

PURPOSE OF SURVEY

THE PURPOSE OF THIS SURVEY WAS TO PROVIDE TOPOGRAPHIC SURVEY AND RIGHT OF WAY RESOLUTION FOR A PORTION OF SOUTH SILVER LAKE ROAD AND OTHER PROPERTY, FOR PURPOSES OF DESIGNING NEW WATER SYSTEM IMPROVEMENTS.

VERTICAL DATUM

ELEVATION DATUM: NAVD88 (DERIVED FROM OPUS AS BELOW)  
BENCHMARK: CP#7  
LOCATION: AS SHOWN HEREON  
ELEVATION: 603.15'

BASIS OF BEARINGS / HORIZONTAL COORDINATES / CONTROL SCHEME

WASHINGTON STATE PLANE, SOUTH ZONE (SPC 4602 WA S) - SEE BELOW:

HORIZONTAL COORDINATES AND BASIS OF BEARINGS ARE WASHINGTON STATE PLANE (SOUTH ZONE) - REFERENCE FRAME: NAD83 (2011) (EPOCH: 2010.0000), US SURVEY FEET. ALL DISTANCES ARE GRID, AND WERE DETERMINED FROM NGS OPUS SOLUTIONS, WHICH WERE DERIVED FROM 2 HOUR MINIMUM GPS OBSERVATIONS ON CONTROL POINTS 1, 4, 6, 7, 10, AND 11 (SHOWN HEREON), UTILIZING THE FOLLOWING EXISTING BASE STATIONS:

| PID    | DESIGNATION                     | LATITUDE       | LONGITUDE       |
|--------|---------------------------------|----------------|-----------------|
| AJ7204 | CPXF CHARLES PACK CORS MONUMENT | N46°50'24.291" | W122°15'23.407" |
| AJ7210 | TWHL TWHL_PNGA_WA2001 CORS GRP  | N47°00'57.244" | W122°55'22.250" |
| DEB433 | WDBN WOODBURN COOP CORS ARP     | N45°10'15.996" | W122°52'12.130" |
| DF4688 | Z3E1 SEATTLE WAS 1 CORS ARP     | N47°17'13.161" | W122°11'18.076" |
| DG8346 | P420 FANTASYFD_WA2004 CORS GRP  | N46°35'18.952" | W122°51'58.733" |
| DG8349 | P432 PACKWOODF_WA2004 CORS GRP  | N46°37'22.265" | W121°40'59.567" |
| DG8983 | NWBG ADEPAC COOP CORS ARP       | N45°18'00.172" | W122°50'31.850" |
| DH4131 | P698 MSH_SESLPEWA2004 CORS GRP  | N46°10'24.461" | W122°09'38.141" |
| DH5821 | P693 MSH_NWDOMEWA2004 CORS GRP  | N46°12'37.142" | W122°12'08.394" |
| DK4153 | P446 KELSO_AIR_WA2007 CORS GRP  | N46°06'56.369" | W122°53'33.975" |
| DN2111 | JIME JIM ELAM CORS ARP          | N45°31'23.214" | W122°59'25.841" |
| DN6058 | GRMD GRAND MOUND CORS GRP       | N46°47'43.735" | W123°01'21.288" |

CONTROL POINTS 1, 4, 6, 7, 10, AND 11 WERE THEN TIED TOGETHER USING STANDARD TRAVERSE AND RTK TECHNIQUES, THE RESULTS OF WHICH WERE ADJUSTED TOGETHER IN A WEIGHTED LEAST SQUARES ADJUSTMENT, UTILIZING STARNET SOFTWARE. AN AVERAGE PROJECT COMBINED SCALE FACTOR (0.9999023533) WAS CALCULATED IN ORDER TO COMPARE RECORD (GROUND) DIMENSIONS TO MEASURED (GRID) DIMENSIONS. 1000.00' GRID = 1000.10' GROUND, THE CONVERGENCE ANGLE IS -1.72152222" AT CONTROL POINT NUMBER 6, PER OPUS REPORT.

RELATIVE VERTICAL POSITIONAL ACCURACY

THE CONTOURS SHOWN HEREON ARE FROM DIRECT FIELD OBSERVATIONS. THE RELATIVE VERTICAL POSITIONAL ACCURACY OF THE CONTOURS AND SPOT ELEVATIONS SHOWN HEREON MEETS THOSE STANDARDS DEFINED BY THE NATIONAL SOCIETY OF PROFESSIONAL SURVEYORS (NSPS) PER THAT CERTAIN DOCUMENT ENTITLED "NSPS MODEL STANDARDS FOR TOPOGRAPHIC SURVEYS" (LABELED AS SECTION E), APPROVED 3/12/2002. THOSE STANDARDS ARE AS FOLLOWS FOR A 1' CONTOUR MAP:

CONTOUR LINES AT 1' INTERVALS: ±0.65' VERTICAL POSITIONAL ACCURACY  
SPOT ELEVATIONS FOR WELL DEFINED PLANIMETRIC FEATURES: ±0.10' VERTICAL POSITIONAL ACCURACY

METHOD OF SURVEY

FIELD SURVEYS WERE ACCOMPLISHED UTILIZING STANDARD CLOSED TRAVERSE AND RADIAL SURVEY METHODS, AS WELL AS STANDARD GLOBAL POSITIONING SYSTEM (GPS) REAL TIME KINEMATIC (RTK) AND STATIC GPS METHODS. MEASUREMENTS WERE PERFORMED USING A TRIMBLE S7 3-SECOND TOTAL STATION AND TRIMBLE R12i SURVEY GRADE GPS UNITS. THE RELATIVE HORIZONTAL ACCURACY FOR CONTROL AND FOUND MONUMENTS SHOWN ON THIS SURVEY MEETS THE STANDARD OF 0.07 FEET PLUS 200 PARTS PER MILLION AT THE NINETY-FIVE PERCENT CONFIDENCE LEVEL PER WAC332-130-085. A LEAST SQUARES ADJUSTMENT OF THE DATA WAS PERFORMED IN ORDER TO DETERMINE THAT IT MET THIS STANDARD.

NOTES

- SEE FIELD NOTES IN CCPWFB 2023-01.
- THE BOUNDARY LINES SHOWN HEREON ARE PER MY RECORD OF SURVEY FOR THIS PROJECT, A COPY OF WHICH IS ON FILE IN THE OFFICE OF THE COWLITZ COUNTY ROAD ENGINEER. SEE SAID SURVEY FOR ALL NOTES, RESOLUTION, NARRATIVE, ETC.

MONUMENT LEGEND:

- FOUND MONUMENT AS NOTED IN MONUMENT TABLE ON SHEET 1. PROTECT / PRESERVE WHERE POSSIBLE.
- IF TO BE DESTROYED, A PERMIT TO REMOVE A MONUMENT MUST BE FILED WITH THE DEPARTMENT OF NATURAL RESOURCES, THEN REPLACE MONUMENT AFTER CONSTRUCTION.

△ ELEV. TEMP. - TEMPORARY CONTROL POINT  
DESC.

- NOTES:
- ALL PIPE DIAMETERS ARE INSIDE DIMENSIONS, UNLESS NOTED OTHERWISE.
  - ALL FOUND MONUMENTS WERE LAST VISITED AND TIED DURING THIS SURVEY (4/24/2023 TO 6/22/2023).

MANHOLE LOCATION INFORMATION:

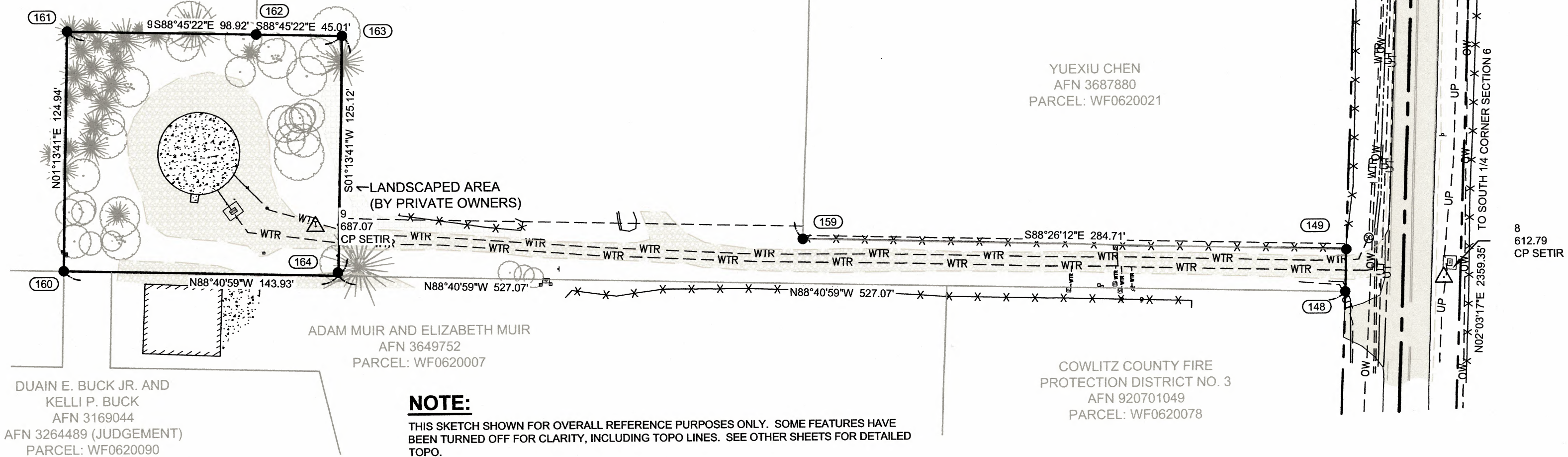
DUE TO THE HAZARDOUS NATURE AND APPLICABLE OSHA REQUIREMENTS REGARDING CONFINED SPACES, IT IS COUNTY POLICY TO NOT SEND OUR FIELD STAFF INTO UTILITY MANHOLES TO RETRIEVE DEPTH AND SIZE INFORMATION (PIPE SIZES AND DEPTHS ARE OBTAINED THROUGH ABOVE GROUND METHODS). THEREFORE, ANY MANHOLE ELEVATION INFORMATION SHOWN HEREON IS SUBJECT TO AN UNCERTAINTY IN ACCURACY OF PLUS OR MINUS 0.1" OR GREATER (DEPENDING ON DEPTH, SIZE, FLOW, AND CONSTRUCTION OF MANHOLE). MANHOLE PIPE SIZES ARE ALSO SUBJECT TO AN UNCERTAINTY OF TWO INCHES OR MORE (DEPENDING ON DEPTH, SIZE, FLOW, AND CONSTRUCTION OF MANHOLE). IF A HIGHER ACCURACY IS NEEDED, ADDITIONAL TIME, EQUIPMENT, AND PERSONNEL WILL BE REQUIRED TO ENTER THE MANHOLE AND RETRIEVE SAID INFORMATION.

MANHOLE LOCATIONS SHOWN ARE TO CENTER OF LID, NOT CENTER OF STRUCTURE.

| MONUMENT TABLE |            |             |                                                                  |               |
|----------------|------------|-------------|------------------------------------------------------------------|---------------|
| POINT          | NORTHING   | EASTING     | DESCRIPTION                                                      | ORIGIN        |
| 7              | 359005.251 | 1045028.512 | MAGNETIC NAIL W/BRASS WASHER "COWLITZ CNTY CONTROL"              | THIS SURVEY   |
| 8              | 358385.637 | 1045054.412 | 5/8" REBAR W/RPC "COWLITZ CNTY CONTROL POINT"                    | THIS SURVEY   |
| 9              | 358416.493 | 1044464.024 | 5/8" REBAR W/RPC "COWLITZ CNTY CONTROL POINT"                    | THIS SURVEY   |
| 135            | 358979.476 | 1045071.992 | 2" IRON IRON PIPE W/IN IN WSDOT MONUMENT BOX                     | WSDOT         |
| 136            | 358899.871 | 1045052.291 | 2" IRON IRON PIPE W/IN IN WSDOT MONUMENT BOX                     | WSDOT         |
| 148            | 358378.569 | 1045002.669 | 1-1/2" IRON PIPE                                                 | 07/PLATS/050  |
| 149            | 358400.804 | 1045003.495 | 5/8" REBAR, NO CAP, BENT-TIED SPIN HOLE                          | 07/SPLOTS/045 |
| 150            | 358706.045 | 1045028.081 | 1-1/2" IRON PIPE                                                 | UNKNOWN       |
| 151            | 358706.418 | 1045014.476 | 1/2" REBAR W/YPC "MURSELL 23856"                                 | 06/SPLOTS/177 |
| 152            | 358766.322 | 1045016.683 | 1/2" REBAR W/YPC "MURSELL 23856"                                 | 06/SPLOTS/177 |
| 153            | 358795.132 | 1045017.757 | 1/2" REBAR W/YPC "MURSELL 23856"                                 | 06/SPLOTS/177 |
| 154            | 358750.955 | 1045076.345 | 5/8" REBAR NO CAP, BENT-SHOT BASE                                | 14/ROS/034    |
| 155            | 358745.934 | 1045076.569 | 3/4" IRON PIPE                                                   | UNKNOWN       |
| 156            | 358714.370 | 1044729.626 | 1/2" REBAR W/YPC "MURSELL 23856", BENT-SHOT SPIN HOLE            | 07/SPLOTS/045 |
| 157            | 358717.107 | 1044622.425 | 1/2" REBAR NO CAP, BENT                                          | 06/SPLOTS/177 |
| 158            | 358721.348 | 1044440.852 | 1/2" REBAR W/YPC "MURSELL 23856"                                 | 07/SPLOTS/045 |
| 159            | 358408.371 | 1044718.890 | 1/2" REBAR W/YPC "MURSELL 23856"                                 | 07/SPLOTS/045 |
| 160            | 358393.990 | 1044331.852 | 1/2" REBAR W/YPC "MURSELL 23856"                                 | 07/SPLOTS/045 |
| 161            | 358518.897 | 1044334.530 | 5/8" REBAR W/BROKEN YPC, UNREADABLE                              | 07/SPLOTS/045 |
| 162            | 358516.746 | 1044433.423 | 1/2" REBAR W/YPC "MURSELL 23856"                                 | 07/SPLOTS/045 |
| 163            | 358515.772 | 1044478.423 | 5/8" REBAR, NO CAP                                               | 06/ROS/189    |
| 164            | 358392.315 | 1044475.446 | 1/2" REBAR W/YPC "MURSELL 23856"-DISTURBED                       | 07/SPLOTS/045 |
| 185            | 359049.508 | 1044634.216 | 1/2" REBAR W/YPC "MURSELL 23856"                                 | 06/SPLOTS/177 |
| 186            | 359049.661 | 1044634.196 | 1/2" IRON PIPE                                                   | UNKNOWN       |
| 187            | 359048.892 | 1044682.821 | 2" IRON PIPE, BENT AND LEANING - LOOSE - NOT A RELIABLE POSITION | 07/PLATS/050? |
| 194            | 359039.395 | 1045100.761 | 2" IRON PIPE W/IN IN WSDOT MONUMENT BOX                          | WSDOT         |

GEORGE H. MALAKOWSKY  
AND BETTY J. MALAKOWSKY  
AFN 3426793  
PARCEL: WF0620083

CHRISTOPHER P. BULLOCK  
AND LIAMARA BULLOCK  
AFN 3579499  
PARCEL: WF0620020



NOTE:

THIS SKETCH SHOWN FOR OVERALL REFERENCE PURPOSES ONLY. SOME FEATURES HAVE BEEN TURNED OFF FOR CLARITY, INCLUDING TOPO LINES. SEE OTHER SHEETS FOR DETAILED TOPO.

INDEX LOCATION

SE1/4 SW1/4, NE1/4 SW1/4, NW1/4 SE1/4,  
SE1/4 NW1/4, SW1/4 NE1/4,  
S6, T9N, R1W, W.M.

|      |      |      |      |
|------|------|------|------|
| GL 4 | GL 3 | GL 2 | GL 1 |
| GL 5 | GL 6 | GL 7 | GL 8 |

GL = GOVERNMENT LOT

UTILITY STATEMENT:

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM UTILITY PAINT MARKINGS PROVIDED BY OTHERS, THAT WERE AVAILABLE DURING THE FIELD SURVEY. NO AS-BUILT MAPS WERE RECEIVED.

THIS SURVEY MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE OF ALL SUCH UTILITIES IN THE AREA. THE UNDERGROUND UTILITIES SHOWN MAY NOT BE IN THE EXACT LOCATION AS NOTED ON THIS SURVEY, AND ARE LOCATED FROM THE INFORMATION PROVIDED. MANHOLES OTHER THAN SANITARY AND STORM SEWER WERE IDENTIFIED BY MANHOLE LIDS AND MAY NOT BE LABELED CORRECTLY.

UTILITY LOCATIONS MUST BE VERIFIED BY THE STATE UTILITY NOTIFICATION CENTER IMMEDIATELY PRIOR TO ANY EXCAVATION.

UTILITY LOCATES WERE REQUESTED: 4/25/2023 UNDER TICKET NUMBER 23153025  
5/10/2023 UNDER TICKET NUMBER 23177972

FOLLOWING IS A LIST OF UTILITY PROVIDERS NOTIFIED:

| DISTRICT | COMPANY            | MARKING CONCERNS | CUSTOMER SERVICE | REPAIR        |
|----------|--------------------|------------------|------------------|---------------|
| COWAU02  | COMCAST CABLE      | (800)778-9140    | (800)934-6489    | (855)537-6296 |
| COWDPW01 | COWLITZ COUNTY DPW | (360)577-3030    | (360)577-3030    | (360)577-3030 |
| COWPUD03 | COWLITZ COUNTY PUD | (360)501-9546    | (360)501-9546    | (360)501-9546 |
| QLNWA16  | CTLQL-CENTURYLINK  | (800)778-9140    | (800)283-4237    | (800)573-1311 |

SYMBOL LEGEND

| SYMBOL | DESCRIPTION                                                       |
|--------|-------------------------------------------------------------------|
| □      | FENCE GATE POST                                                   |
| □      | MAILBOX                                                           |
| □      | SIGN                                                              |
| □      | STORM CATCH BASIN                                                 |
| □      | STORM MANHOLE                                                     |
| □      | WETLANDS TEST PIT                                                 |
| □      | FIRE HYDRANT                                                      |
| □      | WATER VAULT                                                       |
| □      | WATER METER                                                       |
| □      | WATER VALVE                                                       |
| □      | WATER WELL                                                        |
| □      | POWER CONDUIT                                                     |
| □      | GUY ANCHOR                                                        |
| □      | GUY POLE                                                          |
| □      | LIGHT POLE                                                        |
| □      | POWER MARKER                                                      |
| □      | POWER METER                                                       |
| □      | POWER VAULT                                                       |
| □      | POWER TRANSFORMER                                                 |
| □      | UTILITY POLE                                                      |
| □      | TELEPHONE CONDUIT                                                 |
| □      | TELEPHONE MARKER                                                  |
| □      | TELEPHONE PEDESTAL                                                |
| □      | TELEPHONE VAULT                                                   |
| □      | CONIFER TREE*                                                     |
| □      | CONIFER TREE CLUMP** (2 OR MORE TRUNKS FROM 1 SINGLE ROOT BALL)   |
| □      | DECIDUOUS TREE*                                                   |
| □      | DECIDUOUS TREE CLUMP** (2 OR MORE TRUNKS FROM 1 SINGLE ROOT BALL) |

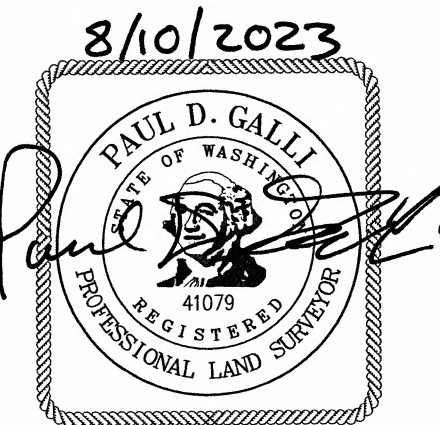
LINETYPE LEGEND

| LINETYPE | DESCRIPTION                                                     |
|----------|-----------------------------------------------------------------|
| ---      | DRAINAGE CULVERT                                                |
| ---      | DRAINAGE / ROAD DITCH                                           |
| ---      | OVERHEAD WIRE                                                   |
| ---      | WATER LINE                                                      |
| ---      | FO --- FIBER OPTIC LINE                                         |
| ---      | UT --- TELEPHONE LINE                                           |
| ---      | UP --- ELECTRIC LINE UNDERGRND                                  |
| ---      | FENCE, TYPE AS NOTED                                            |
| ---      | UTILITY LINE PAINT ENDS HERE, CONNECTION NOT LOCATED OR UNKNOWN |
| ---      | BUILDING LINE                                                   |
| ---      | MAJOR CONTOUR - SPACED AT 5' INTERVALS                          |
| ---      | MINOR CONTOUR - SPACED AT 1' INTERVALS                          |

HATCH LEGEND

| HATCH | DESCRIPTION               |
|-------|---------------------------|
| ---   | EXISTING ASPHALT SURFACE  |
| ---   | EXISTING CONCRETE SURFACE |
| ---   | EXISTING GRAVEL SURFACE   |

\* NOTE THAT APPROXIMATE TREE DIAMETERS (6" AND LARGER) WERE COLLECTED, BUT NOT SHOWN HEREON DUE TO CLARITY ISSUES. PLEASE REQUEST THIS INFORMATION IF NECESSARY.  
\*\* NOTE: A CLUMP WAS CONSIDERED TO BE WHERE 2 OR MORE TRUNKS SPLIT AT APPROXIMATELY CHEST HEIGHT AND SHARE A SINGLE ROOT BALL. THE QUANTITY AND SIZES OF THE TRUNKS ARE NOT SHOWN HEREON. PLEASE REQUEST THIS INFORMATION IF NECESSARY.



PH PROJECT MANAGER N/A DATE  
PDG 08/10/2023  
DRAWN BY DATE  
CWB, BOH 08/10/2023  
CHECKED BY DATE

HORIZ. SCALE: 1" = 50'  
VERT. SCALE: 1' CONTOURS  
PROJECT ID: N/A  
ROAD NO. : TOUTLE WATER SYSTEM  
COMPUTER FILE: TOUTLE WATER SYSTEM-SR504AND TOWER-TOPO.dwg  
FIELD BOOK(S): 2023-01

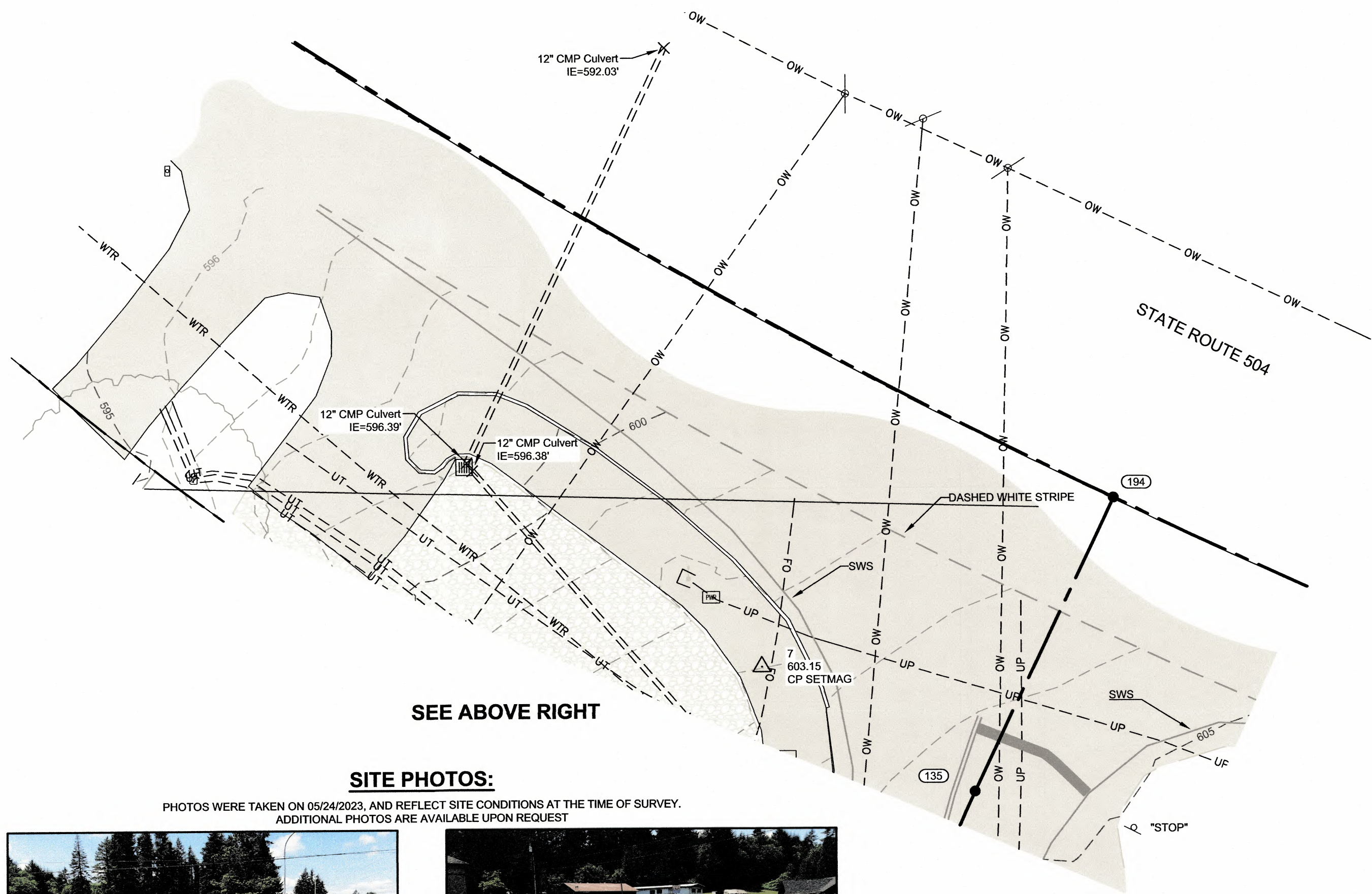


DEPARTMENT OF PUBLIC WORKS  
1600 13TH AVENUE SOUTH  
KELSO, WASHINGTON 98626

LOCATED IN SECTION 6,  
TOWNSHIP 9 NORTH, RANGE 1 WEST, WILLAMETTE MERIDIAN  
COWLITZ COUNTY, WASHINGTON  
FIELD WORK DATE: 4/24/2023 TO 5/24/2023

TOUTLE WATER SYSTEM  
LOW PRESSURE ZONE IMPROVEMENTS  
TOPOGRAPHIC SURVEY  
JUANITA & SOUTH SILVER LAKE RD. AREA

SHEET 1 OF 4



SEE ABOVE RIGHT

**SITE PHOTOS:**

PHOTOS WERE TAKEN ON 05/24/2023, AND REFLECT SITE CONDITIONS AT THE TIME OF SURVEY.  
ADDITIONAL PHOTOS ARE AVAILABLE UPON REQUEST



TAKEN AT SOUTHEAST CORNER OF INTERSECTION,  
LOOKING WESTERLY AT THE ROAD AND CABINS



TAKEN SOUTHEAST OF THE INTERSECTION, LOOKING  
SOUTHWESTERLY AT THE UTILITIES AND NEIGHBORING  
BUILDINGS



TAKEN ON EAST SIDE OF ROAD, SOUTH OF JUANITA  
WAY, LOOKING NORTH AT THE ROAD STRIPES AND  
UTILITY LINES



TAKEN ON EAST SIDE OF ROAD, SOUTH OF SR504,  
LOOKING NORTHWESTERLY AT THE PARKING AREA,  
UTILITY MARKS, AND STRIPING



TAKEN ON WEST SIDE OF THE ROAD AT JUANITA  
WAY, LOOKING WEST AT THE GRAVEL PRIVATE  
ROAD AND BUILDINGS

**MONUMENT LEGEND:**

- FOUND MONUMENT AS NOTED IN MONUMENT TABLE ON SHEET 1.  
PROTECT / PRESERVE WHERE POSSIBLE.  
IF TO BE DESTROYED, A PERMIT TO REMOVE A MONUMENT MUST BE FILED WITH THE DEPARTMENT OF NATURAL RESOURCES, THEN REPLACE MONUMENT AFTER CONSTRUCTION.

ELEV. - TEMPORARY CONTROL POINT  
DESC.

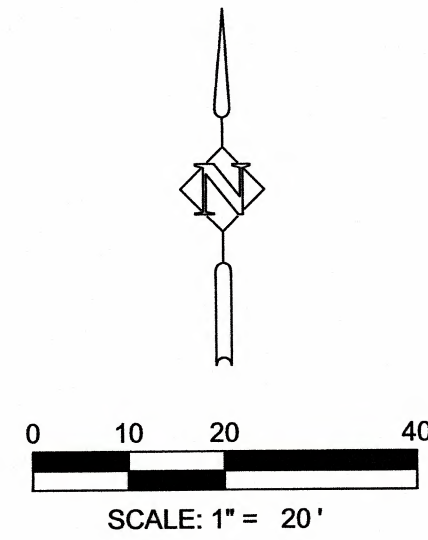
- NOTES:
- ALL PIPE DIAMETERS ARE INSIDE DIMENSIONS, UNLESS NOTED OTHERWISE.
  - ALL FOUND MONUMENTS WERE LAST VISITED AND TIED DURING THIS SURVEY (4/24/2023 TO 5/24/2023).

**SYMBOL LEGEND  
LINETYPE LEGEND  
ABBREVIATIONS**

SEE SHEET 3

BILLY JOE NIELSEN  
AFN 3236098  
PARCEL: WF0620022

LOT 1  
6/SPLATS/177



SEE SHEET 3



PH PROJECT MANAGER N/A  
DATE  
PDG  
DRAWN BY 08/10/2023  
DATE  
CWB, BOH  
CHECKED BY 08/10/2023  
DATE

HORIZ. SCALE: 1" = 20'  
VERT. SCALE: 1" = 20' CONTOURS  
PROJECT ID: N/A  
ROAD NO.: TOUTLE WATER SYSTEM  
COMPUTER FILE: TOUTLE WATER SYSTEM-  
SR504AND TOWER-TOPO.dwg  
FIELD BOOK(S): 2023-01



DEPARTMENT  
OF  
PUBLIC WORKS  
1600 13TH AVENUE SOUTH  
KELSO, WASHINGTON 98626

LOCATED IN SECTION 6,  
TOWNSHIP 9 NORTH, RANGE 1 WEST, WILLAMETTE MERIDIAN  
COWLITZ COUNTY, WASHINGTON  
FIELD WORK DATE: 4/24/2023 TO 5/24/2023

**TOUTLE WATER SYSTEM  
LOW PRESSURE ZONE IMPROVEMENTS**  
**TOPOGRAPHIC SURVEY**  
**JUANITA & SOUTH SILVER LAKE RD. AREA**

SHEET  
**2**  
OF  
**4**

SITE PHOTOS:

PHOTOS WERE TAKEN ON 05/24/2023, AND REFLECT SITE CONDITIONS AT THE TIME OF SURVEY.  
ADDITIONAL PHOTOS ARE AVAILABLE UPON REQUEST



TAKEN EAST OF JUANITA WAY, LOOKING  
SOUTHWESTERLY AT THE ROADWAY AND FENCES



TAKEN AT THE ENTRANCE OF THE GRAVEL DRIVEWAY TO  
THE WATER TANK, LOOKING WEST AT THE DRIVEWAY



TAKEN AT THE CENTERLINE OF THE GRAVEL  
DRIVEWAY, LOOKING WEST AT THE FENCES AND  
DRIVEWAY

REFERENCE SURVEYS LEGEND:

- ###/CR### - LAND CORNER RECORD BOOK AND PAGE, COWLITZ COUNTY AUDITOR'S SURVEY RECORDS  
###/SP/LTS### - SHORT PLAT BOOK AND PAGE, COWLITZ COUNTY AUDITOR'S SURVEY RECORDS  
###/PLATS### - SUBDIVISION PLAT BOOK AND PAGE, COWLITZ COUNTY AUDITOR'S SURVEY RECORDS  
###/ROS### - RECORD OF SURVEY BOOK AND PAGE, COWLITZ COUNTY AUDITOR'S SURVEY RECORDS  
CCPWFB-####-### - COWLITZ COUNTY PUBLIC WORKS FIELD BOOK YEAR, NUMBER, AND PAGE  
ON FILE IN THE OFFICE OF THE COWLITZ COUNTY ROAD ENGINEER  
FML-####-### - FRED MILTON LANE FIELD BOOK NUMBER AND PAGE NUMBER, AN ELECTRONIC COPY  
OF WHICH IS ON FILE IN THE OFFICE OF THE COWLITZ COUNTY ROAD ENGINEER  
THE ORIGINAL, HARD COPY, FIELD BOOKS ARE CURRENTLY IN THE POSSESSION OF  
JERRY C. OLSON, PLS 9025, OF OLSON ENGINEERING IN VANCOUVER, WA  
COD-####-### - CLAUD OLSON DAVOLT FIELD BOOK NUMBER AND PAGE NUMBER, WHICH ARE ON  
FILE IN THE OFFICE OF THE COWLITZ COUNTY ROAD ENGINEER  
AES-####-### - AE (CURLEY) SCHULTZ FIELD BOOK NUMBER AND PAGE NUMBER, THESE BOOKS  
ARE ON FILE IN THE OFFICE OF THE COWLITZ COUNTY ROAD ENGINEER  
###-### - MEASURED DIMENSION  
###-###-### - RECORD DIMENSION PER REFERENCE NUMBER (BELOW)  
###-###-###-### - MEASURED AND RECORD DIMENSION PER REF. NO. (BELOW)  
(1) - RECORD INFORMATION PER (RECORD INFO. HERE)  
(2) - RECORD INFORMATION PER (RECORD INFO. HERE)  
(3) - RECORD INFORMATION PER (RECORD INFO. HERE)  
(4) - RECORD INFORMATION PER (RECORD INFO. HERE)

ABBREVIATIONS:

- ABS = PLASTIC ABS PIPE  
AFN = AUDITOR'S FILE NUMBER  
ALC = ALUMINUM CAP  
CCPWFB = COWLITZ COUNTY PUBLIC WORKS FIELD BOOK  
CMP = CORRUGATED METAL PIPE  
CONC = CONCRETE PIPE  
CPP = CORRUGATED PLASTIC PIPE  
#D = DOORWAY AND SIZE  
DBLYS = DOUBLE YELLOW STRIPE  
DI = DUCTILE IRON PIPE  
DWS = DASHED WHITE STRIPE  
DYS = DASHED YELLOW STRIPE  
FD = FOUND  
IE = INVERT ELEVATION  
IP = IRON PIPE  
IR = IRON ROD  
MON = MONUMENT  
OPC = ORANGE PLASTIC CAP  
PG = PAGE  
PKA = PREVIOUSLY KNOWN AS  
POST = POINT ON SEMI TANGENT  
PUE = PUBLIC UTILITY EASEMENT  
PVC = PLASTIC PIPE  
REBAR = REINFORCING BAR  
RP = REFERENCE POINT  
RPC = RED PLASTIC CAP  
(R&M) = RECORD AND MEASURED DISTANCE  
SF = SQUARE FEET  
SSLAT = SANITARY SEWER LATERAL  
STLAT = STORM DRAIN LATERAL  
SWS = SOLID WHITE STRIPE  
SYS = SOLID YELLOW STRIPE  
TOB = TOP OF BOARD  
VCA = VISION CLEARANCE AREA  
WOE = TOE OF WALL  
WOP = TOP OF WALL  
YPC = YELLOW PLASTIC CAP  
?? = UNABLE TO DETERMINE TYPE OF PIPE (TOO DEEP, ETC.)  
±###.### = APPROXIMATE ELEVATION DUE TO CONSTRUCTION OF MANHOLE, ETC.

MONUMENT LEGEND:

- - FOUND MONUMENT AS NOTED IN MONUMENT TABLE ON SHEET 1.  
PROTECT / PRESERVE WHERE POSSIBLE.  
- IF TO BE DESTROYED, A PERMIT TO REMOVE A MONUMENT MUST  
BE FILED WITH THE DEPARTMENT OF NATURAL RESOURCES, THEN  
REPLACE MONUMENT AFTER CONSTRUCTION.

# ELEV.  
DESC. - TEMPORARY CONTROL POINT

- NOTES:  
1. ALL PIPE DIAMETERS ARE INSIDE DIMENSIONS, UNLESS  
NOTED OTHERWISE.  
2. ALL FOUND MONUMENTS WERE LAST VISITED AND TIED  
DURING THIS SURVEY (4/24/2023 TO 5/24/2023).

SYMBOL LEGEND

| SYMBOL | DESCRIPTION                                                          |
|--------|----------------------------------------------------------------------|
|        | FENCE GATE POST                                                      |
|        | MAILBOX                                                              |
|        | SIGN                                                                 |
|        | STORM CATCH BASIN                                                    |
|        | STORM MANHOLE                                                        |
|        | WETLANDS TEST PIT                                                    |
|        | FIRE HYDRANT                                                         |
|        | WATER VAULT                                                          |
|        | WATER METER                                                          |
|        | WATER VALVE                                                          |
|        | WATER WELL                                                           |
|        | POWER CONDUIT                                                        |
|        | GUY ANCHOR                                                           |
|        | LIGHT POLE                                                           |
|        | POWER MARKER                                                         |
|        | POWER METER                                                          |
|        | POWER VAULT                                                          |
|        | POWER TRANSFORMER                                                    |
|        | UTILITY POLE                                                         |
|        | TELEPHONE CONDUIT                                                    |
|        | TELEPHONE MARKER                                                     |
|        | TELEPHONE PEDESTAL                                                   |
|        | TELEPHONE VAULT                                                      |
|        | CONIFER TREE*                                                        |
|        | CONIFER TREE CLUMP** (2 OR MORE<br>TRUNKS FROM 1 SINGLE ROOT BALL)   |
|        | DECIDUOUS TREE*                                                      |
|        | DECIDUOUS TREE CLUMP** (2 OR MORE<br>TRUNKS FROM 1 SINGLE ROOT BALL) |

LINETYPE LEGEND

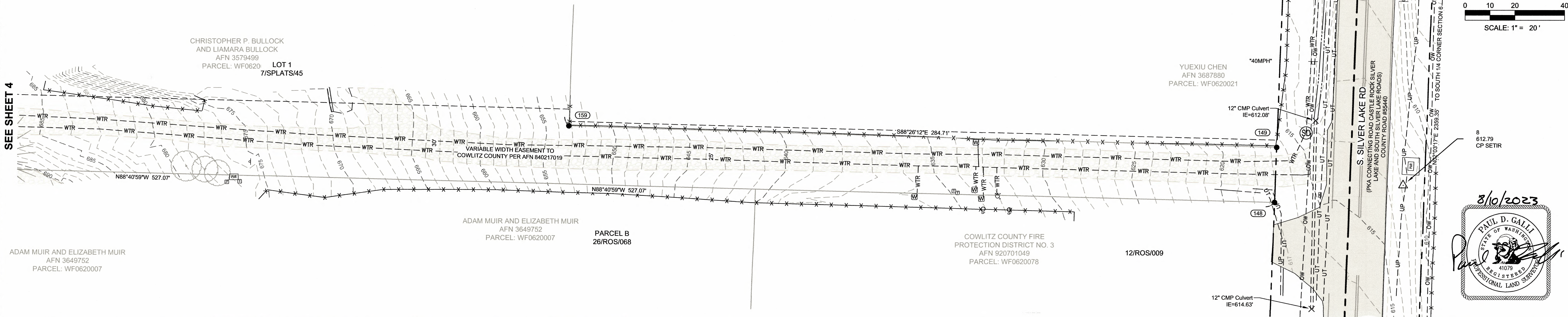
| LINETYPE | DESCRIPTION                                                           |
|----------|-----------------------------------------------------------------------|
|          | DRAINAGE CULVERT                                                      |
|          | DRAINAGE / ROAD DITCH                                                 |
|          | OVERHEAD WIRE                                                         |
|          | WATER LINE                                                            |
|          | FIBER OPTIC LINE                                                      |
|          | TELEPHONE LINE                                                        |
|          | ELECTRIC LINE UNDERGRND                                               |
|          | FENCE, TYPE AS NOTED                                                  |
|          | UTILITY LINE PAINT ENDS<br>HERE, CONNECTION NOT<br>LOCATED OR UNKNOWN |
|          | BUILDING LINE                                                         |
|          | MAJOR CONTOUR - SPACED<br>AT 5' INTERVALS                             |
|          | MINOR CONTOUR - SPACED<br>AT 1' INTERVALS                             |

HATCH LEGEND

| HATCH | DESCRIPTION               |
|-------|---------------------------|
|       | EXISTING ASPHALT SURFACE  |
|       | EXISTING CONCRETE SURFACE |
|       | EXISTING GRAVEL SURFACE   |

\* NOTE THAT APPROXIMATE TREE DIAMETERS (6" AND LARGER) WERE COLLECTED, BUT NOT SHOWN  
HEREON DUE TO CLARITY ISSUES. PLEASE  
REQUEST THIS INFORMATION IF NECESSARY.  
\*\* NOTE: A CLUMP WAS CONSIDERED TO BE WHERE  
2 OR MORE TRUNKS SPLIT AT APPROXIMATELY  
CHEST HEIGHT AND SHARE A SINGLE ROOT BALL.  
THE QUANTITY AND SIZES OF THE TRUNKS ARE  
NOT SHOWN HEREON. PLEASE REQUEST THIS  
INFORMATION IF NECESSARY.

SEE SHEET 2



PH PROJECT MANAGER N/A DATE  
PDG DRAWN BY 08/10/2023 DATE  
CWB, BOH CHECKED BY 08/10/2023 DATE

HORIZ. SCALE: 1" = 20'  
VERT. SCALE: 1" CONTOURS  
PROJECT ID: N/A  
ROAD NO. : TOUTLE WATER SYSTEM  
COMPUTER FILE: TOUTLE WATER SYSTEM-  
SR504AND TOWER-TOPO.dwg  
FIELD BOOK(S): 2023-01



DEPARTMENT  
OF  
PUBLIC WORKS  
1600 13TH AVENUE SOUTH  
KELSO, WASHINGTON 98626

LOCATED IN SECTION 6,  
TOWNSHIP 9 NORTH, RANGE 1 WEST, WILLAMETTE MERIDIAN  
COWLITZ COUNTY, WASHINGTON  
FIELD WORK DATE: 4/24/2023 TO 5/24/2023

TOUTLE WATER SYSTEM  
LOW PRESSURE ZONE IMPROVEMENTS  
TOPOGRAPHIC SURVEY  
JUANITA & SOUTH SILVER LAKE RD. AREA

SHEET  
3  
OF  
4

GEORGE H. MALAKOWSKY  
AND BETTY J. MALAKOWSKY  
AFN 3426793  
PARCEL: WF0620083

### SITE PHOTOS:

PHOTOS WERE TAKEN ON 05/24/2023, AND REFLECT SITE CONDITIONS AT THE TIME OF SURVEY.  
ADDITIONAL PHOTOS ARE AVAILABLE UPON REQUEST



TAKEN AT THE GATE NEAR THE WEST END OF THE DRIVEWAY, LOOKING WEST AT THE WATER TOWER



TAKEN NEAR THE WEST END OF THE DRIVEWAY, LOOKING EAST AT THE WATER TOWER AND VEGETATION



TAKEN SOUTHEAST OF THE WATER TOWER, LOOKING WEST AT THE NEIGHBORING SHOP AND ENCROACHING GRAVEL



TAKEN NORTHEAST OF THE WATER TOWER, LOOKING EASTERLY AT THE SOUTH END OF THE TOWER PROPERTY



TAKEN ON THE DRIVEWAY JUST EAST OF THE GATE, LOOKING NORTHWESTERLY AT THE SOUTH END OF THE AREA MOWED BY THE BULLOCK RESIDENCE

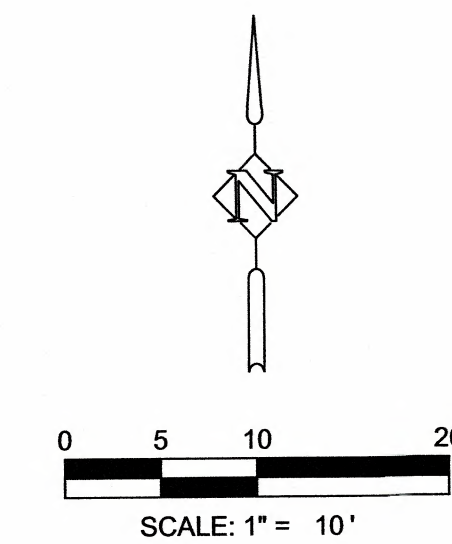


TAKEN IN THE MOWED AREA, LOOKING NORTHWESTERLY AT THE MAINTAINED GRASS AREA WITH THE WATER TOWER IN BACKGROUND FOR REFERENCE

CHRISTOPHER P. BULLOCK  
AND LIAMARA BULLOCK  
AFN 3579499  
PARCEL: WF0620020

LOT 1  
7/SPLATS/45

MOWED AREA:  
THE PARCEL TO THE EAST (BULLOCK RESIDENCE) HAS BEEN MOWING THE GRASS IN THIS AREA. THEY WERE UNDER THE IMPRESSION THAT THEY OWNED THIS PARTICULAR AREA. APPARENTLY THEY WERE TOLD BY A REALTOR THAT THEIR PROPERTY LINE RAN FROM #164 TO #162. THEY WERE NOT AWARE OF THE MONUMENT AT #163. WE MADE THEM AWARE OF IT AND SHOWED THEM A COPY OF THEIR DEED, AND WHERE THE BOUNDARY BETWEEN THEIR PROPERTY AND COUNTY PROPERTY ACTUALLY IS.



LANDSCAPED AREA  
(BY PRIVATE OWNERS)

### MONUMENT LEGEND:

- FOUND MONUMENT AS NOTED IN MONUMENT TABLE ON SHEET 1. PROTECT / PRESERVE WHERE POSSIBLE.
- IF TO BE DESTROYED, A PERMIT TO REMOVE A MONUMENT MUST BE FILED WITH THE DEPARTMENT OF NATURAL RESOURCES, THEN REPLACE MONUMENT AFTER CONSTRUCTION.

# ELEV. TEMPORARY CONTROL POINT  
DESC.

- NOTES:
- ALL PIPE DIAMETERS ARE INSIDE DIMENSIONS, UNLESS NOTED OTHERWISE.
  - ALL FOUND MONUMENTS WERE LAST VISITED AND TIED DURING THIS SURVEY (4/24/2023 TO 5/24/2023).



SYMBOL LEGEND )  
LINETYPE LEGEND ) SEE SHEET 3  
ABBREVIATIONS )

LOT 2  
7/SPLATS/45

GEORGE H. MALAKOWSKY  
AND BETTY J. MALAKOWSKY  
AFN 3426793  
PARCEL: WF0620083

STEVE LEVANG AND  
CAROL LEVANG  
AFN 3706933  
PARCEL: WF0620084

DUAIN E. BUCK JR. AND  
KELLI P. BUCK  
AFN 3169044  
AFN 3264489 (JUDGEMENT)  
PARCEL: WF0620090

PARCEL A  
26/ROS/068

PARCEL B  
26/ROS/068

ADAM MUIR AND ELIZABETH MUIR  
AFN 3649752  
PARCEL: WF0620007

SHOP

CONCRETE  
PAD

1.85'

4.64'

5.57'

SEE SHEET 3

PH PROJECT MANAGER N/A  
DATE  
PDG 08/10/2023  
DRAWN BY DATE  
CWB, BOH 08/10/2023  
CHECKED BY DATE

HORIZ. SCALE: 1" = 10'  
VERT. SCALE: 1" = 10' CONTOURS  
PROJECT ID: N/A  
ROAD NO.: TOUTLE WATER SYSTEM  
COMPUTER FILE: TOUTLE WATER SYSTEM-  
SR504AND TOWER-TOPO.dwg  
FIELD BOOK(S): 2023-01



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COWLITZ COUNTY, WASHINGTON  
FIELD WORK DATE: 4/24/2023 TO 5/24/2023

**TOUTLE WATER SYSTEM  
LOW PRESSURE ZONE IMPROVEMENTS**  
**TOPOGRAPHIC SURVEY**  
**JUANITA & SOUTH SILVER LAKE RD. AREA**

SHEET  
**4**  
OF  
**4**