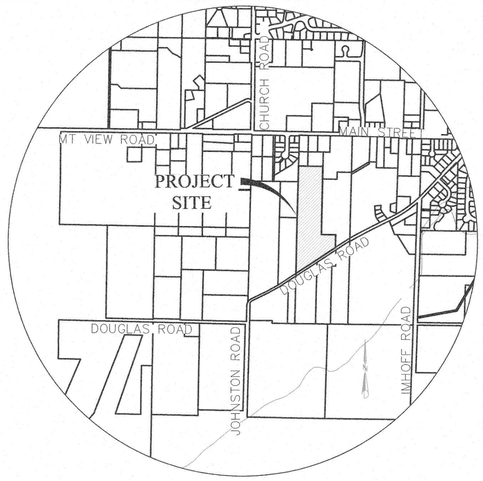
SEC 30, TWP. 39 N., R 02 E of W.M

CIVIL IMPROVEMENT PLANS FOR
DOUGLAS FARM

SITE MAP



VICINITY MAP

DEVELOPER:
DOUGLAS FARM, LLC
LANDED GENTRY
504 E FAIRHAVEN AVE, SUITE 200
BURLINGTON WA 98233

ENGINEER:
WEDEN ENGINEERING, LLC
2636 NUBGAARD RD
FERNDALE, WA 98248

ADDRESS:
2396 DOUGLAS ROAD
FERNDALE, WA

TAX PARCELS:
390230 083406

LEGAL DESCRIPTION:
BEING A PORTION OF THE NORTHWEST QUATER OF THE NORTHWAST QUARTER AND THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SEC, 30, TWP 30N, RG 02E OF WM

LAND USE:
ZONING- RS HIGH SINGLE FAMILY RESIDENTIAL

LEGEND

EXISTING	PROPOSED	
		BURIED POWER
		OVERHEAD POWER
		TELEPHONE/COMMUNCATIONS
		GAS
		STORM DRAINAGE
		SEWER
		WATER
		SILT FENCE
		DITCH / BIOSWALE
		RIGHT-OF-WAY
		UTILITY EASEMENT
		CONTOUR
		FENCE
		ROAD CENTERLINE
		ASPHALT PAVEMENT
		PORTLAND CEMENT CONCRETE
		GRAVEL ROAD
		PHASE LINE
		FUTURE DEVELOPMENT

EXISTING	PROPOSED	
		CULVERT
		FIRE HYDRANT
		CATCH BASIN
		MANHOLE
		VALVE
		CURB STOP
		WATER BLOWOFF
P	P	POWER VAULT
T	T	TELEPHONE VAULT
		TELEPHONE RISER
		SURFACE MONUMENT
		TREES
		SIGN
		RIP RAP
		UTILITY POLE
		GUY WIRE
		LIGHT POLE
		LUMINAIRE & J-BOX
		MAILBOX
W		WELL

Izabella 12/13/23 10:13am – P:\2106-01 Landed Gentry Douglas Rd\7 CAD\As-Builts\SHEETS\2106 AB 01-CV.dwg

ERICH A. KLEINKNECHT
STATE OF WASHINGTON
45760
REGISTERED
PROFESSIONAL LAND SURVEYOR
12/14/23

I HEREBY CERTIFY THAT THE IMPROVEMENTS IN DOUGLAS FARM, HAVE BEEN INSPECTED BY WEDEN ENGINEERING, LLC 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 PRACTICES

ERIC J. WEDEN, P.E. 12.14.2023

I CERTIFY THAT THE LOCATIONS, ELEVATIONS, DEPTHS, AND ASBUILT COMMENTS REFLECTING MATERIALS ACTUALLY USED DURING CONSTRUCTION ACCURATELY REFLECT EXISTING FIELD CONDITIONS AS DETERMINED BY ME OR UNDER MY DIRECT SUPERVISION ON THIS DATE: OCTOBER, 2023.

ERICH A. KLEINKNECHT, PLS 12/14/2023

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STANDARDS
CITY OF FERNDALE DEVELOPMENT STANDARDS

WASHINGTON DEPARTMENT OF TRANSPORTATION STANDARDS & PLANS

WASHINGTON STATE DEPARTMENT OF ECOLOGY, 2012 STORMWATER MANAGEMENT MANUAL FOR WESTERN WASHINGTON, AMENDED DEC 2014

SURVEY AND MAPPING
EXISTING CONDITIONS MAP FOR DOUGLAS FARMS LLC DATED 10/04/2021, BY LARRY STEELE & ASSOCIATES
1334 KING STREET, SUITE 1
BELLINGHAM, WA

BENCHMARK
NGVD 29
DERIVED FROM CITY OF FERNDALE SURVEY MONUMENT "FERN-10".

BASIS OF BEARINGS
CITY OF FERNDALE SURVEY MONUMENT NETWORK, JUNE 2001.
DERIVED FROM TIES TO CONTROL MONUMENTS FERN-10 AND FERN-07

CRITICAL AREAS ASSESSMENT REPORT (WETLAND) & MITIGATION PLAN (WETLAND BUFFER)
DELINEATED BY SOUNDVIEW CONSULTANT, INC,
DATED AUG 2021

GEOTECHNICAL REPORT
STORMWATER INFILTRATION FEASIBILITY ASSESSMENT BY GOTEST
DATED AUG 25, 2021

AGENCIES:
ROADS, WATER, SEWER, STORMWATER
CITY OF FERNDALE PUBLIC WORKS
2095 MAIN ST
FERNDALE, WA 98248

FIRE
WHATCOM COUNTY FIRE DISTRICT #7
2020 WASHINGTON ST
FERNDALE, WA 98248

GAS
CASCADE NATURAL GAS
JEN QUIST
1600 IOWA ST
BELLINGHAM, WA 98229
360-788-2376

ELECTRIC
PUGET SOUND ENERGY
LIZ BARTLETT
1660 PARK LANE
BURLINGTON, WA 98233
360-766-5502

CABLE/TELECOMM
COMCAST CABLE
CASEY JONES
360-527-8243

AS-BUILTS

REVISED FOR POND OUTLET 04/24/2023
REVISED PER CITY COMMENTS 03/08/2023

No.	REVISIONS/ SUBMISSIONS	DATE
	REVISED PER CITY COMMENTS	02/28/2023
	REVISED POND ACCESS	01/30/2023
	REVISED PER CITY COMMENTS	12/15/2022
	REVISED PER CITY COMMENTS	11/10/2022
	REVISED PER CITY COMMENTS	10/20/2022

REVIEWED : EJW DRAWN : KLS
CAD FILE : PROJECT NO : 2106-01

PROJECT TITLE
DOUGLAS FARM
44 LOT LONG PLAT
2396 DOUGLAS ROAD
FERNDALE, WA

DRAWING TITLE
COVER SHEET

DATE : 08/03/2022

DRAWING No.
1 of 41

APPROVED
01/11/2024
BY
CITY OF FERNDALE
PUBLIC WORKS DEPARTMENT

STATE OF WASHINGTON
ERIC J. WEDEN
21604
REGISTERED PROFESSIONAL ENGINEER
SEAL
12/14/2023

WEDEN ENGINEERING, LLC
Civil Engineering • Planning • Project Management
2636 Nubgaard Rd, Ferndale, WA 98248
(360) 380-1363 (360) 384-3615 Fx
email: info@wedenengineering.com

00746.001 01/11/24 RH

SEC 30, TWP. 39 N., R 02 E of W.M

CIVIL IMPROVEMENT PLANS FOR
DOUGLAS FARM

DOUGLAS ROAD RECORDED
RIGHT-OF-WAY DEDICATION IS
REQUIRED PRIOR TO FINAL PLAT

AF# 2023-1201385

0 60' 120'

SCALE: 1" = 60'

DEVELOPER:

DOUGLAS FARM LLC
LANDED GENTRY
504 E FAIRHAVEN AVE, SUITE 200
BURLINGTON WA 98233

ENGINEER:

WEDEN ENGINEERING, LLC
2636 NUBGAARD RD
FERNDALE, WA 98248

TOPOGRAPHIIC SURVEY "EXISTING CONDITIONS MAP" BY LARRY STEELE & ASSOCIATES, DATED 10/04/21

WETLAND DELINEATION BY SOUNDVIEW CONSULTANTS, INC, DATED AUG 2021

kenny 12/06/23 2:18pm – P:\2106-01 Landed Gentry Douglas Rd\7 CAD\As-Builts\SHEETS\2106 AB 02-EX.dwg

AS-BUILTS

REVISED FOR POND OUTLET 04/24/2023

SEAL

12/06/2023

WEDEN ENGINEERING, LLC
Civil Engineering • Planning • Project Management
2636 Nubgaard Rd. Ferndale, WA 98248
(360) 380-1363 (360) 384-3615 Fx
email: info@wedenengineering.com

APPROVED
01/11/2024
BY
CITY OF FERNDALE
PUBLIC WORKS DEPARTMENT

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	REVISED PER CITY COMMENTS	03/08/2023
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	REVISED PER CITY COMMENTS	10/20/2022

REVIEWED : EJW
DRAWN : KLS
CAD FILE :
PROJECT NO. : 2106-01

PROJECT TITLE
DOUGLAS FARM
44 LOT LONG PLAT
2396 DOUGLAS ROAD
FERNDALE, WA

DRAWING TITLE
EXISTING CONDITIONS

DATE : 08/03/2022

DRAWING No.
2 of 41

00746.002 01/11/24 RH

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, AND ITS AMENDMENTS"(WSDOT SPECS.) AND STANDARD PLANS, 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 PROJECT ENGINEER OF RECORD (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 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:
1. COMPLETION OF EXCAVATION TO SUBGRADE.
2. COMPLETION OF BALLAST COURSE PLACEMENT
3. COMPLETION OF CRUSHED SURFACING COURSE PLACEMENT
F. POURING OF CURB AND GUTTER AND SIDEWALK IN PUBLIC ROADWAY.
G. ASPHALT PAVING IN PROGRESS IN PUBLIC ROADWAY.
H. OVERALL INSPECTION FOR FINISHED SHOULDERS, DITCHES, PERMANENT SEEDING AND MONUMENT PLACEMENT.
I. 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 SPECS., 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.

15. FINAL LOT GRADING WILL BE DONE IN CONFORMANCE WITH CITY STANDARDS, FILLS IN EXCESS OF 18" WILL BE DONE SO IN A STRUCTURAL MANNER DIRECTED BY THE ENGINEER OF RECORD AND DOCUMENTED FOR OWNERSHIP AND CITY RECORD AND USE.

UNDERGROUND UTILITIES CONSTRUCTION

A. 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 ENGINEER AT LEAST 48–HOURS BEFORE BURYING UNDERGROUND PIPE TO ASSURE AND FACILITATE REQUIRED AS–BUILT SURVEY.
B. THE CONSTRUCTION OF UNDERGROUND UTILITY LINES SHALL BE SUBJECT TO THE FOLLOWING CRITERIA:
i. NO MORE THAN 500 FEET OF TRENCH SHALL BE OPENED AT ONE TIME.
ii. WHERE CONSISTENT WITH SAFETY AND SPACE CONSIDERATIONS, EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF DITCHES.
iii. TRENCH DEWATERING DEVICES SHALL DISCHARGE INTO SEDIMENT TRAPS OR SEDIMENT PONDS.
iv. WHERE PRACTICAL, INSTALL GRAVITY PIPE UTILITIES PRIOR TO INSTALLATION OF OTHER UTILITIES.
C. UTILITY CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE COFDS.
D. ALL UTILITY TRENCHES IN THE RIGHT OF WAY SHALL BE BACKFILLED WITH BALLAST PER SECTION 9–03.9(1) WSDOT SPECS.
E. TESTING OF NEW WATER LINES, STORM SEWER SYSTEMS SHALL NOT BE PERFORMED UNTIL ALL OTHER ADJACENT UTILITIES HAVE BEEN INSTALLED.
F. ALL UTILITY TRENCHES SHALL BE BACKFILLED AND COMPACTED TO 95% RELATIVE COMPACTION OR 95% MODIFIED PROCTOR PER TRENCHING DETAIL COFSD SS–15.
G. OPEN CUTTING OF EXISTING ROADWAYS IS ONLY ALLOWED AS APPROVED AND NOTED ON THESE APPROVED PLANS. ANY OPEN CUT SHALL BE RESTORED IN ACCORDANCE WITH THE CITY OF FERNDALE STANDARD DETAIL (COFSD) R–11 AND SS–15.
H. 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
A. 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.
B. THE CONTRACTOR SHALL EXCAVATE AND GRADE TO THE ALIGNMENT, GRADE AND CROSS–SECTIONS SHOWN IN THE PLANS OR ESTABLISHED BY THE PROJECT ENGINEER OF RECORD.
C. 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.
D. THE ENGINEER IS REQUIRED TO CERTIFY SUBGRADE, IN WRITING, PRIOR TO PAVING.

BASE COURSES & CRUSHED SURFACING

A. GRAVEL BASES AND BALLAST MATERIAL GRADATION SHALL MEET THE CURRENT EDITION OF WSDOT SPECS.
B. BALLAST, GRAVEL BASE AND CRUSHED SURFACING SHALL BE COMPACTED TO AT LEAST 95% OF MAXIMUM DRY DENSITY.
C. THE GRADED AND COMPACTED SURFACE OF THE CRUSHED SURFACING TOP COURSE SHALL BE WITHIN ½ INCH OF STAKED ELEVATION PROVIDED THE MINIMUM MATERIAL SECTION THICKNESS CONSTRUCTED ARE IN CONFORMANCE WITH CITY OF FERNDALE STANDARD DETAIL R–1 AND R–4 AS SHOWN ON PLAN SHEET 33 OF 39.
D. 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.

STORM DRAINAGE

1. THE FOLLOWING STANDARD DETAILS SHALL BE USED FOR CONSTRUCTION OF STORM DRAIN IMPROVEMENTS:

CATCH BASINS TYPE 1, 1L OR 2	WSDOT STD. DETAILS B–5.20, B–5.40 OR B–10.20
"RESIDENTIAL SERVICE LINE"	COFSD ST–16
INLET & THRU–CURB INLET	COFSD ST–7 & COFSD ST–8

BACK OF WALK DRAINS CONNECT TO THE CURB INLETNOTED IN ST–16 AND THE REQUIREMENT WHEN TO INSTALL BACK OF WALK DRAINS IS COVERED IN COF DETAILS R–1 AND R–4

2. STORM SEWER PIPE HAVING DIAMETERS GREATER THAN 8" SHALL BE CORRUGATED POLYETHYLENE PIPE (CPEP) PER SECTION 9–05.20 OF THE WSDOT SPECS. ALL OTHER STORM SEWER PIPE SHALL BE PV.C, PER SECTION9.05.12(1) UNLESS OTHERWISE SPECIFIED ON PLANS.

3. ALL CATCH BASIN GRATES SHALL INCLUDE THE STAMPING "OUTFALL TO STREAM, DUMP NO POLLUTANTS".

4. SEC. 1010.F.COF DEVELOPMENT STANDARDS IS MAINTAINED OVER THE PROPOSED STORM PIPES (PIPE IS IN ROAD BASE SECTION), AS SHOWN IN THE PLANS. DUCTILE IRON PIPE MAY BE USED FOR STORM PIPES WITH LESS THAN 24" OF COVER IF APPROVED BY THE CITY.

5. 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.

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

7. EACH STORM SEWER STUB SHALL BE CAPPED WITH A WATERTIGHT PLUG. EACH STUB SHALL BE MARKED FOR LOCATION WITH A 2"DIA. WHITE PVC PIPE (MIN. SCHEDULE 40) STENCILED WITH THE WORD "DRAIN" AND THE PIPE INVERT INDICATED. THE LOCATION MARKER SHALL BE CONNECTED TO THE SERVICE STUB BY A #12 COPPER WIRE.

8. ALL MAIN LINE STORM COVEYENCE PLACED IN CITY RIGHT–OF–WAY WILL BE AIR TESTED TO WSDOT STANDARDS PRIOR TO CITY APPROVAL.

WATER

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

PIPE BEDDING	COFSD W–11
TRENCH BACKFILL	COFSD W–11
FIRE HYDRANT ASSEMBLY	COFSD W–1
THRUST BLOCKING	COFSD W–2, W–3 & W–4
WATER SERVICE	COFSD W–5

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 THE WSDOT STANDARD PLANS.

3. ALL WATER MAIN PIPE SHALL BE DUCTILE IRON CL–50 PER SECTION 9–30.1(1) OF THE WSDOT SPECS., UNLESS OTHERWISE APPROVED BY THE PUBLIC WORKS DIRECTOR.

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 SECTION 9–30.2(1) OF THE WSDOT SPECS.

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 WSDOT SPECS. 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 WSDOT SPECS. HYDROSTATIC TEST PRESSURE FOR WATER MAIN ACCEPTANCE SHALL BE 150 PSI IN EXCESS OF 100 PSI OPERATING PRESSURE FOR THE CITY OF FERNDALE OR 225 PSI FOR 15 MINUTES. THE HYDROSTATIC TESTING IS TO BE INSPECTED BY THE CITY. THE CONTRACTOR SHALL CALL AT LEAST 24 HOURS IN ADVANCE TO SCHEDULE INSPECTIONS. THE CITY OF FERNDALE LABORATORY SHALL CONDUCT ALL DISINFECTION TESTS AND BACTERIOLOGICAL TESTS. THE PIPE WILL NOT PASS TESTING UNLESS A RESULT OF ZERO BACTERIAL COUNT IS MEASURED 24 HOURS AFTER THE PIPE PASSED HYDROSTATIC TEST AND FLUSHED.

8. BACKFILL SHALL BE BALLAST PER SECTION 9–03.9(1) WSDOT SPECS. IN ALL STREET RIGHTS–OF–WAY, COMPACTED TO MINIMUM 95% RELATIVE COMPACTION. IN UNIMPROVED AREAS, MINIMUM COMPACTION SHALL BE 90% OF RELATIVE COMPACTION.

9. ALL PIPES SHALL HAVE A MINIMUM COVER OF 36", MAX. OF 42".

10. ALL VALVES SHALL BE GATE OR TYPE VALVES AND SHALL BE INSTALLED WITH SLIP TYPE CAST IRON VALVE BOXES. GATE VALVES SHALL BE USED FOR LINES 2 INCHES THROUGH 10 INCHES IN DIAMETER. GATE VALVE MAY BE USED IN LIEU OF BUTTERFLY VALVE FOR 12"LINES IF APPROVED BY THE CITY. SHORT–BODY VALVES SUITABLE FOR A NON–SHOCK SHUT–OFF PRESSURE OF 130 PSI AND SUITABLE FOR DIRECT BURIAL ARE SPECIFIED. GATE VALVES SHALL BE RESILIENT SEATED IRON–BODY, FULL–BRONZE MOUNTED VALVES CONFORMING TO AWWA C509 AND SUITABLE FOR SERVICE WITH THE TYPE AND CLASS OF PIPE USED. ALL VALVES SHALL HAVE NON–RISING 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.

11. WATER SERVICE TAP INSTALLATIONS SHALL MEET THE REQUIREMENTS OF THE COFSD W–5.

12. FIRE HYDRANTS AND FIRE MAINS MUST CONFORM TO COFDS (COFSD W–1, WSDOT B–19) AND THE FOLLOWING STANDARDS:
A. FIRE HYDRANTS SHALL HAVE TWO INDIVIDUALLY VALVED 2–1/2" PORTS AND ONE 5–1/4" MAIN VALVE OPENING. A 4–1/2" NST PUMPER NOZZLE AND A 5" STORZ PORT WITH CAP AND AIRCRAFT CABLE SHALL BE SUPPLIED. HYDRANTS SHALL BE M.H. 129S HYDRANTS.
B. 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.
C. IF THE PUBLIC WORKS DIRECTOR DETERMINES THAT FIRE HYDRANTS ARE VULNERABLE TO VEHICULAR DAMAGE, APPROPRIATE HYDRANT GUARD 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.
D. UNDERGROUND SUPPLIES TO FIRE HYDRANTS MUST BE INSPECTED. SUCH INSPECTION SHALL INCLUDE VISUAL INSPECTION OF PIPING AND HYDROSTATIC PRESSURE TESTING TO A MIN. OF 225 PSI. A FLOW TEST WILL BE REQUIRED WHEN INSTALLATION IS COMPLETE.
E. 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.

ROAD

1. THE FOLLOWING STANDARD DETAILS SHALL BE USED FOR CONSTRUCTION OF THE STANDARD STREET SECTION:
TYPICAL STREET SECTION (PER PROJECT)

PCC CURB AND GUTTER	COFSD R–9
PCC SIDEWALKS	COFSD R–12 (SEE CONSTRUCTION DOCUMENTS TYPICAL SECTION)
PCC SIDEWALK RAMPS	WSDOT STD. DETAIL F–40 ANF F–42
PCC CEMENT CONCRETE DRIVEWAY ENTRANCE	WSDOT STD. DETAIL F–80

2. ROADWAY EXCAVATION WITHIN THE ROADWAY PRISM SHALL BE CUT TO A UNIFORM GRADE. BEFORE PLACING ROADWAY BALLAST SECTION PER COF DETAIL R–4, THE COMPLETED COMPACTED SUBGRADE SHALL ACHIEVE 95 PERCENT OF THE MAXIMUM DENSITY AND SHALL NOT VARY MORE THAN 0.05–FOOT FROM THE LOWER EDGE OF A 15–FOOT STRAIGHTEDGE PLACED ON THE SUBGRADE PARALLEL TO THE CENTERLINE UNLESS APPROVED BY THE CITY.

3. THE OWNER SHALL PROVIDE TO THE ENGINEER A REPORT FROM A QUALIFIED GEOTECHNICAL FIRM CERTIFYING THE COMPACTION OF THE GRAVEL BASE/BALLAST UNDER ALL PAVING AREAS. THE MATERIAL TESTING LAB SHALL SUBMIT TEST REPORTS TO THE ENGINEER OF RECORD, CONTRACTOR, AND THE CITY OF FERNDALE TO ENSURE AS–BUILT PROJECT CERTIFICATION BY THE ENGINEER OF RECORD.

4. HOT MIX ASPHALT WORK SHALL BE DONE IN ACCORDANCE WITH SECTION 5–04 OF THE WDOT SPECS., EXCEPT AS MODIFIED HEREIN. CONNECTION TO EXISTING PAVEMENT SHALL BE TO A STRAIGHT NEATLY–TRIMMED LINE.

5. CRUSHED ROCK SURFACING FOR PAVEMENT SHALL BE IN ACCORDANCE WITH WSDOT SPECS., SECTION 9–03.9(3); BALLAST PER SECTION 9–03.9(1).

6. CEMENT CONCRETE SHALL BE CLASS 3000 (WITH AIR ENTRAINMENT) IN ACCORDANCE WITH WSDOT SPECS., SECTION 6–02.3(2)B.CONCRETE SIDEWALKS SHALL BE CLASS 3000 AND CEMENT CONCRETE DRIVEWAY ENTRANCE SHALL BE CLASS 4000 PER WSDOT STANDARD SPECIFICATIONS.

7. CEMENT CONCRETE SIDEWALK SHALL BE CONSTRUCTED AS SHOWN ON THE PLANS OR AS DESIGNATED BY THE ENGINEER IN ACCORDANCE WITH COFSD R–12.

8. CEMENT CONCRETE DRIVEWAYS SHALL BE 6 INCHES THICK AND CONSTRUCTED WHERE SHOWN ON THE PLANS OR DESIGNATED BY THE ENGINEER IN ACCORDANCE WITH THE COFSD R–15. A 2– INCH LAYER OF 3/4 INCH DRAIN ROCK SHALL BE USED FOR DRIVEWAY BEDDING.

9. CEMENT CONCRETE CURB AND GUTTER SHALL BE CONSTRUCTED WHERE SHOWN ON THE PLANS OR AS DESIGNED BY THE ENGINEER, IN ACCORDANCE WITH WSDOT SPECS., SECTION 8–04 AND COFSD R–8 AND R–9. HANDICAP RAMPS SHALL BE CONSTRUCTED PER WSDOT STANDARD DETAIL F–40. WHERE NEW CEMENT CONCRETE CURB AND GUTTER IS TO CONNECT TO EXISTING CURB AND GUTTER, ASSURE THAT NO ABRUPT OFFSETS IN LINE OR GRADE SHALL BE CONSTRUCTED WHICH WILL BE UNSIGHTLY OR IMPEDE FLOW IN THE GUTTER LINE.

10. 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.

11. THRU–CURB BASINS AND THRU–CURB INLETS CONFORMING TO THE WSDOT SPECS, SECTION 7–05 SHALL BE CONSTRUCTED AT THE LOW POINT OF THE CURB FLOW LINES AND TO THE LOCATIONS, DIMENSIONS, AND DETAILS AS SHOWN ON THE PLANS OR DESIGNATED BY THE ENGINEER AND COFSD–R–8.

12. TRENCH EXCAVATIONS, BEDDING AND PIPE FOR STORMWATER PIPE LAYING SHALL BE IN ACCORDANCE WITH THE WSDOT SPECS., SECTION 7–08.

13. STORM SEWER PIPE CONSTRUCTION REQUIREMENTS SHALL BE IN ACCORDANCE WITH WSDOT SPECS., SECTION 7–04. LOTS' STORM DRAIN SERVICE LINE SHALL BE 6" PVC PER WSDOT SPECS., SECTION 9–05.12(1)

14. PERFORATED UNDERDRAIN PIPE SHALL MEET THE WSDOT SPECS., 9–05.12(1).

15. ROADWAY SECTIONS MUST BE CLEARLY MARKED AND STAKED FOR LINE AND GRADE BY A LICENCED SURVEYOR PRIOR TO CONSTRUCTION AND INSPECTION. EXCLUSIVE USE OF GPS IN LIEU OF CONVENTIONAL SURVEY STAKING MUST BE PRE–APPROVED BY THE DIRECTOR, WHERE AS ADDITIONAL REQUIREMENTS WOULD ALSO APPLY.

SANITARY SEWER SYSTEMS

1. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH COFDS, COFSD, A.P.W.A. STANDARD SPECIFICATIONS, AND WSDOT SPECS. SANITARY SEWER SYSTEM INSTALLATION, BOTH PUBLIC AND PRIVATE, IS SUBJECT TO CITY REVIEW AND APPROVAL.

2. ALL WORK MUST BE INSPECTED TO THE SATISFACTION OF THE CITY OF FERNDALE. 24 HOUR NOTICE MUST BE GIVEN PRIOR TO STARTING WORK. TESTING OF THE SEWER SYSTEM AND ALL CONNECTIONS TO EXISTING MAINS SHALL BE PERFORMED IN THE PRESENCE AND UNDER THE SUPERVISION OF A CITY OF FERNDALE REPRESENTATIVE.

3. SANITARY SEWER MAINS SHALL BE A MINIMUM 8 INCH DIAMETER PVC PIPE CONFORMING TO WSDOT SPECS. 9–05.12(1) AND INSTALLED PER COFDS.

4. SANITARY SEWER PIPE BEDDING SHALL BE PEA GRAVEL PER COFSD SS–1. ALL TRENCHES SHALL BE BACKFILLED WITH BALLAST WITHIN CITY RIGHT OF WAY AND TRAVELED WAYS OUTSIDE OF RIGHT OF WAY (ACCESS EASEMENTS) AND SHALL BE COMPACTED TO A MINIMUM DENSITY OF 95% MODIFIED PROCTOR. USE OF SUITABLE NATIVE BACKFILL OUTSIDE OF TRAVELED WAY SHALL BE SUBJECT TO APPROVAL BY THE CITY.

5. ALL MANHOLES SHALL BE INSTALLED PER WSDOT STANDARD PLAN B–15.20–01 AND SHALL BE PRE–CHANNELED. MANHOLE CONES ARE TO BE OFFSET SUCH THAT LADDER RUNGS ARE PARALLEL TO THE FLOW.

6. ALL SIDE SEWERS SHALL BE INSTALLED PER COFSD SS–6, SS–8 OR SS–13, EXCEPT THAT SINGLE SIDE SEWERS SHALL HAVE A MINIMUM DIAMETER OF 4".

7. CONTRACTOR SHALL EXTEND SEWER STUBS 5 FT BEYOND UTILITY CORRIDOR OR 15 FEET BEYOND RIGHT–OF–WAY LINE.

8. EACH SIDE SEWER STUB SHALL BE CAPPED WITH A WATERTIGHT PLUG. EACH STUB SHALL BE MARKED FOR LOCATION WITH A 2"DIA. WHITE PVC PIPE (MIN. SCHEDULE 40) WITH THE TOP 18" PAINTED GREEN AND STENCILED WITH THE WORD "SEWER" AND THE PIPE INVERT INDICATED. THE LOCATION MARKER SHALL BE CONNECTED TO THE SERVICE STUB BY A #12 COPPER WIRE. THE DEPTH OF EACH SEWER STUB FROM FINISHED GRADE SHALL BE CLEARLY NOTED UNDER THE WORD SEWER ON EACH STUB MARKER IN PERMANENT PAINT.

GENERAL NOTES:

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, AND ITS AMENDMENTS"(WSDOT SPECS.) AND STANDARD PLANS, THE CITY OF FERNDALE DEVELOPMENT STANDARDS AND THE 2014 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 AND THE CONTRACTOR MUST HAVE A FULL SET OF CONTRACT DOCUMENTS ON THE SITE WHENEVER CONSTRUCTION IS IN PROGRESS.

3. 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 PROJECT ENGINEER OF RECORD (ENGINEER) PROMPTLY OF ANY CONFLICT BETWEEN THE APPROVED PLANS AND THE LOCATION OF ANY EXISTING UTILITIES.

4. 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.

5. 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.

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

7. 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 SPECS., 1–07.23– TRAFFIC CONTROL, SHALL APPLY.

8. CONTRACTOR TO VERIFY INVERTS, RIMS & ELEVATIONS PRIOR TO CONSTRUCTION, CONTRACTOR TO PROVIDE INFORMATION TO THE ENGINEER. CONTRACTOR TO NOTIFY ENGINEER OF ANY CONFLICTS DURING CONSTRUCTION.

9. THE CONTRACTOR SHALL INFORM THE ENGINEER AND OBTAIN APPROVAL 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.

10. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE HAUL ROUTE PLAN AND/OR TRAFFIC CONTROL PLAN TO CITY OF FERNDALE FOR APPROVAL.

POT HOLING ALL EXISTING UTILITIES IS REQUIRED PRIOR TO CONSTRUCTION TO VERIFY DESIGN FEASIBILITY. THE CITY DOES NOT GUARANTEE AS BUILT INFORMATION IN THE CITY DATA BASE IS ACCURATE AND WILL NOT BE HELD RESPONSIBLE IF FIELD MODIFICATIONS ARE REQUIRED BECAUSE POTHOLING WAS NOT DONE PRIOR TO DESIGN

ALL STRUCTURES AND WATER MAIN CONVEYANCE WILL BE STAKED AND LOCATED BY A LICENSED LAND SURVEYOR PROVIDING OFFSET LOCATION AND ELEVATIONS PRIOR TO CONSTRUCTION AND INSPECTION. FAILURE TO DO SO WILL RESULT IN POTENTIAL RE–INSPECTION AND OR PROJECT DELAYS.

ADDITIONAL CONSTRUCTION ITEMS:

PERIMETER FENCE TO BE INSTALL ALONG EXTERIOR PROPERTY LINES, SEE LANDSCAPE PLAN

LANDSCAPE STRIPS TO INSTALLED PER LANDSCAPE PLANS

TRAIL, AS SHOWN, TO BE CONSTRUCTED WITHIN PARK AREA, SEE LANDSCAPE PLANS AND SHEET 19 OF CIVIL PLANS.

STREET LIGHTING APPROVED BY CITY AND PSE, MUST BE INSTALLED PRIOR TO FINAL PLAT.

AS-BUILTS

REVISED FOR POND OUTLET 04/24/2023

No.	REVISIONS/ SUBMISSIONS	DATE
	REVISED PER CITY COMMENTS	03/08/2023
	REVISED PER CITY COMMENTS	02/28/2023
	REVISED PER CITY COMMENTS	12/15/2022
	REVISED PER CITY COMMENTS	11/10/2022
	REVISED PER CITY COMMENTS	10/20/2022

REVIEWED : EJW DRAWN : KLS
CAD FILE : PROJECT NO. : 2106–01

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REGISTERED PROFESSIONAL ENGINEER
12/08/2023

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APPROVED
01/11/2024
BY: [signature] FOR KEVIN RENZ
CITY OF FERNDALE
PUBLIC WORKS DEPARTMENT

PROJECT TITLE
DOUGLAS FARM
44 LOT LONG PLAT
2396 DOUGLAS ROAD
FERNDALE, WA

DRAWING TITLE
GENERAL NOTES

DATE : 08/03/2022
DRAWING No.
3 of 41

00746.003 01/11/24 RH

SEC 30, TWP. 39 N., R 02 E of W.M

SWPPP LEGEND

- CONSTRUCTION ENTRANCE
- SF — SILT FENCE
- CF — CONSTRUCTION FENCE
- STORM DRAIN INLET PROTECTION
- SAW-CUT AREA OF PAVEMENT/SIDEWALK TO BE REMOVED

KEY NOTES:

1. INSTALL CONSTRUCTION ENTRANCE
2. INSTALL SILT FENCE ALONG PROPERTY LINES & WETLAND
3. INSTALL ORANGE CONSTRUCTION FENCE ALONG PERIMETER OF PROJECT, AS SHOWN
4. INSTALL STORM DRAIN INLET PROTECTION TO ANY EXISTING CATCH BASIN WITHIN 200' OF DOWNSTREAM STORMWATER FLOW FROM CONSTRUCTION ACTIVITIES.
5. DEMOLITION & REMOVAL OF EXISTING STRUCTURES. BUILDING FOOTINGS SHALL BE REMOVED AND FILLED WITH STRUCTURAL FILL, SEE DEMOLITION NOTE BELOW
6. SAW-CUT & REMOVE FOR UTILITY TRENCH, SOUTHERN EDGE AT ½ ROAD IMPROVEMENTS ALONG DOUGLAS ROAD, 1' WIDTH
7. PLANE & GRIND 2" NORTH TRAVEL LANE OF DOUGLAS ROAD.

THESE EROSION AND SEDIMENT CONTROL PLANS ASSUME DRY WEATHER CONSTRUCTION. WET WEATHER CONSTRUCTION MEASURES NEED TO BE APPLIED BETWEEN OCTOBER 1st AND MAY 31ST.

CONTRACTOR SHALL INSTALL AND MAINTAIN ANY BMP's AS REQUIRED. SITE CONDITIONS MAY VARY DURING THE PROGRESSION OF CONSTRUCTION.

BUILDING DEMOLITION
CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY DEMOLITION PERMITS FOR REMOVING EXISTING STRUCTURES. ALL NECESSARY DEMOLITION PERMITS FOR THE SITE WILL BE ACQUIRED SEPARATELY FROM THE BUILDING DEPARTMENT AND MUST BE OBTAINED PRIOR TO START OF WORK.

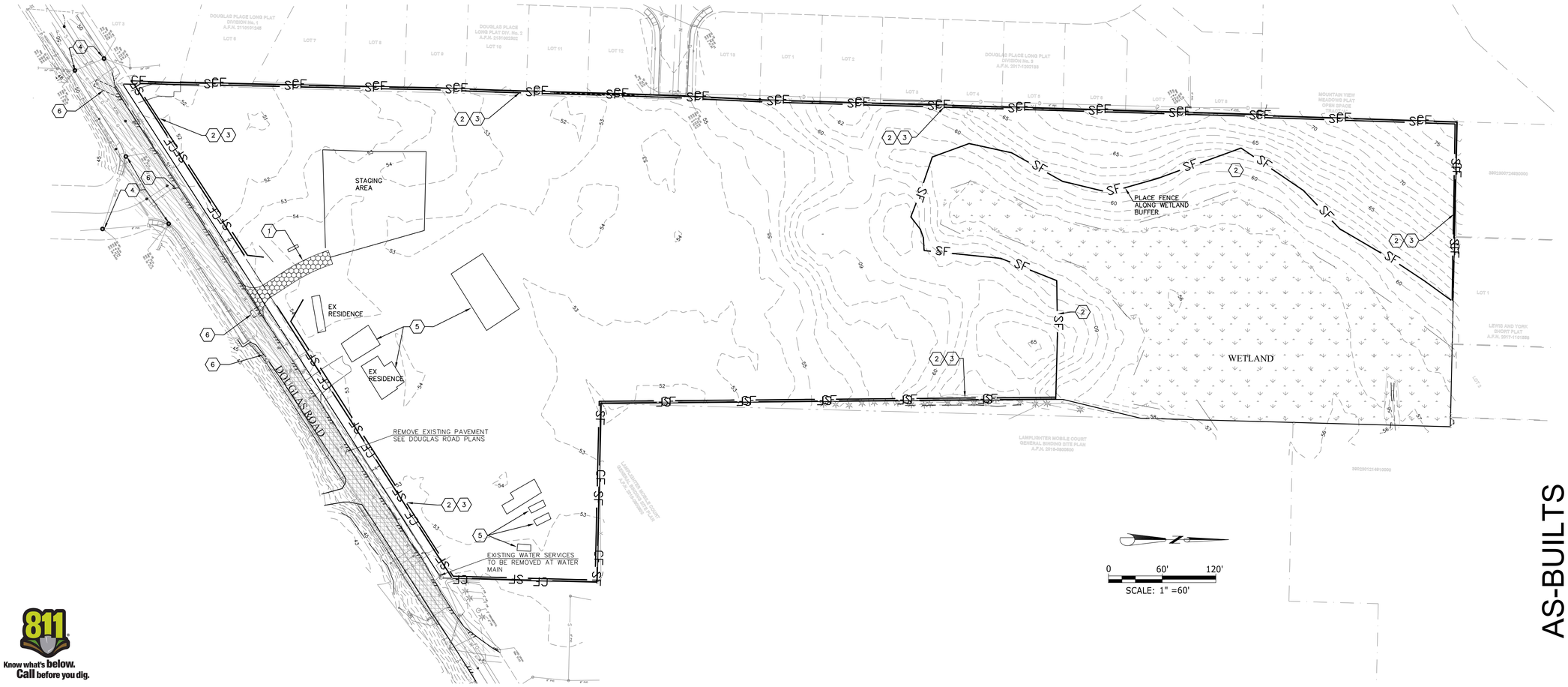
ALL HARDSCAPE (WALKWAYS & CONCRETE PADS) SHALL BE REMOVED

EXISTING ROADWAY ACCESSES TO BE REMOVED

TREES & SHRUBS SHALL BE REMOVED, PER OWNER'S DIRECTION

ALL DISTURBED AREAS SHALL BE FILLED WITH STRUCTURAL FILL MATERIAL.

EXISTING SEPTIC SYSTEM (NOT LOCATED) SHALL BE REMOVED PER WHATCOM COUNTY HEATH DEPARTMENT. STANDARDS.



AS-BUILTS

Know what's below. Call before you dig.

kenny 12/06/23 2:21pm – P:\2106-01 Landed Gentry Douglas Rd\7 CAD\As-Builts\SHEETS\2106 AB 04-SWPP.dwg

SEAL
STATE OF WASHINGTON
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12/06/2023

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01/11/2024
BY
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No.	REVISIONS/ SUBMISSIONS	DATE
	REVISED FOR POND OUTLET	04/24/2023
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	REVISED PER CITY COMMENTS	11/16/2022
	REVISED PER CITY COMMENTS	10/20/2022

REVIEWED : EJW
DRAWN : KLS
CAD FILE :
PROJECT NO : 2005-01

PROJECT TITLE
DOUGLAS FARM
44 LOT LONG PLAT
2396 DOUGLAS ROAD
FERNDALE, WA

DRAWING TITLE
STORMWATER POLLUTION PREVENTION PLAN

DATE : 08/03/2022

DRAWING No.
4 of 41

00746.004 01/11/24 RH

SEC 30, TWP. 39 N., R 02 E of W.M

STORMWATER POLLUTION PREVENTION PLAN (SWPPP):

THIS STORMWATER POLLUTION PREVENTION PLAN IS PROVIDED IN ACCORDANCE WITH THE TERMS OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FOR CONSTRUCTION ACTIVITIES FOR THIS PROJECT. THE CONTRACTOR IS ADVISED THAT THE PROJECT AREA DRAINS TO WETLANDS AND/OR STATE WATERS AND THAT THE CONTRACTOR IS RESPONSIBLE TO PROTECT THE RECEIVING WATERS FROM DELETERIOUS EFFECTS OF CONSTRUCTION.

THE CONTRACTOR IS REQUIRED TO HAVE A COPY OF THE NPDES PERMIT AS WELL AS THE SWPPP ON SITE AT ALL TIMES.

THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING EROSION CONTROL MEASURES SHOWN OR DESCRIBED IN THE CONTRACT DOCUMENTS AND ANY ADDITIONAL MEASURES THAT MAY BE REQUIRED TO CONTROL EROSION AND SEDIMENT AT THE CONSTRUCTION SITE AND TO PREVENT VIOLATION OF SURFACE WATER QUALITY, GROUND WATER QUALITY, OR SEDIMENT MANAGEMENT STANDARDS. EROSION CONTROL MEASURES SHALL BE MAINTAINED THROUGHOUT THE COURSE OF CONSTRUCTION AND UNTIL ALL DISTURBED EARTH IS STABILIZED IN FINISH GRADES.

THE FOLLOWING DESCRIBES HOW THE CONSTRUCTION SWPPP ADDRESSES EACH OF THE 13 REQUIRED ELEMENTS. REFER TO THESE PLANS FOR DRAWINGS OF THE PROJECT, VICINITY MAP, SITE MAP, CONVEYANCE SYSTEMS, EROSION AND SEDIMENT CONTROL MEASURES, AND EROSION AND SETTLEMENT CONTROL DETAILS.

ELEMENT #1: PRESERVE VEGETATION/MARK CLEARING LIMITS

a. BEFORE BEGINNING LAND-DISTURBING ACTIVITIES, INCLUDING CLEARING AND GRADING, CLEARLY MARK ALL CLEARING LIMITS, SENSITIVE AREAS AND THEIR BUFFERS, AND TREES THAT ARE TO BE PRESERVED WITHIN THE CONSTRUCTION AREA AS SHOWN IN THE DRAWINGS.

b. RETAIN THE DUFF LAYER, NATIVE TOPSOIL, AND NATURAL VEGETATION IN IN AN UNDISTURBED STATE TO THE MAXIMUM DEGREE PRACTICABLE.

SUGGESTED BMPs TO BE USED:

BMP C101: PRESERVING NATIVE VEGETATION
BMP C103: HIGH VISIBILITY PLASTIC OR METAL FENCE
BMP C233: SILT FENCE

ELEMENT #2: ESTABLISH CONSTRUCTION ACCESS

a. LIMIT CONSTRUCTION VEHICLE ACCESS AND EXIT TO ONE ROUTE, IS POSSIBLE.

b. STABILIZE ACCESS POINTS WITH A PAD OF QUARRY SPALLS, CRUSHED ROCK, OR OTHER EQUIVALENT BMPs, TO MINIMIZE TRACKING SEDIMENT ONTO ROADS.

c. LOCATE WHEEL WASH OR TIRE BATHS ON SITE, IF THE STABILIZED CONSTRUCTION ENTRANCE IS NOT EFFECTIVE IN PREVENTING TRACKING SEDIMENT ONTO ROADS.

d. IF SEDIMENT IS TRACKED OFF SITE, CLEAN THE AFFECTED ROADWAY THOROUGHLY AT THE END OF EACH DAY, OR MORE FREQUENTLY IF NECESSARY (FOR EXAMPLE, DURING WET WEATHER). REMOVE SEDIMENT FROM ROADS BY SHOVELING, SWEEPING, OR PICKUP AND TRANSPORT OF THE SEDIMENT TO A CONTROLLED SEDIMENT DISPOSAL AREA.

e. CONDUCT STREET WASHING ONLY AFTER SEDIMENT REMOVAL IN ACCORDANCE WITH SPECIAL CONDITION S9 D.2.d. CONTROL STREET WASH WASTEWATER BY PUMPING BACK ON SITE OR OTHERWISE PREVENTING IT FROM DISCHARGING INTO SYSTEMS TRIBUTARY TO WATERS OF THE STATE.

SUGGESTED BMPs TO BE USED:

BMP C105: STABILIZED CONSTRUCTION ENTRANCE
BMP C106: WHEEL WASH

ELEMENT #3: CONTROL FLOW RATES

a. PROJECT PROPERTIES AND WATERWAYS DOWNSTREAM OF DEVELOPMENT SITES FROM EROSION AND THE ASSOCIATED DISCHARGE OF TURBID WATERS DUE TO INCREASES IN VELOCITY AND PEAK VOLUMETRIC FLOW RATE OF STORMWATER RUNOFF FROM THE PROJECT SITE, AS REQUIRED BY LOCAL PLAN APPROVAL AUTHORITY.

b.WHERE NECESSARY TO COMPLY WITH SPECIAL CONDITION S9 D.3.a, CONSTRUCT STORMWATER DETENTION OR DETENTION FACILITIES AS ONE OF THE FIRST STEPS IN GRADING. ASSURE THAT DETENTION FACILITIES FUNCTION PROPERLY BEFORE CONSTRUCTING SITE IMPROVEMENTS (FOR EXAMPLE, IMPERVIOUS SURFACES).

c.IF PERMANENT INFILTRATION PONDS ARE USED FOR FLOW CONTROL DURING CONSTRUCTION, PROTECT THESE FACILITIES FROM SILTATION DURING THE CONSTRUCTION PHASE.

SUGGESTED BMPs TO BE USED:

BMP C208: TRIANGULAR SILT DIKE
BMP C235: STRAW WATTLES
BMP C240: SEDIMENT TRAP

ELEMENT #4: INSTALL SEDIMENT CONTROLS

THE PERMITTEE MUST DESIGN, INSTALL AND MAINTAIN EFFECTIVE EROSION CONTROLS AND SEDIMENT CONTROLS TO MINIMIZE THE DISCHARGE OF POLLUTANTS. AT A MINIMUM, THE PERMITTEE MUST DESIGN, INSTALL AND MAINTAIN SUCH CONTROLS TO:

a. CONSTRUCT SEDIMENT CONTROL BMPs (SEDIMENT PONDS, TRAPS, FILTERS, INFILTRATION FACILITIES, ETC.) AS ONE OF THE FIRST STEPS IN GRADING. THESE BMPs MUST BE FUNCTIONAL BEFORE OTHER LAND DISTURBING ACTIVITIES TAKE PLACE.

b. MINIMIZE SEDIMENT DISCHARGES FROM THE SITE. THE DESIGN, INSTALLATION AND MAINTENANCE OF EROSION AND SEDIMENT CONTROLS MUST ADDRESS FACTORS SUCH AS THE AMOUNT, FREQUENCY, INTENSITY, AND DURATION OF PRECIPITATION, THE NATURE OF RESULTING STORMWATER RUNOFF, AND SOIL CHARACTERISTICS, INCLUDING THE RANGE OF SOIL PARTICLE SIZES EXPECTED TO BE PRESENT ON THE SITE.

c. DIRECT STORMWATER RUNOFF FROM DISTURBED AREAS THROUGH A SEDIMENT POND OR OTHER APPROPRIATE SEDIMENT REMOVAL BMP, BEFORE THE RUNOFF LEAVES A CONSTRUCTION SITE OR BEFORE DISCHARGE TO AN INFILTRATION FACILITY. RUNOFF FROM FULLY STABILIZED AREAS MAY BE DISCHARGED WITHOUT A SEDIMENT REMOVAL BMP, BUT MUST MEET THE FLOW CONTROL PERFORMANCE STANDARD OF SPECIAL CONDITION S9 D.3.a.

d. LOCATE BMPs INTENDED TO TRAP SEDIMENT ON SITE IN A MANNER TO AVOID INTERFERENCE WITH THE MOVEMENT OF JUVENILE SALMONIDS ATTEMPTING TO ENTER OFF-CHANNEL AREAS OR DRAINAGES.

e.PROVIDE AND MAINTAIN NATURAL BUFFERS AROUND SURFACE WATERS, DIRECT SOTRMWATER TO VEGETATED AREAS TO INCREASE SEDIMENT REMOVAL AND MAXIMIZE STORMWATER INFILTRATION, UNLESS INFEASIBLE.

f. WHERE FEASIBLE, DESIGN OUTLET STRUCTURES THAT WITHDRAW IMPOUNDED STORMWATER FROM THE SURFACE TO AVOID DISCHARGING SEDIMENT THAT IS STILL SUSPENDED LOWER IN THE WATER COLUMN.

SUGGESTED BMPs TO BE USED:

BMP C220: STORM DRAIN INLET PROTECTION
BMP C233: SILT FENCE
BMP C234: VEGETATED STRIP
BMP C235: STRAW WATTLES
BMP C240: SEDIMENT TRAP

ELEMENT #5: STABILIZE SOILS

a. THE PERMITTEE MUST STABILIZE EXPOSED AND UNWORKED SOILS BY APPLICATION OF EFFECTIVE BMPs THAT PREVENT EROSION. APPLICABLE BMPs INCLUDE, BUT ARE NOT LIMITED TO, TEMPORARY AND PERMANENT SEEDING, SODDING, MULCHING, PLASTIC COVERING, EROSION CONTROL FABRICS AND MATTING, SOIL APPLICATION OF POLYACRYLAMIDE (PAM), THE EARLY APPLICATION OF GRAVEL BASE ON AREAS TO BE PAVED, AND DUST CONTROL.

b. THE PERMITTEE MUST CONTROL STORMWATER VOLUME AND VELOCITY WITHIN THE SITE TO MINIMIZE SOIL EROSION.

c. THE PERMITTEE MUST CONTROL STORMWATER DISCHARGES, INCLUDING BOTH PEAK FLOW RATES AND TOTAL STORMWATER VOLUME, TO MINIMIZE EROSION AT OUTLETS AND TO MINIMIZE DOWNSTREAM CHANNEL AND STREAM BANK EROSION.

d. DEPENDING ON THE GEOGRAPHIC LOCATION OF THE PROJECT, THE PERMITTEE MUST NOT ALLOW SOILS TO REMAIN EXPOSED AND UNWORKED FOR MORE THAN THE TIME PERIODS SET FORTH BELOW TO PREVENT EROSION:

WEST OF THE CASCADE MOUNTAINS CREST:
DURING THE WET SEASON (OCTOBER 1-APRIL 30): 2 DAYS
DURING THE DRY SEASON (MAY 1-SEPT. 30): 7 DAYS

e. THE PERMITTEE MUST STABILIZE SOILS AT THE END OF THE SHIFT BEFORE A HOLIDAY OR WEEKEND IF NEEDED BASED ON THE WEATHER FORECAST.

f. THE PERMITTEE MUST STABILIZE SOIL STOCKPILES FROM EROSION, PROTECTED WITH SEDIMENT TRAPPING MEASURES, AND WHERE POSSIBLE, BE LOCATED AWAY FROM STORM DRAIN INLETS, WATERWAYS, AND DRAINAGE CHANNELS.

g. THE PERMITTEE MUST MINIMIZE THE AMOUNT OF SOIL EXPOSED DURING CONSTRUCTION ACTIVITY.

h. THE PERMITTEE MUST MINIMIZE THE DISTURBANCE OF STEEP SLOPES.

i. THE PERMITTEE MUST MINIMIZE SOIL COMPACTION AND UNLESS INFEASIBLE, PRESERVE TOPSOIL.

SUGGESTED BMPs TO BE USED:

BMP C120: TEMPORARY AND PERMANENT SEEDING
BMP C121: MULCHING
BMP C122: NETS AND BLANKETS
BMP C123: PLASTIC AND COVERING
BMP C140: DUST CONTROL

ELEMENT #6: PROTECT SLOPES

a.THE PERMITTEE MUST DESIGN AND CONSTRUCT CUT-AND-FILL SLOPES IN A MANNER TO MINIMIZE EROSION. APPLICABE PRACTICES INCLUDE, BUT ARE NOT LIMITED TO, REDUCING CONTINUOUS LENGTH OF SLOPE WITH TERRACING AND DIVERSIONS, REDUCING SLOPE STEEPNESS, AND ROUGHENING SLOPE SURFACES (FOR EXAMPLE, TRACK WALKING).

b. THE PERMITTEE MUST DIVERT OFF-SITE STORMWATER (RUN-ON) OR GROUNDWATER AWAY FROM SLOPES AND DISTURBED AREAS WITH INTERCEPTOR DIKES, PIPES, AND/OR SWALES. OFF-SITE STORMWATER SHOULD BE MANAGED SEPARATELY FROM STORMWATER GENERATED ON THE SITE.

c. AT THE TOP OF SLOPES, COLLECT DRAINAGE IN PIPE SLOPE DRAINS OR PROTECTED CHANNELS TO PREVENT EROSION.

WEST OF THE CASCADE MOUNTAINS CREST: TEMPORARY PIPE SLOPE DRAINS MUST HANDLE THE PEAK 10-MINUTE FLOW RATE FROM A TYPE 1A, 10-YEAR, 24-HOUR FREQUENCY STORM FOR THE DEVELOPED CONDITION. ALTERNATIVELY, THE 10-YEAR, 1-HOUR FLOW RATE PREDICTED BY AN APPROVED CONTINUOUS RUNOFF MODEL, INCREASED BY A FACTOR OF 1.6 MAY BE USED. THE HYDROLOGIC ANALYSIS MUST USE THE EXISTING LAND COVER CONDITION FOR PREDICTING FLOW RATES FROM TRIBUTARY AREAS OUTSIDE THE PROJECT LIMITS. FOR TRIBUTARY AREAS ON THE PROJECT SITE, THE ANALYSIS MUST USE THE TEMPORARY OR PERMANENT PROJECT LAND COVER CONDITION, WHICHEVER WILL PRODUCE THE HIGHEST FLOW RATES. IF USING THE WESTERN WASHINGTON HYDROLOGY MODEL (WWHM) TO PREDICT FLOWS, BARE SOIL AREAS SHOULD BE MODELED AS "LANDSCAPED AREA."

d. PLACE EXCAVATED MATERIAL ON THE UPHILL SIDE OF TRENCHES, CONSISTENT WITH SAFETY AND SPACE CONSIDERATIONS.

e. PLACE CHECK DAMS AT REGULAR INTERVALS WITHIN CONSTRUCTED CHANNELS THAT ARE CUT DOWN A SLOPE.

SUGGESTED BMPs TO BE USED:

BMP C120: TEMPORARY AND PERMANENT SEEDING
BMP C200: INTERCEPTOR DIKE AND SWALE
BMP C201: GRASS-LINED CHANNELS
BMP C202: CHANNEL LINING
BMP C206: LEVEL SPREADER
BMP C207: CHECK DAMS
BMP C208: TRIANGULAR SILT DIKE

ELEMENT #7: PROTECT DRAIN INLETS

a.PROTECT ALL STORM DRAIN INLETS MADE OPERABLE DURING CONSTRUCTION SO THAT STORMWATER RUNOFF DOES NOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR TREATED TO REMOVE SEDIMENT.

b. CLEAN OR REMOVE AND REPLACE INLET PROTECTION DEVICES WHEN SEDIMENT HAS FILLED ONE-THIRD OF THE AVAILABLE STORAGE (UNLESS A DIFFERENT STANDARD IS SPECIFIED BY THE PRODUCT MANUFACTURER).

SUGGESTED BMPSsTO BE USED:

BMP C220: STORM DRAIN INLET PROTECTION

ELEMENT #8: STABILIZE CHANNELS AND OUTLETS

a. DESIGN, CONSTRUCT AND STABILIZE ALL ON-SITE CONVEYANCE CHANNELS TO PREVENT EROSION FROM THE FOLLOWING EXPECTED PEAK FLOWS:

WEST OF THE CASCADE MOUNTAINS CREST: CHANNELS MUST HANDLE THE PEAK 10-MINUTE FLOW RATE FROM A TYPE 1A, 10-YEAR, 24-HOUR FREQUENCY STORM FOR THE DEVELOPED CONDITION. ALTERNATIVELY, THE 10-YEAR, 1-HOUR FLOW RATE INDICATED BY AN APPROVED CONTINUOUS RUNOFF MODEL, INCREASED BY A FACTOR OF 1.6, MAY BE USED. THE HYDROLOGIC ANALYSIS MUST USE THE EXISTING LAND COVER CONDITION FOR PREDICTING FLOW RATES FROM TRIBUTARY AREAS OUTSIDE THE PROJECT LIMITS. FOR TRIBUTARY AREAS ON THE PROJECT SITE, THE ANALYSIS MUST USE THE TEMPORARY OR PERMANENT PROJECT LAND COVER CONDITION, WHICHEV ER WILL PRODUCE THE HIGHEST FLOW RATES. IF USING THE WWHM TO PREDICT FLOWS, BARE SOIL AREAS SHOULD BE MODELED AS "LANDSCAPED AREA."

b. PROVIDE STABILIZATION, INCLUDING ARMORING MATERIAL, ADEQUATE TO PREVENT EROSION OF OUTLETS, ADJACENT STREAM BANKS, SLOPES, AND DOWNSTREAM REACHES AT THE OUTLETS OF ALL CONVEYANCE SYSTEMS.

SUGGESTED BMPs:

BMP C201: GRASS-LINED CHANNELS
BMP C202: CHANNEL LINING
BMP C206: LEVEL SPREADER
BMP C207: CHECK DAMS
BMP C208: TRIANGULAR SILT DIKE
BMP C209: OUTLET PROTECTION

ELEMENT #9: CONTROL POLLUTANTS

DESIGN, INSTALL, IMPLEMENT AND MAINTAIN EFFECTIVE POLLUTION PREVENTION MEASURES TO MINIMIZE THE DISCHARGE OF POLLUTANTS. THE PERMITTEE MUST:

a. HANDLE AND DISPOSE OF ALL POLLUTANTS, INCLUDING WASTE MATERIALS AND DEMOLITION DEBRIS THAT OCCUR ON SITE IN A MANNER THAT DOES NOT CAUSE CONTAMINATION OF STORMWATER.

b. PROVIDE COVER, CONTAINMENT, AND PROTECTION FROM VANDALISM FOR ALL CHEMICALS, LIQUID PRODUCTS, PETROLEUM PRODUCTS, AND OTHER MATERIALS THAT HAVE THE POTENTIAL TO POSE A THREAT TO HUMAN HEALTH AND OR THE ENVIRONMENT. ON-SITE FUELING TANKS MUST INCLUDE SECONDARY CONTAINMENT. SECONDARY CONTAINMENT MEANS PLACING TANKS OR CONTAINERS WITHIN AN IMPERVIOUS STRUCTURE CAPABLE OF CONTAINING 110% OF THE VOLUME CONTAINED IN THE LARGEST TANK WITHIN THE CONTAINMENT STRUCTURE. DOUBLE-WALLED TANKS DO NOT REQUIRE ADDITIONAL SECONDARY CONTAINMENT.

c. CONDUCT MAINTENANCE, FUELING, AND REPAIR OF HEAVY EQUIPMENT VEHICLES USING SPILL PREVENTION AND CONTROL MEASURES. CLEAN CONTAMINATED SURFACES IMMEDIATELY FOLLOWING ANY SPILL INCIDENT.

d. DISCHARGE WHEEL WASH OR TIRE BATH WASTEWATER TO A SEPARATE ON-SITE TREATMENT SYSTEM THAT PREVENTS DISCHARGE TO SURFACE WATER, SUCH AS CLOSED-LOOP RECIRCULATION OR UPLAND LAND APPLICATION, OR TO THE SANITARY SEWER WITH LOCAL SEWER DISTRICT APPROVAL.

e. APPLY FERTILIZERS AND PESTICIDES IN A MANNER AND AT APPLICATION RATES THAT WILL NOT RESULT IN LOSS OF CHEMICALS TO STORMWATER RUNOFF. FOLLOW MANUFACTURERS' LABEL REQUIREMENTS FOR APPLICATION RATES AND PROCEDURES.

f. USE BMPs TO PREVENT CONTAMINATION OF STORMWATER RUNOFF BY Ph-MODIFYING SOURCES. THE SOURCES FOR THIS CONTAMINATION INCLUDE, BUT ARE NOT LIMITED TO: BULK CEMENT, CEMENT KILN DUST, FLY ASH, NEW CONCRETE WASHING AND CURING WATERS, RECYCLED CONCRETE STOCKPILES, WASTE STREAMS GENERATED FROM CONCRETE GRINDING AND SAWING, EXPOSED AGGREGATE PROCESSES, DEWATERING CONCRETE VAULTS, CONCRETE PUMPING AND MIXER WASHOUT WATERS. (ALSO REFER TO THE DEFINITION FOR "CONCRETE WASTEWATER" IN APPENDIX A - DEFINITIONS.)

g. ADJUST THE Ph OF STORMWATER OR AUTHORIZED NON-STORMWATER IF NECESSARY TO PREVENT AN EXCEEDANCE OF GROUND WATER AND/OR SURFACE WATER QUALITY STANDARDS.

h. ASSURE THE WASHOUT OF CONCRETE TRUCKS IS PERFORMED OFF-SITE OR IN DESIGNATED CONCRETE WASHOUT AREAS ONLY. DO NOT WASH OUT CONCRETE TRUCKS OR CONCRETE HANDLING EQUIPMENT ONTO THE GROUND, OR INTO STORM DRAINS, OPEN DITCHES, STREETS, OR STREAMS. DO NOT DUMP EXCESS CONCRETE ON SITE, EXCEPT IN DESIGNATED CONCRETE WASHOUT AREAS. CONCRETE SPILLAGE OR CONCRETE DISCHARGE TO SURFACE WATERS OF THE STATE IS PROHIBITED.

i. OBTAIN WRITTEN APPROVAL FROM ECOLOGY BEFORE USING ANY CHEMICAL TREATMENT, WITH THE EXCEPTION OF CARBON DIOXIDE OR DRY ICE USED TO ADJUST pH.

j. UNCONTAMINATED WATER FROM WATER-ONLY BASED SHAFT DRILLING FOR CONSTRUCTION OF BUILDING, ROAD, AND BRIDGE FOUNDATIONS MAY BE INFILTRATED PROVIDED THE WASTEWATER IS MANAGED IN A WAY THAT PROHIBITS DISCHARGE TO SURFACE WATERS. PRIOR TO INFILTRATION, WATER FROM WATER-ONLY BASED SHAFT DRILLING THAT COMES INTO CONTACT WITH CURING CONCRETE MUST BE NEUTRALIZED UNTIL pH IS IN THE RANGE OF 6.5 TO 8.5 (su).

ELEMENT #10: CONTROL DEWATERING

a. PERMITTEES MUST DISCHARGE FOUNDATION, VAULT, AND TRENCH DEWATERING WATER, WHICH HAVE CHARACTERISTICS SIMILAR TO STORMWATER RUNOFF AT THE SITE, INTO A CONTROLLED CONVEYANCE SYSTEM BEFORE DISCHARGE TO A SEDIMENT TRAP OR SEDIMENT POND.

b. PERMITTEES MAY DISCHARGE CLEAN, NON TURBID DEWATERING WATER, SUCH AS WELL-POINT GROUND WATER, TO SYSTEMS TRIBUTARY TO, OR DIRECTLY INTO, SURFACE WATERS OF THE STATE, AS SPECIFIED IN SPECIAL CONDITION S9.D.8 PROVIDED THE DEWATERING FLOW DOES NOT CAUSE EROSION OR FLOODING OF RECEIVING WATERS. DO NOT ROUTE CLEAN DEWATERING WATER THROUGH STORMWATER SEDIMENT PONDS. NOTE THAT "SURFACE WATERS OF THE STATE" MAY EXIST ON A CONSTRUCTION SITE AS WELL AS OFF SITE, FOR EXAMPLE, A CREEK RUNNING THROUGH A SITE.

c. OTHER DEWATERING TREATMENT OR DISPOSAL OPTIONS MAY INCLUDE:

i. INFILTRATION

ii. TRANSPORT OFF SITE IN A VEHICLE, SUCH AS A VACUUM FLUSH TRUCK, FOR LEGAL DISPOSAL IN A MANNER THAT DOES NOT POLLUTE STATE WATERS.

iii.ECOLOGY APPROVED ON-SITE CHEMICAL TREATMENT OF OTHER SUITABLE TREATMENT TECHNOLOGIES. (SEE S9.D.9.v REGARDING CHEMICAL TREATMENT WRITTEN APPROVAL.)

iv. SANITARY OR COMBINED SEWER DISCHARGE WITH LOCAL SEWER DISTRICT APPROVAL, IF THERE IS NO OTHER OPTION.

v. USE OF A SEDIMENTATION BAG WITH DISCHARGE TO A DITCH OR SWALE FOR SMALL VOLUMES OF LOCALIZED DEWATERING.

d. PERMITTEES MUST HANDLE HIGHLY TURBID OR CONTAMINATED DEWATERING WATER SEPARATELY FROM STORMWATER.

ELEMENT #11: MAINTAIN BMPs

a. PERMITTEES MUST MAINTAIN AND REPAIR ALL TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL BMPs AS NEEDED TO ASSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION IN ACCORDANCE WITH BMP SPECIFICATIONS.

b. PERMITTEES MUST REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL BMPs WITHIN 30 DAYS AFTER ACHIEVING FINAL SITE STABILIZATION OR AFTER THE TEMPORARY BMPs ARE NO LONGER NEEDED.

ELEMENT #12: MANAGE THE PROJECT

a. PHASE DEVELOPMENT PROJECTS TO THE MAXIMUM DEGREE PRACTICABLE AND TAKE INTO ACCOUNT SEASONAL WORK LIMITATIONS.

b. INSPECTION AND MONITORING - INSPECT, MAINTAIN AND REPAIR ALL BMPs AS NEEDED TO ASSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION. CONDUCT SITE INSPECTIONS AND MONITORING IN ACCORDANCE WITH SPECIAL CONDITION S4.

c. MAINTAINING AN UPDATED CONSTRUCTION SWPPP - MAINTAIN, UPDATE, AND IMPLEMENT THE SWPPP IN ACCORDANCE WITH SPECIAL CONDITIONS S3, S4, AND S9.

d. PROJECTS THAT DISTURB ONE OR MORE ACRES MUST HAVE, SITE INPECTIONS CONDUCTED BY A CERTIFIED EROSION AND SEDIMENT CONTROL LEAD (CESCL)/ PROJECT SITES LESS THAN ONE ACRE (NOT PART OF A LARGER COMMON PLAN OF DEVELOPMENT OR SALE) MAY HAVE A PERSON WITHOUT CESCL CERTIFICATION CONDUCT INSPECTIONS, BY THE INITIATION OF CONSTRUCTION, THE SWPPP MUST IDENTIFY THE CESCL OR INSPECTOR, WHO SHALL BE PRESENT ON-SITE OR ON-CALL AT ALL TIMES.

ELEMENT #13; PROTECT LOW IMPACT DEVELOPMENT (LID) BMPs

THE PRIMARY PURPOSE OF LID BMPs/ON-SITE LID STORMWATER MANAGEMENT BMPs IS TO REDUCE THE DISRUPTION OF THE NATURAL SITE HYDROLOGY. LID BMPs ARE PERMANENT FACILITIES.

a. PERMITTEES MUST PROTECT ALL BIORETENTION AND RAIN GARDEN FACILITIES FROM SEDIMENTATION THROUGH INSTALLATION AND MAINTENANCE OF EROSION AND SEDIMENT CONTROL BMPs ON PORTIONS OF THE SITE THAT DRAIN INTO THE BIORETENTION AND/OR RAIN GARDEN FACILITIES. RESTORE THE FACILITIES TO THEIR FULLY FUNCTIONING CONDITION IF THEY ACCUMULATE SEDIMENT DURING CONSTRUCTION. RESTORING THE FACILITY MUST INCLUDE REMOVAL OF SEDIMENT AND ANY SEDIMENT-LADEN BIORETENTION/RAIN GARDEN SOILS, AND REPLACING THE REMOVED SOILS WITH SOILS MEETING THE DESIGN SPECIFICATION.

b. PERMITTEES MUST MAINTAIN THE INFILTRATION CAPABILITIES OF BIORETENTION AND RAIN GARDEN FACILITIES BY PROTECTING AGAINST COMPACTION BY CONSTRUCTION EQUIPMENT AND FOOT TRAFFIC. PROTECT COMPLETED LAWN AND LANDSCAPED AREAS FROM COMPACTION DUE TO CONSTRUCTION EQUIPMENT.

c. PERMITTEES MUST CONTROL EROSION AND AVOID INTRODUCING SEDIMENT FROM SURROUNDING LAND USES ONTO PERMEABLE PAVEMENTS. DO NOT ALLOW MUDDY CONSTRUCTION EQUIPMENT ON THE BASE MATERIAL OR PAVEMENT. DO NOT ALLOW SEDIMENT-LADEN RUNOFF ONTO PERMEABLE PAVEMENTS.

d. PERMITTEES MUST CLEAN PERMEABLE PAVEMENTS FOULED WITH SEDIMENTS OR NO LONGER PASSING AN INITIAL INFILTRATION TEST USING LOCAL STORMWATER MANUAL METHODOLOGY OR THE MANUFACTURER'S PROCEDURES.

e. PERMITTEES MUST KEEP ALL HEAVY EQUIPMENT OFF EXISTING SOILS UNDER LID FACILITIES THAT HAVE BEEN EXCAVATED TO FINAL GRADE TO RETAIN THE INFILTRATION RATE OF THE SOILS.

THE CONSTRUCTION SWPPP SHALL BE RETAINED ON SITE.

THE CONTRACTOR'S TESC RECORD OF RAINFALL, TESC MEASUREMENTS, AND INSPECTION SHALL BECOME PART OF THE SWPPP. THE CONSTRUCTION SWPPP SHALL BE MODIFIED WHENEVER THERE IS A SIGNIFICANT CHANGE IN THE DESIGN, CONSTRUCTION, OPERATION, OR MAINTENANCE AT THE CONSTRUCTION SITE.

NAMES AND CONTACT INFORMATION FOR THOSE IDENTIFIED AS MEMBERS OF THE POLLUTION PREVENTION TEAM ARE AS FOLLOWS:

CERTIFIED EROSION & SEDIMENT CONTROL LEAD (CESCL):	TBD
RESIDENT ENGINEER:	WEDEN ENGINEERING (360) 380-1363
EMERGENCY ECOLOGY CONTACT:	KEVIN FITZPATRICK (425) 649-7033
EMERGENCY OWNER CONTACT:	SHAWN REYNOLDS (206) 283-9364

REVISED FOR POND OUTLET 04/24/2023

AS-BUILTS

PROJECT TITLE
DOUGLAS FARM
44 LOT LONG PLAT
2396 DOUGLAS ROAD
FERNDALE, WA

DRAWING TITLE
SWPPP NOTES

DATE : 08/03/2022

DRAWING No.
5 of 41

No.	REVISIONS/ SUBMISSIONS	DATE
	REVISED PER CITY COMMENTS	03/08/2023
	REVISED PER CITY COMMENTS	02/28/2023
	REVISED PER CITY COMMENTS	12/15/2022
	REVISED PER CITY COMMENTS	11/10/2022
	REVISED PER CITY COMMENTS	10/20/2022

REVIEWED : EJW | DRAWN : KLS
CAD FILE : | PROJECT NO: 2106-01

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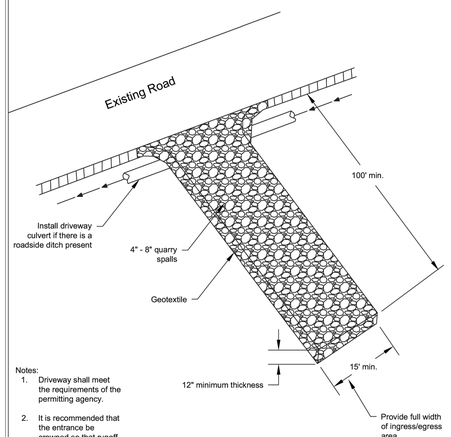
(360) 380-1363 | (360) 384-3615 Fx
email: info@wedenengineering.com

APPROVED
01/11/2024
BY
CITY OF FERNDALE
PUBLIC WORKS DEPARTMENT

SEAL
12/06/2023

00746.005 01/11/24 RH

NOT TO SCALE



Notes:
1. Driveway shall meet the requirements of the permitting agency.
2. It is recommended that the entrance be crowned so that runoff drains off the pad.

DEPARTMENT OF ECOLOGY
State of Washington

Figure II-4.1.1
Stabilized Construction Entrance
Revised June 2015

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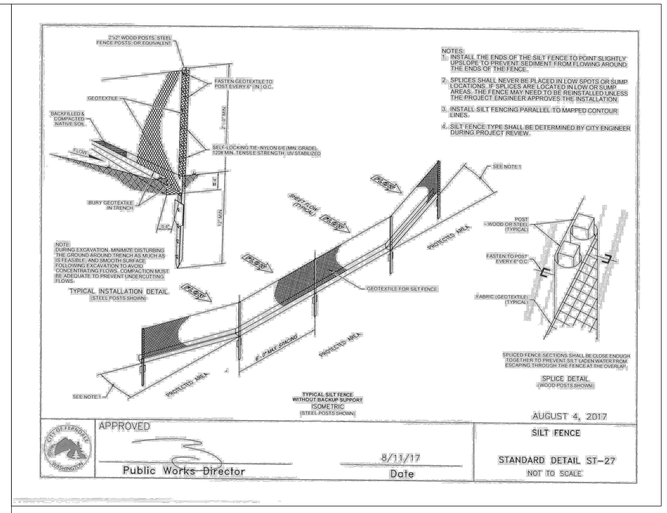
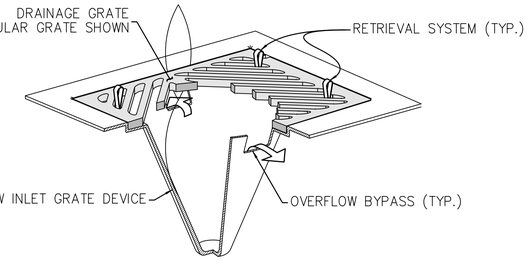


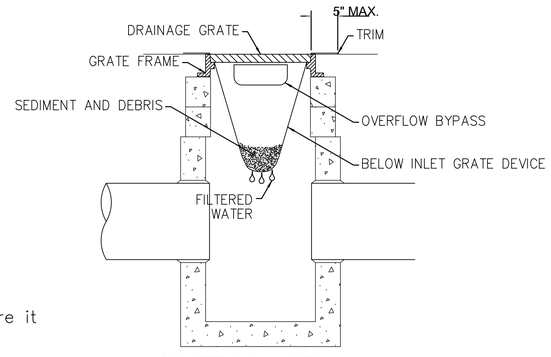
APPROVED
Public Works Director
8/11/17
Date

AUGUST 4, 2017
SILT FENCE
STANDARD DETAIL ST-27
NOT TO SCALE



ISOMETRIC VIEW

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).



SECTION VIEW

DETAIL - STORM DRAIN
INLET PROTECTION
NOT TO SCALE

L. WEDEN
STATE OF WASHINGTON
21602
REGISTERED PROFESSIONAL ENGINEER
12 MAY 2023
SEAL

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APPROVED
01/11/2024
BY
CITY OF FERNDALE
PUBLIC WORKS DEPARTMENT

REVISED FOR POND OUTLET 04/24/2023

No.	REVISIONS/ SUBMISSIONS	DATE
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	REVISED PER CITY COMMENTS	11/10/2022
	REVISED PER CITY COMMENTS	10/20/2022

REVIEWED : EJW
DRAWN : KLS
CAD FILE :
PROJECT NO. : 2005-01

AS-BUILTS

PROJECT TITLE
DOUGLAS FARM
44 LOT LONG PLAT
2396 DOUGLAS ROAD
FERNDALE, WA

DRAWING TITLE
SWPPP DETAILS

DATE : 08/03/2022
DRAWING No.
6 of 41

00746.006 01/11/24 RH

SEC 30, TWP. 39 N., R 02 E of W.M

CLEARVIEW DR

ROCKERY (OPTIONAL) TO BE INSTALLED AT TIME OF BLDG CONSTRUCTION, 2' MAX HEIGHT. SEE CROSS-SECTION, SHEET 39

TRACT A STORM WATER FACILITY WETPOND

LOT 1 FF=54.25
LOT 2 FF=53.50
LOT 3 FF=53.25
LOT 4 FF=53.25
LOT 5 FF=53.00
LOT 6 FF=53.50
LOT 7 FF=53.25
LOT 8 FF=54.25
LOT 9 FF=55.25
LOT 10 FF=55.75
LOT 11 FF=55.25
LOT 12 FF=56.00
LOT 13 FF=56.50
LOT 14 FF=58.75
LOT 15 FF=59.25
LOT 16 FF=59.75
LOT 17 FF=61.00
LOT 18 FF=62.00
LOT 19 FF=62.00
LOT 20 FF=60.50
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LOT 37 FF=54.25
LOT 38 FF=54.50
LOT 39 FF=54.75
LOT 40 FF=55.00
LOT 41 FF=54.00
LOT 42 FF=54.00
LOT 43 FF=53.50
LOT 44 FF=53.50

TRACT C
TRACT D
TRACT E
TRACT F
TRACT G

ROAD "A"
ROAD "B"
ROAD "C"

DOUGLAS ROAD
ANGELINA STREET

FOR PEDESTRIAN PATHWAY, SEE LANDSCAPE PLANS

OPEN SPACE TRACT I

WETLAND, DO NOT DISTURB

CONSERVATION OPEN SPACE TRACT H

WETLAND, DO NOT DISTURB

0 60' 120'
SCALE: 1" = 60'

THE APPLICATION OF BMP T5.13 AS OUTLINED IN THE DOE MANUAL, VOLUME V, CHAPTER 5 IS FEASIBLE AND WILL BE IMPLEMENTED FOR THIS PROJECT, FOR ALL AREAS SUBJECT TO CLEARING AND GRADING THAT HAVE NOT BEEN COVERED BY IMPERVIOUS SURFACES AND AT PROJECT COMPLETION THESE AREAS WILL DEMONSTRATE THE FOLLOWING:
A TOPSOIL LAYER WITH A MINIMUM ORGANIC MATTER CONTENT OF 10% DRY WEIGHT IN PLANTING BEDS, AND 5% ORGANIC MATTER CONTENT IN TURF AREAS, AND A PH FROM 6.0 TO 8.0 OR MATCHING PH OF THE UNDISTURBED SOIL. THE TOPSOIL LAYER SHALL HAVE A MINIMUM DEPTH OF EIGHT INCHES EXCEPT WHERE TREE ROOTS LIMIT THE DEPTH OF INCORPORATION OF AMENDMENTS NEEDED TO MEET THE CRITERIA. SUBSOIL BELOW THE TOPSOIL LAYER SHOULD BE SCARIFIED AT LEAST 4 INCHES WITH SOME INCORPORATION OF THE UPPER MATERIAL TO AVOID STRATIFIED LAYERS WHERE FEASIBLE. (DOE MANUAL, VOLUME V, PGS 5-8 THRU 5-9

EARTHWORK NOTES:

ALL GRADING SHALL START 2' MIN OFF OF EXTERIOR BOUNDARY LINES PER APPENDIX J OF THE 2012 INTERNATIONAL BUILDING CODE.
EXCEPTION SHALL BE CONNECTION OF EXISTING DRIVES AND ROADWAYS.
CURB GRADING AT DRIVEWAY CUTS & ADA RAMPS SHALL BE ADJUSTED AS REQUIRED.
LOTS TO GRADED TOWARD THE ROADWAYS.

EARTHWORK ASSUMPTIONS:

FINISH FLOOR (FF) SET AT VARIOUS SLOPES FROM BACK OF WALK TO GARAGE.
STRUCTURAL FILL IS SET 1.0' BELOW FINISH FLOOR
PROPOSED BLDG ASSUMED TO BE SLAB ON GRADE

AS-BUILTS

REVISED FOR POND OUTLET 04/24/2023

No.	REVISIONS/ SUBMISSIONS	DATE
	REVISED PER CITY COMMENTS	03/08/2023
	REVISED PER CITY COMMENTS	02/28/2023
	REVISED PER CITY COMMENTS	12/15/2022
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	REVISED PER CITY COMMENTS	10/20/2022

REVIEWED : EJW
DRAWN : KLS
CAD FILE :
PROJECT NO. : 2005-01

PROJECT TITLE
DOUGLAS FARM
44 LOT LONG PLAT
2396 DOUGLAS ROAD
FERNDALE, WA

DRAWING TITLE
OVERALL GRADING PLAN

DATE : 08/03/2022

DRAWING No.
7 of 41

SEAL
I WED A. WEDEN
STATE OF WASHINGTON
21002
REGISTERED PROFESSIONAL ENGINEER
12/18/2023

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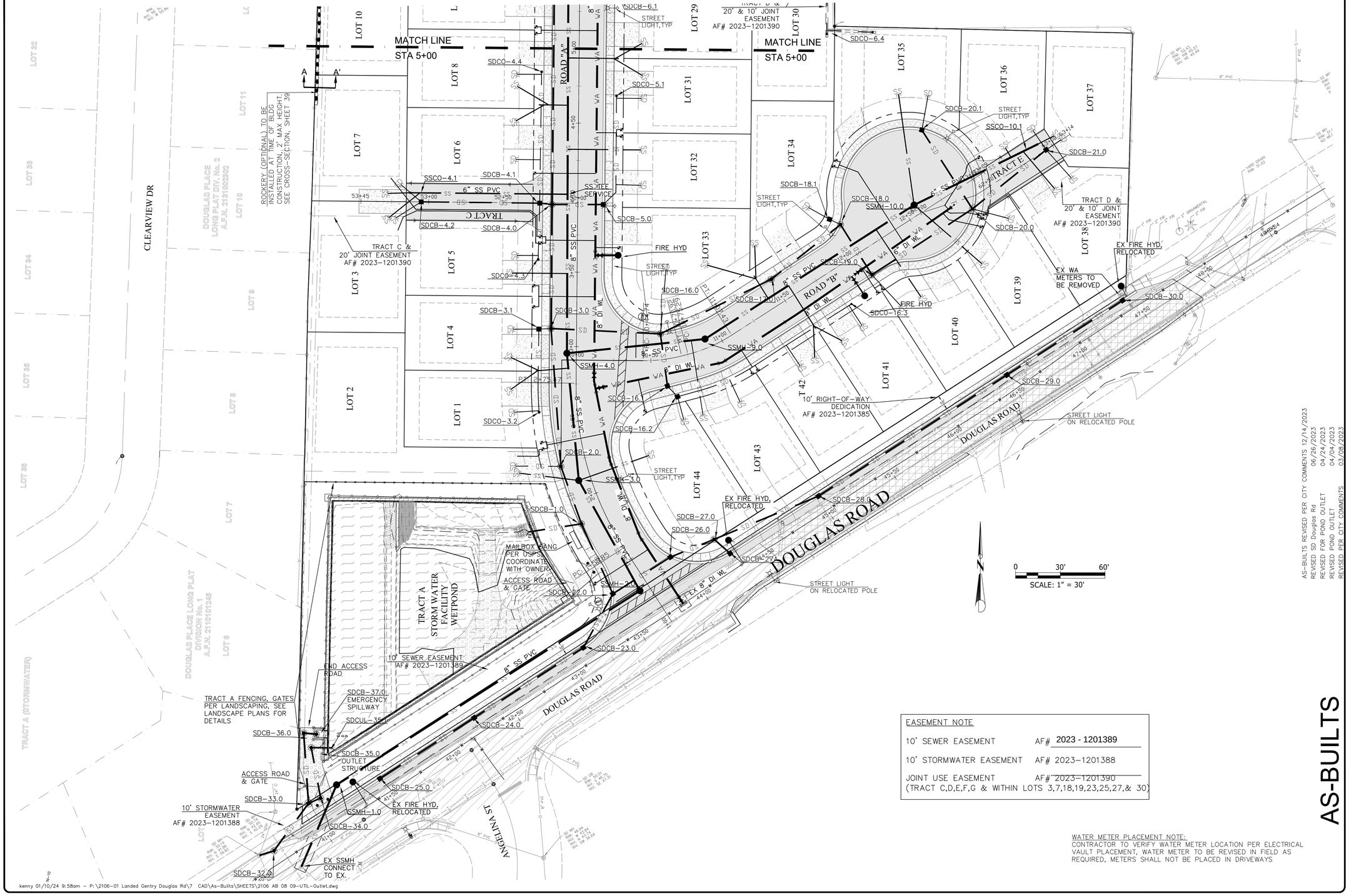
Civil Engineering • Planning • Project Management
2636 Nubgaard Rd. Ferndale, WA 98248
(360) 380-1363 | (360) 384-3615 Fx
email: info@wedenengineering.com

APPROVED
01/11/2024
BY
CITY OF FERNDALE
PUBLIC WORKS DEPARTMENT

00746.007 01/11/24 RH

kenny 12/06/23 2:28pm – P:\2106-01 Landed Gentry Douglas Rd\7 CAD\As-Builts\SHEETS\2106 AB 07-GR.dwg

SEC 30, TWP. 39 N., R 02 E of W.M



EASEMENT NOTE	
10' SEWER EASEMENT	AF# 2023 - 1201389
10' STORMWATER EASEMENT	AF# 2023-1201388
JOINT USE EASEMENT (TRACT C,D,E,F,G & WITHIN LOTS 3,7,18,19,23,25,27,& 30)	AF# 2023-1201390

WATER METER PLACEMENT NOTE:
CONTRACTOR TO VERIFY WATER METER LOCATION PER ELECTRICAL VAULT PLACEMENT, WATER METER TO BE REVISED IN FIELD AS REQUIRED, METERS SHALL NOT BE PLACED IN DRIVEWAYS

AS-BUILTS

AS-BUILTS REVISED PER CITY COMMENTS 12/14/2023
REVISED SD Douglas Rd 06/26/2023
REVISED FOR POND OUTLET 04/24/2023
REVISED POND OUTLET 04/04/2023
REVISED PER CITY COMMENTS 03/08/2023

No.	REVISIONS/ SUBMISSIONS	DATE
	REVISED PER CITY COMMENTS	02/28/2023
	REVISED POND ACCESS	01/30/2023
	REVISED PER CITY COMMENTS	12/15/2022
	REVISED PER CITY COMMENTS	11/10/2022
	REVISED PER CITY COMMENTS	10/20/2022

REVIEWED : EJW
DRAWN : KLS
CAD FILE :
PROJECT NO. : 2106-01

PROJECT TITLE
DOUGLAS FARM
44 LOT LONG PLAT
2396 DOUGLAS ROAD
FERNDALE, WA

DRAWING TITLE
OVERALL UTILITY PLAN

DATE : 08/03/2022

DRAWING No.
8 of 41

APPROVED
01/11/2024
BY
CITY OF FERNDALE
PUBLIC WORKS DEPARTMENT

WEDEN ENGINEERING, LLC
Civil Engineering • Planning • Project Management
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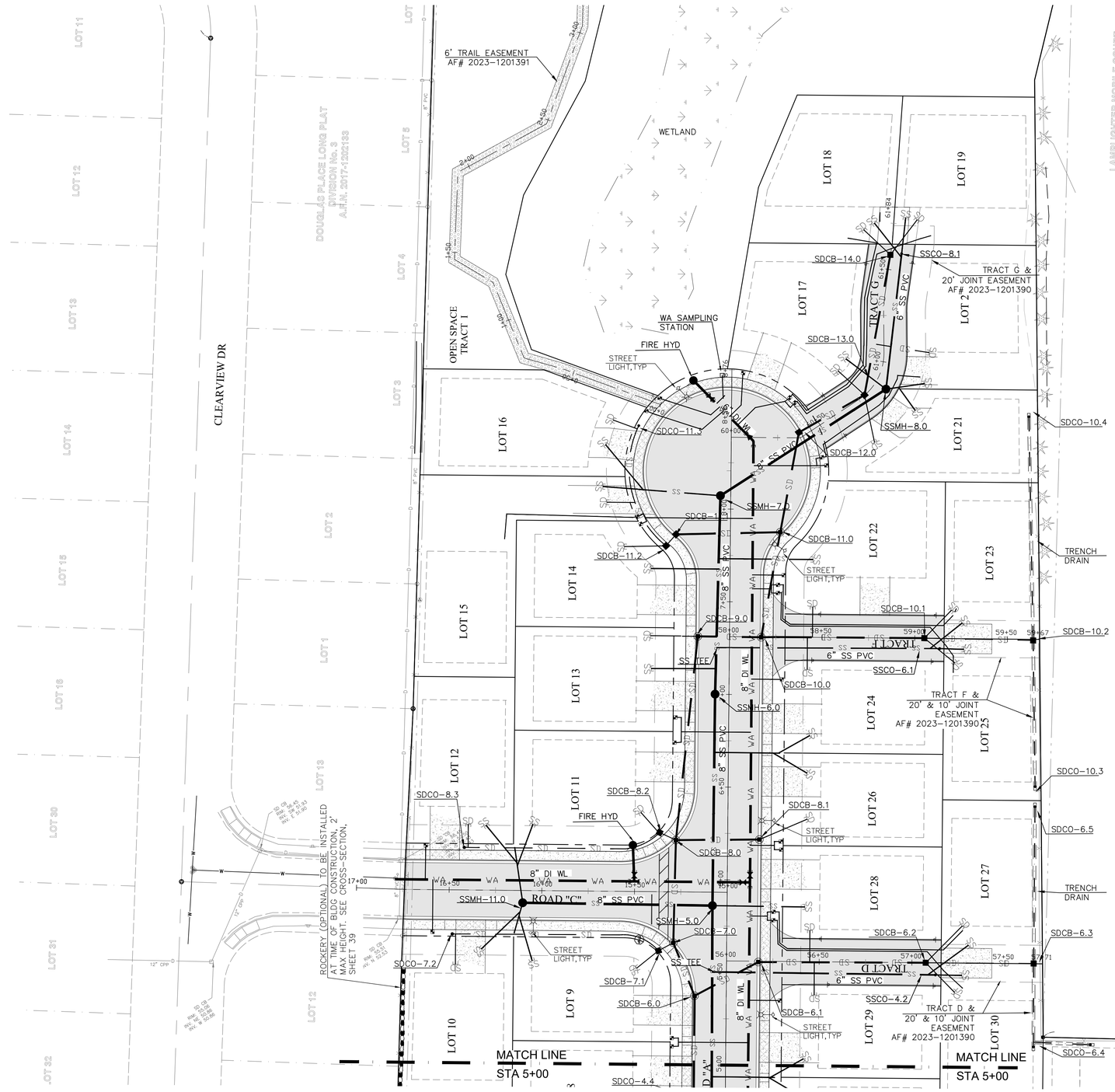
SEAL
12/14/2023

00746.008 01/11/24 RH

kenny 01/10/24 9:58am – P:\2106-01 Landed Gentry Douglas Rd\7 CAD\As-Builts\SHEETS\2106 AB 08 09-UTIL-Outlet.dwg

SEC 30, TWP. 39 N., R 02 E of W.M



EASEMENT NOTE	
6' TRAIL EASEMENT	AF# 2023-1201391

0 30' 60'
SCALE: 1" = 30'

SDCB-15.0 HAS BEEN REMOVED FROM PLANS.

WATER METER PLACEMENT NOTE:
CONTRACTOR TO VERIFY WATER METER LOCATION PER ELECTRICAL VAULT PLACEMENT, WATER METER TO BE REVISED IN FIELD AS REQUIRED, METERS SHALL NOT BE PLACED IN DRIVEWAYS

AS-BUILTS REVISED PER CITY COMMENTS 12/14/2023

AS-BUILTS

SEAL
STATE OF WASHINGTON
ERIC J. WEDEN
21007
REGISTERED PROFESSIONAL ENGINEER
12/14/2023

WEDEN ENGINEERING, LLC
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APPROVED
01/11/2024
BY
CITY OF FERNDALE
PUBLIC WORKS DEPARTMENT

No.	REVISIONS/ SUBMISSIONS	DATE
	REVISED PER CITY COMMENTS	05/04/2023
	REVISED FOR POND OUTLET	04/24/2023
	REVISED PER CITY COMMENTS	12/15/2022
	REVISED PER CITY COMMENTS	11/10/2022
	REVISED PER CITY COMMENTS	10/20/2022
REVIEWED : EJW	DRAWN : KLS	
CAD FILE :	PROJECT NO : 2005-01	

PROJECT TITLE
DOUGLAS FARM
44 LOT LONG PLAT
2396 DOUGLAS ROAD
FERNDALE, WA

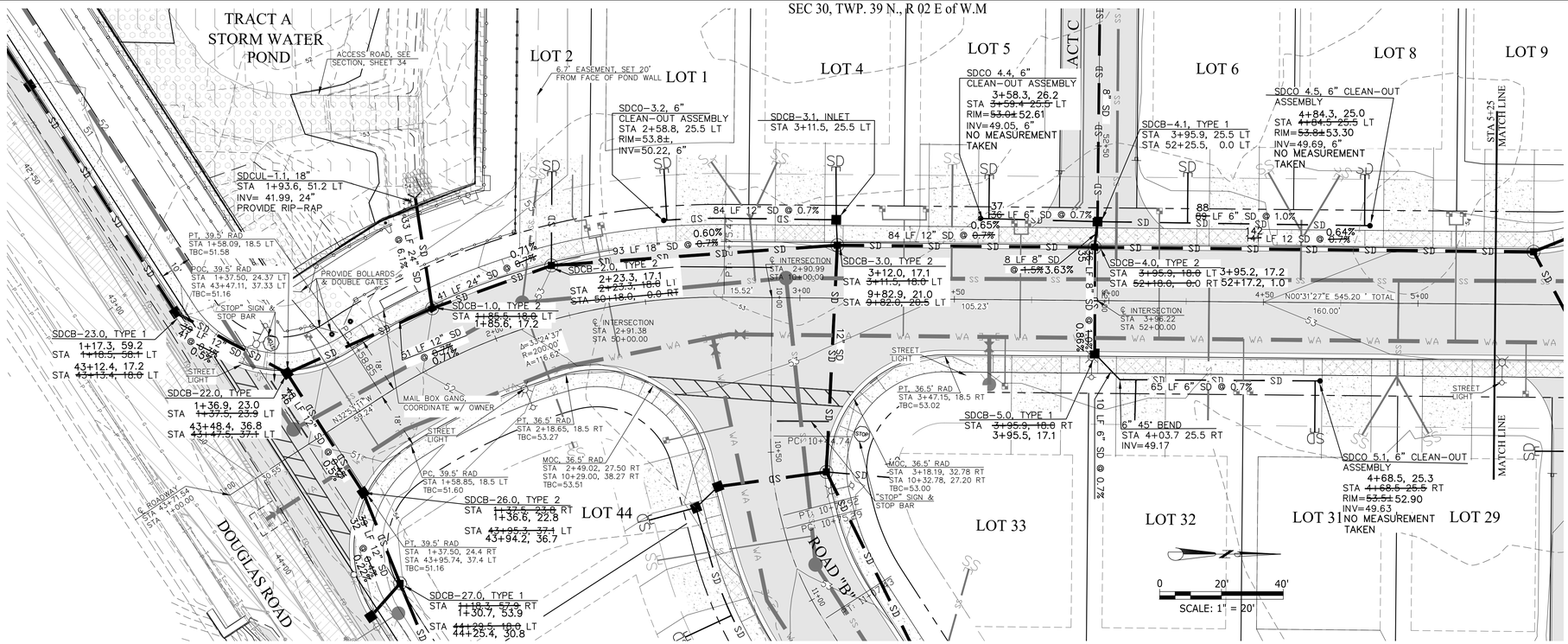
DRAWING TITLE
OVERALL UTILITY PLAN

DATE : 08/03/2022

DRAWING No.
9 of 41

00746.009 01/11/24 RH

kenny 01/10/24 10:02am – P:\2106-01 Landed Gentry Douglas Rd\7 CAD\As-Builts\SHEETS\2106 AB 08 09-UTIL-Outlet.dwg



STORM NOTE:

STORM PIPE SHALL BE HANCOR "N-12" OR EQUAL
STORM LINES AND WATER LINE SEPARATION SHALL BE 0.75' MIN, WATER SHALL PASS OVER STORM MAIN.

STREET NOTES:

INSTALL 6' THICK CONC SIDEWALK AT DRIVEWAYS
INSTALL CROSSWALKS & STOP BARS,
ADA RAMPS SHALL BE TYPE 4
PROVIDE "STOP" SIGNS, CITY TO INSTALL
PLACE "NO PARKING" ON TRACT ROADWAYS AS SHOWN OR 50' O/C
STREET LIGHTING APPROVED BY CITY AND PSE, MUST BE INSTALLED PRIOR TO FINAL PLAT.
CONTRACTOR SHALL COORDINATE UTILITY INSTALLATIONS

Know what's below. Call before you dig.

Kenny 12/07/23 11:18am – P:\2106-01 Landed Gentry Douglas Rd\7 CAD\As-Builts\SHEETS\2106 AB 10-RDA.dwg

AS-BUILTS

REVISED FOR POND OUTLET 04/24/2023
REVISED PER CITY COMMENTS 03/08/2023

No.	REVISIONS/ SUBMISSIONS	DATE
	REVISED PER CITY COMMENTS	02/28/2023
	ADDED ACCESS RAMPS	02/09/2023
	REVISED PER CITY COMMENTS	12/15/2022
	REVISED PER CITY COMMENTS	11/10/2022
	REVISED PER CITY COMMENTS	10/20/2022

REVIEWED : EJW DRAWN : KLS
CAD FILE : PROJECT NO. : 2106-01

PROJECT TITLE
DOUGLAS FARM
44 LOT LONG PLAT
2396 DOUGLAS ROAD
FERNDALE, WA

DRAWING TITLE
STORM & ROADWAY PLAN & PROFILE

DATE : 08/03/2022
DRAWING No.
10 of 41

APPROVED 01/11/2024
BY
CITY OF FERNDALE
PUBLIC WORKS DEPARTMENT

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SEAL
12/09/2023

00746.010 01/11/24 RH

SEC 30, TWP. 39 N., R 02 E of W.M

LOT 8 | LOT 9 | LOT 11 | LOT 13 | LOT 14 | LOT 15 | LOT 16 | LOT 17 | LOT 18 | LOT 20 | LOT 21 | LOT 22 | LOT 24 | LOT 26 | LOT 28 | LOT 29 | LOT 31

ROAD "A" | ROAD "C" | TRACT D | TRACT F | TRACT G

NO MEASUREMENT TAKEN

POC, 39.5 RAD STA 5+73.75, 42.95 LT STA 15+42.95, 19.18 LT TBC=53.97

PC, 39.5 RAD STA 5+37.23, 18.50 LT TBC=53.75

SDCB-7.0, TYPE 2 STA ~~5+65.5, 29.7~~ LT 5+65.8, 28.8 RIM=~~52.85~~,53.34

SDCB-7.1, INLET STA ~~5+61.7, 36.5~~ LT 5+61.4, 36.8 STA ~~15+36.5, 31.5~~ LT 15+36.8, 31.8

SDCB-6.0, TYPE 2 STA ~~5+37.2, 18.0~~ LT 5+37.2, 17.1

MATCH LINE STA 5+00

142 ~~111~~ LF 12" SD @ ~~2.7%~~ 1.67%

9 LF 6" SD @ ~~1.0%~~ 1.67%

31 LF 12" SD @ ~~0.7%~~ 0.52%

55 ~~58~~ LF 12" SD @ 0.7%

0.64%

C INTERSECTION STA 5+56.22 STA 56+00.00

C INTERSECTION STA 5+93.23 STA 15+00.00

160.00'

37.01'

N00°31'27"E 545.20 ' TOTAL

SDCB-6.1, TYPE 2 5+55.8, 17.7 STA ~~5+56.2, 18.0~~ RT 56+17.1, 0.4 STA ~~56+18.0, 0.0~~ RT

SDCB-8.2, INLET STA ~~6+24.2, 37.3~~ LT 6+25.2, 36.7 STA ~~15+37.2, 30.9~~ RT 15+36.7, 31.9

POC, 39.5 RAD STA 6+14.29, 39.55 LT STA 15+39.55, 21.06 RT TBC=54.12

STOP SIGN & STOP BAR

N89°28'34"W 173.77'

9 LF 6" SD @ ~~1.0%~~ 1.67%

SDCB-8.0, TYPE 2 STA ~~6+22.0, 28.7~~ LT 6+21.2, 27.9

110 ~~111~~ LF 12" SD @ ~~1.75%~~ 1.71%

PT, 39.5 RAD STA 6+49.23, 18.50 LT TBC=54.63

SDCB-8.1, TYPE 2 STA 6+22.0, 18.0 RT

SDCB-9.0, TYPE 2-48 STA ~~7+31.2, 18.0~~ LT 7+31.2, 17.1

SDCB-11.2, INLET STA ~~7+79.1, 34.3~~ LT 7+79.9, 34.7

72 LF 6" SD @ 1.0%

SDCO-11.3, 6" CLEAN-OUT ASSEMBLY STA 8+43.4, 49.5 LT RIM=59.0± INV=54.57

WETLAND DO NOT DISTURB

STREET LIGHT PER CITY STANDARDS

8 ~~7~~ LF 8" SD @ ~~1.5%~~ 3.75%

SDCB-11.1, TYPE 1 STA ~~7+85.0, 29.7~~ LT 7+86.1, 29.3

PC, 29.5 RAD STA 7+61.25, 18.50 LT TBC=57.85

℄ CUL-DE-SAC STA 8+20.67, 2.25 LT

FOR CUL-DE-SAC GRADING, SEE SHEET 17

58 LF 12" SD @ ~~3.95%~~ 3.95%

55 LF 12" SD @ ~~3.3%~~ 3.82%

PT, 29.5 RAD STA 7+65.00, 18.50 LT TBC=58.00

SDCB-10.0, TYPE 2 STA ~~7+31.2, 18.0~~ RT 7+31.0, 17.1 STA ~~58+18.0, 0.0~~ RT 58+17.1, 0.2

SDCB-8.1, TYPE 2 STA 6+22.0, 18.0 RT

SDCB-11.0, TYPE 2 STA ~~7+88.4, 26.9~~ RT 7+87.8, 29.3

SDCB-12.0, TYPE 1 STA ~~8+42.3, 37.2~~ RT 8+41.7, 36.4 STA ~~60+39.2, 3.0~~ LT 60+38.2, 2.9

SDCB-13.0 SEE SHEET 16

0 20' 40'

SCALE: 1" = 20'

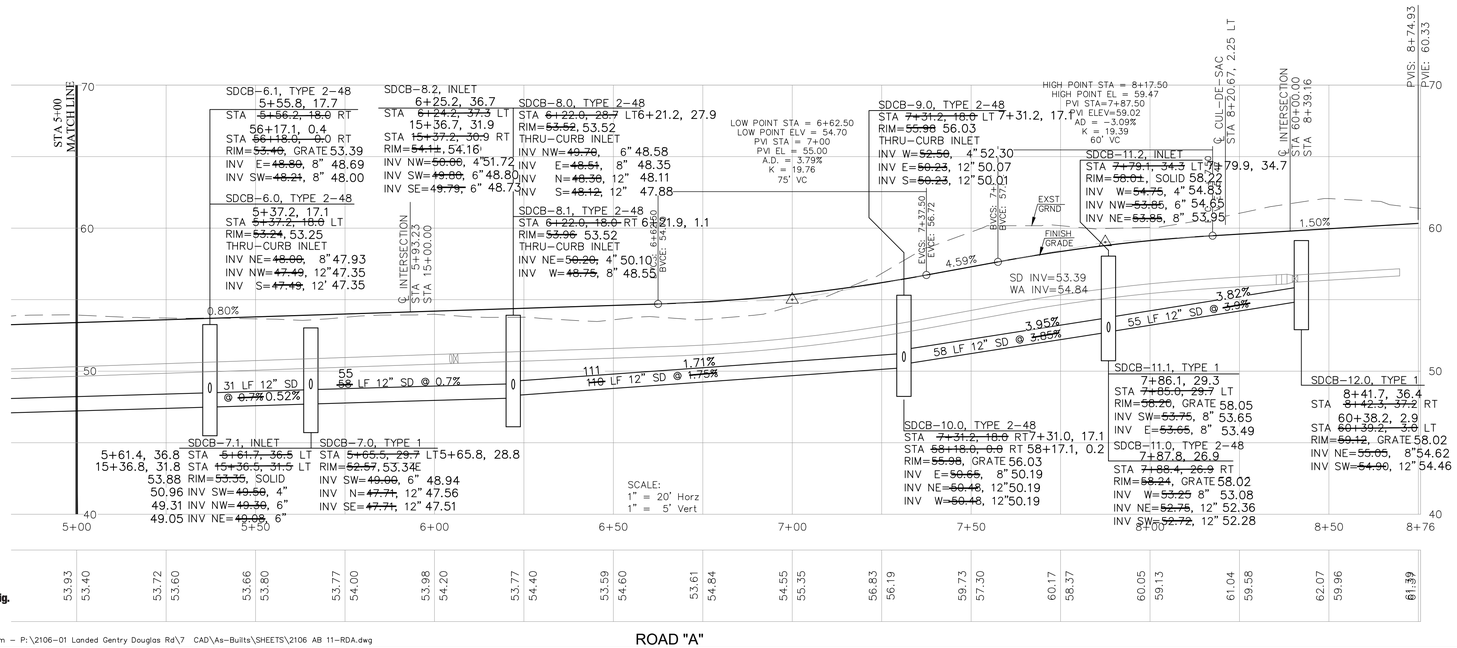
05/04/2023 REVISED PER CITY COMMENTS
04/24/2023 REVISED FOR POND OUTLET

STORM NOTE:

STORM PIPE SHALL BE HANCOR "N-12" OR EQUAL
STORM LINES AND WATER LINE SEPARATION SHALL BE 0.75' MIN, WATER SHALL PASS OVER STORM MAIN.

STREET NOTE:

INSTALL 6' THICK CONC SIDEWALK AT DRIVEWAYS
INSTALL CROSSWALKS & STOP BARS,
PROVIDE "STOP" SIGNS, CITY TO INSTALL
PLACE "NO PARKING" ON TRACT ROADWAYS AS SHOWN OR 50' O/C
STREET LIGHTING APPROVED BY CITY AND PSE, MUST BE INSTALLED PRIOR TO FINAL PLAT.
CONTRACTOR SHALL COORDINATE UTILITY INSTALLATIONS



Know what's below. Call before you dig.

kenny 12/07/23 8:35am – P:\2106-01 Landed Gentry Douglas Rd\7 CAD\As-Builts\SHEETS\2106 AB 11-RDA.dwg

APPROVED 01/11/2024
BY [signature]
CITY OF FERNDALE
PUBLIC WORKS DEPARTMENT

SEAL

WEDEN ENGINEERING, LLC
Civil Engineering • Planning • Project Management
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(360) 380-1363 | (360) 384-3615 Fx
email: info@wedenengineering.com

No.	REVISIONS/ SUBMISSIONS	DATE
	REVISED PER CITY COMMENTS	03/08/2023
	REVISED PER CITY COMMENTS	02/28/2023
	REVISED PER CITY COMMENTS	12/15/2022
	REVISED PER CITY COMMENTS	11/10/2022
	REVISED PER CITY COMMENTS	10/20/2022

REVIEWED : EJW | DRAWN : KLS
CAD FILE : | PROJECT NO: 2005-01

AS-BUILTS

PROJECT TITLE
DOUGLAS FARM
44 LOT LONG PLAT
2396 DOUGLAS ROAD
FERNDALE, WA

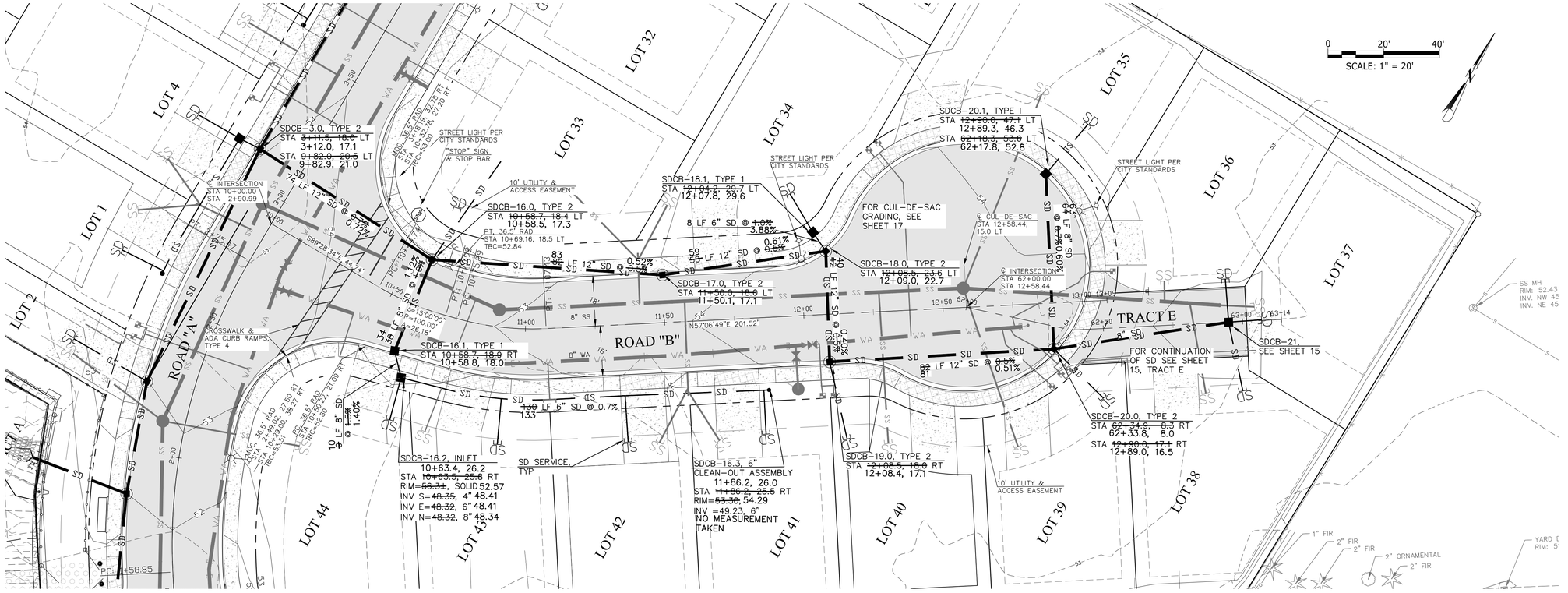
DRAWING TITLE
STORM & ROADWAY PLAN & PROFILE

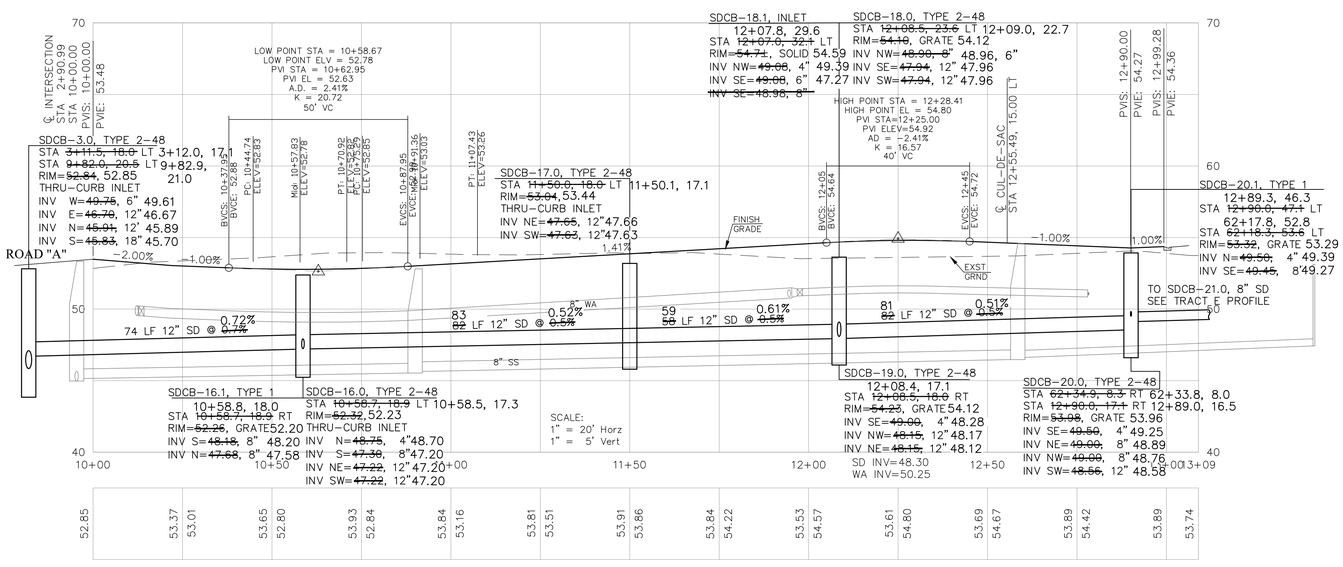
DATE : 08/03/2022

DRAWING No.
11 of 41

00746.011 01/11/24 RH

SEC 30, TWP. 39 N., R 02 E of W.M





Know what's below. Call before you dig.

Kenny 12/07/23 1:29pm – P:\2106-01 Landed Gentry Douglas Rd\7 CAD\As-Builts\SHEETS\2106 AB 12-RdB.dwg

STORM NOTE:

STORM PIPE SHALL BE HANCOR "N-12" OR EQUAL
STORM LINES AND WATER LINE SEPARATION SHALL BE 0.75' MIN,
WATER SHALL PASS OVER STORM MAIN.

STREET SIGNAGE:

INSTALL 6' THICK CONC SIDEWALK AT DRIVEWAYS
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PLACE "NO PARKING" ON TRACT ROADWAYS AS SHOWN OR 50' O/C
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CONTRACTOR SHALL COORDINATE UTILITY INSTALLATIONS

REVISED FOR POND OUTLET 04/24/2023

AS-BUILTS

APPROVED
01/11/2024
BY
CITY OF FERNDALE
PUBLIC WORKS DEPARTMENT

SEAL
12/08/2023

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Civil Engineering • Planning • Project Management
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(360) 380-1363 (360) 384-3615 Fx
email: info@wedenengineering.com

No.	REVISIONS/ SUBMISSIONS	DATE
	REVISED PER CITY COMMENTS	03/08/2023
	REVISED PER CITY COMMENTS	02/28/2023
	REVISED PER CITY COMMENTS	12/15/2022
	REVISED PER CITY COMMENTS	11/10/2022
	REVISED PER CITY COMMENTS	10/20/2022
	REVIEWED : EJW	DRAWN : KLS
	CAD FILE :	PROJECT NO: 2106-01

PROJECT TITLE
DOUGLAS FARM
44 LOT LONG PLAT
2396 DOUGLAS ROAD
FERNDALE, WA

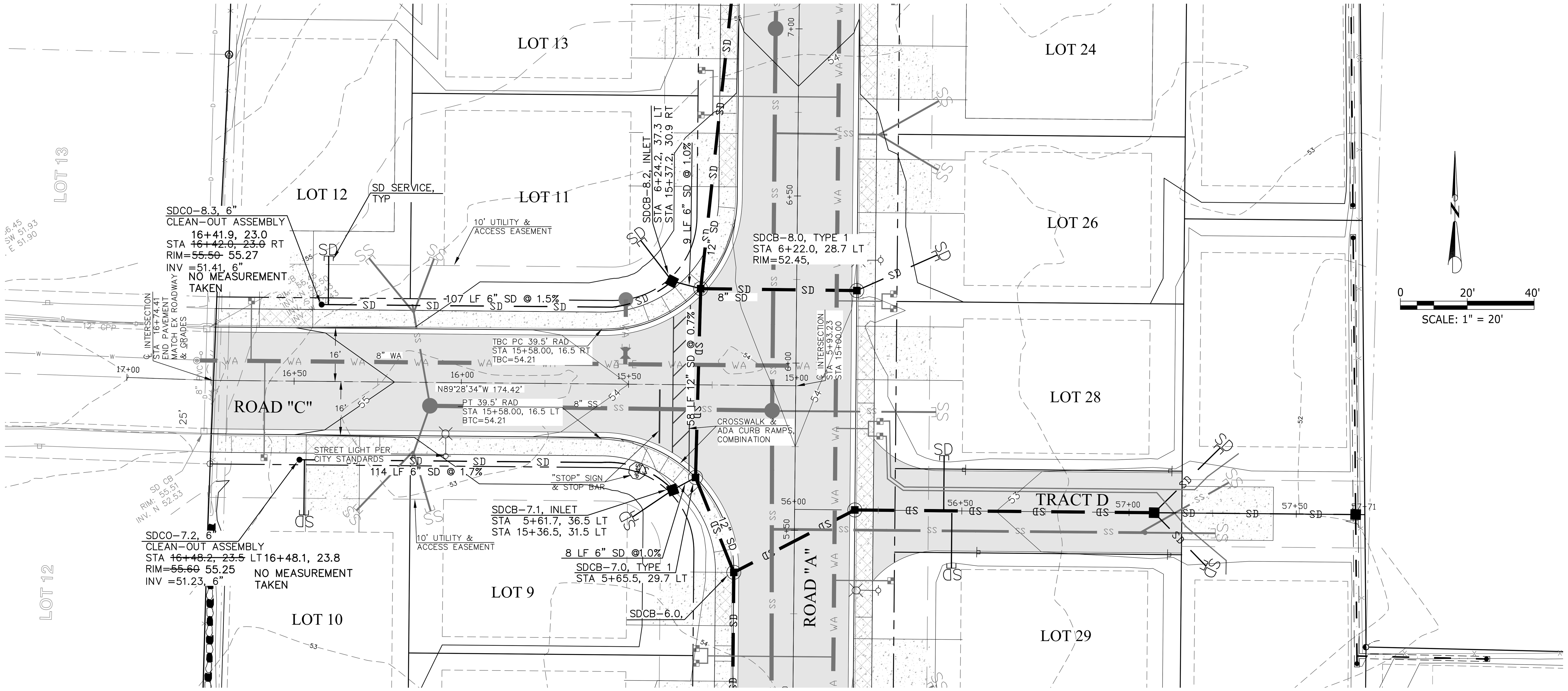
DRAWING TITLE
STORM & ROADWAY PLAN & PROFILE

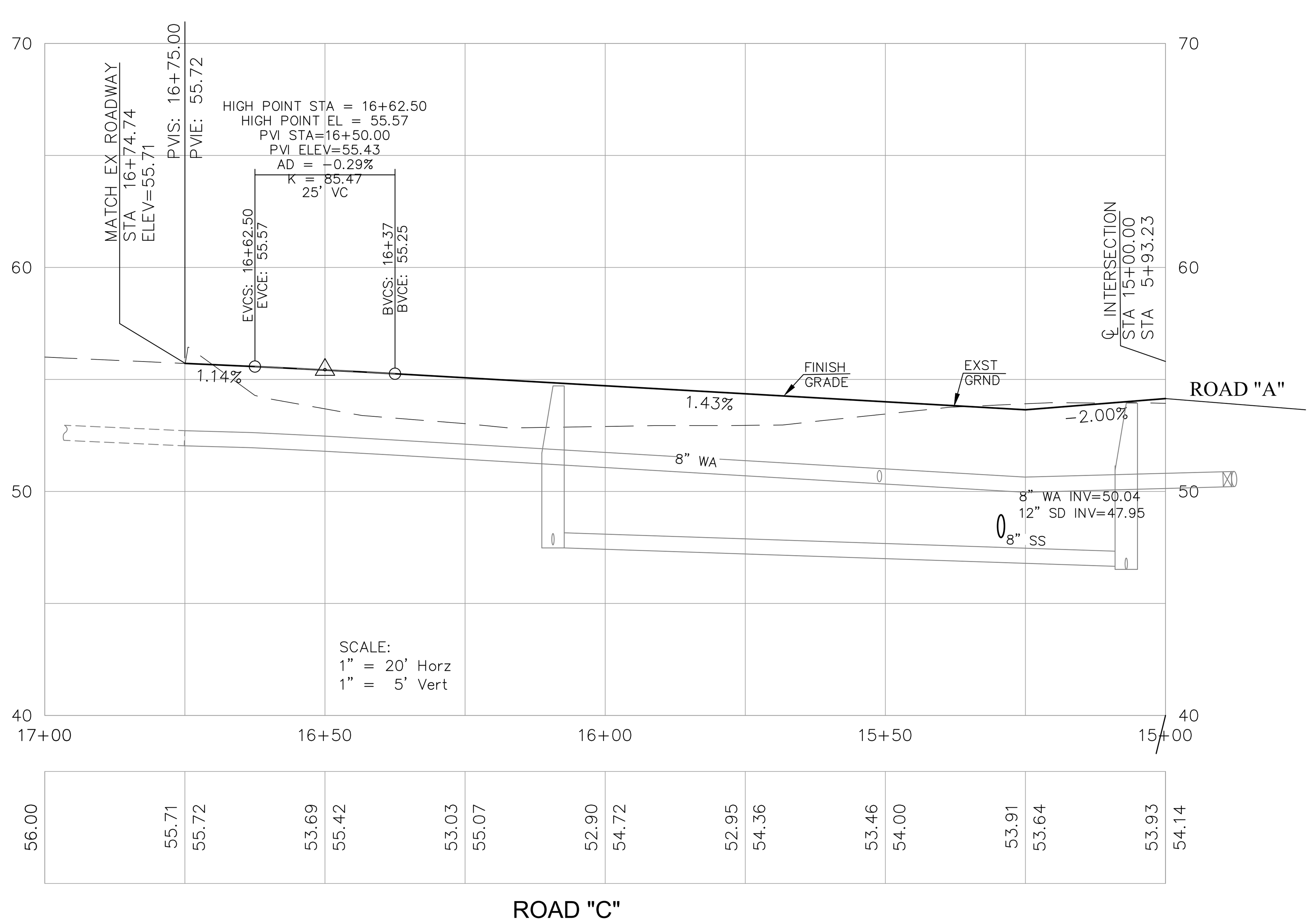
DATE : 08/03/2022

DRAWING No.
12 of 41

00746.012 01/11/24 RH

SEC 30, TWP. 39 N., R 02 E of W.M





Know what's below. Call before you dig.

STORM NOTE:

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AS-BUILTS

kenny 12/07/23 9:08am – P:\2106–01 Landed Gentry Douglas Rd\7 CAD\As–Builts\SHEETS\2106 AB 13–RdC.dwg

00746.013 01/11/24 RH

SEAL — ERIC J. WEDEN, STATE OF WASHINGTON, 40047, REGISTERED PROFESSIONAL ENGINEER — 12/08/2023

WEDEN ENGINEERING, LLC
Civil Engineering • Planning • Project Management
2636 Nubgaard Rd, Ferndale, WA 98248
(360) 380-1363 (360) 384-3615 Fx
email: info@wedenengineering.com

APPROVED
01/11/2024
BY: For kevin Renz
CITY OF FERNDALE
PUBLIC WORKS DEPARTMENT

No.	REVISIONS/ SUBMISSIONS	DATE
	REVISED FOR POND OUTLET	04/24/2023
	REVISED PER CITY COMMENTS	03/08/2023
	REVISED PER CITY COMMENTS	02/28/2023
	REVISED PER CITY COMMENTS	12/15/2022
	REVISED PER CITY COMMENTS	11/10/2022
	REVISED PER CITY COMMENTS	10/20/2022

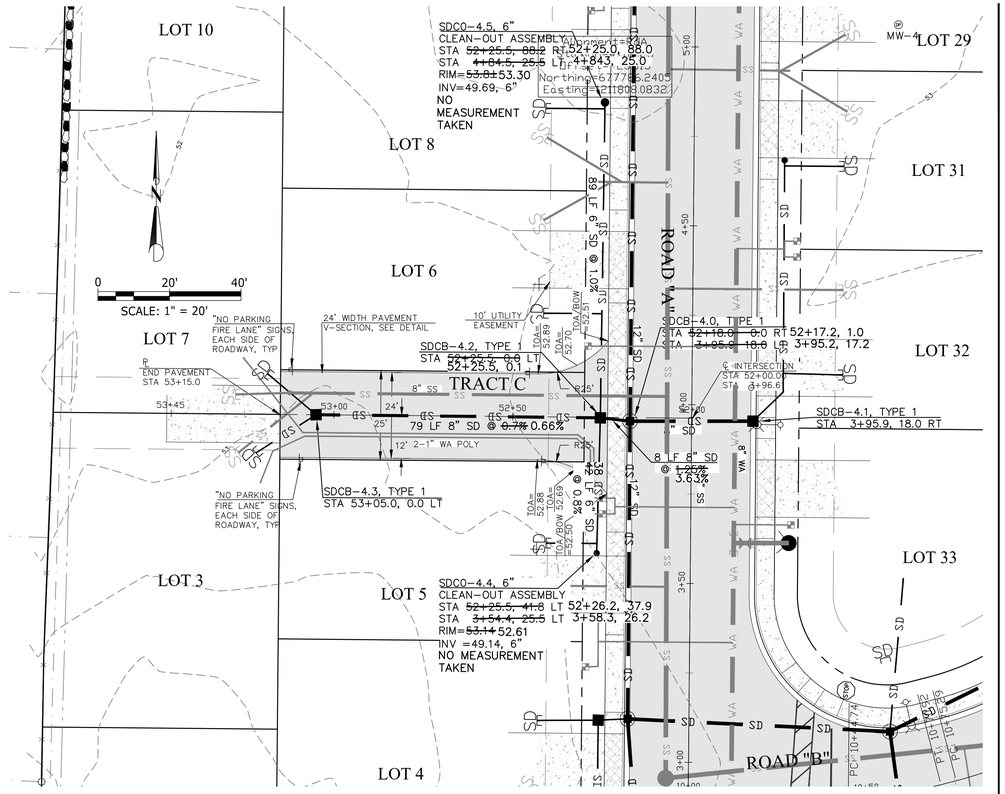
REVIEWED : EJW DRAWN : KLS
CAD FILE : PROJECT NO. : 2106–01

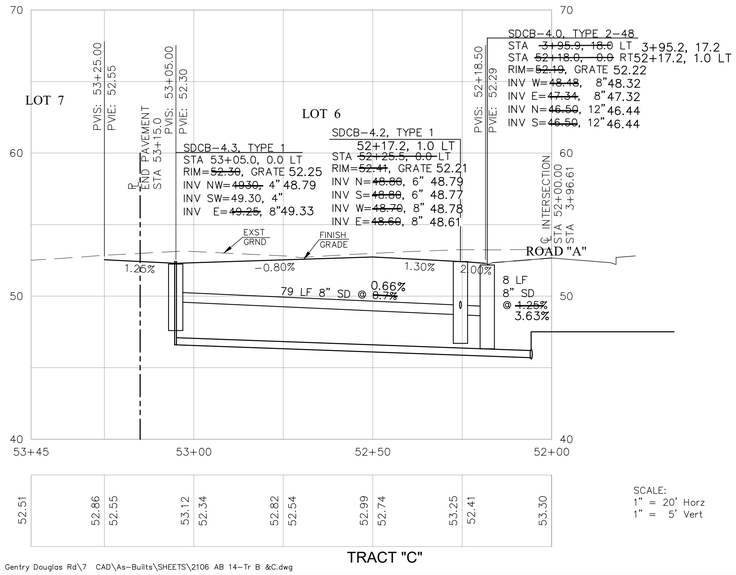
PROJECT TITLE
DOUGLAS FARM
44 LOT LONG PLAT
2396 DOUGLAS ROAD
FERNDALE, WA

DRAWING TITLE
STORM & ROADWAY PLAN & PROFILE

DATE : 08/03/2022
DRAWING No.

SEC 30, TWP. 39 N., R 02 E of W.M





SCALE:
1" = 20' Horz
1" = 5' Vert

Know what's below. Call before you dig.

kenny 12/07/23 9:15am – P:\2106-01 Landed Gentry Douglas Rd\7 CAD\As-Builts\SHEETS\2106 AB 14-Tr B &C.dwg

04/24/2023
REVISED FOR POND OUTLET

STORM NOTE:
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STREET NOTE:
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STREET LIGHTING APPROVED BY CITY AND PSE, MUST BE INSTALLED PRIOR TO FINAL PLAT.
CONTRACTOR SHALL COORDINATE UTILITY INSTALLATIONS

AS-BUILTS

J. WEDEN
STATE OF WASHINGTON
23331
REGISTERED PROFESSIONAL ENGINEER
12/08/2023
SEAL

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	REVISED PER CITY COMMENTS	10/20/2022

REVIEWED : EJW
DRAWN : KLS
CAD FILE :
PROJECT NO: 2106-01

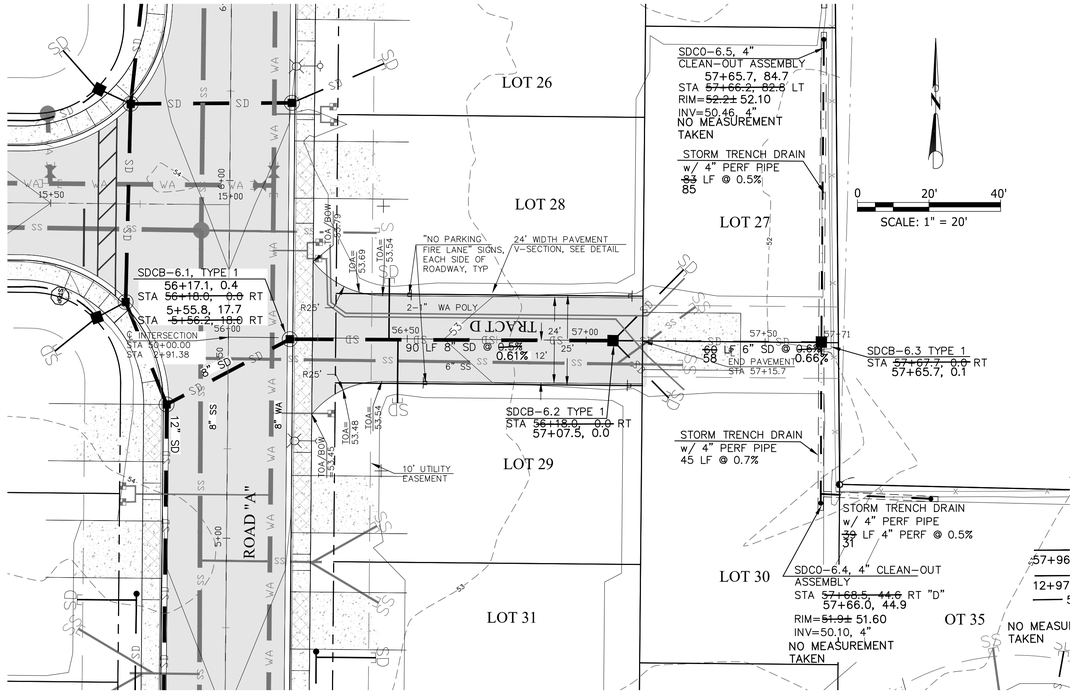
PROJECT TITLE
DOUGLAS FARM
44 LOT LONG PLAT
2396 DOUGLAS ROAD
FERNDALE, WA

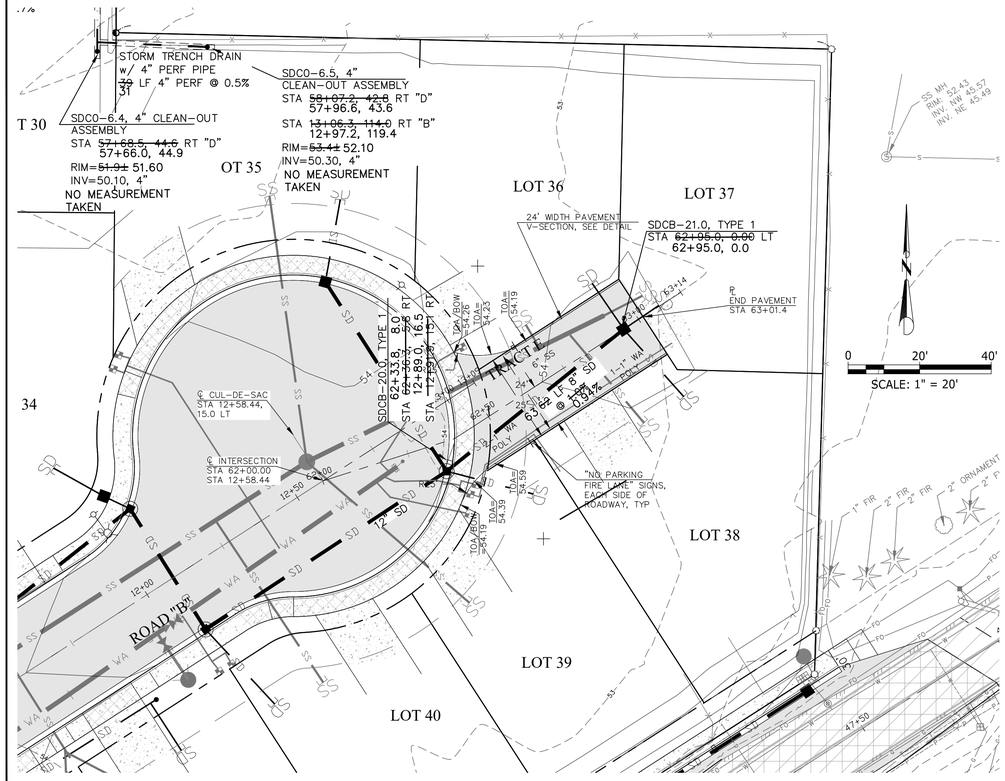
DRAWING TITLE
STORM & ROADWAY PLAN & PROFILE

DATE : 08/03/2022
DRAWING No.
14 of 41

00746.014 01/11/24 RH

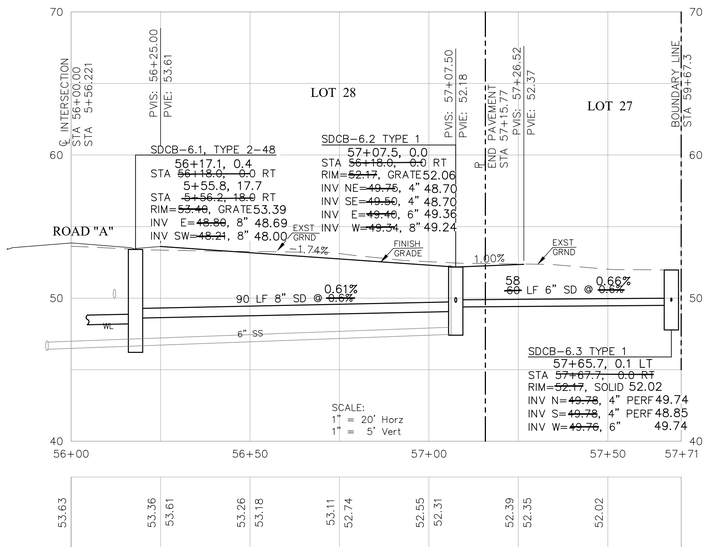
SEC 30, TWP. 39 N., R 02 E of W.M

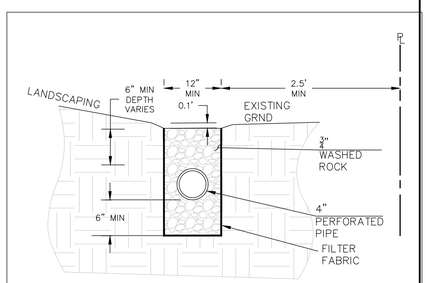




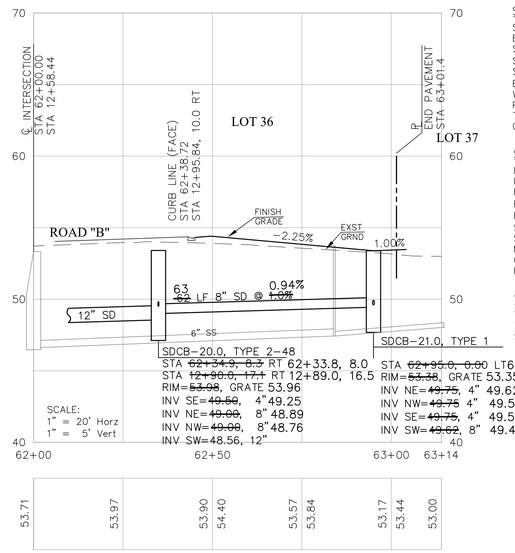
04/24/2023

REVISED FOR POND OUTLET





TRENCH DRAIN DETAIL
NTS



STORM NOTE:

STORM PIPE SHALL BE HANCOR "N-12" OR EQUAL
STORM LINES AND WATER LINE SEPARATION SHALL BE 0.75' MIN VERTICAL CLEARANCE .
STORM INVERTS ARE CONTROLLED BY POND BOTTOM DESIGN REQUIREMENTS/CRITERIA.
WATER SHALL HAVE TO BE ADJUSTED TO PASS OVER STORM LINES.
TRENCH DRAINS TO BE ADJUSTED TO FINISH GRADE SLOPES, ONCE GRADING IS COMPLETE

STREET NOTES:

INSTALL 6' THICK CONC SIDEWALK AT DRIVEWAYS
INSTALL CROSSWALKS & STOP BARS, ADA RAMPS SHALL BE TYPE 4
PROVIDE "STOP" SIGNS, CITY TO INSTALL
PLACE "NO PARKING" ON TRACT ROADWAYS AS SHOWN OR 50' O/C
STREET LIGHTING APPROVED BY CITY AND PSE, MUST BE INSTALLED PRIOR TO FINAL PLAT.
CONTRACTOR SHALL COORDINATE UTILITY INSTALLATIONS

WATER METER NOTE:

WATER METERS TO BE PLACED OUTSIDE OF TRAVEL AREA, ROUTE 1" WA SERVICE AS SHOWN.

Know what's below. Call before you dig.

kenny 12/07/23 9:18am – P:\2106-01 Landed Gentry Douglas Rd\7 CAD\As-Builts\SHEETS\2106 AB 15-Tr D &E.dwg

AS-BUILTS

WEDEN ENGINEERING, LLC
Civil Engineering • Planning • Project Management
2636 Nubgaard Rd. Ferndale, WA 98248
(360) 380-1363 (360) 384-3615 Fx
email: info@wedenengineering.com

SEAL
12/08/2023

APPROVED
01/11/2024
BY
CITY OF FERNDALE
PUBLIC WORKS DEPARTMENT

No.	REVISIONS/ SUBMISSIONS	DATE
	REVISED PER CITY COMMENTS	03/08/2023
	REVISED PER CITY COMMENTS	02/28/2023
	REVISED PER CITY COMMENTS	12/15/2022
	REVISED PER CITY COMMENTS	11/10/2022
	REVISED PER CITY COMMENTS	10/20/2022
REVIEWED : EJW	DRAWN : KLS	
CAD FILE :	PROJECT NO: 2106-01	

PROJECT TITLE
DOUGLAS FARM
44 LOT LONG PLAT
2396 DOUGLAS ROAD
FERNDALE, WA

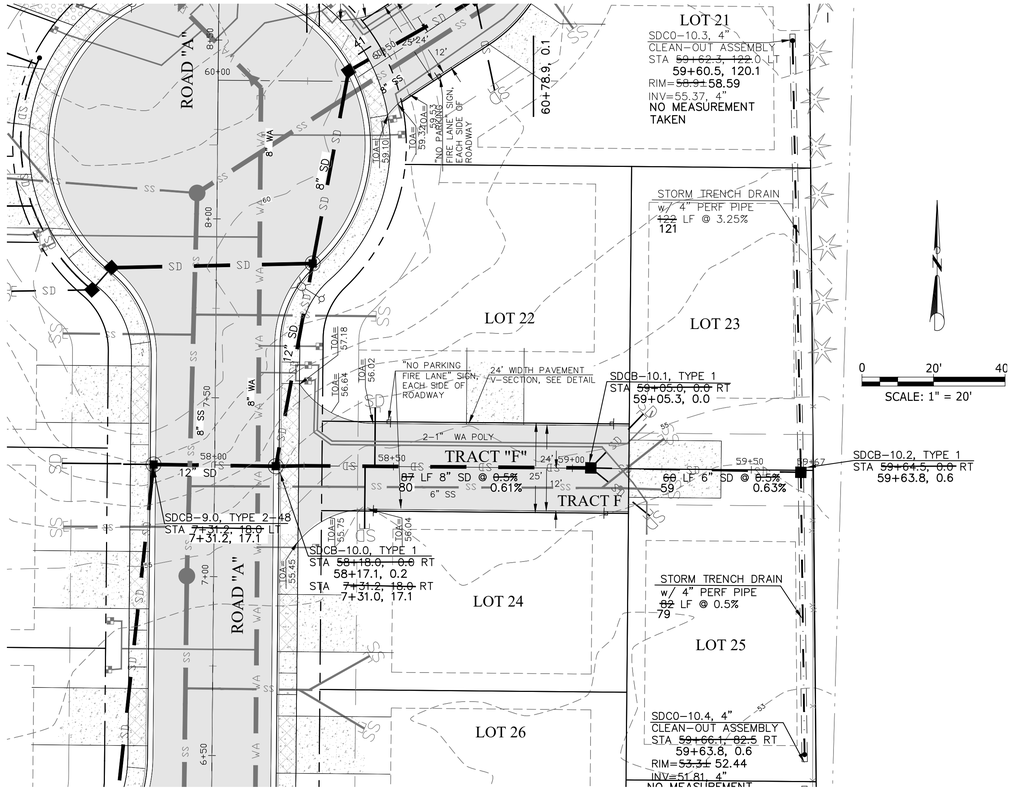
DRAWING TITLE
STORM & ROADWAY PLAN & PROFILE

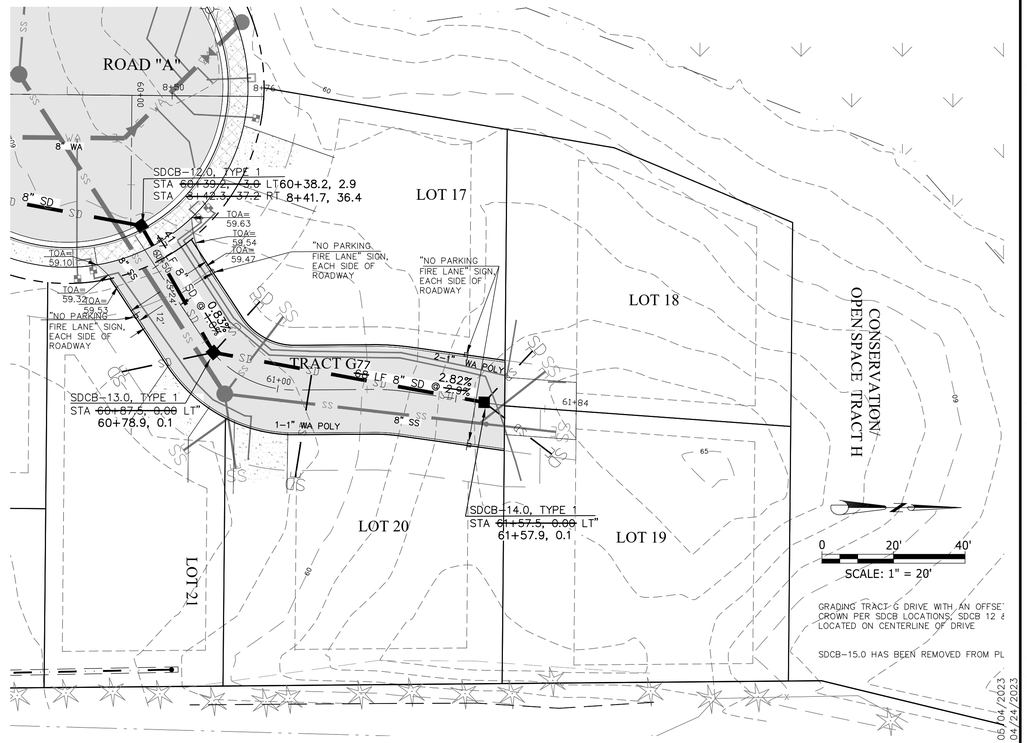
DATE : 08/03/2022

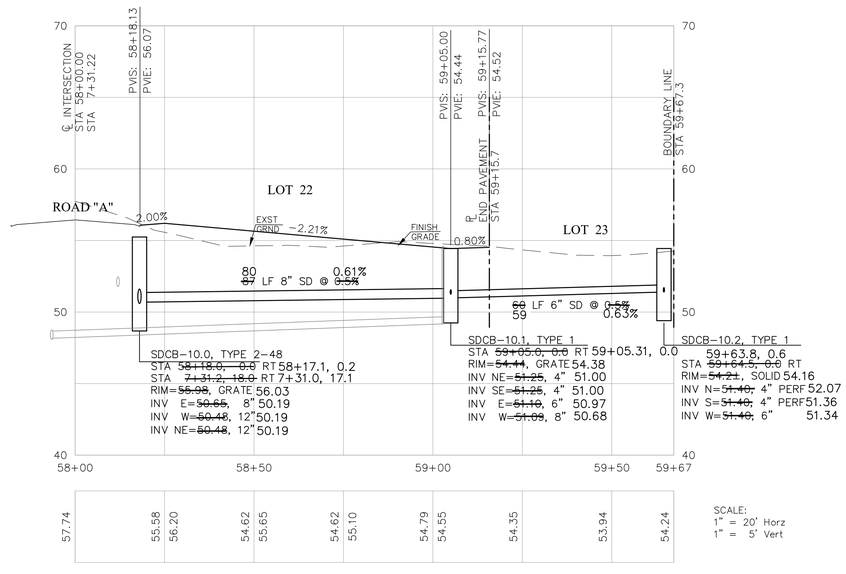
DRAWING No.
15 of 41

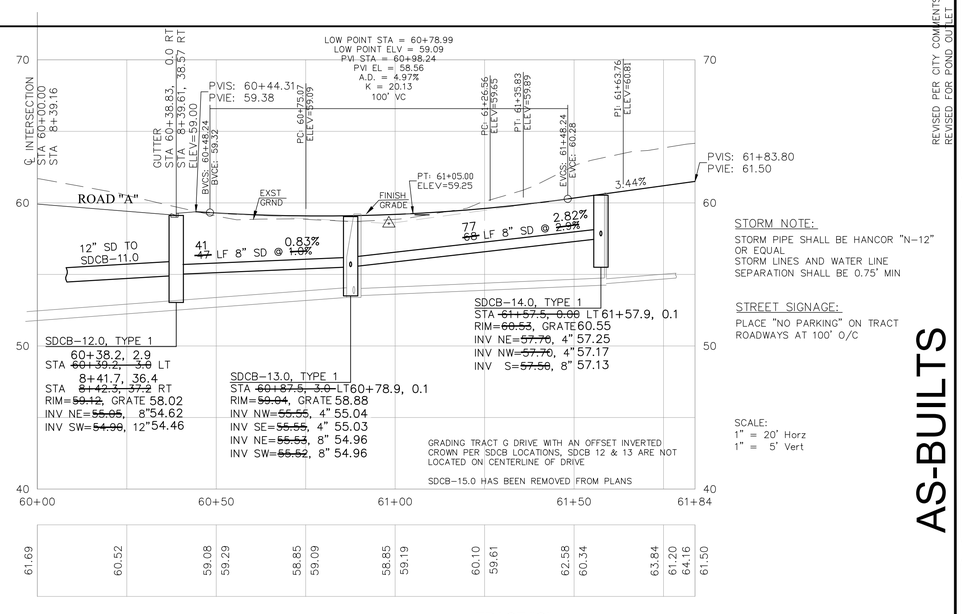
00746.015 01/11/24 RH

SEC 30, TWP. 39 N., R 02 E of W.M









STORM NOTE:
STORM PIPE SHALL BE HANCOR "N–12" OR EQUAL
STORM LINES AND WATER LINE SEPARATION SHALL BE 0.75" MIN

STREET SIGNAGE:
PLACE "NO PARKING" ON TRACT ROADWAYS AT 100' O/C

SCALE:
1" = 20' Horz
1" = 5' Vert

Know what's below. Call before you dig.

kenny 12/07/23 9:24am – P:\2106–01 Landed Gentry Douglas Rd\7 CAD\As–Builts\SHEETS\2106 AB 16–Tr F &G.dwg

TRACT "F" TRACT "G"

REVISED PER CITY COMMENTS 05/04/2023
REVISED FOR POND OUTLET 04/24/2023

APPROVED 01/11/2024
BY
CITY OF FERNDALE
PUBLIC WORKS DEPARTMENT

SEAL
12/08/2023

WEDEN ENGINEERING, LLC
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2636 Nubgaard Rd. Ferndale, WA 98248
(360) 380-1363 (360) 384-3615 Fx
email: info@wedenengineering.com

No.	REVISIONS/ SUBMISSIONS	DATE
	REVISED PER CITY COMMENTS	03/08/2023
	REVISED PER CITY COMMENTS	02/28/2023
	REVISED PER CITY COMMENTS	12/15/2022
	REVISED PER CITY COMMENTS	11/10/2022
	REVISED PER CITY COMMENTS	10/20/2022

REVIEWED : EJW | DRAWN : KLS
CAD FILE : | PROJECT NO. : 2106–01

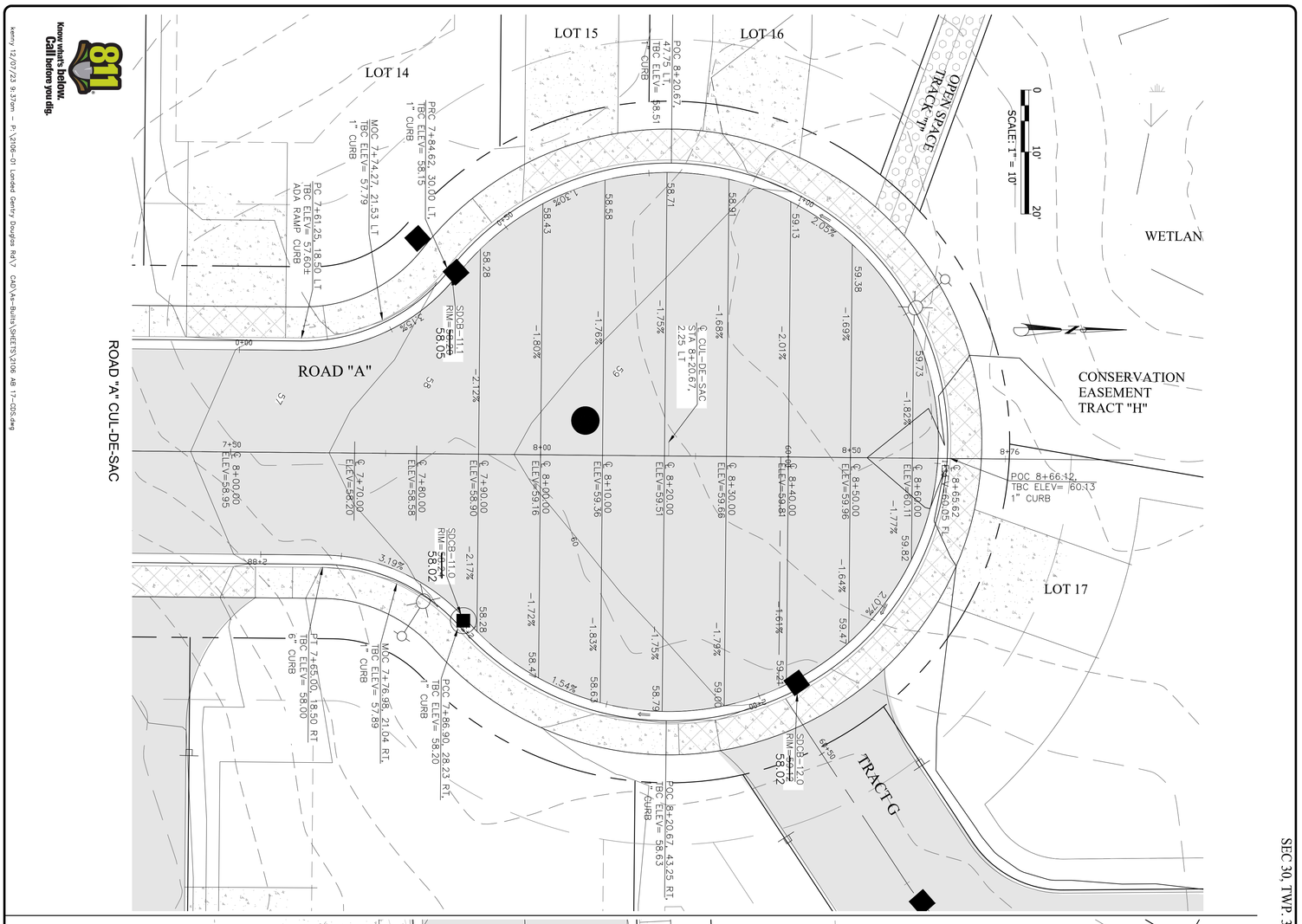
AS-BUILTS

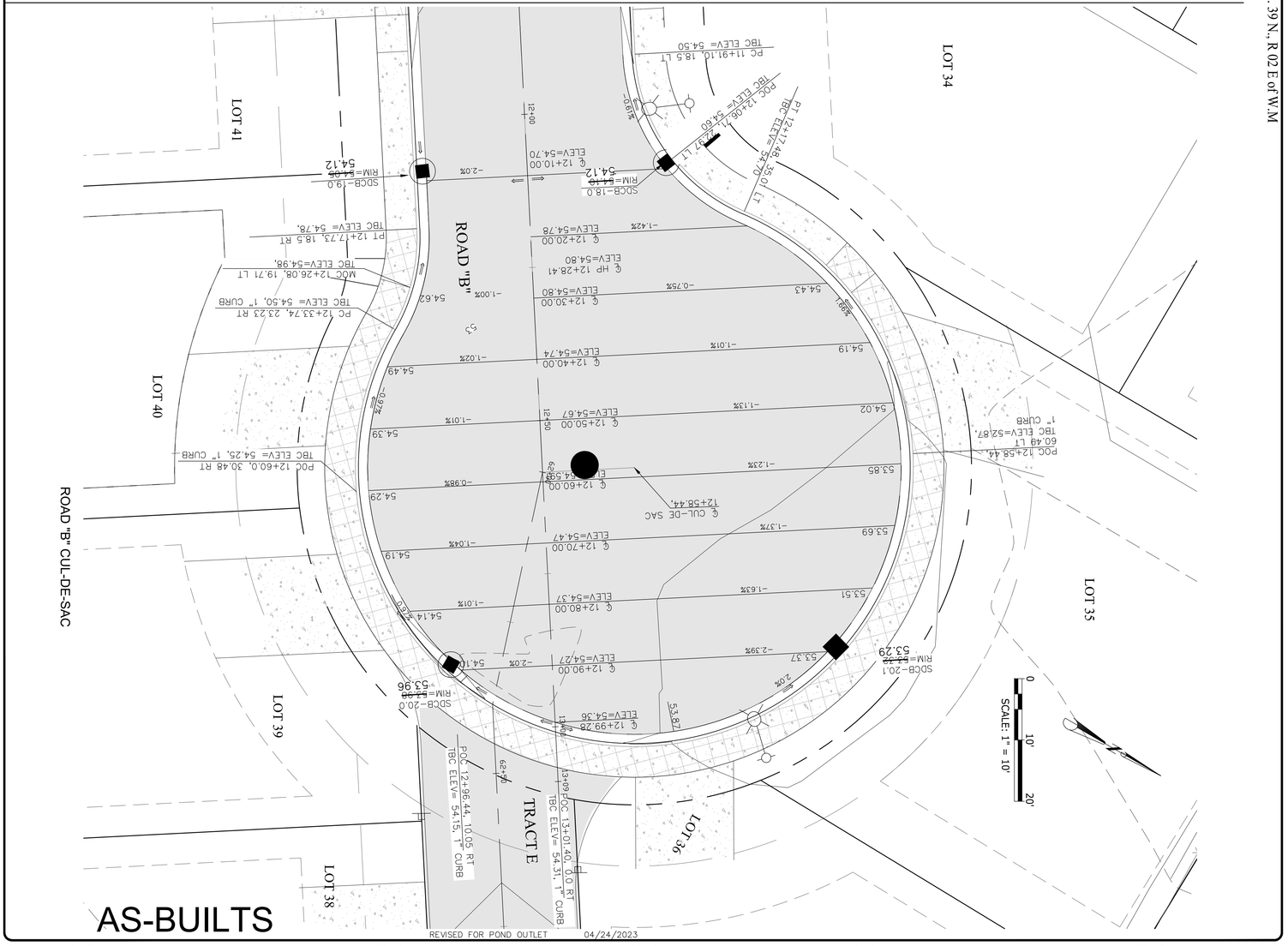
PROJECT TITLE
DOUGLAS FARM
44 LOT LONG PLAT
2396 DOUGLAS ROAD
FERNDALE, WA

DRAWING TITLE
STORM & ROADWAY PLAN & PROFILE

DATE : 08/03/2022
DRAWING No.
16 of 41

00746.016 01/11/24 RH





AS-BUILTS

REVISED FOR POND OUTLET 04/24/2023

SEC 30, TWP. 39 N., R 02 E of W.M

Know what's below. Call before you dig. 811

kenny 12/07/23 9:37am – P:\2106-01 Lawley Gorley Douglas Rd\7 CAD\4x-Plats\SHEETS\106 AB 17-035.dwg

DATE:	08/03/2022
DRAWING No.	17 of 41

PROJECT TITLE
DOUGLAS FARM
44 LOT LONG PLAT
2396 DOUGLAS ROAD
FERNDALE, WA

DRAWING TITLE
CUL-DE-SAC GRADING

No.	REVISIONS/ SUBMISSIONS	DATE
	REVISED PER CITY COMMENTS	03/08/2023
	REVISED PER CITY COMMENTS	02/28/2023
	REVISED PER CITY COMMENTS	12/15/2022
	REVISED PER CITY COMMENTS	11/10/2022
	REVISED PER CITY COMMENTS	10/20/2022

REVIEWED: EJW	DRAWN: KLS
CAD FILE:	PROJECT NO.: 2106-01

APPROVED
01/11/2024
BY:
CITY OF FERNDALE
PUBLIC WORKS DEPARTMENT

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2636 Nubgaard Rd, Ferndale, WA 98248
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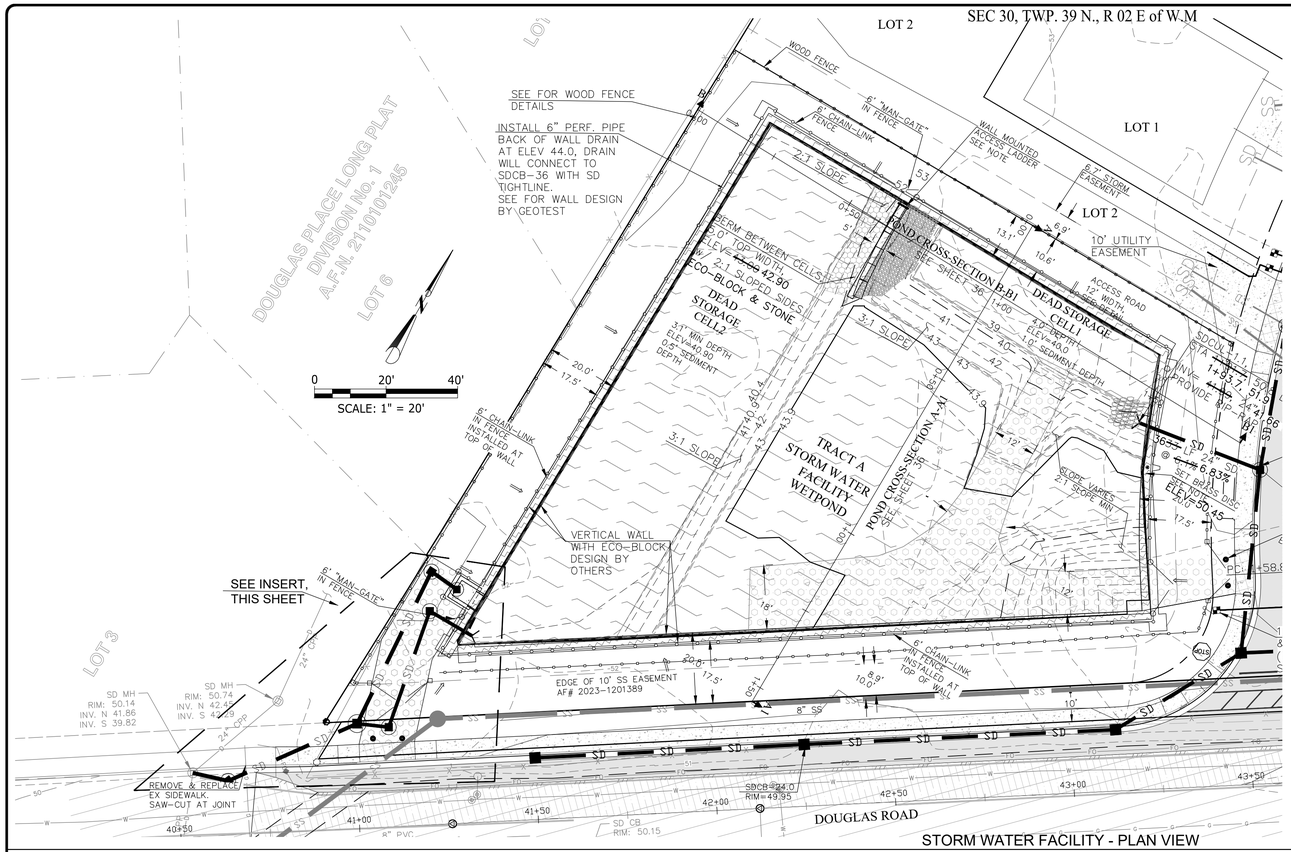
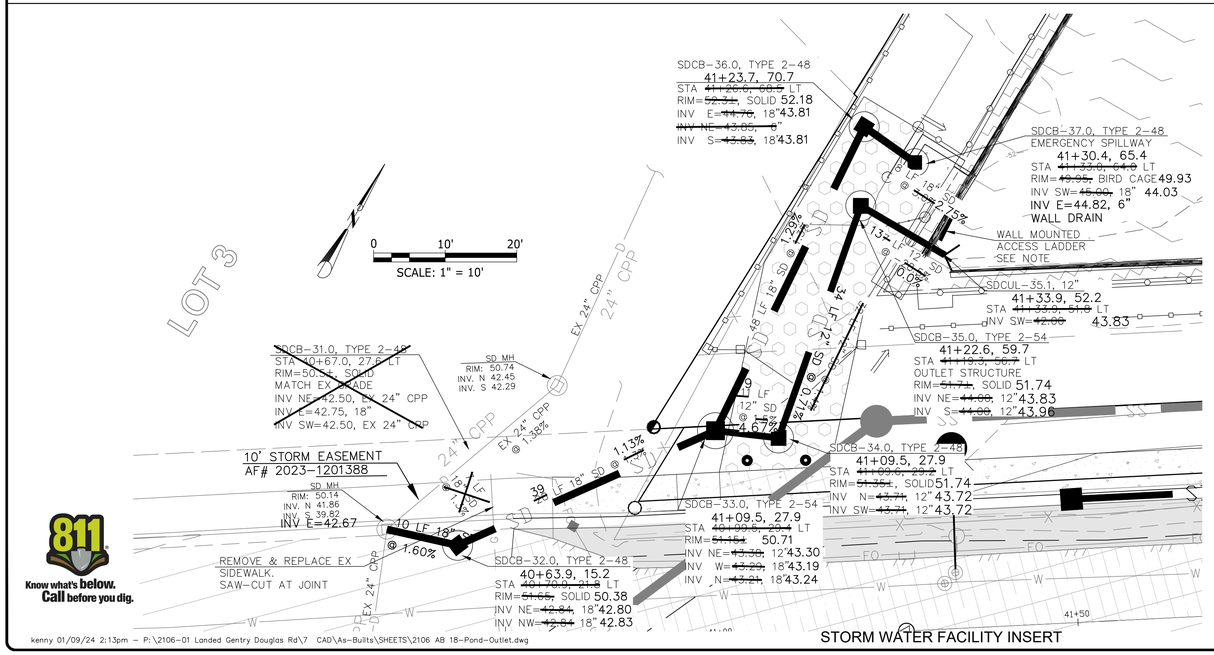
email: info@wedenengineering.com

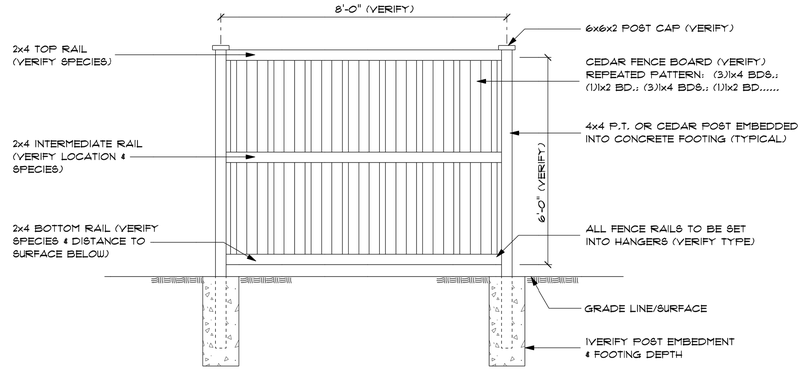
SEAL
STATE OF WASHINGTON
ERIC J. WEDEN
40047
REGISTERED
PROFESSIONAL ENGINEER
12/08/2023



STORM WATER FACILITY - PLAN VIEW



STORM WATER FACILITY INSERT



TYPICAL FENCE DETAIL (NO GAPS)

SCALE: 1/2" = 1'-0"

PERIMETER WOOD FENCE FROM LANDSCAPE PLAN

NOTES:
6' FOOT CHAIN-LINK FENCE SHALL BE INSTALLED 2.0' MIN BEHIND EDGE OF BLOCKS, SEE DETAILS ST-20, ST-21, & FENCE LOCATION, SEE SHEET 41.

WOOD LANDSCAPE FENCE PLACED ALONG PERIMETER OF TRACT A, CONFIRM WITH LANDSCAPE PLANS

ECO-BLOCK WALL TO BE DESIGNED BY OTHERS

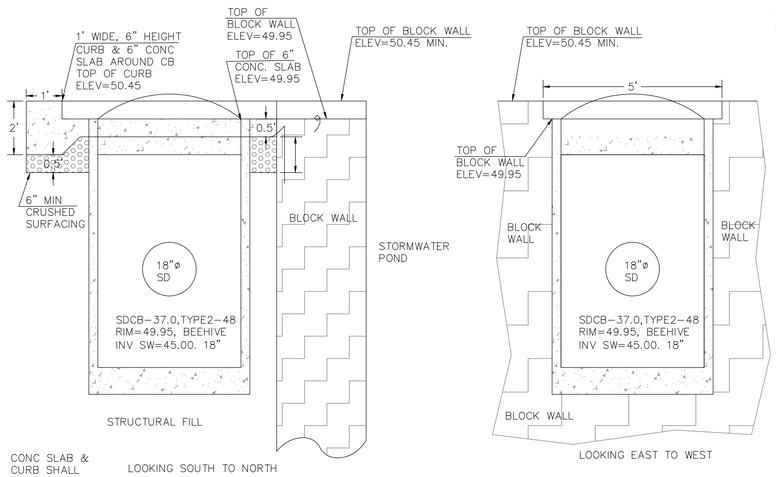
6" PERF. PIPE BACK OF WALL DRAIN LINE SHALL BE INSTALLED AT ELEV. 44.0 AND CONNECT TO SDCB-36 WITH STORM TIGHTLINE PIPE

EMERGENCY RELEASE FOR POND SHALL BE SDCB-37.0, RIM=49.95
FOR OUTLET STRUCTURE, EMERGENCY SPILLWAY DETAILS & POND CROSS-SECTION, SEE SHEET 35

WALL NOTE:
ALL RETAINING WALLS EXCEEDING 4 FEET IN HEIGHT MUST BE PERMITTED AND APPROVED SEPARATELY THROUGH THE BUILDING DEPARTMENT.

SURVEYOR'S MONUMENT BENCH MARK NOTE:
A SURVEYOR'S BASS DISC SHALL BE BE INSTALLED ON TOP OF ROCK WALL. MONUMENT TO BE STAMPED"BENCH MARK", "ELEV=BM ELEV" AT TIME OF SETTING PROJECT PROPERTY CORNERS & CENTERLINE, PRIOR TO FINAL PLAT. BENCH MARK ELEVATION SHALL BE RECORDED ON PROJECT AS-BUILTS & STORMWATER O&M MANUAL. BM ELEV=50.45

ACCESS LADDER NOTE:
LADDER AND MOUNTING MATERIAL SHALL BE COATED METAL/GALVANIZED, 2 LOCATIONS CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE CITY FOR REVIEW & APPROVAL



CONC SLAB & CURB SHALL BE FORMED & POURED-IN PLACE

SDCB-36.0, CONC. SLAB & CURB

SCALE 1"=2'

AS-BUILTS REVISED PER CITY COMMENTS 12/14/2023
REVISED PER CITY COMMENTS 03/04/2023
REVISED FOR POND OUTLET 04/24/2023
REVISED SDCB-36 FOR WALL DRAIN 04/11/2023
REVISED POND STORM OUTLET 04/04/2023
REVISED PER CITY COMMENTS 03/08/2023

No.	REVISIONS/ SUBMISSIONS	DATE
	REVISED PER CITY COMMENTS	02/28/2023
	ADDED ACCESS RAMPS	02/09/2023
	REVISED PER CITY COMMENTS	12/15/2022
	REVISED PER CITY COMMENTS	11/10/2022
	REVISED PER CITY COMMENTS	10/20/2022

REVIEWED : EJW | DRAWN : KLS | PROJECT NO. : 2106-01
CAD FILE :

PROJECT TITLE
DOUGLAS FARM
44 LOT LONG PLAT
2396 DOUGLAS ROAD
FERNDALE, WA

DRAWING TITLE
STORMWATER FACILITY WETPOND PLAN

AS-BUILTS

DATE : 08/03/2022
DRAWING No.
18 of 41

APPROVED
01/11/2024
BY
CITY OF FERNDALE
PUBLIC WORKS DEPARTMENT

J. WEDEN
OF WASHINGTON
03230
REGISTERED PROFESSIONAL ENGINEER
STATE OF WASHINGTON
SEAL
12/14/2023

WEDEN ENGINEERING, LLC
Civil Engineering • Planning • Project Management
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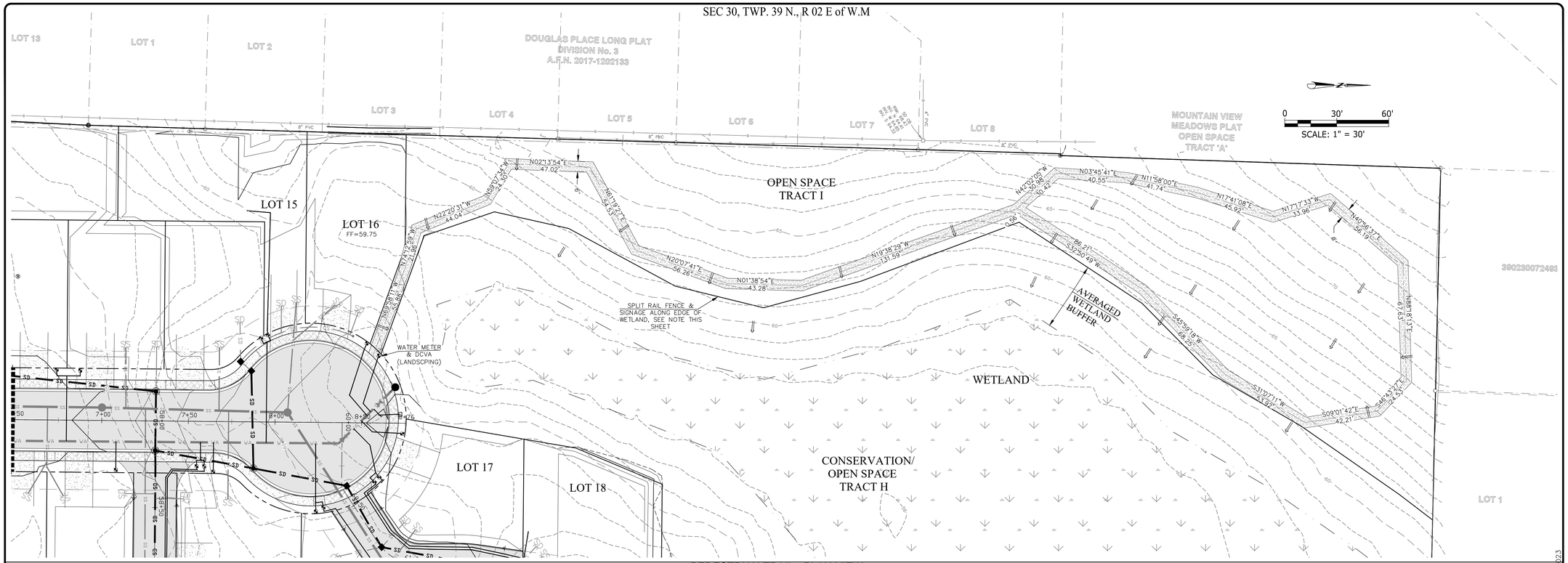
(360) 380-1363 (360) 384-3615 Fx
email: info@wedenengineering.com

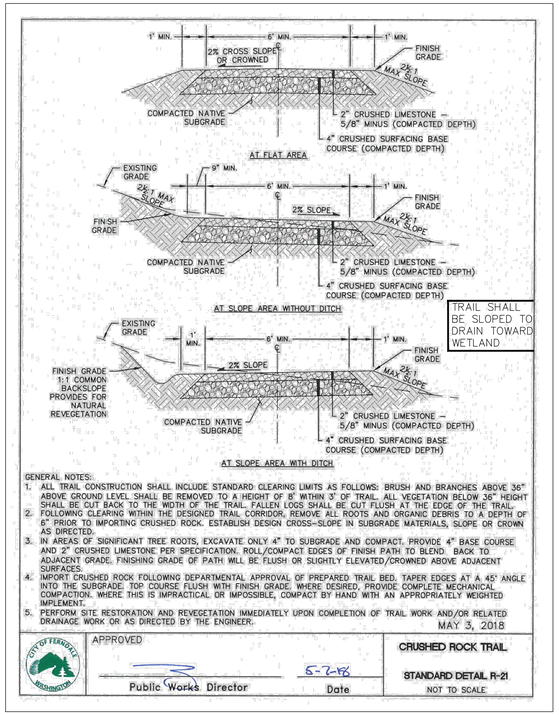
811 Know what's below. Call before you dig.

kenny 01/09/24 2:13pm – P:\2106-01 Landed Gentry Douglas Rd\7 CAD\As-Builts\SHEETS\2106 AB 18-Pond-Outlet.dwg

00746.018 01/11/24 RH



PEDESTRIAN TRAIL - PLAN VIEW



GENERAL NOTES:

1. ALL TRAIL CONSTRUCTION SHALL INCLUDE STANDARD CLEARING LIMITS AS FOLLOWS: BRUSH AND BRANCHES ABOVE 36" ABOVE GROUND LEVEL SHALL BE REMOVED TO A HEIGHT OF 8" WITHIN 3' OF TRAIL. ALL VEGETATION BELOW 36" HEIGHT SHALL BE CUT BACK TO THE WIDTH OF THE TRAIL. FALLEN LOGS SHALL BE CUT FLUSH AT THE EDGE OF THE TRAIL.
2. FOLLOWING CLEARING WITHIN THE DESIGNED TRAIL CORRIDOR, REMOVE ALL ROOTS AND ORGANIC DEBRIS TO A DEPTH OF 6" PRIOR TO IMPORTING CRUSHED ROCK. ESTABLISH DESIGN CROSS-SLOPE IN SUBGRADE MATERIALS, SLOPE OR CROWN AS DIRECTED.
3. IN AREAS OF SIGNIFICANT TREE ROOTS, EXCAVATE ONLY 4" TO SUBGRADE AND COMPACT. PROVIDE 4" BASE COURSE AND 2" CRUSHED LIMESTONE PER SPECIFICATION. ROLL/COMPACT EDGES OF FINISH PATH TO BLEND BACK TO ADJACENT GRADE. FINISHING GRADE OF PATH WILL BE FLUSH OR SLIGHTLY ELEVATED/CROWNED ABOVE ADJACENT SURFACES.
4. IMPORT CRUSHED ROCK FOLLOWING DEPARTMENTAL APPROVAL OF PREPARED TRAIL BED. TAPER EDGES AT A 45° ANGLE INTO THE SUBGRADE. TOP COURSE FLUSH WITH FINISH GRADE, WHERE DESIRED, PROVIDE COMPLETE MECHANICAL COMPACTION. WHERE THIS IS IMPRACTICAL OR IMPOSSIBLE, COMPACT BY HAND WITH AN APPROPRIATELY WEIGHTED IMPLEMENT.
5. PERFORM SITE RESTORATION AND REVEGETATION IMMEDIATELY UPON COMPLETION OF TRAIL WORK AND/OR RELATED DRAINAGE WORK OR AS DIRECTED BY THE ENGINEER.

MAY 3, 2018

CITY OF FERNDALE WASHINGTON

APPROVED

Public Works Director — 5-7-18 Date

CRUSHED ROCK TRAIL

STANDARD DETAIL R-21

NOT TO SCALE

NOTES:
THE 6' TRAIL SHALL BE GRADED WITH A CROSS-SLOPE TO PROVIDE SHEET FLOW DRAINAGE TOWARD THE WETLAND CONTRACTOR TO GRADE TO PROVIDE POSITIVE DRAINAGE TO THE WETLAND FOR RAIL FENCE PLACEMENT & SIGNAGE ALONG EDGE OF WETLAND BUFFER, SEE WETLAND MITIGATION PLANS BY SOUNDVIEW CONSULTANTS

811 Know what's below. Call before you dig.

kenny 12/07/23 9:43am – P:\2106-01 Landed Gentry Douglas Rd\7 CAD\Vis-Builts\SHEETS\2106 AB 19-Trail.dwg

REVISED FOR POND OUTLET 04/24/2023

AS-BUILTS

SEAL

J. WESLEY WEDEN JR. — STATE OF WASHINGTON — 23331 — REGISTERED PROFESSIONAL ENGINEER — 12/08/2023

WEDEN ENGINEERING, LLC
Civil Engineering • Planning • Project Management
2636 Nubgaard Rd. Ferndale, WA 98248
(360) 380-1363 | (360) 384-3615 Fx
email: info@wedenengineering.com

APPROVED
01/11/2024
BY
CITY OF FERNDALE
PUBLIC WORKS DEPARTMENT

No.	REVISIONS/ SUBMISSIONS	DATE
	REVISED PER CITY COMMENTS	03/08/2023
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	REVISED PER CITY COMMENTS	11/10/2022
	REVISED PER CITY COMMENTS	10/20/2022

REVIEWED : EJW | DRAWN : KLS | PROJECT NO : 2106-01 | CAD FILE :

PROJECT TITLE
DOUGLAS FARM
44 LOT LONG PLAT
2396 DOUGLAS ROAD
FERNDALE, WA

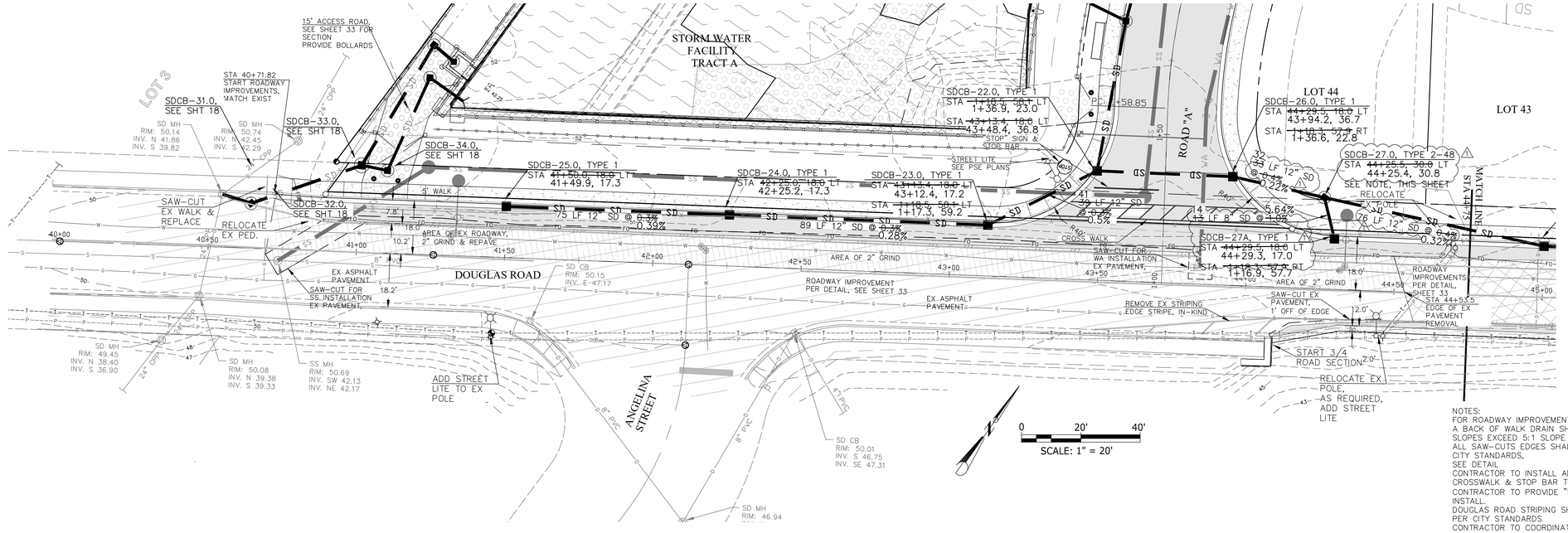
DRAWING TITLE
PEDESTRIAN TRAIL PLAN

DATE : 08/03/2022

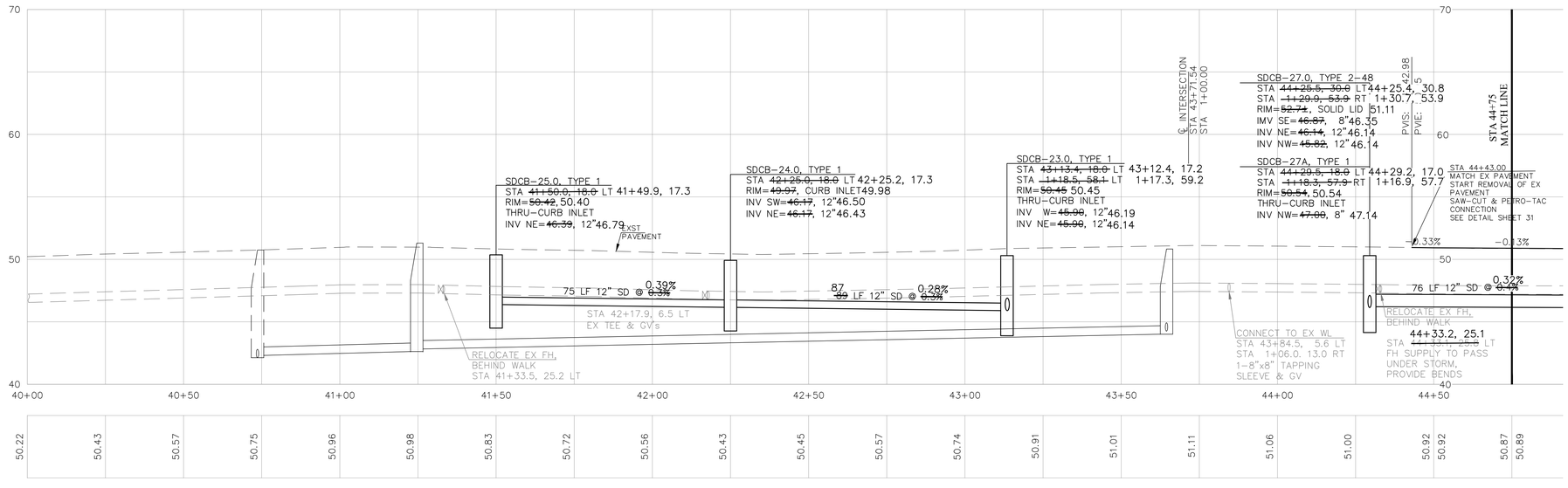
DRAWING No.
19 of 41

00746.019 01/11/24 RH

SEC 30, TWP. 39 N., R 02 E of W.M



NOTES:
FOR ROADWAY IMPROVEMENTS, SEE SHEET 33
A BACK OF WALK DRAIN SHALL BE INSTALLED IF SLOPES EXCEED 5:1 SLOPE
ALL SAW-CUTS EDGES SHALL BE PETRO TAC PER CITY STANDARDS,
SEE DETAIL
CONTRACTOR TO INSTALL ADA RAMPS, TYPE 4 CROSSWALK & STOP BAR TO BE INSTALLED
CONTRACTOR TO PROVIDE "STOP" SIGN, CITY TO INSTALL.
DOUGLAS ROAD STRIPING SHALL BE STRIPED IN-KIND PER CITY STANDARDS
CONTRACTOR TO COORDINATE UTILITY RELOCATIONS WITH UTILITY COMPANIES
STREET LIGHTING APPROVED BY CITY AND PSE, MUST BE INSTALLED PRIOR TO FINAL PLAT.
CONTRACTOR SHALL COORDINATE UTILITY INSTALLATIONS
FOR INSTALLATION OF SDCB-32, EXISTING WALK SHALL BE SAW-CUT AT JOINTS, REMOVED AND REPLACED.



DOUGLAS ROAD
SCALE:
1" = 20' Horz
1" = 5' Vert

Know what's below. Call before you dig.

kenny 12/07/23 11:15am – P:\2106-01 Landed Gentry Douglas Rd\7 CAD\As-Builts\SHEETS\2106 AB 20 Doug.dwg

SEAL
12/06/2023

WEDEN ENGINEERING, LLC
Civil Engineering • Planning • Project Management
2636 Nubgaard Rd, Ferndale, WA 98248
(360) 380-1363 (360) 384-3615 Fx
email: info@wedenengineering.com

APPROVED
01/11/2024
BY
CITY OF FERNDALE
PUBLIC WORKS DEPARTMENT

No.	REVISIONS/ SUBMISSIONS	DATE
	REVISED PER CITY COMMENTS	03/08/2023
	REVISED PER CITY COMMENTS	02/28/2023
	REVISED PER CITY COMMENTS	12/15/2022
	REVISED PER CITY COMMENTS	11/10/2022
	REVISED PER CITY COMMENTS	10/20/2022

REVISED SD FOR X-INGS 06/26/2023
REVISED FOR POND OUTLET 04/24/2023

REVIEWED : EJW
DRAWN : KLS
CAD FILE :
PROJECT NO. : 2106-01

PROJECT TITLE
DOUGLAS FARM
44 LOT LONG PLAT
2396 DOUGLAS ROAD
FERNDALE, WA

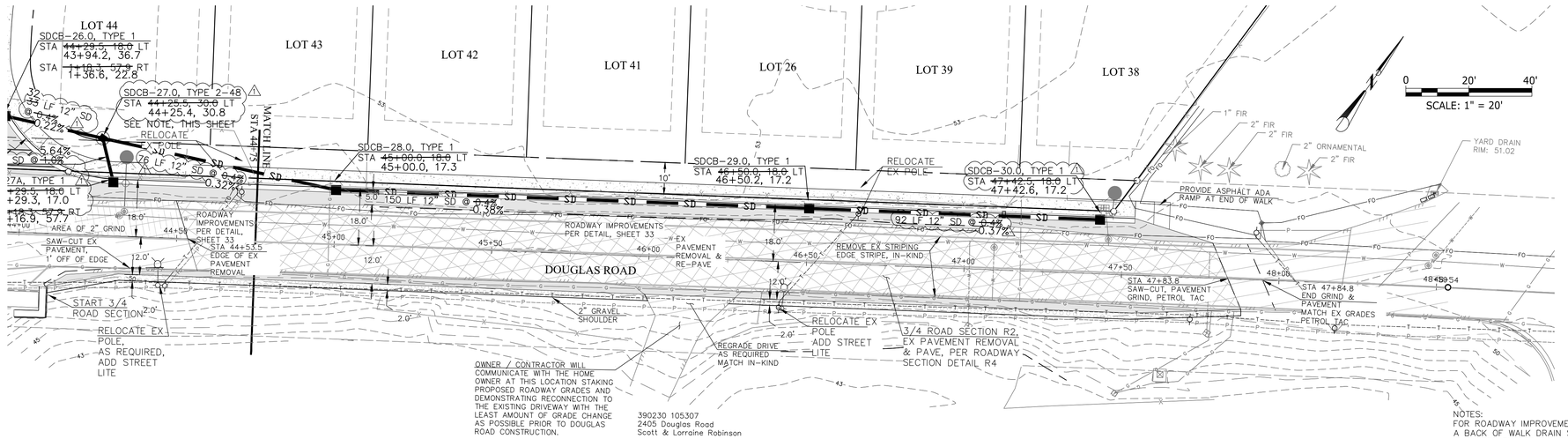
DRAWING TITLE
STORM & ROADWAY PLAN & PROFILE

DATE : 08/03/2022

DRAWING No.
20 of 41

00746.020 01/11/24 RH

SEC 30, TWP. 39 N., R 02 E of W.M



NOTE:
SDCB-27.0 TO BE FIELD ADJUSTED TO PROVIDE CLEARANCE FOR STORM MAIN TO PASS BEHIND EX. FIRE HYD.

NOTES:
FOR ROADWAY IMPROVEMENTS, SEE SHEET 33
A BACK OF WALK DRAIN SHALL BE INSTALLED IF SLOPES EXCEED 5:1 SLOPE
ALL SAW-CUTS EDGES SHALL BE PETRO TAC PER CITY STANDARDS,
SEE DETAIL
CONTRACTOR TO INSTALL ADA RAMPS, TYPE 4 CROSSWALK & STOP BAR TO BE INSTALLED
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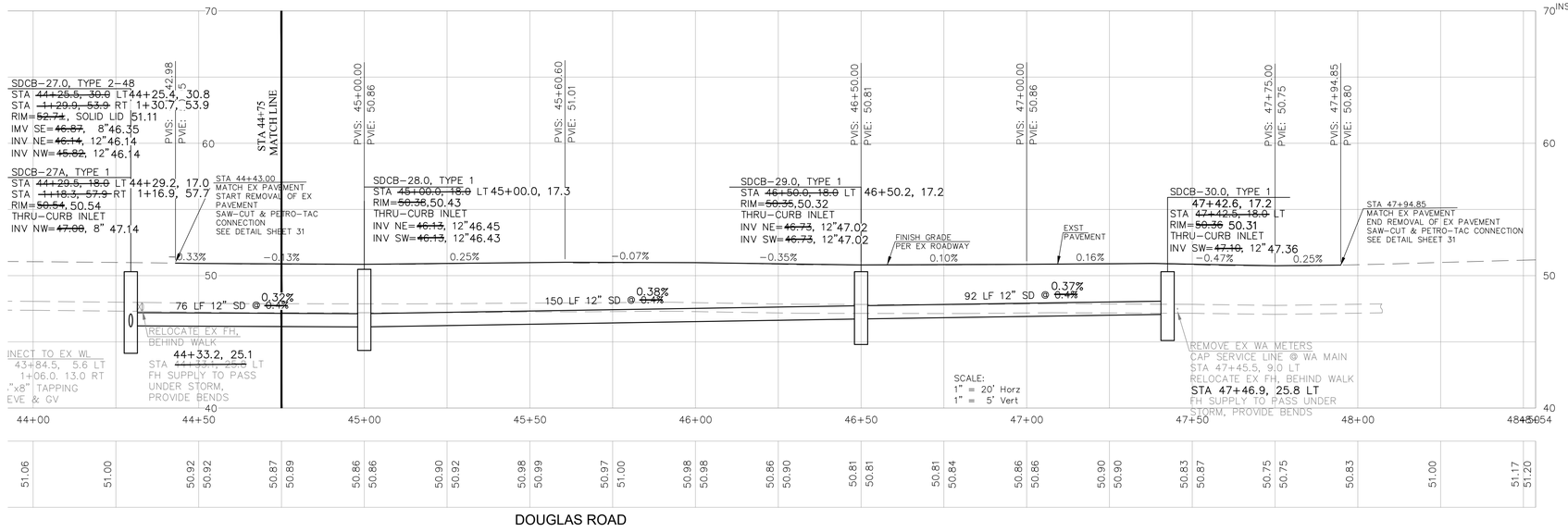

DOUGLAS ROAD

Know what's below. Call before you dig.

kenny 12/07/23 11:15am – P:\2106-01 Landed Gentry Douglas Rd\7 CAD\As-Builts\SHEETS\2106 AB 20 Doug.dwg

AS-BUILTS

REVISED SD FOR PIPE X-ING 06/26/2023
REVISED FOR POND OUTLET 04/24/2023

No.	REVISIONS/ SUBMISSIONS	DATE
	REVISED PER CITY COMMENTS	03/08/2023
	REVISED PER CITY COMMENTS	02/28/2023
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REVIEWED : EJW | DRAWN : KLS
CAD FILE : | PROJECT NO : 2106-01

PROJECT TITLE
DOUGLAS FARM
44 LOT LONG PLAT
2396 DOUGLAS ROAD
FERNDALE, WA

DRAWING TITLE
STORM & ROADWAY PLAN & PROFILE

DATE : 08/03/2022

DRAWING No.
21 of 41

APPROVED
01/11/2024
BY
CITY OF FERNDALE
PUBLIC WORKS DEPARTMENT

WEDEN ENGINEERING, LLC
Civil Engineering • Planning • Project Management
2636 Nubgaard Rd, Ferndale, WA 98248
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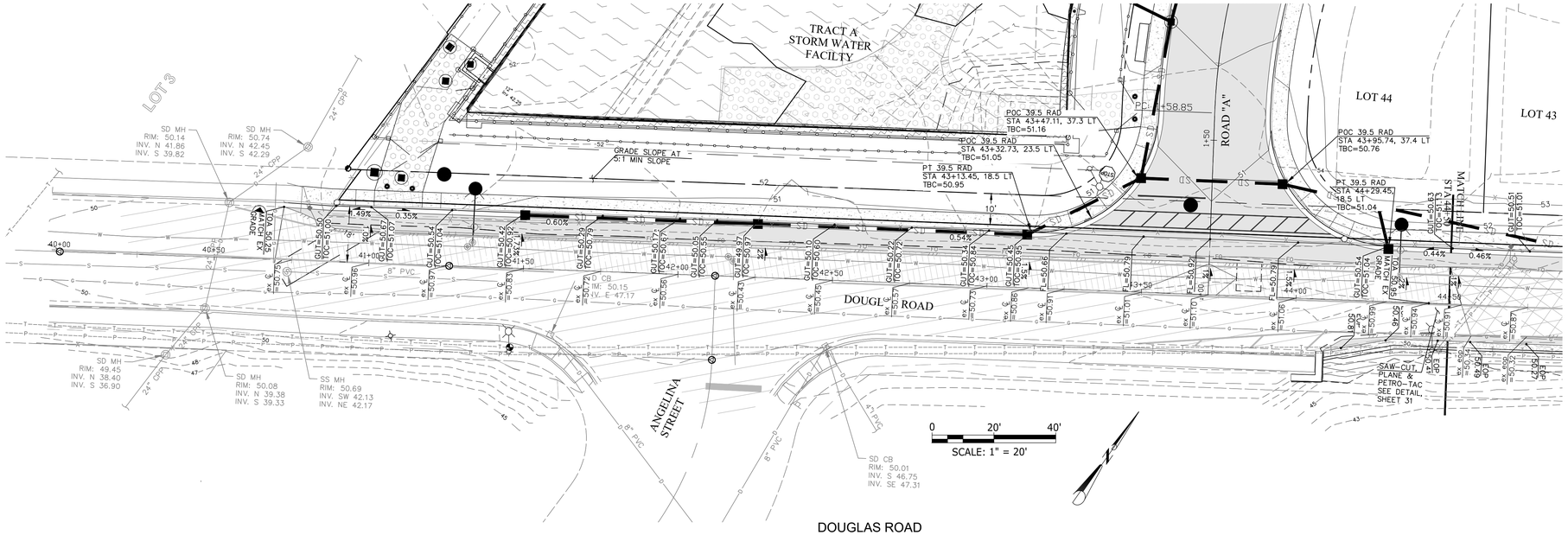
email: info@wedenengineering.com

SEAL
12/06/2023

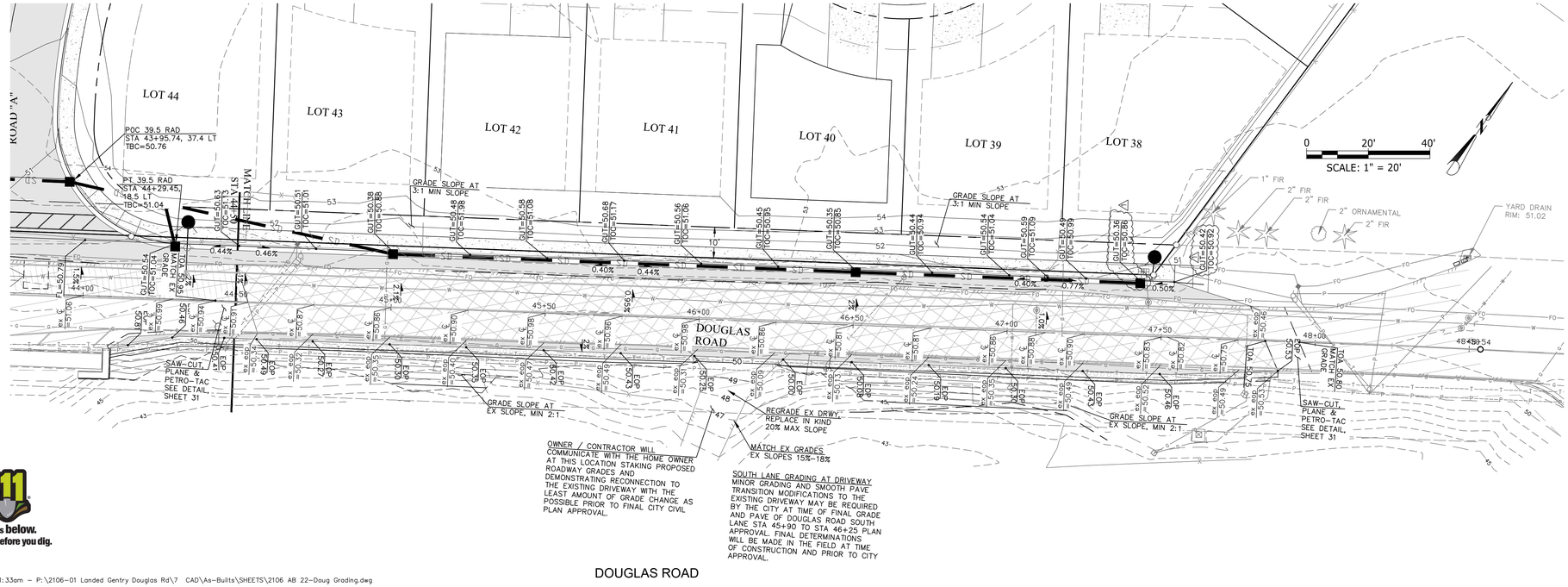
00746.021 01/11/24 RH

SEC 30, TWP. 39 N., R 02 E of W.M



A BACK OF WALK DRAIN SHALL BE INSTALLED IF SLOPES EXCEED 5:1 SLOPE

CURB GRADING:
SECTIONS OF PROPOSED CURB GRADE/SLOPE IS LESS THAN 0.5% EXTRA ATTENTION TO CURB INSTALLATION MAY BE REQUIRED.
PUDDLING WILL NOT BE ACCEPTED OR APPROVED BY CITY OF FERNDALE



OWNER / CONTRACTOR WILL COMMUNICATE WITH THE HOME OWNER AT THIS LOCATION STAKING PROPOSED ROADWAY GRADES AND DEMONSTRATING RECONNECTION TO THE EXISTING DRIVEWAY WITH THE LEAST AMOUNT OF GRADE CHANGE AS POSSIBLE PRIOR TO FINAL CITY CIVIL PLAN APPROVAL.

SOUTH LANE GRADING AT DRIVEWAY
MINOR GRADING AND SMOOTH PAVE TRANSITION MODIFICATIONS TO THE EXISTING DRIVEWAY MAY BE REQUIRED BY THE CITY AT TIME OF FINAL GRADE AND PAVE OF DOUGLAS ROAD SOUTH LANE STA 45+90 TO STA 46+25 PLAN APPROVAL. FINAL DETERMINATIONS WILL BE MADE IN THE FIELD AT TIME OF CONSTRUCTION AND PRIOR TO CITY APPROVAL.

DOUGLAS ROAD

Know what's below. Call before you dig.

Kenny 12/07/23 11:33am – P:\2106-01 Landed Gentry Douglas Rd\7 CAD\As-Builts\SHEETS\2106 AB 22-Doug Grading.dwg

SEAL
12/08/2023

WEDEN ENGINEERING, LLC
Civil Engineering • Planning • Project Management
2636 Nubgaard Rd. Ferndale, WA 98248
(360) 380-1363 | (360) 384-3615 Fx
email: info@wedenengineering.com

APPROVED
01/11/2024
BY
CITY OF FERNDALE
PUBLIC WORKS DEPARTMENT

No.	REVISIONS/ SUBMISSIONS	DATE
	REVISED PER CITY COMMENTS	03/08/2023
	REVISED PER CITY COMMENTS	02/28/2023
	REVISED PER CITY COMMENTS	12/15/2022
	REVISED PER CITY COMMENTS	11/16/2022
	REVISED PER CITY COMMENTS	10/20/2022

REVIEWED : EJW | DRAWN : KLS
CAD FILE : | PROJECT NO : 2106-01

⚠ REVISED SD FOR X-INGS, 06/26/2023
REVISED FOR POND OUTLET 06/14/2023
REVISED POND STORM OUTLET 04/04/2023

AS-BUILTS

PROJECT TITLE
DOUGLAS FARM
44 LOT LONG PLAT
2396 DOUGLAS ROAD
FERNDALE, WA

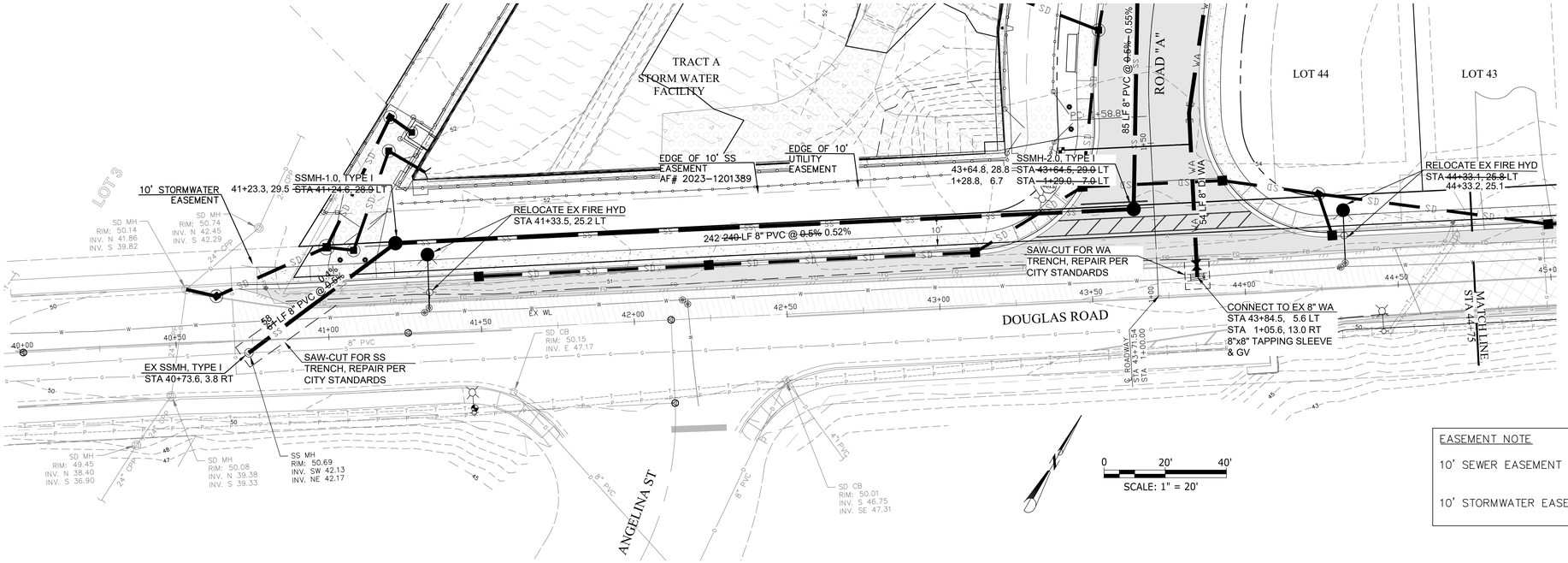
DRAWING TITLE
DOUGLAS ROAD GRADING

DATE : 08/03/2022

DRAWING No.
22 of 41

00746.022 01/11/24 RH

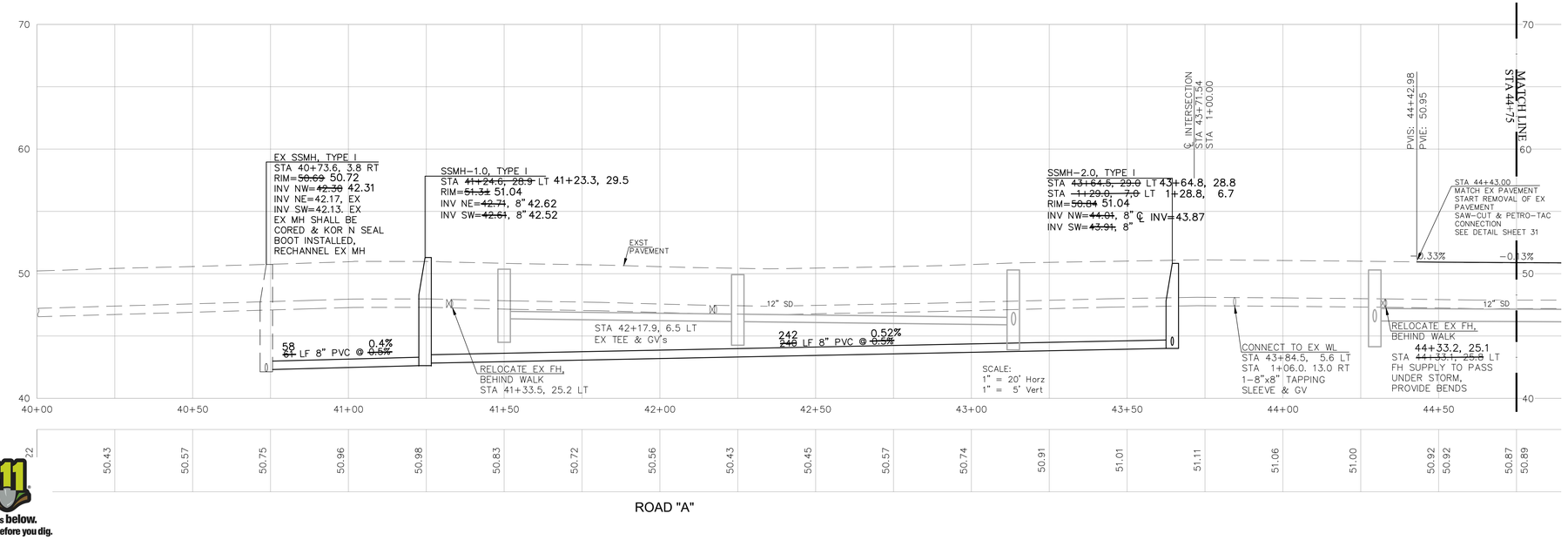
SEC 30, TWP. 39 N., R 02 E of W.M



EXISTING HYDRANTS AND VALVES NOTE:
HYDRANTS AND VALVES WILL BE ASSESSED FOR FUNCTIONALITY DURING CONSTRUCTION AND WILL BE REPLACED IF NEEDED AS DETERMINED BY PUBLIC WORKS.

EASEMENT NOTE

10' SEWER EASEMENT	AF# 2023-1201389
10' STORMWATER EASEMENT	AF# 2023-1201388



Know what's below. Call before you dig.

kenny 01/09/24 2:23pm – P:\2106-01 Landed Gentry Douglas Rd\7 CAD\As-Builts\SHEETS\2106 AB 23 24-ss wa Doug.dwg

AS-BUILTS REVISED PER CITY COMMENTS 12/14/2023
REVISED FOR POND OUTLET 04/24/2023
REVISED POND STORM OUTLET 04/04/2023

No.	REVISIONS/ SUBMISSIONS	DATE
	REVISED PER CITY COMMENTS	03/08/2023
	REVISED PER CITY COMMENTS	02/28/2023
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	REVISED PER CITY COMMENTS	11/16/2022
	REVISED PER CITY COMMENTS	10/20/2022

REVIEWED : EJW DRAWN : KLS
CAD FILE : PROJECT NO : 2106-01

AS-BUILTS

PROJECT TITLE
DOUGLAS FARM
44 LOT LONG PLAT
2396 DOUGLAS ROAD
FERNDALE, WA

DRAWING TITLE
SANITARY SEWER & WATER PLAN & PROFILE

DATE : 08/03/2022

DRAWING No.
23 of 41

SEAL

12/14/2023

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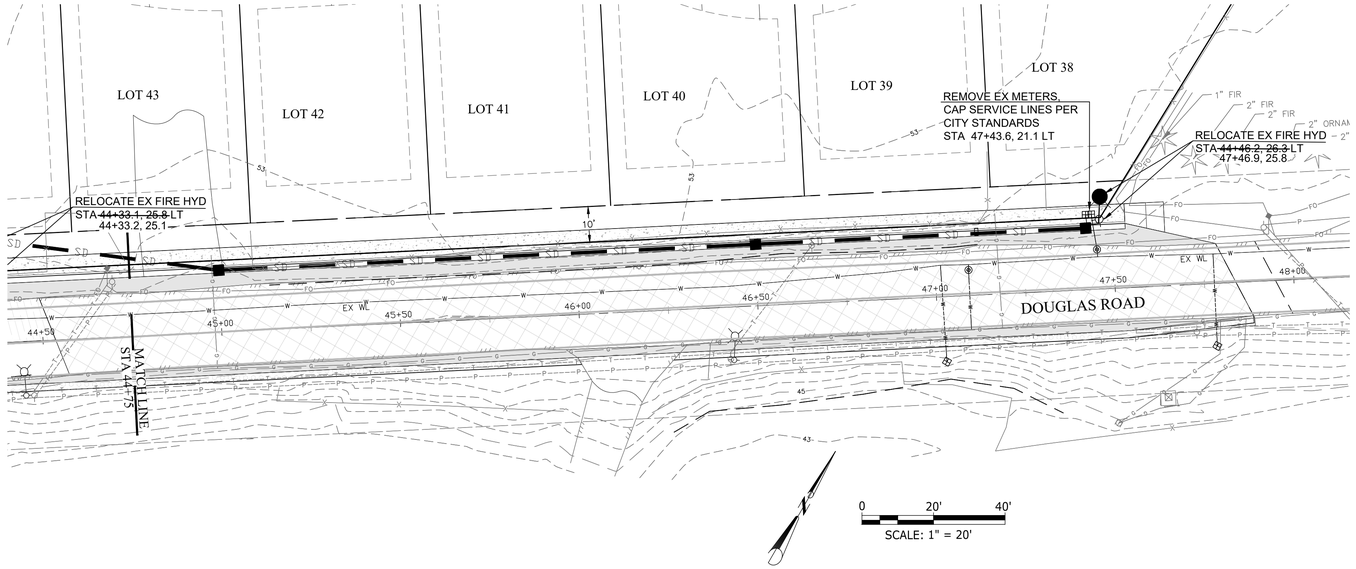
00746.023 01/11/24 RH

SEC 30, TWP. 39 N., R 02 E of W.M



EXISTING HYDRANTS AND VALVES NOTE:
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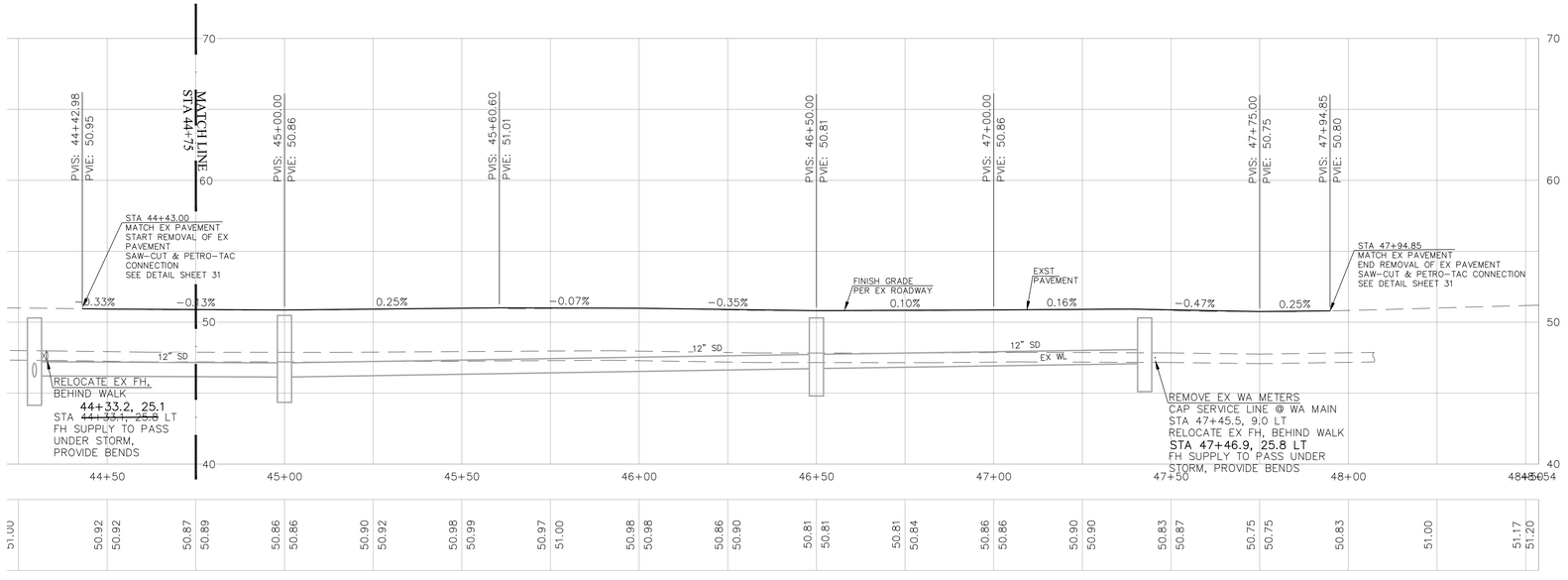

DOUGLAS ROAD
SCALE:
1" = 20' Horz
1" = 5' Vert

811 Know what's below. Call before you dig.

Izabella 12/06/23 2:35pm – P:\2106-01 Landed Gentry Douglas Rd\7 CAD\As-Builts\SHEETS\2106 AB 23 24-ss wa Doug.dwg

REVISED FOR POND OUTLET 04/24/2023

AS-BUILTS

No.	REVISIONS/ SUBMISSIONS	DATE
	REVISED PER CITY COMMENTS	03/08/2023
	REVISED PER CITY COMMENTS	02/28/2023
	REVISED PER CITY COMMENTS	12/15/2022
	REVISED PER CITY COMMENTS	11/10/2022
	REVISED PER CITY COMMENTS	10/20/2022

REVIEWED : EJW | DRAWN : KLS
CAD FILE : | PROJECT NO: 2106-01

PROJECT TITLE
DOUGLAS FARM
44 LOT LONG PLAT
2396 DOUGLAS ROAD
FERNDALE, WA

DRAWING TITLE
SANITARY SEWER & WATER PLAN & PROFILE

DATE : 08/03/2022
DRAWING No.
24 of 41

APPROVED
01/11/2024
BY
CITY OF FERNDALE
PUBLIC WORKS DEPARTMENT

SEAL
12/06/2023

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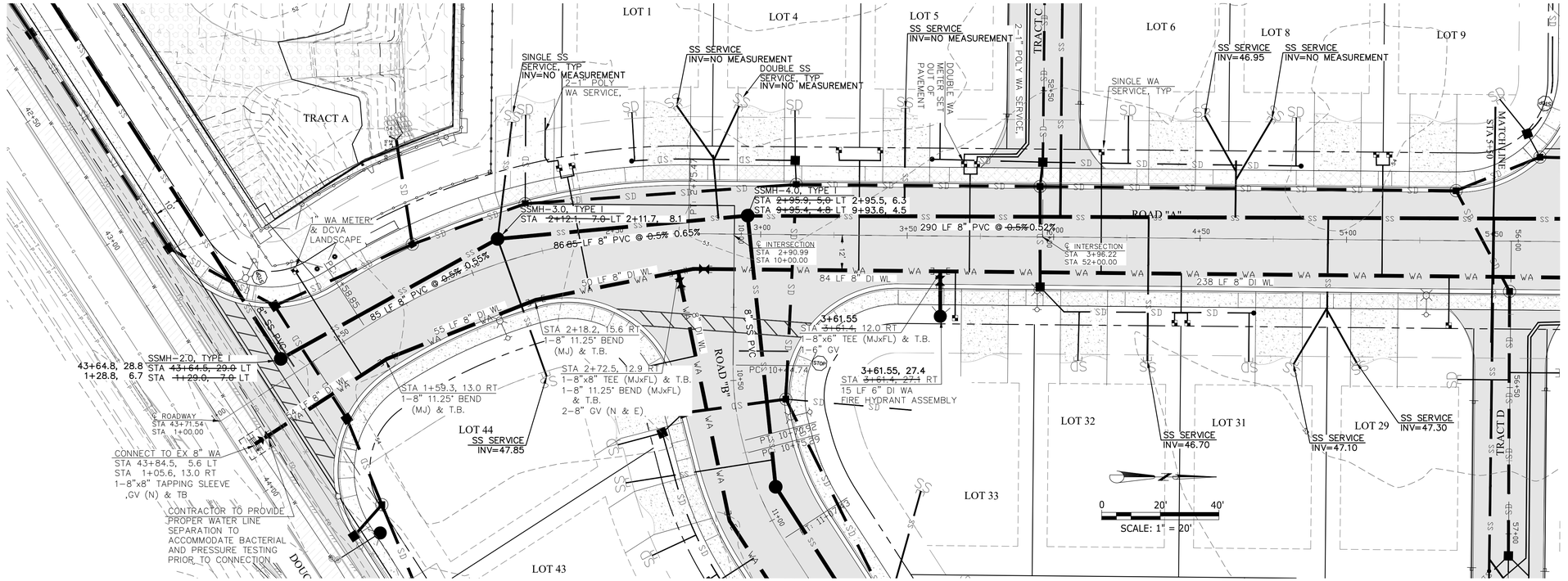
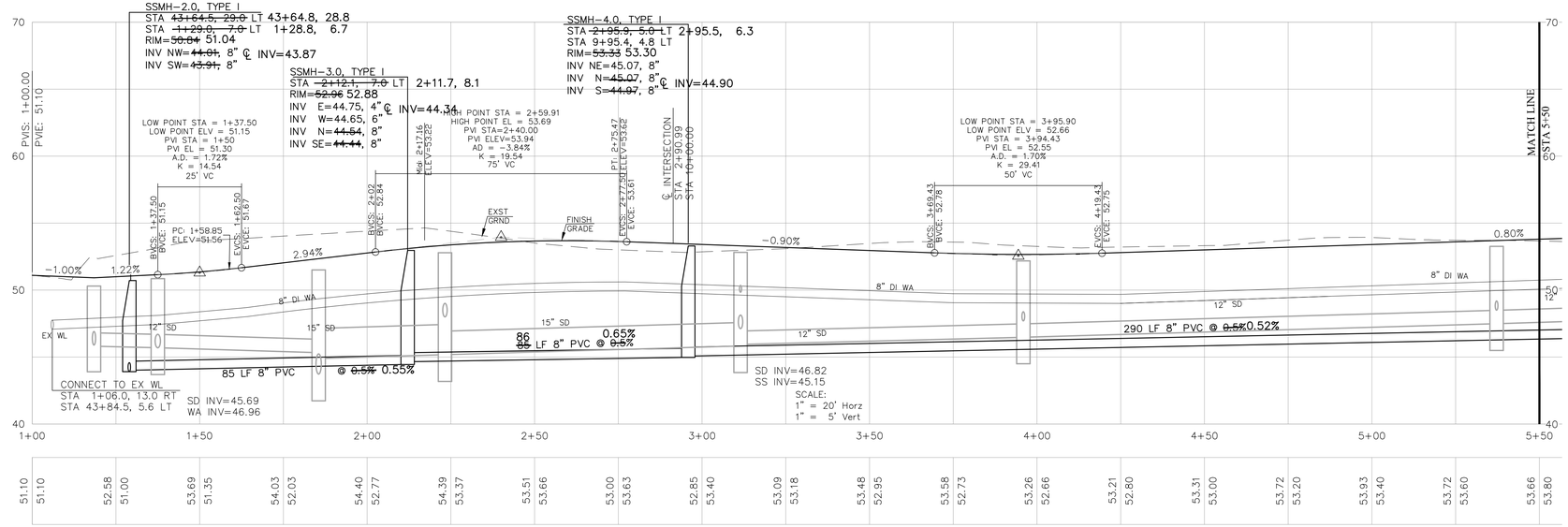
email: info@wedenengineering.com

00746.024 01/11/24 RH

SEC 30, TWP. 39 N., R 02 E of W.M





ROAD "A"

Know what's below. Call before you dig.

Izabella 12/06/23 1:55pm – P:\2106-01 Landed Gentry Douglas Rd\7 CAD\As-Builts\SHEETS\2106 AB 25-ss wa RDA.dwg

REVISED FOR POND OUTLET 04/24/2023

No.	REVISIONS/ SUBMISSIONS	DATE
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	REVISED PER CITY COMMENTS	02/28/2023
	REVISED PER CITY COMMENTS	12/15/2022
	REVISED PER CITY COMMENTS	11/10/2022
	REVISED PER CITY COMMENTS	10/20/2022

REVIEWED : E.J.W DRAWN : K.L.S
CAD FILE : PROJECT NO: 2106-01

SEAL

12/06/2023

WEDEN ENGINEERING, LLC
Civil Engineering • Planning • Project Management
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(360) 380-1363 (360) 384-3615 Fx
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01/11/2024
BY
CITY OF FERNDALE
PUBLIC WORKS DEPARTMENT

AS-BUILTS

PROJECT TITLE
DOUGLAS FARM
44 LOT LONG PLAT
2396 DOUGLAS ROAD
FERNDALE, WA

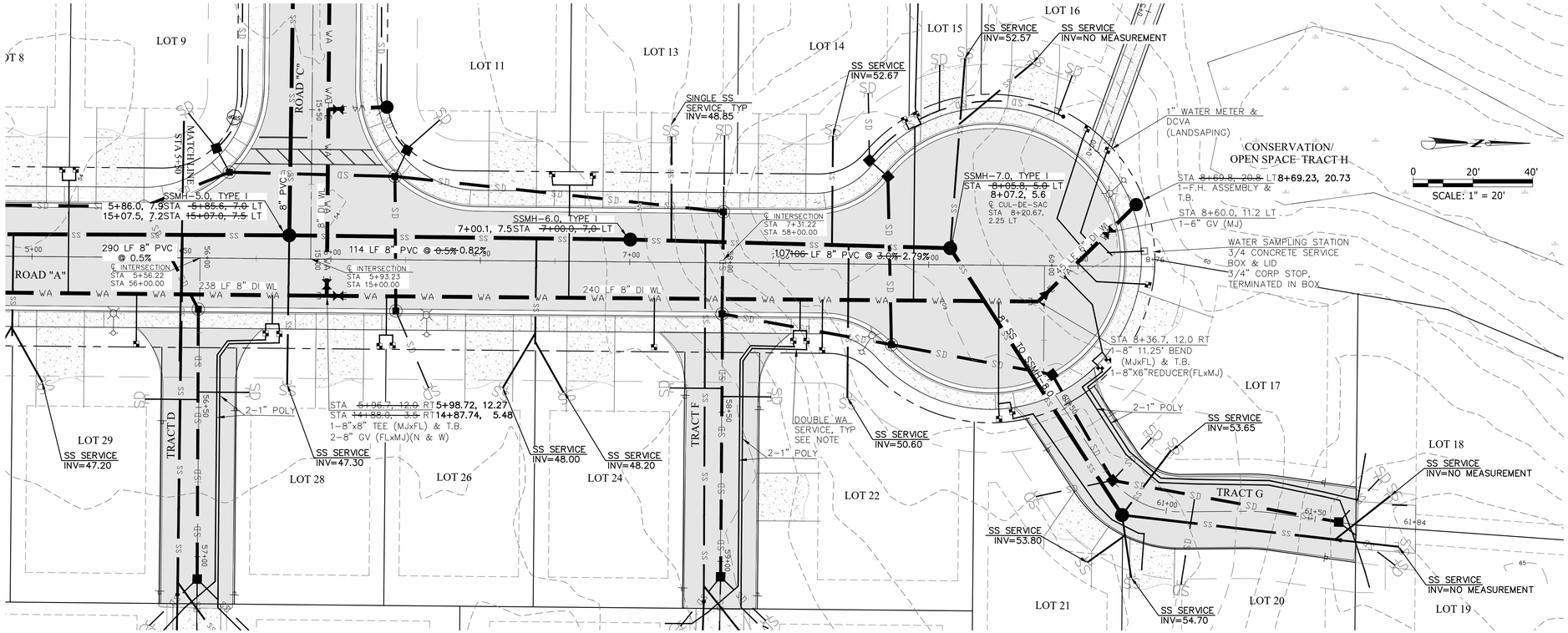
DRAWING TITLE
SANITARY SEWER & WATER PLAN & PROFILE

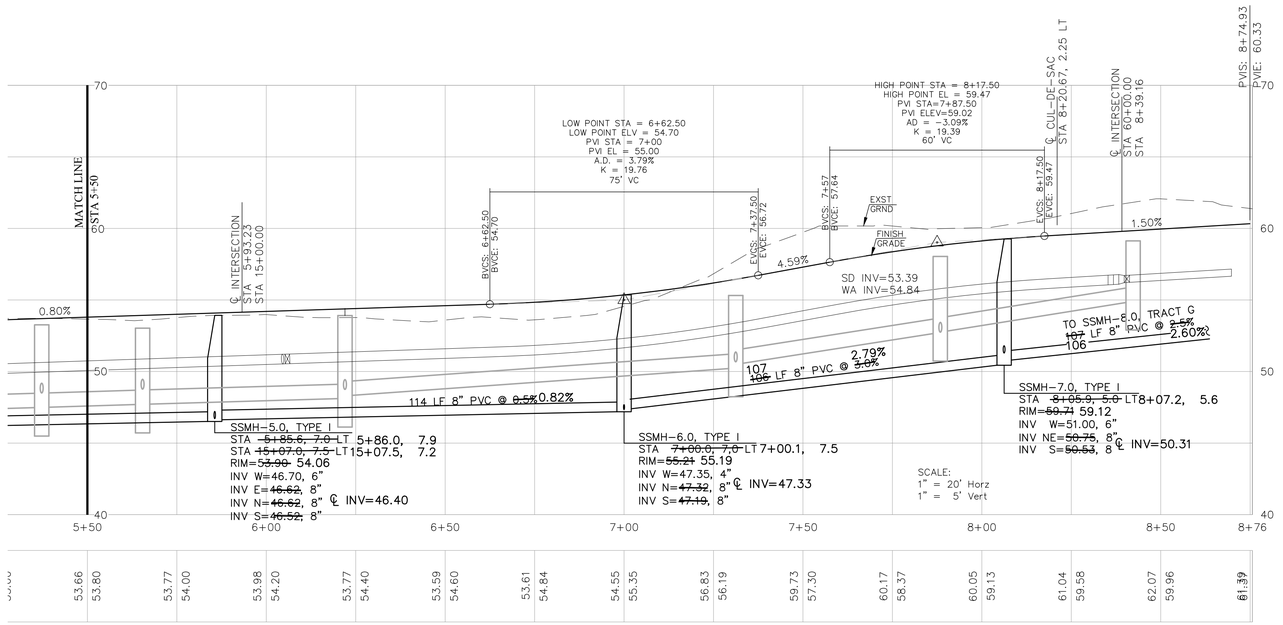
DATE : 08/03/2022

DRAWING No.
25 of 41

00746.025 01/11/24 RH

SEC 30, TWP. 39 N., R 02 E of W.M





Know what's below. Call before you dig.

Izabella 12/06/23 1:56pm – P:\2106-01 Landed Gentry Douglas Rd\7 CAD\As-Builts\SHEETS\2106 AB 26-ss wa RDA.dwg

SEAL

12/06/2023

WEDEN ENGINEERING, LLC
Civil Engineering • Planning • Project Management
2636 Nubgaard Rd, Ferndale, WA 98248
(360) 380-1363 | (360) 384-3615 Fx
email: info@wedenengineering.com

APPROVED
01/11/2024
BY
CITY OF FERNDALE
PUBLIC WORKS DEPARTMENT

05/04/2023 REVISED PER CITY COMMENTS
04/24/2023 REVISED FOR POND OUTLET

No.	REVISIONS/ SUBMISSIONS	DATE
	REVISED PER CITY COMMENTS	03/08/2023
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	REVISED PER CITY COMMENTS	12/15/2022
	REVISED PER CITY COMMENTS	11/10/2022
	REVISED PER CITY COMMENTS	10/20/2022

REVIEWED : EJW
DRAWN : KLS
CAD FILE :
PROJECT NO. : 2106-01

AS-BUILTS

PROJECT TITLE
DOUGLAS FARM
44 LOT LONG PLAT
2396 DOUGLAS ROAD
FERNDALE, WA

DRAWING TITLE
SANITARY SEWER & WATER PLAN & PROFILE

DATE : 08/03/2022
DRAWING No.
26 of 41

00746.026 01/11/24 RH

SEC 30, TWP. 39 N., R 02 E of W.M

LAMPLIGHTER MOBILE COURT
GENERAL BINDING SITE PLAN
A.F.N. 2016-0800800

LOT 1 | LOT 2 | LOT 4 | LOT 6 | LOT 30 | LOT 32 | LOT 33 | LOT 34 | LOT 35 | LOT 36 | LOT 37 | LOT 38 | LOT 39 | LOT 40 | LOT 41 | LOT 42 | LOT 43 | LOT 44 | TRACT A | TRACT E

ROAD "A" | ROAD "B"

SCALE: 1" = 20'

SS SERVICE INV=NO MEASUREMENT

DOUBLE SS SERVICE, TYP INV=46.90

SSMH-9.0, TYPE I
STA ~~10+90.0, 5.0~~ LT
10+89.9, 6.1

SSMH-4.0, TYPE I
9+93.6, 4.5 STA ~~9+95.4, 4.8~~ LT
2+95.5, 6.3 STA ~~2+86.0, 5.0~~ LT

STA INTERSECTION
STA 10+00.00
STA 2+90.99

93 ~~92~~ LF 8" SS PVC @ ~~0.5%~~ 0.69%

105 LF 8" DI WL

PROVIDE WL DEFLECTION, 750' RAD, FROM STA 11+42.1, 12.0 RT TO STA 11+66.7,11.6 RT

167 ~~168~~ LF 8" PVC @ ~~0.5%~~ 0.60%

SSMH-10.0, TYPE I
STA ~~12+56.4, 6.6~~ LT
12+57.6, 6.9

℄ CUL-DE-SAC
STA 12+58.44,
15.0 LT

STA 12+78.0, 7.9 RT
1-6" BLIND FLANGE (MJ) & REVERSE T.B.
1-2" BLOW-OFF ASSEMBLY

℄ INTERSECTION
STA 12+58.44
STA 12+76.69

81 LF 6" DI WL

92 ~~93~~ LF 6" PVC @ 1.0%

2-1" POLY WA SERVICE,

12" SD

DOUBLE WA METER SET OUT OF PAVEMENT

SS SERVICE INV=48.20

SS SERVICE INV=47.60

SSCO-10.1, TYPE I
STA ~~13+41.2, 3.3~~ RT 13+49.2, 3.8
STA ~~62+45.3, 6.7~~ LT 62+92.1, 6.2

SS SERVICE INV=47.65

SS SERVICE INV=48.10

SS SERVICE INV=47.30

SS SERVICE INV=NO MEASUREMENT

SS SERVICE INV=47.85

DOUBLE WA SERVICE, TYP

STA ~~10+93.9, 13.0~~ RT 10+93.88, 13.04
1-8" 11.25° BEND (MJ) & T.B.

SS SERVICE INV=48.20

SS SERVICE INV=NO MEASUREMENT

SS SERVICE INV=48.25

STA 11+97.0, 12.0 RT
1-8"x6" TEE (MJxFL) & T.B.
1-8"x6" REDUCER(MJxFL)
2-6" GV (E & S)

STA ~~11+96.5, 26.3~~ RT 11+96.70, 26.25
1-FIRE HYD ASSEMBLY & T.B.

P.C. 11+58.85

0 20' 40'

Know what's below. Call before you dig.

Izabella 12/06/23 2:02pm – P:\2106-01 Landed Gentry Douglas Rd\7 CAD\As-Builts\SHEETS\2106 AB 27-ss wa RDB.dwg

REVISED FOR POND OUTLET 04/24/2023

APPROVED
01/11/2024
BY
CITY OF FERNDALE
PUBLIC WORKS DEPARTMENT

No.	REVISIONS/ SUBMISSIONS	DATE
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	REVISED PER CITY COMMENTS	11/16/2022
	REVISED PER CITY COMMENTS	10/20/2022
	REVIEWED : EJW	DRAWN : KLS
	CAD FILE :	PROJECT NO : 2106-01

WEDEN ENGINEERING, LLC
Civil Engineering • Planning • Project Management
2636 Nubgaard Rd, Ferndale, WA 98248
(360) 380-1363 (360) 384-3615 Fx
email: info@wedenengineering.com

SEAL
REGISTERED PROFESSIONAL ENGINEER
STATE OF WASHINGTON
23331
EVAN J. WEDEN
04/26/2023

AS-BUILTS

PROJECT TITLE
DOUGLAS FARM
44 LOT LONG PLAT
2396 DOUGLAS ROAD
FERNDALE, WA

DRAWING TITLE
SANITARY SEWER & WATER PLAN & PROFILE

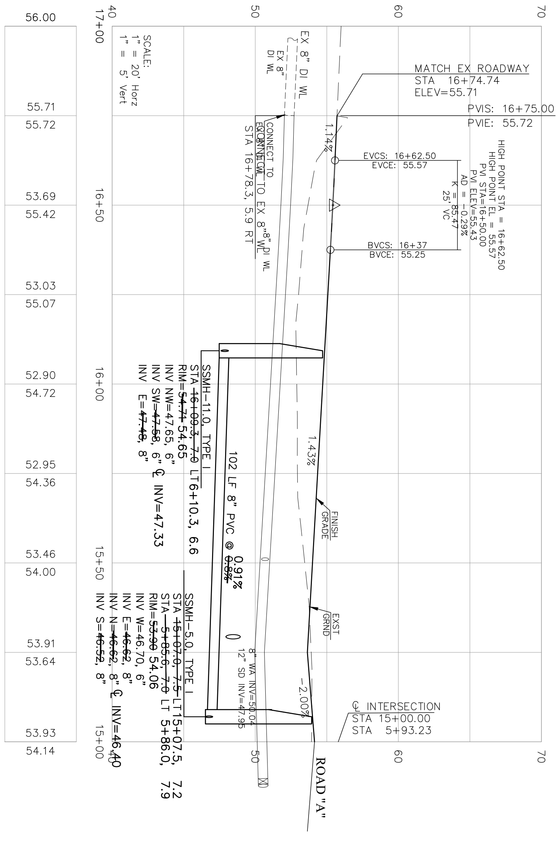
DATE : 08/03/2022

DRAWING No.
27 of 41

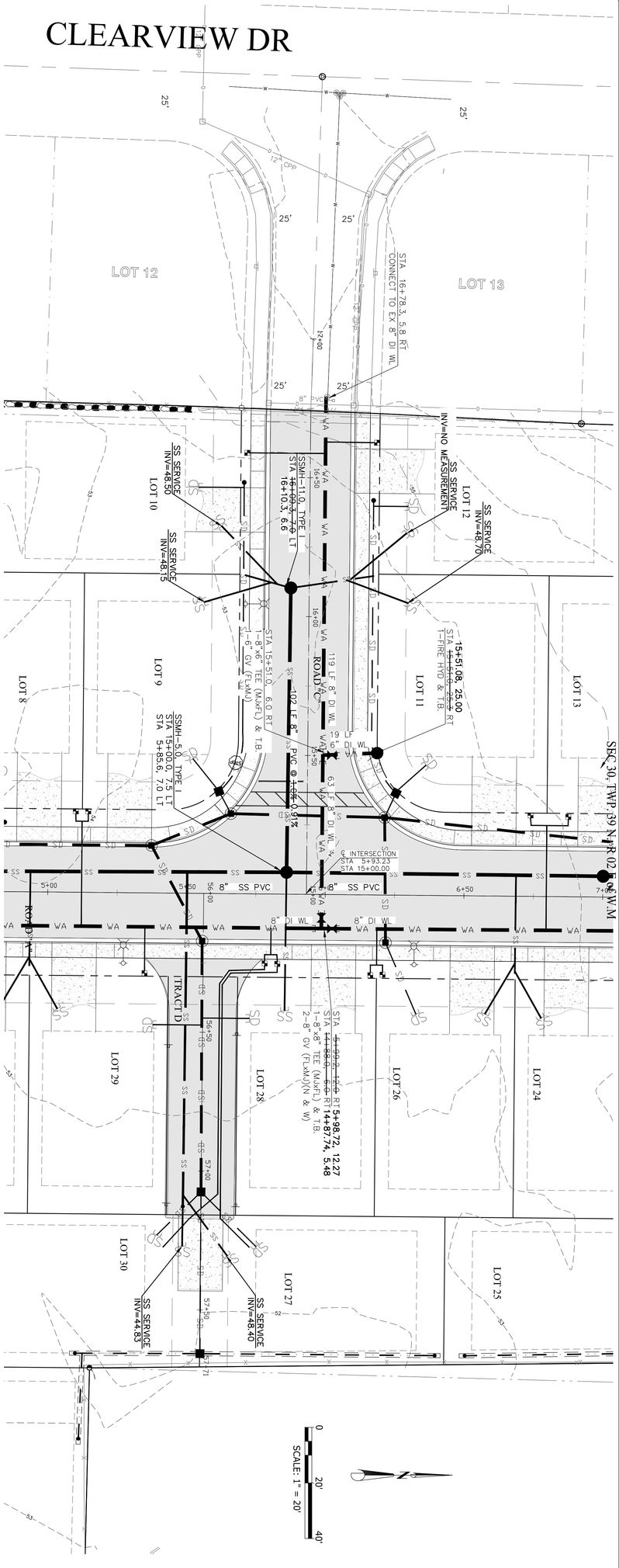
00746.027 01/11/24 RH

Know what's below. Call before you dig. 811

Update: 12/06/23 2:14pm – P:\2106-01 Loreto\Terry Douglas Rd\3 CAD\As-Built\SHEETS\2106 AB 28-as was RDC.dwg



CLEARVIEW DR



AS-BUILTS

REVISED FOR POND OUTLET 04/24/2023

No.	REVISIONS/ SUBMISSIONS	DATE
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	REVISED PER CITY COMMENTS	11/10/2022
	REVISED PER CITY COMMENTS	10/20/2022

REVIEWED: EJW | DRAWN: KLS | CAD FILE: | PROJECT NO.: 2106-01

APPROVED
01/11/2024
BY
CITY OF FERNDALE
PUBLIC WORKS DEPARTMENT

PROJECT TITLE
DOUGLAS FARM
44 LOT LONG PLAT
2396 DOUGLAS ROAD
FERNDALE, WA

DRAWING TITLE
SANITARY SEWER & WATER PLAN & PROFILE

DATE: 08/03/2022
DRAWING No.
28 of 41

WEDEN ENGINEERING, LLC
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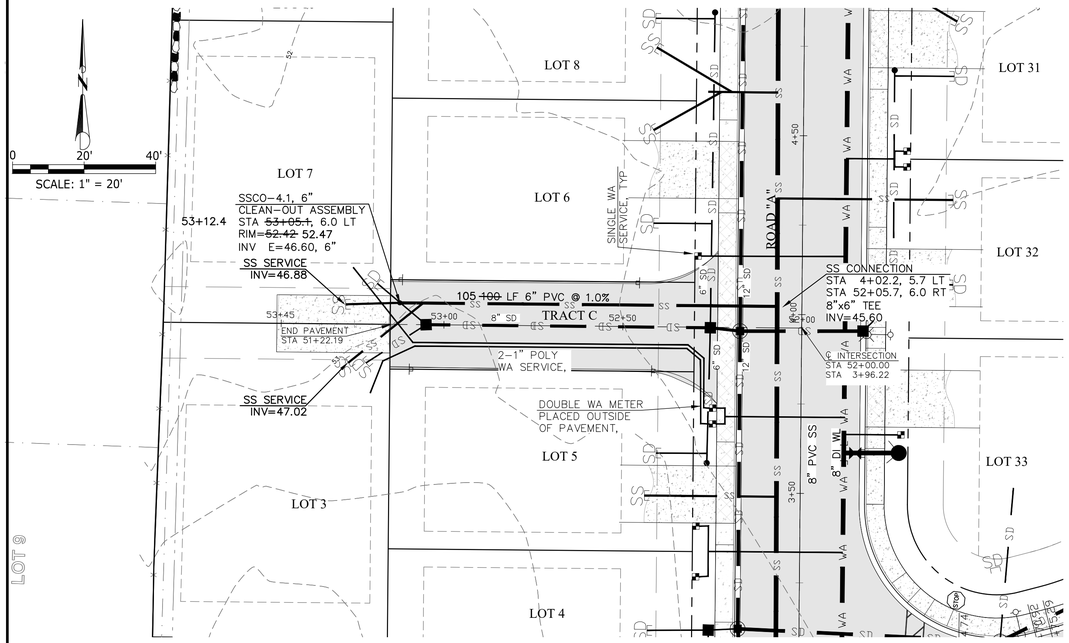
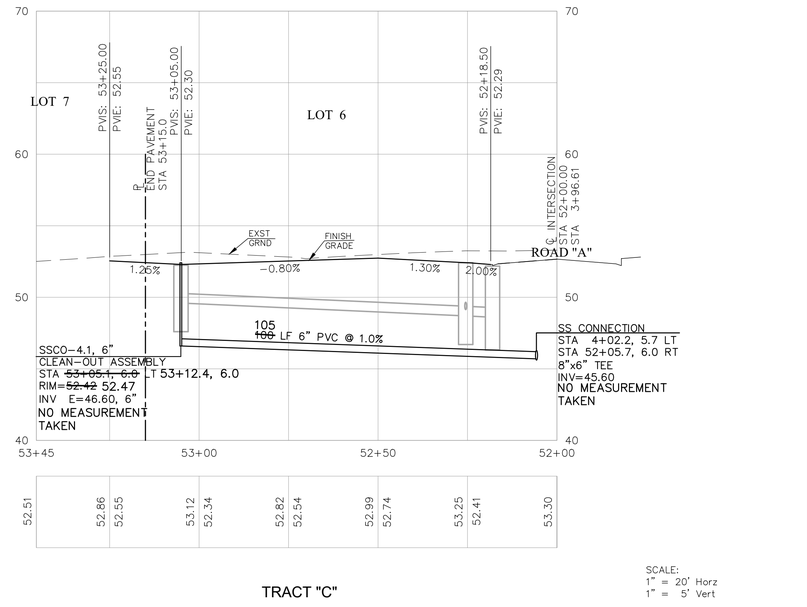
(360) 380-1363 (360) 384-3615 Fx
email: info@wedenengineering.com

SEAL
STATE OF WASHINGTON
ROBERT C. J. WEDEN
40047
REGISTERED
PROFESSIONAL ENGINEER
12/08/2023

SEC 30, TWP. 39 N., R 02 E of W.M





TRACT "C"

SCALE:
1" = 20' Horz
1" = 5' Vert

Know what's below. Call before you dig.

Izabella 12/06/23 2:18pm – P:\2106-01 Landed Gentry Douglas Rd\7 CAD\As-Builts\SHEETS\2106 AB 29-ss wa trB &C.dwg

REVISED FOR POND OUTLET 04/24/2023

AS-BUILTS

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01/11/2024
BY
CITY OF FERNDALE
PUBLIC WORKS DEPARTMENT

No.	REVISIONS/ SUBMISSIONS	DATE
	REVISED PER CITY COMMENTS	03/08/2023
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	REVISED PER CITY COMMENTS	12/15/2022
	REVISED PER CITY COMMENTS	11/10/2022
	REVISED PER CITY COMMENTS	10/20/2022

REVIEWED : EJW DRAWN : KLS
CAD FILE : PROJECT NO. : 2106-01

PROJECT TITLE
DOUGLAS FARM
44 LOT LONG PLAT
2396 DOUGLAS ROAD
FERNDALE, WA

DRAWING TITLE
SANITARY SEWER & WATER PLAN & PROFILE

DATE : 08/03/2022

DRAWING No.
29 of 41

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LI WEDEN
43311
STATE OF WASHINGTON
REGISTERED PROFESSIONAL ENGINEER
12/08/2023

00746.029 01/11/24 RH

SEC 30, TWP. 39 N., R 02 E of W.M

TRACT "D"

TRACT "E"

WATER NOTE:
STORM LINES AND WATER LINE SEPARATION SHALL BE 0.75' MIN

REVISED FOR POND OUTLET 04/24/2023

Know what's below. Call before you dig.

Izabella 12/06/23 2:22pm – P:\2106-01 Landed Gentry Douglas Rd\7 CAD\As-Builts\SHEETS\2106 AB 30-SS Tr D &E.dwg

AS-BUILTS

SEAL
I. WEDEN
STATE OF WASHINGTON
23331
REGISTERED PROFESSIONAL ENGINEER
12/06/2023

WEDEN ENGINEERING, LLC
Civil Engineering • Planning • Project Management
2636 Nubgaard Rd. Ferndale, WA 98248
(360) 380-1363 (360) 384-3615 Fx
email: info@wedenengineering.com

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01/11/2024
BY
CITY OF FERNDALE
PUBLIC WORKS DEPARTMENT

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	REVISED PER CITY COMMENTS	12/15/2022
	REVISED PER CITY COMMENTS	11/10/2022
	REVISED PER CITY COMMENTS	10/20/2022

REVIEWED : EJW
DRAWN : KLS
CAD FILE :
PROJECT NO. : 2106-01

PROJECT TITLE
DOUGLAS FARM
44 LOT LONG PLAT
2396 DOUGLAS ROAD
FERNDALE, WA

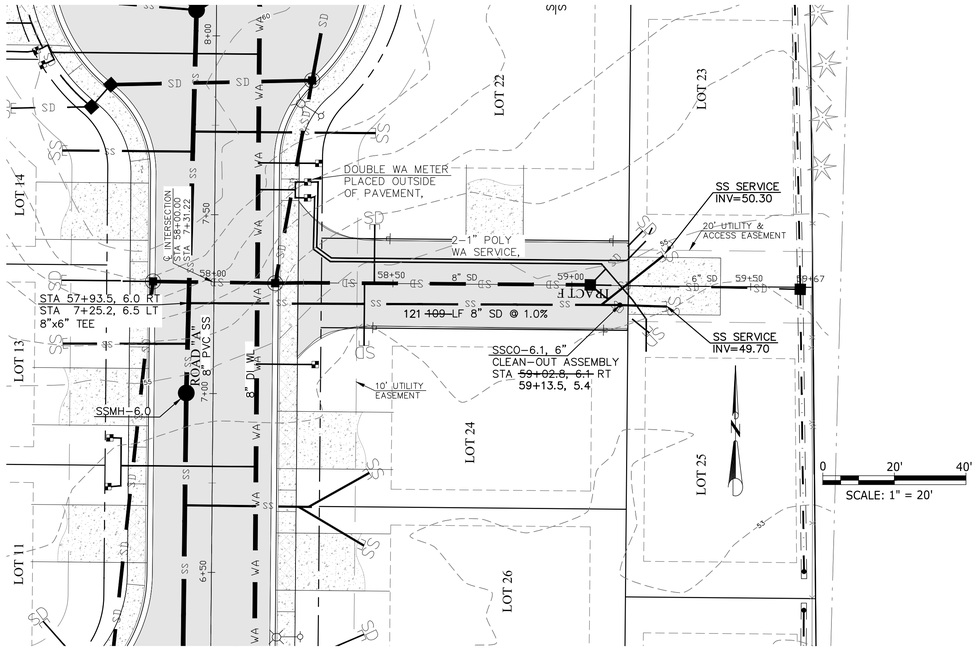
DRAWING TITLE
SANITARY SEWER & WATER PLAN & PROFILE

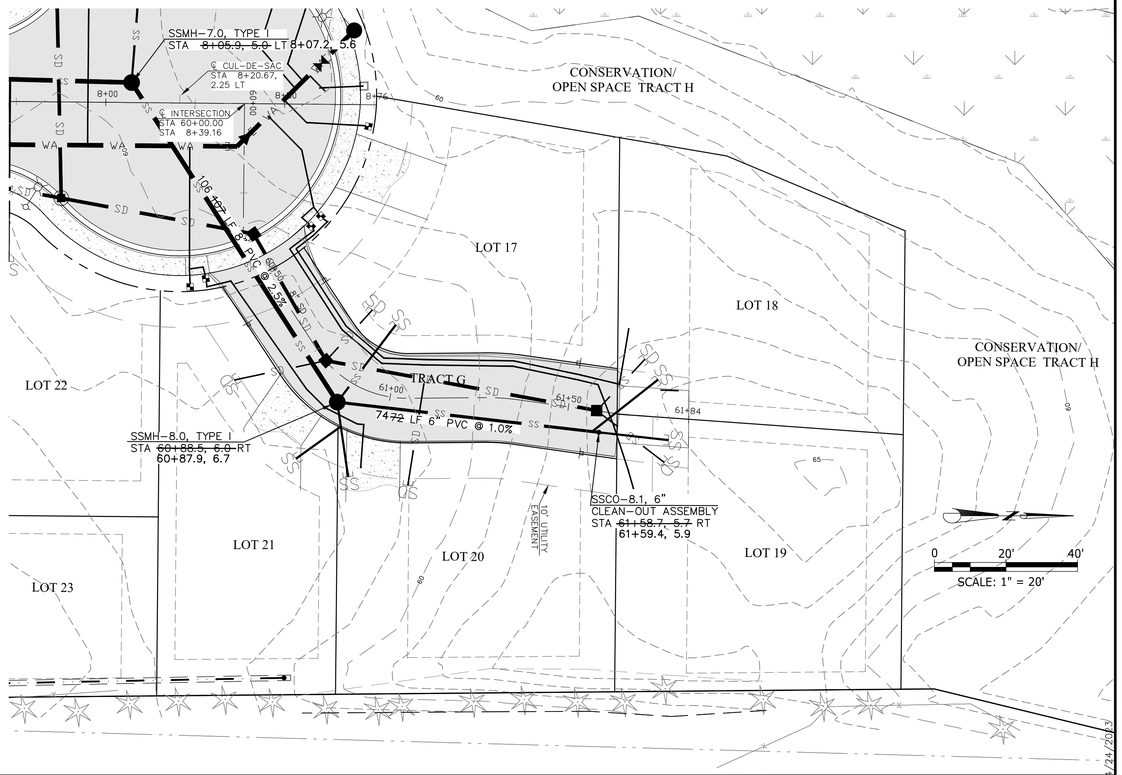
DATE : 08/03/2022

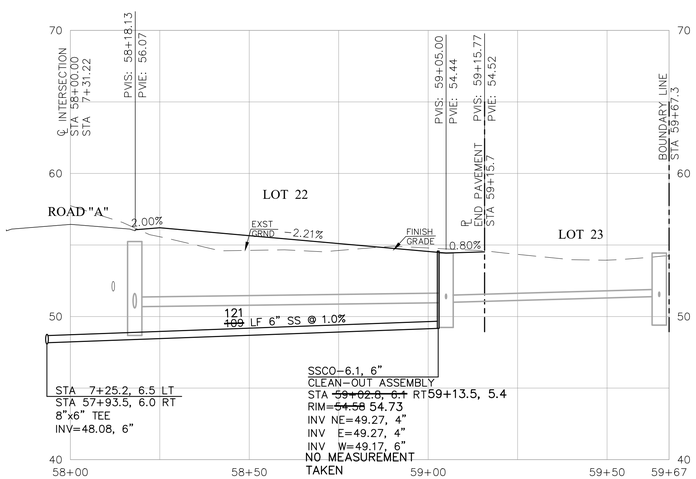
DRAWING No.
30 of 41

00746.030 01/11/24 RH

SEC 30, TWP. 39 N., R 02 E of W.M







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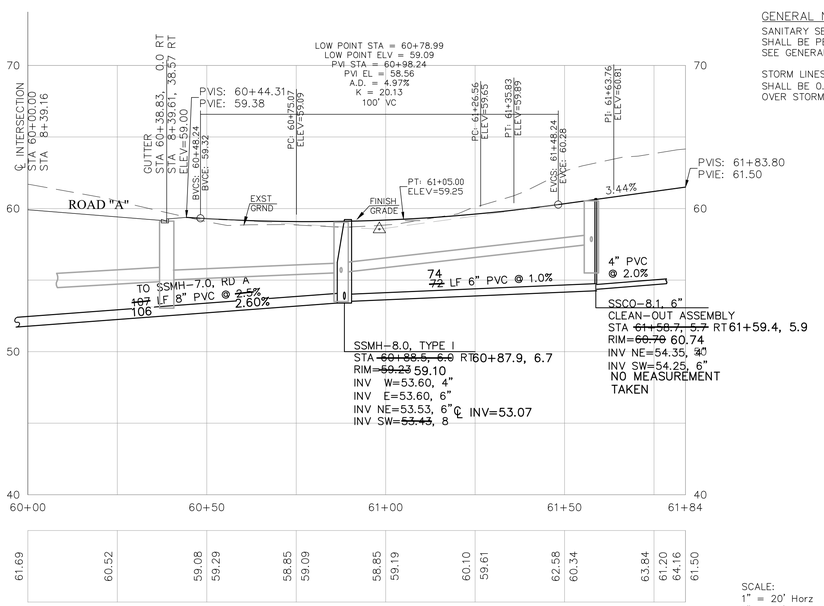

TRACT "G"

GENERAL NOTE:

SANITARY SEWER & WATER PIPE MATERIAL SHALL BE PER CITY OF FERNDALE STANDARDS, SEE GENERAL NOTES

STORM LINES AND WATER LINE SEPARATION SHALL BE 0.75' MIN, WATER MAIN TO PASS OVER STORM MAIN CROSSINGS

REVISED FOR POND OUTLET 01/24/2023

Know what's below. Call before you dig.

Izabella 12/06/23 2:25pm – P:\2106-01 Landed Gentry Douglas Rd\7 CAD\As-Builts\SHEETS\2106 AB 31-SS Tr F &G.dwg

AS-BUILTS

SEAL
J. WEDEN
STATE OF WASHINGTON
23230
REGISTERED PROFESSIONAL ENGINEER
12/06/2023

WEDEN ENGINEERING, LLC
Civil Engineering • Planning • Project Management
2636 Nubgaard Rd. Ferndale, WA 98248
(360) 380-1363 | (360) 384-3615 Fx
email: info@wedenengineering.com

APPROVED
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PUBLIC WORKS DEPARTMENT

No.	REVISIONS / SUBMISSIONS	DATE
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	REVISED PER CITY COMMENTS	10/20/2022

REVIEWED : EJW
DRAWN : KLS
CAD FILE :
PROJECT NO. : 2106-01

PROJECT TITLE
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2396 DOUGLAS ROAD
FERNDALE, WA

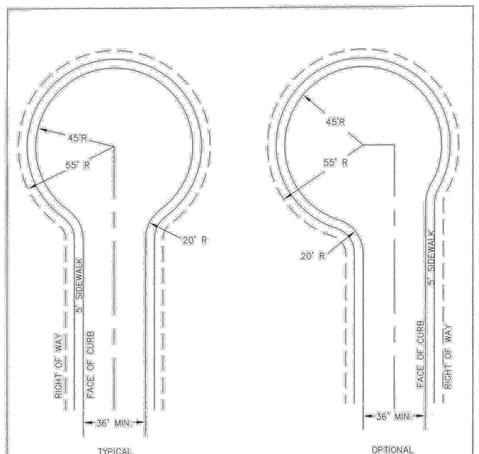
DRAWING TITLE
SANITARY SEWER & WATER PLAN & PROFILE

DATE : 08/03/2022

DRAWING No.
31 of 41

00746.031 01/11/24 RH

SEC 30, TWP. 39 N., R 02 E of W.M



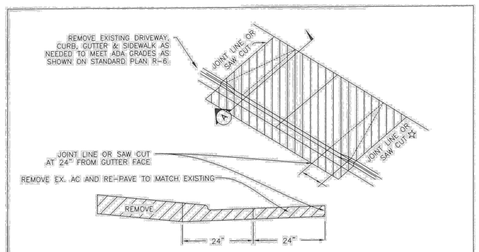
MAXIMUM CUL-DE-SAC LENGTH IS 600'

NOTE: THE PUBLIC WORKS DIRECTOR MAY REQUIRE A LARGER RADIUS DEPENDENT ON PROPOSED VEHICLE USE.

NOVEMBER 25, 2016

APPROVED — Public Works Director — 8/11/17 Date

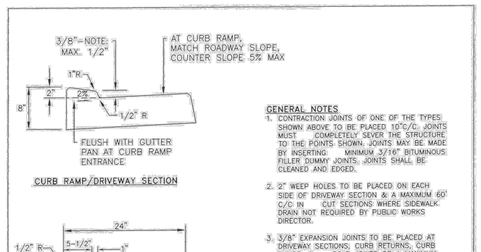
TYPICAL AND OPTIONAL CUL DE SAC
STANDARD DETAIL R-5
NOT TO SCALE



NOVEMBER 25, 2016

APPROVED — Public Works Director — 8/11/17 Date

DRIVEWAY RESTORATION
STANDARD DETAIL R-7
NOT TO SCALE



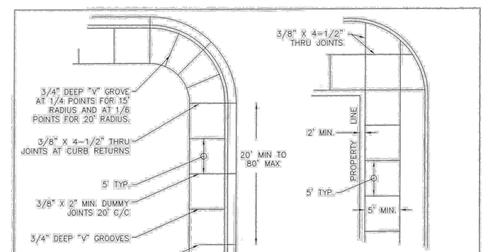
GENERAL NOTES

1. CONTRACTION JOINTS OF ONE OF THE TYPES SHOWN ABOVE TO BE PLACED 10'C/C. JOINTS MUST COMPLETELY SEVER THE STRUCTURE TO THE POINTS SHOWN. JOINTS MAY BE MADE BY INSERTING MINIMUM 3/16" BITUMINOUS FILLER DUMMY JOINTS. JOINTS SHALL BE CLEANED AND EDGED.
2. 2" WEEP HOLES TO BE PLACED ON EACH SIDE OF DRIVEWAY SECTION & A MAXIMUM 60' C/C IN CUT SECTIONS WHERE SIDEWALK DRAIN NOT REQUIRED BY PUBLIC WORKS DIRECTOR.
3. 3/8" EXPANSION JOINTS TO BE PLACED AT DRIVEWAY SECTIONS, CURB RETURNS, CURB RAMPS, & COLD JOINTS OR A MAXIMUM OF 60' C/C. EXPANSION JOINTS SHALL PROTRUDE 1" BELOW THE BOTTOM OF GUTTER.
4. CONCRETE SHALL BE CEMENT CONCRETE "CLASS 3000".
5. FINISHED WORK SHALL NOT VARY MORE THAN 1/8" IN GRADE AND 1/4" IN ALIGNMENT WHEN CHECKED WITH A 10' STRAIGHT EDGE.
6. EXPOSED SURFACES SHALL BE BRUSHED WITH A FIBER HAIR BRUSH.
7. WHITE PIGMENTED OR TRANSPARENT CURING COMPOUND SHALL BE APPLIED AS OUTLINED IN THE STANDARD SPECIFICATIONS.
8. FURTHER REQUIREMENTS SHALL BE AS SPECIFIED IN THE STANDARD SPECIFICATIONS.

NOVEMBER 25, 2016

APPROVED — Public Works Director — 8/11/17 Date

CURB AND GUTTER INSTALLATION
STANDARD DETAIL R-9
NOT TO SCALE

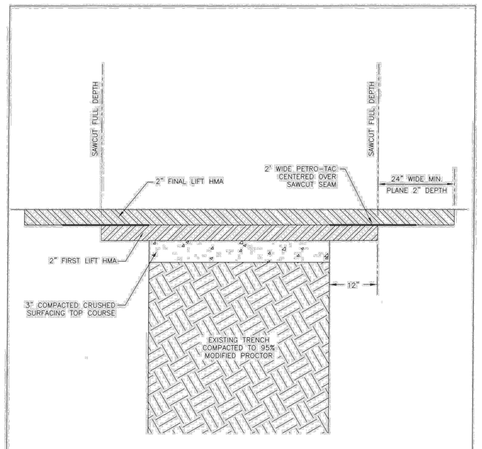


NOTES:
1. SIDEWALKS IN COMMERCIAL ZONES SHALL BE 6' WIDE.
2. WHEEL CHAIR RAMPS ARE TO BE LOCATED AT ALL RETURNS ACCORDING TO WSDOT AND IS LISTED ON DETAIL R-14.
3. RAMP LENGTH IS NOT REQUIRED TO EXCEED 15 FEET. WHEN APPLYING THE 15-FOOT MAX. LENGTH, THE RUNNING SLOPE OF THE CURB RAMP IS ALLOWED TO EXCEED 8.3% USE A SINGLE CONSTANT SLOPE FROM BOTTOM OF RAMP TO TOP OF RAMP TO MATCH INTO THE SIDEWALK OVER A HORIZONTAL DISTANCE OF 15 FEET. WHEN A RAMP IS CONSTRUCTED ON A RADIUS, THE 15-FOOT MAX. LENGTH IS MEASURED ON THE INSIDE RADIUS ALONG THE BACK OF THE RAMP.

APRIL 21, 2017

APPROVED — Public Works Director — 8/11/17 Date

TYPICAL SIDEWALK PLAN WITH CROSS SECTION
STANDARD DETAIL R-12
NOT TO SCALE



NOTE:
1. TAC REQUIRED BETWEEN PAVED SURFACES, USE CSS1 EXCEPT WHERE PETRO-TAC IS SPECIFIED.

APRIL 21, 2017

APPROVED — Public Works Director — 8/11/17 Date

PETRO-TAC PLACEMENT
STANDARD DETAIL R-11A
NOT TO SCALE

CITY OF FERNDALE CURB RAMPS

NOTES:
1. INSTALLATION OF CURB RAMPS SHALL BE PER PLAN AND IN ACCORDANCE WITH CURRENT WSDOT STANDARD PLANS:

F-40.12-0X
F-40.14-0X
F-40.15-0X
F-40.16-0X

2. DETECTABLE WARNING SURFACE SHALL BE PER WSDOT STANDARD PLAN:

F-45.10-0X

NOVEMBER 25, 2016

APPROVED — Public Works Director — 8/11/17 Date

CURB RAMPS
STANDARD DETAIL R-14
NOT TO SCALE

Kenny 12/07/23 11:37am – P:\2106-01 Landed Gentry Douglas Rd\7 CAD\As-Builts\SHEETS\2106 AB 32-34 -RD DET.dwg

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APPROVED
01/11/2024
BY
CITY OF FERNDALE
PUBLIC WORKS DEPARTMENT

No.	REVISIONS/ SUBMISSIONS	DATE
	REVISED PER CITY COMMENTS	03/08/2023
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	REVISED PER CITY COMMENTS	11/10/2022
	REVISED PER CITY COMMENTS	10/20/2022

REVISED FOR POND OUTLET 04/24/2023

REVIEWED : EJW
DRAWN : KLS
CAD FILE :
PROJECT NO. : 2106-01

AS-BUILTS

PROJECT TITLE
DOUGLAS FARM
44 LOT LONG PLAT
2396 DOUGLAS ROAD
FERNDALE, WA

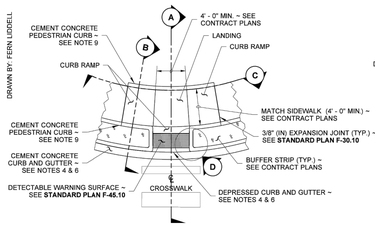
DRAWING TITLE
ROAD DETAILS

DATE : 08/03/2022

DRAWING No.
32 of 41

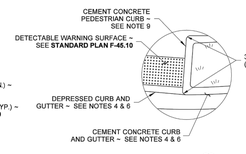
00746.032 01/11/24 RH

DRAWN BY: FERN LIDDELL



PLAN VIEW

TYPE COMBINATION WITH BUFFER

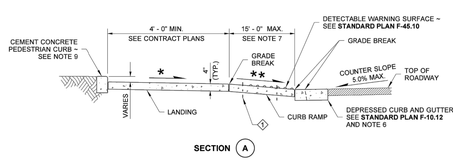


DETAIL (D)

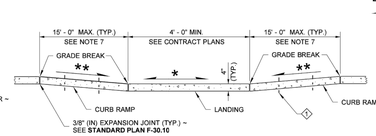
CURB RADIUS DETAIL

NOTES

1. At marked crosswalks, the connection between the curb ramp and the roadway must be contained within the width of the crosswalk markings.
2. Where "GRADE BREAK" is called out, the entire length of the grade break between the two adjacent surface planes shall be flush.
3. Do not place Gratings, Junction Boxes, Access Covers, or other appurtenances on any part of the Curb Ramp or Landing, or in the Depressed Curb and Gutter where the landing connects to the roadway.
4. See Contract Plans for the curb design specified. See **Standard Plan F-10.12** for Curb, Curb and Gutter, Depressed Curb, Gutter and Pedestrian Curb details.
5. See **Standard Plan F-30.10** for Cement Concrete Sidewalk Details. See Contract Plans for width and placement of sidewalk.
6. The Bid Item "Cement Concrete Curb Ramp Type ___" does not include the adjacent Curb, Curb and Gutter, Depressed Curb and Gutter, Pedestrian Curb, or Sidewalks.
7. The Curb Ramp length is not required to exceed 15 feet (unless otherwise shown in the Contract Plans). When applying the 15-foot max. length, the running slope of the curb ramp is allowed to exceed 8.3%. Use a single constant slope from bottom of ramp to top of ramp to match into the sidewalk over a horizontal distance of 15 feet. Do not included the abutting landing in the 15-foot max. measurement. When a ramp is constructed on a radius, the 15-foot max. length is measured on the inside radius along the back of the walkway.
8. Curb Ramps and Landings shall receive a broom finish. See **Standard Specifications 8-14.**
9. Pedestrian Curb may be omitted if the ground surface at the back of the Curb Ramp and/or Landing will be at the same elevation as the Curb Ramp or Landing and there will not be material to retain.



SECTION (A)



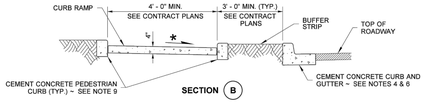
SECTION (C)

(ALONG INSIDE RADIUS AT BACK OF WALKWAY)

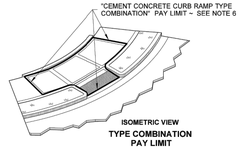
LEGEND

- SLOPE IN EITHER DIRECTION
- * 1.5 OR FLATTER RECOMMENDED FOR DESIGN/FORMWORK (2% MAX.)
- ** 7.5% OR FLATTER RECOMMENDED FOR DESIGN/FORMWORK (8.3% MAX.)

1 CONTRACTION JOINT (TYP.) ~ SEE **STANDARD PLAN F-30.10** FOR CURB RAMP LENGTHS GREATER THAN 6' - 0" PROVIDE CONTRACTION JOINT EQUALLY SPACED 4' - 0" MIN. OC



SECTION (B)



ISOMETRIC VIEW

TYPE COMBINATION PAY LIMIT

R. SCOTT ZELLER — STATE OF WASHINGTON — 21600 REGISTERED PROFESSIONAL ENGINEER

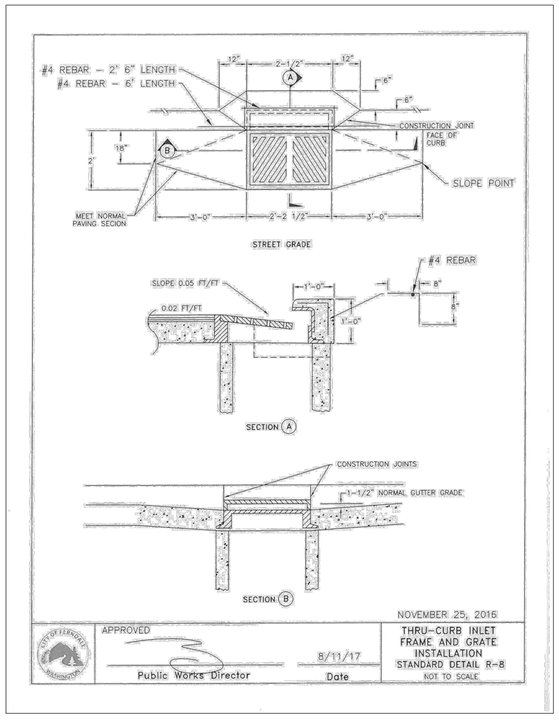
Zeller, Scott
Jun 24 2016 7:20 AM

COMBINATION CURB RAMP

STANDARD PLAN F-40.14-03

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION
Carpenter, Jeff
Jun 29 2016 2:28 PM
STATE DESIGN ENGINEER
Washington State Department of Transportation



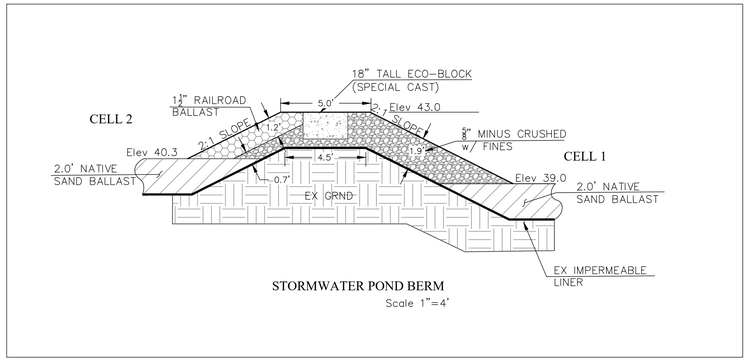
NOVEMBER 25, 2015

APPROVED

Public Works Director — 8/11/17 Date

THRU-CURB INLET FRAME AND GRATE INSTALLATION STANDARD DETAIL R-8

NOT TO SCALE



STORMWATER POND BERM

Scale 1"=4'

SEAL

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email: info@wedenengineering.com

APPROVED
01/11/2024
BY: _____
CITY OF FERNDALE
PUBLIC WORKS DEPARTMENT

No.	REVISIONS/ SUBMISSIONS	DATE
	REVISED FOR POND OUTLET	04/24/2023
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	REVISED PER CITY COMMENTS	10/20/2022

REVIEWED : EJW | DRAWN : KLS
CAD FILE : | PROJECT NO. : 2106-01

AS-BUILTS

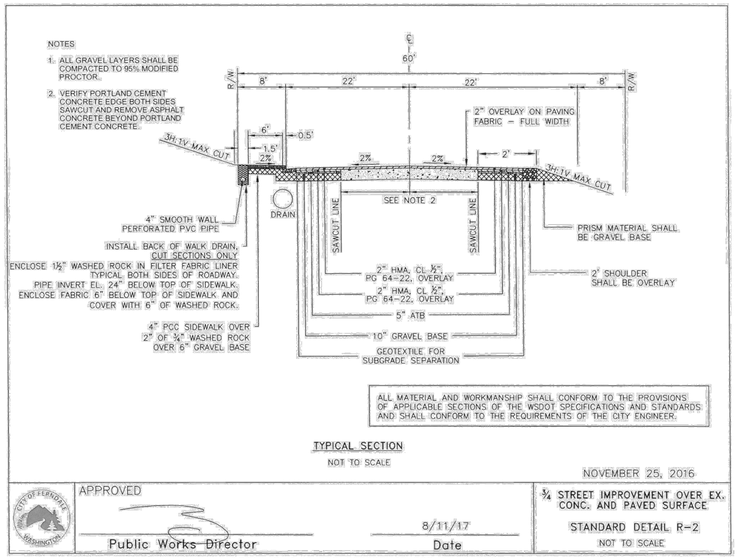
PROJECT TITLE
DOUGLAS FARM
44 LOT LONG PLAT
2396 DOUGLAS ROAD
FERNDALE, WA

DRAWING TITLE
ROAD DETAILS

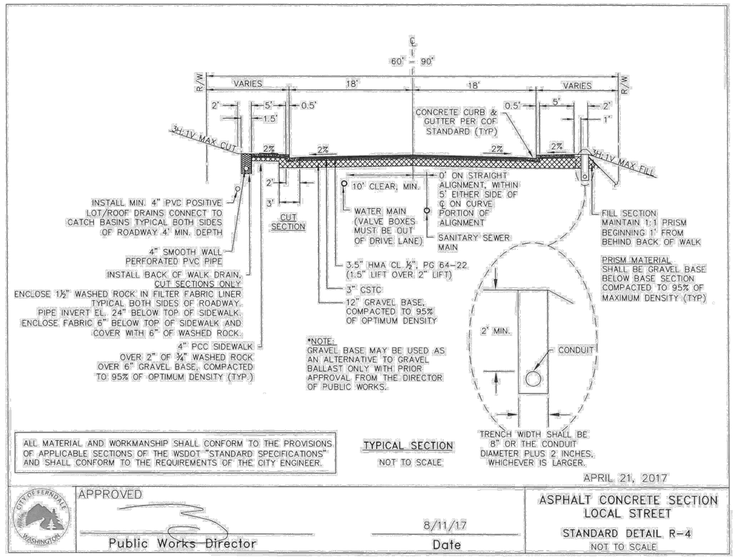
DATE : 08/03/2022

DRAWING No.
33 of 41

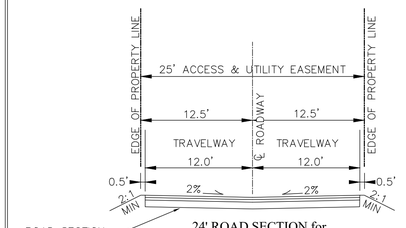
00746.033 01/11/24 RH



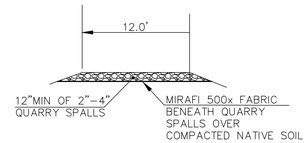
DETAIL R-2 IS FOR REFERENCE FOR ROAD DESIGN REQUIREMENTS FOR DOUGLAS ROAD



DETAIL R-4 IS FOR REFERENCE FOR INTERNAL ROAD DESIGN AND DOUGLAS ROAD SECTION

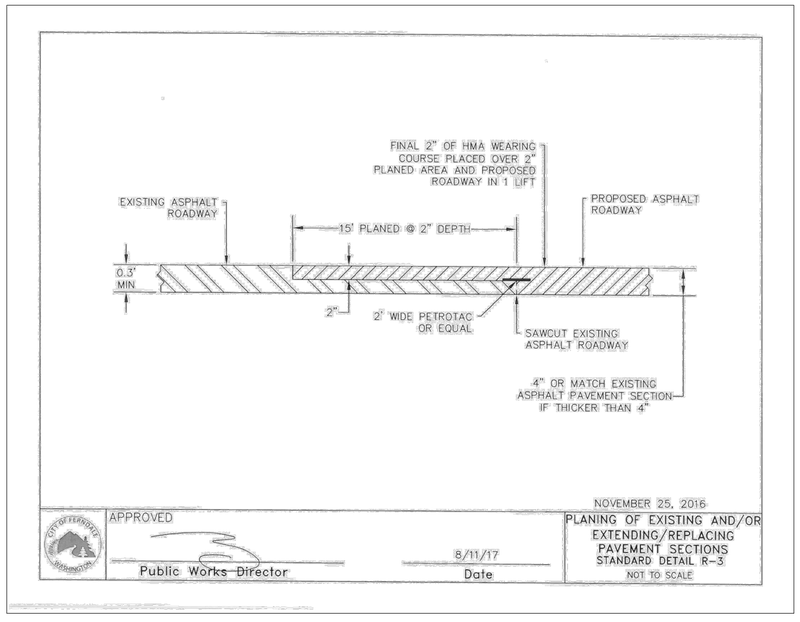


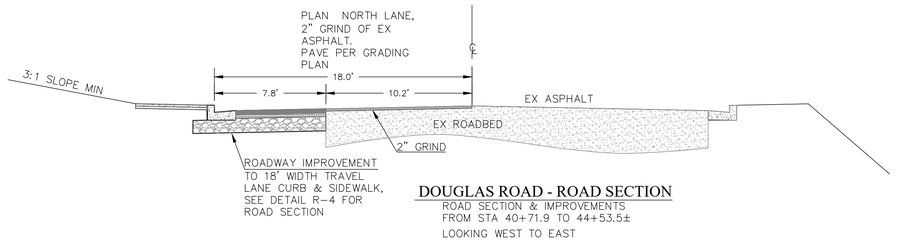
24' ROAD SECTION for TRACTS (PRIVATE DRIVE)



GRAVEL ACCESS ROAD SECTION FOR POND

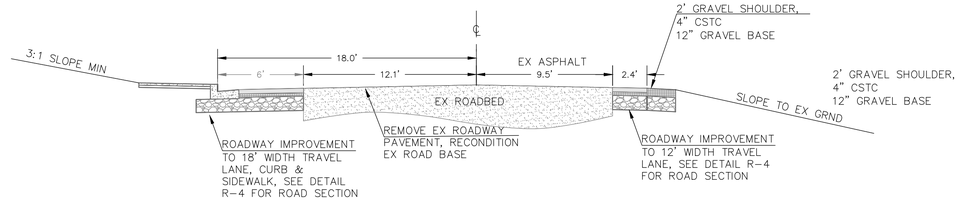
SEE DOUGLAS ROAD–ROAD SECTIONS FOR DOUGLAS ROAD IMPROVEMENTS





DOUGLAS ROAD - ROAD SECTION
ROAD SECTION & IMPROVEMENTS FROM STA 40+71.9 TO 44+53.5±
LOOKING WEST TO EAST

BACK OF WALK DRAIN NOTE:
ALL OR ANY SLOPES EXCEEDING 5:1 WILL REQUIRE BACK OF WALK DRAINAGE



DOUGLAS ROAD - ROAD SECTION
ROAD SECTION & IMPROVEMENTS FROM STA 44+53.5 TO 47+83.8
LOOKING WEST TO EAST

AS-BUILTS

REVISED FOR POND OUTLET 04/24/2023

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REVIEWED : EJW
DRAWN : KLS
CAD FILE :
PROJECT NO. : 2106-01

PROJECT TITLE
DOUGLAS FARM
44 LOT LONG PLAT
2396 DOUGLAS ROAD
FERNDALE, WA

DRAWING TITLE
ROAD DETAILS

DATE : 08/03/2022

DRAWING No.
34 of 41

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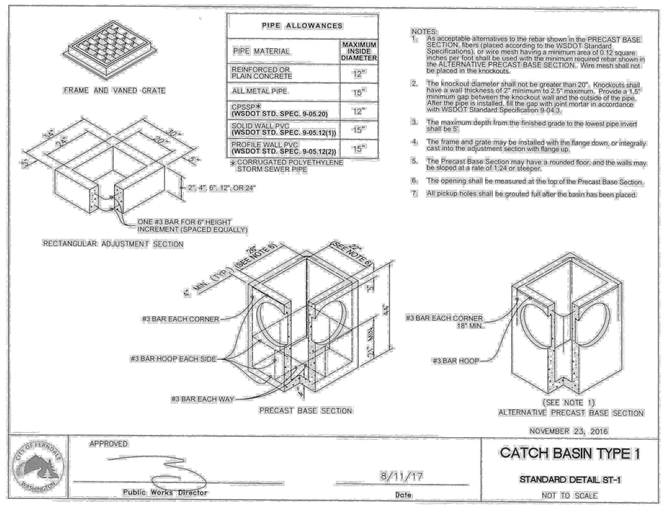
email: info@wedenengineering.com

SEAL
J. WEDEN
STATE OF WASHINGTON
23231
REGISTERED PROFESSIONAL ENGINEER
12/06/2023

APPROVED
01/11/2024
BY
CITY OF FERNDALE
PUBLIC WORKS DEPARTMENT

00746.034 01/11/24 RH



PIPE ALLOWANCES	
PIPE MATERIAL	MAXIMUM INSIDE DIAMETER
REINFORCED OR PLAIN CONCRETE	12"
ALL METAL PIPE	15"
CPSSP* (WSDOT STD. SPEC. 9-05.20)	12"
SOLID WALL PVC (WSDOT STD. SPEC. 9-05.12(1))	15"
PROFILE WALL PVC (WSDOT STD. SPEC. 9-05.12(2))	15"

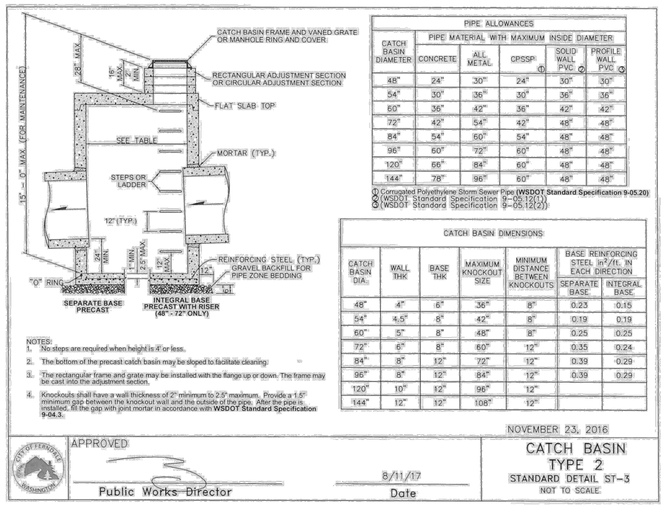
* CORRUGATED POLYETHYLENE STORM SEWER PIPE

NOTES:
1. As acceptable alternatives to the rebar shown in the PRECAST BASE SECTION, fibers (placed according to the WSDOT Standard Specifications), or wire mesh having a minimum area of 0.12 square inches per foot shall be used with the minimum required rebar shown in the ALTERNATIVE PRECAST BASE SECTION. Wire mesh shall not be placed in the knockouts.
2. The knockout diameter shall not be greater than 20". Knockouts shall have a wall thickness of 2" minimum to 2.5" maximum. Provide a 1.5" minimum gap between the knockout wall and the outside of the pipe. After the pipe is installed, fill the gap with joint mortar in accordance with WSDOT Standard Specification 9-04.3.
3. The maximum depth from the finished grade to the lowest pipe invert shall be 5'.
4. The frame and grate may be installed with the flange down, or integrally cast into the adjustment section with flange up.
5. The Precast Base Section may have a rounded floor, and the walls may be sloped at a rate of 1:24 or steeper.
6. The opening shall be measured at the top of the Precast Base Section.
7. All pickup holes shall be grouted full after the basin has been placed.

NOVEMBER 23, 2016

APPROVED
Public Works Director — 8/11/17 Date

CATCH BASIN TYPE 1
STANDARD DETAIL ST-1
NOT TO SCALE



PIPE ALLOWANCES					
CATCH BASIN DIAMETER	PIPE MATERIAL WITH MAXIMUM INSIDE DIAMETER: CONCRETE	ALL METAL	CPSSP: ①	SOLID WALL PVC: ②	PROFILE WALL PVC: ③
48"	24"	30"	24"	30"	30"
54"	30"	36"	30"	36"	36"
60"	36"	42"	36"	42"	42"
72"	42"	54"	42"	48"	48"
84"	54"	60"	54"	48"	48"
96"	60"	72"	60"	48"	48"
120"	66"	84"	60"	48"	48"
144"	78"	96"	60"	48"	48"

① Corrugated Polyethylene Storm Sewer Pipe (WSDOT Standard Specification 9-05.20)
② WSDOT Standard Specification 9-05.12(1))
③ WSDOT Standard Specification 9-05.12(2))

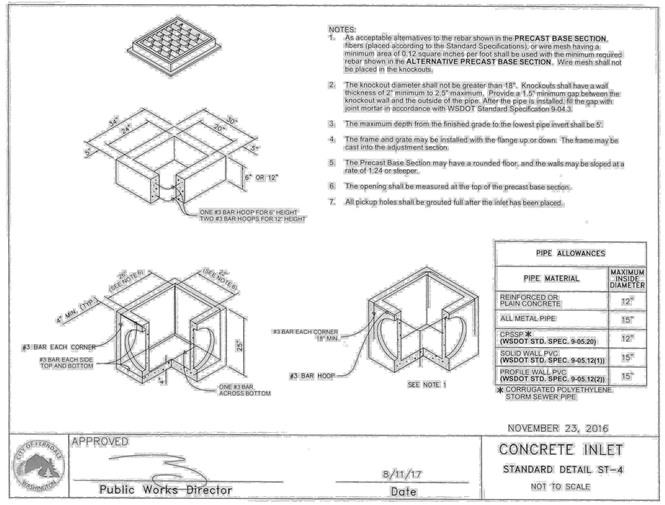
CATCH BASIN DIMENSIONS						
CATCH BASIN DIA.	WALL THK	BASE THK	MAXIMUM KNOCKOUT SIZE	MINIMUM DISTANCE BETWEEN KNOCKOUTS	BASE REINFORCING STEEL IN²/FT. IN EACH DIRECTION: SEPARATE BASE	INTEGRAL BASE
48"	4"	6"	36"	8"	0.23	0.15
54"	4.5"	8"	42"	8"	0.19	0.19
60"	5"	8"	48"	8"	0.25	0.25
72"	6"	8"	60"	12"	0.35	0.24
84"	8"	12"	72"	12"	0.39	0.29
96"	8"	12"	84"	12"	0.39	0.29
120"	10"	12"	96"	12"		
144"	12"	12"	108"	12"		

NOTES:
1. No steps are required when height is 4' or less.
2. The bottom of the precast catch basin may be sloped to facilitate cleaning.
3. The rectangular frame and grate may be installed with the flange up or down. The frame may be cast into the adjustment section.
4. Knockouts shall have a wall thickness of 2" minimum to 2.5" maximum. Provide a 1.5" minimum gap between the knockout wall and the outside of the pipe. After the pipe is installed, fill the gap with joint mortar in accordance with WSDOT Standard Specification 9-04.3.

NOVEMBER 23, 2016

APPROVED
Public Works Director — 8/11/17 Date

CATCH BASIN TYPE 2
STANDARD DETAIL ST-3
NOT TO SCALE



NOTES:
1. As acceptable alternatives to the rebar shown in the PRECAST BASE SECTION, fibers (placed according to the Standard Specifications), or wire mesh having a minimum area of 0.12 square inches per foot shall be used with the minimum required rebar shown in the ALTERNATIVE PRECAST BASE SECTION. Wire mesh shall not be placed in the knockouts.
2. The knockout diameter shall not be greater than 18". Knockouts shall have a wall thickness of 2" minimum to 2.5" maximum. Provide a 1.5" minimum gap between the knockout wall and the outside of the pipe. After the pipe is installed, fill the gap with joint mortar in accordance with WSDOT Standard Specification 9-04.3.
3. The maximum depth from the finished grade to the lowest pipe invert shall be 5'.
4. The frame and grate may be installed with the flange up or down. The frame may be cast into the adjustment section.
5. The Precast Base Section may have a rounded floor, and the walls may be sloped at a rate of 1:24 or steeper.
6. The opening shall be measured at the top of the precast base section.
7. All pickup holes shall be grouted full after the inlet has been placed.

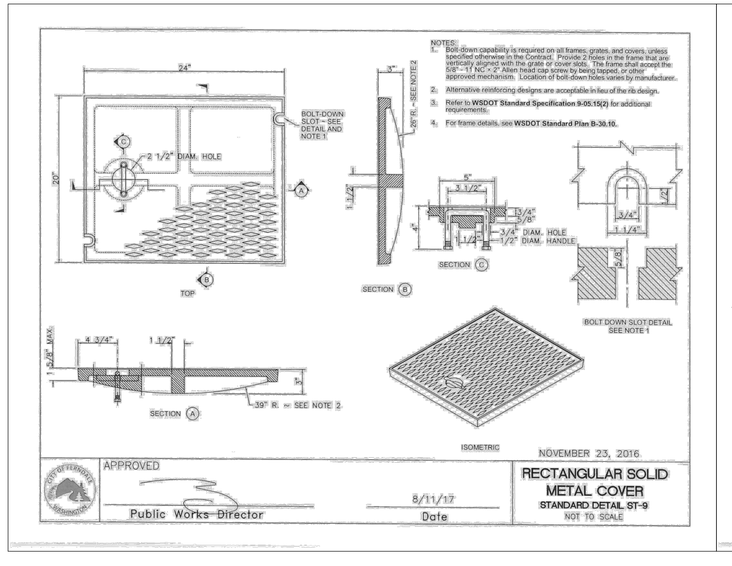
PIPE ALLOWANCES	
PIPE MATERIAL	MAXIMUM INSIDE DIAMETER
REINFORCED OR PLAIN CONCRETE	12"
ALL METAL PIPE	15"
CPSSP* (WSDOT STD. SPEC. 9-05.20)	12"
SOLID WALL PVC (WSDOT STD. SPEC. 9-05.12(1))	15"
PROFILE WALL PVC (WSDOT STD. SPEC. 9-05.12(2))	15"

* CORRUGATED POLYETHYLENE STORM SEWER PIPE

NOVEMBER 23, 2016

APPROVED
Public Works Director — 8/11/17 Date

CONCRETE INLET
STANDARD DETAIL ST-4
NOT TO SCALE

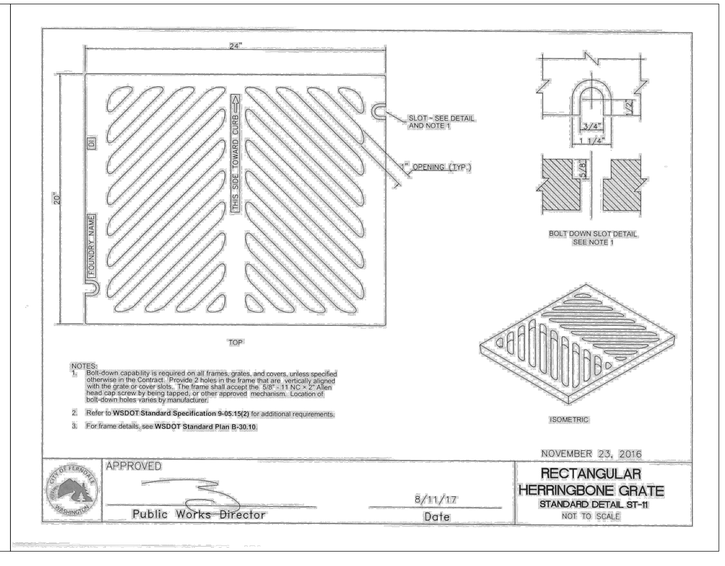


NOTES:
1. Bolt-down capability is required on all frames, grates, and covers, unless specified otherwise in the Contract. Provide 2 holes in the frame that are vertically aligned with the grate or cover slots. The frame shall accept the 5/8"-11 NC x 2" Allen head cap screw by being tapped, or other approved mechanism. Location of bolt-down holes varies by manufacturer.
2. Alternative reinforcing designs are acceptable in lieu of the rib design.
3. Refer to **WSDOT Standard Specification 9-05.15(2)** for additional requirements.
4. For frame details, see **WSDOT Standard Plan B-30.10.**

NOVEMBER 23, 2016

APPROVED
Public Works Director — 8/11/17 Date

RECTANGULAR SOLID METAL COVER
STANDARD DETAIL ST-9
NOT TO SCALE

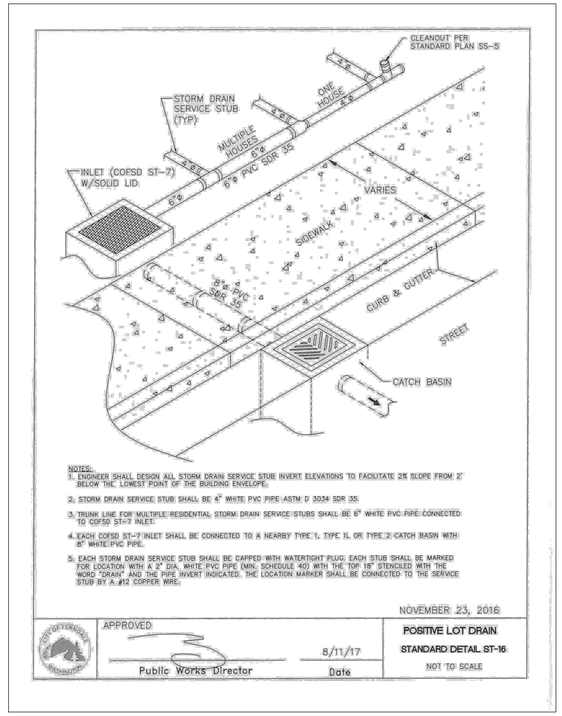


NOTES:
1. Bolt-down capability is required on all frames, grates, and covers, unless specified otherwise in the Contract. Provide 2 holes in the frame that are vertically aligned with the grate or cover slots. The frame shall accept the 5/8"-11 NC x 2" Allen head cap screw by being tapped, or other approved mechanism. Location of bolt-down holes varies by manufacturer.
2. Refer to **WSDOT Standard Specification 9-05.15(2)** for additional requirements.
3. For frame details, see **WSDOT Standard Plan B-30.10.**

NOVEMBER 23, 2016

APPROVED
Public Works Director — 8/11/17 Date

RECTANGULAR HERRINGBONE GRATE
STANDARD DETAIL ST-11
NOT TO SCALE



NOTES:
1. ENGINEER SHALL DESIGN ALL STORM DRAIN SERVICE STUB INVERT ELEVATIONS TO FACILITATE 2% SLOPE FROM 2' BELOW THE LOWEST POINT OF THE BUILDING ENVELOPE.
2. STORM DRAIN SERVICE STUB SHALL BE 4" WHITE PVC PIPE ASTM D 3034 SDR 35.
3. TRUNK LINE FOR MULTIPLE RESIDENTIAL STORM DRAIN SERVICE STUBS SHALL BE 6" WHITE PVC PIPE CONNECTED TO COFSD ST-7 INLET.
4. EACH COFSD ST-7 INLET SHALL BE CONNECTED TO A NEARBY TYPE 1, TYPE 1L OR TYPE 2 CATCH BASIN WITH 6" WHITE PVC PIPE.
5. EACH STORM DRAIN SERVICE STUB SHALL BE CAPPED WITH WATERTIGHT PLUG. EACH STUB SHALL BE MARKED FOR LOCATION WITH A 2" DIA. WHITE PVC PIPE (MIN. SCHEDULE 40) WITH THE TOP 18" STENCILED WITH THE WORD "DRAIN" AND THE PIPE INVERT INDICATED. THE LOCATION MARKER SHALL BE CONNECTED TO THE SERVICE STUB BY A #12 COPPER WIRE.

NOVEMBER 23, 2016

APPROVED
Public Works Director — 8/11/17 Date

POSITIVE LOT DRAIN
STANDARD DETAIL ST-16
NOT TO SCALE

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email: info@wedenengineering.com

J. WEDEN — STATE OF WASHINGTON — 23304 — REGISTERED PROFESSIONAL ENGINEER
SEAL
12/06/2023

APPROVED
01/11/2024
BY
CITY OF FERNDALE
PUBLIC WORKS DEPARTMENT

AS-BUILTS

REVISED FOR POND OUTLET 04/24/2023

No.	REVISIONS / SUBMISSIONS	DATE
	REVISED PER CITY COMMENTS	03/08/2023
	REVISED PER CITY COMMENTS	02/28/2023
	REVISED PER CITY COMMENTS	12/15/2022
	REVISED PER CITY COMMENTS	11/10/2022
	REVISED PER CITY COMMENTS	10/20/2022

REVIEWED : EJW
DRAWN : KLS
CAD FILE :
PROJECT NO. : 2106-01

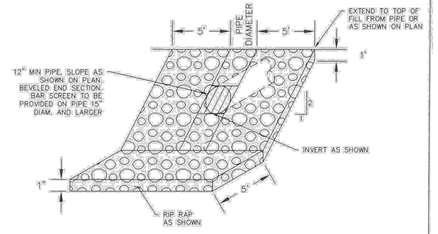
PROJECT TITLE
DOUGLAS FARM
44 LOT LONG PLAT
2396 DOUGLAS ROAD
FERNDALE, WA

DRAWING TITLE
STORMWATER DETAILS

DATE : 08/03/2022
DRAWING No.
35 of 41

00746.035 01/11/24 RH

Kenny 12/07/23 11:37am – P:\2106-01 Landed Gentry Douglas Rd\7 CAD\As-Builts\SHEETS\2106 AB 35-SD DET.dwg



NOTE:
1. THE CITY ENGINEER MAY REQUIRE THAT THE ENGINEER OF RECORD SIZE AND LOCATE SPALLS APPROPRIATELY FOR SITE SPECIFIC CONVEYANCE AND SLOPE PERCENT.

AUGUST 4, 2017

APPROVED		
Public Works Director	8/11/17 Date	CULVERT INLET OUTLET DETAIL STANDARD DETAIL ST-14 NOT TO SCALE

BEDDING SPECIFICATIONS FOR PVC PIPE

THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS ARE TO BE USED IN CONJUNCTION WITH THE WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION, CURRENT EDITION:

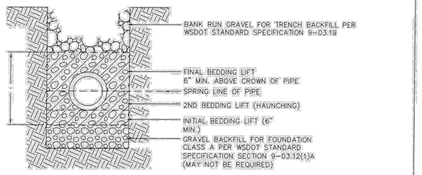
BEDDING FOR SEWERS, DRAINS AND CULVERTS FOR PVC PIPE=

BEDDING MATERIAL FOR PVC PIPE SHALL BE PEA GRAVEL CONFORMING TO THE FOLLOWING SPECIFICATIONS:

PEA GRAVEL – PEA GRAVEL BEDDING SHALL BE A CLEAN MIXTURE FREE FROM ORGANIC MATTER, AND CONFORMING TO THE FOLLOWING GRADATION WHEN TESTED IN ACCORDANCE WITH ASTM D422:

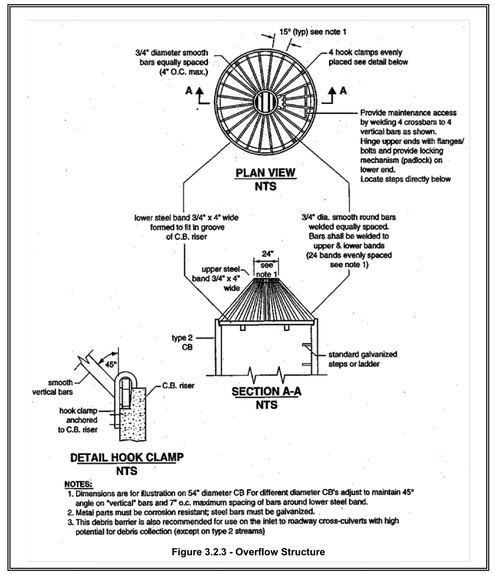
U.S. STANDARD SIEVE SIZE	PERCENTAGE PASSING, BY WT.
3/4"	100
3/8"	95–100
#8	0–10
#200	0–3

BACKFILL – WHENEVER A TRENCH IS EXCAVATED IN THE EXISTING OR PROPOSED ROADWAY, SIDEWALK OR OTHER AREAS WHERE SETTLEMENT WOULD BE DETRIMENTAL, THE ENTIRE TRENCH ABOVE THE PIPE ZONE SHALL BE BACKFILLED WITH BANK RUN GRAVEL BACKFILL TO 95% OF MAXIMUM DENSITY.



NOVEMBER 23, 2016

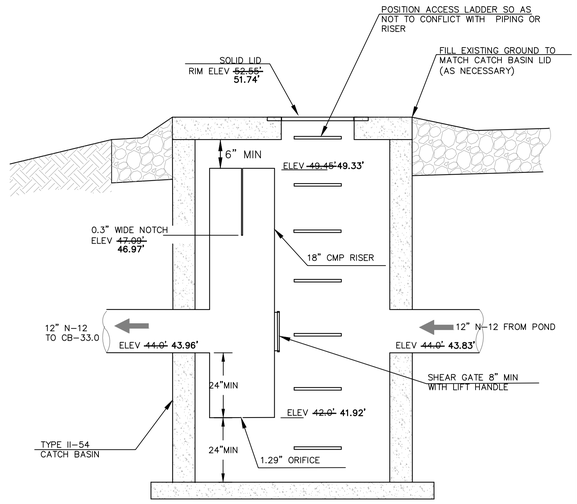
APPROVED		
Public Works Director	8/11/17 Date	PVC PIPE ZONE BEDDING STANDARD DETAIL ST-15 NOT TO SCALE



NOTES:
1. Dimensions are for illustration on 54" diameter CB For different diameter CB's adjust to maintain 45° angle on "vertical" bars and 7" o.c. maximum spacing of bars around lower steel band.
2. Metal parts must be corrosion resistant; steel bars must be galvanized.
3. This debris barrier is also recommended for use on the inlet to roadway cross-culverts with high potential for debris collection (except on type 2 streams)

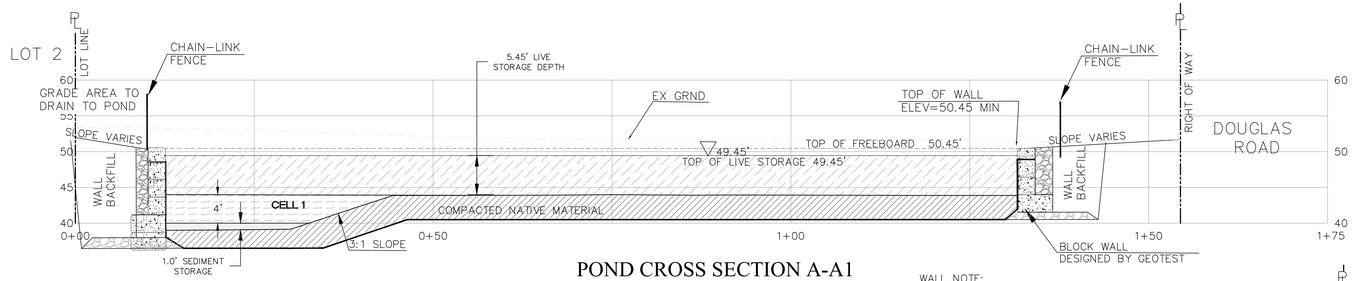
Figure 3.2.3 - Overflow Structure

SDCB–36.0



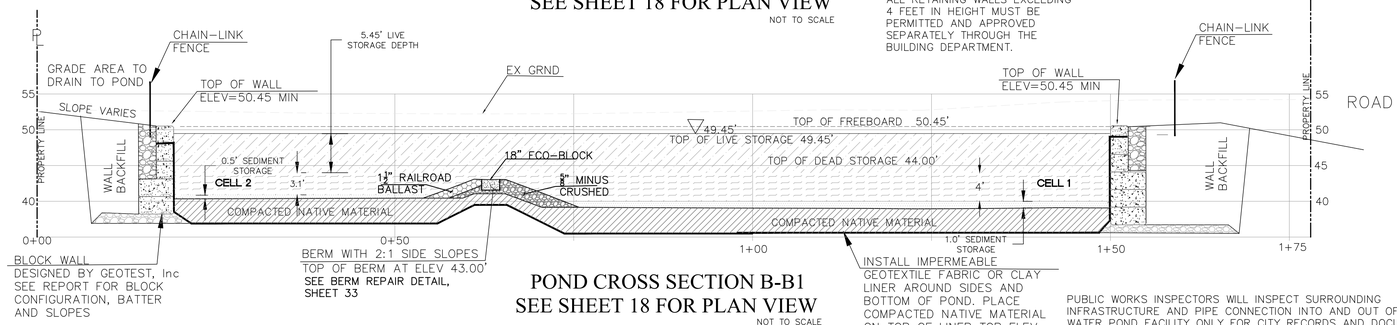
OUTLET CONTROL STRUCTURE SDOS-34.0

PER COF STANDARD PLAN ST–3 NOT TO SCALE
PER Figure 3.2.9 from DOE Manual 2014



POND CROSS SECTION A-A1
SEE SHEET 18 FOR PLAN VIEW
NOT TO SCALE

WALL NOTE:
ALL RETAINING WALLS EXCEEDING 4 FEET IN HEIGHT MUST BE PERMITTED AND APPROVED SEPARATELY THROUGH THE BUILDING DEPARTMENT.



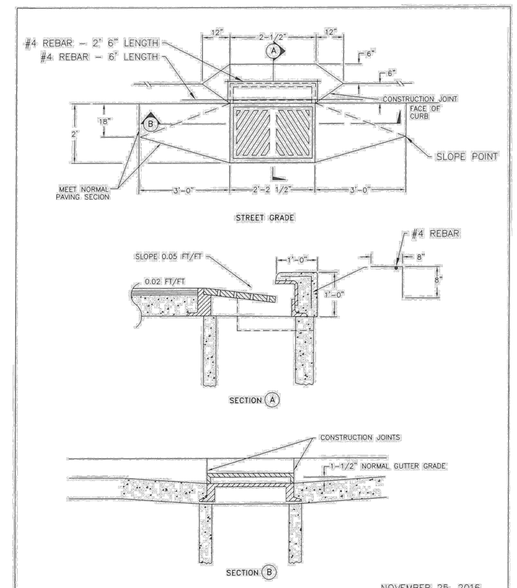
POND CROSS SECTION B-B1
SEE SHEET 18 FOR PLAN VIEW
NOT TO SCALE

ELEV 49.45' TOP OF LIVE STORAGE
ELEV 44.00' BOTTOM OF LIVE/ TOP OF DEAD STORAGE
ELEV 40.00' BOTTOM OF DEAD STORAGE, CELL 1
ELEV 39.00' BOTTOM OF SEDIMENT STORAGE, CELL 1

ELEV 40.90' BOTTOM OF DEAD STORAGE, CELL 2
ELEV 40.40' BOTTOM OF SEDIMENT STORAGE, CELL 2

POND LINER NOTE:
CONTRACTOR TO OVER–EXCAVATE THE BOTTOM OF POND TO BOTTOM OF OF WALL GRAVEL BASE AND PLACE LINER AT ELEV THRU POND BOTTOM AREA. PLACE COMPACTED NATIVE MATERIAL ON TOP OF LINER TOR ELEV. OF POND BOTTOM SEE REPORT FOR BLOCK CONFIGURATION, BATTER AND SLOPES

PUBLIC WORKS INSPECTORS WILL INSPECT SURROUNDING INFRASTRUCTURE AND PIPE CONNECTION INTO AND OUT OF THE STORM WATER POND FACILITY ONLY FOR CITY RECORDS AND DOCUMENTATION. THE ENGINEER OF RECORD OR A QUALIFIED DESIGNEE AS DIRECTED BY THE ENGINEER OF RECORD WILL BE RESPONSIBLE FOR INSPECTION OF OVERALL POND CONSTRUCTION, SOILS, GRADES / ELEVATIONS AND THE USE OF CLAY OR IMPERMEABLE FABRIC AS REQUIRED AT TIME OF CONSTRUCTION. THE ENGINEER OF RECORD WILL DICTATE AND OR COORDINATE CONSTRUCTION METHODS, SOILS OBSERVATIONS / TESTING AND ALL OTHER FORMS OF DOCUMENTATION REQUIRED TO PROVIDE POND CERTIFICATION PRIOR TO FINAL PROJECT ACCEPTANCE AND OR FINAL PLAT APPROVAL BY THE CITY OF FERNDALE.



NOVEMBER 25, 2016

APPROVED		
Public Works Director	8/11/17 Date	THRU–CURB INLET FRAME AND GRATE INSTALLATION STANDARD DETAIL R–8 NOT TO SCALE

REVISED POND LINER LOCATION 07/06/2023
REVISED POND LINER LOCATION 06/26/2023
REVISED FOR POND OUTLET 04/24/2023
REVISED PER CITY COMMENTS 03/08/2023

AS-BUILTS

SEAL
J. WEDEN
STATE OF WASHINGTON
12/08/2023

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email: info@wedenengineering.com

APPROVED
01/11/2024
BY
CITY OF FERNDALE
PUBLIC WORKS DEPARTMENT

No.	REVISIONS/ SUBMISSIONS	DATE
	REVISED PER CITY COMMENTS	02/28/2023
	ADDED ACCESS RAMPS	02/09/2023
	REVISED PER CITY COMMENTS	12/15/2022
	REVISED PER CITY COMMENTS	11/10/2022
	REVISED PER CITY COMMENTS	10/20/2022
REVIEWED : EJW	DRAWN : KLS	PROJECT NO. : 2106-01
CAD FILE :		

PROJECT TITLE
DOUGLAS FARM
44 LOT LONG PLAT
2396 DOUGLAS ROAD
FERNDALE, WA

DRAWING TITLE
STORMWATER DETAILS

DATE : 08/03/2022

DRAWING No.
36 of 41

00746.036 01/11/24 RH

kenny 12/08/23 9:59am – P:\2106-01 Landed Gentry Douglas Rd\7 CAD\As-Builts\SHEETS\2106 AB 36-SD DET.dwg

BEDDING SPECIFICATIONS FOR PVC PIPE

THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS ARE TO BE USED IN CONJUNCTION WITH THE WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION, CURRENT EDITION:

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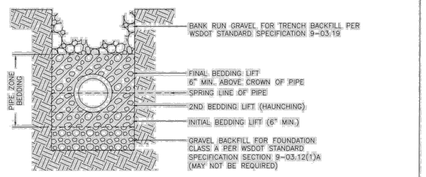
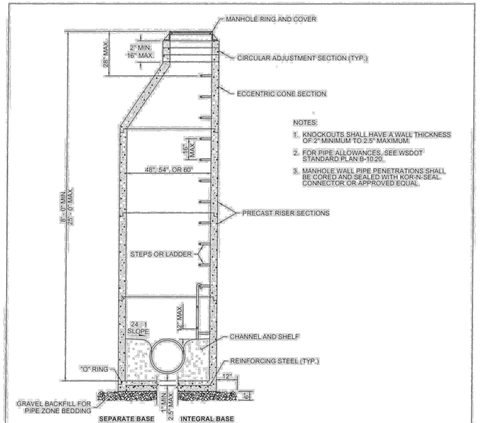


NOVEMBER 23, 2016

APPROVED
Public Works Director — 8/11/17 Date

PVC PIPE ZONE BEDDING
STANDARD DETAIL SS-1
NOT TO SCALE



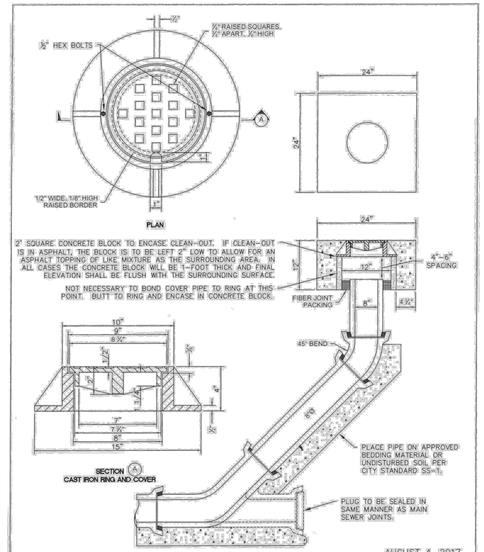
MANHOLE DIMENSION TABLE

DIAM.	MIN. WALL THICKNESS	MIN. BASE THICKNESS	MAXIMUM KNOCKOUT SIZE	MINIMUM DISTANCE BETWEEN KNOCKOUTS	BASE REINFORCING STEEL SQ.IN/FT EACH DIRECTION	
					INTEGRAL BASE	SEPARATE BASE
48"	4"	6"	36"	8"	0.15	0.23
54"	4.5"	8"	42"	8"	0.19	0.19
60"	5"	8"	48"	8"	0.25	0.25

AUGUST 1, 2017

APPROVED
Public Works Director — 8/11/17 Date

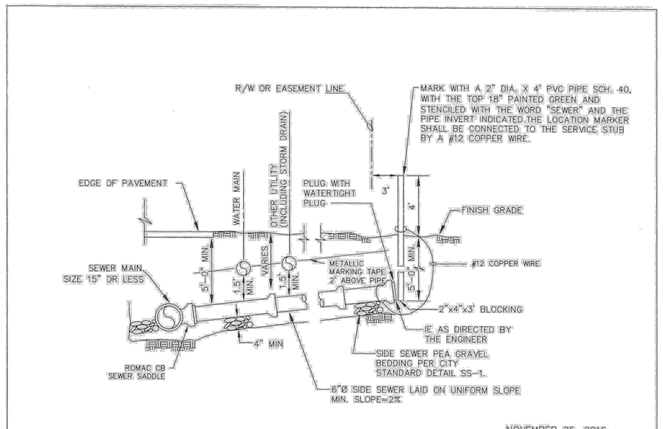
SANITARY SEWER MANHOLE TYPE 1
STANDARD DETAIL SS-3
NOT TO SCALE



AUGUST 4, 2017

APPROVED
Public Works Director — 8/11/17 Date

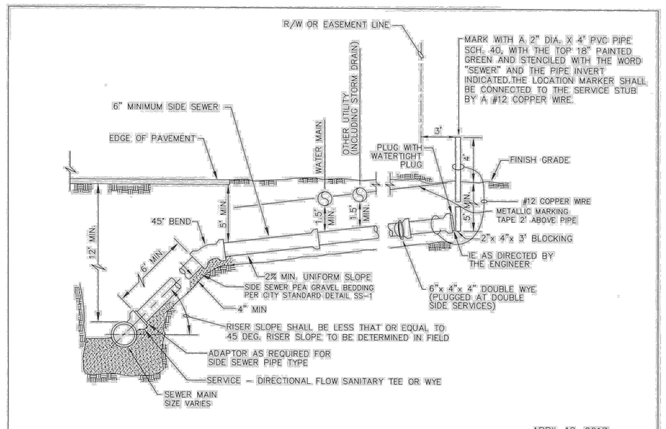
SANITARY SEWER 8' CLEAN OUT
STANDARD DETAIL SS-5
NOT TO SCALE



NOVEMBER 25, 2016

APPROVED
Public Works Director — 8/11/17 Date

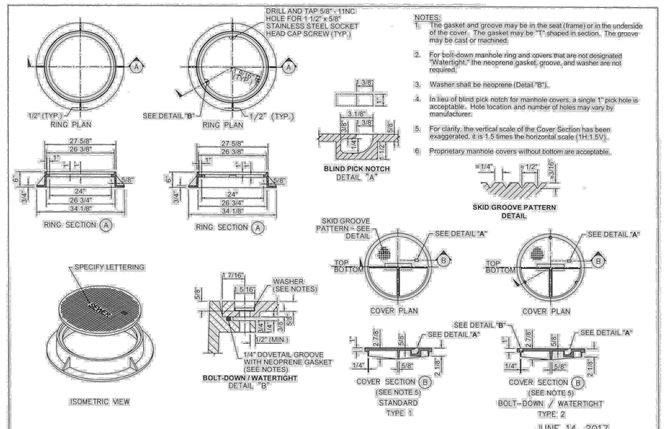
SANITARY SEWER SERVICE CONNECTION 15" OR LESS
STANDARD DETAIL SS-6
NOT TO SCALE



APRIL 18, 2017

APPROVED
Public Works Director — 8/11/17 Date

SANITARY SEWER SERVICE DEEP MAIN CONNECTION
STANDARD DETAIL SS-8
NOT TO SCALE



JUNE 14, 2017

APPROVED
Public Works Director — 8/11/17 Date

CIRCULAR FRAME AND COVER
STANDARD DETAIL SS-10
NOT TO SCALE

AS-BUILTS

REVISED FOR POND OUTLET 04/24/2023

SEAL

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email: info@wedenengineering.com

APPROVED
01/11/2024
BY
CITY OF FERNDALE
PUBLIC WORKS DEPARTMENT

No.	REVISIONS / SUBMISSIONS	DATE
	REVISED PER CITY COMMENTS	03/08/2023
	REVISED PER CITY COMMENTS	02/28/2023
	REVISED PER CITY COMMENTS	12/15/2022
	REVISED PER CITY COMMENTS	11/10/2022
	REVISED PER CITY COMMENTS	10/20/2022

REVIEWED : EJW
DRAWN : KLS
CAD FILE :
PROJECT NO. : 2106-01

PROJECT TITLE
DOUGLAS FARM
44 LOT LONG PLAT
2396 DOUGLAS ROAD
FERNDALE, WA

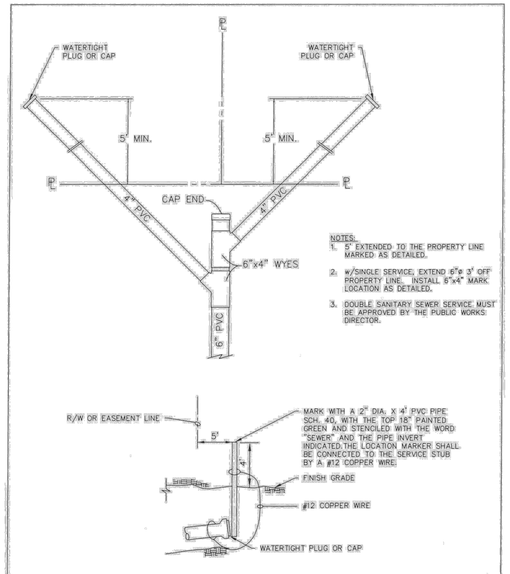
DRAWING TITLE
SEWER DETAILS

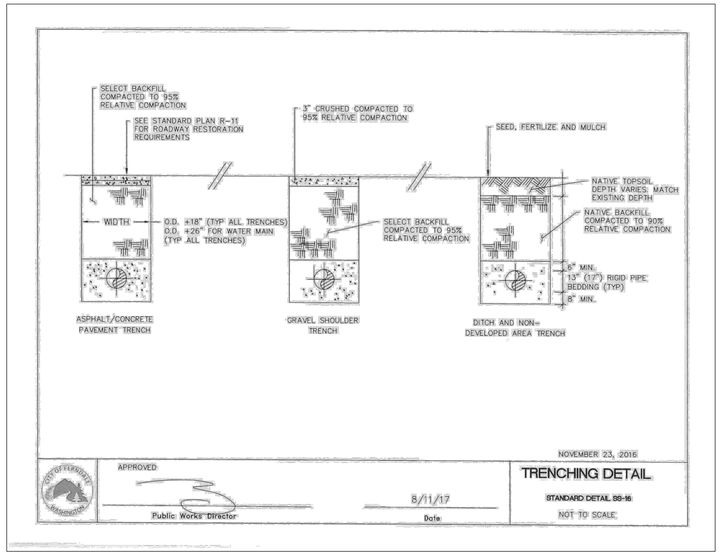
DATE : 08/03/2022

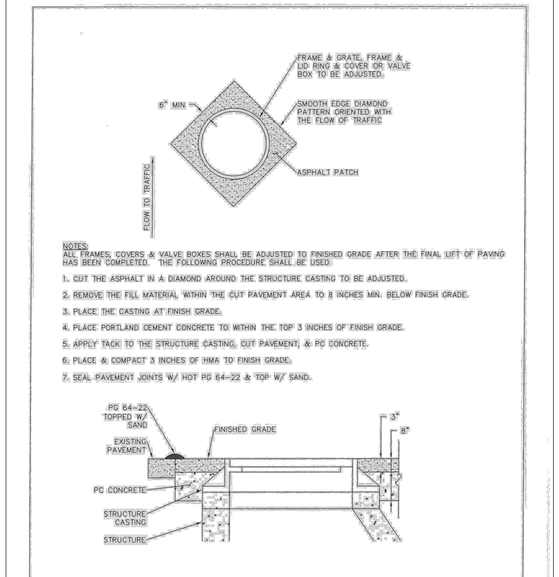
DRAWING No.
37 of 41

00746.037 01/11/24 RH

SEC 30, TWP. 39 N., R 02 E of W.M







AS-BUILTS

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SEAL
J. WEDEN
STATE OF WASHINGTON
23338
REGISTERED PROFESSIONAL ENGINEER
12/06/2023

APPROVED
01/11/2024
BY
CITY OF FERNDALE
PUBLIC WORKS DEPARTMENT

No.	REVISIONS/ SUBMISSIONS	DATE
	REVISED FOR POND OUTLET	04/24/2023
	REVISED PER CITY COMMENTS	03/08/2023
	REVISED PER CITY COMMENTS	12/15/2022
	REVISED PER CITY COMMENTS	11/10/2022
	REVISED PER CITY COMMENTS	10/20/2022

REVIEWED : EJW
DRAWN : KLS
CAD FILE :
PROJECT NO. : 2106-01

PROJECT TITLE
DOUGLAS FARM
44 LOT LONG PLAT
2396 DOUGLAS ROAD
FERNDALE, WA

DRAWING TITLE
SEWER DETAILS

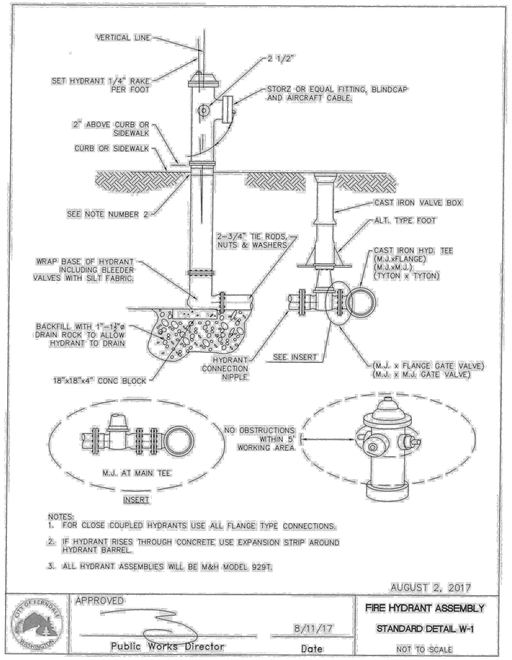
DATE : 08/03/2022

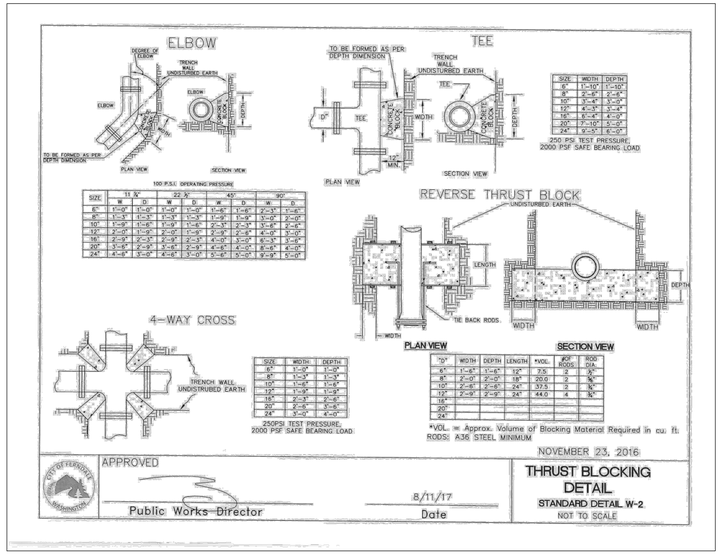
DRAWING No.

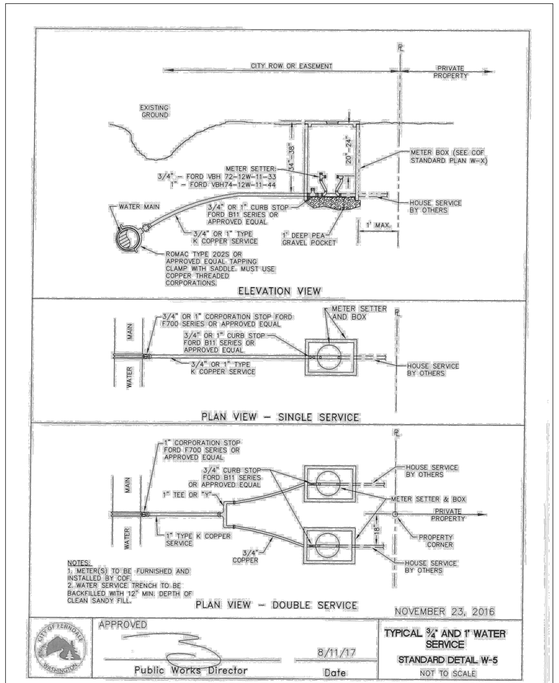
00746.038 01/11/24 RH

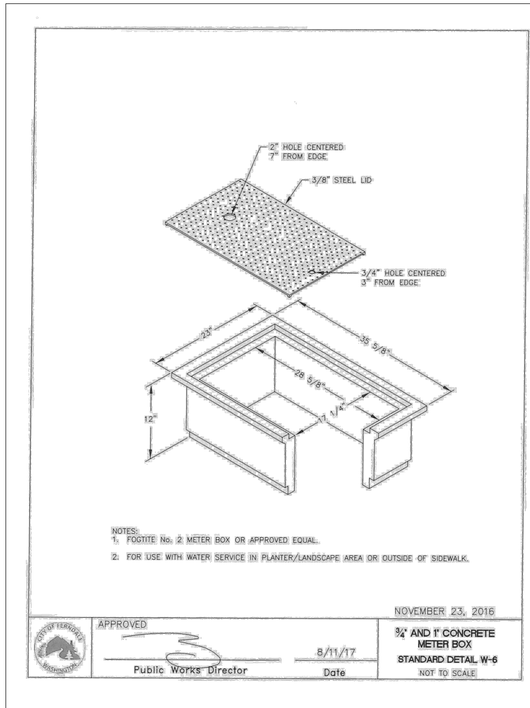
Kenny 12/07/23 11:40am – P:\2106-01 Landed Gentry Douglas Rd\7 CAD\As-Builts\SHEETS\2106 AB 38-SS DET.dwg

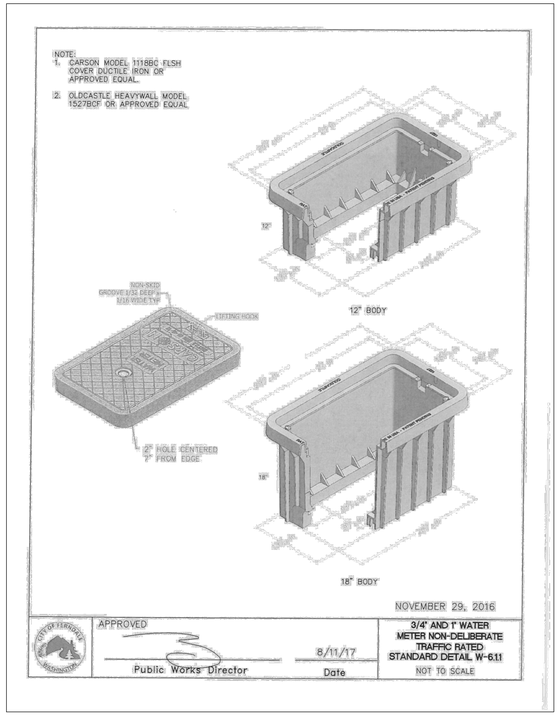
SEC 30, TWP. 39 N., R 02 E of W.M

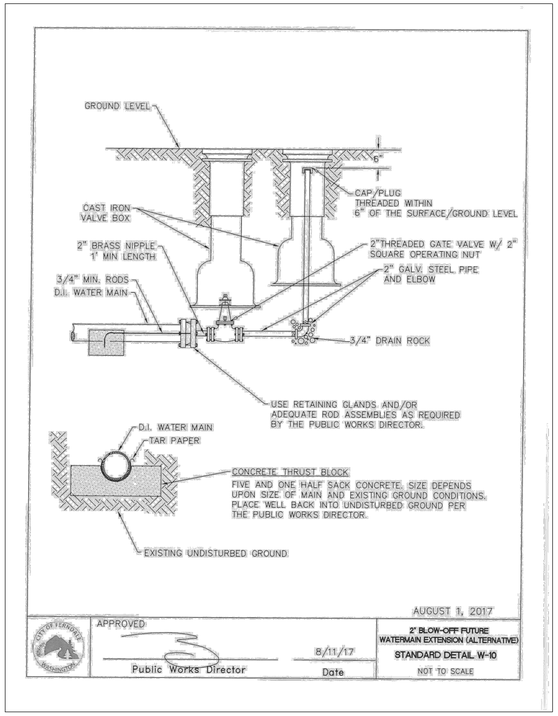












J. WEDEN
STATE OF WASHINGTON
21734
REGISTERED PROFESSIONAL ENGINEER
SEAL
12/06/2023

WEDEN ENGINEERING, LLC
Civil Engineering • Planning • Project Management
2636 Nubgaard Rd. Ferndale, WA 98248
(360) 380-1363 | (360) 384-3615 Fx
email: info@wedenengineering.com

APPROVED
01/11/2024
BY
CITY OF FERNDALE
PUBLIC WORKS DEPARTMENT

No.	REVISIONS/ SUBMISSIONS	DATE
	REVISED PER CITY COMMENTS	03/08/2023
	REVISED PER CITY COMMENTS	02/28/2023
	REVISED PER CITY COMMENTS	12/15/2022
	REVISED PER CITY COMMENTS	11/10/2022
	REVISED PER CITY COMMENTS	10/20/2022

REVIEWED : EJW | DRAWN : KLS
CAD FILE : | PROJECT NO : 2106-01

REVISED FOR POND OUTLET 04/24/2023

AS-BUILTS

PROJECT TITLE
DOUGLAS FARM
44 LOT LONG PLAT
2396 DOUGLAS ROAD
FERNDALE, WA

DRAWING TITLE
WATER DETAILS

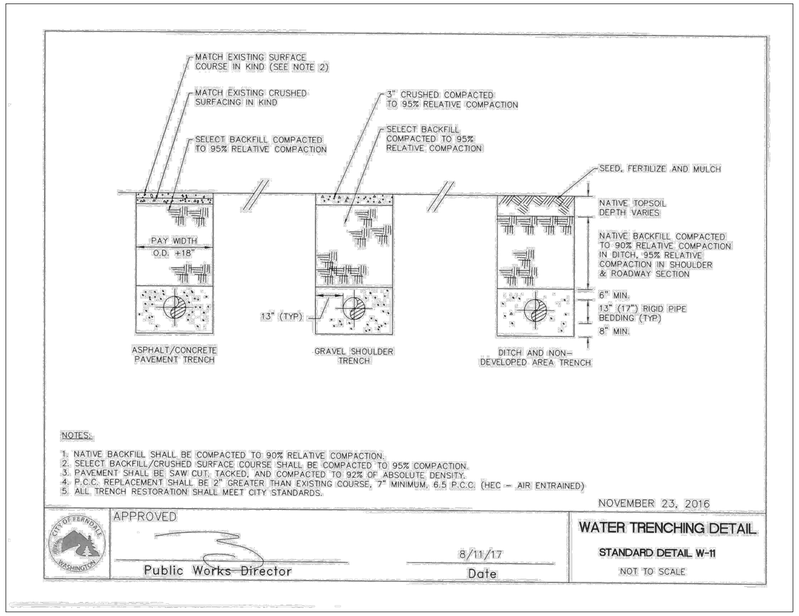
DATE : 08/03/2022

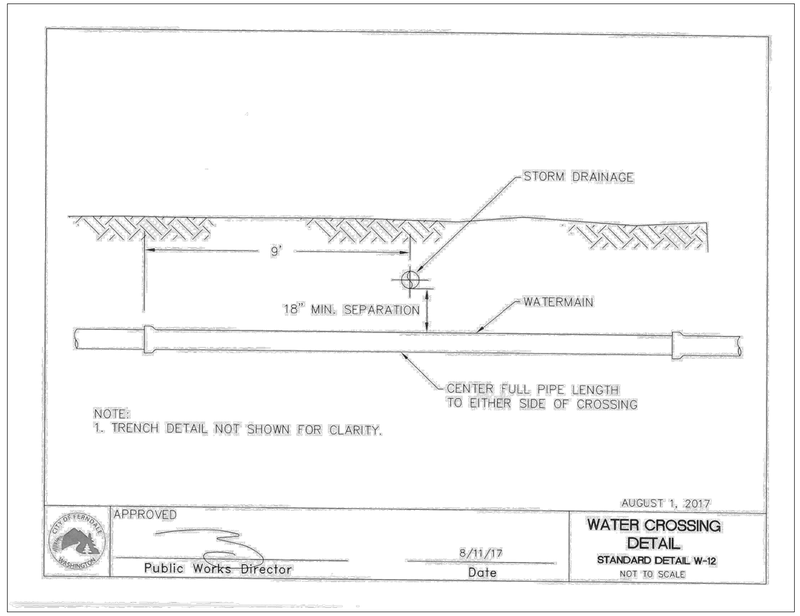
DRAWING No.
39 of 41

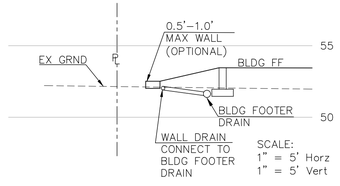
00746.039 01/11/24 RH

REVISED PER CITY COMMENTS 10/20/2022

Kenny 12/07/23 11:43am – P:\2106-01 Landed Gentry Douglas Rd\7 CAD\As-Builts\SHEETS\2106 AB 39-WA DET.dwg







OPTIONAL WALL
ALONG LOTS
7 & 10

J. WEDEN
STATE OF WASHINGTON
23331
REGISTERED PROFESSIONAL ENGINEER
SEAL
12/08/2023

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REVIEWED : EJW
DRAWN : KLS
CAD FILE :
PROJECT NO. : 2106-01

REVISED FOR POND OUTLET 04/24/2023

AS-BUILTS

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DOUGLAS FARM
44 LOT LONG PLAT
2396 DOUGLAS ROAD
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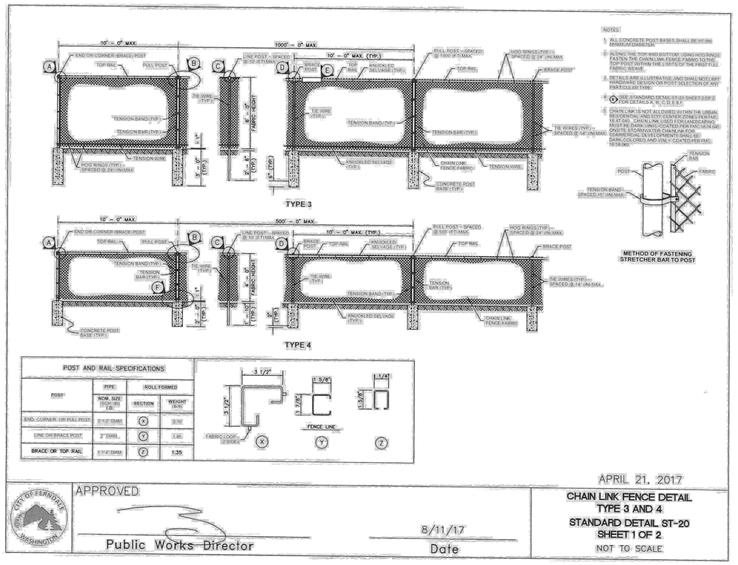
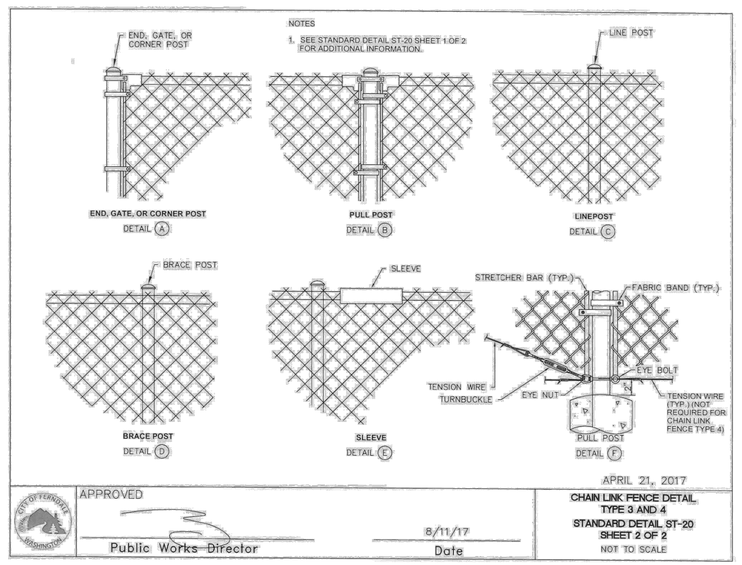
DRAWING TITLE
WATER DETAILS

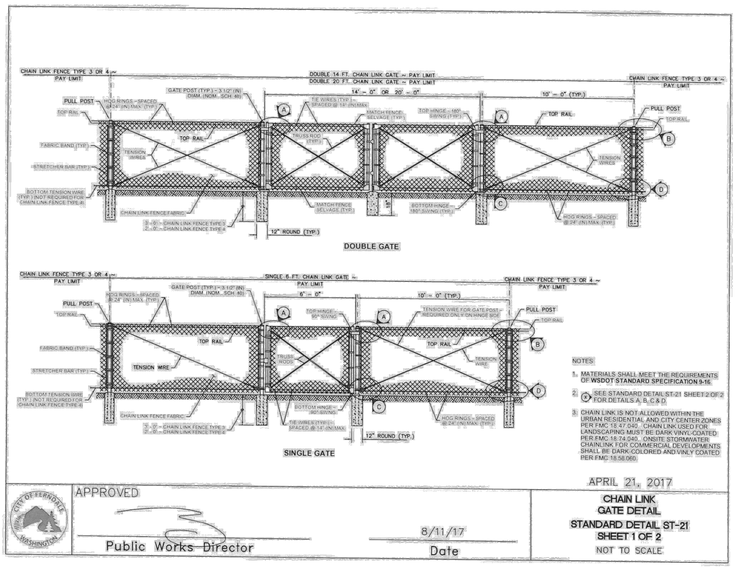
DATE : 08/03/2022
DRAWING No.
40 of 41

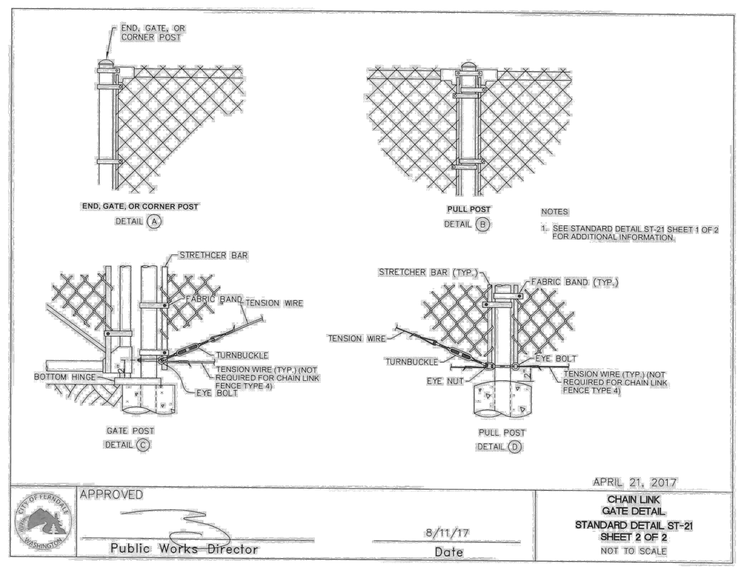
00746.040 01/11/24 RH

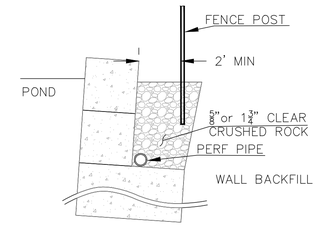
SEC 30, TWP. 39 N., R 02 E of W.M



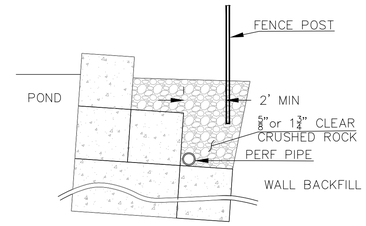








FENCE LOCATION
10' & 12.5' WALL NTS



FENCE LOCATION
15' WALL NTS

CHAIN-LINK FENCE SHALL BE INSTALLED 2.0' MIN BEHIND BLOCK WALL, SEE WALL DESIGN BY GEOTEST, INC

REVISED PER CITY COMMENTS 05/04/2023
REVISED FOR POND OUTLET 04/24/2023

AS-BUILTS

APPROVED
01/11/2024
BY
CITY OF FERNDALE
PUBLIC WORKS DEPARTMENT

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	REVISED PER CITY COMMENTS	10/20/2022

REVIEWED : E.J.W
DRAWN : K.L.S
CAD FILE :
PROJECT NO. : 2106-01

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44 LOT LONG PLAT
2396 DOUGLAS ROAD
FERNDALE, WA

DRAWING TITLE
CHAIN-LINK FENCE DETAILS

DATE : 08/03/2022

DRAWING No.
41 of 41

00746.041 01/11/24 RH

Kenny 12/07/23 11:46am – P:\2106-01 Landed Gentry Douglas Rd\7 CAD\As-Builts\SHEETS\2106 AB 41-Fence DET.dwg