

VICINITY MAP

UPPER TERRACE ESTATES

LOCATED IN
A PORTION OF THE WEST 1689.24 FEET OF THE S 1/2 N 1/2 N 1/2 NE 1/4
SECTION 29, T27N, R43E W.M., SPOKANE COUNTY, WASHINGTON

TABLE OF CONTENTS	
SHEET 1.	COVER SHEET, NOTES, & SPECIFICATIONS
SHEET 2.	UPPER TERRACE LANE & HATCH ROAD PLANS, PROFILES & SECTIONS
SHEET 3.	DETAILS: SETBACKS, ENTRANCE, LOWER SWALE, DRYWELL, HATCH RD X-SECT.
SHEET 4.	DRAINAGE PLAN
SHEET 5.	WATER & SEWER PLAN & PROFILES
SHEET 6.	WATER & SEWER DETAILS
SHEET 7.	LIFT STATION
SHEET 8.	PRE-DEVELOPMENT vs POST DEVELOPMENT



K.A. DURTSCHI & ASSOC., INC.
SURVEYING-PLANNING
P.O. BOX 700
9751 GOVERNMENT WAY, SUITE 5
HAYDEN LAKE, ID 83835
(208) 772-2233
FAX: 772-9231
PROJECT NO. 2050

JEFFREY D. BLOCK, P.E.
CONSULTING ENGINEER
P.O. BOX 700
9751 GOVERNMENT WAY, SUITE 4
HAYDEN LAKE, ID 83835
(208) 772-2233
FAX: 772-9231
PROJECT NO. 1246

UPPER TERRACE ESTATES
COVER SHEET & NOTES
UPPER TERRACE LANE
COVER SHEET & NOTES

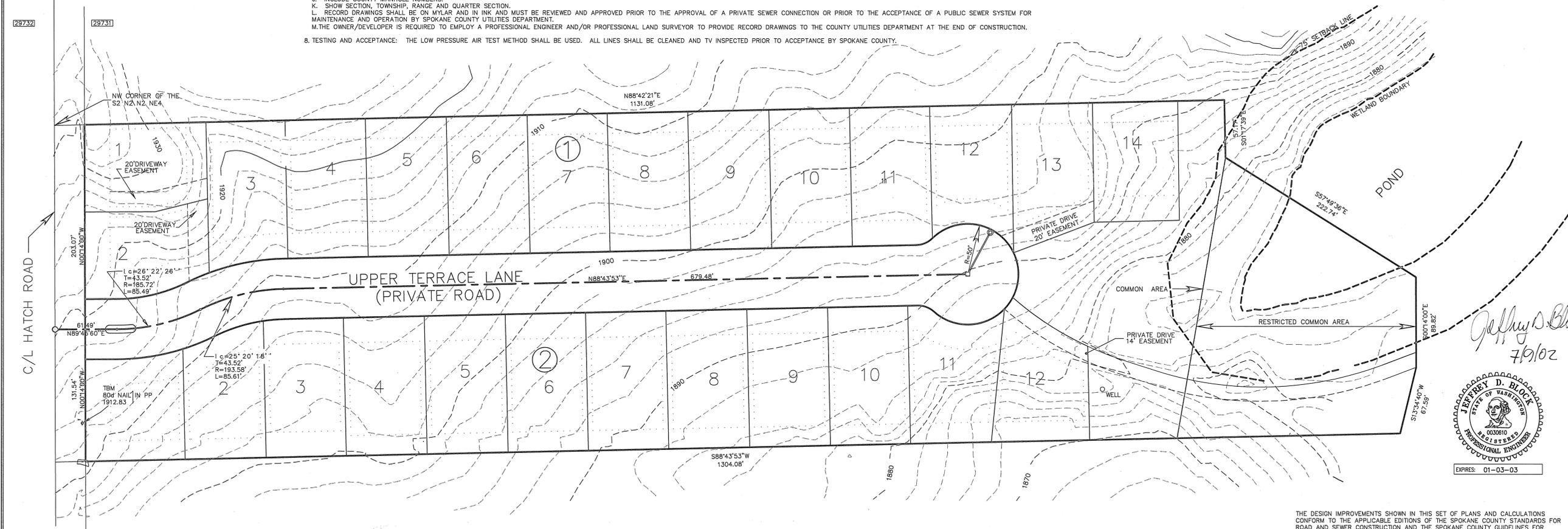
REVISION	DATE	AS SHOWN	DATE
11-9-01			
7-9-02			

- GENERAL: ALL SEWER LINE CONSTRUCTION METHODS AND MATERIALS SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION AS JOINTLY PROMULGATED BY THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION AND THE WASHINGTON STATE CHAPTER OF THE AMERICAN PUBLIC WORKS ASSOCIATION, CURRENT EDITION, AS ADOPTED AND REVISED BY THE SPOKANE COUNTY UTILITIES DEPARTMENT. THESE PLANS ARE SCHEMATIC AND ARE NOT INTENDED TO DEPICT ALL DETAILS OF THE WORK REQUIRED. THE CONTRACTOR SHALL BE RESPONSIBLE TO FAMILIARIZE HIMSELF WITH ACTUAL SITE CONDITIONS AND FACTORS AFFECTING THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE WITH SPOKANE COUNTY TO DEVELOP A TRAFFIC CONTROL PLAN AND INSPECTION REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN ALL REQUIRED PERMITS. PAVEMENT PATCHING REQUIREMENTS SHALL BE AS DETERMINED BY THE SPOKANE COUNTY ROAD DEPARTMENT. IN ADDITION, THE CONTRACTOR SHALL ADHERE TO ALL SPOKANE COUNTY STANDARDS FOR ROAD AND SEWER CONSTRUCTION.
- CONTRACTOR SHALL PROVIDE ALL MATERIALS, LABOR, AND EQUIPMENT TO CONSTRUCT AND INSTALL TO PROPER WORKING ORDER, AS DETAILED OR CALLED OUT IN THESE PLANS AND SPECIFICATIONS.
- PIPE: ALL SEWER PIPE SHALL BE PVC IN ACCORDANCE WITH A.S.T.M. D 3034, SDR 35.
- TRENCH EXCAVATION AND BACKFILL: ALL TRENCH EXCAVATION AND BACKFILL SHALL CONFORM TO W.S.D.O.T. SECTION 7-08.2(1)A. ALL BEDDING SHALL CONSIST OF APPROVED BEDDING MATERIAL PLACED AROUND THE PIPE AND BACKFILLED AS PER W.S.D.O.T. SECTION 7-08.2(1)C. BEDDING SHALL MEET W.S.D.O.T. 9-03.16 SPECIFICATIONS EXCEPT PERCENT PASSING 200 SIEVE IS CHANGED TO 10% MAXIMUM. COMPACTION OF BACKFILL IN ROADWAY SHALL BE PERFORMED TO MEET SPOKANE COUNTY ENGINEER'S REQUIREMENTS. TESTING COLLECTOR SEWERS AND SIDE SEWERS SHALL BE DONE IN ACCORDANCE WITH SPOKANE COUNTY UTILITIES DEPARTMENT.
- MANHOLES: SHALL BE IN ACCORDANCE WITH SANITARY SEWER MANHOLE DETAILS AS ADOPTED BY SPOKANE COUNTY UTILITIES DEPARTMENT.
- SIDE SEWERS: EACH SEWER SERVICE LINE SHALL BE A MINIMUM OF 10 FEET FROM SIDE LOT LINES. EACH SEWER SERVICE LINE AND MAINLINE STUB SHALL BE MARKED WITH A 4X4 MARKER POST EXTENDING VERTICALLY FROM THE SEWER SERVICE OR MAINLINE STUB INVERT TO A MINIMUM OF 24" ABOVE FINISHED GRADE. EACH 4X4 MARKER POST SHALL HAVE A 6 GAUGE GALVANIZED WIRE SECURELY ATTACHED FOR ITS ENTIRE LENGTH AND SHALL BE CLEARLY MARKED SHOWING THE 4X4 LENGTH IN FEET AT THE EXPOSED END.
- INSPECTION WORK: ALL SEWER CONSTRUCTION INSPECTIONS, RECORD DRAWINGS AND ENGINEERING STATEMENTS SHALL CONFORM TO THE REQUIREMENTS SET FORTH IN THE SPOKANE COUNTY POLICY ADOPTED SEPTEMBER 22, 1998 VIA RESOLUTION 98-0771. PROJECT SPONSOR OR HIS ENGINEER SHALL NOTIFY THE SPOKANE COUNTY DIVISION OF UTILITIES AT LEAST 48 HOURS IN ADVANCE OF THE START OF CONSTRUCTION OF THE SEWER SYSTEM, AND THE CONTRACTOR SHALL PROVIDE A GENERALIZED CONSTRUCTION SCHEDULE FOR THE PROGRESS OF WORK. THE CONTRACTOR SHALL COORDINATE THE WORK WITH THE ENGINEER AND PROVIDE ALL MEANS NECESSARY TO ALLOW THE ENGINEER TO INSPECT AND VERIFY THE SEWER ITEMS LISTED BELOW. FOR EACH ITEM TO BE INSPECTED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST 48 HOURS IN ADVANCE.
 - CONFORMANCE OF ALL CONSTRUCTION MATERIALS WITH COUNTY STANDARDS SHALL BE VERIFIED PRIOR TO INSTALLATION.
 - THE SEWER TRENCH SHALL BE INSPECTED FOR PROPER DIMENSIONS AND PIPE ZONE CLEARANCES PRIOR TO PLACEMENT OF PIPE.
 - THE PLACEMENT AND COMPACTION OF THE PIPE ZONE MATERIAL AND BEDDING SHALL BE INSPECTED.
 - THE PIPE JOINTS SHALL BE INSPECTED VISUALLY FOR PROPER INSERTION.
 - HORIZONTAL ALIGNMENT AND GRADE OF THE PIPE SHALL BE CHECKED FOR CONFORMANCE TO THE STANDARDS PRIOR TO BACKFILLING OF THE TRENCH.
 - SEWER SERVICE TEES AND STUBS SHALL BE INSPECTED FOR CORRECT INSTALLATION PRIOR TO BACKFILLING OF THE TRENCH.
 - ACCURATE MEASUREMENTS SHALL BE MADE AND RECORDED TO FACILITATE THE RE-ESTABLISHMENT OF SEWER SERVICE TEE LOCATIONS AND STUB END LOCATIONS. THE PLACEMENT OF THE REQUIRED STUB MARKERS SHALL BE VERIFIED.
 - MANHOLES SHALL BE INSPECTED FOR PROPER MATERIALS, LOCATION, ASSEMBLY, AND INSTALLATION.
 - TRENCH BACKFILLING OPERATIONS SHALL BE OBSERVED AND COMPACTION TESTS SHALL BE PERFORMED. MINIMUM REQUIREMENTS FOR BACKFILLING SHALL BE AS SET FORTH IN THE ACCEPTED PLANS AND/OR SPECIFICATIONS FOR THE PROJECT.
 - MANDREL TESTING, HYDROSTATIC AND/OR AIR PRESSURE TESTING, AND MANHOLE TESTING SHALL BE PERFORMED FOLLOWING COMPLETION OF TRENCH BACKFILLING OPERATIONS. THE TESTING SHALL BE OBSERVED UNTIL PASSING RESULTS ARE OBTAINED. MANHOLE TESTING SHALL BE PERFORMED ON TEN PERCENT OF THE MANHOLES IN THE PROJECT, IN ACCORDANCE WITH DEPARTMENT OF ECOLOGY'S "CRITERIA FOR SEWER WORKS DESIGN".
 - THE SPONSOR'S ENGINEER SHALL SCHEDULE TELEVISION INSPECTION OF THE SEWER LINES THROUGH THE DIVISION OF UTILITIES ONCE THE OTHER TESTING HAS BEEN SATISFACTORILY COMPLETED. THE DIVISION OF UTILITIES WILL THEN PERFORM THE TELEVISION INSPECTION AND REVIEW THE TAPES FOR DEFICIENCIES REQUIRING CORRECTION OR REPAIR.
 - ITEMS LISTED UNDER RECORD DRAWINGS (NOTE #7) SHALL BE INCLUDED IN THE INSPECTION AND TESTING WORK.
- RECORD DRAWINGS: REPRODUCIBLE RECORD DRAWINGS WITH "ENGINEER STATEMENT" ARE TO BE SUBMITTED TO AND APPROVED BY THE SPOKANE COUNTY UTILITIES DEPARTMENT AT THE COMPLETION OF CONSTRUCTION. 2 HORIZONTAL AND 1 VERTICAL TIE SHALL BE SHOWN ON RECORD DRAWINGS FOR ALL SIDE SEWER SERVICES, MAIN LINE STUBS, AND CLEANOUTS. STUBS THAT ARE NOT CONSTRUCTED PERPENDICULAR TO SEWER MAIN WILL NEED A STATION AND OFFSET FROM SEWER MAIN TO END CAP SHOWN ON RECORD DRAWINGS. STATIONS SHALL BE FROM DOWNSTREAM MANHOLE AND MEASURED ON MAIN SEWER LINE. MINIMUM SEWER RECORD DRAWING REQUIREMENTS ARE AS FOLLOWS:
 - PIPE SIZE AND TYPE/LENGTH AND SLOPE BETWEEN MANHOLES.
 - ACTUAL RIM AND INVERT ELEVATION AT EACH MANHOLE.
 - DISTANCE FROM DOWNSTREAM MANHOLE TO SIDE SEWER SERVICE STUB ENDS. 90° OFFSET DISTANCE TO STUB END FROM SEWER MAIN OR BACK OF CURB (NOT PROPERTY LINES). ALL ANGLE POINTS OR BENDS ON SIDE SERVICE LINE SHALL BE LOCATED WITH 2 HORIZONTAL SWING TIES. STUBS NOT CONSTRUCTED PERPENDICULAR TO SEWER MAIN WILL REQUIRE A STATION ON THE SERVICE TEE ALSO SHOWN ON RECORD DRAWINGS.
 - ACTUAL INVERT ELEVATION OF STUB AND CALCULATED DEPTH FROM ADJOINING CURB OR NATURAL GROUND. THE ENGINEER SHALL COMPLETE B 1/2 X 11 COUNTY STANDARD PLAN SHEET U-16 (SIDE SERVICE CONNECTION RECORD DRAWING) FOR EACH SIDE SERVICE WITHIN PROJECT OR PLAT AND SUBMIT WITH RECORD DRAWINGS OF PLAN AND PROFILE SHEETS PRIOR TO PROJECT SIGN OFF.
 - STREET WIDTH/BACK TO BACK OF CURBS/WIDTH OF RIGHT-OF-WAY.
 - LOCATION OF SEWER MAIN WITHIN STREET. FORCE MAIN ANGLE POINTS SHALL BE LOCATED 2 WAYS HORIZONTALLY AND ONE WAY VERTICALLY FROM PERMANENT SURFACE FEATURES.
 - STUBS NOT 10' FROM THE SIDE LOT LINES MUST BE MOVED OR A MAINTENANCE EASEMENT MUST BE PROVIDED OR A HOLD COUNTY HARMLESS AGREEMENT MUST BE PROVIDED.
 - SHOW ALL SERVICED LOTS, LOT NUMBERS, BLOCK NUMBERS AND LOT LINES.
 - SHOW DIMENSIONS AND INCLUDE A COPY OF THE RECORDED EASEMENT DOCUMENT FOR ALL MAINLINE SANITARY SEWER EASEMENTS (10' MINIMUM EACH SIDE OF PIPE).
 - INCLUDE COUNTY MANHOLE NUMBERS.
 - SHOW SECTION, TOWNSHIP, RANGE AND QUARTER SECTION.
 - RECORD DRAWINGS SHALL BE ON MYLAR AND IN INK AND MUST BE REVIEWED AND APPROVED PRIOR TO THE APPROVAL OF A PRIVATE SEWER CONNECTION OR PRIOR TO THE ACCEPTANCE OF A PUBLIC SEWER SYSTEM FOR MAINTENANCE AND OPERATION BY SPOKANE COUNTY UTILITIES DEPARTMENT.
 - THE OWNER/DEVELOPER IS REQUIRED TO EMPLOY A PROFESSIONAL ENGINEER AND/OR PROFESSIONAL LAND SURVEYOR TO PROVIDE RECORD DRAWINGS TO THE COUNTY UTILITIES DEPARTMENT AT THE END OF CONSTRUCTION.
- TESTING AND ACCEPTANCE: THE LOW PRESSURE AIR TEST METHOD SHALL BE USED. ALL LINES SHALL BE CLEANED AND TV INSPECTED PRIOR TO ACCEPTANCE BY SPOKANE COUNTY.

- NOTES:
- ALL WORK AND MATERIALS SHALL BE IN CONFORMANCE WITH THE "SPOKANE COUNTY STANDARDS FOR ROAD AND SEWER CONSTRUCTION" 1995, AND AS AMEND.
 - LOCATIONS OF EXISTING UTILITIES SHOWN IN THE PLANS ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES. ANY CONFLICTING UTILITIES SHALL BE RELOCATED PRIOR TO CONSTRUCTION OF ROAD AND DRAINAGE FACILITIES.
 - THE CONTRACTOR IS REQUIRED TO HAVE A COMPLETE SET OF THE APPROVED ROAD AND DRAINAGE PLANS ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
 - IF THE CONTRACTOR DISCOVERS ANY DISCREPANCIES BETWEEN THE PLANS AND EXISTING CONDITIONS ENCOUNTERED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE DESIGN ENGINEER AND THE SPOKANE COUNTY ENGINEER'S OFFICE.
 - FOR CONSTRUCTION OF DRYWELLS, INSTALL FILTER FABRIC (AMOCO 4545 OR APPROVED EQUIVALENT) BETWEEN THE DRYWELL BARREL AND THE WASHED DRAINROCK, AND BETWEEN THE WASHED DRAINROCK AND THE NATIVE SOILS.
 - PRIOR TO SITE CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR LOCATING UNDERGROUND UTILITIES. CALL THE UNDERGROUND UTILITY LOCATION SERVICE AT 456-8000 BEFORE YOU DIG.
 - FOR ANY CURB GRADES LESS THAN 0.8% (0.008 FT/FT), A WASHINGTON STATE LICENSED PROFESSIONAL LAND SURVEYOR SHALL VERIFY THAT THE CURB FORMS ARE AT THE GRADES NOTED ON THE APPROVED PLANS. PRIOR TO PLACEMENT OF CURB MATERIAL, THE CONTRACTOR IS RESPONSIBLE FOR ARRANGING AND COORDINATING WORK WITH THE PROFESSIONAL LAND SURVEYOR.
 - THE FLOOR OF A GRASSED PERCOLATION AREA (GPA) SWALE INCLUDES THE LEVEL PORTION OF THE FLOOR OF THE SWALE, AND THE SLOPES OF THE SWALE UP TO THE GPA OVERFLOW ELEVATION OR TOP OF DRYWELL. THE SOIL LOCATED IN THE FLOOR OF THE GPA SWALE SHALL BE A MEDIUM TO WELL-DRAINING MATERIAL, WITH A MINIMUM INFILTRATION RATE OF 0.5 INCHES PER HOUR. THE ENGINEER SHALL PROVIDE A WRITTEN STATEMENT WHICH VERIFIES THAT ALL GPA SWALES CONFORM TO THE REQUIREMENT. THIS WRITTEN STATEMENT SHALL BE SUBMITTED TO THE SPOKANE COUNTY ENGINEER'S OFFICE PRIOR TO INSTALLING FINISHED LANDSCAPING/SOD AND PRIOR TO FINAL ACCEPTANCE. THE SWALE FLOOR MATERIAL SHALL BE INSTALLED TO A NATIVE SOIL STRATUM WHICH ALSO MEETS OR EXCEEDS THIS MINIMUM PERCOLATION RATE OF 0.5 INCHES PER HOUR.

DESCRIPTION

A PORTION OF THE WEST 1689.24 FEET OF THE S 1/2 N 1/2 N 1/2 NE 1/4 SECTION 29, T27N, R43E W.M., SPOKANE COUNTY, WASHINGTON AND FURTHER DESCRIBED AS FOLLOWS; COMMENCING AT THE NORTHWEST CORNER OF SAID S 1/2 N 1/2 N 1/2 NE 1/4 SECTION 29; THENCE N88°42'21"E ALONG THE NORTH LINE OF THE S 1/2 N 1/2 N 1/2 NE 1/4 A DISTANCE OF 30.00 FEET TO THE TRUE POINT OF BEGINNING FOR THIS DESCRIPTION; THENCE CONTINUING ALONG SAID NORTH LINE N88°42'21"E A DISTANCE OF 1131.08 FEET; THENCE S01°17'39"E A DISTANCE OF 57.17 FEET; THENCE S57°49'36"E A DISTANCE OF 222.74 FEET; THENCE S00°4'00"E A DISTANCE OF 89.82 FEET; THENCE S13°34'40"W A DISTANCE OF 67.59 FEET TO THE INTERSECTION WITH THE SOUTH LINE OF SAID S 1/2 N 1/2 N 1/2 NE 1/4; THENCE S88°43'53"W A DISTANCE OF 1304.08 FEET TO THE INTERSECTION WITH THE EASTERLY RIGHT-OF-WAY OF THE COUNTY ROAD (HATCH ROAD); THENCE N00°4'00"W A DISTANCE OF 334.62 FEET TO THE TRUE POINT OF BEGINNING. CONTAINS 9.624 ACRES MORE OR LESS.



Edgar V. Smith
DEVELOPER'S APPROVAL

7/10/02
DATE

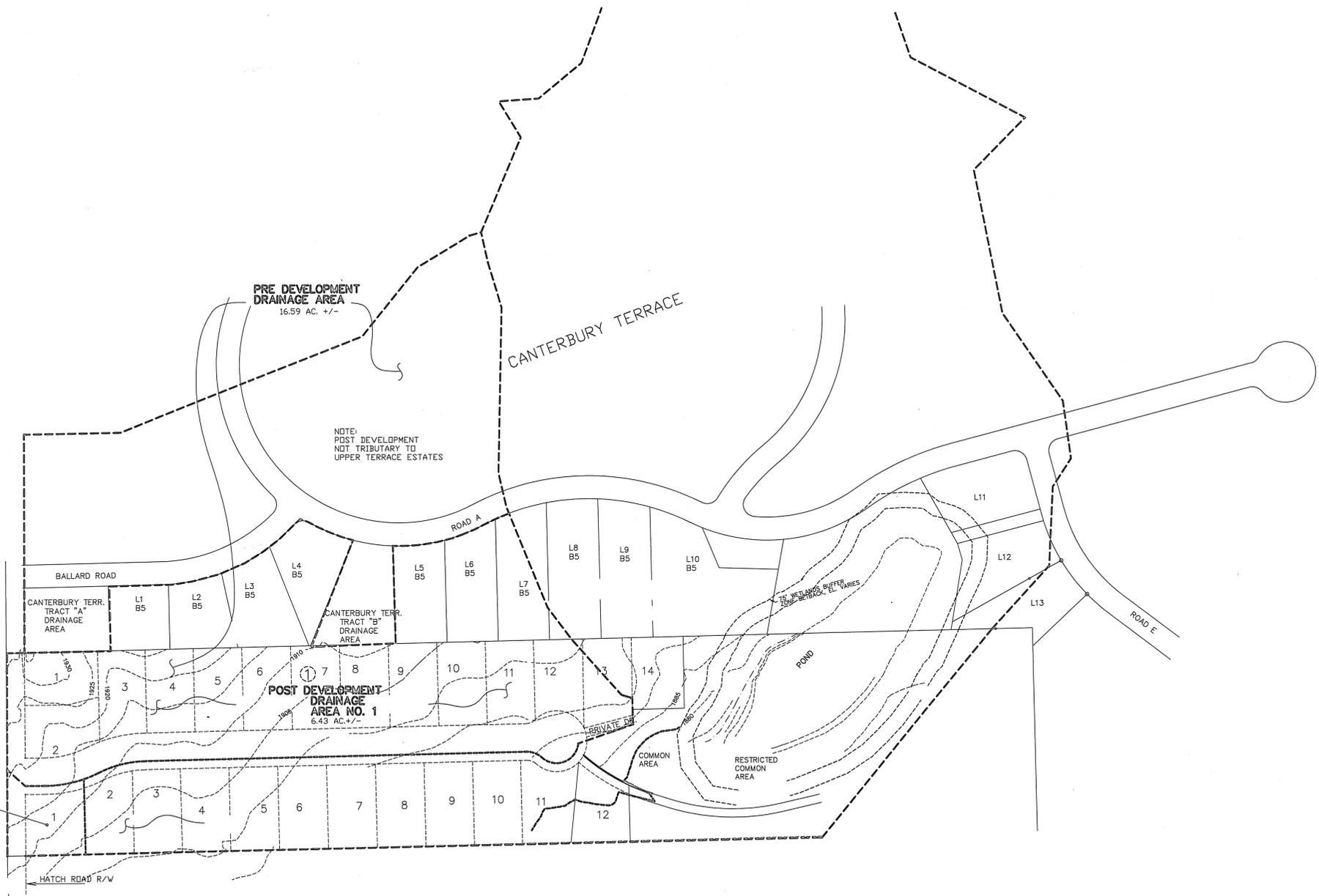
THE DESIGN IMPROVEMENTS SHOWN IN THIS SET OF PLANS AND CALCULATIONS CONFORM TO THE APPLICABLE EDITIONS OF THE SPOKANE COUNTY STANDARDS FOR ROAD AND SEWER CONSTRUCTION AND THE SPOKANE COUNTY GUIDELINES FOR STORM WATER MANAGEMENT. THE SPOKANE COUNTY ENGINEER HAS APPROVED ALL DESIGN DEVIATIONS. I APPROVE THESE PLANS FOR CONSTRUCTION.



P1833 Eng Road & Main

UPPER TERRACE ESTATES

A PORTION OF THE WEST 1689.24 FEET OF THE S 1/2 N 1/2 N 1/2 NE 1/4

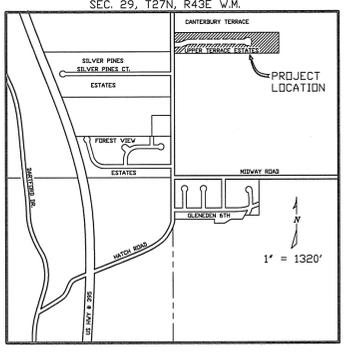


NOTE:
1. TOPOGRAPHY, ROADWAYS, AND LOTS FOR PORTIONS OF DRAINAGE BASINS WITHIN CANTERBURY TERRACE, OBTAINED FROM DESIGN DRAWINGS BY IPE - INLAND PACIFIC ENGINEERING, INC.

SPokane County Engineers Office
OFFICIAL PUBLIC DOCUMENT ORIGINAL
CONSTRUCTION PLANS
PROJECT #: P 1833
DATE ACCEPTED: 7/10/2002
ACCEPTANCE EXPIRES: 7/10/2005
PROJECT LANE MILES PUBLIC: 0
PROJECT LANE MILES PRIVATE: 0.17
CONSTRUCTION DOCUMENTATION AND CERTIFIED RECORD DRAWINGS, "AS-BUILTS" ARE REQUIRED PRIOR TO COUNTY ACCEPTANCE AND ESTABLISHMENT OF THE ROADS AND DRAINAGE FACILITIES FOR MAINTENANCE.
PERMIT REQUIRED! (509) 477-3600
NOTIFY PERMIT ENGINEER 2 BUSINESS DAYS PRIOR TO CONSTRUCTION

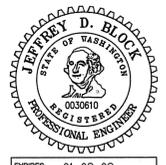
POST DEVELOPMENT DRAINAGE AREA NO. 3
0.35 AC +/-

POST DEVELOPMENT DRAINAGE AREA NO. 1
6.43 AC +/-



VICINITY MAP

Edgar V. Smith 7/10/02



Jeffrey D. Block 7/9/02

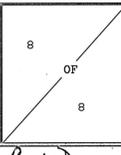
EXPIRES: 01-03-03

REVISION	HORIZ. SCALE AS SHOWN	DATE
11-5-01	VERT. SCALE	
2-13-02	CHECKED BY:	
7-9-02	APPROVED BY:	
	DESIGN BY:	
	DRAWN BY: EES	10-12-01
	PLAN DWG. NO.	
	PROFILE DWG. NO.	

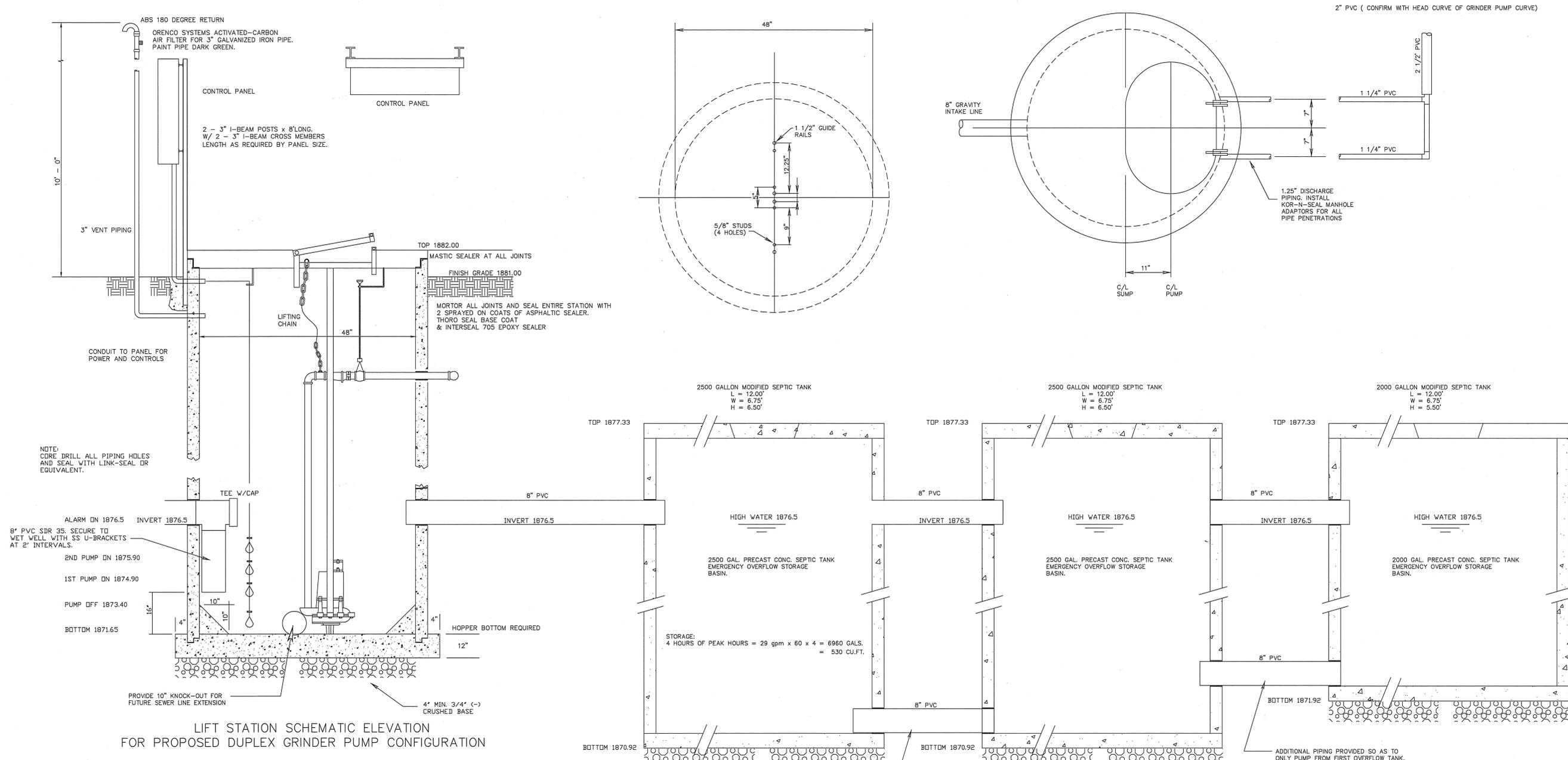
UPPER TERRACE ESTATES
DRAINAGE AREAS

JEFFREY D. BLOCK, P.E.
CONSULTING ENGINEER
P.O. BOX 700
9751 GOVERNMENT WAY, SUITE 4
HAYDEN LAKE, ID 83835
(208) 772-2233
FAX: 772-9231
PROJECT NO. 1246

K.A. DURTSCHI & ASSOC., INC.
SURVEYING-PLANNING
P.O. BOX 700
9751 GOVERNMENT WAY, SUITE 5
HAYDEN LAKE, ID 83835
(208) 772-2233
FAX: 772-9231
PROJECT NO. 2050



CONSTRUCTION PLANS



NOTE: CORE DRILL ALL PIPING HOLES AND SEAL WITH LINK-SEAL OR EQUIVALENT.

LIFT STATION SCHEMATIC ELEVATION FOR PROPOSED DUPLEX GRINDER PUMP CONFIGURATION

NOTE: CONTRACTOR SHALL SUBMIT FOR ENGINEER'S REVIEW, MANUFACTURER'S DATA SHEETS OF THE PUMPS, COMPONENTS, AND APPURTENANCES SO AS TO ENSURE A PROPERLY FUNCTIONING LIFT STATION IN CONFORMANCE WITH THE REQUIREMENTS OF THE STATE OF WASHINGTON DEPARTMENT OF ECOLOGY STANDARDS - CRITERIA FOR SEWAGE WORKS DESIGN.

2 1/2" FORCEMAIN SYSTEM DATA AS FOLLOWS (MINIMUM OPERATING POINT AT 29 GPM)

TOTAL DYNAMIC HEAD, FT.	43.2	46.1	43.7	65.4	81.0	100.0
FLOW, GPM	0	10	20	30	40	50

Edgar V. Smith 7/10/02



Jeffrey D. Block 7/10/02

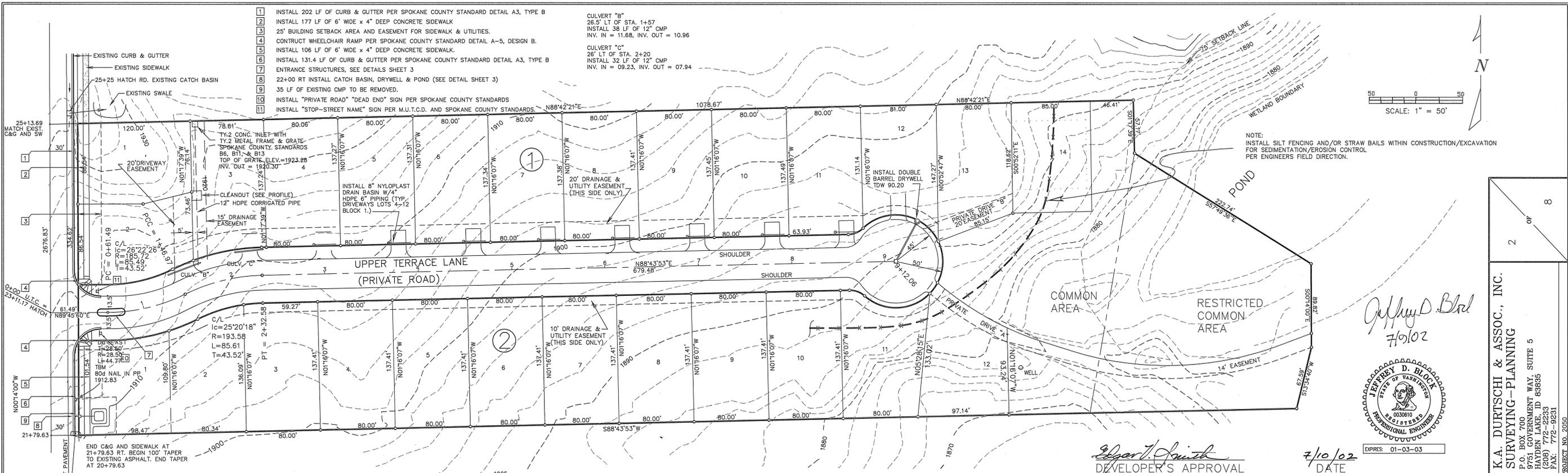
REVISION	HORIZ. SCALE	DATE
11-05-01	VERT. SCALE	
2-13-02	DESIGN BY:	
5-28-02	DRAWN BY: EES	10-12-01
7-9-02	CHECKED BY:	
	APPROVED BY:	
	PLAN DWG. NO.	
	PROFILE DWG. NO.	

UPPER TERRACE ESTATES
LIFT STATION

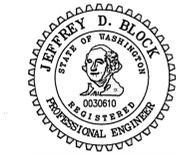
JEFFREY D. BLOCK, P.E.
CONSULTING ENGINEER
P.O. BOX 700
9751 GOVERNMENT WAY, SUITE 4
HAYDEN LAKE, ID 83835
(208) 772-2233
FAX: 772-9231
PROJECT NO.

DURTSCHI & ASSOC., INC.
SURVEYING-PLANNING
P.O. BOX 700
9751 GOVERNMENT WAY, SUITE 5
HAYDEN LAKE, ID 83835
(208) 772-2233
FAX: 772-9231
e-mail: budesey@aol.com
PROJECT NO. DATE: JANUARY 2001

7
OF
8



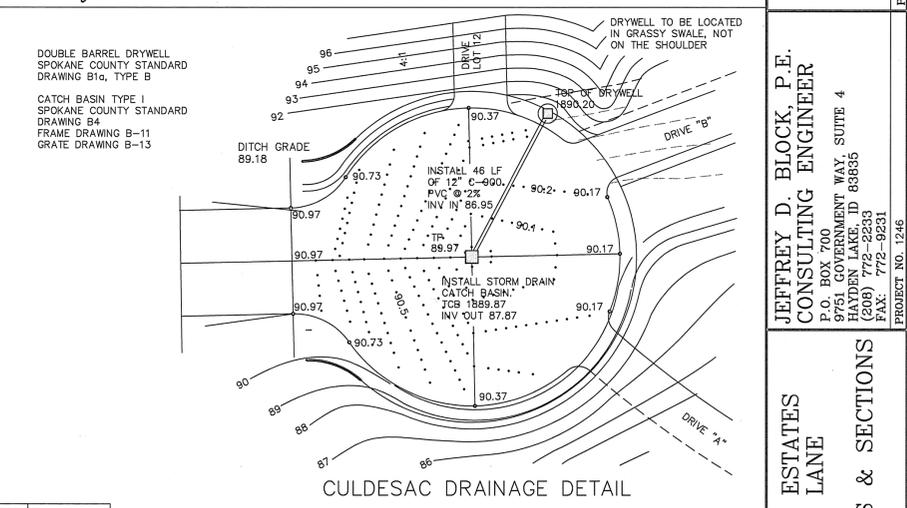
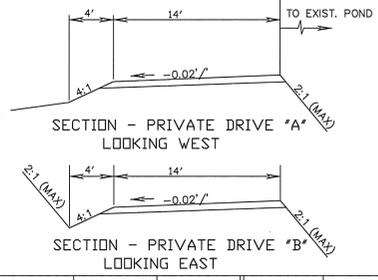
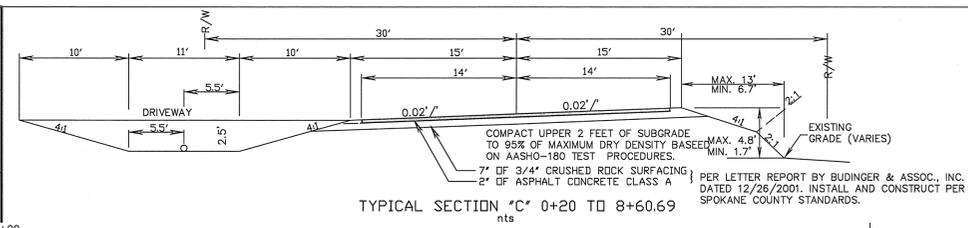
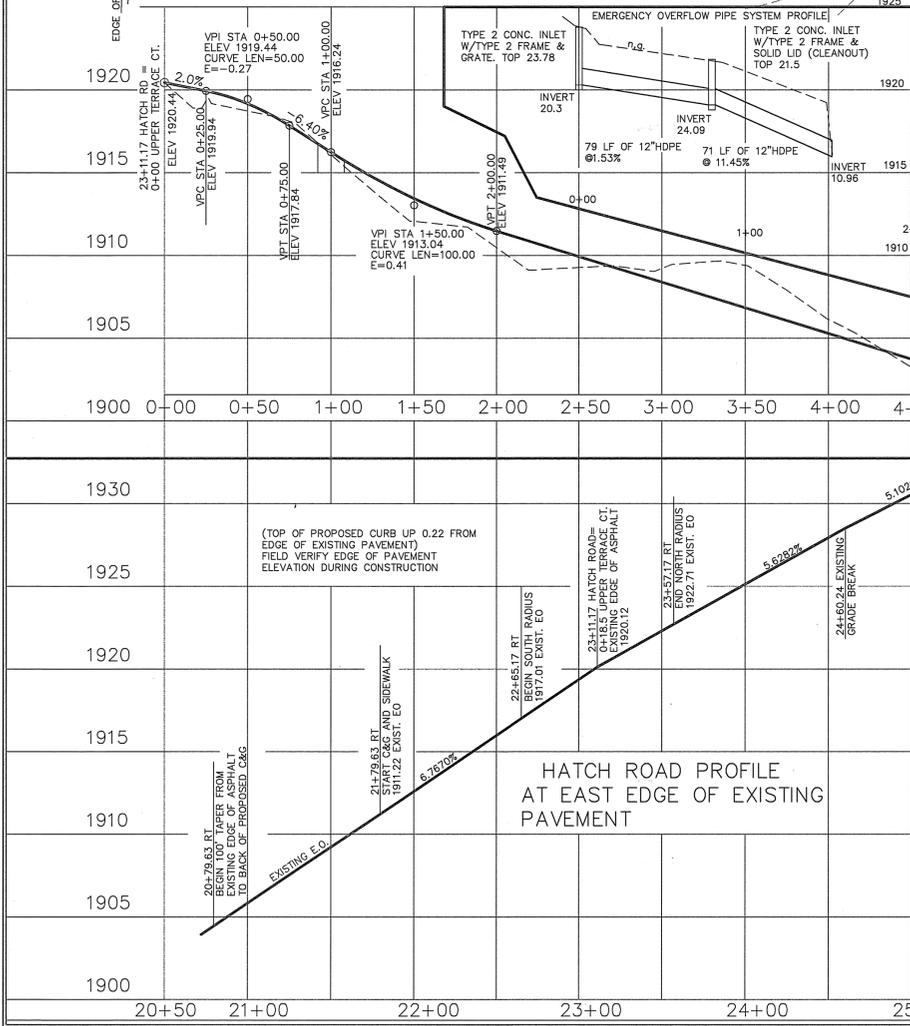
Jeffrey D. Block
 7/10/02



Edgar Smith
 DEVELOPER'S APPROVAL

7/10/02
 DATE

K.A. DURTSCHI & ASSOC., INC.
 SURVEYING-PLANNING
 P.O. BOX 700
 GOVERNMENT WAY, SUITE 5
 HAYDEN LAKE, ID 83855
 (208) 772-2233
 FAX: 772-9231
 PROJECT NO. 2050



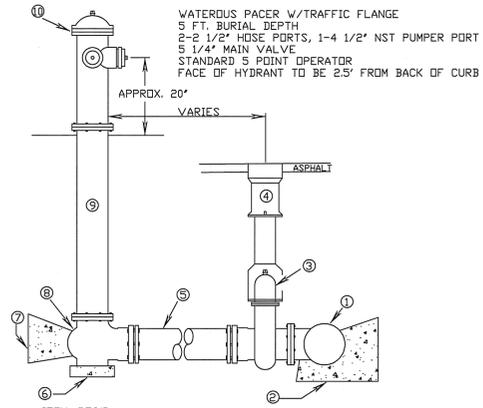
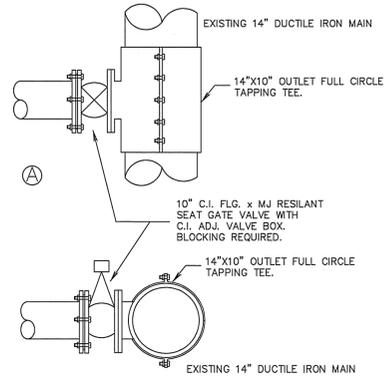
JEFFREY D. BLOCK, P.E.
 CONSULTING ENGINEER
 P.O. BOX 700
 GOVERNMENT WAY, SUITE 4
 HAYDEN LAKE, ID 83855
 (208) 772-2233
 FAX: 772-9231
 PROJECT NO. 1246

UPPER TERRACE ESTATES
 UPPER TERRACE LANE
 HATCH ROAD
 PLANS, PROFILES & SECTIONS

SPOKANE COUNTY ENGINEERS OFFICE
 OFFICIAL PUBLIC DOCUMENT ORIGINAL
CONSTRUCTION PLANS
 PROJECT #: P1833
 DATE ACCEPTED: 7/10/2002
 ACCEPTANCE EXPIRES: 7/10/2005
 PROJECT LANE MILES PRIVATE: 0.17
 CONSTRUCTION DOCUMENTATION AND CERTIFIED RECORD DRAWINGS: AS BUILT'S ARE REQUIRED PRIOR TO COUNTY ACCEPTANCE AND ESTABLISHMENT OF THE ROADS AND DRAINAGE FACILITIES FOR MAINTENANCE.
 PERMIT REQUIRED! (509) 477-3500
 NOTIFY PERMIT ENGINEER 2 BUSINESS DAYS PRIOR TO CONSTRUCTION

REVISION	HORIZ. SCALE	AS SHOWN	DATE
1-5-01	VERT. SCALE		
2-12-02	CHECKED BY:		
5-28-02	APPROVED BY:		
7-9-02	DESIGN BY:		
	DRAWN BY:		
	PLAN DWG. NO.		
	PROFILE DWG. NO.		

P1833 Eng Road & Drainage

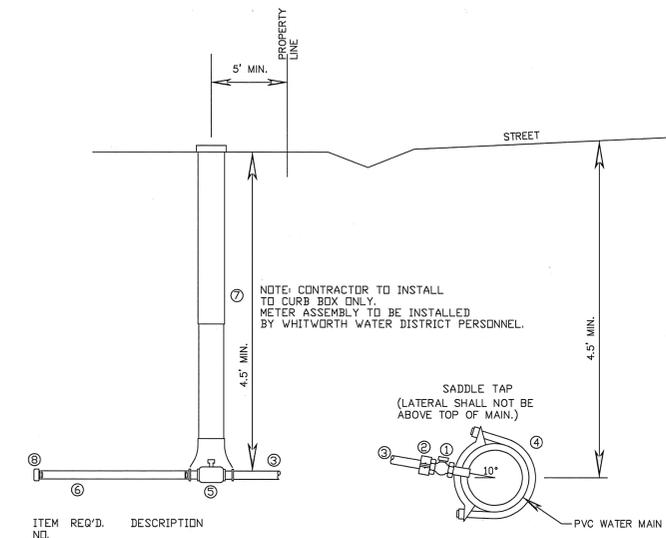


ITEM NO.	REQ'D. NO.	DESCRIPTION
1	1	MAIN SIZE W x 6" FLG. CI TEE
2	1	CONC. BLOCKING (SEE BLOCKING SPECS. FOR SIZE)
3	1	6" FLG. CI GATE VALVE
4	1	TYLER CI ADJ. VALVE BOX W/LID (SERIES 6855)
5	1	6" C-900 PVC PIPE
6	1	CONC. BLOCKING (SEE BLOCKING SPECS. FOR SIZE)
7	1	CONC. BLOCKING (SEE BLOCKING SPECS. FOR SIZE)
8	1	BASE
9	1	EXTENSION
10	1	FIRE HYDRANT PER FIRE DEPT. REQ'D.S

THRUST BLOCKING FOR WATER MAIN FITTINGS

FITTING SIZES	TEES & PLUGS		90° BEND		45° BEND & WYE		REDUCERS & 22 1/2° BEND	
	A	B	A	B	A	B	A	B
4"	1'-7"	1'-2"	1'-9"	1'-6"	1'-8"	0'-10"	1'-7"	0'-6"
6"	2'-0"	1'-11"	2'-5"	2'-2"	1'-10"	1'-7"	1'-9"	0'-10"
8"	2'-8"	2'-6"	3'-2"	3'-0"	2'-5"	2'-1"	1'-9"	1'-6"
10"	3'-4"	3'-3"	4'-0"	3'-10"	3'-0"	2'-9"	2'-2"	1'-11"
12"	4'-0"	3'-10"	4'-8"	4'-8"	3'-8"	3'-3"	2'-7"	2'-3"
14"	5'-5"	3'-10"	6'-6"	4'-11"	4'-9"	3'-5"	3'-5"	2'-5"

THIS TABLE IS BASED ON 150 PSI MAIN PRESSURE, 2000 PSF SOIL BEARING PRESSURE



ITEM NO.	REQ'D.	DESCRIPTION
1	1	1" BRONZE CORP. COCK
2	1	1" PACK JOINT
3	1	1" ANNEALED COPPER TYPE K, I.P.S.
4	1	10"x1" DOUBLE STRAP SADDLE
5	1	1" CURB STOP
6	1	1"x3/4" GALVANIZED PIPE
7	1	ADJUSTABLE CI CURB BOX
8	1	1" GALV. CAP

TYPICAL WATER SERVICE

APPROVED BY WHITWORTH WATER DISTRICT NO. 2

APPROVED BY FIRE DISTRICT NO. 4

MANHOLES

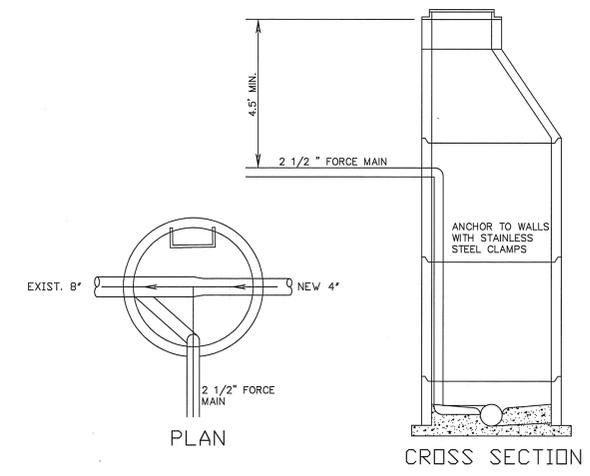
SEE SPOKANE COUNTY STANDARD DRAWING U-2 & U-14

CLEANOUTS

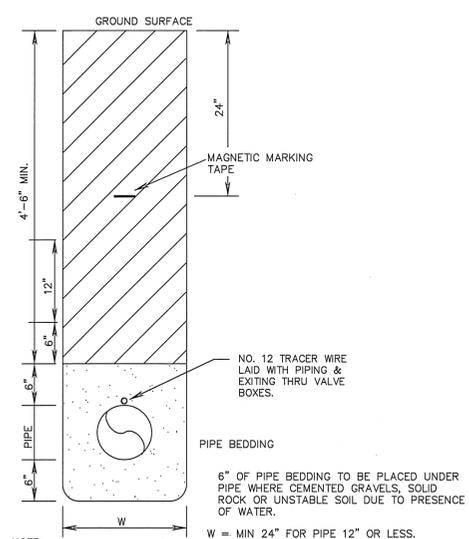
SEE SPOKANE COUNTY STANDARD DRAWING U-13.

SEWER SERVICE

SEE SPOKANE COUNTY STANDARD DRAWING U-15.



MANHOLE 6.1/173.8N



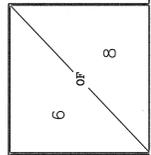
TRENCH DETAIL

Jeffrey D. Block
7/10/02

EXPRES: 01-03-03

Edgar V. Smith
DEVELOPER'S APPROVAL

DATE 7/10/02



K.A. DURTSCHI & ASSOC., INC.
SURVEYING-PLANNING
P.O. BOX 10000, SUITE 5
HAYDEN LAKE, ID 83835
(208) 772-2233
FAX: 772-9231
PROJECT NO. 2050

JEFFREY D. BLOCK, P.E.
CONSULTING ENGINEER
P.O. BOX 10000, SUITE 4
HAYDEN LAKE, ID 83835
(208) 772-2233
FAX: 772-9231
PROJECT NO. 1246

UPPER TERRACE ESTATES
WATER & SEWER DETAILS

REVISION	HORIZ. SCALE	AS SHOWN	DATE
11-3-01	VERT. SCALE		
5-28-02	CHECKED BY:		
7-9-02	APPROVED BY:		
	DESIGN BY:		
	DRAWN BY:	ERS	10-12-01
	PLAN DWG. NO.		
	PROFILE DWG. NO.		