

ENGINEERING INFORMATION:
ALL WATER, STORM AND SANITARY LINE SIZING IS APPROXIMATE AND FOR ESTIMATION PURPOSES ONLY. FINAL PIPE AND FACILITY SIZES TO BE DETERMINED FOR ALL PIPES AND VAULTS DURING FINAL ENGINEERING.

ALL TRENCH BACK FILL & BEDDING PER G3. COVER MAY BE REDUCED PER GEOTECH RECOMMENDATIONS IN AREAS OF SHALLOW BEDROCK NOT ALLOWING FOR AMOUNT OF COVER.

INSTALL UTILITIES PER ST34 WHERE POSSIBLE. WATER 6" FROM FACE CURB STORM DOWN CL, STEP/STEP 7" FROM FACE OF CURB

ALL HOMES TO BE SPRINKLERED AT TIME OF BUILDING PERMIT

- WATER NOTES:
1. WATER SYSTEM TO BE SIZED AND INSTALLED PER CITY OF CAMAS DESIGN MANUAL.
 2. FIRE HYDRANTS PER W11 TO BE PLACED EVERY 400LF ALONG STREET AND WITHIN 600FT TO FURTHEST BUILDING ENVELOPE AND MEET LOCAL FIRE JURISDICTION REQUIREMENTS.
 3. INDIVIDUAL METERS AND SERVICES TO BE PROVIDED FOR EACH LOT AS 1" WATER SERVICE PER W2.
 4. AN INDIVIDUAL COMMERCIAL WATER SERVICE TO EACH BP BUILDING TO BE INSTALLED AS 2" WATER SERVICE PER W6 OR 3" PER W7 PLUS STANDARD DOUBLE CHECK VALVE PER W23A & W23B - TO BE SPECIFIED BY LOT OWNER PRIOR TO INSTALLATION. ALSO, AN IRRIGATION METER TO BE INSTALLED TO EACH LOT.
 5. IRRIGATION METERS TO BE PROVIDED FOR LANDSCAPING IF REQUIRED.
 6. 12" MAIN MIN 3' OF COVER, LESS THAN 12" WATER MIN 2.5' COVER.
 7. AIR/VACUUM RELEASE VALVE (AVRV) PER W16, AT END OF EACH CUL-DE-SAC AND ALL HIGH POINTS.

- SANITARY SEWER NOTES:
1. SANITARY SEWER SYSTEM TO BE S.T.E.P./S.T.E.P. SYSTEM, SIZED AND INSTALLED PER CITY OF CAMAS DESIGN MANUAL.
 2. ALL LOTS TO HAVE INDIVIDUAL RESIDENTIAL TANK SYSTEMS AND PUMP TO SEWER MAIN.
 3. ALL BUSINESS PLOT LOTS TO HAVE COMMERCIAL SYSTEM AND PUMP TO SEWER MAIN.
 4. EACH COMMERCIAL VAULT TO BE SIZED FOR EACH COMMERCIAL BUILDING AT TIME OF BUILDING PERMIT.
 5. AARV PER SF10 OR SP6, AT END OF EACH CUL-DE-SAC AND ALL HIGH POINTS.
 6. STEP MIN 5' OF COVER WITH LATERAL MIN 1.5' COVER STEP MIN 6' OF COVER WITH LATERAL MIN 4.5' COVER. COVER MAY BE REDUCED PER GEOTECH RECOMMENDATIONS IN AREAS OF SHALLOW BEDROCK NOT ALLOWING FOR AMOUNT OF DESIGN COVER BUT IN NO CASE SHALL BE LESS THAN 3' OF COVER.
 7. FOR EACH LOT INSTALL STEP SYSTEM STUBOUT PER SF 2 AND SF 3.
 8. AT TIME OF BUILDING PERMIT, EACH LOT BUILDER TO INSTALL STEP CONNECTION & STEP TANK PER SP10.
 9. STEP SYSTEM USE CITY'S STANDARD CLASS 200 PVC PIPE (EXPECTED MAXIMUM PRESSURE WILL BE ABOUT 105 PSI).

- STORM NOTES:
6. ONSTORM (DOES NOT INCLUDE CAMAS MEADOWS DR.)
 7. TOTAL APPROXIMATE LENGTH:
 - 7.1. ASSUME ALL STORM IN STREETS 12" = 1958 LF
 - 7.2. ASSUME ALL STORM TO LOTS IS 10" = 3330 LF

- TRANSPORTATION:
1. VERTICAL CURVES PER AASHTO POLICY ON GEOMETRIC DESIGN OF HIGHWAY & STREETS, EXHIBIT 3-76, PG 274
 2. ALL PROJECT TESTING REQUIREMENTS PER G4.
 3. ON RESIDENTIAL STREETS, STREETLIGHTS LED ACORN POLE TYPE STYLE EVERY 150' PER CITY STANDARDS - ONE SIDE.
 4. ON ARTERIAL STREETS, STREETLIGHTS LED STANDARD COBRA TYPE EVERY 170' PER CITY STANDARDS - ONE SIDE.

PRIVATE STREET PER PVT2
 30' PRIVATE R/W
 20' PAVED ROAD WITH CURB AND GUTTER
 NO PARKING BOTH SIDES
 5' ATTACHED SIDEWALK WEST SIDE
 CENTERLINE 240 LF
 NW PARKLANDS TRAIL DR ASPHALT PAVING = 4,927 SF
 PER TABLE 17.19.040-1-B TO MINIMIZE BUFFER IMPACTS, MINIMIZE STREET WIDTH & ATTACH SIDEWALK, ALL LOTS SPRINKLERED AS > 100' IN LENGTH.

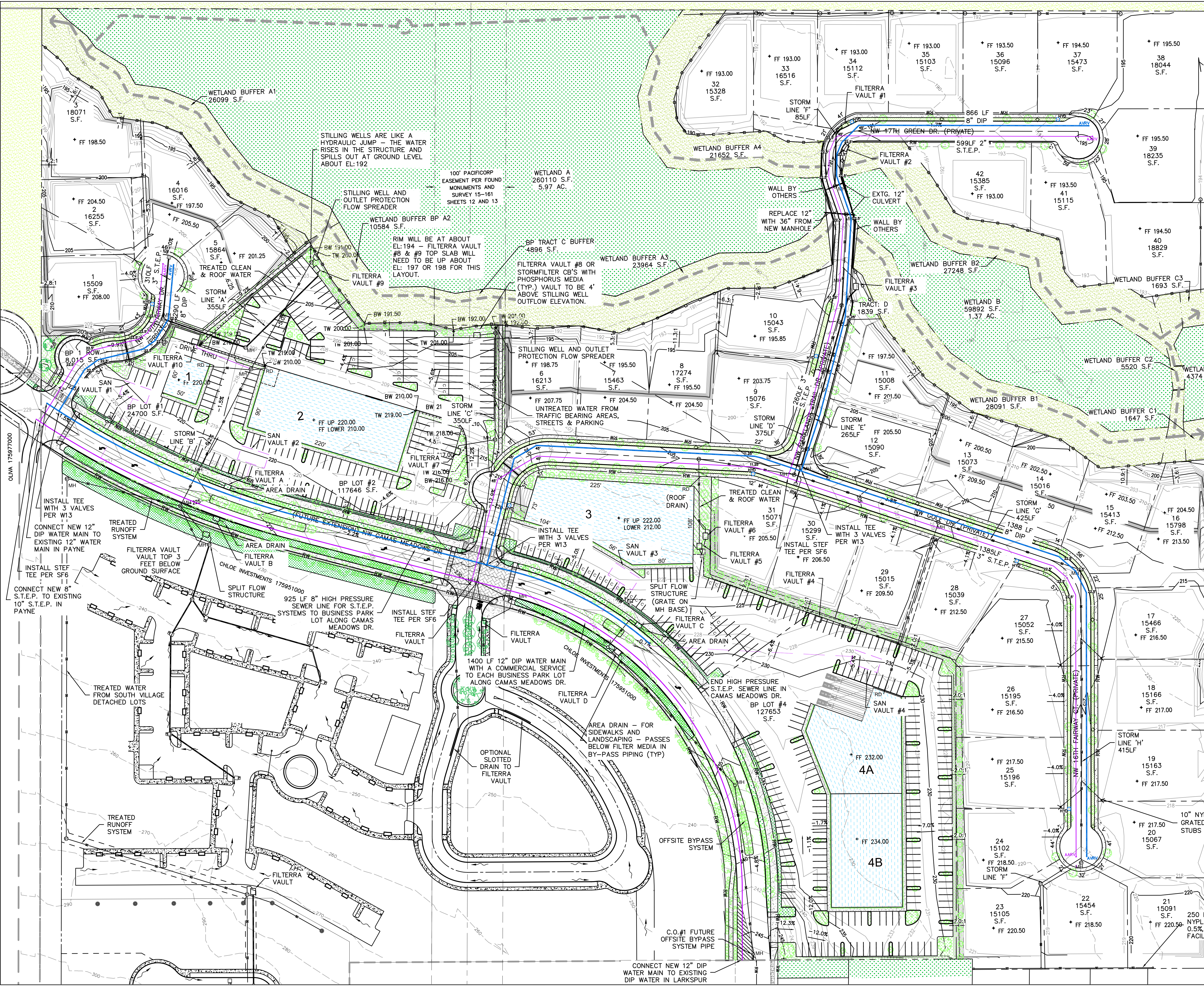
PRIVATE STREET PER PVT3
 42' PRIVATE TRACT R/W
 28' PAVED ROAD WITH CURB AND GUTTER
 5' DETACHED SIDEWALK ONE SIDE
 NW 10TH FAIRWAY DR ASPHALT PAVING = 11,151 SF
 NW PARKLANDS TRAIL DR ASPHALT PAVING = 6,541 SF
 NW 17TH GREEN DR ASPHALT PAVING = 10,815 SF
 NO PARKING ONE SIDE

PRIVATE STREET PER PVT4
 48' PRIVATE R/W
 28' PAVED ROAD WITH CURB AND GUTTER
 5' PLANTER BOTH SIDES
 5' DETACHED SIDEWALK BOTH SIDES
 CENTERLINE 1480 LF
 NW 16TH FAIRWAY CT ASPHALT PAVING = 11,194 SF
 NW GOLF DR ASPHALT PAVING = 28,860 SF

ALL CUL-DE-SAC TURNAROUNDS PER ST36 FOR SPRINKLERED DEVELOPMENT WITH 30' PAVED & 5' ATTACHED SIDEWALK WITH OUTER SIDEWALK TURNAROUND RADIUS BULB = 35' 35' RADIUS CUL-DE-SAC BULB 30' PAVED CUL-DE-SAC BULB

10" NYPLAST PRIVATE ROOF & YARD GRATED DRAIN WITH TWO 4' WYE @ 8" STUBS SHARED BETWEEN 2 LOTS (TYP)

250 LF 10" STORM PIPE & (3) 12" NYPLAST GRATED AREA DRAIN @ MIN. 0.5% TIE TO EXISTING OFFSITE STORM FACILITIES



KESSI ENGINEERING
 CONSULTING PLANNING CIVIL ENGINEERING PROJECT MANAGEMENT
 6400 NE HWY 99 #6-169 VANCOUVER, WA 98665 Tel: (360) 991-9300 www.kessiengineering.com
 DATE: 24 JAN 2016
 PARKLANDS EXECUTIVE SUBDIVISION AND THE ARCHERY BUSINESS PARK SITE PLAN AT CAMAS MEADOWS GOLF COURSE
 PRELIMINARY COMPOSITE UTILITY PLAN
 SHEET 4