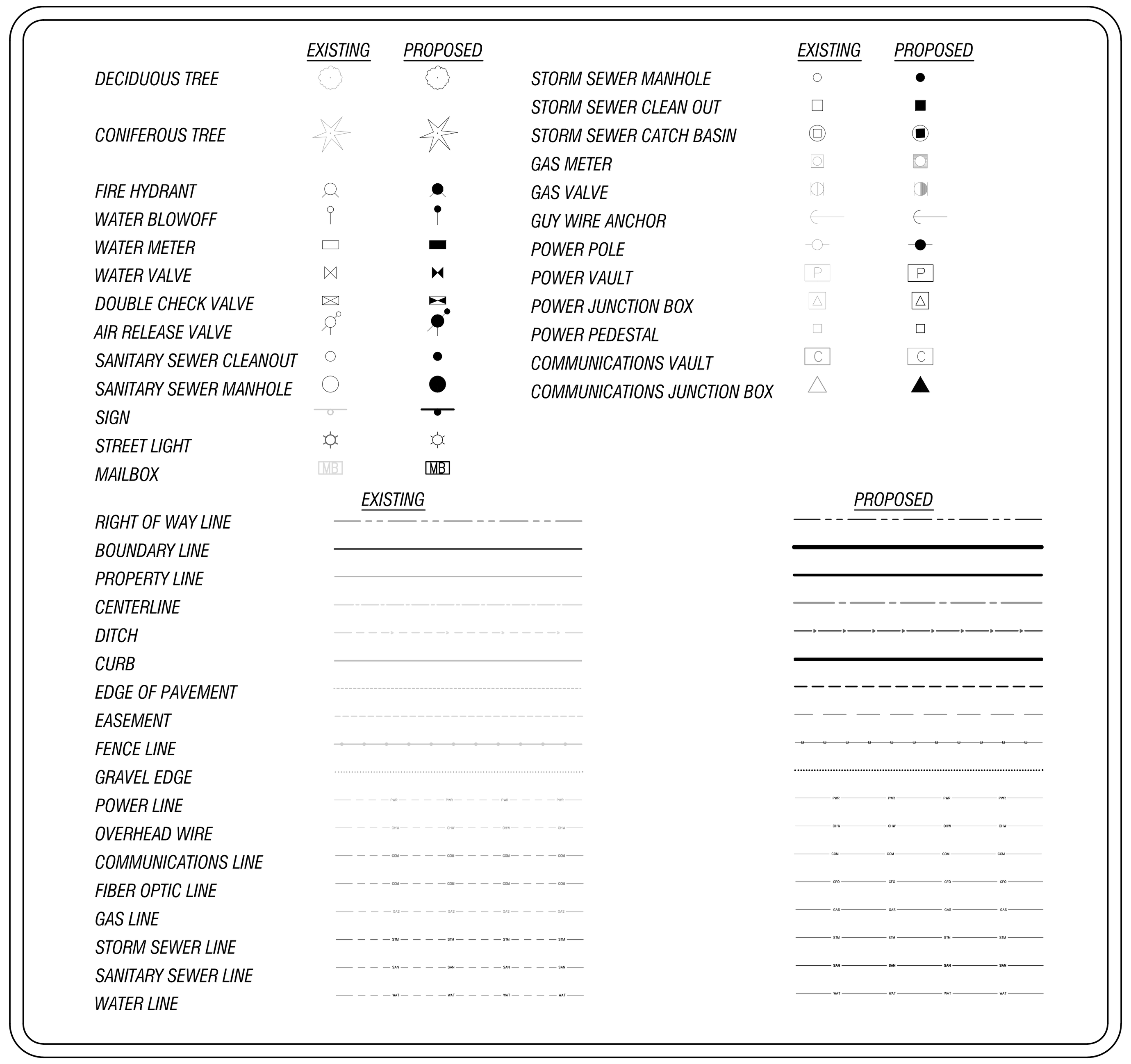
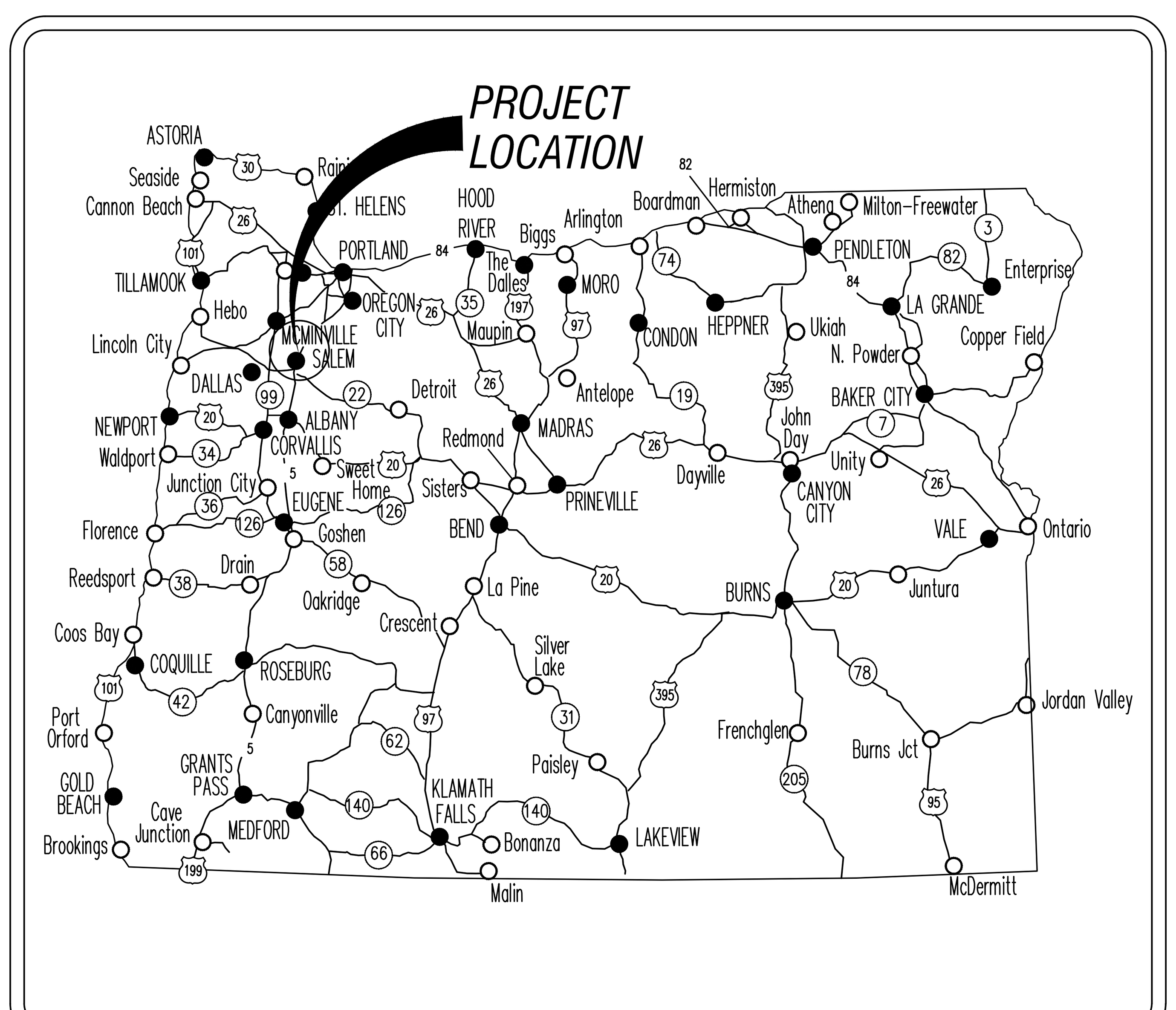
ONEIL TENTATIVE SUBDIVISION

ASSESSOR'S MAP 063W23DA TAX LOTS 01800
MARION COUNTY, KEIZER, OREGON
CLIENT: CRAIG WIGGINTON
DATE: 4/11/2022



LEGEND



VICINITY MAP

SITE MAP SCALE: NOT TO SCALE

PROJECT TEAM:

OWNER/APPLICANT:
CRAIG WIGGINTON
8015 ONEIL ROAD NE
KEIZER, OREGON 97303

ENGINEER:
GREG J. ZARTMAN, PE
LEI ENGINEERING & SURVEYING
OF OREGON, LLC
2564 19TH ST. SE
SALEM, OREGON 97302

SURVEYOR:
LARRY M. ALLEN, PLS
LEI ENGINEERING & SURVEYING
OF OREGON, LLC
2564 19TH ST. SE
SALEM, OREGON 97302

PROPERTY DESCRIPTION:
TAX LOT 01800 MARION COUNTY TAX MAP 063W23DA. LOCATED IN THE NE 1/4 OF THE SE 1/4 OF SECTION 23, TOWNSHIP 6 SOUTH, RANGE 3 WEST, WILLAMETTE MERIDIAN, MARION COUNTY, OREGON.

BENCHMARK/BASIS OF BEARING:
VERTICAL DATUM: ELEVATIONS ARE BASED ON MARION COUNTY BENCHMARK 2120, BEING A 2" ALUMINUM CAP, BENCHMARK ELEVATION = 181.83' (NGVD29).

SHEET LIST

SHEET NUMBER	SHEET TITLE
1	COVER
2	GENERAL NOTES
3	EXISTING CONDITIONS & DEMOLITION PLAN
4	DIMESIONAL SUBDIVISION PLAN
5	TREE INVENTORY
6	GRADING,DRAINAGE AND PAVING, UTILITY PLAN

HORIZONTAL DATUM:
LOCAL ASSUMED.
BASIS OF BEARING:
SOUTH LINE OF LOT.

REGISTERED PROFESSIONAL ENGINEER
PRELIMINARY
GREG J. ZARTMAN
EXPIRES 6-30-2023

O'NEIL ROAD SUBDIVISION

PREPARED FOR:
CRAIG WIGGINTON

LEI ENGINEERING & SURVEYING OF OREGON
2564 19TH STREET SE
Salem, Oregon 97302
(503) 399-3828
www.leiengineering.com

COVER

SCALE: NO SCALE
PROJECT NO.: 14-76
SHEET: 01 OF 06
CV-1

NOTES:

1. CONTRACTOR SHALL PROCURE AND CONFORM TO ALL CONSTRUCTION PERMITS REQUIRED BY THE CITY OF WOODBURN, MARION COUNTY AND STATE OF OREGON.

2. CONTRACTOR SHALL PROVIDE ALL BONDS AND INSURANCE REQUIRED BY PUBLIC AND/OR PRIVATE AGENCIES HAVING JURISDICTION.

3. ALL MATERIALS AND WORKMANSHIP FOR FACILITIES IN STREET RIGHT-OF-WAY OR EASEMENTS SHALL CONFORM TO APPROVING AGENCIES' CONSTRUCTION SPECIFICATIONS WHEREIN EACH HAS JURISDICTION INCLUDING BUT NOT LIMITED TO THE CITY, COUNTY, OREGON HEALTH DIVISION (OHD), THE OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY (DEQ), AND THE OREGON DEPARTMENT OF TRANSPORTATION (ODOT).

4. UNLESS OTHERWISE APPROVED BY THE ENGINEER, CONSTRUCTION OF ALL PUBLIC FACILITIES SHALL BE DONE BETWEEN 7:00 A.M. AND 7:00 P.M. , MONDAY THROUGH FRIDAY.

5. THE CONTRACTOR SHALL PERFORM ALL WORK NECESSARY TO COMPLETE THE PROJECT IN ACCORDANCE WITH THE APPROVED CONSTRUCTION DRAWINGS INCLUDING SUCH INCIDENTALS AS MAY BE NECESSARY TO MEET APPLICABLE AGENCY REQUIREMENTS AND PROVIDE A COMPLETED PROJECT.

6. CONTRACTOR TO NOTIFY CITY AND ALL UTILITY COMPANIES A MINIMUM OF 48 BUSINESS HOURS (2 BUSINESS DAYS) PRIOR TO START OF CONSTRUCTION AND COMPLY WITH ALL OTHER REQUIREMENTS OF ORS 757.541 TO 757.571.

7. ANY INSPECTION BY THE CITY OR OTHER AGENCIES SHALL NOT, IN ANY WAY, RELIEVE THE CONTRACTOR FROM ANY OBLIGATION TO PERFORM THE WORK IN STRICT COMPLIANCE WITH THE CONTRACT DOCUMENTS, APPLICABLE CODES, OR STANDARD SPECIFICATIONS FOR CONSTRUCTION.

8. CONTRACTOR SHALL ERECT AND MAINTAIN BARRICADES, WARNING SIGNS, AND CONES PURSUANT TO CITY REQUIREMENTS IN ACCORDANCE WITH THE MUTCD (INCLUDING OREGON AMENDMENTS). ACCESS TO DRIVEWAYS SHALL BE MAINTAINED AT ALL TIMES. ALL TRAFFIC CONTROL MEASURES SHALL BE APPROVED AND IN PLACE PRIOR TO ANY CONSTRUCTION ACTIVITY.

9. THE CONTRACTOR SHALL MAINTAIN ONE COMPLETE SET OF APPROVED DRAWINGS ON THE CONSTRUCTION SIGHT AT ALL TIMES WHEREON HE WILL RECORD ANY APPROVED DEVIATIONS IN CONSTRUCTION FROM THE APPROVED DRAWINGS, AS WELL AS THE STATION LOCATIONS AND DEPTHS OF ALL EXISTING UTILITIES ENCOUNTERED. THESE FIELD RECORD DRAWINGS SHALL BE KEPT UP TO DATE AT ALL TIMES AND SHALL BE AVAILABLE FOR INSPECTION BY THE CITY OR ENGINEER UPON REQUEST.FAILURE TO CONFORM TO THIS REQUIREMENT MAY RESULT IN DELAY OF PAYMENT AND/OR FINAL ACCEPTANCE OF THE PROJECT.

10. UPON COMPLETION OF CONSTRUCTION OF PUBLIC FACILITIES THE CONTRACTOR SHALL SUBMIT A CLEAN SET OF FIELD RECORD DRAWINGS CONTAINING ALL AS-BUILT INFORMATION TO THE ENGINEER FOR USE IN THE PREPARATION OF AS-BUILT DRAWINGS FOR SUBMITTAL TO THE CITY. ALL INFORMATION SHOWN ON THE CONTRACTOR'S FIELD RECORD DRAWINGS SHALL BE SUBJECT TO VERIFICATION BY THE ENGINEER. IF SIGNIFICANT ERRORS OR DEVIATIONS ARE NOTED BY THE ENGINEER, AN AS-BUILT SURVEY PREPARED AND STAMPED BY A REGISTERED PROFESSIONAL LAND SURVEYOR SHALL BE COMPLETED AT THE CONTRACTOR'S EXPENSE.

11. THE CONTRACTOR SHALL SUBMIT A SUITABLE MAINTENANCE BOND PRIOR TO FINAL PAYMENT WHERE REQUIRED BY PUBLIC AND/OR PRIVATE AGENCIES HAVING JURISDICTION.

12. CONTRACTOR ARE RESPONSIBLE FOR PROVIDING NOTIFICATIONS AND WORK COORDINATION TO ADJACENT PROPERTIES, INCLUDING REQUIRED OFF-SITE CONSTRUCTION WORK.

13. DURING CONSTRUCTION, THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR QUESTIONS RELATED AND POSSIBLE MODIFICATIONS TO THE APPROVED PLANS AND PROJECT LIMITS TO COMPLY WITH THE CITY'S REQUIREMENTS. THE ENGINEER SHALL SUBMIT PLAN MODIFICATIONS DURING CONSTRUCTION TO THE CITY OF APPROVAL PRIOR TO START WORK.

TESTING AND INSPECTION:

14. THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT ALL REQUIRED OR NECESSARY INSPECTIONS ARE COMPLETED BY THE ENGINEER AND COORDINATE CONSTRUCTION SCHEDULES WITH THE CITY'S ENGINEERING DIVISION SUCH THAT THE CITY'S INSPECTOR CAN BE PRESENT FOR OBSERVATIONS THAT REQUIRES THE CITY'S PRESENCE PRIOR TO PROCEEDING WITH SUBSEQUENT WORK WHICH COVERS, OR IS DEPENDENT ON, THE WORK TO BE INSPECTED. FAILURE TO OBTAIN NECESSARY INSPECTION(S) AND APPROVAL(S) SHALL RESULT IN THE CONTRACTOR BEING FULLY RESPONSIBLE FOR ALL PROBLEMS ARISING FROM UNINSPECTED WORK. CONTRACTOR MUST UNCOVER ANY WORK COMPLETED AND BACKFILLED WITHOUT PROPER INSPECTIONS AND APPROVAL BY CITY STAFF.

EXISTING UTILITIES & FACILITIES:

15. THE LOCATION AND DESCRIPTIONS OF EXISTING UTILITIES SHOWN ON THE DRAWINGS ARE COMPILED FROM AVAILABLE RECORDS AND/OR FIELD SURVEYS. THE ENGINEER OR UTILITY COMPANIES DO NOT GUARANTEE THE ACCURACY OR THE COMPLETENESS OF SUCH RECORDS. CONTRACTOR SHALL FIELD VERIFY LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

16. THE CONTRACTOR SHALL LOCATE AND MARK ALL EXISTING PROPERTY AND STREET MONUMENTS PRIOR TO CONSTRUCTION. ANY MONUMENTS DISTURBED DURING CONSTRUCTION OF THE PROJECT SHALL BE REPLACED BY A REGISTERED LAND SURVEYOR AT THE CONTRACTOR'S EXPENSE.

17. CONTRACTOR SHALL FIELD VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITIES WHERE NEW FACILITIES CROSS. CONTRACTOR SHALL BE RESPONSIBLE FOR EXPOSING POTENTIAL UTILITY CONFLICTS FAR ENOUGH AHEAD OF CONSTRUCTION TO MAKE NECESSARY GRADE MODIFICATIONS WITHOUT DELAYING THE WORK. IF GRADE MODIFICATION IS NECESSARY, CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER, AND THE DESIGN ENGINEER SHALL OBTAIN APPROVAL FROM THE CITY PRIOR TO CONSTRUCTION. ALL UTILITY CROSSINGS SHALL BE POTHOLED AS NECESSARY PRIOR TO EXCAVATING OR BORING TO ALLOW THE CONTRACTOR TO PREVENT GRADE OR ALIGNMENT CONFLICTS.

18. ALL EXISTING FACILITIES SHALL BE MAINTAINED IN PLACE BY THE CONTRACTOR UNLESS OTHERWISE SHOWN OR DIRECTED. CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO SUPPORT, MAINTAIN, OR OTHERWISE PROTECT EXISTING UTILITIES AND OTHER FACILITIES AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR IS TO LEAVE EXISTING FACILITIES IN AN EQUAL OR BETTER THAN ORIGINAL CONDITION, AND ALSO TO THE SATISFACTION OF THE ENGINEER.

19. UTILITIES, OR INTERFERING PORTIONS OF THE UTILITIES, THAT ARE ABANDONED IN PLACE SHALL BE REMOVED BY THE CONTRACTOR TO THE EXTENT NECESSARY TO ACCOMPLISH THE WORK. THE CONTRACTOR SHALL PLUG THE REMAINING EXPOSED ENDS OF ABANDONED UTILITIES.

20. CONTRACTOR SHALL REMOVE ALL EXISTING SIGNS, MAILBOXES, FENCES, LANDSCAPING, ETC., AS REQUIRED TO AVOID DAMAGE DURING CONSTRUCTION AND REPLACE THEM TO EXISTING, OR BETTER, CONDITION.

21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MANAGING CONSTRUCTION ACTIVITIES TO ENSURE THAT PUBLIC STREETS AND RIGHT-OF-WAYS ARE KEPT CLEAN OF MUD, DUST OR DEBRIS. DUST ABATEMENT SHALL BE MAINTAINED BY ADEQUATE WATERING OF THE SITE BY THE CONTRACTOR.

GRADING, PAVING & DRAINAGE:

22. IMMEDIATELY FOLLOWING STRIPPING OPERATIONS, COMPACT SUBGRADE TO 95% OF THE MAXIMUM DRY DENSITY PURSUANT TO AASHTO T-180 TEST METHOD (MODIFIED PROCTOR). SUBGRADE MUST BE INSPECTED AND APPROVED BY THE ENGINEER AND CITY STAFF PRIOR TO PLACING EMBANKMENTS, ENGINEERED FILLS OR FINE GRADING FOR BASE ROCK.

23. ALL FILLS SHALL BE ENGINEERED EXCEPT FOR FILLS LESS THAN 18 INCHES IN DEPTH WHICH ARE LOCATED OUTSIDE THE PUBLIC RIGHT-OF-WAY , BUILDING PADS, PARKING LOTS OR OTHER AREAS TO BE IMPROVED. ENGINEERED FILLS SHALL BE CONSTRUCTED IN 6" LIFTS OVER APPROVED SUBGRADE. EACH LIFT SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY PURSUANT TO AASHTO T-180 TEST METHOD (MODIFIED PROCTOR).

24. CRUSHED ROCK SHALL CONFORM TO THE REQUIREMENTS OF SECTION 00641.44 (SHAPING AND COMPACTING) OREGON STANDARD SPECIFICATIONS, AND SECTION 006-10 OF THE 2002 OREGON STANDARD SPECIFICATIONS FOR CONSTRUCTION 2015. COMPACT TO 95% OF THE MAXIMUM DRY DENSITY PURSUANT TO AASHTO T-180 TEST METHOD. WRITTEN COMPACTION TEST RESULTS FROM AN INDEPENDENT TESTING LABORATORY MUST BE RECEIVED BY THE ENGINEER PRIOR TO PLACING ASPHALT PAVEMENT.

25. ASPHALT PAVEMENT SHALL CONFORM TO SECTION 00744 (ASPHALT CONCRETE PAVEMENT) OF OREGON STANDARD SPECIFICATIONS FOR CONSTRUCTION 2015, LEVEL 3. ASPHALT CONCRETE PAVEMENT SHALL BE COMPACTED TO A MINIMUM OF 92% OF MAXIMUM DENSITY AS DETERMINED BY AASHTO T 209 TEST METHOD.

26. UNLESS OTHERWISE SHOWN ON THE DRAWINGS, STRAIGHT GRADES SHALL BE RUN BETWEEN ALL FINISH GRADE ELEVATIONS AND/OR FINISH CONTOUR LINES SHOWN.

27. FINISH PAVEMENT GRADES AT TRANSITION FROM NEW TO EXISTING PAVEMENT SHALL MATCH EXISTING PAVEMENT GRADES USING COLD PLANE JOINTS (GRIND AND INLAY) WITH EXISTING PAVEMENT AS REQUIRED TO PROVIDE A SMOOTH , FREE DRAINING SURFACE.

28. ALL EXISTING OR CONSTRUCTED MANHOLES, CLEANOUTS, MONUMENTS, GAS VALVES, WATER VALVES AND SIMILAR STRUCTURES SHALL BE ADJUSTED TO MATCH FINISH GRADE OF THE PAVEMENT, SIDEWALK, LANDSCAPED AREA OR MEDIAN STRIP WHEREIN THEY LIE.

29. UNLESS OTHERWISE SHOWN ON THE DRAWINGS, NO CUT OR FILL SLOPES SHALL BE CONSTRUCTED STEEPER THAN 2H:1V.

30. ALL PLANTER AREAS SHALL BE BACKFILLED WITH APPROVED TOP SOIL MINIMUM 12" THICK. STRIPPING MATERIALS SHALL NOT BE USED FOR PLANTER BACKFILL.

31. CONTRACTOR SHALL SEED AND MULCH ALL EXPOSED SLOPES AND DISTURBED AREAS WHICH ARE NOT SCHEDULED TO BE LANDSCAPED.

CURBS & SIDEWALKS:

32. CONTRACTOR SHALL CONSTRUCT HANDICAP ACCESS RAMPS AT ALL INTERSECTIONS AND SIDEWALKS IN ACCORDANCE WITH CURRENT ADA REQUIREMENTS AT THE TIME OF CONSTRUCTION, AS SHOWN ON PLANS. ALL INSPECTIONS/PLANS CHANGES ARE DONE BY THE ENGINEER AND SUBMITTED TO THE CITY PRIOR TO PROJECT FINAL APPROVAL.

33. SIDEWALKS SHALL BE A MINIMUM OF 4 INCHES THICK. DRIVEWAYS SHALL BE A MINIMUM 8 INCHES THICK. ALL SIDEWALKS AND DRIVEWAYS SHALL BE CONSTRUCTED USING 3300 PSI CONCRETE. THE SAWCUT LINES SHOWN ON THE DRAWINGS ARE SCHEMATIC AND NOT INTENDED TO SHOW THE EXACT ALIGNMENT OF SUCH CUTS.

34. WHERE WORK EXCAVATION REQUIRES REMOVAL OF P.C.C. CURBS AND/OR SIDEWALKS, THE CURBS AND/OR SIDEWALKS SHALL BE SAWCUT AND REMOVED AT AN EXISTING JOINT UNLESS OTHERWISE SPECIFIED BY THE ENGINEER.

PIPED UTILITIES:

35. ALL PIPES SHALL BE BEDDED WITH MINIMUM 6 INCHES OF 3/4" MINUS CRUSHED ROCK BEDDING AND BACKFILLED WITH COMPACTED 3/4" MINUS CRUSHED ROCK IN THE PIPE ZONE (CRUSHED ROCK SHALL EXTEND A MINIMUM OF 12 INCHES OVER THE TOP OF THE PIPE IN ALL CASES). CRUSHED ROCK TRENCH BACKFILL SHALL BE USED WITHIN THE PUBLIC RIGHT OF WAY AND UNDER ALL OTHER IMPROVED AREAS.

36. ALL PIPED UTILITIES ABANDONED IN PLACE SHALL HAVE ALL OPENINGS CLOSED WITH CONCRETE PLUGS WITH A MINIMUM LENGTH EQUAL TO 2 TIMES THE DIAMETER OF THE ABANDONED PIPE.

37. ALL UNDERGROUND PIPING SHALL HAVE AN ELECTRICALLY CONDUCTIVE INSULATED 12 GAUGE COPPER TRACER WIRE THE FULL LENGTH OF THE INSULATED PIPE USING BLUE WIRE FOR WATER PIPING, AND A GREEN WIRE FOR STORM AND SANITARY SEWER. TRACER WIRE SHALL BE EXTENDED UP INTO ALL VALVE BOXES, MANHOLES, AND CATCH BASINS. ALL TRACER WIRE SHALL BE TESTED AT THE EXPENSE OF THE CONTRACTOR PRIOR TO ACCEPTANCE OF THE UTILITY. SUCH TRENCHES SHALL BE CLOSED BEFORE THE END OF EACH WORK DAY AND NORMAL TRAFFIC FLOWS RESTORED.

38. NO TRENCHES IN ROADS OR DRIVEWAYS SHALL BE LEFT IN AN OPEN CONDITION OVERNIGHT.

STORM DRAIN SYSTEM:

39. STORM SEWER PIPE MATERIALS SHALL CONFORM TO THE CONSTRUCTION DRAWINGS AND CITY REQUIREMENTS.

40. STORM DRAIN PIPE SHALL BE AS SHOWN ON THE PLANS.

41. CATCH BASINS AND JUNCTION BOXES SHALL BE SET SQUARE WITH BUILDINGS OR WITH THE EDGE OF THE PARKING LOT OR STREET WHEREIN THEY LIE. STORM DRAIN INLET STRUCTURES AND PAVING SHALL BE ADJUSTED SO WATER FLOWS INTO THE STRUCTURE WITHOUT PONDING WATER.

42. UNLESS OTHERWISE APPROVED BY THE ENGINEER, ALL STORM DRAIN CONNECTIONS SHALL BE BY MANUFACTURED WYES.

43. UNLESS OTHERWISE SHOWN OR DIRECTED, INSTALL STORM SEWER PIPE IN ACCORDANCE WITH MANUFACTURERS INSTALLATION GUIDELINES AND OSPSC.

44. PRIOR TO MANDREL TESTING OR FINAL ACCEPTANCE, FLUSH AND CLEAN ALL STORM DRAINS, AND REMOVE ALL FOREIGN MATERIAL FROM THE MAINLINES, MANHOLES AND CATCH BASINS.

45. CONTRACTOR SHALL CONDUCT DEFLECTION TEST OF FLEXIBLE STORM SEWER PIPELINES BY PULLING APPROVED MANDREL THROUGH THE COMPLETED PIPE LINE FOLLOWING TRENCH COMPACTION. THE DIAMETER OF THE MANDREL SHALL BE 95% OF THE INITIAL PIPE DIAMETER. TEST SHALL BE CONDUCTED NOT MORE THAN 30 DAYS AFTER THE TRENCH BACKFILLING AND COMPACTION HAS BEEN COMPLETED.

46. CONTRACTOR SHALL CONDUCT TV INSPECTION OF ALL STORM DRAIN PIPE AND PROVIDE A COPY OF THE TV REPORT TO THE ENGINEER AND THE CITY FOR REVIEW.

47. CONCRETE AND PIPE PIPE SHALL BE LAID WITH RUBBER RING JOINTS. ALL STORM PIPE JOINTS SHALL BE WATERTIGHT REGARDLESS OF SPECIFIED OR SELECTED MATERIAL.

48. MINIMUM COVER ON STORM LINES IS 36" FROM THE TOP OF THE PIPE TO FINISH GRADE. BACKFILL MUST BE COMPACTED IN UNPAVED, NON-STRUCTURAL FILL AREA IS 90% COMPACTION IS TO BE PER AASHTO T-180. LINES WITH LESS THAN 36" COVER SHALL BE REINFORCED CONCRETE. WHEN INSTALLED IN TRAFFIC AREAS PROVIDE A CONCRETE CAP.

49. THE LOCATIONS AND/OR STATIONING AND THE DEPTH FROM THE INVERT FROM THE TOP OF CURB TO THE INVERT ELEVATION OF ALL STORM DRAIN LATERALS SHALL BE RECORDED BY THE CONTRACTOR AND PROVIDED TO THE ENGINEER.

50. MANDREL TESTING: CONTRACTOR SHALL CONDUCT DEFLECTION TEST OF FLEXIBLE STORM DRAIN PIPES (I.E. HDPE, PIPE, ETC.) BY PULLING AN APPROVED MANDREL THROUGH THE COMPLETED PIPE LINE FOLLOWING TRENCH COMPACTION. THE DIAMETER OF THE MANDREL SHALL BE 95% OF THE INITIAL PIPE DIAMETER, TEST SHALL BE CONDUCTED NOT MORE THAN 30 DAYS AFTER THE TRENCH BACKFILLING AND COMPACTION HAS BEN COMPLETED.

51. CLEANING: PRIOR TO MANDREL TESTING OR FINAL ACCEPTANCE, FLUSH AND CLEAN ALL DRAINS, AND REMOVE ALL FOREIGN MATERIAL FROM THE MAINLINES MANHOLES AND CATCH BASINS.

52. STORM DRAIN PIPE SHALL BE AS SHOWN ON THE PLANS.

53. CONCRETE AND PIPE PIPE SHALL BE LAID WITH RUBBER RING JOINTS. ALL STORM PIPE JOINTS SHALL SE WATERTIGHT REGARDLESS OF SPECIFIED OR SELECTED MATERIAL.

54. MINIMUM COVER ON STORM LINES IS 36" FROM THE TOP OF THE PIPE TO FINISH GRADE. BACKFILL MUST BE COMPACTED TO A DENSITY OF 92% IN IMPROVED OR STRUCTURAL FILL AREAS. MINIMUM COMPACTION IN UNPAVED, NON-STRUCTURAL FILL AREAS IS 90%. COMPACTION IS TO BE PURSUANT TO AASHTO T-180. LINES WITH LESS THAN 36" COVER SHALL BE REINFORCED CONCRETE. WHEN INSTALLED IN TRAFFIC AREAS PROVIDE A CONCRETE CAP.

55. THE LOCATION AND/OR STATIONING AND THE DEPTH FROM THE INVERT FROM THE TOP OF CURB TO THE INVERT ELEVATION OF ALL STORM DRAIN LATERALS SHALL BE RECORDED BY THE CONTRACTOR AND PROVIDED TO THE ENGINEER.

SANITARY SEWER SYSTEM:

56. EXISTING SANITARY SEWER SERVICE LATERALS ARE SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. THE CONTRACTOR SHALL CONDUCT A TV INSPECTION OF ALL EXISTING SANITARY SEWER LINES TO BE REPLACED TO DETERMINE THE ACTUAL LOCATION OF EACH SERVICE LATERAL. TV REPORTS SHALL BE MADE AVAILABLE TO BOTH THE CITY AND THE ENGINEER PRIOR TO ANY CONSTRUCTION ACTIVITY.

57. UNLESS OTHERWISE SHOWN, SANITARY SEWER PIPE SHALL BE PIPE IN CONFORMANCE WITH ASTM D-3034, SDR 35. ALL OTHER APPURTENANCES AND INSTALLATION TO CONFORM TO THE CITY SPECIFICATIONS AND STANDARD DRAWINGS.

58. ALL PRECAST MANHOLES SHALL BE PROVIDE WITH INTEGRAL RUBBER BOOTS. WHERE MANHOLES WITH INTERNAL RUBBER BOOTS ARE NOT USED, A FLEXIBLE JOINT SHALL BE PROVIDED ON ALL MAINLINES WITHIN 1.5 FEET OF THE OUTSIDE FACE OF THE MANHOLE, LOCKDOWN LIDS REQUIRED ON ALL MANHOLES OUTSIDE OF PUBLIC RIGHT-OF-WAY.

59. OPENINGS FOR CONNECTIONS TO EXISTING MANHOLES SHALL BE MODE BY SAW CUTTING OR CORE-DRILLING EXISTING MANHOLE STRUCTURES. USE OF PNEUMATIC JACKHAMMERS SHALL BE PROHIBITED. CONNECTIONS TO BE WATERTIGHT AND SHALL PROVIDE A SMOOTH FLOW INTO THROUGH THE MANHOLE. SMALL CHIPPING HAMMERS OR SIMILAR LIGHT TOOLS WHICH WILL NOT DAMAGE OR CRACK THE MANHOLE BASE MAY BE USED TO SHAPE CHANNELS OR ENLARGE EXISTING OPENINGS IF AUTHORIZED BY CITY ENGINEER.

60. LEAKAGE TESTING: SANITARY SEWER PIPE AND APPURTENANCES SHALL BE TESTED FOR LEAKAGE. LEAKAGE TESTS SHALL INCLUDE AN AIR TEST OF ALL SEWER MAINS AND LATERALS AND VACUUM TESTING OF THE MANHOLES IN ACCORDANCE WITH CITY OF WOODBURN PROCEDURES.

61. CLEANING: PRIOR TO MANDREL TESTING AND/OR TV INSPECTION, FLUSH AND CLEAN ALL SEWER OF ALL FOREIGN MATERIAL FROM THE MAINLINES AND MANHOLES.

62. CONTRACTOR SHALL CONDUCT DEFLECTIONS TEST OF FLEXIBLE SANITARY SEWER PIPES BY PULLING AN APPROVED MANDREL THROUGH THE COMPLETED PIPE LINE FOLLOWING TRENCH COMPACTION. THE DIAMETER OF THE MANDREL SHALL BE 95% OF THE INITIAL PIPE DIAMETER. TEST SHALL BE CONDUCTED NOT MORE THAN 30 DAYS AFTER THE TRENCH BACKFILLING AND COMPACTION HAS BEEN COMPLETED.

63. UPON COMPLETION OF ALL SEWER CONSTRUCTION, TESTING AND REPAIR, THE CONTRACTOR SHALL CONDUCT A COLOR TV ACCEPTANCE INSPECTION OF ALL MAINLINES IN ACCORDANCE WITH APWA 303.3.11. THE TV INSPECTION SHALL BE CONDUCTED BY ON APPROVED TECHNICAL SERVICE WHICH IS EQUIPPED TO MAKE AUDIOVISUAL RECORDINGS OF THE TV INSPECTIONS ON CD. UNLESS OTHERWISE REQUIRED BY AGENCY WITH JURISDICTION, A STANDARD 1" DIAMETER BALL SHALL BE SUSPENDED IN FRONT OF THE CAMERA DURING THE INSPECTION. SUFFICIENT WATER TO REVEAL LOW AREAS OR REVERSE GRADES SHALL BE DISCHARGED INTO THE PIPE IMMEDIATELY PRIOR TO INITIATION OF THE TV INSPECTION. THE CD AND WRITTEN REPORT SHALL BE DELIVERED TO THE CITY. TV REPORT SHALL BE DONE BY AN APPROVED CITY OF WOODBURN PROGRAM. CONTACT CITY OF WOODBURN FOR APPROVED PROGRAM PRIOR TO TV INSPECTION.

64. MINIMUM COVER ON PUBLIC SANITARY SEWER LINES IS 36" FROM THE TOP OF THE PIPE TO FINISH GRADE. BACKFILL MUST BE COMPACTED TO A DENSITY NO LESS THAN 92% IN IMPROVED OR STRUCTURAL FILL AREAS. MINIMUM COMPACTION IN UNPAVED, NON STRUCTURAL FILL AREAS IS 90% COMPACTIONS TO BE AASHTO T-180. MAXIMUM COMPACTION TEST SPACING OVER PUBLIC SANITARY LINES IS 150'.

65. ALL SANITARY SERVICE LATERAL CONNECTIONS AT THE MAIN ARE TO BE TEES UNLESS OTHERWISE NOTED.

66. MAINTAIN MINIMUM 10 FOOT HORIZONTAL CLEAR DISTANCE BETWEEN WATER AND SANITARY SEWER LINES EXCEPT AT CROSSINGS. VERTICAL SEPARATION SHALL BE A MINIMUM OF 18 INCHES CLEAR DISTANCE WHERE WATER LINES CROSS OVER SANITARY SEWER LINES. PIPE C-900 PIPE SHALL BE USED (FOR SEWER) 10 FEET ON EITHER SIDE OF THE CROSSING WHEN THE CLEAR DISTANCE BETWEEN THE WATER LINE AND SANITARY SEWER IN IS LESS THAN 18 INCHES.

67. SANITARY SEWER TV REPORTS SHALL BE RECORDED VIDEO INSPECTION USING THE LATEST VERSION OF NASSCO'S PACP/MACP. FURNISH RECORDINGS ON NASSCO PACP/MACP PROGRAM AND INVENTORY SHEETS ON CD INCLUDING A TEST FILE TO INDICATE THE PROJECT NUMBER AND NAME, DATE OF INSPECTION, PIPE SEGMENT NUMBER, CONTRACTOR'S NAME AND WETHER IT IS A PRE-CONSTRUCTION OR POST-CONSTRUCTION VIDEO, FILENAMES, AND DESCRIPTION OF THE FILE CONTENTS.

STREET LIGHTING:

68. STREET LIGHTING SHALL COMPLY WITH CITY AND PGE REQUIREMENTS UNDER PGE'S OPTION B FOR STREETLIGHT INSTALLATIONS.

WATER SYSTEM:

69. ALL WATER MAINS SHALL BE CLASS 52 DUCTILE IRON PIPE. ALL FITTINGS 4 INCHES THROUGH 24 INCHES IN DIAMETER SHALL BE DUCTILE IRON FITTINGS IN CONFORMANCE WITH AWWA C-153 OR AWWA C-110. THE MINIMUM WORKING PRESSURE FOR ALL MJ CAST IRON OR DUCTILE IRON FITTINGS 4 INCHES THROUGH 24 INCHES IN DIAMETER SHALL BE 350 PSI FOR MJ FITTINGS AND 250 PSI FOR FLANGED FITTINGS.

70. CITY FORCES TO OPERATE ALL VALVES, INCLUDING FIRE HYDRANTS, ON EXISTING PUBLIC MAINS.

71. UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER, ALL VALVES SHALL BE FLANGE CONNECTED TO ADJACENT TEES OR CROSSES.

72. WATER SERVICE PIPE ON THE PUBLIC SIDE OF THE METER SHALL BE TYPE K SOFT COPPER TUBING CONFORMING TO ASTM B-88.

73. DOMESTIC AND FIRE BACKFLOW PREVENTION DEVICES AND VAULTS SHALL CONFORM TO REQUIREMENTS OF PUBLIC AND/OR PRIVATE AGENCIES HAVING JURISDICTION.

74. CONTRACTOR SHALL INSTALL TEMPORARY PLUG AND BLOWOFF AS REQUIRED AT THE END OF WATERLINE OR OTHER LOCATIONS FOR FLUSHING, TESTING, AND CHLORINATION AS NEEDED.

75. THE WORK SHALL BE PERFORMED IN A MANNER DESIGNATED TO MAINTAIN WATER SERVICE TO BUILDINGS SUPPLIED FROM THE EXISTING WATERLINES. IN NO CASE SHALL SERVICE TO ANY MAIN LINE OR BUILDING BE INTERRUPTED FOR MORE THAN FOUR (4) HOURS IN ANYONE DAY. CONTRACTOR SHALL NOTIFY THE CITY AND ALL AFFECTED RESIDENTS AND BUSINESSES A MINIMUM OF 24 BUSINESS HOURS (ONE (1) BUSINESS DAY) PRIOR TO ANY INTERRUPTIONS OF SERVICE.

76. SANITARY SEWER LATERAL CROSSINGS, WHERE SANITARY SEWER LINES CROSS ABOVE OR WITH 18-INCHES VERTICAL SEPARATION BELOW A WATERLINE, SEWER MAINS AND/OR LATERAL SHALL BE REPLACED WITH C-900 PIPE (DR 18) PIPE AT THE CROSSING. CENTER ONE FULL LENGTH (20') OF PIPE PIPE CONFORMING TO AWWA C-900 (DR 18) AT THE CROSSING. CONNECT TO THE EXISTING SEWER LINES WITH APPROVED RUBBER COUPLINGS.

77. ALL WATER LINE PIPE SHALL HAVE A MINIMUM OF 36 INCHES OF COVER TO FINISH GRADE. BACKFILL MUST BE COMPACTED TO A DENSITY OF 92% IN IMPROVED OR STRUCTURAL FILL AREAS. MINIMUM COMPACTION IN UNPAVED NON-STRUCTURAL FILL AREAS IS 90% COMPACTED IS TO BE PER AASHTO T-180.

78. ALL TEES, BENDS AND ENDS OF WATER LINES SHALL BE RETRAINED WITH MECHANICAL JOINTS, (MEGALUG SERIES 1100), OR APPROVED EQUAL. USE FIELD LOCK GASKETS IN ALL PUSH-ON PIPE JOINTS.

79. ALL WATER LINES SHALL BE THOROUGHLY FLUSHED AND CHLORINATED. POTABLE WATER TEST SHALL BE APPROVED BY THE OREGON STATE HEALTH DEPARTMENT AND CITY OF WOODBURN PRIOR TO ANY METERED SERVICE HOOKUP. CONTRACTOR SHALL INSTALL TEMPORARY PLUG AND BLOWOFF AS REQUIRED AT THE END OF WATERLINE FOR FLUSHING, TESTING AND CHLORINATION. WATER LINE DISINFECTION SHALL CONFORM TO AWWA C-601 AND CITY OF WOODBURN REQUIREMENTS.

80. PROVIDE TRACE WIRE FOR ALL MAINS. ALL WATER MAINS SHALL BE RESTRAINED MECHANICAL JOINTS, FIELD-LOCK GASKET AND THRUST BLOCKS AS SPECIFIED. ALL FITTINGS SHALL BE RESTRAINED.

PRIVATE UTILITIES:

81. UNLESS OTHERWISE SHOWN ON THE DRAWINGS OR APPROVED BY JURISDICTION HAVING AUTHORITY, ALL NEW PRIVATE UTILITIES (POWER, CABLE TV, TELEPHONE AND GAS) SHALL BE INSTALLED UNDERGROUND. INSTALLATION OF PRIVATE UTILITIES IN A COMMON TRENCH WITH WATER, SANITARY SEWER OR STORM SEWER IS PROHIBITED.

82. CONTRACTOR SHALL NOTIFY AND COORDINATE WITH PRIVATE UTILITIES FOR RELOCATION OF POWER POLES, VAULTS, AND ALL OTHER WORK REQUIRED TO COMPLETE THE PROJECT.

EROSION CONTROL:

83. HOLD A PRE-CONSTRUCTION MEETING THAT INCLUDES THE INSPECTOR TO DISCUSS EROSION AND SEDIMENT CONTROL MEASURES AND CONSTRUCTION LIMITS.

84. THE ESC PLAN MUST BE KEPT ONSITE AT ALL TIMES WHEN WORK IS OCCURRING.

85. THE ESC MEASURES SHOWN ON THIS PLAN ARE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THE MEASURES MUST BE UPGRADED AS NEEDED TO COMPLY WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL EROSION AND SEDIMENT CONTROL REGULATIONS.

86. THE FOLLOWING CONSTRUCTION SEQUENCE SHALL BE FOLLOWED IN ORDER TO BEST MINIMIZE THE POTENTIAL FOR EROSION AND SEDIMENTATION CONTROL PROBLEMS:
    - FENCE OR FLAG AREAS TO BE PROTECTED OR LEFT UNDISTURBED DURING CONSTRUCTION
    - INSTALL GRAVELED OR PAVED CONSTRUCTION ENTRANCES, EXITS, AND PARKING AREAS TO REDUCE THE TRACKING OF SEDIMENT ONTO PUBLIC OR PRIVATE ROADS;
    - CLEAR AND GRUB SUFFICIENTLY FOR INSTALLATION OF TEMPORARY ESC BMPS;
    - INSTALL TEMPORARY ESC BMPS, CONSTRUCTING SEDIMENT TRAPPING BMPS AS ONE OF THE FIRST STEPS PRIOR TO GRADING;
    - CLEAR, GRUB AND ROUGH GRADE FOR ROADS AND UTILITY LOCATIONS;
    - CLEAR, GRUB AND GRADE INDIVIDUAL LOTS OR GROUPS OF LOTS;
    - TEMPORARILY STABILIZE, THROUGH RE-VEGETATION OR OTHER APPROPRIATE BMPS, LOTS OR GROUPS OF LOTS IN SITUATIONS WHERE SUBSTANTIAL CUT OR FILL SLOPES ARE A RESULT OF THE SITE GRADING;
    - CONSTRUCT ROADS, BUILDINGS, PERMANENT STORM WATER FACILITIES (I.E. INLETS, PONDS, UIC FACILITIES, ETC.);
    - PROTECT ALL PERMANENT STORM WATER FACILITIES UTILIZING THE APPROPRIATE BMPS;

79. REMOVE TEMPORARY ESC CONTROLS WHEN PERMANENT STORM WATER FACILITIES HAVE BEEN INSTALLED, ALL LAND-DISTURBING ACTIVITIES HAVE CEASED, AND VEGETATION HAS BEEN ESTABLISHED IN THE AREAS NOTED ON THE ACCEPTED ESC PLAN.

80. RETAIN THE DUFF LAYER, NATIVE TOPSOIL, AND NATURAL VEGETATION IN AN UNDISTURBED STATE TO THE MAXIMUM EXTENT AND DURATION PRACTICAL.

81. INSPECT ALL ROADWAYS ADJACENT TO THE CONSTRUCTION ACCESS ROUTE AT THE END OF EACH DAY. SIGNIFICANT AMOUNTS OF SEDIMENT THAT LEAVES THE CONSTRUCTION SITE MUST BE CLEANED UP WITHIN 24 HOURS AND STABILIZED BACK ON THE SITE OR PROPERLY DISPOSED. THE CAUSE OF SEDIMENT RELEASE MUST BE IDENTIFIED AND PREVENTED FROM CAUSING A RECURRENCE OF THE DISCHARGE WITHIN THE SAME 24 HOURS. VACUUMING OR DRY SWEEPING MUST BE USED TO CLEAN UP RELEASED SEDIMENT AND SEDIMENT MUST NOT BE INTENTIONALLY WASHED INTO STORM SEWERS, DRAINAGE WAYS, OR WATER BODIES.

82. COVER AND SECURE ALL DUMP TRUCK LOADS LEAVING THE CONSTRUCTION SITE TO MINIMIZE SPILLAGE ON ROADS.

83. RESTORE CONSTRUCTION ACCESS ROUTE EQUAL TO OR BETTER THAN THE PRE-CONSTRUCTION CONDITION.

84. CONTROL FUGITIVE DUST FROM CONSTRUCTION ACTIVITY.

85. STABILIZE EXPOSED UNWORKED SOILS (INCLUDING STOCKPILES), WHETHER AT FINAL GRADE OR NOT, WITHIN 10 CALENDAR DAYS DURING THE REGIONAL DRY SEASON (JULY 1 THROUGH SEPTEMBER 30) AND WITHIN 5 CALENDAR DAYS DURING THE REGIONAL WET SEASON (OCTOBER 1 THROUGH JUNE 30).

86. PROTECT INLETS, DRY WELLS, CATCH BASINS AND OTHER STORM WATER MANAGEMENT FACILITIES FROM SEDIMENT, WHETHER OR NOT FACILITIES ARE OPERABLE.

87. KEEP ROADS ADJACENT TO INLETS CLEAN.

88. INSPECT INLETS WEEKLY AT A MINIMUM AND DAILY DURING STORM EVENTS. CLEAN OR REMOVE AND REPLACE INLET PROTECTION DEVICES BEFORE SIX INCHES OF SEDIMENT CAN ACCUMULATE.

89. INSTALL SEDIMENT CONTROLS ALONG THE SITE PERIMETER ON ALL DOWN GRADIENT SIDES OF THE CONSTRUCTION SITE BEFORE COMMENCING EARTH DISTURBING ACTIVITIES.

90. WHENEVER POSSIBLE, CONSTRUCT STORM WATER CONTROL FACILITIES (DETENTION/RETENTION STORAGE POND OR SWALES) BEFORE GRADING BEGINS. THESE FACILITIES SHOULD BE OPERATIONAL BEFORE THE CONSTRUCTION OF IMPERVIOUS SITE IMPROVEMENTS.

91. STOCKPILE MATERIALS (SUCH AS TOPSOIL) ONSITE, KEEPING OFF OF ROADWAY AND SIDEWALKS.

92. COVER, CONTAIN AND PROTECT ALL CHEMICALS, LIQUID PRODUCTS, PETROLEUM PRODUCT, AND NON-INERT WASTES PRESENT ONSITE FROM VANDALISM. MAINTAIN A SUPPLY OF MATERIALS ON HAND TO ADDRESS AND CONTAIN SPILLS.

93. LOCATE DESIGNATED VEHICLE AND EQUIPMENT SERVICE AREAS, FUEL, AND MATERIALS AWAY FROM DRAINAGE INLETS, WATERCOURSES, AND CANALS. PROPERLY CONTAIN AREAS USING BERMS, SANDBAGS, OR OTHER BARRIERS. REGULARLY INSPECT AND MAINTAIN EQUIPMENT, ESPECIALLY FOR DAMAGED HOSES AND LEAKY GASKETS.

94. CONDUCT MAINTENANCE AND REPAIR OF HEAVY EQUIPMENT AND VEHICLES (I.E. OIL CHANGES, FUEL TANK DRAIN DOWN, ETC) THAT MAY RESULT IN DISCHARGE OR SPILLAGE OF POLLUTANTS USING SPILL PREVENTION MEASURES, SUCH AS DRIP PANS. CLEAN ALL CONTAMINATED SURFACES IMMEDIATELY FOLLOWING ANY DISCHARGE OR SPILL INCIDENT. PERFORM REPAIRS ONSITE USING TEMPORARY PLASTIC OR OIL ABSORBING BLANKETS BENEATH THE VEHICLE.

95. DESIGNATE AN AREA FOR CLEANING PAINTING EQUIPMENT AND TOOLS. NEVER CLEAN BRUSHES OR RINSE CONTAINERS INTO THE STREET, GUTTER, DRAINAGE INLET, OR WATERWAY.

96. APPLY LANDSCAPING OR AGRICULTURAL CHEMICALS, INCLUDING FERTILIZERS AND PESTICIDES, IN SUCH A MANNER, AND AT APPLICATION RATES, THAT INHIBITS THE LOSS OF CHEMICALS INTO STORM WATER RUNOFF FACILITIES.

97. INSPECT ON A REGULAR BASIS (AT A MINIMUM WEEKLY, AND DAILY DURING/AFTER A RUNOFF PRODUCING STORM EVENT) AND MAINTAIN ALL EROSION AND SEDIMENT CONTROL BMPS TO ENSURE SUCCESSFUL PERFORMANCE OF THE BMPS.

98. REMOVE TEMPORARY ESC BMPS WITHIN 30 DAYS AFTER THE TEMPORARY BMPS ARE NO LONGER NEEDED. PERMANENTLY STABILIZE AREAS THAT ARE DISTURBED DURING THE REMOVAL PROCESS.

GENERAL NOTES: CITY OF WOODBURN

99. CONSTRUCTION OF ALL CITY-MAINTAINED WATERLINE FACILITIES INSTALLED BY THE APPLICANT'S CONTRACTOR SHALL COMPLY WITH CITY OF WOODBURN CURRENT STANDARD DETAILS AND TECHNICAL SPECIFICATIONS, INCLUDING TESTING AND DISINFECTION PROCEDURES. CONSTRUCTION OF THE WATERLINE FACILITIES SHALL ALSO COMPLY WITH THE PUBLIC WORKS APPROVED CONSTRUCTION PLANS.

100. THE SANITARY SEWER TV REPORTS SHALL BE RECORDED VIDEO INSPECTION USING THE LATEST VERSION OF NASSCO'S PACP/MACP. FURNISH RECORDING ON NASSCO PACP/MACP PROGRAM AND INVENTORY SHEETS ON CD INCLUDING A TEST FILE TO INDICATE THE PROJECT NUMBER AND NAME, DATE OF INSPECTION, PIPE SEGMENT NUMBER, CONTRACTOR'S NAME AND WHETHER IT IS A PRE-CONSTRUCTION OR POST-CONSTRUCTION VIDEO, FILENAMES, AND DESCRIPTION OF THE FILE CONTENTS.

101. ADA RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE TO CURRENT ADA REQUIREMENTS AND CURRENT CITY OF WOODBURN REQUIREMENTS AT THE TIME OF CONSTRUCTION.

102. WHERE EXCAVATION INCLUDES THE REMOVAL OF PCC CURB, AND OR SIDEWALKS, SAW CUT LINES SHALL BE PLACED IN THE NEXT CLOSEST JOINT.

103. THE ENGINEER OF RECORD TEAM PROVIDE CONSTRUCTION INSPECTIONS AND COORDINATE CONSTRUCTION SCHEDULES WITH THE CITY'S ENGINEERING DIVISION SUCH THAT THE CITY'S INSPECTOR CAN BE PRESENT FOR OBSERVATIONS THAT REQUIRES THE CITY'S PRESENCE. DURING CONSTRUCTION, THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD FOR QUESTIONS RELATED AND POSSIBLE MODIFICATIONS TO THE APPROVED PLANS AND PROJECT LIMITS TO COMPLY WITH ADA REQUIREMENTS. THE ENGINEER OF RECORD SHALL SUBMIT PLAN MODIFICATIONS DURING CONSTRUCTION TO THE CITY FOR APPROVAL PRIOR TO START WORK.

104. UTILITY VAULTS, BOXES, POLES, AND PEDESTALS ARE NOT ALLOWED IN RAMPS AND SIDEWALKS. ADJUSTMENTS TO THE LOCATION OF UTILITIES MAY BE NECESSARY TO ENSURE THAT NONE OF THESE ARE IN THE CONSTRUCTED WALKS AND RAMPS AND COORDINATION WITH THE UTILITY PROVIDER IS REQUIRED.

105. ALL INSPECTION AND PLAN CHANGES SHALL BE PERFORMED BY THE ENGINEER OF RECORD AND SUBMITTED TO THE CITY PRIOR TO THE PROJECT'S FINAL APPROVAL.

106. THE OWNER/CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING PROPERTY OWNERS ADJACENT TO WORK BEING PERFORMED PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES. THIS CONDITION APPLIES TO BOTH ON-SITE AND OFF-SITE IMPROVEMENTS.

107. THE CONTRACTOR SHALL CONSULT WITH A CERTIFIED ARBORIST FOR GUIDELINES ON THE PRESERVATION AND PROTECTION OF TREES ADJACENT TO CONSTRUCTION ACTIVITIES. AN ARBORIST REPORT SHALL BE PROVIDED TO THE CITY FOR EVALUATION PRIOR TO, OR DURING, CONSTRUCTION IF COMPLICATIONS ARISE.

PRIVATE STREET
NOT TO SCALE
(1) 3" LIFT HMAC
OVER
9" BASE COURSE (3/4" - 0)
OVER
SUITABLE COMPACTED SUBGRADE

PRELIMINARY
55020
JANUARY 12, 1999
GREG J. ZARTMAN
EXPIRES 6-30-2023

NO.	DATE	REVISION	BY	APVD

O'NEIL ROAD SUBDIVISION

PREPARED FOR:
CRAIG WIGGINTON

LEI ENGINEERING & SURVEYING OF OREGON

2564 19TH STREET SE
Salem, Oregon 97302
(503) 399-3828
www.leiengineering.com

GENERAL
NOTES

SCALE
NO SCALE
PROJECT NO.
14-76
SHEET
02 OF 06

GN-1

THE APPROVER | APPROVED
THE CHECKER | CHECKED
THE DRAWER | DRAWN
THE DESIGNER | DESIGN
GN-1 | LAYOUT

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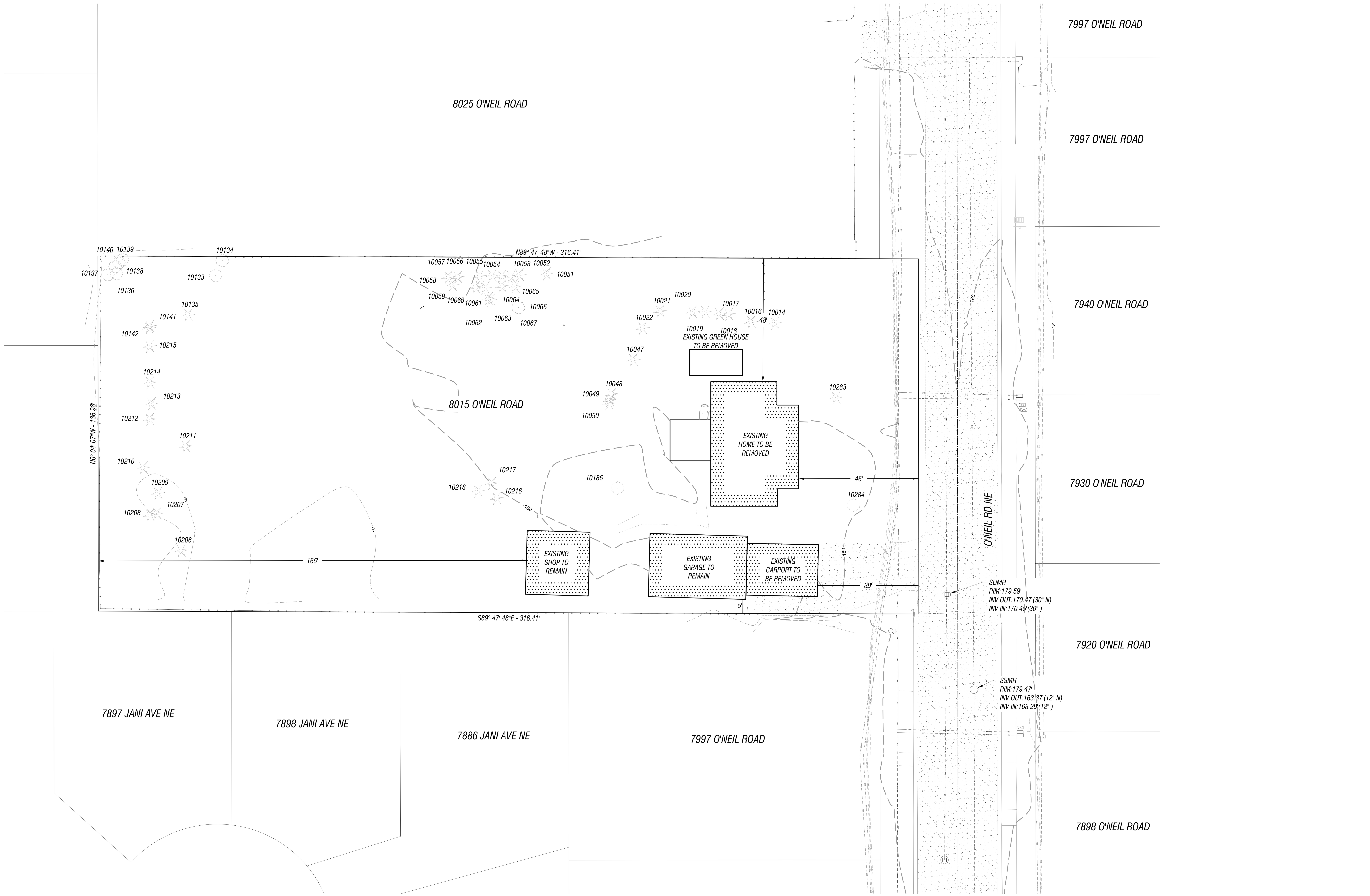

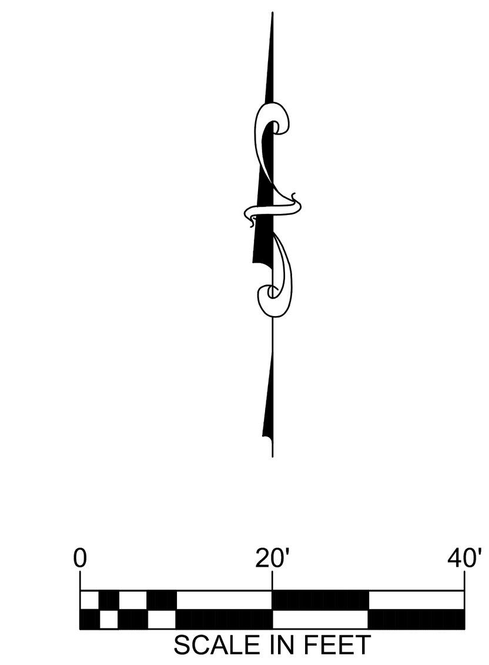

REGISTERED PROFESSIONAL ENGINEER
OREGON
GREG J. ZARTMAN
PRELIMINARY
EXPIRES 6-30-2023

NO.	DATE	REVISION	BY	APV'D

O'NEIL ROAD SUBDIVISION

PREPARED FOR:
CRAIG WIGGINTON

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Salem, Oregon 97302
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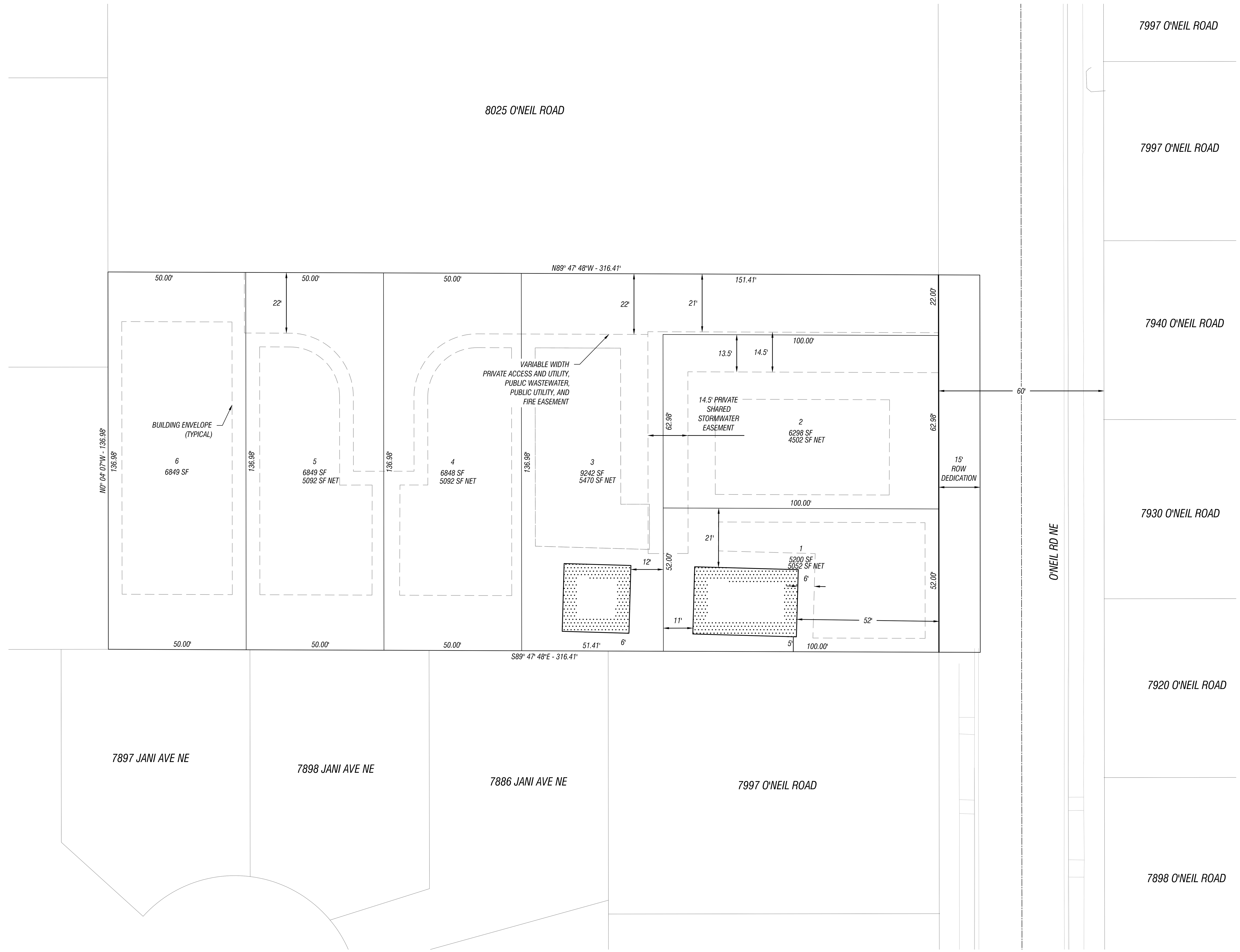
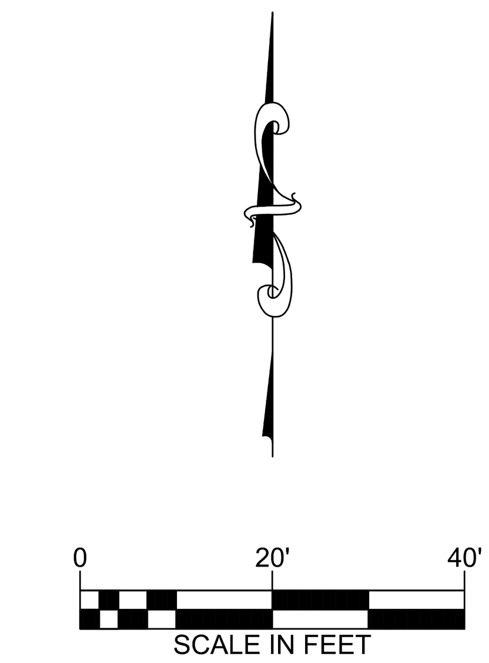
EXISTING CONDITIONS & DEMOLITION PLAN

SCALE 1" = 20'
PROJECT NO. 14-76
SHEET 03 OF 05
EX-1





REGISTERED PROFESSIONAL ENGINEER
OREGON
GREG J. ZARTMAN
PRELIMINARY
EXPIRES 6-30-2023

NO.	DATE	REVISION	BY	APVD

O'NEIL ROAD SUBDIVISION

PREPARED FOR:
CRAIG WIGGINTON

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2564 19TH STREET SE
Salem, Oregon 97302
(503) 399-3828
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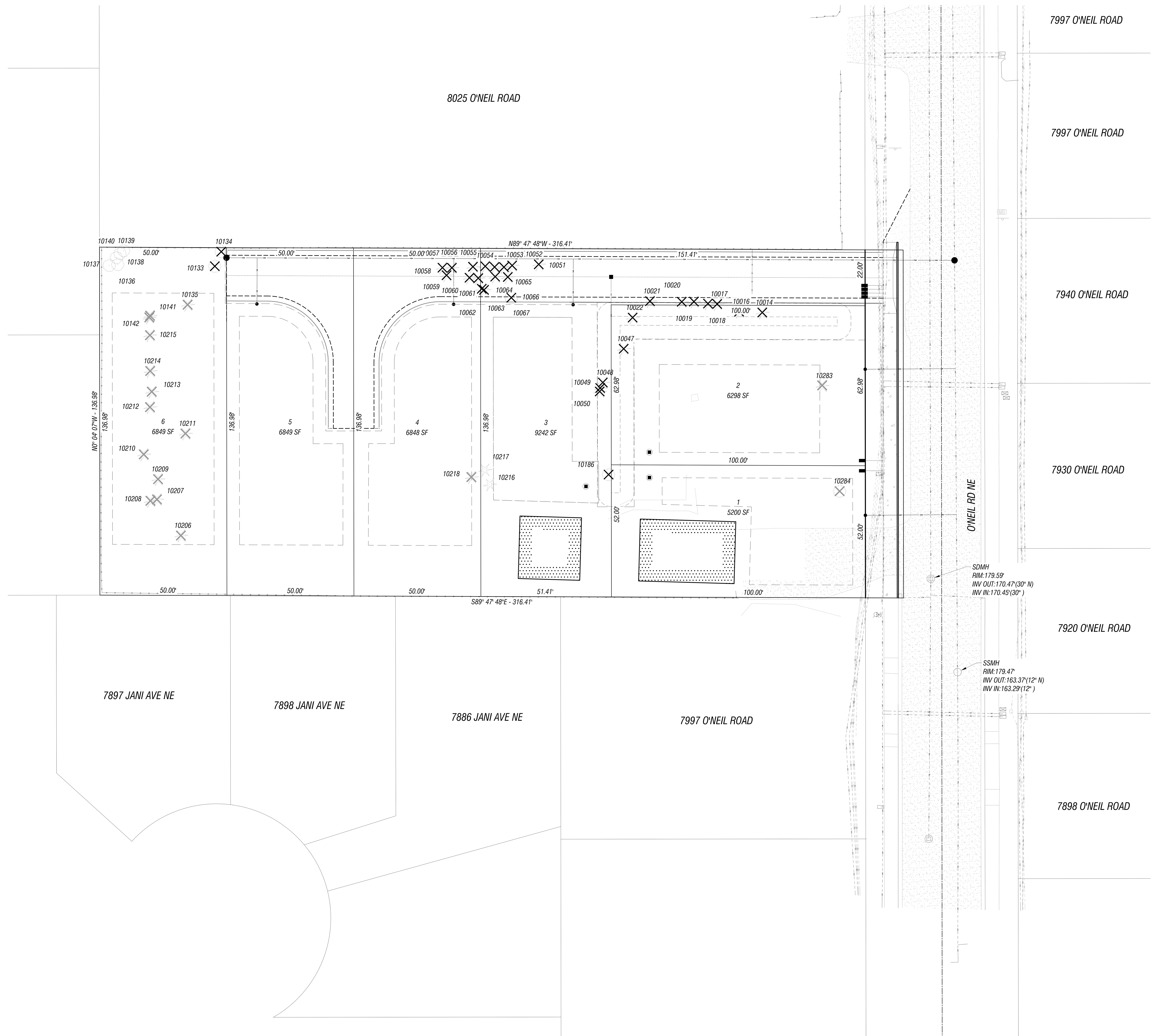
DIMENSIONED SUBDIVISION PLAN

SCALE 1" = 20'
PROJECT NO. 14-76
SHEET 04 OF 06
DS-1



TREE NUMBER	SPECIES	DBH	HEALTH	*SIGNIFICANT	REMOVE
10014	DF	35		X	X
10015	DF	25.5		X	
10016	DF	25.5		X	X
10017	DF	18		X	X
10018	DF	16		X	X
10019	DF	38		X	X
10020	DF	21		X	X
10021	DF	30		X	X
10022	DF	32		X	X
10047	DF	38.5		X	
10048	RC	8.5			X
10049	RC	6.5			X
10050	RC	6.5			X
10051	PP	13		X	X
10052	DF	10			X
10053	DF	7			X
10054	DF	8.5			X
10055	DF	15		X	X
10056	DF	8			X
10057	DF	6	DEAD		X
10058	DF	10	DEAD		X
10059	DF	8	DEAD		X
10060	DF	7	DEAD		X
10061	DF	8	DEAD		X
10062	DF	10	DEAD		X
10063	DF	10			X
10064	DF	10			X
10065	DF	9			X
10066	DF	10			X
10067	PB	10			X
10133	CH	18		X	X
10134	AL	14		X	X
10135	RC	20		X	X
10136	AL	16		X	
10137	AL	14		X	
10138	AL	20		X	
10139	AL	8			
10140	AL	6			
10141	PP	7			X
10142	PP	9			X
10186	RO	40		X	X
10206	RC	23		X	X
10207	DF	16		X	X
10208	DF	30		X	X
10209	DF	20		X	X
10210	DF	18		X	X
10211	DF	15		X	X
10212	PP	15		X	X
10213	DF	16		X	X
10214	PP	14		X	X
10215	PP	8			X
10216	PP	11			
10217	PP	13		X	
10218	PP	14		X	X
10283	DF	17		X	X
10284	WO	20		X	X

*SIGNIFICANT TREE IS DEFINED IN THE CITY OF KEIZER DEVELOPMENT CODE, SECTION 2.309, AS "TREES HAVING A HEIGHT OF MORE THAN FIFTY (50) FEET AND/OR HAVING A TRUNK WHOSE DIAMETER IS MORE THAN TWELVE (12) INCHES DIAMETER AT BREAST HEIGHT (DBH) (5 FEET ABOVE GROUND LEVEL).

TREE SPECIES ABBREVIATIONS
AL - ALDER
CH - CHERRY
DF - DOUGLAS-FIR
PB - PAPER BIRCH
PP - PONDEROSA PINE
RC - RED CEDAR
RO - RED OAK
WH - WESTERN HEMLOCK
WO - WHITE OAK

X TREE MARKED FOR REMOVAL FOR ACCESS IMPROVEMENTS
X TREE MARKED FOR REMOVAL FOR BUILDING IMPROVEMENTS

0 20' 40'
SCALE IN FEET

PRELIMINARY
EXPIRES 6-30-2023

NO. | DATE | REVISION | BY | APVD

O'NEIL ROAD SUBDIVISION

PREPARED FOR:
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TREE INVENTORY PLAN

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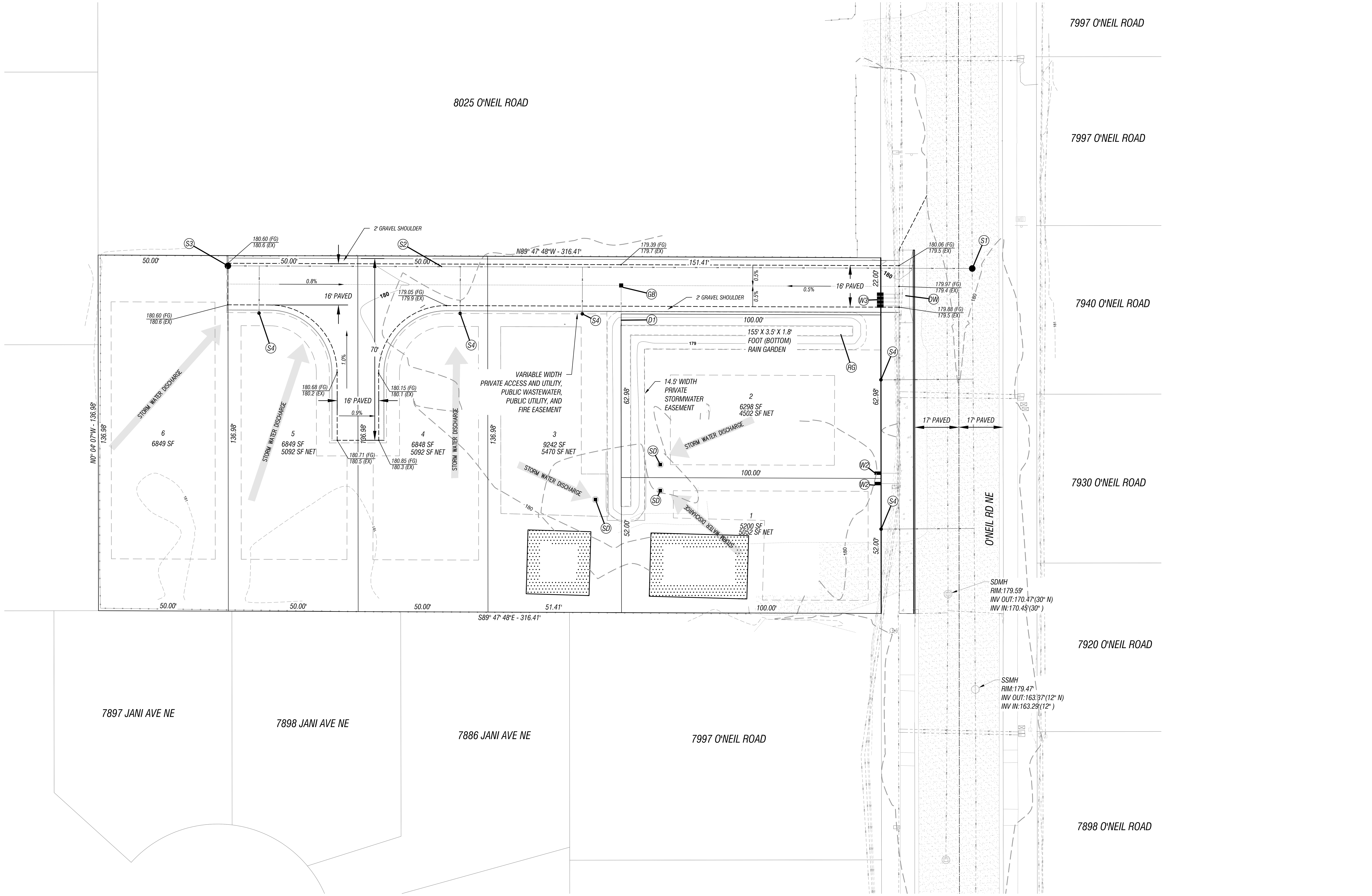
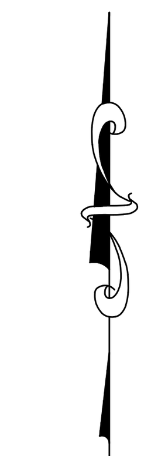
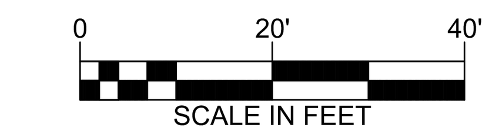
PROJECT NO. 14-76
SHEET 03 OF 04
TI-1







EXPIRES 6-30-2023

CONSTRUCTION NOTES:

GENERAL NOTES:

(S1) CONTRACTOR SHALL INSTALL 48" CAST IN PLACE MANHOLE ONTO EXISTING WASTEWATER MAIN WITH TWO FOOT INSIDE DROP. INVERT AT MAIN 165.71'.

(S2) CONTRACTOR SHALL INSTALL PUBLIC 6" 3034 PIPE SDR-35 PIPE AT 3.5%, AS SHOWN, AND SHALL HAVE BACKFILL AND BED IN ACCORDANCE WITH CITY OF SALEM STANDARDS.

(S3) CONTRACTOR SHALL INSTALL 24" MANHOLE PURUSANT TO CITY OF SALEM STANDARDS.

(S4) CONTRACTOR SHALL INSTALL 4" WASTEWATER SERVICE LATERALS PURSUANT TO CITY OF SALEM STANDARDS.

(GB) CONTRACTOR SHALL INSTALL STD GIBSON CATCH BASIN PURSUANT TO CITY OF SALEM STANDARDS.

(D1) CONTRACTOR SHALL INSTALL 12" DUCTILE IRON PIPE PURSUANT TO CITY OF SALEM STANDARDS.

(W1) CONTRACTOR SHALL INSTALL PUBLIC 8" DUCTILE IRON WATER LINE PURSUANT TO CITY OF SALEM STANDARDS.

(W2) CONTRACTOR SHALL INSTALL 3/4" SERVICE WATER SERVICE LINES AND WATER METERS PURSUANT TO CITY OF SALEM STANDARDS.

(W3) CONTRACTOR SHALL INSTALL (4) BANKED 3/4" WATER SERVICE LINES AND WATER METERS PURSUANT TO CITY OF KEIZER STANDARDS.

(CG) CONTRACTOR SHALL INSTALL STANDARD CURB AND GUTTER PURSUANT TO CITY OF SALEM STANDARDS.

(SW) CONTRACTOR SHALL INSTALL 5.5' STANDARD SIDEWALK PURSUANT TO CITY OF SALEM STANDARDS.

(PA1) CONTRACTOR SHALL SAWCUT 1' FROM EXISTING ASPHALT AND MATCH TYPICAL PAVING SECTION AND PAVE UP TO PROPOSED GUTTER PAN MAINTAINING EXISTING CROSS SLOPE, PURSUANT TO CITY OF SALEM STANDARDS.

(DW) CONTRACTOR SHALL INSTALL STANDARD 16' WIDE DRIVEWAY DROP PURSUANT TO CITY OF SALEM STANDARDS.

(AR) CONTRACTOR SHALL PAVE ASPHALT RAMP FROM END OF SIDEWALK TO EXISTING PAVEMENT EDGE. BLEND TO PROMOTE POSITIVE DRAINAGE TOWARDS SOUTHERLY GUTTER PAN.

(SD) CONTRACTOR SHALL CONSTRUCT 28" X 10' DRY WELL PURSUANT TO CITY OF SALEM STANDARDS.

(RG) CONTRACTOR SHALL CONSTRUCT 128' X 3' X 2' (BOTTOM) RAIN GARDEN PURSUANT TO CITY OF SALEM STANDARDS.

O'NEIL ROAD SUBDIVISION

PREPARED FOR: CRAIG WIGGINTON

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GRADING/ DRAINAGE, PAVING AND UTILITY PLAN

SCALE 1" = 20'
PROJECT NO. 14-76
SHEET 06 OF 06
GR-1

8015 O'NEIL ROAD SUBDIVISION

Preliminary Stormwater Analysis

April 15, 2022

Submitted To:
Mr. Craig Wigginton
8015 O'Neil Road NE
Keizer, Oregon 97303

Developer:
Mr. Craig Wigginton
8015 O'Neil Road NE
Keizer, Oregon 97303

Prepared by:
LEI Engineering & Surveying of Oregon, LLC
2564 19th Street SE
Salem, Oregon 97302

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Appendices

1 Introduction

This Preliminary Stormwater Analysis and Report was developed to access the feasibility of treating stormwater runoff for a proposed 6-lot residential subdivision following the City of Keizer Stormwater Drainage Design Standards (Stormwater Standards). The proposed development is located at 8015 O'Neil Road, Keizer, Oregon. This analysis and report are not meant to provide final design computations and inputs for development of construction plans for this development, but to assess the feasibility of proposed stormwater treatment facilities for planning approval and then to advance this project to Civil Engineering Design.

2 Project Overview

The proposed O'Neil Road 6-lot subdivision is located at 8015 O'Neil Road, near the intersections O'Neil Road NE and Clear Lake Road NE. See Figure 1 below. This development is an infill development following the previous infill development pattern to the southern, west, and east. Stormwater runoff from this development will be treated entirely onsite using infiltration facilities designed following the Stormwater Standards.

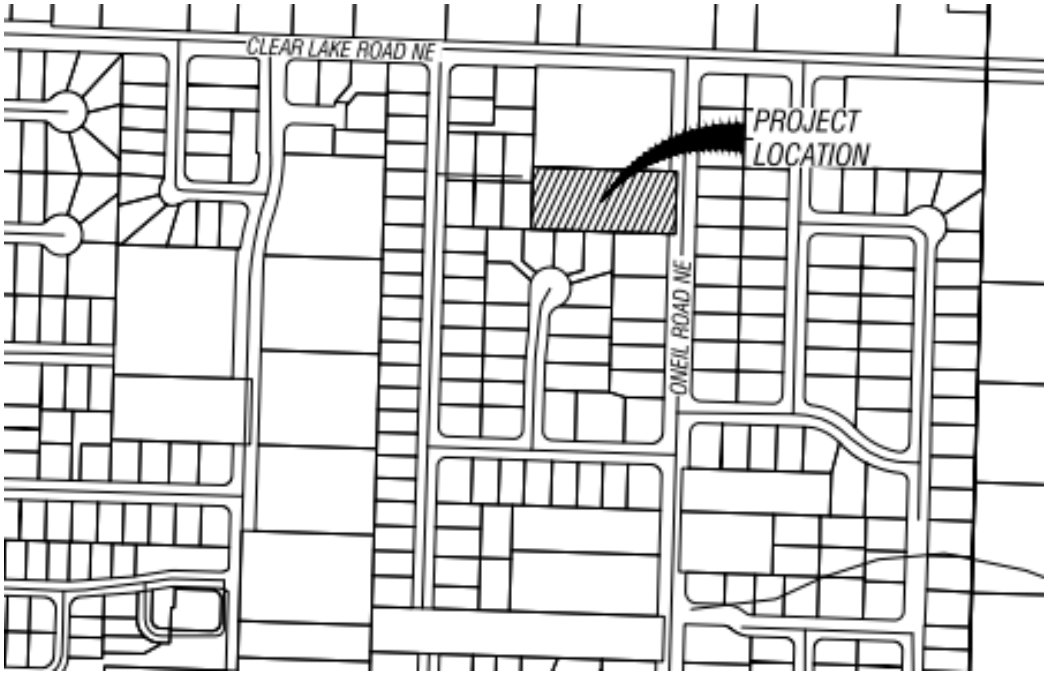

Figure 1: Vicinity Map O'Neil Subdivision

3 Existing Condition

The existing condition consists of a 1-acre single-family residence parcel with a manufactured home and four outbuildings. Most of the parcel is undeveloped grassy areas and gardens. Stormwater runoff from this parcel is currently flowing roughly north and east. See Figure 2 below. There are negligible flows from adjacent parcels onto this one.

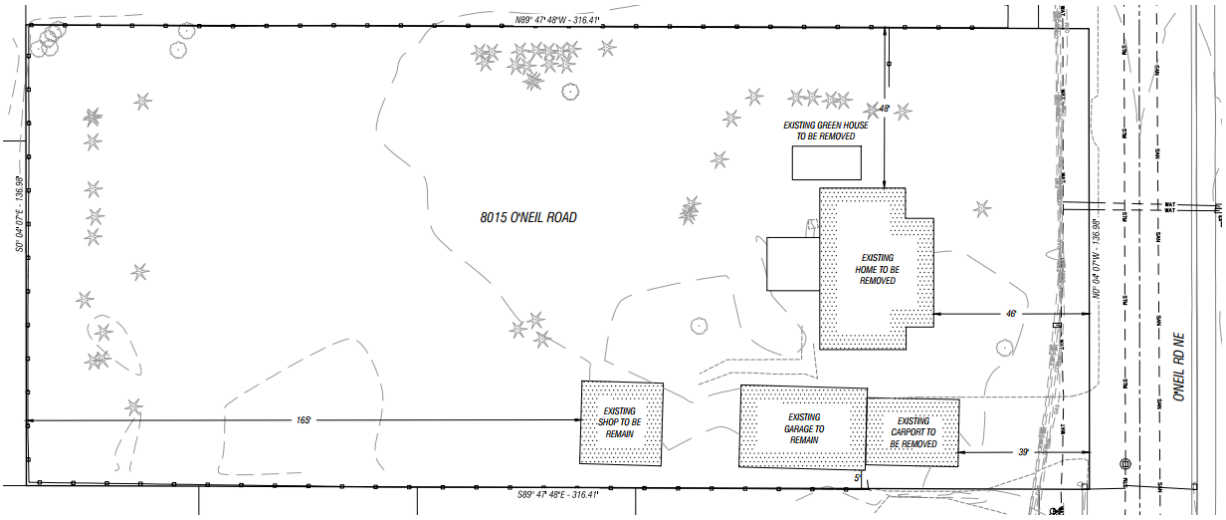

Figure 2: Existing Condition

4 Hydrologic and Hydraulic Analysis

The SRC TR-20 method was used for stormwater modeling using the HydroCAD software application with rainfall data taken the NOAA Atlas 2, Precipitation-Frequency Atlas of the Western United States. Rainfall data by return frequency interval used in the modeling is shown in Table 1 below.

Table 1: NOAA Rainfall Data by Return Frequency

Return Frequency	Rainfall Depth (in)
5-Year	2.70
100-Year	4.40

For stormwater runoff that is planned to be treated with a drywell, the City of Portland Bureau of Environmental Services (Portland BES) Simplified Approach was used.

5 Proposed Development

As stated above, the proposed development is an infill 6-lot subdivision of a 1-acre parcel. The subdivision will result in the building of 6 single-family residences, driveways, a private drive, and a mix of private and public utilities.

After consultation with the City Engineer, it was established that this development is in a Critical Drainage Basin. The Stormwater Standards state that developments in a Critical Drainage Basin include stormwater facilities sized and designed to treat (infiltrate) the 100-year recurrence design storm. To meet this requirement of the Stormwater Standards, a mix of drywells to treat roof drain runoff and a shared rain garden / combination swale (Shared Facility) to treat runoff from other impervious surfaces in the development is being proposed. (See Figure 3 below).

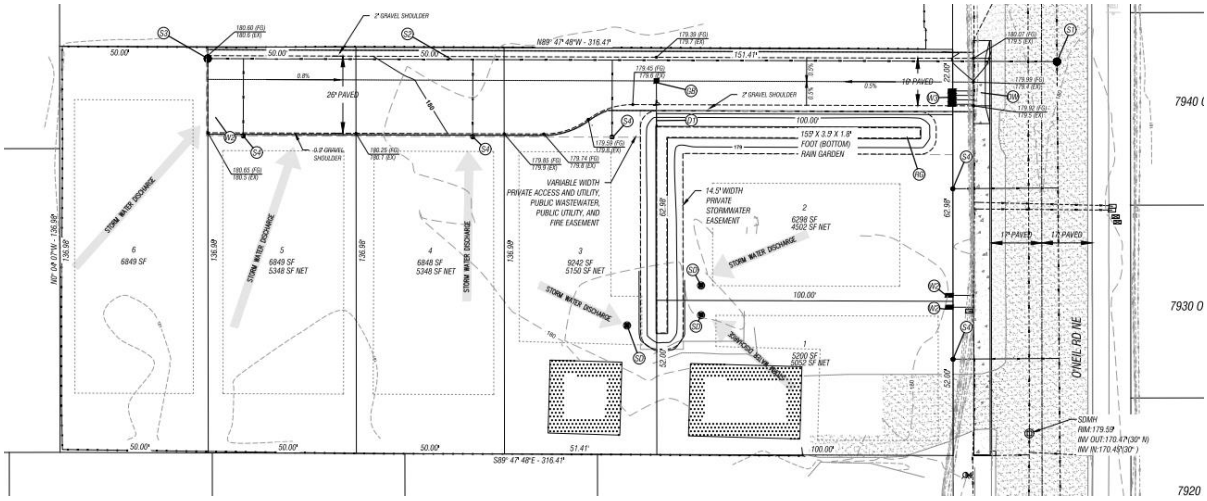

Figure 3: O'Neil Proposed Development

A Soil Infiltration Report was generated for this site, sampling infiltration rates in all six lots of the proposed subdivision. This report is included in Appendix B of this report. It should be noted that this report shows that lots 1-3 provide fair to poor infiltration and lots 4-6 provide poor to no infiltration. As such, the proposed infiltration facilities will be concentrated in lots 1-3.

5.1 Stormwater Treatment For Lots 1-3

Stormwater runoff for lots 1-3 will be treated in two ways. First, runoff from the single-family house roof drains will be treated with individual drywells placed near the houses for each of these lots. The City of Portland BES Simplified Approach Forms were used to compute drywell size for these three lots. These forms are included in Appendix C. The results of these computations show that drywells 28" diameter and 10' depth are required to treat roof drain runoff.

Second, stormwater runoff from the driveways for these lots will be routed to the Shared Facility for treatment. See Appendix D for HydroCAD computations for treatment of this stormwater runoff and the following section of this report for a more detailed discussion of the configuration of the Shared Facility.

5.2 Stormwater Treatment for Lots 4-6, the Private Drive, and Driveways

As shown in the attached Soil Infiltration Report, Lots 4-6 provide poor to no soil infiltration. Therefore, no infiltration facilities are being proposed in these lots. Instead, a Shared Facility is proposed in lots 1-3 where soil infiltration rates are much better. See Figure 3 above.

As stated above, the Shared Facility is a rain garden/combination swale with a 3.5' bottom width and 1.5' depth, with 2" of freeboard above the overflow. This facility will provide both retention and infiltration of stormwater runoff for design storms up to and including the 100-year recurrence interval design storm.

HydroCAD Version 10 was used to model stormwater runoff and compute the size of the proposed Shared Facility. This analysis showed that this Shared Facility must be at least 154 feet in length. See Appendix D for HydroCAD computations. These computations show that the proposed Shared Facility fully infiltrates stormwater runoff for the 100-year recurrence interval design storm. The configuration of this facility is located adjacent to the proposed private drive and along the lot lines of lots 1-3 in an "L" shape.

Overflow from this facility for storms more than that generated by the 100-year recurrence interval storm will be via a rock hardened weir overflow at the east end of the Shared Facility and then sheet flow to O'Neil Road.

5.3 Conveyance

Conveyance pipes and inlet structures will be sized to convey the design storm during subsequent Civil Design of this project.

6 Operations and Maintenance

The stormwater facility proposed in this report shall by operated and maintained per the Operation and Maintenance (O&M) criteria set out in the Stormwater Standards.

7 Conclusions

This Preliminary Stormwater Analysis and Report shows that stormwater runoff from the proposed 6-lot subdivision of the 1.0-acre parcel at 8015 O'Neil Road can be treated entirely onsite using infiltration facilities. These facilities include individual dry wells for some lots to treat roof runoff flow and a Shared Facility to treat stormwater runoff from other impervious areas. The results of this analysis and report can be used for the planning decision process for this development and to provide direction for advancing this development to final Civil Engineering Construction Documents.

Appendix A

NRCS Soil Resource Report

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Marion County Area, Oregon

December 17, 2021

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.


123° 0' 50" W
123° 0' 44" W
45° 2' 5" N
45° 2' 2" N
498900
498910
498920
498930
498940
498950
498960
498970
498980
498990
499000
499010
4986800
4986790
4986780
4986770
4986760
4986750
4986740
WuA
Am
Soil Map may not be valid at this scale.
Map Scale: 1:540 if printed on A landscape (11" x 8.5") sheet.
N
Meters
0 5 10 20 30
Feet
0 25 50 100 150
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Marion County Area, Oregon
Survey Area Data: Version 19, Oct 27, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 1, 2018—Aug 31, 2018

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Am	Amity silt loam	0.6	55.9%
WuA	Woodburn silt loam, 0 to 3 percent slopes	0.5	44.1%
Totals for Area of Interest		**1.0**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Marion County Area, Oregon

Am—Amity silt loam

Map Unit Setting

National map unit symbol: 24ns
Elevation: 120 to 350 feet
Mean annual precipitation: 40 to 45 inches
Mean annual air temperature: 52 to 54 degrees F
Frost-free period: 190 to 210 days
Farmland classification: Prime farmland if drained

Map Unit Composition

Amity and similar soils: 85 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Amity

Setting

Landform: Terraces
Landform position (three-dimensional): Tread
Down-slope shape: Convex, linear
Across-slope shape: Linear
Parent material: Mixed silty alluvium

Typical profile

H1 - 0 to 24 inches: silt loam
H2 - 24 to 37 inches: silty clay loam
H3 - 37 to 60 inches: silt loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: About 6 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: High (about 12.0 inches)

Interpretive groups

Land capability classification (irrigated): 2w
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: C/D
Ecological site: R002XC007OR - Valley Swale Group
Forage suitability group: Somewhat Poorly Drained (G002XY005OR)
Other vegetative classification: Somewhat Poorly Drained (G002XY005OR)
Hydric soil rating: No

Minor Components

Concord

Percent of map unit: 5 percent
Landform: Terraces

Landform position (three-dimensional): Tread
Down-slope shape: Concave
Across-slope shape: Concave
Other vegetative classification: Poorly Drained (G002XY006OR)
Hydric soil rating: Yes

WuA—Woodburn silt loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 24s3
Elevation: 150 to 350 feet
Mean annual precipitation: 40 to 45 inches
Mean annual air temperature: 52 to 54 degrees F
Frost-free period: 200 to 210 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Woodburn and similar soils: 85 percent
Minor components: 1 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Woodburn

Setting

Landform: Terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Silty alluvium and mixed mineralogy loess

Typical profile

H1 - 0 to 17 inches: silt loam
H2 - 17 to 32 inches: silty clay loam
H3 - 32 to 68 inches: silt loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 25 to 32 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: High (about 12.0 inches)

Interpretive groups

Land capability classification (irrigated): 2w
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: C
Ecological site: R002XC008OR - Valley Terrace Group

Forage suitability group: Moderately Well Drained < 15% Slopes (G002XY004OR)
Other vegetative classification: Moderately Well Drained < 15% Slopes (G002XY004OR)
Hydric soil rating: No

Minor Components

Aquolls, somewhat poorly drained
Percent of map unit: 1 percent
Landform: Terraces
Hydric soil rating: Yes

Soil Information for All Uses

Soil Properties and Qualities

The Soil Properties and Qualities section includes various soil properties and qualities displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each property or quality.

Soil Qualities and Features

Soil qualities are behavior and performance attributes that are not directly measured, but are inferred from observations of dynamic conditions and from soil properties. Example soil qualities include natural drainage, and frost action. Soil features are attributes that are not directly part of the soil. Example soil features include slope and depth to restrictive layer. These features can greatly impact the use and management of the soil.

Hydrologic Soil Group

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

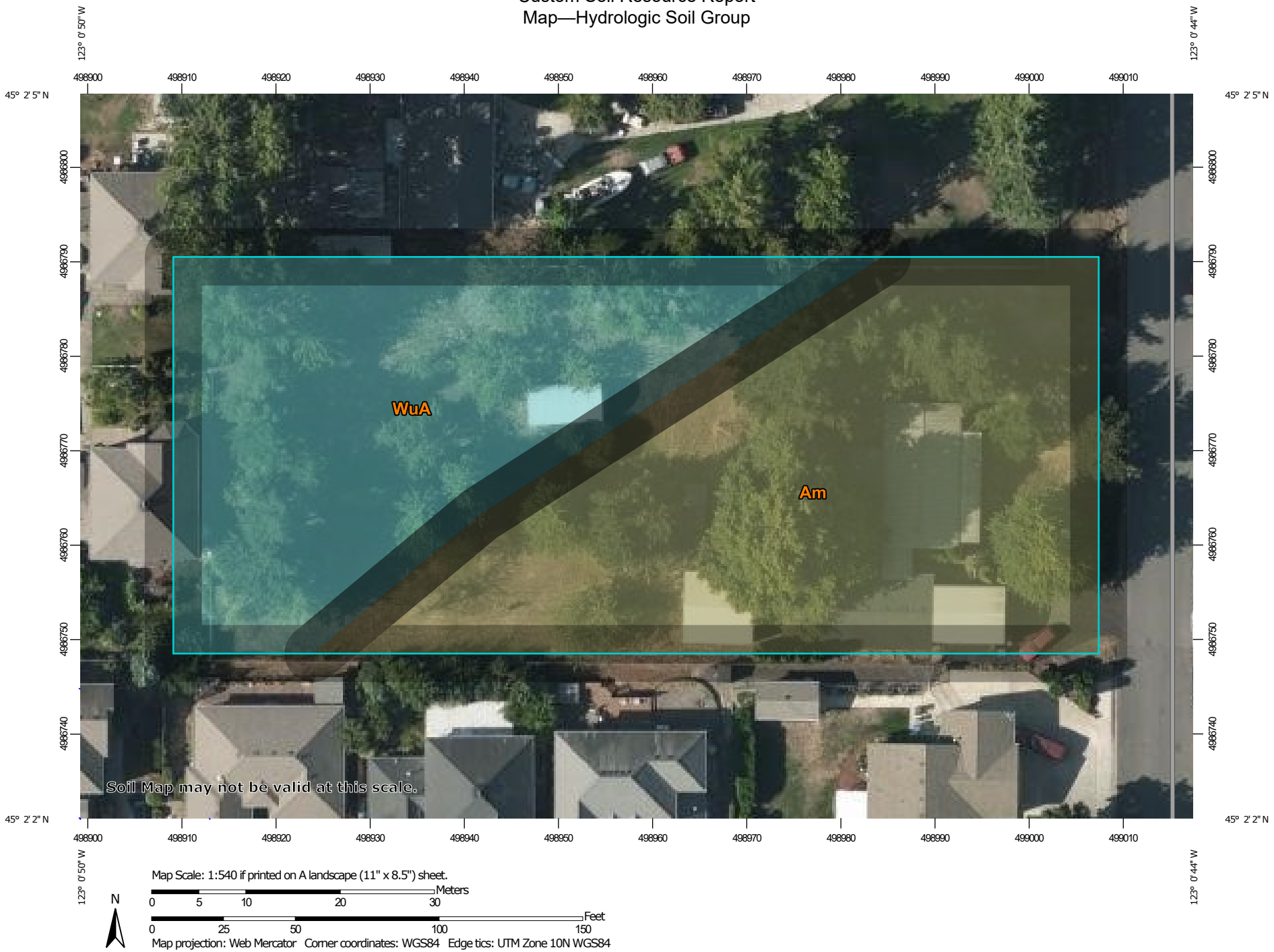
Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Map—Hydrologic Soil Group



MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Soil Rating Lines

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Soil Rating Points

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Water Features

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

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Survey Area Data: Version 19, Oct 27, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 1, 2018—Aug 31, 2018

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Am	Amity silt loam	C/D	0.6	55.9%
WuA	Woodburn silt loam, 0 to 3 percent slopes	C	0.5	44.1%
Totals for Area of Interest			**1.0**	**100.0%**

Rating Options—Hydrologic Soil Group

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

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Appendix B
Soil Infiltration Report

8015 O'NEIL ROAD SUBDIVISION

Soil Infiltration Testing Report

April 13, 2022

Submitted To:

Mr. Craig Wigginton
8015 O'Neil Road NE
Keizer, Oregon 97303

Developer:

Mr. Craig Wigginton
8015 O'Neil Road NE
Keizer, Oregon 97303

Prepared by:

LEI Engineering & Surveying of Oregon, LLC
2564 19th Street SE
Salem, Oregon 97302

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1 Introduction

This Soil Infiltration Report presents the results of soil infiltration testing completed at 8015 O'Neil Road, Keizer, Oregon on March 22, 2022. The testing was completed following standards set out in the City of Keizer Stormwater Management Manual (Stormwater Standards) to support the development of a 5-lot subdivision at this location. (Note: The Stormwater Standards reference the City of Salem procedures for infiltration testing.)

2 Statement of the Project

This project is a proposed 5-lot infill subdivision of a 1.0-acre parcel in the City of Keizer. The parcel is in a Critical Drainage Basin, as specified in the Stormwater Standards, therefore stormwater facilities are required to treat the 100-year recurrence design storm. Infrastructure and facilities for this development will be a mix of private and public facilities. This includes a private drive, private and public utilities, and private stormwater facilities with overflow to the public system. See Figure 1 for an overview of the proposed development.

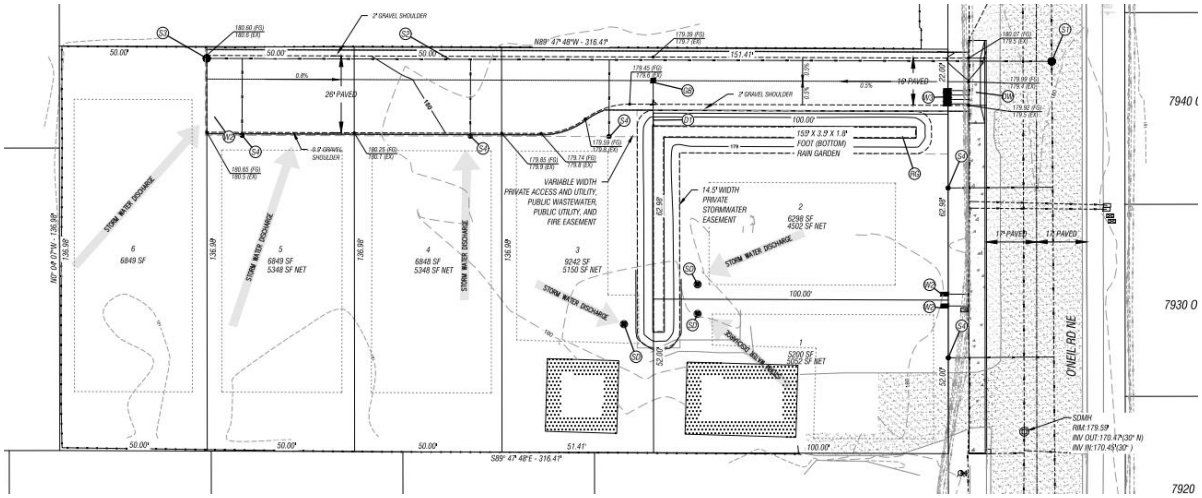


Figure 1: Site Plan

3 Infiltration Testing

Soil infiltration testing at the subject property was completed on March 22, 2022, following the Stormwater Standards for infiltration testing. Specifically, an encased falling head test was used to measure soil infiltration rates.

3.1 Approach

A 6" diameter hollow stem power auger was used to bore to a depth of approximately 40". This depth is below the depth of the planned rain garden(s) for stormwater treatment at this site. Six borings were made at location shown on the figure located in Appendix A.

Following boring of the test holes, a 6" diameter PVC pipe was inserted into the test hole and seated approximately 4" past the base of the test hole, to create a good seal for the encased hole. The holes were then filled with water to allow for pre-soaking of the holes prior to testing. It should be noted that this testing took place after a period of heavy rains in the area, so soils conditions were already fairly saturated due to these rains.

Following the pre-soak, the holes were filled with water and a wood lath laid across the hole as a stable measuring point for infiltration readings. Drop in water level was then measured on a 15-minute interval. Data recorded for the 6 test holes is shown in test logs included in Appendix B of this report.

3.2 Testing and Results

Summary of the infiltration testing logs is as follows:

Table 1: Infiltration Test Results

Test Hole	Test Method	Depth (in)	Design Infiltration Rate (in/hr)	Soil Description
1	Encased Falling Head	37	1.0	Sandy Clay (CL)
2	Encased Falling Head	34	1.4	Sandy Clay (CL)
3	Encased Falling Head	37	1.0	Sandy Clay (CL)
4	Encased Falling Head	35	0.5	Sandy Clay (CL)
5	Encased Falling Head	36	0.0	Sandy Clay (CL)
6	Encased Falling Head	36	2.9	Sandy Clay (CL)

3.3 Groundwater

Groundwater was not encountered in any of the test holes. As this project advances to civil design, it is recommended that ground survey data be obtained from the City of Keizer to verify that ground water is at least five feet below the bottom of planned infiltration facilities.

4 Conclusions

Soil infiltration testing was performed at the subject property on March 22, 2022, following the Stormwater Standards. This testing was conducted to provide soil infiltration inputs for the development of a five-lot subdivision at this location. Design infiltration rates for each test hole are shown in Table 1 above.

Appendix A

Test Pit Locations

PRELIMINARY
REGISTERED PROFESSIONAL ENGINEER
OREGON
GREG J. ZARTMAN
EXPIRES 6-30-2023

NO.	DATE	REVISION	BY	APVD

O'NEIL ROAD SUBDIVISION

PREPARED FOR:
CRAIG WIGGINTON

LEI ENGINEERING & SURVEYING OF OREGON
2564 19TH STREET SE
Salem, Oregon 97302
(503) 399-3828
www.leiengineering.com

TEST PIT LOCATIONS

SCALE 1" = 20'
PROJECT NO. 14-76
SHEET 01 OF 01
TP-1

Appendix B
Infiltration Testing Logs

Location: 8015 O'Neil Road NE, Keizer, OR	**Date:** March 22, 2022	**Test Hole Number:** 1
Depth to bottom of hole: 37"	**Diameter of hole:** 6"	**Test Method:** Encased Falling Head Test

Tester's Name: Greg Zartman, PE **Tester's Contact Number:** 503-399-3828
Tester's Company: LEI Engineering & Surveying of Oregon, LLC

Depth, feet	Soil Texture
0"-6"	Silt (ML)
6"-37"	Silty Clay (CL)

Time	Time interval, minutes	Measurement, feet*	Drop in water level, feet	Percolation rate, inches per hour	Remarks
10:45		0.71			
	15		0.06	2.9	
11:00		0.77			
	15		0.04	1.9	
11:15		0.81			
	15		0.06	2.9	
11:30		0.87			
	15		0.07	3.4	
11:45		0.94			
	15		0.02	1.0	
12:00		0.96			
	15		0.03	1.4	
12:15		0.99			
	15		0.05	2.4	
12:30		1.04			
	15		0.02	1.0	
12:45		1.06			
	15		0.02	1.0	
1:00		1.08			
	15		0.04	1.9	Ignore reading
1:15		1.12			
	15		0.02	1.0	
1:30		1.14			

**Measurements taking from lath placed across top of boring to water level*

Rate to use for Design: 1.0 in/hr

Location: 8015 O'Neil Road NE, Keizer, OR	**Date:** March 22, 2022	**Test Hole Number:** 2
Depth to bottom of hole: 34"	**Diameter of hole:** 6"	**Test Method:** Encased Falling Head Test

Tester's Name: Greg Zartman, PE **Tester's Contact Number:** 503-399-3828
Tester's Company: LEI Engineering & Surveying of Oregon, LLC

Depth, feet	Soil Texture
0"-4"	Silt (ML)
4"-34"	Silty Clay (CL)

Time	Time interval, minutes	Measurement, feet*	Drop in water level, feet	Percolation rate, inches per hour	Remarks
10:51		1.17			
	15		0.07	3.4	
11:06		1.24			
	15		0.05	2.4	
11:21		1.29			
	15		0.06	2.9	
11:36		1.35			
	15		0.05	2.4	
11:51		1.40			
	15		0.04	1.9	
12:06		1.44			
	15		0.06	2.9	
12:21		1.50			
	15		0.04	1.9	
12:36		1.54			
	15		0.03	1.4	
12:51		1.57			
	15		0.04	1.9	
1:06		1.61			
	15		0.03	1.4	
1:21		1.64			

**Measurements taking from lath placed across top of boring to water level*

Rate to use for Design: 1.4 in/hr

Location: 8015 O'Neil Road NE, Keizer, OR	**Date:** March 22, 2022	**Test Hole Number:** 3
Depth to bottom of hole: 37"	**Diameter of hole:** 6"	**Test Method:** Encased Falling Head Test

Tester's Name: Greg Zartman, PE **Tester's Contact Number:** 503-399-3828
Tester's Company: LEI Engineering & Surveying of Oregon, LLC

Depth, feet	Soil Texture
0"-6"	Silt (ML)
6"-37"	Silty Clay (CL)

Time	Time interval, minutes	Measurement, feet*	Drop in water level, feet	Percolation rate, inches per hour	Remarks
10:53		0.40			Start test
	15		0.04	1.9	
11:08		0.44			
	15		0.03	1.4	
11:23		0.47			
	15		0.03	1.4	
11:38		0.50			
	15		0.04	1.9	
11:53		0.54			
	15		0.02	1.0	
12:08		0.56			
	15		0.02	1.0	
12:23		0.58			
	15		0.03	1.4	
12:38		0.61			
	15		0.03	1.4	
12:53		0.64			
	15		0.02	1.0	
1:08		0.66			
	15		0.02	1.0	
1:23		0.68			

**Measurements taking from lath placed across top of boring to water level*

Rate to use for Design: 1.0 in/hr

Location: 8015 O'Neil Road NE, Keizer, OR	**Date:** March 22, 2022	**Test Hole Number:** 4
Depth to bottom of hole: 35"	**Diameter of hole:** 6"	**Test Method:** Encased Falling Head Test

Tester's Name: Greg Zartman, PE **Tester's Contact Number:** 503-399-3828
Tester's Company: LEI Engineering & Surveying of Oregon, LLC

Depth, feet	Soil Texture
0"-4"	Silt (ML)
4"-35"	Silty Clay (CL)

Time	Time interval, minutes	Measurement, feet*	Drop in water level, feet	Percolation rate, inches per hour	Remarks
10:56		0.63			Start test
	15		0.06	2.9	
11:11		0.69			
	15		0.09	4.3	
11:26		0.78			
	15		0.00	0.0	
11:41		0.78			
	15		0.02	1.0	
11:56		0.80			
	15		0.02	1.0	
12:11		0.82			
	15		0.03	1.4	
12:26		0.85			
	15		0.02	1.0	
12:41		0.87			
	15		0.02	1.0	
12:56		0.89			
	15		0.03	1.4	
1:11		0.92			
	15		0.01	0.5	
1:26		0.93			
	15		0.01	0.5	
1:41		0.94			

**Measurements taking from lath placed across top of boring to water level*

Rate to use for Design: 0.5 in/hr

Location: 8015 O'Neil Road NE, Keizer, OR	**Date:** March 22, 2022	**Test Hole Number:** 5
Depth to bottom of hole: 36"	**Diameter of hole:** 6"	**Test Method:** Encased Falling Head Test

Tester's Name: Greg Zartman, PE **Tester's Contact Number:** 503-399-3828
Tester's Company: LEI Engineering & Surveying of Oregon, LLC

Depth, feet	Soil Texture
0"-4"	Silt (ML)
4"-36"	Silty Clay (CL)

Time	Time interval, minutes	Measurement, feet*	Drop in water level, feet	Percolation rate, inches per hour	Remarks
11:00		0.69			Start test
	15		0.08	3.8	
11:15		0.77			
	15		0.06	2.9	
11:30		0.83			
	15		0.04	1.9	
11:45		0.87			
	15		0.02	1.0	
12:00		0.89			
	15		0.03	1.4	
12:15		0.92			
	15		0.01	0.5	
12:30		0.93			
	15		0.00	0.0	
12:45		0.93			
	15		0.00	0.0	
1:00		0.93			
	15		0.01	0.5	
1:15		0.94			
	15		0.00	0.0	
1:30		0.94			

**Measurements taking from lath placed across top of boring to water level*

Rate to use for Design: 0.0 in/hr

Location: 8015 O'Neil Road NE, Keizer, OR	**Date:** March 22, 2022	**Test Hole Number:** 6
Depth to bottom of hole: 40"	**Diameter of hole:** 6"	**Test Method:** Encased Falling Head Test

Tester's Name: Greg Zartman, PE **Tester's Contact Number:** 503-399-3828
Tester's Company: LEI Engineering & Surveying of Oregon, LLC

Depth, feet	Soil Texture
0"-24"	Silt (ML)
24"-36"	Silty Clay (CL)

Time	Time interval, minutes	Measurement, feet*	Drop in water level, feet	Percolation rate, inches per hour	Remarks
10:41		1.21			Start test
	15		0.11	5.3	
10:56		1.32			
	15		0.12	5.8	
11:11		1.44			
	15		0.12	5.8	
11:26		1.56			
	15		0.10	4.8	
11:41		1.66			
	15		0.08	3.8	
11:56		1.74			
	15		0.09	4.3	
12:11		1.83			
	15		0.07	3.4	
12:26		1.90			
	15		0.07	3.4	
12:41		1.97			
	15		0.06	2.9	
12:56		2.03			
	15		0.06	2.9	
1:11		2.09			

**Measurements taking from lath placed across top of boring to water level*

Rate to use for Design: 2.9 in/hr

Appendix C

City of Portland BES Simplified Approach Forms for Lots 1-3

CITY OF PORTLAND
Stormwater Management Manual

SIMPLIFIED APPROACH FORM

PROJECT INFORMATION WORKSHEET

Project/Permit Number: O'Neil Road 5 Lot Subdivision

Land Use Case Number:

Contact Name: Craig Wigginton

Phone: 503-871-3390

Email: ckwigginton@gmail.com

Site Address/R Number(s) for all parcels:

8015 O'Neil Road NE

Keizer, Oregon 97303

Project Description: Residential Lot 1 of 5

Existing impervious area: 0 f^2

Total NEW impervious area: 2,500 f^2

SITE CHARACTERISTICS

S.1 Do slopes exceed 20% anywhere within the project area? ☐ Yes ◉ No

S.2 Are there springs, seeps, or a high groundwater table within the project area? ☐ Yes ◧ No

S.3 Geotech Report? ☐ Yes ◧ No

S.4 Infiltration Test? ◉ Yes ☐ No

See back of form for required certifications.

SIMPLE PIT INFILTRATION TEST PROCEDURE

The person performing this test does not need a professional credential.

Test instructions:

1. Conduct the test in and/or near the location of the proposed infiltration facility.
2. Excavate a 2' by 2' pit to a depth of: 2' below grade for facilities less than 2' deep or 3' below grade for facilities greater than 2' deep. Check for standing water or hardpan soil preventing excavation. If either is present, document conditions on this form and **do not** proceed with the test.
3. Fill the pit with at least 12 inches of water and record the initial water depth and the time when the test starts. Check the water depth at regular intervals until all of the water has been absorbed or for 1 hour, whichever occurs first. Record the time and final water depth at the end of the test.
4. Repeat the process two more times for a total of three rounds. Conduct the tests in succession to accurately characterize the soil's infiltration rates at different levels of saturation. The third test provides the best measure of the infiltration rate when saturated.
5. Record infiltration test data in the table below and certify the results. Uncertified test results will not be accepted.

Required Infiltration Testing

Date of Test: March 22, 2022

Depth of Excavation (ft): 3.3'

Depth of Proposed Facility: 10'

	TEST 1	TEST 2	TEST 3
A. Time *(of day)*	10:41	11:41	12:41
B. Duration *(minutes; 1 hour maximum)*	60	60	30
C. Initial Water Depth *(inches)*	2.12	1.67	1.36
D. Final Water Depth *(inches)*	1.67	1.36	1.24
E. Infiltration Rate* *(inches/hour)*	5.4	3.7	2.9

*Infiltration Rate = Initial Depth *(in)* – Final Depth *(in)* / Duration of Test *(hours)*. *hours = minutes/60*

Test Pit Location (site plan sketch)

Key information to include: 1) Site or parcel; 2) Adjacent road(s) or cross street(s); 3) Test pit location with dimensions

See attached figures for location of test pit and location of proposed drywell

north

Proposed Stormwater Facilities

Please note: Each individual tax lot is required to manage the stormwater runoff it generates on the same lot to the maximum extent feasible (for new construction or redevelopment). The following table includes accepted Simplified Approach facilities **as described in Chapters 2 & 3 of the *2020 Stormwater Management Manual***. Copies of the manual are available online at www.portlandoregon.gov/bes/SWMM.

STORMWATER FACILITY TYPE	AREA DRAINING TO FACILITY (SF)	FACILITY SIZING FORMULA	FACILITY SIZE (surface area of facility)
Ecoroof		Area x 1 (1:1 ratio)	
Pervious Pavement		Area x 1 (1:1 ratio)	
Rain garden		Area x 0.10	
Basin		Area x 0.09	
Planter		Area x 0.06	
Filter Strip		See sizing table in SWMM Section 3.3.2.1	
Driveway Center Strip		Min. width is 3 ft; max. length is 50 ft if slope is 10-15% (max. slope is 15%).	
Drywell	2,500	See Maximum Catchment Area Managed by a Single Drywell Table below	(Drywell diameter, depth number) 28" dia, 10' deep
Soakage Trench		25 ft² of soakage trench for every 500 ft² of impervious area. (Depth = 1.5 ft; width & length vary)	
Surface Sand Filter		Area x 0.06	
TOTAL IMPERVIOUS AREA (Managed, new, and redeveloped)	2,500	Total impervious area must equal the total **NEW AND REDEVELOPED** impervious area being proposed.	

Maximum Catchment Area Managed by a Single Drywell (ft²)

MATERIAL Ring Diameter	PLASTIC 24 inches	CONCRETE 28 inches	CONCRETE 48 inches
2 ft deep	500 ft²	NA	NA
5 ft deep	NA	1,000 ft²	2,500 ft²
10 ft deep	NA	2,500 ft²	4,500 ft²
15 ft deep	NA	3,500 ft²	5,000 ft²

No more than 2 plastic drywells allowed per catchment area.

Required Certifications

SIMPLE PIT TEST

Greg J. Zartman, PE

Name of Tester

Signature of Tester

April 11, 2022

Date

PERSON RESPONSIBLE FOR APPLICATION ACCURACY

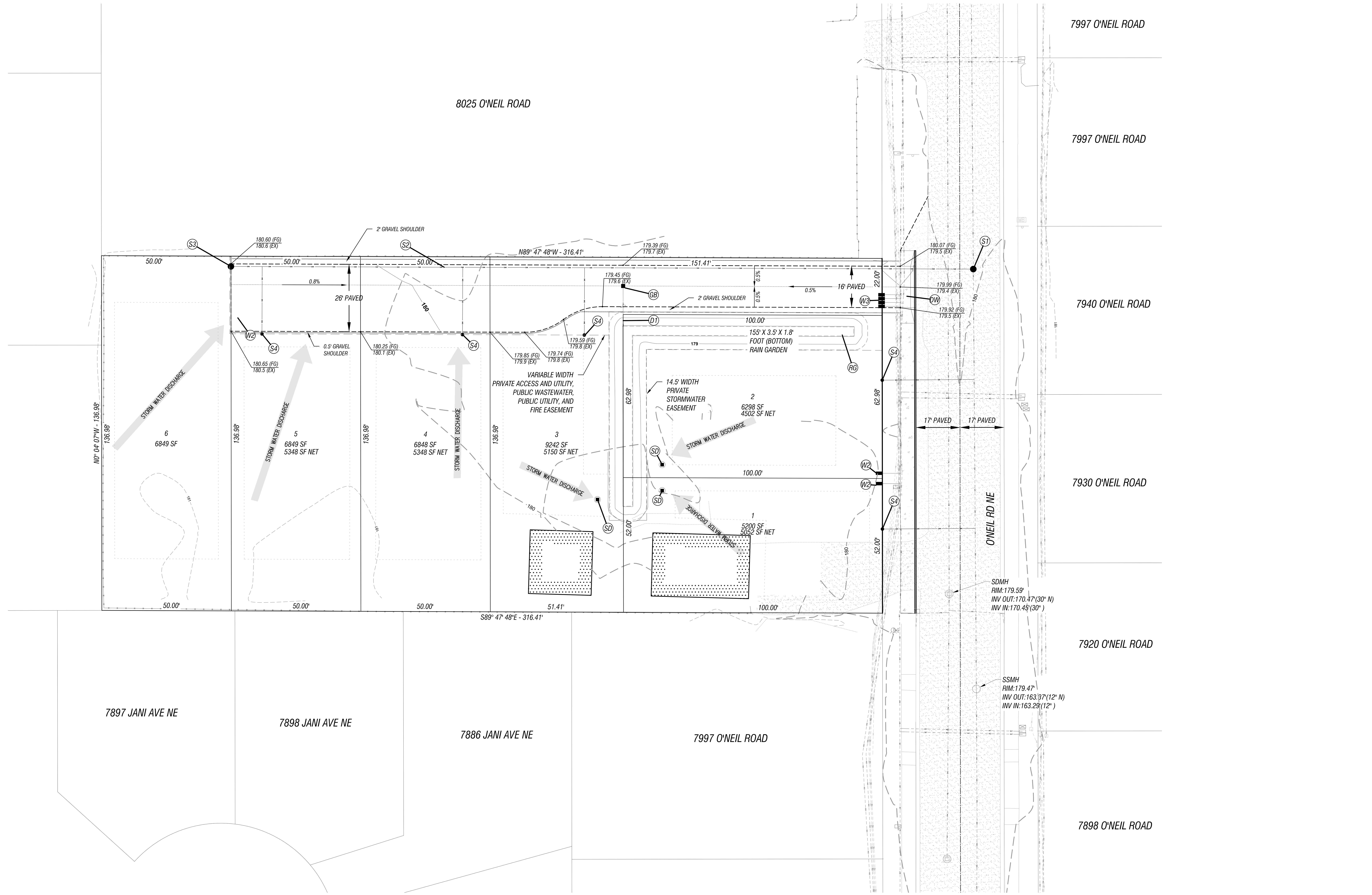
Greg J. Zartman, PE

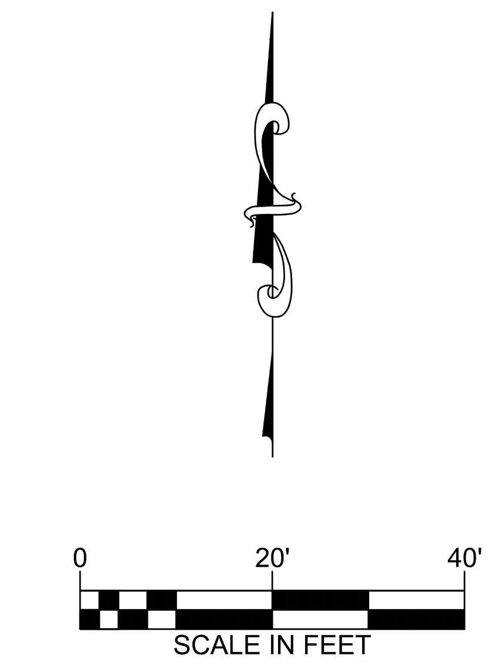
Contact Name–Printed

Signature

April 11, 2022

Date





CONSTRUCTION NOTES:

GENERAL NOTES:

- (S1) CONTRACTOR SHALL INSTALL 48" CAST IN PLACE MANHOLE ONTO EXISTING WASTEWATER MAIN WITH TWO FOOT INSIDE DROP. INVERT AT MAIN 165.71'.
- (S2) CONTRACTOR SHALL INSTALL PUBLIC 6" 3034 PIPE SDR-35 PIPE AT 3.5%, AS SHOWN, AND SHALL HAVE BACKFILL AND BED IN ACCORDANCE WITH CITY OF SALEM STANDARDS.
- (S3) CONTRACTOR SHALL INSTALL 24" MANHOLE PURUSANT TO CITY OF SALEM STANDARDS.
- (S4) CONTRACTOR SHALL INSTALL 4" WASTEWATER SERVICE LATERALS PURSUANT TO CITY OF SALEM STANDARDS.
- (GB) CONTRACTOR SHALL INSTALL STD GIBSON CATCH BASIN PURSUANT TO CITY OF SALEM STANDARDS.
- (D1) CONTRACTOR SHALL INSTALL 12" DUCTILE IRON PIPE PURSUANT TO CITY OF SALEM STANDARDS.
- (W1) CONTRACTOR SHALL INSTALL PUBLIC 8" DUCTILE IRON WATER LINE PURSUANT TO CITY OF SALEM STANDARDS.
- (W2) CONTRACTOR SHALL INSTALL 3/4" SERVICE WATER SERVICE LINES AND WATER METERS PURSUANT TO CITY OF SALEM STANDARDS.
- (W3) CONTRACTOR SHALL INSTALL (4) BANKED 3/4" WATER SERVICE LINES AND WATER METERS PURSUANT TO CITY OF KEIZER STANDARDS.
- (CG) CONTRACTOR SHALL INSTALL STANDARD CURB AND GUTTER PURSUANT TO CITY OF SALEM STANDARDS.
- (SW) CONTRACTOR SHALL INSTALL 5.5' STANDARD SIDEWALK PURSUANT TO CITY OF SALEM STANDARDS.
- (PA1) CONTRACTOR SHALL SAWCUT 1' FROM EXISTING ASPHALT AND MATCH TYPICAL PAVING SECTION AND PAVE UP TO PROPOSED GUTTER PAN MAINTAINING EXISTING CROSS SLOPE, PURSUANT TO CITY OF SALEM STANDARDS.
- (DW) CONTRACTOR SHALL INSTALL STANDARD 16' WIDE DRIVEWAY DROP PURSUANT TO CITY OF SALEM STANDARDS.
- (AR) CONTRACTOR SHALL PAVE ASPHALT RAMP FROM END OF SIDEWALK TO EXISTING PAVEMENT EDGE. BLEND TO PROMOTE POSITIVE DRAINAGE TOWARDS SOUTHERLY GUTTER PAN.
- (SD) CONTRACTOR SHALL CONSTRUCT 28" X 10' DRY WELL PURSUANT TO CITY OF SALEM STANDARDS.
- (RG) CONTRACTOR SHALL CONSTRUCT 128' X 3' X 2' (BOTTOM) RAIN GARDEN PURSUANT TO CITY OF SALEM STANDARDS.

PRELIMINARY

EXPIRES 6-30-2023

NO.	DATE	REVISION	BY	APV'D

O'NEIL ROAD SUBDIVISION

PREPARED FOR:

CRAIG WIGGINTON

LEI ENGINEERING & SURVEYING OF OREGON

2564 19TH STREET SE
Salem, Oregon 97302
(503) 399-3828
www.leiengineering.com

GRADING/ DRAINAGE, PAVING AND UTILITY PLAN

SCALE 1" = 20'

PROJECT NO. 14-76

SHEET 06 OF 06

GR-1

EXPIRES 6-30-2023

PRELIMINARY

O'NEIL ROAD SUBDIVISION

PREPARED FOR:
CRAIG WIGGINTON

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TEST PIT LOCATIONS

SCALE 1" = 20'	TP-1
PROJECT NO. 14-76	
SHEET 01 OF 01	

CITY OF PORTLAND
Stormwater
Management
Manual

SIMPLIFIED APPROACH FORM

PROJECT INFORMATION WORKSHEET

Project/Permit Number: O'Neil Road 5 Lot Subdivision

Land Use Case Number:

Contact Name: Craig Wigginton

Phone: 503-871-3390

Email: ckwigginton@gmail.com

Site Address/R Number(s) for all parcels:

8015 O'Neil Road NE

Keizer, Oregon 97303

Project Description: Residential Lot 2 of 5

Existing impervious area: 0 ft^2

Total NEW impervious area: 2,500 ft^2

SITE CHARACTERISTICS

S.1 Do slopes exceed 20% anywhere within the project area? ☐ Yes ☐ No

S.2 Are there springs, seeps, or a high groundwater table within the project area? ☐ Yes ☐ No

S.3 Geotech Report? ☐ Yes ☐ No

S.4 Infiltration Test? ☐ Yes ☐ No

See back of form for required certifications.

SIMPLE PIT INFILTRATION TEST PROCEDURE

The person performing this test does not need a professional credential.

Test instructions:

1. Conduct the test in and/or near the location of the proposed infiltration facility.
2. Excavate a 2' by 2' pit to a depth of: 2' below grade for facilities less than 2' deep or 3' below grade for facilities greater than 2' deep. Check for standing water or hardpan soil preventing excavation. If either is present, document conditions on this form and **do not** proceed with the test.
3. Fill the pit with at least 12 inches of water and record the initial water depth and the time when the test starts. Check the water depth at regular intervals until all of the water has been absorbed or for 1 hour, whichever occurs first. Record the time and final water depth at the end of the test.
4. Repeat the process two more times for a total of three rounds. Conduct the tests in succession to accurately characterize the soil's infiltration rates at different levels of saturation. The third test provides the best measure of the infiltration rate when saturated.
5. Record infiltration test data in the table below and certify the results. Uncertified test results will not be accepted.

Required Infiltration Testing

Date of Test: March 22, 2022

Depth of Excavation (ft): 3.3'

Depth of Proposed Facility: 10'

	TEST 1	TEST 2	TEST 3
A. Time *(of day)*	10:41	11:41	12:41
B. Duration *(minutes; 1 hour maximum)*	60	60	30
C. Initial Water Depth *(inches)*	2.12	1.67	1.36
D. Final Water Depth *(inches)*	1.67	1.36	1.24
E. Infiltration Rate* *(inches/hour)*	5.4	3.7	2.9

*Infiltration Rate = Initial Depth *(in)* – Final Depth *(in)* / Duration of Test *(hours)*. *hours = minutes/60*

Test Pit Location (site plan sketch)

Key information to include: 1) Site or parcel; 2) Adjacent road(s) or cross street(s); 3) Test pit location with dimensions

See attached figures for location of test pit and location of proposed drywell

north

Proposed Stormwater Facilities

Please note: Each individual tax lot is required to manage the stormwater runoff it generates on the same lot to the maximum extent feasible (for new construction or redevelopment). The following table includes accepted Simplified Approach facilities **as described in Chapters 2 & 3 of the *2020 Stormwater Management Manual*.** Copies of the manual are available online at www.portlandoregon.gov/bes/SWMM.

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Pervious Pavement		Area x 1 (1:1 ratio)	
Rain garden		Area x 0.10	
Basin		Area x 0.09	
Planter		Area x 0.06	
Filter Strip		See sizing table in SWMM Section 3.3.2.1	
Driveway Center Strip		Min. width is 3 ft; max. length is 50 ft if slope is 10-15% (max. slope is 15%).	(Drywell diameter, depth number)
Drywell	2,500	See Maximum Catchment Area Managed by a Single Drywell Table below	28" dia, 10' depth
Soakage Trench		25 ft² of soakage trench for every 500 ft² of impervious area. (Depth = 1.5 ft; width & length vary)	
Surface Sand Filter		Area x 0.06	
TOTAL IMPERVIOUS AREA (Managed, new, and redeveloped)	2,500	Total impervious area must equal the total **NEW AND REDEVELOPED** impervious area being proposed.	

Maximum Catchment Area Managed by a Single Drywell (ft²)

MATERIAL Ring Diameter	PLASTIC 24 inches	CONCRETE 28 inches	CONCRETE 48 inches
2 ft deep	500 ft²	NA	NA
5 ft deep	NA	1,000 ft²	2,500 ft²
10 ft deep	NA	2,500 ft²	4,500 ft²
15 ft deep	NA	3,500 ft²	5,000 ft²

No more than 2 plastic drywells allowed per catchment area.

Required Certifications

SIMPLE PIT TEST

Greg J. Zartman, P.E.

Name of Tester

Signature of Tester

April 11, 2022

Date

PERSON RESPONSIBLE FOR APPLICATION ACCURACY

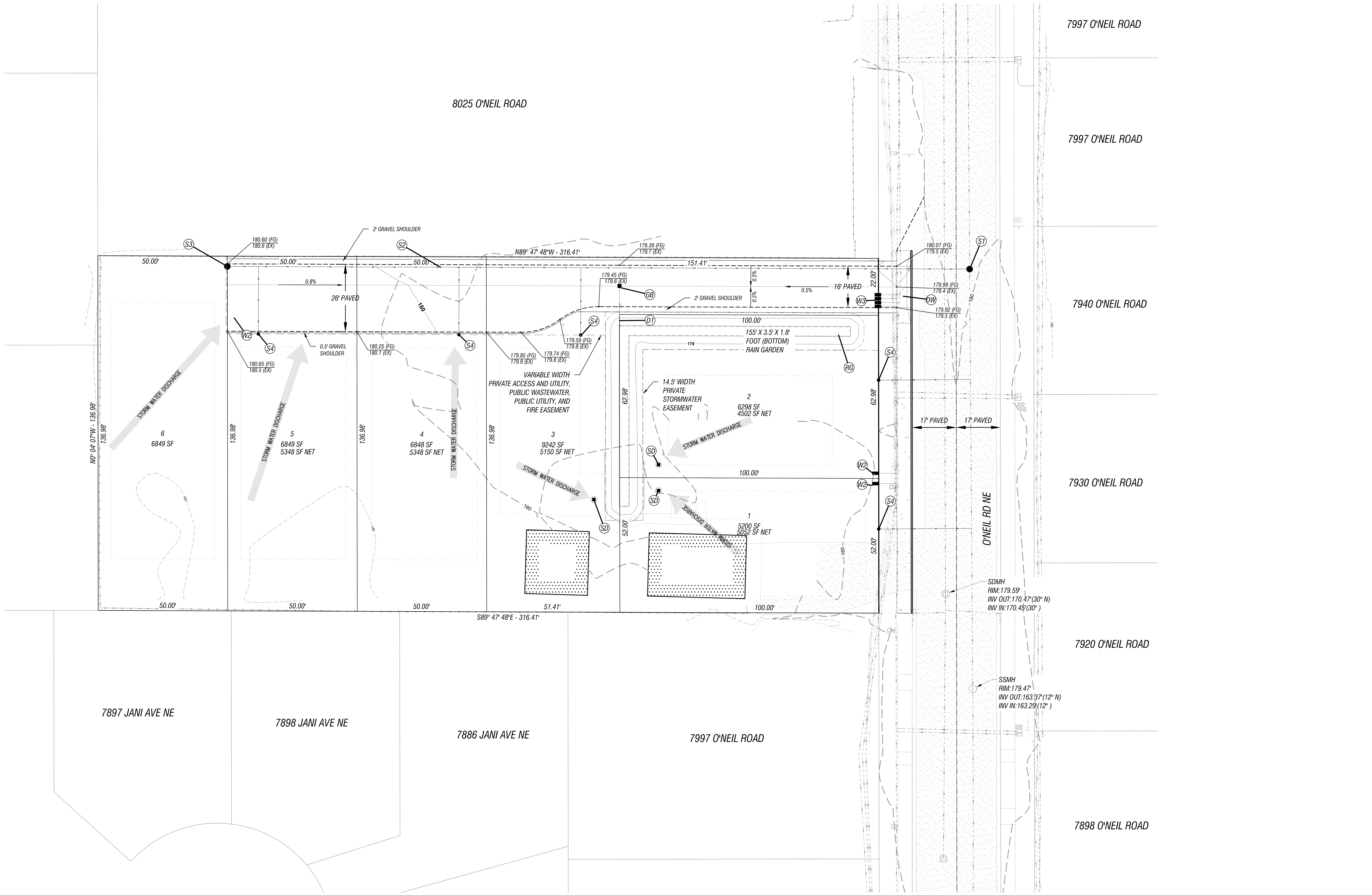
Greg J. Zartman, P.E.

Contact Name–Printed

Signature

April 11, 2022

Date



0 20' 40'
SCALE IN FEET

CONSTRUCTION NOTES:

GENERAL NOTES:

- (S1) CONTRACTOR SHALL INSTALL 48" CAST IN PLACE MANHOLE ONTO EXISTING WASTEWATER MAIN WITH TWO FOOT INSIDE DROP. INVERT AT MAIN 165.71'.
- (S2) CONTRACTOR SHALL INSTALL PUBLIC 6" 3034 PIPE SDR-35 PIPE AT 3.5%, AS SHOWN, AND SHALL HAVE BACKFILL AND BED IN ACCORDANCE WITH CITY OF SALEM STANDARDS.
- (S3) CONTRACTOR SHALL INSTALL 24" MANHOLE PURUSANT TO CITY OF SALEM STANDARDS.
- (S4) CONTRACTOR SHALL INSTALL 4" WASTEWATER SERVICE LATERALS PURSUANT TO CITY OF SALEM STANDARDS.
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- (CG) CONTRACTOR SHALL INSTALL STANDARD CURB AND GUTTER PURSUANT TO CITY OF SALEM STANDARDS.
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PRELIMINARY
REGISTERED PROFESSIONAL ENGINEER
OREGON
GREG J. ZARTMAN
EXPIRES 6-30-2023

NO.	DATE	REVISION	BY	APV'D

O'NEIL ROAD SUBDIVISION

PREPARED FOR: CRAIG WIGGINTON

LEI ENGINEERING & SURVEYING OF OREGON
2564 19TH STREET SE
Salem, Oregon 97302
(503) 399-3828
www.leiengineering.com

GRADING/ DRAINAGE, PAVING AND UTILITY PLAN

SCALE 1" = 20'
PROJECT NO. 14-76
SHEET 06 OF 06
GR-1


8025 O'NEIL ROAD
7997 O'NEIL ROAD
7997 O'NEIL ROAD
7940 O'NEIL ROAD
7930 O'NEIL ROAD
7920 O'NEIL ROAD
7898 O'NEIL ROAD
O'NEIL RD NE
N89° 47' 48"W - 316.41'
S89° 47' 48"E - 316.41'
N0° 04' 07"W - 136.98'
50.00'
151.41'
22.00'
100.00'
62.98'
52.00'
51.41'
136.98'
#1
1.0"/HR
#2
1.4"/HR
#3
1.0"/HR
#4
0.5"/HR
#5
0.0"/HR
#6
2.9"/HR
6
6849 SF
5
6849 SF
4
6848 SF
3
9242 SF
2
6298 SF
1
5200 SF
7897 JANI AVE NE
7898 JANI AVE NE
7886 JANI AVE NE
7997 O'NEIL ROAD
0
20'
40'
SCALE IN FEET

PRELIMINARY

EXPIRES 6-30-2023

NO.	DATE	REVISION	BY	APVD

O'NEIL ROAD SUBDIVISION

PREPARED FOR:
CRAIG WIGGINTON

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Salem, Oregon 97302
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TEST PIT LOCATIONS

SCALE 1" = 20'
PROJECT NO. 14-76
SHEET 01 OF 01
TP-1

CITY OF PORTLAND
Stormwater
Management
Manual

SIMPLIFIED APPROACH FORM

PROJECT INFORMATION WORKSHEET

Project/Permit Number: O'Neil Road 5 Lot Subdivision

Land Use Case Number:

Contact Name: Craig Wigginton

Phone: 503-871-3390

Email: ckwigginton@gmail.com

Site Address/R Number(s) for all parcels:

8015 O'Neil Road NE

Keizer, Oregon 97303

Project Description: Residential Lot 3 of 5

Existing impervious area: 0 f^2

Total NEW impervious area: 2,500 f^2

SITE CHARACTERISTICS

S.1 Do slopes exceed 20% anywhere within the project area? ☐ Yes ◉ No

S.2 Are there springs, seeps, or a high groundwater table within the project area? ☐ Yes ◧ No

S.3 Geotech Report? ☐ Yes ◧ No

S.4 Infiltration Test? ◉ Yes ☐ No

See back of form for required certifications.

SIMPLE PIT INFILTRATION TEST PROCEDURE

The person performing this test does not need a professional credential.

Test instructions:

1. Conduct the test in and/or near the location of the proposed infiltration facility.
2. Excavate a 2' by 2' pit to a depth of: 2' below grade for facilities less than 2' deep or 3' below grade for facilities greater than 2' deep. Check for standing water or hardpan soil preventing excavation. If either is present, document conditions on this form and **do not** proceed with the test.
3. Fill the pit with at least 12 inches of water and record the initial water depth and the time when the test starts. Check the water depth at regular intervals until all of the water has been absorbed or for 1 hour, whichever occurs first. Record the time and final water depth at the end of the test.
4. Repeat the process two more times for a total of three rounds. Conduct the tests in succession to accurately characterize the soil's infiltration rates at different levels of saturation. The third test provides the best measure of the infiltration rate when saturated.
5. Record infiltration test data in the table below and certify the results. Uncertified test results will not be accepted.

Required Infiltration Testing

Date of Test: March 22, 2022

Depth of Excavation (ft): 3.4'

Depth of Proposed Facility: 10'

	TEST 1	TEST 2	TEST 3
A. Time *(of day)*	10:53	11:53	12:53
B. Duration *(minutes; 1 hour maximum)*	60	60	30
C. Initial Water Depth *(inches)*	3.00	2.86	2.76
D. Final Water Depth *(inches)*	2.86	2.76	2.72
E. Infiltration Rate* *(inches/hour)*	1.7	1.2	1.0

*Infiltration Rate = Initial Depth *(in)* – Final Depth *(in)* / Duration of Test *(hours)*. *hours = minutes/60*

Test Pit Location (site plan sketch)

Key information to include: 1) Site or parcel; 2) Adjacent road(s) or cross street(s); 3) Test pit location with dimensions

See attached figures for location of test pit and location of proposed drywell

north

Proposed Stormwater Facilities

Please note: Each individual tax lot is required to manage the stormwater runoff it generates on the same lot to the maximum extent feasible (for new construction or redevelopment). The following table includes accepted Simplified Approach facilities **as described in Chapters 2 & 3 of the *2020 Stormwater Management Manual***. Copies of the manual are available online at www.portlandoregon.gov/bes/SWMM.

STORMWATER FACILITY TYPE	AREA DRAINING TO FACILITY (SF)	FACILITY SIZING FORMULA	FACILITY SIZE (surface area of facility)
Ecoroof		Area x 1 (1:1 ratio)	
Pervious Pavement		Area x 1 (1:1 ratio)	
Rain garden		Area x 0.10	
Basin		Area x 0.09	
Planter		Area x 0.06	
Filter Strip		See sizing table in SWMM Section 3.3.2.1	
Driveway Center Strip		Min. width is 3 ft; max. length is 50 ft if slope is 10-15% (max. slope is 15%).	(Drywell diameter, depth number)
Drywell	2,500	See Maximum Catchment Area Managed by a Single Drywell Table below	28" dia, 10' depth
Soakage Trench		25 ft² of soakage trench for every 500 ft² of impervious area. (Depth = 1.5 ft; width & length vary)	
Surface Sand Filter		Area x 0.06	
TOTAL IMPERVIOUS AREA (Managed, new, and redeveloped)	2,500	Total impervious area must equal the total **NEW AND REDEVELOPED** impervious area being proposed.	

Maximum Catchment Area Managed by a Single Drywell (ft²)

MATERIAL Ring Diameter	PLASTIC 24 inches	CONCRETE 28 inches	CONCRETE 48 inches
2 ft deep	500 ft²	NA	NA
5 ft deep	NA	1,000 ft²	2,500 ft²
10 ft deep	NA	2,500 ft²	4,500 ft²
15 ft deep	NA	3,500 ft²	5,000 ft²

No more than 2 plastic drywells allowed per catchment area.

Required Certifications

SIMPLE PIT TEST

Greg J. Zartman, P.E.

Name of Tester

Signature of Tester

April 11, 2022

Date

PERSON RESPONSIBLE FOR APPLICATION ACCURACY

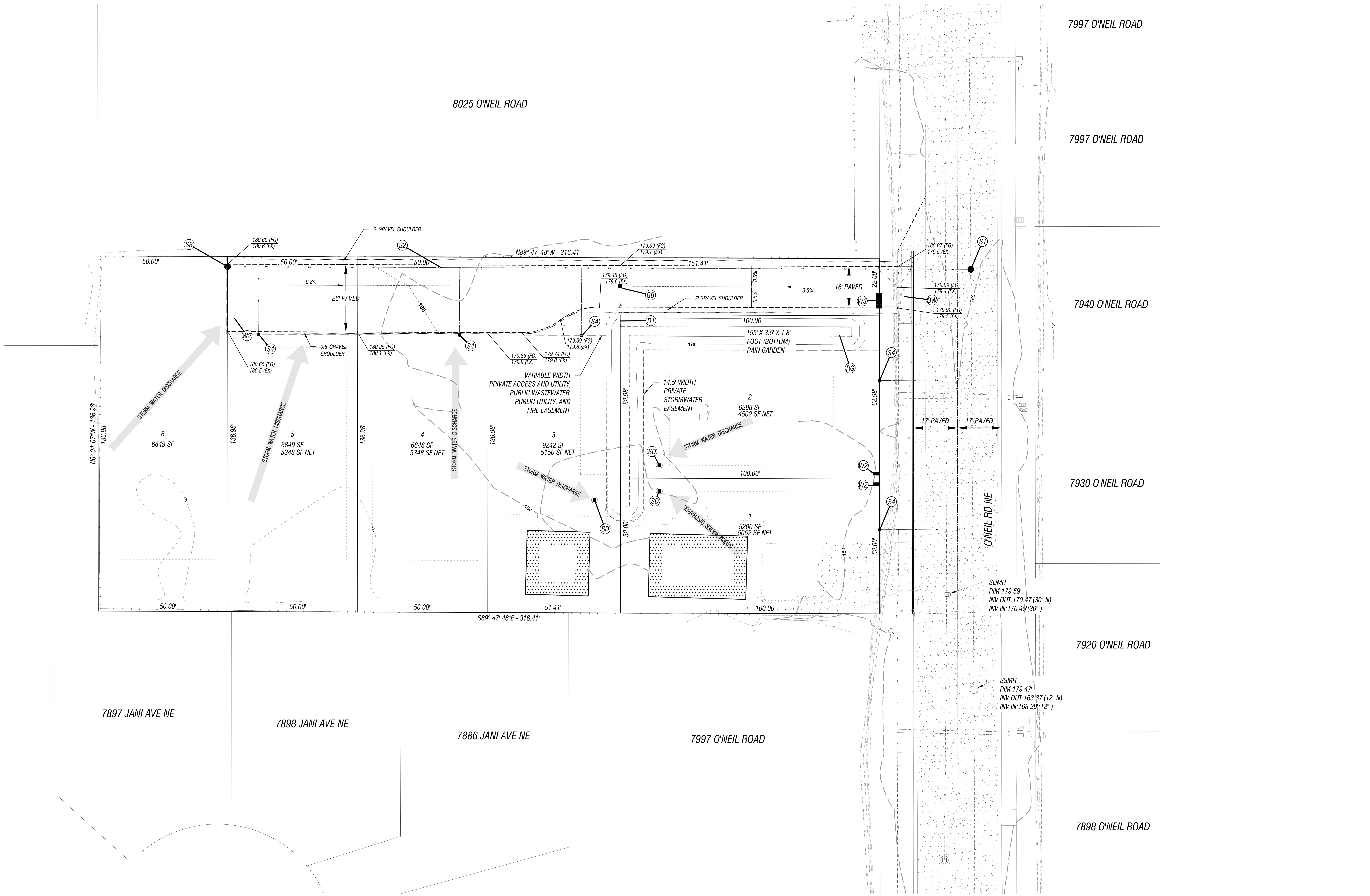
Greg J. Zartman, P.E.

Contact Name–Printed

Signature

April 11, 2022

Date



SCALE IN FEET (0, 20', 40')

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EXPIRES 6-30-2023

NO.	DATE	REVISION	BY	APVD

O'NEIL ROAD SUBDIVISION

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GRADING/ DRAINAGE, PAVING AND UTILITY PLAN

SCALE 1" = 20'

PROJECT NO. 14-76

SHEET 06 OF 06

GR-1

8025 O'NEIL ROAD
N89° 47' 48"W - 316.41'
50.00'
50.00'
50.00'
151.41'
22.00'
#1
1.0"/HR
#2
1.4"/HR
#3
1.0"/HR
100.00'
N0° 04' 07"W - 136.98'
136.98'
6
6849 SF
5
6849 SF
4
6848 SF
3
9242 SF
2
6298 SF
62.98'
62.98'
100.00'
#6
2.9"/HR
1
5200 SF
52.00'
52.00'
#5
0.0"/HR
#4
0.5"/HR
50.00'
50.00'
50.00'
51.41'
100.00'
S89° 47' 48"E - 316.41'
7897 JANI AVE NE
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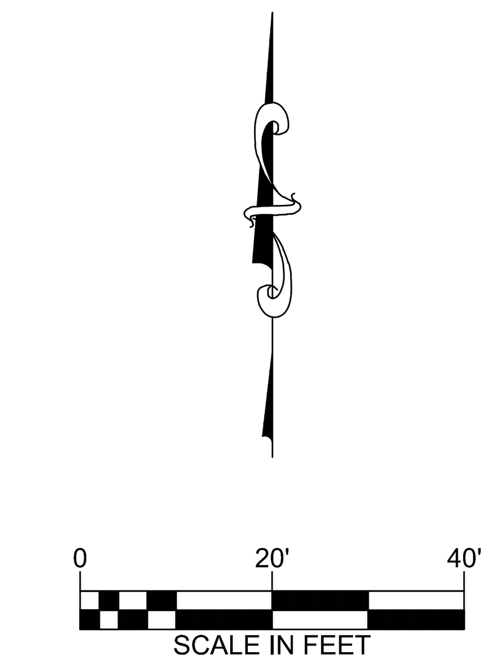
7997 O'NEIL ROAD
7997 O'NEIL ROAD
7940 O'NEIL ROAD
7930 O'NEIL ROAD
7920 O'NEIL ROAD
7898 O'NEIL ROAD



REGISTERED PROFESSIONAL ENGINEER 55020 OREGON JANUARY 12, 1999 GREG J. ZARTMAN

PRELIMINARY

EXPIRES 6-30-2023

NO.	DATE	REVISION	BY	APVD

O'NEIL ROAD SUBDIVISION

PREPARED FOR:

CRAIG WIGGINTON

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TEST PIT LOCATIONS

SCALE 1" = 20'

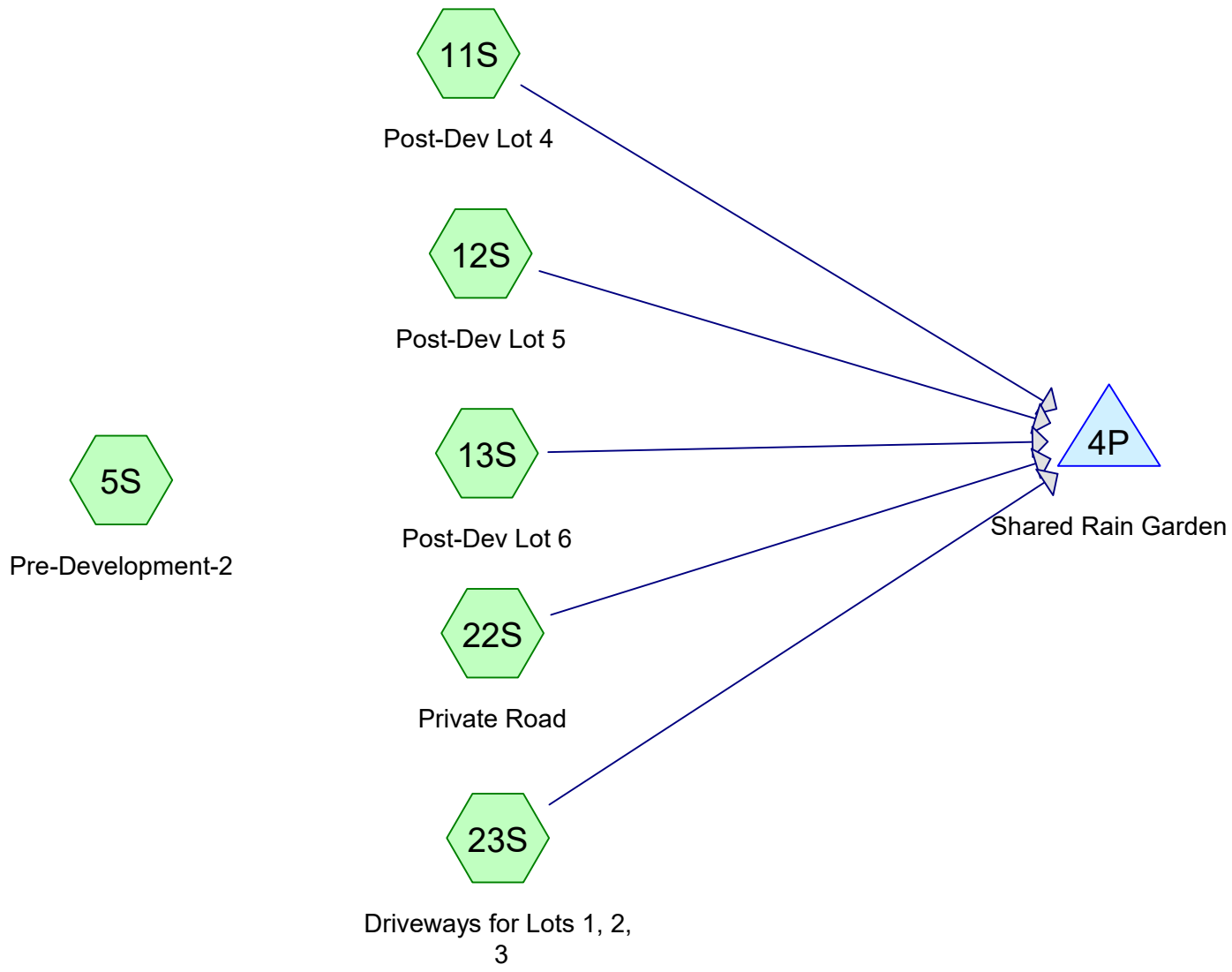
PROJECT NO. 14-76

SHEET 01 OF 01

TP-1

Appendix D

HydroCAD Computations for Shared Facility



Subcat Reach Pond Link

Routing Diagram for Prelim-Analysis Shared Raingarden 041522

Prepared by LEI Engineering & Surveying of Oregon, Printed 4/15/2022

Summary for Subcatchment 11S: Post-Dev Lot 4

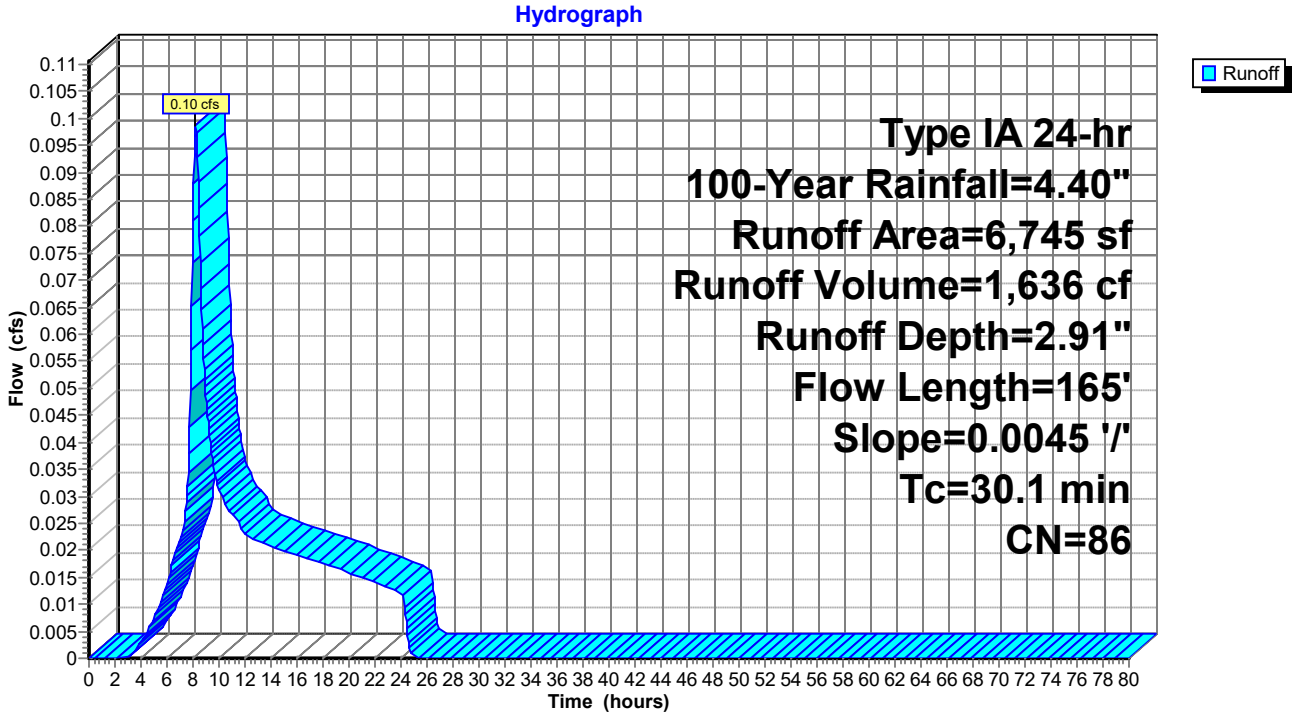
Runoff = 0.10 cfs @ 8.22 hrs, Volume= 1,636 cf, Depth= 2.91"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
Type IA 24-hr 100-Year Rainfall=4.40"

	Area (sf)	CN	Description
*	3,353	98	Impervious
	3,392	74	>75% Grass cover, Good, HSG C
	6,745	86	Weighted Average
	3,392		50.29% Pervious Area
	3,353		49.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
30.1	165	0.0045	0.09		**Sheet Flow, Sheet Flow** Grass: Short n= 0.150 P2= 2.50"

Subcatchment 11S: Post-Dev Lot 4



Summary for Subcatchment 12S: Post-Dev Lot 5

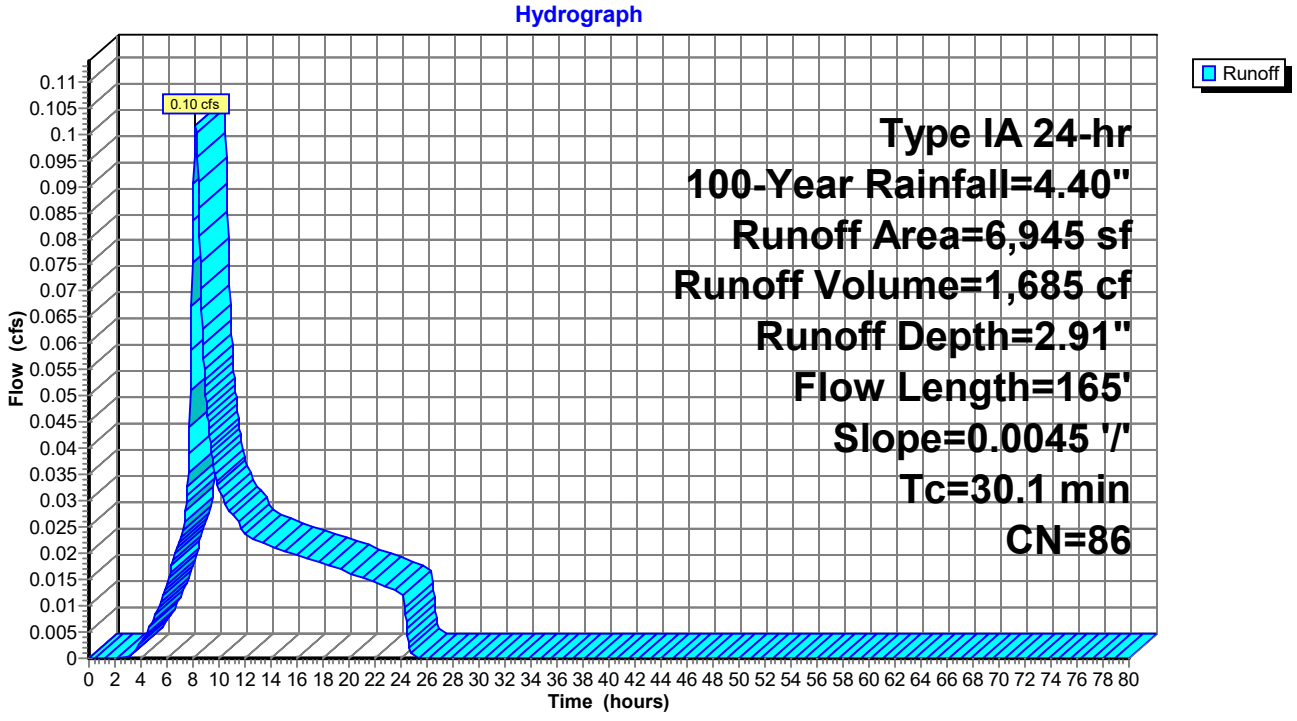
Runoff = 0.10 cfs @ 8.22 hrs, Volume= 1,685 cf, Depth= 2.91"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
Type IA 24-hr 100-Year Rainfall=4.40"

	Area (sf)	CN	Description
*	3,438	98	Impervious
	3,507	74	>75% Grass cover, Good, HSG C
	6,945	86	Weighted Average
	3,507		50.50% Pervious Area
	3,438		49.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
30.1	165	0.0045	0.09		**Sheet Flow, Sheet Flow** Grass: Short n= 0.150 P2= 2.50"

Subcatchment 12S: Post-Dev Lot 5



Summary for Subcatchment 13S: Post-Dev Lot 6

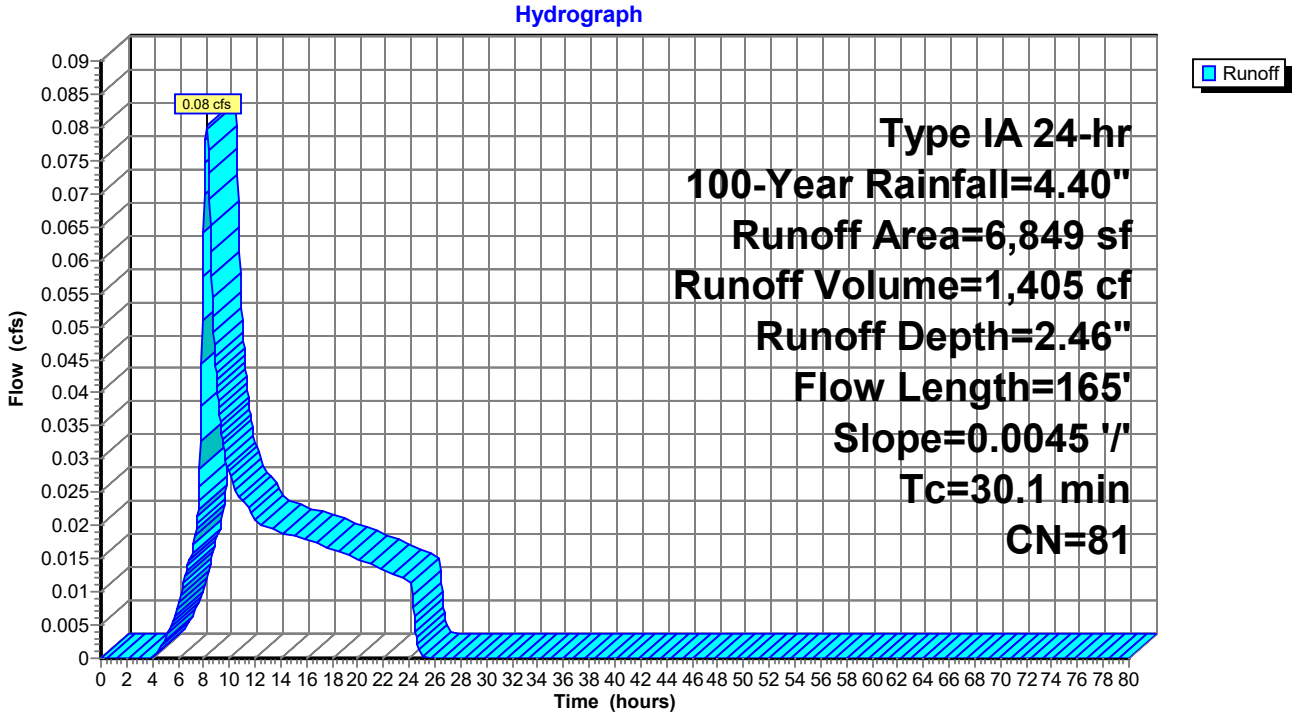
Runoff = 0.08 cfs @ 8.23 hrs, Volume= 1,405 cf, Depth= 2.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
Type IA 24-hr 100-Year Rainfall=4.40"

	Area (sf)	CN	Description
*	2,000	98	Impervious
	4,849	74	>75% Grass cover, Good, HSG C
	6,849	81	Weighted Average
	4,849		70.80% Pervious Area
	2,000		29.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
30.1	165	0.0045	0.09		**Sheet Flow, Sheet Flow** Grass: Short n= 0.150 P2= 2.50"

Subcatchment 13S: Post-Dev Lot 6



Summary for Subcatchment 22S: Private Road

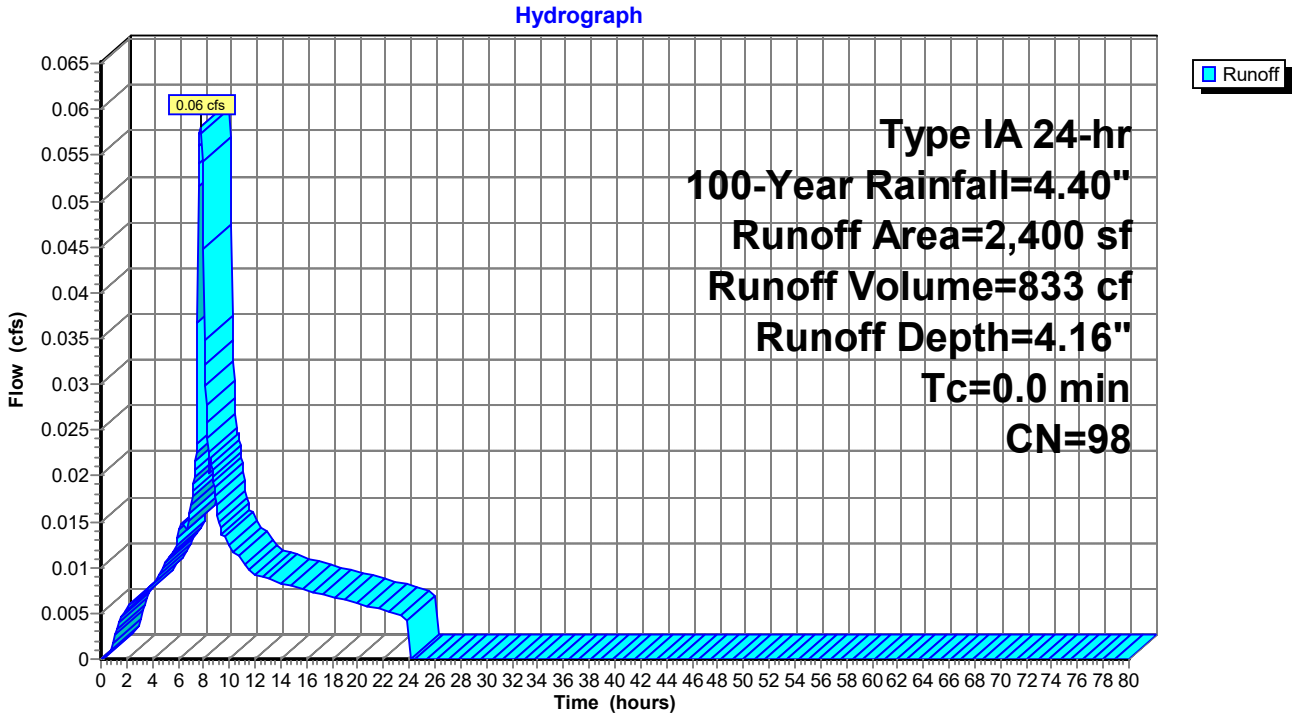
[46] Hint: Tc=0 (Instant runoff peak depends on dt)

Runoff = 0.06 cfs @ 7.78 hrs, Volume= 833 cf, Depth= 4.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
Type IA 24-hr 100-Year Rainfall=4.40"

	Area (sf)	CN	Description
*	2,400	98	Impervious
	2,400		100.00% Impervious Area

Subcatchment 22S: Private Road



Summary for Subcatchment 23S: Driveways for Lots 1, 2, 3

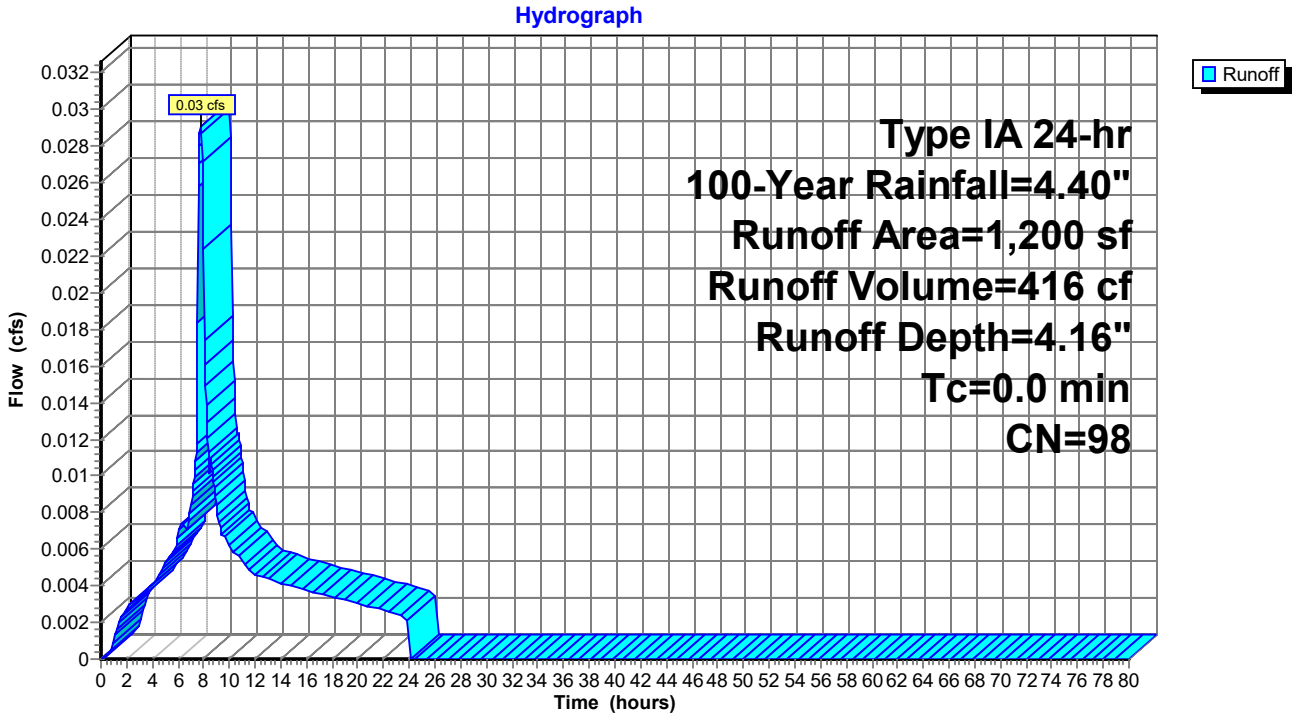
[46] Hint: Tc=0 (Instant runoff peak depends on dt)

Runoff = 0.03 cfs @ 7.78 hrs, Volume= 416 cf, Depth= 4.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
Type IA 24-hr 100-Year Rainfall=4.40"

	Area (sf)	CN	Description
*	1,200	98	Impervious
	1,200		100.00% Impervious Area

Subcatchment 23S: Driveways for Lots 1, 2, 3



Summary for Pond 4P: Shared Rain Garden

Inflow Area = 24,139 sf, 51.33% Impervious, Inflow Depth = 2.97" for 100-Year event
Inflow = 0.32 cfs @ 8.20 hrs, Volume= 5,976 cf
Outflow = 0.07 cfs @ 14.96 hrs, Volume= 5,976 cf, Atten= 78%, Lag= 406.0 min
Discarded = 0.07 cfs @ 14.96 hrs, Volume= 5,976 cf
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
Peak Elev= 101.49' @ 14.96 hrs Surf.Area= 2,022 sf Storage= 1,883 cf

Plug-Flow detention time= 352.8 min calculated for 5,972 cf (100% of inflow)
Center-of-Mass det. time= 353.0 min (1,109.0 - 756.0)

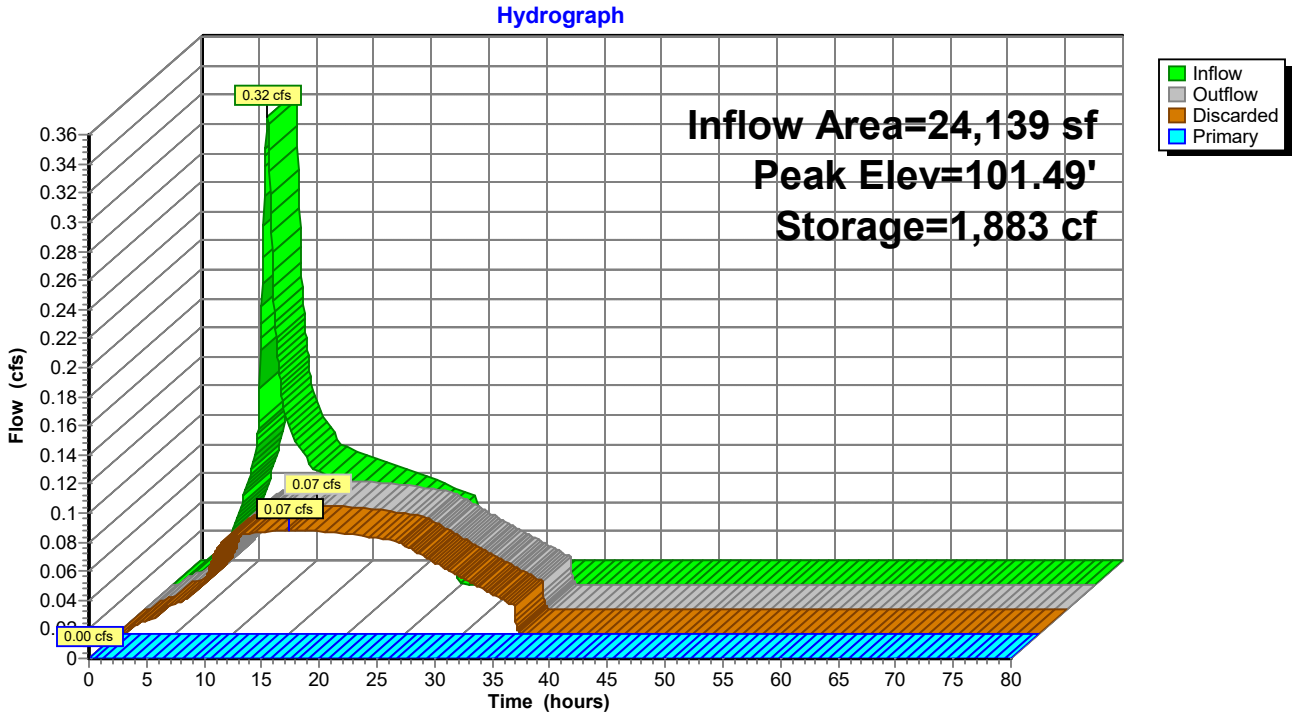
Volume	Invert	Avail.Storage	Storage Description
#1	100.00'	2,341 cf	**3.50'W x 154.00'L x 1.70'H Rain Garden Z=3.0**

Device	Routing	Invert	Outlet Devices
#1	Discarded	100.00'	**1.500 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 5.00'
#2	Primary	101.50'	**15.0' long x 2.0' breadth Overflow to Street** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

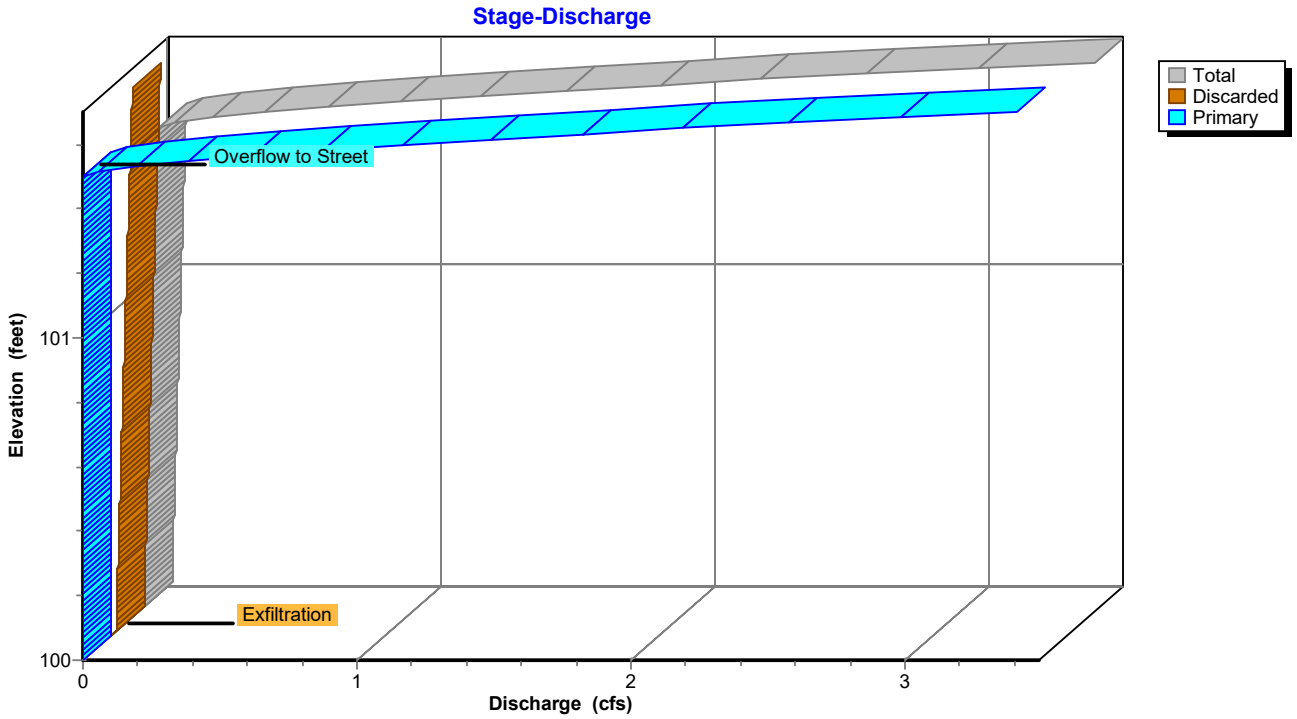
Discarded OutFlow Max=0.07 cfs @ 14.96 hrs HW=101.49' (Free Discharge)
↑—**1=Exfiltration** (Controls 0.07 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=100.00' (Free Discharge)
↑—**2=Overflow to Street** (Controls 0.00 cfs)

Pond 4P: Shared Rain Garden



Pond 4P: Shared Rain Garden



REVISED - Six Lot Subdivision and Tree Conservation Plan in the City of Keizer

Revision Submittal Date:	March 3, 2022
Submitted To:	City of Keizer Planning Department
Project Location:	8015 O'Neil Road NE Keizer, OR
Applicant:	Craig Wigginton, Property Owner ckwigginton@gmail.com
Applicant's Representative:	BRAND Land Use | Britany Randall Britany@brandlanduse.com

BRAND

PLANNING AND LAND USE CONSULTING
BRANDLANDUSE.COM
503.680.0949

Table of Contents

Arial View of Subject Property and Existing Development

Section 1: Property Background and Request

The applicant and property owner, Craig Wigginton, is presenting a consolidated application for a six-lot subdivision and tree conservation plan. The City of Keizer subdivision application form has been completed and is included as **Exhibit A** of this application submittal. The subject property is located at 8015 O'Neil Road NE in Keizer, Oregon, and is currently zoned Urban Transition (UT) but will automatically be rezoned to Single Family Residential (RS) upon approval and recordation of the subdivision plat. The legal description and ownership information is provided on the Statutory Warranty Deed included as **Exhibit B**. As described, the property is approximately .99-acres in size. The property is currently developed with a single-family dwelling and outbuildings, shown on the existing conditions map included with this application submittal as **Exhibit C**. The property is heavily treed but many of the trees are diseased, dead, or dying. A tree conservation plan is provided depicting which trees are planned for removal, and which trees will be retained with the subdivision and protected during construction. The site plan, preliminary subdivision plan, grading plan, utility plan, and tree conservation and removal plan are included as **Exhibit D** of this application submittal. Historically, the City of Keizer has been supportive of infill development, such as the one proposed. The property owner, Craig Wigginton, has had several conversations with City staff who have indicated there is a path to approval for this project. This narrative provides full and complete findings for all applicable zoning codes.

Section 2: Existing Conditions

The development site is approximately .99 acres in size and is described as Marion County Assessor Map and Tax Lot 063W23DA01800 and is addressed 8015 O'Neil Road NE in Keizer.

The site is located within corporate City limits of the City of Keizer. The Keizer Comprehensive Plan map designates the subject property as "Low Density Residential".

The Comprehensive Plan designations of surrounding properties include:

North: "Low Density Residential"

South: "Low Density Residential"

East: Across O'Neil Road NE, "Low Density Residential"

West: "Low Density Residential"

The subject property is zoned UT (Urban Transition) but will be rezoned automatically to RS (Single Family Residential) upon recordation of the subdivision plat. Surrounding properties are zoned as follows:

North: Urban Transition (UT)

South: Single Family Residential

East: Across O'Neil Road NE, Single Family Residential

West: Single Family Residential

Section 3: Findings Applicable to Administrative Procedures

Chapter 1.102 – Purpose and Scope

1.102.02 Conformance Required

The use of all land, as well as the construction, reconstruction, enlargement, structural alteration, use, or occupation of any structure within the City of Keizer shall conform to the requirements of this Ordinance except in the case of a legally established nonconforming use.

Applicant's Findings: *The applicant understands the use of land as well as the construction of structures shall conform to the requirements of this Ordinance. The applicant is seeking approval of a six-lot subdivision for future single-family dwellings which conforms to the Ordinance, as demonstrated throughout this written narrative. The applicant does not have a legally established nonconforming use and it not seeking a use which is non-conforming. As applicable, the application meets this criterion.*

1.102.04 Interpretation

The provisions of this Ordinance shall be interpreted as minimum requirements. When this Ordinance imposes a greater restriction than is required by other provisions of law, or by other regulations, resolutions, easements, covenants or agreements between parties, the provisions of this Ordinance shall control. (5/98) When a certain provision of this Ordinance conflicts with another provision of this Ordinance or is unclear, the correct interpretation of the Ordinance shall be determined by the Zoning Administrator. The Zoning Administrator may, at his/her discretion, request that City Legal Council, the Planning Commission or the City Council resolve the conflict or uncertainty.

Applicant's Findings: *The applicant understands the requirements of the applicable ordinances are the minimum standard and where standards conflict, the more restrictive shall have precedence. If interpretation of the ordinance is needed, the applicant understands the Zoning Administrator will make such interpretations. As applicable, this criterion is met.*

Chapter 2.101 General Provisions

2.101.01 Interpretation of Uses

A. Types of Uses. Within each zone, uses are classified as "permitted," "special permitted" and "conditional." Further, uses are functionally classified by description of the particular activity (such as "single-family residence") or by the general category with reference to the "Standard Industrial Classification Manual".
B. Standard Industrial Classification. Uses functionally classified with reference to the Standard Industrial Classification Manual (SIC) are described with the SIC index number assigned in the manual, e.g. (8734). Some activities, otherwise included under an SIC category, may be specifically excluded by this Ordinance. The excluded activity will be placed in the general SIC category but identified by the preceding words - "BUT (or AND) EXCLUDING." For example: "Food store (54) BUT EXCLUDING freezer and locker meat provisioners."

C. Interpretation of Uses. Where a use is not described with reference to SIC or otherwise defined in Section 1.2, the words of this zoning ordinance describing such use are to be given their ordinarily accepted meaning, except where the context in which they are used otherwise clearly requires.
D. Prohibited Uses. Uses not specifically identified as permitted, special permitted or conditionally permitted within the zone, or, otherwise allowed through interpretation, shall be considered prohibited uses.

Applicant's Findings: *The applicant is seeking approval for a six-lot subdivision within the UT zone. In accordance with the provisions of the City of Keizer code, the property will automatically be rezoned to RS upon recordation of the subdivision plat. The newly created lots will be developed with single-family dwellings which is a permitted use within the RS zone. This criterion is met.*

Chapter 3.101 Summary of Application Types

3.101.02 Type II Action – Summary

A. A Type II action is a quasi-judicial review in which the Hearings Officer applies a mix of objective and subjective standards that allow considerable discretion. A Type II action follows the procedures found in Section 3.202.04. Staff has an advisory role. The Zoning Administrator may refer any application to the City Council for public hearing and decision bypassing the Hearings Officer. Public notice and a public hearing are provided. Section 3.204 lists the notice requirements. Appeal of a Type II decision is to the City Council. The following actions are processed under a Type II procedure:
    1) Subdivision
    2) Planned Unit Development
    3) Manufactured Home Parks

Applicant's Findings: *The applicant is requesting a subdivision application which follows the Type II procedure, in accordance with this criterion.*

Chapter 3.201 General Provisions

3.201.01 Multiple Applications

A. Applications for more than one land use action for the same property may, at the applicant's discretion, be combined and heard or reviewed concurrently.
B. Multiple land use requests involving different processing Types shall be heard and decided at the higher processing Type. For example, an application involving a Subdivision (Type II) with a Variance (Type I-B) shall be reviewed and decided as a Type II request.

Applicant's Findings: *The applicant is submitting a single application to the City for review and approval which will be processed following the Type II procedure.*

3.201.03 Application Requirements

A. Application Forms. The City shall prepare and provide application forms for land use actions requiring review and approval, and all permits under this Code. Application forms shall require at least the following information:

1) Names and mailing addresses of the applicant and owners of the subject property;
2) Address and legal description of the subject property;
3) Written description and reason of the request;
4) Plan of the subject property;
5) Other information as required by the Zoning Administrator as applicable to the proposed action to its merits.

B. All applications for land use actions shall be filed with the Zoning Administrator on forms prescribed under this section and shall be complete as to all the factual information required to be stated on or furnished with the application.
C. Required information as identified on the application must be submitted to and approved by the City to be deemed complete.

Applicant's Findings: *The applicant has provided a complete application form for the requested subdivision which includes all of the information required as listed above. This criterion is met.*

3.201.04 Application; By Whom Filed

1) Owner of subject property;
2) Purchaser of subject property under a dully executed written contract when the application is accompanied by proof of the purchaser's status and the seller consents in writing to such application;
3) A lessee in possession of the property, when the owner consents in writing to such application;
4) The agent for any of the foregoing, when dully authorized in writing to such application is accompanied by proof of authority.

Applicant's Findings: *The applicant is also the property owner. The statutory deed showing title transfer is included with this application submittal as Exhibit B. This criterion is met.*

3.201.05 Resubmission of Application

If any land use action applied for is denied on the merits, such denial shall be a bar to refiling the same or substantially similar application for a period of one year from the date of the final decision.

Applicant's Findings: *The applicant understands if a denial is rendered, a moratorium of one year will be placed on applying for the same or substantially similar application.*

Chapter 3.202 General Procedures – Types I, II, and III Actions

3.202.04 Procedures for Type II and Type III Actions

An application for a land use action or permit may be filed by one or more of the following persons:

1) Owner of subject property;
2) Purchaser of subject property under a dully executed written contract when the application is accompanied by proof of the purchaser's status and the seller consents in writing to such application;
3) A lessee in possession of the property, when the owner consents in writing to such application;

4) The agent for any of the foregoing, when dully authorized in writing to such application is accompanied by proof of authority

Applicant's Findings: *The applicant is also the property owner. The statutory deed showing title transfer is included with this application submittal as Exhibit B. This criterion is met.*

Chapter 3.204 Public Notice Requirements

3.204.02 Type II and Type III Actions

A. Written Notice. Written notice of any public hearing shall be mailed at least 10 days prior to the hearing date to the applicant, owners of property within 250 feet of the boundaries of the subject property, and any affected neighborhood association. An affected neighborhood association is one containing the subject property, or within 250 feet of the subject property regardless of the jurisdiction.

Applicant's Findings: *The applicant understands this is a quasi-judicial process which will be heard before the Hearings Officer and written notice of the public hearing must be mailed at least 10 days prior to the hearing date to all parties listed within this provision including owners of property within 250 feet of the boundaries of the subject property. The notice will be sent by city staff as required by this section. This criterion will be met.*

B. Posting Notice.
    1) For application-initiated proceedings, including appeal from or review of administrative decisions, it shall be the applicant's responsibility to provide a sign frame and to place the notice. The City shall provide the notice to be attached to the frame. The applicant must post the notice on the subject property at least 10 days prior to the initial public hearing. At least five days prior to the hearing, the applicant shall file an affidavit with the Administrator that such posting has occurred.
    2) Notice of public hearing for legislative zone changes shall be given by posting in accordance with subsection 3.204.02B3. Each individual property need not be posted so long as there is such notice posted on each property or group of properties, which is not contiguous with other properties so posted.
    3) Notices shall be posted facing all streets adjoining the subject property so as to be visible from the street. If no street abuts the subject property, the notice shall be placed in such a manner as near as possible to the subject property that can be readily seen by the public. The posted notice shall include the following:
        a. The proposed action.
        b. Land use case number.
        c. The date, time and place of the public hearing.
        d. Name and phone number of the City representative to contact where additional information may be obtained.

Applicant's Findings: *The applicant understands the posting notice requirements and will adhere to each of them. This criterion will be met.*

C. Published Notice. Notice of the time, place and purpose of the Hearings Officer, Planning Commission, or City Council hearings shall be given by publication of a notice in a newspaper of general circulation in the City not less than ten days prior to the date of the initial hearing before the Hearings Officer, Planning Commission, or City Council.

Applicant's Findings: *The applicant understands the publishing notice requirements and will adhere to each of them. This criterion will be met.*

Section 4: Findings Applicable to Subdivision

Chapter 2.102 Single Family Residential (RS)

2.102.02 Permitted Uses

The following uses, when developed under the applicable development standards in this Ordinance, are permitted in the RS zone:

A. Detached single family dwelling on a lot.
B. Residential homes.
C. Family day care provider, for 16 or fewer children consistent with state regulations.
D. --
E. --
F. --
G. Public or private utility substation, but excluding communication towers and electrical substations.
H. Child foster home for five or fewer children.

Applicant's Findings: *The applicant is seeking approval of a six-lot subdivision which will be prepared for future single-family dwellings on each lot. This is a permitted use within the RS zone. This criterion is met.*

2.102.05 Dimensional Standards

The following dimensional standards shall be the minimum requirements for all development in the RS Zone except for modifications permitted under Section 2.202, General Exceptions or as required in Section 2.4.

A. Minimum Lot Dimension and Height Requirements (Table)
    1) Newly created lots or parcels less than 5000 square feet in area shall be limited to zero lot line dwellings (2.404).
    2) Parcel size shall be adequate to contain all structures within the required yard setbacks.
    3) 50 Feet - Required setbacks shall increase 1 foot for every foot the height exceeds 35 feet.

Applicant's Findings: *Proposed Lot 2 is the smallest of the lots at approximately 5,750 square feet with Lot 1 being the largest at approximately 7,172 square feet and the average lot size within the subdivision is 6,801. The lots as proposed, exceed the minimum 4,000 square foot standard required within the RS zone. The applicant understands the maximum height of the future dwellings will be 35-feet. Each lot will*

be of an adequate size to contain structures and meet the minimum required yard setbacks. This criterion will be met.

B. Minimum Yard Setback Requirements (Table)
    1) Zero side yard dwelling units are subject to the setback provisions in Section 2.404.
    2) The rear yard setback shall be as follows: 14 feet for a 1-story home; 20 feet for a 2-story home.
    3) Setbacks are measured from property lines, not easement lines. However, no structure shall be placed any closer than five feet from the edge of an access easement or 20 feet from the right-of-way of an arterial or collector street.
    4) The garage entrance setback shall be measured from the property line or edge of private access easement to the entrance of the garage. The centerline of the driveway shall be measured if the driveway to the garage entrance is not perpendicular to the property line or private access easement. In no case shall a garage be set back less than the minimum front, side, and rear setbacks.
    5) The minimum front setback from an access easement shall be ten (10) feet.

Applicant's Findings: *At the time of building permit for each new residential dwelling, the applicant will submit site plans depicting the minimum yard setbacks are met including setbacks to the garage, front of the home, side yards, and rear yards. The proposed lots are of substantial size and dimensions to accommodate the future structures and all the required yard setbacks. This criterion will be met.*

C. Proposals to develop properties in RCOD are subject to dimensional standards in Section 2.130.

Applicant's Findings: *The subject property does not fall within the River-Cherry Overlay District. This criterion is not applicable.*

2.102.06 Development Standards

All development in the RS Zone shall comply with the applicable provisions of this Ordinance. The following includes referenced items as well as additional development requirements:

A. Off Street Parking: Parking shall be as specified in Section 2.303.

Applicant's Findings: *In accordance with Section 2.303, within residential zones, the parking may be located on another lot within 200 feet of the lot containing the main building. In this case, the applicant is not proposing the required vehicle parking areas to be on lots other than the dwelling they will serve. The applicant will provide details of parking locations and setbacks at the time of building permit. This criterion will be met.*

B. Subdivisions and Partitions: Land divisions shall comply with provisions of Section 2.310.

Applicant's Findings: *The applicant has provided responses to Section 2.310 Development Standards for Land Divisions within this application narrative. The applicable criteria have or will be met by this proposal.*

C. Yards and Lots: Yards and lots shall conform to the standards of Section 2.312.

Applicant's Findings: *The applicant has provided responses to all applicable criteria listed in Section 2.312 within this application narrative. The applicable criteria have or will be met by this proposal.*

D. Design Standards: Unless specifically modified by provisions in this Section, buildings located within the RS zone shall comply with the following standards:
    1) Single family homes shall comply with the design standards in Section 2.314.
    2) Residential structures with four or more attached dwelling units and non-residential structures shall comply with the provisions in Section 2.315 - Development Standards.

Applicant's Findings: *As described previously, the proposal is for a six-lot subdivision and the future dwellings will be subject to the design standards for single-family dwellings as outlined in Section 2.314. The applicant has provided findings in response to the applicable criteria and additional information regarding each dwelling and their design will be submitted at the time of building permit application.*

E. Signs: Signs shall conform to the requirements of Section 2.308.

Applicant's Findings: *At this time, the applicant is not proposing any monument signs or other signs for the subdivision. However, it is understood if signs are proposed in the future, they will need to conform with the requirements of Section 2.308.*

F. Accessory Structures: Accessory structures shall conform to requirements in Section 2.313.

Applicant's Findings: *The applicant is retaining the existing garage on Lot 1 and the shop on Lot 3, as shown on the included site plan. These are the only two structures the applicant is asking to be allowed to remain. It is understood that the Keizer Development Code does not allow accessory structures on properties without a main structure. However, the applicant is willing to sign an improvement agreement stating that building permits will be applied for lots 1 and 3 within one year of the subdivision plat recording. The shop will be resided with residential siding, removing the metal siding and giving it a more residential character, meeting the requirements of the code. Retaining these structures not only provide a cost savings but it's also a good environmental practice. The structures are sound and permitted, demolishing them to replace them with like structures is not a best practice. Retaining them also decreases the required ground disturbance on the site.*

The rear yard of Lot 3 can be 3,000 square feet based on potential dimensions of the future single-family dwelling. With the accessory structure at 596 square feet, the rear yard coverage is less than the 20 percent maximum allowed. Additionally, neither structure exceeds the maximum allowable height, and the applicant is aware the new dwellings must be taller than the accessory structures.

The applicant understands the provisions of this section will apply to any accessory structures proposed at the time of building permit. This criterion will be met.

G. Landscaping: A minimum of 30% of the property shall be landscaped, including all required yards. Landscaped areas shall be landscaped as provided in Section 2.309.

Applicant's Findings: *The landscaping requirement for each proposed new lot will not only meet the 30 percent requirement but will exceed it. This is information which will be presented at the time of building permit for each of the future proposed dwellings. Each lot is much larger than the 4,000 and 5,000*

square foot minimum requirements which provides ample space for the dwelling, accessory structures, parking, setbacks, and landscaped areas. This criterion will be met.

H. Lot Coverage: The maximum coverage allowed for buildings, accessory structures and paved parking shall be 70%.

Applicant's Findings: *Lot coverage calculations will be provided at the time of building permit application for each of the future proposed dwellings. Each lot is much larger than the 4,000 and 5,000 square foot minimum requirements which provides ample space for the dwelling, accessory structures, and parking, while maintaining maximum lot coverage requirements outlined in this provision. This criterion will be met.*

I. Density: When RS zoned property is subdivided the minimum density shall be 4 units per acre; the maximum density shall be 8 units per.

Applicant's Findings: *The subject property is .99 acres in size and has a minimum density of 4 dwelling units and a maximum density of 8 dwelling units. The applicant is proposing a density of 6 dwelling units per acre. This criterion is met.*

J. Number of Buildings. No more than one primary building shall be located on a lot or parcel.

Applicant's Findings: *The applicant is presenting a six-lot subdivision which will be prepared for single-family dwellings. The applicant understands only one (1) primary building is allowed on each lot. In the future, when the applicant applies for building permits for each dwelling, a site plan will be provided showing only one (1) primary building on each lot. This criterion will be met.*

K. Proposals to develop properties in RCOD are subject to development standards in Section 2.130.

Applicant's Findings: *The subject property does not fall within the River-Cherry Overlay District. This criterion is not applicable.*

Chapter 2.201 General Standards

2.201.01 Minimum Requirements

In interpreting and applying this Ordinance, these provisions shall be considered the minimum requirements adopted for the promotion of the public health, safety, comfort, convenience, and general welfare.

Applicant's Findings: *The applicant understands the provisions of this chapter are the minimum requirements adopted for the promotion of the public heath, safety, comfort, convenience, and general welfare. In many cases, the applicant is proposing to exceed minimum requirements as demonstrated throughout this narrative and on the attached plans included as Exhibit D.*

2.201.02 Building Permits

A. Building Permits Required. No building shall be constructed or structure erected without receiving the appropriate building permit. Building permits shall include electrical, mechanical, structural, foundation and similar types of permits issued by the appropriate building codes agency.

B. Completion of a Structure. It shall be a violation of this Ordinance if:
    1) Any structure is occupied or put to use prior to receiving a Certificate of Occupancy or final inspection approval.
    2) A Certificate of Occupancy or final inspection approval has not been received prior to the expiration date of the building permit.
    3) Construction activity occurs beyond the expiration date of the building permit.
C. Violations are subject to the provision of Section 1.102.06.

Applicant's Findings: *The applicant understands none of the future proposed dwellings, or any proposed accessory structure may be erected without a building permit. This criterion will be met.*

2.201.03 Lots of Record

A. Legal Lot. A parcel is a legal lot of record for purposes of this Ordinance when the lot conforms to all zoning requirements, subdivision requirements, and Comprehensive Plan provisions in effect on the date when a recorded deed or contract creating the separate lot or parcel was signed by the parties to the deed or contract.
B. Separate Legal Lot. A lot or parcel which is a separate legal lot or parcel prior to the adoption of this Ordinance shall remain a separate legal lot regardless of ownership.
C. Development of a Lot of Record. The use or development of any legal lot of record shall be subject to the regulations applied to the property when such development or use begins, irrespective of the lot width, street frontage, depth or area, but subject to all other regulations.

Applicant's Findings: *The subject property is a legal lot of record. The property deed showing ownership information and the legal description is provided as Exhibit B of this application submittal. The applicant is proposing to develop the property into a six-lot subdivision, subject to the regulations of the City of Keizer development code. The applicant is meeting all applicable standards without deviation, as demonstrated throughout this narrative.*

2.201.04 Access to a Public Street

A. Access Required. All uses shall be located on property having access to a public street. Access to a public street is defined as a minimum of 20 feet of frontage on one of the following:
    1) Public Street. A public street with a right-of-way not less than 20 feet wide that is unobstructed, has been graveled or paved, and is open for public use to the property.
    2) Private Street. A private street may be used to access a public street when compliance with Section 2.302.02.F is demonstrated.
    3) Private Access Easement. A private access easement of not less than 20 feet where the access easement connects the property to a public street and the easement is improved to the minimum standards of Section 2.302.08.

Applicant's Findings: *The subject property has approximately 137-feet of frontage onto O'Neil Road NE, which is a public street. The newly proposed lots 1 and 2 will continue to have frontage and direct access to O'Neil Road NE. Lots 3 through 6 will be served by a private access easement, proposed to be 22-feet in width for purposes of ingress and egress for a fire apparatus. The subdivision does not include any newly created public or private streets. These criteria are met.*

2.201.07 Structures to be on a Lot

All structures and uses shall be entirely situated on a single lot with the following provisions:

A. Condominiums. Structures allowed under the Unit Ownership law (ORS 91.400 et seq.) shall be excepted from this requirement.
B. Zero Lot Line. Buildings that are attached at a common property line or which are detached and located immediately adjacent to a property line, and which meet all requirements of the Building Code as separate buildings, shall be considered separate.
C. Portable Structures Restricted. Portable structures housing non-residential uses are prohibited except when used for a permitted temporary business or when used as an addition to an existing business located in a permanent structure and when erected and operated in accordance with all applicable building and fire codes, and City sewer and water standards.

Applicant's Findings: *Each of the future structures will be situated entirely on a single lot, without exception. The applicant will supply a site plan at the time of building permit for each proposed dwelling demonstrating that each primary and accessory structure (if applicable) will be situated entirely on a lot. This criterion will be met.*

2.201.08 Division or Alteration of Lots

In addition to any partitioning or subdivision requirements in the Ordinance, no lot held under separate ownership shall be divided or altered so that it does not meet the requirements in this Ordinance. If a lot does not meet such requirements at the time this Ordinance is adopted, it shall not be divided or altered in such a manner that the lot is less in conformity with these regulations in any respect.

Applicant's Findings: *The applicant is applying for a subdivision of the subject property. This narrative and the attached plans demonstrate conformance with all applicable provisions of the City of Keizer development code. This criterion is met.*

Chapter 2.203 Permitted Uses Generally

2.203.01 Permitted Uses:

The following uses and activities are permitted in all zones:

A. Utility Facilities. Placement and maintenance of underground or above ground wires, cables, pipes, guys, support structures, pump stations, drains, and detention basins within rights-of-ways by public agencies and utility companies for telephone, TV cable, or electrical power transmission, or transmission of natural gas, petroleum products, geothermal water, water, wastewater, sewage and rainwater.
B. Railroad Tracks. Railroad tracks and related structures and facilities located within rights-of-ways controlled by railroad companies.
C. Street Improvements. Surfaced travel lanes, curbs, gutters, drainage ditches, sidewalks, transit stops, landscaping and related structures and facilities located within rights-of-ways controlled by a public agency.
D. Public Right-of-way Expansion/Use. Expansion of public right-of-way and widening or adding improvements within the right-of-way, provided the right-of-way is not expanded to more width

than prescribed for the street in the Public Facilities segment of the Comprehensive Plan. The placement, storage or display of merchandise, or other material for commercial use in the street, on the sidewalk, median strip, or any other portion of the street right of way or public easement is prohibited.

E. Signs. Signs as permitted in Section 2.300.

Applicant's Findings: *The applicant understands the above uses and activities are permitted in all zones. Some of these activities will be necessary during the construction phase of the future single-family dwellings.*

2.203.02 Permitted Residential Accessory Structures and Uses

The following accessory uses shall be permitted subject to the following limitations and requirements:

A. Accessory Structures and Uses. The following accessory structures and uses are permitted on a lot in any zone in conjunction with a permitted dwelling or manufactured home:
    1) Decks and patios (open, covered or enclosed).
    2) Storage building for fire wood, yard maintenance equipment or tools, or, personal property not used in conjunction with any commercial or industrial business other than a home occupation.
    3) Green house or hobby shop.
    4) Swimming pools, hot tubs, and saunas along with associated structures.
    5) Pets, including outdoors shelters or runs.
    6) Fall-out shelters.
    7) Garages and carports.
    8) Rooms for 1 or 2 boarders residing in the dwelling.

Applicant's Findings: *The applicant understands the uses listed above are permitted as an accessory to the primary residential uses which will be established on the new lots.*

B. Fences. Fences are a permitted accessory or secondary use in all zones subject to the requirements in Section 2.312.10.

Applicant's Findings: *The applicant understands fences are permitted as accessory or secondary uses in all zones and are subject to the requirements in Section 2.312.10.*

C. Residential Office. One manager's office of 400 square feet or less for rental of dwellings is a permitted accessory use in the RL, RM, RH and CM zones provided the office is located within a building containing dwelling units.

Applicant's Findings: *The applicant is not proposing a residential office on the subject site. This criterion is not applicable.*

Chapter 2.301 General Provisions

2.301.02 Application of Standards

A. Application. The standards governing development as set forth in Section 2.3, the applicable zone district, and/or within Section 2.4 as applicable shall apply to partitions; subdivisions;

planned unit developments; commercial and industrial development; public and non-commercial development; single family dwellings, duplexes and multi-family structures.

Applicant's Findings: *The applicant understands which provisions are applicable to the proposed subdivision and the future development of each lot. Each applicable criterion is being met by the proposal, without exception.*

B. Phasing. Phasing or delay of improvements may be authorized as allowed by this section. When it is determined by the City that the strict application of the requirements outlined in the table below is impractical or not feasible then consideration may be given for delaying or phasing the required public facilities improvements. Phasing may be considered when:
    1) lack of connecting facilities exists;
    2) any plans that the city may have for future public facilities improvements that may justify phasing or delaying so that the project may be incorporated into the city's improvement plans;
    3) other engineering factors that may justify that the improvements should be delayed exist.

    If a delay or phasing is allowed it is not to be considered as a modification of the required improvements or that the improvements are to be eliminated. The property owner shall sign an appropriate agreement with the city in a recordable form that shall obligate the property owner to construct the improvements at the specified time within the agreement. Phasing is authorized only if specifically allowed for in the land use decision or the building permit.

Applicant's Findings: *The applicant does not anticipate needing to phase or delay the required improvements for this subdivision. None of the conditions listed above exist for this site and with the small scale of the project, it would be more cost effective and efficient to complete all of the required improvements at once.*

2.301.03 Public Facility Improvement Requirements

Standards for the provision and utilization of public facilities or services available within the City of Keizer shall apply to all land developments in accordance with the following table. No development permit, including building permit, shall be approved or issued unless the following improvements are provided prior to occupancy or operation, or unless future provision is assured in accordance with Subsection 2.310.05.D or 2.310.06.P as applicable. (Table)

Applicant's Findings: *City services exist within O'Neil Road NE which the subject property has access to. In accordance with the table, water, sewer, and storm hook-ups are required. The applicant has provided a preliminary utility plan with this application submittal for review and approval by the Hearings Officer. The applicant anticipates a minor street dedication and frontage improvements to local street standards may be required along the property frontage. This application is a Type II process which allows the review authority to impose conditions of approval on the land use decision which would ensure compliance with this section. This criterion will be met.*

2.301.04 Traffic Impact Analysis (TIA)

A. Purpose. The purpose of this section of the code is to implement Section 660-012-0045(2)(e) of the State Transportation Planning Rule that requires the City to adopt a process to apply conditions to development proposals in order to minimize adverse impacts to and protect transportation facilities. This section establishes the standards for when a proposal must be reviewed for potential traffic impacts; when a Traffic Impact Analysis must be submitted with a development application in order to determine whether conditions are needed to minimize impacts to and protect transportation facilities; what must be in a Traffic Impact Study; and who is qualified to prepare the Study.

B. Typical Average Daily Trips. The latest edition of the Trip Generation manual, published by the Institute of Transportation Engineers (ITE) shall be used as standards by which to gauge average daily vehicle trips.

C. When Required. A Traffic Impact Analysis shall be required to be submitted to the City with a development application, when the following conditions apply:

1) The development application involves one or more of the following actions:

a. A change in zoning or a plan amendment designation; or

b. The development shall cause one or more of the following effects, which can be determined by field counts, site observation, traffic impact analysis or study, field measurements, crash history, Institute of Transportation Engineers Trip Generation manual; and information and studies provided by the local reviewing jurisdiction and/or ODOT:

1. An increase in site traffic volume generation by 250 Average Daily Trips (ADT) or more (or as required by the City Engineer); or
2. An increase in use of adjacent streets by vehicles exceeding the 20,000-pound gross vehicle weights by 10 vehicles or more per day; or
3. The location of the access driveway does not meet minimum intersection sight distance requirements, or is located where vehicles entering or leaving the property are restricted, or such vehicles queue or hesitate, creating a safety hazard; or
4. The location of the access driveway does not meet the access spacing standard of the roadway on which the driveway is located; or
5. A change in internal traffic patterns that may cause safety problems, such as back up onto the highway or traffic crashes in the approach area.

Applicant's Findings: *A traffic impact analysis (TIA) is not warranted or required for this project. The applicant is proposing a six-lot subdivision which will be prepared for the future construction of single-family dwellings. None of the conditions listed above, which would trigger a TIA, exist on this site. This criterion is not applicable.*

Chapter 2.302 Street Standards

2.302.02 Scope

The provisions of this Section shall be applicable for the following:

A. Land Divisions. The creation, dedication or construction of all new public or private streets in all subdivisions, partitions or other developments in the City.
B. Street Expansion. The extension or widening of existing public or private streets or rights-of-way, easements, or street improvements including those which may be proposed by an individual or the City, or which may be required by the City in association with other development approvals.
C. Utility Improvements. The construction or modification of any utilities or sidewalks in public rights-of-way, existing private street, or private access easements.
D. Street Trees. The planting of any street trees or other landscape materials in public rights-of-way.
E. Exceptions. Provisions of this Section do not apply in existing developed areas of the City. Improvements in these areas shall be based on standards adopted by the Department of Public Works.
F. Private Streets. Private streets and improvements on private streets are allowed only in the following situations:
    1) Improvements and/or widening of existing and allowed private streets.
    2) Creation of new private streets within an existing subdivision or PUD already containing approved private streets.
    3) Creation of new private streets in a proposed subdivision, PUD, or partition if the only access to the proposed subdivision, PUD, or partition is via existing and approved private streets.

Applicant's Findings: *The provisions of this chapter are applicable to the proposed development as the applicant is seeking approval of a land division. It is likely a dedication of right-of-way along the property frontage and improvements to local street standards will be required as a condition of approval for this application. The extension and improvements of utilities is also anticipated by the applicant as is the requirement for planting at least one new street tree. The subdivision does not include a private street.*

2.302.03 General Provisions

The following provisions shall apply to the dedication, construction, improvement or other development of all public streets in the City of Keizer:

A. General Requirement. The location, width, and grade of streets shall be considered in their relation to existing and planned streets, to topographical conditions, to public convenience and safety, and to the proposed use of the land to be served by the streets.

Applicant's Findings: *The applicant is not proposing to create any new streets, but will serve the proposed development with a 22-foot-wide access easement and the existing O'Neil Street NE.*

B. Continuation of Streets. Development proposals, including subdivisions and partitions, shall provide for the continuation of, and connection to, streets where necessary to promote appropriate traffic circulation in the vicinity of the development. Where necessary to give access or permit a satisfactory future division of adjoining land, streets and utilities shall be extended to property boundaries to allow the future extension of streets and infrastructure. A temporary turnaround shall be constructed for stub streets in excess of 150 feet in length.

No street or utility extensions are required when any of the following circumstances exist:

1) Less than three additional existing or future lots on adjoining parcels would gain access from the extension. For purposes of this criterion, the size of said future lots shall be no greater than two times the minimum lot size of the zone.
2) Parcel shape or size prevents new lots from meeting lot width or depth standards when a public street is proposed through the parcel.
3) Partial-width streets where adjoining development would provide a fullwidth public street, does not eliminate the need for variances to lot depth or width requirements.
4) Natural physical obstructions or barriers, such as parkland, floodplain, slopes, or significant trees, make access and connectivity unreasonable or impracticable.
5) Providing access and connectivity to one or more adjoining parcel(s) would not be useful given that at least one of the following conditions exist:
    a. A future street plan demonstrates that adequate access and connectivity is provided from the adjacent parcel(s).
    b. The development potential of the adjoining parcel(s) is (are) limited due to physical or jurisdictional constraints to such a degree that connectivity is unreasonable or impracticable.

Applicant's Findings: *Because the applicant is not proposing any new streets and no streets are stubbed to the subject property, this provision is not applicable to the proposed development.*

C. Alignment. All streets other than minor streets or cul-de-sacs, as far as practical, shall be in alignment with existing streets by continuation of the existing centerlines. The staggering of street alignments resulting in "T" intersections shall, wherever practical, leave a minimum distance of 200 feet between the center lines of streets having approximately the same direction and otherwise shall not be less than 100 feet.

Applicant's Findings: *Lots 3 through 6 of the proposed subdivision will be served by a new access easement. It is anticipated that the Public Works Department and City Engineer will review the location of the proposed access easement and be satisfied that the alignment will not create any traffic conflicts.*

D. Future extension of streets. When it appears possible to continue a street, bicycle path and/or pedestrian accessway into a future subdivision, adjacent acreage or area attractors such as schools and shopping centers, streets, bicycle paths and/or pedestrian accessway facilities shall be platted and built to a boundary of the subdivision. The street may be platted without a turnaround unless the Public Works Department finds a turnaround is necessary for reasons of traffic safety. Any street extension exceeding 150 feet in length shall be provided with an approved turnaround as set forth in the Uniform Fire Code.

Applicant's Findings: *No new streets are proposed with this development. The property is bordered by O'Neil Road NE along its western boundary and developed properties to the south and east. The property to the north could be developed in the future in the same manner as the subject property. It would be impractical to place a street connection to the property to the north because it would create a nonconforming intersection along Clear Lake Road NE. Additionally, the city's Transportation System*

Plan (TSP) does not indicate there are any required connections from the subject property. As demonstrated on the site plan, an adequate turnaround, designed to Marion County standards, is provided.

E. Intersection angles. Streets shall be laid out to intersect at angles as near to right angles as practical, except where topography requires lesser angles. Intersections of less than 60 degrees shall require special intersection designs. Streets shall have at least 50 feet of tangent adjacent to intersections unless topography requires lesser distances. Intersections that are not at right angles shall have minimum corner radii of 15 feet. Major arterial intersections shall have curb radii of not less than 35 feet. Other street intersections shall have curb radii of not less than 20 feet.

Applicant's Findings: *No new public streets will be constructed. This provision is not applicable to the proposed development.*

F. Existing Streets. Whenever existing public streets adjacent to or within a tract are of a width less than the street design standards, additional right-of-way shall be provided at the time of subdivision, partitioning, or development.

Applicant's Findings: *The applicant understands O'Neil Road NE may be underimproved along the frontage of the subject property. If dedication and improvements are required, these can be conditions of approval included with the Hearings Officer's decision.*

G. Half-Streets. Half-streets may be approved where essential to the reasonable development of an area and when the City finds it to be practical to require the dedication of the other half when the adjoining property is developed. When a ¾ width street can reasonably be developed, as determined the Department of Public Works, a half street will be constructed with an additional 10 feet of pavement on the opposite side of the street from full improvement.

Applicant's Findings: *The applicant is not proposing a half-street with this development. This criterion is not applicable.*

H. Cul-de-sacs. The maximum length shall be 800 feet.

Applicant's Findings: *No new cul-de-sac streets are being proposed with this development. This criterion is not applicable.*

I. Street Names. Street names and numbers shall conform to the established standards and procedures in the City.

Applicant's Findings: *In order to prevent duplicating of street names for emergency services, the City of Keizer has implemented street naming standards and procedures. The applicant has proposed a name for the access easement which is believed to follow the requirements for street naming. The applicant's surveyor will provide the name of the access easement on the plat. It is the applicant's understanding that the access easement naming approval will take place at the time of check-plat review and approval.*

J. Grades and Curves. Grades shall not exceed 7 percent on arterials, 10 percent on collector streets or 15 percent on any other street. Street grades of 15 percent shall not exceed 200 feet

in length. To provide for adequate drainage, all streets shall have a minimum slope of 0.5 percent. On arterials there shall be a tangent of not less than 100 feet between reversed curves.

Applicant's Findings: *No new streets are proposed with the development. The platting of six new lots and construction of the access easement to serve lots 3 through 6 will not alter the grade of the existing street. The subject property, as shown on the existing conditions plan, is relatively flat with no slopes exceeding the allowances of this provision. A preliminary grading and drainage plan has been submitted with this application package. The applicant anticipates submitting a final engineered grading and drainage plan for review and approval prior to final plat recordation.*

K. Frontage Streets. If a development abuts or contains an existing or proposed arterial or collector street, the City may allow frontage streets, or may require reverse frontage lots with suitable depth, screen planting contained in a non-access reservation along the rear or side property line, or such other treatment as may be necessary for adequate protection of residential properties, to afford separation of through and local traffic, and to preserve the capacity and safety of the collector or arterial street.

Applicant's Findings: *The functional street classification of O'Neil Road NE, which is the street this development site has frontage on, is a local street in accordance with the City of Keizer TSP. No new frontage streets are proposed, and the new traffic will not funnel out onto an arterial or collector street. This criterion is not applicable.*

L. Alleys. Alleys shall be provided in commercial and industrial zones unless other permanent provisions for access to off-street parking and loading facilities are provided. The corners of alley intersections shall have radii of not less than 10 feet.

Applicant's Findings: *The subject property is located in a residential zone and the applicant is not proposing any new alleys to be provided. This criterion is not applicable.*

M. Street Landscaping. Where required as part of the right-of-way design, planting strips shall conform with the following standards:
    1) Street trees shall be planted at a ratio of no less than one tree per 30 feet of property frontage. Street trees shall conform with the list of acceptable trees included in the City's Street Tree Ordinance. Installation of street trees shall be included in any improvement agreement covering the installation of public facilities and services on a property.
    2) Planting strips shall be planted and maintained in predominantly living groundcover materials with hard surfaces consisting of bricks, pavers, rocks, decorative concrete work, etc., only being included as part of an overall landscape design where living plant material is predominant. In no case shall asphalt be used within the planting strip.

Applicant's Findings: *The subject property has approximately 137-feet of frontage on O'Neil Road NE which would calculate out to a requirement of roughly 4.5 new street trees. The applicant has addressed landscaping requirements later in this narrative. As applicable, the criterion will be met.*

N. Access Control Standards. The following access control standards apply to public, industrial, commercial and residential developments including land divisions. Access shall be managed to

maintain an adequate level of service and to maintain the functional classification of roadways as required by the City of Keizer Transportation System Plan. Major roadways, including arterials and collectors, serve as the primary system for moving people and goods within and through the city. Access management is a primary concern on these roads. Local streets and alleys provide access to individual properties. If vehicular access and circulation are not properly designed, these roadways will be unable to accommodate the needs of development and serve their transportation function.

The regulations in this section further the orderly layout and use of land, protect community character, and conserve natural resources by promoting well-designed road and access systems and discouraging the unplanned subdivision of land.

1) Traffic Impact Analysis Requirements. The City or other agency with access jurisdiction may require a traffic study prepared by a qualified professional to determine access, circulation and other transportation requirements. (See also, Section 2.301.03 Traffic Impact Analysis.)
2) City or other agency with access permit jurisdiction may require the closing or consolidation of existing curb cuts or other vehicle access points, recording of reciprocal access easements (i.e., for shared driveways), development of a frontage street, installation of traffic control devices, and/or other mitigation as a condition of granting an access permit, to ensure the safe and efficient operation of the street and highway system. Access to and from off-street parking areas shall not permit backing onto a public street.
3) Access Options. When vehicle access is required for development (i.e., for off-street parking, delivery, service, drive-through facilities, etc.), access shall be provided by one of the following methods (a minimum of 10 feet per lane is required; planned access shall be consistent with adopted public works standards for road construction). These methods are “options” to the developer/subdivider.
    a. Option 1. Access is from an existing or proposed alley or midblock lane. If a property has access to an alley or lane, direct access to a public street is not permitted.
    b. Option 2. Access is from a private street or driveway connected to an adjoining property that has direct access to a public street (i.e., “shared driveway”). A public access easement covering the driveway shall be recorded in this case to assure access to the closest public street for all users of the private street/drive.
    c. Option 3. Access is from a public street adjacent to the development parcel. If practicable, the owner/developer may be required to close or consolidate an existing access point as a condition of approving a new access. Street accesses shall comply with the access spacing standards in Subsection 6, below.
4) Subdivisions Fronting Onto an Arterial Street. New residential land divisions fronting onto an arterial street shall be required to provide alleys or secondary (local or collector) streets for access to individual lots. When alleys or secondary streets cannot be constructed due to topographic or other physical constraints, access may be

provided by consolidating driveways for clusters of two or more lots (e.g., includes flag lots and mid-block lanes).

5) Double-Frontage Lots. When a lot has frontage onto two or more streets, access shall be provided first from the street with the lowest classification. For example, access shall be provided from a local street before a collector or arterial street.
6) Access Spacing: The following minimum access spacing standards apply to public streets and driveways on arterial streets: (Table)
7) Number of Access Points. For single-family (detached and attached), two-family, and three-family housing types, one street access point is permitted per lot, when alley access cannot otherwise be provided; except that two access points may be permitted for two-family and three-family housing on corner lots (i.e., no more than one access per street), subject to the access spacing standards in Subsection 6, above. The number of street access points for multiple family, commercial, industrial, and public/institutional developments shall be minimized to protect the function, safety and operation of the street(s) and sidewalk(s) for all users. Shared access may be required, in conformance with Subsection 8 below, in order to maintain the required access spacing, and minimize the number of access points.
8) Shared Driveways. The number of driveway and private street intersections with public streets shall be minimized by the use of shared driveways with adjoining lots where feasible. The City shall require shared driveways as a condition of land division or site design review, as applicable, for traffic safety and access management purposes in accordance with the following standards:
    a. Shared driveways and frontage streets may be required to consolidate access onto a collector or arterial street. When shared driveways or frontage streets are required, they shall be stubbed to adjacent developable parcels to indicate future extension. “Stub” means that a driveway or street temporarily ends at the property line, but may be extended in the future as the adjacent parcel develops. “Developable” means that a parcel is either vacant or it is likely to receive additional development (i.e., due to infill or redevelopment potential).
    b. Access easements (i.e., for the benefit of affected properties) shall be recorded for all shared driveways, including pathways, at the time of final plat approval or as a condition of site development approval.
    c. Exception. Shared driveways are not required when existing development patterns or physical constraints (e.g., topography, parcel configuration, and similar conditions) prevent extending the street/driveway in the future.
9) Street Connectivity and Formation of Blocks Required. In order to promote efficient vehicular and pedestrian circulation throughout the City, land divisions and large site developments shall produce complete blocks bounded by a connecting network of public and/or private streets, in accordance with the following standards:

    Block Length. The maximum block length shall be consistent with 2.310.04 Additional Design Standards for Subdivisions.

    Street Standards. Public and private streets shall also conform to Section 2.302 Street Standards in the City of Keizer Development Code (Table 4.1 Street Design Standards in the TSP).

Exception. Exceptions to the above standards may be granted when blocks are divided by one or more pathway(s), in conformance with the provisions of 2.310.04(C)(2).

10) Pedestrian/Bicycle Accessways. Accessways shall be located to minimize out-of-direction travel by pedestrians and may be designed to accommodate bicycles.
11) Street lights. Street lights shall be required for public streets serving more than four dwelling units. Street lights shall be located within a right of way or in utility easements. Street lights are not required along private access easements. Street lights shall be designed to direct the light down toward the street and sidewalk and as much as practicable away from adjoining homes.

Applicant's Findings: *The functional classification of O'Neil Road NE in accordance with the City of Keizer TSP is a local street. Most of the access control provisions are in place to protect the transportation system of collector and arterial streets. The applicant is proposing an access easement to serve Lots 3 through 6, but the access easement could also serve Lot 2 leaving the development with just two access points, one for the access easement and one driveway, which already exists, to Lot 1. No new streets are proposed; therefore, the block length and street alignment standards of this provision are not applicable. The public sidewalk terminates just to the south of the subject property along O'Neil Road NE. The applicant anticipates extending the public sidewalk along the development site's frontage to complete the street improvement to local standards. This would aid in the safe maneuvering of pedestrians. No streetlights are required as the development will be served by a private access easement. As applicable, the criteria above will be met.*

O. Trees Along Public Streets

Streetscape trees are required along public streets, shall comply with the provisions of Section 2.309, and must be located according to the following provisions:

1) Streetscape trees shall be planted within the boundaries of each lot within 10 feet of street improvements.
2) Lots measuring less than 60 feet in width shall be required to plant one streetscape tree. Lots measuring 60 feet or more in width shall be required to plant two streetscape trees.
3) Streetscape trees shall be selected from a list of approved trees.

Applicant's Findings: *Lots 1 and 2 have frontage along O'Neil Road NE and will be required to plant streetscape trees to meet this criterion. The applicant may need to provide a tree replacement plan to the Community Development Department for review and approval prior to the recordation of the subdivision plat. Additional trees will need to be planted along the access easement on Lots 3, 4, 5, and 6 for a total of 7 new streetscape trees for the development. This criterion will be met.*

2.302.04 General ROW and Improvement Widths

The following standards are general criteria for public streets in the City of Keizer. These standards shall be the minimum requirements for all streets, except where modifications are permitted under

Subsection 2.202.05. (5/98) The street design standards show five different options for local streets. These standards allow the City flexibility in the design of the street network. (Table)

Applicant's Findings: *The applicant is not proposing new streets. The subdivision will be served by a private access easement. This criterion is not applicable.*

2.302.06 Construction Specifications

Construction specifications for all public and private streets shall comply with the standards of the most recently adopted public works/street standards of the City of Keizer. Construction permits are required by the Public Works Department.

Applicant's Findings: *The proposed subdivision will be served by a private access easement. This criterion is not applicable.*

2.302.08 Private Access Easements

A private access easement created as the result of an approved partitioning or subdivision shall conform to the following:

A. Width. Private access easements shall only be allowed where the applicable standards of Section 2.310.03.D., are satisfied. The easement shall comply with the following additional standards:
    1) Minimum easement width: 20 feet with no parking within the minimum required width.
    2) Minimum paved width: 12 feet for 1 dwelling unit; 16 feet for two or more dwelling units.
    3) Maximum length: 300 feet for single access to a public street. If there are two or more access points to a public street, the proposed easement may be more than 300 feet if it is the only way to allow for effective development in unique circumstances where it is not practical to serve the development with a public street. Access easements exceeding 300 feet in length must be reviewed by the local Fire District for compliance with the Fire Code, and must receive City approval. The following criteria for City approval will be used:
        a. A public street is impractical, and an easement is the only feasible method to provide access.
        b. Adequate parking and safe maneuverability is provided.
        c. Does not preclude the ability for future redevelopment, and must allow a density no less than 75% of the maximum density of the underlying zone.
    4) Single Family/Duplex Development: No more than 4 parcels or lots shall have their sole access via an access easement unless through access (two or more public street access points) are provided. If the access easement connects to a collector or arterial street the Public Works Director may require all parcels or lots to be served by the access easement. In such case, no more than 6 parcels or lots shall have their sole access via an access easement. If the access easement provides through access, no more than 8 parcels or lots may be served by the access easement. All through access easements providing access to more than 4 parcels or lots must provide public bicycle and

pedestrian access for connectivity. The instrument recording the access easement must indicate public bicycle and pedestrian access is allowed.

5) Multi-Family/Commercial Development: Access easements serving multifamily and commercial uses may be allowed if it is the only feasible method to provide access to a parcel without public street frontage, or if it is impractical to serve the development with a public street. Access easements are subject to Fire District review and City approval. The design of the easement must be reviewed by the local Fire District for compliance with the Fire Code and must meet the requirements outlined in Section 2.303 for parking lot aisle widths, and all other city standards governing vehicle access contained in the KDC and adopted Public Works Street Standards.

B. Maintenance. Provision for the maintenance of the private access easement and storm drainage facilities within the easement area, along with any required turnaround area, No Parking signage, and screening, shall be provided in the form of a recorded maintenance agreement, Covenants, Conditions, and Restrictions (CCRs), or other recorded instrument acceptable to the City. Such instrument shall include at a minimum, that the instrument may not be extinguished or modified without written consent of the City and that the provisions set forth above may be enforced by the City.

C. Turn-around. A turn-around shall be required for any access easement which is the sole access and which serves two or more parcels or lots. Turn-arounds shall be either a circular turn-around with a minimum paved radius of 38 feet, or a "tee" or "hammerhead" turn-around with a minimum paved dimension across the "tee" of 60 feet. Alternate turnaround designs may be approved subject to Public Works Department approval.

D. Parking

1) No parking allowed. All private access easements serving as the sole access for two or more parcel or lots shall display No Parking signs approved by the City
2) Parking shall be provided as outlines in Section 2.303.

E. Trees Along Access Easements

Streetscape trees are required along access easements, shall comply with the provisions of Section 2.309, and must be located according to the following provisions:

1) Streetscape trees shall be planted within the boundaries of each lot within 10 feet of access improvements.
2) Parcels or Lots measuring less than 60 feet along the access easement shall be required to plant one streetscape tree. Parcels or Lots measuring 60 feet or more along the access easement shall be required to plant two streetscape trees.
3) Streetscape trees shall be selected from a list of approved trees.

F. Screening

A 6-foot-high sight obscuring fence, wall, or hedge shall be placed along the exterior side of an access easement to provide screening to any adjacent properties.

Applicant's Findings: *As shown on the site plan included with this application submittal, the private access easement is proposed at 22-feet wide in an effort to make ingress and egress for a fire apparatus easier. The private access easement is planned to serve more than 2 dwelling units and will be required to have a pavement width of 16-feet. As shown on the site plan, 16-feet of pavement width is shown and*

will be provided. The applicant is providing a turnaround constructed to Marion County Fire standards and the access easement does not exceed 300-feet in length. The private access easement is planned to serve just four lots. As required, the applicant will install no parking signs along the access easement. To ensure no parking along the access easement will take place, the applicant will provide a minimum of two off-street parking spaces on each newly created lot. Lot 1 requires two streetscape trees while the other five lots require one. The applicant will plant a minimum of seven new streetscape trees on the development site. The access easement is proposed along the property's northern boundary where it abuts another property, therefore screening is required. The applicant is proposing to install a 6-foot sight obscuring fence along the northern property line to screen from the adjacent property in accordance with this section. The applicable provisions of this section have or will be met.

Chapter 2.306 Storm Drainage

2.306.03 Preliminary Plan Required

Preliminary site drainage and grading plans for subject area and adjoining area within 100' of the perimeter of the subject property are required to be submitted for all developments listed in Section 2.306.02 above. Preliminary site drainage and grading plans shall consist of the following information.

A. Flow lines of surface water onto and off the site.
B. Estimates of existing runoff patterns from subject property onto adjacent properties, and estimates of existing runoff from adjacent properties onto subject property.
C. Existing contours at 1-foot intervals.
D. Existing and proposed drainage channels, including drainage swales, ditches, berms and proposed storm drains. Connections to existing system should be identified.
E. Location of storm drain detention facilities.
F. The City Engineer shall have the flexibility to make changes to the preliminary plan at the time of final detailed plan approval.

2.306.04 Plan for Storm Drainage and Erosion Control

No construction of any facilities in a development included in Subsection 2.306.02 shall be permitted until a storm drainage and erosion control plan for the project is prepared by a professional engineer, and, approved by the City. These provisions shall also apply to any cut or fill on a property, which may impact the velocity, volume, or quality of surface water on adjacent property, or may impact any permanent natural body of water. This detailed plan shall contain the following information:

A. Elevations. Proposed finished lot corner and finished street elevations.
B. Proposed contours of finished grade in 1-foot intervals or less if required by the City Engineer.
C. Run-off. The methods to be used to minimize the amount of runoff other than into an approved point of discharge, siltation, and pollution created from the development both during and after construction.
D. Facilities. Plans for the construction of storm sewers, open drainage channels and other facilities which depict line sizes, profiles, construction specifications and other such information as is necessary for the City to review the adequacy of the storm drainage plans.
E. Engineering Calculations. Calculations used by the engineer in sizing storm drainage facilities.

2.306.05 General Standards

A. Requirements. All development shall be planned, designed, constructed and maintained to:
    1) Protect and preserve existing natural drainage channels to the maximum practicable extent;
    2) Protect development from flood hazards;
    3) Provide a system by which water within the development will be controlled without causing damage or harm to the natural environment, or to property or persons within the drainage basin;
    4) Assure that waters drained from the development are substantially free of pollutants, through such construction and drainage techniques as sedimentation ponds, reseeding, phasing of grading;
    5) Assure that waters are drained from the development in such a manner that will not cause erosion to any greater extent than would occur in the absence of development;
    6) Provide dry wells, french drains, or similar methods, as necessary to supplement storm drainage systems;
    7) Avoid placement of surface detention or retention facilities in road rights-of-way.
B. Culverts. Where culverts cannot provide sufficient capacity without significant environmental degradation, the City may require the watercourse to be bridged or spanned.
C. Easements. In the event any part of a development is traversed by any watercourse, channel, stream or creek, gulch or other natural drainage channel, adequate easements for storm drainage purposes shall be provided to the City. This shall not imply maintenance by the City.
D. Channel Obstructions. Channel obstructions are not allowed except as approved for the creation of detention or retention facilities approved under the provisions of this Ordinance. Fences with swing gates may be utilized.
E. Prior to release of the improvement agreement, the developer shall certify that the site is built according to the submitted site drainage and grading plan. The developer shall provide certified elevations to the City.
F. For partitions and other developments not requiring an improvement agreement, any site grading and drainage requirements shall be completed and approved prior to issuance of any building permits.
G. Inspection Required. Prior to acceptance of a storm sewer system by the City, the storm sewers shall be inspected by the City. All costs shall be borne by the developer.
H. Building Permit Approval/Conformance with Approved Drainage and Grading Plan.
    1) For all development with an existing approved drainage and grading plan each building permit application submitted to the City for approval shall contain existing and proposed elevations for all property corners, and the existing curb or edge of pavement elevations adjacent to the subject property. The existing curb and edge of pavement information will be made available at the City. In addition, the building permit shall also indicate proposed top of stem wall elevation, and flow of drainage for entire lot. If alternative drainage methods are needed, they must be noted and have prior approval by the City. The City shall verify each building permit application for conformance with the approved site drainage and grading plan.

2) Prior to granting footing inspection approval, the City shall confirm that the top of stem wall elevations conforms to the approved building permit.
3) Prior to granting final inspection approval, the City of Keizer shall confirm that the lot is built in accordance with the approved building permit.

2.306.06 Drainage Requirements

All storm water runoff shall be conveyed to a public storm sewer or natural drainage channel. Receiving waters, including underground storm drainage systems, shall have adequate capacity to carry necessary flow without overflowing or causing damage to public property or welfare. The cost for the approved system shall be wholly borne by the developer, including any off-site system that is required.

2.306.07 Design Criteria

A. Design calculations performed and stamped by a Civil Engineer registered in the State of Oregon shall be included with all plan submittals. Peak design flows may be calculated using the Rational Formula, Q = CiA for basins under 10 acres. The King County Method, TR-20, or other approved methods may be used for basins larger than 10 acres.
B. Design Rainfall Event
   The following guidelines shall apply for selecting a design rainfall event. Design rainfall events shall be the 5, 10-, 25-, 50-, and 100-year events. Analyses shall be provided showing no increase in runoff for all storm events up to, and including, the design frequency event.
   1) Development Type Frequency
   2) Residential and commercial development
   3) 10-year Critical facilities, sag inlets, and minor drainage ways
   4) 25-year Critical drainage basins 100 year (As determined by the City Engineer)
   5) Major drainage ways or waterways having 100 Year a delineated floodplain boundary as shown on the FIRM. Drainage ways or waterways not having a delineated 100 Year Floodplain boundary on the FIRM. (These shall be delineated by the Developer's Engineer and included in the final PLAT)
C. Rainfall Intensity Duration Frequency Curve
   For developments less than 20 acres using the Rational Method, rainfall intensities shall be taken from the ODOT Zone 7 Intensity-Duration-Frequency (IDF) Curves. (Table)
D. Time of Concentration
   1) Time of Concentration shall be calculated using the Soil Conservation Service Method or other approved method.
   2) After a maximum of 300-feet, sheet flow typically becomes shallow concentrated flow. Open channel flow is assumed to begin where surveyed cross-section information has been obtained where channels are visible on aerial photographs, or where blue lines (indicating streams) appear on Unites States Geological Survey (USGS) quadrangle sheets.
E. Runoff Control
   1) Development of areas within the City of Keizer must provide runoff controls to limit the developed condition's peak rates of runoff to the predevelopment runoff rate. Detention is the collection and temporary storage of surface water with the outflow

rate restricted usually to the predeveloped flow rate. Required detention storage is equal to the difference in volume of excess runoff from the design storm event with post development conditions and the 5-year storm with pre-development conditions.

2) Detention is required for all developments, except where determined unnecessary by the City Engineer.
3) Control orifices and structures shall be sized using approved engineering methods. To prevent plugging, the minimum diameter of the orifice shall be 2-inches. The detention facility shall have an overflow system with the capacity to past the 50-year storm event to an accessible drainage feature.
4) Detention shall be supplied either by subsurface storage in conduits and structures, or a pond. Temporary parking lot ponding may be utilized as storage volume with approval of the City Engineer.

F. Hydraulic Considerations
    1) The minimum design velocity for storm drainage conduits shall be 3.0 fps. Pipe slopes of l5% or greater will require anchor walls at approved intervals. Manning's "n" value of 0.013 shall be used for flow and velocity calculations. Manning's equation shall be used for design of piped systems where practicable.
    2) When pipe depths exceed 10-feet, calculations for pipe loading and strength shall be submitted.
    3) Subsurface utilities crossing private property shall have a minimum easement width of 10 feet.

G. Storm Water Quality Point source water quality facilities shall be provided where required by the Department of Public Works. Catch basins shall be outfitted with approved "turndowns" and sumps for oil/water separation and sedimentation control. Storm water quality manholes shall be installed in all proposed storm drains out letting into existing drainage facilities.

H. Manholes are required at:
    1) All changes in horizontal or vertical alignment greater than 15 degrees.
    2) All connections and changes in pipe size.
    3) At a maximum spacing of 500-feet.

I. Inlets and Catch Basins
    1) Inlets must be placed at all low points in streets, at intersections, at points where changes in the street configuration will direct flow across the street and at intervals on continuous grades that will limit the width of flow in the gutter to 5-feet.
    2) Minimum lateral diameter for connection to an inlet or catch basin shall be 10-inches. Minimum inlet lead slopes shall be 2%.
    3) Water from all low areas must be collected and conveyed to the storm drainage system. Quantity of gutter flow is determined using the Rational Method. Inlet design flows shall exceed gutter design flows.
    4) Water quality provisions shall be installed in all catch basins or manholes as directed by the Department of Public Works.

J. Culverts

Culvert design shall be performed using the Federal Highway Administration (FHWA) publication Hydraulic Design of Highway Culverts (Reference No. 10). Other methods may be used with approval of the City Engineer.

K. Perimeter Drainage
    1) Construction drawings shall include an approved "Grading and Drainage Plan" showing the location of perimeter drainage facilities and private drainage easements that will control runoff to and from project sites.
    2) Grading and Drainage Plans shall identify control for Finished Floor Elevations, and shall be enforced in conjunction with Building Permits issued by the City of Keizer.
L. Erosion and Pollution Control: Adequate erosion and pollution control facilities shall be installed in conjunction with construction projects. Developments shall be required to obtain an NPDES 1200-C erosion control permit from the Department of Environmental Quality in accordance to their standards.
    An erosion control plan will be required to be submitted to the City Department of Public Works for developments greater than one acre.

Applicant's Findings: *The applicant understands storm and water quality detention improvements will be required for the proposed development in conformance with the City of Keizer Public Works Department Design Standards. The applicant's engineer has prepared a preliminary grading and drainage plan, which is included in this application submittal. A final grading and drainage plan will be developed for the subject property and will provide details regarding adequate conveyance of storm water from the development site. The final plan will be submitted by the applicant's engineer for review and approval prior to final approval of the subdivision plat. This criterion will be met.*

Chapter 2.307 Utility Lines and Facilities

2.307.02 Standards

A. Impact. The location, design, installation and maintenance of all utility lines and facilities shall be carried out with minimum feasible disturbances of soil and site.
B. Water. All development that has a need for water service shall install water facilities and grant necessary easements pursuant to the requirements of the City.
C. Private Utilities. All development that has a need for electricity, gas and communications services shall install them pursuant to the requirements of the district or company serving the development. Except where otherwise prohibited by the utility district or company, all such facilities shall be underground.
D. Sanitary Sewers. All development that has a need for public/private sanitary sewers shall install the facilities pursuant to the requirements of the city. Installation of such facilities shall be coordinated with the extension of necessary water services and storm drainage facilities.
E. Streetlights. When required, installation of streetlights shall be pursuant to the requirements of the city and the company serving the development.
F. Easements. Easements shall be provided along property lines as deemed necessary by the City, special districts, and utility companies. Easements for special purpose uses shall be of a width deemed appropriate by the responsible agency. Such easements shall be designated on the final plat of all subdivisions, and on the final plat of all partitions.

Applicant's Findings: *A preliminary utility plan has been prepared by the applicant's engineer and is included with the application submittal prepared for the city's review. Additional details and final plans will be provided to the city for review and approval prior to the recordation of the final subdivision plat. Easements are provided along all lot frontages meeting the requirements of the City of Keizer and the utility providers. All easements will be shown on the final plat. No streetlights are required with this development as no new streets are proposed and streetlights are not required along private access easements. As applicable, this criterion will be met.*

Chapter 2.309 Site and Landscaping Design

2.309.04 General Provisions

A. Landscaped Area. For purposes of satisfying the minimum requirements of this Ordinance, a "landscaped area" must be planted in a mixture of landscaping elements to include such things as lawn, ground cover plants, shrubs, annuals, perennials or trees, or desirable native vegetation, or be used for other landscape elements such as site furnishings, water features, artwork, or other similar features that provide aesthetic value and open space. Landscaping shall be designed, planted, and maintained in accordance with professional landscaping standards. Landscaping installed over asphalt shall be prohibited.

B. Submittal Requirements. A submitted landscaping plan shall include the following: (5/98)
    1) Type, variety, scale and number of plants used;
    2) Placement and spacing of plants;
    3) Size and location of landscaped areas;
    4) Contouring, shaping and preparation of landscaped areas;
    5) Use and placement of non-plant elements within the landscaping used as accents. Such elements may only be used minimally and shall total no more than 25 percent of the total landscape area.
    6) Method of irrigation.
    7) Location, and identification of any trees, both existing and planned consistent with Section 2.309.04.C.
        a. On the Landscaping Plan, the existing significant trees identified by their common names, along with the size of such significant trees. Existing significant trees shall include any trees which were removed within the two-year period prior to the date the application was first submitted shall be shown on the landscape plan.
        b. Which significant trees are proposed to be removed, or have been removed within the past two years.
        c. Which significant trees are to be left standing and what steps will be taken to protect and preserve those trees according to current best management practices.
        d. Location, size and type of replacement trees proposed to be added, if any.

C. Significant Trees. As used herein, "significant trees" are trees having a height of more than fifty (50) feet and/or having a trunk whose diameter is more than twelve (12) inches diameter at breast height (DBH) (5 feet above ground level).
        a. The City recognizes that factors such as disease, safety concerns, and site development requirements may require removal of significant trees. Depending

on these factors, the removal of significant trees may be appropriate and approved as part of the landscaping plan. Development of the property shall be in conformance with an approved landscaping site plan that is a condition of a land use approval or a building permit. Significant trees removed (including trees removed within the two years prior to the application) must be replaced at the rate of two new trees for each significant tree removed or less if a large tree specimen size is planted. Replacement trees shall be a type that will be at least twelve (12) inches (DBH) when fully mature. At the time of planting, replacement trees shall be planted in accordance with the standards of section 2.309.06. In lieu of an on-site tree replacement plan, an off-site tree mitigation plan consistent with requirements within this section shall be submitted to the Community Development Director for approval. Such off-site location shall be within the public right of way, on public property, or on private property if qualifying as a streetscape tree and must be approved by the City. If no suitable off-site location is identified for the immediate installation of replacement trees, a contribution to the City's landscape mitigation fund in the amount equal to the cost of a replacement tree (including installation) as determined by the City may be made for the City to install replacement trees at a later date, as determined appropriate. Such funds shall be used only for replacement tree planting.

b. The above provisions include and apply to all significant trees located on the subject property or on any adjacent public right-of-way. These requirements shall be applied to both public and private development.

D. Existing Vegetation. The landscape design shall also incorporate as much of the existing desirable vegetation on the site as is possible.

Applicant's Findings: *The applicant has provided a tree conservation plan in conjunction with this subdivision submittal. As shown on the tree plan provided, there are a total of 56 trees on the subject site. Of the 56 trees on site, 32 are considered significant and 6 of the trees are dead or dying. Also shown on the tree plan, 39 trees are proposed for removal for the development of the future single-family dwellings. Of the 39 trees to be removed, 21 are significant trees requiring a 2:1 replanting ratio To the greatest extent practicable, the applicant is retaining the healthy existing trees on the property. The majority of trees planned to be removed are located where the proposed private access easement will be constructed. The applicant will either replant a total of 42 trees, to meet the 2:1 replanting requirement, or will pay $150.00 per tree into the City of Keizer's tree fund. The 7 streetscape trees should be counted toward the replanting requirement given the configuration of the property and that it was heavily treed prior to development. The applicant has done their best to retain as many trees as possible. Additionally, at the time of building permit submittal for the dwellings, the applicant will identify the number of trees to be provided and their approximate location. It is anticipated not less than two trees will be provided in the rear yards and not less than one tree will be provided in the front yards. This criterion is or will be met by the proposal.*

Chapter 2.310 Development Standards

2.310.03 Standards for Lots or Parcels, Property Line Adjustment Required

A. Minimum lot area. Minimum lot area shall conform to the requirements of the zoning district in which the parcel is located.
B. Property Line Adjustment. Any adjustment of common boundaries between two or more abutting lots or parcels shall require approval of a Property Line Adjustment in accordance with the standards of Chapter 3.1 and the procedures of Chapter 3.2
C. Lot width and depth. The depth of a lot or parcel shall not be more than 3 times the width of the parcel, with the following exceptions:
    1) Individual lots for townhouse units shall not be less than 20 feet in width. Lot depth may vary, but shall be adequate to provide a minimum of 300 square feet with no dimension less than 6 feet of semi-private outdoor living space for each unit.
    2) Individual lots for single-family attached dwelling units shall be designed so that lot depth is not greater than 3 1/2 times lot width.
    3) Parcels created for public utility uses or in zones where there is no minimum lot area requirement shall be exempt from width to depth ratio provisions.
D. Access. All lots and parcels created after the effective date of this Ordinance shall provide a minimum frontage, on an existing or proposed public street, equal to the minimum lot width required by the underlying zone. The following exceptions shall apply:
    1) Lots or parcels may be accessed via an access easement developed in accordance with the provisions of Section 2.302.08.
    2) Lots or parcels in townhouse developments or Planned Unit Developments may be accessed via public or private streets, in accordance with the following standards:
        a. Internal local streets or drives may be private if allowed in Section 2.302.02F and shall be subject to the provisions of Section 2.302.
        b. Collector and arterial streets shall be public and shall comply with the applicable provisions of Section 2.302. Collector or arterial streets may be determined either by design or anticipated traffic volumes.
        c. Local streets that are needed to provide access to adjoining properties shall be public and shall comply with the applicable provisions of Section 2.202.
    3) Cul-de-sac lots shall have a minimum frontage of 25 feet.
    4) Flag lots, as permitted in Subsection 2.310.03, E.
E. Flag Lots. Flag lots shall only be permitted if it is the only reasonable method by which the rear portion of a lot being unusually deep or having an unusual configuration may be accessed and when in compliance with Section 2.302.03.B. If a flag-lot is permitted, the following standards shall be met:
    1) The access strip shall not be less than 20 feet wide. The access strip shall be improved with a minimum 12 foot wide paved driveway and paved encroachment which meet applicable City standards.
    2) The access strip shall not be included in the calculation of lot area for purposes of determining compliance with any minimum lot size provision of this Ordinance.
F. Through Lots. Through lots shall be avoided except where essential to provide separation of residential development from major streets, adjacent non-residential activities, or to overcome specific development constraints due to topography or lot orientation. Through lots shall be no less than 100 feet in depth. Lots having their access off a private access easement or adjacent to

a private access easement shall not be construed as qualifying as through lots. Screening or buffering, pursuant to the provision of Section 2.307, may be required by the City during the review of the land division request.

G. Lot Lines. The side lines of lots, as far as practicable, shall run at right angles to the right-of-way line of the street upon which the lots face. The rear lot line shall be no less than 1/2 the dimension of the front lot line.
H. Utility Easements. Utility easements shall be provided on lot areas where necessary to accommodate public utilities. Such easements shall have a minimum total width as specified in Section 2.302.04 of this Code.

Applicant's Findings: *The subject property is currently zoned UT but will be rezoned automatically to RS upon recordation of the subdivision plat. In order to ensure conformance with the RS zone, the applicant has designed the subdivision to meet the requirements of Chapter 2.102. The applicant provided findings in response to the design standards within the RS zone previously in this narrative. The above criteria are met.*

2.310.04 Additional Design Standards for Subdivisions

A. Standards for Blocks
    1) General: The length, width, and shape of blocks shall be designed with regard to providing adequate building sites for the use contemplated; consideration of needs for convenient access, circulation, control, and safety of street traffic; and recognition of limitations and opportunities of topography.
    2) Sizes: Blocks should not exceed 600 feet in length between street lines, except blocks adjacent to arterial streets, or unless the previous adjacent development pattern or topographical conditions justify a variation. The recommended minimum distance between intersections on arterial streets is 1,800 feet.
B. Traffic Circulation. The proposed subdivision shall be laid out to provide safe and, convenient vehicle, bicycle and pedestrian access to nearby residential areas, transit stops, neighborhood activity centers such as schools and parks, commercial areas, and industrial areas; and to provide safe and convenient traffic circulation. At a minimum, "nearby" is interpreted to mean uses within 1/4 mile which can be reasonably expected to be used by pedestrians, and uses within 1 mile of the subdivision boundary which can reasonably be expected to be accessed by bicyclists.
C. Connectivity. To achieve the objective in B., above, the Director may require the following:
    1) Stub Streets: Where the potential exists for additional residential development on adjacent property.
    2) Pedestrian/Bicycle Accessways: Public accessways to provide a safe and efficient connection from a residential area to nearby residential areas, transit stops, neighborhood activity centers, including schools, parks, shopping centers, other community services and other commercial and industrial areas when such connections are not available by streets and when a pedestrian must go at least one quarter of a mile out of his or her way to make that connection using the street system.
D. Standards. Pedestrian/bicycle accessways shall meet the following design standards:

1) Minimum dedicated width: 10 feet
2) Minimum improved width: 10 feet
3) Maximum length: 250 feet. A clear line of vision for the entire length of the accessway shall be required.
4) Lighting shall be provided illuminating any walkway exceeding 150 feet in length to a level where the system can be used at night. Lighting shall be included in the lighting district(s) established for the subdivision.
5) The accessway shall be designed to prohibit vehicle traffic.

2.310.06 Improvement Requirements – Subdivisions

The following improvements shall be required for all subdivisions in the City of Keizer:

A. Frontage Improvements. Street improvements to full City Standards shall be required for all public streets on which a proposed subdivision fronts in accordance with Section 2.302 of this Code. Such improvements shall be designed to match with existing improved surfaces for a reasonable distance beyond the frontage of the property. Additional frontage improvements shall include: sidewalks, curbing, storm sewer, sanitary sewer, water lines, other public utilities as necessary, and such other improvements as the City shall determine to be reasonably necessary to serve the development or the immediate neighborhood.
B. Walkways for Private Streets. Sidewalks shall be required in accordance with applicable provisions in Sections 2.302 only if sidewalks currently exist along the connecting street.
C. Project Streets. All public or private streets within the subdivision shall be constructed as required by the provisions of Section 2.302.
D. Monuments. Upon completion of street improvements, centerline monuments shall be established and protected in monument boxes at every street intersection and all points of curvature and points of tangency of street center lines.
E. Bench Marks. Elevation bench marks shall be set at intervals established by the City Engineer. The bench marks shall consist of a brass cap set in a curb or other immovable structure.
F. Surface Drainage and Storm Sewer System. Drainage facilities shall be provided within the subdivision and to connect the subdivision drainage to drainage-ways or to storm sewers outside the subdivision. Design of drainage within the subdivision shall take into account the capacity and grade necessary to maintain unrestricted flow from areas draining through the subdivision and to allow extension of the system to serve such areas. Drainage shall be designed to avoid impacts on adjacent property.
G. Sanitary Sewers. Sanitary sewer shall be installed to serve the subdivision and to connect the subdivision to existing mains both on and off the property being subdivided.

   If the required sewer facilities will, without further sewer construction, directly serve property outside the subdivision, the City may recommend to the City Council construction as an assessment project with such arrangement with the subdivider as is equitable to assure financing his share of the construction and to provide for appropriate reimbursements of costs above those directly attributable to the subdivision.

The City may require that the subdivider construct sewage lines of a size in excess of that necessary to adequately service the development in question, where such facilities are or will be necessary to serve the entire area within which the development is located when the area is ultimately developed. The City may also require that the construction take place as an assessment project with such arrangement with the subdivider as is desirable to assure his share of the construction.

H. Water System. Water lines with valves and Fire District approved fire hydrants serving the subdivision and connecting the subdivision to the City mains shall be installed and operating prior to start of combustible construction. The design shall take into account provisions for extension beyond the subdivision to adequately grid the City system and to serve the area within which the development is located when the area is ultimately developed. However, the developer will be responsible for water main sizes necessary to meet minimum fire flow requirements per Uniform Fire Code. The City will not expect the developer to pay for the extra pipe material cost of mains exceeding 8 inches in size.
I. Sidewalks. Sidewalks shall be installed along both sides of each public street and in any pedestrian ways within the subdivision. The City may defer sidewalk construction until the dwellings or structures fronting the sidewalk are constructed. Any required off-site sidewalks (e.g. pedestrian walkways) or sidewalks fronting public property shall not be deferred.
J. Street Lights. The installation of street lights is required at locations and of a type required by City standards.
K. Street Signs. The installation of street name signs and traffic control signs is required at locations determined to be appropriate by the city and shall be of a type required by City standards. Each street sign shall display the one hundred block range. Street signs shall be installed prior to obtaining building permits.
L. Public Works Requirements. All facility improvements shall conform to the requirements and specifications of the Keizer Department of Public Works.
M. Curb Cuts. Curb cuts and driveway installations, excluding common drives, are not required of the subdivider, but if installed, shall be according to the City standards.
N. Street Trees. Street tree planting is mandatory where a planting strip is part of the street design. Plantings shall conform to Section 2.302.03(M).
O. Grading & Fills. All grading which results in fills in excess of 3 feet located within the identified building envelope on a subdivision lot or parcel must be engineered.
P. Financial Requirements. All improvements required under this Section shall be completed to City standards or assured through a performance bond or other instrument acceptable to the City Attorney, prior to the approval of the Final Plat of the subdivision.

2.310.07 Improvement Procedures

In addition to other requirements, improvements installed by a developer for any land division, either as a requirement of these regulations or at his own option, shall conform to the requirements of this Ordinance and improvement standards and specifications adopted by the City, and shall be installed in accordance with the following procedure:

A. Plan Review. Improvement work shall not commence until plans have been checked for adequacy and approved by the City. Plans shall be prepared in accordance with requirements of the City.
B. Notification. Improvement work shall not commence until the City has been notified in advance; and, if work has been discontinued for any reason, it shall not be resumed until the City has been notified.
C. Inspection. Improvements shall be constructed under the inspection and to the satisfaction of the City Engineer and the Director of Public Works. The City may require changes in typical sections and details in the public interest, if unusual conditions arise during construction to warrant the change.
D. Underground Facilities. All underground utilities, sanitary sewers, and storm drains installed in streets by the developer shall be constructed prior to the surfacing of the streets. Stubs for service connections for underground utilities and sanitary sewers shall be placed to a length eliminating the necessity for disturbing the street improvements when service connections are made.
E. Final Engineering Plans. Upon completion of the public improvements and prior to final acceptance of the improvements by the City, the developer shall provide certified as-built drawings of all public utility improvements to the City. As-built conditions and information shall be reflected on one set of Mylar base as-built drawings. The as-built drawings shall be submitted to the City Engineer by the Developer's engineer.

Applicant's Findings: *The proposed subdivision will not result in the creation of any new blocks as no new streets will be constructed. The proposed subdivision will be served by O'Neil Road NE for Lots 1 and 2 and by a private access easement for Lots 3 through 6. No additional connections are required but the applicant has included a turnaround constructed to Marion County Fire standards. The applicant anticipates having to dedicate frontage for the improvement of O'Neil Road NE to local street standards including extending the public sidewalk from its current terminus at the southern property line and installing street trees along the frontage. The applicant's surveyor will place centerline monuments as needed with the improvement to O'Neil Road NE in accordance with the requirements. In addition to centerline monuments, the surveyor will also place elevation bench marks as required by the City Engineer. Stormwater requirements were previously addressed in this written narrative. The applicant's engineer will provide a complete plan and calculations for review and approval prior to recordation of the subdivision plat. A preliminary utility plan has been provided with this application submittal. A final design and plan will be submitted to the City of Keizer Public Works Department for review and approval. It is not anticipated any street signs will be required in conjunction with this subdivision; however, the applicant is aware that "no-parking" signs will be required along the private access easement. The applicant understands street trees may be required along the O'Neil Road NE frontage improvement and will install them in accordance with Public Works standards. The subject property is relatively flat, and it is not anticipated fill will be required to develop the property. The applicant has submitted a preliminary grading plan with this application and a final plan will be submitted prior to grading the site. As applicable, these criteria will be met.*

Chapter 2.316 Infill Development Standards

2.316.02 Applicability

A. The provisions of this section shall only apply to new residential land partitions and subdivisions that are located within a residential zone and if any portion directly abuts an existing established neighborhood.
B. All infill developments must comply with the requirements of the zone in which the development is located, except as modified by the provisions of this section.
C. The provisions of this section are not intended to supersede other district requirements, such as the Flood Plain Overlay Zone, Greenway Management Overlay Zone, Limited Use Overlay Zone, Activity Center Overlay Zone, or the Resource Conservation Overlay Zone.
D. Infill development standards shall be applied to several parcels of land assembled for redevelopment, only if the total area complies with Infill Development Parcel criteria defined in Section 2.316.03.

2.316.03 Infill Development Parcel Criteria

Parcels that meet the following criteria shall be subject to the provisions and standards of this chapter:

An infill development is any residential development less than two (2) acres in size, and which directly abuts an existing residential neighborhood.

2.316.04 Infill Compatibility

A. Development Plan Required. Infill developments shall be designed to be sensitive to the established patterns of existing neighborhood development. A development plan must be submitted with any Partition or Subdivision application. Compliance with the approved design plan shall be a condition of approval. A development plan does not have to be prepared by an architect, engineer, or surveyor, but must be reasonably accurate in scale to allow the reviewer to assess it for compliance with all criteria. Plans must show the following:
    1) Proposed building area
    2) Proposed building heights for proposed homes.
    3) A landscaping plan showing location, size, and type of trees and plant materials, proposed fences, and any other features that provide screening and buffering to adjacent properties
B. Building Height Restriction. Building heights for new infill development shall not exceed five (5) feet above the height of the existing abutting dwelling(s) located on directly abutting parcels to the new infill development, unless measures are provided to mitigate the impact of the proposed dwelling(s). Mitigation measures shall be provided as approved by the Land Use Decision process. Acceptable mitigation measures may utilize a combination of the following features in order to preserve and protect the livability of directly abutting properties if demonstrated to address negative impacts.
    1) Increased Setback. New buildings are to be setback from property lines an additional one foot for every foot over the maximum height allowed based upon the height of the directly abutting dwellings as determined in Section 2.316.04.B. Where a dwelling consists of a combination of sections of varying heights or stories, the side yard setback shall be applied to each building section. In no case shall a building exceed the maximum height allowed by the underlying zone

2) Landscaping. Landscaping and fencing that will screen and buffer the impacts of the new development from immediately abutting properties. Increased setback is intended to be the primary method used to mitigate negative impacts between structures. Landscaping (screening and/or plan materials) may be employed as an adequate measure of mitigation on a case-by-case basis, depending on the specific development proposal.

Applicant's Findings: *The subject site is less than two acres in area and is adjacent to existing residential development which triggers the infill development standards. The applicant understands additional setbacks may be required if the newly proposed dwellings are more than five feet taller than adjacent existing dwellings. The applicant also has the option to provide additional landscaping and screening where larger setbacks cannot be accommodated. The proposed building heights will be determined at a later date and submitted to the City of Keizer for review and approval prior to the issuance of building permits for the future dwellings.*

Section 5: Conclusion

Based on the facts and findings presented by the applicant within this detailed written narrative, the applicant believes they have satisfied the burden of proof and demonstrated how the proposed six-lot subdivision not only satisfies all applicable criteria but would also be a benefit to the community by providing additional needed housing within the corporate limits of the City of Keizer.

Section 6: Exhibits

Exhibit A – City of Keizer Application Form

Exhibit B – Deed

Exhibit C – Existing Conditions Plan

Exhibit D – Proposed Plans and Drawings

Exhibit A – City of Keizer Application Form

CITY OF KEIZER SUBDIVISION/PUD/ MANUFACTURED HOME PARK APPLICATION INFORMATION SHEET

PRE-APPLICATION CONFERENCE

Prior to the actual filing of a subdivision, PUD, or Manufactured Home Park application, it is strongly recommended that the applicant contact Planning Staff for a pre-application conference. The meeting will enable Planning Staff and/or Public Works staff to review the proposal and determine if the subdivision is consistent with the Comprehensive Plan and implemented ordinances and whether public services are required and available.

SUBDIVISION (Definition)

A subdivision is where an area or tract of land is divided into four (4) or more lots within a calendar year when such areas or tracts of land exist as a unit or contiguous units of land under a single ownership at the beginning of such year. The term "Subdivision" shall include Planned Developments as defined in the Keizer Zoning Ordinance.

PLANNED UNIT DEVELOPMENT (Definition)

A type of development of a site which, as a single project, is based on a design which incorporates all elements of land, structures and uses in conformance with the applicable standards of this Ordinance.

SUBMITTAL REQUIREMENTS

The following submittal requirements shall apply to all Preliminary Plan application for subdivisions, manufactured home parks, and Planned Unit Developments.

A. Applications shall be submitted on forms provided by the City and accompanied by the appropriate fee and supplemental information. It shall be the applicant's responsibility to submit a complete application.

B. A Written Statement shall be submitted stating how the development meets each of the following criteria as found in Section 3.108.06 of the Keizer Development:

1. The proposal shall comply with the applicable development standards in Section 2.405 and Section 2.3, as appropriate, including provisions for streets and utilities.
2. Each lot shall satisfy the dimensional standards and density standard of the applicable zoning district, unless a variance from these standards is approved.
3. Adequate public facilities shall be available and shall serve the existing and newly created parcels.
4. Rough Proportionality. Improvements or dedications required as a condition of development approval, when not voluntarily accepted by the applicant, shall be roughly proportional to the impact of development. Findings in the development approval shall indicate how the required improvements or dedications are roughly proportional to the impact.

C. Each application shall be accompanied by a preliminary plan drawn to scale of not less than one inch equals 50 feet nor more than one inch equals 200 feet, and containing at a minimum, the following:

1. Appropriate identification stating the drawing is a preliminary plan.
2. North point, scale and date.
3. Name and addresses of land owner, applicant, engineer, surveyor, planner, architect or other individuals responsible for the plan.
4. Assessor Map and tax lot number of subject property.
5. A copy of the latest officially recorded title transfer instrument (deed, warranty deed, or contract) giving the legal description for each of the properties involved in this application.
6. The property lines and approximate area of the subject property.
7. Dimensions and size in square feet or acres of all proposed parcels.
8. The approximate location of existing streets, easements or right-of-ways adjacent to, or within, the subject property, and, existing improvements on the property and important features such as section, political boundary lines.
9. The name, address and phone number of the applicant engineer, land surveyor, or person preparing the application.
10. Name of the PUD, subdivision, or manufactured home park.
11. Date the drawing was produced.
12. Vicinity sketch showing location of the proposed land division.
13. Identification of each lot or parcel and block by number.
14. Gross acreage of property being subdivided or partitioned.
15. Direction of drainage and approximate grade of abutting streets.
16. Streets proposed and their names, approximate grade, and radius of curves.
17. Any other legal access to the subdivision, PUD, manufactured home park, or partition other than a public street.
18. Contour lines at two foot intervals if 10% slope or less, five foot intervals if exceeding 10% slope, and a statement of the source of contour information.
19. All areas to be offered for public dedication.
20. Future Street Plan. Applicants for a subdivision, planned unit development, or manufactured home park shall submit as a part of their application, a future street plan. The future street plan shall show the pattern of existing and future streets from the boundaries of the proposed land division and shall include other parcels within 500 feet of the proposed land division property line. The City may determine future neighborhood street connections. A future street proposal may be modified when subsequent development proposals are submitted.

D. Preliminary site draining and grading plans for subject area and adjoining area within 100 feet of the perimeter of the subject property. Preliminary site drainage and grading plans shall consist of the following information:

1. Flow lines of surface water onto and off the site.
2. Estimates of existing runoff patterns from subject property onto adjacent properties, and estimates of existing runoff from adjacent properties onto subject property.
3. Existing contours at one (1) foot intervals. State of the source of contour information.
4. Existing and proposed drainage channels, including drainage swales, ditches, berms and proposed storm drains. Connection to existing system should be identified.
5. Location of storm drain detention facilities;

E. The applicant is required to provide a tree removal plan as part of the site plan review. This plan shall consist with the following:

1. A site plan shall be submitted. This plan shall include a survey performed by a professional land surveyor or arborist indicating the location and species of each tree having a height of fifty (50) feet or diameter of 12" or greater as measured at the ground level.
2. The plan shall also indicate which trees are to be removed and the purpose for their removal. Tree removal shall be permitted for the following reasons: initial site grading, disease, accepted thinning, building sites, walkways, driveways, utility installation, building safety and maintenance and fire safety. Every attempt shall be made to retain the trees located on the north side of the property.
3. The planting of new trees may be included in the plan. This would be a suitable alternative in those instances where a tree is removed for construction purposes that might otherwise remain. Trees may be removed for aesthetic reasons at which time a tree replanting/or-fencing plan shall be required.

F. The following supplemental procedures shall be required for all P.U.D. preliminary plan applications.

1. Calculations justifying the proposed density of development.
2. Proposed uses of the property, including sites, if any, for attached dwelling units, recreational facilities, parks and playgrounds or other public or semi-public uses. Clearly indicate the purpose, conditions and limitations of such reservations.
3. The approximate location and dimensions of all commercial or multi-family structures proposed to be located on the site.
4. Written statement identifying improvements to be made or installed including streets, sidewalks, bikeways, trails, lighting, tree planting, landscaping, and time such improvements are to be made or completed.
5. Written statement-outlining proposals for ownership and maintenance of all open space area, private streets and any commonly owned facilities.

PROCESS

Upon receipt of the application, Planning Staff will review the application materials to determine if a complete application packet and the processing fee have been submitted. Incomplete applications will not be accepted unless specific arrangements are made with Planning Staff. Once a complete application is accepted and logged in, Planning Staff will set-up a file and begin the review of the application. This review may include requesting comments from affected public agencies such as the Keizer Public Works Department, Keizer Fire District, and additional City, County, and State agencies if required. Notice of application shall also be mailed to owners of property within 250 feet of the site and neighborhood association representatives. This notice will invite the submittal of written comments on the proposal to the City within 10 days.

Upon completion of the review of the application, Planning Staff prepares a Staff Report with a recommendation for the Land Use Hearing's Officer. The application is scheduled for a public hearing in front of the Land Use Hearing's Officer. Notice of the public hearing is sent to the applicant and all affected property owners located within 250 feet of the subject property involved in the subdivision. At the public hearing, both oral and written testimony may be provided by any affected property owner or interested person. Staff makes a presentation of the Staff Report with a recommendation to the Land Use Hearing's Officer.

Within 14 days after the public hearing date, the Land Use Hearing's Officer will issue a written Notice of Decision. A copy of the decision is sent to the applicant and all those affected property owners who testified at the public hearing or have requested a copy of the decision. In addition, decisions are available at the City Hall for review by the general public.

APPEAL RIGHTS

Upon final action on the Subdivision application by the Land Use Hearing's Officer, any person may appeal the decision by filing a Notice of Appeal in writing with the City Recorder and paying the appropriate fee no later than 10 (ten) days after the decision is rendered. The appeal is to the City Council who shall cause a public hearing to be held. If the Land Use Hearing Officer's decision is appealed, the City Council shall conduct a public hearing in accordance with Section 3.207 of the City of Keizer Development Code.

FORM OF FINAL SUBDIVISION PLAT

A. Final Plat Requirements. The final plat shall be prepared in a form and with information consistent with ORS 92.010-92.160, and approved by the County Surveyor.

B. Owners Association. Where applicable, all Owners Agreements, Articles and By-Laws shall be submitted with the final plat for review by the City Attorney.

1. The Zoning Administrator, until the Owners Association Agreement, Articles and By-Laws are approved shall not approve the final plat.

2. The Owner's Association Agreement shall be consistent with Chapter 94, Oregon Revised Statutes.

3. A Certificate of Formation of a non-profit corporation, with a State seal, for the Owners Association, shall be submitted with the final plat for review by the Planning Commission.

4. Signed, original documents of the Owners Association Agreement, Articles and By-Laws and the Certificate of Formation described in (3) above, shall be recorded with the final plat.

C. Subdivision Names. All plat names shall conform to ORS 92.090.

FINAL PLAT REVIEW OF SUBDIVISIONS

A. Final Review. The final subdivision or planned unit development plat shall be submitted to the City staff for review. Staff shall review the plat to assure compliance with the approved preliminary plat and with the conditions of approval. The Zoning Administrator shall signify staff approval of the final plat by signing the final plat.

B. Filing Final Plat. The final subdivision plat shall be filed with the Marion County Clerk's Office.

TIME LIMIT

A. Approvals of any preliminary plans for a subdivision, PUD, or manufactured home park shall be valid for two years after the date of the written decision. A Final Plat for a subdivision shall be recorded within this time period or the approvals shall lapse. PUDs or manufactured home parks, which do not involve the subdivision of property, shall show substantial progress toward the construction of the project within the two year period or the approval shall lapse.

B. Time Extension. The City staff may extend the approval period for any subdivision, PUD, or manufactured home park for not more than 1 additional year at a time. Requests for extension of approval time shall be submitted in writing thirty days prior to the expiration date of the approval period.

C. Reapplication Required. If the approval period is allowed to lapse, the applicant must resubmit the proposal, including all applicable fees, for public hearing before the Hearing's Officer. The applicant will be subject to all applicable standards currently in effect.

TREE REMOVAL PLAN

A. PURPOSE

It is the intent of the provisions to recognize the existing trees located on the subject property and to assure the inherent character and benefits, including visual screening and noise reduction, of the trees are not diminished by the proposed development. The City does, however, fully recognize that factors such as disease, concerns for safety and the requirements for site development will require removal of mature trees.

B. MANAGEMENT PROVISIONS

The applicant shall be required to provide a tree removal plan as part of the site plan review. This plan shall consist of the following.

1. A site plan shall be submitted. This plan shall include a survey performed by a professional land surveyor or arborist indicating the location and species of each tree having a height of fifty (50) feet or a diameter of 12" or greater as measured at the ground level.
2. The plan shall also indicate which trees are to be removed and the purpose for their removal. Tree removal shall be permitted for the following reasons: initial site grading, disease, accepted thinning, building sites, walkways, driveways, utility installation, building safety and maintenance and fire safety. Every attempt shall be made to retain trees located on the property.
3. The planting of new trees may be included in the plan. This would be a suitable alternative in those instances where a tree is removed for construction purposes that might otherwise remain. Trees may be removed for aesthetic reasons at which time a tree replanting/or-fencing plan shall be required.

C. APPROVAL

The tree removal plan shall be reviewed and approved by the Keizer Community Development Director prior to submittal of the final plat. The City may use the services of a professional arborist in determining the appropriateness of the submitted plans. The approved management plan shall become a part of the conditions of approval.

1. The City may require that significant trees that are removed (including those within two years prior to the application) be replaced at the rate of two new trees for each significant tree removed.
2. Replacement tress shall have a trunk, when measured at 6" above ground level, of at least 2" when planted, and shall be a type that will be at least 12" in diameter at ground level when fully mature.

CITY OF KEIZER
SUBDIVISION/PUD/ MANUFACTURED HOME PARK APPLICATION

☑ Subdivision
☐ PUD
☐ Manufactured Home Park

If there are any questions, who should be contacted (Agent)?

Name: BRAND Land Use, LLC; Britany Randall

Address: 12150 Jefferson Hwy 99E SE, Jefferson, OR 97352

Daytime Phone Number: 503-680-0949 - Britany

Fax: _____ Email: britany@brandlanduse.com

1. **Applicant Name** **Address**

Craig Wigginton — 261 Friendship Avenue SE, Salem, Oregon 97302

Phone 503-871-3390

Complete the following property owner information if the property owner is different from the applicant. Please be aware that the current property owner must also **sign** the application.

2. **Property Owner Name** **Address**

Craig Wigginton — 261 Friendship Avenue SE, Salem, Oregon 97301

Phone 503-871-3390

3. This application is made for conceptual approval of a proposed 6 lot subdivision to be known as Amy's Orchard.

4. Street Address of subject property: 8015 O'Neil Road NE Keizer, Oregon 97303.0.

5. Acreage to be subdivided: .99 acres.

6. Number of lots to be created: 6. Proposed number of residential units 6.

7. Range of lot sizes: Smallest 5,750 sq. ft. (acres/square feet)
   Largest 6,945 sq. ft. (acres/square feet)
   Average 6,801 sq. ft. (acres/square feet)

Provide a written response to the following Review Criteria as specified in Section 3.108.06 of the Keizer Land Development Code.

1. The proposal shall comply with the applicable development standards in Section 2.405 and Section 2.310 as appropriate, including provisions for streets and utilities.

2. Each lot shall satisfy the dimensional standards and density standard of the applicable zoning district, unless a variance from these standards is approved.

3. Adequate public facilities shall be available to serve the existing and newly created parcels.

STREET/ACCESS EASEMENT NAMING

If new street(s) or private access easement(s) are created with the proposed development, please provide four name choices in order of preference.

1. Daynan Lane
2. Gabe Lane
3. Katie Lane
4. Ayden Lane

THE APPLICANT(s) SHALL CERTIFY THAT:

(a) The above subdivision request does not violate any deed restrictions that may be attached to or imposed upon one, both, or all of the subject properties.

(b) If the application is approved, the applicant(s) will exercise the rights granted in accordance with that approval and will be subject to all conditions and limitations of approval.

(c) All of the above statements and the statements included on the plot plan and exhibits attached to the plot plan are true to the best of the applicants knowledge; and the applicants acknowledge that any permit issued on the properties may be revoked if is found that any statements are false.

(d) The applicant(s) acknowledge that this application and all applicable policies and criteria have been read and understood, and that the requirements and criteria for approving or denying the application are also understood.

SIGNATURE(s) of APPLICANTS

NOTE: If the applicants are not the property owner(s), the current property owner **MUST** sign the application.

1-10-22
Date

Date

AGENT AUTHORIZATION

Fill out and sign this portion of the application if you (the applicant) are going to designate another individual as your agent. By signing this section you authorize the person named to act as your agent and agree to be bound by all representations and agreements made by the designated agent.

I, Craig Wigginton, hereby authorize Britany Randall of BRAND Land Use, LLC to act as my representative and agent in all matters pertaining to the processing and approval of this land use application, and agree to be bound by all representations and agreements made by the above designated agent.

B Randall

1/10/2022
Date

Date

AUTHORIZATION BY PROPERTY OWNER(s)

Property owners and contract purchasers are required to authorize the filing of this application and must sign below. All signatures represent that they have full legal capacity to and do hereby authorize filing of this application and certify that the information and exhibits herewith submitted are true and correct.

SIGNATURE

ADDRESS & PHONE
261 Friendship Av
SE Salem OR. 97302
Phone (503) 871-3390

SIGNATURE

ADDRESS & PHONE

Phone

FOR OFFICE USE ONLY

Township ____ Range ____ Section ____

Tax Lot Number(s) ____

Zone ____

Date application determined complete

Application elements submitted:

____ (a) Title transfer

____ (b) Plot plan (15 copies)

____ (c) Applicant Statement/questions

____ (d) Filing fee

Application accepted by

Exhibit B – Deed

Marion County Parcel Information

TICOR TITLE™

Parcel Information

Parcel #:	**519806**
Tax Lot:	**063W23DA01800**
Site Address:	8015 O'Neil Rd NE
	Keizer OR 97303
Owner:	Wigginton, Craig K
Owner2:	
Owner Address:	261 Friendship Ave SE
	Salem OR 97302 - 5717
Twn/Range/Section:	06S / 03W / 23 / SE
Parcel Size:	0.99 Acres (43,124 SqFt)
Plat/Subdivision:	
Lot:	
Block:	
Census Tract/Block:	002501 / 1005
Waterfront:	

Tax Information

Levy Code Area:	24210
Levy Rate:	17.2902
Tax Year:	2021
Annual Tax:	$2,316.23
Exempt Desc:	

Legal

063W23DA01800

Assessment Information

Market Value Land:	$190,030.00
Market Value Impr:	$152,740.00
Market Value Total:	$342,770.00
Assessed Value:	$133,960.00

Land

Zoning:	UT - Urban Transition	**Cnty Bldg Use:**	148 - Residential - Res Other Improvements
Cnty Land Use:	109	**Neighborhood:**	
Std Land Use:	RSFR - Single Family Residence	**Recreation:**	
School District:	24J - Salem-Keizer	**Primary School:**	FOREST RIDGE ELEMENTARY SCHOOL
Middle School:	WHITEAKER MIDDLE SCHOOL	**High School:**	MCNARY HIGH SCHOOL

Improvement

Year Built:	1980	**Stories:**		**Finished Area:**	
Bedrooms:		**Bathrooms:**		**Garage:**	912 Detached Finished Garage
Basement Fin:					

Transfer Information

Rec. Date:	12/10/2021	**Sale Price:**	$330,000.00	**Doc Num:**	45720239	**Doc Type:**	Deed
Owner:	Craig K Wigginton			**Grantor:**	MATHIS VIRGINIA TRUST		
Orig. Loan Amt:	$303,000.00			**Title Co:**	TICOR TITLE CO/OREGON		
Finance Type:		**Loan Type:**		**Lender:**	PRIVATE INDIVIDUAL		

RECORDING REQUESTED BY:

TICOR TITLE

315 Commercial St SE, Ste 150
Salem, OR 97301

AFTER RECORDING RETURN TO:
Order No.: 471821112651-SG
Craig K. Wigginton
261 Friendship Ave SE
Salem OR 97302

SEND TAX STATEMENTS TO:
Craig K. Wigginton
261 Friendship Ave SE
Salem, OR 97302

APN: 519806
127312
Map: 063W23DA01800
063W23DA01800

REEL 4572 PAGE 239
MARION COUNTY
BILL BURGESS, COUNTY CLERK
12-10-2021 01:53 pm.
Control Number 685861 $ 86.00
Instrument 2021 00070916

TICOR TITLE™ 471821112651

SPACE ABOVE THIS LINE FOR RECORDER'S USE

STATUTORY WARRANTY DEED

Debra Dillard, surviving trustee of the Virginia Mathis Trust dated December 11, 2012, Grantor, conveys and warrants to **Craig K. Wigginton**, Grantee, the following described real property, free and clear of encumbrances except as specifically set forth below, situated in the County of Marion, State of Oregon:

Beginning at a point 657.16 feet North 89°45' West and 251.46 feet South of the East one-quarter corner of Section 23, Township 6 South, Range 3 West of the Willamette Meridian, in the City of Keizer, Marion County, Oregon; thence North 89°45' West 316.08 feet; thence South 137.05 feet; thence South 89°45' East 316.08 feet to the center line of County Road No. 614; thence North along the center line of said road 137.05 feet to the place of beginning.

THE TRUE AND ACTUAL CONSIDERATION FOR THIS CONVEYANCE IS THREE HUNDRED THIRTY THOUSAND AND NO/100 DOLLARS **($330,000.00)**. (See ORS 93.030).

BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON TRANSFERRING FEE TITLE SHOULD INQUIRE ABOUT THE PERSON'S RIGHTS, IF ANY, UNDER ORS 195.300, 195.301 AND 195.305 TO 195.336 AND SECTIONS 5 TO 11, CHAPTER 424, OREGON LAWS 2007, SECTIONS 2 TO 9 AND 17, CHAPTER 855, OREGON LAWS 2009, AND SECTIONS 2 TO 7, CHAPTER 8, OREGON LAWS 2010. THIS INSTRUMENT DOES NOT ALLOW USE OF THE PROPERTY DESCRIBED IN THIS INSTRUMENT IN VIOLATION OF APPLICABLE LAND USE LAWS AND REGULATIONS. BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON ACQUIRING FEE TITLE TO THE PROPERTY SHOULD CHECK WITH THE APPROPRIATE CITY OR COUNTY PLANNING DEPARTMENT TO VERIFY THAT THE UNIT OF LAND BEING TRANSFERRED IS A LAWFULLY ESTABLISHED LOT OR PARCEL, AS DEFINED IN ORS 92.010 OR 215.010, TO VERIFY THE APPROVED USES OF THE LOT OR PARCEL, TO DETERMINE ANY LIMITS ON LAWSUITS AGAINST FARMING OR FOREST PRACTICES, AS DEFINED IN ORS 30.930, AND TO INQUIRE ABOUT THE RIGHTS OF NEIGHBORING PROPERTY OWNERS, IF ANY, UNDER ORS 195.300, 195.301 AND 195.305 TO 195.336 AND SECTIONS 5 TO 11, CHAPTER 424, OREGON LAWS 2007, SECTIONS 2 TO 9 AND 17, CHAPTER 855, OREGON LAWS 2009, AND SECTIONS 2 TO 7, CHAPTER 8, OREGON LAWS 2010.

IN WITNESS WHEREOF, the undersigned have executed this document on the date(s) set forth below.

Dated: 12-09-2021

Virginia Mathis Trust dated December 11, 2012

BY: _____, Trustee
Debra Dillard, Trustee

State of Washington
County of King

This instrument was acknowledged before me on 12/09/2021 by Debra Dillard, surviving trustee of the Virginia Matthis Trust dated Debember 11, 2012 on behalf of the trust.

_____
Notary Public - State of ~~Oregon~~ Washington

My Commission Expires: 6-05-2023

RoxAnne Lee Kruger Monahan
Notary Public, Washington State

Notary Public
State of Washington
ROXANNE LEE KRUGER MONAHAN
LICENSE # 208593
MY COMMISSION EXPIRES
JUNE 5, 2023

REEL: 4572 PAGE: 239

December 10, 2021, 01:53 pm.

CONTROL #: 685861

State of Oregon
County of Marion

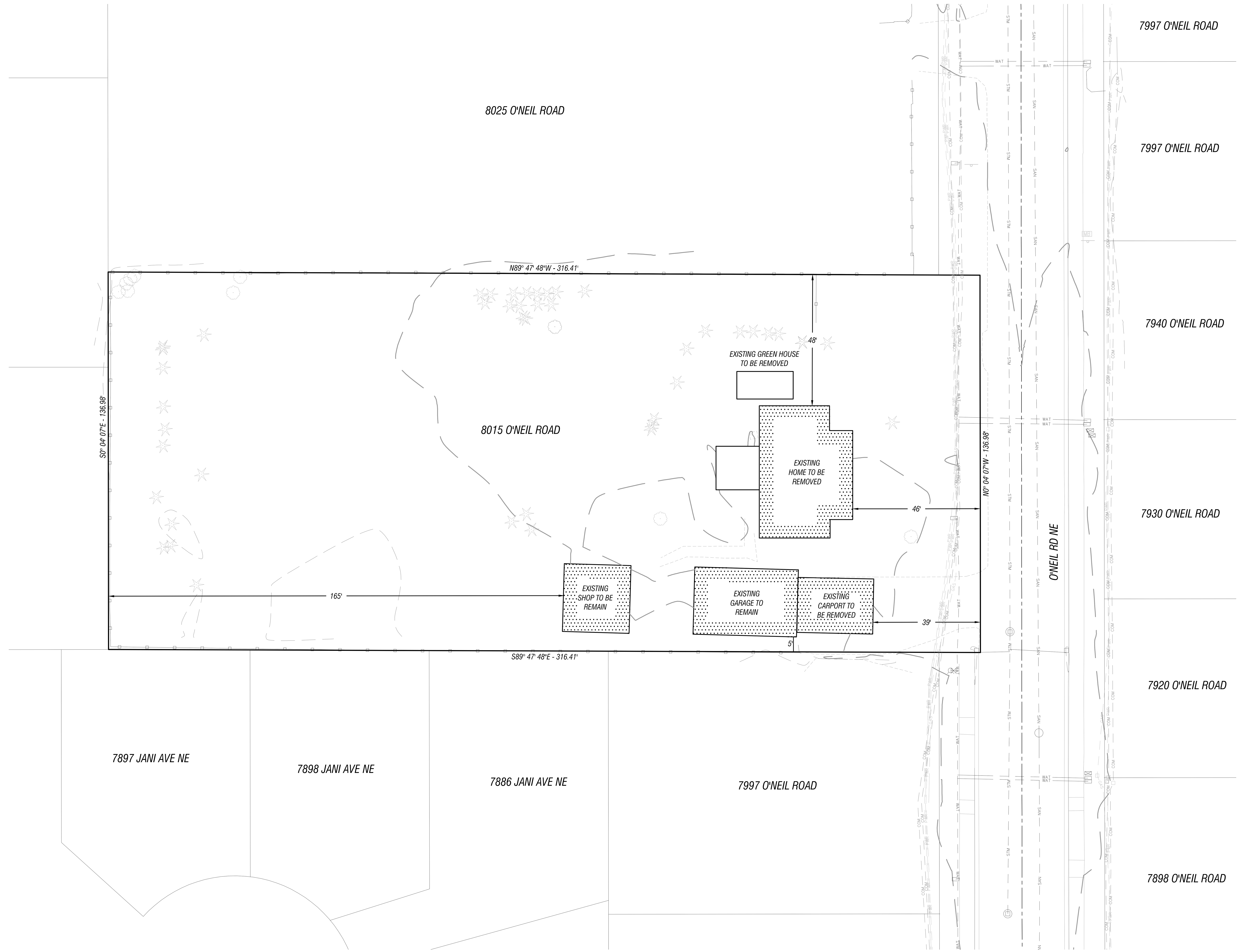
I hereby certify that the attached instrument was received and duly recorded by me in Marion County records:

FEE: $ 86.00

BILL BURGESS
COUNTY CLERK

THIS IS NOT AN INVOICE.

Exhibit C –Existing Conditions Plan



LEGEND

	EXISTING	PROPOSED
DECIDUOUS TREE		
CONIFEROUS TREE		
FIRE HYDRANT		
WATER BLOWOFF		
WATER METER		
WATER VALVE		
DOUBLE CHECK VALVE		
AIR RELEASE VALVE		
SANITARY SEWER CLEANOUT		
SANITARY SEWER MANHOLE		
SIGN		
STREET LIGHT		
MAILBOX		
STORM SEWER MANHOLE		
STORM SEWER CLEAN OUT		
STORM SEWER CATCH BASIN		
GAS METER		
GAS VALVE		
GUY WIRE ANCHOR		
POWER POLE		
POWER VAULT		
POWER JUNCTION BOX		
POWER PEDESTAL		
COMMUNICATIONS VAULT		
COMMUNICATIONS JUNCTION BOX		

	EXISTING	PROPOSED
RIGHT OF WAY LINE		
BOUNDARY LINE		
PROPERTY LINE		
CENTERLINE		
DITCH		
CURB		
EDGE OF PAVEMENT		
EASEMENT		
FENCE LINE		
GRAVEL EDGE		
POWER LINE	PWR	PWR
OVERHEAD WIRE	OHW	OHW
COMMUNICATIONS LINE	COM	COM
FIBER OPTIC LINE	CFO	CFO
GAS LINE	GAS	GAS
STORM SEWER LINE	STM	STM
SANITARY SEWER LINE	SAN	SAN
WATER LINE	WAT	WAT

PRELIMINARY

EXPIRES

NO.	DATE	REVISION	BY	APVD

O'NEIL ROAD SUBDIVISION

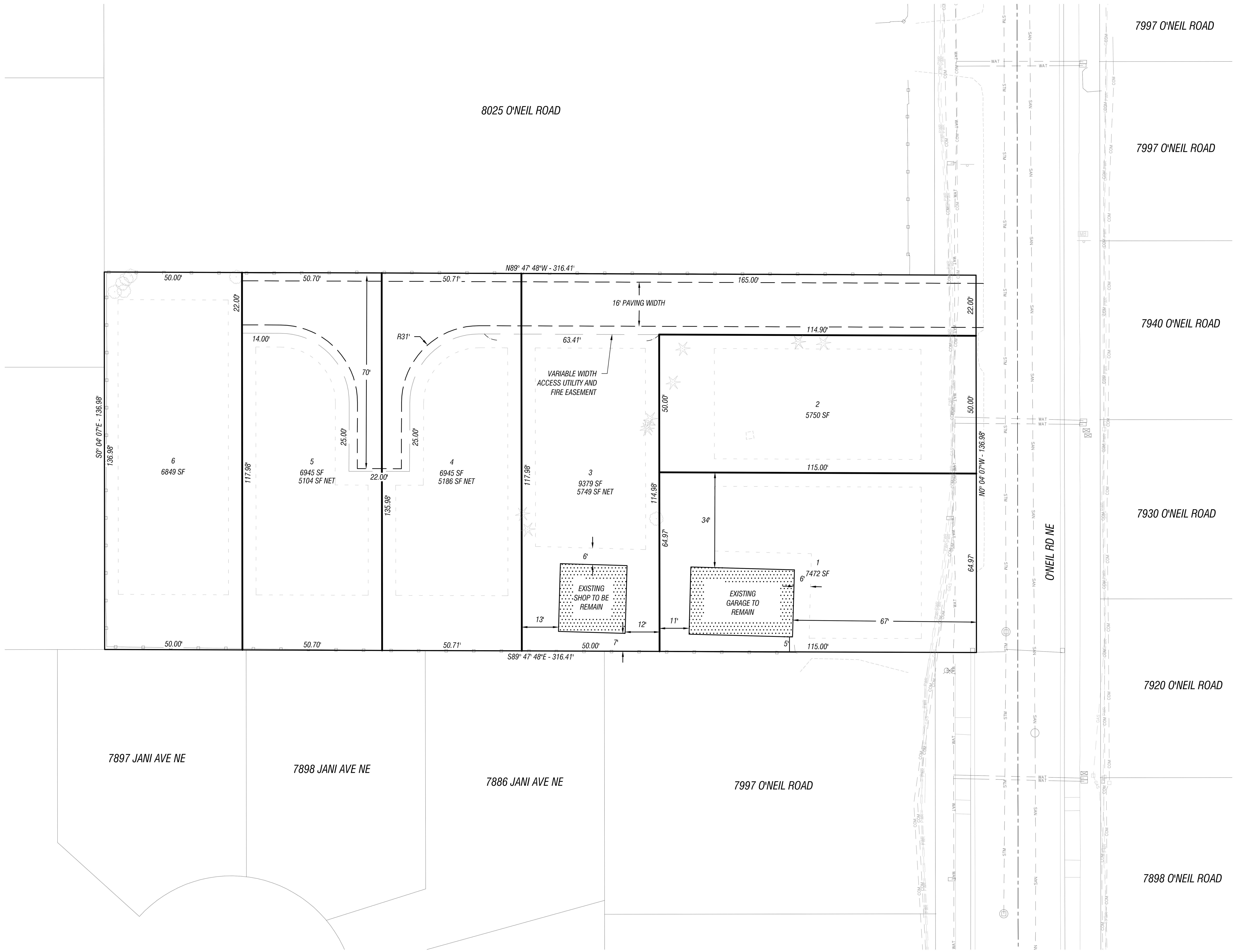
PREPARED FOR: CRAIG WIGGINTON

LEI ENGINEERING & SURVEYING OF OREGON
2564 19TH STREET SE
Salem, Oregon 97302
(503) 399-3828
www.leiengineering.com

EXISTING CONDITIONS

SCALE 1" = 20'
PROJECT NO. 14-76
SHEET 01 OF 04
EX-1

Exhibit D –Proposal Plans and Drawings



8025 O'NEIL ROAD
7997 O'NEIL ROAD
7997 O'NEIL ROAD
7940 O'NEIL ROAD
7930 O'NEIL ROAD
7920 O'NEIL ROAD
7898 O'NEIL ROAD
7897 JANI AVE NE
7898 JANI AVE NE
7886 JANI AVE NE
7997 O'NEIL ROAD
O'NEIL RD NE
N89° 47' 48"W - 316.41'
S89° 47' 48"E - 316.41'
S0° 04' 07"E - 136.98'
N0° 04' 07"W - 136.98'
16' PAVING WIDTH
VARIABLE WIDTH ACCESS UTILITY AND FIRE EASEMENT
6 6849 SF
5 6945 SF 5104 SF NET
4 6945 SF 5186 SF NET
3 9379 SF 5749 SF NET
2 5750 SF
1 7472 SF
EXISTING SHOP TO BE REMAIN
EXISTING GARAGE TO REMAIN

PRELIMINARY

EXPIRES

NO.	DATE	REVISION	BY	APVD

O'NEIL ROAD SUBDIVISION

PREPARED FOR: CRAIG WIGGINTON

LEI ENGINEERING & SURVEYING OF OREGON

2564 19TH STREET SE
Salem, Oregon 97302
(503) 399-3828
www.leiengineering.com

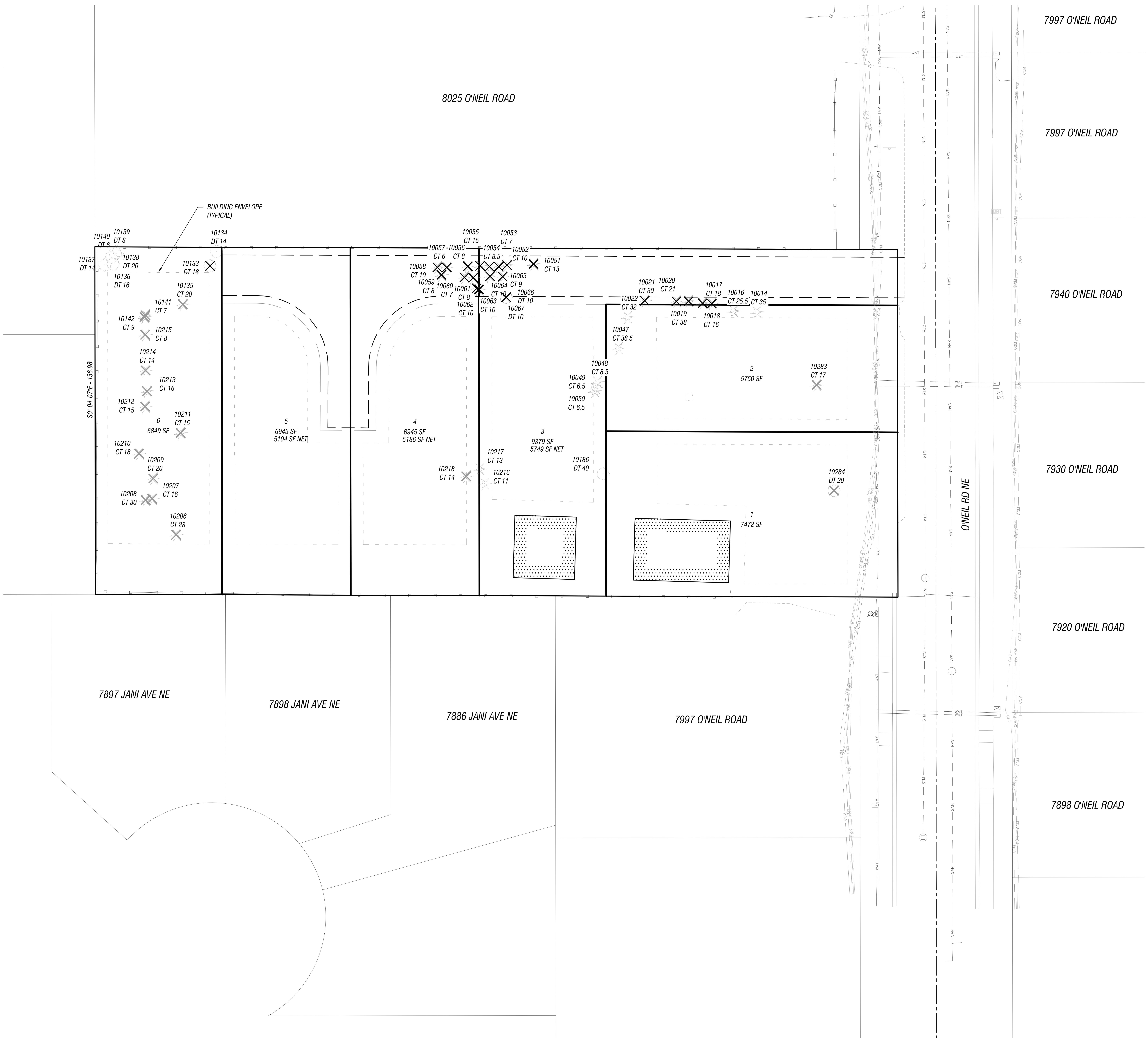
DIMENSIONED SUBDIVISION PLAN

SCALE 1" = 20'

PROJECT NO. 14-76

SHEET 02 OF 04

DS-1



TREE NUMBER	SPECIES	DBH	HEALTH	*SIGNIFICANT	REMOVE
10014	DF	35		X	
10015	DF	25.5		X	
10016	DF	25.5		X	
10017	DF	18		X	X
10018	DF	16		X	X
10019	DF	38		X	X
10020	DF	21		X	X
10021	DF	30		X	X
10022	DF	32		X	
10047	DF	38.5		X	
10048	RC	8.5			
10049	RC	6.5			
10050	RC	6.5			
10051	PP	13		X	X
10052	DF	10			X
10053	DF	7			X
10054	DF	8.5			X
10055	DF	15		X	X
10056	DF	8			X
10057	DF	6	DEAD		X
10058	DF	10	DEAD		X
10059	DF	8	DEAD		X
10060	DF	7	DEAD		X
10061	DF	8	DEAD		X
10062	DF	10	DEAD		X
10063	DF	10			X
10064	DF	10			X
10065	DF	9			X
10066	DF	10			X
10067	PB	10			X
10133	CH	18		X	X
10134	AL	14		X	
10135	RC	20		X	X
10136	AL	16		X	
10137	AL	14		X	
10138	AL	20		X	
10139	AL	8			
10140	AL	6			
10141	PP	7			X
10142	PP	9			X
10186	RO	40		X	
10206	RC	23		X	X
10207	DF	16		X	X
10208	DF	30		X	X
10209	DF	20		X	X
10210	DF	18		X	X
10211	DF	15		X	X
10212	PP	15		X	X
10213	DF	16		X	X
10214	PP	14		X	X
10215	PP	8			X
10216	PP	11			
10217	PP	13		X	
10218	PP	14		X	X
10283	DF	17		X	X
10284	WO	20		X	X

*SIGNIFICANT TREE IS DEFINED IN THE CITY OF KEIZER DEVELOPMENT CODE, SECTION 2.309, AS "TREES HAVING A HEIGHT OF MORE THAN FIFTY (50) FEET AND/OR HAVING A TRUNK WHOSE DIAMETER IS MORE THAN TWELVE (12) INCHES DIAMETER AT BREAST HEIGHT (DBH) (5 FEET ABOVE GROUND LEVEL).

TREE SPECIES ABBREVIATIONS
AL -ALDER
CH - CHERRY
DF - DOUGLAS-FIR
PB - PAPER BIRCH
PP - PONDEROSA PINE
RC - RED CEDAR
RO - RED OAK
WH - WESTERN HEMLOCK
WO - WHITE OAK

X TREE MARKED FOR REMOVAL FOR ACCESS IMPROVEMENTS
X TREE MARKED FOR REMOVAL FOR BUILDING IMPROVEMENTS

PRELIMINARY
EXPIRES

NO.	DATE	REVISION	BY	APVD

O'NEIL ROAD SUBDIVISION

PREPARED FOR:
CRAIG WIGGINTON

LEI ENGINEERING & SURVEYING OF OREGON
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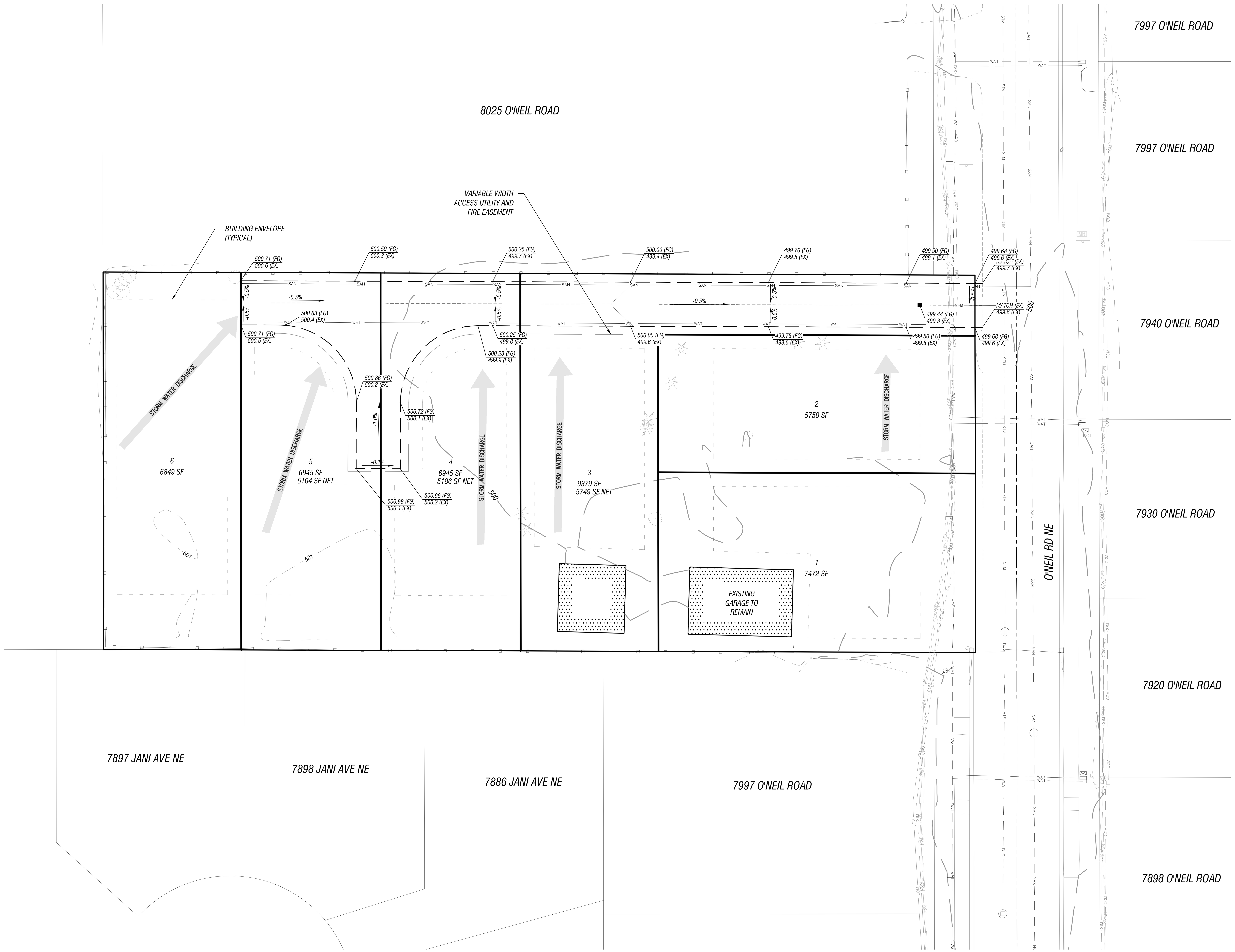
TREE INVENTORY PLAN

SCALE 1" = 20'
PROJECT NO. 14-76
SHEET 03 OF 04
TI-1



PRELIMINARY

EXPIRES

NO.	DATE	REVISION	BY	APVD

O'NEIL ROAD SUBDIVISION

PREPARED FOR:
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GRADING AND DRAINAGE PLAN

SCALE 1" = 20'

PROJECT NO. 14-76

DS

SHEET 04 OF 04