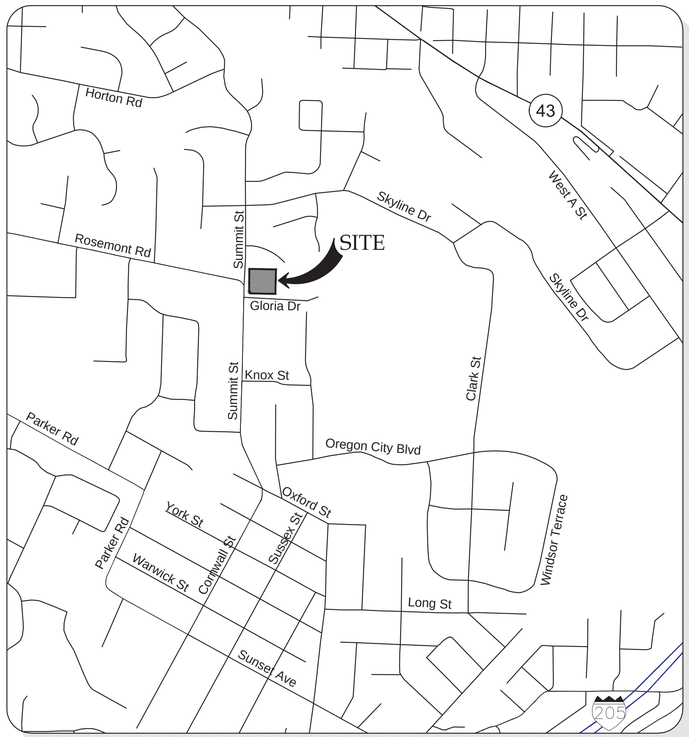
AS-BUILT RECORD DRAWINGS

FOR

HARPER'S TERRACE SUBDIVISION

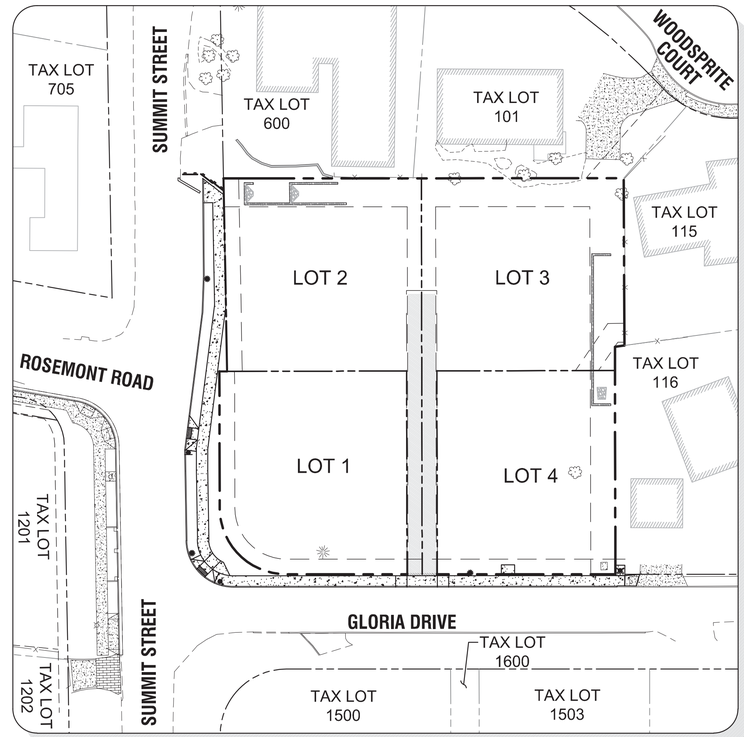
PREPARED FOR

LF 10, LLC



VICINITY MAP

NOT TO SCALE



SITE MAP

Scale: 1 inch = 80 feet

80 40 0 40 80

TAX LOT 500 LOCATED IN THE NW 1/4 & SE 1/4 OF
SECTION 25, T.2S., R.1E., W.M.
CITY OF WEST LINN, CLACKAMAS COUNTY, OREGON

SHEET INDEX

SITE INFORMATION

SITE ADDRESS
4997 SUMMIT STREET
WEST LINN, OR 97068

TAX LOT
2S1E25DB 500

FLOOD HAZARD
MAP NUMBER: 41005C0257D ZONE X (UNSHADED)

JURISDICTION
CITY OF WEST LINN

ZONING
R-10

UTILITIES & SERVICES

WATER, STORM, SEWER
CITY OF WEST LINN
CONTACT: KHOI LE
PHONE: (503) 722-5517
EMAIL: kle@westlinnoregon.gov

GAS
NORTHWEST NATURAL - ENGINEERING
CONTACT: BRIAN KELLEY
PHONE: (503) 220-2427
EMAIL: brian.kelley@nwnatural.com

FIRE
TUALATIN VALLEY FIRE & RESCUE
CONTACT: TY DARBY
PHONE: (503) 259-1409
EMAIL: ty.darby@tvfr.com

POWER
PGE
CONTACT: CHRIS JEWETT
PHONE: (503) 672-5481
EMAIL: chris.jewett@pgn.com

CABLE
COMCAST
CONTACT: KENNETH WILLS
PHONE: (503) 793-9981
EMAIL: kenneth_wills@cable.comcast.com

CABLE
CENTURYLINK - REGIONAL ENGINEER
CONTACT: KENNETH SCIULLI
PHONE: (503) 242-0304
EMAIL: kenneth.sciulli@centurylink.com

CENTURYLINK - REGIONAL MANAGER
CONTACT: JEREMY MORRIS
PHONE: (503) 293-4567
EMAIL: jeremy.morris@centurylink.com

POLICE, SCHOOLS, ROADS, PARKS
CITY OF WEST LINN

PROJECT TEAM

OWNER/APPLICANT
LF 10, LLC
C/O: J.T. SMITH COMPANIES
5285 MEADOWS ROAD, SUITE #171
LAKE OSWEGO, OR 97035
CONTACT: JOHN WYLAND
EMAIL: jwyland@jtsmithco.com

CIVIL ENGINEER
3J CONSULTING, INC.
5075 SW GRIFFITH DR, SUITE 150
BEAVERTON, OR 97005
CONTACT: JOHN HOWORTH
PHONE: (503) 946-9365
EMAIL: john.howorth@3j-consulting.com

LAND SURVEYOR
COMPASS SURVEYING
4107 SE INTERNATIONAL WAY, SUITE 705
MILWAUKIE, OR 97222
CONTACT: DON DEVLAEMINCK
PHONE: 503-653-9093
EMAIL: dond@compass-engineering.com

PLANNING CONSULTANT
3J CONSULTING, INC
5075 SW GRIFFITH DR, SUITE 150
BEAVERTON, OR 97005
CONTACT: ANDREW TULL
PHONE: 503-946-9365
EMAIL: andrew.tull@3j-consulting.com

GEOTECHNICAL CONSULTANT
GEOPACIFIC ENGINEERING, INC.
14835 SW 72ND AVENUE
PORTLAND, OR 97224
CONTACT: SCOTT HARDMAN
PHONE: (503) 625-4455
EMAIL: shardman@geopacificeng.com

RECORD DRAWING
03/17/2015

This drawing has been prepared to reflect constructed deviations from permit documents. The basis of this information is derived in whole or in part from a combination of:
- Contractor supplied redlines
- Site observations by the engineer
- Field measurements

The stamping engineer of record certifies this drawing is an accurate depiction of the final construction, and the resulting improvements are in conformance with the standards of the City of West Linn.

COVER SHEET
HARPER'S TERRACE SUBDIVISION
LF 10, LLC
WEST LINN, OR

J.T. SMITH companies

REGISTERED PROFESSIONAL ENGINEER
72282PE
OREGON
NOV. 12, 2003
JOHN D. HOWORTH
EXPIRES: 06/30/15
Digital Signature
03/17/2015

3J CONSULTING, INC
CIVIL ENGINEERING
WATER RESOURCES
LAND USE PLANNING
5075 SW GRIFFITH DRIVE, STE 150, BEAVERTON, OR 97005
PHONE & FAX: (503) 946-9365

3J JOB ID #	13123
LAND USE #	SUB-13-05
TAX LOT #	2S1E25DB 500
DESIGNED BY	CLF/BCH
CHECKED BY	JDH

SHEET TITLE
COVER SHEET

SHEET NUMBER
C000

WEST LINN PLANNING COMMISSION

FINAL DECISION NOTICE

SUB-13-05

IN THE MATTER OF A 4-LOT SUBDIVISION AT 4997 SUMMIT STREET

At their meeting of February 19, 2014, the West Linn Planning Commission held a public hearing to consider the request by LF 10, LLC to approve a 4-lot subdivision. The proposed development required Subdivision approval. The approval criteria for Subdivision are found in Chapter 85 of the Community Development Code (CDC). The hearing was conducted pursuant to the provisions of CDC Chapter 99.

The hearing commenced with a staff report presented by Tom Soppe, Associate Planner. Andrew Tull of 3J Consulting, Inc. presented for the applicant. Alice Richmond provided testimony in support of the application. Janet Dalgaard provided testimony in opposition. Mr. Tull and Michael Robinson of Perkins Coie LLC provided the applicant's rebuttal. After deliberations, motions were made, seconded, and approved to amend Condition of Approval 4 and to eliminate Condition of Approval 5 respectively. A motion was made, seconded, and passed to approve the application with two new findings, with the amended conditions. The additional findings are as follows:

Additional Finding 1: Condition of Approval 4 should be amended to specifically require that both streets have street trees.

Additional Finding 2: As Condition of Approval 9 requires the development meet all Engineering standards including for street lighting, Condition of Approval 5 is not needed.

The approved conditions of approval are as follows, with conditions 6-9 re-numbered as 5-8:

1. Site Plan. With the exception of modifications required by these conditions, the project shall conform to the Subdivision Plat- Phase 1, Sheet C2.0, dated January 28, 2014, located on Page 47 of Exhibit PC-4. If proof of applicant ownership of the hiatus strip between this property and the property to the northeast is provided by the time of final platting, the final plat may then conform to the Subdivision Plat- Phase 2, Sheet C2.0A, dated January 28, 2014 located on Page 48 of Exhibit PC-4.

2. Fire Flow Test. The applicant shall perform a fire flow test to the satisfaction of TVFR.

3. Shared Driveway Width. The shared driveway pavement shall be 14 feet wide.

4. Street Trees. Street trees shall be provided on both Summit and Gloria. The applicant shall pay the appropriate amount towards street trees as determined by the City Parks and Recreation Department.

5. Significant Trees. The significant 36-inch fir tree proposed for removal at the south end of the proposed private street/shared driveway shall be mitigated for on an inch-per-inch basis on site. If that would result in excess trees on site at maturity, as determined by the City's Arborist, then the appropriate amount of mitigation may occur off-site in City-owned land. Required street trees shall not count towards mitigation.

6. Sanitary Sewer Easement. The final plat shall include a sanitary sewer easement on Lot 3 covering where Lot 4's sanitary sewer line traverses Lot 3.

7. Stormwater.
   A) Prior to recording the final plat, the applicant shall record the proposed stormwater easement on the property at 2630 Woodsprite Court as shown on the Subdivision Plat Sheet C2.0 and Subdivision Plat Sheet C2.0A, Page 47-48 of Exhibit PC-4.
   B) The applicant proposes a shared stormwater line located in the proposed shared driveway/private street and connecting downhill through the adjacent easements to the existing Woodsprite Court. This line shall be public.

8. Engineering Standards. All public improvements and facilities associated with public improvement including grading, onsite stormwater design, street lighting, easements, and easement locations are subject to the City Engineer's review, modification, and approval.

This decision will become effective 14 days from the date of mailing of this final decision as identified below. Those parties with standing (i.e., those individuals who submitted letters into the record, or provided oral or written testimony during the course of the hearings, or signed in on an attendance sheet or testimony form at either of the hearings, or who have contacted City Planning staff and made their identities known to staff) 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 $400 and a completed appeal application form together with the specific grounds for appeal to the Planning Director prior to the appeal-filing deadline.

Christine M Steel — 2-27-14

CHRISTINE STEEL, CHAIR — DATE
WEST LINN PLANNING COMMISSION

Mailed this 27th day of February, 2014.

Therefore, this decision becomes effective at 5 p.m., March 13, 2014.

Devrev/projects folder/projects 2013/ sub-13-05 4997 Summit St/SUB-13-05 Final Decision

RECORD DRAWING
03/17/2015

This drawing has been prepared to reflect constructed deviations from permit documents. The basis of this information is derived in whole or in part from a combination of:
- Contractor supplied redlines
- Site observations by the engineer
- Field measurements

The stamping engineer of record certifies this drawing is an accurate portrayal of the final construction and the resulting improvements are in conformance with the standards of the City of West Linn.

CONDITIONS OF APPROVAL
HARPER'S TERRACE SUBDIVISION
LF 10, LLC
WEST LINN, OR

J.T. SMITH companies

REGISTERED PROFESSIONAL ENGINEER
72282PE
OREGON
NOV. 12, 2008
JOHN D. HOWORTH
EXPIRES: 06/30/15
Digital Signature
03/17/2015

3J CONSULTING, INC
CIVIL ENGINEERING
WATER RESOURCES
LAND USE PLANNING
5075 SW GRIFFITH DRIVE, STE 150, BEAVERTON, OR 97005
PHONE & FAX: (503) 946-9365

3J JOB ID #	13123
LAND USE #	SUB-13-05
TAX LOT #	2S1E25DB 500
DESIGNED BY	CLF/BCH
CHECKED BY	JDH

SHEET TITLE
C of A

SHEET NUMBER
C001

SANITARY SEWER NOTES

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 3300 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 AND CHANNELS MUST BE ABLE TO PASS A 6"X36" CYLINDER INTO PIPES. PVC PIPE SHALL BE CONNECTED TO MANHOLE BY MEANS OF A FLEXIBLE CONNECTION AND SHALL HAVE A SHEAR JOINT LOCATED 18" OUTSIDE OF MANHOLE. CEMENT GROUT FOR CONNECTING PVC SEWER PIPE TO MANHOLE WILL NOT BE PERMITTED.

3. ALL MANHOLES LOCATED IN EASEMENT AREAS REQUIRE TAMPER PROOF LIDS AND THE LID SHALL BE SET 12" ABOVE THE PROPOSED GRADE WHEN PLACED IN UNPAVED AREAS.

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. FRAME SHALL SIT ON 24"X24" CONCRETE PAD.

5. GRANULAR BACKFILL (3/4"-0) IS TO BE COMPACTED TO 95% MAXIMUM DRY DENSITY PER AASHTO T-180 TEST METHOD AND NATIVE MATERIAL SHALL BE COMPACTED TO 95% OF IN-PLACE DRY DENSITY OF SURROUNDING SOIL. EXCAVATION, BEDDING, AND BACKFILL SHALL BE IN ACCORDANCE WITH DIVISION 204 OF THE CITY OF WEST LINN STANDARD CONSTRUCTION SPECIFICATIONS. BACKFILL UNDER NEW STREETS SHALL BE CLASS "B" AND BACKFILL IN EXISTING STREETS SHALL BE CLASS "E".

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"X4" STAKE PAINTED GREEN.

7. SANITARY SEWER PIPE AND APPURTENANCES SHALL BE TESTED FOR LEAKAGE IN ACCORDANCE WITH W.L.S.C.S. DIVISION 301.03.09 AND MANHOLES SHALL BE VACUUM TESTED IN ACCORDANCE WITH W.L.S.C.S. DIVISION 302.03.07. ALL TESTS SHALL BE WITNESSED BY THE ENGINEER AND THE CITY OF WEST LINN. CONTRACTOR IS RESPONSIBLE FOR COORDINATING TESTING SO THAT ALL TEST 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, TEST, AND INSPECTIONS TO BE MADE IN STRICT ACCORDANCE WITH CITY OF WEST LINN PUBLIC WORKS STANDARD CONSTRUCTION SPECIFICATIONS.

GENERAL GRADING AND EROSION CONTROL (PART 1)

1. APPROVAL OF THIS EROSION CONTROL (ESC) PLAN DOES NOT CONSTITUTE ON 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.

WATER NOTES

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 RUBBER GASKETED JOINTS UNLESS NOTED OTHERWISE ON THE PLAN. PIPE FITTINGS ARE TO BE OF THE SAME MATERIAL AND CLASS AS PIPE OF DOMESTIC ORIGIN.

2. WATER MAINS 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 3300 PSI. SEE DETAILS FOR THRUST BLOCK SIZING. POUR THRUST BLOCKS AGAINST UNDISTURBED EARTH.

4. GATE VALVES SHALL BE RESILIENT SEAT, NON-RISING STEM WITH "0" RING PACKING, COMPLYING WITH AWWA CLASS "C" SPECIFICATIONS. THE VALVES SHALL BE DESIGNED TO WITHSTAND A WORKING PRESSURE OF 150 PSI. GATE VALVES SHALL BE FURNISHED WITH A TWO-INCH SQUARE OPERATING NUT AND SHALL OPEN COUNTERCLOCKWISE WHEN VIEWING FROM ABOVE. BUTTERFLY VALVES SHALL BE RUBBER SEAT TYPE AND BUBBLE-TIGHT AT 150 PSI, AND SHALL CONFORM TO AWWA C504. BUTTERFLY VALVES SHALL BE MUELLER OR APPROVED EQUAL. OPERATING NUT SHALL BE LOCATED ON THE SIDE OF THE MAIN SHOWN ON THE PLANS. VALVE BOXES SHALL BE "VANCOUVER" PATTERN.

5. GRANULAR BACKFILL (3/4" -0) IS TO BE COMPACTED TO 95% MAXIMUM DRY DENSITY PER AASHTO T 180 TEST METHOD AND NATIVE MATERIAL SHALL BE COMPACTED TO 95% OF IN-PLACE DRY DENSITY OF SURROUNDING SOIL. EXCAVATION, BEDDING, AND BACKFILL SHALL BE IN ACCORDANCE WITH DIVISION 204 OF THE CITY OF WEST LINN STANDARD CONSTRUCTION SPECIFICATIONS. BACKFILL UNDER NEW STREETS SHALL BE CLASS "E".

6. 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 MUELLER H 15008 OR FORD F1000 4Q. ANGLE METER STOP SHALL BE MUELLER H 14258 OR FORD 1" KV43-444W-Q. METER BOXES SHALL BE EQUAL TO BROOKS #37 WITH A 37-S LID AND COVER. METER BOXES ARE TO BE INSTALLED 3/4" ABOVE FINISH GRADE AND 2- 1/2" FROM THE CURB IN PLANTER STRIPS OR FLUSH WITH SIDEWALK SURFACE IN A SIDEWALK.

7. ALL WATERLINES WILL BE PRESSURE TESTED AND PURIFICATION TESTED BEFORE CONNECTION TO THE CITY WATER SYSTEM. PRESSURE TEST SHALL BE CONDUCTED AT 180 PSI OR 1.5 TIMES THE NORMAL WORKING PRESSURE, WHICHEVER IS HIGHER AND SHALL MEET THE REQUIREMENTS OF DIVISION 403.14 OF THE WEST LINN PUBLIC WORKS STANDARD CONSTRUCTION SPECIFICATIONS.

8. CHLORINATION SHALL CONFORM WITH DIVISION 403.13 OF THE W.L.S.C.S.

9. 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.

10. A PLUMBING PERMIT IS REQUIRED FOR SERVICE LATERAL INSTALLATIONS BEYOND THE WATER METER.

11. ALL MATERIALS, INSTALLATION, TESTS, AND CHLORINATION TO BE IN STRICT ACCORDANCE WITH THE CITY OF WEST LINN PUBLIC WORKS STANDARD CONSTRUCTION SPECIFICATIONS, AND THE OREGON STATE HEALTH DIVISION ADMINISTRATION RULES, CHAPTER 333.

GENERAL GRADING AND EROSION CONTROL (PART 2)

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 NOT TO EXCEED SIX INCHES, 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 (ECTGH), REVISED AUGUST, 1994; CHAPTER 31 OF THE COMMUNITY DEVELOPMENT CODE; AND THE OREGON ADMINISTRATIVE RULES.

STORM SEWER NOTES

1. EIGHT INCH TO 24-INCH STORM DRAIN PIPE IS PREFERRED TO BE SEAMLESS GREEN RIBBED PVC PIPE CONFORMING TO ASTM F 794. WHERE LARGER PIPE IS REQUIRED OR LACK OF COVER PREVENTS USE OF RIBBED PVC PIPE, PIPE SHALL BE CLASS 3 NON-REINFORCED, CONCRETE PIPE CONFORMING TO ASTM C14, REINFORCED CONCRETE PIPE CONFORMING TO ASTM C-76, CLASS IV, OR DUCTILE IRON PIPE CONFORMING TO AWWA C151 CLASS 52. RUBBER JOINTS ARE REQUIRED FOR ALL CONCRETE PIPE. SIX INCH AND SMALLER STORM DRAIN PIPE SHALL CONFORM TO ASTM D 3034 PVC PIPE.

2. GUTTER INLETS SHALL BE POURED IN-PLACE CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 3300 PSI. FRAME SHALL BE FABRICATED OF STRUCTURAL STEEL, ASTM A-7, A-36, A-373.

3. MANHOLE BASE MAY BE POURED IN PLACE CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 3300 PSI OF 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. INTERIOR DIMENSIONS NOTED ON THE PLANS ARE MINIMUMS. SOME OR ALL OF THE STORM DRAIN REQUIRED WILL BE OVERSIZED MANHOLES, CONTRACTOR SHALL CHECK WITH MANHOLE MANUFACTURER FOR ACTUAL SIZE OF MANHOLE NEEDED FOR TYPE AND SIZE OF PIPE TO BE USED. INVERTS SHALL BE CONSTRUCTED SO AS TO PROVIDE SMOOTH FLOW-THROUGH CHARACTERISTICS. PIPE SHALL BE CONNECTED TO MANHOLE BY MEANS OF A FLEXIBLE CONNECTION AND SHALL HAVE A SHEAR JOINT LOCATED 18" OUTSIDE OF THE MANHOLE.

4. ALL MANHOLES LOCATED IN EASEMENT AREAS REQUIRE TAMPER PROOF LIDS AND LID SHALL BE SET 12 INCHES ABOVE PROPOSED GRADE.

5. CLEANOUT PIPE, FITTINGS, AND JOINTS SHALL BE THE SAME SPECIFICATIONS AS FOR PIPE. CASTINGS ARE SHOWN ON DETAILS AND SHALL CONFORM TO ASTM A48 (GRADE 30). CLEANOUT RISER SHALL MATCH DOWNSTREAM PIPE DIAMETER.

6. GRANULAR BACKFILL (3/4"-0) IS TO BE COMPACTED TO 95% MAXIMUM DRY DENSITY PER AASHTO T-180 TEST METHOD AND NATIVE MATERIAL SHALL BE COMPACTED TO 95% OF IN-PLACE DRY DENSITY OF SURROUNDING SOIL.

7. STORM DRAIN SERVICE LATERALS SHALL BE 4" PIPE CONFORMING TO THE SAME SPECIFICATIONS AS THE STORM DRAIN MAIN LINES. SERVICES LATERALS SHALL BE INSTALLED TO A POINT BEYOND THE LINE OR UTILITY EASEMENT AS SHOWN ON THE PLAN. THE SERVICE LATERAL SHALL BE PLUGGED WITH 4" RUBBER RING PLUG, AND THE LOCATION OF THE LATERALS END MARKED WITH A 2'X4" STAKE PAINTED WHITE.

8. STORM DRAINS SHALL BE TESTED FOR DEFLECTION IN ACCORDANCE WITH DIVISION 601.03.11 AND VIDEO INSPECTED IN ACCORDANCE WITH DIVISION 601.03.12 OF THE WEST LINN STANDARD CONSTRUCTION SPECIFICATIONS. ALL TESTS SHALL BE WITNESSED BY THE ENGINEER AND A REPRESENTATIVE OF THE CITY.

9. A PLUMBING PERMIT FORM THE CITY OF WEST LINN BUILDING DEPARTMENT IS REQUIRED FOR STORM DRAINS BEYOND THE FIRST CLEANOUT.

10. ALL MATERIALS, INSTALLATION, TESTS, AND INSPECTIONS TO BE IN STRICT ACCORDANCE WITH THE CITY OF WEST LINN STANDARD CONSTRUCTION SPECIFICATIONS.

11. INFILTRATION RAIN GARDEN PLANTINGS TO CONFORM TO PLANTING SPECIFICATION AS SHOWN ON THE PLANS AND DETAILS CONTAINED HEREIN.

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. RE-SEED 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.

STREET NOTES

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 8" BELOW SUBGRADE. PROPERLY DISPOSE OF ALL WASTE MATERIAL.

2. STREET SUBGRADE SHALL CONFORM TO DIVISION 501 OF THE CITY OF WEST LINN STANDARD CONSTRUCTION SPECIFICATIONS. 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 W.L.S.C.S. DIVISION 501.03.08. SUCH TESTING WILL BE AT THE CONTRACTOR'S EXPENSE.

3. AGGREGATE BASE ROCK SHALL CONFORM TO THE REQUIREMENTS OF W.L.S.C.S. DIVISION 205. BASE COURSE SHALL BE 1-1 /2" -0 CRUSHED ROCK AND LEVELING COURSE SHALL BE 3/4" -0. CITY OF WEST LINN REQUIRES A PROOF ROLL WITH A LOADED 10 YARD DUMP TRUCK OF THE SUBGRADE PRIOR TO PLACEMENT OF THE ROCK AND AGAIN AFTER PLACEMENT OF THE BASE ROCK AND PRIOR TO PAVING. ALL UNDERGROUND UTILITIES INCLUDING LATERALS, SERVICES, AND POWER OR GAS CONDUITS WILL BE IN PLACE BEFORE SUBGRADE PROOF ROLL WILL TAKE PLACE.

4. ASPHALT CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF W.L.S.C.S. DIVISION 205. 2" BASE LIFT SHALL BE CLASS "B" A.C. AND 2" FINAL LIFT SHALL BE CLASS "C" A.C. MEETING THE SPECIFICATIONS OF W.L.S.C.S. DIVISION 505. 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 3300 PSI CONCRETE MEETING THE SPECIFICATIONS OF W.L.S.C.S. DIVISION 205 (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. CONTRACTOR SHALL STAMP LOCATION OF SEWER AND WATER CROSSINGS WITH AN (S) OR A (W). A PROOF ROLL OF THE CURBLINES IS REQUIRED PRIOR TO POURING CURBS.

6. ALL MATERIALS, INSTALLATION, TESTS, AND INSPECTIONS TO BE IN STRICT ACCORDANCE WITH CITY OF WEST LINN PUBLIC WORKS STANDARD CONSTRUCTION SPECIFICATIONS.

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.

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.

GENERAL NOTES

1. ALL REFERENCES TO CITY DESIGN STANDARDS REFER TO THE CURRENT STANDARDS.

2. THE DESIGN ENGINEER WILL BE RESPONSIBLE FOR INSPECTION OF THE PROPOSED IMPROVEMENTS WITH OVERSIGHT FROM THE CITY'S PUBLIC WORKS AND ENGINEERING STAFF.

3. A WORK SCHEDULE WILL BE REQUIRED FROM THE CONTRACTOR SO THAT THE ENGINEER CAN HAVE AN INSPECTOR ONSITE AT THE APPROPRIATE TIMES. IF THE WORK SCHEDULE IS REVISED THE CONTRACTOR IS TO NOTIFY THE ENGINEER AT LEAST 24 HOURS NOTICE OF ANY TESTING REQUIRING THE PRESENCE OF THE ENGINEER AND/OR CITY STAFF.

4. THE CONTRACTOR IS TO RECEIVE THE APPROVAL OF THE ENGINEER AND THE CITY OF ANY PROPOSED CHANGES TO THE PLANS OR STANDARD REQUIREMENTS.

5. A BUILDING DEPARTMENT PLUMBING PERMIT IS REQUIRED FOR UTILITIES BEYOND THE FIRST CLEANOUT OR METER ON PRIVATE PROPERTY.

6. A PUBLIC IMPROVEMENT GUARANTEE AGREEMENT OR A PUBLIC WORKS PERMIT, A PRE-CONSTRUCTION MEETING WITH THE CITY OF WEST LINN, AND INSTALLATION OF EROSION CONTROL MEASURES ARE REQUIRED PRIOR TO BEGINNING CONSTRUCTION.

7. PRIOR TO SITE CLEARING, 8' TALL CHAIN-LINK FENCING SHALL BE PLACED AT TREE EASEMENT BOUNDARIES PRIOR TO SITE GRADING. THE CITY ARBORIST SHALL INSPECT & APPROVE ALL ONSITE TREE PROTECTION MEASURES PRIOR TO THE START OF THE SITE WORK. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE CITY ARBORIST AND ARRANGE FOR THIS APPROVAL TO TAKE PLACE. NO PERMITS WILL BE ISSUED FROM ENGINEERING, PLANNING, OR BUILDING DEPARTMENTS WITHOUT TREE PROTECTION APPROVAL FROM THE CITY ARBORIST. ALL TREE PROTECTION MEASURES SHALL REMAIN IN PLACE AND FULLY FUNCTIONAL FOR THE ENTIRE TIME THAT SITE WORK AND CONSTRUCTION IS TAKING PLACE.

8. A CITY REPRESENTATIVE AND A REPRESENTATIVE OF THE ENGINEER MUST BE PRESENT AT ALL TESTING AND THE CITY SHALL BE FURNISHED A COPY OF ALL TEST RESULTS. IF ENGINEER OR CITY DO NOT WITNESS TESTING, CONTRACTOR WILL BE REQUIRED TO RE-TEST.

9. ALL FEES FOR STREET TREES SHALL BE PAID TO THE CITY OF WEST LINN PARKS AND RECREATION DEPARTMENT.

10. NO BUILDING PERMITS WILL BE GIVEN UNTIL THE IMPROVEMENTS HAVE BEEN ACCEPTED BY THE CITY AS SUBSTANTIALLY COMPLETE.

11. CONTRACTOR SHALL VERIFY DEPTH AND LOCATION OF EXISTING UTILITIES AND POINTS OF CONNECTION PRIOR TO ORDERING MANHOLES. IF DISCREPANCIES ARE FOUND, CONTRACTOR SHALL NOTIFY THE ENGINEER.

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 ARE ACCEPTABLE SEEDING AND MULCHING MUST BE PROVIDED WHENEVER PERENNIAL COVER CANNOT BE ESTABLISHED ON SITES WHICH WILL BE EXPOSED FOR 60 DAYS OR MORE.

RECORD DRAWING
03/17/2015

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- Site observations by the engineer
- Field measurements

The stamping engineer of record certifies this drawing is an accurate representation of the final construction and the resulting improvements are in conformance with the standards of the City of West Linn.

GENERAL NOTES
HARPER'S TERRACE SUBDIVISION
LF 10, LLC
WEST LINN, OR

J.T. SMITH companies

REGISTERED PROFESSIONAL ENGINEER
72282PE
OREGON
NOV. 12, 2003
JOHN D. HOWORTH
EXPIRES: 06/30/15
Digital Signature
03/17/2015

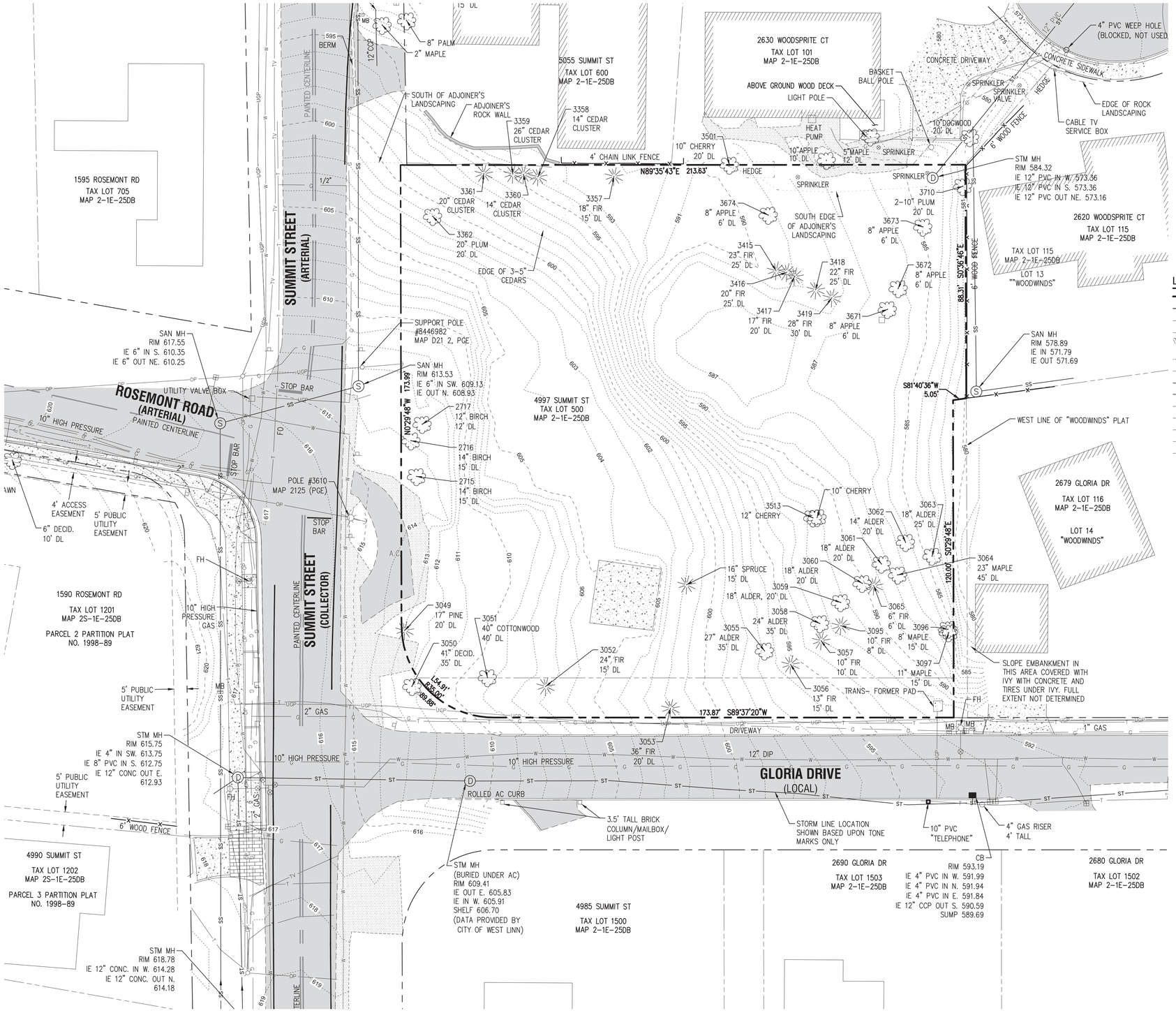
3J CONSULTING, INC.
CIVIL ENGINEERING
WATER RESOURCES
LAND USE PLANNING
5075 SW GRIFFITH DRIVE, STE 150, BEAVERTON, OR 97005
PHONE & FAX: (503) 946-9365

3J JOB ID #	13123
LAND USE #	SUB-13-05
TAX LOT #	2S1E25DB 500
DESIGNED BY	CLF/BCH
CHECKED BY	JDH

SHEET TITLE
GENERAL NOTES

SHEET NUMBER
C002

TAX LOT 500 LOCATED IN THE NW 1/4 & SE 1/4 OF
SECTION 25, T.2S., R.1E., W.M.
CITY OF WEST LINN, CLACKAMAS COUNTY, OREGON



EXISTING CONDITIONS PLAN

THIS PLAN IS INTENDED FOR USE AS AN EXISTING CONDITIONS PLAN SHOWING THE CONDITIONS OF THE SITE PRIOR TO CONSTRUCTION. INFORMATION SHOWN ON THIS PLAN WAS DEVELOPED FROM THE TOPOGRAPHIC SURVEY, AERIAL PHOTOS, AND SITE OBSERVATIONS BY THE ENGINEER . NOT ALL SURFACE FEATURES OR UTILITIES MAY BE SHOWN. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION TO DETERMINE WORK SPECIFIC DETAILS. TOPOGRAPHIC INFORMATION PROVIDED BY COMPASS ENGINEERING DATED APRIL, 2013.

Scale: 1 inch = 20 feet

20 10 0 10 20

LEGEND

BOUNDARY LINE	CURB
RIGHT-OF-WAY	ASPHALT
CENTERLINE	SIDEWALK
LOT LINE	GRAVEL
BUILDING	EXISTING TREES
1 FT CONTOUR	LIGHT POLE
5 FT CONTOUR	TRAFFIC SIGN
SANITARY SEWER	WATER VALVE
STORM SEWER	WATER METER
WATER LINE	SPRINKLER VALVE
GAS LINE	FIRE HYDRANT
UNDERGROUND POWER	
UNDERGROUND PHONE LINE	
OVERHEAD POWER	
SANITARY SEWER MANHOLE	
SANITARY SEWER MANHOLE	

NOTES

1. UTILITY INFORMATION SHOWN ON THIS MAP IS BASED UPON OBSERVED FEATURES, RECORD DATA AND TONE MARKS PROVIDED BY PUBLIC UTILITY LOCATION SERVICES. NO WARRANTIES ARE MADE REGARDING THE ACCURACY OR COMPLETENESS OF THE UTILITY INFORMATION SHOWN. ADDITIONAL UTILITIES MAY EXIST. INTERESTED PARTIES ARE HEREBY ADVISED THAT UTILITY LOCATIONS SHOULD BE VERIFIED PRIOR TO DESIGN OR CONSTRUCTION OF ANY CRITICAL ITEMS.
2. BASIS OF ELEVATIONS: NAVD '88.
3. VERTICAL DATUM: NAVD '88 UTILIZING GPS POSITIONING TIED TO THE ORGN WITH REAL TIME CORRECTORS REFERENCED TO NAD '83 (2011).
4. TOPOGRAPHIC FEATURES SHOWN ON THIS MAP WERE LOCATED USING STANDARD PRECISION TOPOGRAPHIC MAPPING PROCEDURES. THIRD PARTY USERS OF DATA FROM THIS MAP PROVIDED VIA AUTOCAD DRAWING FILES OR DATA EXCHANGE FILES SHOULD NOT RELY ON ANY AUTOCAD GENERATED INFORMATION WHICH IS BEYOND THE LIMITS OF PRECISION OF THIS MAP. THIRD PARTIES USING DATA FROM THIS MAP IN AN AUTOCAD FORMAT SHOULD VERIFY ANY ELEMENTS REQUIRING PRECISE LOCATIONS PRIOR TO COMMENCEMENT OF ANY CRITICAL DESIGN OR CONSTRUCTION. CONTACT COMPASS ENGINEERING FOR FURTHER INFORMATION. FURTHERMORE, COMPASS ENGINEERING WILL NOT BE RESPONSIBLE NOR HELD LIABLE FOR ANY DESIGN OR CONSTRUCTION RELATED PROBLEMS THAT ARISE OUT OF THIRD PARTY USAGE OF THIS MAP (IN AUTOCAD OR OTHER FORMAT) FOR ANY PURPOSE OTHER THAN SPECIFICALLY STATED HEREIN. THIS STATEMENT IS AN OFFICIAL PART OF THIS MAP.

RECORD DRAWING
03/17/2015

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EXISTING CONDITIONS PLAN
HARPER'S TERRACE SUBDIVISION
LF 10, LLC
WEST LINN, OR

J.T. SMITH companies

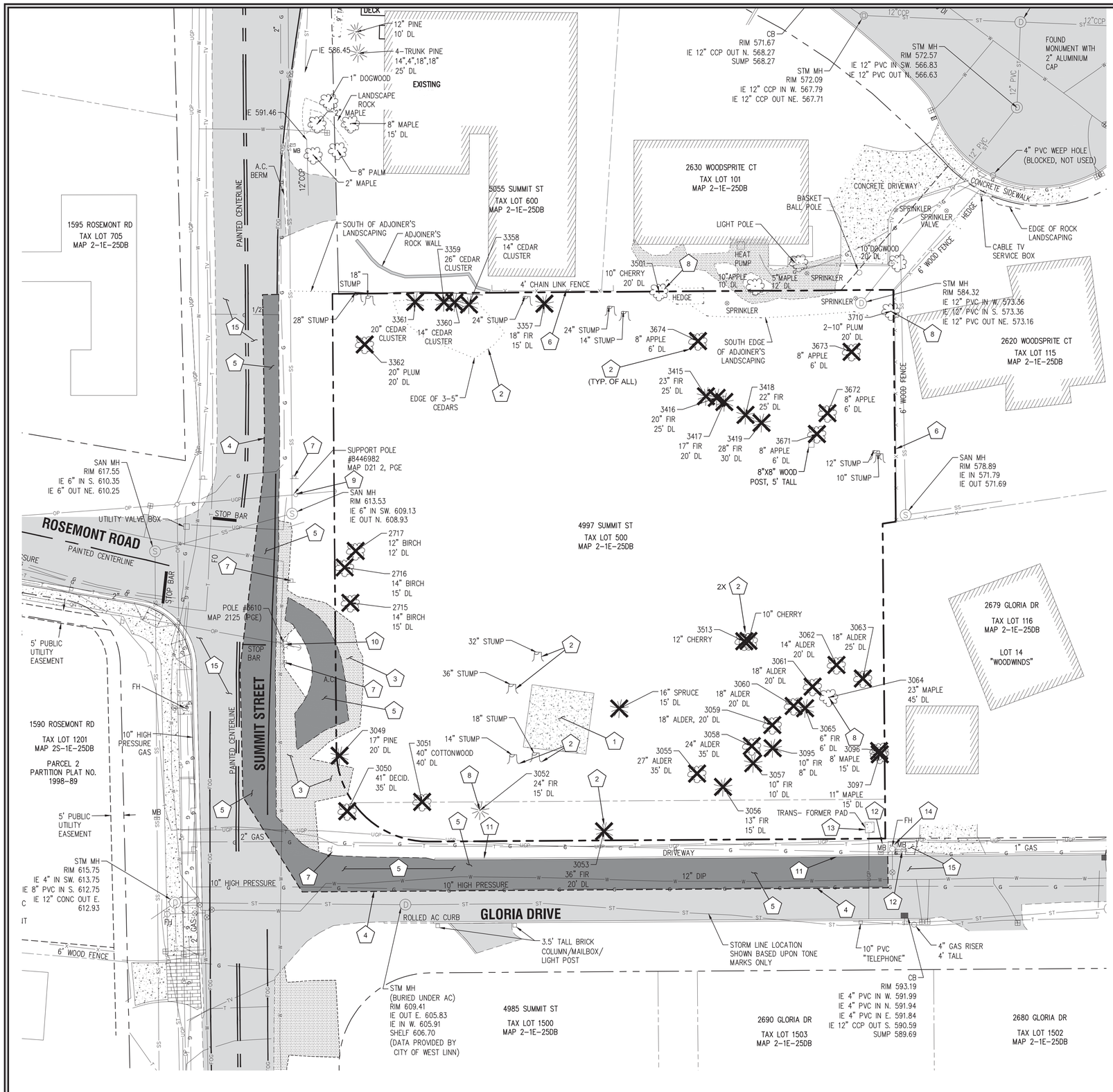
REGISTERED PROFESSIONAL ENGINEER
OREGON
NOV. 12, 2003
JOHN D. HOWORTH
EXPIRES: 06/30/15
Digital Signature
03/17/2015

3J CONSULTING, INC
CIVIL ENGINEERING
WATER RESOURCES
LAND USE PLANNING
5075 SW GRIFFITH DRIVE, STE 150, BEAVERTON, OR 97005
PHONE & FAX: (503) 946-9365

3J JOB ID #	13123
LAND USE #	SUB-13-05
TAX LOT #	2S1E25DB 500
DESIGNED BY	CLF/BCH
CHECKED BY	JDH

SHEET TITLE
EXISTING COND.'S

SHEET NUMBER
C100



LEGEND

BOUNDARY LINE	ASPHALT TO BE REMOVED
RIGHT-OF-WAY	SIDEWALK/CONCRETE
CENTERLINE	GRAVEL
LOT LINE	EXISTING TREES
BUILDING	LIGHT POLE
SS SANITARY SEWER	TRAFFIC SIGN
ST STORM SEWER	WATER VALVE
W WATER LINE	WATER METER
G GAS LINE	SPRINKLER VALVE
UGP UNDERGROUND POWER	FIRE HYDRANT
TEL UNDERGROUND PHONE LINE	
OP OVERHEAD POWER	
CURB	
SAWCUT LINE	
EXISTING TREE TO BE REMOVED	

DEMOLITION KEY

1	DEMOLISH AND REMOVE EXISTING CONCRETE BUILDING PAD. DEBRIS AND REFUSE TO BE DISPOSED OFF-SITE AT AN APPROVED LOCATION.
2	REMOVE EXISTING TREE/LANDSCAPING NECESSARY TO INSTALL IMPROVEMENTS, SEE SHEET C102. ALL EXISTING TREE STUMPS TO BE REMOVED AND DISPOSED OF OFF-SITE.
3	REMOVE EXISTING GRAVEL SHOULDER/DRIVEWAY. DISPOSE OF RUBBLE AND REFUSE OFF-SITE.
4	SAWCUT EXISTING ASPHALT/CONCRETE PAVEMENT AS SHOWN (4' MIN. WIDTH). SAWCUT FULL DEPTH TO LIMIT DAMAGE OF ADJACENT STREET SURFACE DURING REMOVAL.
5	REMOVE EXISTING ASPHALT SURFACING AND BASE ROCK. DISPOSE OF RUBBLE AND REFUSE OFF SITE.
6	PROTECT EXISTING FENCING TO REMAIN.
7	REMOVE AND REPLACE EXISTING STREET SIGNS
8	PROTECT EXISTING TREE TO REMAIN (TYPICAL) , SEE SHEET C102 .
9	PGE TO RELOCATE EXISTING SUPPORT POLE . CONTRACTOR TO COORDINATE WITH PORTLAND GENERAL ELECTRIC.
10	REMOVE EXISTING SUPPORT POLE, LIGHT AND FIXTURE. CONTRACTOR TO COORDINATE WITH PORTLAND GENERAL ELECTRIC.
11	REMOVE EXISTING CONCRETE CURB. DISPOSE OF RUBBLE AND REFUSE OFF-SITE.
12	RELOCATE EXISTING MAILBOX BEHIND SIDEWALK. CONTRACTOR TO COORDINATE WITH PROPERTY OWNER.
13	PROTECT EXISTING TRANSFORMER AND PRIMARY CABLE.
14	RELOCATE EXISTING FIRE HYDRANT, SEE SHEET C400 FOR IMPROVEMENT PLANS. CONTRACTOR TO COORDINATE WITH CITY OF WEST LINN PUBLIC.
15	PROTECT EXISTING PAVEMENT/SIDEWALK TO REMAIN, SEE SHEETS C200 AND C201.

GENERAL DEMOLITION NOTES

1. DEMOLITION NOTES ARE FOR CLARIFICATION ONLY AND ARE SHOWN FOR THE CONTRACTOR'S BENEFIT. THESE NOTES ARE NOT INTENDED TO BE COMPREHENSIVE. THE CONTRACTOR SHALL REMOVE OR RELOCATE ALL EXISTING ON-SITE IMPROVEMENTS NECESSARY TO ACCOMMODATE THE PROPOSED CONSTRUCTION.
2. ALL EXISTING PROPERTY UTILITY SERVICES TO BE TERMINATED AND CAPPED AT THE RIGHT OF WAY PRIOR TO DEMOLISHING ANY EXISTING BUILDINGS.
3. CONTRACTOR IS TO REMOVE ALL EXISTING SURFACE IMPROVEMENTS AND DEBRIS WITHIN THE LIMITS OF WORK UNLESS OTHERWISE NOTED. ALL DEBRIS FOUND ON SITE SHALL BE DISPOSED OF IN ACCORDANCE WITH APPLICABLE STATE CODES.
4. CONTRACTOR TO PROTECT EXISTING FEATURES WHICH ARE TO REMAIN.
5. CONTRACTOR SHALL ADJUST ALL EXISTING MANHOLE RIMS, DRAINAGE STRUCTURES, VALVE BOXES, VAULT LIDS AND UTILITY ACCESS STRUCTURES TO FINISH GRADE WITHIN AREAS AFFECTED BY PROPOSED CONSTRUCTION.
6. CONSTRUCTION AND DEMOLITION ACTIVITIES SHALL BE PHASED IN SUCH A MANNER AS TO ENSURE THAT PUBLIC ACCESS ROADS ARE NOT BLOCKED AND REMAIN OPERATIONAL.
7. SEE TREE PROTECTION AND REMOVAL PLAN (SHEET C1.2) FOR ALL TREE REMOVAL INFORMATION.

811 Know what's **below.** **Call** before you dig.

RECORD DRAWING
03/17/2015

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DEMOLITION PLAN
HARPER'S TERRACE SUBDIVISION
LF 10, LLC
WEST LINN, OR

J.T. SMITH companies

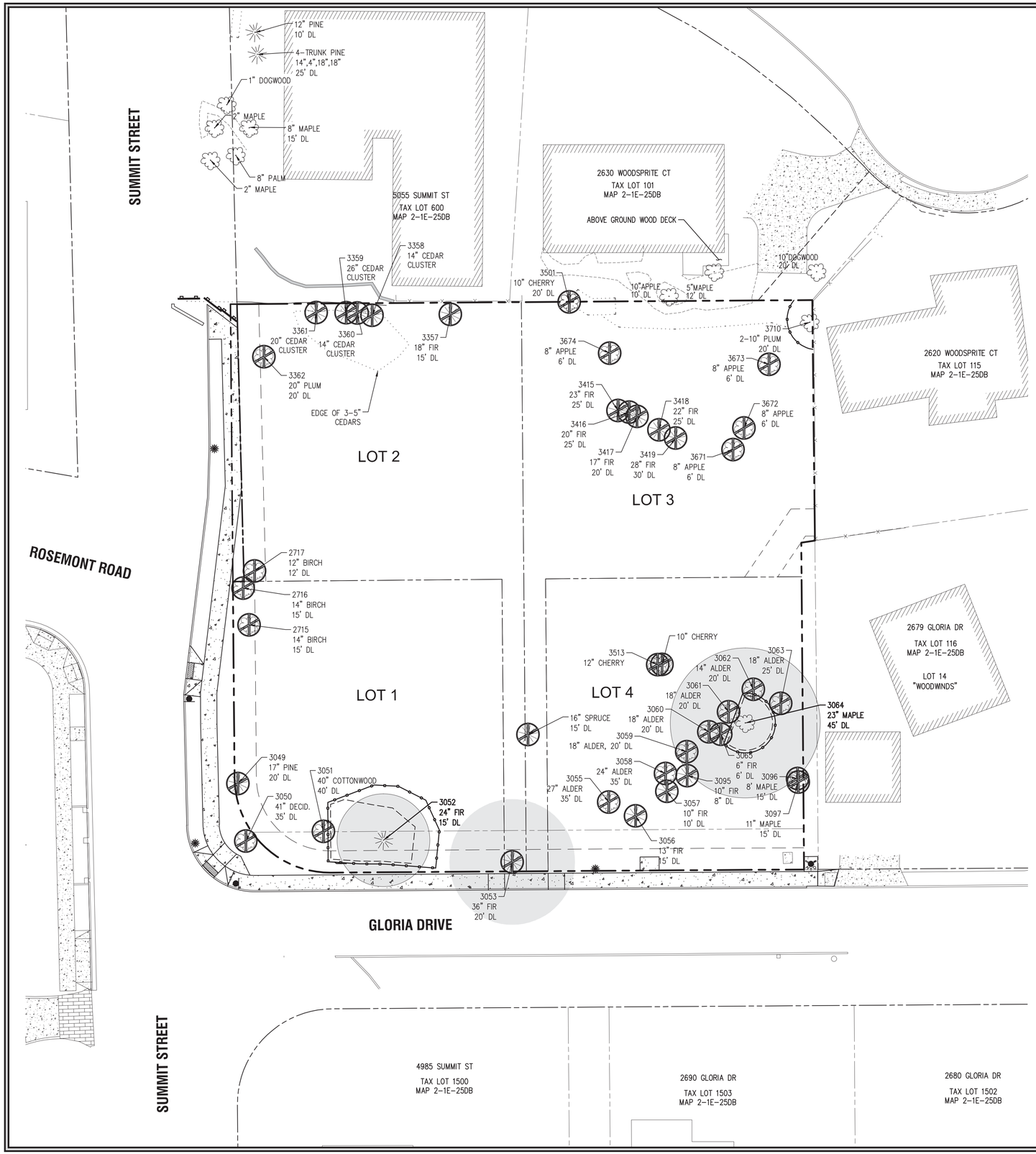
REGISTERED PROFESSIONAL ENGINEER 82PF
OREGON
NOV. 12, 2003
JOHN D. HOWORTH
EXPIRES: 06/30/15
Digital Signature
03/17/2015

3J CONSULTING, INC
CIVIL ENGINEERING
WATER RESOURCES
LAND USE PLANNING
5075 SW GRIFFITH DRIVE, STE 150, BEAVERTON, OR 97005
PHONE & FAX: (503) 946-9365

3J JOB ID #	13123
LAND USE #	SUB-13-05
TAX LOT #	2S1E25DB 500
DESIGNED BY	CLF/BCH
CHECKED BY	JDH

SHEET TITLE
DEMOLITION

SHEET NUMBER
C101



TREE INVENTORY

SURVEY POINT NUMBER	TREE SPECIES	NOMINAL CALIPER SIZE (INCHES)	PROPOSED ACTION	SIGNIFICANT DESIGNATION	REMOVE DUE TO CONDITION
2715	EUROPEAN WHITE BIRCH	14	REMOVE	NO	INVASIVE SPECIES
2716	EUROPEAN WHITE BIRCH	14	REMOVE	NO	INVASIVE SPECIES
2717	EUROPEAN WHITE BIRCH	12	REMOVE	NO	INVASIVE SPECIES
3049	LODGE POLE PINE	17	REMOVE	NO	MECHANICAL DAMAGE
3050	PRINCESS TREE	41	REMOVE FROM ROW	NO	INVASIVE SPECIES
3051	BLACK COTTONWOOD	40	REMOVE	NO	BROKEN TOP, DECAY
3052	DOUGLAS FIR	24	SAVE	YES	NO MAJOR DEFECTS
3053	DOUGLAS FIR	36	REMOVE	YES	NO MAJOR DEFECTS
3054	SPRUCE	16	REMOVE	NO	POOR STEM STRUCTURE
3055	RED ALDER	27	REMOVE	NO	FORKED TOP BRANCH DECAY
3056	GRAND FIR	13	REMOVE	NO	FORKED TOP BRANCH DECAY
3057	GRAND FIR	10	REMOVE	NO	DEAD BRANCHES POOR CROWN
3058	RED ALDER	24	REMOVE	NO	BROKEN TOP, MULTI NEW TOPS
3059	RED ALDER	18	REMOVE	NO	12 DEG. LEAN
3060	RED ALDER	18	REMOVE	NO	BASAL, STEM DECAY
3061	RED ALDER	18	REMOVE	NO	BASAL, STEM DECAY
3062	RED ALDER	14	REMOVE	NO	MECH. DAMAGE, DECAY
3063	RED ALDER	18	REMOVE	NO	OVER-GROWN IVY
3064	BIGLEAF MAPLE	23	SAVE IF POSSIBLE	YES	8 DEG. LEAN, DECAY
3065	DOUGLAS FIR	6	REMOVE	NO	OVER-TOPPED, SUPPRESSED
3095	GRAND FIR	10	REMOVE	NO	SMALL CROWN, DECAY
3096	BIGLEAF MAPLE	8	REMOVE	NO	POOR CONDITION
3097	BIGLEAF MAPLE	11	REMOVE	NO	POOR CONDITION
3357	NOBLE FIR	18	REMOVE	NO	SUSPECT INFESTATION
3358	PORT-ORFORD-CEDAR	14	REMOVE	NO	VERY POOR STRUCT.
3359	PORT-ORFORD-CEDAR	14	REMOVE	NO	VERY POOR STRUCT.
3360	PORT-ORFORD-CEDAR	26	REMOVE	NO	VERY POOR STRUCT.
3361	PORT-ORFORD-CEDAR	20	REMOVE	NO	VERY POOR STRUCT.
3362	PLUM	20	REMOVE	NO	DECAY IN JUNCTURE, NOT MAINTAINED
3415	DOUGLAS FIR	23	REMOVE	NO	TOPPED IN PAST, POOR STRUCT.
3416	DOUGLAS FIR	20	REMOVE	NO	TOPPED IN PAST, POOR STRUCT.
3417	DOUGLAS FIR	28	REMOVE	NO	TOPPED IN PAST, POOR STRUCT.
3418	DOUGLAS FIR	17	REMOVE	NO	CODOM STEMS, HISTORY OF FAILURE
3419	DOUGLAS FIR	22	REMOVE	NO	BROKEN TOP, DECAY IN JUNCTURE
3501	SWEET CHERRY	10	REMOVE	NO	INVASIVE SPECIES
3513	SWEET CHERRY	10,12	REMOVE	NO	INVASIVE SPECIES
3671	APPLE	8	REMOVE	NO	DECAY
3672	APPLE	8	REMOVE	NO	DECAY
3673	APPLE	8	REMOVE	NO	DECAY
3674	APPLE	8	REMOVE	NO	DECAY
3710	PLUM	2*10	PROTECT ADJACENT TREE	NO	PROTECTION FENCING AT PROPERTY LINE

GENERAL TREE INVENTORY STATISTICS

TOTAL TREE INVENTORY:	41 ea
TOTAL TREES RETAINED:	4 ea
TOTAL TREES REMOVED:	37 ea
TREES REMOVED DUE TO CONDITION:	34 ea
TOTAL TREE CALIPER INCHES:	738 inches
TOTAL CALIPER INCHES RETAINED:	103 inches
TOTAL CALIPER INCHES REMOVED:	635 inches

SIGNIFICANT TREE STATISTICS

SIGNIFICANT TREE INVENTORY:	3 ea
SIGNIFICANT TREES RETAINED:	2 ea
SIGNIFICANT TREES REMOVED:	1 ea
SIGNIFICANT TREE CALIPER INCHES:	83 inches
SIGNIFICANT CALIPER INCHES RETAINED:	47 inches
SIGNIFICANT CALIPER INCHES REMOVED:	36 inches
SIGNIFICANT TREE CANOPY COVERAGE:	3,061 Sq. Ft.
SIGNIFICANT TREE CANOPY RETAINED:	2,043 Sq. Ft.
SIGNIFICANT TREE CANOPY RETENTION:	67%
PRESERVATION EASEMENT AREA PROVIDED:	612 Sq. Ft.

LEGEND

- EXISTING SIGNIFICANT DECIDUOUS TREE
- EXISTING SIGNIFICANT CONIFEROUS TREE
- 2091 41"CHERRY 20' DL — TREE POINT, TYPE, CALIPER AND DRIP LINE
- SIGNIFICANT TREE CANOPY
- TREE TO BE REMOVED
- TREE PROTECTION FENCING
- TREE PROTECTION AREA

N

Scale: 1 inch = 20 feet

20 10 0 10 20

RECORD DRAWING
03/17/2015

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TREE PROTECTION AND REMOVAL PLAN

HARPER'S TERRACE SUBDIVISION

LF 10, LLC
WEST LINN, OR

J.T. SMITH companies

REGISTERED PROFESSIONAL ENGINEER
82826PE
OREGON
NOV. 12, 2003
JOHN D. HOWORTH
EXPIRES: 06/30/15
Digital Signature
03/17/2015

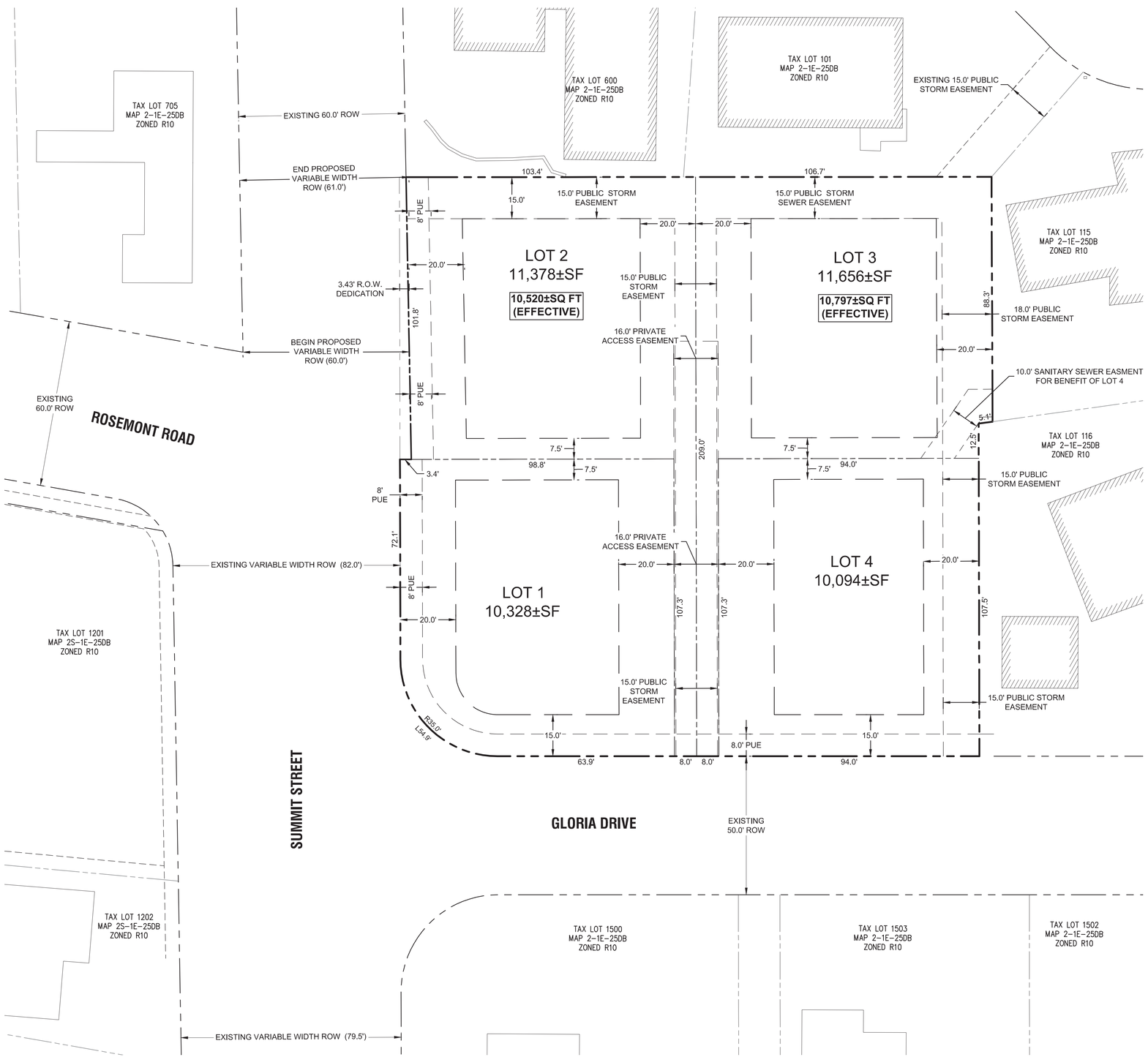
3J CONSULTING, INC
CIVIL ENGINEERING
WATER RESOURCES
LAND USE PLANNING
5075 SW GRIFFITH DRIVE, STE 150, BEAVERTON, OR 97005
PHONE & FAX: (503) 946-9365

3J JOB ID #	13123
LAND USE #	SUB-13-05
TAX LOT #	2S1E25DB 500
DESIGNED BY	CLF/BCH
CHECKED BY	JDH

SHEET TITLE
TREE PLAN

SHEET NUMBER
C102

TAX LOT 500 LOCATED IN THE NW 1/4 & SE 1/4 OF
SECTION 25, T.2S., R.1E., W.M.
CITY OF WEST LINN, CLACKAMAS COUNTY, OREGON



Scale: 1 inch = 20 feet

20 10 0 10 20

LEGEND

- BOUNDARY LINE
- EXISITNG RIGHT-OF-WAY
- EXISTING LOT LINE
- EXISTING CURB
- PROPOSED LOT LINE
- PROPOSED SETBACK LINE

SITE STATISTICS

SITE ADDRESS	4997 SUMMIT STREET WEST LINN, OR 97068
TAXLOT	2S1E25DB 500
JURISDICTION	CITY OF WEST LINN
GROSS SITE AREA	1.02 ACRES
PROPERTY ZONING	R-10
FLOOD HAZARD MAP NUMBER	41005C0257D ZONE X (UNSHADED)

SUBDIVISION STATISTICS

RIGHT OF WAY DEDICATION	3,132 SF
MINIMUM ALLOWABLE EFFECTIVE LOT SIZE	10,000 SF
MINIMUM LOT DENSITY	3.2 UNITS
MAXIMUM LOT DENSITY	4.58 UNITS
PROPOSED LOT DENSITY	4.21 UNITS/ NET ACRE
MINIMUM LOT DENSITY (PER R-10 ZONING)	3.05 UNITS/ NET ACRE
MAXIMUM LOT DENSITY (PER R-10 ZONING)	4.35 UNITS/ NET ACRE
SETBACKS:	
FRONT	20 FEET
SIDE	7.5 FEET
REAR	20 FEET
STREET SIDE	15 FEET
MAX. HEIGHT	35 FEET

PROJECT TEAM

OWNER/APPLICANT

LF 10, LLC
C/O: J.T. SMITH COMPANIES
5285 MEADOWS ROAD, SUITE #171
LAKE OSWEGO, OR 97035
CONTACT: JOHN WYLAND
EMAIL: jwyland@jtsmithco.com

PLANNING CONSULTANT

3J CONSULTING, INC
5075 SW GRIFFITH DRIVE, SUITE 150
BEAVERTON, OR 97005
CONTACT: ANDREW TULL
PHONE: 503-946-9365
EMAIL: andrew.tull@3j-consulting.com

LAND SURVEYOR

COMPASS SURVEYING
4107 SE INTERNATIONAL WAY, SUITE 705
MILWAUKIE, OR 97222
CONTACT: DON DEVLAEMINCK, PLS
PHONE: 503-653-9093
EMAIL: dond@compass-engineering.com

CIVIL ENGINEER

3J CONSULTING, INC.
5075 SW GRIFFITH DRIVE, SUITE 150
BEAVERTON, OR 97005
CONTACT: JOHN HOWORTH
PHONE: (503) 946-9365
EMAIL: john.howorth@3j-consulting.com

GEOTECHNICAL CONSULTANT

GEOPACIFIC ENGINEERING, INC.
14835 SW 72ND AVENUE
PORTLAND, OR 97224
CONTACT: SCOTT HARDMAN
PHONE: (503) 625-4455
EMAIL: shardman@geopacificeng.com

RECORD DRAWING
03/17/2015

This drawing has been prepared to reflect constructed deviations from permit documents. The basis of this information is derived in whole or in part from a combination of:
- Contractor supplied redlines
- Site observations by the engineer
- Field measurements

The undersigned engineer of record certifies this drawing is an accurate representation of the final construction, and the resulting improvements are in conformance with the standards of the City of West Linn.

TENTATIVE SUBDIVISION PLAT
HARPER'S TERRACE SUBDIVISION

LF 10, LLC
WEST LINN, OR

J.T. SMITH companies

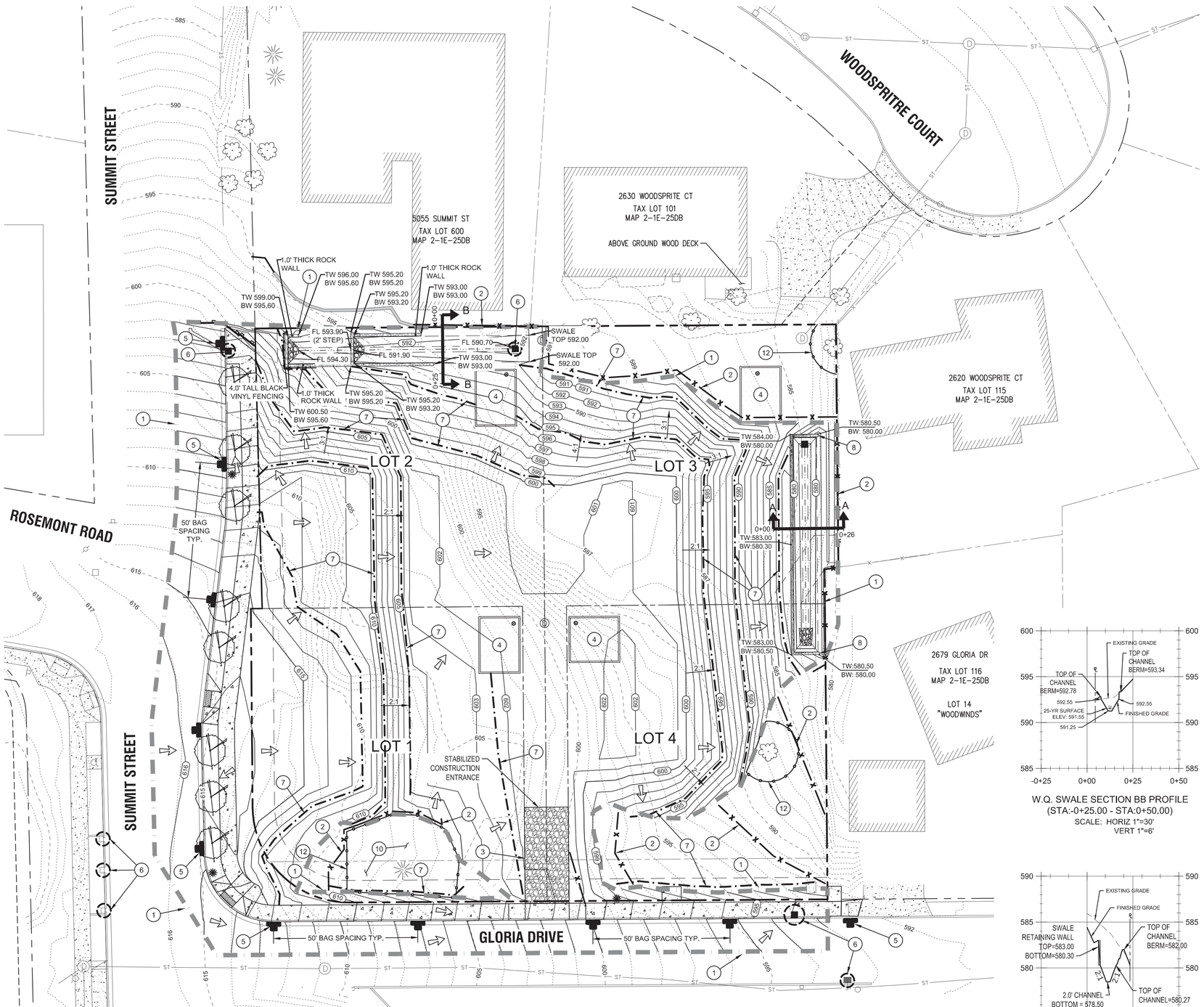
REGISTERED PROFESSIONAL ENGINEER
12282PE
OREGON
NOV. 12, 2003
JOHN D. HOWORTH
EXPIRES: 06/30/15
Digital Signature
03/17/2015

3J CONSULTING, INC
CIVIL ENGINEERING
WATER RESOURCES
LAND USE PLANNING
5075 SW GRIFFITH DRIVE, STE 150, BEAVERTON, OR 97005
PHONE & FAX: (503) 946-9365

3J JOB ID #	13123
LAND USE #	SUB-13-05
TAX LOT #	2S1E25DB 500
DESIGNED BY	CLF/BCH
CHECKED BY	JDH

SHEET TITLE
TENTATIVE PLAT

SHEET NUMBER
C110



LEGEND

- BOUNDARY LINE
- EXISTING RIGHT-OF-WAY
- EXISTING CENTERLINE
- EXISTING EASEMENT LINE
- EXISTING LOT LINE
- EXISTING CURB AND GUTTER
- EXISTING SIDEWALK
- EXISTING TREES TO REMAIN
- EXISTING 1FT CONTOUR
- EXISTING 5FT INDEX CONTOUR
- PROPOSED LOT LINE
- PROPOSED CURB AND GUTTER
- PROPOSED CONCRETE
- PROPOSED RETAINING WALL
- PROPOSED STREET FRONTAGE TREE
- PROPOSED 1FT CONTOUR
- PROPOSED 5FT INDEX CONTOUR
- EROSION CONTROL: SILT FENCING (BLACK)
- EROSION CONTROL: FESCUE STRAW WATTLE
- EROSION CONTROL: BIO BAG CHECK DAM
- EROSION CONTROL: CONSTRUCTION ENTRANCE
- LIMITS OF GRADING/DISTURBANCE
- TREE PROTECTION FENCING
- SURFACE RUN-OFF FLOW ARROW
- EROSION CONTROL: INLET PROTECTION
- WALLED RAIN GARDEN FOR INDIVIDUAL LOT RUNOFF AND TREATMENT

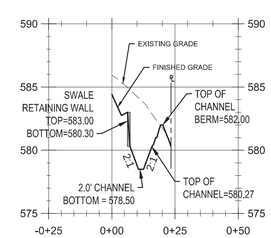
SITE GRADING INFORMATION

NEAT LINE CUT	482 CY
NEAT LINE FILL	4,885 CY
MAXIMUM CUT DEPTH	6.5 FT
MAXIMUM FILL DEPTH	14.6 FT
MAXIMUM PROPOSED SLOPE	2:1 (H:V)
TOTAL AREA OF DISTURBANCE	0.90 ACRES

GRADING KEY NOTES

1. LIMITS OF PUBLIC STREET EXTENSION AND RIGHT OF WAY IMPROVEMENTS. COORDINATE WITH ADJACENT PROPERTY OWNER FOR ANY GRADE OR ALIGNMENT MODIFICATIONS REQUIRED.
2. INSTALL SILT FENCE AT LIMITS OF GRADING PER DETAIL ON SHEET C121, OR AS NOTED OTHERWISE ON THIS SHEET.
3. CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE AT LOCATION SHOWN PER DETAIL ON SHEET C121, OR AS OTHERWISE NOTED ON THIS SHEET.
4. WALLED STORM WATER PLANTER, FOR INDIVIDUAL LOT RUNOFF CONTROL AND TREATMENT. TO BE BUILT AT THE TIME OF HOME CONSTRUCTION (UNDER SEPARATE PERMIT).
5. INSTALL BIO BAG CHECK DAM FOR SEDIMENT CONTROL WITHIN RIGHT OF WAY AT 50' O.C. PER DETAIL ON SHEET C121.
6. INSTALL INLET PROTECTION PER DETAILS ON SHEET C121.
7. INSTALL STRAW WATTLE PER DETAIL ON SHEET C121.
8. CONSTRUCT WALLED STORM WATER QUALITY SWALE. SEE SHEET C300 FOR CONSTRUCTION DATA.
9. NOT USED
10. ALL GRADING AND DISTURBANCE ACTIVITIES ADJACENT TO SIGNIFICANT TREES SHALL BE COMPLETED UNDER SUPERVISION AND DIRECTION BY THE PROJECT ARBORIST AND THE CITY OF WEST LINN.
11. NOT USED
12. INSTALL TREE PROTECTION FENCING FOR CONSTRUCTION WHERE SHOWN PER DETAIL ON SHEET C210.
13. CONSTRUCT WATER QUALITY FACILITY PER ELEVATION DATA AND TYPICAL SECTIONS THIS SHEET.

W.Q. SWALE SECTION BB PROFILE
(STA:-0+25.00 - STA:0+50.00)
SCALE: HORIZ 1"=30'
VERT 1"=6'



W.Q. SWALE SECTION AA PROFILE
(STA:-0+25.00 - STA:0+50.00)
SCALE: HORIZ 1"=30'
VERT 1"=6'

GRADING GENERAL NOTES:

1. ALL GRADING ACTIVITIES SHALL CONFORM TO THE UNIFORM BUILDING CODE AND THE OREGON SPECIALTY CODE AMENDMENTS, INCLUDING APPENDIX J.
2. ALL PROPOSED WATTLES, CHECK DAMS AND SILT FENCING SHALL BE MOVED WHILE CONSTRUCTION PROGRESSES IN ORDER MAINTAIN PROPER EROSION CONTROL PREVENTION.
3. ALL PROPOSED WATTLES, CHECK DAMS AND SILT FENCING SHALL BE INSTALLED AT GRADING EXTENTS, AND OR AT 50' INTERVALS, UNLESS NOTED OTHERWISE ON PLANS.

Scale: 1 inch = 20 feet
20 10 0 10 20

Know what's **below.**
Call before you dig.

RECORD DRAWING
03/17/2015

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GRADING AND EROSION CONTROL PLAN
HARPER'S TERRACE SUBDIVISION
LF 10, LLC
WEST LINN, OR

J.T. SMITH companies

REGISTERED PROFESSIONAL ENGINEER
82PE
OREGON
NOV. 12, 2003
JOHN D. HOWORTH
EXPIRES: 06/30/15
Digital Signature
03/17/2015

3J CONSULTING, INC
CIVIL ENGINEERING
WATER RESOURCES
LAND USE PLANNING
5075 SW GRIFFITH DRIVE, STE 150, BEAVERTON, OR 97005
PHONE & FAX: (503) 946-9365

3J JOB ID #	13123
LAND USE #	SUB-13-05
TAX LOT #	2S1E25DB 500
DESIGNED BY	CLF/BCH
CHECKED BY	JDH

SHEET TITLE
GRADING / ESCP

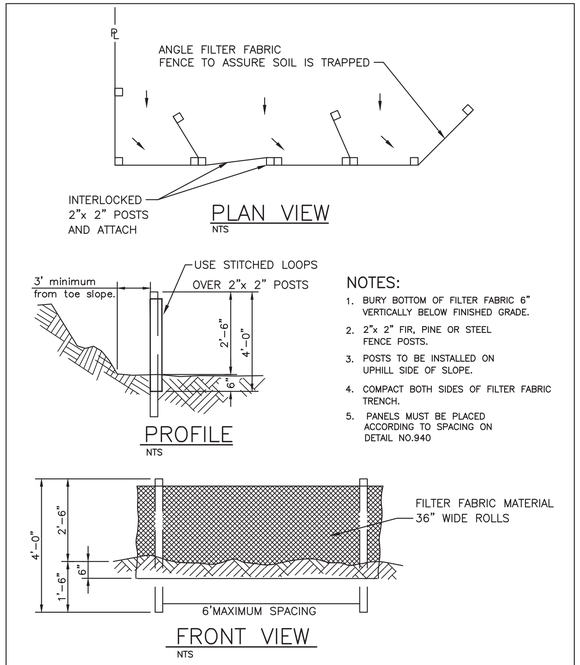
SHEET NUMBER
C120

EROSION AND SEDIMENT CONTROL PLAN NOTES

1. APPLY TEMPORARY AND/OR PERMANENT SOIL STABILIZATION MEASURES IMMEDIATELY ON ALL DISTURBED AREAS AS GRADING PROGRESSES.
2. CONSTRUCTION ACTIVITIES MUST AVOID OR MINIMIZE EXCAVATION AND CREATION OF BARE GROUND ON SLOPES FROM OCTOBER 1 THROUGH MAY 31 EACH YEAR.
3. DURING WET WEATHER PERIODS TEMPORARY STABILIZATION OF THE SITE MUST OCCUR AT THE END OF EACH WORKDAY IF RAINFALL IS FORECAST IN THE NEXT 24 HOURS.
4. ALL EROSION AND SEDIMENT CONTROLS NOT IN THE DIRECT PATH OF WORK MUST BE INSTALLED PRIOR TO ANY LAND DISTURBANCE.
5. PRESERVE EXISTING VEGETATION AND RE-VEGETATE OPEN AREAS WHEN PRACTICABLE BEFORE AND AFTER GRADING OR CONSTRUCTION.
6. ALL TEMPORARY SEDIMENT CONTROLS MUST REMAIN IN PLACE UNTIL PERMANENT VEGETATION OR OTHER PERMANENT COVERING OF EXPOSED SOIL IS ESTABLISHED.
7. SEDIMENT CONTROLS MUST BE INSTALLED AND MAINTAINED ON ALL DOWN GRADIENT SIDES OF THE CONSTRUCTION SITE AT ALL TIMES DURING CONSTRUCTION.
8. ALL ACTIVE CATCH BASINS SEDIMENT CONTROLS MUST HAVE SEDIMENT CONTROLS INSTALLED AND MAINTAINED AT ALL TIMES DURING CONSTRUCTION.
9. WATER-TIGHT TRUCKS MUST BE USED TO TRANSPORT SATURATED SOILS FROM THE CONSTRUCTION SITE. AN APPROVED EQUIVALENT IS TO DRAIN THE SOIL ON-SITE AT A DESIGNATED LOCATION USING APPROPRIATE BMPS SOIL MUST BE DRAINED SUFFICIENTLY FOR MINIMAL SPILLAGE.
10. TEMPORARY STABILIZATION OR COVERING OF SOIL STOCKPILES MUST OCCUR AT THE END OF EACH WORKDAY OR OTHER BMPS MUST BE IMPLEMENTED TO PREVENT TURBID DISCHARGES TO SURFACE WATERS.
11. DEVELOP AND MAINTAIN ON-SITE A WRITTEN SPILL PREVENTION AND RESPONSE PROCEDURE.
12. ANY USE OF TOXIC OR OTHER HAZARDOUS MATERIALS MUST INCLUDE PROPER STORAGE, APPLICATION, AND DISPOSAL.
13. THE PERMITEE MUST PROPERLY PREVENT AND MANAGE HAZARDOUS WASTES, USED OILS, CONTAMINATED SOILS, CONCRETE WASTE, SANITARY WASTE, LIQUID WASTE, OR OTHER TOXIC SUBSTANCES DISCOVERED OR GENERATED DURING CONSTRUCTION AND MEET ALL STATE AND FEDERAL REGULATIONS AND APPROVALS.
14. SIGNIFICANT AMOUNTS OF SEDIMENT, WHICH LEAVES THE SITE, MUST BE CLEANED UP WITHIN 24 HOURS AND PLACED BACK ON THE SITE AND STABILIZED OR PROPERLY DISPOSED. THE CAUSE OF THE SEDIMENT RELEASE MUST BE FOUND AND PREVENTED FROM CAUSING A RECURRENCE OF THE DISCHARGE WITHIN THE SAME 24 HOURS. ANY IN-STREAM CLEAN UP OF SEDIMENT SHALL BE PERFORMED ACCORDING TO THE OREGON DIVISION OF STATE LANDS REQUIRED TIME FRAME.
15. SEDIMENT MUST NOT BE INTENTIONALLY WASHED INTO STORM SEWERS, DRAINAGE WAYS, OR WATERBODIES. DRY SWEEPING MUST BE USED TO CLEAN UP RELEASED SEDIMENTS.
16. THE APPLICATION RATE OF FERTILIZERS USED TO RE-ESTABLISH VEGETATION MUST FOLLOW THE MANUFACTURER'S RECOMMENDATIONS. NUTRIENT RELEASES FROM FERTILIZERS TO SURFACE WATERS MUST BE MINIMIZED. TIME RELEASE FERTILIZERS SHOULD BE USED AND CARE SHOULD BE TAKEN IN THE APPLICATION OF FERTILIZERS WITHIN ANY WATERWAY RIPARIAN ZONE.
17. SEDIMENT MUST BE REMOVED FROM BEHIND A SEDIMENT FENCE WHEN IT HAS REACHED A HEIGHT OF 1/3 THE HEIGHT OF THE FENCE ABOVEGROUND AND BEFORE FENCE REMOVAL.
18. SEDIMENT MUST BE REMOVED FROM BEHIND BIO BAGS AND OTHER BARRIERS WHEN IT HAS REACHED A HEIGHT OF TWO (2) INCHES AND BEFORE BMP REMOVAL.
19. CLEANING OF TRAPPED CATCH BASINS MUST OCCUR WHEN THE SEDIMENT RETENTION CAPACITY HAS BEEN REDUCED BY FIFTY (50) PERCENT, AND AT THE COMPLETION OF A PROJECT.
20. REMOVAL OF TRAPPED SEDIMENT IN A SEDIMENT BASIN OR SEDIMENT TRAP OR CATCH BASINS MUST OCCUR WHEN THE SEDIMENT RETENTION CAPACITY HAS BEEN REDUCED BY FIFTY (50) PERCENT AND AT COMPLETION OF PROJECT.
21. DEQ MUST APPROVE OF ANY TREATMENT SYSTEM AND OPERATIONAL PLAN THAT MAY BE NECESSARY TO TREAT CONTAMINATED CONSTRUCTION DEWATERING OR SEDIMENT AND TURBIDITY IN STORMWATER RUNOFF.
22. SHOULD ALL CONSTRUCTION ACTIVITIES CEASE FOR THIRTY DAYS OR MORE, THE ENTIRE SITE MUST BE TEMPORARILY STABILIZED USING VEGETATION OR A HEAVY MULCH LAYER, TEMPORARY SEEDING, OR OTHER METHOD.
23. SHOULD CONSTRUCTION ACTIVITIES CEASE FOR FIFTEEN (15) DAYS OR MORE ON ANY SIGNIFICANT PORTION OF A CONSTRUCTION SITE TEMPORARY STABILIZATION IS REQUIRED FOR THAT PORTION OF THE SITE WITH STRAW, COMPOST, OR OTHER TACKIFIED COVERING THAT PREVENT SOIL OR WIND EROSION UNTIL WORK RESUMES ON THAT PORTION OF THE SITE.

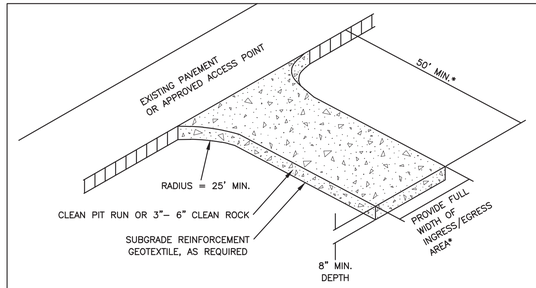
LOCAL AGENCY SPECIFIC EROSION CONTROL NOTES

1. OWNER OR DESIGNATED PERSON SHALL BE RESPONSIBLE FOR PROPER INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH THE LOCAL, STATE, AND FEDERAL REGULATIONS.
2. PRIOR TO ANY LAND DISTURBING ACTIVITIES, THE BOUNDARIES OF THE CLEARING LIMITS, VEGETATED BUFFERS, AND ANY SENSITIVE AREAS SHOWN 0 THIS PLAN SHALL BE CLEARLY DELINEATED LID IN THE FIELD. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE IS PERMITTED BEYOND THE CLEARING LIMITS. THE OWNER/PERMILIE MUST MAINTAIN THE DELINEATION FOR THE DURATION OF THE PROJECT. NOTE: VEGETATED CORRIDORS TO BE DELINEATED WITH ORANGE CONSTRUCTION FENCE OR APPROVED EQUAL.
3. PRIOR TO ANY LAND DISTURBING ACTIVITIES, THE BMPS THAT MUST BE INSTALLED ARE A GRAVEL CONSTRUCTION ENTRANCE, PERIMETER SEDIMENT CONTROL, AND INLET PROTECTION. THESE BMPS MUST BE MAINTAINED FOR THE DURATION OF THE PROJECT.
4. IF VEGETATED SEED MIXES ARE SPECIFIED, SEEDING MUST TAKE PLACE NO LATER THAN SEPTEMBER 1; THE TYPE AND PERCENTAGES OF SEED IN THE MIX MUST BE IDENTIFIED ON THE PLANS.
5. THE ESC PLAN MUST BE KEPT ON SITE. ALL MEASURES SHOWN ON THE PLAN MUST BE INSTALLED PROPERLY TO ENSURE THAT SEDIMENT OR SEDIMENT LADEN WATER DOES NOT ENTER A SURFACE WATER SYSTEM, ROADWAY, OR OTHER PROPERTIES.
6. THE ESC MEASURES SHOWN ON THIS PLAN ARE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE MEASURES SHALL BE UPGRADED AS NEEDED TO COMPLY WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL EROSION CONTROL REGULATIONS.
7. ALL EXPOSED SOILS MUST BE COVERED DURING THE WET WEATHER PERIOD.

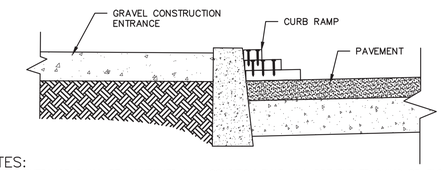


NOTES:
1. BURY BOTTOM OF FILTER FABRIC 6" VERTICALLY BELOW FINISHED GRADE.
2. 2"x 2" FIR, PINE OR STEEL FENCE POSTS.
3. POSTS TO BE INSTALLED ON UPHILL SIDE OF SLOPE.
4. COMPACT BOTH SIDES OF FILTER FABRIC TRENCH.
5. PANELS MUST BE PLACED ACCORDING TO SPACING ON DETAIL NO.940

SEDIMENT FENCE

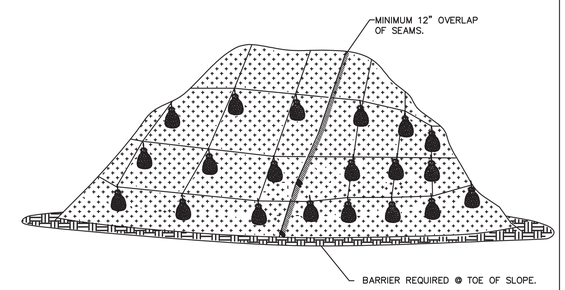


*20' MIN. FOR SINGLE FAMILY AND DUPLEX RESIDENTIAL



NOTES:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF- WAY.
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.
4. WHERE RUNOFF CONTAINING SEDIMENT LADEN WATER IS LEAVING THE SITE VIA THE CONSTRUCTION ENTRANCE, OTHER MEASURES SHALL BE IMPLEMENTED TO DIVERT RUNOFF THROUGH AN APPROVED FILTERING SYSTEM.
5. DIMENSIONS
   SINGLE FAMILY
   20' LONG BY 20' WIDE 8" DEEP OF ¾" MINUS CLEAN ROCK.
   COMMERCIAL
   50' LONG BY 20' WIDE 3-6" CLEAN ROCK, GOVERNING AUTHORITY MAY REQUIRE GEOTEXTILE FABRIC TO PREVENT SUB-SOIL PUMPING.

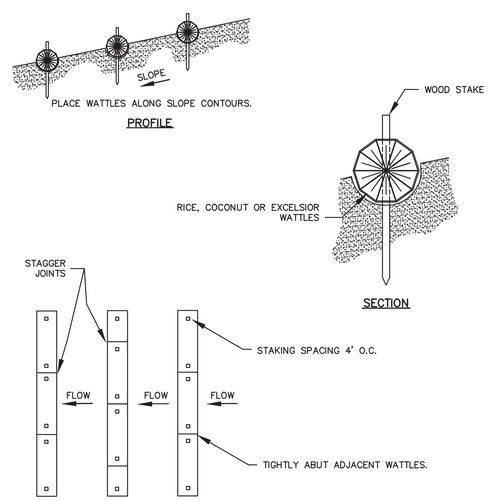
CONSTRUCTION ENTRANCE



PLASTIC SHEETING

NOTES:
1. MINIMUM 12" OVERLAP OF ALL SEAMS REQUIRED.
2. BARRIER REQUIRED @ TOE OF STOCK PILE.
3. COVERING MAINTAINED TIGHTLY IN PLACE BY USING SANDBAGS OR TIRES ON ROPES WITH A MAXIMUM 10' GRID SPACING IN ALL DIRECTIONS.

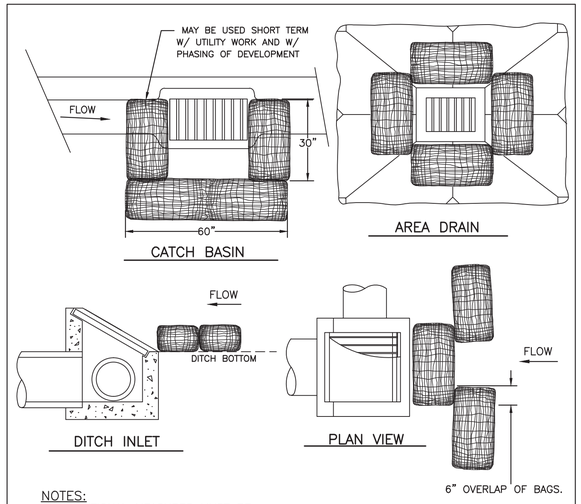
PLASTIC SHEETING



NOTES:
1. STAKING SPECIFICATIONS:
a. 1"X2" WOODEN STAKES
b. ADDITIONAL STAKES MAY BE INSTALLED ON DOWNHILL SIDE OF WATTLES, ON STEEP SLOPE OR HIGHLY EROSIVE SOILS.
2. SPACING IN ACCORDANCE WITH DETAIL 940.

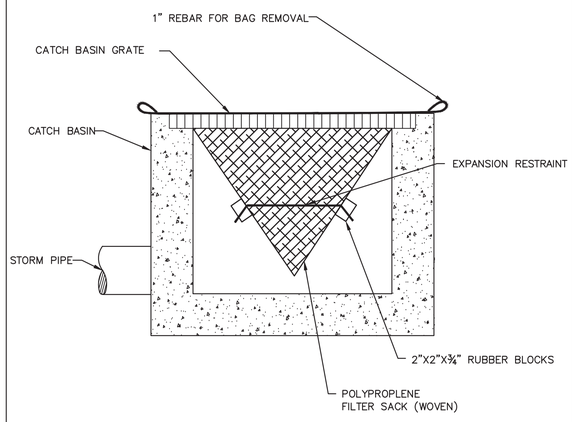
FOR FURTHER INFORMATION ON DESIGN CRITERIA SEE CHAPTER 4 OF CLEAN WATER SERVICES EROSION PREVENTION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL.

WATTLES



NOTES:
1. ADDITIONAL MEASURES MUST BE CONSIDERED DEPENDING ON SOIL TYPES.
2. BIO-FILTER BAGS SHOULD BE STAKED WHERE APPLICABLE USING (2) 1"x2"WOODEN STAKES OR APPROVED EQUAL PER BAG.
3. WHEN USING 30" BIO-BAGS TO PROTECT A CATCH BASIN YOU MUST HAVE 4 BAGS AND THEY SHALL BE OVERLAPPED BY 6".

INLET PROTECTION
TYPE 4



WOVEN POLYPROPLENE SACK

NOTE:
1. RECESSED CURB INLET CATCH BASINS MUST BE BLOCKED WHEN USING FILTER FABRIC INLET SACKS. SIZE OF FILTER FABRIC INLET SACKS TO BE DETERMINED BY MANUFACTURER.

INLET PROTECTION
TYPE 5

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EROSION AND SEDIMENT CONTROL DETAILS

HARPER'S TERRACE SUBDIVISION

LF 10, LLC
WEST LINN, OR

J.T. SMITH companies

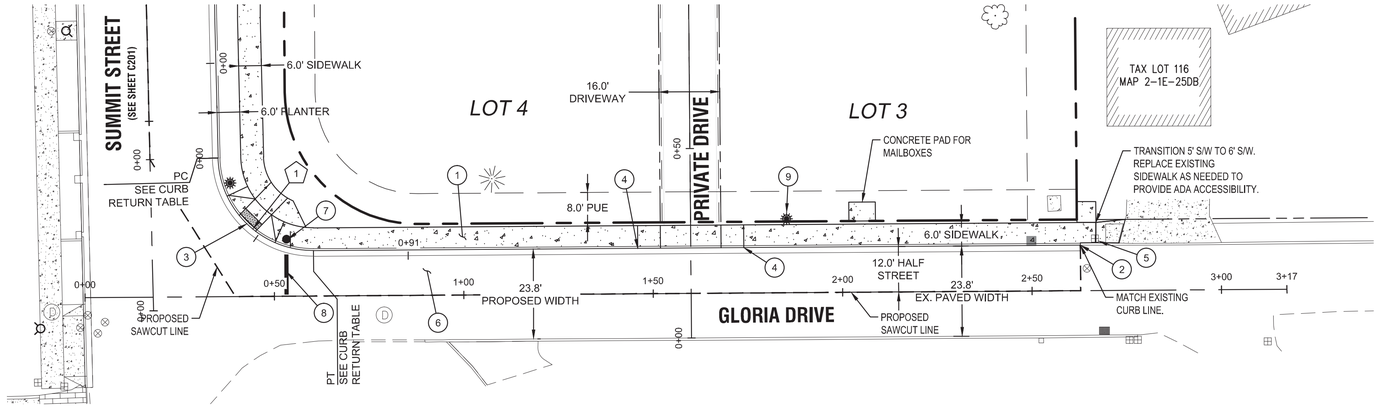
REGISTERED PROFESSIONAL ENGINEER 82282PE OREGON NOV. 12, 2003 JOHN D. HOWORTH
EXPIRES: 06/30/15
Digital Signature
03/17/2015

3J CONSULTING, INC
CIVIL ENGINEERING
WATER RESOURCES
LAND USE PLANNING
15375 SW GRANFORD BOULEVARD, SUITE 150, BEAVERTON, OR 97035
PHONE & FAX: (503) 946-9365

3J JOB ID #	13123
LAND USE #	SUB-13-05
TAX LOT #	2S1E25DB 500
DESIGNED BY	CLF/BCH
CHECKED BY	JDH

SHEET TITLE
ESCP DETAILS

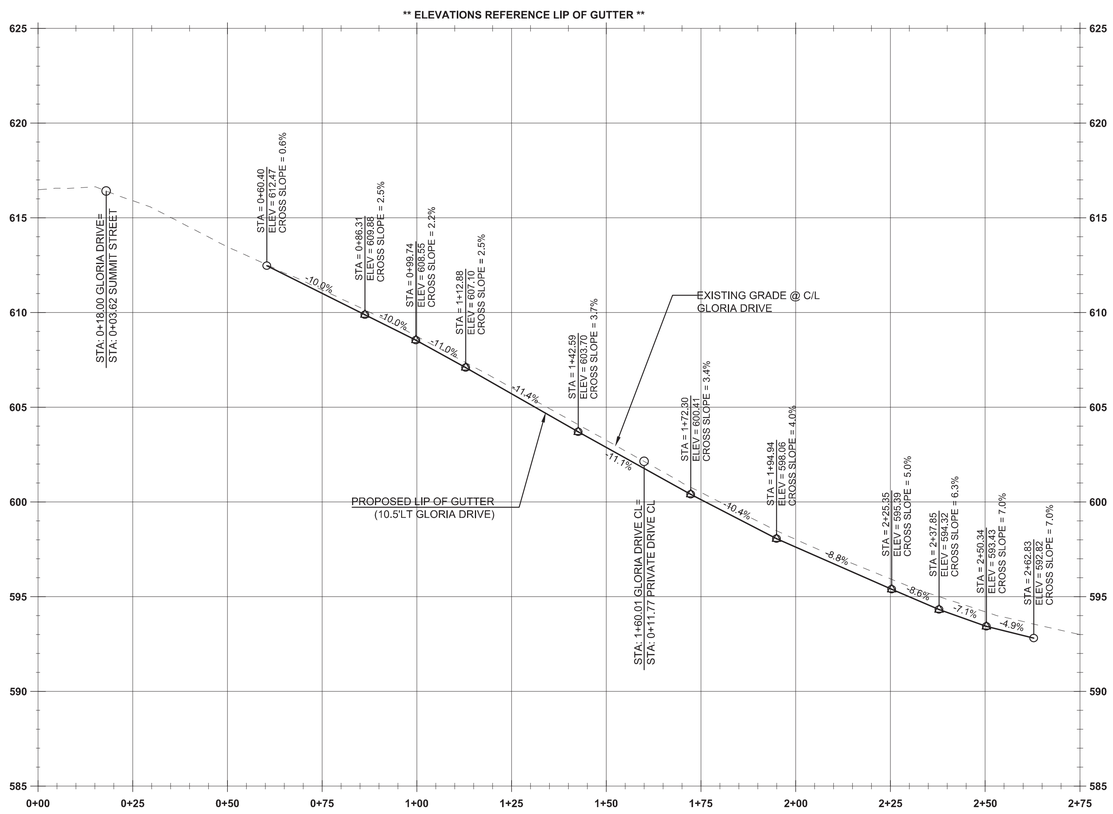
SHEET NUMBER
C121



GLORIA DRIVE - PLAN VIEW

Scale: 1 inch = 20 feet

20 10 0 10 20



GLORIA DRIVE CONSTRUCTION CL- PROFILE VIEW

(STA:0+00 - STA:2+75.00)
1" = 20'H; 1" = 4'V

GLORIA DRIVE - DRIVEWAY LOCATION TABLE

LOT NO.	DRIVEWAY C/L STATION	RAMP WIDTH
1 - 4	1+59.99	28FT

CURB RETURN TABLE

TAG NO.	PC STATION	DELTA	RADIUS	TANGENT	LENGTH	PT STATION	PC ELEV	1/4 Δ	1/2 Δ	3/4 Δ	PT ELEV
1	0+33.9, 36.58' LT	89°3'3"	26.5'	26.1'	41.2'	0+60.4, 10.5' LT	615.35	614.82	614.40	613.58	612.47

* ALL CURB STATIONING, GEOMETRY AND OFFSETS REFERENCE LIP OF PROPOSED GUTTER
* SEE C211 FOR CURB RETURN PROFILES AND 1/4 Δ ELEVATIONS

LEGEND

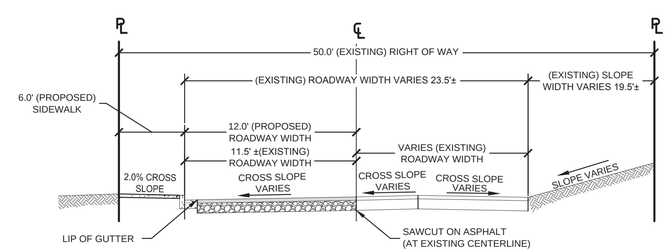
- BOUNDARY LINE
- RIGHT-OF-WAY
- EXISTING EDGE OF ASHPALT
- EXISTING CURB
- EXISTING SIDEWALK
- EXISTING LIGHT POLE
- EXISTING TRAFFIC SIGN
- EXISTING FIRE HYDRANT
- EXISTING TREES TO REMAIN
- PROPOSED LOT LINE
- PROPOSED CURB AND GUTTER
- PROPOSED CONCRETE
- EXISTING ASPHALT SAW CUT LIMITS
- PROPOSED PAVEMENT STRIPING

CONSTRUCTION KEY NOTES

1. STA: 0+60.4, 12.5' LT TO STA: STA: 2+69.6, 12.5' LT GLORIA DR:
   CONSTRUCT 6 FT WIDE CURB TIGHT SIDEWALK PER CITY OF WEST LINN STANDARD DETAIL WL-508 (CONCRETE SIDEWALK CROSS SECTION) ON SHEET C210.
2. STA: 0+60.4, 12.0' LT TO STA: 2+62.9, 12.0' LT GLORIA DR:
   CONSTRUCT STANDARD CURB AND GUTTER PER CITY OF WEST LINN STANDARD DETAIL WL-501 (TYPICAL CURBS) ON SHEET C210.
3. STA: 0+37.7, 26.5' LT TO STA: 0+50.3, 14.1' LT GLORIA DR:
   CONSTRUCT CURB RAMP PER CITY OF WEST LINN STANDARD DETAIL WL-506A (PARALLEL CURB RAMP) ON SHEET C211.
4. STA: 1+46.0, 12.0' LT AND STA: 1+74.0, 12.0' LT GLORIA DR:
   CONSTRUCT SINGLE DRIVEWAY ACCESS TO GLORIA DRIVE (28 FT) PER CITY OF WEST LINN STANDARD DETAIL WL-503B (RESIDENTIAL DRIVEWAY WITH SIDEWALK ADJACENT TO CURB) ON SHEET C210.
5. CONTRACTOR TO PROTECT EXISTING WATER METER FROM DAMAGE. RE-SET METER BOX FLUSH WITH FINISHED GRADE.
6. RE-PAVE FROM SAWCUT LIMITS TO NEW LIP OF GUTTER WITHIN AREA SHOWN (APPROX. 2,750 SF). SEE LOCAL STREET PAVING REQUIREMENTS ON TYPICAL SECTION DETAIL THIS SHEET.
7. STA: 0+53.33, 15.0' LT GLORIA DR:
   INSTALL STOP SIGN AND POST WITH V-LOC BREAKAWAY POST ANCHOR SYSTEM PER TYPICAL INSTALLATION DETAIL ON SHEET 211.
8. STA: 0+53.22, 0.5' LT GLORIA DR:
   INSTALL STOP BAR STRIPING PER TYPICAL INSTALLATION DETAIL THIS SHEET.
9. STA: 1+79.97, 14.41' RT AND STA: 1+54.6, 26.1' RT GLORIA DRIVE:
   INSTALL NEW LIGHT POLE BASE, JUNCTION BOX AND CONDUIT. BRONZE POLE, 6' MAST ARM, BETA LED FIXTURE APPROVED BY CITY OF WEST LINN. CONTRACTOR TO CONFIRM ALL LOCATIONS AND INSTALLATION REQUIREMENTS WITH PORTLAND GENERAL ELECTRIC.

GENERAL NOTES:

1. REFER TO MITIGATION PLAN (C500) FOR ALL STREET TREE PLANTING LOCATIONS, DETAILS AND SPECIFICATIONS.

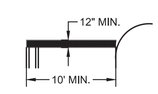


STANDARD LOCAL STREET PAVING SECTION
4" HMAC (2 LIFTS)
2" - 3/4"-0 LEVELING COURSE
10" - 1 ½"-0 ROCK BASE

TYPICAL SECTION - GLORIA DRIVE IMPROVEMENTS

SCALE: N.T.S

NARROW DOUBLE NO-PASS
TWO 4" YELLOW LINES



STOP LINE - ONE 12 IN. WHITE LINE

STRIPING NOTES

1. STRIPING SHALL BE THERMOPLASTIC PAVEMENT MARKING MATERIAL.
2. LOCATE STOP LINE 4' (MIN.) TO 10' (MAX.) IN ADVANCE OF THE NEAREST MARKED CROSSWALK LINE.
3. ALL PAVEMENT MARKING MATERIALS SHALL BE INSTALLED AS PER OREGON STANDARD SPECIFICATIONS.

811
Know what's **below.**
Call before you dig.

RECORD DRAWING
03/17/2015

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- Contractor supplied redlines
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- Field measurements

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GLORIA DRIVE PLAN AND PROFILE

HARPER'S TERRACE SUBDIVISION

LF 10, LLC
WEST LINN, OR

J.T. SMITH companies

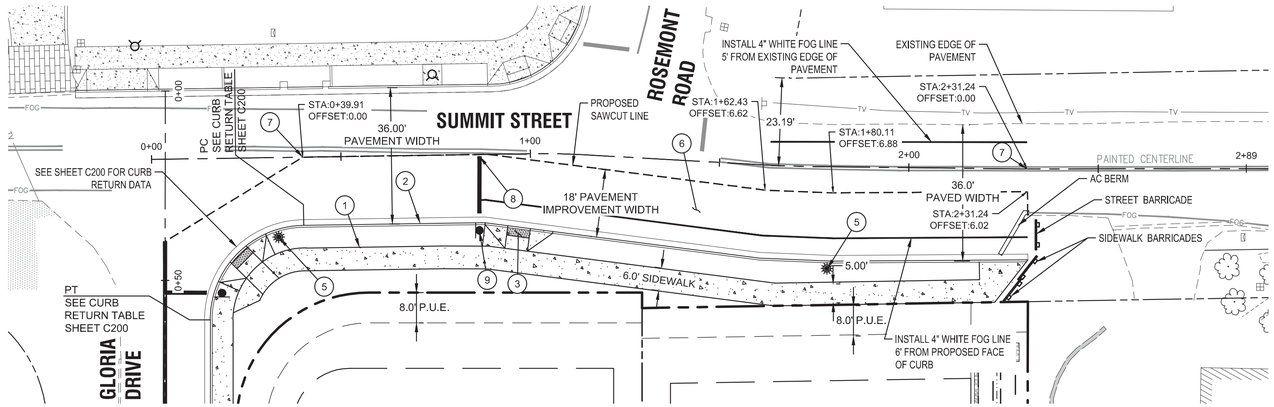
REGISTERED PROFESSIONAL ENGINEER
282PE
OREGON
NOV. 12, 2008
JOHN D. HOWORTH
EXPIRES: 06/30/15
Digital Signature
03/17/2015

3J CONSULTING, INC
CIVIL ENGINEERING
WATER RESOURCES
LAND USE PLANNING
5075 SW GRIFFITH DRIVE, STE 150, BEAVERTON, OR 97005
PHONE & FAX: (503) 946-9365

3J JOB ID #	13123
LAND USE #	SUB-13-05
TAX LOT #	2S1E25DB 500
DESIGNED BY	CLF/BCH
CHECKED BY	JDH

SHEET TITLE
GLORIA DR. P & P

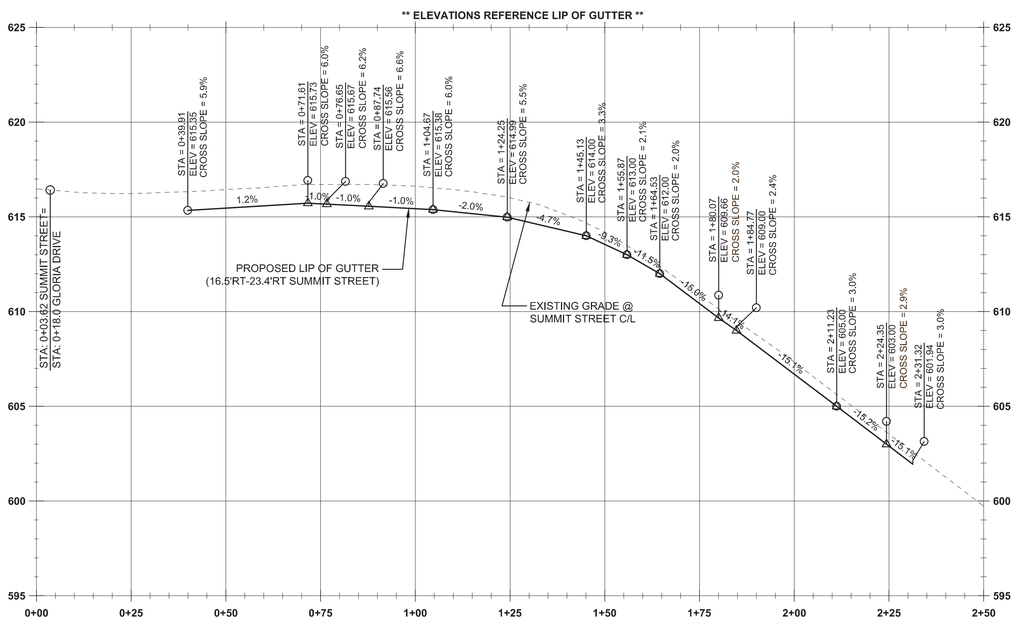
SHEET NUMBER
C200



SUMMIT STREET - PLAN VIEW

Scale: 1 inch = 20 feet

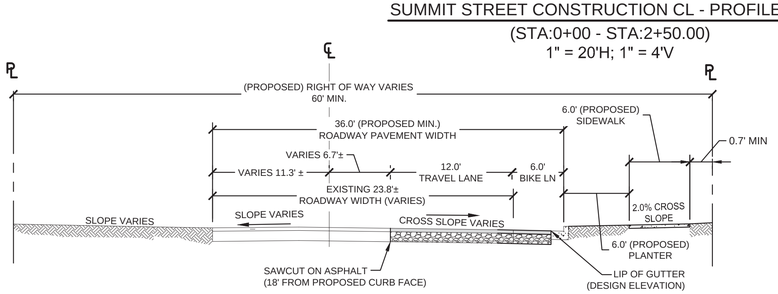
20 10 0 10 20



SUMMIT STREET CONSTRUCTION CL - PROFILE VIEW

(STA:0+00 - STA:2+50.00)

1" = 20'H; 1" = 4'V

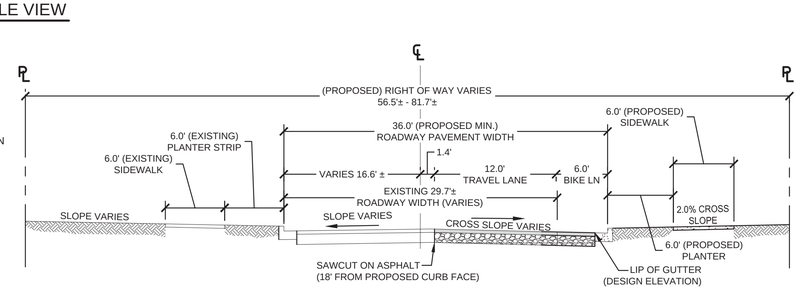


STANDARD ARTERIAL STREET PAVING SECTION
6" HMAC (3 LIFTS)
2" - 3/4"-0 LEVELING COURSE
14" - 1 ½"-0 ROCK BASE

TYPICAL SECTION - SUMMIT STREET (NORTH OF ROSEMONT ROAD)

SCALE: N.T.S

(ARTERIAL CLASSIFICATION)



STANDARD COLLECTOR STREET PAVING SECTION
5" HMAC (2 LIFTS)
2" - 3/4"-0 LEVELING COURSE
14" - 1 ½"-0 ROCK BASE

TYPICAL SECTION - SUMMIT STREET (SOUTH OF ROSEMONT ROAD)

SCALE: N.T.S

(COLLECTOR CLASSIFICATION)

LEGEND

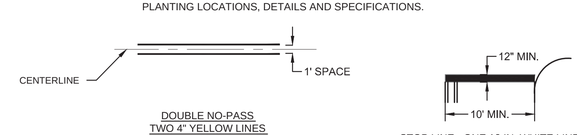
- BOUNDARY LINE
- RIGHT-OF-WAY
- EXISTING EDGE OF ASHPALT
- EXISTING CURB
- EXISTING SIDEWALK
- EXISTING LIGHT POLE
- EXISTING TRAFFIC SIGN
- EXISTING FIRE HYDRANT
- EXISTING TREES TO REMAIN
- PROPOSED LOT LINE
- PROPOSED CURB AND GUTTER
- PROPOSED CONCRETE
- EXISTING ASPHALT SAW CUT LIMITS
- PROPOSED PAVEMENT STRIPING

CONSTRUCTION KEY NOTES

1. STA: 0+39.91, 24.0' RT TO STA: STA: 2+31.33, 30.0' RT SUMMIT STREET: CONSTRUCT 6 FT WIDE DETACHED SIDEWALK PER CITY OF WEST LINN STANDARD DETAIL WL-508 (CONCRETE SIDEWALK CROSS SECTION) ON SHEET C210.
2. STA: 0+39.91,16.5' RT TO STA: 2+31.32, 22.5' RT SUMMIT STREET: CONSTRUCT STANDARD CURB AND GUTTER PER CITY OF WEST LINN STANDARD DETAIL WL-501 (TYPICAL CURBS) ON SHEET C200.
3. STA: 0+87.84, 18.0' RT TO STA: 1+06.26, 20.53' RT SUMMIT STREET: CONSTRUCT CURB RAMP PER CITY OF WEST LINN STANDARD DETAIL WL-506A (PARALLEL CURB RAMP) ON SHEET C211.
4. NOT USED
5. STA: 0+33.25, 21.0' RT AND STA: 1+78.0, 26.1' RT SUMMIT STREET: INSTALL NEW LIGHT POLE BASE, JUNCTION BOX AND CONDUIT. BRONZE POLE, 6' MAST ARM, BETA LED FIXTURE APPROVED BY CITY OF WEST LINN. CONTRACTOR TO CONFIRM ALL LOCATIONS AND INSTALLATION REQUIREMENTS WITH PORTLAND GENERAL ELECTRIC.
6. RE-PAVE FROM SAWCUT LIMITS TO NEW LIP OF GUTTER WITHIN AREA SHOWN (APPROX. 3,165 SF). SEE COLLECTOR / ARTERIAL STREET PAVING REQUIREMENTS ON TYPICAL SECTION DETAIL THIS SHEET.
7. STA: 0+39.91, TO STA: 2+31.24, SUMMIT STREET: INSTALL PAVEMENT MARKINGS FOR NEW STREET CENTERLINE & FOG LINE PER TYPICAL SECTION DIMENSIONS SHOWN THIS SHEET. PAVEMENT MARKING MATERIALS SHALL BE INSTALLED AS PER OREGON STANDARD SPECIFICATIONS & AS NOTED THIS SHEET.
8. STA: 0+86.58, 0.5' RT SUMMIT STREET: INSTALL STOP BAR STRIPING PER TYPICAL INSTALLATION DETAIL THIS SHEET.
9. STA: 0+86.58, 20.02' RT SUMMIT STREET: INSTALL STOP SIGN AND POST WITH V-LOC BREAKAWAY POST ANCHOR SYSTEM PER TYPICAL INSTALLATION DETAIL ON SHEET 211.

GENERAL NOTES:

1. REFER TO MITIGATION PLAN (C500) FOR ALL STREET TREE PLANTING LOCATIONS, DETAILS AND SPECIFICATIONS.



DOUBLE NO-PASS
TWO 4" YELLOW LINES

STOP LINE - ONE 12 IN. WHITE LINE

STRIPING NOTES

1. STRIPING SHALL BE THERMOPLASTIC PROFILED PAVEMENT MARKING MATERIAL.
2. LOCATE STOP LINE 4' (MIN.) TO 10' (MAX.) IN ADVANCE OF THE NEAREST MARKED CROSSWALK LINE.
3. ALL PAVEMENT MARKING MATERIALS SHALL BE INSTALLED AS PER OREGON STANDARD SPECIFICATIONS.

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RECORD DRAWING
03/17/2015

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SUMMIT ST PLAN AND PROFILE
HARPER'S TERRACE SUBDIVISION
LF 10, LLC
WEST LINN, OR

J.T. SMITH companies

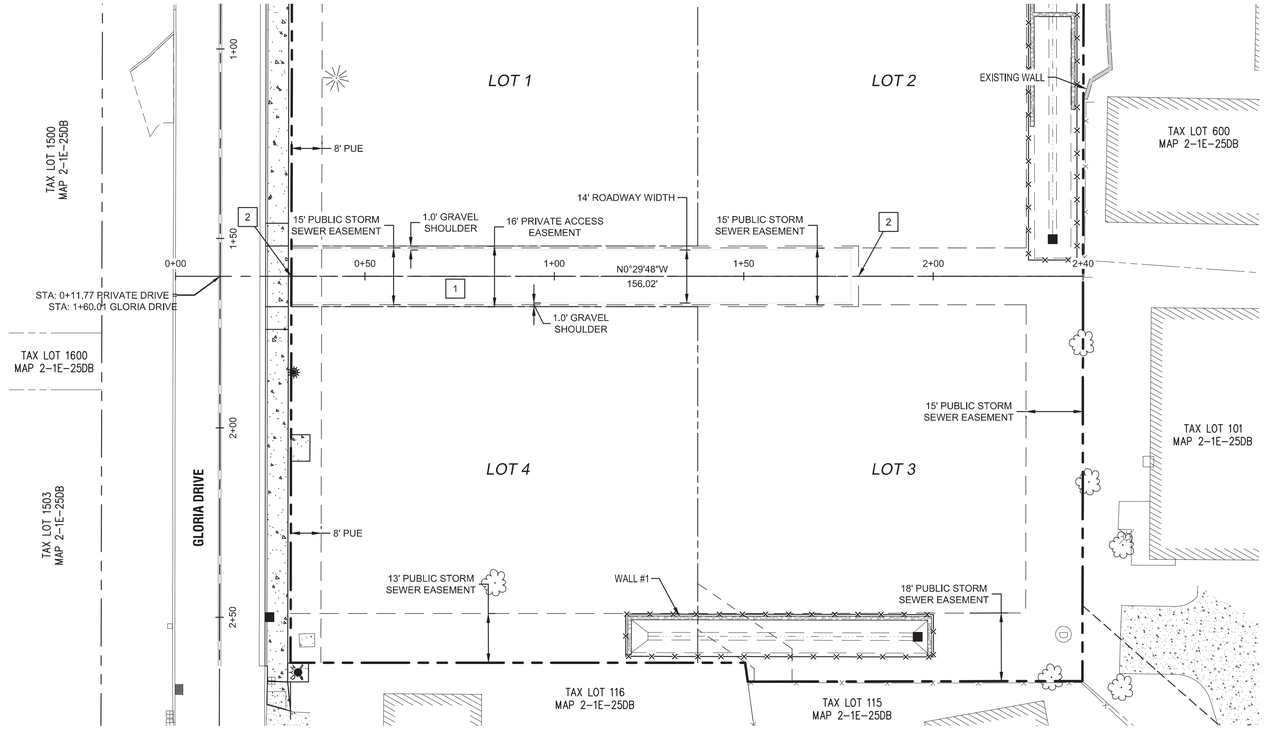
REGISTERED PROFESSIONAL ENGINEER 82PE OREGON NOV. 12, 2003 JOHN D. HOWORTH
EXPIRES: 06/30/15
Digital Signature
03/17/2015

3J CONSULTING, INC
CIVIL ENGINEERING
WATER RESOURCES
LAND USE PLANNING
5075 SW GRIFFITH DRIVE, STE 150, BEAVERTON, OR 97005
PHONE & FAX: (503) 946-9365

3J JOB ID #	13123
LAND USE #	SUB-13-05
TAX LOT #	2S1E25DB 500
DESIGNED BY	CLF/BCH
CHECKED BY	JDH

SHEET TITLE
SUMMIT ST P & P

SHEET NUMBER
C201



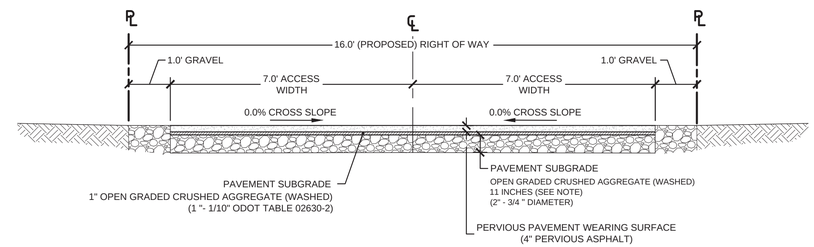
PRIVATE DRIVE - PLAN VIEW

LEGEND

- BOUNDARY LINE
- RIGHT-OF-WAY
- EXISTING CENTERLINE
- EXISTING EASEMENT LINE
- EXISTING LOT LINE
- EXISTING CURB
- EXISTING SIDEWALK
- EXISTING LIGHT POLE
- EXISTING TRAFFIC SIGN
- EXISTING FIRE HYDRANT
- EXISTING TREES TO REMAIN
- PROPOSED LOT LINE
- PROPOSED CURB AND GUTTER
- PROPOSED CONCRETE
- PROPOSED RETAINING WALL

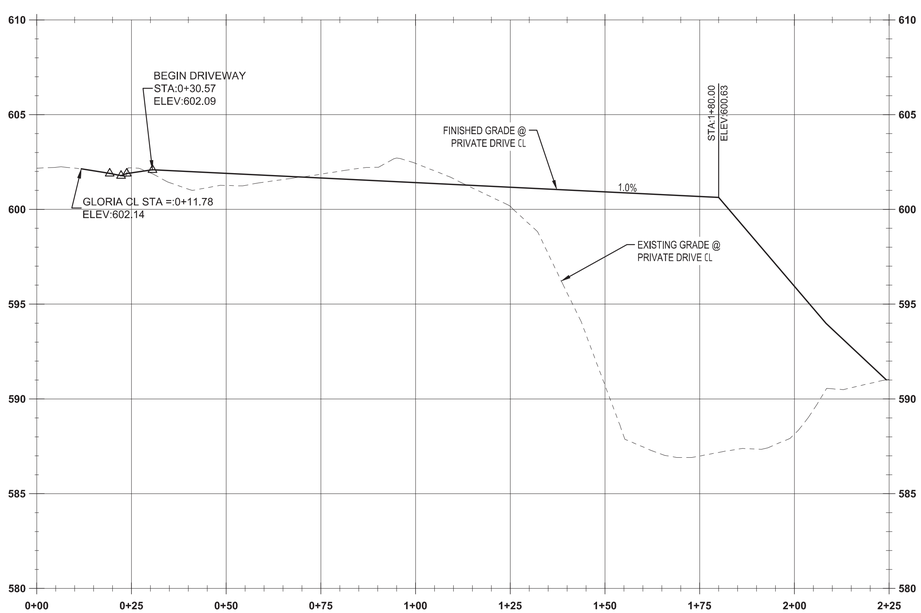
GENERAL SITE CONSTRUCTION NOTES

1. CONSTRUCT PERVIOUS CONCRETE SHARED ACCESS DRIVE PER "PERVIOUS CONCRETE PAVING SECTION" DETAIL AND "TYPICAL SECTION" THIS SHEET. MODIFICATIONS SHALL BE APPROVED BY THE ENGINEER.
2. PRIVATE DRIVEWAY STA: 0+30.57 TO STA: 1+80.00 CONSTRUCT DRIVEWAY IMPROVEMENTS PER TYPICAL SECTION AND PROFILE INFORMATION SHOWN THIS SHEET.



TYPICAL SECTION - COMMON DRIVEWAY IMPROVEMENTS

SCALE: N.T.S



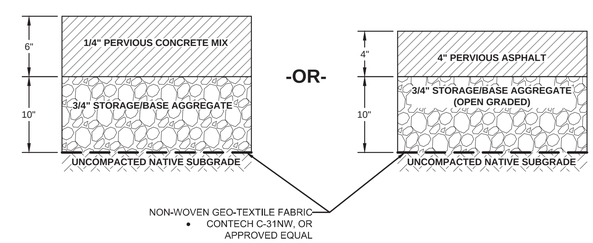
PRIVATE DRIVEWAY - PROFILE

(STA:0+00 - STA:2+25.00)

1" = 20'H; 1" = 4'V

Scale: 1 inch = 20 feet

20 10 0 10 20



PERVIOUS CONCRETE/ASPHALT NOTES

1. CONTRACTOR TO CONTACT ENGINEER FOR SPECIFICATIONS FOR PERVIOUS CONCRETE OR PERVIOUS ASPHALT PRIOR TO CONSTRUCTION.

PERVIOUS CONCRETE/ASPHALT PAVING SECTION

MATERIAL AND GENERAL PAVEMENT NOTES:

1. STORAGE/ BASE AGGREGATE SHOULD MEET OR EXCEED THE 2008 EDITION OREGON STANDARD SPECIFICATIONS FOR CONSTRUCTION 02630.11 (OPEN GRADED AGGREGATE) FOR SUBBASE, BASE, AND SHOULDERS. THE GRADATION AND MATERIAL REQUIREMENTS SHOULD ALSO BE AS SPECIFIED IN O.S.S.C. 02630.11 (OPEN GRADED AGGREGATE). PRIOR TO COMMENCING CONCRETE WORK, CONTRACTOR SHALL SCHEDULE A PRE-PAVING CONFERENCE WITH THE ENGINEER, AND OWNER'S REPRESENTATIVE(S).
2. PERVIOUS CONCRETE SHOULD BE CONSTRUCTED IN ACCORDANCE WITH ACI-522.1-13 (SPECIFICATION FOR PERVIOUS CONCRETE PAVEMENT), CONTAIN BETWEEN 15% AND 19% AIR VOIDS, AND OBTAIN A STRENGTH OF 2,000PSI OR GREATER. REFER TO PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION ON PERVIOUS CONCRETE MIXES, PERFORMANCE CRITERIA AND PLACEMENT REQUIREMENTS.
3. SUB-GRADE GEOTEXTILE SHOULD MEET OR EXCEED THE REQUIREMENTS AND SPECIFICATIONS OF O.S.S.C. 00350 (GEOSYNTHETIC INSTALLATION) AND 02320(GEOSYNTHETICS) FOR TYPE II DRAINAGE FABRICS.

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03/17/2015

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PRIVATE DRIVE PLAN AND PROFILE
HARPER'S TERRACE SUBDIVISION

LF 10, LLC
WEST LINN, OR

J.T. SMITH companies

REGISTERED PROFESSIONAL ENGINEER
82PE
OREGON
NOV. 12, 2003
JOHN D. HOWORTH
EXPIRES: 06/30/15

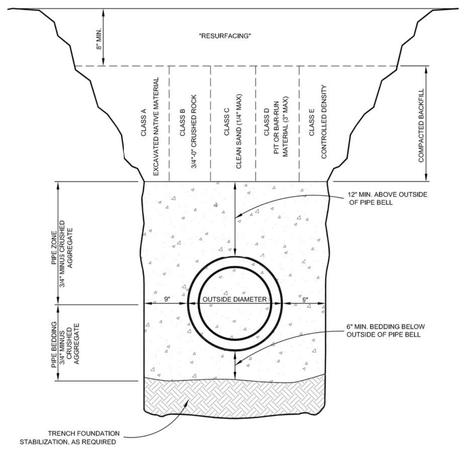
Digital Signature
03/17/2015

3J CONSULTING, INC
CIVIL ENGINEERING
WATER RESOURCES
LAND USE PLANNING
5075 SW GRIFFITH DRIVE, STE 150, BEAVERTON, OR 97005
PHONE & FAX: (503) 946-9365

3J JOB ID #	13123
LAND USE #	SUB-13-05
TAX LOT #	2S1E25DB 500
DESIGNED BY	CLF/BCH
CHECKED BY	JDH

SHEET TITLE
DRIVEWAY P & P

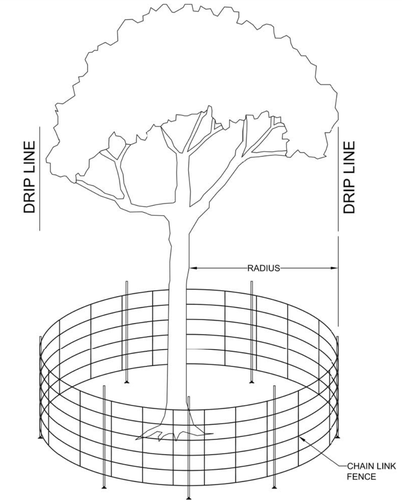
SHEET NUMBER
C202



TRENCH BACKFILL BEDDING AND PIPE ZONE

City of West Linn | DATE: 2010 | DRAWING NO. WL-200 | FILE NO.

THIS DETAIL DRAWING SHALL NOT BE ALTERED OR CHANGED IN ANY MANNER EXCEPT BY THE CITY ENGINEER. IT IS THE RESPONSIBILITY OF THE USER TO ACQUIRE THE MOST CURRENT VERSION OF THE DETAIL.

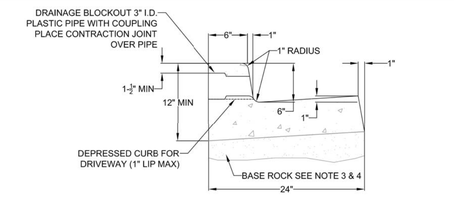


NOTE:
1. 6' CHAIN LINK ON 2" POST AT 10' SPACING, DRIVEN 2' INTO GROUND
   RADIUS IS EITHER 1/2' PER CALIPER INCH OR
2. 10' OUTSIDE OF DRIPLINE - SEE PLANS

TREE PROTECTION FENCE

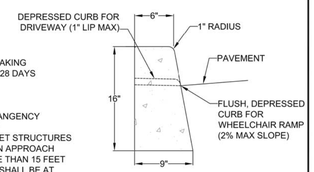
City of West Linn | DATE: 2010 | DRAWING NO. WL-219 | FILE NO.

THIS DETAIL DRAWING SHALL NOT BE ALTERED OR CHANGED IN ANY MANNER EXCEPT BY THE CITY ENGINEER. IT IS THE RESPONSIBILITY OF THE USER TO ACQUIRE THE MOST CURRENT VERSION OF THE DETAIL.



FLUSH, DEPRESSED CURB FOR WHEELCHAIR RAMP 2% MAX SLOPE

TYPICAL CURB AND GUTTER



TYPICAL STRAIGHT CURB

NOTE:
1. CONCRETE SHALL HAVE A BREAKING STRENGTH OF 3300 PSI AFTER 28 DAYS
2. CONTRACTION JOINTS:
   A) TO BE PROVIDED:
      -AT EACH POINT OF TANGENCY
      -AT EACH COLD JOINT
      -AT EACH SIDE OF INLET STRUCTURES
      -AT BOTH SIDES OF AN APPROACH
   B) SPACING TO BE NOT MORE THAN 15 FEET
   C) THE DEPTH OF THE JOINT SHALL BE AT LEAST 1/3 OF THE THICKNESS OF CONCRETE
   D) EXPANSION JOINTS SHALL NOT BE USED
3. BASE ROCK - 1-1/2"-0", 95% COMPACTION PER AASHTO T-180 ROCK SHALL BE TO SUBGRADE OF THE STREET SECTION OR 4" IN DEPTH, WHICHEVER IS GREATER
4. FULL DEPTH PREPARED ROCK SECTION SHALL EXTEND 1' HORIZONTALLY BEYOND BOTH SIDES OF CURB AND GUTTER
5. DRAINAGE BLOCK - 3" DIA. PLASTIC PIPE
   A) DRAINAGE ACCESS THROUGH EXISTING CURBS SHALL BE DONE BY:
      -CORE DRILLING
      -VERTICAL SAWCUT OF CURB 24" EACH SIDE OF DRAIN AND RE-POURED TO FULL DEPTH OF CURB
6. STAMP TOP OF CURB WITH "W" AT WATER SERVICE CROSSING AND "S" AT SANITARY LATERAL CROSSING

TYPICAL CURBS

City of West Linn | DATE: 2010 | DRAWING NO. WL-501 | FILE NO.

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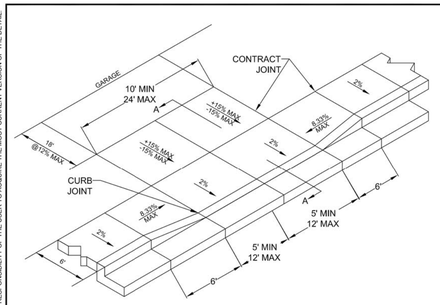
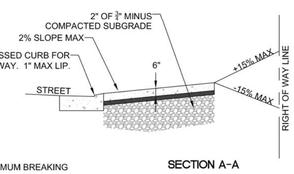


SIDEWALK ADJACENT TO CURB



SECTION A-A

NOTE:
1. CONCRETE SHALL HAVE A MINIMUM BREAKING STRENGTH OF 3300 PSI AFTER 28 DAYS 6 SACK MIX
2. CURB SHALL BE TROWELED JOINT WITH MIN. 1/2" RADIUS ALONG BACK OF CURB
3. DRIVEWAY SHALL BE A MINIMUM 6" THICK
4. DRIVEWAY CURB CUT SHALL COMPLY WITH THE CONDITIONS OF 5.0070, "WIDTH AND LOCATION OF CURB CUTS"
5. FOR REPLACEMENT OF EXISITNG APPROACH:
   A. MUST MEET CURRENT ADA REQUIREMENTS TO GREATEST DEGREE POSSIBLE
   B. DAMAGED ROADWAY MUST BE SAWCUT AND REPAVED WITH CLASS C HOT MIX ASPHALT

RESIDENTIAL DRIVEWAY WITH SIDEWALK ADJACENT TO CURB

City of West Linn | DATE: 2010 | DRAWING NO. WL-503B | FILE NO.

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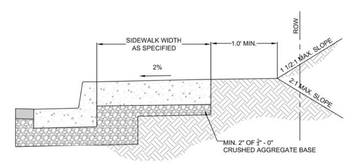
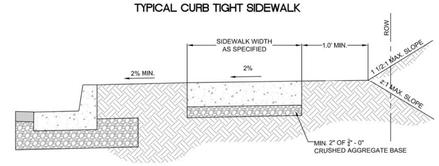


TYPICAL CURB TIGHT SIDEWALK



SIDEWALK AWAY FROM CURB

NOTE:
1. CONCRETE SHALL BE 3300 PSI AT 28 DAYS.
2. PANEL LENGTHS SHALL BE EQUAL TO THE SIDEWALK WIDTH, BUT MAY BE ADJUSTED WITH THE CITY ENGINEER'S APPROVAL.
3. CONTRACTION JOINTS (1/3RD OF THE THICKNESS OF CONCRETE) SHALL BE PLACED EVERY THIRD PANEL, WITH A MAX. SPACING OF 15 FEET.
   JOINTS SHALL ALSO BE PLACED AT THE SIDES OF DRIVEWAY APPROACHES, UTILITY VAULTS, AND WHEELCHAIR RAMPS.
4. A CURING COMPOUND SHALL BE USED. WHITE REFLECTIVE SHEETING SHALL BE USED IN CASE OF RAIN.
5. FOR SIDEWALKS ADJACENT TO THE CURB AND POURED AT THE SAME TIME AS THE CURB, THE JOINT BETWEEN THEM SHALL BE A TROWELED JOINT WITH A MIN. 1/2" RADIUS.
6. THE SIDEWALK SHALL HAVE A MIN. THICKNESS OF 6" IF THE SIDEWALK IS INTENDED AS A PORTION OF THE THE DRIVEWAY. OTHERWISE, THE SIDEWALK SHALL HAVE A MIN. THICKNESS OF 4".
7. DRAIN BLOCKOUTS IN THE CURB SHALL BE EXTENDED TO THE BACK OF THE SIDEWALK WITH A 3" DIAMETER PLASTIC PIPE AT A 2% SLOPE. A CONTRACTION JOINT SHALL BE PLACED OVER THE PIPE.

CONCRETE SIDEWALK CROSS SECTION

City of West Linn | DATE: 2010 | DRAWING NO. WL-508 | FILE NO.

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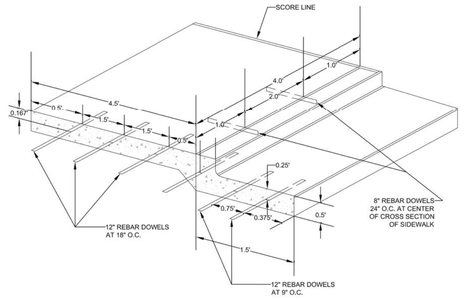

CURB, GUTTER AND SIDEWALK DOWELING DETAIL

City of West Linn | DATE: 2010 | DRAWING NO. WL-511 | FILE NO.

RECORD DRAWING
03/17/2015

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CONSTRUCTION DETAILS I
HARPER'S TERRACE SUBDIVISION
LF 10, LLC
WEST LINN, OR

J.T. SMITH companies

REGISTERED PROFESSIONAL ENGINEER
82PE
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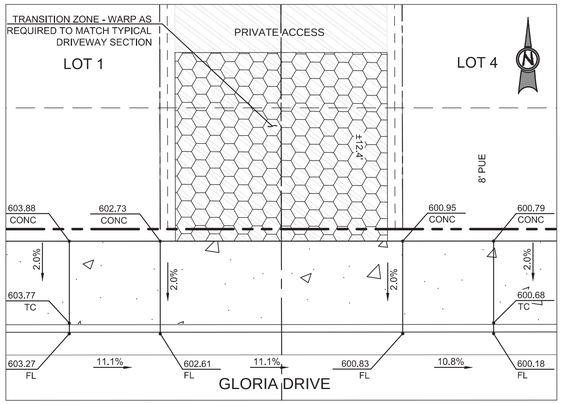
5075 SW GRIFFITH DRIVE, STE 150, BEAVERTON, OR 97005
PHONE & FAX: (503) 646-0968

3J JOB ID #	13123
LAND USE #	SUB-13-05
TAX LOT #	2S1E25DB 500
DESIGNED BY	CLF/BCH
CHECKED BY	JDH

SHEET TITLE
DETAILS I

SHEET NUMBER
C210

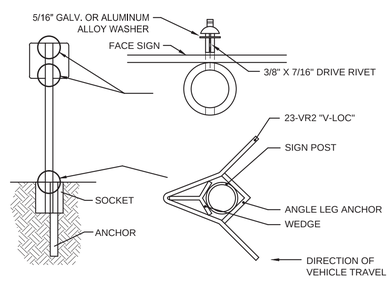


PRIVATE ACCESS RAMP DETAIL

SCALE: 1" = 5'

R1-1

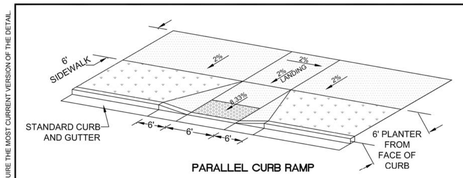
30 X 30



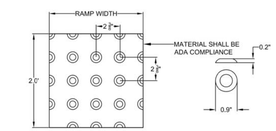
INSTALL "V-LOC" ANCHOR PER MANUFACTURES RECOMMENDATION

"STOP" SIGN AND TYPICAL INSTALLATION DETAIL

NOT TO SCALE



PARALLEL CURB RAMP



RAMP TEXTURE PATTERN DETAIL

TRUNCATED DOME DETAIL

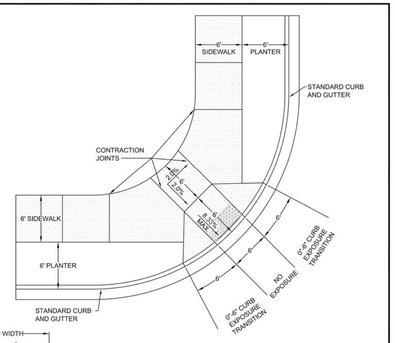
NOTE:

1. LANDING AT TOP OF RAMP SHALL NOT EXCEED 2% IN ANY DIRECTION AND SHALL BE A MINIMUM OF 60" x 60".
2. RAMP CROSS SLOPE SHALL NOT EXCEED 2% (AS MEASURED PERPENDICULAR TO PEDESTRIAN TRAFFIC FLOW).
3. TRUNCATED DOME MUST EXTEND THE FULL WIDTH OF THE RAMP AND COVER THE FIRST 2 FEET OF THE RAMP CLOSEST TO THE STREET.
4. TRANSITIONS FROM THE RAMP TO THE WALKWAY, GUTTER, AND STREET MUST BE FLUSH (LEVEL) AND FREE OF ABRUPT LEVEL CHANGES.
5. THE GUTTER OR ADJACENT ROADWAY MUST HAVE A SLOPE OF NO MORE THAN 5 PERCENT (1:20) TOWARD THE RAMP.
6. FLARED SIDES ("WING") OF THE CURB RAMP SHALL NOT EXCEED 10% IN SLOPE (8.33% IF PEDESTRIAN TRAVEL IS REQUIRED OVER THEM PER ADA STANDARDS - I.E. IF MINIMUM 48" x 48" (FOR EXISTING SITES ONLY) LANDING IS NOT PROVIDED AT TOP OF RAMP).
7. CONCRETE STRENGTH SHALL BE 3300 PSI.
8. PLACE CONTRACTION JOINTS AS SHOWN ABOVE.
9. NO ABOVE GROUND UTILITIES ARE PERMITTED WITHIN RAMP AREA.

PARALLEL CURB RAMP

City of West Linn

DATE:	2010
DRAWING NO:	WL-506A
FILE NO.:	



RAMP TEXTURE PATTERN DETAIL

TRUNCATED DOME DETAIL

NOTE:

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7. CONCRETE STRENGTH SHALL BE 3300 PSI.
8. PLACE CONTRACTION JOINTS AS SHOWN ABOVE.
9. NO ABOVE GROUND UTILITIES ARE PERMITTED WITHIN RAMP AREA.
10. WHEN EITHER OPPOSING CURB RAMP HAS AN EXISTING TWIN RAMP, USE DETAIL WL-507B.

SINGLE CURB RAMP (ALLOWED WITH CITY ENGINEER APPROVAL ONLY)

City of West Linn

DATE:	2010
DRAWING NO:	WL-507A
FILE NO.:	

RECORD DRAWING
03/17/2015

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- Contractor supplied redlines
- Site observations by the engineer
- Field measurements

The stamping engineer of record certifies this drawing is an accurate representation of the final construction and the resulting improvements are in conformance with the standards of the City of West Linn.

CONSTRUCTION DETAILS II

HARPER'S TERRACE SUBDIVISION

LF 10, LLC
WEST LINN, OR

J.T. SMITH companies

REGISTERED PROFESSIONAL ENGINEER
82282PE
OREGON
NOV. 12, 2003
JOHN D. HOWORTH

EXPIRES: 06/30/15

Digital Signature
03/17/2015

3J CONSULTING, INC
CIVIL ENGINEERING
WATER RESOURCES
LAND USE PLANNING
5075 SW GRIFFITH DRIVE, STE 150, BEAVERTON, OR 97005
PHONE & FAX: (503) 946-9365

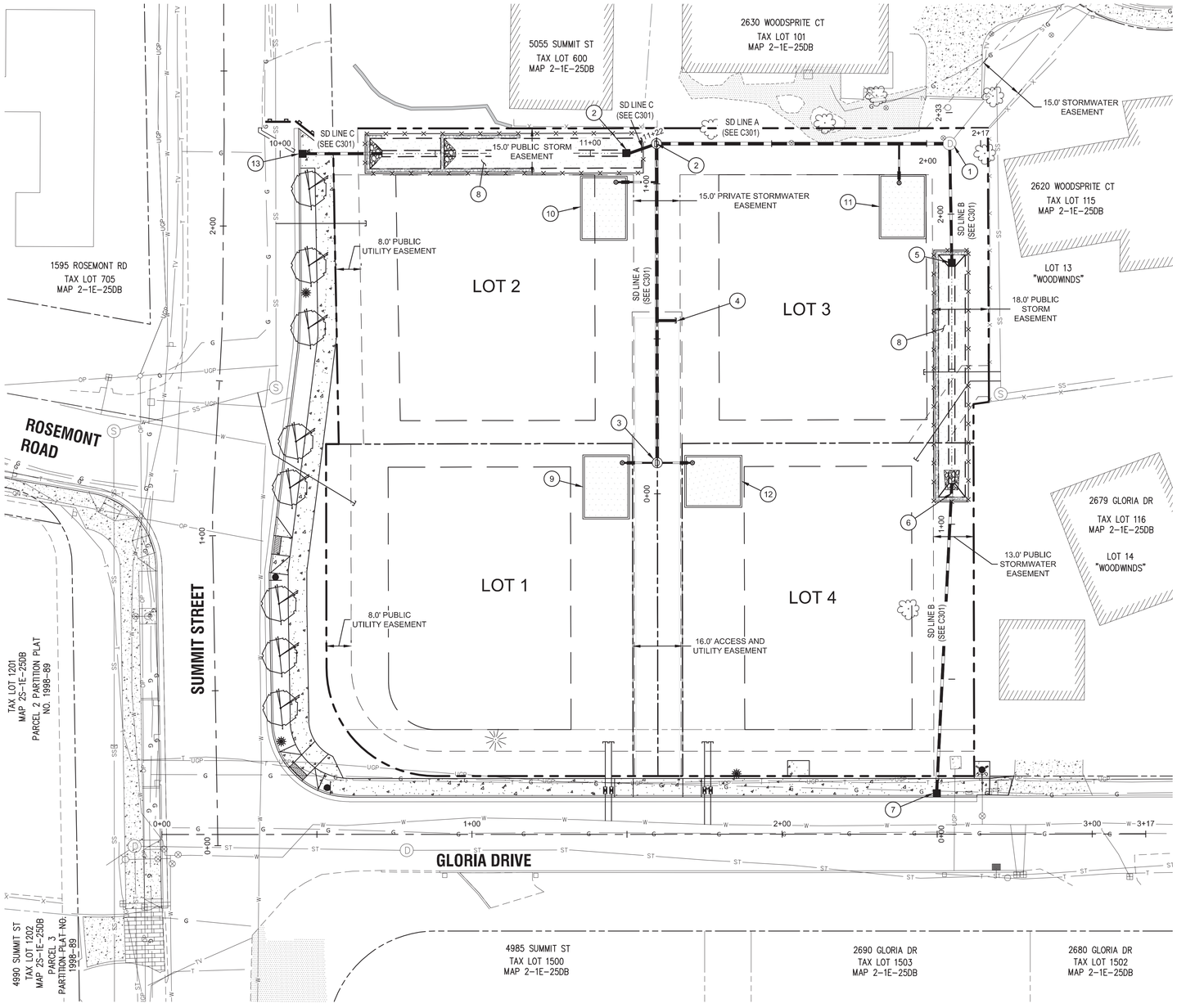
3J JOB ID #	13123
LAND USE #	SUB-13-05
TAX LOT #	2S1E25DB 500
DESIGNED BY	CLF/BCH
CHECKED BY	JDH

SHEET TITLE
CONST. DETAILS II

SHEET NUMBER
C211

GENERAL UTILITY NOTES

1. ALL EXISTING STORM DRAIN PIPING AND STRUCTURES DESIGNATED FOR MODIFICATION WITHIN THESE PLANS SHALL BE POTHOLED AND FIELD VERIFIED FOR LENGTH, ALIGNMENT, DEPTH AND GRADE PRIOR TO COMMENCEMENT OF CONSTRUCTION. NOTIFY ENGINEER OF ANY DISCREPANCIES.
2. ALL *PRIVATE* HORIZONTAL DRAIN PIPING SHOWN SHALL CONFORM TO THE INTERNATIONAL PLUMBING CODE (IPC) AND ALL OREGON SPECIALTY CODE AMENDMENTS FOR: FITTINGS, CONNECTIONS, ALIGNMENT, GRADE & MATERIAL.
3. SEE SHEETS C301 FOR PROFILE DATA.



STORM LATERAL TABLE

STORM LATERAL	LATERAL SIZE	LENGTH	INVERT AT MAIN	INVERT AT END	DEPTH AT END	MAIN LINE STATION
LOT 1	6"	13.83 LF	595.09	596.90	4.0 FT	SD MH 5
LOT 2	6"	12.2 LF	586.95	588.40	4.3 FT	STA: 1+00.55, STORM LINE A
LOT 3	6"	11.9 LF	575.80	580.60	5.5 FT	STA: 1+91.11, STORM LINE A
LOT 4	6"	13.30 LF	595.14	596.20	5.3 FT	SD MH 5

STORM DRAIN STRUCTURE TABLE

1. EX. SD MH 3
   PROFILE DATA: SEE SHEET C301
   CONSTRUCTION DATA: SEE SHEET 310
2. SD MH 4
   PROFILE DATA: SEE SHEET C301
   CONSTRUCTION DATA: SEE SHEET 310
3. SD MH 5
   PROFILE DATA: SEE SHEET C301
   CONSTRUCTION DATA: SEE SHEET 310
4. SD STUB
   STA: 0+55.88, 6.22' RT STORM LINE A
   IE (8" W): 597.55
   INSTALL 8.53 LF 8" PVC @ S=.8814
5. SD DI B2
   CONSTRUCT DITCH INLET AT LOCATION SHOWN PER STD. DWG. WL-603 SHOWN ON SHEET C311 AND ELEVATION DATA SHOWN ON C301.
6. CONSTRUCT STORM LINE 'B' OUTFALL TO WATER QUALITY SWALE AS SHOWN ON SHEET C301. CLASS 100 RIP RAP PAD (APPROX. 3 CY) APPROXIMATELY 6'Lx5'Wx2'D.
7. SD CI B1
   PROFILE DATA: SEE SHEET C301
   CONSTRUCTION DATA: SEE SHEET 311
8. CONSTRUCT WATER QUALITY SWALE AS SHOWN. ELEVATION DATA SHOWN ON SHEET C301.
9. LOT 1 - WATER QUALITY PLANTER
   TO BE CONSTRUCTED UNDER SEPARATE PERMIT AT THE TIME OF HOME CONSTRUCTION.
10. LOT 2 - WATER QUALITY PLANTER
    TO BE CONSTRUCTED UNDER SEPARATE PERMIT AT THE TIME OF HOME CONSTRUCTION.
11. LOT 3 - WATER QUALITY PLANTER
    TO BE CONSTRUCTED UNDER SEPARATE PERMIT AT THE TIME OF HOME CONSTRUCTION.
12. LOT 4 - WATER QUALITY PLANTER
    TO BE CONSTRUCTED UNDER SEPARATE PERMIT AT THE TIME OF HOME CONSTRUCTION.
13. SD CI C2
    PROFILE DATA: SEE SHEET C301
    CONSTRUCTION DATA: SEE SHEET 311
14. SD DI C1
    PROFILE DATA: SEE SHEET C301
    CONSTRUCTION DATA: SEE SHEET 311

Scale: 1 inch = 20 feet
20 10 0 10 20

811 Know what's below. Call before you dig.

LEGEND

- BOUNDARY LINE
- EXISITNG RIGHT-OF-WAY
- EXISTING CENTERLINE
- EXISTING LOT LINE
- EXISTING CURB
- EXISTING ASPHALT
- EXISTING SIDEWALK
- EXISTING GRAVEL DRIVE
- EXISTING LIGHT POLE
- EXISTING TRAFFIC SIGN
- EXISTING SANITARY SEWER LINE
- EXISTING WATER LINE
- EXISTING STORM LINE
- EXISTING GAS LINE
- EXISTING UNDERGROUND POWER
- EXISTING SANITARY MANHOLE
- EXISTING STORM MANHOLE
- EXISTING CATCHBASIN
- PROPOSED RIGHT-OF-WAY
- PROPOSED LOT LINE
- PROPOSED CENTERLINE
- PROPOSED CURB
- PROPOSED SIDEWALK
- PROPOSED SETBACK LINE
- STORM SEWER CURB INLET
- STORM SEWER DITCH INLET
- STORM DRAIN LINE AND MANHOLE
- DETENTION POND LIMITS
- STORM SEWER LATERAL AS NOTED
- SANITARY SEWER LATERAL
- SANITARY SEWER LINE AND MANHOLE
- DOMESTIC WATER SERVICE & METER
- PROPOSED STREET LIGHT
- PROPOSED RETAINING WALL

RECORD DRAWING
03/17/2015

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STORM DRAINAGE PLAN
HARPER'S TERRACE SUBDIVISION
LF 10, LLC
WEST LINN, OR

J.T. SMITH companies

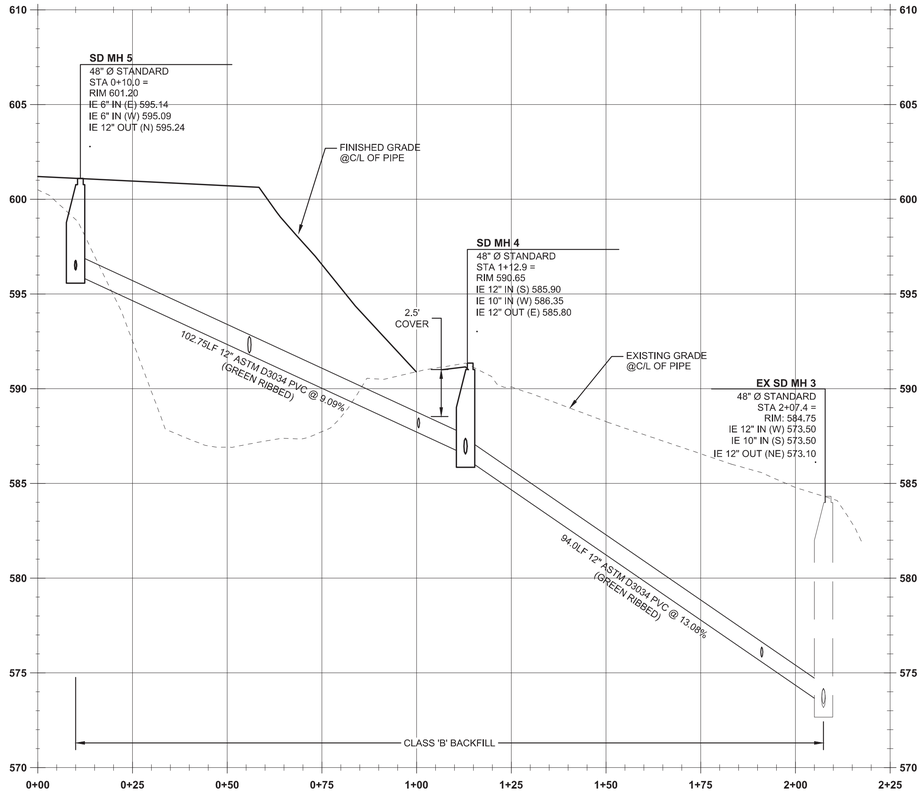
REGISTERED PROFESSIONAL ENGINEER 82282PE OREGON NOV. 12, 2003 JOHN D. HOWORTH
EXPIRES: 06/30/15
Digital Signature
03/17/2015

3J CONSULTING, INC
CIVIL ENGINEERING
WATER RESOURCES
LAND USE PLANNING
5075 SW GRIFFITH DRIVE, STE 150, BEAVERTON, OR 97005
PHONE & FAX: (503) 946-9365

3J JOB ID #	13123
LAND USE #	SUB-13-05
TAX LOT #	2S1E25DB 500
DESIGNED BY	CLF/BCH
CHECKED BY	JDH

SHEET TITLE
STORM PLAN

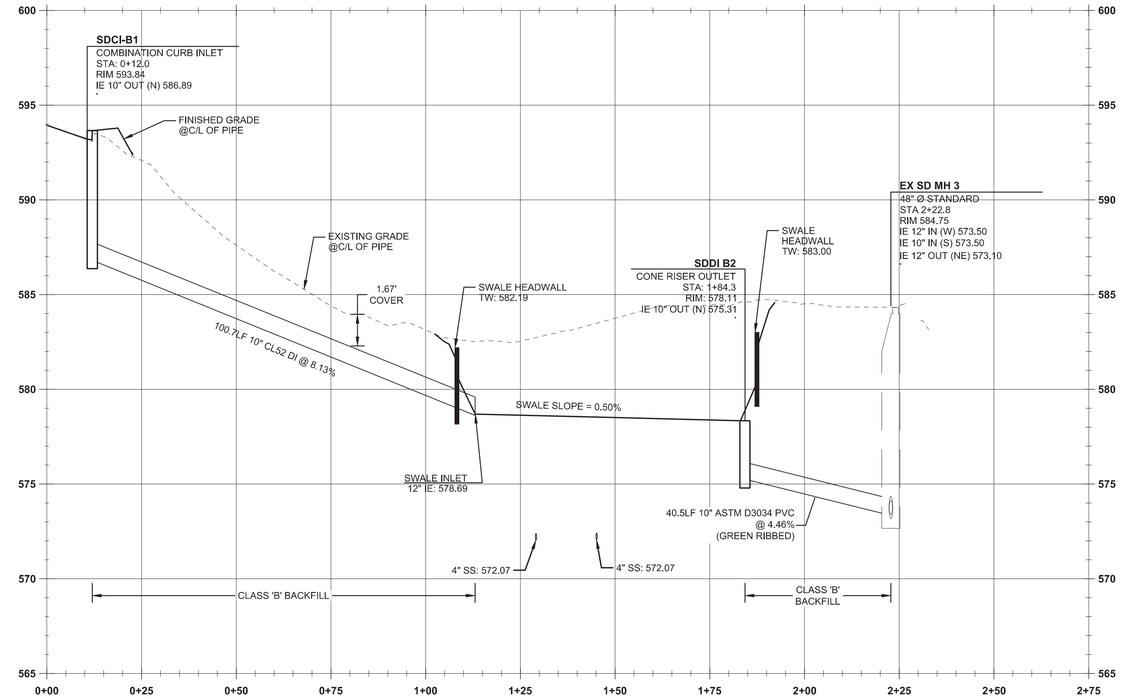
SHEET NUMBER
C300



CL SD LINE A PROFILE

(STA:0+00.00 - STA:2+50.00)

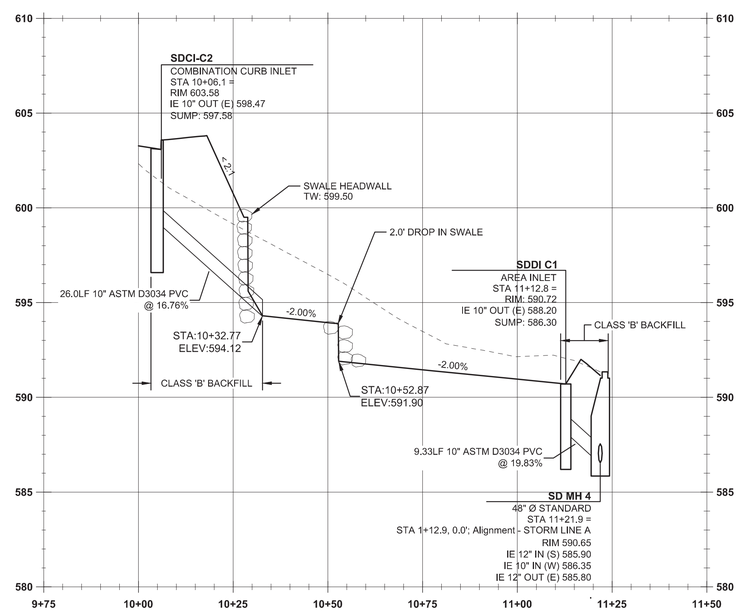
1" = 20'H; 1" = 4'V



CL SD LINE B PROFILE

(STA:-0+25.00 - STA:2+75.00)

1" = 20'H; 1" = 4'V



CL SD LINE C PROFILE

(STA:9+75.00 - STA:11+50.00)

1" = 20'H; 1" = 4'V

Know what's **below.**
Call before you dig.

RECORD DRAWING
03/17/2015

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STORM DRAINAGE PROFILE PLAN

HARPER'S TERRACE SUBDIVISION

LF 10, LLC
WEST LINN, OR

J.T. SMITH companies

REGISTERED PROFESSIONAL ENGINEER
72282PE
OREGON
NOV. 12, 2003
JOHN D. HOWORTH
EXPIRES: 06/30/15
Digital Signature
03/17/2015

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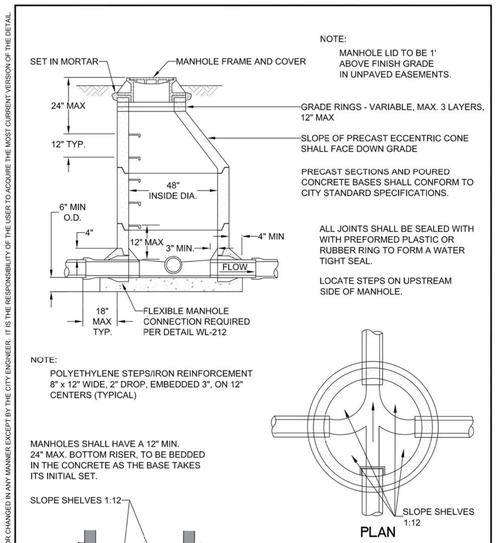
CIVIL ENGINEERING
WATER RESOURCES
LAND USE PLANNING
5075 SW GRIFFITH DRIVE, STE 150, BEAVERTON, OR 97005
PHONE & FAX: (503) 946-9365

3J JOB ID #	13123
LAND USE #	SUB-13-05
TAX LOT #	2S1E25DB 500
DESIGNED BY	CLF/BCH
CHECKED BY	JDH

SHEET TITLE
SD LINES 'A' & 'B'

SHEET NUMBER
C301



NOTE:
MANHOLE LID TO BE 1' ABOVE FINISH GRADE IN UNPAVED EASEMENTS.

PRECAST SECTIONS AND POURED CONCRETE BASES SHALL CONFORM TO CITY STANDARD SPECIFICATIONS.

ALL JOINTS SHALL BE SEALED WITH WITH PREFORMED PLASTIC OR RUBBER RING TO FORM A WATER TIGHT SEAL.

LOCATE STEPS ON UPSTREAM SIDE OF MANHOLE.

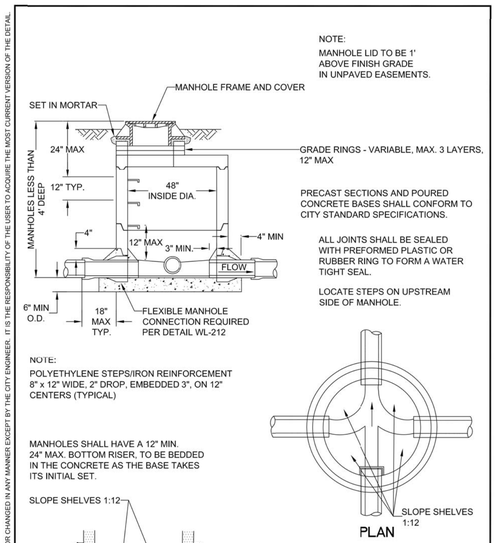
NOTE:
POLYETHYLENE STEPS/IRON REINFORCEMENT 8" x 12" WIDE, 2" DROP, EMBEDDED 3", ON 12" CENTERS (TYPICAL)

MANHOLES SHALL HAVE A 12" MIN. 24" MAX. BOTTOM RISER, TO BE BEDDED IN THE CONCRETE AS THE BASE TAKES ITS INITIAL SET.

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

STANDARD MANHOLE FOR LESS THAN 36" PIPE

City of West Linn | DATE: 2010 | DRAWING NO. WL-207 | FILE NO.



NOTE:
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PRECAST SECTIONS AND POURED CONCRETE BASES SHALL CONFORM TO CITY STANDARD SPECIFICATIONS.

ALL JOINTS SHALL BE SEALED WITH PREFORMED PLASTIC OR RUBBER RING TO FORM A WATER TIGHT SEAL.

LOCATE STEPS ON UPSTREAM SIDE OF MANHOLE.

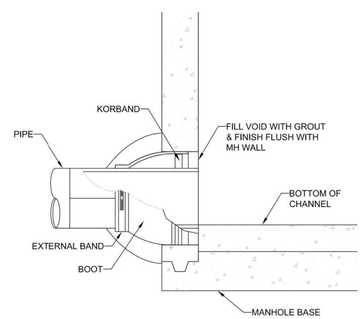
NOTE:
POLYETHYLENE STEPS/IRON REINFORCEMENT 8" x 12" WIDE, 2" DROP, EMBEDDED 3", ON 12" CENTERS (TYPICAL)

MANHOLES SHALL HAVE A 12" MIN. 24" MAX. BOTTOM RISER, TO BE BEDDED IN THE CONCRETE AS THE BASE TAKES ITS INITIAL SET.

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

SHALLOW MANHOLE FOR LESS THAN 36" PIPE

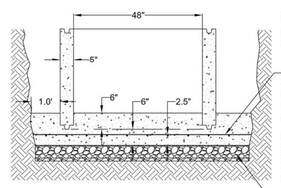
City of West Linn | DATE: 2010 | DRAWING NO. WL-208 | FILE NO.



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

FLEXIBLE MANHOLE CONNECTION

City of West Linn | DATE: 2010 | DRAWING NO. WL-212 | FILE NO.



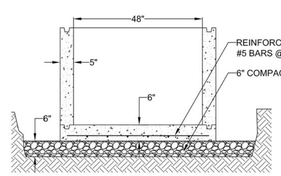
POURED IN PLACE MANHOLE BASE

NOTE:
PIPE CONNECTIONS MUST HAVE FLEXIBLE CONNECTIONS

REINFORCING SHALL BE #5 BARS @ 12" O.C. E.W. REINFORCING TO EXTEND 1'-0" BEYOND VERTICAL MANHOLE WALLS

NOTE:
CONCRETE TO EXTEND 12" OUTSIDE OF MANHOLE WALL AND 6" ABOVE THE BOTTOM OF THE BASE SECTION

6" COMPACTED CRUSHED ROCK BASE



PRECAST MANHOLE BASE

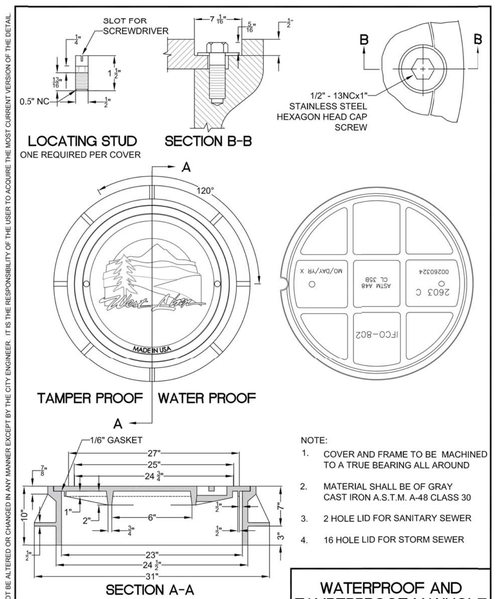
REINFORCING SHALL BE #5 BARS @ 12" O.C.E.W.

6" COMPACTED CRUSHED ROCK

NOTE:
USE 3300 PSI CONCRETE FOR EITHER MANHOLE BASE.
CONCRETE SHALL CONFORM TO SECTION 205. PRECAST MANHOLES SHALL CONFORM TO ASTM C478.

MANHOLE BASE

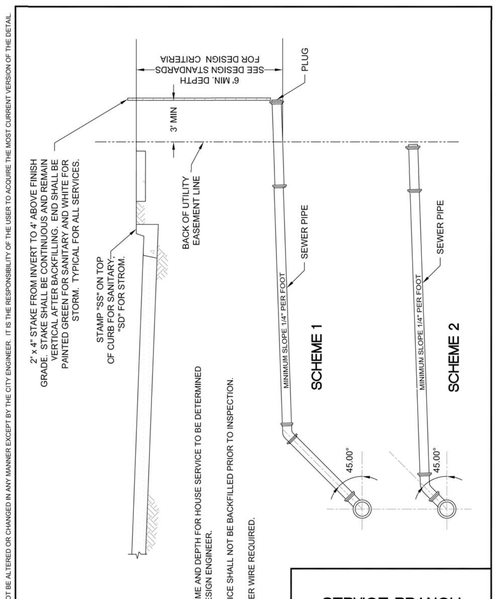
City of West Linn | DATE: 2010 | DRAWING NO. WL-211 | FILE NO.



NOTE:
1. COVER AND FRAME TO BE MACHINED TO A TRUE BEARING ALL AROUND
2. MATERIAL SHALL BE OF GRAY CAST IRON A.S.T.M. A-48 CLASS 30
3. 2 HOLE LID FOR SANITARY SEWER
4. 16 HOLE LID FOR STORM SEWER

WATERPROOF AND TAMPERPROOF MANHOLE FRAME AND COVER

City of West Linn | DATE: 2010 | DRAWING NO. WL-214 | FILE NO.



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

SERVICE BRANCH

City of West Linn | DATE: 2010 | DRAWING NO. WL-218 | FILE NO.

RECORD DRAWING
03/17/2015

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STORMWATER DRAINAGE DETAILS I

HARPER'S TERRACE SUBDIVISION

LF 10, LLC
WEST LINN, OR

J.T. SMITH companies

REGISTERED PROFESSIONAL ENGINEER 82282PE OREGON NOV. 12, 2003 JOHN D. HOWARTH
EXPIRES: 06/30/15
Digital Signature
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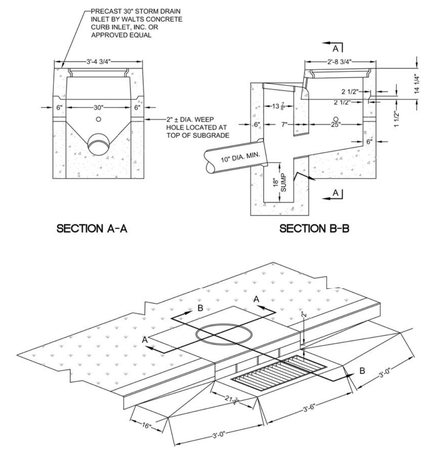
3J CONSULTING, INC
CIVIL ENGINEERING
WATER RESOURCES
LAND USE PLANNING
5075 SW GRIFFITH DRIVE, STE 150, BEAVERTON, OR 97005
PHONE & FAX: (503) 646-0365

3J JOB ID #	13123
LAND USE #	SUB-13-05
TAX LOT #	2S1E25DB 500
DESIGNED BY	CLF/BCH
CHECKED BY	JDH

SHEET TITLE
STM DETAILS I

SHEET NUMBER
C310

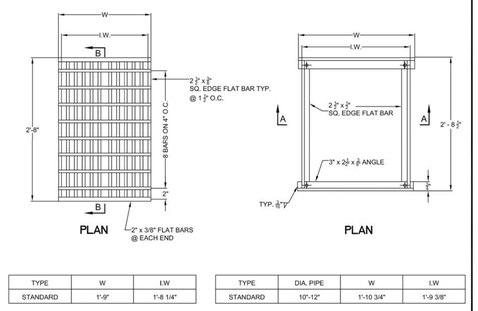


NOTE:

1. CAST IN PLACE CONCRETE TO BE 3300 PSI AND WEEP HOLE WITH GALVINIZED MESH. SCREEN ON MIN. 3 SIDES OF INLET.
2. MANHOLE RIMS AND COVERS AS MANUFACTURED BY HERN IRON WORKS, COEUR D' ALENE, IDAHO. COVER PATTERN NO. 2312, RIM PATTERN NO. 2311 OR APPROVED EQUAL.

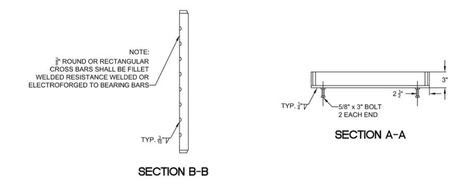
COMBINATION CURB INLET

City of West Linn | DATE: 2010 | DRAWING NO. WL-601 | FILE NO.



TYPE	W	LW
STANDARD	1'-9"	1'-8 1/4"

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

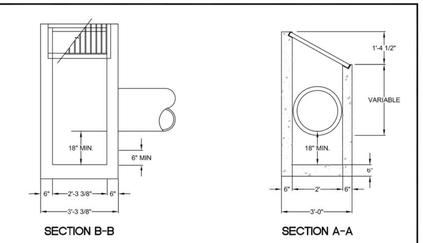


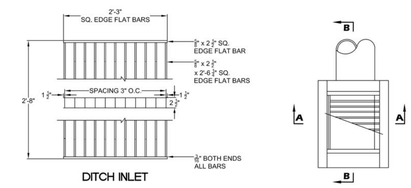
NOTE:

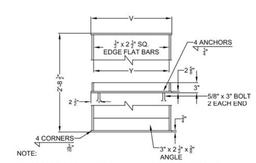
USE VERTICAL BEADS IN CORNERS, FILLET WELD JOINT ON BOTTOM OF FRAME. GRATE MUST REST FLAT ON FRAME SURFACE.

FRAME AND GRATE FOR GUTTER AND CURB INLET

City of West Linn | DATE: 2010 | DRAWING NO. WL-602B | FILE NO.







NOTE:

3/8" CROSS BARS SHALL BE FLUSH WITH THE GRATE SURFACE AND MAY BE FILLET WELDED, RESISTANCE WELDED OR ELECTROFORGED 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

NOTE:

1. CONCRETE STRENGTH SHALL BE 3300 PSI.
2. CATCH BASIN, FRAME, AND GRATES SHALL MEET H2O LOADING.
3. INSIDE FRAME DIMENSIONS: 2'-3 3/8", 2'-8 1/2".

STANDARD DITCH INLET

City of West Linn | DATE: 2010 | DRAWING NO. WL-603 | FILE NO.

RECORD DRAWING
03/17/2015

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- Contractor supplied redlines
- Site observations by the engineer
- Field measurements

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STORM DRAINAGE DETAILS II

HARPER'S TERRACE SUBDIVISION

LF 10, LLC
WEST LINN, OR

J.T. SMITH companies

REGISTERED PROFESSIONAL ENGINEER
82PE
OREGON
NOV. 12, 2008
JOHN D. HOWARTH
EXPIRES: 06/30/15

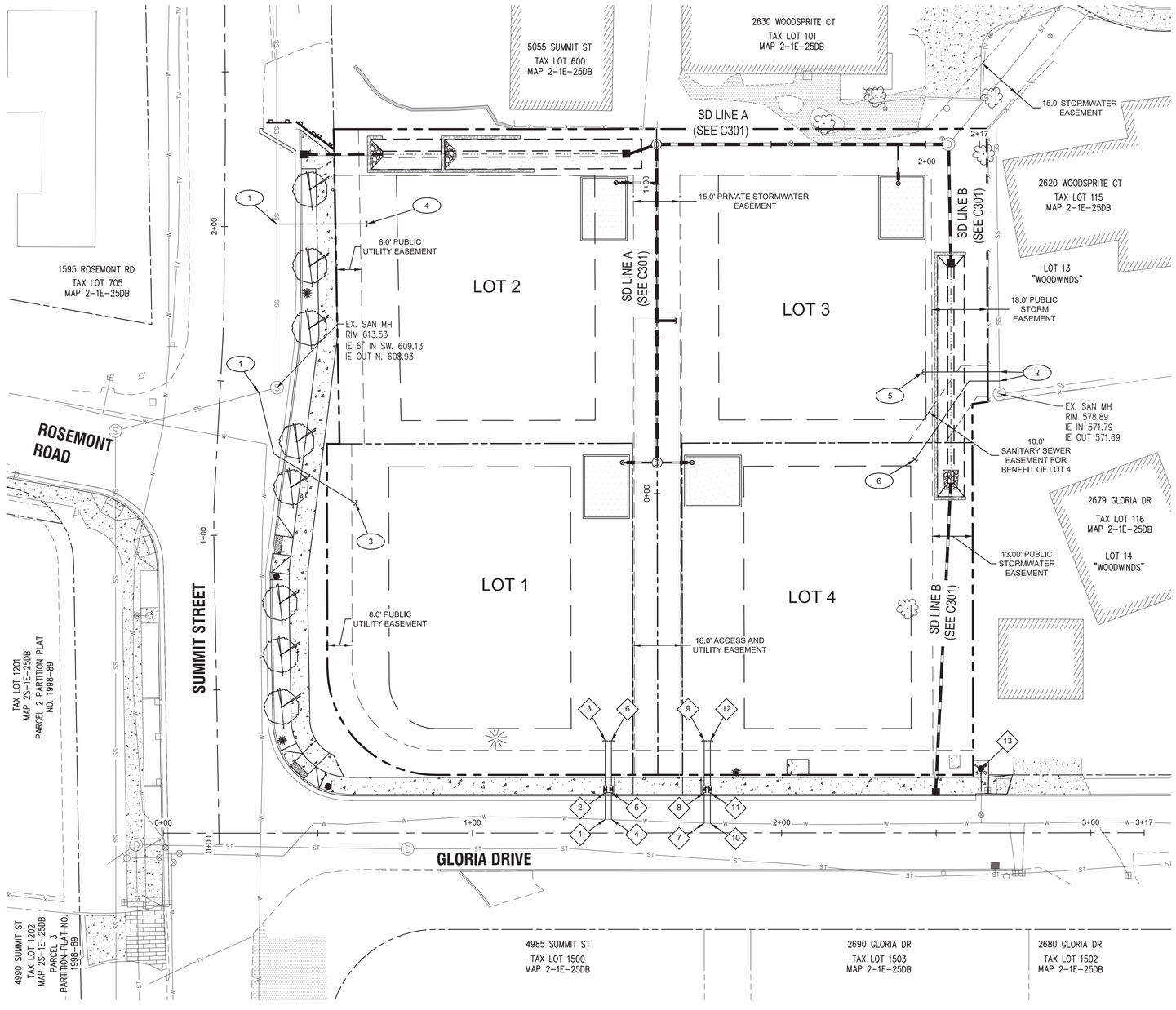
Digital Signature
03/17/2015

3J CONSULTING, INC
CIVIL ENGINEERING
WATER RESOURCES
LAND USE PLANNING
5075 SW GRIFFITH DRIVE, STE 150, BEAVERTON, OR 97005
PHONE & FAX: (503) 646-0985

3J JOB ID #	13123
LAND USE #	SUB-13-05
TAX LOT #	2S1E25DB 500
DESIGNED BY	CLF/BCH
CHECKED BY	JDH

SHEET TITLE
STM DETAILS I

SHEET NUMBER
C311



LEGEND

BOUNDARY LINE	EXISTING STORM MANHOLE
RIGHT-OF-WAY	EXISTING CATCHBASIN
EXISTING CENTERLINE	PROPOSED RIGHT-OF-WAY
EXISTING EASEMENT LINE	PROPOSED LOT LINE
EXISTING LOT LINE	PROPOSED CENTERLINE
EXISTING CURB AND GUTTER	PROPOSED CURB AND GUTTER
EXISTING SANITARY SEWER LINE	
EXISTING WATER LINE	PROPOSED SIDEWALK
EXISTING STORM LINE	STORM DRAIN LINE AND MANHOLE
EXISTING SIDEWALK	STORM SEWER CURB INLET
EXISTING LIGHT POLE	PROPOSED STREET LIGHT
EXISTING TRAFFIC SIGN	PROPOSED RETAINING WALL
EXISTING FIRE HYDRANT	PROPOSED SANITARY
EXISTING WATER METER	PROPOSED WATER LINE
EXISTING SANITARY MANHOLE	

SANITARY SEWER CONSTRUCTION NOTES

1. STA: 1+46.91, 12.5' RT (LOT 1) AND STA: 2+00.95, 16.9' RT (LOT 2) SUMMIT STREET CL
CORE DRILL EXISTING SANITARY SEWER MAIN AND INSTALL PROPOSED 4" SANITARY LATERALS FOR LOTS 1 & 2 PER CITY OF WEST LINN STANDARD DETAIL WL-303 ON SHEET C410. FOR ELEVATION DATA SEE SANITARY LATERAL TABLE THIS SHEET.

2. STA: 2+70.49, 149.2' LT (LOT 3) AND STA: 2+70.51, 146.2' LT (LOT 4) GLORIA DRIVE CL
CORE DRILL EXISTING SANITARY SEWER MAIN AND INSTALL PROPOSED 4" SANITARY LATERALS FOR LOTS 3 & 4 PER CITY OF WEST LINN STANDARD DETAIL WL-303 ON SHEET C410. FOR ELEVATION DATA SEE SANITARY LATERAL TABLE THIS SHEET.

3. SANITARY SEWER STUB (LOT 1)
STA: 1+12.51, 45.7' RT, SUMMIT STREET CL
SEE LATERAL TABLE THIS SHEET FOR ELEVATION DATA.
CAP AND MARK END PER CITY OF WEST LINN STANDARD DETAIL WL-218 ON SHEET C410.

4. SANITARY SEWER STUB (LOT 2)
STA: 2+01.25, 46.1' RT, SUMMIT STREET CL
SEE LATERAL TABLE THIS SHEET FOR ELEVATION DATA.
CAP AND MARK END PER CITY OF WEST LINN STANDARD DETAIL WL-218 ON SHEET C410.

5. SANITARY SEWER STUB (LOT 3)
STA: 2+45.74, 149.1' LT, GLORIA DRIVE CL
SEE LATERAL TABLE THIS SHEET FOR ELEVATION DATA.
CAP AND MARK END PER CITY OF WEST LINN STANDARD DETAIL WL-218 ON SHEET C410.

6. SANITARY SEWER STUB (LOT 4)
STA: 2+43.1, 120.7' LT, GLORIA DRIVE CL
SEE LATERAL TABLE THIS SHEET FOR ELEVATION DATA.
CAP AND MARK END PER CITY OF WEST LINN STANDARD DETAIL WL-218 ON SHEET C410.

SANITARY LATERAL TABLE

SAN LATERAL	LATERAL SIZE	LENGTH	INVERT AT MAIN	INVERT AT END	DEPTH AT END	MAIN LINE STATION
LOT 1 SANITARY	4"	51.3 LF	609.26	611.00	4.4 FT	1+46.91, 12.6' RT, SUMMIT STREET CL
LOT 2 SANITARY	4"	39.1 LF	600.98	601.70	4.6 FT	2+00.95, 16.9' RT, SUMMIT STREET CL
LOT 3 SANITARY	4"	24.8 LF	±571.77	575.00	9.0 FT	2+70.49, 149.2' LT, GLORIA DRIVE CL
LOT 4 SANITARY	4"	40.7 LF	±571.74	576.10	8.4 FT	2+70.51, 146.2' LT, GLORIA DRIVE CL

WATER LINE CONSTRUCTION NOTES

1. (STA: 1+42.97, 4.41' LT GLORIA DRIVE)
INSTALL 1" WATER SERVICE TO EXISTING 12" DIP WATER LINE, INCLUDING 1" CORP. STOP, 1" COPPER PIPE, METER BOX, AND ALL FITTINGS PER CITY OF WEST LINN STANDARD DETAIL WL-402 (STANDARD 1 INCH WATER SERVICE) ON SHEET C410.

2. (STA: 1+42.97, 13.0' LT GLORIA DRIVE)
INSTALL 1" METER BOX WITHIN CURB TIGHT SIDEWALK PER CITY OF WEST LINN STANDARD DETAIL WL-402 (STANDARD 1 INCH WATER SERVICE) ON SHEET C410.

3. (STA: 1+42.97, 29.8' LT GLORIA DRIVE)
CAP 1" STUB-OUT 3' BEYOND PUE AND MARK w/ 2x4.

4. (STA: 1+44.97, 4.33' LT GLORIA DRIVE)
INSTALL 1" WATER SERVICE TO EXISTING 12" DIP WATER LINE, INCLUDING 1" CORP. STOP, 1" COPPER PIPE, METER BOX, AND ALL FITTINGS PER CITY OF WEST LINN STANDARD DETAIL WL-402 (STANDARD 1 INCH WATER SERVICE) ON SHEET C410.

5. (STA: 1+44.97, 13.0' LT GLORIA DRIVE)
INSTALL 1" METER BOX WITHIN CURB TIGHT SIDEWALK PER CITY OF WEST LINN STANDARD DETAIL WL-402 (STANDARD 1 INCH WATER SERVICE) ON SHEET C410.

6. (STA: 1+44.97, 29.8' LT GLORIA DRIVE)
CAP 1" STUB-OUT 3' BEYOND PUE AND MARK w/ 2x4.

7. (STA: 1+74.97, 3.19' LT GLORIA DRIVE)
INSTALL 1" WATER SERVICE TO EXISTING 12" DIP WATER LINE, INCLUDING 1" CORP. STOP, 1" COPPER PIPE, METER BOX, AND ALL FITTINGS PER CITY OF WEST LINN STANDARD DETAIL WL-402 (STANDARD 1 INCH WATER SERVICE) ON SHEET C410.

8. (STA: 1+74.98, 13.0' LT GLORIA DRIVE)
INSTALL 1" METER BOX WITHIN CURB TIGHT SIDEWALK PER CITY OF WEST LINN STANDARD DETAIL WL-402 (STANDARD 1 INCH WATER SERVICE) ON SHEET C410.

9. (STA: 1+74.98, 29.8' LT GLORIA DRIVE)
CAP 1" STUB-OUT 3' BEYOND PUE AND MARK w/ 2x4.

10. (STA: 1+76.97, 3.11' LT GLORIA DRIVE)
INSTALL 1" WATER SERVICE TO EXISTING 12" DIP WATER LINE, INCLUDING 1" CORP. STOP, 1" COPPER PIPE, METER BOX, AND ALL FITTINGS PER CITY OF WEST LINN STANDARD DETAIL WL-402 (STANDARD 1 INCH WATER SERVICE) ON SHEET C410.

11. (STA: 1+76.98, 13.00' LT GLORIA DRIVE)
INSTALL 1" METER BOX WITHIN CURB TIGHT SIDEWALK PER CITY OF WEST LINN STANDARD DETAIL WL-402 (STANDARD 1 INCH WATER SERVICE) ON SHEET C410.

12. (STA: 1+76.98, 29.8' LT GLORIA DRIVE)
CAP 1" STUB-OUT 3' BEYOND PUE AND MARK w/ 2x4.

13. PRIOR TO INSTALLATION OF FIRE HYDRANT, CONTRACTOR TO VERIFY ELEVATION WITH CITY OF WEST LINN PUBLIC WORKS DEPARTMENT. SEE CITY OF WEST LINN STANDARD DETAIL WL-401 (STANDARD FIRE HYDRANT ASSEMPLY) ON SHEET C311.

GENERAL NOTES

1. CONTRACTOR IS RESPONSIBLE FOR REPAIRS OF DAMAGE TO EXISTING UTILITIES DURING CONSTRUCTION AT NO COST TO THE DEVELOPER.
2. ALL WATER PIPE TO BE DUCTILE IRON PIPE UNLESS OTHERWISE NOTED.
3. WATER SYSTEM TO BE INSTALLED AND TESTED PER CITY OF WEST LINN STANDARD CONSTRUCTION SPECIFICATIONS.
4. ALL SEWER PIPE TO BE PVC AND SHALL CONFORM TO ASTM D-3034 UNLESS OTHERWISE NOTED.
5. EXTEND PRIVATE UTILITIES WITH A JOINT TRENCH WITHIN 8' PUE SHOWN. CONTRACTOR TO COORDINATE WITH UTILITY PROVIDER TO OBTAIN DESIGN INFORMATION.
6. ALL UTILITY LATERAL LOCATIONS MUST BE STAMPED ON NEW CURB.

Know what's **below.**
Call before you dig.

Scale: 1 inch = 20 feet
20 10 0 10 20

RECORD DRAWING
03/17/2015

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- Site observations by the engineer

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SANITARY SEWER AND WATER PLAN

HARPER'S TERRACE SUBDIVISION

LF 10, LLC
WEST LINN, OR

J.T. SMITH companies

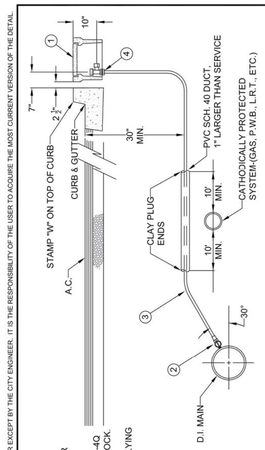
REGISTERED PROFESSIONAL ENGINEER
12282PE
OREGON
NOV. 12, 2003
JOHN D. HOWORTH
EXPIRES: 06/30/15
Digital Signature
03/17/2015

3J CONSULTING, INC
CIVIL ENGINEERING
WATER RESOURCES
LAND USE PLANNING
5075 SW GRIFFITH DRIVE, STE 150, BEAVERTON, OR 97005
PHONE & FAX: (503) 946-9365

3J JOB ID #	13123
LAND USE #	SUB-13-05
TAX LOT #	2S1E25DB 500
DESIGNED BY	CLF/BCH
CHECKED BY	JDH

SHEET TITLE
SEWER & WATER

SHEET NUMBER
C400



MATERIAL:

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

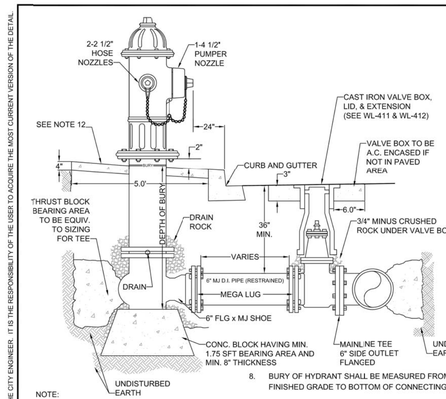
NOTE:

1. MACHINE DRILLED AND TAPPED ONLY. NO HAND DRILLING IS ALLOWED.
2. SUBSTITUTES FOR ANY MATERIALS SHOWN SHALL BE APPROVED BY THE CITY ENGINEER.
3. ALL PIPE AND STRUCTURE ZONE SHALL BE BACKFILLED USING 3/4" MINUS CRUSHED AGG. AND COMPACTED TO 95% MAX DENSITY AS DETERMINED BY AASHTO T-180.
4. WHEN AN ACTIVE CATHODIC PROTECTED SYSTEM IS ENCOUNTERED, SCH. 40 PVC SHALL BE INSTALLED AS SHOWN ABOVE WITH CLAY PLUG.
5. METER BOX SHALL BE CENTERED OVER THE COMPLETED METER ASSEMBLY.
6. TAPS INTO MAIN TO HAVE 18" SEPARATION ON CENTER MINIMUM.
7. ANGLE METER STOPS TO BE 18" FROM PROPERTY LINE AND NOT IN DRIVEWAY APPROACH.
8. METER BOXES IN CURB TIGHT SIDEWALK AND THOSE SUBJECT TO INCIDENTAL AUTO TRAFFIC MUST HAVE METAL LIDS AND BE TRAFFIC RATED.

STANDARD 1" WATER SERVICE

City of West Linn | DATE: 2010 | DRAWING NO. WL-402 | FILE NO.

THIS DETAIL DRAWING SHALL NOT BE ALTERED OR CHANGED IN ANY MANNER EXCEPT BY THE CITY ENGINEER. IT IS THE RESPONSIBILITY OF THE USER TO ACQUIRE THE MOST CURRENT VERSION OF THE DETAIL.



NOTE:

1. HYDRANT TO BE MUELLER CENTURION MDL A-423 ONLY WITH 1 1/2" OPER. NUTS OR CLOW MEDALLION F-2545.
2. HYDRANT COLOR TO BE MILLER EQUIP. ENAMEL 0 E 40 (SAFETY YELLOW)
3. JOINTS TO BE RESTRAINED BY 3/4" DIA. GALVANIZED STEEL RODS AND THRUST BLOCKS OR MEGALUGS AND THRUST BLOCKS.
4. ALL FITTINGS IN CONTACT W/CONCRETE SHALL BE WRAPPED IN PLASTIC, HYDRANT DRAIN HOLES TO REMAIN OPEN TO DRAIN ROCK AND OPERATIONAL.
5. MIN. 4 CFT OF 1 1/2" - 3/4" CLEAN DRAIN ROCK SHALL BE PLACED AROUND SHOE UP TO A MIN. OF 6" ABOVE DRAIN OUTLETS.
6. WHERE PLANTER STRIP EXISTS, HYDRANT SHALL BE PLACED SO THE FRONT PORT IS A MINIMUM OF 24" BEHIND THE FACE OF THE CURB.
7. WHERE INTEGRAL S/W & CURB EXISTS, HYDRANT SHALL BE PLACED AT BACK OF THE SIDEWALK, OR AS DIRECTED BY ENGINEER.
8. BURY OF HYDRANT SHALL BE MEASURED FROM FINISHED GRADE TO BOTTOM OF CONNECTING PIPE.
9. THRUST BLOCK AT FIRE HYDRANT TEE SHALL BE EQUIVALENT TO TEE PIPE SIZING (SEE WL-406).
10. HYDRANT VALVE SHALL BE MUELLER RESILIENT WEDGE GATE VALVE #A-2360-16 ONLY.
11. NO EXTENSIONS ALLOWED
12. HYDRANT SHALL HAVE A 5' x5' x 4" THICK CONCRETE APRON. THERE SHALL BE 2" OF CLEARANCE BETWEEN THE TOP OF THE APRON AND THE BOTTOM OF THE FLANGED BOLT PATTERN OF THE HYDRANT.
13. CONCRETE SHALL BE COMMERCIALLY MIXED WITH A BREAKING STRENGTH OF NOT LESS THAN 3000 PSI.

STANDARD FIRE HYDRANT ASSEMBLY

City of West Linn | DATE: 2010 | DRAWING NO. WL-401 | FILE NO.

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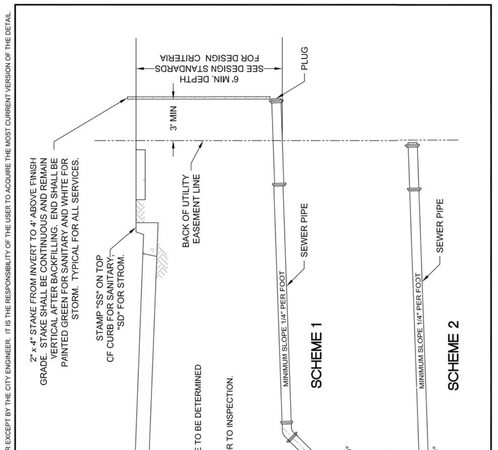


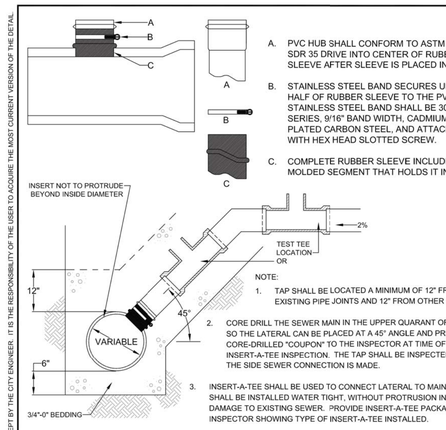
NOTE:

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

SERVICE BRANCH

City of West Linn | DATE: 2010 | DRAWING NO. WL-218 | FILE NO.

THIS DETAIL DRAWING SHALL NOT BE ALTERED OR CHANGED IN ANY MANNER EXCEPT BY THE CITY ENGINEER. IT IS THE RESPONSIBILITY OF THE USER TO ACQUIRE THE MOST CURRENT VERSION OF THE DETAIL.



A. PVC HUB SHALL CONFORM TO ASTM 3034, SDR 35 DRIVE INTO CENTER OF RUBBER SLEEVE AFTER SLEEVE IS PLACED IN HOLE.

B. STAINLESS STEEL BAND SECURES UPPER HALF OF RUBBER SLEEVE TO THE PVC HUB. STAINLESS STEEL BAND SHALL BE 300 SERIES, 9/16" BAND WIDTH, CADMIUM PLATED CARBON STEEL, AND ATTACHED WITH HEX HEAD SLOTTED SCREW.

C. COMPLETE RUBBER SLEEVE INCLUDES A MOLDED SEGMENT THAT HOLDS IT IN PLACE.

NOTE:

1. TAP SHALL BE LOCATED A MINIMUM OF 12" FROM EXISTING PIPE JOINTS AND 12" FROM OTHER TAPS.
2. CORE DRILL THE SEWER MAIN IN THE UPPER QUARANT OF THE PIPE SO THE LATERAL CAN BE PLACED AT A 45° ANGLE AND PRESENT THE CORE-DRILLED "COUPON" TO THE INSPECTOR AT TIME OF THE INSERT-A-TEE INSPECTION. THE TAP SHALL BE INSPECTED BEFORE THE SIDE SEWER CONNECTION IS MADE.
3. INSERT-A-TEE SHALL BE USED TO CONNECT LATERAL TO MAIN. TAP SHALL BE INSTALLED WATER TIGHT, WITHOUT PROTRUSION INTO OR DAMAGE TO EXISTING SEWER. PROVIDE INSERT-A-TEE PACKAGING TO INSPECTOR SHOWING TYPE OF INSERT-A-TEE INSTALLED.
4. LATERAL SHALL BE 4" (FOR STANDARD SINGLE FAMILY HOMES) GREEN ASTM3034 AND PLACE AT 2% SLOPE TO THE PROPERTY LINE. PLACE A TEST TEE WITHIN 3 FEET OF THE TAP.
5. PLACE GREEN TRACER WIRE OVER CENTERLINE OF SERVICE LATERAL.
6. COMPACT 6" OF 3/4-0" ROCK UNDER THE PIPE. HAUNCH WELL UNDER LATERAL.
7. ONCE APPROVED BY CITY INSPECTOR, PLACE 12" OF 3/4"-ROCK ABOVE THE TOP OF THE PIPE.
8. BACKFILL ABOVE THE PIPE ZONE (ABOVE 12" OF ROCK) SHALL BE CDF (DELIVER CDF RECEIPT TO THE ENGINEERING DEPT). ALTERNATELY, 3/4-0" GRAVEL BACKFILL MAY BE USED. COMPACTION TESTING BY A CERTIFIED TESTING AGENCY MUST OCCUR IN LIFTS AS SPECIFIED BY THE CITY INSPECTOR (DELIVER TEST RESULTS TO THE ENGINEERING DEPT). CITY RESERVES THE RIGHT TO FURTHER SPECIFY BACKFILL BASED ON SITE CONDITIONS.
9. T.V. INSPECTION OF THE LATERAL AND/OR MAIN MAY BE REQUIRED FOLLOWING BACKFILL, PRIOR TO FINAL APPROVAL.
10. 4" MAXIMUM TAP FOR 8" MAIN (CUT IN TEE TO BE USED FOR 6" LATERAL ON 8" MAIN).
11. ALL CONNECTIONS SHALL BE MADE WITH HARD FITTINGS, INCLUDING TRANSITIONS BETWEEN DISSIMILAR MATERIALS.

SEWER SERVICE TAP TO EXISTING SEWER FOR HOUSE LATERALS

City of West Linn | DATE: 2010 | DRAWING NO. WL-303 | FILE NO.

THIS DETAIL DRAWING SHALL NOT BE ALTERED OR CHANGED IN ANY MANNER EXCEPT BY THE CITY ENGINEER. IT IS THE RESPONSIBILITY OF THE USER TO ACQUIRE THE MOST CURRENT VERSION OF THE DETAIL.

To ensure proper operation and accessibility of all backflow prevention device assemblies, the following requirements shall apply to installation of these devices, unless specifically approved by the Water Division Engineer.

1. No part of the backflow prevention device shall be submerged in water or installed in a location subject to flooding. If installed in a vault or chamber, adequate drainage shall be provided by either drainage to daylight or by sump pump with high water alarm system. Test cocks shall be plugged. The plugs shall not be of dissimilar metals.
2. The device assembly must be protected from freezing and other severe weather conditions.
3. Only devices approved for vertical installation may be installed vertically.
4. The device assembly shall be readily accessibly with adequate room for maintenance and testing. Devices 2 inches and smaller shall have at least a 12-inch clearance below and on both sides of the device assembly; and if located in a vault, the top of the device assembly shall be between 12 and 24 inches below grade.
5. All device assemblies larger than 2 inches shall have a 12-inch clearance on the backside, a 24-inch clearance on the test-cock side, and 12 inches below the device assemblies. Adequate clearance (3 inches minimum) must be maintained above O.S. & Y. gate-valve stem. Headroom of 6' 0" is required in vaults. Access to the device and to any vault or chamber shall remain clear at all times. An OR/OSHA approved chamber ladder that extends 3 ft. above surface of vault shall be installed.
6. No indicating valves are allowed on Double Check Device assemblies.
7. Only approved Double Check Detector Check Valve Assemblies are to be used for system containment on fire line services in the City of West Linn. The meter on bypass assembly shall read in cubic feet.
8. If a Fire Line Flow, or Tamper Switch is installed, it must be connected to a monitored Fire Detection System approved by the Fire Marshal. No installation will modify the backflow device assembly or interfere with its operaion or maintenance.
9. All backflow devices shall be installed at the service connection to the premises per Oregon Administrative Rules 333-061-070, Cross Connection Control Requirements, unless specifically approved by the Water Division Engineer. (service connection - a location where the public water facilities end at or near the property line)
10. All pipe between main and device shall be restrained. Use Mega-Lug retainer glands on mj fittings and Field-Lok gaskets on bell joints. Uni-Flange adapters may be used in vaults.

BACKFLOW PREVENTION DEVICES

City of West Linn | DATE: 2010 | DRAWING NO. WL-414C | FILE NO.

RECORD DRAWING
03/17/2015

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SANITARY AND WATER DETAILS

HARPER'S TERRACE SUBDIVISION

LF 10, LLC
WEST LINN, OR

J.T. SMITH companies

REGISTERED PROFESSIONAL ENGINEER
72282PE
OREGON
NOV. 12, 2008
JOHN D. HOWORTH
EXPIRES: 06/30/15

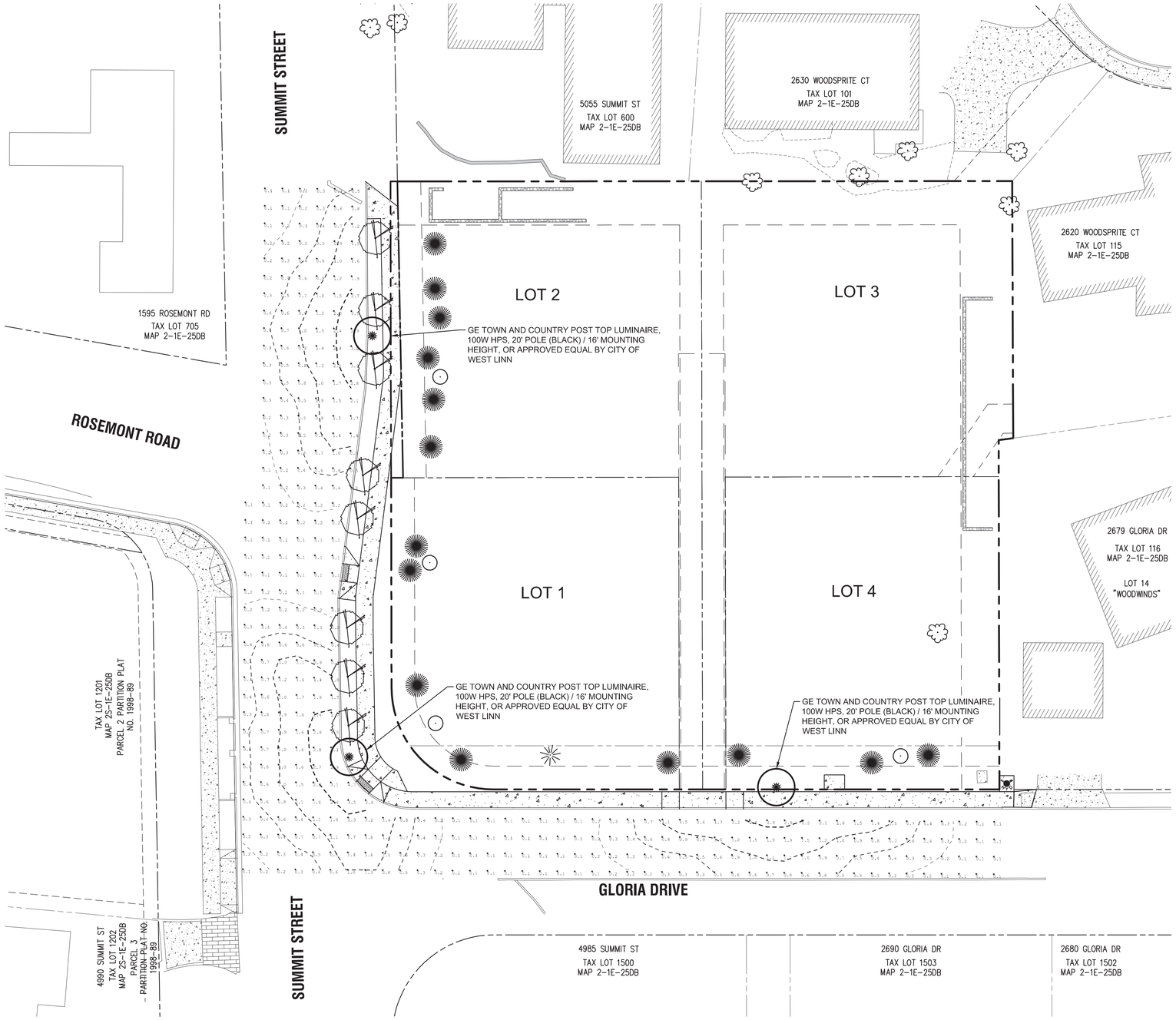
Digital Signature
03/17/2015

3J CONSULTING, INC
CIVIL ENGINEERING
WATER RESOURCES
LAND USE PLANNING
5075 SW GRIFFITH DRIVE, STE 150, BEAVERTON, OR 97005
PHONE & FAX: (503) 646-0985

3J JOB ID #	13123
LAND USE #	SUB-13-05
TAX LOT #	2S1E25DB 500
DESIGNED BY	CLF/BCH
CHECKED BY	JDH

SHEET TITLE
SAN. & WAT. DET.

SHEET NUMBER
C410

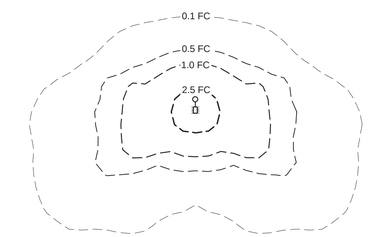


Scale: 1 inch = 20 feet

20 10 0 10 20

LEGEND

- SUBDIVISION BOUNDARY LINE
- EXISTING RIGHT OF WAY
- EXISTING PROPERTY LINE
- PROPOSED LOT LINE
- 0.7 - ILLUMINATION ANALYSIS POINT (FC)
- FC - FOOT CANDLE UNIT



STREET LIGHTING STATISTICS

ROAD CLASSIFICATION (SUMMIT ST)	COLLECTOR (RESIDENTIAL)	AVERAGE MAINTAINED ILLUMINATION REQUIRED: 0.6 FC
ROAD CLASSIFICATION (GLORIA DR)	LOCAL (RESIDENTIAL)	AVERAGE MAINTAINED ILLUMINATION REQUIRED: 0.4 FC
EXISTING LIGHT(S) INCLUDED	0	
MAX. ILLUMINATION	4.7 FC	
MIN. ILLUMINATION	0.1 FC	
AVERAGE ILLUMINATION	0.75 FC	
UNIFORMITY (AVG/MIN)	7.5	

RECORD DRAWING
03/17/2015

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STREET LIGHTING PLAN
HARPER'S TERRACE SUBDIVISION
LF 10, LLC
WEST LINN, OR

J.T. SMITH companies

REGISTERED PROFESSIONAL ENGINEER
82PE
OREGON
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EXPIRES: 06/30/15

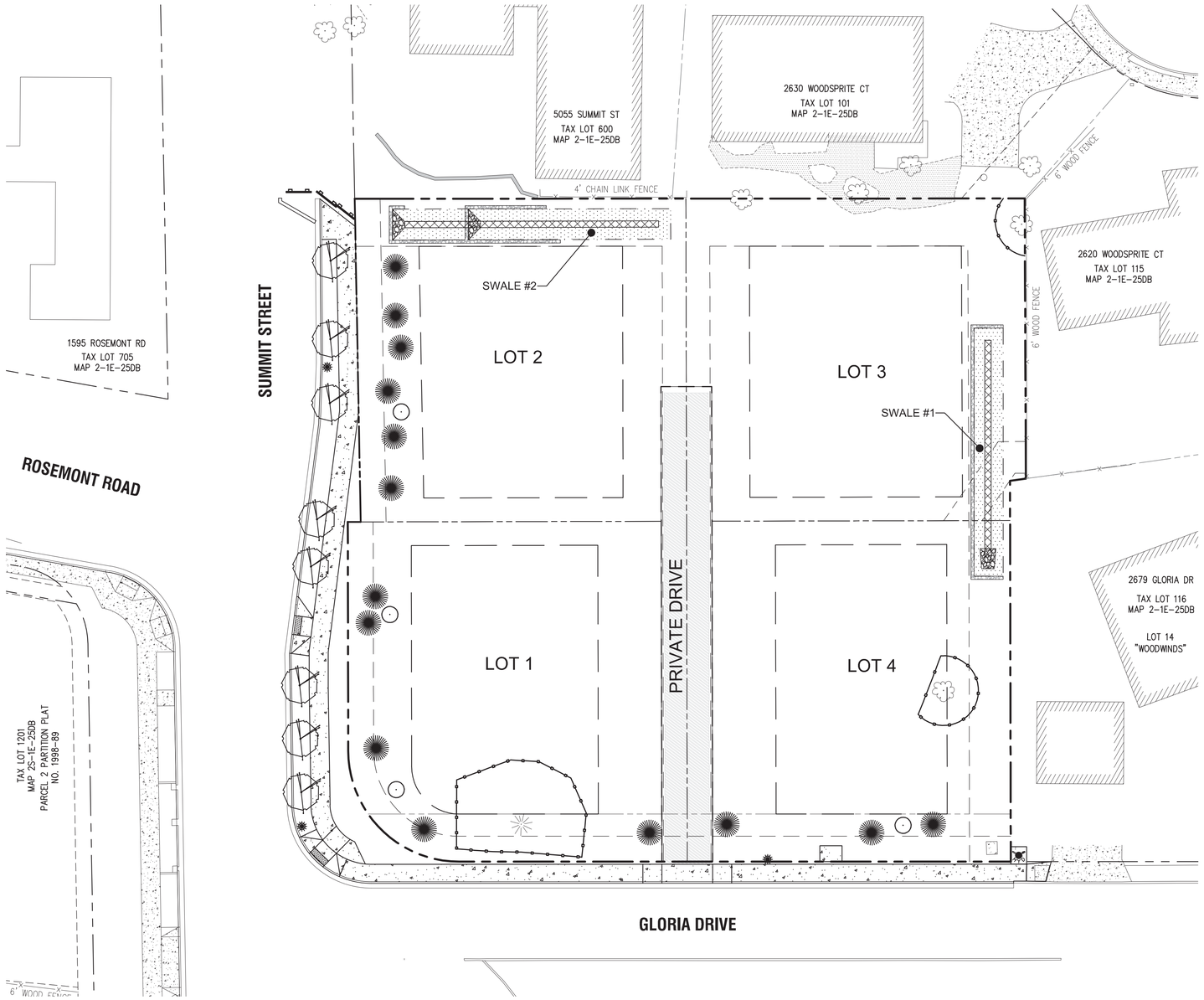
Digital Signature
03/17/2015

3J CONSULTING, INC
CIVIL ENGINEERING
WATER RESOURCES
LAND USE PLANNING
5075 SW GRIFFITH DRIVE, STE 150, BEAVERTON, OR 97005
PHONE & FAX: (503) 946-9365

3J JOB ID #	13123
LAND USE #	SUB-13-05
TAX LOT #	2S1E25DB 500
DESIGNED BY	CLF/BCH
CHECKED BY	JDH

SHEET TITLE
LIGHTING PLAN

SHEET NUMBER
C500



LEGEND

- SUBDIVISION BOUNDARY LINE
- EXISTING RIGHT OF WAY
- EXISTING PROPERTY LINE
- PROPOSED RIGHT OF WAY
- PROPOSED LOT LINE
- PROPOSED EASEMENT
- PROPOSED SETBACK LINE
- TREE PROTECTION FENCING
- PROPOSED PERVIOUS PAVING
- PROPOSED CONCRETE

N

Scale: 1 inch = 20 feet

20 10 0 10 20

PLANT MATERIALS SCHEDULE

COMMON NAME	BOTANICAL NAME	SIZE	SPACING	QUANTITY
SCARLET OAK	QUERCUS COCCINIA	2" CAL.	22' MIN	8
VINE MAPLE	ACER CIRCINATUM	6' / 2" CAL.	10' MIN	4
WESTERN RED CEDAR	THUJA PLICATA	2" CAL.	12' MIN	14

TOTAL PROPOSED TREE COUNT: 26

TOTAL MITIGATION REQURIEMENT: 36" (CALIPER MEASUREMENT)

STREET TREES NOT INCLUDED IN MITIGATION COUNT

GENERAL LANDSCAPING NOTES

1. LANDSCAPE PLANTING SHALL CONFIRM TO THE STANDARDS ESTABLISHED UNDER THE WEST LINN STANDARDS FOR LANDSCAPE PLANTING
2. ALL PLANT BEDS SHALL HAVE A 3" DEPTH OF BARK MULCH
3. ALL PLANT MATERIAL DELIVERED TO THIS SITE SHALL MEET THE AMERICAN NURSERYMAN'S ASSOCIATION STANDARDS.
4. CONTRACTOR SHALL OBTAIN WRITTEN APPROVAL FOR ALL PLANT MATERIAL SUBSTITUTIONS FROM THE CIVIL ENGINEER PRIOR TO INSTALLATION. PLANT SUBSTITUTIONS WITHOUT PRIOR WRITTEN APPROVAL THAT DO NOT COMPLY WITH THE DRAWINGS AND SPECIFICATIONS MAY BE REJECTED BY THE LANDSCAPE ARCHITECT AT NO COST TO THE OWNER. THESE ITEMS MAY BE REQUIRED TO BE REPLACED WITH PLANT MATERIALS THAT ARE IN COMPLIANCE WITH THESE DRAWINGS.

WATER QUALITY SWALE PLANTING NOTES

INSTALL WATER QUALITY PLANTINGS PER CITY OF PORTLAND STANDARD VEGETATED SWALE DETAIL SW-120 AND SW-303.

SWALE ZONE "A".

SWALE ZONE "B".

SWALE #1

SWALE ZONE "A" **(140 SF)**	TYPE	PLANTING RATE	SIZE	SPACING DENSITY (O.C.)	QTY
SLOUGH SEDGE	HERBACEOUS PLANTS	300/100 SF	6" PLUGS	6"	420
RED-TWIG DOGWOOD	SMALL SHRUBS	4 /100 SF	1 GALLON	3'	6

SWALE ZONE "B" **(576 SF)**	TYPE	PLANTING	SIZE	SPACING DENSITY (O.C.)	QTY
WESTERN SERVICEBERRY	DECIDUOUS TREE	1/ 200 SF	MIN. CALIPER 1-1/2" AT 6" ABOVE BASE	-	3
	AND				
BLACK TWINBERRY	LARGE SHRUB	3/ 100 SF	3 GALLON OR EQUIV.	4'	17
PACIFIC NINEBARK	MED. TO SMALL SHRUBS	4/ 100 SF	1 GALLON OR EQUIV.	2'	23
COASTAL STRAWBERRY	GROUNDCOVER	4/ SF	4" OR EQUIV.	6"	2,304

SWALE #2

SWALE ZONE "A" **(160 SF)**	TYPE	PLANTING RATE	SIZE	SPACING DENSITY (O.C.)	QTY
SLOUGH SEDGE	HERBACEOUS PLANTS	300/100 SF	6" PLUGS	6"	480
RED-TWIG DOGWOOD	SMALL SHRUBS	4 /100 SF	1 GALLON	3'	6

SWALE ZONE "B" **(691 SF)**	TYPE	PLANTING	SIZE	SPACING DENSITY (O.C.)	QTY
BLUE ARCTIC WILLOW	DECIDUOUS TREE	1/ 200 SF	MIN. CALIPER 1-1/2" AT 6" ABOVE BASE	-	4
	AND				
OCEANSPRAY	LARGE SHRUB	3/ 100 SF	3 GALLON OR EQUIV.	4'	21
PACIFIC NINEBARK	MED. TO SMALL SHRUBS	4/ 100 SF	1 GALLON OR EQUIV.	2'	28
COASTAL STRAWBERRY	GROUNDCOVER	4/ SF	4" OR EQUIV.	6"	2,764

RECORD DRAWING
03/17/2015

This drawing has been prepared to reflect constructed deviations from permit documents. The basis of this information is derived in whole or in part from a combination of:
- Contractor supplied redlines
- Site observations by the engineer
- Field measurements

The stamping engineer of record certifies this drawing is an accurate representation of the final construction and the resulting improvements are in conformance with the standards of the City of West Linn.

MITIGATION PLANTING PLAN
HARPER'S TERRACE SUBDIVISION
LF 10, LLC
WEST LINN, OR

J.T. SMITH companies

REGISTERED PROFESSIONAL ENGINEER
282PE
OREGON
NOV. 12, 2003
JOHN D. HOWORTH
EXPIRES: 06/30/15

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SHEET TITLE
MITIGATION PLAN

SHEET NUMBER
L100