LEGEND

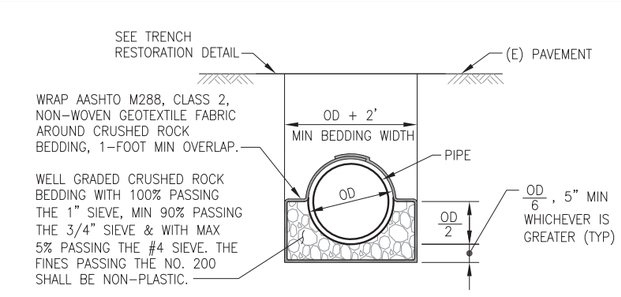
SIZE & TYPE	EXISTING SEWER OR CULVERT
◌ , ◌ , ◌	EXISTING MH
◌ , ⊟	EXISTING CB, SWI
	EXISTING SIDE SEWER AND FRESH AIR INLET
	EXISTING MUNI TRACKS
	EXISTING MUNI OVERHEAD WIRES
AWSS	EXISTING AWSS
SIZE & TYPE	NEW SEWER OR CULVERT
○	NEW MH PER SFDPW STD PLAN 87,181
◎	REPLACE (E) MH PER SFDPW STD PLAN 87,181
◎	MORTAR EXISTING MH
●	ABANDON EXISTING MH
⊗	REMOVE EXISTING MH
	EXISTING MH
	NEW MH
	MORTAR EXISTING MH
	REPLACE EXISTING MH
	ABANDON EXISTING MH
	REMOVE EXISTING MH
	NEW CB PER SFDPW STD PLAN 87,188
	REPLACE (E) CB PER SFDPW STD PLAN 87,188
	ABANDON EXISTING CB
	NEW SS PER SFDPW STD PLAN 87,196
	NEW 6" OR 8"ø SS CONNECTION TO MAIN SEWER
	PLUG EXISTING FACILITIES
	PLUG AND FILL EXISTING FACILITIES
	APPROXIMATE PAVEMENT SURFACE
	DIRECTION OF FLOW
	SLURRY GROUT SHOWN IN SECTION OR PROFILE
	SPEED HUMP

ABBREVIATIONS

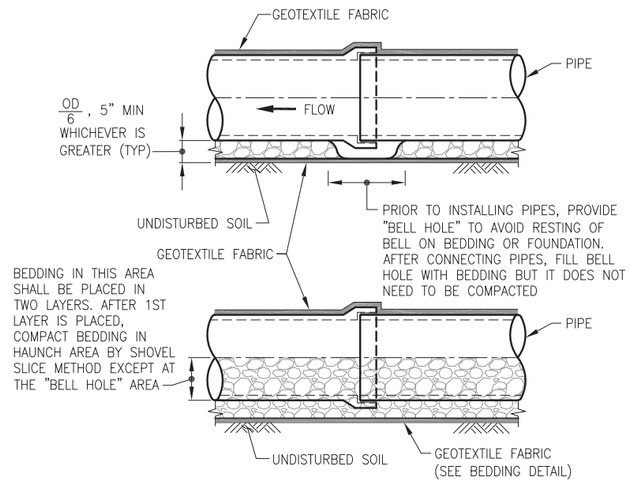
±	PLUS OR MINUS
ACWS	ASPHALT CONCRETE WEARING SURFACE
AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
APPROX	APPROXIMATE
AVE	AVENUE
AWSS	AUXILIARY WATER SUPPLY SYSTEM
BLVD	BOULEVARD
BRK	BRICK
CB	CATCHBASIN
CH	CHANGE
CIP	CAST IRON PIPE
CIPL	CURED IN-PLACE LINER
CONC	CONCRETE
C-C	CENTER TO CENTER
DET	DETAIL
DIA OR ø	DIAMETER
DIP	DUCTILE IRON PIPE
DWG	DRAWING
E	EAST
(E)	EXISTING
EL	ELEVATION
EQ	EQUAL
HDPE	HIGH DENSITY POLYETHYLENE PIPE
HH	HETCH HETCHY WATER POWER
HORIZ	HORIZONTAL
ID	INSIDE DIAMETER
INV	INVERT
ISP	IRON STONE PIPE
LF	LINEAR FEET
MAX	MAXIMUM
MDB	MUNI DUCT BANK
MH	MANHOLE
MH "X"	MANHOLE DESIGNATION
MIN	MINIMUM
N	NORTH
(N)	NEW
NIC	NOT IN CONTRACT
NO.	NUMBER
NTS	NOT TO SCALE
OC	ON CENTER
OCS	OVERHEAD CONTACT SYSTEM
OD	OUTSIDE DIAMETER
℄	PROPERTY LINE
RC	REINFORCED CONCRETE
RCP	REINFORCED CONCRETE PIPE
REF	REFERENCE
ROW	RIGHT OF WAY
S	SOUTH
SF	SQUARE FEET
S.F.	SAN FRANCISCO
SFFD	SAN FRANCISCO FIRE DEPARTMENT
SFPW	SAN FRANCISCO PUBLIC WORKS
SL	SLOPE
SPECS	SPECIFICATIONS
SS	SIDE SEWER (LATERAL)
ST	STREET
STD	STANDARD
SWI	STORM WATER INLET
THRU	THROUGH
(TYP)	TYPICAL
VERT	VERTICAL
VCP	VITRIFIED CLAY PIPE
W	WEST
W/	WITH
W/O	WITHOUT

GENERAL NOTES

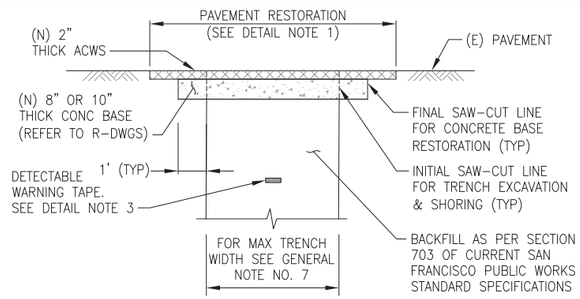
1. NUMBER AND LOCATIONS OF SIDE SEWER CONNECTIONS ARE APPROXIMATE. CONTRACTOR SHALL VERIFY SIDE SEWER CONNECTIONS IN THE FIELD.
2. ALL GROUND SURFACE ELEVATIONS AND INVERT ELEVATIONS TO BE CONFORMED ARE APPROXIMATE.
3. ELEVATIONS ARE IN REFERENCE TO S.F. CITY DATUM. S.F. CITY DATUM IS APPROXIMATELY 11.35 FEET HIGHER THAN NAVD88 DATUM.
4. IN ACCORDANCE WITH THE PROVISIONS OF THE CALIFORNIA PUBLIC CONTRACT CODE SECTION 3300, A BID SUBMITTED TO A PUBLIC AGENCY BY A CONTRACTOR WHO IS NOT LICENSED IN ACCORDANCE WITH CHAPTER 9 OF THE BUSINESS AND PROFESSIONS CODE SHALL BE CONSIDERED NON-RESPONSIVE AND SHALL BE REJECTED BY THE PUBLIC AGENCY.
5. AT THE TIME THIS CONTRACT IS BID, THE CONTRACTOR SHALL POSSESS A STATE OF CALIFORNIA CLASS "A" GENERAL ENGINEERING CONTRACTOR'S LICENSE.
6. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL OBTAIN EXCAVATION PERMIT FROM SFPW- PERMIT CENTER LOCATED AT 49 SOUTH VAN NESS AVENUE, SUITE 200, SAN FRANCISCO, CA 94103.
7. MAXIMUM TRENCH WIDTH SHALL BE THE LARGER OUTSIDE DIMENSION OF THE NEW OR EXISTING SEWER/STRUCTURE PLUS 1.5 FEET ON EACH SIDE.
8. ALL NEW VCP MAIN SEWERS SHALL BE CONSTRUCTED ON CRUSHED ROCK BEDDING PER DETAIL SHOWN BELOW UNLESS OTHERWISE NOTED.
9. PIPE LENGTH SHOWN IN PROFILE INDICATES HORIZONTAL DISTANCE EXCLUDING INSIDE DIMENSION OF EACH SEWER MANHOLE/STRUCTURE.
10. REMOVE SECTION OF (E) SEWERS TO BE ABANDONED AS NECESSARY TO CONSTRUCT (N) SEWER MAINS AND SIDE SEWER EXTENSIONS, AND FILL/PLUG ENDS OF (E) SEWERS TO REMAIN, AND AS INCIDENTAL WORK.
11. AFTER SEWER WORK, PAVING AND CURB RAMP HAS BEEN COMPLETED, THE CONTRACTOR SHALL CLEAN ALL CATCHBASINS SHOWN ON SW-DRAWINGS AND REPLACE CAST IRON WATER TRAP AS DIRECTED BY THE CITY REPRESENTATIVE.
12. CONTRACTOR SHALL PROTECT ALL SURVEY MONUMENTS AND BENCHMARKS LOCATED WITHIN THE CONTRACT LIMIT. CITY MONUMENTS LOCATED WITHIN 20 FEET OF CONSTRUCTION MUST BE REFERENCED PRIOR TO ANY DEMOLITION, AND A CORNER RECORD MUST BE FILED WITH THE COUNTY SURVEYOR'S OFFICE BY CONTACTING BUREAU OF STREET-USE AND MAPPING AT (628) 271-2000. THE MONUMENTS MUST BE REVISITED AFTER CONSTRUCTION HAS BEEN COMPLETED TO VERIFY THAT NO MOVEMENT HAS OCCURRED. IF MONUMENTS ARE NOT REFERENCED PRIOR TO CONSTRUCTION, THE CITY WILL CHARGE A MINIMUM FEE OF $10,000 A PIECE TO THE CONTRACTOR FOR REESTABLISHING THE MONUMENT.
13. PRIOR TO ABANDONING EXISTING SEWER FACILITIES, CONTRACTOR SHALL VERIFY THAT THERE ARE NO ACTIVE CONNECTIONS TO THESE FACILITIES. CONTRACTOR SHALL NOTIFY CITY REPRESENTATIVE IMMEDIATELY OF ANY DISCREPANCIES.
14. RIM ELEVATIONS OF PROPOSED SEWER MANHOLES SHALL CONFORM TO FINISHED ROADWAY ELEVATIONS.
15. CONTRACTOR SHALL VERIFY EXACT DIAMETER AND LENGTH OF EXISTING SEWER TO BE LINED PRIOR TO MANUFACTURING THE LINER.
16. SIDE SEWER (LATERAL) SHALL BE CONNECTED TO THE MAIN AT OR ABOVE THE SPRING LINE UNLESS OTHERWISE DIRECTED BY THE CITY REPRESENTATIVE.
17. SPRAY MORTAR SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 6000 PSI AT 7 DAYS. FOR SURFACE PREPARATIONS AND ADDITIONAL REQUIREMENTS, REFER TO SPECIFICATION SECTION 33 01 30.63.
18. SIDE SEWER (LATERAL) TO BE REPLACED SHALL BE CONSTRUCTED ALONG THE SHORTEST DISTANCE FROM CURB TO MAIN SEWER WHERE POSSIBLE, UNLESS OTHERWISE NOTED.
19. SFMTA OVERHEAD ELECTRIC WIRES CARRY A MINIMUM OF 600 VOLTS DC AND HAVE A 17-FEET± VERTICAL CLEARANCE FROM THE ROADWAY. THE CONTRACTOR'S ATTENTION IS DIRECTED TO ARTICLE 37 OF GENERAL ORDER 95 OF THE STATE OF CALIFORNIA PUBLIC UTILITIES COMMISSION. CAL OSHA REGULATIONS REQUIRE THAT ANY EQUIPMENT THAT MOVES VERTICALLY MUST MAINTAIN A 10 FEET RADIAL CLEARANCE, AND ANY OTHER EQUIPMENT MUST MAINTAIN A 6 FEET CLEARANCE FROM MUNI OVERHEAD ELECTRIC WIRES. THE CONTRACTOR SHALL OBSERVE THESE REGULATIONS DURING THE ENTIRE DURATION OF THE CONSTRUCTION WORK.



BEDDING DETAIL FOR RIGID PIPE



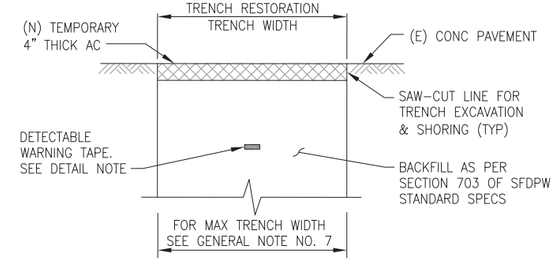
PIPE INSTALLATION



DETAIL NOTES:

1. LIMITS OF FINAL ACWS SHALL BE AS DELINEATED PER PR-DRAWINGS.
2. RESTORATION OF CONCRETE BASE MAY BE WIDER THAN SHOWN IN TRENCH RESTORATION DETAIL PER DPW ORDER 187,005, SECTION 11.
3. DETECTABLE WARNING TAPE SHALL BE 6" WIDE, 5 MIL THICKNESS GREEN METALLIC WARNING TAPE WITH WORDS "CAUTION: BURIED SEWER," AND CENTERED OVER AND PLACED 12" ABOVE THE TOP OF PIPE.

TRENCH RESTORATION DETAIL FOR ASPHALT STREET



DETAIL NOTE:

DETECTABLE WARNING TAPE SHALL BE 6" WIDE, 5 MIL THICKNESS GREEN METALLIC WARNING TAPE WITH WORDS "CAUTION: BURIED SEWER," AND CENTERED OVER AND PLACED 12" ABOVE THE TOP OF PIPE.

TEMPORARY TRENCH RESTORATION DETAIL FOR CONCRETE STREET

REFERENCE INFORMATION & FILE NO. OF SURVEYS

REGISTERED PROFESSIONAL ENGINEER — CHENG R. LINH — No. C69218 — CIVIL — STATE OF CALIFORNIA

05/12/2022

CONTRACT NO. WW-684

CITY AND COUNTY OF SAN FRANCISCO
PUBLIC UTILITIES COMMISSION
INFRASTRUCTURE DIVISION
ENGINEERING MANAGEMENT BUREAU

45TH AVE, 46TH AVE, 47TH AVE, VICENTE ST, WAWONA ST, AND SLOAT BLVD SEWER REPLACEMENT

LEGEND, ABBREVIATIONS, GENERAL NOTES AND DETAILS FOR SEWER WORK

CITY AND COUNTY OF SAN FRANCISCO
SAN FRANCISCO PUBLIC WORKS
BUREAU OF ENGINEERING

SECTION MANAGER L.WONG 05/12/2022	DRAWN AK/ V.CHEUNG	05/2022	
DEPUTY BUREAU MANAGER F.CISNEROS 06/24/2022	DESIGNED H.BAKER	05/2022	
ACTING BUREAU MANAGER I.DHAPA 07/07/2022	CHECKED C.LINH	05/2022	

NO.	DATE	DESCRIPTION	BY	APPR'D

REVISIONS

CHECKED / APPROVED	DRAWN	SCALE	NONE
SECTION MANAGER	DESIGNED	DATE	
APPROVED (MANAGER, ENGINEERING MANAGEMENT BUREAU)	APPROVED (ASSISTANT GENERAL MANAGER WASTE WATER ENTERPRISE)		
SHEET 3 OF 44	PLAN NO. SW-G1	DRAWING / FILE NO. 121,450	REVISION NO. 0

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 4

HYD PROJECT NO. 10701