

Easement

Know by all persons present, that Vern Scovell and his estate ("Grantor"), for consideration of the mutual promises exchanged herein and other good and valuable consideration exchanged with Riverview Meadows Development LLC, ("Grantee"), does hereby agree to assist and correct any defects needed to the existing road easement. To ensure access to the Grantee project site.

EASEMENT RECITALS

A. Grantor is the owner of the real property ("Parcel 1") being legally described, and pictorially described, in the attached Exhibit A.

B. Grantee is the owner of the real property (Parcel 2") being legally described as follows:

Tract B, RIVERVIEW MEADOWS PHASE I, situated in the Northwest quarter of section 23, Township 3 North, Range 10 West, Willamette Meridian, County of Tillamook, State of Oregon, recorded July 26, 2010 as instrument No. 2010-004288, Tillamook County Records.

C. Parcel 1 and Parcel 2 are in close proximity to each other and are, or will be, connected by way of the additional public easement.

D. It is the intent of the parties herein named to create a non-exclusive, public access, and permanent right to enter, re-enter, and use Parcel 1, subject conditions as set forth herein, for the benefit of Grantee's Parcel 2, and the general public.

E. The non-exclusive easement will be used for public and private ingress and egress purposes by the general public, by Grantee, and by Grantee's successors in ownership of Grantee's Parcel 2.

F. Additionally, the non-exclusive easement for public access and public and/or private utilities, shall also include the right to lay, construct, and maintain streets, water mains, sewer mains, storm drainage lines, and all related appurtenances, to be constructed and located on, across, under or over Parcel 1.

G. The parties agree that any unknown defect in the above EASEMENT Area due to inaccuracy will not hinder the intent of the parties.

IT IS FURTHER UNDERSTOOD and AGREED:

1. The foregoing Easement Recitals paragraphs are contractual and merely recitals, and are incorporated by this reference.
2. The rights and obligations of all the easements herein shall run with and be appurtenant to those parcels of land as described, and shall not be personal to any person, except that the obligation to pay for the costs and expenses (for costs and expenses incurred while a person was an owner) shall be personal to the owners of the described parcels, as well as run with the described parcels.
3. Grantee, and the general public shall have a non-exclusive, public access, and permanent right to enter, re-enter, and use Parcel 1 being legally described, and pictorially described, in the attached Exhibit A, subject to conditions as set forth herein, for the benefit of Grantee's Parcel 2. The easement shall include the right of the Grantor or Grantee to reasonably improve the surface of the easement area herein described; costs of any improvements to the easement area shall be borne by Grantee, their successors and assigns. Any improvement to the easement area shall be in compliance with all applicable local, state, and federal law.
4. Grantee shall have a non-exclusive easement for public access and public and/or private utilities, to include the right to lay, construct, and maintain streets, water mains, sewer mains, storm drainage lines, and all related appurtenances, to be constructed and located on, across, under or over Parcel 1.
5. Grantor agrees that the consideration recited herein is just compensation for the property right herein granted.
6. Grantor represents and warrants that Grantor has the authority to grant the easement and that the easement area is free from all liens and encumbrances that would materially affect the easement grant, and that they will defend this easement grant against all lawful claims and demands of all persons whomsoever with respect to any liens or encumbrances that would materially affect the easement grant.

(SIGNATURE PAGE FOLLOWS)

The parties above named have hereunto set their hands this 6th day of April, 2023.

GRANTOR:

GRANTEE:

Riverview Meadows Development, LLC.

Vern Scovell
Vern Scovell

Vern Scovell
Vern Scovell, Member

STATE OF OREGON

County of Tillamook

This instrument was acknowledged before me on April 6, 2023, by Vern Scovell, the above-named Grantor, and member of Grantee.

Michelle Lee Pifer
Notary Public for Oregon

My Commission expires: 6/28/25

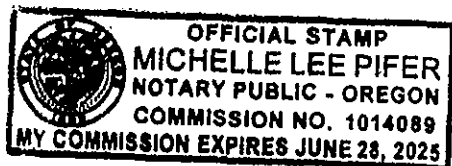
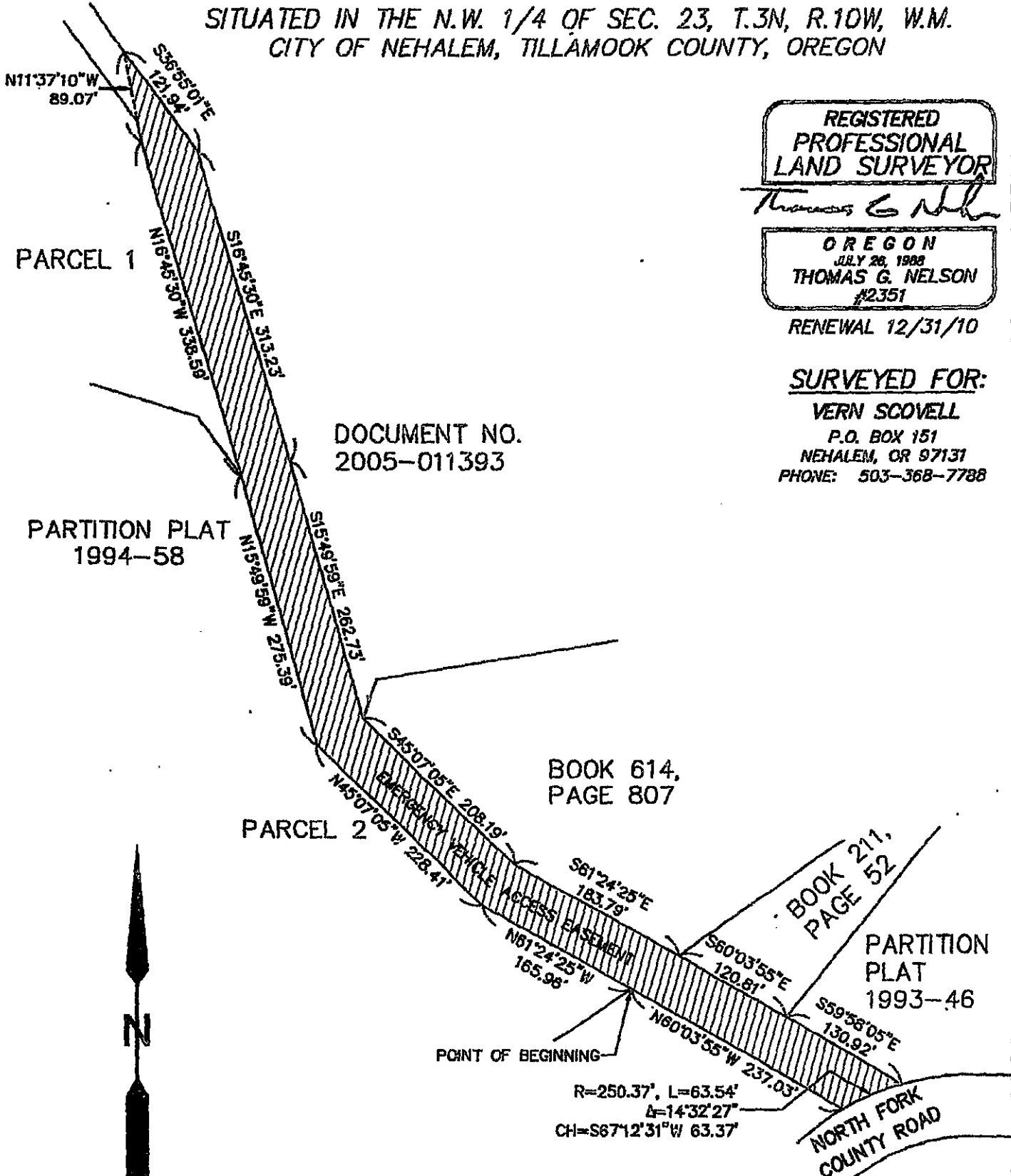


EXHIBIT A

EASEMENT SITUATED IN THE NORTHWEST ONE-QUARTER OF SECTION 23, TOWNSHIP 3 NORTH, RANGE 10 WEST, OF THE WILLAMETTE MERIDIAN, CITY OF NEHALEM, TILLAMOOK COUNTY, OREGON;

BEGINNING AT THE MOST EASTERLY SOUTHEAST CORNER OF PARCEL 2, PARTITION PLAT NO. 1994-58, TILLAMOOK COUNTY PLAT RECORDS; THENCE NORTH 61°24'25" WEST ALONG THE EAST LINE OF SAID PARTITION PLAT NO. 1994-58, A DISTANCE OF 165.96 FEET; THENCE NORTH 45°07'05" WEST CONTINUING ALONG SAID EAST LINE, A DISTANCE OF 228.41 FEET; THENCE NORTH 15°49'59" WEST CONTINUING ALONG SAID EAST LINE, A DISTANCE OF 275.39 FEET; THENCE NORTH 16°45'30" WEST CONTINUING ALONG SAID EAST LINE, A DISTANCE OF 338.59 FEET; THENCE NORTH 11°37'10" WEST CONTINUING ALONG A PORTION OF SAID EAST LINE, A DISTANCE OF 89.07 FEET TO THE WEST LINE OF THAT PROPERTY DESCRIBED IN DOCUMENT NO. 2005-011393, TILLAMOOK COUNTY DEED RECORDS; THENCE SOUTH 36°55'01" EAST ALONG THE WEST LINE OF SAID DOCUMENT NO. 2005-011393, A DISTANCE OF 121.94 FEET; THENCE SOUTH 16°45'30" EAST ALONG SAID WEST LINE OF DOCUMENT NO. 2005-011393, A DISTANCE OF 313.23 FEET; THENCE SOUTH 15°49'59" EAST ALONG SAID WEST LINE OF DOCUMENT NO. 2005-011393, A DISTANCE OF 262.73 FEET TO THE MOST WESTERLY CORNER OF THAT PROPERTY DESCRIBED IN BOOK 614, PAGE 807, TILLAMOOK COUNTY DEED RECORDS; THENCE SOUTH 45°07'05" EAST ALONG THE SOUTHWESTERLY LINE OF SAID PROPERTY DESCRIBED IN BOOK 614, PAGE 807, A DISTANCE OF 208.19 FEET; THENCE SOUTH 61°24'25" EAST CONTINUING ALONG SAID SOUTHWESTERLY LINE OF PROPERTY DESCRIBED IN BOOK 614, PAGE 807, A DISTANCE OF 183.79 FEET TO THE MOST SOUTHWESTERLY CORNER OF THAT PROPERTY DESCRIBED IN BOOK 211, PAGE 52, TILLAMOOK COUNTY DEED RECORDS; THENCE SOUTH 60°03'55" EAST ALONG THE SOUTHWESTERLY LINE OF SAID PROPERTY DESCRIBED IN BOOK 211, PAGE 52, A DISTANCE OF 120.81 FEET TO THE MOST WESTERLY CORNER OF PARTITION PLAT NO. 1993-46, TILLAMOOK COUNTY PLAT RECORDS; THENCE SOUTH 59°58'05" EAST ALONG THE SOUTHERLY LINE OF SAID PARTITION PLAT NO. 1993-46, A DISTANCE OF 130.92 FEET TO THE WEST RIGHT-OF-WAY LINE FOR NORTH FORK COUNTY ROAD; THENCE ALONG 250.37 FOOT RADIUS NON-TANGENT CURVE TO THE LEFT, THROUGH A CENTRAL ANGLE OF 14°32'27", A LENGTH OF 63.54 FEET, THE LONG CHORD OF WHICH BEARS SOUTH 67°12'31" WEST 63.37 FEET; THENCE NORTH 80°03'55" WEST, A DISTANCE OF 237.03 FEET TO THE POINT OF BEGINNING

EMERGENCY VEHICLE ACCESS EASEMENT EXHIBIT
 SITUATED IN THE N.W. 1/4 OF SEC. 23, T.3N, R.10W, W.M.
 CITY OF NEHALEM, TILLAMOOK COUNTY, OREGON



**REGISTERED
 PROFESSIONAL
 LAND SURVEYOR**

Thomas G. Nelson

OREGON
 JULY 26, 1988
THOMAS G. NELSON
 #2351

RENEWAL 12/31/10

SURVEYED FOR:

VERN SCOVELL
 P.O. BOX 151
 NEHALEM, OR 97131
 PHONE: 503-368-7788

DOCUMENT NO.
 2005-011393

PARTITION PLAT
 1994-58

BOOK 614,
 PAGE 807

BOOK 211,
 PAGE 52

PARTITION
 PLAT
 1993-46



SCALE: NOT TO SCALE

POINT OF BEGINNING
 $R=250.37'$, $L=63.54'$
 $\Delta=14^{\circ}32'27''$
 $CH=S67^{\circ}12'31''W$ 63.37'

NORTH FORK
 COUNTY ROAD

Tom Nelson & Associates, L.L.C.

16221 SE WATER FORD, SUITE 200
 PORTLAND, OREGON 97244
 PHONE: (503) 230-1532
 FAX: (503) 230-1532



MORGAN CIVIL ENGINEERING, INC.

PO BOX 388
MANZANITA, OR 97130
(503) 801-6016
www.morgancivil.com

JOHN
#19-10 RV
DATE: MAR. 5, 2023



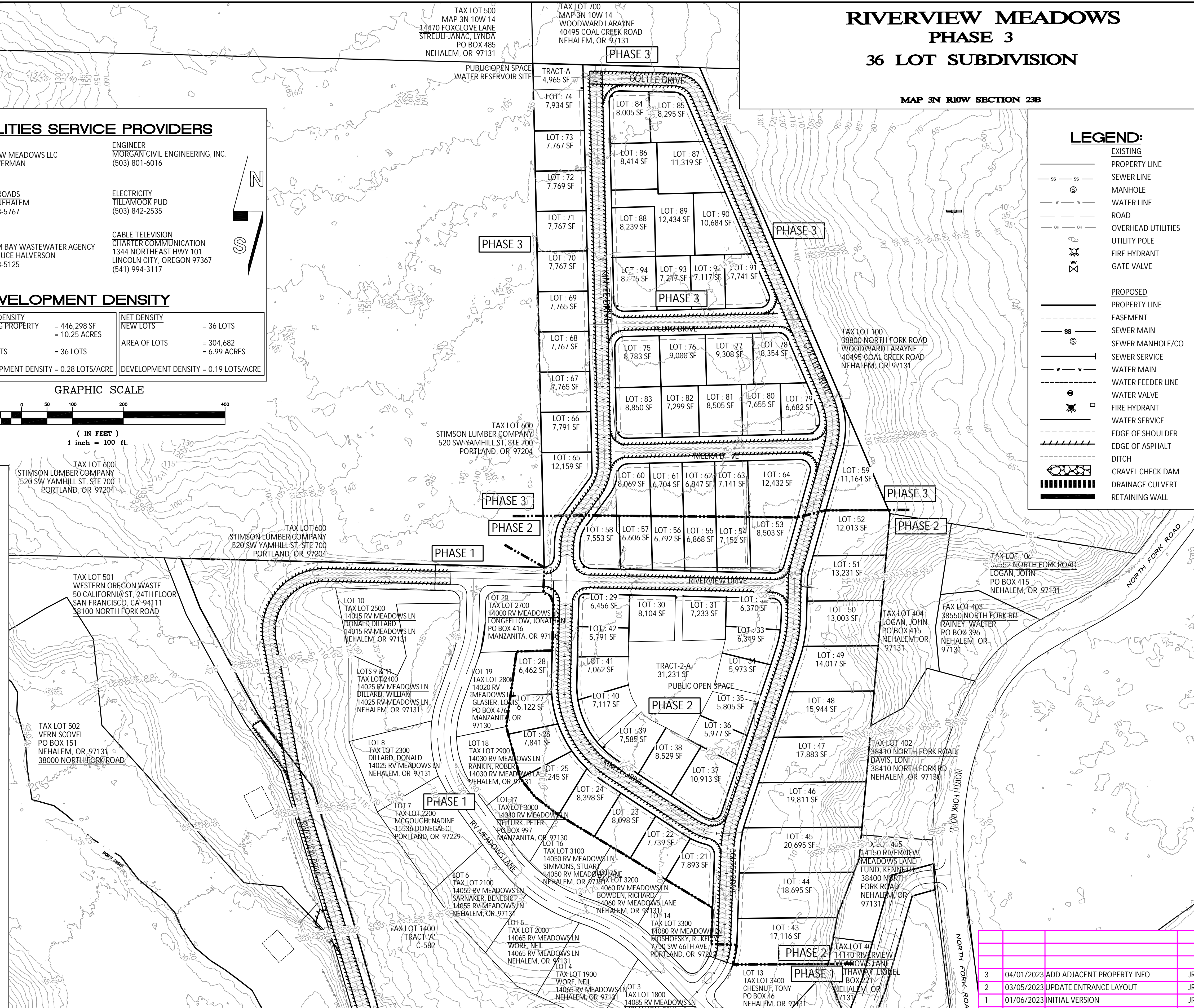
RENEWAL DATE: DECEMBER 31, 2024

RIVERVIEW MEADOWS DEVELOPMENT, LLC
RIVERVIEW MEADOWS PHASE 3
TENTATIVE PLAN

SHEET
1
OF -24-

RIVERVIEW MEADOWS PHASE 3 36 LOT SUBDIVISION

MAP 3N 10W SECTION 23B



UTILITY LOCATE ONE CALL (1-800-332-2344) or (8-1-1)

ATTENTION: OREGON LAW REQUIRES YOU TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH OAR 952-001-0090. YOU MAY OBTAIN COPIES OF THE RULES BY CALLING THE CENTER. (NOTE: THE TELEPHONE NUMBER FOR THE OREGON UTILITY NOTIFICATION CENTER IS (503) 232-1987).

PROJECT IS AT RIVERVIEW MEADOWS, IN NEHALEM.
TAX LOT 3600, MAP 2N 10W 23B.

UTILITIES SERVICE PROVIDERS

OWNER RIVERVIEW MEADOWS LLC ALEX REVERMAN	ENGINEER MORGAN CIVIL ENGINEERING, INC. (503) 801-6016
WATER/ROADS CITY OF NEHALEM (503) 368-5767	ELECTRICITY TILLAMOOK PUD (503) 842-2535
SEWER NEHALEM BAY WASTEWATER AGENCY ATTN: BRUCE HALVERSON (503) 368-5125	CABLE TELEVISION CHARTER COMMUNICATION 1344 NORTHEAST HWY 101 LINCOLN CITY, OREGON 97367 (541) 994-3117

SCOPE OF WORK (PHASES 2 & 3)

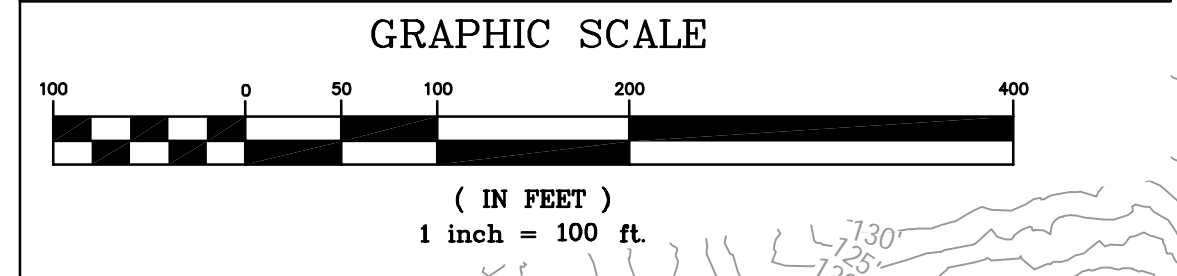
SEWER CONCRETE MANHOLES	14 EA
8"Ø PVC SEWER	4,280 LF
8"Ø CLEANOUT	1 EA
SERVICE LATERAL ASSEMBLY	74 EA
WATER WATER MAIN	7,500 LF
GATE VALVE	25 EA
TEE	7 EA
WATER SERVICE ASSEMBLY	74 EA
STORM DRAINAGE 18" CULVERT (±40 FT)	12 EA
ROAD FABRIC	21,000 SY
BASE ROCK	5,000 CY
LEVELING ROCK	1,700 CY
ASPHALT	4,000 TON

SHEET INDEX

1. COVER SHEET
2. PROPERTY LAYOUT
3. NORTH AREA (PHASE 3)
4. SOUTH AREA (PHASE 2)
5. STORM SYSTEM
6. UTILITY LAYOUT
7. RIVERVIEW DRIVE-1
8. RIVERVIEW DRIVE-2
9. RIVERVIEW DRIVE-3
10. RIVERVIEW DRIVE-4
11. RIVERVIEW DRIVE-5
12. RIVERVIEW DRIVE-6
13. RIVERVIEW DRIVE-PROFILE
14. COLTREE DRIVE-2
15. COLTREE DRIVE-3
16. COLTREE DRIVE-4
17. KINLEE DRIVE-3
18. KINLEE DRIVE-4
19. MEEKA DRIVE-1
20. MEEKA DRIVE-2
21. PLUTO DRIVE
22. ROADWAY ALIGNMENTS
23. SEWER DETAILS
24. WATER DETAILS

DEVELOPMENT DENSITY

GROSS DENSITY EXISTING PROPERTY	= 446,298 SF	NET DENSITY NEW LOTS	= 36 LOTS
	= 10.25 ACRES		
NEW LOTS	= 36 LOTS	AREA OF LOTS	= 304,682
			= 6.99 ACRES
DEVELOPMENT DENSITY	= 0.28 LOTS/ACRE	DEVELOPMENT DENSITY	= 0.19 LOTS/ACRE



- ### GENERAL NOTES:
- ALL WORK AND MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF THE NEHALEM PUBLIC WORKS (NPW), THE NEHALEM BAY WASTEWATER AGENCY (NBWA) AND THE 2021 APWA STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION INCLUDING SUPPLEMENTS. IN THE EVENT OF A CONFLICT BETWEEN NBWA AND/OR NPW POLICIES AND REGULATIONS AND THE APWA STANDARD SPECIFICATIONS, THE MORE STRINGENT SHALL CONTROL UNLESS OTHERWISE DIRECTED BY NBWA OR NPW.
 - CONTRACTOR SHALL NOTIFY NBWA, NPW, CITY AND ALL UTILITY COMPANIES A MINIMUM OF 72 BUSINESS HOURS (3 BUSINESS DAYS) PRIOR TO THE START OF CONSTRUCTION OR RESUMING WORK AFTER SHUTDOWNS EXCEPT FOR NORMAL RESUMPTION OF WORK AFTER SUNDAYS OR HOLIDAYS. CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF ORS 757.541 TO 757.571.
 - CONTRACTOR SHALL PERFORM ALL WORK NECESSARY TO COMPLETE THE PROJECT IN ACCORDANCE WITH THE APPROVED CONSTRUCTION DRAWINGS INCLUDING SUCH INCIDENTALS AS MAY BE NECESSARY TO MEET APPLICABLE AGENCY REQUIREMENTS AND PROVIDE A COMPLETED PROJECT
 - CONTRACTOR SHALL PROCURE A RIGHT-OF-WAY PERMIT FROM THE CITY OF NEHALEM FOR ALL WORK WITHIN THE CITY RIGHT-OF-WAY AND CONFORM TO ALL CONDITIONS OF THE PERMIT.
 - CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS AND LICENSES PRIOR TO THE START OF CONSTRUCTION.
 - CONTRACTOR SHALL PROVIDE ALL BONDS AND INSURANCE REQUIRED BY PUBLIC OR PRIVATE AGENCIES HAVING JURISDICTION, INCLUDING NBWA AND NEHALEM.
 - UNLESS OTHERWISE APPROVED BY NBWA, CONSTRUCTION OF SANITARY SEWER IMPROVEMENTS SHALL BE DONE BETWEEN 7:00 A.M. AND 6:00 P.M., MONDAY THROUGH SATURDAY. WORK OUTSIDE THESE HOURS SHALL BE APPROVED IN WRITING BY NBWA PRIOR TO THE START OF CONSTRUCTION OUTSIDE NORMAL WORK HOURS.
 - ANY INSPECTION BY NBWA OR NPW SHALL NOT, IN ANY WAY, RELIEVE THE CONTRACTOR FROM ANY OBLIGATION TO PERFORM THE WORK IN STRICT COMPLIANCE WITH THE APPLICABLE CODES AND AGENCY REQUIREMENTS.
 - CONTRACTOR SHALL ERECT AND MAINTAIN BARRICADES, WARNING SIGNS, TRAFFIC CONES (AND ALL OTHER TRAFFIC CONTROL DEVICES REQUIRED) PER DISTRICT AND CITY REQUIREMENTS IN ACCORDANCE WITH THE CURRENT MUTCD (INCLUDING OREGON AMENDMENTS). ACCESS TO DRIVEWAYS SHALL BE MAINTAINED AT ALL TIMES. ALL TRAFFIC CONTROL MEASURES SHALL BE APPROVED AND IN PLACE PRIOR TO ANY CONSTRUCTION ACTIVITY.
 - THE CONTRACTOR SHALL MAINTAIN ONE COMPLETE SET OF APPROVED DRAWINGS ON THE CONSTRUCTION SITE AT ALL TIMES WHEREON HE WILL RECORD ANY APPROVED DEVIATIONS IN CONSTRUCTION FROM THE APPROVED DRAWINGS, AS WELL AS THE STATION LOCATIONS AND DEPTHS OF ALL EXISTING UTILITIES ENCOUNTERED. THESE FIELD RECORD DRAWINGS SHALL BE KEPT UP TO DATE AT ALL TIMES AND SHALL BE AVAILABLE FOR INSPECTION BY THE UTILITY DISTRICTS UPON REQUEST
 - SUBMITTALS SHALL BE PROVIDED BY THE CONTRACTOR TO NBWA AND NPW FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION IN ACCORDANCE WITH NBWA AND NPW REQUIREMENTS.
 - THE CONTRACTOR SHALL SUBMIT A SUITABLE MAINTENANCE BOND PRIOR TO FINAL PAYMENT WHERE REQUIRED BY PUBLIC AND/OR PRIVATE AGENCIES HAVING JURISDICTION.

NO.	DATE	DESCRIPTION	BY
3	04/01/2023	ADD ADJACENT PROPERTY INFO	JRM
2	03/05/2023	UPDATE ENTRANCE LAYOUT	JRM
1	01/06/2023	INITIAL VERSION	JRM

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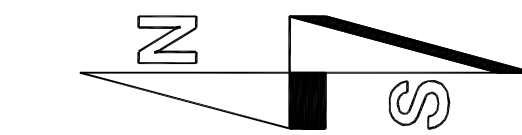
RIVERVIEW MEADOWS PHASE 3 36 LOT SUBDIVISION

MAP 3N RI0W SECTION 23B

GRAPHIC SCALE



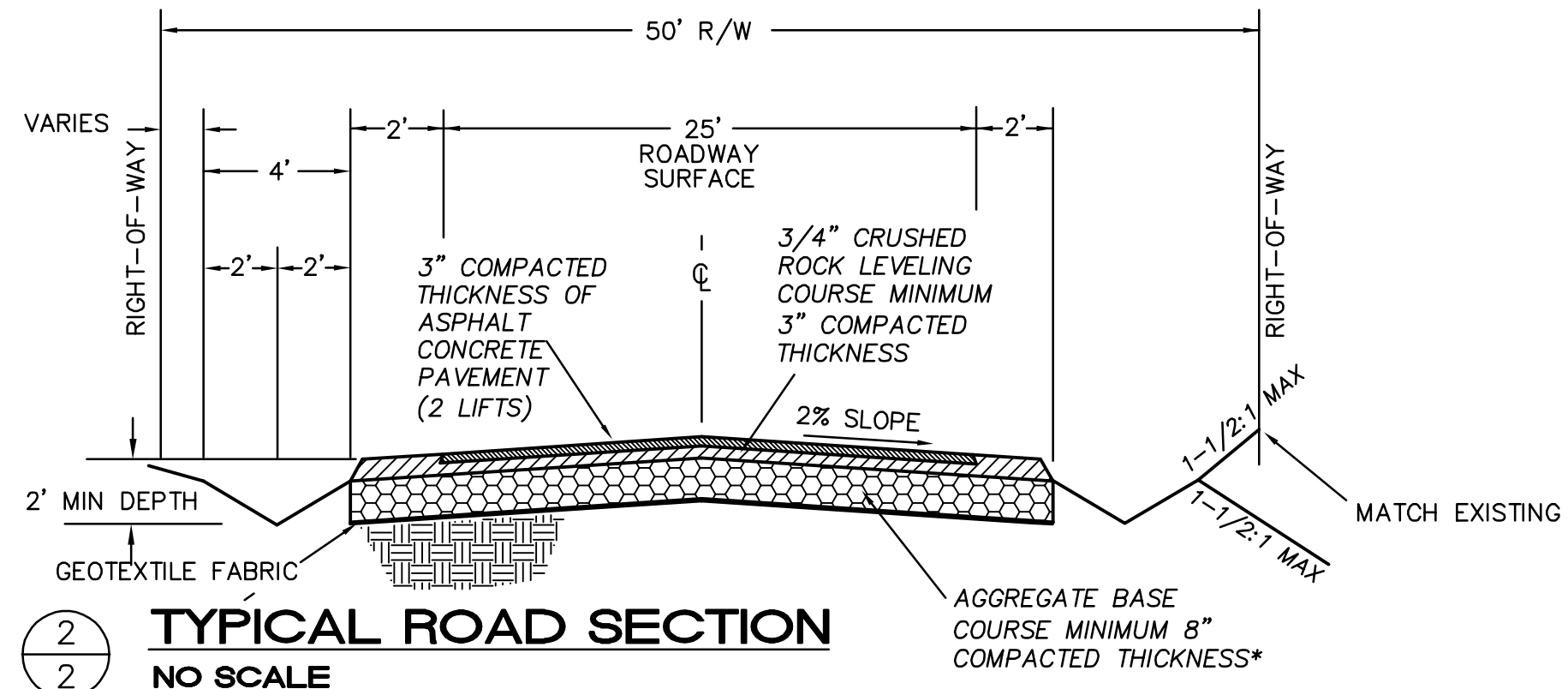
(IN FEET)
1 inch = 100 ft.



PROPERTY LAYOUT
SCALE: 1"=100'

EXISTING UTILITIES AND FACILITIES:

- CONTRACTOR SHALL LOCATE AND MARK ALL EXISTING PROPERTY AND STREET MONUMENTS PRIOR TO CONSTRUCTION. ANY MONUMENTS DISTURBED DURING CONSTRUCTION OF THE SANITARY SEWERAGE IMPROVEMENTS SHALL BE REPLACED BY A REGISTERED LAND SURVEYOR AT THE CONTRACTOR'S EXPENSE. THE MONUMENTS SHALL BE REPLACED WITHIN A MAXIMUM OF 90 DAYS, AND THE CITY SURVEYOR SHALL BE NOTIFIED IN WRITING AS REQUIRED BY ORS 209.150.
- THE LOCATION AND DESCRIPTION OF EXISTING NBWA AND NPW FACILITIES SHOWN ON THE DRAWINGS ARE COMPILED FROM AVAILABLE RECORDS AND/OR FIELD SURVEYS. NBWA AND NPW DO NOT GUARANTEE THE ACCURACY OR THE COMPLETENESS OF SUCH RECORDS. CONTRACTOR SHALL FIELD VERIFY SIZES AND LOCATIONS OF ALL EXISTING NBWA FACILITIES PRIOR TO CONSTRUCTION.
- ATTENTION: OREGON LAW REQUIRES YOU TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952.001-0010 THROUGH OAR 952.0010090. YOU MAY OBTAIN COPIES OF THE RULES BY CALLING THE CENTER. (NOTE: THE TELEPHONE NUMBER FOR THE OREGON UTILITY NOTIFICATION CENTER IS (503) 232-1987).
- CONTRACTOR SHALL FIELD VERIFY THE LOCATION AND DEPTH OF ALL EXISTING UTILITIES -WHERE NEW FACILITIES CROSS OR ARE CLOSELY PARALLEL TO THE EXISTING FACILITIES. ALL UTILITY CROSSINGS MARKED OR SHOWN ON THE DRAWINGS SHALL BE POTHOLED USING HAND TOOLS OR OTHER NON-INVASIVE METHODS PRIOR TO EXCAVATING OR BORING. CONTRACTOR SHALL BE RESPONSIBLE FOR EXPOSING POTENTIAL UTILITY CONFLICTS FAR ENOUGH AHEAD OF CONSTRUCTION TO MAKE NECESSARY GRADE MODIFICATIONS WITHOUT DELAYING THE WORK. IF GRADE MODIFICATION IS NECESSARY, CONTRACTOR SHALL NOTIFY THE DEVELOPER'S ENGINEER, AND THE DEVELOPER'S ENGINEER SHALL OBTAIN APPROVAL FROM NBWA AND/OR NPW PRIOR TO CONSTRUCTION. ALL UTILITY CROSSINGS SHALL BE POTHOLED AS NECESSARY PRIOR TO EXCAVATING OR BORING TO ALLOW THE CONTRACTOR TO PREVENT GRADE OR ALIGNMENT CONFLICTS.
- ALL EXISTING NBWA AND NPW FACILITIES SHALL BE MAINTAINED IN-PLACE BY THE CONTRACTOR UNLESS OTHERWISE SHOWN OR DIRECTED BY NBWA OR NPW. CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO SUPPORT, MAINTAIN OR OTHERWISE PROTECT EXISTING FACILITIES AT ALL TIMES DURING CONSTRUCTION. CONTRACTOR SHALL LEAVE EXISTING FACILITIES IN AN EQUAL OR BETTER-THAN-ORIGINAL CONDITION AND TO THE SATISFACTION OF NBWA AND/OR NPW.
- NBWA OR NPW UTILITIES, OR INTERFERING PORTIONS OF NBWA OR NPW FACILITIES, THAT ARE ABANDONED IN PLACE SHALL BE REMOVED BY THE CONTRACTOR TO THE EXTENT NECESSARY TO ACCOMPLISH THE WORK. THE CONTRACTOR SHALL PLUG THE REMAINING EXPOSED ENDS OF THE ABANDONED UTILITIES.



NO.	DATE	DESCRIPTION	BY
4	04/01/2023	ADD ADJACENT PROPERTY INFO	JRM
3	03/05/2023	UPDATE TL 700 BOUNDARY	JRM
2	03/05/2023	UPDATE ENTRANCE LAYOUT	JRM
1	01/06/2023	INITIAL VERSION	JRM



**MORGAN CIVIL
ENGINEERING, INC.**

- CIVIL ENGINEERING
- INSPECTION
- PLANNING

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RENEWAL DATE: DECEMBER 31, 2024

RIVERVIEW MEADOWS DEVELOPMENT, LLC
RIVERVIEW MEADOWS PHASE 3
TENTATIVE PLAN

SHEET
2
OF -24-

NEHALEM, MAP 3N T0W 23B

SANITARY SEWAGE FACILITIES:

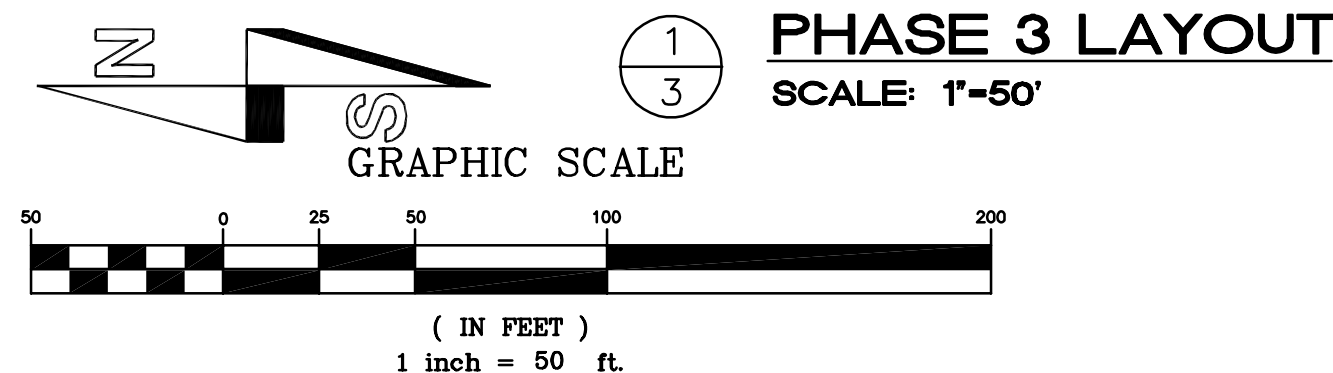
- UNLESS OTHERWISE NOTED, MATERIALS AND WORKMANSHIP FOR SANITARY SEWER SHALL CONFORM TO OSSC (ODOT/APWA) SPECIFICATIONS, 2021 EDITION.
- THE CONTRACTOR SHALL HAVE APPROPRIATE EQUIPMENT ON SITE TO PRODUCE A FIRM, SMOOTH, UNDISTURBED SUBGRADE AT THE TRENCH BOTTOM, TRUE TO GRADE. THE BOTTOM OF THE TRENCH EXCAVATION SHALL BE SMOOTH, FREE OF LOOSE MATERIALS OR TOOTH GROOVES FOR THE ENTIRE WIDTH OF THE TRENCH PRIOR TO PLACING THE GRANULAR BEDDING MATERIAL.
- BEDDING AND BACKFILL. ALL SANITARY SEWER PIPES SHALL BE BEDDED WITH A MINIMUM OF 4-INCHES OF 3/4" MINUS CRUSHED ROCK BEDDING AND BACKFILLED WITH COMPACTED 3/4" MINUS CRUSHED ROCK IN THE PIPE ZONE. CRUSHED ROCK SHALL EXTEND A MINIMUM OF 12-INCHES OVER THE TOP OF THE PIPE IN ALL CASES). CRUSHED ROCK TRENCH BACKFILL SHALL BE USED UNDER ALL IMPROVED AREAS, INCLUDING SIDEWALKS.
- TRENCH BACKFILL IN THE PIPE ZONE SHALL BE ACHIEVED BY MECHANICAL MEANS IN HORIZONTAL LIFTS TO NINETY PERCENT (90%) OF THE MAXIMUM DRY DENSITY PER AASHTO T-180 TEST METHOD.
- COMPACTION IN THE BACKFILL ZONE (MORE THAN 12" ABOVE THE TOP OF PIPE) AND WITHIN THE STREET RIGHT OF WAY SHALL BE ACHIEVED BY MECHANICAL MEANS IN HORIZONTAL LIFTS TO NINETY-TWO PERCENT (92%) OF THE MAXIMUM DRY DENSITY PER AASHTO T-180 TEST METHOD UNLESS A GREATER DEGREE OF COMPACTION IS REQUIRED BY ANOTHER AGENCY WITH JURISDICTION.
- COMPACTION IN THE BACKFILL ZONE (MORE THAN 12" ABOVE THE TOP OF PIPE) AND OUTSIDE THE STREET RIGHT OF WAY SHALL BE ACHIEVED BY MECHANICAL MEANS IN HORIZONTAL LIFTS TO NINETY PERCENT (90%) OF THE MAXIMUM DRY DENSITY PER AASHTO T-180 TEST METHOD UNLESS A GREATER DEGREE OF COMPACTION IS REQUIRED BY ANOTHER AGENCY WITH JURISDICTION.
- CRUSHED ROCK SHALL CONFORM TO THE REQUIREMENTS OF OSSC (2021 ODOT/APWA) 02630.10 (DENSE GRADED BASE AGGREGATE).
- ALL CITY OF NEHALEM PIPED FACILITIES ABANDONED IN PLACE SHALL HAVE ALL OPENINGS CLOSED WITH CONCRETE PLUGS WITH A MINIMUM LENGTH EQUAL TO TWO (2) TIMES THE DIAMETER OF THE ABANDONED PIPE.
- THE END OF ALL UTILITY STUBS SHALL BE MARKED WITH A PAINTED 2x4, EXTENDING 2 FEET MINIMUM ABOVE FINISH GRADE, AND WIRED TO PIPE STUB (PAINTED WHITE FOR SANITARY SEWER). TYPE OF UTILITY (IE. SEWER) AND DEPTH BELOW GRADE TO PIPE INVERT SHALL BE CLEARLY & PERMANENTLY LABELED ON THE MARKER POST.
- NO TRENCHES IN ROADS OR DRIVEWAYS SHALL BE LEFT IN AN OPEN CONDITION OVERNIGHT. ALL SUCH TRENCHES SHALL BE CLOSED BEFORE THE END OF EACH WORK DAY AND NORMAL TRAFFIC FLOWS RESTORED.
- SANITARY SEWER & WATERLINE CROSSINGS. WHERE SANITARY SEWER LINES CROSS ABOVE OR WITHIN 18-INCHES OF VERTICAL SEPARATION BELOW A WATERLINE, SEWER MAINS AND/OR LATERALS SHALL BE REPLACED WITH DUCTILE IRON PIPE AT THE CROSSING. CENTER ONE FULL LENGTH OF CLASS 50 DUCTILE IRON PIPE CONFORMING TO AWWA C-151 AND C-104 AT POINT OF CROSSING. CONNECT TO EXISTING SEWER LINES WITH APPROVED RUBBER COUPLINGS.
- PER DEQ REQUIREMENTS, DEVELOPER/CONTRACTOR SHALL HAVE SANITARY SEWERAGE FACILITIES INSPECTED, TESTED PER APWA PROCEDURES AND CERTIFIED BY A LICENSED ENGINEER.
- UNLESS OTHERWISE SPECIFIED, SANITARY SEWER PIPE SHALL BE PVC IN CONFORMANCE WITH ASTM D3034, SDR 35. MINIMUM STIFFNESS SHALL BE 46 PSI PER ASTM D-2412 AND JOINT TYPE SHALL BE ELASTOMERIC GASKET CONFORMING TO ASTM D-3212. ALL OTHER APPURTENANCES AND INSTALLATION SHALL CONFORM TO CITY OF NEHALEM REQUIREMENTS.
- SANITARY SEWER MANHOLES SHALL HAVE PRECAST BASE SECTIONS OF MONOLITHIC CONSTRUCTION AND SHALL BE MANUFACTURED SUCH THAT THE BASE SECTION IS INTEGRAL WITH THE BASE SLAB. THE MINIMUM BASE THICKNESS SHALL BE 6-INCHES. MANHOLE BASES SHALL HAVE CORE DRILLED OPENINGS AND FLEXIBLE MANHOLE TO PIPE CONNECTORS FOR THE CONNECTIONS TO PIPE STUB OUTS. FLEXIBLE JOINTS FOR PIPE OPENINGS SHALL BE "RES-SEAL" AS MANUFACTURED BY PRICE BROTHERS CO., "KOR-N-SEAL" AS MANUFACTURED BY NATIONAL POLLUTION CONTROL SYSTEMS, INC. OR CITY OF NEHALEM APPROVED EQUAL.
- MANHOLE PRECAST SECTIONS SHALL MEET OR EXCEED ASTM C-478 AND SHALL HAVE WATERTIGHT O-RING OR MASTIC KEYLOCK JOINT.
- MANHOLES SHALL BE INSTALLED WITH STEPS. STEPS TO BE FACTORY INSTALLED POLYPROPYLENE PLASTIC WITH GRADE 60 REINFORCING ROD.
- FLAT TOP MANHOLES SHALL BE USED FOR ALL MANHOLES LESS THAN 6 FEET RIM TO INVERT.
- OPENINGS FOR CONNECTIONS TO EXISTING MANHOLES SHALL BE MADE BY CORE-DRILLING THE EXISTING MANHOLE STRUCTURE AND INSTALLING A RUBBER BOOT. CONNECTIONS TO BE WATERTIGHT AND SHALL PROVIDE A SMOOTH FLOW INTO AND THROUGH THE MANHOLE. SMALL CHIPPING HAMMERS OR SIMILAR LIGHT TOOLS WHICH WILL NOT DAMAGE OR CRACK THE MANHOLE BASE MAY BE USED TO SHAPE CHANNELS. USE OF LARGE PNEUMATIC JACKHAMMERS SHALL BE PROHIBITED. UNLESS OTHERWISE APPROVED IN WRITING BY THE DISTRICT ENGINEER, MANHOLE STEPS SHALL BE INSTALLED IN ANY MANHOLE TAPPED WHICH DOES NOT HAVE EXISTING STEPS.
- SANITARY SEWER TESTING. SANITARY SEWERS AND RELATED APPURTENANCES SHALL BE TESTED IN ACCORDANCE WITH THE OSSC (ODOT/APWA) SPECIFICATIONS, 2021 EDITION UNLESS OTHERWISE REQUIRED BY CITY OF NEHALEM. THE COST OF ALL TESTING AND ANY CORRECTIVE WORK ARE THE RESPONSIBILITY OF THE DEVELOPER.
- SANITARY PIPE CLEANING. PRIOR TO MANDREL OR AIR TESTING, FLUSH AND CLEAN ALL SEWERS TO REMOVE ALL FOREIGN MATERIALS FROM MAINLINES AND MANHOLES. FAILURE TO CLEAN ALL DIRT AND DEBRIS FROM PIPELINES PRIOR TO TV INSPECTION WILL RESULT IN THE NEED TO RE-CLEAN AND RE-TV THE LINES.
- SEWER PIPE AIR TESTING. CONFORM TO OSSC (ODOT/APWA) 00455.72.C AND THE PROCEDURE LISTED ON THE TEST FORM IN PWDS APPENDIX A. ALL SANITARY SEWER MAINS, SERVICES AND APPURTENANCES SHALL BE TESTED FOR LEAKAGE. LEAKAGE TESTS SHALL INCLUDE AN AIR TEST OF ALL SEWER MAINS AND LATERALS PRIOR TO PAVING, AND A SEPARATE AIR TEST OF ALL SEWER MAINS AND LATERALS FOLLOWING EXCAVATION AND BACKFILLING OF ANY FRANCHISE UTILITY TRENCHES OR OTHER UTILITY WORK THAT CROSSES SANITARY SEWER LATERALS.
- SEWER PIPE DEFLECTION TESTING. CONFORM TO OSSC (ODOT/APWA) 00445.73. CONTRACTOR SHALL CONDUCT DEFLECTION TEST OF FLEXIBLE SANITARY SEWER PIPES BY PULLING AN APPROVED MANDREL THROUGH ALL COMPLETED SEWER MAINS FOLLOWING TRENCH COMPACTION. THE DIAMETER OF THE MANDREL SHALL BE 95% OF THE INITIAL PIPE DIAMETER.
- TV INSPECTION OF SANITARY SEWERS. UPON COMPLETION OF ALL SEWER CONSTRUCTION, TESTING AND REPAIR, THE CONTRACTOR SHALL CONDUCT A COLOR TV ACCEPTANCE INSPECTION OF ALL MAINLINES IN ACCORDANCE WITH OSSC (ODOT/APWA) 445.74 TO DETERMINE COMPLIANCE WITH GRADE REQUIREMENTS OF OSSC (ODOT/APWA) 445.40.B. THE TV INSPECTION SHALL BE CONDUCTED BY AN APPROVED TECHNICAL SERVICE WHICH IS EQUIPPED TO MAKE AUDIO-VISUAL RECORDINGS OF THE TV INSPECTIONS ON DVD (VHS VIDEO TAPE ACCEPTABLE ONLY UPON PRIOR WRITTEN APPROVAL BY CITY OF NEHALEM). UNLESS OTHERWISE APPROVED IN WRITING BY THE DISTRICT ENGINEER, A STANDARD 1-INCH DIAMETER BALL SHALL BE SUSPENDED IN FRONT OF THE CAMERA DURING THE INSPECTION TO DETERMINE THE DEPTH OF ANY STANDING WATER. SUFFICIENT WATER TO REVEAL LOW AREAS OR REVERSE GRADES SHALL BE DISCHARGED INTO THE PIPE IMMEDIATELY PRIOR TO INITIATION OF THE TV INSPECTION. THE DVD AND WRITTEN REPORT SHALL BE DELIVERED TO THE DISTRICT ENGINEER.
- MANHOLE TESTING. CONFORM TO SECTION OSSC (ODOT/APWA) 00471.B OR CITY OF NEHALEM APPROVED VACUUM TEST PROCEDURE. ALL MANHOLES SHALL BE VACUUM TESTED FOLLOWING COMPLETION OF PAVING OR FINAL SURFACE RESTORATION.
- RE-INSPECTION OF THE SANITARY SEWER SYSTEM USING TV INSPECTION PLUS ANY OR ALL OF THE ABOVE TEST METHODS SHALL BE PERFORMED AS REQUIRED BY CITY OF NEHALEM NEAR THE COMPLETION OF THE 18 MONTH WARRANTY PERIOD. THE RESULTS OF THESE TEST(S) WILL BE USED BY CITY OF NEHALEM TO DETERMINE IF FINAL ACCEPTANCE OF THE SYSTEM IS WARRANTED AND WHAT CORRECTIVE WORK IS REQUIRED PRIOR TO FINAL ACCEPTANCE. THE COST OF THESE RE-INSPECTIONS AND ANY CORRECTIVE WORK ARE THE RESPONSIBILITY OF THE DEVELOPER.
- PRIOR TO OR CONCURRENT WITH CONNECTION TO A SANITARY SEWER LATERAL, IT SHALL BE DEMONSTRATED TO THE DISTRICT THAT THE SEWER LATERAL IS NOT OBSTRUCTED. THIS SHALL BE ACCOMPLISHED BY "SNAKING" THE SERVICE LATERAL DOWNSTREAM OF THE CONNECTION POINT TO THE MAINLINE, OR SIMILAR METHOD ACCEPTABLE TO THE DISTRICT. DISTRICT PERSONNEL OR AUTHORIZED AGENT SHALL BE PRESENT DURING THE "SNAKING" OR OTHER DEMONSTRATION METHOD.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT ALL REQUIRED OR NECESSARY INSPECTIONS ARE COMPLETED BY AUTHORIZED INSPECTORS PRIOR TO PROCEEDING WITH SUBSEQUENT WORK WHICH COVERS OR THAT IS DEPENDENT ON THE WORK TO BE INSPECTED. FAILURE TO OBTAIN NECESSARY INSPECTION(S) AND APPROVAL(S) SHALL RESULT IN THE CONTRACTOR BEING FULLY RESPONSIBLE FOR ALL PROBLEMS AND/OR CORRECTIVE MEASURES ARISING FROM UNINSPECTED WORK.

LEGEND:

- | | |
|--|------------------------|
| | EXISTING PROPERTY LINE |
| | SEWER LINE |
| | MANHOLE |
| | WATER LINE |
| | ROAD |
| | OVERHEAD UTILITIES |
| | UTILITY POLE |
| | FIRE HYDRANT |
| | GATE VALVE |
| | PROPOSED PROPERTY LINE |
| | EASEMENT |
| | SEWER MAIN |
| | SEWER MANHOLE/CO |
| | SEWER SERVICE |
| | WATER MAIN |
| | WATER FEEDER LINE |
| | WATER VALVE |
| | FIRE HYDRANT |
| | WATER SERVICE |
| | EDGE OF SHOULDER |
| | EDGE OF ASPHALT |
| | DITCH |
| | GRAVEL CHECK DAM |
| | DRAINAGE CULVERT |

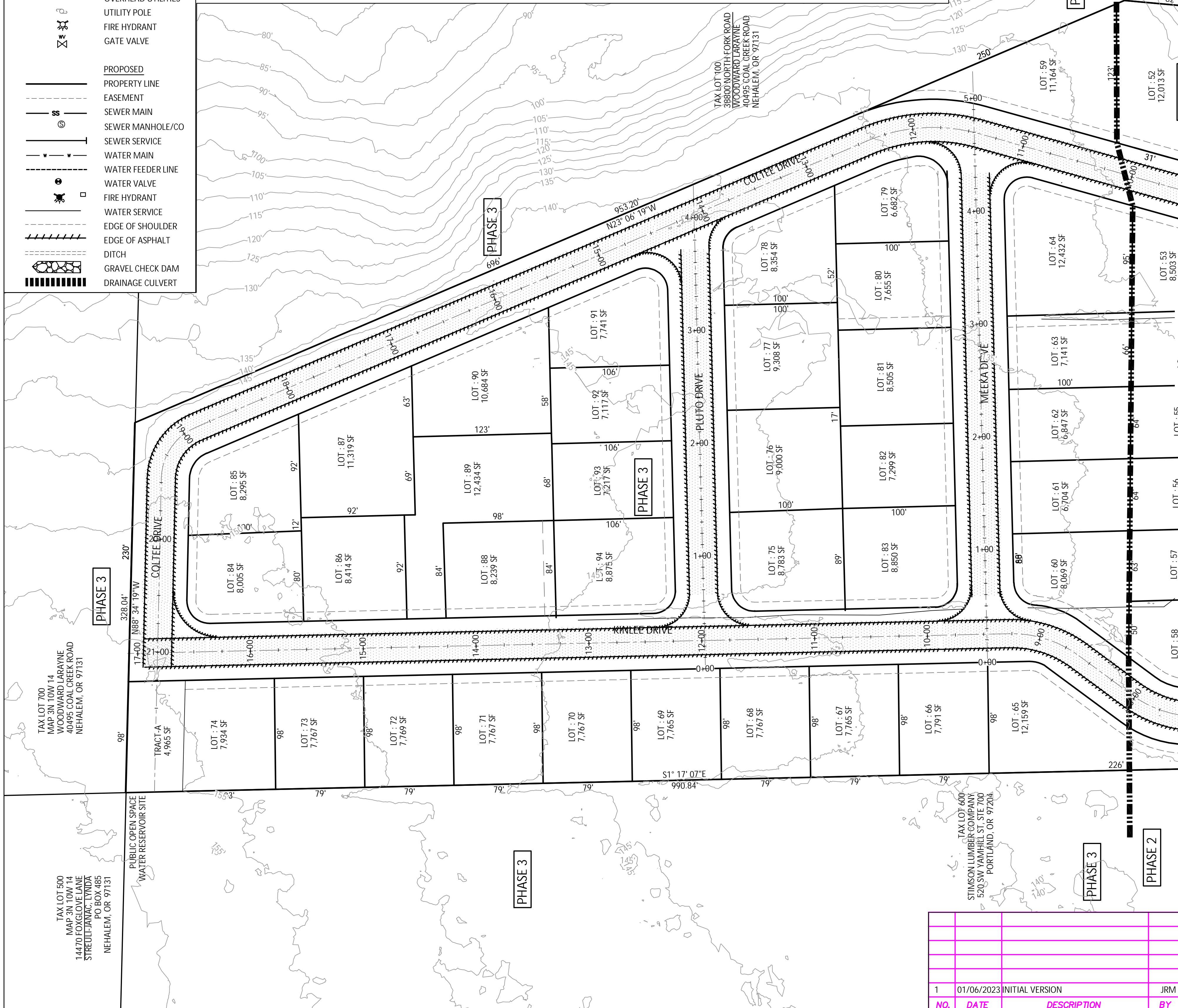
**RIVERVIEW MEADOWS
PHASE 3
36 LOT SUBDIVISION**

MAP 3N 10W SECTION 23B



PHASE 3 LAYOUT

SCALE: 1"=50'



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(503) 801-6016
www.morgancivil.com

JOB NO. 19-10-RV
DATE: MAR. 5, 2023



RENEWAL DATE: DECEMBER 31, 2024

RIVERVIEW MEADOWS DEVELOPMENT, LLC
RIVERVIEW MEADOWS PHASE 3
TENTATIVE PLAN

NEHALEM, MAP 3N 10W 23B

SHEET

3

OF -24-

NO.	DATE	DESCRIPTION	BY
1	01/06/2023	INITIAL VERSION	JRM

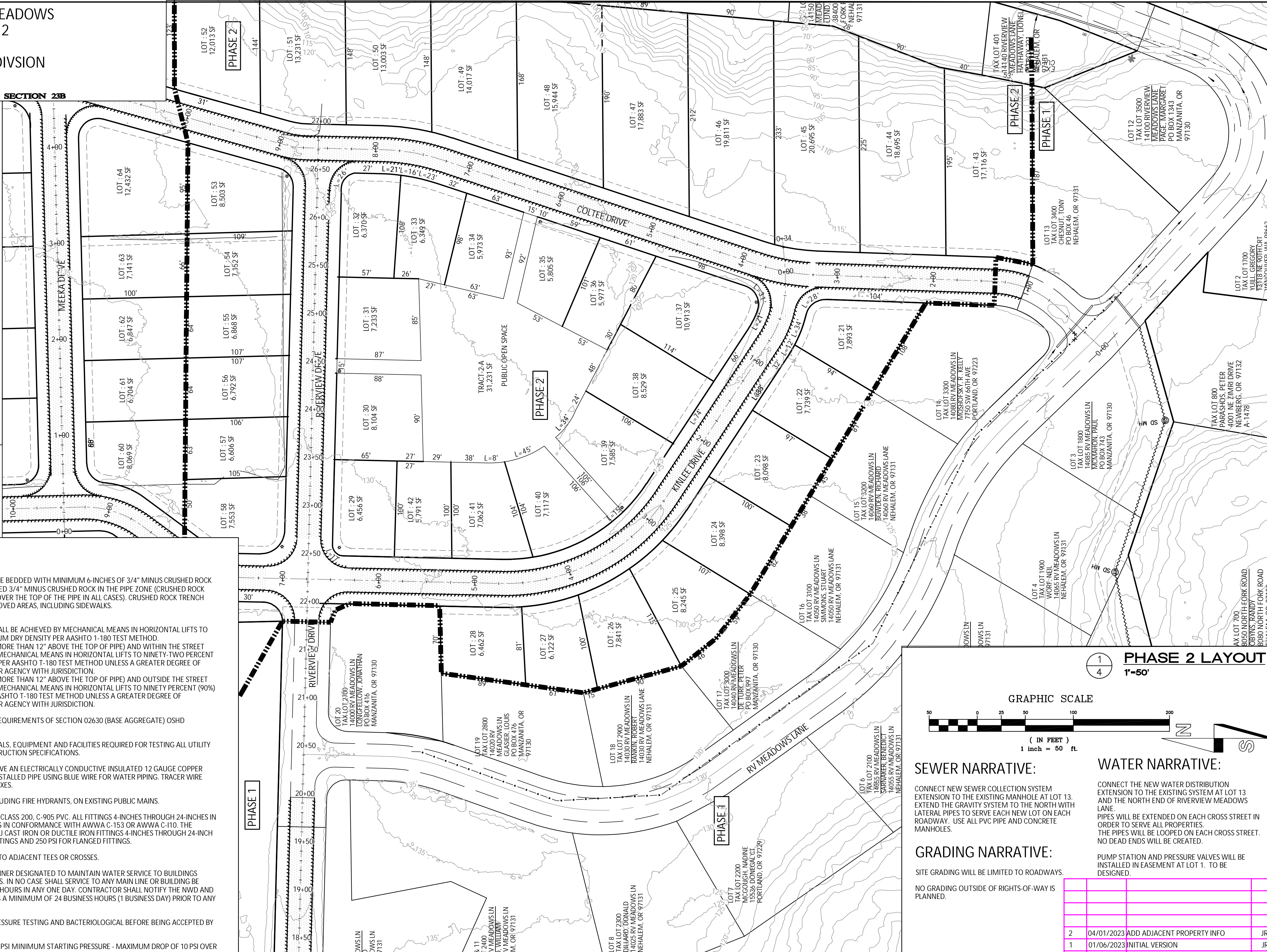
RIVERVIEW MEADOWS
PHASE 2

38 LOT SUBDIVISION

MAP 3N 10W SECTION 23B

LEGEND:

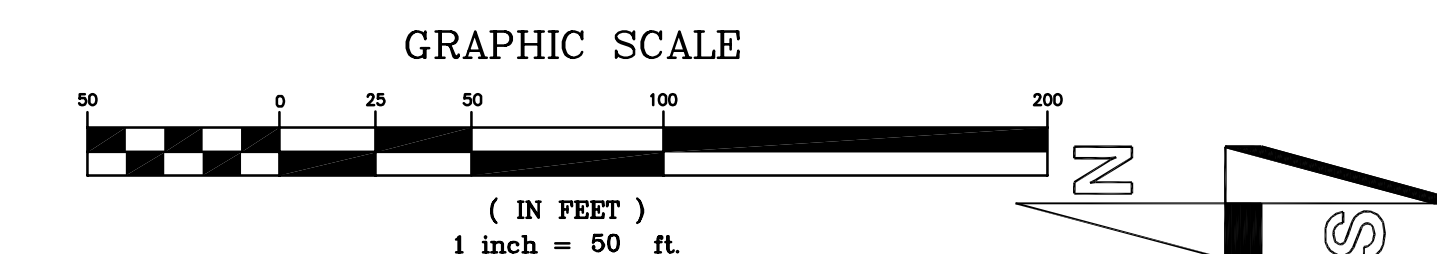
- EXISTING
 - PROPERTY LINE
 - SEWER LINE
 - MANHOLE
 - WATER LINE
 - ROAD
 - OVERHEAD UTILITIES
 - UTILITY POLE
 - FIRE HYDRANT
 - GATE VALVE
- PROPOSED
 - PROPERTY LINE
 - EASEMENT
 - SEWER MAIN
 - SEWER MANHOLE/CO
 - SEWER SERVICE
 - WATER MAIN
 - WATER FEEDER LINE
 - WATER VALVE
 - FIRE HYDRANT
 - WATER SERVICE
 - EDGE OF SHOULDER
 - EDGE OF ASPHALT
 - DITCH
 - GRAVEL CHECK DAM
 - DRAINAGE CULVERT



WATER UTILITIES:

1. BEDDING AND BACKFILL. ALL PIPES SHALL BE BEDDED WITH MINIMUM 6-INCHES OF 3/4" MINUS CRUSHED ROCK BEDDING AND BACKFILLED WITH COMPACTED 3/4" MINUS CRUSHED ROCK IN THE PIPE ZONE (CRUSHED ROCK SHALL EXTEND A MINIMUM OF 12-INCHES OVER THE TOP OF THE PIPE IN ALL CASES). CRUSHED ROCK TRENCH BACKFILL SHALL BE USED UNDER ALL IMPROVED AREAS, INCLUDING SIDEWALKS.
2. COMPACTION REQUIREMENTS.
 - A. TRENCH BACKFILL IN THE PIPE ZONE SHALL BE ACHIEVED BY MECHANICAL MEANS IN HORIZONTAL LIFTS TO NINETY PERCENT (90%) OF THE MAXIMUM DRY DENSITY PER AASHTO T-180 TEST METHOD.
 - B. COMPACTION IN THE BACKFILL ZONE (MORE THAN 12" ABOVE THE TOP OF PIPE) AND WITHIN THE STREET RIGHT OF WAY SHALL BE ACHIEVED BY MECHANICAL MEANS IN HORIZONTAL LIFTS TO NINETY-TWO PERCENT (92%) OF THE MAXIMUM DRY DENSITY PER AASHTO T-180 TEST METHOD UNLESS A GREATER DEGREE OF COMPACTION IS REQUIRED BY ANOTHER AGENCY WITH JURISDICTION.
 - C. COMPACTION IN THE BACKFILL ZONE (MORE THAN 12" ABOVE THE TOP OF PIPE) AND OUTSIDE THE STREET RIGHT OF WAY SHALL BE ACHIEVED BY MECHANICAL MEANS IN HORIZONTAL LIFTS TO NINETY PERCENT (90%) OF THE MAXIMUM DRY DENSITY PER AASHTO T-180 TEST METHOD UNLESS A GREATER DEGREE OF COMPACTION IS REQUIRED BY ANOTHER AGENCY WITH JURISDICTION.
3. CRUSHED ROCK SHALL CONFORM TO THE REQUIREMENTS OF SECTION 02630 (BASE AGGREGATE) OSHD STANDARD SPECIFICATIONS.
4. CONTRACTOR SHALL PROVIDE ALL MATERIALS, EQUIPMENT AND FACILITIES REQUIRED FOR TESTING ALL UTILITY PIPING IN ACCORDANCE WITH NWD CONSTRUCTION SPECIFICATIONS.
5. TRACER WIRE. ALL WATER PIPING SHALL HAVE AN ELECTRICALLY CONDUCTIVE INSULATED 12 GAUGE COPPER TRACER WIRE THE FULL LENGTH OF THE INSTALLED PIPE USING BLUE WIRE FOR WATER PIPING. TRACER WIRE SHALL BE EXTENDED UP INTO ALL VALVE BOXES.
6. NWD STAFF TO OPERATE ALL VALVES, INCLUDING FIRE HYDRANTS, ON EXISTING PUBLIC MAINS.
7. ALL WATER MAINS SHALL BE ASTM D-2241 CLASS 200, C-905 PVC. ALL FITTINGS 4-INCHES THROUGH 24-INCHES IN DIAMETER SHALL BE DUCTILE IRON FITTINGS IN CONFORMANCE WITH AWWA C-153 OR AWWA C-110. THE MINIMUM WORKING PRESSURE FOR ALL MJ CAST IRON OR DUCTILE IRON FITTINGS 4-INCHES THROUGH 24-INCH IN DIAMETER SHALL BE 350 PSI FOR M3 FITTINGS AND 250 PSI FOR FLANGED FITTINGS.
8. ALL VALVES SHALL BE FLANGE CONNECTED TO ADJACENT TEES OR CROSSES.
9. THE WORK SHALL BE PERFORMED IN A MANNER DESIGNATED TO MAINTAIN WATER SERVICE TO BUILDINGS SUPPLIED FROM THE EXISTING WATERLINES. IN NO CASE SHALL SERVICE TO ANY MAIN LINE OR BUILDING BE INTERRUPTED FORM MORE THAN FOUR (4) HOURS IN ANY ONE DAY. CONTRACTOR SHALL NOTIFY THE NWD AND ALL AFFECTED RESIDENTS AND BUSINESSES A MINIMUM OF 24 BUSINESS HOURS (1 BUSINESS DAY) PRIOR TO ANY INTERRUPTION OF SERVICE.
10. ALL WATERLINE SEGMENTS SUBJECT TO PRESSURE TESTING AND BACTERIOLOGICAL BEFORE BEING ACCEPTED BY NWD. COORDINATE WITH NWD.
11. PRESSURE TEST: 2 HOURS MINIMUM. 150 PSI MINIMUM STARTING PRESSURE - MAXIMUM DROP OF 10 PSI OVER DURATION OF TEST.

PHASE 2 LAYOUT
1"=50'



SEWER NARRATIVE:

CONNECT NEW SEWER COLLECTION SYSTEM EXTENSION TO THE EXISTING MANHOLE AT LOT 13. EXTEND THE GRAVITY SYSTEM TO THE NORTH WITH LATERAL PIPES TO SERVE EACH NEW LOT ON EACH ROADWAY. USE ALL PVC PIPE AND CONCRETE MANHOLES.

GRADING NARRATIVE:

SITE GRADING WILL BE LIMITED TO ROADWAYS. NO GRADING OUTSIDE OF RIGHTS-OF-WAY IS PLANNED.

WATER NARRATIVE:

CONNECT THE NEW WATER DISTRIBUTION EXTENSION TO THE EXISTING SYSTEM AT LOT 13 AND THE NORTH END OF RIVERVIEW MEADOWS LANE. PIPES WILL BE EXTENDED ON EACH CROSS STREET IN ORDER TO SERVE ALL PROPERTIES. THE PIPES WILL BE LOOPED ON EACH CROSS STREET. NO DEAD ENDS WILL BE CREATED.

PUMP STATION AND PRESSURE VALVES WILL BE INSTALLED IN EASEMENT AT LOT 1. TO BE DESIGNED.

NO.	DATE	DESCRIPTION	BY
2	04/01/2023	ADD ADJACENT PROPERTY INFO	JRM
1	01/06/2023	INITIAL VERSION	JRM



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JASON R. MORGAN
REGISTERED PROFESSIONAL ENGINEER
63055
OREGON
JANUARY 18, 2005
RENEWAL DATE: DECEMBER 31, 2024

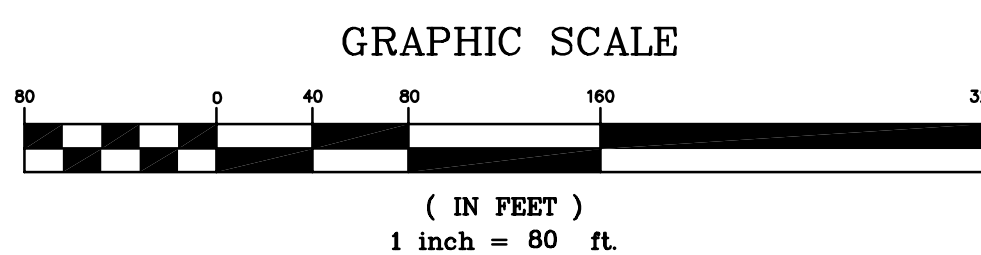
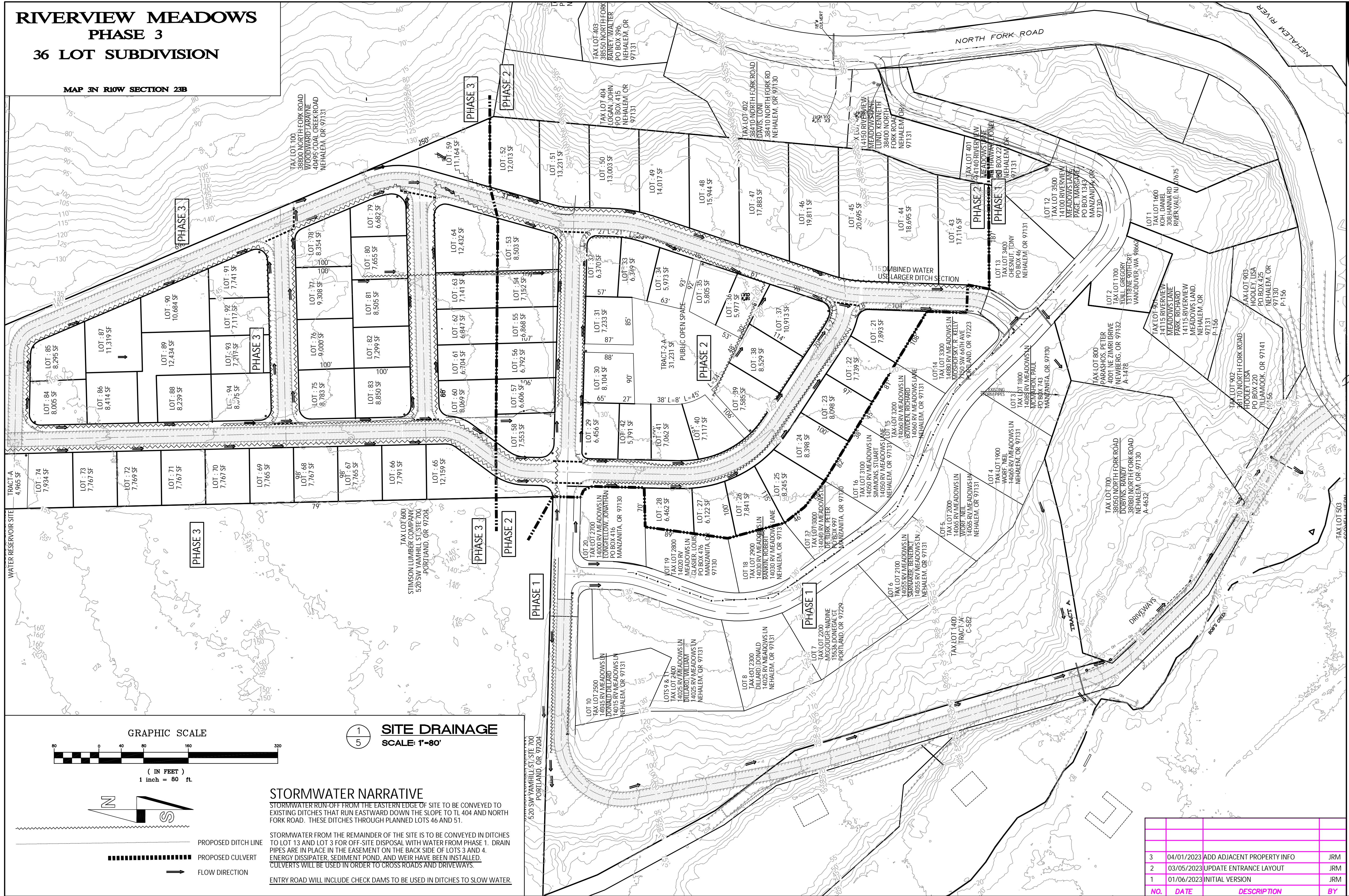
RIVERVIEW MEADOWS DEVELOPMENT, LLC
RIVERVIEW MEADOWS PHASE 3
PHASE 2 LAYOUT

SHEET
4
OF -24-

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RIVERVIEW MEADOWS PHASE 3 36 LOT SUBDIVISION

MAP 3N RI0W SECTION 23B



SITE DRAINAGE
SCALE: 1"=80'

STORMWATER NARRATIVE

STORMWATER RUN-OFF FROM THE EASTERN EDGE OF SITE TO BE CONVEYED TO EXISTING DITCHES THAT RUN EASTWARD DOWN THE SLOPE TO TL 404 AND NORTH FORK ROAD. THESE DITCHES THROUGH PLANNED LOTS 46 AND 51.

STORMWATER FROM THE REMAINDER OF THE SITE IS TO BE CONVEYED IN DITCHES TO LOT 13 AND LOT 3 FOR OFF-SITE DISPOSAL WITH WATER FROM PHASE 1. DRAIN PIPES ARE IN PLACE IN THE EASEMENT ON THE BACK SIDE OF LOTS 3 AND 4. ENERGY DISSIPATER, SEDIMENT POND, AND WEIR HAVE BEEN INSTALLED. CULVERTS WILL BE USED IN ORDER TO CROSS ROADS AND DRIVEWAYS.

ENTRY ROAD WILL INCLUDE CHECK DAMS TO BE USED IN DITCHES TO SLOW WATER.

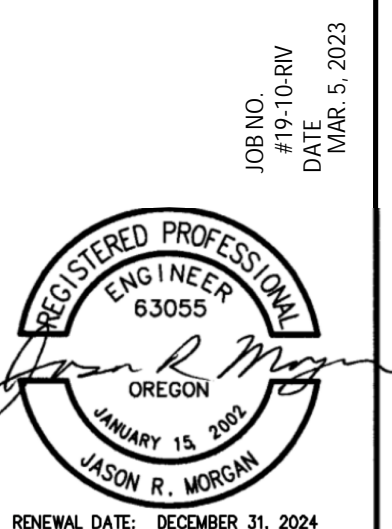
- PROPOSED DITCH LINE
- PROPOSED CULVERT
- FLOW DIRECTION

NO.	DATE	DESCRIPTION	BY
3	04/01/2023	ADD ADJACENT PROPERTY INFO	JRM
2	03/05/2023	UPDATE ENTRANCE LAYOUT	JRM
1	01/06/2023	INITIAL VERSION	JRM



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RENEWAL DATE: DECEMBER 31, 2024

RIVERVIEW MEADOWS DEVELOPMENT, LLC
RIVERVIEW MEADOWS PHASE 3
DRAINAGE LAYOUT

SHEET
5
OF -24-

NEHALEM, MAP 3N 10W 23B

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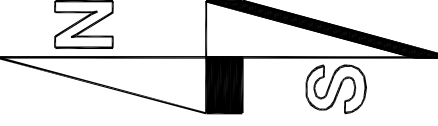
RIVERVIEW MEADOWS PHASE 3 36 LOT SUBDIVISION

MAP 3N R10W SECTION 23B

GRAPHIC SCALE



(IN FEET)
1 inch = 60 ft.



UTILITIES - PHASE 3 SCALE: 1" = 60'

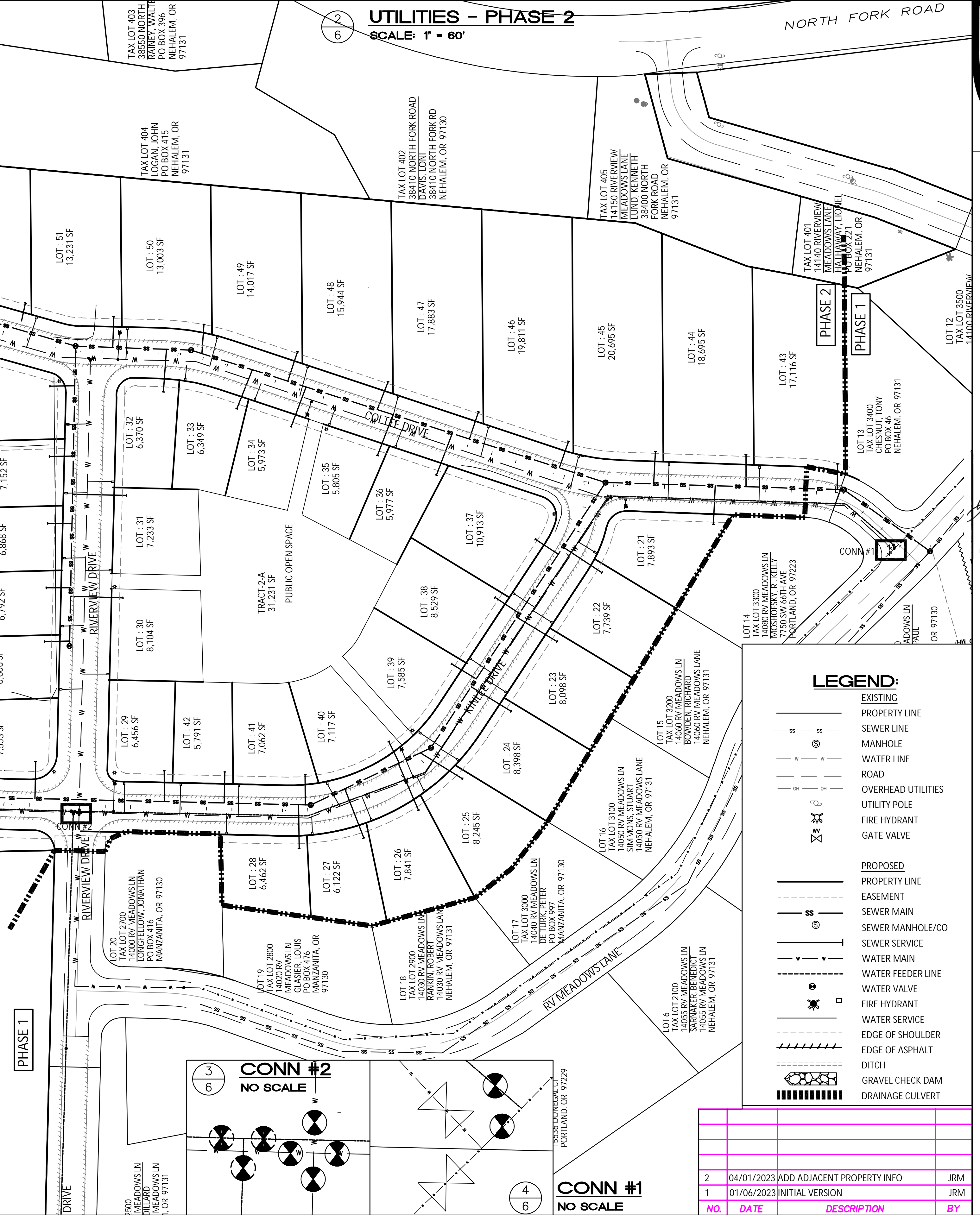
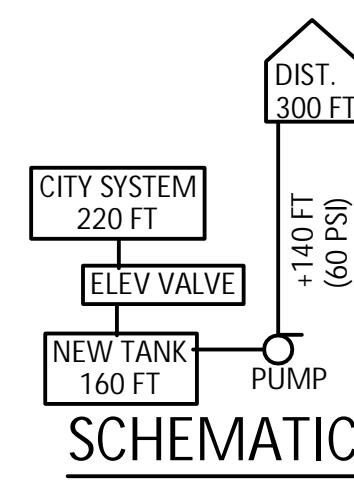
ELEVATIONS:

CITY TANK - 220 FT
PROPOSED TANK - 160 FT
LOT 75 - 155 FT
LOT 3 - 120 FT

USE PUMP AT -300 FT EQ
(ADD 140 FEET = 60 PSI)

WATERLINE:

- 1) CONNECT TO CITY PIPE IN RIVERVIEW MEADOWS LANE.
- 2) INSTALL 8"Ø FEEDER PIPE TO TANK SITE. L=2100 FT. ALSO EXTEND 8"Ø PIPE FEEDER DOWN RIVERVIEW LANE (ENTRANCE) TO NORTH FORK ROAD.
- 3) INSTALL ALTITUDE VALVE.
- 4) STORE WATER IN TANK. MIN 80,000-GALLON.
- 5) DISCHARGE WATER THROUGH PUMP STATION. ADD ±60 PSI.
- 6) SERVE CUSTOMERS IN RIVERVIEW MEADOWS PHASE 1-3.
- 7) ALL DIST. LINES TO BE LOOPED, INCLUDING PHASE 1.



LEGEND:

- EXISTING PROPERTY LINE
- SEWER LINE
- MANHOLE
- WATER LINE
- ROAD
- OVERHEAD UTILITIES
- UTILITY POLE
- FIRE HYDRANT
- GATE VALVE
- PROPOSED PROPERTY LINE
- EASEMENT
- SEWER MAIN
- SEWER MANHOLE/CO
- SEWER SERVICE
- WATER MAIN
- WATER FEEDER LINE
- WATER VALVE
- FIRE HYDRANT
- WATER SERVICE
- EDGE OF SHOULDER
- EDGE OF ASPHALT
- DITCH
- GRAVEL CHECK DAM
- DRAINAGE CULVERT



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RENEWAL DATE: DECEMBER 31, 2024

RIVERVIEW MEADOWS DEVELOPMENT, LLC
RIVERVIEW MEADOWS PHASE 3
UTILITY LAYOUT

NEHALEM, MAP 3N 10W 23B

SHEET

6

OF -24-

NO.	DATE	DESCRIPTION	BY
2	04/01/2023	ADD ADJACENT PROPERTY INFO	JRM
1	01/06/2023	INITIAL VERSION	JRM

STREUL-JAWAC, LYNDIA
PO BOX 485
NEHALEM, OR 97131

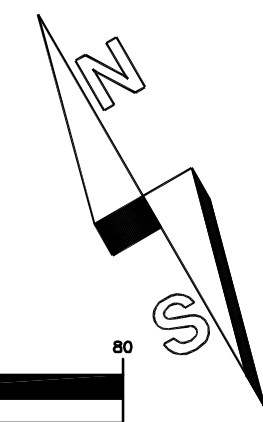
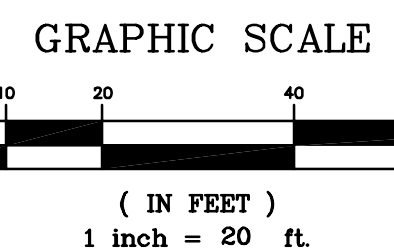
TAX LOT 600
STIMSON LUMBER COMPANY
520 SW VAN HILL ST, STE 700
PORTLAND, OR 97204

CONN #2
NO SCALE

CONN #1
NO SCALE

RIVERVIEW MEADOWS PHASE 3 36 LOT SUBDIVISION

1
7 RIVERVIEW DRIVE
SCALE: 1"=20'



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JOB NO.
1912-10-RV
DATE
MAR. 5, 2023

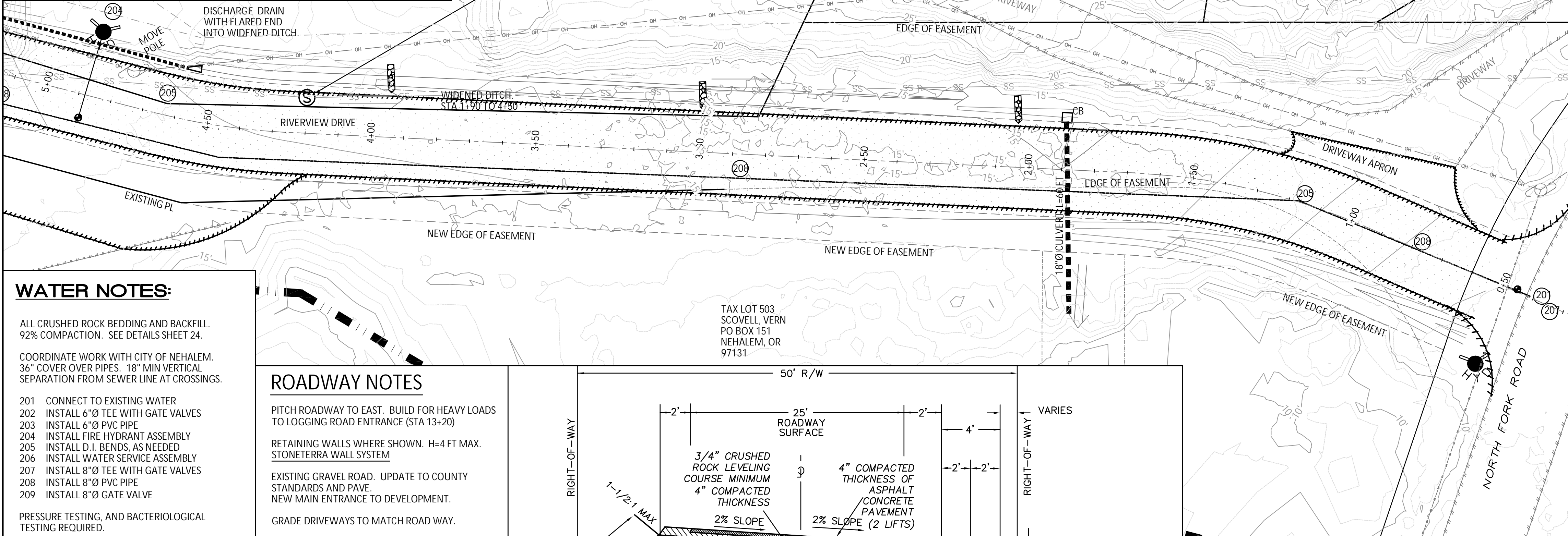


RENEWAL DATE: DECEMBER 31, 2024

RIVERVIEW MEADOWS DEVELOPMENT, LLC
RIVERVIEW MEADOWS PHASE 3
ENTRANCE ROAD
NEHALEM, MAP 3N 10W 23B

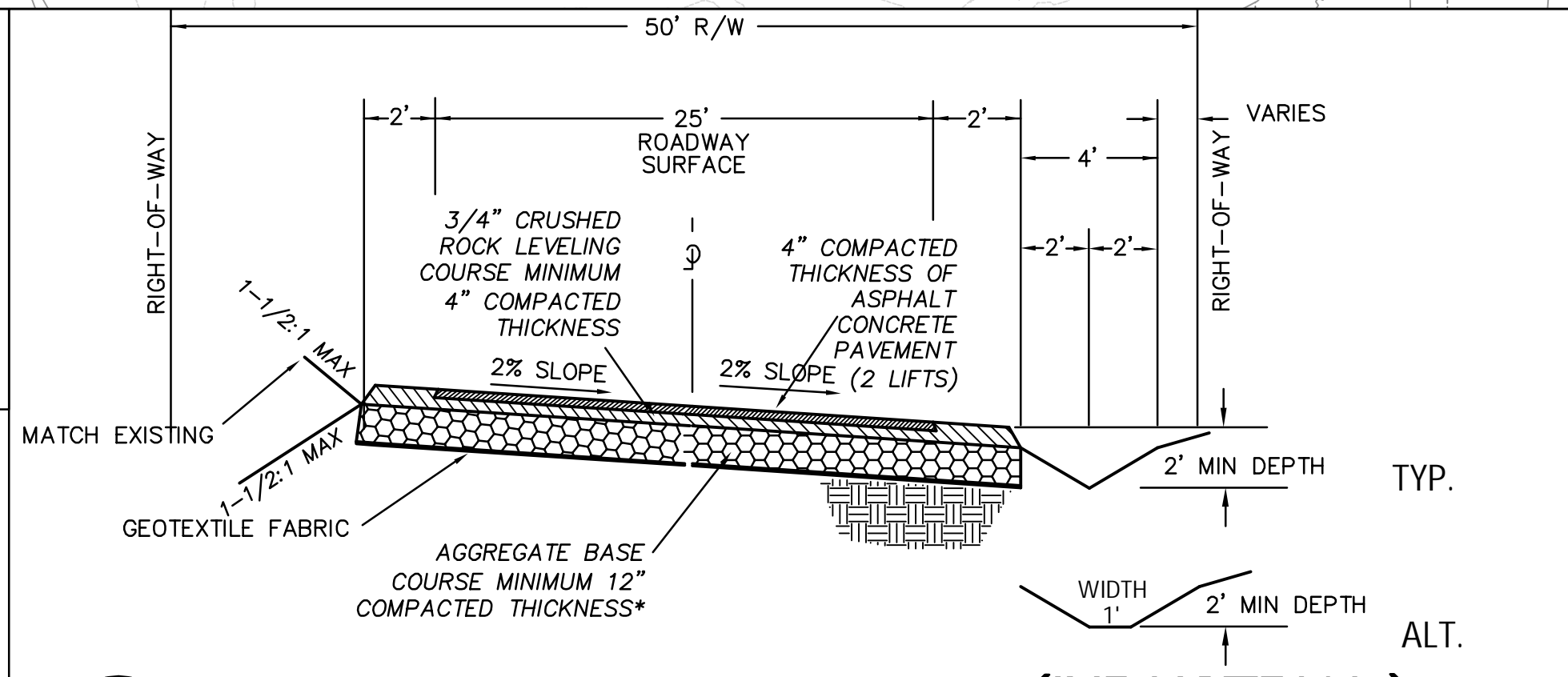
SHEET
7
OF -24-

MAP 3N 10W SECTION 23B



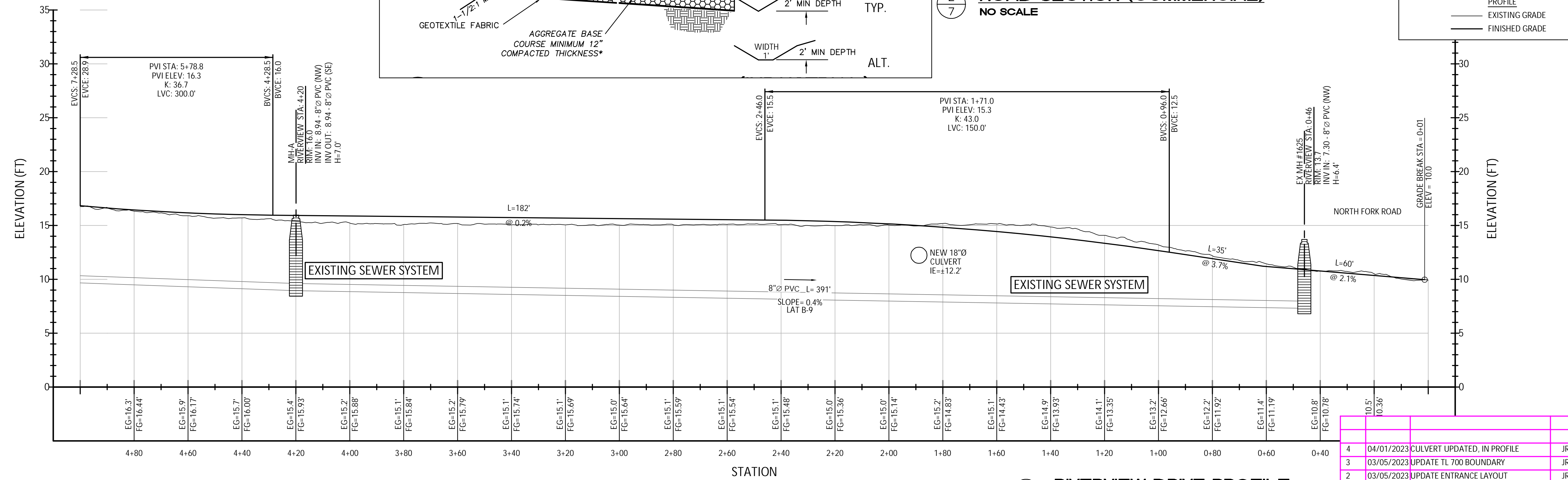
WATER NOTES:
ALL CRUSHED ROCK BEDDING AND BACKFILL 92% COMPACTION. SEE DETAILS SHEET 24.
COORDINATE WORK WITH CITY OF NEHALEM. 36" COVER OVER PIPES. 18" MIN VERTICAL SEPARATION FROM SEWER LINE AT CROSSINGS.
201 CONNECT TO EXISTING WATER
202 INSTALL 6" TEE WITH GATE VALVES
203 INSTALL 6" PVC PIPE
204 INSTALL FIRE HYDRANT ASSEMBLY
205 INSTALL D.I. BENDS, AS NEEDED
206 INSTALL WATER SERVICE ASSEMBLY
207 INSTALL 8" TEE WITH GATE VALVES
208 INSTALL 8" PVC PIPE
209 INSTALL 8" GATE VALVE
PRESSURE TESTING, AND BACTERIOLOGICAL TESTING REQUIRED.

ROADWAY NOTES
PITCH ROADWAY TO EAST. BUILD FOR HEAVY LOADS TO LOGGING ROAD ENTRANCE (STA 13+20)
RETAINING WALLS WHERE SHOWN. H=4 FT MAX. STONETERRA WALL SYSTEM
EXISTING GRAVEL ROAD. UPDATE TO COUNTY STANDARDS AND PAVE.
NEW MAIN ENTRANCE TO DEVELOPMENT.
GRADE DRIVEWAYS TO MATCH ROAD WAY.



2
7 ROAD SECTION (COMMERCIAL)
NO SCALE

- LEGEND:**
- EXISTING
 - PROPERTY LINE
 - SEWER LINE
 - MANHOLE
 - WATER LINE
 - ROAD
 - OVERHEAD UTILITIES
 - UTILITY POLE
 - FIRE HYDRANT
 - GATE VALVE
 - PROPOSED
 - PROPERTY LINE
 - EASEMENT
 - SEWER MAIN
 - SEWER MANHOLE/CO
 - WATER MAIN
 - WATER FEEDER LINE
 - WATER VALVE
 - FIRE HYDRANT
 - WATER SERVICE
 - EDGE OF SHOULDER
 - EDGE OF ASPHALT
 - DITCH
 - GRAVEL CHECK DAM
 - DRAINAGE CULVERT
 - RETAINING WALL
 - PROFILE
 - EXISTING GRADE
 - FINISHED GRADE



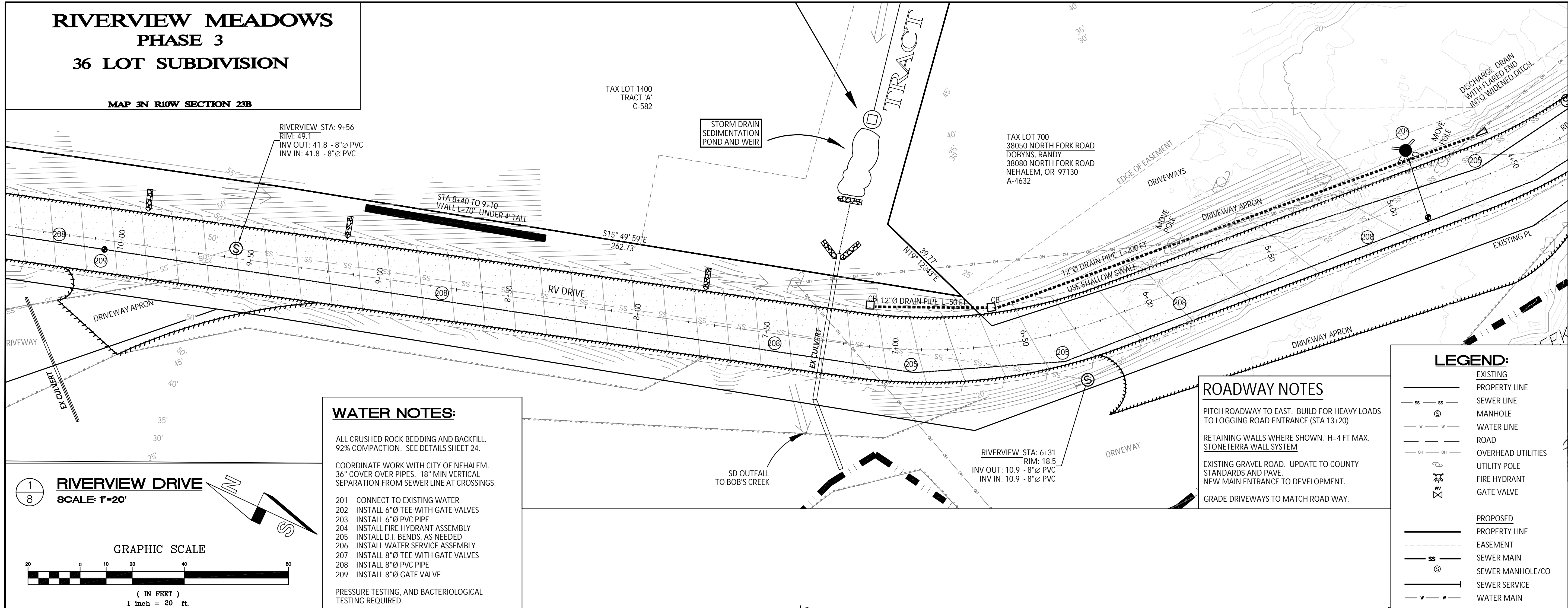
3
7 RIVERVIEW DRIVE PROFILE
SCALE: 1"=20' VERT: 1"=5'

NO.	DATE	DESCRIPTION	BY
4	04/01/2023	CULVERT UPDATED, IN PROFILE	JRM
3	03/05/2023	UPDATE TL 700 BOUNDARY	JRM
2	03/05/2023	UPDATE ENTRANCE LAYOUT	JRM
1	01/06/2023	INITIAL VERSION	JRM

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RIVERVIEW MEADOWS PHASE 3 36 LOT SUBDIVISION

MAP 3N R10W SECTION 23B



WATER NOTES:

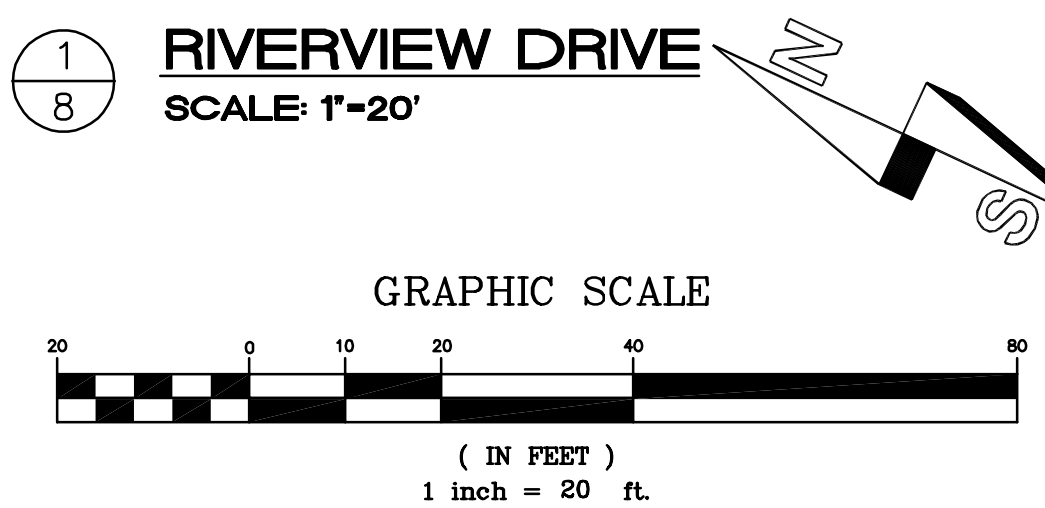
ALL CRUSHED ROCK BEDDING AND BACKFILL. 92% COMPACTION. SEE DETAILS SHEET 24.

COORDINATE WORK WITH CITY OF NEHALEM.

36" COVER OVER PIPES. 18" MIN VERTICAL SEPARATION FROM SEWER LINE AT CROSSINGS.

- 201 CONNECT TO EXISTING WATER
- 202 INSTALL 6"Ø TEE WITH GATE VALVES
- 203 INSTALL 6"Ø PVC PIPE
- 204 INSTALL FIRE HYDRANT ASSEMBLY
- 205 INSTALL D.I. BENDS, AS NEEDED
- 206 INSTALL WATER SERVICE ASSEMBLY
- 207 INSTALL 8"Ø TEE WITH GATE VALVES
- 208 INSTALL 8"Ø PVC PIPE
- 209 INSTALL 8"Ø GATE VALVE

PRESSURE TESTING, AND BACTERIOLOGICAL TESTING REQUIRED.



ROADWAY NOTES

PITCH ROADWAY TO EAST. BUILD FOR HEAVY LOADS TO LOGGING ROAD ENTRANCE (STA 13+20)

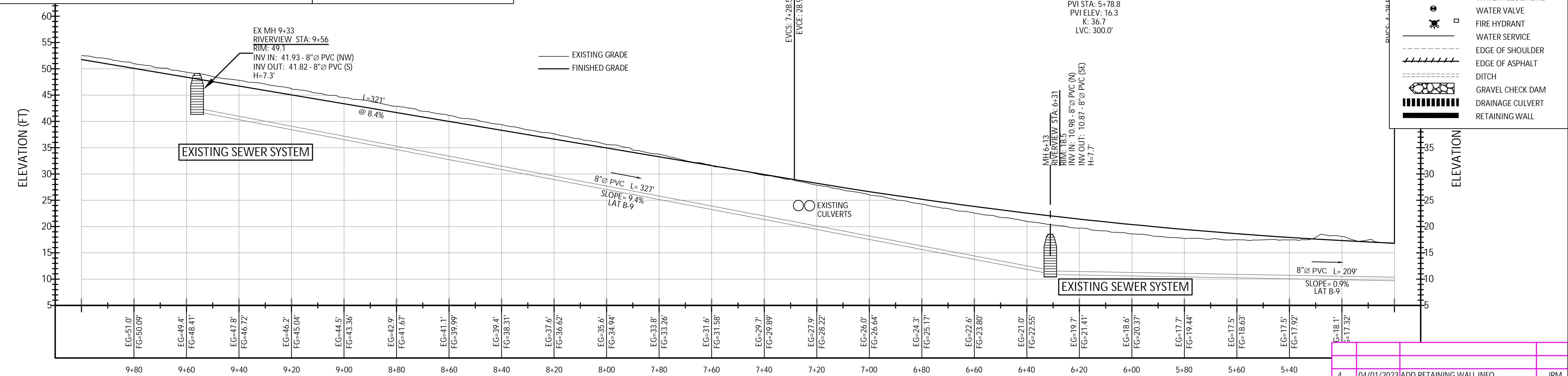
RETAINING WALLS WHERE SHOWN. H=4 FT MAX. STONETERRA WALL SYSTEM

EXISTING GRAVEL ROAD. UPDATE TO COUNTY STANDARDS AND PAVE. NEW MAIN ENTRANCE TO DEVELOPMENT.

GRADE DRIVEWAYS TO MATCH ROAD WAY.

LEGEND:

EXISTING		PROPOSED	
---	PROPERTY LINE	---	PROPERTY LINE
SS	SEWER LINE	---	EASEMENT
⊙	MANHOLE	---	SEWER MAIN
---	WATER LINE	---	SEWER MANHOLE/CO
---	ROAD	---	SEWER SERVICE
---	OVERHEAD UTILITIES	---	WATER MAIN
⊙	UTILITY POLE	---	WATER FEEDER LINE
⊙	FIRE HYDRANT	---	WATER VALVE
⊙	GATE VALVE	---	FIRE HYDRANT
---		---	WATER SERVICE
---		---	EDGE OF SHOULDER
---		---	EDGE OF ASPHALT
---		---	DITCH
---		---	GRAVEL CHECK DAM
---		---	DRAINAGE CULVERT
---		---	RETAINING WALL



2
8

RIVERVIEW DRIVE PROFILE
SCALE: 1"=20' VERT: 1"=5'

NO.	DATE	DESCRIPTION	BY
4	04/01/2023	ADD RETAINING WALL INFO	JRM
3	03/05/2023	UPDATE TL 700 BOUNDARY	JRM
2	03/05/2023	UPDATE ENTRANCE LAYOUT	JRM
1	01/06/2023	INITIAL VERSION	JRM



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(503) 801-6016
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CIVIL ENGINEERING
INSPECTION
PLANNING



RENEWAL DATE: DECEMBER 31, 2024

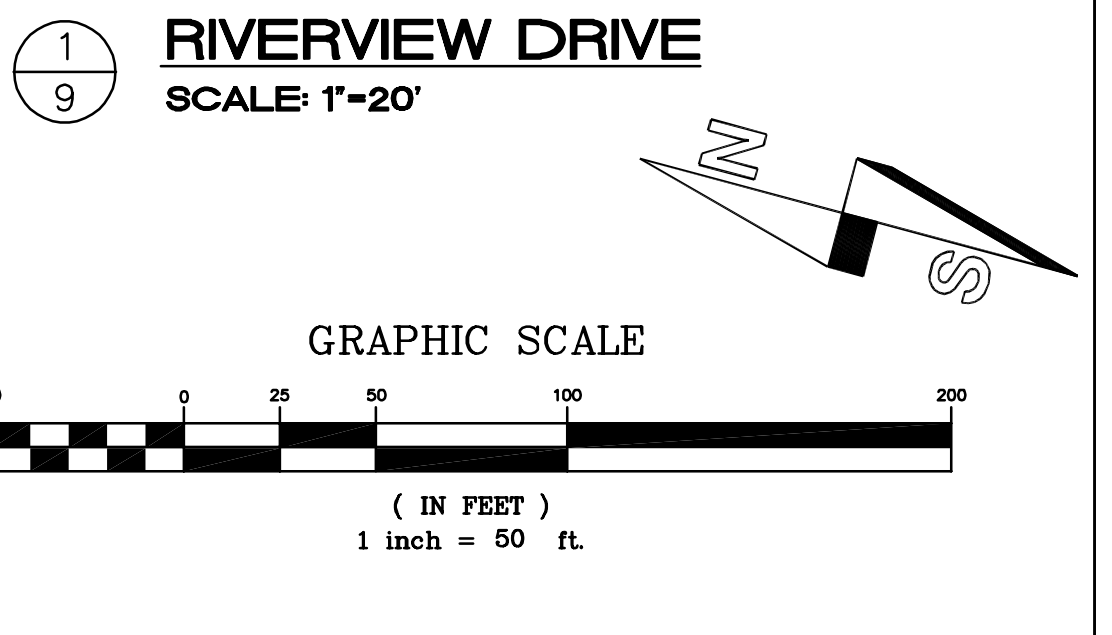
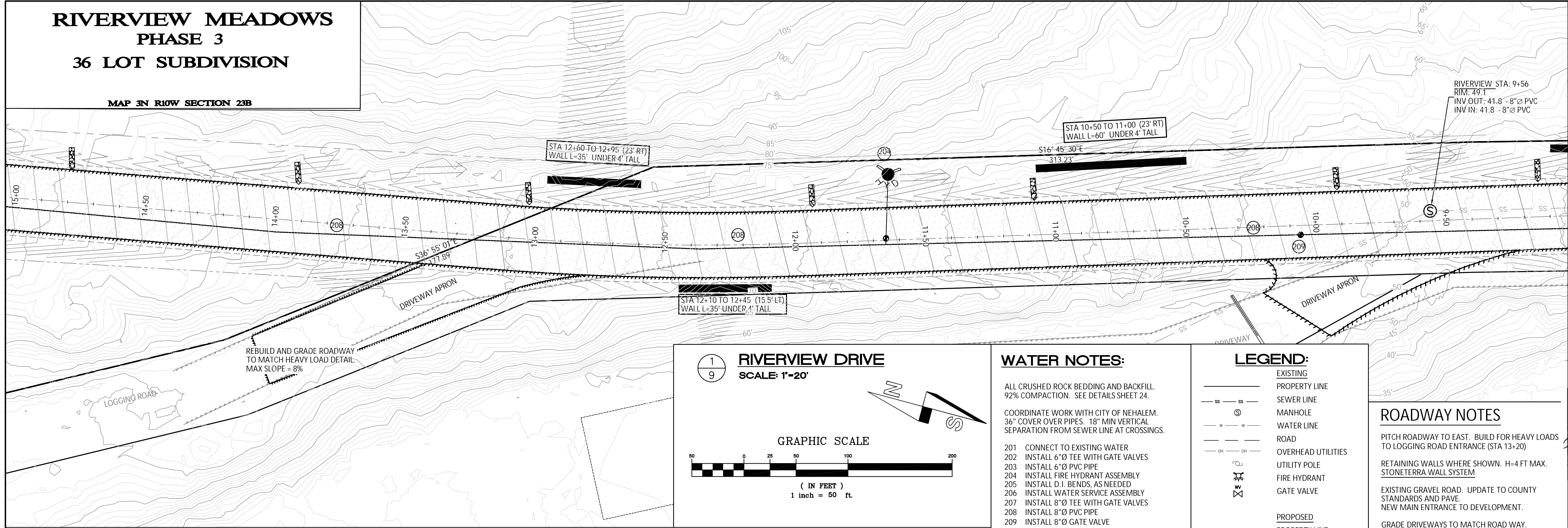
RIVERVIEW MEADOWS DEVELOPMENT, LLC
RIVERVIEW MEADOWS PHASE 3
ENTRANCE ROAD-2

NEHALEM, MAP 3N 10W 23B

V:\19-10-Riv\Draw\RiverView Meadows-4.dwg, entrance (2), 4/2/2023 4:01:17 PM

RIVERVIEW MEADOWS PHASE 3 36 LOT SUBDIVISION

MAP 3N RI0W SECTION 23B



WATER NOTES:

ALL CRUSHED ROCK BEDDING AND BACKFILL 92% COMPACTION. SEE DETAILS SHEET 24.

COORDINATE WORK WITH CITY OF NEHALEM. 36" COVER OVER PIPES. 18" MIN VERTICAL SEPARATION FROM SEWER LINE AT CROSSINGS.

- CONNECT TO EXISTING WATER
- INSTALL 6" TEE WITH GATE VALVES
- INSTALL 6" PVC PIPE
- INSTALL FIRE HYDRANT ASSEMBLY
- INSTALL D.I. BENDS, AS NEEDED
- INSTALL WATER SERVICE ASSEMBLY
- INSTALL 8" TEE WITH GATE VALVES
- INSTALL 8" PVC PIPE
- INSTALL 8" GATE VALVE

PRESSURE TESTING, AND BACTERIOLOGICAL TESTING REQUIRED.

LEGEND:

EXISTING	
---	PROPERTY LINE
SS	SEWER LINE
⊙	MANHOLE
---	WATER LINE
---	ROAD
---	OVERHEAD UTILITIES
⊙	UTILITY POLE
⊙	FIRE HYDRANT
⊙	GATE VALVE
PROPOSED	
---	PROPERTY LINE
---	EASEMENT
SS	SEWER MAIN
⊙	SEWER MANHOLE/CO
---	SEWER SERVICE
---	WATER MAIN
---	WATER FEEDER LINE
⊙	WATER VALVE
⊙	FIRE HYDRANT
---	WATER SERVICE
---	EDGE OF SHOULDER
---	EDGE OF ASPHALT
---	DITCH
---	GRAVEL CHECK DAM
---	DRAINAGE CULVERT
---	RETAINING WALL

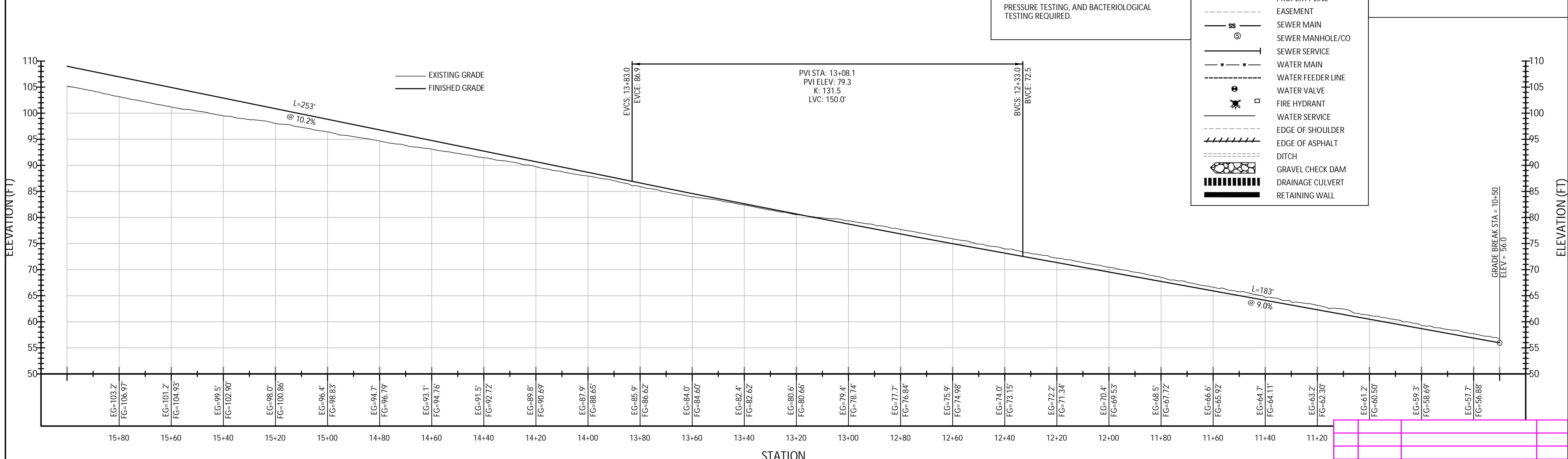
ROADWAY NOTES

PITCH ROADWAY TO EAST. BUILD FOR HEAVY LOADS TO LOGGING ROAD ENTRANCE (STA 13+20)

RETAINING WALLS WHERE SHOWN. H=4 FT MAX. STONETERRA WALL SYSTEM

EXISTING GRAVEL ROAD. UPDATE TO COUNTY STANDARDS AND PAVE. NEW MAIN ENTRANCE TO DEVELOPMENT.

GRADE DRIVEWAYS TO MATCH ROAD WAY.



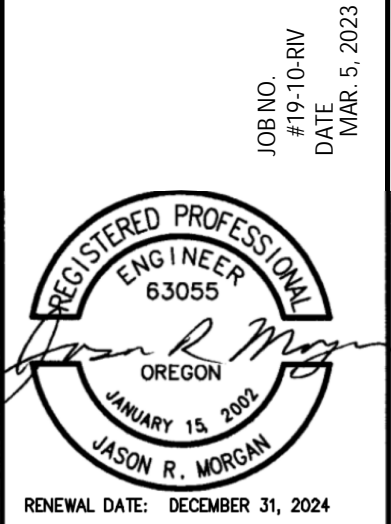
2 RIVERVIEW DRIVE PROFILE
SCALE: 1"=20' VERT: 1"=5'

NO.	DATE	DESCRIPTION	BY
3	04/01/2023	ADD RETAINING WALL INFO	JRM
2	03/05/2023	UPDATE ENTRANCE LAYOUT	JRM
1	01/06/2023	INITIAL VERSION	JRM



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RENEWAL DATE: DECEMBER 31, 2024

RIVERVIEW MEADOWS DEVELOPMENT, LLC
RIVERVIEW MEADOWS PHASE 2
ENTRANCE ROAD-3

SHEET
9
OF -24-

NEHALEM, MAP 3N 10W 23B

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RIVERVIEW MEADOWS PHASE 3 36 LOT SUBDIVISION

MAP 3N R10W SECTION 23B

LEGEND:

- EXISTING
 - PROPERTY LINE
 - SEWER LINE
 - MANHOLE
 - WATER LINE
 - ROAD
 - OVERHEAD UTILITIES
 - UTILITY POLE
 - FIRE HYDRANT
 - GATE VALVE
- PROPOSED
 - PROPERTY LINE
 - EASEMENT
 - SEWER MAIN
 - SEWER MANHOLE/CO
 - SEWER SERVICE
 - WATER MAIN
 - WATER FEEDER LINE
 - WATER VALVE
 - FIRE HYDRANT
 - WATER SERVICE
 - EDGE OF SHOULDER
 - EDGE OF ASPHALT
 - DITCH
 - GRAVEL CHECK DAM
 - DRAINAGE CULVERT
 - RETAINING WALL

ROADWAY NOTES

- PITCH ROADWAY TO EAST. BUILD FOR HEAVY LOADS TO LOGGING ROAD ENTRANCE (STA 13+20)
- RETAINING WALLS WHERE SHOWN. H=4 FT MAX. STONETERRA WALL SYSTEM
- EXISTING GRAVEL ROAD. UPDATE TO COUNTY STANDARDS AND PAVE.
- NEW MAIN ENTRANCE TO DEVELOPMENT.
- GRADE DRIVEWAYS TO MATCH ROAD WAY.

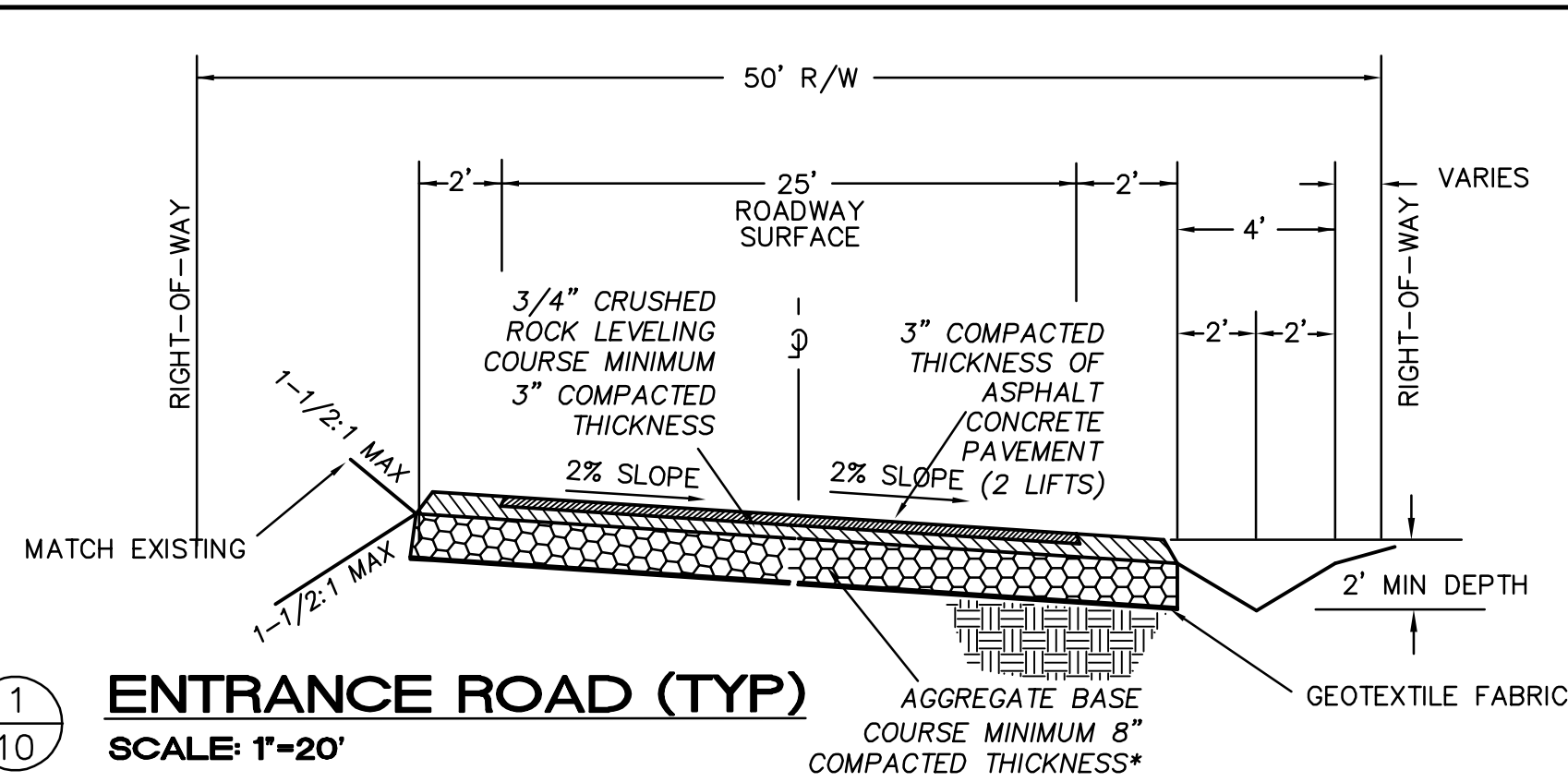
WATER NOTES:

- ALL CRUSHED ROCK BEDDING AND BACKFILL 92% COMPACTION. SEE DETAILS SHEET 24.
- COORDINATE WORK WITH CITY OF NEHALEM. 36" COVER OVER PIPES. 18" MIN VERTICAL SEPARATION FROM SEWER LINE AT CROSSINGS.
- 201 CONNECT TO EXISTING WATER
- 202 INSTALL 6"Ø TEE WITH GATE VALVES
- 203 INSTALL 6"Ø PVC PIPE
- 204 INSTALL FIRE HYDRANT ASSEMBLY
- 205 INSTALL D.I. BENDS, AS NEEDED
- 206 INSTALL WATER SERVICE ASSEMBLY
- 207 INSTALL 8"Ø TEE WITH GATE VALVES
- 208 INSTALL 8"Ø PVC PIPE
- 209 INSTALL 8"Ø GATE VALVE
- PRESSURE TESTING, AND BACTERIOLOGICAL TESTING REQUIRED.

1
10

ENTRANCE ROAD (TYP)

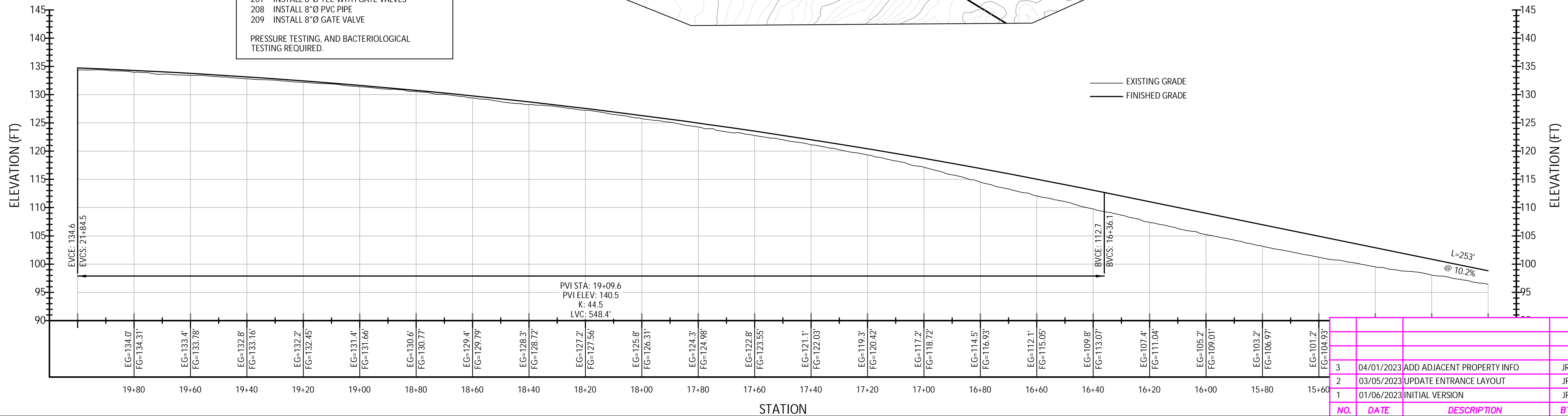
SCALE: 1"=20'



2
10

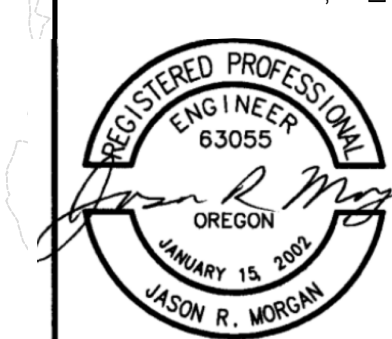
RIVERVIEW DRIVE PROFILE

SCALE: 1"=20' VERT: 1"=5'



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 - PLANNING
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RIVERVIEW MEADOWS DEVELOPMENT, LLC
RIVERVIEW MEADOWS PHASE 3
ENTRANCE ROAD-4

NEHALEM, MAP 3N 10W 23B

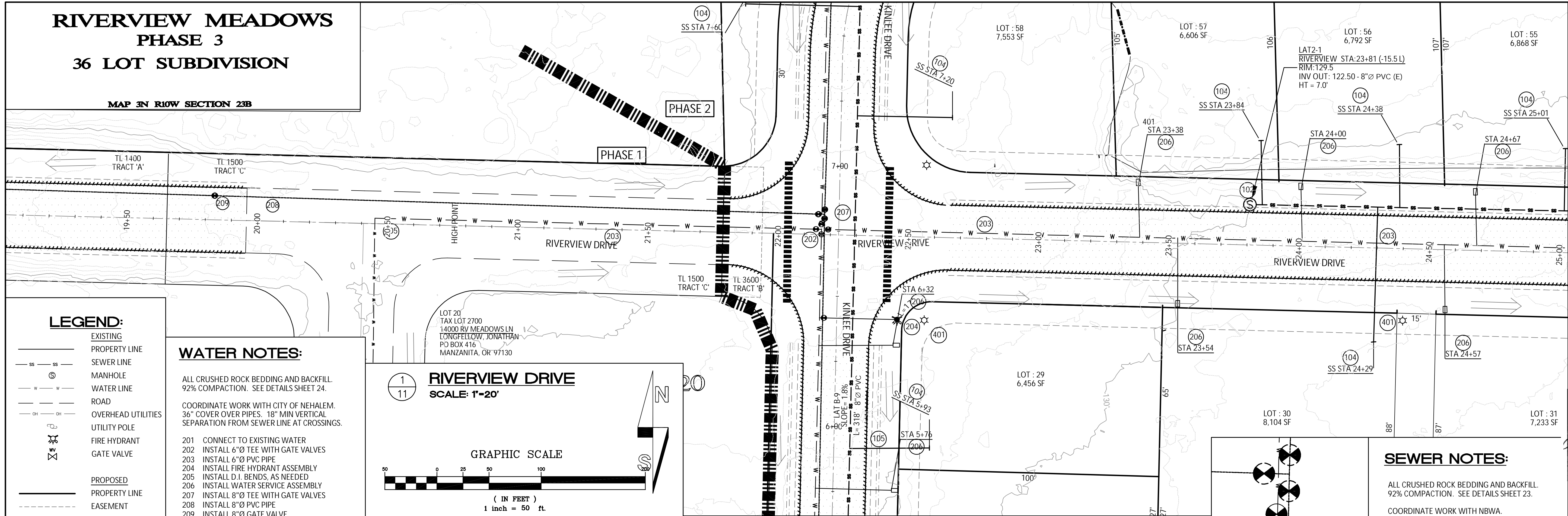
SHEET
10
OF -24-

NO.	DATE	DESCRIPTION	BY
3	04/01/2023	ADD ADJACENT PROPERTY INFO	JRM
2	03/05/2023	UPDATE ENTRANCE LAYOUT	JRM
1	01/06/2023	INITIAL VERSION	JRM

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RIVERVIEW MEADOWS PHASE 3 36 LOT SUBDIVISION

MAP 3N T10W SECTION 23B



LEGEND:

- EXISTING
 - PROPERTY LINE
 - SEWER LINE
 - MANHOLE
 - WATER LINE
 - ROAD
 - OVERHEAD UTILITIES
 - UTILITY POLE
 - FIRE HYDRANT
 - GATE VALVE
- PROPOSED
 - PROPERTY LINE
 - EASEMENT
 - SEWER MAIN
 - SEWER MANHOLE/CO
 - SEWER SERVICE
 - WATER MAIN
 - WATER FEEDER LINE
 - WATER VALVE
 - FIRE HYDRANT
 - WATER SERVICE
 - EDGE OF SHOULDER
 - EDGE OF ASPHALT
 - DITCH
 - GRAVEL CHECK DAM
 - DRAINAGE CULVERT
 - RETAINING WALL

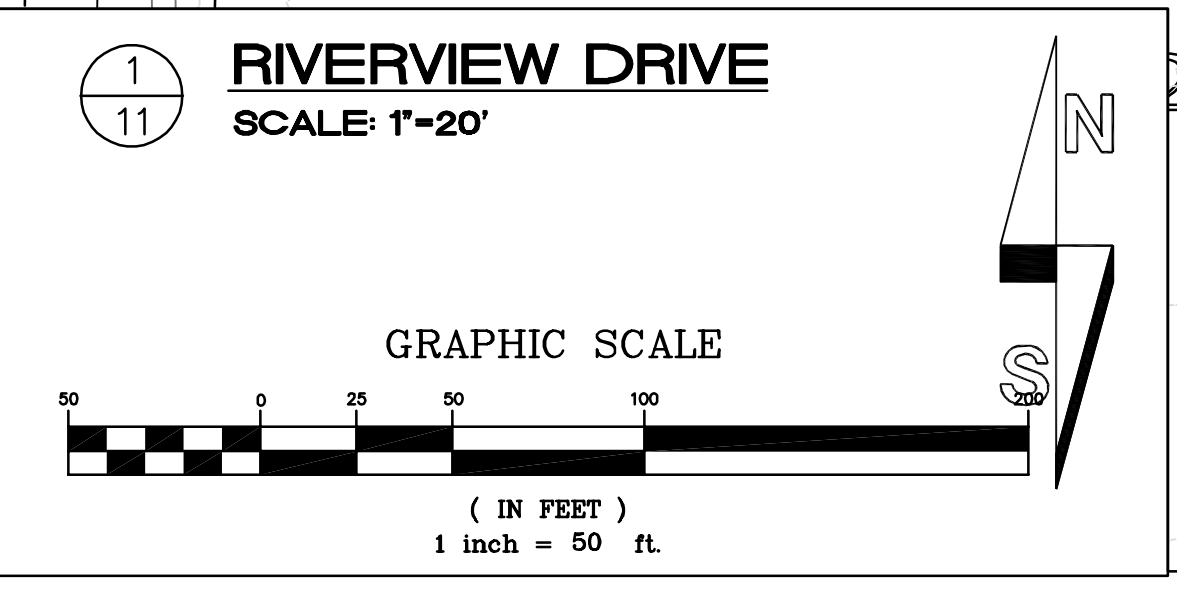
WATER NOTES:

ALL CRUSHED ROCK BEDDING AND BACKFILL. 92% COMPACTION. SEE DETAILS SHEET 24.

COORDINATE WORK WITH CITY OF NEHALEM. 36" COVER OVER PIPES. 18" MIN VERTICAL SEPARATION FROM SEWER LINE AT CROSSINGS.

201 CONNECT TO EXISTING WATER
 202 INSTALL 6"Ø TEE WITH GATE VALVES
 203 INSTALL 6"Ø PVC PIPE
 204 INSTALL FIRE HYDRANT ASSEMBLY
 205 INSTALL D.I. BENDS, AS NEEDED
 206 INSTALL WATER SERVICE ASSEMBLY
 207 INSTALL 8"Ø TEE WITH GATE VALVES
 208 INSTALL 8"Ø PVC PIPE
 209 INSTALL 8"Ø GATE VALVE

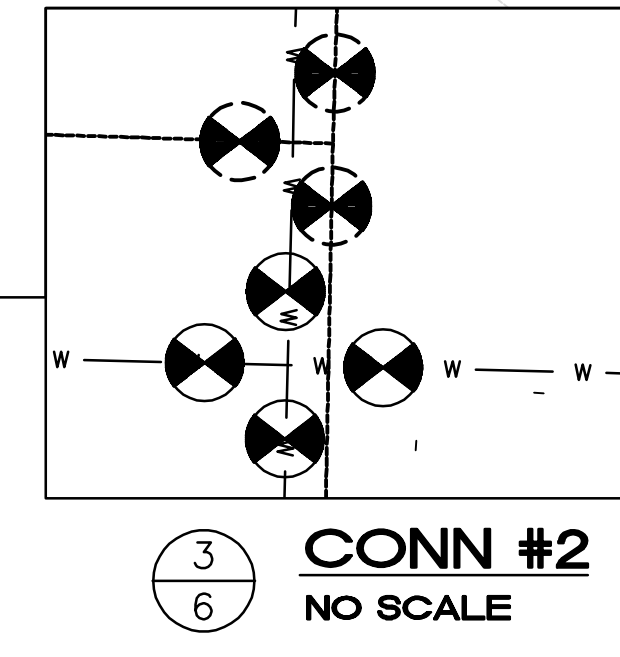
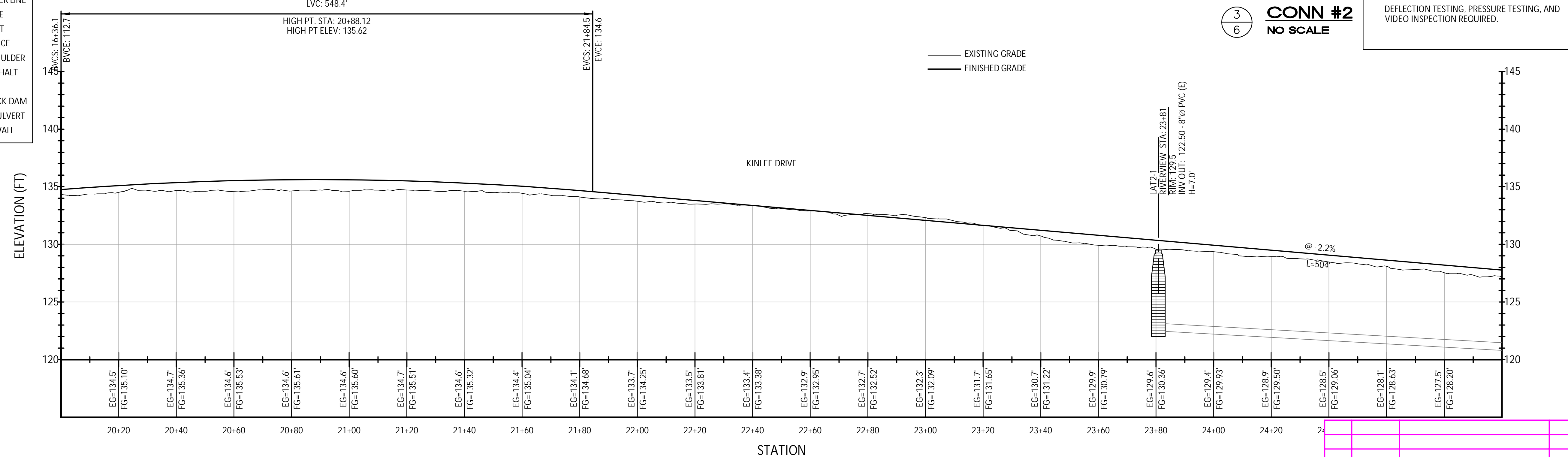
PRESSURE TESTING, AND BACTERIOLOGICAL TESTING REQUIRED.



PVI STA: 19+09.6
 PVI ELEV: 140.5
 K: 44.5
 LVC: 548.4'

HIGH PT. STA: 20+88.12
 HIGH PT ELEV: 135.62

EVCS: 16+36.1 BVCE: 112.7
 EVCS: 21+84.5 EVCE: 134.6



SEWER NOTES:

ALL CRUSHED ROCK BEDDING AND BACKFILL. 92% COMPACTION. SEE DETAILS SHEET 23.

COORDINATE WORK WITH NBWA.

101 CONNECT TO EXISTING STUB
 102 INSTALL NEW MANHOLE
 103 INSTALL NEW 8" SEWER PIPE
 104 INSTALL NEW SEWER SERVICE ASSEMBLY
 105 INSTALL NEW END OF LINE CLEANOUT

DEFLECTION TESTING, PRESSURE TESTING, AND VIDEO INSPECTION REQUIRED.

2
11 **RIVERVIEW DRIVE PROFILE**
SCALE: 1"=20' VERT: 1"=5'

NO.	DATE	DESCRIPTION	BY
3	04/01/2023	ADD ADJACENT PROPERTY INFO	JRM
2	03/05/2023	UPDATE SEWER PROFILES	JRM
1	01/06/2023	INITIAL VERSION	JRM



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 INSPECTION
 PLANNING

JOHN R. MORGAN
 REGISTERED PROFESSIONAL ENGINEER
 63055
 OREGON
 JANUARY 18, 2005
 JASON R. MORGAN
 RENEWAL DATE: DECEMBER 31, 2024

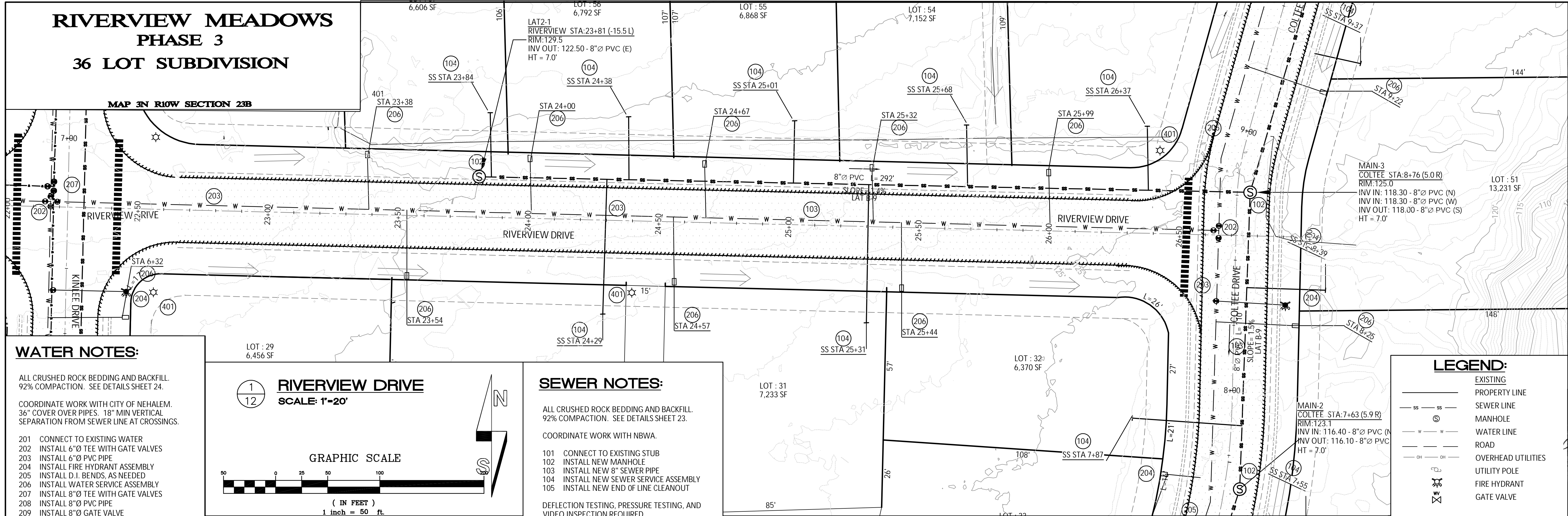
RIVERVIEW MEADOWS DEVELOPMENT, LLC
 RIVERVIEW MEADOWS PHASE 3
 ENTRANCE ROAD-5

NEHALEM, MAP 3N T10W 23B

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RIVERVIEW MEADOWS PHASE 3 36 LOT SUBDIVISION

MAP 3N T10W SECTION 23B



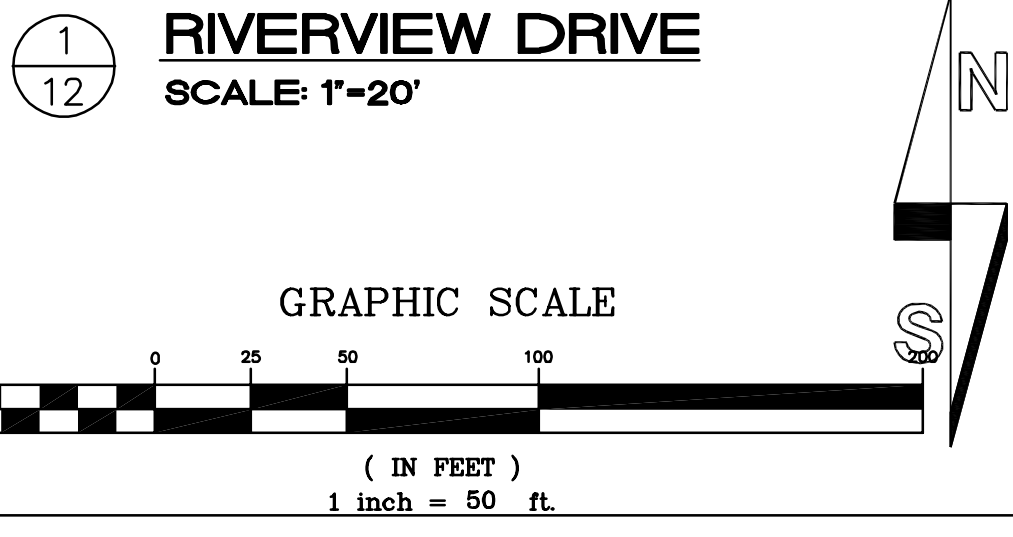
WATER NOTES:

ALL CRUSHED ROCK BEDDING AND BACKFILL 92% COMPACTION. SEE DETAILS SHEET 24.

COORDINATE WORK WITH CITY OF NEHALEM. 36" COVER OVER PIPES. 18" MIN VERTICAL SEPARATION FROM SEWER LINE AT CROSSINGS.

- 201 CONNECT TO EXISTING WATER
- 202 INSTALL 6" Ø TEE WITH GATE VALVES
- 203 INSTALL 6" Ø PVC PIPE
- 204 INSTALL FIRE HYDRANT ASSEMBLY
- 205 INSTALL D.I. BENDS, AS NEEDED
- 206 INSTALL WATER SERVICE ASSEMBLY
- 207 INSTALL 8" Ø TEE WITH GATE VALVES
- 208 INSTALL 8" Ø PVC PIPE
- 209 INSTALL 8" Ø GATE VALVE

PRESSURE TESTING, AND BACTERIOLOGICAL TESTING REQUIRED.



SEWER NOTES:

ALL CRUSHED ROCK BEDDING AND BACKFILL 92% COMPACTION. SEE DETAILS SHEET 23.

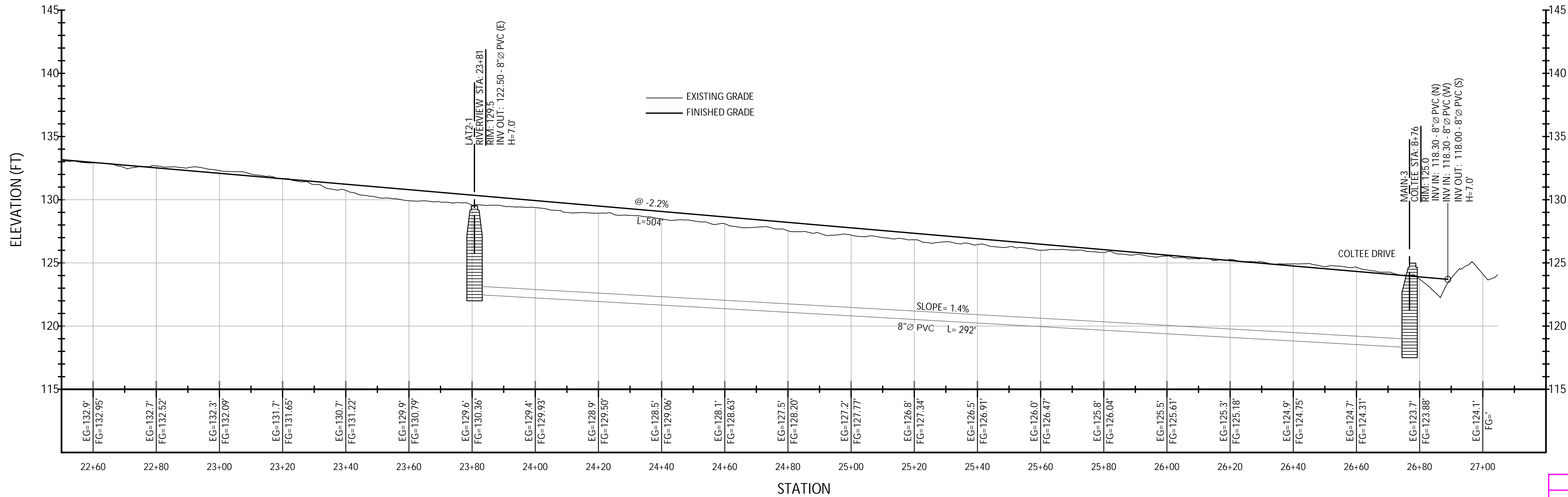
COORDINATE WORK WITH NBWA.

- 101 CONNECT TO EXISTING STUB
- 102 INSTALL NEW MANHOLE
- 103 INSTALL NEW 8" SEWER PIPE
- 104 INSTALL NEW SEWER SERVICE ASSEMBLY
- 105 INSTALL NEW END OF LINE CLEANOUT

DEFLECTION TESTING, PRESSURE TESTING, AND VIDEO INSPECTION REQUIRED.

LEGEND:

- EXISTING PROPERTY LINE
- SEWER LINE
- MANHOLE
- WATER LINE
- ROAD
- OVERHEAD UTILITIES
- UTILITY POLE
- FIRE HYDRANT
- GATE VALVE
- PROPOSED PROPERTY LINE
- EASEMENT
- SEWER MAIN
- SEWER MANHOLE/CO
- SEWER SERVICE
- WATER MAIN
- WATER FEEDER LINE
- WATER VALVE
- FIRE HYDRANT
- WATER SERVICE
- EDGE OF SHOULDER
- EDGE OF ASPHALT
- DITCH
- GRAVEL CHECK DAM
- DRAINAGE CULVERT
- RETAINING WALL



2
12
RIVERVIEW DRIVE PROFILE
SCALE: 1"=20' VERT: 1"=5'

NO.	DATE	DESCRIPTION	BY
2	03/05/2023	UPDATE SEWER PROFILES	JRM
1	01/06/2023	INITIAL VERSION	JRM



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REGISTERED PROFESSIONAL
ENGINEER
63055
JASON R. MORGAN
JANUARY 18, 2005
OREGON
RENEWAL DATE: DECEMBER 31, 2024

RIVERVIEW MEADOWS DEVELOPMENT, LLC
RIVERVIEW MEADOWS PHASE 3
ENTRANCE ROAD-6

SHEET
12
OF -24-

NEHALEM, MAP 3N T10W 23B

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RIVERVIEW MEADOWS PHASE 3 36 LOT SUBDIVISION

MAP 3N 10W SECTION 23B



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JOB NO.
19-10-RV
DATE
MAR. 5, 2023



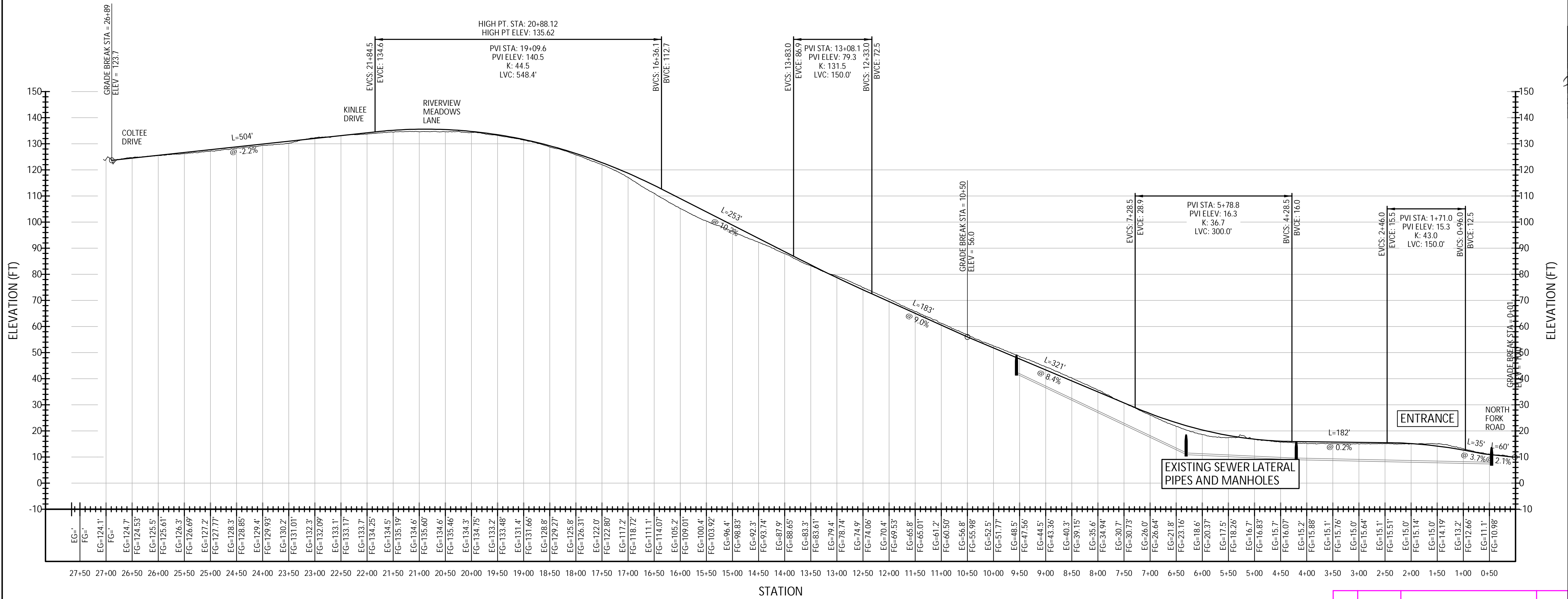
RIVERVIEW MEADOWS DEVELOPMENT, LLC
RIVERVIEW MEADOWS PHASE 3
ENTRANCE ROAD PROFILE

NEHALEM, MAP 3N 10W 23B

1 13 ENTRANCE PROFILE

SCALE: 1"=100' VERT: 1"=20'

EXISTING GRADE
FINISHED GRADE



EXISTING SEWER LATERAL
PIPES AND MANHOLES

NO.	DATE	DESCRIPTION	BY
2	03/05/2023	UPDATE ENTRANCE LAYOUT	JRM
1	01/06/2023	INITIAL VERSION	JRM

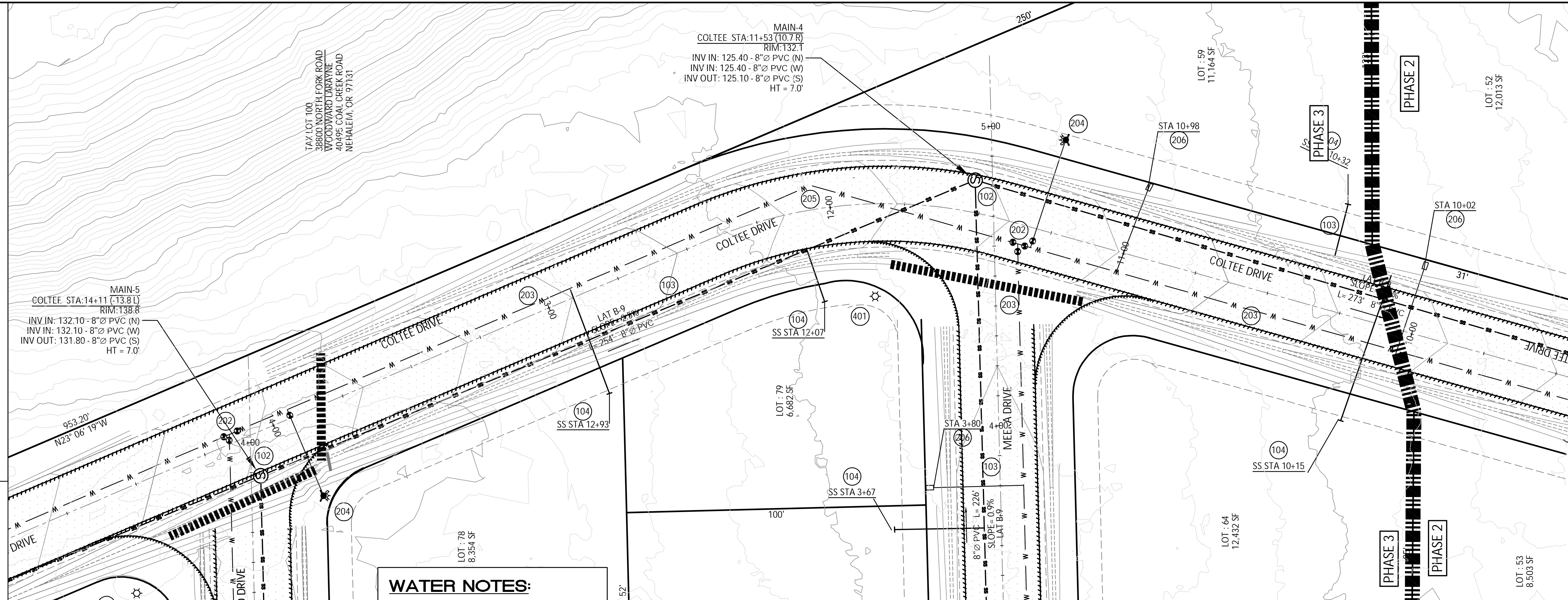
SHEET

13

OF -24-

LEGEND:

- EXISTING
- PROPERTY LINE
- SEWER LINE
- MANHOLE
- WATER LINE
- ROAD
- OVERHEAD UTILITIES
- UTILITY POLE
- FIRE HYDRANT
- GATE VALVE
- PROPOSED
- PROPERTY LINE
- EASEMENT
- SEWER MAIN
- SEWER MANHOLE/CO
- SEWER SERVICE
- WATER MAIN
- WATER FEEDER LINE
- WATER VALVE
- FIRE HYDRANT
- WATER SERVICE
- EDGE OF SHOULDER
- EDGE OF ASPHALT
- DITCH
- GRAVEL CHECK DAM
- DRAINAGE CULVERT
- RETAINING WALL



WATER NOTES:

ALL CRUSHED ROCK BEDDING AND BACKFILL. 92% COMPACTION. SEE DETAILS SHEET 24.

COORDINATE WORK WITH CITY OF NEHALEM. 36" COVER OVER PIPES. 18" MIN VERTICAL SEPARATION FROM SEWER LINE AT CROSSINGS.

- 201 CONNECT TO EXISTING WATER
- 202 INSTALL 6" TEE WITH GATE VALVES
- 203 INSTALL 6" PVC PIPE
- 204 INSTALL FIRE HYDRANT ASSEMBLY
- 205 INSTALL D.I. BENDS, AS NEEDED
- 206 INSTALL WATER SERVICE ASSEMBLY
- 207 INSTALL 8" TEE WITH GATE VALVES
- 208 INSTALL 8" PVC PIPE
- 209 INSTALL 8" GATE VALVE

PRESSURE TESTING, AND BACTERIOLOGICAL TESTING REQUIRED.

COLTEE DRIVE
SCALE: 1"=20'

SEWER NOTES:

ALL CRUSHED ROCK BEDDING AND BACKFILL. 92% COMPACTION. SEE DETAILS SHEET 23.

COORDINATE WORK WITH NBWA.

- 101 CONNECT TO EXISTING STUB
- 102 INSTALL NEW MANHOLE
- 103 INSTALL NEW 8" SEWER PIPE
- 104 INSTALL NEW SEWER SERVICE ASSEMBLY
- 105 INSTALL NEW END OF LINE CLEANOUT

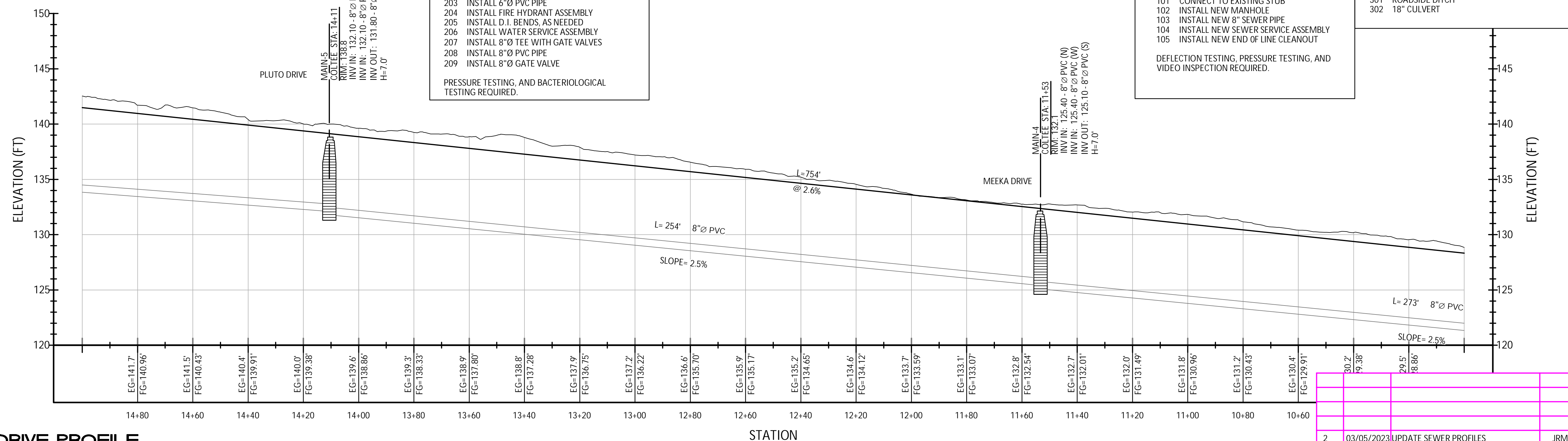
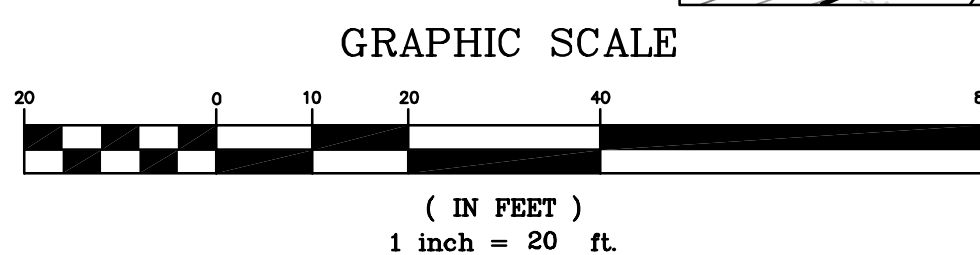
DEFLECTION TESTING, PRESSURE TESTING, AND VIDEO INSPECTION REQUIRED.

STORM NOTES:

ALL CRUSHED ROCK BEDDING AND BACKFILL. 92% COMPACTION.

COORDINATE WORK WITH COUNTY PUBLIC WORKS.

- 301 ROADSIDE DITCH
- 302 18" CULVERT



COLTEE DRIVE PROFILE
SCALE: 1"=20' VERT: 1"=5'

NO.	DATE	DESCRIPTION	BY
2	03/05/2023	UPDATE SEWER PROFILES	JRM
1	01/06/2023	INITIAL VERSION	JRM



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 63055
 OREGON
 JANUARY 18, 2005
 JASON R. MORGAN
 RENEWAL DATE: DECEMBER 31, 2024

RIVERVIEW MEADOWS DEVELOPMENT, LLC
RIVERVIEW MEADOWS PHASE 3
UTILITY LAYOUT - COLTEE DRIVE

V:\19-10-Riv\Draw\RiverView Meadows-4.dwg, coltee-2, 4/2/2023, 4:03:06 PM

SEWER NOTES:

- ALL CRUSHED ROCK BEDDING AND BACKFILL 92% COMPACTION. SEE DETAILS SHEET 23.
- COORDINATE WORK WITH NBWA.
- 101 CONNECT TO EXISTING STUB
- 102 INSTALL NEW MANHOLE
- 103 INSTALL NEW 8" SEWER PIPE
- 104 INSTALL NEW SEWER SERVICE ASSEMBLY
- 105 INSTALL NEW END OF LINE CLEANOUT
- DEFLECTION TESTING, PRESSURE TESTING, AND VIDEO INSPECTION REQUIRED.

WATER NOTES:

- ALL CRUSHED ROCK BEDDING AND BACKFILL 92% COMPACTION. SEE DETAILS SHEET 24.
- COORDINATE WORK WITH CITY OF NEHALEM. 36" COVER OVER PIPES. 18" MIN VERTICAL SEPARATION FROM SEWER LINE AT CROSSINGS.
- 201 CONNECT TO EXISTING WATER
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- 204 INSTALL FIRE HYDRANT ASSEMBLY
- 205 INSTALL D.I. BENDS, AS NEEDED
- 206 INSTALL WATER SERVICE ASSEMBLY
- 207 INSTALL 8" TEE WITH GATE VALVES
- 208 INSTALL 8" PVC PIPE
- 209 INSTALL 8" GATE VALVE
- PRESSURE TESTING, AND BACTERIOLOGICAL TESTING REQUIRED.

STORM NOTES:

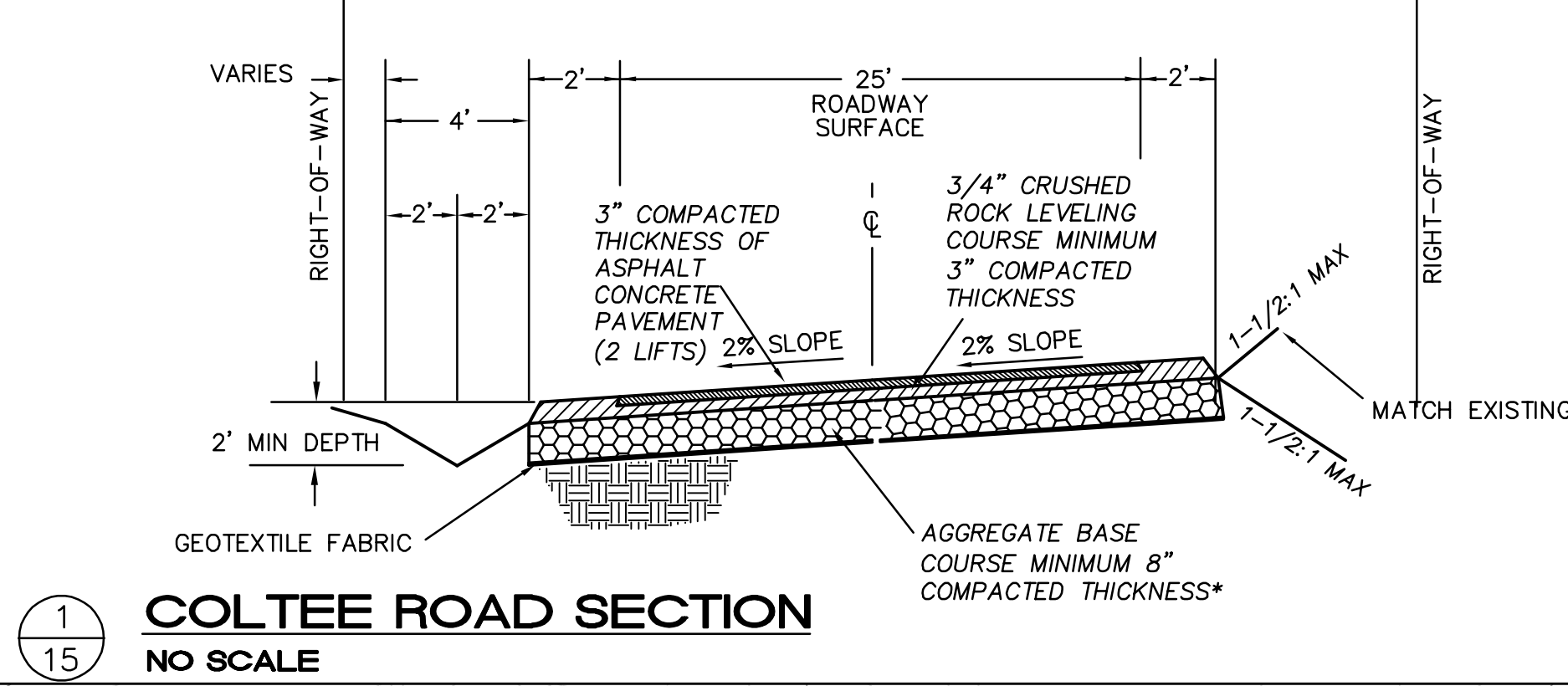
- ALL CRUSHED ROCK BEDDING AND BACKFILL 92% COMPACTION.
- COORDINATE WORK WITH COUNTY PUBLIC WORKS.
- 301 ROADSIDE DITCH
- 302 18" CULVERT

LEGEND:

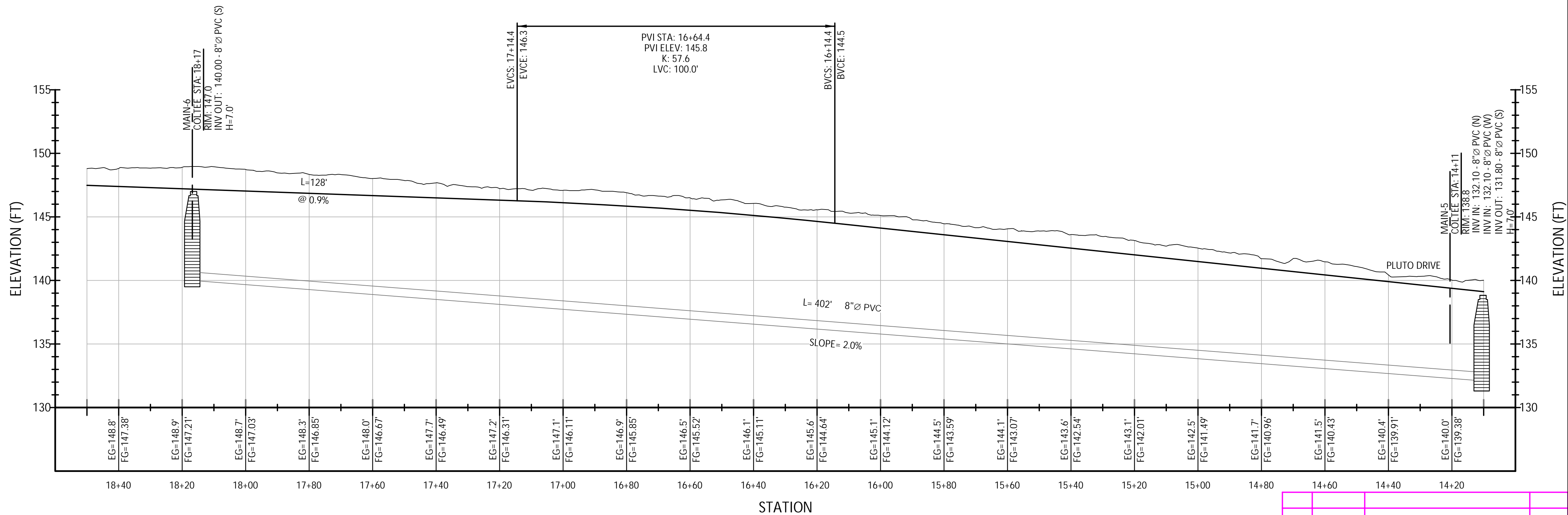
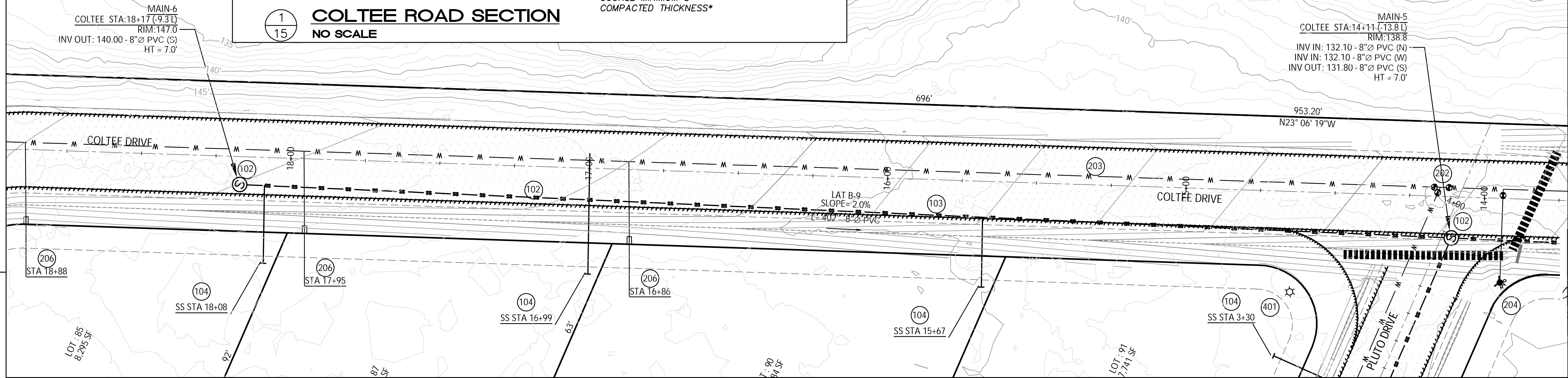
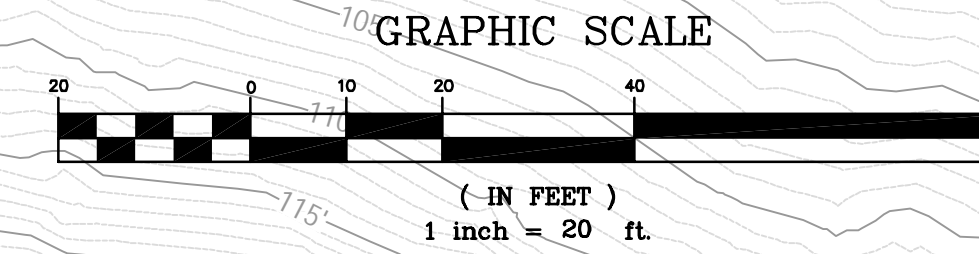
- EXISTING**
 - PROPERTY LINE
 - SEWER LINE
 - MANHOLE
 - WATER LINE
 - ROAD
 - OVERHEAD UTILITIES
 - UTILITY POLE
 - FIRE HYDRANT
 - GATE VALVE
- PROPOSED**
 - PROPERTY LINE
 - EASEMENT
 - SEWER MAIN
 - SEWER MANHOLE/CO
 - SEWER SERVICE
 - WATER MAIN
 - WATER FEEDER LINE
 - WATER VALVE
 - FIRE HYDRANT
 - WATER SERVICE
 - EDGE OF SHOULDER
 - EDGE OF ASPHALT
 - DITCH
 - GRAVEL CHECK DAM
 - DRAINAGE CULVERT
 - RETAINING WALL
 - PROFILE
 - EXISTING GRADE
 - FINISHED GRADE

ROADWAY NOTES

PITCH ROADWAY TO WEST



COLTEE DRIVE
SCALE: 1"=20'



COLTEE DRIVE PROFILE
SCALE: 1"=20' VERT: 1"=5'

NO.	DATE	DESCRIPTION	BY
2	03/05/2023	UPDATE SEWER PROFILES	JRM
1	01/06/2023	INITIAL VERSION	JRM



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REGISTERED PROFESSIONAL ENGINEER
63055
OREGON
JANUARY 18, 2005
JASON R. MORGAN
RENEWAL DATE: DECEMBER 31, 2024

RIVERVIEW MEADOWS DEVELOPMENT, LLC
RIVERVIEW MEADOWS PHASE 3
UTILITY LAYOUT - COLTEE DRIVE

SHEET
15
OF -24-

NEHALEM, MAP 3N 10W 23B

SEWER NOTES:

- ALL CRUSHED ROCK BEDDING AND BACKFILL 92% COMPACTION. SEE DETAILS SHEET 23.
- COORDINATE WORK WITH NBWA.
- 101 CONNECT TO EXISTING STUB
- 102 INSTALL NEW MANHOLE
- 103 INSTALL NEW 8" SEWER PIPE
- 104 INSTALL NEW SEWER SERVICE ASSEMBLY
- 105 INSTALL NEW END OF LINE CLEANOUT
- DEFLECTION TESTING, PRESSURE TESTING, AND VIDEO INSPECTION REQUIRED.

WATER NOTES:

- ALL CRUSHED ROCK BEDDING AND BACKFILL 92% COMPACTION. SEE DETAILS SHEET 24.
- COORDINATE WORK WITH CITY OF NEHALEM. 36" COVER OVER PIPES. 18" MIN VERTICAL SEPARATION FROM SEWER LINE AT CROSSINGS.
- 201 CONNECT TO EXISTING WATER
- 202 INSTALL 6" TEE WITH GATE VALVES
- 203 INSTALL 6" PVC PIPE
- 204 INSTALL FIRE HYDRANT ASSEMBLY
- 205 INSTALL D.I. BENDS, AS NEEDED
- 206 INSTALL WATER SERVICE ASSEMBLY
- 207 INSTALL 8" TEE WITH GATE VALVES
- 208 INSTALL 8" PVC PIPE
- 209 INSTALL 8" GATE VALVE
- PRESSURE TESTING, AND BACTERIOLOGICAL TESTING REQUIRED.

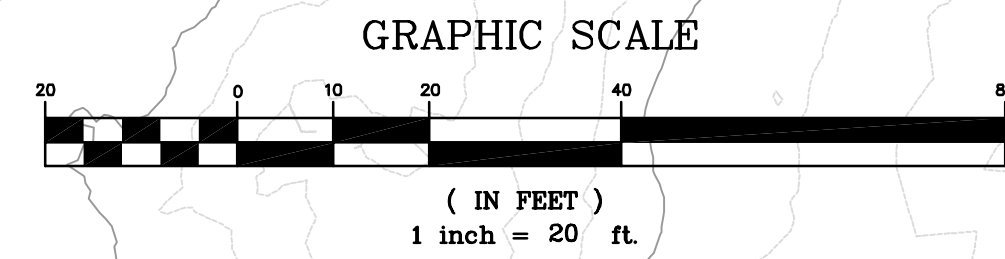
STORM NOTES:

- ALL CRUSHED ROCK BEDDING AND BACKFILL 92% COMPACTION.
- COORDINATE WORK WITH COUNTY PUBLIC WORKS.
- 301 ROADSIDE DITCH
- 302 18" CULVERT

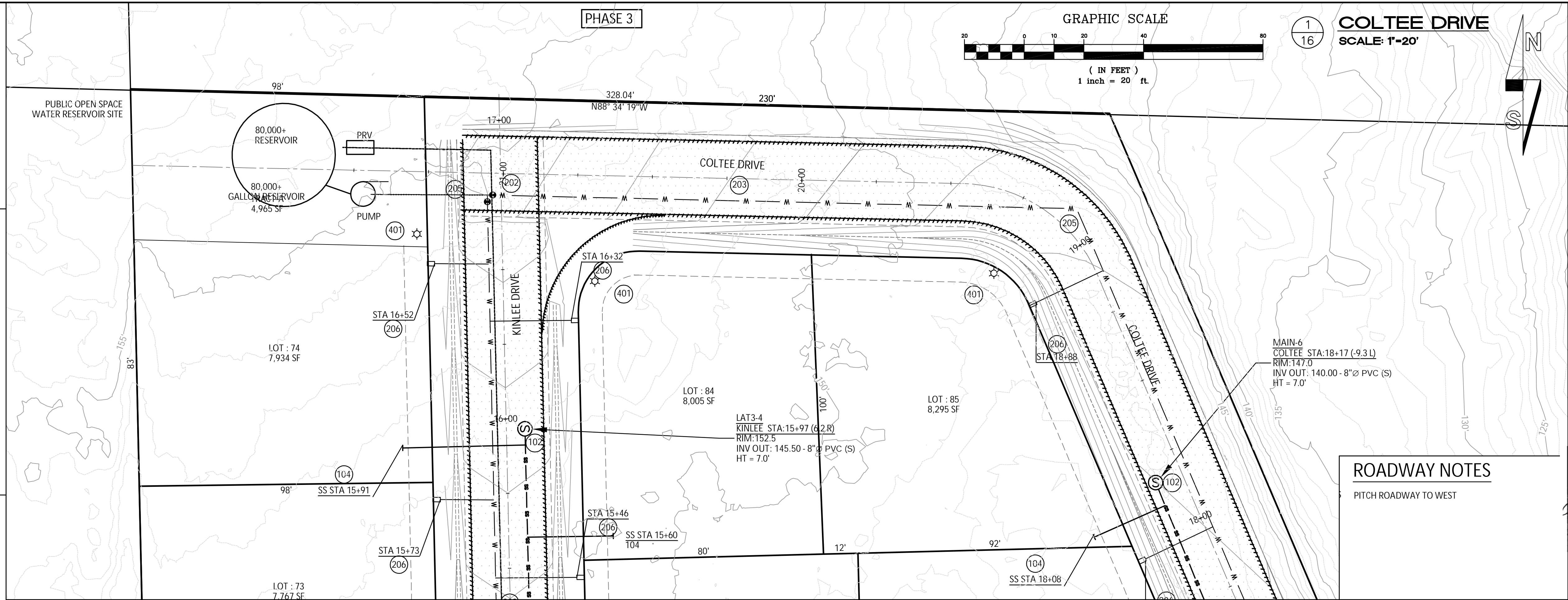
LEGEND:

- EXISTING
 - PROPERTY LINE
 - SEWER LINE
 - MANHOLE
 - WATER LINE
 - ROAD
 - OVERHEAD UTILITIES
 - UTILITY POLE
 - FIRE HYDRANT
 - GATE VALVE
- PROPOSED
 - PROPERTY LINE
 - EASEMENT
 - SEWER MAIN
 - SEWER MANHOLE/CO
 - SEWER SERVICE
 - WATER MAIN
 - WATER FEEDER LINE
 - WATER VALVE
 - FIRE HYDRANT
 - WATER SERVICE
 - EDGE OF SHOULDER
 - EDGE OF ASPHALT
 - DITCH
 - GRAVEL CHECK DAM
 - DRAINAGE CULVERT
 - RETAINING WALL
- PROFILE
 - EXISTING GRADE
 - FINISHED GRADE

PHASE 3



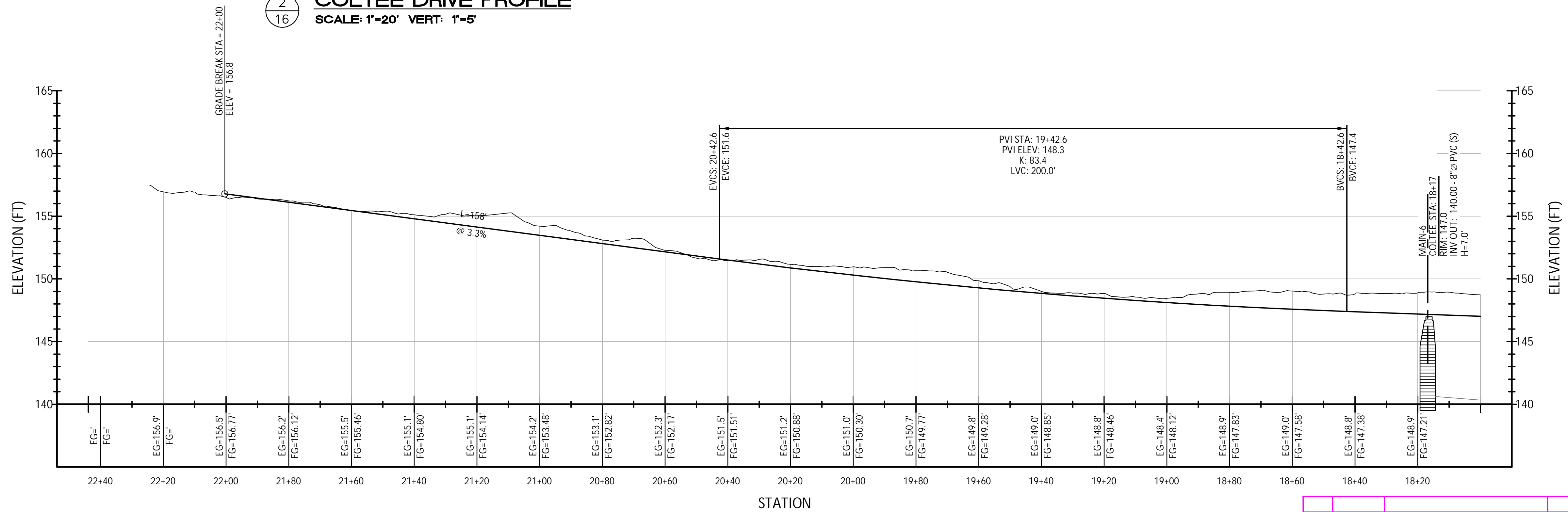
COLTEE DRIVE
SCALE: 1"=20'



ROADWAY NOTES

PITCH ROADWAY TO WEST

2 COLTEE DRIVE PROFILE
SCALE: 1"=20' VERT: 1"=5'



NO.	DATE	DESCRIPTION	BY
2	03/05/2023	UPDATE SEWER PROFILES	JRM
1	01/06/2023	INITIAL VERSION	JRM

RIVERVIEW MEADOWS DEVELOPMENT, LLC
RIVERVIEW MEADOWS PHASE 3
UTILITY LAYOUT - COLTEE DRIVE



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JRM
10/10/2023
DATE: MAR. 5, 2023



SHEET

16

OF -24-

NEHALEM, MAP 3N 10W 23B

SEWER NOTES:

ALL CRUSHED ROCK BEDDING AND BACKFILL 92% COMPACTION. SEE DETAILS SHEET 23.

COORDINATE WORK WITH NBWA.

- 101 CONNECT TO EXISTING STUB
- 102 INSTALL NEW MANHOLE
- 103 INSTALL NEW 8" SEWER PIPE
- 104 INSTALL NEW SEWER SERVICE ASSEMBLY
- 105 INSTALL NEW END OF LINE CLEANOUT

DEFLECTION TESTING, PRESSURE TESTING, AND VIDEO INSPECTION REQUIRED.

WATER NOTES:

ALL CRUSHED ROCK BEDDING AND BACKFILL 92% COMPACTION. SEE DETAILS SHEET 24.

COORDINATE WORK WITH CITY OF NEHALEM. 36" COVER OVER PIPES. 18" MIN VERTICAL SEPARATION FROM SEWER LINE AT CROSSINGS.

- 201 CONNECT TO EXISTING WATER
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- 203 INSTALL 6" PVC PIPE
- 204 INSTALL FIRE HYDRANT ASSEMBLY
- 205 INSTALL D.I. BENDS, AS NEEDED
- 206 INSTALL WATER SERVICE ASSEMBLY
- 207 INSTALL 8" TEE WITH GATE VALVES
- 208 INSTALL 8" PVC PIPE
- 209 INSTALL 8" GATE VALVE

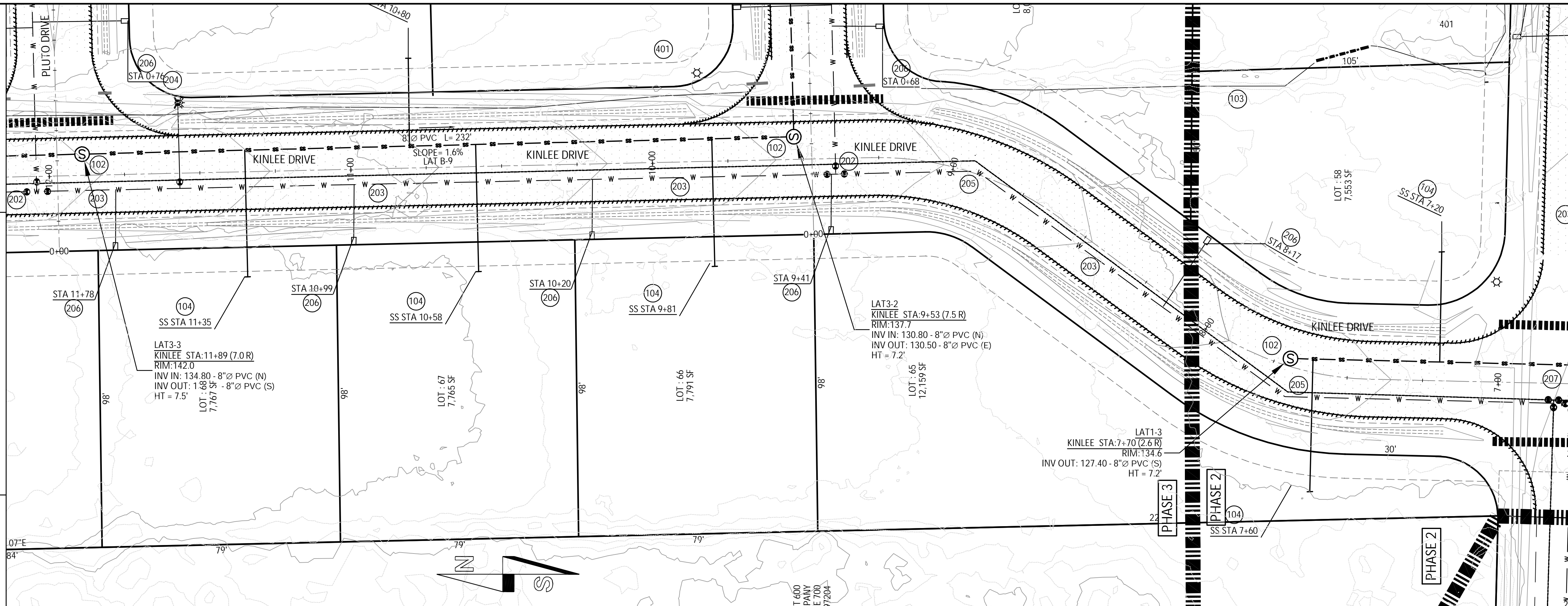
PRESSURE TESTING, AND BACTERIOLOGICAL TESTING REQUIRED.

STORM NOTES:

ALL CRUSHED ROCK BEDDING AND BACKFILL 92% COMPACTION.

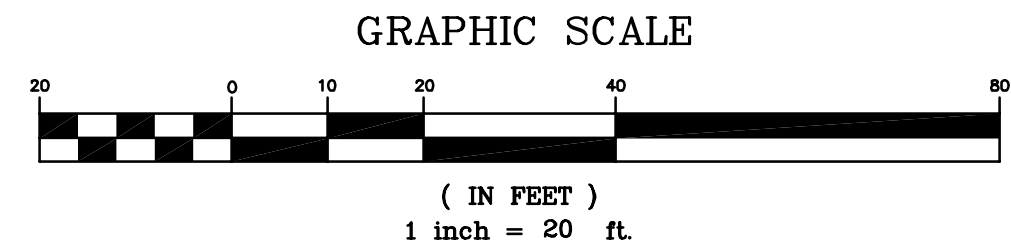
COORDINATE WORK WITH COUNTY PUBLIC WORKS.

- 301 ROADSIDE DITCH
- 302 18" CULVERT

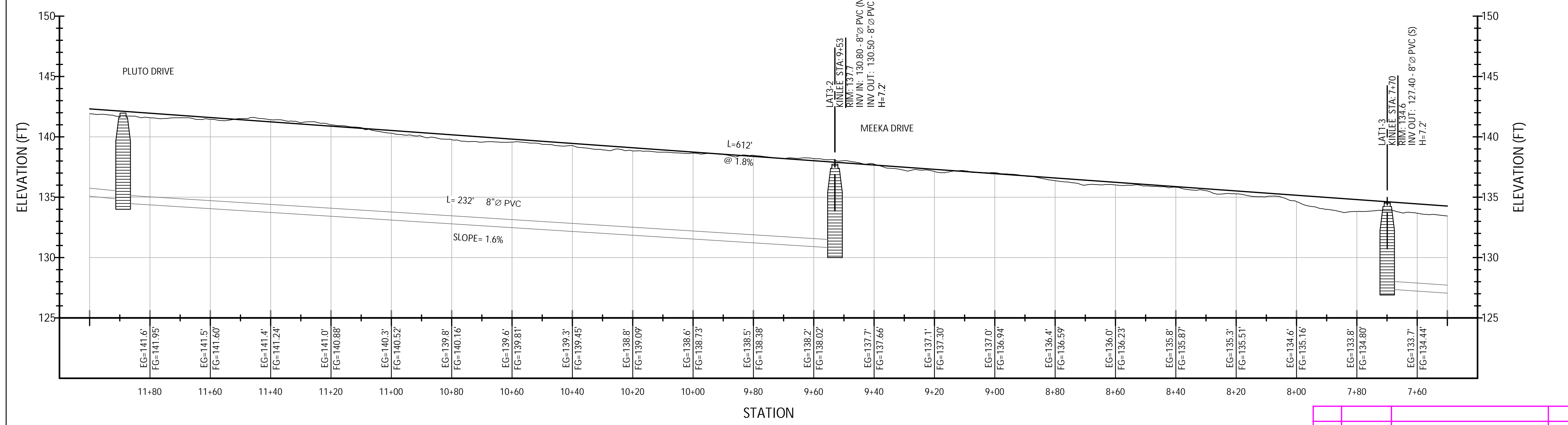


LEGEND:

- EXISTING
 - PROPERTY LINE
 - SEWER LINE
 - MANHOLE
 - WATER LINE
 - ROAD
 - OVERHEAD UTILITIES
 - UTILITY POLE
 - FIRE HYDRANT
 - GATE VALVE
- PROPOSED
 - PROPERTY LINE
 - EASEMENT
 - SEWER MAIN
 - SEWER MANHOLE/CO
 - SEWER SERVICE
 - WATER MAIN
 - WATER FEEDER LINE
 - WATER VALVE
 - FIRE HYDRANT
 - WATER SERVICE
 - EDGE OF SHOULDER
 - EDGE OF ASPHALT
 - DITCH
 - GRAVEL CHECK DAM
 - DRAINAGE CULVERT
 - RETAINING WALL
- PROFILE
 - EXISTING GRADE
 - FINISHED GRADE



1
17 KINLEE DRIVE
SCALE: 1"=20'



2
17 KINLEE DRIVE PROFILE
SCALE: 1"=20' VERT: 1"=5'

NO.	DATE	DESCRIPTION	BY
3	04/01/2023	ADJUST ROAD CURVE ALIGNMENT	JRM
2	03/05/2023	UPDATE SEWER PROFILES	JRM
1	01/06/2023	INITIAL VERSION	JRM



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REGISTERED PROFESSIONAL ENGINEER
63055
OREGON
JASON R. MORGAN
RENEWAL DATE: DECEMBER 31, 2024

RIVERVIEW MEADOWS DEVELOPMENT, LLC
RIVERVIEW MEADOWS PHASE 3
UTILITY LAYOUT - KINLEE DRIVE

SHEET
17
OF -24-

NEHALEM, MAP 3N 10W 23B

V:\19-10-Riv\Draw\RiverView Meadows-4.dwg, Kinlee-3, 4/2/2023 4:03:56 PM

SEWER NOTES:

ALL CRUSHED ROCK BEDDING AND BACKFILL 92% COMPACTION. SEE DETAILS SHEET 23.

COORDINATE WORK WITH NBWA.

- 101 CONNECT TO EXISTING STUB
- 102 INSTALL NEW MANHOLE
- 103 INSTALL NEW 8" SEWER PIPE
- 104 INSTALL NEW SEWER SERVICE ASSEMBLY
- 105 INSTALL NEW END OF LINE CLEANOUT

DEFLECTION TESTING, PRESSURE TESTING, AND VIDEO INSPECTION REQUIRED.

WATER NOTES:

ALL CRUSHED ROCK BEDDING AND BACKFILL 92% COMPACTION. SEE DETAILS SHEET 24.

COORDINATE WORK WITH CITY OF NEHALEM. 36" COVER OVER PIPES. 18" MIN VERTICAL SEPARATION FROM SEWER LINE AT CROSSINGS.

- 201 CONNECT TO EXISTING WATER
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- 205 INSTALL D.I. BENDS, AS NEEDED
- 206 INSTALL WATER SERVICE ASSEMBLY
- 207 INSTALL 8" TEE WITH GATE VALVES
- 208 INSTALL 8" PVC PIPE
- 209 INSTALL 8" GATE VALVE

PRESSURE TESTING, AND BACTERIOLOGICAL TESTING REQUIRED.

STORM NOTES:

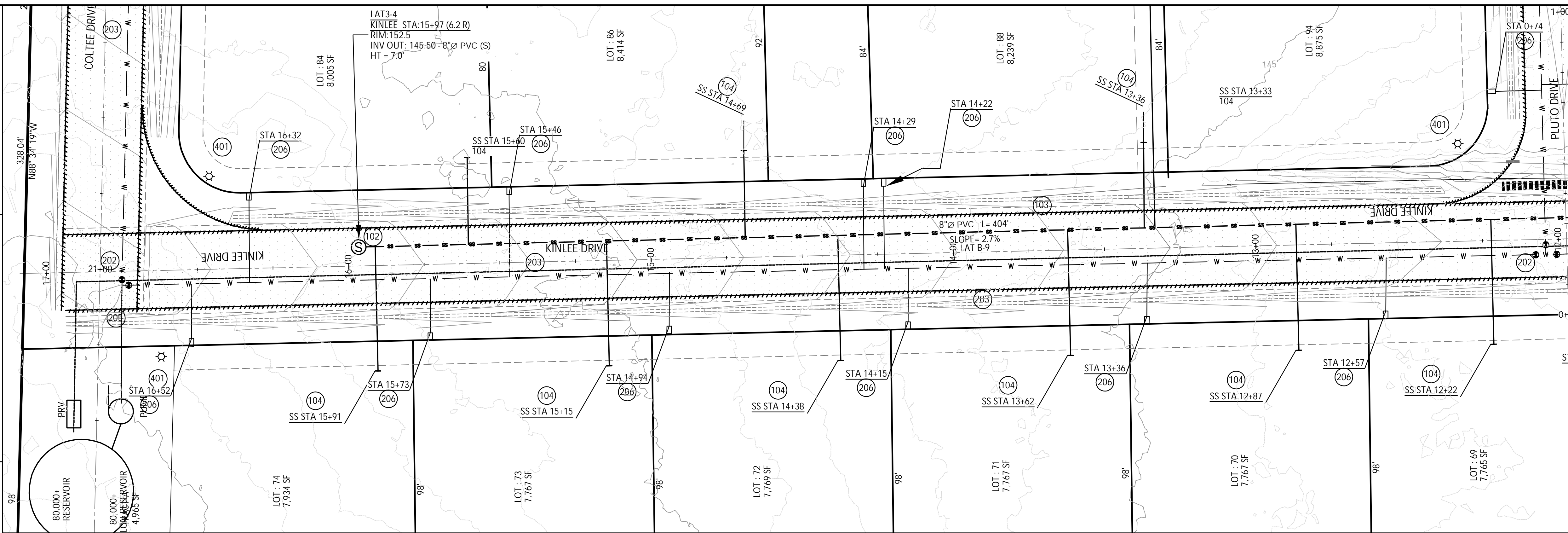
ALL CRUSHED ROCK BEDDING AND BACKFILL 92% COMPACTION.

COORDINATE WORK WITH COUNTY PUBLIC WORKS.

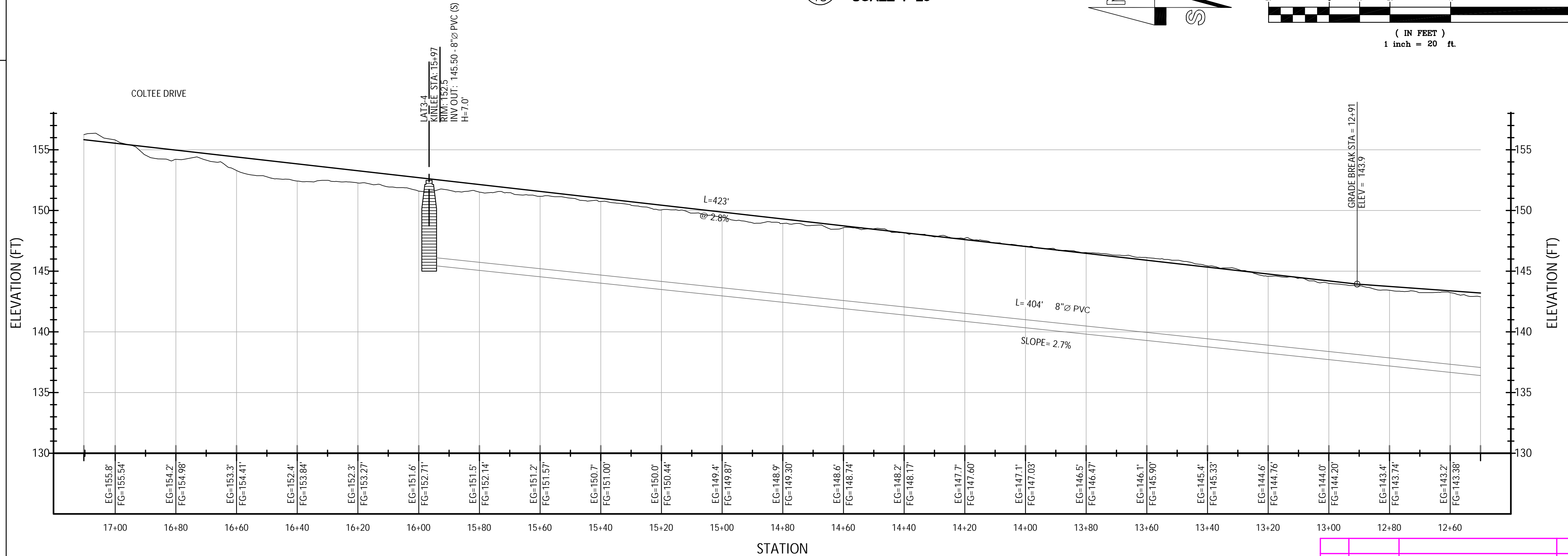
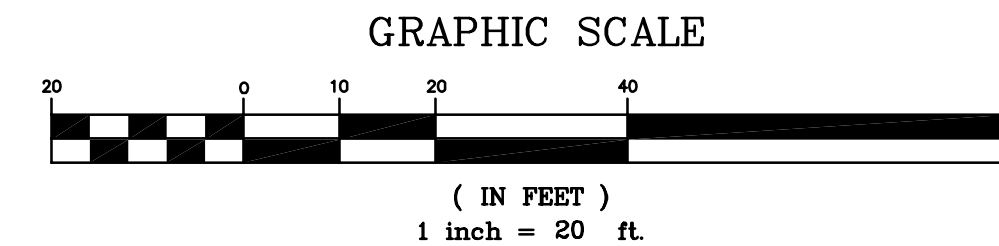
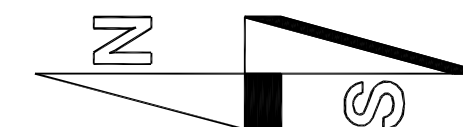
- 301 ROADSIDE DITCH
- 302 18" CULVERT

LEGEND:

- EXISTING
 - PROPERTY LINE
 - SEWER LINE
 - MANHOLE
 - WATER LINE
 - ROAD
 - OVERHEAD UTILITIES
 - UTILITY POLE
 - FIRE HYDRANT
 - GATE VALVE
- PROPOSED
 - PROPERTY LINE
 - EASEMENT
 - SEWER MAIN
 - SEWER MANHOLE/CO
 - SEWER SERVICE
 - WATER MAIN
 - WATER FEEDER LINE
 - WATER VALVE
 - FIRE HYDRANT
 - WATER SERVICE
 - EDGE OF SHOULDER
 - EDGE OF ASPHALT
 - DITCH
 - GRAVEL CHECK DAM
 - DRAINAGE CULVERT
 - RETAINING WALL
- PROFILE
 - EXISTING GRADE
 - FINISHED GRADE



1
18 KINLEE DRIVE
SCALE: 1"=20'



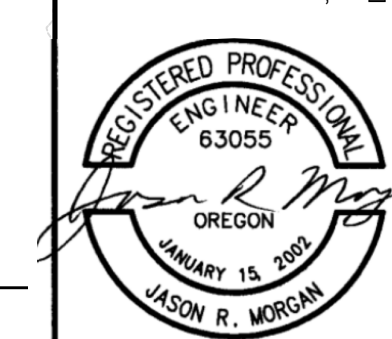
2
18 KINLEE DRIVE PROFILE
SCALE: 1"=20' VERT: 1"=5'

NO.	DATE	DESCRIPTION	BY
2	03/05/2023	UPDATE SEWER PROFILES	JRM
1	01/06/2023	INITIAL VERSION	JRM



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RENEWAL DATE: DECEMBER 31, 2024

RIVERVIEW MEADOWS DEVELOPMENT, LLC
RIVERVIEW MEADOWS PHASE 3
UTILITY LAYOUT - KINLEE DRIVE

SHEET
18
OF -24-

NEHALEM, MAP 3N 10W 23B

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SEWER NOTES:

ALL CRUSHED ROCK BEDDING AND BACKFILL 92% COMPACTION. SEE DETAILS SHEET 23.

COORDINATE WORK WITH NBWA.

- 101 CONNECT TO EXISTING STUB
- 102 INSTALL NEW MANHOLE
- 103 INSTALL NEW 8" SEWER PIPE
- 104 INSTALL NEW SEWER SERVICE ASSEMBLY
- 105 INSTALL NEW END OF LINE CLEANOUT

DEFLECTION TESTING, PRESSURE TESTING, AND VIDEO INSPECTION REQUIRED.

WATER NOTES:

ALL CRUSHED ROCK BEDDING AND BACKFILL 92% COMPACTION. SEE DETAILS SHEET 24.

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- 205 INSTALL D.I. BENDS, AS NEEDED
- 206 INSTALL WATER SERVICE ASSEMBLY
- 207 INSTALL 8" TEE WITH GATE VALVES
- 208 INSTALL 8" PVC PIPE
- 209 INSTALL 8" GATE VALVE

PRESSURE TESTING, AND BACTERIOLOGICAL TESTING REQUIRED.

STORM NOTES:

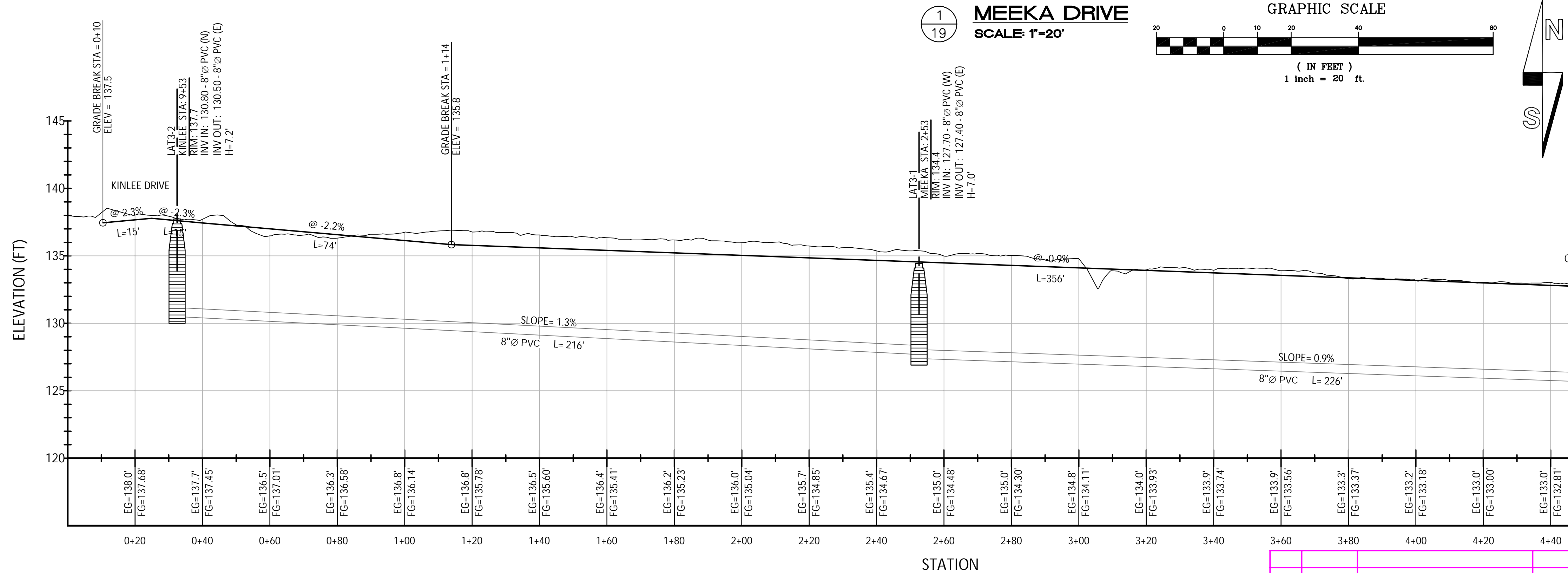
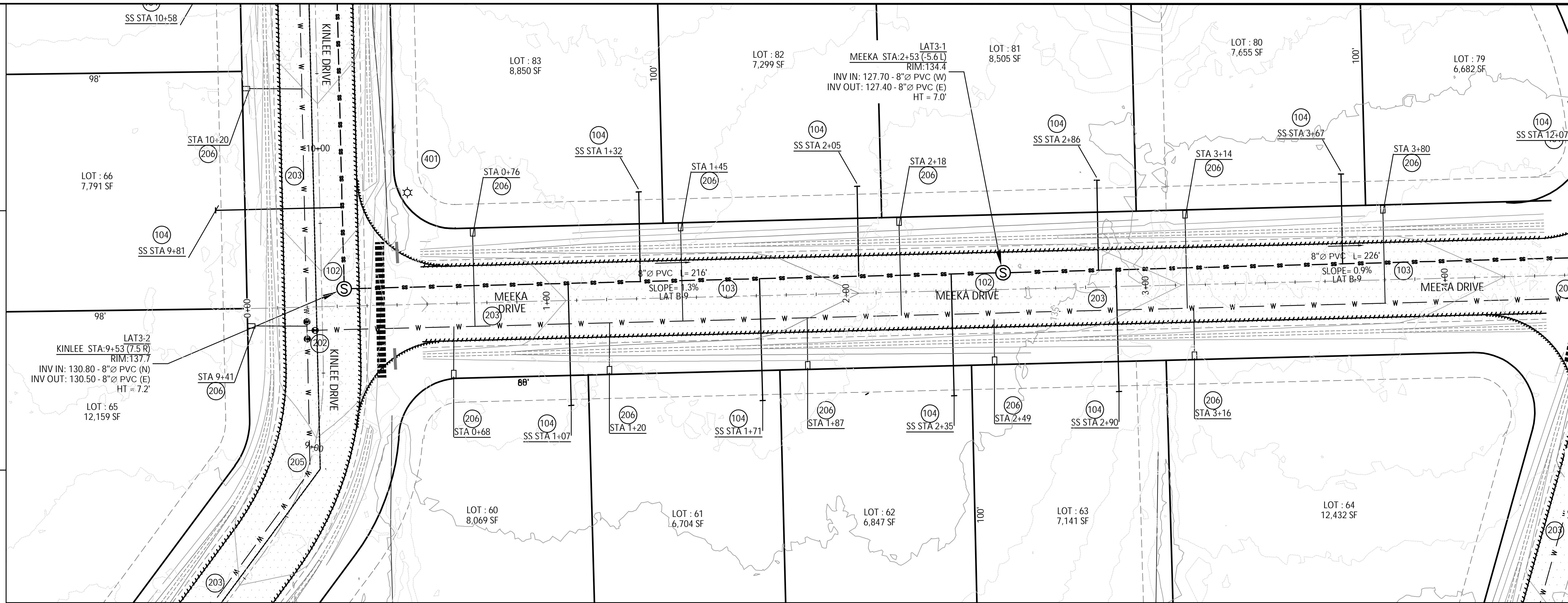
ALL CRUSHED ROCK BEDDING AND BACKFILL 92% COMPACTION.

COORDINATE WORK WITH COUNTY PUBLIC WORKS.

- 301 ROADSIDE DITCH
- 302 18" CULVERT

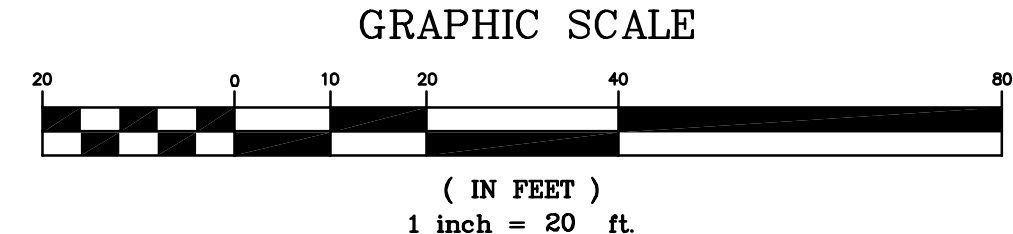
LEGEND:

- EXISTING PROPERTY LINE
- SEWER LINE
- MANHOLE
- WATER LINE
- ROAD
- OVERHEAD UTILITIES
- UTILITY POLE
- FIRE HYDRANT
- GATE VALVE
- PROPOSED PROPERTY LINE
- EASEMENT
- SEWER MAIN
- SEWER MANHOLE/CO
- SEWER SERVICE
- WATER MAIN
- WATER FEEDER LINE
- WATER VALVE
- FIRE HYDRANT
- WATER SERVICE
- EDGE OF SHOULDER
- EDGE OF ASPHALT
- DITCH
- GRAVEL CHECK DAM
- DRAINAGE CULVERT
- RETAINING WALL
- PROFILE
- EXISTING GRADE
- FINISHED GRADE



2
19 **MEEKE DRIVE PROFILE**
SCALE: 1"=20' VERT: 1"=5'

1
19 **MEEKE DRIVE**
SCALE: 1"=20'



GRAPHIC SCALE
(IN FEET)
1 inch = 20 ft.

NO.	DATE	DESCRIPTION	BY
2	03/05/2023	UPDATE SEWER PROFILES	JRM
1	01/06/2023	INITIAL VERSION	JRM



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JOHN
DATE: MAR. 5, 2023



RIVERVIEW MEADOWS DEVELOPMENT, LLC
RIVERVIEW MEADOWS PHASE 3
UTILITY LAYOUT - MEEKE DRIVE

SHEET

19

OF -24-

NEHALEM, MAP 3N 10W 23B

SEWER NOTES:

ALL CRUSHED ROCK BEDDING AND BACKFILL.
92% COMPACTION. SEE DETAILS SHEET 23.

COORDINATE WORK WITH NBWA.

- 101 CONNECT TO EXISTING STUB
- 102 INSTALL NEW MANHOLE
- 103 INSTALL NEW 8" SEWER PIPE
- 104 INSTALL NEW SEWER SERVICE ASSEMBLY
- 105 INSTALL NEW END OF LINE CLEANOUT

DEFLECTION TESTING, PRESSURE TESTING, AND VIDEO INSPECTION REQUIRED.

WATER NOTES:

ALL CRUSHED ROCK BEDDING AND BACKFILL.
92% COMPACTION. SEE DETAILS SHEET 24.

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36" COVER OVER PIPES. 18" MIN VERTICAL SEPARATION FROM SEWER LINE AT CROSSINGS.

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- 205 INSTALL D.I. BENDS, AS NEEDED
- 206 INSTALL WATER SERVICE ASSEMBLY
- 207 INSTALL 8" TEE WITH GATE VALVES
- 208 INSTALL 8" PVC PIPE
- 209 INSTALL 8" GATE VALVE

PRESSURE TESTING, AND BACTERIOLOGICAL TESTING REQUIRED.

STORM NOTES:

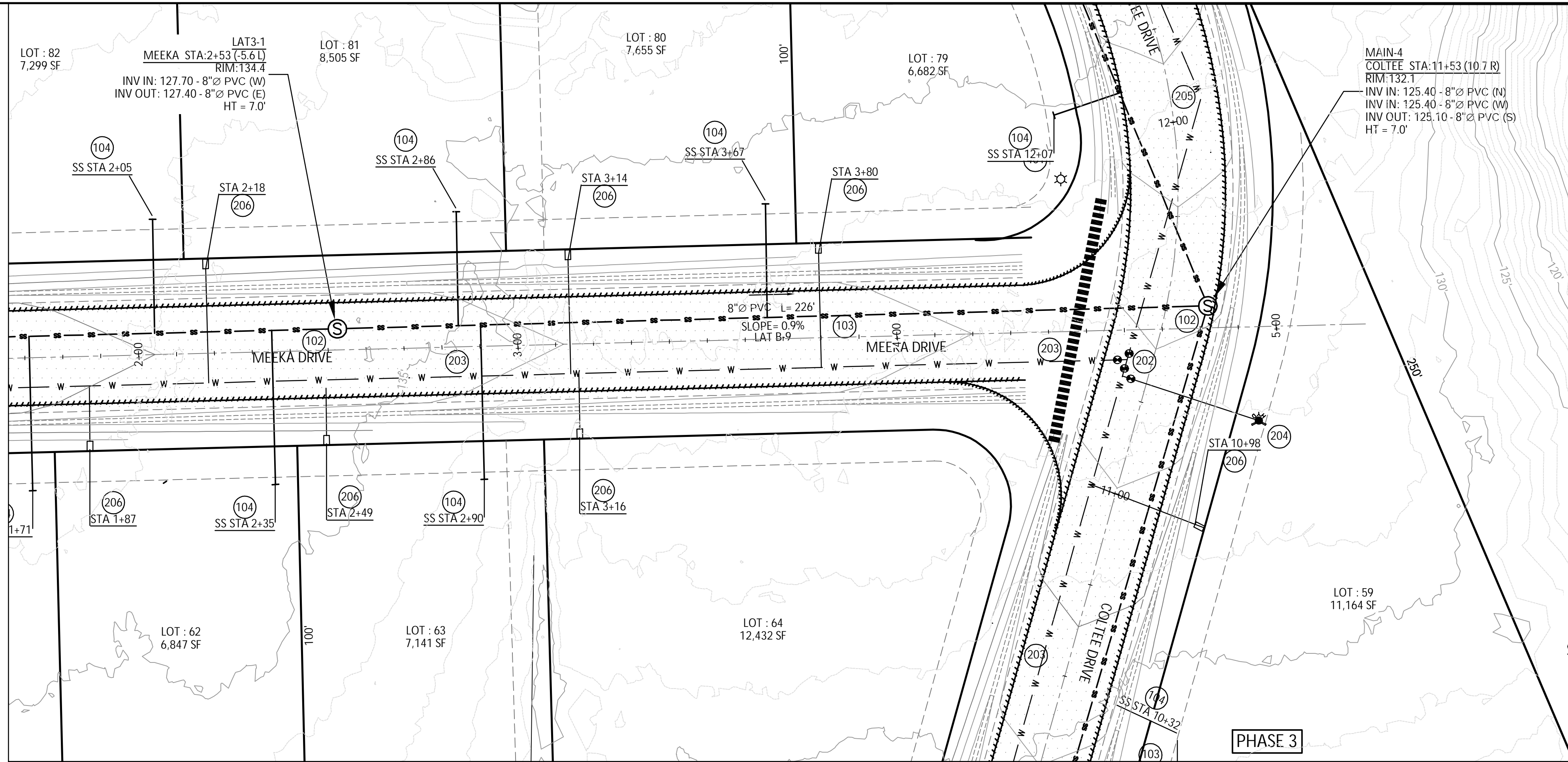
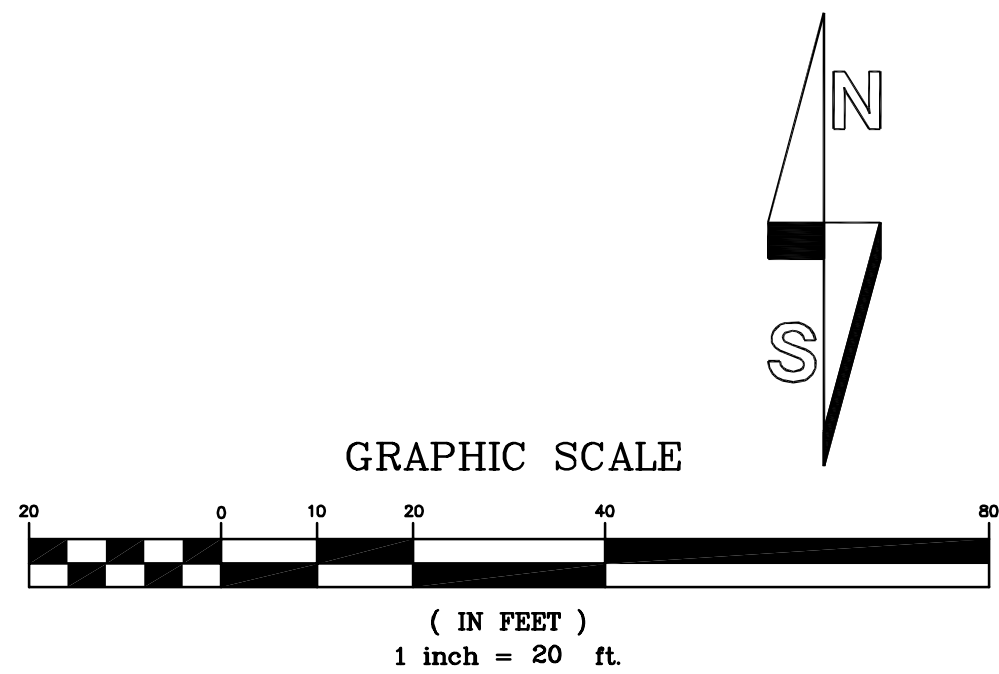
ALL CRUSHED ROCK BEDDING AND BACKFILL.
92% COMPACTION.

COORDINATE WORK WITH COUNTY PUBLIC WORKS.

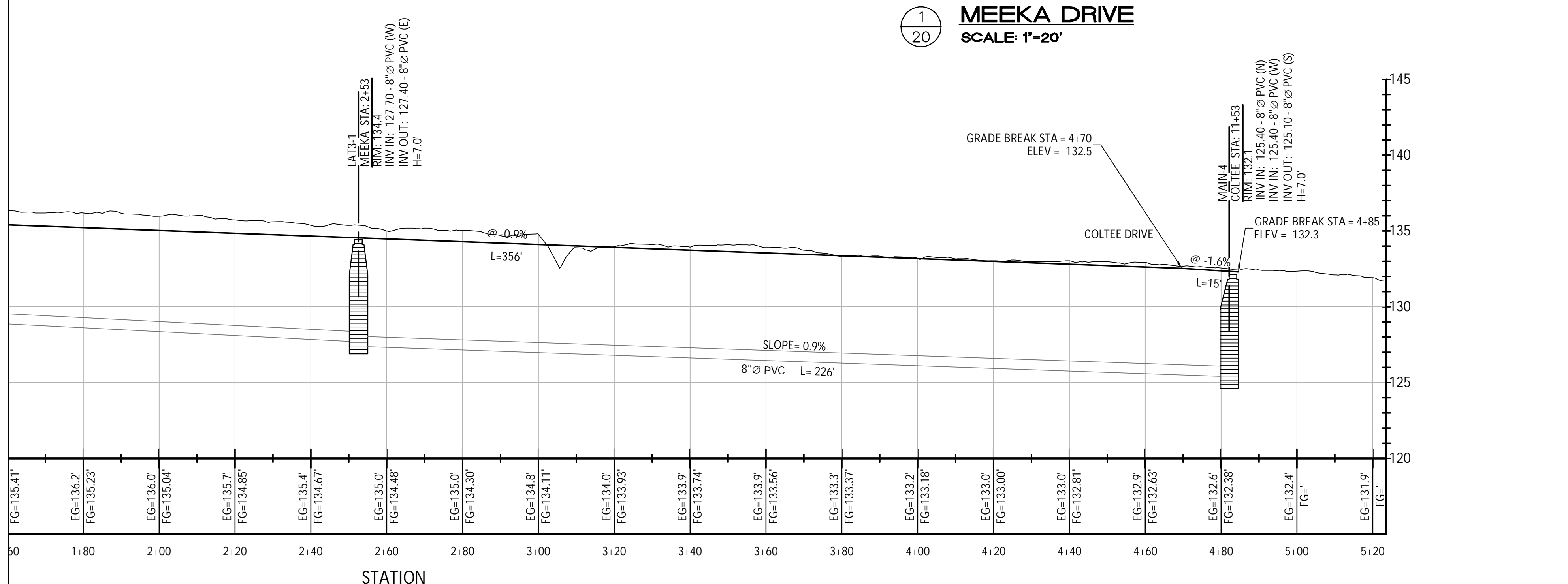
- 301 ROADSIDE DITCH
- 302 18" CULVERT

LEGEND:

- EXISTING
 - PROPERTY LINE
 - SEWER LINE
 - MANHOLE
 - WATER LINE
 - ROAD
 - OVERHEAD UTILITIES
 - UTILITY POLE
 - FIRE HYDRANT
 - GATE VALVE
- PROPOSED
 - PROPERTY LINE
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 - SEWER MAIN
 - SEWER MANHOLE/CO
 - SEWER SERVICE
 - WATER MAIN
 - WATER FEEDER LINE
 - WATER VALVE
 - FIRE HYDRANT
 - WATER SERVICE
 - EDGE OF SHOULDER
 - EDGE OF ASPHALT
 - DITCH
 - GRAVEL CHECK DAM
 - DRAINAGE CULVERT
 - RETAINING WALL
- PROFILE
 - EXISTING GRADE
 - FINISHED GRADE



1
20 MEEKA DRIVE
SCALE: 1"=20'



2
20 MEEKA DRIVE PROFILE
SCALE: 1"=20' VERT: 1"=5'

NO.	DATE	DESCRIPTION	BY
2	03/05/2023	UPDATE SEWER PROFILES	JRM
1	01/06/2023	INITIAL VERSION	JRM



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RIVERVIEW MEADOWS DEVELOPMENT, LLC
RIVERVIEW MEADOWS PHASE 3
UTILITY LAYOUT - MEEKA DRIVE

SHEET
20
OF -24-

NEHALEM, MAP 3N 10W 23B

V:\19-10-Riv\DWG\Riverview Meadows-4.dwg, meeKa (2), 4/2/2023 4:04:41 PM

SEWER NOTES:

ALL CRUSHED ROCK BEDDING AND BACKFILL 92% COMPACTION. SEE DETAILS SHEET 23.

COORDINATE WORK WITH NBWA.

- 101 CONNECT TO EXISTING STUB
- 102 INSTALL NEW MANHOLE
- 103 INSTALL NEW 8" SEWER PIPE
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WATER NOTES:

ALL CRUSHED ROCK BEDDING AND BACKFILL 92% COMPACTION. SEE DETAILS SHEET 24.

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- 206 INSTALL WATER SERVICE ASSEMBLY
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- 208 INSTALL 8" PVC PIPE
- 209 INSTALL 8" GATE VALVE

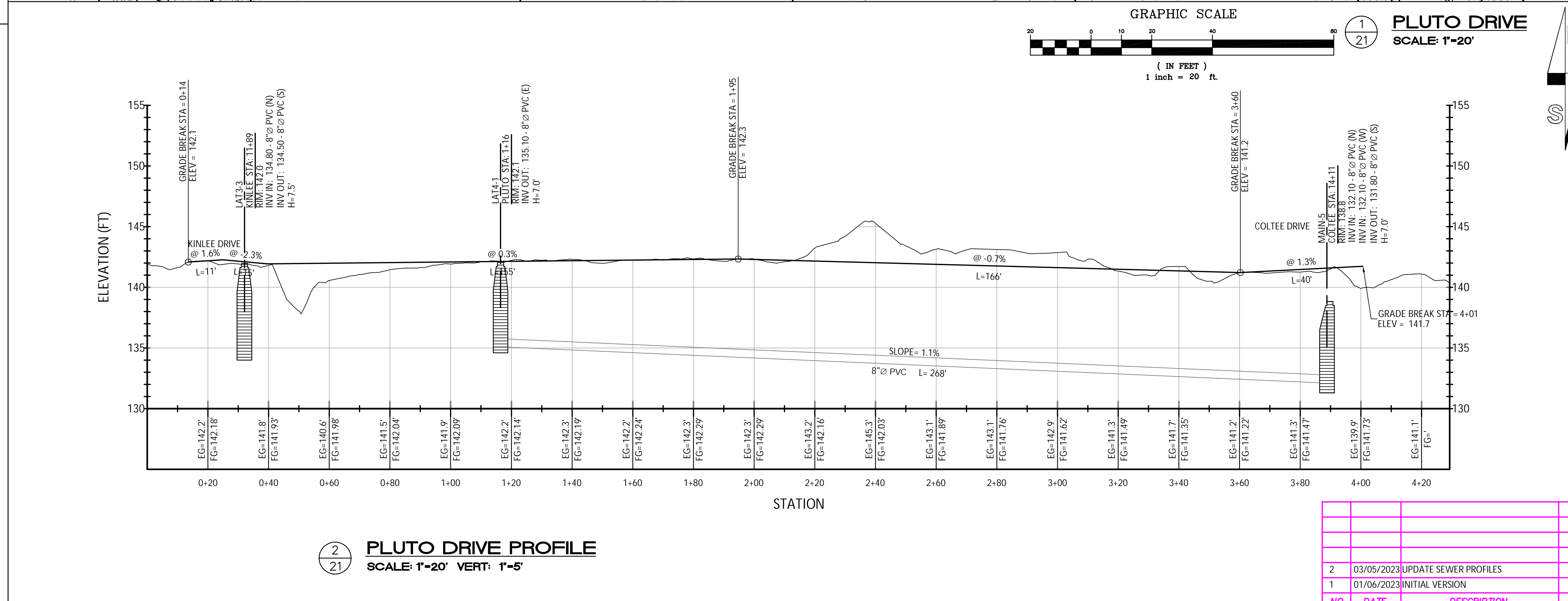
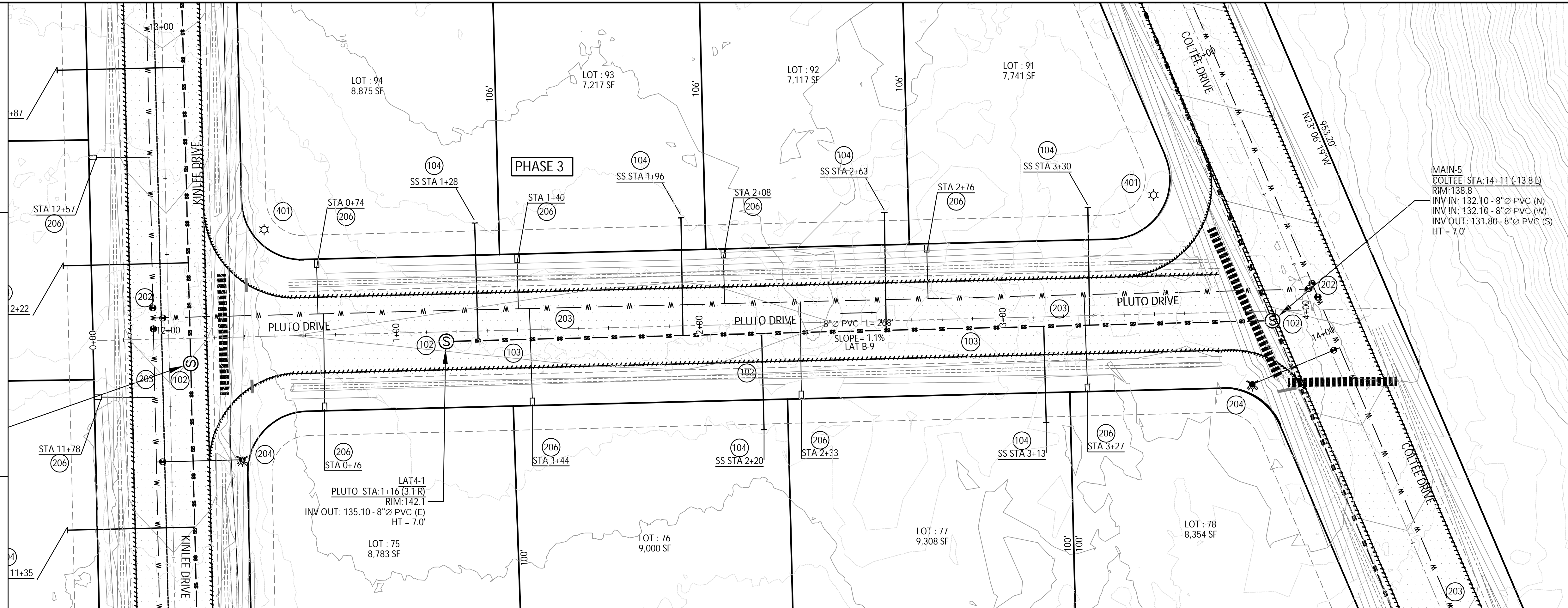
PRESSURE TESTING, AND BACTERIOLOGICAL TESTING REQUIRED.

STORM NOTES:

ALL CRUSHED ROCK BEDDING AND BACKFILL 92% COMPACTION.

COORDINATE WORK WITH COUNTY PUBLIC WORKS.

- 301 ROADSIDE DITCH
- 302 18" CULVERT



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INSPECTION
PLANNING

JOHN
MANZANITA, OR 97130
(503) 801-6016
www.morgancivil.com

REGISTERED PROFESSIONAL ENGINEER
63055
JASON R. MORGAN
RENEWAL DATE: DECEMBER 31, 2024

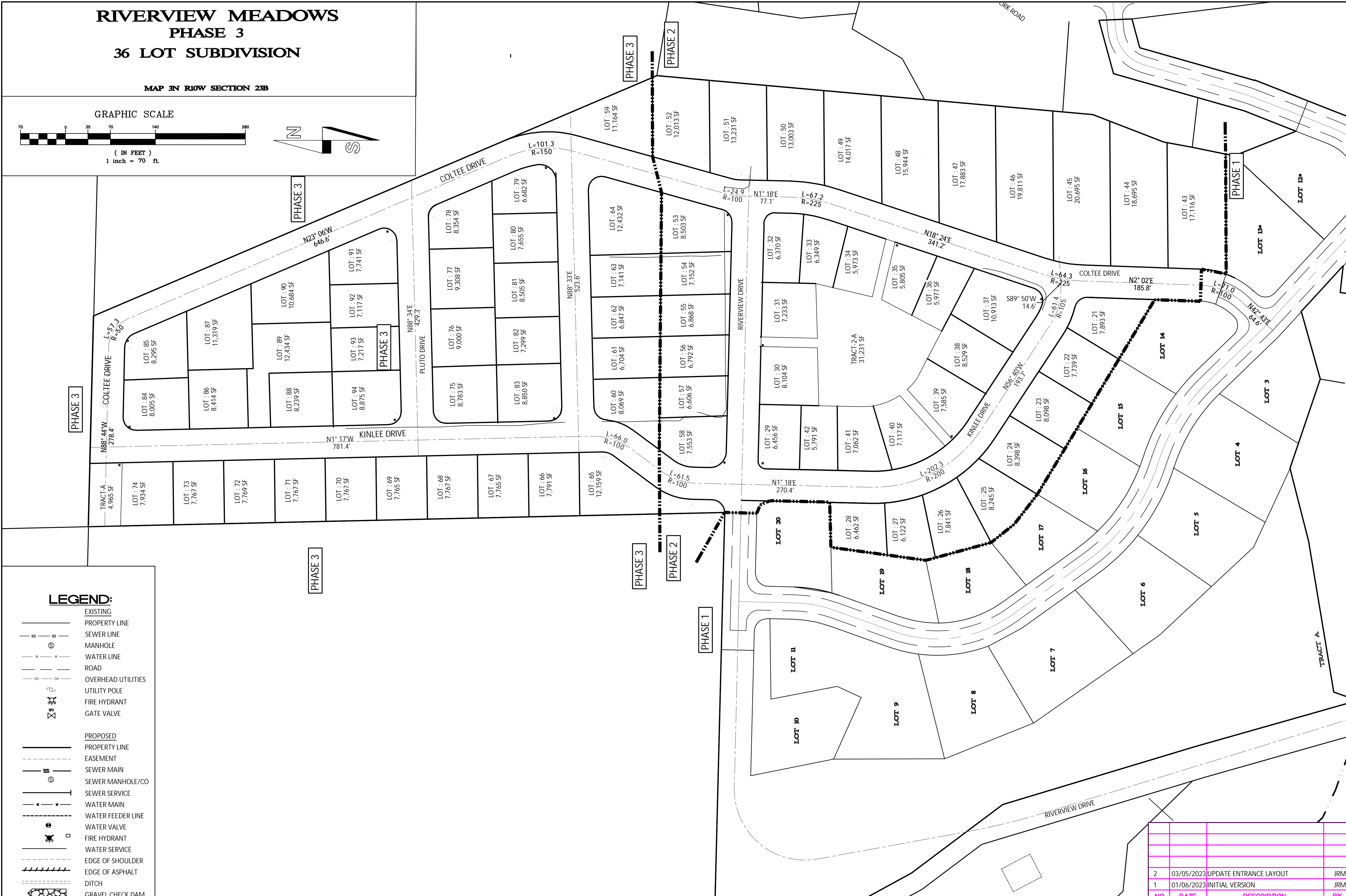
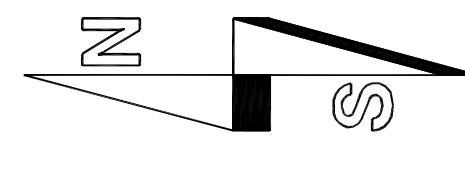
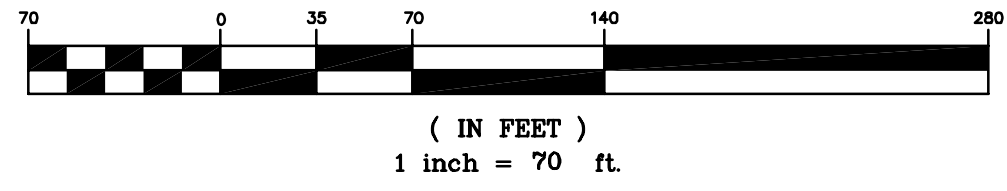
RIVERVIEW MEADOWS DEVELOPMENT, LLC
RIVERVIEW MEADOWS PHASE 3
UTILITY LAYOUT - PLUTO DRIVE

NO.	DATE	DESCRIPTION	BY
2	03/05/2023	UPDATE SEWER PROFILES	JRM
1	01/06/2023	INITIAL VERSION	JRM

RIVERVIEW MEADOWS PHASE 3 36 LOT SUBDIVISION

MAP 3N R10W SECTION 23B

GRAPHIC SCALE



LEGEND:

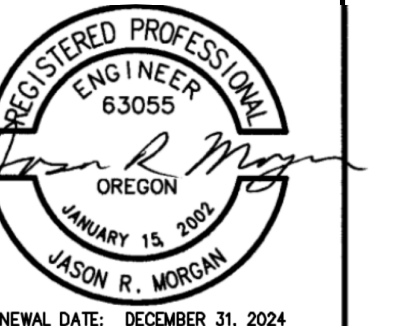
- EXISTING
- PROPERTY LINE
- SEWER LINE
- MANHOLE
- WATER LINE
- ROAD
- OVERHEAD UTILITIES
- UTILITY POLE
- FIRE HYDRANT
- GATE VALVE
- PROPOSED
- PROPERTY LINE
- EASEMENT
- SEWER MAIN
- SEWER MANHOLE/CO
- SEWER SERVICE
- WATER MAIN
- WATER FEEDER LINE
- WATER VALVE
- FIRE HYDRANT
- WATER SERVICE
- EDGE OF SHOULDER
- EDGE OF ASPHALT
- DITCH
- GRAVEL CHECK DAM



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JOB NO.
#19-10-RV
DATE
MAR. 5, 2023



RENEWAL DATE: DECEMBER 31, 2024

RIVERVIEW MEADOWS DEVELOPMENT, LLC
RIVERVIEW MEADOWS PHASE 3
ROAD ALIGNMENTS

NEHALEM, MAP 3N 10W 23B

SHEET

22

OF -24-

NO.	DATE	DESCRIPTION	BY
2	03/05/2023	UPDATE ENTRANCE LAYOUT	JRM
1	01/06/2023	INITIAL VERSION	JRM



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JOB NO.
DATE



RENEWAL DATE: DECEMBER 31, 2024

RIVERVIEW MEADOWS DEVELOPMENT, LLC
RIVERVIEW MEADOWS PHASE 3
SEWER SYSTEM DETAILS

NEHALEM, MAP 3N 10W 23B

SHEET

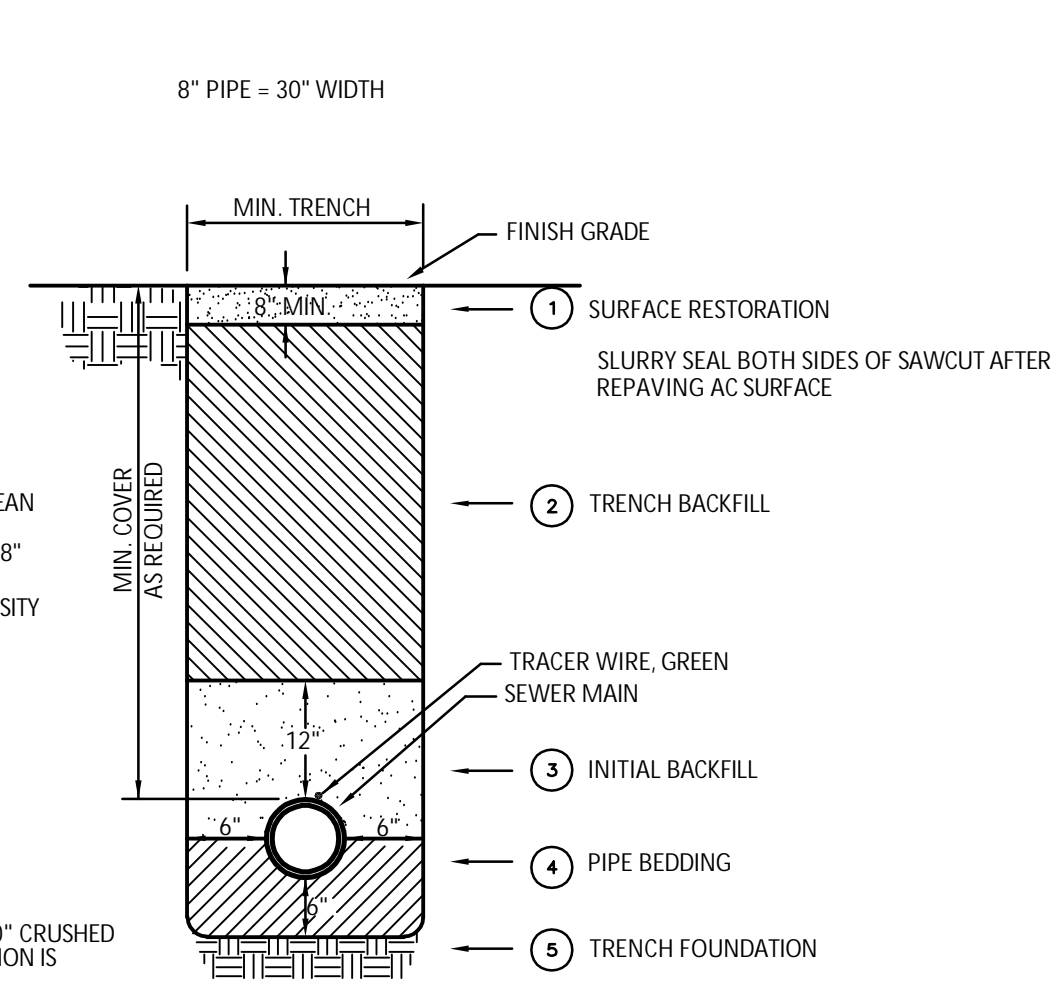
23

OF -24-

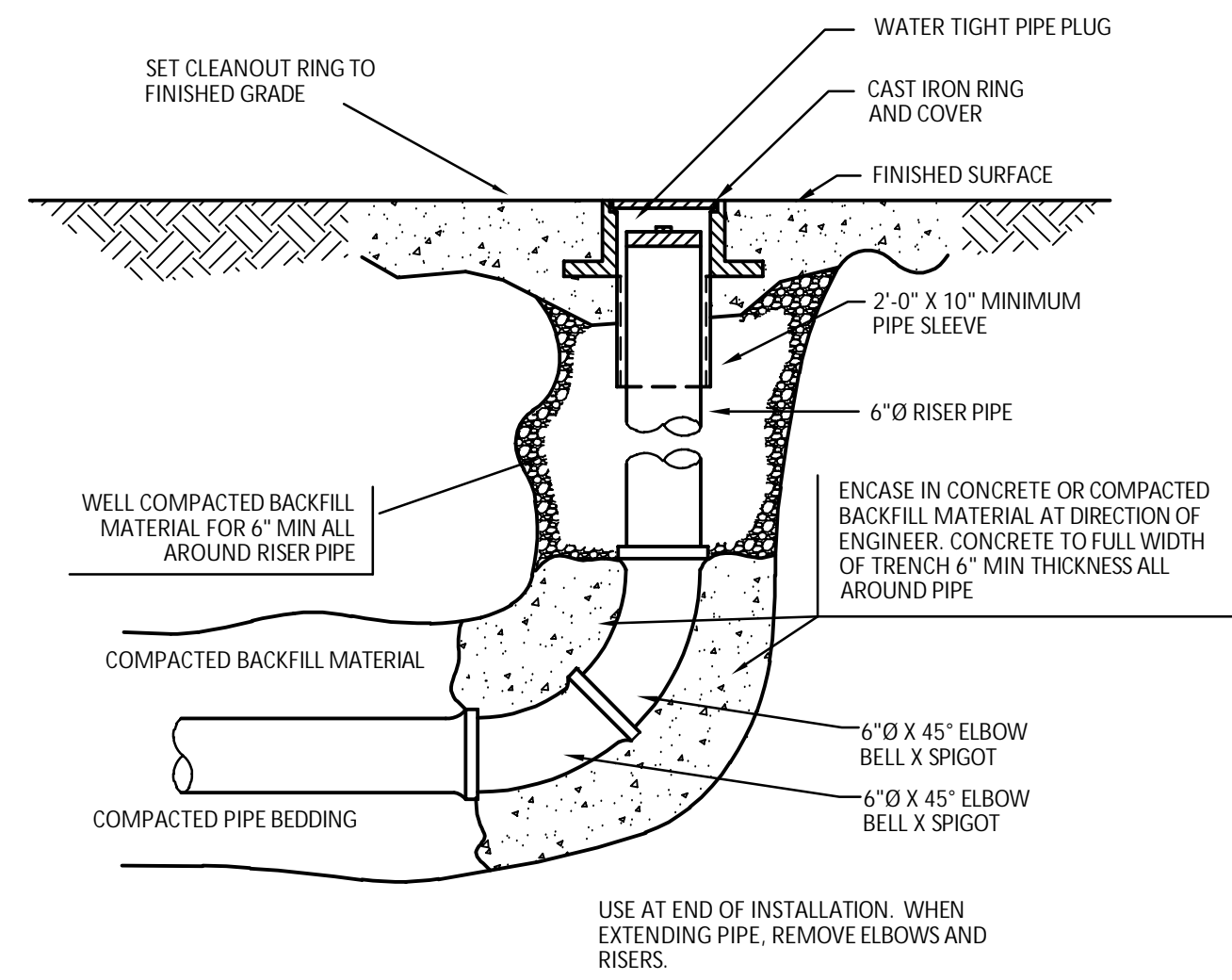
NOTES:
* ALL DIMENSIONS SHOWN ARE MINIMUM AND RELATIVE TO OUTSIDE OF PIPE BELL.
* MINIMUM COVER: GRAVITY SEWER MAIN = 36"

TRENCH MATERIAL:

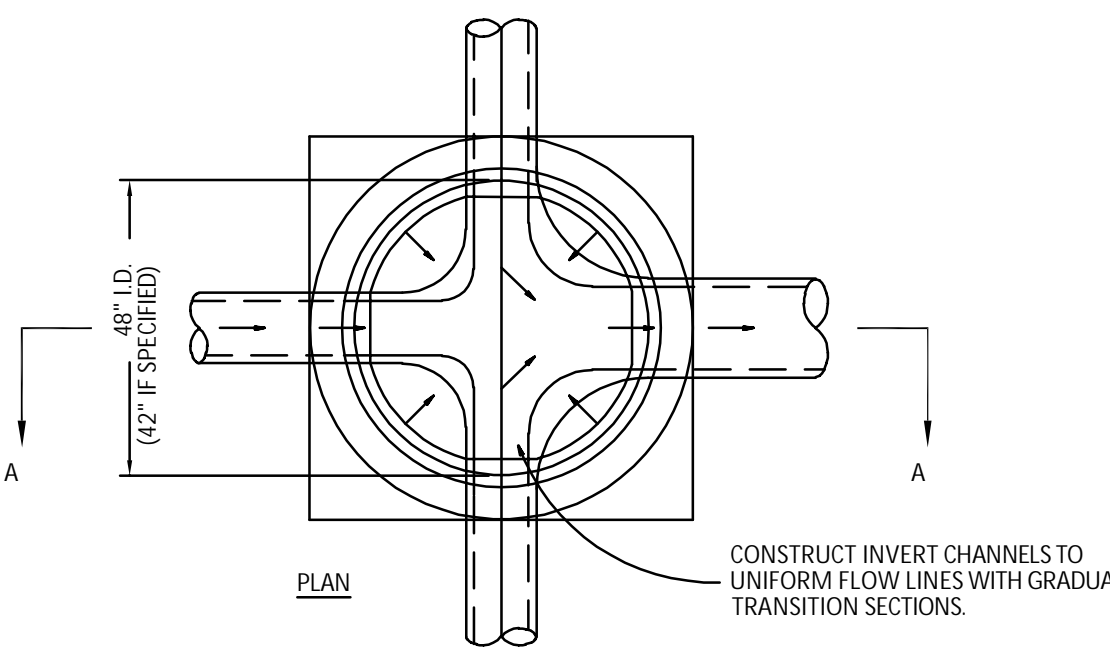
- 1 ASPHALT RESTORATION
ALL BACKFILL 3/4"-0" CRUSHED ROCK OR CLEAN NATIVE SAND, 95% MIN. COMPACTION. COMPACT BACKFILL USING LIFTS OF MAX. 8" LOOSE DEPTH. COORDINATE WITH ENGINEER/INSPECTOR FOR REQUIRED DENSITY TESTING PRIOR TO INSTALLING ASPHALT.
- 2 COMPACTED 3/4"-0" CRUSHED ROCK
- 3 COMPACTED 3/4"-0" CRUSHED ROCK
- 4 COMPACTED 3/4"-0" CRUSHED ROCK
- 5 UNDISTURBED NATIVE MATERIAL OR 1 1/2"-0" CRUSHED ROCK IF TRENCH FOUNDATION STABILIZATION IS REQUIRED.



1
23 **SEWER MAIN TRENCH DETAIL**
NO SCALE

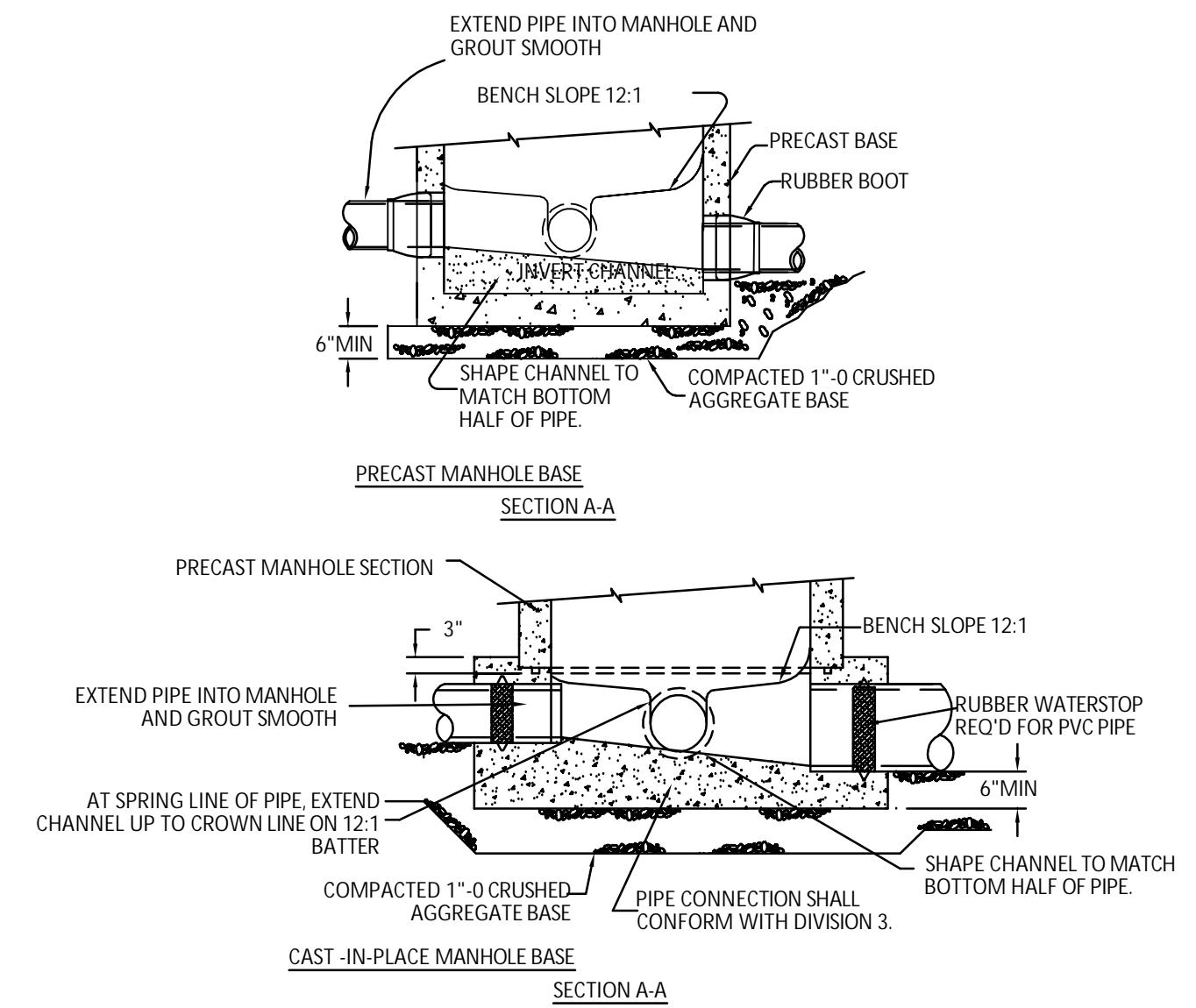


2
23 **END OF LINE CLEANOUT**
NO SCALE

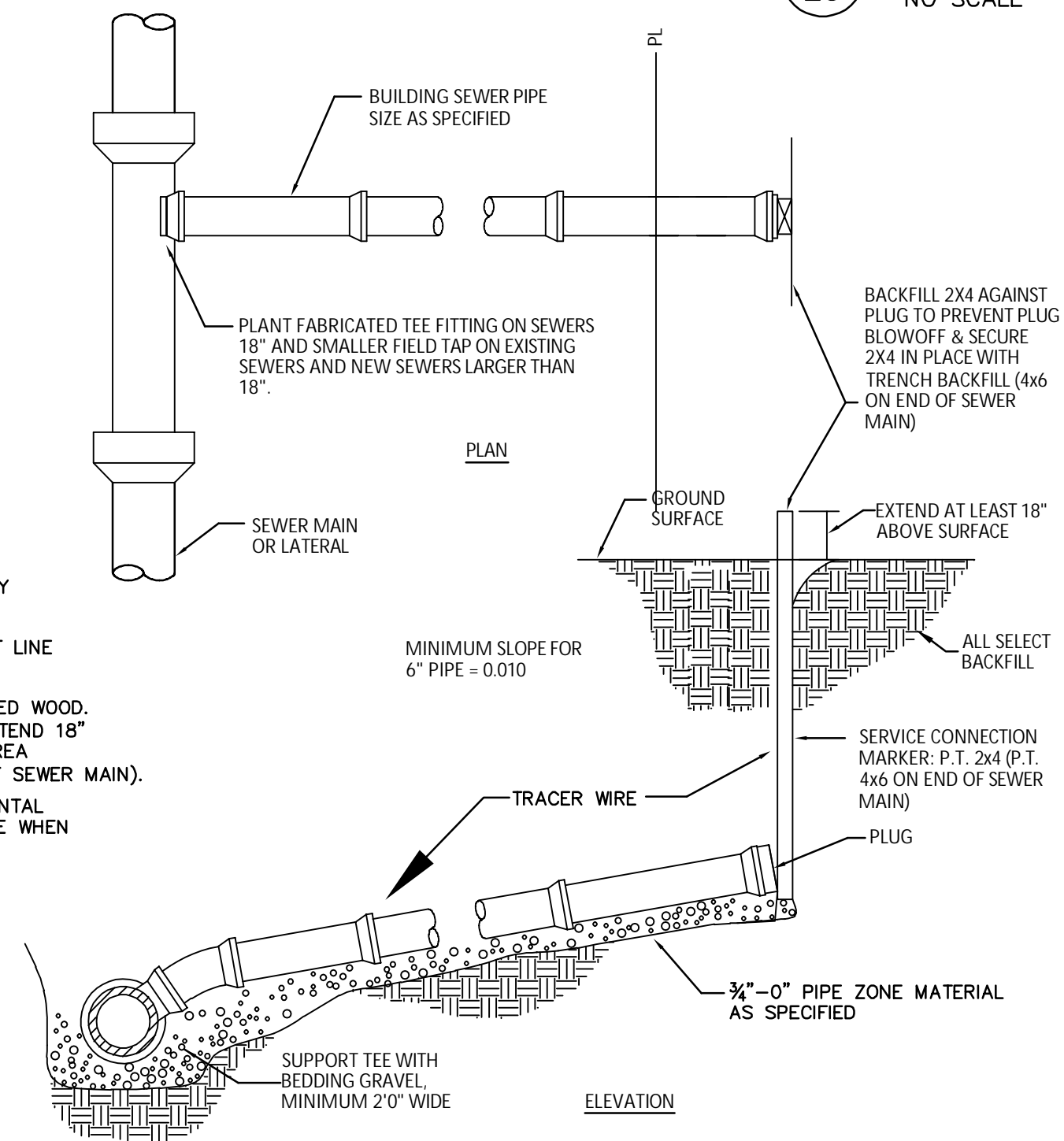


- NOTES:
1. CONCRETE SHALL BE CLASS 3000.
2. CHANNELS SHALL BE CONSTRUCTED TO PROVIDE SMOOTH SLOPES AND RADII TO OUTLET PIPE.
3. BASES MAY BE PRECAST OR POURED IN PLACE.
4. THIS MANHOLE BASE SECTION SHALL BE USED FOR PIPE SIZES UP TO 24".
5. USE RUBBER BOOTS IF PIPE IS FLEXIBLE. BOOTS MAY BE KOR-N-SEAL OR EQUIVALENT.

3
23 **MANHOLE BASE PLAN**
NO SCALE

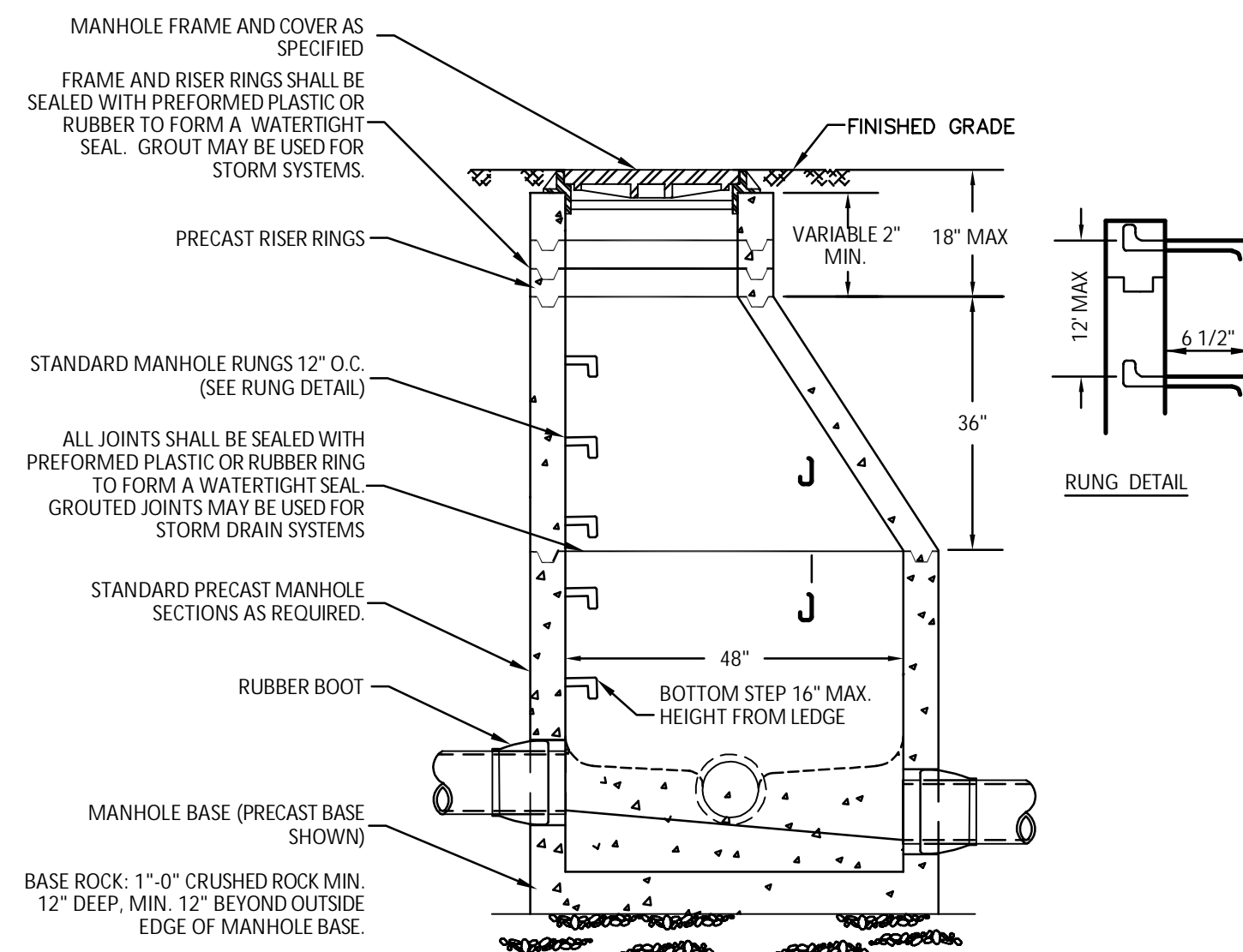


4
23 **MANHOLE BASE SECTION**
NO SCALE



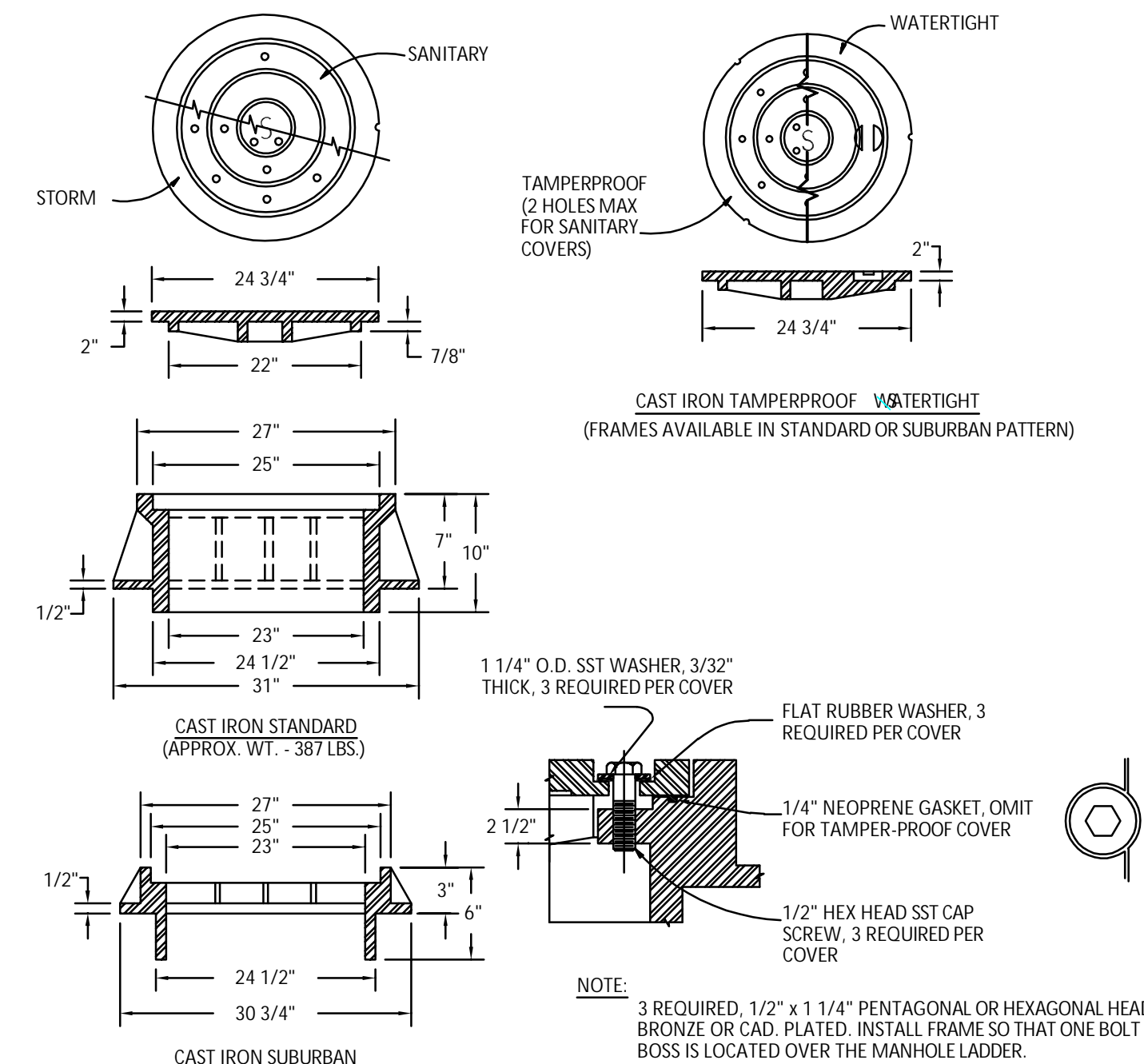
- NOTES:
1. PIPE AND FITTINGS SHALL BE COMPATIBLE. ONLY MANUFACTURED FITTINGS SHALL BE USED.
2. MINIMUM DEPTH AT RIGHT OF WAY OR EASEMENT LINE SHALL BE 4'-6".
3. MARKER POSTS AND BLOCKING SHALL BE TREATED WOOD. POST SHALL BE P.T. 2" x 4" FIR. POST TO EXTEND 18" MINIMUM ABOVE FINISH GRADE AND EXPOSED AREA SHALL BE PAINTED WHITE. (P.T. 4x6 ON END OF SEWER MAIN).
4. LAY BUILDING SEWER AT MAX. 45' FROM HORIZONTAL TO ACHIEVE REQUIRED DEPTH AT PROPERLY LINE WHEN MINIMUM SLOPE RESULTS IN EXCESSIVE DEPTH.

5
23 **SANITARY SEWER SERVICE CONNECTION**
NO SCALE



- NOTES:
1. STANDARD PRECAST MANHOLE SECTION DIAMETER SHALL BE 48".
2. ALL CONNECTING PIPES SHALL HAVE A FLEXIBLE RUBBER BOOT AT THE PIPE / MANHOLE WALL CONNECTION. BOOTS MAY BE KOR-N-SEAL OR EQUIVALENT.
3. SEE MANHOLE BASE SECTION DRAWING FOR BASE DETAILS.
4. MANHOLE STEPS SHALL BE PROVIDED AS SPECIFIED.

6
23 **STANDARD SANITARY SEWER MANHOLE**
NO SCALE

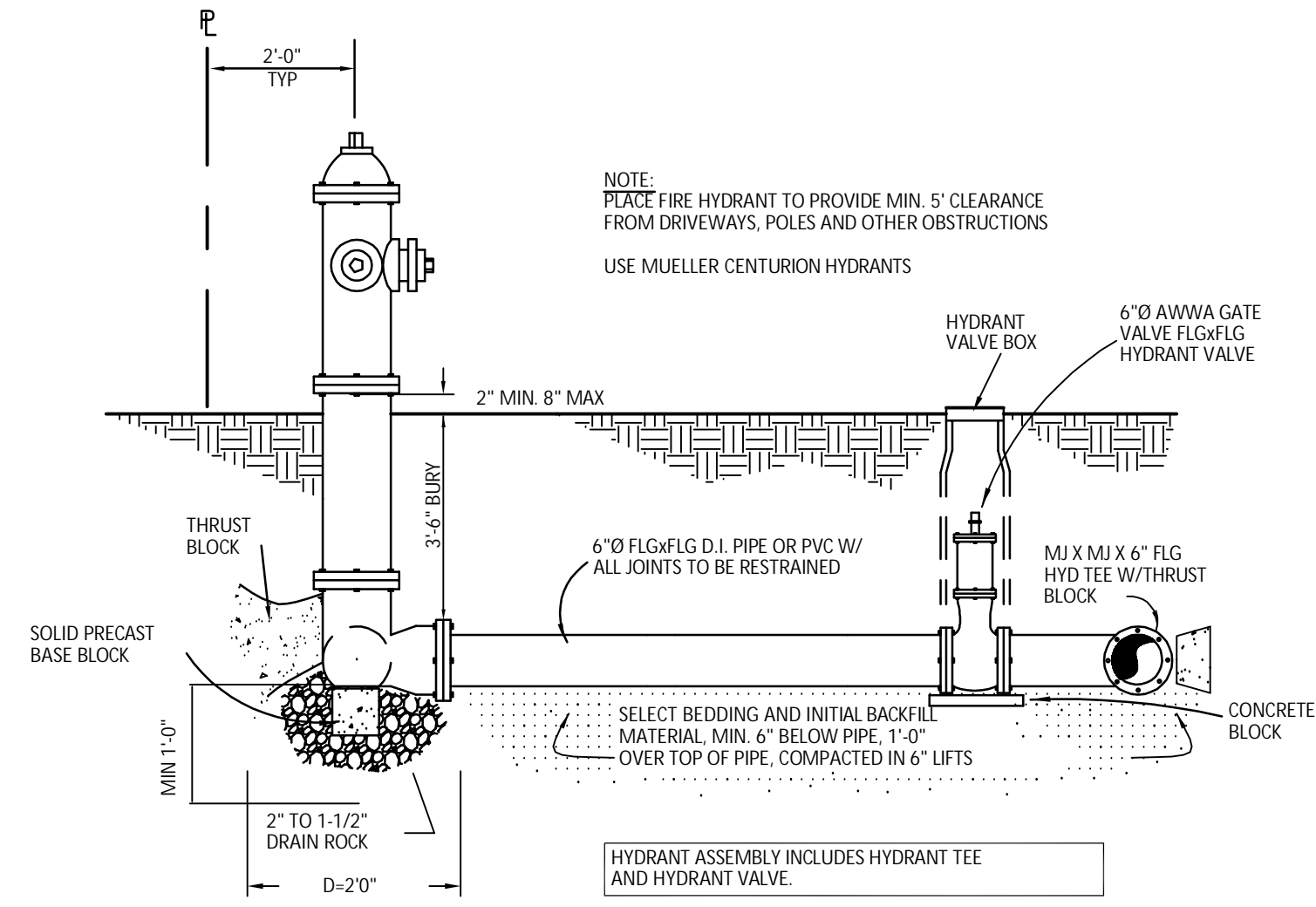


- %%UNOTES:
1. TAMPERPROOF COVERS REQ'D ON SANITARY OR STORM DRAIN MANHOLE WHERE LOCATED IN PEDESTRIAN WAYS OR EASEMENT AREAS. TAMPERPROOF COVERS FOR SANITARY MANHOLES SHALL HAVE 2 HOLES MAXIMUM.
2. WATERTIGHT COVERS REQUIRED IF LOCATED WHERE COVER MAY BE SUBMERGED.
3. FRAMES AND COVERS SHALL BE STAMPED WITH MANUFACTURER'S INITIALS, HEAT NUMBER AND POINT OF ORIGIN.

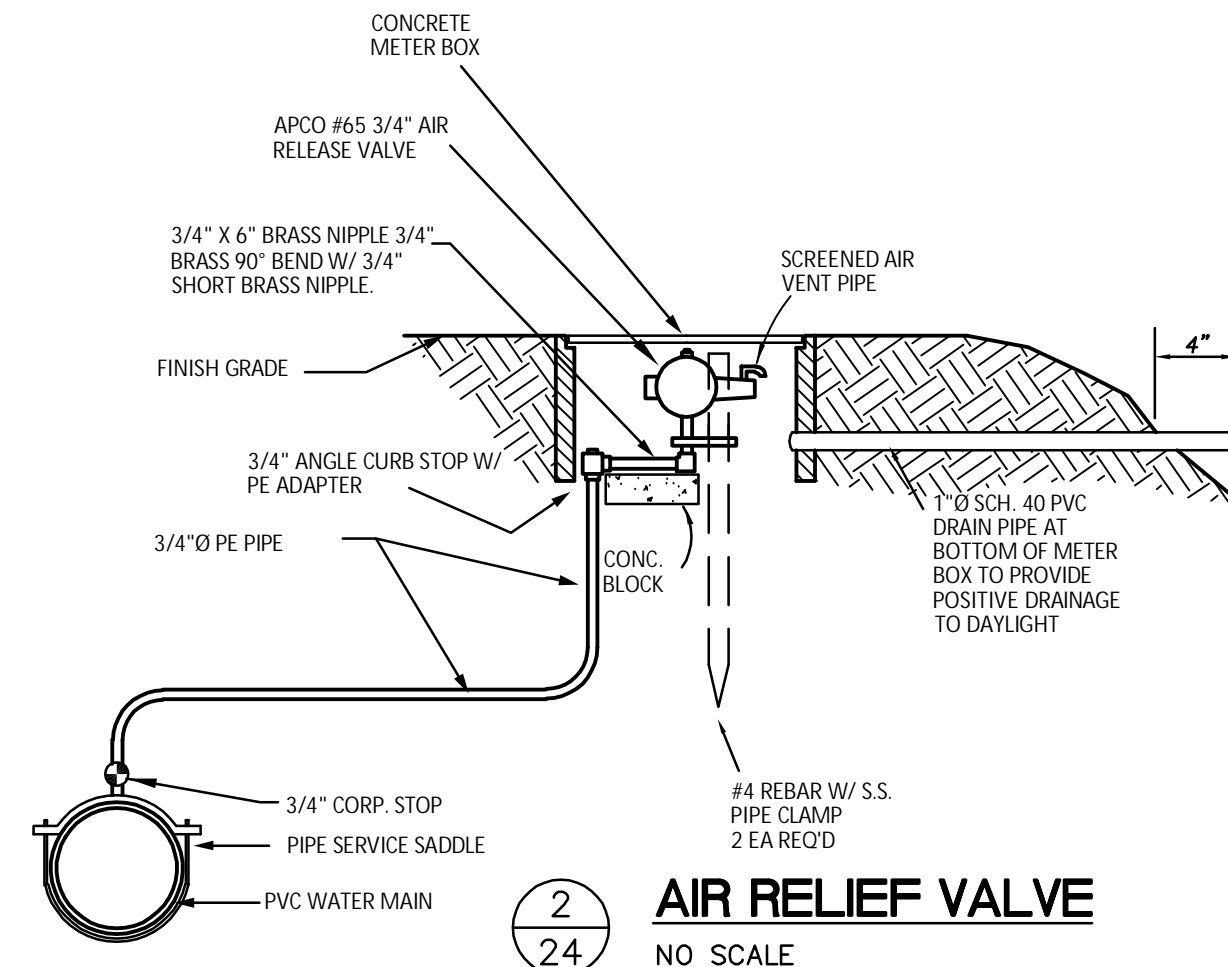
7
23 **MANHOLE COVER AND FRAME DETAIL**
NO SCALE

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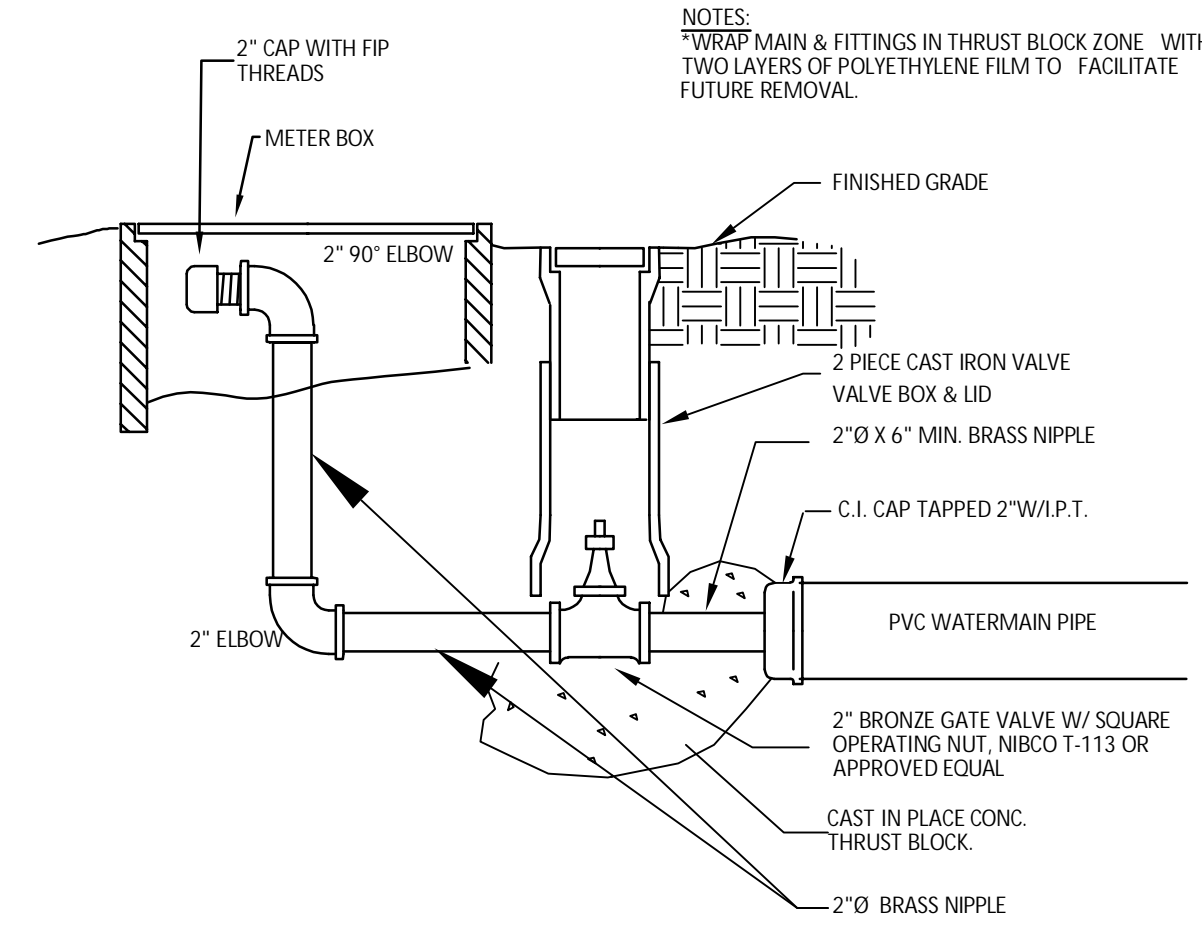
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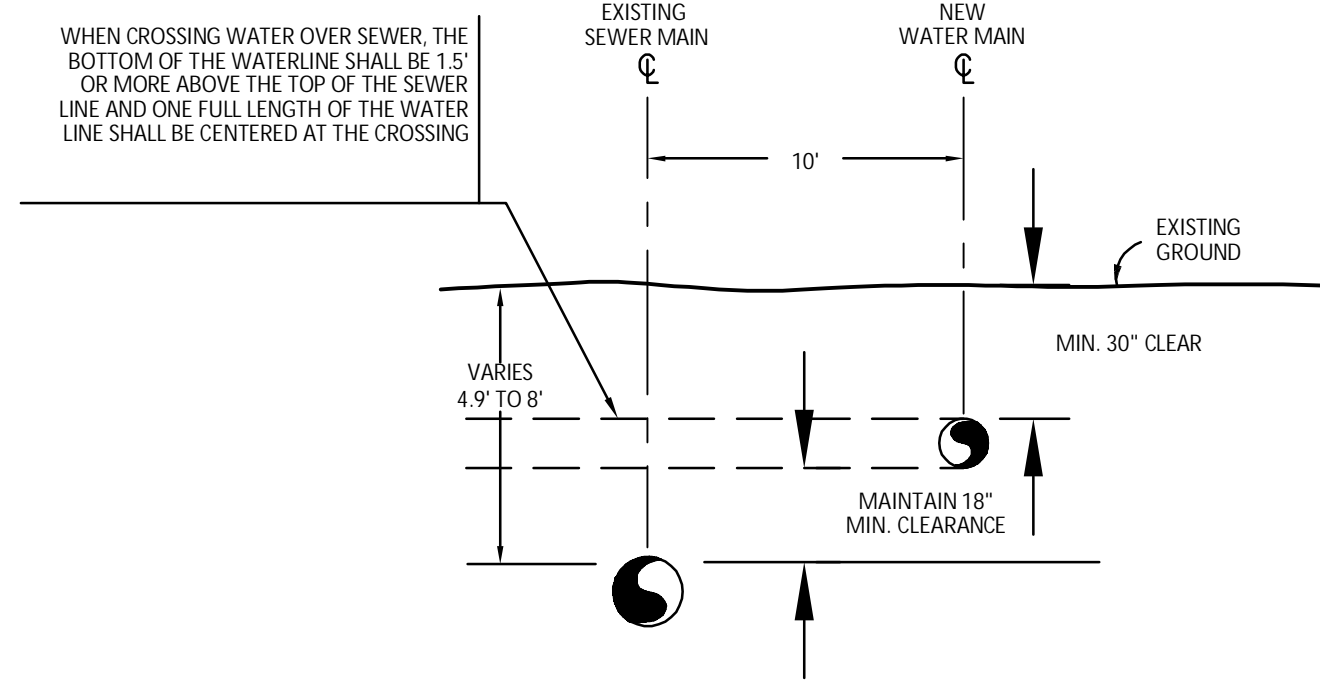
1
24 FIRE HYDRANT ASSEMBLY
NO SCALE



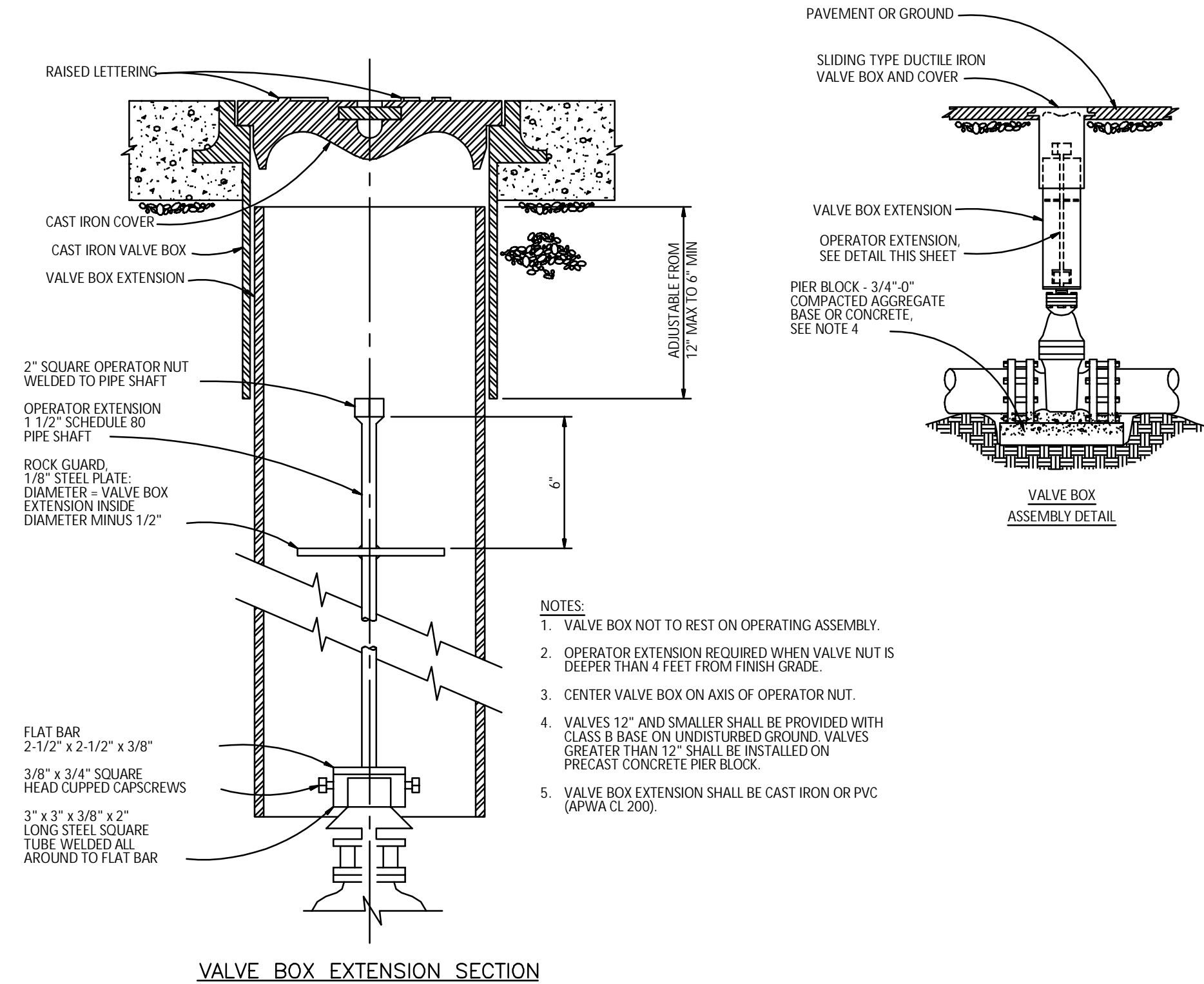
2
24 AIR RELIEF VALVE
NO SCALE



3
24 WATER BLOWOFF DETAIL
NO SCALE



4
24 WATER LINE - SEWER LINE SEPARATION
NO SCALE



5
24 VALVE BOX EXTENSION SECTION
NO SCALE

NOTES:
* ALL DIMENSIONS SHOWN ARE MINIMUM AND RELATIVE TO OUTSIDE OF PIPE BELL.
* MINIMUM COVER: WATERMAIN = 36"

* WATERLINE TO BE CONSTRUCTED AS PER ELEVATIONS SHOWN ON PROFILE

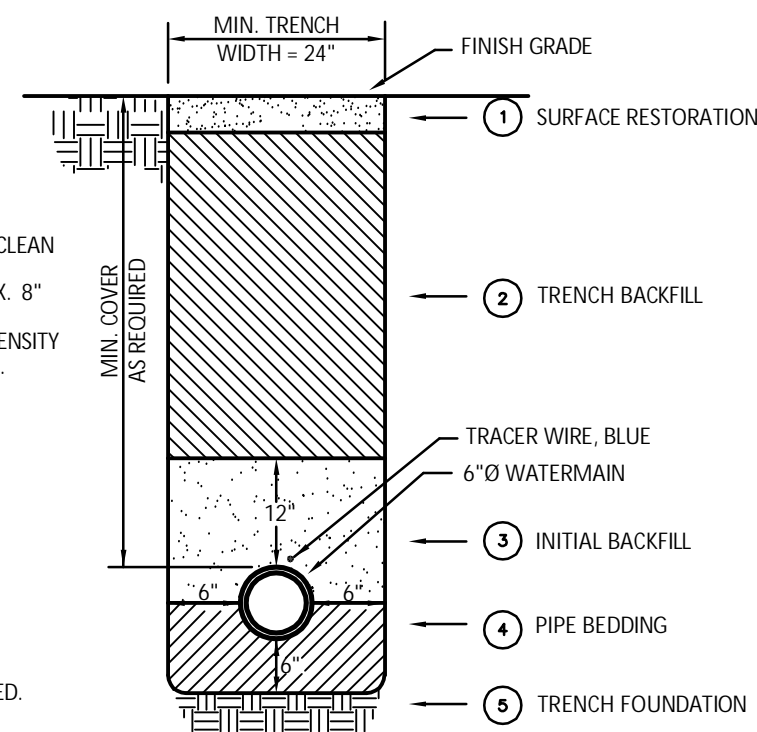
TRENCH MATERIAL:
① ASPHALT RESTORATION.

② ALL BACKFILL 3/4"-0" CRUSHED ROCK OR CLEAN NATIVE SAND, 95% MIN. COMPACTION. COMPACT BACKFILL USING LIFTS OF MAX. 8" LOOSE DEPTH. COORDINATE WITH ENGINEER/INSPECTOR FOR REQUIRED DENSITY TESTING PRIOR TO INSTALLING ASPHALT.

③ COMPACTED 3/4"-0" CRUSHED ROCK

④ COMPACTED 3/4"-0" CRUSHED ROCK

⑤ UNDISTURBED NATIVE MATERIAL OR 1/2"-0" CRUSHED ROCK IF TRENCH FOUNDATION STABILIZATION IS REQUIRED.

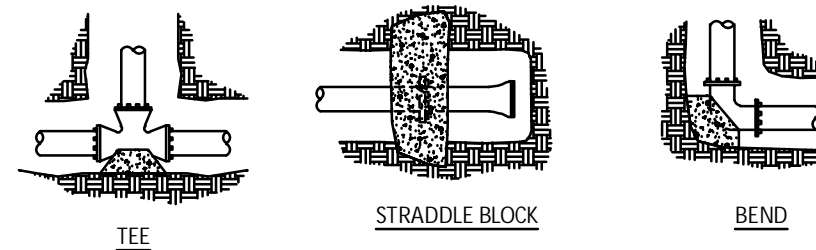


5
24 WATERMAIN TRENCH DETAIL
NO SCALE

FITTING SIZE	(HORIZONTAL) BEARING AREA OF THRUST BLOCKS IN SQUARE FEET							
	TEE, WYE, DEAD END AND HYDRANT	STRADDLE BLOCK	90° BEND PLUGGED CROSS	TEE PLUGGED ON RUN A-1	A-2	45° BEND	22-1/2° BEND	11-1/4° BEND
4	2.0	3.2	2.8	3.8	2.8	2.0	---	---
6	4.2	7.4	6.0	8.6	6.0	3.2	2.0	---

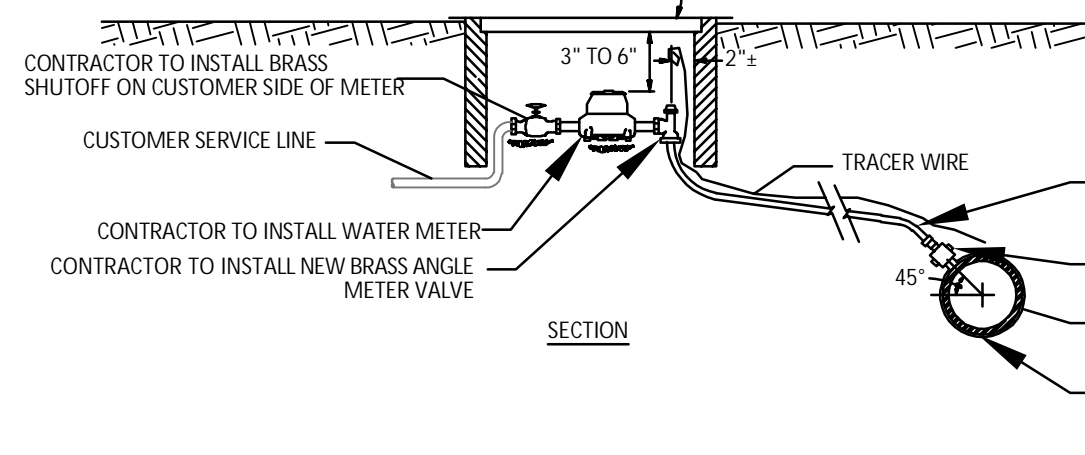
NOTES:
1. ABOVE BEARING AREAS BASED ON TEST PRESSURE OF 150 PSI AND AN ALLOWABLE SOIL BEARING STRESS OF 1000 POUNDS PER SQUARE FOOT. TO COMPUTE BEARING AREAS FOR DIFFERENT TEST PRESSURES AND SOIL BEARING STRESSES, USE THE FOLLOWING EQUATION:
BEARING AREA = (TEST PRESSURE / 150) x (1000 / SOIL BEARING STRESS) x (TABLE VALUE)

2. ABOVE VOLUMES BASED ON TEST PRESSURE OF 150 PSI AND THE WEIGHT OF CONCRETE = 4050 POUNDS PER CUBIC YARD. TO COMPUTE FOR DIFFERENT TEST PRESSURES, USE THE FOLLOWING EQUATION:
VOLUME = (TEST PRESSURE / 150) x (TABLE VALUE)



NOTES:
1. CONCRETE BLOCKING TO BE POURED AGAINST UNDISTURBED EARTH.
2. ALL CONCRETE TO BE CLASS 2400 MINIMUM.
3. INSTALL ISOLATION MATERIAL BETWEEN PIPE AND/OR FITTINGS BEFORE POURING CONCRETE BLOCKING.
4. CONCRETE SHALL BE KEPT CLEAR OF ALL JOINTS AND ACCESSORIES.
5. TIE RODS SHALL BE DEFORMED GALVANIZED COLD ROLLED STEEL, 40000 PSI TENSILE STRENGTH.

6
21 THRUST BLOCKING
NO SCALE



NOTES:
1. SUBSTITUTES FOR ANY MATERIALS SHOWN SHALL BE APPROVED BY ENGINEER AND/OR NEHALEM WATER DISTRICT, PRIOR TO ORDERING MATERIALS.
2. ALL PIPE AND STRUCTURE ZONES SHALL BE BACKFILLED USING 3/4"-0" CRUSHED ROCK AND COMPACTED TO 95% MAX. DENS. AS DETERMINED BY AASHTO T-180.

7
24 WATER SERVICE DETAIL
NO SCALE

NOTES:
1. VALVE BOX NOT TO REST ON OPERATING ASSEMBLY.
2. OPERATOR EXTENSION REQUIRED WHEN VALVE NUT IS DEEPER THAN 4 FEET FROM FINISH GRADE.
3. CENTER VALVE BOX ON AXIS OF OPERATOR NUT.
4. VALVES 12" AND SMALLER SHALL BE PROVIDED WITH CLASS B BASE ON UNDISTURBED GROUND. VALVES GREATER THAN 12" SHALL BE INSTALLED ON PRECAST CONCRETE PIER BLOCK.
5. VALVE BOX EXTENSION SHALL BE CAST IRON OR PVC (APWA CL 200).



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JRM
019-10-RIV
DATE: MAR. 5, 2023



RIVERVIEW MEADOWS DEVELOPMENT, LLC
RIVERVIEW MEADOWS PHASE 3
WATER SYSTEM DETAILS

NEHALEM, MAP 3N 10W 23B

SHEET

24

OF -24-

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1	01/06/2023	INITIAL VERSION	JRM