ABBREVIATIONS

A

AARV	AUTOMATIC AIR RELEASE VALVE
AC	ASBESTOS CEMENT
APPD	APPROVED
APPROX	APPROXIMATE
ARV	AIR RELEASE VALVE
AUX	AUXILIARY
AVG	AVERAGE

B

BD	BASIN DRAIN
BF	BLIND FLANGE
BFP	BACKFLOW PREVENTER
BFV	BUTTERFLY VALVE
BGL	BELOW GROUND LEVEL
BLDG	BUILDING
BM	BENCHMARK
BR	BACKWASH RETURN
BRD	BACKWASH RESIDUAL DRAIN
BRW	BACKWASH RESIDUAL WASTE
BV	BALL VALVE
BWD	BACKWASH DRAIN
BWS	BACKWASH SUPPLY

C

CFS	CUBIC FEET PER SECOND
CGV	CHLORINE GAS (VACUUM)
CI	CAST IRON
CIP	CAST IRON PIPE
CIPP	CURE IN PLACE PIPE
CISP	CAST IRON SOIL PIPE
CJ	CONTRACTION JOINT
CL	CENTERLINE
CLCS	CEMENT LINED COATED STEEL
CLR	CLEARANCE
CMP	CORRUGATED METAL PIPE
CO	CLEAN OUT
COR	CONTRACTING OFFICER'S REPRESENTATIVE
CONC	CONCRETE
CONN	CONNECTION
CONT	CONTINUOUS
CORP	CORPORATION
CP	CONCRETE PIPE/ SURVEY CONTROL POINT
CPLG	COUPLING
CPP	CORRUGATED PLASTIC PIPE
CPVC	CHLORINATED POLYVINYL CHLORIDE
CS	CHLORINE SOLUTION
CTR	CENTER
CU	COPPER
CU FT	CUBIC FEET
CU YD	CUBIC YARD
CV	CHECK VALVE
CYL	CYLINDER

D

D	DRAIN
DCVA	DOUBLE CHECK VALVE ASSEMBLY
DEG	DEGREE
DEPT	DEPARTMENT
DI	DUCTILE IRON
DIA	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DIP	DUCTILE IRON PIPE
DNF	DID NOT FIND
DW	DRY WEATHER
DWG	DRAWING

E

EA	EACH
ECC	ECCENTRIC
EFFL	EFFLUENT
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICAL
ELL	ELBOW
ENG	ENGINEER
EQUIP	EQUIPMENT
EX	EXISTING
EXP	EXPANSION
EXT	EXTERIOR

F

FCA	FLANGED COUPLING ADAPTOR
FD	FLOOR DRAIN
FDC	FIRE DEPARTMENT CONNECTION
FF	FINISHED FLOOR
FH	FIRE HYDRANT
FIG	FIGURE
FLG	FLANGE
FOC	FACE OF CONCRETE
FNPT	FEMALE NATIONAL PIPE THREAD
FRP	FIBERGLASS REINFORCED PIPE
FS	FILTER SUPPLY WATER
FT	FEET
FTW	FILTER TO WASTE

G

GA	GAUGE
GAL	GALLON
GALV	GALVANIZED
GL	GLASS
GRTG	GRATING
GSP	GALVANIZED STEEL PIPE
GV	GATE VALVE
GV_SO	SHUT OFF VALVE

H

HB	HOSE BIB
HDPE	HIGH DENSITY POLYETHYLENE
HORIZ	HORIZONTAL
HR	HOUR
HV	HOSE VALVE
HWL	HIGH WATER LEVEL

I

ID	INSIDE DIAMETER
IE	INVERT ELEVATION
IN	INCH
INFL	INFLUENT
INV	INVERT
IUP	INSULATED UNDERGROUND PIPING

J

JT	JOINT

K

KGV	KNIFE GATE VALVE
KW	KILOWATT

L

L	LENGTH
LAV	LAVATORY
LF	LINEAR FEET
LWL	LOW WATER LEVEL

M

MATL	MATERIAL
MAX	MAXIMUM
MBR	MEMBRANE BIOREACTOR
MC	MECHANICAL COUPLING
MCC	MOTOR CONTROL CENTER
MECH	MECHANICAL
MFR	MANUFACTURER
MGD	MILLION GALLONS PER DAY
MH	MANHOLE
MIN	MINIMUM, MINUTE
MISC	MISCELLANEOUS
MJ	MECHANICAL JOINT
MNPT	MALE NATIONAL PIPE THREAD
MON	SURVEY MONUMENT

N

NATL	NATIONAL
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN, NUMBER
NPT	NATIONAL PIPE THREAD
NPW	NON POTABLE WATER
NTS	NOT TO SCALE

O

OD	OUTSIDE DIAMETER
OF	OVERFLOW
OPNG	OPENING
ORIG	ORIGINAL

P

P	POLYMER
POC	POINT OF CURVATURE
PC	PROPERTY CORNER
PE	POLYETHYLENE
PG	PRESSURE GAUGE
PI	POINT OF INTERSECTION
PIV	POST INDICATOR VALVE
PL	PROPERTY LINE
POB	POINT OF BEGINNING
POT	POINT ON TANGENT
PR	PAIR
PRS	PRESSURE REDUCING STATION
PRV	PRESSURE RELIEF VALVE\ PRESSURE REDUCING VALVE
PS	PIPE SUPPORT\ PUMP STATION
PSF	POUNDS PER SQUARE FOOT
PSH	PRESSURE SWITCH HIGH
PSI	POUNDS PER SQUARE INCH
PT	POINT
PV	PLUG VALVE
PVI	POINT OF VERTICAL INTERSECTION
PVC	POLYVINYL CHLORIDE
PW	POTABLE WATER

Q

QTY	QUANTITY

R

R	RADIUS
RCP	REINFORCED CONCRETE PIPE
RED	REDUCER
REF	REFERENCE
REINF	REINFORCE
REQD	REQUIRED
RMJ	RESTRAINED MECHANICAL JOINT
ROW	RIGHT OF WAY
RPBA	REDUCED PRESSURE BACKFLOW ASSEMBLY
RW	RIGHT OF WAY

S

S	SLOPE
SCH	SCHEDULE
SFM	SEWER FORCE MAIN
SHR	SHOWER
SHT	SHEET
SL	SURVEY LINE
SPEC	SPECIFICATION
SQ FT	SQUARE FEET
SQ IN	SQUARE INCH
SFR	SINGLE FAMILY RESIDENCE
SS	SANITARY SEWER/SAMPLING STATION
SST	STAINLESS STEEL
STA	STATION
STD	STANDARD
STL	STEEL
SV	SOLENOID VALVE

T

TBM	TEMPORARY BENCHMARK
TRV	SURVEY TRAVERSE POINT
TYP	TYPICAL

V

V/ARV	VACUUM & AIR RELEASE VALVE
VCP	VITRIFIED CLAY PIPE
VERT	VERTICAL VT VENT
VTR	VENT THROUGH ROOF

W

WAS	WASTE ACTIVATED SLUDGE
WBP	WATER BOOSTER PUMP
WS	WATER SURFACE
WSP	WELDED STEEL PIPE
WW	WELL WATER

SYMBOLS

EXISTING		PROPOSED
	AIR RELEASE VALVE	
	COMBINATION AIR VAC VALVE	
	CURB STOP	
	FIRE DEPT CONN	
	FIRE HYDRANT	
	FLUSH HYDRANT	
	GATE VALVE	
	PLUG VALVE	
	BALL VALVE	
	POST INDICATOR VALVE	
	SOLENOID VALVE	
M	METER	M
PT	PRESSURE TANK	PT
	INDIVIDUAL PRV	
	PRV VAULT	
	REDUCER	
	SADDLE WITH CORP	
	SAMPLING STATION	
	WATER BLOWOFF	
	WATER CHECK VALVE	
W	WATER MANHOLE	W
W	WELL	W
	YARD HYDRANT	
	ONE-WAY CLEANOUT	
	TWO-WAY CLEANOUT	
	SANITARY MANHOLE	
	SEPTIC TANK	
	LIFT STATION	
D	STORM MANHOLE	D
	CATCH BASIN	
TEL	TELEPHONE PEDESTAL	TEL
PV	POWER VAULT	PV
	MISC. METER	
	POWER UTILITY POLE	
	POWER POLE AND TRANSFORMER	
	LIGHT POLE	
	SIGN	
	SOIL LOG	
	TREE – DECIDUOUS	
	TREE – CONIFEROUS	
	WETLAND	
	DIRECTION OF FLOW	
	CULVERT	
B.M.	BENCHMARK	
T.B.M.	TEMPORARY BENCHMARK	
	CONTROL TRAVERSE POINT	
1	NOTE MARKER	
1	PARTS LIST	
# C-##	CUT SHEET/DETAIL LABEL	

LEGEND

LINES

EXISTING		PROPOSED
W	WATER MAIN	W
WSL	WATER SERVICE LINE	WSL
S	SEWER MAIN	S
SFM	SEWER FORCE MAIN	SFM
SSL	SEWER SERVICE LINE	SSL
SFSL	SEWER FORCE SERVICE LINE	SFSL
STM	STORM WATER LINE	STM
T	TELECOM	T
FO	FIBER OPTIC	FO
TV	CABLE	TV
G	NATURAL GAS	G
E	ELECTRICAL SERVICE CONDUIT	E
OHP	OVERHEAD POWER	OHP
UGP	UNDERGROUND POWER	UGP
X X	FENCE (CHAINLINK)	X X
	EASEMENT	
	PROPERTY LINE	
	RIGHT OF WAY	
	MAJOR CONTOUR	
	MINOR CONTOUR	
	VEGETATION LINE	

HATCHES

	PAVEMENT
	GRAVEL
	WATER
	TO BE ABANDONED
	TO BE DEMOLISHED/REMOVED
	CONCRETE
	EARTH
	SAND
	BUILDING
	C.I.P.P – CURE IN PLACE PIPE

NOTE:

ABBREVIATIONS AND SYMBOLS LISTED IN THE LEGEND ARE TYPICAL. NOT ALL SYMBOLS OR ABBREVIATIONS ARE REPRESENTED WITHIN THIS DRAWING SET.

DATE	REVISIONS	INIT.

U.S. PUBLIC HEALTH SERVICE
INDIAN HEALTH SERVICE
SANITATION FACILITIES CONSTRUCTION

OLYMPIC DISTRICT OFFICE
500 PACIFIC AVE – SUITE 400
BREMERTON, WA 98337
(360) 792-1235

INDIAN HEALTH SERVICE · SFC · 1955

THE CONFEDERATED TRIBES OF THE CHEHALIS RESERVATION
CHEHALIS RESERVATION, OAKVILLE, WA
PETOIE COMMUNITY, SEWER FORCE MAIN CONNECTION

ABBREVIATIONS AND LEGEND

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CHECKED BY:
APPROVED BY:
IHS PROJECT NO: PO-21-N18
PROJ ENG: S. SCHATZ

G-001

SHEET 1 OF 4

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NOTE: THIS IS NOT A SURVEY

ALL PROPERTY LINES AND DIMENSIONS AS SHOWN ARE FROM INFORMATION SUPPLIED BY THE CLIENT. THE DESIGNERS ASSUME NO LIABILITY FOR VARIATIONS ASCERTAINED BY ACTUAL SURVEY. ALL ELEVATIONS ARE APPROXIMATE AND SHOULD NOT BE USED FOR DESIGN PURPOSES.

N

SCALE: 1 INCH = 100 FEET

0 50 100 200

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THE CONFEDERATED TRIBES OF THE CHEHALIS RESERVATION
CHEHALIS RESERVATION, OAKVILLE, WA
PETOIE COMMUNITY, SEWER FORCE MAIN CONNECTION

SITE PLAN – OVERVIEW

IHS PROJECT NO: PO-21-N18

DRAWN BY: H. ANDINA
CHECKED BY:
APPROVED BY:
PROJ ENG: S. SCHATZ

C-101

SHEET 2 OF 4

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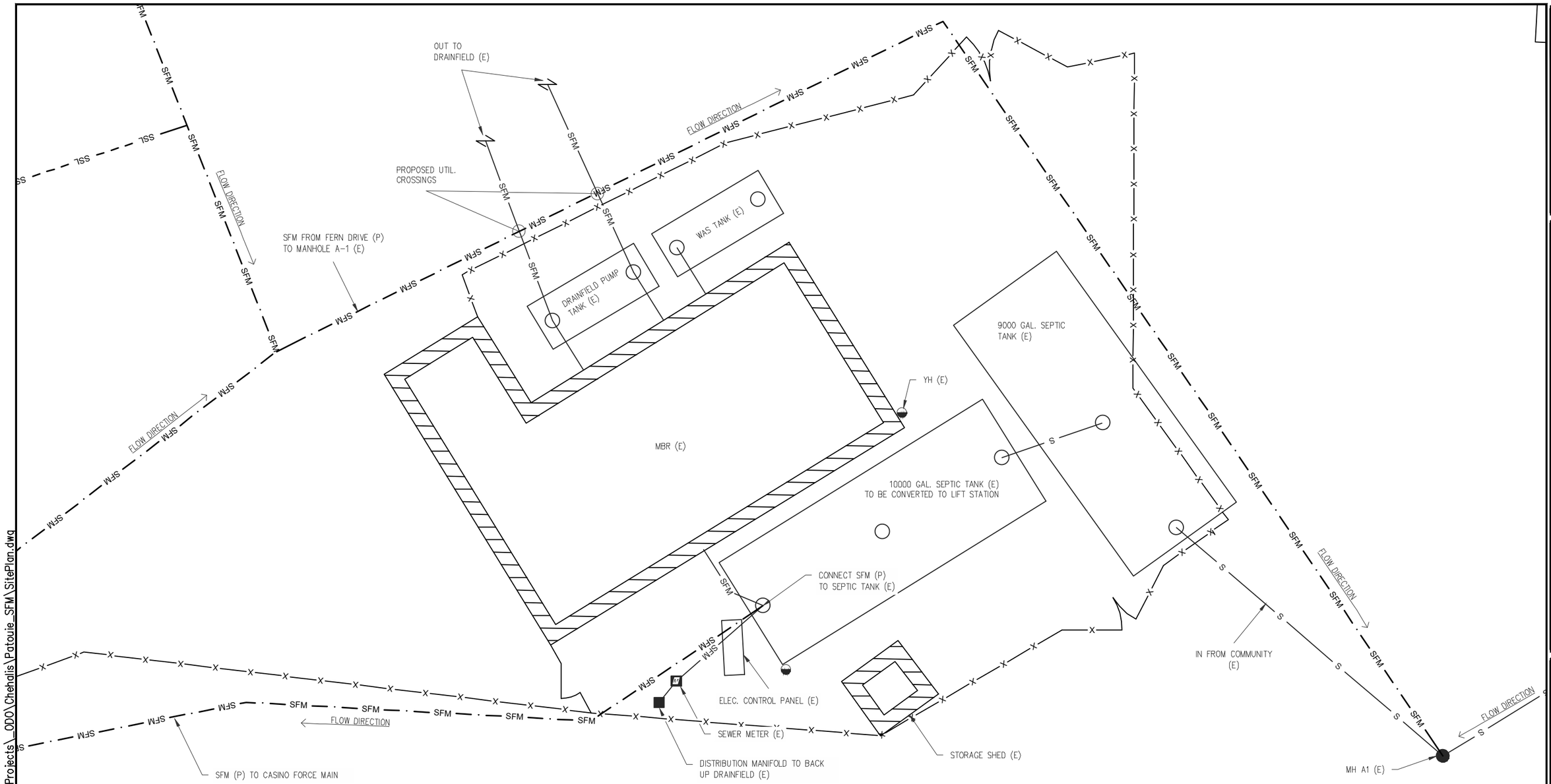

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SCALE: 1 INCH = 10 FEET

0 5 10 20

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THE CONFEDERATED TRIBES OF THE CHEHALIS RESERVATION
CHEHALIS RESERVATION, OAKVILLE, WA
PETOIE COMMUNITY, SEWER FORCE MAIN CONNECTION

SITE PLAN – PROPOSED SFM

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APPROVED BY:

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PROJ ENG: S. SCHATZ

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SHEET 3 OF 4

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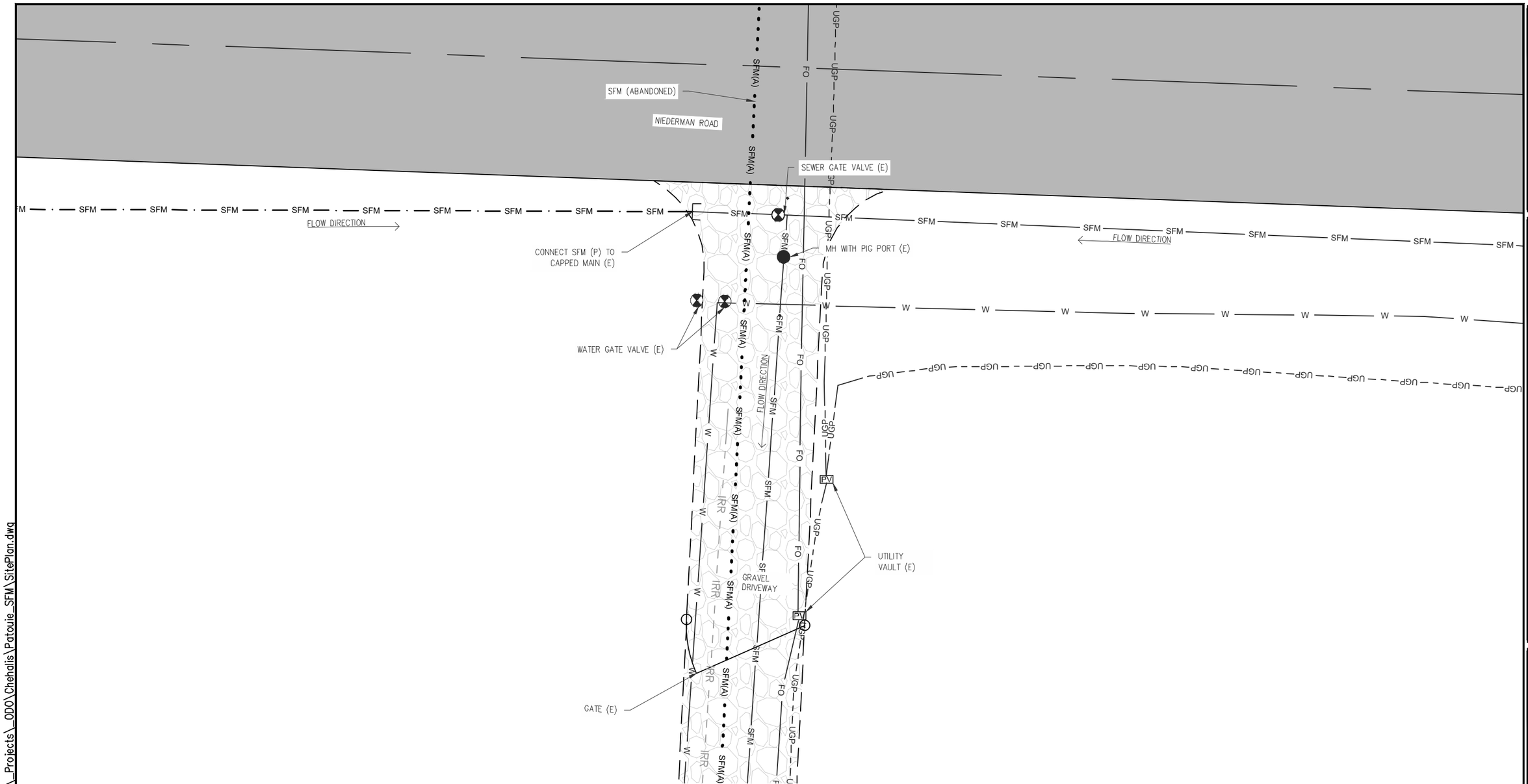

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0 5 10 20

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SITE PLAN – SFM CONNECTION

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