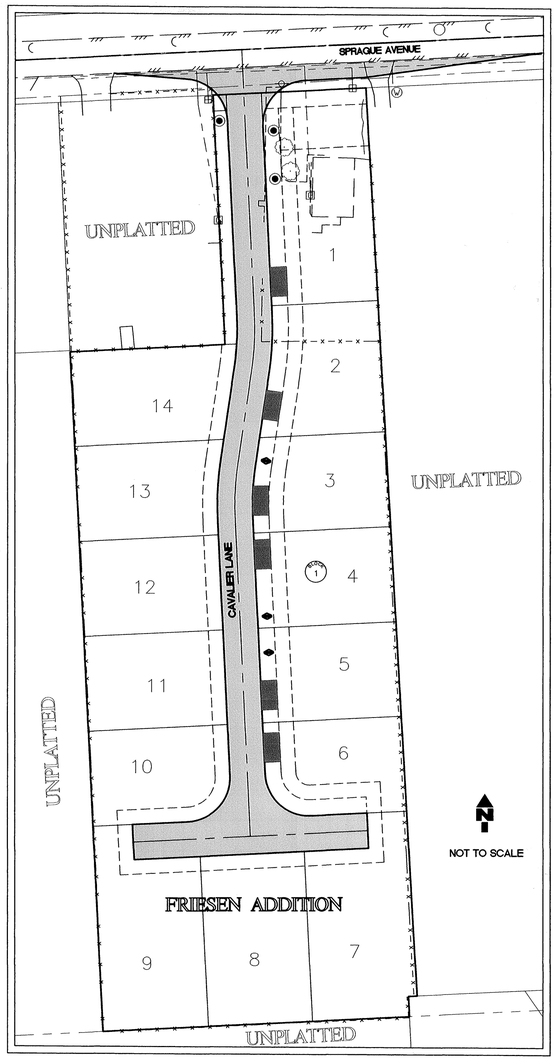
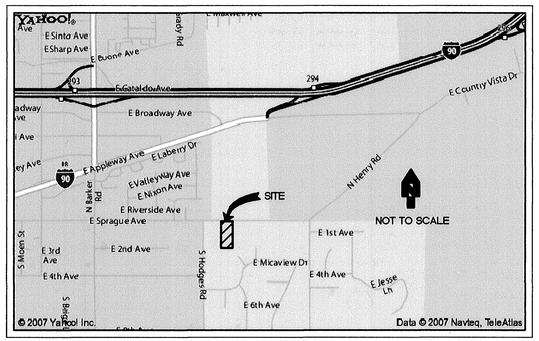
FRIESEN ADDITION

SPOKANE COUNTY, WASHINGTON

SECTION 20, T. 25N., R. 45E., W.M.



SITE PLAN



LOCATION PLAN

SPOKANE COUNTY ENGINEERS OFFICE
OFFICIAL PUBLIC DOCUMENT
ORIGINAL
"AS-BUILTS"
CERTIFIED RECORD DRAWINGS
PROJECT #: P1993
DATE ACCEPTED: 5/6/08

INDEX OF DRAWINGS

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	CAVALIER LANE STA. 10+00 TO STA. 15+39.50
3	ROAD SECTIONS AND POND DETAILS
4	TEMPORARY EROSION AND SEDIMENT CONTROL PLAN (NOT INCLUDED)

LEGEND

- 2353 — EXISTING CONTOUR
- EASEMENT LINE
- BT — EXISTING BURIED TELEPHONE
- G — EXISTING BURIED GAS PIPELINE
- OE — EXISTING OVERHEAD ELECTRICAL
- X — EXISTING FENCE
- W — EXISTING WATER LINE
- SS — EXISTING SEWER LINE
- SD — EXISTING STORM DRAIN LINE
- EXISTING WATER VALVE
- EXISTING WATER LINE FITTING (TYP.)
- EXISTING FIRE HYDRANT
- EXISTING WATER METER AND SERVICE
- EXISTING SIGN
- EXISTING SANITARY SEWER MANHOLE
- PLAT BOUNDARY
- LOT LINE
- W — NEW WATER LINE
- SS — NEW SANITARY SEWER LINE
- SD — NEW STORM DRAIN LINE
- NEW DITCH LINE
- NEW ASPHALT PAVEMENT REPLACEMENT
- NEW WATER VALVE
- NEW CONCRETE THRUST BLOCK
- NEW WATER LINE FITTING (TYP.)
- NEW SANITARY SEWER MANHOLE
- NEW STORM DRAIN MANHOLE
- NEW STORM DRAIN CATCH BASIN
- NEW SIGN

GENERAL NOTES:

1. ALL MATERIALS AND INSTALLATION SHALL BE IN CONFORMANCE WITH THE "SPOKANE COUNTY STANDARDS FOR ROAD AND SEWER CONSTRUCTION 2001", AS AMENDED, AND PER THE "2006 STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION" AS PUBLISHED BY THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (W.S.D.O.T.) AND BY THE AMERICAN PUBLIC WORKS ASSOCIATION (APWA).
2. LOCATIONS OF EXISTING UTILITIES SHOWN IN THE PLAN 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. CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES FOR RELOCATION OF POWER POLES, LIGHTS, TELEPHONE, AND/OR OTHER UTILITIES THAT MAY CONFLICT WITH THE CONSTRUCTION.
3. 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. CONTRACTOR SHALL ALSO MAINTAIN ON THE SITE A COMPLETE SET OF RED LINE RECORD DRAWINGS INDICATING ALL CHANGES FROM THE APPROVED DRAWINGS.
4. CONTRACTOR SHALL VERIFY EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. 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.
5. CONTRACTOR IS RESPONSIBLE FOR REPAIR OF ANY DAMAGE TO ADJACENT EXISTING PROPERTIES OR IMPROVEMENTS. CONTRACTOR IS RESPONSIBLE FOR CLEAN-UP OF ANY AREAS DISTURBED BY HIS ACTIVITIES.
6. ALL PROPOSED ROADWAY AREAS SHALL BE STRIPPED TO A DEPTH OF AT LEAST 12" OF ALL VEGETATION, NEAR-SURFACE ROOTS, ANY EXISTING FILL, AND TOPSOIL. THE STRIPPED MATERIAL CAN BE RE-USED FOR LANDSCAPING, BUT IS NOT ACCEPTABLE FOR STRUCTURAL FILL.
7. NATIVE MATERIALS, EXCLUDING TOPSOIL, IS ACCEPTABLE FOR USE AS STRUCTURAL FILL. IF STRUCTURAL FILL IS IMPORTED IT SHALL CONSIST OF WELL-GRADED SAND AND GRAVEL WITH NO PARTICLES LARGER THAN FIVE INCHES IN DIAMETER AND NOT MORE THAN 30% BY WEIGHT PASSING THE #200 SIEVE. STRUCTURAL FILL SHALL BE PLACED IN MAX. 6 INCH LIFTS WITHIN 2% OF OPTIMUM MOISTURE AND COMPACTED TO 95% OF MAXIMUM DENSITY AS DETERMINED BY THE MODIFIED PROCTOR.
8. THE TOP 12 INCHES OF THE ROAD SUBGRADE SHALL BE MOISTURE CONDITIONED TO WITHIN 2% OF OPTIMUM AND COMPACTED TO 95% MAXIMUM DENSITY AS DETERMINED BY THE MODIFIED PROCTOR METHOD.
9. CRUSHED SURFACING TOP COURSE SHALL CONFORM TO WSDOT STANDARDS AND COMPACTED TO 95% OF MODIFIED PROCTOR MAXIMUM DENSITY.

   ASPHALT CONCRETE SHALL BE WSDOT CLASS B AND COMPACTED TO 92% OF THE THEORETICAL MAXIMUM DENSITY AS DETERMINED BY THE RICE METHOD.
10. DURING CONSTRUCTION, THE GROUND SURFACE SHOULD BE SLOPED TO PREVENT STORM RUNOFF FROM ACCUMULATING IN ANY OF THE SUBGRADE AREAS. ANY AREAS OF SOFTENED SUBGRADE SHALL BE REMOVED AND REPLACED WITH COMPACTED STRUCTURAL FILL.
11. SITE EXCAVATION, INCLUDING ROCK CUTS AND REMOVAL, SHALL CONFORM TO SECTION 2-03 OF THE WSDOT STANDARD SPECIFICATIONS. EMBANKMENTS TO BE CONSTRUCTED ACCORDING TO THE APPLICABLE PARAGRAPHS OF SECTION 2-03 OF THE WSDOT STANDARD SPECIFICATIONS. EARTH EMBANKMENTS TO BE CONSTRUCTED USING METHOD B OF 2-03.3(14)C.
12. ALL FILL IN AREAS OUTSIDE OF PAVEMENT SHALL BE COMPACTED IN MAXIMUM 8" LIFTS TO 92% OF MAXIMUM ASTM D 1557 DRY DENSITY. PAVEMENT SUBGRADE SHALL BE COMPACTED TO 95%.
13. FOR CONSTRUCTION OF DRYWELLS, INSTALL FILTER FABRIC (AMOCO 4545 OR APPROVED EQUIVALENT) BETWEEN THE WASHED DRAIN ROCK AND THE NATIVE SOIL.
14. PRIOR TO SITE CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR LOCATING UNDERGROUND UTILITIES. CALL UNDERGROUND UTILITY LOCATION SERVICE AS 456-8000 BEFORE YOU DIG.
15. THE FLOOR OF A GRASSED PERCOLATION AREA (GPA) SWALE INCLUDES THE LEVEL PORTION OF THE FLOOR OF THE SWALE, AND THE SIDESLOPES 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 THIS 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.
16. ONSITE GRADING SHALL BE IN ACCORDANCE WITH THE APPROVED GRADING PLAN AND ESC PLAN. ANY IMPORT OR EXPORT OF MATERIAL SHALL BE FROM PREAPPROVED SOURCE/DESTINATION AND COORDINATED WITH THE SPOKANE COUNTY DEPARTMENT OF BUILDING AND PLANNING AT 477-3675. GRADING ON THIS SITE OR ANY OTHER SITE MUST COMPLY WITH ALL DEVELOPMENT REGULATIONS INCLUDING, BUT NOT LIMITED TO, GRADING PERMITS, SEPA REVIEW, TIMBER HARVEST PERMITS, CRITICAL AREAS, FLOODPLAINS, DESIGNATED DRAINAGE WAYS, ECT.

JOHN EDWARD FINNEGAN
STATE OF WASHINGTON
033332
REGISTERED
PROFESSIONAL ENGINEER
EXPIRES: 7/6/08
4/1/8

I have reviewed the construction of this project and to my knowledge find it to be in substantial conformance with the accepted plans and Spokane County Standards except as noted.

UTILITY STATEMENT

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED AS ACCURATELY AS POSSIBLE FROM FIELD SURVEY INFORMATION COMPLETED BY CLC ASSOCIATES AND EXISTING DRAWINGS. LANDWORKS ENGINEERING, INC. MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. FURTHER, WE DO NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN EXACT LOCATION INDICATED, ALTHOUGH WE DO CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE.

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. ALL DESIGN DEVIATIONS HAVE BEEN APPROVED BY THE SPOKANE COUNTY ENGINEER. I APPROVE THESE PLANS FOR CONSTRUCTION.

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

landworks ENGINEERING, INC.
1426 W. BROADWAY AVE. SPOKANE, WA 99260
PHONE: (509) 327-3064 FAX: (509) 324-9728

FRIESEN ADDITION

COVER SHEET

GARY R. GALLINGER
STATE OF WASHINGTON
40377
REGISTERED
PROFESSIONAL ENGINEER
4-25-08
EXPIRES 06/28/08

SPOKANE COUNTY PUBLIC WORKS
DIVISION OF ROADS & ENGINEERING
W. 1026 BROADWAY AVE.
SPOKANE, WA 99260
PHONE #: 477-3064

VERTICAL DATUM - NAVD 88
ESTABLISHED ON-SITE BY GPS SURVEY PERFORMED MARCH 2007. SET PK NAIL NEAR SOUTH EDGE OF PAVEMENT 38' WEST OF N.E. PROPERTY CORNER. EL=2321.23

#	DATE	BY	REVISION
-	8-16-07	KWE	ORIGINAL SUBMITTAL
1	8-22-07	KWE	REVISED PER SPOKANE COUNTY COMMENTS DATED 8-21-07
2	4-25-08	KWE	RECORD DRAWING
3	-	-	-
4	-	-	-

4/25/08
DATE

DEVELOPER'S APPROVAL

SCALE
HOR. NTS
VERT. NTS

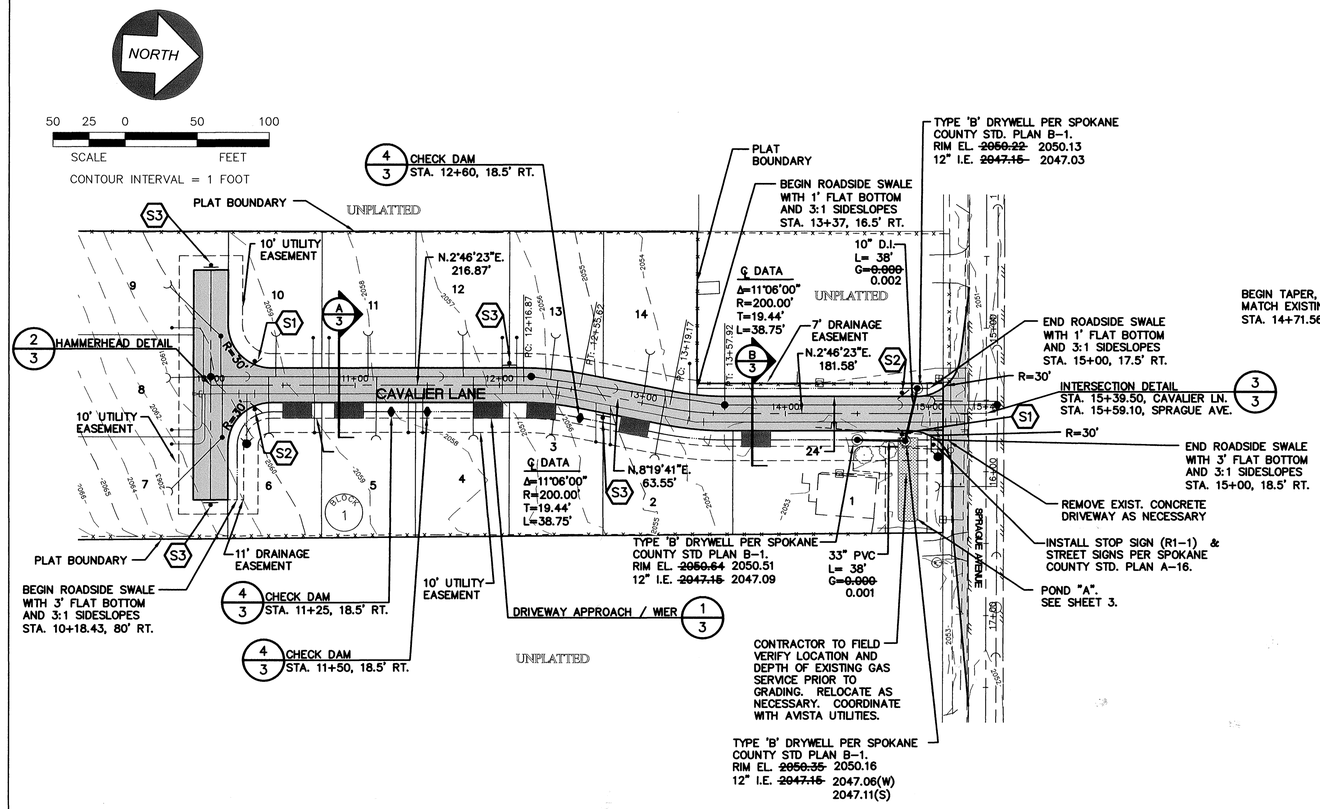
PROJECT #: 07-009
DESIGNED BY: KWE
CHECKED BY: GRG

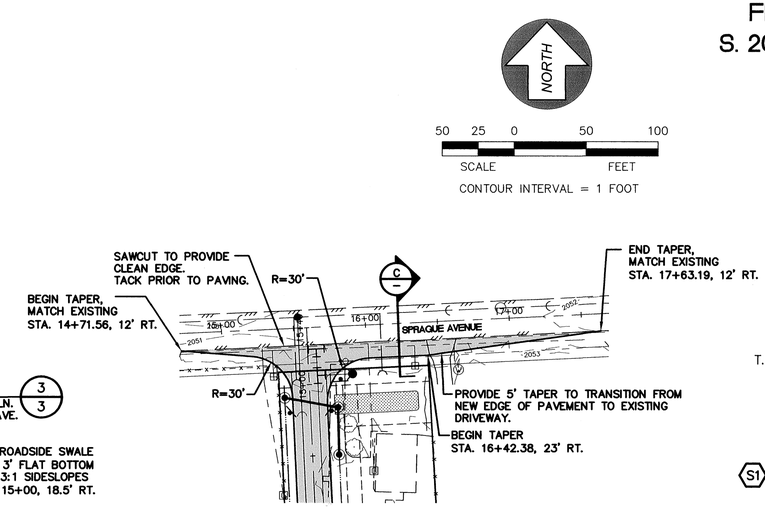
COVER

1 OF 4

P-1993 Era As Builts

FRIESEN ADDITION
S. 20, T.25N., R.45E., W.M.





T.B.M.

T.B.M. #1 P.K. NAIL NW CORNER OF INTERSECTION OF CAVALIER LANE AND SPRAGUE AVE. EL. 2051.26

SIGN NOTES

S1 — NO PARKING FIRE LANE → — SIGN TYPE "A" PER INTERNATIONAL FIRE CODE SECTION D103.6 SIGNS

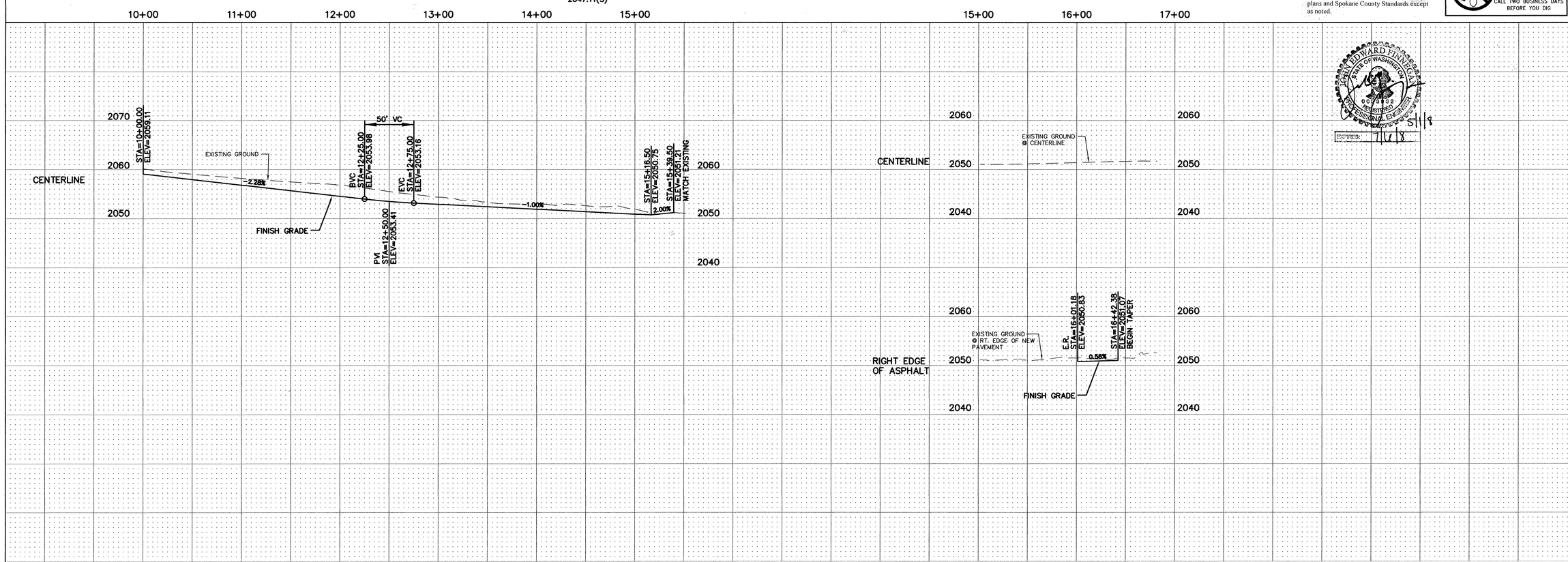
S2 — NO PARKING FIRE LANE ← — SIGN TYPE "C" PER INTERNATIONAL FIRE CODE SECTION D103.6 SIGNS

S3 — NO PARKING FIRE LANE — SIGN TYPE "D" PER INTERNATIONAL FIRE CODE SECTION D103.6 SIGNS

SPOKANE COUNTY ENGINEERS OFFICE
OFFICIAL PUBLIC DOCUMENT
ORIGINAL
"AS-BUILTS"
CERTIFIED RECORD DRAWINGS
PROJECT #: P1993
DATE ACCEPTED: 5/6/08

I have reviewed the construction of this project and to my knowledge find it to be in substantial conformance with the accepted plans and Spokane County Standards except as noted.

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



JOHN EDWARD FINNEGAN STATE OF WASHINGTON 00 31 02 REGISTERED PROFESSIONAL ENGINEER
EXPIRES: 7/1/08 5/1/08

landworks ENGINEERING, INC.
721 N. PINES RD., SPOKANE VALLEY, WA 99206
PHONE: (509) 922-7400 FAX: (509) 924-9728

FRIESEN ADDITION

CAVALIER LANE
STA. 10+00 TO 15+39.50

CASEY R. GALLINGER STATE OF WASHINGTON 40377 REGISTERED PROFESSIONAL ENGINEER
7-25-08
EXPIRES 06/28/08

SPOKANE COUNTY PUBLIC WORKS
DIVISION OF ROADS & ENGINEERING
W. 1026 BROADWAY AVE.
SPOKANE, WA 99260
PHONE #: 477-3604

VERTICAL DATUM - NAVD 88
ESTABLISHED ON-SITE BY GPS SURVEY PERFORMED MARCH 2007. SET PK NAIL NEAR SOUTH EDGE OF PAVEMENT, 30' WEST OF N.E. PROPERTY CORNER. EL.=2051.26

#	DATE	BY	REVISION
-	8-16-07	KWE	ORIGINAL SUBMITTAL
1	8-22-07	KWE	REVISED PER SPOKANE COUNTY COMMENTS DATED 8-21-07
2	4-25-08	KWE	RECORD DRAWING
3			

SCALE
HOR. 1"=50'
VERT. 1"=10'

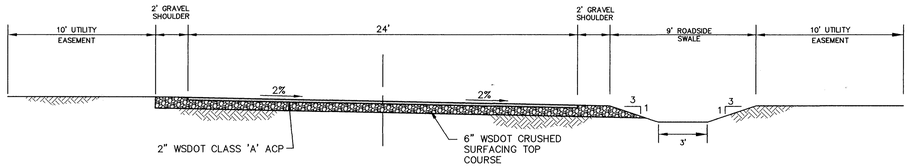
5/2/08
DATE
DEVELOPER'S APPROVAL

PROJECT #: 07-009
DESIGNED BY: KWE
CHECKED BY: GRG

ROAD SHEET
2 OF 4

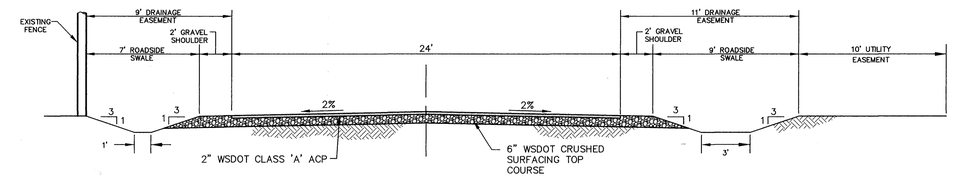
P1993 Eng AsBuilt

FRIESEN ADDITION
S. 20, T.25N., R.45E., W.M.



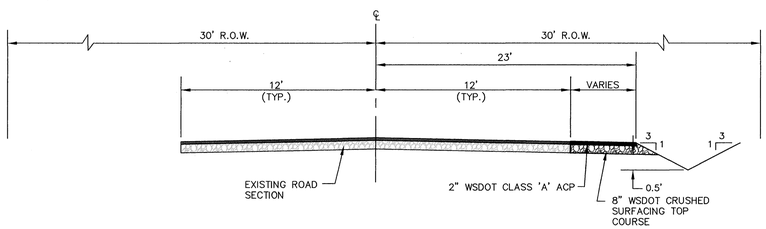
TYPICAL ROAD SECTION - CAVALIER LANE (A/2)

STA. 10+42.06 TO STA. 12+75 – FULL SUPERELEVATION
STA. 12+75 TO STA. 13+35 – TRANSITION TO CROWN
NOT TO SCALE



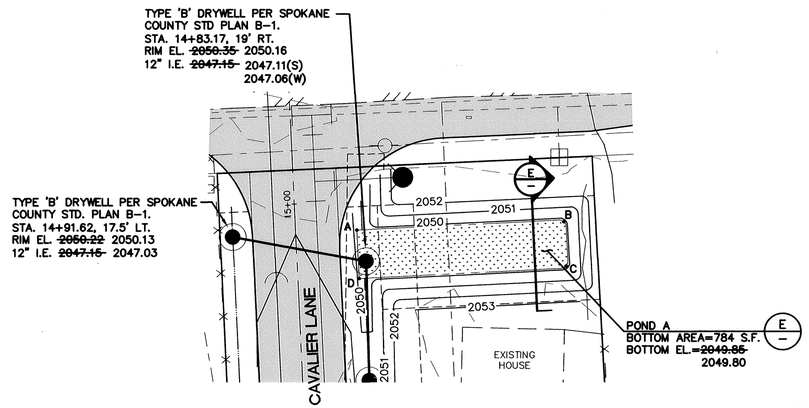
TYPICAL ROAD SECTION - CAVALIER LANE (B/2)

STA. 13+35 TO STA. 14+91.12
NOT TO SCALE



TYPICAL ROAD SECTION - SPRAGUE AVE (C/2)

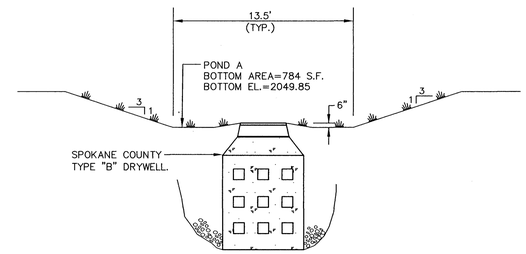
NOT TO SCALE



ITEM	STATION	OFFSET
A	14+91.96	17.0' RT.
B	14+91.49	74.6' RT.
C	14+79.16	74.6' RT.
D	14+78.46	17.0' RT.

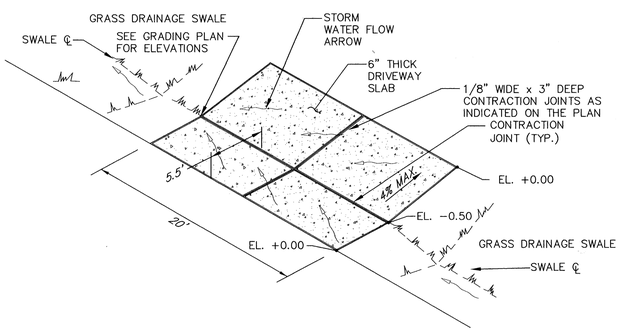
POND "A" DETAIL (D/2)

1"=20'



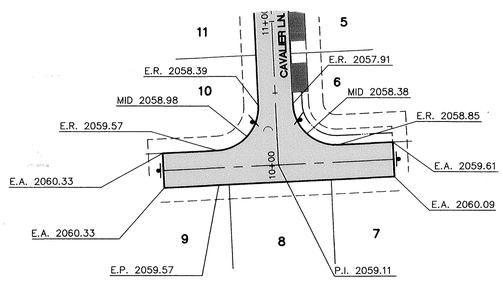
SWALE "A" SECTION (E/–)

NOT TO SCALE



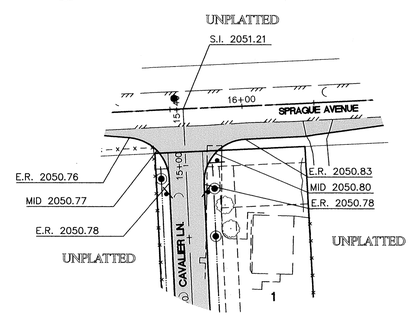
DRIVEWAY APPROACH / WIER (1/2)

NOT TO SCALE



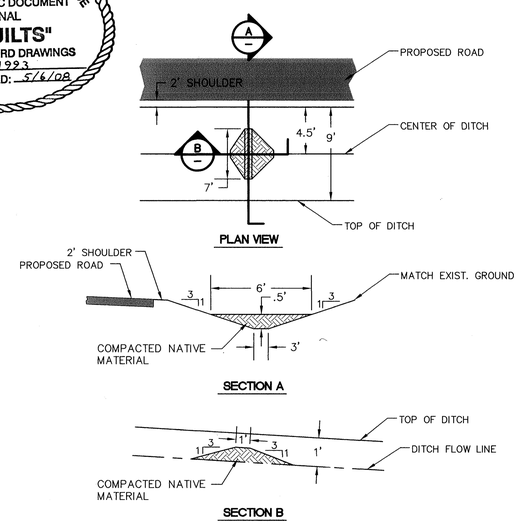
(2/2) HAMMERHEAD DETAIL

SCALE 1"=50'



(3/2) INTERSECTION DETAIL

SCALE 1"=50'



CHECK DAM (4/2)

NOT TO SCALE

SPOKANE COUNTY ENGINEERS OFFICE
OFFICIAL PUBLIC DOCUMENT
ORIGINAL
"AS-BUILTS"
CERTIFIED RECORD DRAWINGS
PROJECT #: P1993
DATE ACCEPTED: 5/6/08

NORTH

JOHN EDWARD FINNIGAN
STATE OF WASHINGTON
40332
REGISTERED PROFESSIONAL ENGINEER
5/1/8
EXPIRES: 7/6/8

I have reviewed the construction of this project and to my knowledge find it to be in substantial conformance with the accepted plans and Spokane County Standards except as noted.

UTILITY STATEMENT

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED AS ACCURATELY AS POSSIBLE FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. LANDWORKS ENGINEERING, INC. MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. FURTHER, WE DO NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN EXACT LOCATION INDICATED, ALTHOUGH WE DO CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE.

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

landworks ENGINEERING, INC.
721 N. PINES RD. SPOKANE VALLEY, WA 99206
PHONE: (509) 922-7400 FAX: (509) 924-9728

FRIESEN ADDITION

ROAD SECTIONS AND POND DETAILS

JAMES R. GALLINGER
STATE OF WASHINGTON
40377
REGISTERED PROFESSIONAL ENGINEER
4-25-08
EXPIRES 06/28/08

SPOKANE COUNTY PUBLIC WORKS
DIVISION OF ROADS & ENGINEERING
W. 1026 BROADWAY AVE.
SPOKANE, WA 99260
PHONE #: 477-3604

VERTICAL DATUM - NAVD 88
ESTABLISHED ON-SITE BY GPS SURVEY PERFORMED BY LANDWORKS ENGINEERING. REFER TO FINAL PLAT FOR PAVEMENT OF 30' WEST OF N.E. PROPERTY CORNER. EL.=2051.26

#	DATE	BY	REVISION
-	8-16-07	KWE	ORIGINAL SUBMITTAL
A	8-22-07	KWE	REVISED PER SPOKANE COUNTY COMMENTS DATED 8-21-07
A	4-25-08	KWE	RECORD DRAWING
A	-	-	-

SCALE
HOR. N/A
VERT. N/A

4/25/08
DATE
DEVELOPER'S APPROVAL

PROJECT #: 07-009
DESIGNED BY: KWE
CHECKED BY: GRG

ROAD SHEET
3 OF 4

P-1993 Eng AsBuilts