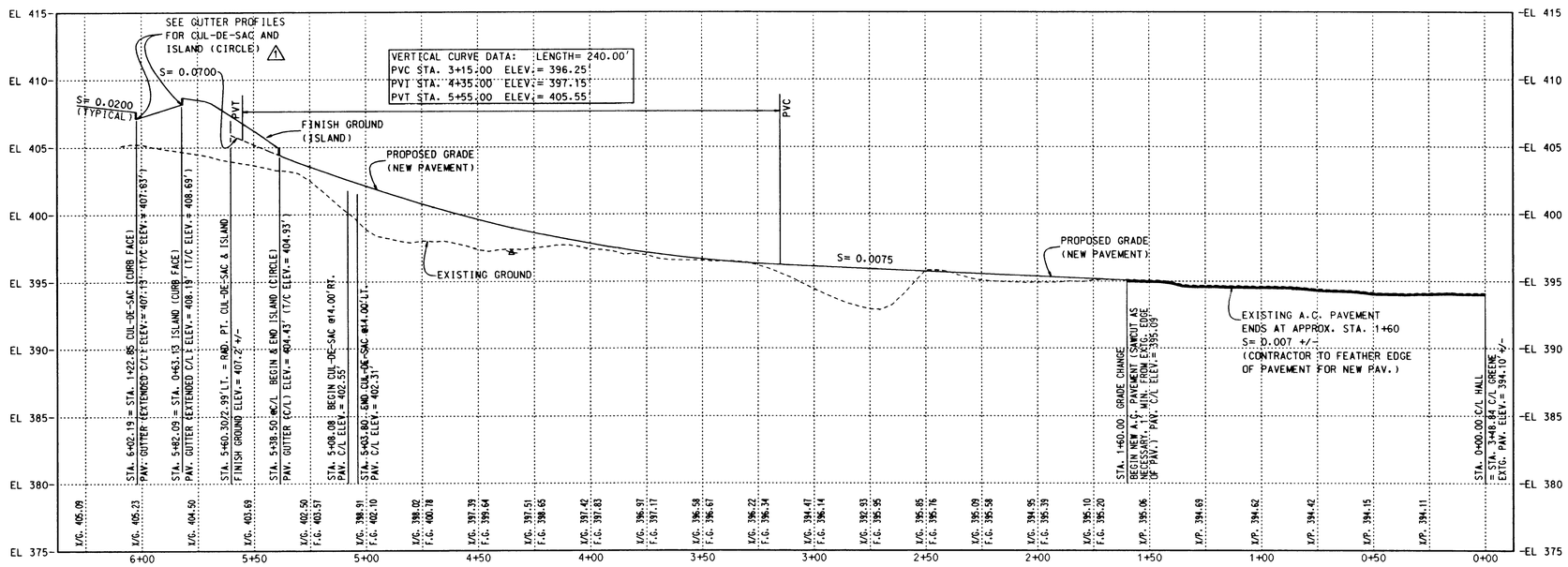
GUTTER PROFILE FOR CUL-DE-SAC

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



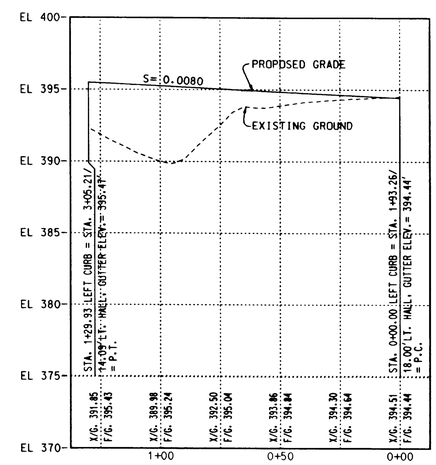
RIGHT SIDE GUTTER PROFILE @ PAVEMENT NARROWING ZONE

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



CENTERLINE PROFILE FOR HALL STREET

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



LEFT SIDE GUTTER PROFILE @ PAVEMENT NARROWING ZONE

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

ASBUILT
02-09-99 ASBUILTS
10-28-98 revisions per owner

REVISIONS
1 8/14/98 REVISE CUL-DE-SAC & ISLAND
:
:
DESIGNED: PC/FK CHECKED: NMR
DRAWN: DM/RT DATE: 9-8-97
JOB NO.: 97-016 SCALE: 1"=30'

STREET PROFILES
for
ROYAL RIDGE SUBDIVISION
CITY OF WEST LINN, CLACKAMAS COUNTY, OREGON

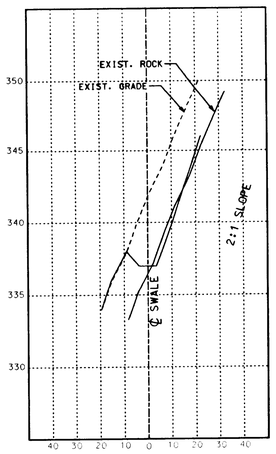
REGISTERED PROFESSIONAL ENGINEER 12,946 OREGON JULY 26, 1983 BRADLEY S. SCHLENNING
EXPIRES:

W.B. WELLS and associates inc.
ENGINEERS • SURVEYORS • PLANNERS
4230 NE FREMONT STREET
PORTLAND, OREGON 97213
PHONE (503) 284-5896
FAX. (503) 284-8530

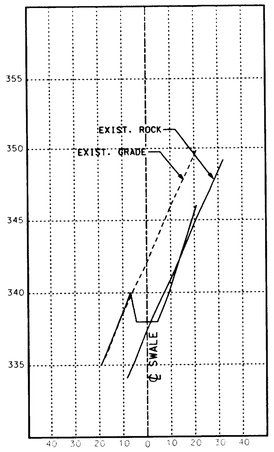
SHEET
7 of 13

PLOT DATE: 09 FEB 1999 p:\97-016\eng\asbuilts\07ab_street_pro.dgn
15:29:08

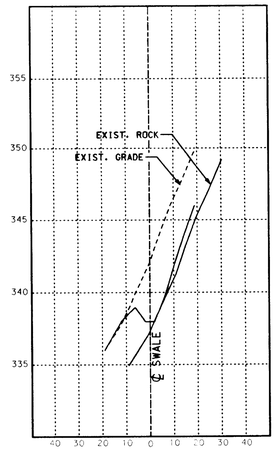
ASBUILT



SWALE SECTION STA 0+00



SWALE SECTION STA 0+50



SWALE SECTION STA 1+00

STORM SEWER NOTES:

(3) MANHOLE #1
60" OUTLET CONTROL MANHOLE
STA.0+00.0 STM-1
~~STA.0+35.0~~ STM-2 **STA.0+33.1**
~~RIM=351.00~~ **330.61**
IE IN=~~323.0~~(NW)STM-2 **322.70**
IE IN=~~319.0~~(SW)STM-1 **319.01**
IE OUT=~~319.00~~ **319.01**
SUMP=316.00
(SEE SHEET 9 OF 13 FOR DETAIL)
SEE DETAIL SHEET 9 OF 13

(4) MANHOLE #2 (DETENTION PIPE ACCESS)
~~STA.0+27.04~~ STM-1 **STA.0+30.03**
RIM=~~350.50~~ **339.14**
IE=~~343.00~~(72") +/- **339.14**

(5) DITCH INLET #2
~~STA.2+76.43~~ STM-1 **STA.2+69.89**
W/5'X5'X12" RIP-RAP SURROUND
GRATE(@ BOTTOM)=~~336.5'~~ **335.73**
IE=~~331.92'~~ **333.23**

(6) OUTFALL #1
~~STA.3+31.72~~ STM-1 **STA.3+68.48**
W/5'X5' RIPRAP
IE=~~330.00~~ **337.30**

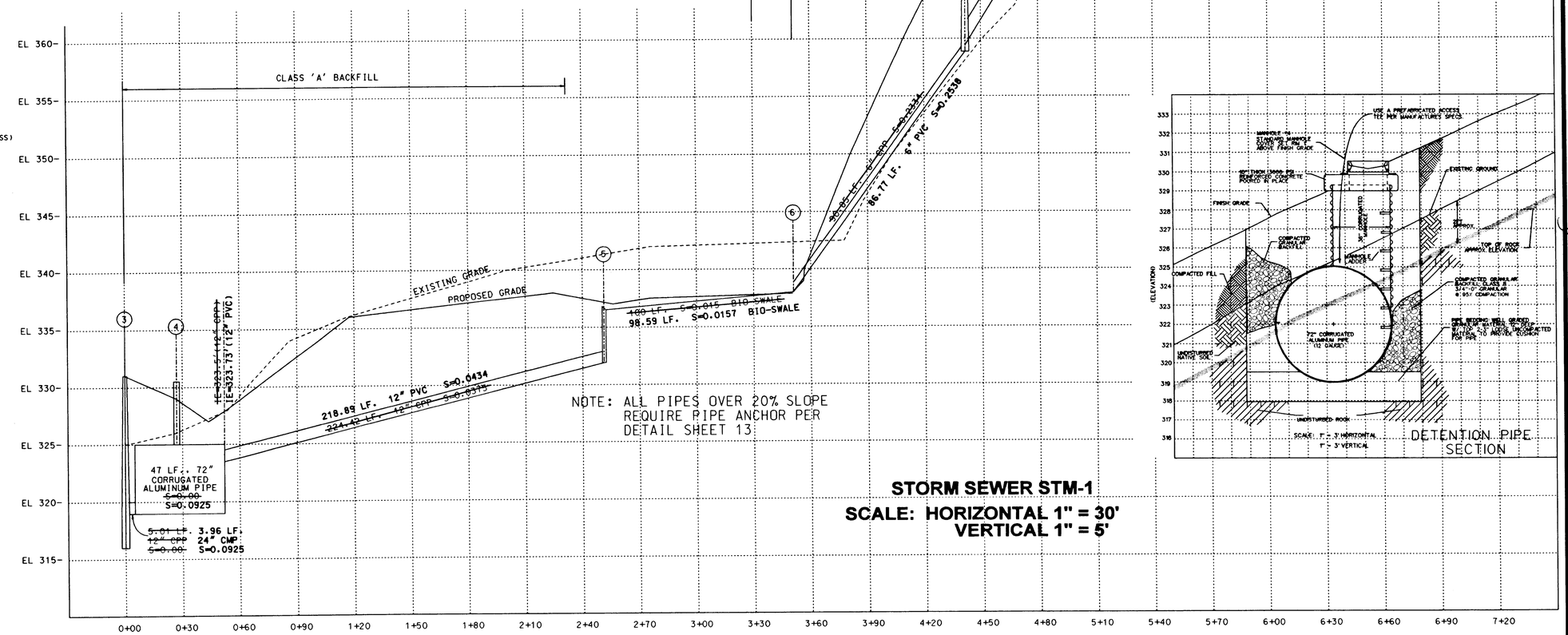
(7) MANHOLE #3 (FLOW SPLITTER)
~~STA.1+67.20~~ STM-1 **STA.1+55.25**
~~STA.1+74.37~~ STM-2 **STA.1+77.45**
RIM=~~365.00~~ **369.47**
IE IN=~~355.40~~(N)STM-1 **359.52**
IE OUT=~~359.20~~(SE)STM-2 **359.52**
6" IE OUT=~~358.90~~(SW) **359.32**
6" CAP W/ 4-3/4" ORIFICE
SEE DETAIL SHEET 9 OF 13

(10) MANHOLE #4
60" POLLUTION CONTROL MANHOLE
~~STA.5+34.45~~ STM-1 **STA.5+54.26**
STA.0+00 STM-3/STM-4
~~STA.2+91.37+28.8 LT.~~(HALL ST)
STA.2+91.94,36.65'LT.
RIM=~~395.00~~ **395.41**
IE IN=~~388.50~~(E) **385.56**
IE IN=~~387.05~~(N) **384.96**
IE IN=~~388.50~~(W) **385.51**
IE OUT=~~387.65~~(S) **384.81**
SEE DETAIL SHEET 9 OF 13

CURB INLET #2
~~STA.7+04.68~~ STM-1 **STA.7+05.63**
~~STA.1+64.0,20'LT.~~(HALL ST.)
STA.J+68.50,J8.93'LT
EL @ TC=~~394.76~~ **395.20**
(12) IE IN=~~389.76~~ (W) **389.80**
IE OUT=~~389.56~~ (SW) **389.50**

(13) CURB INLET #3
~~STA.6+59.79~~ STM-1 **STA.7+44.38**
~~STA.1+64.0,20'RT.~~(HALL ST.)
STA.J+67.99,J9.79'RT
EL @ TC=~~395.20~~ **395.21**
IE OUT=~~391.21~~ **39L16**

CURB INLET #4 / MH VAULT
~~STA.5+82.02~~ STM-1 **STA.5+75.58**
~~STA.2+91.57+154'LT.~~(HALL ST.)
STA.2+90.57,J0.39'LT.
EL @ TC=~~395.91~~ **395.87**
EP=~~395.41~~ **395.37**
(20) IE IN=~~388.46~~ **388.50(NE)**
IE OUT=~~387.96~~ **387.67**
MH RIM=395.60
IE INOO=388.36



NOTE: ALL PIPES OVER 20% SLOPE REQUIRE PIPE ANCHOR PER DETAIL SHEET 13

STORM SEWER STM-1

SCALE: HORIZONTAL 1" = 30'
VERTICAL 1" = 5'

DETENTION PIPE SECTION

REVISIONS
1 11-12-97 REDLINES PER CITY
2 12-18-97 PER CITY REVIEW
3
4
5

02-09-99 ASBUILTS
10-28-98 revisions per owner

DESIGNED: PC/FK CHECKED: NMR
DRAWN: DM/RT DATE: 9-8-97
JOB NO.: 97-016 SCALE: 1"=30'

STORM SEWER PROFILES
for
ROYAL RIDGE SUBDIVISION
CITY OF WEST LINN, CLACKAMAS COUNTY, OREGON

REGISTERED PROFESSIONAL ENGINEER
OREGON
NOV 26, 1985
BRADLEY S. SCHLEINING
EXPIRES:

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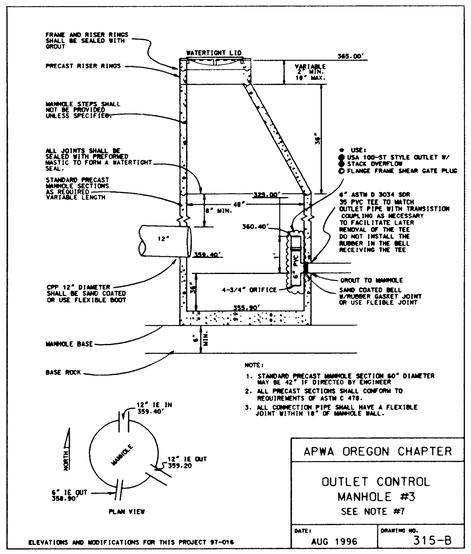
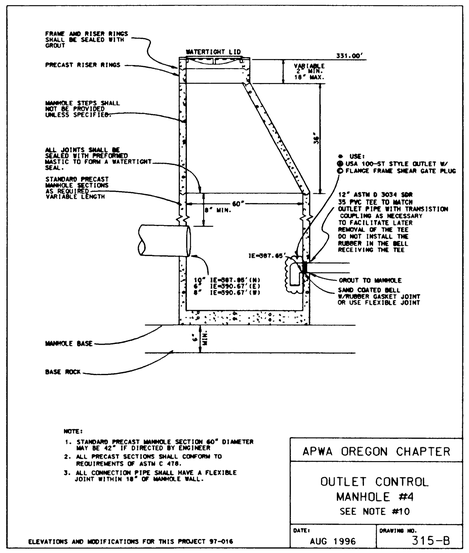
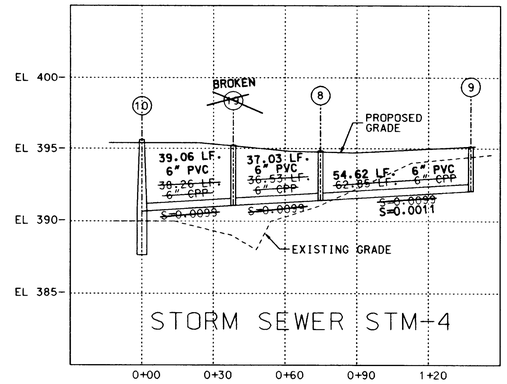
SHEET 8 of 13

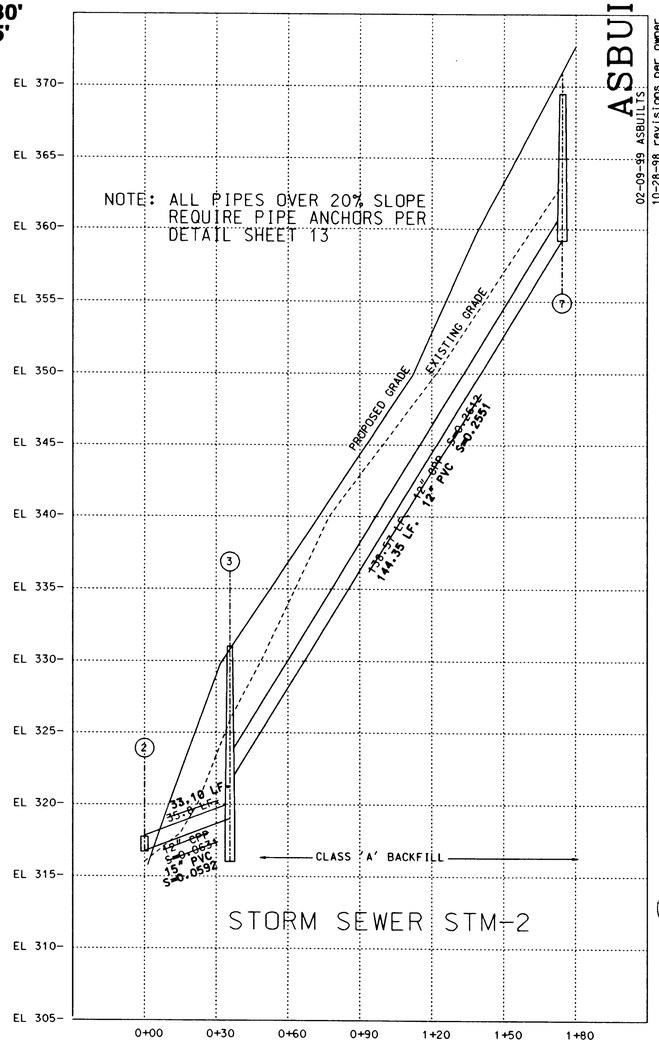
PLOT DATE: 09 FEB 1999 p:\97-016\eng\asbuilts\16sb_stm_pro.dgn



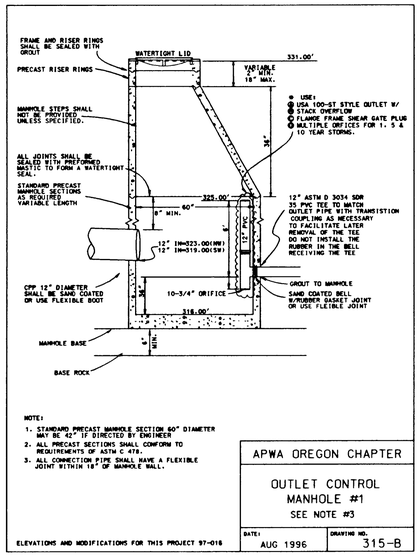


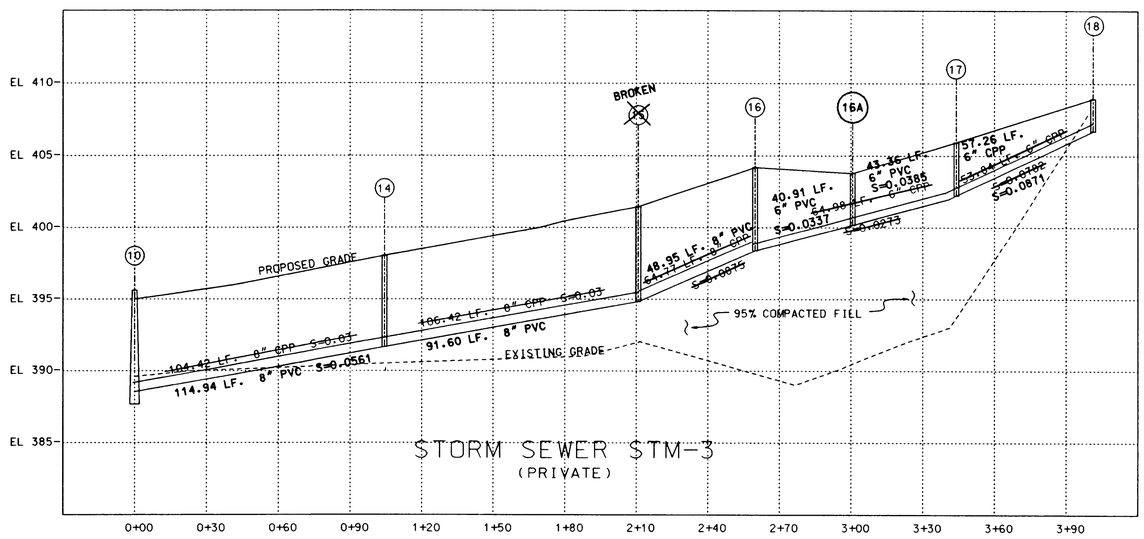
SCALE: HORIZONTAL 1" = 30'
VERTICAL 1" = 5'





ASBUILT
02-09-99 ASBUILTS:
10-28-98 revisions per owner





STORM SEWER NOTES:
STM-1/ STM-2 / STM-3

(2) ~~CATCH BASIN #1~~ DITCH INLET
STA. 14+12.00, 33.9' RT (SALAMO)
STA. 0+00 STM-1
GRATE=~~397.74~~ 39.70 (@BOTTOM)
IE IN=~~396.74~~(N) (N) 37.05
IE IN=~~396.74~~(NE) (NE) 36.70

(3) MANHOLE #1
60" OUTLET CONTROL MANHOLE
STA.0+00.0 STM-1
~~STA.0+35.0~~ STM-2 STA.0+33.1
RIM=~~330.00~~ 330.61
IE IN=~~323.00~~(NW)STM-2 322.70
IE IN=~~319.00~~(SW)STM-1 319.01
IE OUT=~~319.00~~ 319.01
SUMP=316.00
(SEE SHEET 9 OF 13 FOR DETAIL)
SEE DETAIL SHEET 9 OF 13

(4) MANHOLE #2 (DETENTION PIPE ACCESS)
~~STA.0+27.0~~ STM-1 STA.0+30.03
RIM=~~330.50~~ 33.14
IE=~~319.00~~(72") +/- 319.14

(7) MANHOLE #3 (FLOW SPLITTER)
~~STA.4+67.20~~ STM-1 STA.4+55.25
~~STA.1+74.37~~ STM-2 STA.1+77.45
RIM=~~365.00~~ 365.47
IE IN=~~359.00~~(N)STM-1 359.52
IE OUT=~~359.00~~(SE)STM-2 359.52
6' IE OUT=~~360.00~~(SW) 359.32
6" CAP W/ 4-3/4" ORIFICE
SEE DETAIL SHEET 9 OF 13

(8) CLEANOUT #1
~~STA.0+74.70~~ STM-4 STA.0+76.09
~~STA.2+34.30.0' LT.~~(HALL ST.)
IE=~~394.4~~ 392.78 STA.2+33.87,32.84' LT
RIM=394.28

(9) CLEANOUT #2
~~STA.1+37.64~~ STM-4 STA.1+30.71
~~STA.1+84.26,37.0' LT.~~(HALL ST.)
IE=~~392.04~~ 392.84 STA.1+92.57,37.13'LT
RIM=395.19

(10) MANHOLE #4
60" POLLUTION CONTROL MANHOLE
~~STA.5+76.5~~ STM-1 STA.5+54.26
STA.0+00 STM-3/STM-4
~~STA.2+91.57,26.91' LT.~~(HALL ST) STA.2+91.94,31.65'LT.
RIM=~~395.00~~ 395.41
IE IN=~~388.30~~(E) 385.56
IE IN=~~387.05~~(N) 384.96
IE IN=~~388.50~~(W) 385.51
IE OUT=~~387.65~~(S) 384.81
SEE DETAIL SHEET 9 OF 13

(14) CLEAN OUT #3
~~STA.1+04.40~~ STM-3 STA.1+11.94
~~STA. 3+96.6,26.94' LT.~~(HALL ST.) STA. 4+01.57,29.24'LT.
RIM=~~397.63~~ 397.36
IE=~~398.0~~ 398.96

(15) ~~CLEAN OUT #4~~ BROKEN
~~STA.2+40.04~~ STM-3 STA.2+06.54
~~STA.4+97.9,27' LT.~~(HALL ST.) STA.4+92.99,30.67'LT
RIM=~~403.7~~ 40.43
IE=~~394.83~~ ???

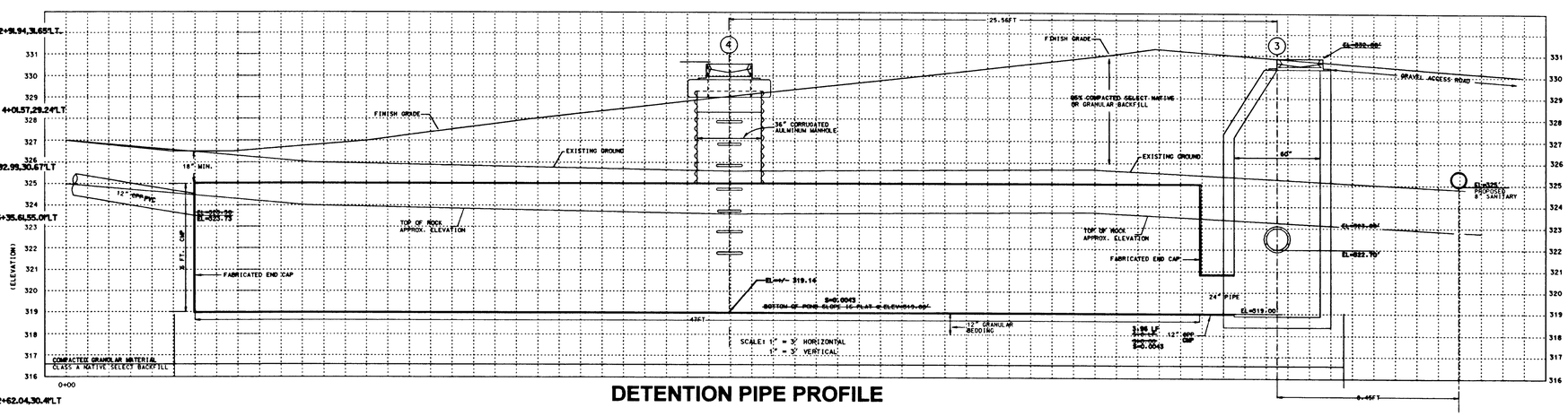
(16) CLEAN OUT #5
~~STA.2+75.6~~ STM-3 STA.2+55.49
~~STA.5+48.6,44.0' LT.~~(HALL ST.) STA.5+35.61,55.01'LT
RIM=~~404.42~~ 404.17
IE=~~400.50~~ 396.29

(16A) CLEAN OUT #5A
STA.2+95.40 STM-3
STA.5+76.33,58.99'LT.(HALL ST.)
RIM=403.77
IE=397.67

(17) CLEAN OUT #6
~~STA.3+40.50~~ STM-3 STA.3+39.76
RIM=~~405.64~~ 405.89
IE=~~401.95~~ 399.34

(18) CLEAN OUT #7
~~STA.3+94.49~~ STM-3 STA.3+97.02
RIM=~~406.4~~ 406.68
IE=~~406.16~~ 404.33

(19) ~~CLEAN OUT #8~~ BROKEN
~~STA.0+38.06~~ STM-4 STA.0+39.06
~~STA.2+60.3,30.4' LT.~~(HALL ST.) STA.2+62.04,30.4'LT
RIM=~~395.4~~ 395.52
IE=~~389.05~~ ???



DETENTION PIPE PROFILE

REVISIONS
1 11-12-97 REDLINES PER CITY
2 12-18-97 PER CITY REVIEW
3
4
5

DESIGNED: PC/FK CHECKED: NMR
DRAWN: DM/RT DATE: 9-8-97
JOB NO.: 97-016 SCALE: 1"=30'

STORM SEWER PROFILES
for
ROYAL RIDGE SUBDIVISION
CITY OF WEST LINN, CLACKAMAS COUNTY, OREGON

REGISTERED PROFESSIONAL ENGINEER
OREGON
JULY 26, 1985
BRADLEY S. SCHLEINIGER
EXPIRES:

W.B. WELLS and associates inc.
ENGINEERS • SURVEYORS • PLANNERS
4230 NE FREMONT STREET
PORTLAND, OREGON 97213
PHONE (503) 284-5896
FAX. (503) 284-8530

SHEET 9 of 13

PLOT DATE 09 FEB 1999
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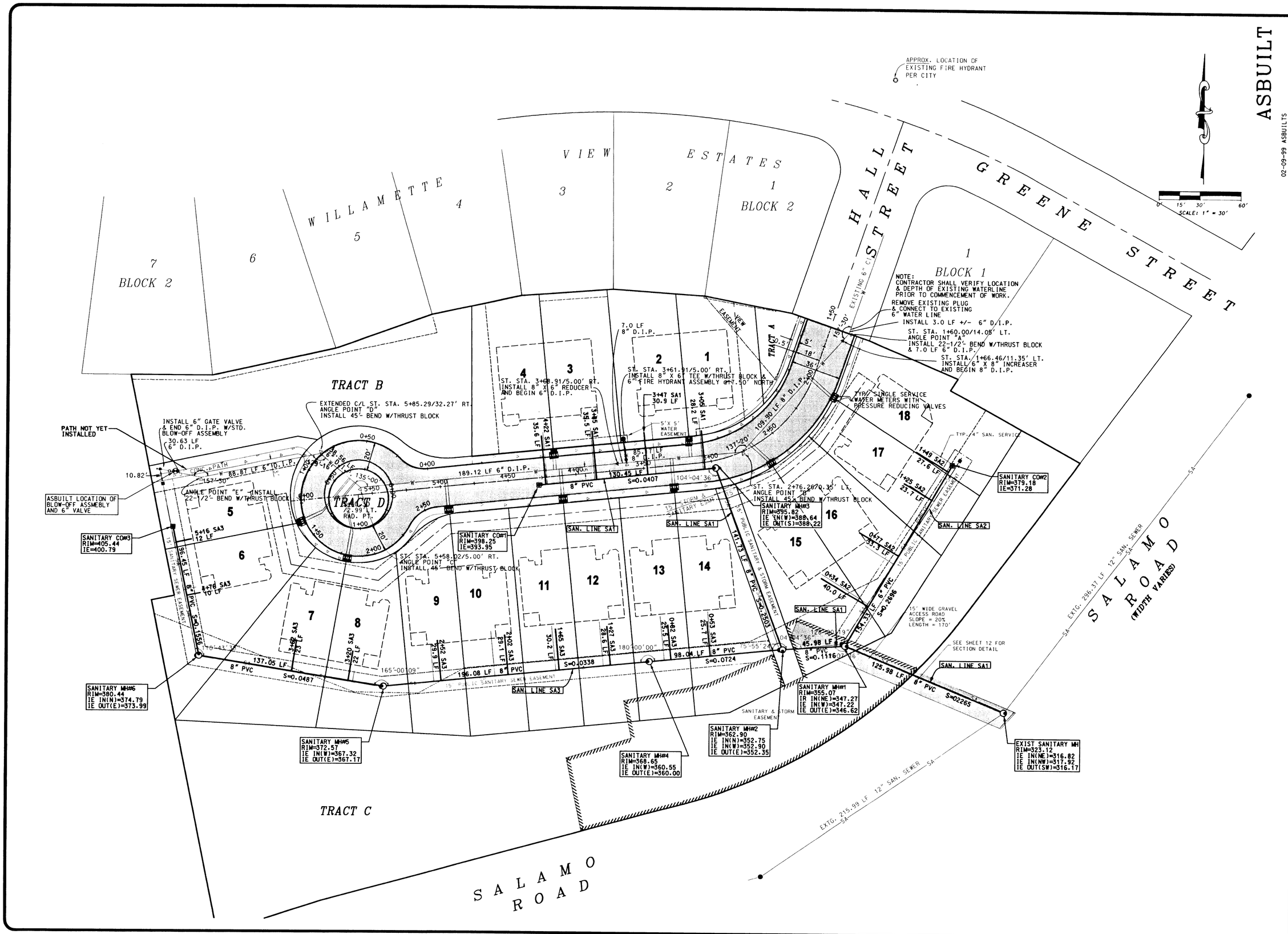
ASBUILT
02-09-99 ASBUILTS
10-28-98 revisions per owner
REVISIONS
9/29/97 REV SAN LINE BETW LOT 14 & 15
11/10/97 PER CITY REDLINES
12-18-97 PER CITY REVIEW
8-14-98 REVISE CUL-DE-SAC
DESIGNED: PC/FK CHECKED: NMR
DRAWN: DM/RT DATE: 9-8-97
JOB NO.: 97-016 SCALE: 1"=30'
SANITARY SEWER AND WATER PLAN
for
ROYAL RIDGE SUBDIVISION
CITY OF WEST LINN, CLACKAMAS COUNTY, OREGON
REGISTERED PROFESSIONAL ENGINEER
OREGON
JULY 26, 1985
BRADLEY S. SCHLEIHAGER
EXPIRES:
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4230 NE FREMONT STREET
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PHONE (503) 284-5896
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SHEET
10 of 13
APPROX. LOCATION OF EXISTING FIRE HYDRANT PER CITY
SCALE: 1" = 30'
VIEW ESTATES
WILLAMETTE
HALL STREET
GREENE STREET
SALAMO ROAD
(WIDTH VARIES)
BLOCK 1
BLOCK 2
TRACT A
TRACT B
TRACT C
TRACT D
NOTE: CONTRACTOR SHALL VERIFY LOCATION & DEPTH OF EXISTING WATERLINE PRIOR TO COMMENCEMENT OF WORK.
REMOVE EXISTING PLUG & CONNECT TO EXISTING 6" WATER LINE
INSTALL 3.0 LF +/- 6" D.I.P.
ST. STA. 1+60.00/14.05' LT. ANGLE POINT "A" INSTALL 22-1/2° BEND W/THRUST BLOCK & 7.0 LF 6" D.I.P.
ST. STA. 1+66.46/11.35' LT. INSTALL 6" X 8" INCREASER AND BEGIN 8" D.I.P.
TYP. SINGLE SERVICE WATER METERS WITH PRESSURE REDUCING VALVES
TYP. 4" SAN. SERVICE
SANITARY CO#2 RIM=379.18 IE=371.28
ST. STA. 2+76.26/0.35' LT. ANGLE POINT "B" INSTALL 45° BEND W/THRUST BLOCK
SANITARY MH#3 RIM=395.82 IE IN(W)=388.64 IE OUT(S)=388.22
SANITARY CO#1 RIM=398.25 IE=393.95
ST. STA. 5+58.02/5.00' RT. ANGLE POINT "C" INSTALL 45° BEND W/THRUST BLOCK
ST. STA. 3+68.91/5.00' RT. INSTALL 8" X 6" REDUCER AND BEGIN 6" D.I.P.
ST. STA. 3+61.91/5.00' RT. INSTALL 8" X 6" TEE W/THRUST BLOCK & 6" FIRE HYDRANT ASSEMBLY @+7.50' NORTH
EXTENDED C/L ST. STA. 5+85.29/32.27' RT. ANGLE POINT "D" INSTALL 45° BEND W/THRUST BLOCK
INSTALL 6" GATE VALVE & END 6" D.I.P. W/STD. BLOW-OFF ASSEMBLY
PATH NOT YET INSTALLED
ASBUILT LOCATION OF BLOW-OFF ASSMEBLY AND 6" VALVE
ANGLE POINT "E" INSTALL 22-1/2° BEND W/THRUST BLOCK
SANITARY CO#3 RIM=405.44 IE=400.79
SANITARY MH#6 RIM=380.44 IE IN(N)=374.79 IE OUT(E)=373.99
SANITARY MH#5 RIM=372.57 IE IN(W)=367.32 IE OUT(E)=367.17
SANITARY MH#4 RIM=368.65 IE IN(W)=360.55 IE OUT(E)=360.00
SANITARY MH#2 RIM=362.90 IE IN(N)=352.75 IE IN(W)=352.90 IE OUT(E)=352.35
SANITARY MH#1 RIM=355.07 IR IN(NE)=347.27 IE IN(W)=347.22 IE OUT(E)=346.62
EXIST SANITARY MH RIM=323.12 IE IN(NE)=316.82 IE IN(NW)=317.92 IE OUT(SW)=316.17
SAN. LINE SA1
SAN. LINE SA2
SAN. LINE SA3
15' WIDE GRAVEL ACCESS ROAD SLOPE = 20% LENGTH = 170'
SEE SHEET 12 FOR SECTION DETAIL
EXTG. 296.37 LF 12" SAN. SEWER
EXTG. 215.99 LF 12" SAN. SEWER
15' PUBLIC SANITARY SEWER EASEMENT
15' PUBLIC SANITARY & STORM EASEMENT
SANITARY & STORM EASEMENT
VIEW EASEMENT
5'X 5' WATER EASEMENT
8" PVC
PLOT DATE: 09 FEB 1999
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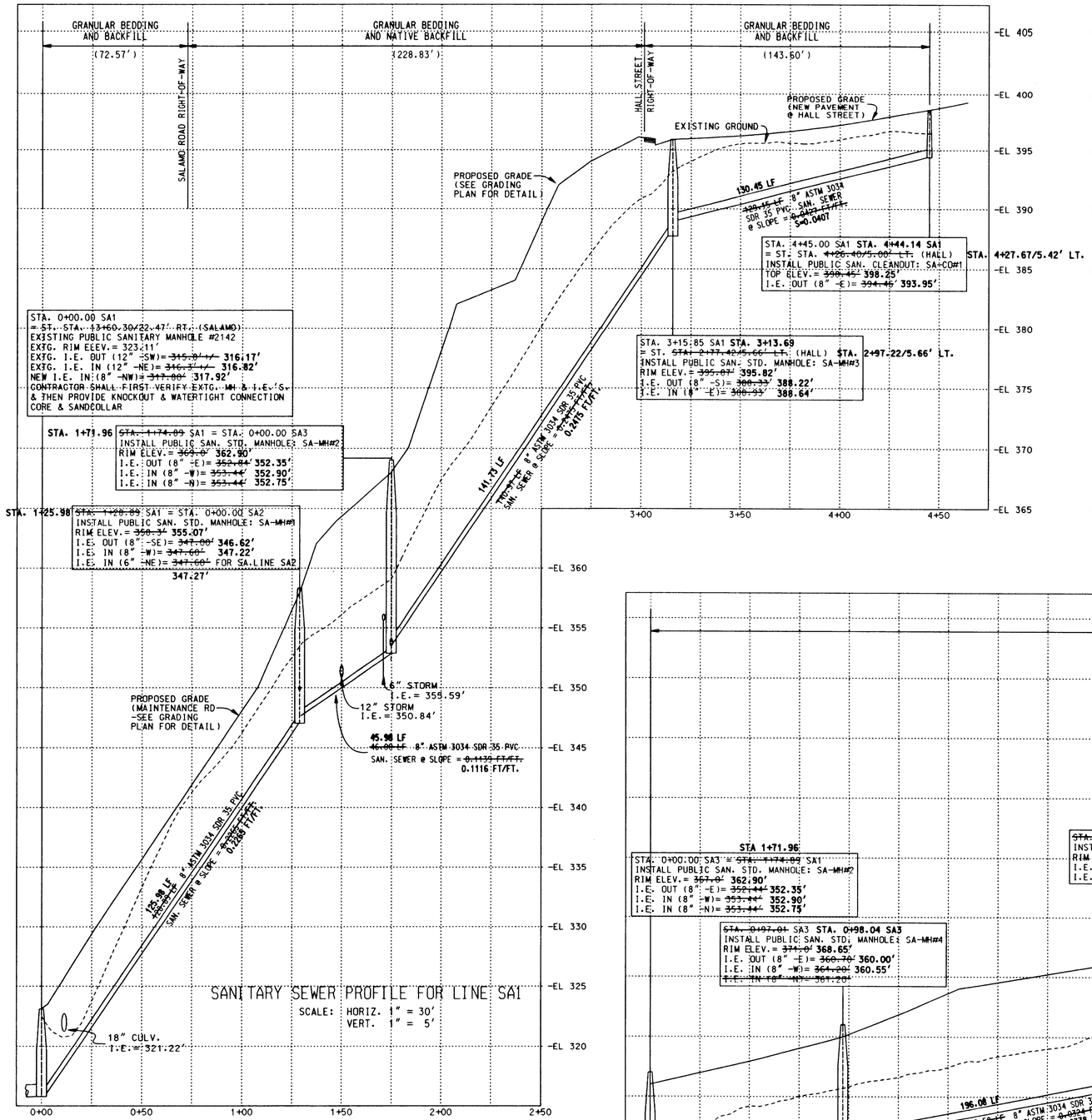
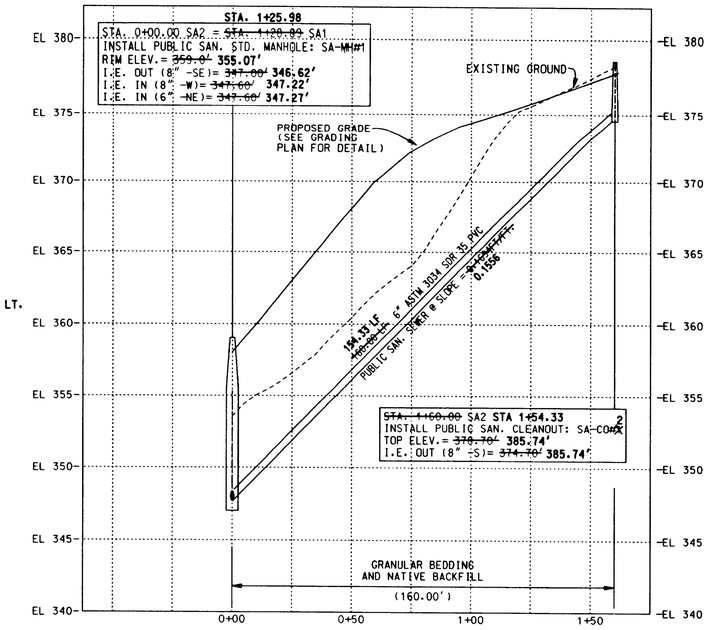
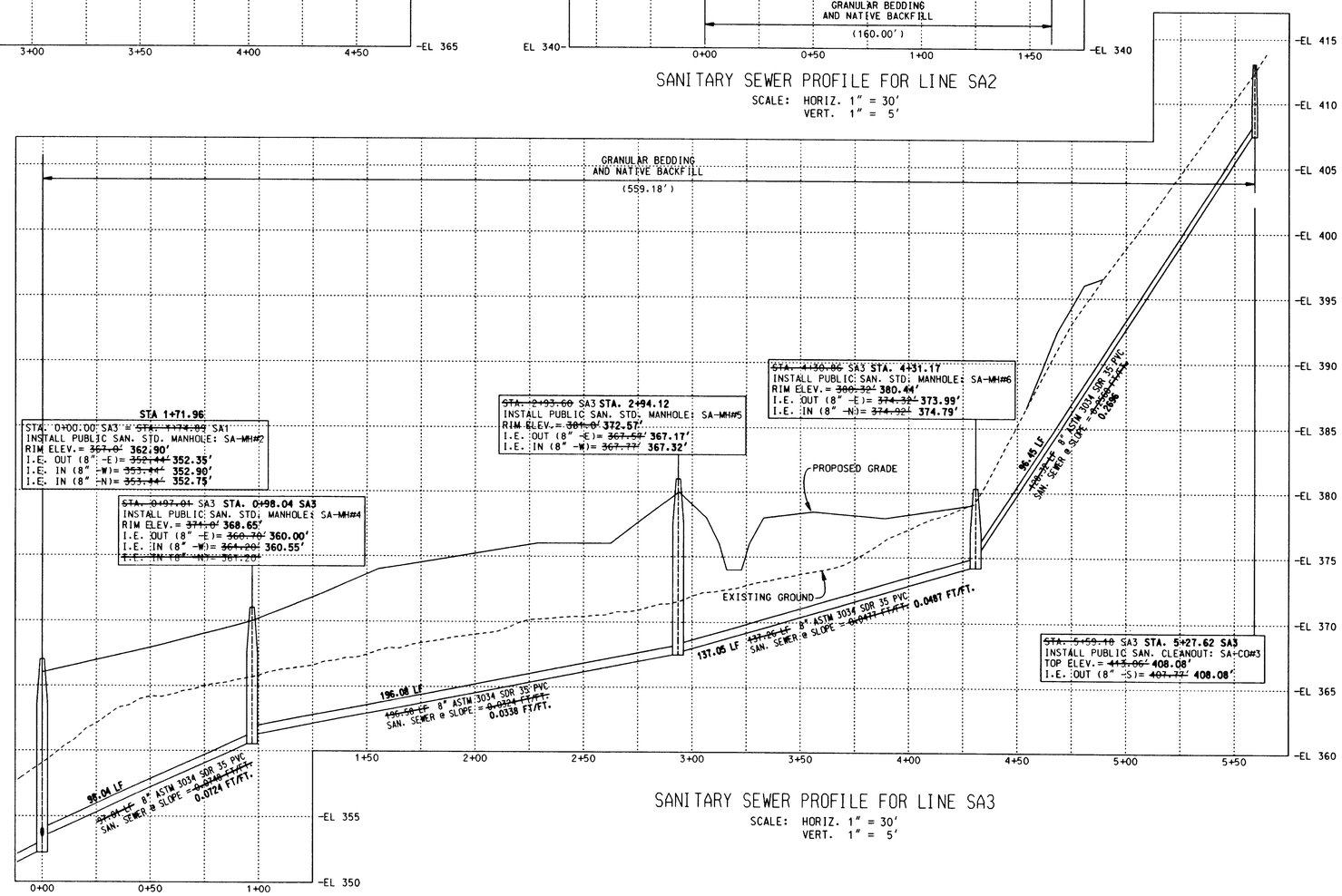
17:00:53





SANITARY SEWER PROFILE FOR LINE SA2

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

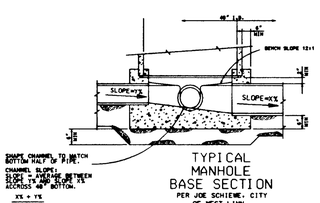


SANITARY SEWER PROFILE FOR LINE SA3

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

NOTE:

ALL PIPES WITH A SLOPE OVER 20% REQUIRE PIPE ANCHORS PER APWA STD. DETAIL (SEE SHEET 13)



TYPICAL MANHOLE BASE SECTION
PER JOE SCHIEWE, CITY OF WEST LINN

ASBUILT
02-09-99 ASBUILTS
10-28-98 revisions per owner

REVISIONS
1 9/29/97 REV SAN LINE BETW LOT 14 & 15
2 11-12-97 REVISE PER CITY REDLINES
3

DESIGNED: PC/FK CHECKED: NMR
DRAWN: DM/RT DATE: 9-8-97
JOB NO.: 97-016 SCALE: 1"=30'

SANITARY SEWER PROFILES
for
ROYAL RIDGE SUBDIVISION
CITY OF WEST LINN, CLACKAMAS COUNTY, OREGON

REGISTERED PROFESSIONAL ENGINEER
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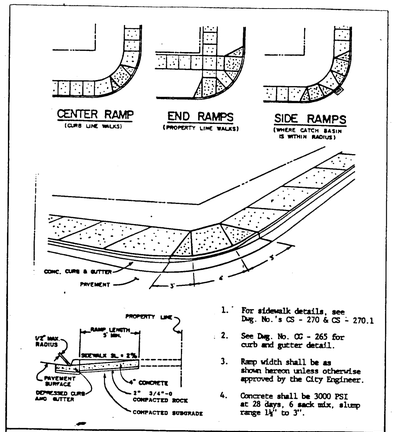
4230 NE FREMONT STREET
PORTLAND, OREGON 97213
PHONE (503) 284-5896
FAX. (503) 284-8530

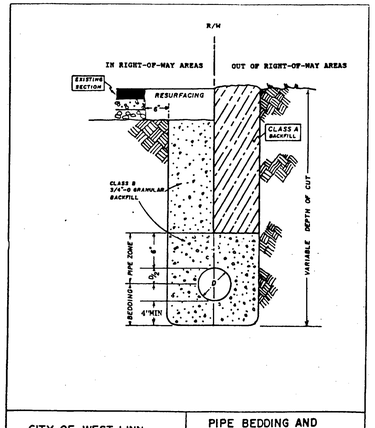
SHEET 11 of 13

PLOT DATE 09 FEB 1999
p:\97-016\eng\asbuilts\11ssp_sa1_pro.dgn
17.07.13

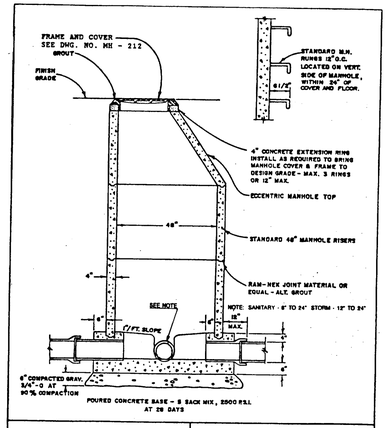


1. For sidewalk details, see Dwg. No.'s CS - 270 & CS - 270.1
2. See Dwg. No. CG - 265 for curb and gutter detail.
3. Ramp width shall be as shown hereon unless otherwise approved by the City Engineer.
4. Concrete shall be 3000 PSI at 28 days, 6 sack mix, slump range 1½" to 3".

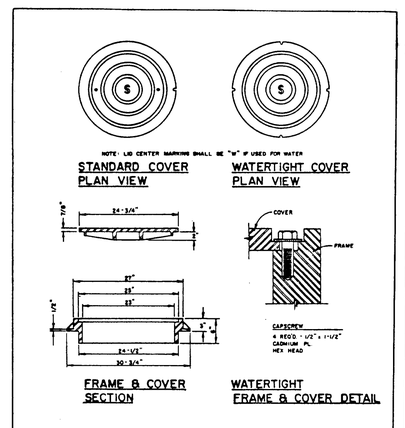
CITY OF WEST LINN	SIDEWALK RAMP
DRAWN BY DDP DATE 5-20-87	
CHECKED BY DLL DATE 5-27-87	
APPROVED BY Earl Reed DATE 5-27-87	DWG. NO. CS - 271



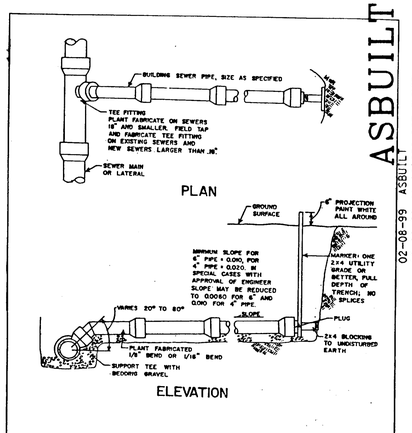
CITY OF WEST LINN	PIPE BEDDING AND BACKFILL DETAILS
DRAWN BY DDP DATE 5-20-87	
CHECKED BY DLL DATE 5-27-87	
APPROVED BY Earl Reed DATE 5-27-87	DWG. NO. PB - 280



CITY OF WEST LINN	STANDARD MANHOLE
DRAWN BY DDP DATE 5-20-87	
CHECKED BY DLL DATE 5-27-87	
APPROVED BY Earl Reed DATE 5-27-87	DWG. NO. MH - 209

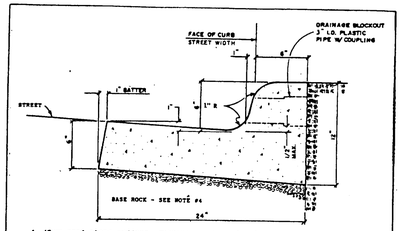


CITY OF WEST LINN	MANHOLE FRAME & COVER
DRAWN BY DDP DATE 5-20-87	
CHECKED BY DLL DATE 5-27-87	
APPROVED BY Earl Reed DATE 5-27-87	DWG. NO. MH - 212



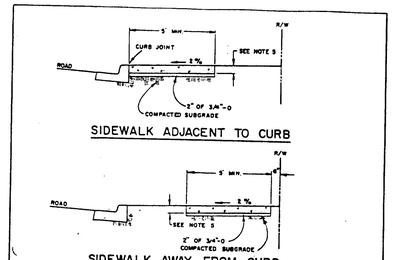
ASBUILT
02-08-99 ASBUILT
10-26-98 revisions per owner

CITY OF WEST LINN	DEVELOPMENT SERVICES
SEWER SERVICE	DATE NOVEMBER, 1984 SCALE .N/A
	DRAWN BY DKK
	APPROVED BY



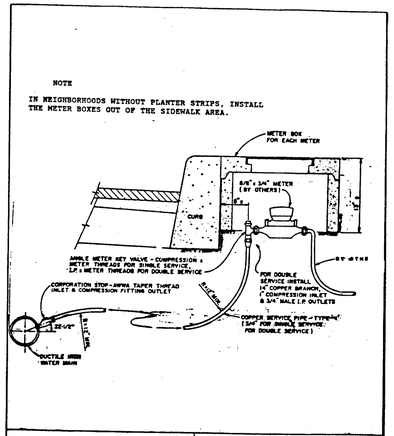
1. When used along medians, gutters may be reduced with prior approval from the City Engineer.
2. Concrete shall have a breaking strength of 3000 PSI after 28 days.
3. CONTRACTION JOINTS
   A. To be provided:
      1) at each point of tangency of the curb.
      2) at each cold joint.
      3) at each side of inlet structures.
      4) at both sided of an approach.
   B. Spacing to be not more than 15 feet.
   C. The depth of the joint shall be at least 1 1/2".
4. Base rock - 1 1/2" minus, 95% compaction. Rock shall be to subgrade of street structure or 4" in depth, whichever is greater.
5. Drainage block - 3" dia. plastic pipe.
   A. Drainage access through existing curbs shall be by the following:
      1) core drilling.
      2) vertical saw-cut of curb 18" each side of drain & repoured to full depth of curb.

CITY OF WEST LINN	CURB & GUTTER
DRAWN BY DDP DATE 5-20-87	
CHECKED BY DLL DATE 5-27-87	
APPROVED BY Earl Reed DATE 5-27-87	DWG. NO. CG - 265

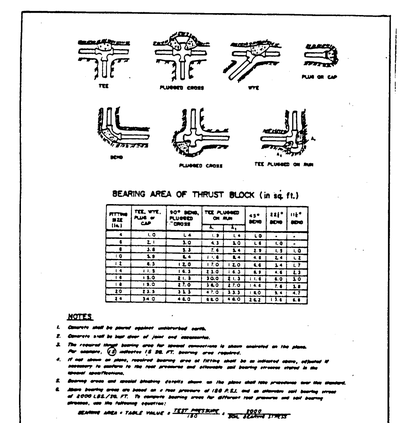


1. Concrete shall be 300 PSI at 28 days, 6 sack min. slump range of 1 1/2" to 3".
2. Panel lengths shall be equal to the sidewalk width, but may be adjusted with the City Engineers approval.
3. Contraction joints (1 1/2" deep) shall be placed every third panel, with a max. spacing of 15 feet.
   Joints shall also be placed at the sides of driveway approaches, utility vaults, and abutting walks.
4. A curing compound shall be used. White reflective sheeting shall be used in lieu of rain.
5. For sidewalks adjacent to the curb & poured at the same time as the curb, the joint between them shall be a troweled joint with a min. 1/4" radius.
6. The sidewalk shall have a min. thickness of 4" if monolithic 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 2" dia. plastic pipe at a 2% slope.
   A contraction joint shall be placed over the pipe.

CITY OF WEST LINN	CONCRETE SIDEWALK
DRAWN BY DDP DATE 5-20-87	
CHECKED BY DLL DATE 5-27-87	
APPROVED BY Earl Reed DATE 5-27-87	DWG. NO. CS - 270

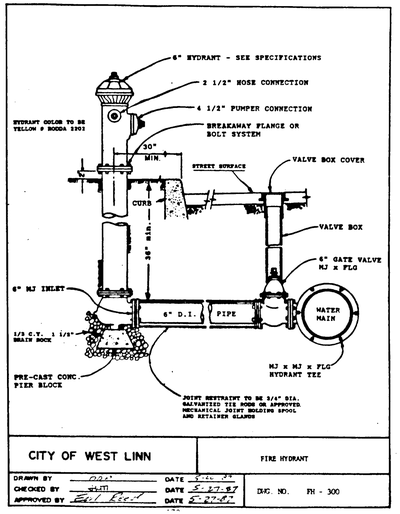


CITY OF WEST LINN	WATER METER
DRAWN BY DDP DATE 5-20-87	
CHECKED BY DLL DATE 5-27-87	
APPROVED BY Earl Reed DATE 5-27-87	DWG. NO. WM - 304

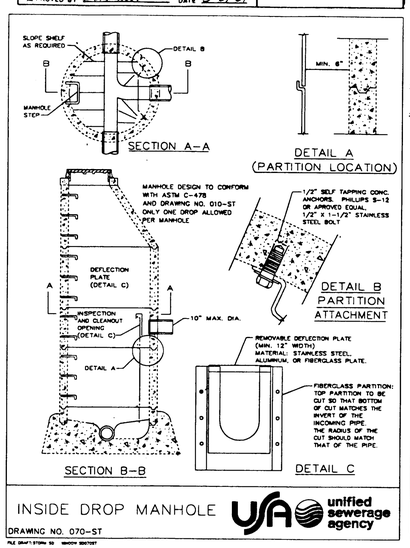


FITTING SIZE (inch)	TEE, WYE, PLUG*	90° BEND, PLUGGED CROSS	TEE PLUGGED ON RUN	45° BEND	22½° BEND	11¼° BEND
			R_1	R_2		
4	1.0	1.4	1.9	1.4	1.0	-
6	2.1	3.0	4.1	3.0	1.5	0.8
8	3.8	5.3	7.4	5.4	2.8	1.5
10	5.9	8.3	11.5	8.4	4.3	2.3
12	8.5	12.0	17.0	12.0	6.2	3.4
14	11.5	16.3	23.1	16.3	8.4	4.6
16	15.0	21.3	30.0	21.3	11.0	6.0
18	19.0	26.9	38.0	26.9	13.9	7.6
20	23.5	33.3	47.0	33.3	17.2	9.4
24	34.0	48.0	68.0	48.0	24.8	13.6

CITY OF WEST LINN	THRUST BLOCKING
DRAWN BY DDP DATE 5-20-87	
CHECKED BY DLL DATE 5-27-87	
APPROVED BY Earl Reed DATE 5-27-87	DWG. NO. TB - 302

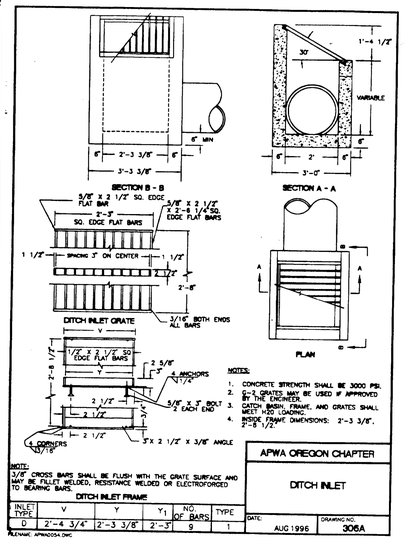


CITY OF WEST LINN	FIRE HYDRANT
DRAWN BY DDP DATE 5-20-87	
CHECKED BY DLL DATE 5-27-87	
APPROVED BY Earl Reed DATE 5-27-87	DWG. NO. FH - 300



INSIDE DROP MANHOLE
DRAWING NO. 070-ST
unified sewerage agency

CITY OF WEST LINN	
DRAWN BY DDP DATE 5-20-87	
CHECKED BY DLL DATE 5-27-87	
APPROVED BY Earl Reed DATE 5-27-87	DWG. NO. DI - 070



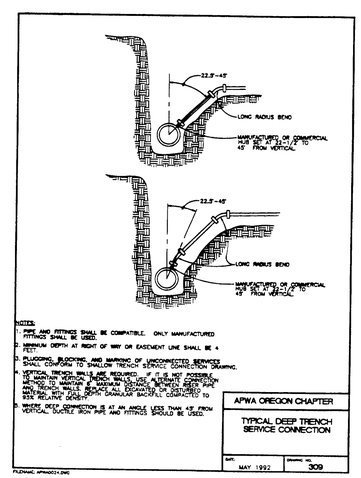
NOTE:
3/8" CROSS BARS SHALL BE FLUSH WITH THE GRATE SURFACE AND MAY BE FILLET WELDED, RESISTANCE WELDED OR ELECTROFORMED TO BEARING BARS.

DITCH INLET FRAME

INLET TYPE	V	Y	Y1	NO. OF BARS	TYPE
D	2'-4 3/4"	2'-3 3/8"	2'-3"	9	1

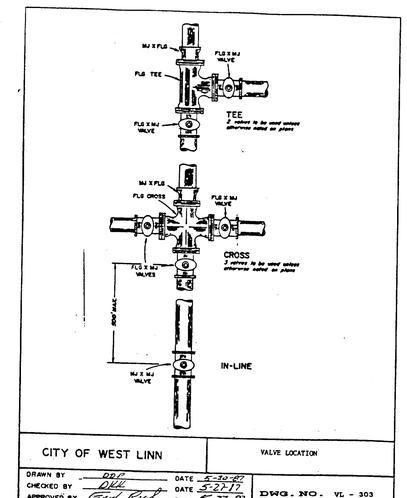
NOTES:
1. CONCRETE STRENGTH SHALL BE 3000 PSI.
2. C-2 GRATES MAY BE USED IF APPROVED BY THE ENGINEER.
3. CATCH BASIN, FRAME, AND GRATES SHALL MEET H20 LOADING.
4. INSIDE FRAME DIMENSIONS: 2'-3 3/8", 2'-8 1/2".

APWA OREGON CHAPTER	
DITCH INLET	
DATE: AUG 1996	DRAWING NO. 306A

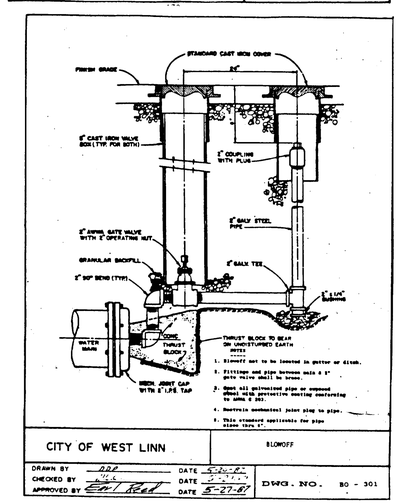


NOTES:
1. PIPE AND FITTINGS SHALL BE COMPATIBLE. ONLY MANUFACTURED FITTINGS SHALL BE USED.
2. MINIMUM DEPTH AT RIGHT OF WAY OR EASEMENT LINE SHALL BE 4 FEET.
3. PLUGGING, BLOCKING, AND MARKING OF UNCONNECTED SERVICES SHALL CONFORM TO SHALLOW TRENCH SERVICE CONNECTION DRAWING.
4. VERTICAL TRENCH WALLS ARE REQUIRED. IF IT IS NOT POSSIBLE TO MAINTAIN VERTICAL WALLS, SHORING, OR ALTERNATE CONSTRUCTION METHOD TO MAINTAIN A MINIMUM 30" WIDTH AT CONNECTION HOLE, TRENCH WALLS, BUNCHED ALL EXCAVATION OR DISTURBED MATERIAL, AND MAINTAIN DEPTH GRANULAR BACKFILL COMPACTED TO 95% RELATIVE DENSITY.
5. WHEN PIPE SECTION IS AT AN ANGLE LESS THAN 45° FROM VERTICAL, SHORT SWEEP PIPE AND FITTINGS SHOULD BE USED.

APWA OREGON CHAPTER	
TYPICAL DEEP TRENCH SERVICE CONNECTION	
DATE: MAY 1992	DRAWING NO. 309



CITY OF WEST LINN	VALVE LOCATION
DRAWN BY DDP DATE 5-20-87	
CHECKED BY DLL DATE 5-27-87	
APPROVED BY Earl Reed DATE 5-27-87	DWG. NO. VL - 303



CITY OF WEST LINN	BLOWOFF
DRAWN BY DDP DATE 5-20-87	
CHECKED BY DLL DATE 5-27-87	
APPROVED BY Earl Reed DATE 5-27-87	DWG. NO. BO - 301

REVISIONS

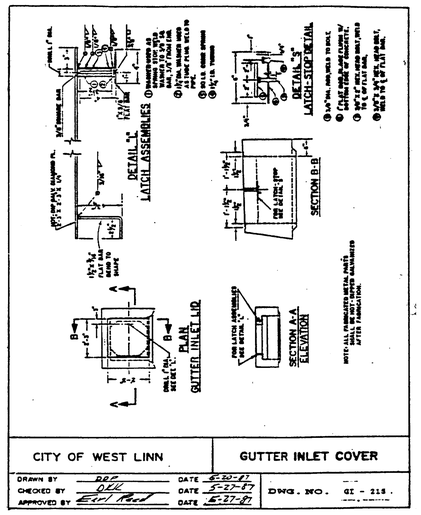
DESIGNED:	CHECKED:
DRAWN:	DATE: 4-23-97
JOB NO.: 97-016	SCALE

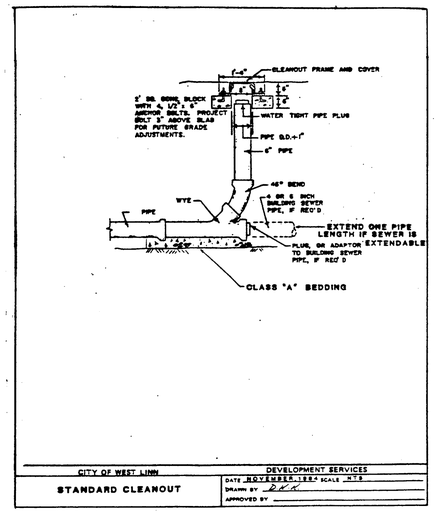
DETAILS
for
ROYAL RIDGE TOWNHOUSES
CITY OF WEST LINN
CLACKAMAS COUNTY, OREGON

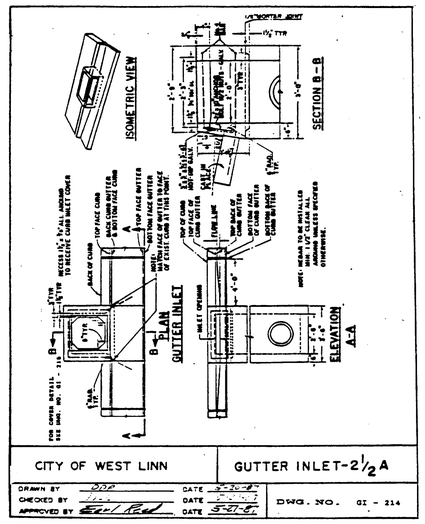
W.B. WELLS & associates, inc.
4230 NORTHEAST FREMONT STREET
PORTLAND, OREGON 97213
PHONE (503) 284-5896 FAX 284-8630

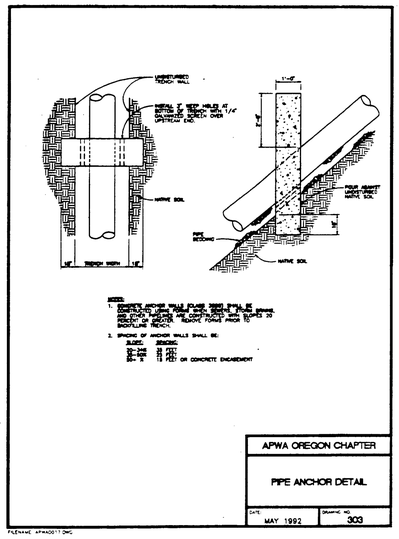
SHEET 12 of 13

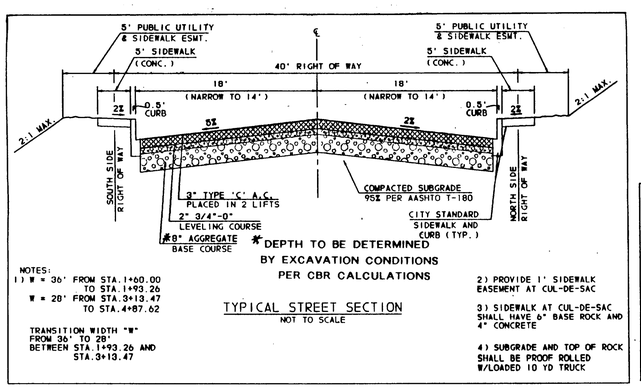
H:\USA\S0070ST.DWG Sat Sep 27 11:51:22 1997











NOTES:
1) W = 36' FROM STA. 1+60.00 TO STA. 1+93.26
W = 28' FROM STA. 3+13.47 TO STA. 4+87.62

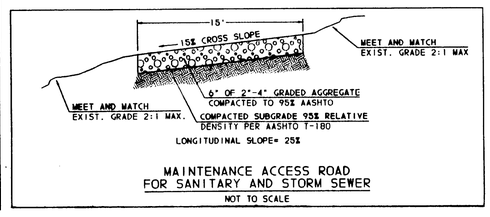
TRANSITION WIDTH "W" FROM 36' TO 28' BETWEEN STA. 1+93.26 AND STA. 3+13.47

2) PROVIDE 1' SIDEWALK EASEMENT AT CUL-DE-SAC

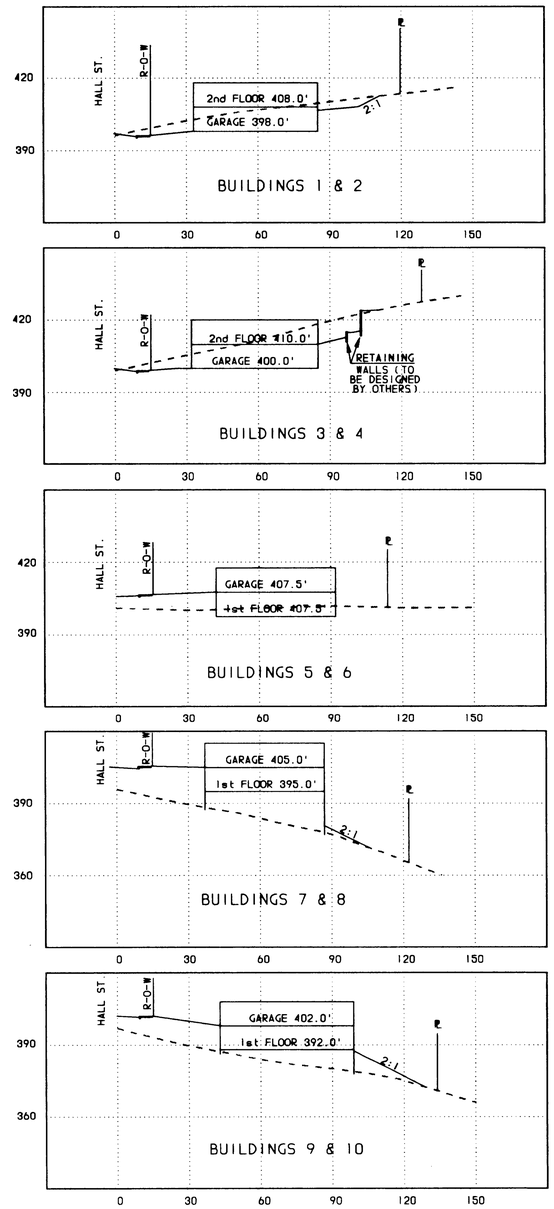
3) SIDEWALK AT CUL-DE-SAC SHALL HAVE 6" BASE ROCK AND 4" CONCRETE

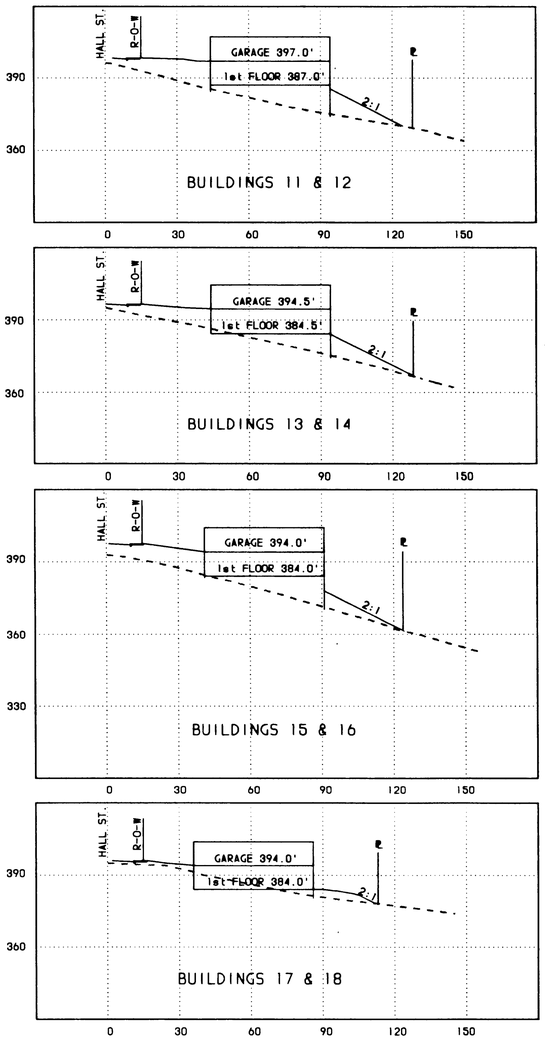
4) SUBGRADE AND TOP OF ROCK SHALL BE PROOF ROLLED W/LOADED 10 YD TRUCK

TYPICAL STREET SECTION
NOT TO SCALE



MAINTENANCE ACCESS ROAD FOR SANITARY AND STORM SEWER
NOT TO SCALE





SCALE: 1" = 30' HORIZONTAL
1" = 30' VERTICAL

ASBUILT
02-06-99 ASBUILT
10-26-98 revisions per owner

REVISIONS
6/1/98 REVISE LOT SECTIONS PER GRADING

DESIGNED: P.C./R.T. CHECKED: P.C.C.
DRAWN: R.R.T. DATE: 9-8-97
JOB NO.: 97-016 SCALE: 1" = 30'

LOT SECTION DETAILS
for
ROYAL RIDGE TOWNHOUSES
CITY OF WEST LINN
CLACKAMAS COUNTY, OREGON

REGISTERED PROFESSIONAL ENGINEER 17,174 OREGON JUL. 19, 1996 PAUL C. CHIU 6/1/98
EXPIRES: 12/31/97

W.B. WELLS & associates, inc.
4230 NORTHEAST FREMONT STREET
PORTLAND, OREGON 97213
PHONE: (503) 284-5666 FAX: 284-8630

SHEET 13 of 13