

CITY OF CORNELIUS

PHASE 4 WATERLINE PROJECT

DESIGN & SURVEY

CIVIL:
CITY OF CORNELIUS
PUBLIC WORKS DEPT.
1300 S. KODIAK CIRCLE
CORNELIUS, OREGON 97113
CONTACT: TERRY GODWIN, PROJECT MANAGER
(503) 357-3011
terry.godwin@corneliusor.gov

CITY ENGINEER:
TERRY KEYES, P.E.
(503) 357-3011
terry.keyes@corneliusor.gov

EROSION CONTROL INSPECTOR:
TERRY GODWIN
(503) 357-3011
terry.godwin@corneliusor.gov

SURVEYOR:
AKS ENGINEERING & FORESTRY, LLC
13910 SW GALBREATH DRIVE, SUITE 100
SHERWOOD, OREGON 97140
CONTACT: NICK WHITE
(503) 925-8799
nick@aks-eng.com

UTILITIES

NATURAL GAS:
NORTHWEST NATURAL GAS
220 NW 2ND AVENUE
PORTLAND, OREGON 97209
CONTACT: MARK SHAFFER
(503) 226-4211 X6938

WATER, SANITARY & STORM:
CITY OF CORNELIUS
1355 N. BARLOW ST.
CORNELIUS, OREGON 97113
CONTACT: RYAN HOWELL
(503) 357-3011

72 INCH WATERLINE:
CITY OF HILLSBORO
150 E. MAIN ST.
HILLSBORO, OREGON 97123
CONTACT: ERIC HIELEMA, PE
(503) 615-6708 (OFFICE)
(360) 402-8421 (CELL)
eric.hielema@hillsboro-oregon.gov

ELECTRIC:
PORTLAND GENERAL ELECTRIC
4950 NW 235TH AVENUE
HILLSBORO, OREGON 97124
CONTACT: BRIAN MOORE
(503) 672-5474 WORK

COMMUNICATIONS:
COMCAST
14200 SW BRIGADOON COURT
BEAVERTON, OREGON 97005
CONTACT: MARGARET PORTER
(503) 605-4833 WORK
(503) 519-8500 X3582 MOBILE

COMMUNICATIONS:
ZIPLY FIBER
20575 NW VON NEUMANN DR. #150
BEAVERTON, OREGON 97005
CONTACT: HAROLD VANCE
(503) 643-4874 WORK

CABLE: (UNDERGROUND CONDUIT IN 10TH AVE.)
COASTCOM
151 EAST OLIVE ST.
NEWPORT, OREGON 97365
CONTACT: PETE KALNINS
(541) 574-4220 WORK
(541) 351-0157 MOBILE

TWIN FORCE MAINS:
CLEAN WATER SERVICES (CWS)
WATER RESOURCE RECOVERY OPERATIONS & SERVICE DEPT.
3235 SE RIVER RD.
HILLSBORO, OREGON 97123
CONTACT: JEFF HART
(503) 913-9490 WORK

SHEET INDEX

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|-----------|----------------------------------------------------------------------|
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| 2. | EROSION CONTROL AND STORM NOTES AND DETAILS |
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| 4. | S. ALPINE STREET, 8TH TO 10TH AVE. AND STORM LINE PLAN & PROFILE |
| 5. | S. ALPINE STREET, 10TH TO 12TH AVE. PLAN & PROFILE |
| 6. | S. 12TH AVENUE, ALPINE TO CHERRY ST. PLAN & PROFILE |
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GENERAL NOTES

- ALL WORK SHALL CONFORM TO OREGON STANDARD SPECIFICATIONS FOR CONSTRUCTION, 2018 EDITION, AND THE REQUIREMENTS OF THE CITY OF CORNELIUS.
- THE WORKING DRAWINGS ARE GENERALLY DIAGRAMMATIC. THEY DO NOT SHOW EVERY OFFSET, BEND OR ELBOW REQUIRED FOR INSTALLATION IN THE SPACE PROVIDED. THEY DO NOT SHOW EVERY DIMENSION, COMPONENT PIECE, SECTION, JOINT OR FITTING REQUIRED TO COMPLETE THE PROJECT. ALL LOCATIONS FOR WORK SHALL BE CHECKED AND COORDINATED WITH EXISTING CONDITIONS IN THE FIELD BEFORE BEGINNING CONSTRUCTION. COORDINATED UNDERGROUND UTILITIES LAYING WITHIN THE LIMITS OF EXCAVATION SHALL BE VERIFIED AS TO CONDITION, SIZE AND LOCATION BY UNCOVERING, PROVIDING SUCH IS PERMITTED BY LOCAL PUBLIC AUTHORITIES WITH JURISDICTION, BEFORE BEGINNING CONSTRUCTION. CONTRACTOR TO NOTIFY ENGINEER IF THERE ARE ANY DISCREPANCIES.
- EFFECTIVE EROSION CONTROL IS REQUIRED. EROSION CONTROL DEVICES MUST BE INSTALLED AND MAINTAINED TO MEET CWS REQUIREMENTS. THE GOVERNING JURISDICTION MAY, AT ANY TIME, ORDER CORRECTIVE ACTION AND STOPPAGE OF WORK TO ACCOMPLISH EFFECTIVE EROSION CONTROL.
- EFFECTIVE DRAINAGE CONTROL IS REQUIRED. DRAINAGE SHALL BE CONTROLLED WITHIN THE WORK SITE AND SHALL BE ROUTED SO THAT ADJACENT PRIVATE PROPERTY, PUBLIC PROPERTY, AND THE RECEIVING SYSTEM ARE NOT ADVERSELY IMPACTED. THE GOVERNING JURISDICTION MAY, AT ANY TIME, ORDER CORRECTIVE ACTION AND STOPPAGE OF WORK TO ACCOMPLISH EFFECTIVE DRAINAGE CONTROL.
- CONTRACTOR SHALL ADJUST ALL STRUCTURES AND/OR APPURTENANCES IMPACTED BY CONSTRUCTION IMPROVEMENTS TO NEW FINISH GRADES.
- EXCAVATION: EXCAVATE FOR SLABS, PAVING, AND OTHER IMPROVEMENTS TO SIZES AND LEVELS SHOWN OR REQUIRED. ALLOW FOR FORM CLEARANCE AND FOR PROPER COMPACTION OF REQUIRED BACKFILLING MATERIAL. EXCAVATOR(S) MUST COMPLY WITH O.R.S. 757.541 THROUGH 757.571; EXCAVATOR(S) SHALL NOTIFY ALL UTILITY COMPANIES FOR ALL LINE LOCATIONS SEVENTY-TWO (72) HOURS (MINIMUM) PRIOR TO START OF WORK. DAMAGE TO UTILITIES SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE. (ONE CALL LOCATE UTILITY NOTIFICATION CENTER - PORTLAND METRO AREA 246-6699, OREGON 696-4848, ALL OTHER AREAS 1-800-332-2344).
- WHERE CONNECTING TO AN EXISTING PIPE, AND PRIOR TO ORDERING MATERIALS, THE CONTRACTOR SHALL EXPOSE THE END OF THE EXISTING PIPE AND VERIFY THE LOCATION, SIZE, AND ELEVATION. NOTIFY ENGINEER OF ANY DISCREPANCIES.
- REQUEST BY THE CONTRACTOR FOR CHANGES TO THE PLANS MUST BE APPROVED BY THE CITY ENGINEER.
- CONTRACTOR SHALL CHECK FOR CONFLICTS WITH EXISTING CROSSINGS OF SANITARY, GAS, WATER, TELECOMMUNICATIONS, ETC. WHEN INSTALLING WATERLINE.
- CONTRACTOR SHALL COORDINATE STAGING AREA FOR PROJECT WITH CITY OF CORNELIUS. WHILE ALL STAGING AREAS REQUIRE PRIOR APPROVAL OF CITY ENGINEER, STAGING WILL GENERALLY BE ALLOWED ON THE STREET PAVEMENT ALONG THE CONSTRUCTION ROUTE.
- CONTRACTOR SHALL KEEP (1) SET OF PLANS UP TO DATE NOTING ALL CHANGES AND UTILITIES ENCOUNTERED DIFFERENT THAN SHOWN ON PLANS. PLAN TO BE GIVEN TO CITY ENGINEER FOLLOWING CONSTRUCTION FOR PREPARATION OF RECORD DRAWINGS.
- USE OF CITY WATER BY THE CONTRACTOR REQUIRES A HYDRANT METER. HYDRANT METERS CAN BE OBTAINED FROM THE CORNELIUS DEPARTMENT OF PUBLIC WORKS.
- ALL LAWN AND OTHER LANDSCAPED AREAS, DISTURBED BY CONSTRUCTION, AND CONSTRUCTION RELATED ACTIVITIES, SHALL BE RESTORED BY THE CONTRACTOR BEFORE THE END OF THE PROJECT.
- EXCEPT AT THE END OF THE DAILY WORKING AREA, ALL TRENCH AREAS MUST BE PATCHED AT THE END OF THE WORKDAY. THE END OF THE TRENCH FOR A GIVEN DAY'S WORK CAN BE PLATED RATHER THAN PATCHED. TEMPORARY PATCHING MUST CONFORM TO SECTION 00495.40(B) IN THE STANDARDS SPECIFICATIONS.
- DAILY CLOSURE OF ONE OR TWO BLOCK STRETCHES OF STREET MAY BE ALLOWED DURING CONSTRUCTION. ALL CLOSURES REQUIRE THE APPROVAL OF THE CITY ENGINEER. ALSO, EVEN WHEN A STREET IS CLOSED, EMERGENCY ACCESS FOR RESIDENTS AND OTHERS SHALL BE PROVIDED BY THE CONTRACTOR.



SITE MAP

SCALE: 1" = 400'

SITE DESCRIPTION

LOCATION: NORTHWEST 1/4 OF SECTION 4, TOWNSHIP 1 SOUTH
RANGE 3 WEST, WILLAMETTE MERIDIAN

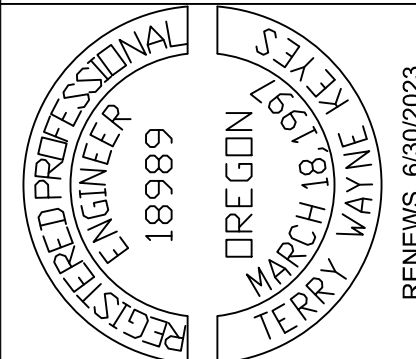
BENCHMARK DATA

A BRASS DISK, STAMPED FEB 1949 WCBM 175,
SET IN CONCRETE SIDEWALK AT THE SOUTHEAST
CORNER OF INTERSECTION OF SOUTH 11TH AVENUE
AND SOUTH ALPINE STREET, 1 BLOCK SOUTH OF
BASELINE STREET (EAST BOUND TUALATIN VALLEY HIGHWAY)
IN CORNELIUS.

REFERENCE: 11 FEET SOUTHEAST OF PGE POLE #761
CHECKED BY: WASHINGTON COUNTY SURVEY DEPARTMENT
JULY 19, 2001

ELEVATION: 176.34

City of Cornelius
Phase 4 Waterline Project
Cover Sheet

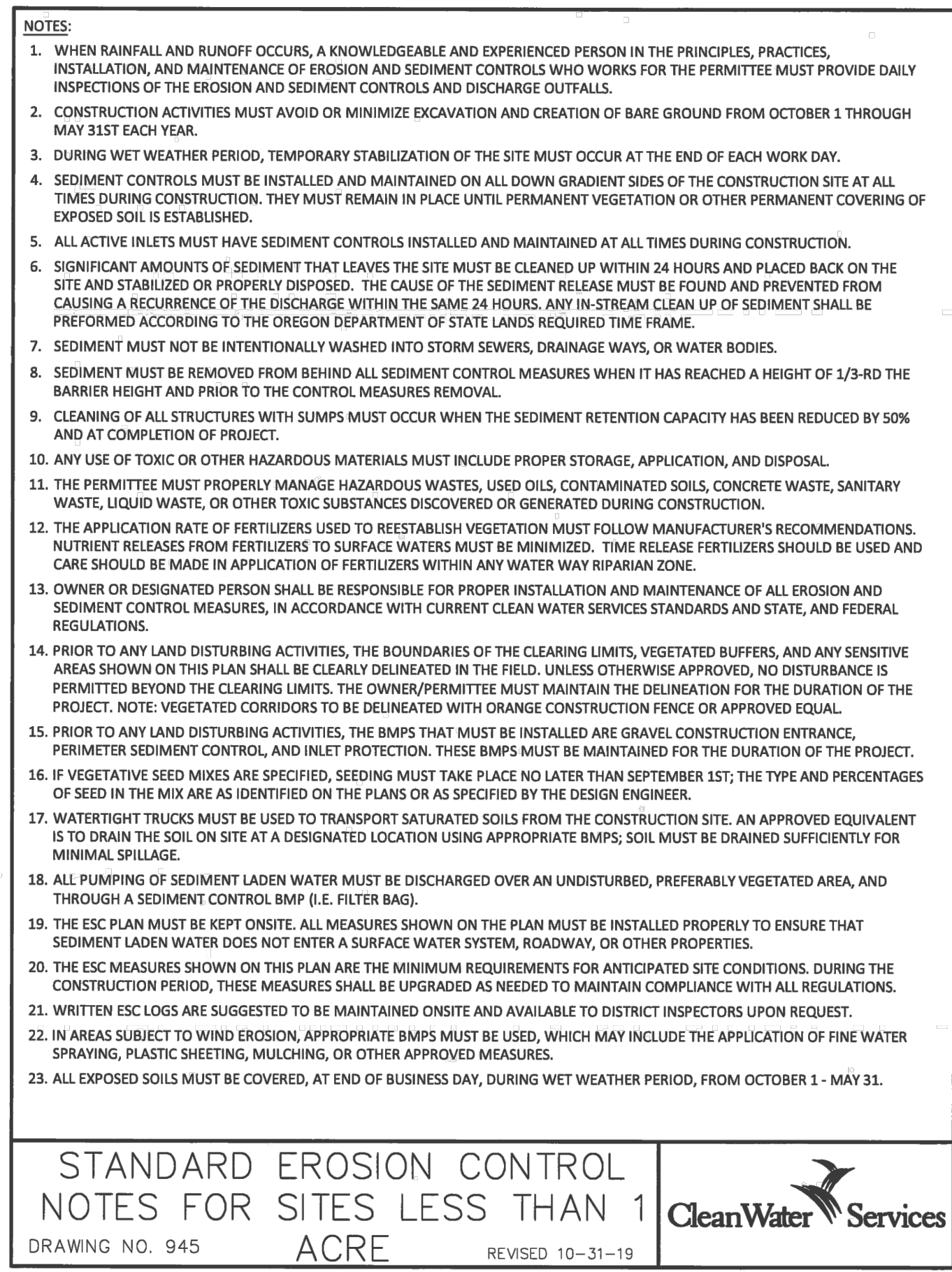
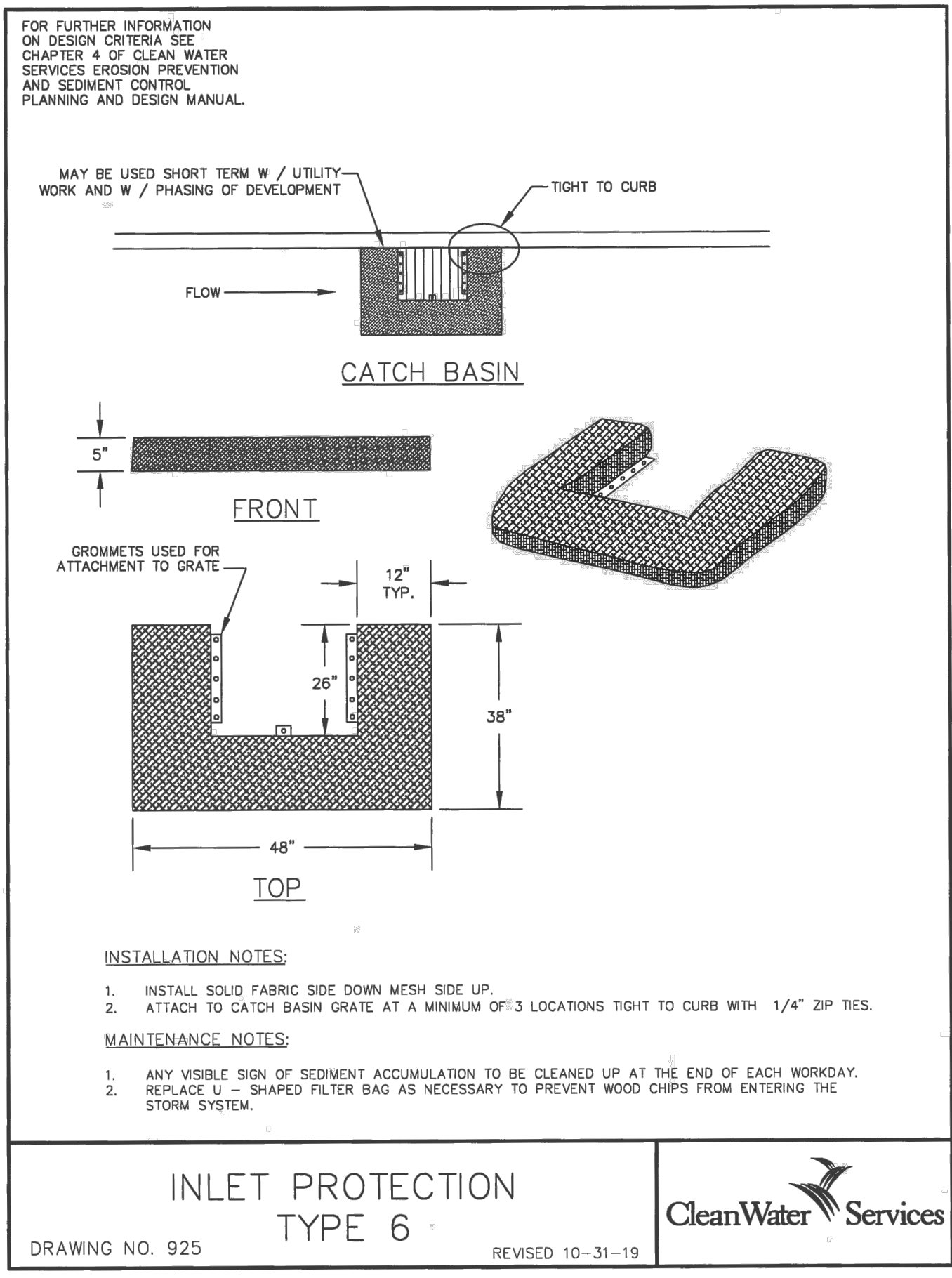
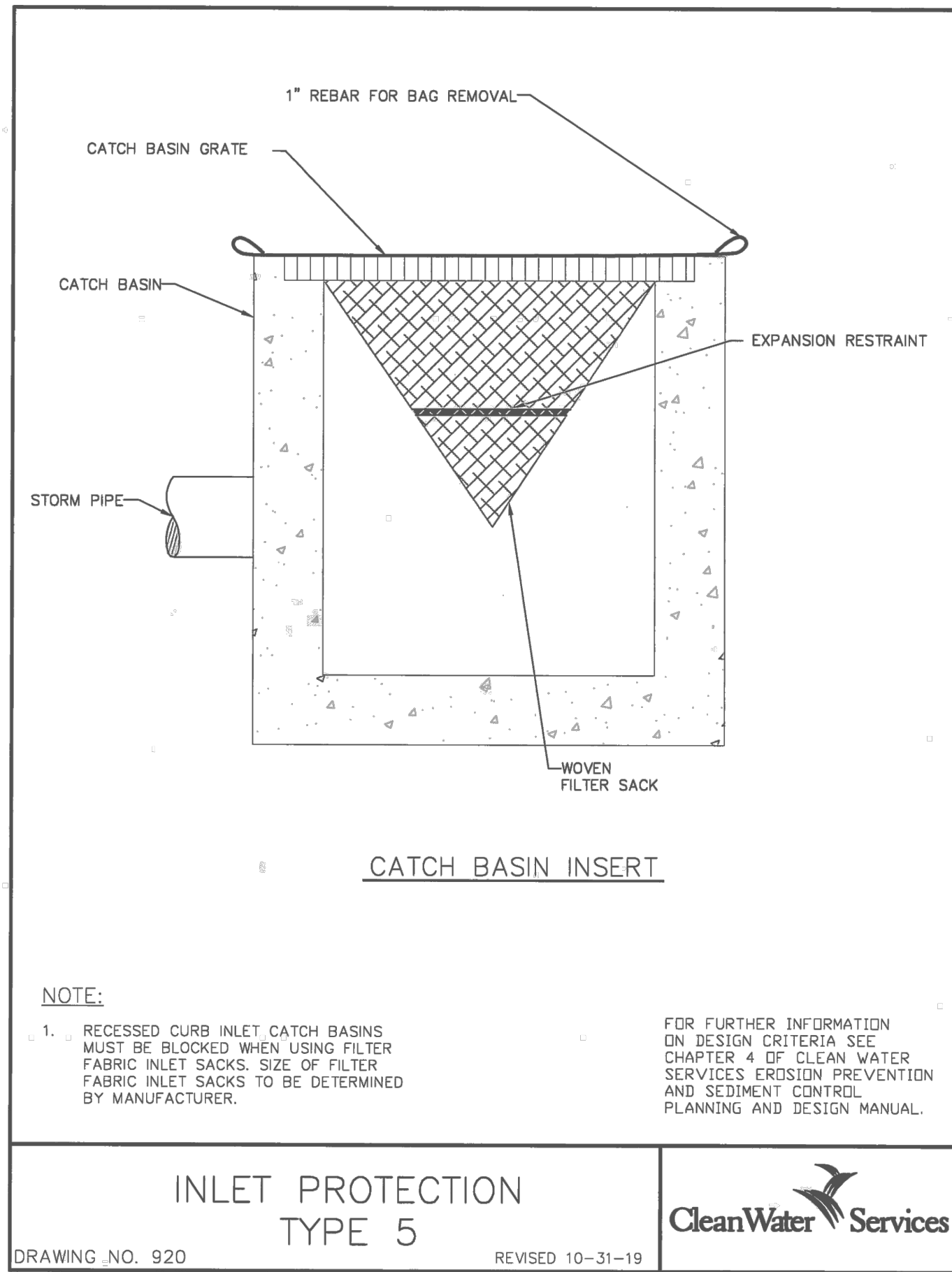


DESIGNED BY: TDG
DRAWN BY: TDG
CHECKED BY:
ISSUE DATE: 2-24-2022

Cornelius
Oregon's Family Town

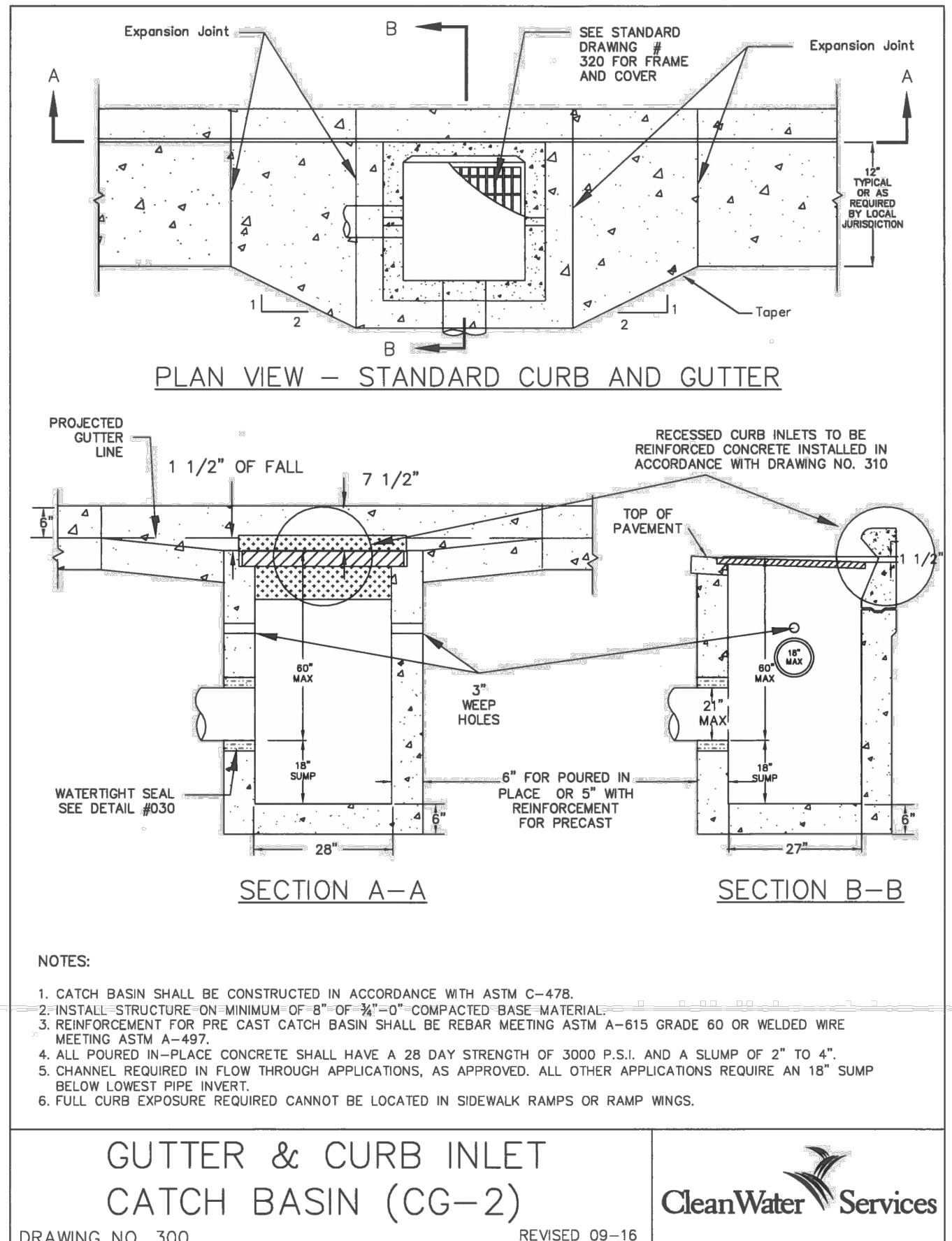
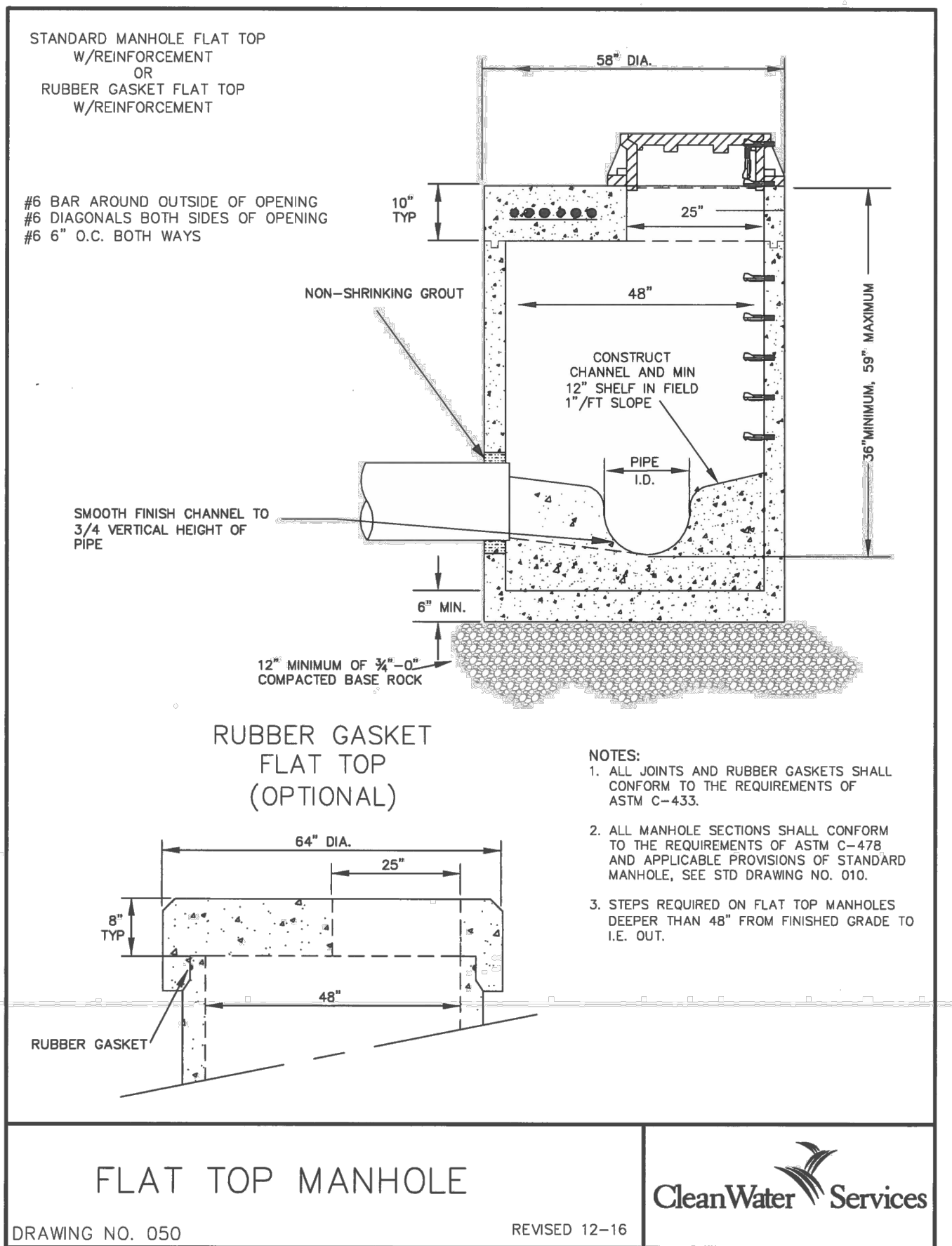
CITY OF CORNELIUS PUBLIC WORKS
1300 S. KODIAK CIRCLE
CORNELIUS, OR 97113 (503)357-3011
Terry Keyes, P.E.
City Engineer

SHEET
1
OF
9

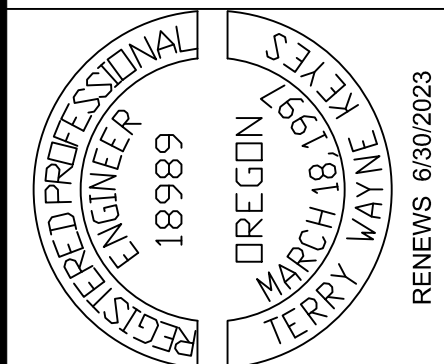


SPECIAL EROSION CONTROL NOTES

1. INLET PROTECTION TYPE 6 SHALL BE USED WHENEVER POSSIBLE. IF TYPE 6 CANNOT BE USED DUE TO TRAFFIC OR OTHER CONSIDERATIONS, TYPE 5 SHALL BE USED.



City of Cornelius Phase 4 Waterline Project Erosion Control and Storm Notes & Details

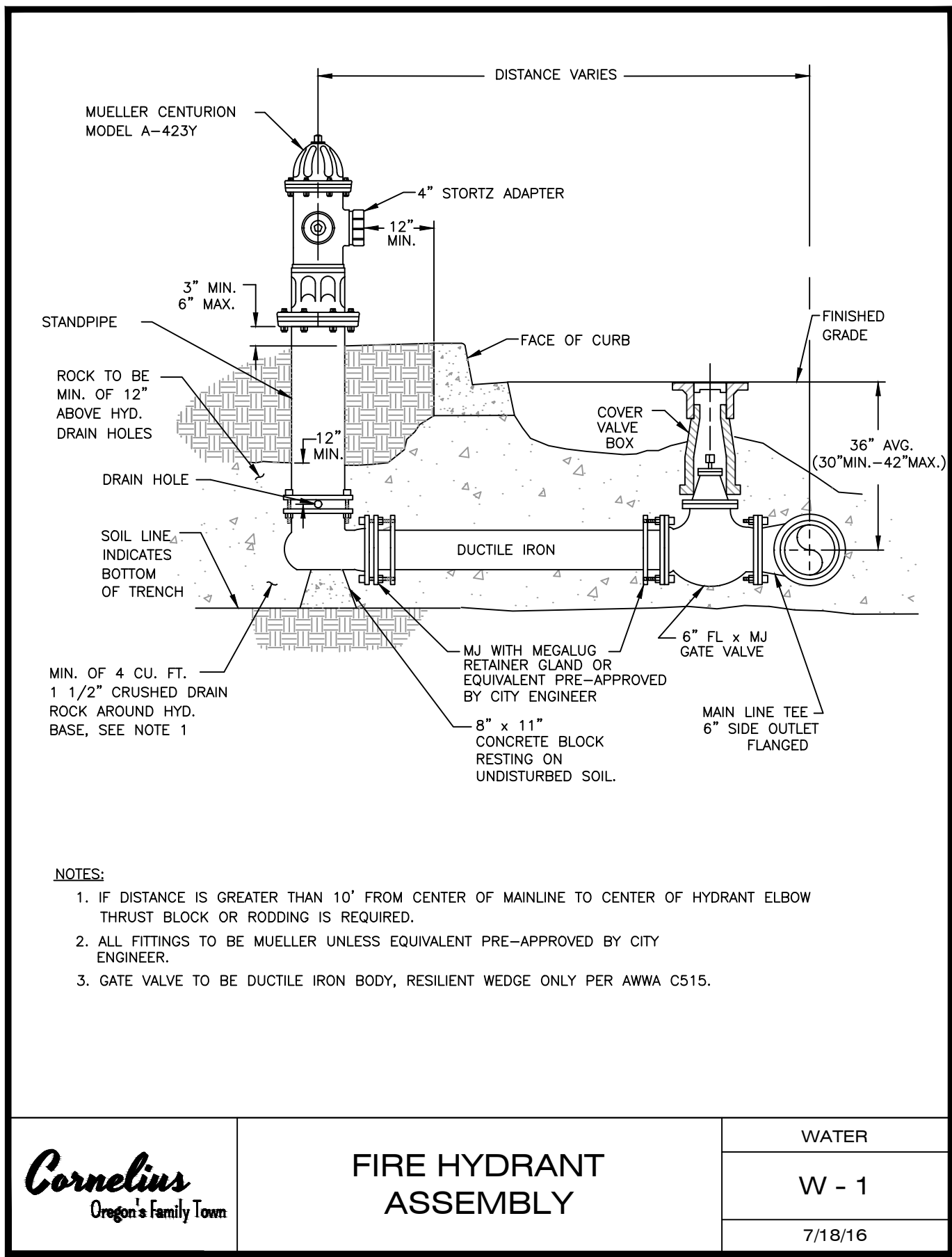


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DRAWN BY: TDG
CHECKED BY:
ISSUE DATE: 2-24-2022
RENEWS 6/30/2023

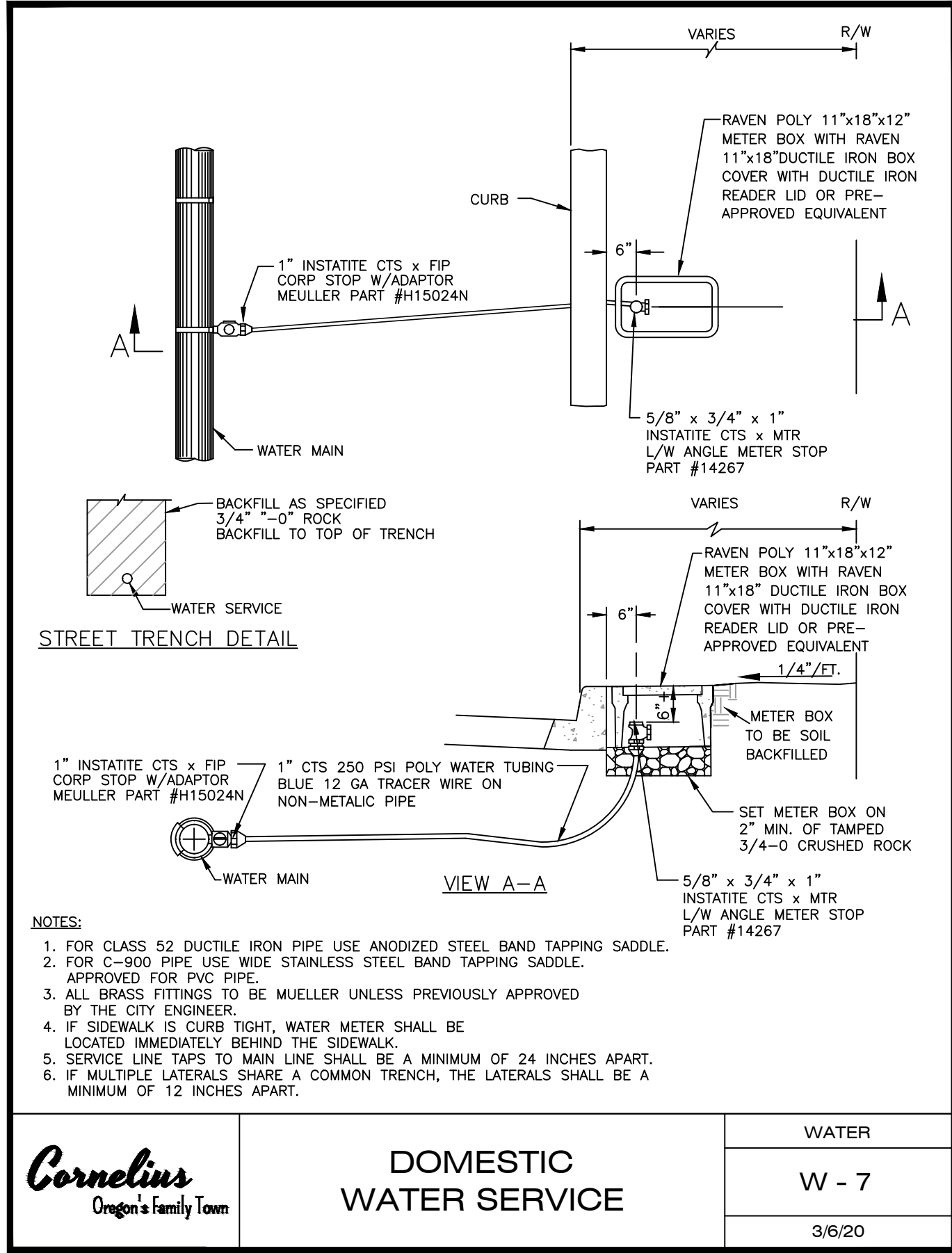
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Oregon's Family Town

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Terry Keyes, P.E.
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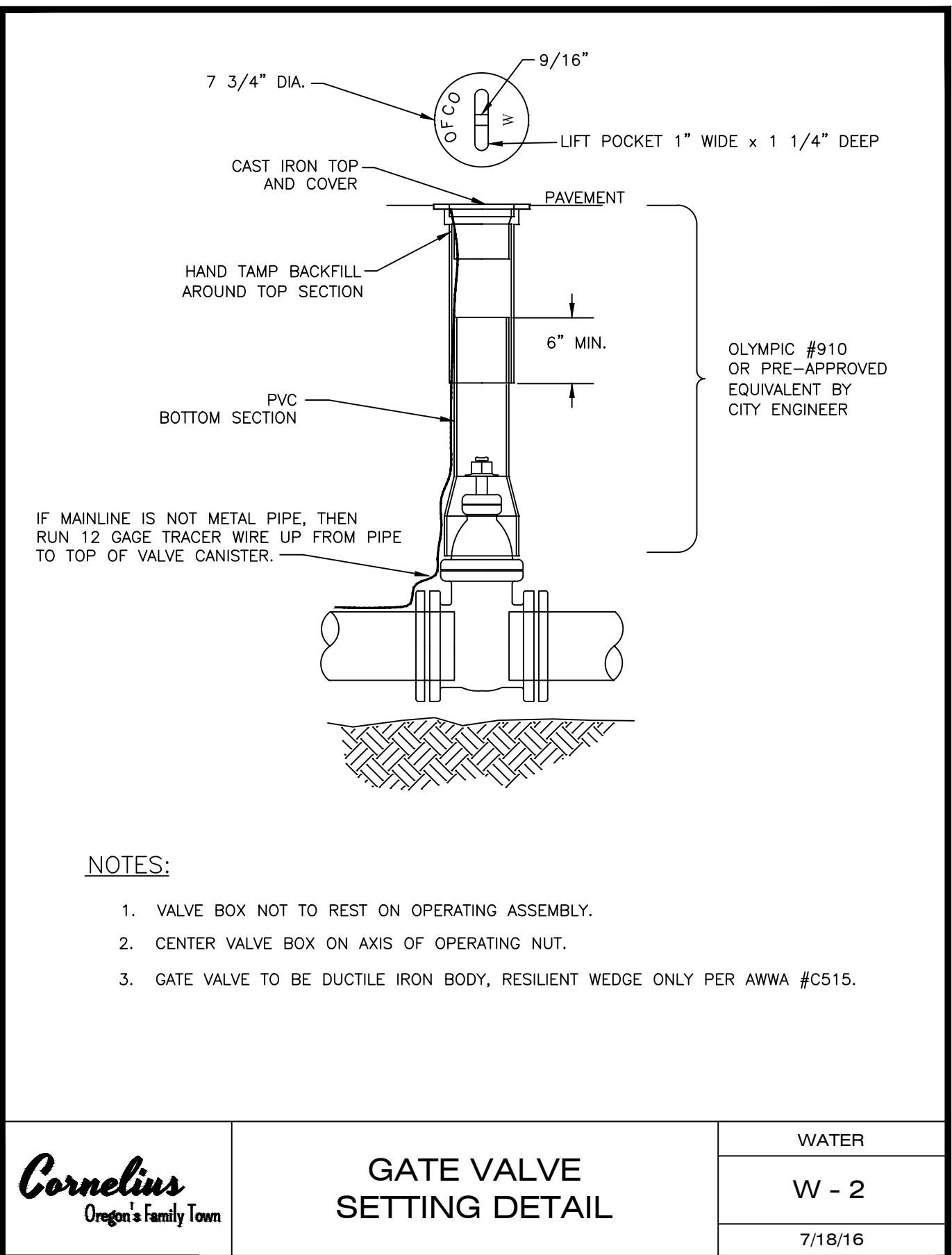
SHEET 2 OF 9



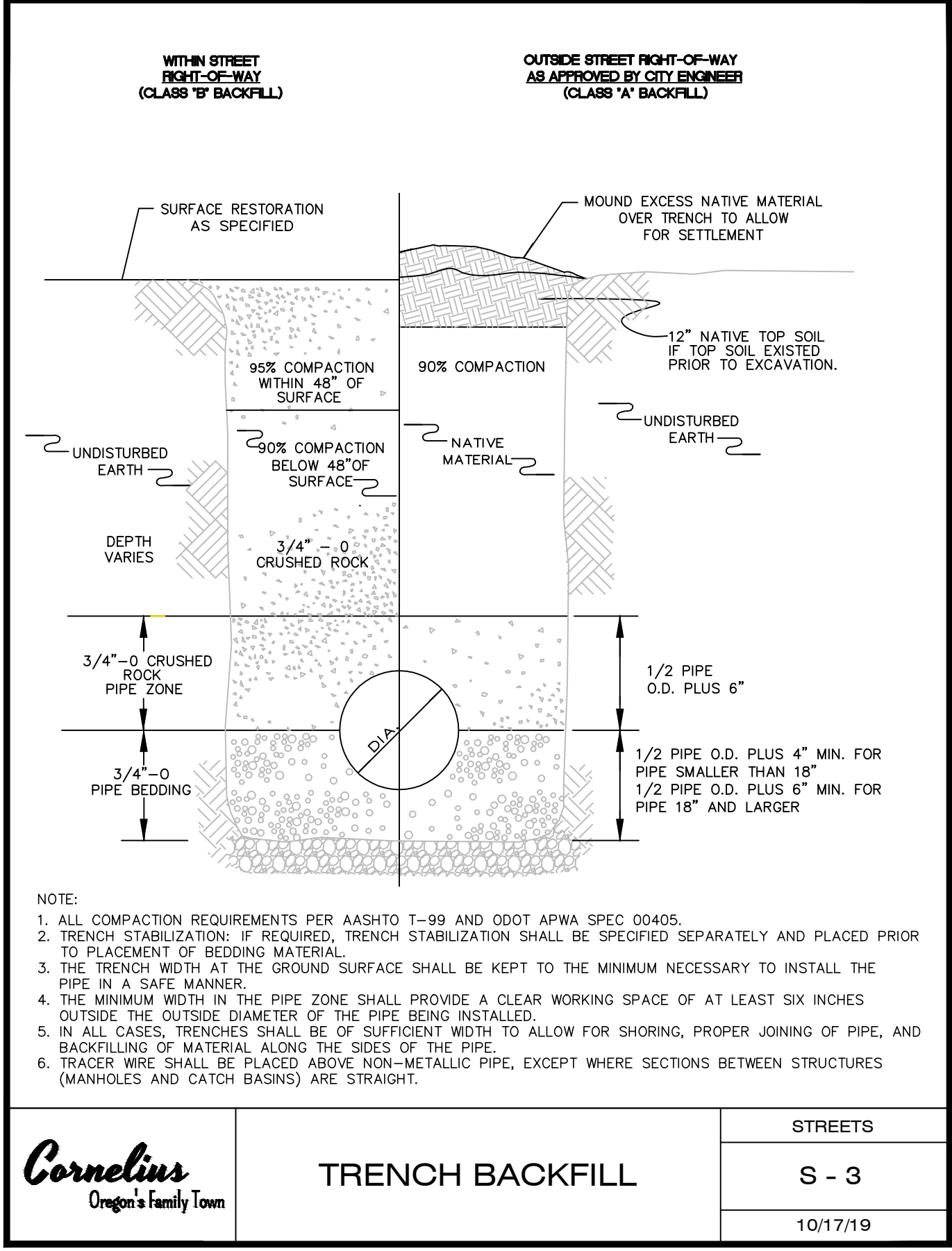
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| | FIRE HYDRANT ASSEMBLY | WATER |
| | | W - 1 |
| | | 7/18/16 |



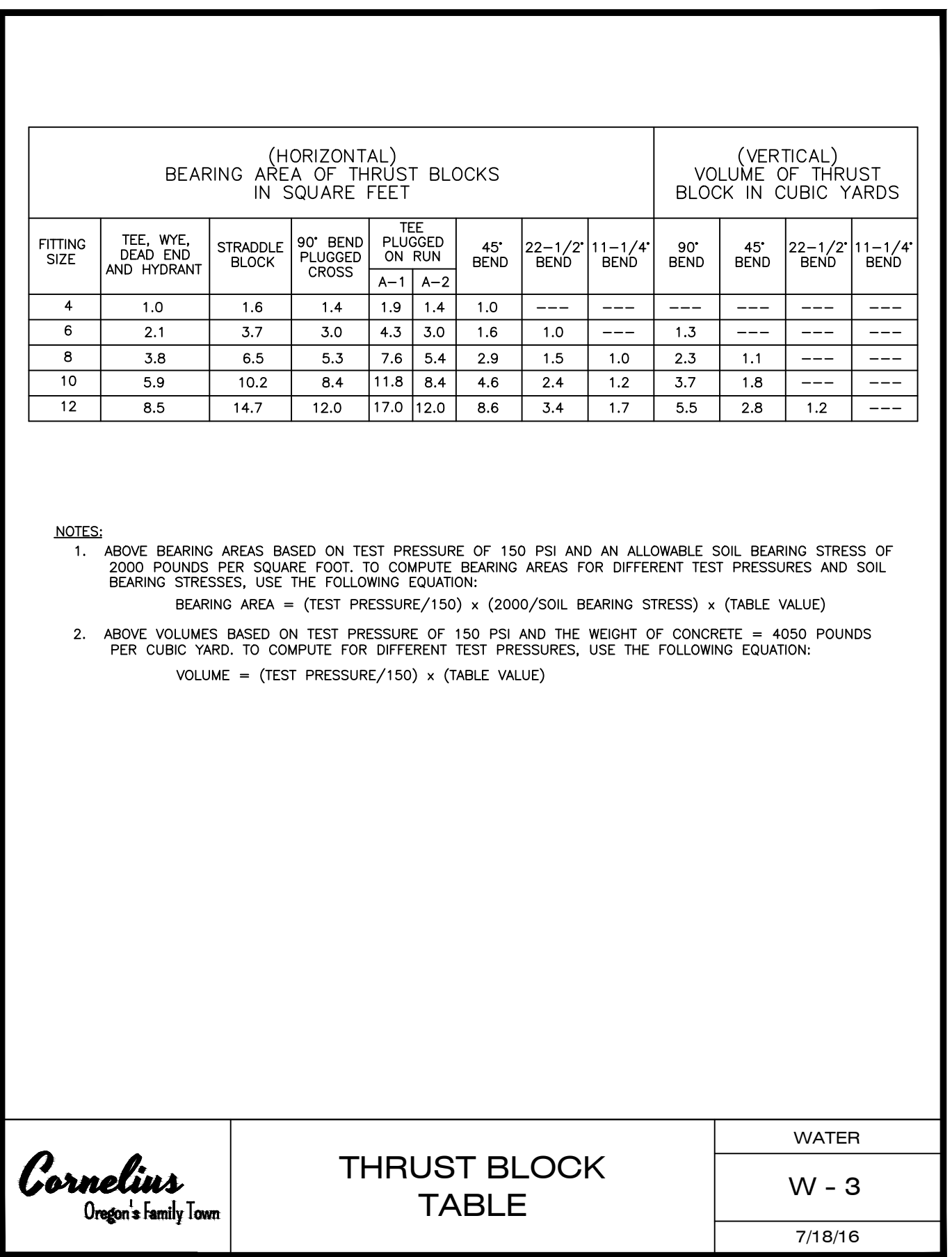
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| | DOMESTIC WATER SERVICE | WATER |
| | | W - 7 |
| | | 3/6/20 |



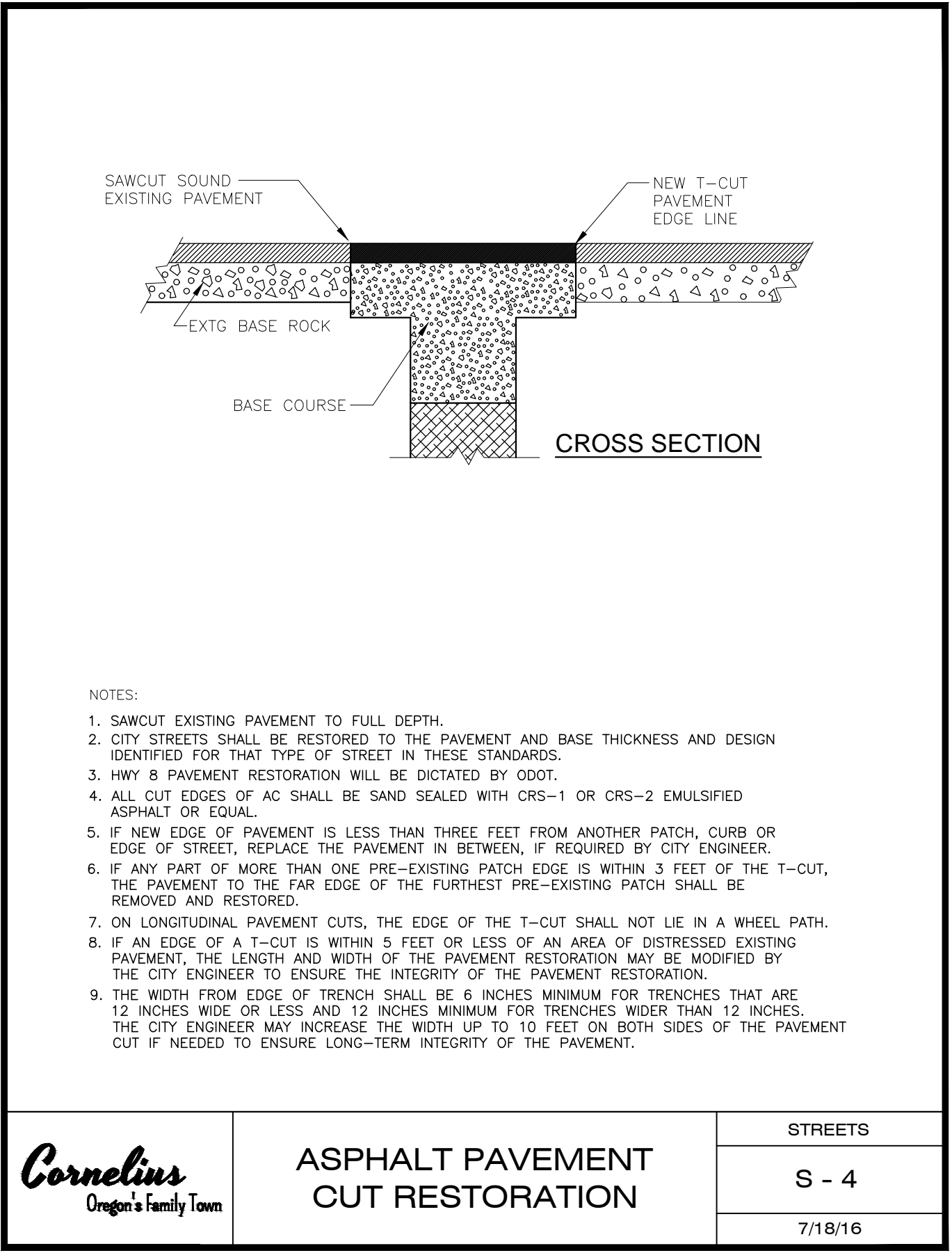
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| | GATE VALVE SETTING DETAIL | WATER |
| | | W - 2 |
| | | 7/18/16 |



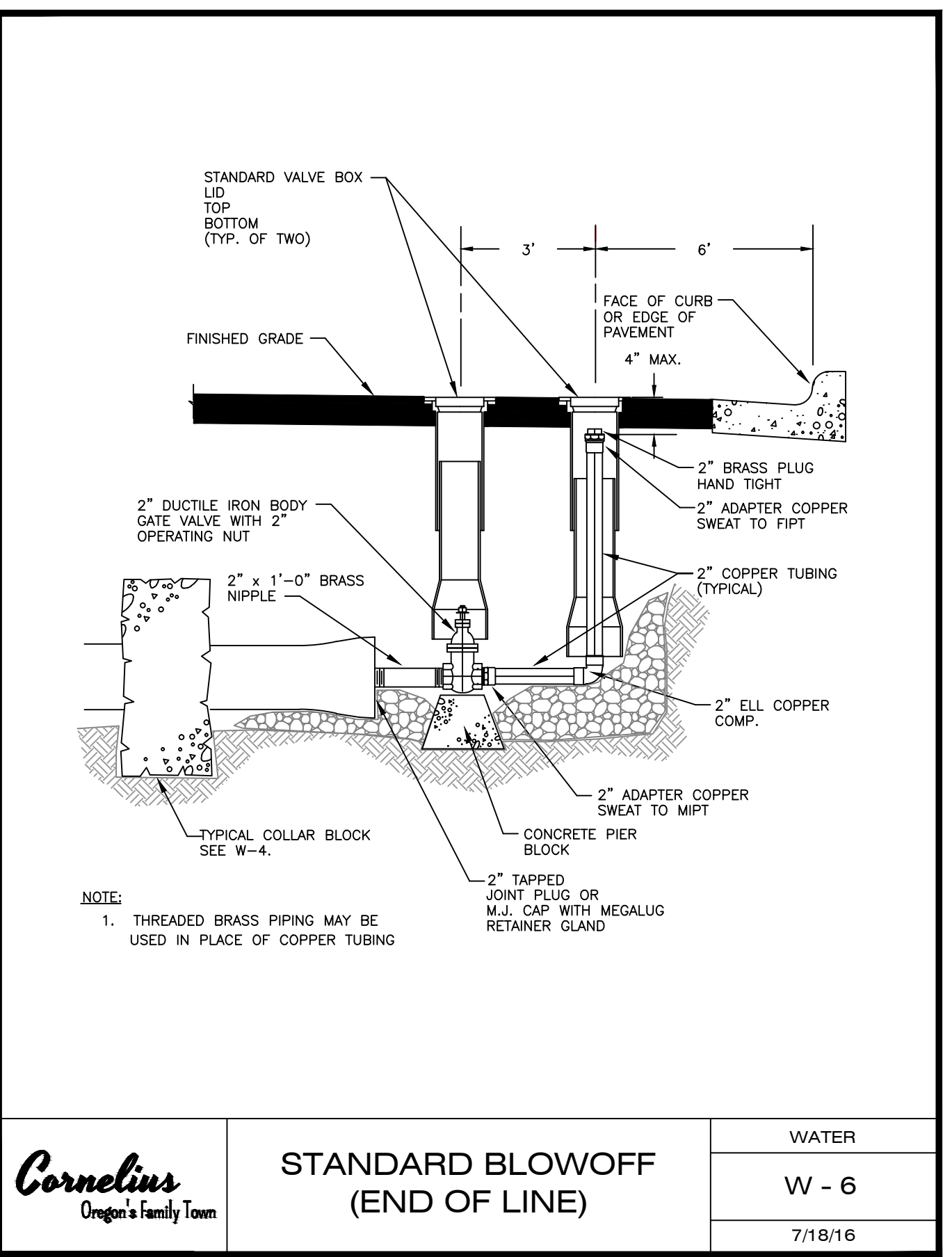
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| | TRENCH BACKFILL | STREETS |
| | | S - 3 |
| | | 10/17/19 |



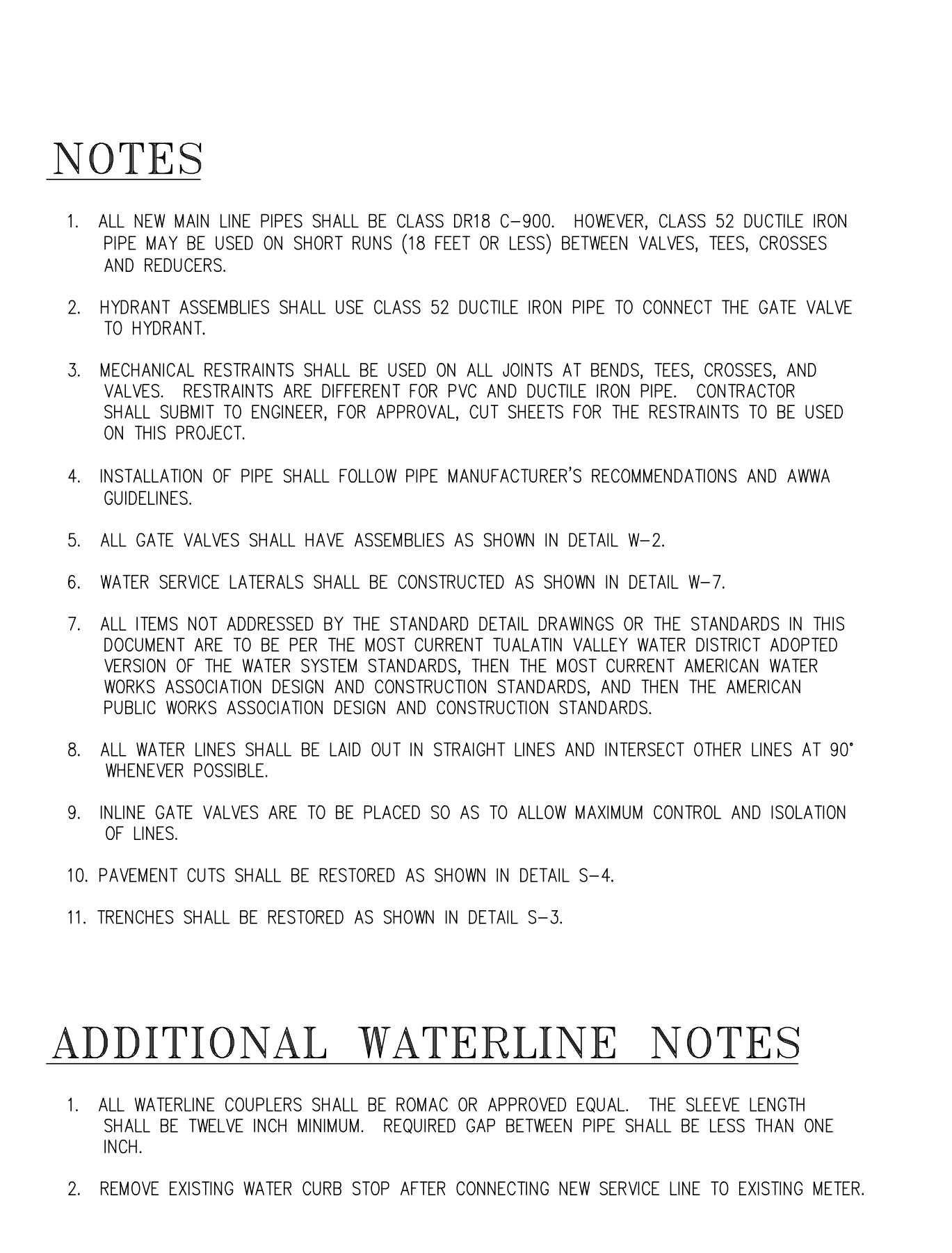
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| | THRUST BLOCK TABLE | WATER |
| | | W - 3 |
| | | 7/18/16 |



| | | |
|--|----------------------------------|---------|
| | ASPHALT PAVEMENT CUT RESTORATION | STREETS |
| | | S - 4 |
| | | 7/18/16 |



| | | |
|--|--------------------------------|---------|
| | STANDARD BLOWOFF (END OF LINE) | WATER |
| | | W - 6 |
| | | 7/18/16 |



City of Cornelius
Phase 4 Waterline Project
Water Notes & Details

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DRAWN BY: TDG

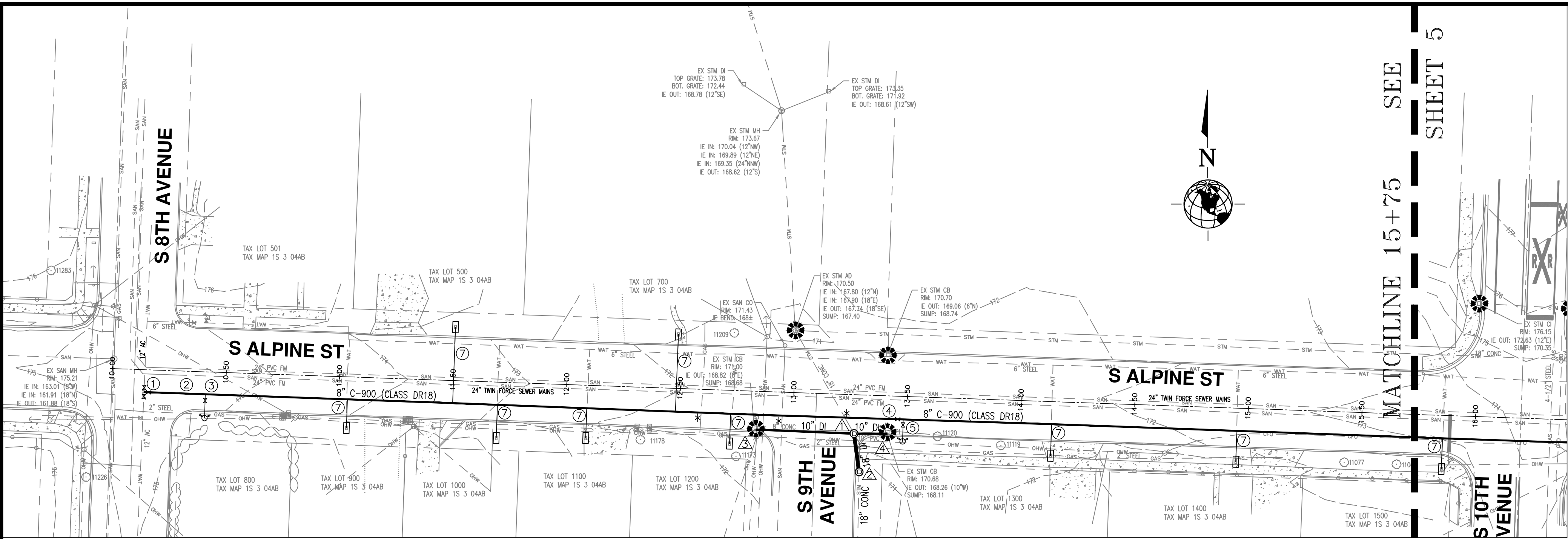
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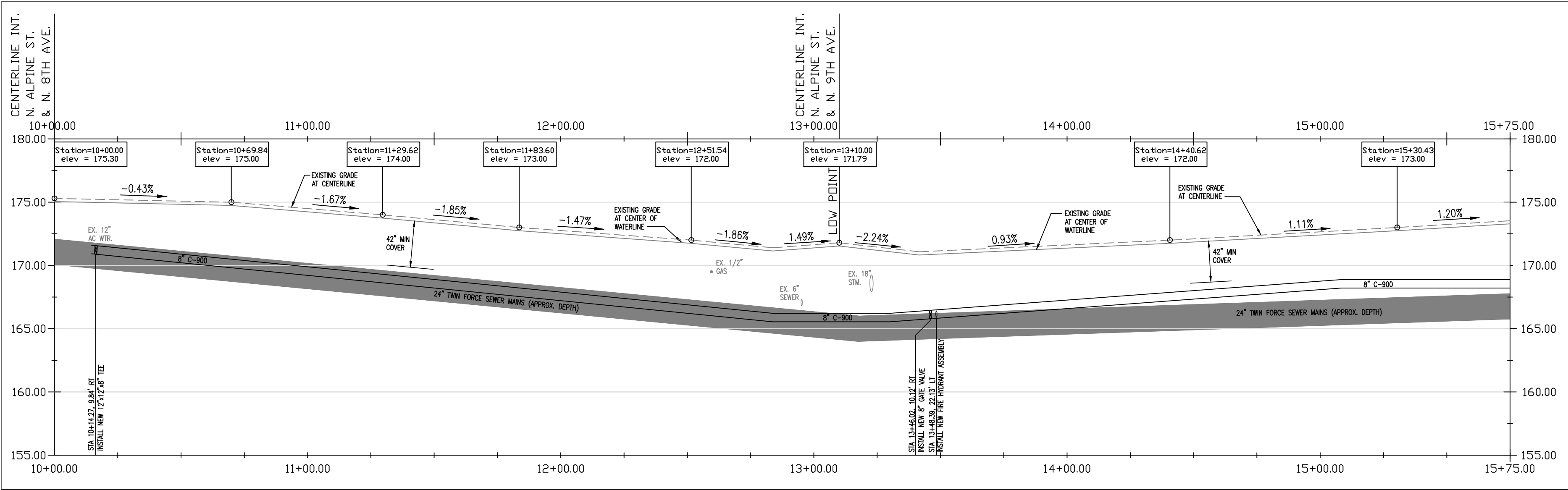
REGISTERED PROFESSIONAL ENGINEER
18989
OREGON
TERRY KEYES, P.E.
RENEWALS 6/30/2023

CITY OF CORNELIUS PUBLIC WORKS
1300 S. KODIAK CIRCLE
CORNELIUS, OR 97113 (503)357-3011
Terry Keyes, P.E.
City Engineer

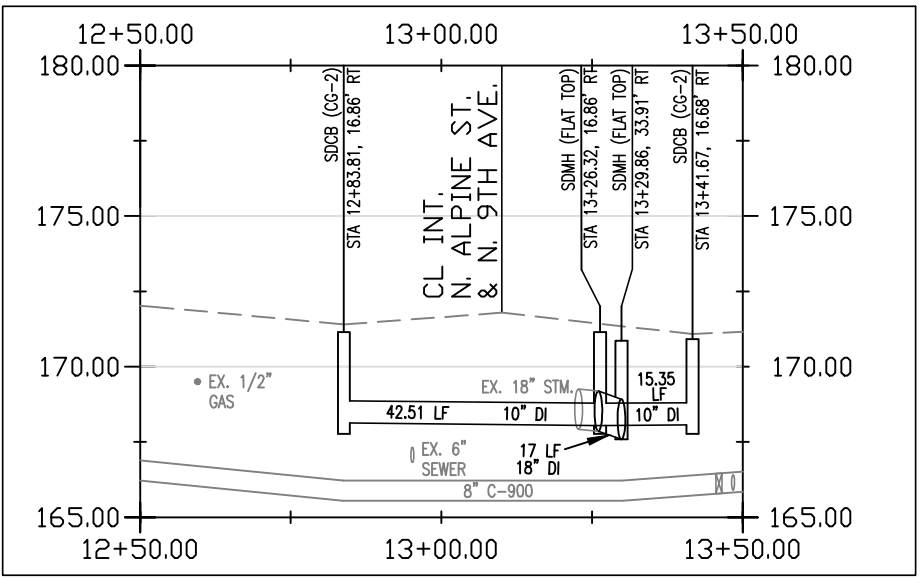
SHEET 3 OF 9



S. ALPINE STREET WATERLINE 8TH TO 10TH AVENUE PLAN
SCALE: 1"=30'



S. ALPINE STREET WATERLINE 8TH TO 10TH AVENUE PROFILE
HORZ. SCALE: 1"=30'
VERT. SCALE: 1"=5'



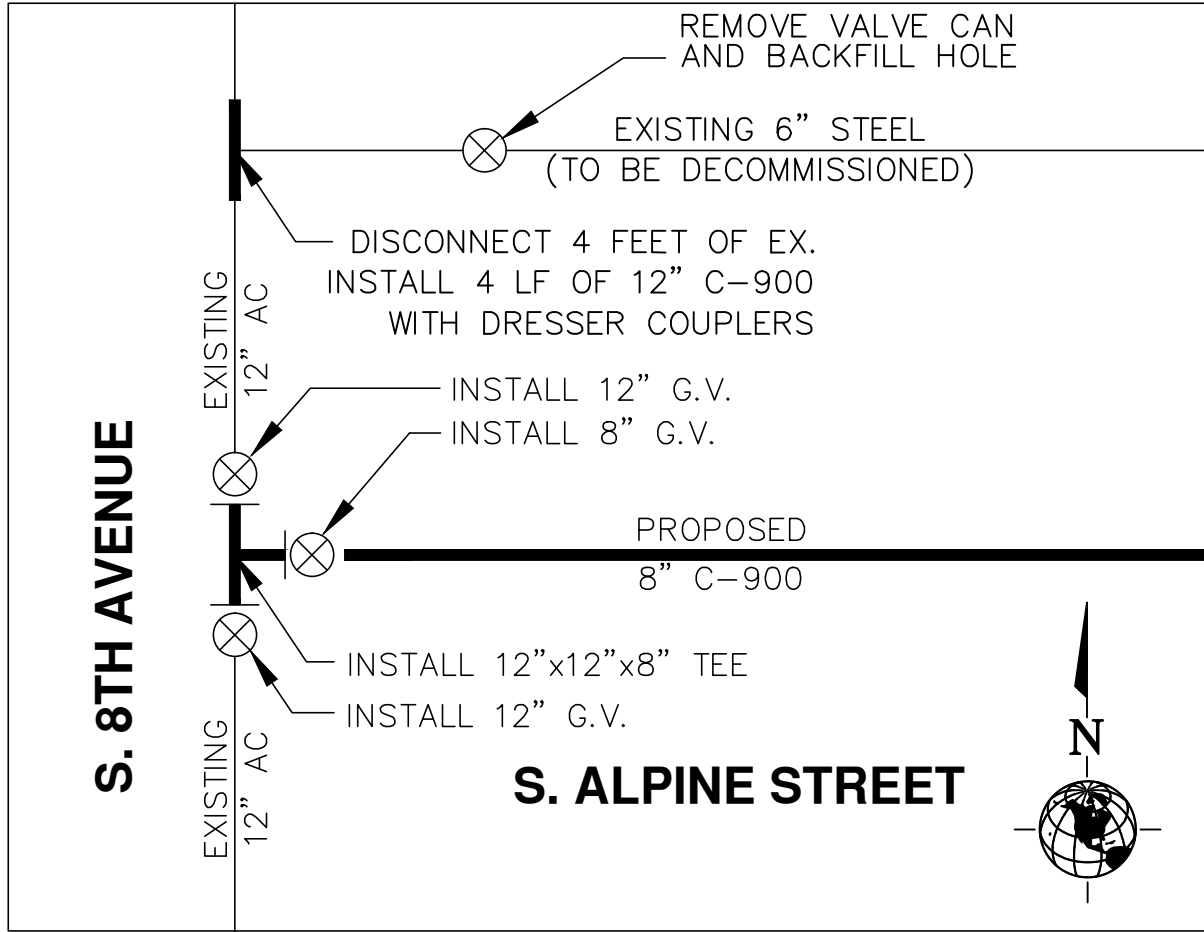
S. ALPINE STREET AND 9TH AVENUE STORM PROFILE
HORZ. SCALE: 1"=30'
VERT. SCALE: 1"=5'

WATERLINE NOTES

- WATERLINE WORK SHALL BE SEQUENCED IN THE ORDER SHOWN BELOW, UNLESS AN ALTERNATE SEQUENCE IS APPROVED BY THE CITY ENGINEER.
- * PLEASE SEE PLAN AND PROFILE.
AN ASTERISK DENOTES AN UNDERGROUND CONFLICT ON PLAN.
CONFLICT ALSO IS SHOWN IN PROFILE AT APPROXIMATE DEPTH.
- STA 10+14.27, 9.84' RT
INSTALL 12"x12"x8" TEE (ALL GATE VALVES) ON EXISTING 12" AC WATERLINE AND ON NEW 8 INCH WATERLINE (SEE DETAIL WA-2, SEE SHEET 3).
SEE DECOMMISSION WATERLINE DETAIL, THIS SHEET.
 - STA 10+14.27, 9.84' RT TO STA 22+64.99, 10.07' RT
INSTALL 1251 LF OF NEW 8 INCH CLASS DR18 C-900 WATER LINE (TO STA 16+25.00, 10.04' RT THIS SHEET)
 - STA 10+41.31, 23.87' LT
REMOVE EXISTING FIRE HYDRANT ASSEMBLY
INSTALL NEW FIRE HYDRANT ASSEMBLY AT STA 10+41.28, 20.38' RT (SEE DETAIL WA-4, SHEET 3).
 - STA 13+46.02, 10.12' RT
INSTALL NEW 8 INCH GATE VALVE (SEE DETAIL WA-2, SHEET 3).
 - STA 13+48.32, 22.13' LT
REMOVE EXISTING FIRE HYDRANT ASSEMBLY
INSTALL NEW FIRE HYDRANT ASSEMBLY AT STA 13+48.43, 19.80' RT (SEE DETAIL WA-4, SHEET 3).
 - ALL EXISTING WATER METER BOXES SHALL BE REMOVED AND REPLACED WITH NEW (SEE DETAIL WA-3, SHEET 3).
CONNECT ALL NEW WATER METERS AFTER NEW WATER LINE HAS BEEN TESTED AND ACTIVATED
- TEMPORARILY PATCH ALL TRENCHES WITHIN THE ROADWAY AND DRIVEWAYS AT THE END OF EACH WORK DAY. PERMANENT TRENCH PATCH REQUIRED PRIOR TO FINAL ACCEPTANCE.

LEGEND

- INLET EROSION CONTROL PROTECTION
(CWS STD. DRAWING #920, SEE SHEET 2)



① DECOMMISSION WATERLINE DETAIL
N.T.S.

STORM LINE NOTES

- △ STA 13+26.32, 16.02' RT (APPROX. LOCATION)
CUT EXISTING 18 INCH CONCRETE STORM PIPE TO
INSTALL NEW FLAT TOP MANHOLE (SEE DETAIL, SHEET 2).
CONNECT EXISTING 18 INCH CONCRETE STORM PIPE FROM THE NORTHWEST.
- △ STA 13+26.32, 16.02' RT TO STA 13+29.86, 33.91' RT (APPROX. LOCATION)
REMOVE 17 LF OF EXISTING 18 INCH CONCRETE STORM PIPE TO THE SOUTHEAST.
INSTALL 17 LF OF NEW 18 INCH DUCTILE IRON STORM PIPE.
INSTALL NEW FLAT TOP MANHOLE (SEE DETAIL, SHEET 2).
CONNECT EXISTING 18 INCH CONCRETE PIPE FROM THE SOUTH.
- △ STA 12+83.81, 16.86' RT (APPROX. LOCATION)
REMOVE EXISTING CATCH BASIN.
INSTALL NEW CG-2 CATCH BASIN (SEE DETAIL, SHEET 2).
STA 12+83.81, 16.86' RT (APPROX. LOCATION) TO STA 13+26.32, 16.02' RT
INSTALL 43 LF OF NEW 10 INCH DUCTILE IRON PIPE FROM NEW CATCH BASIN.
CONNECT TO NEW FLAT TOP MANHOLE.
- △ STA 13+41.67, 16.68' RT (APPROX. LOCATION)
REMOVE EXISTING CATCH BASIN.
INSTALL NEW CG-2 CATCH BASIN (SEE DETAIL, SHEET 2).
STA 13+26.32, 16.02' RT (APPROX. LOCATION) TO STA 13+41.67, 16.68' RT
INSTALL 15 LF OF NEW 10 INCH DUCTILE IRON PIPE FROM NEW FLAT TOP MANHOLE TO NEW CATCH BASIN.

City of Cornelius
Phase 4 Waterline Project
S. Alpine St. S. 8th to S. 10th Avenue
and Storm Line
Plan and Profile

REGISTERED PROFESSIONAL ENGINEER
19989
DREWING
TERRY WAYNE KEYES
RENEWED
MARCH 18, 2022
RENEWED
6/30/2023

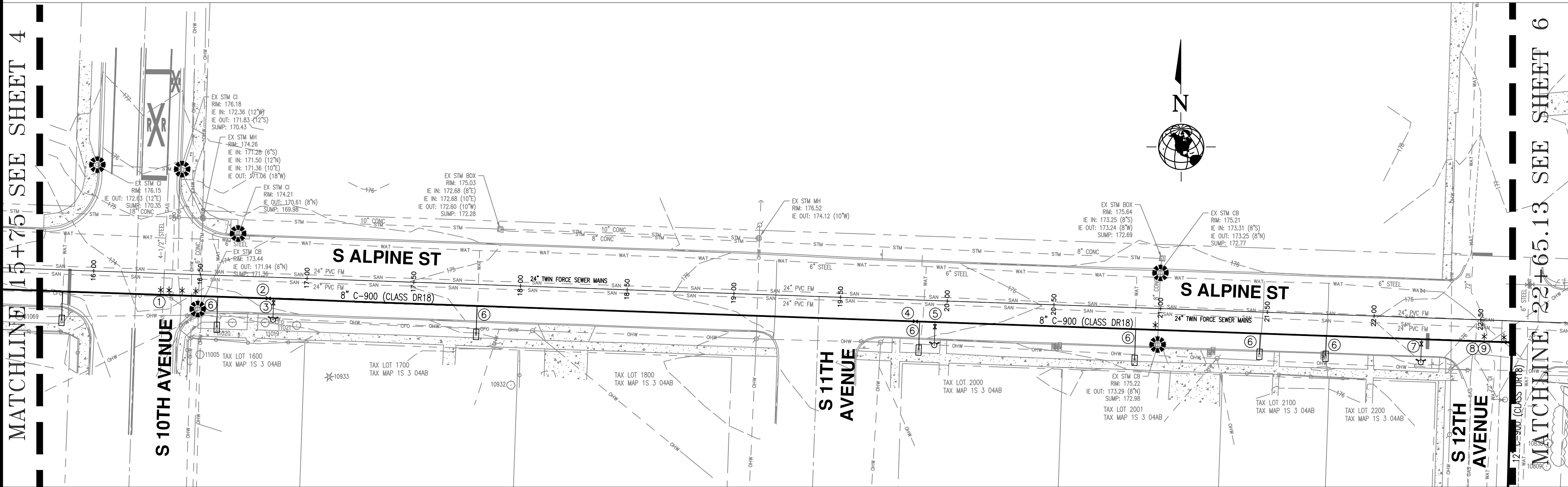
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CITY OF CORNELIUS DEV. & OPERATIONS
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Terry Keyes, P.E.
City Engineer

SHEET

4 OF 9



S. ALPINE STREET WATERLINE 10TH TO 12TH AVENUE PLAN

SCALE: 1"=30'

WATERLINE NOTES

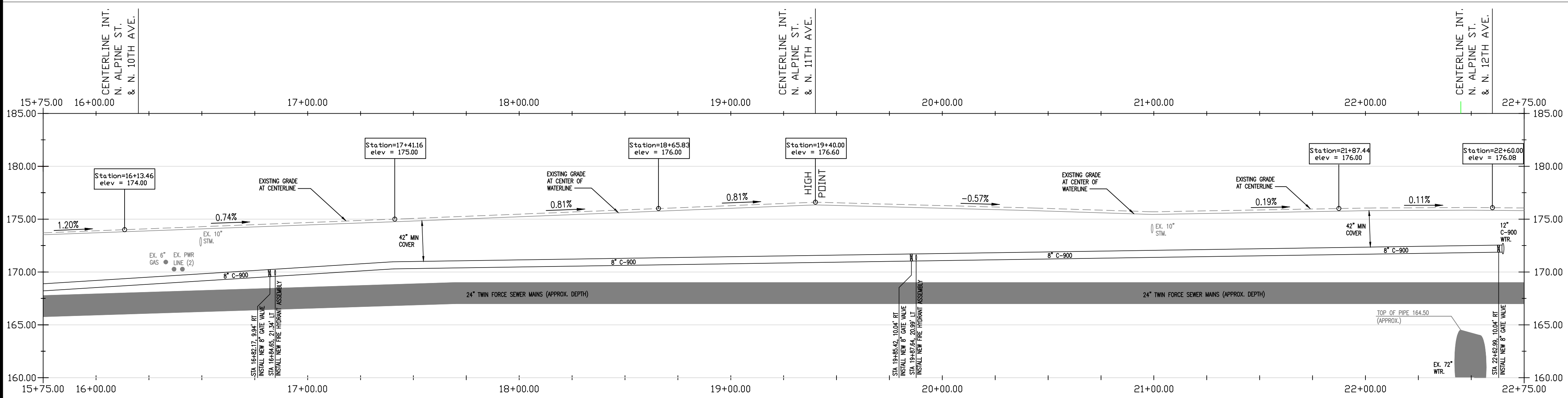
WATERLINE WORK SHALL BE SEQUENCED IN THE ORDER SHOWN BELOW, UNLESS AN ALTERNATE SEQUENCE IS APPROVED BY THE CITY ENGINEER.

- * PLEASE SEE PLAN AND PROFILE.
AN ASTERISK DENOTES AN UNDERGROUND CONFLICT ON PLAN.
CONFLICT ALSO IS SHOWN IN PROFILE AT APPROXIMATE DEPTH.
- STA 10+14.27, 9.84' RT TO STA 22+64.99, 10.07' RT
INSTALL 1251 LF OF NEW 8 INCH CLASS DR18 C-900 WATER LINE (STA 15+75.00, 10.04' RT TO STA 22+64.99, 10.07' RT, THIS SHEET)
 - STA 16+82.17, 9.94' RT
INSTALL NEW 8 INCH GATE VALVE (SEE DETAIL WA-2, SHEET 3).
 - STA 16+84.61, 21.34' LT
REMOVE FIRE HYDRANT ASSEMBLY
INSTALL NEW FIRE HYDRANT ASSEMBLY AT STA 16+84.66, 19.94' RT (SEE DETAIL WA-4, SHEET 3).
 - STA 19+85.43, 10.04' RT
INSTALL NEW 8 INCH GATE VALVE (SEE DETAIL WA-2, SHEET 3).
 - STA 19+87.61, 20.99' LT
REMOVE EXISTING FIRE HYDRANT ASSEMBLY
INSTALL NEW FIRE HYDRANT ASSEMBLY AT STA 19+94.62, 20.95' RT (SEE DETAIL WA-4, SHEET 3).
 - ALL EXISTING WATER METER BOXES SHALL BE REMOVED AND REPLACED WITH NEW (SEE DETAIL WA-3, SHEET 3).
CONNECT ALL NEW WATER METERS AFTER NEW WATER LINE HAS BEEN TESTED AND ACTIVATED
 - STA 22+22.60, 20.96' RT
INSTALL NEW FIRE HYDRANT ASSEMBLY (SEE DETAIL WA-4, SHEET 3).
 - BETWEEN STATIONS 22+50 AND 22+65, UNDER ALPINE STREET THE PROPOSED 8 INCH WATER MAIN CROSSES THE PATH OF AN EXISTING 72 INCH WATER MAIN. THE APPROXIMATE LOCATION OF THIS EXISTING LINE IS SHOWN IN THE PROFILE. THIS LOCATION, BOTH VERTICAL AND HORIZONTAL, IS APPROXIMATE. THE CONTRACTOR SHOULD EXCAVATE, IN THIS AREA, WITH EXTREME CARE, AND POSSIBLY HAND DIG IN THIS AREA.
 - WHEN EXCAVATING NEAR THE 72 INCH WATER MAIN, THE CITY OF HILLSBORO REQUIRES THEIR STAFF TO BE ON-SITE, TO INSURE THE SAFETY, OF THE 72 INCH MAIN. THE CONTRACTOR IS REQUIRED TO NOTIFY THE CITY OF HILLSBORO, AT LEAST 24 HOURS IN ADVANCE, BEFORE EXCAVATING IN THE VICINITY OF THE 72 INCH WATER MAIN.

TEMPORARILY PATCH ALL TRENCHES WITHIN THE ROADWAY AND DRIVEWAYS AT THE END OF EACH WORK DAY. PERMANENT TRENCH PATCH REQUIRED PRIOR TO FINAL ACCEPTANCE.

LEGEND

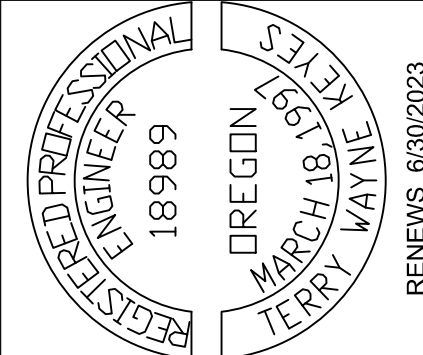
- ⊗ INLET EROSION CONTROL PROTECTION
(CWS STD. DRAWING #920, SEE SHEET 2)



S. ALPINE STREET WATERLINE 10TH TO 12TH AVENUE PROFILE

HORZ. SCALE: 1"=30'
VERT. SCALE: 1"=5'

City of Cornelius
Phase 4 Waterline Project
S. Alpine St.
S. 10th to S. 12th Avenue
Plan and Profile

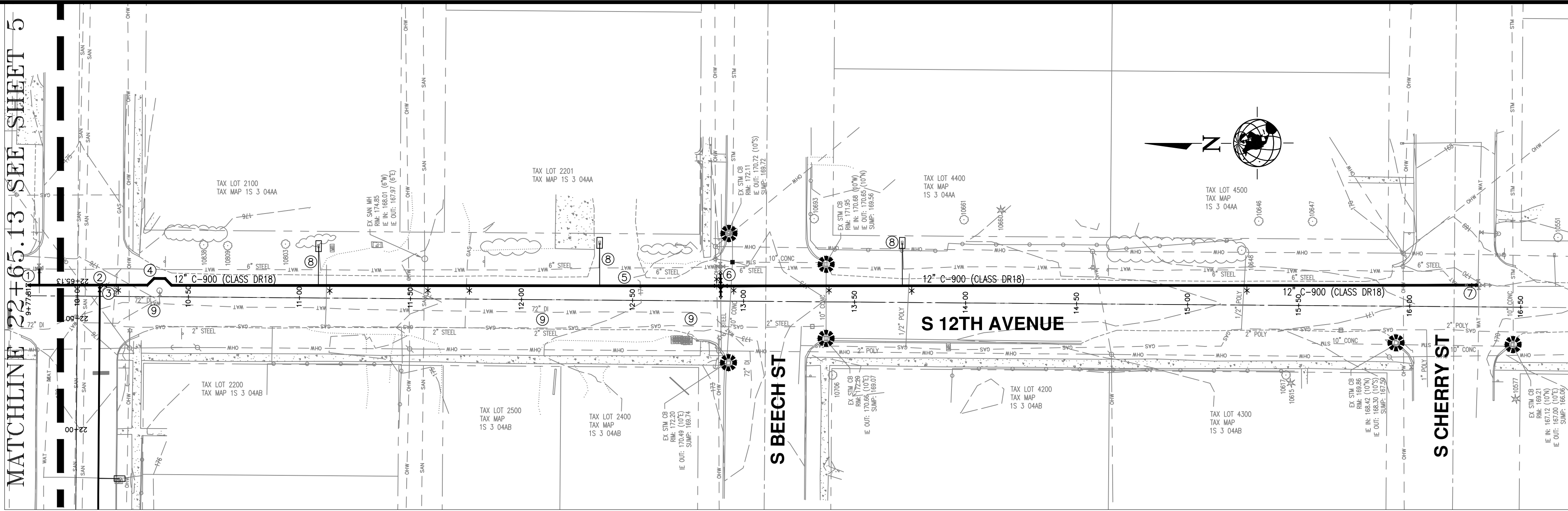


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1300 S. KODIAK CIRCLE
CORNELIUS, OR 97113 (503)557-3011
Terry Keyes, P.E.
City Engineer

MATCHLINE 22+65.13 SEE SHEET 5



S. 12TH AVENUE WATERLINE ALPINE TO CHERRY PLAN

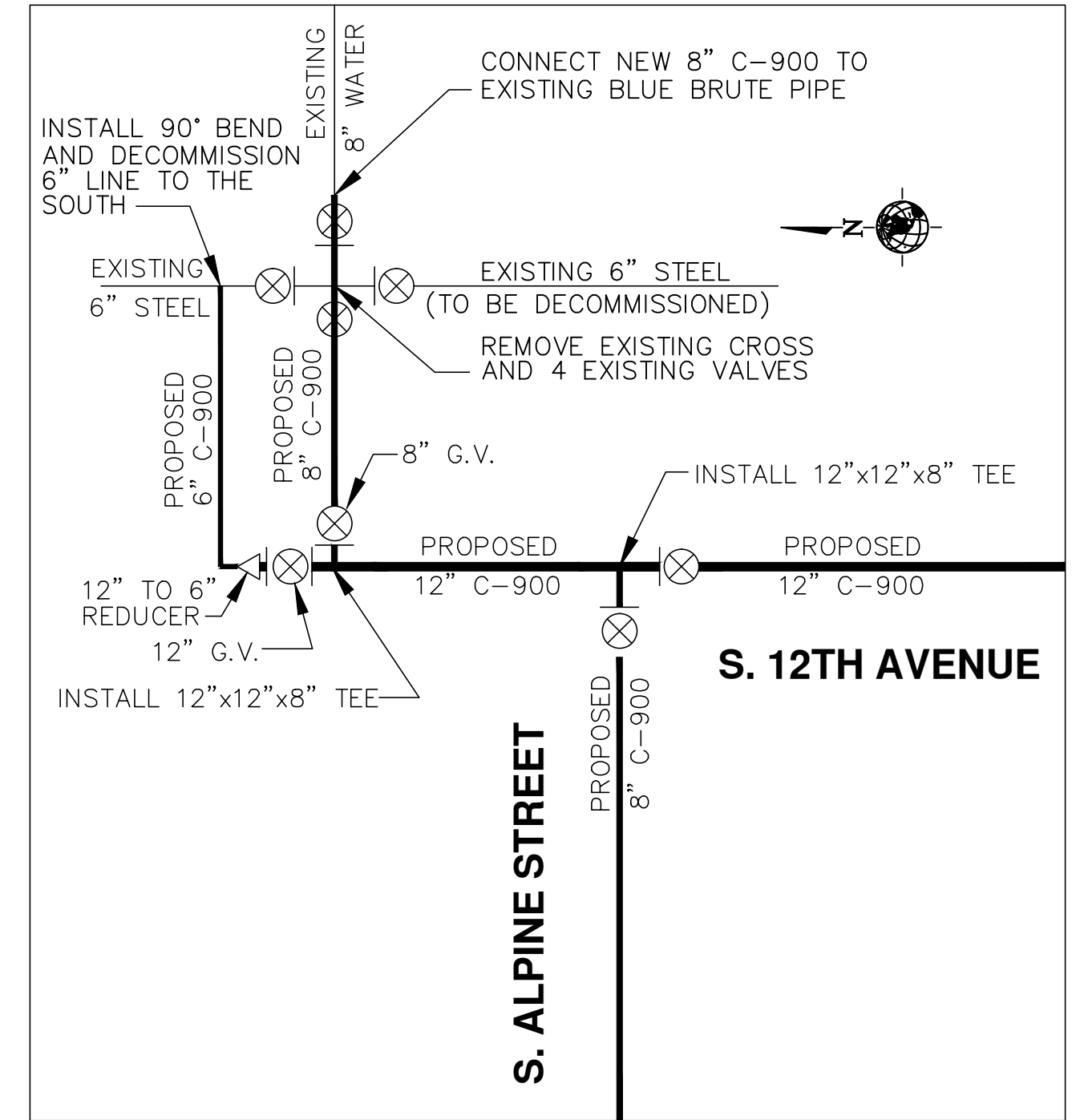
SCALE: 1"=30'

WATERLINE NOTES

- WATERLINE WORK SHALL BE SEQUENCED IN THE ORDER SHOWN BELOW, UNLESS AN ALTERNATE SEQUENCE IS APPROVED BY THE CITY ENGINEER.
- * PLEASE SEE PLAN AND PROFILE. AN ASTERISK DENOTES AN UNDERGROUND CONFLICT ON PLAN. CONFLICT ALSO IS SHOWN IN PROFILE AT APPROXIMATE DEPTH.
- STA 9+77.81, 4.96' LT TO STA 10+10.07, 4.98' LT
INSTALL 32 LF OF NEW 12 INCH CLASS DR18 C-900 WATER LINE.
INSTALL NEW 12 INCH GATE VALVE - CAP NORTH END. (SEE DETAIL, WA-2, SHEET 3).
SEE DECOMMISSION WATERLINE DETAIL, THIS SHEET.
 - STA 10+10.07, 4.96' LT
INSTALL 90 DEGREE BEND TO THE SOUTH, THIS LOCATION.
STA 10+12.07, 4.96' LT
INSTALL NEW 12 INCH GATE VALVE (SEE DETAIL, WA-2, SHEET 3).
 - STA 10+10.07, 4.96' LT TO STA 10+31.43, 5.18' LT
INSTALL 21 LF OF NEW 12 INCH CLASS DR18 C-900 WATER LINE.
 - THIS NOTE MUST BE FIELD VERIFIED PRIOR TO INSTALLING ANY 45° BENDS.
STA 10+31.43, 5.18' LT
INSTALL 45° TO THE SOUTHEAST WITH 4 LF OF NEW 12 INCH CLASS DR 18 C-900 WATER LINE, FOLLOWED BY A 45° BEND TO THE SOUTH AT STA 10+34.40, 8.21' LT WITH 5 LF OF NEW 12 INCH CLASS DR18 C-900 WATER LINE.
STA 10+39.41, 8.24' LT
INSTALL 45° TO THE SOUTHWEST WITH 4 LF OF NEW 12 INCH CLASS DR 18 C-900 WATER LINE, FOLLOWED BY A 45° BEND TO THE SOUTH AT STA 10+42.97, 4.73' LT
 - STA 10+42.97, 4.73' LT TO STA 16+30.83, 9.75' LT
INSTALL 588 LF OF NEW 12 INCH CLASS DR18 C-900 WATER LINE.
 - STA 12+89.34, 15.28' LT
REMOVE 6" CROSS, THIS LOCATION
STA 12+89.63, 7.15' LT
INSTALL NEW 12"x12"x8"x8" CROSS WITH 6" REDUCERS ON EAST AND WEST SIDES.
INSTALL 10 LF OF NEW 8 INCH CLASS DR18 C-900 WATER LINE (EAST AND WEST SIDES).
 - STA 16+30.83, 9.75' LT
DISCONNECT EXISTING 12" TO 8" REDUCER.
CONNECT 12 INCH GATE VALVE ON NORTH SIDE OF CROSS TO NEW WATER LINE.
 - ALL EXISTING WATER METER BOXES SHALL BE REMOVED AND REPLACED WITH NEW (SEE DETAIL WA-3, SHEET 3).
CONNECT ALL NEW WATER METERS AFTER NEW WATER LINE HAS BEEN TESTED AND ACTIVATED.
 - WHEN EXCAVATING NEAR THE 72 INCH WATER MAIN, THE CITY OF HILLSBORO REQUIRES THEIR STAFF TO BE ON-SITE, TO INSURE THE SAFETY, OF THE 72 INCH MAIN. THE CONTRACTOR IS REQUIRED TO NOTIFY THE CITY OF HILLSBORO, AT LEAST 24 HOURS IN ADVANCE, BEFORE EXCAVATING IN THE VICINITY OF THE 72 INCH WATER MAIN.
- TEMPORARILY PATCH ALL TRENCHES WITHIN THE ROADWAY AND DRIVEWAYS AT THE END OF EACH WORK DAY. PERMANENT TRENCH PATCH REQUIRED PRIOR TO FINAL ACCEPTANCE.

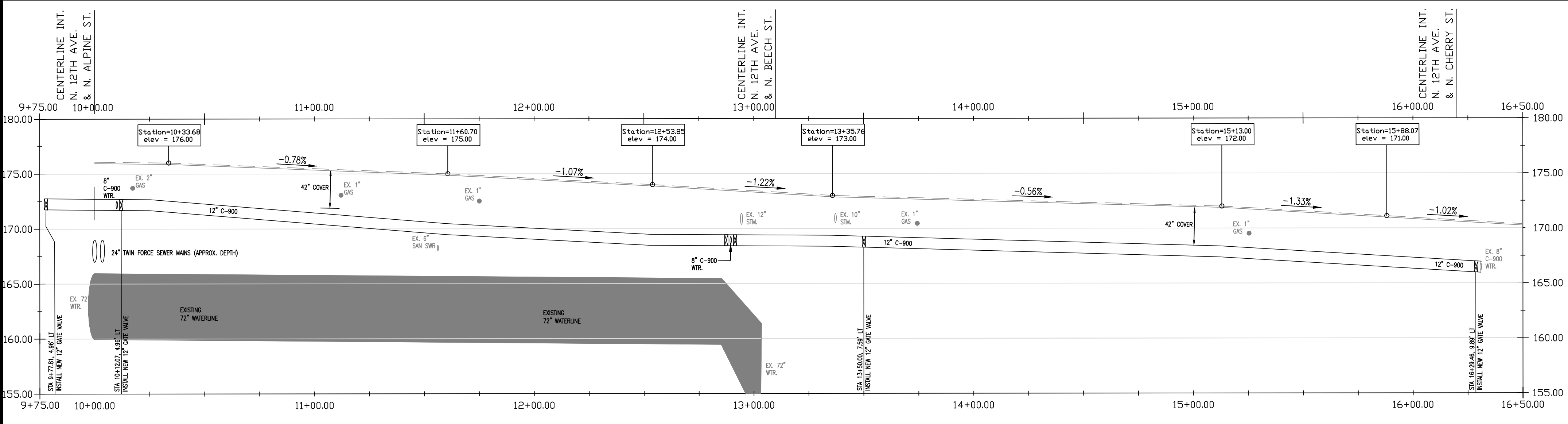
LEGEND

- ⊗ INLET EROSION CONTROL PROTECTION
(CWS STD. DRAWING #920, SEE SHEET 2)



① DECOMMISSION WATERLINE DETAIL

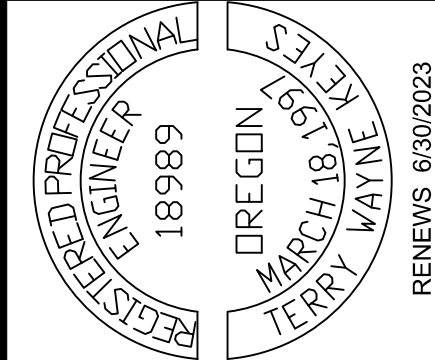
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S. 12TH AVENUE WATERLINE ALPINE TO CHERRY PROFILE

HORZ. SCALE: 1"=30'
VERT. SCALE: 1"=5'

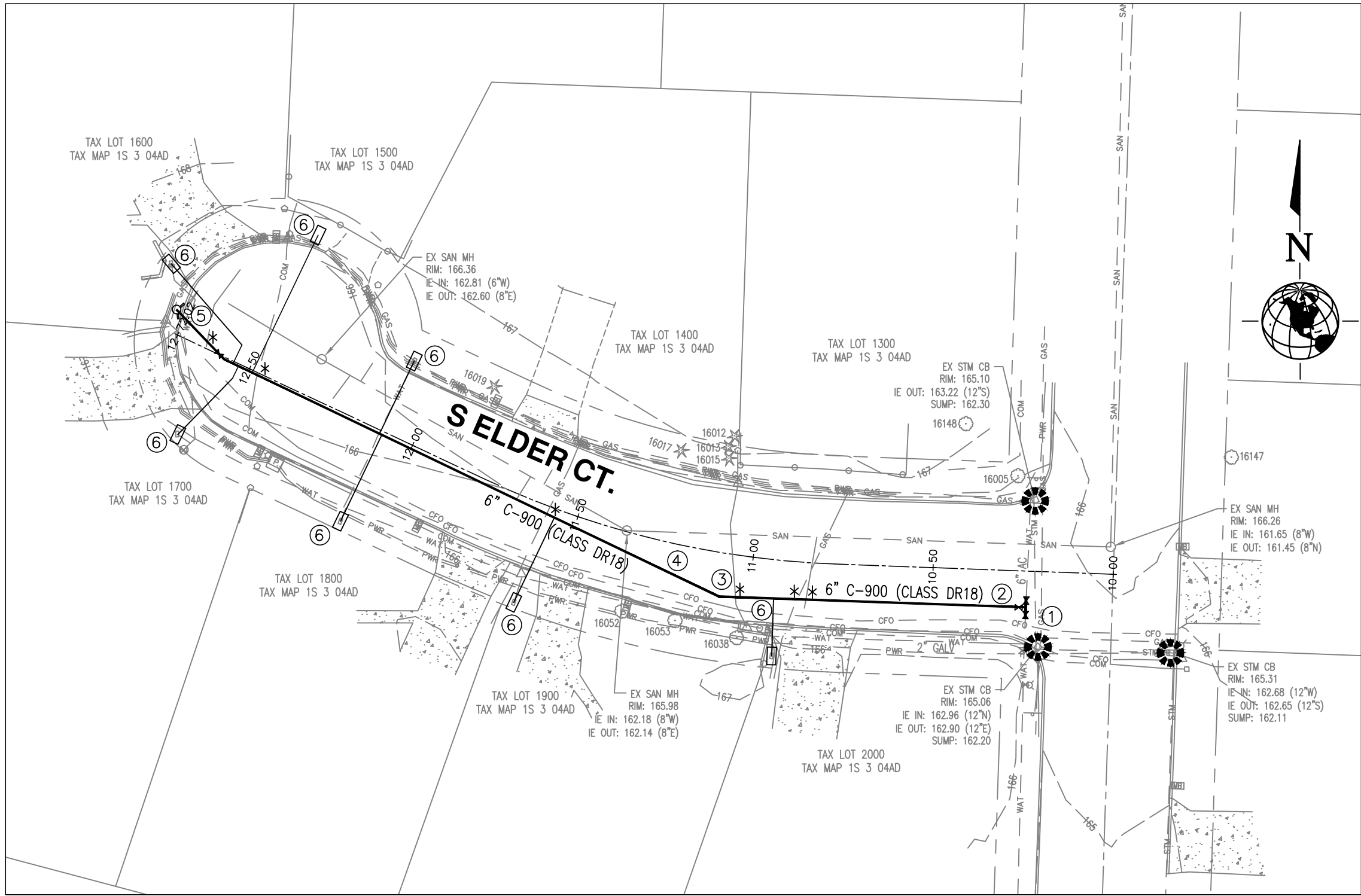
City of Cornelius
Phase 4 Waterline Project
S. 12th Avenue
S. Alpine to S. Cherry St.
Plan and Profile



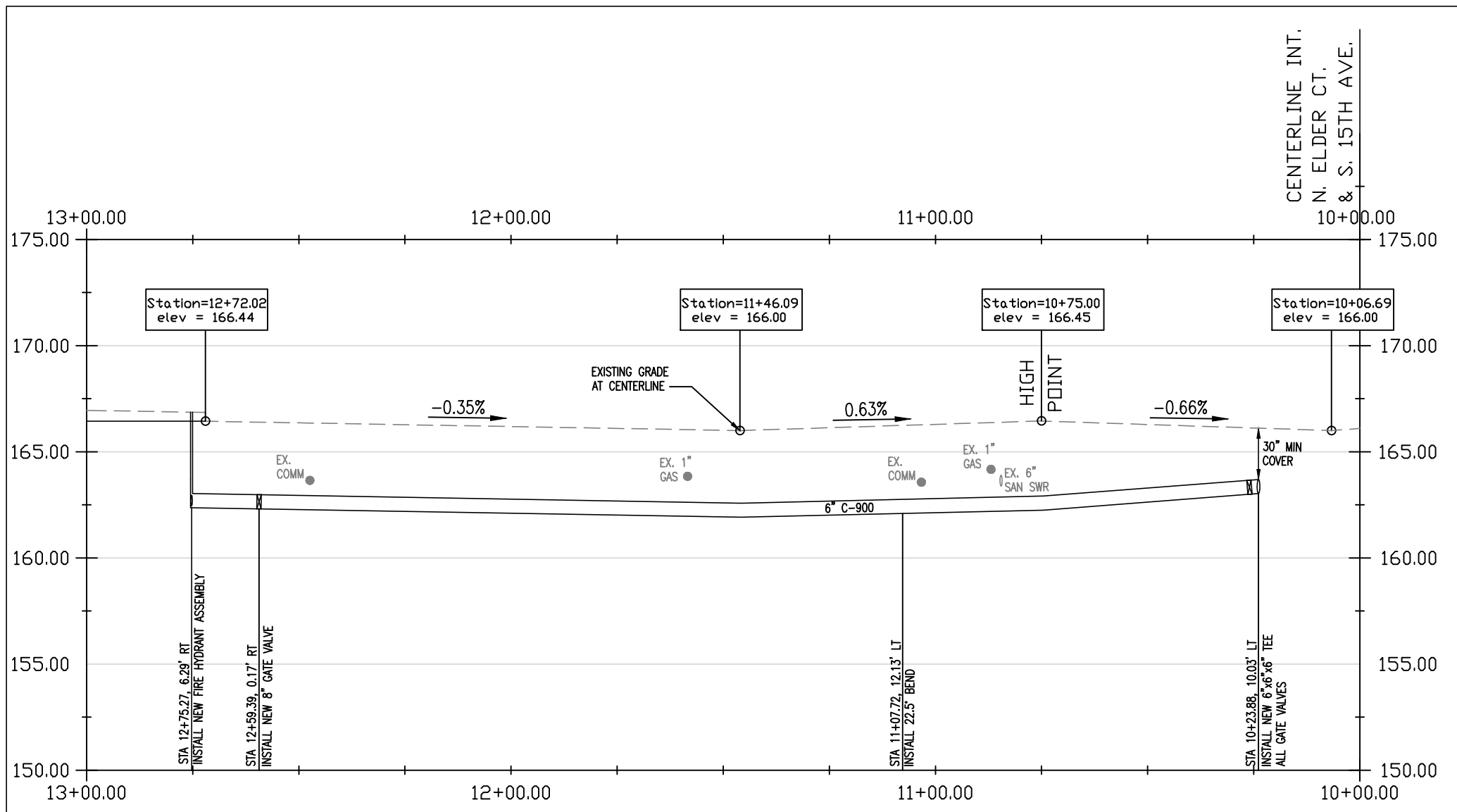
DESIGNED BY: TDG
DRAWN BY: TDG
CHECKED BY:
ISSUE DATE: 2-24-2022

Cornelius
Oregon's Family Town

CITY OF CORNELIUS DEV. & OPERATIONS
1300 S. KODIAK CIRCLE
CORNELIUS, OR 97113 (503)357-3011
Terry Keyes, P.E.
City Engineer



S. ELDER COURT WATERLINE PLAN
SCALE: 1"=30'



S. ELDER COURT WATERLINE PROFILE
HORZ. SCALE: 1"=30'
VERT. SCALE: 1"=5'

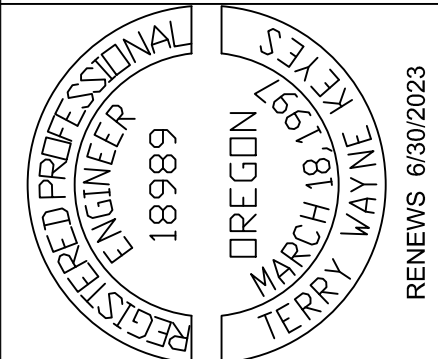
WATERLINE NOTES

- WATERLINE WORK SHALL BE SEQUENCED IN THE ORDER SHOWN BELOW, UNLESS AN ALTERNATE SEQUENCE IS APPROVED BY THE CITY ENGINEER.
- * PLEASE SEE PLAN AND PROFILE.
AN ASTERISK DENOTES AN UNDERGROUND CONFLICT ON PLAN. CONFLICT ALSO IS SHOWN IN PROFILE AT APPROXIMATE DEPTH.
- STA 10+23.88, 10.03' LT.
INSTALL 6" X 6" X 6" TEE WITH 3 NEW GATE VALVES, THIS LOCATION. (SEE DETAIL WA-2, SHEET 3).
 - STA 10+23.88, 10.03' LT TO STA 11+07.72, 12.13' LT
INSTALL 84 LF OF NEW 6 INCH CLASS DR18 C-900 WATER LINE.
 - STA 11+07.72, 12.13' LT
INSTALL 22.5' BEND TO THE NORTHWEST, THIS LOCATION.
 - STA 11+07.72, 12.13' LT TO STA 12+45.79, AND 11.73' BEYOND CENTERLINE CORNER
INSTALL 152 LF OF NEW 6 INCH CLASS DR18 C-900 WATER LINE.
 - STA 12+52.08, 29.48' LT
INSTALL NEW FIRE HYDRANT ASSEMBLY (SEE DETAIL WA-4, SHEET 3).
 - ALL EXISTING WATER METER BOXES SHALL BE REMOVED AND REPLACED WITH NEW (SEE DETAIL WA-3, SHEET 3).
CONNECT ALL NEW WATER METERS AFTER NEW WATER LINE HAS BEEN TESTED AND ACTIVATED
- TEMPORARILY PATCH ALL TRENCHES WITHIN THE ROADWAY AND DRIVEWAYS AT THE END OF EACH WORK DAY. PERMANENT TRENCH PATCH REQUIRED PRIOR TO FINAL ACCEPTANCE.

LEGEND

-  INLET EROSION CONTROL PROTECTION
(CWS STD. DRAWING #920, SEE SHEET 2)

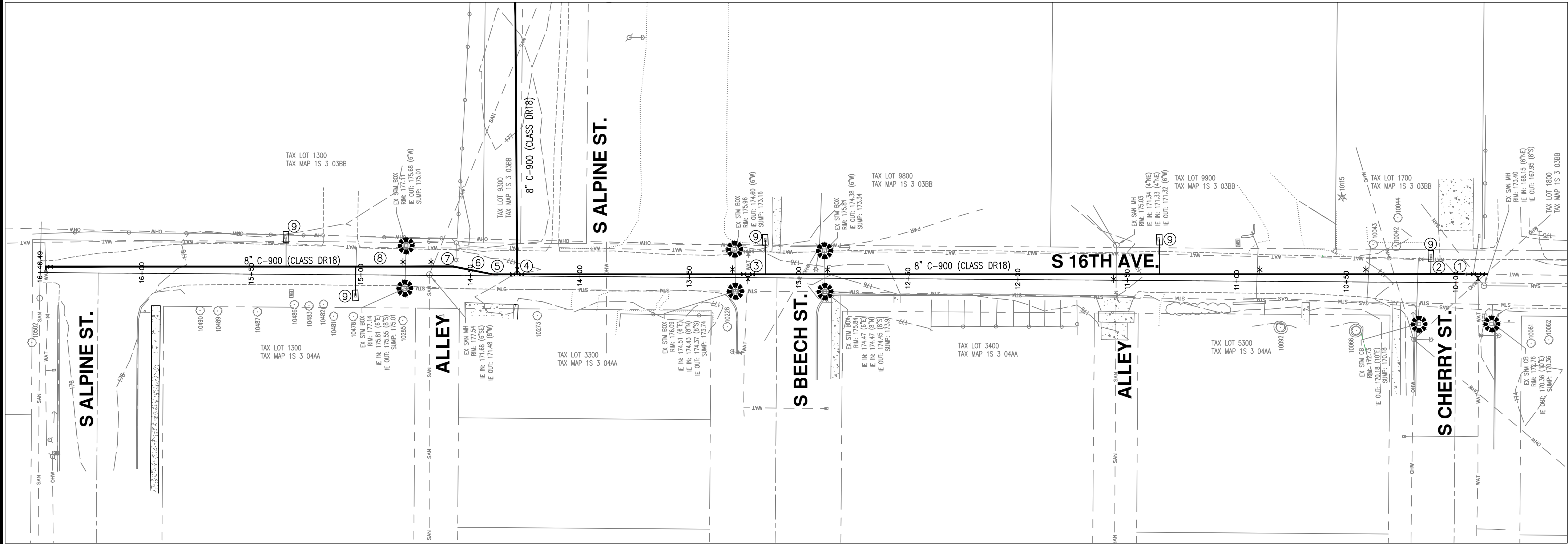
City of Cornelius
Phase 4 Waterline Project
Alternative
S. Elder Court
Plan and Profile



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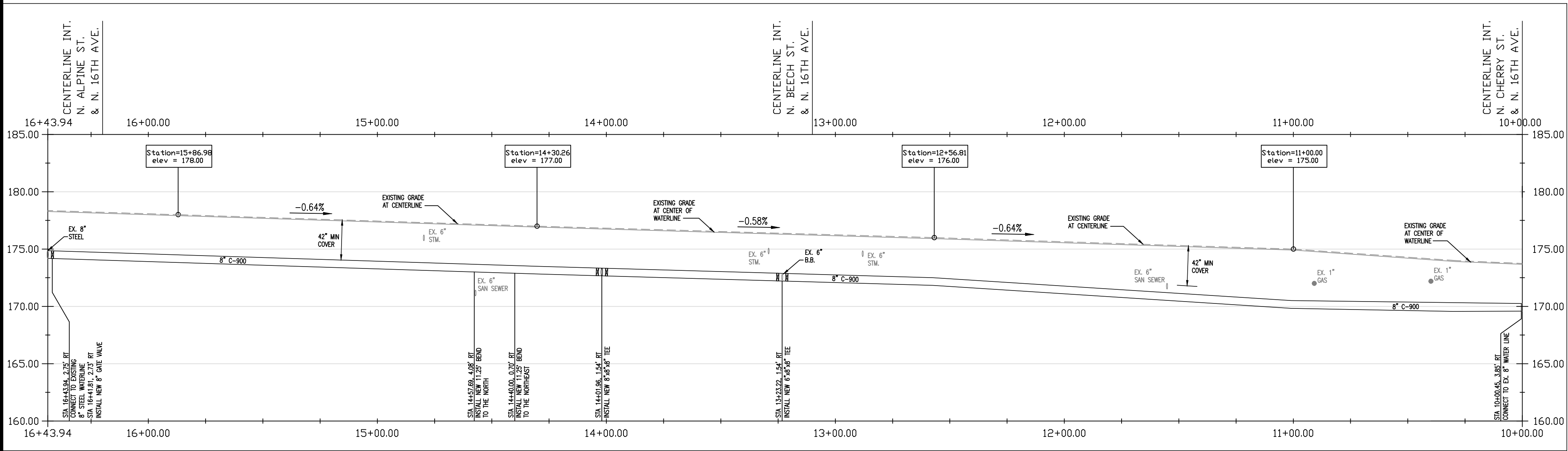


CITY OF CORNELIUS DEV. & OPERATIONS
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CORNELIUS, OR 97113 (503)357-3011
Terry Keyes, P.E.
City Engineer



S. 16TH AVENUE WATERLINE PLAN

SCALE: 1"=30'



S. 16TH AVENUE WATERLINE PROFILE

HORZ. SCALE: 1"=30'

VERT. SCALE: 1"=5'

WATERLINE NOTES

WATERLINE WORK SHALL BE SEQUENCED IN THE ORDER SHOWN BELOW, UNLESS AN ALTERNATE SEQUENCE IS APPROVED BY THE CITY ENGINEER.

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AN ASTERISK DENOTES AN UNDERGROUND CONFLICT ON PLAN.
CONFLICT ALSO IS SHOWN IN PROFILE AT APPROXIMATE DEPTH.

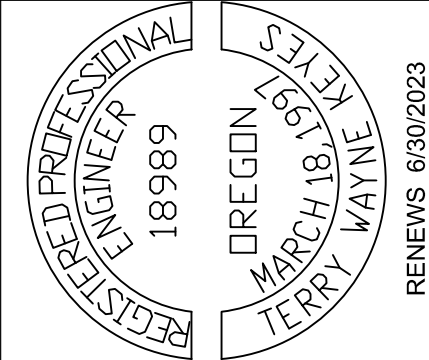
- STA 9+94.98, 3.90' RT
REMOVE 6" REDUCER AND ANY EXISTING LINE.
CONNECT 8 INCH CLASS DR18 C-900 WATER LINE TO EXISTING 8" GATE VALVE.
- STA 9+94.98, 3.90' RT TO STA 14+40.00, 0.70' RT
INSTALL 445 LF OF NEW 8 INCH CLASS DR18 C-900 WATER LINE.
- STA 13+23.22, 1.54' RT
INSTALL NEW 8"x8"x6" TEE (ALL GATE VALVES) WITH 2-8" VALVES ON NORTH AND SOUTH SIDE AND 1-6" VALVE ON WEST SIDE OF TEE.
(SEE DETAIL WA-2, SHEET 3).
- STA 14+28.69, 0.78' RT
INSTALL NEW 8"x8"x8" TEE (ALL GATE VALVES) THIS LOCATION.
(SEE DETAIL WA-2, SHEET 3).
- STA 14+40.00, 0.70' RT
INSTALL NEW 11.25" BEND TO THE NORTHEAST, THIS LOCATION.
- STA 14+40.00, 0.70' RT TO STA 14+57.69, 4.08' RT
INSTALL 18 LF OF NEW 8 INCH CLASS DR18 C-900 WATER LINE.
- STA 14+57.69, 4.08' RT
INSTALL NEW 11.25" BEND TO THE NORTH, THIS LOCATION.
- STA 14+57.69, 4.08' RT TO STA 16+43.94, 2.75' RT
INSTALL 186 LF OF NEW 8 INCH CLASS DR18 C-900 WATER LINE.
CONNECT TO EXISTING 8 INCH STEEL LINE, THIS LOCATION, WITH 8 INCH GATE VALVE AT STA 16+41.94, 2.75' RT AND 90° BEND TO THE WEST (SEE DETAIL WA-2, SHEET 3).
- ALL EXISTING WATER METER BOXES SHALL BE REMOVED AND REPLACED WITH NEW (SEE DETAIL WA-3, SHEET 3).
CONNECT ALL NEW WATER METERS AFTER NEW WATER LINE HAS BEEN TESTED AND ACTIVATED

TEMPORARILY PATCH ALL TRENCHES WITHIN THE ROADWAY AND DRIVEWAYS AT THE END OF EACH WORK DAY. PERMANENT TRENCH PATCH REQUIRED PRIOR TO FINAL ACCEPTANCE.

LEGEND

- INLET EROSION CONTROL PROTECTION (CWS STD. DRAWING #920, SEE SHEET 2)

City of Cornelius
Phase 4 Waterline Project
Alternative
S. 16th Avenue
Plan and Profile



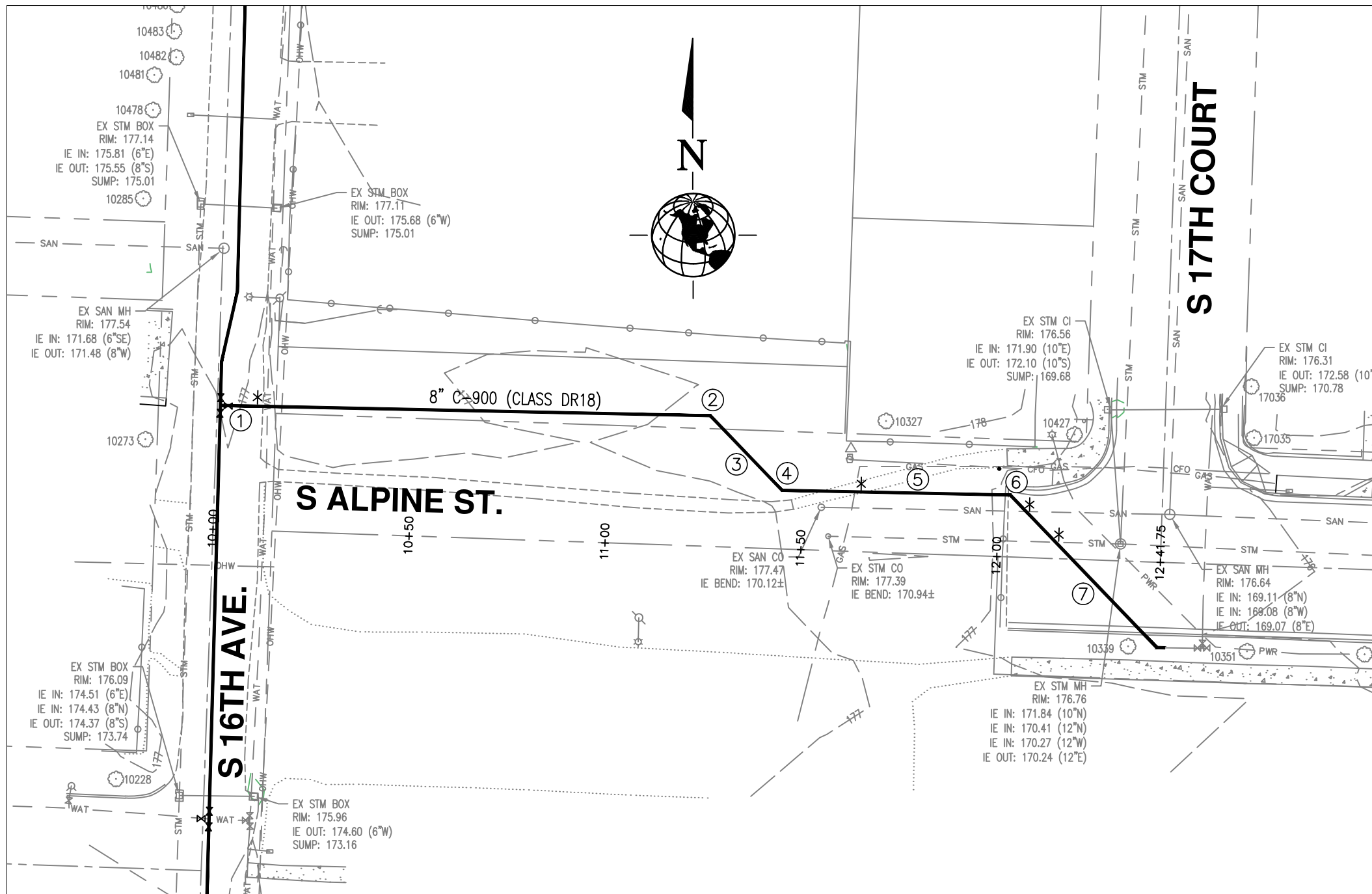
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Cornelius
Oregon's Family Town

CITY OF CORNELIUS DEV. & OPERATIONS
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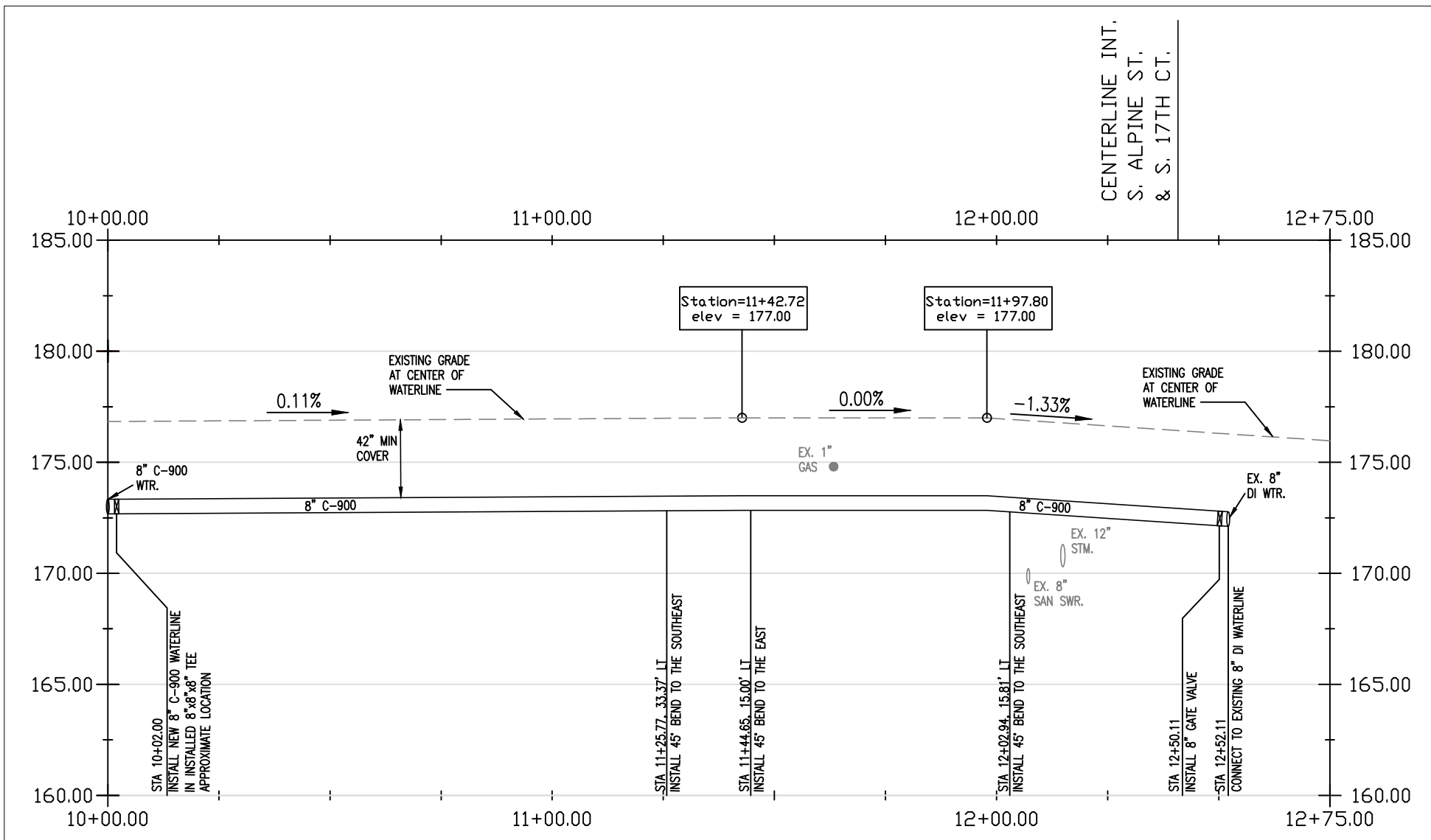
SHEET 8 OF 9

ALTERNATIVE #2



S. ALPINE STREET WATERLINE PLAN

SCALE: 1"=30'



S. ALPINE STREET WATERLINE PROFILE

HORZ. SCALE: 1"=30'
VERT. SCALE: 1"=5'

WATERLINE NOTES

WATERLINE WORK SHALL BE SEQUENCED IN THE ORDER SHOWN BELOW, UNLESS AN ALTERNATE SEQUENCE IS APPROVED BY THE CITY ENGINEER.

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AN ASTERISK DENOTES AN UNDERGROUND CONFLICT ON PLAN.
CONFLICT ALSO IS SHOWN IN PROFILE AT APPROXIMATE DEPTH.

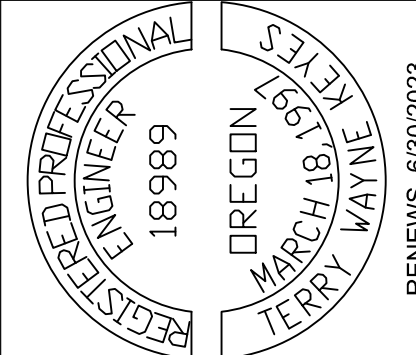
- STA 10+00.78, 31.64' LT TO STA 11+25.77, 33.37' LT
EQUIVALENT 14+28.69, 0.78' RT (16TH AVE.)
INSTALL 125 LF OF NEW 8 INCH CLASS DR18
C-900 WATER LINE FROM 8"x8"x8" TEE.
- STA 11+25.77, 33.37' LT
INSTALL 45° BEND TO THE SOUTHEAST, THIS LOCATION.
- STA 11+25.77, 33.37' LT TO STA 11+44.65, 15.00' LT
INSTALL 26 LF OF NEW 8 INCH CLASS DR18
C-900 WATER LINE, THIS LOCATION.
- STA 11+44.65, 15.00' LT
INSTALL 45° BEND TO THE EAST, THIS LOCATION.
- STA 11+44.65, 15.00' LT TO STA 12+02.94, 15.81' LT
INSTALL 58 LF OF NEW 8 INCH CLASS DR18
C-900 WATER LINE, THIS LOCATION.
- STA 12+02.94, 15.81' LT
INSTALL 45° BEND TO THE SOUTHEAST, THIS LOCATION.
- STA 12+02.94, 15.81' LT TO STA 12+41.75, 21.78' RT
INSTALL 54 LF OF NEW 8 INCH CLASS DR18
C-900 WATER LINE, THIS LOCATION.
CONNECT TO EXISTING 8 INCH DI WATER LINE WITH A 45° BEND

TEMPORARILY PATCH ALL TRENCHES WITHIN THE ROADWAY AND DRIVEWAYS AT THE END OF EACH WORK DAY. PERMANENT TRENCH PATCH REQUIRED PRIOR TO FINAL ACCEPTANCE.

LEGEND

- INLET EROSION CONTROL PROTECTION
(CWS STD. DRAWING #920, SEE SHEET 2)

City of Cornelius
Phase 4 Waterline Project
Alternative
S. Alpine St. Between 16th & 17th Ave.
Plan and Profile



DESIGNED BY: TDG
DRAWN BY: TDG
CHECKED BY:
ISSUE DATE: 2-24-2022

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SHEET 9 OF 9