



CITY OF CHEHALIS

Where Heart and History Shape Our Future

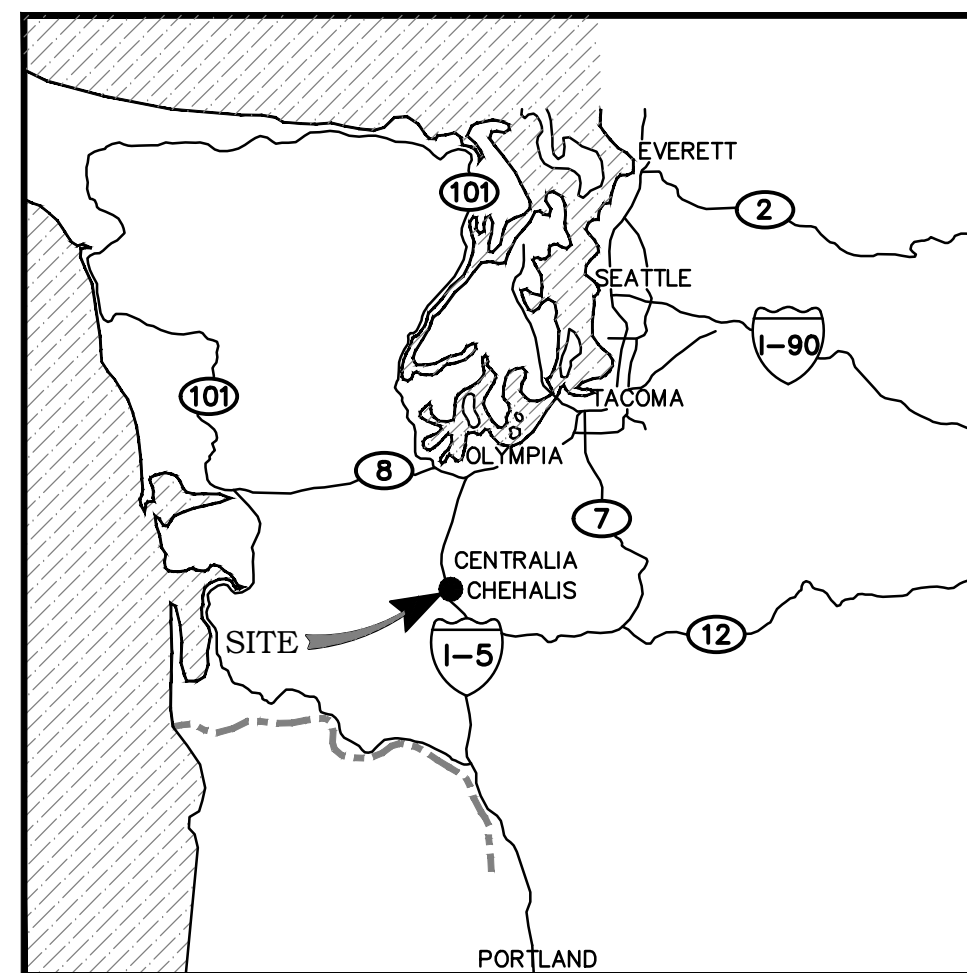
SW SNIVELY AVENUE ROAD AND UTILITY IMPROVEMENT PROJECT

PORTION OF SE 1/4 OF THE SE 1/4
SECTION 5, TOWNSHIP 13 NORTH, RANGE 2 WEST W.M.
"CHEHALIS", WASHINGTON

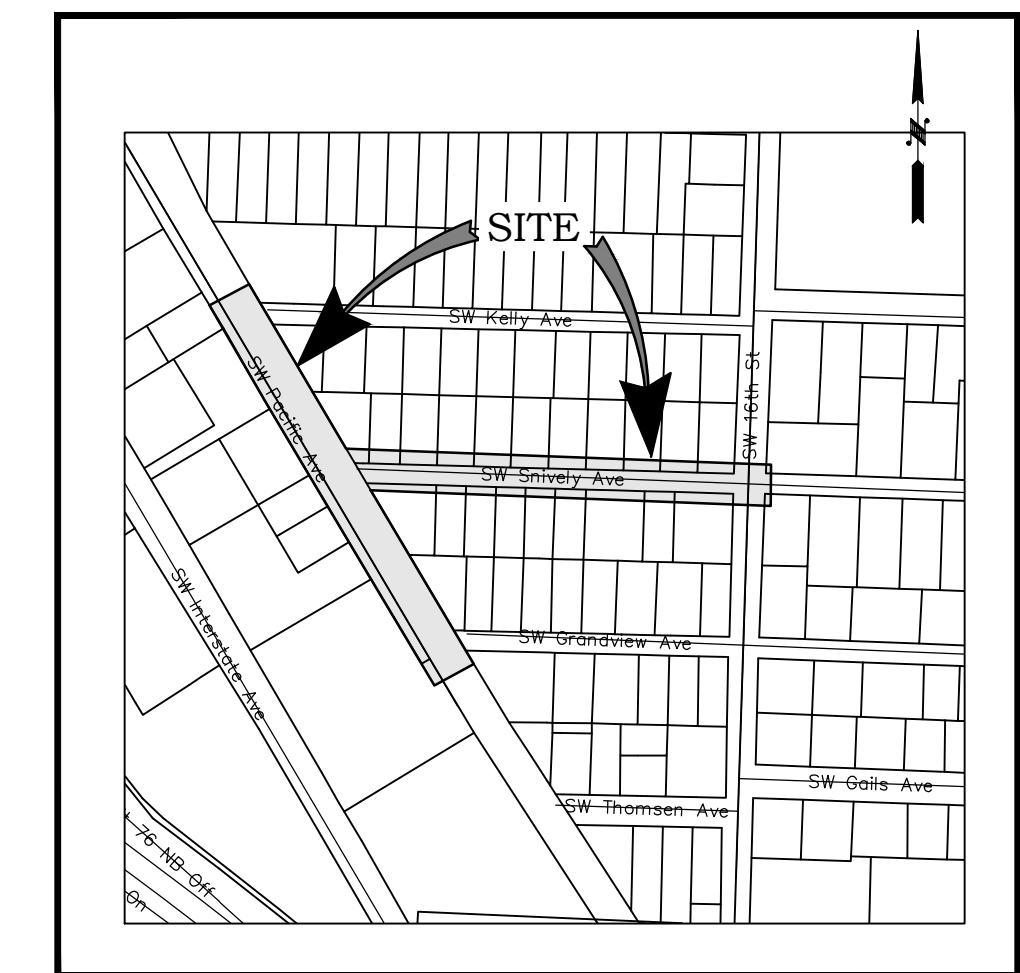
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AREA MAP



LOCATION MAP



MAYOR:

DENNIS DAWES

COUNCIL MEMBERS:

- DISTRICT 1: JERRY LORD
- DISTRICT 2: DARYL LUND
- DISTRICT 3: TONY KETCHUM
- DISTRICT 4: DR. ISAAC POPE
- AT LARGE: CHAD TAYLOR
- AT LARGE: ROBERT SPAHR

CITY MANAGER:

JILL ANDERSON

PUBLIC WORKS DIRECTOR:

TRENT LOUGHEED

COMMUNITY DEVELOPMENT DIRECTOR:

TRENT LOUGHEED

CITY CLERK:

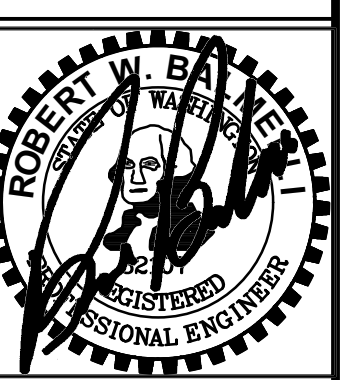
CARYN FOLEY

NO.	DATE	REVISION

DESIGNED BY: <u> RWB </u>	CES
DRAWN BY: <u> CES </u>	RWB
CHECKED BY: <u> RWB </u>	
DATE: <u> 2/19/2021 </u>	SCALE: <u> 1"=40' </u>

SW SNIVELY AVENUE ROAD AND UTILITY IMPROVEMENT PROJECT
CHEHALIS
WA.

CIVIL COVER SHEET



RB Engineering
DESIGN → PERMIT → MANAGE
OFF: (360) 746-8919
P.O. Box 923
CHEHALIS, WA 98532
EMAIL: c@rbengineering.com



JOB NUMBER
20041
DRAWING NAME
20041_CO.1_CVR
C0.1
1 OF 20

ABBREVIATIONS table with columns for symbol and description, including AC, BCP, BM, BVC, etc.

LINETYPES table showing existing and proposed line styles for various utilities like water main, sewer main, storm main, etc.

UTILITY CONTACT INFORMATION for Road, Water, Sewer, Storm; Telephone: CenturyLink; Power Service: Lewis County PUD.

SYMBOLS table with columns for existing and proposed symbols, including BLOWOFF ASSEMBLY, FIRE HYDRANT, GATE VALVE, etc.

REMOVAL AND REPLACEMENT OF UNSUITABLE MATERIALS. WHENEVER EXCAVATING ACTIVITIES ON SITE EXPOSE PEAT, SOFT CLAY, QUICKSAND, OR OTHER UNSUITABLE FOUNDATION MATERIAL...

PROJECT SPECIFICATIONS. THE WORK ON THIS PROJECT SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION...

CONTRACTOR LIABILITY NOTE. CONTRACTOR AGREES THAT S/HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION...

GRADING NOTE. CUT AND FILL QUANTITIES IF SHOWN ON THIS SHEET ARE ESTIMATED IN PLACE VOLUMES. CONTRACTOR/BIDDERS RESPONSIBILITY TO VERIFY QUANTITIES, ESTIMATE AND APPLY SHRINK/SWELL FACTORS.

TOPOGRAPHIC NOTE. TOPOGRAPHIC INFORMATION DEPICTED HEREON WAS PROVIDED BY FORESIGHT SURVEYING. TOPOGRAPHIC INFORMATION WAS NOT FIELD VERIFIED BY RB ENGINEERING.

GENERAL EROSION CONTROL NOTES. EROSION CONTROL MEASURES ARE NOT LIMITED TO THE ITEMS ON THESE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION CONTROL MEASURES...

GENERAL NOTES. THE CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION ACTIVITIES WITH ADJACENT PROPERTY OWNERS, DRIVEWAYS AND UTILITY SERVICES TO REMAIN ACCESSIBLE AT ALL TIMES.

WORK IN CITY RIGHT-OF-WAY. CONTRACTOR TO OBTAIN RIGHT OF WAY PERMIT PRIOR TO ANY WORK WITHIN CITY RIGHT OF WAY...

PROJECT INFORMATION. APPLICANT: CITY OF CHEHALIS; ATTN: TRENT LOUGHEED; 350 N. MARKET BLVD. CHEHALIS, WA 98532 (360)345-2229.

SURVEY INFORMATION. PROJECT SURVEYOR: FORESIGHT SURVEYING; KEN FRAZIER; 1583 N. NATIONAL AVE. CHEHALIS, WA 98532 (360)784-4000.

CONTRACTOR RECORD DRAWINGS. RB ENGINEERING IS REQUIRED BY THE CITY TO PROVIDE RECORD DRAWING CERTIFICATION PRIOR TO FINAL CITY ACCEPTANCE.

UTILITIES LOCATE NOTE. THE LOCATION OF EXISTING UTILITIES SHOWN HEREON IS BASED ON INFORMATION OBTAINED FROM THE FIELD AND FROM RECORDS.

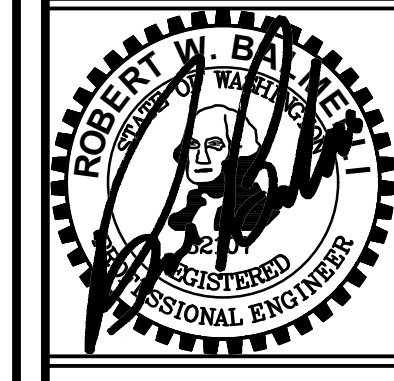
GEOTECHNICAL NOTE. A GEOTECHNICAL REPORT WAS PREPARED FOR THIS PROJECT BY PACIFIC TESTING & INSPECTION.

DEWATERING. FOUNDATIONS, UTILITY TRENCHES, AND ALL OTHER PARTS OF THE CONSTRUCTION SITE SHALL BE DEWATERED AND KEPT FREE OF STANDING WATER AND MUDDY CONDITIONS...

REVISION table with columns for NO., DATE, and description.

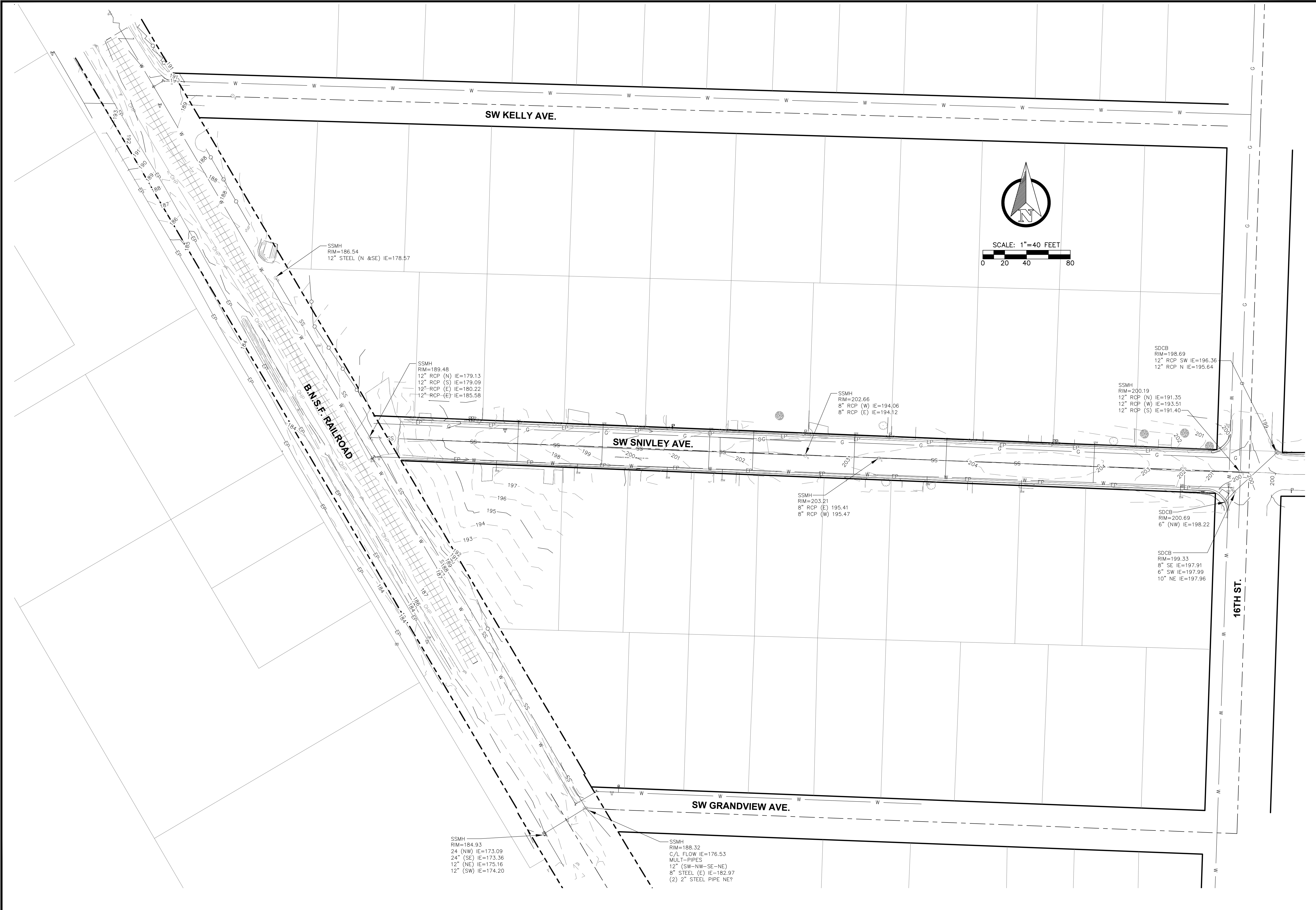
DESIGNED BY: RWB; DRAWN BY: CES; CHECKED BY: RWB; DATE: 2/19/2021; SCALE: NO SCALE.

SW SNIVELY AVENUE ROAD AND UTILITY IMPROVEMENT PROJECT. SUMMARY OF QUANTITIES, PROJECT DATA AND NOTES.



RB Engineering logo and contact information: DESIGN -> PERMIT -> MANAGE. P.O. Box 923, CHEHALIS, WA 98532.



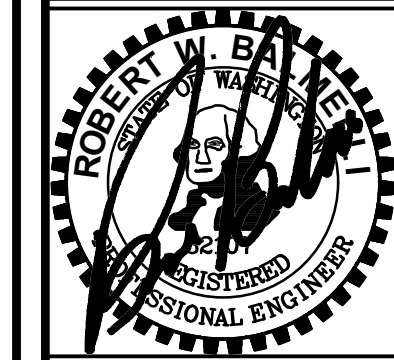


NO.	DATE	REVISION

DESIGNED BY: RWB
 DRAWN BY: CES
 CHECKED BY: RWB
 DATE: 2/19/2021
 SCALE: 1" = 40'

**SW SNIVLEY AVENUE
ROAD AND UTILITY
IMPROVEMENT PROJECT**

CHEHALIS WA.



RB Engineering
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P.O. Box 923
 CHEHALIS, WA 98532

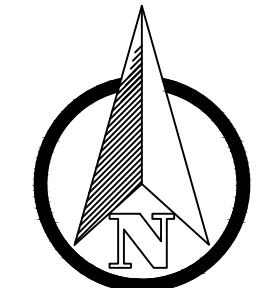
OFF: (360) 746-8919
 EMAIL: info@rbengineering.com

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

JOB NUMBER
 20041

DRAWING NAME
 20041_CO.3_TOPO

C0.3
 3 OF 20



SCALE: 1"=20 FEET
0 10 20 40

SEWER CONSTRUCTION NOTES:

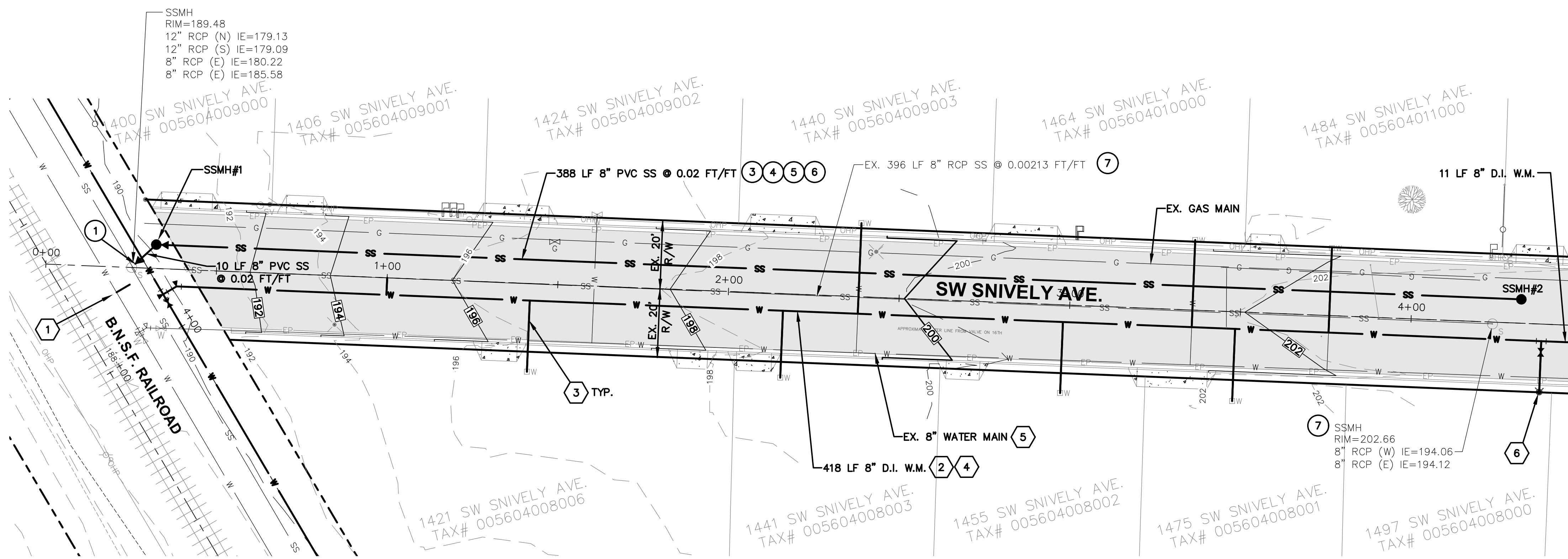
PRIOR TO CONSTRUCTION START THE CONTRACTOR SHALL VIDEO ALL EXISTING SEWER MAIN LINES IN SW SNIVELY AVE TO DETERMINE LOCATION OF EXISTING SIDE SEWERS. PROVIDE ENGINEER WITH A COPY OF THE VIDEO.

SEWER CONSTRUCTION NOTES:

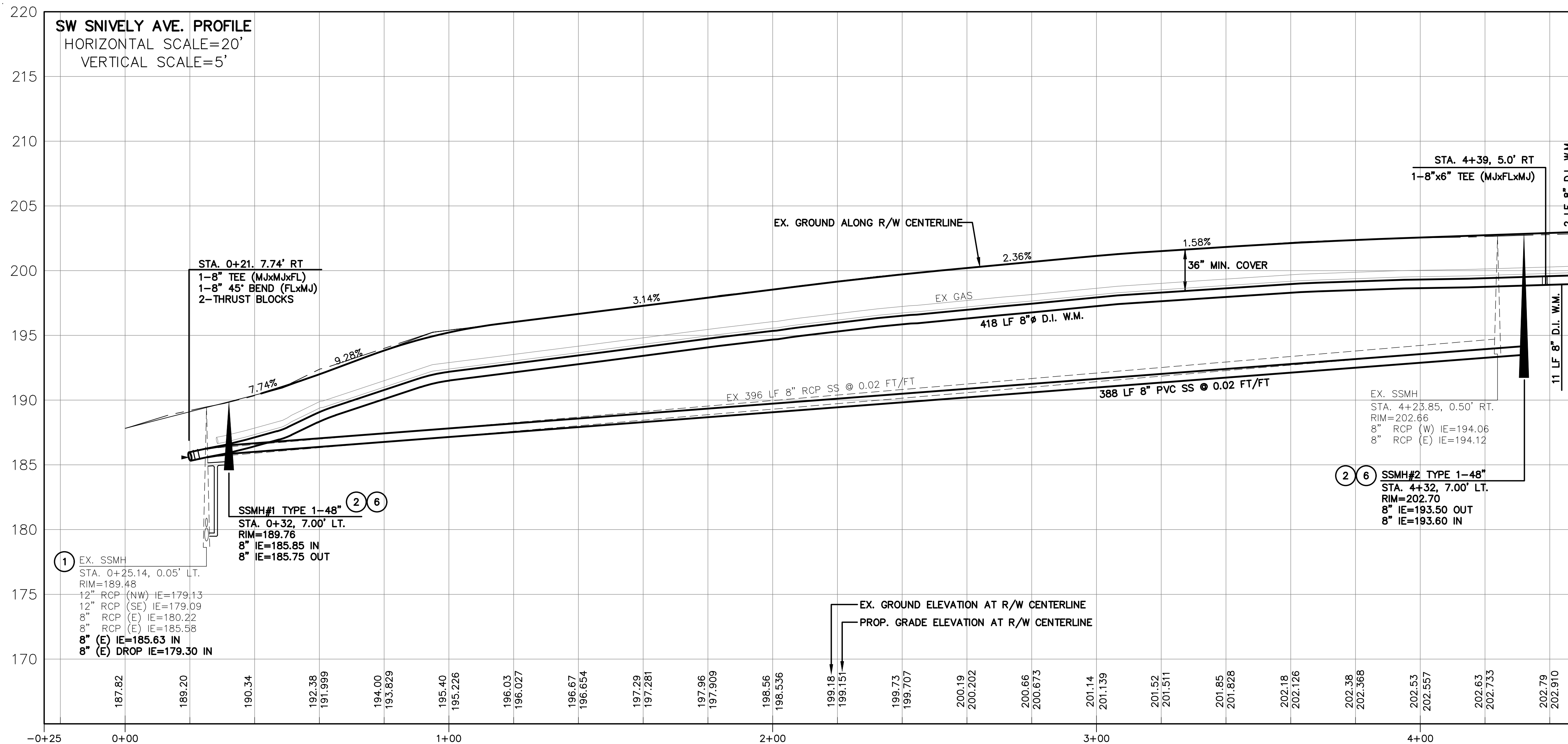
- ① CONNECT TO EXISTING MANHOLE WITH DROP STRUCTURE PER CITY STANDARD DETAIL ON SHEET C1.2.
- ② PROVIDE AND INSTALL NEW SANITARY SEWER MANHOLES (SSMH) PER CITY STANDARD DETAILS ON SHEET C1.2.
- ③ PROVIDE AND INSTALL NEW 8" SDR 35 D3034 PVC SEWER MAIN PER PLAN AND CITY STANDARD DETAILS AND NOTES AND SHEET C1.2.
- ④ PROVIDE AND INSTALL NEW SANITARY SEWER BUILDING LATERALS TO EACH LOT. CONTRACTOR TO VIDEO EXISTING SEWER MAIN TO FIELD LOCATE INDIVIDUAL LATERAL LOCATIONS PRIOR TO CONSTRUCTION START.
- ⑤ CONTRACTOR SHALL CONNECT THE NEW SEWER LATERALS TO CUSTOMER LATERAL AT THE PROPERTY LINE. PROVIDE CLEANOUT BETWEEN BACK OF NEW CURB AND RIGHT OF WAY LINE. SEE CITY STANDARD DETAIL ON SHEET C1.2.
- ⑥ CONTRACTOR SHALL JET NEW MAIN AND CLEAN OUT ALL NEW MANHOLES AND PROVIDE VIDEO OF MAIN AND PRESSURE TEST MAIN AND MANHOLES PER WSDOT STANDARDS.
- ⑦ CONTRACTOR SHALL ABANDON EXISTING SEWER MAIN IN PLACE. EXISTING MANHOLES NOT USED SHALL BE REMOVED AND BACKFILLED WITH CSBC COMPACTED TO 95%.

WATER CONSTRUCTION NOTES:

- ① CONTRACTOR TO MAKE CONNECTION TO W.M. PER PLAN AND DETAILS ON C2.2.
- ② PROVIDE AND INSTALL NEW 8" DUCTILE IRON CLASS 52 WATER MAIN PER PLAN AND CITY STANDARD DETAILS AND NOTES AND SHEET C2.2.
- ③ PROVIDE AND INSTALL NEW WATER SERVICE LINES TO EXISTING METER SETTERS FOR EACH LOT. SEE DETAIL ON SHEET C2.2.
- ④ CONTRACTOR SHALL CHLORINATE AND PRESSURE TEST AND FLUSH WATER MAIN PER WSDOT STANDARDS.
- ⑤ CONTRACTOR SHALL ABANDON EXISTING WATER MAIN IN PLACE. REMOVE ALL ABANDONED VALVE BOXES AND BACKFILL WITH COMPACTED CSBC.
- ⑥ STA. 4+39, 20' RT REPLACE EXISTING FIRE HYDRANT PER DETAIL ON SHEET C2.2.



SW SNIVELY AVE. PROFILE
HORIZONTAL SCALE=20'
VERTICAL SCALE=5'



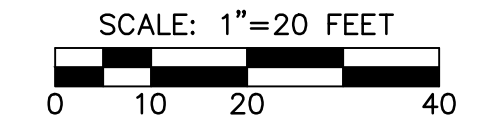
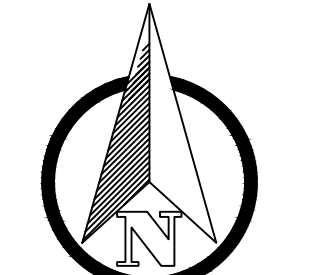
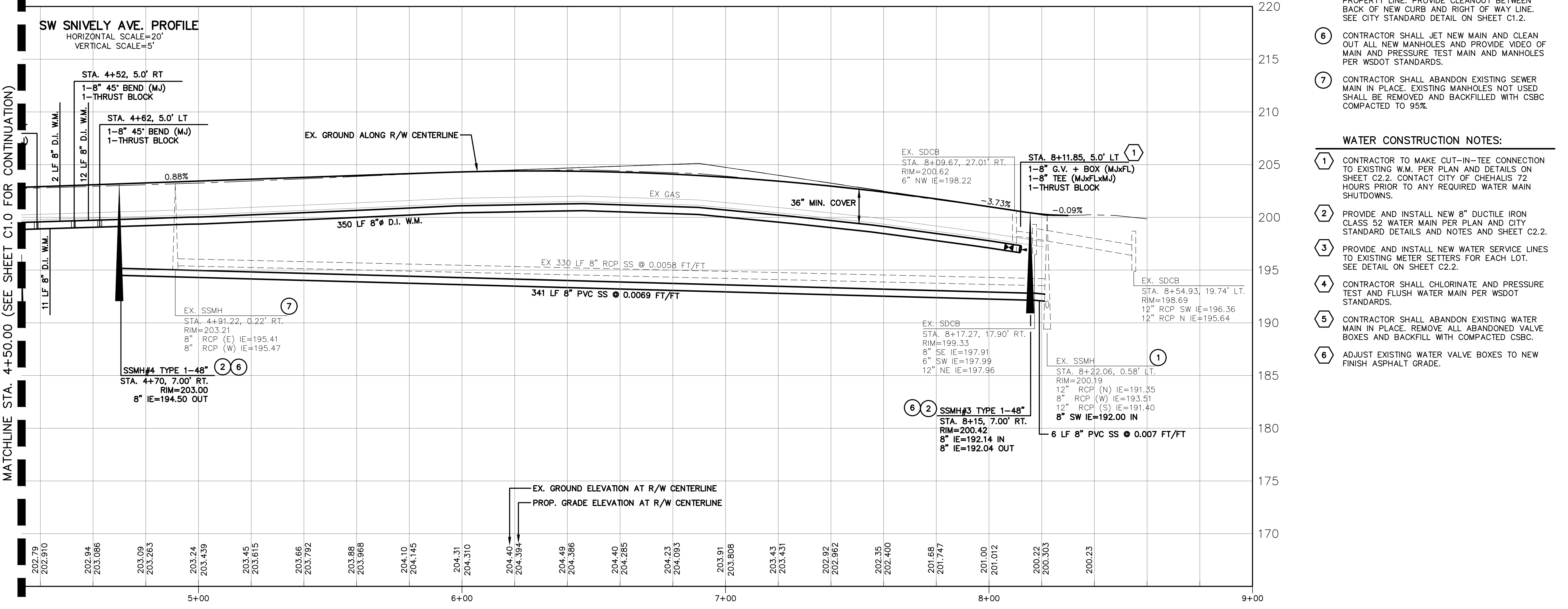
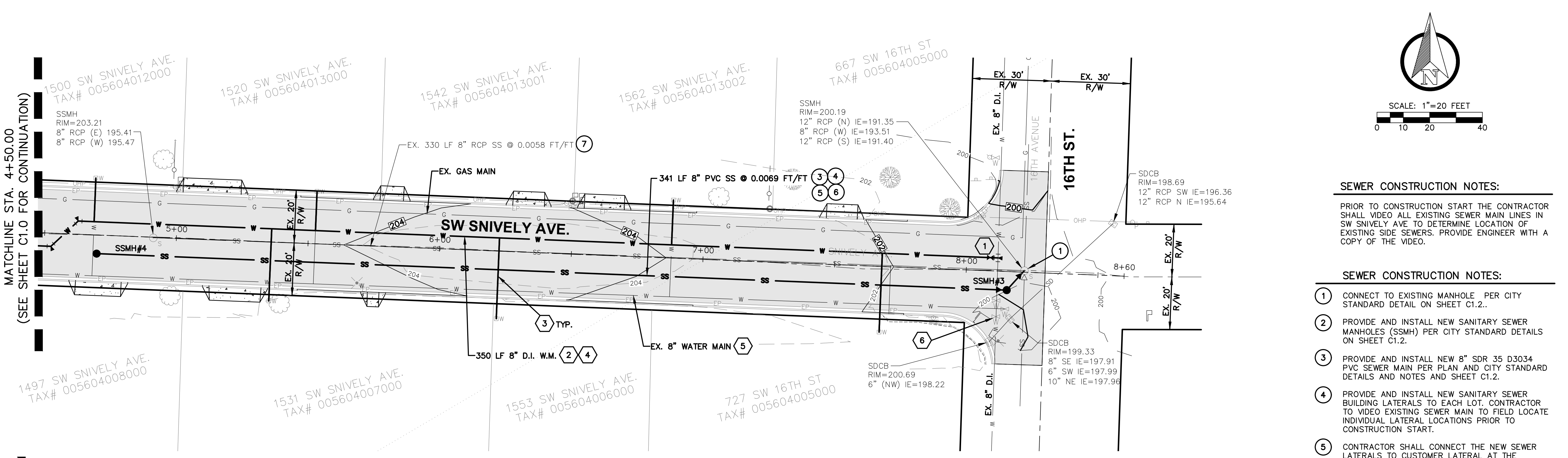
MATCHLINE STA. 4+50.00
(SEE SHEET C1.1 FOR CONTINUATION)

MATCHLINE STA. 4+50.00
(SEE SHEET C1.1 FOR CONTINUATION)

NO.	DATE	DESIGNED BY: RWB	CES	DRAWN BY: RWB	CES	CHECKED BY: RWB	CES	DATE: 2/19/2021	SCALE: 1" = 20'
SW SNIVELY AVENUE ROAD AND UTILITY IMPROVEMENT PROJECT									
SW SNIVELY AVE. SEWER AND WATER PLAN AND PROFILE									
RB Engineering DESIGN → PERMIT → MANAGE OFF: (509) 740-8919 P.O. Box 923 CHEHALIS, WA 98532 EMAIL: c@rwbengineering.com									
811 Know what's below. Call 811 before you dig.									
JOB NUMBER: 20041 DRAWING NAME: 20041_C1.0_SS_PP C1.0 4 OF 20									

MATCHLINE STA. 4+50.00
(SEE SHEET C1.0 FOR CONTINUATION)

MATCHLINE STA. 4+50.00 (SEE SHEET C1.0 FOR CONTINUATION)



SEWER CONSTRUCTION NOTES:

PRIOR TO CONSTRUCTION START THE CONTRACTOR SHALL VIDEO ALL EXISTING SEWER MAIN LINES IN SW SNIVELY AVE TO DETERMINE LOCATION OF EXISTING SIDE SEWERS. PROVIDE ENGINEER WITH A COPY OF THE VIDEO.

SEWER CONSTRUCTION NOTES:

- 1 CONNECT TO EXISTING MANHOLE PER CITY STANDARD DETAIL ON SHEET C1.2..
- 2 PROVIDE AND INSTALL NEW SANITARY SEWER MANHOLES (SSMH) PER CITY STANDARD DETAILS ON SHEET C1.2.
- 3 PROVIDE AND INSTALL NEW 8" SDR 35 D3034 PVC SEWER MAIN PER PLAN AND CITY STANDARD DETAILS AND NOTES AND SHEET C1.2.
- 4 PROVIDE AND INSTALL NEW SANITARY SEWER BUILDING LATERALS TO EACH LOT. CONTRACTOR TO VIDEO EXISTING SEWER MAIN TO FIELD LOCATE INDIVIDUAL LATERAL LOCATIONS PRIOR TO CONSTRUCTION START.
- 5 CONTRACTOR SHALL CONNECT THE NEW SEWER LATERALS TO CUSTOMER LATERAL AT THE PROPERTY LINE. PROVIDE CLEANOUT BETWEEN BACK OF NEW CURB AND RIGHT OF WAY LINE. SEE CITY STANDARD DETAIL ON SHEET C1.2.
- 6 CONTRACTOR SHALL JET NEW MAIN AND CLEAN OUT ALL NEW MANHOLES AND PROVIDE VIDEO OF MAIN AND PRESSURE TEST MAIN AND MANHOLES PER WSDOT STANDARDS.
- 7 CONTRACTOR SHALL ABANDON EXISTING SEWER MAIN IN PLACE. EXISTING MANHOLES NOT USED SHALL BE REMOVED AND BACKFILLED WITH CSBC COMPACTED TO 95%.

WATER CONSTRUCTION NOTES:

- 1 CONTRACTOR TO MAKE CUT-IN-TEE CONNECTION TO EXISTING W.M. PER PLAN AND DETAILS ON SHEET C2.2. CONTACT CITY OF CHEHALIS 72 HOURS PRIOR TO ANY REQUIRED WATER MAIN SHUTDOWNS.
- 2 PROVIDE AND INSTALL NEW 8" DUCTILE IRON CLASS 52 WATER MAIN PER PLAN AND CITY STANDARD DETAILS AND NOTES AND SHEET C2.2.
- 3 PROVIDE AND INSTALL NEW WATER SERVICE LINES TO EXISTING METER SETTERS FOR EACH LOT. SEE DETAIL ON SHEET C2.2.
- 4 CONTRACTOR SHALL CHLORINATE AND PRESSURE TEST AND FLUSH WATER MAIN PER WSDOT STANDARDS.
- 5 CONTRACTOR SHALL ABANDON EXISTING WATER MAIN IN PLACE. REMOVE ALL ABANDONED VALVE BOXES AND BACKFILL WITH COMPACTED CSBC.
- 6 ADJUST EXISTING WATER VALVE BOXES TO NEW FINISH ASPHALT GRADE.

NO.	DATE	REVISION
DESIGNED BY:	RWB	CES
DRAWN BY:	RWB	RWB
CHECKED BY:		
DATE:	2/19/2021	SCALE: 1" = 20'

**SW SNIVELY AVENUE
ROAD AND UTILITY
IMPROVEMENT PROJECT**

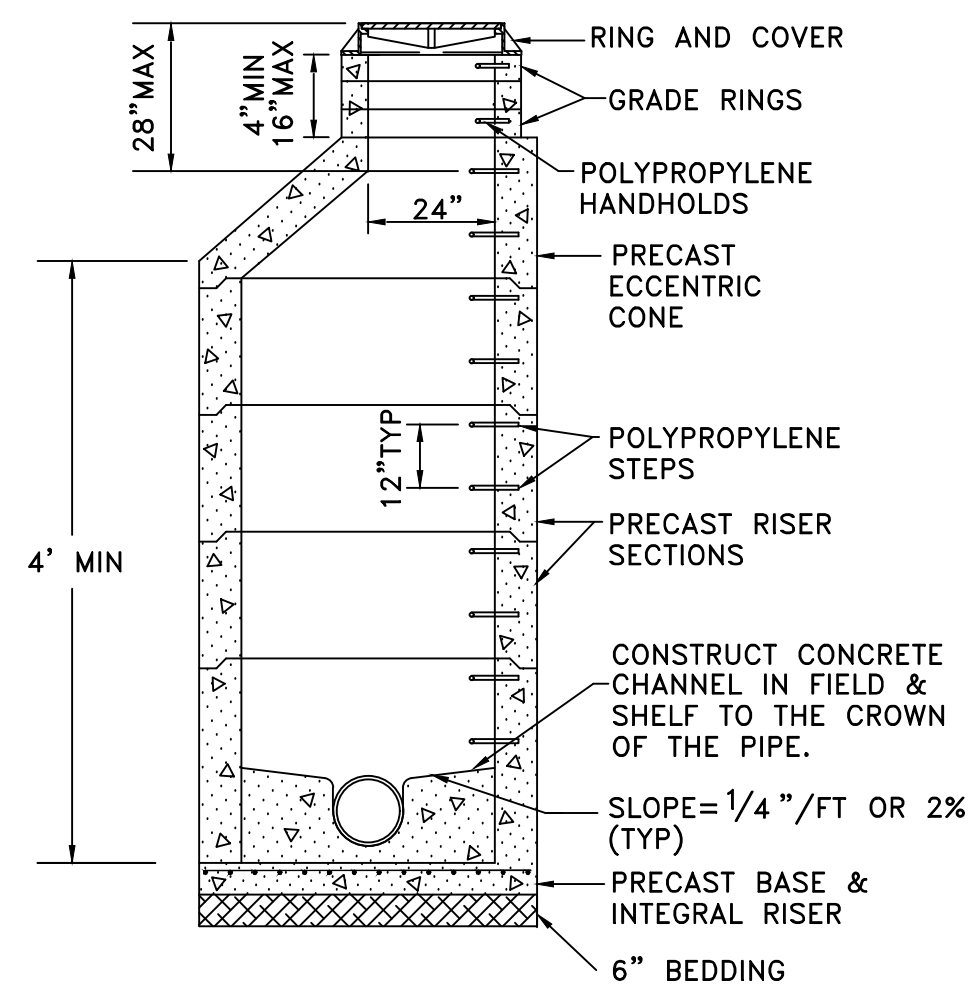
CHEHALIS WA.

**SW SNIVELY AVE. SEWER AND
WATER PLAN AND PROFILE**

RB Engineering
DESIGN → PERMIT → MANAGE
OFF: (360) 746-8919
P.O. Box 923 CHEHALIS, WA 98532
EMAIL: cwb@rbengineering.com

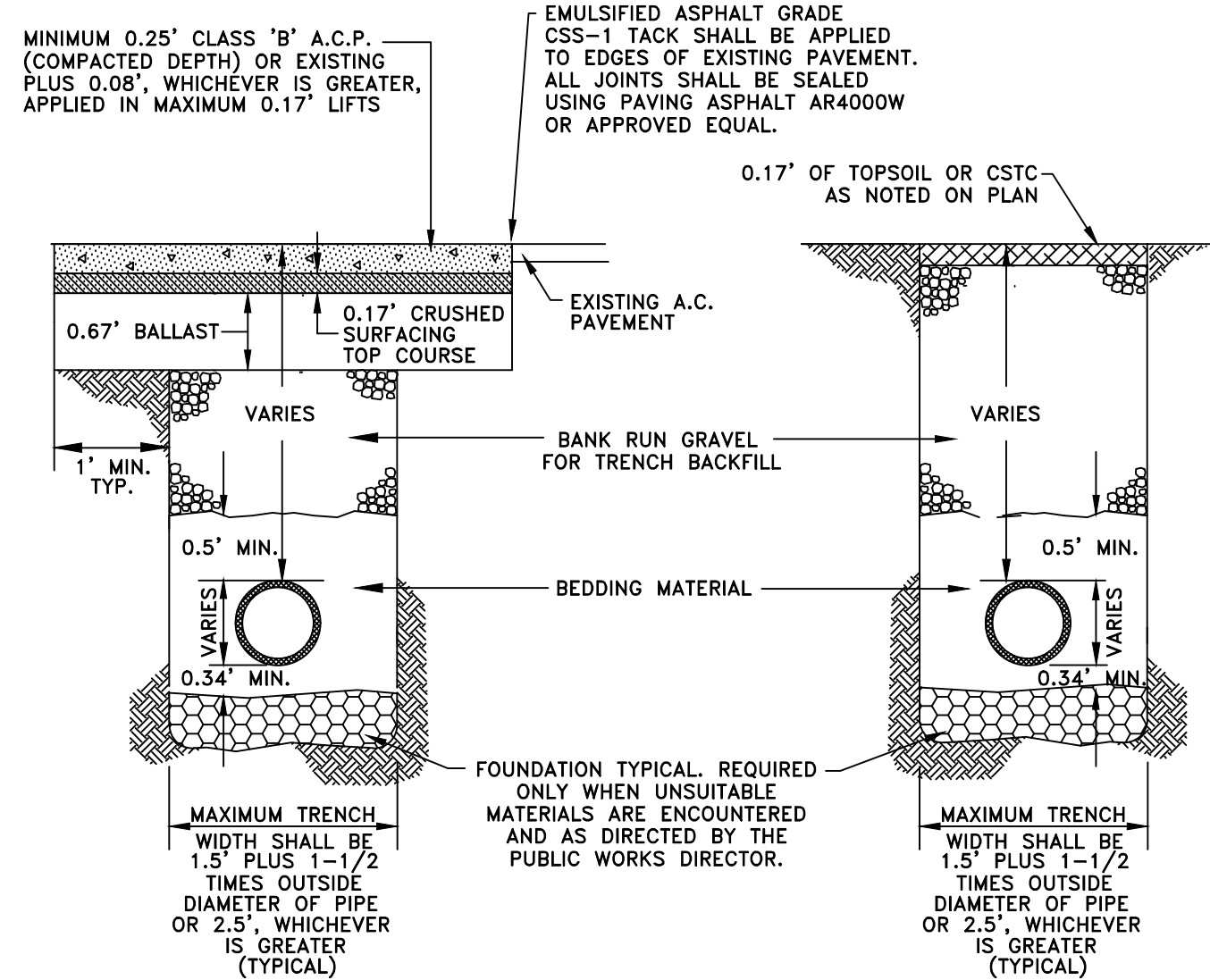
811 Know what's below. Call 811 before you dig.

JOB NUMBER: 20041
DRAWING NAME: 20041_C1.1_SSPS
C1.1
5 OF 20



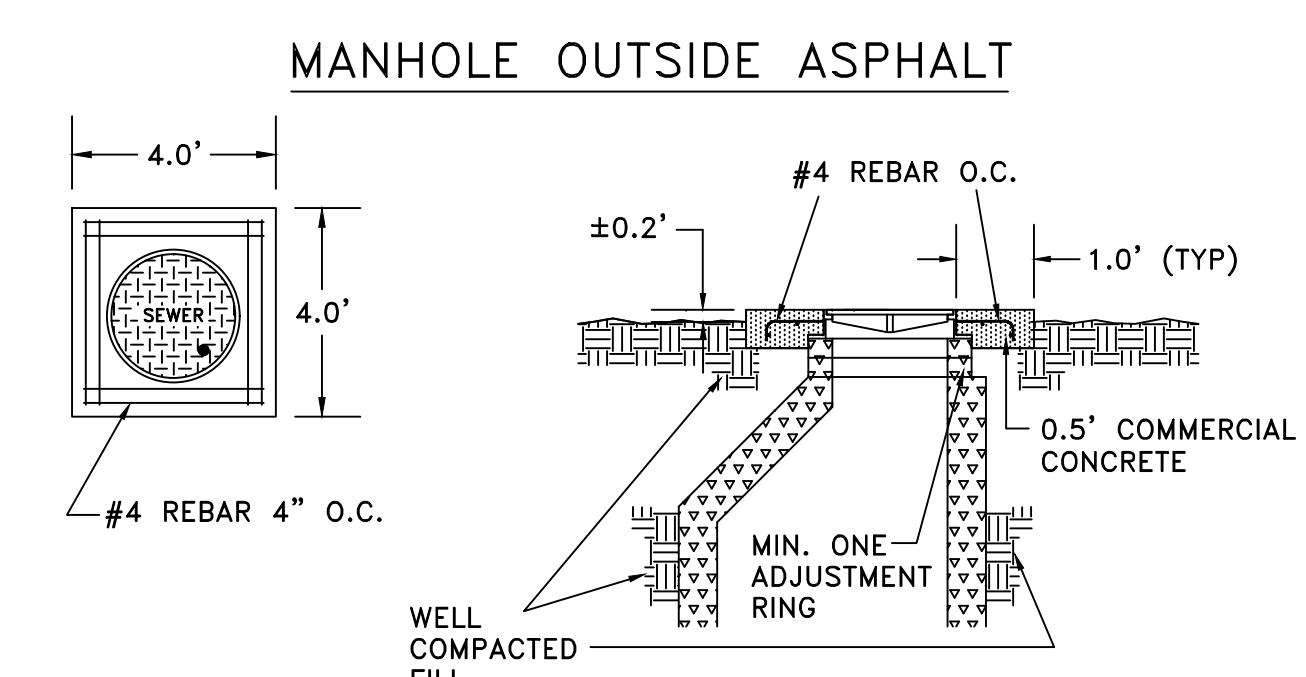
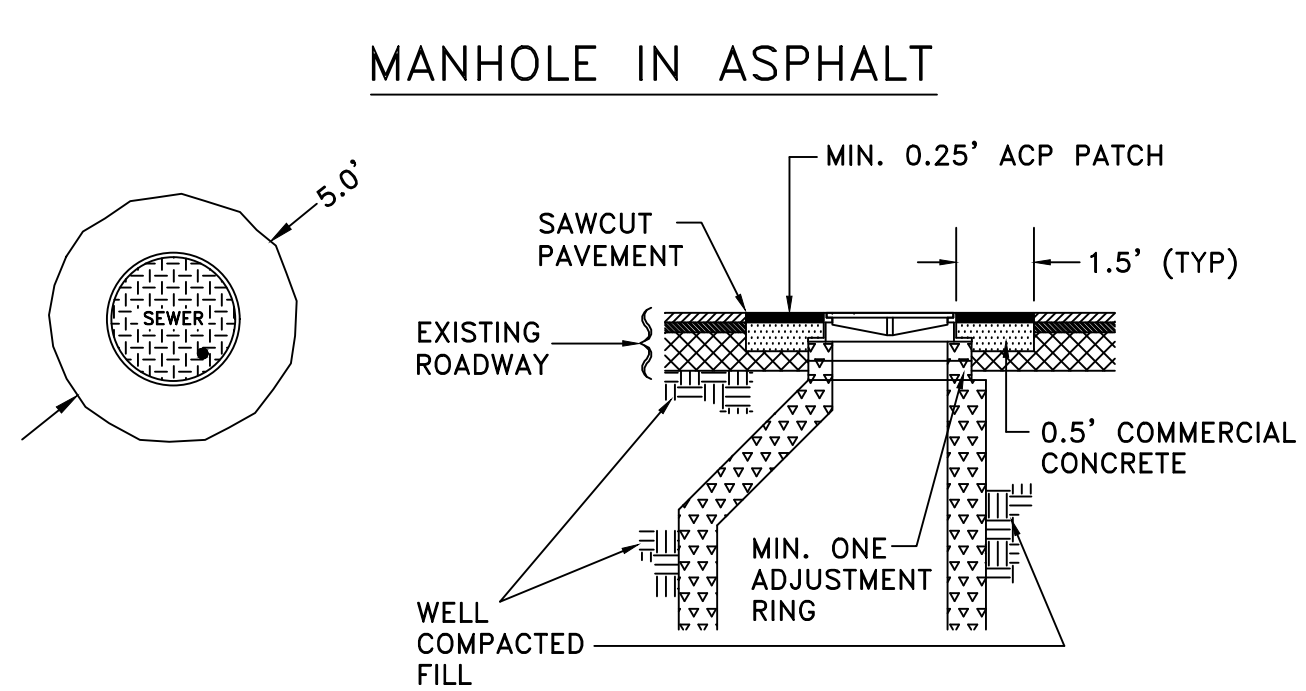
- NOTES:**
1. PRECAST MANHOLES SHALL MEET THE REQUIREMENTS OF ASTM C478. JOINTS SHALL BE RUBBER GASKETED CONFORMING TO ASTM C443 AND SHALL BE GROUTED FROM THE INSIDE & OUTSIDE. LIFT HOLES SHALL BE GROUTED FROM THE OUTSIDE & INSIDE OF THE MANHOLE.
 2. STEPS IN MANHOLE SHALL HAVE 6" MINIMUM CLEARANCE. HANDHOLES IN ADJUSTMENT SECTION SHALL HAVE 3" MINIMUM CLEARANCE. THE FIRST STEP OR HANDHOLD SHALL BE A MAXIMUM OF 12" FROM THE TOP OF THE COVER.
 3. CONNECTION TO MANHOLE SHALL BE MADE BY KOR-N-SEAL BOOT, UNLESS AN ALTERNATIVE CONNECTION METHOD IS SPECIFICALLY APPROVED AND AUTHORIZED BY THE PUBLIC WORKS DIRECTOR.
 4. NON-REINFORCED CONCRETE IN CHANNEL AND SHELF SHALL BE CLASS 3000.
 5. SEE DETAIL 5-3 FOR MANHOLE COLLAR INSTALLATION.
 6. A SEWER GUARD SHALL BE INSTALLED IN ANY MANHOLE SUBJECT TO FLOODING.

<i>City of Chehalis</i>	
TYPICAL MANHOLE	
APPROVED BY	DWG. NO.
	5-1
REVISED DATE	
CITY ENGINEER	1/02/2003



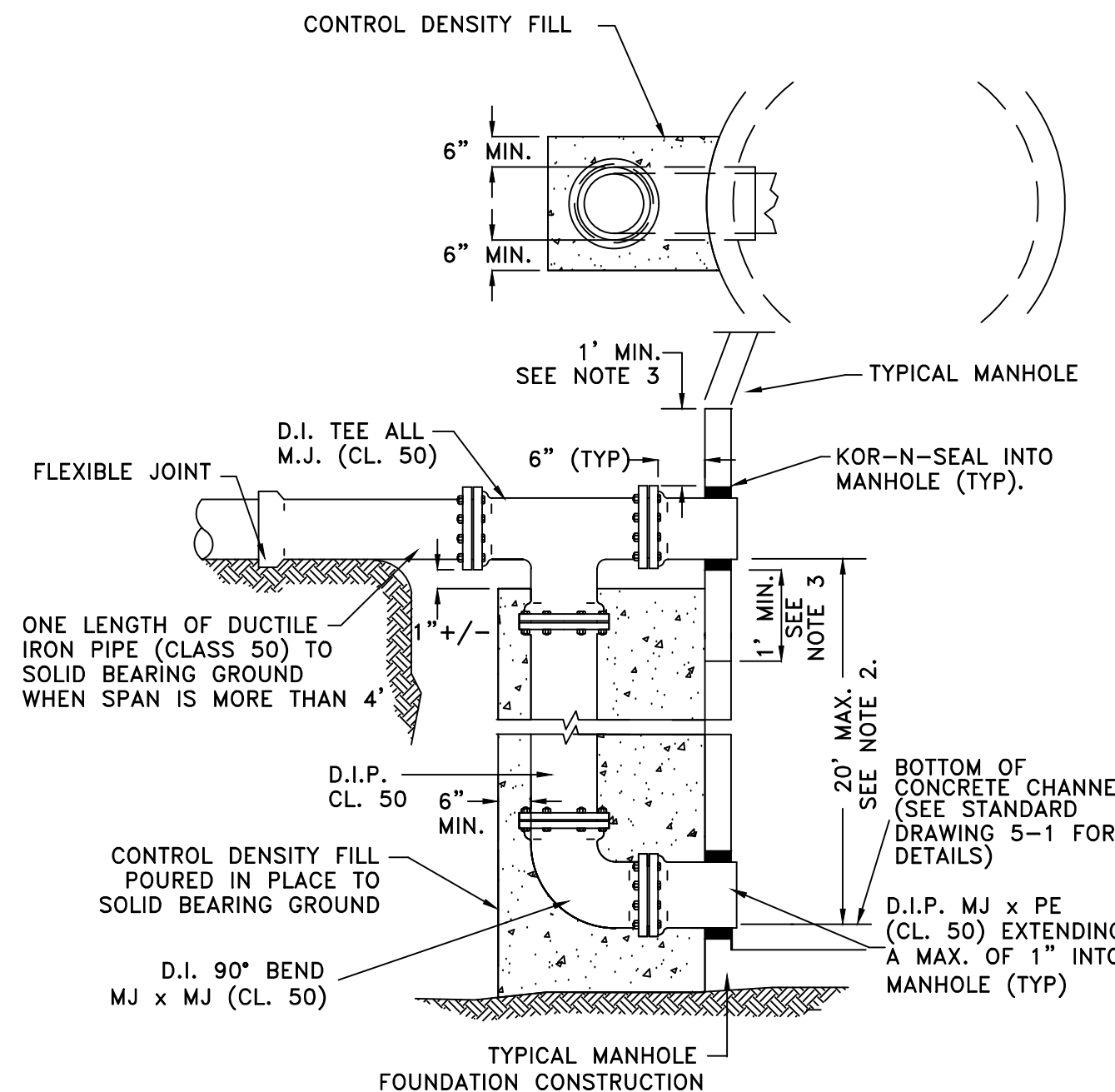
- NOTES:**
1. ALL MATERIALS EXCEPT A.C.P. AND BEDDING MATERIAL SHALL BE COMPACTED IN 6-INCH MAXIMUM LIFTS TO 95% DENSITY.
 2. BEDDING SHALL CONFORM TO SECTION 9-03.16 OF STANDARD SPECIFICATIONS AS AMENDED BY CITY OF CHEHALIS STANDARDS.
 3. COMPACTION: BEDDING SHALL BE COMPACTED TO 95% MAX. AS DETERMINED BY ASTM D1557. BACKFILL SHALL BE COMPACTED TO 85% IN UNPAVED AREA, AND 95% IN PAVED OR SHOULDER AREAS AS DETERMINED BY ASTM D1557.
 4. ALL MATERIALS, WORKMANSHIP, AND INSTALLATION SHALL BE IN CONFORMANCE WITH THE MOST RECENT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION AS AMENDED BY CITY OF CHEHALIS PUBLIC WORKS STANDARDS.
 5. KEEP TRENCH BOTTOM COMPACTED WITH UNIFORM GRADE. A BELL JOINT SHALL BE REQUIRED AT EACH JOINT FOR PROPER SUPPORT. NO TEMPORARY SUPPORTS, I.E. BLOCKS, WILL BE ALLOWED TO SUPPORT PIPE. TRENCH BOTTOM SHALL BE TO GRADE PRIOR TO PIPE INSTALLATION.

<i>City of Chehalis</i>	
TRENCH PAVEMENT RESTORATION DETAIL	
APPROVED BY	DWG. NO.
	2-4
REVISED DATE	
CITY ENGINEER	1/02/2003



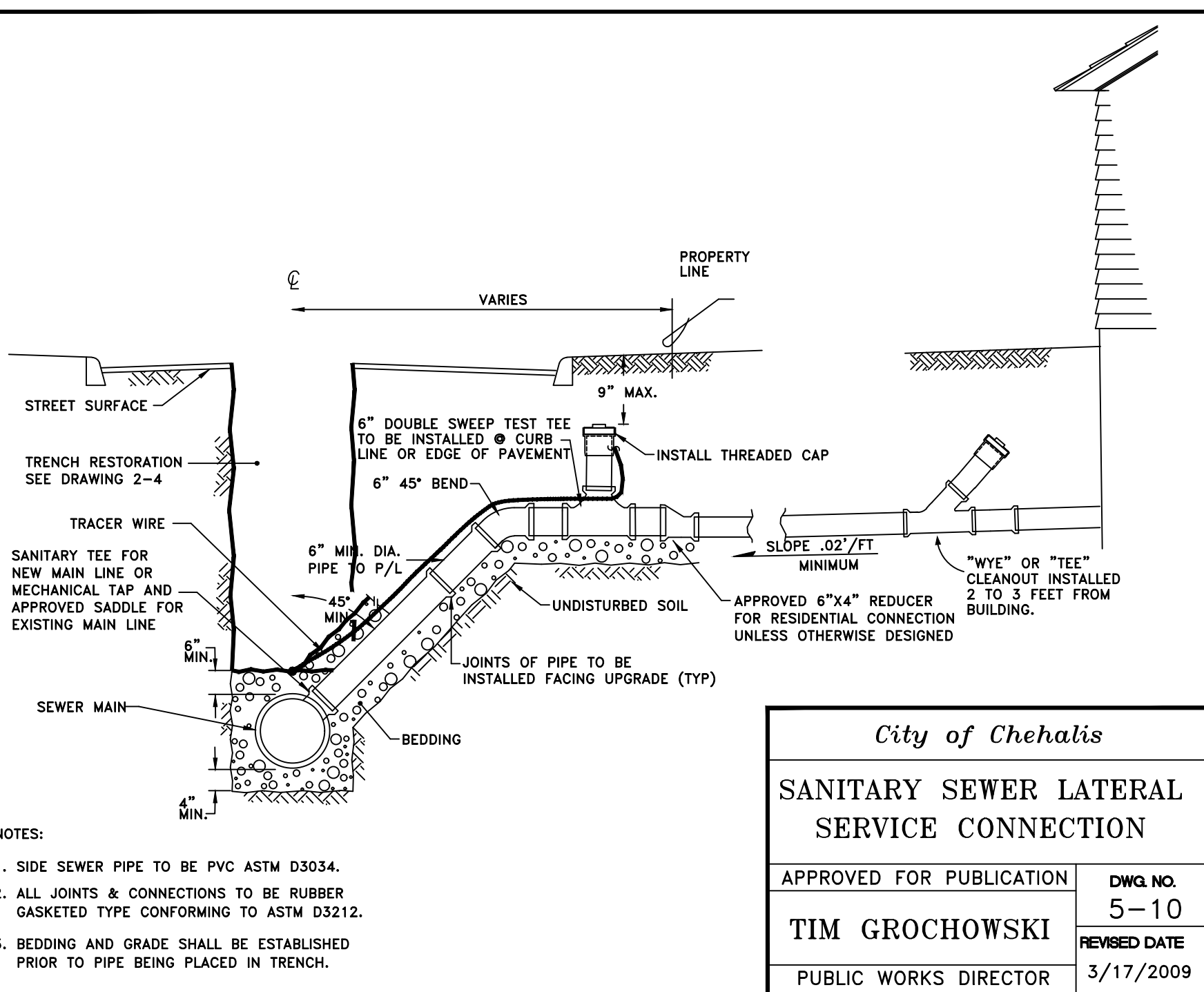
- NOTES:**
1. ON MANHOLE OUTSIDE ASPHALT ADD REINFORCING STEEL AS SHOWN ABOVE. DEFORMED BAR TO MEET ASTM A615 GRADE 60 FY=60,000 P.S.I.
 2. SINGLE OPENING IN LID FOR USE OF MANHOLE HOOK IS REQUIRED.
 3. JOINTS BETWEEN EACH ADJUSTMENT RING INCLUDING WHERE FRAME & MH CONE MEET RINGS, SHALL INCLUDE ACTIVATED OAKUM OR APPROVED EQUAL.

<i>City of Chehalis</i>	
MANHOLE COLLAR	
APPROVED BY	DWG. NO.
	5-3
REVISED DATE	
CITY ENGINEER	1/02/2003



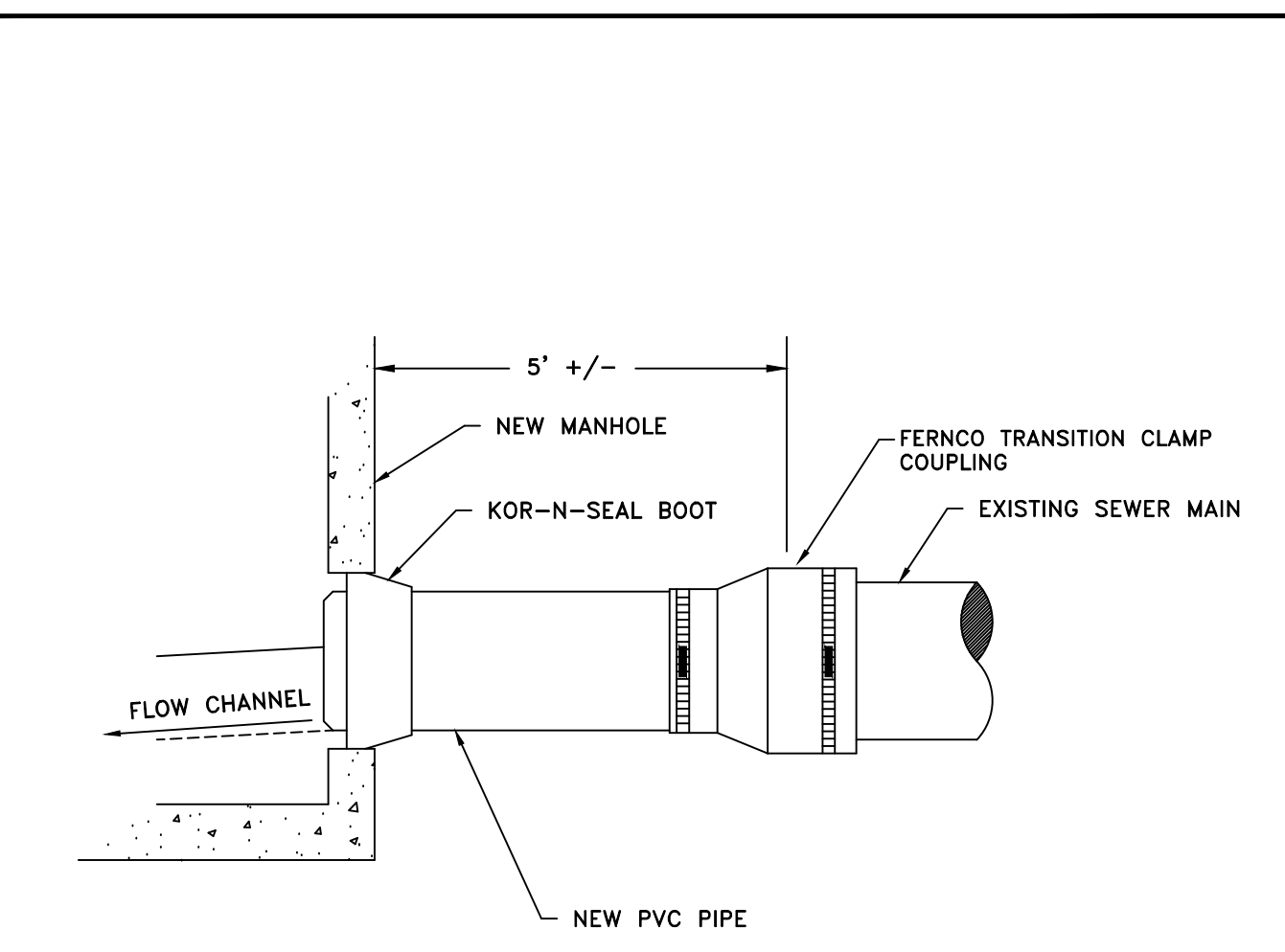
- NOTES:**
1. THE INTERIOR OF ALL DUCTILE IRON SHALL BE COATED WITH EPOXY OR TNEMEC 66.
 2. DEPTHS OVER 20' MAY BE ALLOWED IF MEGA-LUG JOINTS ARE USED.
 3. MAINTAIN A MINIMUM OF 1' BETWEEN MANHOLE JOINTS AND TEE.
 4. MINIMUM PIPE SIZE = 8".

<i>City of Chehalis</i>	
DROP CONNECTION	
APPROVED BY	DWG. NO.
	5-4
REVISED DATE	
CITY ENGINEER	1/02/2003



- NOTES:**
1. SIDE SEWER PIPE TO BE PVC ASTM D3034.
 2. ALL JOINTS & CONNECTIONS TO BE RUBBER GASKETED TYPE CONFORMING TO ASTM D3212.
 3. BEDDING AND GRADE SHALL BE ESTABLISHED PRIOR TO PIPE BEING PLACED IN TRENCH.

<i>City of Chehalis</i>	
SANITARY SEWER LATERAL SERVICE CONNECTION	
APPROVED FOR PUBLICATION	DWG. NO.
	5-10
TIM GROCHOWSKI	REVISED DATE
PUBLIC WORKS DIRECTOR	3/17/2009

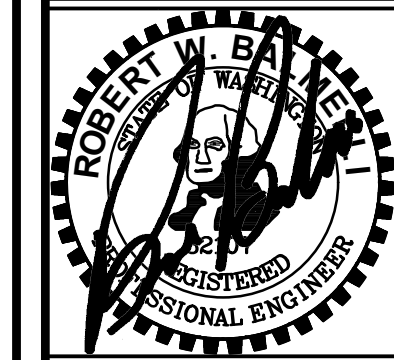


- NOTES:**
1. ALL FASTENERS & CLAMPS ARE TO BE STAINLESS STEEL.
 2. NEW SECTION OF PIPE IS TO BE INSTALLED AT APPROXIMATELY THE SAME SLOPE AS THE EXISTING LINE.
 3. AVOID CREATING "BELLIES" OR "SAGS" WITH THE NEW SECTION OF LINE.

<i>City of Chehalis</i>	
SEWER MAIN CONNECTION	
APPROVED BY	DWG. NO.
	5-14
REVISED DATE	
CITY ENGINEER	1/02/2003

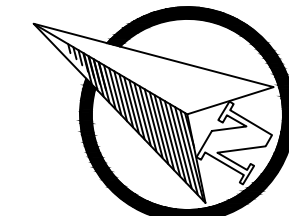
- GENERAL NOTES (SANITARY SEWER MAIN INSTALLATION)**
1. ALL WORKMANSHIP AND MATERIALS WILL BE IN ACCORDANCE WITH CITY OF CHEHALIS STANDARDS AND THE MOST RECENT COPY OF THE STATE OF WASHINGTON STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION (WSDOT/APWA).
 2. CITY OF CHEHALIS DATUM WILL BE USED FOR ALL VERTICAL CONTROL. A LIST OF BENCHMARKS IS AVAILABLE AT THE PUBLIC WORKS DEPARTMENT.
 3. ALL APPROVALS AND PERMITS REQUIRED BY THE CITY OF CHEHALIS, WILL BE OBTAINED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION.
 4. IF CONSTRUCTION IS TO TAKE PLACE IN THE COUNTY RIGHT-OF-WAY, THE CONTRACTOR WILL NOTIFY THE COUNTY AND OBTAIN ALL THE REQUIRED APPROVALS AND PERMITS.
 5. A PRE-CONSTRUCTION MEETING WILL BE HELD WITH A PUBLIC WORKS DEPARTMENT REPRESENTATIVE PRIOR TO THE START OF CONSTRUCTION.
 6. THE PUBLIC WORKS DEPARTMENT WILL BE NOTIFIED A MINIMUM OF TWO (2) BUSINESS DAYS IN ADVANCE OF A TAP CONNECTION TO AN EXISTING MAIN. A PUBLIC WORKS REPRESENTATIVE WILL BE PRESENT AT THE TIME OF THE TAP.
 7. THE CONTRACTOR WILL BE FULLY RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES. THE CONTRACTOR WILL VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION BY CALLING THE UTILITIES UNDERGROUND LOCATION CENTER AT 1-800-424-5555 A MINIMUM OF TWO (2) BUSINESS DAYS PRIOR TO ANY EXCAVATION.
 8. ALL SEWER MAINS WILL BE FIELD STAKED FOR GRADES AND ALIGNMENT BY A LICENSED ENGINEERING OR SURVEYING FIRM QUALIFIED TO PERFORM SUCH WORK. STAKING WILL BE MAINTAINED THROUGHOUT CONSTRUCTION.
 9. ALL PIPE AND SERVICES WILL BE INSTALLED WITH CONTINUOUS TRACER TAPE PLACED TWELVE (12) TO EIGHTEEN (18) INCHES UNDER THE PROPOSED FINISHED SUBGRADE. THE MARKER WILL BE OF PLASTIC NON-BIODEGRADABLE, METAL CORE OR BACKING MARKED "SEWER" THAT CAN BE DETECTED BY A STANDARD METAL DETECTOR. IF VISIBILITY CANNOT BE MAINTAINED BETWEEN STRUCTURES ALONG THE STRAIGHT ALIGNMENT OF A SEWER, TONING WIRE WILL BE INSTALLED ABOVE THE SEWER LINE AT A DEPTH NO GREATER THAN 48 INCHES. TAPE WILL BE TERRA TAPE "D" OR AN APPROVED EQUAL. IN ADDITION, STEP MAINS, FORCE MAINS, AND CURVILINEAR SEWERS WILL BE INSTALLED WITH TONING WIRE TAPED TO THE TOP OF THE PIPE TO PREVENT MOVEMENT DURING BACKFILL.
 10. BEDDING OF THE SEWER MAIN AND COMPACTION OF THE BACKFILL MATERIAL WILL BE REQUIRED IN ACCORDANCE WITH THE ABOVE SPECIFICATION. (SEE GENERAL NOTE 1)
 11. ALL MANHOLES AND CLEANOUTS OUTSIDE THE PAVED AREA WILL BE INSTALLED IN ACCORDANCE WITH STANDARD DRAWINGS 5.3 AND 5.5.
 12. WHEN TEMPORARY STREET PATCHING IS ALLOWED BY THE CITY, COLD MIX ASPHALT WILL BE PLACED TO A MAXIMUM DEPTH OF ONE (1) INCH. THE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTENANCE AS REQUIRED BY THE CITY.
 13. EROSION CONTROL MEASURES CONFORMING TO THE MOST RECENT VERSION OF THE CITY OF CHEHALIS STORMWATER MANAGEMENT PLAN AND CHAPTER 3 OF THESE STANDARDS WILL BE TAKEN BY THE CONTRACTOR DURING CONSTRUCTION TO PREVENT INFILTRATION OF EXISTING AND PROPOSED STORM DRAINAGE FACILITIES AND ROADWAYS.
 14. PROVIDE TRAFFIC CONTROL PLAN(S) IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AS REQUIRED.
 15. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE A COPY OF THE APPROVED CONSTRUCTION PLANS ON-SITE AT ALL TIMES. "APPROVED" PLANS, ARE TYPICALLY SIGNIFIED BY THE SIGNATURE OF THE DIRECTOR OF PUBLIC WORKS.
 16. ANY CHANGES TO THE DESIGN WILL FIRST BE REVIEWED AND APPROVED BY THE DEVELOPER'S PROJECT ENGINEER AND THEN THE DIRECTOR OF PUBLIC WORKS PRIOR TO IMPLEMENTATION.
 17. PRIOR TO BACKFILL, ALL MAINS AND APPURTENANCES WILL BE INSPECTED AND APPROVED BY A PUBLIC WORKS REPRESENTATIVE. APPROVAL DOES CONSTITUTE FINAL ACCEPTANCE OF THE SEWER LINE. THE CONTRACTOR WILL RETAIN RESPONSIBILITY TO REPAIR ALL DEFICIENCIES AND FAILURES REVEALED DURING ALL REQUIRED TESTING FOR ACCEPTANCE AND THROUGHOUT THE DURATION OF THE WARRANTY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE PUBLIC WORKS DEPARTMENT IN ADVANCE OF ALL REQUIRED INSPECTIONS. ANY MAIN OR APPURTENANCE BACKFILLED PRIOR TO INSPECTION WILL BE RE-EXCAVATED FOR INSPECTION AT NO COST TO THE CITY.

NO.	DATE	DESIGNED BY: <u>LRWB</u>	DRAWN BY: <u>CES</u>	CHECKED BY: <u>LRWB</u>	DATE: <u>2/19/2021</u>	SCALE:
SEWER DETAILS AND NOTES						
SW SNIVELY AVENUE ROAD AND UTILITY IMPROVEMENT PROJECT						
CHEHALIS						
WA.						

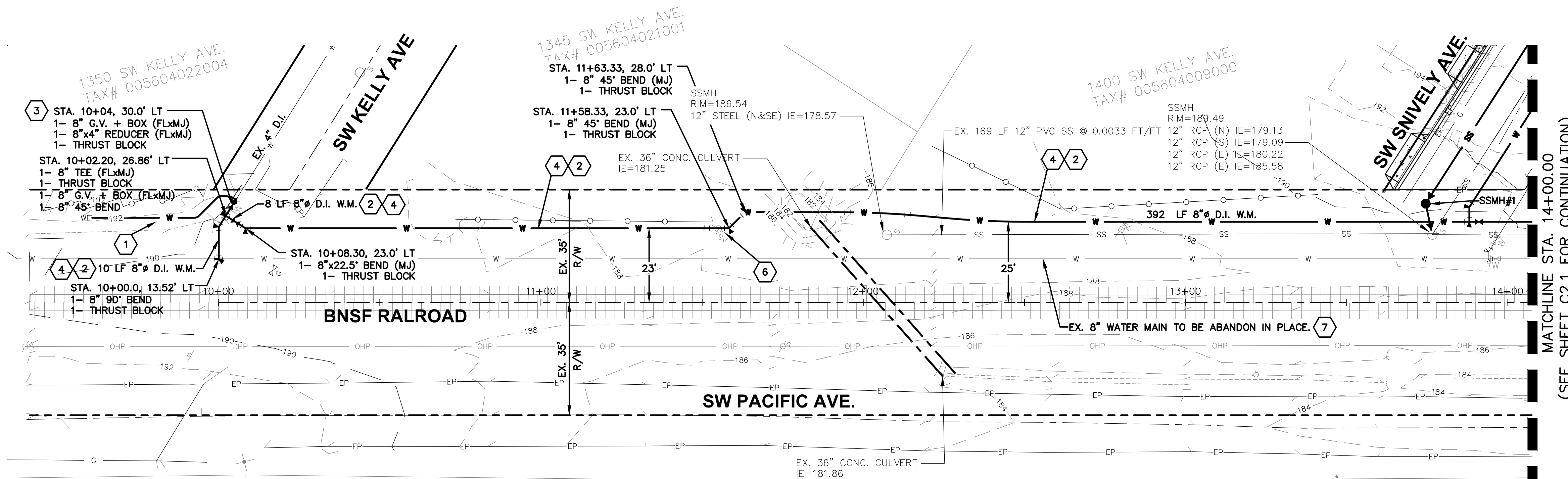


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811 Know what's below. Call 811 before you dig.
 JOB NUMBER: 20041
 DRAWING NAME: 20041_SS_DT
C1.2
 6 OF 20



SCALE: 1"=20 FEET
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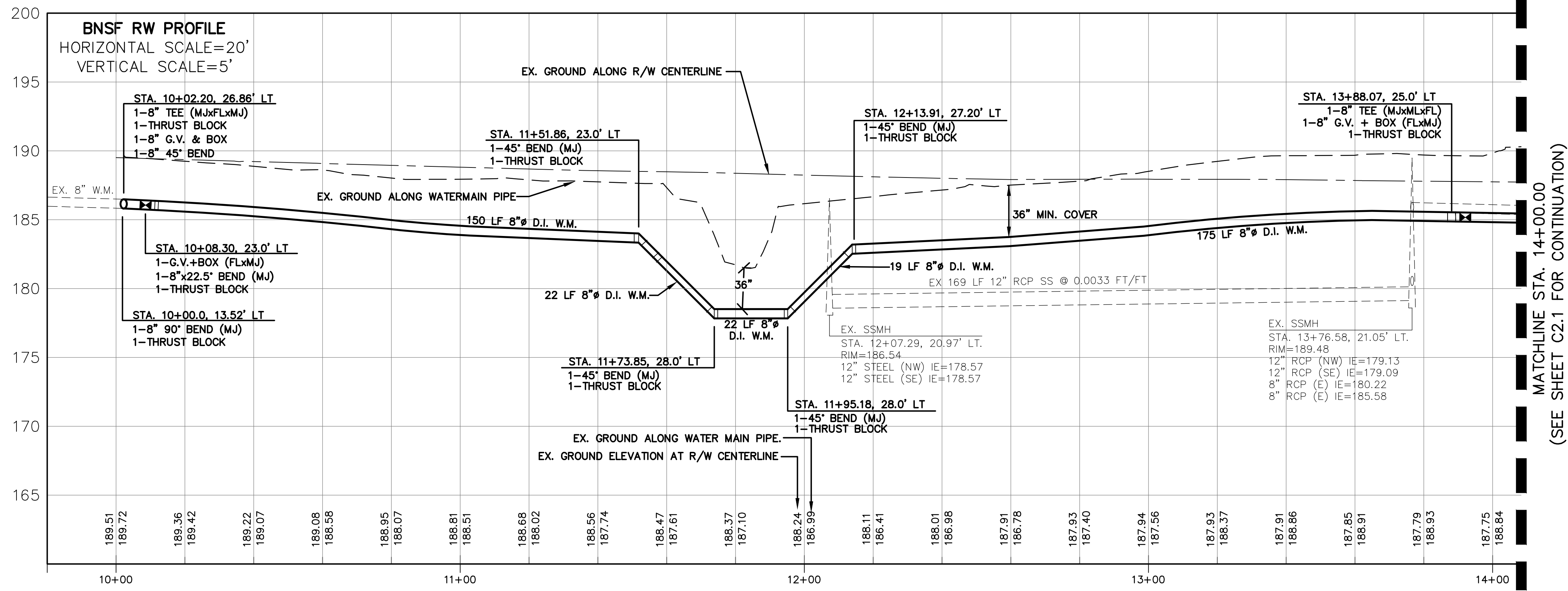
MATCHLINE STA. 14+00.00
(SEE SHEET C2.1 FOR CONTINUATION)

WATER CONSTRUCTION NOTES:

- 1 INSTALL TEMPORARY WATER SERVICE FOR PARCEL 005604022004 PRIOR TO REPLACING WATER MAIN IN BNSF RIGHT OF WAY.
- 2 PROVIDE AND INSTALL NEW 8" DUCTILE IRON CLASS 52 WATER MAIN PER PLAN AND CITY STANDARD DETAILS AND NOTES AND SHEET C2.2.
- 3 CONNECT WATER MAIN TO NEW MAIN LINES IN SW KELLY, SW SNIVELY AND SW GRAND AVE'S PER PLAN AND CITY STANDARD DETAILS ON SHEET C2.2.
- 4 CONTRACTOR SHALL CHLORINATE AND PRESSURE TEST AND FLUSH WATER MAIN PER WSDOT STANDARDS..
- 5 CONTRACTOR SHALL FOLLOW BNSF WORK IN RIGHT OF WAY PERMIT REQUIREMENTS. ALL PIPE IN BNSF RIGHT OF WAY SHALL INCLUDE CATHODIC PROTECTION OR COATING, SUCH AS FUSION BONDED EPOXY COATING (FBE) WITH AN ABRASION RESISTANT OVERCOATING (ARO).
- 6 CONTRACTOR TO COORDINATE WITH LEWIS COUNTY PUD FOR POWER POLE RELOCATION.
- 7 CONTRACTOR SHALL PRESSURE GROUT 8-INCH AND 4-INCH WATER MAIN TO BE ABANDON IN PLACE. THE SAND CEMENT SLURRY WITH A MINIMUM OF TWO SACKS OF CEMENT PER CUBIC YARD AND MINIMUM AMOUNT OF WATER TO ASSURE SATISFACTORY PLACEMENT.

BNSF UTILITY ACCOMMODATION POLICY

ALL WORK IN THE BNSF RIGHT OF WAY SHALL FOLLOW THE BNSF UTILITY ACCOMMODATION POLICY GUIDELINES. A COPY OF THE POLICY IS INCLUDED IN SECTION 10 OF THE BID SPECIFICATIONS.



MATCHLINE STA. 14+00.00
(SEE SHEET C2.1 FOR CONTINUATION)

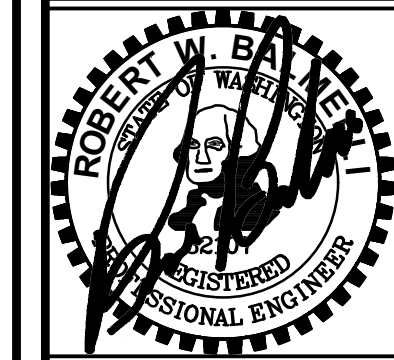
NO.	DATE	REVISION

DESIGNED BY: RWB
DRAWN BY: CES
CHECKED BY: RWB
DATE: 2/19/2021
SCALE: 1" = 20'

**SW SNIVELY AVENUE
ROAD AND UTILITY
IMPROVEMENT PROJECT**

CHEHALIS WA.

**BNSF WATER MAIN
PLAN AND PROFILE**



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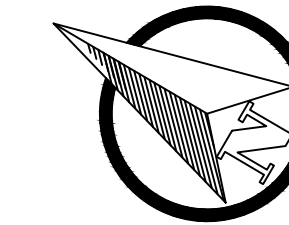
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C2.0
7 OF 20



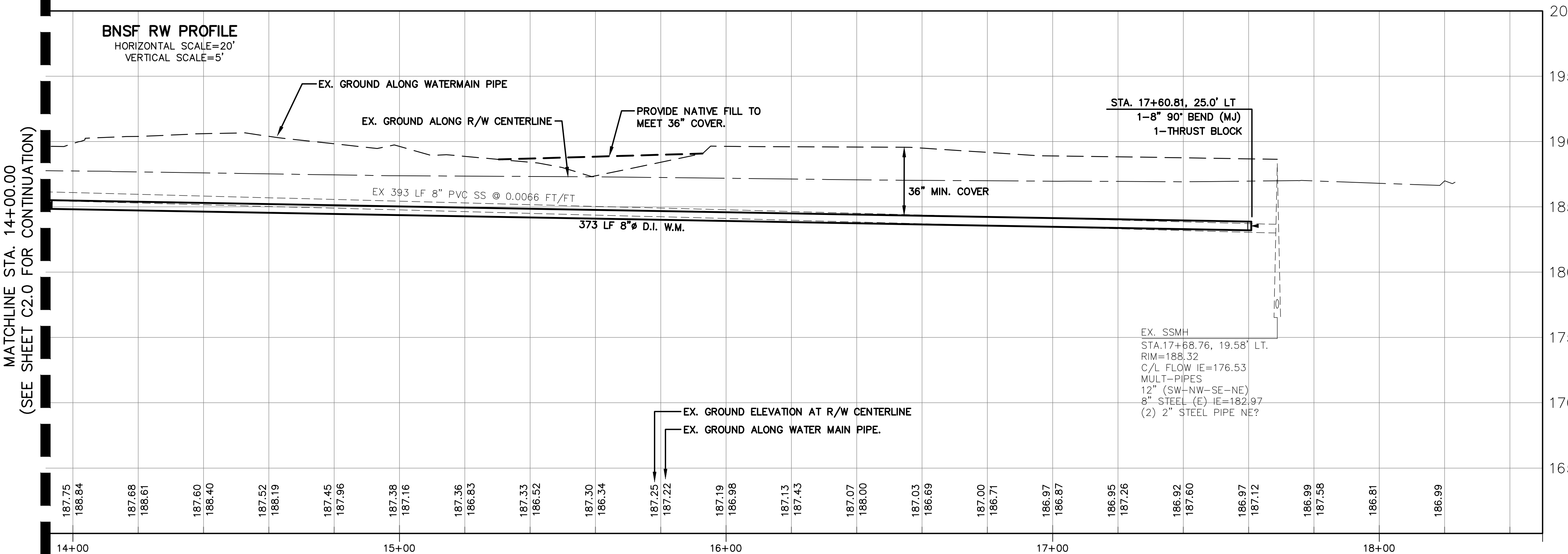
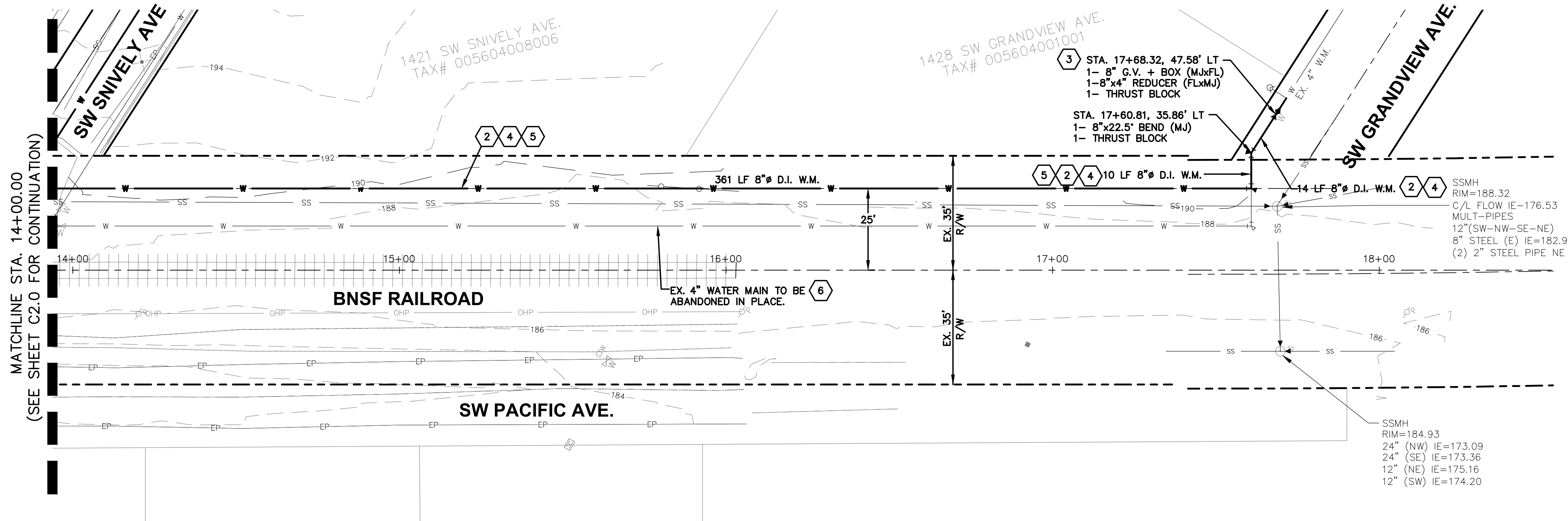
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WATER CONSTRUCTION NOTES:

- 1 NOT USED.
- 2 PROVIDE AND INSTALL NEW 8" DUCTILE IRON CLASS 52 WATER MAIN PER PLAN AND CITY STANDARD DETAILS AND NOTES AND SHEET C2.2.
- 3 CONNECT WATER MAIN TO NEW MAIN LINES IN SW KELLY, SW SNIVELY AND SW GRAND AVE'S PER PLAN AND CITY STANDARD DETAILS ON SHEET C2.2.
- 4 CONTRACTOR SHALL CHLORINATE AND PRESSURE TEST AND FLUSH WATER MAIN PER WSDOT STANDARDS..
- 5 CONTRACTOR SHALL FOLLOW BNSF WORK IN RIGHT OF WAY PERMIT REQUIREMENTS. ALL PIPE IN BNSF RIGHT OF WAY SHALL INCLUDE CATHODIC PROTECTION OR COATING, SUCH AS FUSION BONDED EPOXY COATING (FBE) WITH AN ABRASION RESISTANT OVERCOATING (ARO).
- 6 CONTRACTOR SHALL PRESSURE GROUT 8-INCH AND 4-INCH WATER MAIN TO BE ABANDON IN PLACE. THE SAND CEMENT SLURRY WITH A MINIMUM OF TWO SACKS OF CEMENT PER CUBIC YARD AND MINIMUM AMOUNT OF WATER TO ASSURE SATISFACTORY PLACEMENT.

BNSF UTILITY ACCOMMODATION POLICY

ALL WORK IN THE BNSF RIGHT OF WAY SHALL FOLLOW THE BNSF UTILITY ACCOMMODATION POLICY GUIDELINES. A COPY OF THE POLICY IS INCLUDED IN SECTION 10 OF THE BID SPECIFICATIONS.



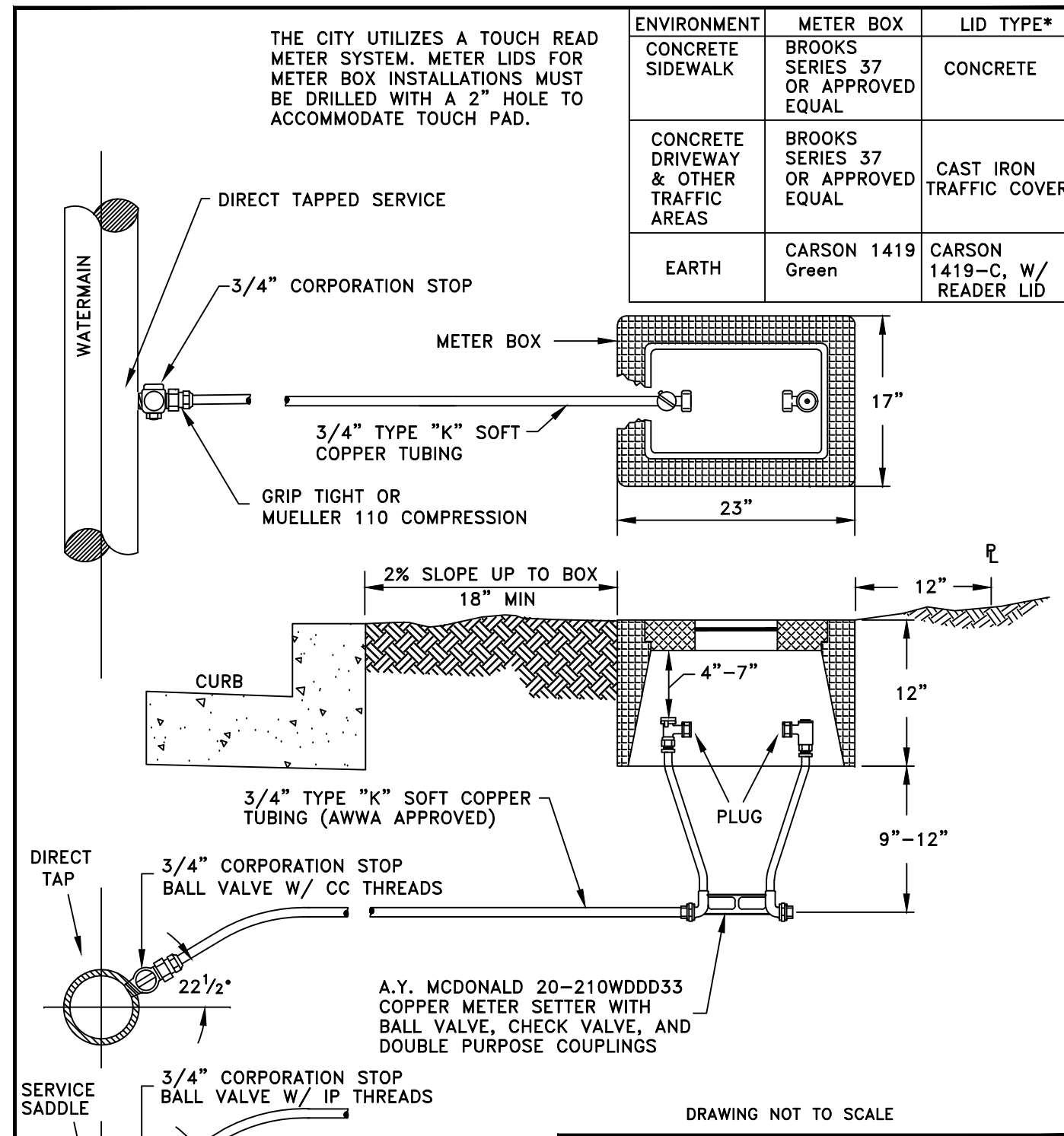
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SW SNIVELY AVENUE ROAD AND UTILITY IMPROVEMENT PROJECT	
BNSF WATER MAIN PLAN AND PROFILE	
RB Engineering DESIGN → PERMIT → MANAGE <small>OFF: (360) 746-8919 P.O. Box 923 CHEHALIS, WA 98532 EMAIL: cball@rbengineering.com</small>	
JOB NUMBER 20041 DRAWING NAME 20041_C2.1_WTR_PP C2.1 8 OF 20	

GENERAL NOTES (WATERMAIN INSTALLATION)

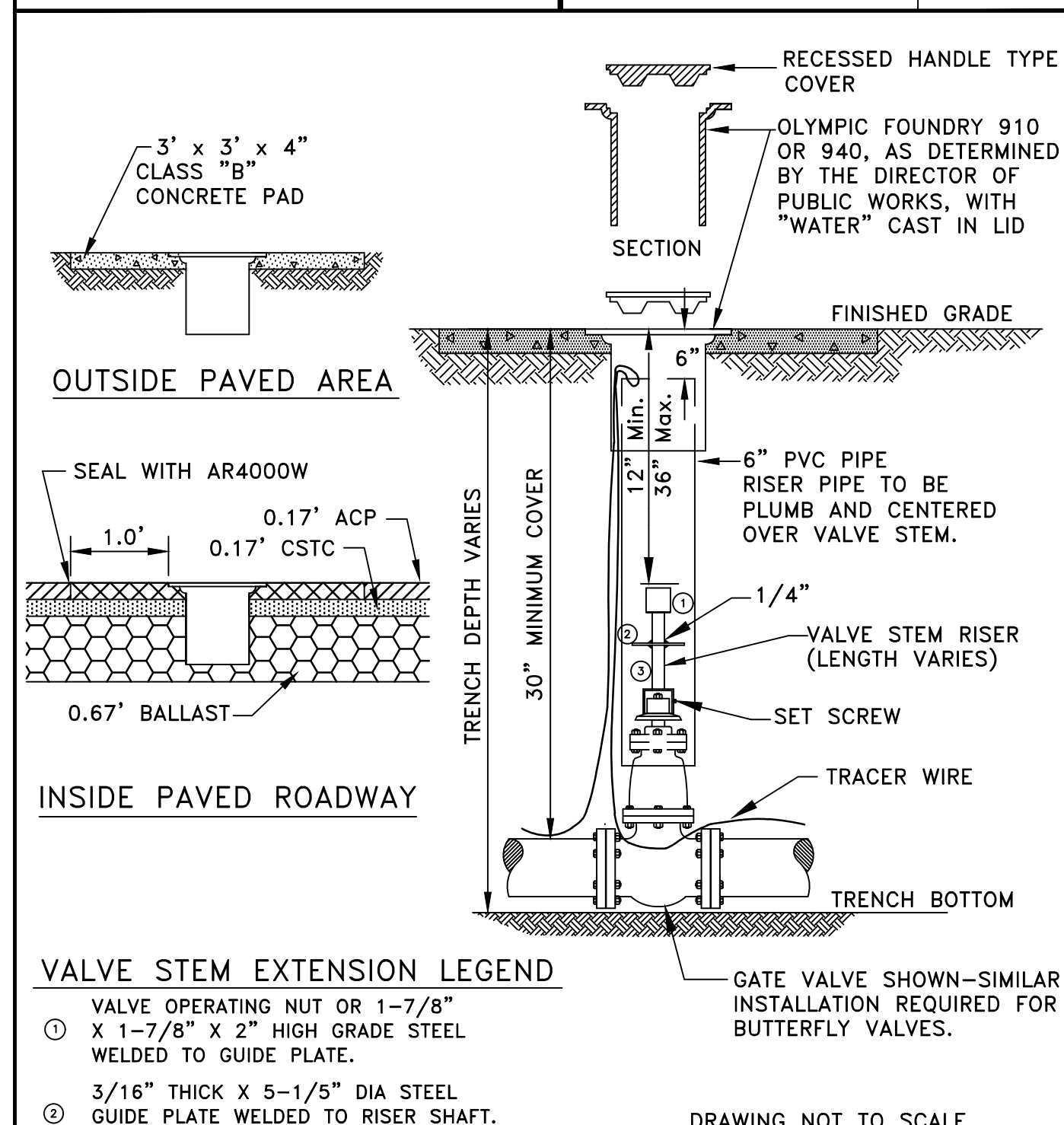
1. ALL WORKMANSHIP AND MATERIAL WILL BE IN ACCORDANCE WITH CITY OF CHEHALIS STANDARDS AND THE MOST RECENT COPY OF THE WSDOT/APWA STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION, AMERICAN WATER WORKS ASSOCIATION (AWWA) STANDARDS AND ANSI/NSF STANDARD 60 OR 61.
2. A PRE-CONSTRUCTION MEETING WILL BE HELD WITH THE PUBLIC WORKS DEPARTMENT PRIOR TO THE START OF CONSTRUCTION.
3. ALL WATERMANS WILL BE DUCTILE IRON CEMENT MORTAR LINED THICKNESS CLASS 52.
4. GATE VALVES WILL BE RESILIENT WEDGE, NRS (NON-RISING STEM) WITH O-RINGS SEALS. VALVE ENDS WILL BE MECHANICAL JOINT OR ANSI FLANGES. VALVES WILL CONFORM TO AWWA 509-80. VALVES WILL BE MUELLER, M&H, KENNEDY, CLOW R/W OR WATEROUS SERIES 500. EXISTING VALVES AND ALL VALVES INSTALLED DIRECTLY TO AND CONNECTED TO A PORTION OF THE ACTIVE WATER SYSTEM ARE TO BE OPERATED BY CITY EMPLOYEES **ONLY**.
5. FIRE HYDRANTS WILL BE MUELLER CENTURION A-423, M&H RELIANT STYLE 129, CLOW MEDALLION, OR KENNEDY GUARDIAN K81D. HYDRANTS WILL BE INSTALLED IN ACCORDANCE WITH THE MOST RECENT VERSION OF THE UNIFORM FIRE CODE. HYDRANTS WILL BE BAGGED AND THE CONNECTING GATE VALVES LEFT CLOSED UNTIL THE SYSTEM HAS BEEN APPROVED. HYDRANTS MUST BE PAINTED WITH SUNBURST YELLOW HIGH-GRADE ENAMEL AFTER INSTALLATION.
6. ALL LINES WILL BE CHLORINATED AND TESTED IN CONFORMANCE WITH THE ABOVE REFERENCED SPECIFICATIONS. (SEE NOTE 1)
7. ALL PIPES AND SERVICES WILL BE INSTALLED WITH CONTINUOUS TRACER TAPE PLACED TWELVE (12) TO EIGHTEEN (18) INCHES UNDER THE PROPOSED FINISHED SUBGRADE. THE MARKER WILL BE OF PLASTIC NON-BIODEGRADABLE, METAL CORE, OR BACKING MARKED "WATER" THAT CAN BE DETECTED BY A STANDARD METAL DETECTOR. TAPE WILL BE TERRA TAPE "D" OR APPROVED EQUAL. IN ADDITION TO TRACER TAPE, TONING WIRE WILL BE INSTALLED OVER ALL PIPE AND SERVICES. TONING WIRE WILL BE UL LISTED, TYPE UF, FOURTEEN (14) GAUGE SOLID COATED COPPER WIRE, TAPED TO THE TOP OF THE PIPE TO PREVENT MOVEMENT DURING BACKFILLING AND LAID LOOSE ENOUGH TO PREVENT STRETCHING AND DAMAGE BEFORE BEING BROUGHT UP AND TIED OFF AT THE VALVE OPERATING NUT OR VALVE BOX. IF THE OPERATING NUT IS NOT EASILY ACCESSIBLE FROM THE GROUND SURFACE, THE COPPER WIRE WILL BE TIED OFF AT THE VALVE BOX IN SUCH A WAY THAT THE WIRE IS EASILY ACCESSIBLE FROM THE GROUND SURFACE. TWO (2) FEET OF SLACK WILL BE PROVIDED TO ALLOW FOR CONNECTION TO THE LOCATOR.

A 1-LB MAGNESIUM ANODE WILL BE BURIED WITH THE PIPE EVERY 1,000 LINEAR FEET MAXIMUM FOR CATHODIC PROTECTION OF THE TONING WIRE. TONING WIRE SPLICES AND CONNECTIONS TO ANODES WILL JOIN WIRES BOTH MECHANICALLY AND ELECTRICALLY AND WILL EMPLOY EPOXY RESIN OR HEAT-SHRINK TAPE INSULATION. TONING WIRE WILL BE TESTED PRIOR TO ACCEPTANCE OF THE PIPE SYSTEM. A WRITTEN NOTICE FROM THE CONTRACTOR TO THE CITY MUST BE RECEIVED TWO (2) BUSINESS DAYS PRIOR TO WHEN TESTING IS REQUIRED.

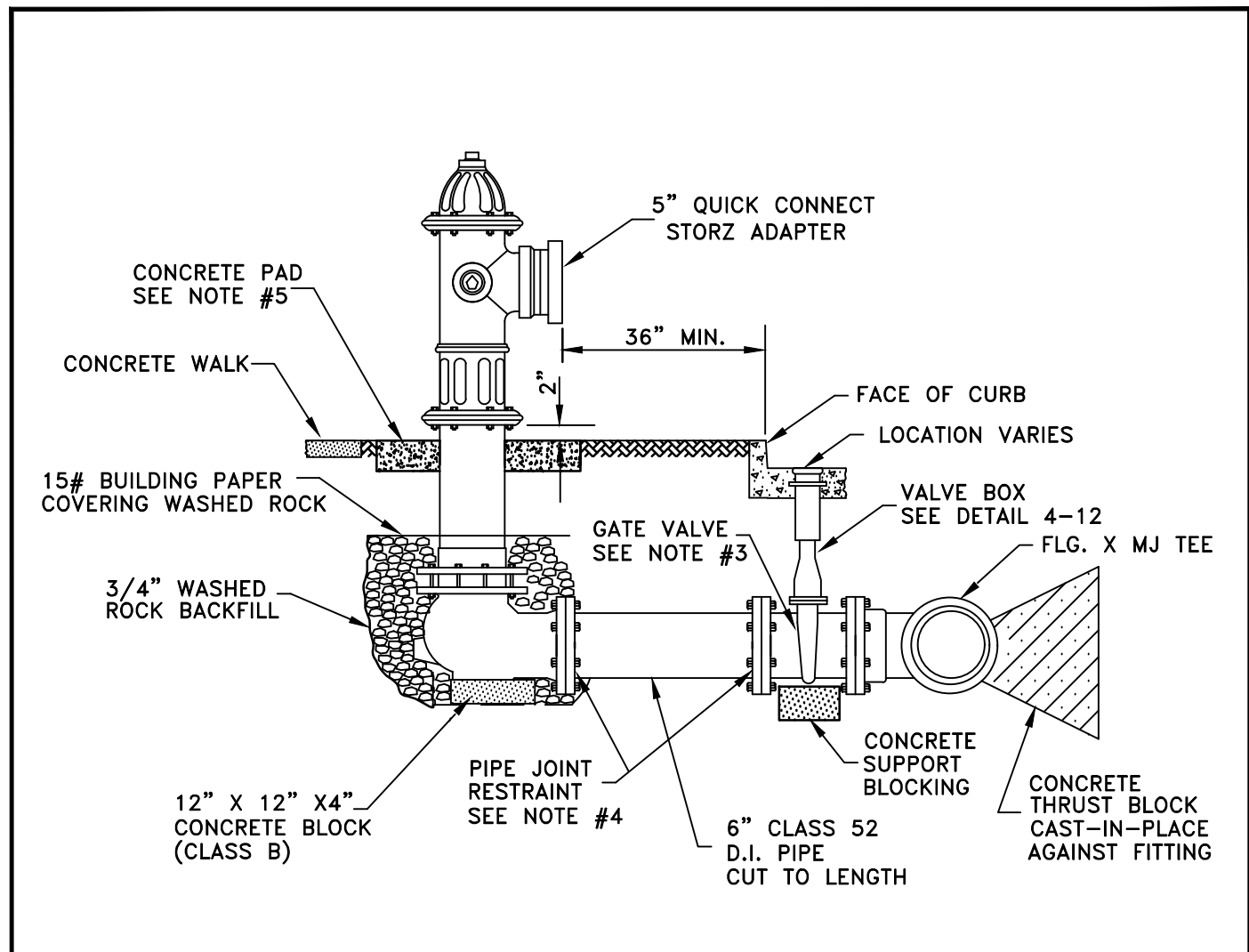
8. THE CONTRACTOR WILL PROVIDE TRAFFIC CONTROL PLAN(S) AS REQUIRED IN ACCORDANCE WITH MUTCD.
9. ALL WATERMANS WILL BE STAKED FOR GRADES AND ALIGNMENT BY AN ENGINEERING OR SURVEYING FIRM CAPABLE OF PERFORMING SUCH WORK. STAKING WILL BE MAINTAINED THROUGHOUT CONSTRUCTION.
10. ALL SERVICE LINES AND WATER VALVE LOCATIONS WILL BE MARKED ON THE FACE OF THE ADJACENT CURB WITH A "W" OR "WV" EMBOSSED 1/4 INCH INTO THE CONCRETE.
11. ALL WATER SYSTEM CONNECTIONS SERVING BUILDINGS OF PROPERTIES WITH DOMESTIC POTABLE WATER, FIRE SPRINKLER OR IRRIGATIONS SYSTEMS WILL COMPLY WITH THE MINIMUM BACKFLOW PREVENTION REQUIREMENTS ESTABLISHED BY THE DEPARTMENT OF HEALTH (DOH) AND THE CITY OF CHEHALIS CROSS-CONNECTION CONTROL PROGRAM.
12. CALL UTILITIES UNDERGROUND LOCATION CENTER AT 1-800-424-5555 A MINIMUM OF TWO (2) BUSINESS DAYS PRIOR TO ANY EXCAVATIONS.
13. THE CITY WILL BE NOTIFIED FIVE (5) BUSINESS DAYS PRIOR TO SCHEDULING A WATER SYSTEM SHUTDOWN. THE CITY'S WATER DIVISION WILL PERFORM ALL WATER SYSTEM SHUTDOWNS. WHEN CONNECTIONS REQUIRE "FIELD VERIFICATION", CONNECTION POINTS WILL BE EXPOSED BY THE CONTRACTOR AND FITTING VERIFIED BY THE CITY TWO (2) BUSINESS DAYS PRIOR TO THE DISTRIBUTION OF SHUTDOWN NOTICES. CUSTOMERS INVOLVED WITH OR AFFECTED BY WATER SERVICE INTERRUPTIONS WILL BE NOTIFIED AT LEAST FOURTY-EIGHT (48) HOURS IN ADVANCE. SHUTDOWNS WILL NOT BE PERMITTED ON FRIDAYS, WEEKENDS, OR HOLIDAYS WITHOUT WRITTEN AUTHORIZATION FROM THE DIRECTOR OF PUBLIC WORKS.
14. WHEN CONNECTING TO AN EXISTING WATERLINE WHERE A NEW VALVE IS **NOT** TO BE INSTALLED, THE EXISTING VALVE MUST BE PRESSURE TESTED TO THESE STANDARDS BY THE CONTRACTOR PRIOR TO CONNECTION. IF AN EXISTING VALVE FAILS TO PASS THE TEST, THE CONTRACTOR WILL MAKE THE NECESSARY ADDITIONAL PROVISIONS TO TEST THE NEW LINE PRIOR TO CONNECTING TO THE EXISTING SYSTEM OR WILL INSTALL A NEW VALVE. NEW LINES WILL NOT BE CONNECTED TO THE EXISTING SYSTEM UNTIL ALL REQUIRED TESTS HAVE BEEN PASSED.



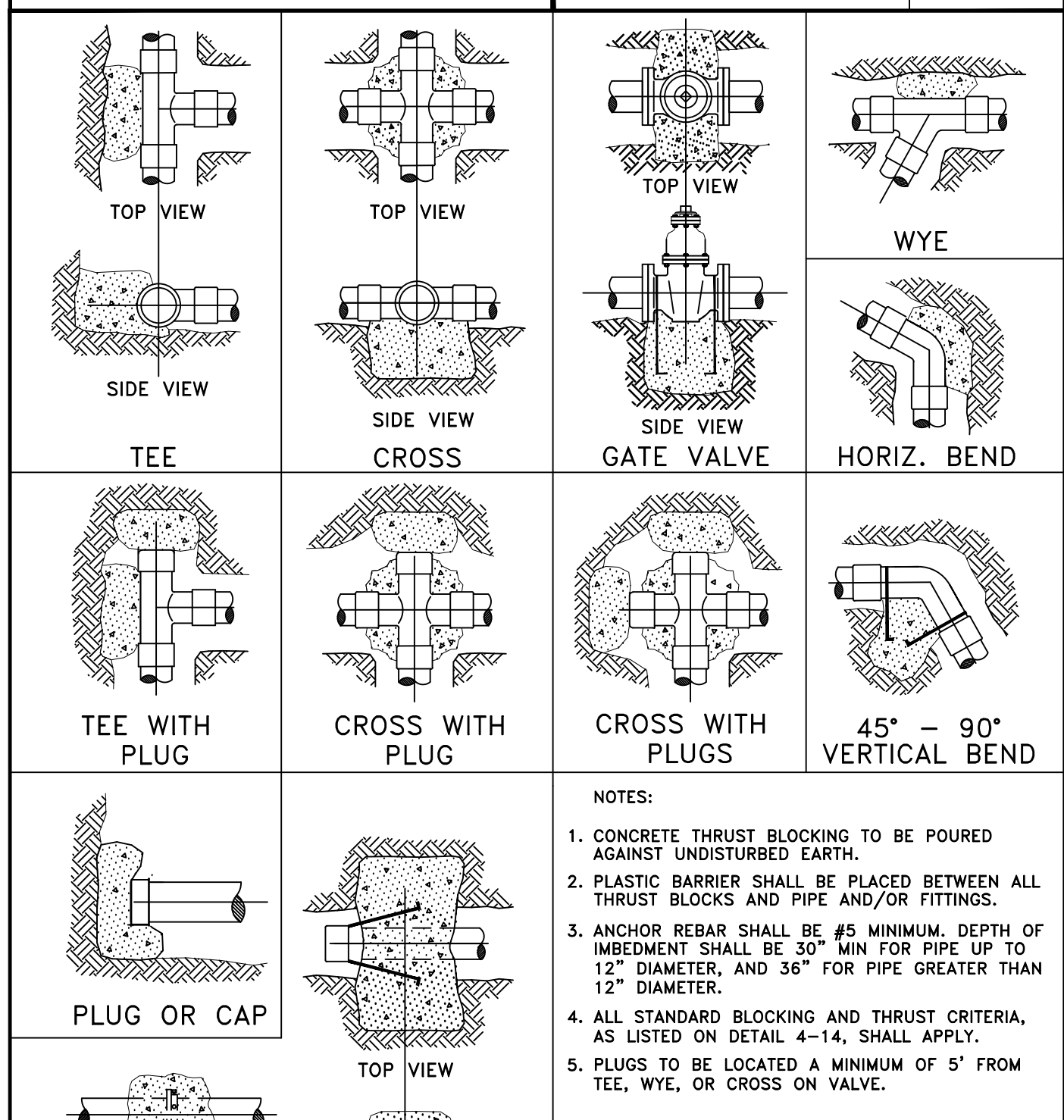
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5/8" X 3/4" SINGLE WATER SERVICE	
APPROVED BY	DWG. NO. 4-1
CITY ENGINEER	REVISED DATE 3/14/2005



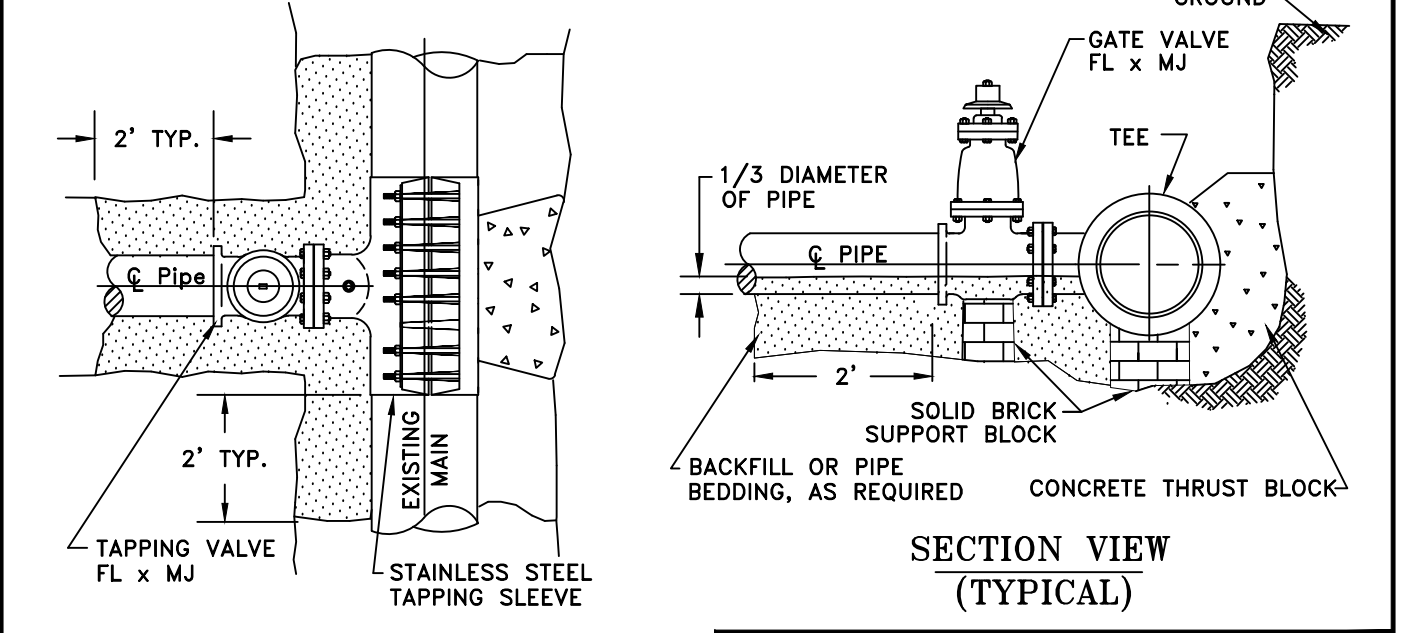
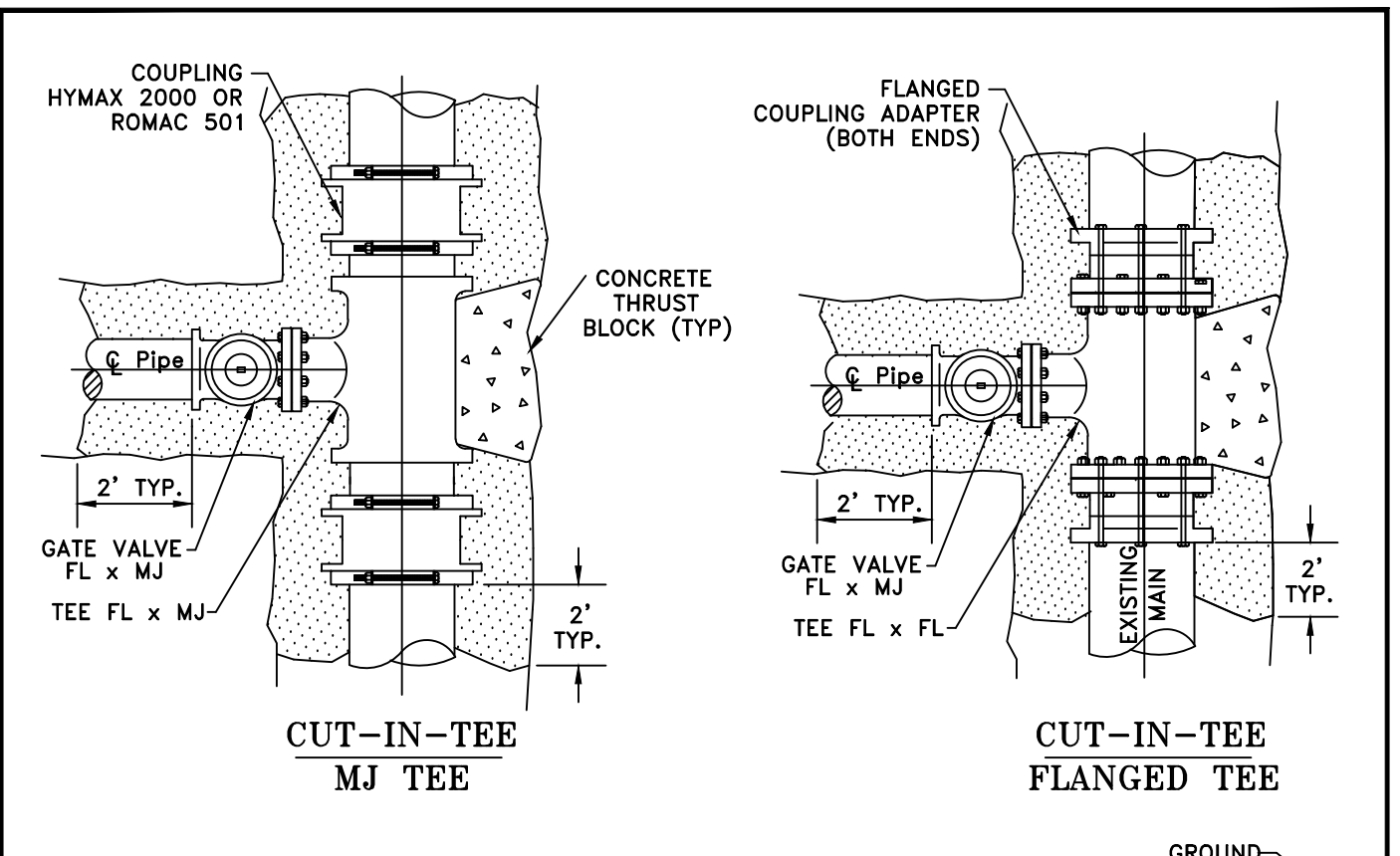
City of Chehalis	
VALVE BOX	
APPROVED BY	DWG. NO. 4-12
CITY ENGINEER	REVISED DATE 1/02/2003



City of Chehalis	
FIRE HYDRANT	
APPROVED BY	DWG. NO. 4-8
CITY ENGINEER	REVISED DATE 3/14/2005



City of Chehalis	
STANDARD BLOCKING DETAIL	
APPROVED BY	DWG. NO. 4-13
CITY ENGINEER	REVISED DATE 1/02/2003



City of Chehalis	
CONNECTION TO EXISTING MAIN	
APPROVED BY	DWG. NO. 4-11
CITY ENGINEER	REVISED DATE 3/16/2005

THRUST LOADS					
THRUST AT FITTINGS IN POUNDS AT 200 POUNDS PER SQUARE INCH OF WATER PRESSURE					
PIPE DIAMETER	90° BEND	45° BEND	22-1/2° BEND	11-1/4° BEND	DEAD END OR TEE
4"	3,600	2,000	1,000	500	2,600
6"	8,000	4,400	2,300	1,200	5,700
8"	14,300	7,700	4,000	2,000	10,100
10"	22,300	12,100	6,200	3,100	15,800
12"	32,000	17,400	8,900	4,500	22,700
14"	43,600	23,600	12,100	6,100	30,800
16"	57,000	30,800	15,700	7,900	40,300

- NOTES:**
1. BLOCKING SHALL BE CEMENT CONCRETE CLASS "B" POURED IN PLACE AGAINST UNDISTURBED EARTH. FITTINGS & PIPE SHALL BE ISOLATED FROM CONCRETE THRUST BLOCK WITH PLASTIC OR SIMILAR MATERIAL.
 2. TO DETERMINE THE BEARING AREA OF THE THRUST BLOCK IN SQUARE FEET (S.F.):
EXAMPLE : 12" - 90° BEND IN SAND AND GRAVEL
32,000 LBS ÷ 3000 LB/S.F. = 10.7 S.F. OF AREA
 3. AREAS MUST BE ADJUSTED FOR OTHER PIPE SIZE, PRESSURES AND SOIL CONDITIONS.
 4. BLOCKING SHALL BE ADEQUATE TO WITHSTAND FULL TEST PRESSURE AS WELL AS TO CONTINUOUSLY WITHSTAND OPERATING PRESSURE UNDER ALL CONDITIONS OF SERVICE.

SAFE SOIL BEARING LOADS	
SOIL	POUNDS PER SQUARE FOOT
MUCK, PEAT	0
SOFT CLAY	1,000
SAND	2,000
SAND & GRAVEL	3,000
SAND & GRAVEL CEMENTED WITH CLAY	4,000
HARD SHALE	10,000

City of Chehalis	
THRUST LOADS	
APPROVED BY	DWG. NO. 4-14
CITY ENGINEER	REVISED DATE 1/02/2003

NO.	DATE	REVISION
DESIGNED BY:	RWB	CES
DRAWN BY:	RWB	RWB
CHECKED BY:		
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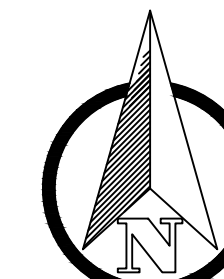
SW SNIVELY AVENUE ROAD AND UTILITY IMPROVEMENT PROJECT

CHEHALIS WA.

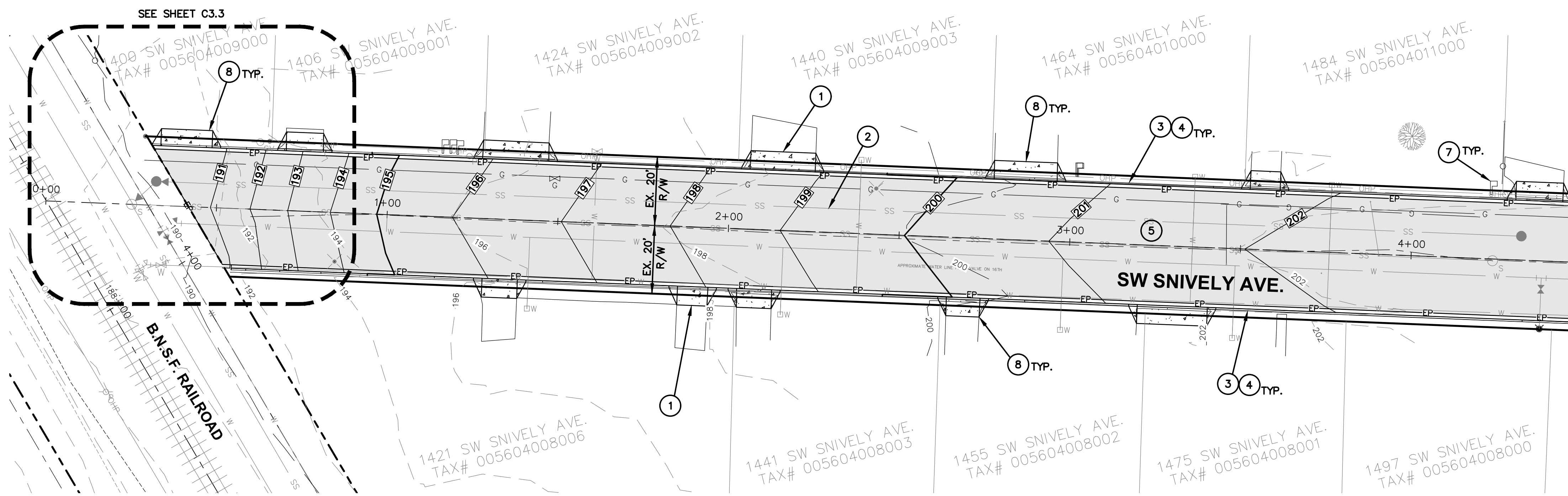
WATER STANDARD DETAILS AND NOTES

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9 OF 20



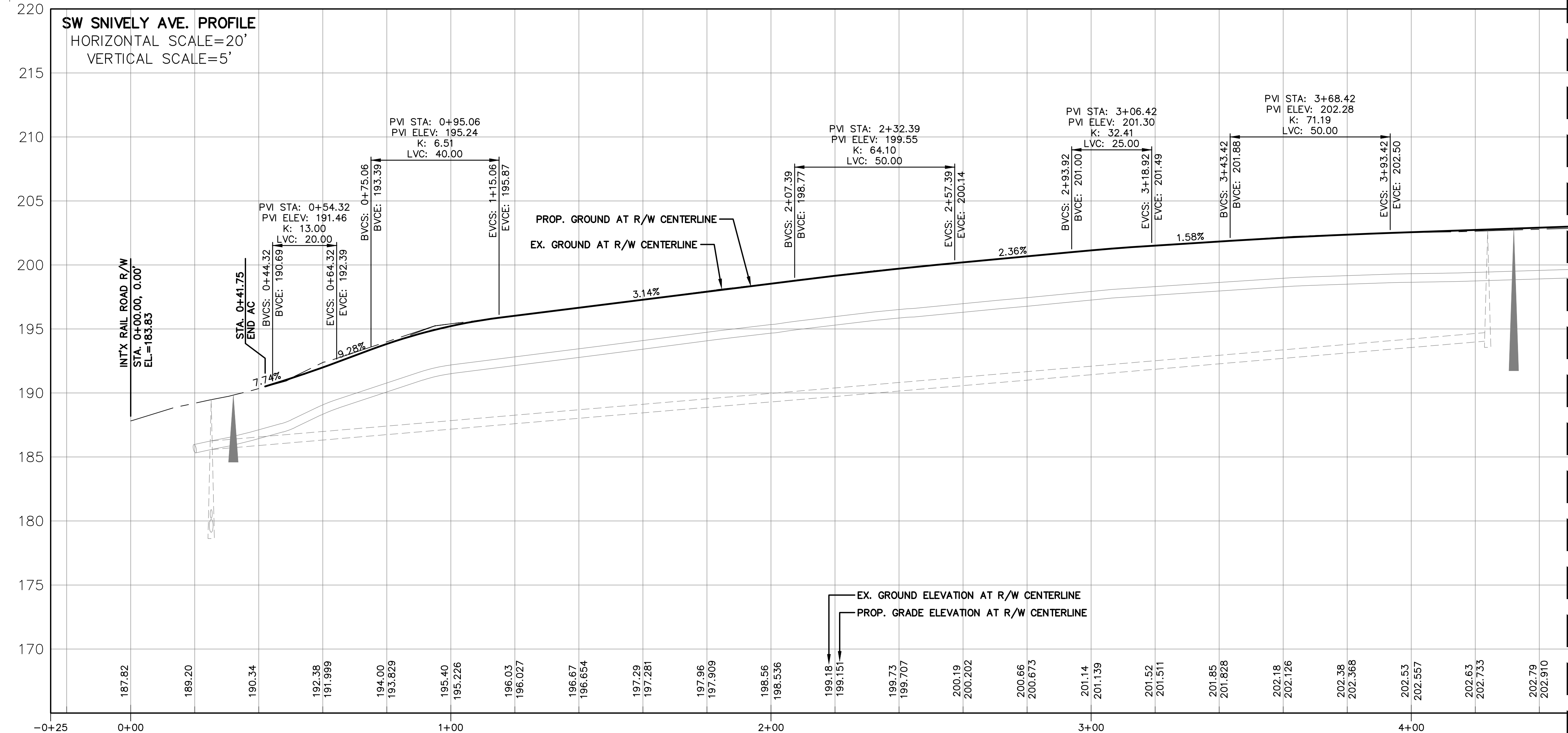
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0 10 20 40



ROAD CONSTRUCTION NOTES:

- ① STA. 0+50 TO 8+12 REMOVE EXISTING CURB AND GUTTER, CONCRETE DRIVEWAY APPROACHES PER PLAN. MAINTAIN CUSTOMER ACCESS TO LOTS AT ALL TIMES.
- ② STA. 0+50 TO 8+30 REMOVE EXISTING ROAD PAVING SECTION PER PLAN.
- ③ CONSTRUCT NEW CONCRETE CURB AND GUTTER PER PLAN AND DETAIL ON SHEET C3.9.
- ④ CONTRACTOR SHALL RESTORE RIGHT OF WAY BEHIND CURB AND ANY DISTURBANCE TO LOT OWNER VEGETATION TO PRE-CONSTRUCTION CONDITION.
- ⑤ CONSTRUCT, GRADE, COMPACT AND RE-PAVE SNIVELY AVE PER PLAN AND ROAD SECTION ON SHEET C3.9.
- ⑥ ADJUST CATCH BASIN RIM ELEVATIONS TO NEW ROAD FINISHED GRADES AT INTERSECTION OF 16TH STREET. REMOVE EXISTING ASPHALT LIMITS AND RE-PAVE PER ROAD SECTION ON SHEET C3.8.
- ⑦ CONTRACTOR SHALL PROVIDE TEMPORARY MAILBOX SUPPORTS FOR ALL RESIDENTIAL LOT POSTAL BOXES THAT REQUIRE REMOVAL TO INSTALL NEW CURB AND GUTTER. REPLACE POSTAL BOX AND SUPPORT AFTER CURB, GUTTER AND DRIVEWAY INSTALLATIONS ARE COMPLETE.
- ⑧ CONSTRUCT NEW CONCRETE DRIVEWAYS, TYPE 4 PER PLAN AND WSDOT DETAIL F-80.10.04 ON SHEET C3.8, TYP. OF 20.

SW SNIVELY AVE. PROFILE
HORIZONTAL SCALE=20'
VERTICAL SCALE=5'



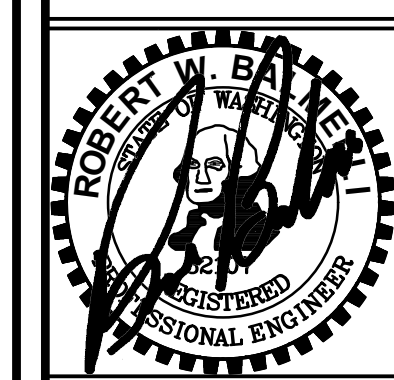
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 DRAWN BY: CES
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**SW SNIVELY AVENUE
ROAD AND UTILITY
IMPROVEMENT PROJECT**

CHEHALIS WA.

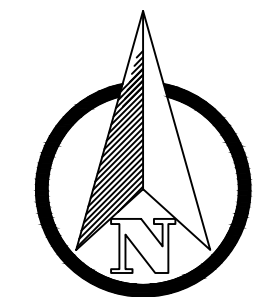
**SW SNIVELY AVE. ROAD
PLAN AND PROFILE**



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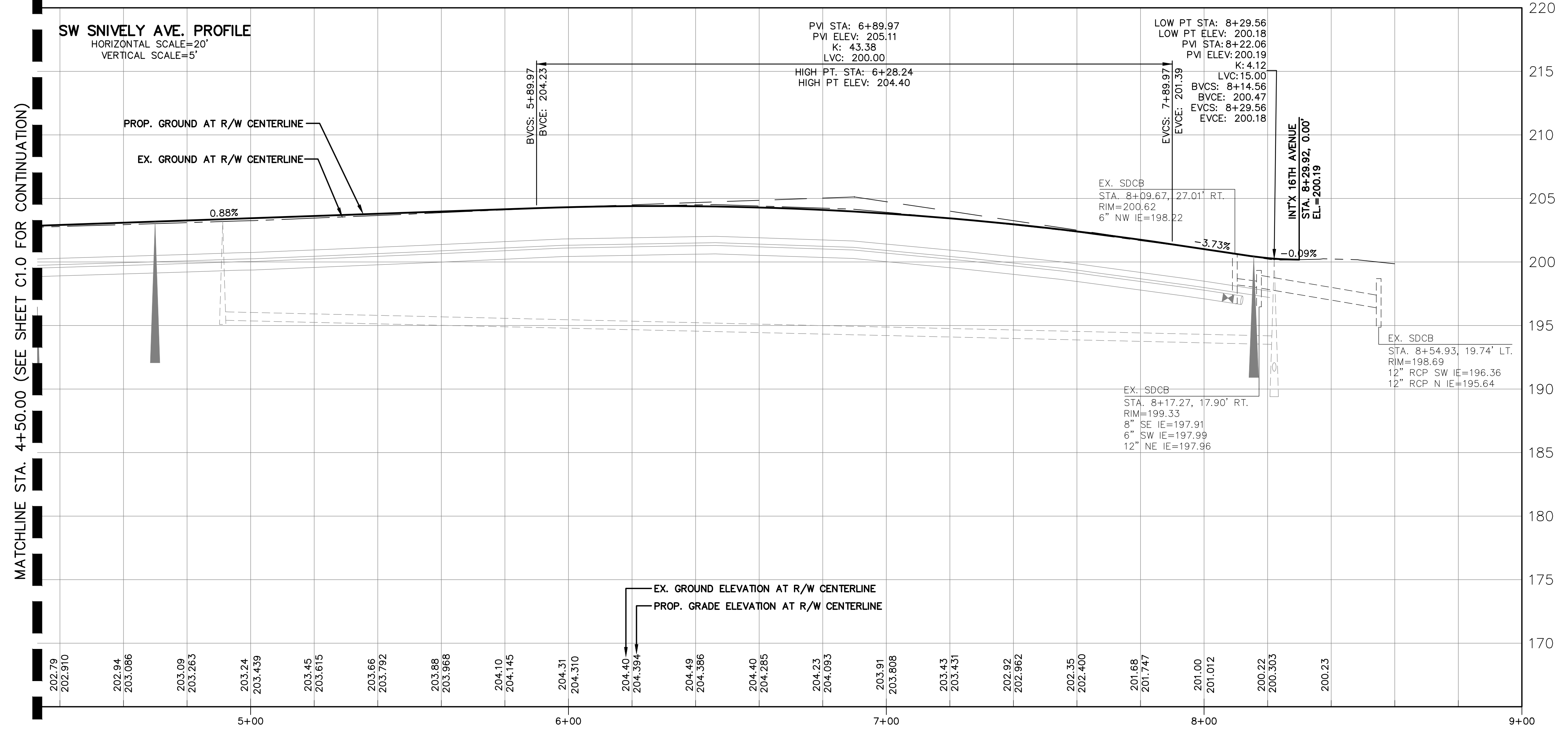
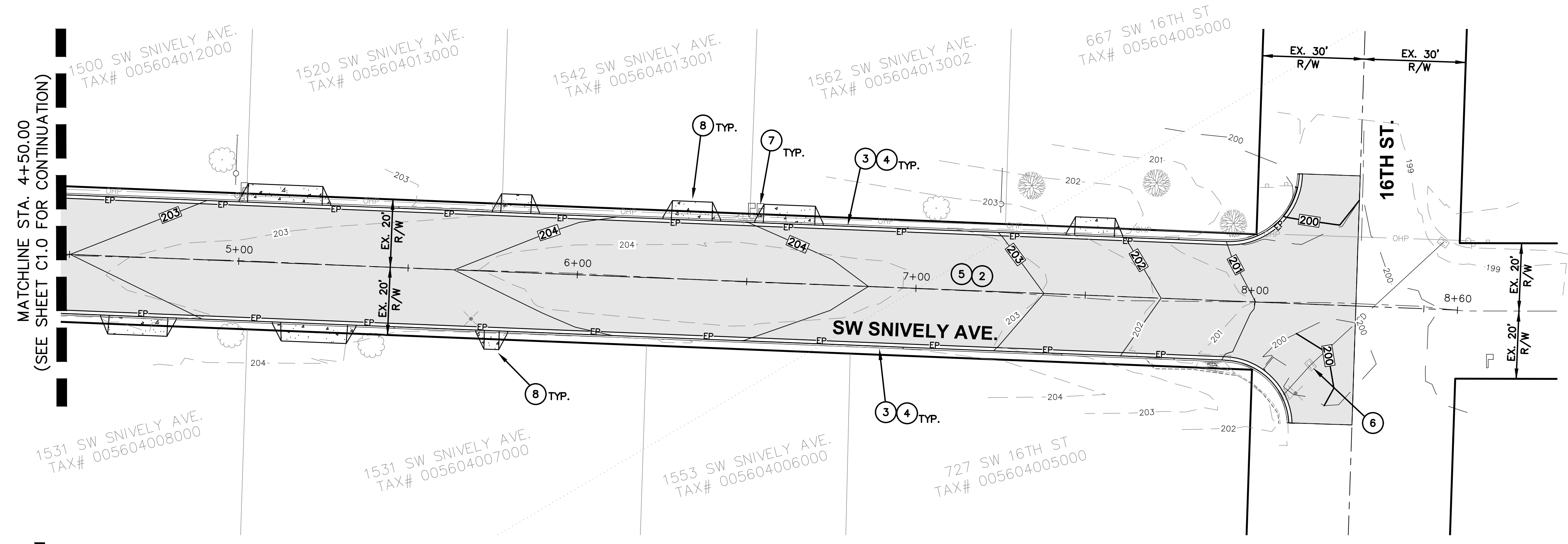
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SCALE: 1"=20 FEET
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ROAD CONSTRUCTION NOTES:

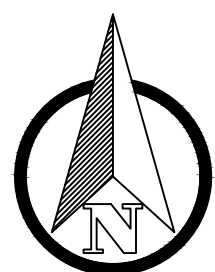
- ① STA. 0+50 TO 8+12
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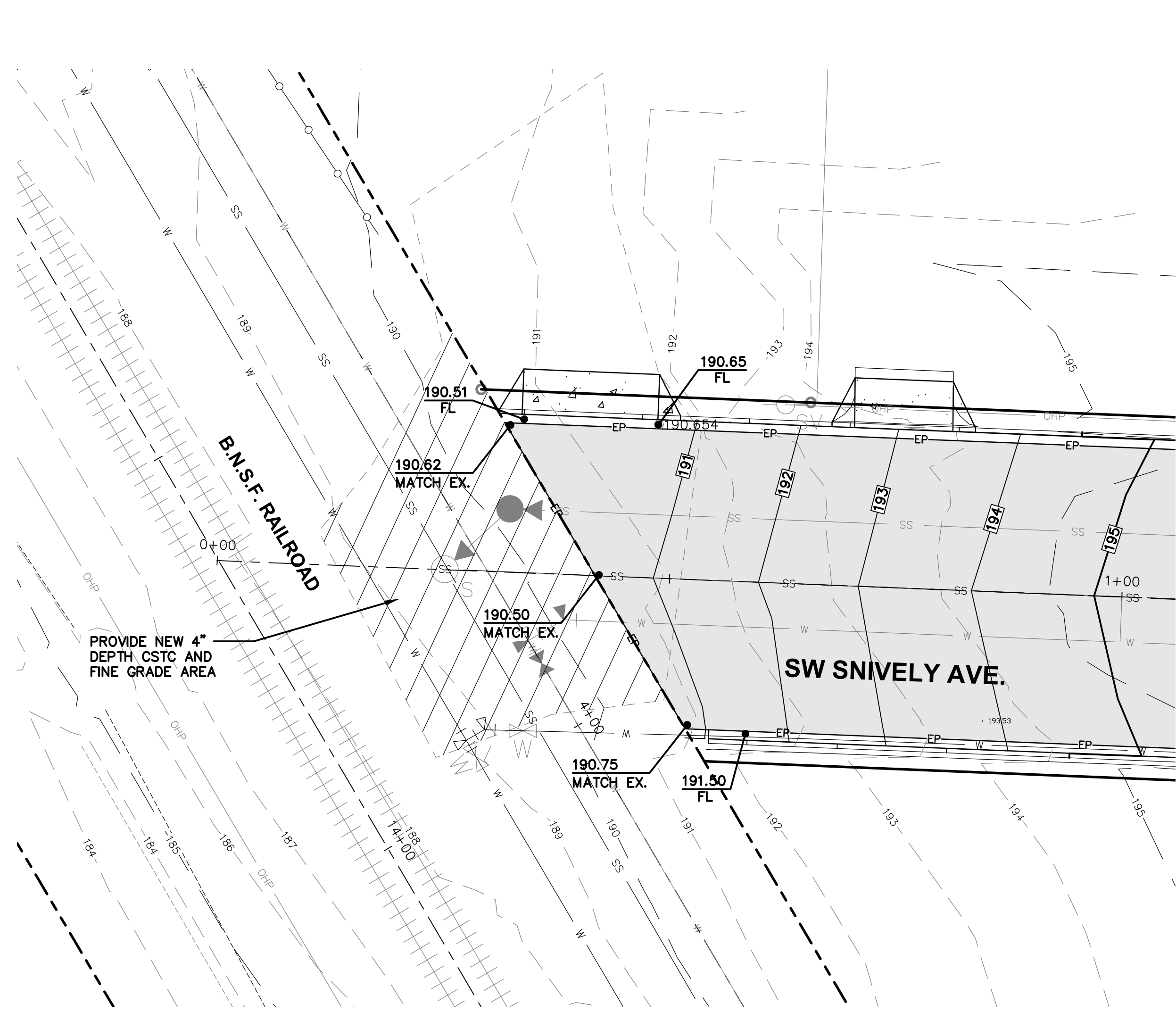
MATCHLINE STA. 4+50.00 (SEE SHEET C1.0 FOR CONTINUATION)

MATCHLINE STA. 4+50.00 (SEE SHEET C1.0 FOR CONTINUATION)

NO.	DATE	DESIGNED BY: RWB	DRAWN BY: CES	CHECKED BY: RWB	DATE: 2/19/2021	SCALE: 1" = 20'
SW SNIVELY AVENUE ROAD AND UTILITY IMPROVEMENT PROJECT						
CHEHALIS WA.						WA.
SW SNIVELY AVE. ROAD PLAN AND PROFILE						
RB Engineering DESIGN → PERMIT → MANAGE OFF: (360) 746-8919 P.O. Box 923 CHEHALIS, WA 98532 EMAIL: cwb@rbengineering.com						
JOB NUMBER: 20041 DRAWING NAME: 20041_C3.2_RDPP C3.2 11 OF 20						

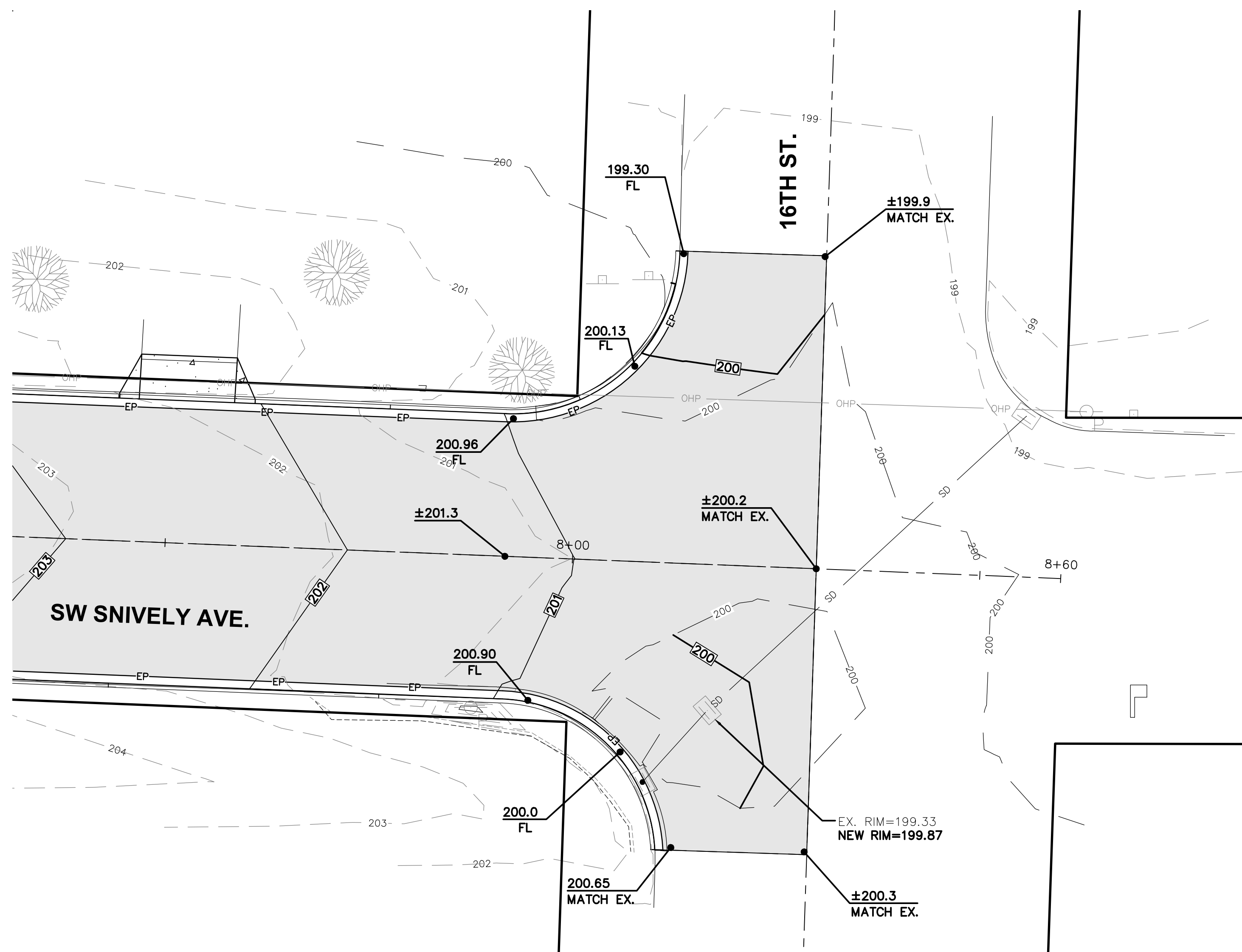


SCALE: 1"=10 FEET



END OF SW SNIVELY AVE. DETAIL

SCALE 1"=10'



SW SNIVELY AVE. & 16TH ST. INTERSECTION DETAIL

SCALE 1"=10'

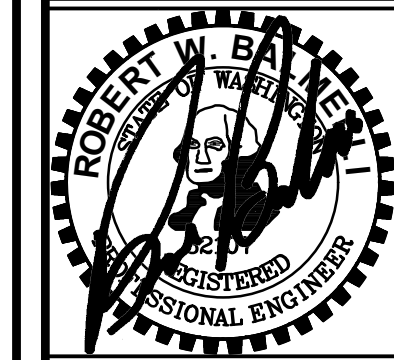
NO.	DATE	REVISION

DESIGNED BY: RWB
 DRAWN BY: CES
 CHECKED BY: RWB
 DATE: 2/19/2021
 SCALE: 1" = 10'

**SW SNIVELY AVENUE
 ROAD AND UTILITY
 IMPROVEMENT PROJECT**

CHEHALIS WA.

**SW SNIVELY AVE.
 INTERSECTION DETAILS**



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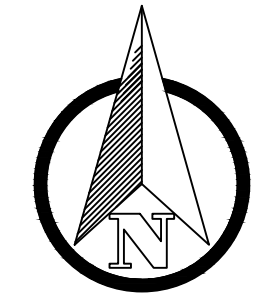


JOB NUMBER
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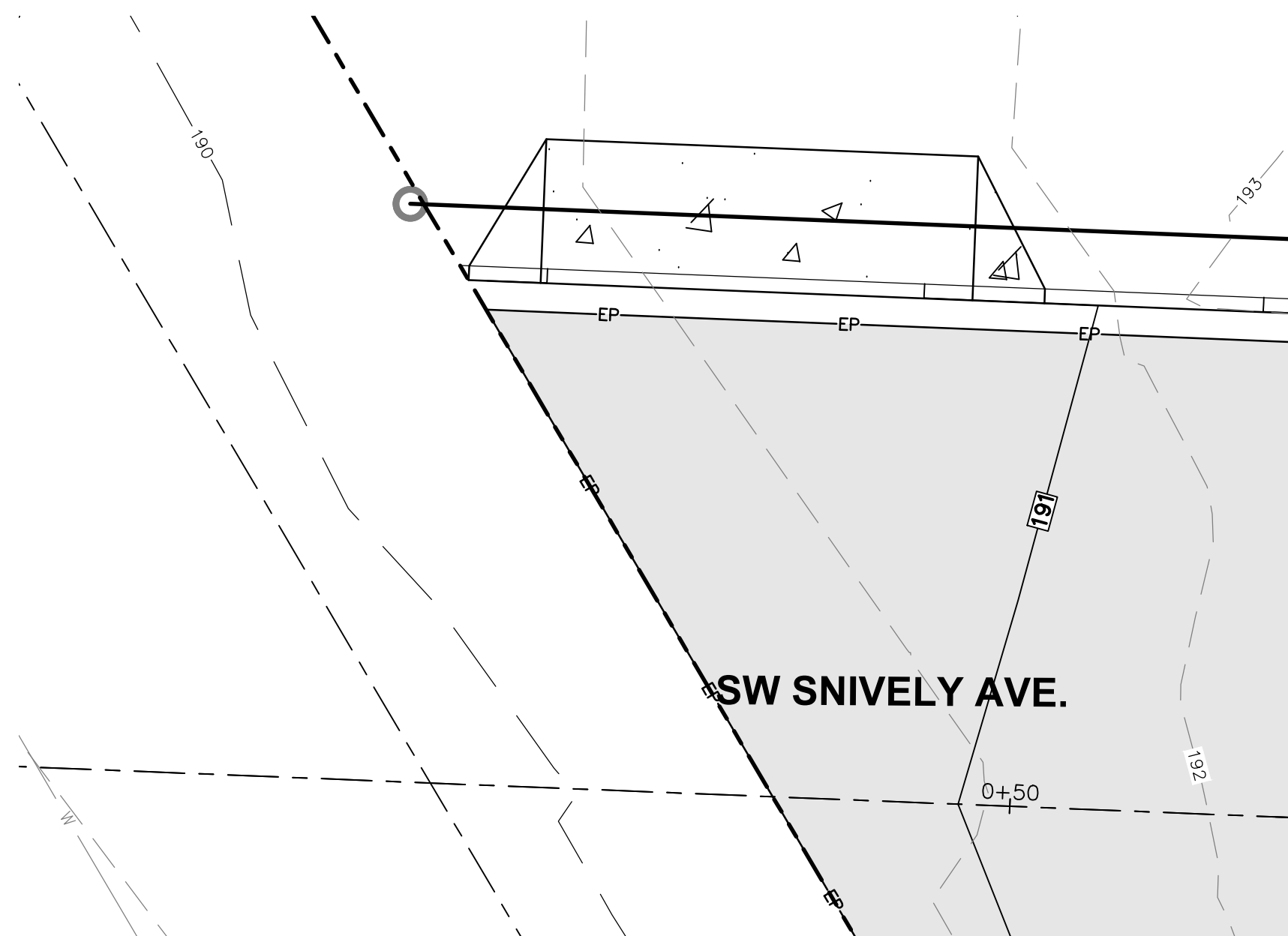
DRAWING NAME
20041_C3.3_TDT

C3.3

12 OF 20

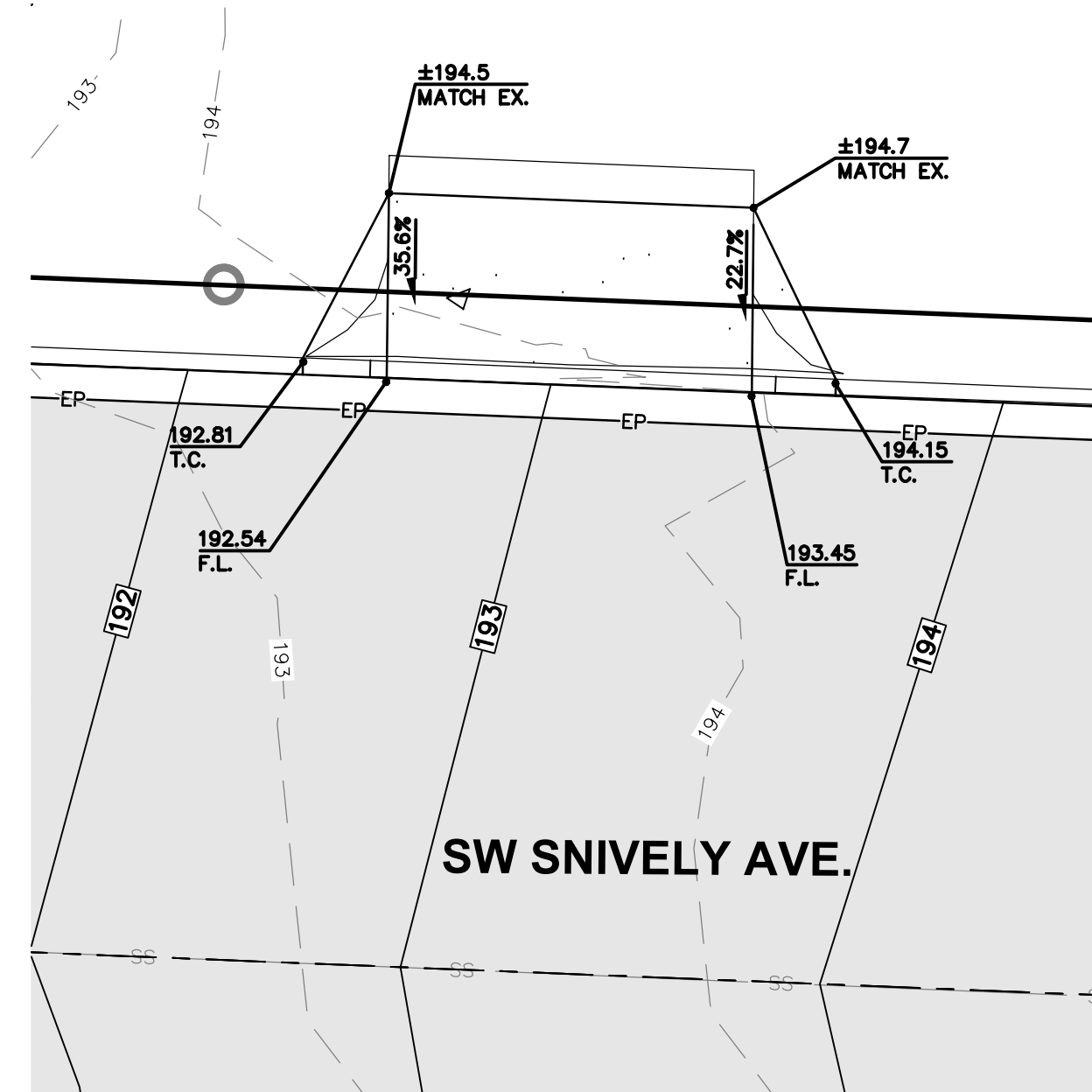


SCALE: 1"=5 FEET
0 2.5 5 10



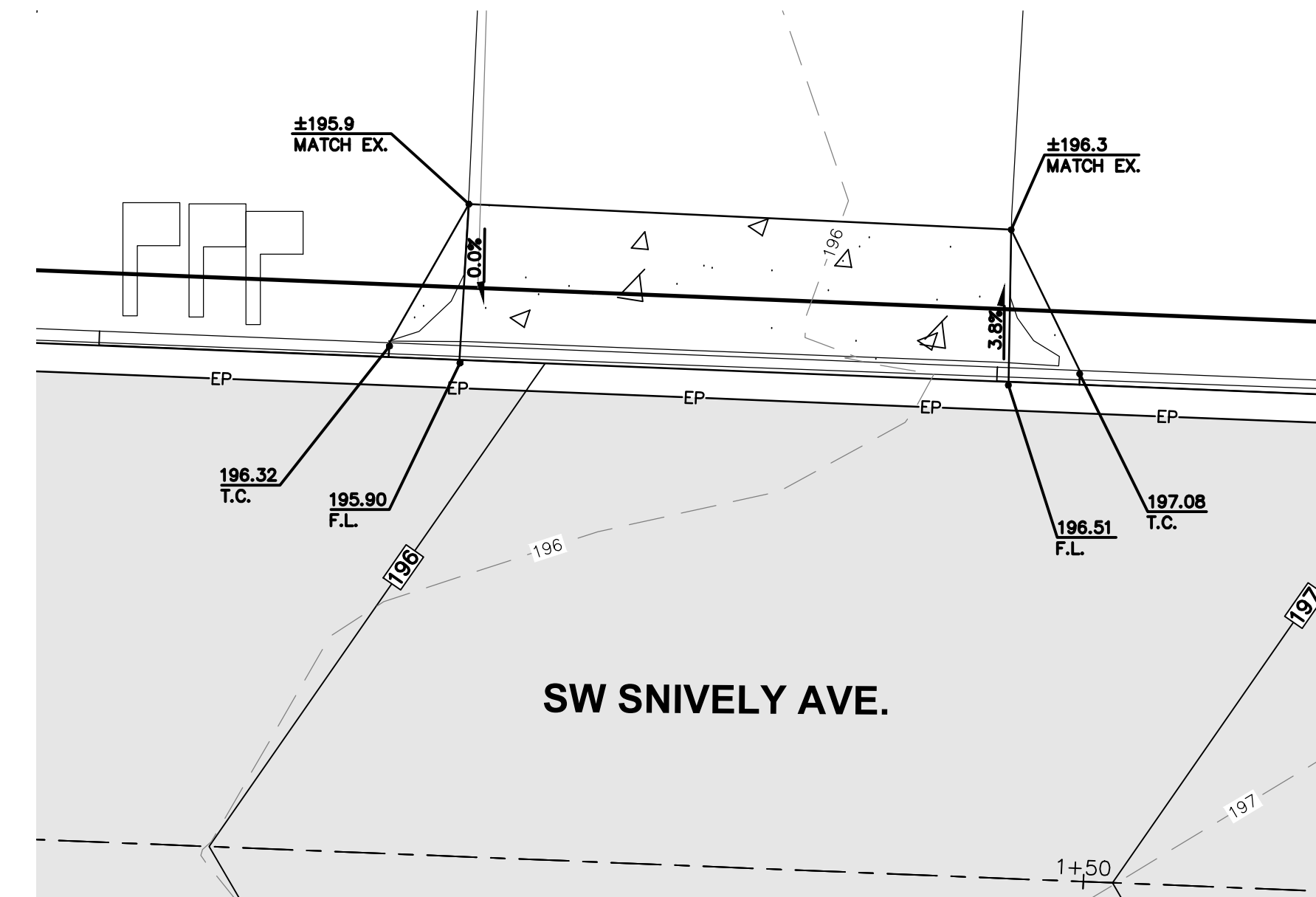
1400 SW SNIVELY AVE.
STA. 0+33, 17.5' LT. TO 0+48, 17.5' LT.

SCALE 1"=5'



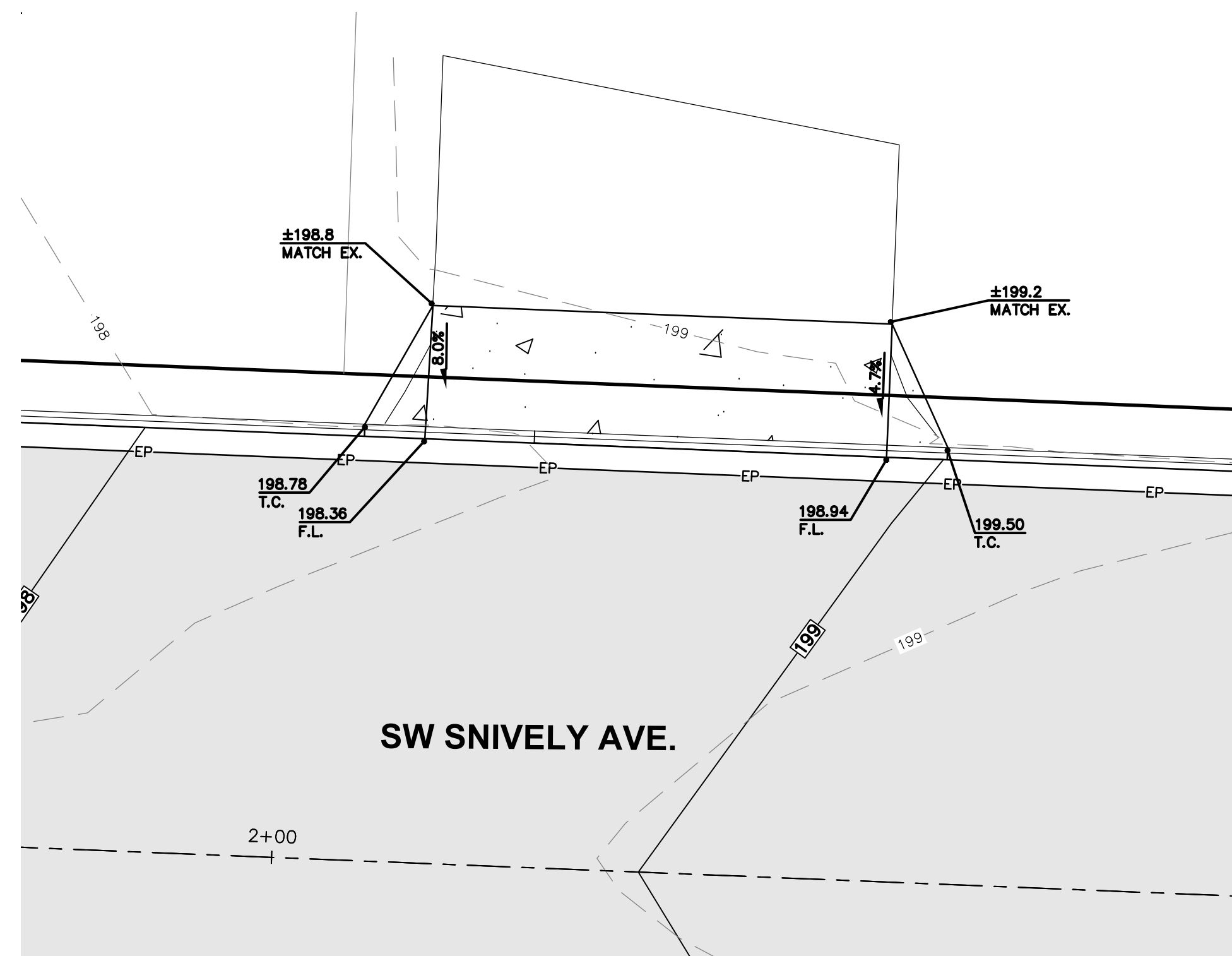
1406 SW SNIVELY AVE.
STA. 0+69.70, 17.5' LT. TO 0+80.58, 17.5' LT.

SCALE 1"=5'



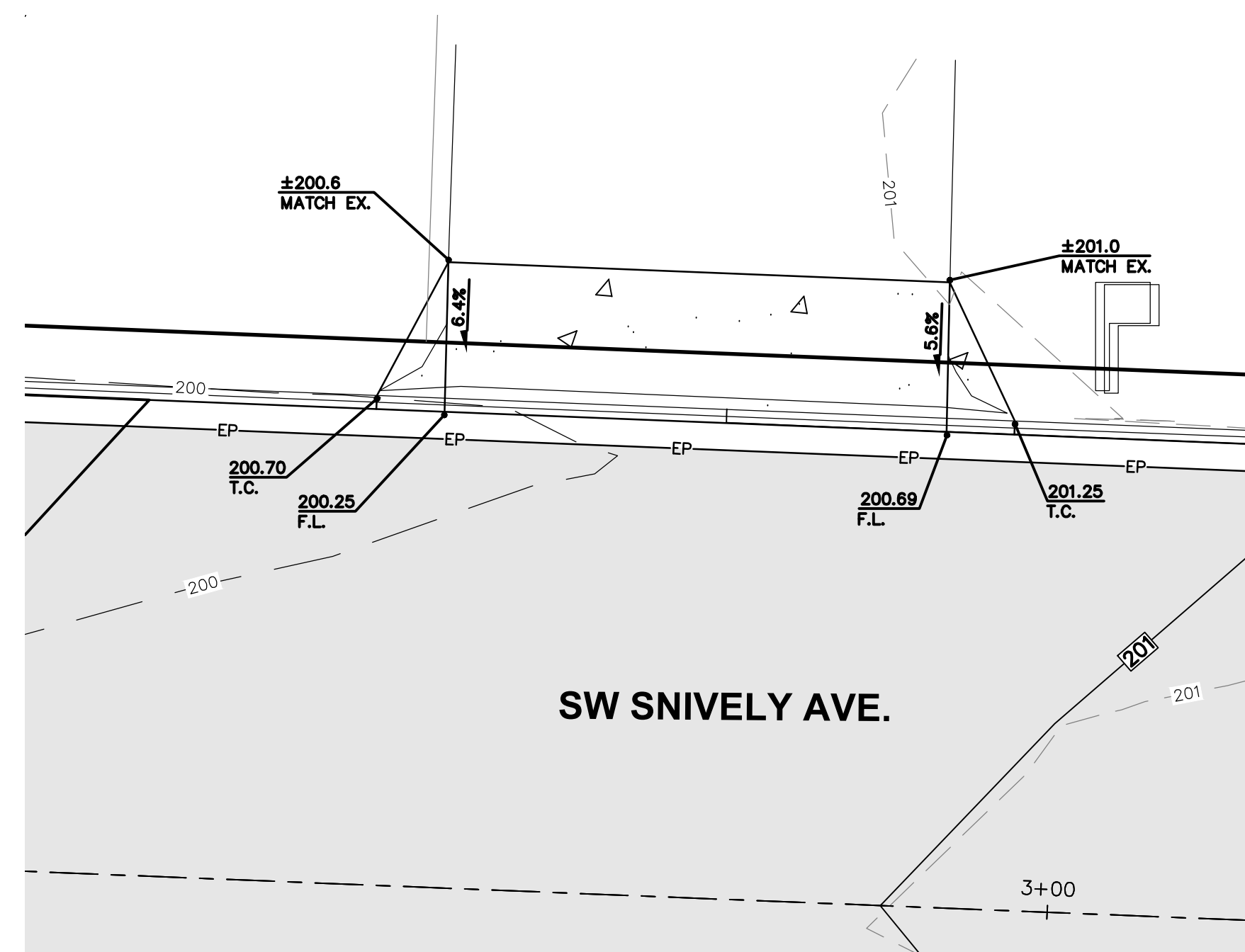
1424 SW SNIVELY AVE.
STA. 1+27.29, 17.5' LT. TO 1+46.65, 17.5' LT.

SCALE 1"=5'



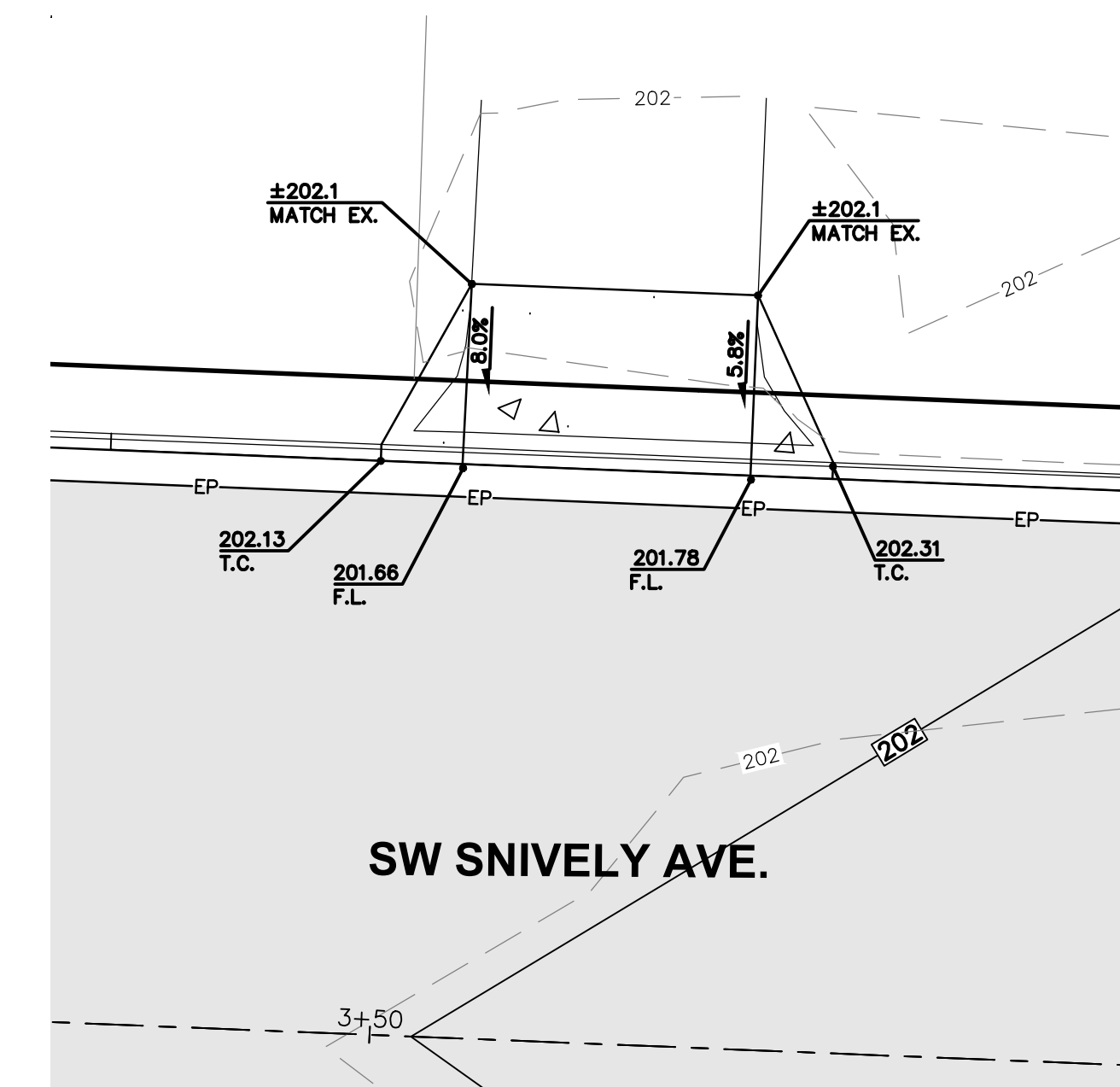
1440 SW SNIVELY AVE.
STA. 2+05.63, 17.5' LT. TO 2+24.69, 17.5' LT.

SCALE 1"=5'



1464 SW SNIVELY AVE.
STA. 2+77.13, 17.5' LT. TO 2+95.59, 17.5' LT.

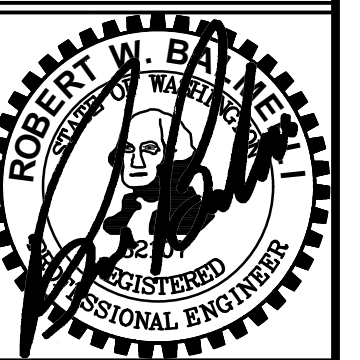
SCALE 1"=5'



1484 SW SNIVELY AVE.
STA. 3+52.14, 17.5' LT. TO 3+60.93, 17.5' LT.

SCALE 1"=5'

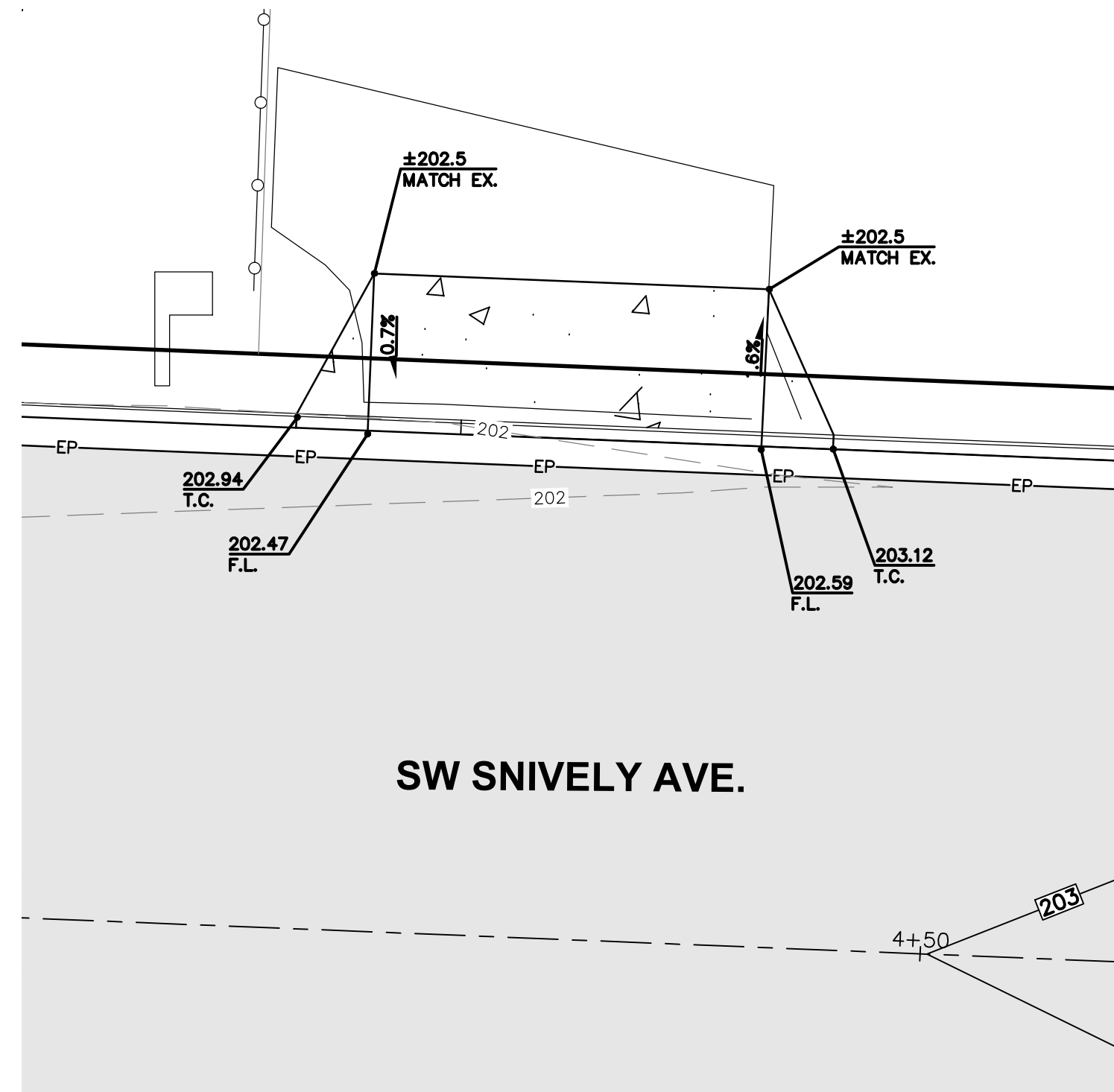
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		DRAWN BY: CES			
SW SNIVELY AVENUE ROAD AND UTILITY IMPROVEMENT PROJECT					WA.
RESIDENTIAL DRIVEWAY DETAILS					CHEHALIS



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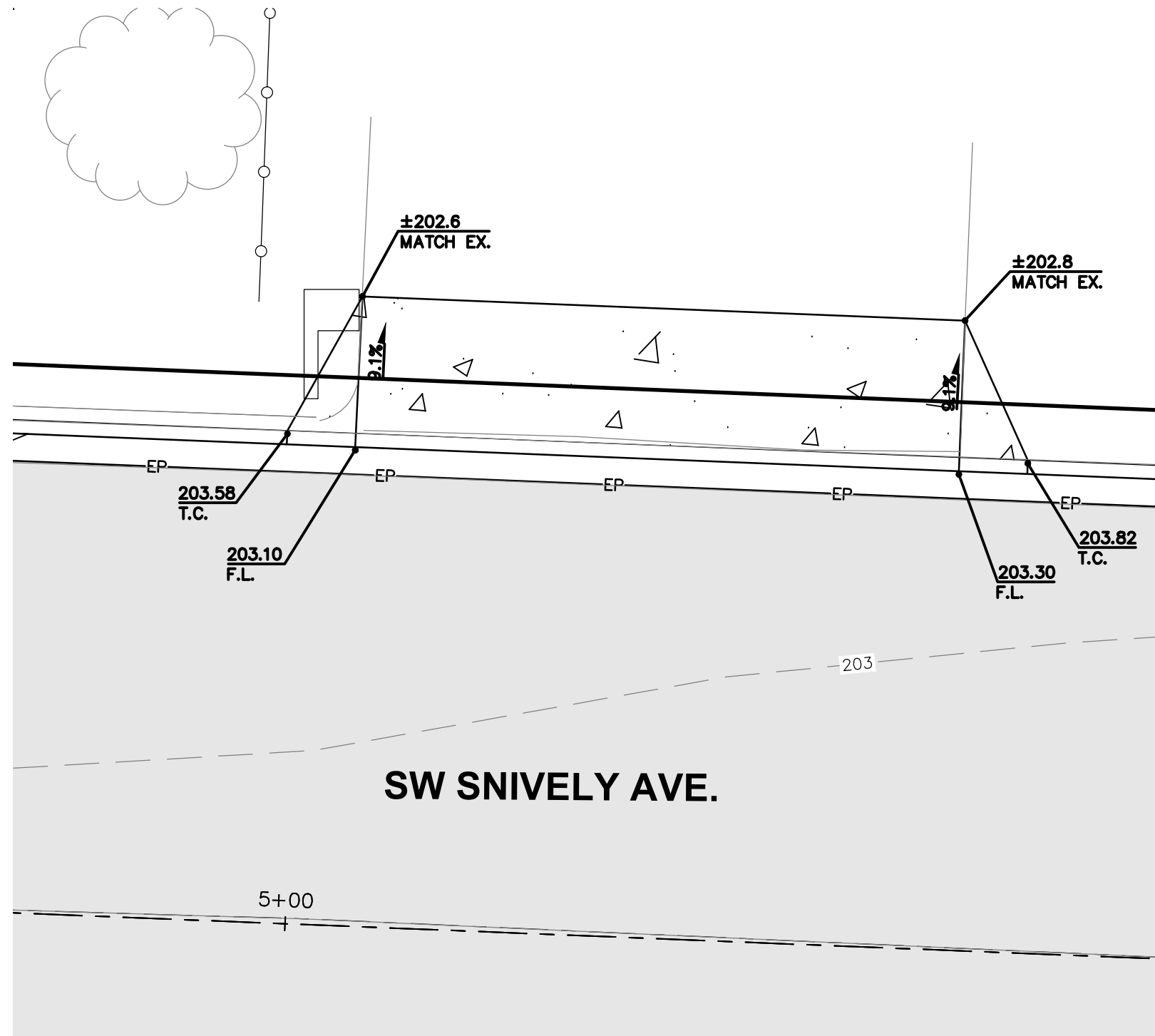


JOB NUMBER
20041
 DRAWING NAME
20041_C3.4_DW_DT



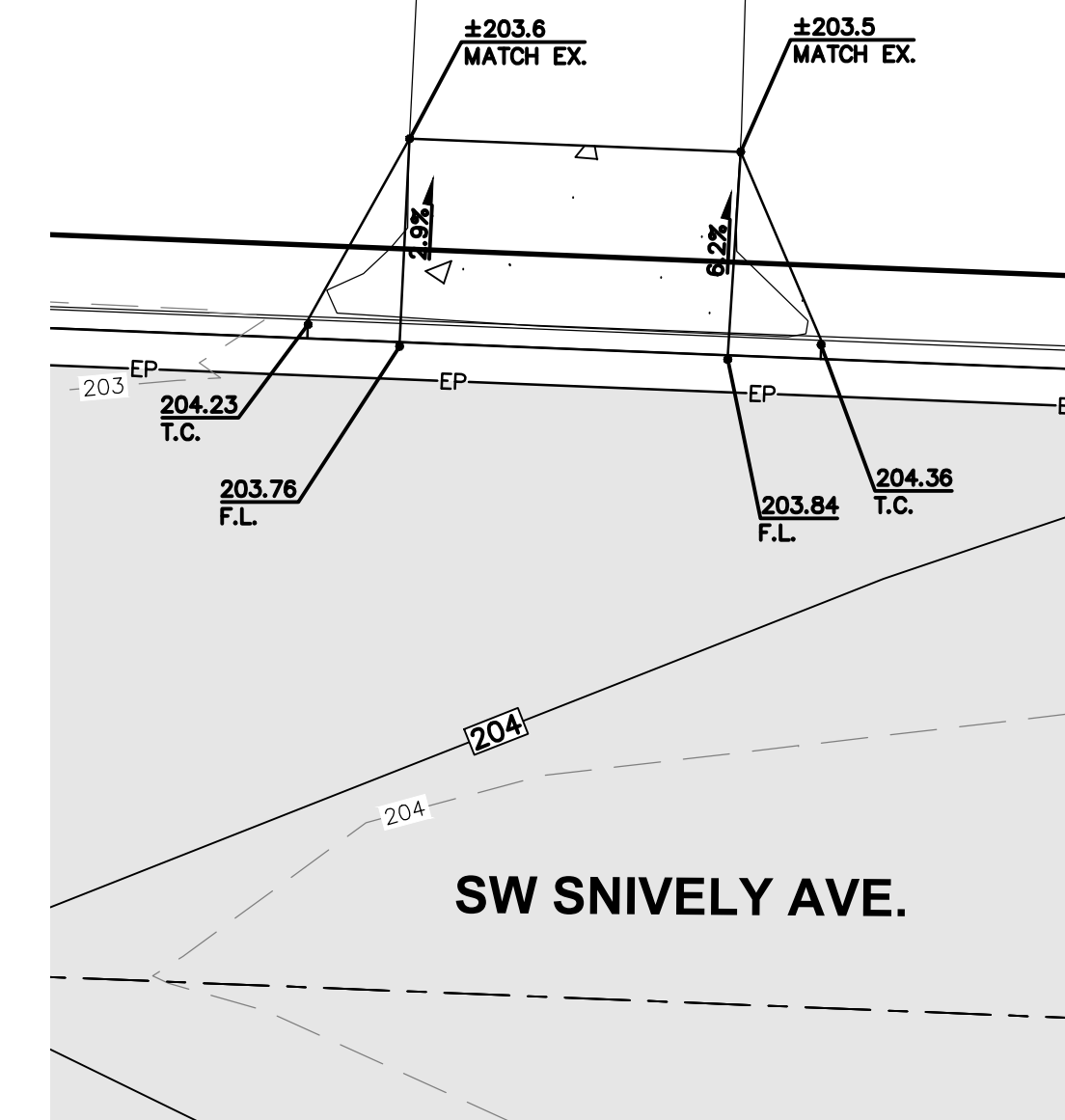
1500 SW SNIVELY AVE.
 STA. 4+30.00, 17.5' LT. TO 4+43.75, 17.5' LT.

SCALE 1"=5'



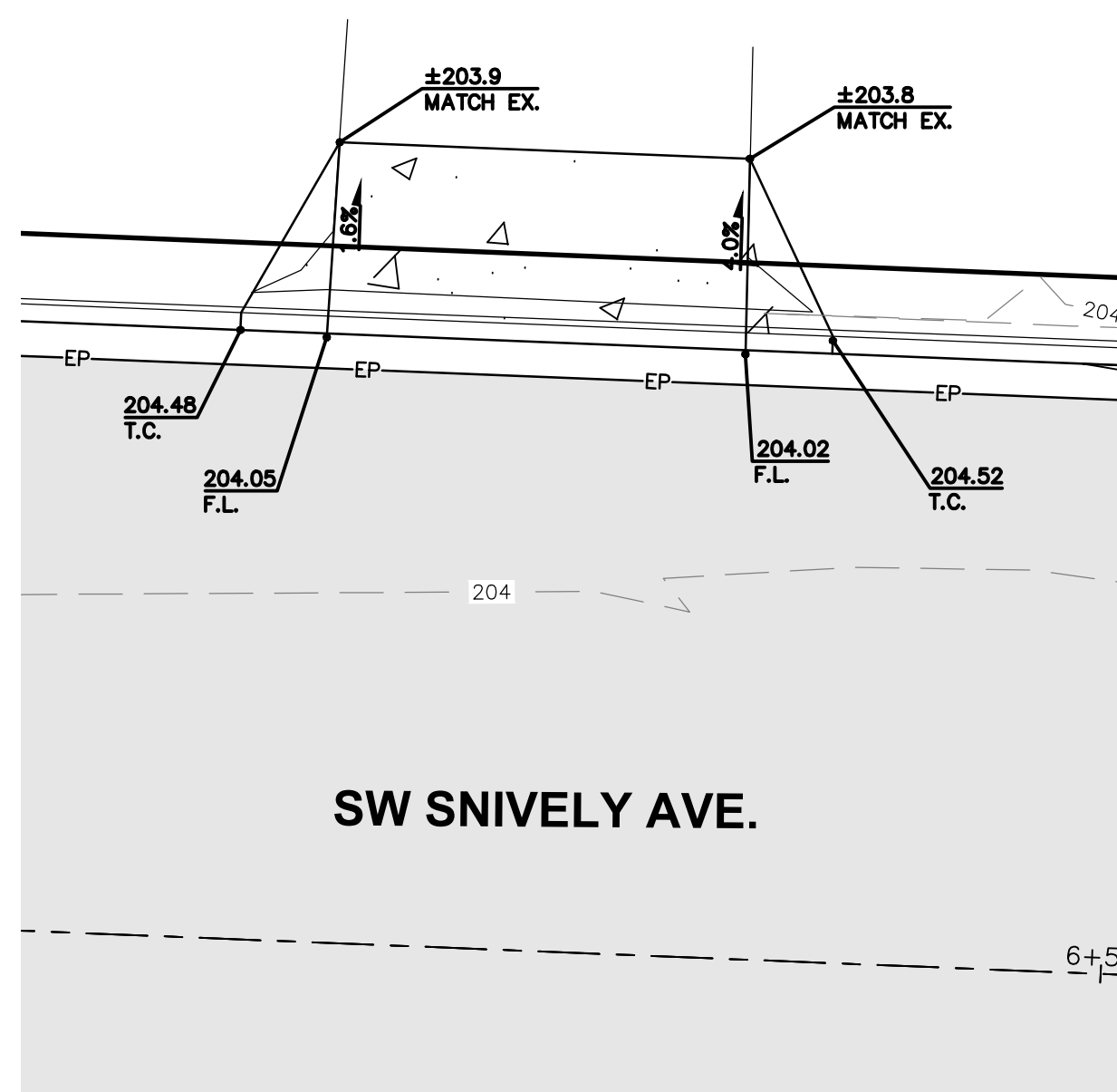
1520 SW SNIVELY AVE.
 STA. 5+01.86, 17.5' LT. TO 5+23.93, 17.5' LT.

SCALE 1"=5'



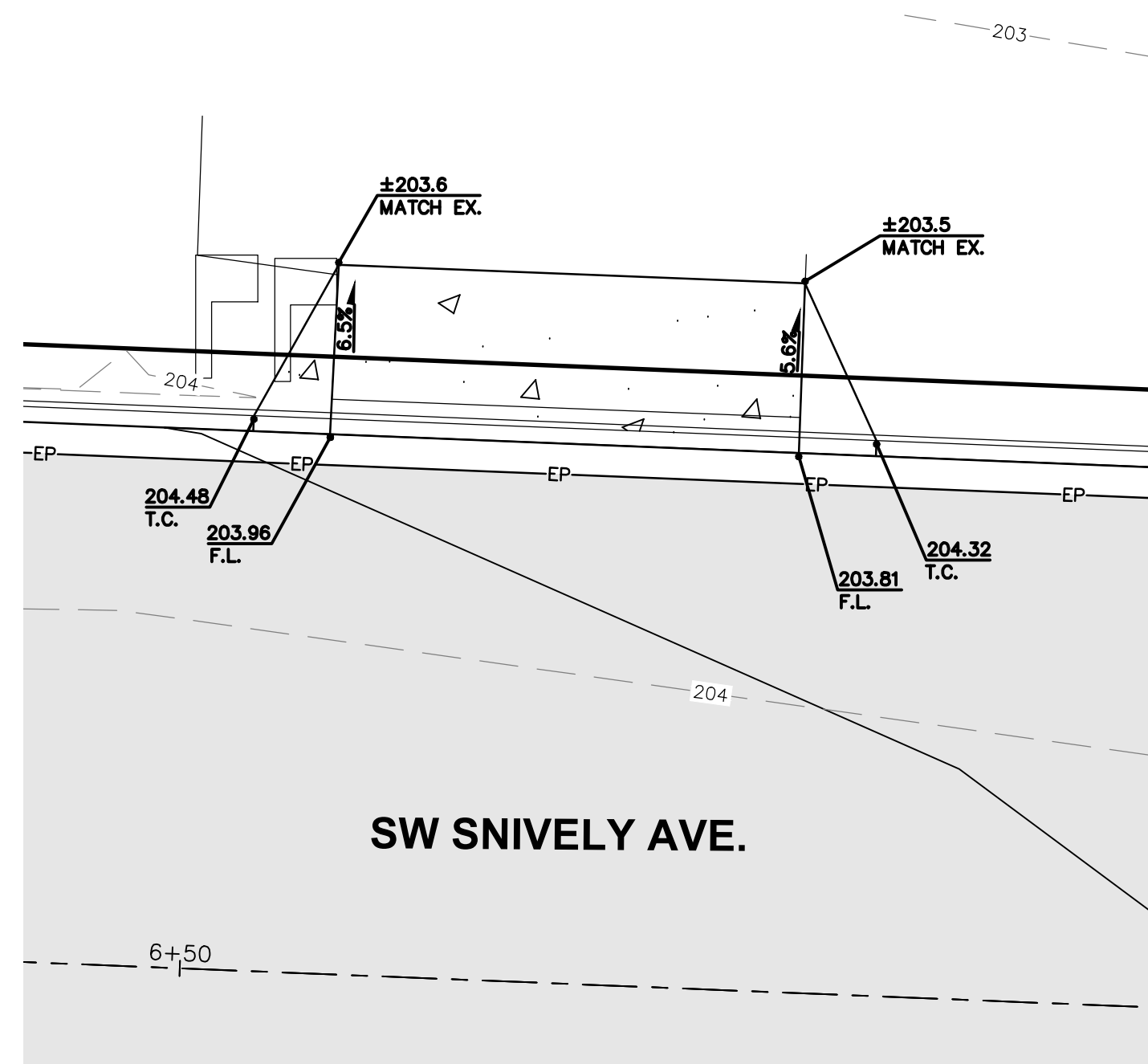
1542 SW SNIVELY AVE.
 STA. 5+76.67, 17.5' LT. TO 5+85.54, 17.5' LT.

SCALE 1"=5'



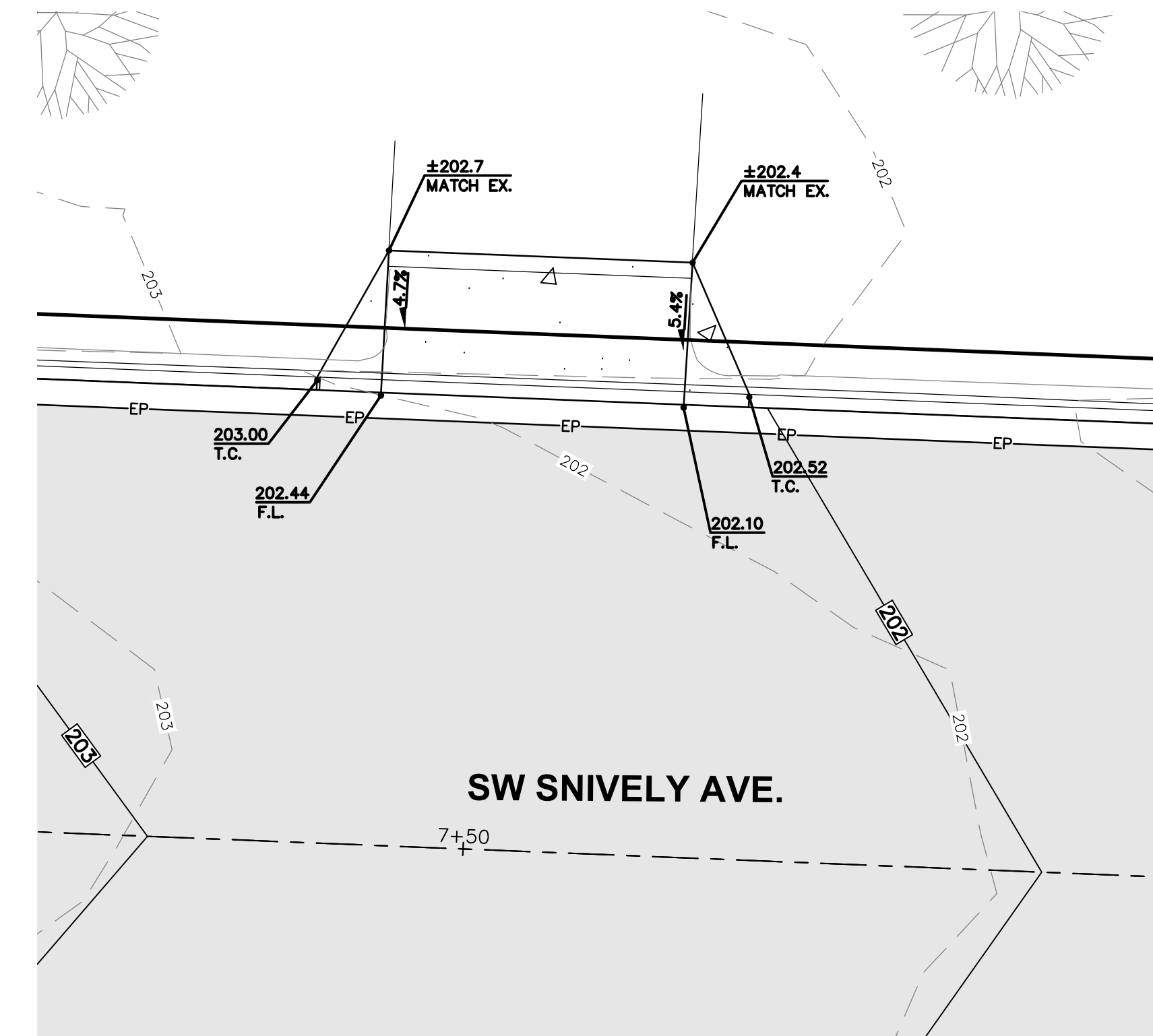
1542 SW SNIVELY AVE.
 STA. 6+27.00, 17.5' LT. TO 6+39.00, 17.5' LT.

SCALE 1"=5'



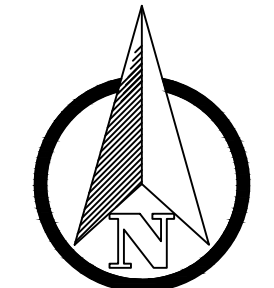
1562 SW SNIVELY AVE.
 STA. 6+54.18, 17.5' LT. TO 6+69.39, 17.5' LT.

SCALE 1"=5'



667 SW 16TH ST
 STA. 7+46.13, 17.5' LT. TO 7+57.85, 17.5' LT.

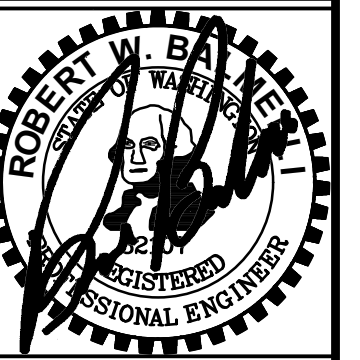
SCALE 1"=5'



SCALE: 1"=5 FEET
 0 2.5 5 10

NO.	DATE	REVISION
DESIGNED BY:	RWB	CES
DRAWN BY:	RWB	RWB
CHECKED BY:		
DATE:	2/19/2021	SCALE: 1"=5'
SW SNIVELY AVENUE ROAD AND UTILITY IMPROVEMENT PROJECT		
CHEHALIS		WA.

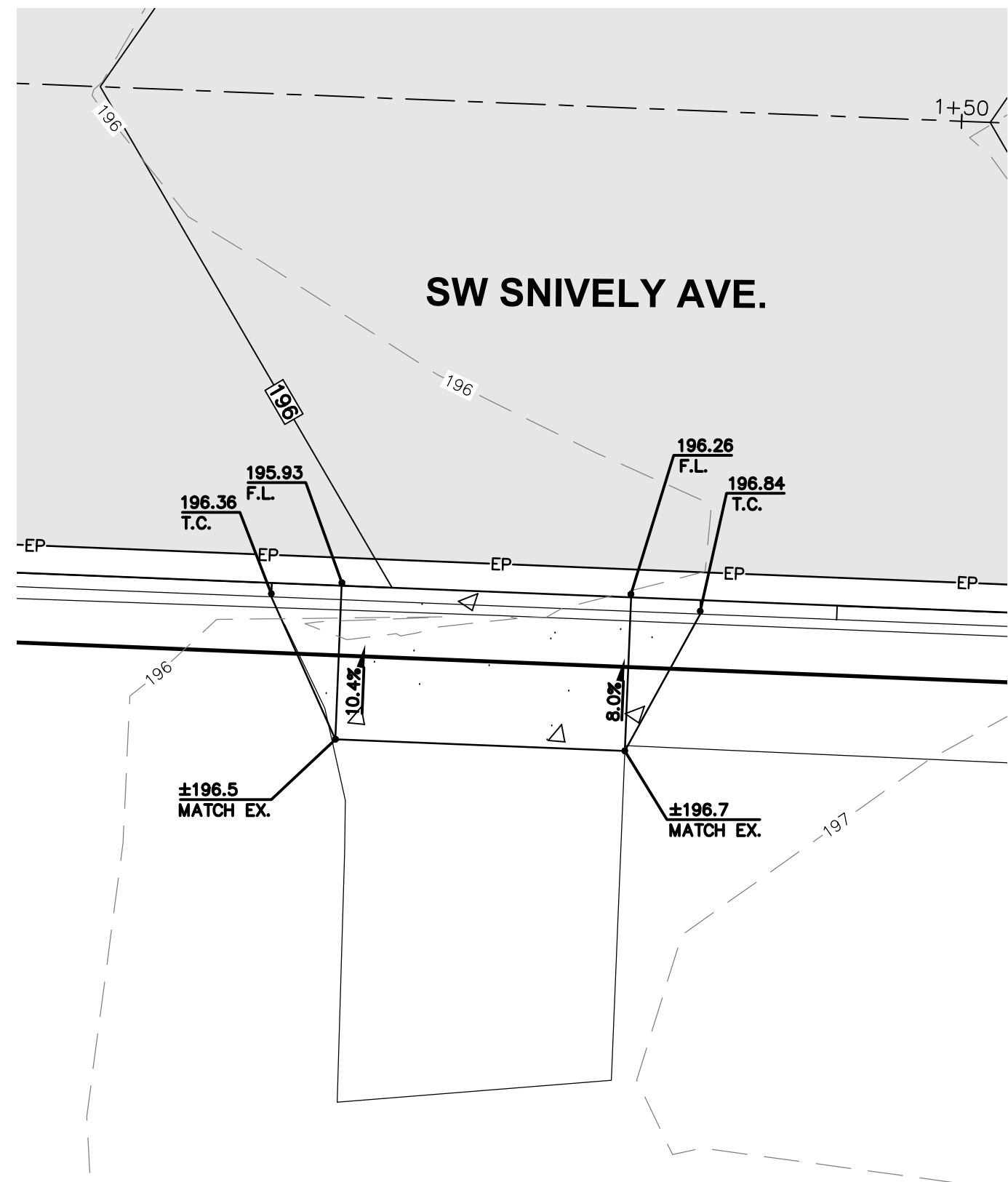
RESIDENTIAL DRIVEWAY DETAILS



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 EMAIL: c@rbengr.com

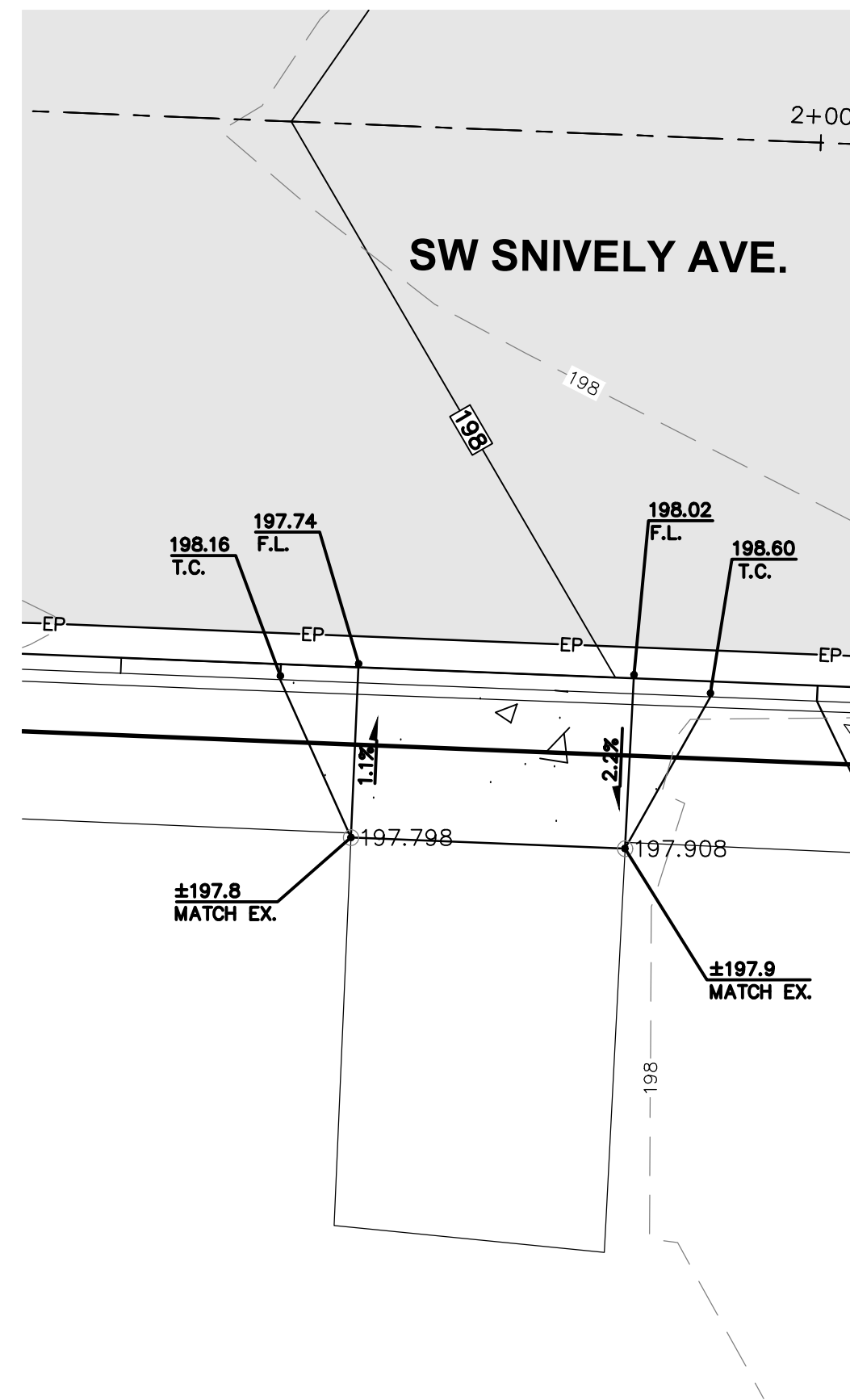


JOB NUMBER: 20041
 DRAWING NAME: 20041_C3.5_DW_DT



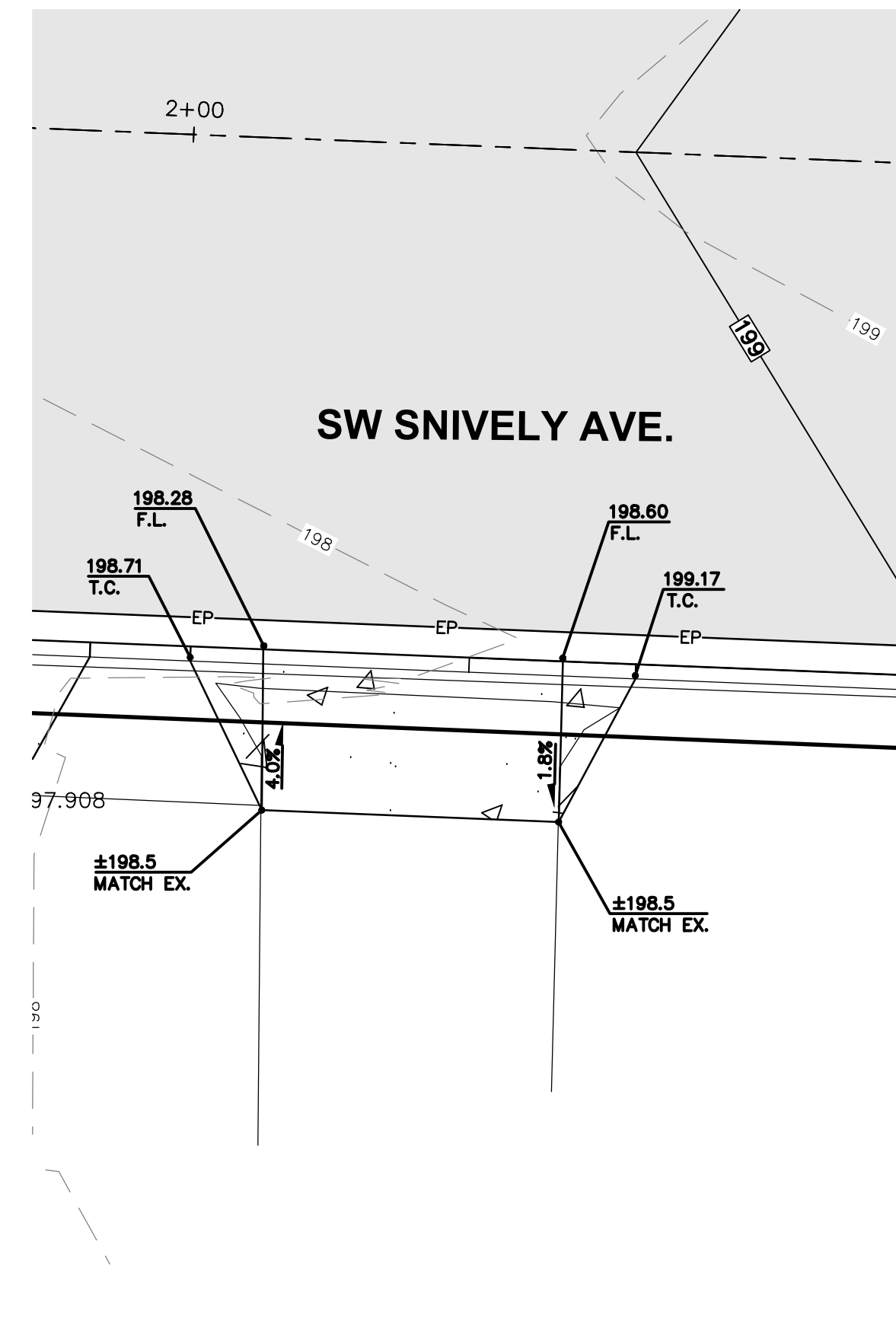
1421 SW SNIVELY AVE.
STA. 1+28.50, 17.5' RT. TO 1+38.86, 17.5' LT.

SCALE 1"=5'



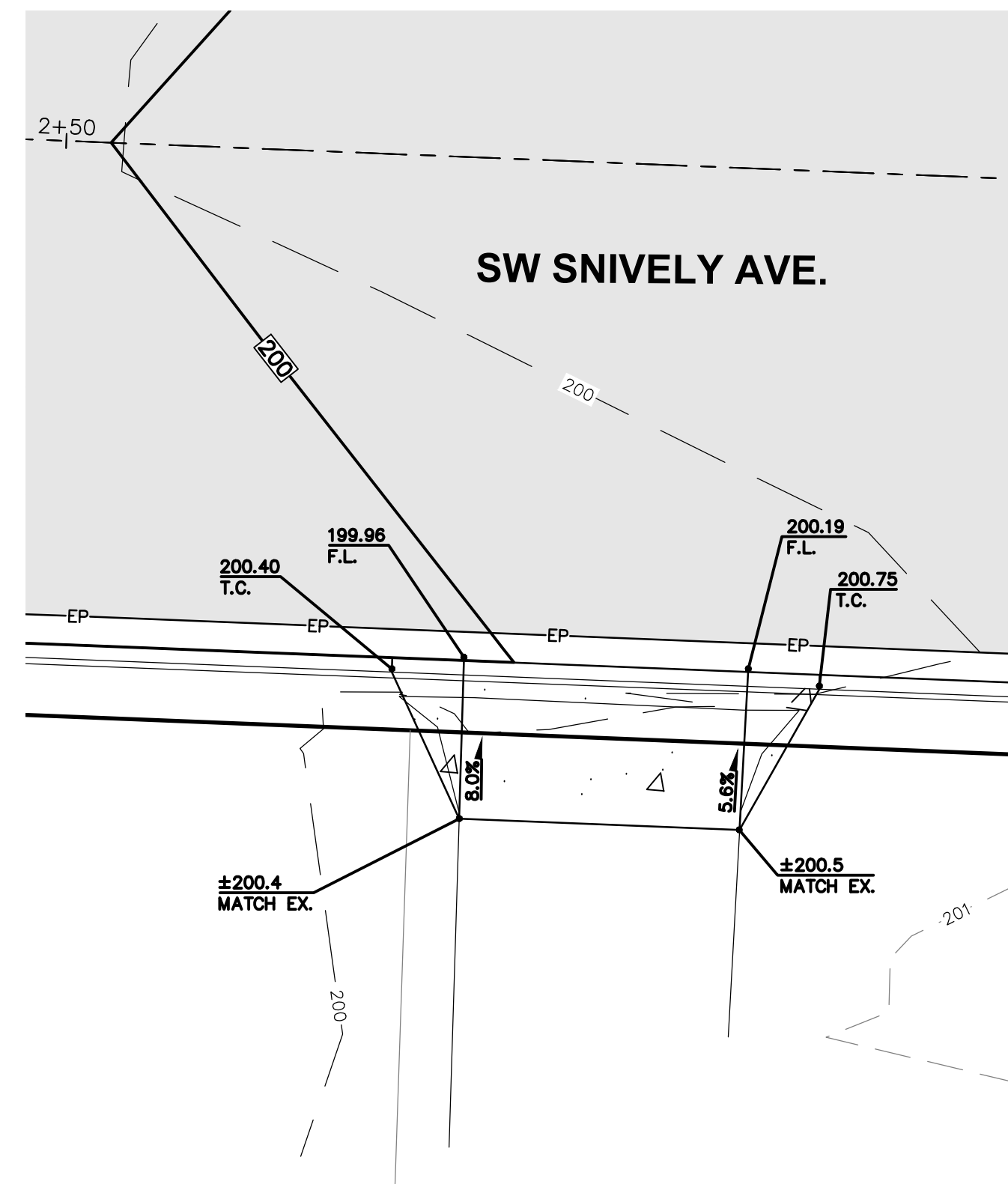
1421 SW SNIVELY AVE.
STA. 1+85.78, 17.5' RT. TO 1+94.67, 17.5' RT.

SCALE 1"=5'



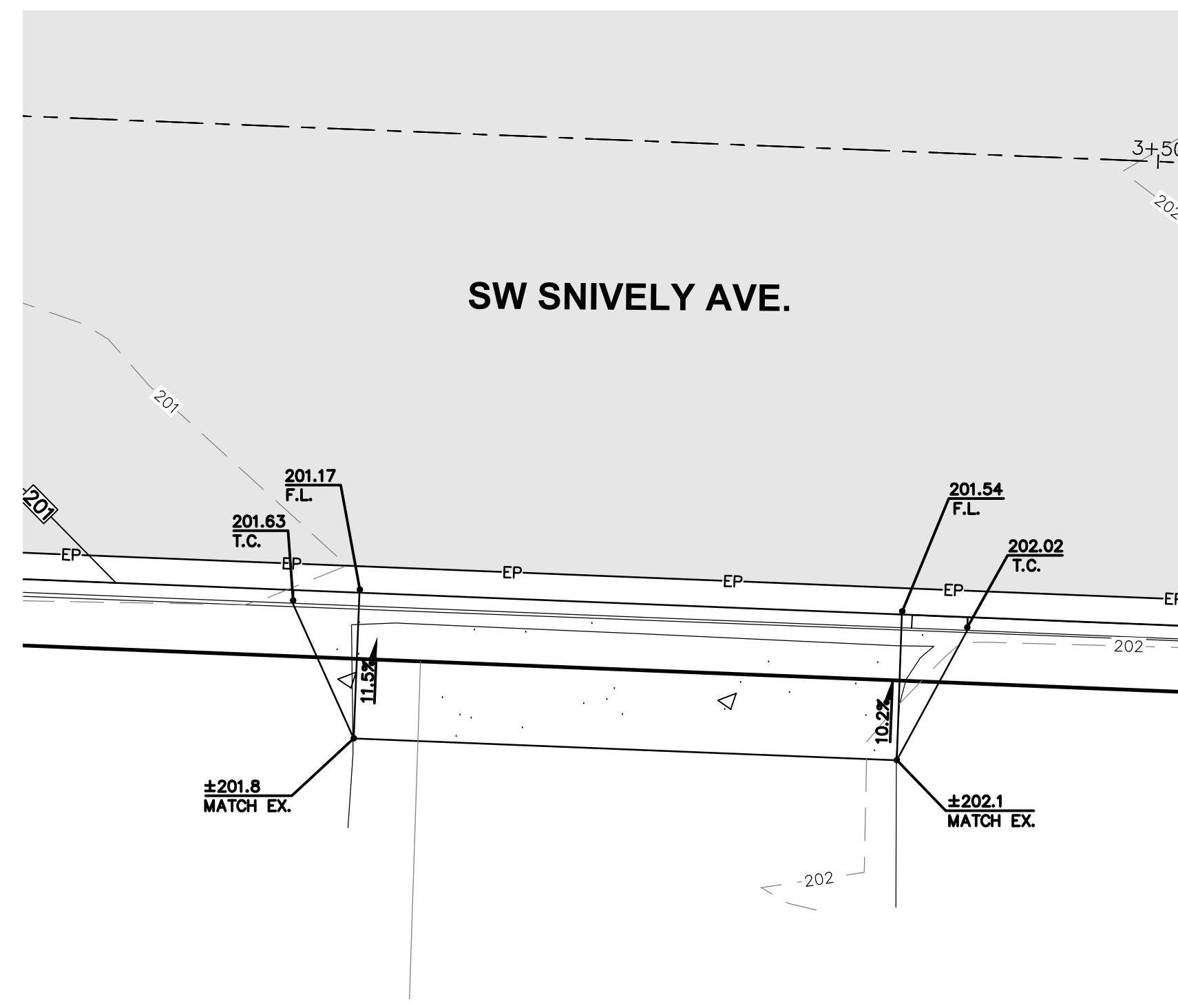
1441 SW SNIVELY AVE.
STA. 2+03.10, 17.5' RT. TO 2+13.34, 17.5' RT.

SCALE 1"=5'



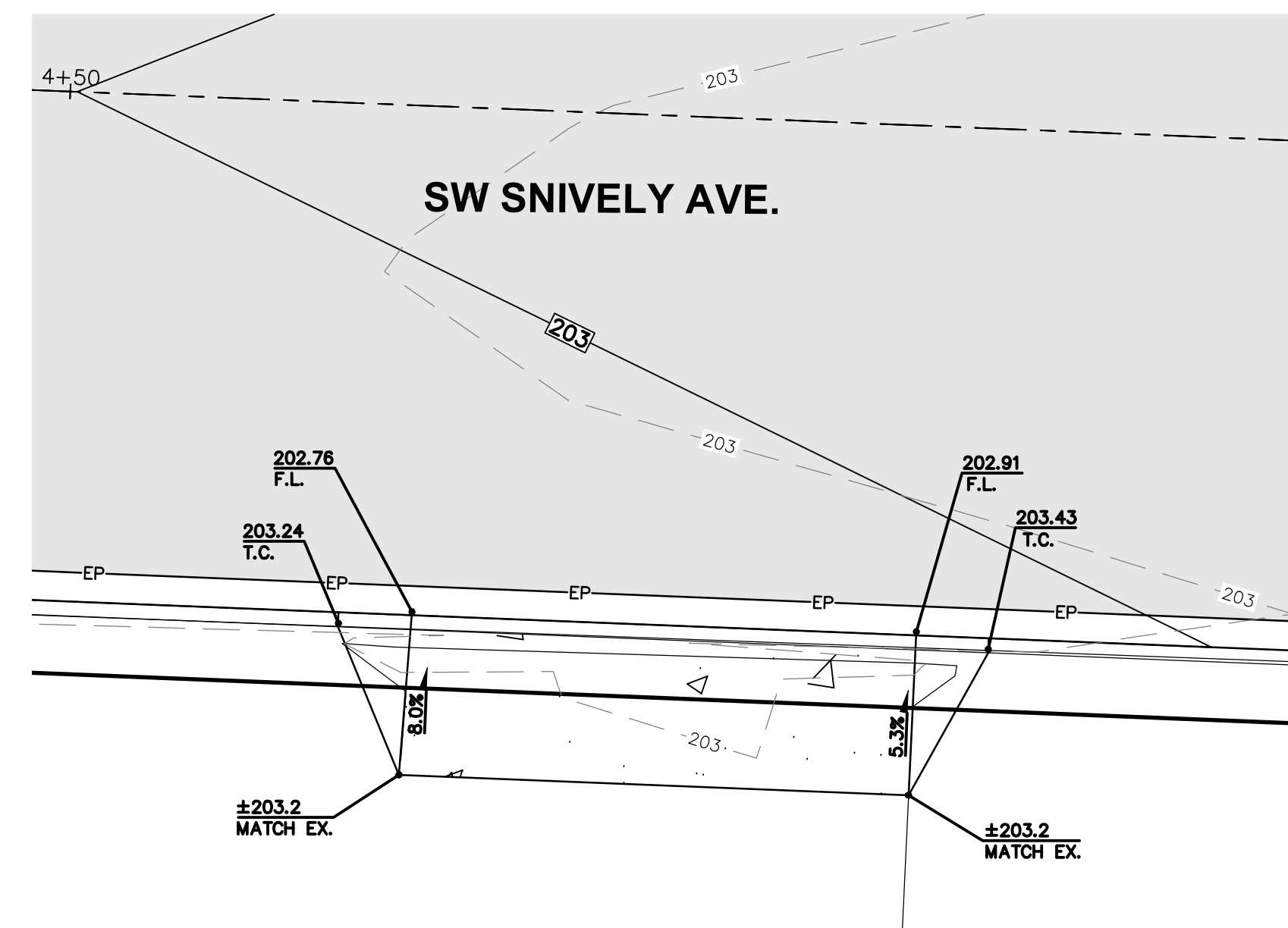
1455 SW SNIVELY AVE.
STA. 2+64.54, 17.5' RT. TO 2+74.41, 17.5' RT.

SCALE 1"=5'



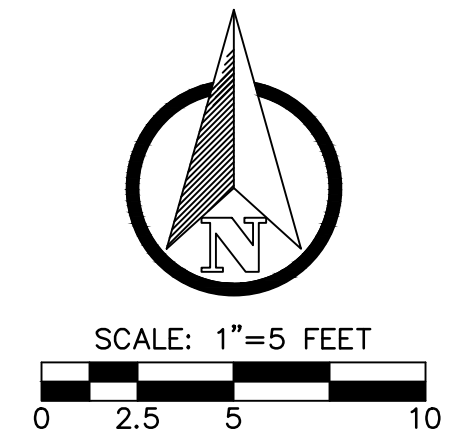
1475 SW SNIVELY AVE.
STA. 3+20.47, 17.5' RT. TO 3+41.00, 17.5' RT.

SCALE 1"=5'



1497 SW SNIVELY AVE.
STA. 4+62.41, 17.5' RT. TO 4+79.75, 17.5' RT.

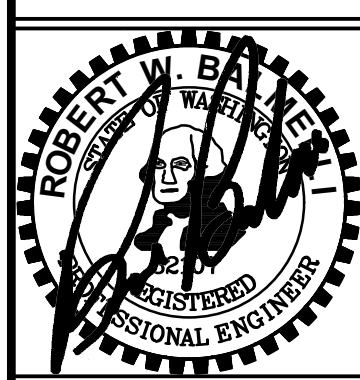
SCALE 1"=5'



NO.	DATE	REVISION

DESIGNED BY: RWB
DRAWN BY: CES
CHECKED BY: RWB
DATE: 2/19/2021
SCALE: 1" = 5'

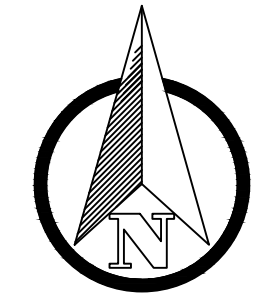
CHEHALIS
RESIDENTIAL DRIVEWAY
DETAILS
SW SNIVELY AVENUE
ROAD AND UTILITY
IMPROVEMENT PROJECT
WA.



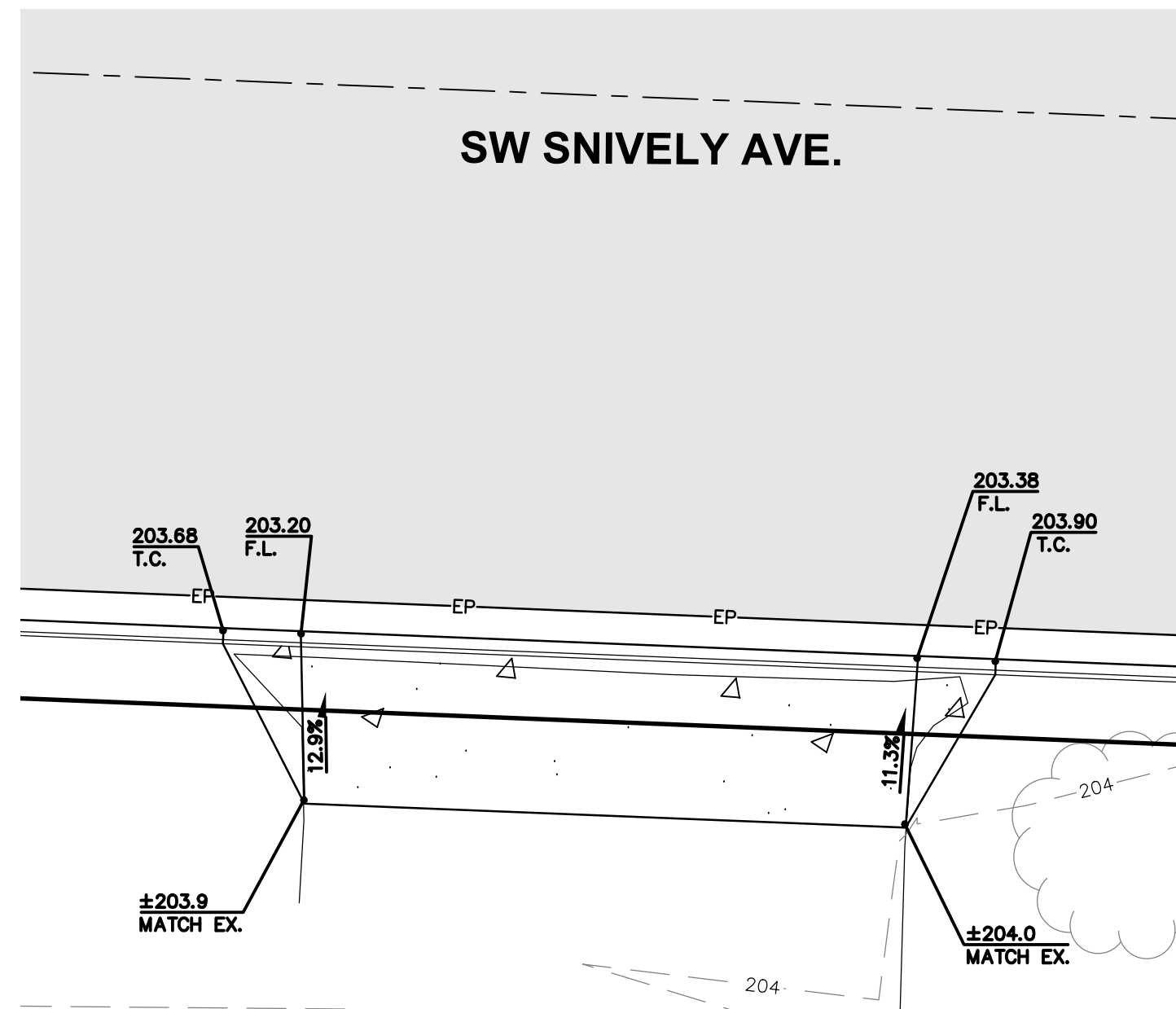
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JOB NUMBER
20041
DRAWING NAME
20041_C3.6_DW_DT
C3.6
15 OF 20

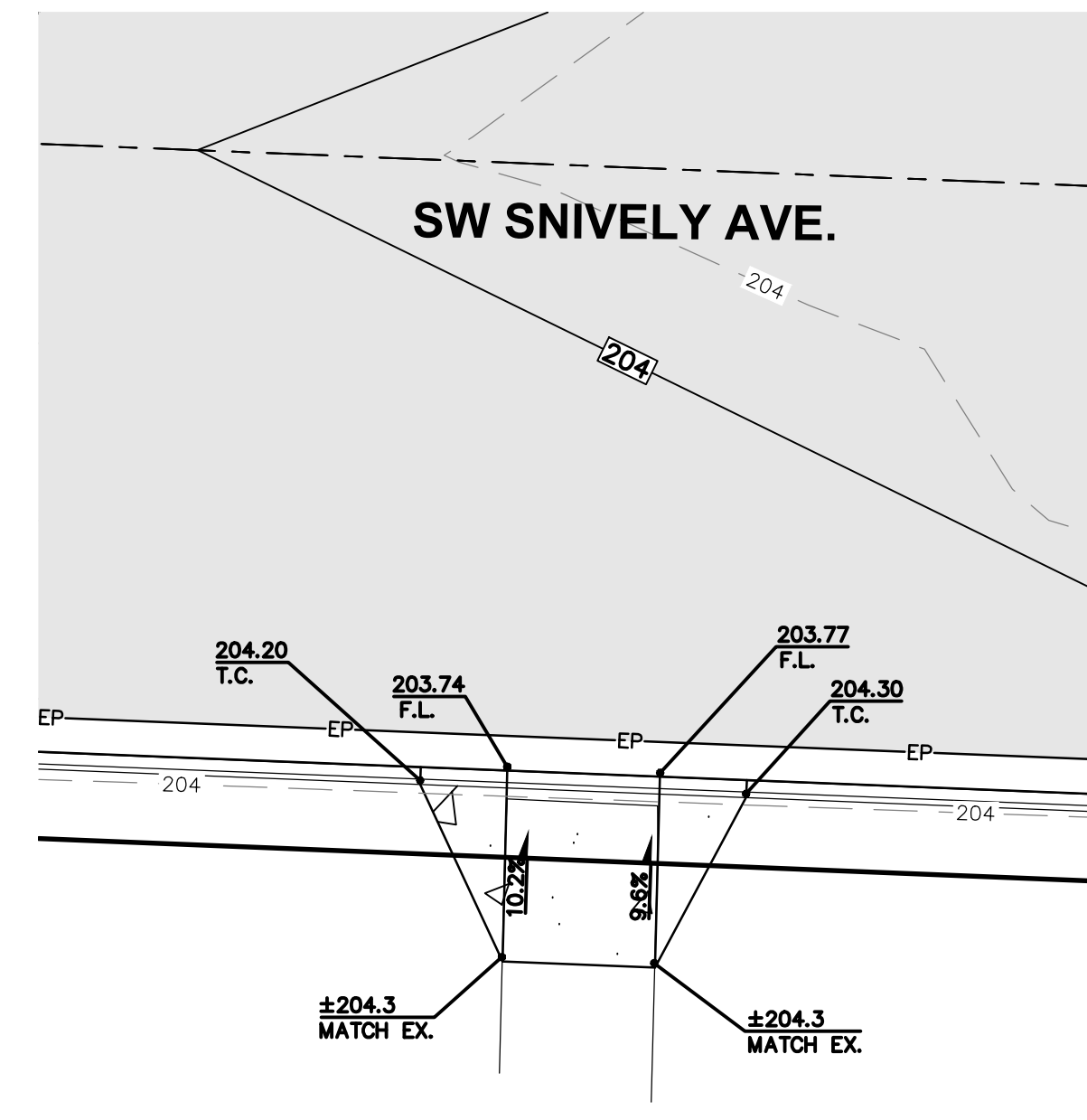


SCALE: 1"=5 FEET
0 2.5 5 10



1531 SW SNIVELY AVE.
STA. 5+13.12, 17.5' RT. TO 5+32.83, 17.5' RT.

SCALE 1"=5'



1531 SW SNIVELY AVE.
STA. 5+73.22, 17.5' RT. TO 5+77.63, 17.5' RT.

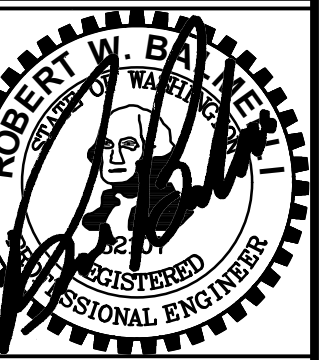
SCALE 1"=5'

NO.	DATE	REVISION

DESIGNED BY: RWB
 DRAWN BY: CES
 CHECKED BY: RWB
 DATE: 2/19/2021
 SCALE: 1" = 5'

**SW SNIVELY AVENUE
ROAD AND UTILITY
IMPROVEMENT PROJECT**
 CHEHALIS WA.

**RESIDENTIAL DRIVEWAY
DETAILS**

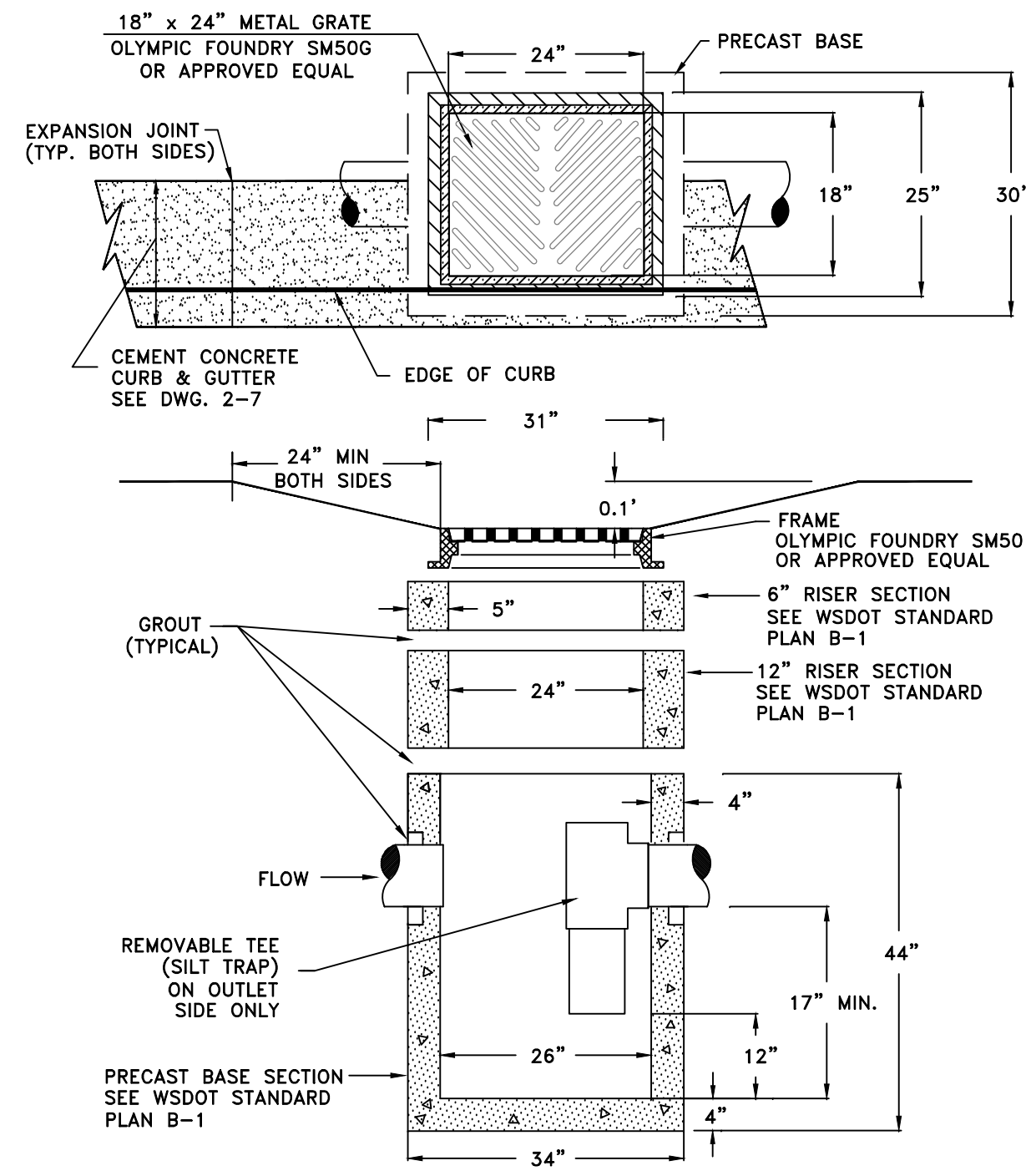


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JOB NUMBER
20041
 DRAWING NAME
20041_C3.7_DW_DT

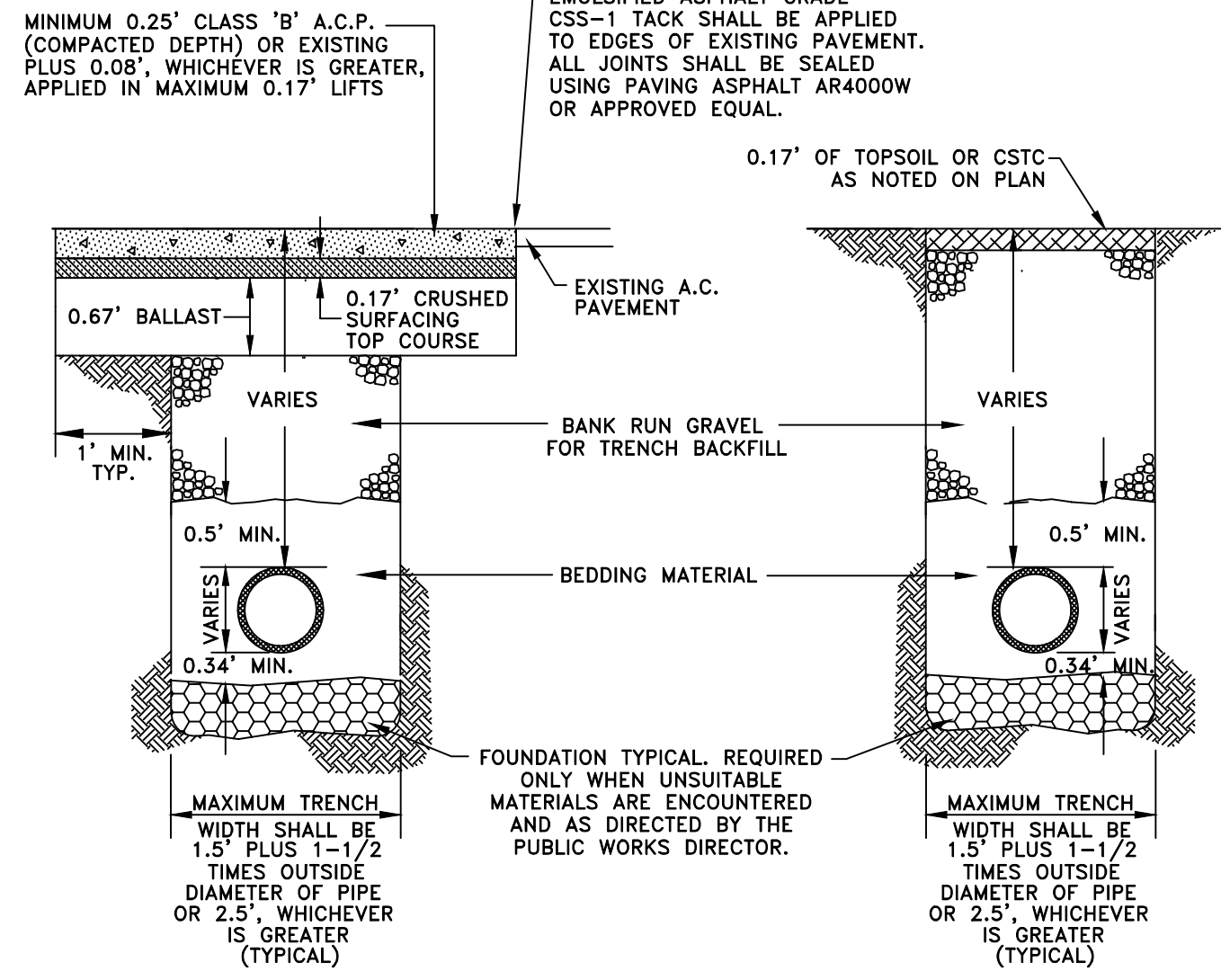
C3.7
16 OF 20



- NOTES:
- CATCH BASIN SHALL BE CONSTRUCTED IN ACCORDANCE WITH SPECIFICATIONS IN WSDOT STANDARD PLAN B-1.
 - OLYMPIC FOUNDRY GRATES SM50VG OR SM50S (OR APPROVED EQUAL), MAY BE REQUIRED WHEN CONDITIONS WARRANT, AS DETERMINED BY THE PUBLIC WORKS DIRECTOR.

<i>City of Chehalis</i>	
CATCH BASIN WITH SILT TRAP TEE	
APPROVED BY	DWG. NO.
	3-1
	REVISED DATE
CITY ENGINEER	1/02/2003

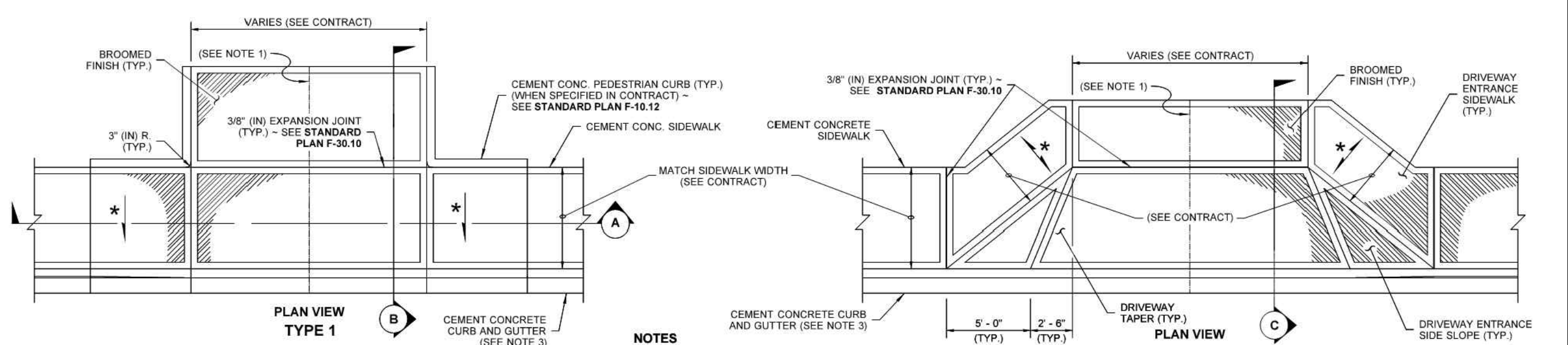
Drawing Not to Scale



- NOTES:
- ALL MATERIALS EXCEPT A.C.P. AND BEDDING MATERIAL SHALL BE COMPACTED IN 6-INCH MAXIMUM LIFTS TO 95% DENSITY.
 - BEDDING SHALL CONFORM TO SECTION 9-03.16 OF STANDARD SPECIFICATIONS AS AMENDED BY CITY OF CHEHALIS STANDARDS.
 - COMPACTION: BEDDING SHALL BE COMPACTED TO 95% MAX. AS DETERMINED BY ASTM D1557. BACKFILL SHALL BE COMPACTED TO 95% IN UNPAVED AREA, AND 95% IN PAVED OR SHOULDER AREAS AS DETERMINED BY ASTM D1557.
 - ALL MATERIALS, WORKMANSHIP, AND INSTALLATION SHALL BE IN CONFORMANCE WITH THE MOST RECENT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION AS AMENDED BY CITY OF CHEHALIS PUBLIC WORKS STANDARDS.
 - KEEP TRENCH BOTTOM COMPACTED WITH UNIFORM GRADE. A BELL JOINT SHALL BE REQUIRED AT EACH JOINT FOR PROPER SUPPORT. NO TEMPORARY SUPPORTS, I.E. BLOCKS, WILL BE ALLOWED TO SUPPORT PIPE. TRENCH BOTTOM SHALL BE TO GRADE PRIOR TO PIPE INSTALLATION.

<i>City of Chehalis</i>	
TRENCH PAVEMENT RESTORATION DETAIL	
APPROVED BY	DWG. NO.
	2-4
	REVISED DATE
CITY ENGINEER	1/02/2003

Drawing Not to Scale

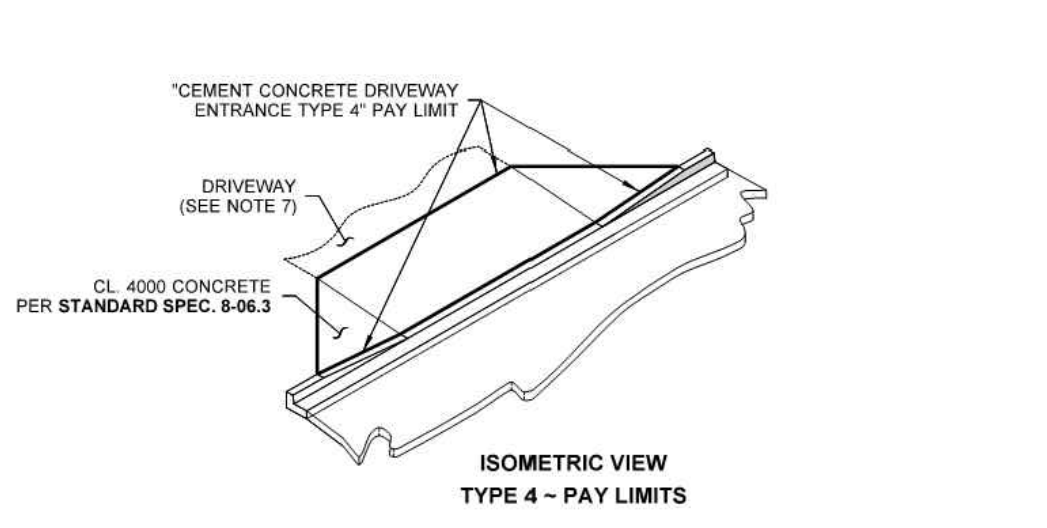
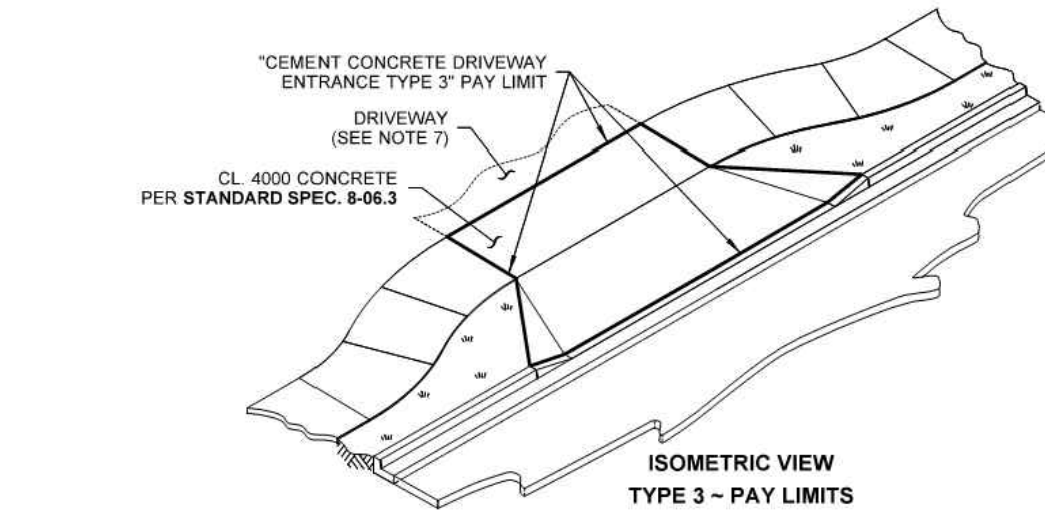
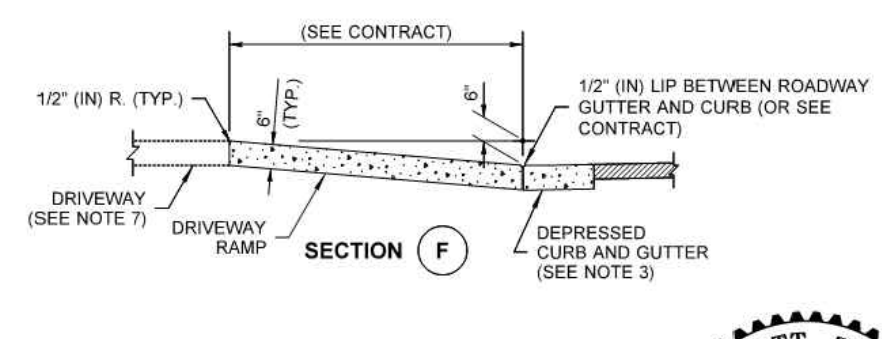
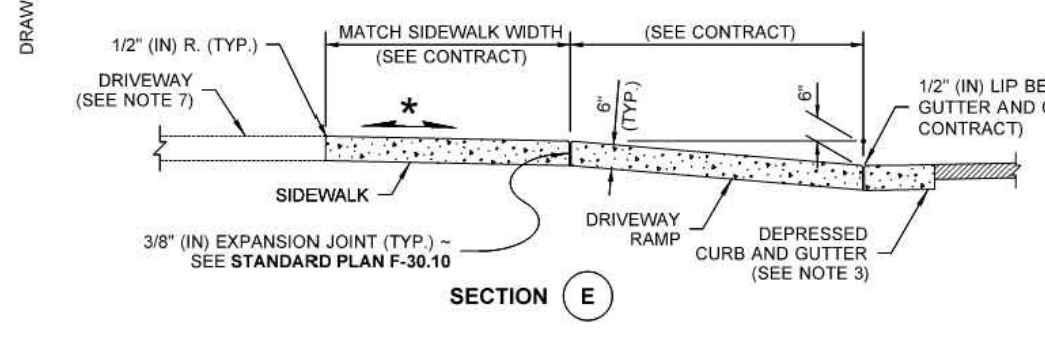
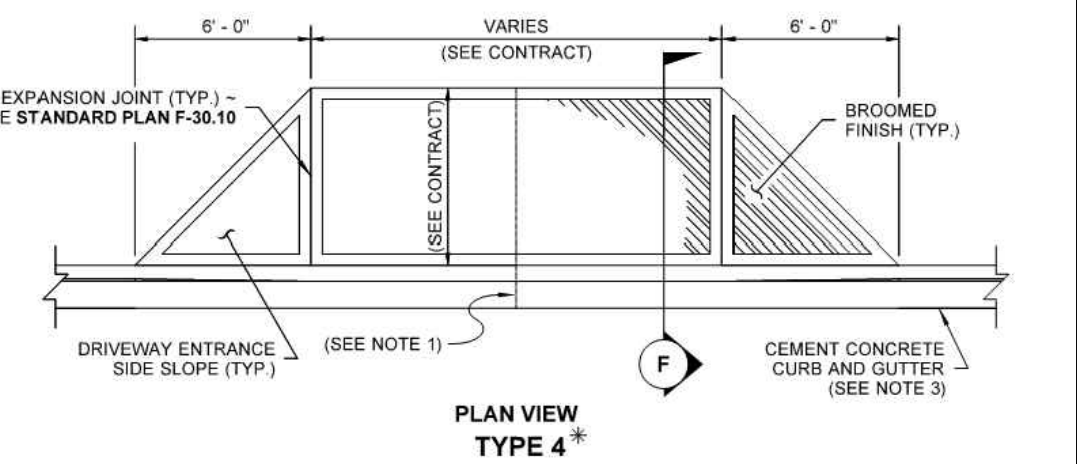
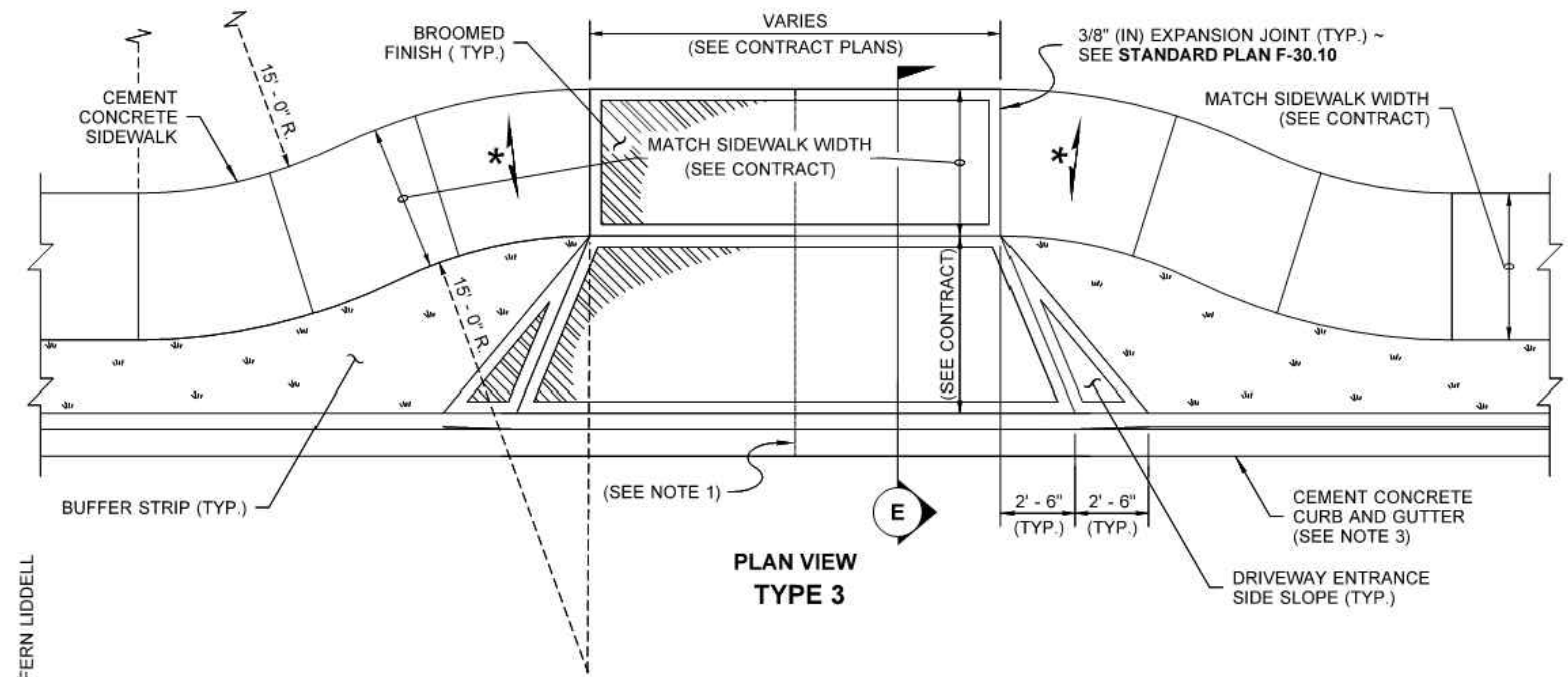
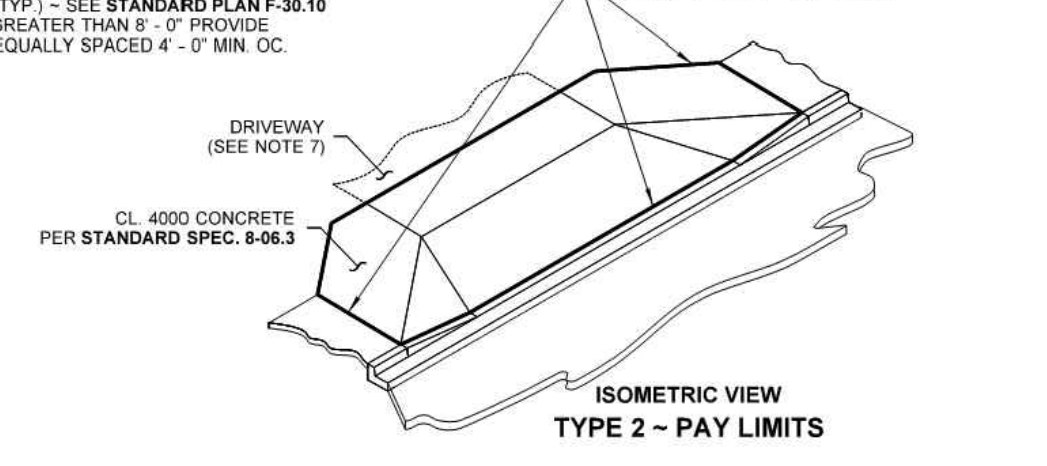
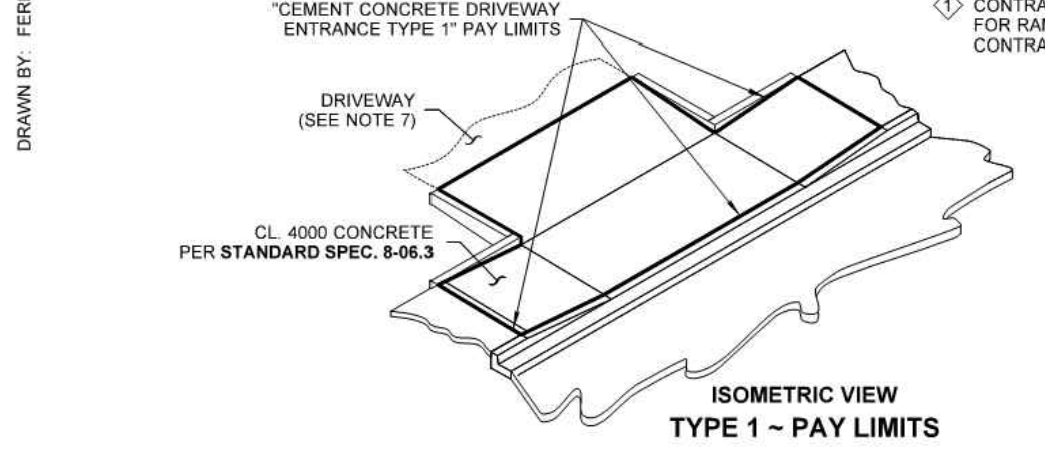
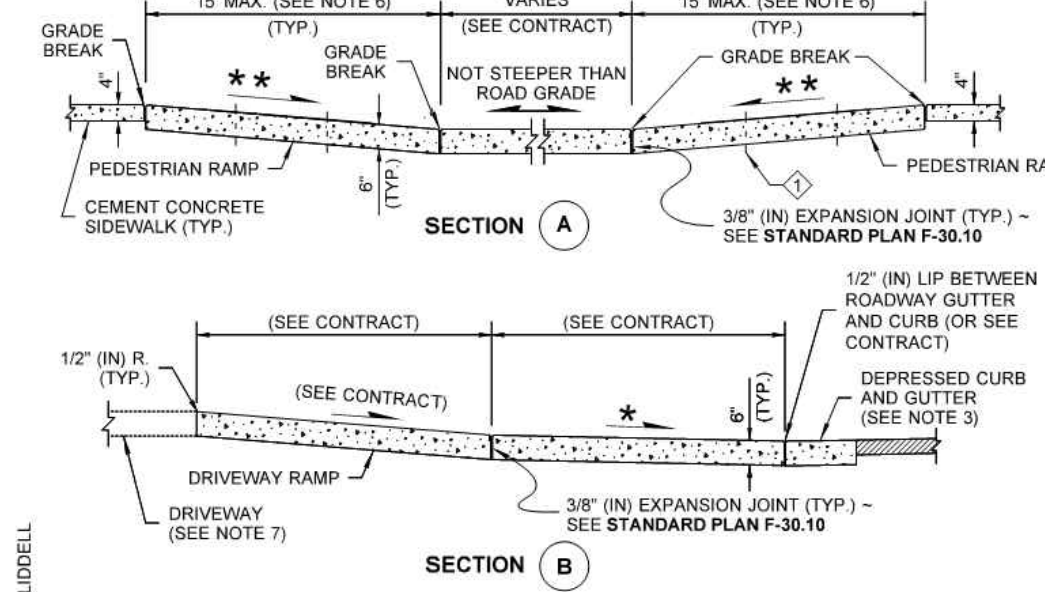


- NOTES
- When the driveway width exceeds 15' (ft), construct a full depth expansion joint with 3/8" (in) joint filler along the driveway centerline. See Standard Plan F-30.10. Construct expansion joints parallel with the centerline as required at 15' (ft) maximum spacing when driveway widths exceed 30' (ft).
 - See Standard Plan F-30.10 for sidewalk details.
 - Curb and Gutter shown; see the Contract Plans for the curb design specified. See Standard Plan F-10.12 for Curb Details.
 - Avoid placing drainage structures, junction boxes or other obstructions in front of driveway entrances.
 - Where "GRADE BREAK" is called out, the entire length of the line between the two adjacent surface planes shall be flush.
 - The Pedestrian Ramp length is not required to exceed 15 feet (unless otherwise shown in the Contract Plans). When applying the 15-foot max. length (measured from back of sidewalk) the running slope of the pedestrian ramp is allowed to exceed 8.3%. Use a single constant slope from bottom of ramp to top of ramp to match into the sidewalk over a horizontal distance of 15 feet.
 - Beyond limits shown. Pay item does not include driveway. See Contract Plans.

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



CEMENT CONCRETE DRIVEWAY ENTRANCE TYPES 1, 2, 3, & 4
STANDARD PLAN F-80.10-04
SHEET 1 OF 2 SHEETS
APPROVED FOR PUBLICATION
STATE DESIGN ENGINEER
Washington State Department of Transportation

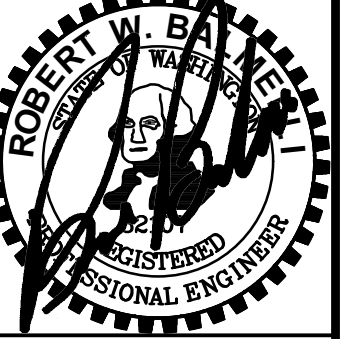


CEMENT CONCRETE DRIVEWAY ENTRANCE TYPES 1, 2, 3, & 4
STANDARD PLAN F-80.10-04
SHEET 2 OF 2 SHEETS
APPROVED FOR PUBLICATION
STATE DESIGN ENGINEER
Washington State Department of Transportation

DRAWN BY: FERN LIDDELL

NO.	DATE	REVISION
DESIGNED BY:	RWB	CES
DRAWN BY:	RWB	CES
CHECKED BY:		
DATE:	2/19/2021	
SCALE:		

SW SNIVELY AVENUE ROAD AND UTILITY IMPROVEMENT PROJECT
CHEHALIS WA.

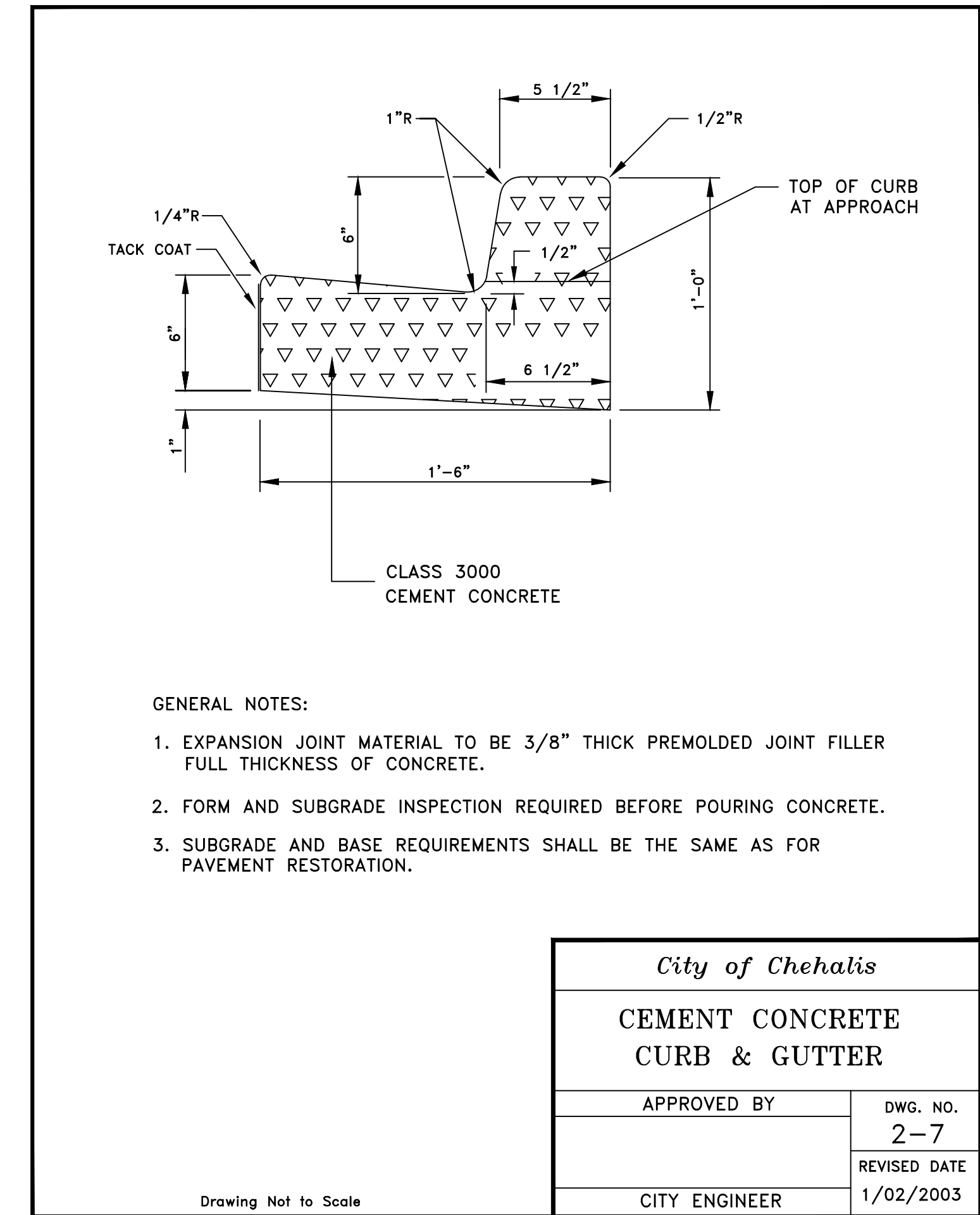
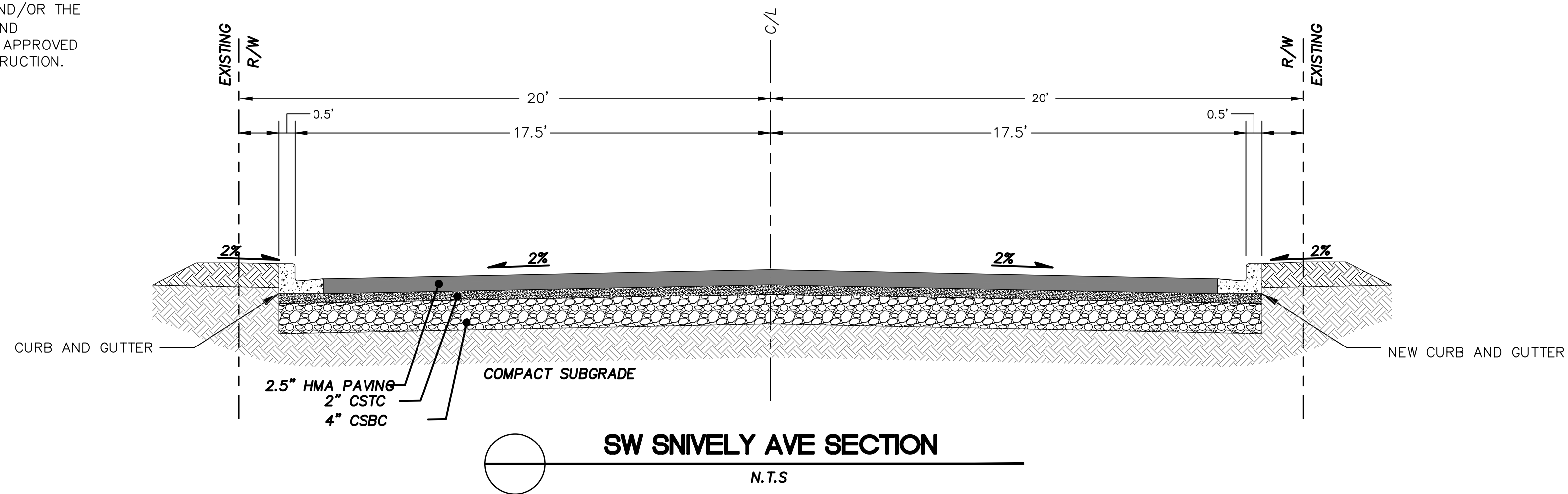


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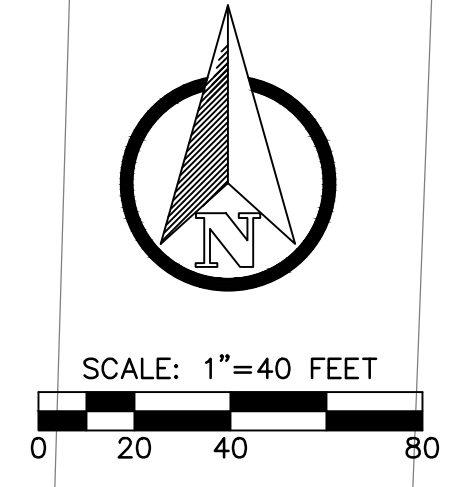
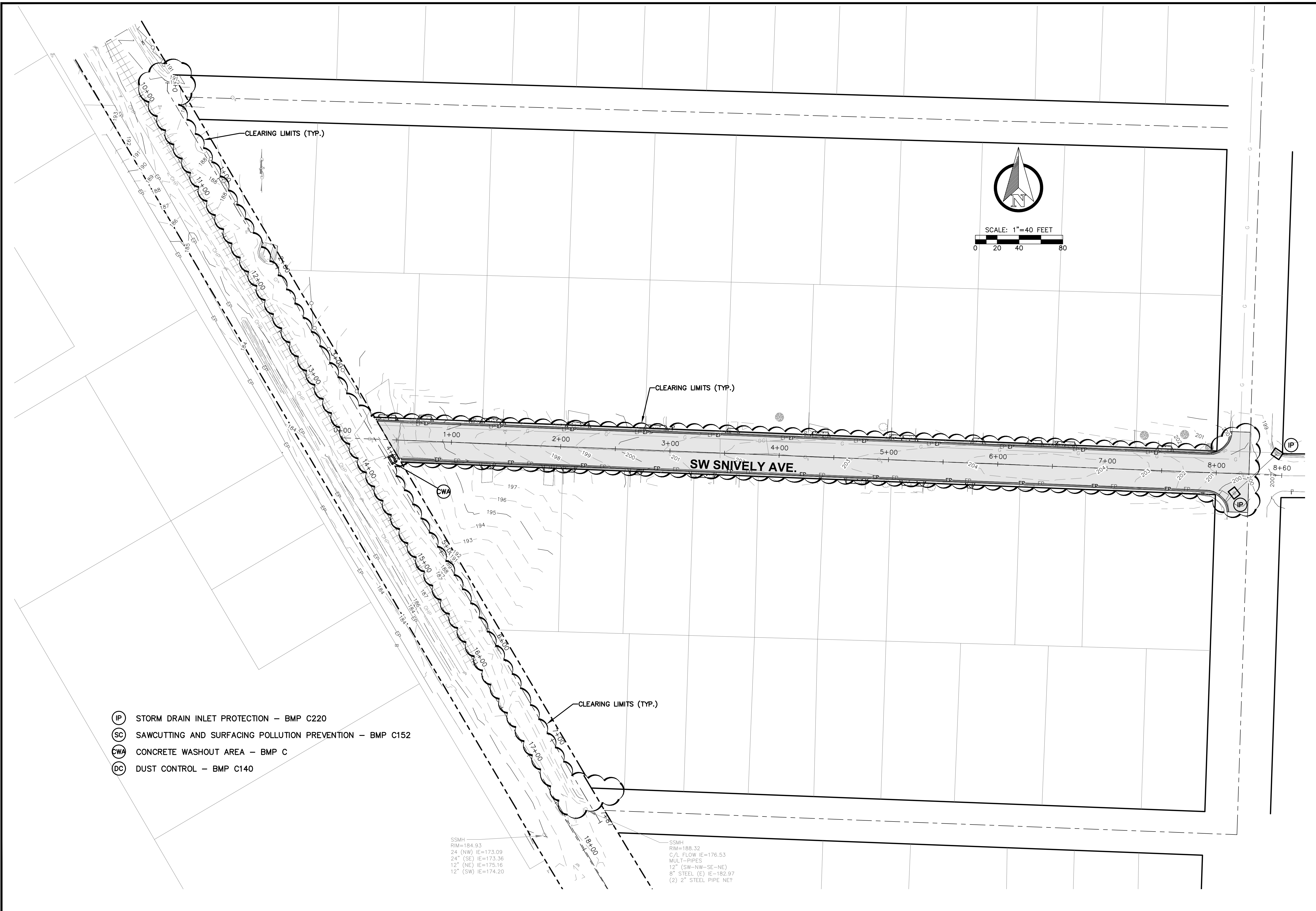
811 Know what's below. Call 811 before you dig.
JOB NUMBER: 20041
DRAWING NAME: 20041_C3.8_DR_DT
C3.8
17 OF 20

GENERAL NOTES (STREET CONSTRUCTION)

1. ALL WORKMANSHIP AND MATERIALS WILL BE IN ACCORDANCE WITH CITY OF CHEHALIS STANDARDS AND THE MOST RECENT EDITION OF THE STATE OF WASHINGTON STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION.
2. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL IN ACCORDANCE WITH MUTCD. PRIOR TO DISRUPTION OF ANY TRAFFIC, TRAFFIC CONTROL PLANS MUST BE PREPARED AND SUBMITTED TO THE CITY FOR APPROVAL. NO WORK WILL COMMENCE UNTIL ALL APPROVED TRAFFIC CONTROL PLANS ARE IN PLACE.
3. ALL CURB AND GUTTER, STREET GRADES, SIDEWALK GRADES, AND ANY OTHER VERTICAL AND/OR HORIZONTAL ALIGNMENT, WILL BE STAKED BY AN ENGINEERING OR SURVEYING FIRM CAPABLE OF PERFORMING SUCH WORK.
4. WHERE NEW ASPHALT JOINS EXISTING, THE EXISTING ASPHALT WILL BE CUT TO A NEAT VERTICAL EDGE AND TACKED WITH ASPHALT EMULSION TYPE CSS-1 IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. THE NEW ASPHALT WILL BE FEATHERED BACK OVER EXISTING TO PROVIDE FOR A SEAL AT THE SAW CUT LOCATION AND THE JOINT SEALED WITH GRADE AR-4000W PAVING ASPHALT.
5. COMPACTION OF SUBGRADE, ROCK AND ASPHALT WILL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.
6. FORM AND SUBGRADE INSPECTION BY THE PUBLIC WORKS DEPARTMENT IS REQUIRED BEFORE POURING CONCRETE. TWENTY-FOUR HOURS (ONE WORK DAY) ADVANCE NOTICE IS REQUIRED FOR FORM INSPECTION.
7. TESTING AND SAMPLING FREQUENCIES ARE DESCRIBED IN THESE STANDARDS.
8. THE PUBLIC WORKS DEPARTMENT WILL INSTALL OR OVERSEE THE INSTALLATION OF STREET NAME AND REGULATORY SIGNS AT THE CONTRACTOR'S AND/OR THE DEVELOPER'S EXPENSE. ALL STREET NAME AND REGULATORY SIGNS WILL BE REQUESTED AND APPROVED BY THE CITY PRIOR TO THE START OF CONSTRUCTION.



NO.	DATE	REVISION	
DESIGNED BY: <u>RWB</u>	DRAWN BY: <u>CES</u>	CHECKED BY: <u>RWB</u>	DATE: <u>2/19/2021</u> SCALE: _____
SW SNIVELY AVENUE ROAD AND UTILITY IMPROVEMENT PROJECT			WA.
ROAD STANDARD DETAILS AND NOTES			CHEHALIS
RB Engineering DESIGN → PERMIT → MANAGE OFF: (360) 746-8919 P.O. Box 923 CHEHALIS, WA 98532 EMAIL: info@rbengineers.com			
JOB NUMBER: 20041 DRAWING NAME: 20041_C3.9_RD_DT C3.9 18 OF 20			



- (IP) STORM DRAIN INLET PROTECTION - BMP C220
- (SC) SAWCUTTING AND SURFACING POLLUTION PREVENTION - BMP C152
- (CWA) CONCRETE WASHOUT AREA - BMP C
- (DC) DUST CONTROL - BMP C140

SSMH
RIM=184.93
24" (NW) IE=173.09
24" (SE) IE=173.36
12" (NE) IE=175.16
12" (SW) IE=174.20

SSMH
RIM=188.32
C/L FLOW IE=176.53
MULT-PIPES
12" (SW-NW-SF-NE)
8" STEEL (E) IE=182.97
(2) 2" STEEL PIPE NE?

NO.	DATE	DESIGNED BY: <u>RWB</u>	DRAWN BY: <u>CES</u>	CHECKED BY: <u>RWB</u>	DATE: <u>2/19/2021</u>	SCALE: <u>1" = 40'</u>
SW SNIVELY AVENUE ROAD AND UTILITY IMPROVEMENT PROJECT CHEHALIS WA.						
TEMPORARY EROSION AND SEDIMENTATION CONTROL PLAN						
RB Engineering DESIGN → PERMIT → MANAGE OFF: (360) 746-8919 CHEHALIS, WA 98532 EMAIL: rob@rbengineers.com						
JOB NUMBER: 20041 DRAWING NAME: 20041_C5.1_TESC C4.1 19 OF 20						

GENERAL NOTES (EROSION CONTROL)

- EROSION CONTROL MEASURES WILL BE IN PLACE PRIOR TO THE BEGINNING OF CONSTRUCTION. A REPRESENTATIVE FROM THE PUBLIC WORKS DEPARTMENT WILL INSPECT AND APPROVE THE EROSION CONTROL MEASURES PRIOR TO THE START OF CONSTRUCTION.
- EROSION CONTROL MEASURES ARE NOT LIMITED TO THE ITEMS ON THIS PLAN. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION MEASURES, AS REQUIRED UNDER THE MOST RECENT VERSION OF THE CHEHALIS STORMWATER MANAGEMENT PLAN. CARE WILL BE TAKEN TO PREVENT MIGRATION OF SILT AND/OR POLLUTED RUNOFF TO OFF-SITE PROPERTIES.
- THE CONTRACTOR WILL MAKE REGULAR SURVEILLANCE OF ALL EROSION CONTROL MEASURES. IN ADDITION, EROSION CONTROL WILL BE THOROUGHLY INSPECTED AFTER EACH RAINFALL EVENT. THE CONTRACTOR WILL MAKE ALL NECESSARY REPAIRS, MODIFICATIONS, AND ADDITIONS, AS NECESSARY TO ENSURE THE PROPER OPERATION OF THE EROSION CONTROL MEASURES. THE CITY MAY REQUIRE MORE FREQUENT INSPECTIONS OF EROSION CONTROL MEASURES BY THE CONTRACTOR SHOULD SITE OR WEATHER CONDITIONS DICTATE.
- DURING THE WET SEASON, NOVEMBER THROUGH MARCH, ALL DISTURBED SOILS WILL BE STABILIZED WITHIN FORTY-EIGHT (48) HOURS AFTER LAND DISTURBANCE ACTIVITIES HAVE CEASED. EROSION CONTROL MEASURES WILL INCLUDE, BUT ARE NOT LIMITED TO, INSTALLATION OF STRAW MATTING, JUTE MATTING, STRAW MULCH AND/OR WOOD CHIPS, AND COVERING THE AFFECTED AREA AND SPOIL PILES WITH PLASTIC SHEETING.
- THE CONTRACTOR WILL CHECK ALL SEEDED OR SODDED AREAS REGULARLY TO ENSURE THAT THE VEGETATIVE COVER IS BEING ADEQUATELY ESTABLISHED. AREAS WILL BE REPAIRED, RESEEDED, AND FERTILIZED AS REQUIRED.
- TRACKING OF SOIL OFF-SITE WILL NOT BE ALLOWED. IF ANY SOIL IS TRACKED BEYOND THE LIMITS OF THE SITE, IT WILL BE REMOVED BEFORE THE END OF THAT WORKING DAY. TO PREVENT ADDITIONAL TRACKING, VEHICLE TIRES MUST BE SWEEPED OR WASHED PRIOR TO LEAVING THE PROJECT SITE.
- NO MORE THAN 500 LINEAL FEET (LF) OF TRENCH ON A DOWN-SLOPE OF MORE THAN FIVE (5) PERCENT WILL BE OPENED AT ONE TIME.
- EXCAVATED MATERIAL WILL BE PLACED ON THE UPHILL SIDE OF TRENCHES.
- EXCAVATED MATERIAL WILL NOT BE PLACED IN ESTABLISHED DRAINAGE DITCHES, UNDER ANY CIRCUMSTANCES.
- TRENCH DEWATERING DEVICES WILL BE DISCHARGED IN A MANNER THAT WILL NOT ADVERSELY AFFECT FLOWING STREAMS, DRAINAGE SYSTEMS, OR OFF-SITE PROPERTIES. AN ESTABLISHED SEDIMENT TRAP WILL BE USED AS THE RECEIVER FOR ALL TRENCH DEWATERING OPERATIONS.
- ALL DISTURBED AREAS WILL BE SEEDED OR SODDED UPON COMPLETION OF WORK. THE CONTRACTOR WILL BE RESPONSIBLE TO ENSURE THAT COMPLETE COVERAGE OF THE DISTURBED AREAS IS PROVIDED AND THAT GROWTH OF VEGETATION IS ESTABLISHED. SEED AND SOD APPLICATIONS WILL BE CONDUCTED IN ACCORDANCE WITH THE TIMELINES NOTED IN THE MOST RECENT EDITION OF THE WSDOT STANDARD SPECIFICATIONS.
- ALL EROSION CONTROL WILL REMAIN IN PLACE UNTIL SUCH TIME AS THE SITE IS ADEQUATELY STABILIZED. PRIOR TO REMOVAL OF EROSION CONTROL MEASURES, THE PUBLIC WORKS DEPARTMENT WILL BE NOTIFIED FOR FINAL INSPECTION AND APPROVAL.

T.E.S.C. NOTES

- RB ENGINEERING PREPARED A TEMPORARY AND PERMANENT EROSION CONTROL PLAN AND STORM WATER POLLUTION PREVENTION PLAN (SWPPP) CONSISTENT WITH THE 2005 WASHINGTON STATE DEPARTMENT OF ECOLOGY'S STORMWATER MANAGEMENT MANUAL FOR WESTERN WASHINGTON FOR PROPOSED DEVELOPMENT OF THE PROPERTY. THE PLAN WAS APPROVED BY CITY OF CHEHALIS.
- CONTRACTOR SHALL IMPLEMENT AND COMPLY WITH ALL MITIGATION MEASURES OUTLINED IN THE CITY OF CHEHALIS ENGINEER-APPROVED TEMPORARY AND PERMANENT EROSION CONTROL PLAN, WITH ALL MITIGATION MEASURES IN PLACE PRIOR TO, DURING, AND AFTER THE CONSTRUCTION ACTIVITY, INCLUDING:
 - VEGETATION SHALL BE REMOVED ONLY AS NECESSARY, AND EXPOSED AREAS SHALL BE REPLANTED FOLLOWING CONSTRUCTION.
 - A TEMPORARY SEDIMENT FENCE SHALL BE INSTALLED DOWN SLOPE OF DRAINAGE AREA OF ANY DISTURBED AREAS OF THE SITE UNTIL PERMANENT VEGETATION COVER CAN BE ESTABLISHED.
 - SOIL IN STOCKPILES SHOULD BE STABILIZED OR PROTECTED WITH SEDIMENT-TRAPPING MEASURES TO PREVENT SOIL LOSS. ALL EXPOSED AREAS OF FINAL GRADE, OR AREAS THAT ARE NOT SCHEDULED FOR WORK FOR MORE THAN 30 DAYS SHOULD BE STABILIZED WITHIN 10 DAYS DURING THE PERIOD FROM APRIL 1 TO OCTOBER 31 OR IMMEDIATELY DURING THE PERIOD RUNNING FROM NOVEMBER 1 TO MARCH 31.
 - CLEARING LIMITS AND/OR ANY EASEMENTS OR REQUIRED BUFFERS SHOULD BE STAKED AND FLAGGED IN THE FIELD OR IDENTIFIED IN GPS MODEL.
 - PROPERTIES ADJACENT TO THE SITE OF A LAND DISTURBANCE SHOULD BE PROTECTED FROM SEDIMENT DEPOSITION THROUGH THE USE OF BUFFERS OR OTHER PERIMETER CONTROLS, SUCH AS FILTER FENCE OR SEDIMENT BASINS.
 - PROVISIONS SHOULD BE MADE TO MINIMIZE THE TRACKING OF SEDIMENT BY CONSTRUCTION VEHICLES ONTO PAVED PUBLIC ROADS. IF SEDIMENT IS DEPOSITED, IT SHOULD BE CLEANED EVERY DAY BY SHOVELING OR SWEEPING. WATER CLEARING SHOULD ONLY BE DONE AFTER THE AREA HAS BEEN SHOVELED OUT OR SWEEPED.
 - UTILIZE THE FOLLOWING BEST MANAGEMENT PRACTICES (BMPS) AS APPROPRIATE MEANS TO PREVENT SEDIMENT LADEN STORMWATER AND OTHER POLLUTANTS FROM ENTERING WATERS OF WASHINGTON STATE AND/OR AFFECTING ADJACENT PROPERTIES: SILT FENCE, VEGETATED STRIP, PRESERVE NATURAL VEGETATION, MULCH, SURFACE ROUGHENING, PLASTIC COVERING, WATTLES AND INLET FILTERS.

EROSION CONTROL MEASURES MUST BE IN PLACE PRIOR TO ANY CLEARING, GRADING, OR CONSTRUCTION. THESE CONTROL MEASURES MUST BE EFFECTIVE TO PREVENT STORMWATER RUNOFF FROM

WSDOE – STANDARD NOTES

APPROVAL OF THIS EROSION/SEDIMENTATION CONTROL (ESC) PLAN DOES NOT CONSTITUTE AND APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G. SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.).

THE IMPLEMENTATION OF THESE ESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR UNTIL ALL CONSTRUCTION IS COMPLETED AND APPROVED AND VEGETATION/LANDSCAPING IS ESTABLISHED.

THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE CLEARLY FLAGGED IN THE FIELD PRIOR TO CONSTRUCTION. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE FLAGGED CLEARING LIMITS SHALL BE PERMITTED. THE FLAGGING SHALL BE MAINTAINED BY THE CONTRACTOR FOR THE DURATION OF CONSTRUCTION.

THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES, AND IN SUCH A MANNER AS TO INSURE THAT SEDIMENT AND SEDIMENT-LADEN WATER DO NOT ENTER THE DRAINAGE SYSTEM, ROADWAYS, OR VIOLATE APPLICABLE WATER STANDARDS.

THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND TO ENSURE THAT SEDIMENT AND SEDIMENT-LADEN WATER DO NOT LEAVE THE SITE.

THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE CONTRACTOR AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING.

THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN THE 48 HOURS FOLLOWING A MAJOR STORM EVENT.

AT NO TIME SHALL MORE THAN ONE FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A TRAPPED CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT-LADEN WATER INTO THE DOWNSTREAM SYSTEM.

STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES MAY BE REQUIRED TO INSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.

CARRYING SOIL AND OTHER POLLUTANTS INTO SURFACE WATER OR STORM DRAINS THAT LEAD TO WATERS OF THE STATE. SAND, SILT, CLAY PARTICLES, AND SOIL WILL DAMAGE AQUATIC HABITAT AND ARE CONSIDERED TO BE POLLUTANTS.

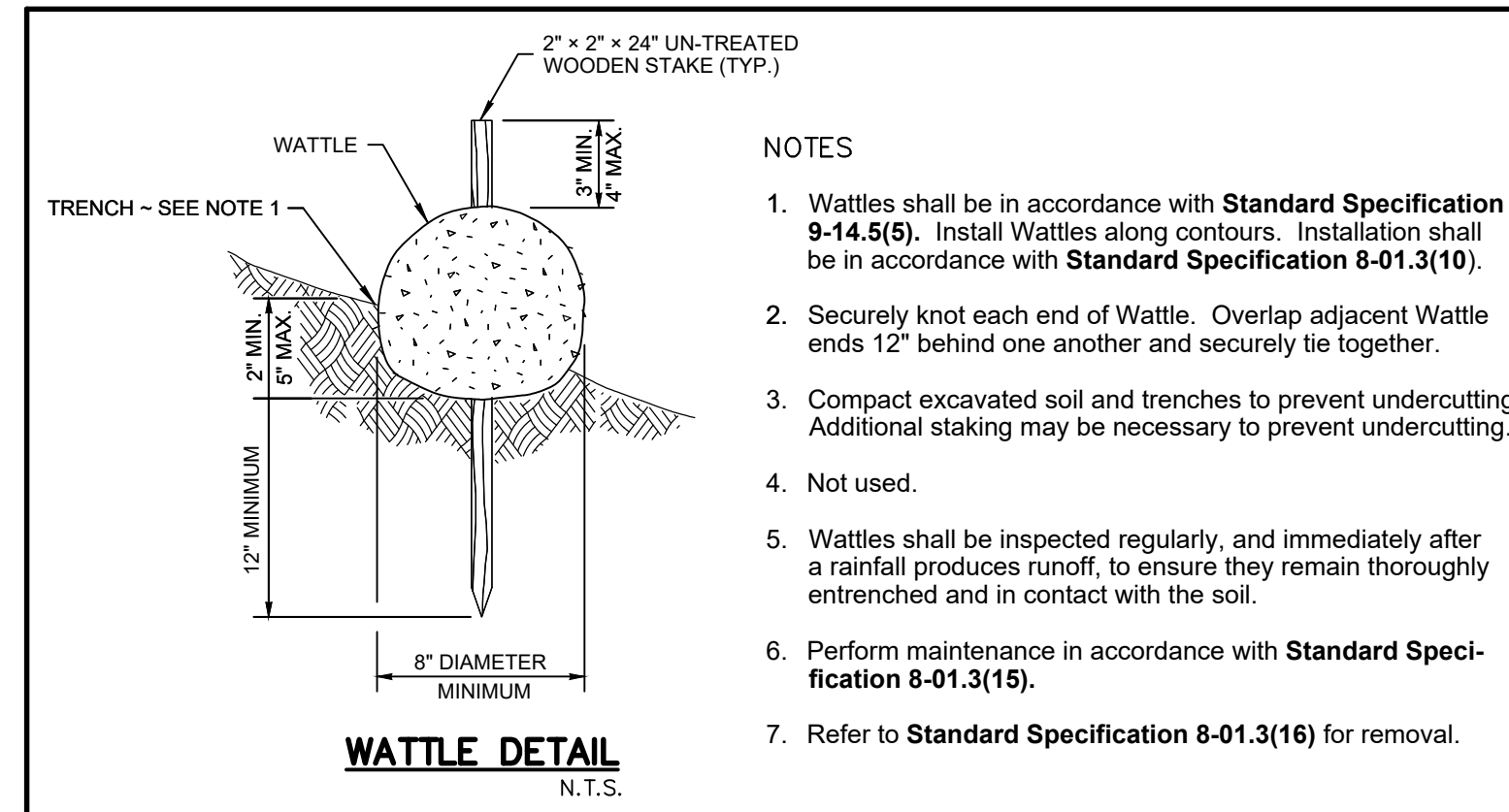
3. THE CONTRACTOR SHALL CONDUCT CONSTRUCTION ACTIVITIES IN A MANNER CONSISTENT WITH THE BEST MANAGEMENT PRACTICES (BMP C140) FOR DUST CONTROL AT DISTURBED LAND AREAS CONTAINED IN THE 2005 WASHINGTON STATE DEPARTMENT OF ECOLOGY'S STORMWATER MANAGEMENT MANUAL FOR WESTERN WASHINGTON. CONSTRUCTION VEHICLES AND EQUIPMENT SHALL BE EQUIPPED WITH FACTORY-INSTALLED EMISSION CONTROL DEVICES.

4. COVERAGE UNDER THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT IS REQUIRED FOR THIS PROJECT. RB ENGINEERING DEVELOPED A SWPPP THAT INCLUDES BEST MANAGEMENT PRACTICES CONSISTENT WITH THE 2005 WASHINGTON STATE DEPARTMENT OF ECOLOGY'S (WSDOE) STORMWATER MANAGEMENT MANUAL FOR WESTERN WASHINGTON. A COPY OF THE SWPPP IS PROVIDED WITH THE CONSTRUCTION DRAWINGS AND SPECIFICATION DOCUMENT.

5. PRACTICES CONTAINED IN THE SWPPP WILL BE IMPLEMENTED BY CONTRACTOR BEFORE, DURING AND AFTER THE CONSTRUCTION OF EACH SEGMENT OF THE PROJECT. RESPONSIBILITIES INCLUDE WEEKLY MONITORING AND MONTHLY REPORTING ON A DISCHARGE MONITORING REPORT (DMR) AND AN EROSION & SEDIMENT CONTROL REPORT (ESCR) BY A CERTIFIED EROSION AND SEDIMENT CONTROL LEAD (CESCL) TO BE PROVIDED TO RB ENGINEERING FOR DISTRIBUTION TO WSDOE.

6. CONTRACTOR SHALL BE REQUIRED TO PREPARE AND IMPLEMENT A SPILL PREVENTION CONTROL AND COUNTERMEASURES PLAN (SPCC PLAN). DURING CONSTRUCTION, ALL RELEASES OF OILS, HYDRAULIC FLUIDS, FUELS, OTHER PETROLEUM PRODUCTS, PAINTS, SOLVENTS, AND OTHER DELETERIOUS MATERIALS MUST BE CONTAINED AND REMOVED IN A MANNER THAT WILL PREVENT THEIR DISCHARGE TO WATERS AND SOILS OF THE STATE. THE CLEANUP OF SPILLS SHALL TAKE PRECEDENCE OVER CONSTRUCTION WORK ON THE SITE.

7. ALL CONSTRUCTION ACTIVITIES SHALL BE PERFORMED IN COMPLIANCE WITH FEDERAL OCCUPATIONAL SAFETY AND HAZARD AGENCY (OSHA) STANDARDS.

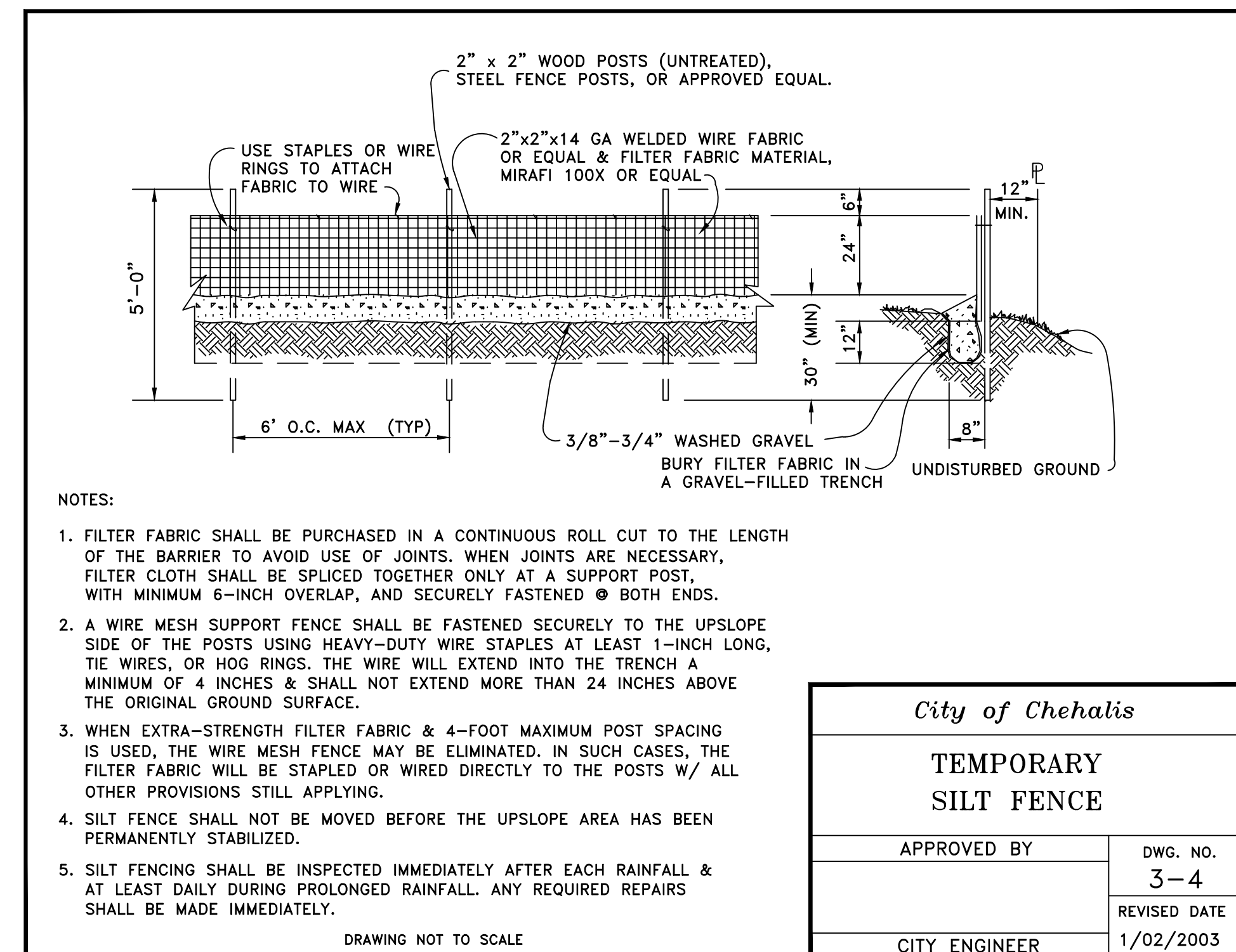
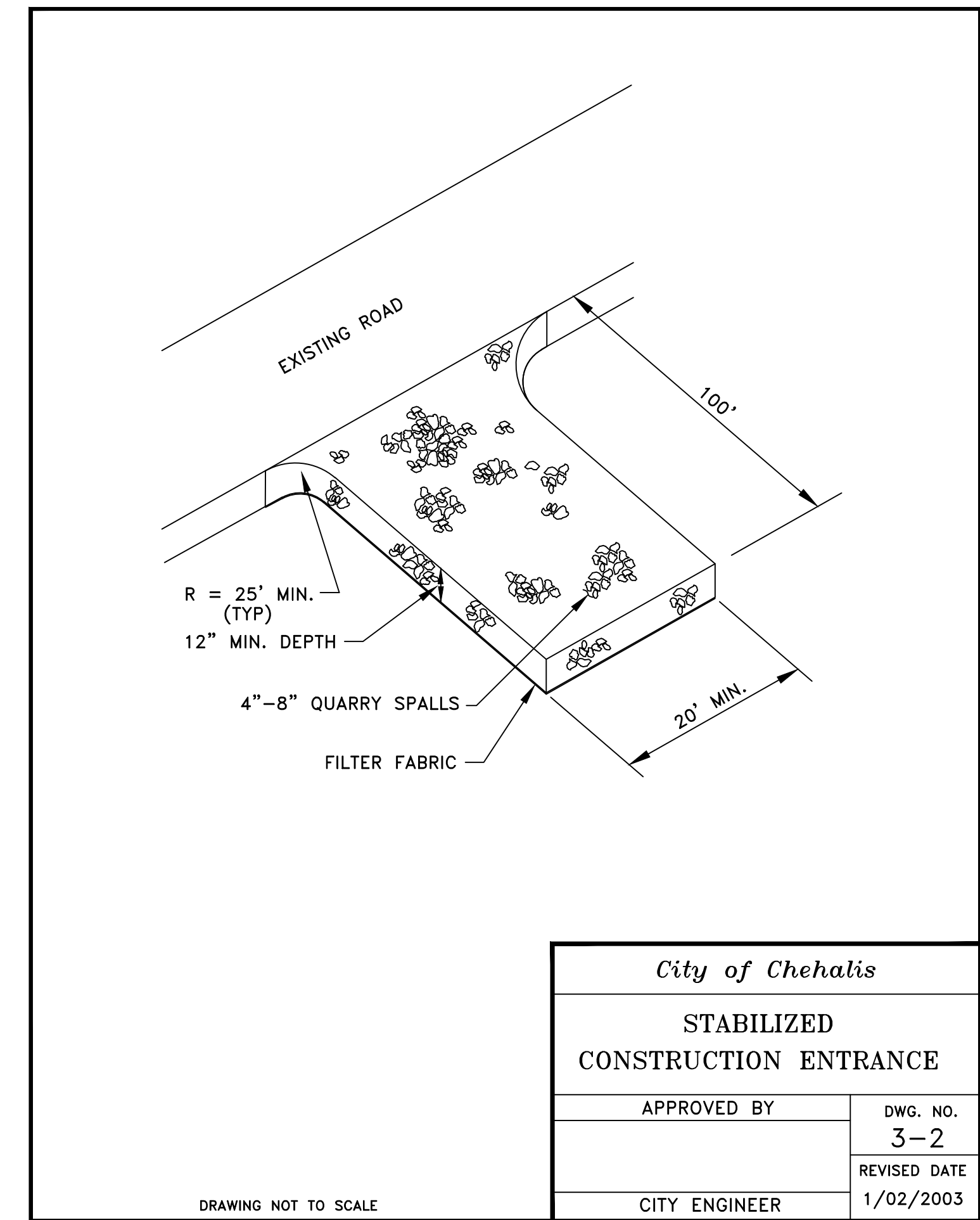
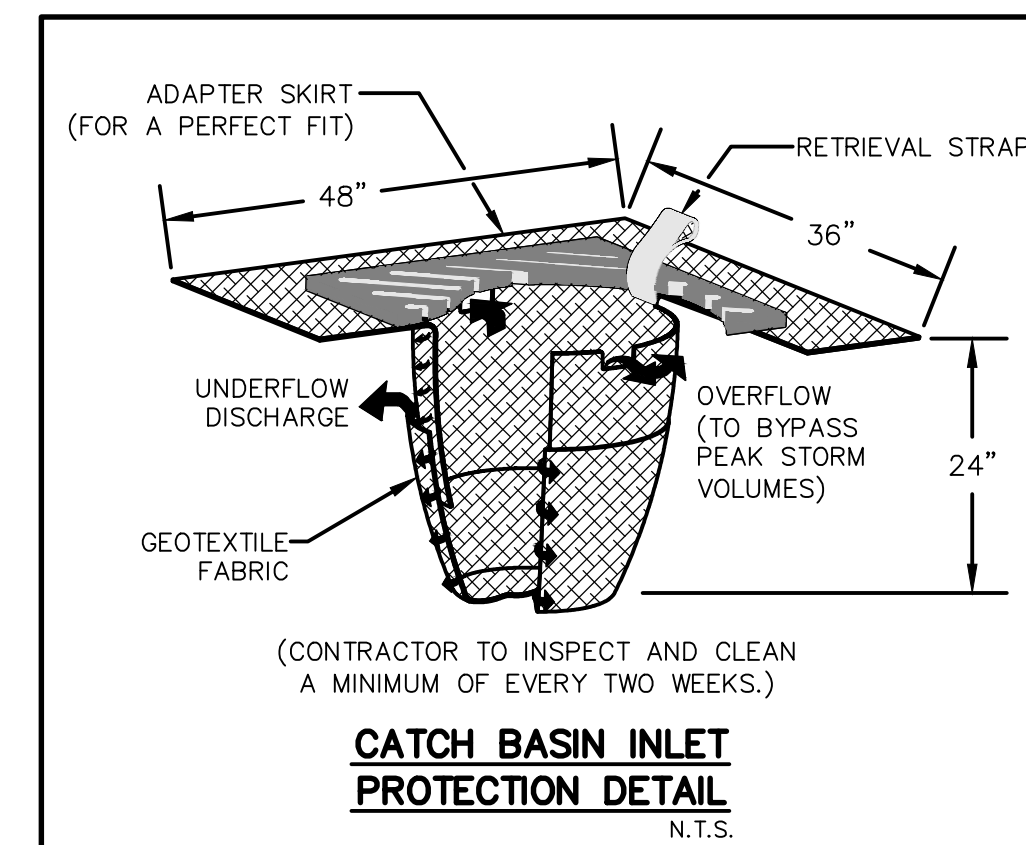


- NOTES**
- Wattles shall be in accordance with **Standard Specification 9-14.5(5)**. Install Wattles along contours. Installation shall be in accordance with **Standard Specification 8-01.3(10)**.
 - Securely knot each end of Wattle. Overlap adjacent Wattle ends 12" behind one another and securely tie together.
 - Compact excavated soil and trenches to prevent undercutting. Additional staking may be necessary to prevent undercutting.
 - Not used.
 - Wattles shall be inspected regularly, and immediately after a rainfall produces runoff, to ensure they remain thoroughly entrenched and in contact with the soil.
 - Perform maintenance in accordance with **Standard Specification 8-01.3(15)**.
 - Refer to **Standard Specification 8-01.3(16)** for removal.

EROSION CONTROL SEED MIX:

- 40% DWARF TALL FESCUE
- 40% PERENNIAL RYEGRASS
- 10% WHITE CLOVER
- 10% HIGHLAND BENTGRASS

SEEDING RATE = 100 LB / AC



- NOTES:**
- FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST, WITH MINIMUM 6-INCH OVERLAP, AND SECURELY FASTENED @ BOTH ENDS.
 - A WIRE MESH SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY-DUTY WIRE STAPLES AT LEAST 1-INCH LONG, TIE WIRE, OR HOG RINGS. THE WIRE WILL EXTEND INTO THE TRENCH A MINIMUM OF 4 INCHES & SHALL NOT EXTEND MORE THAN 24 INCHES ABOVE THE ORIGINAL GROUND SURFACE.
 - WHEN EXTRA-STRENGTH FILTER FABRIC & 4-FOOT MAXIMUM POST SPACING IS USED, THE WIRE MESH FENCE MAY BE ELIMINATED. IN SUCH CASES, THE FILTER FABRIC WILL BE STAPLED OR WIRED DIRECTLY TO THE POSTS W/ ALL OTHER PROVISIONS STILL APPLYING.
 - SILT FENCING SHALL NOT BE MOVED BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.
 - SILT FENCING SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL & AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.

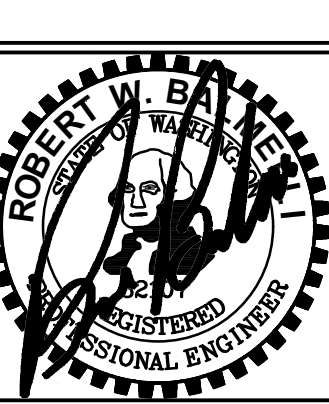
City of Chehalis	
TEMPORARY SILT FENCE	
APPROVED BY	DWG. NO. 3-4
CITY ENGINEER	REVISED DATE 1/02/2003

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DESIGNED BY: <u> </u>		
DRAWN BY: <u> </u>		
CHECKED BY: <u> </u>		
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SCALE: <u> </u>		

SW SNIVELY AVENUE ROAD AND UTILITY IMPROVEMENT PROJECT

T.E.S.C. DETAILS AND NOTES

CHEHALIS WA.



RB Engineering

DESIGN → PERMIT → MANAGE

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