WALKER HIGH SCHOOL
SITE UTILITIES PROJECT

5715 MILWAUKEE AVE E
PUYALLUP, WA 98374

RECORD DRAWING
RECORD DRAWING INFORMATION IS PROVIDED BY NORTHWEST CASCADE, INC. RECORD DRAWING INFORMATION WAS REVIEWED BY R. HAND OF SITTS & HILL ENGINEERS AND THE INSTALLATION SUBSTANTIALLY CONFORMS TO APPROVED PLANS.

RICHARD C. HAND — STATE OF WASHINGTON — 26780 — REGISTERED PROFESSIONAL ENGINEER

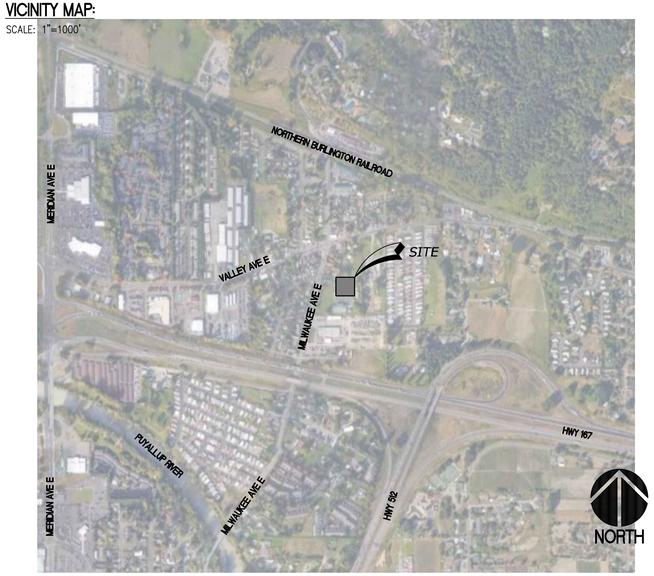
RD

APPROVED
BY _____
CITY OF PUYALLUP
DEVELOPMENT SERVICES
DATE 07/26/2021

NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE.
THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS.
FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE CITY ENGINEER

RD

VICINITY MAP:
SCALE: 1"=1000'



OWNER:

PUYALLUP SCHOOL DISTRICT NO. 3

323 12TH ST NW
PUYALLUP, WA 98371
CONTACT: FRANKIE TOPASNA, (253) 841–8641

PREPARED BY:

sitts&hill
CIVIL ▪ STRUCTURAL ▪ SURVEYING
4815 CENTER STREET. TACOMA, WA. 98409 (253) 474–9449 FAX (253) 474–0153
CONTACT: RICK HAND, SENIOR PROJECT MANAGER

INDEX OF DRAWINGS:

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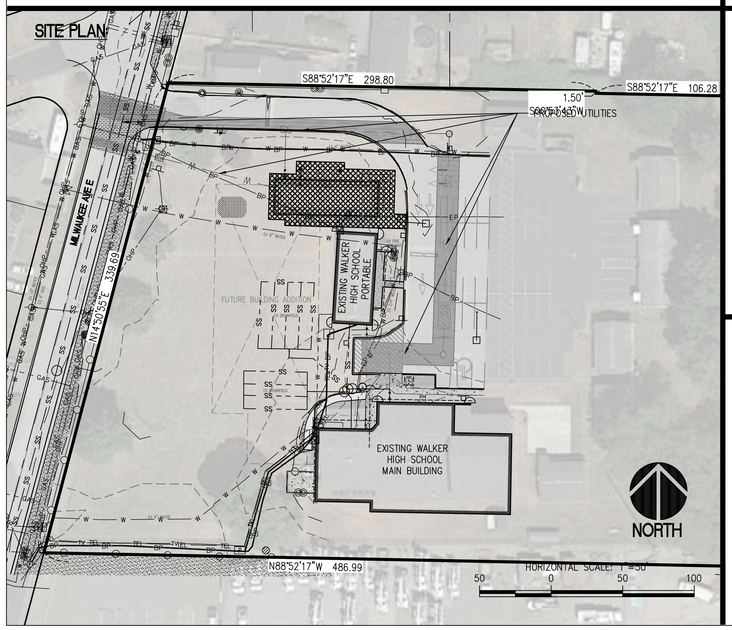
C17.3W	SHEET 27 OF 27	SITE UTILITIES DETAILS

SITE PLAN:



PREPARED FOR:

bcra

2106 PACIFIC AVE, SUITE 300
TACOMA, WA 98402
CONTACT: CHRISTINE PHILLIPS, (253) 627–4367

ONLY WATER AND SEWER UTILITIES ARE BEING REVIEWED BY THE CITY OF PUYALLUP FOR THIS PLAN SET

THE CITY OF PUYALLUP IS NOT REVIEWING COMPLIANCY FOR THE GENERAL NOTES AND KEY NOTES ON SHEETS C13.0W AND C14.0W

PROJECT INFORMATION:

SITE ADDRESS:	5715 MILWAUKEE AVE E, PUYALLUP, WA 98374
PARCEL NO.	7705000171 (3.38 ACRES)
ZONING:	EC (EMPLOYMENT CENTER)
OWNER CONTACT:	PUYALLUP SCHOOL DISTRICT NO. 3 323 12TH ST NW PUYALLUP, WA 98371
LAND USE:	HIGH SCHOOL
100-YEAR FLOODPLAIN:	N/A – ZONE 'X' PER FEMA MAP PANEL NUMBER 53053C0600E
SCOPE OF WORK:	INSTALLATION OF SITE UTILITIES FOR PORTABLE CLASSROOM CONNECTION TO PUBLIC SEWER AND WATER
IMPERVIOUS SURFACE:	PORTABLE BUILDING RELOCATION PROJECT

ROOF	1,728 S.F.
NEW HARD SURFACE	180 S.F.
TOTAL	1,908 S.F.

SANITARY SEWER PROJECT (ALL SURFACES ARE REPLACED IN KIND)

ASPHALT	5,281 S.F
CONCRETE	462 S.F.
LANDSCAPE/GRAVEL	6,346 S.F.
TOTAL	12,089 S.F

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

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4815 CENTER STREET | TACOMA, WA. 98409
PHONE: (253) 474-9449 | FAX: (253) 474-0153
http://www.sitts-hill-engineers.com/

Project No.:	19,034	Project Mgr.:	R.H.
Proj. Engineer:	S.A.J.	Proj. Drafter:	S.A.J.

IF SHEET MEASURES LESS THAN 24"X36", IT IS A REDUCED PRINT. REDUCE SCALE ACCORDINGLY

24x36

bcra
T 253.627.4367 F 253.627.4395 WWW.BCRADESIGN.COM
2106 PACIFIC AVENUE, SUITE 300, TACOMA, WA 98402

SEAL

RICHARD C. HAND — STATE OF WASHINGTON — 26780 — REGISTERED PROFESSIONAL ENGINEER — 07/23/21

PROJECT
PUYALLUP SCHOOL DISTRICT
WALKER HIGH SCHOOL SITE UTILITIES
5715 MILWAUKEE AVE E
PUYALLUP, WA 98372

REVISIONS
5-10-21 PERMIT SUBMITTAL
6-14-21 PERMIT RESUBMITTAL
6-23-21 BID SET
6-25-21 CITY RESUBMITTAL
7-23-21 CITY RESUBMITTAL
10-04-22 RECORD DRAWINGS

DATE
1.19.2021
BCRA NO.
20160.00.00
DRAWN BY:
REVIEWED BY:
SHEET TITLE
SITE UTILITIES COVER SHEET

bcra

SHEET 14 OF 27

C10.0W

CITY OF PUYALLUP
GENERAL NOTES

1. ALL WORK IN CITY RIGHT-OF-WAY REQUIRES A PERMIT FROM THE CITY OF PUYALLUP. PRIOR TO ANY WORK COMMENCING, THE GENERAL CONTRACTOR SHALL ARRANGE FOR A PRECONSTRUCTION MEETING AT THE DEVELOPMENT SERVICES CENTER TO BE ATTENDED BY ALL CONTRACTORS THAT WILL PERFORM WORK SHOWN ON THE APPROVED ENGINEERING PLANS, REPRESENTATIVES FROM ALL APPLICABLE UTILITY COMPANIES, THE PROJECT OWNER AND APPROPRIATE CITY STAFF. CONTACT ENGINEERING SERVICES AT (253-841-5568) TO SCHEDULE THE MEETING. THE CONTRACTOR IS RESPONSIBLE TO HAVE THEIR OWN SET OF APPROVED PLANS AT THE MEETING.

2. AFTER COMPLETION OF ALL ITEMS SHOWN ON THESE PLANS AND BEFORE ACCEPTANCE OF THE PROJECT THE CONTRACTOR SHALL OBTAIN A PUNCH LIST PREPARED BY THE CITY'S INSPECTOR DETAILING REMAINING ITEMS OF WORK TO BE COMPLETED. ALL ITEMS OF WORK SHOWN ON THESE PLANS SHALL BE COMPLETED TO THE SATISFACTION OF THE CITY PRIOR TO ACCEPTANCE OF THE WATER SYSTEM AND PROVISION OF SANITARY SEWER SERVICE.

3. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION (HEREINAFTER REFERRED TO AS THE 'STANDARD SPECIFICATIONS'), WASHINGTON STATE DEPARTMENT OF TRANSPORTATION AND AMERICAN PUBLIC WORKS ASSOCIATION, WASHINGTON STATE CHAPTER, LATEST EDITION, UNLESS SUPERSEDED OR AMENDED BY THE CITY OF PUYALLUP CITY STANDARDS FOR PUBLIC WORKS ENGINEERING AND CONSTRUCTION (HEREINAFTER REFERRED TO AS THE 'CITY STANDARDS').

4. A COPY OF THESE APPROVED PLANS AND APPLICABLE CITY DEVELOPER SPECIFICATIONS AND DETAILS SHALL BE ON SITE DURING CONSTRUCTION.

5. ANY REVISIONS MADE TO THESE PLANS MUST BE REVIEWED AND APPROVED BY THE DEVELOPER'S ENGINEER AND THE CITY PRIOR TO ANY IMPLEMENTATION IN THE FIELD. THE CITY SHALL NOT BE RESPONSIBLE FOR ANY ERRORS AND/OR OMISSIONS ON THESE PLANS.

6. THE CONTRACTOR SHALL HAVE ALL UTILITIES VERIFIED ON THE GROUND PRIOR TO ANY CONSTRUCTION. CALL (811) AT LEAST TWO WORKING DAYS IN ADVANCE. THE OWNER AND HIS/HER ENGINEER SHALL BE CONTACTED IMMEDIATELY IF A CONFLICT EXISTS.

7. ANY STRUCTURE AND/OR OBSTRUCTION THAT REQUIRES REMOVAL OR RELOCATION RELATING TO THIS PROJECT SHALL BE DONE SO AT THE DEVELOPER'S EXPENSE.

8. LOCATIONS OF EXISTING UTILITIES ARE APPROXIMATE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE TRUE ELEVATIONS AND LOCATIONS OF HIDDEN UTILITIES. ALL VISIBLE ITEMS SHALL BE THE ENGINEER'S RESPONSIBILITY.

9. THE CONTRACTOR SHALL INSTALL, REPLACE, OR RELOCATE ALL SIGNS, AS SHOWN ON THE PLANS OR AS AFFECTED BY CONSTRUCTION, PER CITY STANDARDS.

10. POWER, STREET LIGHT, CABLE, AND TELEPHONE LINES SHALL BE IN A TRENCH LOCATED WITHIN A 10-FOOT UTILITY EASEMENT ADJACENT TO PUBLIC RIGHT-OF-WAY. RIGHT-OF-WAY CROSSINGS SHALL HAVE A MINIMUM HORIZONTAL SEPARATION FROM OTHER UTILITIES (SEWER, WATER, AND STORM) OF 5 FEET.

11. ALL CONSTRUCTION SURVEYING FOR EXTENSIONS OF PUBLIC FACILITIES SHALL BE DONE UNDER THE DIRECTION OF A WASHINGTON STATE LICENSED LAND SURVEYOR OR A WASHINGTON STATE LICENSED PROFESSIONAL CIVIL ENGINEER.

12. DURING CONSTRUCTION, ALL PUBLIC STREETS ADJACENT TO THIS PROJECT SHALL BE KEPT CLEAN OF ALL MATERIAL DEPOSITS RESULTING FROM ON-SITE CONSTRUCTION, AND EXISTING STRUCTURES SHALL BE PROTECTED AS DIRECTED BY THE CITY.

13. CERTIFIED RECORD DRAWINGS ARE REQUIRED PRIOR TO PROJECT ACCEPTANCE.

14. A NPDES STORMWATER GENERAL PERMIT MAY BE REQUIRED BY THE DEPARTMENT OF ECOLOGY FOR THIS PROJECT. FOR INFORMATION CONTACT THE DEPARTMENT OF ECOLOGY, SOUTHWEST REGION OFFICE AT (360)407-6300.

15. ANY DISTURBANCE OR DAMAGE TO CRITICAL AREAS AND ASSOCIATED BUFFERS, OR SIGNIFICANT TREES DESIGNATED FOR PRESERVATION AND PROTECTION SHALL BE MITIGATED IN ACCORDANCE WITH A MITIGATION PLAN REVIEWED AND APPROVED BY THE CITY'S PLANNING DIVISION. PREPARATION AND IMPLEMENTATION OF THE MITIGATION PLAN SHALL BE AT THE DEVELOPER'S EXPENSE.

CONSTRUCTION SEQUENCE

1. OBTAIN SITE DEVELOPMENT PERMIT FROM PIERCE COUNTY. SCHEDULE PRE-CONSTRUCTION MEETINGS WITH THE COUNTY INSPECTOR, OWNER, CONTRACTOR AND DESIGN TEAM. SUBMIT ALL SUBMITTALS TO ARCHITECT.
2. WHEN MORE THAN ONE CONTRACTOR IS ONSITE PERFORMING CONSTRUCTION ACTIVITIES, THE TWO CONTRACTORS SHALL COORDINATE WORK TO ENSURE NO CONFLICTS OCCUR BETWEEN THE TWO CONSTRUCTION WORK SITES.
3. CONTRACTOR TO MAINTAIN AT LEAST ONE LANE ACCESS TO SCHOOL SITE AT ALL TIMES.
4. CONTRACTOR TO MAINTAIN EMERGENCY VEHICLE ACCESS TO THE SCHOOL SITE AT ALL TIMES.
5. PROVIDE TESC MEASURES (EROSION CONTROL PLANS AND DETAIL SHEETS). COORDINATE WITH PROJECT WORK TIME PERIODS & PROJECT MILESTONE COMPLETION DATES.
6. CONTRACTOR SHALL KEEP EXISTING ONSITE SEWER SYSTEM OPERATIONAL UNTIL NEW GRAVITY SEWER IS INSTALLED AND CERTIFICATE OF OCCUPANCY HAS BEEN ISSUED.
7. OBTAIN APPROVED TRAFFIC CONTROL PLAN FROM PIERCE COUNTY.
8. PERFORM REQUIRED SITE DEMOLITION WORK.
9. PROVIDE TEMPORARY UTILITIES AND SERVICES NECESSARY FOR CONSTRUCTION ACTIVITIES.
10. CONTRACTOR TO POTHOLE EX UTILITIES AND SANITARY SEWER IN FRONT OF MAIN BUILDING PRIOR TO INSTALLATION OF NEW UTILITIES.
11. REPORT HORIZONTAL AND VERTICAL POSITIONS TO ENGINEER. ALLOW 3 BUSINESS DAYS TIME FOR ENGINEER DESIGN VERIFICATION PRIOR TO COMMENCING SANITARY SEWER WORK.
12. COMMENCE SANITARY SEWER AND CONSTRUCTION ACTIVITIES.
13. COORDINATE WORK WITH THE PORTABLE CONTRACTOR
14. COMPLETE SANITARY SEWER INSTALLATION
15. COMPLETE SURFACING RESTORATION.
16. CLEAN SEDIMENTS FROM EXISTING STORM DRAINAGE STRUCTURES AND PIPING IF AFFECTED. PROVIDE DOCUMENTATION CLEANING WAS PERFORMED BY A LICENSED/BONDED COMPANY.
17. FINAL SITE INSPECTIONS. SEE CONTRACT PLANS FOR MILESTONE INSPECTIONS REQUIRED BY OWNER AND PERMITTING AGENCY.
18. CERTIFICATE OF OCCUPANCY ISSUED.
19. DECOMMISSION EXISTING SEPTIC TANK SYSTEM IN ACCORDANCE TO PIERCE COUNTY HEALTH DEPARTMENT REQUIREMENTS.

RD

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RICHARD C. HAND STATE OF WASHINGTON 28780 REGISTERED PROFESSIONAL ENGINEER

APPROVED
BY _____
CITY OF PUYALLUP
DEVELOPMENT SERVICES
DATE 07/26/2021

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SEAL

RICHARD C. HAND STATE OF WASHINGTON 28780 REGISTERED PROFESSIONAL ENGINEER 07/23/21

PROJECT
PUYALLUP SCHOOL DISTRICT
WALKER HIGH SCHOOL SITE UTILITIES
5715 MILWAUKEE AVE E
PUYALLUP, WA 98372

REVISIONS

	5-10-21 PERMIT SUBMITTAL
	6-14-21 PERMIT RESUBMITTAL
	6-23-21 BID SET
	6-25-21 CITY RESUBMITTAL
	7-23-21 CITY RESUBMITTAL
1	10-04-22 RECORD DRAWINGS

DATE
1.19.2021
BCRA NO.
20160.00.00
DRAWN BY:
REVIEWED BY:
SHEET TITLE
CITY OF PUYALLUP
GENERAL NOTES

bcra

SHEET 15 OF 27

C11.0W

CITY OF PUYALLUP
SANITARY SEWER NOTES:

1. ALL WORK IN CITY RIGHT-OF-WAY REQUIRES A PERMIT FROM THE CITY OF PUYALLUP. PRIOR TO ANY WORK COMMENCING, THE GENERAL CONTRACTOR SHALL ARRANGE FOR A PRECONSTRUCTION MEETING AT THE DEVELOPMENT SERVICES CENTER TO BE ATTENDED BY ALL CONTRACTORS THAT WILL PERFORM WORK SHOWN ON THE ENGINEERING PLANS, REPRESENTATIVES FROM ALL APPLICABLE UTILITY COMPANIES, THE PROJECT OWNER AND APPROPRIATE CITY STAFF. CONTACT ENGINEERING SERVICES TO SCHEDULE THE MEETING (253) 841-5568. THE CONTRACTOR IS RESPONSIBLE TO HAVE THEIR OWN APPROVED SET OF PLANS AT THE MEETING.

2. AFTER COMPLETION OF ALL ITEMS SHOWN ON THESE PLANS AND BEFORE ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL OBTAIN A "PUNCH LIST" PREPARED BY THE CITY'S INSPECTOR DETAILING REMAINING ITEMS OF WORK TO BE COMPLETED. ALL ITEMS OF WORK SHOWN ON THESE PLANS SHALL BE COMPLETED TO THE SATISFACTION OF THE CITY PRIOR TO ACCEPTANCE OF THE SEWER SYSTEM AND PROVISION OF SANITARY SEWER SERVICE.

3. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION (HEREINAFTER REFERRED TO AS THE "STANDARD SPECIFICATIONS"), WASHINGTON STATE DEPARTMENT OF TRANSPORTATION AND AMERICAN PUBLIC WORKS ASSOCIATION, WASHINGTON STATE CHAPTER, LATEST EDITION, UNLESS SUPERSEDED OR AMENDED BY THE CITY OF PUYALLUP CITY STANDARDS FOR PUBLIC WORKS ENGINEERING AND CONSTRUCTION (HEREINAFTER REFERRED TO AS THE "CITY STANDARDS").

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5. ANY REVISIONS MADE TO THESE PLANS MUST BE REVIEWED AND APPROVED BY THE DEVELOPER'S ENGINEER AND THE ENGINEERING SERVICES STAFF PRIOR TO ANY IMPLEMENTATION IN THE FIELD. THE CITY SHALL NOT BE RESPONSIBLE FOR ANY ERRORS AND/OR OMISSIONS ON THESE PLANS.

6. THE CONTRACTOR SHALL HAVE ALL UTILITIES VERIFIED ON THE GROUND PRIOR TO ANY CONSTRUCTION. CALL (811) AT LEAST TWO WORKING DAYS IN ADVANCE. THE OWNER AND HIS/HER ENGINEER SHALL BE CONTACTED IMMEDIATELY IF A CONFLICT EXISTS.

7. ANY STRUCTURE AND/OR OBSTRUCTION WHICH REQUIRE REMOVAL OR RELOCATION RELATING TO THIS PROJECT SHALL BE DONE SO AT THE DEVELOPER'S EXPENSE.

8. MINIMUM GRADE ON ALL 4 INCH RESIDENTIAL SIDE SEWERS SHALL BE 2 PERCENT AND 6 INCH COMMERCIAL SIDE SEWERS SHALL BE 1 PERCENT; MAXIMUM SHALL BE 8 PERCENT. ALL SIDE SEWERS SHALL BE 6 INCHES WITHIN CITY RIGHT-OF-WAY.

9. SIDE SEWERS SHALL BE INSTALLED IN ACCORDANCE WITH CITY STANDARD NOS. 04.03.01, 04.03.02, 04.03.03 AND 04.03.04. SIDE SEWER INSTALLATION WORK SHALL BE DONE IN ACCORDANCE WITH THE WASHINGTON INDUSTRIAL SAFETY AND HEALTH ACT (WISHA).

10. ALL SEWER PIPE SHALL BE PVC, POLYPROPYLENE, OR DUCTILE IRON. PVC SEWER PIPE SHALL CONFORM TO ASTM D-3034, SDR35 FOR PIPE SIZES 15-INCH AND SMALLER AND ASTM F679 FOR PIPE SIZES 18- TO 27-INCH, DUCTILE IRON PIPE SHALL BE CLASS 51 OR GREATER, LINED WITH PROTECTO 401TM EPOXY LINING OR EQUIVALENT, UNLESS OTHERWISE NOTED. 12-INCH THROUGH 30-INCH POLYPROPYLENE PIPE (PP) SHALL BE DUAL WALLED, HAVE A SMOOTH INTERIOR AND EXTERIOR CORRUGATIONS AND MEET WSDOT 9-05.24(2). IT SHALL MEET OR EXCEED ASTM F2764. 36-INCH THROUGH 60-INCH PP PIPE SHALL BE TRIPLE WALLED AND MEET WSDOT 9-05.24(2). IT SHALL MEET OR EXCEED ASTM F2764. PP SHALL HAVE A MINIMUM PIPE STIFFNESS OF 46 PII WHEN TESTED IN ACCORDANCE WITH ASTM D2412. TESTING SHALL BE PER ASTM F1417. TRENCHING, BEDDING, AND BACKFILL SHALL BE IN ACCORDANCE WITH CITY STANDARD NO. 06.01.01. MINIMUM COVER ON PVC AND PP PIPE SHALL BE 3.0 FEET. MINIMUM COVER ON DUCTILE IRON PIPE SHALL BE 1.0 FOOT.

11. SANITARY SEWER MANHOLE FRAMES AND COVERS SHALL CONFORM TO CITY STANDARD NO. 06.01.02.

12. SANITARY SEWER MANHOLES SHALL CONFORM TO CITY STANDARD NOS. 04.01.01, 04.01.02, 04.01.03 AND 04.01.04. ALL MANHOLES SHALL BE CHANNELED FOR FUTURE LINES AS SPECIFIED ON THESE PLANS. MANHOLE STEPS AND LADDER SHALL CONFORM TO STANDARD NO. 06.01.03.

13. SANITARY SEWER PIPE AND SIDE SEWERS SHALL BE 10 FEET AWAY FROM BUILDING FOUNDATIONS AND/OR ROOF LINES WITH THE EXCEPTION OF SIDE SEWERS THAT PROVIDE SERVICE TO A SINGLE-FAMILY RESIDENCE. AT THE DISCRETION OF THE REVIEW ENGINEER, A LICENSED PROFESSIONAL ENGINEER WILL BE REQUIRED TO STAMP THE DESIGN TO ACCOUNT FOR DEPTH OR PROXIMITY TO FOUNDATION, STEEP SLOPES, OR OTHER FACTORS.

14. NO SIDE SEWERS SHALL BE CONNECTED TO ANY HOUSE OR BUILDING UNTIL ALL MANHOLES ARE ADJUSTED TO THE FINISHED GRADE OF THE COMPLETED ASPHALT ROADWAY AND THE ASPHALT PATCH AND SEAL AROUND THE RING ARE ACCEPTED.

15. FOR COMMERCIAL DEVELOPMENTS IN WHICH SOURCES OF GREASE AND/OR OILS MAY BE INTRODUCED TO THE CITY SANITARY SEWER SYSTEM, A CITY APPROVED GREASE INTERCEPTOR SHALL BE INSTALLED DOWNSTREAM FROM THE SOURCE.

16. ONCE SEWER AND ALL OTHER UTILITY CONSTRUCTION IS COMPLETED, ALL SANITARY SEWER MAINS AND SIDE SEWERS SHALL BE TESTED PER SECTION 406 OF THE CITY STANDARDS.

PLAN SET SANITARY SEWER NOTE REVISIONS
NOTE 9: DETAILS 04.03.01 AND 04.03.03 ARE NOT APPLICABLE
NOTE 12: DETAILS 04.01.02, 04.01.03 AND 04.01.04 ARE NOT APPLICABLE

CITY OF PUYALLUP
SANITARY SEWER NOTES:

SECTION 406: TESTING REQUIREMENTS

SECTION 406 – TESTING REQUIREMENTS

GRAVITY SANITARY SEWER CLEANING AND TESTING REQUIREMENTS SHALL BE AS OUTLINED IN WSDOT SECTION 7-17.3(2). SANITARY SEWER CLEANING AND TESTING SHALL BE COMPLETED TO THE SATISFACTION OF THE OFFICE OF THE CITY ENGINEER AND/OR PUBLIC WORKS DEPARTMENT PRIOR TO FINAL ACCEPTANCE. AFTER COMPLETION OF ALL PROJECT UTILITY WORK (SEWER, WATER, STORM, ETC.) AND ASSOCIATED UTILITY TRENCH BACKFILL AND COMPACTION, SEWER LINES SHALL BE CLEANED AND TESTED BY THE CONTRACTOR PRIOR TO FINAL PROJECT ACCEPTANCE, AS OUTLINED IN SECTION 406.1 THROUGH 406.4. AT THE END OF THE MAINTENANCE AND WARRANTY PERIOD, THE CITY WILL PERFORM A FINAL CCTV INSPECTION PER 406.4 TO VERIFY THAT THE WORK PERFORMED CONFORMS TO CITY STANDARDS PRIOR TO BOND RELEASE.

406.1 CLEANING

PHYSICAL CONNECTION TO THE EXISTING CITY SEWER SYSTEM SHALL NOT BE ALLOWED UNTIL ALL PIPES HAVE BEEN THOROUGHLY CLEANED BY JETTING AND/OR PIGGING TO REMOVE ANYSOLIDS OR CONSTRUCTION DEBRIS THAT MAY HAVE ENTERED THE PIPE.

THE CONTRACTOR SHALL ARRANGE TO HAVE THE WATER ACCUMULATED DURING CONSTRUCTION AND SANITARY SYSTEM CLEANING OPERATIONS REMOVED FROM THE SEWER SYSTEM BY A VACTOR TRUCK.

WATER FROM THE NEW SEWER EXTENSION SHALL NOT BE PERMITTED TO ENTER THE EXISTING CITY SYSTEM UNTIL FINAL PROJECT APPROVAL. SEDIMENT OR DEBRIS INTRODUCED TO EXISTING CITY SEWERS AS A RESULT OF ANY CONSTRUCTION ACTIVITY SHALL BE REMOVED IMMEDIATELY BY THE CONTRACTOR IN CONFORMANCE WITH WSDOT SECTION 7-17.

406.2 DEFLECTION TESTING

GRAVITY SANITARY SEWERS SHALL BE TESTED FOR DEFLECTION PRIOR TO VISUAL INSPECTION. THERMOPLASTIC PIPE SHALL BE TESTED FOR DEFLECTION NOT LESS THAN 30 DAYS AFTER THE TRENCH BACKFILL AND COMPACTION HAS BEEN COMPLETED. DEFLECTION TESTING SHALL BE CONDUCTED BY PULLING A MANDREL (RIGID OR ADJUSTABLE) WITH A DIAMETER NOT LESS THAN 95 PERCENT OF THE NORMAL DIAMETER OF THE PIPE BEING TESTED. MANDREL TESTING SHALL BE CONDUCTED IN CONFORMANCE WITH WSDOT SECTION 7-17.3(2)G.

406.3 LEAKAGE TESTING

ALL NEW GRAVITY SANITARY SEWER MAINS AND THE RIGHT-OF-WAY LATERALS SHALL BE SUBJECT TO A LOW-PRESSURE AIR TEST PER WSDOT SECTION 7-17.3(2)F. LOW PRESSURE AIR TESTING SHALL BE CONDUCTED AFTER BACKFILLING IS COMPLETED AND THE BACKFILL MATERIAL HAS BEEN COMPACTED IN CONFORMANCE WITH THE APPROVED PLANS. CONFORMING COMPACTION SHALL BE VERIFIED BY NUCLEAR GAUGE TESTING AND/OR PROOF ROLLING AT THE DISCRETION OF ENGINEERING STAFF. THE CITY ENGINEER OR DESIGNEE SHALL OBSERVE ALL TESTING TO VERIFY SATISFACTORY COMPLETION. THE CITY ENGINEER OR DESIGNEE MAY REQUIRE THAT AIR TEST PRESSURE BE MAINTAINED AT 4.0 PSIG WITH NO DROP FOR 15 MINUTES FOR A PASSING LEAKAGE TEST WHERE GROUNDWATER PRESSURE IS DEEMED NEGLIGIBLE, OR AT THE CITY ENGINEER'S OR DESIGNEE'S DISCRETION.

THE CONTRACTOR SHALL FURNISH ALL NECESSARY EQUIPMENT AND PERSONNEL FOR CONDUCTING THE PRESSURE TEST. THE CONTRACTOR SHALL PROVIDE CERTIFICATION FROM A CERTIFIED/ACCREDITED LABORATORY THAT TESTING EQUIPMENT IS ACCURATE. ALL EQUIPMENT AND PERSONNEL SHALL BE SUBJECT TO APPROVAL BY THE CITY ENGINEER OR DESIGNEE.

IF ANY PORTION OF THE SANITARY SYSTEM FAILS TO MEET THE TESTING REQUIREMENTS, THE CONTRACTOR SHALL DETERMINE, AT THEIR OWN EXPENSE, THE SOURCE OF LEAKAGE AND SHALL REPAIR OR REPLACE ALL DEFECTIVE MATERIALS OR WORKMANSHIP. THE COMPLETED PIPE INSTALLATION SHALL MEET THE MINIMUM TESTING REQUIREMENTS BEFORE BEING CONSIDERED ACCEPTABLE.

406.4 TELEVISION INSPECTION

ALL NEW GRAVITY SANITARY SEWER EXTENSIONS SHALL BE VISUALLY INSPECTED IN CONFORMANCE WITH WSDOT SECTION 7-17.3(2)H, FOLLOWING SATISFACTORY TRENCH COMPACTION TESTING, FLUSHING, LOW PRESSURE AIR TESTING, AND DEFLECTION TESTING. ALL MANHOLES SHALL BE CHANNELED AND GRADE RINGS SET IN PLACE PRIOR TO SEWER VIDEO INSPECTION.

THE REMOTE CAMERA USED IN SEWER VISUAL INSPECTION SHALL BE ONE SPECIFICALLY DESIGNED FOR SUCH AN APPLICATION, WITH THE ABILITY TO ROTATE THE CAMERA 180 DEGREES AND LIGHTING SUITABLE TO ALLOW A CLEAR PICTURE OF THE ENTIRE PERIPHERY OF THE PIPE. THE CAMERA SHALL PROCEED THROUGH THE PIPE AT A SUFFICIENTLY SLOW VELOCITY TO ALLOW ADEQUATE INSPECTION OF ALL PIPE JOINTS. ALL SEWER LATERAL FITTINGS AND JOINTS AND SUSPECT PIPE JOINTS SHALL BE CLOSELY INSPECTED BY ROTATING THE CAMERA AS NEEDED TO PROVIDE A CLEAR VIEW.

THE CONTRACTOR SHALL INTRODUCE WATER TO THE NEW SEWER SYSTEM IMMEDIATELY PRIOR TO THE VISUAL INSPECTION BY ADDING WATER TO THE UPSTREAM MANHOLE UNTIL WATER IS SEEN FLOWING IN THE LOWEST MANHOLE. VIDEO INSPECTION OF THE LINE SHALL BEGIN WHEN FLOW IN THE LOWEST MANHOLE HAS STOPPED. A 1-INCH SEWER BALL SHALL BE ATTACHED TO THE FRONT OF THE CAMERA TO PROVIDE A BASIS FOR ESTIMATING THE DEPTH OF THE PONDING WITHIN THE SEWER PIPE.

TELEVISION INSPECTION ACCEPTANCE CRITERIA:

1. ANY PONDING WITHIN A PIPE SHALL BE LESS THAN ONE-HALF INCH (1/2") IN DEPTH.
2. THE TOTAL ACCUMULATED PONDING LENGTH, REGARDLESS OF DEPTH, FROM MANHOLE TO MANHOLE SHALL BE LESS THAN TEN (10) PERCENT OF THE TOTAL LENGTH FROM MANHOLE TO MANHOLE. ANY SEWER PIPE THAT EXCEEDS EITHER OF THE ABOVE ACCEPTANCE CRITERIA WILL BE REJECTED AND REQUIRE REPAIR AND/OR REPLACEMENT BY THE CONTRACTOR.

THE CONTRACTOR SHALL BEAR ALL COSTS FOR THE CORRECTION OF ANY DEFICIENCIES FOUND DURING TV INSPECTION, INCLUDING THE COSTS FOR ADDITIONAL TV INSPECTION AND LEAKAGE TESTING NEEDED TO VERIFY THE DEFICIENCIES WERE CORRECTED. ALL COMPONENTS OF THE VIDEO AND RECORDING EQUIPMENT SHALL BE SUFFICIENT TO PROVIDE PICTURE QUALITY TO THE SATISFACTION OF THE CITY ENGINEER OR DESIGNEE.

UPON COMPLETION OF THE VIDEO INSPECTION, THE DIGITAL VIDEO, OF COMMON FORMAT, AND WRITTEN INSPECTION REPORT SHALL BE SUBMITTED TO THE CITY FOR REVIEW. AT A MINIMUM, THE INSPECTION REPORT SHALL CONTAIN THE FOLLOWING INFORMATION:

- SIZE, LENGTH, AND MATERIAL TYPE OF THE SEWER MAIN.
- LOCATION OF ALL LATERAL CONNECTIONS.
- ESTIMATED DEPTH AND LOCATION OF ALL PONDING OVER 1/4 INCH IN DEPTH
- MANHOLE NUMBERS THAT CORRESPOND TO THE APPROVED PLANS
- STREET NAME AND/OR LOCATION OF SEWER MAIN

RECORD DRAWING
RECORD DRAWING INFORMATION IS PROVIDED BY NORTHWEST CASCADE, INC. RECORD DRAWING INFORMATION WAS REVIEWED BY R. HAND OF SITTS & HILL ENGINEERS AND THE INSTALLATION SUBSTANTIALLY CONFORMS TO APPROVED PLANS.

RD

RICHARD C. HAND — STATE OF WASHINGTON — 26780 — REGISTERED PROFESSIONAL ENGINEER

APPROVED
BY _____
CITY OF PUYALLUP
DEVELOPMENT SERVICES
DATE 07/26/2021

NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE.
THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS.
FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE CITY ENGINEER

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4815 CENTER STREET | TACOMA, WA. 98409
PHONE: (253) 474-9449 | FAX: (253) 474-0153
http://www.sitts-hill-engineers.com/

Project No.:	19,034	Project Mgr.:	R.H.
Proj. Engineer:	S.A.J.	Proj. Drafter:	S.A.J.

bcra
T 253.627.4367 F 253.627.4395 WWW.BCRADESIGN.COM
2106 PACIFIC AVENUE, SUITE 300, TACOMA, WA 98402

SEAL

RICHARD C. HAND — STATE OF WASHINGTON — 26780 — REGISTERED PROFESSIONAL ENGINEER — 07/23/21

PROJECT
PUYALLUP SCHOOL DISTRICT
WALKER HIGH SCHOOL SITE UTILITIES
5715 MILWAUKEE AVE E
PUYALLUP, WA 98372

REVISIONS
- 5-10-21 PERMIT SUBMITTAL
- 6-14-21 PERMIT RESUBMITTAL
- 6-23-21 BID SET
- 6-25-21 CITY RESUBMITTAL
- 7-23-21 CITY RESUBMITTAL
- 1 10-04-22 RECORD DRAWINGS

DATE 1.19.2021
BCRA NO. 20160.00.00
DRAWN BY:
REVIEWED BY:
SHEET TITLE
CITY OF PUYALLUP GENERAL NOTES

bcra

SHEET 16 OF 27

C11.1W

IF SHEET MEASURES LESS THAN 24"X36", IT IS A REDUCED PRINT. REDUCE SCALE ACCORDINGLY

24x36

CITY OF PUYALLUP WATER NOTES:

1. ALL WORK IN CITY RIGHT-OF-WAY REQUIRES A PERMIT FROM THE CITY OF PUYALLUP. PRIOR TO ANY WORK COMMENCING, THE GENERAL CONTRACTOR SHALL ARRANGE FOR A PRECONSTRUCTION MEETING AT THE DEVELOPMENT SERVICES CENTER TO BE ATTENDED BY ALL CONTRACTORS THAT WILL PERFORM WORK SHOWN ON THE ENGINEERING PLANS, REPRESENTATIVES FROM ALL APPLICABLE UTILITY COMPANIES, THE PROJECT OWNER AND APPROPRIATE CITY STAFF. CONTACT ENGINEERING SERVICES TO SCHEDULE THE MEETING (253) 841-5568. THE CONTRACTOR IS RESPONSIBLE TO HAVE THEIR OWN APPROVED SET OF PLANS AT THEMEETING.

2. AFTER COMPLETION OF ALL ITEMS SHOWN ON THESE PLANS AND BEFORE ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL OBTAIN A "PUNCH LIST" PREPARED BY THE CITY'S INSPECTOR DETAILING REMAINING ITEMS OF WORK TO BE COMPLETED. ALL ITEMS OF WORK SHOWN ON THESE PLANS SHALL BE COMPLETED TO THE SATISFACTION OF THE CITY PRIOR TO ACCEPTANCE OF THE WATER SYSTEM AND PROVISION OF SANITARY SEWER SERVICE.

3. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION (HEREINAFTER REFERRED TO AS THE 'STANDARD SPECIFICATIONS'), WASHINGTON STATE DEPARTMENT OF TRANSPORTATION AND AMERICAN PUBLIC WORKS ASSOCIATION, WASHINGTON STATE CHAPTER, LATEST EDITION, UNLESS SUPERSEDED OR AMENDED BY THE CITY OF PUYALLUP CITY STANDARDS FOR PUBLIC WORKS ENGINEERING AND CONSTRUCTION (HEREINAFTER REFERRED TO AS THE 'CITY STANDARDS'), OR AS DIRECTED BY FRUITLAND MUTUAL WATER COMPANY (FMWC), VALLEY WATER (VW), OR TACOMA CITY WATER (TCW) IS THE PURVEYOR.

4. A COPY OF THESE APPROVED PLANS AND APPLICABLE CITY DEVELOPER SPECIFICATIONS AND DETAILS SHALL BE ON SITE DURING CONSTRUCTION.

5. ANY REVISIONS MADE TO THESE PLANS MUST BE REVIEWED AND APPROVED BY THE DEVELOPER'S ENGINEER, THE ENGINEERING SERVICES STAFF, AND THE FMWC, VW OR TCW WHEN SERVED BY THAT PURVEYOR, PRIOR TO ANY IMPLEMENTATION IN THE FIELD. THE CITY SHALL NOT BE RESPONSIBLE FOR ANY ERRORS AND/OR OMISSIONS ON THESE PLANS.

6. THE CONTRACTOR SHALL HAVE ALL UTILITIES VERIFIED ON THE GROUND PRIOR TO ANY CONSTRUCTION. CALL (811) AT LEAST TWO WORKING DAYS IN ADVANCE. THE OWNER AND HIS/HER ENGINEER SHALL BE CONTACTED IMMEDIATELY IF A CONFLICT EXISTS.

7. ANY STRUCTURE AND/OR OBSTRUCTION WHICH REQUIRES REMOVAL OR RELOCATION RELATING TO THIS PROJECT SHALL BE DONE SO AT THE DEVELOPER'S EXPENSE.

8. BACTERIOLOGICAL (COLIFORM AND IRON BACTERIA) TEST SAMPLES WILL BE TAKEN BY THE CITY (OR FMWC, VW OR TCW WHEN SERVED BY THAT PURVEYOR) AND PAID FOR BY THE CONTRACTOR, EXCEPT FOR CAPITAL IMPROVEMENT PROJECTS (CIP) WHICH SHALL BE PAID FOR BY THE CITY.

9. WATER MAINS SHALL HAVE A MINIMUM COVER OF 36 INCHES FROM PAVED FINAL GRADE IN IMPROVED RIGHT-OF-WAY AND IMPROVED EASEMENTS, AND A MINIMUM OF 48 INCHES IN UNIMPROVED RIGHT-OFWAY AND UNIMPROVED EASEMENTS.

10. PIPE FOR WATER MAINS SHALL BE DUCTILE IRON CONFORMING TO SECTION 7-09 OF THE STANDARD SPECIFICATIONS, CLASS 52 WITH TYTON OR APPROVED EQUAL JOINTS. PIPE SHALL BE CEMENT LINED IN ACCORDANCE WITH A.S.A. SPECIFICATION A 21.4-1964.

11. CONNECTIONS TO EXISTING WATER MAINS TYPICALLY SHALL BE WET TAPS THROUGH A TAPPING TEE AND TAPPING VALVE AND SHALL BE MADE BY A CITY APPROVED CONTRACTOR. THE TAPPING SLEEVE SHALL BE ROMAC SST ALL STAINLESS STEEL TAPPING SLEEVE OR APPROVED EQUAL. A TWO-PIECE EPOXY COATED OR DUCTILE IRON TAPPING SLEEVE MAY BE USED ON DUCTILE IRON PIPE, WHEN THE TAP IS SMALLER THAN THE WATER MAIN SIZE I.E. 6-INCH TAP ON 8-INCH PIPE. THE CITY (OR FMWC, VW OR TCW WHEN SERVED BY THAT PURVEYOR) SHALL APPROVE THE TIME AND LOCATION FOR THESE CONNECTIONS.

12. ALL WATER MAINS AND APPURTENANCES SHALL BE HYDROSTATICALLY TESTED AT 200 PSI IN ACCORDANCE WITH STANDARD SPECIFICATION 7-09.3(23). PRESSURE TESTING SHALL NOT BE PERFORMED UNTIL SATISFACTORY PURITY SAMPLES HAVE BEEN RECEIVED, EXCEPT WHEN NEW WATER MAINS ARE INSTALLED INDEPENDENTLY FROM THE WATER SYSTEM PIPING.

13. FIRE HYDRANTS SHALL BE INSTALLED IN ACCORDANCE WITH CITY STANDARD DETAIL 03.05.01 AND AS DIRECTED BY THE CITY OF PUYALLUP FIRE CODE OFFICIAL.

14. VALVE MARKER POSTS SHALL BE INSTALLED WHERE VALVE BOXES ARE HIDDEN FROM VIEW OR IN UNPAVED AREAS THE INSTALLATION SHALL BE IN ACCORDANCE WITH CITY STANDARD DETAIL 03.01.02.

15. RESILIENT SEATED WEDGE GATE VALVES SHALL BE USED FOR 10-INCH MAINS AND SMALLER. BUTTERFLY VALVES SHALL BE USED FOR MAINS GREATER THAN 10 INCHES.

16. PIPE FITTING FOR WATER MAINS SHALL BE DUCTILE IRON AND SHALL BE MECHANICAL JOINT CONFORMING TO AWWA SPECIFICATION C111-72.

17. WATER MAIN PIPE AND SERVICE CONNECTIONS SHALL BE A MINIMUM OF 10 FEET AWAY FROM BUILDING FOUNDATIONS AND/OR ROOF LINES.

18. WHERE A WATER MAIN CROSSES THE NORTHWEST GAS PIPELINE, THE WATER LINE SHALL BE CASED WITH PVC PIPE A MINIMUM OF 10 FEET BEYOND EACH SIDE OF THE GAS LINE EASEMENT. CONTACT WILLIAMS NORTHWEST PIPELINE BEFORE THE CROSSING IS MADE.

19. TRENCHING, BEDDING, AND BACKFILL FOR WATER MAINS SHALL BE INSTALLED IN ACCORDANCE WITH CITY STANDARD DETAIL 06.01.01.

20. ALL COMMERCIAL AND INDUSTRIAL DEVELOPMENTS, IRRIGATION SYSTEMS, AND MULTI-FAMILY WATER SERVICE CONNECTIONS SHALL BE PROTECTED BY A DOUBLE CHECK VALVE ASSEMBLY OR A REDUCED PRESSURE BACKFLOW ASSEMBLY AS DIRECTED BY THE CITY (OR FMWC, VW OR TCW WHEN SERVED BY THAT PURVEYOR) CONFORMING TO CITY STANDARD DETAILS 03.04.01, 03.04.02, AND 03.04.03.

21. ANY LEAD JOINT FITTING DISTURBED DURING CONSTRUCTION SHALL BE REPLACED WITH A MECHANICAL JOINT FITTING AT THE CONTRACTOR'S EXPENSE.

22. WHEN HYDRAULIC FIRE FLOW MODELING IS REQUIRED FOR A PROJECT, THE CITY WILL ISSUE A PERMIT. THE HYDRAULIC MODELING CRITERIA IS BASED ON THE PROJECTED 2030 WATER DEMAND, WHILE MAINTAINING A MINIMUM SYSTEM PRESSURE OF 20 POUNDS PER SQUARE INCH AND A MAXIMUM VELOCITY OF 10 FEET PER SECOND.

23. WHEN USING A FIRE HYDRANT FOR NON-FIREFIGHTING PURPOSES, A CITY HYDRANT METER MUST BE USED. COORDINATE THE ACQUISITION OF THE HYDRANT METER WITH THE CITY'S UTILITY BILLING DIVISION AT PUYALLUP CITY HALL. A CITY APPROVED BACKFLOW PROTECTION ASSEMBLY SHALL BE INSTALLED BY THE PERSON REQUESTING USE OF A FIRE HYDRANT. THE ASSEMBLY SHALL BE ACCOMPANIED BY A CURRENT BACKFLOW ASSEMBLY TEST REPORT. THE TEST REPORT SHALL BE AVAILABLE AT THE SITE FOR THE DURATION OF THE HYDRANT USE.

24. SHOULD A BREAK OCCUR ON ANY CITY WATER MAIN, THE CONTRACTOR SHALL FOLLOW THE CITY'S ADOPTED "WATER MAIN BREAK PROCEDURE" ISSUED TO THEM AT THE PRE-CONSTRUCTION MEETING AND NOTIFY THOSE CONNECTED TO THE SYSTEM IN THE IMPACTED AREA AS OUTLINED IN THE PROCEDURE.

25. WATER MAIN REPAIRS (REFERENCES: AWWA C651-14 AND WSDOT STANDARD SPECIFICATION SECTION 7-09)

    (NOTE: A PLANNED WATER MAIN REPAIR SHALL BE APPROVED BY THE CITY INSPECTOR AND/OR WATER DIVISION SUPERVISOR PRIOR TO COMMENCING WORK.)

CITY OF PUYALLUP WATER NOTES: (CONTINUED)

25.1 REPAIR WITHOUT DEPRESSURIZATION - SMALL LEAKS SHALL BE REPAIRED USING REPAIR BANDS WHILE MAINTAINING POSITIVE PRESSURE IN THE WATER MAIN. VALVES SURROUNDING THE LEAK WILL BE PARTIALLY SHUT BY THE CITY WATER DEPARTMENT TO REDUCE THE FLOW AND PRESSURE TO THE AREA. BLOWOFFS AND HYDRANTS IN THE REDUCED PRESSURE AREA MAY BE OPENED AS NEEDED TO FURTHER REDUCE THE PRESSURE. THE WATER MAIN TRENCH SHALL BE OVER-EXCAVATED TO ALLOW WATER IN THE TRENCH TO BE PUMPED OUT AND MAINTAINED BELOW THE LEVEL OF THE WATER MAIN. THE REPAIR SHALL BE COMPLETED WITH THE WATER MAIN PRESSURE REMAINING POSITIVE. AFTER THE REPAIR IS MADE, THE SYSTEM SHALL BE FULLY PRESSURIZED AND A VISUAL LEAK INSPECTION WILL BE COMPLETED. THE WATER MAIN IN THE AFFECTED AREA SHALL BE FLUSHED TO ACHIEVE THREE PIPE VOLUMES PULLED FROM THE PIPE (DISTANCE MEASURED FROM VALVE OPENED FOR FLUSHING TO THE EXIT HYDRANT OR BLOWOFF).

25.2 REPAIR/CUT-IN WITH DEPRESSURIZATION - TRENCH SHALL BE OVER EXCAVATED AND DEWATERED BELOW THE WATER MAIN. FLUSH WATER FROM PIPE FROM EACH DIRECTION UNTIL IT RUNS CLEAR. IMMEDIATELY PRIOR TO INSTALLATION OF A NEW PIPE SECTION FOR REPAIR OR CUT IN TEE, ALL NEW FITTINGS AND PIPE SPOOLS SHALL BE SWABBED WITH A FIVE PERCENT (5%) CHLORINE SOLUTION (MINIMUM). THE INTERIOR OF THE EXISTING PIPE SHALL BE SWABBED WITH A FIVE PERCENT (5%) CHLORINE SOLUTION AT LEAST 6 FEET IN EACH DIRECTION FROM EXPOSED CUT ENDS. THE WATER MAIN IN THE AFFECTED AREA SHALL BE FLUSHED TO ACHIEVE THREE PIPE VOLUMES PULLED FROM THE PIPE (DISTANCE MEASURED FROM THE VALVE OPENED FOR FLUSHING TO THE EXIT HYDRANT OR BLOWOFF). CUSTOMERS SHALL BE NOTIFIED AFTER THE WATER MAIN IS FLUSHED AND REPAIRS HAVE BEEN COMPLETED, AS OUTLINED IN THE "WATER MAIN BREAK PROCEDURE."

26 NEW WATER MAIN INSTALLATION:

26.1 EACH NEW WATER MAIN SECTION SHALL BE DELIVERED, STACKED AND STORED ONSITE WITH ENDS PLUGGED. THE PLUGS SHALL REMAIN IN THE PIPE UNTIL EACH PARTICULAR SECTION IS INSTALLED. NATIONAL SANITATION FOUNDATION (NSF) APPROVED SIXTY-FIVE PERCENT (65%) CALCIUM HYPOCHLORITE SHALL BE ADDED TO THE UPSTREAM END OF EACH PIPE SECTION, AND AT EACH HYDRANT TEE IN THE AMOUNT GIVEN IN THE TABLE BELOW (OR PER APPROVED MANUFACTURER SPECIFICATIONS). THE MINIMUM AMOUNT OF CALCIUM HYPOCHLORITE ADDED SHOULD BE SUFFICIENT TO ACHIEVE A 50 MG/L CONCENTRATION WITHIN THE IMPACTED AREA.

65% CALCIUM HYPOCHLORITE ADDITION PER PIPE SECTION

PIPE DIAMETER (INCHES)	PIPE VOLUME PER 18 FEET (GAL)	5-GRAM TABLETS PER PIPE SECTION	HYPOCHLORITE GRANULES		MAXIMUM FILL RATE (GPM)
			OUNCES PER 500 FEET	TEASPOONS PER 18 FEET	
4	35	1	1.70	0.20	40
6	53	1	3.80	0.10	90
8	70	2	6.70	0.70	150
12	106	4	15.10	1.40	350
16	141	6	27	2.50	600

26.2 NEW WATER MAINS SHALL BE FILLED USING AN APPROVED BACKFLOW PREVENTION ASSEMBLY. THE WATER MAIN SHALL BE FILLED FROM THE LOWER ELEVATION END SO THAT AS THE WATER MAIN IS FILLED, THE CHORINE IS CONTACTED, DISSOLVED AND SPREAD RELATIVELY UNIFORM THROUGH THE LENGTH OF THE NEW WATER MAIN. THE FILL RATE SHALL BE MINIMIZED SO THAT THE VELOCITY OF THE WATER IS LESS THAN 1 FT/SEC (SEE TABLE ABOVE). SUCCESSFUL PRESSURE TEST AND BACTERIOLOGICAL TESTS SHALL BE COMPLETED AND PROVIDED TO THE CITY PRIOR TO ANY NEW MATER MAIN CONNECTION TO THE EXISTING WATER SYSTEM.

26.3 THE CHLORINATED WATER WILL BE ALLOWED TO REMAIN IN CONTACT WITH THE NEW WATER MAIN SYSTEM FOR 24 TO 72 HOURS. AFTER 24 HOURS, WATER MAY BE ADDED TO THE WATER MAIN FOR THE PURPOSES OF PRESSURE TESTING. THE WATER IN THE MAIN USED FOR PRESSURE TESTING MUST REMAIN IN THE WATER MAIN UNTIL PRESSURE TEST IS COMPLETED. IF NECESSARY, LIQUID CHLORINE SHALL BE INJECTED INTO THE WATER MAIN WITH FILL WATER TO MAINTAIN A CONCENTRATION IN THE WATER MAIN ABOVE 50 MG/L. UNDER NO CIRCUMSTANCE SHALL "SUPER" CHLORINATED WATER BE ALLOWED TO SIT WITHIN A NEW WATER MAIN FOR MORE THAN 5 DAYS.

26.4 PRESSURE TESTING INCLUDES TESTING AGAINST NEW VALVES AND HYDRANTS. EACH VALVE SHALL BE TESTED BY CLOSING EACH IN TURN AND REDUCING THE PRESSURE BEYOND THE VALVE. THE PRESSURE ON THE BACK SIDE OF THE VALVE SHOULD NOT BE ELIMINATED. CARE MUST BE TAKEN THAT, DURING THIS PROCESS, POSITIVE PRESSURE REMAINS THROUGHOUT THE SYSTEM BEING TESTED AT ALL TIMES. ALL HYDRANT FOOT VALVES SHALL BE OPEN DURING PRESSURE TESTING SO THAT THE PRESSURE TEST IS AGAINST THE HYDRANT VALVE. PRESSURE TESTING WILL NOT BE ALLOWED AGAINST ANY EXISTING VALVES.

26.5 AFTER SUCCESSFUL PRESSURE TESTING, THE WATER MAIN SHALL BE THOROUGHLY FLUSHED TO REMOVE ALL "SUPER" CHLORINATED WATER FROM THE NEW WATER MAIN. FLUSHING OF NEW OR EXTENDED WATER MAINS SHALL BE CONDUCTED PER WSDOT SPECIFICATION 7-09.3(24)A WITH A MINIMUM VELOCITY DEVELOPED WITHIN THE PIPE WHILE FLUSHING OF 2.5 FEET PER SECOND (FPS). ALL FLUSHED WATER SHALL BE DECHLORINATED PRIOR TO DISPOSAL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSAL OF ALL CHLORINATED WATER FLUSHED FROM MAINS. **THE CITY SHALL APPROVE THE DISPOSAL METHOD PRIOR TO IMPLEMENTATION IN THE FIELD.** THE CONTRACTOR SHALL UTILIZE ONSITE DISPOSAL METHODS, IF AVAILABLE. DISPOSAL OF FLUSH WATER TO THE SANITARY SEWER SYSTEM SHALL NOT BE ALLOWED WITHOUT WRITTEN PERMISSION FROM THE WATER POLLUTION CONTROL PLANT (WPCP) SUPERVISOR. ANY PLANNED DISCHARGE TO A STORMWATER SYSTEM SHALL BE DECHLORINATED TO A CONCENTRATION OF 0.1 PPM OR LESS, PH ADJUSTED (IF NECESSARY) TO BE BETWEEN 6.5 AND 8.5, AND VOLUMETRICALLY AND VELOCITY CONTROLLED TO PREVENT ANY RESUSPENSION OF SEDIMENTS. THE CITY WILL REQUIRE INDEPENDENT TESTING THROUGHOUT THE WATER DISCHARGE PROCESS TO ENSURE COMPLIANCE OF THESE STANDARDS ARE MET.

26.6 SAMPLES FOR BACTERIOLOGICAL ANALYSIS SHALL BE COLLECTED AFTER FLUSHING AND AGAIN 24 HOURS AFTER THE FIRST SET OF SAMPLES.

26.7 ALL CLOSURE/FINAL CONNECTION FITTINGS SHALL BE SPRAYED CLEAN AND THEN SWABBED WITH A FIVE PERCENT (5%) CHLORINE SOLUTION IMMEDIATELY PRIOR TO INSTALLATION PER AWWA STANDARD C651. ADDITIONAL SAMPLES FOR BACTERIOLOGICAL ANALYSIS SHALL BE COLLECTED FROM THE IMMEDIATE VICINITY OF THE NEW OR REPLACED WATER MAIN AND ANALYZED AFTER THE FINAL CONNECTIONS ARE MADE. IF NECESSARY, ADDITIONAL FLUSHING SHALL BE CONDUCTED AND ADDITIONAL SAMPLES SHALL BE COLLECTED UNTIL SATISFACTORY RESULTS ARE OBTAINED.

RD

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RECORD DRAWING INFORMATION IS PROVIDED BY NORTHWEST CASCADE, INC.
RECORD DRAWING INFORMATION WAS REVIEWED BY R. HAND OF SITTS & HILL ENGINEERS AND THE INSTALLATION SUBSTANTIALLY CONFORMS TO APPROVED PLANS

RICHARD C. HAND — STATE OF WASHINGTON — 26780 — REGISTERED PROFESSIONAL ENGINEER

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CITY OF PUYALLUP
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Project No.:	19,034	Project Mgr.:	R.H.
Proj. Engineer:	S.A.J.	Proj. Drafter:	S.A.J.

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bcra
T 253.627.4367 F 253.627.4395 WWW.BCRADESIGN.COM
2106 PACIFIC AVENUE, SUITE 300, TACOMA, WA 98402

SEAL

RICHARD C. HAND — STATE OF WASHINGTON — 26780 — REGISTERED PROFESSIONAL ENGINEER — 07/23/21

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CITY OF PUYALLUP GENERAL NOTES

SHEET 17 OF 27

C11.2W

GENERAL ABBREVIATIONS

ACP	ASBESTOS CEMENT PIPE	N	NORTH
ABND	ABANDON	NE	NORTHEAST
ADA	AMERICAN DISABILITIES ACT	NC	NORMALLY CLOSED
ALT	ALTERNATE	NTS	NOT TO SCALE
ASTM	AMERICAN SOCIETY FOR TESTING MATERIAL	N.I.C.	NOT IN CONTRACT
&	AND	NRO	NATIVE RECESSIONAL OUTWASH
APPROX	APPROXIMATE	NW	NORTHWEST
ARCH'L	ARCHITECTURAL		
ASPH	ASPHALT	O.C.	ON CENTER
AC	ASPHALTIC CONCRETE	OHP	OVERHEAD POWER
@	AT	OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
AUX	AUXILIARY	OT	OPEN TRENCH
AVG	AVERAGE		
ADS	HDPE STORM PIPING TRADE NAME	P	PANEL, POLE, POWER
		%	PERCENT
BC	BOTTOM OF CURB	PP	POWER POLE
B.M.	BENCH MARK	PAV	PAVEMENT
BET	BETWEEN	PCC	PORTLAND CEMENT CONCRETE
BITUM	BITUMINOUS	PCF	POUND PER CUBIC FOOT
BOT	BOTTOM OF STRUCTURE	PT	POINT
BW	BOTTOM WALL	P.C.	POINT OF CURVATURE
BP	BEGINNING POINT	P.C.R.	POINT OF CURB RETURN
		P.C.V.C.	POINT OF CURVATURE – VERTICAL CURVE
C	CALCULATED	P.T.V.C.	POINT OF TANGENCY – VERTICAL CURVE
CB	CATCH BASIN	P.I.	POINT OF INTERSECTION
CEM	CEMENT	P.I.V.	POST INDICATOR VALVE
CIP	CAST IRON PIPE	P.I.V.C.	POINT OF INTERSECTION FOR VERTICAL CURVE
C.I.P.	CAST IN PLACE	P.O.C.	POINT ON CURVE
CJ	CONSTRUCTION JOINT	P.R.C.	POINT OF REVERSE CURVE
CL	CENTERLINE	P.T.	POINT OF TANGENCY
CMP	CORRUGATED METAL PIPE	PREFAB	PREFABRICATED
CMU	CONCRETE MASONRY UNIT	PROJ	PROJECT
CO	CLEANOUT	PSF	POUND PER SQUARE FOOT
CONC	CONCRETE	PSI	POUND PER SQUARE INCH
COND	CONDUIT	PVC	POLYVINYL CHLORIDE
CONST	CONSTRUCTION	PVMT	PAVEMENT
CONT	CONTINUOUS	PWR	POWER
CONTR	CONTRACTOR		
CP	CONCRETE PIPE	R	RADIUS OR RECORD
CPEP	CORRUGATED POLYETHYLENE PIPE	R	RIGHT
C.R.	CRUSHED ROCK	RD	ROOF DRAIN OR RECORD DRAWINGS
CSTC	CRUSHED SURFACE TOP COURSE	RP	RADIUS POINT
CU.FT.	CUBIC FOOT	RCP	REINFORCED CONCRETE PIPE
CU.YD.	CUBIC YARD	REQD	REQUIRED
		REV	REVISION/REVISED
D	DRAIN (STORM DRAIN)	RGS	RIGID GALVANIZED STEEL
D	DEGREE OF CURVATURE	REF	REFERENCE
DIA OR ø	DIAMETER	R/W	RIGHT OF WAY
DIM	DIMENSION		
DIP	DUCTILE IRON PIPE	S	SOUTH OR SLOPE
DN	DOWN	SC	SEGMENTAL CONCRETE
D.P.	DISABILITY PARKING	SCH	SCHEDULE
DR	PIPE DIMENSION RATIO	SD	STORM DRAIN
DS	DOWNSPOUT	SDCO	STORM DRAIN CLEANOUT
DWG	DRAWING	SDMH	STORM DRAIN MANHOLE
DWGS	DRAWINGS	SE	SOUTHEAST
DWV	DRAIN, WASTE AND VENT	SEC.	SECTION
		SHT	SHEET
E	EAST	SPEC	SPECIFICATION(S)
EB	EXPLORATORY BORING	SQ	SQUARE
ELEC	ELECTRIC/ELECTRICAL	SF	SQUARE FOOT/FEET
EL OR ELEV	ELEVATION	SI	SQUARE INCH/INCHES
EP	EDGE PAVEMENT	SIM.	SIMILAR
ETM	ELAPSED TIME METER	SS	SANITARY SEWER
EQ	EQUAL	SSCO	SANITARY SEWER CLEANOUT
EQUIV	EQUIVALENT	SSFM	SANITARY SEWER FORCEMAIN
EX	EXISTING	SSMH	SANITARY SEWER MANHOLE
EXIST.	EXISTING	STA	STATION
EXJ	EXPANSION JOINT	STM	STEAM
ENGR	ENGINEER	STL	STEEL
EST	ESTIMATED	ST	STREET
		STR	STRUCTURAL
FD	FOOTING DRAIN	STD	STANDARD
FF	FINISH FLOOR ELEVATION	SW	SOUTHWEST
FG	FINISH GRADE	SY/SQ. YD.	SQUARE YARD/YARDS
FM	FORCE MAIN		
FIN	FINISHED	TAN	TANGENT
FIPT	FEMALE IRON PIPE THREAD	TC	TOP OF CURB
FT	FOOT (FEET)	TEL	TELEPHONE
FTG	FOOTING	TEMP	TEMPORARY
FH	FIRE HYDRANT	T.E.	TOP ELEVATION
FL	FLOWLINE	THRU	THROUGH
		T.O.C.	TOP OF CONCRETE
G	GAS	T.C.	TOP OF CURB
G	GASKET	T.O.P.	TOP OF PAVEMENT
GALV	GALVANIZED	T.P.	TURNING POINT
GS	GALVANIZED STEEL	TR., TRANS	TRANSFORMER OR TOP RAMP
GND	GROUND	TSSFM	TEMPORARY SANITARY SEWER FORCE MAIN
GPM	GALLONS PER MINUTE	TYP	TYPICAL
GPR	GROUND PENETRATING RADAR	TV	TELEVISION
GR	GRADE	TW	TOP WALL / TOP WALK
GS	GROUND SHOT		
		UBC	UNIFORM BUILDING CODE
H	HUB	UMC	UNIFORM MECHANICAL CODE
HDD	HORIZONTAL DIRECTIONAL DRILL	UPC	UNIFORM PLUMBING CODE
HP	HIGH POINT		
HP	HORSEPOWER	V	VOLTS
HORIZ	HORIZONTAL	V	VENT
HDPE	HIGH DENSITY POLYETHYLENE PIPE	VC	VERTICAL CURVE
HMA	HOT MIX ASPHALT	VD	VAULT DRAIN
HWR	HOT WATER RETURN	VERT	VERTICAL
HWS	HOT WATER SUPPLY	VOL	VOLUME
		VPC	VERTICAL POINT OF CURVATURE
INV	INVERT	VPI	VERTICAL POINT OF INTERSECTION
IE	INVERT ELEVATION	VPT	VERTICAL POINT OF TANGENCY
JT	JOINT		
		WD	WALL DRAINAGE
K	VERTICAL CURVE GRADIENT VALUE	WP	WEATHERPROOF
		WWF	WELDED WIRE FABRIC
L	LENGTH	WT	WEIGHT
L	LEFT	W	WATER
LB	POUND	W	WEST
LF	LINEAL FEET/FOOT	WISHA	WASHINGTON INDUSTRIAL SAFETY AND HEALTH ADMINISTRATION
LIN	LINEAR	WSDOT	WASHINGTON STATE DEPARTMENT OF TRANSPORATION
LONGIT	LONGITUDE	WS	WATER SERVICE OR WATER SURFACE
LTG	LIGHTING	W/	WITH
M	MEASURED	XFMR	TRANSFORMER
MB	MAILBOX		
ME	MATCH EXISTING		
MH	MANHOLE		
MJ	MECHANICAL JOINT		
MECH	MECHANICAL		
MEG	MATCH EXISTING GRADE		
MEMB	MEMBRANE		
MAX	MAXIMUM		
MIN	MINIMUM		
MIPT	MALE IRON PIPE THREAD		
MISC	MISCELLANEOUS		
MON	MONUMENT		
MUTCD	MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES		

LEGEND

EXISTING FEATURES-

- FOUND MONUMENT AS NOTED
- CALCULATED MONUMENT POSITION
- FOUND REBAR / IRON PIPE AS NOTED
- SET REBAR & CAP LS 44639
- SURVEY CONTROL POINT, AS NOTED
- SANITARY SEWER MANHOLE / SEPTIC LID AS NOTED
- SANITARY SEWER CLEAN OUT
- STORM CATCH BASIN
- ROOF DRAIN
- WATER VALVE
- WATER METER
- FIRE HYDRANT
- IRRIGATION CONTROL VALVE
- GAS VALVE
- GAS METER
- UTILITY POLE
- GUY ANCHOR
- JUNCTION BOX
- POWER VAULT
- ELECTRICAL METER
- COLUMN
- BOLLARD
- GATE POST
- SIGN
- MAILBOX
- MONITORING WELL
- DECIDUOUS TREE
- TPN TAX PARCEL NUMBER
- FFE FINISH FLOOR ELEVATION
- BOUNDARY LINE
- LOT LINE
- SECTION LINE
- ROAD CENTERLINE
- SD — SD — STORM DRAIN LINE
- SS — SS — SANITARY SEWER LINE
- W — W — W — BURIED WATER LINE
- GAS — GAS — BURIED GAS LINE
- TEL — TEL — BURIED TELECOM LINE
- – OHP – OVERHEAD POWER LINE
- CHAIN LINK FENCE
- WOOD FENCE
- SD — SD — RECORD STORM LINE
- SS — SS — RECORD SANITARY LINE
- W — W — RECORD WATER LINE
- GAS — GAS — RECORD GAS LINE
- T — T — T — RECORD TELECOM LINE
- ASPHALT SURFACE
- CONCRETE SURFACE
- GRAVEL SURFACE

PROPOSED FEATURES-

- CATCH BASIN PROTECTION, PER DETAIL A2/C6.0W
- DEMOLITION OF DESIGNATED ITEM
- DEMOLISH FEATURE
- TEMPORARY SOIL STOCKPILE
- SAWCUT PAVEMENT
- LIMITS OF WORK
- TP TREE PROTECTION FENCE, PER DETAIL B1/C6.0W
- SILT FENCE, PER DETAIL B3/C6.0W
- ASPHALT DEMOLITION
- GRASS REMOVAL
- CONCRETE REMOVAL
- AC GRIND
- LANDSCAPE REMOVAL
- CONCRETE CURB
- CHAINLINK FENCE
- SIGNAGE
- GATE POST
- FLAG POLE
- SPEED BUMP
- PAVEMENT STRIPING
- HEAVY DUTY ASPHALT RESTORATION
- LIGHT DUTY ASPHALT RESTORATION
- CONCRETE WALK RESTORATION
- PERVIOUS ASPHALT PAVEMENT
- GRAVEL PAD
- GRASS RESTORATION
- 2" HMA OVERLAY
- PLANTING BED
- INFILTRATION TRENCH
- CATCH BASIN, TYPE 1
- CATCH BASIN, TYPE 2
- CLEANOUT
- DOWNSPOUT
- SD PERF PVC PIPE
- RD ROOF DRAIN
- XXX PROPOSED CONTOUR
- EXISTING CONTOUR MAJOR
- EXISTING CONTOUR MINOR
- W 1" WATER PIPE
- WATER METER
- DCVA DOUBLE CHECK VALVE ASSEMBLY
- SS SANITARY SEWER PIPE, SEE SHEETS C12.1W AND 12.2W
- TYPE 1 SEWER MANHOLE
- 6" SEWER CLEANOUT

RD

RECORD DRAWING

RECORD DRAWING INFORMATION IS PROVIDED BY NORTHWEST CASCADE, INC. RECORD DRAWING INFORMATION WAS REVIEWED BY R. HAND OF SITTS & HILL ENGINEERS AND THE INSTALLATION SUBSTANTIALLY CONFORMS TO APPROVED PLANS

RICHARD C. HAND STATE OF WASHINGTON 26780 REGISTERED PROFESSIONAL ENGINEER

APPROVED
BY _____
CITY OF PUYALLUP
DEVELOPMENT SERVICES
DATE 07/26/2021

NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE.
THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS.
FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE CITY ENGINEER

bcra
T 253.627.4367 F 253.627.4395 WWW.BCRADESIGN.COM
2106 PACIFIC AVENUE, SUITE 300, TACOMA, WA 98402

SEAL

RICHARD C. HAND STATE OF WASHINGTON 26780 REGISTERED PROFESSIONAL ENGINEER 07/23/21

PROJECT
PUYALLUP SCHOOL DISTRICT
WALKER HIGH SCHOOL SITE UTILITIES
5715 MILWAUKEE AVE E
PUYALLUP, WA 98372

REVISIONS

1	5-10-21 PERMIT SUBMITTAL
2	6-14-21 PERMIT RESUBMITTAL
3	6-23-21 BID SET
4	6-25-21 CITY RESUBMITTAL
5	7-23-21 CITY RESUBMITTAL
6	10-04-22 RECORD DRAWINGS

DATE
1.19.2021
BCRA NO.
20160.00.00
DRAWN BY:
REVIEWED BY:
SHEET TITLE
LEGEND AND ABBREVIATIONS

Know what's below. Call before you dig.

SITTS & HILL ENGINEERS, INC.
CIVIL ▪ STRUCTURAL ▪ SURVEYING
4815 CENTER STREET | TACOMA, WA. 98409
PHONE: (253) 474-9449 | FAX: (253) 474-0153
http://www.sitts-hill-engineers.com/

Project No.:	19,034	Project Mgr.:	R.H.
Proj. Engineer:	S.A.J.	Proj. Drafter:	S.A.J.

SHEET 18 OF 27

C11.3W

IF SHEET MEASURES LESS THAN 24"X36", IT IS A REDUCED PRINT. REDUCE SCALE ACCORDINGLY

24x36

HORIZONTAL DATUM

WASHINGTON STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 83/2011
BASED ON GPS OBSERVATION UTILIZING THE WASHINGTON STATE REFERENCE NETWORK (WSRN)

VERTICAL DATUM

NAVD 88
BASED ON GPS OBSERVATION UTILIZING THE WSRN WITH NGS GEOID2018 LOADED

SITE TEMPORARY BENCHMARK (T.B.M.)
MAG NAIL IN ASPHALT, NORTH OF MAIN BUILDING
N: 687636.23
E: 1197398.27
ELEV: 56.52

BASIS OF BEARING

MEASURED NORTH 15°57'37" EAST BETWEEN TWO FOUND MONUMENTS ALONG MILWAUKEE AVE E.

SITE DATA

TAX PARCEL NO. 7705000171
ADDRESS: 5715 MILWAUKEE AVE E, PUYALLUP, WA 98372
LAND AREA: 3.38 AC±

NOTES

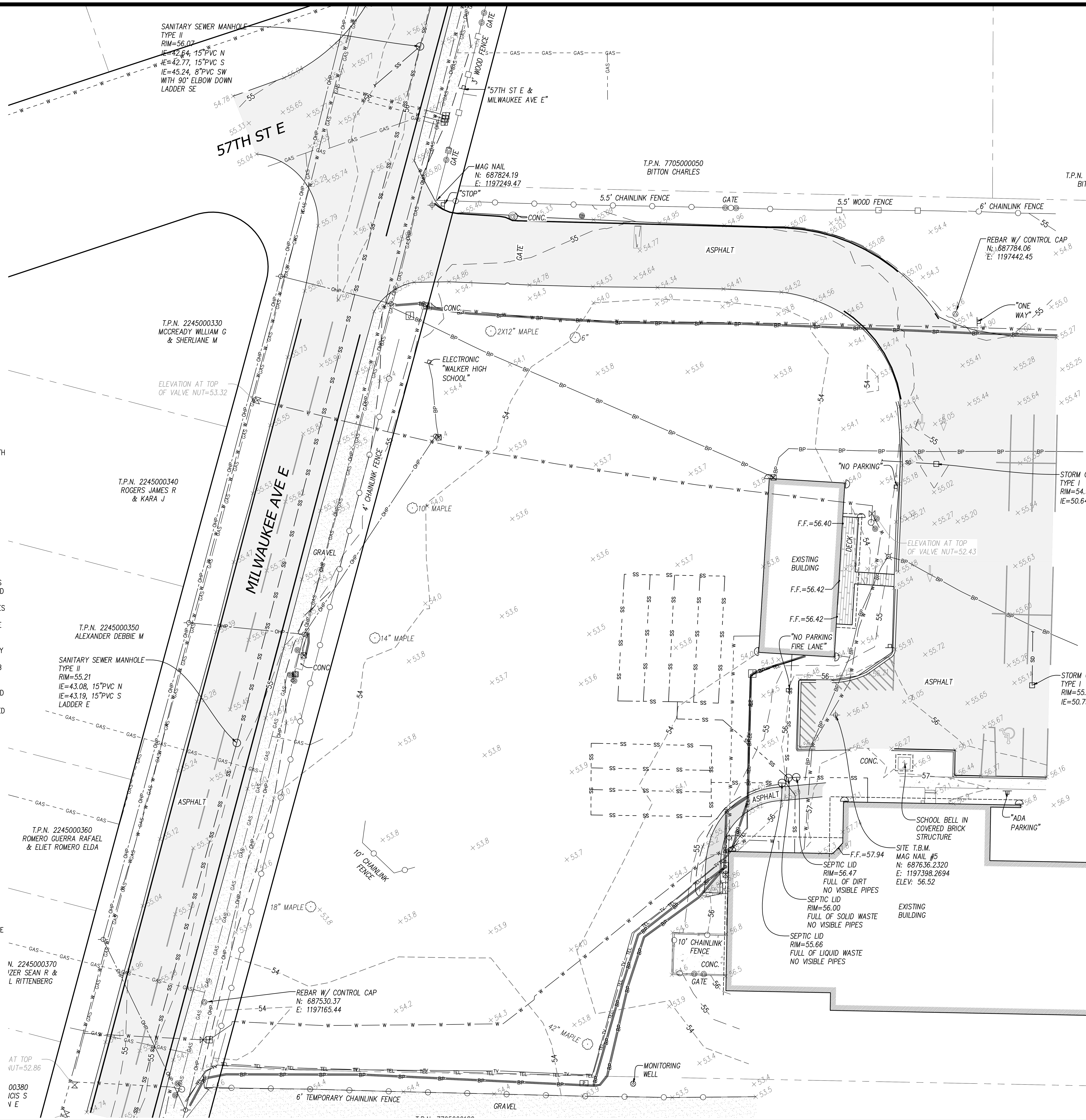
1. EQUIPMENT USED: TOPCON QS AND/OR CARLSON CR2+ ROBOTIC TOTAL STATION AND TOPCON GR3 RTK/GPS
2. THIS SURVEY WAS PERFORMED BY FIELD TRAVERSE WITH THE FINAL RESULTS MEETING OR EXCEEDING THE CURRENT TRAVERSE STANDARDS CONTAINED IN W.A.C. 332-130-090. ALL MEASUREMENTS WERE MADE WITH A TOPCON QS ROBOTIC TOTAL STATION IN ACCORDANCE WITH THE EQUIPMENT MANUFACTURER'S SPECIFICATIONS.
3. IN ACCORDANCE WITH THE REVISED CODE OF WASHINGTON (R.C.W.) 58.09 AND THE WASHINGTON ADMINISTRATIVE CODE (W.A.C.) 332-130, THIS SURVEY MAY DEPICT OCCUPATIONAL INDICATORS THAT DIFFER FROM THE DEEDED LOT LINES. THESE INDICATORS, IF AT ALL PRESENT, MAY REPRESENT A POTENTIAL FOR CLAIMS OF UNWRITTEN TITLE. THIS SURVEY DOES NOT PURPORT TO RESOLVE SUCH ITEMS.
4. FIELD WORK PERFORMED IN FEBRUARY 2021, UNDER SITTS & HILL JOB NUMBER 19159.
5. UTILITIES AS SHOWN HEREON ARE BASED ON FIELD SURVEY OBSERVATION OF UTILITY LOCATE SERVICES PERFORMED BY MT. VIEW LOCATING SERVICES LLC IN FEBRUARY 2021 FOR THIS SURVEY. THIS HAS BEEN SUPPLEMENTED BY RECORD INFORMATION PROVIDED BY PUGET SOUND ENERGY, CITY OF PUYALLUP WATER DIVISION, AND PIERCE COUNTY GIS. RECORD UTILITY LINES SHOWN HEREON ARE DEPICTED WITH A DASHED LINETYPE AS SHOWN IN THE LEGEND. UTILITIES OTHER THAN SHOWN MAY EXIST ON THE SITE. THE SURVEYOR DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. THE SURVEYOR DOES CERTIFY THAT THEY ARE SHOWN AS ACCURATELY AS POSSIBLE FROM FIELD SURVEY AND PAINTED UTILITY LOCATE LINES. COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA IS CONSISTENT WITH QUALITY LEVEL B OF THE ASCE STANDARD GUIDELINES 38-02.
6. SITTS & HILL ENGINEERS, INC. HAS RELIED UPON TITLE INFORMATION NOTED IN COMMITMENT FOR TITLE INSURANCE PREPARED BY CHICAGO TITLE INSURANCE COMPANY, GUARANTEE/CERTIFICATE NUMBER 210529-TC, DATED FEBRUARY 11, 2021. IN PREPARATION OF THIS SURVEY, SITTS AND HILL ENGINEERS, INC. HAS CONDUCTED NO INDEPENDENT TITLE SEARCH NOR IS SITTS AND HILL ENGINEERS, INC. AWARE OF ANY TITLE ISSUES AFFECTING THE SURVEYED PROPERTY OTHER THAN THOSE SHOWN ON THE MAP AND/OR DISCLOSED BY SAID TITLE COMPANY'S ORDER. SITTS & HILL ENGINEERS, INC. HAS RELIED WHOLLY ON SAID TITLE COMPANY'S REPORT AND THEREFORE QUALIFIES THE MAP'S ACCURACY AND COMPLETENESS TO THAT EXTENT.
7. THIS SURVEY COMPLIES WITH W.A.C. 332-130-145. THE CONTOURS DEPICTED HEREON ARE BASED ON DATA FROM DIRECT FIELD MEASUREMENTS. SPOT ELEVATIONS ARE BASED ON DIRECT FIELD MEASUREMENTS ARE DEPICTED FOR REFERENCE. THE PURPOSE OF THIS TOPOGRAPHIC SURVEY MAP IS TO SERVE AS A BASE MAP FOR CONTEMPLATED SITE IMPROVEMENTS AND DESIGN.

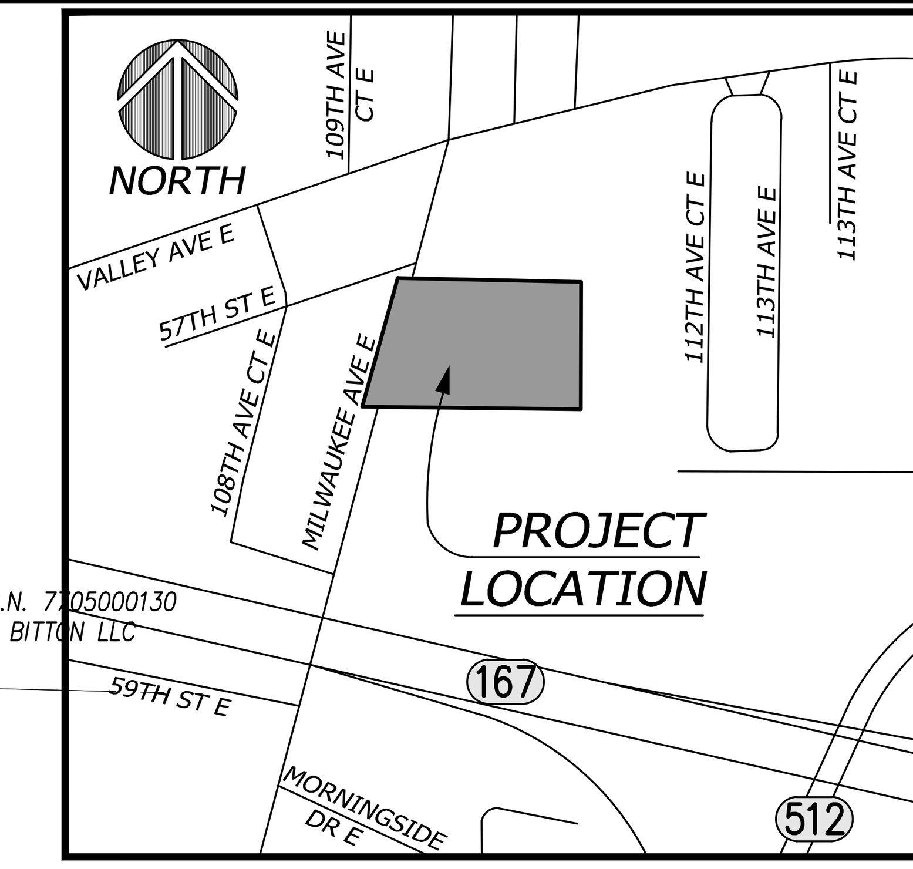
LEGAL DESCRIPTION

THAT PORTION OF LOTS 4 AND 5, SNELL'S PLAT OF PART OF THE ADAM BENSTON D.C., ACCORDING TO THE PLAT THEREOF, RECORDED IN VOLUME 7 OF PLATS, PAGE 87, RECORDS OF PIERCE COUNTY, DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE SOUTH LINE OF SAID LOT 5, 229.72 FEET WEST OF THE SOUTHEAST CORNER THEREOF; THENCE CONTINUING WEST ALONG THE SOUTH LINE OF SAID LOT 5, 490.38 FEET, MORE OR LESS, TO THE WESTERLY OF MILWAUKEE AVENUE;

THENCE NORTHEASTERLY ALONG THE EASTERLY LINE OF SAID MILWAUKEE AVENUE 342 FEET; THENCE EAST ALONG A LINE PARALLEL WITH THE SOUTH LINE OF SAID LOT 5, 402 FEET; THENCE SOUTH ALONG A LINE PARALLEL WITH THE EAST LINE OF SAID LOT 5, 330 FEET TO THE POINT OF BEGINNING.





VICINITY MAP

N.T.S.

NORTH

HORIZONTAL SCALE: 1"=20'

20 0 20 40

LEGEND

- FOUND MONUMENT AS NOTED
- CALCULATED MONUMENT POSITION
- FOUND REBAR / IRON PIPE AS NOTED
- SET REBAR & CAP LS 44639
- SURVEY CONTROL POINT, AS NOTED
- SANITARY SEWER MANHOLE / SEPTIC LID AS NOTED
- SANITARY SEWER CLEAN OUT
- STORM CATCH BASIN
- ROOF DRAIN
- WATER VALVE
- WATER METER
- FIRE HYDRANT
- IRRIGATION CONTROL VALVE
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- GAS METER
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- CHAIN LINK FENCE
- WOOD FENCE
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- SS RECORD SANITARY LINE
- W RECORD WATER LINE
- GAS RECORD GAS LINE
- T RECORD TELECOM LINE
- ASPHALT SURFACE
- CONCRETE SURFACE
- GRAVEL SURFACE

REVISIONS

APPROVALS

DESIGNED	J.C.T.
DRAWN	M.A.M.
CHECKED	
DATE	03/15/21
SCALE	AS NOTED

SEAL

PREPARED BY

sitts&hill

CIVIL | STRUCTURAL | SURVEY
4815 CENTER STREET | TACOMA, WA 98409
PHONE: (253) 474-9449 | FAX: (253) 474-0153
http://www.sittshill.com/

PREPARED FOR

PUYALLUP SCHOOL DISTRICT
302 2ND ST. E.
PUYALLUP, WA 98372

PROJECT

WALKER H.S. BOUNDARY + TOPOGRAPHIC SURVEY
PUYALLUP, WA 98372

SHEET TITLE

TOPO SHEET

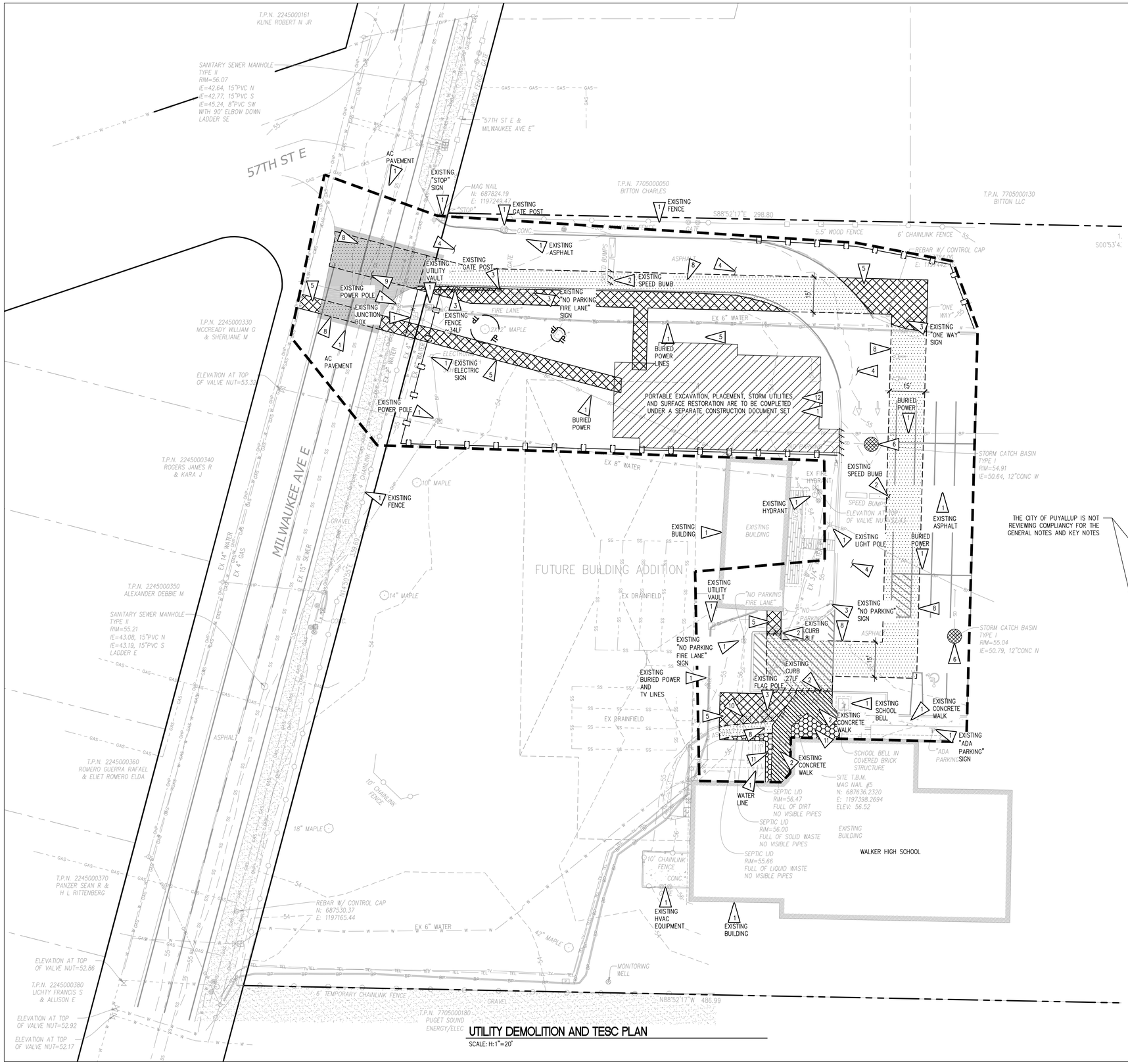
SHEET NO.

1 OF 1

PROJECT NO.

19159

O:\19100\19159\Drawings\19159 - Topo Sheet 1.dwg last edited: 06/22/21 4:56pm by: tsitseyJ



UTILITY DEMOLITION AND TESC PLAN

SCALE: H: 1"=20'

RECORD DRAWING
RECORD DRAWING INFORMATION IS PROVIDED BY NORTHWEST CASCADE, INC. RECORD DRAWING INFORMATION WAS REVIEWED BY R. HAND OF SITTS & HILL ENGINEERS AND THE INSTALLATION SUBSTANTIALLY CONFORMS TO APPROVED PLANS

RICHARD C. HAND — STATE OF WASHINGTON — 26780 — REGISTERED PROFESSIONAL ENGINEER

RD

APPROVED
BY _____
CITY OF PUYALLUP
DEVELOPMENT SERVICES
DATE 07/26/2021

NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE.
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LEGEND

PROPOSED FEATURES

- CATCH BASIN PROTECTION, PER DETAIL A2/C6.0W
- DEMOLITION OF DESIGNATED ITEM
- TEMPORARY SOIL STOCKPILE
- SAWCUT PAVEMENT
- LIMITS OF WORK
- TP — TREE PROTECTION FENCE, PER DETAIL B1/C6.0W
- SILT FENCE, PER DETAIL B3/C6.0W
- ASPHALT DEMOLITION
- GRASS REMOVAL
- CONCRETE REMOVAL
- AC GRIND
- LANDSCAPE REMOVAL

GENERAL NOTES

1. SEE APPLICABLE CITY OF PUYALLUP GENERAL CIVIL NOTES ON SHEET C11.0W, C11.1W & C11.2W.
2. CONSTRUCTION ACCESS SHALL BE FROM EXISTING ASPHALT SURFACES. IF ADDITIONAL MEASURES ARE NEEDED TO PREVENT TRACKING OF SEDIMENT ONTO PUBLIC ROADS. THE CONTRACTOR SHALL INSTALL A CONSTRUCTION ENTRANCE PER DETAIL B4/C6.0W.
3. CONTRACTOR SHALL COVER ALL OPEN TRENCHES AT END OF WORK DAY.
4. CONTRACTOR TO PROTECT EXISTING FEATURES BEYOND THE LIMITS OF WORK AND REPAIR ANY DAMAGE AT NO ADDITIONAL COST TO THE OWNER.
5. CONTRACTOR SHALL MAINTAIN EMERGENCY VEHICLE ACCESS AND KEEP ONE LANE OF ONSITE ACCESS CLEAR AT ALL TIMES DURING CONSTRUCTION.
6. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND NOTIFY ENGINEER IMMEDIATELY IF THERE ARE ANY DISCREPANCIES AFFECTING THE NEW CONSTRUCTION.
7. SEE ELECTRICAL PLAN FOR POWER AND LOW VOLTAGE CONNECTION REQUIREMENTS.
8. CONTRACTOR SHALL PREPARE, SUBMIT AND OBTAIN AN APPROVED TRAFFIC CONTROL PLAN FROM PIERCE COUNTY PRIOR TO COMMENCING WORK IN RIGHT-OF-WAY.
9. CONTRACTOR SHALL RETAIN EXISTING ONSITE SANITARY SEPTIC SYSTEM OPERATIONS UNTIL NEW SEWER SYSTEM CONNECTION APPROVAL IS OBTAINED.
10. SEPTIC SYSTEM DECOMMISSION SHALL COMPLY WITH PIERCE COUNTY HEALTH DEPARTMENT REQUIREMENTS

THE CITY OF PUYALLUP IS NOT REVIEWING COMPLIANCY FOR THE GENERAL NOTES AND KEY NOTES

KEY NOTES

1. PROTECT EXISTING FEATURE TO REMAIN, AS NOTED.
2. DEMOLISH EXISTING FEATURE, AS NOTED.
3. SALVAGE EXISTING FEATURE, AS NOTED. COORDINATE RELOCATION WITH SCHOOL DISTRICT.
4. TEMPORARY CONSTRUCTION ACCESS, SWEEP CLEAN AS REQUIRED. SEE GENERAL NOTE 2.
5. REMOVE EXISTING GRASS AND SOIL. DISPOSE OF AT AN APPROVED OFF-SITE FACILITY.
6. INSTALL CATCH BASIN PROTECTION PER DETAIL A2/C6.0W. PROVIDE CATCH BASIN PROTECTION AT ALL STORM DRAINAGE INLET SUBJECT TO SURFACE DRAINAGE FROM CONSTRUCTION AREA.
7. NOT USED
8. DEMOLISH ASPHALT PAVEMENT FULL DEPTH.
9. 2" DEPTH GRIND IN PREPARATION OF FULL STREET OVERLAY, OVERLAY SHALL EXTEND A MINIMUM OF 2' BEYOND TRENCH LIMITS.
10. DEMOLISH EXISTING SEPTIC TANK, SEE GENERAL NOTE 9 AND 10.
11. REMOVE EXISTING PLANTINGS
12. PORTABLE BUILDING CONTRACTOR WORK AREA

NORTH

HORIZONTAL SCALE: 1"=20'
20 0 20 40

Know what's below. Call before you dig.

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PHONE: (253) 474-9449 | FAX: (253) 474-0153
http://www.sitts-hill-engineers.com/

Project No.:	19,034	Project Mgr.:	R.H.
Proj. Engineer:	S.A.J.	Proj. Drafter:	S.A.J.

IF SHEET MEASURES LESS THAN 24"X36", IT IS A REDUCED PRINT. REDUCE SCALE ACCORDINGLY

bcra
T 253.627.4367 F 253.627.4395 WWW.BCRADESIGN.COM
2106 PACIFIC AVENUE, SUITE 300, TACOMA, WA 98402

SEAL

RICHARD C. HAND — STATE OF WASHINGTON — 26780 — REGISTERED PROFESSIONAL ENGINEER — 07/23/21

PROJECT
PUYALLUP SCHOOL DISTRICT
WALKER HIGH SCHOOL SITE UTILITIES
5715 MILWAUKEE AVE E
PUYALLUP, WA 98372

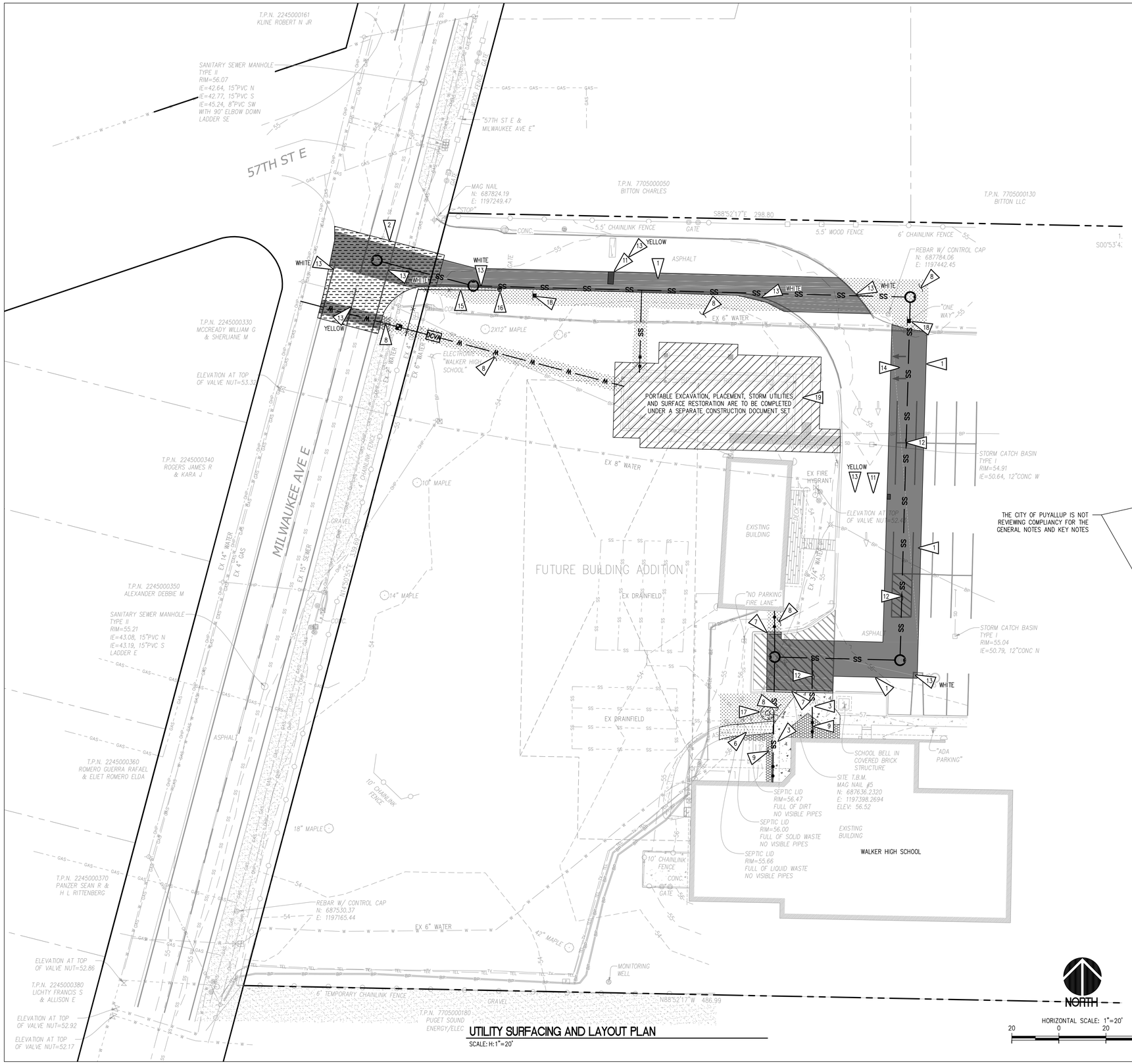
REVISIONS
- 5-10-21 PERMIT SUBMITTAL
- 6-14-21 PERMIT RESUBMITTAL
- 6-23-21 BID SET
- 6-25-21 CITY RESUBMITTAL
- 7-23-21 CITY RESUBMITTAL
- 10-04-22 RECORD DRAWINGS

DATE 1.19.2021
BCRA NO. 20160.00.00
DRAWN BY:
REVIEWED BY:
SHEET TITLE
SITE UTILITIES DEMOLITION AND TESC PLAN

SHEET 20 OF 27

C13.0W

24x36



UTILITY SURFACING AND LAYOUT PLAN

SCALE: H:1"=20'

NORTH

HORIZONTAL SCALE: 1"=20'

20 0 20 40

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RICHARD C. HAND — STATE OF WASHINGTON — 26780 — REGISTERED PROFESSIONAL ENGINEER

RD

APPROVED
BY _____
CITY OF PUYALLUP
DEVELOPMENT SERVICES
DATE 07/26/2021

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LEGEND

PROPOSED FEATURES

- CONCRETE CURB
- CHAINLINK FENCE
- SIGNAGE
- GATE POST
- FLAG POLE
- SPEED BUMP
- PAVEMENT STRIPING
- HEAVY DUTY ASPHALT RESTORATION
- LIGHT DUTY ASPHALT RESTORATION
- CONCRETE WALK RESTORATION
- GRASS RESTORATION
- 2" HMA OVERLAY
- PLANTING BED

GENERAL NOTES

1. SEE APPLICABLE CITY OF PUYALLUP GENERAL CIVIL NOTES ON SHEET C11.0W, C11.1W AND C11.2W.
2. SEE APPLICABLE PIERCE COUNTY GENERAL CIVIL NOTES ON SHEET C1.1W.
3. CONTRACTOR IS RESPONSIBLE TO PROTECT EXISTING UTILITY/COVER BY ANY MEANS NECESSARY (SUCH AS METAL PLATES, ETC.) DURING INSTALLATION. DAMAGED SURFACE FEATURES OR UTILITIES SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
4. SEE ELECTRICAL FOR BURIED POWER AND COMMUNICATION CONDUIT AND TRENCH INSTALLATION REQUIREMENTS.
5. CONTRACTOR SHALL RESTORE ALL SURFACES DISTURBED AS A RESULT OF CONSTRUCTION ACTIVITIES, EXCLUDING THE BUILDING, GRAVEL PAD, ASPHALT OR GRAVEL SURFACES, AND LANDINGS. PROVIDE 8" DEPTH COMPOST AMENDED TOPSOIL PER DETAIL D1/C17.1W PRIOR TO SEEDING.
6. CONTRACTOR TO PROVIDE TEMPORARY IRRIGATION FOR ALL SEEDED SURFACES AND PLANTINGS UNTIL VEGETATION IS ESTABLISHED.
7. CONTRACTOR TO USE HORIZONTAL AND VERTICAL DATUM AS OUTLINED ON SHEET C12.0W.

THE CITY OF PUYALLUP IS NOT REVIEWING COMPLIANCY FOR THE GENERAL NOTES AND KEY NOTES

KEY NOTES

1. HEAVY DUTY ASPHALT PAVEMENT RESTORATION, SEE DETAIL A1/C17.1W
2. 2" AC OVERLAY, SEE DETAIL A3/C17.1W
3. CONCRETE WALK RESTORATION, SEE DETAIL B1/C17.1W & B2/C17.1W
4. NOT USED
5. NOT USED
6. LIGHT DUTY ASPHALT RESTORATION, SEE DETAIL A2/C17.1W
7. CONCRETE CURB, MATCH EXISTING, SEE DETAIL B4/C17.1W
8. RESTORE DISTURBED LANDSCAPE AREA, SEE DETAIL C4/C17.1W
9. PROVIDE PLANTING AND 4" BARK MULCH, PLANTING SIZE AND SPACING TO MATCH EXISTING.
10. NOT USED
11. AC SPEED BUMP, MATCH EXISTING, SEE DETAIL B3/C17.1W
12. PAVEMENT STRIPING, SEE DETAIL D3/C17.1W
13. PAVEMENT STRIPING, SEE PLANS FOR COLOR, SEE DETAIL D2/C17.1W
14. PAVEMENT STRIPING, SEE DETAIL D1/C17.1W
15. REINSTALL SALVAGED 4' HIGH CHAIN LINK FENCE, SEE DETAIL C2/C17.1W
16. REINSTALL SALVAGED GATE POST, SEE DETAIL C1/C17.1W
17. REINSTALL SALVAGED FLAG POLE, MATCH EXISTING
18. REINSTALL SALVAGED SIGNAGE, SEE DETAIL C3/C17.1W
19. PORTABLE BUILDING CONTRACTOR WORK AREA

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

SITTS & HILL ENGINEERS, INC.
CIVIL ▪ STRUCTURAL ▪ SURVEYING
4815 CENTER STREET | TACOMA, WA. 98409
PHONE: (253) 474-9449 | FAX: (253) 474-0153
http://www.sitts-hill-engineers.com/

Project No.:	19,034	Project Mgr.:	R.H.
Proj. Engineer:	S.A.J.	Proj. Drafter:	S.A.J.

IF SHEET MEASURES LESS THAN 24"X36", IT IS A REDUCED PRINT. REDUCE SCALE ACCORDINGLY

bcra
T 253.627.4367 F 253.627.4395 WWW.BCRADESIGN.COM
2106 PACIFIC AVENUE, SUITE 300, TACOMA, WA 98402

SEAL

RICHARD C. HAND — STATE OF WASHINGTON — 26780 — REGISTERED PROFESSIONAL ENGINEER
07/23/21

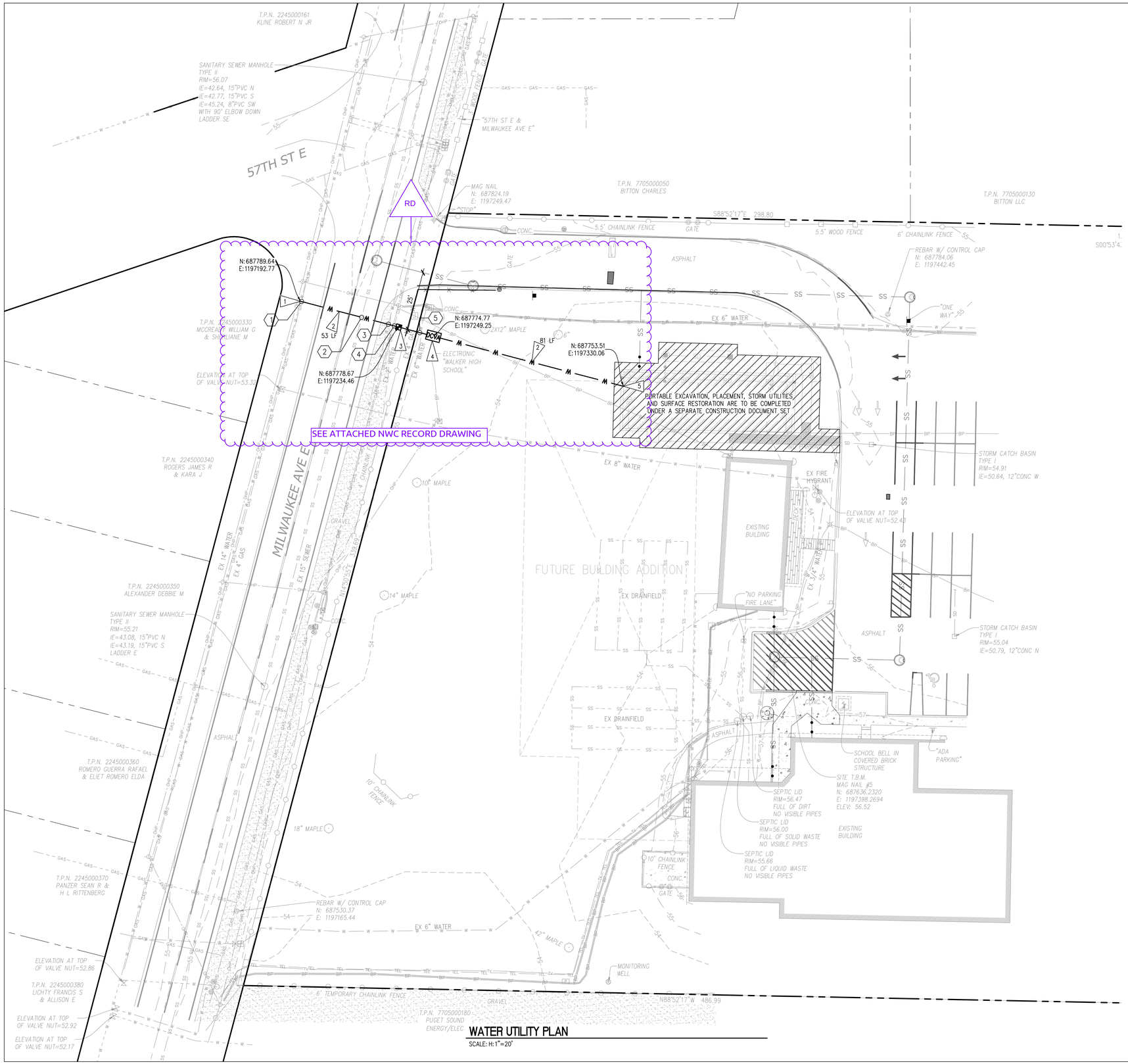
PROJECT
PUYALLUP SCHOOL DISTRICT
WALKER HIGH SCHOOL SITE UTILITIES
5715 MILWAUKEE AVE E
PUYALLUP, WA 98372

REVISIONS
- 5-10-21 PERMIT SUBMITTAL
- 6-14-21 PERMIT RESUBMITTAL
- 6-23-21 BID SET
- 6-25-21 CITY RESUBMITTAL
- 7-23-21 CITY RESUBMITTAL
- 10-04-22 RECORD DRAWINGS

DATE 1.19.2021
BCRA NO. 20160.00.00
DRAWN BY:
REVIEWED BY:
SHEET TITLE
SITE UTILITIES SURFACING AND LAYOUT PLAN

SHEET 21 OF 27

C14.0W



WATER UTILITY PLAN

SCALE: H:1"=20'

LEGEND

PROPOSED FEATURES

RD

DCVA

SS

RECORD DRAWING

RECORD DRAWING INFORMATION IS PROVIDED BY NORTHWEST CASCADE, INC. RECORD DRAWING INFORMATION WAS REVIEWED BY R. HAND OF SITTS & HILL ENGINEERS AND THE INSTALLATION SUBSTANTIALLY CONFORMS TO APPROVED PLANS.

RICHARD C. HAND
STATE OF WASHINGTON
26780
REGISTERED
PROFESSIONAL ENGINEER

APPROVED
BY _____
CITY OF PUYALLUP
DEVELOPMENT SERVICES
DATE 07/26/2021

NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE.
THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS.
FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE CITY ENGINEER

GENERAL NOTES

1. SEE SHEET C11.0W, C11.1W AND C11.2W FOR APPLICABLE CIVIL CITY OF PUYALLUP GENERAL NOTES.
2. TYPICAL UTILITY TRENCH, EXCAVATION, BEDDING AND BACKFILL SHALL COMPLY WITH CITY OF PUYALLUP STANDARD DETAIL 06.01.01/C17.3W.
3. ADJUST OR SET FRAMES OF EXISTING AND PROPOSED UTILITY GRATES AND COVERS AS NECESSARY TO MATCH THE CROSS SLOPE OF THE PROPOSED FINISHED GRADE AND SUCH THAT NO PONDING OCCURS AROUND UTILITY GRATES AND COVERS.
4. COMPLY WITH WATER MAIN CLEARANCE REQUIREMENTS IN PER CITY OF PUYALLUP STANDARD DETAIL 03.01.03-1/C13.0W AND CITY OF PUYALLUP STANDARD DETAIL 03.01.03-2/C17.2W.
5. PROVIDE 3'-0" MINIMUM COVER OVER WATER PIPELINES UNLESS OTHERWISE SPECIFIED.
6. THE MINIMUM DISTANCE BETWEEN WATER AND SEWER LINES SHALL BE 10 FEET HORIZONTALLY AND 18" VERTICALLY. IF THIS CRITERION CANNOT BE MET, THE CONTRACTOR SHALL ISOLATE SEWER AND WATER LINES BY ENCASEMENT, SHIELDING, OR OTHER APPROVED METHODS.
7. THE CONTRACTOR SHALL EXPOSE THE 14 INCH CAST IRON WATER MAIN AND VERIFY THE PIPE O.D. THIS PIPE MAY BE UNDERSIZED WHERE A STANDARD TAPPING SADDLE FOR 14 INCH CAST IRON WILL NOT FIT.
8. CONTRACTOR TO USE HORIZONTAL AND VERTICAL DATUM AS OUTLINED ON SHEET C12.0W.

KEY NOTES

1. CONNECT TO EXISTING 14" WATER MAIN, PER CITY OF PUYALLUP STANDARD DETAIL 03.01.01/C17.2W
2. 1" WATER SERVICE LINE, SEE PLANS FOR LENGTH.
3. 1" WATER METER, SEE CITY OF PUYALLUP STANDARD DETAIL 03.03.01/C17.2W.
4. 1" DOUBLE CHECK VALVE ASSEMBLY, PER CITY OF PUYALLUP STANDARD DETAIL 03.04.01/C17.2W.
5. WATER SERVICE CONNECTION, PER CITY OF PUYALLUP STANDARD DETAIL 03.03.04/C17.2W

UTILITY CROSSING

1. TOP OF 1" WATER=52.73
   ESTIMATED BTM OF 4" GAS=55.88
   SEPARATION=3.17'
2. TOP OF 15" SEWER=42.89
   BTM 1" WATER=52.72
   SEPARATION=9.85'
3. TOP OF 1" WATER=51.95
   ESTIMATED BTM OF EX 2" WATER=52.48
   SEPARATION=0.53'
4. TOP OF 1" WATER=51.90
   ESTIMATED BTM OF EX 4" GAS=52.59
   SEPARATION=0.69'
5. TOP OF 1" WATER=51.85
   ESTIMATED BTM OF EX 6" WATER=52.41
   SEPARATION=0.44'

NORTH

HORIZONTAL SCALE: 1"=20'
20 0 20 40

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

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Project No.:	19,034	Project Mgr.:	R.H.
Proj. Engineer:	S.A.J.	Proj. Drafter:	S.A.J.

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2106 PACIFIC AVENUE, SUITE 300, TACOMA, WA 98402

SEAL

RICHARD C. HAND
STATE OF WASHINGTON
26780
REGISTERED
PROFESSIONAL ENGINEER
07/23/21

PROJECT
PUYALLUP SCHOOL DISTRICT
WALKER HIGH SCHOOL SITE UTILITIES
5715 MILWAUKEE AVE E
PUYALLUP, WA 98372

REVISIONS

5-10-21 PERMIT SUBMITTAL
6-14-21 PERMIT RESUBMITTAL
6-23-21 BID SET
6-25-21 CITY RESUBMITTAL
7-23-21 CITY RESUBMITTAL
△10-04-22 RECORD DRAWINGS

DATE
1.19.2021
BCRA NO.
20160.00.00
DRAWN BY:
REVIEWED BY:
SHEET TITLE
SITE UTILITIES
WATER PLAN

C15.0W

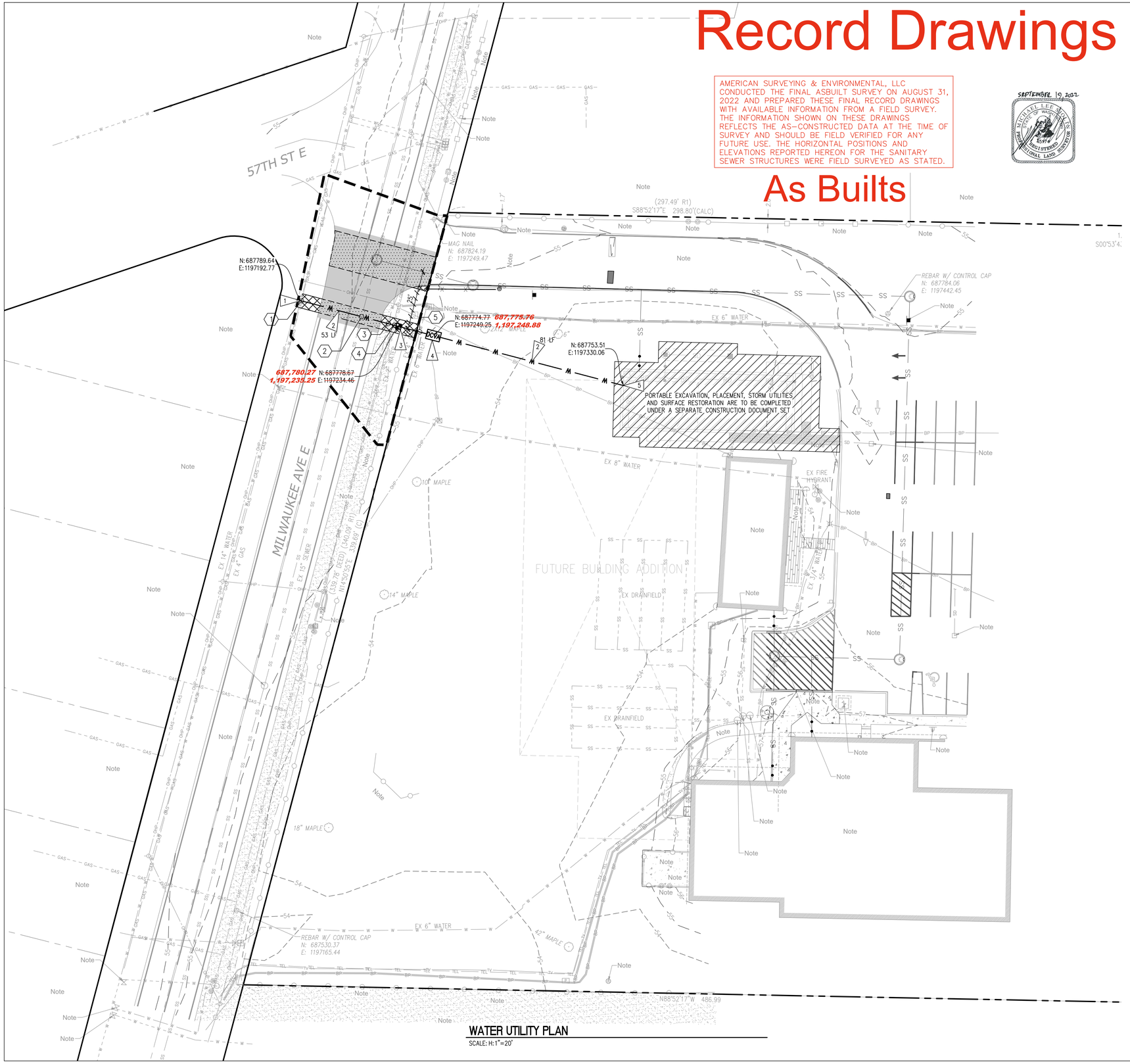
24x36

Record Drawings

AMERICAN SURVEYING & ENVIRONMENTAL, LLC CONDUCTED THE FINAL ASBUILT SURVEY ON AUGUST 31, 2022 AND PREPARED THESE FINAL RECORD DRAWINGS WITH AVAILABLE INFORMATION FROM A FIELD SURVEY. THE INFORMATION SHOWN ON THESE DRAWINGS REFLECTS THE AS-CONSTRUCTED DATA AT THE TIME OF SURVEY AND SHOULD BE FIELD VERIFIED FOR ANY FUTURE USE. THE HORIZONTAL POSITIONS AND ELEVATIONS REPORTED HEREON FOR THE SANITARY SEWER STRUCTURES WERE FIELD SURVEYED AS STATED.

SEPTEMBER 19 2022
MICHAEL LEE MORRIS
STATE OF WASHINGTON
15974
REGISTERED PROFESSIONAL LAND SURVEYOR

As Builts



WATER UTILITY PLAN

SCALE: H:1"=20'

LEGEND

PROPOSED FEATURES

- W — WATER PIPE
- WATER METER
- DCVA — DOUBLE CHECK VALVE ASSEMBLY
- SS — SANITARY SEWER PIPE, SEE SHEETS C12.1W AND 12.2W
- TYPE 1 SEWER MANHOLE
- 6" SEWER CLEANOUT

PRIVATE IMPROVEMENTS

_____ DEVELOPMENT ENGINEER

_____ PIERCE COUNTY ORDINANCE NUMBER

1. APPOINT A CERTIFIED EROSION AND SEDIMENT CONTROL LEAD WHO SHALL BE RESPONSIBLE FOR IMPLEMENTATION OF THE SWPPP, EROSION CONTROL PLAN & INSPECTION SCHEDULE.
2. FAILURE TO OBTAIN REQUIRED INSPECTIONS MAY ENDANGER OR DELAY PROJECT ACCEPTANCE. ACCEPTANCE OF WORK GIVES A GENERAL RIGHT-OF-WAY USE PERMIT FOR PUBLIC PLANS.

APPROVED
PERMIT #
BY _____
CITY OF PUYALLUP
DEVELOPMENT ENGINEERING
DATE _____

NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE.
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GENERAL NOTES

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KEY NOTES

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UTILITY CROSSING

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   SEPARATION=3.17'
2. TOP OF 15" SEWER=42.89
   BTM 1" WATER=52.72
   SEPARATION=9.85'
3. TOP OF 1" WATER=51.95
   ESTIMATED BTM OF EX 2" WATER=52.48
   SEPARATION=0.53'
4. TOP OF 1" WATER=51.90
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   SEPARATION=0.69'
5. TOP OF 1" WATER=51.85
   ESTIMATED BTM OF EX 6" WATER=52.41
   SEPARATION=0.44'

NORTH

HORIZONTAL SCALE: 1"=20'
20 0 20 40

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Project No.:	19,034	Project Mgr.:	R.H.
Proj. Engineer:	S.A.J.	Proj. Drafter:	S.A.J.

bcra
T 253.627.4367 F 253.627.4395 WWW.BCRADESIGN.COM
2106 PACIFIC AVENUE, SUITE 300, TACOMA, WA 98402

SEAL

PROJECT
PUYALLUP SCHOOL DISTRICT
WALKER HIGH SCHOOL SITE UTILITIES
5715 MILWAUKEE AVE E
PUYALLUP, WA 98372

REVISIONS

5-10-21 PERMIT SUBMITTAL
6-14-21 PERMIT RESUBMITTAL
6-23-21 BID SET
6-25-21 CITY RESUBMITTAL
7-23-21 CITY RESUBMITTAL

DATE
1.19.2021

BCRA NO.
20160.00.00

DRAWN BY:

REVIEWED BY:

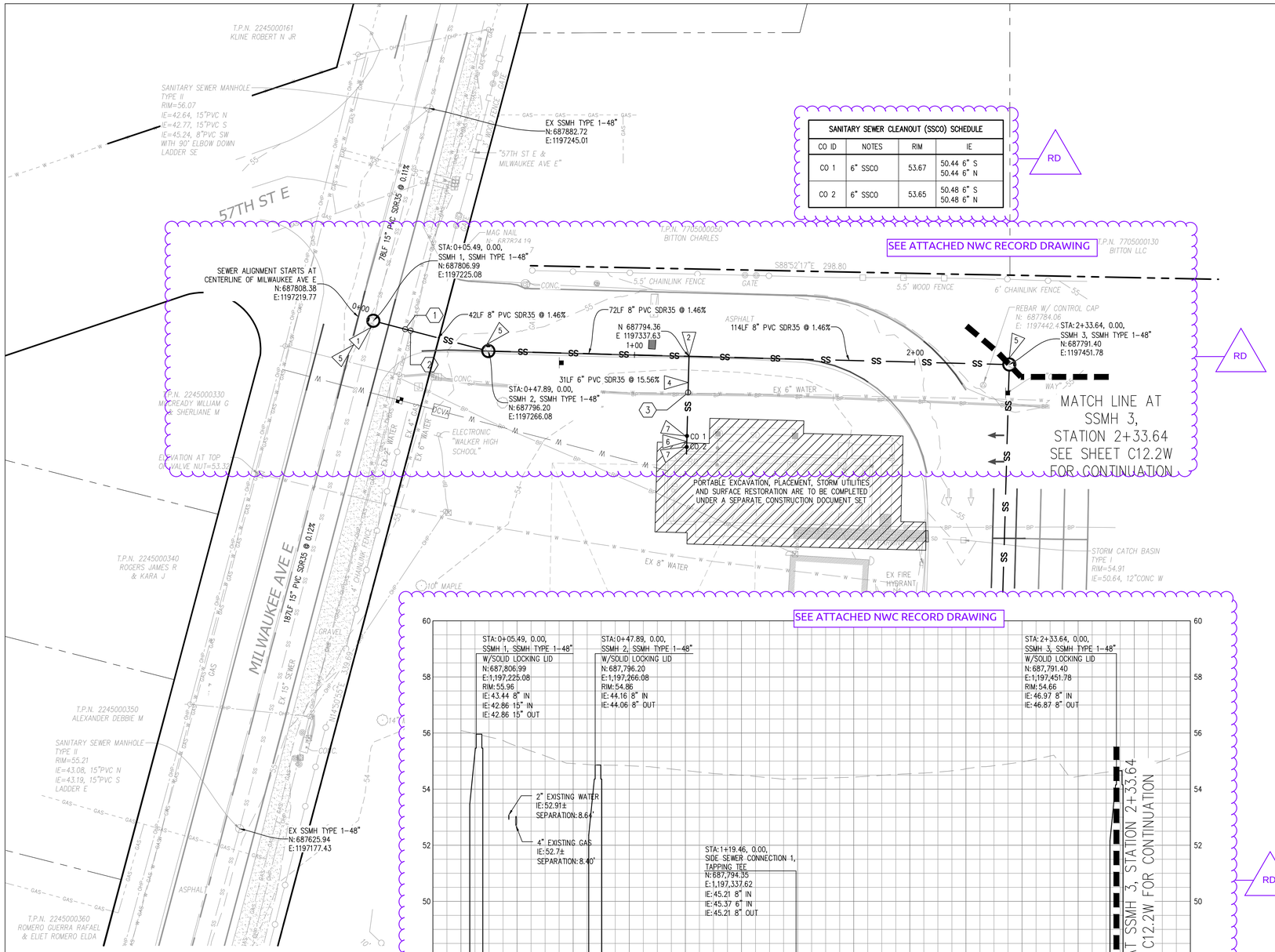
SHEET TITLE
SITE UTILITIES
WATER PLAN

SHEET 22 OF 27

C15.0W

IF SHEET MEASURES LESS THAN 24"X36", IT IS A REDUCED PRINT. REDUCE SCALE ACCORDINGLY

24x36



SANITARY SEWER CLEANOUT (SSCO) SCHEDULE			
CO ID	NOTES	RIM	IE
CO 1	6" SSCO	53.67	50.44 6" S 50.44 6" N
CO 2	6" SSCO	53.65	50.48 6" S 50.48 6" N

SANITARY SEWER PLAN AND PROFILE 1

SCALE: H:1"=20' V:1"=2'

NORTH

RECORD DRAWING
RECORD DRAWING INFORMATION IS PROVIDED BY NORTHWEST CASCADE, INC. RECORD DRAWING INFORMATION WAS REVIEWED BY R. HAND OF SITTS & HILL ENGINEERS AND THE INSTALLATION SUBSTANTIALLY CONFORMS TO APPROVED PLANS

RICHARD C. HAND STATE OF WASHINGTON 26780 REGISTERED PROFESSIONAL ENGINEER

APPROVED
BY _____
CITY OF PUYALLUP
DEVELOPMENT SERVICES
DATE 07/26/2021

NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE.
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LEGEND

PROPOSED FEATURES

- W — 1" WATER PIPE
- WATER METER
- DCVA — DOUBLE CHECK VALVE ASSEMBLY
- SS — SANITARY SEWER PIPE
- TYPE 1 SEWER MANHOLE
- 6" SEWER CLEANOUT

GENERAL NOTES

1. SEE SHEET C11.0W, C11.1W AND C11.2W FOR APPLICABLE CIVIL CITY OF PUYALLUP GENERAL NOTES.
2. TYPICAL UTILITY TRENCH, EXCAVATION, BEDDING AND BACKFILL SHALL COMPLY WITH CITY OF PUYALLUP STANDARD DETAIL 06.01.01 REQUIREMENTS. SEE CITY OF PUYALLUP STANDARD DETAIL 06.01.01/C17.3W.
3. ALL SEWER MANHOLE COMPONENTS SHALL BE PER CITY OF PUYALLUP STANDARD DETAILS
   SANITARY SEWER MANHOLE: 04.01.01/C17.3W
   FRAME AND COVER: 06.01.02/C17.4W
   STEPS AND HANDHOLD: 06.01.03/C17.4W
4. ADJUST OR SET FRAMES OF EXISTING AND PROPOSED UTILITY GRATES AND COVERS AS NECESSARY TO MATCH THE CROSS SLOPE OF THE PROPOSED FINISHED GRADE AND SUCH THAT NO PONDING OCCURS AROUND UTILITY GRATES AND COVERS.
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7. THE MINIMUM DISTANCE BETWEEN WATER AND SEWER LINES SHALL BE 10 FEET HORIZONTALLY AND 18" VERTICALLY. IF THIS CRITERION CANNOT BE MET, THE CONTRACTOR SHALL ISOLATE SEWER AND WATER LINES BY ENCASEMENT, SHIELDING, OR OTHER APPROVED METHODS.
8. CONTRACTOR SHALL USE HORIZONTAL AND VERTICAL DATUM AS OUTLINED ON SHEET C12.0W.
9. CONTRACTOR SHALL POTHOLE EX UTILITIES IN FRONT OF MAIN BUILDING PRIOR TO INSTALLATION OF NEW UTILITIES. REPORT HORIZONTAL AND VERTICAL POSITIONS OF SANITARY SEWER TO ENGINEER. ALLOW 3 BUSINESS DAYS TIME FOR ENGINEER DESIGN VERIFICATION PRIOR TO COMMENCING SANITARY SEWER WORK
10. CONTRACTOR SHALL LOCATE HORIZONTAL AND VERTICAL POSITION OF EXISTING SEWER SERVICES. UTILIZE GPR DIE TESTING, TRACER WIRE AND POTHOLE EXCAVATION METHODS.
11. SIDE SEWER SERVICE INSTALLATION PER DETAIL 04.03.02/C17.3W UNLESS OTHERWISE STATED.

KEY NOTES

1. CONNECT TO EXISTING 15" SEWER MAIN.
2. TAPPING TEE, SEE CITY OF PUYALLUP STANDARD DETAIL 04.02.01/C17.3W.
3. NOT USED
4. 6" SIDE SEWER PIPE, SEE PLANS FOR LENGTH.
5. TYPE 1 48" SEWER MANHOLE, SEE CITY OF PUYALLUP STANDARD DETAIL 04.01.01/C17.3W
6. SIDE SEWER SAMPLING STATION, SEE CITY OF PUYALLUP STANDARD DETAIL 04.03.04/C17.3W
7. 6" CLEANOUT, SEE DETAIL C3/C17.3W.

UTILITY CROSSING

1. TOP OF 8" SEWER=44.27
   ESTIMATED BTM OF EX 6" WATER=52.91
   SEPARATION=8.64'
2. TOP OF 8" SEWER=44.30
   ESTIMATED BTM OF EX 4" GAS=52.7
   SEPARATION=8.40'
3. TOP OF 6" SEWER=45.73
   ESTIMATED BTM OF EX 2" WATER=51.45
   SEPARATION=5.71'

NORTH

HORIZONTAL SCALE: 1"=20'
20 0 20 40
VERTICAL SCALE: 1"=2'
2 0 2 4

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

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Project No.:	19,034	Project Mgr.:	R.H.
Proj. Engineer:	S.A.J.	Proj. Drafter:	S.A.J.

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SEAL

RICHARD C. HAND STATE OF WASHINGTON 26780 REGISTERED PROFESSIONAL ENGINEER 07/23/21

PROJECT
PUYALLUP SCHOOL DISTRICT
WALKER HIGH SCHOOL SITE UTILITIES
5715 MILWAUKEE AVE E
PUYALLUP, WA 98372

REVISIONS
5-10-21 PERMIT SUBMITTAL
6-14-21 PERMIT RESUBMITTAL
6-23-21 BID SET
6-25-21 CITY RESUBMITTAL
7-23-21 CITY RESUBMITTAL
10-04-22 RECORD DRAWINGS

DATE 1.19.2021
BCRA NO. 20160.00.00
DRAWN BY:
REVIEWED BY:
SHEET TITLE
SITE UTILITIES
SANITARY SEWER
PLAN AND PROFILE 1

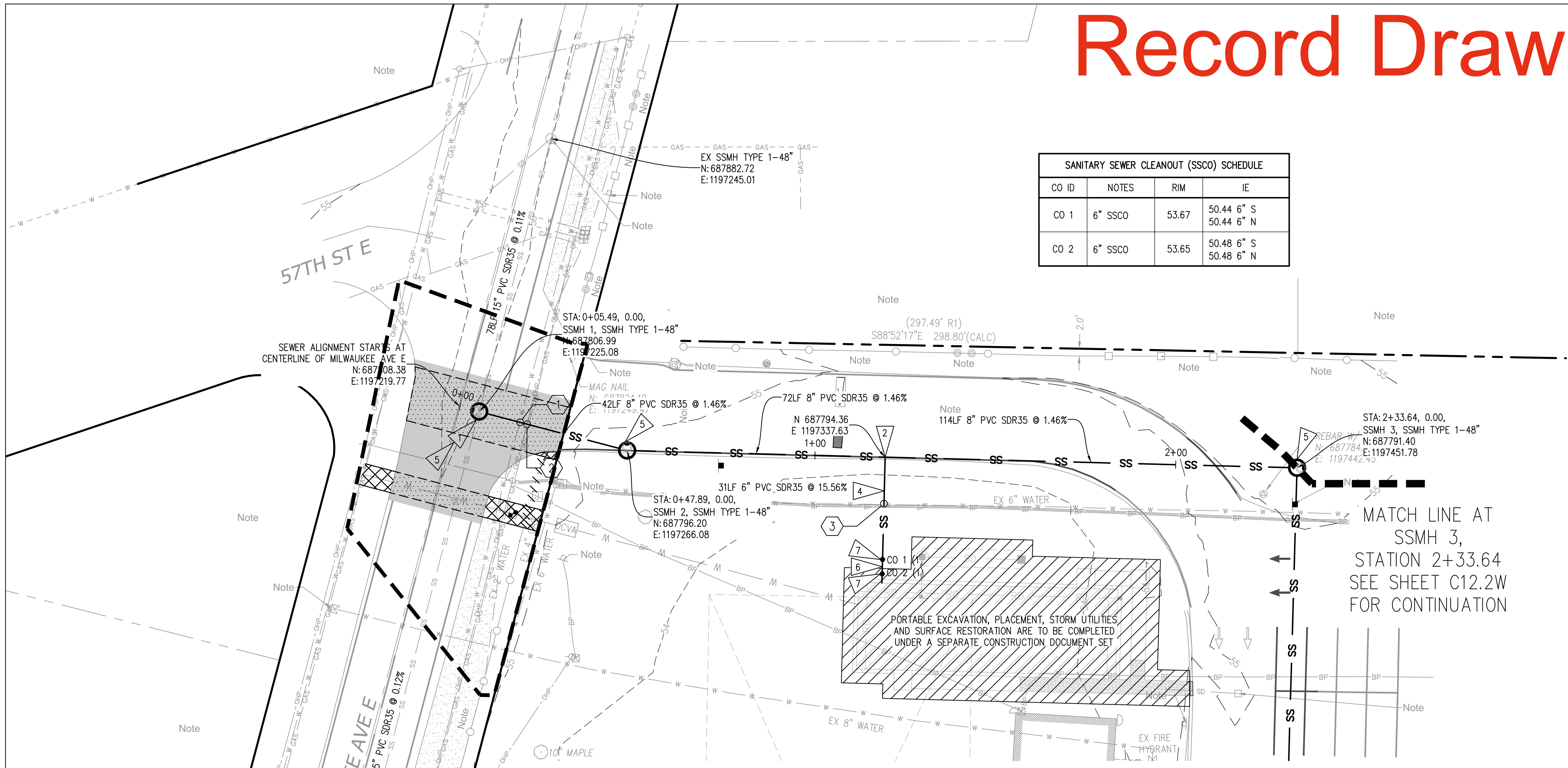
SHEET 23 OF 27

C16.0W

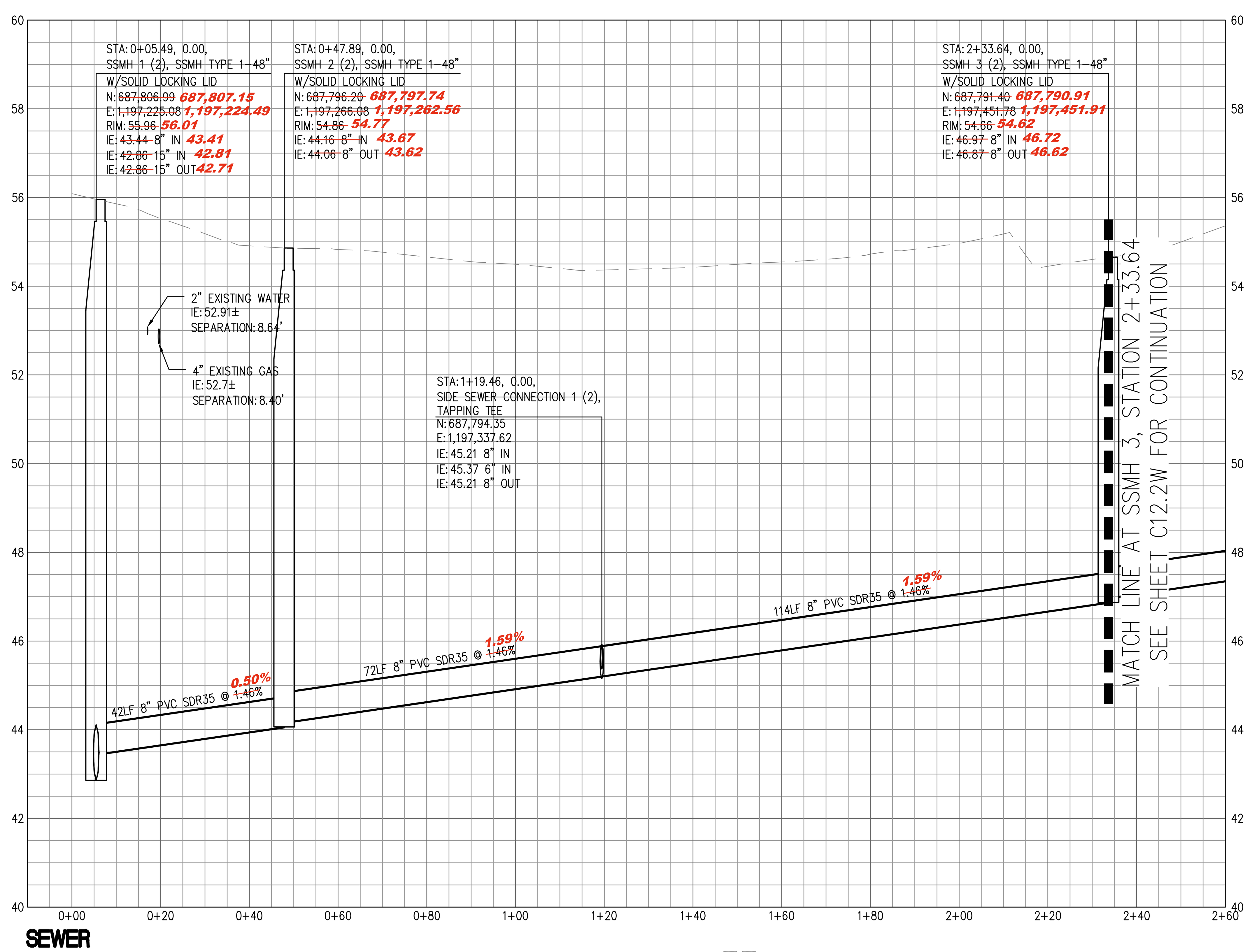
IF SHEET MEASURES LESS THAN 24"X36", IT IS A REDUCED PRINT. REDUCE SCALE ACCORDINGLY

24x36

Record Drawings



SANITARY SEWER CLEANOUT (SSCO) SCHEDULE			
CO ID	NOTES	RIM	IE
CO 1	6" SSCO	53.67	50.44 6" S 50.44 6" N
CO 2	6" SSCO	53.65	50.48 6" S 50.48 6" N



SANITARY SEWER PLAN AND PROFILE 1

SCALE: H: 1"=20' V: 1"=2'

NORTH

SEPTEMBER 19 2022

AMERICAN SURVEYING & ENVIRONMENTAL, LLC CONDUCTED THE FINAL ASBUILT SURVEY ON AUGUST 31, 2022 AND PREPARED THESE FINAL RECORD DRAWINGS WITH AVAILABLE INFORMATION FROM A FIELD SURVEY. THE INFORMATION SHOWN ON THESE DRAWINGS REFLECTS THE AS-CONSTRUCTED DATA AT THE TIME OF SURVEY AND SHOULD BE FIELD VERIFIED FOR ANY FUTURE USE. THE HORIZONTAL POSITIONS AND ELEVATIONS REPORTED HEREON FOR THE SANITARY SEWER STRUCTURES WERE FIELD SURVEYED AS STATED.

As Builts

PRIVATE IMPROVEMENTS

DEVELOPMENT ENGINEER

PIERCE COUNTY ORDINANCE NUMBER

APPROVED

PERMIT #

BY: CITY OF PUYALLUP DEVELOPMENT ENGINEERING

DATE

NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE.

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LEGEND

PROPOSED FEATURES

- 1" WATER PIPE
- WATER METER
- DOUBLE CHECK VALVE ASSEMBLY
- SANITARY SEWER PIPE
- TYPE 1 SEWER MANHOLE
- 6" SEWER CLEANOUT

GENERAL NOTES

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3. ALL SEWER MANHOLE COMPONENTS SHALL BE PER CITY OF PUYALLUP STANDARD DETAILS
   SANITARY SEWER MANHOLE: 04.01.01/C17.3W
   FRAME AND COVER: 06.01.02/C17.4W
   STEPS AND HANDHOLD: 06.01.03/C17.4W
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KEY NOTES

1. CONNECT TO EXISTING 15" SEWER MAIN.
2. TAPPING TEE, SEE CITY OF PUYALLUP STANDARD DETAIL 04.02.01/C17.3W.
3. NOT USED
4. 6" SIDE SEWER PIPE, SEE PLANS FOR LENGTH.
5. TYPE 1 48" SEWER MANHOLE, SEE CITY OF PUYALLUP STANDARD DETAIL 04.01.01/C17.3W
6. SIDE SEWER SAMPLING STATION, SEE CITY OF PUYALLUP STANDARD DETAIL 04.03.04/C17.3W
7. 6" CLEANOUT, SEE DETAIL C3/C17.3W.

UTILITY CROSSING

1. TOP OF 8" SEWER=44.27
   ESTIMATED BTM OF EX 6" WATER=52.91
   SEPARATION=8.64'
2. TOP OF 8" SEWER=44.30
   ESTIMATED BTM OF EX 4" GAS=52.7
   SEPARATION=8.40'
3. TOP OF 6" SEWER=45.73
   ESTIMATED BTM OF EX 2" WATER=51.45
   SEPARATION=5.71'

NORTH

HORIZONTAL SCALE: 1"=20'

VERTICAL SCALE: 1"=2'

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

SITTS & HILL ENGINEERS, INC.

CIVIL • STRUCTURAL • SURVEYING

4815 CENTER STREET | TACOMA, WA. 98409

PHONE: (253) 474-9449 | FAX: (253) 474-0153

http://www.sitts-hill-engineers.com/

Project No.: 19,034	Project Mgr.: R.H.
Proj. Engineer: S.A.J.	Proj. Drafter: S.A.J.

bcra

T 253.627.4367 F 253.627.4395 WWW.BCRADESIGN.COM
2106 PACIFIC AVENUE, SUITE 300, TACOMA, WA 98402

PROJECT

PUYALLUP SCHOOL DISTRICT

WALKER HIGH SCHOOL SITE UTILITIES

5715 MILWAUKEE AVE E
PUYALLUP, WA 98372

REVISIONS

- 5-10-21 PERMIT SUBMITTAL
- 6-14-21 PERMIT RESUBMITTAL
- 6-23-21 BID SET
- 6-25-21 CITY RESUBMITTAL
- 7-23-21 CITY RESUBMITTAL

DATE: 1.19.2021

BCRA NO.: 20160.00.00

DRAWN BY:

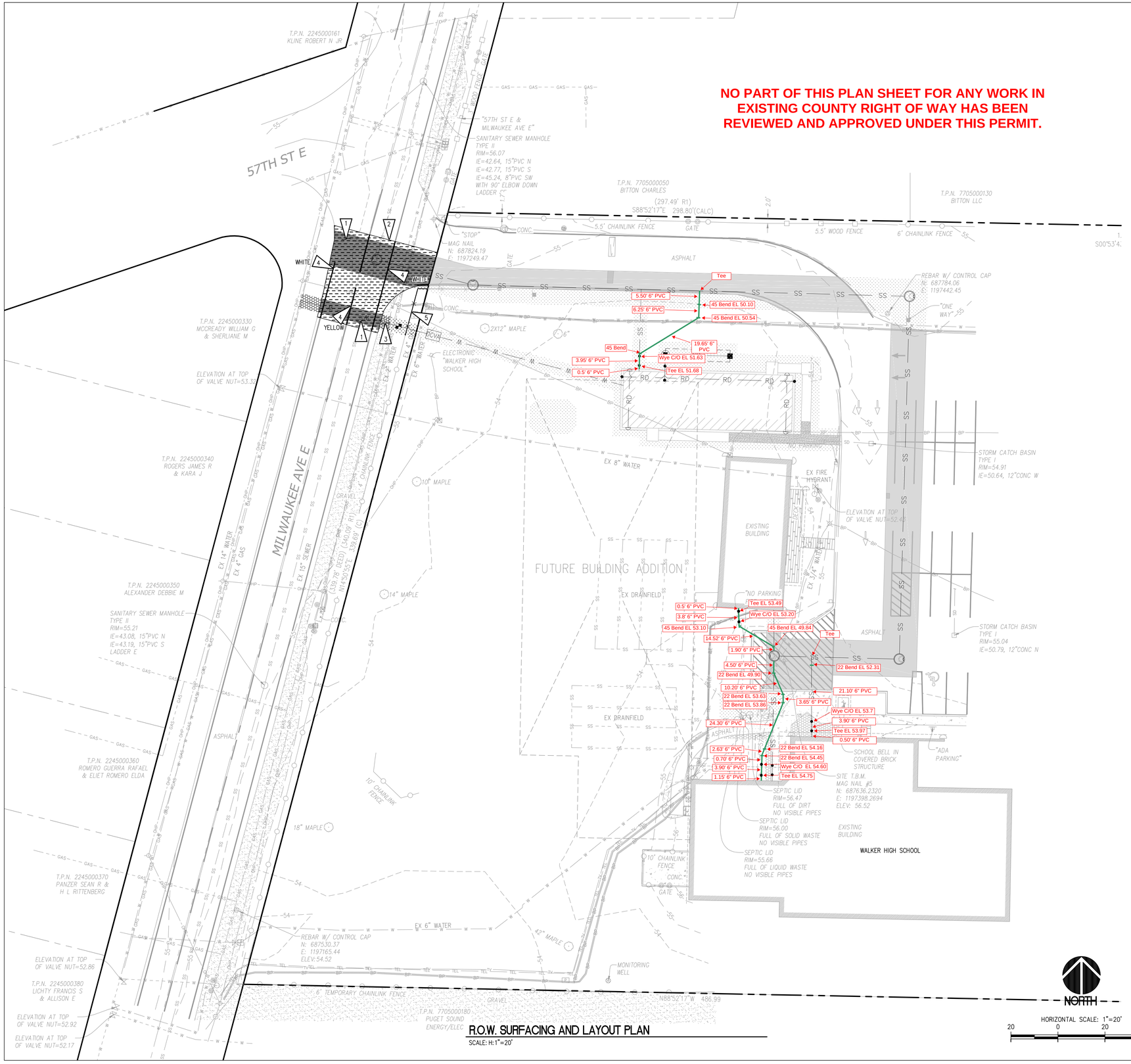
REVIEWED BY:

SHEET TITLE: SITE UTILITIES SANITARY SEWER PLAN AND PROFILE 1

SHEET 23 OF 27

C16.0W

NO PART OF THIS PLAN SHEET FOR ANY WORK IN EXISTING COUNTY RIGHT OF WAY HAS BEEN REVIEWED AND APPROVED UNDER THIS PERMIT.



R.O.W. SURFACING AND LAYOUT PLAN

SCALE: H:1"=20'

NORTH

HORIZONTAL SCALE: 1"=20'

20 0 20 40

PRIVATE IMPROVEMENTS	
DEVELOPMENT ENGINEER	PERMIT #
PIERCE COUNTY ORDINANCE NUMBER	DATE

1. CONTACT _____, THE AREA INSPECTOR, AT 253-798-_____, TO COORDINATE THE PRE-CONSTRUCTION MEETING AND COUNTY INSPECTIONS. PRE-CONSTRUCTION MEETING SHALL BE REQUESTED AT LEAST 48-HOURS IN ADVANCE OF THE START OF CONSTRUCTION.
2. APPOINT A CERTIFIED EROSION AND SEDIMENT CONTROL LEAD WHO SHALL BE PROVIDED A COPY OF THE SWPPP, EROSION CONTROL PLAN & INSPECTION SCHEDULE.
3. FAILURE TO CALL FOR REQUIRED INSPECTIONS MAY ENDANGER OR DELAY PROJECT APPROVAL.
4. ALL WORK IN THE PUBLIC RIGHT-OF-WAY REQUIRES A GENERAL RIGHT-OF-WAY PERMIT FROM PIERCE COUNTY PLANNING AND PUBLIC WORKS.

LEGEND

PROPOSED FEATURES

- CHAINLINK FENCE
- PAVEMENT STRIPING
- GRASS RESTORATION
- HEAVY DUTY ASPHALT RESTORATION
- 2" HMA OVERLAY

GENERAL NOTES

1. SEE APPLICABLE PIERCE COUNTY GENERAL CIVIL NOTES ON SHEET C1.0W
2. SEE SHEETS 1–13 FOR PRIVATE ONSITE IMPROVEMENTS
3. CONSTRUCTION ACCESS SHALL BE FROM EXISTING ASPHALT SURFACES. IF ADDITIONAL MEASURES ARE NEEDED TO PREVENT TRACKING OF SEDIMENT ONTO PUBLIC ROADS. THE CONTRACTOR SHALL INSTALL A CONSTRUCTION ENTRANCE PER DETAIL B4/C6.0W.
4. CONTRACTOR SHALL COVER ALL OPEN TRENCHES AT END OF WORK DAY.
5. CONTRACTOR TO PROTECT EXISTING FEATURES BEYOND THE LIMITS OF WORK AND REPAIR ANY DAMAGE AT NO ADDITIONAL COST TO THE OWNER.
6. CONTRACTOR SHALL MAINTAIN EMERGENCY VEHICLE ACCESS AND KEEP ONE LANE OF ONSITE ACCESS CLEAR AT ALL TIMES DURING CONSTRUCTION.
7. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND NOTIFY ENGINEER IMMEDIATELY IF THERE ARE ANY DISCREPANCIES AFFECTING THE NEW CONSTRUCTION.
8. SEE ELECTRICAL PLAN FOR POWER AND LOW VOLTAGE CONNECTION REQUIREMENTS.
9. CONTRACTOR SHALL PREPARE, SUBMIT AND OBTAIN AN APPROVED TRAFFIC CONTROL PLAN FROM PIERCE COUNTY PRIOR TO COMMENCING WORK IN RIGHT-OF-WAY.
10. CONTRACTOR SHALL RESTORE ALL SURFACES DISTURBED AS A RESULTS OF CONSTRUCTION ACTIVITIES, EXCLUDING THE BUILDING, GRAVEL PAD, ASPHALT OR GRAVEL SURFACES, AND LANDINGS. PROVIDE 8" DEPTH COMPOST AMENDED TOPSOIL PER DETAIL D1/C6.1W PRIOR TO SEEDING.
11. CONTRACTOR SHALL USE HORIZONTAL AND VERTICAL DATUM AS OUTLINED ON SHEET C2.0W
12. COMPLY WITH PIERCE COUNTY ROW PERMIT REQUIREMENTS

KEY NOTES

1. HEAVY DUTY ASPHALT PAVEMENT RESTORATION, SEE DETAIL A1/C6.3W
2. 2" AC OVERLAY, SEE DETAIL A3/C6.3W
3. RESTORE DISTURBED LANDSCAPE AREA, SEE DETAIL D1/C6.1W & C4/C6.3W
4. PAVEMENT STRIPING, SEE PLANS FOR COLOR, SEE DETAIL D3/C6.3W
5. REINSTALL SALVAGED 4' HIGH CHAINLINK FENCE, SEE DETAIL C2/C6.3W

SEWER SERVICE INFORMATION PROVIDED BY
NORTHWEST CASCADE, INC.
R. HAND
10-13-2022

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

SITTS & HILL ENGINEERS, INC.
CIVIL ▪ STRUCTURAL ▪ SURVEYING
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PHONE: (253) 474-9449 | FAX: (253) 474-0153
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Project No.:	19,034	Project Mgr.:	R.H.
Proj. Engineer:	S.A.J.	Proj. Drafter:	S.A.J.

IF SHEET MEASURES LESS THAN 24"X36", IT IS A REDUCED PRINT. REDUCE SCALE ACCORDINGLY

bcra
T 253.627.4367 F 253.627.4395 WWW.BCRADESIGN.COM
2106 PACIFIC AVENUE, SUITE 300, TACOMA, WA 98402

SEAL

RICHARD C. HAND — STATE OF WASHINGTON — 26780 — REGISTERED PROFESSIONAL ENGINEER — 06/05/21

PROJECT
PUYALLUP SCHOOL DISTRICT
WALKER HIGH SCHOOL PORTABLE
5715 MILWAUKEE AVE E
PUYALLUP, WA 98372

REVISIONS

5-10-21	PERMIT SUBMITTAL
6-14-21	PERMIT RESUBMITTAL
6-23-21	BID SET
7-09-21	COUNTY RESUBMITTAL
8-05-21	COUNTY RESUBMITTAL

DATE
1.19.2021

BCRA NO.
20160.00.00

DRAWN BY:

REVIEWED BY:

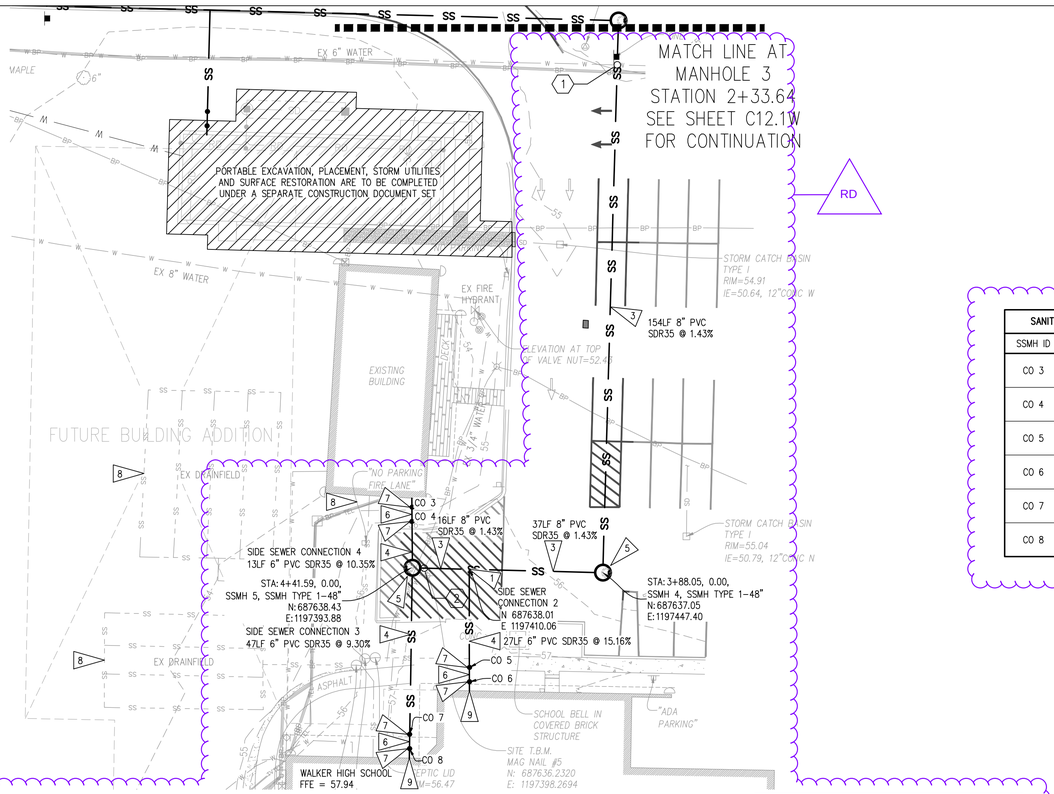
SHEET TITLE
R.O.W. SURFACING AND LAYOUT PLAN

bcra

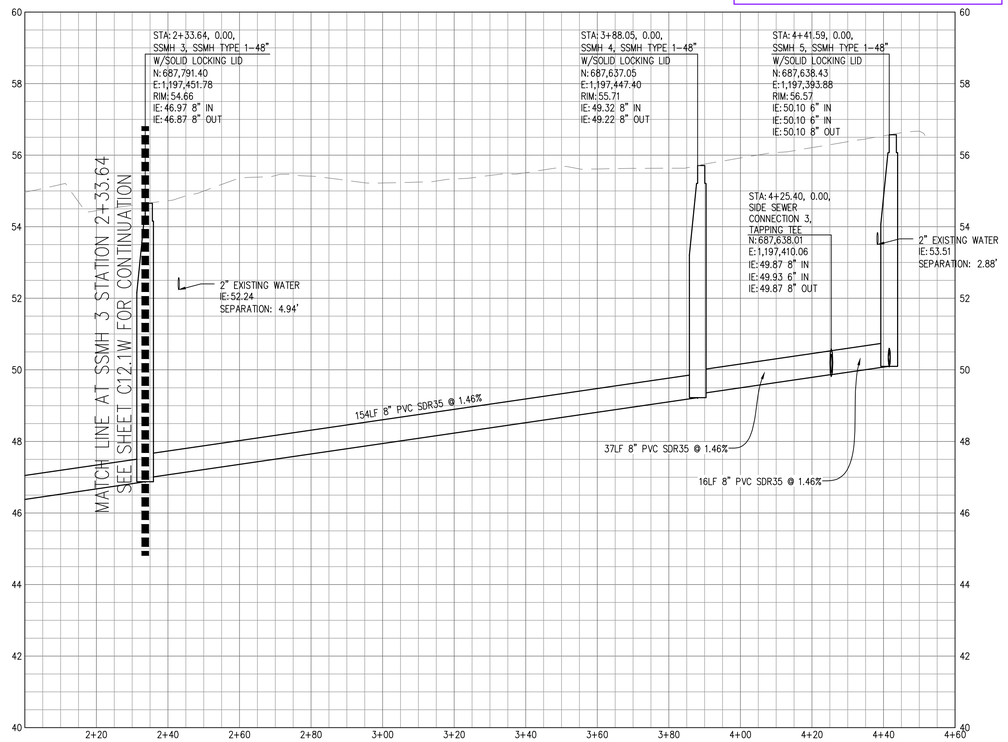
SHEET 2 OF 2

C8.2W

24x36



SEE ATTACHED NWC RECORD DRAWING



SANITARY SEWER PLAN AND PROFILE 2

SCALE: H:1"=20' V:1"=2'

RD

SANITARY SEWER CLEANOUT (SSCO) SCHEDULE			
SSMH ID	NOTES	RIM	IE
CO 3	6" SSCO	52.37	51.48 6" N ± 51.48 6" S ±
CO 4	6" SSCO	55.81	51.44 6" N ± 51.44 6" S ±
CO 5	6" SSCO	57.11	53.93 6" S ± 53.93 6" N ±
CO 6	6" SSCO	57.13	53.97 6" S ± 53.97 6" N ±
CO 7	6" SSCO	57.69	54.43 6" S ± 54.43 6" N ±
CO 8	6" SSCO	57.77	54.47 6" S ± 54.47 6" N ±

RD

RECORD DRAWING
RECORD DRAWING INFORMATION IS PROVIDED BY NORTHWEST CASCADE, INC. RECORD DRAWING INFORMATION WAS REVIEWED BY R. HAND OF SITTS & HILL ENGINEERS AND THE INSTALLATION SUBSTANTIALLY CONFORMS TO APPROVED PLANS.

RICHARD C. HAND STATE OF WASHINGTON 26760 REGISTERED PROFESSIONAL ENGINEER

APPROVED
BY _____
CITY OF PUYALLUP
DEVELOPMENT SERVICES
DATE 07/26/2021

NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE.
THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS.
FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE CITY ENGINEER

LEGEND

PROPOSED FEATURES

- W — 1" WATER PIPE
- WATER METER
- DCVA — DOUBLE CHECK VALVE ASSEMBLY
- SS — SANITARY SEWER PIPE
- TYPE 1 SEWER MANHOLE
- 6" SEWER CLEANOUT

GENERAL NOTES

1. SEE SHEET C11.0W, C11.1W AND C11.2W FOR APPLICABLE CIVIL CITY OF PUYALLUP GENERAL NOTES.
2. TYPICAL UTILITY TRENCH, EXCAVATION, BEDDING AND BACKFILL SHALL COMPLY WITH CITY OF PUYALLUP STANDARD DETAIL 06.01.01 REQUIREMENTS. SEE CITY OF PUYALLUP STANDARD DETAIL 06.01.01/C17.3W.
3. ALL SEWER MANHOLE COMPONENTS SHALL BE PER CITY OF PUYALLUP STANDARD DETAILS
   SSMH: 04.01.01/C17.3W
   FRAME AND COVER: 06.01.02/C17.4W
   STEPS AND HANDHOLD: 06.01.03/C17.4W
4. ADJUST OR SET FRAMES OF EXISTING AND PROPOSED UTILITY GRATES AND COVERS AS NECESSARY TO MATCH THE CROSS SLOPE OF THE PROPOSED FINISHED GRADE AND SUCH THAT NO PONDING OCCURS AROUND UTILITY GRATES AND COVERS.
5. COMPLY WITH WATER MAIN CLEARANCE REQUIREMENTS IN PER CITY OF PUYALLUP STANDARD DETAIL 03.01.03-1/C17.2W AND CITY OF PUYALLUP STANDARD DETAIL 03.01.03-2/C17.2W.
6. NOT USED
7. THE MINIMUM DISTANCE BETWEEN WATER AND SEWER LINES SHALL BE 10 FEET HORIZONTALLY AND 18" VERTICALLY. IF THIS CRITERION CANNOT BE MET, THE CONTRACTOR SHALL ISOLATE SEWER AND WATER LINES BY ENCASEMENT, SHIELDING, OR OTHER APPROVED METHODS.
8. CONTRACTOR SHALL USE HORIZONTAL AND VERTICAL DATUM AS OUTLINED ON SHEET C12.0W.
9. CONTRACTOR SHALL POTHOLE EX UTILITIES IN FRONT OF MAIN BUILDING PRIOR TO INSTALLATION OF NEW UTILITIES. REPORT HORIZONTAL AND VERTICAL POSITIONS OF SANITARY SEWER TO ENGINEER. ALLOW 3 BUSINESS DAYS TIME FOR ENGINEER DESIGN VERIFICATION PRIOR TO COMMENCING SANITARY SEWER WORK
10. CONTRACTOR SHALL LOCATE HORIZONTAL AND VERTICAL POSITION OF EXISTING SEWER SERVICES. UTILIZE GPR DIE TESTING, TRACER WIRE AND POTHOLE EXCAVATION METHODS.
11. SIDE SEWER SERVICE INSTALLATION PER DETAIL 04.03.02/C17.3W UNLESS OTHERWISE STATED.

KEY NOTES

1. TAPPING TEE, SEE CITY OF PUYALLUP STANDARD DETAIL 04.02.01/C17.3W.
2. NOT USED
3. 8" SDR PVC SANITARY SEWER LINE, SEE PLANS FOR LENGTH.
4. 6" SIDE SEWER PIPE, SEE PLANS FOR LENGTH.
5. TYPE 1 48" SEWER MANHOLE, SEE CITY OF PUYALLUP STANDARD DETAIL 04.01.01/C17.3W
6. SIDE SEWER SAMPLING STATION, SEE CITY OF PUYALLUP STANDARD DETAIL 04.03.04/C17.3W
7. 6" CLEANOUT, SEE DETAIL C3/C17.3W.
8. ABANDON EXISTING SANITARY SEWER UPON NEW SANITARY SEWER CONNECTION
9. EXPOSE AND VERIFY EXISTING SANITARY SEWER LOCATION. REPORT FINDINGS TO ENGINEER. SEE GENERAL NOTES 9 AND 10.

UTILITY CROSSING

1. TOP OF 8" SEWER=47.30
   ESTIMATED BTM OF EX 6" WATER=52.24
   SEPARATION=4.94
2. TOP OF 8" SEWER=50.63
   ESTIMATED BTM OF EX 2" WATER=53.51
   SEPARATION=2.88'

NORTH

HORIZONTAL SCALE: 1"=20'
20 0 20 40
2 0 2 4
VERTICAL SCALE: 1"=2'

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

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Project No.:	19,034	Project Mgr.:	R.H.
Proj. Engineer:	S.A.J.	Proj. Drafter:	S.A.J.

bcra
T 253.627.4367 F 253.627.4395 WWW.BCRADESIGN.COM
2106 PACIFIC AVENUE, SUITE 300, TACOMA, WA 98402

SEAL

RICHARD C. HAND STATE OF WASHINGTON 26760 REGISTERED PROFESSIONAL ENGINEER 07/23/21

PROJECT
PUYALLUP SCHOOL DISTRICT
WALKER HIGH SCHOOL SITE UTILITIES
5715 MILWAUKEE AVE E
PUYALLUP, WA 98372

REVISIONS
- 5-10-21 PERMIT SUBMITTAL
- 6-14-21 PERMIT RESUBMITTAL
- 6-23-21 BID SET
- 6-25-21 CITY RESUBMITTAL
- 7-23-21 CITY RESUBMITTAL
- 10-04-22 RECORD DRAWINGS

DATE 1.19.2021
BCRA NO. 20160.00.00
DRAWN BY:
REVIEWED BY:
SHEET TITLE
SITE UTILITIES
SANITARY SEWER
PLAN AND PROFILE 2

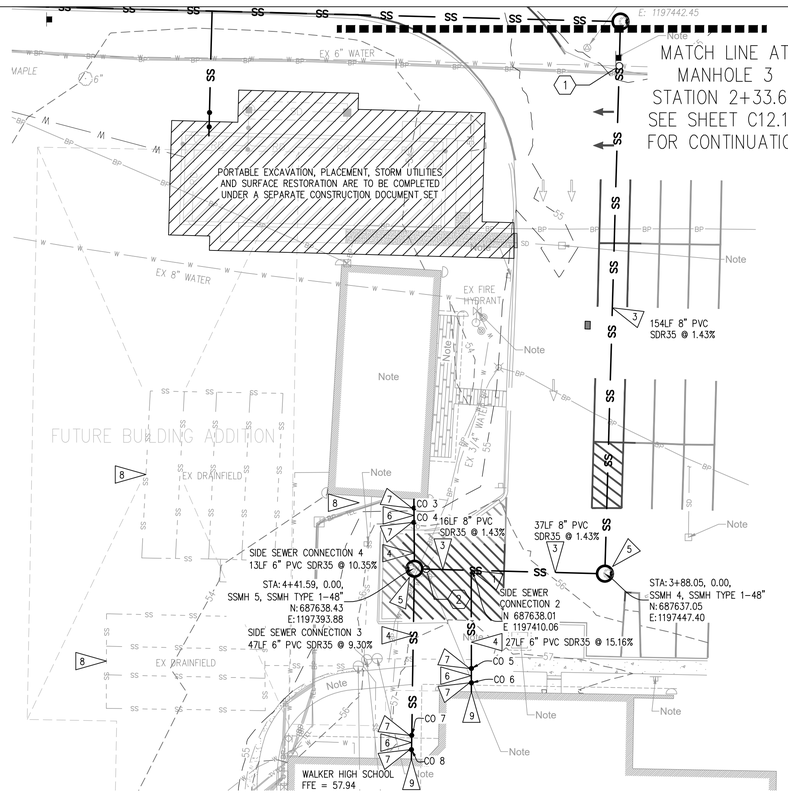
bcra

SHEET 24 OF 27

C16.1W

IF SHEET MEASURES LESS THAN 24"X36", IT IS A REDUCED PRINT. REDUCE SCALE ACCORDINGLY

24x36



Record Drawings

PRIVATE IMPROVEMENTS

DEVELOPMENT ENGINEER

PIERCE COUNTY ORDINANCE NUMBER

1. CONTACT _____, THE AREA INSPECTOR, AT 253-798-_____ TO COORDINATE THE PRE-CONSTRUCTION MEETING AND COUNTY INSPECTIONS. PRE-CONSTRUCTION MEETING SHALL BE REQUESTED AT LEAST SEVEN (7) DAYS PRIOR TO START OF CONSTRUCTION.
2. APPOINT A CERTIFIED EROSION AND SEDIMENT CONTROL LEAD WHO SHALL BE IN CHARGE AND ON SITE AT ALL TIMES. SEE A COPY OF THE SWPPP, EROSION CONTROL PLAN & INSPECTION SCHEDULE.
3. FAILURE TO OBTAIN REQUIRED INSPECTIONS MAY ENDANGER OR DELAY PROJECT.
4. ALL WORK IN THE PUBLIC RIGHT-OF-WAY REQUIRES A GENERAL RIGHT-OF-WAY PERMIT FROM THE CITY OF PUYALLUP PUBLIC WORKS.

APPROVED
PERMIT #
BY _____
CITY OF PUYALLUP
DEVELOPMENT ENGINEERING
DATE _____
NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE.
THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS.
FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE DEVELOPMENT ENGINEERING MANAGER.

SANITARY SEWER CLEANOUT (SSCO) SCHEDULE			
SSMH ID	NOTES	RIM	IE
CO 3	6" SSCO	52.37	51.48 6" N ± 51.48 6" S ±
CO 4	6" SSCO	55.81	51.44 6" N ± 51.44 6" S ±
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AMERICAN SURVEYING & ENVIRONMENTAL, LLC CONDUCTED THE FINAL ASBUILT SURVEY ON AUGUST 31, 2022 AND PREPARED THESE FINAL RECORD DRAWINGS WITH AVAILABLE INFORMATION FROM A FIELD SURVEY. THE INFORMATION SHOWN ON THESE DRAWINGS REFLECTS THE AS-CONSTRUCTED DATA AT THE TIME OF SURVEY AND SHOULD BE FIELD VERIFIED FOR ANY FUTURE USE. THE HORIZONTAL POSITIONS AND ELEVATIONS REPORTED HEREON FOR THE SANITARY SEWER STRUCTURES WERE FIELD SURVEYED AS STATED.

As Builts

LEGEND

PROPOSED FEATURES

- W — 1" WATER PIPE
- WATER METER
- DCVA — DOUBLE CHECK VALVE ASSEMBLY
- SS — SANITARY SEWER PIPE
- TYPE 1 SEWER MANHOLE
- 6" SEWER CLEANOUT

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   SEPARATION=4.94
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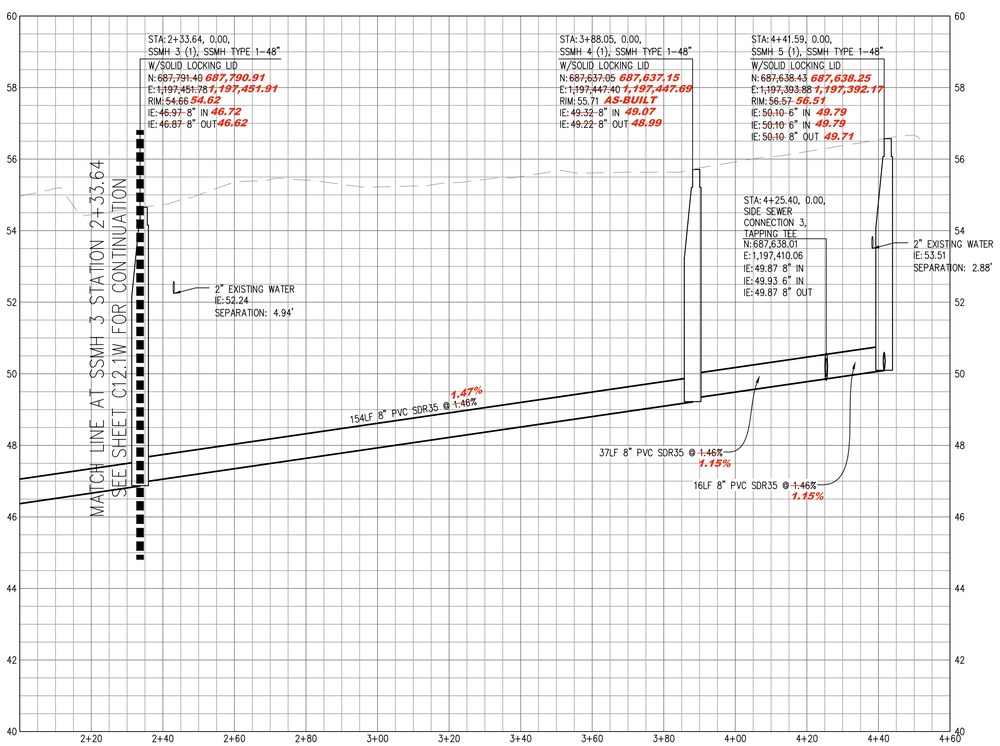

SEWER

SANITARY SEWER PLAN AND PROFILE 2

SCALE: H: 1"=20' V: 1"=2'

OCTOBER 4, 2022
MICHAEL LEE SITTS
STATE OF WASHINGTON
25174
REGISTERED PROFESSIONAL LAND SURVEYOR

NORTH

HORIZONTAL SCALE: 1"=20'
20 0 20 40
2 0 2 4
VERTICAL SCALE: 1"=2'

Know what's below. Call before you dig.

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SEAL

PROJECT
PUYALLUP SCHOOL DISTRICT
WALKER HIGH SCHOOL SITE UTILITIES
5715 MILWAUKEE AVE E
PUYALLUP, WA 98372

REVISIONS
5-10-21 PERMIT SUBMITTAL
6-14-21 PERMIT RESUBMITTAL
6-23-21 BID SET
6-25-21 CITY RESUBMITTAL
7-23-21 CITY RESUBMITTAL

DATE
1.19.2021

BCRA NO.
20160.00.00

DRAWN BY:

REVIEWED BY:

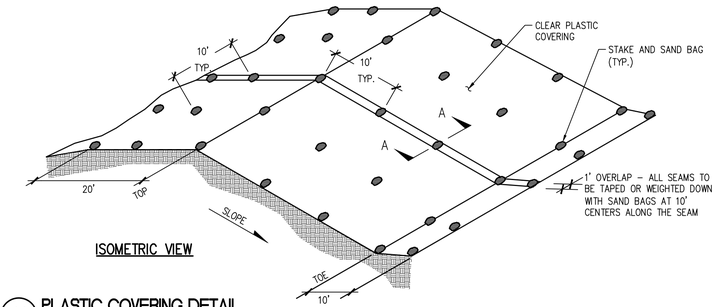
SHEET TITLE
SITE UTILITIES
SANITARY SEWER
PLAN AND PROFILE 2

SHEET 24 OF 27

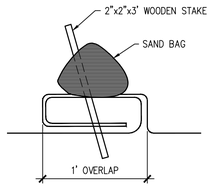
C16.1W

24x36

IF SHEET MEASURES LESS THAN 24"X36", IT IS A REDUCED PRINT. REDUCE SCALE ACCORDINGLY



ISOMETRIC VIEW

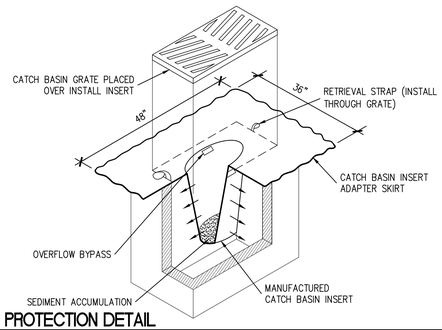


SECTION A–A

OVERLAP DETAIL

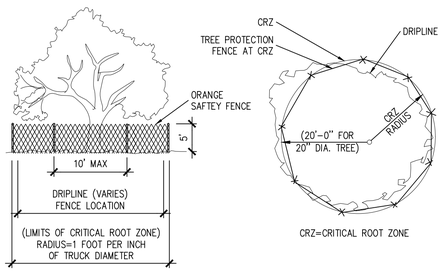
A1 PLASTIC COVERING DETAIL

SCALE: N.T.S.



A2 CB PROTECTION DETAIL

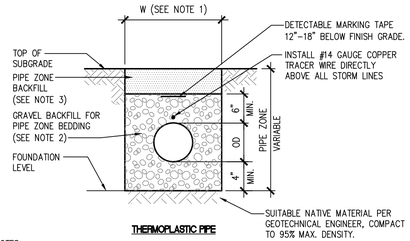
SCALE: N.T.S.



TREE PROTECTION FENCE - ORANGE SAFETY FENCE

B1 TREE PROTECTION DETAIL

SCALE: N.T.S.



THERMOPLASTIC PIPE

NOTES:

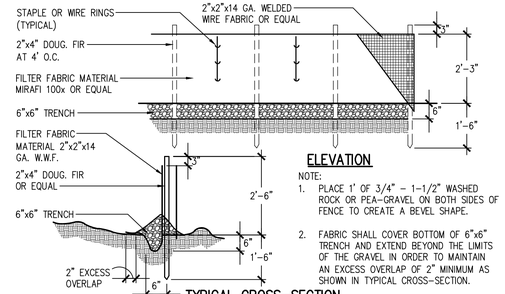
1) TRENCH WIDTH SHALL BE AS SPECIFIED IN SECTION 2-09.4 OF THE WSDOT STANDARD SPECIFICATIONS.

2) GRAVEL BACKFILL FOR PIPE ZONE BEDDING SHALL BE IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATIONS SECTION 9-03.12 (3).

3) PIPE ZONE BACKFILL SHALL BE NATIVE SOIL IN ACCORDANCE WITH SPECIFICATION REQUIREMENTS.

B3 PIPE ZONE BEDDING AND BACKFILL

SCALE: N.T.S.



TYPICAL CROSS–SECTION

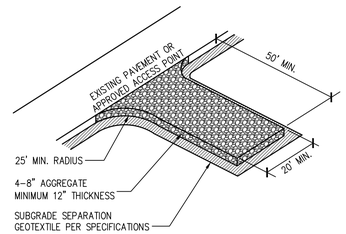
ELEVATION

NOTE:

1. PLACE 1' OF 3/4" – 1–1/2" WASHED ROCK OR PEA–GRAVEL ON BOTH SIDES OF FENCE TO CREATE A BEVEL SHAPE.
2. FABRIC SHALL COVER BOTTOM OF 6"x6" TRENCH AND EXTEND BEYOND THE LIMITS OF THE GRAVEL IN ORDER TO MAINTAIN AN EXCESS OVERLAP OF 2" MINIMUM AS SHOWN IN TYPICAL CROSS–SECTION.

B3 SILT FENCE DETAIL

SCALE: N.T.S.



B4 TESC CONSTRUCTION ENTRANCE

SCALE: N.T.S.

bcra
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2102 PACIFIC AVENUE, SUITE 300, TACOMA, WA 98402

SEAL

PROJECT
PUYALLUP SCHOOL DISTRICT
WALKER HIGH SCHOOL PORTABLE
5715 MILWAUKEE AVE E
PUYALLUP, WA 98372

REVISIONS

5-10-21 PERMIT SUBMITTAL
6-14-21 PERMIT RESUBMITTAL
6-23-21 BID SET
7-09-21 COUNTY RESUBMITTAL
10-04-22 RECORD DRAWINGS

DATE
1.19.2021

BCRA NO.
20160.00.00

DRAWN BY:

REVIEWED BY:

SHEET TITLE
SITE UTILITIES DETAILS

SHEET
25 OF 27

C17.0W

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

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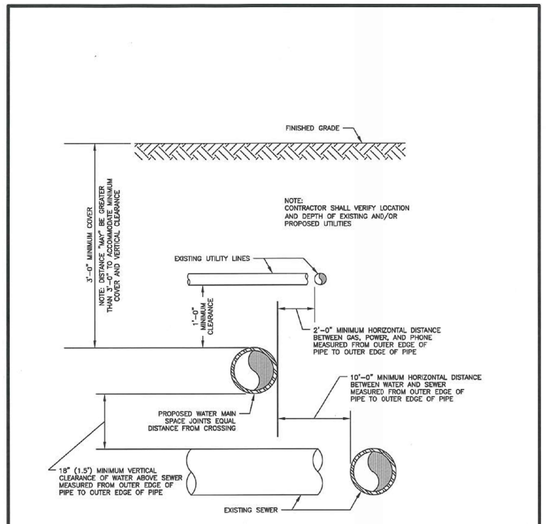
PHONE: (253) 474-9449 | FAX: (253) 474-0153
http://www.sitts-hill-engineers.com/

Project No.:	19,034	Project Mgr.:	R.H.
Proj. Engineer:	S.A.J.	Proj. Drafter:	S.A.J.

IF SHEET MEASURES LESS THAN 24"X36", IT IS A REDUCED PRINT. REDUCE SCALE ACCORDINGLY

24x36



SEE CITY STANDARD 03.01.03-2 FOR ADDITIONAL NOTES FOR THIS DETAIL

CITY OF PUYALLUP OFFICE of THE CITY ENGINEER

APPROVED FOR PUBLICATION — DATE SEALED 2/5/2018

WATER MAIN CROSSING OTHER UTILITIES

CITY STANDARD 03.01.03-1

(NOT TO SCALE)

FILE NAME: I:\DRAFT\CITY\STANDARDS\CITY STANDARDS\03.01.03-1.DWG

NOTES FOR WATER MAIN CROSSING OTHER UTILITIES
CITY STANDARD 03.01.03-1

WHEN LOCAL CONDITIONS PREVENT THE SEPARATIONS DESCRIBED ON CITY STANDARD 03.01.03-1, A SEWER MAY BE LAID CLOSER THAN 10-FEET HORIZONTALLY OR 18-INCHES VERTICALLY TO A WATER LINE, PROVIDED THE GUIDELINES BELOW ARE FOLLOWED:

UNUSUAL CONDITIONS (PARALLEL SYSTEMS)

1. SEWER LINE IS LAID IN A SEPARATE TRENCH FROM THE WATER LINE.
2. WHEN 18-INCHES VERTICAL SEPARATION CANNOT BE OBTAINED, THE SEWER SHALL BE CONSTRUCTED OF MATERIALS AND JOINTS THAT ARE EQUIVALENT TO WATER MAIN STANDARDS OF CONSTRUCTION AND SHALL BE PRESSURE TESTED TO ENSURE WATER TIGHTNESS PRIOR TO BACKFILLING.
3. THE WATER LINE SHALL BE PLACED ON A BENCH OF UNDISTURBED EARTH WITH THE BOTTOM OF THE WATER PIPE AT LEAST 18-INCHES ABOVE THE CROWN OF THE SEWER, AND SHALL HAVE AT LEAST 5-FEET OF HORIZONTAL SEPARATION AT ALL TIMES. THE CITY RESERVES THE RIGHT TO REQUIRE SUPPLEMENTAL MITIGATION EFFORTS, SUCH AS IMPERMEABLE BARRIERS OR OTHER MEANS, FOR ADDITIONAL PROTECTION.
4. THE SEWER SHALL NOT BE INSTALLED IN THE SAME DITCH AS A POTABLE WATER LINE WITHOUT PRIOR WRITTEN APPROVAL BY THE CITY OF PUYALLUP.

UNUSUAL CONDITIONS (PERPENDICULAR SYSTEMS)

CONDITION A – GRAVITY SEWERS PASSING UNDER WATER LINES (ALL OF THE FOLLOWING APPLY)

1. ONE FULL SEGMENT (NOT LESS THAN 18-FEET LONG) OF DUCTILE IRON CLASS 52 WATER PIPE, AND THE LONGEST STANDARD SEWER PIPE LENGTH AVAILABLE FROM THE MANUFACTURER SHALL BE USED WITH THE PIPES CENTERED TO MAXIMIZE JOINT SEPARATION.
2. STANDARD GRAVITY-SEWER MATERIAL ENCASED IN CONCRETE OR IN A ONE-QUARTER-INCH THICK CONTINUOUS STEEL, DUCTILE IRON, OR PRESSURE RATED PVC PIPE WITH A DIMENSION RATIO (THE RATIO OF THE OUTSIDE DIAMETER TO THE PIPE WALL THICKNESS) OF 18 OR LESS, WITH ALL VOIDS PRESSURE-GROUTED WITH SAND-CEMENT GROUT OR BENTONITE.

   EXAMPLE OF DIMENSION RATIO (DR): OUTSIDE PIPE DIAMETER DIVIDED BY THE WALL THICKNESS OR OD/T.
   FOR 8-INCH SCH. 80 PVC PIPE (T=0.5 INCHES), THE DR IS 8.625/0.5=17.25

CONDITION B – GRAVITY SEWER PASSING OVER WATER LINES

WATER LINES SHALL BE PROTECTED BY PROVIDING:

1. A VERTICAL SEPARATION OF AT LEAST 18-INCHES BETWEEN THE INVERT OF THE SEWER AND THE CROWN OF THE WATER LINE.
2. ADEQUATE STRUCTURAL SUPPORT FOR THE SEWER LINE TO PREVENT EXCESSIVE DEFLECTION OF JOINTS AND SETTLING ON AND BREAKING OF THE WATER LINE.
3. THE SEWER PIPE SHALL BE THE LONGEST STANDARD SEWER PIPE LENGTH AVAILABLE FROM THE MANUFACTURER WITH THE WATER AND SEWER PIPES CENTERED TO MAXIMIZE JOINT SEPARATION.
4. THE SEWER LINE CASING EQUIVALENT TO THAT SPECIFIED IN A(2) ABOVE.

CITY OF PUYALLUP OFFICE of THE CITY ENGINEER

APPROVED FOR PUBLICATION — DATE SEALED 2/5/2019

WATER MAIN CROSSING OTHER UTILITIES (NOTES)

CITY STANDARD 03.01.03-2

(NOT TO SCALE)

FILE NAME: I:\DRAFT\CITY\STANDARDS\CITY STANDARDS\03.01.03-2.DWG

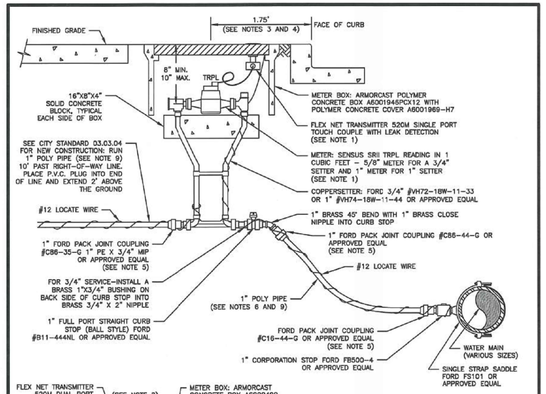
RD

RECORD DRAWING
RECORD DRAWING INFORMATION IS PROVIDED BY NORTHWEST CASCADE, INC.
RECORD DRAWING INFORMATION WAS REVIEWED BY R. HAND OF SITTS & HILL ENGINEERS AND THE INSTALLATION SUBSTANTIALLY CONFORMS TO APPROVED PLANS.

RICHARD C. HAND — STATE OF WASHINGTON — 26780 — REGISTERED PROFESSIONAL ENGINEER

APPROVED
BY _____
CITY OF PUYALLUP
DEVELOPMENT SERVICES
DATE 07/26/2021

NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE.
THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS.
FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE CITY ENGINEER



DUAL SERVICE CONNECTION

NOTES:

1. FOR SINGLE FAMILY RESIDENTIAL CONSTRUCTION, THE CITY SHALL SUPPLY AND INSTALL THE WATER METER AND TRANSMITTER AT THE TIME OF OCCUPANCY. FOR COMMERCIAL CONSTRUCTION THE CONTRACTOR SHALL SUPPLY AND INSTALL THE METER AND TRANSMITTER.
2. ALL MATERIAL AND FITTINGS SHALL BE AS SPECIFIED OR AN APPROVED EQUAL.
3. NORMALLY THE WATER METER BOX SHOULD BE LOCATED IN THE PLANTING STRIP. IF SIDEWALK IS AGAINST THE CURB, PLACE METER BOX DIRECTLY BEHIND THE SIDEWALK.
4. THE WATER METER BOX SHALL NOT BE LOCATED IN HARD SURFACES. WHEN UNAVOIDABLE, EXCEPTIONS CAN BE MADE AT END OF CUL-DE-SACS OR PAN HANDLED LOTS.
5. ALL COUPLINGS SHALL USE PIPE INSERT STIFFENERS.
6. THE WATER SERVICE LINE SHALL BE BEDDED IN WASHED SAND WITH 36" OF COVER BELOW FINISHED GRADE WITHIN THE RIGHT-OF-WAY. THE WATER SERVICE LINE SHALL BE ONE CONTINUOUS PIECE WITH NO SPLICES.
7. WATER MAIN SHALL HAVE A MINIMUM COVER OF 36" IN IMPROVED RIGHT-OF-WAY AND IMPROVED EASEMENTS, AND A MINIMUM COVER OF 42" IN UNIMPROVED RIGHT-OF-WAY AND UNIMPROVED EASEMENTS.
8. DUAL SERVICE SHALL BE CENTERED ON PROPERTY LINE.
9. ALL POLY PIPE SHALL BE HIGH DENSITY POLY (IRON PIPE SIZE) MEETING ASTM D-2239-SIDR 7, BLUE IN COLOR, 200 PSI MINIMUM.

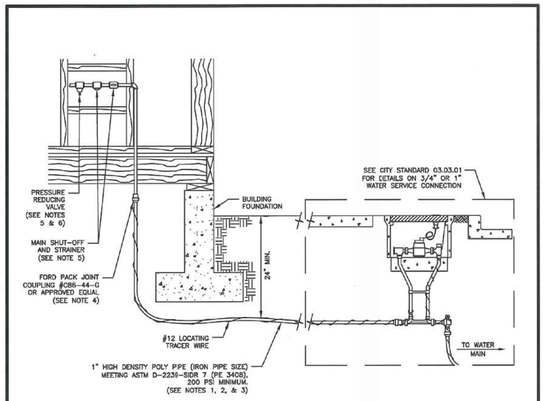
CITY OF PUYALLUP OFFICE of THE CITY ENGINEER

APPROVED FOR PUBLICATION — DATE SEALED 2/5/2019

3/4" OR 1" WATER SERVICE CONNECTION

CITY STANDARD 03.03.01

(NOT TO SCALE)



NOTES

1. SERVICE LINE MAY BE 200 PSI POLY PIPE IN UNCONTAMINATED SOILS. IN SOILS THAT MAY CONTAIN HYDROCARBONS USE 1" "K" COPPER PIPE.
2. PIPE TO BE BEDDED WITH MATERIAL FREE OF ROCKS.
3. POLY PIPE SHOULD BE PLACED IN THE TRENCH IN A SNAKELIKE FASHION (NOT STRAIGHT WITHOUT SLACK). THIS WILL ACCOMMODATE GROUND MOVEMENT AND KEEP PRESSURE OFF THE FITTINGS.
4. PLASTIC WATER SERVICE PIPING MAY TERMINATE WITHIN A BUILDING, PROVIDED THE CONNECTION TO THE POTABLE WATER DISTRIBUTION SYSTEM SHALL BE ACCESSIBLE. SEE THE CURRENT UNIFORM PLUMBING CODE FOR MORE INFORMATION.
5. THE MAIN SHUT-OFF VALVE, PRESSURE REDUCING VALVE, AND STRAINER SHALL BE LOCATED INSIDE THE BUILDING IN AN ACCESSIBLE LOCATION. THEY SHOULD BE LOCATED BEFORE ANY BRANCH CONNECTIONS, AND PROTECTED FROM FREEZING. THE MAIN SHUT-OFF VALVE SHALL BE BRASS.
6. ALL PROPERTIES WITH WATER SERVICE CONNECTIONS LOCATED SOUTH OF 15TH AVE SE AND SOUTH OF 15TH AVE SW SHALL HAVE AN APPROVED PRIVATELY OWNED AND PRIVATELY MAINTAINED PRESSURE REDUCING VALVE (PRV) LOCATED ON THEIR WATER SERVICE LINE.
7. ALL PROPERTIES WITH IRRIGATION BRANCH CONNECTIONS LOCATED SOUTH OF 15TH AVE SE AND SOUTH OF 15TH AVE SW SHOULD HAVE AN APPROVED PRIVATELY OWNED AND PRIVATELY MAINTAINED PRESSURE REDUCING VALVE (PRV) LOCATED ON THEIR IRRIGATION BRANCH LINE.
8. ALL INSTALLATIONS WITHIN TWO (2) FEET OF THE BUILDING SHALL COMPLY WITH THE CURRENT UNIFORM PLUMBING CODE.

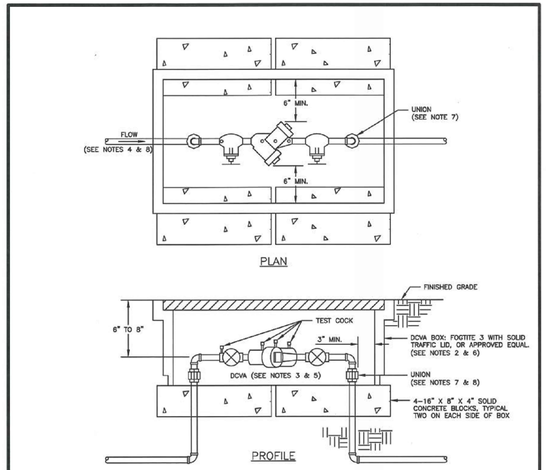
CITY OF PUYALLUP OFFICE of THE CITY ENGINEER

APPROVED FOR PUBLICATION — DATE SEALED 2/5/2019

PRIVATE WATER SERVICE LINES

CITY STANDARD 03.03.04

(NOT TO SCALE)



NOTES:

1. BACKFLOW ASSEMBLY MUST BE SELECTED FROM WASHINGTON STATE DEPARTMENT OF HEALTH'S LIST OF BACKFLOW PREVENTION ASSEMBLIES APPROVED FOR INSTALLATION IN WASHINGTON STATE, LATEST EDITION.
2. THE DCVA SHALL BE INSTALLED WITH ADEQUATE SPACE TO FACILITATE MAINTENANCE AND TESTING. IT SHALL BE TESTED AFTER INSTALLATION, BY A WASHINGTON STATE CERTIFIED BACK-FLOW ASSEMBLY TESTER, TO INSURE ITS SATISFACTORY OPERATION BEFORE OCCUPANCY, AND ANNUALLY THEREAFTER. SEND TEST RESULTS TO: CITY OF PUYALLUP, WATER QUALITY OPERATIONS, 1100 39TH AVE SE, PUYALLUP, WA 98374.
3. DCVA MUST BE PURCHASED AS A UNIT. NO MODIFICATIONS TO THE ASSEMBLY ARE ALLOWED.
4. DCVA SHALL BE PLACED IMMEDIATELY DOWNSTREAM OF WATER METER. WHEN IRRIGATION SYSTEM IS CONNECTED OFF DOMESTIC WATER LINE, IRRIGATION DCVA SHALL BE PLACED IMMEDIATELY DOWNSTREAM OF THE BRANCH CONNECTION.
5. DCVA SHALL BE SIZED EQUAL OR COMPARABLE TO METER SIZE.
6. METER BOX SHALL BE LARGE ENOUGH TO ALLOW THE MINIMUM SETBACKS ILLUSTRATED ABOVE. METER BOX LID SHALL BE A TRAFFIC LID WITH A H-20 LOADING.
7. DIELECTRIC UNIONS MUST BE USED TO SEPARATE DISSIMILAR MATERIALS.
8. USE ONLY BRASS OR COPPER BETWEEN THE METER AND THE UNION ON THE CUSTOMER'S SIDE OF THE DCVA.

CITY OF PUYALLUP OFFICE of THE CITY ENGINEER

APPROVED FOR PUBLICATION — DATE SEALED 2/5/2019

2" AND SMALLER DOUBLE CHECK VALVE ASSEMBLY INSTALLATION

CITY STANDARD 03.04.01

(NOT TO SCALE)

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RICHARD C. HAND — STATE OF WASHINGTON — 26780 — REGISTERED PROFESSIONAL ENGINEER — 07/23/21

PROJECT
PUYALLUP SCHOOL DISTRICT
WALKER HIGH SCHOOL SITE UTILITIES
5715 MILWAUKEE AVE E
PUYALLUP, WA 98372

REVISIONS
5-10-21 PERMIT SUBMITTAL
6-14-21 PERMIT RESUBMITTAL
6-23-21 BID SET
6-25-21 CITY RESUBMITTAL
7-23-21 CITY RESUBMITTAL
10-04-22 RECORD DRAWINGS

DATE 1.19.2021
BCRA NO. 20160.00.00
DRAWN BY:
REVIEWED BY:
SHEET TITLE
SITE UTILITIES DETAILS

SHEET 25 OF 27

C17.1W

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http://www.sitts-hill-engineers.com/

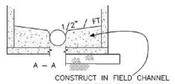
Project No.:	19,034	Project Mgr.:	R.H.
Proj. Engineer:	S.A.J.	Proj. Drafter:	S.A.J.

IF SHEET MEASURES LESS THAN 24"X36", IT IS A REDUCED PRINT. REDUCE SCALE ACCORDINGLY

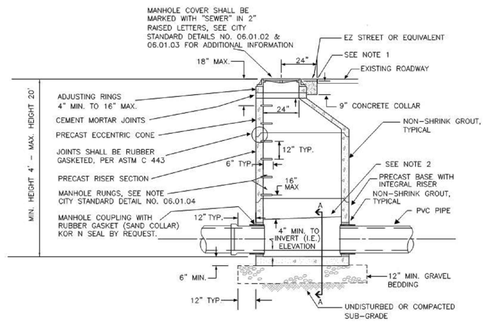
24x36

NOTES:

1. NEAT LINE CUTS SHALL BE SEALED AT TOP WITH A HOT PAVING GRADE AND FACE OF CUT TACKED.
2. TOP OF SHELF, SLOPE 1/2" PER FOOT, CONSTRUCT IN FIELD CHANNEL AND SHELF TO THE CROWN OF PIPE.



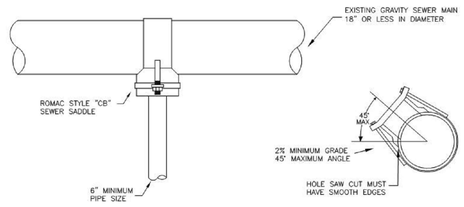
CONSTRUCT IN FIELD CHANNEL & SHELF TO THE CROWN OF THE PIPE



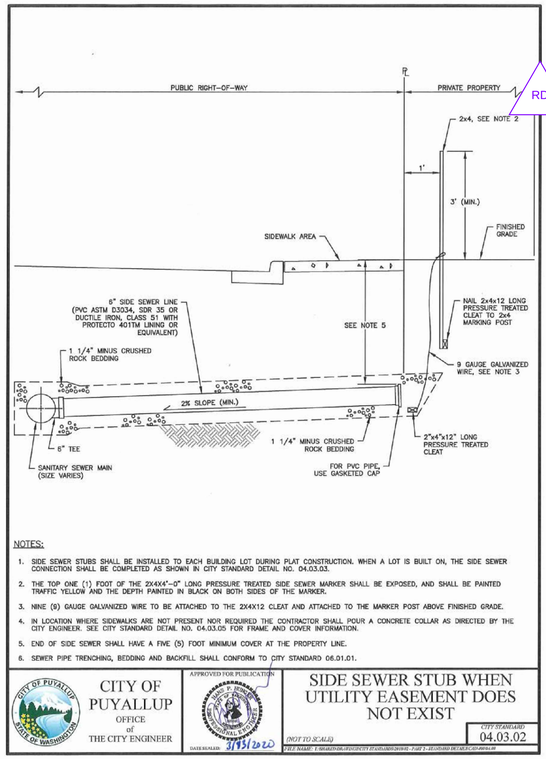
CITY OF PUYALLUP DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS	SANITARY SEWER MANHOLE				
DRAWN BY: BEN ERWIN-SVOBODA	CHECKED BY: LINDA LIAN	APPROVED BY: COLLEEN HARRIS	REVISED BY: LINDA LIAN	CITY STANDARD
FILE NAME: T:\PW\ECOMMON\STD\CITY\2009\04_S\S04.01R4.01.01	DATE APPROVED: 07/01/2009	DATE REVISED: 10/23/12	SCALE: 1"=1'	04.01.01

NOTES FOR CONNECTING TAPS ON EXISTING SEWER MAINS

1. THE TEE FITTING SHALL BE A ROMAC INDUSTRIES STYLE "CB" SEWER SADDLE (OR APPROVED EQUAL). ONLY NEW SADDLE AND PARTS SHALL BE INSTALLED. DUE TO PIPE SIZE MATERIALS OR PIPE CONDITION, THE CITY ENGINEER MAY REQUIRE AN ALTERNATE METHOD/MATERIAL BE USED.
2. THE SEWER MAIN TAP SHALL BE CUT WITH A SEWER PIPE TAPPING MACHINE (HOLE SAW) CAPABLE OF RETAINING THE COUPON.
3. THE ROUND HOLE CUT INTO THE SEWER MAIN SHALL BE NO LARGER THAN THE INSIDE DIAMETER OF THE SADDLE GASKET. THE HOLE SAW CUT EDGES SHALL BE SMOOTH.
4. THE COUPON SHALL BE RETAINED AND SURRENDERED TO THE INSPECTOR. THE PERMIT HOLDER WILL PAY ALL COSTS ASSOCIATED WITH THE LOCATION AND RETRIEVAL OF A LOST COUPON. ADDITIONALLY THE PERMIT HOLDER WILL BE HELD LIABLE FOR ANY SUBSEQUENT DAMAGES CAUSED BY A LOST COUPON.
5. BOLTS SHALL BE TORQUED TO MANUFACTURE SPECIFICATIONS, THEN RETORQUED AFTER 10 MINUTES.
6. NO TAPS SHALL BE ALLOWED ON EXISTING SEWER MAINS OVER 18" IN DIAMETER. CONNECTIONS INTO SEWER MAINS OVER 18" IN DIAMETER SHALL INTERSECT THE SEWER MAIN IN A MANHOLE. IN SOME CASES THE CITY ENGINEER MAY ALLOW A VARIANCE TO THIS REQUIREMENT.
7. ALL TRENCHING, BEDDING, AND BACKFILL SHALL BE IN ACCORDANCE WITH CITY STANDARD DETAIL NO. 06.01.01. ALL ASPHALT REPAIR SHALL BE IN ACCORDANCE WITH CITY STANDARD NO. 01.01.20. ALL ADDITIONAL UTILITY AND RIGHT OF WAY REPAIRS SHALL BE INACCORDANCE WITH THE "CITY STANDARDS" MANUAL.
8. THE CITY OF PUYALLUP WILL CONDUCT A "SEWER MAIN VIDEO INSPECTION" OF THE SEWER TAP. THE PERMIT HOLDER WILL BE REQUIRED TO REPAIR ANY SEWER TAP CONSTRUCTION DEFECTS FOUND BY THE CITY INSPECTORS. THE COST OF ALL REPAIRS AND SUBSEQUENT "SEWER MAIN VIDEO INSPECTIONS" WILL BE THE RESPONSIBILITY OF THE PERMIT HOLDER. THE DAMAGE DEPOSIT POSTED BY THE BUILDER WILL BE HELD UNTIL PROBLEMS ARE CORRECTED. DUE TO PUBLIC HEALTH AND SAFETY, BUILDING OCCUPANCY WILL NOT BE ALLOWED UNTIL REPAIRS ARE COMPLETED AND ACCEPTED BY THE CITY ENGINEER.



CITY OF PUYALLUP DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS	SEWER MAIN TAP				
DRAWN BY: BEN ERWIN-SVOBODA	CHECKED BY: LINDA LIAN	APPROVED BY: TED HILL	REVISED BY: MARC PALMER	DATE REVISED: 05/21/13	CITY STANDARD
FILE NAME: T:\PW\ECOMMON\STD\CITY\2009\04_S\S04.02R4.02.01	DATE APPROVED: 07/01/2009		SCALE: 1/2	XX/XX/XX	04.02.01



NOTES:

1. SIDE SEWER STUBS SHALL BE INSTALLED TO EACH BUILDING LOT DURING PLAT CONSTRUCTION. WHEN A LOT IS BUILT ON, THE SIDE SEWER CONNECTION SHALL BE COMPLETED AS SHOWN IN CITY STANDARD DETAIL NO. 04.03.03.
2. THE TOP ONE (1) FOOT OF THE 2X4X4'-0" LONG PRESSURE TREATED SIDE SEWER MARKER SHALL BE EXPOSED, AND SHALL BE PAINTED TRAFFIC YELLOW AND THE DEPTH PAINTED IN BLACK ON BOTH SIDES OF THE MARKER.
3. NINE (9) GAUGE GALVANIZED WIRE TO BE ATTACHED TO THE 2X4X12 CLEAT AND ATTACHED TO THE MARKER POST ABOVE FINISHED GRADE.
4. IN LOCATION WHERE SIDEWALKS ARE NOT PRESENT NOR REQUIRED THE CONTRACTOR SHALL POUR A CONCRETE COLLAR AS DIRECTED BY THE CITY ENGINEER. SEE CITY STANDARD DETAIL NO. 04.03.05 FOR FRAME AND COVER INFORMATION.
5. END OF SIDE SEWER SHALL HAVE A FIVE (5) FOOT MINIMUM COVER AT THE PROPERTY LINE.
6. SEWER PIPE TRENCHING, BEDDING AND BACKFILL SHALL CONFORM TO CITY STANDARD 06.01.01.

CITY OF PUYALLUP OFFICE of THE CITY ENGINEER	APPROVED FOR PUBLICATION	SIDE SEWER STUB WHEN UTILITY EASEMENT DOES NOT EXIST	
DATE SIGNED: 3/15/2022		(NOT TO SCALE)	CITY STANDARD 04.03.02

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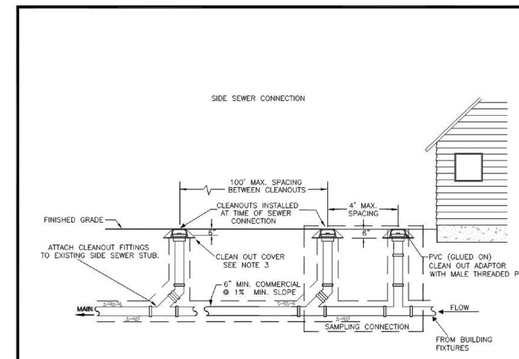
RICHARD C. HAND STATE OF WASHINGTON 26780 REGISTERED PROFESSIONAL ENGINEER

APPROVED
BY _____
CITY OF PUYALLUP
DEVELOPMENT SERVICES
DATE 07/26/2021

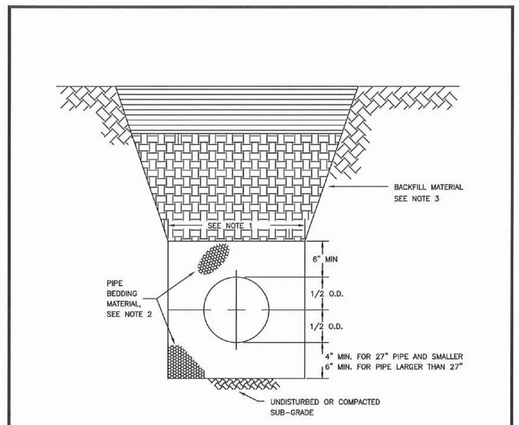
NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE.
THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS.
FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE CITY ENGINEER



NOTES:

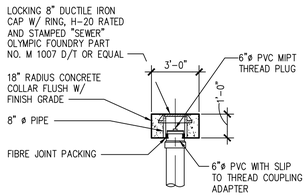
1. SAMPLING CONNECTION SHALL BE INSTALLED OUT SIDE WITH UNOBSTRUCTED ACCESS AT ALL TIMES.
2. A SAMPLING CONNECTION SHALL BE INSTALLED FOR EACH COMMERCIAL / RETAIL UNIT OR SPACE.
3. CLEAN OUT AND SAMPLING CONNECTION COVERS:
   A) FOR NON-VEHICULAR TRAFFIC INSTALLATIONS USE "CARSON" MODEL 910 GREEN YARD BOX WITH BOLT DOWN LID MARKED SEWER OR APPROVED EQUAL.
   B) FOR ASPHALT, GRAVEL, OR TRAFFIC INSTALLATIONS SEE CITY STANDARD DETAIL NO. 04.03.05 FRAME AND COVER SECTION.
4. EACH CLEANOUT ASSEMBLY SHALL CONSIST OF: ONE CLEANOUT ADAPTER, HUB x FEMALE, FIPT, PVC SI AND ONE CLEANOUT PLUG, MOPT WITH RAISED NUT, PVC SDR35.

CITY OF PUYALLUP DEVELOPMENT ENGINEERING and PUBLIC WORKS DEPARTMENTS	COMMERCIAL SIDE SEWER CONNECTION WITH SAMPLING CONNECTION				
DRAWN BY: BEN ERWIN-SVOBODA	CHECKED BY: LINDA LIAN	APPROVED BY: COLLEEN HARRIS	REVISED BY: LINDA LIAN	CITY STANDARD
FILE NAME: T:\PW\ECOMMON\STD\CITY\2009\04_S\S04.03R4.03.04	DATE APPROVED: 07/01/2009	DATE REVISED: 05/21/13	SCALE: 1:6	04.03.04



1. TRENCHING SHALL MEET THE REQUIREMENTS OF SECTION 7-08.3(1)A AND 2-06.3(1) OF THE WSDOT SPECIFICATIONS.
2. BEDDING MATERIAL SHALL CONFORM TO 9-03.12(3) GRAVEL BACKFILL FOR PIPE ZONE BEDDING.
3. GRAVEL BACKFILL SHALL CONFORM TO 9-03.12(1)A GRAVEL BACKFILL FOR FOUNDATIONS, CLASS A.

CITY OF PUYALLUP OFFICE of THE CITY ENGINEER	PIPE TRENCHING BEDDING AND BACKFILL				
DRAWN BY: BEN ERWIN-SVOBODA	CHECKED BY: TED HILL	APPROVED BY: MARC PALMER	REVISED BY: V. STOCKMAN	DATE REVISED: 05/21/13	CITY STANDARD
FILE NAME: T:\PW\ECOMMON\STD\STDS\CITYSTD\04_S\S\C04.01R4.01.01	DATE APPROVED: 07/01/2009		SCALE: 1:1	XX/XX/XX	06.01.01



C3 SANITARY SEWER CLEANOUT
SCALE: N.T.S.

bcra
T 253.627.4367 F 253.627.4395 WWW.BCRADESIGN.COM
2106 PACIFIC AVENUE, SUITE 300, TACOMA, WA 98402

SEAL

RICHARD C. HAND STATE OF WASHINGTON 26780 REGISTERED PROFESSIONAL ENGINEER 07/23/21

PROJECT
PUYALLUP SCHOOL DISTRICT
WALKER HIGH SCHOOL SITE UTILITIES
5715 MILWAUKEE AVE E
PUYALLUP, WA 98372

REVISIONS
5-10-21 PERMIT SUBMITTAL
6-14-21 PERMIT RESUBMITTAL
6-23-21 BID SET
6-25-21 CITY RESUBMITTAL
7-23-21 CITY RESUBMITTAL
10-04-22 RECORD DRAWINGS

DATE 1.19.2021
BCRA NO. 20160.00.00
DRAWN BY:
REVIEWED BY:
SHEET TITLE
SITE UTILITIES DETAILS

SHEET 26 OF 27

C17.2W

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4815 CENTER STREET | TACOMA, WA. 98409
PHONE: (253) 474-9449 | FAX: (253) 474-0153
http://www.sitts-hill-engineers.com/

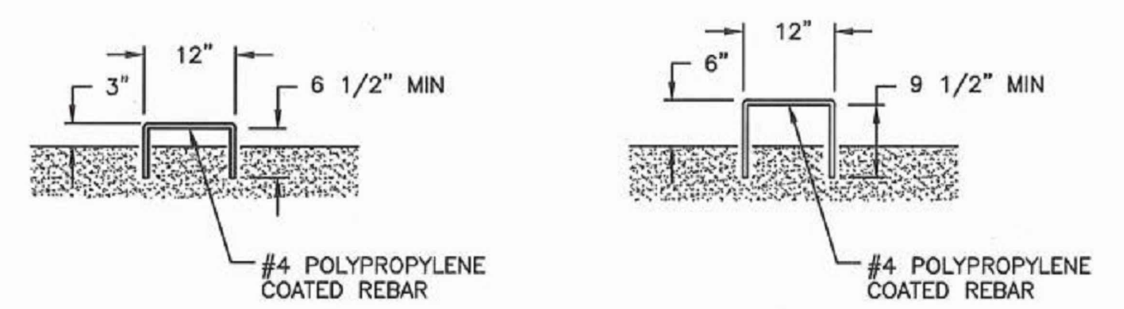
Project No.:	19,034	Project Mgr.:	R.H.
Proj. Engineer:	S.A.J.	Proj. Drafter:	S.A.J.

IF SHEET MEASURES LESS THAN 24"X36", IT IS A REDUCED PRINT. REDUCE SCALE ACCORDINGLY

24X36

MANHOLE HANDHOLD

MANHOLE STEP



NOTES

1. MANHOLE STEPS AND HANDHOLDS SHALL BE POLYPROPYLENE COATED GRADE 60 REBAR CONFORMING TO ASTM C-478, D-4101, A-615 AND AASHTO M-199.
2. PREFABRICATED LADDERS SHALL BE MADE OF REBAR AND ENCASED IN POLYPROPYLENE AFTER FABRICATION.
3. STEPS MAY BE INSTALLED:
   CAST IN PLACE, OR
   DRIVEN INTO PREFORMED HOLES WITH THE CONCRETE CURED TO 3,000 PSI MINIMUM, OR
   BY DRILLING TWO ONE INCH DIAMETER HOLES, 3-3/4' DEEP, 13" O.C. APPLY NON-SHRINK GROUT AROUND BARBED ENDS AND DRIVE TO FULL INSERTION.
4. PENETRATION OF THE OUTER WALL OF A STRUCTURE WITH A LEG OF A STEP OR LADDER SHALL NOT OCCUR. STEPS AND LADDER RUNGS SHALL BE SPACED AT 12 INCHES AND SHALL BE VERTICALLY ALIGNED.
5. STEPS, HANDHOLDS, LADDER RUNGS AND FASTENINGS SHALL BE DESIGNED FOR A MINIMUM LIVE LOAD OF 300 LBS AND A PULL OUT FORCE OF 1,000 LBS.
6. STEPS, HANDHOLDS, AND LADDER PARTS SHALL BE FREE OF SPLINTERS, SHARP EDGES, BURRS OR PROJECTIONS WHICH MAY CAUSE HAZARDS.
7. REQUESTS TO USE STEPS, HANDHOLDS AND LADDERS MADE FROM NON-CORROSIVE MATERIALS SUCH AS STAINLESS STEEL AND PLASTIC MAY BE ACCEPTED AFTER REVIEW AND APPROVAL BY THE CITY. GALVANIZED STEEL WILL NOT BE PERMITTED IN SANITARY SEWER AND STORM SEWER MANHOLES AND STRUCTURES.

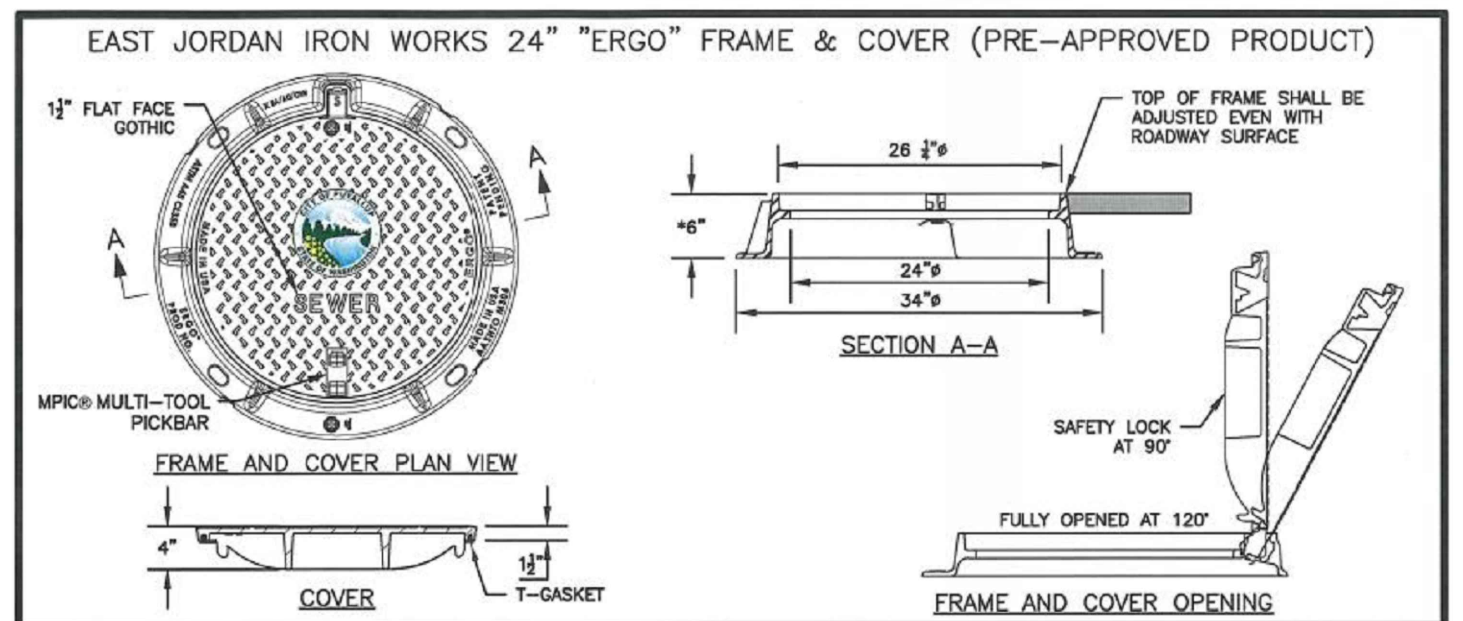
CITY OF PUYALLUP
OFFICE of THE CITY ENGINEER

MANHOLE STEP AND HANDHOLD

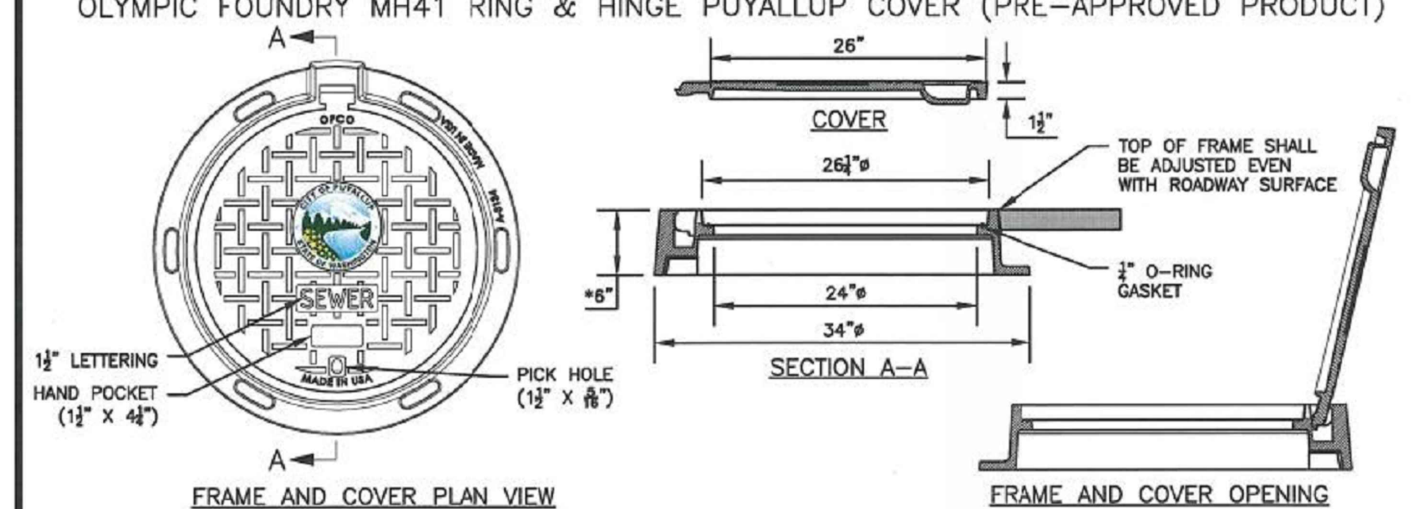
CITY STANDARD 06.01.03

3/6/17

EAST JORDAN IRON WORKS 24" "ERGO" FRAME & COVER (PRE-APPROVED PRODUCT)



OLYMPIC FOUNDRY MH41 RING & HINGE PUYALLUP COVER (PRE-APPROVED PRODUCT)



NOTES:

1. EAST JORDAN IRON WORKS 24" "ERGO" AND OLYMPIC FOUNDRY MH41 RING & HINGE PUYALLUP COVER ARE PRE-APPROVED PRODUCTS AND SHALL BE USED FOR PUBLICLY-OWNED INFRASTRUCTURE. ALL OTHERS REQUIRE WRITTEN APPROVAL OF THE ENGINEER PRIOR TO INSTALLATION.
2. MANHOLE FRAME AND COVERS SHOULD NOT BE LOCATED IN PEDESTRIAN PATHWAYS (E.G. SIDEWALKS, CROSSWALKS, ETC.). WHERE EXISTING OR PROPOSED CONDITIONS REQUIRE A MANHOLE FRAME AND COVER TO BE INSTALLED WITHIN A PEDESTRIAN PATHWAY, THE MANHOLE FRAME AND COVER SHALL BE ADA COMPLIANT.
3. NON-ROCKING FIT FOR MANHOLE COVERS.
4. CASTING TO BE SHOT BLASTED AND FREE FROM SURFACE SAND AND SCALE.
5. CASTING TO BE SMOOTH, TRUE TO PATTERN, FREE FROM BLOWHOLES, POROSITY HARD SPOTS, SHRINK HOLES, WARP, OR ANY OTHER DEFECTS WHICH COULD IMPAIR SERVICEABILITY.
6. CASTINGS SHALL BE UNCOATED.
7. FOR STORM APPLICATIONS CAST LETTERS SHALL READ "STORM".
8. INSTALL FRAME AND COVER IN ROADWAY WITH HINGED SIDE OF ASSEMBLY POINTED TOWARD ONCOMING TRAFFIC.
9. THE CITY SHALL HAVE THE RIGHT TO REQUIRE INSPECTION AND APPROVAL OF ALL CASTINGS PRIOR TO PAINTING.
10. REPAIR OR DEFECTS BY WELDING, OR BY THE USE OF "SMOOTH-ON" OR SIMILAR MATERIAL WILL NOT BE PERMITTED.
11. MANHOLE RING AND COVER SHALL BE FREE OF POROSITY, SHRINK CAVITIES, COLD SHUTS OR CRACKS OR ANY SURFACE DEFECTS WHICH WOULD IMPAIR SERVICEABILITY.

* FRAME HEIGHT MAY BE 4" FOR OVERLAYS AND PAVEMENT REHABILITATION PROJECTS, WITH WRITTEN APPROVAL BY THE CITY ENGINEER.

CITY OF PUYALLUP
OFFICE of THE CITY ENGINEER

APPROVED FOR PUBLICATION

DATE SEALED: 2/5/2018

MANHOLE FRAME AND COVER

(NOT TO SCALE)

CITY STANDARD 06.01.02

RD

RECORD DRAWING
RECORD DRAWING INFORMATION IS PROVIDED BY NORTHWEST CASCADE, INC. RECORD DRAWING INFORMATION WAS REVIEWED BY R. HAND OF SITTS & HILL ENGINEERS AND THE INSTALLATION SUBSTANTIALLY CONFORMS TO APPROVED PLANS.

APPROVED
BY
CITY OF PUYALLUP DEVELOPMENT SERVICES
DATE 07/26/2021
NOTE: THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE.
THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS.
FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE CITY ENGINEER

bcra

T 253.627.4367 F 253.627.4395 WWW.BCRADESIGN.COM
2106 PACIFIC AVENUE, SUITE 300, TACOMA, WA 98402

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RICHARD C. HAND, STATE OF WASHINGTON, 26780, REGISTERED PROFESSIONAL ENGINEER, 07/23/21

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SHEET 27 OF 27

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