

CATCH BASIN DETAIL  
N.T.S.



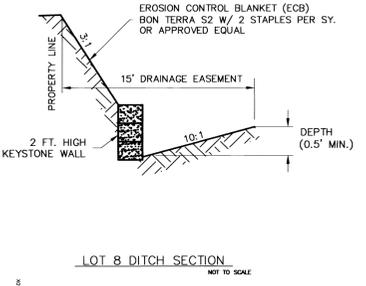
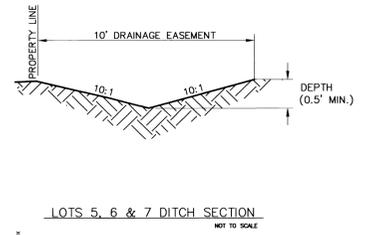
The design improvements shown in this set of plans and calculations conform to the applicable editions of the Spokane County Standards for Road and Sewer Construction and the Spokane County Guidelines for Stormwater Management. All design deviations have been approved by the Spokane County Engineer. I approve these plans for construction.

*Ben H. Simpson*  
DEVELOPER'S APPROVAL

SPOKANE COUNTY ENGINEERS OFFICE  
OFFICIAL PUBLIC DOCUMENT ORIGINAL  
**CONSTRUCTION PLANS**  
PROJECT #: *P1676 A*  
DATE ACCEPTED: *6-11-1999*  
ACCEPTANCE EXPIRES: *3-20-2000*  
PROJECT LANE MILES PUBLIC: *N/A*  
PROJECT LANE MILES PRIVATE: *N/A*  
CONSTRUCTION DOCUMENTATION AND CERTIFIED RECORD DRAWINGS "AS-BUILT" ARE REQUIRED PRIOR TO COUNTY ACCEPTANCE AND ESTABLISHMENT OF THE ROADS AND DRAINAGE FACILITIES FOR MAINTENANCE.  
PERMIT REQUIRED! (509) 456-3600  
NOTIFY PERMIT ENGINEER 2 BUSINESS DAYS PRIOR TO CONSTRUCTION

**PLAN CHANGE**

CALL BEFORE YOU DIG 456-8000



NOTE: GRADED AREAS TO BE SEEDED PER THE APPROVED EROSION CONTROL PLAN FOR THIS PLAT DATED 3/20/98.

- LEGEND
- PROPERTY LINES
  - EASEMENT LINE
  - - - EXISTING CONTOURS
  - PROPOSED CONTOURS
  - DIRECTION OF FLOW
  - STORM DRAIN MANHOLE
  - SPOT ELEVATIONS

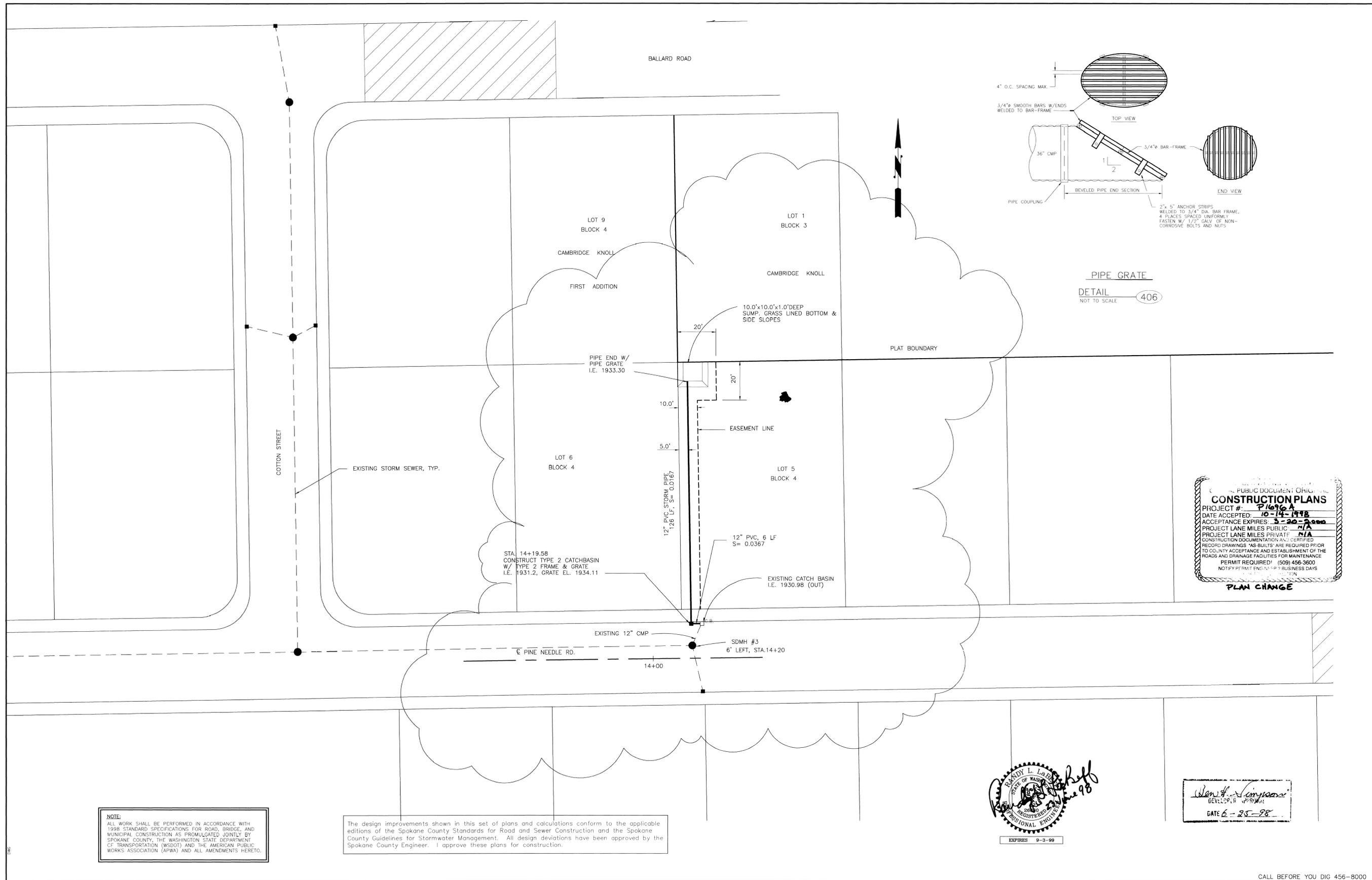


GRADE ORDINANCE LIST					DATUM		SCALE		DATE	
FROM	TO	ORD. NO.	DATE	FILE NO.	BM NO. RR spike in West face of power pole	HORIZONTAL 1"=40'	VERTICAL NA	2/5/99	DRAWN KLS	CHECKED RLL
					ELEVATION 1943.71					
					LOCATION 28' east of centerline of Hatch Road, 61' North of South plot boundary, Westwood Estates #2					

**AC ADAMS & CLARK, Inc.**  
1720 W. Fourth Ave.  
Spokane, Wa. 99204-1702  
509-747-4600

**CAMBRIDGE KNOLL FIRST ADD.**  
GRADING PLAN FOR LOTS 2-8  
BLOCK 3

TYPE OF IMPROVEMENT:	
PROJECT NUMBER	PLAN NUMBER
97-133.5	



**NOTE:**  
ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH 1998 STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION AS PROMULGATED JOINTLY BY SPOKANE COUNTY, THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT) AND THE AMERICAN PUBLIC WORKS ASSOCIATION (APWA) AND ALL AMENDMENTS HERETO.

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Wendell Simpson  
REGISTERED PROFESSIONAL ENGINEER  
DATE 6-25-98

BY	DATE	PROJ.	FROM	AS BUILT	TO ACCEPT
WTS	6/17/98	98-120			
REVISIONS					

BENCH MARK DATUM	SCALE	DATE	DRAWN	CHECKED	APPROVED
TBM	HORIZONTAL 1"= 20'	6/98	WTS	RL	
ELEVATION	VERTICAL 1"= N/A	6/98			
LOCATION					

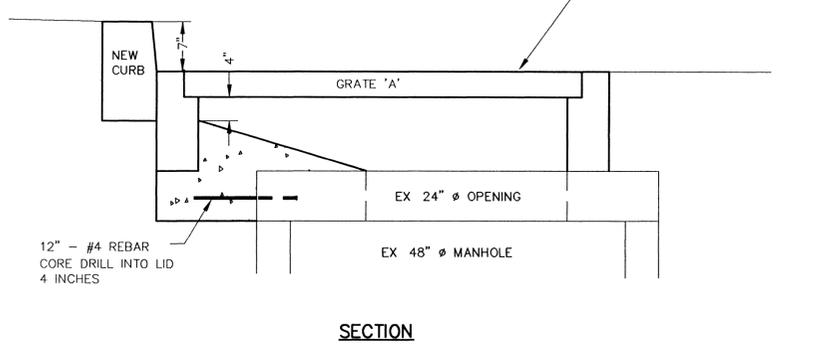
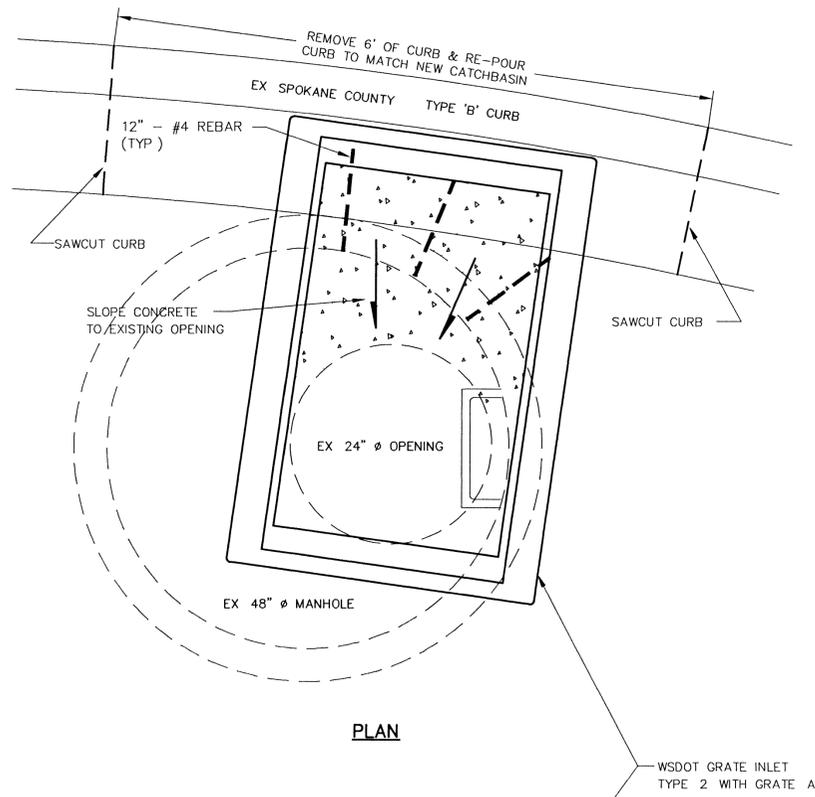
**AC ADAMS & CLARK, Inc.**  
1720 W. Fourth Ave.  
Spokane, Wa. 99204-1702  
509-747-4600

**DRAINPIPE FROM LOT 1, BLOCK 3, CAMBRIDGE KNOLL**

CALL BEFORE YOU DIG 456-8000

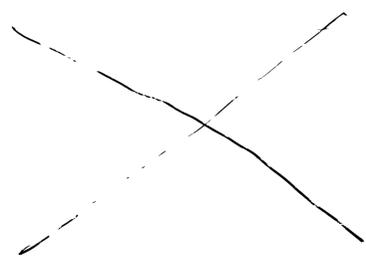
TYPE OF IMPROVEMENT:	STORM
PROJECT NUMBER	PLAN NUMBER
98-120	1

1696 A-REV.



SPOKANE COUNTY ENGINEERS OFFICE  
 OFFICIAL PUBLIC DOCUMENT ORIGINAL  
**CONSTRUCTION PLANS**  
 PROJECT # 2-1-2000  
 DATE ACCEPTED 3-20-2000  
 ACCEPTANCE FOR PUBLIC USE 0-18  
 PROJECT LINES PRIVATE  
 CONSTRUCTION NOTIFICATION AND CERTIFIED  
 RELAY TO CITY ENGINEERS ARE REQUIRED PRIOR TO CONSTRUCTION AND ESTABLISHMENT OF THE NECESSARY FACILITIES FOR MAINTENANCE REQUIRED! (509) 477-4000  
 CITY ENGINEER 2 BUSINESS DAYS PRIOR TO CONSTRUCTION.

PLAN CHANGE OF 2/1/2000/31



CALL BEFORE YOU DIG: 1-800-456-8000

BY	REVISIONS	DATE	PROJ	FROM	AS BUILT	TO	ACCEPT

BENCH MARK DATUM	SCALE	DATE	STAFF
ITEM RR SPIKE IN WEST FACE OF POLE	HORIZONTAL N/A	02/00	DRAWN RP
ELEVATION 1943.71	VERTICAL	02/00	CHECKED RL
LOCATION 28 EAST OF CENTERLINE OF HATCH ROAD 61 NORTH OF SOUTH PLAT BOUNDARY WESTWOOD ESTATES #2			APPROVED

**AC** ADAMS & CLARK, Inc.  
 1720 W Fourth Ave  
 Spokane, WA 99204  
 (509) 747-4800 FAX (509) 747-8913

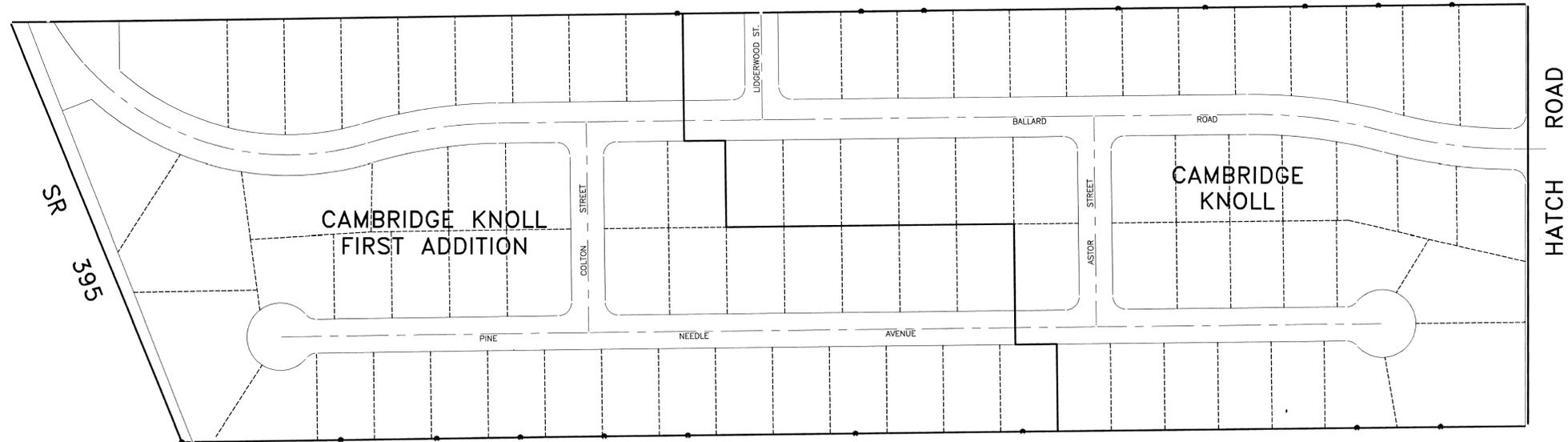
CAMBRIDGE KNOLL FIRST ADDITION  
 PINE NEEDLE AVENUE  
 STORM MH # 6 ADJUSTMENTS

TYPE OF IMPROVEMENT	DRAINAGE
PROJECT NUMBER	PLAN NUMBER
2000-1022	1

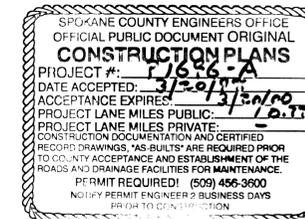
1696 A

P:\2000\1022\20001022CB.dwg Tue Feb 01 10 34 41 2000 PLOT BY RP

# CAMBRIDGE KNOLL FIRST ADDITION



**NOTE:**  
AN EROSION/SEDIMENTATION CONTROL (ESC) PLAN IS REQUIRED FOR THIS PROJECT. IMPLEMENTATION OF THE ESC PLAN, AND CONSTRUCTION, MAINTENANCE, AND UPGRADING OF THE ESC FACILITIES ARE THE RESPONSIBILITY OF THE DEVELOPER UNTIL ALL CONSTRUCTION IS COMPLETED AND ACCEPTED BY SPOKANE COUNTY, OR UNTIL VEGETATION IS ESTABLISHED THROUGHOUT THE SITE, AND ACCEPTED BY SPOKANE COUNTY, WHICHEVER IS LATER.



## INDEX TO DRAWINGS

	SHT. NO.
BALLARD ROAD, STA. 3+29.97 TO 13+63.24	2
COLTON STREET, STA. 0+00 TO 3+12.76	3
PINE NEEDLE AVE., CUL DE SAC TO STA. 18+44.59	4
WEST DETENTION POND	5
NORTHWEST RETENTION POND	6
GRADING AND EROSION CONTROL PLAN AND NOTES	7,8
WATER PLAN AND DETAILS	10

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*Randy L. Lamm*  
DEVELOPER'S APPROVAL

5.29  
T. 27  
R. 44 J.A.R.

GRADE ORDINANCE LIST					COUNTY DATUM	SCALE	DATE		
FROM	TO	ORD. NO.	DATE	FILE NO.	TBM	HORIZONTAL	VERTICAL	DRAWN	CHECKED
					1943.71	1"=100'	NA	JRO	
BY	REVISIONS	DATE	PROJ.	FROM	AS BUILT	TO	ACCEPT		

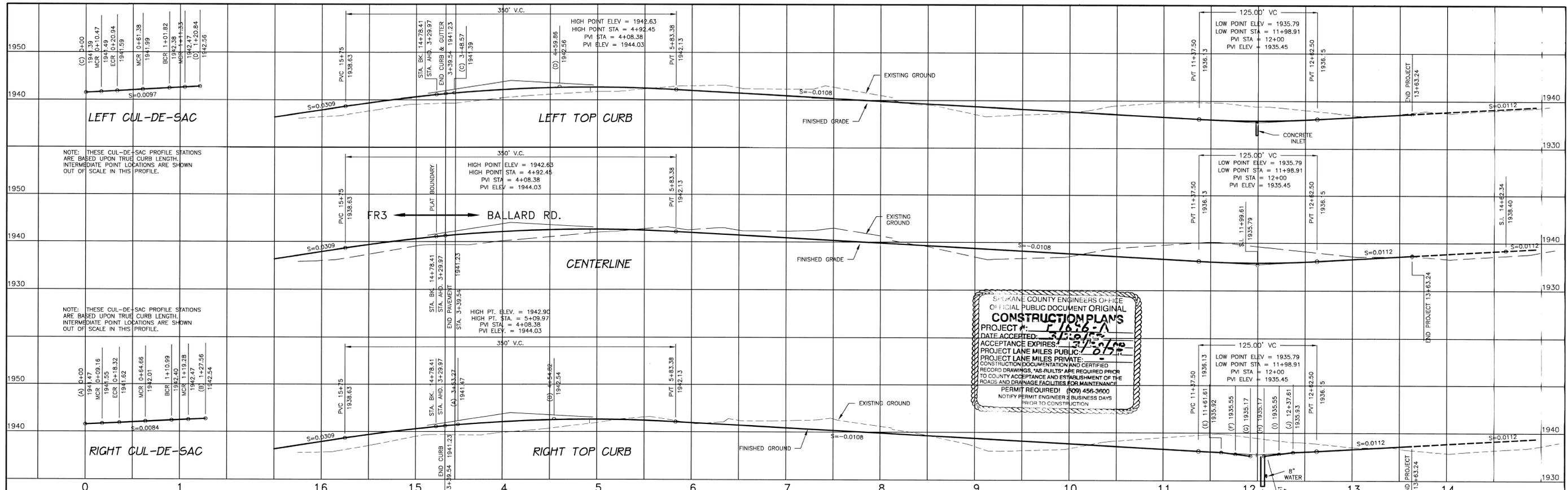
**AC** ADAMS & CLARK, Inc.  
1720 W. Fourth Ave.  
Spokane, Wa. 99204-1702  
509-747-4600

CAMBRIDGE KNOLL  
FIRST ADDITION  
COVER SHEET

TYPE OF IMPROVEMENT: STREET/WATER	
PROJECT NUMBER	PLAN NUMBER
97-133	1

CALL BEFORE YOU DIG 456-8000

1696-A



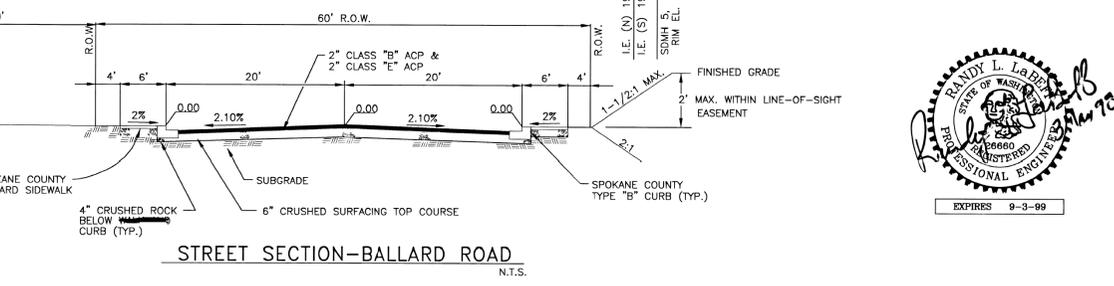
SPokane County Engineers Office  
 OFFICIAL PUBLIC DOCUMENT ORIGINAL  
**CONSTRUCTION PLANS**  
 PROJECT # 97-133-A  
 DATE ACCEPTED: 2/15/99  
 ACCEPTANCE EXPIRES: 2/15/04  
 PROJECT LANE MILES PUBLIC: 0.15  
 PROJECT LANE MILES PRIVATE: 0.05  
 CONSTRUCTION DOCUMENTATION AND CERTIFIED RECORD DRAWINGS, "AS-BUILTS" ARE REQUIRED PRIOR TO COUNTY ACCEPTANCE AND ESTABLISHMENT OF THE ROADS AND DRAINAGE FACILITIES FOR MAINTENANCE.  
 PERMIT REQUIRED! (509) 456-3600  
 NOTIFY PERMIT ENGINEER 2 BUSINESS DAYS PRIOR TO CONSTRUCTION

**CURB TABLE**

LABEL	TYPE	STATION
A	BCR	BALLARD RD. COLTON ST.
B	ECR	3+53.27
C	BCR	4+54.82
D	ECR	3+48.57
E	BCR	4+59.86
F	MCR	11+61.61
G	ECR	2+72.76
H	BCR	2+72.76
I	MCR	
J	ECR	12+37.61

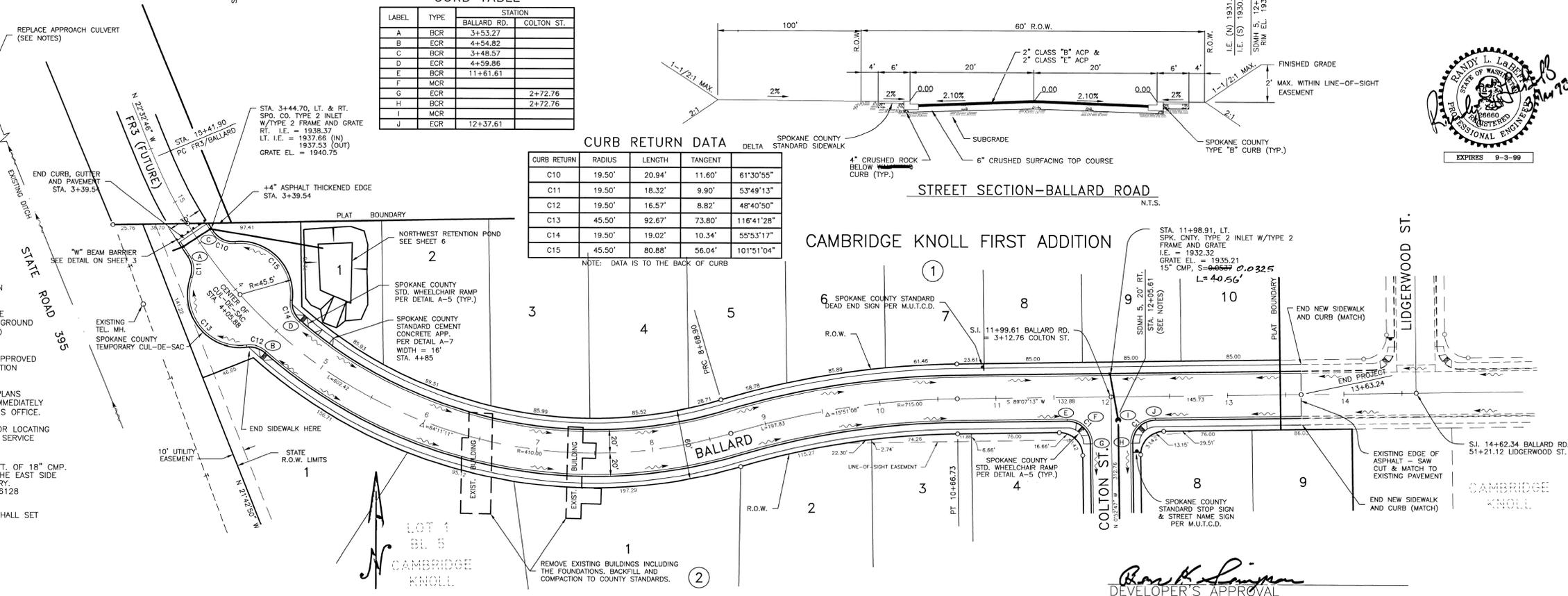
**CURB RETURN DATA**

CURB RETURN	RADIUS	LENGTH	TANGENT	DELTA
C10	19.50'	20.94'	11.60'	61°30'55"
C11	19.50'	18.32'	9.90'	53°49'13"
C12	19.50'	16.57'	8.82'	48°40'50"
C13	45.50'	92.67'	73.80'	116°41'28"
C14	19.50'	19.02'	10.34'	55°53'17"
C15	45.50'	80.88'	56.04'	101°51'04"



**NOTE:**  
 ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH 1998 STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION AS PROMULGATED JOINTLY BY THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT), THE AMERICAN PUBLIC WORKS ASSOCIATION (APWA) AND AS AMENDED BY SPOKANE COUNTY STANDARDS FOR ROAD AND SEWER CONSTRUCTION (SCRS) 1995 AND HERETO.

- NOTES:**
- ALL CURB DATA IS TO BACK OF CURB, UNLESS SHOWN OTHERWISE.
  - ANY CONFLICTING UTILITIES SHALL BE RELOCATED PRIOR TO CONSTRUCTION OF ROADS OR DRAINAGE FACILITIES.
  - STORM DRAIN MANHOLES (SDMH) ARE W.S.D.O.T. CATCH BASINS TYPE 2, 48" DIA., UNLESS DETAILED OTHERWISE, WITH SPOKANE CO. METAL FRAME AND SOLID COVER - TYPE 4, LABELED "STORM".
  - REFER TO SCRS 1995 FOR DETAILS LISTED HEREON.
  - REFER TO SPOKANE COUNTY STANDARD DETAILS B-6, B-7, B-11, B-13, B-14 AND B-18 FOR CONCRETE INLET AND GRATE DETAILS.
  - W.S.D.O.T. DATUM IS 0.97' ABOVE PROJECT DATUM.
  - ALL WORK AND MATERIALS SHALL BE IN CONFORMANCE WITH THE "SPOKANE COUNTY STANDARDS FOR ROAD AND SEWER CONSTRUCTION 1995", AND AS AMENDED.
  - LOCATIONS OF EXISTING UTILITIES SHOWN IN 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.
  - PRIOR TO SITE CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR LOCATING UNDERGROUND UTILITIES. CALL THE UNDERGROUND UTILITY LOCATION SERVICE AT 456-8000 BEFORE YOU DIG.
  - THE CONTRACTOR SHALL REPLACE THE EXISTING 12" CMP WITH 55 FT. OF 18" CMP. THE EXISTING STRUCTURE IS LOCATED THROUGH AN APPROACH ON THE EAST SIDE OF SR 395 APPROXIMATELY 400 FEET NORTH OF THE PLAT BOUNDARY. CONTACT MR. JOE CHATTERTON, (WSDOT) UTILITY ENGINEER AT 324-6128 FOR A CONSTRUCTION AGREEMENT.
  - UPON COMPLETION OF THE STREETS, THE RESPONSIBLE SURVEYOR SHALL SET PERMANENT MONUMENTS PER THE SPOKANE COUNTY GUIDELINES.



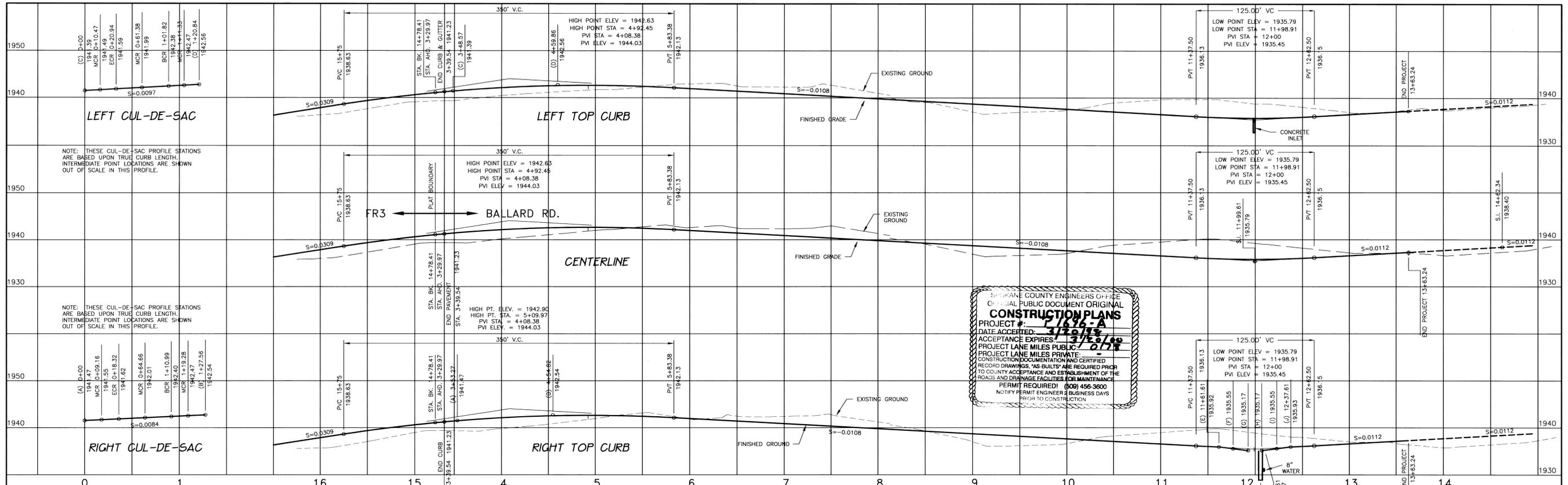
*Barth K. Simpson*  
 DEVELOPER'S APPROVAL

GRADE ORDINANCE LIST					COUNTY DATUM		SCALE		DATE	
FROM	TO	ORD. NO.	DATE	FILE NO.	FBM	RR SPRING WEST FACE OF POWER POLE	HORIZONTAL 1"=50'	VERTICAL 1"=10'	NOV. 1997	DRAWN RLL/KJO
					ELEVATION	1943.71				CHECKED
					LOCATION	28' EAST OF CENTERLINE OF MATCH ROAD, 61' NORTH OF SOUTH PLAT BOUNDARY, WESTWOOD ESTATES #2				APPROVED

**AC ADAMS & CLARK, Inc.**  
 1720 W. Fourth Ave.  
 Spokane, Wa. 99204-1702  
 509-747-4600

<b>CAMBRIDGE KNOLL FIRST ADDITION</b>		TYPE OF IMPROVEMENT: <b>STREET</b>	
<b>BALLARD ROAD</b>		PROJECT NUMBER: <b>97-133</b>	
STA. 3+29.97 TO STA. 13+63.24		PLAN NUMBER: <b>2</b>	

CALL BEFORE YOU DIG 456-8000



SPokane County Engineers Office  
 ORIGINAL PUBLIC DOCUMENT ORIGINAL  
**CONSTRUCTION PLANS**  
 PROJECT # 1696-A  
 DATE ACCEPTED: 3/20/98  
 ACCEPTANCE EXPIRES: 3/20/10  
 PROJECT LANE MILES PUBLIC: 0.178  
 CONSTRUCTION DOCUMENTATION AND CERTIFIED RECORD DRAWINGS, "AS BUILT" ARE REQUIRED PRIOR TO COUNTY ACCEPTANCE AND ESTABLISHMENT OF THE ROADS AND DRAINAGE FACILITIES FOR MAINTENANCE.  
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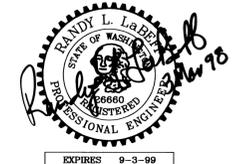
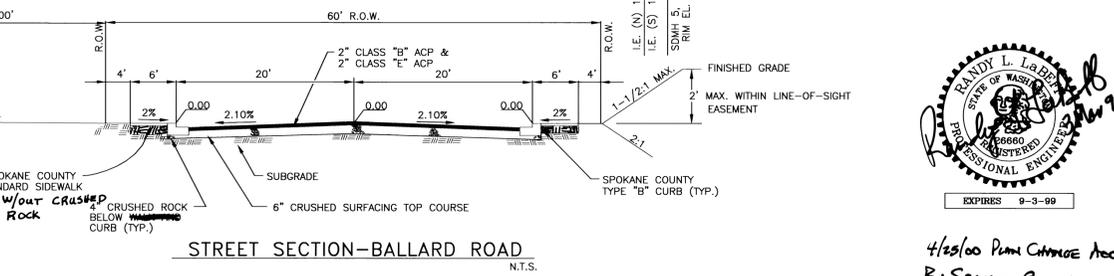
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H	BCR	2+72.76
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J	ECR	12+37.61

**CURB RETURN DATA**

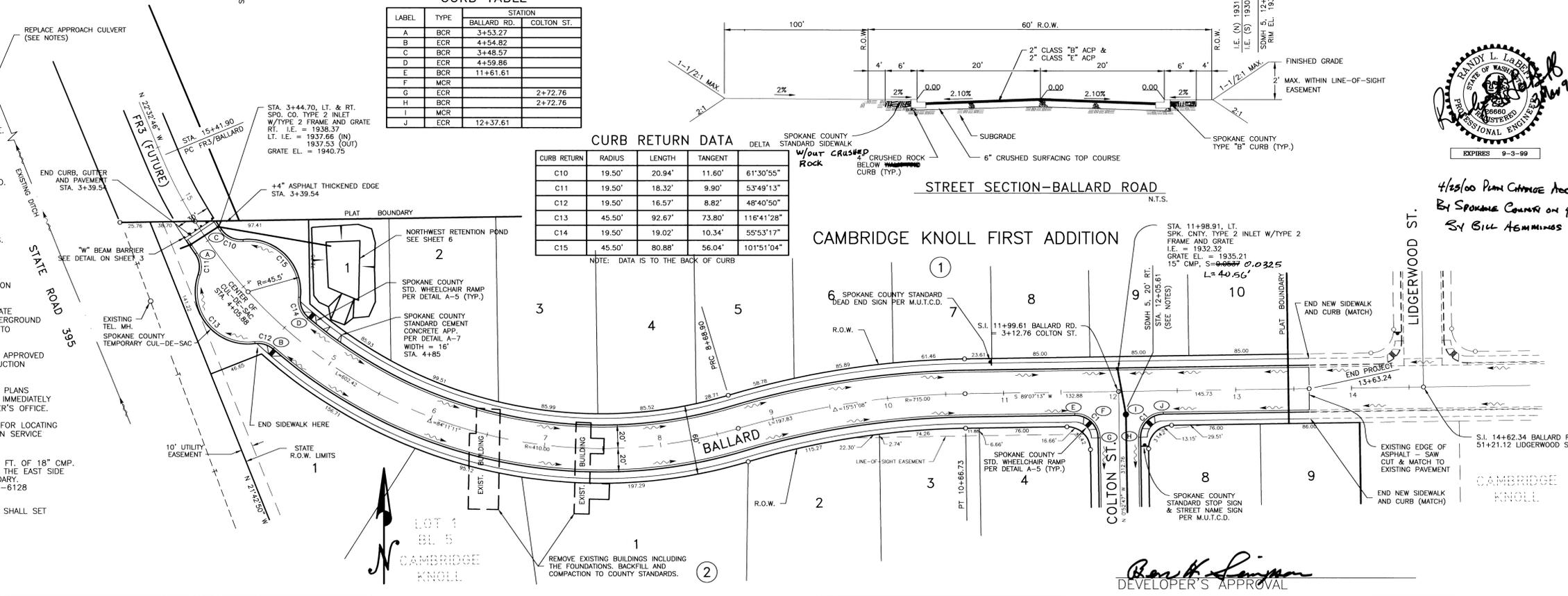
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  - REFER TO SCRS 1995 FOR DETAILS LISTED HEREON.
  - REFER TO SPOKANE COUNTY STANDARD DETAILS B-6, B-7, B-11, B-13, B-14 AND B-18 FOR CONCRETE INLET AND GRATE DETAILS.
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4/25/00 Plan Change Accepted  
 By Spokane County on 4/26/00  
 By Bill Atkinson

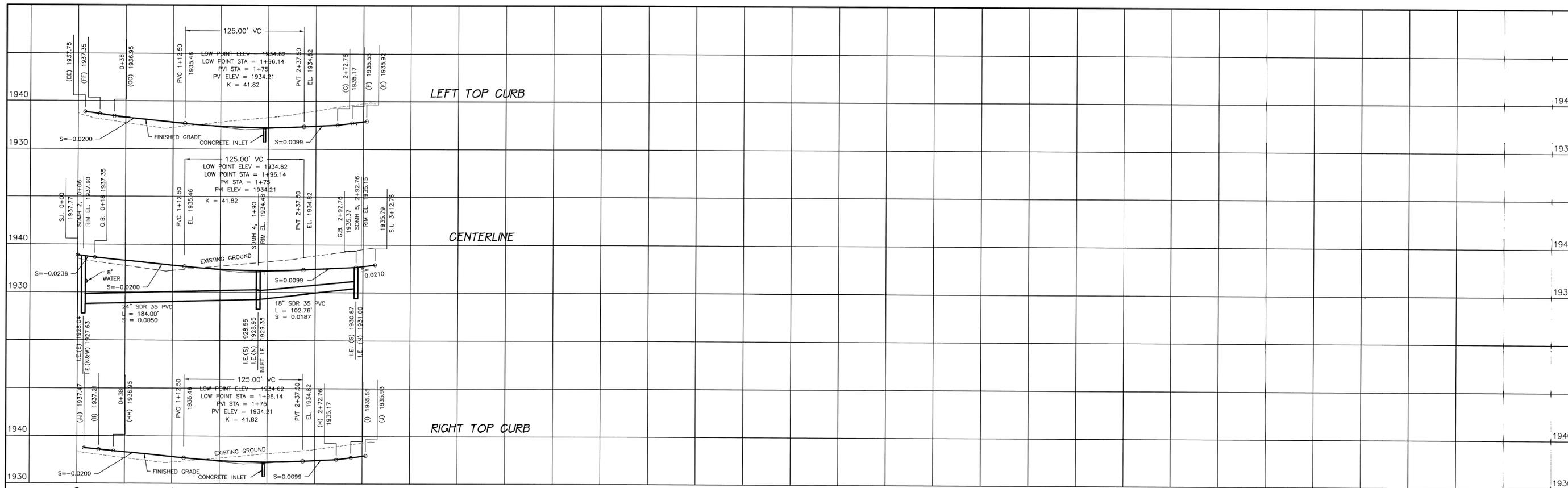
*Barth Simpson*  
 DEVELOPER'S APPROVAL

GRADE ORDINANCE LIST				COUNTY DATUM	SCALE	DATE	DRAWN	CHECKED	APPROVED
FROM	TO	ORD. NO.	DATE	TBM	HORIZONTAL 1"=50'	NOV. 1997	RL/JLO		
BY	REVISIONS	DATE	PROJ.	ELEVATION	VERTICAL 1"=10'				
	AS BUILT			LOCATION	20' EAST OF CENTERLINE OF MATCH ROAD; 61' NORTH OF SOUTH PLAT BOUNDARY, WESTWOOD ESTATES #2				

**AC ADAMS & CLARK, Inc.**  
 1720 W. Fourth Ave.  
 Spokane, Wa. 99204-1702  
 509-747-4600

<b>CAMBRIDGE KNOLL FIRST ADDITION</b>		TYPE OF IMPROVEMENT:	STREET
BALLARD ROAD		PROJECT NUMBER	PLAN NUMBER
STA. 3+29.97 TO STA. 13+63.24		97-133	2

CALL BEFORE YOU DIG 456-8000  
 1696 A.  
 Revised Eng. Road Drainage



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  - REFER TO SPK. CNTY. STANDARD DETAILS B-6, B-7, B-11, B-13, B-14, AND B-18 FOR CONCRETE INLET AND GRATE DETAILS.
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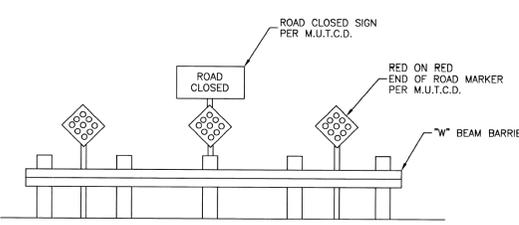
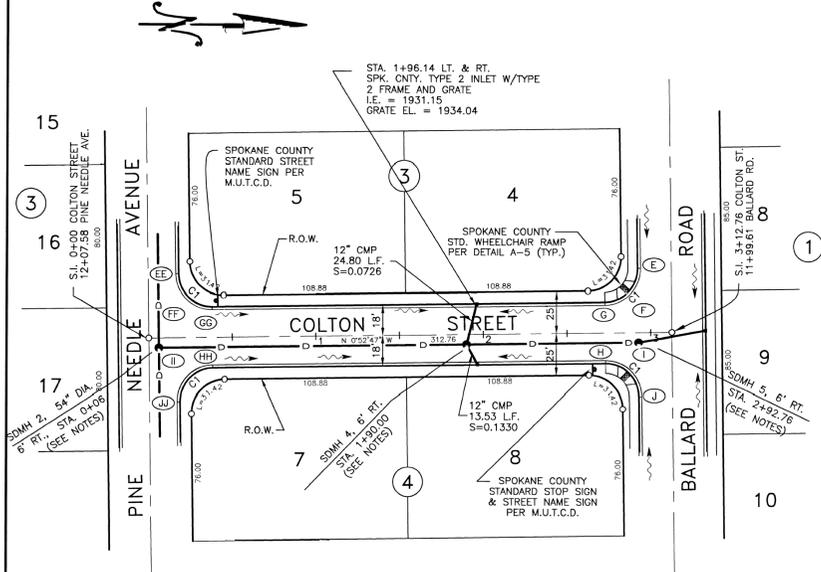
**CURB RETURN DATA**

CURB RETURN	RADIUS	LENGTH	TANGENT	DELTA
C1	19.50'	30.63'	19.50'	90°00'00"

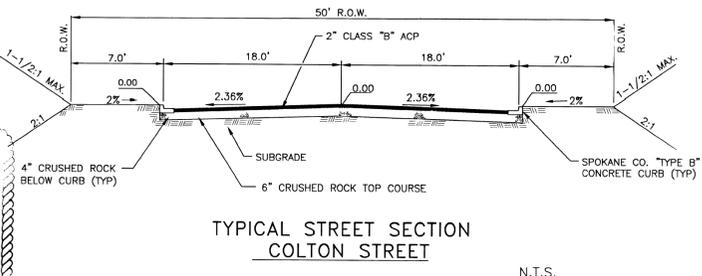
NOTE: DATA IS TO THE BACK OF CURB

**CURB TABLE**

LABEL	TYPE	STATION	
		PINE NEEDLE	COLTON ST. BALLARD RD.
E	ECR		11+61.61
F	MCR		
G	BCR	2+72.76	
H	BCR	2+72.76	
I	MCR		
J	ECR		12+37.61
EE	BCR	11+69.58	
FF	MCR		
GG	ECR	0+38.00	
HH	ECR	0+38.00	
II	MCR		
JJ	BCR	12+45.58	



SPOKANE COUNTY ENGINEERS OFFICIAL PUBLIC DOCUMENT ORIGINAL  
**CONSTRUCTION PLANS**  
 PROJECT #: 97-133  
 DATE ACCEPTED: 11-16-97  
 ACCEPTANCE EXPIRES: 11-16-00  
 PROJECT LANE MILES PUBLIC: 0.27  
 PROJECT LANE MILES PRIVATE: 0.00  
 CONSTRUCTION DOCUMENTATION AND (PT) (T) RECORD DRAWINGS, AS BUILT ARE PROVIDED PRIOR TO COUNTY ACCEPTANCE AND ESTABLISHMENT OF THE ROADS AND DRAINAGE FACILITIES FOR MAINTENANCE.  
 PERMIT (REQUIRED) (509) 456-3900  
 NOTIFY PERMIT ENGINEER BUSINESS DAYS PRIOR TO CONSTRUCTION



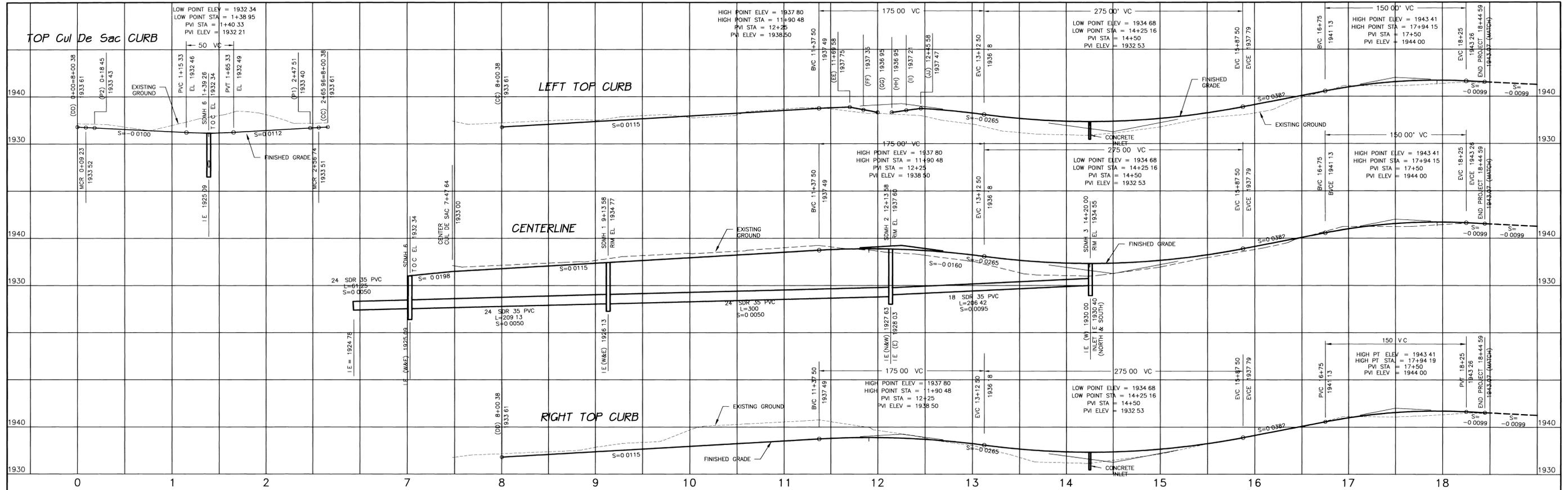
*Randy L. Smith*  
 DEVELOPER'S APPROVAL

REVISIONS					GRADE ORDINANCE LIST				COUNTY DATUM				SCALE				DATE			
BY	DATE	PROJ.	FROM	TO	AS BUILT	TO	ACCEPT	FROM	TO	ORD. NO.	DATE	FILE NO.	DATE	DATE	DATE	DATE	DATE			

**AC ADAMS & CLARK, Inc.**  
 1720 W. Fourth Ave.  
 Spokane, Wa. 99204-1702  
 509-747-4600

<b>CAMBRIDGE KNOLL FIRST ADDITION</b>		TYPE OF IMPROVEMENT: <b>STREET</b>	
<b>COLTON STREET</b>		PROJECT NUMBER: <b>97-133</b>	
STA. 0+00 TO STA. 3+12.76		PLAN NUMBER: <b>3</b>	

CALL BEFORE YOU DIG 456-8000



**NOTE**  
ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH 1998 STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION AS PROMULGATED JOINTLY BY THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT) THE AMERICAN PUBLIC WORKS ASSOCIATION (APWA) AND AS AMENDED BY SPOKANE COUNTY STANDARDS FOR ROAD & SEWER CONSTRUCTION (SCRs) 1995 & HERETO

**CURB TABLE**

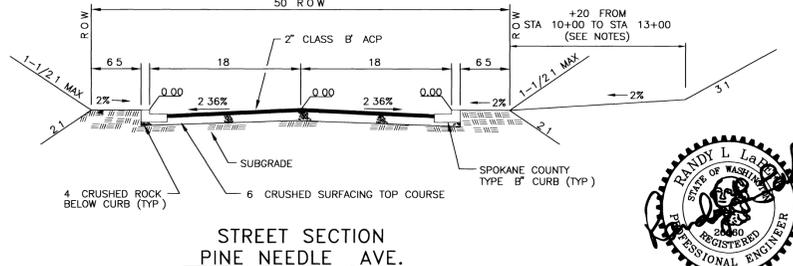
LABEL	TYPE	STATION	STATION	W	CUL DE SAC
CC	BCR	8+00.38	COLTON ST	2+65.97	
DD	ECR	8+00.38		0+00.00	
EE	BCR	11+69.58			
FF	MCR				
GG	ECR		0+38.00		
HH	BCR		0+38.00		
II	MCR				
JJ	ECR	12+45.58			
PP				2+45.52	
PZ				0+18.45	

**CURB RETURN DATA**

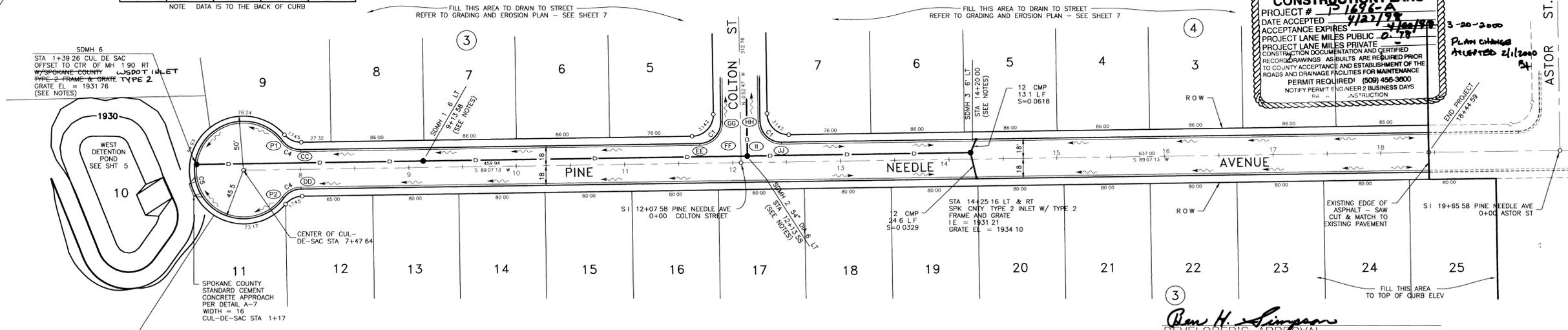
CURB RETURN	RADIUS	LENGTH	TANGENT	DELTA
C1	19.50	30.63	19.50	90.00 00
C4	19.50	18.45	9.98	54.13 27
C5	45.50	229.06	32.79	288.26 54

NOTE: DATA IS TO THE BACK OF CURB

- NOTES**
- ALL CURB DATA IS TO BACK OF CURB UNLESS SHOWN OTHERWISE
  - ANY CONFLICTING UTILITIES SHALL BE RELOCATED PRIOR TO CONSTRUCTION OF ROADS OR DRAINAGE FACILITIES
  - STORM DRAIN MANHOLES (SDMH) ARE WSDOT CATCH BASINS TYPE 2, 48 DIA WITH SPOKANE CO METAL FRAME AND SOLID COVER - TYPE 4, UNLESS DETAILED OTHERWISE THE SOLID LID IS TO BE LABELED "STORM"
  - ALL WORK AND MATERIALS SHALL BE IN CONFORMANCE WITH THE "SPOKANE COUNTY STANDARDS FOR ROAD AND SEWER CONSTRUCTION 1995", AND AS AMENDED
  - LOCATIONS OF EXISTING UTILITIES SHOWN IN 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
  - PRIOR TO SITE CONSTRUCTION THE CONTRACTOR IS RESPONSIBLE FOR LOCATING UNDERGROUND UTILITIES. CALL THE UNDERGROUND UTILITY LOCATION SERVICE AT 456-8000 BEFORE YOU DIG
  - UPON COMPLETION OF THE STREETS THE RESPONSIBLE SURVEYOR SHALL SET PERMANENT MONUMENTS PER THE SPOKANE COUNTY GUIDELINES
  - THE WIDTH OF THE 2% RIGHT SHOULDER IS INCREASED TO 26.5 FT FROM STA 10+00 TO STA 13+00 USE A 3:1 CUT SLOPE TO DAYLIGHT IN THIS AREA
  - REFER TO SPK CNTY STANDARD DETAILS B-6 B-7 B-11 B-13 B-14 AND B-18 FOR CONCRETE INLET AND GRATE DETAILS



**SPOKANE COUNTY ENGINEERS OFFICE**  
OFFICIAL PUBLIC DOCUMENT ORIGINAL  
**CONSTRUCTION PLANS**  
PROJECT # 1696-A  
DATE ACCEPTED 4/23/98  
ACCEPTANCE EXPIRES 3-20-2000  
PROJECT LANE MILES PUBLIC 0.78  
PROJECT LANE MILES PRIVATE 0.22  
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) 456-9800  
NOTIFY PERMIT ENGINEER 2 BUSINESS DAYS PRIOR TO CONSTRUCTION  
END PROJECT 18+44.59  
Plan changes accepted 2/12/2000



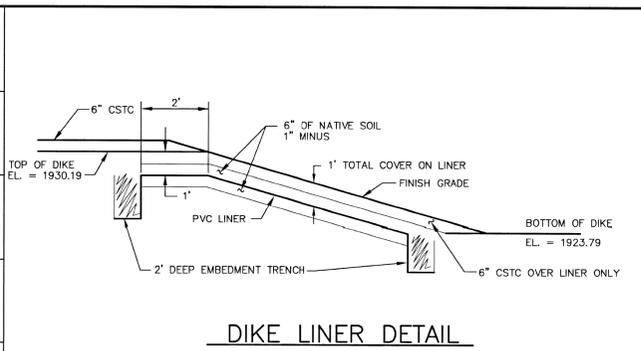
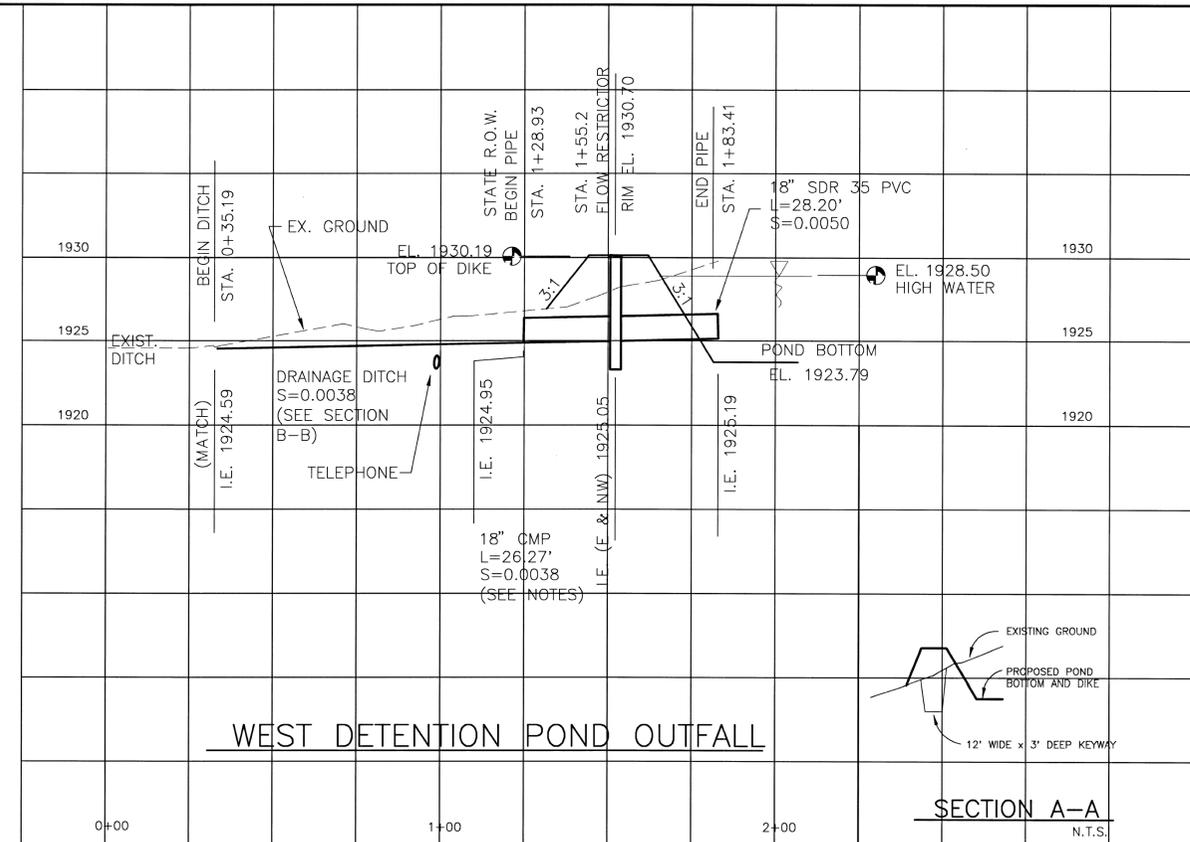
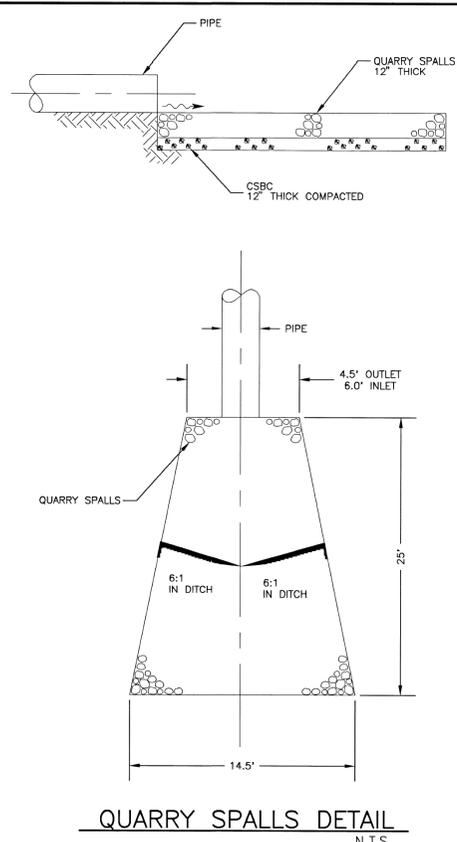
*Randy L. Larson*  
DEVELOPER'S APPROVAL

REVISIONS					GRADE ORDINANCE LIST				COUNTY DATUM		SCALE		DATE		DRAWN		CHECKED		APPROVED	
BY	DATE	PROJ	FROM	TO	FROM	TO	ORD NO	DATE	FILE NO	ITEM	ELEVATION	LOCATION	HORIZONTAL	VERTICAL	NOV 1997	SCALE	NOV 1997	SCALE	NOV 1997	SCALE
			AS BUILT										1=50	1=10						

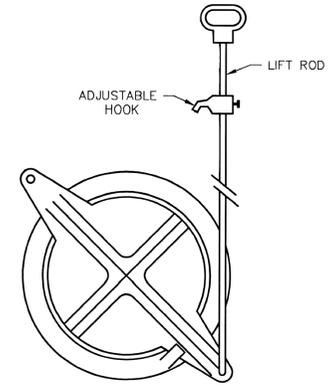
**AC ADAMS & CLARK, Inc.**  
1720 W Fourth Ave  
Spokane, WA 99204-1702  
509-747-4600

<b>CAMBRIDGE KNOLL FIRST ADDITION</b>		TYPE OF IMPROVEMENT	STREET
<b>PINE NEEDLE AVENUE</b>		PROJECT NUMBER	PLAN NUMBER
CUL-DE-SAC TO STA. 18+44.59		97-133	4

CALL BEFORE YOU DIG 456-8000  
1696-A



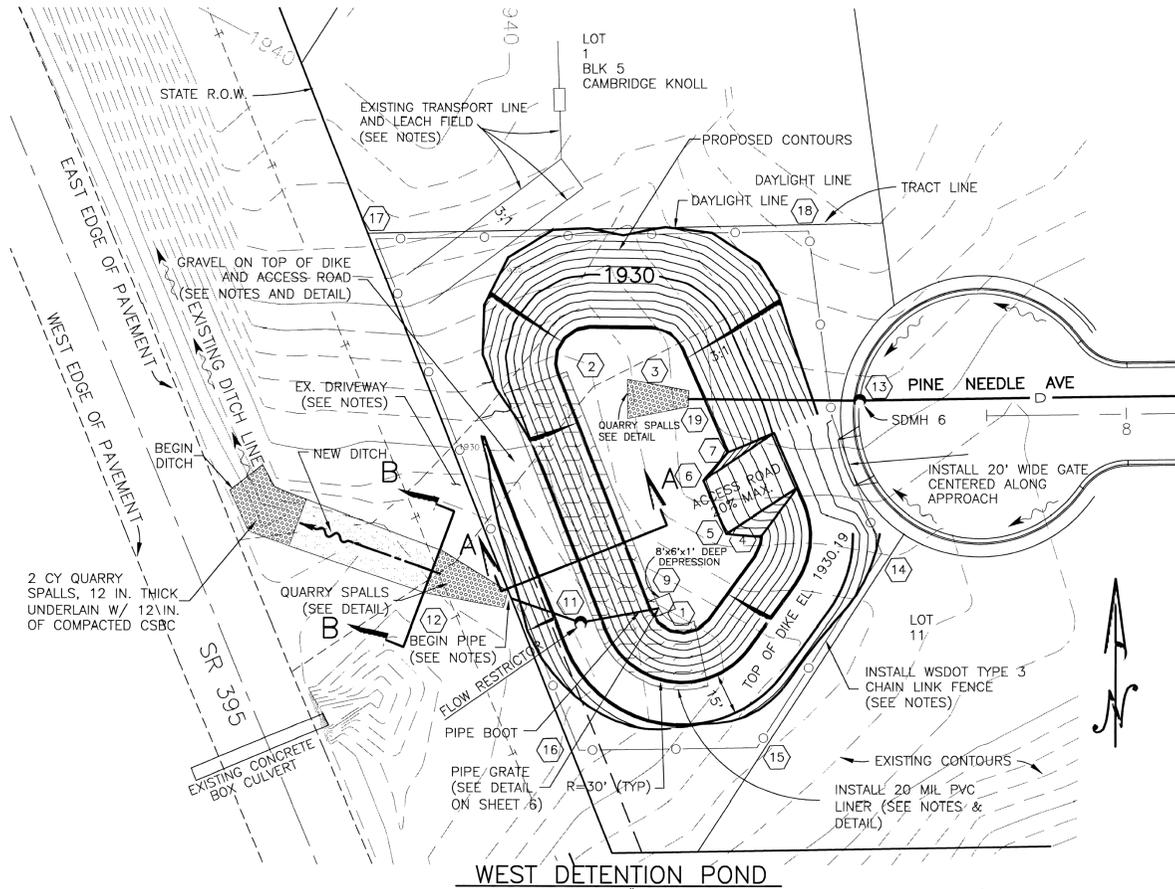
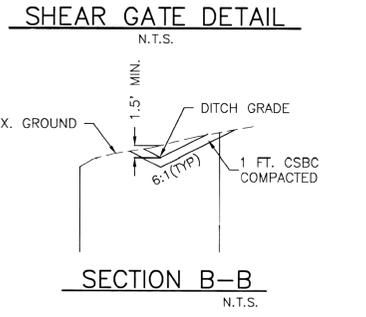
- NOTES:
- SHEAR GATE SHALL BE CAST IRON BODY AND GATE, OLYMPIC FOUNDRY STANDARD OR EQUAL.
  - GATE SHALL BE 8" DIAMETER.
  - GATE SHALL BE JOINED TO TEE SECTION BY BOLTING THROUGH FLANGE.
  - LIFT ROD SHALL BE AS SPECIFIED BY MFR. WITH HANDLE EXTENDING TO WITHIN ONE FOOT OF COVER AND ADJUSTABLE HOOK FASTENED TO UPPER RUNG OF LADDER.



- 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.
- PRIOR TO SITE CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR LOCATING UNDERGROUND UTILITIES. CALL THE UNDERGROUND UTILITY LOCATION SERVICE AT 456-8000 BEFORE YOU DIG.
- QUARRY SPALLS SHALL MEET THE GRADING REQUIREMENTS OF SECTION 9-13.6 OF THE WSDOT STANDARD SPECIFICATIONS. 6" OF CRUSHED SURFACING BASE COURSE SHALL BE PLACED UNDER THE QUARRY SPALLS.
- CORRUGATED METAL PIPE (CMP) SHALL BE 16 GAGE STEEL WITH 0.064 IN. OF GALVANIZED COATING.
- CONTRACTOR IS TO PROVIDE ACCESS TO THE EXISTING RESIDENCE IN THE FORM OF A SMOOTH, DRIVABLE SURFACE AT ALL TIMES DURING CONSTRUCTION. CONTRACTOR IS TO COORDINATE CONSTRUCTION ACCESS WITH RESIDENT.
- REFER TO SHEETS 7 AND 8 FOR EROSION CONTROL PLAN.
- PLACE QUARRY SPALLS AROUND PIPE END AND 3 FT. ABOVE PIPE TO STABILIZE TOE OF SLOPE.

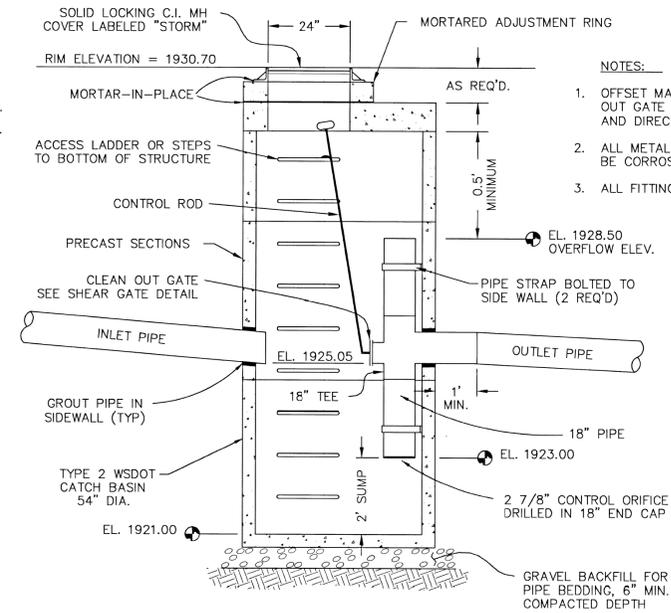
SPOKANE COUNTY ENGINEERS OFFICE  
OFFICIAL PUBLIC DOCUMENT ORIGINAL  
**CONSTRUCTION PLANS**  
PROJECT # 97-133-5  
DATE ACCEPTED: 11/12/99  
ACCEPTANCE EXPIRES: 11/12/00  
PROJECT LANE MILES PUBLIC:  
PROJECT LANE MILES PRIVATE:  
CONSTRUCTION DOCUMENTATION AND CERTIFIED RECORD DRAWINGS, "AS-BUILTS" ARE REQUIRED PRIOR TO COUNTY ACCEPTANCE AND ESTABLISHMENT OF THE ROADS AND DRAINAGE FACILITIES FOR MAINTENANCE.  
PERMIT REQUIRED! (509) 456-9900  
NOTIFY PERMIT ENGINEER 2 BUSINESS DAYS PRIOR TO CONSTRUCTION

- NOTES:
- THE 20 MIL PVC LINER AND PIPE BOOT SHALL BE MANUFACTURED BY NY LININGS & GEOTEXTILES PRODUCTS, INC. (OR APPROVED EQUAL) AND INSTALLED PER THEIR RECOMMENDATIONS.
  - THE SUBGRADE UNDER THE DIKE SHALL BE STRIPPED OF ALL ORGANIC MATTER AND TOP SOIL. THE TOP 1 FOOT SHALL BE SCARIFIED AND COMPACTED TO 95% OF MAX. DENSITY (ASTM D1557).
  - FENCE AROUND POND SHALL BE CHAIN LINK FENCE TYPE 3, REFER TO WSDOT STANDARD PLANS NO.'S L-2 AND L-3.
  - INSTALL 6" OF COMPACTED CSTC ON TOP OF DIKES AND ACCESS ROAD OF THE POND. THE MIN. WIDTH IS 12 FT.
  - DIKES OF THE DETENTION PONDS SHALL BE CONSTRUCTED OF THE SITE SOILS CONSISTING OF SILTY SAND. EMBANKMENT CONSTRUCTION SHALL BE IN ACCORDANCE TO SECTION Z-03.3(14) COMPACTION METHOD C OF THE WSDOT 1994 STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION.
  - PRIOR TO CONSTRUCTION, THE EXISTING LEACH FIELD SHALL BE RELOCATED PER SPOKANE COUNTY HEALTH DISTRICT GUIDELINES. THE CONTRACTOR IS RESPONSIBLE FOR ALL NECESSARY PERMITS, DESIGN, COORDINATION WITH RESIDENT AND PROPERTY RESTORATION.
  - THE GRADATION OF THE COVER ON PVC LINER SHALL BE 1" MINUS.
  - ALL WORK AND MATERIALS SHALL BE IN CONFORMANCE WITH THE "SPOKANE COUNTY STANDARDS FOR ROAD AND SEWER CONSTRUCTION 1995", AND AS AMENDED.
  - LOCATIONS OF EXISTING UTILITIES SHOWN IN PLANS ARE APPROX. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES, ANY CONFLICTING UTILITIES SHALL BE RELOCATED PRIOR TO CONSTRUCTION OF ROAD AND DRAINAGE FACILITIES.

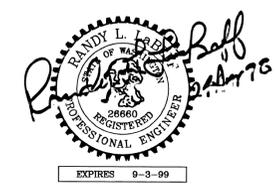


WEST DETENTION POND COORDINATES

PT. No.	NORTH	EAST	DESCRIPTION
1	7111.01	2992.32	RAD PT
2	7195.38	2958.72	RAD PT
3	7195.19	2980.96	RAD PT
4	7133.17	3008.46	RAD PT
5	7134.02	3008.06	TOE OF RD
6	7152.30	2999.96	TOE OF RD
7	7162.87	3008.40	TOE OF POND
8	7107.50	2983.57	END OF PIPE
11	7102.34	2955.83	FLOW RESTRICTOR
12	7119.71	2905.57	END OF PIPE
13	7181.21	3054.81	SDMH #6
14	7127.20	3063.70	FEN COR
15	7057.70	3019.28	FEN COR
16	7056.77	2955.31	FEN COR
17	7238.87	2882.07	FEN COR
18	7241.96	3037.20	FEN COR



- NOTES:
- OFFSET MANHOLE COVER SO THAT CLEAN OUT GATE IS VISIBLE AT EDGE OF OPENING AND DIRECTLY OVER THE LADDER.
  - ALL METAL PARTS AND SURFACES SHALL BE CORROSION RESISTANT OR GALVANIZED.
  - ALL FITTINGS SHALL BE WATER TIGHT.
- NOTE:  
ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH 1994 STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION AS PROMULGATED JOINTLY BY THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT), THE AMERICAN PUBLIC WORKS ASSOCIATION (APWA) AND AS AMENDED BY SPOKANE COUNTY STANDARDS FOR ROAD & SEWER CONSTRUCTION (SCRS) 1995 & HERETO.



DEVELOPER'S APPROVAL  
CALL BEFORE YOU DIG 456-8000

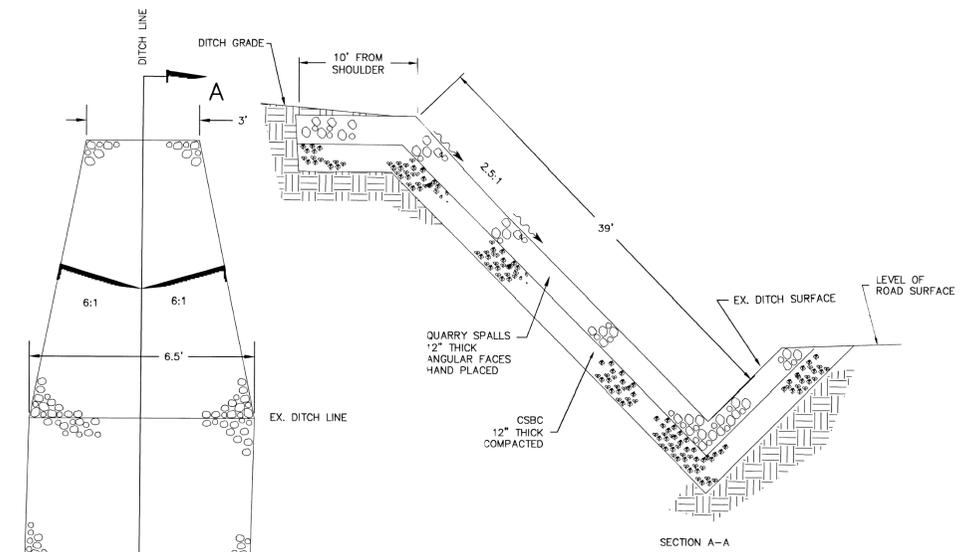
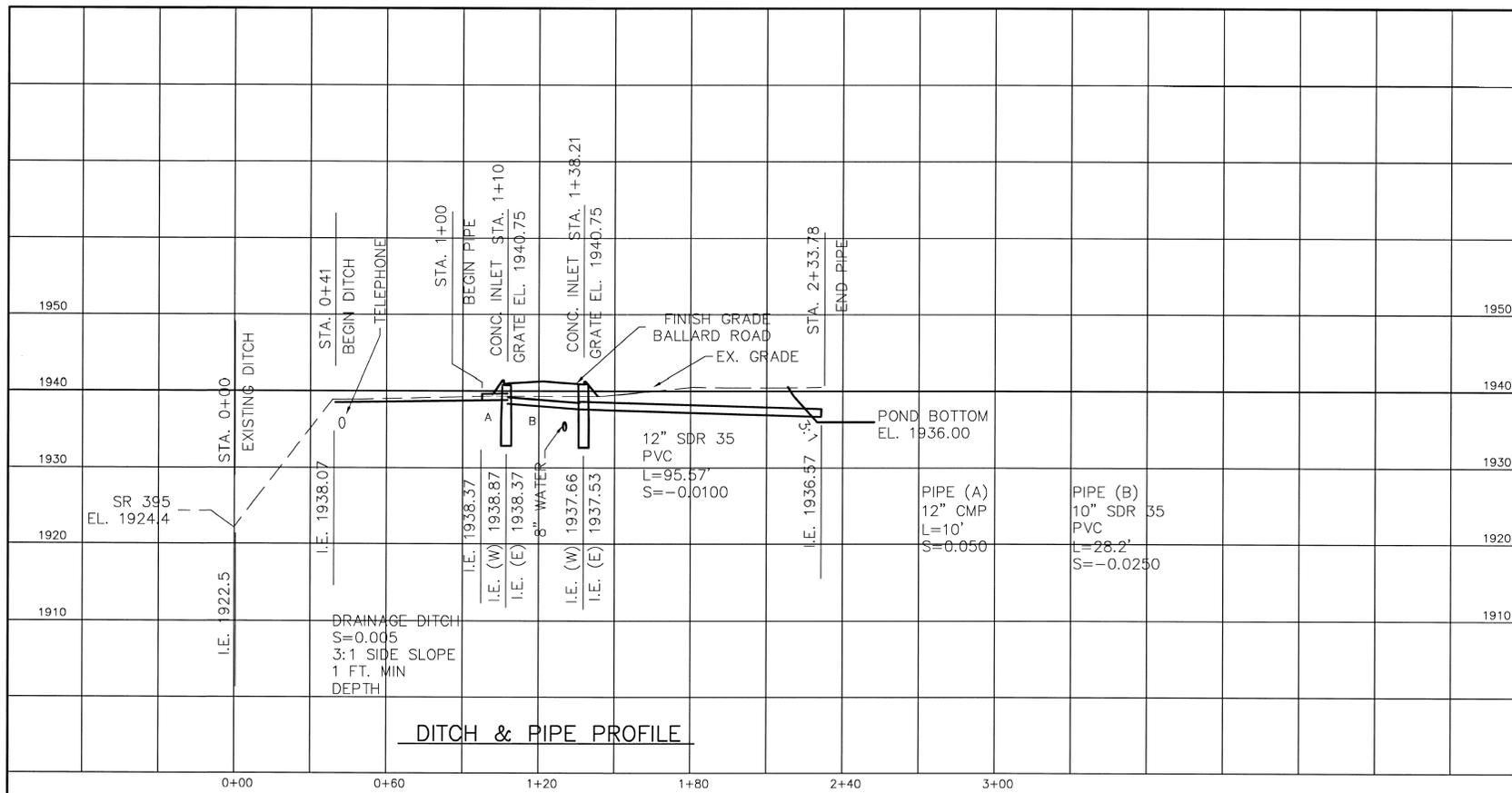
GRADE ORDINANCE LIST					COUNTY DATUM	SCALE	DATE
FROM	TO	ORD. NO.	DATE	FILE NO.	TBM	HORIZONTAL	NOV 1997
					ELEVATION 1943.71	VERTICAL 1"=20'	CHECKED
					LOCATION 28' EAST OF CENTERLINE OF MATCH ROAD, 61' NORTH OF SOUTH PLAT BOUNDARY, WESTWOOD ESTATES, 92		APPROVED

BY	REVISIONS	DATE	PROJ.	FROM	AS BUILT	TO	ACCEPT

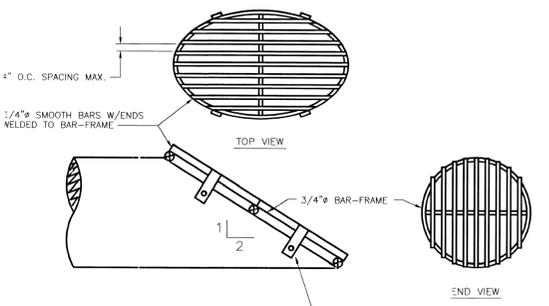
AC ADAMS & CLARK, Inc.  
1720 W. Fourth Ave.  
Spokane, Wa. 99204-1702  
509-747-4600

CAMBRIDGE KNOLL FIRST ADDTION  
WEST DETENTION POND

TYPE OF IMPROVEMENT: DRAINAGE	
PROJECT NUMBER	PLAN NUMBER
97-133	5



QUARRY SPALLS DETAIL  
NOT TO SCALE

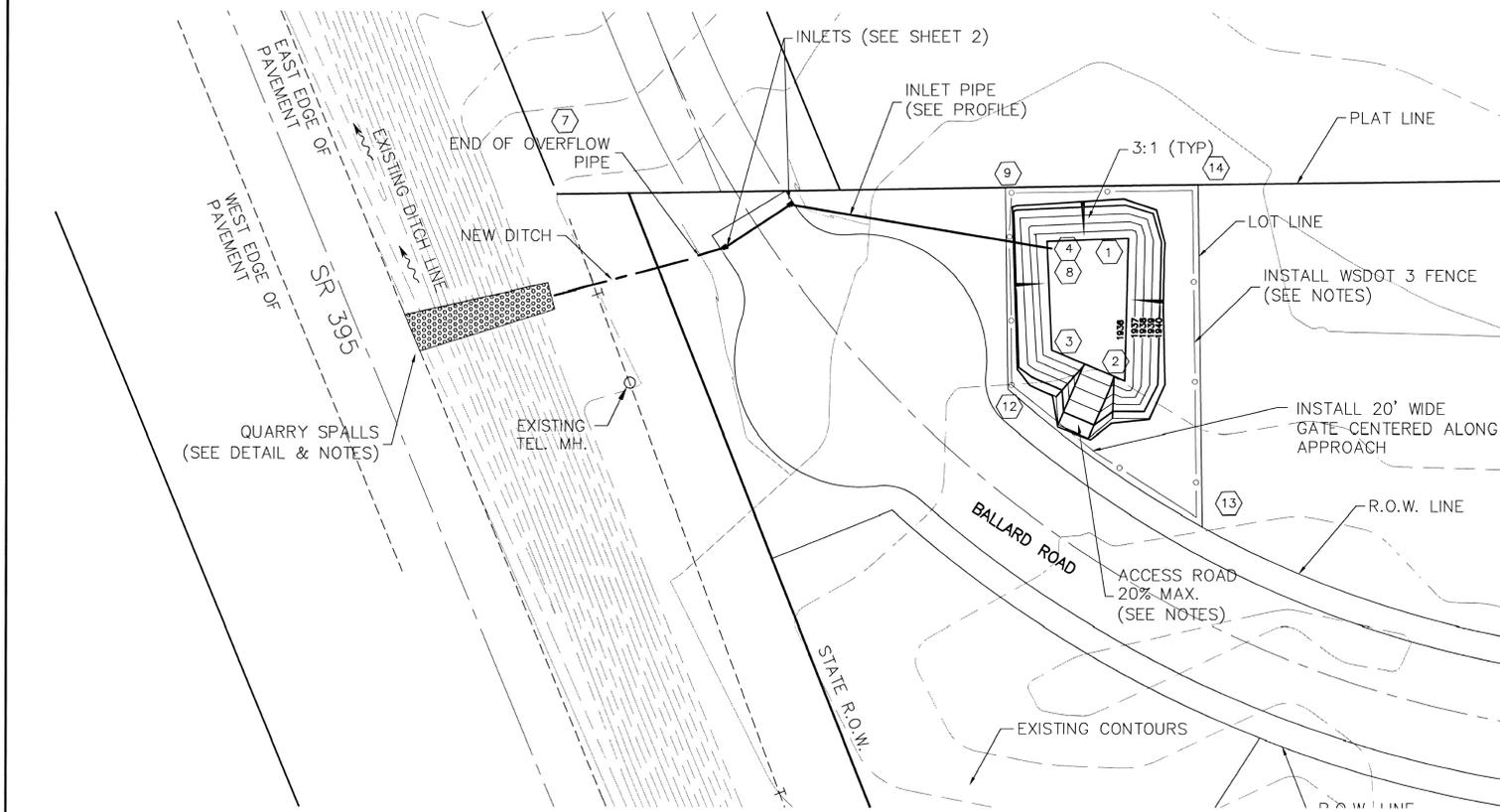


PIPE GRATE DETAIL  
NOT TO SCALE

NOTES:

- FENCE AROUND POND SHALL BE CHAIN LINK FENCE TYPE 3, REFER TO WSDOT STANDARD PLANS NO.'S L-2 AND L-3.
- ALL WORK AND MATERIALS SHALL BE IN CONFORMANCE WITH THE "SPOKANE COUNTY STANDARDS FOR ROAD AND SEWER CONSTRUCTION 1995", AND AS AMENDED.
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- PRIOR TO SITE CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR LOCATING UNDERGROUND UTILITIES. CALL THE UNDERGROUND UTILITY LOCATION SERVICE AT 456-8000 BEFORE YOU DIG.
- PLACE 6 IN. OF COMPACTED CSTC ON TOP OF ACCESS ROAD OF THE POND. THE MINIMUM WIDTH IS 12 FT.
- CORRUGATED METAL PIPE (CMP) SHALL BE 16 GAGE STEEL WITH 0.064 IN. OF GALVANIZED COATING.
- QUARRY SPALLS SHALL MEET THE GRADING REQUIREMENTS OF SECTION 9-13.6 OF THE WSDOT STANDARD SPECIFICATIONS. TWELVE IN. OF CSBC SHALL BE PLACED UNDER THE QUARRY SPALLS.
- STORM DRAIN MANHOLES (SDMH) ARE W.S.D.O.T. CATCH BASINS TYPE 2, 48" DIA., UNLESS DETAILED OTHERWISE, WITH SPOKANE CO. METAL FRAME AND SOLID COVER - TYPE 4, LABELED "STORM".

NOTE:  
ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH 1998 STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION AS PROMULGATED JOINTLY BY THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT), THE AMERICAN PUBLIC WORKS ASSOCIATION (APWA) AND AS AMENDED BY SPOKANE COUNTY STANDARDS FOR ROAD & SEWER CONSTRUCTION (SCRS) 1995 & HERETO.



NORTHWEST RETENTION POND  
SCALE: 1" = 30'

NORTHWEST RETENTION POND COORDINATES

PT. No.	NORTH	EAST	DESCRIPTION -
1	7627.10	2901.64	POND BOTTOM
2	7571.93	2900.40	POND BOTTOM
3	7585.62	2872.90	POND BOTTOM
4	7624.86	2870.64	POND BOTTOM
7	7619.35	2744.98	END OF PIPE
8	7621.88	2872.40	END OF PIPE
9	7642.05	2857.70	FENCE CORNER
12	7572.61	2858.14	FENCE CORNER
13	7525.41	2925.06	FENCE CORNER
14	7642.89	2923.26	FENCE CORNER

SPOKANE COUNTY ENGINEERS OFFICE  
OFFICIAL PUBLIC DOCUMENT ORIGINAL  
**CONSTRUCTION PLANS**  
PROJECT #: **F1201-A**  
DATE ACCEPTED: **2/20/99**  
ACCEPTANCE EXPIRES: **3/31/99**  
PROJECT LANE MILES PUBLIC: **0.13**  
CONSTRUCTION DOCUMENTATION AND CERTIFIED RECORD DRAWINGS, "AS BUILT" ARE REQUIRED PRIOR TO COUNTY ACCEPTANCE AND ESTABLISHMENT OF THE ROADS AND DRAINAGE FACILITIES FOR MAINTENANCE.  
PERMIT REQUIRED! (RCS) **04/09/99**  
NOTIFY PERMIT ENGINEER 2 BUSINESS DAYS PRIOR TO CONSTRUCTION



*Randy L. LePore*  
DEVELOPER'S APPROVAL

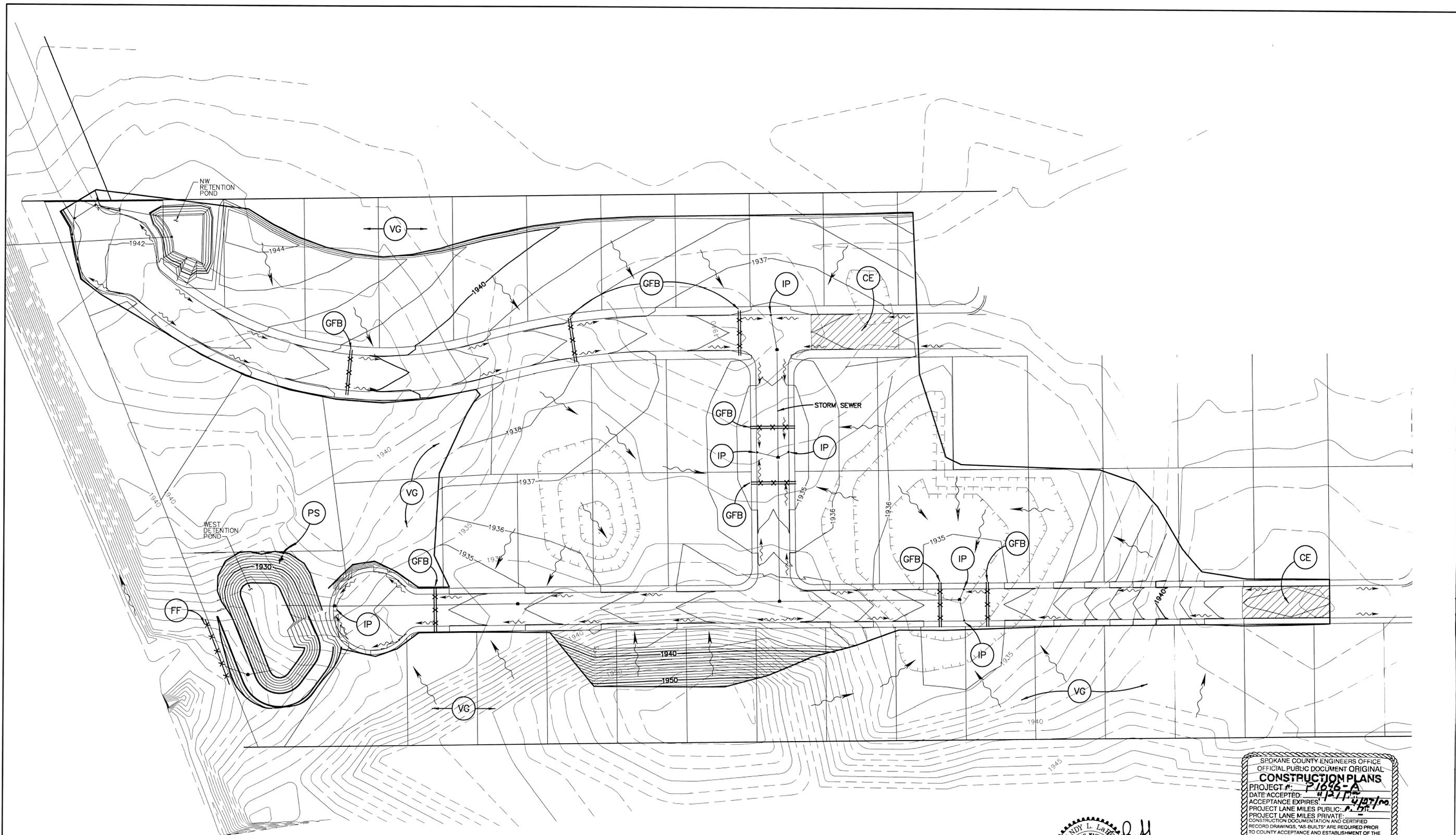
CALL BEFORE YOU DIG 456-8000

BY	REVISIONS	DATE	PROJ.	FROM	AS BUILT	TO	ACCEPT	GRADE ORDINANCE LIST			COUNTY DATUM		SCALE		DATE		
								FROM	TO	ORD. NO.	DATE	FILE NO.	TBM	NO. OF SPINS IN WEST FACE OF POWER POLE	HORIZONTAL AS NOTED	DATE	DRAWN

**AC** ADAMS & CLARK, Inc.  
1720 W. Fourth Ave.  
Spokane, Wa. 99204-1702  
509-747-4600

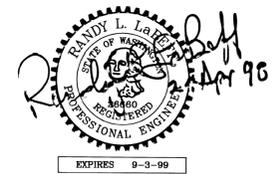
CAMBRIDGE KNOLL FIRST ADDTION  
NORTHWEST RETENTION POND

TYPE OF IMPROVEMENT: DRAINAGE	
PROJECT NUMBER	PLAN NUMBER
97-133	6



NOTE: ALL DISTURBED AREAS IN WSDOT R.O.W., DRAINAGE PONDS, CUT AND FILL SLOPES ARE TO BE PERMANENTLY SEEDED. (SEE SHEET 8)

- LEGEND**
- EXISTING CONTOURS
  - PROPOSED CONTOURS
  - CUT/FILL LIMITS
  - DIRECTION OF FLOW



SPOKANE COUNTY ENGINEERS OFFICE  
 OFFICIAL PUBLIC DOCUMENT ORIGINAL  
**CONSTRUCTION PLANS**  
 PROJECT #: **P1695-A**  
 DATE ACCEPTED: **4/27/98**  
 ACCEPTANCE EXPIRES: **4/27/00**  
 PROJECT LANE MILES PUBLIC: **0.21**  
 PROJECT LANE MILES PRIVATE: **0.00**  
 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) 456-3000  
 NOTIFY PERMIT ENGINEER 2 BUSINESS DAYS PRIOR TO CONSTRUCTION.

*Barth H. Simpson*  
 DEVELOPER'S APPROVAL

BY	REVISIONS	DATE	PROJ.	FROM	AS BUILT	TO	ACCEPT

BENCH MARK DATUM	SCALE	DATE
TBM	HORIZONTAL 1"=	2/98
ELEVATION	VERTICAL 1"=	
LOCATION		

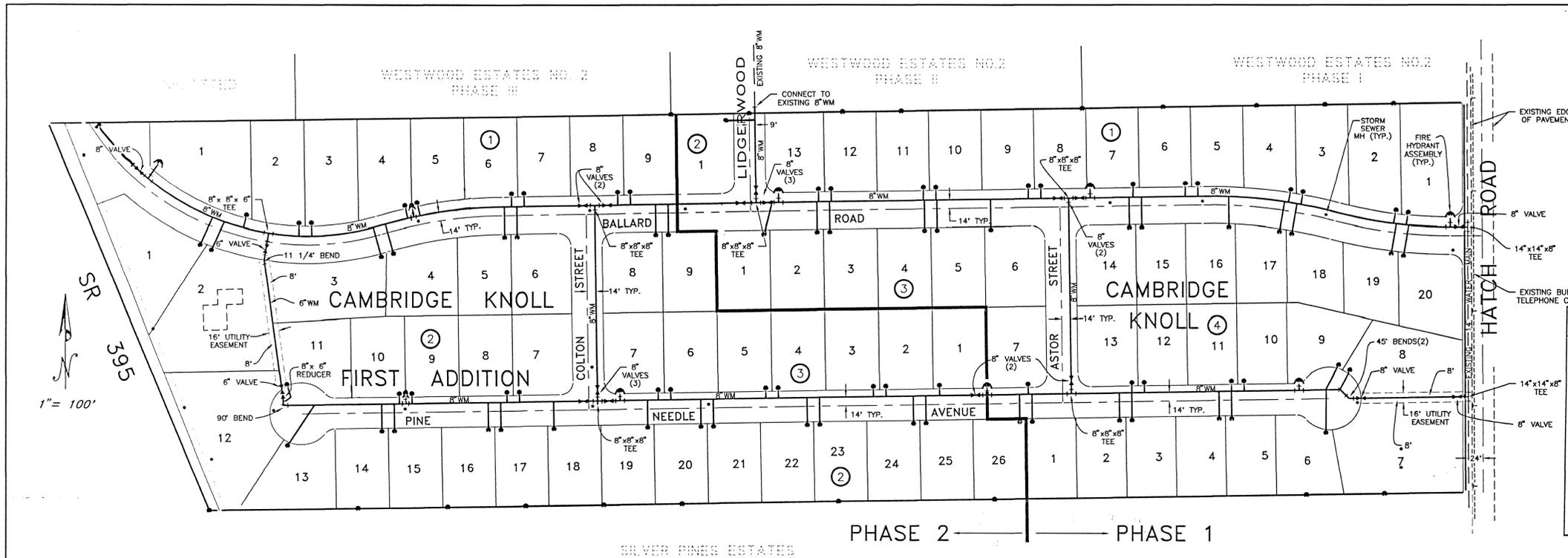
**AC ADAMS & CLARK, Inc.**  
 1720 W. Fourth Ave.  
 Spokane, Wa. 99204-1702  
 509-747-4600

**CAMBRIDGE KNOLL FIRST ADDITION**  
 GRADING AND EROSION  
 CONTROL PLAN

CALL BEFORE YOU DIG 456-8000	
TYPE OF IMPROVEMENT:	<b>EROSION</b>
PROJECT NUMBER	PLAN NUMBER
<b>97-133</b>	<b>7</b>

G:\PROJECTS\94-001\4001ec1.dwg F:\1 Apr 24 13:26:36 1998 RLL





**CONSTRUCTION NOTES:**

- 1) All Water Pipe Shall be A.P.W.A. C900 Cl. 150 P.V.C. and Installed in Accordance with the Manufacturer's Recommendations.
- 2) Waterlines Shall have a Minimum of 4.5' of Cover to Finished Grade.
- 3) All Construction Shall Conform with the WSDOT/APWA 1991 Standard Specifications for Road, Bridge, and Municipal Construction, and Whitworth Water District #2 Standards.
- 4) All Valves Shall Include an Approved Valve Box and Cover.
- 5) Thrust Blocks Shall be Installed at all Locations Shown in the Thrust Block Detail.
- 6) All Services to be 1" Copper, per AWWA Standards.
- 7) Remove and Replace Asphalt on Hatch Road.

**RECORD DRAWING for Phase 1**

San. Sewer  Water Distribution  Street/Road  Drainage  
 Other

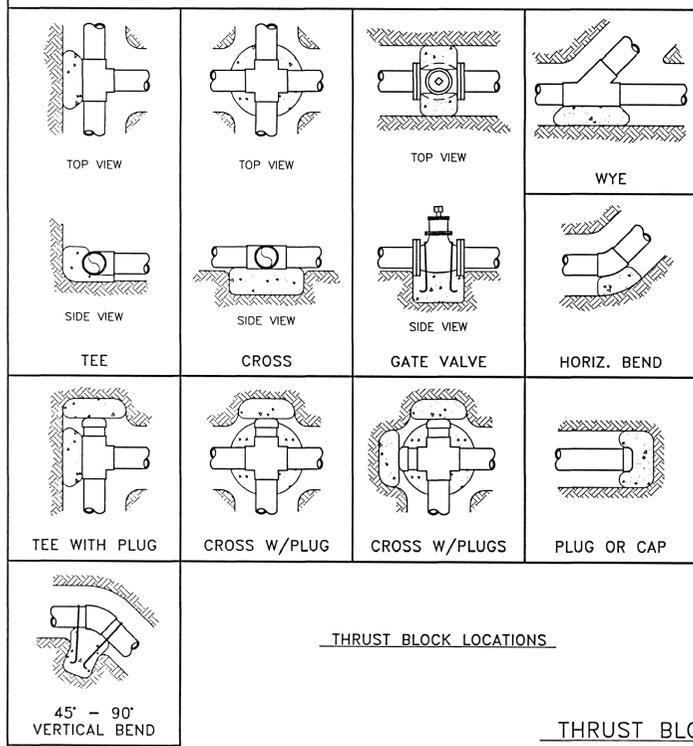
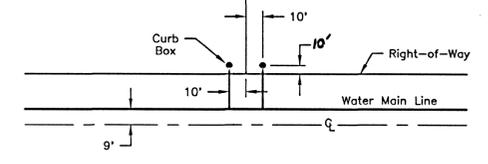
1. INFORMATION OBTAINED FROM:  
*Field Survey by ASC crew*

2. CONTRACTOR: *Cary & Sons*  
CONSTRUCTION PERIOD: *Spring '96*

3. DRAWING REVISIONS BY: *AK* DATE: *11 July 96*

4. CHECKED BY: *AK* DATE: *16 July 96*

Document Limitation: This document only represents an illustration of improvements recorded in place and is not an exact representation of location or placement. This does not certify acceptability or approvability of construction work performed. Actual location of improvements should be verified by user and appropriate agencies.



**THRUST LOADS**

THRUST AT FITTINGS IN POUNDS AT 200 POUNDS PER SQUARE INCH OF WATER PRESSURE

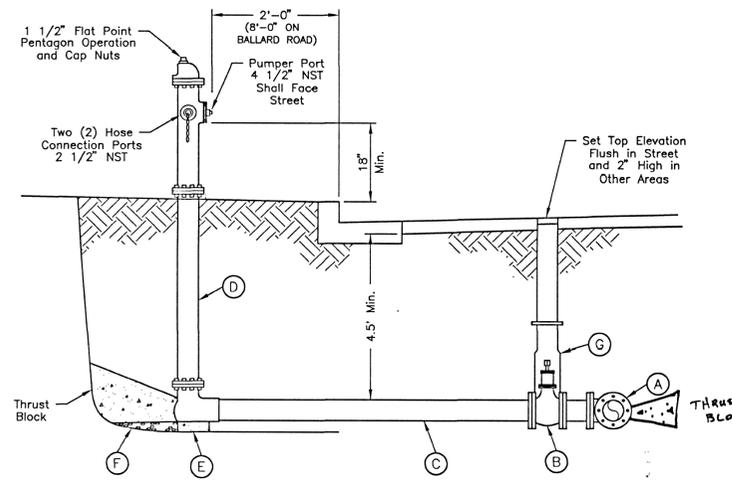
PIPE DIAMETER	90° BEND	45° BEND	22 1/2° BEND	11 1/4° BEND	DEAD END OR TEE
4"	3,600	2,000	1,000	500	2,600
6"	8,000	4,400	2,300	1,200	5,700
8"	14,300	7,700	4,000	2,000	10,100
10"	22,300	12,100	6,200	3,100	15,800
12"	32,000	17,400	8,900	4,500	22,700
14"	43,600	23,600	12,100	6,100	30,800
16"	57,000	30,800	15,700	7,900	40,300

**SAFE SOIL BEARING LOADS**

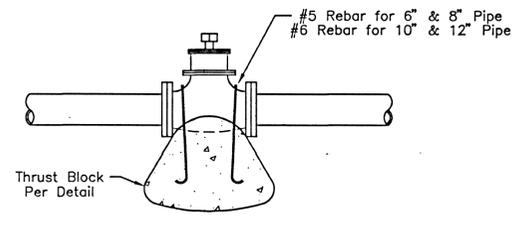
FOR HORIZONTAL THRUSTS WHEN THE DEPTH OF COVER OVER THE PIPE EXCEEDS 2 FEET

SOIL	POUNDS PER SQUARE FOOT
MUCK, PEAT	0
SOFT CLAY	1,000
SAND	2,000
SAND & GRAVEL	3,000
SAND & GRAVEL CEMENTED W/CLAY	4,000
HARD SHALE	10,000

- NOTES:**
1. Blocking Shall be Cement Concrete Class "B" Poured in Place Against Undisturbed Earth. Fitting Shall be Isolated From Concrete Thrust Block with Plastic or Similar Material.
  2. To Determine the Bearing Area of the Thrust Block in Square Feet (S.F.):  
EXAMPLE: 12" - 90° Bend in Sand & Gravel  
32,000 LBS - 3,000 LB/S.F. = 10.7 S.F. of Area
  3. Areas Must be Adjusted for Other Pipe Size, Pressures and Soil Conditions.
  4. Blocking Shall be Adequate to Withstand Full Test Pressure as Well as to Continuously Withstand Operating Pressure Under All Conditions of Service.
  5. Plastic Barrier Shall be Placed Between all Thrust Blocks and Fittings.
  6. See "TYPICAL STEEL STRAP INSTALLATION Detail for Anchor Rebar Sizes.



- A) Main Size x Main Size x 6" Flanged Cast Iron Tee
- B) 6" Gate Valve with Resilient Seat. "O" Ring Packing Glands Bronze Seated with Non-Rising Stem
- C) 6" AWWA C900 Class 150 Spool (5' Min. Length)
- D) Fire Hydrant Shall be Traffic Model, Type M&H 29T; Kennedy K-21; Dresser 500; or Equal. Valves and Covers Shall Open CCW. Hydrant Shall have 5 1/4" Valve Opening. Be Self-Draining with Two (2) 5/16" Minimum Drain Holes. Hydrant Shall be AWWA Approved.
- E) 12" x 12" x 4" Bearing Block
- F) 7 Cu. Ft. of 1 1/2" Washed Drain Rock Covered with 4 Mil. Polyethylene Sheeting.
- G) Cast Iron Box. Valve Box Shall have a Minimum Bottom Section Diameter of 6". Top Section Shall have a Minimum Length of 14" and be Capable of Holding Tyler 16T 6855, 6885 Lid or Equal.



*Bennett Simpson*  
DEVELOPER'S APPROVAL

THE FOLLOWING AGENCIES CERTIFY THAT THIS WATER PLAN IS IN CONFORMANCE WITH THEIR NEEDS AND REGULATIONS.

*Whitworth Water District* 6-7-95  
*Spokane County Building and Safety District* 6/7/95  
*Spokane County Health District* 6-7-95  
*Washington State Department of Health* 6/7/95

GRADE ORDINANCE LIST					DATUM	SCALE	DATE
FROM	TO	ORD. NO.	DATE	FILE NO.	1943.71	1"=100'	JUNE 1995
BY	REVISIONS	DATE	PROJ.	FROM	AS BUILT	TO	ACCEPT

**AC ADAMS & CLARK, Inc.**  
1720 W. Fourth Ave.  
Spokane, Wa. 99204-1702  
509-747-4600

**CAMBRIDGE KNOLL**  
CAMBRIDGE KNOLL FIRST ADDITION  
WATER PLAN AND DETAILS

TYPE OF IMPROVEMENT: WATER	
PROJECT NUMBER	PLAN NUMBER
94-001	10