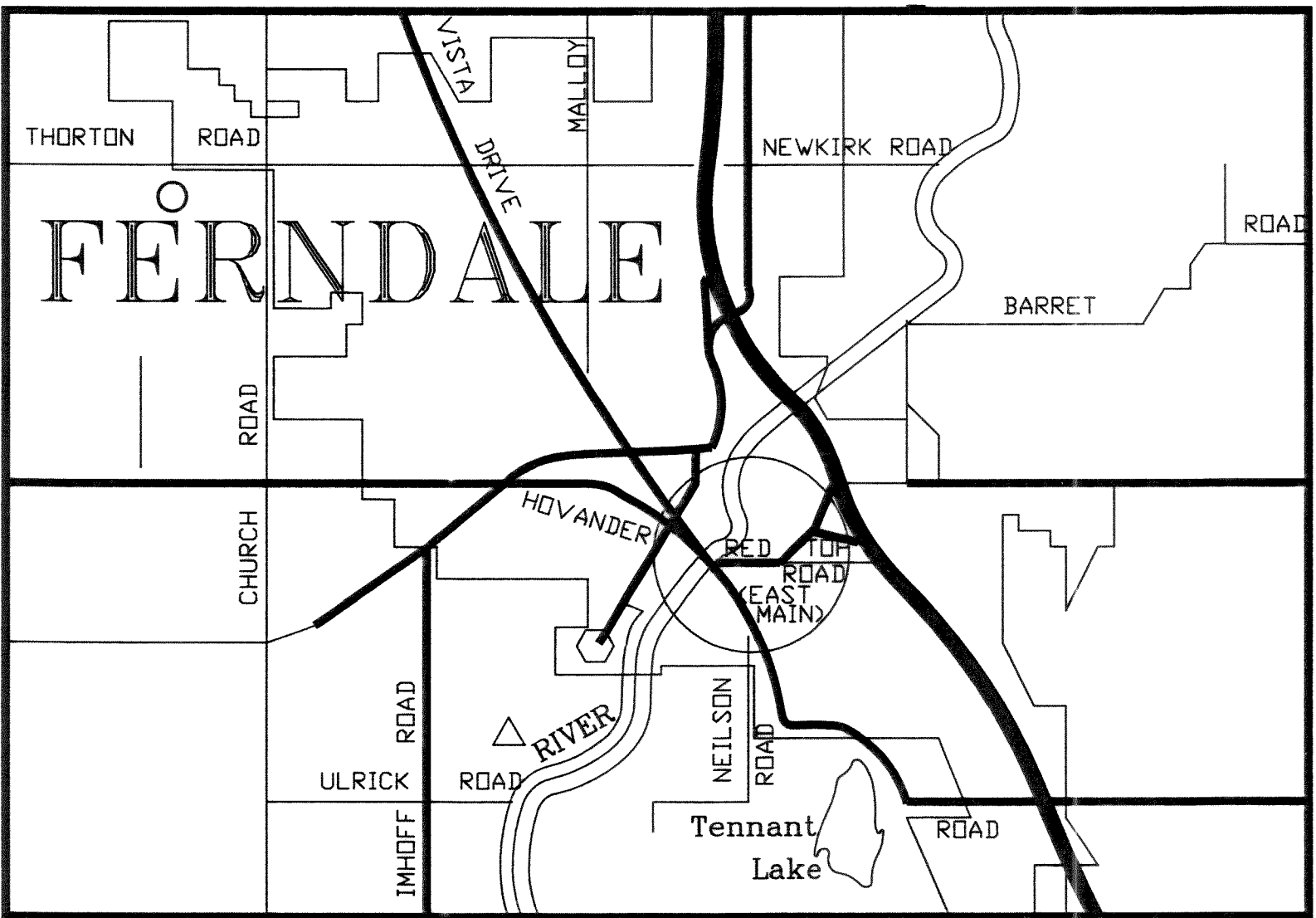


SAMUEL'S FURNITURE

CIVIL DESIGN

SHEET INDEX

- 1 - TITLE SHEET
- 2 - DEMOLITION PLAN
- 3 - GRADING AND DRAINAGE
- 4 - INFILTRATION SWALE
- 5 - WATER AND SEWER PLAN
- 6 - EROSION + SEDIMENT CONTROL
- 7 - MISCELLANEOUS DETAILS
- 8 - MISCELLANEOUS DETAILS
- 9 - GENERAL NOTES



VICINITY MAP
NTS

CIVIL LEGENDS

SYMBOLS

- = PROPOSED STORM SEWER CATCH BASIN
- = PROPOSED STORM SEWER MANHOLE
- = PROPOSED SANITARY SEWER CLEAN OUT
- = PROPOSED SANITARY SEWER MANHOLE
- ⊕ = PROPOSED GATE VALVE
- ⊕ = PROPOSED FIRE HYDRANT
- ⇒ = PROPOSED FLOWLINE
- ⊗ = EXISTING WATER BLOW OFF VALVE
- ⊗ = EXISTING WATER VALVE
- ⊗ = EXISTING FIRE HYDRANT
- ⊗ = EXISTING UNDERGROUND WATER LINE
- ⊗ = EXISTING STORM DRAIN MANHOLE
- ⊗ = EXISTING STORM DRAIN CATCH BASIN
- ⊗ = EXISTING STORM SEWER LINE
- ⊗ = EXISTING SANITARY SEWER MANHOLE
- ⊗ = EXISTING SANITARY SEWER LINE
- ⊗ = EXISTING METAL LIGHT POLE
- ⊗ = EXISTING WOOD POWER POLE
- ⊗ = EXISTING GUY WIRE
- ⊗ = EXISTING UNDERGROUND TELEPHONE PEDESTAL
- ⊗ = EXISTING ELECTRIC HANDHOLD
- ⊗ = EXISTING OVERHEAD LINES
- ⊗ = EXISTING EDGE OF TREES
- ⊗ = PROPOSED CLEARING LIMITS

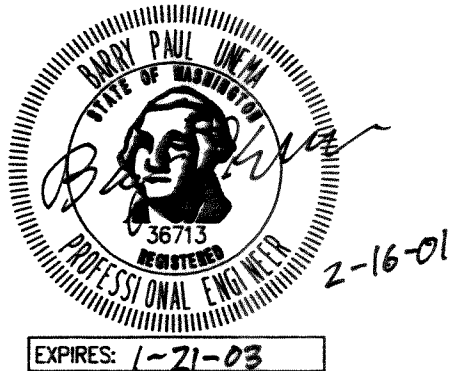
ABBREVIATIONS

- | | |
|--------------|-------------------------|
| SW | SOUTHWEST |
| SE | SOUTHEAST |
| NW | NORTHWEST |
| NE | NORTHEAST |
| E.O.P. | END OF PAVING |
| F. HYD. ASS. | FIRE HYDRANT ASSEMBLY |
| F.L. | FLOW LINE |
| INV. | INVERT |
| LF | LINEAR FEET |
| EL | ELEVATION |
| CL | CENTERLINE |
| L | ARC LENGTH |
| R | RADIUS |
| TBC | TOP BACK OF CURB |
| SDCB | STORM DRAIN CATCH BASIN |
| SDMH | STORM DRAIN MANHOLE |
| SSCO | SANITARY SEWER CLEANOUT |
| SSMH | SANITARY SEWER MANHOLE |
| IE | INVERT ELEVATION |
| F.G. | FINISH GRADE |
| E.G. | EXISTING GRADE |
| TO | TOP OF CURB |
| TP | TOP PAVEMENT |
| EP | EDGE PAVEMENT |
| TYP. | TYPICAL |
| FF | FINISHED FLOOR |
| TSW | TOP OF SIDEWALK |
| TCG | THROUGH CURB GRATE |
| FOC | FACE OF CURB |

"AS-BUILT"

I hereby certify that the improvements on the Samuel's Furniture expansion project have been inspected by Pacific Survey & Engineering and constructed in conformance with the plans approved by the Public Works Director for said development and the general specifications adopted by the City of Ferndale Department of Public Works.

By: *Pa. Plum* Date: 2-16-01



SAMUEL'S FURNITURE

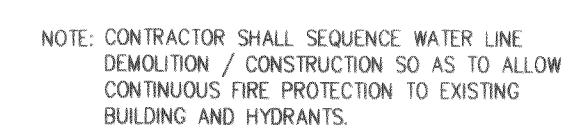
PACIFIC SURVEY AND ENGINEERING INC.
www.psesurvey.com pse@psurvey.com



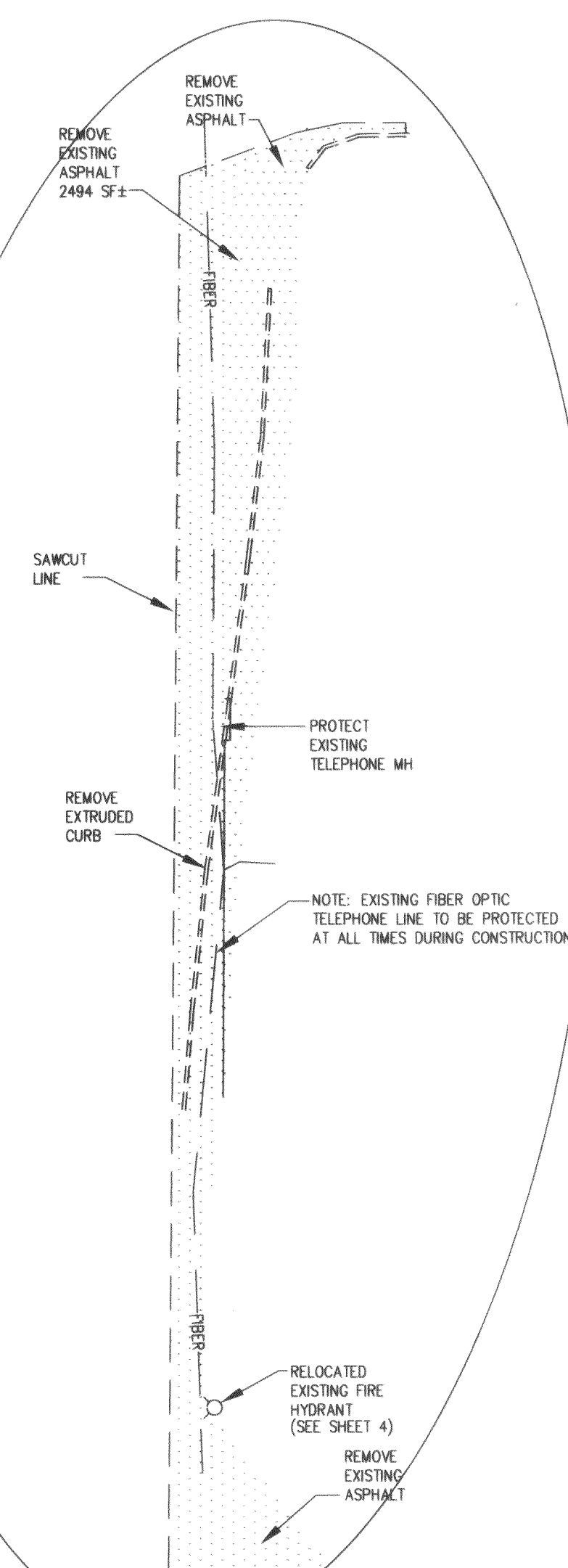
1812 CORNWALL AVE
BELLINGHAM, WASHINGTON 98225
PHONE: 671-7987 FAX LINE: 671-4485

BASIS OF COORDINATES IS POINT NO. 10
AS SHOWN HEREON.
N: 1200.000
E: 2100.000

00198.002 2.16.06 KR



NOTE: WORK NOT PERFORMED UNDER THIS CONTRACT
CONSTRUCTION TO BE COMPLETED BY THE CITY
OF FERRISDALE UNDER SEPARATE CONTRACT



GRAPHIC SCALE

(IN FEET)
1 inch = 20 ft.


MAR 05 2001

BY James J. Spence
CITY OF FERNDALE

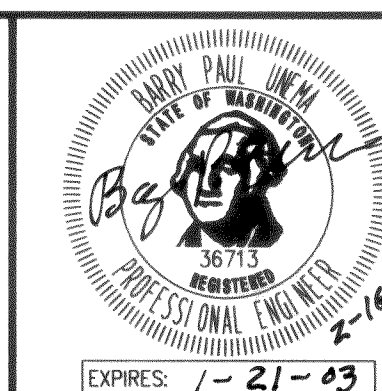
"AS-BUILT"

1-800-424-5555

FIELD BOOKS	TBM. NO.	LOCATION	ELEV.	DATA	DRAWN BY	CHECKED BY	DATA	DRAWN BY	CHECKED BY	REV.	DATE	DESCRIPTION	BY	No.	DATE	
DESIGN				BASE			TELEPHONE							1	AS-BUILT DRAWINGS	2/02/
STAKING				TOPOGRAPHY			ELECTRIC							2	AS-BUILT DRAWINGS	2/16/
				PROFILE			CABLE TV									
				SANITARY SEWER			DESIGN									
ASBUILT				STORM SEWER			QUANTITIES									
CONTRACTOR				WATER			FINAL CHECK									
INSPECTOR				GAS			DWG #									
CONSTRUCTION RECORD		VERTICAL DATUM					PLAN CHECK					REVISIONS			ISSUE	



1312 CORNWALL AVE.
BELLINGHAM, WASHINGTON 98225
PHONE: 671-7387 FAX LINE: 671-4685



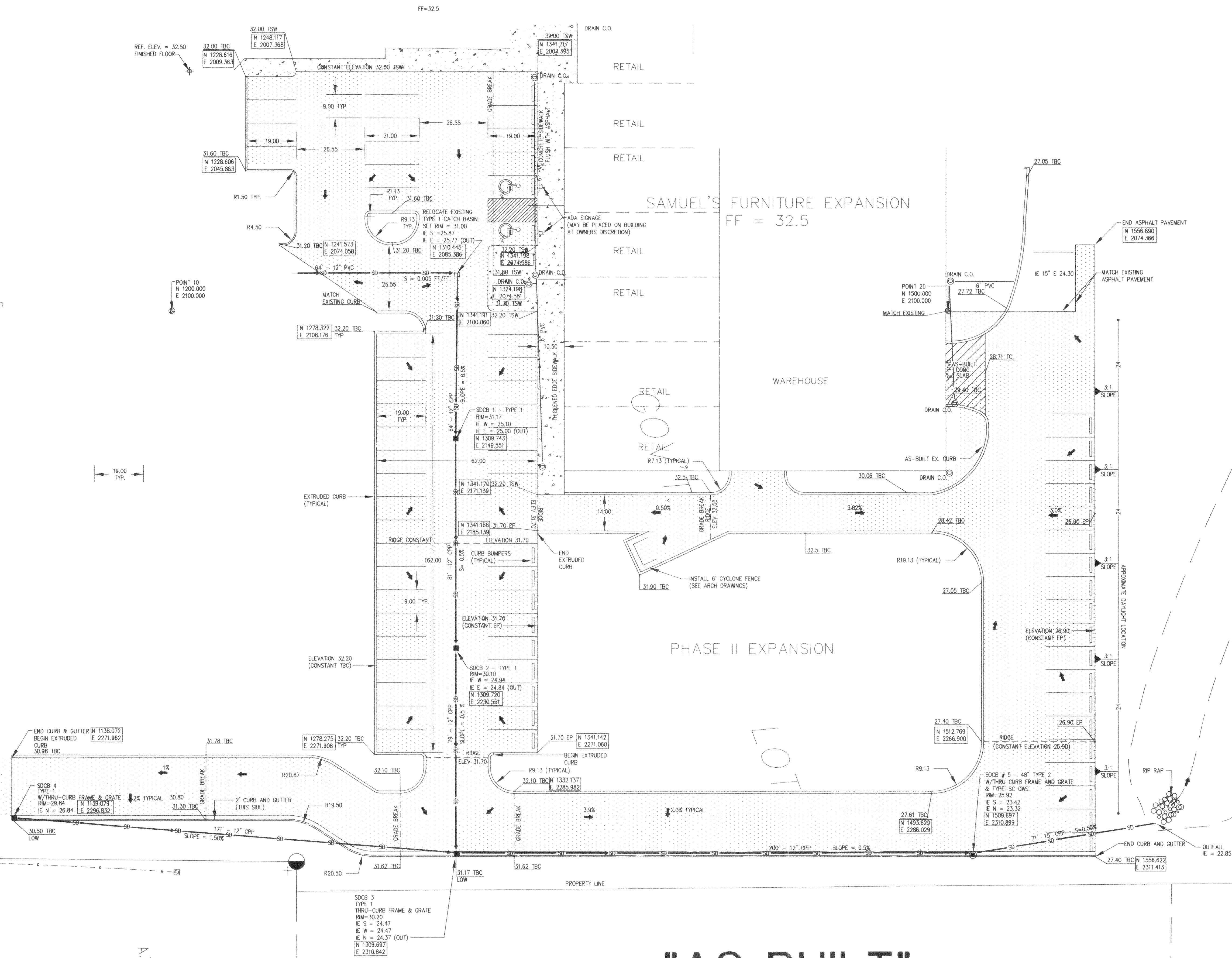
**SAMUEL'S FURNITURE
DEMOLITION PLAN**
1904 MAIN STREET
FERNDALE, WASHINGTON

HOR. SCALE: 1"=20'	DATE 2/16/01
VER. SCALE:	JOB/ACCT NO 99019

SHEET 2 of 2

MAIN

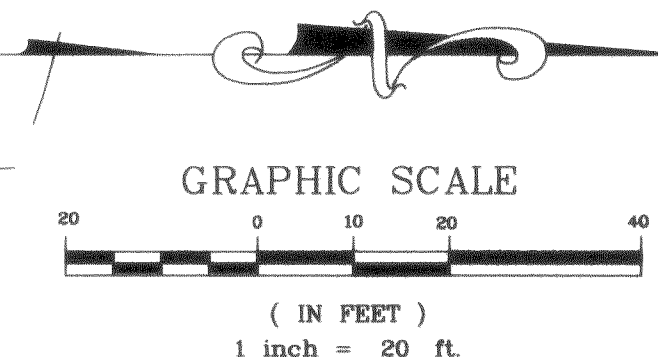
STREET



BASIS OF BEARING: ASSUMED NORTH
BETWEEN POINT NUMBERS 10 AND 20
AS SHOWN ON FACE OF MAP HEREON.

BASIS OF COORDINATES IS POINT NO. 10
AS SHOWN HEREON.
N: 1200.000
E: 2100.000

NOTE:
ALL CURB RADII AND ELEVATION
REFERENCE BACK-OF-CURB/
UNLESS OTHERWISE SPECIFIED



APPROVED

MAR 05 2001

BY *[Signature]*
CITY OF FERDALE

"AS-BUILT"

CALL BEFORE
YOU DIG

1-800-424-5555

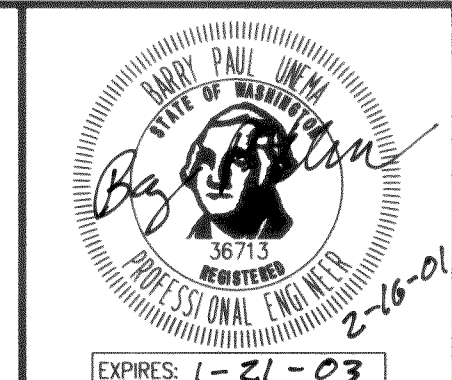
FIELD BOOKS	TBM. NO.	LOCATION	ELEV.	DATA	CHECKED BY	DATA	CHECKED BY	REV	DATE	DESCRIPTION	BY	No.	DATE
DESIGN				BASE		TOPOGRAPHY						1	AS-BUILT DRAWINGS 2/02/01
STAKING				PROFILE		CABLE TV						2	AS-BUILT DRAWINGS 2/16/01
ASBUILT				SANITARY SEWER		DESIGN							
CONTRACTOR				STORM SEWER		QUANTITIES							
INSPECTOR				WATER		FINAL CHECK							
CONSTRUCTION RECORD				GAS		DWG #							
VERTICAL DATUM				PLAN CHECK				REVISIONS				ISSUE	

PACIFIC SURVEY AND ENGINEERING INC.

www.pse-survey.com



101 CORNWALL AVE.
BELLINGHAM, WASHINGTON 98225
PHONE: 671-7267 FAX LINE: 671-4605



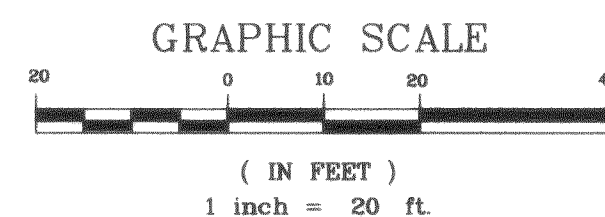
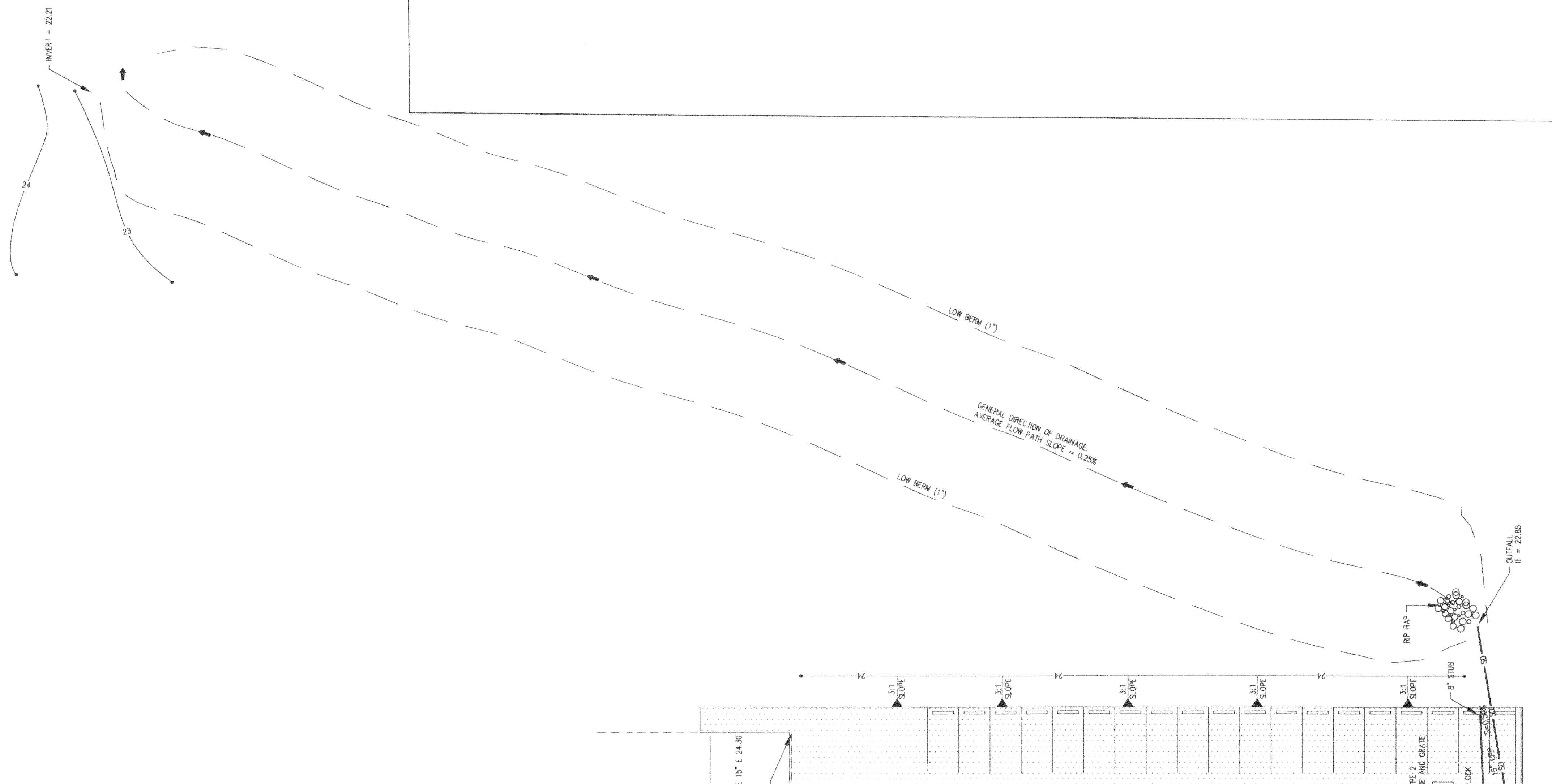
SAMUEL'S FURNITURE
GRADING AND DRAINAGE
1904 MAIN STREET
FERDALE, WASHINGTON

HOR. SCALE: 1"=20' DATE 2/16/01
VER. SCALE: JOB/ACCT. NO. 99019

SHEET 3 of 9

00198.003 2-16-06 KR

00198.004 2-16-06 KR



APPROVED
MAR 05 2001
BY *Samuel's Furniture*
CITY OF FERNDALE

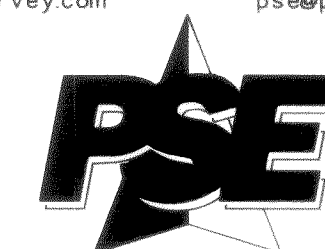
"AS-BUILT"

CALL BEFORE
YOU DIG

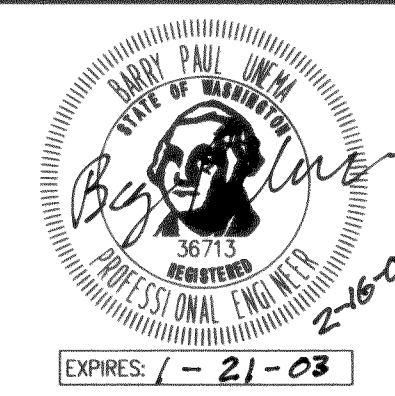
1-800-424-5555

FIELD BOOKS	TBM. NO.	LOCATION	ELEV.	DATA	DRAWN BY	CHECKED BY	DATA	DRAWN BY	CHECKED BY	REV	DATE	DESCRIPTION	BY	No.	DATE		
DESIGN				BASE			TELEPHONE							1	AS-BUILT DRAWINGS	2/02/01	
STAKING				TOPOGRAPHY			ELECTRIC							2	AS-BUILT DRAWINGS	2/16/01	
				PROFILE			CABLE TV										
ASBUILT				SANITARY SEWER			DESIGN										
CONTRACTOR				STORM SEWER			QUANTITIES										
INSPECTOR				WATER			FINAL CHECK										
				GAS			DWG #										
CONSTRUCTION RECORD				VERTICAL DATUM				PLAN CHECK				REVISIONS				ISSUE	

PACIFIC SURVEY AND ENGINEERING INC.
www.psesurvey.com

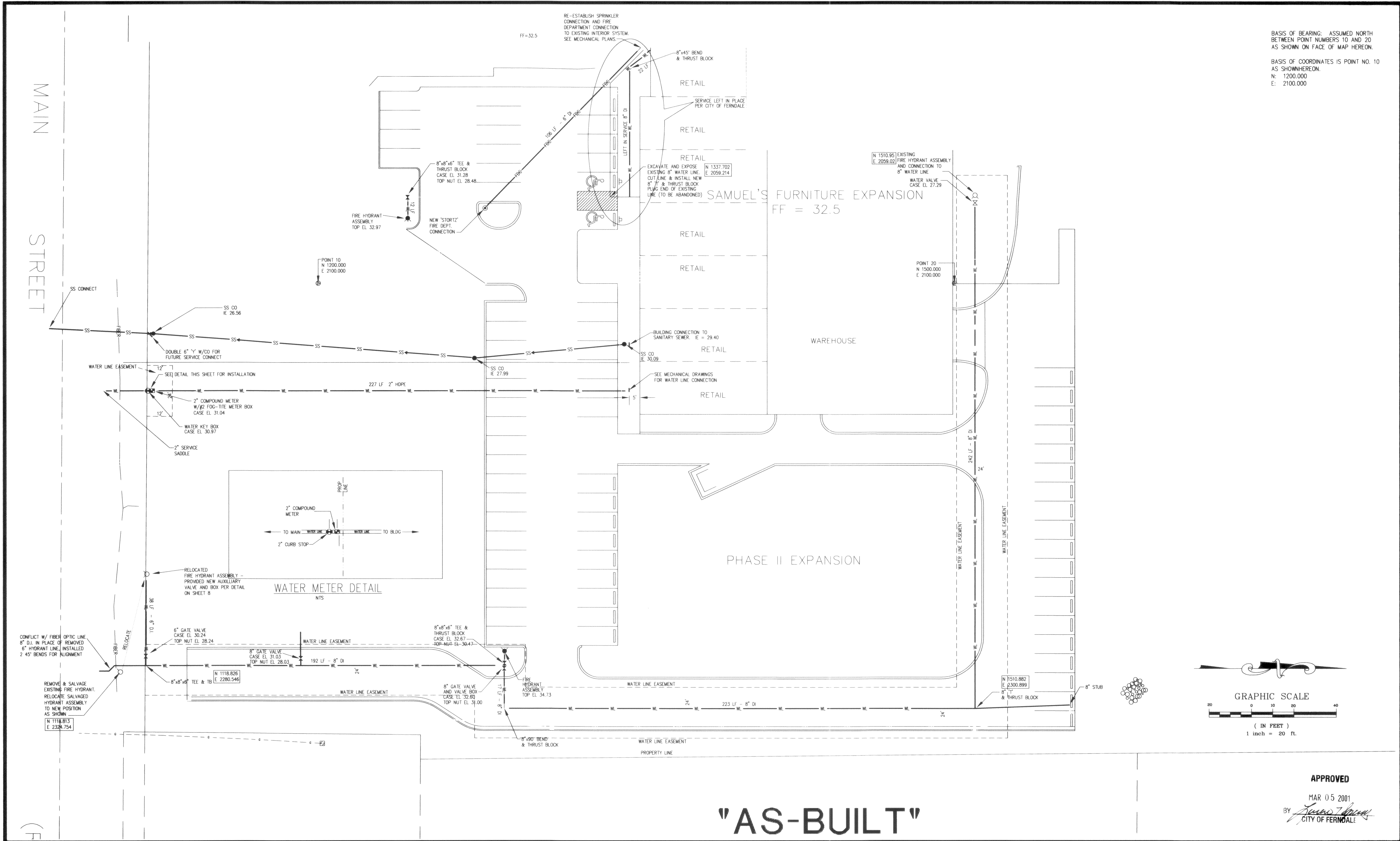


1812 CORNWALL AVE.
BELLINGHAM, WASHINGTON 98225
PHONE: 671-7387 FAX LINE: 671-4825



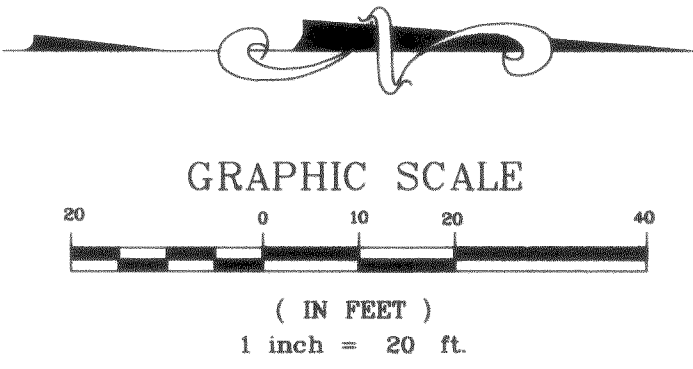
SAMUEL'S FURNITURE
INFILTRATION SWALE
1904 MAIN STREET
FERNDAL E , WASHINGTON

HOR. SCALE: 1"=20' DATE: 2/16/01
VER. SCALE: JOB/ACCT. NO. 99019
SHEET 4 of 9



BASIS OF BEARING: ASSUMED NORTH
BETWEEN POINT NUMBERS 10 AND 20
AS SHOWN ON FACE OF MAP HEREON.

BASIS OF COORDINATES IS POINT NO. 10
AS SHOWN HEREON.
N: 1200.000
E: 2100.000



APPROVED
MAR 05 2001
BY *[Signature]*
CITY OF FERNDALE

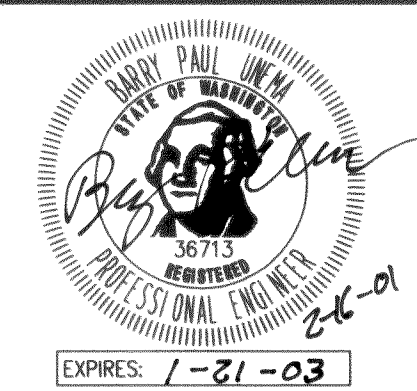
CALL BEFORE
YOU DIG
1-800-424-5555

FIELD BOOKS	TBM. NO.	LOCATION	ELEV.	DATA	DRAWN BY	CHECKED BY	DATA	DRAWN BY	CHECKED BY	REV	DATE	DESCRIPTION	BY	No.	DATE
DESIGN				BASE			TELEPHONE						1	AS-BUILT DRAWINGS	2/02/01
STAKING				TOPOGRAPHY			ELECTRIC						2	AS-BUILT DRAWINGS	2/16/01
ASBUILT				PROFILE			CABLE TV								
CONTRACTOR				SANITARY SEWER			DESIGN								
INSPECTOR				STORM SEWER			QUANTITIES								
				WATER			FINAL CHECK								
				GAS			DWG #								
CONSTRUCTION RECORD		VERTICAL DATUM		PLAN CHECK								REVISIONS			ISSUE

PACIFIC SURVEY AND ENGINEERING INC.
www.psesurvey.com psep@psurvey.com

PSE

1812 CORNWALL AVE.
BELLINGHAM, WASHINGTON 98225
PHONE: 671-7961 FAX LINE: 671-4685

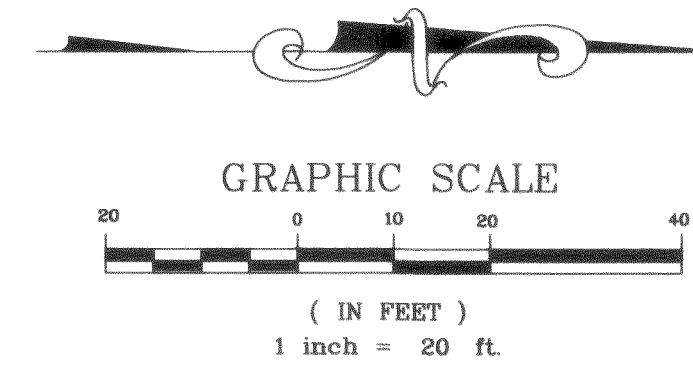


SAMUEL'S FURNITURE
WATER AND SEWER PLAN
1904 MAIN STREET
FERNDALE, WASHINGTON

HOR. SCALE: 1"=20' DATE: 2/16/01
VER. SCALE: JOB/ACCT. NO. 99019 SHEET 5 of 9

00198.005 2-16-06 KL

MAIN STREET



BASIS OF BEARING: ASSUMED NORTH
BETWEEN POINT NUMBERS 10 AND 20
AS SHOWN ON FACE OF MAP HEREON.

BASIS OF COORDINATES IS POINT NO. 10
AS SHOWN HEREON.
N: 1200.000
E: 2100.000

EROSION CONTROL NOTES:

- 1 - COVER ALL DIRT/GRAVEL
PILES WITH PLASTIC
SHEETING DURING CONSTRUCTION
WHEN NOT IN USE
- 2 - STABILIZE SOIL DENUDE OF
VEGETATION BY CONSTRUCTION
UPON COMPLETION WITH NEW
GRASS SEED AND STRAW MULCH -
SILT FENCE TO REMAIN IN PLACE
UNTIL SOILS STABILIZED.

- (FF) SILT FENCE
- (IP) INLET PROTECTION
- (DC) DUST CONTROL
- (CE) CONSTRUCTION ENTRANCE

NOTE:
SILT FENCE CONTINUES ALONG
INSIDE OF PROPERTY LINE TO
NORTH PROPERTY LINE, THEN
WEST TO CORNER.

APPROVED

MAR 05 2001

BY *Samuel's Furniture*
CITY OF FERNDALE

"AS-BUILT"

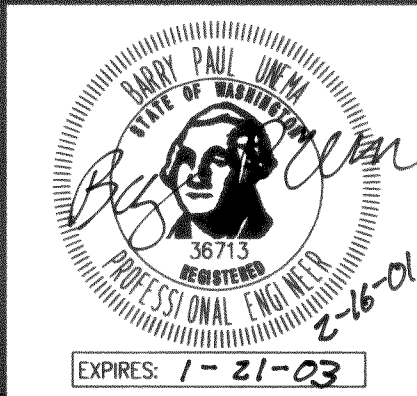
CALL BEFORE
YOU DIG
1-800-424-5555

FIELD BOOKS	TBM. NO.	LOCATION	ELEV.	DATA	DRAWN BY	CHECKED BY	DATA	DRAWN BY	CHECKED BY	REV	DATE	DESCRIPTION	BY	No.	DATE				
DESIGN				BASE			TELEPHONE							1	AS-BUILT DRAWINGS	2/02/01			
STAKING				TOPOGRAPHY			ELECTRIC							2	AS-BUILT DRAWINGS	2/16/01			
				PROFILE			CABLE TV												
ASBUILT				SANITARY SEWER			DESIGN												
CONTRACTOR				STORM SEWER			QUANTITIES												
INSPECTOR				WATER			FINAL CHECK												
				GAS			DWG #												
CONSTRUCTION RECORD				VERTICAL DATUM				PLAN CHECK				REVISIONS				ISSUE			

PACIFIC SURVEY AND ENGINEERING INC.
www.psesurvey.com pso@psurvey.com

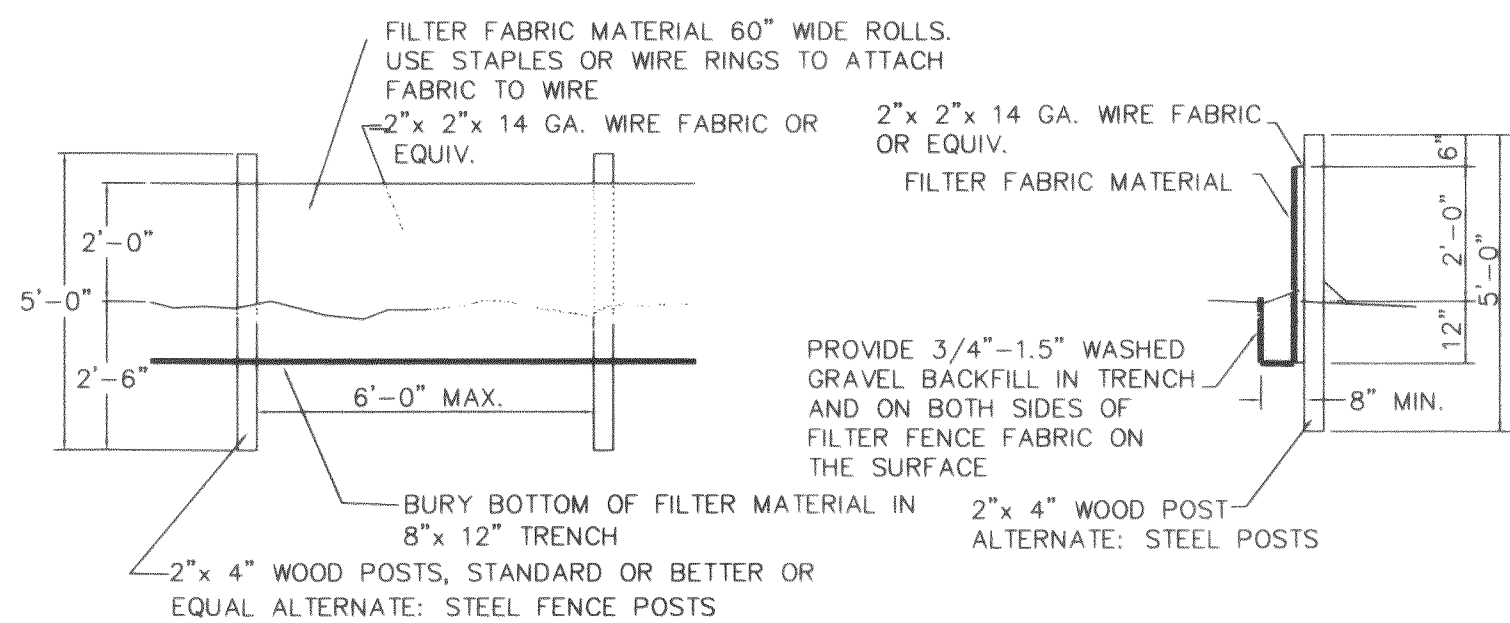


1010 CORNWALL AVE.
BELLINGHAM, WASHINGTON 98225
PHONE: 671-7267 FAX LINE: 671-4605

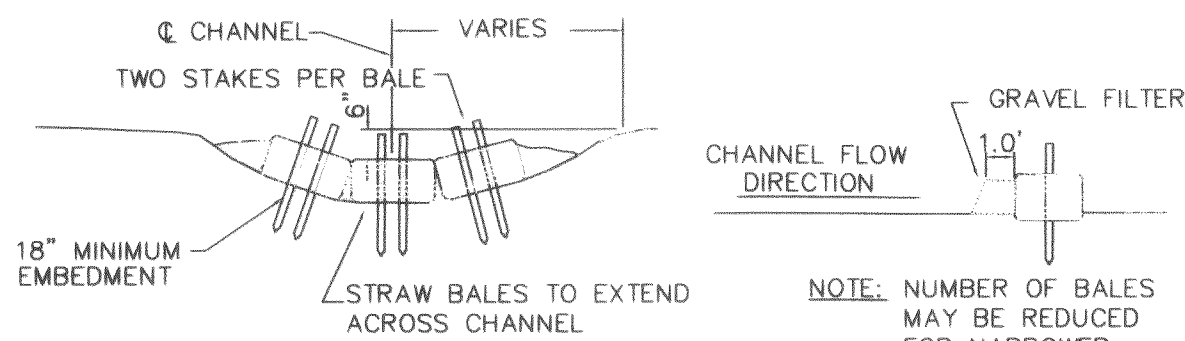


SAMUEL'S FURNITURE
EROSION + SEDIMENT CONTROL
1904 MAIN STREET
FERNDAL E , WASHINGTON

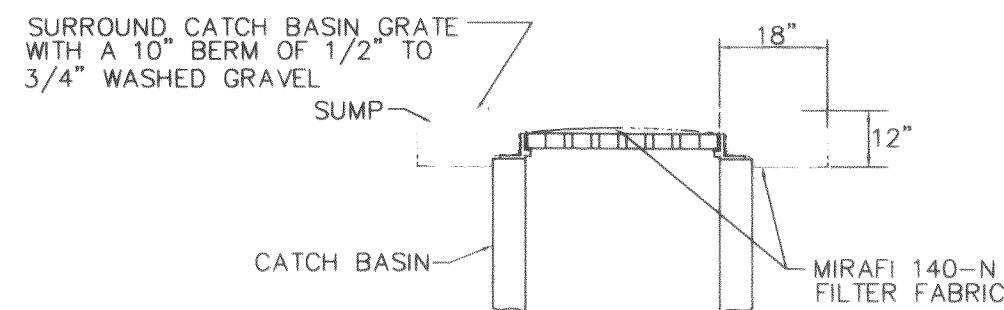
HOR. SCALE: 1"=20' DATE 2/16/01
VER. SCALE: JOB/ACCT. NO. 99019 SHEET 6 of 9



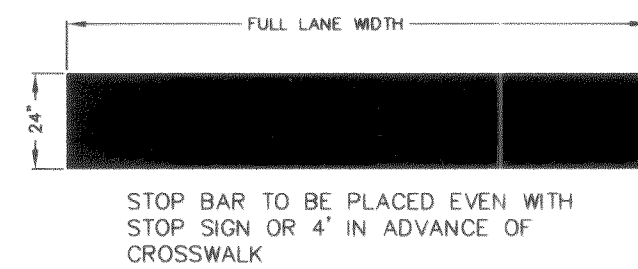
SILT FENCE
NTS



STRAWBALE CHECK DAM DETAILS
NTS

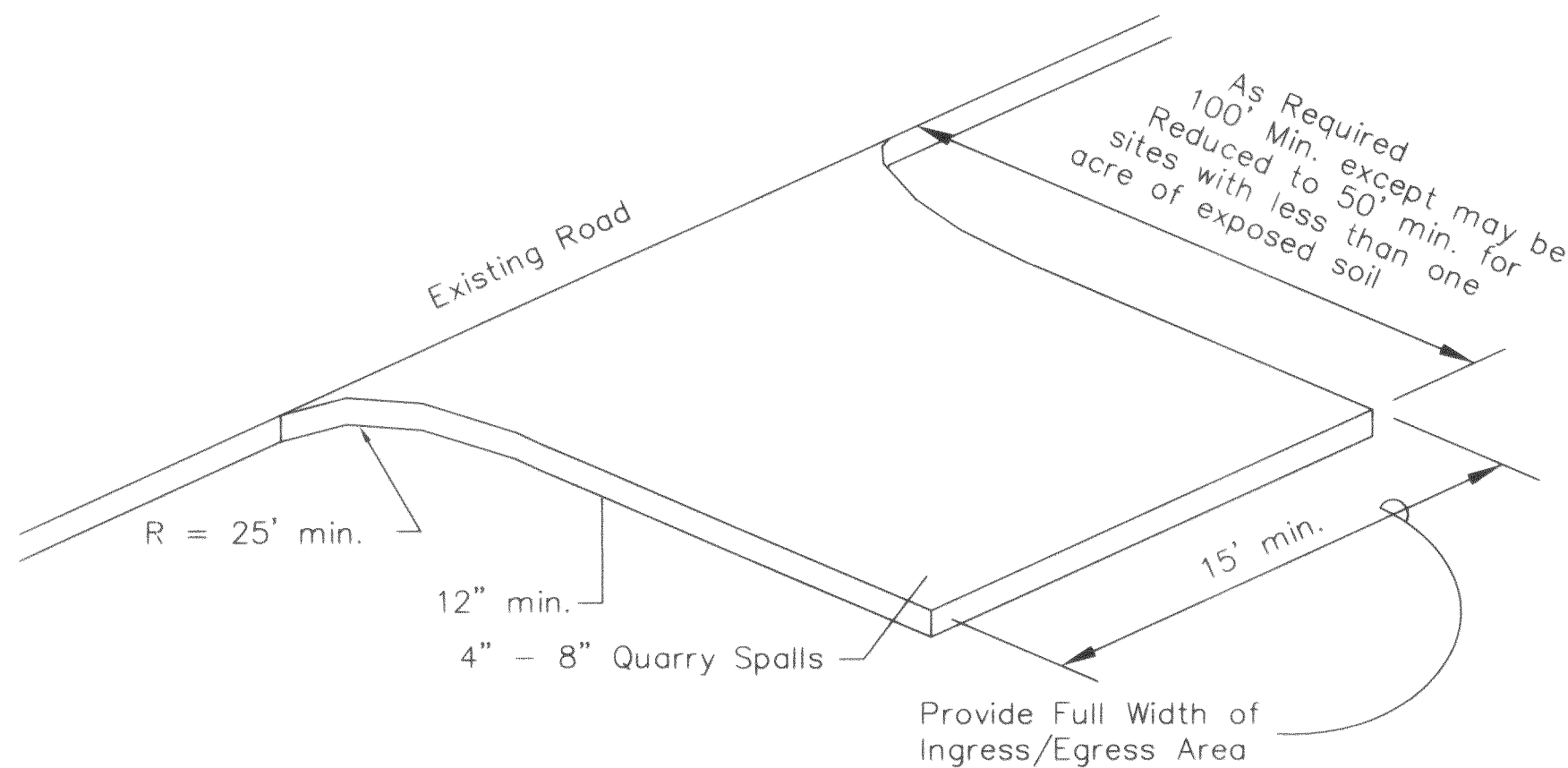


**INTERIM CATCH BASIN
GRATE PROTECTION**
NTS

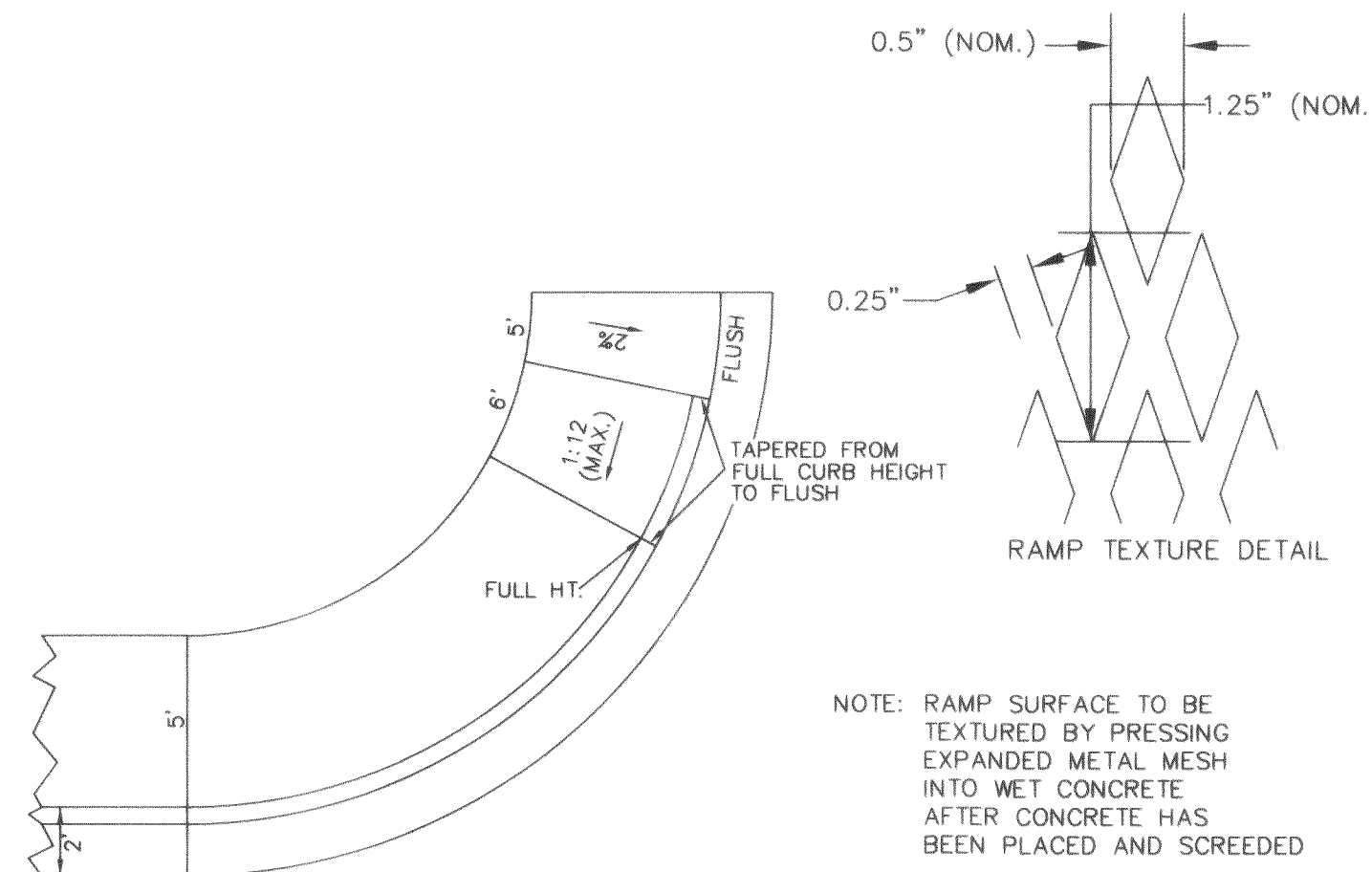


STOPBAR DETAIL

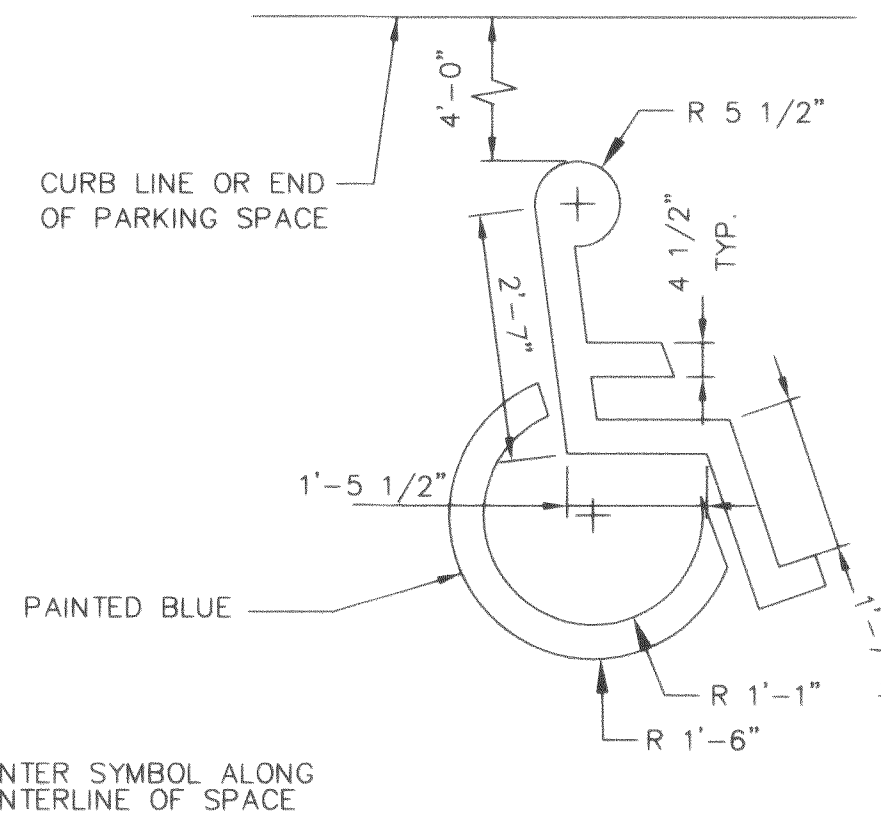
PAVEMENT MARKING DETAIL
NTS



CONSTRUCTION ENTRANCE
NTS



**HANDICAPPED RAMP
DETAIL - SE ENTRANCE**
NTS



PAVEMENT PARKING SYMBOL
NTS

"AS-BUILT"

APPROVED

MAR 05 2001

BY *James J. Sperry*
CITY OF FERNDALE

CALL BEFORE
YOU DIG

1-800-424-5555

FIELD BOOKS	TBM. NO.	LOCATION	ELEV.	DATA	DRAWN BY	CHECKED BY	DATA	DRAWN BY	CHECKED BY	REV	DATE	DESCRIPTION	BY	No.	DATE
DESIGN				BASE			TELEPHONE						1	AS-BUILT DRAWINGS	2/2/01
STAKING				TOPOGRAPHY			ELECTRIC						2	AS-BUILT DRAWINGS	2/16/01
ASBUILT				PROFILE			CABLE TV								
CONTRACTOR				SANITARY SEWER			DESIGN								
INSPECTOR				STORM SEWER			QUANTITIES								
				WATER			FINAL CHECK								
				GAS			DWG #								
CONSTRUCTION RECORD		VERTICAL DATUM		PLAN CHECK			REVISIONS					ISSUE			

PACIFIC SURVEY AND ENGINEERING INC.
www.psesurvey.com pse@psurvey.com



1812 CORNWALL AVE.
BELLINGHAM, WASHINGTON 98225
PHONE: 671-7967 FAX LINE: 671-4665



**SAMUEL'S FURNITURE
MISCELLANEOUS DETAILS**
1904 MAIN STREET
FERNDALE, WASHINGTON

HOR. SCALE: N/A
VER. SCALE: N/A

DATE 2/16/01
JOB/ACCT. NO. 99019

SHEET 7 of 9

00198.007 2-16-06 KR

00198.008 2.16.06 KR

GENERAL

1. ALL WORK AND MATERIALS SHALL CONFORM TO THE STANDARD PLANS AND SPECIFICATIONS OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (STANDARD SPECIFICATIONS). AND AMENDMENTS TO THESE SPECIFICATIONS AS CONTAINED HEREIN, PARTICULARLY SECTIONS 5-04 THROUGH 5-05, SECTIONS 7-08.3(3), 9-01 THROUGH 9-03 WILL GENERALLY APPLY UNLESS OTHERWISE STATED BELOW, OR BY THE CONTRACT DOCUMENTS. WORK AND MATERIALS SHALL ALSO CONFORM TO CITY OF FERNDAL (COF) DEVELOPMENT STANDARDS. IN CASE OF A CONFLICT BETWEEN THE REGULATORY STANDARDS OR SPECIFICATIONS, THE MORE STRINGENT REQUIREMENT WILL PREVAIL.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE SAFEGUARDS, SAFETY DEVICES, PROTECTIVE EQUIPMENT, FLAGGERS, AND ANY OTHER NEEDED ACTIONS TO PROTECT THE LIFE, HEALTH AND SAFETY OF THE PUBLIC, AND TO PROTECT PROPERTY IN CONNECTION WITH THE PERFORMANCE OF WORK COVERED BY THE CONTRACTOR. ANY WORK WITHIN THE TRAVELED RIGHT-OF-WAY THAT MAY INTERRUPT NORMAL TRAFFIC FLOW SHALL REQUIRE AT LEAST ONE FLAGGER FOR EACH LANE OF TRAFFIC AFFECTED. ALL SECTIONS OF THE WSDOT STANDARD SPECIFICATIONS 1-07.23-TRAFFIC CONTROL, SHALL APPLY.
3. UNDERGROUND UTILITIES ARE KNOWN TO EXIST IN THE AREA OF CONSTRUCTION. THE LOCATION OF EXISTING UTILITIES SHOWN IS APPROXIMATE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT ALL UTILITY OWNERS FOR LOCATIONS AND TO FIELD VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL CONTACT UTILITY LOCATION SERVICE AT LEAST 48 HOURS PRIOR TO STARTING CONSTRUCTION. PHONE: 1-800-454-5555. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE INTEGRITY OF ALL EXISTING UTILITIES AND TO NOTIFY THE ENGINEER PROMPTLY OF ANY CONFLICT WITH EXISTING UTILITIES.
4. THROUGHOUT THE WORK, THE CONTRACTOR SHALL COMPLY WITH ALL PERMITS.
5. A REVOCABLE ENCROACHMENT PERMIT SHALL BE OBTAINED PRIOR TO COMMENCING WORK IN THE RIGHT-OF-WAY
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING SUBSURFACE CONDITIONS AND SOILS TYPES.
7. THE CONTRACTOR SHALL LAY OUT AND SET ANY CONSTRUCTION STAKES AND MARKS NEEDED TO ESTABLISH THE LINES, GRADES, SLOPES OR CROSS-SECTIONS AS SHOWN ON THE PLANS OR AS STAKED BY THE ENGINEER.
8. BEFORE ANY CONSTRUCTION OR DEVELOPMENT ACTIVITY A PRE-CONSTRUCTION MEETING MUST BE HELD BETWEEN THE CONTRACTOR, OWNER, CITY ENGINEER AND PROJECT ENGINEER (MIN. 3 DAYS PRIOR TO STARTING).
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EROSION CONTROL MEASURES (SILT FENCE, STRAW BALE DAMS, SILT PONDS, ETC.), THROUGHOUT THE DURATION OF THE PROJECT. EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY CLEARING OR GRADING.
10. THE CONTRACTOR SHALL PROTECT ALL PRIVATE AND PUBLIC UTILITIES FROM DAMAGE RESULTING FROM THE WORK.
11. CONTRACTOR SHALL RESTORE ALL PRIVATE AND PUBLIC PROPERTY DISRUPTED BY THE PROJECT IMMEDIATELY AFTER CONSTRUCTION.
12. ALL HARD SURFACED PAVEMENTS IN PUBLIC AREAS MUST BE REPAIRED AT THE CLOSE OF EACH WORK DAY. THE REPAIRS CAN BE TEMPORARY WITH ASPHALT COLD MIX OR PERMANENT WITH CLASS B ASPHALT. ALL REPAIRS SHALL BE ACCORDING TO COF DEVELOPMENT STANDARDS. AT A MINIMUM PERMANENT REPAIRS MUST REPAIR THE HARD SURFACE IN KIND. SEE DETAIL.
13. INSPECTIONS FOR ROAD, DRAINAGE, AND UTILITY CONSTRUCTION SHALL BE AS OUTLINED AND IN ACCORDANCE WITH THE CITY OF FERNDAL DEVELOPMENT STANDARDS, SECTION 302
14. CONTRACTOR TO PROVIDE A 2 YEAR WARRANTY FOR MAINTAINING ALL GRADES ON DETENTION POND AND STRUCTURES.
15. A COPY OF THESE APPROVED PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
- UTILITIES
1. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE ENGINEER TO ASSURE ACCURATE AND TIMELY COLLECTION OF ALL REQUIRED AS-BUILT DATA. THIS DATA MUST ACCURATELY REFLECT THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES, BOTTOM OF PIPE ELEVATIONS, INVERT ELEVATIONS, MANHOLE LOCATIONS, BLOW-OFF LOCATIONS AND INVERTS OF SERVICE CONNECTION (BOTH AT PIPE AND AT PROPERTY LINE), VERTICAL AND HORIZONTAL BENDS, SERVICE BOXES AND METERS, VALVES AND HYDRANTS. CALL AT LEAST 48-HOURS BEFORE BURYING UNDERGROUND PIPE TO ASSURE AND FACILITATE REQUIRED AS-BUILT SURVEY. THE ENGINEER WILL PROVIDE CERTIFIED AS-BUILT MYLARS TO PUBLIC WORKS UPON PROVISIONAL ACCEPTANCE OF ROAD AND UTILITY IMPROVEMENTS.
2. THE CONSTRUCTION OF UNDERGROUND UTILITY LINES SHALL BE SUBJECT TO THE FOLLOWING CRITERIA:
- A. NO MORE THAN 500 FEET OF TRENCH SHALL BE OPENED AT ONE TIME.
- B. WHERE CONSISTENT WITH SAFETY AND SPACE CONSIDERATIONS, EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF DITCHES.
- C. TRENCH DEWATERING DEVICES SHALL DISCHARGE INTO SEDIMENT TRAPS OR SEDIMENT PONDS.
- D. WHERE PRACTICAL, INSTALL GRAVITY PIPE UTILITIES PRIOR TO INSTALLATION OF OTHER UTILITIES.
3. UTILITY CONSTRUCTION SHALL BE DONE IN ACCORDANCE TO THE CITY OF FERNDAL DEVELOPMENT STANDARDS.
4. TESTING OF NEW WATER LINES, SANITARY SEWER LINES, AND STORM SEWER SYSTEMS SHALL NOT BE PERFORMED UNTIL ALL OTHER ADJACENT UTILITIES HAVE BEEN INSTALLED.

EARTHWORK

1. THE CONTRACTOR SHALL CLEAR, GRUB AND CLEAN UP THOSE AREAS SHOWN ON THE PLANS.
2. THE CONTRACTOR SHALL RAZE, REMOVE AND DISPOSE OF ALL BUILDING AND FOUNDATIONS, STRUCTURES, FENCES AND OTHER OBSTRUCTIONS THAT LIE WHOLLY OR PARTIALLY WITHIN THE PROJECT LIMITS.
3. THE CONTRACTOR SHALL EXCAVATE AND GRADE TO THE ALIGNMENT, GRADE AND CROSS-SECTIONS SHOWN IN THE PLANS OR ESTABLISHED BY THE ENGINEER.
4. MAXIMUM DENSITY AND OPTIMUM MOISTURE FOR GRANULAR MATERIALS WILL BE DETERMINED USING ASTM D-1557 TEST METHOD.
5. UNSUITABLE MATERIAL NOT FIT FOR A SUB-GRADE SHALL BE EXCAVATED TO THE BOUNDARIES SET BY THE ENGINEER AND REPLACED WITH A SUITABLE BACKFILL MATERIAL.

BASES

1. GRAVEL BASES AND BALLAST MAXIMUM PARTICLE SIZE PASSING THE U.S. NO. 200 SIEVE SHALL NOT EXCEED 5%.
2. BALLAST, GRAVEL BASE AND CRUSHED SURFACING SHALL BE COMPACTED TO AT LEAST 95% OF ITS MAXIMUM DRY DENSITY.
3. CONTRACTOR OR PROPONENT SHALL BE RESPONSIBLE FOR ALL COMPACTION TESTING.

PAVEMENTS

1. WHERE SHOWN ON THE PLANS, PAVEMENT MARKINGS SHALL BE OBLITERATED UNTIL BLEMISHES CAUSED BY THE PAVEMENT MARKING REMOVAL CONFORM TO THE COLORATION OF THE ADJACENT PAVEMENT.
2. SOIL RESIDUAL HERBICIDE SHALL BE PLACED WITHIN 24 HOURS OF PAVING.
3. A TACK COAT OF ASPHALT SHALL BE APPLIED BETWEEN ALL COURSES OF ASPHALT.
4. ALL PAVEMENT REPAIR SHALL BE SAW-CUT BEFORE REMOVAL. AR-4000W SHALL BE APPLIED TO ALL EDGES OF EXISTING PAVEMENT.
5. ASPHALT CONCRETE PAVEMENT SHALL NOT BE PLACED NOR COMPACTED DURING HOURS OF DARKNESS.
6. SUBGRADE SHALL BE CERTIFIED BY THE DESIGN ENGINEER PRIOR TO PAVING.

SANITARY SEWER NOTES

1. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH A.P.W.A. STANDARD SPECIFICATIONS, 1996 EDITION, AND SHALL BE SUBJECT TO APPROVAL BY THE CITY OF FERNDAL.
2. ALL WORK MUST BE INSPECTED TO THE SATISFACTION OF THE CITY OF FERNDAL. 24 HOUR NOTICE MUST BE GIVEN PRIOR TO STARTING WORK.
3. SEWER MAIN SHALL BE A MINIMUM 8 INCHES DIAMETER PVC CONFORMING TO THE PROVISIONS OF ASTM D 3034 AND INSTALLED TO CITY SPECIFICATIONS.
4. TESTING OF THE SEWER SYSTEM SHALL BE DONE IN THE PRESENCE AND UNDER THE SUPERVISION OF A CITY OF FERNDAL REPRESENTATIVE.
5. ALL TRENCHES SHALL BE BACKFILLED WITH CLASS B BANK RUN GRAVEL OR SUITABLE NATURAL MATERIAL AS DIRECTED BY THE ENGINEER, AND COMPACTED TO 95% MODIFIED PROCTOR DENSITY.
6. ALL MANHOLES SHALL BE INSTALLED PER CITY OF FERNDAL SS-2, SS-3, SS-4, AND SHALL BE PRE-CHANNELED..
7. SIDE SEWERS SHALL BE INSTALLED PER CITY OF FERNDAL STANDARDS.
8. MANHOLE CONES ARE TO BE OFFSET SUCH THAT LADDER RUNGS ARE PARALLEL TO THE FLOW.
9. BEDDING SHALL BE PEA GRAVEL PER SS-1.
10. ALL CLEANOUTS SHALL BE INSTALLED PER CITY OF FERNDAL SS-5.

STORM DRAINAGE

1. ALL PIPE AND APPURTENANCES SHALL BE LAID ON A PROPERLY PREPARED FOUNDATION IN ACCORDANCE WITH WSDOT 7-08.3(1). THIS SHALL INCLUDE LEVELING AND COMPACTING THE TRENCH BOTTOM, THE TOP OF THE FOUNDATION MATERIAL AND ANY REQUIRED PIPE BEDDING, TO A UNIFORM GRADE SO THAT THE ENTIRE PIPE IS SUPPORTED BY A UNIFORMLY DENSE UNYIELDING BASE. DRAINAGE MATERIALS SHALL CONFORM TO SEC. 9-05.
2. ALL DRAINAGE STRUCTURES, SUCH AS CATCH BASINS AND MANHOLES, LOCATED IN AREAS HAVING LIMITED PUBLIC SURVEILLANCE SHALL HAVE SOLID LOCKING LIDS. ALL DRAINAGE STRUCTURES ASSOCIATED WITH A PERMANENT RETENTION/DETENTION FACILITY OR OIL POLLUTION PREVENTION DEVICE SHALL HAVE SOLID LOCKING LIDS.
3. ALL STORM DRAIN GRATES SHALL INCLUDE THE STAMPING "OUTFALL TO STREAM, DUMP NO POLLUTANTS.
4. UNLESS OTHERWISE SPECIFIED, CAST IRON PRODUCTS SHALL CONFORM TO ASTM DESIGNATION A 48 CLASS 30 AND DUCTILE IRON PRODUCTS TO ASTM DESIGNATION A 536 GRADE 80-55-06.
5. ROCK FOR EROSION PROTECTION OF ROADWAY DITCHES, WHERE REQUIRED, MUST BE OF SOUND QUARRY ROCK, PLACED TO A DEPTH OF ONE FOOT AND MUST MEET THE FOLLOWING SPECIFICATIONS: 5"-8" ROCK/40%-70% PASSING; 2"-4" ROCK/30%-40% PASSING; AND 2" ROCK/10%-20% PASSING. ALL RIPRAP AT PIPE ENDS SHALL BE MORTARED.

WATER

1. PIPE FOR WATER MAIN - ALL PIPE SHALL BE OF A.W.W.A. STANDARDS H3-71, C151-71 AND CEMENT LINING C104-71, AND SHALL BE DUCTILE CAST-IRON, STANDARD THICKNESS CLASS 50 PUSH-ON JOINTS OR M.J. JOINTS. THE PIPE SHALL BE OF 150 PSI WORKING PRESSURE, PLUS 100 PSI SURGE PRESSURE. NO PVC OR AC PIPE WILL BE ALLOWED.
- PIPE LAYING SHALL MEET THE REQUIREMENTS OF SECTION 7-11 OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE OR MUNICIPAL CONSTRUCTION. ALL PIPE SHALL HAVE A MINIMUM COVERING OF 3.5 FEET.
2. FITTINGS - MATERIAL FOR FITTINGS SUCH AS CROSSES, TEES, BENDS, REDUCERS AND SLEEVES SHALL BE DUCTILE IRON. JOINTS SHALL BE M.J., FLANGED OR PUSH-ON JOINTS AND SHALL CONFORM TO A.W.W.A. SPECIFICATIONS C-110-71 AND C-104-71.
3. CONCRETE THRUST BLOCKING - CONCRETE BLOCKING SHALL BE AS SPECIFIED IN CITY OF FERNDAL STANDARD DETAIL W-2 THROUGH W-4, OR AS DIRECTED BY PROJECT ENGINEER. BLOCKS SHALL BE INSTALLED AS SPECIFIED IN SECTION 7-11.3(13) OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE OR MUNICIPAL CONSTRUCTION. NO PRE CAST BLOCKS ARE ALLOWED.
4. CONNECTION TO EXISTING WATER MAINS - THE CONTRACTOR MUST NOTIFY THE FERNDAL PUBLIC WORKS DIRECTOR OF A PROPOSED CONNECTION AT LEAST FOUR WORKING DAYS IN ADVANCE.
5. HYDROSTATIC TESTING AND DISINFECTION OF WATER MAINS SHALL CONFORM TO SECTIONS 7-11-3(11) AND 7-11.3(12) OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE OR MUNICIPAL CONSTRUCTION - CURRENT EDITION. HYDROSTATIC TESTING INSPECTED BY CITY.
6. WATER SERVICE TRANSFERS - TAP INSTALLATIONS SHALL MEET THE REQUIREMENTS OF THE CITY OF FERNDAL DEVELOPMENT STANDARDS.
7. GATE VALVES - GATE VALVES SHALL BE FOR LINES 2 INCHES THROUGH 10 INCHES, AND SHALL BE INSTALLED IN CAST-IRON VALVE BOXES. SHORT-BODY VALVES SUITABLE FOR A NONSHOCK SHUT-OFF PRESSURE OF 130 PSI RESILIENT SEAT VALVES AND SUITABLE FOR DIRECT BURIAL ARE SPECIFIED.
- GATE VALVES SHALL BE RESILIENT SEATED IRON-BODY, FULL-BRONZE MOUNTED VALVES CONFORMING TO A.W.W.A. C509 AND SUITABLE FOR SERVICE WITH THE TYPE AND CLASS OF PIPE USED.
- ALL VALVES SHALL HAVE NONRISING STEMS AND SHALL OPEN COUNTERCLOCKWISE AND SHALL BE EQUIPPED WITH A 2 INCH SQUARE OPERATING NUT. VALVES WILL BE FLANGE OR M.J. JOINTS.

VALVE MARKERS SHALL BE LOCATED OUTSIDE OF PAVEMENT SECTIONS.

8. HYDRANT MATERIALS AND INSTALLATION - FIRE HYDRANTS AND FIRE MAINS MUST CONFORM TO COF STANDARD DETAIL W-1 (WSDOT B-19) AND THE FOLLOWING STANDARDS:

- i. FIRE HYDRANTS SHALL HAVE TWO INDIVIDUALLY-VALVED 2-1/2" PORTS AND ONE 3-1/4" MAIN VALVE OPENING. A 4-1/2" NST PUMPER NOZZLE AND A 5" STORZ PORT WITH CAP AND CABLE SHALL BE SUPPLIED. HYDRANTS SHALL EITHER BE IOWA OR M.H. 929T HYDRANTS.
- ii. FIRE HYDRANTS SHALL HAVE THE STORZ PORT FACING THE REQUIRED ACCESS AND THE BASE FLANGE OF THE HYDRANT MUST NOT VARY MORE THAN 1 FOOT IN ELEVATION FROM THE GRADE LEVEL OF THE REQUIRED ACCESS. THE LOWEST STEM SHALL BE A MINIMUM OF 14" ABOVE THE GROUND.
- iii. IF THE PUBLIC WORKS DIRECTOR DETERMINES THAT FIRE HYDRANTS ARE VULNERABLE TO VEHICULAR DAMAGE, APPROPRIATE CRASH POSTS SHALL BE PROVIDED. NO OBSTRUCTIONS SHALL EXIST WITHIN A 3-FOOT WORKING AREA OF EACH REQUIRED ACCESS. CRASH POSTS SHALL BE 4" CEMENT-FILLED PIPE A MIN. OF 3' IN HEIGHT WITH A MIN. OF 2' OF PIPE BELOW GRADE. HYDRANT SHUTOFF VALVES SHALL BE LOCATED BETWEEN 5' AND 20' FROM THE HYDRANT.
- iv. UNDERGROUND SUPPLIES TO FIRE HYDRANTS MUST BE INSPECTED. SUCH INSPECTION SHALL INCLUDE VISUAL INSPECTION OF PIPING AND HYDROSTATIC PRESSURE TESTING TO A MIN. OF 200 PSI OR 50 PSI IN EXCESS OF STREET MAIN PRESSURE, WHICHEVER IS GREATER. A FLOW TEST WILL BE REQUIRED WHEN INSTALLATION IS COMPLETE.
- v. FIRE HYDRANTS MUST BE MAINTAINED IN AN OPERABLE CONDITION AT ALL TIMES AND MUST BE REPAIRED OR REPLACED WHEN DEFECTIVE. HYDRANTS SHALL BE FULLY OPERABLE BEFORE CONSTRUCTION COMMENCES ABOVE GRADE LEVEL.

EROSION/SEDIMENTATION CONTROL & ROADSIDE PLANTING

1. APPROVAL OF THE EROSION/SEDIMENTATION CONTROL (ESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G. SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.).
2. THE IMPLEMENTATION OF THE ESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR UNTIL ALL CONSTRUCTION IS APPROVED.
3. THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE CLEARLY FLAGGED IN THE FIELD PRIOR TO CONSTRUCTION. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE FLAGGED CLEARING LIMITS SHALL BE PERMITTED. THE FLAGGING SHALL BE MAINTAINED BY THE CONTRACTOR FOR THE DURATION OF CONSTRUCTION.
4. THE ESC FACILITIES SHOWN ON THE PLANS MUST BE CONSTRUCTED IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES, AND IN SUCH A MANNER AS TO INSURE THAT SEDIMENT LADEN WATER DOES NOT ENTER THE DRAINAGE SYSTEM OR VIOLATE APPLICABLE WATER STANDARDS.
5. THE ESC FACILITIES SHOWN ON THE PLANS ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED (E.G. ADDITIONAL SUMPS, RELOCATION OF DITCHES AND SILT FENCES, ETC.) AS NEEDED FOR UNEXPECTED STORM EVENTS.
6. THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE CONTRACTOR AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING.
7. ANY AREA STRIPPED OF VEGETATION, INCLUDING ROADWAY EMBANKMENTS, WHERE NO FURTHER WORK IS ANTICIPATED FOR A PERIOD OF 7 DAYS, SHALL BE IMMEDIATELY STABILIZED WITH THE APPROVED ESC METHODS (E.G., SEEDING, MULCHING, NETTING, EROSION BLANKETS, ETC.).
8. ANY AREA NEEDING ESC MEASURE, NOT REQUIRING IMMEDIATE ATTENTION, SHALL BE ADDRESSED WITHIN FIFTEEN (15) DAYS.
9. THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN THE 48 HOURS FOLLOWING A STORM EVENT.
10. AT NO TIME SHALL MORE THAN ONE FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT LADEN WATER INTO THE DOWNSTREAM SYSTEM.
11. STABILIZED CONSTRUCTION ENTRANCES AND WASH PADS SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES MAY BE REQUIRED TO INSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.
12. DURING THE TIME PERIOD OF NOVEMBER 1 THROUGH MARCH 31, ALL PROJECT DISTURBED AREAS GREATER THAN 5,000 SQUARE FEET THAT ARE TO BE LEFT UNWORKED FOR MORE THAN 12 HOURS, SHALL BE COVERED BY ONE OF THE FOLLOWING COVER MEASURES: MULCH, SODDING OR PLASTIC COVERING.
13. TREES SHALL BE PLANTED IN PITS HAVING DIAMETERS AT LEAST TWICE THAT OF THE ROOT BALL OR ROOT SYSTEM. THE OUTER 6 INCHES OF MATERIAL SHALL BE REMOVED BY HAND METHODS. THE WALL AND BOTTOM OF THE PITS SHALL BE REMOVED BY HAND METHODS. THE WALL AND BOTTOM OF THE PITS SHALL BE ROUGHED TO ALLOW FOR ROOT PENETRATION. ALL PLANTING POCKETS SHALL BE BACKFILLED BY JETTING TO PREVENT AIR POCKETS IN THE LOWER THIRD OF THE HOLE. TREES SHALL BE WATERED GENEROUSLY DURING AND AFTER BACKFILL. BACKFILL MATERIALS SHALL BE SANDY LOAM.
14. PUBLIC RIGHTS OF WAY SHALL BE KEPT IN A CLEAN AND SERVICEABLE MANNER AT ALL TIMES. IN THE EVENT MATERIAL ARE INADVERTENTLY DEPOSITED ON ROADWAYS, THE MATERIAL SHALL BE PROMPTLY REMOVED. MATERIALS ARE TO BE SWEEP AND REMOVED PRIOR TO ANY FLUSHING. PUBLIC AND PRIVATE DRAINAGE WAYS SHALL BE PROTECTED FROM POLLUTION.
15. ALL TREES SHALL BE 4 INCHES TO 6 INCHES CALIPER, 8 & B, UNLESS OTHERWISE NOTED. MEASUREMENTS, CALIPER, BRANCHING, GRADING, QUALITY, BALLING AND BURLAPPING SHALL FOLLOW THE CODE OF STANDARDS OF THE AMERICAN ASSOCIATION OF NURSERYMEN IN THE AMERICAN STANDARD FOR NURSERY STOCK. ALL PLANTS SHALL HAVE NATURAL SHAPE.
16. FERTILIZER FOR TREES SHALL BE FORMULA 4-2-2 "TRANSPLANTER" AS MANUFACTURED BY PACIFIC AGRO COMPANY AND SHALL BE APPLIED AT THE RATE OF 8 OUNCES PER TREE. FOUR PLANTING TABLETS, 21 GRAM SIZE AS MANUFACTURED BY AGRIFORM INTERNATIONAL CHEMICALS, INC. 20-10-5 ANALYSIS SHALL BE APPLIED. TREE STAKING SHALL BE IN ACCORDANCE WITH DETAILS IN THE PLAN.
17. ALL TREES SHALL BE PROPERLY PROTECTED AGAINST HARM FROM WIND, UNUSUAL WEATHER AND THE PUBLIC. THE CONTRACTOR SHALL PERFORM ALL NECESSARY MAINTENANCE INCLUDING WATERING, PRUNING AND SPRAYING UNTIL ONE YEAR AFTER ACCEPTANCE. ALL TREES MUST BE IN A VIGOROUS GROWING CONDITION AT THE END OF THE ONE-YEAR GUARANTEE PERIOD. DEFECTIVE MATERIALS, AS DETERMINED BY THE ENGINEER, SHALL BE REPLACED IMMEDIATELY WITH SPECIMENS OF THE SAME SPECIES AND SIZE AS THE ORIGINAL.

"AS-BUILT"

CALL BEFORE YOU DIG 1-800-424-5555	FIELD BOOKS	TBM. NO.	LOCATION	ELEV.	DATA	DRAWN BY	CHECKED BY	DATA	DRAWN BY	CHECKED BY	REV	DATE	DESCRIPTION	BY	No.	DATE	
	DESIGN				BASE			TELEPHONE							1	AS-BUILT DRAWINGS	2/02/01
	STAKING				TOPOGRAPHY			ELECTRIC							2	AS-BUILT DRAWINGS	2/16/01
	ASBUILT				PROFILE			CABLE TV									
CONTRACTOR					SANITARY SEWER			DESIGN									
INSPECTOR					STORM SEWER			QUANTITIES									
					WATER			FINAL CHECK									
CONSTRUCTION RECORD			VERTICAL DATUM		GAS			DWG #									
								PLAN CHECK					REVISIONS			ISSUE	

PACIFIC SURVEY AND ENGINEERING INC.
www.psesurvey.com pse@psurvey.com

PSE

1812 CORNWALL AVE.
PELLINGHAM, WASHINGTON 98225
PHONE: 671-7801 FAX LINE: 671-4685

SEAL OF THE CITY OF FERNDAL
PAUL J. LUNA
REGISTERED PROFESSIONAL ENGINEER
NO. 36715
EXPIRES: 1-21-03

SAMUEL'S FURNITURE GENERAL SPECIFICATIONS 1904 MAIN STREET FERNDAL , WASHINGTON	
HOR. SCALE: 1"=20'	DATE 2/16/01
VER. SCALE:	JOB/ACCT. NO. 99019
SHEET	9 of 9

500198.009 2-16-06 KLB