

FERNDALE NORTH INDUSTRIAL PARK

2090 THORNTON ST. FERNDALE, WA 98248
SECTION 17, TOWNSHIP 39 NORTH, RANGE 2 EAST, W.M. CITY OF FERNDALE, WHATCOM COUNTY, WASHINGTON

LEGEND

	PROPERTY LINE
	EASEMENT LINE
	CENTER LINE
	PERVIOUS CONCRETE - 6" CHIPPED ROCK DEPTH
	PERVIOUS CONCRETE - 19" CHIPPED ROCK DEPTH
	IMPERVIOUS CONCRETE
	FINISHED GRADE MAJOR CONTOUR
	FINISHED GRADE MINOR CONTOUR
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	STORM DRAIN CLEANOUT
	STORM DRAIN CATCH BASIN
	WATERLINE
	WATER METER
	FIRE HYDRANT

ABBREVIATIONS:	
CO	CLEANOUT
TW	TOP OF WALL
BBW	BOTTOM OF WALL
FG	FINISHED GROUND
FF	FINISHED FLOOR
EX	EXISTING
IE	INVERT ELEVATION
N	NORTH
E	EAST
W	WEST
SE	SOUTHEAST
S	SOUTH
SD	STORM DRAIN
DI	DUCTILE IRON
PERF	PERFORATED
LS	FINISH GRADE LANDSCAPE
Ø	DIAMETER

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C5.2	DETAILS
C5.3	DETAILS

CONTACT LIST:

OWNER:
FLEETWOOD INT'L DEVELOPMENT GROUP
13847 33 AVE.
SURREY, B.C.,
CANADA V4P 2B4
PH: (604) 535-9942
CONTACT: DAVE SMITH

CIVIL ENGINEER:
2020 ENGINEERING
814 DUPONT STREET
BELLINGHAM, WASHINGTON 98225
PH: (360) 671-2020
CONTACT: MARK BUEHRER, PE

SURVEYOR:
CHRISTIE & CHRISTIE LAND SURVEYING INC.
222 GRAND AVE. SUITE D
BELLINGHAM, WA 98225
PH: (360) 671-8855
CONTACT: BRIAN CHRISTIE, PLS

SERVICE CONTACTS:

WATER / SEWER:
CITY OF FERNDALE
2095 MAIN STREET
FERNDALE, WA. 98248

NATURAL GAS:
CASCADE NATURAL GAS
1600 IOWA STREET
BELLINGHAM, WA. 98229

ELECTRICITY:
PUGET SOUND ENERGY
10885 NE 4TH STREET
P.O. BOX 97034
BELLEVUE, WA. 98009
PH: (888) 321-7779

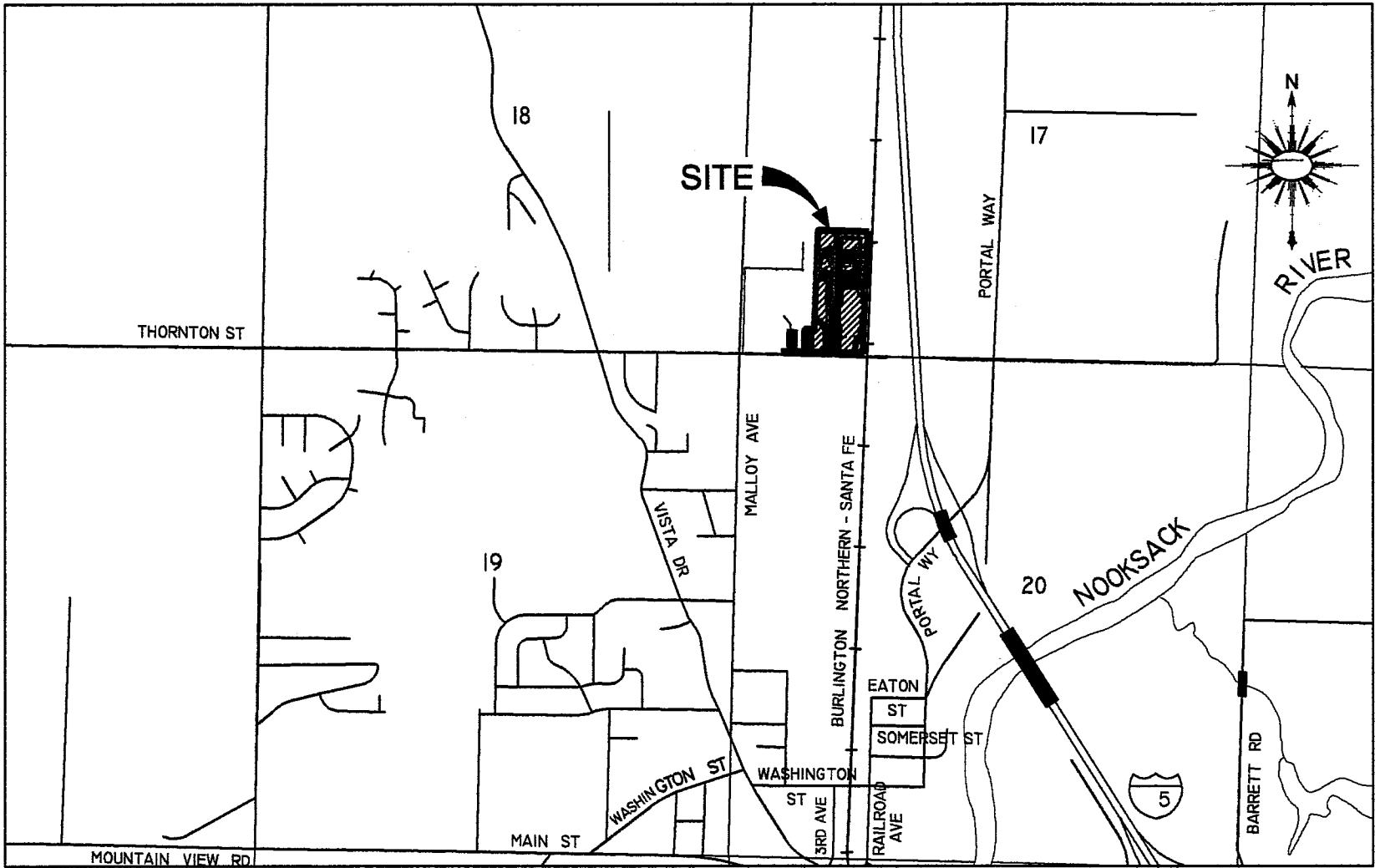
FIRE PROTECTION:
WHATCOM COUNTY FIRE DISTRICT #7
P.O. BOX 1599
FERNDALE, WA. 98248

SITE INFORMATION:

PROPERTY ADDRESSES:
2090 THORNTON ST.
FERNDALE, WA 98248

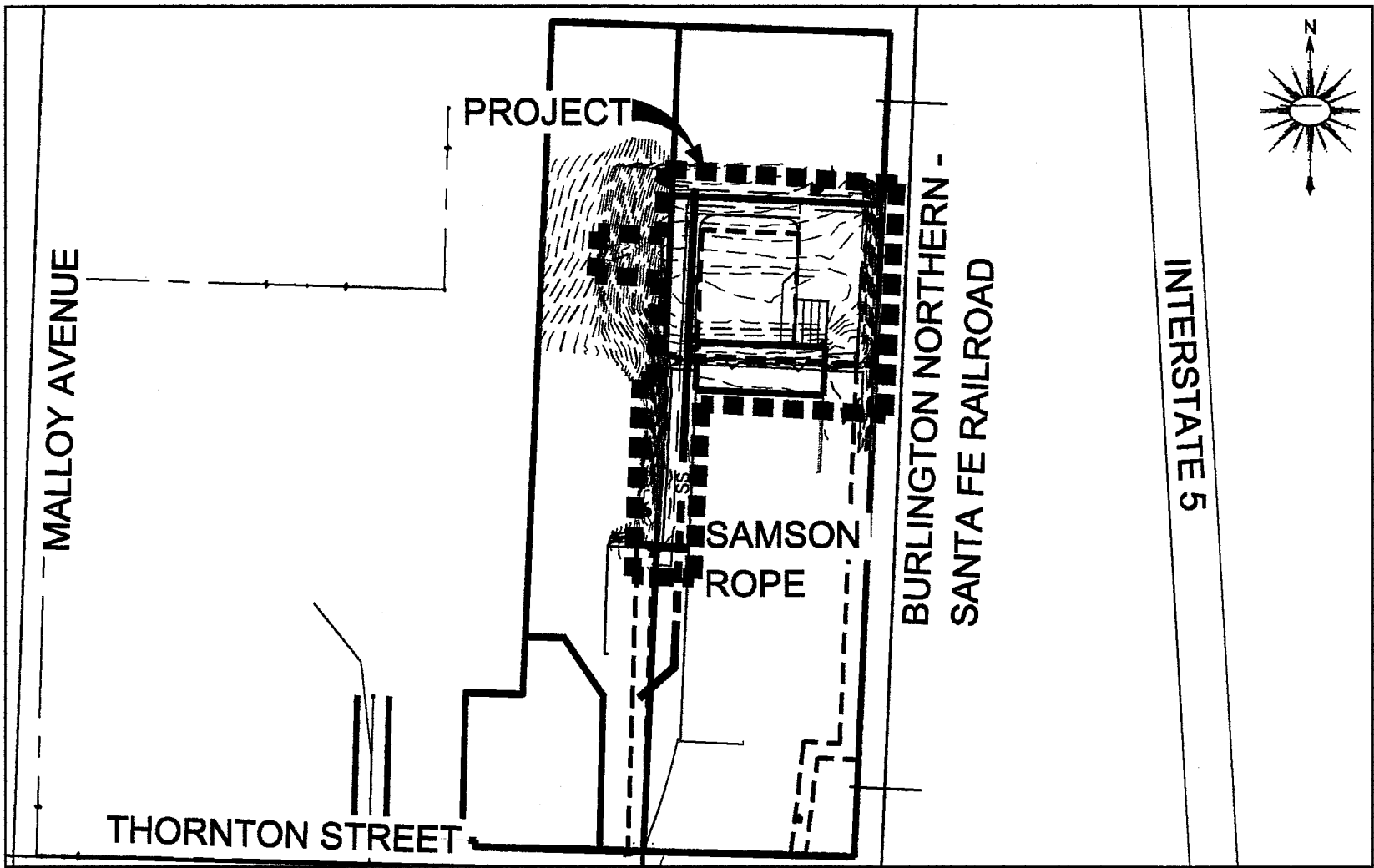
PROPERTY ZONING:
MANUFACTURING

GROSS SITE AREA:
337,218 SF (7.74 AC.)



VICINITY MAP

SCALE: 1" = 1700'

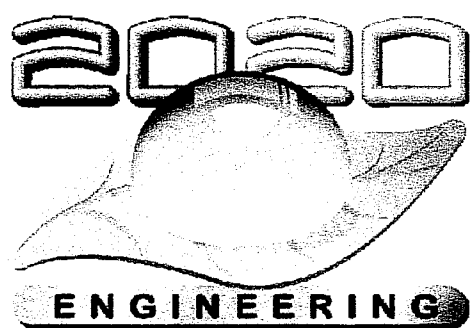


LOCATION MAP

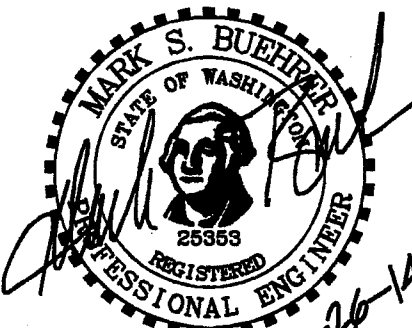
SCALE: 1" = 250'

11	04.02.14	SC	ADDED DETAILS 4 AND 6, REVISED 5.
10	09.16.13	SC	REVISE NOTES
9	09.13.13	SC	ADD ULTRABLOCK WALL
8	08.28.13	SC	2' SETBACK, SLOPE DETAILS

7	08.22.13	SC		CRIBBLOCK WALL REMOVED	ENGINEER:	M. RANDALL		
6	05.22.13	MR		REVISIONS PER CITY COMMENT	DESIGNED BY:	M. RANDALL	DATE:	5-22-13
5	04.29.13	MR		REVISIONS PER CITY COMMENT	DRAWN BY:	J. FORD,S. CONNER	DATE:	5-22-13
4	03.25.13	MR		REVISIONS PER CITY COMMENT	CHECKED BY:	M. BUEHRER	DATE:	5-22-13
3	01.15.13	MR		REVISED GRADING	PROJ. MNGR:	M. RANDALL		
2	11.30.12	MR		REVISIONS PER CITY COMMENT	PROJ. NO:	636SAM		
1	11.02.12	JF		REVISIONS PER CITY COMMENT	FILE NAME:	636_Cover.dwg		
NO.	DATE	BY	APPR.	REVISION	SCALE:	NA		



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Know what's below.
Call before you dig.

APPROVED

SEP 23 2014
BY *David J. Smith*
CITY OF FERNDALE

SAMSON ROPE
PHASE I BUILDING EXPANSION
COVER SHEET

SHEET:

CO.C

00572.001 9/23/14 SH

GENERAL REQUIREMENTS:

1.

ALL WORK AND MATERIALS SHALL CONFORM TO THESE PLANS AND TO THE REQUIREMENTS OF THE CURRENT EDITION OF THE "STATE OF WASHINGTON, DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION" (WSDOT SPECS.), THE CITY OF FERNDALE DEVELOPMENT STANDARDS (COFDS) AND THE 2005 VERSION OF THE DEPARTMENT OF ECOLOGY STORM WATER MANAGEMENT MANUAL FOR WESTERN WASHINGTON (DOE MANUAL). IN CASE OF A CONFLICT BETWEEN PLANS, REGULATORY STANDARDS OR SPECIFICATIONS, THE MORE STRINGENT REQUIREMENT WILL PREVAIL.
2.

PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER CONSTRUCTION DOCUMENTS APPROVED BY ALL OF THE PERMITTING AUTHORITIES. THROUGHOUT THE PERIOD OF CONSTRUCTION, CONTRACTOR SHALL COMPLY WITH THE TERMS OF ALL PERMITS.
3.

THE CONTRACTOR MUST HAVE A FULL SET OF CITY CONTRACT DOCUMENTS ON THE SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
4.

CONSTRUCTION NOISE SHALL BE LIMITED TO BETWEEN 7 a.m. TO 8 p.m., MONDAY THROUGH SATURDAY.
5.

THE CONTRACTOR SHALL CONTACT THE UTILITIES UNDERGROUND LOCATION CENTER AT LEAST 72 HOURS PRIOR TO STARTING CONSTRUCTION. PHONE: 1-800-424-5555. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT ALL OF THE VARIOUS UTILITY COMPANIES TO ARRANGE FOR FIELD LOCATIONS OF ALL EXISTING UTILITY FACILITIES. NO EXTRA COMPENSATION WILL BE PAID TO THE CONTRACTOR FOR COSTS INCURRED BECAUSE OF DAMAGE DONE TO EXISTING FACILITIES BY THE CONTRACTOR'S WORK FORCE, INCLUDING COSTS FOR REPAIRS, WHICH WILL BE CONTRACTOR'S SOLE RESPONSIBILITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE INTEGRITY OF ALL EXISTING UTILITIES AND TO NOTIFY THE ENGINEER PROMPTLY OF ANY CONFLICT BETWEEN THE APPROVED PLANS AND THE LOCATION OF ANY EXISTING UTILITIES.
6.

THE CONTRACTOR SHALL PROTECT ALL PRIVATE AND PUBLIC UTILITIES FROM DAMAGE RESULTING FROM THE WORK. CONTRACTOR SHALL RESTORE ALL PRIVATE AND PUBLIC PROPERTY DISRUPTED BY THE PROJECT IMMEDIATELY AFTER CONSTRUCTION.
7.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EROSION CONTROL MEASURES THROUGHOUT THE DURATION OF THE PROJECT. EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY CLEARING OR GRADING IN CONFORMANCE WITH THE EROSION & SEDIMENTATION CONTROL PLAN AND THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP). THE SWPPP SHALL BE ONSITE AT ALL TIMES DURING CONSTRUCTION ACTIVITIES.
8.

SITE CLEARING SHALL INCLUDE THE LOCATION AND REMOVAL OF ALL ABOVE GROUND AND BURIED DEBRIS AND WASTE THAT MAY BE PRESENT.
9.

THE CONTRACTOR SHALL OBTAIN REVOCABLE ENCROACHMENT PERMITS FROM THE CITY OF FERNDALE AND/OR WHATCOM COUNTY PRIOR TO COMMENCING WORK WITHIN THE PUBLIC RIGHT-OF-WAY.
10.

THE CONTRACTOR SHALL ATTEND A PRE-CONSTRUCTION MEETING WITH REPRESENTATIVES OF THE CITY OF FERNDALE PUBLIC WORKS DEPARTMENT AND THE PROJECT ENGINEER A MINIMUM OF THREE (3) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION. THE CITY WILL SCHEDULE THE MEETING.
11.

ALL WORK AND MATERIALS SHALL BE SUBJECT TO APPROVAL BY THE CITY OF FERNDALE PUBLIC WORKS DEPARTMENT, REPRESENTATIVES FROM THE CITY OF FERNDALE PUBLIC WORKS DEPARTMENT MUST INSPECT ALL WORK IDENTIFIED ON THE PLANS, BOTH PUBLIC AND PRIVATE. THE CONTRACTOR SHALL CALL AT LEAST 24 HOURS IN ADVANCE TO SCHEDULE INSPECTIONS AS FOLLOW:

A.

PLACEMENT OF TEMPORARY EROSION CONTROL MEASURES.

B.

CONSTRUCTION OF STORMWATER MANAGEMENT FACILITIES.

C.

PLACEMENT OF WATER MAIN AND BACKFILLING OF WATER MAIN TRENCH WITHIN ROAD RIGHTS OF WAY OR IN WATERLINE EASEMENT TO BE DEDICATED TO THE CITY OF FERNDALE.

D.

PLACING OR BACKFILLING OF UNDERGROUND UTILITIES, STORM SEWER AND SANITARY SEWER WITHIN ROAD RIGHTS-OF-WAY, IN EASEMENTS TO BE DEDICATED TO THE CITY OF FERNDALE, OR OTHER PUBLICLY SHARED FACILITIES.

E.

GRADING OF PUBLIC OR PRIVATE ROADWAY AT:

COMPLETION OF EXCAVATION TO SUBGRADE.

COMPLETION OF BALLAST COURSE PLACEMENT

COMPLETION OF CRUSHED SURFACING COURSE PLACEMENT

F.

OVERALL INSPECTION FOR FINISHED SHOULDERS, DITCHES, PERMANENT SEEDING AND MONUMENT PLACEMENT.

G.

END OF MAINTENANCE PERIOD
12.

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. A TRAFFIC CONTROL PLAN SHALL BE SUBMITTED TO THE CITY FOR APPROVAL PRIOR TO PERFORMING THE WORK. ALL SECTIONS OF THE WSDOT STANDARD SPECIFICATIONS 1-07.23- TRAFFIC CONTROL, SHALL APPLY.
13.

THE CONTRACTOR SHALL INFORM THE ENGINEER AND OBTAIN APPROVAL FROM THE CITY OF FERNDALE PUBLIC WORKS DIRECTOR OF ANY PROPOSED DEVIATION FROM THE APPROVED PLANS PRIOR TO CONSTRUCTION OF THE REVISED IMPROVEMENTS. THE CONTRACTOR SHALL KEEP RECORDS OF ALL DEVIATIONS AND SHALL FORWARD THEM TO THE ENGINEER AND TO THE CITY OF FERNDALE PUBLIC WORKS DEPARTMENT.
14.

AS-BUILT DATA SHALL BE PROVIDED TO THE CITY OF FERNDALE UPON COMPLETION OF CONSTRUCTION AND PROVIDED IN CITY OF FERNDALE DATUM - VERTICAL (NGVD-29) AND HORIZONTAL (NAD 83/91). CONTACT THE CITY FOR MORE INFORMATION ON SUBMITTAL REQUIREMENTS.

UNDERGROUND UTILITIES CONSTRUCTION:

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 LOCATIONS OF ALL UNDERGROUND UTILITIES, BOTTOM OF PIPE ELEVATIONS, INVERT ELEVATIONS, MANHOLE LOCATIONS, WATER SERVICE TAPS, BLOW-OFF LOCATIONS AND INVERTS OF SERVICE CONNECTIONS (BOTH AT PIPE AND AT PROPERTY LINE). VERTICAL AND HORIZONTAL BENDS, SERVICE BOXES AND METERS, VALVES AND HYDRANTS. CALL THE PROJECT ENGINEER AT LEAST 48-HOURS BEFORE BURYING UNDERGROUND PIPE TO ASSURE AND FACILITATE REQUIRED AS-BUILT SURVEY.
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 WITH THE REQUIREMENTS OF THE CITY OF FERNDALE DEVELOPMENT STANDARDS.
4.

TESTING OF NEW WATER LINES, STORM SEWER SYSTEMS SHALL NOT BE PERFORMED UNTIL ALL OTHER ADJACENT UTILITIES HAVE BEEN INSTALLED.
5.

ALL UTILITY TRENCHES SHALL BE BACKFILLED AND COMPACTED TO 95% DENSITY IN LIFTS NOT TO EXCEED 24 INCHES WITH A HOE PACK, OR 8 INCHES WITH HAND-OPERATED COMPACTION.
6.

NO PART OF THE DRAINAGE SYSTEM MAY BE COVERED, CONCEALED, OR PUT INTO USE UNTIL IT HAS BEEN INSPECTED, TESTED, AND ACCEPTED BY THE CITY INSPECTOR.

EARTHWORK:

1.

THE CONTRACTOR SHALL REMOVE AND REPLACE ALL EXISTING UN-COMPACTED OR POORLY COMPACTED FILL SOILS WITHIN THE ROAD PRISM AT THE DIRECTION OF THE ENGINEER.
2.

THE CONTRACTOR SHALL EXCAVATE AND GRADE TO THE ALIGNMENT, GRADE AND CROSS-SECTIONS SHOWN IN THE PLANS OR ESTABLISHED BY THE ENGINEER.
3.

UNSUITABLE MATERIAL FOUND AND NOT FIT FOR USE AS A SUB-GRADE SHALL BE EXCAVATED TO THE BOUNDARIES SET BY THE ENGINEER AND REPLACED WITH A SUITABLE BACKFILL MATERIAL.
4.

THE ENGINEER IS REQUIRED TO CERTIFY SUBGRADE, IN WRITING, PRIOR TO PAVING.
5.

WHERE EXISTING ASPHALT IS TO BE REMOVED AND REPLACED WITH Pervious CONCRETE, THE ENTIRE SECTION SHALL BE REMOVED, INCLUDING BASE COURSE. SUBGRADE SHALL BE SCARIFIED PRIOR TO INSTALLING CHIPPED ROCK.
6.

INFILTRATIVE BACKFILL BEHIND RETAINING WALL SHALL BE SANDY MATERIAL MINED FROM THE SITE OR ENGINEER APPROVED FREE-DRAINING SOIL.

BASE COURSES & CRUSHED SURFACING:

1.

GRAVEL BASES AND BALLAST MATERIAL GRADATION SHALL MEET WSDOT STANDARD SPECIFICATIONS.

A.

CRUSHED SURFACING BASE COURSE SHALL BE PER WSDOT STANDARD SPEC. 9-03.9(3) - BASE COURSE.

B.

CRUSHED SURFACING TOP COURSE SHALL BE PER WSDOT STANDARD SPEC. 9-03.9(3) - TOP COURSE.

C.

CHIPPED ROCK USED BENEATH THE Pervious CONCRETE PAVEMENT SHALL BE ¾" CLEAN ANGULAR GRAVEL WITH NO FINES, SIMILAR IN TYPE TO RAILROAD BALLAST.

D.

WASHED ROCK USED IN THE INFILTRATION TRENCH SHALL BE 1 ½" - ¾" CLEAN ROUND ROCK (NO FINES) PER WSDOT STANDARD SPEC. 9-03.12(5) - GRAVEL BACKFILL FOR DRYWELLS.

E.

PEA GRAVEL SHALL BE PER WSDOT STANDARD SPEC. 9-03.1(4)C - AASHTO GRADING NO. 8.
2.

BALLAST, GRAVEL BASE AND CRUSHED SURFACING SHALL BE COMPACTED TO AT LEAST 95% OF MAXIMUM DRY DENSITY.
3.

THE GRADED AND COMPACTED SURFACE OF THE CRUSHED SURFACING TOP COURSE SHALL BE WITHIN ¼ INCH OF FINISHED GRADE.
4.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MATERIAL AND COMPACTION TESTING. PRIOR TO IMPORTING OF MATERIAL FOR BASE AND CRUSHED SURFACING TOP COURSE THE CONTRACTOR SHALL PROVIDE EVIDENCE OF SATISFACTORY PASSING GRADING AND DEGRADATION TEST RESULTS TO THE ENGINEER.
5.

CHIPPED ROCK SHALL BE INSTALLED AND COMPACTED PER THE "Pervious CONCRETE NOTES" ON C0.2.

STORM DRAINAGE:

1.

COVER OVER PIPES SHALL BE MAINTAINED DURING CONSTRUCTION. DEPTH OF COVER REQUIRED SHALL CONFORM TO THE MANUFACTURER'S RECOMMENDATIONS AND WILL VARY WITH THE VEHICLE LOADS TRAVELING OVER THE PIPE. NO ADDITIONAL COMPENSATION SHALL BE PROVIDED FOR DAMAGE TO PIPE DURING CONSTRUCTION ACTIVITIES.
2.

AT THE END OF ALL SITE CONSTRUCTION, THE CONTRACTOR SHALL CLEAN ALL DEBRIS FROM CATCH BASINS AND STORMWATER CONVEYANCES. DEBRIS SHALL NOT BE ALLOWED TO ENTER STREAMS OR OFF-SITE STORMWATER SYSTEMS.
3.

PERFORATED PVC PIPE SHALL BE 6" DIAMETER MEETING ASTM D2729 OR AASHTO M278 AND INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS. ADS SMOOTH WALL PERFORATED PIPE MEETING ASTM F810 MAY BE SUBSTITUTED FOR PVC. PIPE SHALL HAVE (2) ½" DIAMETER (MAX.) DRAIN HOLES AT 120 DEGREES FROM EACH OTHER SPACED 12" ON-CENTER. HOLES SHALL BE INSTALLED FACING DOWNWARD.
4.

STORM PIPE SHALL BE SOLID WALL PVC STORM PIPE, ASTM D 3034, SDR 35 PER WSDOT STANDARD SPEC. 9-05.1(5), EXCEPT WHERE PIPE COVER IS LESS THAN 2-FEET. THEN PIPE SHALL BE DUCTILE IRON, ANSI A21.51 OR AWWA C151, CEMENT MORTAR LINED, CLASS 50.
5.

CATCH BASIN SHALL BE A CONCRETE TYPE 1 INLET, 18"x18" SQUARE WITH A 12" MINIMUM SUMP (GRATES PER PLAN).
6.

TRENCH EXCAVATIONS, BEDDING, AND PIPE FOR STORMWATER PIPE LAYING SHALL BE IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATIONS, SECTION 7-08.

WATER:

1.

THE FOLLOWING STANDARD DETAILS SHALL BE USED IN CONSTRUCTING WATER SUPPLY SYSTEM IMPROVEMENTS:

A.

PIPE BEDDING

COFSD W-11

B.

FIRE HYDRANT

COFSD W-1

C.

THRUST BLOCKING

COFSD W-2, W-3 & W-4

D.

DOUBLE DETECTOR CHECK

COFSD W-19A

E.

WATER CROSSING

COFSD W-12

F.

TRENCH BACKFILL

COFSD W-11
2.

ALL WORK AND MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF THE CITY OF FERNDALE DEVELOPMENT STANDARDS, SECTIONS 702 AND 705 AND THE MOST RECENT VERSION OF WSDOT STANDARD SPECIFICATIONS.
3.

WATER PIPE SHALL BE DUCTILE IRON, CLASS 50 WITH PUSH-ON OR MECHANICAL JOINTS CONFORMING TO AWWA H3-71, C151-71, AND C104-71 PER CITY OF FERNDALE DEVELOPMENT STANDARD 705.
4.

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 AWWA SPECIFICATIONS C-110-71 AND C-104-71.
5.

CONCRETE BLOCKING SHALL BE AS SPECIFIED IN CITY OF FERNDALE STANDARD DETAILS W-2, W-3 AND W-4, OR AS DIRECTED BY THE PROJECT ENGINEER. BLOCKS SHALL BE INSTALLED AS SPECIFIED IN SECTION 7-09.3(21) OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE OR MUNICIPAL CONSTRUCTION. NO PRE-CAST BLOCKS ARE ALLOWED.
6.

CONNECTIONS TO EXISTING WATER MAINS - THE CONTRACTOR MUST NOTIFY THE CITY OF FERNDALE PUBLIC WORKS DIRECTOR OF A PROPOSED CONNECTION AT LEAST FOUR WORKING DAYS IN ADVANCE.
7.

ALL HYDROSTATIC TESTING AND DISINFECTION OF WATER MAINS SHALL CONFORM TO SECTION 7-09.3(23) AND SECTION 7-09.3(24)OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE OR MUNICIPAL CONSTRUCTION - CURRENT EDITION. HYDROSTATIC TEST PRESSURE FOR WATER MAIN ACCEPTANCE SHALL BE 250 PSI AND SHALL BE DONE ACCORDING TO CITY OF FERNDALE REQUIREMENTS. THE CITY OF FERNDALE LABORATORY SHALL CONDUCT ALL DISINFECTION TESTS AND BACTERIOLOGICAL TESTS. THE PIPE WILL NOT PASS TESTING UNLESS A ZERO BACTERIAL COUNT IS MEASURED ON TWO CONSECUTIVE TESTS, CONDUCTED 24 HOURS APART.
8.

BACKFILL SHALL BE GRAVEL BASE, CLASS B, IN ALL PAVED AREAS, COMPACTED TO MINIMUM 95% OPTIMUM DENSITY UNLESS OTHERWISE NOTED. IN UNIMPROVED AREAS, MINIMUM COMPACTION SHALL BE 90% OF OPTIMUM DENSITY.
9.

ALL PIPES SHALL HAVE A MINIMUM COVER OF 36".
10.

HYDRANT SHALL BE M.H. 929T HYDRANTS. SHALL HAVE INDIVIDUALLY VALVED 2 ½" PORTS AND ONE 5¼" MAIN VALVE OPENING. A 4½" NST PUMPER NOZZLE AND A 5" STORZ PORT WITH CAP AND CABLE SHALL BE SUPPLIED.
11.

ALL GATE VALVES SHALL BE RESILIENT SEATED SHORT-BODY GATE VALVES SUITABLE FOR A NONSHOCK SHUT-OFF PRESSURE OF 130 PSI SUITABLE FOR DIRECT-BURIAL. GATE VALVES SHALL BE IRON-BODY, FULL BRONZE MOUNTED VALVES CONFORMING TO AWWA C509 AND SUITABLE FOR SERVICE WITH DUCTILE IRON CLASS 50 PIPE. VALVES SHALL HAVE NON-RISING STEMS, SHALL OPEN COUNTERCLOCKWISE, AND SHALL BE EQUIPPED WITH A 2-INCH SQUARE OPERATING NUT PER CITY OF FERNDALE DEVELOPMENT STANDARD 705. VALVE BOXES SHALL BE CAST IRON.
12.

DOH APPROVED DOUBLE DETECTOR CHECK ASSEMBLY SHALL BE WATTS, MODEL 709DCDA, OR ENGINEER APPROVED EQUAL. SIZE VAULT PER MANUFACTURER'S RECOMMENDATION.

PAVEMENT:

1.

ROADWAY EXCAVATION WITHIN THE ROADWAY PRISM SHALL BE CUT TO A UNIFORM GRADE. THE COMPLETED SUBGRADE SURFACE SHALL NOT VARY MORE THAN 0.10-FOOT FROM THE LOWER EDGE OF A 15-FOOT STRAIGHTEDGE PLACED ON THE SUBGRADE PARALLEL TO THE CENTERLINE UNLESS APPROVED BY THE ENGINEER.
2.

THE OWNER SHALL PROVIDE TO THE ENGINEER A REPORT FROM A QUALIFIED GEOTECHNICAL FIRM CERTIFYING THE COMPACTION OF THE GRAVEL BASE UNDER ALL PAVING AREAS.
3.

ASPHALT CONCRETE PAVEMENT SHALL BE CLASS "B" MATERIALS AND CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS, SECTION 5-04, EXCEPT AS MODIFIED HEREIN. CONNECTION TO EXISTING PAVEMENT SHALL BE TO A STRAIGHT NEATLY-TRIMMED LINE.
4.

PAVEMENT:

A.

SOIL RESIDUAL HERBICIDE SHALL BE PLACED WITHIN 24 HOURS OF PAVING.

B.

A TACK COAT OF ASPHALT SHALL BE APPLIED BETWEEN ALL COURSES OF ASPHALT.

C.

ALL PAVEMENT REPAIR SHALL BE SAW-CUT BEFORE REMOVAL. AR-4000W SHALL BE APPLIED TO ALL EDGES OF EXISTING PAVEMENT. WHERE NEWLY CONSTRUCTED PAVING MEETS EXISTING PAVING, THE APPLICANT SHALL PROVIDE A SMOOTH TRANSITION FROM EXISTING TO PROPOSED PAVING. CONTRACTOR SHALL COLD PLANE PER DIMENSIONS SPECIFIED ON THE PLANS, AND INSTALL A MINIMUM 2-FOOT WIDE PETROTAC PAVING FABRIC, OR EQUIVALENT, OVER JOINT BETWEEN PAVING LIFTS.

SURVEY NOTES:

1.

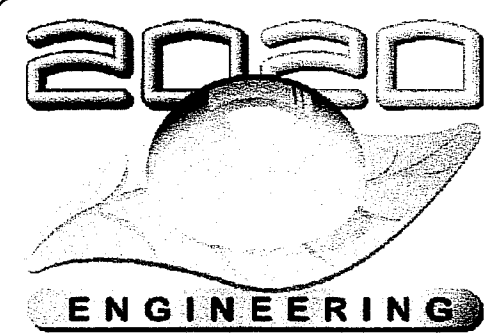
TOPOGRAPHIC AND BOUNDARY SURVEY PREPARED BY CHRISTIE AND CHRISTIE.
2.

BASIS OF BEARING: THORNTON ROAD S88°32'12"E, AS PER "FERNDALE NORTH INDUSTRIAL PARK L.L.A." FILED UNDER A.P. NO. 2090802382.
3.

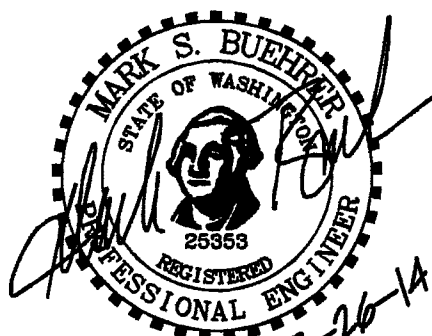
ELEVATION DATUM: ASSUMED EL. 61.56' FINISH FLOOR AT NORTH END BUILDING, AS PROVIDED BY CLIENT. FOR CONVERSION TO NGVD 29, RAISE 0.27'.

11	04.02.14	SC	ADDED DETAILS 4 AND 6, REVISED 5.
10	09.16.13	SC	REVISE NOTES
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NO.	DATE	BY	APPR.	REVISION	SCALE:	NA



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SURREY, B.C., CANADA V4P 2B4

SAMSON ROPE		SHEET: C0.1
PHASE I BUILDING EXPANSION GENERAL NOTES		

RECORD DRAWINGS

I hereby certify that the improvements in Samson Rope have been inspected by 2020 ENGINEERING and to the best of my knowledge, have been constructed in conformance with the city of Ferndale development standards, the city of Ferndale municipal code, subsequent standards adopted by reference therein, and standard engineering practice.

APPROVED

SEP 23 2014
BY
CITY OF FERNDALE

PERVIOUS CONCRETE NOTES:

1. SUBMITTALS SHALL INCLUDE THE DESIGN MIXTURE, A DESCRIPTION OF THE PROPOSED PLACING AND PROTECTION METHODS, A DETAILED PLAN OF THE PROPOSED PAVING PATTERN SHOWING ALL PLANNED CONSTRUCTION JOINTS, DATA ON THE CURING MEDIA AND METHODS TO BE USED AND AN OWNER'S MANUAL FOR CLEANING, REPAIR, AND MAINTENANCE FOR INSTALLED PERVIOUS PAVEMENT.
2. CONTRACTOR SHALL SUBMIT CERTIFICATION OF CONTRACTOR QUALIFICATIONS INCLUDING PERVIOUS CONCRETE QUALITY ASSURANCE CONSULTANT/EMPLOYEE, PERVIOUS CONCRETE INSTALLER, AND PERVIOUS CONCRETE SUPPLIER.
3. MANUFACTURER OF READY-MIXED CONCRETE PRODUCTS SHALL PROVIDE CERTIFICATION STATING IT COMPLIES WITH ASTM C 94/C 94M REQUIREMENTS FOR PRODUCTION FACILITIES AND EQUIPMENT.
4. PERVIOUS CEMENT CONCRETE PAVEMENT SHALL BE DESIGNED PER ACI 522 PERVIOUS CONCRETE SPECIFICATIONS. WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION, LATEST EDITION SECTION 5-05 CEMENT CONCRETE PAVEMENT MAY BE USED AS AN ADDITIONAL RESOURCE.
5. PERVIOUS CONCRETE SHALL HAVE A TWO-YEAR WARRANTY FROM THE INSTALLER AND PERVIOUS CONCRETE PRODUCER.
6. THE INSTALLER SHALL USE ADEQUATE NUMBERS OF SKILLED WORKERS WHO ARE THOROUGHLY TRAINED AND EXPERIENCED IN THE NECESSARY CRAFTS AND WHO ARE COMPLETELY FAMILIAR WITH THE SPECIFIED REQUIREMENTS AND THE METHODS NEEDED FOR PROPER PERFORMANCE OF THE WORK IN THIS SECTION.
7. THE USE OF AN ACI CONCRETE FLATWORK CERTIFIED FINISHER IS REQUIRED.
8. PRIOR TO THE PROJECT PRECONSTRUCTION MEETING, THE PLACING CONTRACTOR SHALL FURNISH THE ENGINEER A STATEMENT ATTESTING TO QUALIFICATIONS AND EXPERIENCE AND INFORMATION ON A MINIMUM OF 2 COMPLETED PORTLAND CEMENT PERVIOUS CONCRETE PAVING PROJECTS, INCLUDING:
- a. ADDRESSES OF THE PROJECTS.
- b. UNIT WEIGHT ACCEPTANCE DATA.
- c. IN-SITU PAVEMENT TEST RESULTS INCLUDING VOID CONTENT AND UNIT WEIGHT.
- d. SAMPLE OF PRODUCT (I.E. CORE OR TEST PANEL).
9. PRIOR TO THE PROJECT PRECONSTRUCTION MEETING, THE MIXING PLANT SHALL FURNISH OWNER/OWNER'S REPRESENTATIVE A STATEMENT ATTESTING TO QUALIFICATIONS AND EXPERIENCE AND A MINIMUM OF 2 COMPLETED PORTLAND CEMENT PERVIOUS CONCRETE PAVING PROJECTS WITH THE FOLLOWING INFORMATION:
- a. ADDRESSES OF THE PROJECTS.
- b. IF THE PLACING CONTRACTOR AND CONCRETE PRODUCER HAVE INSUFFICIENT EXPERIENCE WITH PORTLAND CEMENT PERVIOUS CONCRETE PAVEMENT (LESS THAN 2 SUCCESSFUL JOBS AND ARE NOT A STREAMSAFE™ CERTIFIED FINISHER), THE PLACING CONTRACTOR SHALL RETAIN AN EXPERIENCED CONSULTANT TO MONITOR PRODUCTION, HANDLING, AND PLACEMENT OPERATIONS AT THE CONTRACTOR'S EXPENSE.
10. IN LIEU OF TEST PANELS, THE CONTRACTOR MAY PROVIDE EXAMPLES AT OTHER PROJECT SITES, WITH THE CONCRETE MATERIAL FROM THE SAME BATCH PLANT, THAT MEET THE ENGINEER'S APPROVAL.
11. CONTRACTOR SHALL PROTECT ADJACENT WORK FROM SPLASHING OF PAVING MATERIALS. REMOVE ALL STAINS FROM EXPOSED SURFACES OF PAVING, STRUCTURES, AND GROUNDS. REMOVE ALL WASTE AND SPILLAGE.
12. DO NOT DAMAGE OR DISTURB EXISTING IMPROVEMENTS OR VEGETATION. PROVIDE SUITABLE PROTECTION WHERE REQUIRED BEFORE STARTING WORK AND MAINTAIN PROTECTION THROUGHOUT THE COURSE OF THE WORK.
13. RESTORE DAMAGED IMPROVEMENTS, INCLUDING EXISTING PAVING ON OR ADJACENT TO THE SITE THAT HAS BEEN DAMAGED AS A RESULT OF CONSTRUCTION WORK, TO THEIR ORIGINAL CONDITION OR REPAIR AS DIRECTED TO THE SATISFACTION OF THE DESIGN PROFESSIONAL OF RECORD.
14. CONTRACTOR SHALL DOCUMENT THE SITE WITH PHOTOS OR VIDEO PRIOR TO STARTING ANY WORK. COPIES OF THE PHOTOS AND/OR VIDEO SHALL BE PROVIDED TO THE ENGINEER AND OWNER PRIOR TO STARTING WORK.
15. NOTIFY AND COOPERATE WITH LOCAL AUTHORITIES AND OTHER ORGANIZATIONS HAVING JURISDICTION WHEN CONSTRUCTION WORK WILL INTERFERE WITH EXISTING ROADS AND TRAFFIC.
16. PROVIDE TEMPORARY BARRIERS, SIGNS, WARNING LIGHTS, FLAGMEN, AND OTHER PROTECTIONS AS REQUIRED TO ASSURE THE SAFETY OF PERSONS AND VEHICLES AROUND THE CONSTRUCTION AREA AND TO ORGANIZE THE SMOOTH FLOW OF TRAFFIC.
17. DO NOT PLACE PERVIOUS CONCRETE PAVEMENT WHEN THE AMBIENT TEMPERATURE IS BELOW 40°F OR ABOVE 80°F, UNLESS OTHERWISE PERMITTED IN WRITING BY THE DESIGN PROFESSIONAL OF RECORD.
18. DO NOT PLACE PERVIOUS CONCRETE PAVEMENT WHEN THE WIND, HEAT OR HUMIDITY DOES NOT ALLOW ENOUGH TIME TO PLACE, PROPERLY JOINT, COMPACT, EDGE, FINISH AND CURE BEFORE THE SURFACE DRIES AND IS NO LONGER WORKABLE WITHOUT DAMAGING THE SURFACE.
19. CONCRETE AND AGGREGATE FOR ALL PERVIOUS CONCRETE SURFACES SHALL BE PER ACI 522 OR APPROVED EQUAL (1¼" MIX).
20. MIX DESIGN ALTERNATES OR APPROVED EQUALS MUST BE SUBMITTED FOR APPROVAL BY THE CIVIL ENGINEER OF RECORD A MINIMUM OF SEVEN (7) DAYS PRIOR TO BID OPENING. A HARDENED SAMPLE OF THE PROPOSED PERVIOUS CONCRETE SHALL ACCOMPANY THE ALTERNATE OR APPROVED EQUAL REQUEST. IF A DESIGN ALTERNATIVE IS REQUESTED, CONTACT THE ENGINEER PRIOR TO SUBMISSION FOR NECESSARY MIX REQUIREMENTS.
21. THE WATER/CEMENT RATIO SHALL BE SUCH THAT THE CEMENT PASTE DISPLAYS A WET METALLIC SHEEN WHEN FLOATED WITH A MAGNESIUM HAND FLOAT WITHOUT CAUSING THE PASTE TO FLOW FROM THE AGGREGATE OR SEAL THE SURFACE.
22. WATER MAY BE ADDED AT THE JOBSITE TO OBTAIN THE REQUIRED MIX CONSISTENCY. ANY WATER ADJUSTMENTS MADE AT THE JOBSITE SHALL BE MADE BY THE CERTIFIED PERVIOUS CONCRETE INSTALLER. DOCUMENT ANY WATER ADJUSTMENTS BY TIME AND LOCATION OF PLACEMENT PRIOR TO DISCHARGE.
23. LOADS THAT CANNOT BE ADJUSTED ON-SITE TO MEET SPECIFICATIONS SHALL BE REJECTED.
24. CONCRETE SHALL BE DEPOSITED AS CLOSE TO ITS FINAL POSITION AS PRACTICABLE SUCH THAT FRESH CONCRETE ENTERS THE MASS OF PREVIOUSLY PLACED CONCRETE.
25. MINIMIZE THE PRACTICE OF DISCHARGING ONTO SUB-GRADE AND PULLING OR SHOVELING TO FINAL PLACEMENT.
26. THE DESIGN PROFESSIONAL OF RECORD SHALL APPROVE A SITE CAST SAMPLE OF THE SPECIFIED PAVEMENT BEFORE PAVING BEGINS. THE SURFACE APPEARANCE OF THE SAMPLE MUST BE APPROVED FOR TEXTURE, FINISH AND SHOULD HAVE MINIMAL SURFACE TEARING OR RAVELING. THE FINISHED PRODUCT MUST MATCH THE APPROVED SAMPLE. ACCEPTED SAMPLE PANELS, IN LIKE NEW CONDITION, MAY BE USED IN THE CONTRACT WORK.
27. FINISHED VOIDS SHALL BE 20% +/- 4% AS LONG AS THE PRODUCT REACHES 2500 PSI COMPRESSIVE STRENGTH OR GREATER UNLESS OTHERWISE AUTHORIZED BY THE DESIGN PROFESSIONAL OF RECORD.
28. PERMEABILITY TESTING SHALL BE TESTED USING ASTM C 1701 ON CLEAN, LEVEL PERVIOUS PAVEMENT UPON REMOVAL OF THE CURING PLASTIC AND ACCEPTED BEFORE OPENING THE PAVEMENT TO TRAFFIC. PERMEABILITY SHALL BE AT LEAST 100 INCHES PER HOUR IMMEDIATELY AFTER CURING PLASTIC IS REMOVED.

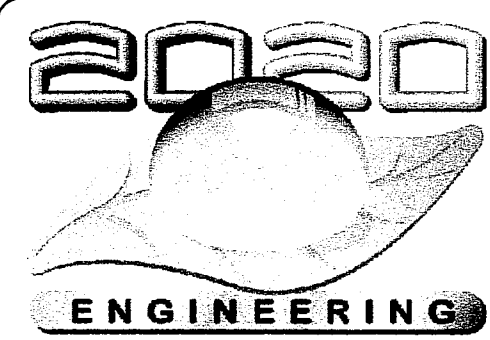
PERVIOUS CONCRETE EXECUTION:

1. IT IS ESSENTIAL THAT THE PERMEABILITY OF THE UNDERLYING NATIVE SOILS BE PRESERVED. THEREFORE, THE EXISTING SUB-GRADE UNDER BED AREAS SHALL NOT BE COMPACTED OR SUBJECT TO EXCESSIVE CONSTRUCTION EQUIPMENT TRAFFIC PRIOR TO STONE BED PLACEMENT. AREA SHOULD NOT BE EXCAVATED TO FINISHED SUBGRADE DEPTH UNTIL IMMEDIATELY PROCEEDING TO INSTALL CHIPPED ROCK AND PAVEMENT.
2. WHERE EROSION OF SUB-GRADE HAS CAUSED ACCUMULATION OF FINE MATERIALS AND/OR SURFACE PONDING, THIS MATERIAL SHALL BE REMOVED WITH LIGHT EQUIPMENT AND THE UNDERLYING SOILS SCARIFIED TO A MINIMUM DEPTH OF 3 INCHES WITH A YORK RAKE OR EQUIVALENT AND LIGHT TRACTOR.
3. BRING SUB-GRADE OF CHIPPED ROCK TO LINE, GRADE, AND ELEVATIONS INDICATED. FILL AND LIGHTLY REGRADE ANY AREAS DAMAGED BY EROSION, PONDING, OR TRAFFIC COMPACTION BEFORE THE PLACING OF CHIPPED ROCK.
4. THE DESIGN PROFESSIONAL OF RECORD SHALL BE NOTIFIED FORTY- EIGHT (48) BUSINESS HOURS IN ADVANCE OF SUB-GRADE PREPARATION, RECHARGE BED INSTALLATION, AND ALL PERVIOUS CONCRETE POURS (INCLUDING AMPLE TIME FOR TRAVEL TO REACH THE SITE) TO INSPECT OR SEND A REPRESENTATIVE TO INSPECT SUB-GRADE PREPARATION, RECHARGE BED INSTALLATION, AND ALL PERVIOUS CONCRETE POURS.
5. A PRE-PAVING CONFERENCE SHALL BE SCHEDULED WITH AT LEAST TWO WEEKS NOTICE AND BE HELD PRIOR TO INSTALLATION OF THE SAMPLE PANEL, UNLESS APPROVED BY THE DESIGN PROFESSIONAL OF RECORD. THE FOLLOWING INDIVIDUALS ARE REQUIRED TO ATTEND:
- a. CONCRETE SUPPLIER (EITHER OF THE FOLLOWING):
- 1.) MOBILE MIX (SITE MIXED) OPERATOR(S) AND MANAGER.
- 2.) READY MIX PLANT (IF USED): QC REPRESENTATIVE, DISPATCH AND BATCH PLANT OPERATOR.
- b. PERVIOUS CONCRETE CONTRACTOR.
- c. SITE WORK CONTRACTOR.
- d. PROJECT FOREMAN.
- e. PERVIOUS CONCRETE CONSULTANT APPROVED BY EVOLUTION PAVING RESOURCES.
- f. DESIGN PROFESSIONAL OF RECORD
6. BEFORE PLACEMENT OF THE PERVIOUS CONCRETE BEGINS, THE PERVIOUS CONCRETE CONTRACTOR SHALL INSPECT THE IN-PLACE RE-CHARGE AGGREGATE FOR COMPLIANCE TO THE PLANS AND SPECIFICATIONS WITH WRITTEN APPROVAL OF THE DESIGN PROFESSIONAL OF RECORD, AS FOLLOWS:
- a. WHEN THE PERVIOUS CONCRETE ABUTS A BUILDING FACE OR INTERFACES WITH ASPHALTIC CONCRETE PAVEMENT, AN IMPERVIOUS BARRIER SHALL BE INSTALLED TO PREVENT WATER FROM SEEPING FROM THE RE-CHARGE BED INTO ADJACENT BASE MATERIALS OR STRUCTURES. APPROVED BARRIERS MAY INCLUDE:
- 1) AN IMPERMEABLE POND LINER PROPERLY INSTALLED TO PREVENT FLOW FROM THE AGGREGATE BASE.
- 2) FLUSH CURBS PLACED ONTO IMPERMEABLE SOIL OR USED IN CONJUNCTION WITH A WATERPROOF LINER.
- 3) ANY BARRIER CHOSEN BY THE DESIGN PROFESSIONAL OF RECORD TO ISOLATE THE ADJACENT STRUCTURE.
- b. THE BASE MUST BE COMPACTED TO AN ACCEPTABLE LEVEL AS APPROVED BY THE DESIGN PROFESSIONAL OF RECORD.
- c. TEST THE BASE AGGREGATE FOR PERMEABILITY AFTER COMPACTION.
- d. TWO TO TWELVE HOURS PRIOR TO PLACING CONCRETE, AND IMMEDIATELY PRIOR TO THE POUR, THE RECHARGE BED SHALL BE SOAKED WITH WATER TO MINIMIZE EFFECT OF DRY OR HOT AGGREGATE FROM DRAWING MOISTURE OUT OF THE PLASTIC CONCRETE. THE DESIGN PROFESSIONAL OF RECORD MAY WAIVE THIS REQUIREMENT IN WET CONDITIONS.
- f. ALL OTHER ELEMENTS OF THE DESIGN (I.E. CONDUITS, DRAINAGE PIPE(S), UTILITIES, IRRIGATION SLEEVES, ETC.) CONTRACTOR TO REVIEW ALL PLANS TO DETERMINE PLACEMENT OF ALL ELEMENTS PRIOR TO PLACING CONCRETE.
- g. ALL JOINTS ARE TO BE CLEARLY MARKED ON THE FORMS AND BASE ROCK PRIOR TO PLACEMENT. RADIUS JOINTS BETWEEN FORMS SHALL BE PAINTED ON THE BASE ROCK BEFORE PLACEMENT BEGINS.
7. PERVIOUS CONCRETE SHALL BE PLACED USING EQUIPMENT AND METHODS GENERALLY APPROVED BY PERVIOUS CONCRETE INSTALLATION EXPERTS.
8. CONTRACTION JOINTS SHALL BE CUT INTO THE PAVEMENT WITHIN EIGHT (8) FEET OF THE SCREED OR WITHIN FIVE MINUTES WHICHEVER COMES FIRST.
9. CONTRACTOR MUST FOLLOW THE "JOINTING PLAN" AS PER THE PLANS UNLESS APPROVED IN WRITING BY THE DESIGN PROFESSIONAL OF RECORD.
10. ALL JOINTS ARE TO BE CLEARLY MARKED ON THE FORMS AND BASE ROCK PRIOR TO PLACEMENT. RADIUS JOINTS BETWEEN FORMS SHALL BE PAINTED ON THE BASE ROCK BEFORE PLACEMENT BEGINS.
11. ALL WET CUT EDGES AND COLD JOINT EDGES MUST BE EDGED WITH AN APPROVED 1/2" OR 5/8" RADIUS EDGER UNLESS OTHERWISE SPECIFIED. A RADIUS EDGE IS ALSO REQUIRED NEXT TO CURBS AND NEXT TO SAWN JOINTS.
12. AVOID COLD JOINTS. IF A DELAY OCCURS THAT LASTS LONG ENOUGH THE CONCRETE IS NO LONGER WORKABLE (METALLIC SHEEN LOST), INSTALL A TRANSVERSE CONSTRUCTION JOINT, COMPACT THE EDGE THE NEW JOINT OR REMOVE THE PLACED MIX BACK TO A SCHEDULED JOINT. USE A STRAIGHT EDGE AND EDGING TOOL TO MAKE THE NEW JOINT. DURING SHORT DELAYS COVER THE PAVEMENT, INCLUDING THE FACE OF THE NEW EDGE, WITH PLASTIC UNTIL FRESH CONCRETE ARRIVES. USE OF A SURFACE STABILIZING AGENT LIKE "BASF CONFLIM™" OR APPROVED EQUAL, IS ENCOURAGED DURING DELAYS. STABILIZERS MAY BE REAPPLIED AS LONG AS THE PASTE IS NOT DAMAGED.
13. AVOID OVER-FINISHING OF THE SURFACE TO PROTECT SURFACE POROSITY.
14. PROPER CURING PROCEDURES REQUIRE PRODUCT TO BE COVERED IN TWENTY (20) FEET OR LESS AFTER THE PAVEMENT IS PLACED. CURING PROCEDURES MUST ALWAYS BEGIN IN LESS THAN TWENTY (20) MINUTES AFTER PLACEMENT. IN DRY OR WINDY CONDITIONS, CURING MUST BE STARTED SOONER AND PLACING SHOULD BE SUSPENDED IF THE WET METALLIC SHEEN CANNOT BE MAINTAINED LONG ENOUGH TO COMPLETE FINISHING OPERATIONS.
15. THE PAVEMENT SURFACE MUST BE COVERED WITH SIX MIL POLYETHYLENE PLASTIC SHEETING OR THICKER OR AS APPROVED BY THE DESIGN PROFESSIONAL OF RECORD.
- a. TO REDUCE "TIGER STRIPING" AND OTHER SURFACE DISCOLORATION ISSUES CAUSED BY UNEVEN CURING FROM WRINKLES IN THE PLASTIC OR EFFLORESCENCE FROM THE CURING PROCESS, REMOVE THE PLASTIC AFTER 24 HOURS AND THOROUGHLY FLUSH THE SURFACE. REPLACE AND CAREFULLY RE-SECURE THE PLASTIC. REPEAT THIS PROCEDURE ON THE THIRD DAY AFTER PLACEMENT.
- b. ALTERNATIVE TO FLUSHING. USE OF 2 MIL PLASTIC ON THE SURFACE TO REDUCE AIR SPACES UNDER THE PLASTIC IS ALLOWED IF 6 MIL PLASTIC IS USED ON TOP OF THE 2 MIL AS BACK UP. A CONCRETE FINISHING BROOM MAY BE USED TO LIGHTLY REMOVE AIR VOIDS FROM THE 2 MIL SHEETING IF NO SURFACE DAMAGE RESULTS FROM THE BROOM AND PLASTIC.
16. BLACK OR WHITE SHEETING IS SUGGESTED. CLEAR MAY BE USED BUT IT MAY INCREASE THE CHANCES OF "TIGER STRIPE SURFACE DISCOLORATION.
17. THE SHEETING SHALL OVERLAP ALL EXPOSED EDGES AT LEAST FIFTEEN INCHES AND SHALL BE SECURED; WITHOUT USING DIRT OR STONES SMALLER THAN THE AGGREGATE IN THE MIX, TO SECURELY ANCHOR THE PLASTIC FOR ALL WEATHER CONDITIONS.

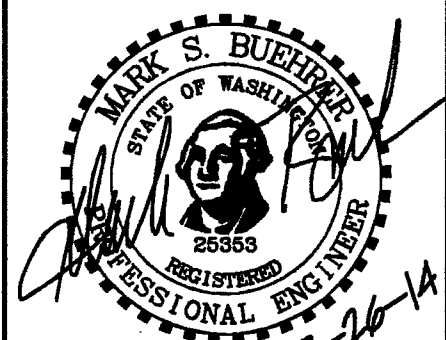
18. IN WINDY CONDITIONS IT MAY BE NECESSARY TO CAST AGGREGATE (THE BASE ROCK MAY BE USED IF THE SMALLEST SIZE OF THE ROCK IS LARGER THAN THE AGGREGATE USED IN THE PERVIOUS MIX) TO ANCHOR THE PLASTIC. EVENLY SPREAD ROCK ACROSS THE SURFACE AS NEEDED TO REMOVE ALL "BALLOONING" PLASTIC. USE CAUTION WHEN CASTING THE AGGREGATE ON FRESHLY PLACED MIX.
19. SHEETING WITH UNREPAIRED HOLES OR RIPS WILL NOT BE ALLOWED.
20. A FOG OR LIGHT MIST MAY BE SPRAYED USING A LOW OR MEDIUM SOLID HYDRATION-STABILIZING AGENT CONFLIM OR APPROVED EQUIVALENT. APPLY WITH A PRESSURE SPRAYER ABOVE THE SURFACE AS NEEDED DURING HIGH TEMPERATURE, HIGH WIND, AND LOW HUMIDITY.
21. LIQUID CURING COMPOUNDS ARE NOT ALLOWED AS A REPLACEMENT OF CURING PLASTIC. SURFACE TREATMENTS FOR CURING OR OTHER APPROVED PURPOSES ARE ALLOWED IN CONJUNCTION WITH CURING PLASTIC.
22. CURE TIME SHALL BE SEVEN DAYS IF TEMPERATURE REMAINS AT OR ABOVE 55°F FOR THE DURATION OF THE CURE. AT TEMPERATURES BELOW 55°F, CURING TIME MUST BE EXTENDED BEFORE OPENING TO TRAFFIC. THE ADDED TIME NEEDED BEFORE OPENING TO TRAFFIC IS TO BE DETERMINED BY THE DESIGN PROFESSIONAL OF RECORD.
23. PASSENGER CAR TRAFFIC CAN BE ALLOWED AFTER SEVEN DAYS. TRUCK TRAFFIC (HS-20) LOADED OR UN-LOADED SHALL BE NOT BE ALLOWED FOR AT LEAST FOURTEEN DAYS.
24. THE GENERAL CONTRACTOR MUST INFORM ALL TRADES; ESPECIALLY LANDSCAPERS, NOT TO DUMP FINE MATERIALS SUCH AS DIRT OR BARK ON THE PERVIOUS CONCRETE.
25. THE GENERAL CONTRACTOR MUST PROTECT THE PAVEMENT FROM OTHER TRADES WHO USE THE PAVEMENT FOR STAGING, STORAGE OR OTHER REASONS.
26. PROTECT THE PAVEMENT SURFACE FROM ABRASION, DISCOLORATION, OR SEDIMENTS BY COVERING WITH A GEOTECHNICAL FABRIC. THIS FABRIC MUST BE PROPERLY ANCHORED AND MAINTAINED IN PLACE STARTING WHEN THE CURING PLASTIC IS REMOVED AND REMAINING UNTIL COMPLETION OF ANY CONSTRUCTION OR LANDSCAPING ACTIVITY THAT MAY EXPOSE THE PAVEMENT TO HAZARDS.
27. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REMOVE AND PAY FOR REPLACEMENT COSTS OF SURFACE DAMAGE FOR CAUSES OUT OF THE CONTROL OF THE INSTALLER. AT THE COMPLETION OF THE JOB, LOOSE CONSTRUCTION "CRUMBS" LEFT ON THE SURFACE OF THE PAVEMENT ARE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO REMOVE.
28. A WATER TRUCK TO FLUSH THE LOOSE MATERIAL, USING A HIGH VOLUME, LOW PRESSURE WATER FLOW, IS THE PREFERRED WAY TO CLEAN THE PAVEMENT.
29. IT IS ESPECIALLY NECESSARY TO REMOVE ALL LOOSE MATERIAL BEFORE PAINTING LINES OR OTHER SYMBOLS ON THE PAVEMENT.
30. REMOVE AND REPLACE PAVEMENT SECTIONS THAT FAIL TO MEET STANDARDS ESTABLISHED AND APPROVED BY THE OWNER, UNLESS OTHERWISE AUTHORIZED BY DESIGN PROFESSIONAL OF RECORD, REMOVE THE ENTIRE SECTION AT NO EXPENSE TO THE OWNER AT THE NEAREST JOINT.
31. PATCHING SMALL AREAS MAY BE ALLOWED IF THE INSTALLER USES THE EXACT MIX DESIGN WITH THE SAME INGREDIENTS AND CEMENT SUPPLIER AND CAN DEMONSTRATE THE PATCH WILL MATCH THE APPEARANCE AND PERFORMANCE OF THE EXISTING PAVEMENT AFTER THE REPLACEMENT PAVEMENT HAS CURED. MINOR COLOR DIFFERENCES ARE TO BE EXPECTED AND ARE NOT A BASIS FOR REJECTING PATCHING.
32. IF THE PAVEMENT HAS BEEN CLOGGED WITH CONSTRUCTION DEBRIS OR OTHER SEDIMENT, CLEAN THE PAVEMENT AS SHOWN IN SECTION 4.1 AND RETEST. IF THE PAVEMENT IS SLOW DRAINING BECAUSE OF IMPROPER MIX DESIGN OR INSTALLATION TECHNIQUES, REMOVE AND REPLACE THE SECTION OF PAVEMENT THAT IS NOT COMPLIANT WITH THE SPECIFICATIONS TO THE NEAREST JOINT.

11	04.02.14	SC	ADDED DETAILS 4 AND 6, REVISED 5.
10	09.16.13	SC	REVISE NOTES
9	09.13.13	SC	ADD ULTRABLOCK WALL
8	08.28.13	SC	2' SETBACK, SLOPE DETAILS

7	08.22.13	SC		CRIBBLOCK WALL REMOVED	ENGINEER:	M. RANDALL
6	05.22.13	MR		REVISIONS PER CITY COMMENT	DESIGNED BY:	M. RANDALL
5	04.29.13	MR		REVISIONS PER CITY COMMENT	DRAWN BY:	J. FORD,S. CONNER
4	03.25.13	MR		REVISIONS PER CITY COMMENT	CHECKED BY:	M. BUEHRER
3	01.15.13	MR		REVISED GRADING	PROJ. MNGR:	M. RANDALL
2	11.30.12	MR		REVISIONS PER CITY COMMENT	PROJ. NO:	636SAM
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SAMSON ROPE
PHASE I BUILDING EXPANSION
PERVIOUS CONCRETE NOTES

SHEET:
C0.2

RECORD DRAWINGS

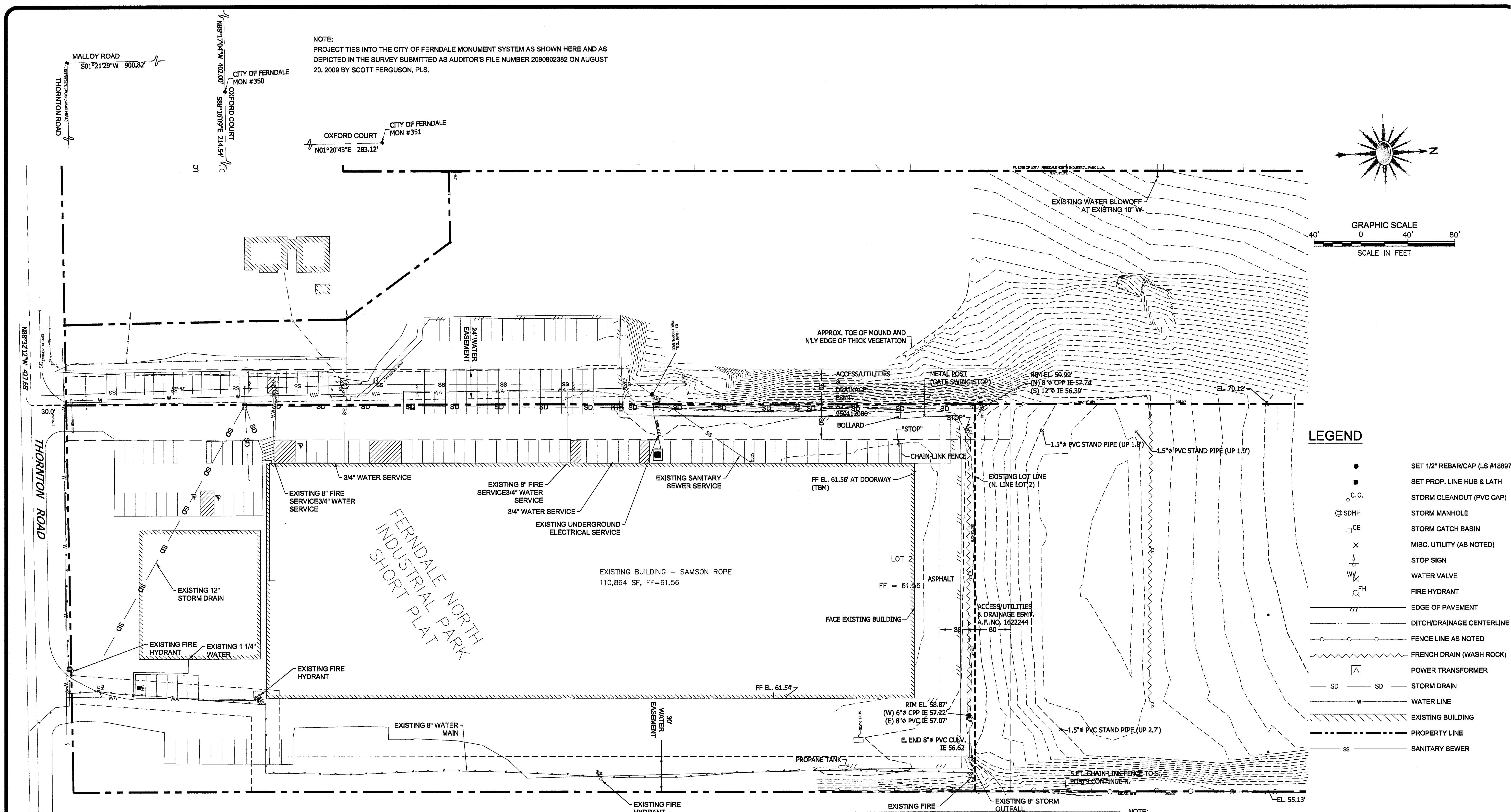
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APPROVED

SEP 23 2014

BY: *David Erdley*
CITY OF FERNDALE

00512.00-1 9/23/14 SA



NOTE:
PROJECT TIES INTO THE CITY OF FERDALE MONUMENT SYSTEM AS SHOWN HERE AND AS
DEPICTED IN THE SURVEY SUBMITTED AS AUDITOR'S FILE NUMBER 2090802382 ON AUGUST
20, 2009 BY SCOTT FERGUSON, PLS.

- LEGEND**
- SET 1/2" REBAR/CAP (LS #18897)
 - SET PROP. LINE HUB & LATH
 - C.O. STORM CLEANOUT (PVC CAP)
 - ⊙ SDMH STORM MANHOLE
 - CB STORM CATCH BASIN
 - × MISC. UTILITY (AS NOTED)
 - ⊥ STOP SIGN
 - WV WATER VALVE
 - ⊗ FH FIRE HYDRANT
 - /// EDGE OF PAVEMENT
 - DITCH/DRAINAGE CENTERLINE
 - ○ ○ ○ FENCE LINE AS NOTED
 - ~~~~~ FRENCH DRAIN (WASH ROCK)
 - △ POWER TRANSFORMER
 - SD STORM DRAIN
 - W WATER LINE
 - EXISTING BUILDING
 - PROPERTY LINE
 - SS SANITARY SEWER

11	04.02.14	SC	ADDED DETAILS 4 AND 6, REVISED 5.
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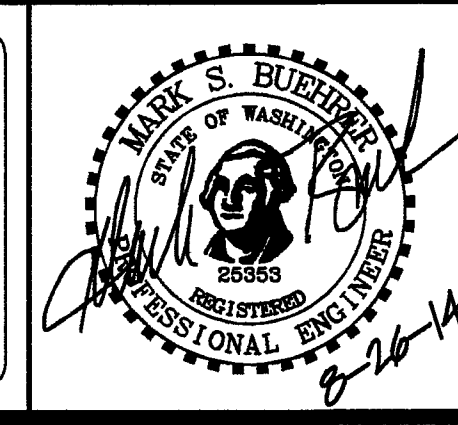
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NO.	DATE	BY	APPR.	REVISION

ENGINEER:	M. RANDALL		
DESIGNED BY:	M. RANDALL	DATE:	5-22-13
DRAWN BY:	J. FORD, S. CONNER	DATE:	5-22-13
CHECKED BY:	M. BUEHRER	DATE:	5-22-13
PROJ. MNGR:	M. RANDALL		
PROJ. NO:	636SAM		
FILE NAME:	636_ExSite.dwg		
SCALE:	1" = 30'		

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NOTE:
R. THE EXISTING SITE CONDITIONS DRAWING WAS COMPILED WITH SURVEY INFORMATION FROM CHRISTIE & CHRISTIE (AUG. 7 & SEPT. 12, 2012), AS-BUILTS RECEIVED FROM THE PROPERTY OWNER, AND ENGINEERING PLANS PREPARED BY WEDEN ENGINEERING DATED SEPT. 1987 AND SEPT. 1988. BASED ON THIS INFORMATION WE WERE UNABLE TO CONFIRM SOME UTILITY SIZES. CONTRACTOR IS RESPONSIBLE FOR VERIFYING UNDERGROUND UTILITY TYPES, LOCATIONS, AND ELEVATIONS PRIOR TO CONSTRUCTION.

APPROVED
SEP 23 2014
BY [Signature]
CITY OF FERDALE

SAMSON ROPE

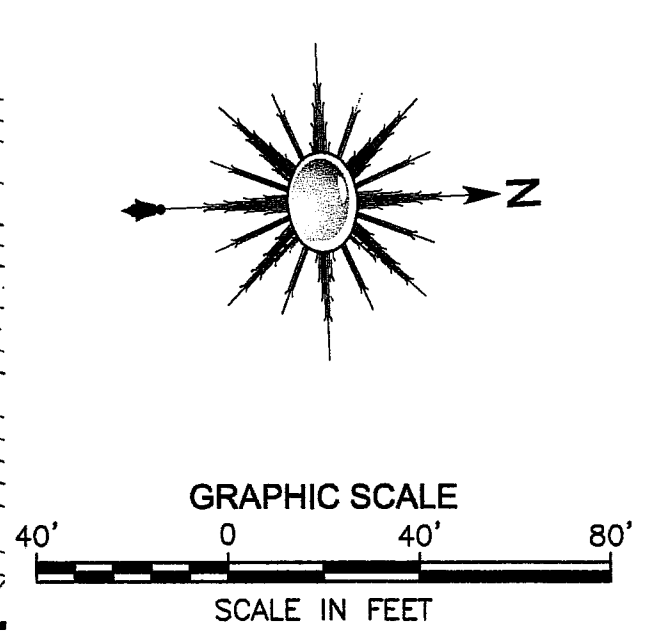
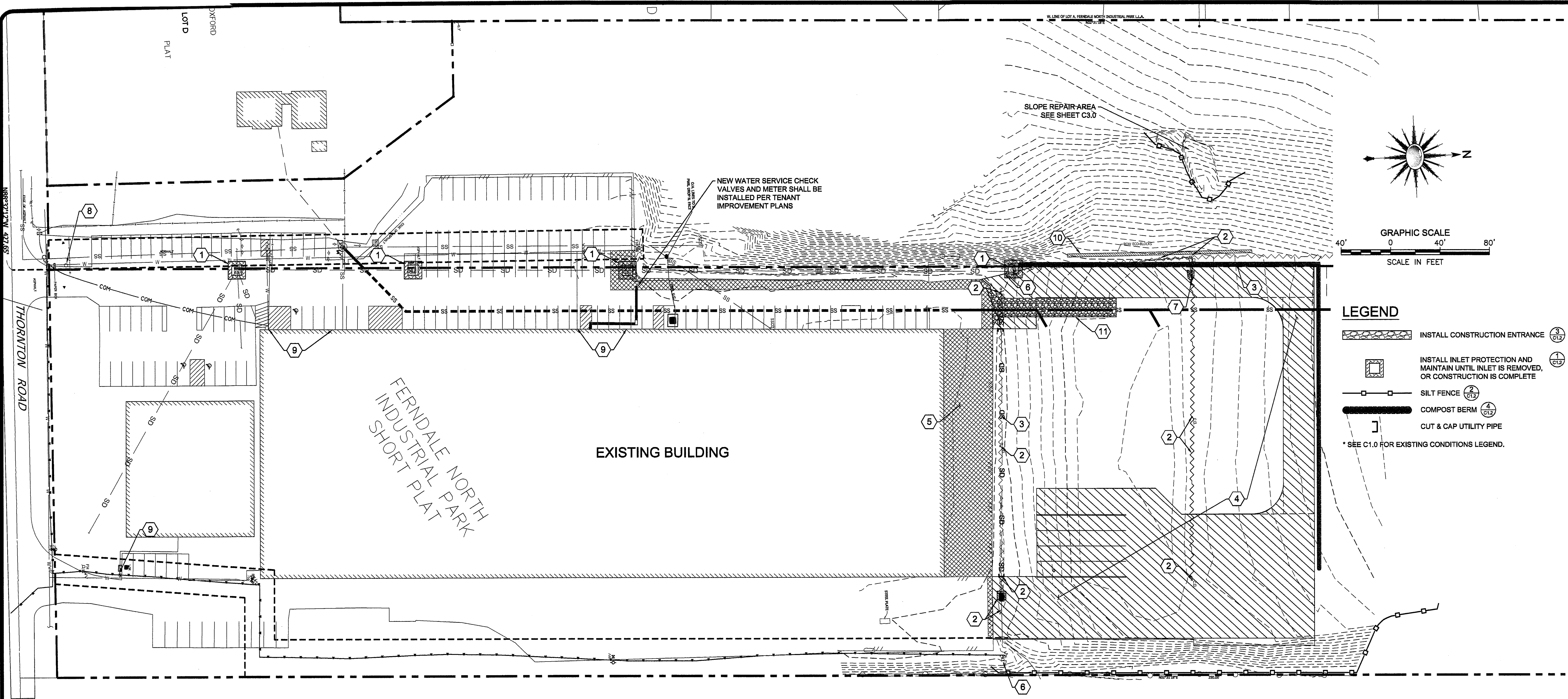
PHASE I BUILDING EXPANSION

EXISTING SITE CONDITIONS

SHEET:

C1.0

00512.005 9/23/14 SH



- LEGEND**
- INSTALL CONSTRUCTION ENTRANCE (3) (C12)
 - INSTALL INLET PROTECTION AND MAINTAIN UNTIL INLET IS REMOVED, OR CONSTRUCTION IS COMPLETE (1) (C12)
 - SILT FENCE (2) (C12)
 - COMPOST BERM (4) (C12)
 - CUT & CAP UTILITY PIPE
 - * SEE C1.0 FOR EXISTING CONDITIONS LEGEND.

DEMOLITION NOTES:

- 1 PROTECT EXISTING STORM MANHOLE INCLUDING INLET PROTECTION
- 2 REMOVE EXISTING CLEANOUT, CATCH BASIN, FRENCH DRAIN, AND/OR STORM PIPE
- 3 PROTECT EXISTING FRENCH DRAIN
- 4 PROTECT SUBGRADE OF AREA UNDER PROPOSED PREVIOUS CONCRETE PAVEMENT FROM OVER COMPACTION.
- 5 SAWCUT AND REMOVE EXISTING ASPHALT PAVEMENT AND GRAVEL BASE AS NECESSARY TO FORM AND CONSTRUCT PHASE I BUILDING FOUNDATION AND SLAB.
- 6 PROTECT EXISTING STRUCTURE
- 7 INSTALL TEMPORARY RIP RAP DURING CONSTRUCTION OF WATER LINE IF STORM PIPE IS IN USE. REMOVE RIP RAP & REUSE AT PROPOSED STORM DRAIN OUTFALL. SEE SHEET C3.0.
- 8 SINGLE DETECTOR CHECK VALVE, METER AND VAULT SHALL BE REMOVED PER THE TENANT IMPROVEMENT PLANS. SEE SHEET U1 OF THE TENANT IMPROVEMENT PLAN SET.
- 9 EXISTING WATER SERVICE TO BE ABANDONED OR MODIFIED PER THE TENANT IMPROVEMENT PLANS. SEE SHEET U1 OF THE TENANT IMPROVEMENT PLAN SET.
- 10 REMOVE EXISTING ECO-BLOCK WALL. COORDINATE WITH OWNER FOR RELOCATION.
- 11 TEMPORARY CONSTRUCTION ENTRANCE

NOTE:
SEE ALSO SHEET C0.1 FOR GENERAL REQUIREMENTS RELATED TO THE CONTRACTOR'S RESPONSIBILITY FOR PROPERLY INSTALLING AND MAINTAINING ALL TEMPORARY EROSION CONTROL MEASURES.

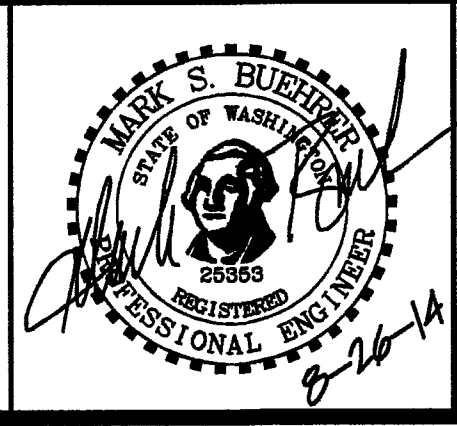
11	04.02.14	SC	ADDED DETAILS 4 AND 6, REVISED 5.
10	09.16.13	SC	REVISE NOTES
9	09.13.13	SC	ADD ULTRABLOCK WALL
8	08.28.13	SC	2' SETBACK, SLOPE DETAILS

7	08.22.13	SC		CRIBBLOCK WALL REMOVED	ENGINEER:	M. RANDALL		
6	05.22.13	MR		REVISIONS PER CITY COMMENT	DESIGNED BY:	M. RANDALL	DATE:	5-22-13
5	04.29.13	MR		REVISIONS PER CITY COMMENT	DRAWN BY:	J. FORD, S. CONNER	DATE:	5-22-13
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2	11.30.12	MR		REVISIONS PER CITY COMMENT	PROJ. NO:	636SAM		
1	11.02.12	JF		REVISIONS PER CITY COMMENT	FILE NAME:	636_TESC.dwg		
NO.	DATE	BY	APPR.	REVISION	SCALE:	1" = 30'		

BURLINGTON NORTHERN RAILROAD

RECORD DRAWINGS

I hereby certify that the improvements in Samson Rope have been inspected by 2020 ENGINEERING and to the best of my knowledge, have been constructed in conformance with the city of Ferndale development standards, the city of Ferndale municipal code, subsequent standards adopted by reference therein, and standard engineering practice.

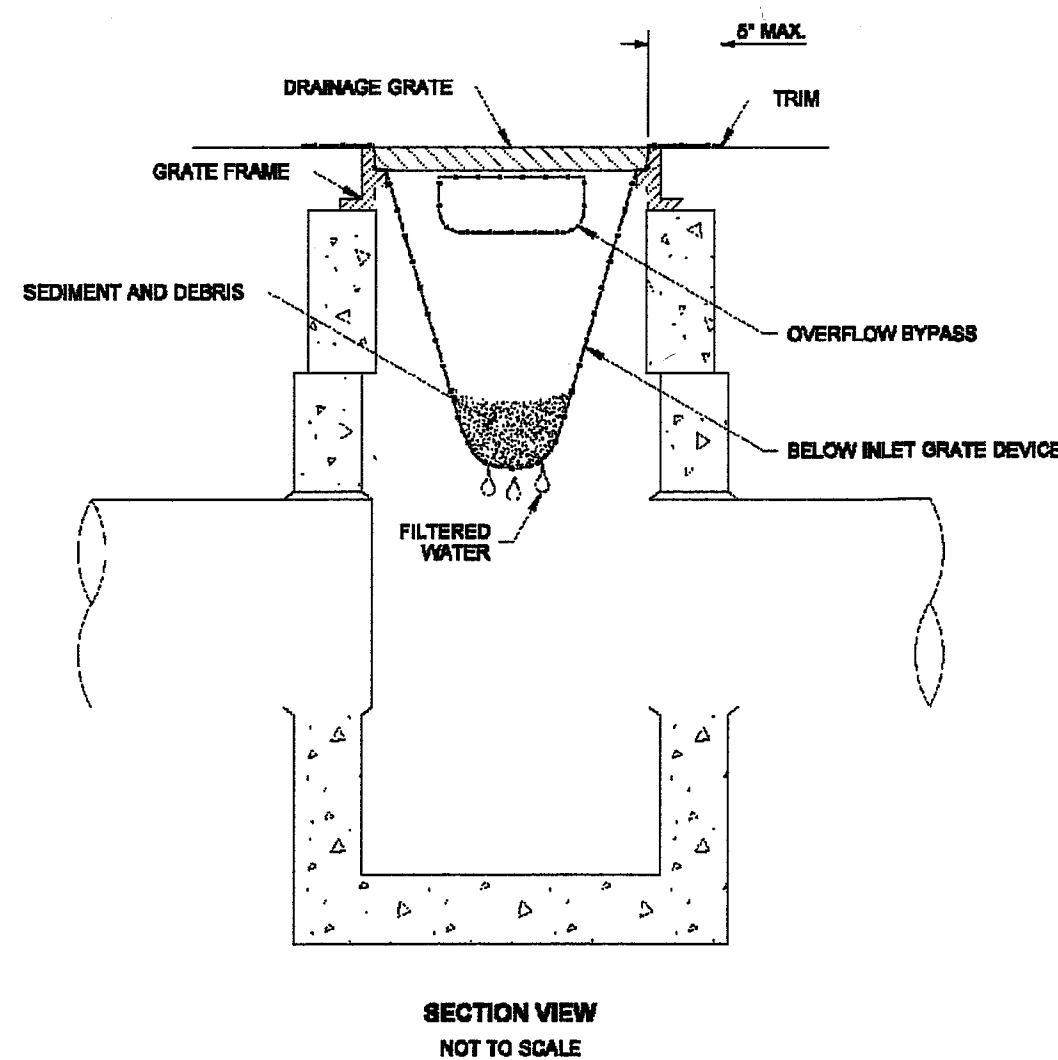


**FLEETWOOD INT'L
DEVELOPMENT
CORPORATION**
13847 33 AVE.
SURREY, B.C., CANADA V4P 2B4

SAMSON ROPE
**PHASE I BUILDING EXPANSION
TESC AND DEMOLITION PLAN**

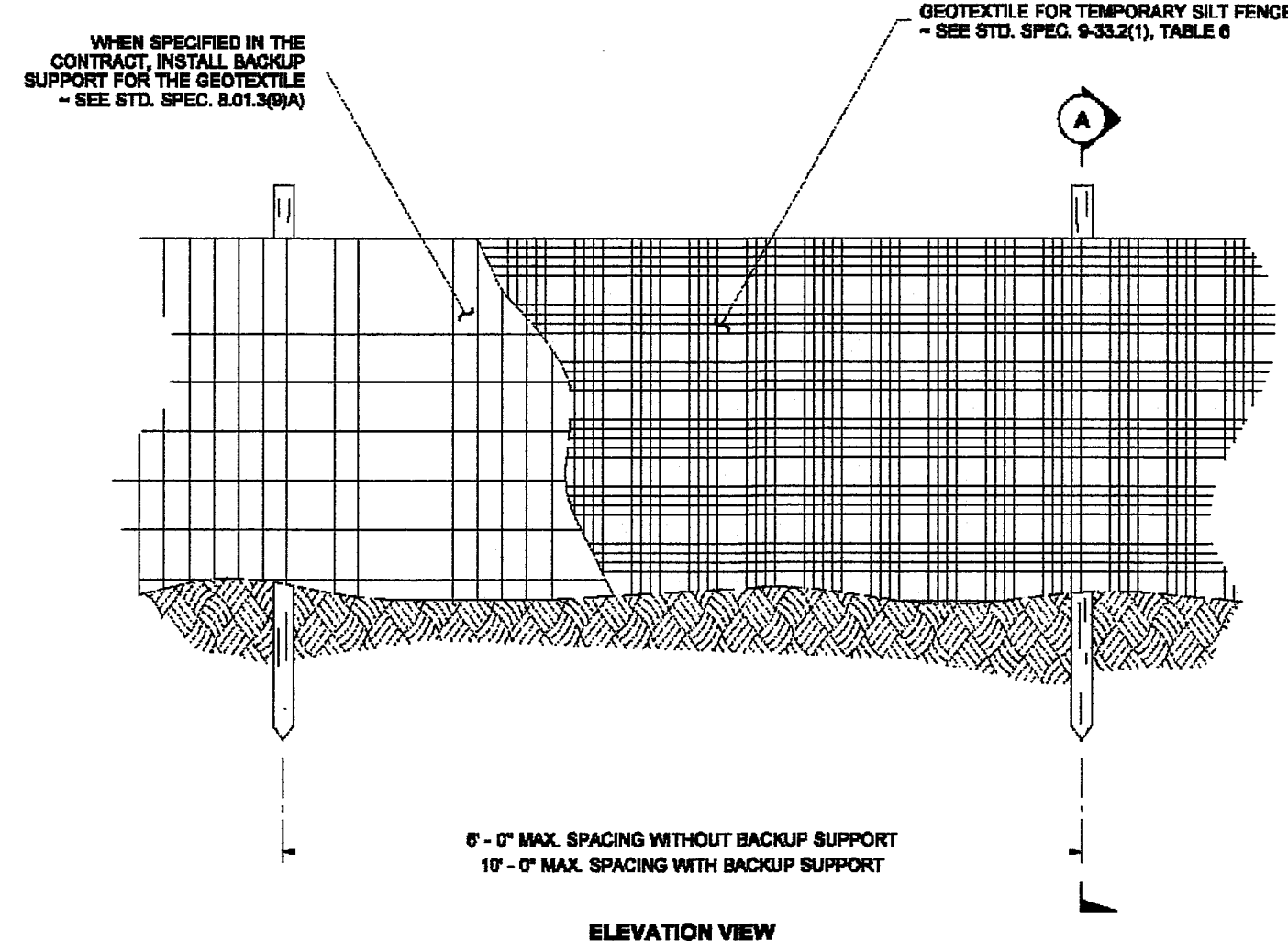
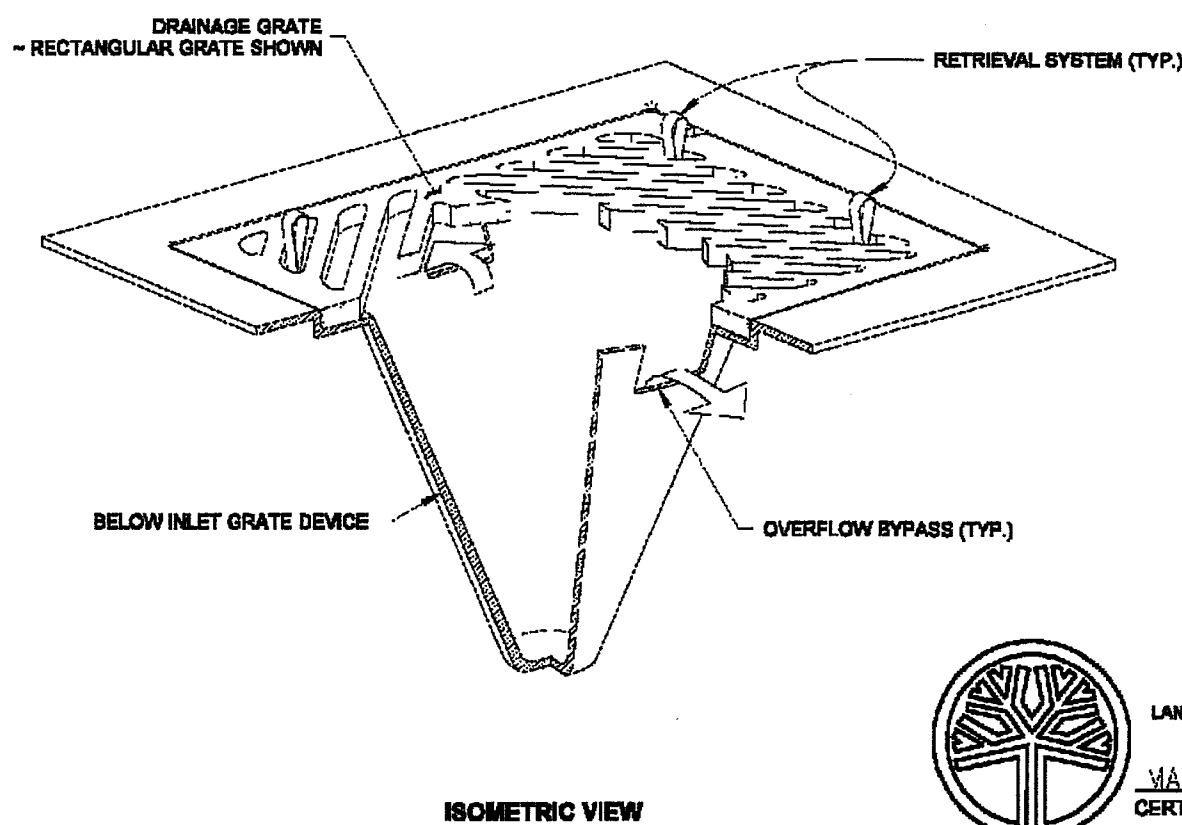
APPROVED
SEP 23 2014
BY: [Signature]
CITY OF FERDALE

SHEET:
C1.1



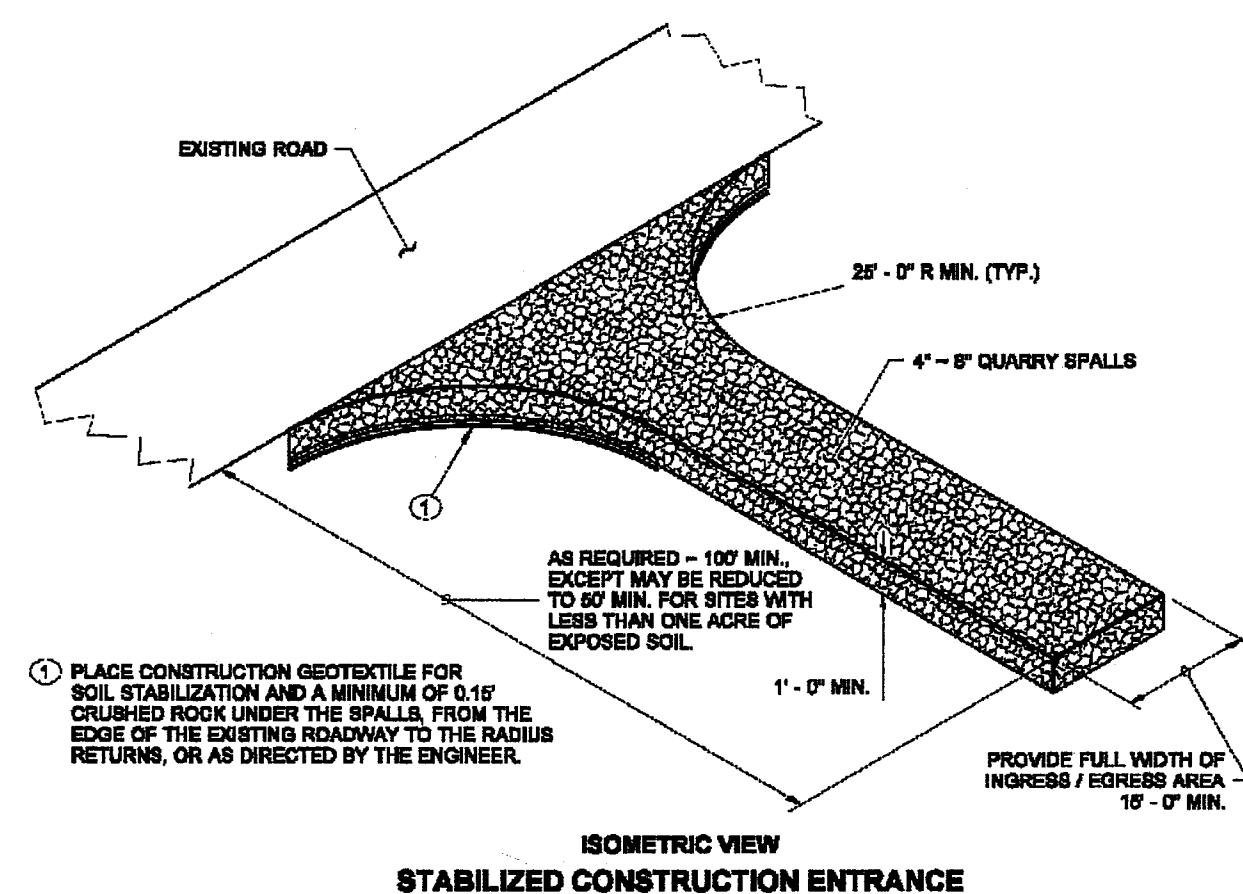
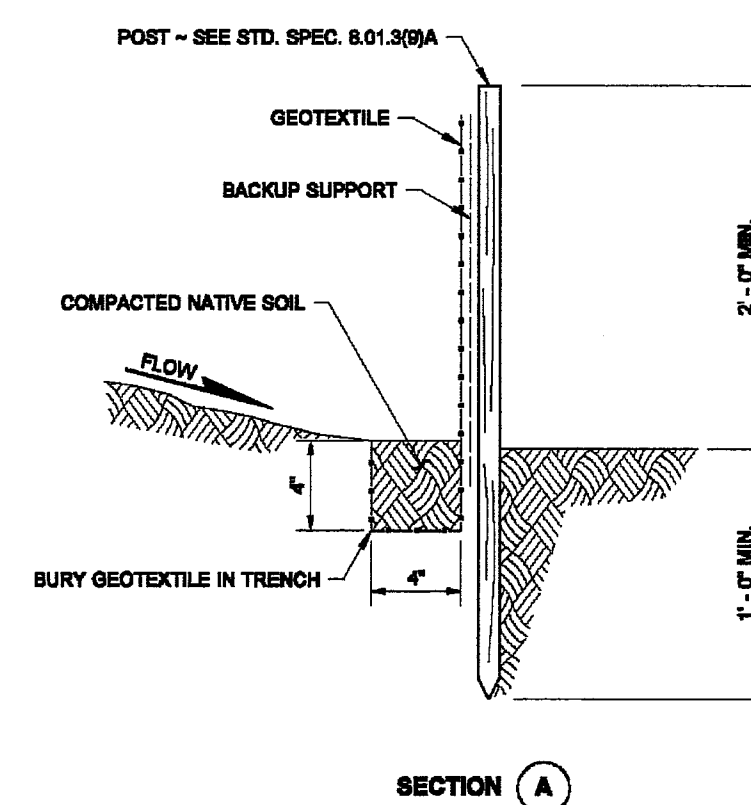
- NOTES**
1. Size the Below Inlet Grate Device (BIGD) for the storm water structure it will service.
 2. The BIGD shall have a built-in high-flow relief system (overflow bypass).
 3. The retrieval system must allow removal of the BIGD without spilling the collected material.
 4. Perform maintenance in accordance with Standard Specification 8-01.3(15).

1 INLET PROTECTION
NTS

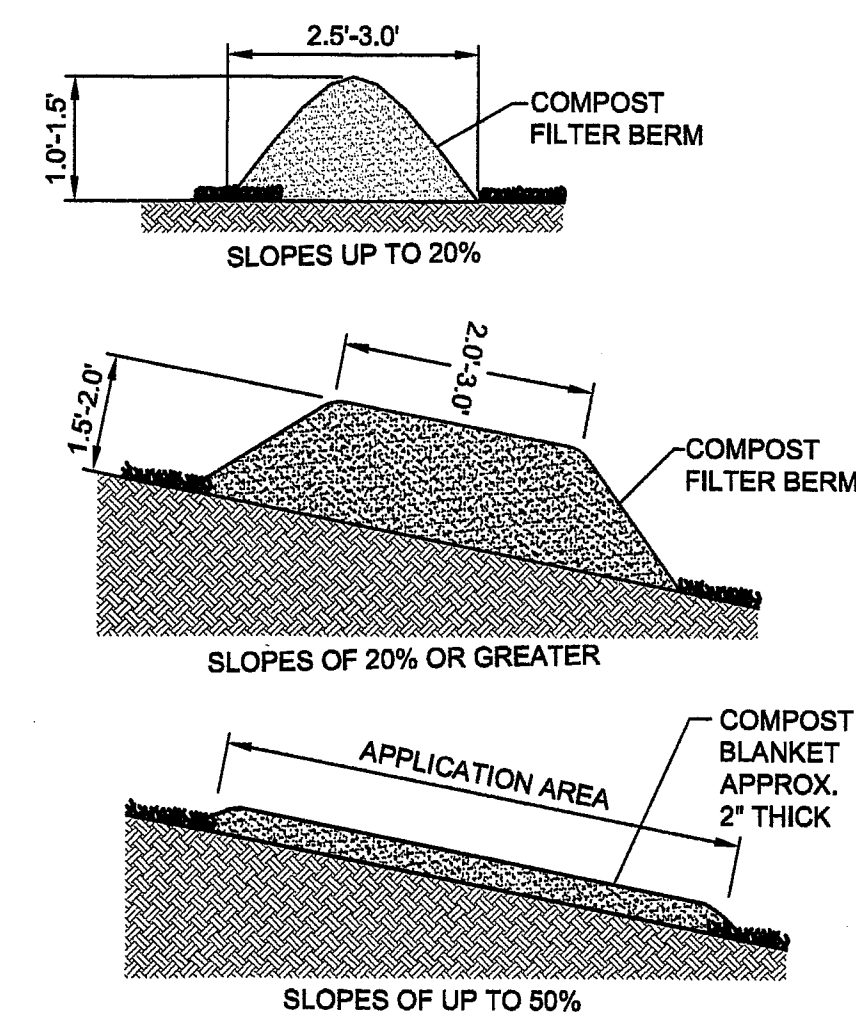


- NOTES**
1. Maximize detention of stormwater by placing fence as far away from toe of slope as possible without encroaching on sensitive areas or outside of the clearing boundaries.
 2. Install silt fencing along contours whenever possible.
 3. Install the ends of the silt fence to point slightly up-slope to prevent sediment from flowing around the ends of the fence.
 4. Perform maintenance in accordance with Standard Specifications 8.01.3(9)A and 8.01.3(15).

2 SILT FENCE
NTS



3 TEMPORARY CONSTRUCTION ENTRANCE
NTS

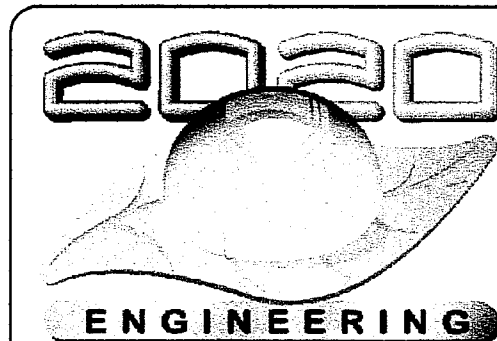


- BERM NOTES:**
1. FILTER BERM COMPOST AND COMPOST BLANKET MATERIAL SHALL BE COMPRISED OF ORGANIC MATERIAL PRODUCED BY AEROBIC DECOMPOSITION. IT MUST MEET THE US COMPOSTING COUNCIL'S SEAL OF TESTING ASSURANCE FOR WEEDS, PATHOGEN AND VECTOR ATTRACTION, DISCLOSURE OF HEAVY METALS, NUTRIENT LEVELS, AND MATURITY.
 2. AN EROSION CONTROL BERM SHALL BE PLACED, UNCOMPACTED, IN LOCATIONS INDICATED BY ENGINEERING DRAWINGS.
 3. THE METHOD OF PLACEMENT SHALL BE VIA "BLOWER TRUCK." OTHER METHODS AS APPROVED BY THE ENGINEER.
 4. THE SIZE AND SHAPE OF THE BERM IS DICTATED BY THE SLOPE OF THE APPLICATION AREA. SEE DRAWINGS.
 5. THE CONTRACTOR SHALL MAKE A DAILY REVIEW OF THE FILTER BERM TO ENSURE PROPER FUNCTION.
 6. WHEN RETAINED SEDIMENT HAS REACHED 1/2 THE HEIGHT OF THE BERM, IT SHALL BE REMOVED BY THE CONTRACTOR TO A LOCATION WHERE IT CANNOT ENTER DRAINAGE PATHWAYS AND CONTRIBUTE TO OFF-SITE SEDIMENTATION.
 7. THE BERM SHALL BE DISPERSED AS A SOIL AMENDMENT UPON COMPLETION OF THE PROJECT, AS DIRECTED BY THE OWNER OR ENGINEER.

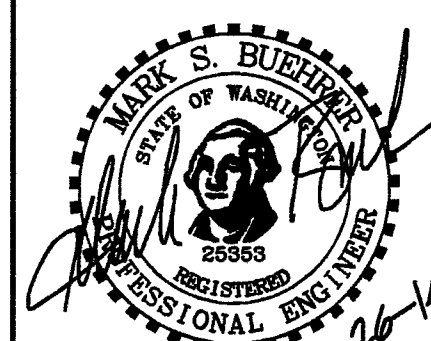
4 COMPOST BERM
NTS

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2	11.30.12	MR	REVISIONS PER CITY COMMENT	PROJ. NO:	636SAM
1	11.02.12	JF	REVISIONS PER CITY COMMENT	FILE NAME:	636_Site.dwg
NO.	DATE	BY	APPR.	SCALE:	1" = 20'



2020 ENGINEERING, INC.
WELLSPRING BUILDING
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BELLINGHAM, WA. 98225
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F: (360) 671-0322
www.2020engineering.com



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13847 33 AVE.
SURREY, B.C., CANADA V4P 2B4

SAMSON ROPE
PHASE I BUILDING EXPANSION
TESC DETAILS

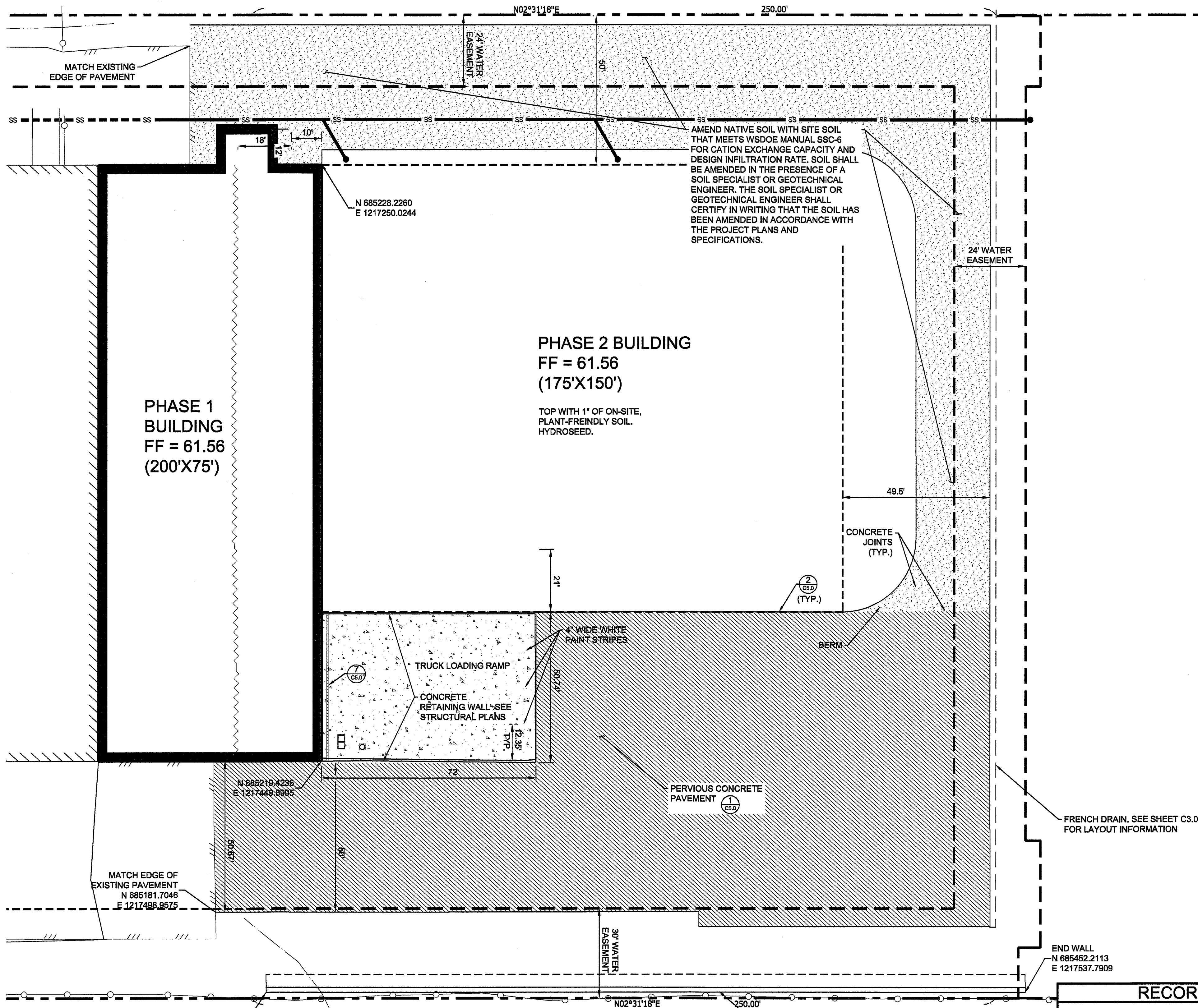
SHEET:
C1.2

RECORD DRAWINGS

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APPROVED

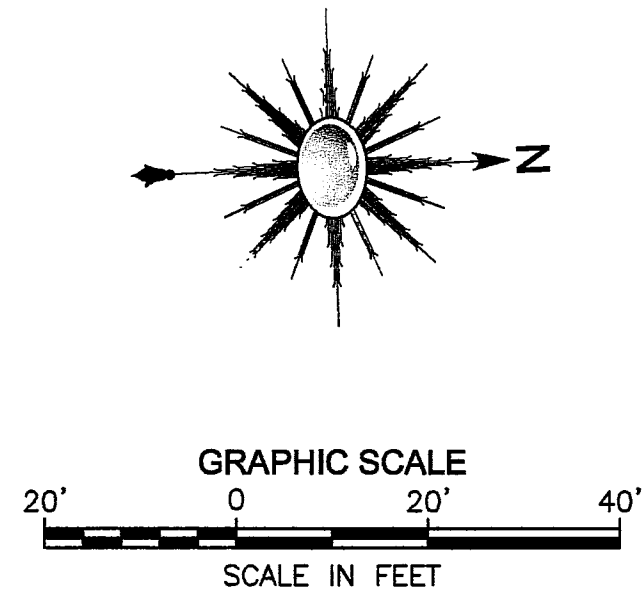
SEP 23 2014
BY *Mark S. Buehrer*
CITY OF FERNDALE



LEGEND

- EXISTING BUILDING
- PHASE I BUILDING EXPANSION
- FUTURE PHASE 2 BUILDING
- IMPERVIOUS CONCRETE
- PERVIOUS CONCRETE - 6" CHIPPED ROCK DEPTH (MIN.) WITH 18" AMENDED SOIL BENEATH TO MEET CEC REQUIREMENT
- PERVIOUS CONCRETE - 19" CHIPPED ROCK DEPTH (MIN.) USE SOIL BENEATH TO AMEND SOIL BENEATH WEST AND NORTH PERVIOUS CONCRETE SECTIONS TO MEET CEC REQUIREMENT

NOTE:
A FEW CONCRETE JOINTS ARE SHOWN IN AREAS WHERE JOINTING PATTERN MUST BE SPECIFICALLY FOLLOWED. A CONCRETE JOINTING PLAN SHALL BE SUBMITTED TO THE DESIGN ENGINEER FOR REVIEW BY THE CONTRACTOR PRIOR TO POURING THE CONCRETE.



SITE DATA - LINE TABLE

LINE #	START NORTH'G	START EAST'G	LENGTH	BEARING	END NORTH'G	END EAST'G
L1	685185.7867	1217208.1717	43.66	N10° 47' 32"W	685228.6777	1217199.9959
L2	685228.6777	1217199.9959	226.21	N02° 31' 18"E	685454.6641	1217209.9483
L3	685441.2124	1217515.3910	305.74	N87° 28' 42"W	685454.6641	1217209.9483
L4	685343.4406	1217511.0851	97.87	N02° 31' 18"E	685441.2124	1217515.3910
L5	685343.6606	1217506.0900	5.00	S87° 28' 42"E	685343.4406	1217511.0851
L6	685181.7046	1217498.9575	162.11	N02° 31' 18"E	685343.6606	1217506.0900
L7	685228.0611	1217249.9542	24.94	N87° 28' 42"W	685229.1583	1217225.0413
L8	685403.6126	1217232.7242	174.62	S02° 31' 18"W	685229.1583	1217225.0413
L9	685421.9888	1217383.6788	125.00	N87° 28' 42"W	685427.4884	1217258.8000
L10	685338.5971	1217405.0305	57.37	N02° 31' 18"E	685395.9131	1217407.5547
L11	685338.5971	1217405.0305	29.70	S47° 31' 18"W	685318.5413	1217383.1269
L12	685222.5504	1217378.8995	96.08	N02° 31' 18"E	685318.5413	1217383.1269

SITE DATA - CURVE TABLE

CURVE #	START NORTH'G	START EAST'G	LENGTH	RADIUS	DELTA	END NORTH'G	END EAST'G
C1	685427.4884	1217258.8000	39.27	25.00	090.0000°	685403.6126	1217232.7242
C2	685395.9131	1217407.5547	39.27	25.00	090.0000°	685421.9888	1217383.6788

RECORD DRAWINGS

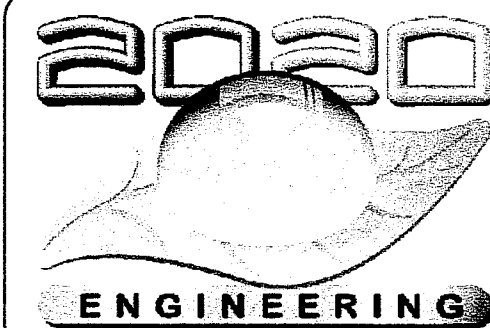
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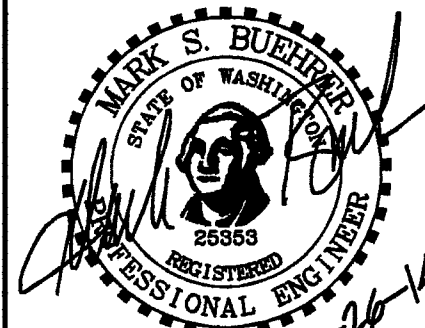
SEP 23 2014
BY [Signature]
CITY OF FERDALE

- 11 04.02.14 SC BEGIN WALL
- 10 09.16.13 SC REVISIONS PER CITY COMMENT
- 9 09.13.13 SC ADD ULTRABLOCK WALL
- 8 08.28.13 SC 2' SETBACK, SLOPE DETAILS

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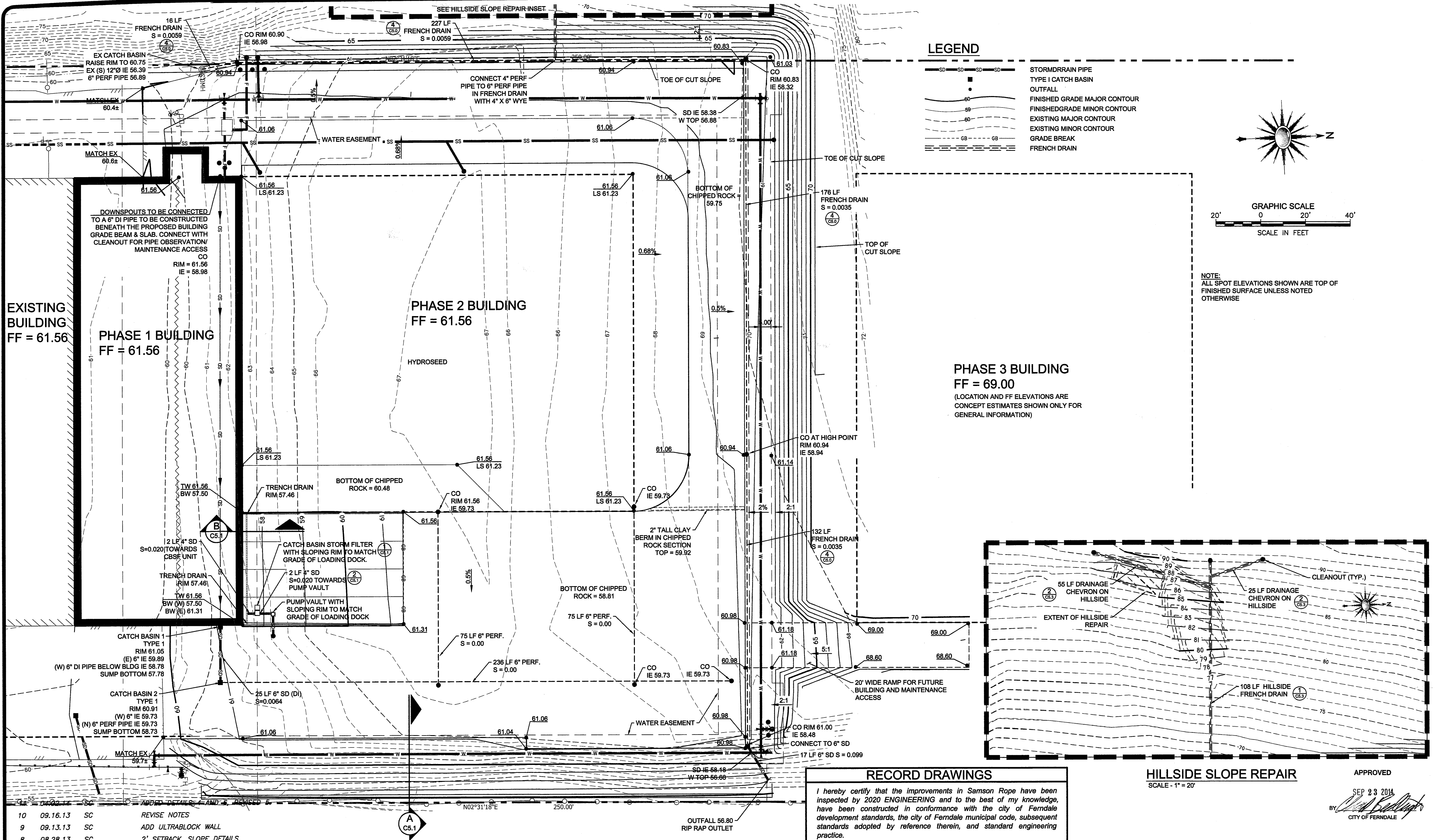
2020 ENGINEERING, INC.
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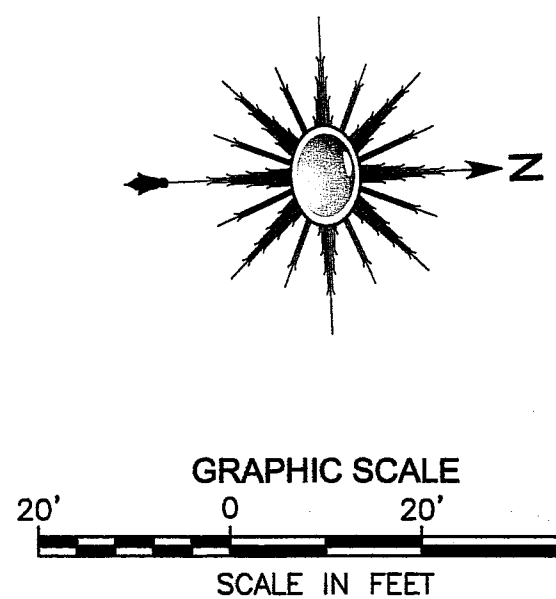
SAMSON ROPE
PHASE I BUILDING EXPANSION
SITE PLAN

SHEET:
C2.0



LEGEND

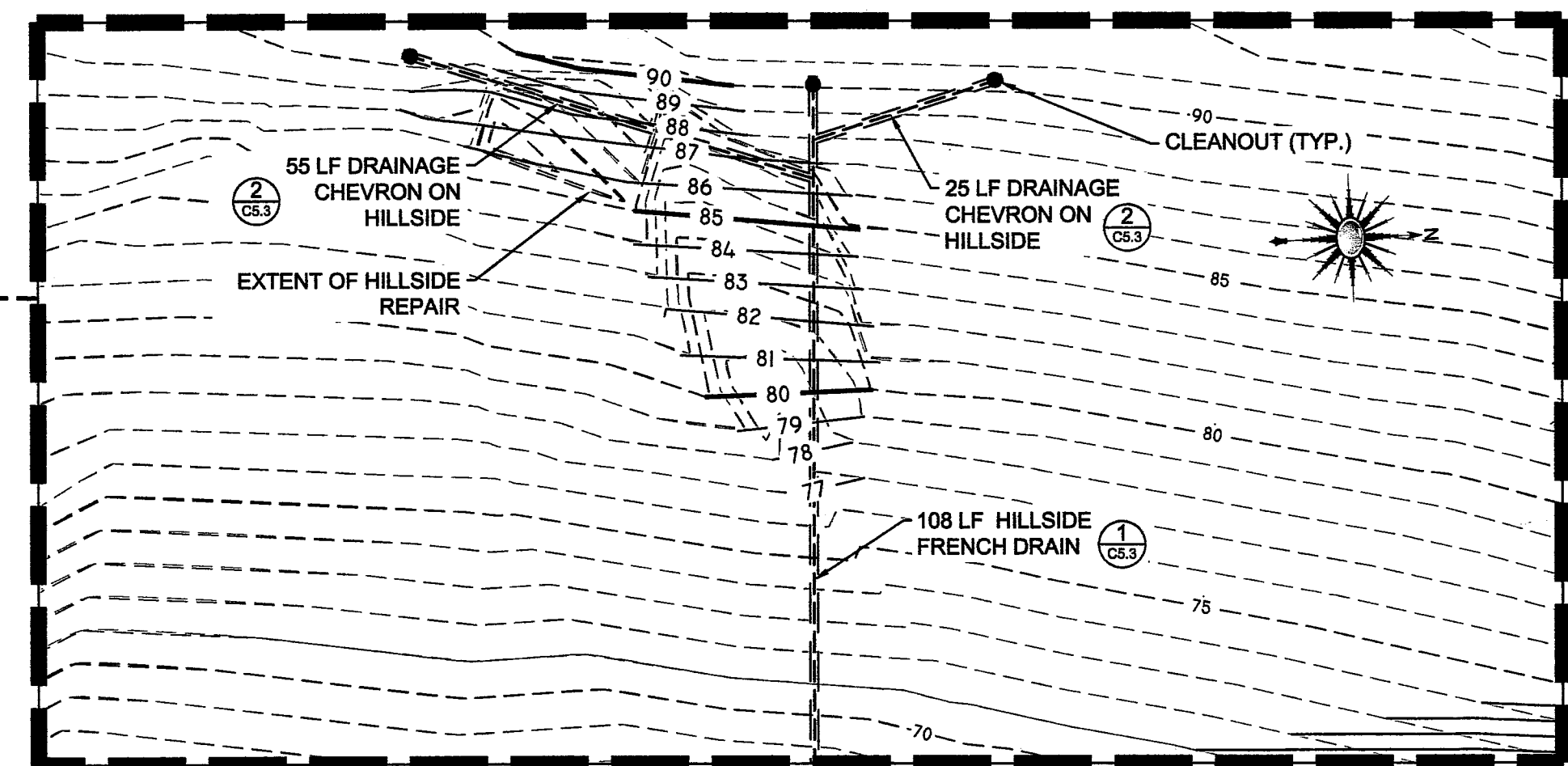
- SD SD SD SD STORMDRAIN PIPE
- TYPE I CATCH BASIN
- OUTFALL
- FINISHED GRADE MAJOR CONTOUR
- FINISHED GRADE MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- GRADE BREAK
- FRENCH DRAIN



NOTE:
ALL SPOT ELEVATIONS SHOWN ARE TOP OF
FINISHED SURFACE UNLESS NOTED
OTHERWISE

PHASE 3 BUILDING FF = 69.00

(LOCATION AND FF ELEVATIONS ARE
CONCEPT ESTIMATES SHOWN ONLY FOR
GENERAL INFORMATION)



RECORD DRAWINGS

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HILLSIDE SLOPE REPAIR

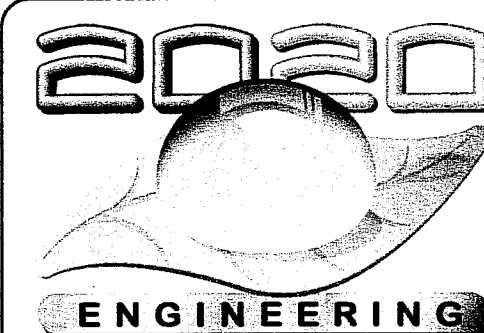
SCALE - 1" = 20'

APPROVED

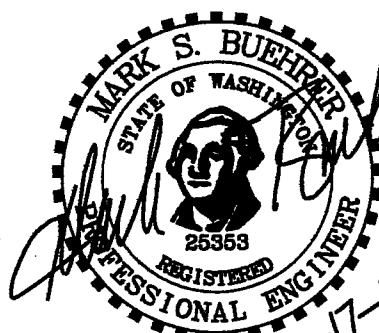
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BY *[Signature]*
CITY OF FERNDALE

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ENGINEER:	M. RANDALL
DESIGNED BY:	M. RANDALL
DRAWN BY:	J. FORD, S. CONNER
CHECKED BY:	M. BUEHRER
PROJ. MNGR:	M. RANDALL
PROJ. NO:	636SAM
FILE NAME:	636_Site.dwg
SCALE:	1" = 20'



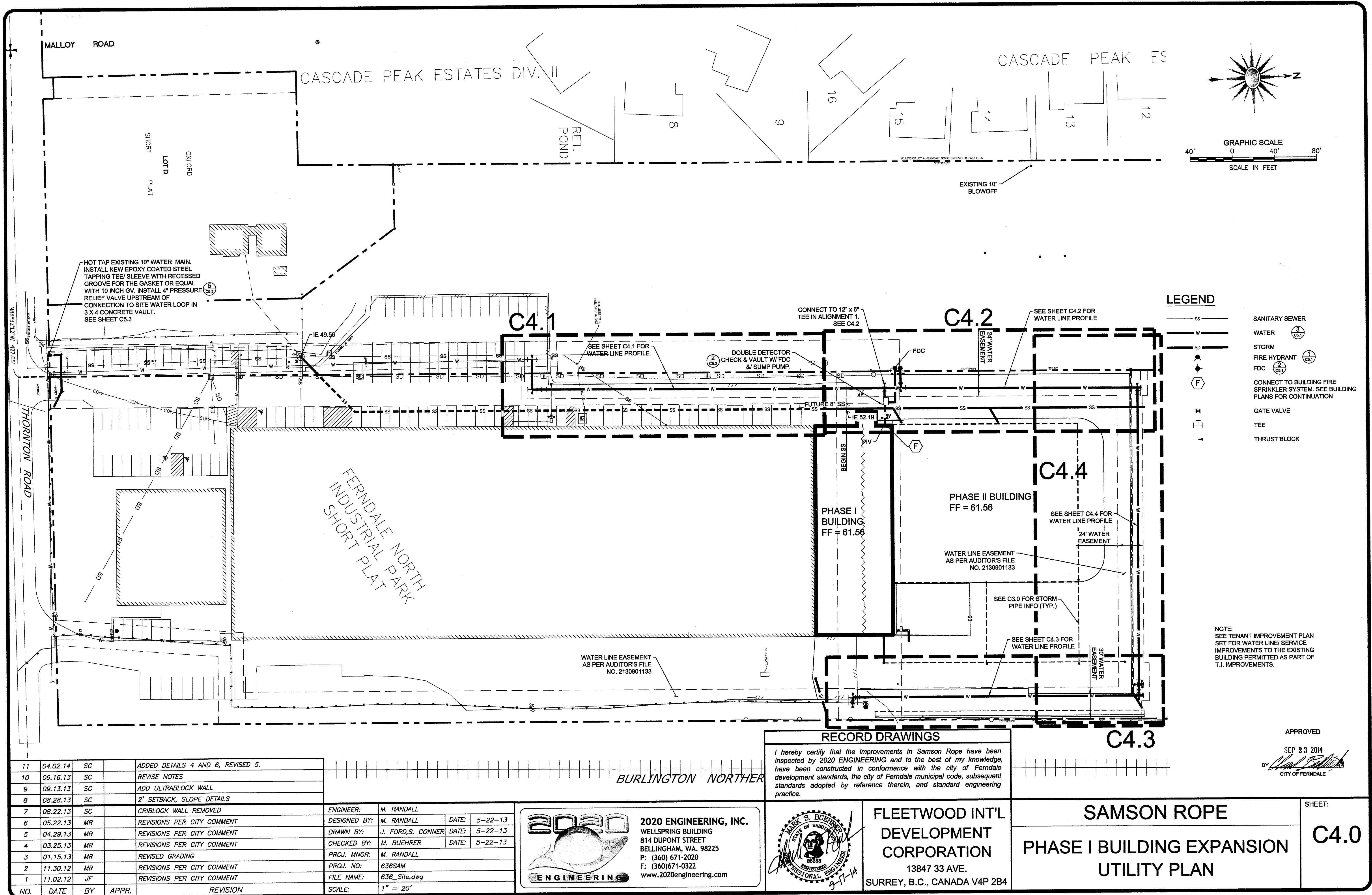
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SAMSON ROPE
PHASE I BUILDING EXPANSION
GRADING PLAN

SHEET:
C3.0



LEGEND

- SS SANITARY SEWER
- W WATER
- SD STORM
- FDC FIRE HYDRANT
- CONNECT TO BUILDING FIRE SPRINKLER SYSTEM. SEE BUILDING PLANS FOR CONTINUATION
- GATE VALVE
- TEE
- THRUST BLOCK

NOTE:
SEE TENANT IMPROVEMENT PLAN
SET FOR WATER LINE/ SERVICE
IMPROVEMENTS TO THE EXISTING
BUILDING PERMITTED AS PART OF
T.I. IMPROVEMENTS.

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RECORD DRAWINGS

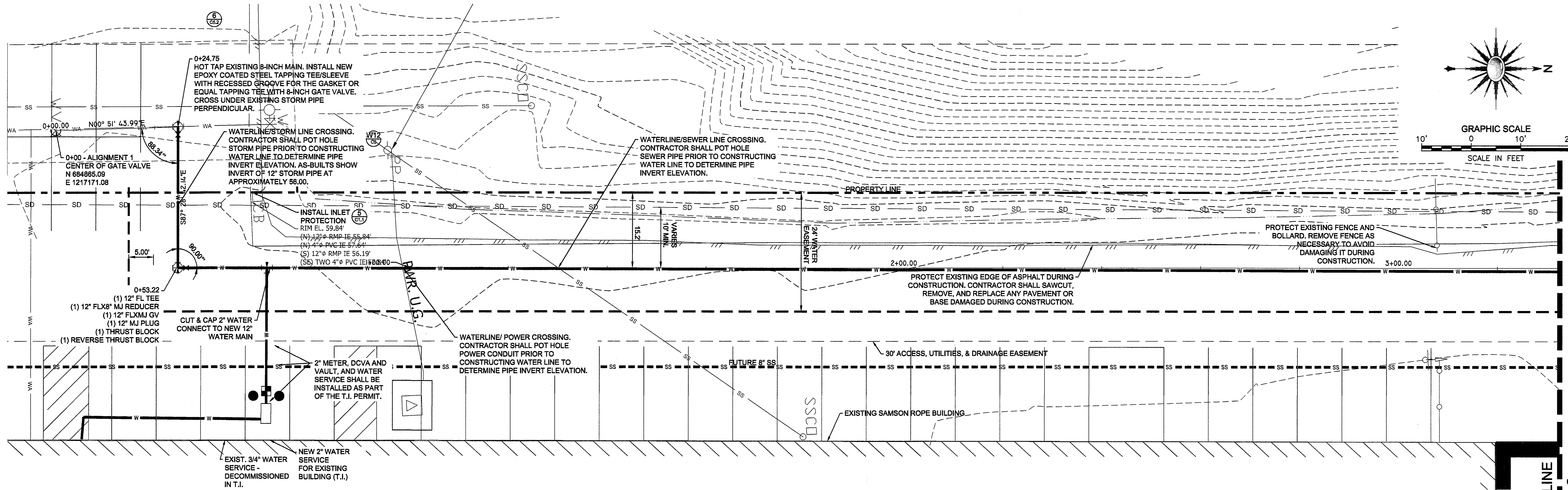
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SAMSON ROPE
PHASE I BUILDING EXPANSION
UTILITY PLAN

C4.0

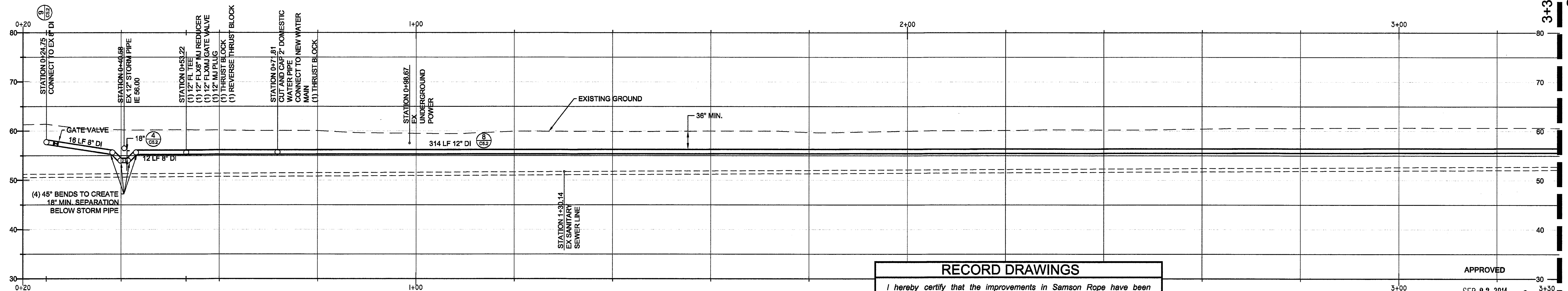
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CITY OF FERNDALE



WATER LINE PLAN

1" = 10'

- NOTES:
1. WATER MAIN SHALL BE STAKED BY A SURVEYOR TO MEET DESIGN REQUIREMENTS.
 2. (T.I.) = IMPROVEMENT REQUIRED FOR EXISTING BUILDING TENANT IMPROVEMENT PROJECT. SEE TENANT IMPROVEMENTS PLAN SET.



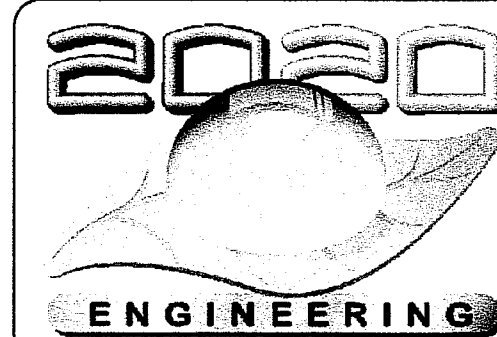
WATER LINE PROFILE

1" = 10' - HORIZONTAL & VERTICAL

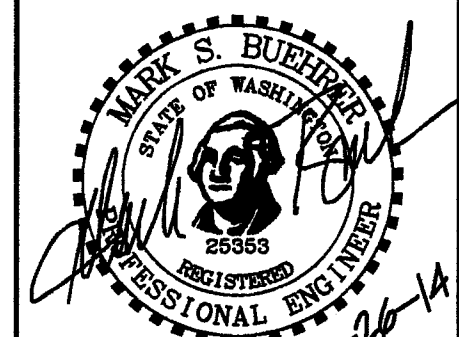
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PROJ. NO:	636SAM
FILE NAME:	636_Plan&Prof.dwg
SCALE:	1" = 10'



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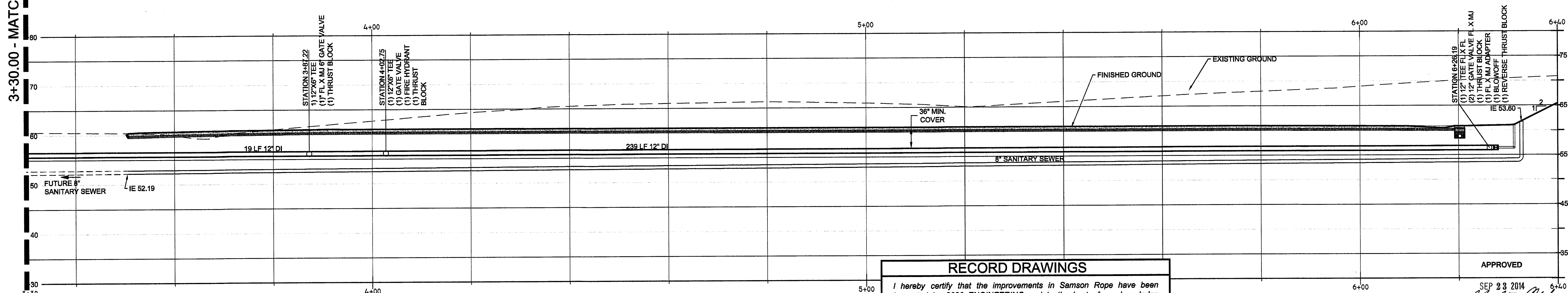
APPROVED

SEP 23 2014
BY: *Mark S. Buehrer*
CITY OF FERNDAL

SAMSON ROPE
PHASE I BUILDING EXPANSION
WATER LINE PLAN & PROFILE
ALIGNMENT 1 - 0+00 TO 3+30

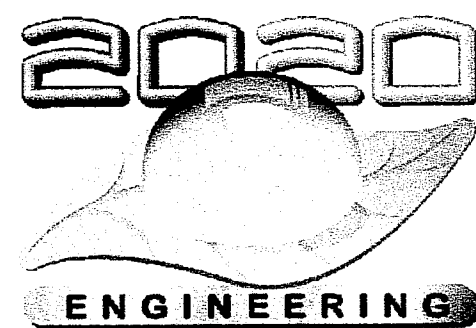
SHEET:
C4.1

3+30.00 - MATCHLINE - SEE SHEET C4.1

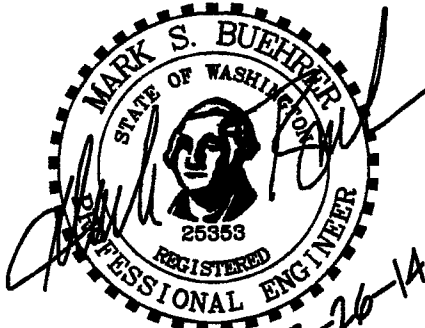


11	04.02.14	SC		ADDED DETAILS 4 AND 6, REVISED 5.
10	09.16.13	SC		REVISE NOTES
9	09.13.13	SC		ADD ULTRABLOCK WALL
8	08.28.13	SC		2' SETBACK, SLOPE DETAILS
7	08.22.13	SC		CRIBBLOCK WALL REMOVED
6	05.22.13	MR		REVISIONS PER CITY COMMENT
5	04.29.13	MR		REVISIONS PER CITY COMMENT
4	03.25.13	MR		REVISIONS PER CITY COMMENT
3	01.15.13	MR		REVISED GRADING
2	11.30.12	MR		REVISIONS PER CITY COMMENT
1	11.02.12	JF		REVISIONS PER CITY COMMENT
NO.	DATE	BY	APPR.	REVISION

ENGINEER:	M. RANDALL		
DESIGNED BY:	M. RANDALL	DATE:	5-22-13
DRAWN BY:	J. FORD, S. CONNER	DATE:	5-22-13
CHECKED BY:	M. BUEHRER	DATE:	5-22-13
PROJ. MNGR:	M. RANDALL		
PROJ. NO:	636SAM		
FILE NAME:	636_WtrPlan.dwg		
SCALE:	1" = 10'		



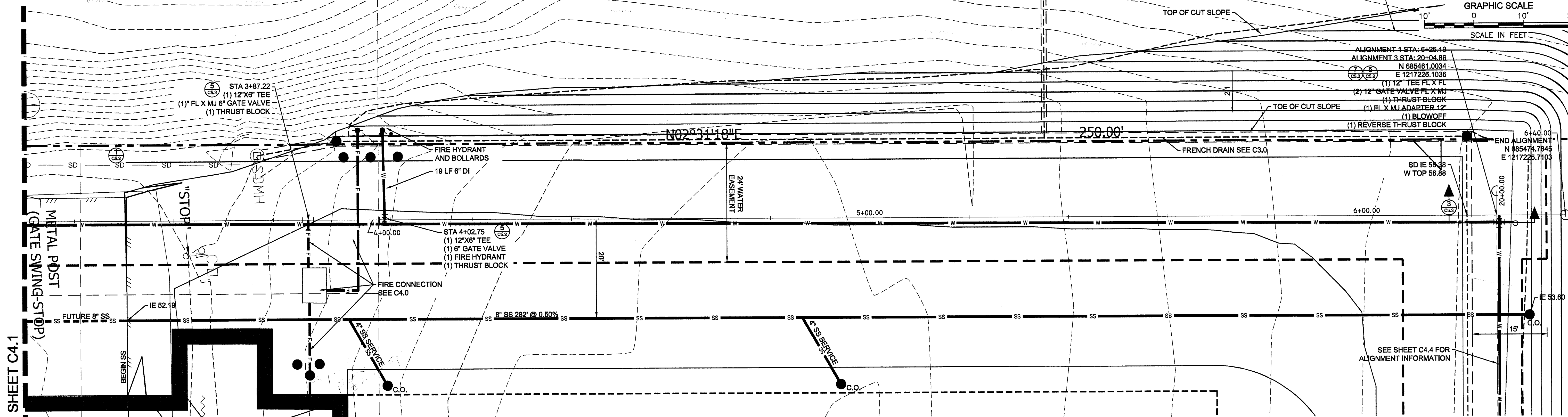
2020 ENGINEERING, INC.
WELLSPRING BUILDING
814 DUPONT STREET
BELLINGHAM, WA. 98225
P: (360) 671-2020
F: (360) 671-0322
www.2020engineering.com



RECORD DRAWINGS
I hereby certify that the improvements in Samson Rope have been inspected by 2020 ENGINEERING and to the best of my knowledge, have been constructed in conformance with the city of Ferndale development standards, the city of Ferndale municipal code, subsequent standards adopted by reference therein, and standard engineering practice.

SAMSON ROPE
PHASE I BUILDING EXPANSION
WATER LINE PLAN & PROFILE
ALIGNMENT 1 - 3+30 TO 6+40

SHEET:
C4.2



WATER LINE PLAN
1" = 10'

NOTE:
GRADING SHOWN ASSUMES SITE GRADING SHALL OCCUR PRIOR TO INSTALLATION OF WATER MAIN. IF INSTALLATION SHALL OCCUR PRIOR TO COMPLETION OF MASS GRADING IN THIS AREA, A MINIMUM 10' WIDE FLAT AREA SHALL BE PROVIDED OVER WATER MAIN FOR TEMPORARY CITY ACCESS. CUT SLOPES SHALL BE NO STEEPER THAN 2:1 UNLESS APPROVED IN WRITING BY A GEOTECHNICAL ENGINEER. BEGIN CUT SLOPE A MINIMUM OF 5-FEET BEYOND WATER MAIN AND HYDRANTS.

HYDROSEED CUT SLOPE IF WEATHER ALLOWS. OTHERWISE COVER SLOPE WITH VISQUEEN OR PLASTIC SHEETING UNTIL PLANTING.

TOP OF CUT SLOPE

TOE OF CUT SLOPE

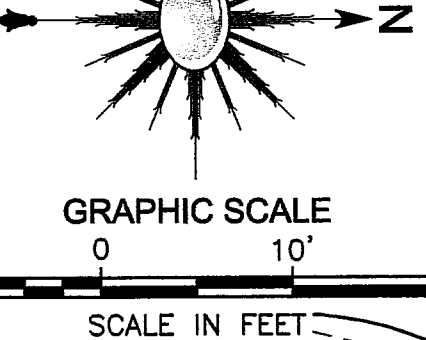
FRENCH DRAIN SEE C3.0

SEE SHEET C4.4 FOR ALIGNMENT INFORMATION

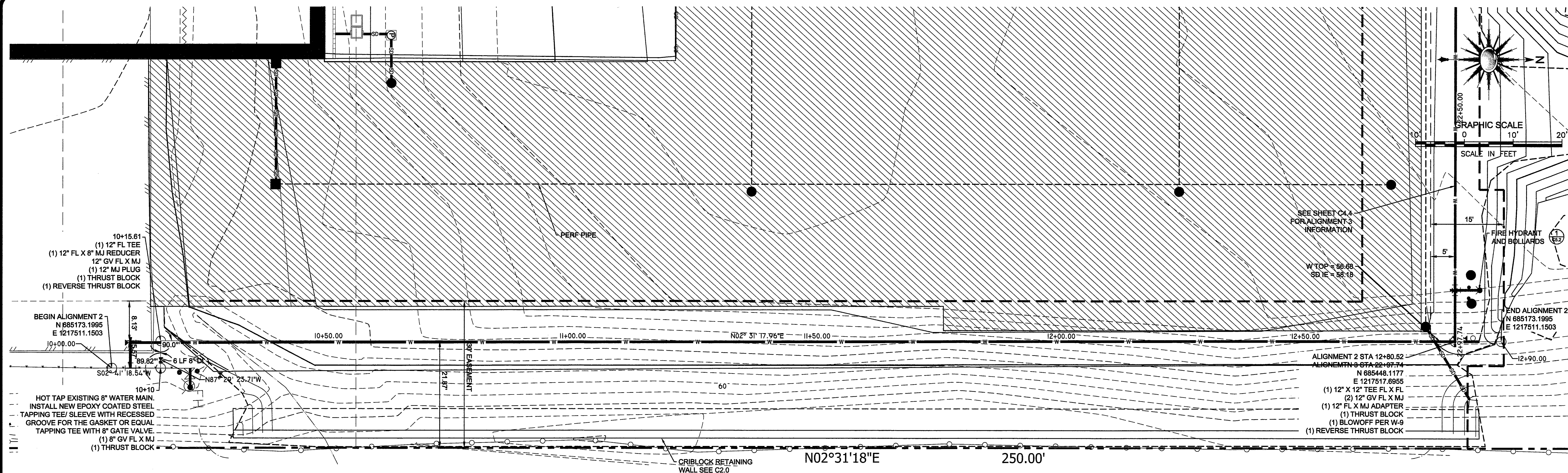
ALIGNMENT 1 STA: 6+28.40
ALIGNMENT 3 STA: 20+04.86
N 685461.0034
E 1217225.1036
(1) 12" TEE FL X FL
(2) 12" GATE VALVE FL X MJ
(1) THRUST BLOCK
(1) EL X MJ ADAPTER 12"
(1) BLOWOFF
(1) REVERSE THRUST BLOCK

SD IE 58.38
W TOP 58.88

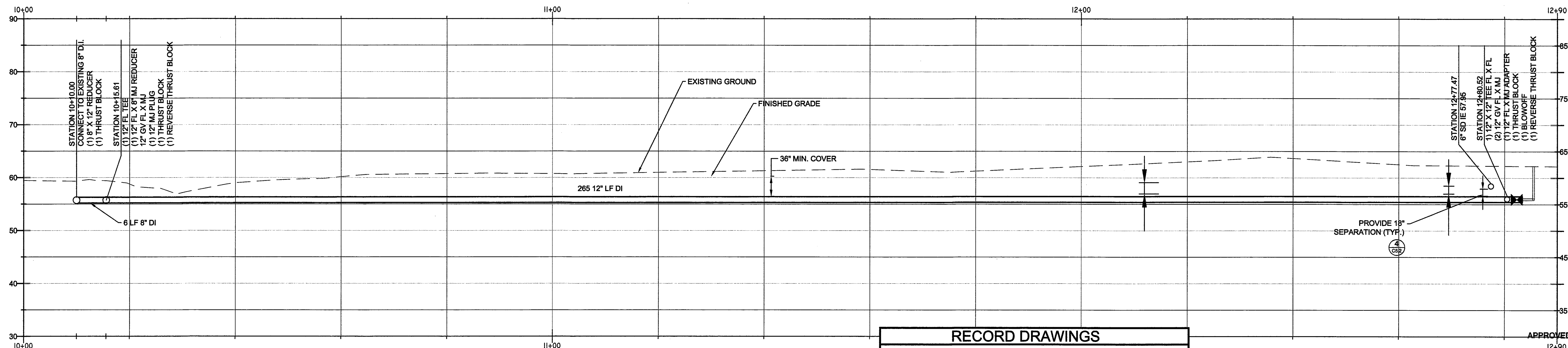
END ALIGNMENT
N 685474.7845
E 1217225.7103



00572.011 9/23/14 SH



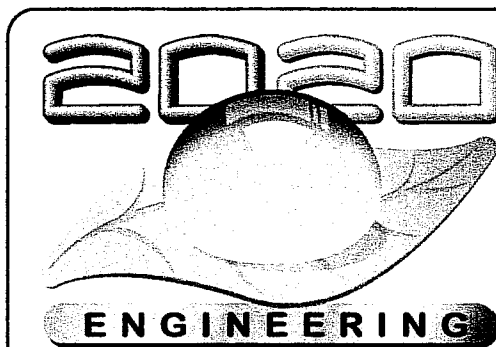
WATER LINE PLAN
1" = 10'



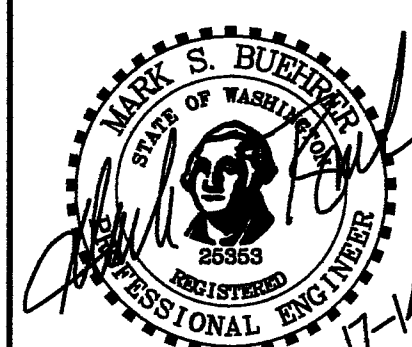
WATER LINE PROFILE
1" = 10' - HORIZONTAL & VERTICAL

11	04.02.14	SC	ADDED DETAILS 4 AND 6, REVISED 5.
10	09.16.13	SC	REVISE NOTES
9	09.13.13	SC	ADD ULTRABLOCK WALL
8	08.28.13	SC	2' SETBACK, SLOPE DETAILS

7	08.22.13	SC	CRIBBLOCK WALL REMOVED	ENGINEER:	M. RANDALL
6	05.22.13	MR	REVISIONS PER CITY COMMENT	DESIGNED BY:	M. RANDALL
5	04.29.13	MR	REVISIONS PER CITY COMMENT	DATE:	5-22-13
4	03.25.13	MR	REVISIONS PER CITY COMMENT	DRAWN BY:	J. FORD, S. CONNER
3	01.15.13	MR	REVISED GRADING	DATE:	5-22-13
2	11.30.12	MR	REVISIONS PER CITY COMMENT	CHECKED BY:	M. BUEHRER
1	11.02.12	JF	REVISIONS PER CITY COMMENT	PROJ. MGR:	M. RANDALL
NO.	DATE	BY	APPR.	PROJ. NO:	636SAM
				FILE NAME:	636_WtrPlan.dwg
				SCALE:	1" = 10'



2020 ENGINEERING, INC.
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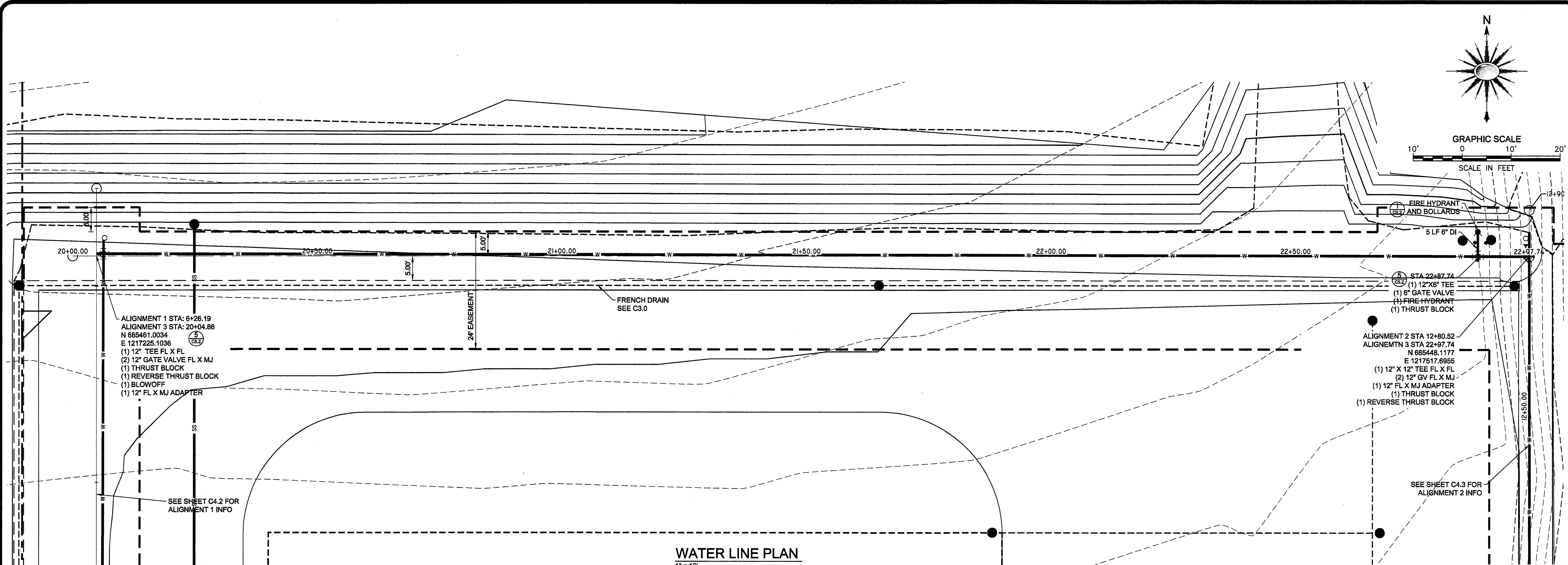
FLEETWOOD INT'L
DEVELOPMENT
CORPORATION
13847 33 AVE.
SURREY, B.C., CANADA V4P 2B4

SAMSON ROPE
PHASE I BUILDING EXPANSION
WATER LINE PLAN & PROFILE
ALIGNMENT 2 - 10+00 TO 12+90

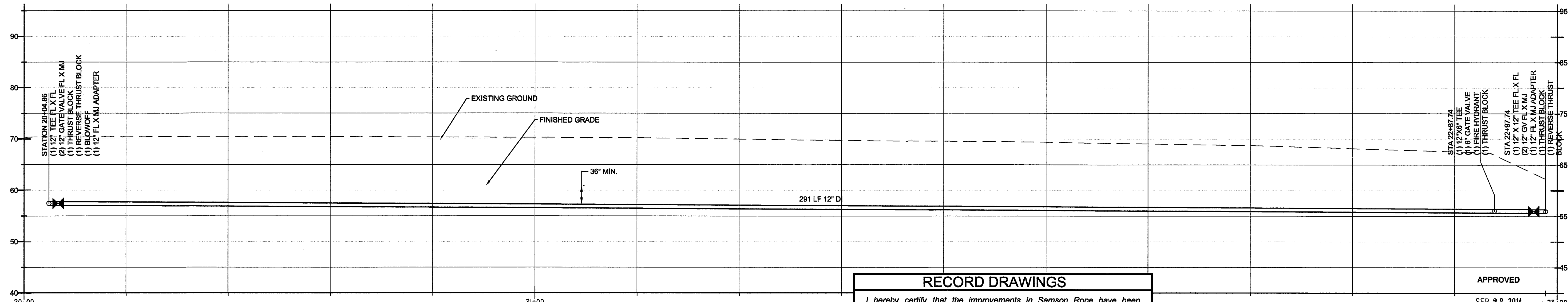
SHEET:
C4.3

RECORD DRAWINGS
I hereby certify that the improvements in Samson Rope have been inspected by 2020 ENGINEERING and to the best of my knowledge, have been constructed in conformance with the city of Ferndale development standards, the city of Ferndale municipal code, subsequent standards adopted by reference therein, and standard engineering practice.

APPROVED
12+90
SEP 23 2014
BY *Charles Bellamy*
CITY OF FERNDALE



WATER LINE PLAN
1" = 10'

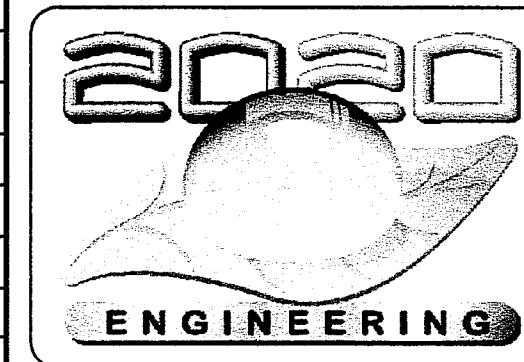


WATER LINE PROFILE
1" = 10' - HORIZONTAL & VERTICAL

11	04.02.14	SC	ADDED DETAILS 4 AND 6, REVISED 5.
10	09.16.13	SC	REVISE NOTES
9	09.13.13	SC	ADD ULTRABLOCK WALL
8	08.28.13	SC	2' SETBACK, SLOPE DETAILS

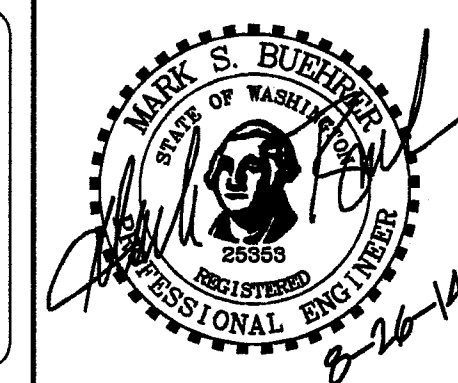
NO.	DATE	BY	APPR.	REVISION
7	08.22.13	SC		CRIBBLOCK WALL REMOVED
6	05.22.13	MR		REVISIONS PER CITY COMMENT
5	04.29.13	MR		REVISIONS PER CITY COMMENT
4	03.25.13	MR		REVISIONS PER CITY COMMENT
3	01.15.13	MR		REVISED GRADING
2	11.30.12	MR		REVISIONS PER CITY COMMENT
1	11.02.12	JF		REVISIONS PER CITY COMMENT

ENGINEER:	M. RANDALL		
DESIGNED BY:	M. RANDALL	DATE:	5-22-13
DRAWN BY:	J. FORD, S. CONNER	DATE:	5-22-13
CHECKED BY:	M. BUEHRER	DATE:	5-22-13
PROJ. MNGR:	M. RANDALL		
PROJ. NO:	636SAM		
FILE NAME:	636_WtrPlan.dwg		
SCALE:	1" = 10'		



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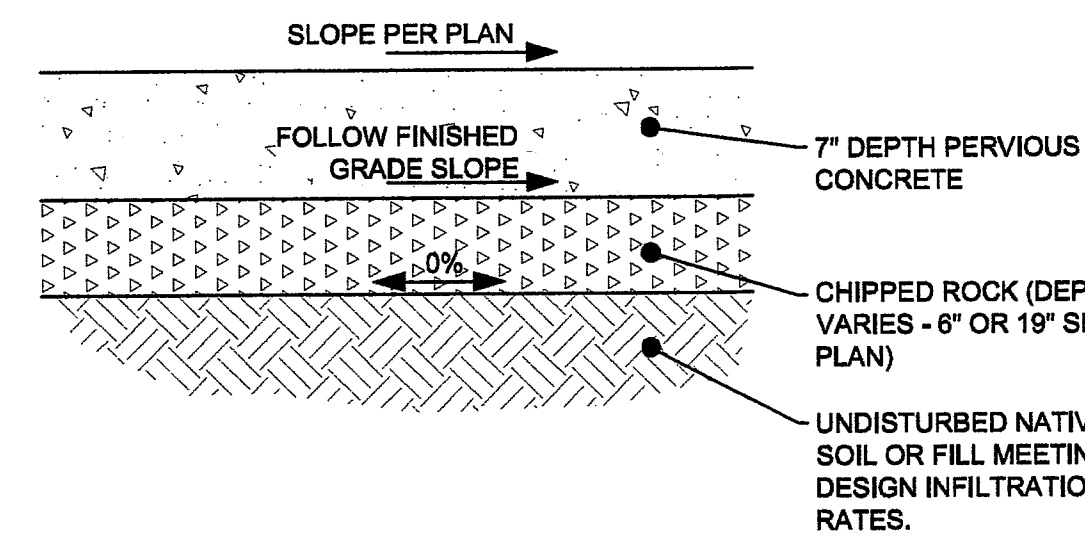
RECORD DRAWINGS
I hereby certify that the improvements in Samson Rope have been inspected by 2020 ENGINEERING and to the best of my knowledge, have been constructed in conformance with the city of Ferndale development standards, the city of Ferndale municipal code, subsequent standards adopted by reference therein, and standard engineering practice.



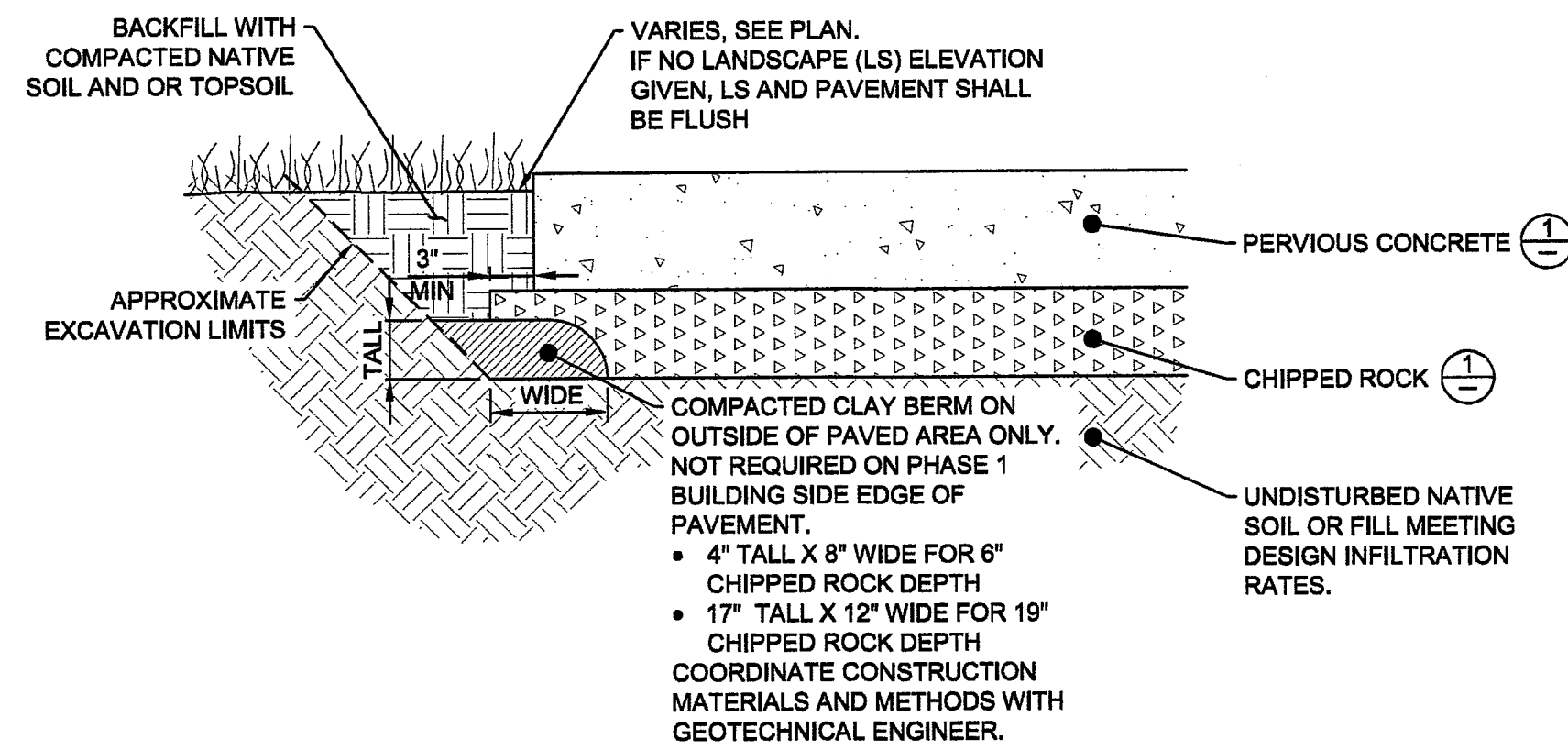
APPROVED
SEP 23 2014
BY: [Signature]
CITY OF FERNDAL

SAMSON ROPE PHASE I BUILDING EXPANSION WATER LINE PLAN & PROFILE ALIGNMENT 3 - 20+00 TO 23+00	SHEET:
	C4.4

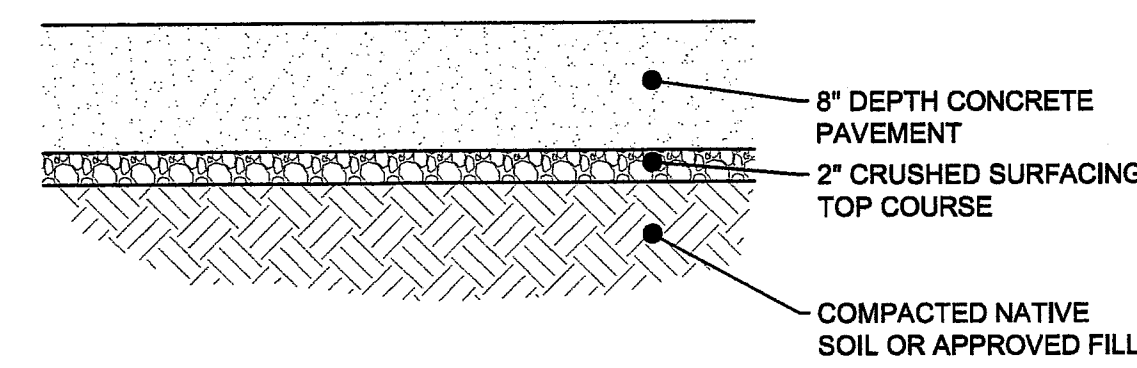
00571-013 9/23/14 SH



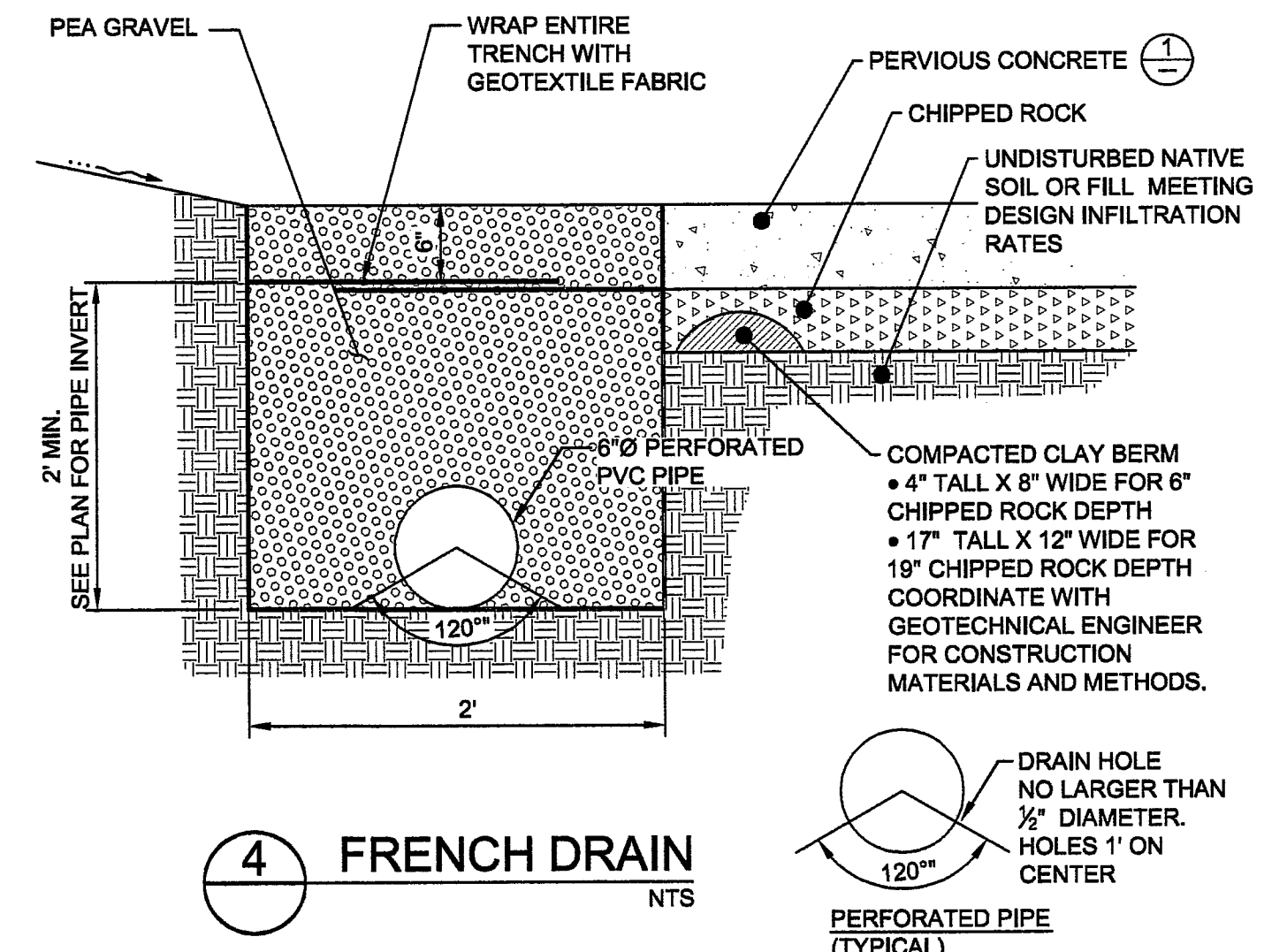
1 PERVIOUS CONCRETE - SECTION
NTS



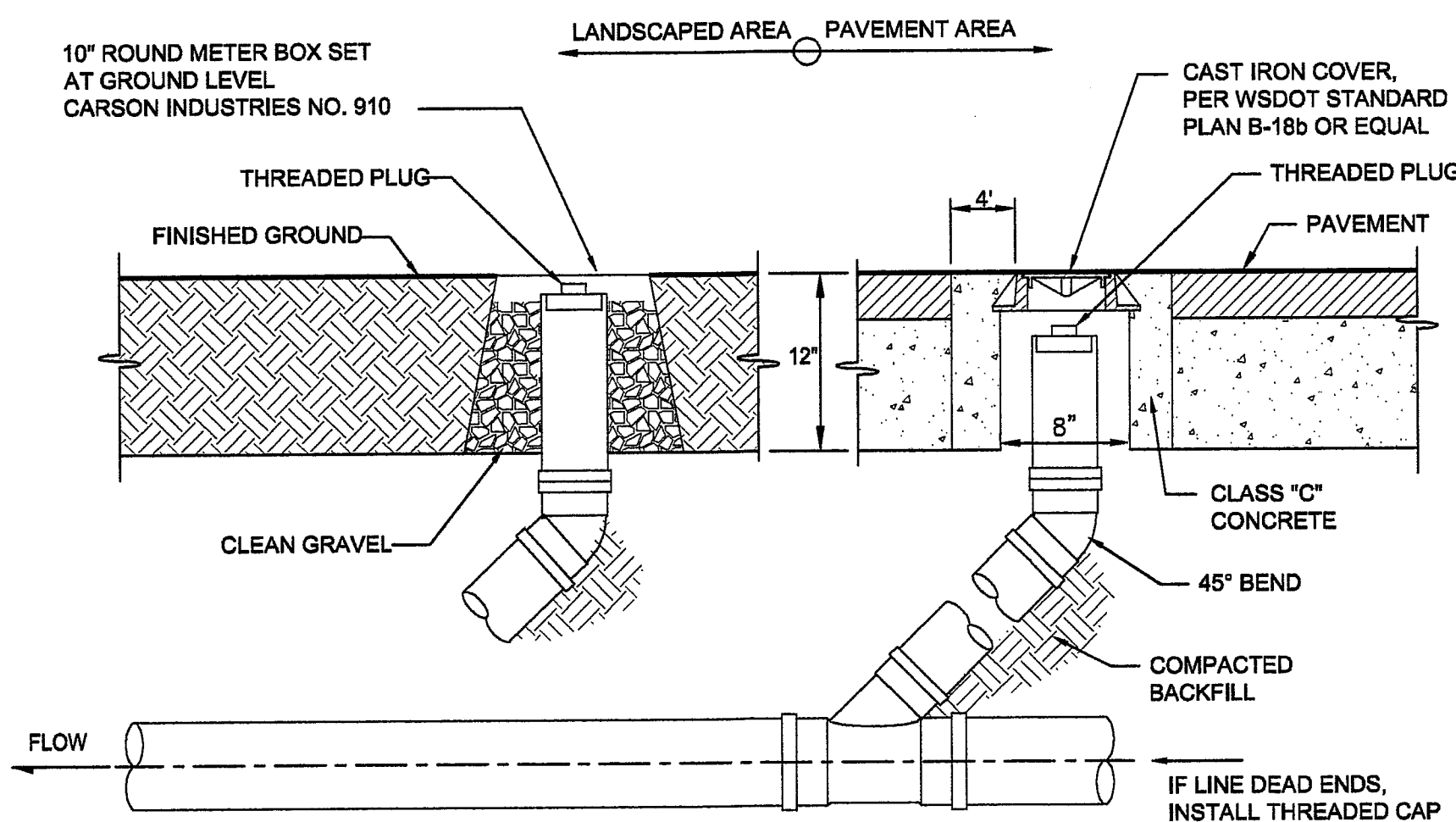
2 LANDSCAPE TO PERVIOUS CONC.
(EXCEPT AT FRENCH DRAIN & EASTERN MOST EDGE)
NTS



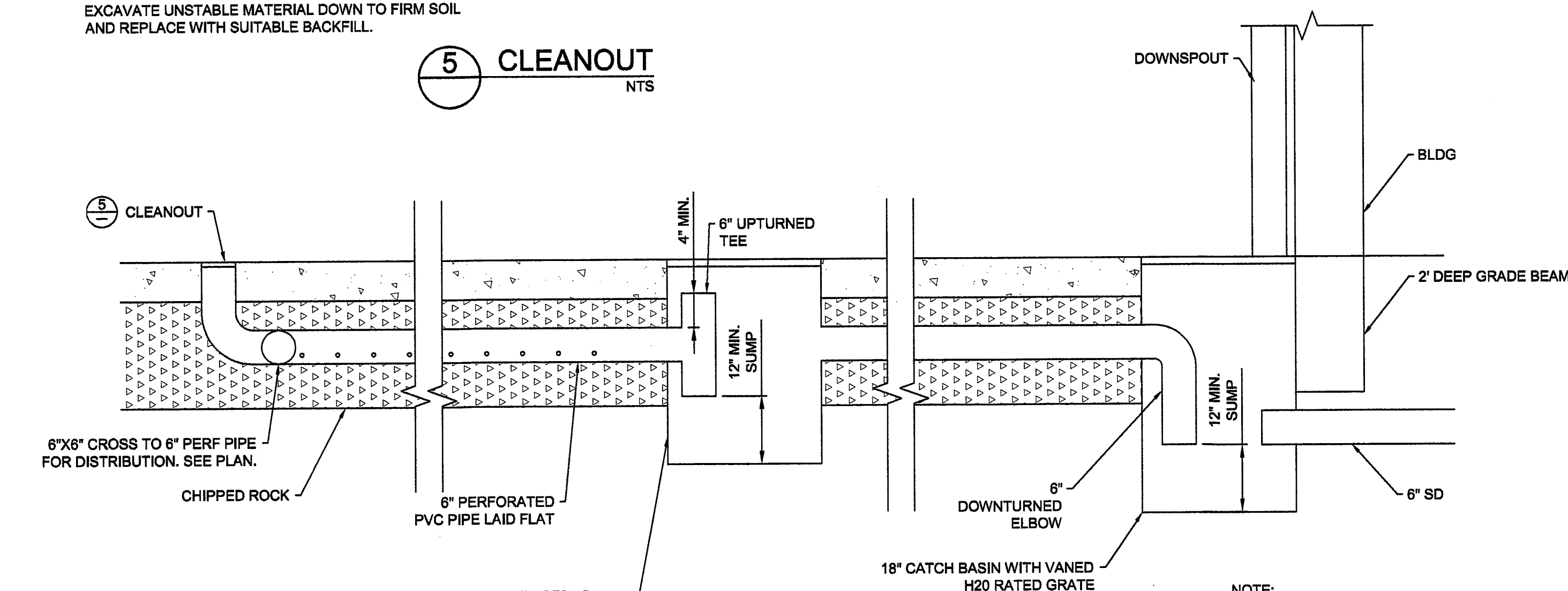
3 CONCRETE PAVEMENT - SECTION
(LOADING DOCK)
NTS



4 FRENCH DRAIN
NTS



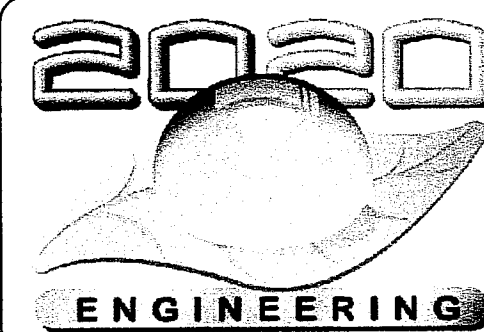
5 CLEANOUT
NTS



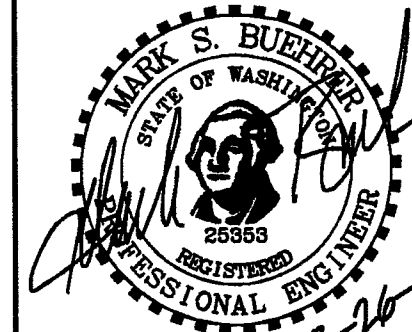
6 INFILTRATION TRENCH
NTS

11	04.02.14	SC		ADDED DETAILS 4 AND 6, REVISED 5.
10	09.16.13	SC		REVISE NOTES 18" CATCH BASIN WITH VANED H2O RATED GRATE
9	09.13.13	SC		ADD ULTRABLOCK WALL
8	08.28.13	SC		2' SETBACK, SLOPE DETAILS
7	08.22.13	SC		CRIBLOCK WALL REMOVED
6	05.22.13	MR		REVISIONS PER CITY COMMENT
5	04.29.13	MR		REVISIONS PER CITY COMMENT
4	03.25.13	MR		REVISIONS PER CITY COMMENT
3	01.15.13	MR		REVISED GRADING
2	11.30.12	MR		REVISIONS PER CITY COMMENT
1	11.02.12	JF		REVISIONS PER CITY COMMENT
NO.	DATE	BY	APPR.	REVISION

ENGINEER:	M. RANDALL
DESIGNED BY:	M. RANDALL
DRAWN BY:	J. FORD, S. CONNER
CHECKED BY:	M. BUEHRER
PROJ. MNGR:	M. RANDALL
PROJ. NO.:	636SAM
FILE NAME:	636_Site.dwg
SCALE:	1" = 20'



2020 ENGINEERING, INC.
WELLSPRING BUILDING
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FLEETWOOD INT'L
DEVELOPMENT
CORPORATION
13847 33 AVE.
SURREY, B.C., CANADA V4P 2B4

SAMSON ROPE
PHASE I BUILDING EXPANSION
DETAILS

SHEET:
C5.0

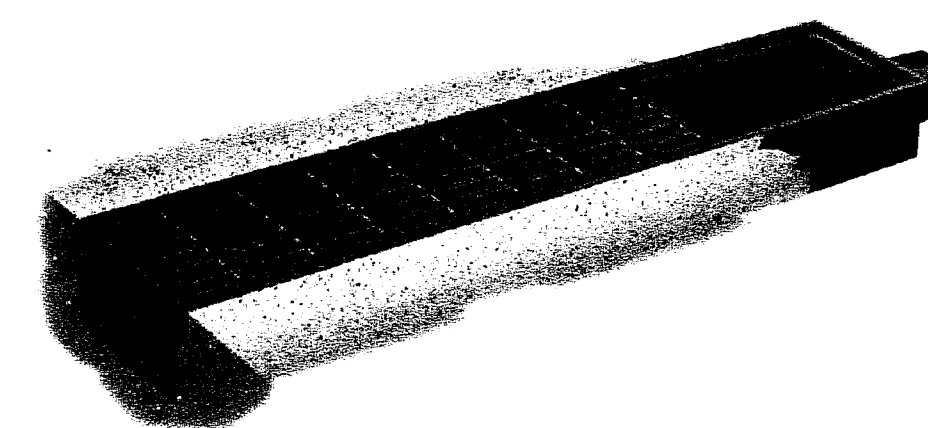
R-4995 - R-4996 Type M Trench Frame with Solid or Grated Cover Flap and Flush Valve Frame, Ltd

Heavy Duty

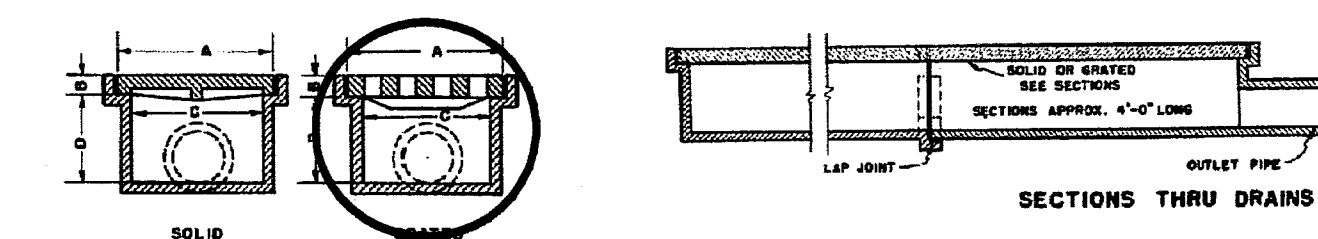
Cast Iron Trench Assemblies—Light or Heavy Duty—For Use in Sidewalks, Driveways, Garages, Loading Docks, etc.

Read Carefully Before Ordering

1. Complete catalog number.
2. Light or heavy duty.
3. Overall length of cover required.
4. Lid solid, flat grates, or diagonally hatched convex grates.
5. Location of outlet, side, bottom or end (give dimensional location and pipe sizes).
6. Whether one and or both ends are to be open or closed.

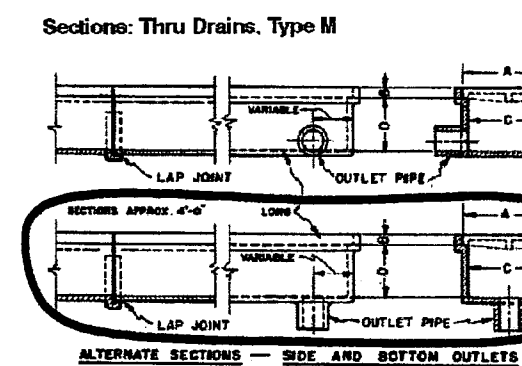


Illustrating Type M frame with grates cover. Standard with 4-inch outside caulk outlet. Can be equipped for inside caulk if specified.



Trench covers are used over areas requiring long drainage assemblies. Can be supplied in a variety of sizes and lengths to meet special needs. For trenches of irregular pattern, arrangements can be made to furnish cover to fit.

Standard 4-inch outlet at end of drain. Special size outlets are available on special order. Side and bottom outlets optional and furnished only when specified.



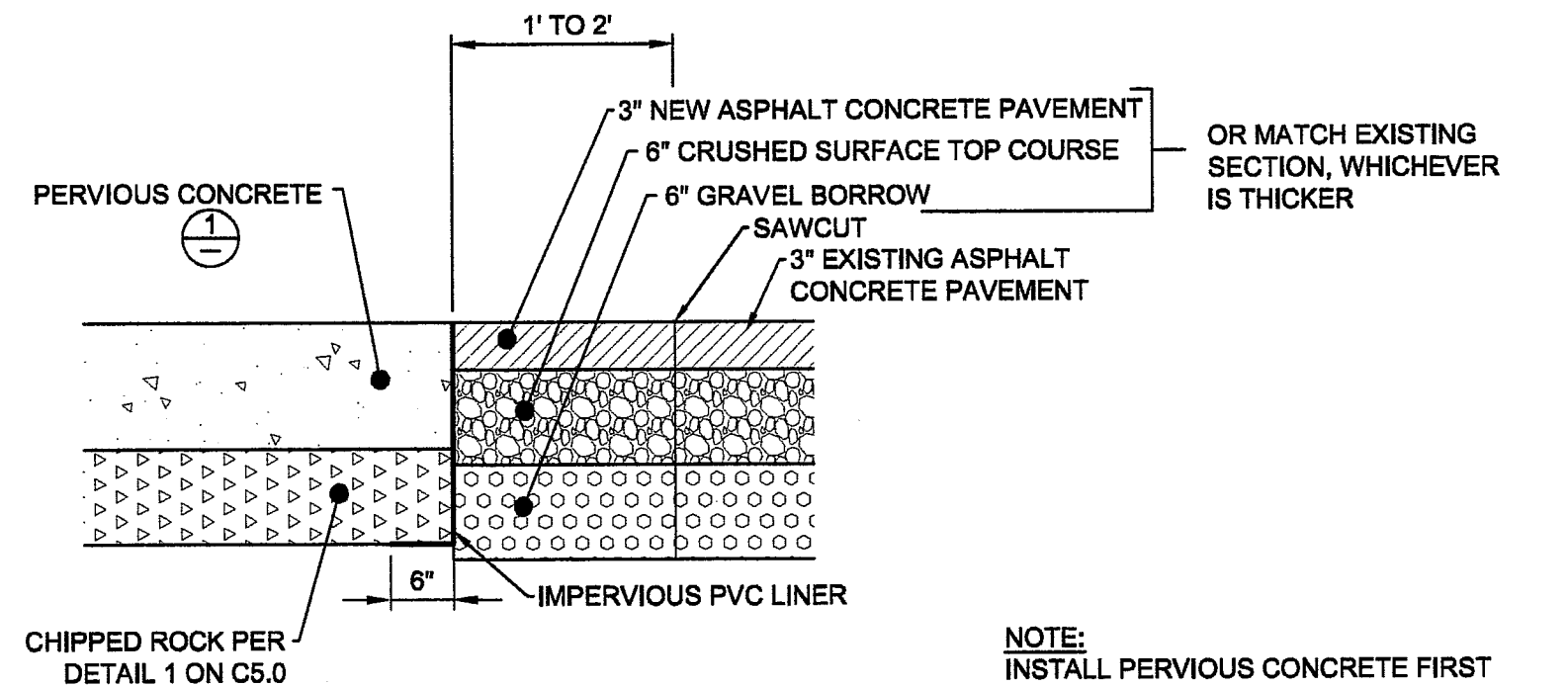
Dimensions in Inches						
Catalog No.	Description	A	B	C	D	Length
Standard Sizes—Light Duty						
R-4995-A11"	with grates cover	11 1/2	3/4	10	6 1/2	as ordered
R-4995-A2"	with grates cover	7	3/4	5	4 1/2	as ordered
R-4995-B1"	with solid cover	11 1/2	3/4	10	6 1/2	as ordered
R-4995-B2"	with solid cover	7	3/4	5	4 1/2	as ordered
Standard Sizes—Heavy Duty						
R-4996-A11"	with grates cover	11 1/2	1 1/2	10	6	as ordered
R-4996-A2"	with grates cover	7	1 1/2	5	4 1/2	as ordered
R-4996-B1"	with solid cover	11 1/2	1 1/2	10	6	as ordered
R-4996-B2"	with solid cover	7	1 1/2	5	4 1/2	as ordered

Notes: Standard frames make in 4 ft. sections, covers in 2 ft. lengths.
*Available with 1/2" x 1/2" grates only.
*Also available with 1/2" x 1/2" grates.

OR APPROVED EQUAL

7 TRENCH DRAIN
NTS

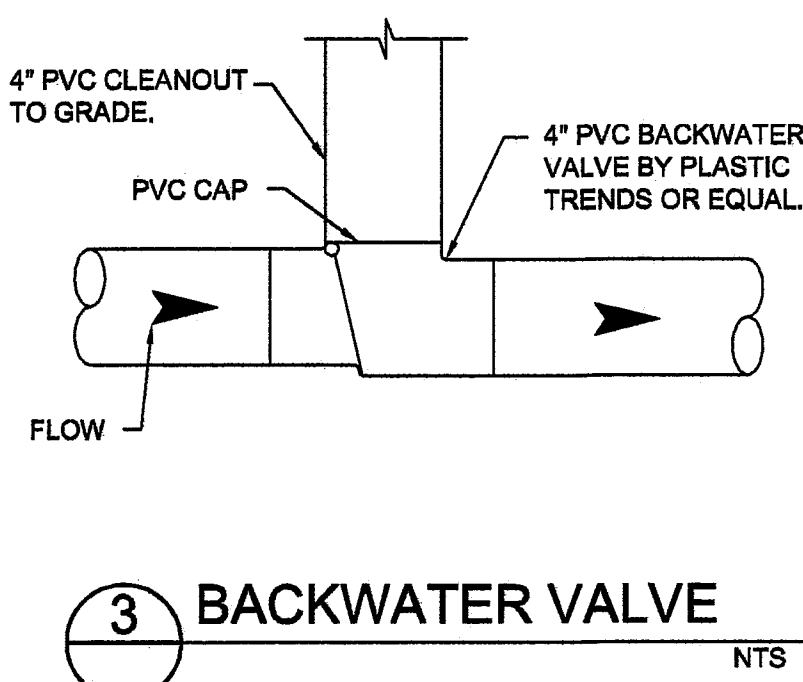
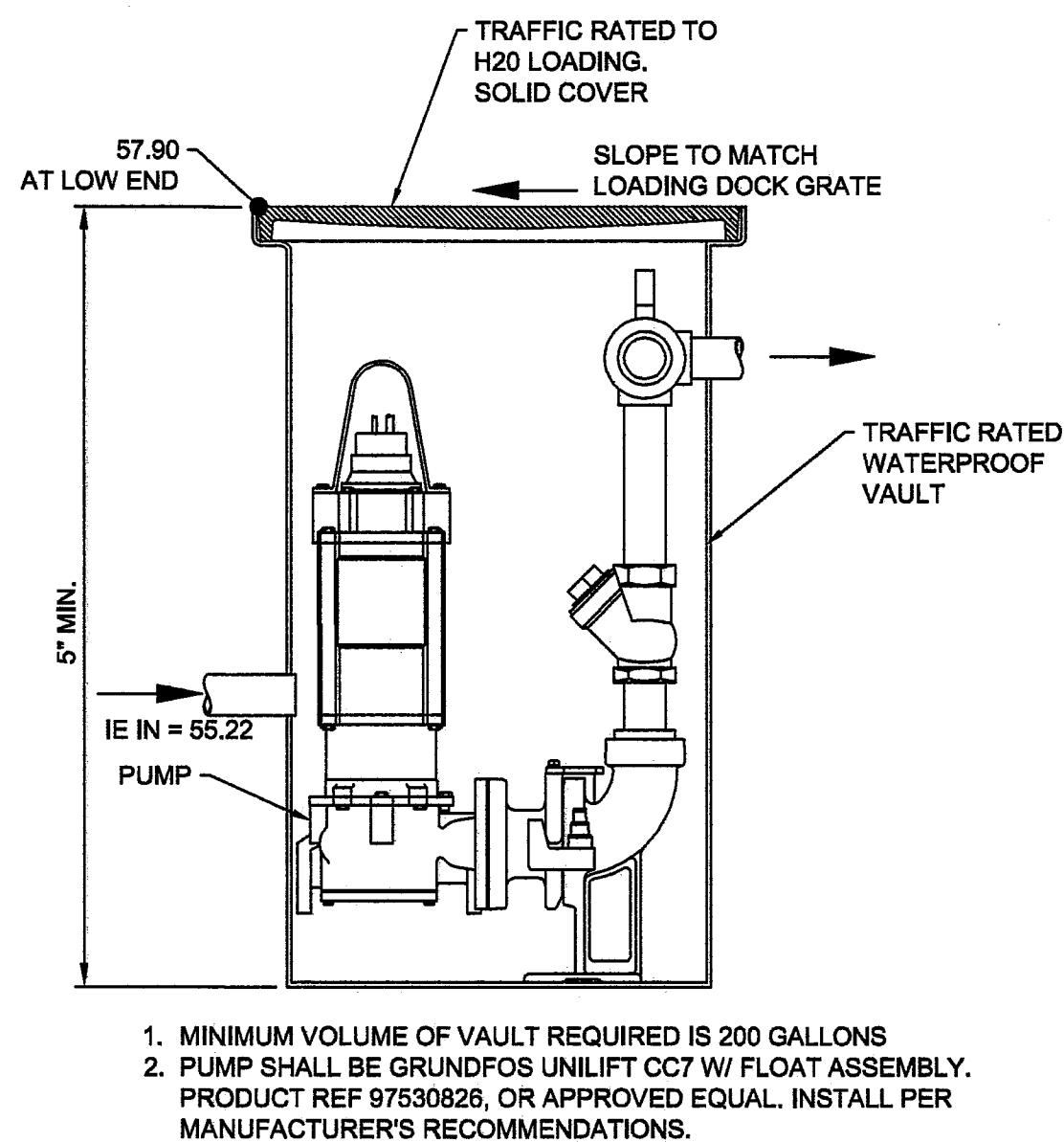
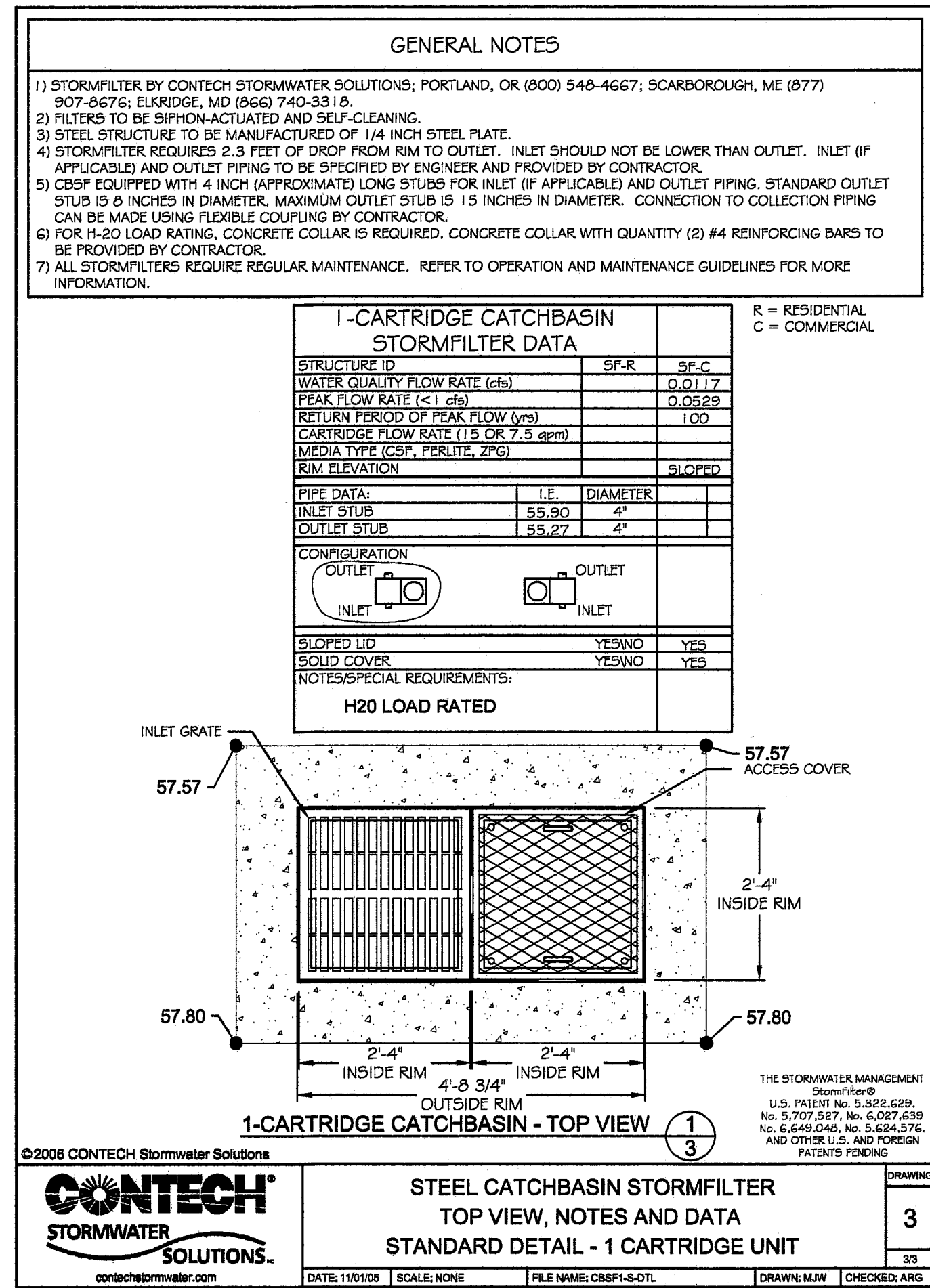
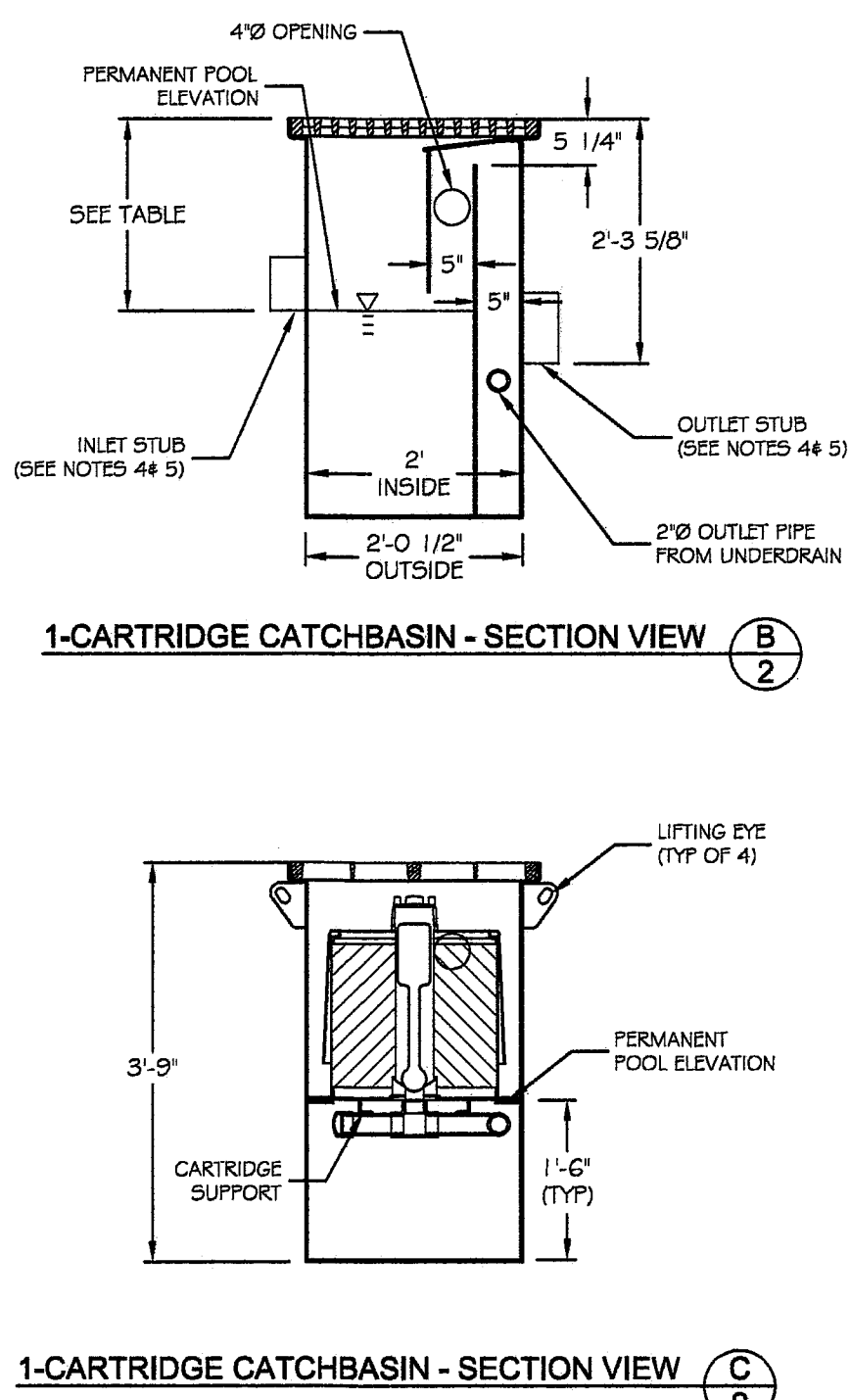
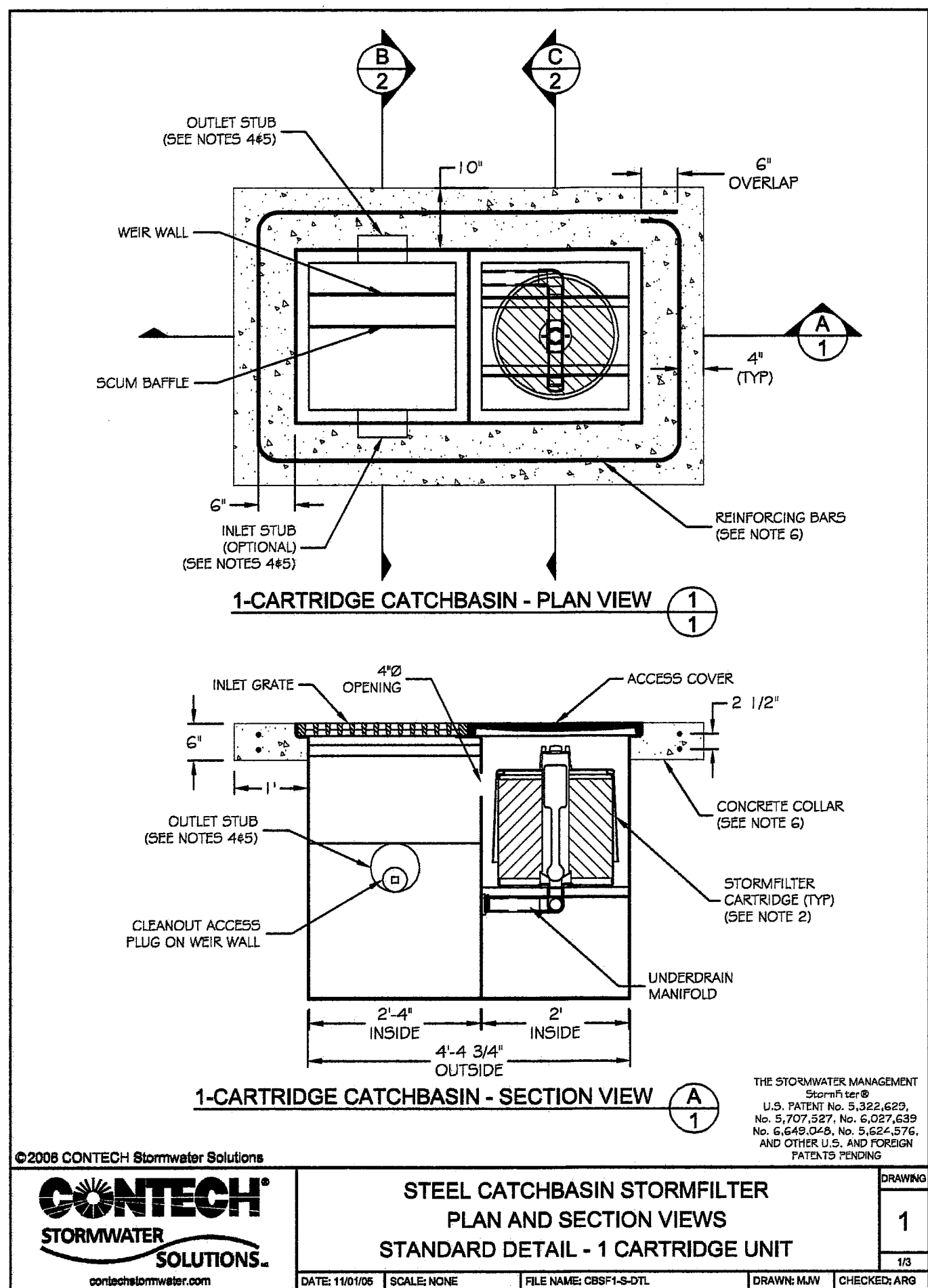
8 PERVIOUS CONCRETE TO STANDARD CONCRETE
NTS



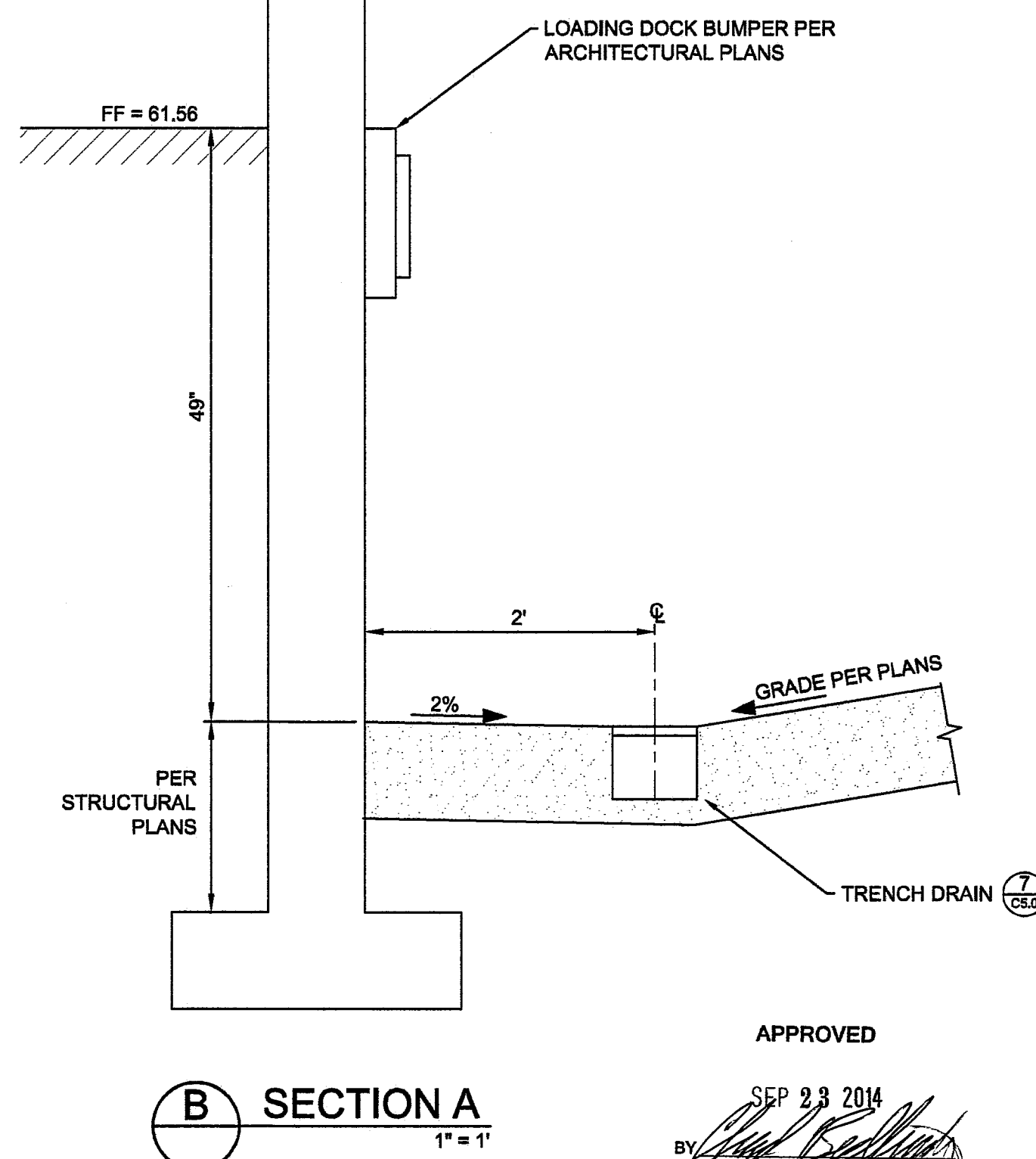
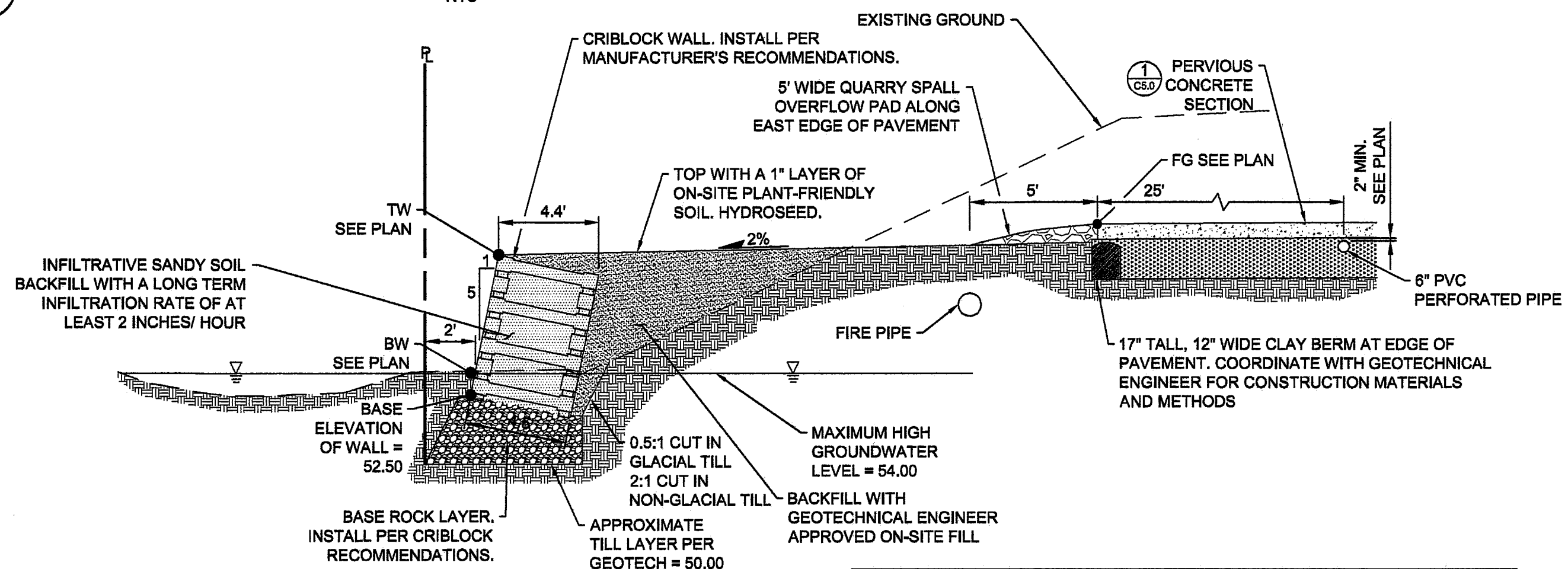
9 PERVIOUS CONCRETE TO EX. ASPHALT PAVEMENT
APPROVED
NTS

RECORD DRAWINGS
I hereby certify that the improvements in Samson Rope have been inspected by 2020 ENGINEERING and to the best of my knowledge, have been constructed in conformance with the city of Ferndale development standards, the city of Ferndale municipal code, subsequent standards adopted by reference therein, and standard engineering practice.

SEP 23 2014
BY: [Signature]
CITY OF FERNDAL



1 STORMFILTER MEDIA VAULT NTS



11	04.02.14	SC	ADDED DETAILS 4 AND 6, REVISED 5.
10	09.16.13	SC	REVISE NOTES
9	09.13.13	SC	ADD ULTRABLOCK WALL
8	08.28.13	SC	2' SETBACK, SLOPE DETAILS

7	08.22.13	SC	CRIBBLOCK WALL REMOVED	ENGINEER:	M. RANDALL
6	05.22.13	MR	REVISIONS PER CITY COMMENT	DESIGNED BY:	M. RANDALL
5	04.29.13	MR	REVISIONS PER CITY COMMENT	DRAWN BY:	J. FORD, S. CONNER
4	03.25.13	MR	REVISIONS PER CITY COMMENT	CHECKED BY:	M. BUEHRER
3	01.15.13	MR	REVISED GRADING	PROJ. MNGR:	M. RANDALL
2	11.30.12	MR	REVISIONS PER CITY COMMENT	PROJ. NO:	636SAM
1	11.02.12	JF	REVISIONS PER CITY COMMENT	FILE NAME:	636_Site.dwg
NO.	DATE	BY	APPR.	SCALE:	1" = 20'

2020 ENGINEERING, INC.
WELLSPRING BUILDING
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BELLINGHAM, WA. 98225
P: (360) 671-2020
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www.2020engineering.com

RECORD DRAWINGS

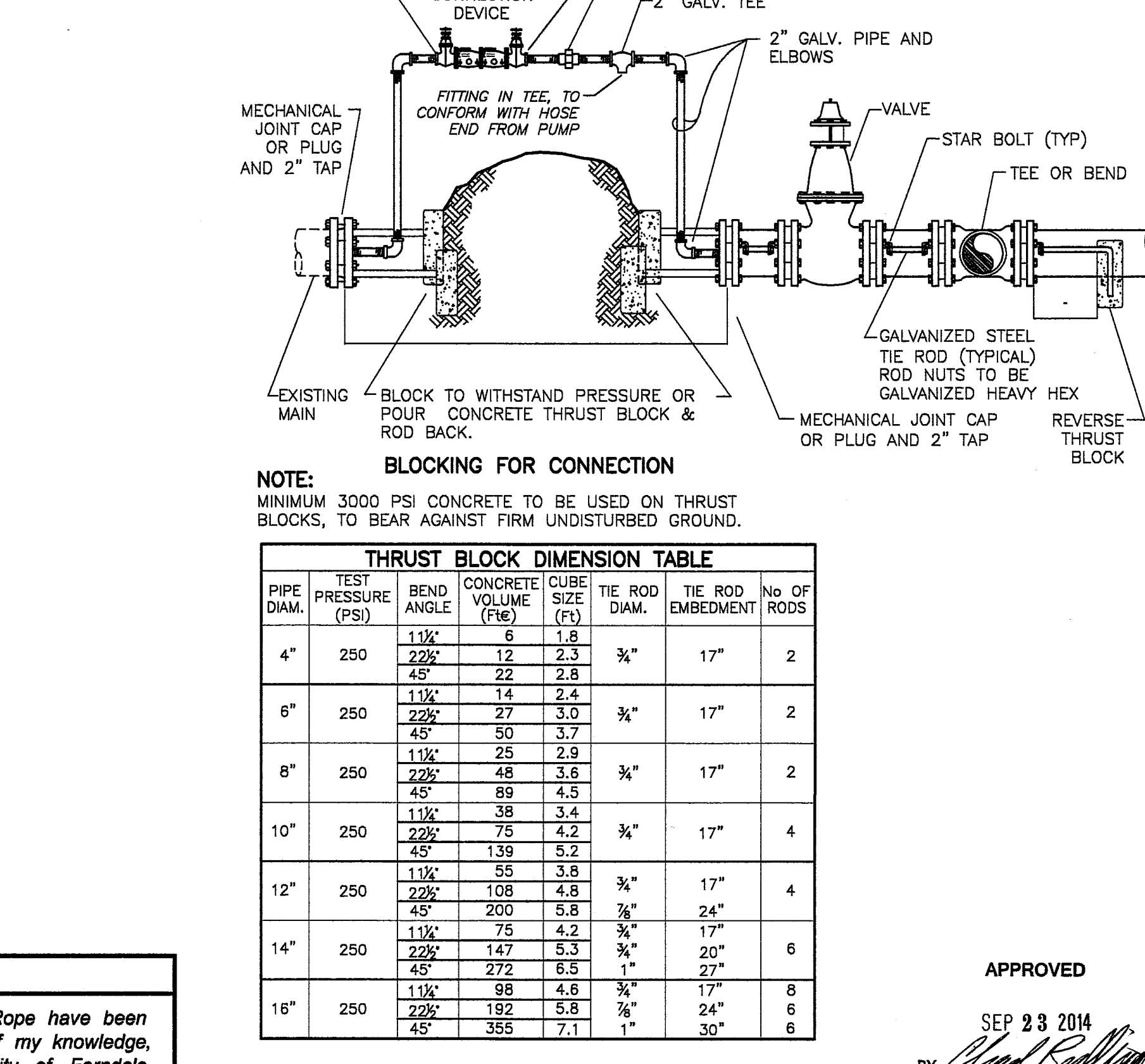
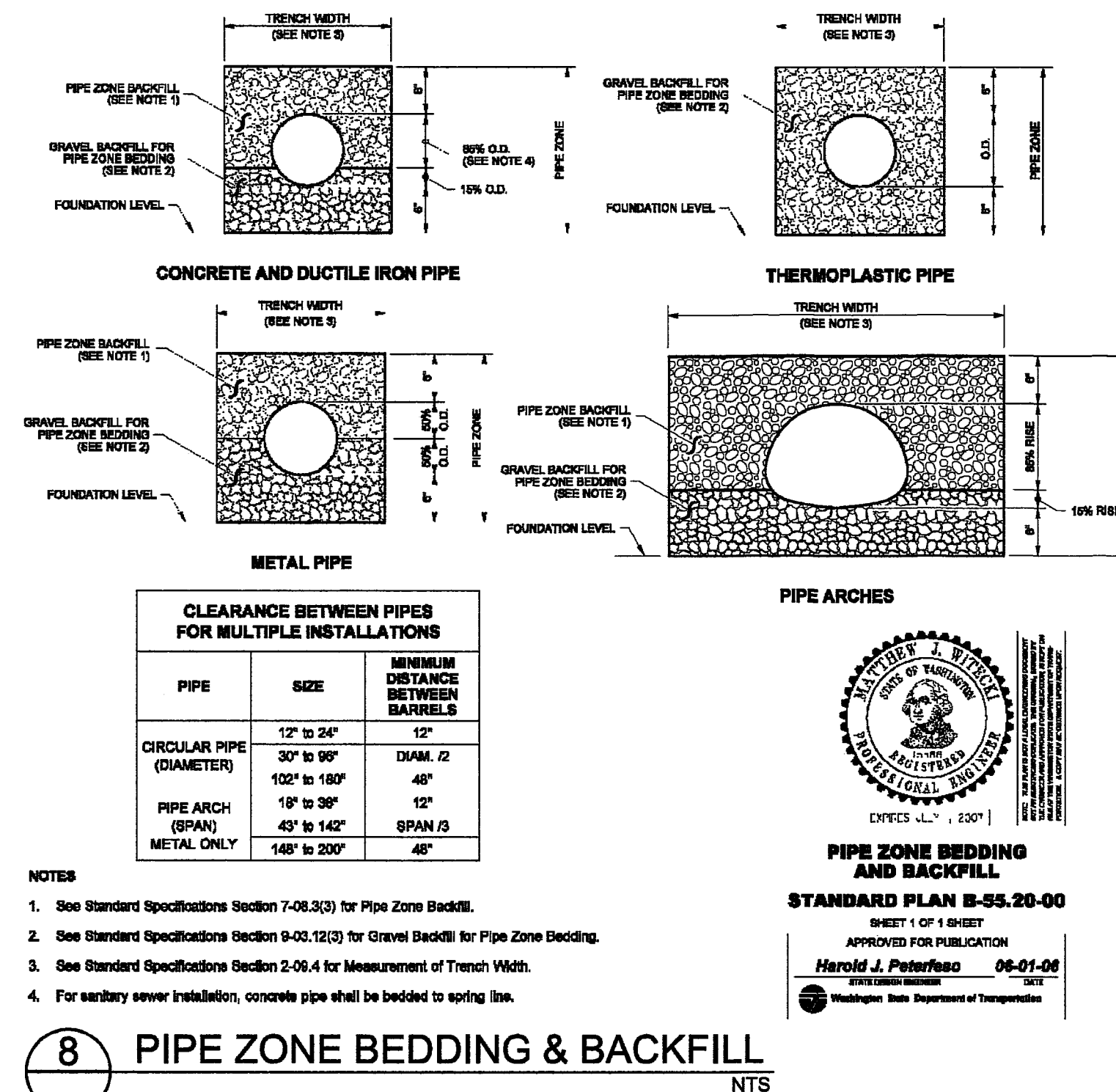
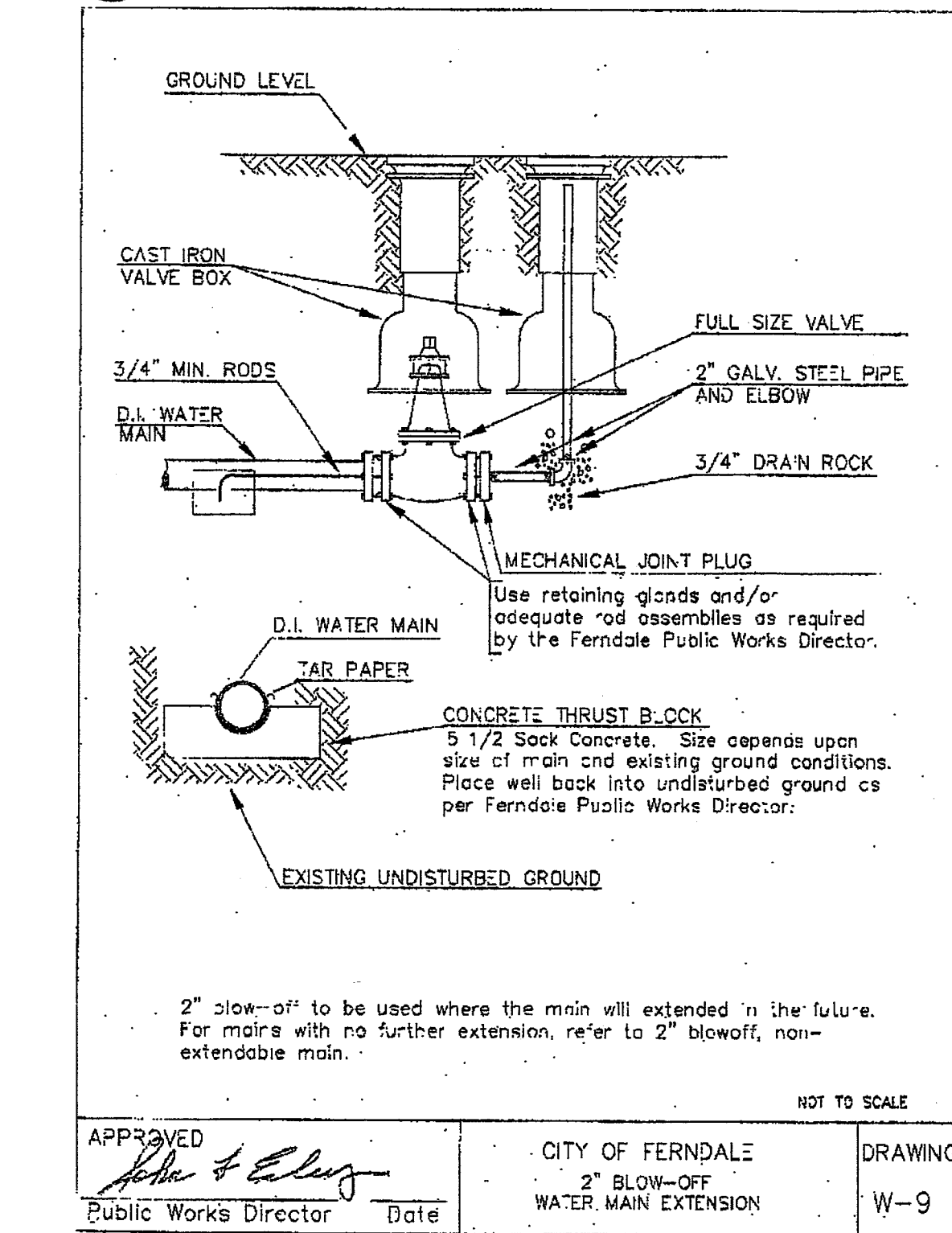
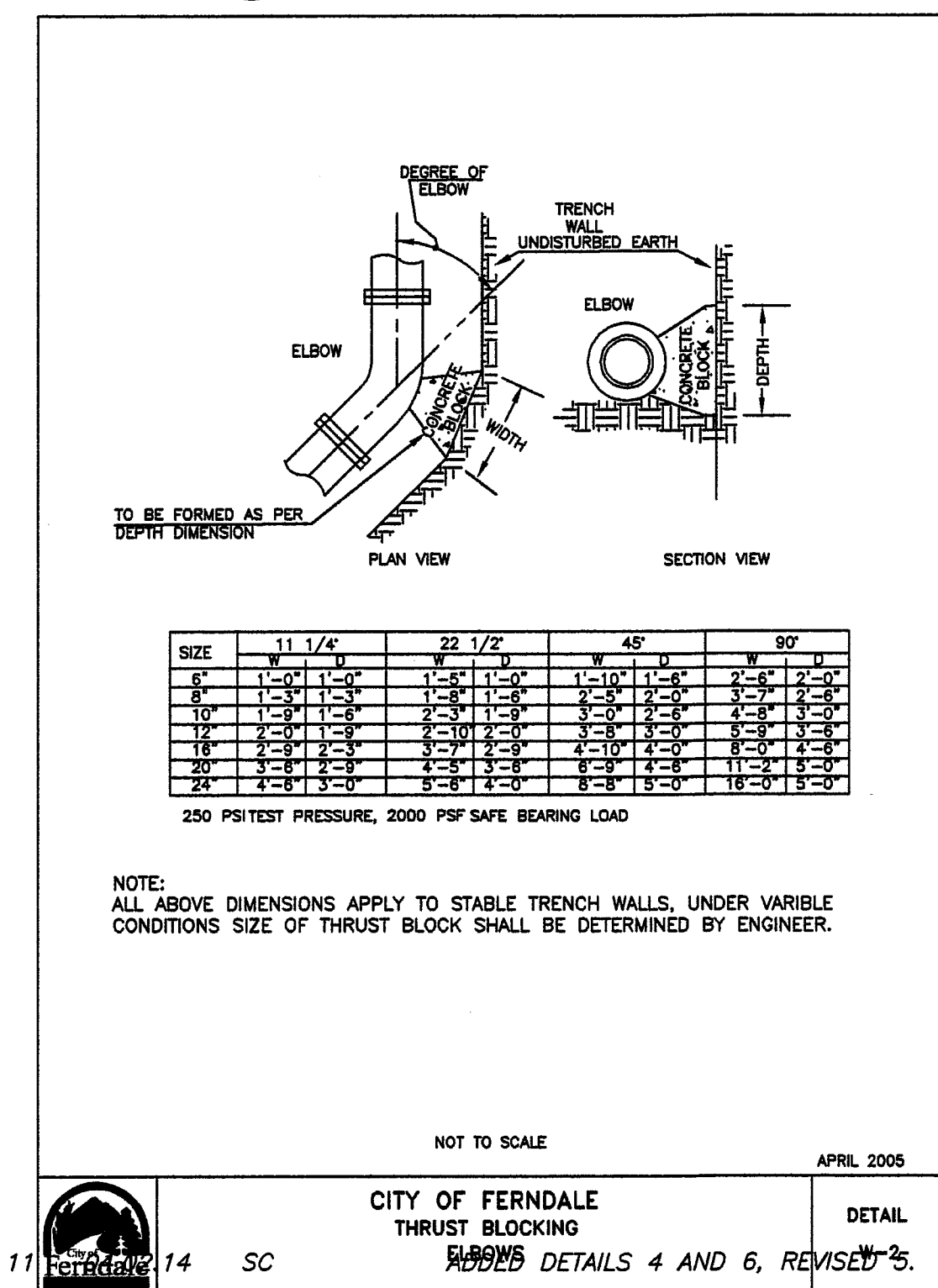
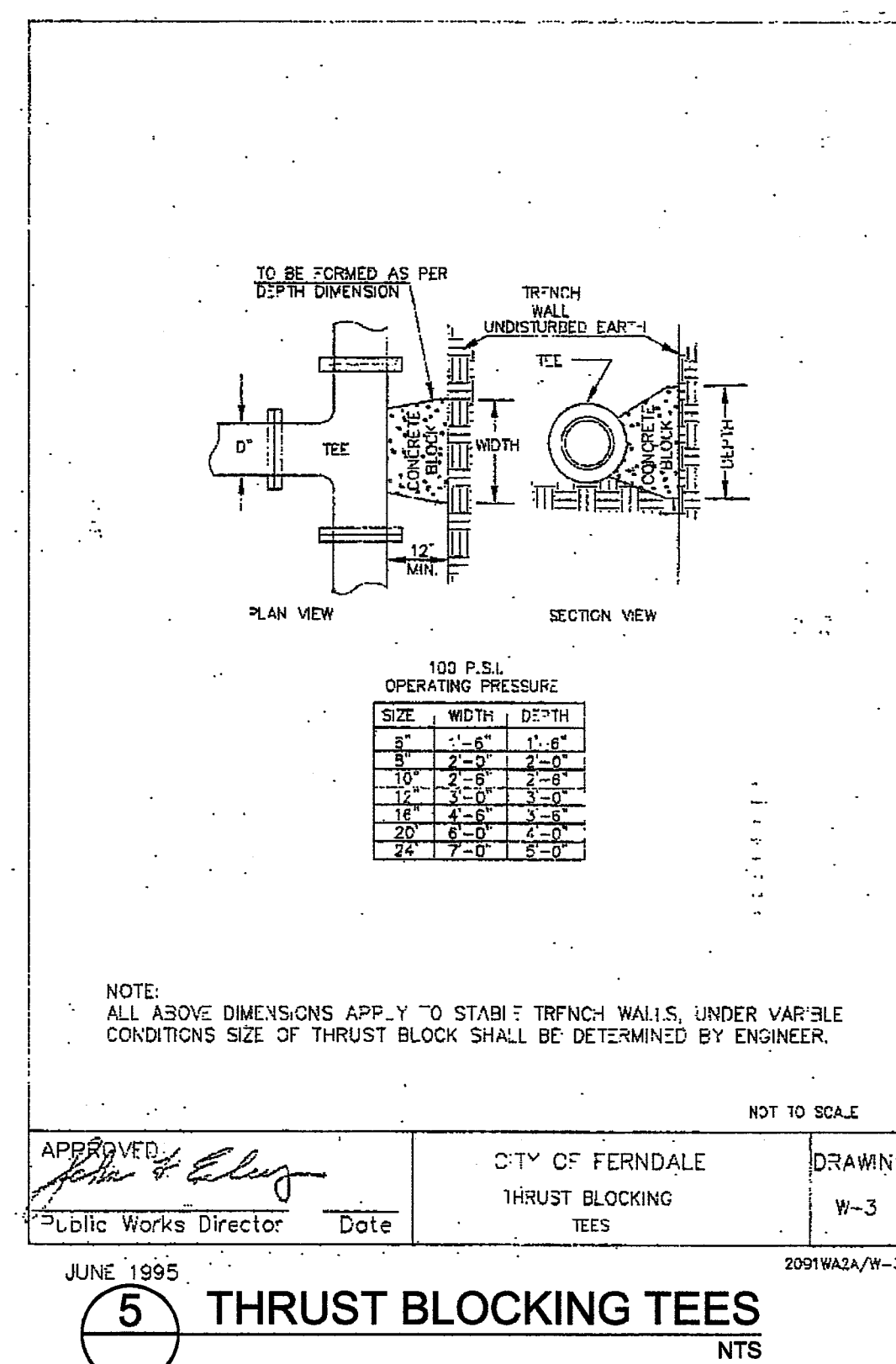
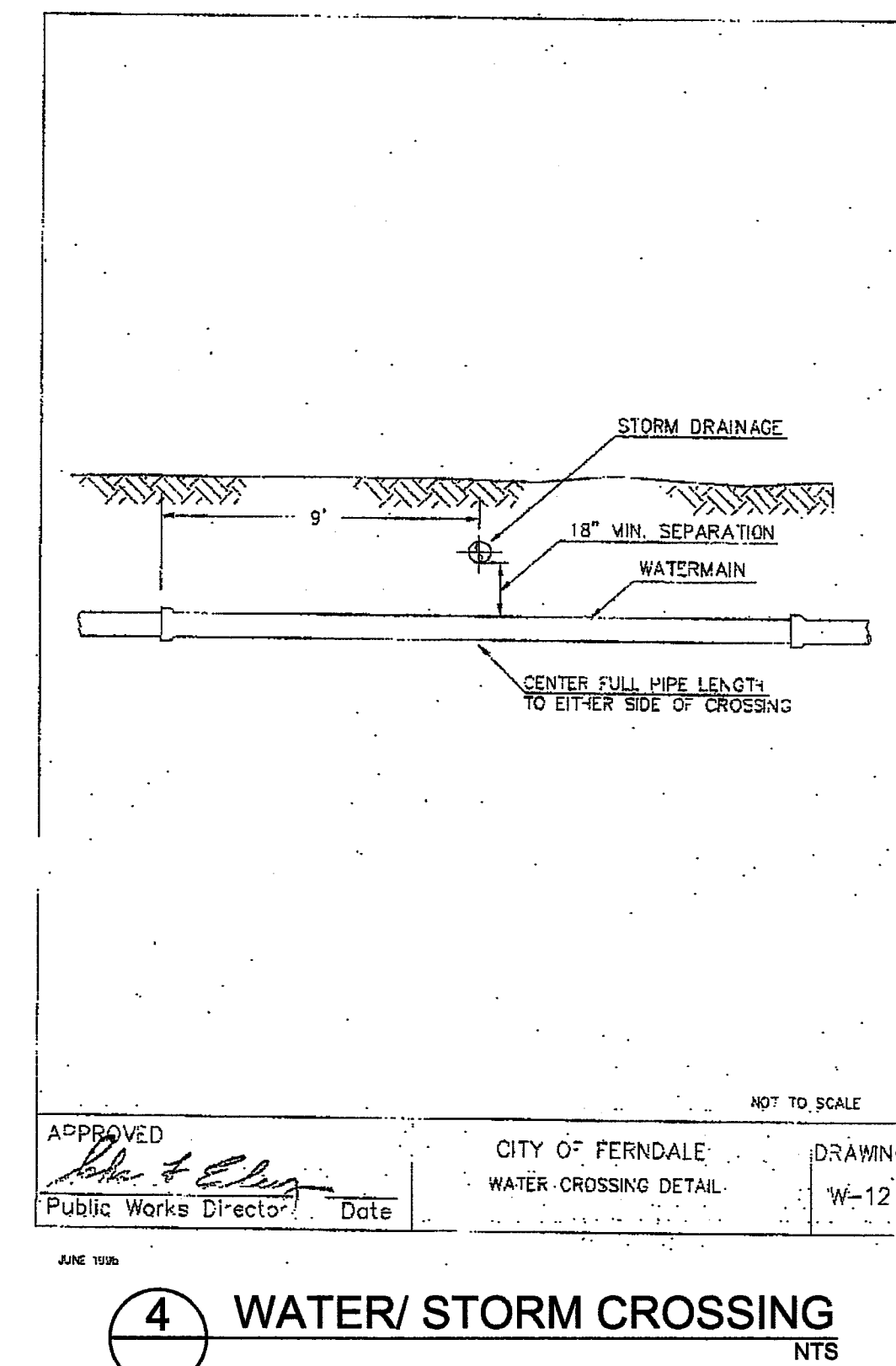
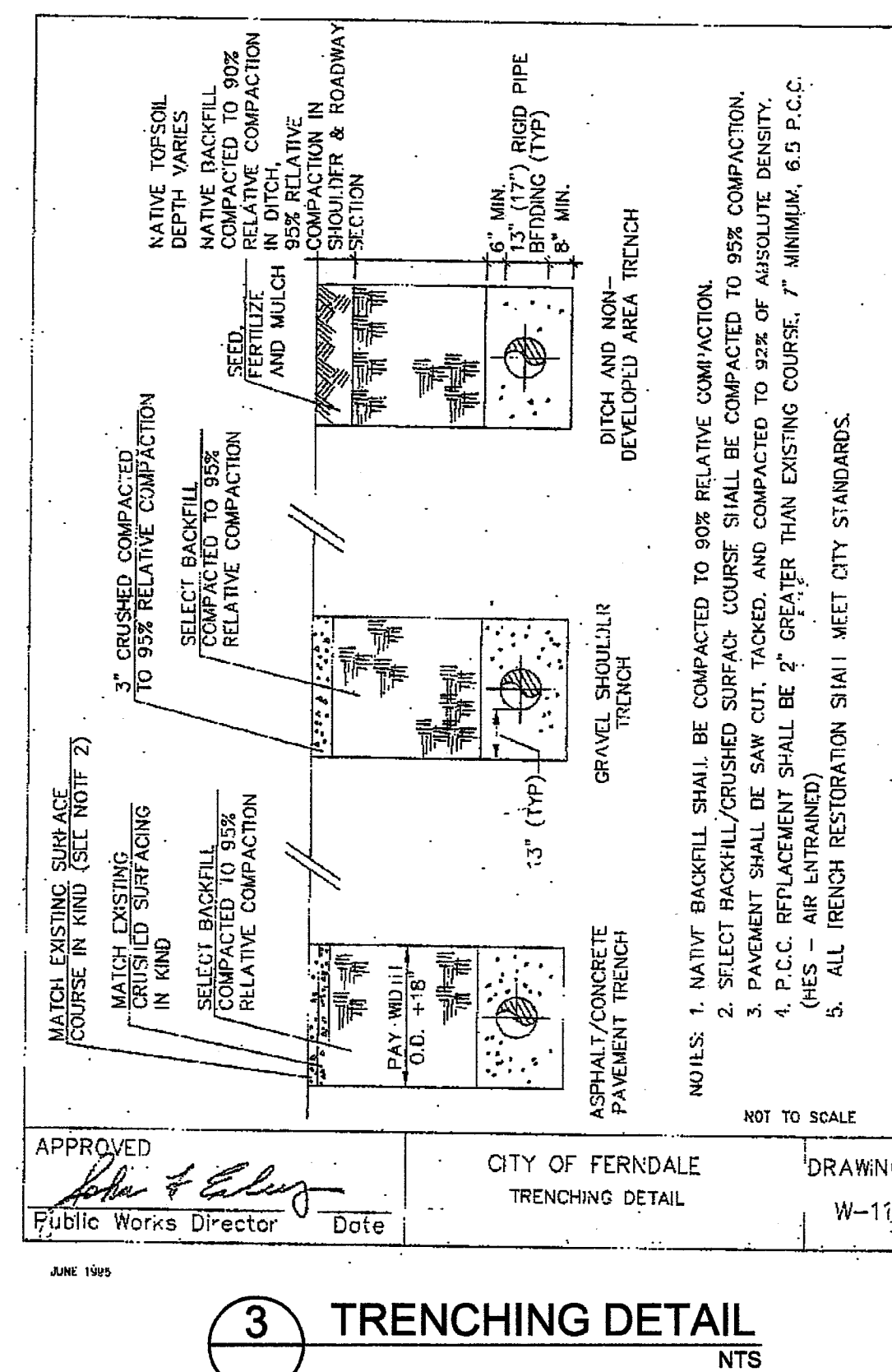
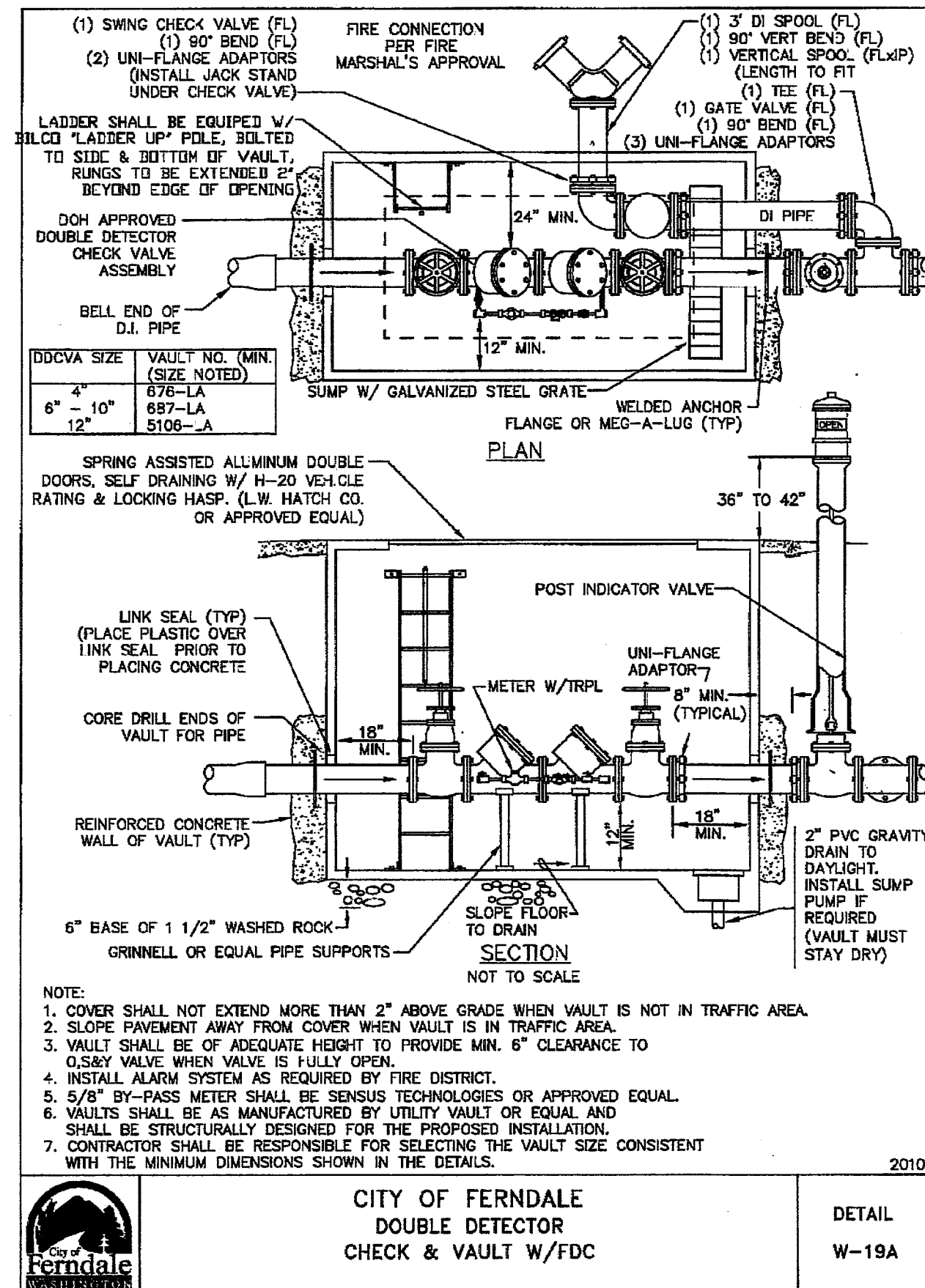
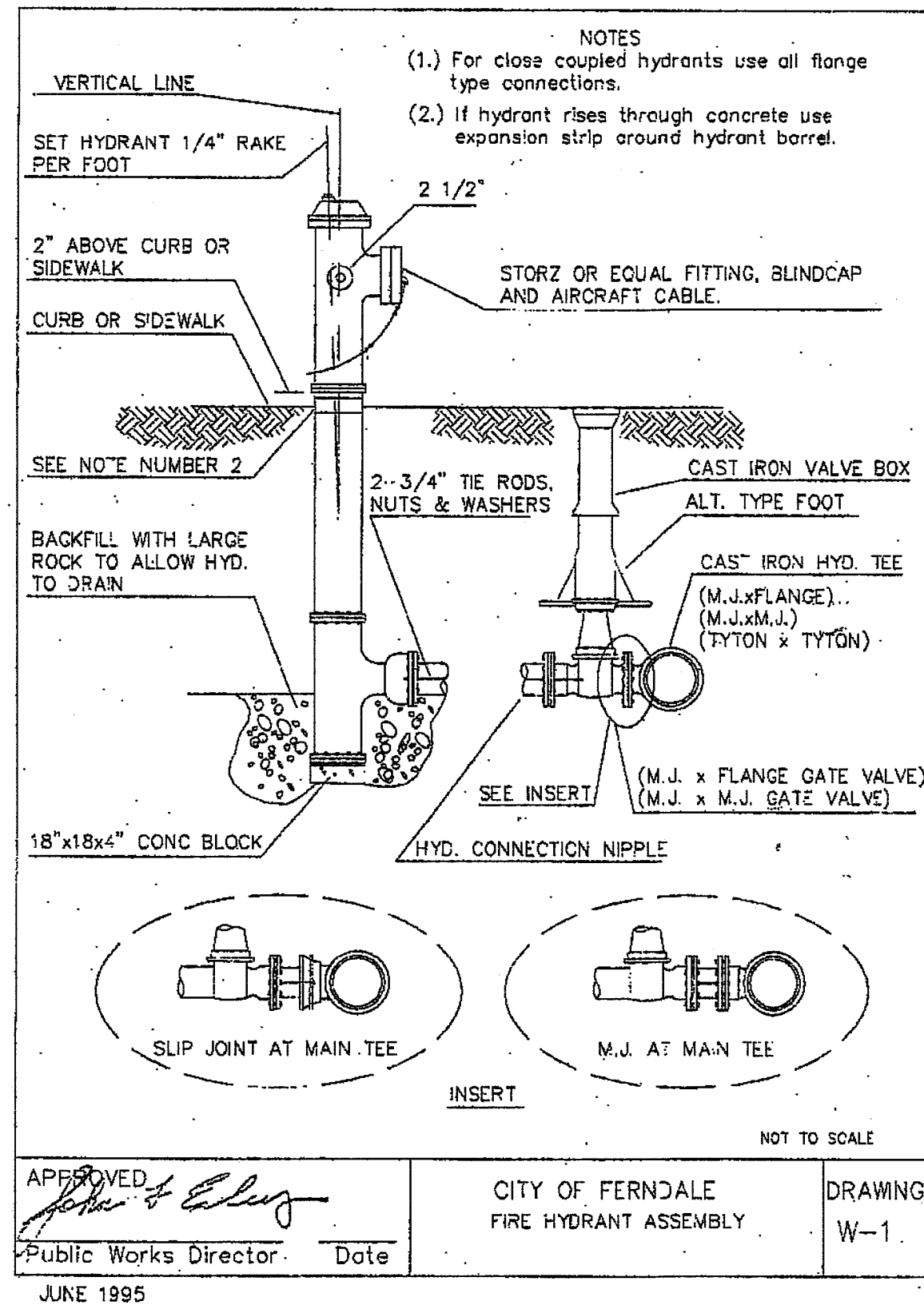
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SEP 23 2014
BY: [Signature]
CITY OF FERNDALE

FLEETWOOD INT'L DEVELOPMENT CORPORATION
13847 33 AVE.
SURREY, B.C., CANADA V4P 2B4

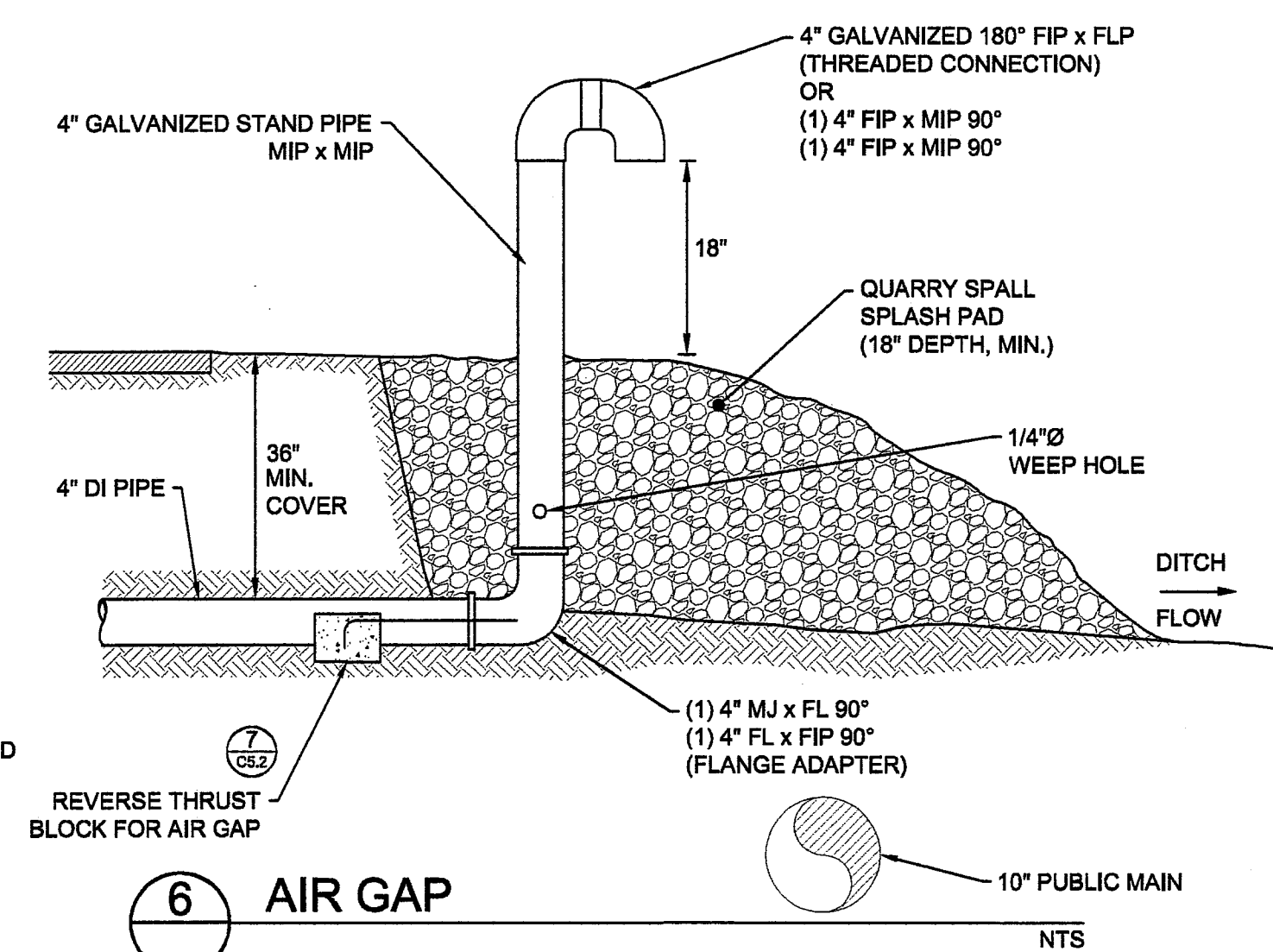
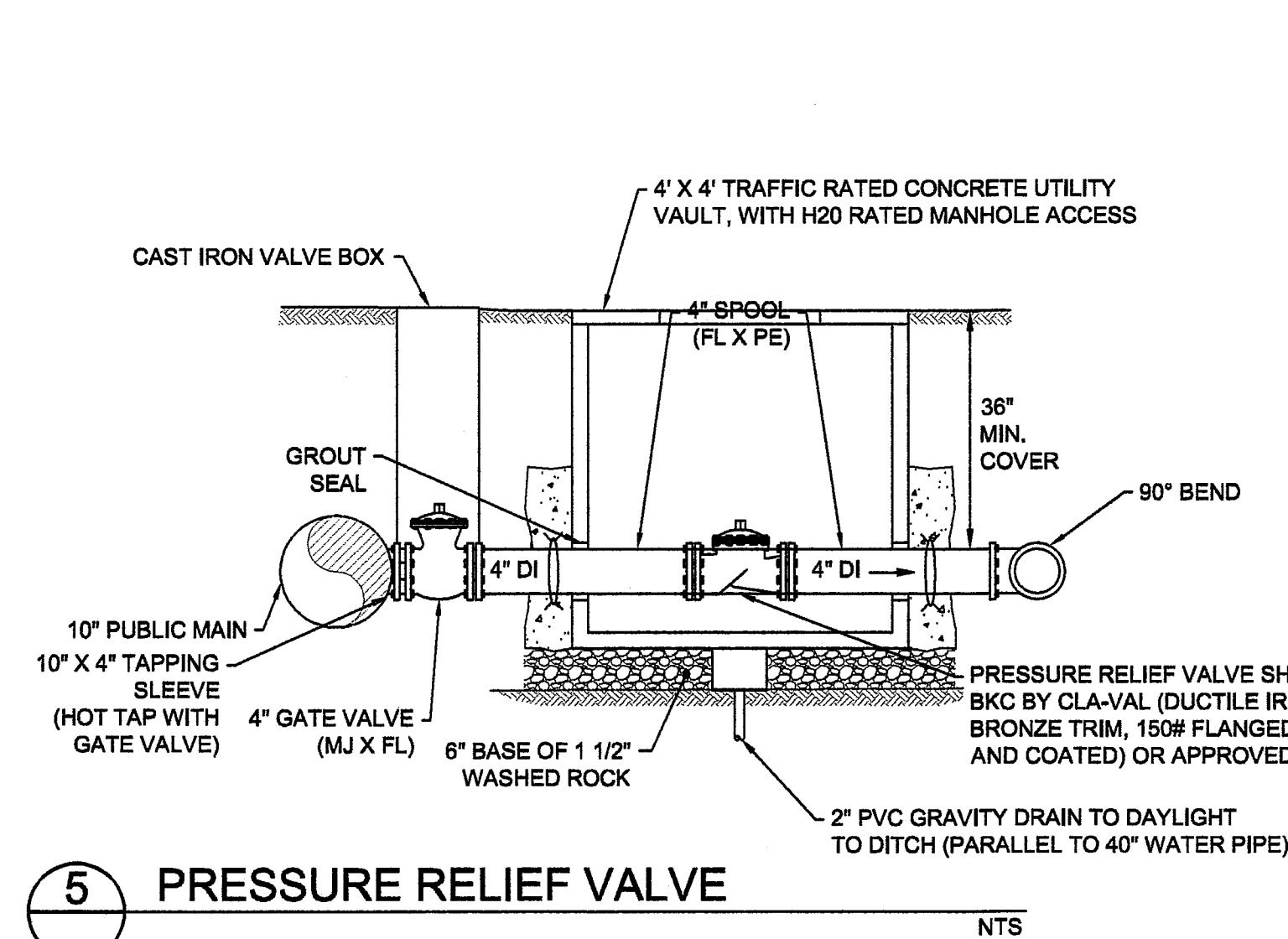
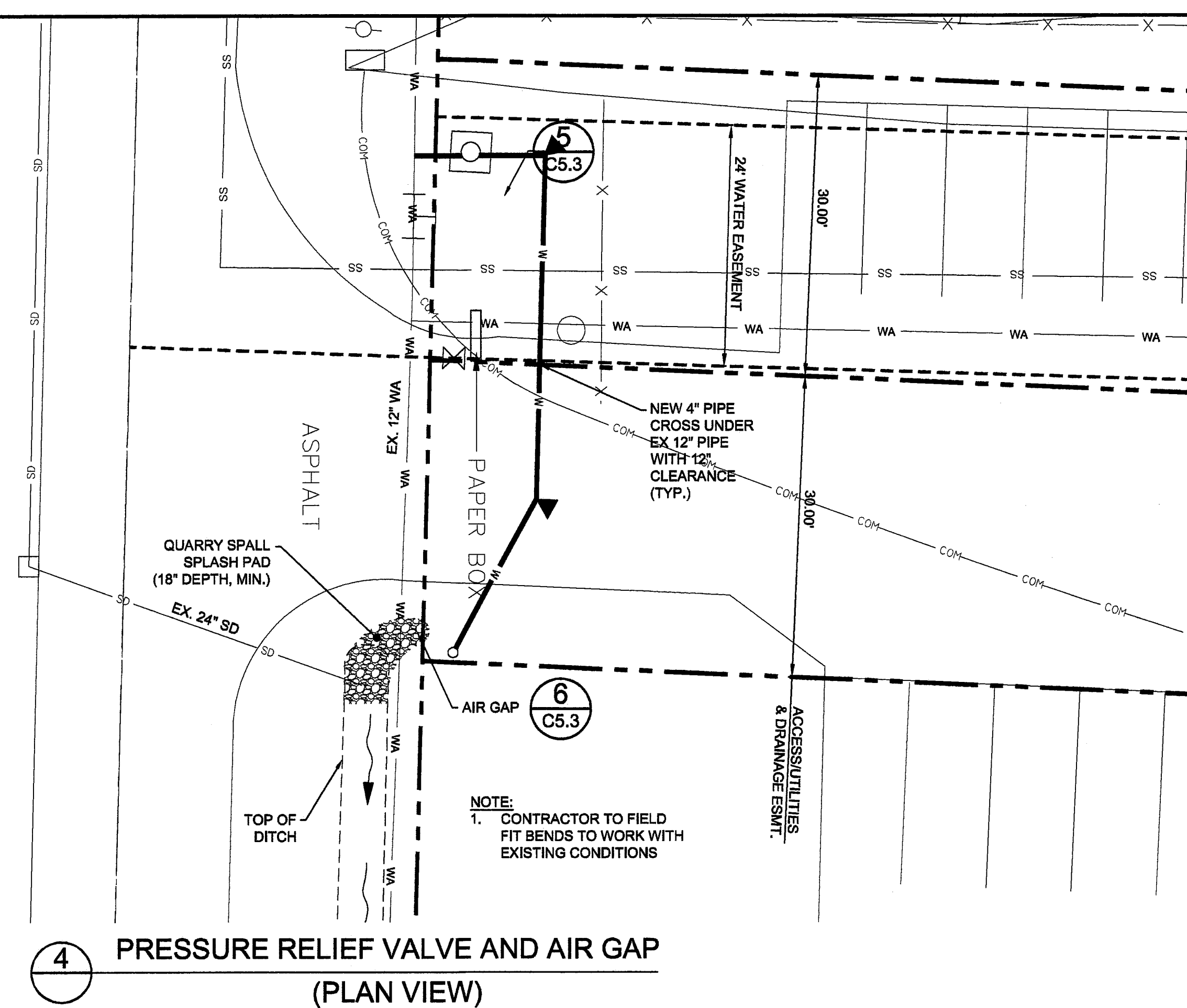
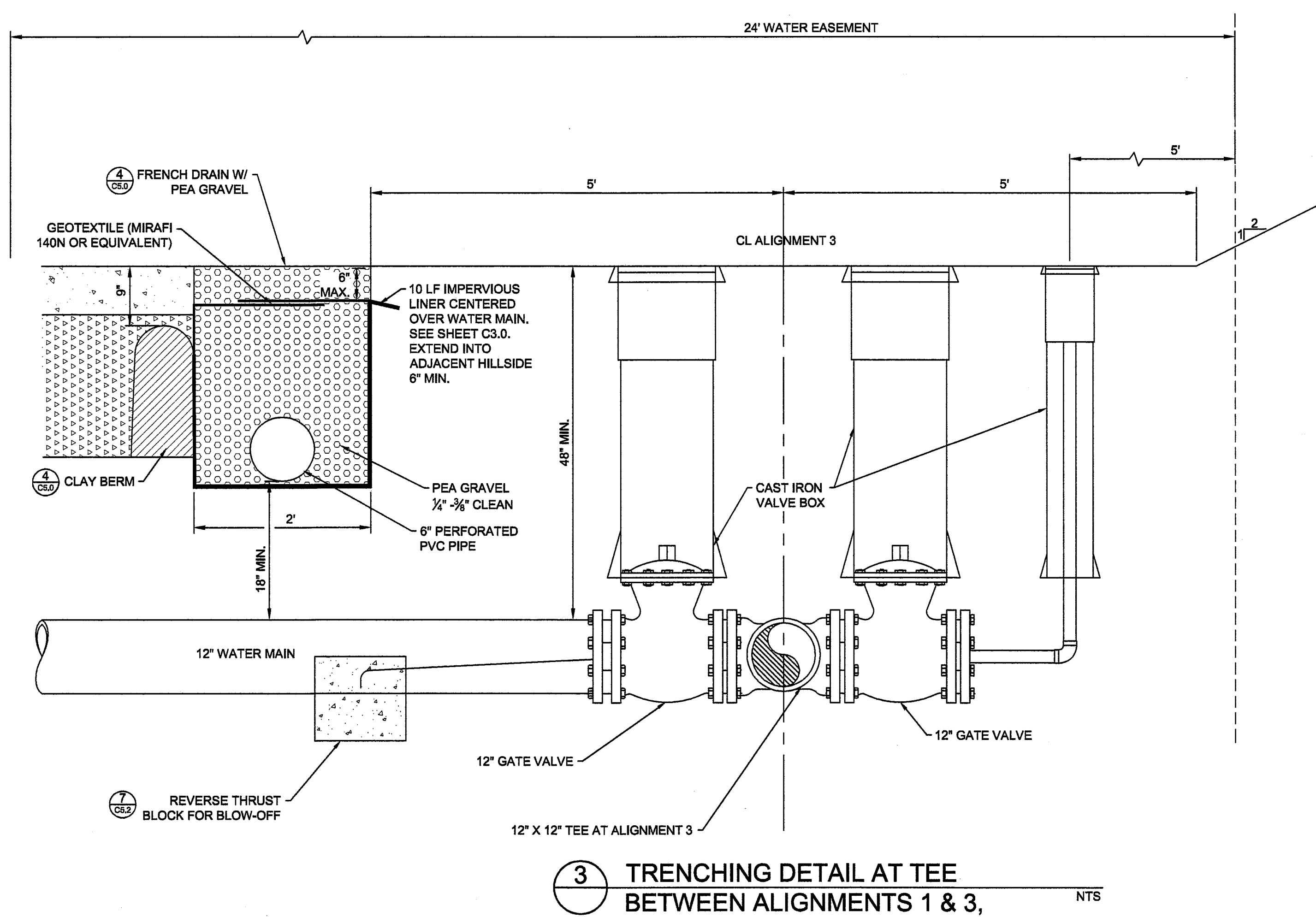
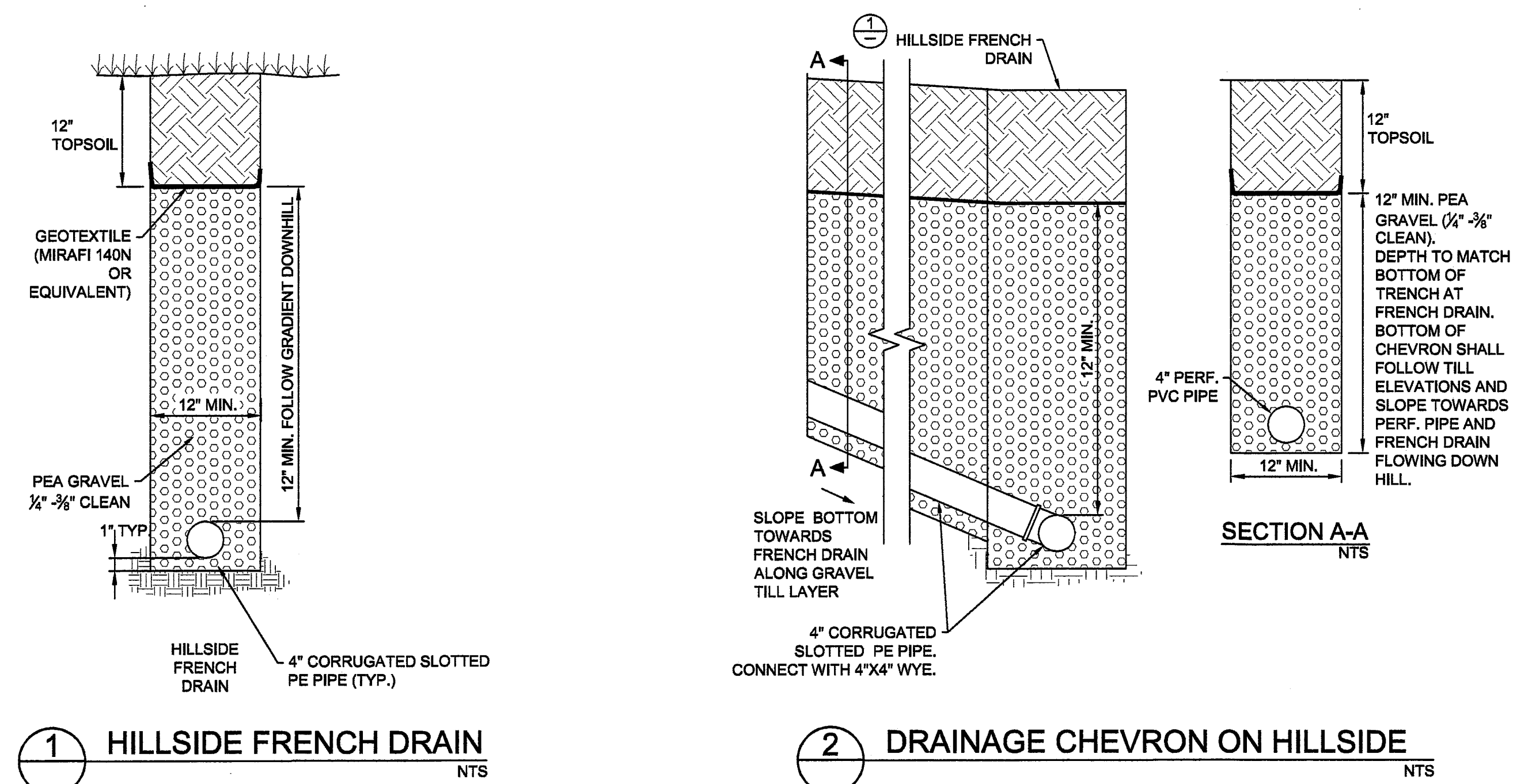
SAMSON ROPE
PHASE I BUILDING EXPANSION
DETAILS

SHEET:
C5.1



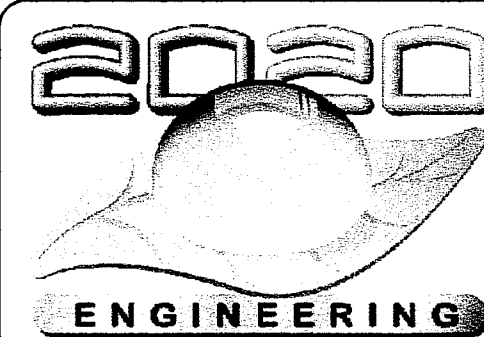
NO.	DATE	BY	APPR.	REVISION	ENGINEER	DESIGNED BY	DRAWN BY	CHECKED BY	PROJ. MNGR	PROJ. NO.	FILE NAME	SCALE
11	08.22.13	SC		CRIBLOCK WALL REMOVED	M. RANDALL	M. RANDALL	J. FORD, S. CONNER	M. BUEHRER	M. RANDALL	636SAM	636_Site.dwg	1" = 20'
10	09.16.13	SC		REVISIONS PER CITY COMMENT								
9	09.13.13	SC		REVISIONS PER CITY COMMENT								
8	08.28.13	SC		REVISIONS PER CITY COMMENT								
7	08.22.13	SC		REVISIONS PER CITY COMMENT								
6	05.22.13	MR		REVISIONS PER CITY COMMENT								
5	04.29.13	MR		REVISIONS PER CITY COMMENT								
4	03.25.13	MR		REVISIONS PER CITY COMMENT								
3	01.15.13	MR		REVISIONS PER CITY COMMENT								
2	11.30.12	MR		REVISIONS PER CITY COMMENT								
1	11.02.12	JF		REVISIONS PER CITY COMMENT								

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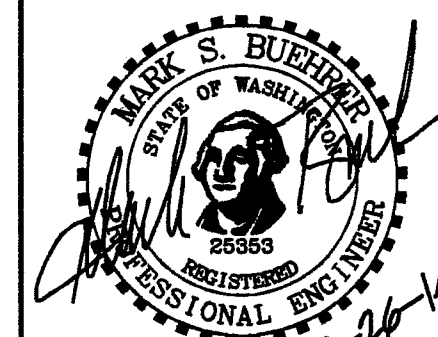


11	04.02.14	SC		ADDED DETAILS 4 AND 6, REVISED 5.
10	09.16.13	SC		REVISE NOTES
9	09.13.13	SC		ADD ULTRABLOCK WALL
8	08.28.13	SC		2' SETBACK, SLOPE DETAILS
7	08.22.13	SC		CRIBBLOCK WALL REMOVED
6	05.22.13	MR		REVISIONS PER CITY COMMENT
5	04.29.13	MR		REVISIONS PER CITY COMMENT
4	03.25.13	MR		REVISIONS PER CITY COMMENT
3	01.15.13	MR		REVISED GRADING
2	11.30.12	MR		REVISIONS PER CITY COMMENT
1	11.02.12	JF		REVISIONS PER CITY COMMENT
NO.	DATE	BY	APPR.	REVISION

ENGINEER:	M. RANDALL		
DESIGNED BY:	M. RANDALL	DATE:	5-22-13
DRAWN BY:	J. FORD, S. CONNER	DATE:	5-22-13
CHECKED BY:	M. BUEHRER	DATE:	5-22-13
PROJ. MNGR:	M. RANDALL		
PROJ. NO:	636SAM		
FILE NAME:	636_Site.dwg		
SCALE:	1" = 20'		



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SAMSON ROPE

PHASE I BUILDING EXPANSION DETAILS

SHEET:

C5.3

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