





Associates, Inc.  
Planning  
Engineering  
Architecture  
Landscape Architecture  
Civil Engineering  
127 W. 7th Avenue, Suite 200  
Spokane, WA 99201  
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Fax: (509) 466-6622

**GENERAL NOTES**

1. ALL MATERIALS, WORKMANSHIP, AND CONSTRUCTION OF SITE IMPROVEMENTS SHALL MEET OR EXCEED SITE WORK STANDARDS AND THE STANDARDS AND SPECIFICATIONS SET FORTH IN SPOKANE COUNTY REGULATIONS AND APPLICABLE STATE AND FEDERAL REGULATIONS. WHERE THERE IS A CONFLICT BETWEEN THESE STANDARDS OR SPECIFICATIONS AND ANY APPLICABLE STANDARDS, THE HIGHER QUALITY STANDARD SHALL APPLY. ALL WORK WITHIN PUBLIC R.O.W. OR EASEMENTS SHALL BE INSPECTED AND APPROVED BY THE SPOKANE COUNTY INSPECTOR. INSPECTION SERVICES AND CONSTRUCTION CERTIFICATION TO BE PROVIDED BY ENGINEER OR RECORDS.
2. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES, AS SHOWN ON THESE PLANS, IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST AT THE LOCAL UTILITY LOCATION CENTER AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REVEAL EXACT FIELD LOCATIONS OF THE UTILITIES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL VERIFY PERTINENT LOCATIONS AND ELEVATIONS, ESPECIALLY AT THE CONNECTION POINTS AND AT POTENTIAL UTILITY CONFLICTS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES THAT CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM ALL APPLICABLE AGENCIES. THE CONTRACTOR SHALL NOTIFY THE SPOKANE COUNTY INSPECTOR AT LEAST 48 HOURS PRIOR TO THE START OF ANY EARTH DISTURBING ACTIVITY, OR CONSTRUCTION ON ANY AND ALL PUBLIC IMPROVEMENTS.
4. THE CONTRACTOR SHALL COORDINATE AND COOPERATE WITH THE SPOKANE COUNTY AND ALL UTILITY COMPANIES INVOLVED WITH REGARD TO THE RECORDS OR ADJUSTMENT OF EXISTING UTILITIES DURING CONSTRUCTION AND TO ASSURE THAT THE WORK IS ACCOMPLISHED IN A TIMELY FASHION AND WITH A MINIMUM DISRUPTION OF SERVICE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL PARTIES AFFECTED BY ANY DISRUPTION OF ANY SERVICE.
5. THE CONTRACTOR SHALL MAKE ONE (1) SIGNED COPY OF THE APPROVED PLANS, ONE (1) COPY OF THE APPROPRIATE STANDARDS AND SPECIFICATIONS, AND A COPY OF ANY PERMITS AND EXTENSION AGREEMENTS NEEDED FOR THE JOB, ON-SITE AT ALL TIMES.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ASPECTS OF SAFETY INCLUDING, BUT NOT LIMITED TO, EXCAVATION, TRENCHING, SHORING, TRAFFIC CONTROL, AND SECURITY.
7. IF, DURING THE CONSTRUCTION PROCESS, CONDITIONS ARE ENCOUNTERED BY THE CONTRACTOR, HIS SUBCONTRACTORS, OR OTHER AFFECTED PARTIES, WHICH COULD INDICATE A SITUATION THAT IS NOT IDENTIFIED IN THE PLANS OR SPECIFICATIONS, THE CONTRACTOR SHALL CONTACT THE ENGINEER IMMEDIATELY.
8. ALL REFERENCES TO ANY PUBLISHED STANDARDS SHALL REFER TO THE LATEST REVISION OF SAID STANDARD, UNLESS SPECIFICALLY STATED OTHERWISE.
9. THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN, IN ACCORDANCE WITH M.U.T.C.D., TO THE APPROPRIATE RIGHT-OF-WAY AUTHORITY SPOKANE COUNTY, FOR APPROVAL, PRIOR TO ANY CONSTRUCTION ACTIVITIES WITHIN, OR AFFECTING, THE RIGHT-OF-WAY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ANY AND ALL TRAFFIC CONTROL DEVICES AS MAY BE REQUIRED BY THE CONSTRUCTION ACTIVITIES.
10. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL LABOR AND MATERIALS NECESSARY FOR THE COMPLETION OF THE INTENDED IMPROVEMENTS SHOWN ON THESE DRAWINGS OR DESIGNATED TO BE PROVIDED, INSTALLED, CONSTRUCTED, REMOVED AND RELOCATED UNLESS SPECIFICALLY NOTED OTHERWISE.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ROADWAYS FREE AND CLEAR OF ALL CONSTRUCTION DEBRIS AND DIRT TRACKED FROM THE SITE.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RECORDING RECORD INFORMATION ON A SET OF RECORD DRAWINGS KEPT AT THE CONSTRUCTION SITE, AND AVAILABLE TO THE SPOKANE COUNTY INSPECTOR AT ALL TIMES.
13. DIMENSIONS FOR LAYOUT AND CONSTRUCTION ARE NOT TO BE SCALED FROM ANY DRAWING. IF PERTINENT DIMENSIONS ARE NOT SHOWN, CONTACT THE CONSULTANT ENGINEER FOR CLARIFICATION, AND ANNOTATE THE DIMENSION ON THE RECORD DRAWINGS.
14. ALL STRUCTURAL EROSION CONTROL MEASURES SHALL BE INSTALLED, AT THE LIMITS OF CONSTRUCTION, PRIOR TO ANY OTHER GROUND-DISTURBING ACTIVITY. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED IN GOOD REPAIR BY THE CONTRACTOR, UNTIL SUCH TIME AS THE ENTIRE DISTURBED AREA IS STABILIZED WITH HARD SURFACE OR LANDSCAPING.
15. THE CONTRACTOR SHALL SEQUENCE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO MINIMIZE POTENTIAL UTILITY CONFLICTS. IN GENERAL, STORM SEWER AND SANITARY SEWER SHOULD BE CONSTRUCTED PRIOR TO INSTALLATION OF WATER LINES AND DRY UTILITIES.
16. ALL WORK WITHIN THE PUBLIC RIGHT-OF-WAY IS SUBJECT TO THE JURISDICTION OF THE SPOKANE COUNTY ENGINEERING DEPARTMENT STANDARDS DETAILS AND SPECIFICATIONS.
17. THE CONTRACTOR SHALL SUBMIT A PHASING PLAN FOR ALL WORK IN PUBLIC ROADS AND R.O.W.'S TO THE SPOKANE COUNTY BEFORE BEGINNING ANY WORK ON THESE ROADS. CONTRACTOR SHALL BEGIN WORK ONLY AFTER THE SPOKANE COUNTY APPROVES THE PHASING PLAN, AND A PRE-CONSTRUCTION MEETING IS HELD BETWEEN THE SPOKANE COUNTY ENGINEER AND THE CONTRACTOR.
18. ALL OPERATIONS CONDUCTED ON THE PREMISES, INCLUDING THE WARMING UP, REPAIR, ARRIVAL, DEPARTURE OR RUNNING OF TRUCKS, EARTH MOVING EQUIPMENT, CONSTRUCTION EQUIPMENT AND ANY OTHER ASSOCIATED EQUIPMENT SHALL GENERALLY BE LIMITED TO THE PERIOD BETWEEN 6:30 A.M. AND 10:00 P.M. EVERYDAY UNLESS OTHERWISE APPROVED BY THE SPOKANE COUNTY ENGINEER.
19. BASED ON A REQUIREMENT FROM A LOCAL JURISDICTION THE ENGINEER OR HIS DESIGNEE SHALL PERFORM MATERIALS TESTING AND QUALITY CONTROL ON THE PROJECT AND SHALL SUBMIT COPIES OF DAILY REPORTS, TEST REPORTS, PROJECT CERTIFICATION AND RECORD DRAWINGS TO THE SPOKANE COUNTY ENGINEER.
20. NO REVISIONS SHALL BE MADE TO THESE PLANS WITHOUT THE APPROVAL OF THE SPOKANE COUNTY ENGINEER AND NOTIFICATION OF THE ENGINEER OF RECORD.
21. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ALL UTILITY RELOCATIONS CONSISTENT WITH THE CONTRACTORS SCHEDULE FOR THIS PROJECT, WHETHER SHOWN OR NOT SHOWN, AS RELATES TO THE CONSTRUCTION ACTIVITIES CONTEMPLATED IN THESE PLANS.

**STORM DRAINAGE NOTES**

1. SEE STREET PLAN AND PROFILE SHEETS FOR DRYWELL AND CATCH BASIN TYPES AND LOCATIONS.
2. SWALES SHALL BE CONSTRUCTED PER THE REQUIREMENTS OF THESE DRAWINGS INCLUDING GRADING, SOIL, AND DRYWELL INSTALLATION. ALL SWALES WITHIN TRACTS SHALL INCLUDE AN IRRIGATION SYSTEM. ALL IRRIGATION SHALL CONFORM TO SPOKANE COUNTY SWALE IRRIGATION SYSTEM GUIDELINES.
3. ALL "208" SWALES SHOWN SHALL BE ROUGH GRADED PRIOR TO PAVING OF ADJACENT ROADWAY.
4. CONTRACTOR SHALL PROVIDE SPOKANE COUNTY WITH RECORD IRRIGATION PLANS UPON COMPLETION OF ALL SWALE CONSTRUCTION.
5. INSTALL "AMCOQ" #4545 FILTER FABRIC (OR APPROVED EQUAL) IN ALL DRYWELLS SEE SPOKANE COUNTY STANDARDS (2001 EDITION) SHEET 8-1a-10 FOR INSTALLATION LOCATIONS.
6. ALL SWALES WITHIN THE COUNTY RIGHT-OF-WAY, IN THE AREA ASSOCIATED WITH THIS PROJECT, SHALL BE COMPLETED DURING THE CONSTRUCTION OF THE ROADWAY. THE CONTRACTOR SHALL PERFORM THE SWALE GRADE WORK, INSTALL THE IRRIGATION SYSTEM, AND PLACE THE SOIL WITHIN THE SWALES FOLLOWING THE ROAD PAVING WORK.
7. THE CONTRACTOR SHALL MAKE AN EFFORT TO PROTECT ALL DRAINAGE STRUCTURES FROM BEING CONTAMINATED WITH SILT BY INSTALLING FILTER FABRIC UNDER THE LID FOR AT LEAST 8 WEEKS, OR UNTIL THE ESTABLISHMENT OF GRASS AND/OR OTHER SITE CONSTRUCTION WORK HAS ENDED. IN THE EVENT THAT SILT OR OTHER DELETERIOUS MATERIAL IS ALLOWED TO ENTER THE DRYWELLS OR CATCH BASINS, THE CONTRACTOR WILL BE REQUIRED TO CLEAN THE DRYWELL OR CATCH BASIN OUT TO THE SATISFACTION OF THE CERTIFYING ENGINEER.
8. ALL LANDSCAPE AREAS ("208" SWALES) ARE TO BE IRRIGATED BY AN AUTOMATIC IRRIGATION SYSTEM INSTALLED BY OR UNDER THE DIRECTION OF THE LANDSCAPE CONTRACTOR. THE IRRIGATION SYSTEM SHALL COMPLY WITH ALL LOCAL CODES AND ORDINANCES (90 DAY GUARANTEE). AN APPROVED BACKFLOW DEVICE SHALL BE INSTALLED TO PREVENT WATER FROM GOING BACK INTO THE WATER SUPPLY.
- SLEEVING: PROVIDE SLEEVING AS REQUIRED UNDER SIDEWALKS, PATHS, CURBING, PAVING, ETC. AS NEEDED FOR IRRIGATION ACCESS. ALL SLEEVING TO BE 4" MINIMUM PVC, WITH AT LEAST 12" OF COVER (1) FOOT BELOW FINISH GRADE. THE OWNER/GENERAL CONTRACTOR IS RESPONSIBLE FOR INSTALLING SLEEVING BEFORE CURBING, SIDEWALKS, PAVING, ETC. IS INSTALLED. PATCH ASPHALT AS NEEDED.
- LAWN AREAS: LAWN AREAS ARE TO BE IRRIGATED WITH TOP POP-UP HEADS OR EQUIVALENT. (TEST SYSTEM BEFORE BACKFILLING).
- ADJUSTMENT: AFTER INSTALLATION, ADJUST VALVES, HEADS, EMITTERS, ETC. TO PROVIDE UNIFORM COVER AND TO MINIMIZE OVER SPRAY ON WALLS, FENCES, WALKS, DRIVES, ETC.
- WATER SUPPLY: SUPPLY THE OWNER/ GENERAL CONTRACTOR IS TO SUPPLY WATER TAPS FOR HOOR-UP AND SUPPLY POWER FOR CONTROLLER.
9. THE FLOOR OF A GRASSED PERCOLATION AREA (G.P.A.) IS TO INCLUDE THE LEVEL PORTION OF THE FLOOR OF THE SWALE, AND SIDELOPES OF THE SWALE UP TO THE G.P.A. OVERFLOW SHALL BE A MEDIUM TO WELL-DRAINING MATERIAL, WITH MINIMUM INFILTRATION RATE OF 0.5 INCHES PER HOUR. THE ENGINEER SHALL PROVIDE A WRITTEN STATEMENT WHICH VERIFIES THAT ALL G.P.A. SWALES CONFORM TO THIS REQUIREMENT. THIS WRITTEN STATEMENT SHALL BE SUBMITTED TO THE SPOKANE COUNTY ENGINEER'S OFFICE PRIOR TO INSTALLING FINISHED LANDSCAPING, SOIL AND PRIOR TO FINAL ACCEPTANCE. THE SWALE FLOOR MATERIAL SHALL BE INSTALLED TO NATIVE SOIL STRATUM WHICH ALSO MEETS OR EXCEEDS THIS MINIMUM PERCOLATION RATE OF 0.5 INCHES PER HOUR.

**STREET GENERAL NOTES**

- THE CONTRACTOR SHALL PROVIDE ALL MATERIALS, LABOR, AND EQUIPMENT TO CONSTRUCT AND INSTALL TO PROPER WORKING ALL IMPROVEMENTS AS DETAILED OR CALLED OUT ON THESE PLANS.
1. ALL WORK AND MATERIALS SHALL BE IN CONFORMANCE WITH THE "SPOKANE COUNTY STANDARDS FOR ROAD AND SEWER CONSTRUCTION 2007", AND AS AMENDED.
  2. THE CONTRACTOR IS REQUIRED TO HAVE A VALID CONSTRUCTION PERMIT ON SITE AT ALL TIMES. THE ABSENCE OF THE PERMIT WILL RESULT IN AN IMMEDIATE SHUTDOWN OF WORK AND THE POSSIBLE REMOVAL OF THOSE ITEMS CONSTRUCTED WITHOUT THE PERMIT.
  3. 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.
  4. 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.
  5. IF THE CONTRACTOR DISCOVERS ANY DISCREPANCIES BETWEEN THE PLANS AND EXISTING CONDITIONS ENCOUNTERED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE DESIGN ENGINEER, DAVE N. RANDALL, P.E., # 458-6840, THE SITE/PROJECT INSPECTING ENGINEER OR HIS REPRESENTATIVE, S.T.I. PAUL NELSON, P.E., # 334-9711 AND THE SPOKANE COUNTY ENGINEER'S OFFICE, CONSTRUCTION ENGINEER, # 477-3530.
  6. FOR CONSTRUCTION OF DRYWELLS, INSTALL FILTER FABRIC, "AMCOQ" 4545 OR APPROVED EQUIVALENT, BETWEEN THE DRYWELL BARREL AND THE WASHED DRAINROCK, AND BETWEEN THE WASHED DRAINROCK AND NATIVE SOILS PER SPOKANE COUNTY STANDARD DETAIL B-16-16.
  7. PRIOR TO SITE CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES. CALL THE UNDERGROUND UTILITY LOCATION SERVICE AT 456-8000 BEFORE YOU DIG.
  8. THE CONTRACTOR SHALL MAKE AN EFFORT TO PROTECT ALL CATCH BASINS AND DRYWELLS FROM BEING CONTAMINATED WITH SILT BY INSTALLING FILTER FABRIC UNDER THE LID FOR AT LEAST 8 WEEKS, OR UNTIL THE ESTABLISHMENT OF GRASS AND/OR OTHER SITE CONSTRUCTION WORK HAS ENDED.
  - IN THE EVENT THAT SILT OR OTHER DELETERIOUS MATERIAL IS ALLOWED TO ENTER THE DRYWELLS OR CATCH BASINS, THE CONTRACTOR WILL BE REQUIRED TO CLEAN THE DRYWELL OR CATCH BASIN OUT TO THE SATISFACTION OF THE CERTIFYING ENGINEER.
  9. THE CONTRACTOR SHALL EMPLOY A LICENSED SURVEYOR TO VERIFY THAT THE CROSS-CUTTER FORMS ARE THE CORRECT FINE GRADE PRIOR TO CONCRETE PLACEMENT. THE CROSS-CUTTERS SHALL BE CONSTRUCTED PRIOR TO PAVING, AND THE PAVEMENT SHALL THEN MATCH THE EDGE OF CONCRETE CUTLER.
  10. ALL DRYWELL CONNECTION PIPES SHALL BE PLACED BELOW THE DRYWELL CONE AND SHALL FLOW AS DIRECTED IN THE PLANS.
  11. 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.



PREPARED UNDER THE DEED OF DAVE N. RANDALL, P.E.  
DAVE N. RANDALL, P.E.  
# 458-6840, THE SITE/PROJECT INSPECTING ENGINEER OR HIS REPRESENTATIVE, S.T.I. PAUL NELSON, P.E., # 334-9711 AND THE SPOKANE COUNTY ENGINEER'S OFFICE, CONSTRUCTION ENGINEER, # 477-3530.

APPROVED FOR SUBMITTAL TO SPOKANE COUNTY ENGINEER'S OFFICE  
DATE: 07/19/08

Spokane Co. No. P-1064  
C.L.C. Job Number: 3841269  
Drawn By: RLM  
Checked By: DNR  
Title: FRAGMENT CONSTRUCTION PLANS  
Scale: AS SHOWN  
Date: 07/19/08

STREET AND DRAINAGE CONSTRUCTION PLANS  
FRAGMENT ESTATES FIRST ADDITION  
NOTE SHEET  
SPOKANE COUNTY, WASHINGTON

Sheet Title  
NOTE SHEET  
C1.00A  
Sheet Number

SPOKANE COUNTY ENGINEERS OFFICE OPTIONAL PUBLIC DOCUMENT ORIGINAL CONSTRUCTION PLANS	
PROJECT #:	01819A
DATE ACCEPTED:	8/20/08
ACCEPTANCE EXPRESSES:	4/16/09
PROJECT LANE METERS PRIVATE:	0
PROJECT LANE METERS PUBLIC:	0
PROJECT LANE METERS HIGHWAY:	0
PROJECT LANE METERS OTHER:	0
NO. OF UTILITY RELOCATIONS:	0
NO. OF UTILITY RELOCATIONS AND STRAPS:	0
NO. OF UTILITY RELOCATIONS AND STRAPS:	0
PERMIT REQUIRED:	0
NO. OF PERMIT RELOCATIONS:	0
NO. OF PERMIT RELOCATIONS:	0

COUNTY DATUM  
BASED ON CENTER OF SEWER  
MANHOLE NO. 31 AS SHOWN ON  
MILLCREEK NORTH/SOUTH SEWER  
EXTENSION PLAN SHEET 8 OF 21,  
ELEVATION=196.64'

*Nick Hume*  
DEVELOPER'S APPROVAL  
1/19/08  
DATE  
P18498 Eng Kelly Deavers

SW 1/4 SEC. 32, T.26 N., R.44 E., W.M.  
SPOKANE COUNTY, WASHINGTON

COUNTY DATUM

BASED ON INVERT ELEVATION OF SEWER  
MANHOLE NO. 31 AS SHOWN ON  
MILWOOD-NORTHWOOD SEWER  
EXTENSION PLAN SHEET 8 OF 21.  
ELEVATION=1956.64

UNDERGROUND SERVICE ALERT  
ONE-CALL NUMBER  
456-8000  
CALL TWO BUSINESS DAYS  
BEFORE YOU DIG

Associates, Inc.  
Planning  
Engineering  
Landscape Architecture  
Surveying  
101 W. 1st Avenue, Suite 300  
Spokane, WA 99201  
PH: 509.325.4200  
FAX: 509.325.4201



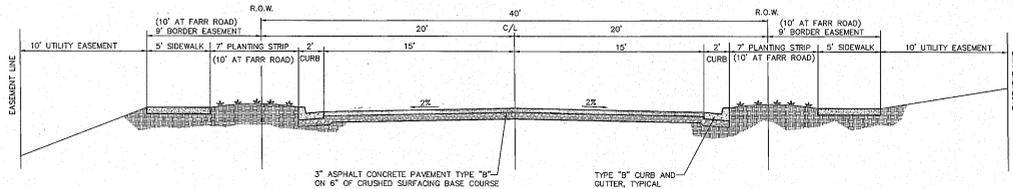
PROVIDED UNDER THE DIRECT  
SUPERVISION OF  
DAVID R. RANDALL, P.E.  
WASHINGTON REGISTRATION  
NO. 35964  
FOR AND ON BEHALF OF  
C.O. ASSOCIATES, INC.

DESIGNED BY: JRM  
DRAWN BY: JRM  
CHECKED BY: JRM  
DATE: 02/17/02

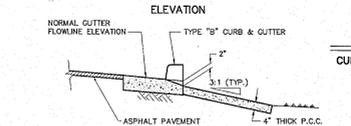
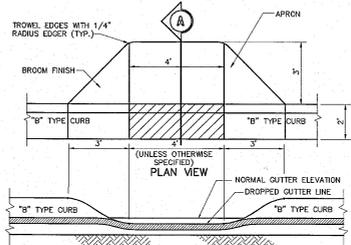
Spokane Co. No. P-1864  
C.C. Job Number: 59907268  
Drawn By: JRM  
Designed By: JRM  
Checked By: JRM  
DATE: 02/17/02

STREET AND DRAINAGE CONSTRUCTION PLANS  
FRASER ESTATES FIRST ADDITION  
SECTIONS AND DETAILS  
SPOKANE COUNTY, WASHINGTON

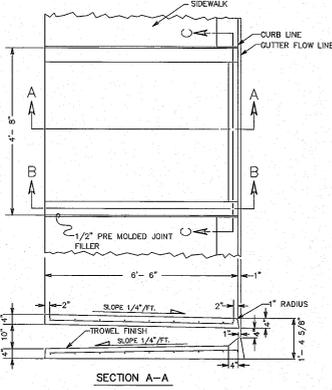
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SECTIONS  
AND DETAILS  
C1.02  
Sheet Number



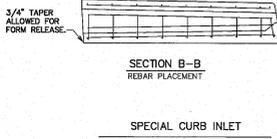
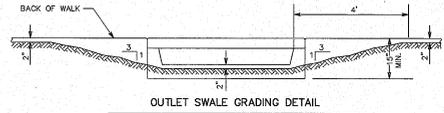
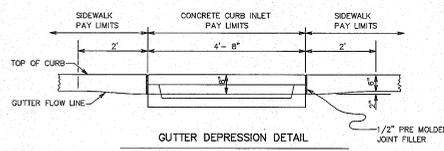
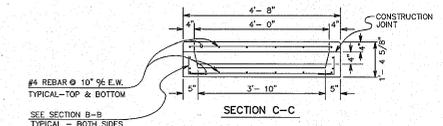
TYPICAL SECTION (INTERIOR OF PLAT)  
NOT TO SCALE



CURB INLET - "B" TYPE CURB DETAIL  
NOT TO SCALE

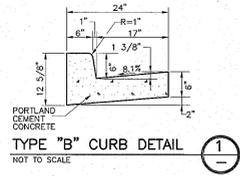


- GENERAL NOTES
- CURB INLET SHALL BE CONSTRUCTED IN ACCORDANCE WITH A.S.T.M. C 478 (A.A.S.H.T.O. M 199) & A.S.T.M. C 880 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE PROJECT SPECIAL PROVISIONS.
  - TOP SURFACE TO BE BROOM FINISHED.
  - ALL EXTERNAL EDGES NOT LABELED SHALL BE TROWELED WITH 1/4" RADIUS EDGER.



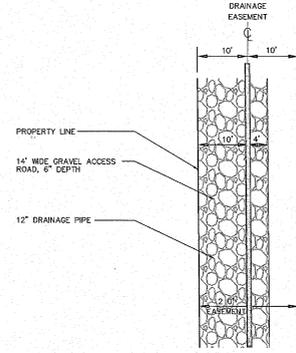
B-9 STANDARD  
CURB INLET TYPE 2

CURB INLET TYPE "2" DETAIL  
NOT TO SCALE



TYPE "B" CURB DETAIL  
NOT TO SCALE

SPOKANE COUNTY ENGINEERS OFFICE  
OFFICIAL PUBLIC DOCUMENT ORIGINAL  
CONSTRUCTION PLANS  
PROJECT # 51510  
DATE ACQUIRED: 8/15/02  
ACCEPTANCE EXPIRES: 8/15/07  
PROJECT LAKE WALES PUBLIC, 6.24  
PROJECT LAKE WALES PRIVATE  
CONSTRUCTION CONSULTATION AND SUPERVISOR  
RECORD DRAWINGS: 26 IN 1/8" SCALE RELAYED FROM  
TO COUNTY ACCEPTANCE AND IS THE PROPERTY OF THE  
SPOKANE COUNTY ENGINEERS OFFICE  
PERMIT REQUIRED! 509.477.2600  
NOTIFY ENGINEER FOR ALL CHANGES



ACCESS ROAD FOR MAINTENANCE VEHICLES  
NOT TO SCALE

Mike Hume  
DEVELOPER'S APPROVAL

7/10/02  
DATE

P16448 Eng. Paul Sawyer

UNDERGROUND SERVICE ALERT  
ONE-CALL NUMBER  
456-8000  
CALL OR NUMBER DAYS  
BEFORE YOU DIG

Atsookis, Inc.  
Planning  
Engineering  
Architecture  
Landscape Architecture  
Land Surveying  
201 N. 7th Avenue, Suite 200  
Spokane, WA 99201  
Phone: 509-433-0200  
Fax: 509-433-0204  
Web: 509-433-0204



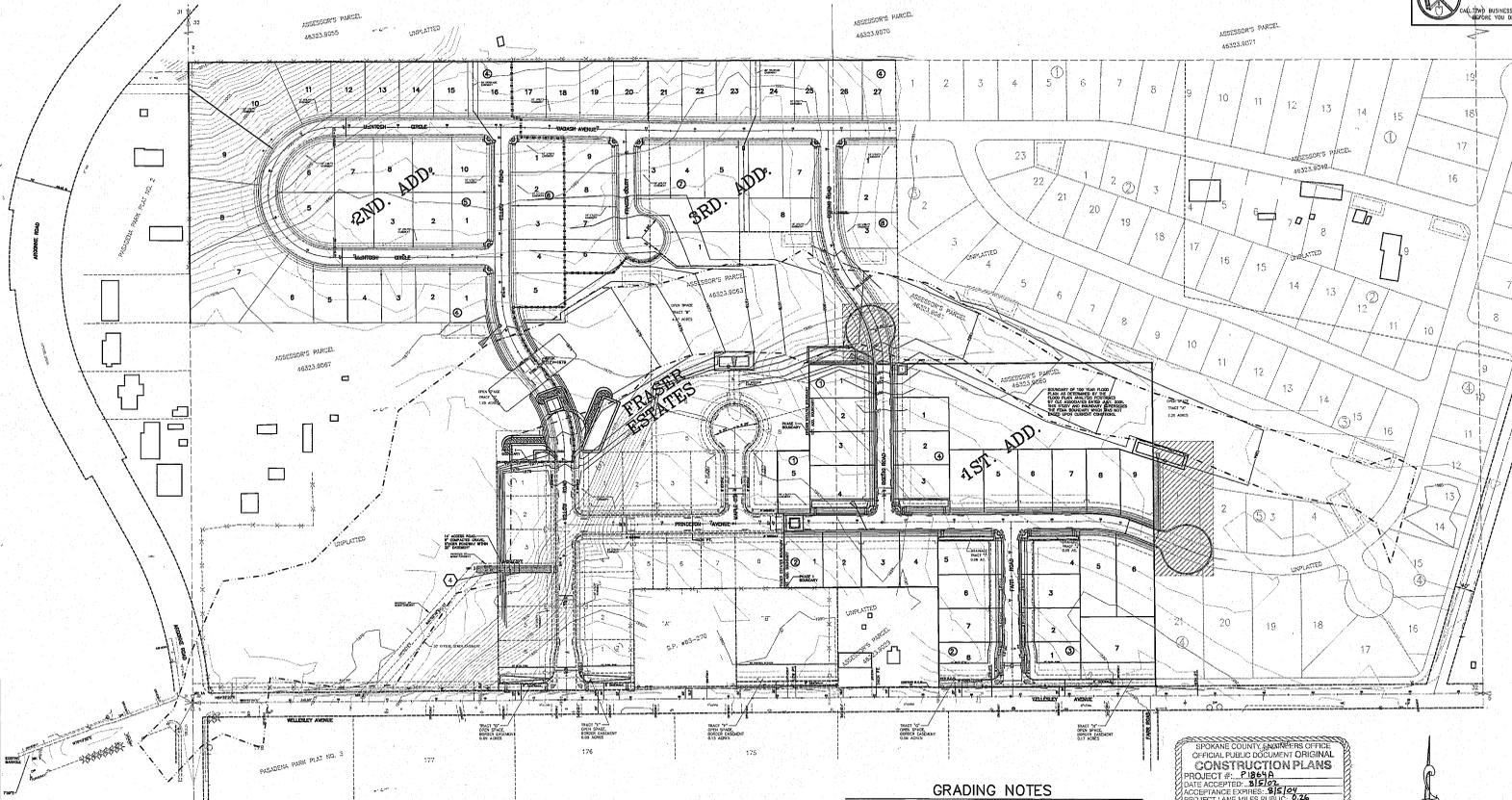
PREPARED UNDER THE DIRECT  
SUPERVISION OF  
DAVID E. RATZLIFF, P.E.  
REGISTERED PROFESSIONAL  
ENGINEER AND REGISTERED  
LAND SURVEYOR BY BOARD OF  
C.E. ASSOCIATES, INC.

Drawn by: RLM  
Checked by: RLM  
Date: 07/19/02

Spokane County No. P-1814  
C.E. Job Number: 0902020  
Drawn By: RLM  
Designed By: RLM  
Checked By: RLM  
THIS PLAN IS A PART OF A PROJECT  
AND IS NOT TO BE USED SEPARATELY  
FROM THE OTHER PARTS OF THE PROJECT  
UNLESS THE CONTRACTOR HAS BEEN  
ADVISED TO DO SO BY THE ENGINEER.

STREET CONSTRUCTION PLANS  
FRASER ESTATES FIRST ADDITION  
GRADING PLAN  
SPOKANE COUNTY, WASHINGTON

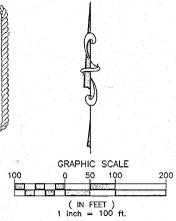
Sheet Title  
GRADING PLAN  
C102A  
Sheet Number



**GRADING NOTES**

- ① EXCAVATION AND EMBANKMENT BANKS AND ALL DISTURBED AREAS WILL REQUIRE STABILIZATION WITH HYDROSEEDING METHODS. THE SEED MIXTURE SHALL CONSIST OF THE FOLLOWING GRASS SPECIES:  
10% ELKA PERENNIAL RYE  
20% DURAN HARD FESCUE  
45% COWAN SHEEP / FESCUE  
15% REBUDS CANADIAN BLUEGRASS  
GRASS SEED: 90 LBS. / ACRE  
FERTILIZER: 16-16-16 - TIMED RELEASE AT 300 LBS. / ACRE
- ② ALL SEEDING OF SLOPES SHALL BE PERFORMED IN ACCORDANCE WITH W.S.D.O.T. STANDARD SPECIFICATIONS SECTION 8-01, AND APPENDIX "F" OF THE SPOKANE COUNTY GUIDELINES FOR STORMWATER MANAGEMENT.
- ③ THE BANK AREAS WITH SLOPES OF 2:1 OR GREATER SHALL BE PLANTED WITH NATURALLY OCCURRING SHRUBS TO PREVENT EROSION DURING A STORM EVENT.
- ④ GRADING OF THE ACCESS ROAD SHALL PROVIDE FOR ROADWAY SLOPES OF 10:1 MAXIMUM AT THE LOCATION SHOWN.

SPOKANE COUNTY ENGINEERS OFFICE  
OFFICIAL FILED DOCUMENT ORIGINAL  
**CONSTRUCTION PLANS**  
PROJECT #: P1814  
DATE ACCEPTED: 8/1/02  
ACCEPTANCE EXPIRES: 8/1/04  
PROJECT LANE MILES PUBLIC: 0.26  
PROJECT LANE MILES PRIVATE: 0  
CONSTRUCTION CONTRACT NUMBER AND CERTIFICATE  
TO COUNTY ENGINEERS AND ESTABLISHMENT OF THE  
GRADE AND STORMWATER DRAINAGE PERMITS  
PERMIT REQUIRED: (DOB) 477-3600  
NOT FERRY ENGINEERED FOR WASH. STATE  
PHOTO TO CONSTRUCTION



⊕ COUNTY DATUM  
BASED ON INVERT ELEVATION OF SEWER  
MANHOLE NO. 31 AS SHOWN ON  
"MILLWOOD-NORTHWOOD SEWER  
EXTENSION PLAN" SHEET 9 OF 21,  
ELEVATION=1956.64

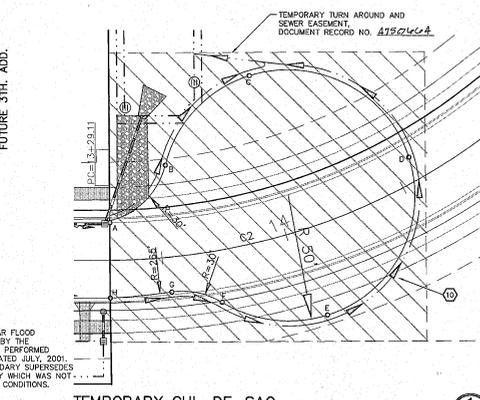
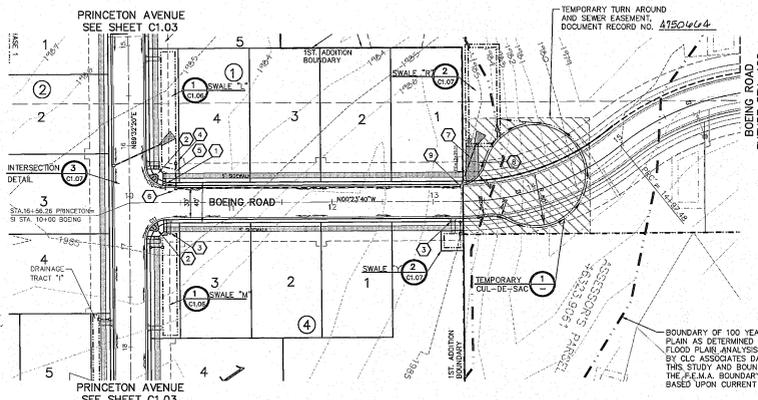
*Mike Hansen*  
DEVELOPER'S APPROVAL

7/19/02  
DATE

P1814 P Eng Road Survey







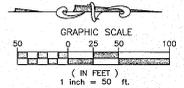
- ### CONSTRUCTION NOTES
- SEE SHEET C1.03, PRINCETON AVENUE FOR SIGN CALLOUTS.
  - SEE SHEET C1.03, PRINCETON AVENUE FOR CURB RAMP CALLOUTS.
  - PROVIDE AND INSTALL CURB INLET TYPE "1" AND TYPE "2" PER SPOKANE COUNTY STANDARD PLAN B-8 AND B-9. SEE SECTION "B", SHEET C1.06, AND DETAIL 3, SHEET C1.02.
  - PROVIDE AND INSTALL CONCRETE INLET TYPE "1", FRAME TYPE "1" AND GRATE TYPE "2" PER SPOKANE COUNTY STANDARD PLAN B-5, B-11, AND "B-13".
  - PROVIDE AND INSTALL 23 L.F. OF 12" N-12 ADS, OR EQUAL I.E.(W)1981.14, I.E.(E)1981.01.
  - PROVIDE AND INSTALL CONCRETE INLET TYPE "1", FRAME TYPE "1" AND GRATE TYPE "3" PER SPOKANE COUNTY STANDARD PLAN B-5, B-11, AND "B-14".
  - PROVIDE AND INSTALL 46 L.F. OF 12" N-12 ADS, OR EQUAL I.E.(SE)1979.57, I.E.(NW)1979.26.
  - ACCESS ROAD, SEE DETAIL 4, SHEET C1.02
  - PROVIDE AND INSTALL W.S.D.O.T. GRATE INLET TYPE "2" PER STANDARD PLAN B-4C.
  - PROVIDE AND INSTALL 1.0' DEEP DITCH WITH 2:1 SLOPES. LINE DITCH WITH 500 OR GRASS TURF.

### DITCH ELEVATIONS

POINT	ELEVATION
A	1982.46
B	1981.49
C	1980.49
LOW POINT	1980.37
D	1980.79
E	1981.07
F	1982.00
G	1982.21
H	1982.46

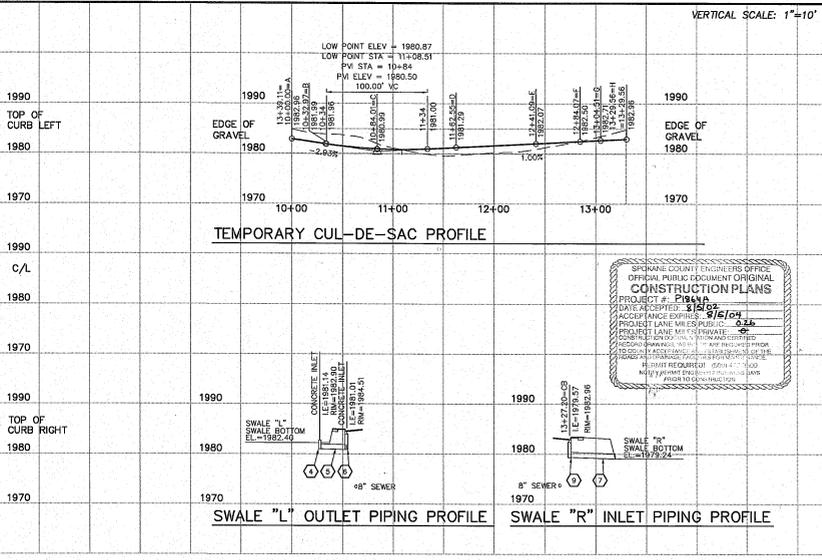
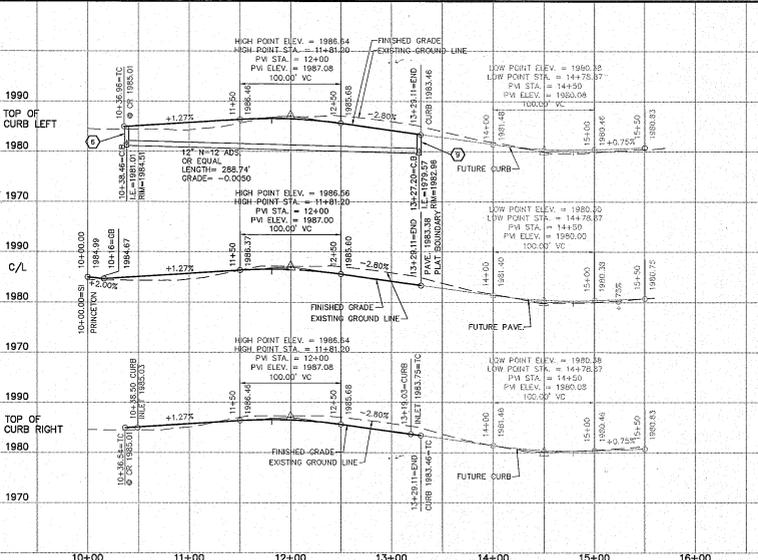
### CURVE TABLE

CURVE	RADIUS	LENGTH	TANGENT	CHORD	DELTA
C2	250.00	169.26	87.44	163.10	38°33'45"
C3	250.00	169.24	87.44	163.08	38°33'27"
C10	20.00	31.39	15.88	28.27	89°20'00"
C11	20.00	31.44	20.02	28.30	90°03'59"

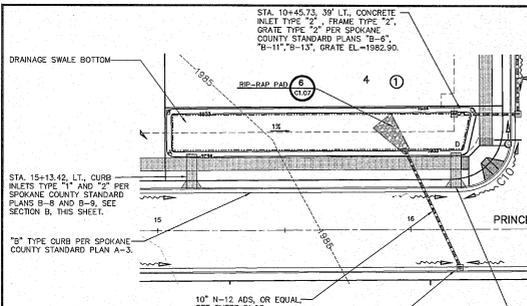


TEMPORARY CUL-DE-SAC  
SCALE: 1" = 20'

COUNTY DATUM  
BASED ON INVERT ELEVATION OF SEWER  
MANHOLE NO. 31 AS SHOWN ON  
"MILLWOOD-NORTHWOOD SEWER  
EXTENSION PLAN" SHEET S OF 21,  
ELEVATION=1936.64



SPOKANE COUNTY ENGINEERS OFFICE  
OFFICE PUBLIC DOCUMENT ORIGINAL  
CONSTRUCTION PLANS  
DATE: 8/16/04  
PROJECT #: P184  
ACCEPTANCE EXP. 8/16/04  
SIGNED: RLM  
REGISTERED PROFESSIONAL ENGINEER  
WASHINGTON REGISTRATION NO. 35954  
FOR AND ON BEHALF OF  
ASSOCIATES, INC.



**SWALE BOTTOM LOCATION TABLE**  
PRINCETON AVENUE STATION & OFFSET

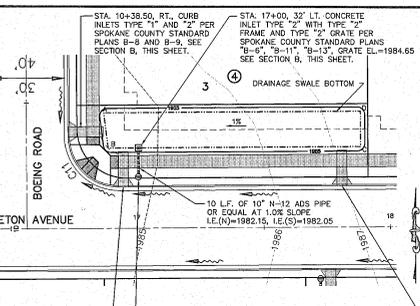
POINT	STATION	OFFSET
A	31+23.00	35.00 LT.
B	10+10.16	36.00 LT.
C	18+23.34	46.00 LT.
D	17+18.00	35.00 LT.

**SWALE "X"**

SWALE BOTTOM EL.=1982.40  
SWALE BTM AREA REQUIRED=1,620 S.F.  
SWALE BTM AREA PROVIDED=1,620 S.F.  
MIN. BERM ELEV.=1984.90

**DRAINAGE TRACT "L"**

**SWALE "L" AND SWALE "M" DETAIL**  
SCALE: 1" = 20'



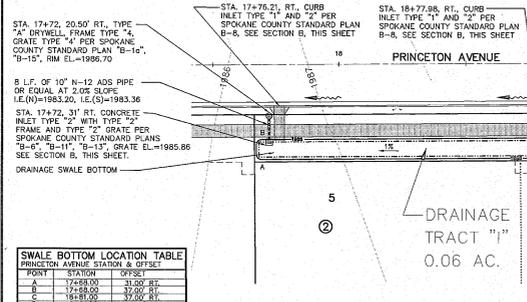
**SWALE BOTTOM LOCATION TABLE**  
PRINCETON AVENUE STATION & OFFSET

POINT	STATION	OFFSET
A	17+14.00	35.00 LT.
B	16+18.75	46.00 LT.
C	17+18.00	35.00 LT.

**SWALE "M"**

SWALE BOTTOM EL.=1984.15  
SWALE BTM AREA REQUIRED=1,378 S.F.  
SWALE BTM AREA PROVIDED=1,408 S.F.  
MIN. BERM ELEV.=1985.60

**DRAINAGE TRACT "M"**



**SWALE BOTTOM LOCATION TABLE**  
PRINCETON AVENUE STATION & OFFSET

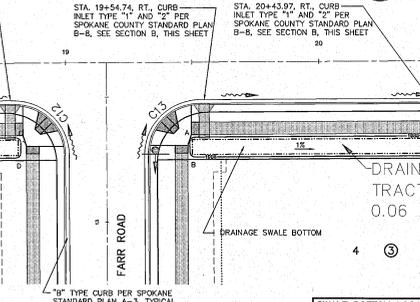
POINT	STATION	OFFSET
A	17+28.00	35.00 RT.
B	17+28.00	35.00 RT.
C	18+21.00	35.00 RT.

**SWALE "J"**

SWALE BOTTOM EL.=1985.36  
SWALE BTM AREA REQUIRED=455 S.F.  
SWALE BTM AREA PROVIDED=466 S.F.  
MIN. BERM ELEV.=1986.76

**DRAINAGE TRACT "J"**

**SWALE "I" AND SWALE "J" DETAIL**  
SCALE: 1" = 20'



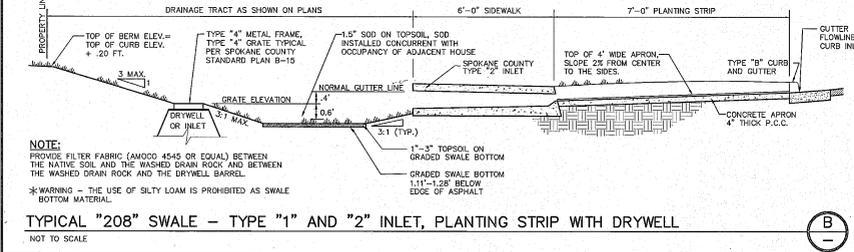
**SWALE BOTTOM LOCATION TABLE**  
PRINCETON AVENUE STATION & OFFSET

POINT	STATION	OFFSET
A	19+54.74	35.00 RT.
B	19+57.39	46.00 RT.
C	20+13.00	35.00 RT.

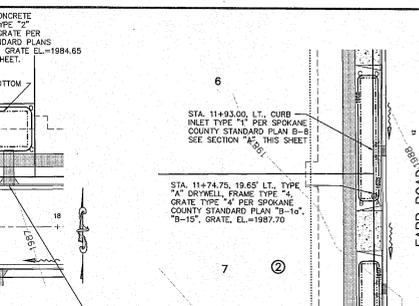
**SWALE "J"**

SWALE BOTTOM EL.=1986.10  
SWALE BTM AREA REQUIRED=424 S.F.  
SWALE BTM AREA PROVIDED=424 S.F.  
MIN. BERM ELEV.=1987.50

**DRAINAGE TRACT "J"**



**TYPICAL "208" SWALE - TYPE "1" AND "2" INLET, PLANTING STRIP WITH DRYWELL**  
NOT TO SCALE



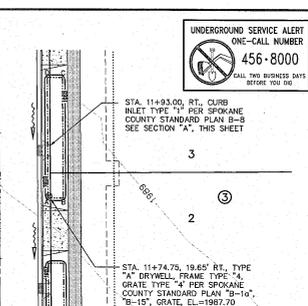
**SWALE BOTTOM LOCATION TABLE**  
FAIR ROAD STATION & OFFSET

POINT	STATION	OFFSET
A	11+73.58	35.00 LT.
B	11+73.58	35.00 LT.
C	12+21.00	46.00 LT.

**SWALE "W-1"**

SWALE BOTTOM EL.=1987.20  
SWALE BTM AREA REQUIRED=288 S.F.  
SWALE BTM AREA PROVIDED=288 S.F.  
MIN. BERM ELEV.=1988.60

**SWALE "W-1" AND SWALE "X-1" DETAIL**  
SCALE: 1" = 20'



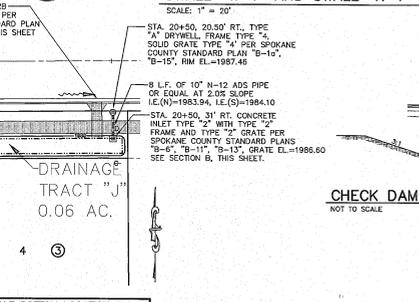
**SWALE BOTTOM LOCATION TABLE**  
FAIR ROAD STATION & OFFSET

POINT	STATION	OFFSET
A	11+73.58	35.00 LT.
B	11+73.58	35.00 LT.
C	12+21.00	46.00 LT.

**SWALE "X-1"**

SWALE BOTTOM EL.=1987.20  
SWALE BTM AREA REQUIRED=288 S.F.  
SWALE BTM AREA PROVIDED=288 S.F.  
MIN. BERM ELEV.=1988.60

**SWALE "X-1" DETAIL**  
SCALE: 1" = 20'



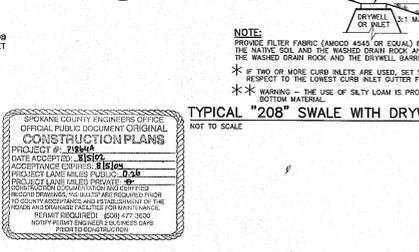
**SWALE BOTTOM LOCATION TABLE**  
PRINCETON AVENUE STATION & OFFSET

POINT	STATION	OFFSET
A	19+54.74	35.00 RT.
B	19+57.39	46.00 RT.
C	20+13.00	35.00 RT.

**SWALE "J"**

SWALE BOTTOM EL.=1986.10  
SWALE BTM AREA REQUIRED=424 S.F.  
SWALE BTM AREA PROVIDED=424 S.F.  
MIN. BERM ELEV.=1987.50

**DRAINAGE TRACT "J"**



**TYPICAL "208" SWALE WITH DRYWELL**  
NOT TO SCALE

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127 S. 7th Avenue, Suite 200  
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Fax: 509-325-0245  
www.associatesinc.com

**DAVID H. RANDALL, P.E.**  
REGISTERED PROFESSIONAL ENGINEER  
NO. 28694  
DESIGNED AND DRAWN BY  
D.H. RANDALL FOR BENEFIT OF  
CIC ASSOCIATES, INC.

PREPARED UNDER THE DIRECT  
SUPERVISION OF  
**DAVID H. RANDALL, P.E.**  
REGISTERED PROFESSIONAL ENGINEER  
NO. 28694  
DESIGNED AND DRAWN BY  
D.H. RANDALL FOR BENEFIT OF  
CIC ASSOCIATES, INC.

Spokane County No. P-1984  
CIC Job Number: 599028  
Drawn By: RLM  
Designed By: RLM DMR  
Checked By: DMS  
DATE: 07/19/2020 03:33:02 PM, 2024

Spokane County No. P-1984  
CIC Job Number: 599028  
Drawn By: RLM  
Designed By: RLM DMR  
Checked By: DMS  
DATE: 07/19/2020 03:33:02 PM, 2024

**STREET AND DRAINAGE CONSTRUCTION PLANS**  
**FRASER ESTATES FIRST ADDITION**  
**DRAINAGE SWALE DETAILS**  
SPOKANE COUNTY, WASHINGTON

Sheet Title  
**DRAINAGE DETAILS**

**C1.06**  
Sheet Number

*Mike Hanna*  
DEVELOPER'S APPROVAL

7/26/20  
DATE

P18648 EngDot.wa.gov

SW 1/4 SEC. 32, T.26 N., R.44 E., W.M.  
SPOKANE COUNTY, WASHINGTON

TEMPORARY TURN AROUND  
AND SEWER EASEMENT,  
RECORD NO. \_\_\_\_\_

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Architecture  
Land Surveying  
107 W. 7th Avenue, Suite 200  
Spokane, WA 99201  
Phone: (509) 486-5400  
Fax: (509) 486-5444

DAVE H. RANDEL  
PROFESSIONAL ENGINEER  
No. 28894  
PREPARED UNDER THE DIRECT  
SUPERVISION OF  
DAVE H. RANDEL, P.E.  
WASHINGTON REGISTRATION  
NO. 28894  
FOR AND ON BEHALF OF  
C&A ASSOCIATES, INC.

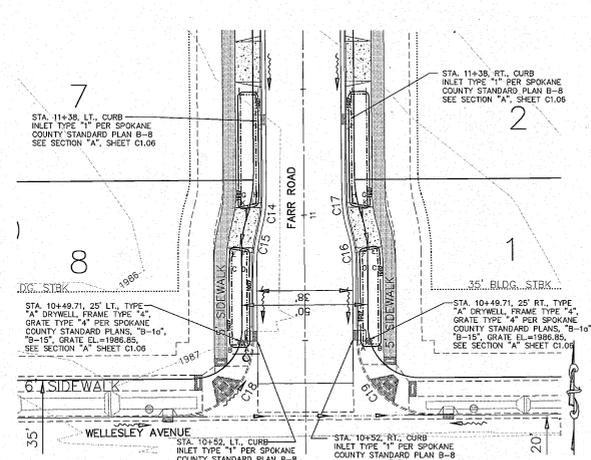
PREPARED UNDER THE DIRECT  
SUPERVISION OF  
DAVE H. RANDEL, P.E.  
WASHINGTON REGISTRATION  
NO. 28894  
FOR AND ON BEHALF OF  
C&A ASSOCIATES, INC.

DATE: \_\_\_\_\_  
DESCRIPTION: \_\_\_\_\_  
REVISIONS FOR SPOKANE COUNTY ENGINEERS

Spokane Co. No. P-17-188  
C.L.C. Job Number: 5901268  
Drawn By: RLM  
Designed By: RLM DMR  
Checked By: DMR  
SEE AND BE SUBJECT TO APPROVAL  
OF SPOKANE COUNTY ENGINEERS  
FOR AND ON BEHALF OF  
C&A ASSOCIATES, INC.

STREET AND DRAINAGE CONSTRUCTION PLANS  
FRASER ESTATES FIRST ADDITION  
DRAINAGE SWALES AND DETAILS  
SPOKANE COUNTY, WASHINGTON

Sheet Title  
DRAINAGE  
SWALES AND  
DETAILS  
C1.07  
Sheet Number



**SWALE BOTTOM LOCATION TABLE**  
FAIR ROAD STATION & OFFSET

POINT	STATION	OFFSET
A	10+49.50	23.00' RT.
B	10+49.50	23.00' LT.
C	10+79.50	23.00' LT.
D	10+79.50	23.00' RT.
E	10+89.50	23.00' LT.
F	10+89.50	23.00' RT.
G	10+89.50	22.25' LT.
H	10+89.50	22.25' RT.
I	11+09.00	19.00' LT.
J	11+09.00	19.00' RT.
K	11+47.99	18.00' LT.
L	11+47.99	18.00' RT.
M	11+62.50	18.12' LT.
N	11+62.50	18.12' RT.

**SWALE BOTTOM LOCATION TABLE**  
FAIR ROAD STATION & OFFSET

POINT	STATION	OFFSET
A	10+49.50	23.00' RT.
B	10+49.50	23.00' LT.
C	10+79.50	23.00' LT.
D	10+79.50	23.00' RT.
E	10+89.50	23.00' LT.
F	10+89.50	23.00' RT.
G	10+89.50	22.25' LT.
H	10+89.50	22.25' RT.
I	11+09.00	19.00' LT.
J	11+09.00	19.00' RT.
K	11+47.99	18.00' LT.
L	11+47.99	18.00' RT.
M	11+62.50	18.12' LT.
N	11+62.50	18.12' RT.

**SWALE "W-2"**  
SWALE BOTTOM EL.=1989.35  
SWALE BTM AREA REQUIRED=489 S.F.  
SWALE BTM AREA PROVIDED=489 S.F.  
MIN. BERM ELEV.=1987.75

**SWALE "X-2"**  
SWALE BOTTOM EL.=1989.35  
SWALE BTM AREA REQUIRED=489 S.F.  
SWALE BTM AREA PROVIDED=489 S.F.  
MIN. BERM ELEV.=1987.75

**SWALE BOTTOM LOCATION TABLE**  
FAIR ROAD STATION & OFFSET

POINT	STATION	OFFSET
A	13+37.16	65.85' LT.
B	13+37.16	65.85' RT.
C	13+74.19	66.77' LT.
D	13+74.19	66.77' RT.
E	13+62.52	95.30' LT.

**SWALE "R"**  
SWALE BOTTOM EL.=1979.74  
SWALE BTM AREA REQUIRED=2,633 S.F.  
SWALE BTM AREA PROVIDED=2,633 S.F.  
MIN. BERM ELEV.=1984.64

**SWALE BOTTOM LOCATION TABLE**  
FAIR ROAD STATION & OFFSET

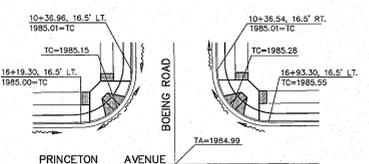
POINT	STATION	OFFSET
A	13+19.03	26.00' RT.
B	13+19.03	26.00' LT.
C	13+26.25	26.00' RT.
D	13+26.25	26.00' LT.

**SWALE BOTTOM LOCATION TABLE**  
FAIR ROAD STATION & OFFSET

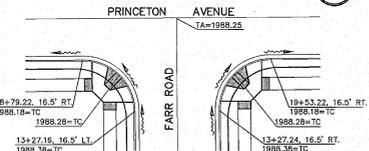
POINT	STATION	OFFSET
A	13+26.25	22.2' LT.
B	13+26.25	22.2' RT.
C	13+26.25	26.00' RT.
D	13+26.25	26.00' LT.

**SWALE "Y"**  
SWALE BOTTOM EL.=1982.35  
SWALE BTM AREA REQUIRED=213 S.F.  
SWALE BTM AREA PROVIDED=213 S.F.  
MIN. BERM ELEV.=1983.75

**SWALE "W-2" AND SWALE "X-2" DETAIL**  
SCALE: 1" = 20'



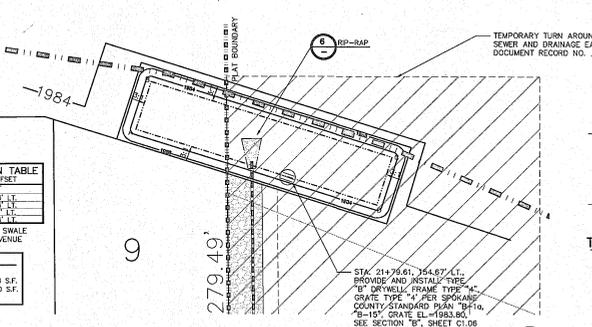
**INTERSECTION DETAIL**  
SCALE: 1" = 20'



**INTERSECTION DETAIL**  
SCALE: 1" = 20'

**COUNTY DATUM**  
BASED ON INVERT ELEVATION OF SEWER  
MANHOLE NO. 31 AS SHOWN ON  
MILLWOOD-NOR THWOOD SEWER  
EXTENSION PLAN, SHEET S OF 21,  
ELEVATION=1956.64

**SWALE "R" AND SWALE "Y" DETAIL**  
SCALE: 1" = 20'



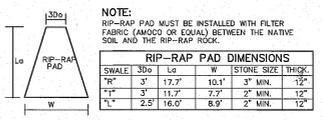
**SWALE BOTTOM LOCATION TABLE**  
PRINCETON AVENUE STATION & OFFSET

POINT	STATION	OFFSET
A	21+39.29	195.73' LT.
B	21+39.29	195.73' RT.
C	22+13.02	177.41' LT.
D	22+13.02	177.41' RT.

STATIONS AND OFFSETS FOR SWALE  
"Y" ARE FROM PRINCETON AVENUE

**SWALE "T"**  
SWALE BOTTOM EL.=1983.30  
SWALE BTM AREA REQUIRED=1,578 S.F.  
SWALE BTM AREA PROVIDED=2,000 S.F.  
MIN. BERM ELEV.=1984.70

**SWALE "T" DETAIL**  
SCALE: 1" = 20'



**TYPICAL RIP-RAP PAD**  
NOT TO SCALE

SPOKANE COUNTY ENGINEERS OFFER  
OFFICIAL PUBLIC DOCUMENT ORIGINAL  
CONSTRUCTION PLANS  
PROJECT # 181502  
DATE ACCEPTED: 11/15/02  
PROJECT LANE MILES PUBLIC: 0.26  
PROJECT LANE MILES PRIVATE: 0.00  
CONSTRUCTION DOCUMENT AND CERTIFIED  
RECORD DRAWINGS, INCLUDING THE REQUIRED PRIOR  
TO COUNTY ACCEPTANCE AND ESTABLISHMENT OF THE  
RECORD AND DRAWINGS REQUIRED FOR MANY TOWNSHIP  
PERMIT REQUIREMENTS 10/19/17/1900  
NOTIFY FIRST ENGINEER & BUSINESS DATE  
NOV 17 2002 10:52 AM  
C&A ASSOCIATES, INC.

*Nike Horne*  
DEVELOPER'S APPROVAL

7/19/02  
DATE

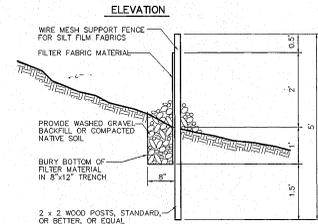
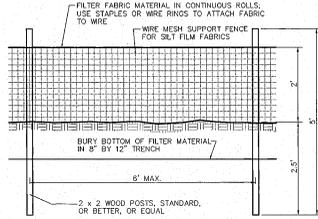
P18144A Eng'ear's name

**EROSION & SEDIMENT CONTROL  
GENERAL NOTES AND INFORMATION**

1. AN EROSION/SEDIMENT CONTROL (E.S.C.) PLAN IS REQUIRED FOR THIS PROJECT. IMPLEMENTATION OF THE E.S.C. PLAN AND CONSTRUCTION, MAINTENANCE, AND UPGRADE OF THE E.S.C. FACILITIES ARE THE RESPONSIBILITY OF THE DEVELOPER UNTIL CONSTRUCTION IS COMPLETED AND ACCEPTED BY SPOKANE COUNTY, OR UNTIL VEGETATION IS ESTABLISHED THROUGHOUT THE SITE, AND ACCEPTED BY SPOKANE COUNTY, WHICHEVER IS LATER.
2. APPROVAL OF THE E.S.C. PLAN DOES NOT CONSTITUTE APPROVAL OF ANY OF THE PROPOSED ROAD, STORM DRAINAGE, GRADING OR UTILITY DESIGN ELEMENTS SHOWN ON THE E.S.C. PLAN.
3. THE EROSION/SEDIMENT CONTROL MEASURES SHOWN ARE THE MINIMUM REQUIREMENTS FOR THE ANTICIPATED SITE CONDITIONS. THE CONTRACTOR SHALL INSPECT AND MAINTAIN THESE E.S.C. FACILITIES DAILY, AND SHALL MAINTAIN THEM THROUGHOUT THE CONSTRUCTION PERIOD. EACH PREVENT SEDIMENT-LOADED WATER FROM EITHER FLOWING OFF SITE, OR INTO NEARBY EXISTING STORM DRAINAGE FACILITIES, SUCH AS DITCHES OR CATCH BASINS.
4. GEOTEXTILE FABRIC IS TO BE PLACED ON THE RIMS, CATCH BASINS AND INLETS UNTIL SUCH TIME THAT THE VEGETATION ON THE SITE IS ESTABLISHED AND THE THREAT OF SEDIMENT DEPOSITION INTO THE DRAINAGE SYSTEM IS MITIGATED.
5. THE SILT FENCES SHALL BE INSTALLED BY THE CONTRACTOR PRIOR TO OTHER SITE WORK, AND MAINTAINED THROUGHOUT THE DURATION OF CONSTRUCTION.
6. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING ROCK CONSTRUCTION ENTRANCES AT ANY AND ALL LOCATIONS USED TO ENTER OR EXIT THE PROJECT SITE.
7. THE CONTRACTOR IS RESPONSIBLE FOR DESIGNATING A LOCATION WHERE CONCRETE TRUCKS AND EQUIPMENT CAN BE WASHED OUT, NOT LOCATED NEAR OR DRAINING INTO A STORM DRAINAGE AREA.
8. PROPERTY OWNER: KINNEY/MATTESON, INC. (509)922-5557  
PERMIT APPLICANTS: KINNEY/MATTESON, INC. (509)922-5557  
CONTACT PERSON ON SITE: KINNEY/MATTESON, INC. (509)922-5557
9. PROJECT LOCATION: IN THE SPOKANE VALLEY, NORTH OF WELLESLEY AVENUE AND EAST OF ARDORNE ROAD, IN SECTION 32, TOWNSHIP 26 N., RANGE 44 E.W.M.
10. PROJECT DESCRIPTION: FRASER ESTATES FIRST ADDITION IS A RESIDENTIAL SUBDIVISION CONSISTING OF 26 LOTS AND WILL REQUIRE CONSTRUCTION OF SEWER, WATER, ROADS, STORM DRAINAGE, GAS, AND ELECTRICAL FACILITIES. THE IMPROVEMENTS CONSIST OF APPROXIMATELY 1.419 LINEAR FEET OF NEW PUBLIC STREETS AND CURBS, WITH ASSOCIATED STORM DRAINAGE.
11. DESCRIPTION OF E.S.C. MEASURES: USE OF SILT FENCES AND ROCK CONSTRUCTION ENTRANCES. ALL E.S.C. MEASURES MENTIONED ABOVE ARE TEMPORARY AND MUST BE REMOVED AFTER YARDS ARE LANDSCAPED.
12. EXISTING VEGETATION: FIELD GRASS AND PANDOROSA PINES.
13. PLAN PREPARATION DATE: JANUARY 5, 2000.
14. SOILS: ON SITE SOILS INCLUDE GARRISON GRAVELLY LOAM (Gsa), GARRISON GRAVELLY LOAM (Ggs) SPOKANE COUNTY GUIDELINES INDICATES THESE TO BE TYPE "B" SOILS.
15. STABILIZATION OF DISTURBED AREAS:  
ANY DISTURBED AREAS WHICH SHOULD BE LEFT BARE FOR MORE THAN 7 DAYS AND ARE NOT INTENDED TO BE RECOVERED WITHIN 30-45 DAYS SHALL BE SEEDED WITH A FAST GERMINATING NATIVE ORLAND GRASS SUCH AS ANNULAR OR APPROVED AT A RATE OF 60 LBS./ACRE.
16. CONTROL OF BOLLIVANTS:  
ANY SPILLS WILL BE HANDLED ACCORDING TO D.O.E. AND D.O.H. GUIDELINES.

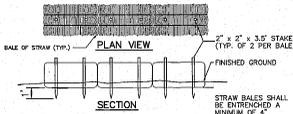
**MAINTENANCE**

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION AND MAINTENANCE OF THE TEMPORARY E.S.C. MEASURES.
2. SEDIMENT BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RUNOFF-PRODUCING RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL.
3. NECESSARY REPAIRS TO BARRIERS OR REPLACEMENT OF FILTER FABRIC SHALL BE ACCOMPLISHED PROMPTLY.
4. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH RUNOFF-PRODUCING RAINFALL. DEPOSITS MUST BE REMOVED WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY 1/2 THE HEIGHT OF THE BARRIER.
5. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE E.S.C. STRUCTURE IS NO LONGER REQUIRED SHALL BE REMOVED TO CONFORM TO THE EXISTING GRAD. PREPARED AND SEEDED.
6. ALL TEMPORARY AND PERMANENT E.S.C. PRACTICES SHALL BE MAINTAINED AND REPAIRED AS NEEDED TO ASSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTIONS.
7. ALL TEMPORARY E.S.C. MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER TEMPORARY E.S.C. MEASURES ARE NO LONGER NEEDED. TRAPPED SEDIMENT SHALL BE REMOVED OR STABILIZED ON SITE. DISTURBED SOIL AREAS RESULTING FROM REMOVAL SHALL BE PERMANENTLY STABILIZED.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING DIRT, MUD AND OTHER CONSTRUCTION DEBRIS WHICH MAY ACCUMULATE ON PAVED STREETS ADJACENT TO THE SITE AS A RESULT OF CONSTRUCTION ACTIVITY. CLEANING SHALL BE ON AN "AS NEEDED" BASIS USING SWEEPING AND WATERING TO PREVENT TRACKING OF DEBRIS.
9. ON-SITE DUST CONTROL SHALL BE ACCOMPLISHED BY USING WATER APPLICATIONS OF WATER MAY BE REQUIRED SEVERAL TIMES PER DAY DURING CONSTRUCTION ACTIVITY.



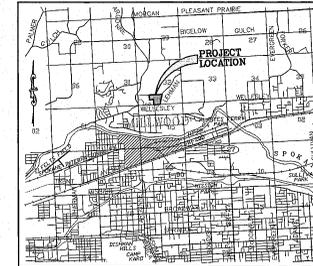
**SECTION  
SILT FENCE DETAIL**  
NOT TO SCALE

1



**SECTION  
STRAW BALE DETAIL**  
NOT TO SCALE

2



**VICINITY MAP**

**LEGAL DESCRIPTION**

THAT PORTION OF THE SOUTHWEST QUARTER OF SECTION 32, TOWNSHIP 26 NORTH, RANGE 44 EAST, W.M. IN SPOKANE COUNTY, WASHINGTON MORE PARTICULARLY DESCRIBED AS FOLLOWS:  
COMMENCING AT THE SOUTHWEST CORNER OF SAID SOUTHWEST QUARTER; THENCE NORTH 89°32'00" EAST ALONG THE SOUTH LINE OF SAID SOUTHWEST QUARTER 1533.77 FEET; THENCE NORTH 02°23'57" WEST 230.00 FEET TO THE NORTH LINE OF WELLESLEY AVENUE, BEING THE POINT OF BEGINNING;  
1. THENCE NORTH 02°23'57" WEST A DISTANCE OF 208.70 FEET;  
2. THENCE NORTH 89°32'00" WEST A DISTANCE OF 517.38 FEET;  
3. THENCE NORTH 02°23'58" WEST A DISTANCE OF 155.00 FEET;  
4. THENCE SOUTH 89°32'00" WEST A DISTANCE OF 12.16 FEET;  
5. THENCE NORTH 02°23'57" WEST A DISTANCE OF 130.00 FEET;  
6. THENCE NORTH 89°32'00" EAST A DISTANCE OF 66.46 FEET;  
7. THENCE NORTH 02°23'57" WEST A DISTANCE OF 179.28 FEET;  
8. THENCE NORTH 89°32'00" EAST A DISTANCE OF 705.86 FEET;  
9. THENCE SOUTH 02°23'57" EAST A DISTANCE OF 475.00 FEET;  
10. THENCE SOUTH 89°32'00" WEST A DISTANCE OF 444.35 FEET TO THE POINT OF BEGINNING.

ENCLOSING 437,772 SQUARE FEET OR 10.05 ACRES, MORE OR LESS.



CERTIFICATION STATEMENT: I CERTIFY THAT THIS EROSION AND SEDIMENT CONTROL PLAN MEETS THE E.S.C. REQUIREMENTS AS LISTED IN CHAPTER 4.5 OF THE SPOKANE COUNTY GUIDELINES FOR STORMWATER MANAGEMENT.  
*David N. Randall*  
DAVID N. RANDALL, P.E.

**LEGEND**  
- X - X - SILT FENCE

THE DESIGN IMPROVEMENTS SHOWN IN THIS SET OF PLANS AND CALCULATIONS CONFORM TO 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.

*Mike Irvine*  
DEVELOPER'S APPROVAL  
*p1844A*  
DATE

Sheet Title  
**EROSION  
SEDIMENTATION  
CONTROL**  
C1.08  
Sheet Number

STREET AND DRAINAGE CONSTRUCTION PLANS  
**FRASER ESTATES FIRST ADDITION  
EROSION CONTROL**  
SPOKANE COUNTY, WASHINGTON

PREPARED UNDER THE DIRECT  
SUPERVISION OF  
DAVID N. RANDALL, P.E.  
WASHINGTON REGISTRATION NO.  
11462 AND IN BEHALF OF  
D.N. ASSOCIATES, INC.

DATE: 07/19/04  
SCALE: AS SHOWN  
PROJECT LOCATION: FRASER ESTATES FIRST ADDITION  
ENGINEER: DAVID N. RANDALL, P.E.

Spokane County No. P-1844  
E.C. Job Number: 5900248  
Drawn by: DMH  
Designed by: DMH  
Checked by: DMH

USE ONLY AS NOTED IN ORIGINAL  
CONSTRUCTION PLANS. THESE PLANS  
DO NOT CONSTITUTE A CONTRACT.  
FOR MORE INFORMATION, CONTACT  
D.N. ASSOCIATES, INC. 509-447-6882

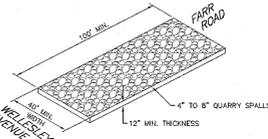
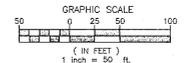
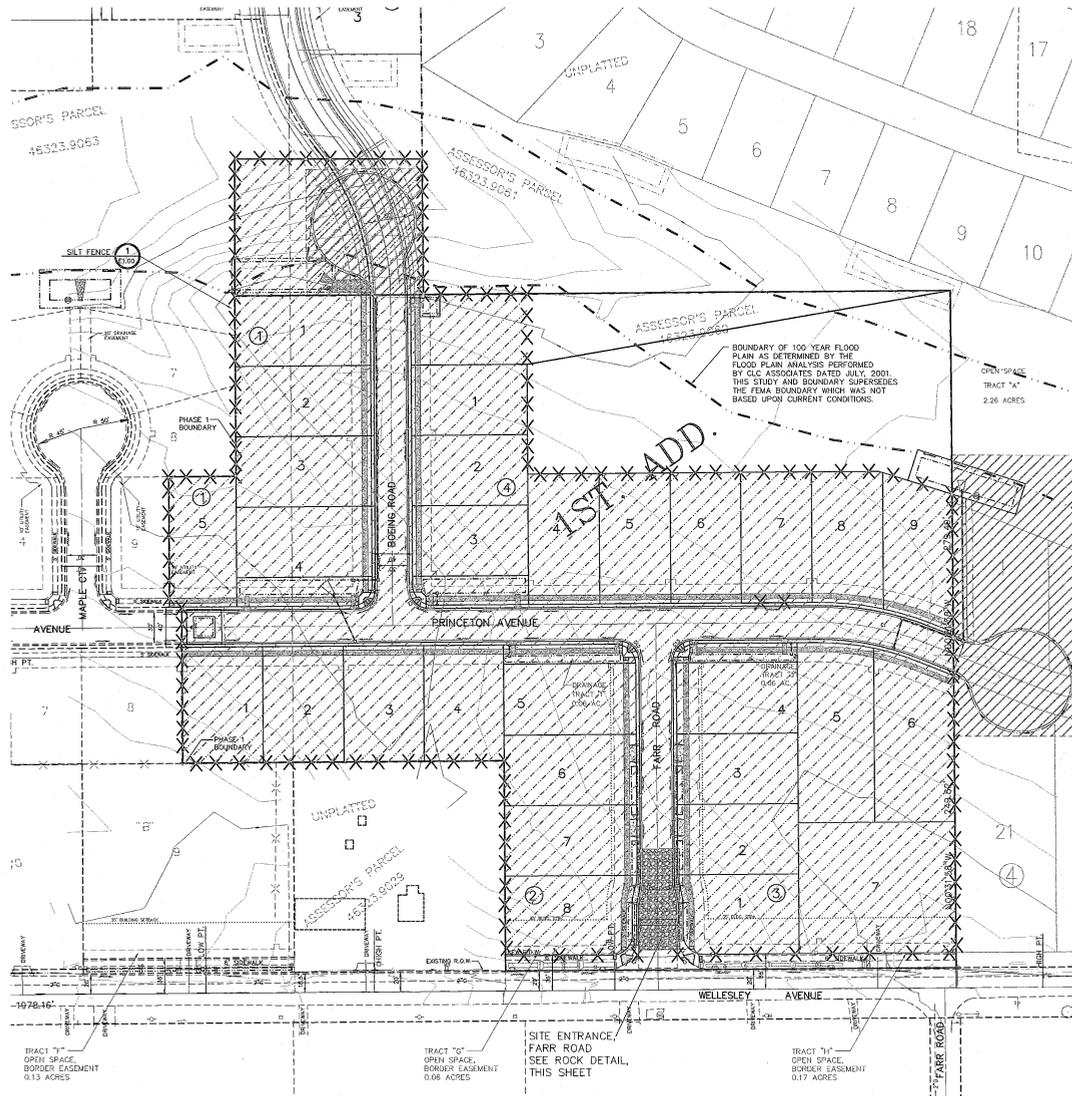
SW 1/4 SEC. 32, T.26 N., R.44 E.,W.M.  
SPOKANE COUNTY, WASHINGTON

UNDERGROUND SERVICE ALERT  
ONE-CALL NUMBER  
456-8000  
CALL THE NUMBER ON THE  
BEFORE YOU DIG

Planning Associates, Inc.  
Engineering  
Architecture  
Landscape Architecture  
and Surveying  
707 N. Ta. Anna, Suite 200  
Spokane, WA 99201  
Phone: (509) 446-6441  
Fax: (509) 446-6441



PREPARED UNDER THE DIRECT  
SUPERVISION OF  
DAVID M. SANDWELL, P.E.  
LICENSE NO. 14222-000000000000  
NO. 28864  
FOR AND ON BEHALF OF  
CLC ASSOCIATES, INC.



**ROCK CONSTRUCTION ENTRY**  
NOT TO SCALE

SPOKANE COUNTY ENGINEERS OFFICE  
OFFICIAL PUBLIC DOCUMENT ORIGINAL  
**CONSTRUCTION PLANS**  
PROJECT #: **CH14**  
DATE ACCEPTED: **3/18/02**  
ACCEPTANCE EXPIRES: **3/18/05**  
PROJECT LANE MILES PERMITTED: **0.24**  
PROJECT LANE MILES FURNISHED: **0**  
CONTRACT LANE MILES FURNISHED: **0**  
NO COUNTY ACCEPTANCE AND ESTABLISHMENT OF THE  
ROAD AND DRAINAGE EASEMENTS FOR MAINTENANCE  
PERMIT REQUIRED: **0001 477-2000**  
NOTIFY PERMIT ENGINEER BEFORE START OF WORK  
NOTIFY ROAD ENGINEER BEFORE START OF WORK

**COUNTY DATUM**  
BASED ON INVERT ELEVATION OF SEWER  
MANHOLE NO. 31 AS SHOWN ON  
"MILLWOOD-NORTHWOOD SEWER  
EXTENSION PLAN" SHEET 8 OF 21,  
ELEVATION=185.64

TRACT "A"  
OPEN SPACE,  
BORDER EASEMENT  
0.13 ACRES

TRACT "C"  
OPEN SPACE,  
BORDER EASEMENT  
0.08 ACRES

SITE ENTRANCE  
FARR ROAD  
SEE ROCK DETAIL,  
THIS SHEET

TRACT "H"  
OPEN SPACE,  
BORDER EASEMENT  
0.17 ACRES

*Mike Chrus*  
DEVELOPER'S APPROVAL

7/19/02  
DATE

STREET AND DRAINAGE CONSTRUCTION PLANS  
**FRASER ESTATES FIRST ADDITION**  
EROSION CONTROL  
SPOKANE COUNTY, WASHINGTON

Sheet Title  
**EROSION  
SEDIMENTATION  
CONTROL**  
C1.09  
Sheet Number

P18048 Eng'g & Drainage