

GENERAL NOTES

- 1. Profile design lines are based on centerline, as shown, unless otherwise noted.
2. All new construction to conform to the specifications of El Paso County Planning and Community Development, Widefield Water and Sanitation District, and the Fountain Mutual Irrigation Company (FMIC).
3. For pavement design, curb and gutter, and sidewalks see individual plan and profile sheets.
4. At intersections, all curb returns will have 20-foot radius unless otherwise noted.
5. All existing utilities have been shown according to the best available information.
6. A Pre-Construction meeting shall be held with the El Paso County Planning and Community Development and Widefield Water and Sanitation District prior to any construction.
7. Approved plans, Engineering Criteria Manual, etc. is required to be on-site at all times during construction.
8. All necessary permits, such as SWMP, ESQCP, Fugitive Dust, Access, C.O.E. 404, etc. shall be obtained prior to construction.
9. All handicap ramps to be per El Paso County Standard SD 2-40.
10. The contractor shall coordinate exact locations and layout with the El Paso County Planning and Community Development on the placement of any pedestrian ramps prior to construction of the curb.
11. Where appropriate, notify saw cut all existing concrete and asphalt.
12. All disturbed areas shall be revegetated with native grasses within 21 days of excavation per Erosion Control Plan.
13. The prepared Erosion/Sediment Control Plan is to be considered a part of these plans and its requirements adhered to during the construction of this project.
14. All storm and sanitary sewer pipe lengths and slopes are figured from center of manhole or bend.
15. All storm sewer bedding to be per CDOF Standards.
16. All storm sewer pipe shall be Class III B Wall unless otherwise shown on the storm sewer plan and profile sheets.
17. All eyes and bends used in construction of storm sewer facilities shall be factory fabricated, unless approved by the El Paso County Development Services Department.
18. Construction and materials used in all storm and sanitary sewer manholes shall be per specifications.
19. Storm sewer manholes sizes as follows unless otherwise shown:
18" thru 36" use 48" I.D. manhole
42" thru 48" use 60" I.D. manhole
54" thru 60" use 72" I.D. manhole
NOTE: Manhole sizes tabulated here shall be increased, if necessary, to accommodate incoming laterals.
20. Sanitary sewer manhole sizes and facilities per Widefield Water and Sanitation District Specifications.
21. For additional utility notes, see Utility Plan and/or Service Plan.
22. All horizontal stationing is based on the Face of Curb, unless otherwise shown.
23. All vertical design and top of curb are based on the design point shown in the typical cross section.
24. The curb line design point is located at the intersection of the face and top of curb for the EPC Type A Standard 6-inch vertical curb.
25. Water and sanitary sewer service provided by Widefield Water and Sanitation District.
26. All utility construction to be conducted in conformance with the current Widefield Water and Sanitation District Specifications and/or El Paso County Specifications, whichever is greater.
27. Vertical curb to be used between curb returns (CR) and at curb inlets.
28. Cross pans to be 6" wide and per El Paso County Standard Detail SD 2-26.
29. Contractor responsible for meeting all Widefield Water and Sanitation District criteria when connecting to existing stubs.
30. Curb returns shall be straight graded from CR to CR unless otherwise noted.
31. Inlets are Type 'R' inlets (CDOF STD M-604-12) unless otherwise noted.
32. USPS CBU Mailboxes are to be determined by USPS.
BENCHMARK: Monument is located at the Northwest corner of the intersection of Powers Boulevard and Fontaine Street.
BASIS OF BEARINGS is based upon a portion of the Easterly boundary of the Glen at Widefield Subdivision Filing No. 5B as recorded under Record No. 200712226 in the records of the Clerk and Recorder's Office, County of El Paso, State of Colorado; said line being also a portion of the Easterly Right-of-Way Autumn Glen Avenue as described in said subdivision, being monumented at the Point of Tangency of said boundary by a found cap and rebar marked "PLSC 25968" and at the Point of Curvature of said boundary by a found rebar and cap marked "PLSC 25968".

EL PASO COUNTY STANDARD NOTES

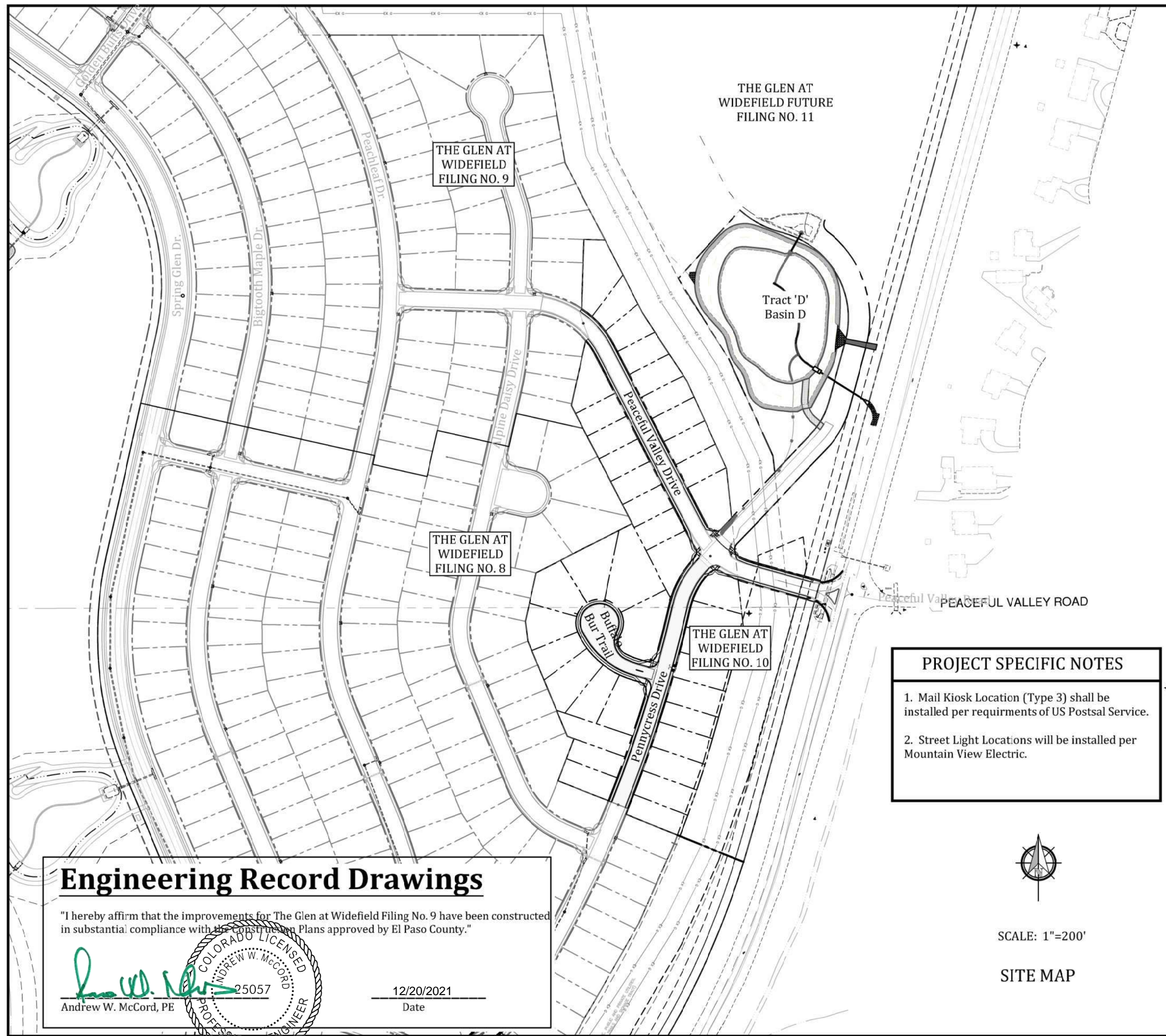
- 1. All drainage and roadway construction shall meet the standards and specifications of the City of Colorado Springs/El Paso County Drainage Criteria Manual, Volumes 1 and 2, and the El Paso County Engineering Criteria Manual.
2. Contractor shall be responsible for the notification and field notification of all existing utilities, whether shown on the plans or not, before beginning construction.
3. Contractor shall keep a copy of these approved plans, the Grading and Erosion Control Plan, the Stormwater Management Plan (SWMP), the soils and geotechnical report, and the appropriate design and construction standards and specifications at the job site at all times.
4. Notwithstanding anything depicted in these plans in words or graphic representation, all design and construction related to roads, storm drainage and erosion control shall conform to the standards and requirements of the most recent version of the adopted El Paso County standards, including the Land Development Code, the Engineering Criteria Manual, the Drainage Criteria Manual, and the Drainage Criteria Manual Volume 2.
5. It is the design engineer's responsibility to accurately show existing conditions, both onsite and offsite, on the construction plans.
6. Contractor shall schedule a pre-construction meeting with El Paso County Planning and Community Development (P&CDD) - Inspections, prior to starting construction.
7. It is the contractor's responsibility to understand the requirements of all jurisdictional agencies and to obtain all required permits.
8. Contractor shall not deviate from the plans without first obtaining written approval from the design engineer and P&CDD.
9. All storm drain pipe shall be Class III RC? unless otherwise noted and approved by P&CDD.
10. Contractor shall coordinate geotechnical testing per ECM standards.
11. All construction traffic must enter/exit the site at approved construction access points.
12. Sight visibility triangles as identified in the plans shall be provided at all intersections.
13. Signing and striping shall comply with E. Paso County DOT and MUTCD criteria.
14. Contractor shall obtain any permits required by El Paso County DOT, including Work Within the Right-of-Way and Special Transport permits.
15. The limits of construction shall remain within the property line unless otherwise noted.

INDEX OF SHEETS

Table with 2 columns: Sheet Number and Description. Includes Cover Sheet, Plan and Profile - Peaceful Valley Road, Plan and Profile - Mesa Ridge Parkway, Plan and Profile - Pennycrest Drive, Plan and Profile - Buffalo Bar Trail, Signage and Striping Plan, Grading and Erosion Control Plan, Utility Plan, Storm Sewer Sedimentation Basin Plan, Storm Sewer Basin D Outlet Structure, Sedimentation Basin Details, Site Details, Utility Details.



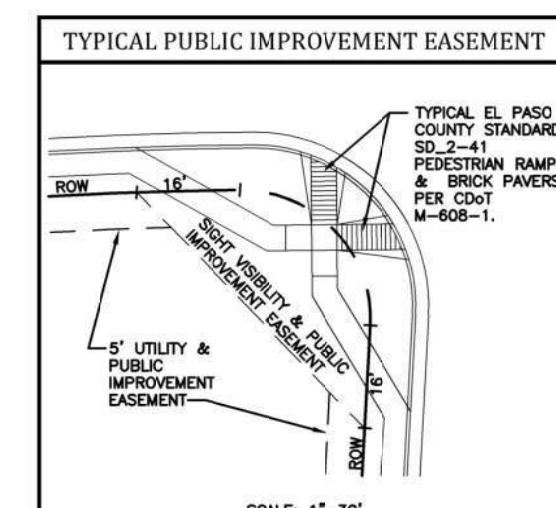
THE GLEN AT WIDEFIELD FILING NO. 10
RESIDENTIAL SUBDIVISION CONSTRUCTION DRAWINGS
PREPARED FOR WIDEFIELD INVESTMENT GROUP



Engineering Record Drawings
I hereby affirm that the improvements for The Glen at Widefield Filing No. 9 have been constructed in substantial compliance with approved Plans approved by El Paso County.
Andrew W. McCard, PE
12/20/2021 Date

- PROJECT SPECIFIC NOTES
1. Mail Kiosk Location (Type 3) shall be installed per requirements of US Postal Service.
2. Street Light Locations will be installed per Mountain View Electric.

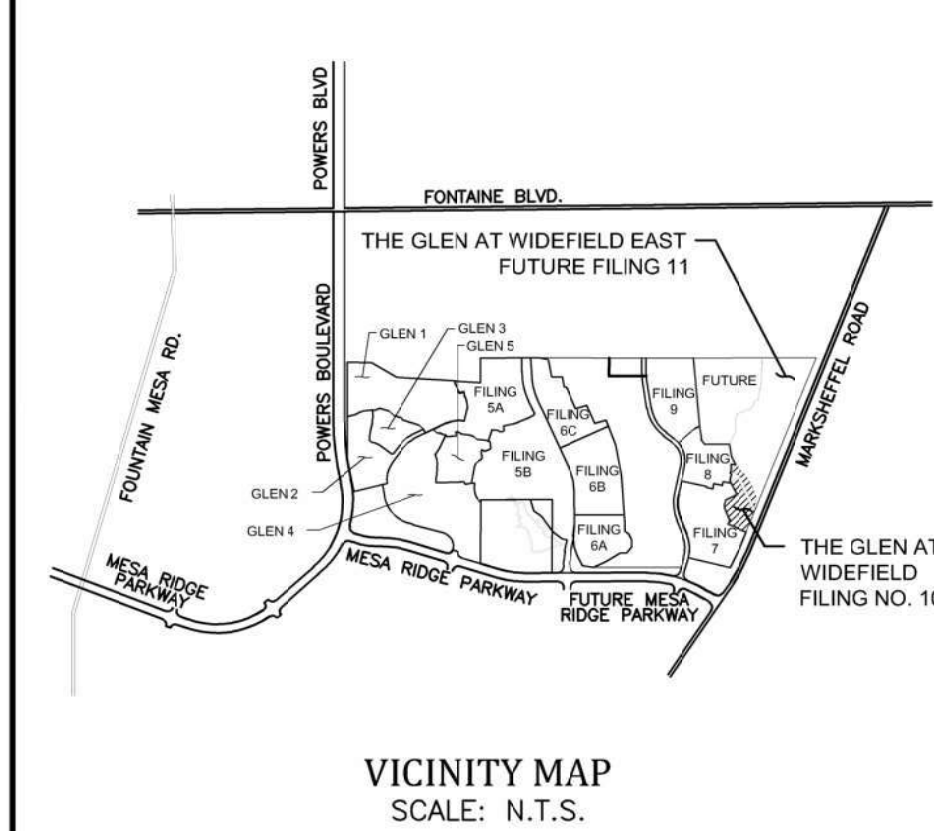
ABBREVIATIONS table listing symbols for various engineering elements like ASSY, BNDY, BOP, CL, CRA, CTB, CR, DIP, EL, ESMT, EX, FC, FES, FLG, FL, GB, HP, HORZ, HYD, I.D., LT, LF, LP, MAX, MH, NTS, OD, PC, PP, PT, PVC, PVI, PVT, RCB, RCP, ROW, RT, SHT, SS, STA, STD, TA, TC, LT, TYP, VC, VERT.



WIDEFIELD WATER AND SANITATION DISTRICT GENERAL NOTES

- 1. All utility construction to be conducted in conformance with the current Widefield Water and Sanitation District specifications.
2. All materials and workmanship shall be subject to inspection by the Widefield Water and Sanitation District.
3. The Developer or his Engineer has located all fire hydrants and future service stubs.
4. All ductile iron pipe, to include fittings, valves and fire hydrants will be wrapped with polyethylene tubing, and electrically isolated.
5. All ductile iron pipe and fittings shall be double bonded.
6. PVC main lines shall be installed with coated No. 12 tracer wire.
7. The Contractor is required to notify the Widefield Water and Sanitation District (390-7111) a minimum of 48 hours and a maximum of 96 hours prior to the start of construction.
8. The location of all utilities as shown on these drawings are approximate only.
9. The Contractor shall field excavate and verify the vertical and horizontal location of all tie-ins.
10. All bends shall be field staked prior to construction.
11. Any water utility material removed and not reused shall be returned to the Widefield Water and Sanitation District.
12. The Contractor shall at his expense support and protect all utility mains so that they will function continuously during construction.
13. Any pumping or bypass operations must be reviewed and approved prior to execution by both the Widefield Water and Sanitation District and the Engineer.
14. Contractor must replace or repair any damage to all surface improvements, including but not limited to fences, curb and gutter and/or asphalt that may be caused during construction.
15. All water lines 6" and larger, and all sewer lines 8" and larger, shall have as "as-built" plans prepared and approved prior to final acceptance by the Widefield Water and Sanitation District.
16. Prior to construction, a Pre-Construction Conference is required a minimum of 72 hours in advance of commencement of work.

LEGEND table showing symbols for LOT LINE, STREET R.O.W., PROPOSED WATER, PROPOSED WATER HYDRANT, PROPOSED WATER VALVE, PROPOSED SANITARY MH, PROPOSED SANITARY SEWER, PROPOSED STORM SEWER, PROPOSED STORM INLET, PROPOSED STORM FES, LIGHTPOLE LOCATION, EX CURB & GUTTER WALK & RAMP SECTIONS, PRO CURB & GUTTER WALK & RAMP SECTIONS, EXISTING WATER, EXISTING WATER VALVE, EXISTING SANITARY SEWER, EXISTING STORM INLET, EXISTING STORM SEWER, EXISTING 30" C.I.G. GAS MAIN.



STATEMENTS

Design Engineer's Statement: These detailed plans and specifications were prepared under my direction and supervision. Said plans and specifications have been prepared according to the criteria established by the County for detailed roadway, drainage, grading and erosion control plans and specifications, and said plans and specifications are in conformity with applicable master drainage plans and master transportation plans.
Owner/Developer's Statement: I, the owner/developer have read and will comply with all of the requirements specified in these detailed plans and specifications.
El Paso County: County plan review is provided only for general conformance with County Design Criteria.
Utility Approvals: WATER AND SEWER MAIN EXTENSIONS, FIRE AUTHORITY APPROVAL, DISTRICT APPROVALS.

WATER AND SEWER MAIN EXTENSIONS
Any changes or alterations affecting the grade, alignment, elevation and/or depth of cover of any water or sewer mains or other appurtenance shown on this drawing shall be the responsibility of the Owner/Developer.

Signature lines for Design Engineer (J. Ryan Watson), Owner/Developer, and Security Fire Department.

WIDEFIELD WATER AND SANITATION DISTRICT WASTEWATER DESIGN APPROVAL
Date: ___ By: ___

In case of errors or omissions with the sewer design as shown on this document the standards as defined in the Rules and Regulations for Installation of Sewer Mains and Services shall rule.
Approval expires 180 days from Design Approval.

WIDEFIELD WATER AND SANITATION DISTRICT WATER DESIGN APPROVAL
Date: ___ By: ___

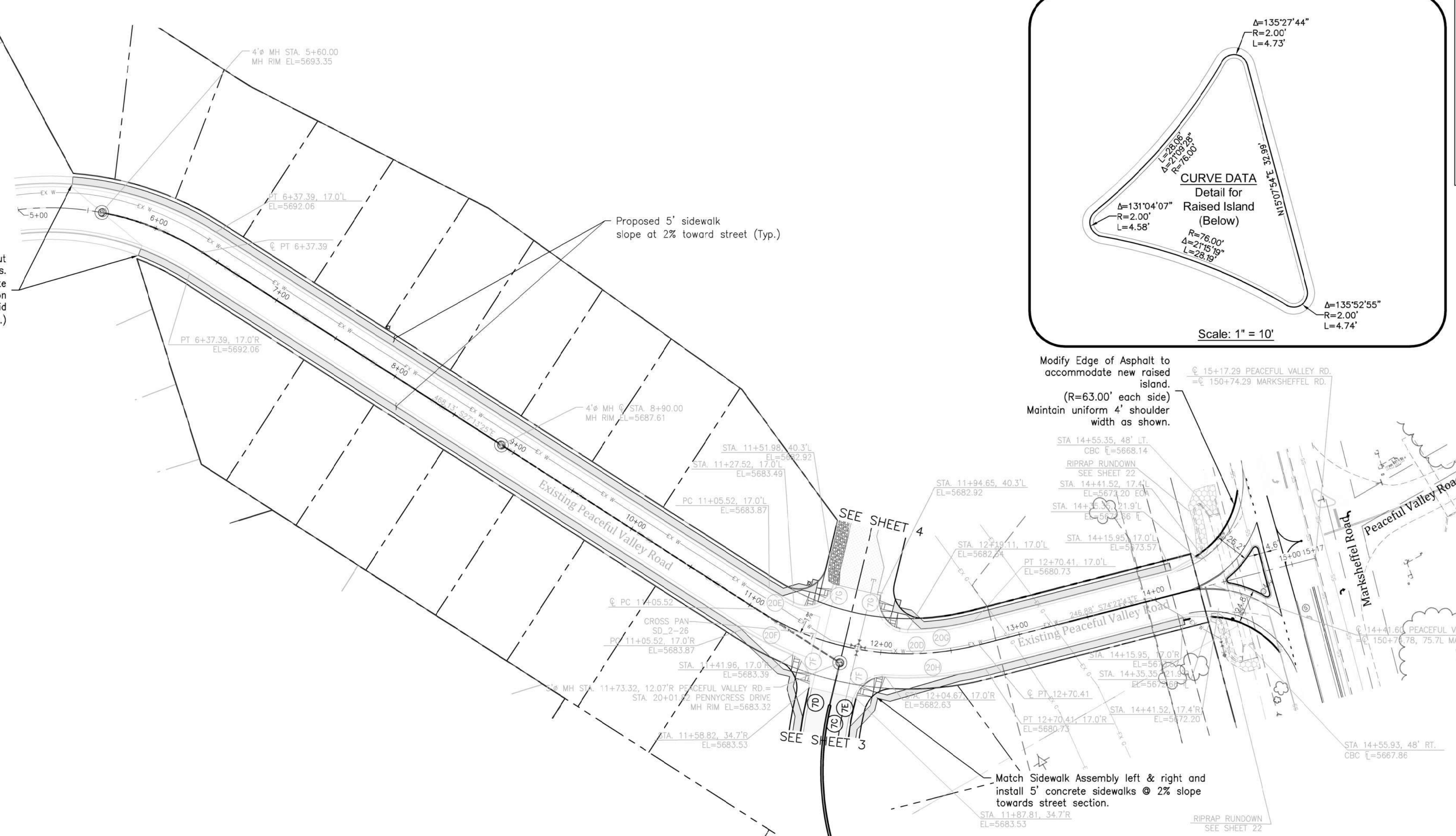
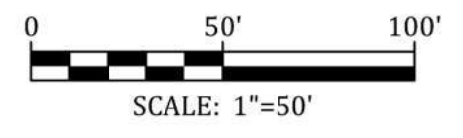
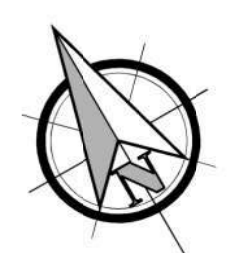
In case of errors or omissions with the sewer design as shown on this document the standards as defined in the Rules and Regulations for Installation of Sewer Mains and Services shall rule.
Approval expires 180 days from Design Approval.

GOVERNING AGENCIES table listing El Paso County Planning & Community, Black Hills Energy, Mountain View Electric Association, etc.

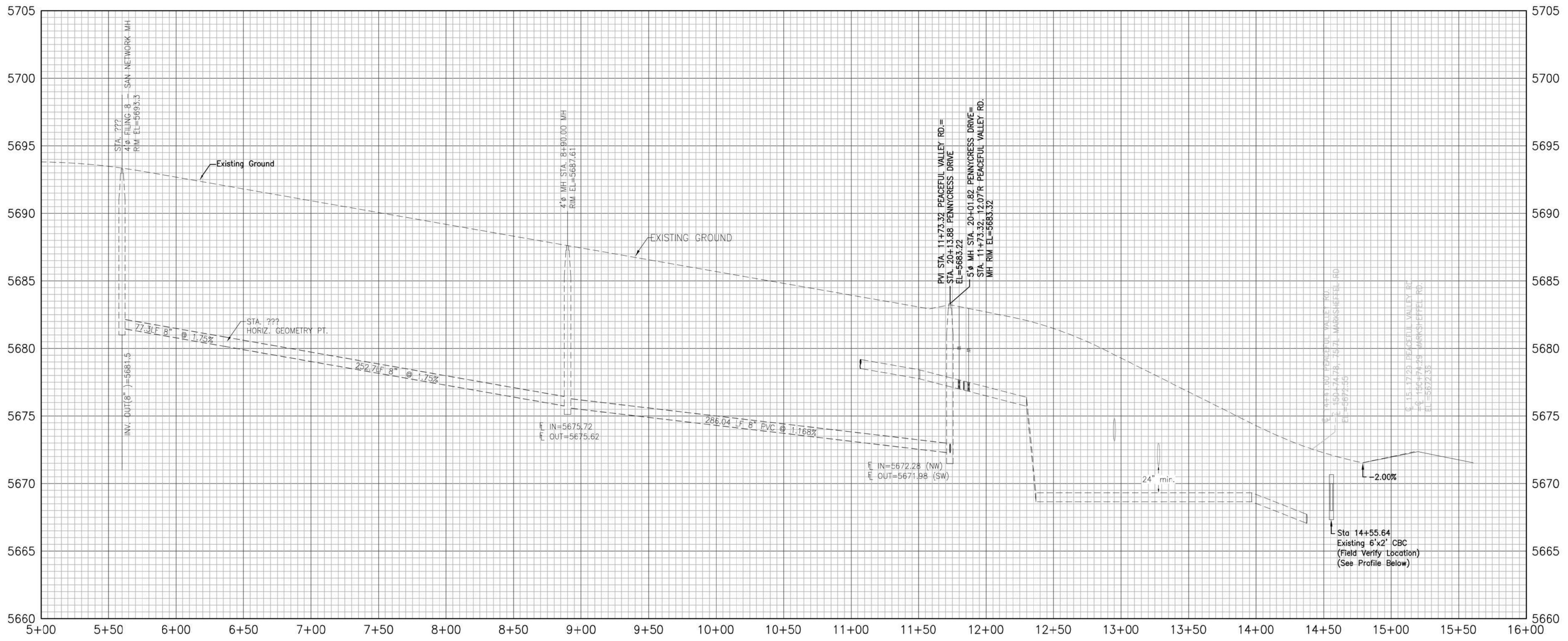
DEVELOPER: WIDEFIELD Investment Group
PREPARED BY: Kiowa Engineering Corporation
3 WIDEFIELD BOULEVARD, COLORADO SPRINGS, CO 80911

CURVE DATA		
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7G	$\Delta=103^{\circ}07'13''$ $L=36.00'$ $R=20.00'$	
20E	$\Delta=6^{\circ}18'07''$ $L=20.13'$ $R=183.00'$	
20F	$\Delta=10^{\circ}26'25''$ $L=39.54'$ $R=217.00'$	
20G	$\Delta=14^{\circ}41'46''$ $L=46.94'$ $R=183.00'$	
20H	$\Delta=18^{\circ}50'05''$ $L=71.33'$ $R=217.00'$	
20I	$\Delta=90^{\circ}20'56''$ $L=31.54'$ $R=20.00'$	
20J	$\Delta=89^{\circ}57'21''$ $L=31.40'$ $R=20.00'$	

Existing Peaceful Valley Road is installed to Marksheffel Road, but without sidewalks and ramps. Match sidewalk assembly left & right and install 5' concrete sidewalks @ 2% slope towards street section feather grading at overlot areas to back of walk to avoid retaining stormwater on individual lots (Typ.)



PROFILE VIEW OF PEACEFUL VALLEY ROAD



Engineering Record Drawings

I hereby affirm that the improvements for The Glen at Widefield Filing No. 10 have been constructed in substantial compliance with the approved plans and specifications approved by El Paso County.

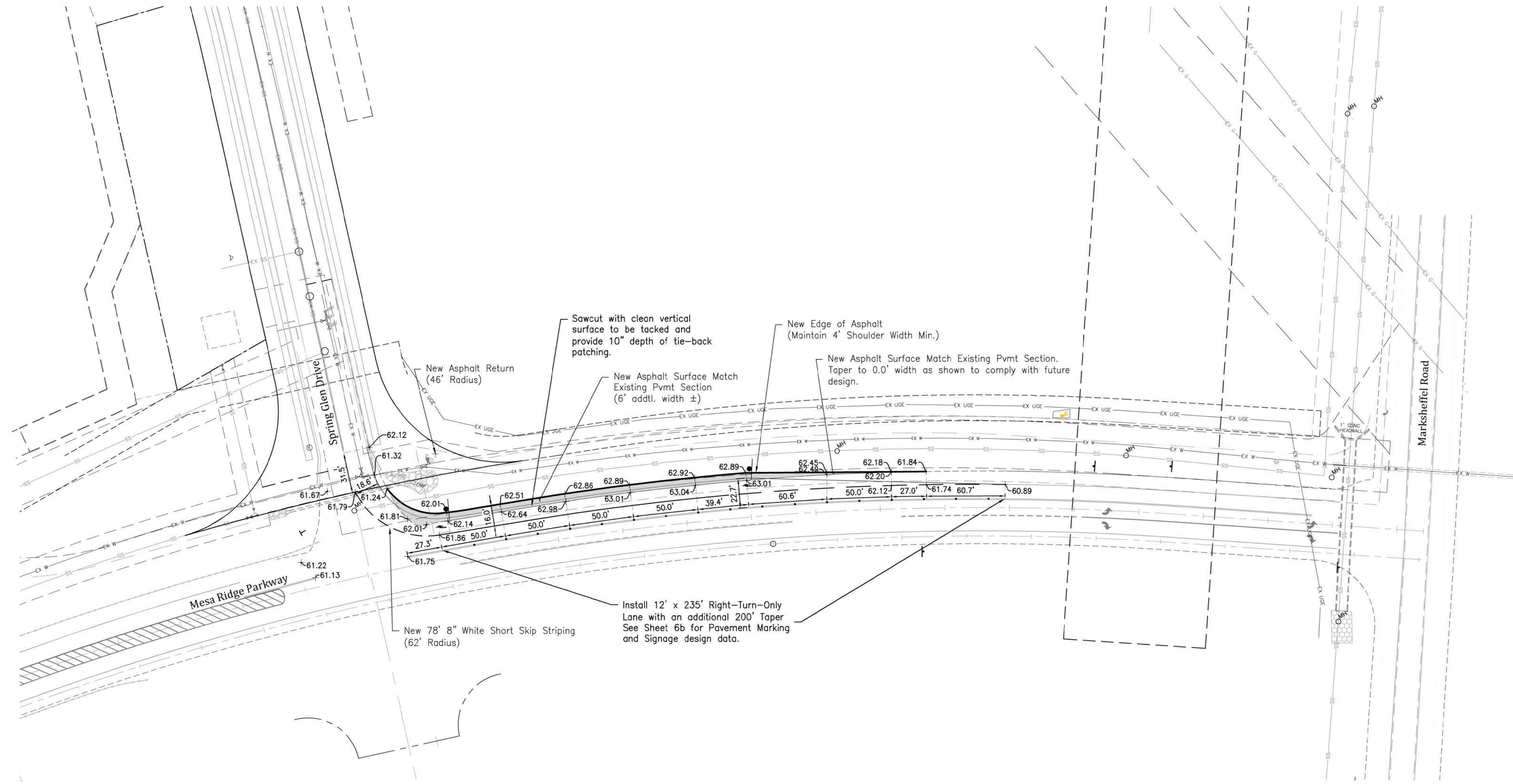
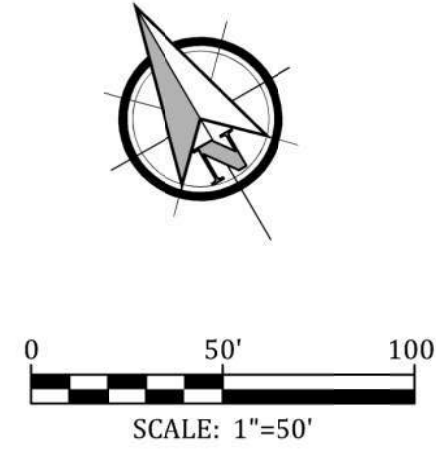
Andrew W. McCord
Andrew W. McCord, PE
25057
12/20/2021
Date

Kiowa
Engineering Corporation
1604 South 21st Street
Colorado Springs, Colorado 80904
(719) 630-7342

W
WIDEFIELD
Investment Group

GLEN AT WIDEFIELD NO. 10
Plan and Profile - Peaceful Valley Road
(Sidewalks & Pedestrian Ramps Only) Sta: (05+60.00 to Marksheffel Rd)
EL PASO, COUNTY, COLORADO

Project No:	19016
Date:	Nov. 23, 2020
Design:	MK
Drawn:	MJK
Check:	AWMc
Revisions:	
SHEET	
2A	
2 of 17 Sheets	



GLEN AT WIDEFIELD NO. 10
Mesa Ridge Parkway Re-Striping & Lane Widening
Deceleration Lane
EL PASO, COUNTY, COLORADO

Project No.:	19016
Date:	Feb 12, 2021
Design:	MK
Drawn:	MJK
Check:	AWMc
Revisions:	

SHEET

2B

3 of 17 Sheets

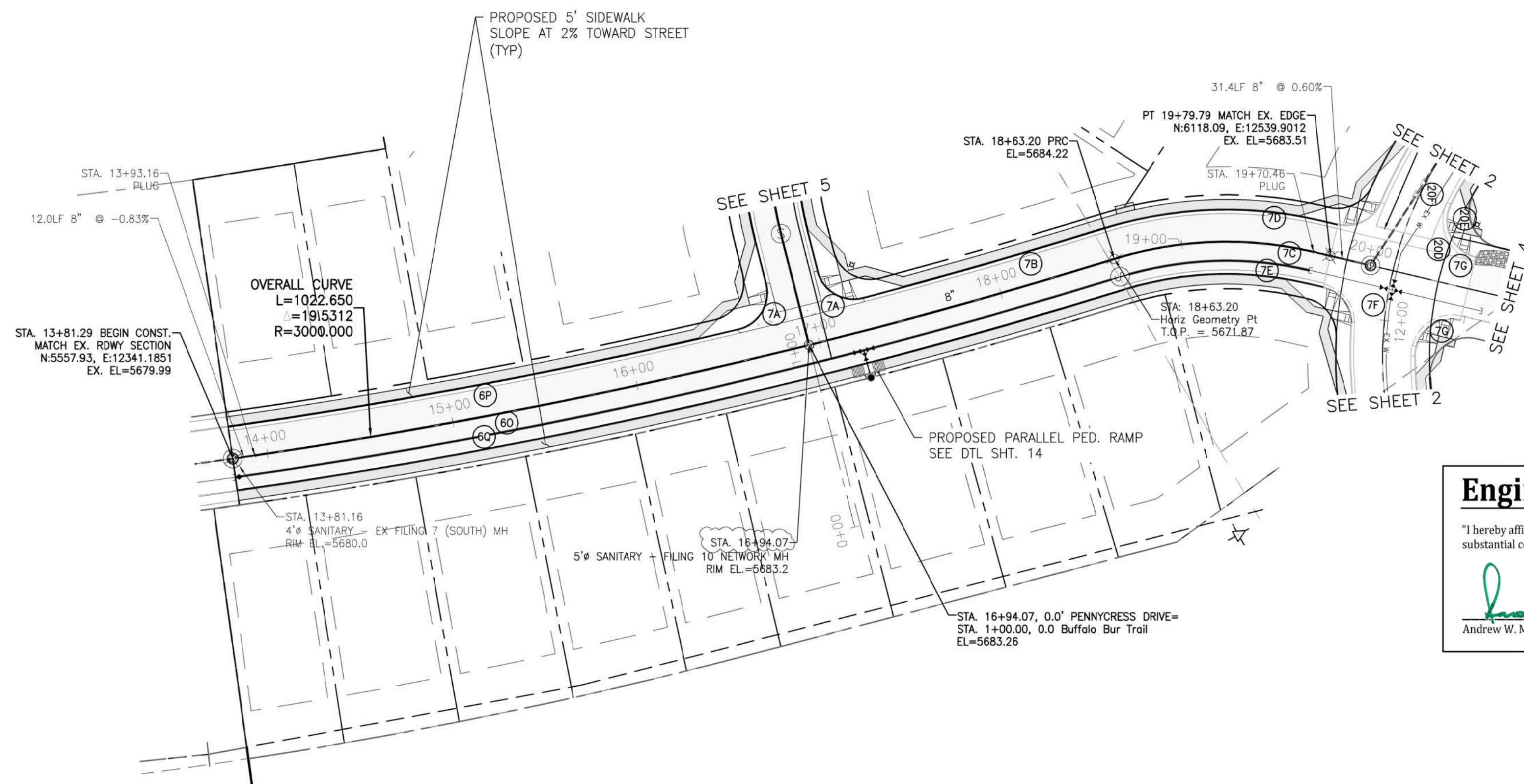
Engineering Record Drawings

"I hereby affirm that the improvements for The Glen at Widefield Filing No. 10 have been constructed in substantial compliance with the Construction Specifications approved by El Paso County."

Andrew W. McCord
Andrew W. McCord, PE
25057
PROFESSIONAL ENGINEER

12/20/2021
Date

CURVE DATA	
6N	$\Delta=90^{\circ}42'56"$ $L=31.87'$ $R=20.00'$
6O	$\Delta=19^{\circ}32'06"$ $L=1022.84'$ $R=3000.00'$
6P	$\Delta=6^{\circ}38'34"$ $L=345.85'$ $R=2983.00'$
6Q	$\Delta=19^{\circ}32'06"$ $L=1028.64'$ $R=3017.00'$
7A	$\Delta=90^{\circ}39'27"$ $L=31.65'$ $R=20.00'$
7B	$\Delta=2^{\circ}34'35"$ $L=134.13'$ $R=2983.00'$
7C	$\Delta=35^{\circ}47'51"$ $L=124.96'$ $R=200.00'$
7D	$\Delta=35^{\circ}47'51"$ $L=135.58'$ $R=217.00'$
7E	$\Delta=35^{\circ}47'51"$ $L=114.34'$ $R=183.00'$
7F	$\Delta=81^{\circ}01'06"$ $L=28.28'$ $R=20.00'$
7G	$\Delta=103^{\circ}07'13"$ $L=36.00'$ $R=20.00'$
20D	$\Delta=47^{\circ}14'18"$ $L=164.89'$ $R=200.00'$
20E	$\Delta=1^{\circ}14'12"$ $L=3.95'$ $R=200.00'$
20F	$\Delta=5^{\circ}22'31"$ $L=20.36'$ $R=217.00'$



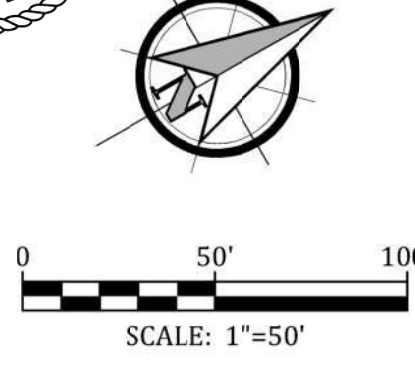
Engineering Record Drawings

"I hereby affirm that the improvements for The Glen at Widefield Filing No. 10 have been constructed in substantial compliance with the Construction Specifications approved by El Paso County."

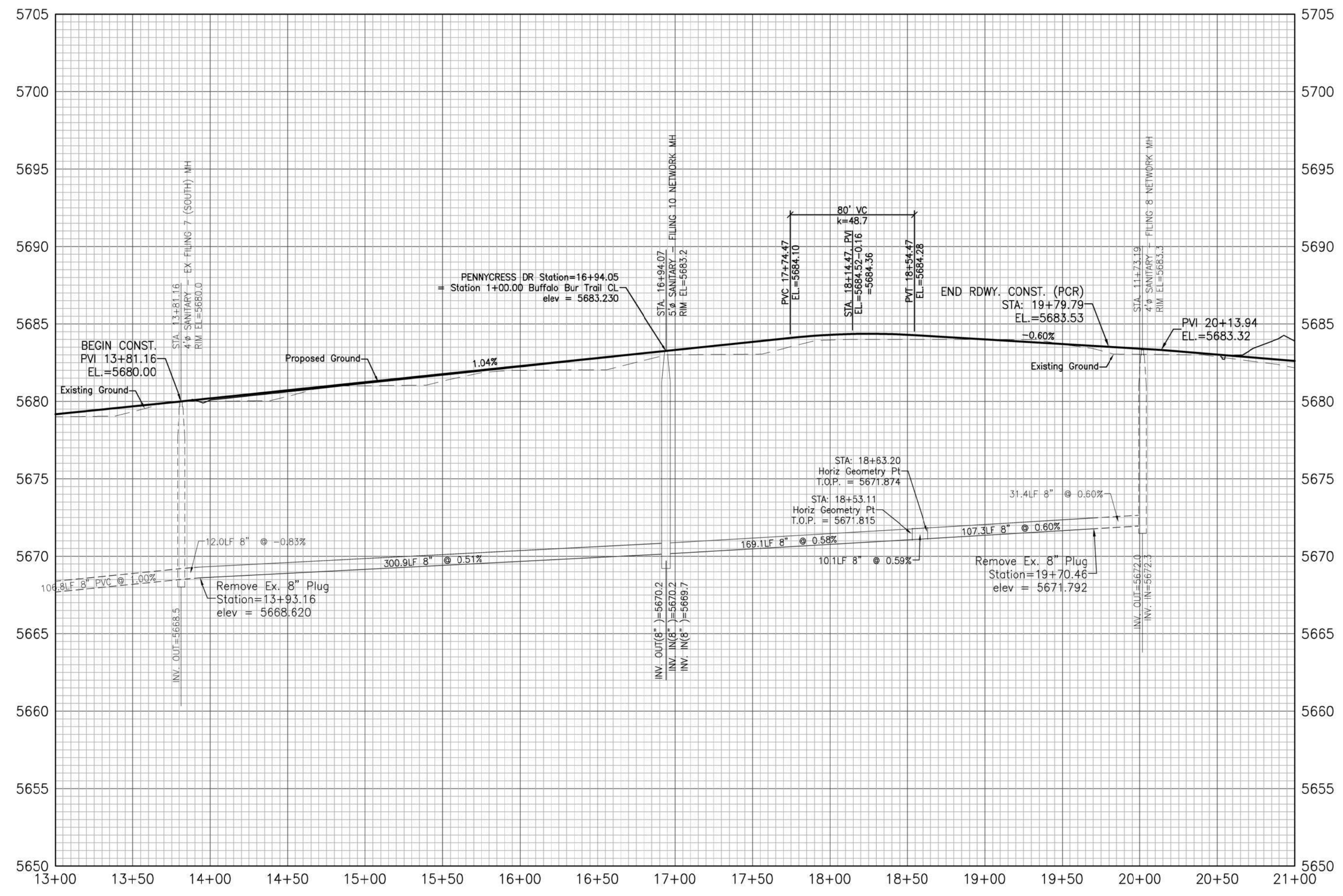
Andrew W. McCord
Andrew W. McCord, PE

25057
PROFESSIONAL ENGINEER

12/20/2021
Date



PROFILE VIEW OF PENNYCREST DRIVE



GLEN AT WIDEFIELD NO. 10
Plan and Profile - Pennycrest
Sta: (13+81.16 to 21+00.00)
EL PASO, COUNTY, COLORADO

Project No.:	19016
Date:	Nov 23, 2020
Design:	MK
Drawn:	MJK
Check:	AWMc
Revisions:	

SHEET
3
3 of 17 Sheets

ERD-19016-GW10-03-PP.dwg/Dec 17, 2021

Kiowa
Engineering Corporation
1604 South 21st Street
Colorado Springs, Colorado 80904
(719) 630-7342

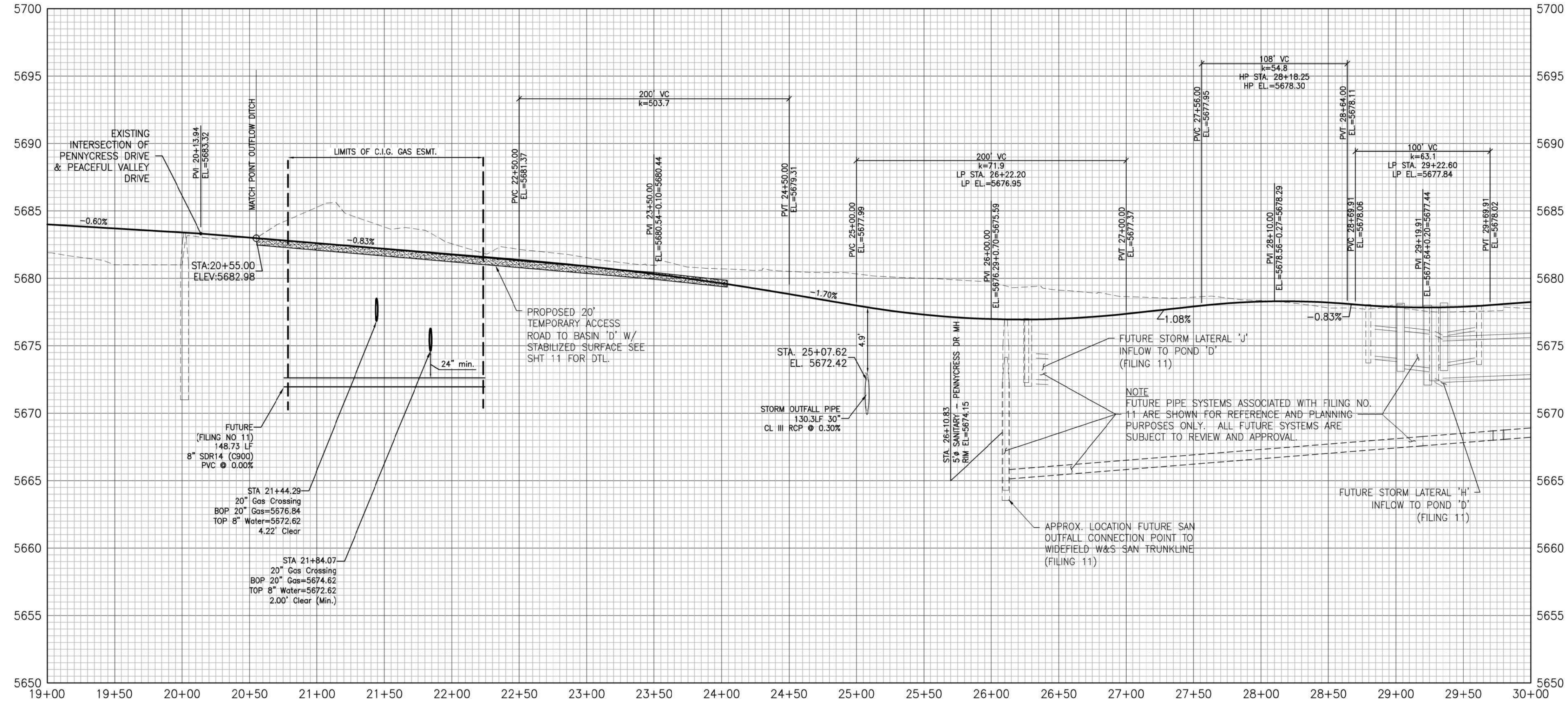
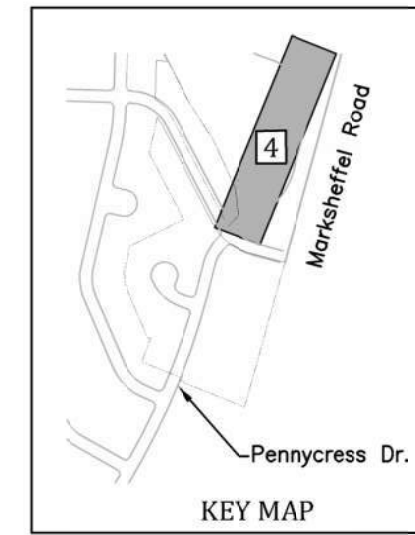
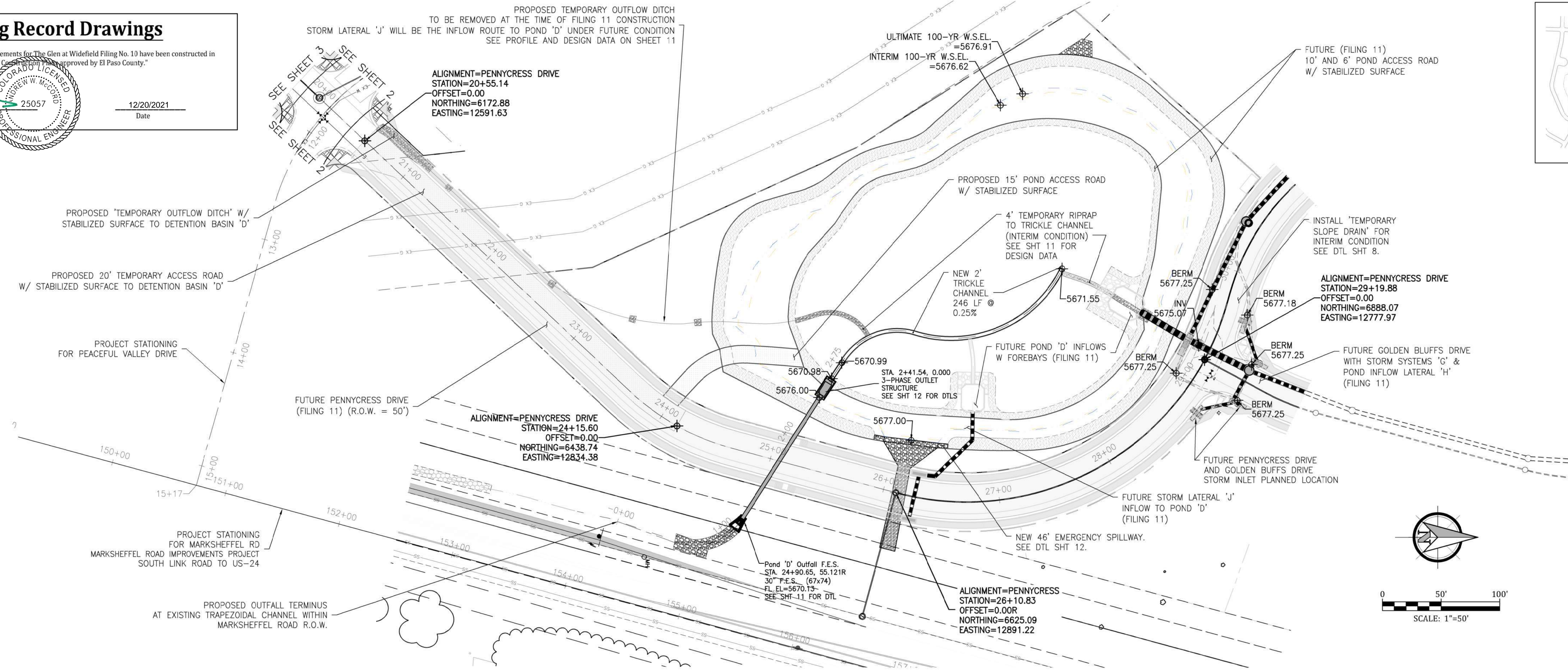
W
WIDEFIELD
Investment Group

Engineering Record Drawings

I hereby affirm that the improvements for The Glen at Widefield Filing No. 10 have been constructed in substantial compliance with the Colorado Department of Transportation approved by El Paso County.



12/20/2021
Date



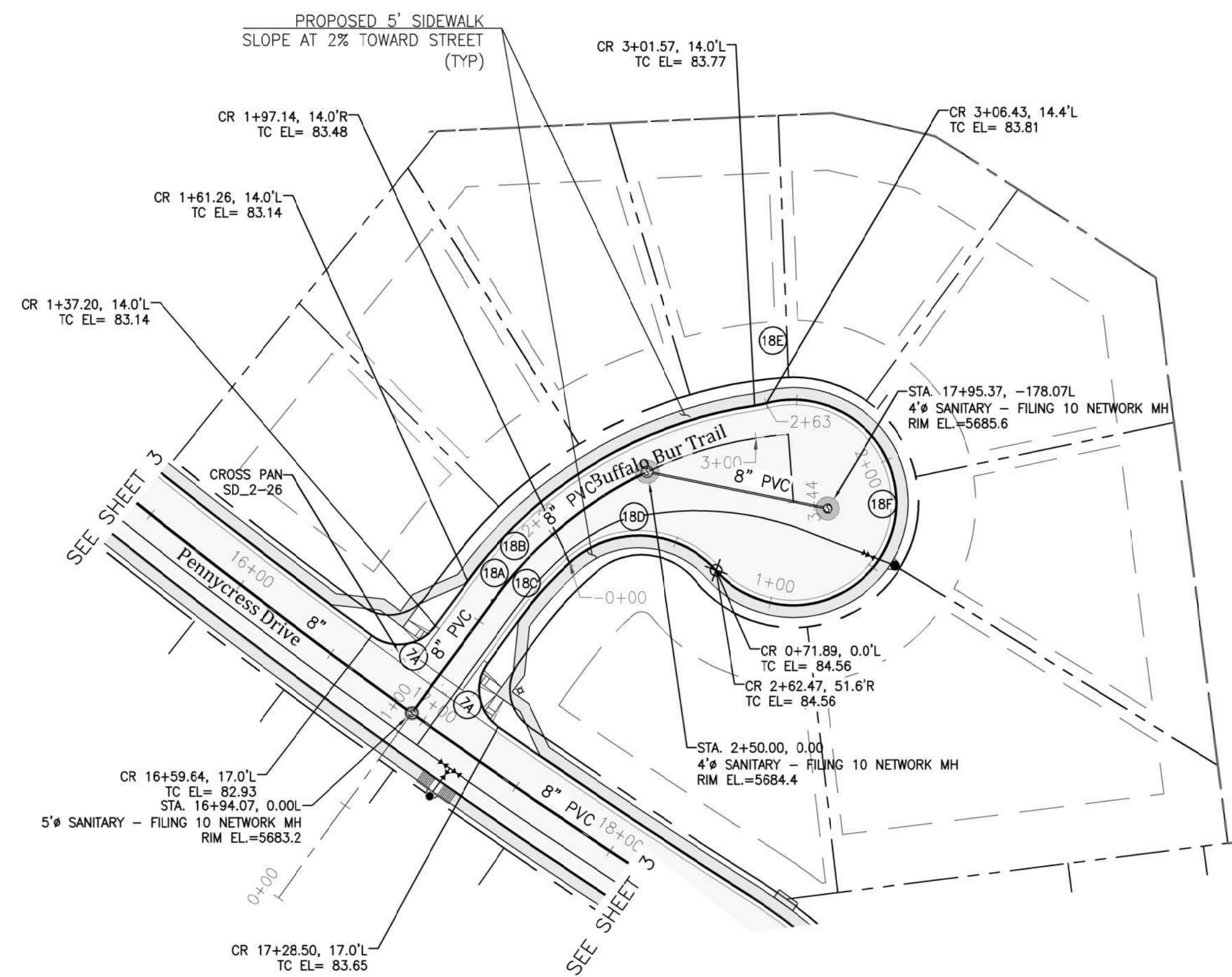
GLEN AT WIDEFIELD NO. 10 Plan and Profile - Future Pennycress Drive Sta: (21+00.00 to 29+19.91) For Reference & Coordination EL PASO, COUNTY, COLORADO

Project No:	19016
Date:	Nov. 23, 2020
Design:	MK
Drawn:	MJK
Check:	AWMc
Revisions:	

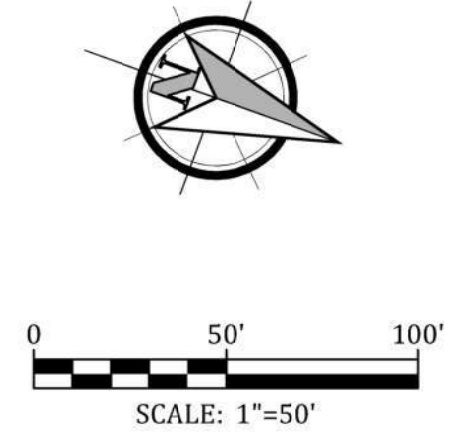
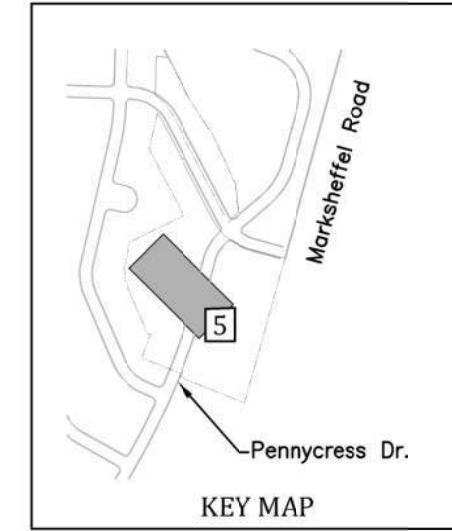
Kiowa
Engineering Corporation
1604 South 21st Street
Colorado Springs, Colorado 80904
(719) 590-7342

W
WIDEFIELD
Investment Group

ERD-19016-GW10-04-PP.dwg/Dec 17, 2021



CURVE DATA	
7A)	Δ=90°39'27" L=31.65' R=20.00'
7B)	Δ=2°34'35" L=134.13' R=2983.00'
8A)	Δ=50°06'35" L=153.05' R=175.00'
8B)	Δ=45°56'06" L=151.52' R=189.00'
8C)	Δ=11°46'17" L=33.08' R=161.00'
8D)	Δ=91°27'26" L=71.83' R=45.00'
8E)	Δ=6°42'57" L=5.27' R=45.00'
8F)	Δ=24°59'01" L=191.62' R=45.00'



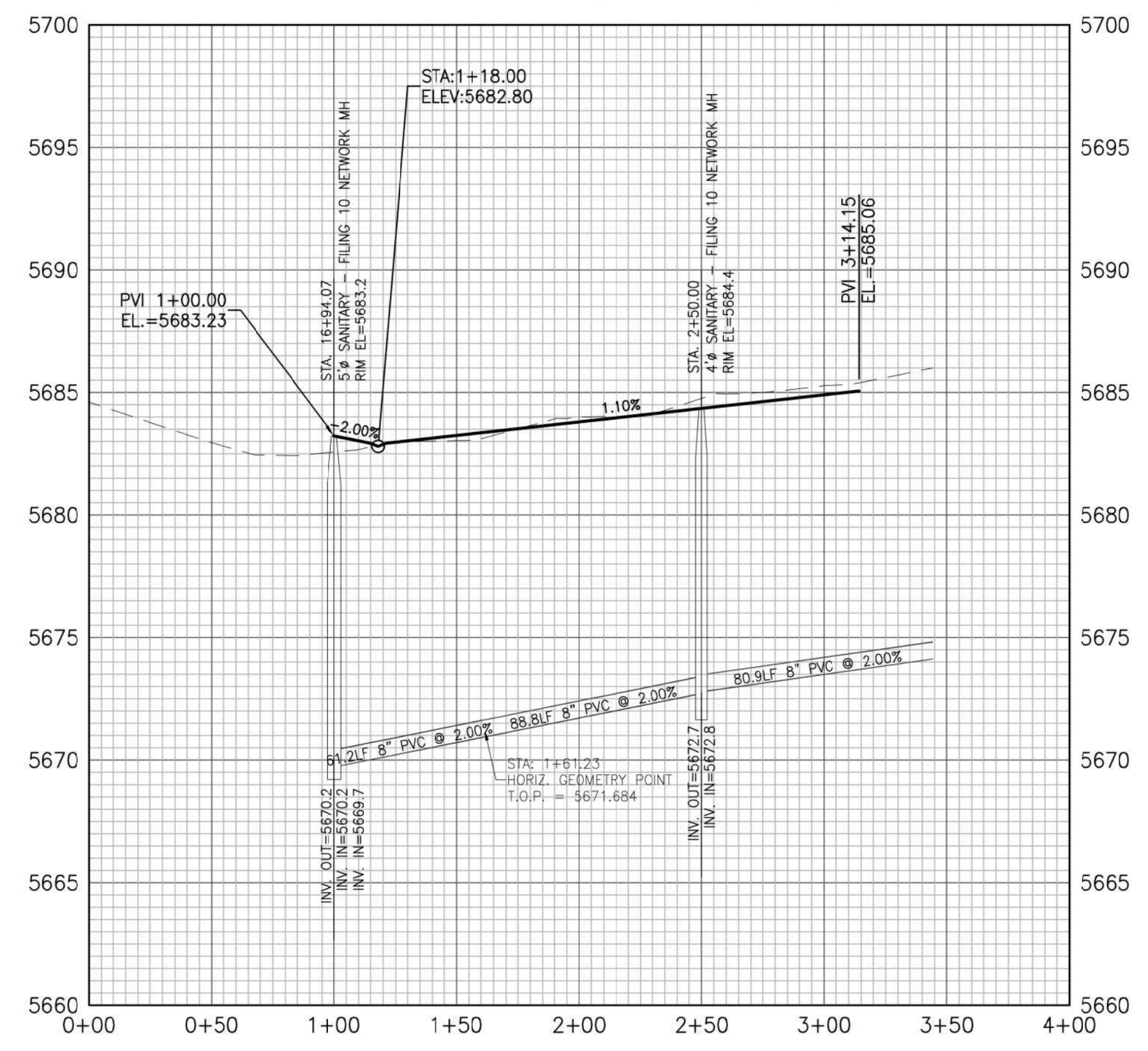
Engineering Record Drawings

"I hereby affirm that the improvements for the Glen at Widefield Filing No. 10 have been constructed in substantial compliance with the City of El Paso, Texas, approved by El Paso County."

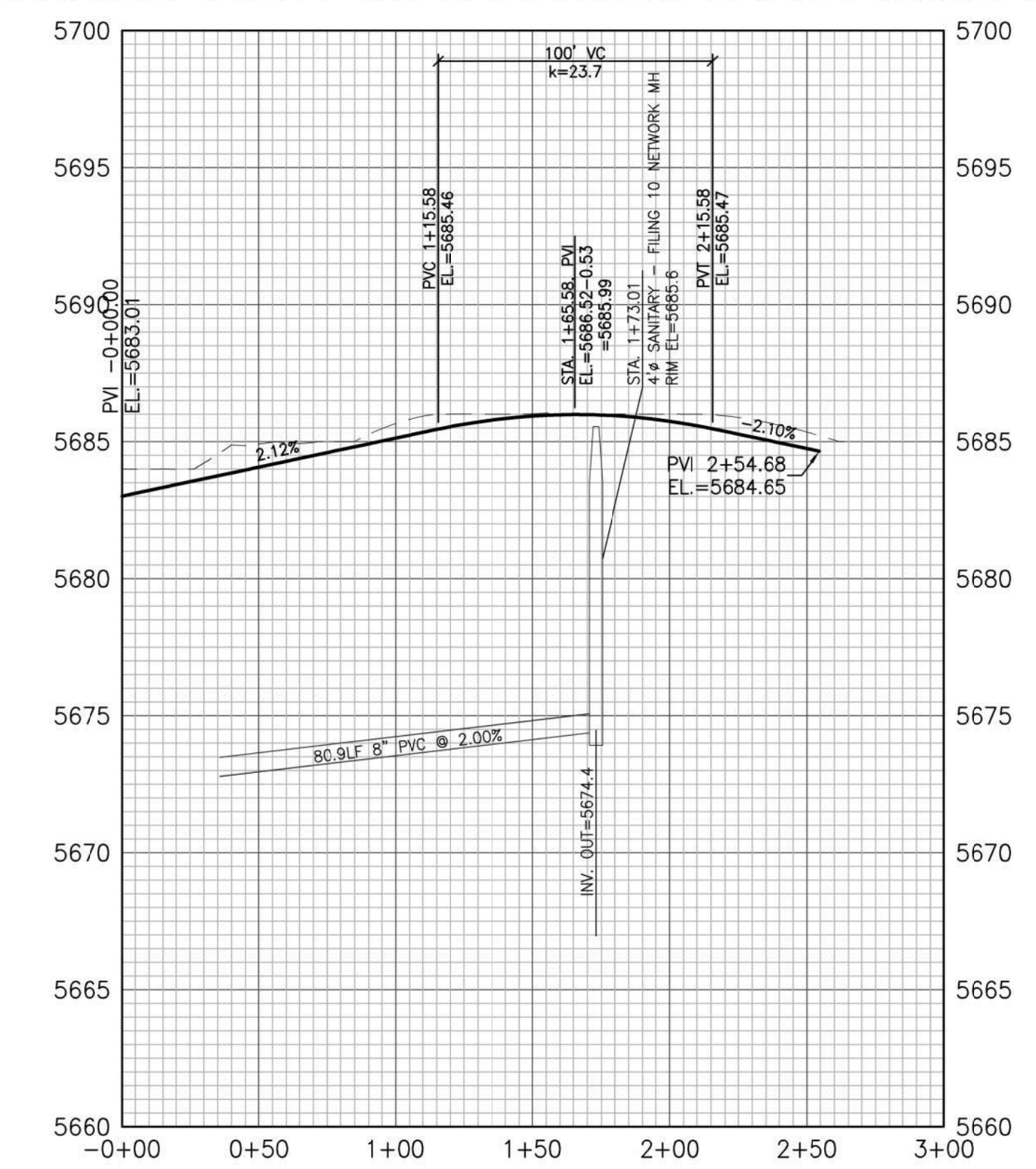
Andrew W. McCorid
Andrew W. McCorid, PE
25057
PROFESSIONAL ENGINEER

12/20/2021
Date

PROFILE VIEW OF BUFFALO BUR TRAIL



PROFILE VIEW OF BUFFALO BUR TRAIL CDS



GLEN AT WIDEFIELD NO. 9
Plan and Profile - Buffalo Bur Trail
Sta: (0+00 to 3+44.00)
EL PASO, COUNTY, COLORADO

Project No.:	19016
Date:	Nov. 23, 2020
Design:	MK
Drawn:	MJK
Check:	AWMc
Revisions:	

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5
6 of 17 Sheets

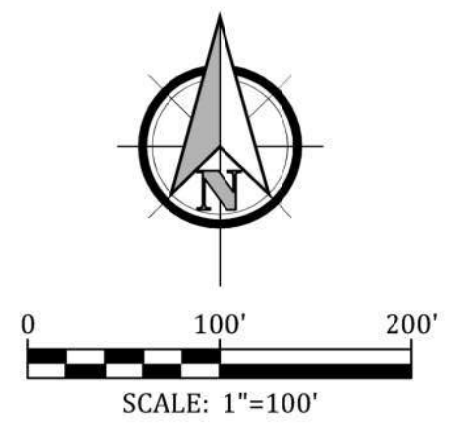
- Signing and Striping Notes:**
- All signs and pavement markings shall be in compliance with the current Manual on Uniform Traffic Control Devices (MUTCD).
 - Removal of existing pavement markings shall be accomplished by a method that does not materially damage the pavement. The pavement markings shall be removed to the extent that they will not be visible under day or night conditions. At no time will it be acceptable to paint over existing pavement markings.
 - Any deviation from the striping and signing plan shall be approved by El Paso County Planning and Community Development.
 - All signs shown on the signing and striping plan shall be new signs. Existing signs may remain or be reused if they meet current El Paso County and MUTCD standards.
 - Street name and regulatory stop signs shall be on the same post at intersections.
 - All removed signs shall be disposed of in a proper manner by the contractor.
 - All street name signs shall have "D" series letters, with local roadway signs being 4" upper-lower case lettering on 8" blank and non-local roadway signs being 6" lettering, upper-lower case on 12" blank, with a white border that is not recessed. Multi-lane roadways with speed limits of 40 mph or higher shall have 8" upper-lower case lettering on 18" blank with a white border that is not recessed. The width of the non-recessed white borders shall match page 255 of the 2012 MUTCD "Standard Highway Signs".
 - All traffic signs shall have a minimum High Intensity Prismatic grade sheeting.
 - All local residential street signs shall be mounted on a 1.75" x 1.75" square tube sign post and stub post base. For other applications, refer to the CDOT Standard S-614-B regarding use of the P2 tubular steel post splaybase design.
 - All signs shall be single sheet aluminum with 0.100" minimum thickness.
 - All limit lines/stop lines, crosswalk lines, pavement legends, and arrows shall be a minimum 125 mil thickness preformed thermoplastic pavement markings with tapered leading edges per CDOT Standard S-627-1. Word and symbol markings shall be the narrow type. Stop bars shall be 24" in width. Crosswalk lines shall be 12" wide and 8' long per CDOT S-627-1.
 - All longitudinal lines shall be a minimum 15mil thickness epoxy paint. All non-local residential roadways shall include both right and left edge line striping and any additional striping as required by CDOT S-627-1.
 - The contractor shall notify El Paso County Planning & Community Development (719) 520-6819 prior to and upon completion of signing and striping.
 - The contractor shall obtain a work in the right of way permit from the El Paso County Department of Public Works (DPW) prior to any signage or striping work within an existing El Paso County roadway.

- General Notes:**
- Before excavating, contractor shall verify location of underground utilities.
 - Contractor shall be responsible for any monumentation and/or benchmarks which will be disturbed or destroyed by construction. Such points shall be referenced and replaced with appropriate monumentation by a registered professional authorized to practice land surveying.
 - Approval of these plans by the County does not authorize any work to be performed until a permit has been issued.
 - The approval of these plans or issuance of a permit by El Paso County does not authorize the contractor, subcontractor, or owner to violate any Federal, State, or City laws, ordinances, regulations, or policies.
 - The contractor shall be responsible for all new, temporary and existing traffic signs from the start of the construction project until acceptance by El Paso County.
 - All traffic signs, pavement, and traffic signals shall meet or exceed M.U.T.C.D. Standards.
 - The contractor shall not remove any existing signs, pavement markings or traffic signals during the project without authorization of the Engineering Inspector assigned to the project.
 - The contractor shall prepare a detailed Traffic Control Plan, submit to El Paso County for approval, and obtain appropriate permits.
 - The contractor shall be responsible for all work zone traffic control. The contractor shall be responsible for furnishing, installing and maintaining the temporary traffic control devices throughout the duration of the project.

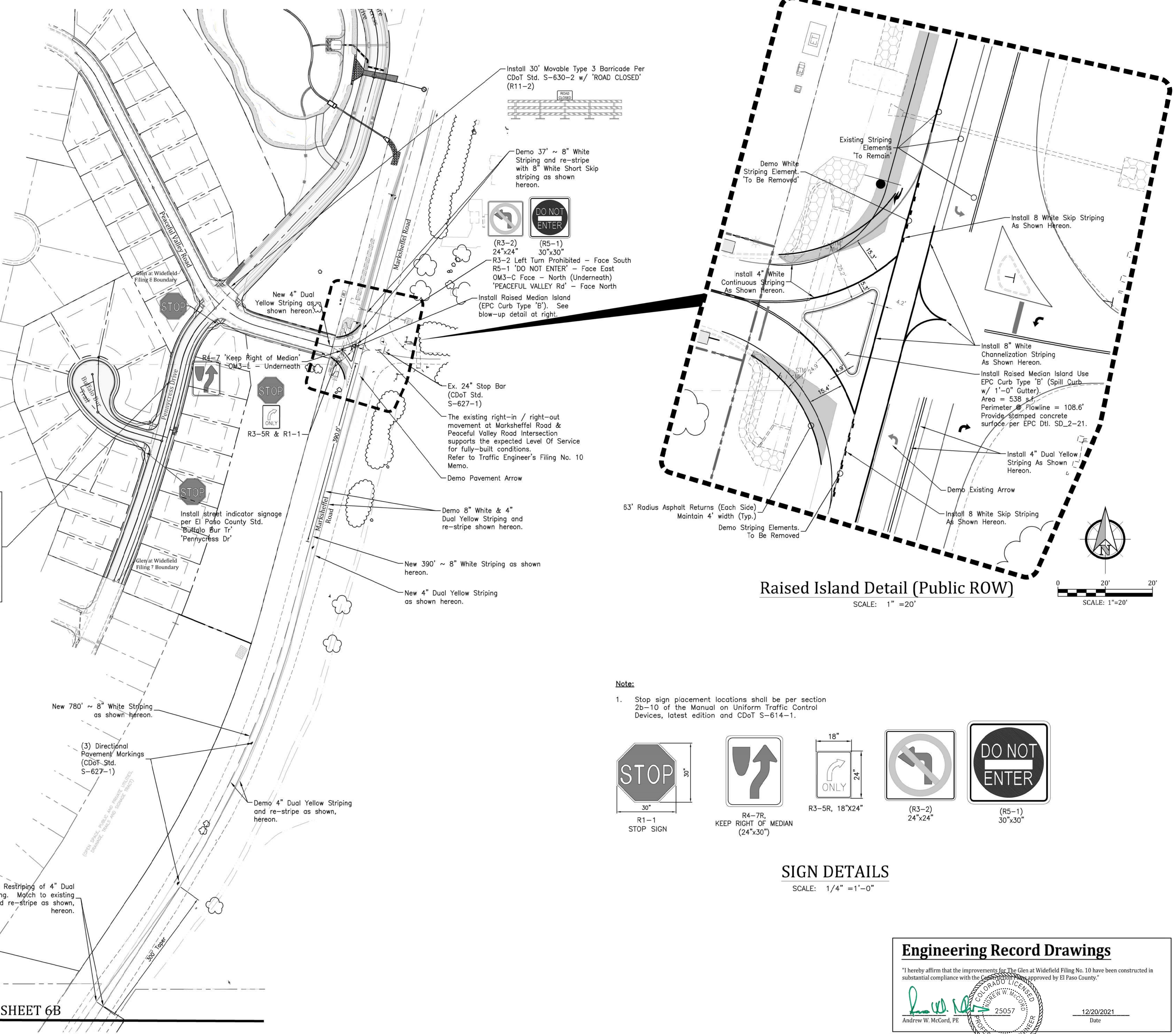
Install 4'x10' Conc. Pad for Type 3 Cluster Mail Kiosk (2-16 box and 1-8 box w/ breakaway base)

Note:
Roadway Classification is 'Urban Residential/Local Residential'. The Design Speed=25 mph. Roadway has a design speed of 25 mph. The Postmaster's authorized representative has approved both the location and the type of mailboxes.

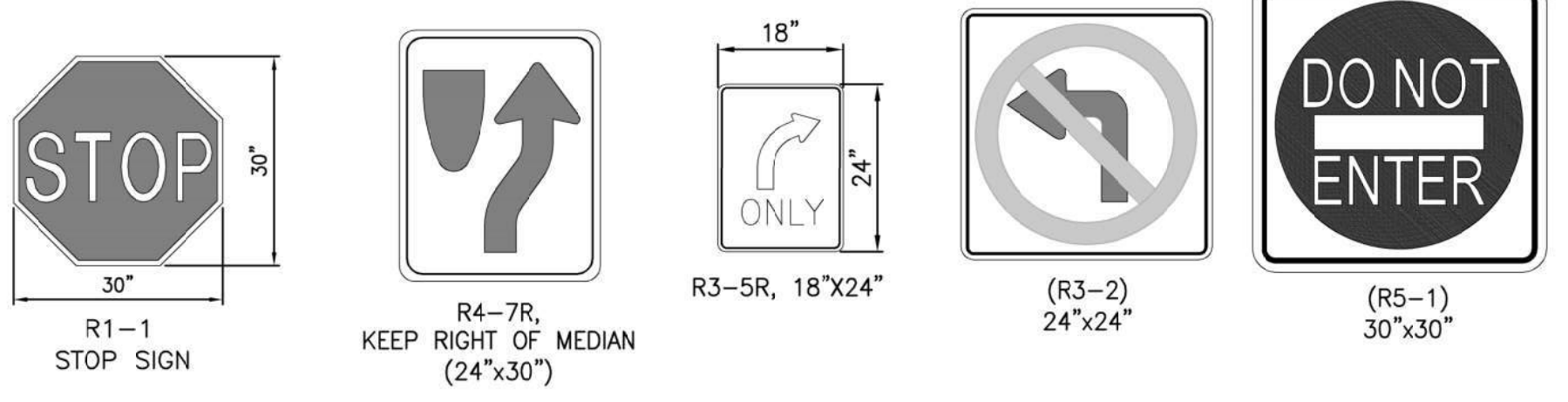
signed _____ date _____



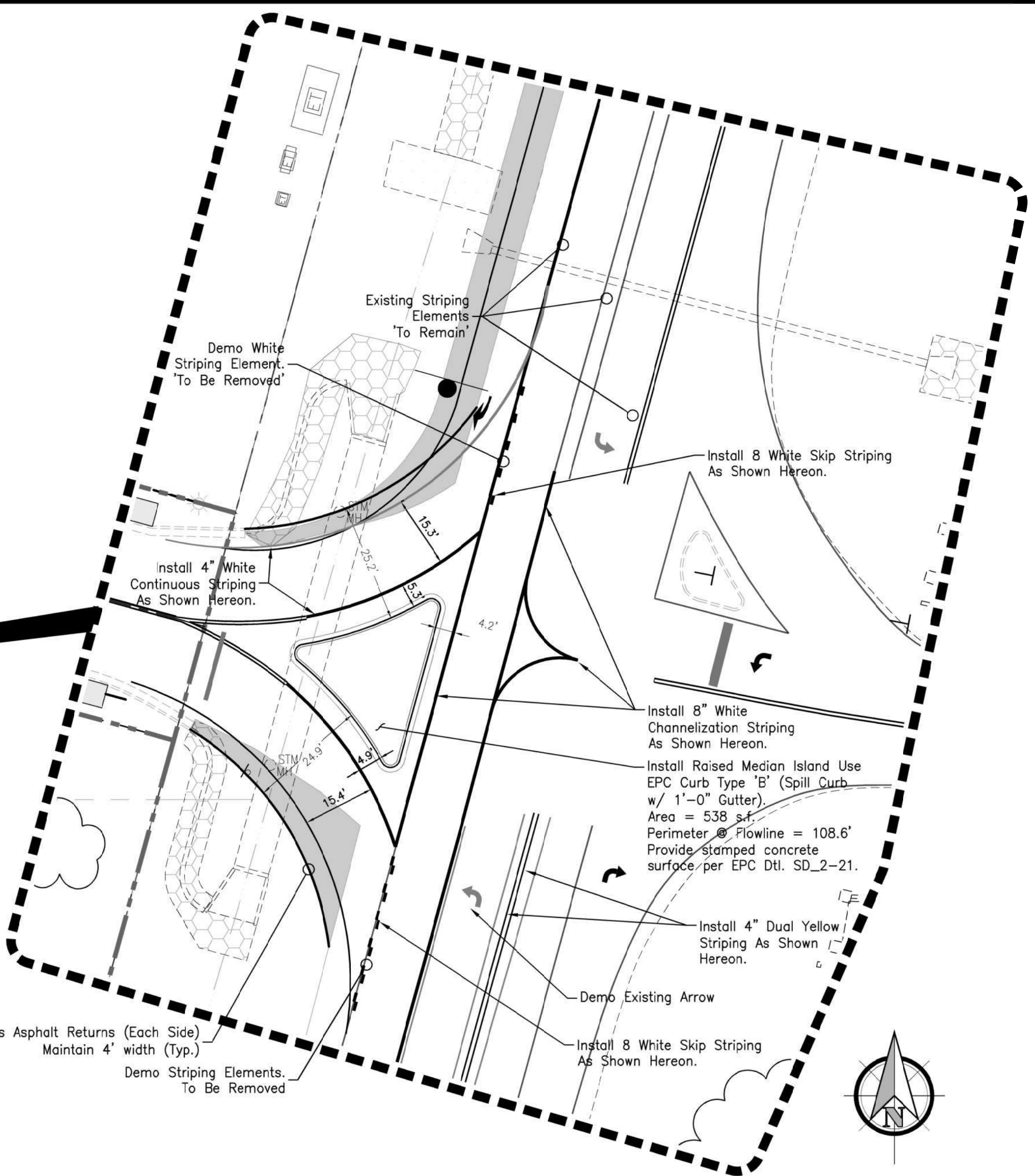
MATCHLINE SHEET 6B



- Note:**
- Stop sign placement locations shall be per section 2b-10 of the Manual on Uniform Traffic Control Devices, latest edition and CDOT S-614-1.



SIGN DETAILS
SCALE: 1/4" = 1'-0"



Raised Island Detail (Public ROW)
SCALE: 1" = 20"

Project No.:	19016
Date:	Nov 23, 2020
Design:	MJK
Drawn:	MJK
Check:	AWMc
Revisions:	

Engineering Record Drawings

"I hereby affirm that the improvements for The Glen at Widefield Filing No. 10 have been constructed in substantial compliance with the City of Colorado Springs and approved by El Paso County."

Andrew W. McCord, PE
12/20/2021
Date

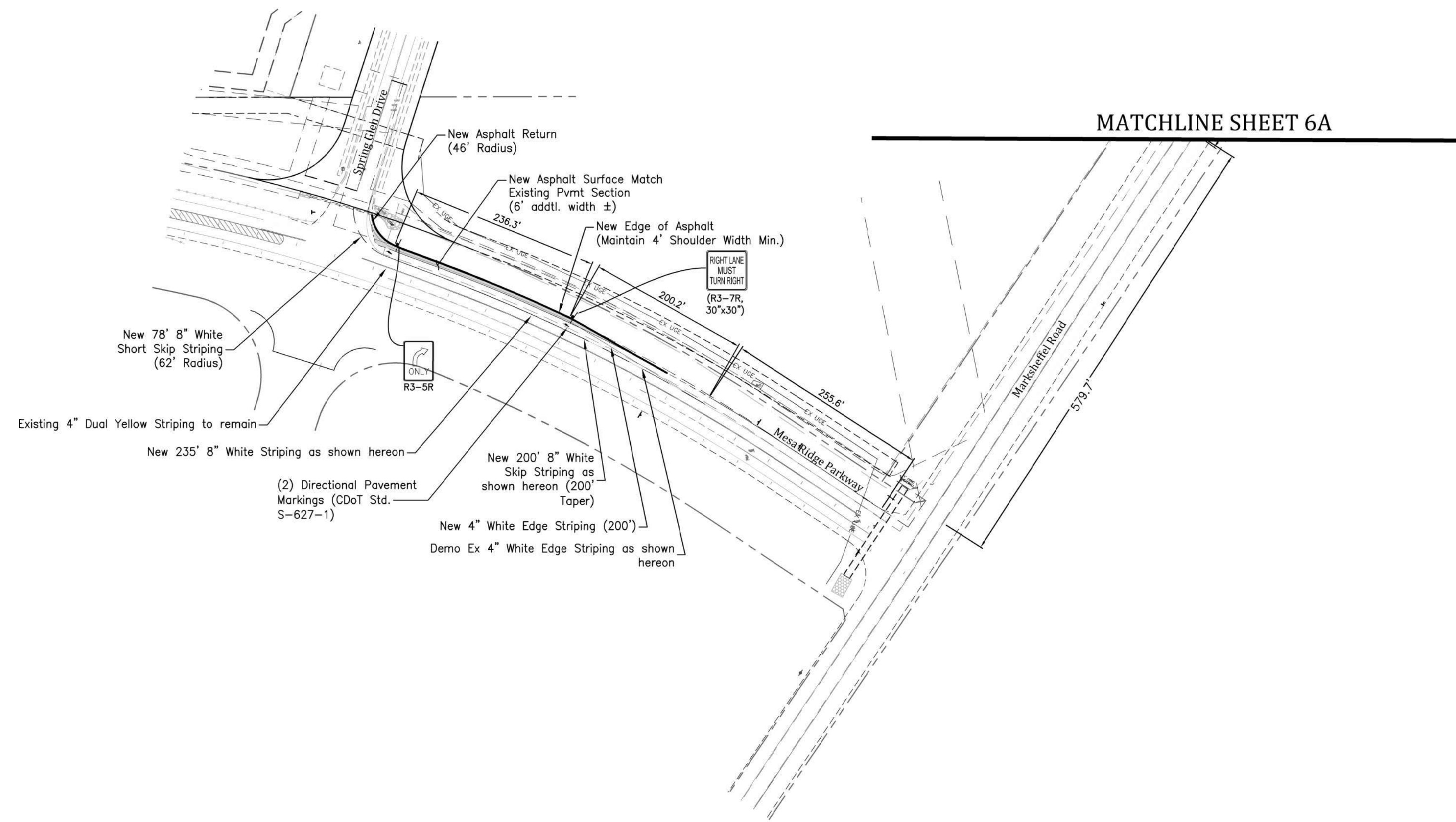
GLEN AT WIDEFIELD NO. 10
SIGNING & STRIPING PLAN
Mesa Ridge Parkway & Spring Glen Drive (Public ROW)
EL PASO, COUNTY

Project No.:	19016
Date:	Feb 12, 2021
Design:	MJK
Drawn:	MJK
Check:	AWMc
Revisions:	

SHEET

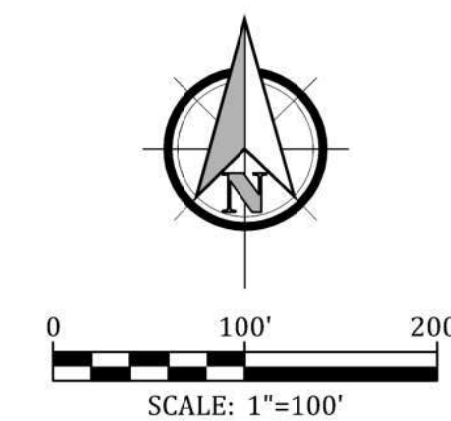
6B

8 of 17 Sheets



Modified Striping for Mesa Ridge Parkway & Spring Glen Drive
(Public ROW)

SCALE: 1" = 100'



Signing and Striping Notes:

- All signs and pavement markings shall be in compliance with the current Manual on Uniform Traffic Control Devices (MUTCD).
- Removal of existing pavement markings shall be accomplished by a method that does not materially damage the pavement. The pavement markings shall be removed to the extent that they will not be visible under day or night conditions. At no time will it be acceptable to paint over existing pavement markings.
- Any deviation from the striping and signing plan shall be approved by El Paso County Planning and Community Development.
- All signs shown on the signing and striping plan shall be new signs. Existing signs may remain or be reused if they meet current El Paso County and MUTCD standards.
- Street name and regulatory stop signs shall be on the same post at intersections.
- All removed signs shall be disposed of in a proper manner by the contractor.
- All street name signs shall have "D" series letters, with local roadway signs being 4" upper-lower case lettering on 8" blank and non-local roadway signs being 6" lettering, upper-lower case on 12" blank, with a white border that is not recessed. Multi-lane roadways with speed limits of 40 mph or higher shall have 8" upper-lower case lettering on 18" blank with a white border that is not recessed. The width of the non-recessed white borders shall match page 255 of the 2012 MUTCD "Standard Highway Signs".
- All traffic signs shall have a minimum High Intensity Prismatic grade sheeting.
- All local residential street signs shall be mounted on a 1.75" x 1.75" square tube sign post and stub post base. For other applications, refer to the CDOT Standard S-614-8 regarding use of the P2 tubular steel post slipbase design.
- All signs shall be single sheet aluminum with 0.100" minimum thickness.
- All limit lines/stop lines, crosswalk lines, pavement legends, and arrows shall be a minimum 125 mil thickness preformed thermoplastic pavement markings with tapered leading edges per CDOT Standard S-627-1. Word and symbol markings shall be the narrow type. Stop bars shall be 24" in width. Crosswalk lines shall be 12" wide and 8' long per CDOT S-627-1.
- All longitudinal lines shall be a minimum 15mil thickness epoxy paint. All non-local residential roadways shall include both right and left edge line striping and any additional striping as required by CDOT S-627-1.
- The contractor shall notify El Paso County Planning & Community Development (719) 520-6819 prior to and upon completion of signing and striping.
- The contractor shall obtain a work in the right of way permit from the El Paso County Department of Public Works (DPW) prior to any signage or striping work within an existing El Paso County roadway.

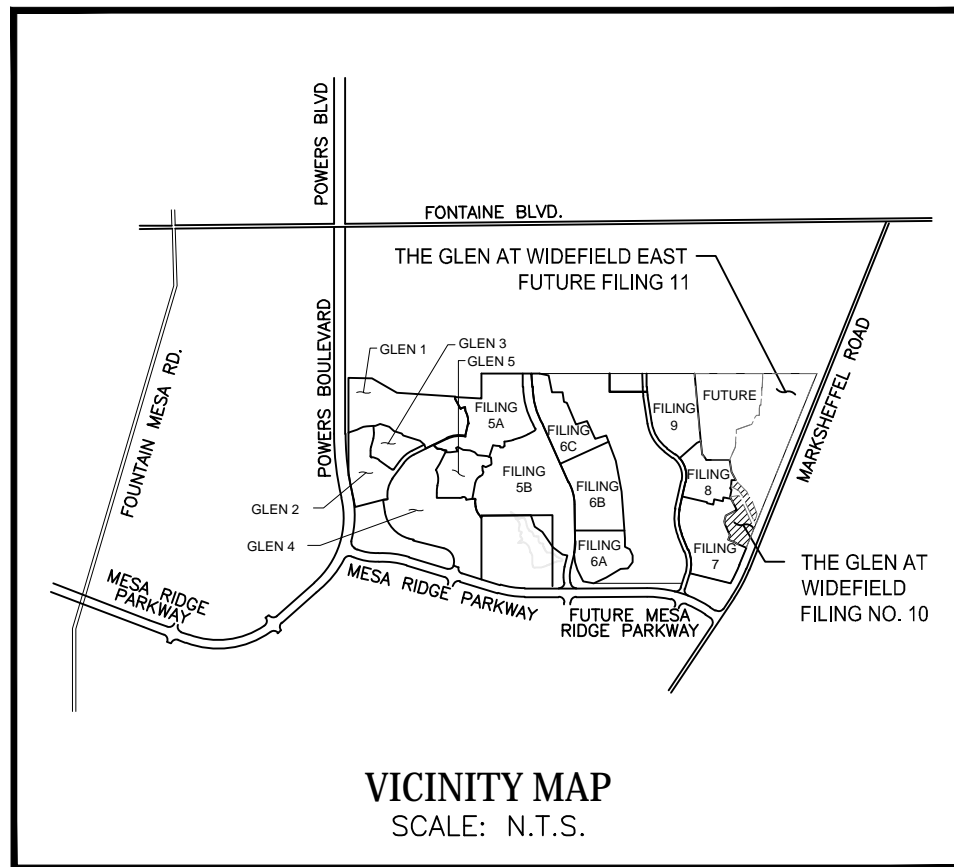
General Notes:

- Before excavating, contractor shall verify location of underground utilities.
- Contractor shall be responsible for any monumentation and/or benchmarks which will be disturbed or destroyed by construction. Such points shall be referenced and replaced with appropriate monumentation by a registered professional authorized to practice land surveying.
- Approval of these plans by the County does not authorize any work to be performed until a permit has been issued.
- The approval of these plans or issuance of a permit by El Paso County does not authorize the contractor, subdivider, or owner to violate any Federal, State, or City laws, ordinances, regulations, or policies.
- The contractor shall be responsible for all new, temporary and existing traffic signs from the start of the construction project until acceptance by El Paso County.
- All traffic signs, pavement, and traffic signals shall meet or exceed M.U.T.C.D. Standards.
- The contractor shall not remove any existing signs, pavement markings or traffic signals during the project without authorization of the Engineering Inspector assigned to the project.
- The contractor shall prepare a detailed Traffic Control Plan, submit to El Paso County for approval, and obtain appropriate permits.
- The contractor shall be responsible for all work zone traffic control. The contractor shall be responsible for furnishing, installing and maintaining the temporary traffic control devices throughout the duration of the project.

Engineering Record Drawings

"I hereby affirm that the improvements for The Glen at Widefield Filing No. 10 have been constructed in substantial compliance with the approved plans approved by El Paso County."

Andrew W. McCord
Andrew W. McCord, PE
25057
PROFESSIONAL ENGINEER
COLORADO LICENSED
12/20/2021
Date



EXISTING PEACEFUL VALLEY ROAD IS INSTALLED TO MARKSCHEFFEL ROAD, BUT WITHOUT SIDEWALKS AND RAMPS. MATCH SIDEWALK ASSEMBLY LEFT & RIGHT AND INSTALL 5' CONCRETE SIDEWALKS @ 2% SLOPE TOWARDS STREET SECTION FEATHER GRADING AT OVERLOT AREAS TO BACK OF WALK TO AVOID RETAINING STORMWATER ON INDIVIDUAL LOTS (TYP.) SEE SHEET 2 FOR STREET PLAN & PROFILE DESIGN DATA

SEED MIX			
AREAS DISTURBED BY THE EARTHWORK ACTIVITIES AND NOT RECEIVING OTHER TREATMENT SHALL BE PERMANENTLY REVEGETATED WITH THE FOLLOWING SEED MIX.			
SPECIES	VARIETY	PLS/ACRE	
SIDEGRASS GRAMA	<i>El Reno</i>	3.0	
WESTERN WHEAT GRASS	<i>Barton</i>	2.5	
SLENDER WHEAT GRASS	<i>Native</i>	2.0	
LITTLE BLUESTEM	<i>Pastura</i>	2.0	
SAND DROPSEED	<i>Native</i>	0.5	
SWITCH GRASS	<i>Nebraska 28</i>	3.0	
WEeping LOVE GRASS	<i>Morpha</i>	1.0	
		14.0 lbs	
SEEDING APPLICATION: DRILL SEED 1/4" TO 1/2" INTO TOPSOIL. IN AREAS INACCESSIBLE TO A DRILL, HAND BROADCAST AT DOUBLE THE RATE AND RAKE 1/4" TO 1/2" INTO THE TOPSOIL. MULCHING APPLICATION: 1-1/2 TONS NATIVE HAY PER ACRE, MECHANICALLY CRIMPED INTO THE TOPSOIL.			

EROSION CONTROL INSPECTION AND MAINTENANCE

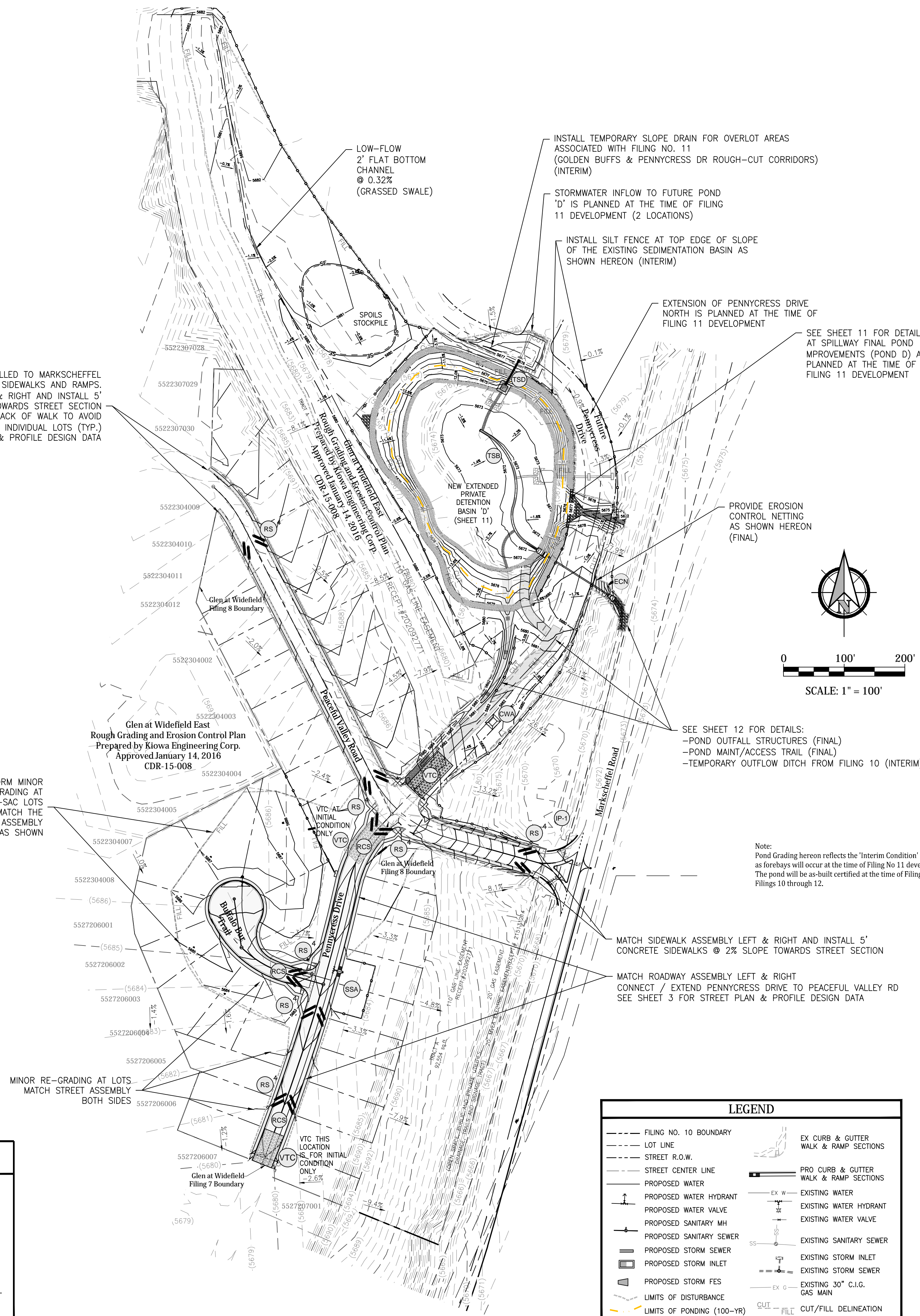
A THOROUGH INSPECTION OF THE EROSION CONTROL PLAN/STORMWATER MANAGEMENT SYSTEM SHALL BE PERFORMED EVERY 14 DAYS AS WELL AS AFTER ANY RAIN OR SNOWMELT EVENT THAT CAUSES SURFACE EROSION:

- WHEN STRAW BALE BARRIERS HAVE SILTED UP TO HALF THEIR HEIGHT, THE SILT SHALL BE REMOVED, FINAL GRADE REESTABLISHED AND SLOPES RESEDED IF NECESSARY. ANY STRAW BALES THAT HAVE SHIFTED OR DECAYED SHALL BE REPAIRED OR REPLACED.
- ANY ACCUMULATED TRASH OR DEBRIS SHALL BE REMOVED FROM OUTLETS. AN INSPECTION AND MAINTENANCE LOG SHALL BE KEPT.

SHADED AREA DENOTES PERMANENT EROSION BLANKET. CURLEY HEAVY DUTY EROSION CONTROL BLANKET BY AMERICAN EXCELSIOR OR EQUAL SHALL BE USED.

EROSION CONTROL LEGEND	PHASE
[Symbol] SILT FENCE	(INITIAL)
[Symbol] VEHICLE TRACKING CONTROL	(INITIAL)
[Symbol] INLET PROTECTION	(INITIAL) / (INTERIM)
[Symbol] TEMPORARY SLOPE DRAIN	(INITIAL) / (INTERIM)
[Symbol] EROSION CONTROL NETTING	(INTERIM) / (FINAL)
[Symbol] ROUGH-CUT STREET CONTROL	(INITIAL) / (INTERIM)
[Symbol] CONCRETE WASHOUT AREA	(INITIAL) / (INTERIM)
[Symbol] ROCK SOCK(S) (COUNT)	(INITIAL) / (INTERIM)
[Symbol] STABILIZED STAGING AREA	(INITIAL) / (INTERIM)

OPINION OF COST FOR EROSION CONTROL REQUIREMENTS				
Additional Erosion Control for Glen at Widefield Filing No. 10				
ITEM	QUANTITY	UNITS	PRICE	AMOUNT
PERMANENT SEEDING	3.0	AC	\$800	\$2,400.00
PERMANENT E.C. BLANKET	1,196	SY	\$6	\$7,160.00
VEHICLE TRACKING CONTROL	3	EA	\$2,370	\$7,110.00
INLET PROTECTION	2	EA	\$167	\$334.00
CONCRETE WASHOUT BASIN	1	EA	\$900	\$900.00
ROUGH CUT STREET CONTROL	1,170	LF	\$2	\$2,340.00
SILT FENCING	3,122	LF	\$2.50	\$7,805.00
			TOTAL	\$25,679.00



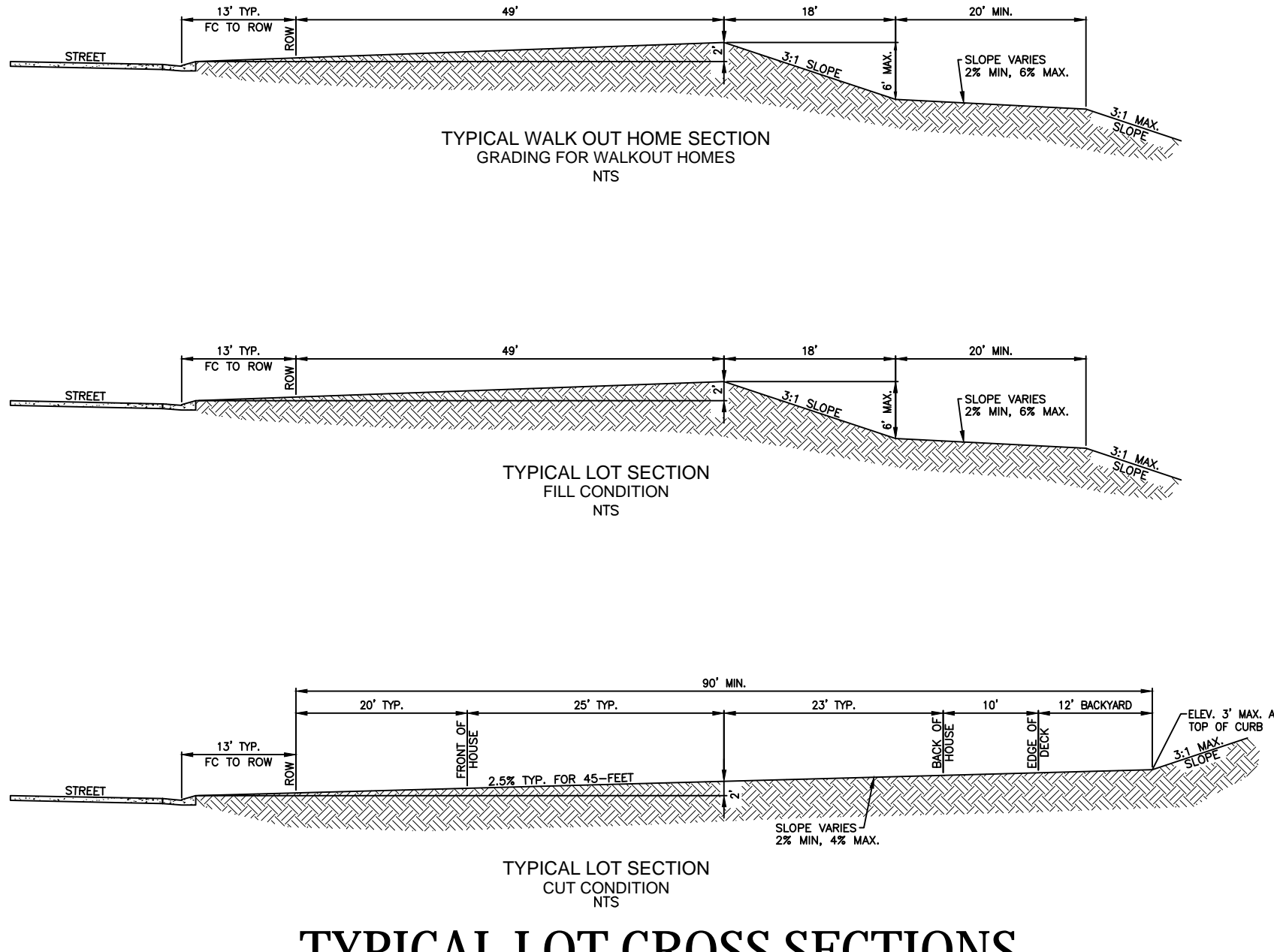
PROJECT SPECIFIC GRADING AND EROSION CONTROL NOTES

- Stormwater discharges from construction sites shall not cause or threaten to cause pollution, contamination, or degradation of State Waters. All work and earth disturbance shall be done in a manner that minimizes pollution of any on-site or off-site waters, including wetlands.
- Notwithstanding anything depicted in these plans in words or graphic representation, all design and construction related to roads, storm drainage and erosion control shall conform to the standards and requirements of the most recent version of the relevant adopted El Paso County standards, including the Land Development Code, the Engineering Criteria Manual, the Drainage Criteria Manual, and the Drainage Criteria Manual Volume 2. Any deviations from regulations and standards must be requested, and approved, in writing.
- A separate Stormwater Management Plan (SMWP) for this project shall be completed and an Erosion and Stormwater Quality Control Permit (ESQCP) issued prior to commencing construction. Management of the SMWP during construction is the responsibility of the designated Qualified Stormwater Manager or Certified Erosion Control Inspector. The SMWP shall be located on site at all times during construction and shall be kept up to date with work progress and changes in the field.
- Once the ESQCP is approved and a "Notice to Proceed" has been issued, the contractor may install the initial stage erosion and sediment control measures as indicated on the approved EEC. A Preconstruction Meeting between the contractor, engineer, and El Paso County will be held prior to any construction. It is the responsibility of the applicant to coordinate the meeting time and place with County staff.
- Control measures must be installed prior to commencement of activities that could contribute pollutants to stormwater. Control measures for all slopes, channels, ditches, and disturbed land areas shall be installed immediately upon completion of the disturbance.
- All temporary sediment and erosion control measures shall be maintained and remain in effective operating condition until permanent soil erosion control measures are implemented and final stabilization is established. All persons engaged in land disturbance activities shall assess the adequacy of control measures at the site and identify if changes to those control measures are needed to ensure the continued effective performance of the control measures. All changes to temporary sediment and erosion control measures must be incorporated into the Stormwater Management Plan.
- Temporary stabilization shall be implemented on disturbed areas and stockpiles where ground disturbing construction activity has permanently ceased or temporarily ceased for longer than 14 days.
- Final stabilization must be implemented at all applicable construction sites. Final stabilization is achieved when all ground disturbing activities are complete and all disturbed areas either have a uniform vegetative cover with individual plant density of 70 percent of pre-disturbance levels established or equivalent permanent alternative stabilization method is implemented. All temporary sediment and erosion control measures shall be removed upon final stabilization.
- All permanent stormwater management facilities shall be installed as designed in the approved plans. Any proposed changes that affect the design or function of permanent stormwater management structures must be approved by the ECM Administrator prior to implementation.
- Earth disturbances shall be conducted in such a manner so as to effectively minimize accelerated soil erosion and resulting sedimentation. All disturbances shall be designed, constructed, and completed so that the exposed area of any disturbed land shall be limited to the shortest practical period of time. Pre-existing vegetation shall be protected and maintained within 50 horizontal feet of a water's of the state unless shown to be infeasible and specifically requested and approved.
- Compaction of soil must be prevented in areas designated for infiltration control measures or where final stabilization will be achieved by vegetative cover. Areas designated for infiltration control measures shall also be protected from sedimentation during construction until final stabilization is achieved. If compaction prevention is not feasible due to site constraints, all areas designated for infiltration and vegetation control measures must be loosened prior to installation of the control measure(s).
- Any temporary or permanent facility designed and constructed for the conveyance of stormwater around, through, or from the earth disturbance area shall be a stabilized conveyance designed to minimize erosion and the discharge of sediment off site.
- Concrete wash water shall be contained and disposed of in accordance with the SMWP. No wash water shall be discharged to or allowed to enter State Waters, including any surface or subsurface storm drainage system or facilities. Concrete washouts shall not be located in an area where shallow groundwater may be present, or within 50 feet of a surface water body, creek or stream.
- During dewatering operations of uncontaminated ground water may be discharged on site, but shall not leave the site in the form of surface runoff unless an approved State dewatering permit is in place.
- Erosion control blanketing or other protective covering shall be used on slopes steeper than 3:1.
- Contractor shall be responsible for the removal of all wastes from the construction site for disposal in accordance with local and State regulatory requirements. No construction debris, tree slash, building material wastes or unused building materials shall be buried, dumped, or discharged at the site.
- Waste materials shall not be temporarily placed or stored in the street, alley, or other public way, unless in accordance with an approved Traffic Control Plan. Control measures may be required by El Paso County Engineering if deemed necessary, based on specific conditions and circumstances.
- Tracking of soils and construction debris off-site shall be minimized. Materials tracked off-site shall be cleaned up and properly disposed of immediately.
- The owner/developer shall be responsible for the removal of all construction debris, dirt, trash, rock, sediment, soil, and sand that may accumulate in roads, storm drains and other drainage conveyance systems and stormwater appurtenances as a result of site development.
- The quantity of materials stored on the project site shall be limited, as much as practical, to that quantity required to perform the work in an orderly sequence. All materials stored on-site shall be stored in a neat, orderly manner, in their original containers, with original manufacturer's labels.
- No chemical(s) having the potential to be released in stormwater are to be stored or used onsite unless permission for the use of such chemical(s) is granted in writing by the ECM Administrator. In granting approval for the use of such chemical(s), special conditions and monitoring may be required.
- Bulk storage of allowed petroleum products or other allowed liquid chemicals in excess of 55 gallons shall require adequate secondary containment protection to contain all spills onsite and to prevent any spilled materials from entering State Waters, any surface or subsurface storm drainage system or other facilities.
- No person shall cause the impediment of stormwater flow in the curb and gutter or ditch except with approved sediment control measures.
- Owner/developer and their agents shall comply with the "Colorado Water Quality Control Act" (Title 25, Article 8, CRS), and the "Clean Water Act" (33 USC 1344), in addition to the requirements of the Land Development Code, DCM Volume II and the ECM Appendix I. All appropriate permits must be obtained by the contractor prior to construction (1041 NPDES Floodplain, 404, logjams, dust, etc.). In the event of conflicts between these requirements and other laws, rules, regulations or other Federal, State, local, or County agencies, the most restrictive laws, rules, regulations or other laws, rules, regulations shall apply.
- All construction traffic must enter/exit the site only at approved construction access points.
- Prior to construction the permittee shall verify the location of existing utilities.
- A water source shall be available on site during earthwork operations and shall be utilized as required to minimize dust from earthwork equipment and wind.
- The soils report for this site has been prepared by Vivid Engineering Group, Inc. and shall be considered a part of these plans.
- At least ten (10) days prior to the anticipated start of construction, for projects that will disturb one (1) acre or more, the owner or operator of construction activity shall submit a permit application for stormwater discharge to the Colorado Department of Public Health and Environment, Water Quality Division. The application contains certification of completion of a stormwater management plan (SMWP), of which this Grading and Erosion Control Plan may be a part. For information or application materials contact: Colorado Department of Public Health and Environment, Water Quality Control Division, WQCD - Permits, 4200 Chem Creek Drive South, Denver, CO 80246-1530, Attn: Permits Unit.
- Base mapping was provided by Pinnacle Land Surveying. The date of the last survey update was May 2019.
- Proposed Construction Schedule:
Begin Construction: Summer 2020
End Construction: Winter 2020
Total Site Area = 292.29 Acres
- Area to be disturbed = 10.1 Acres (Filing 10 and minor ditch grading at Filing No. 11).
Existing 100-year runoff coefficient = 0.50
Proposed 100-year runoff coefficient = 0.51
Existing Hydrologic Soil Groups: B & C
(B-Nelson-Tassel fine sandy loams; B-Stoneham sandy loam; C-Nunn clay loam)
- Site is currently undeveloped and covered with native grasses on moderate to steep slopes (3%-18%).
- Site is located in the West Fork Jimmy Camp Creek Drainage Basin.

Engineering Record Drawings

"I hereby affirm that the improvements for The Glen at Widefield Filing No. 10 have been constructed in substantial compliance with the Construction Plans approved by El Paso County."

Andrew W. McCord, PE _____ Date _____



Kiowa
Engineering Corporation
1604 South 21st Street
Colorado Springs, Colorado 80904
(719) 630-7342

W
WIDEFIELD
Investment Group

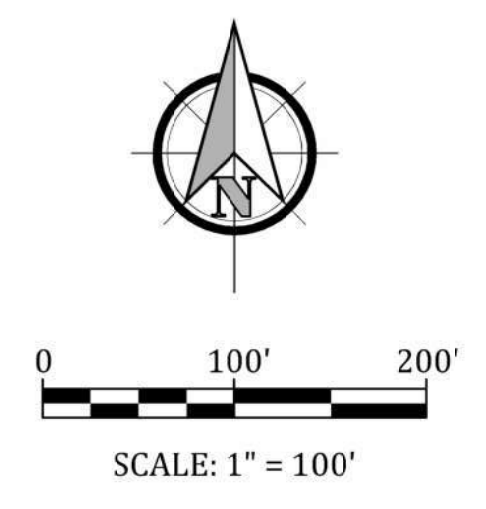
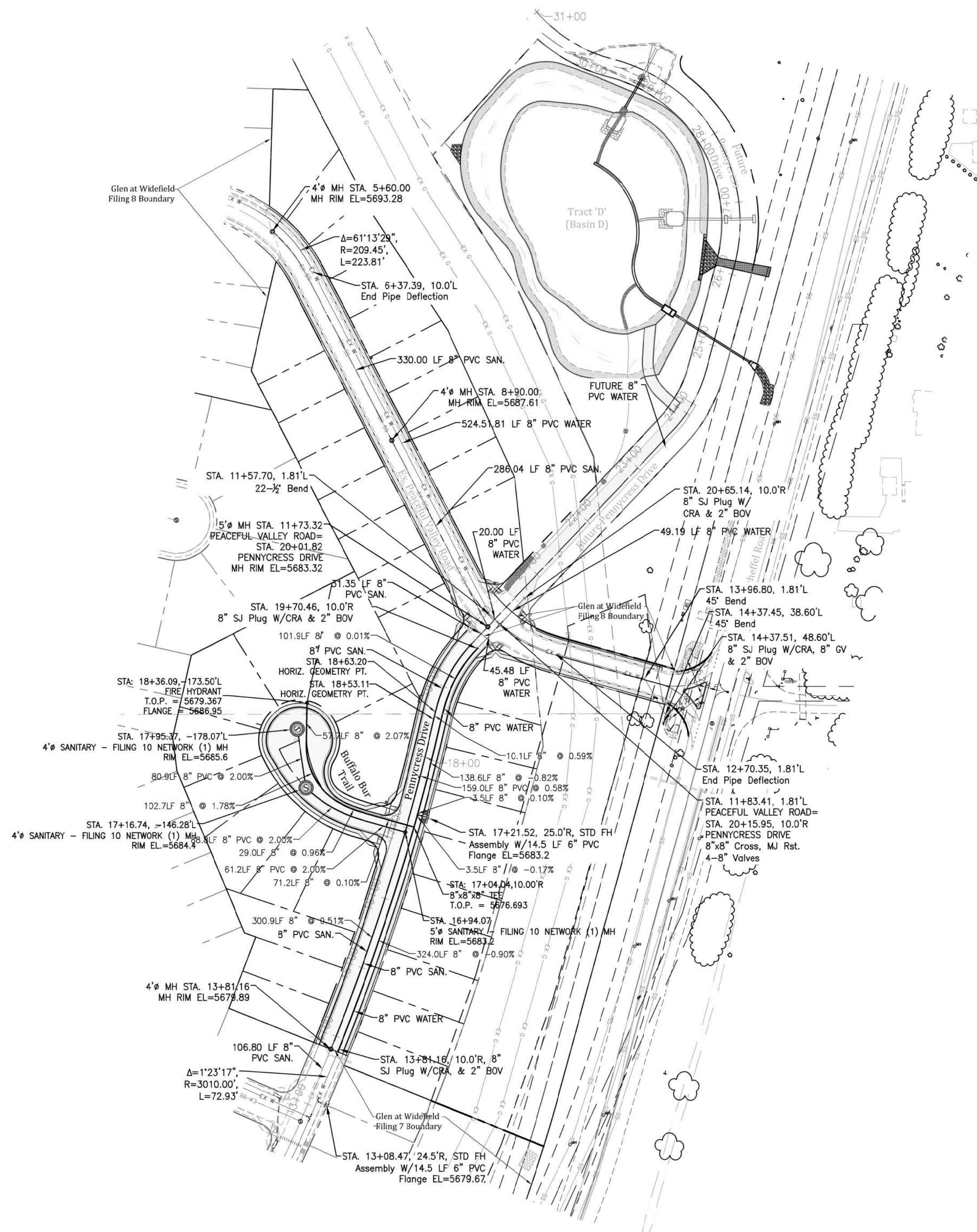
GLEN AT WIDEFIELD NO. 10
GRADING AND EROSION CONTROL PLAN
GRADING AND EROSION CONTROL
EL PASO, COUNTY

Project No.: 19018
Date: Nov. 23, 2020
Design: MK
Drawn: MK
Check: AWMc
Revisions:
SHEET
7
9 of 17 Sheets

ERD-19018-QW10-07-EC.dwg/Jun 16, 2022

SUBSEQUENT TO STRIPPING AND GRUBBING THE FOLLOWING OVERLOT/PIPE INSTALLATION PROCEDURES ARE ANTICIPATED FOR THE SANITARY SEWER LOCATED ON PROPOSED EMBANKMENTS:

- THE REMOVAL AND REPLACEMENT OF METASTABLE SOIL.
- TESTING OF THE FILL SUBSEQUENT TO THE PENETRATION OF THE METASTABLE SOIL WILL CONTINUE UNTIL A MINIMUM OF 7 FEET OF STRUCTURAL FILL HAS BEEN PLACED ABOVE THE PROPOSED SEWER LINE ELEVATION.
- UTILITY TRENCHES SHALL BE EXCAVATED AND SANITARY SEWER LINE INSTALLED. THE PIPE SHALL BE PROPERLY BEDDED AND STRUCTURAL FILL PLACED AND TESTED TO THE PREVIOUS GRADE.
- THE OVERLOT AND EMBANKMENT FILL CAN BE COMPLETED.
- WHERE THE SANITARY SEWER IS PLACED IN EMBANKMENT FILL DURING THE OVERLOT PROCESS, STE SHALL MONITOR AND TEST ALL WORK ASSOCIATED WITH THE AFFECTED PORTIONS.



ADDITIONAL UTILITY NOTES

GAS - ALL GAS MAINS AND SERVICES ARE TO BE INSTALLED PER THE CITY OF COLORADO SPRINGS.

ELECTRIC - ALL ELECTRIC SERVICES ARE TO BE INSTALLED PER THE CITY OF FOUNTAIN ELECTRIC DIVISION.

UTILITY CONTACTS

SEWER:	WIDEFIELD W&S DISTRICT (WWS)	390-7111
WATER:	WIDEFIELD W&S DISTRICT (WWS)	390-7111
ELECTRIC:	MOUNTAIN VIEW ELECTRIC	485-2283
GAS:	PEOPLES NATURAL GAS	800-363-0752
PHONE:	US WEST	636-4632

LEGEND

PROPOSED 8" PVC WATER MAIN (DR 18) WITH MJ FITTINGS (UNLESS OTHERWISE NOTED)

WIDEFIELD WATER & SANITATION DISTRICT STANDARD FIRE HYDRANT ASSEMBLY. INSTALL PER WIDEFIELD WATER AND SANITATION DISTRICT CONSTRUCTION SPECIFICATIONS

8" GATE VALVE (UNLESS OTHERWISE NOTED)

TEE W/CONCRETE THRUST BLOCK

MINIMUM RADIUS SHOWN FOR WATER MAIN = 290'
PER WWS SPECIFICATIONS AND EL PASO COUNTY ECM 4.3.6.A.1&2, THE MINIMUM COVER OVER WATER MAIN & SERVICES AND SANITARY SEWER MAINS & SERVICES IS 5 FEET.

WATER AND SEWER MAIN EXTENSIONS

Any changes or alterations affecting the grade, alignment, elevation and/or depth of cover of any water or sewer mains or other appurtenance shown on this drawing shall be the responsibility of the Owner/Developer. The Owner/Developer shall be responsible for all operational damages and defects in installation and material for mains and services from the date of approval until final acceptance is issued.

Signed _____ Date _____

Print Name J. Ryan Watson

DBA: GLEN DEVELOPMENT COMPANY

Address: 3 Widefield Boulevard
Colorado Springs, CO 80911
(719) 392-0194

FIRE AUTHORITY APPROVAL

The number of fire hydrants and hydrant locations shown on this water installation plan are correct and adequate to satisfy the fire protection requirements as specified by the Security Fire District.

Security Fire Department

Signed _____ Date _____

Security Fire Department

UTILITY APPROVALS

DISTRICT APPROVALS

The Widefield Water and Sanitation District recognizes the design engineer as having responsibility for the design. The Widefield Water and Sanitation District has limited its scope of review accordingly.

WIDEFIELD WATER AND SANITATION DISTRICT WASTEWATER DESIGN APPROVAL

Date: _____ By: _____

PROJECT NO. _____

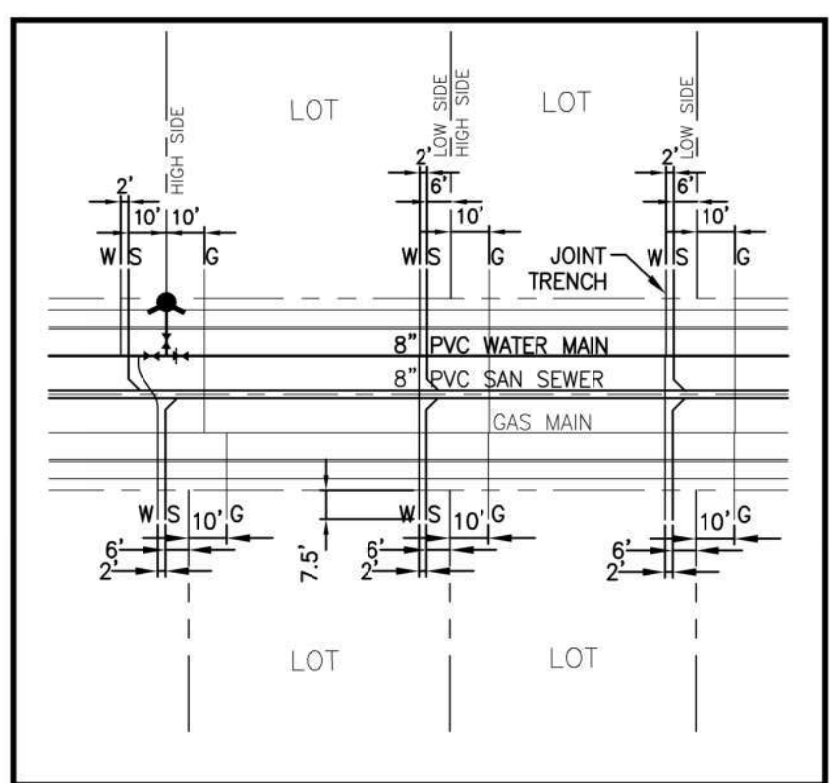
In case of errors or omissions with the sewer design as shown on this document the standards as defined in the Rules and Regulations for Installation of Sewer Mains and Services shall rule. Approval expires 180 days from Design Approval.

WIDEFIELD WATER AND SANITATION DISTRICT WATER DESIGN APPROVAL

Date: _____ By: _____

PROJECT NO. _____

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WATER AND SEWER SERVICE EXTENSIONS
TYPICAL CONNECTION EXAMPLES

Engineering Record Drawings

"I hereby affirm that the improvements to the Glen at Widefield Filing No. 10 have been constructed in substantial compliance with the approved plans as approved by El Paso County."

Andrew W. McCord, PE

Andrew W. McCord, PE 25057

12/20/2021
Date _____

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

FOR STORM DESIGN
SEE SHEET 11

**GLEN AT WIDEFIELD NO. 10
UTILITY PLAN
WATER & WASTEWATER MAIN
EL PASO, COUNTY**

Project No.:	19016
Date:	Nov. 23, 2020
Design:	MK
Drawn:	MJK
Check:	AWMc
Revisions:	

SHEET

9

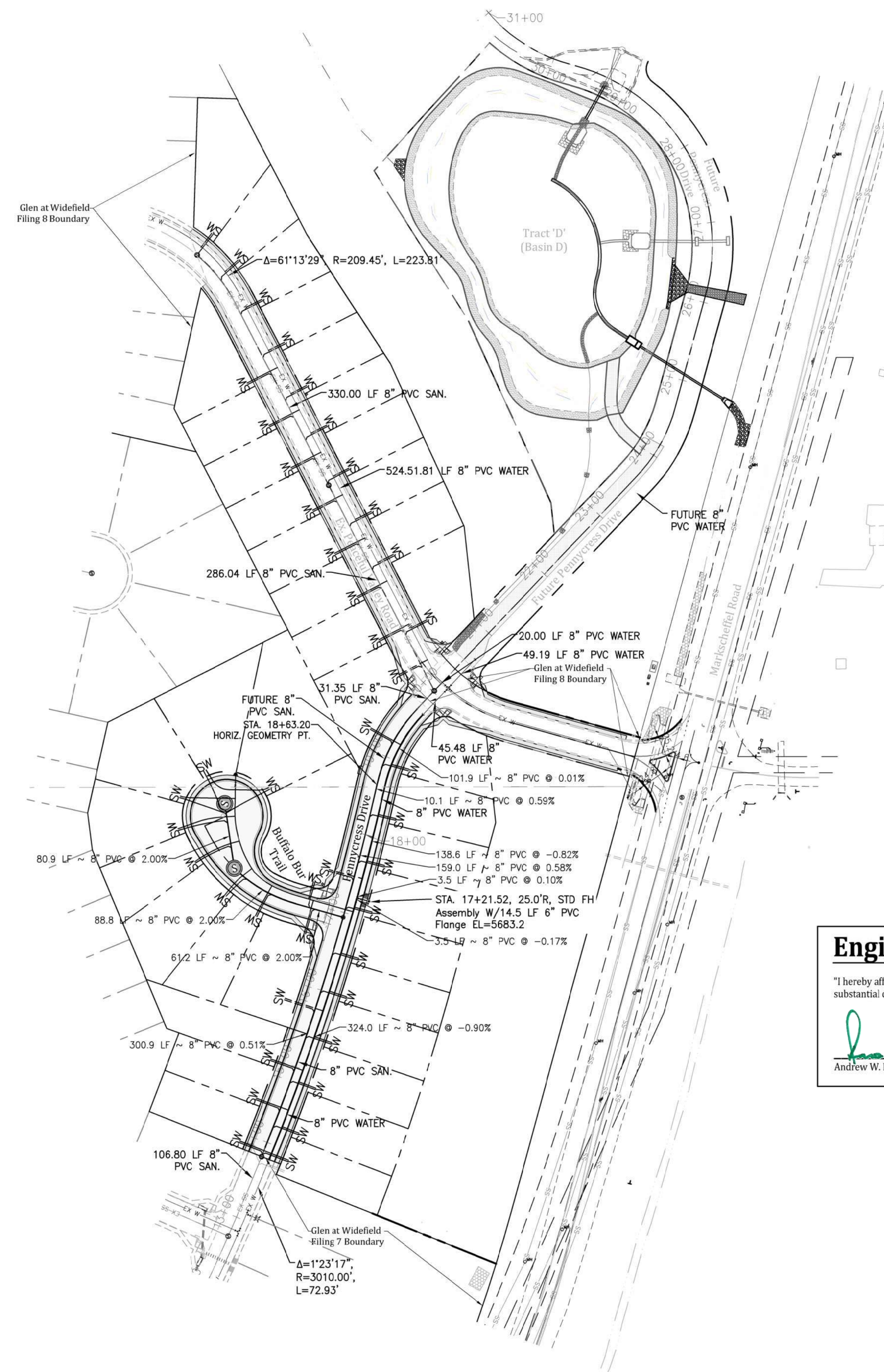
11 of 17 Sheets

Kiowa
Engineering Corporation
1604 South 21st Street
Colorado Springs, Colorado 80904
(719) 690-7342

W
WIDEFIELD
Investment Group

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 PHONE: US WEST 636-4632

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8" GATE VALVE (UNLESS OTHERWISE NOTED)

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Print Name J. Ryan Watson

DBA: GLEN DEVELOPMENT COMPANY

Address: 3 Widefield Boulevard
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(719) 392-0194

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 Signed _____ Date _____

Security Fire Department

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WIDEFIELD WATER AND SANITATION DISTRICT WASTEWATER DESIGN APPROVAL
 Date: _____ By: _____

PROJECT NO. _____

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WIDEFIELD WATER AND SANITATION DISTRICT WATER DESIGN APPROVAL
 Date: _____ By: _____

PROJECT NO. _____

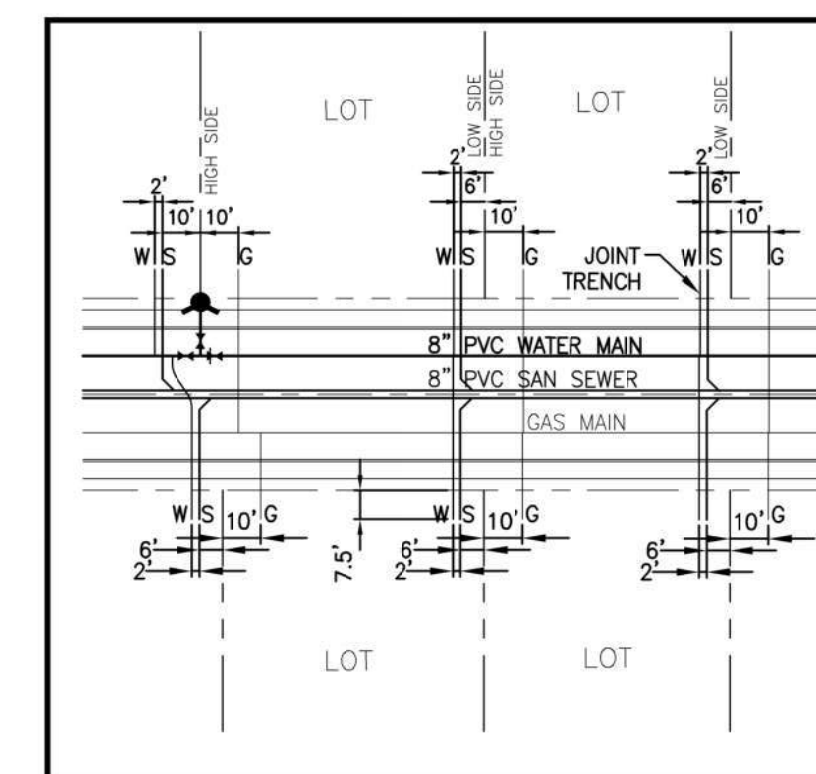
In case of errors or omissions with the sewer design as shown on this document the standards as defined in the "Rules and Regulations for Installation of Sewer Mains and Services" shall rule. Approval expires 180 days from Design Approval.

Engineering Record Drawings

"I hereby affirm that the improvements for The Glen at Widefield Filing No. 10 have been constructed in substantial compliance with the Construction Code approved by El Paso County."



12/20/2021
 Date



WATER AND SEWER SERVICE EXTENSIONS TYPICAL CONNECTION EXAMPLES

Project No.:	19016
Date:	Nov. 23, 2020
Design:	MK
Drawn:	MJK
Check:	AWMc
Revisions:	

SHEET

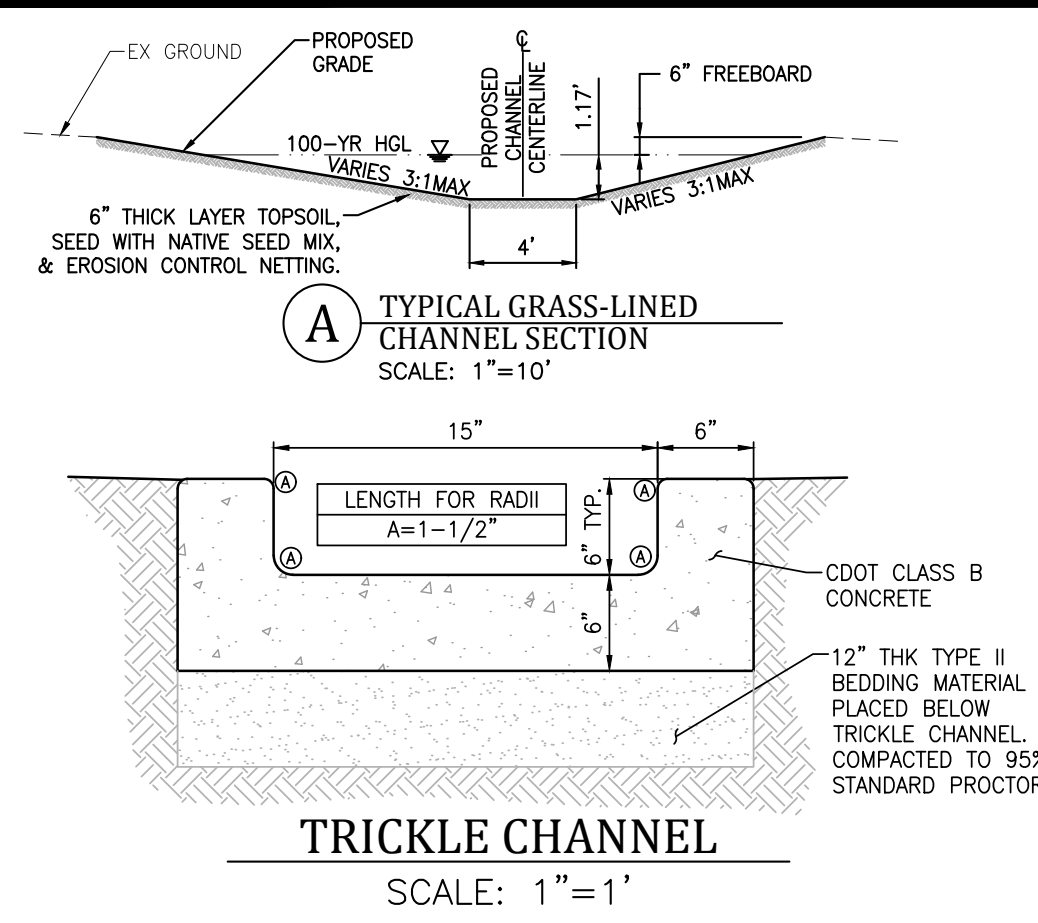
10

12 of 17 Sheets



Know what's below.
 Call before you dig.

FOR STORM SEWER DESIGN
 SEE SHEETS 11 & 14



As-Built Comparison to FDR Report

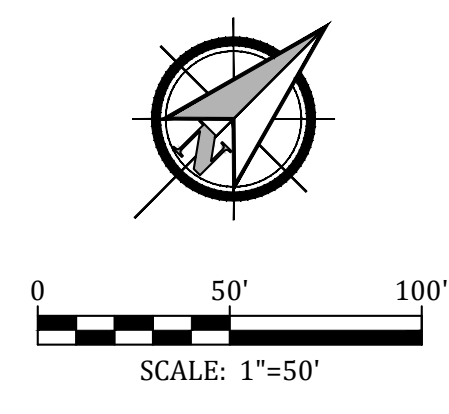
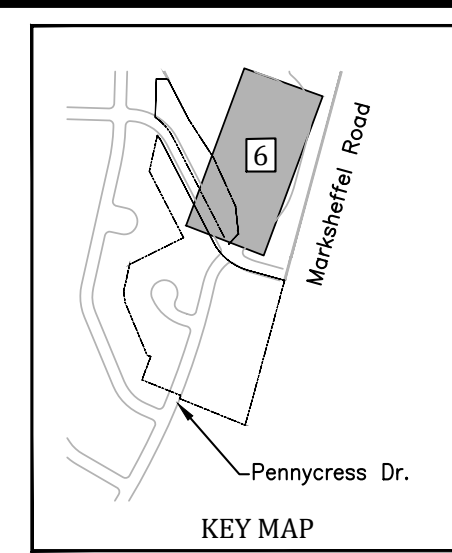
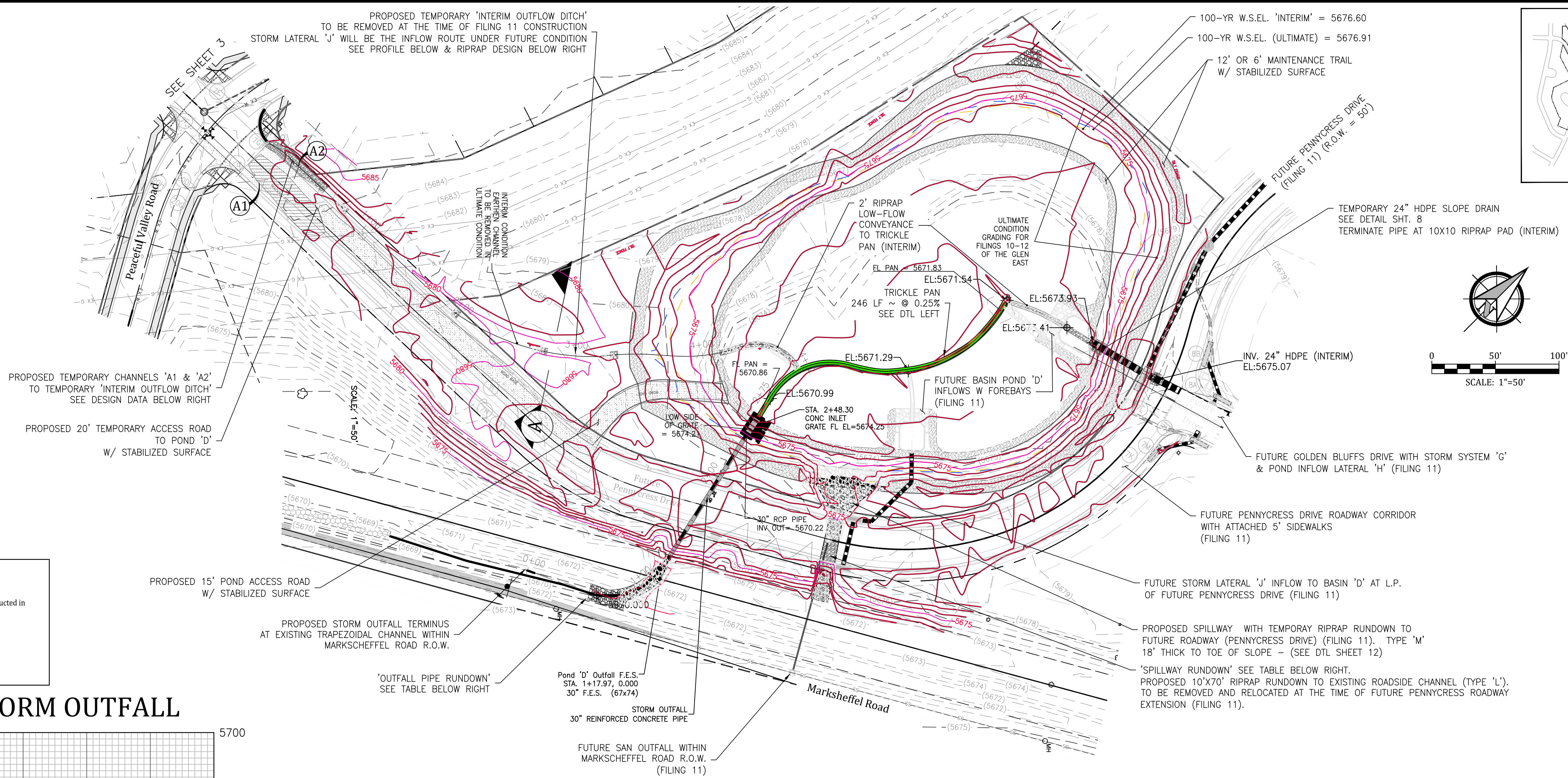
Project: The Glen No 10 EDB 'D'
Date: 4/22/2022
By: MJK

Elev	Report	As-Built	Cum. Rpt	Cum. AB	Delta
5670.67	26	26	0		
5671	84	42	17	11	-35.29%
5672	5906	8906	2954	4396	48.82%
5673	31084	41760	21508	29818	38.64%
5674	63050	68930	68575	85163	24.19%
5675	69093	75612	134646	157434	16.92%
5676	74861	81042	206,623	235761	14.10%
5677	81249	87734	284,678	320149	12.46%
5678	88132	97318	369,369	412675	11.72%
5679	96541	98000	461,705	510334	10.53%
5679.14	98509	98509	475,359	524089	10.25%

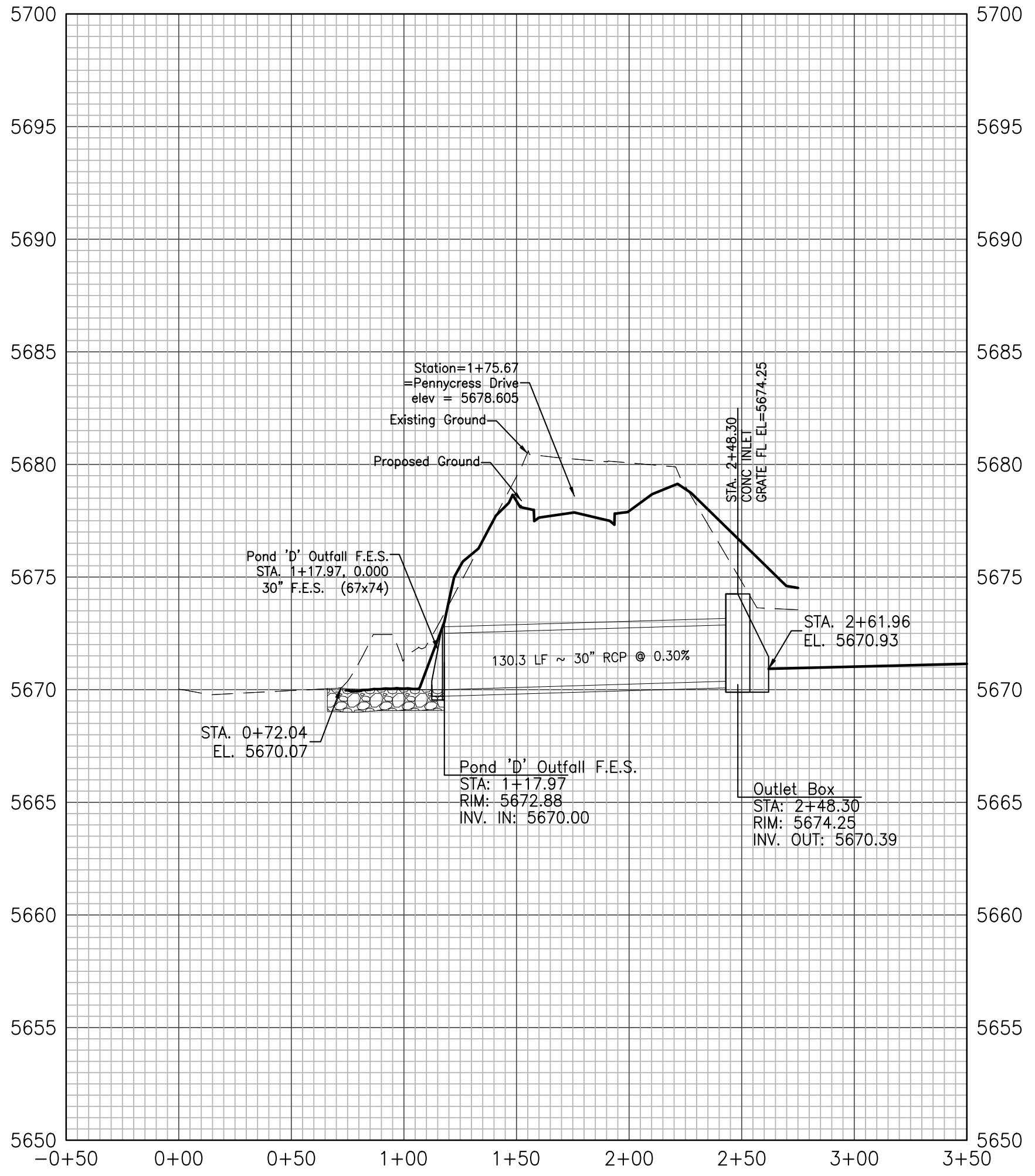
Engineering Record Drawings

"I hereby affirm that the improvements for The Glen at Widefield Filing No. 10 have been constructed in substantial compliance with the Certificate of Approval approved by El Paso County."

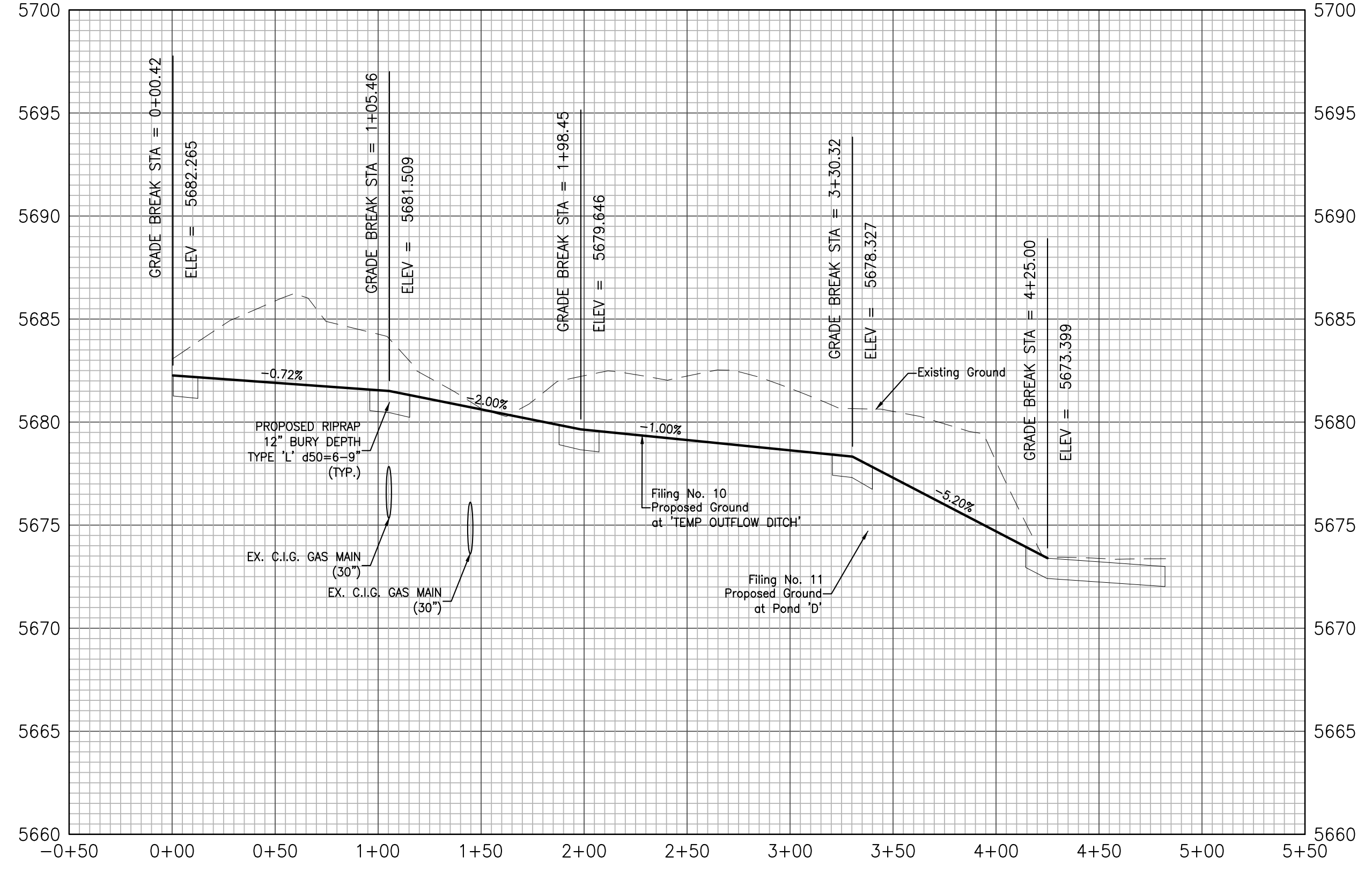
Andrew W. McCord, PE
May 10, 2022
Date



PROFILE VIEW OF STORM OUTFALL



PROFILE VIEW OF TEMP OUTFLOW DITCH

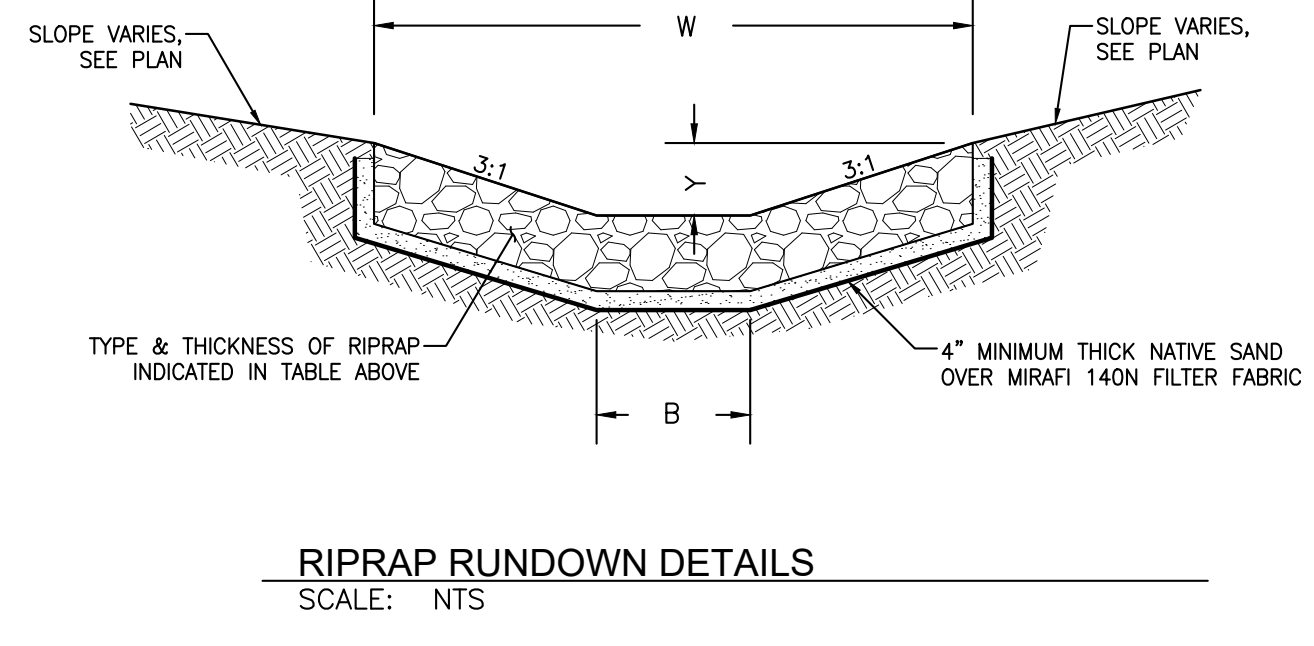


CLASSIFICATION AND GRADATION OF RIPRAP

RIPRAP DESIGNATION	% SMALLER THAN GIVEN SIZE BY WEIGHT	INTERMEDIATE ROCK DIMENSION (INCHES)	d50* (INCHES)
TYPE VL	70-100	12	
	50-70	9	
	35-50	6	6**
	2-10	2	
TYPE L	70-100	15	
	50-70	12	
	35-50	9	9**
	2-10	3	
TYPE M	70-100	21	
	50-70	18	
	35-50	12	12**
	2-10	4	

* d50=MEAN PARTICLE SIZE (INTERMEDIATE DIMENSION) BY WEIGHT.
** MIX VL, L AND M RIPRAP WITH 35% TOPSOIL (BY VOLUME) AND BURY WITH 4-6 INCHES OF TOPSOIL, ALL VIBRATION COMPACTED & REVEGETATE. (TABLE MD-7: CLASSIFICATION AND GRADATION OF ORDINARY RIPRAP. UDFCD, DRAINAGE CRITERIA MANUAL, VOL. 1)

LOCATION	B	W	Y	TYPE	DEPTH
'SPILLWAY RUNDOWN'	9'	27'	1.6'	'M'	18"
'OUTFALL PIPE RUNDOWN'	4'	10'	1.3'	'M'	18"
'INTERIM OUTFLOW DITCH'	4'	10'	1.2'	'L'/Soil	12"
'INTERIM POND BOTTOM 'SOUTH CURBLINE FLOWS''	0'	4.6'	0.57'	'L'/Soil	12"
'INTERIM POND BOTTOM 'NORTH CURBLINE FLOWS''	4'	9.3'	0.67'	'L'/Soil	12"
'INTERIM POND BOTTOM 'LOW-FLOW CONVEYANCE''	0'	4'	0.5'	'L'/Soil	6"



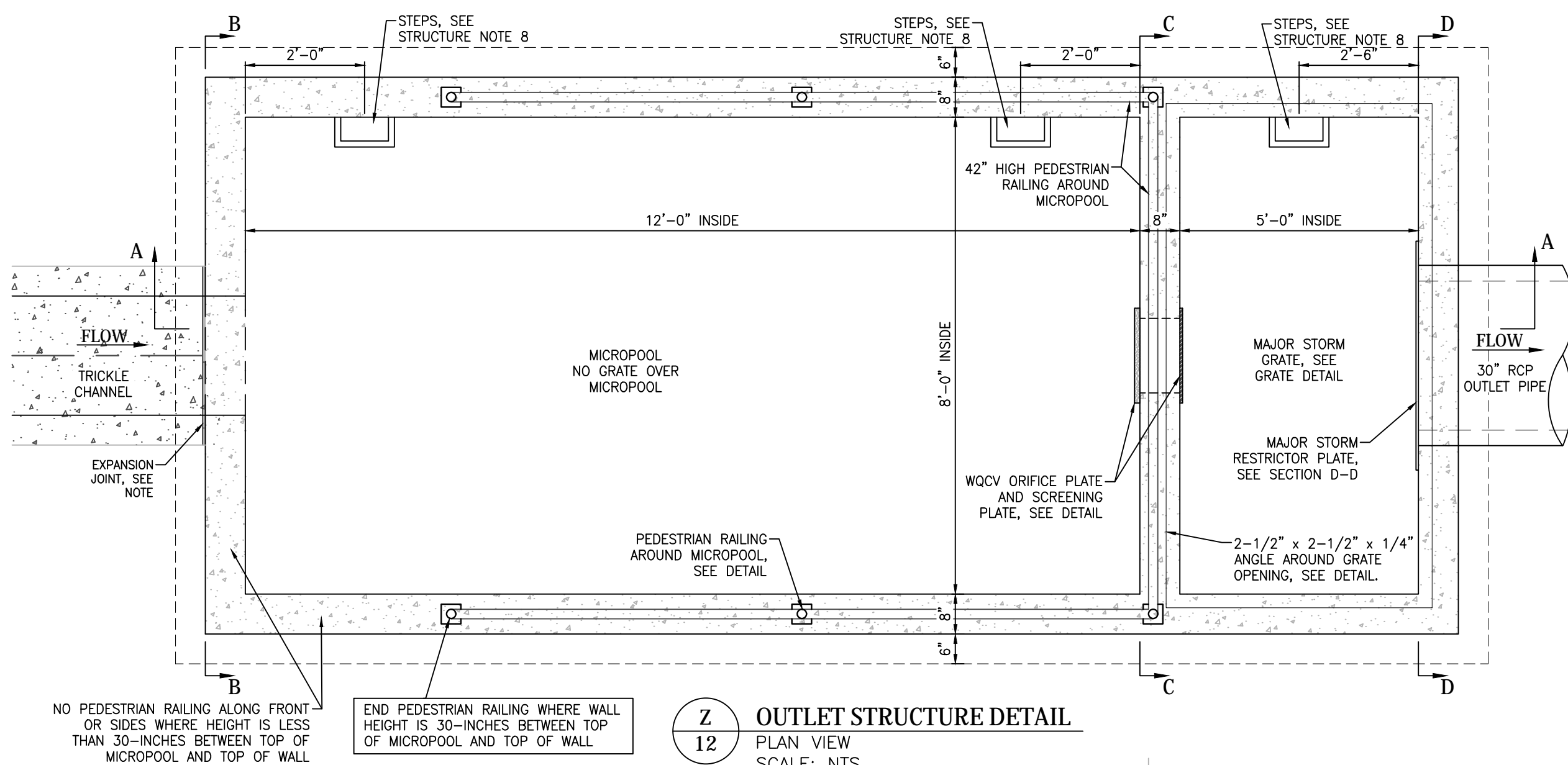
Kiowa
Engineering Corporation
1604 South 21st Street
Colorado Springs, Colorado 80904
(719) 630-7342

W
WIDEFIELD
Investment Group

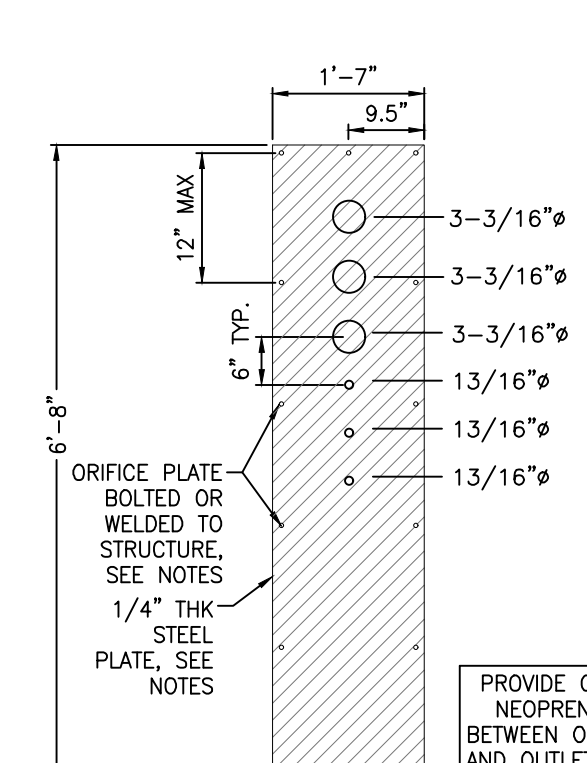
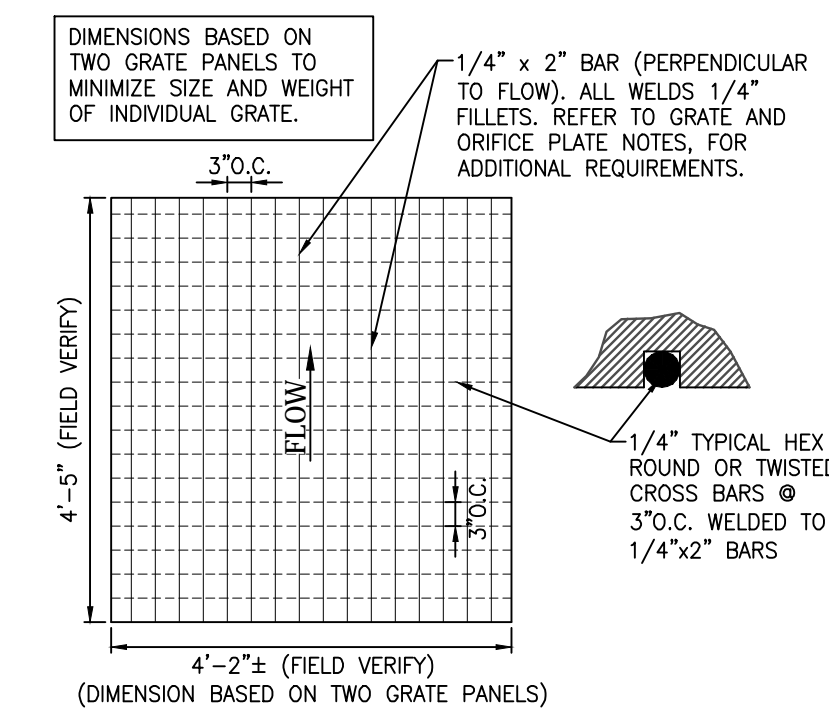
GLEN AT WIDEFIELD NO. 10
Proposed Basin 'D'
Filing 10 Portions Only
EL PASO, COUNTY, COLORADO

Project No.: 19016
Date: Nov. 23, 2020
Design: MK
Drawn: MJK
Check: AWMc
Revisions:

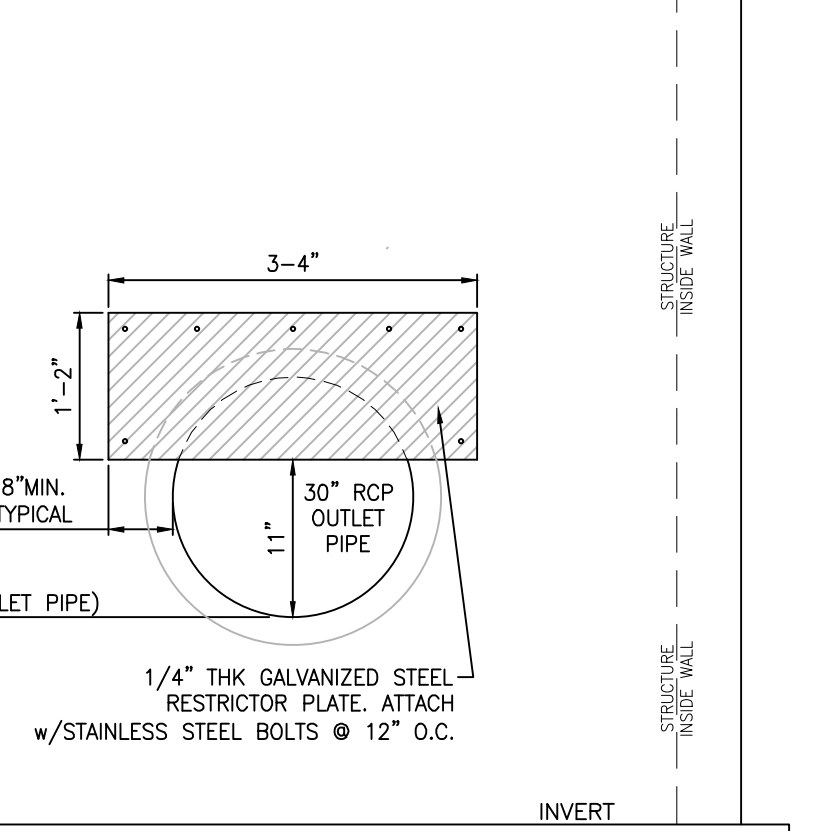
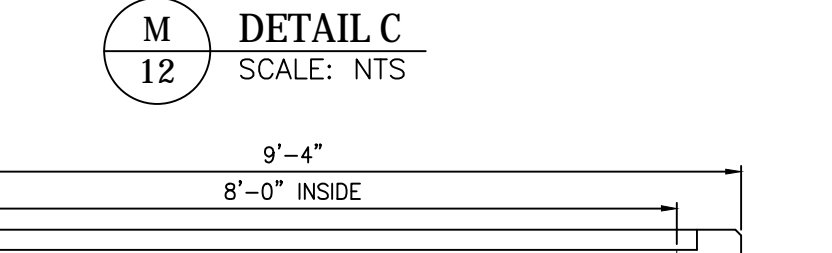
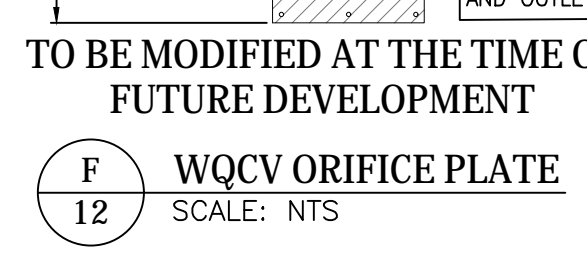
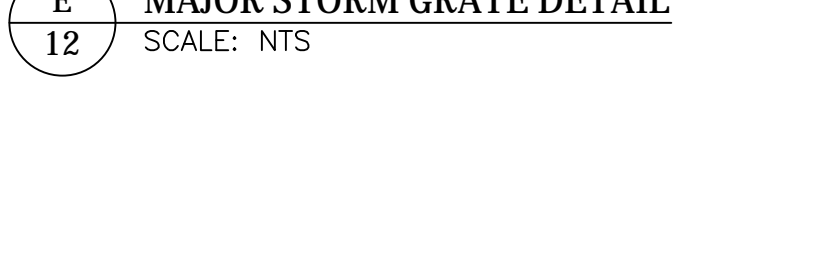
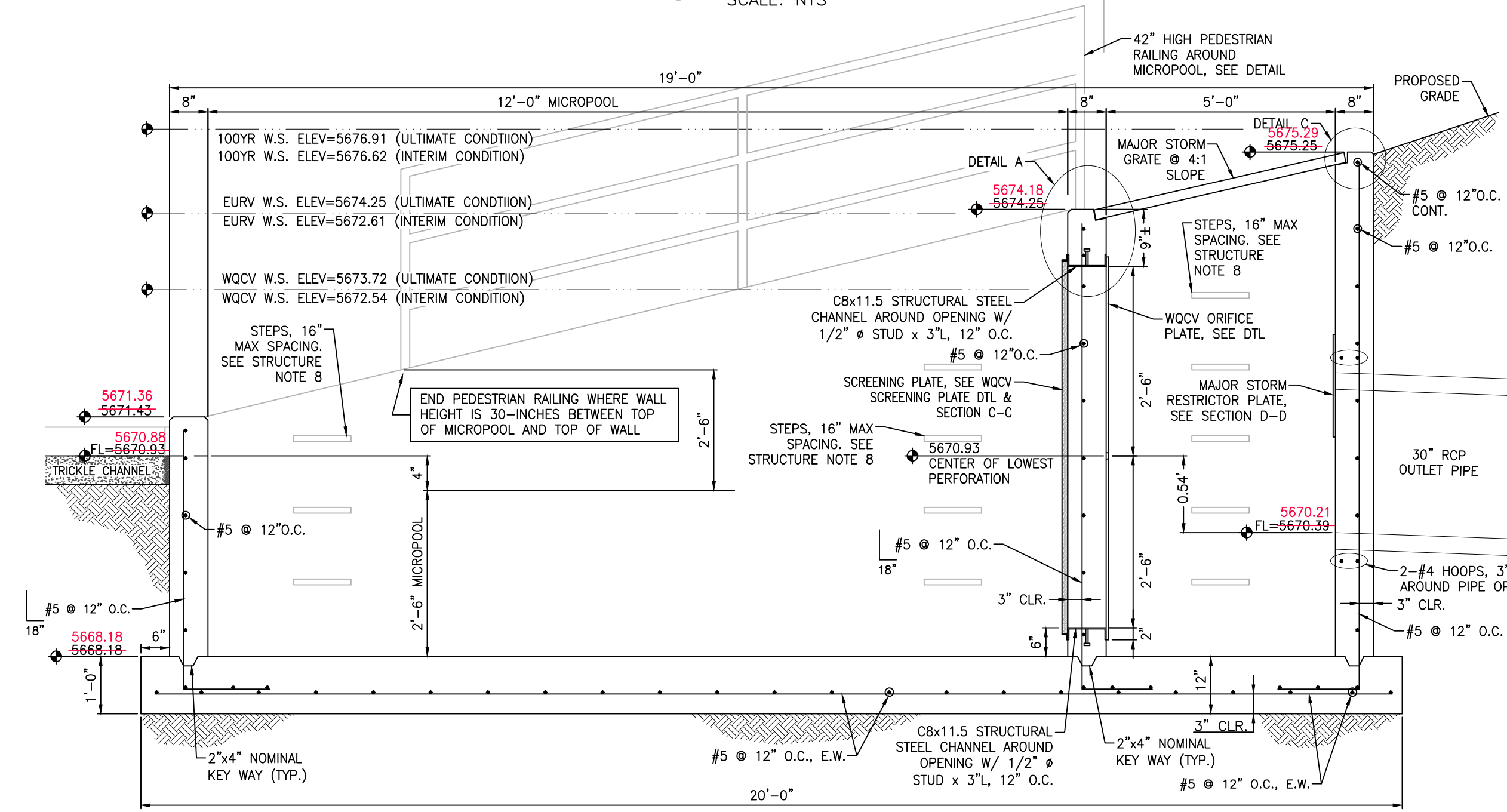
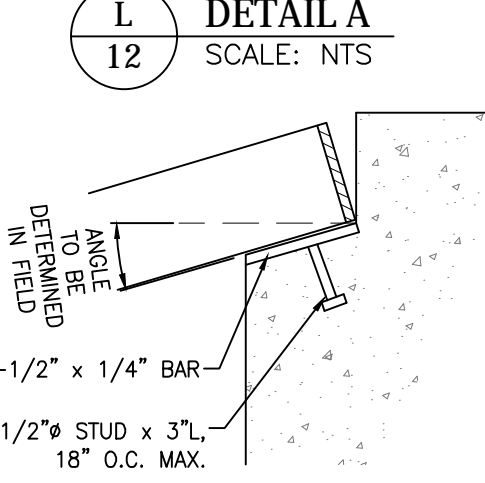
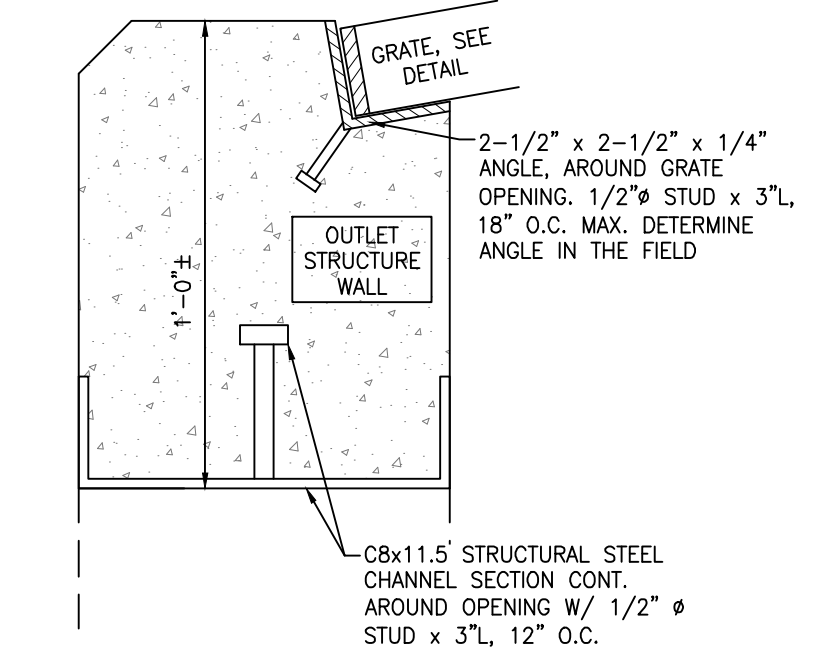
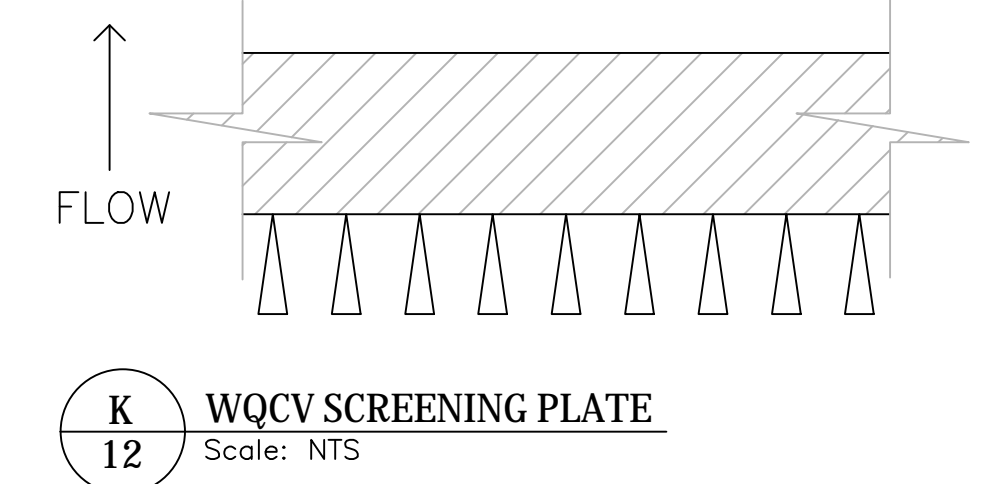
ERD-19016-GW10-11-51.dwg/May 10, 2022



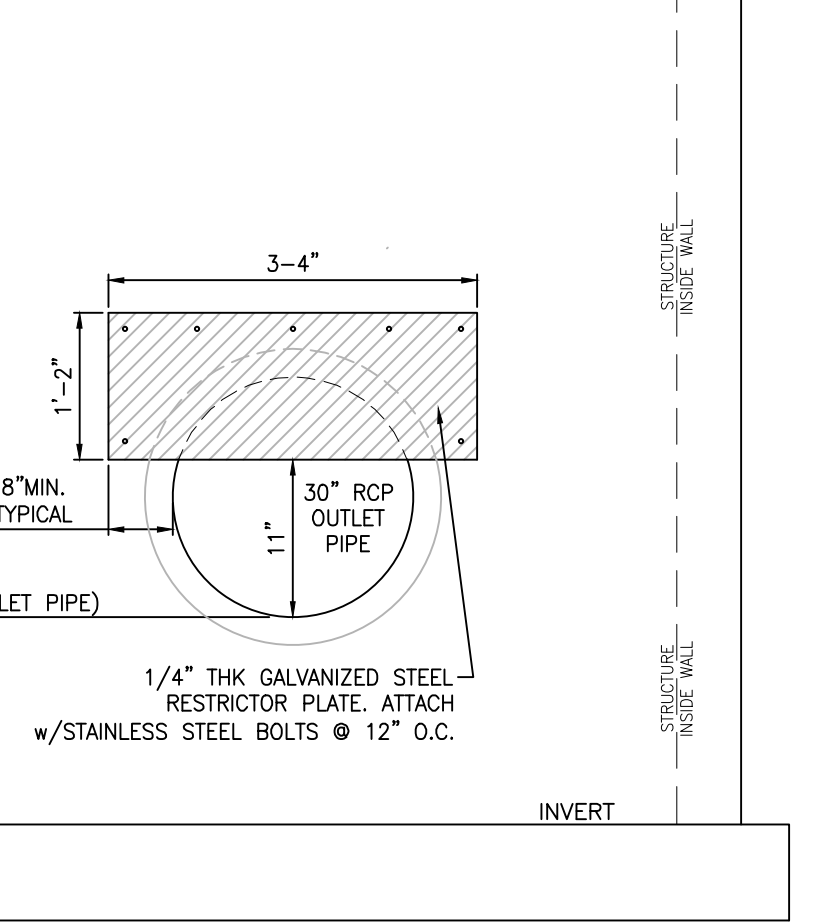
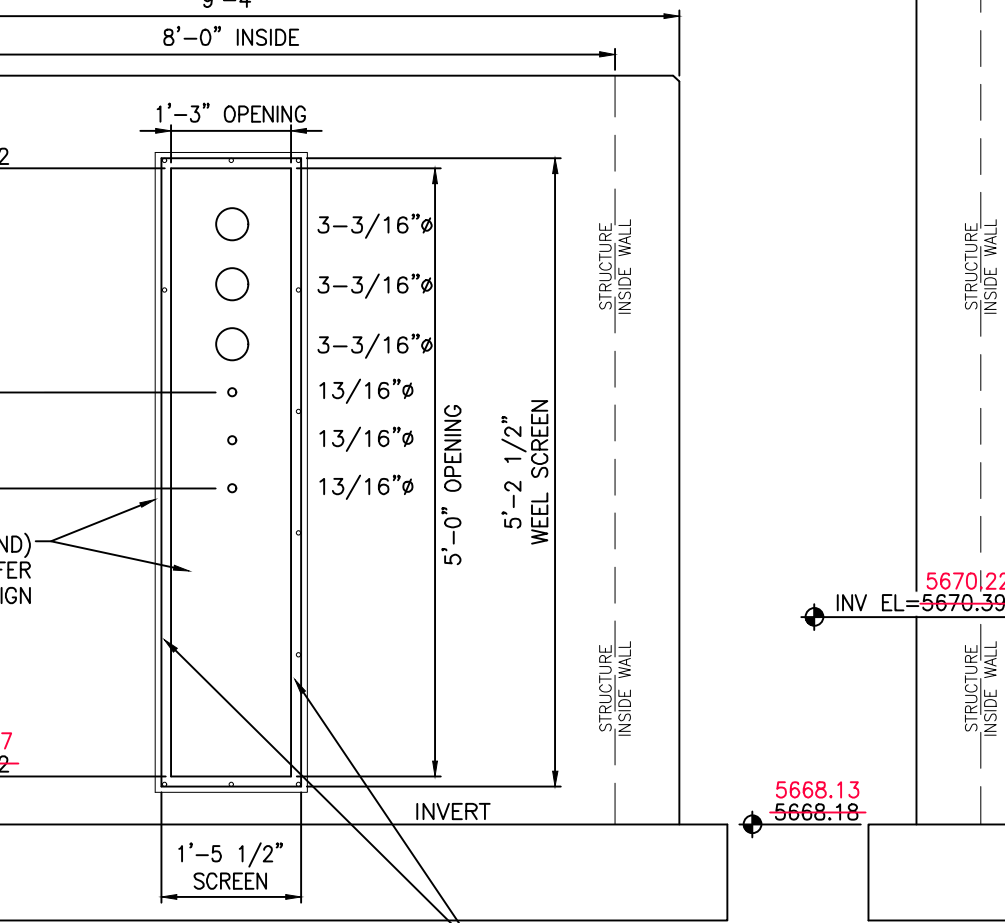
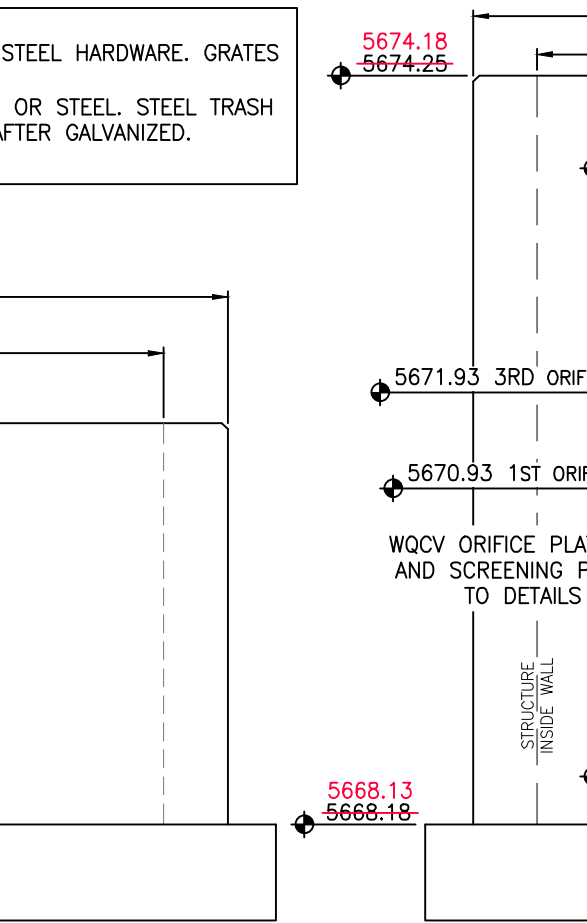
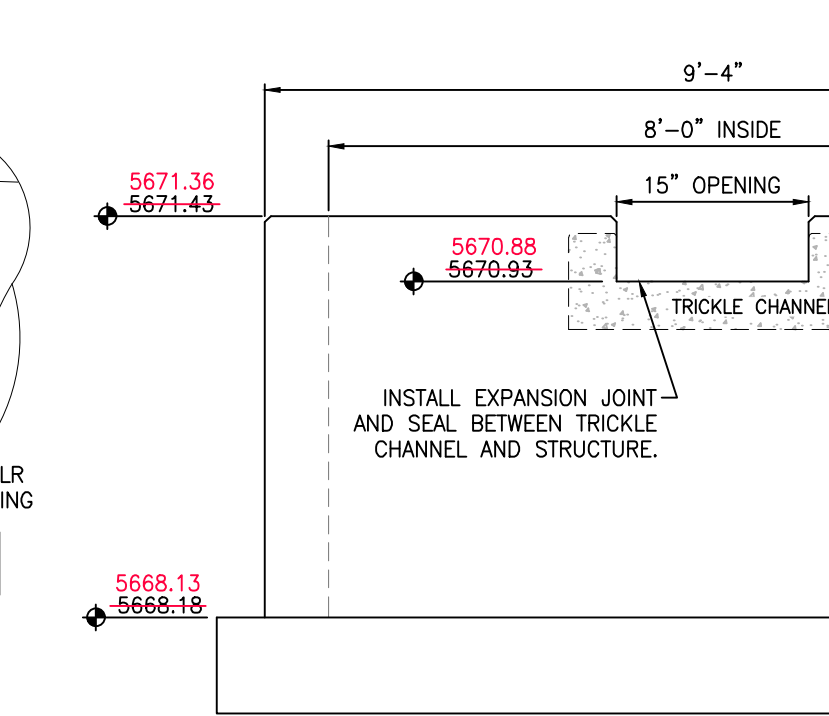
- STRUCTURE NOTES:**
- PRIOR TO CONSTRUCTION, CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR ALL COMPONENTS OF THE OUTLET STRUCTURE.
 - GRADE 60 REINFORCING STEEL REQUIRED. SEE TABLE FOR THE MINIMUM LAP SPICE LENGTH FOR REINFORCING BARS. ALL REINFORCING STEEL SHALL HAVE 2-INCH MINIMUM CLEARANCE FROM EDGE OF CONCRETE AND 3-INCH MIN CLEARANCE TO EDGE OF CONCRETE PLACED AGAINST SOIL, UNLESS OTHERWISE NOTED.
 - MIN. SPICE LENGTH: #4: 1'-3", #5: 1'-7", #6: 2'-0"
 - CONCRETE FOR THE OUTLET STRUCTURE AND FOREBAYS SHALL BE CDOT CLASS D CONCRETE.
 - EXPANSION JOINT MATERIAL SHALL MEET ASHTO SPECIFICATION M-213. EXPANSION JOINT MATERIAL SHALL BE 1/2" THICK, SHALL EXTEND THE FULL DEPTH OF CONTACT SURFACE AND THE JOINT SHALL BE SEALED, REFER TO DETAILS.
 - ALL EXPOSED CONCRETE CORNERS SHALL HAVE A 3/4-INCH CHAMFER UNLESS OTHERWISE NOTED.
 - BACKFILLING AGAINST WALLS SHALL NOT COMMENCE UNTIL CONCRETE HAS OBTAINED ITS FULL SEVEN DAY STRENGTH.
 - SUBGRADE TO BE 12" THK CLEAN FILL COMPACTED TO 95% STANDARD PROCTOR DENSITY PER ASTM M698 UNDER STRUCTURES.
 - OUTLET STRUCTURE STEPS SHALL CONFORM TO ASHTO M199.
 - FOREBAY: CONSTRUCTION JOINTS SHALL BE INSTALLED AT 10' O.C. MAXIMUM. THE JOINTS SHALL BE SEALED WITH A JOINT SEALANT.



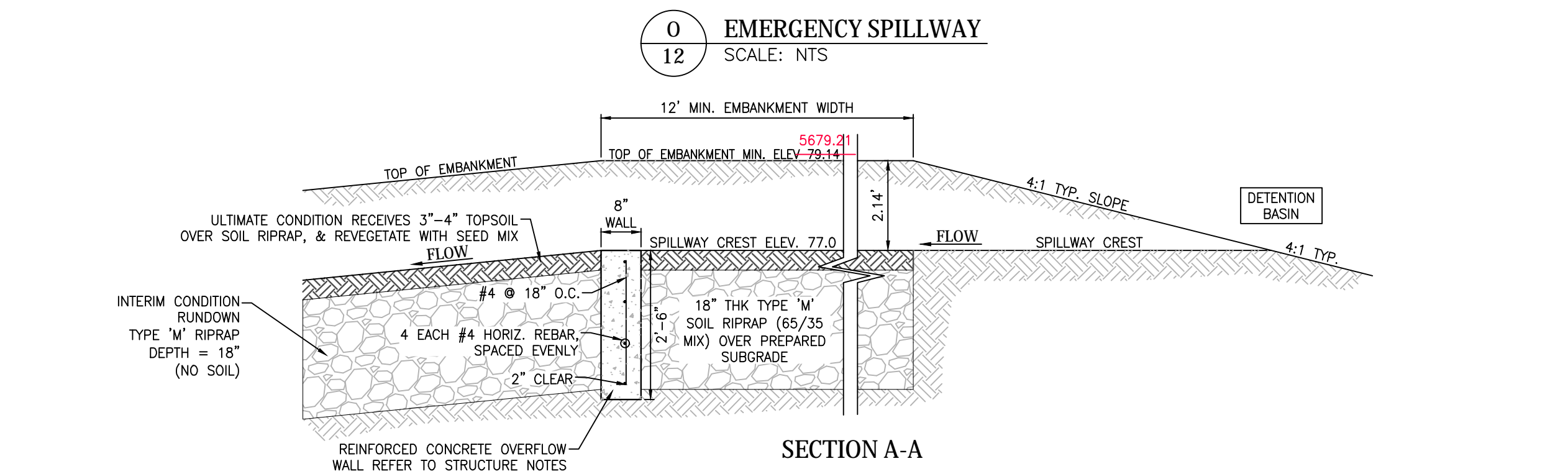
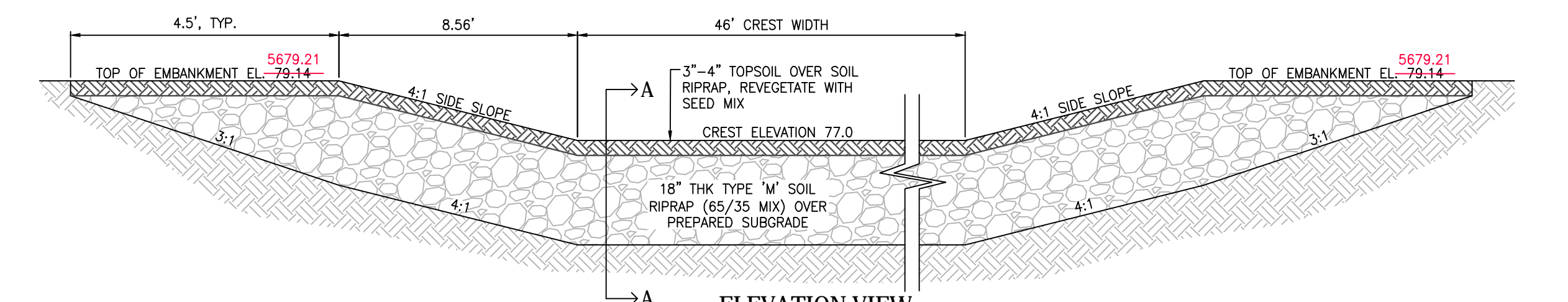
- WQCV WELL-SCREEN NOTES:**
- WELL-SCREEN SHALL BE STAINLESS STEEL AND ATTACHED BY INTERMITTENT WELDS OR STAINLESS STEEL BOLTS ALONG EDGE OF THE MOUNTING FRAME.
 - WQCV WELL SCREEN
 - TYPE OF SCREEN: STAINLESS STEEL #93 VEE WIRE (JOHNSON VEE WIRE TM STAINLESS STEEL SCREEN OR EQUIVALENT WITH 60% OPEN AREA)
 - SCREEN SLOT OPENING DIMENSION: 0.139" (SCREEN #93 VEE WIRE SLOT OPENING)
 - TYPE AND SIZE OF SUPPORT ROD: TE 0.074"x0.50"
 - SPACING OF SUPPORT ROD (O.C.): 1.0 INCH
 - TOTAL SCREEN THICKNESS: 0.655"
 - CARBON STEEL HOLDING FRAME TYPE: 3/4" x 1.0" ANGLE



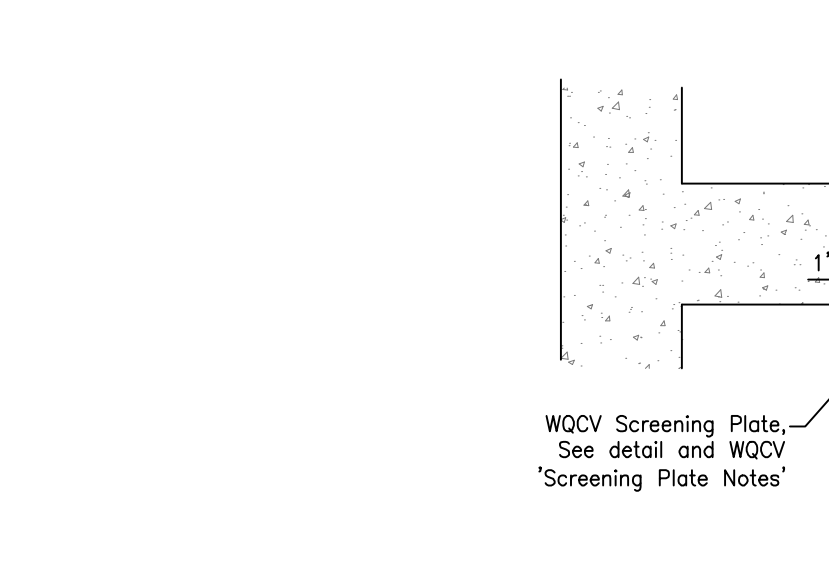
- GRATE AND ORIFICE PLATE NOTES:**
- GRATES AND ORIFICE PLATES SHALL BE MOUNTED USING STAINLESS STEEL HARDWARE. GRATES TO BE BOLTED DOWN TO OUTLET STRUCTURE 18" O.C.
 - GRATES AND ORIFICE PLATES SHALL BE STAINLESS STEEL, ALUMINUM OR STEEL. STEEL TRASH RACKS SHALL BE HOT DIP GALVANIZED AND HOT POWDER PAINTED AFTER GALVANIZED.
 - FIELD VERIFY GRATE DIMENSION PRIOR TO FABRICATION.



INTERIM CONDITION
TO BE MODIFIED AT THE TIME OF FUTURE DEVELOPMENT



- Screening Plate Notes:**
- Orifice plates shall be mounted using stainless steel hardware.
 - Screen Grate shall be hot-dipped galvanized steel.
 - Field verify screen dimension prior to fabrication.



Engineering Record Drawings

"I hereby affirm that the improvements for The Glen at Widefield Filing No. 10 have been constructed in substantial compliance with the conditions that were approved by El Paso County."

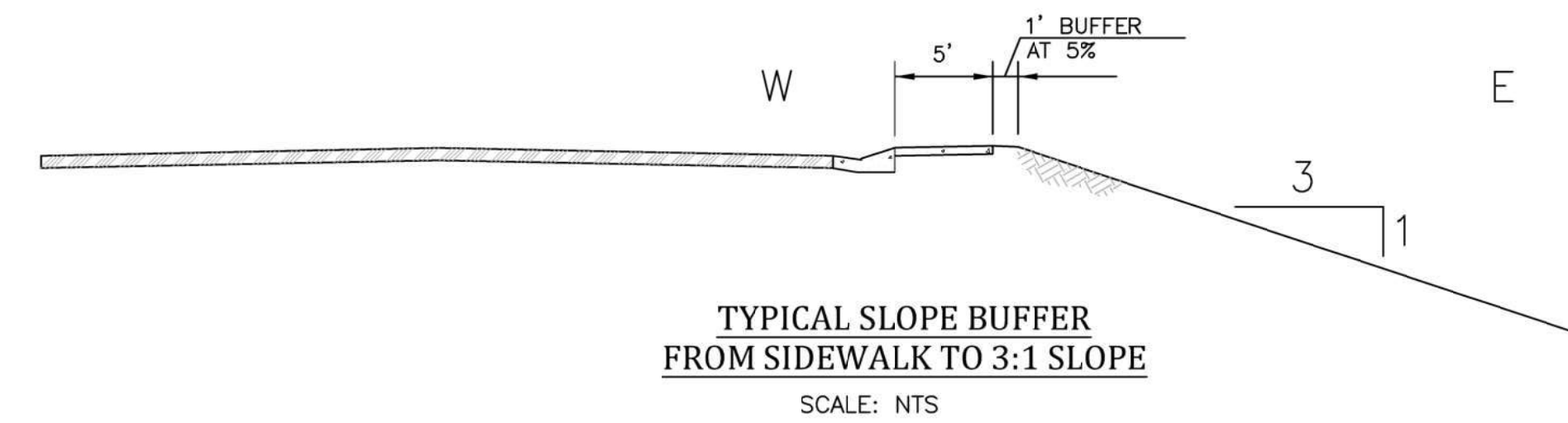
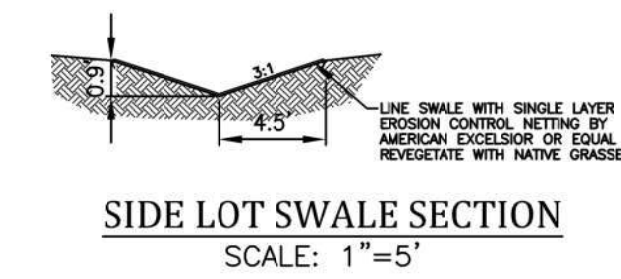
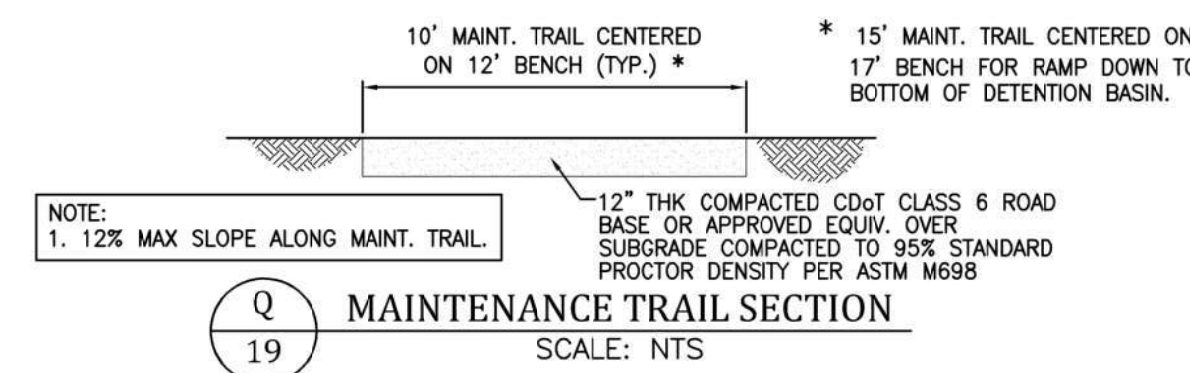
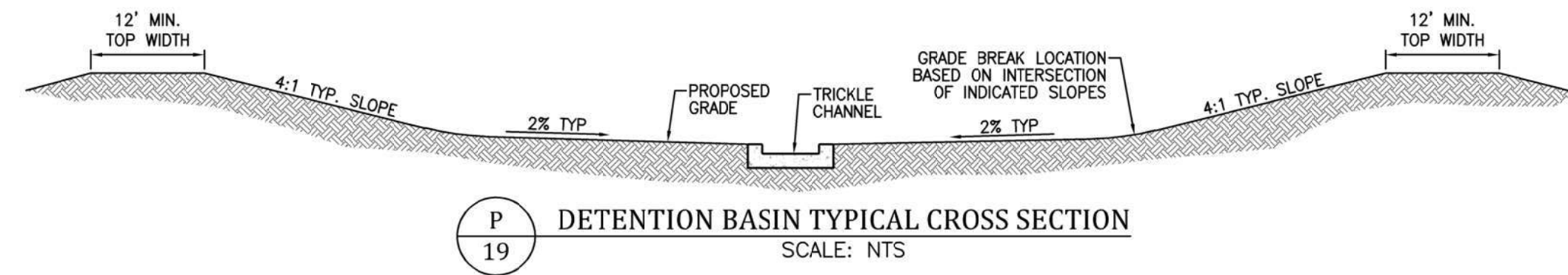
Andrew W. McCord, PE
25057
PROFESSIONAL ENGINEER

May 10, 2022
Date

GLEN AT WIDEFIELD NO. 10
DETENTION BASIN DETAILS
BASIN 'D' OUTLET STRUCTURE DETAILS
EL PASO, COUNTY

Project No.:	19016
Date:	Nov. 23, 2020
Design:	MJK
Drawn:	MJK
Check:	AWMc
Revisions:	

**GLEN AT WIDEFIELD NO. 10
DETENTION BASIN & MISC DETAILS
BASIN D
EL PASO, COUNTY**



Engineering Record Drawings

"I hereby affirm that the improvements for The Glen at Widefield Filing No. 10 have been constructed in substantial compliance with the Construction Specifications approved by El Paso County."

Andrew W. McCord
Andrew W. McCord, PE
12/20/2021
Date



Project No.:	19016
Date:	Nov. 23, 2020
Design:	MJK
Drawn:	MJK
Check:	AWMc
Revisions:	

SHEET

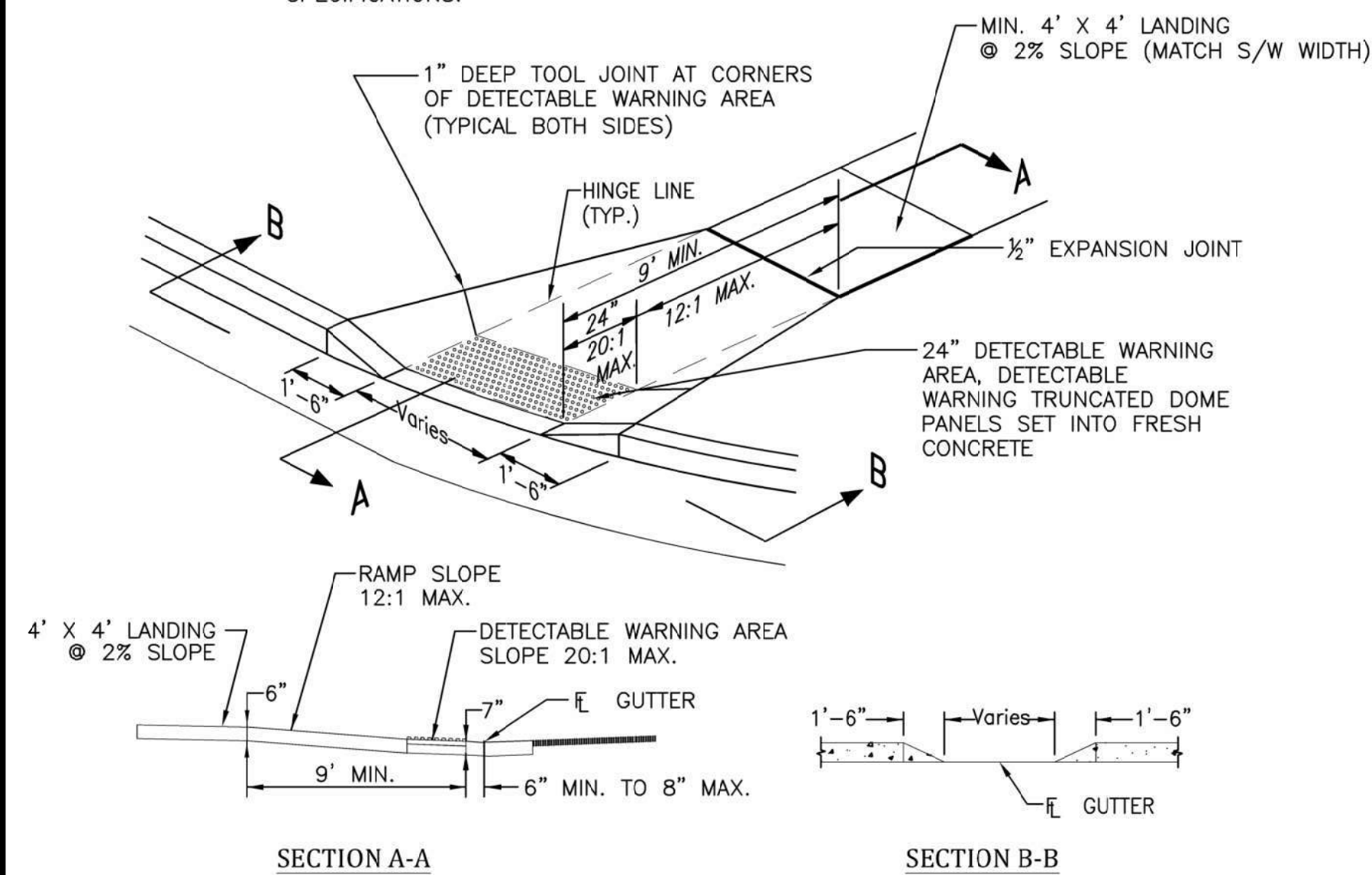
13

15 of 17 Sheets

GENERAL NOTES

▲ EXPANSION JOINTS SHALL BE INSTALLED WHEN ABUTTING EXISTING CONCRETE OR FIXED STRUCTURE. EXPANSION JOINT MATERIAL SHALL BE 1/2" THICK AND SHALL EXTEND THE FULL DEPTH OF CONTACT SURFACE.

CONCRETE SHALL BE PER EL PASO COUNTY ENGINEERING DIVISION SPECIFICATIONS.

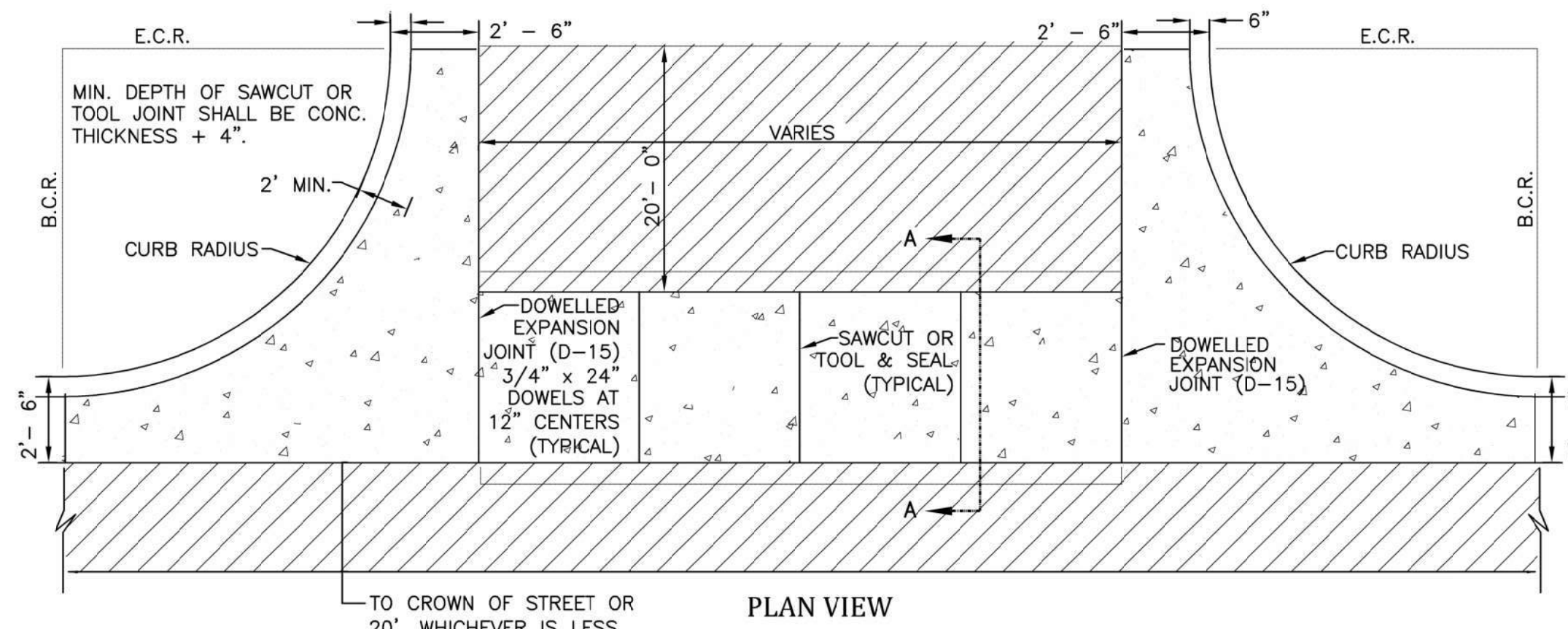


PEDESTRIAN RAMP DETAILS

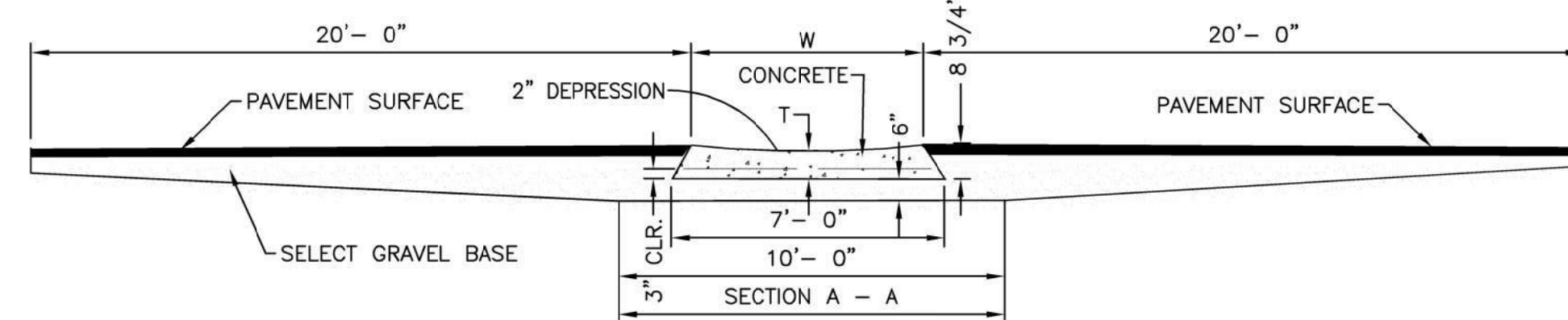
EPC STD. SD_2-40
NOT TO SCALE

GENERAL NOTES

- All work shall be done in accordance with current Engineering Manual and ADA requirements.
- Contractor to notify Engineering Division inspection staff 48 hours prior to concrete placement.
- Pedestrian ramp construction shall be a minimum 4500 psi concrete, minimum 4" thick, non-colored, non-scored, coarse broom finish.
- Ramp location and length may require modification to maintain the 12:1 maximum running ramp slope and 20:1 detectable warning area due to street intersection grades and / or alignment.
- Detectable warning area shall start a minimum of 6" but not more than 8" from the flow line of the curb at any point.
- Detectable warning area shall be prefabricated reddish integrally colored truncated-dome surfaced thermoplastic.
- The detectable warning area shall be 24" in length and the full width of the ramp.
- Ramp width required is the same as approaching sidewalk, 4' minimum.
- All ramps will be perpendicular to traffic with the exception of mid-block or terminal ramps which may be parallel subject to approval.
- Avoid placing drainage structures, traffic signal / signage, utilities / junction boxes, or other obstructions within proposed ramp areas.
- Where the 1'-6" flared side(s) of a perpendicular curb ramp is (are) contiguous with a pedestrian or hard surface area, the flare width shall be increased to 8' minimum and the maximum flare slope shall not exceed 10:1.
- Pedestrian walkway and / or location of existing or future pedestrian ramps on opposite corners shall be reviewed before construction new ramps. New ramps shall align with existing ramps and pedestrian walkway.
- At marked pedestrian crossings, the bottom of the ramps, exclusive of the flare sides, shall be totally contained within the markings.
- Sidewalk cross-slope: 1/4"/ft.
- Concrete mix design shall conform to the requirements of the color admixture manufacturer and the following:
 - 28-day compressive strength = 4,500 PSI (min.)
 - Water/cement ratio = 0.45 (max.)
 - Cement content = 6-1/2 sacks/C.Y. (min.) (Type II cement)
 - Maximum aggregate size = 3/4"
 - Entrained air content = 6% - 10%
 - Slump = 1 inch (min.) - 4 inches (max.)



PLAN VIEW



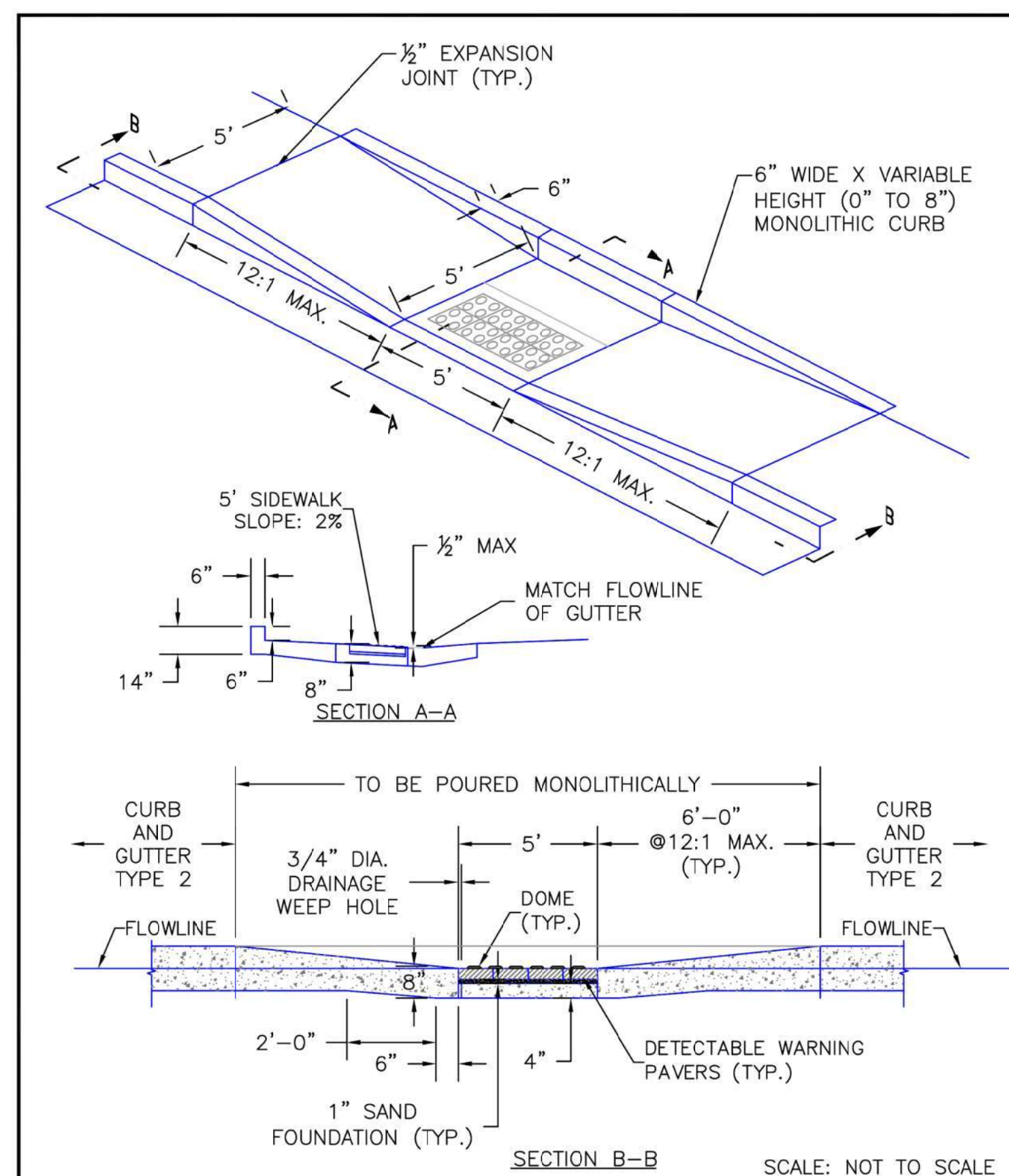
SECTION A-A

NOTES

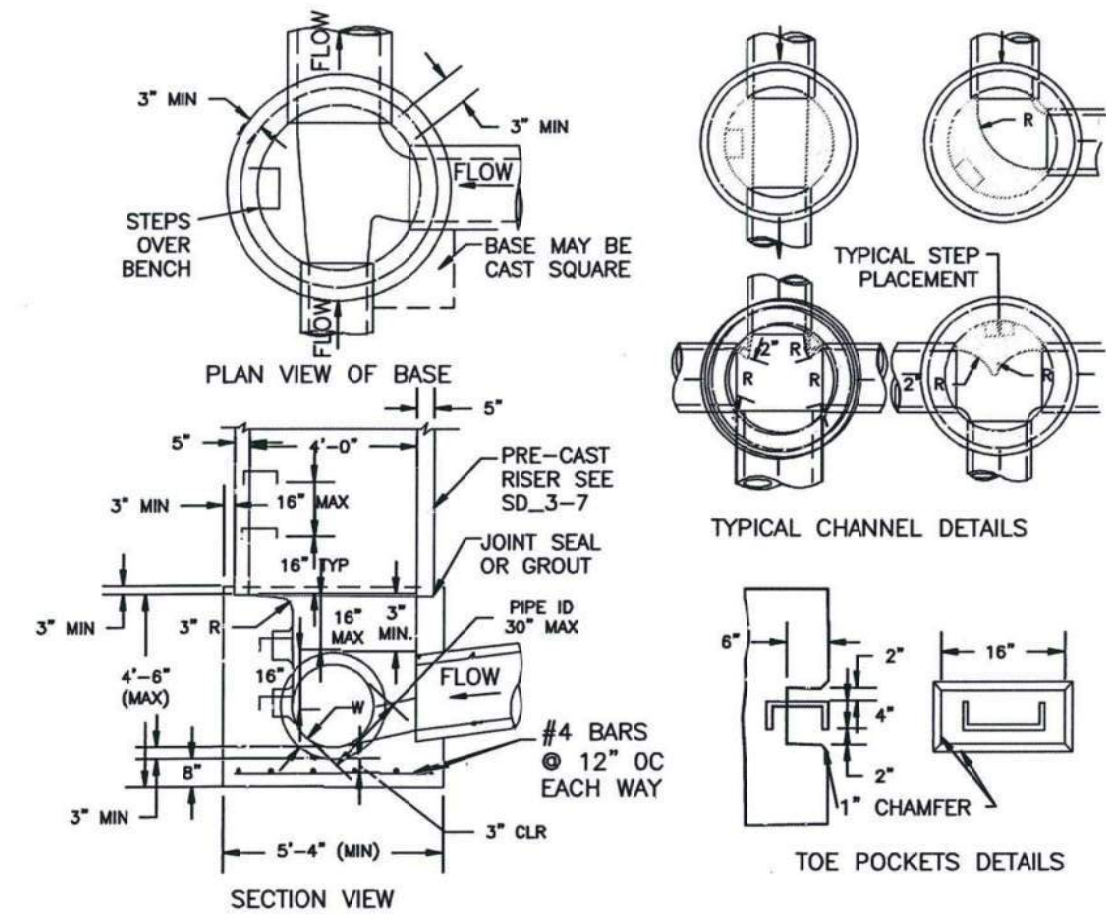
- W - WIDTH SHALL BE 6' FOR LOCAL, 8' FOR COLLECTORS, AND 10' FOR ARTERIAL ROADS.
- T - SQUARED-OFF RETURN TO BE POURED MONOLITHIC 8" P.C.C. MINIMUM WITH 6x6 - 4,4 W.W.F. OR #4 @ 18" E.W.
- [Hatched Area] = 3" MINIMUM ASPHALT DEPTH (2 LIFTS).
- DESIGN TO SPECIFY ELEVATIONS AT PI AND PCR

CROSS PAN DETAIL

EPC STD. SD_2-26
NOT TO SCALE



SCALE: NOT TO SCALE



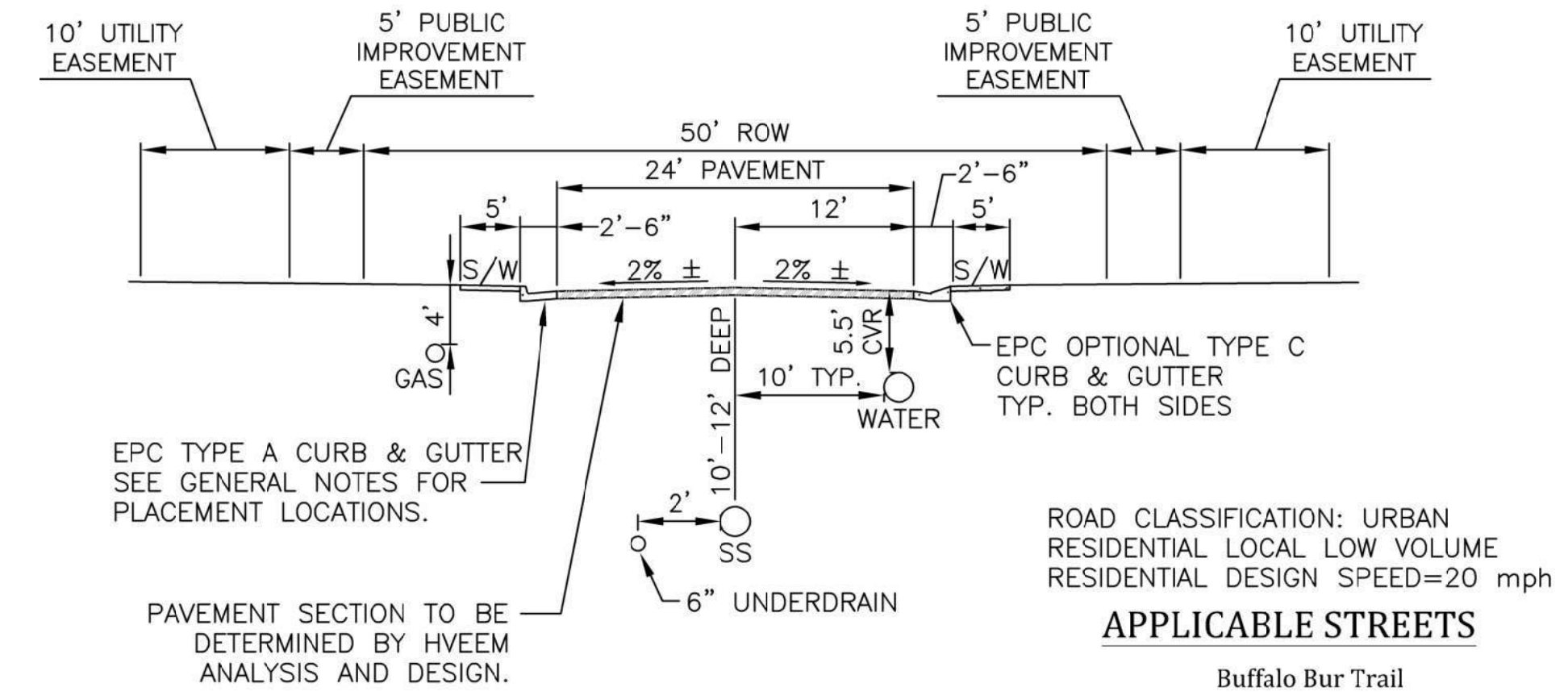
NOTES

- TYPE II MANHOLES SHALL BE USED WHEN APPROPRIATE AND TYPICALLY WHEN THE PIPE SIZES ARE 30" OR LESS INSIDE DIAMETER.
- VIEW AND DETAILS ARE TYPICAL DESIGN ENGINEER SHALL DETERMINE MANHOLE BASE CONFIGURATION AND DIMENSIONS FOR PARTICULAR PIPE SIZES AND ALIGNMENT.
- EITHER LADDER OF STEPS SHALL BE INSTALLED WHEN MANHOLE DEPTH EXCEEDS 30". STEPS IN BASE SHALL BE INSTALLED IN "TOE POCKETS" (SEE DETAIL THIS SHEET). LOWEST STEP SHALL BE A MAXIMUM OF 16" ABOVE THE FLOOR.
- PIPES SHALL BE TRIMMED TO FINAL SHAPE AND SET BEFORE MANHOLE IS POURED.
- BENCH SHALL BE SLOPED TOWARD CENTER OF MANHOLE BASE (4:1 MAX., 1/2" PER FOOT. MIN.).
- FLOOR OF MANHOLE SHALL BE TROWELLED TO A SMOOTH, HARD SURFACE AND SHALL SLOPE TOWARDS THE OUTLET (8:1, 1/2" PER FT. MIN.). FLOOR SHALL BE SHAPED AND CHANNELLED; SEE DETAILS THIS SHEET.

SCALE: NOT TO SCALE

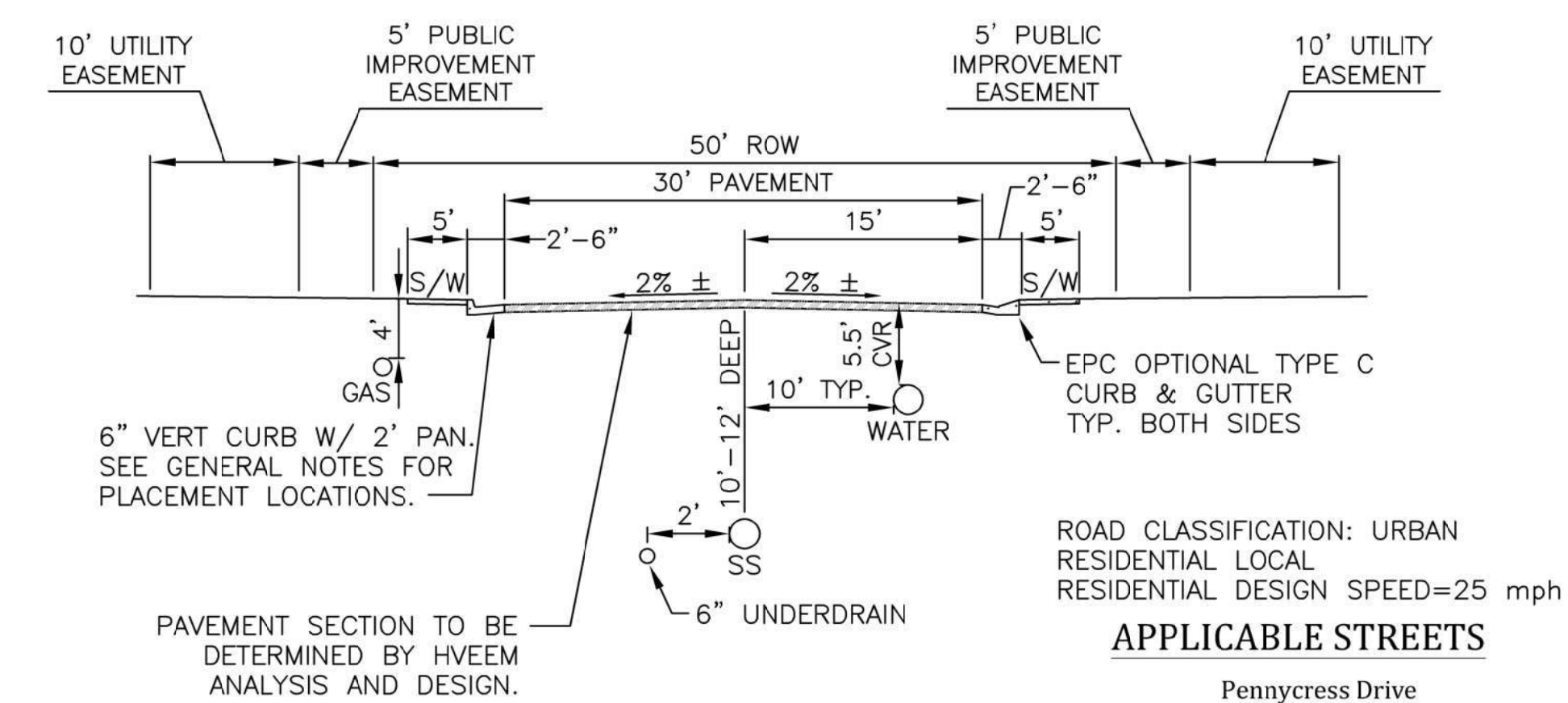
STORM MANHOLE DETAIL TYPE II

EPC STD. SD_3-2



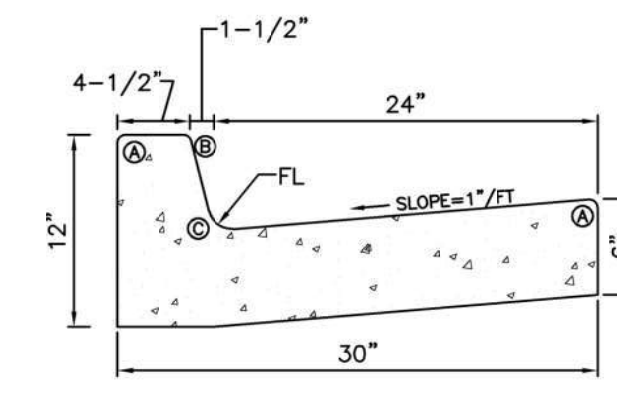
**TYPICAL STREET SECTION
GLEN AT WIDFIELD FILING NO. 10**

NOT TO SCALE

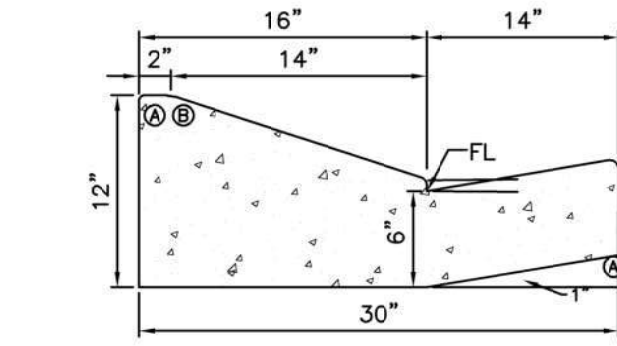


**TYPICAL STREET SECTION
GLEN AT WIDFIELD FILING NO. 10**

NOT TO SCALE



EPC TYPE A CURB & GUTTER
NTS



EPC OPTIONAL TYPE C CURB & GUTTER
NTS

LENGTH FOR RADII
A=1/8"-1/4" B=1-1/2" C=1-1/2"-2"

CURB & GUTTER DETAILS

EPC STD. SD_2-20
NOT TO SCALE

Engineering Record Drawings

"I hereby affirm that the improvements for The Glen at Widefield Filing No. 10 have been constructed in substantial compliance with the Construction Plans approved by El Paso County."



12/20/2021
Date

8/11/11	Parallel Pedestrian Ramp Detail Standard Drawing	EL PASO COUNTY DEPARTMENT OF TRANSPORTATION
DATE APPROVED:	REVISION DATE:	FILE NAME:
André P. Brackin	12/8/15	SD_2-50
DEPARTMENT OF TRANSPORTATION	EPC STD. SD_2-50	

PARALLEL PEDESTRIAN RAMP DETAIL
NOT TO SCALE

Project No.:	19016
Date:	Nov. 23, 2020
Design:	MK
Drawn:	MJK
Check:	AWMc
Revisions:	

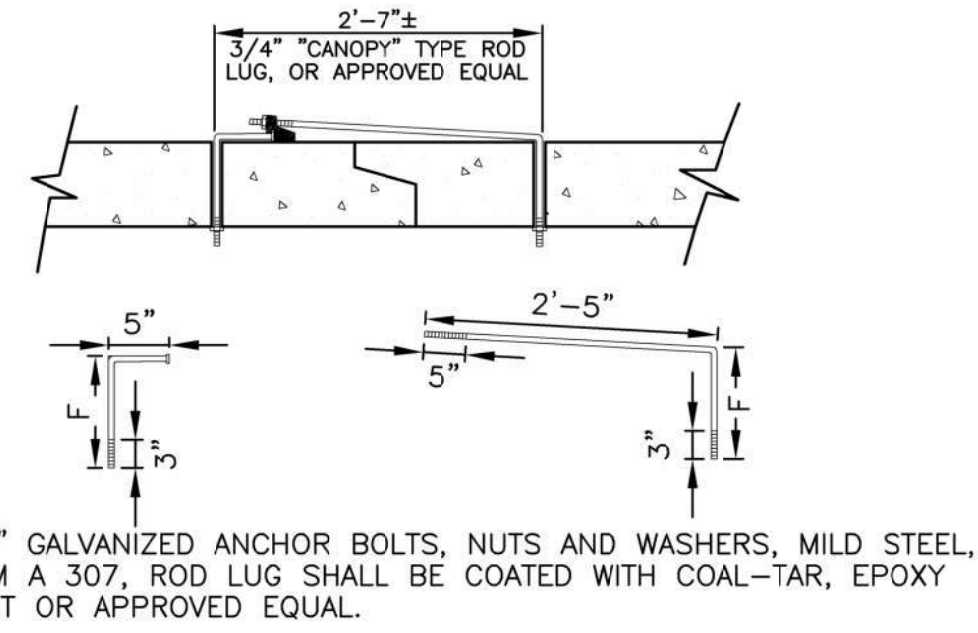
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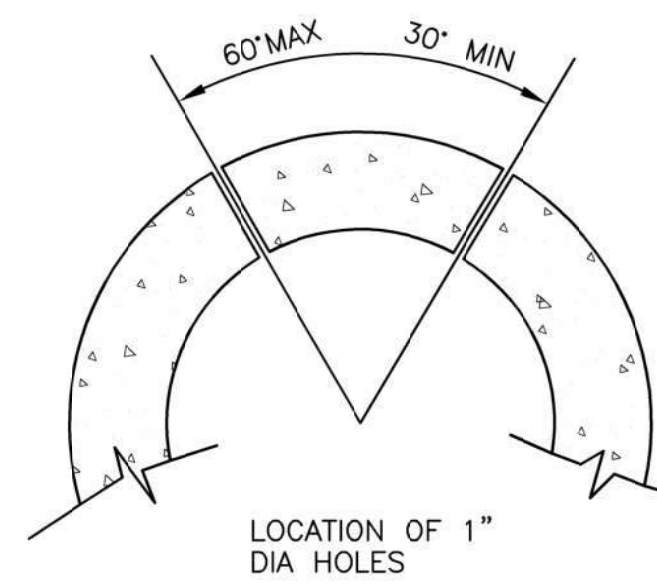
16 of 17 Sheets

UNDERDRAIN NOTES

1. UNDERDRAIN TO BE CONSTRUCTED WHERE INDICATED BY A DASHED LINE (---).
2. SOLID DRAIN PIPE WILL BE USED IN AREAS AS SHOWN ON THE PLANS AND AS DIRECTED BY THE GEOTECHNICAL ENGINEER.
3. ALL UNDERDRAIN CONSTRUCTION SHALL CONFORM WITH THE LATEST CITY OF COLORADO SPRINGS STANDARDS.
4. ENGINEERING FABRIC TO HAVE A MINIMUM 12-INCH OVERLAP ABOVE UNDERDRAIN GRANULAR FILL.
5. UNDERDRAIN PIPE TO BE CONSTRUCTED WITH THE TOP OF PIPE EQUAL TO OR BELOW THE BOTTOM OF THE SANITARY SEWER PIPE.
6. GEOTECHNICAL ENGINEER TO DETERMINE EXTENT OF ACTIVE/PASSIVE UNDERDRAIN DEPENDING UPON CONDITIONS ENCOUNTERED DURING CONSTRUCTION.
7. THE CONNECTION BETWEEN THE ACTIVE AND PASSIVE PORTIONS OF THE UNDERDRAIN SYSTEM IS TO BE CONSTRUCTED WITH A NON-PERMEABLE BARRIER SO THAT ALL COLLECTED GROUNDWATER IS DIRECTED INTO THE PASSIVE PIPE SECTION.

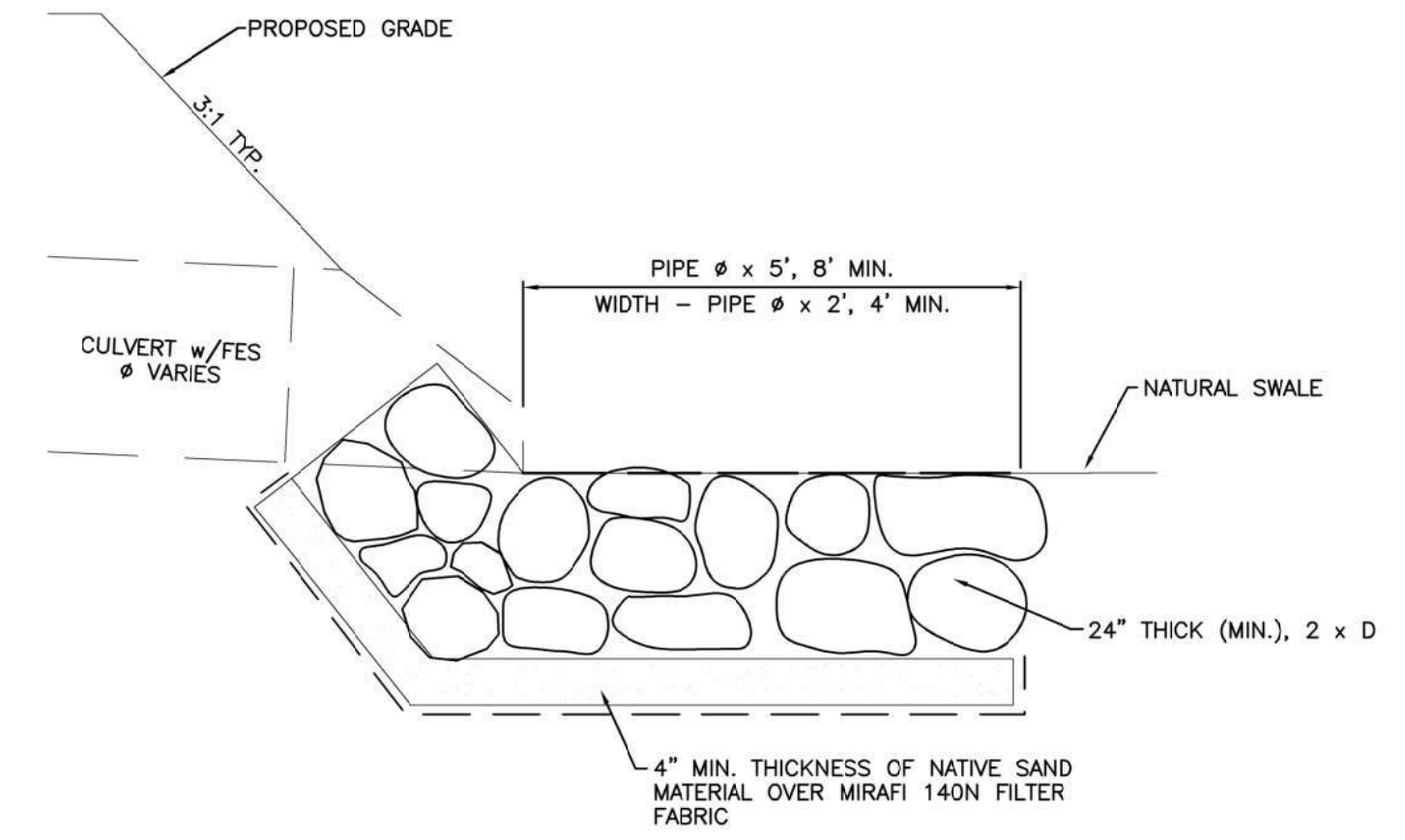


CONCRETE PIPE JOINT FASTENER DETAIL
NOT TO SCALE

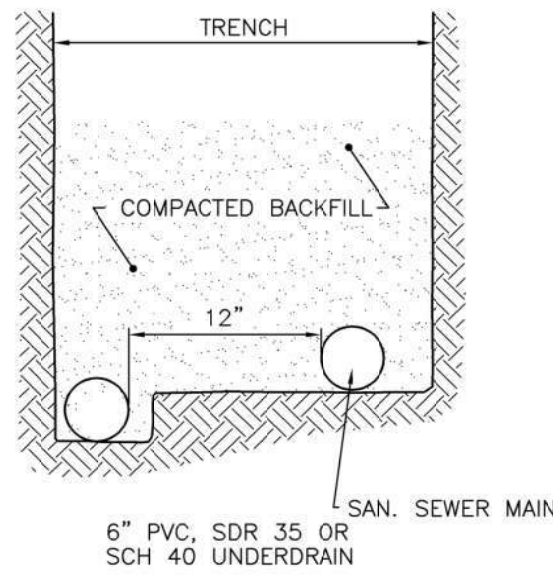


NOTE:
CONCRETE JOINT FASTENERS REQUIRED ON THE FIRST TWO PIPE JOINTS FROM A FLARED END SECTION.

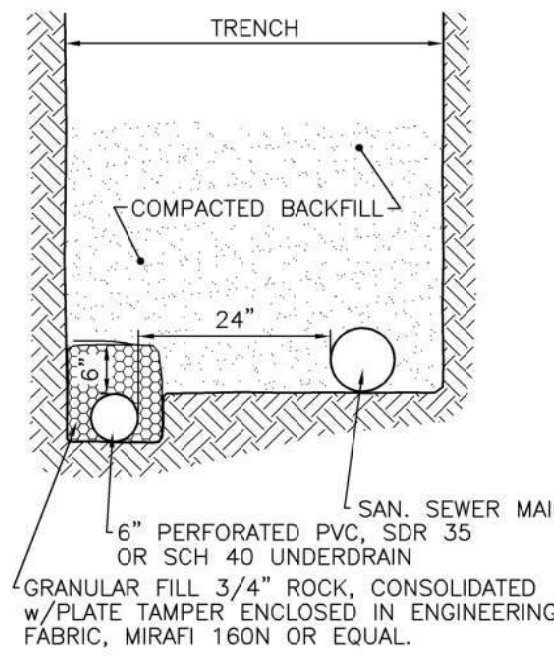
PIPE DIAMETER	F
18"-30"	5"
36"-42"	6"
48"-60"	7"
72"-84"	9"



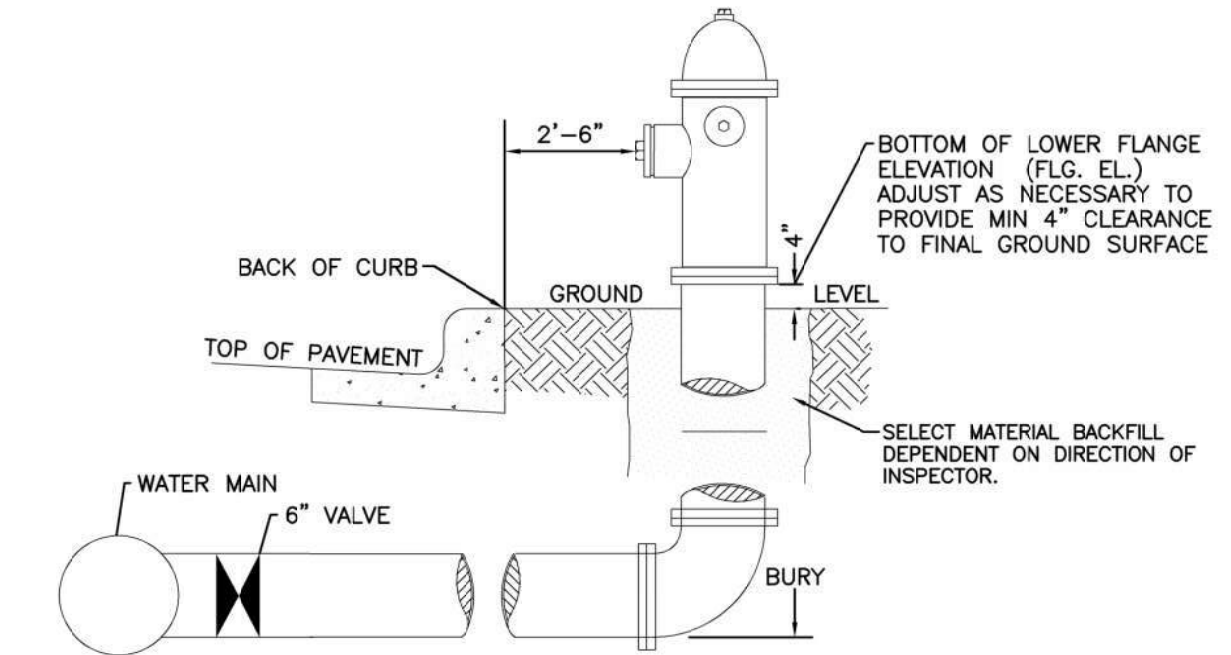
TYPICAL CULVERT OUTLET PROTECTION
NOT TO SCALE



PASSIVE UNDERDRAIN DETAIL
NOT TO SCALE



ACTIVE UNDERDRAIN DETAIL
NOT TO SCALE



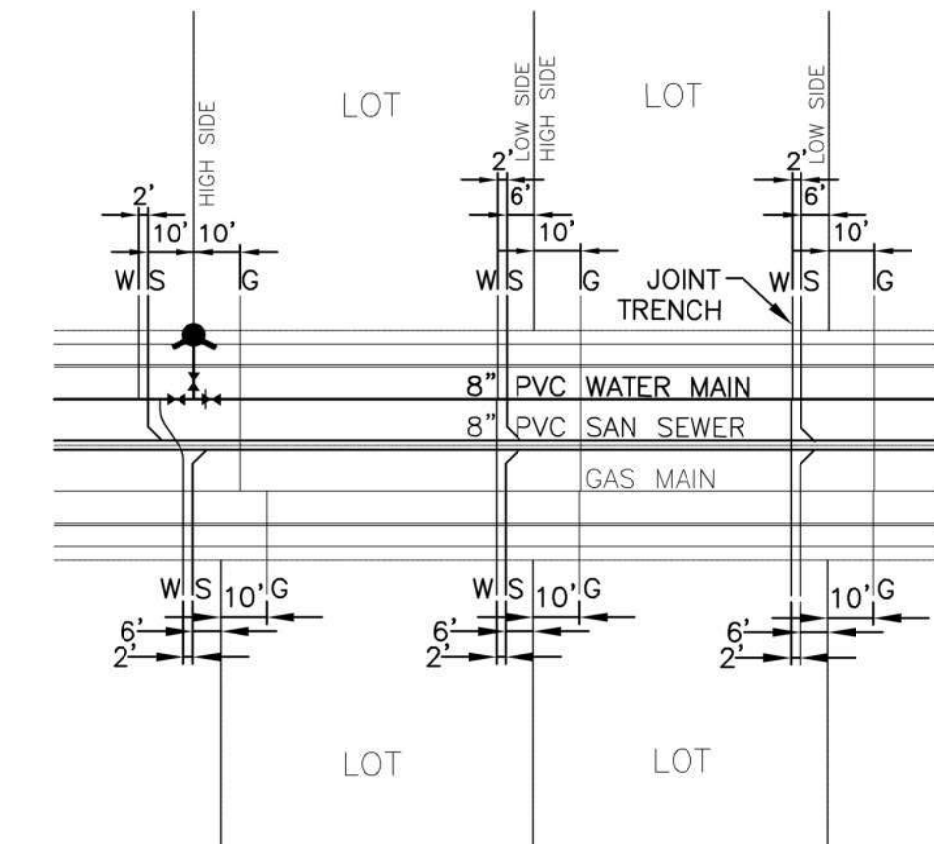
GENERAL NOTES:

1. Hydrant nozzles shall be positioned at right angles to curb. If no curb or sidewalk exists, nozzles shall be placed at right angle to street or alley.
2. Hydrants shall be placed a minimum of 5.0 feet from any utility or drainage structure.
3. Any hydrant being installed with conditions other than those mentioned and/or detailed below will require signed approval from the Widefield Water District and Security Fire District.
4. See Site Utility Plan for hydrant locations and flange elevations.
5. The upper exposed section of the hydrant above ground shall be painted rustoleum 659 yellow or equal. The buried portion of the hydrant shall be given a bituminous coating in accordance with Section 10-8.1 of AWWA Standard C110.

FIRE HYDRANT DETAIL
NOT TO SCALE

SUBSEQUENT TO STRIPPING AND GRUBBING THE FOLLOWING OVERLOT/PIPE INSTALLATION PROCEDURES ARE ANTICIPATED FOR THE SANITARY SEWER LOCATED ON PROPOSED EMBANKMENTS:

- THE REMOVAL AND REPLACEMENT OF METASTABLE SOIL.
- TESTING OF THE FILL SUBSEQUENT TO THE PENETRATION OF THE METASTABLE SOIL WILL CONTINUE UNTIL A MINIMUM OF 7 FEET OF STRUCTURAL FILL HAS BEEN PLACED ABOVE THE PROPOSED SEWER LINE ELEVATION.
- UTILITY TRENCHES SHALL BE EXCAVATED AND SANITARY SEWER LINE INSTALLED. THE PIPE SHALL BE PROPERLY BEDDED AND STRUCTURAL FILL PLACED AND TESTED TO THE PREVIOUS GRADE.
- THE OVERLOT AND EMBANKMENT FILL CAN BE COMPLETED.
- WHERE THE SANITARY SEWER IS PLACED IN EMBANKMENT FILL DURING THE OVERLOT PROCESS, SITE SHALL MONITOR AND TEST ALL WORK ASSOCIATED WITH THE AFFECTED PORTIONS.



TYPICAL JOINT-TRENCH UTILITY SERVICE DETAIL
NOT TO SCALE

Engineering Record Drawings

"I hereby affirm that the improvements for The Glen at Widefield Filing No. 10 have been constructed in substantial compliance with the Construction Plans approved by El Paso County."

Andrew W. McCord, PE
25057
12/20/2021
Date