

STANDARD SYMBOLS & ABBREVIATIONS	
TREE OR BUSH	○
LIGHT POLE	◎
SANITARY SEWER & MANHOLE	—○—
STORM SEWER & INLET	—■—
MAILBOX	□
ELECTRIC LINE	—E—
GAS LINE	—G—
WATER LINE	—W—
TELEPHONE LINE	—T—
CABLE TV LINE	—CATV—
OVERHEAD WIRE	—OHW—
FENCE	—x—
UTILITY POLE	—U—
UTILITY POLE W/ DOWN GUY	—U—
FIRE HYDRANT	●
WATER VALVE	□
WATER METER	●WM
GAS VALVE	□
NO PARKING SIGN	—
TELEPHONE PEDESTAL	—TCP—
STREET/STOP SIGN	—S—
PEDESTRIAN CROSSING SIGN	—T—

PRINCIPLES & STANDARDS:

1. All excavations, grading, or filling shall have a finished grade not to exceed a 3:1 slope (33%). Steep grades may be approved by the designated official if the excavation is through rock or the excavation, or the fill is adequately protected (a designed head wall or toe wall may be required). Retaining walls that exceed a height of four (4) feet shall require the construction of safety guards as identified in the appropriate section(s) of the adopted BOCA Codes and must be approved by the Building Department. Permanent safety guards will be constructed in accordance with the appropriate section(s) of the adopted BOCA Codes.

2. Sediment and erosion control plans for sites that exceed 20,000 square feet of grading shall provide for sediment or debris basins, silt traps or filters, staked straw bales, or other measures to remove sediment from the site. The erosion control plan shall be approved by the Designated Official. Temporary sediment control measures (structural) shall be maintained until vegetative cover is established at a sufficient density to provide erosion control on the site.

3. Where natural vegetation is removed during grading, vegetation shall be reestablished in such a density as to prevent erosion. Permanent type grasses shall be established as soon as possible during the next seeding period after grading has been completed.

4. When grading operations are completed or suspended for more than 14 days, permanent grass must be established at a sufficient density to prevent erosion control on the site. Bare ground, including temporary terrain, must be covered with a seed mix design to be approved by the Designated Official. Temporary sediment control measures (structural) shall be maintained until vegetative cover is established at a sufficient density to provide erosion control on the site.

5. Provisions shall be made to accommodate the increased runoff caused by charged soils. The drainage system shall be designed to accommodate the increased runoff. The soil shall be designed so that gradients result in velocities of 2 fpm (feet per second) or less. Open channels with velocities more than 2 fpm and less than 5 fpm shall be established in permanent vegetation, by use of commercial erosion control blankets or lined with rock rip rap or concrete or other suitable materials as approved by the City Engineer. Detention basins, diversions, or other appropriate structures shall be constructed to prevent velocities above 5 fpm.

6. The adjoining ground to development sites (lots) shall be provided with protection from accelerated and increased surface water, silt from erosion, and any other consequence of erosion. Run-off water from developed areas (parking lots, paved sites and buildings) above the area to be developed shall be directed to diversions, detention basins, concrete gutters and/or underground outlet systems. Sufficiently anchored straw bales may be temporarily substituted with the approval of the City Engineer.

7. Development along natural watercourses shall have residential lot lines, commercial or industrial improvements, parking areas or driveways set back a minimum of 25 feet from the top of the existing stream bed. The wastewater shall be managed by the property owner. Permanent vegetation should be left intact. Variances will include designed storm bank erosion control measures and shall be approved by the City Engineer. FEMA and U.S. Army Corps of Engineers guidelines shall be followed where applicable regarding site development areas designated as flood plains and wetlands.

8. All lots shall be seeded and mulched at the minimum rates defined in Appendix A or sodded before an occupancy permit shall be issued except that a temporary occupancy permit may be issued by the Building Department in cases of undue hardship because of unfavorable ground conditions.

VEGETATIVE ESTABLISHMENT For Urban Development Sites APPENDIX A

Seeding Rates:
Permanent:
Tall Fescue - 60 lbs./ac.
Smooth Brome - 100 lbs./ac.
Combined Fescue @ 40 lbs./ac. and Brome @ 50 lbs./ac.

Temporary:
Wheat or Rye - 150 lbs./ac. (3.5 lbs. per 1,000 square foot)
Oats - 120 lbs./ac. (2.75 lbs. per 1,000 square foot)

Seeding Periods:
Fescue/Brome - March 1 to June 1
Wheat or Rye - August 1 to October 1
Oats - March 15 to November 1
March 15 to September 15

Mulch Rates:
100 lbs. per 1,000 sq. feet (4,356 lbs. per acre)

Fertilizer Rates:
Nitrogen 30 lbs./ac.
Phosphate 30 lbs./ac.
Potassium 30 lbs./ac.
Lime 600 lbs./ac. ENM*

* ENM = effective neutralizing material as per State evaluation of quarried rock.

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O'FALLON NOTES

1. Underground utilities have been plotted from available information and therefore their locations shall be considered approximate only. The verification of the location of all underground utilities, either shown or not shown on these plans shall be the responsibility of the contractor, and shall be located prior to any grading or construction of the improvements.

2. All filled places under proposed storm and sanitary sewer, proposed roads, and/or paved areas shall be compacted to 90% of maximum density as determined by the Standard Proctor Test ASHTO T-99. All tests shall be verified by a soils engineer concurrent with grading and backfilling operations. All filled places in proposed roads shall be compacted from the bottom up. All tests shall be verified by a soils engineer concurrent with grading and backfilling operations. Ensure the moisture content of the soil in the fill areas is to correspond to the compactive effort as defined by the Standard Proctor Test. Testing moisture content shall be determined by the same test that was used for compaction. Soil compaction curves shall be submitted to the City of O'Fallon prior to the placement of fill. Proof rolling may be required to verify soil stability at the discretion of the City of O'Fallon.

3. No area shall be cleared without the permission of the Project Engineer.

4. The City of O'Fallon shall be notified 48 hours prior to construction for coordination and inspection.

5. All existing site improvements disturbed, damaged or destroyed shall be repaired or replaced to closely match pre-construction conditions.

6. All construction and materials shall conform to the current construction standards of the City of O'Fallon.

7. Any permits, licenses, easements, or approvals required to work on public or private properties shall be obtained by the responsibility of the developer.

8. The Permittee shall assume complete responsibility for controlling all siltation and erosion of the project area. The Permittee shall use whatever means necessary to control erosion and siltation including, but not limited to, staked straw bales and/or siltation fabric fences (possible methods of control are detailed in the plan). Control shall commence with the clearing operations and be maintained throughout the project until acceptance of the work by the City of O'Fallon and as necessary by MoDOT. The Permittee's responsibilities include all design and implementation as required to prevent erosion and the deposition of silt or mud in new or existing storm sewers or swales shall be removed immediately. Any depositing of silt or mud in new or existing storm sewers or swales shall be removed after each rain and affected areas cleaned to the satisfaction of the City of O'Fallon and as required by MoDOT.

9. Erosion control measures shall not be limited to what is shown on the plan. Whatever means necessary shall be taken to prevent siltation and erosion from entering natural streams and adjacent roadways, properties and ditches.

10. All building mounted lights shall be pointed downward and fully screened to prevent light from spilling over onto adjacent properties.

11. All ground surface rock, HVAC equipment units to be screened from public view.

12. All paving to be in accordance with St. Charles County standards and specifications except as modified by the City of O'Fallon ordinances.

13. All sidewalks, curb ramps, ramps and accessible parking spaces shall be constructed in accordance with the current approved "Americans with Disabilities Act Accessibility Guidelines" (ADAAG) along with the required grades, construction materials, specifications and signage.

14. Conflict occurs between the above information and the plan, the plan shall prevail.

15. Erosion control measures shall not be limited to what is shown on the plan. Whatever means necessary shall be taken to prevent siltation and erosion from entering natural streams and adjacent roadways, properties and ditches.

16. All building mounted lights shall be pointed downward and fully screened to prevent light from spilling over onto adjacent properties.

17. All paving to be in accordance with St. Charles County standards and specifications except as modified by the City of O'Fallon ordinances.

18. All sign locations and sizes must be approved separately through the Planning Division.

19. All traffic signals, street signs, sign post, backs and bracket arms shall be painted black using Carboline Rustbond Penetrating Sealer SG and Carboline 133 HP paint (or equivalent as approved by the City of O'Fallon and MoDOT). Traffic Control Signs may be mounted on the street name sign.

20. All new utility lines shall be located underground.

21. All erosion control systems are to be inspected and corrected weekly, especially within 48 hours of any rainfall resulting in one-half inch of rain or more with any appreciable accumulation of soil to be removed and siltation measures required where necessary.

22. Any temporary erosion control devices (silt fences and sediment basins) shall be cleaned within 24 hours after the end of the storm.

23. Rip-rap shown at fenced ends will be evaluated in the field by the Engineer, Contractor and City Inspector after installation for effectiveness and field modified, if necessary, to reduce erosion on and off-site.

24. Marking to be provided on storm sewer inlets. The City will allow the following markers and adhesive procedures only as shown in the table below. "Peel and Stick" adhesive pads will not be allowed.

Manufacturer	Size	Adhesive	Style	Message (Part #)	Website
ACP International	3 7/8"	Epoxy	Crystal Cap	No Dumping Drains To Waterways (SD-W-CC)	www.acpinternational.com
DAS Manufacturing, Inc.	4"	Epoxy	Standard	No Dumping Drains To Stream (SDS)	www.dasmanufacturing.com
24. Developer must supply City Construction Inspectors with an Engineer's soil reports prior to and during site soil testing. The soil report will be required to contain the following information on soil test curves (Proctor reports) for projects within the City:					
1. Maximum dry density					
2. Optimum moisture content					
3. Maximum and minimum allowable moisture content					
4. Curve must be plotted to show density from a minimum of 90%					
Compaction and above as determined by the "Modified AASHTO T-180 Compaction Test" (A.S.T.M.-D-1157) or from a minimum of 95% as determined by the "Standard Proctor Test ASHTO T-9, Method C" (A.S.T.M.-D-2488).					
5. Contours must have at least 5 density points with moisture content and sample locations listed on document.					
6. Specific gravity.					
7. Natural moisture content.					
8. Plastic limit.					
9. Peat.					
Be advised that if this information is not provided to the City's Construction Inspector the City will not allow grading or construction activities to proceed on any project site.					
25. If material such as trees, organic debris, rubble, foundations and other deleterious material are found that cannot be removed from the site and disposed in compliance with all applicable local regulations. If the materials listed previously are reused, a letter from a soils engineer must clarify amount, location, depth, etc. and be approved with the Construction Plans. Landfill tickets for such disposal shall be maintained on file by the developer, burning site shall be allowed only by permit from the local fire district. If a burn ban is present, the location and mitigation shall be shown on the grading plans prepared by the soils engineer.					
26. HOPPE pipe shall be N-12WT or equal and meet ASTM F1417 water tight field test.					
27. Connections of all sanitary or storm structures to be made with A-lock joint or equal.					
28. All sanitary laterals and sanitary mains crossing under pavement must have the proper rock backfill and required cor. pvc.					
29. Traffic control is to be per MoDOT or MUTCD standards, which ever is more stringent.					
30. Any existing wells and/or springs which may exist on the property must be sealed in a manner acceptable to the City of O'Fallon Construction Inspection Department and following Missouri Department of Natural Resources standards on specifications.					
31. Drive-in locations shall not interfere with any existing curbs, sidewalks, or curb inlets.					
32. All onsite utility easements required for this development will be shown on the Record Plot.					
33. A 5/8" trash bar shall be centered within the opening(s) of all curb inlets and area inlets.					
34. The City of O'Fallon Construction Inspection Division shall be notified at 636-379-5596 at least 48 hours before construction begins and 24 hours in advance of any required inspections.					
35. At the time prior to when any unit becomes individually owned, the seller of the unit must provide an individual sanitary and water service connection complete with any required appurtenances to the unit being sold.					
36. Granular materials and earth materials associated with new construction beyond the property may be jetted, taking care to avoid damage to new structures. The setting point shall be a minimum of 3' above the ground surface and no greater than two and one-half (2.5') foot centers with the jetting probe centered over and parallel with the direction of the pipe. Trench widths greater than ten (10') feet will require multiple probes every seven and one-half (7.5') foot centers.					
a.) Depth: Trench backfill less than eight (8) feet in depth shall be probed to a depth extending to half the depth of the trench backfill, but not less than three (3) feet. Trench backfill greater than eight (8) feet in depth shall be probed to half the depth of the trench backfill but not greater than eight (8) feet.					
b.) Equipment: The jetting probe shall be metal pipe with an exterior diameter of one and one-half (1 1/2) to two (2) inches.					
c.) Method: Jetting shall be performed from the low surface topographic point and proceed toward the high point, and fur: the bottom of the trench backfill towards the surface. The flooding of each jetting probe shall be started slowly allowing slow saturation of the soil. Water is not allowed to flow away from the ditch without first saturating the trench.					
d.) Surface: The contractor shall identify the locations of the surface bridging (trench) for the upper backfill crust to arch over the trench rather than collapse and consolidate during the jetting process. The contractor shall use the bridging areas using an appropriate method such as wheels or bucket of a backhoe. When the surface crust is collapsed, the void shall be backfilled with the some material used as trench backfill and rejetted. Compaction of the materials within the sunken/rejetted area shall compacted such that no further surface subsidence occurs.					

37. All street signs shall meet the City of O'Fallon requirements for reflectivity.

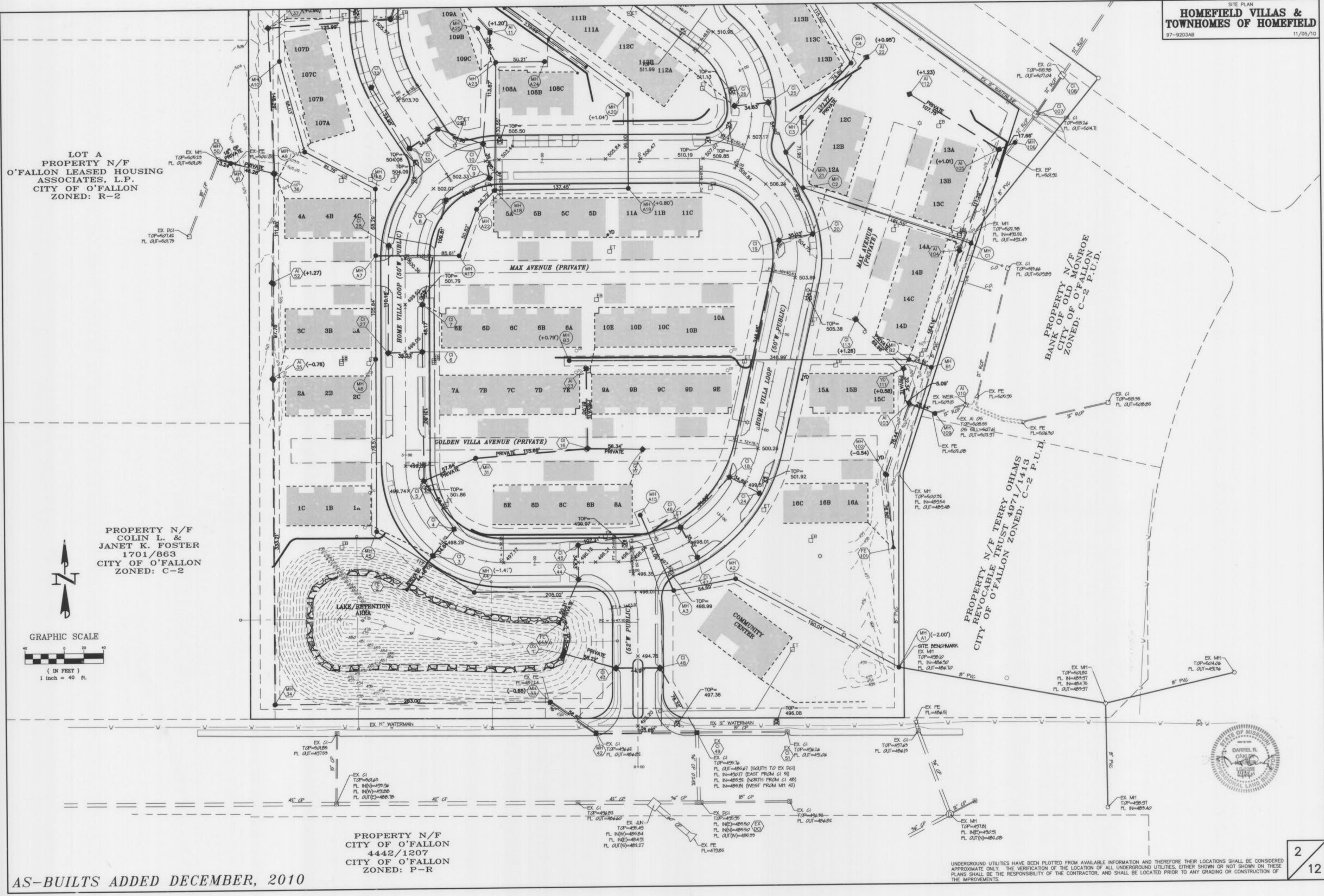
38. Finish grade of buildings shall be a minimum of 4" below top of foundation and shall be a minimum of two (2) percent slope away from building.

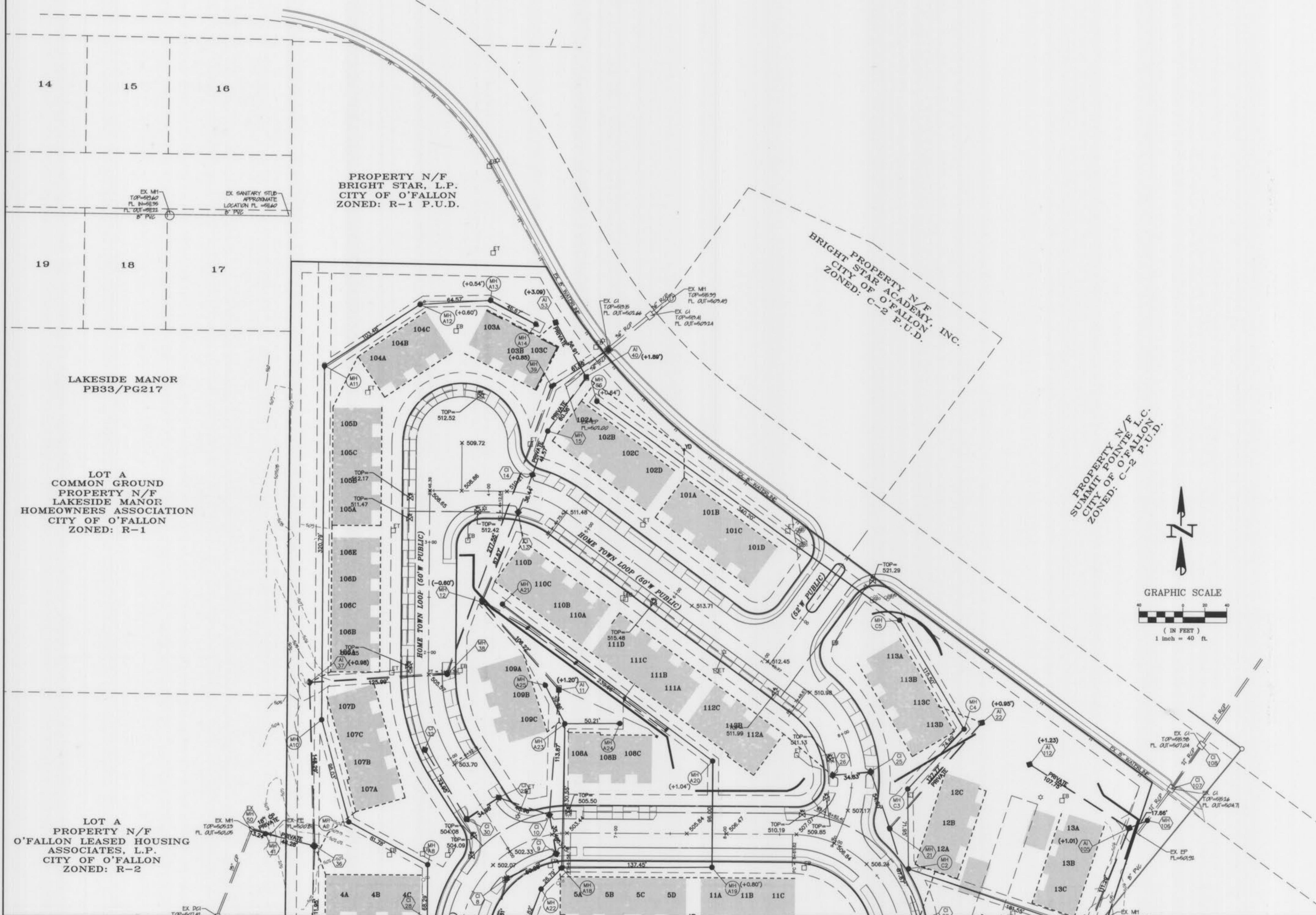
A SET OF AS-BUILT PLANS FOR HOMEFIELD VILLAS & THE TOWNHOMES OF HOMEFIELD

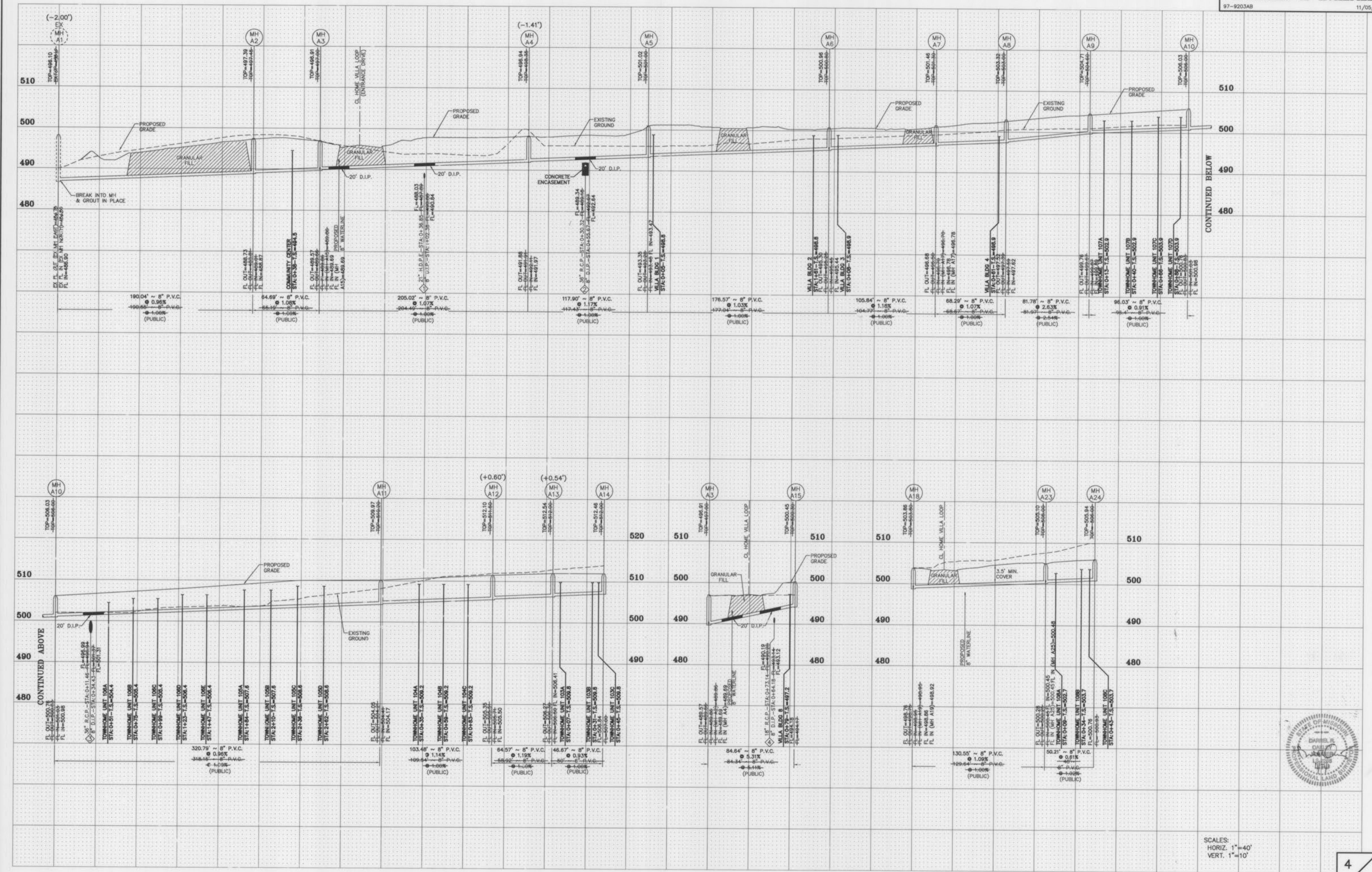
A TRACT OF LAND IN U.S. SURVEY 3070
AND IN FRACTIONAL SECTION 21,
TOWNSHIP 47 NORTH, RANGE 3 EAST
OF THE FIFTH PRINCIPAL MERIDIAN,
ST. CHARLES COUNTY, MISSOURI

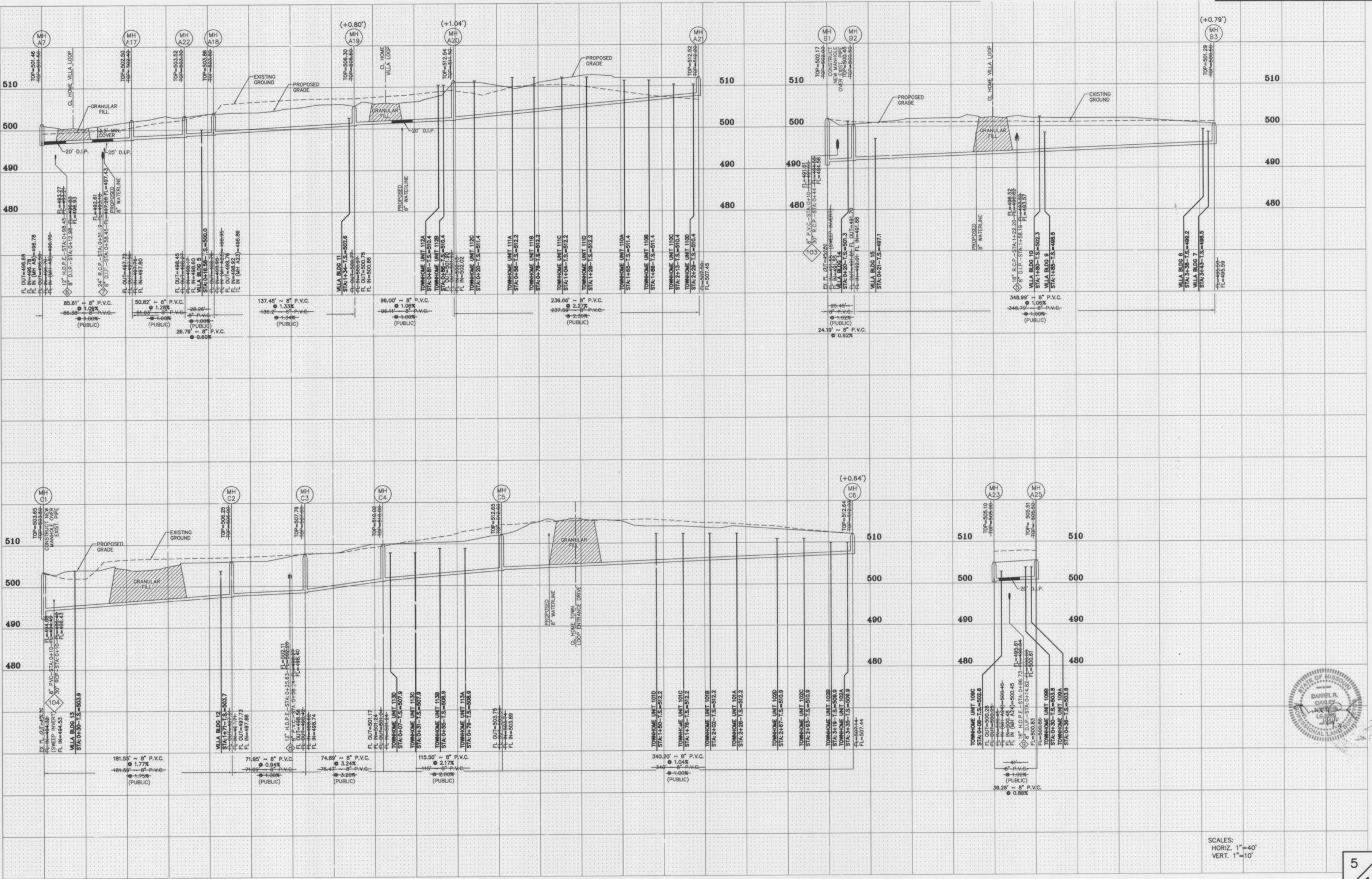
SHEET INDEX:	
1	COVER SHEET
2-3	SITE PLAN
4-5	SANITARY SEWER PROFILES
6-8	STORM SEWER PROFILES
9	BASIN SECTIONS & HYDRAULICS
10	WALL DETAILS
11-12	DRAINAGE AREA MAP



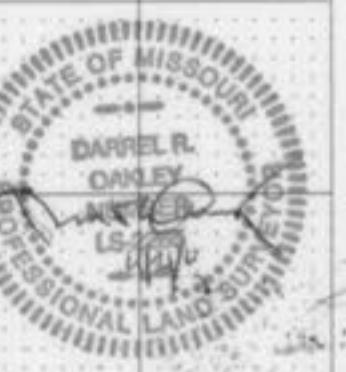


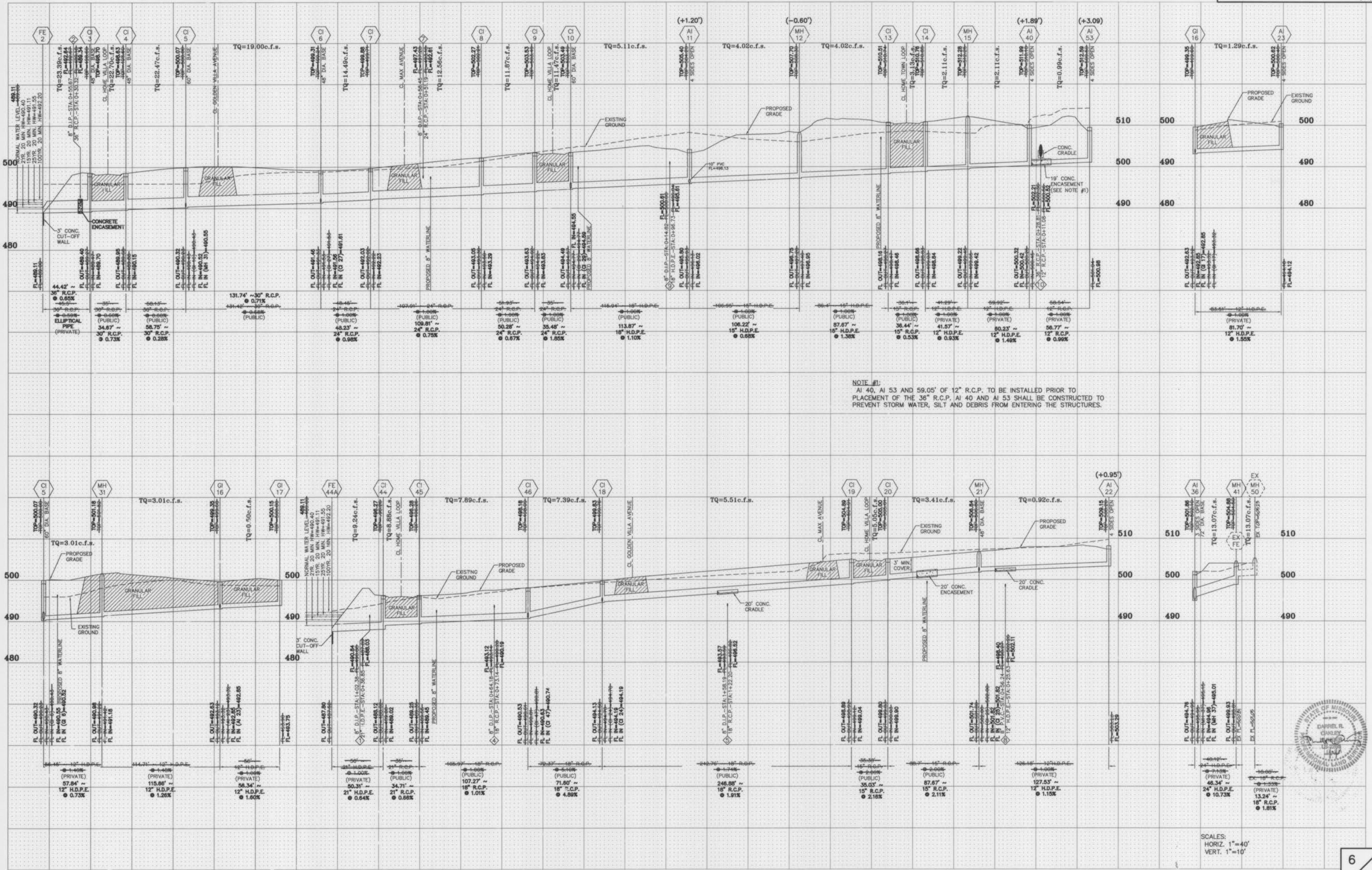


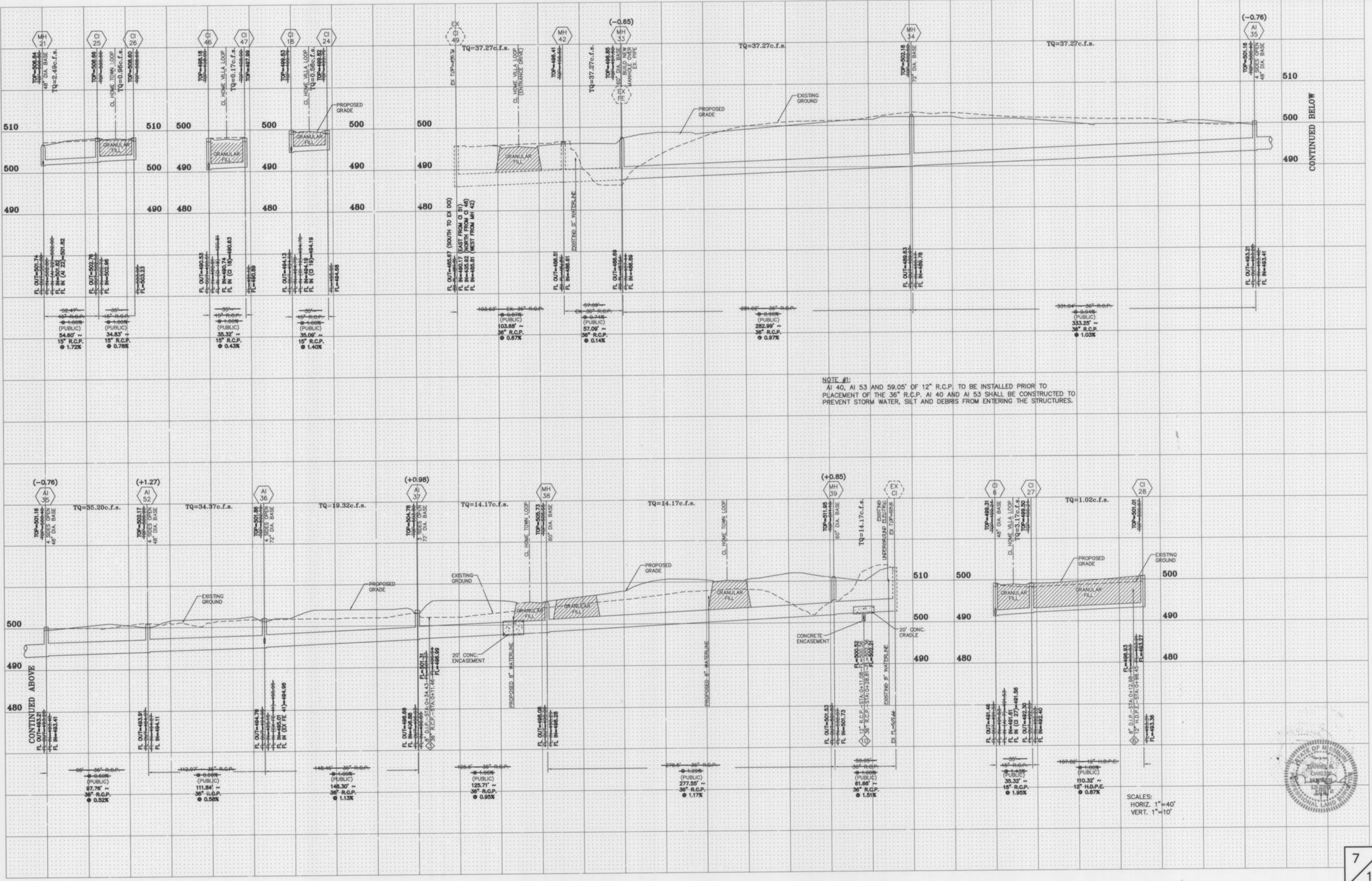


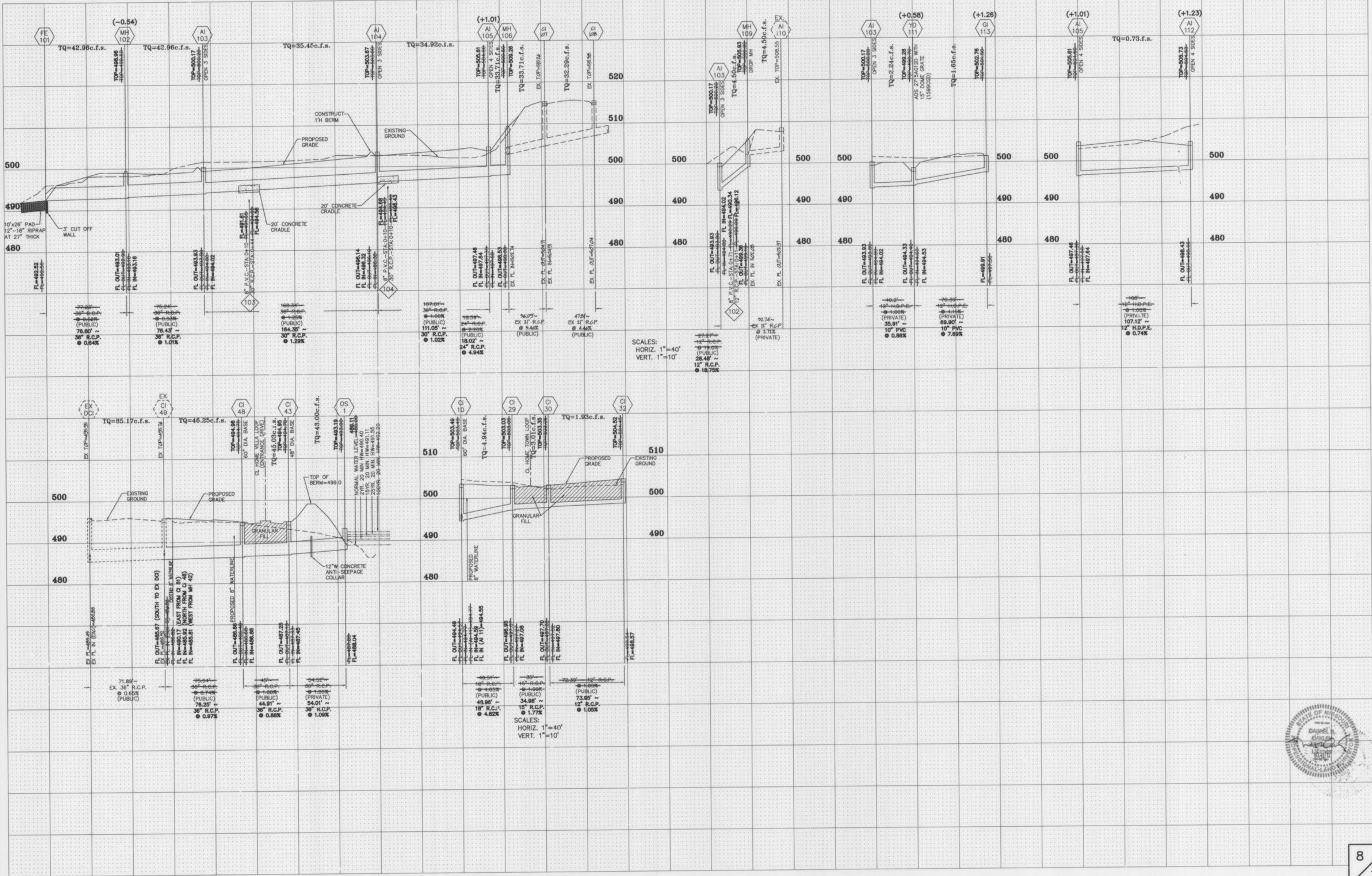


SCALES:
 HORIZ. 1"=40'
 VERT. 1"=10'

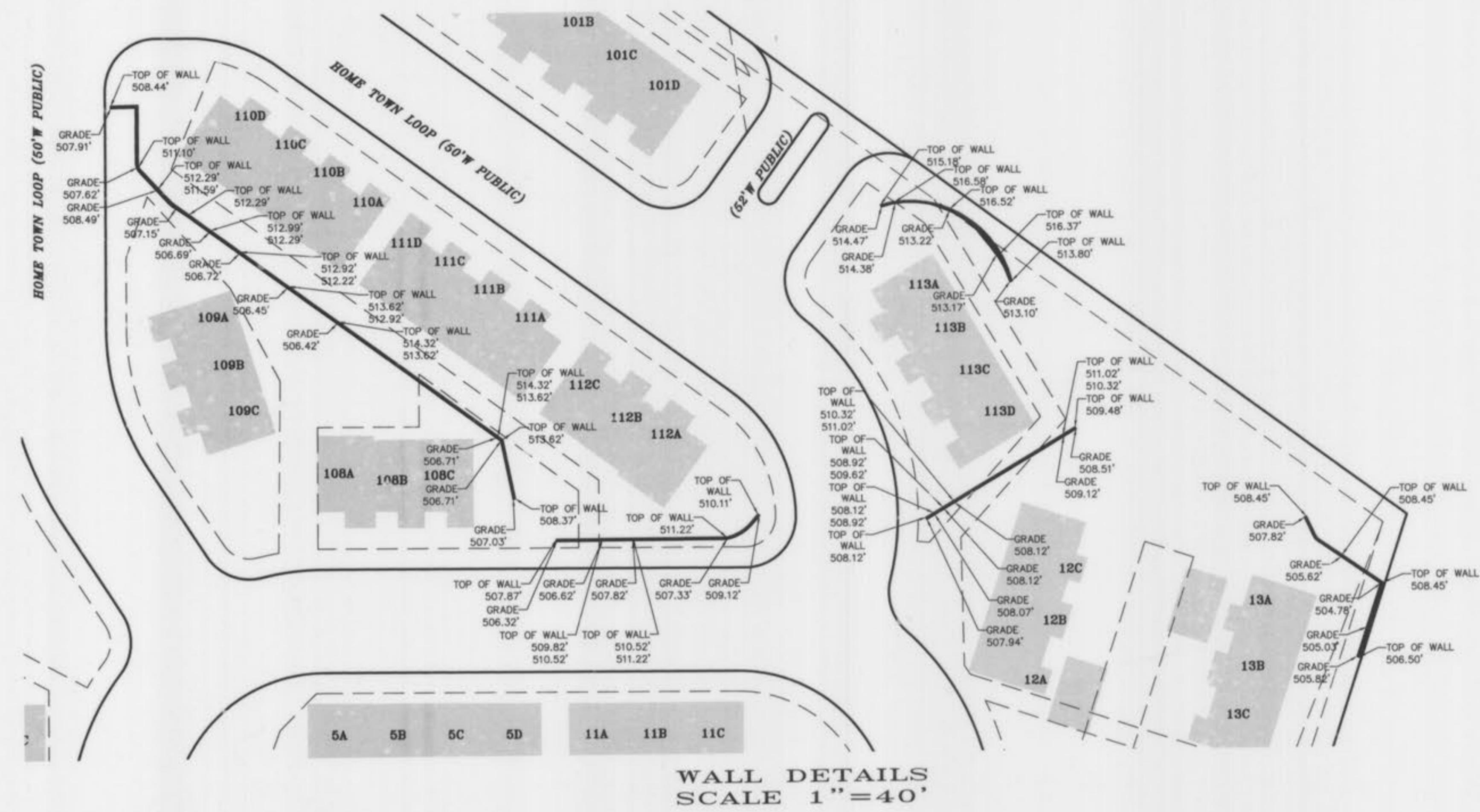
DARREL R. GAYLEY
LS-1001
LAND SURVEYOR

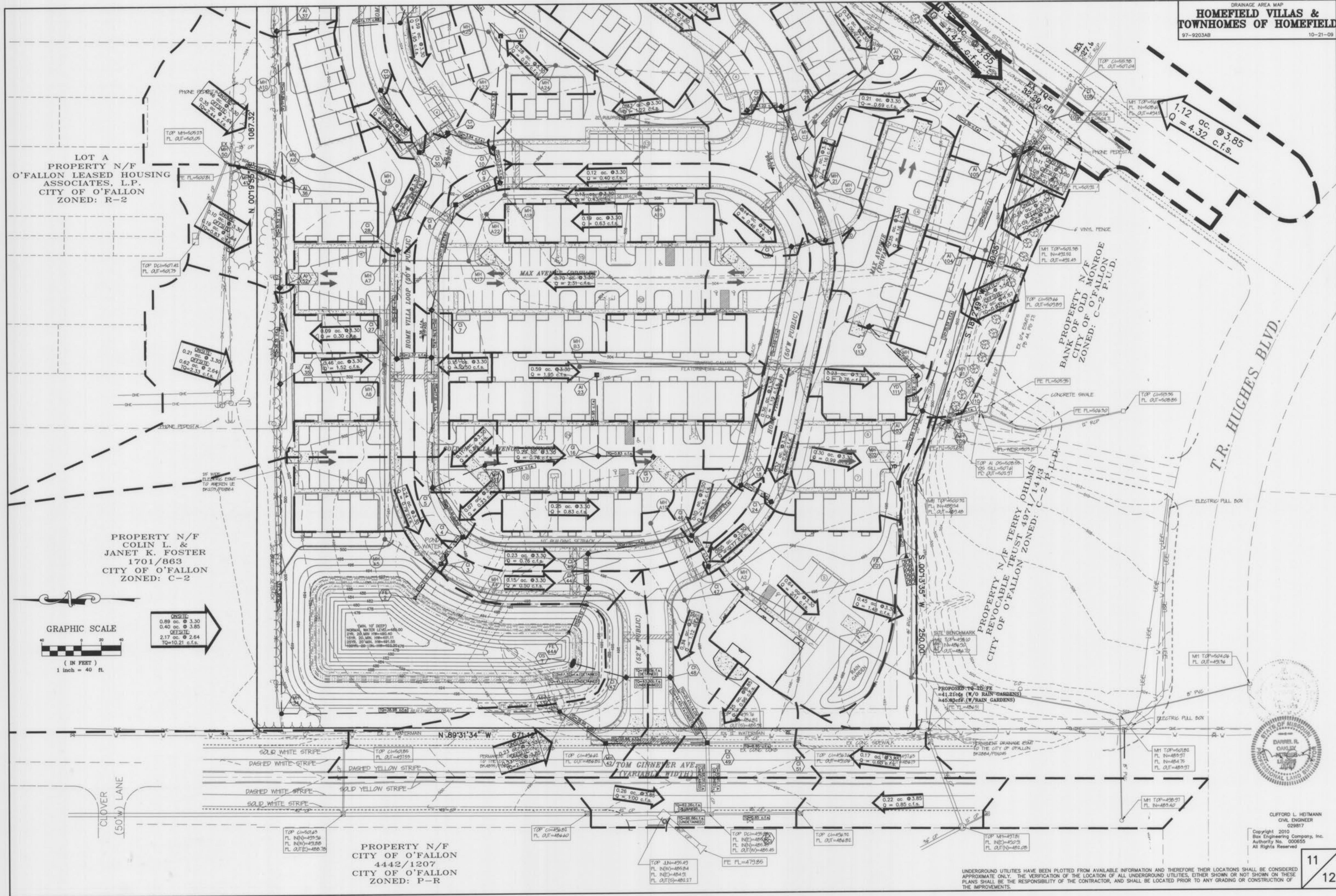






BAX PROJECT NAME : HOMEFIELD		BAX PROJECT NO. : 97-9203AB		DESIGN DATE : 10/14/11		FILENAME: 9203ASB																		
UPP STR	LOW PTH	UPPER L	LOWER L	UPPER DEPTH	UPPER HYDRO	LOWER DEPTH	HYDRO HEAD	FL	VEL	JUNC	TOP CURVE	STA	INN DR	CAP AREA	P1	Q	TQ	PIPE CAP	REMARKS					
EXC1 MH39	13	18	501.05	500.81	1.81	505.23	1.87	503.36	502.31	.01550	0.20	7.40	0.85	0.00	0.00	MH	0.00	0.00	0.00	13.07	34.14	1		
MH41 A136	46	24	499.93	494.96	10.73	504.88	4.39	500.49*	497.65	.00330	0.15	4.16	0.27	0.00	0.00	MH	0.00	0.00	0.00	13.07	34.09	2		
EXC1 MH39	62	36	502.64	501.73	1.51	513.15	8.33	504.82	504.73	.00050	0.03	2.00	0.06	0.06	0.00	0.00	LOW	3.40	0.00	0.00	14.17	81.91	3	
MH39 A136	279	36	501.53	498.28	1.17	511.95	9.52	502.43*	501.28	.00050	0.13	2.00	0.06	0.00	0.00	0.00	MH	2.00	0.00	0.00	14.17	65.17	4	
A136	126	36	498.86	497.88	0.87	504.88	7.57	499.22	499.01	.00050	0.13	2.00	0.06	0.00	0.00	0.00	MH	2.00	0.00	0.00	14.17	65.17	5	
A136	148	36	496.68	495.01	1.13	504.76	6.56	498.22	498.01	.00090	0.13	2.83	0.12	0.08	0.00	0.00	3S	8.25	2.00	2.97	5.84	20.01	70.78	
A136	112	36	494.76	494.11	0.53	501.86	4.21	497.65	497.11	.00280	0.32	5.03	0.39	0.00	0.00	0.00	4S	8.25	0.81	2.97	2.44	35.52	50.85	
A136	98	36	493.91	493.41	0.51	502.17	5.44	496.71	496.41	.00320	0.29	5.14	0.41	0.00	0.00	0.00	4S	8.25	0.81	2.97	2.44	35.52	50.85	
A136	333	36	496.76	495.76	0.78	504.88	6.53	499.43*	499.30	.00120	0.14	2.51	0.47	0.00	0.00	0.00	MH	0.00	0.00	0.00	11.60	9.92	9	
MH33	283	36	489.63	486.89	0.97	502.18	8.98	493.20	492.23	.00340	0.97	5.51	0.47	0.00	0.00	0.00	MH	0.00	0.00	0.00	38.98	65.63	10	
MH33	57	36	486.63	486.61	0.14	496.23	4.62	492.24	492.04	.00340	0.19	5.51	0.47	0.00	0.00	0.00	MH	0.00	0.00	0.00	38.98	24.97	11	
MH42	104	36	486.51	485.67	0.87	496.42	4.37	492.04	491.69	.00340	0.35	5.51	0.47	0.00	0.00	0.00	MH	0.00	0.00	0.00	38.98	60.04	12	
EXC151 EXC149	93	15	491.06	496.82	4.56	496.26	4.56	491.70	491.69	.00010	0.01	0.53	0.00	0.00	0.00	0.00	LOW	3.40	0.17	3.85	0.65	0.65	13.79	13
EXC1 EXC1	93	18	486.82	485.85	1.04	496.32	7.51	488.81	488.80	.00010	0.01	0.48	0.00	0.00	0.00	0.00	LOW	3.40	0.22	3.85	0.85	0.85	10.73	14
OS1 C143	54	36	488.04	487.45	1.09	493.19	0.12	493.07	492.33	.00380	0.21	5.84	0.53	0.00	0.00	0.00	GS	3.46	3.26	10.21	41.27	69.71	15	
C148	45	36	487.25	486.86	0.87	494.95	0.20	492.32	492.07	.00420	0.19	6.13	0.58	0.00	0.00	0.00	GS	3.46	3.27	10.21	62.16	76.16	16	
C146 C149	76	36	486.87	485.45	0.31	495.76	4.07	491.69	498.80	.01620	1.17	12.03	1.72	0.00	0.00	0.00	GS	3.40	0.34	3.30	1.12	44.42	70.42	17
EXC149 EXC1B	72	36	485.67	485.45	0.31	495.76	4.07	491.69	498.80	.01620	1.17	12.03	1.72	0.00	0.00	0.00	GS	6.80	0.25	3.85	0.98	85.01	36.90	18
EXC1B EXK1B	44	36	486.63	484.91	0.53	495.76	7.15	488.80	487.91	.01700	0.75	12.29	2.34	0.14	0.00	0.00	GS	11.00	0.26	3.85	1.00	86.86	73.89	19
EXK1B	53	60	482.27	479.85	4.57	495.49	10.58	484.91	484.85	.00110	0.06	4.42	0.30	0.00	0.00	0.00	JB	0.00	0.00	0.00	86.86	536.52	20	
I.T.P.=484.85																								
C132 C130	74	12	498.57	497.80	1.04	504.52	5.48	499.04*	499.80	.00220	0.16	2.14	0.57	0.07	0.00	0.00	2%	1.93	0.51	3.30	1.68	1.68	3.64	21
C130 C129	35	15	497.70	497.08	1.77	503.35	4.99	498.38	499.33	.00200	0.63	1.56	0.04	0.00	0.00	0.00	2%	1.93	0.07	3.30	0.23	1.91	86.60	22
C129 C110	49	18	496.95	494.59	4.82	503.03	5.66	497.37*	496.09	.00130	0.07	2.17	0.07	0.05	0.00	0.00	2%	1.93	0.59	3.30	1.93	3.84	23.06	23
C127 C127	110	12	493.36	492.40	0.87	501.01	7.31	493.70*	493.40	.00060	0.06	1.08	0.02	0.02	0.00	0.00	2%	1.93	0.25	3.30	0.85	0.85	3.32	24
C127 C16	35	15	492.30	491.62	1.95	499.50	4.93	493.35	493.25	.00100	0.06	1.93	0.06	0.03	0.00	0.00	2%	3.40	0.46	3.30	1.52	2.37	9.03	25
A123 G116	82	12	494.12	493.19	1.14	505.62	5.44	499.18	494.84	.00300	0.24	2.48	0.10	0.10	0.00	0.00	10	1.00	0.59	3.30	1.95	1.95	3.80	26
G117 C116	56	12	493.75	492.85	1.60	500.15	5.26	494.89	494.84	.00500	0.03	1.06	0.02	0.02	0.00	0.00	2%	3.40	0.25	3.30	0.83	0.83	4.50	27
G116 MH31	116	12	492.63	491.18	1.25	499.35	4.51	494.84	493.00	.00990	1.14	4.51	0.32	0.26	0.00	0.00	2%	3.40	0.23	3.30	0.76	3.54	3.99	28
MH31 C15	58	12	490.50	490.55	0.74	501.15	4.92	493.44	492.87	.00990	0.57	4.51	0.32	0.00	0.00	0.00	2%	3.40	0.23	3.30	3.04	3.04	3.07	29
A153 A140	57	12	500.98	500.42	0.99	512.59	11.07	501.52	501.42	.00110	0.06	1.52	0.04	0.00</										





UNDERGROUND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE INFORMATION AND THEREFORE THEIR LOCATIONS SHALL BE CONSIDERED APPROXIMATE ONLY. THE VERIFICATION OF THE LOCATION OF ALL UNDERGROUND UTILITIES, EITHER SHOWN OR NOT SHOWN ON THESE PLANS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, AND SHALL BE LOCATED PRIOR TO ANY GRADING OR CONSTRUCTION OF THE IMPROVEMENTS.

