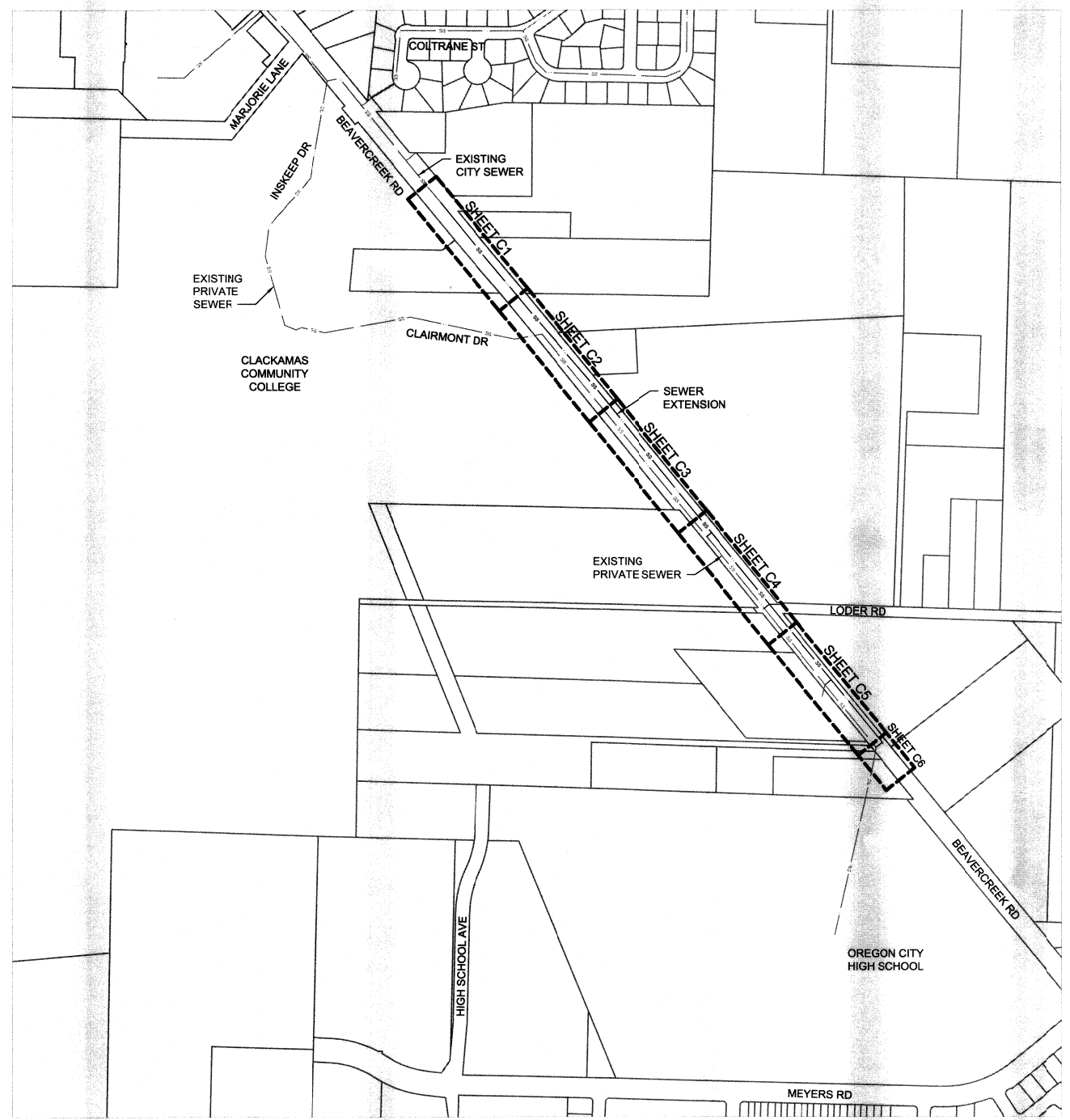


CITY OF OREGON CITY
BEAVERCREEK ROAD SANITARY SEWER IMPROVEMENTS
AUGUST 2017



15350 SW SEQUOIA PRKY, SUITE 220
PORTLAND, OREGON 97224
PHONE: 503.684.9097 FAX: 503.598.0583

www.tetrattech.com



PROJECT SITE MAP
AND SHEET KEY
NTS

DRAWING INDEX

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G2	GENERAL NOTES, ABBREVIATIONS AND LEGEND
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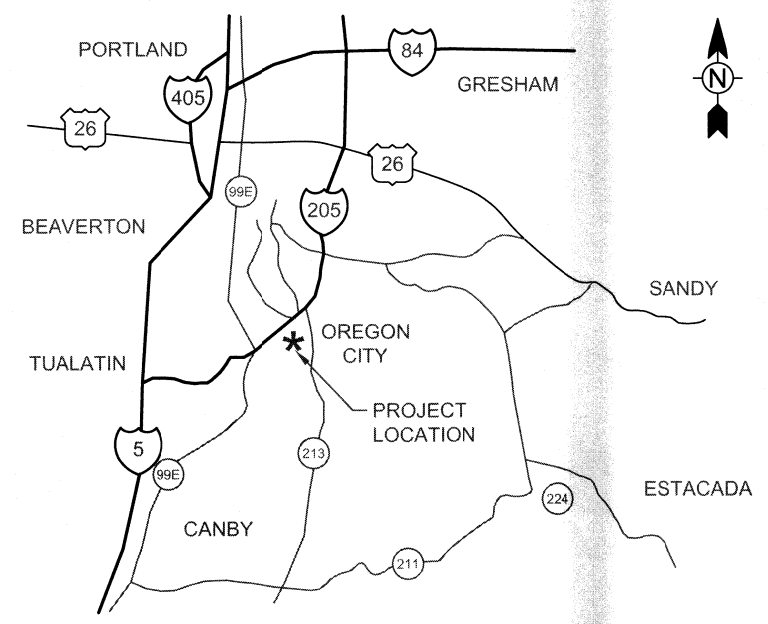
Tt PROJECT No.:
135-15285-16001

CITY OF OREGON CITY
625 CENTER STREET
P.O. BOX 3040
OREGON CITY, OREGON 97045
OREGON CITY PUBLIC WORKS DEPARTMENT
JONATHAN ARCHIBALD, P.E., PROJECT ENGINEER
(503) 974-5506

CITY PROJECT NO: CI 16-013

ISSUED:
AUGUST 2017 - 100% DRAWINGS

VICINITY MAP:



8/10/2017 5:30:10 PM - P:\15285\135-15285-16001\CAD\SHEETFILES\G2 - NOTES-ABBREVIATIONS-LEGEND.DWG - BENNETTDAGGETT, HUNTER

GENERAL CONSTRUCTION NOTES

1. ALL CONSTRUCTION IS TO BE PERFORMED IN ACCORDANCE WITH THE MOST RECENT VERSION OF CITY OF OREGON CITY STANDARDS AND 2015 OREGON APWA STANDARD SPECIFICATIONS, UNLESS NOTED ON THE PLANS OR SPECIFIED OTHERWISE.
2. CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS AND LICENSES BEFORE STARTING CONSTRUCTION, INCLUDING CLACKAMAS COUNTY RIGHT OF WAY PERMIT. A CITY BUSINESS LICENSE IS REQUIRED.
3. THE CONTRACTOR SHALL POTHOLE AND VERIFY LOCATIONS, ELEVATIONS, TYPES AND SIZES OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTING NEW PIPING AS DIRECTED BY THE ENGINEER. POTHOLING SHALL SUFFICIENTLY PRECEDE LAYING OF PIPE TO ALLOW REQUIRED ELEVATION ADJUSTMENTS TO BE ACCOMPLISHED WITHOUT REWORK. ELEVATION ADJUSTMENTS SHALL BE EXPECTED AND ARE INCIDENTAL TO THE WORK. DEFLECT PIPE AS REQUIRED AND WITHIN (80%) OF MANUFACTURER'S TOLERANCES TO AVOID EXISTING UTILITIES AND COMPLETE TIE-INS.
4. LOCATIONS AND GRADES OF EXISTING UTILITIES ARE BASED UPON INFORMATION PROVIDED BY THE UTILITIES AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY. OREGON LAW REQUIRES CONTRACTOR TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER (PHONE NO: 503) 246-6699) SET FORTH IN OAR 952-001-0010 THROUGH OAR 952-001-0090. THE CONTRACTOR SHALL HAVE UTILITIES LOCATED IN ACCORDANCE WITH ORS 757.541 THROUGH 757.571 PRIOR TO COMMENCING CONSTRUCTION. CONTRACTOR SHALL ALSO FIELD VERIFY DEPTHS OF EXISTING UTILITIES TO IDENTIFY POTENTIAL CONFLICTS AND AS REQUIRED FOR CONNECTIONS TO EXISTING SYSTEMS.
5. ALL AREAS SHALL BE RESTORED TO PRECONSTRUCTION CONDITIONS. APPROXIMATE PERMANENT PAVEMENT RESTORATION LIMITS ARE SHOWN ON THE PLANS BUT THE ACTUAL LIMITS SHALL BE APPROVED BY THE ENGINEER DURING CONSTRUCTION.
6. MAINTENANCE OF THE WORK AREA AND APPROACH ROADS IS THE RESPONSIBILITY OF THE CONTRACTOR. THE WORK AREA AND APPROACH ROADS SHALL BE MAINTAINED IN A CLEAN CONDITION, FREE FROM OBSTRUCTIONS AND HAZARDS.
7. UTILITIES OR INTERFERING PORTIONS OF UTILITIES THAT ARE ABANDONED IN PLACE SHALL BE REMOVED BY THE CONTRACTOR TO THE EXTENT NECESSARY TO ACCOMPLISH THE WORK. THE CONTRACTOR SHALL FILL THE REMAINING LINES WITH SAND AND PLUG ALL OTHER PENETRATIONS INTO THE PIPE.
8. ALL EXCAVATIONS SHALL BE BACKFILLED AND PROVIDED WITH AN IMMEDIATE PATCH AT THE END OF EACH DAY. AN IMMEDIATE PATCH MAY INCLUDE STEEL SHEETS WITH SIGNS OR BE A MINIMUM OF TWO-INCH THICK COLD MIX ASPHALT ON 6-INCH THICK LAYER OF CRUSHED ROCK. STEEL SHEETS SHALL BE PINNED AND RAMPED WITH COLD MIX ASPHALT. IMMEDIATE PATCHES SHALL BE REPLACED WITH AN INTERIM OR PERMANENT PATCH WITHIN 36 HOURS.
9. INTERIM PATCHES SHALL CONSIST OF A MINIMUM 2-INCH THICK HMAC ON 6-INCH THICK LAYER OF COMPACTED CRUSHED ROCK. INTERIM PATCHES SHALL BE REPLACED WITH A FINAL PATCH WITHIN 30 DAYS AFTER PLACEMENT. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING TEMPORARY AC PAVEMENT WITH SMOOTH EDGE CONDITIONS AND NO POTHOLES UNTIL PERMANENT PAVEMENT RESTORATION IS COMPLETE. ANY RESTORATION OF TEMPORARY PAVEMENT AS DIRECTED BY THE PROJECT MANAGER SHALL BE AT THE CONTRACTOR'S EXPENSE. EDGES OF TEMPORARY PAVEMENT SHALL BE TACK COATED.
10. STAGING AND STORAGE OF MATERIALS WITHIN THE PJBLC RIGHT-OF-WAY IS NOT PERMITTED EXCEPT AS SPECIFICALLY AUTHORIZED IN SPECIFICATIONS OR BY THE INSPECTOR AND CITY PROJECT MANAGER.
11. VEHICULAR AND PEDESTRIAN ACCESS TO PROPERTIES SHALL BE MAINTAINED AT ALL TIMES INCLUDING NORMAL DELIVERY AND MAIL SERVICE, UNLESS WRITTEN APPROVAL OF THE CITY'S PROJECT MANAGER IS PROVIDED.
12. THE CONTRACTOR SHALL MAKE PROVISIONS TO KEEP ALL EXISTING UTILITIES IN SERVICE AND PROTECT THEM DURING CONSTRUCTION. CONTRACTOR SHALL IMMEDIATELY REPAIR OR REPLACE ANY DAMAGED UTILITIES USING MATERIALS AND METHODS APPROVED BY THE UTILITY OWNER. NO SERVICE INTERRUPTIONS SHALL BE PERMITTED WITHOUT PRIOR WRITTEN AGREEMENT WITH THE UTILITY PROVIDER.
13. ALL WATER LINE CROSSINGS SHALL BE IN CONFORMANCE WITH OAR CHAPTER 333.
14. CONTRACTOR SHALL NOTIFY PROJECT ENGINEER AND CITY OF OREGON CITY PROJECT MANAGER 48 HOURS IN ADVANCE OF STARTING CONSTRUCTION AND 24 HOURS BEFORE RESUMING WORK AFTER SHUTDOWNS, EXCEPT FOR NORMAL RESUMPTION OF WORK FOLLOWING SATURDAYS, SUNDAYS OR HOLIDAYS.
15. SETTLEMENT OF THE FINISHED SURFACE WITHIN THE WARRANTY PERIOD SHALL BE CONSIDERED TO BE A RESULT OF IMPROPER COMPACTION AND SHALL BE PROMPTLY REPAIRED BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER.
16. UTILITY CONSTRUCTION SEQUENCING WILL BE REQUIRED IN ORDER TO PREVENT CONFLICTS WITH EXISTING UTILITIES REMAINING IN SERVICE UNTIL NEWLY INSTALLED UTILITIES ARE CONNECTED AND IN SERVICE. CONTRACTOR SHALL SEQUENCE UTILITY WORK INCLUDING TEMPORARY CONNECTIONS AND BYPASSES AS REQUIRED SUCH AS TO MINIMIZE DISRUPTION OF SERVICES. ANY DISRUPTION OF SERVICE SHALL BE COORDINATED WITH THE CITY PROJECT MANAGER A MINIMUM 72 HOURS PRIOR TO DISRUPTION. SEE SPEC SECTION 105.4.01 REGARDING CONSTRUCTION SEQUENCING REQUIREMENTS FOR THIS PROJECT.
17. SEE SHEET C10 FOR EROSION CONTROL NOTES.
18. PROPERTY LINES SHOWN ON THE DRAWINGS SHOULD BE CONSIDERED APPROXIMATE AND MAY VARY UPON COMPLETION OF A BOUNDARY SURVEY.

SANITARY SEWER NOTES

1. CONTRACTOR SHALL FIELD VERIFY SIZE AND LOCATION OF ALL EXISTING SANITARY SEWER SERVICE LATERALS PRIOR TO SANITARY SEWER CONSTRUCTION. NEW SEWER LATERAL PIPING SIZE SHALL BE 4" UNLESS EXISTING SERVICE IS LARGER THAN 4", IN WHICH CASE NEW LATERAL TO MATCH EXISTING DIAMETER.
2. ALL MANHOLE INVERT ELEVATIONS (IE IN, IE OUT) SHOWN ON PLANS ARE PROJECTED TO MANHOLE CENTER.
3. WHEN CONNECTING NEW SANITARY SEWER PIPING TO EXISTING PIPING, REMOVE EXISTING PIPE TO NEAREST JOINT. CONNECT NEW PIPE TO EXISTING WITH FERNCO DONUT JOINT SEALER OR EQUAL. CONTRACTOR SHALL FIELD VERIFY EXISTING PIPE TYPE AND SIZE.
4. CAST IRON PAVING RINGS ARE NOT PERMITTED ON NEW MANHOLES. FOR ADJUSTMENT OF EXISTING MANHOLE RIMS IN ASPHALT OVERLAY AREAS, ONE CAST IRON PAVING RING IS PERMITTED AND SHALL BE SPOT WELD TO THE FRAME TO PREVENT MOVEMENT.
5. THE MINIMUM CENTER TO CENTER DISTANCE BETWEEN SANITARY SERVICE LATERALS IS 3 FEET.
6. ALL BACKFILL TO BE CLASS B UNLESS SHOWN OTHERWISE. SEE CITY STANDARD DWG #313.

TRAFFIC CONTROL NOTES

1. TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE MUTCD AND THE TRAFFIC CONTROL PLAN SUBMITTED BY THE CONTRACTOR AND APPROVED BY THE CITY AND THE COUNTY. A COPY OF THE APPROVED PLAN SHALL BE AVAILABLE AT THE WORK SITE AT ALL TIMES. THE CITY RESERVES THE RIGHT TO MODIFY TRAFFIC CONTROL AS MAY BE NECESSARY TO INSURE PUBLIC SAFETY.
2. THE CONTRACTOR IS RESPONSIBLE FOR PROVISION OF TIMELY NOTIFICATION OF TRAFFIC FLOW DISRUPTIONS TO AREA WIDE EMERGENCY SERVICES, TRASH COLLECTORS, POSTAL SERVICE, TRI-MET, THE CITY OF OREGON CITY, AND CLACKAMAS COUNTY.
3. ADVANCE WARNING OF IMMINENT TRAFFIC DISRUPTION SHALL BE PROVIDED TO THE GENERAL MOTORING PUBLIC BY PLACEMENT OF AN ADVANCE NOTIFICATION SIGN AT EACH END OF THE CONSTRUCTION AREA 72 HOURS (MIN) BEFORE INITIATION OF CONSTRUCTION WORK.
4. TRAFFIC CONTROL PLANS SHALL COMPLY WITH THE OREGON DEPARTMENT OF TRANSPORTATION "SHORT TERM TRAFFIC CONTROL HANDBOOK". TRAFFIC CONTROL DEVICES SHALL COMPLY WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" PREPARED BY THE FEDERAL HIGHWAY ADMINISTRATION, LATEST REVISION. CONTRACTOR SHALL COMPLY WITH ALL CONDITIONS SPECIFIED IN ROAD PERMITS ISSUED FOR THIS PROJECT.
5. CONTRACTOR SHALL COORDINATE ALL STREET AND SIDEWALK CLOSURES WITH THE CITY. CONTRACTOR SHALL SUPPLY SIGNING AND BARRICADES AS REQUIRED TO ASSURE AUTOMOTIVE AND PEDESTRIAN SAFETY.
6. TWO TRAVEL LANES SHALL BE MAINTAINED AT ALL TIMES UNLESS SPECIFICALLY APPROVED BY THE CITY AND COUNTY.

PHASING AND TESTING NOTES

1. COMPLETE THE PROJECT AS SEQUENCED BELOW AND SUBMIT A DETAILED SCHEDULE THAT SHOWS THE ASSOCIATED TIME FOR EACH STEP:
- INSTALL THE SANITARY SEWER MAIN
 - TEST MAIN LINES
 - INSTALL LATERALS BEGINNING OF THE UPSTREAM END AND MOVING DOWNSTREAM
 - TEST LATERAL LINES
 - PAVEMENT/SURFACE RESTORATION
2. BACKFILL SHALL BE PLACED AND COMPACTED IN A MAXIMUM OF 12-INCH LIFTS. COMPACTION TESTING REQUIRED AT A FREQUENCY OF 2 TESTS FOR EVERY 100 FEET OF TRENCH. THE TESTS SHALL OCCUR AT 4-FEET BELOW FINISH GRADE, AND AT THE TOP OF THE BACKFILL SECTION.
3. ALL SEWER LINES SHALL BE VIDEO INSPECTED BY THE CONTRACTOR PER APWA DIVISION III SECTION 303.3.11 AND A MANDREL PASSED THROUGH ALL NEW MAIN LINES TO CHECK DEFLECTION PER APWA DIVISION III, SECTION 303.3.10.
4. ALL SEWER LINES SHALL BE AIR TESTED PER DIVISION III, SECTION 303.3.9C OF THE STANDARD SPECIFICATIONS. AS REQUIRED BY APWA MANHOLES SHALL BE HYDROSTATICALLY TESTED IN ACCORDANCE WITH APWA DIVISION III, SECTION 306.3.03. ALL MANHOLES MAY BE VACUUM TESTED AS A SUBSTITUTION FOR HYDROSTATIC TESTING IF APPROVED BY THE CITY ENGINEER.
5. PAVEMENT RESURFACING, WHERE REQUIRED, SHALL CONFORM TO APWA DIVISION II OF THE STANDARD SPECIFICATIONS AND THE CLACKAMAS COUNTY ROADWAY STANDARDS. COMPACTION SHALL MEET COUNTY REQUIREMENTS PER STANDARD DRAWING U200.
6. CONTRACTOR SHALL SUBMIT A BYPASS PUMPING PLAN TO THE ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION PER SECTION 00490 OF THE SPECIFICATIONS. DRY SEASON DAILY PEAK FLOW ASSUMED TO BE 180 GPM.

ABBREVIATIONS

AC	ASPHALTIC CONCRETE
APWA	AMERICAN PUBLIC WORKS ASSOCIATION
BM	BENCHMARK
BTM	BOTTOM
CB	CATCH BASIN
CDF	CONTROLLED DENSITY FILL
CI	CAST IRON
CL	CENTERLINE
CMP	CORRUGATED METAL PIPE
CO	CLEANOUT
CONC	CONCRETE
CONST	CONSTRUCTION
COORD	COORDINATE(S)
CPLG	COUPLING
DET	DETAIL
DI	DUCTILE IRON
DIP	DUCTILE IRON PIPE
DIA	DIAMETER
DWG	DRAWING
E	ELECTRICITY
EL	ELEVATION
EOP	EDGE OF PAVEMENT
EQ	EQUAL
ESMT	EASEMENT
EXIST	EXISTING
EXP	EXPANSION
FAB	FABRICATE
FH	FIRE HYDRANT
FLEX	FLEXIBLE
FLG	FLANGE
FT	FEET
G	GAS
GAL	GALVANIZED
GV	GATE VALVE
HDPE	HIGH DENSITY POLYETHYLENE
HORIZ	HORIZONTAL
HYD	HYDRANT
IE	INVERT ELEVATION
IR	IRON ROD
JT	JOINT
LAT	LATERAL
LF	LINEAR FEET
LOC	LOCATION
LT	LEFT
MAX	MAXIMUM
MECH	MECHANICAL
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MJ	MECHANICAL JOINT
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
PP	POWER POLE
PSI	POUNDS PER SQUARE INCH
PT	POINT
PVC	POLYVINYL CHLORIDE
ROW	RIGHT-OF-WAY
RCP	REINFORCED CONCRETE PIPE
REQ'D	REQUIRED
RIM	RIM ELEVATION
RT	RIGHT
S/W	SIDEWALK
SD	STORM DRAIN
SVC	SERVICE
SHT	SHEET
SL	SLOPE
SPEC	SPECIFICATIONS
SQ YD	SQUARE YARD
SS	SANITARY SEWER
STA	STATION
STL	STEEL
STD	STANDARD
TB	THRUST BLOCK
T, TEL	TELEPHONE
TEMP	TEMPORARY
TL	TAXLOT
TRANS	TRANSITION
TYP	TYPICAL
VERT	VERTICAL
VLT	VAULT
W	WATER
WS	WATER SERVICE
W/	WITH

LEGEND

SYMBOL (EXISTING)	DESCRIPTION
	FOUND BENCHMARK - SEE G002
	POWER POLE
	LIGHT POLE
	GAS METER
	GAS VALVE
	GUY ANCHOR
	WATER BLOWOFF VALVE
	WATER VALVE
	WATER METER
	FIRE HYDRANT
	SIGN
	CLEANOUT
	SANITARY SEWER MANHOLE
	STORM SEWER MANHOLE
	CATCH BASIN
	MAILBOX
	CABLE TELEVISION JUNCTION BOX
	DECIDUOUS TREE
	EVERGREEN TREE
	SHRUBS
	SITE ADDRESS
	EXISTING CURB
	UNDERGROUND WATER LINE
	OVERHEAD LINE
	UNDERGROUND TELE-COM
	UNDERGROUND STORM DRAIN LINE
	UNDERGROUND SANITARY SEWER LINE
	UNDERGROUND POWER
	UNDERGROUND GAS LINE
	SS LINE TO BE ABANDONED
	FENCE AS NOTED
	EDGE OF ASPHALT SURFACE
	RETAINING WALL - KEYSTONE
	EDGE OF GRAVEL SURFACE
	INDEX CONTOUR
	MINOR CONTOUR
	PROPERTY LINE (APPROXIMATE)
SYMBOL (THIS CONTRACT)	DESCRIPTION
	SANITARY SEWER MANHOLE & PIPE
	SANITARY SEWER PIPE
	CLEANOUT W/ LATERAL
	PAVEMENT RESTORATION
	GRIND AND INLAY

STRUCTURE TABLE	
STRUCTURE NAME	STRUCTURE DETAIL
MH A	STA 3+43 N: 612332.5832 E: 7670461.9793
MH B	STA 6+67 N: 612081.3362 E: 7670667.1612
MH C	STA 10+29 N: 611807.6319 E: 7670902.8913
MH D	STA 13+90 N: 611525.8381 E: 7671129.5990
CO 1	STA 17+49 N: 611230.7866 E: 7671334.7491
MH E	STA 17+49 N: 611247.0333 E: 7671354.9078
CO 2	STA 21+02 N: 610954.8441 E: 7671554.8673
MH F1	STA 21+02 N: 610973.5785 E: 7671578.1318
MH F2	STA 21+22 N: 610972.7178 E: 7671609.2198
STUB (LODER)	STA 21+27 N: 610972.5114 E: 7671616.6336
MH G	STA 24+77 N: 610683.8723 E: 7671816.5335
STUB (BEAVERCREEK)	STA 27+89 N: 610434.9500 E: 7672016.9385
MH H	STA 27+89 N: 610440.7066 E: 7672012.2622

SURVEY DATA

BENCHMARKS:

BENCHMARK NO. 1
(OREGON STATE PLAN, NORTH ZONE)
NORTHING = 608,905.400
EASTING = 7,673,274.872
ELEVATION = 501.398 (NAVD 88)

BENCHMARK NO. 2
(OREGON STATE PLAN, NORTH ZONE)
NORTHING = 613,097.416
EASTING = 7,669,795.799
ELEVATION = 393.634 (NAVD 88)

BASIS OF ELEVATIONS:
IE OUT (NORTHWESTERLY DOWN
BEAVERCREEK ROAD) OF SANITARY
SEWER MANHOLE 11913 LOCATED IN
FRONT OF MONEY SAVER MINI STORAGE,
SURVEYED BY RON BUSH ENGINEERING
AND SURVEYING AS 399.35.

TETRA TECH

REGISTERED PROFESSIONAL
ENGINEER
OREGON
JUL 26, 1988
GORDON A. MUNRO

EXPIRES: 12/31/18

BY									
DESCRIPTION									
DATE									
MARK									

CITY OF OREGON CITY
BEAVERCREEK ROAD
SANITARY SEWER IMPROVEMENTS

GENERAL NOTES,
ABBREVIATIONS, AND
LEGEND

Project No.: 135-15285-16001

Designed By: HBD

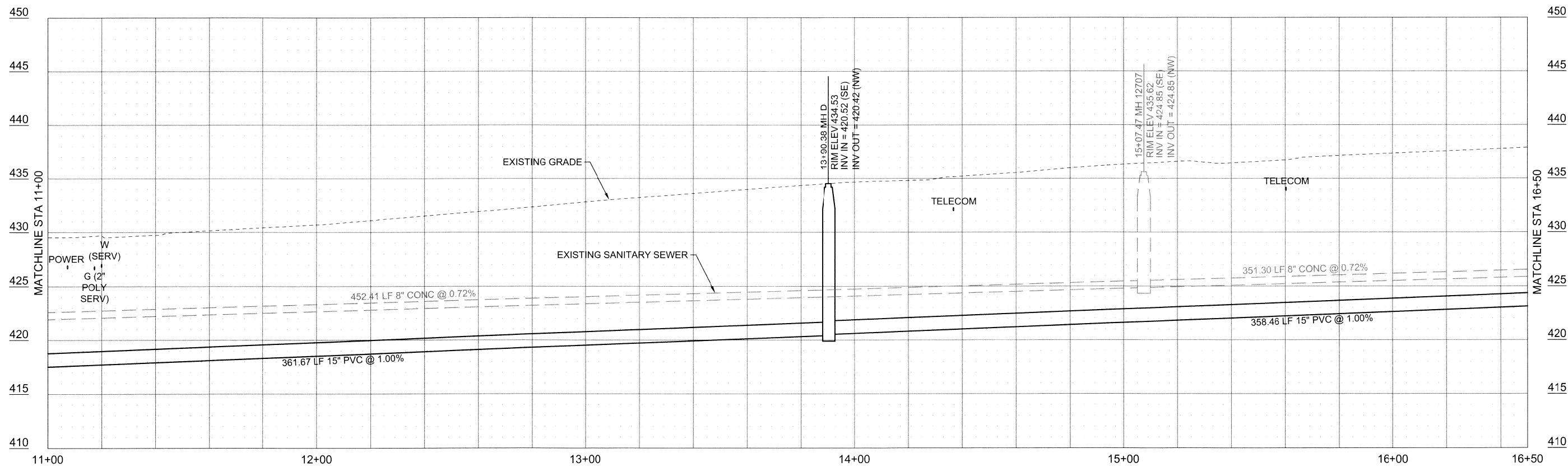
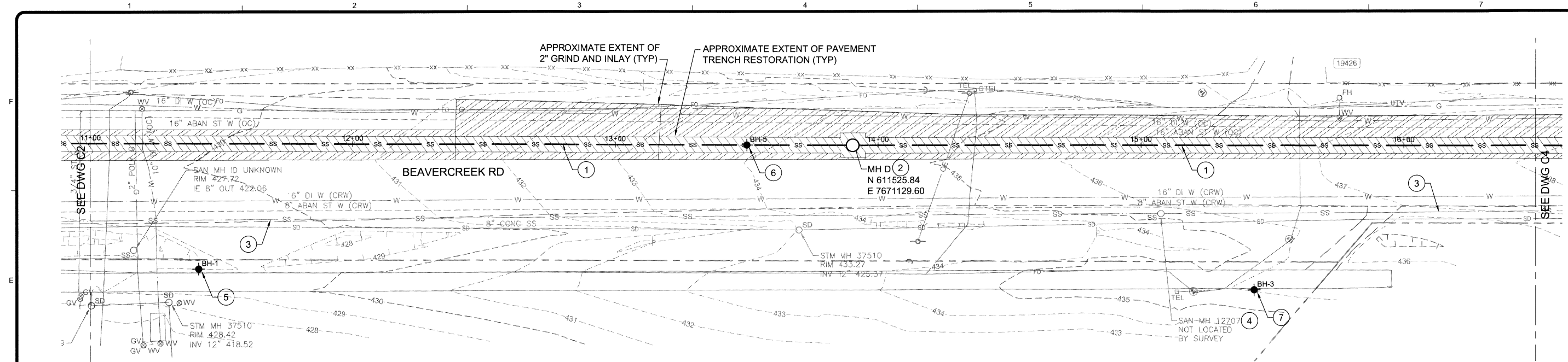
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Checked By: GAM

G2

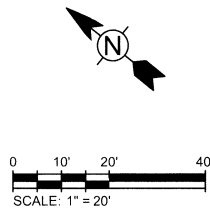
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NOTES:

1. INSTALL 15-INCH PVC SANITARY SEWER. TRENCH, BACKFILL, AND PAVEMENT RESTORATION PER COUNTY STD DWG U200/C9. TOTAL PAVEMENT THICKNESS TO BE 8 INCHES MINIMUM, INCLUDING 6 INCHES PERMANENT TRENCH RESURFACING AND 2 INCHES GRIND AND INLAY TO EDGE OF EXISTING LANE.
2. INSTALL 48-INCH MANHOLE PER CITY STD DWG 401/C8.
3. FILL EXISTING SANITARY SEWER WITH SAND AND ABANDON IN PLACE.
4. REMOVE MANHOLE CONE, PLUG PIPE OPENINGS WITH CONCRETE, AND FILL PER DETAIL 2/C7.
5. APPROXIMATE BOREHOLE LOCATION (BH-1). EXPLORATION ENCOUNTERED 8 INCHES OF AC PAVEMENT AND BOULDERS BELOW 19 FEET.
6. APPROXIMATE BOREHOLE LOCATION (BH-5). EXPLORATION ENCOUNTERED 12-13 INCHES OF AC PAVEMENT, 7 INCHES OF CONCRETE PAVEMENT, AND BASALT BOULDERS AND WEATHERED BASALT BELOW 15 FEET.
7. APPROXIMATE BOREHOLE LOCATION (BH-3). EXPLORATION ENCOUNTERED BOULDERS BELOW 18 FEET.



MARK	DATE	DESCRIPTION

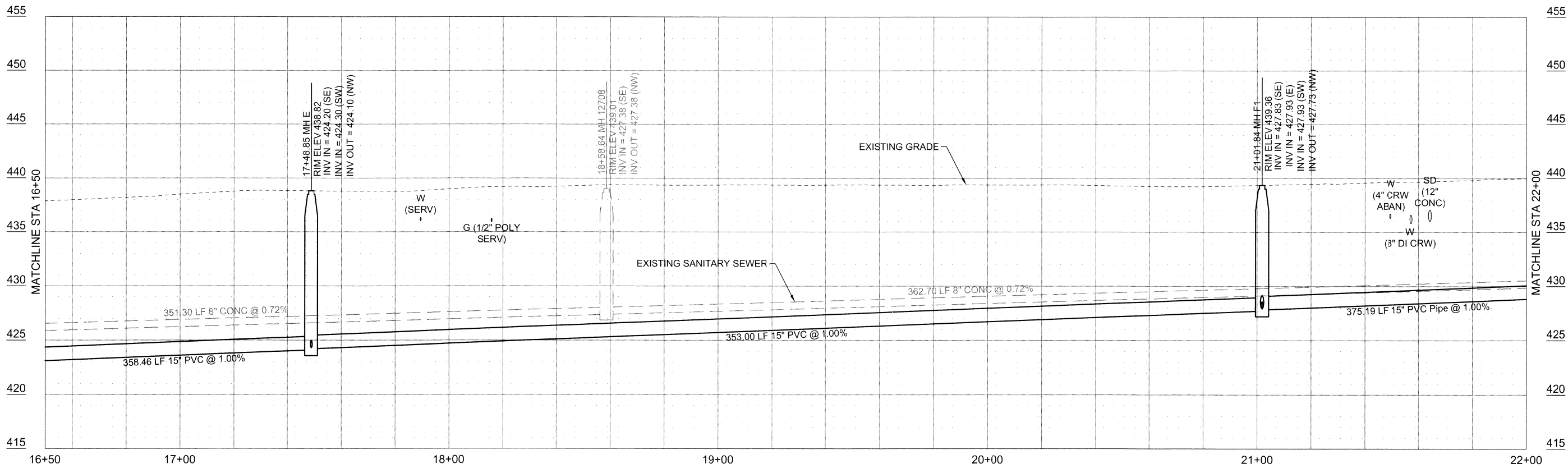
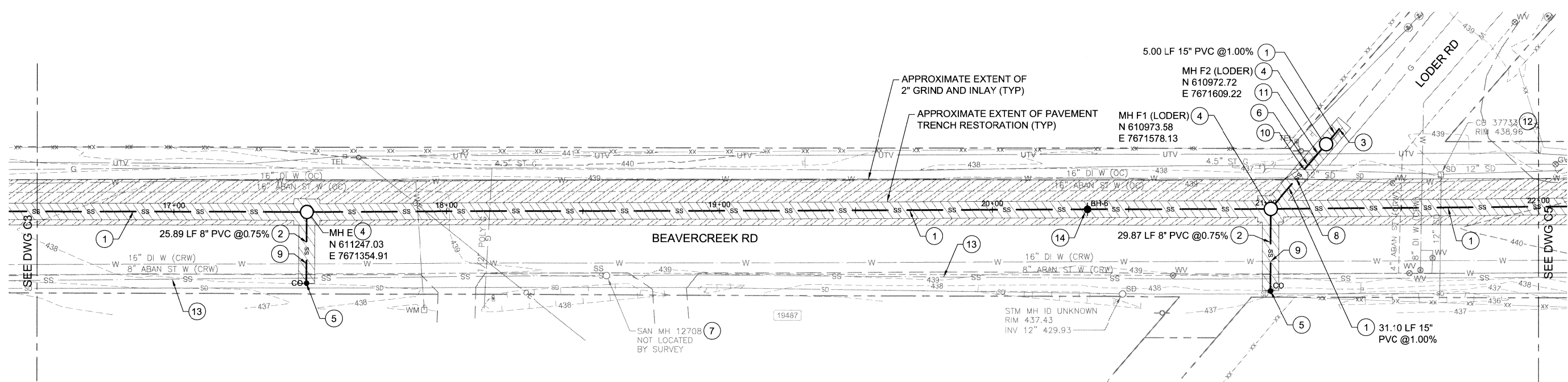
CITY OF OREGON CITY
BEAVERCREEK ROAD
SANITARY SEWER IMPROVEMENTS
PLAN AND PROFILE
SANITARY SEWER
BEAVERCREEK ROAD

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Checked By: GAM

C3

Bar Measures 1 inch

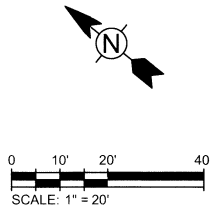
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PROFILE SEWER
SCALE: HORIZ: 1" = 20' VERT: 1" = 5'

NOTES:

1. INSTALL 15-INCH PVC SANITARY SEWER. TRENCH, BACKFILL, AND PAVEMENT RESTORATION PER COUNTY STD DWG U200/C9. TOTAL PAVEMENT THICKNESS TO BE 8 INCHES MINIMUM, INCLUDING 6 INCHES PERMANENT TRENCH RESURFACING AND 2 INCHES GRIND AND INLAY TO EDGE OF EXISTING LANE.
2. AFTER NEW SEWER IS CONNECTED AT DOWNSTREAM POINT, INSTALL 8-INCH PVC SANITARY SEWER LATERAL. TRENCH, BACKFILL, AND PAVEMENT RESTORATION PER COUNTY STD DWG U200/C9. CUT EXISTING SANITARY SEWER PIPE AT CROSSING POINT AND PLUG WITH CONCRETE.
3. PROVIDE 12-INCH PVC SANITARY SEWER STUB, ENDING WITH PLUG AND RUBBER GASKET.
4. INSTALL 48-INCH MANHOLE PER CITY STD DWG 401/C8.
5. INSTALL CLEAN OUT PER CITY STD DWG 3C9/C8. VERIFY CLEAN OUT LOCATIONS WITH CITY PROJECT MANAGER.
6. PROTECT EXISTING 4 1/2-INCH STEEL GAS LINE. APPROXIMATE COVER DEPTH 36 INCHES.
7. PROTECT EXISTING WATER SERVICE.
8. PROTECT EXISTING OREGON CITY 16-INCH DI WATER MAIN. APPROXIMATE COVER DEPTH 36 INCHES. SUPPORT PIPE AS REQUIRED.
9. PROTECT EXISTING CLACKAMAS RIVER WATER (CRW) 16-INCH DI WATER MAIN. APPROXIMATE COVER DEPTH 48 INCHES. SUPPORT PIPE AS REQUIRED.
10. PROTECT EXISTING 12-INCH CONC STORM DRAIN PIPE. APPROXIMATE COVER DEPTH 30 INCHES.
11. PROTECT EXISTING TELECOM LINE. APPROXIMATE COVER DEPTH 24 INCHES.
12. INSTALL INLET PROTECTION PER DETAIL 1/C10.
13. FILL EXISTING SANITARY SEWER WITH SAND AND ABANDON IN PLACE.
14. APPROXIMATE BOREHOLE LOCATION (BH-6). EXPLORATION ENCOUNTERED 12-13 INCHES OF AC PAVEMENT, 7 INCHES OF CONCRETE PAVEMENT, AND BOULDERS BETWEEN 11 AND 15 FEET.



TETRA TECH



EXPIRES: 7/26/2018

MARK DATE DESCRIPTION

CITY OF OREGON CITY
BEAVERCREEK ROAD
SANITARY SEWER IMPROVEMENTS
PLAN AND PROFILE
SANITARY SEWER
BEAVERCREEK ROAD

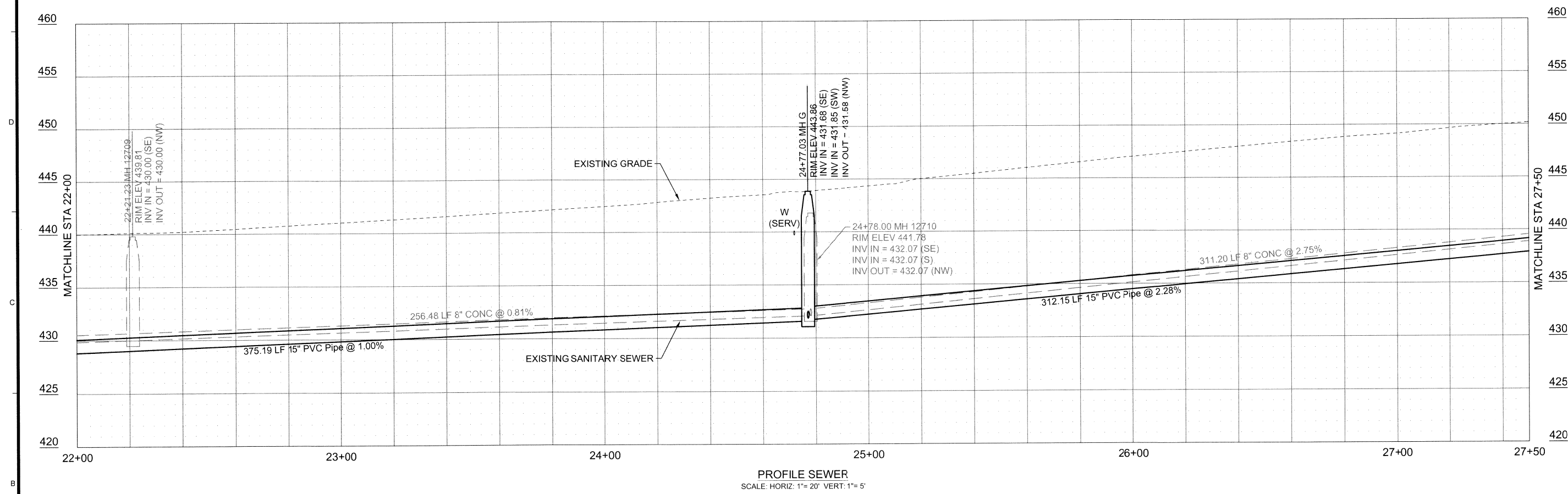
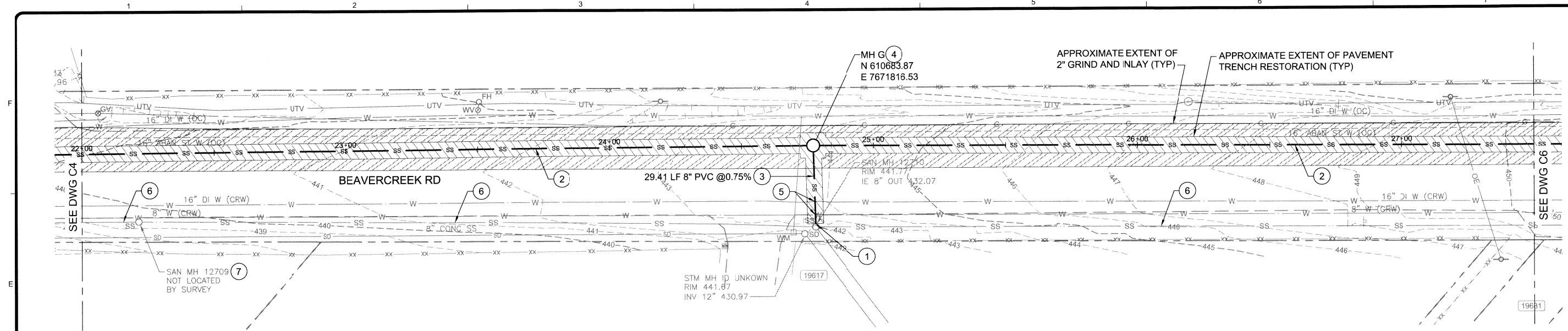
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Drawn By: HBD
Checked By: GAM

C4

Bar Measures 1 inch

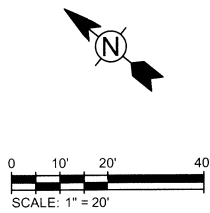
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NOTES:

- CORE NEW HOLE IN EXISTING MANHOLE AND CONNECT 8-INCH PVC SANITARY SEWER PER DETAIL 1/C7. AFTER NEW SEWER IS CONNECTED AT DOWNSTREAM POINT, PLUG EXISTING SEWER WITH CONCRETE TO NORTHWEST AND SOUTHEAST.
- INSTALL 15-INCH PVC SANITARY SEWER, TRENCH, BACKFILL, AND PAVEMENT RESTORATION PER COUNTY STD DWG U200/C9. TOTAL PAVEMENT THICKNESS TO BE 8 INCHES MINIMUM, INCLUDING 6 INCHES PERMANENT TRENCH RESURFACING AND 2 INCHES GRIND AND INLAY TO EDGE OF EXISTING LANE.
- AFTER NEW SEWER IS CONNECTED AT DOWNSTREAM POINT, INSTALL 8-INCH PVC SANITARY SEWER LATERAL. WITHIN PAVED AREA, TRENCH, BACKFILL, AND PAVEMENT RESTORATION PER COUNTY STD DWG U200/C9. OUTSIDE PAVED AREA, BACKFILL WITH CLASS A BACKFILL COMPACTED TO 85% MAXIMUM RELATIVE DENSITY.
- INSTALL 48-INCH MANHOLE PER CITY STD DWG 401/C8.
- PROTECT EXISTING CLACKAMAS RIVER WATER (CRW) 16-INCH DI WATER MAIN. APPROXIMATE COVER DEPTH 36 INCHES. SUPPORT PIPE AS REQUIRED.
- FILL EXISTING SANITARY SEWER WITH SAND AND ABANDON IN PLACE.
- REMOVE MANHOLE CONE, PLUG PIPE OPENINGS WITH CONCRETE, AND FILL PER DETAIL 2/C7.



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CITY OF OREGON CITY
BEAVERCREEK ROAD
SANITARY SEWER IMPROVEMENTS
PLAN AND PROFILE
SANITARY SEWER
BEAVERCREEK ROAD

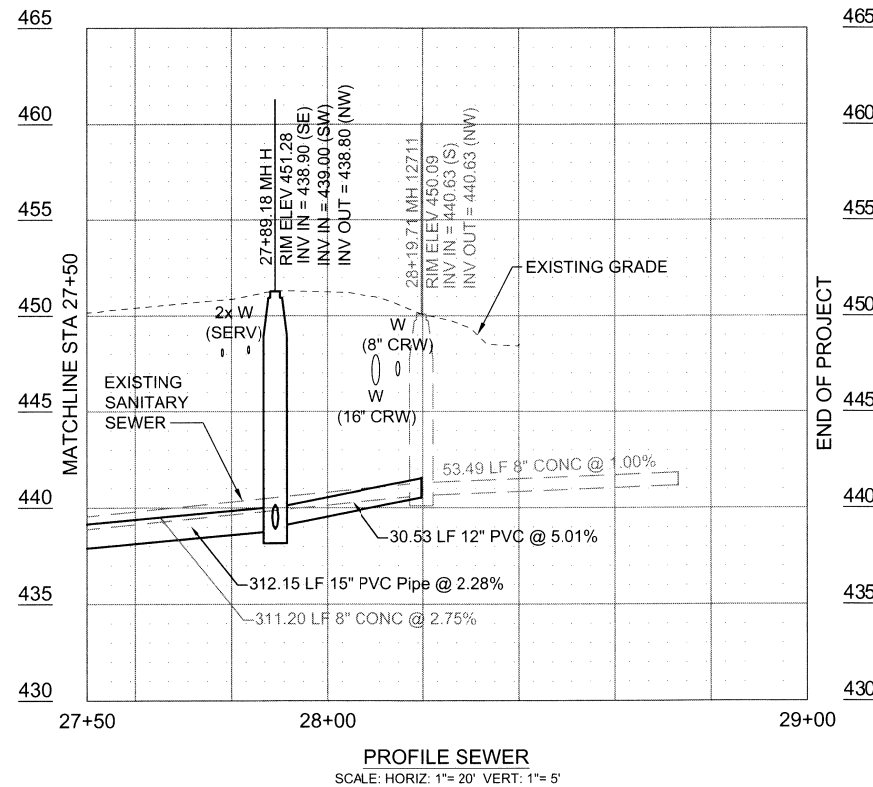
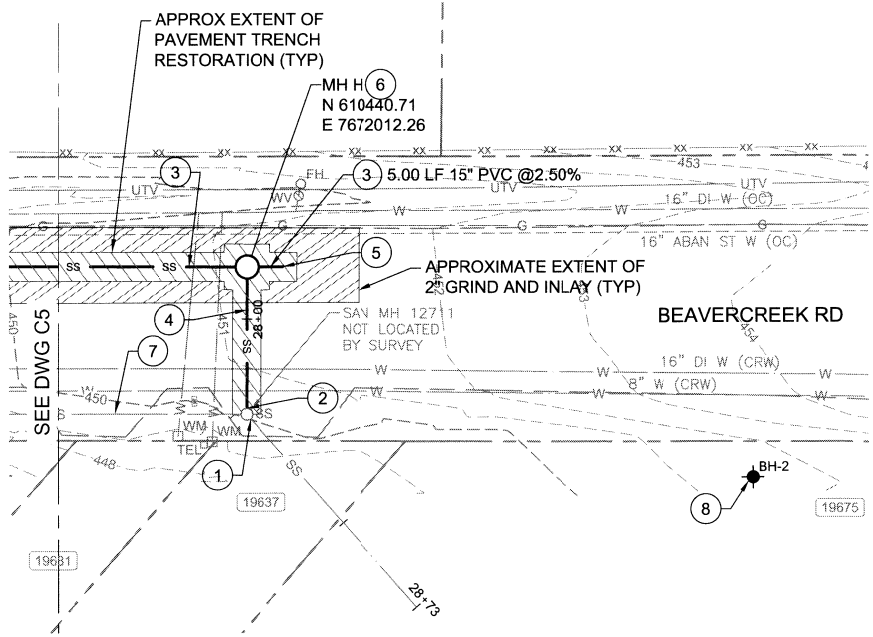
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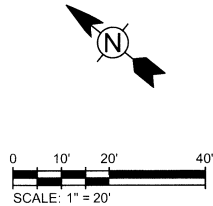
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F
E
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NOTES:

- 1 FIELD VERIFY LOCATION OF EXISTING SANITARY MANHOLE. COORDINATE WITH ENGINEER TO ADJUST MH H LOCATION AND INVERT ELEVATION TO MATCH.
- 2 CORE NEW HOLE IN EXISTING MANHOLE AND CONNECT 8-INCH PVC SANITARY SEWER PER DETAIL 1/C7. AFTER NEW SEWER IS CONNECTED AT DOWNSTREAM POINT, PLUG EXISTING SEWER WITH CONCRETE TO NORTHWEST.
- 3 INSTALL 15-INCH PVC SANITARY SEWER, TRENCH, BACKFILL, AND PAVEMENT RESTORATION PER COUNTY STD DWG U200/C9. TOTAL PAVEMENT THICKNESS TO BE 8 INCHES MINIMUM, INCLUDING 6 INCHES PERMANENT TRENCH RESURFACING AND 2 INCHES GRIND AND INLAY TO EDGE OF EXISTING LANE.
- 4 INSTALL 12-INCH PVC SANITARY SEWER, TRENCH, BACKFILL, AND PAVEMENT RESTORATION PER COUNTY STD DWG U200/C9. TOTAL PAVEMENT THICKNESS TO BE 8 INCHES MINIMUM, INCLUDING 6 INCHES PERMANENT TRENCH RESURFACING AND 2 INCHES GRIND AND INLAY TO EDGE OF EXISTING LANE.
- 5 PROVIDE 12-INCH PVC SANITARY SEWER STUB, ENDING WITH PLUG AND RUBBER GASKET.
- 6 INSTALL 48-INCH MANHOLE PER CITY STD DWG 401/C8.
- 7 FILL EXISTING SANITARY SEWER WITH SAND AND ABANDON IN PLACE.
- 8 APPROXIMATE BOREHOLE LOCATION (BH-2).



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REGISTERED PROFESSIONAL ENGINEER

OREGON

JUL 26 1988

GORDON A. MUNRO

EXPIRES: 2011

CITY OF OREGON CITY

BEAVERCREEK ROAD

SANITARY SEWER IMPROVEMENTS

PLAN AND PROFILE

SANITARY SEWER

BEAVERCREEK ROAD

Project No.: 135-15285-16001

Designed By: HBD

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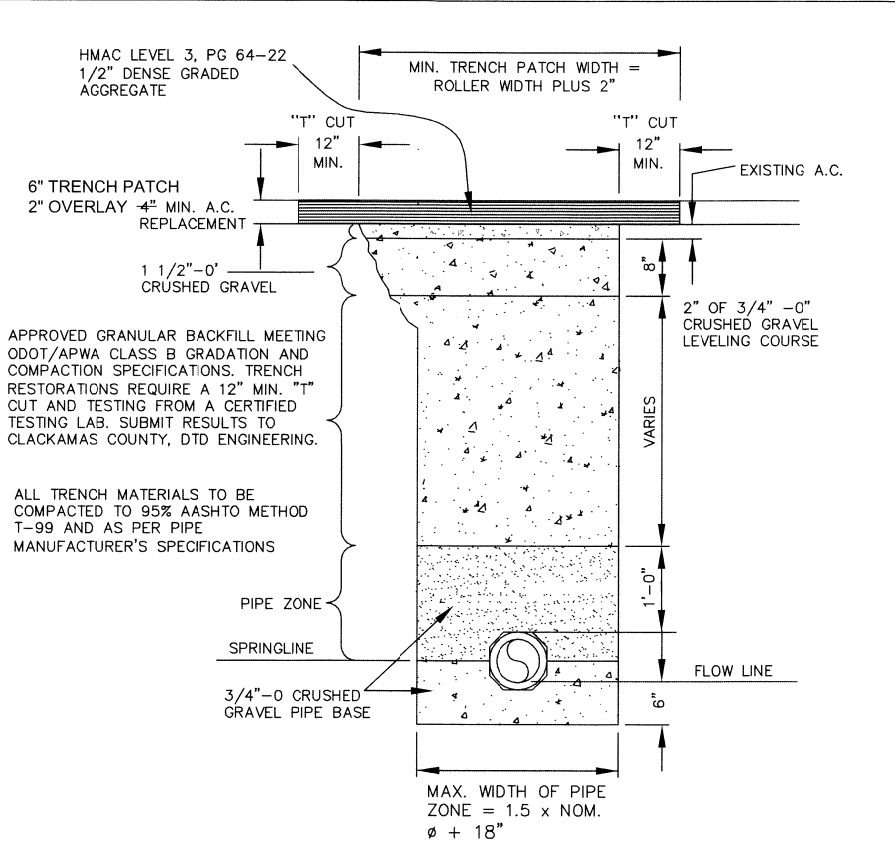
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NOTES

1. THE EXISTING A.C. SHALL BE SAWCUT THROUGH ENTIRE A.C. SECTION PRIOR TO EXCAVATION.
2. BACKFILL IN PIPE ZONE SHALL BE PLACED IN MAXIMUM 6" LIFTS AND COMPACTED.
3. TRENCH BACKFILL SHALL BE PLACED IN MAXIMUM 12" LIFTS TO 95% DENSITY.
4. THE USE OF CONTROL DENSITY FILL SHALL BE DETERMINED BY CLACKAMAS COUNTY, REFER TO STANDARD DRAWING U-250.
5. SAWCUT EDGES TO BE TACKED WITH HOT LIQUID ASPHALT.
6. WORK RESULTING IN IRREGULAR TRENCH WIDTHS OR INCIDENTAL DAMAGE TO THE ROADWAY SURFACE WILL REQUIRE ANOTHER SAWCUT AND SUBSEQUENT REMOVAL OF A.C. THE SAWCUT LINE SHALL BE APPROVED BY CLACKAMAS COUNTY PRIOR TO THE PERMANENT A.C. REPAIR.
7. RESTORE A.C. SECTION WITH ~~4"~~ 2" OF 1/2" DENSE GRADED AGGREGATE MIX OR AN EQUAL THICKNESS OF THAT REMOVED WHICHEVER IS GREATER; PLACE A.C. IN MAXIMUM 2" LIFTS.
8. A.C. JOINTS/SEAMS SHALL BE SEALED WITH HOT LIQUID ASPHALT, OR APPROVED EQUAL, AND SANDED.
9. CLACKAMAS COUNTY SHALL BE NOTIFIED FOR INSPECTION.

* TOTAL PAVEMENT THICKNESS TO BE 8 INCHES MINIMUM, INCLUDING 6 INCHES PERMANENT TRENCH TRENCH RESURFACING AND 2 INCHES GRIND AND INLAY TO EDGE OF EXISTING LANE.

REVISION	DATE	BY	DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT	APPROVAL DATE: 1/1/10	SCALE: N.T.S.	STANDARD DRAWING
			150 BEAVERCREEK ROAD OREGON CITY, OR 97045			U200



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ENGINEER
OREGON
JUL 26, 1988
GORDON A. MUNRO
EXPIRES: 12/31/18

CITY OF OREGON CITY
BEAVERCREEK ROAD
SANITARY SEWER IMPROVEMENTS
COUNTY DETAILS

Project No.: 135-15285-16001
Designed By: HBD
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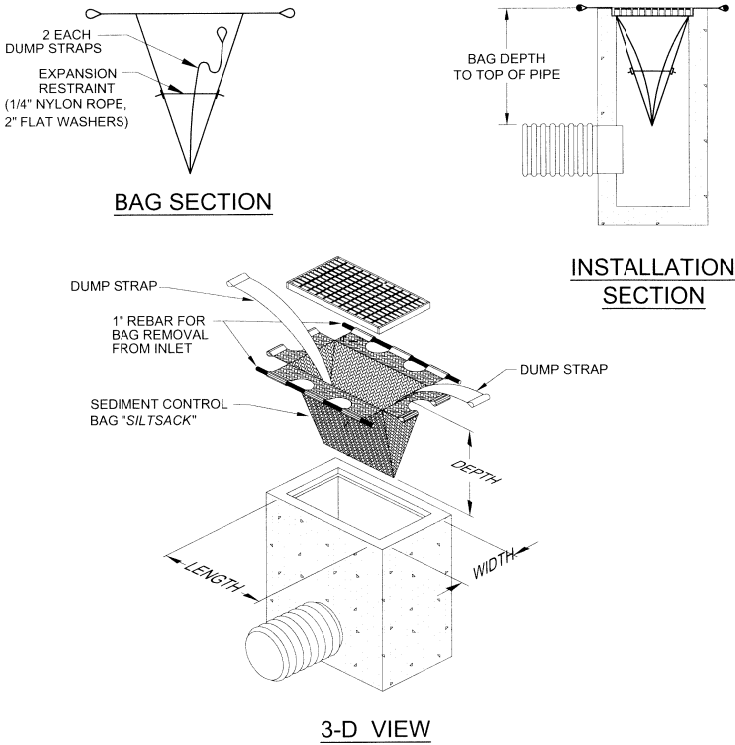
7/18/2017 10:20:40 AM - P:\15285\135-15285-16001\CAD\SHEETFILES\C10 - EROSION CONTROL NOTES AND DETAILS.DWG - GADDINGUYEN, NEAMH

EROSION CONTROL NOTES

1.
- ALL EROSION POLLUTION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO ANY DISTURBANCE CAUSED BY CLEARING OR GRADING AND SHALL CONFORM TO THE REQUIREMENTS OF THE CITY OF OREGON CITY PUBLIC WORKS STORMWATER AND GRADING DESIGN STANDARDS, APWA/ODOT STANDARD SPECIFICATIONS SECTION 00280, AND THE STANDARD DETAILS CONTAINED WITHIN THIS SET OF PLANS. NEWLY CONSTRUCTED OR MODIFIED INLETS AND CATCH BASINS ARE TO BE PROTECTED IMMEDIATELY UPON INSTALLATION. ALL EXPOSED AND UNWORKED SOILS SHALL BE STABILIZED BY THE APPROPRIATE BMP.
2.
- WHEN RAINFALL AND RUNOFF OCCURS DAILY INSPECTIONS OF THE EROSION AND SEDIMENT CONTROLS AND DISCHARGE OUTFALLS MUST BE PROVIDED BY SOME ONE KNOWLEDGEABLE AND EXPERIENCED IN THE PRINCIPLES, PRACTICES, INSTALLATION, AND MAINTENANCE OF EROSION AND SEDIMENT CONTROLS WHO WORKS FOR THE PERMITTEE.
3.
- CONSTRUCTION ACTIVITIES MUST AVOID OR MINIMIZE EXCAVATION AND CREATION OF BARE GROUND FROM OCTOEER 1 THROUGH MAY 31 EACH YEAR.
4.
- DURING WET WEATHER PERIOD, TEMPORARY STABILIZATION OF THE SITE MUST OCCUR AT THE END OF EACH WORK DAY.
5.
- SEDIMENT CONTROLS MUST BE INSTALLED AND MAINTAINED ON ALL DOWN GRADIENT SIDES OF THE CONSTRUCTION SITE AT ALL TIMES DURING CONSTRUCTION. THEY MUST REMAIN IN PLACE UNTIL PERMANENT VEGETATION OR OTHER PERMANENT COVERING OF EXPOSED SOIL IS ESTABLISHED.
6.
- ALL ACTIVE INLETS MUST HAVE SEDIMENT CONTROLS INSTALLED AND MAINTAINED AT ALL TIMES DURING CONSTRUCTION. UNLESS OTHERWISE APPROVED, A SURFACE MOUNTED AND ATTACHABLE, U-SHAPED FILTER BAG IS REQUIRED FOR ALL CURB INLET CATCH BASINS.
7.
- SIGNIFICANT AMOUNTS OF SEDIMENT WHICH LEAVES THE SITE MUST BE CLEANED UP WITHIN 24 HOURS AND PLACED BACK ON THE SITE AND STABILIZED OR PROPERLY DISPOSED. THE CAUSE OF THE SEDIMENT RELEASE MUST BE FOUND AND PREVENTED FROM CAUSING A RECURRENCE OF THE DISCHARGE WITHIN THE SAME 24 HOURS. ANY IN-STREAM CLEAN UP OF SEDIMENT SHALL BE PERFORMED ACCORDING TO THE OREGON DEPARTMENT OF STATE LANDS REQUIRED TIME FRAME.
8.
- SEDIMENT MUST NOT BE INTENTIONALLY WASHED INTO STORM SEWERS, DRAINAGE WAYS, OR WATER BODIES.
9.
- SEDIMENT MUST BE REMOVED FROM BEHIND ALL SEDIMENT CONTROL MEASURES WHEN IT HAS REACHED A HEIGHT OF 1/3RD THE BARRIER HEIGHT, AND PRIOR TO THE CONTROL MEASURES REMOVAL.
10.
- CLEANING OF ALL STRUCTURES WITH SUMPS MJST OCCUR WHEN THE SEDIMENT RETENTION CAPACITY HAS BEEN REDUCED BY 50% AND AT COMPLETION OF PROJECT.
11.
- ANY USE OF TOXIC OR OTHER HAZARDOUS MATERIALS MUST INCLUDE PROPER STORAGE, APPLICATION, AND DISPOSAL.
12.
- THE PERMITTEE MUST PROPERLY MANAGE HAZARDOUS WASTES, USED OILS, CONTAMINATED SOILS, CONCRETE WASTE, SANITARY WASTE, LIQUID WASTE, OR OTHER TOXIC SUBSTANCES DISCOVERED OR GENERATED DURING CONSTRUCTION.
13.
- THE APPLICATION RATE OF FERTILIZERS USED TO REESTABLISH VEGETATION MUST FOLLOW MANUFACTURER'S RECOMMENDATIONS. NUTRIENT RELEASES FRCM FERTILIZERS TO SURFACE WATERS MUST BE MINIMIZED. TIME RELEASE FERTILIZERS SHOULD BE USED AND CARE SHOULD BE MADE IN APPLICATION OF FERTILIZERS WITHIN ANY WATER WAY RIPARIAN ZONE.
14.
- OWNER OR DESIGNATED PERSON SHALL BE RESPONSIBLE FOR PROPER INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL MEASURES, IN ACCORDANCE WITH CURRENT CLEAN WATER SERVICES STANDARDS AND STATE, AND FEDERAL REGULATIONS.
15.
- PRIOR TO ANY LAND DISTURBING ACTIVITIES, THE BOUNDARIES OF THE CLEARING LIMITS, VEGETATED BUFFERS, AND ANY SENSITIVE AREAS SHOWN ON THIS PLAN SHALL BE CLEARLY DELINEATED IN THE FIELD. UNLESS OTHERWISE APPROVED, NO DISTURBANCE IS PERMITTED BEYOND THE CLEARING LIMITS. THE OWNER/PERMITTEE MUST MAINTAIN THE DELINEATION FOR THE DURATION OF THE PROJECT.
NOTE: VEGETATED CORRIDORS TO BE DELINEATED WITH ORANGE CONSTRUCTION FENCE OR APPROVED EQUAL.

EROSION CONTROL NOTES, CONT.

16.
- PRIOR TO ANY LAND DISTURBING ACTIVITIES, THE BMPS THAT MUST BE INSTALLED ARE GRAVEL CONSTRUCTION ENTRANCE, PERIMETER SEDIMENT CONTROL, AND INLET PROTECTION. THESE BMPS MUST BE MAINTAINED FOR THE DURATION OF THE PROJECT.
17.
- IF VEGETATIVE SEED MIXES ARE SPECIFIED, SEEDING MUST TAKE PLACE NO LATER THAN SEPTEMBER 1ST; THE TYPE AND PERCENTAGES OF SEED IN THE MIX ARE AS IDENTIFIED ON THE PLANS OR AS SPECIFIED BY THE DESIGN ENGINEER.
18.
- WATER-TIGHT TRUCKS MUST BE USED TO TRANSPORT SATURATED SOILS FROM THE CONSTRUCTION SITE. AN APPROVED EQUIVALENT IS TO DRAIN THE SOIL ON SITE AT A DESIGNATED LOCATION USING APPROPRIATE BMPS; SOIL MUST BE DRAINED SUFFICIENTLY FOR MINIMAL SPILLAGE.
19.
- ALL PUMPING OF SEDIMENT LADEN WATER MUST BE DISCHARGED OVER AN UNDISTURBED, PREFERABLY VEGETATED AREA, AND THROUGH A SEDIMENT CONTROL 3MP (I.E. FILTER BAG).
20.
- THE ESC PLAN MUST BE KEPT ONSITE. ALL MEASURES SHOWN ON THE PLAN MUST BE INSTALLED PROPERLY TO ENSURE THAT SEDIMENT LADEN WATER DOES NOT ENTER A SURFACE WATER SYSTEM, ROADWAY, OR OTHER PROPERTIES.
21.
- THE ESC MEASURES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE MEASURES SHALL BE UPGRADED AS NEEDED TO MAINTAIN COMPLIANCE WITH ALL REGULATIONS.
22.
- WRITTEN ESC LOGS ARE SUGGESTED TO BE MAINTAINED ONSITE AND AVAILABLE TO DISTRICT INSPECTORS UPON REQUEST.
23.
- IN AREAS SUBJECT TO WIND EROSION, APPROPRIATE BMPS MUST BE USED WHICH MAY INCLUDE THE APPLICATION OF FINE WATER SPRAYING, PLASTIC SHEETING, MULCHING, OR OTHER APPROVED MEASURES.
24.
- ALL EXPOSED SOILS MUST BE COVERED DURING WET WEATHER PERIOD.



NOTE:

1.
- THE DIMENSION CHART ABOVE IS FOR STANDARD CATCH BASINS AND INLETS ONLY. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE CORRECT SIZE DEVICE FOR EACH INLET.
2.
- FOR NON-STANDARD CATCH BASINS AND INLETS, THE CONTRACTOR SHALL MEASURE DIMENSIONS IN THE FIELD AND ORDER THE APPROPRIATE SIZE(S).
3.
- THE INLET SEDIMENT CONTROL DEVICE SHALL BE OF HIGH FLOW DESIGN (200 GAL / MIN / FT), AS PER THE MANUFACTURER'S SPECIFICATIONS.
4.
- THE SEDIMENT CONTROL DEVICE SHALL BE INSPECTED DAILY BY THE CONTRACTOR AND MAINTAINED A MINIMUM ONCE PER MONTH OR WITHIN THE 48 HOURS FOLLOWING A STORM EVENT.
5.
- SUBSTITUTION OF A SHEET OF FILTER FABRIC PLACED OVER THE OPENING OF THE INLET IS NOT APPROVED.
6.
- REMOVE SEDIMENT CONTROL BAGS AND CLEAN OUT CATCH BASINS AFTER CONSTRUCTION IS COMPLETE.



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OREGON
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