

MALLOY VILLAGE PUD 2  
SEWER PUMP STATION UPGRADE  
FERNDALE, WA  
JUNE 2016

OWNER APPLICANT  
MALLOY VILLAGE LLC  
22410 HAWTHORNE BLVD, SUITE 5  
TORRANCE, CA 90501  
CONTACT: TIM CAREY  
(310)-787-6569

ENGINEER  
BENNETT ENGINEERING, LLC.  
2324 JAMES STREET  
BELLINGHAM, WA 98225  
CONTACT: TOM BENNETT, P.E.  
(360) 671-2600

SURVEYOR  
LARRY STEELE & ASSOCIATES  
1334 KING STREET SUITE 1  
BELLINGHAM, WA 98229  
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(360) 676-9350

WETLANDS BIOLOGIST  
NORTHWEST ECOLOGICAL SERVICES  
2801 MERIDIAN STREET, SUITE 202  
BELLINGHAM, WA 98225  
CONTACT: VIKKI JACKSON  
(360)-734-9484

ELECTRICAL ENGINEER  
Z ENGINEERS, PLLC  
ONE FIFTH STREET SUITE 150  
WENATCHEE, WA 98801  
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ABBREVIATIONS	
AC	ACRES
APWA	AMERICAN PUBLIC WORKS ASSOCIATION
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
CL	CENTERLINE
CONC	CONCRETE
CONST	CONSTRUCTION
COR	CORNER
CPP	CORRUGATED PLASTIC PIPE
DI	DUCTILE IRON
EX.	EXISTING
FDN	FOUNDATION
FND	FOUND
FF	FINISHED FLOOR
G	GAS
IE	INVERT ELEVATION
LF	LINEAR FEET
MB	MAIL BOX
MIN	MINIMUM
MON	MONUMENT
NE	NORTHEAST
NW	NORTHWEST
OCM	OVERHEAD CABLE
OHE	OVERHEAD ELECTRICAL
PC	POINT OF CURVATURE
PERM	PERMANENT
PL	PROPERTY LINE
PROP	PROPERTY
PT	POINT OF TANGENCY
PVC	POLY VINYL CHLORIDE
RD	ROAD DRAIN
RGE	RANGE
ROW	RIGHT OF WAY
SD	STORM DRAIN
SDOB	STORM DRAIN CATCH BASIN
SDMH	STORM DRAIN MANHOLE
SE	SOUTHEAST
SF	SILT FENCE, SQUARE FEET
SS	SANITARY SEWER
SSMH	SANITARY SEWER MANHOLE
SVC	SERVICE
SW	SOUTHWEST
TBR	TO BE REMOVED
TEMP	TEMPORARY
TESC	TEMPORARY EROSION & SEDIMENT CONTROLS
TP	TEST PIT
TYP.	TYPICAL
TWN	TOWNSHIP
W	WATER
WDOT	WASHINGTON DEPT. OF TRANSPORTATION
WM	WATER METER
WV	WATER VALVE
W.M.	WILLAMETTE MERIDIAN

SHEET INDEX	
SPS-1	COVER SHEET
SPS-2	EXISTING CONDITIONS & TESC PLAN
SPS-3	PHASE 1 IMPROVEMENT PLAN
SPS-4	SEWER PUMP STATION UPGRADE PLAN
SPS-5	DETAILS
E1	ELECTRICAL SYMBOLS & ABBREVIATIONS
E2	PUMP STATION #19 GENERATOR ELECTRICAL

LEGAL DESCRIPTION

PORTION OF THE SW1/4, SECTION 17 OF TOWNSHIP 39N, RANGE 02E OF WILLAMETTE MERIDIAN, CITY OF FERNDAL, WHATCOM COUNTY, WASHINGTON.

DATUM

VERTICAL: NGVD 29 USING CITY OF FERNDAL MON. STATION #351  
HORIZONTAL: CITY OF FERNDAL MONUMENT NETWORK

BASIS OF BEARINGS

WASHINGTON STATE NORTH ZONE NAD 83/91 COORDINATES USING CITY OF FERNDAL MONUMENTS STATIONS #343 AND #351

NOTE:

EXISTING FIELD DATA PER LARRY STEELE & ASSOCIATES.

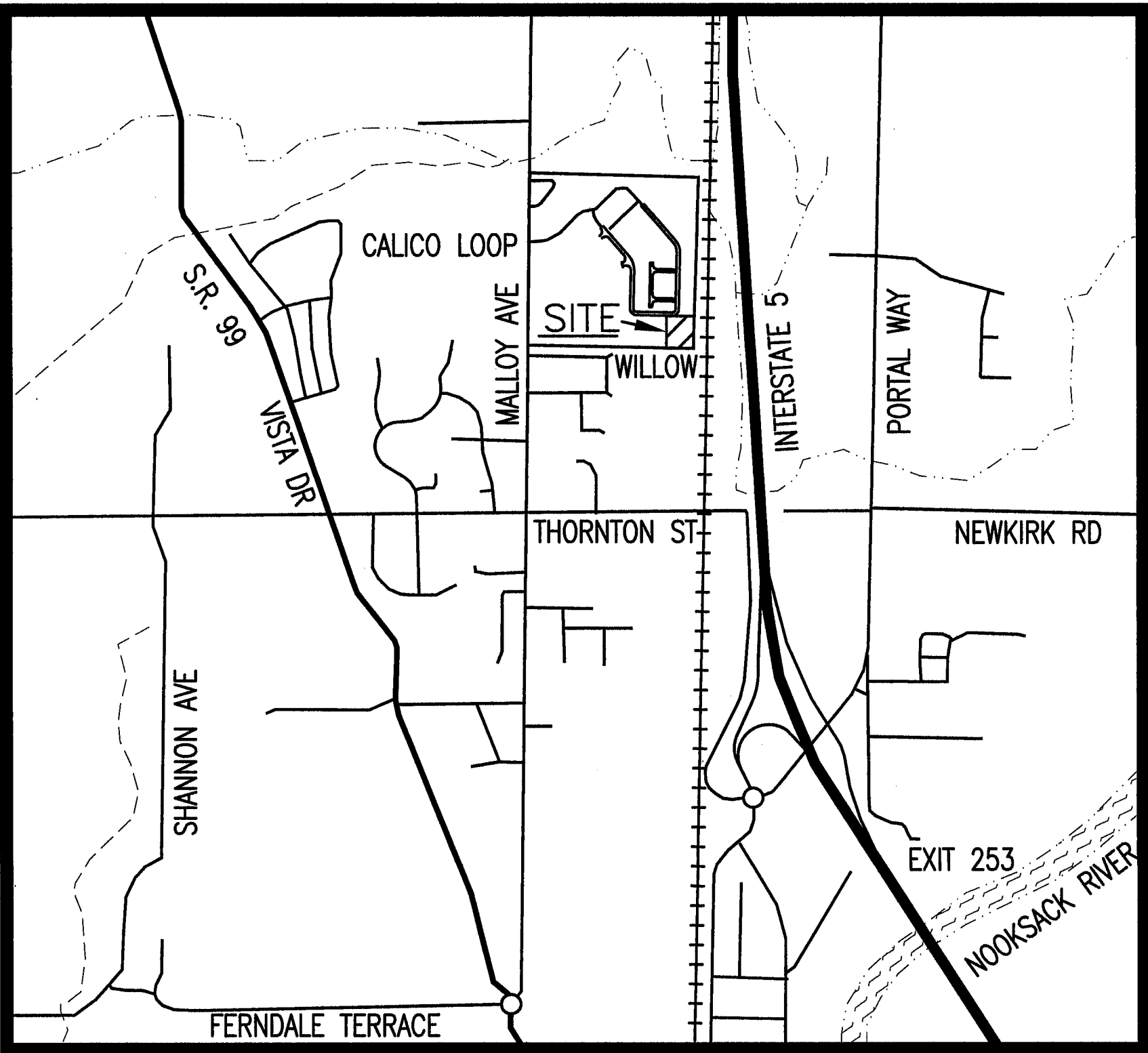
CONSTRUCTION SEQUENCE

THIS CONSTRUCTION SEQUENCE IS INTENDED AS A GENERAL GUIDELINE FOR THE PROPOSED SITE DEVELOPMENT. ANY SIGNIFICANT CHANGES TO THE SEQUENCE SHALL BE DISCUSSED WITH AND APPROVED BY THE CITY OF FERNDAL (CITY) STAFF AND THE PROJECT ENGINEER.

1. ARRANGE AND ATTEND A PRE-CONSTRUCTION MEETING BETWEEN THE GENERAL CONTRACTOR, ELECTRICAL CONTRACTOR, AND CITY STAFF, A MINIMUM OF 3 DAYS PRIOR TO THE START OF WORK.
2. ARRANGE FOR A UTILITY LOCATE WITHIN THE PROJECT AREA. VERIFY LOCATION AND DEPTH OF EXISTING UTILITIES.
3. MAINTAIN OR REPAIR THE EROSION CONTROLS THAT WERE INSTALLED IN THE FALL OF 2015, AS NEEDED. INSTALL NEW SILT FENCING OUTSIDE PROJECT AREA (SHEET SPS-2).
4. STRIP TOPSOIL AND OTHER UNSUITABLE MATERIALS WITHIN THE PROJECT AREA AND STOCKPILE IN DESIGNATED AREAS.
5. EXCAVATE CONDUIT TRENCH AND INSTALL CONDUIT PER SHEET E-1. BACKFILL TRENCH WITH COMPACTED GRAVEL BASE.
6. EXCAVATE TO FOUNDATION GRADE FOR THE CONCRETE SLAB. CERTIFY SUBGRADE PRIOR TO PLACEMENT AND COMPACTION OF CRUSHED SURFACING BASE COURSE. CONSTRUCT CONCRETE SLAB FOR GENERATOR PER SECTION DETAIL ON SHEET SPS-5.
7. INSTALL GENERATOR OVER COMPLETED SLAB. DRILL SLAB AND INSTALL ANCHOR BOLTS IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS.
8. COMPLETE ELECTRICAL SYSTEM IMPROVEMENTS IN ACCORDANCE WITH SHEET E-1. CONDUCT SYSTEM TESTING IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS AND CITY REQUIREMENTS.
9. PLACE AND COMPACT CRUSHED SURFACING IN THE NEW ACCESS ROAD AND YARD AREAS.
10. INSTALL CHAIN-LINK FENCING AROUND THE YARD AND TWO 10-FOOT WIDE GATES AT THE ACCESS ROAD ENTRY.
11. REMOVE EXCESS CONSTRUCTION MATERIALS AND DEBRIS FROM THE SITE.
12. REMOVE TESC FACILITIES ONCE SITE HAS STABILIZED. INSTALL TOPSOIL OVER EXPOSED SOIL AREAS AND HYDROSEED.
13. PREPARE RECORD DRAWING SET FOR THE COMPLETED IMPROVEMENTS AND SUBMIT TO THE CITY.

RECORD DRAWING CERTIFICATION

I, THOMAS E. BENNETT, P.E., CERTIFY THAT THE SEWER PUMP STATION IMPROVEMENTS FOR THE MALLOY VILLAGE PUD 2 HAVE BEEN INSPECTED BY BENNETT ENGINEERING, LLC AND CONSTRUCTED IN CONFORMANCE WITH THE PLANS APPROVED BY THE PUBLIC WORKS DIRECTOR FOR SAID DEVELOPMENT, THE CITY OF FERNDAL MUNICIPAL CODE, SUBSEQUENT STANDARDS ADOPTED BY REFERENCE THEREIN, AND STANDARD ENGINEERING PRACTICE.



EXIST	NEW	LEGEND
○	⊕	BRASS DISK SURVEY MONUMENT
⊕	⊕	FOUND SURVEY MARKER
⊕	⊕	STREET SIGN
⊕	⊕	CATCH BASIN
⊕	⊕	SANITARY SEWER MANHOLE
⊕	⊕	SANITARY SEWER CLEAN-OUT
⊕	⊕	POWER / UTILITY POLE
⊕	⊕	WATER VALVE
⊕	⊕	WATER METER
⊕	⊕	WATER BLOW-OFF ASSEMBLY
⊕	⊕	WATER AIR/VAC RELEASE VALVE
⊕	⊕	FIRE HYDRANT
⊕	⊕	TEST PIT
⊕	⊕	TELEPHONE PEDESTAL
⊕	⊕	POWER TRANSFORMER
⊕	⊕	LIGHT POLE
⊕	⊕	EX. SANITARY SEWER LINE
⊕	⊕	PROP. SANITARY SEWER LINE
⊕	⊕	EX. STORM DRAIN LINE
⊕	⊕	PROP. STORM DRAIN LINE
⊕	⊕	EX. WATER LINE
⊕	⊕	PROP. WATER LINE
⊕	⊕	WETLAND

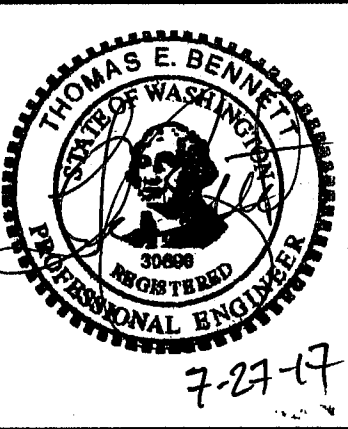
APPROVED

AUG 28 2017

BY:   
CITY OF FERNDAL  
PUBLIC WORKS DEPARTMENT

COF PROJECT 16011-COMM-MECH

1	ISSUED FOR REVIEW	NCS	6/06/16
2	REVISED PER COF COMMENTS	NCS	6/16/16
3	RECORD DRAWING SET	TEB	7/27/17
4			
NO.	REVISION	BY	DATE



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JOB NO.:	15007
DWG. NAME:	15007 SPS-1-7
DESIGNED BY:	TEB
DRAWN BY:	TEB
CHECKED BY:	TEB

MALLOY VILLAGE LLC  
22410 HAWTHORNE BLVD, STE 5  
TORRANCE, CA 90501

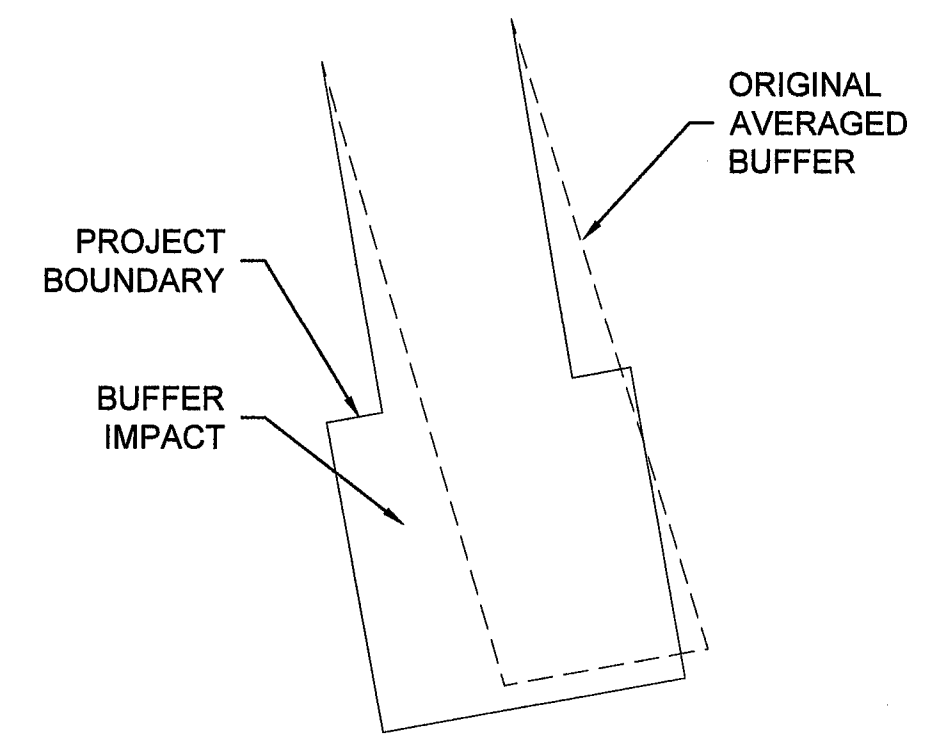
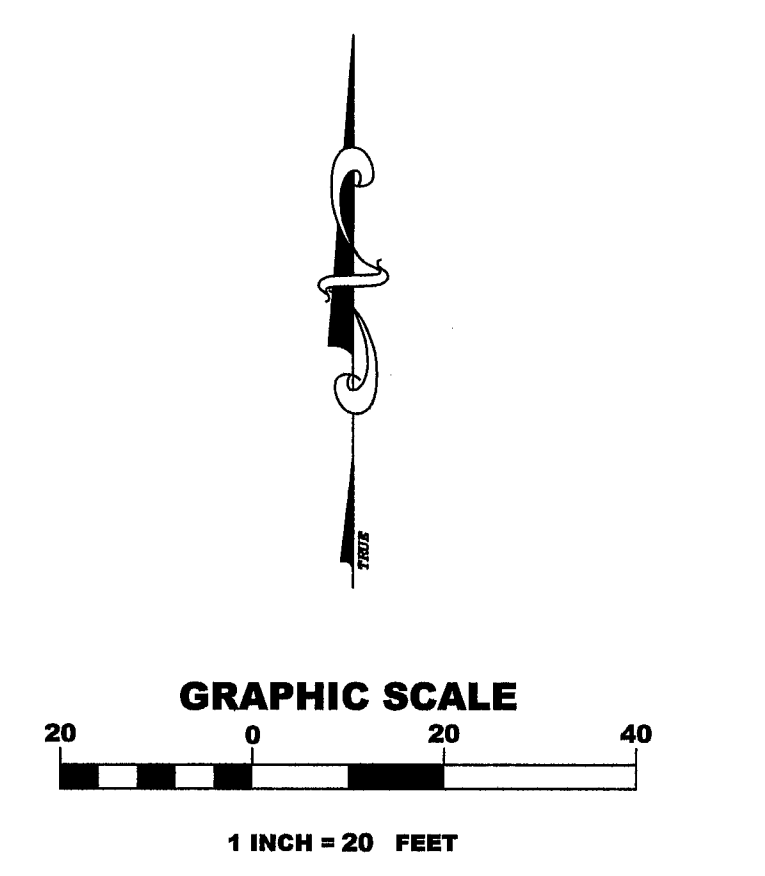
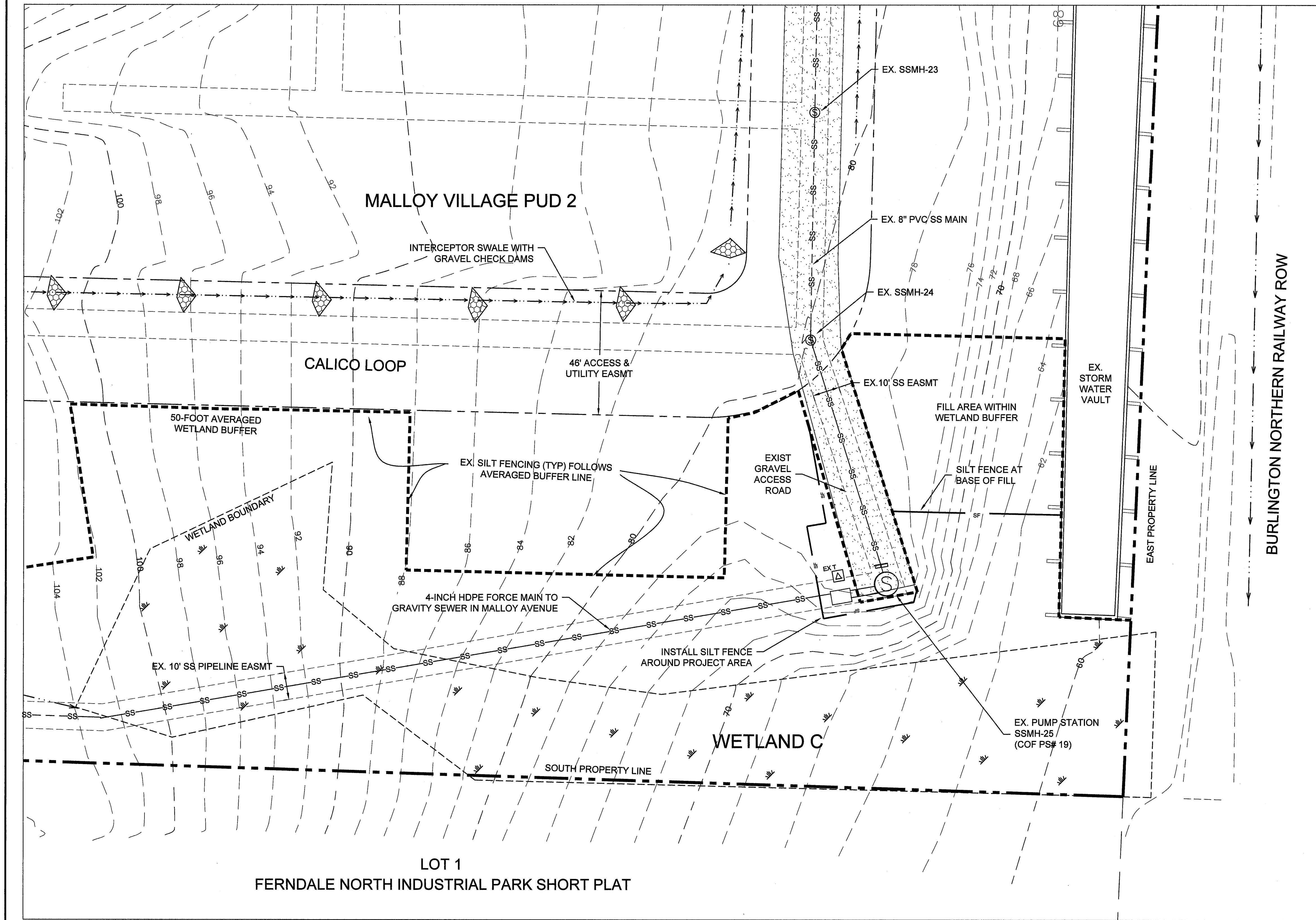
SEWER PUMP STATION UPGRADE MALLOY VILLAGE PUD 2 FERNDAL WASHINGTON		
DATE:	SCALE:	V:
JUNE 2016	H: N/A	N/A

DRAWING:	SPS-1
SHEET:	1 OF 7

RECEIVED  
AUG 01 2017  
BY:

00623.001 10/23/2017 KJB

00623.002 10/23/17 KB

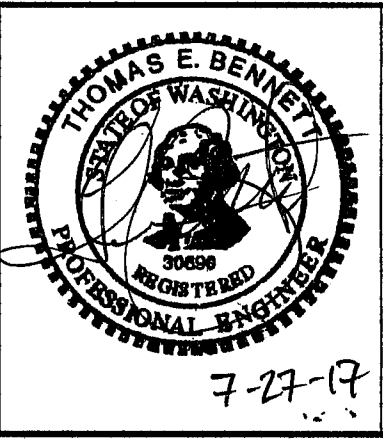


CHANGES TO WETLAND "C" 50' AVERAGED BUFFER	
BUFFER AREA REQUIRED	= 122,924 SF
BUFFER AREA ORIGINAL	= 123,625 SF
ADD'L BUFFER IMPACT	= 517 SF
REVISED BUFFER AREA	= 123,108 SF

APPROVED  
AUG 28 2017  
BY  
CITY OF FERNDAL  
PUBLIC WORKS DEPARTMENT

COF PROJECT 16011-COMM-MECH

0	ISSUED FOR REVIEW	NCS	6/06/16
1	REVISED PER COF COMMENTS	NCS	6/16/16
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3			
4			
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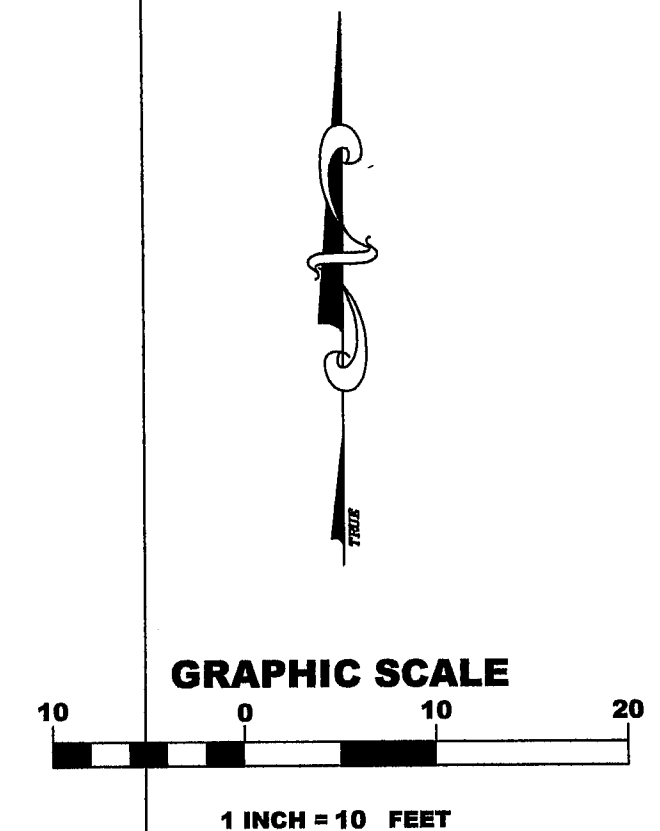
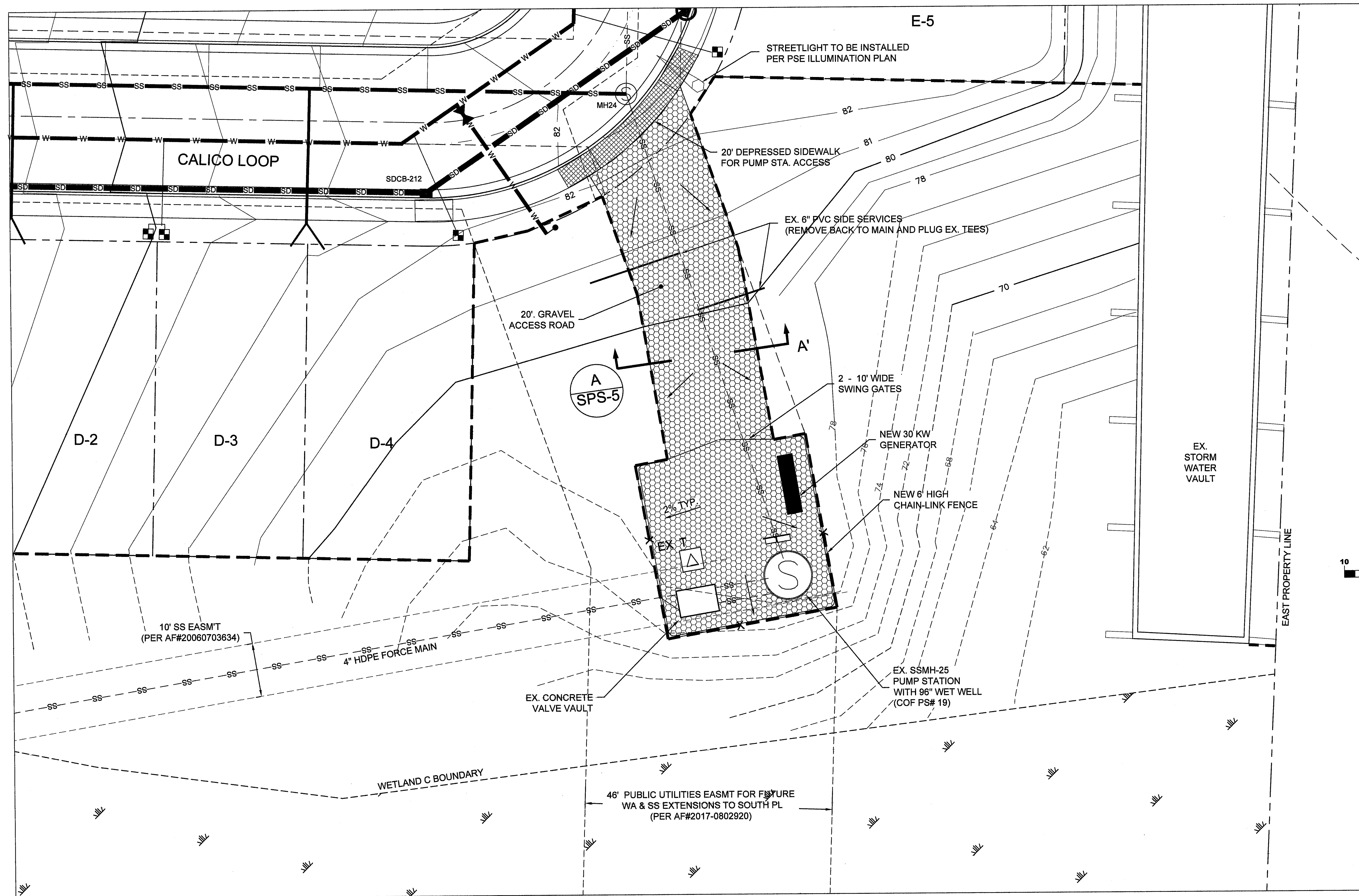
JOB NO.:	15007
DWG. NAME:	15007 SPS-1-7
DESIGNED BY:	TEB
DRAWN BY:	TEB
CHECKED BY:	TEB

MALLOY VILLAGE LLC  
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TORRANCE, CA 90501

EXISTING CONDITIONS & TESC PLAN  
MALLOY VILLAGE PUD 2  
FERNDALE WASHINGTON  
DATE: JUNE 2016  
SCALE: H: 1" = 20' V: N/A

DRAWING:  
SPS-2  
SHEET:  
2 OF 7

00623.003 10/23/17 KES



APPROVED  
AUG 28 2017  
BY  
CITY OF FERNDALE  
PUBLIC WORKS DEPARTMENT

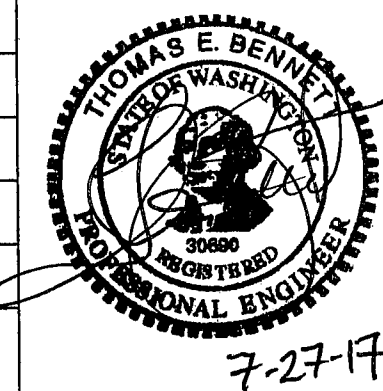
COF PROJECT 16011-COMM-MECH

PHASE 1 IMPROVEMENT PLAN  
MALLOY VILLAGE PUD 2  
FERNDAL WASHINGTON

DATE: JUNE 2016 SCALE: H: 1" = 10' V: N/A

DRAWING:  
**SPS-3**  
SHEET:  
**3 OF 7**

1	ISSUED FOR REVIEW	NCS	6/06/16
2	REVISED PER COF COMMENTS	NCS	6/16/16
3	RECORD DRAWING SET	TEB	7/27/17
4			
NO.	REVISION	BY	DATE



**BENNETT**  
ENGINEERING, LLC

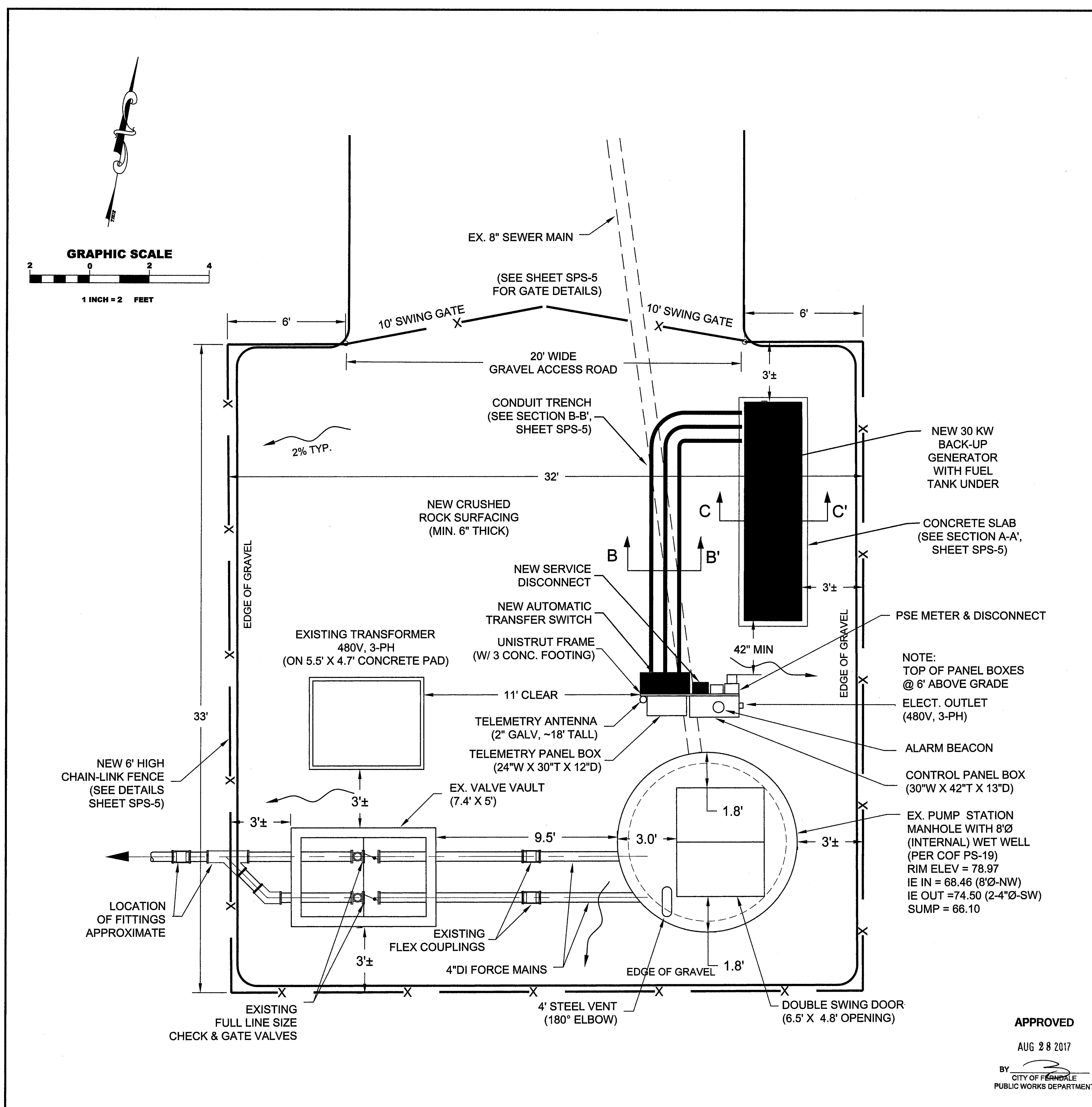
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CHECKED BY:	TEB

MALLOY VILLAGE LLC  
22410 HAWTHORNE BLVD, STE 5  
TORRANCE, CA 90501



00623.004 10/24/17 K3



GENERAL

1. THE SEWER PUMP STATION (SPS) UPGRADE PROJECT IS PART OF THE PHASE 1 IMPROVEMENTS FOR THE MALLOY VILLAGE PUD 2. THE STREET AND UTILITY IMPROVEMENTS WILL BE COMPLETED IN ACCORDANCE WITH THE APPROVED CIVIL ENGINEERING PLAN SET (SHEETS C-1 THROUGH C-30) PREPARED BY BENNETT ENGINEERING (PROJECT ENGINEER, THOMAS E. BENNETT, P.E., 360-671-2600). THE PROJECT TEAM FOR THE SPS UPGRADE ALSO INCLUDES HONCOOP GRAVEL (GENERAL CONTRACTOR (GC), TYLER BOSMAN, 360-354-4763), Z-ENGINEERS, PLLC (ELECTRICAL ENGINEER, BRIAN ZIESMER, P.E., 509-889-9364), CUMMINS NORTHWEST (GENERATOR SUPPLIER, DAN LANSKE, 425-235-3400, EXT. 3334), AND MILLS ELECTRIC (ELECTRICAL CONTRACTOR (EC), MIKE CLAUSEN, 360-734-0730).
2. THE SCOPE OF WORK FOR THE SPS UPGRADE INCLUDES INSTALLATION OF TESC MEASURES (SHEET SPS-2), SITE CLEARING AND PREPARATION, INSTALLATION OF A CONCRETE SLAB AND A NEW 30 KW GENERATOR AND ASSOCIATED FUEL TANK, ELECTRICAL SYSTEM UPGRADES (SHEETS E-1 AND E-2), INSTALLATION OF CHAIN-LINK FENCING AROUND THE FACILITY, CONSTRUCTION OF A 20-FOOT GRAVEL ACCESS ROAD FROM CALICO LOOP, AND GRAVEL SURFACING WITHIN THE FENCED YARD AREA (SHEETS SPS-3 AND 4). THE COMPLETED SYSTEM WILL BE TESTED IN ACCORDANCE WITH COF STANDARDS AND MANUFACTURER RECOMMENDATIONS. TWO 6-INCH SIDE SEWERS WILL BE REMOVED FROM THE EXISTING SEWER MAIN BETWEEN SSMH-24 AND THE PUMP STATION (SHEET SPS-3).
3. ALL WORK AND MATERIALS SHALL CONFORM TO THE CURRENT CITY OF FERNDALE DEVELOPMENT STANDARDS (COF STANDARDS), STANDARD PLANS AND SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION (WASHINGTON DEPARTMENT OF TRANSPORTATION, WDOT), AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM), AMERICAN WATER WORKS ASSOCIATION (AWWA), AMERICAN CONCRETE INSTITUTE (ACI), AND NATIONAL ELECTRIC CODE (NEC), AND AMENDMENTS TO THESE SPECIFICATIONS AS CONTAINED HEREIN. IN CASE OF A CONFLICT BETWEEN THE REGULATORY STANDARDS OR SPECIFICATIONS, THE MORE STRINGENT SHALL APPLY.
4. A PRE-CONSTRUCTION CONFERENCE SHALL BE SCHEDULED AND CONDUCTED BETWEEN THE GC, EC, AND COF STAFF A MINIMUM OF THREE WORKING DAYS PRIOR TO THE START OF WORK.
5. ALL WORK SHALL COMPLY WITH APPLICABLE COF AND STATE PERMITS AND CODES.
6. EXISTING UNDERGROUND UTILITIES ARE PRESENT WITHIN THE AREA OF CONSTRUCTION. THE LOCATIONS OF EXISTING UTILITIES SHOWN IN THIS PLAN SET ARE APPROXIMATE. THE GC SHALL ORDER A UTILITY LOCATE (800-424-555) AT LEAST TWO WORKING DAYS BEFORE COMMENCING SITE WORK. THE GC SHALL MAKE EVERY EFFORT TO IDENTIFY UTILITY LOCATIONS IN THE FIELD AND MAINTAIN THE INTEGRITY OF THE UTILITIES THROUGHOUT CONSTRUCTION. THE GC SHALL NOTIFY THE PROJECT ENGINEER PROMPTLY OF ANY CONFLICT WITH EXISTING UTILITIES.
7. ALL CONTRACTORS CONDUCTING WORK AT THE SITE SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE SAFEGUARDS, BARRIERS, SAFETY DEVICES, PROTECTIVE EQUIPMENT, FLAGGERS, AND ANY OTHER NEEDED ACTIONS TO PROTECT THE LIFE, HEALTH AND SAFETY OF THE PUBLIC AND PROPERTY IN CONNECTION WITH PERFORMANCE OF THE WORK.
8. THE GC SHALL KEEP A SET OF APPROVED CONSTRUCTION DRAWINGS ON-SITE AT ALL TIMES, AND COLLECT AS-BUILT DATA DURING PROGRESS OF THE WORK, INCLUDING THE LOCATION AND ELEVATION OF ALL UNDERGROUND STRUCTURES AND PIPING. PROPOSED FIELD CHANGES SHALL BE SUBMITTED TO THE COF AND PROJECT ENGINEER FOR REVIEW AND APPROVAL. UPON COMPLETION OF THE WORK, THE GC SHALL SUBMIT AS-BUILT DRAWINGS TO THE PROJECT ENGINEER FOR USE IN PREPARATION OF RECORD DRAWINGS.
9. INSPECTIONS FOR THE ELECTRICAL SYSTEM IMPROVEMENTS SHALL BE PERFORMED IN ACCORDANCE WITH COF AND STATE PERMITS.

SURVEY CONTROL

1. THE GC SHALL LAYOUT AND SET ANY CONSTRUCTION STAKING AND MARKS NEEDED TO ESTABLISH THE LINES, GRADES, SLOPES, AND CROSS-SECTIONS SHOWN ON THESE PLANS. HORIZONTAL AND VERTICAL SURVEY CONTROL SHALL BE ESTABLISHED IN THE FIELD BY A LICENSED SURVEYOR PRIOR TO COMMENCING SITE CONSTRUCTION ACTIVITIES.
2. SURVEY CONTROL SHALL BE BASED ON WASHINGTON STATE NORTH ZONE NAD 83/91 COORDINATES USING CITY OF FERNDALE MONUMENTS.

EARTHWORK

1. ALL EARTHWORK AND SUBGRADE PREPARATION SHALL BE CONDUCTED IN ACCORDANCE WITH THE GEOTECHNICAL ENGINEERING SERVICES REPORT PREPARED BY GEOENGINEERS, INC., DATED JANUARY 12, 2004.
2. THE GC SHALL INSTALL AND MAINTAIN ADEQUATE EROSION CONTROLS THROUGHOUT THE COURSE OF THE WORK TO PREVENT CONTAMINATION OF SURFACE WATERS DOWNGRADE OF THE PROJECT SITE. PRIOR TO COMMENCING SITE CLEARING ACTIVITIES, THE GC SHALL INSTALL ALL TESC MEASURES CALLED OUT ON SHEET SPS-2.
3. THE GC SHALL STRIP TOPSOILS AND OTHER UNSUITABLE SOIL MATERIALS FROM ALL AREAS THAT WILL RECEIVE STRUCTURAL FILL. SOIL MATERIALS SHALL BE TEMPORARILY STOCKPILED IN DESIGNATED AREAS OR REMOVED FROM THE SITE.
4. PRIOR TO PLACEMENT AND COMPACTION OF CRUSHED ROCK SURFACING IN THE ACCESS ROAD AND YARD AREAS, THE EXPOSED SUBGRADE SHALL BE REVIEWED AND APPROVED BY A WABO-CERTIFIED INSPECTOR. LOOSE OR SOFT MATERIALS SHALL EITHER BE RECOMPACTED, OR REMOVED AND REPLACED WITH STRUCTURAL FILL.
5. STRUCTURAL FILL SHALL BE IMPORTED AGGREGATE MEETING THE SPECIFICATIONS FOR GRAVEL BALLAST.
6. ALL STRUCTURAL FILL SHALL BE PLACED IN MAXIMUM 8-INCH LOOSE LIFTS AND UNIFORMLY COMPACTED USING A SMOOTH-DRUM ROLLER TO 95% MODIFIED PROCTOR DENSITY, BASED ON THE ASTM D-1557 TEST METHOD. THE GC IS RESPONSIBLE FOR ALL COMPACTION TESTING AND SUBMITTAL OF THE TESTING RESULTS TO THE PROJECT ENGINEER.
7. TRENCHING FOR THE CONDUIT RUNS FROM THE GENERATOR TO THE CONTROL PANEL SHALL BE 18 INCHES WIDE AND PROVIDE A MINIMUM 36-INCH FINISH COVER OVER THE CONDUIT (SHEET SPS-5). THE TRENCH SHALL BE BACKFILLED WITH COMPACTED GRAVEL BASE.
8. FOLLOWING COMPLETION OF THE PROJECT AND REMOVAL OF SILT FENCING, A MINIMUM OF 6 INCHES OF TOPSOIL SHALL BE SPREAD OVER ALL EXPOSED SOIL AREAS, GRADED SMOOTH AND TRACKED PARALLEL TO THE SLOPE, AND HYDROSEED.

IMPORTED AGGREGATE AND STRUCTURAL FILL MATERIALS

1. GRAVEL BALLAST USED FOR STRUCTURAL FILL SHALL CONFORM TO WDOT 9-03.9(1).
2. CRUSHED SURFACING BASE COURSE (CSBC) SHALL CONFORM TO WDOT 9-03.9(3).
3. GRAVEL BASE USED FOR TRENCH BACKFILL AND PIPE BEDDING SHALL CONFORM TO WDOT 9-03.10.
4. ALL STRUCTURAL FILL, TRENCH BACKFILL, AND SURFACING MATERIALS SHALL BE COMPACTED TO 95% MODIFIED PROCTOR DENSITY, BASED ON THE ASTM D-1557 TEST METHOD. THE GC IS RESPONSIBLE FOR ALL COMPACTION TESTING.

CONCRETE SLAB PREPARATION

1. PRIOR TO PLACEMENT AND COMPACTION OF SUB-SLAB FILL MATERIALS, THE EXPOSED SUBGRADE FOR THE GENERATOR SLAB SHALL BE REVIEWED AND APPROVED BY A WABO-CERTIFIED INSPECTOR FOR AN ALLOWABLE SOIL BEARING PRESSURE OF 1,500 PSF. LOOSE OR SOFT MATERIALS SHALL EITHER BE RECOMPACTED, OR REMOVED AND REPLACED WITH STRUCTURAL FILL. THE INSPECTOR SHALL DOCUMENT THE SUBGRADE PREPARATION WORK AND PROVIDE COPIES OF FIELD REPORT TO THE PROJECT ENGINEER.
2. THE SUB-SLAB FILL MATERIAL SHALL CONSIST OF 6 INCHES MINIMUM COMPACTED CSBC OVER SUITABLE SOIL OR STRUCTURAL FILL SUBGRADE, AS APPROVED BY THE WABO INSPECTOR (SHEET SPS-5). THE CSBC SHALL EXTEND A MINIMUM OF 12 INCHES OUTSIDE THE EDGE OF SLAB ON ALL SIDES.
3. THE CONCRETE SLAB SHALL BE 4 INCHES WIDE BY 127 INCHES LONG BY 8 INCHES THICK (SHEET SPS-5). REINFORCING STEEL SHALL BE #4 REBAR AT 1.0-FOOT O.C., EACH WAY, PROVIDE 2 INCHES OF REBAR COVER AROUND THE PERIMETER EDGE OF THE SLAB, AND 4 INCHES TOP AND BOTTOM.
4. TRENCHING FOR ELECTRICAL CONDUIT AND BACKFILL SHALL BE EXTENDING THROUGH THE SLAB SECTION PRIOR TO POURING CONCRETE.
5. POUR AND CURE THE SLAB IN ACCORDANCE WITH ACI RECOMMENDATIONS. FORMWORK FOR THE SLAB SHALL REMAIN IN-PLACE FOR A MINIMUM OF 7 DAYS.
6. ANCHOR BOLTS SHALL BE INSTALLED AFTER THE GENERATOR HAS BEEN PROPERLY SET AND SHIMMED ON THE SLAB. ANCHOR BOLT HARDWARE AND INSTALLATION SHALL COMPLY WITH MANUFACTURER RECOMMENDATIONS.
7. THE TOP FINISH GRADE OF THE SLAB SHALL BE SET 2 INCHES ABOVE THE ADJACENT GRADE.

ACCESS ROAD/YARD SURFACING IMPROVEMENTS

1. A 20-FOOT WIDE DRIVEWAY CURB CUT SHALL BE INSTALLED AT CALICO LOOP FOR THE GRAVEL ACCESS ROAD TO THE SPS AS PART OF THE PHASE 1 IMPROVEMENT PROJECT. THE ROAD SECTION SHALL CONSIST OF 6 INCHES OF COMPACTED CSBC OVER FIRM, UNYIELDING SUBGRADE.
2. FOLLOWING INSTALLATION OF THE GENERATOR, ELECTRICAL IMPROVEMENTS, AND PERIMETER FENCING, THE YARD AREA FOR THE SPS SHALL BE SURFACED WITH 6 INCHES OF COMPACTED CSBC OVER FIRM, UNYIELDING SUBGRADE.

PERIMETER FENCING

1. PERIMETER FENCING SHALL BE 6-FOOT HIGH, TYPE 3 CHAIN-LINK FENCING (BLACK, OR APPROVED EQUAL) INSTALLED IN ACCORDANCE WITH WDOT STANDARD PLAN L-20.10-00 (SHEET SPS-5).
2. TWO 10-FOOT WIDE CHAIN-LINK TIES (6-FOOT HIGH, TYPE 3, BLACK, OR APPROVED EQUAL) SHALL BE INSTALLED ACROSS THE SOUTH END OF THE ACCESS ROAD IN ACCORDANCE WITH WDOT STANDARD PLAN L-30.10-00 (SHEET SPS-5).

SANITARY SEWER

1. A PUBLIC 8-INCH SEWER MAIN WAS INSTALLED IN THE CALICO LOOP EASEMENT AS PART OF THE ORIGINAL PUD AND EXTENDED TO THE EXISTING SEWER PUMP STATION LOCATED IN THE SOUTHWEST CORNER OF THE SITE (SHEET SPS-2). AN EXISTING FOUR-INCH HDPE FORCE MAIN EXTENDS FROM THE PUMP STATION TO THE GRAVITY SEWER IN THE MALLOY AVENUE RIGHT-OF-WAY NEAR THE SOUTHWEST CORNER OF THE ORIGINAL PARENT PARCEL.
2. TWO 6-INCH PVC SIDE SEWER SERVICES WERE INSTALLED WITHIN THE ACCESS ROAD ALIGNMENT AS PART OF THE ORIGINAL PUD (SHEET SPS-3). THOSE EXISTING SERVICES SHALL BE REMOVED BACK TO THE MAIN AND PLUGGED.
3. A NEW 48-FOOT WIDE PUBLIC UTILITY EASEMENT SHALL BE EXTENDED FROM CALICO LOOP TO THE SOUTH PROPERTY LINE AS PART OF THE PUD 2 (SHEET SPS-3). THE SEWER PUMP STATION AND ASSOCIATED YARD AND FENCING SHALL BE INSTALLED WITHIN THE EASEMENT.

CONSTRUCTION MATERIALS AND PRODUCTS

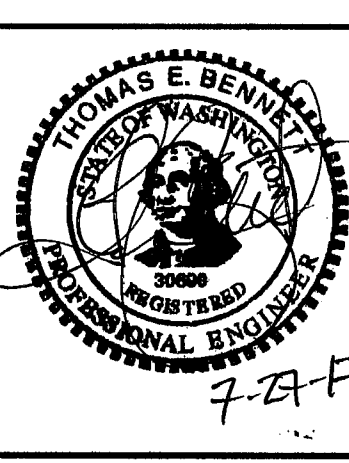
1. THE CONTRACTOR SHALL SUBMIT SPECIFICATION SHEETS FOR ALL CONSTRUCTION MATERIALS AND PRODUCTS TO THE PROJECT ENGINEER FOR REVIEW AND APPROVAL. ALL MATERIALS SHALL BE NEW, STANDARD MATERIALS OF SPECIFIED QUALITY IN FIRST-CLASS CONDITION.
2. GENERATOR: THE GENERATOR SHALL BE RATED AT 30 KW (CUMMINS MODEL C30-D6, OR APPROVED EQUAL), AND MOUNTED ON TOP OF AN INTEGRAL FUEL TANK CAPABLE OF OPERATING THE GENERATOR FOR 48 HOURS WITHOUT REFUELING (CUMMINS TANK CODE C303-2, MODEL #A045T344, OR APPROVED EQUAL). OPERATION OF THE GENERATOR SHALL BE CONTROLLED VIA AN AUTOMATIC TRANSFER SWITCH MOUNTED TO THE EXISTING CONTROL PANEL SUPPORT (SHEET E-1).
3. CONCRETE: THE CONCRETE MIX DESIGN USED FOR THE GENERATOR SLAB AND FENCE POSTS SHALL BE CLASS C PORTLAND CEMENT CONCRETE (PCC) COMPLYING WITH ACI 301 SPECIFICATIONS FOR STRUCTURAL CONCRETE AND ASTM C-94 SPECIFICATIONS FOR READY MIX CONCRETE. THE MIX DESIGN SHALL HAVE A 1.5-INCH MAXIMUM AGGREGATE SIZE, 5% AIR ENTRAINMENT, AND A 28-DAY COMPRESSIVE STRENGTH OF 3000 PSI.
4. REINFORCING STEEL SHALL BE #4 REBAR, CONFORMING TO ASTM A615, GRADE 40 MINIMUM. THE #4 REBAR MAY BE FIELD BENT. BEND BARS ONLY ONE TIME IN ANY LOCATION. DO NOT REBEND.
5. TOPSOIL: TOPSOIL MATERIALS MAY BE OBTAINED FROM ON-SITE SOURCES OR APPROVED OFF-SITE SOURCES. TOPSOIL SHALL BE CLEAN, UNIFORM, AND FREE OF STONES, STUMPS, ROOTS, AND OTHER SIMILAR MATERIALS >3 INCHES IN DIAMETER AND SHALL MEET THE REQUIREMENTS OF TYPE B TOPSOIL, PER WDOT 9-02.3(4) AND 9-14.1. TOPSOIL MATERIALS FROM THE SITE SHALL BE SCREENED PRIOR TO RE-USE.
6. HYDROSEED: FOLLOWING FINAL INSTALLATION AND GRADING ACTIVITIES, EXPOSED SOIL AREAS SHALL BE COVERED WITH 6 INCHES MINIMUM OF TOPSOIL AND LANDSCAPED OR HYDROSEED WITH THE FOLLOWING SEED MIX (OR APPROVED EQUAL): 40% CHEWINGS OR ANNUAL BLUEGRASS, 50% PERENNIAL RYE, 5% REDTOP OR COLONIAL BENTGRASS, 5% WHITE DUTCH CLOVER, AND <0.1% WEED SEED (OR APPROVED EQUAL). HYDROSEED SHALL BE APPLIED AT THE FOLLOWING RATES: GRASS SEED - 3 POUNDS PER 1000 SF, FERTILIZER - 10 POUNDS PER 1000 SF OF TYPE 16-16-16 (N-P-K), AND HYDROMULCH - 50 POUNDS PER 1000 SF.

APPROVED

AUG 28 2017

BY  
CITY OF FERNDALE  
PUBLIC WORKS DEPARTMENT

0	ISSUED FOR REVIEW	NCS	6/06/16
1	REVISED PER COF COMMENTS	NCS	6/16/16
2	RECORD DRAWING SET	TEB	7/27/17
3			
4			
NO.	REVISION	BY	DATE



**BENNETT**  
ENGINEERING, LLC

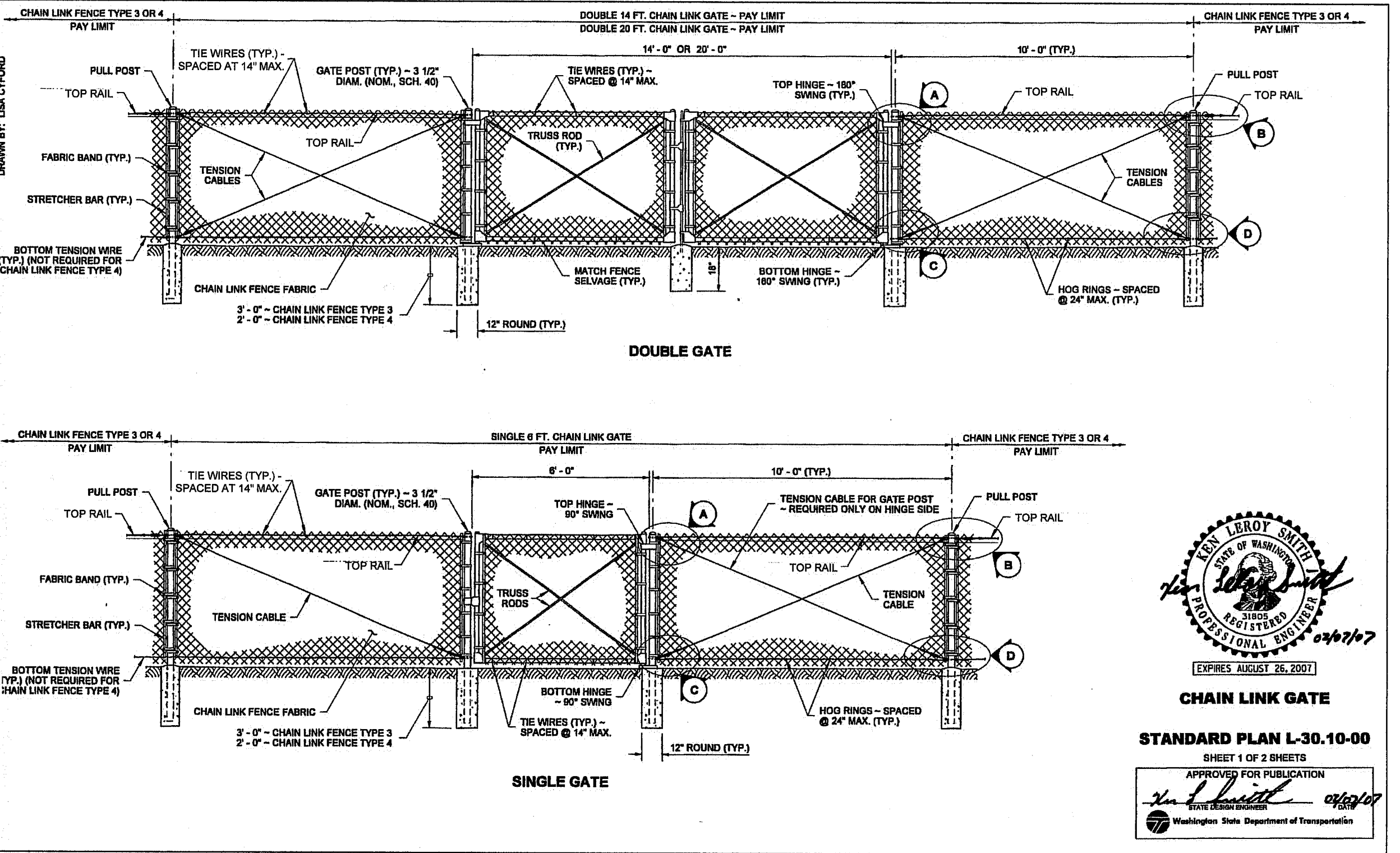
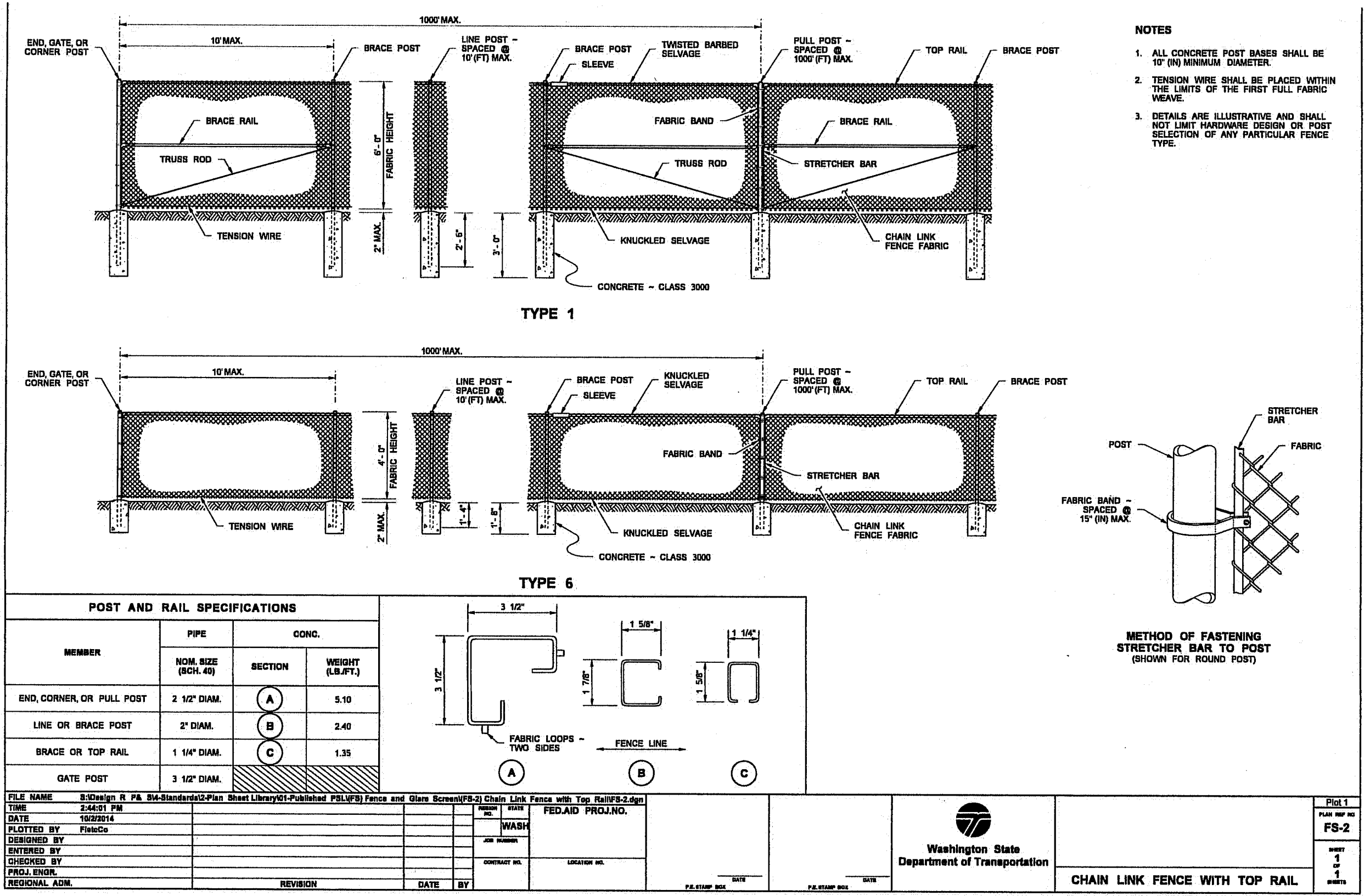
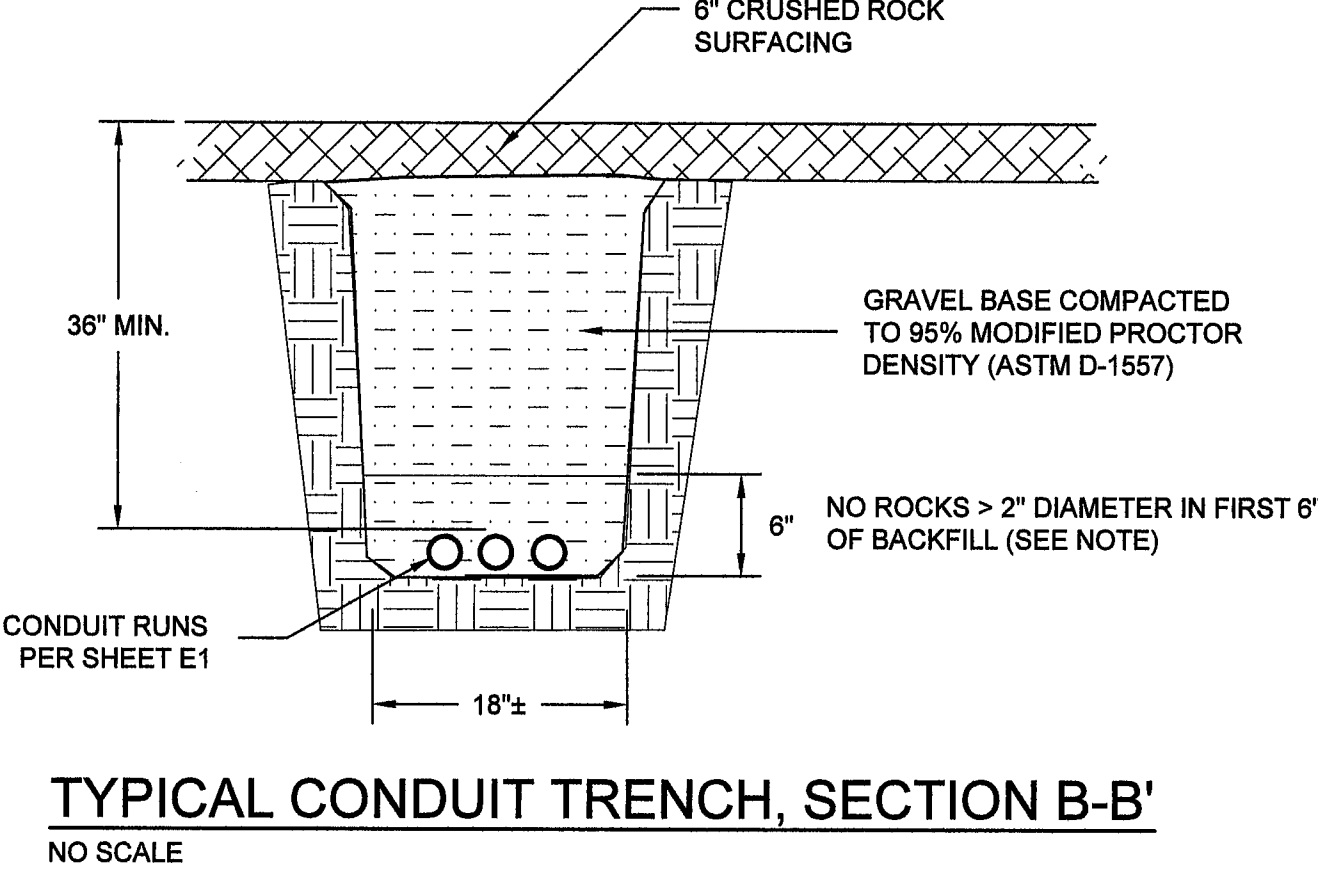
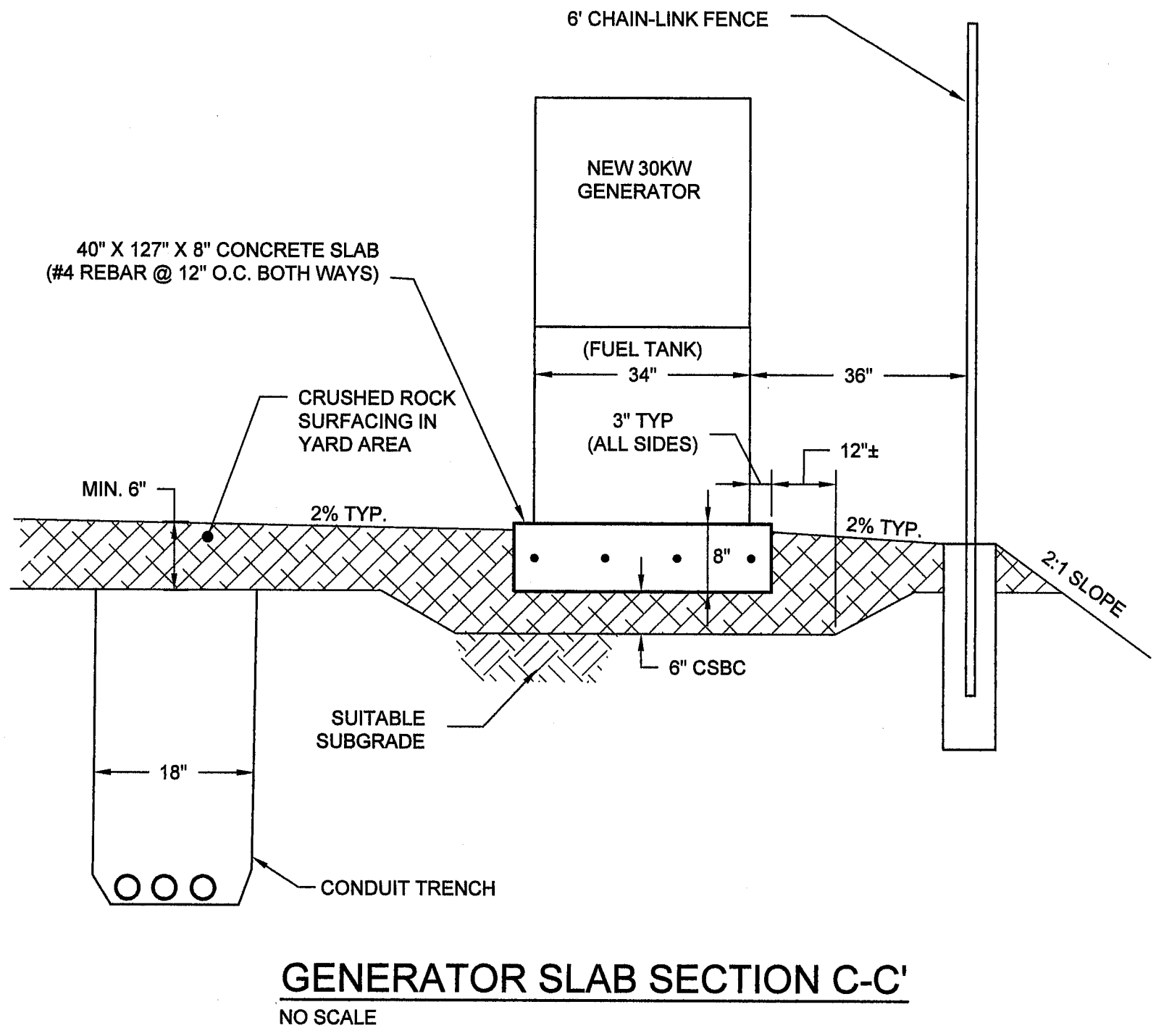
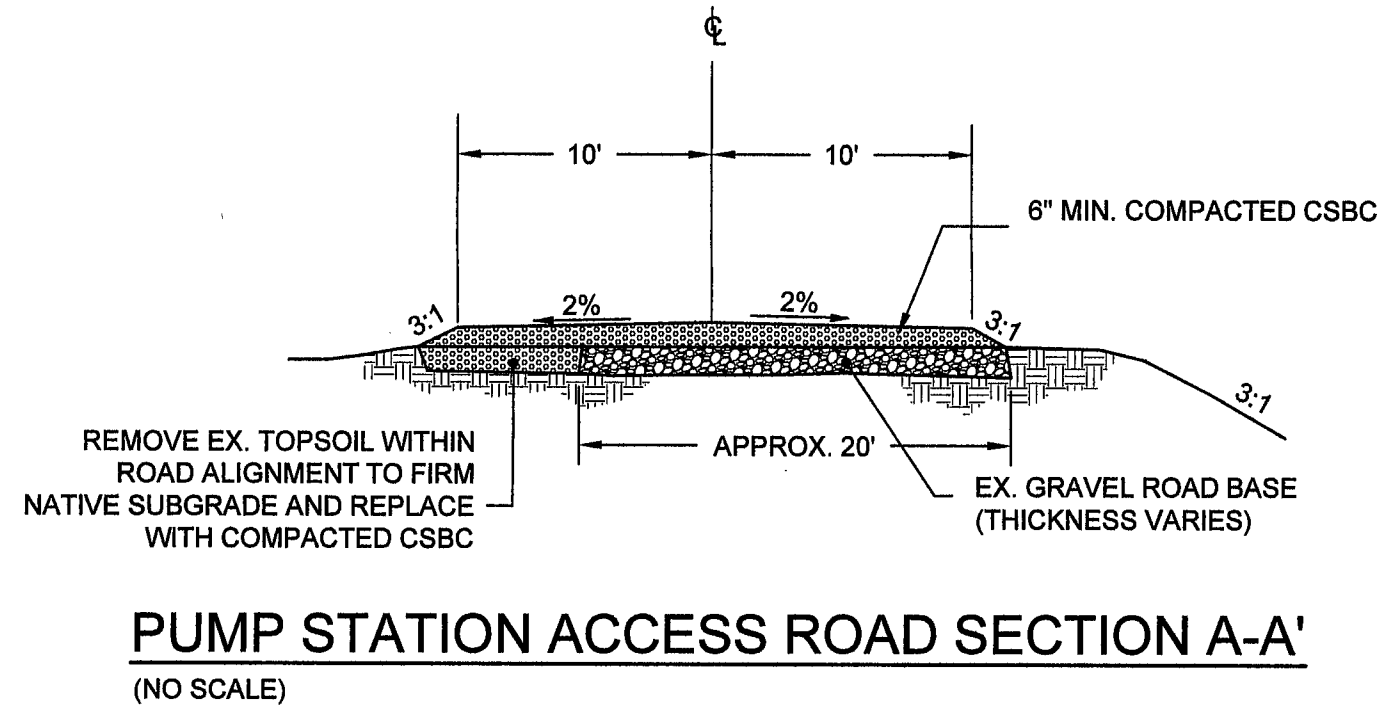
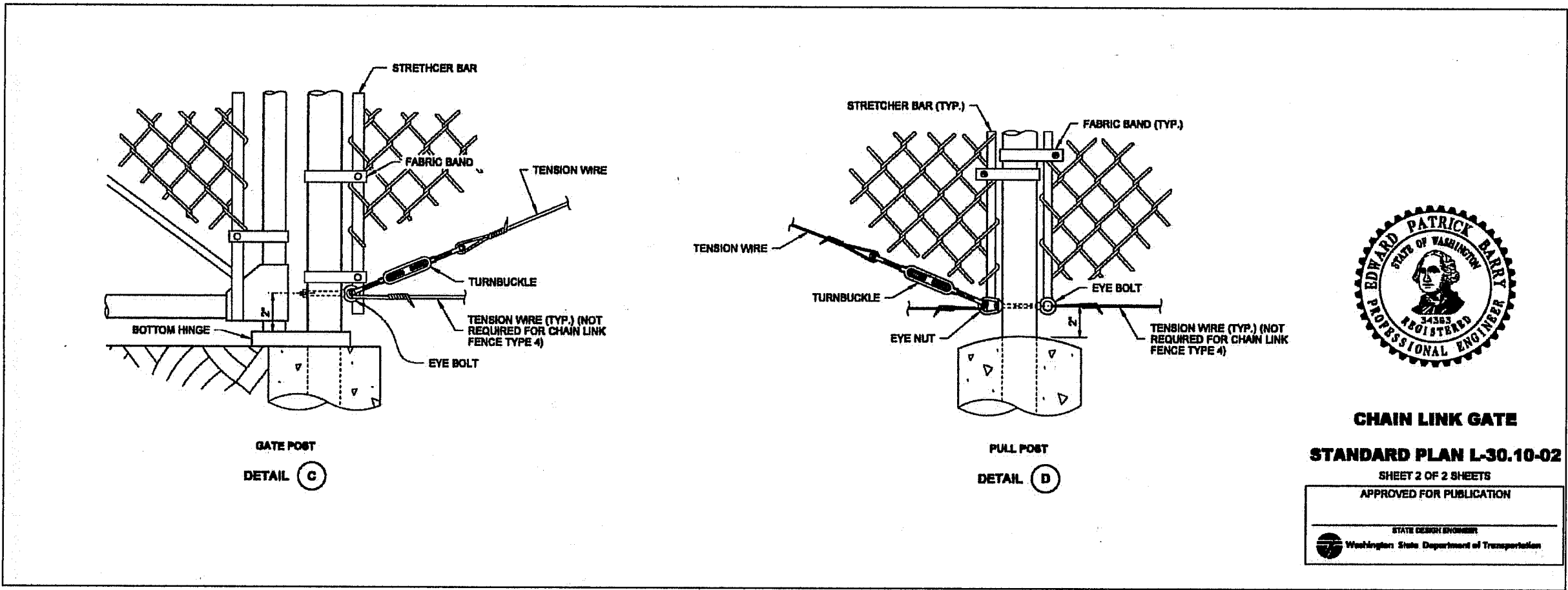
CIVIL  
ENVIRONMENTAL  
2324 JAMES STREET  
BELLINGHAM, WA 98225  
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Cell: (360) 739-9844

JOB NO.:	15007
DWG. NAME:	15007 SPS-1-7
DESIGNED BY:	TEB
DRAWN BY:	TEB
CHECKED BY:	TEB

MALLOY VILLAGE LLC  
22410 HAWTHORNE BLVD, STE 5  
TORRANCE, CA 90501

COF PROJECT 16011-COMM-MECH		DRAWING:	SPS-4
SEWER PUMP STATION UPGRADE PLAN MALLOY VILLAGE PUD 2 FERNDAL WASHINGTON		SHEET:	4 OF 7
DATE:	JUNE 2016	SCALE:	H: 1" = 4'
		V:	N/A





0	ISSUED FOR REVIEW	NCS	6/06/16
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2	RECORD DRAWING SET	TEB	7/27/17
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TORRANCE, CA 90501

DETAILS

MALLOY VILLAGE PUD 2

FERNDAL WASHINGTON

DRAWING: SPS-5

SHEET: 5 OF 7

DATE: JUNE 2016

SCALE: H: N/A

V: N/A

COF PROJECT 16011-COMM-MECH

APPROVED  
AUG 28 2017  
CITY OF FERNDAL  
PUBLIC WORKS DEPARTMENT





