

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). Any asphalt removed is to be replaced to meet the specifications of the El Paso County Planning and Community Development.
3. For pavement design, curb and gutter, and sidewalks see individual plan and profile sheets. Pavement design to be based on Resistance Value 'R' derived from Hveem tests and are to be approved by the Engineering Division of the El Paso County Planning and Community Development prior to work above subgrade.
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. The contractor is responsible for field location and verification prior to beginning work. If it appears that there could be a conflict with any utilities, whether indicated on the plans or not, the contractor is to notify the engineer and owner immediately. The contractor is responsible for the protection and repair (if necessary) of all utilities.
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. Pedestrian ramp locations are as shown on the plans.
11. Where appropriate, neatly saw cut all existing concrete and asphalt. Repair/replace all disturbed existing items with like materials and thicknesses.
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. Pipe lengths are given as a horizontal length.
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 sizes and bends used in construction of storm sewer facilities shall be factory fabricated, unless approved by the El Paso County Planning and Community Development.
18. Construction and materials used in all storm and sanitary sewer manholes shall be per specifications. Storm sewer radial deflections to be grouted or installed per manufacturer's recommendations.
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. Sanitary sewers to be installed with Class 'C' bedding. Sanitary sewers deeper than 12-feet shall require Class 'B' bedding. Pipe used for construction of sanitary sewer shall be SDR 35 unless shown otherwise on plan and profiles.
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 BPC Type A Standard 6-inch vertical curb. See typical street section for design point locations.
25. Water and sanitary sewer service provided by Widefield Water and Sanitation District. Telephone service provided by Qwest Communications. Gas service provided by Blackhills Energy. Electric service provided by Mountain View Electric.
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. Transitions from ramp to vertical curb shall be 10-feet unless otherwise approved by the El Paso County Planning and Community Development. All other curb & gutter to be ramp curb & gutter.
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 CBH Mailboxes are to be determined by USPS.
BENCHMARK: Monument is located at the Northwest corner of the intersection of Powers Boulevard and Fontaine Street. The monument is a 3-inch aluminum cap (PIMS ID #206). Located 51.3 feet west of the west edge of asphalt of Powers Blvd and 65.5 feet north of the north edge of asphalt of Fontaine Street. Elevation=5897.89 feet (NGVD 1929, 1960 Ad).
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. 206712226 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". Said line bears N29°46'44"W, a distance of 1154.12 feet.

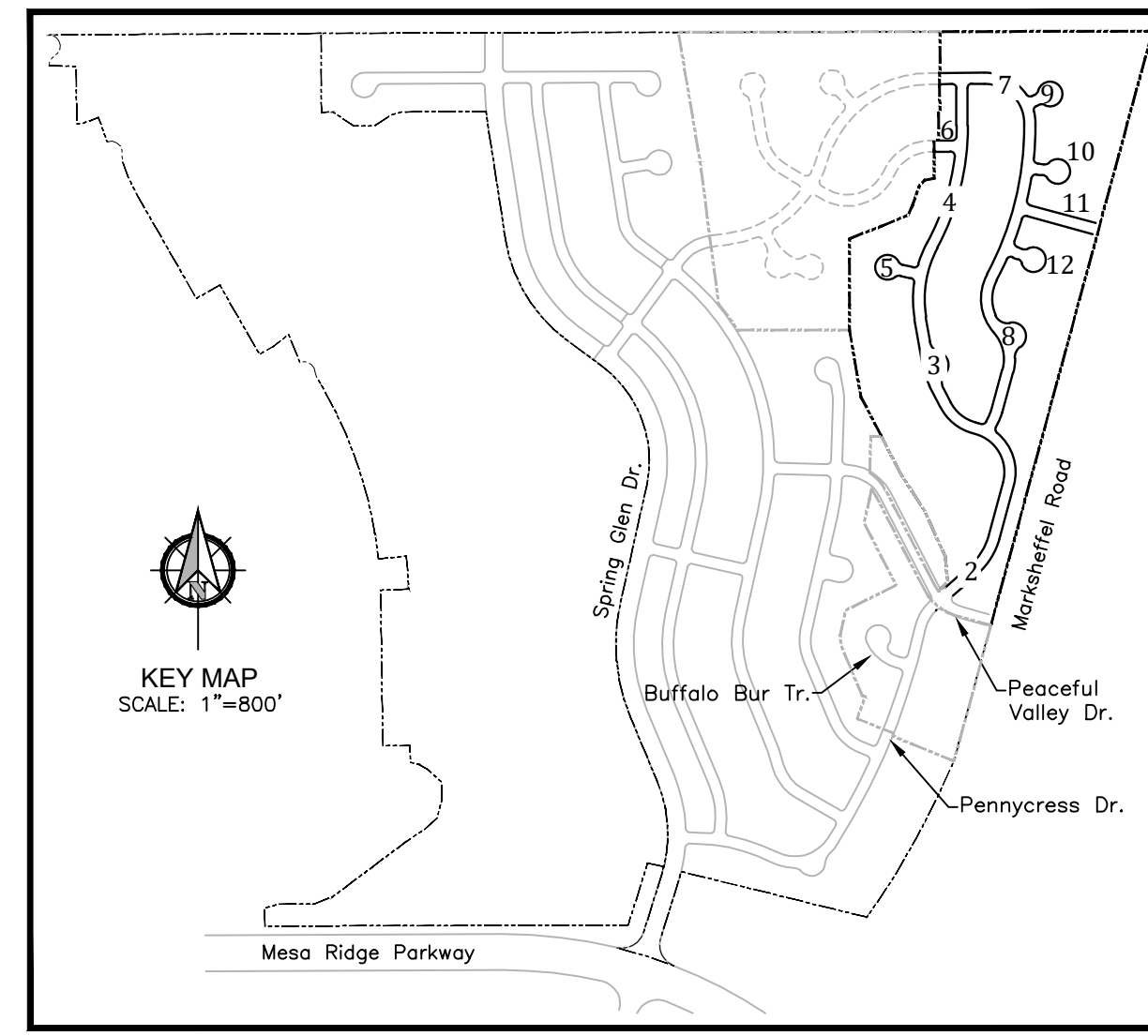
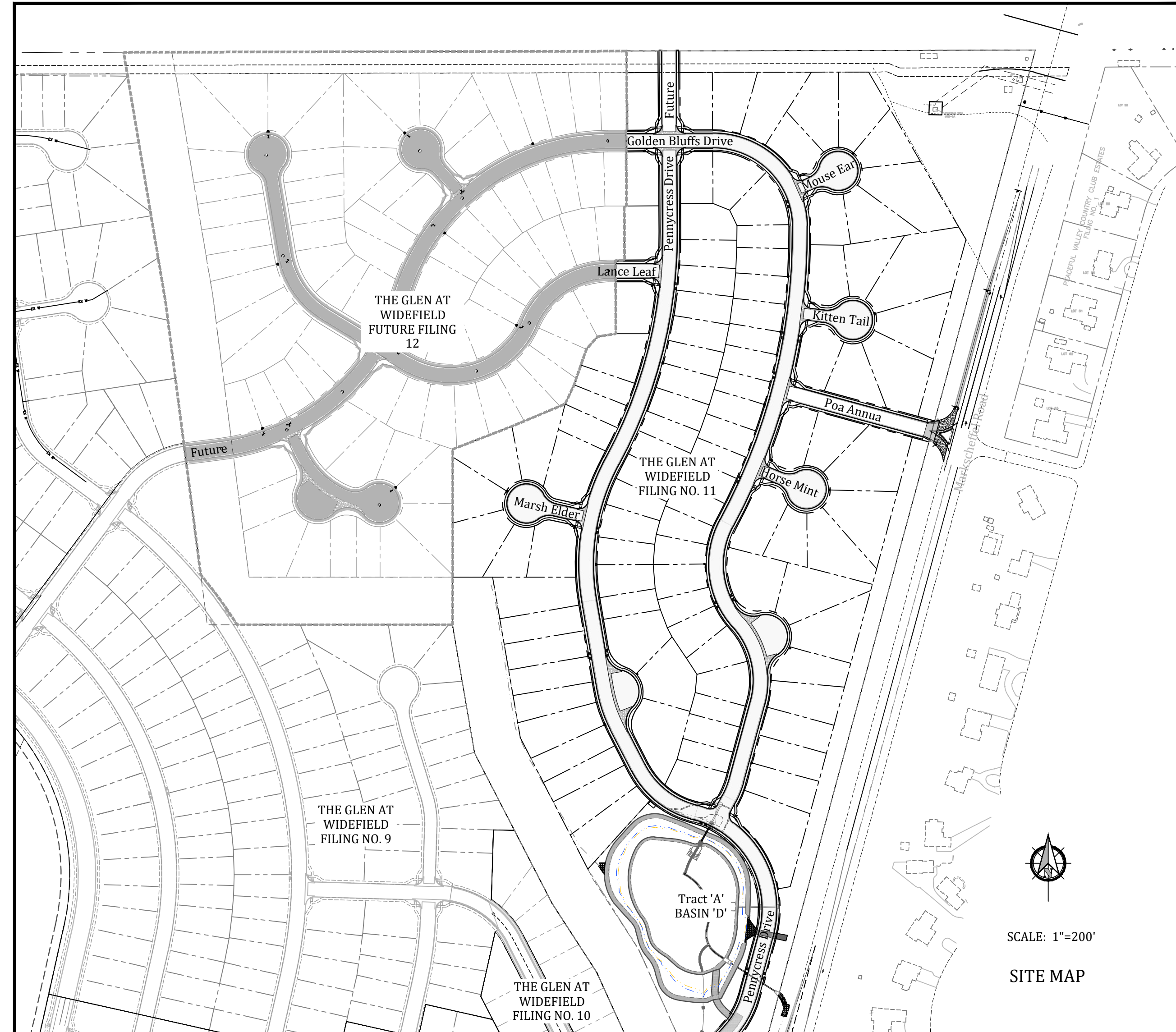
EL PASO COUNTY STANDARD NOTES

- 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. Location of existing utilities shall be verified by the contractor prior to construction. Call 811 to contact the Utility Notification Center of Colorado (UNCC).
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, including the following:
a. El Paso County Engineering Criteria Manual (ECM)
b. City of Colorado Springs/El Paso County Drainage Criteria Manual, Volumes 1 and 2
c. Colorado Department of Transportation (CDOT) Standard Specifications for Road and Bridge Construction
d. CDOF M & S Standards
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 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. Any modifications necessary to meet criteria after-the-fact will be entirely the developer's responsibility to rectify.
5. It is the design engineer's responsibility to accurately show existing conditions, both onsite and offsite, on the construction plans. Any modifications necessary due to conflicts, omissions, or changed conditions will be entirely the developer's responsibility to rectify.
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, including but not limited to El Paso County Erosion and Stormwater Quality Control Permit (ESQCP), Regional Building Floodplain Development Permit, U.S. Army Corps of Engineers-issued 401 and/or 404 permits, and county and state fugitive dust permits.
8. Contractor shall not deviate from the plans without first obtaining written approval from the design engineer and P&CDD. Contractor shall notify the design engineer immediately upon discovery of any errors or inconsistencies.
9. All storm drain pipe shall be Class III RCP unless otherwise noted and approved by P&CDD.
10. Contractor shall coordinate geotechnical testing per ECM standards. Pavement design shall be approved by El Paso County P&CDD prior to placement of curb and gutter and pavement.
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. Obstructions greater than 18 inches above flowline are not allowed within sight triangles.
13. Signing and striping shall comply with El Paso County DOT and MUTCD criteria. [If applicable, additional signing and striping notes will be provided.]
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. The owner/developer shall obtain written permission and easements, where required, from adjoining property owner(s) prior to any off-site disturbance, grading, or construction.

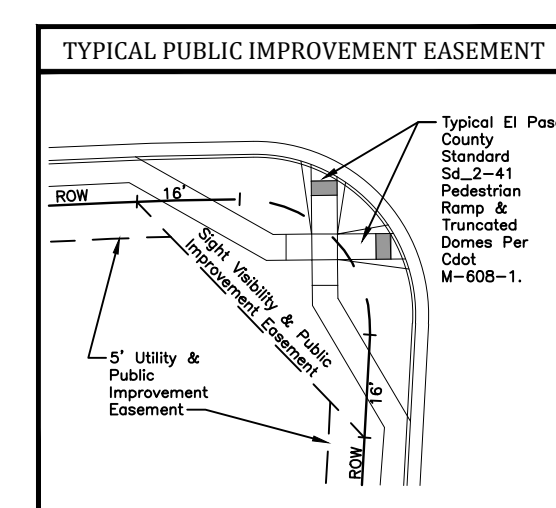
INDEX OF SHEETS

Table with 3 columns: SHEET INDEX, THE GLEN AT WIDEFIELD FILING NO 11, and descriptions of sheet contents such as Cover Sheet, Plan & Profile - Pennycrest Drive, Storm Sewer Plan - Lateral 'E' & 'F', etc.

THE GLEN AT WIDEFIELD FILING NO. 11
RESIDENTIAL SUBDIVISION CONSTRUCTION DRAWINGS
PREPARED FOR WIDEFIELD INVESTMENT GROUP



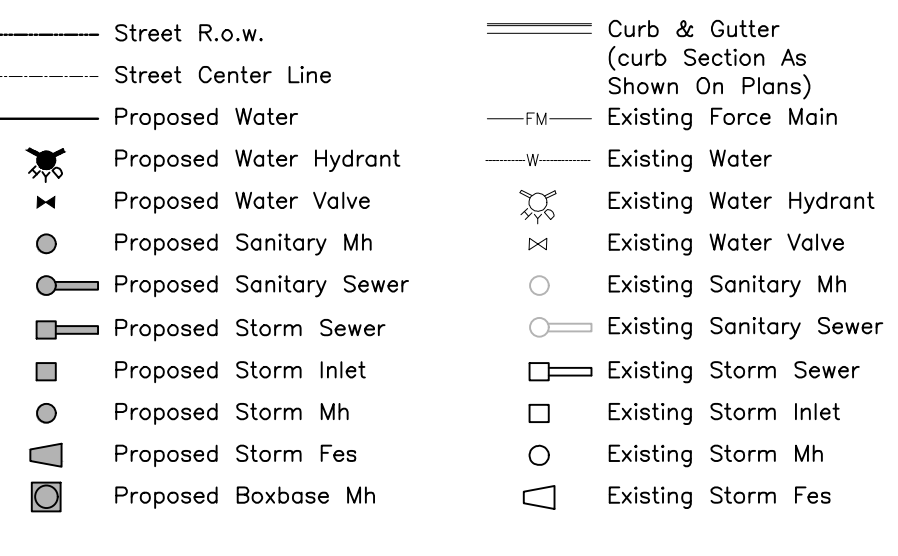
ABBREVIATIONS table listing symbols and their meanings for various engineering elements like Assembly, Boundary, Outside Diameter, etc.



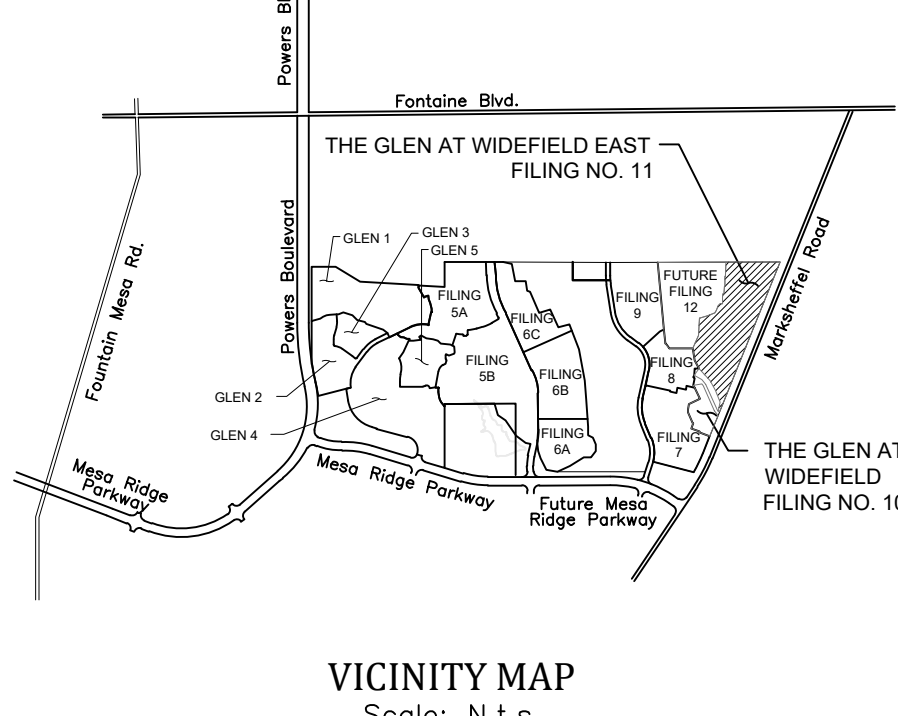
WIDEFIELD WATER AND SANITATION DISTRICT GENERAL NOTES

- 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 water lines 6" and larger, and all sewer lines 8" and larger, shall have as-built plans prepared and approved prior to final acceptance.
11. Any water utility material removed and not reused shall be returned to the Widefield Water and Sanitation District if the District so requests.
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-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



VICINITY MAP



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. The design and specifications meet the purposes for which the particular roadway and drainage facilities were designed and are correct to the best of my knowledge and belief. I accept no responsibility for any liability caused by any negligent acts, errors or omissions of any person preparing these drawings or specifications.

Signature of Andrew W. McCord, Design Engineer, dated Nov 29, 2021.

Owner/Developer's Statement: I, the owner/developer have read and will comply with all of the requirements of the grading and erosion control plan and all the requirements specified in these detailed plans and specifications.

Signature of J. Ryan Watson, Asst Vice President, dated Dec 30th 2021.

El Paso County: County plan review is provided only for general conformance with County Design Criteria. The County is not responsible for the accuracy and adequacy of the design, dimensions, and/or elevations which shall be confirmed at the job site.

Filed in accordance with the requirements of the El Paso County Land Development Code, Drainage Criteria Manual, and Engineering Criteria Manual as amended.

In accordance with ECM Section 1.12, these construction documents will be valid for construction for a period of 2 years from the date signed by the El Paso County Engineer.

Signature of Jennifer Irvine, P.E., County Engineer/ECM Administrator, dated Dec 30th 2021.

UTILITY 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 of J. Ryan Watson, dated Dec 30th, 2021.

DBA: GLEN DEVELOPMENT COMPANY, Address: 3 Widefield Boulevard, Colorado Springs, CO 80911

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 Fire District serving the property noted on the plans.

Signature of Security Fire Department, dated 12/29/21.

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.

Signature of Robert Bandy, dated 12/3/2021.

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.

Signature of Robert Bandy, dated 12/3/2021.

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.

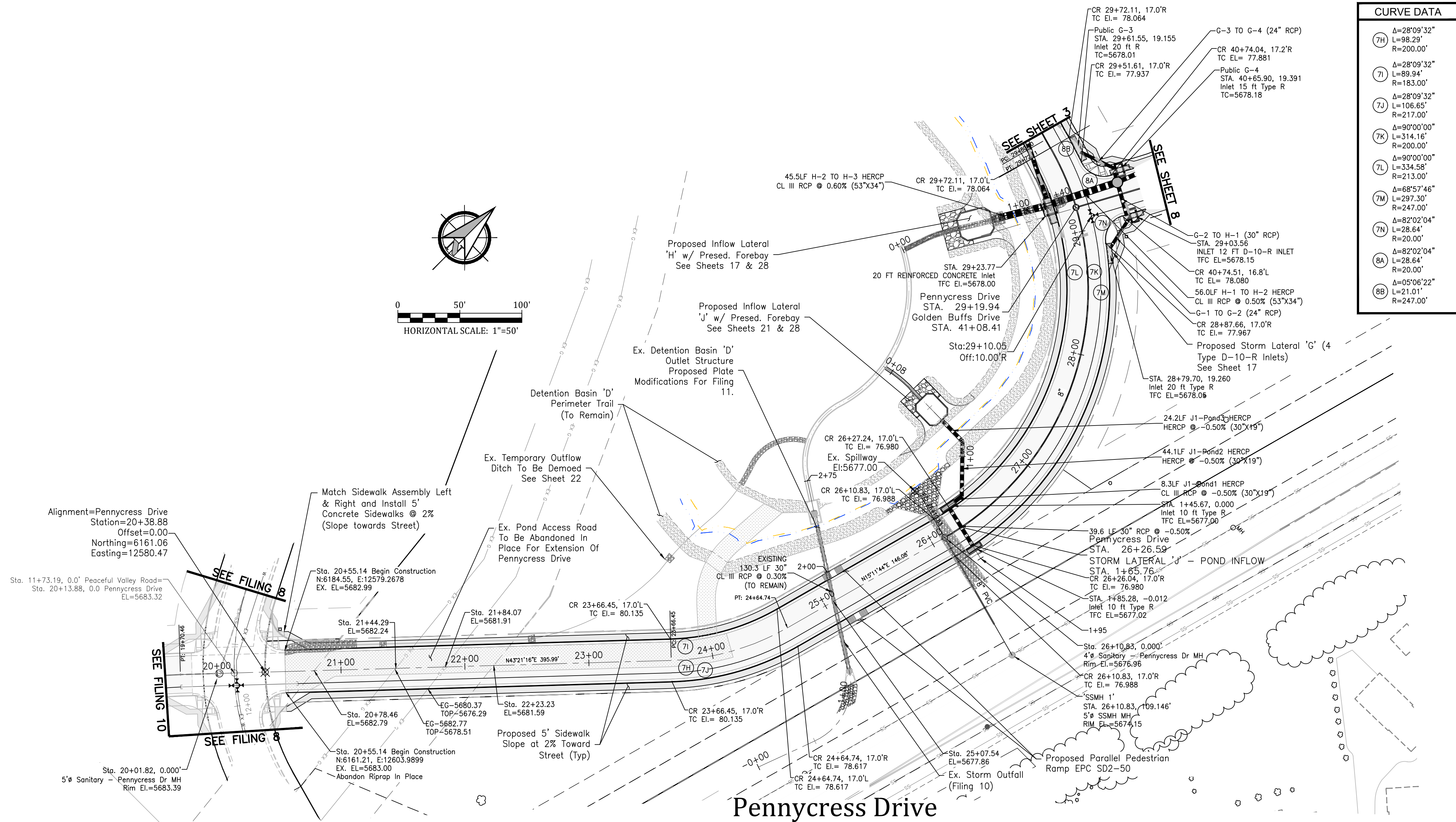
GOVERNING AGENCIES

Table listing governing agencies: El Paso County Planning & Community Development Department, Widefield Water & Sanitation District, Black Hills Energy, Mountain View Electric Association, etc.

DEVELOPER: WIDEFIELD INVESTMENT GROUP. PREPARED BY: Kiowa Engineering Corporation. 1604 South 21st Street, Colorado Springs, Colorado 80904.

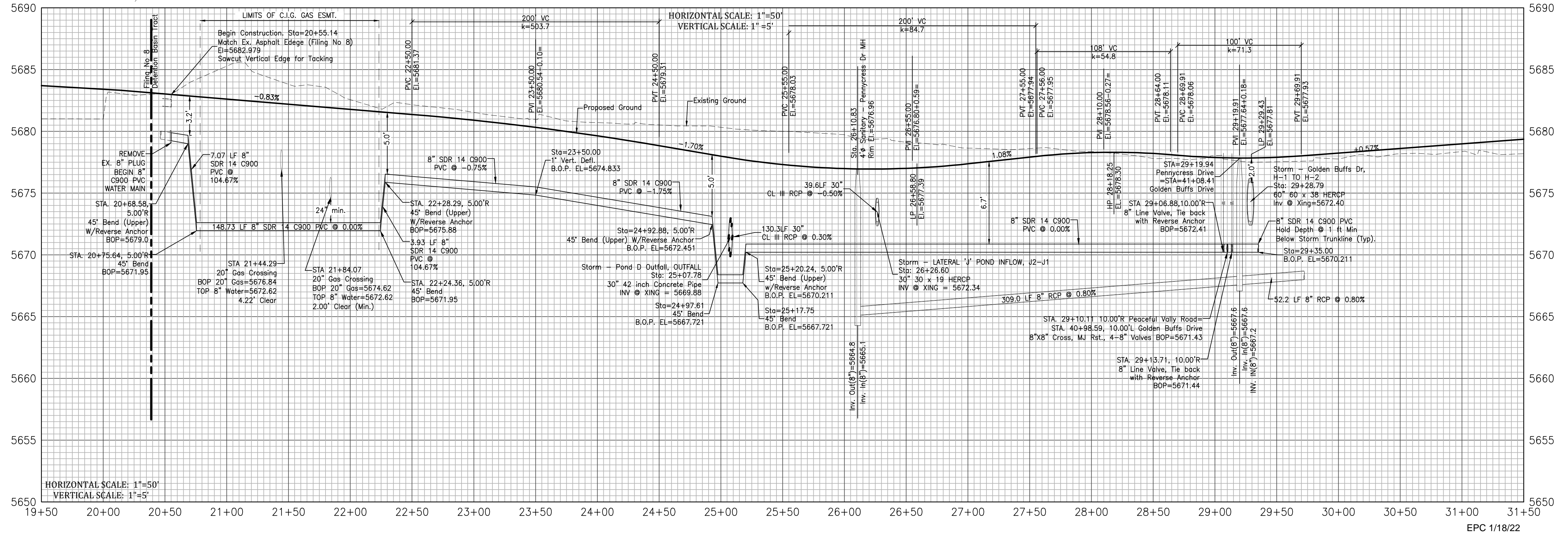
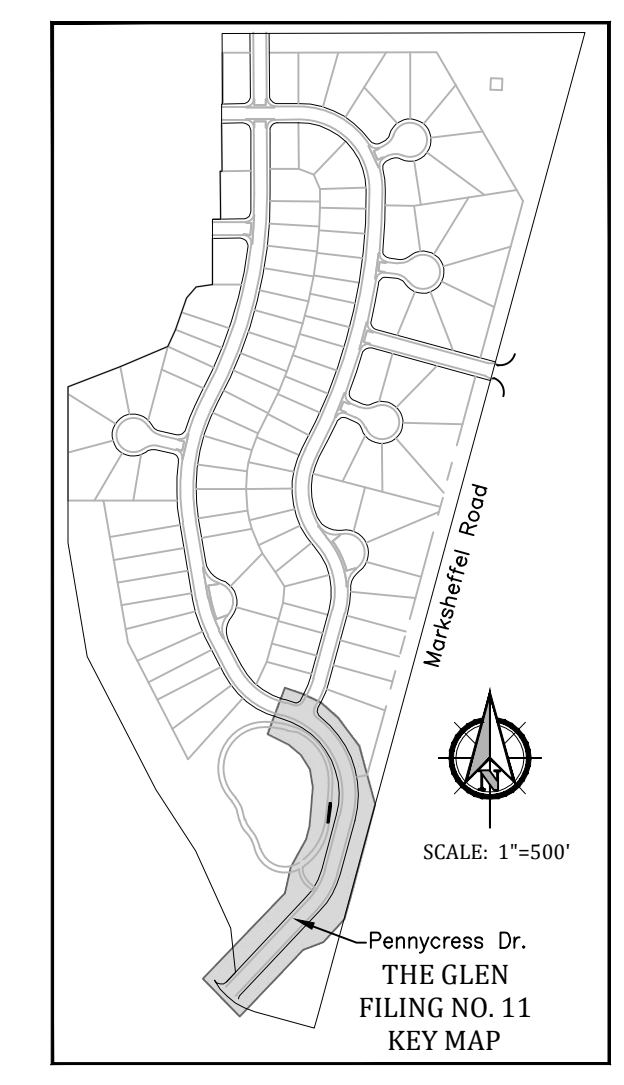


Kiowa Project No. 19016
November 24, 2021



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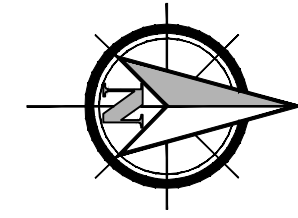
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7K	Δ=90°00'00"	L=314.16'	R=200.00'
7L	Δ=90°00'00"	L=334.58'	R=213.00'
7M	Δ=68°57'46"	L=297.30'	R=247.00'
7N	Δ=82°02'04"	L=28.64'	R=20.00'
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8B	Δ=05°06'22"	L=21.01'	R=247.00'



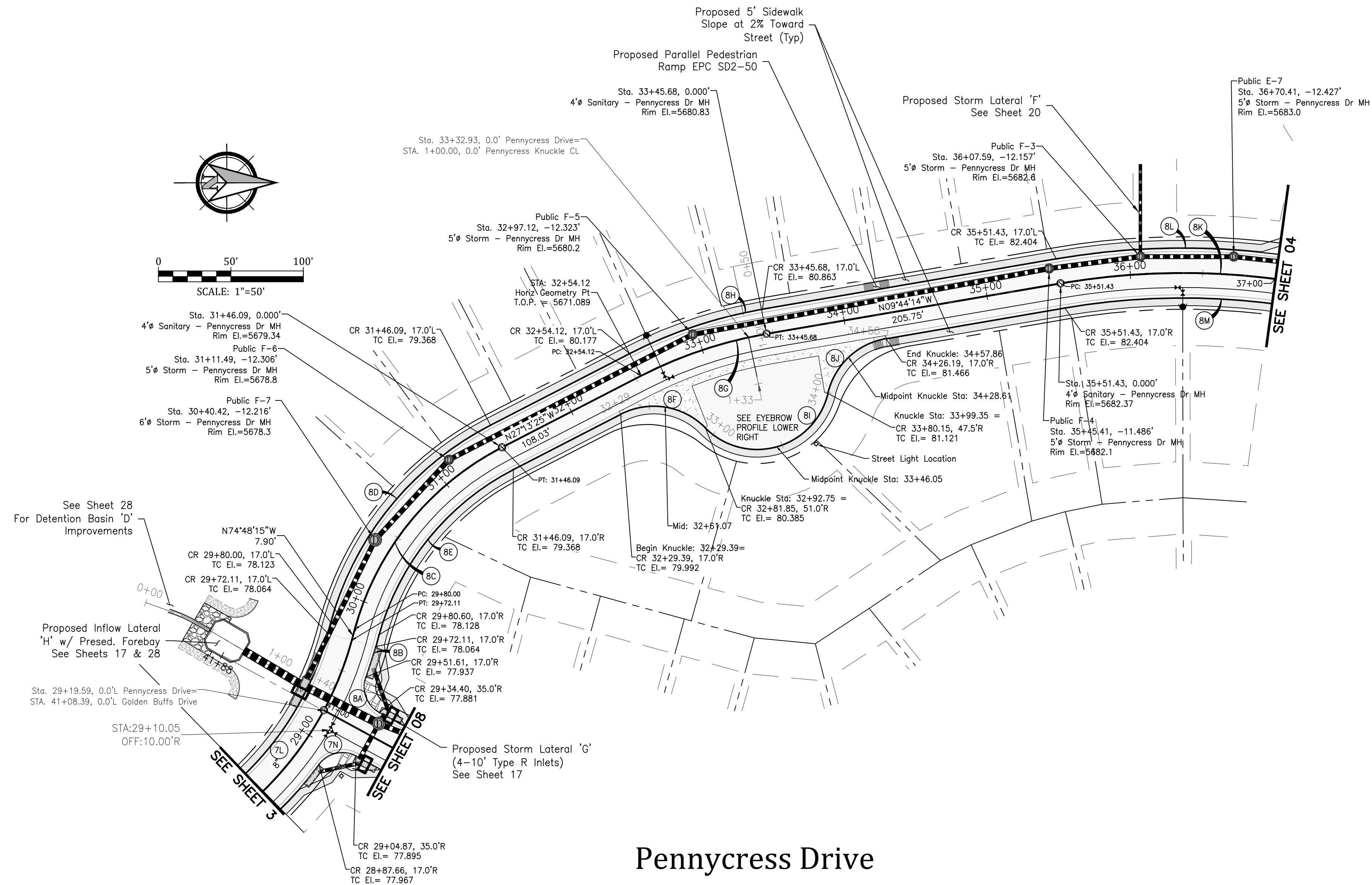
GLEN AT WIDEFIELD NO. 11
Plan and Profile - Pennycress Drive
Sta: 20+54.14 to 29+71.11
EL PASO, COUNTY, COLORADO

Project No.:	19016
Date:	November 24, 2021
Design:	MJK
Drawn:	MJK
Check:	AWMc
Revisions:	

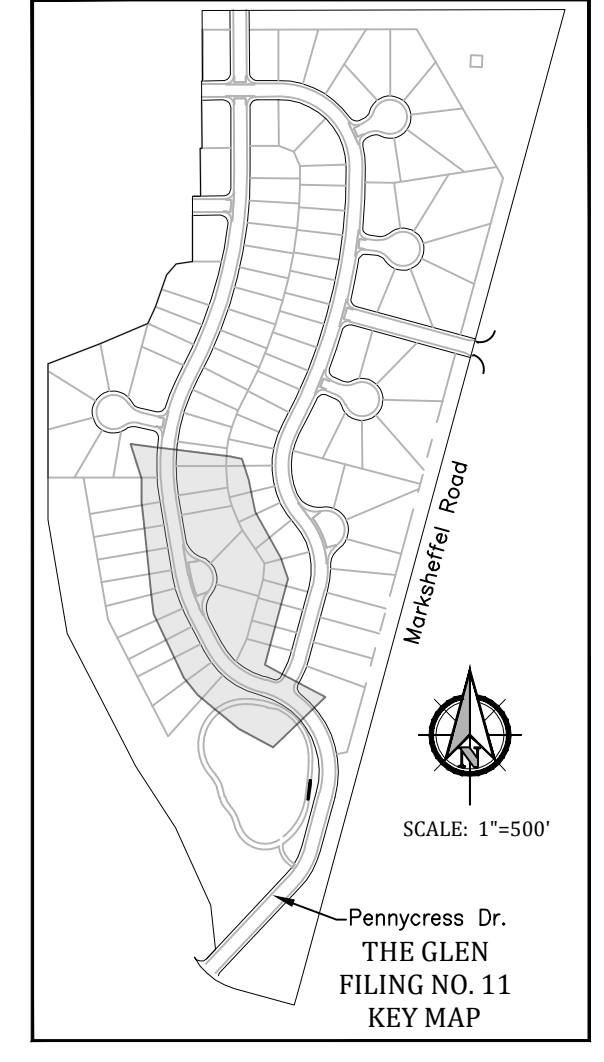
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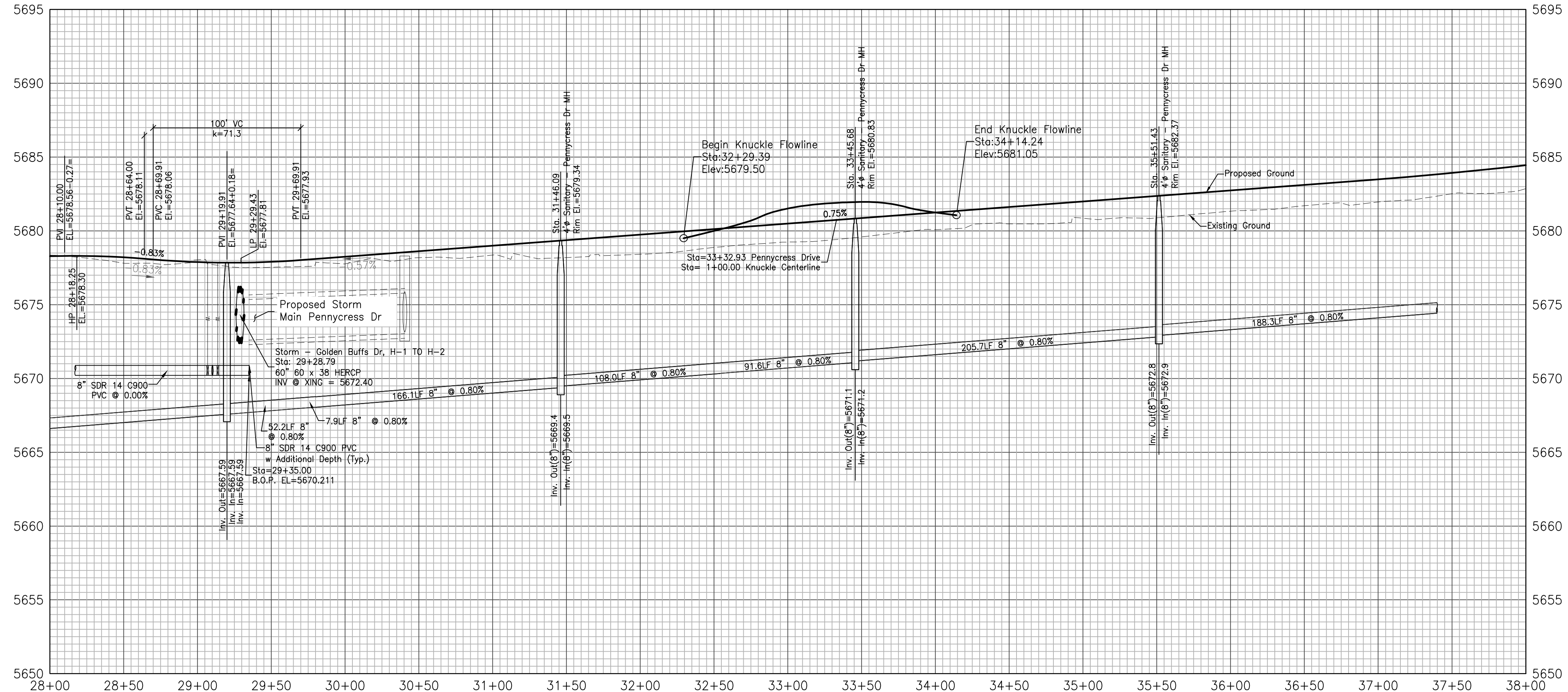
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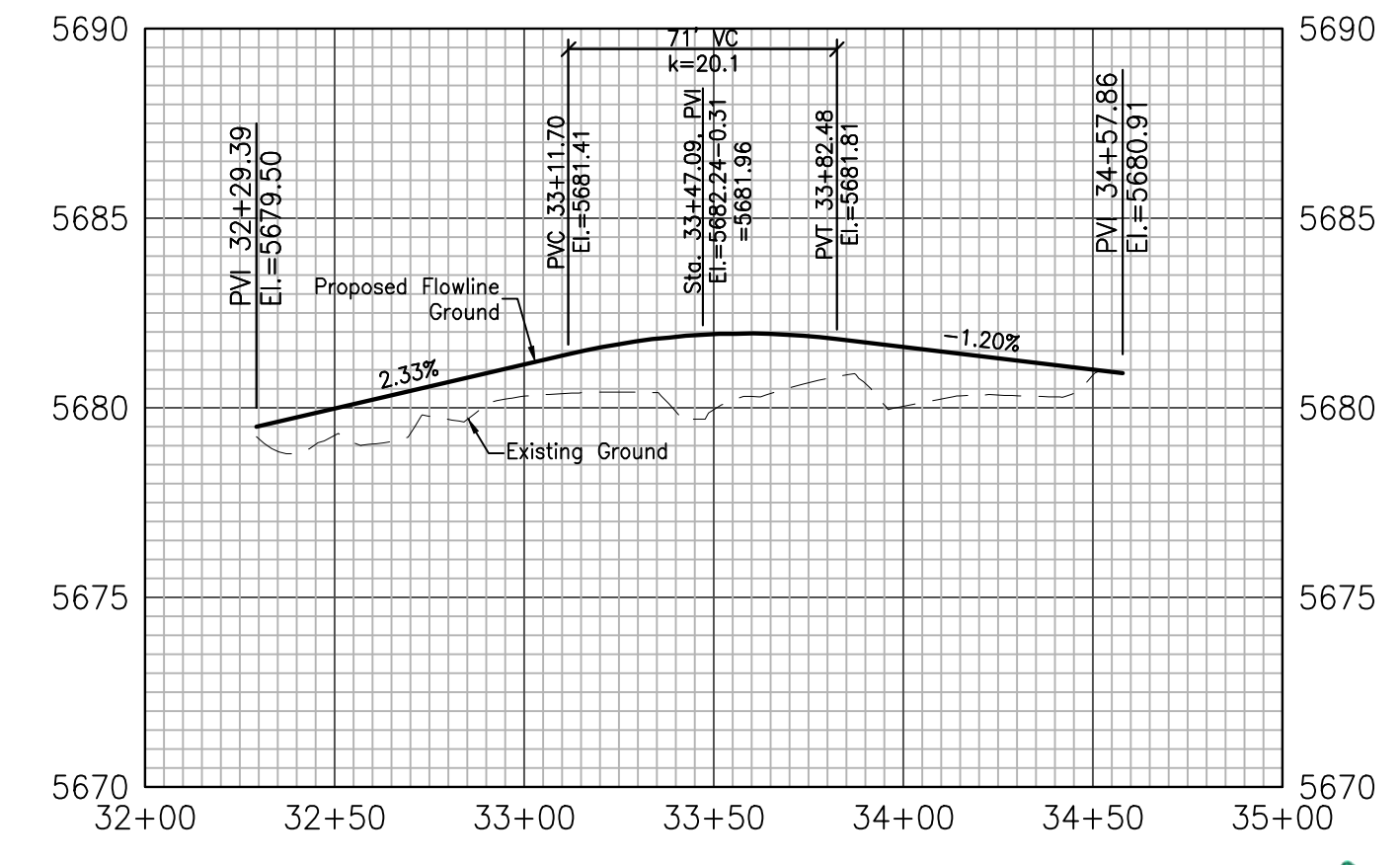
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8B	Δ=05°06'22"	L=21.01', R=247.00'
8C	Δ=47°33'40"	L=166.02', R=200.00'
8D	Δ=47°33'40"	L=160.13', R=217.00'
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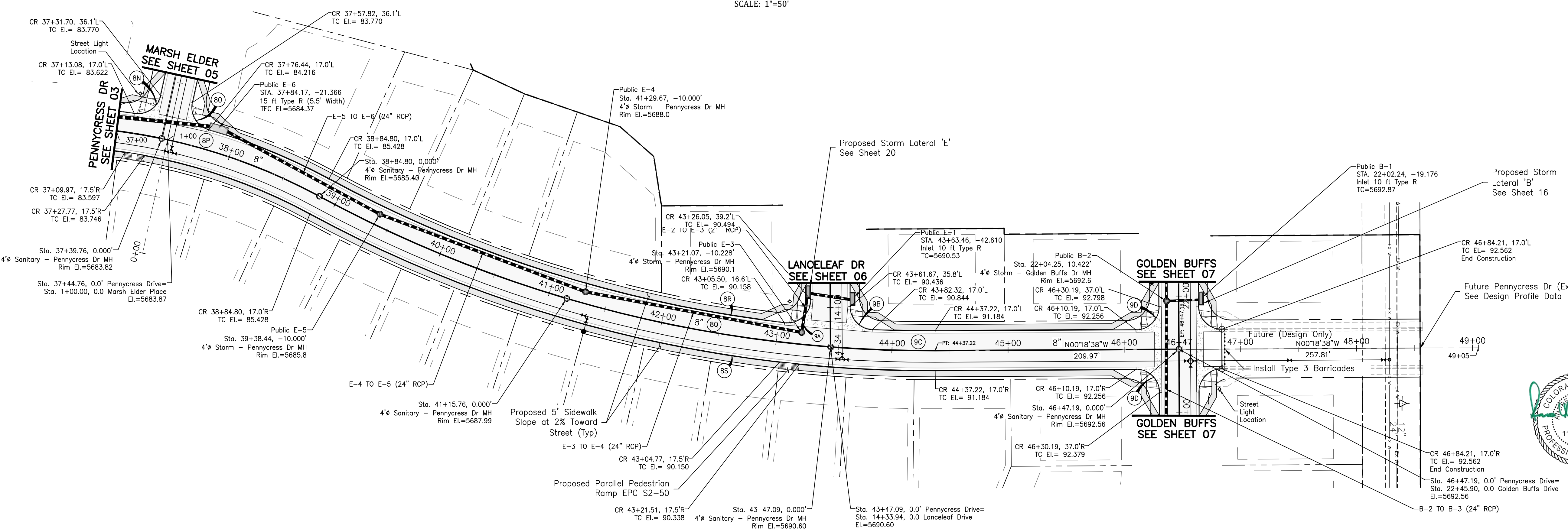
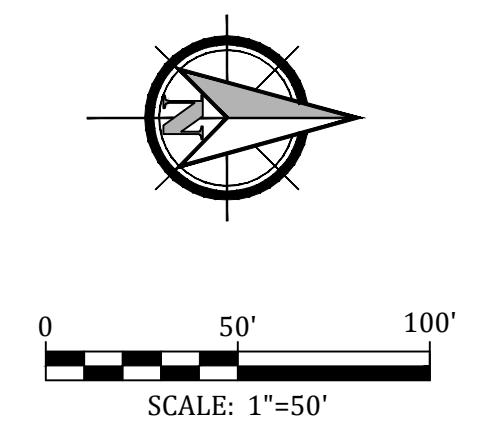
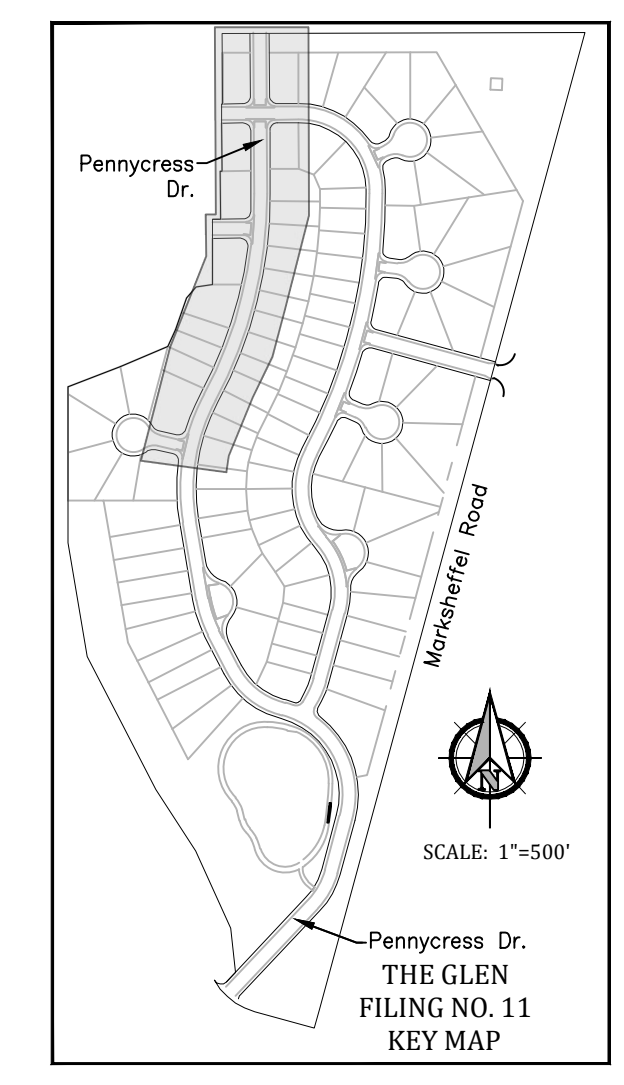
Pennycress Drive



Pennycress Knuckle



Project No.:	19016
Date:	June 21, 2021
Design:	MJK
Drawn:	MJK
Check:	AWMc
Revisions:	

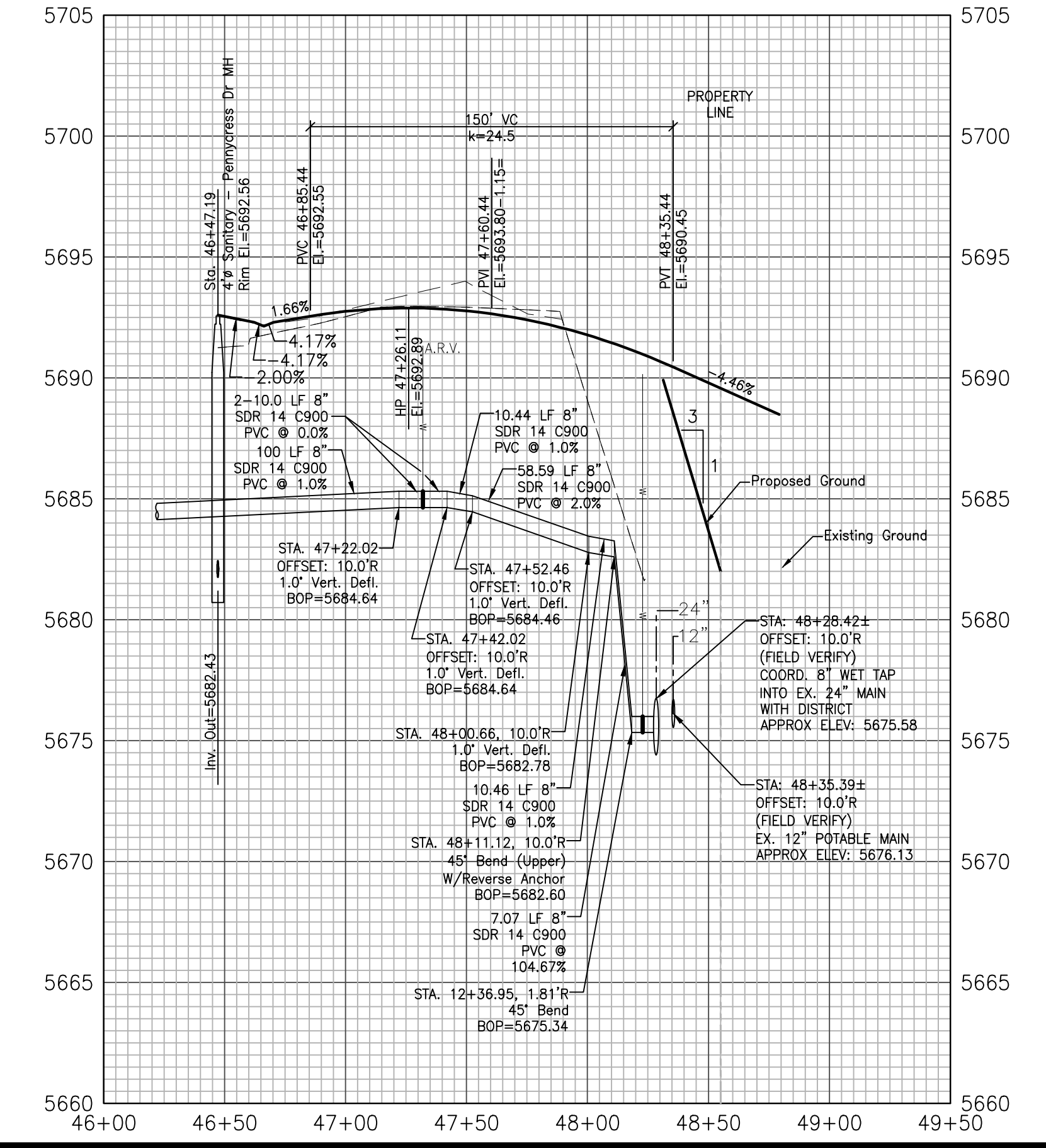
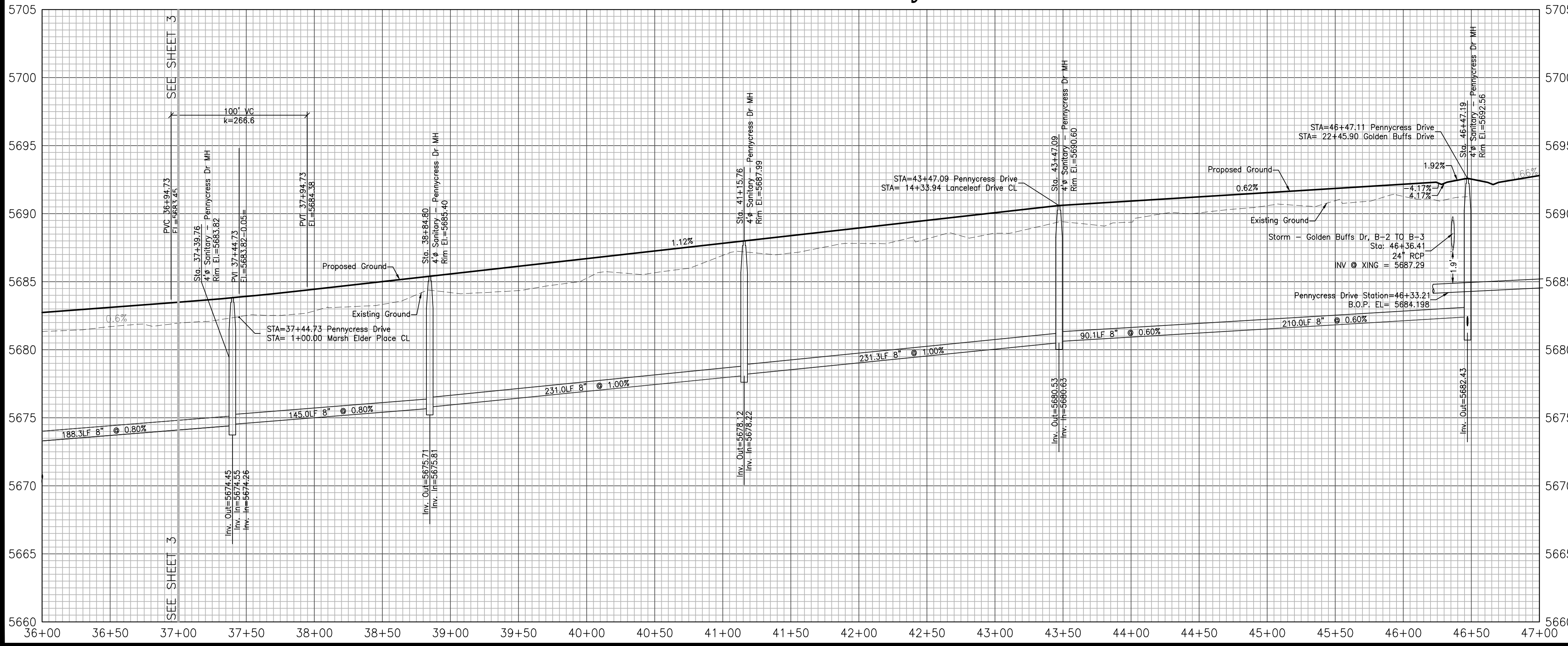


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8Q	Δ=28°46'26" L=552.42' R=1100.00'
8R	Δ=21°54'39" L=414.16' R=1083.00'
8S	Δ=28°46'26" L=560.96' R=1117.00'
8A	Δ=96°51'47" L=33.81' R=20.00'
8B	Δ=87°08'27" L=30.42' R=20.00'
8C	Δ=2°51'33" L=54.05' R=1083.00'
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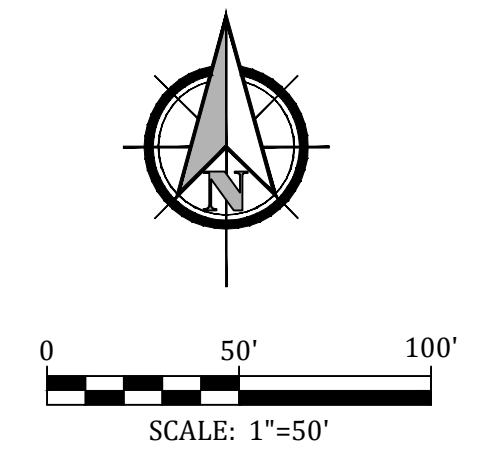
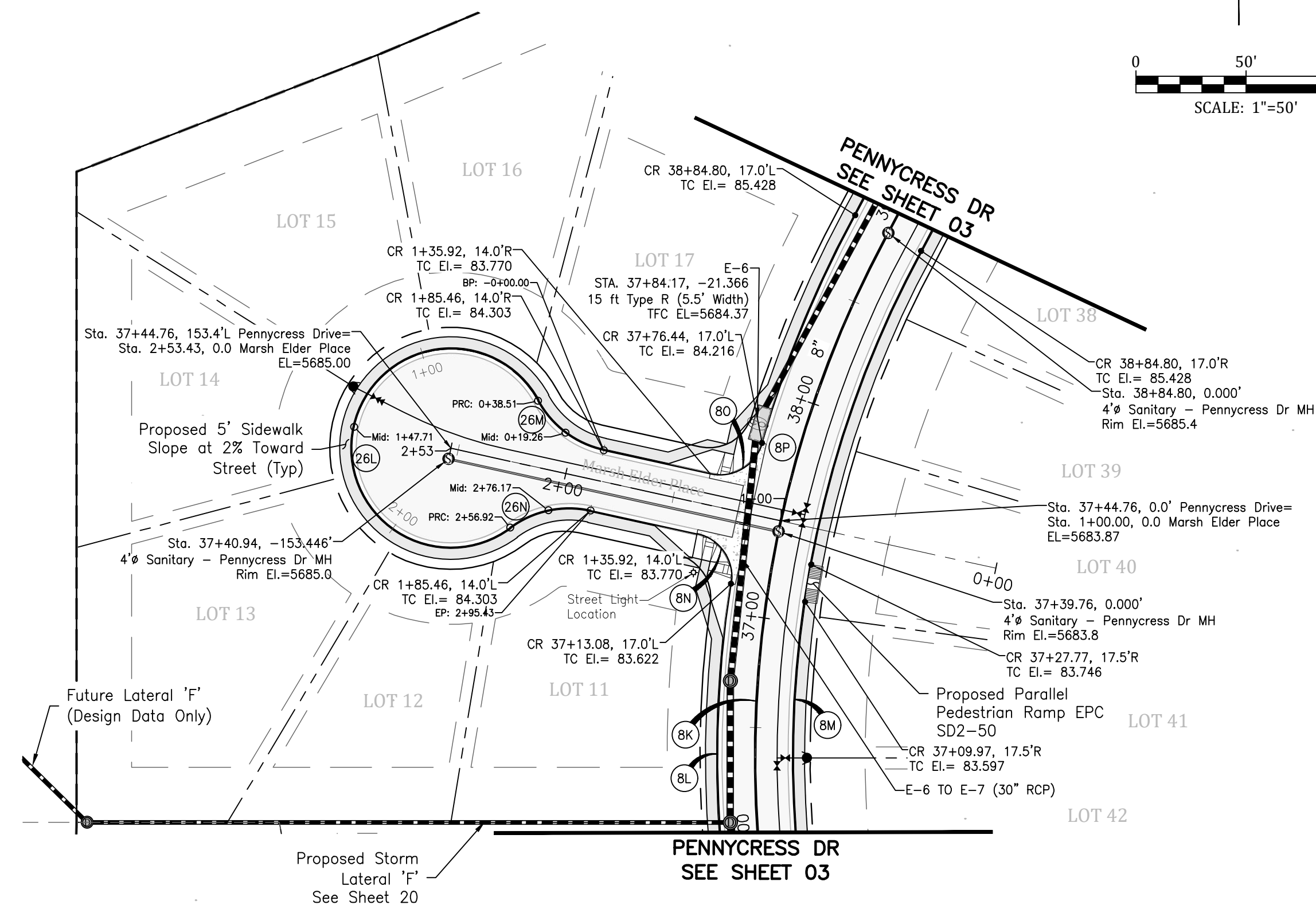
Pennycress Drive

Future Pennycress Drive (North)

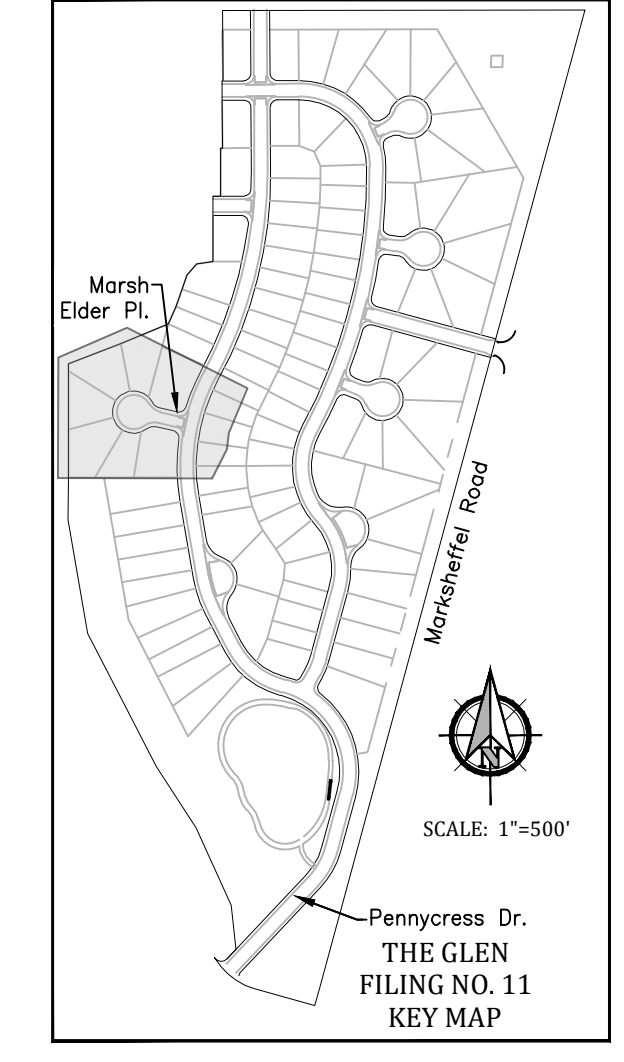


GLEN AT WIDEFIELD NO. 11
Plan and Profile - Pennycress Drive
Sta: 37+00 to 46+47.19
EL PASO, COUNTY, COLORADO

Project No.:	19016
Date:	June 21, 2021
Design:	MJK
Drawn:	MJK
Check:	AWMc
Revisions:	



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8O	Δ=86°22'12" L=30.15' R=20.00'
8P	Δ=12°24'59" L=112.04' R=517.00'
26L	Δ=278°04'35" L=218.40' R=45.00'
26M	Δ=49°02'18" L=38.51' R=45.00'
26N	Δ=49°02'18" L=38.51' R=45.00'



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

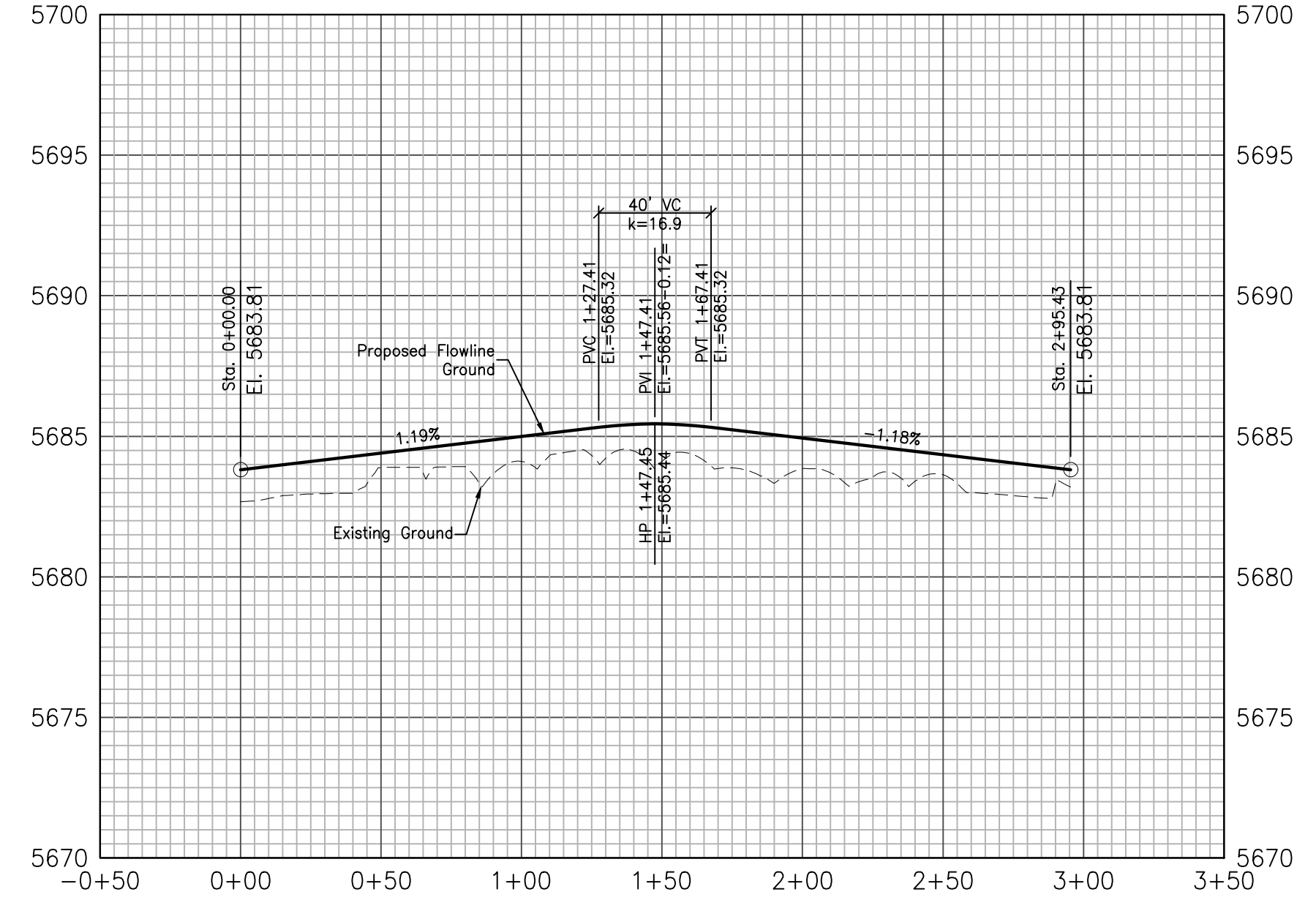
W
WIDEFIELD
Investment Group

GLEN AT WIDEFIELD NO. 11
Plan and Profile - Marsh Elder Place
Sta: All
EL PASO, COUNTY, COLORADO

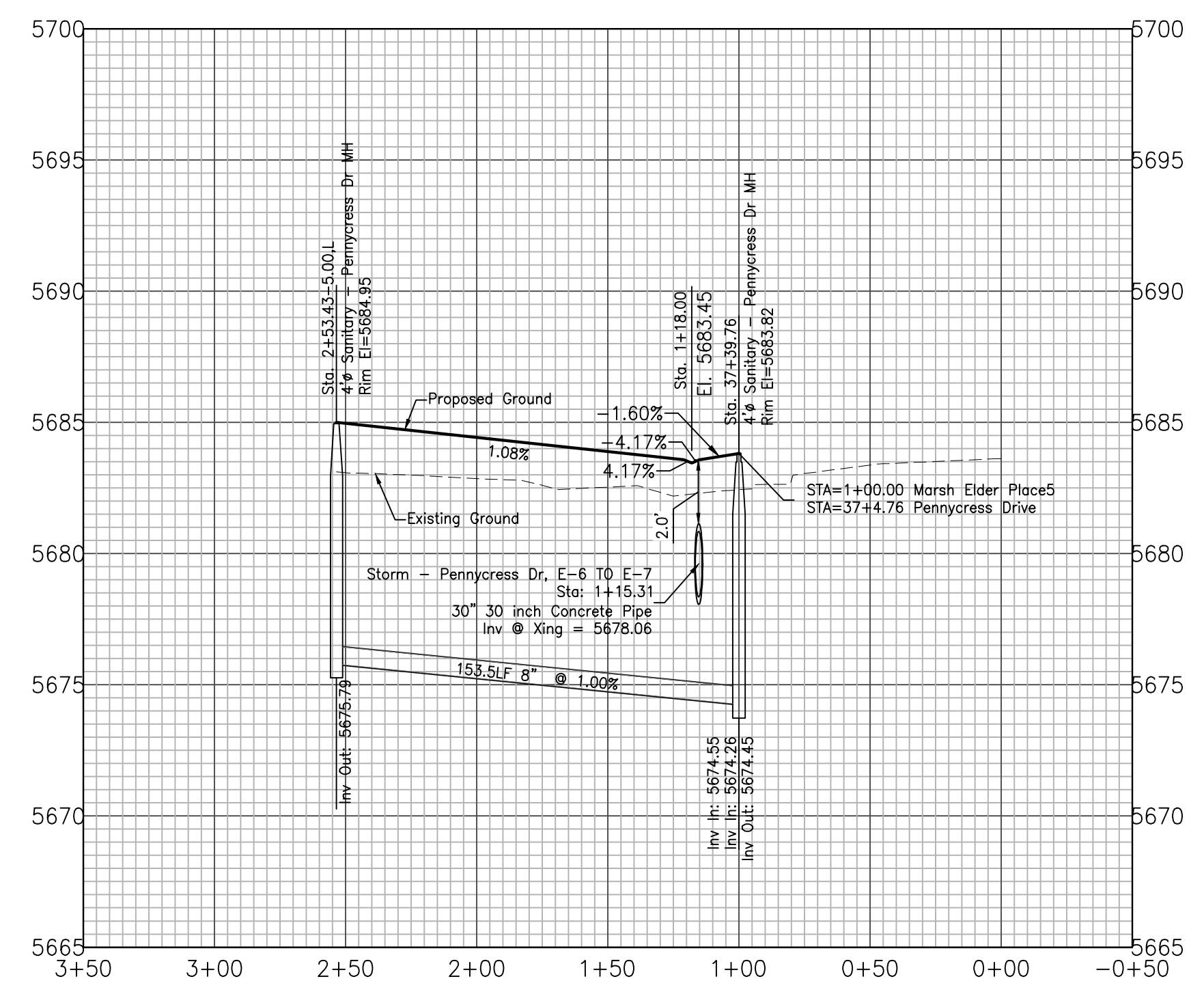
Project No.:	19016
Date:	June 21, 2021
Design:	MJK
Drawn:	MJK
Check:	AWMc
Revisions:	

SHEET
5
5 of 30 Sheets

Marsh Elder CDS

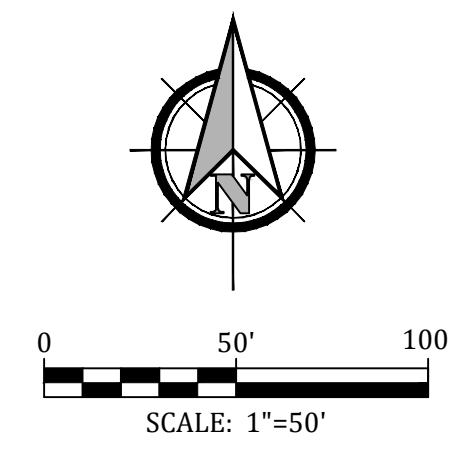


Marsh Elder Place

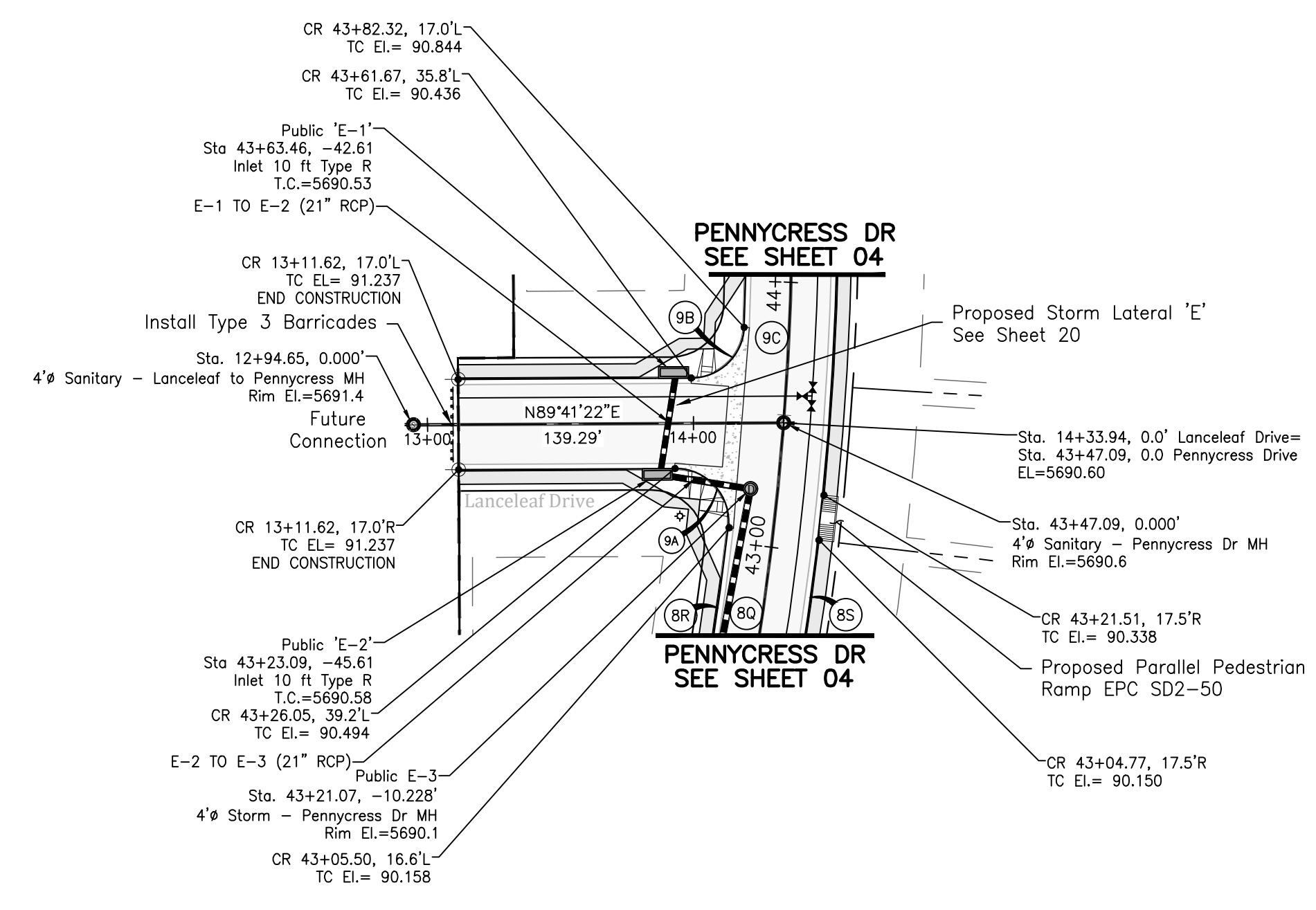
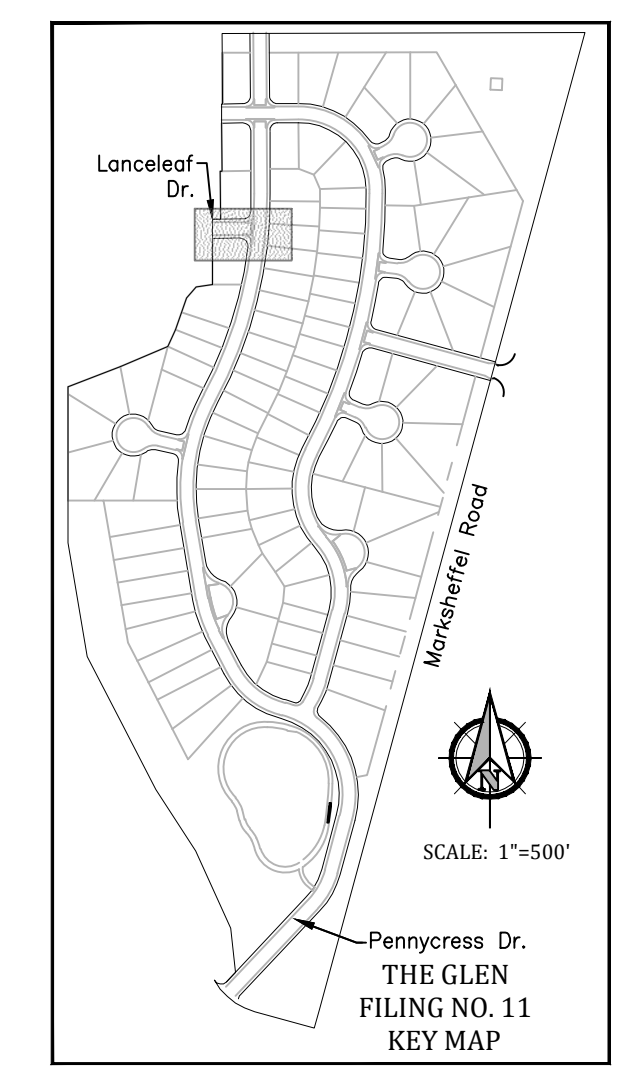


EPC 1/18/22

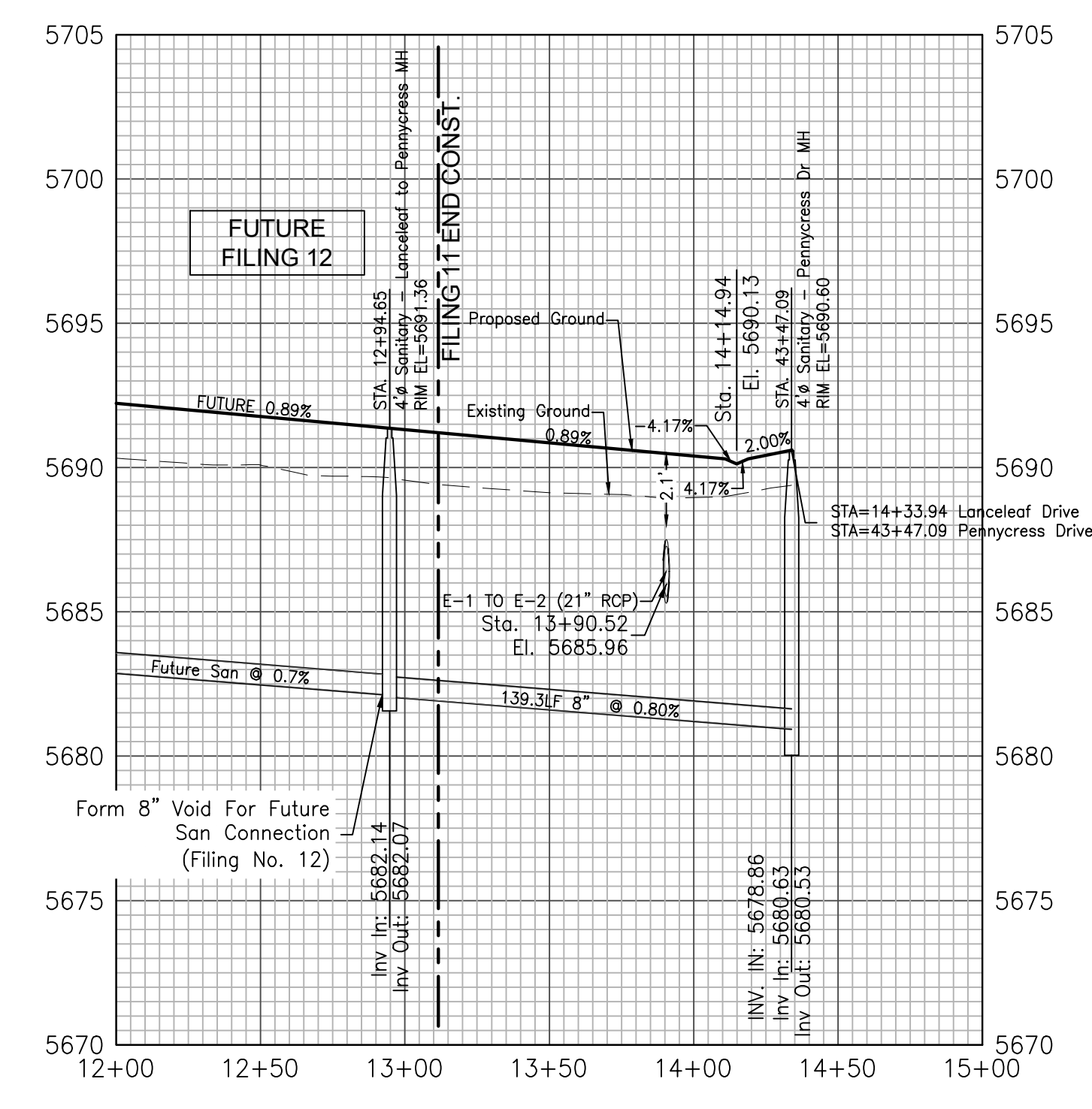




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9A	Δ=96°51'47" L=33.81' R=20.00'
9B	Δ=87°08'27" L=30.42' R=20.00'
9C	Δ=2°51'33" L=54.05' R=1083.00'



Lanceleaf Drive



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

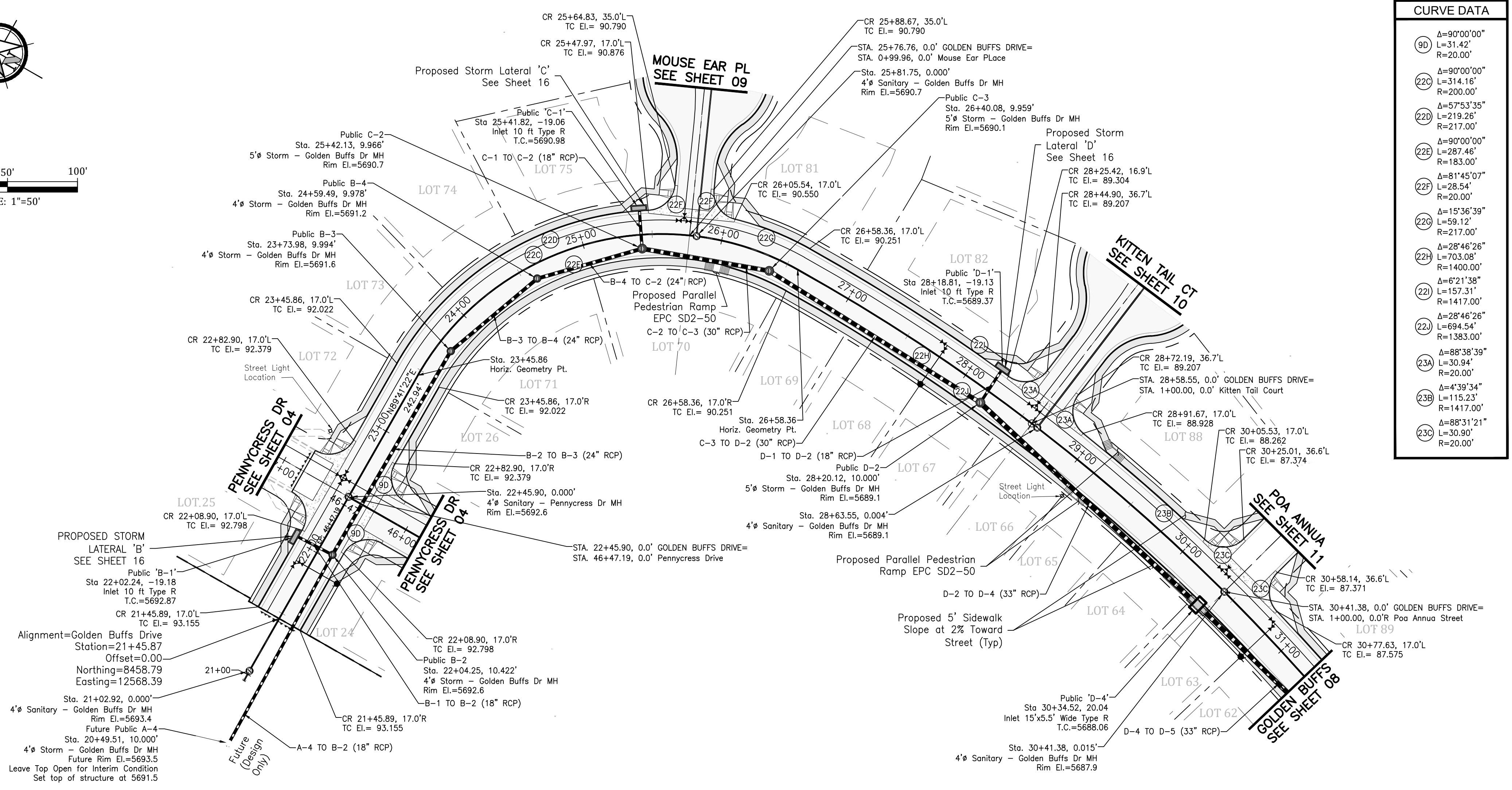
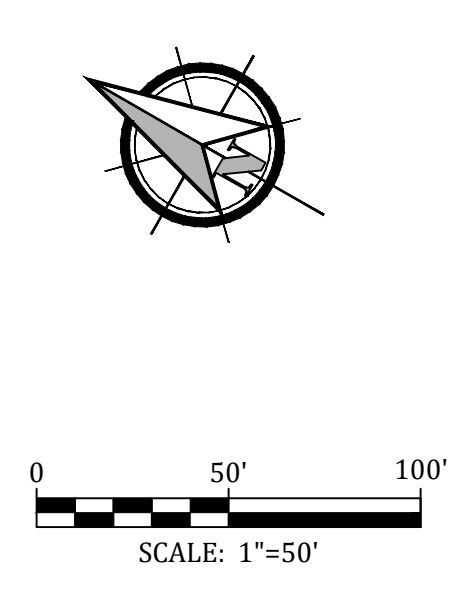
W
WIDEFIELD
Investment Group

GLEN AT WIDEFIELD NO. 11
Plan and Profile - Lanceleaf Drive
Sta: All
EL PASO, COUNTY, COLORADO

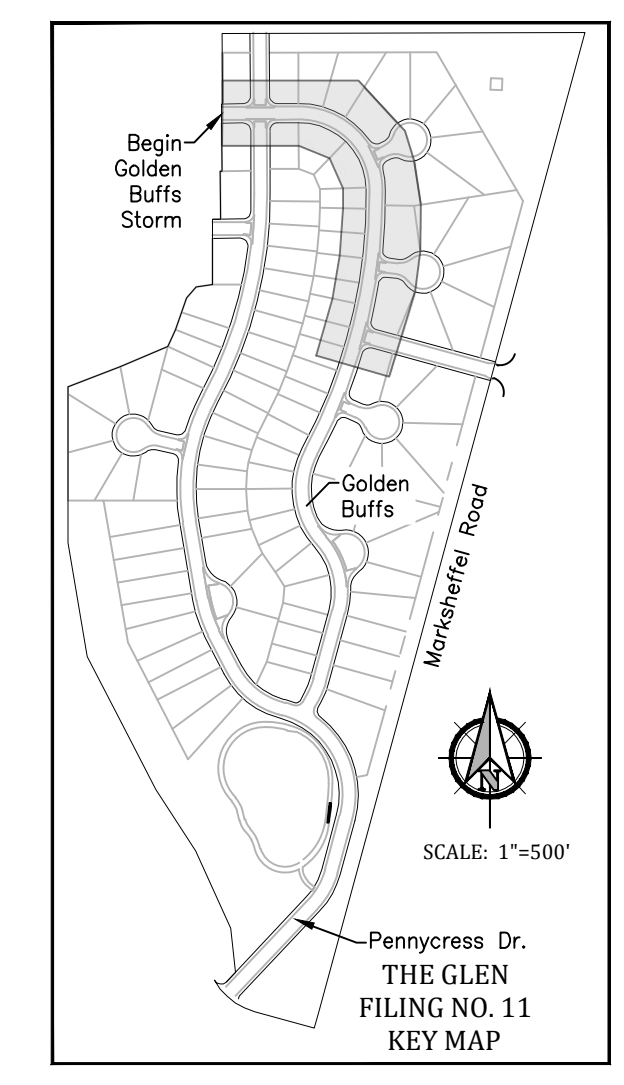
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Drawn:	MJK
Check:	AWMc
Revisions:	



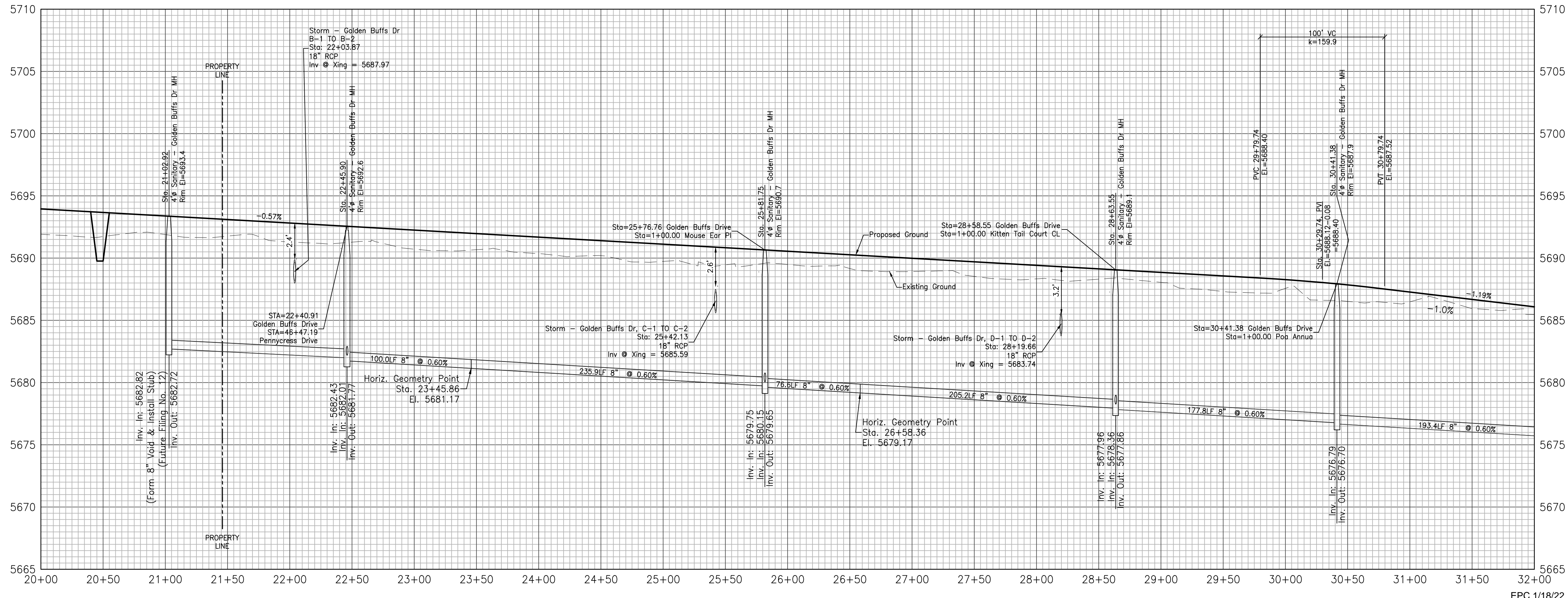
SHEET
6
6 of 30 Sheets



CURVE DATA	
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220	Δ=90°00'00" L=314.16 R=200.00'
220	Δ=57°53'35" L=219.26' R=183.00'
220	Δ=90°00'00" L=287.46' R=217.00'
220	Δ=81°45'07" L=28.54' R=20.00'
220	Δ=15°36'39" L=59.12' R=217.00'
220	Δ=28°46'26" L=703.08' R=1400.00'
220	Δ=62°1'38" L=157.31' R=1417.00'
220	Δ=28°46'26" L=694.54' R=1383.00'
230	Δ=88°38'39" L=30.94' R=20.00'
230	Δ=4°39'34" L=115.23' R=1417.00'
230	Δ=88°31'21" L=30.90' R=20.00'



Golden Buffs Drive

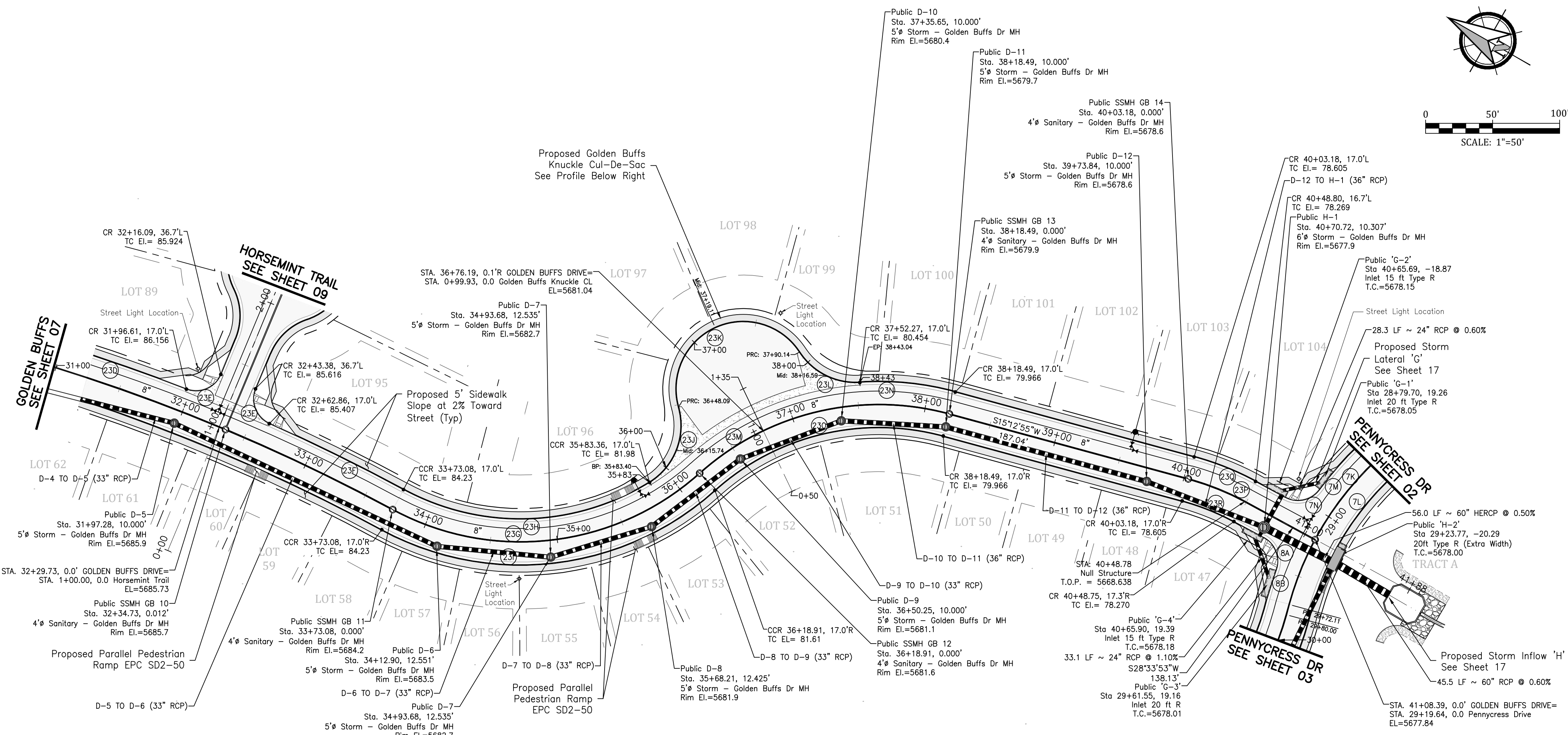


GLEN AT WIDEFIELD NO. 11
Plan & Profile - Golden Buffs Drive
 Begin Sta: 21+45.87 to 31+50
 EL PASO, COUNTY, COLORADO

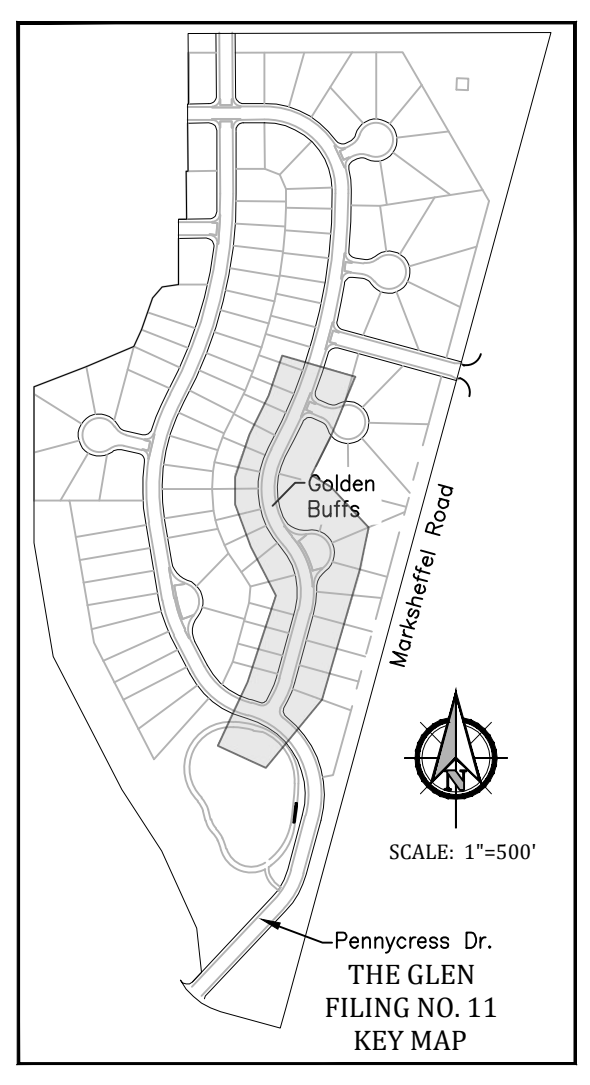
Project No.:	19016
Date:	June 21, 2021
Design:	MK
Drawn:	MJK
Check:	AWMc
Revisions:	



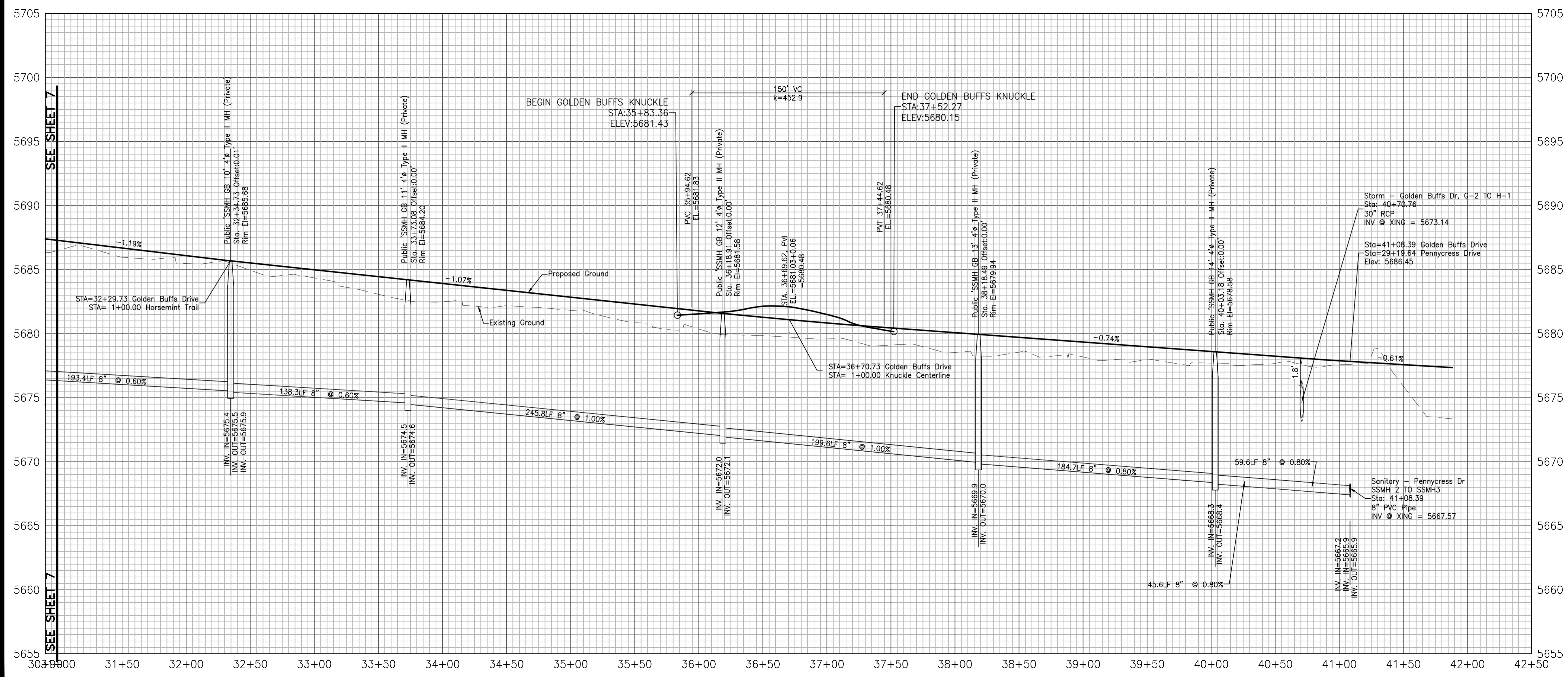
SHEET
7
 7 of 30 Sheets



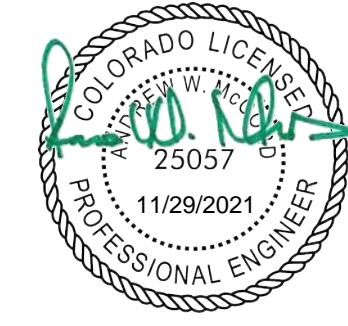
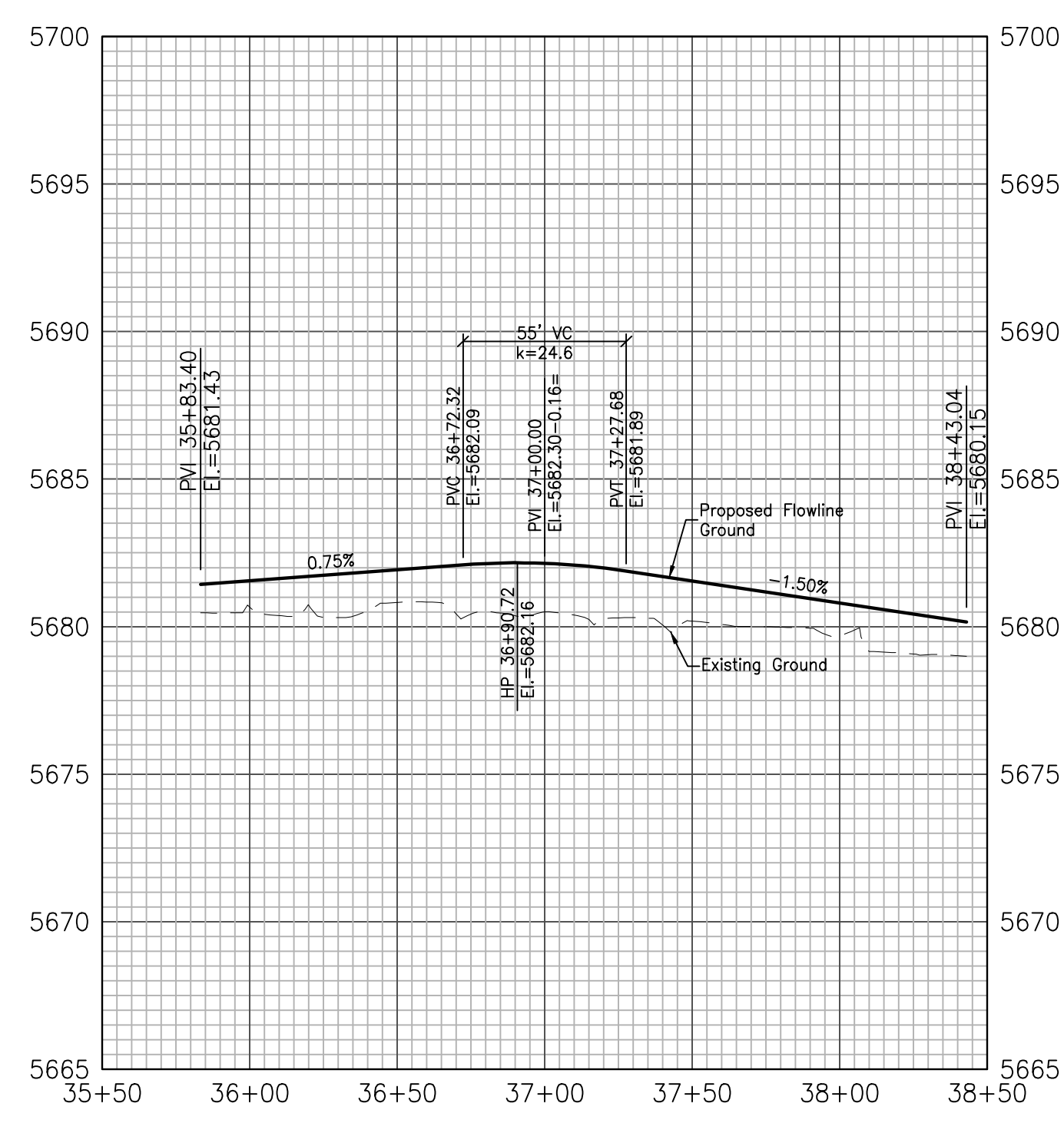
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	R=20.00'
23B	Δ=4°39'34"
	L=115.23'
	R=1417.00'
23C	Δ=88°31'21"
	L=30.94'
	R=20.00'
23D	Δ=4°52'09"
	L=120.42'
	R=1417.00'
23E	Δ=88°38'39"
	L=30.94'
	R=20.00'
23F	Δ=4°30'38"
	L=111.55'
	R=1417.00'
23G	Δ=70°25'30"
	L=245.83'
	R=200.00'
23H	Δ=60°14'28"
	L=192.41'
	R=183.00'
23I	Δ=70°25'30"
	L=256.73'
	R=217.00'
23J	Δ=74°07'33"
	L=64.69'
	R=50.00'
23K	Δ=162°46'33"
	L=142.05'
	R=50.00'
23L	Δ=60°37'45"
	L=52.91'
	R=50.00'
23M	Δ=57°10'37"
	L=199.59'
	R=200.00'
23N	Δ=18°58'19"
	L=71.85'
	R=217.00'
23O	Δ=57°10'37"
	L=182.62'
	R=183.00'
23P	Δ=132°10'11"
	L=46.60'
	R=200.00'
23Q	Δ=132°10'11"
	L=50.56'
	R=217.00'
23R	Δ=132°10'11"
	L=52.64'
	R=183.00'
7N	Δ=81°01'06"
	L=28.28'
	R=20.00'
8A	Δ=81°01'06"
	L=28.28'
	R=20.00'



Golden Buffs Drive



Golden Buffs Knuckle CDS



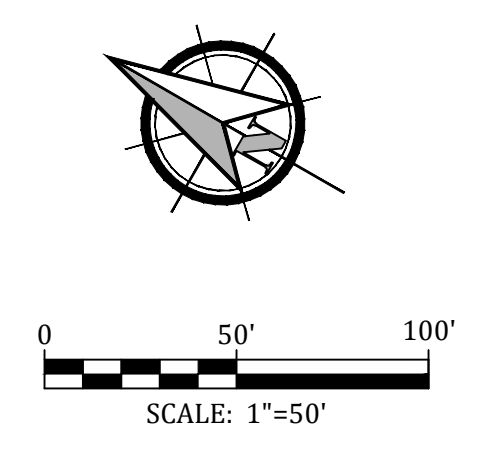
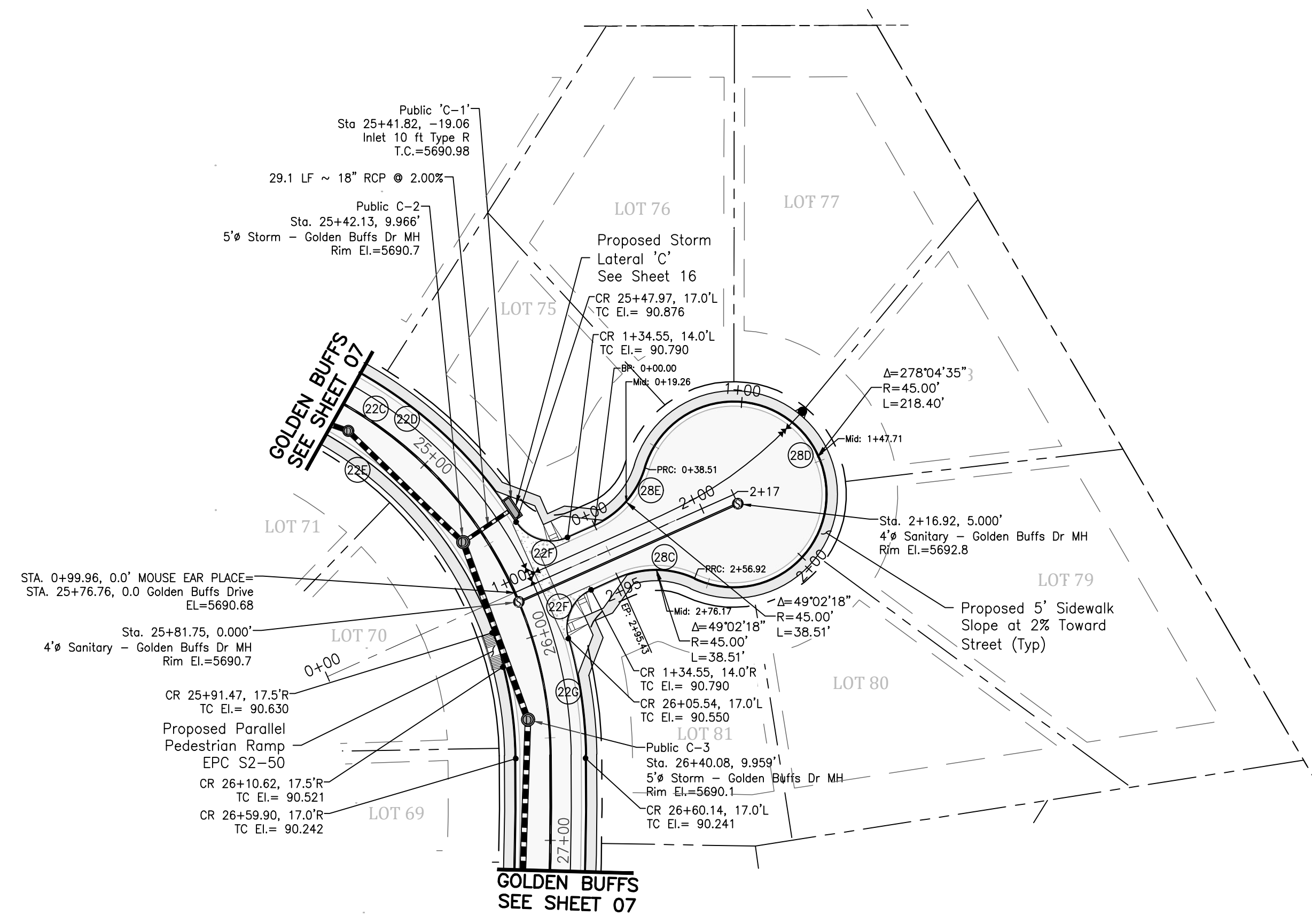
GLEN AT WIDEFIELD NO. 11
 Plan and Profile - Golden Buffs Drive
 Sta: 31+00 to END
 EL PASO, COUNTY, COLORADO

Project No.:	19016
Date:	June 21, 2021
Design:	MJK
Drawn:	MJK
Check:	AWMc
Revisions:	

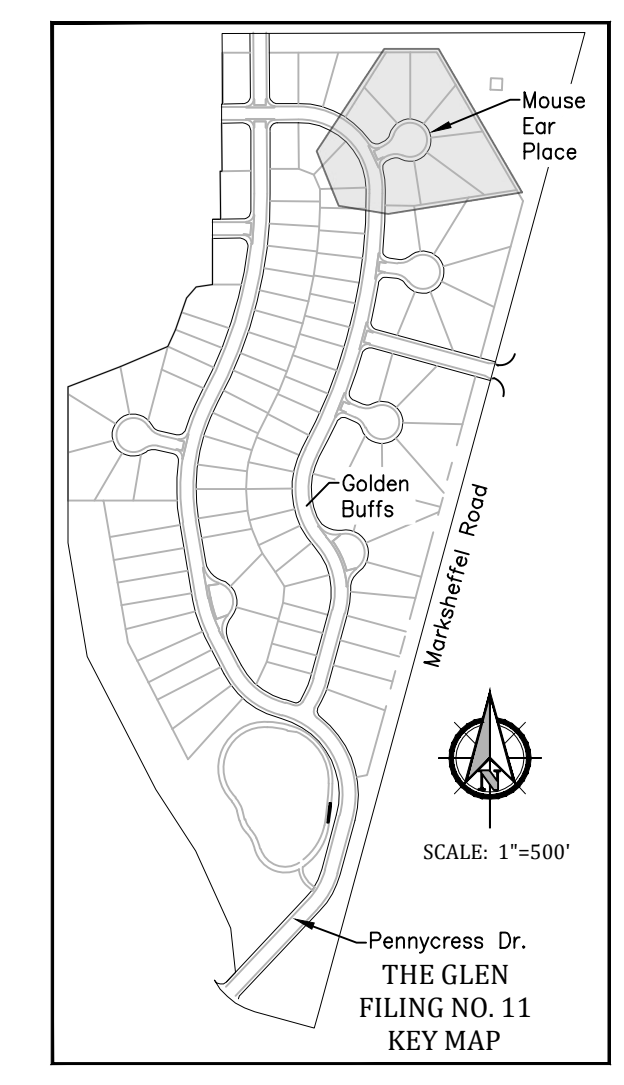
SHEET
8
 8 of 30 Sheets

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

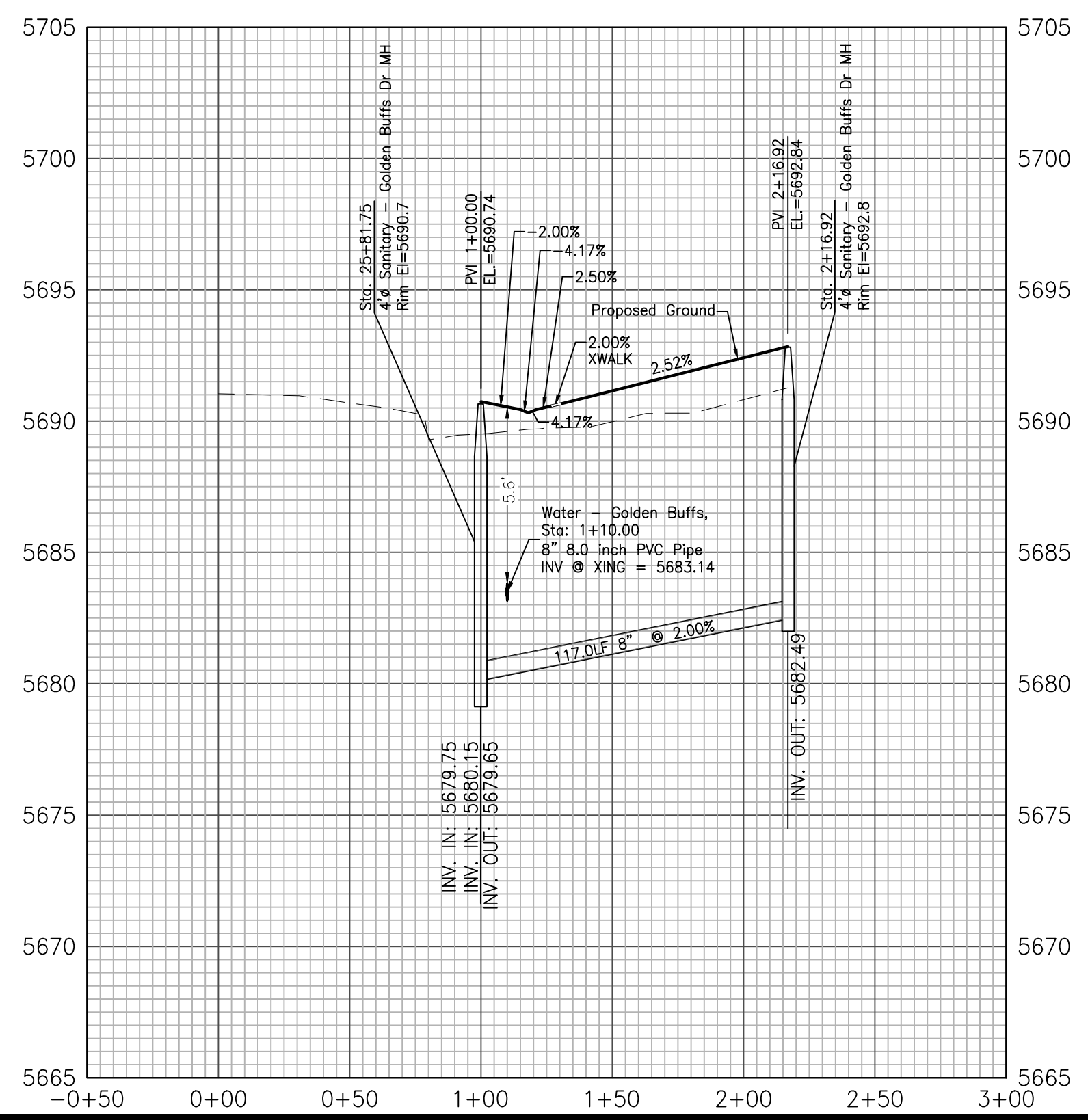
W
 WIDEFIELD
 Investment Group



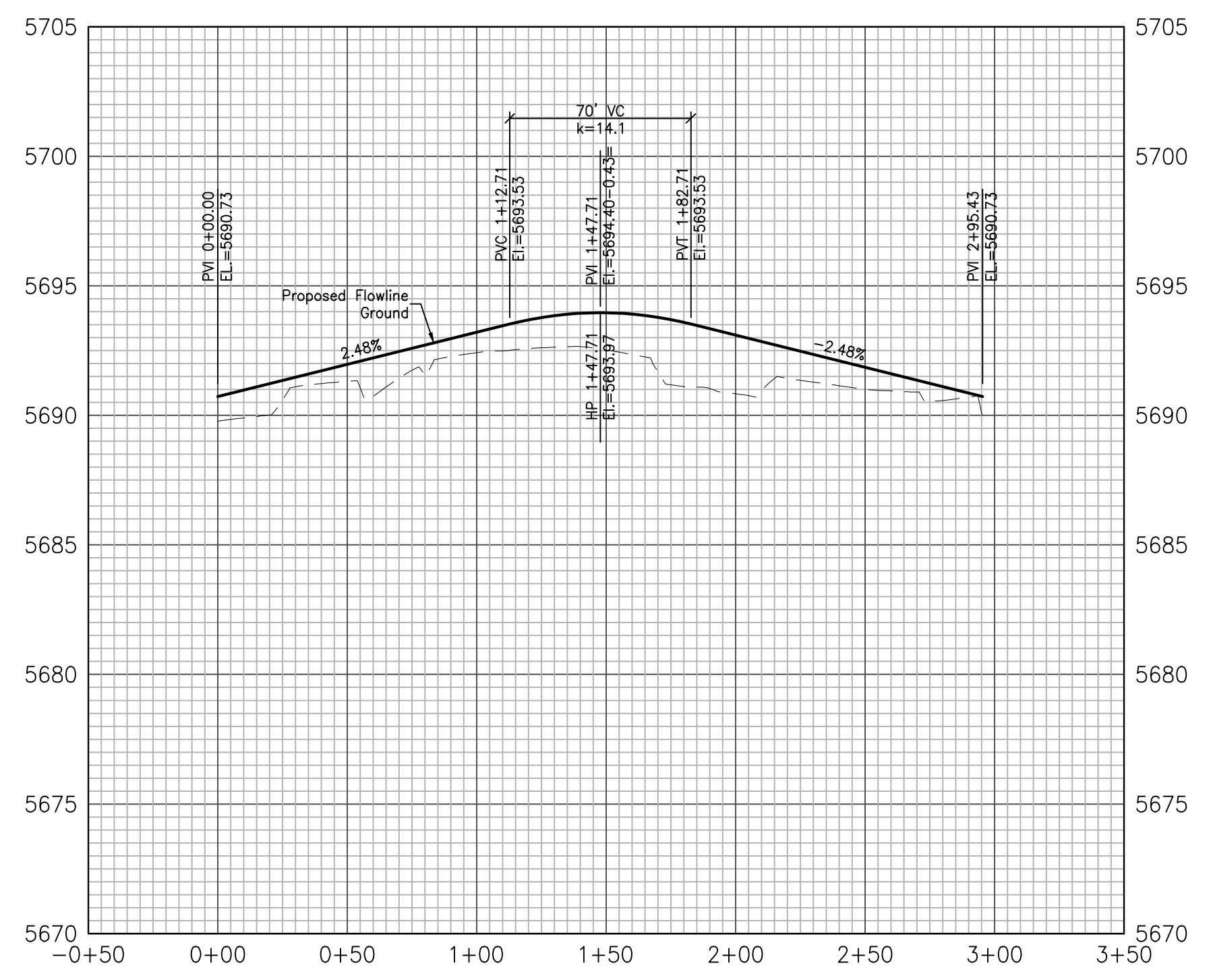
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(22D)	Δ=57°33'35" L=219.26' R=217.00'
(22E)	Δ=90°00'00" L=287.46' R=183.00'
(22F)	Δ=81°45'07" L=28.54' R=20.00'
(22G)	Δ=15°36'39" L=59.12' R=217.00'
(28E)	Δ=49°02'18" L=38.51' R=45.00'
(28F)	Δ=27°04'35" L=218.40' R=45.00'
(28C)	Δ=49°02'18" L=38.51' R=45.00'
(28D)	Δ=27°04'35" L=218.40' R=45.00'



Profile View of Mouse Ear PLace

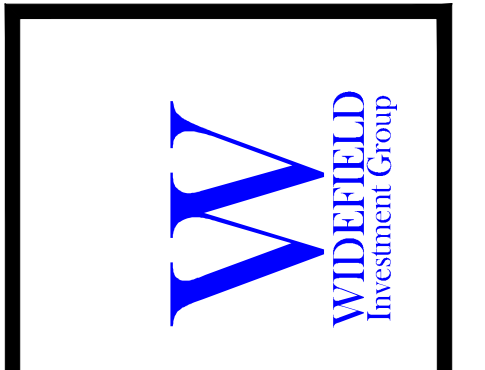


Profile View of Mouse Ear Place CDS



EPC 1/18/22

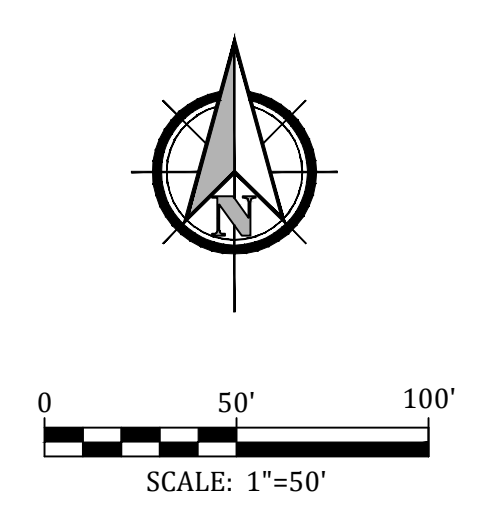
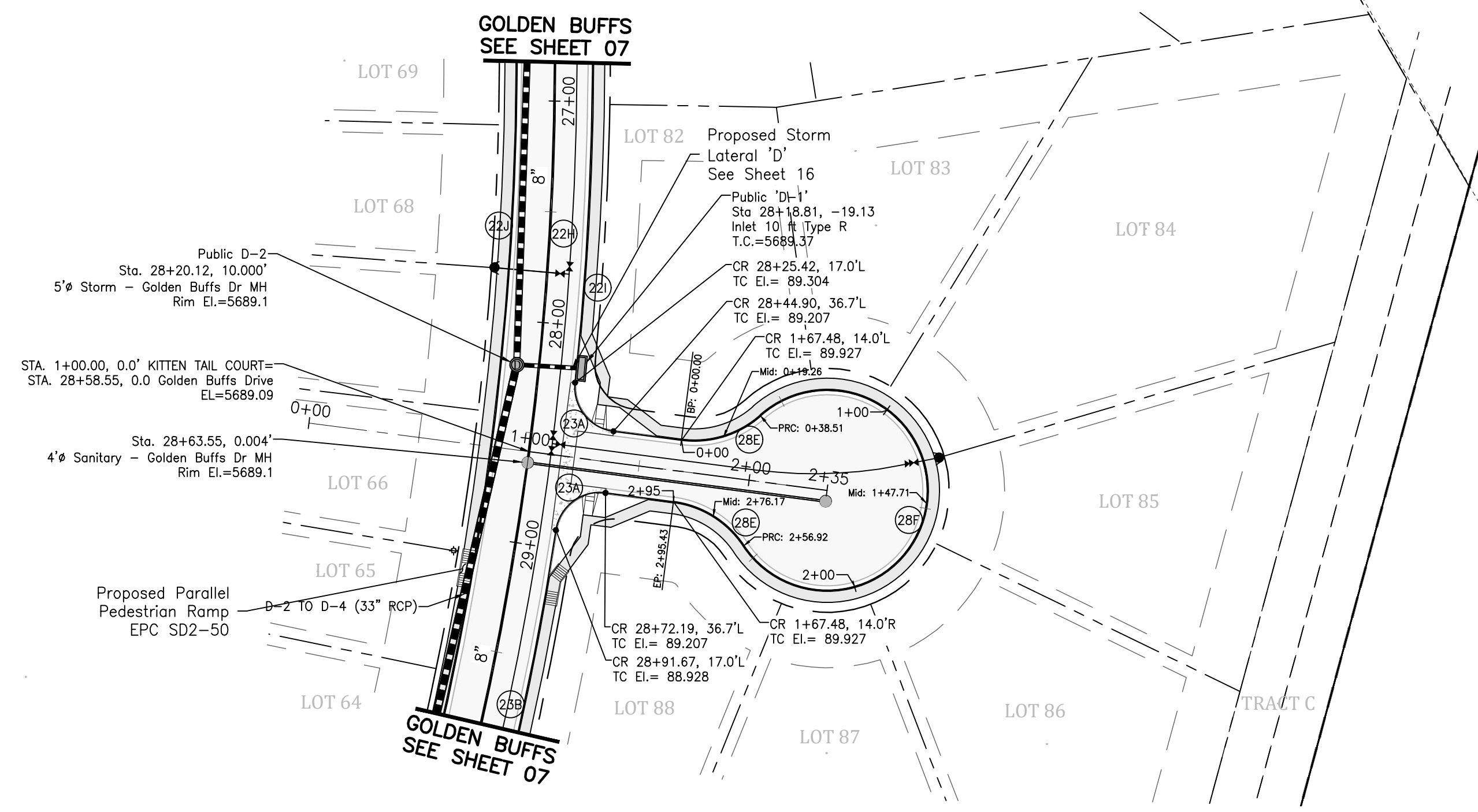
Kiowa
Engineering Corporation
1604 South 21st Street
Colorado Springs, Colorado 80904
(719) 630-7342



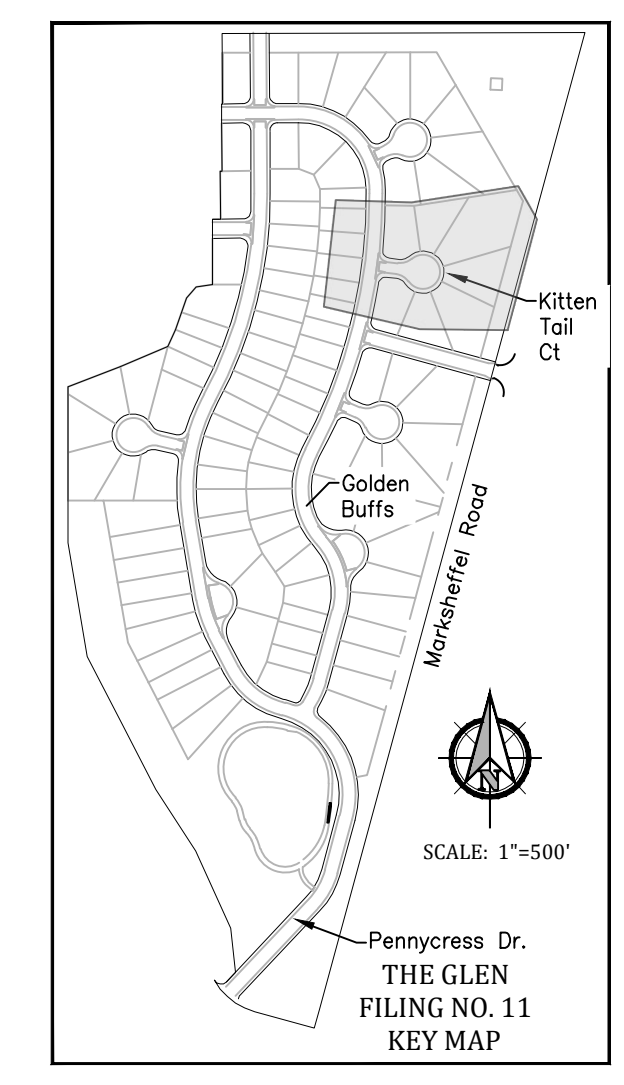
GLEN AT WIDEFIELD NO. 11
Plan and Profile - Mouse Ear Place
Sta: All
EL PASO, COUNTY, COLORADO

Project No.:	19016
Date:	June 21, 2021
Design:	MJK
Drawn:	MJK
Check:	AWMc
Revisions:	

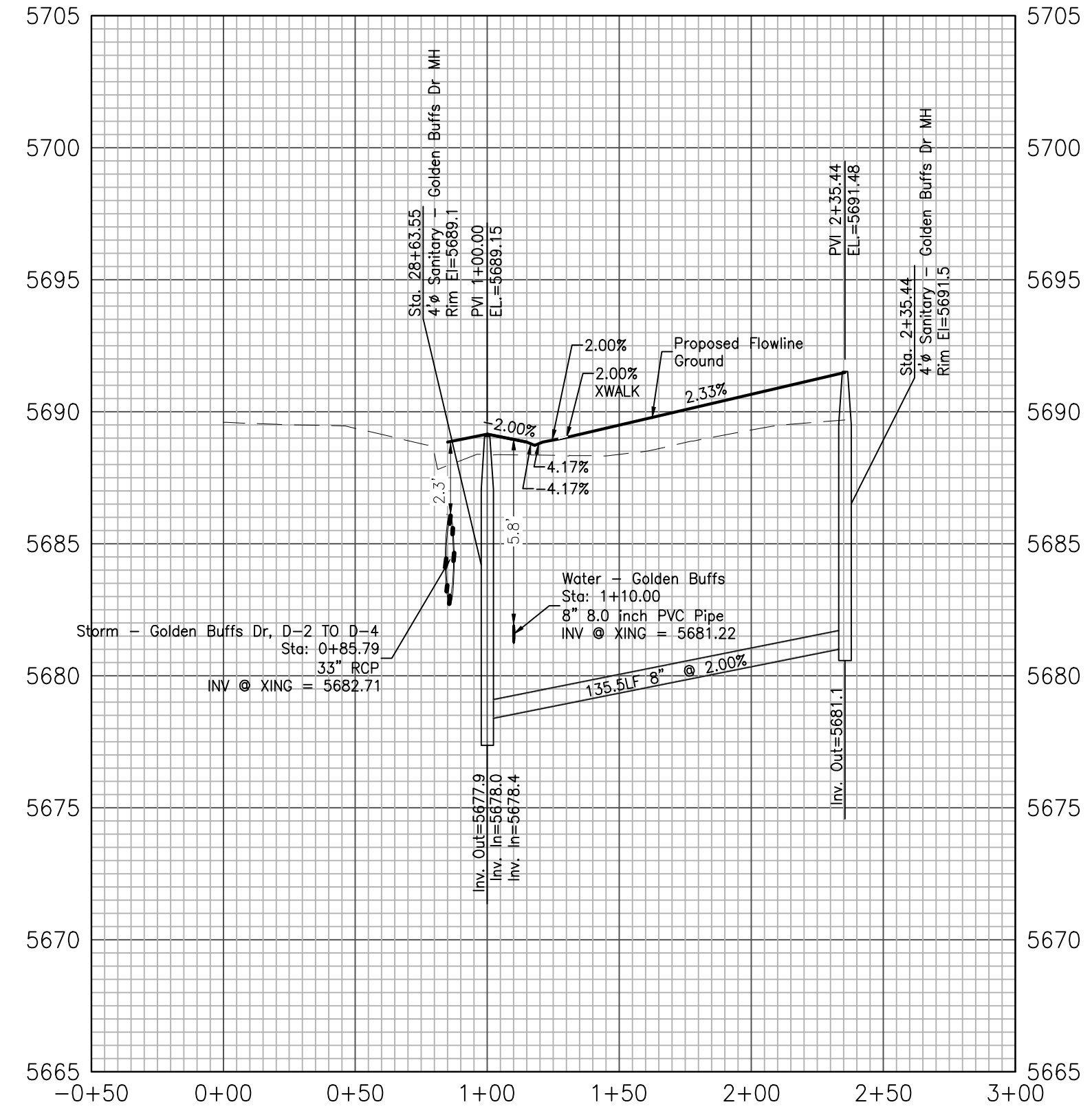
SHEET
9
9 of 30 Sheets



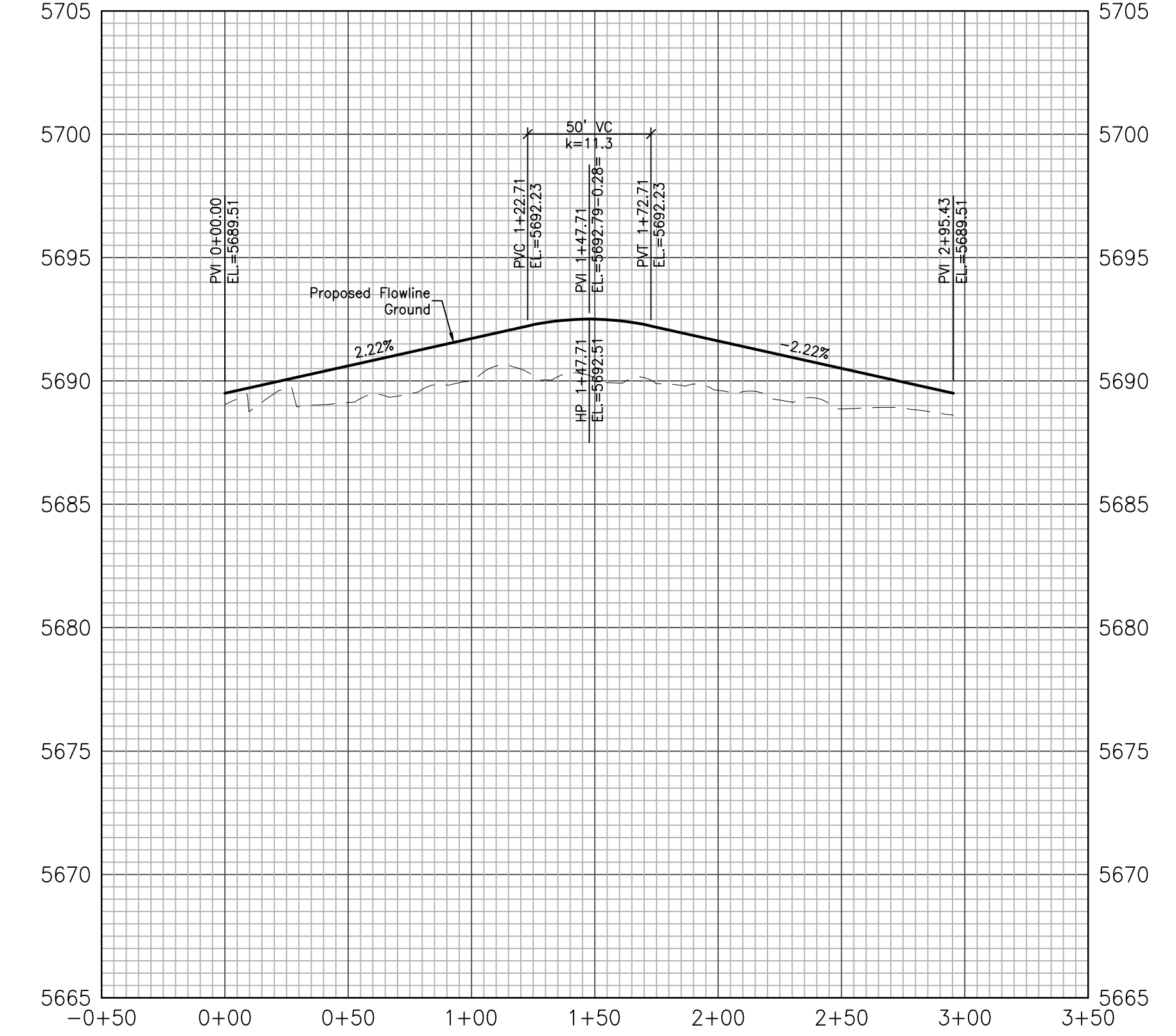
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(22)	$\Delta=6^{\circ}21'38"$ $L=157.31'$ $R=1417.00'$
(22A)	$\Delta=28^{\circ}46'26"$ $L=694.54'$ $R=1363.00'$
(23A)	$\Delta=88^{\circ}38'39"$ $L=30.94'$ $R=20.00'$
(23B)	$\Delta=43^{\circ}34'$ $L=115.23'$ $R=1417.00'$
(28E)	$\Delta=49^{\circ}02'18"$ $L=38.51'$ $R=45.00'$
(28F)	$\Delta=278^{\circ}04'35"$ $L=218.40'$ $R=45.00'$



Profile View of Kitten Tail Court



Profile View of Kitten Tail Court CDS



EPC 1/18/22

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

W
WIDEFIELD
Investment Group

GLEN AT WIDEFIELD NO. 11
Plan and Profile - Kitten Tail Court
Sta: All
EL PASO, COUNTY, COLORADO

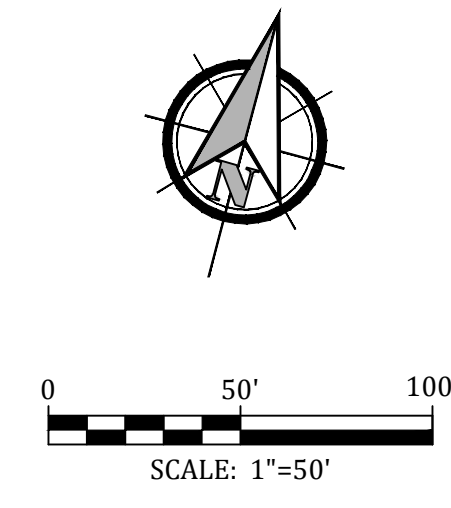
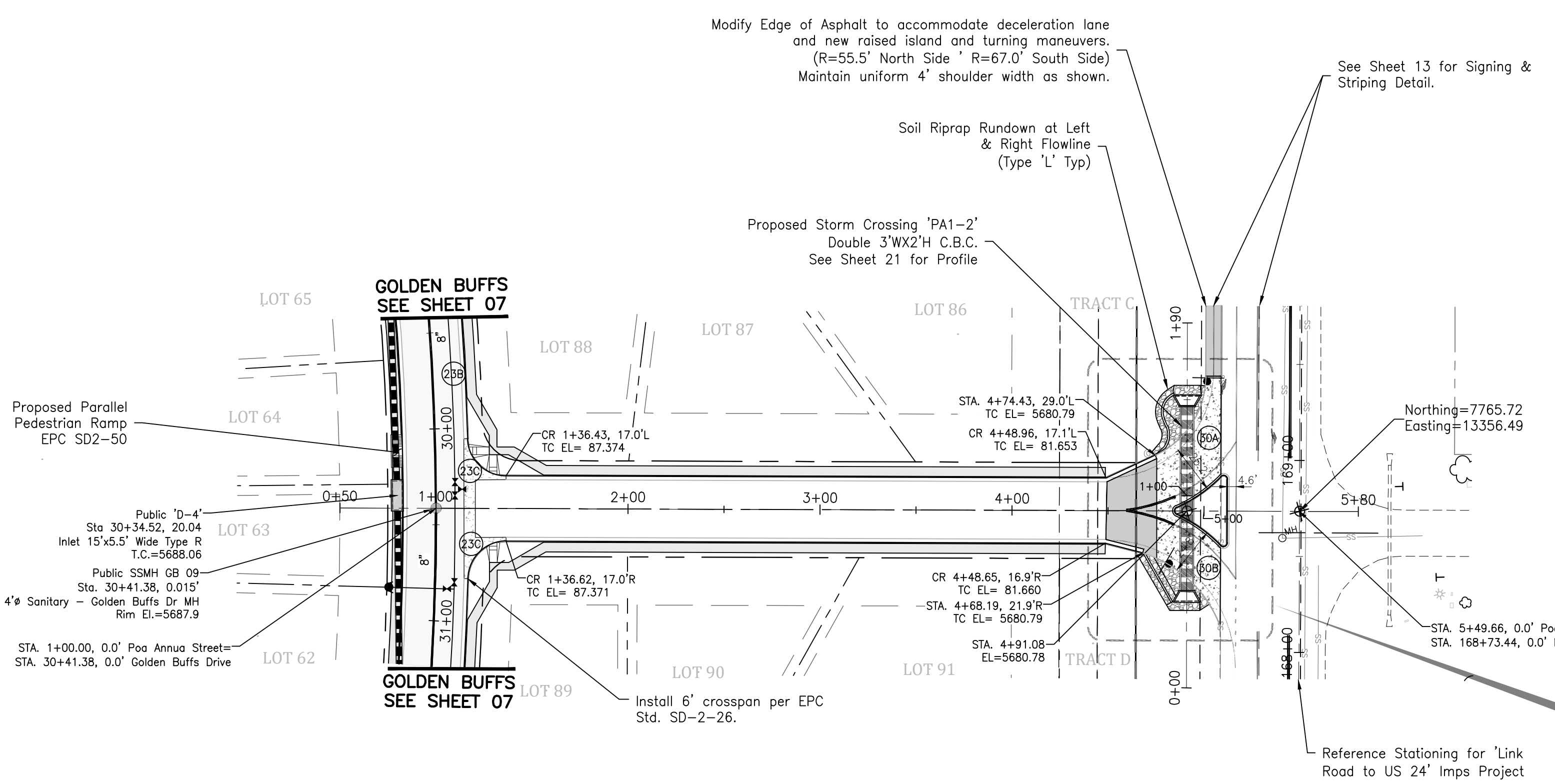
Project No.:	19016
Date:	June 21, 2021
Design:	MJK
Drawn:	MJK
Check:	AWMc
Revisions:	

SHEET
10
10 of 30 Sheets

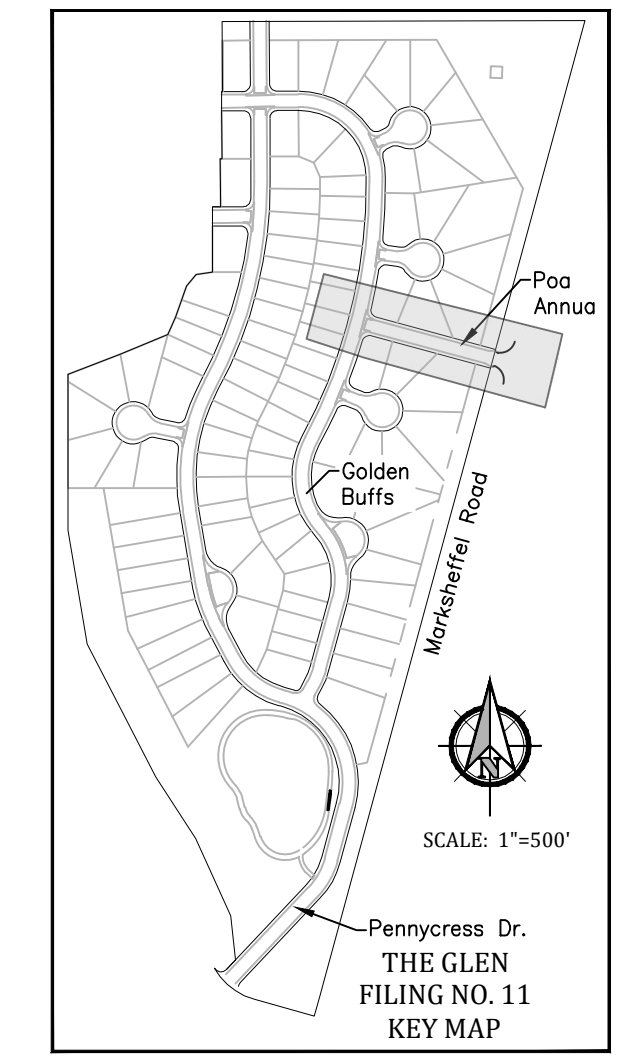
19016-GW11-10-PP.dwg/Oct 06, 2021

Project No.:	19016
Date:	November 24, 2021
Design:	MJK
Drawn:	MJK
Check:	AWMc
Revisions:	

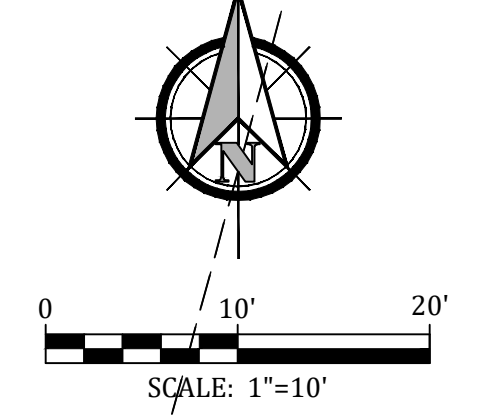
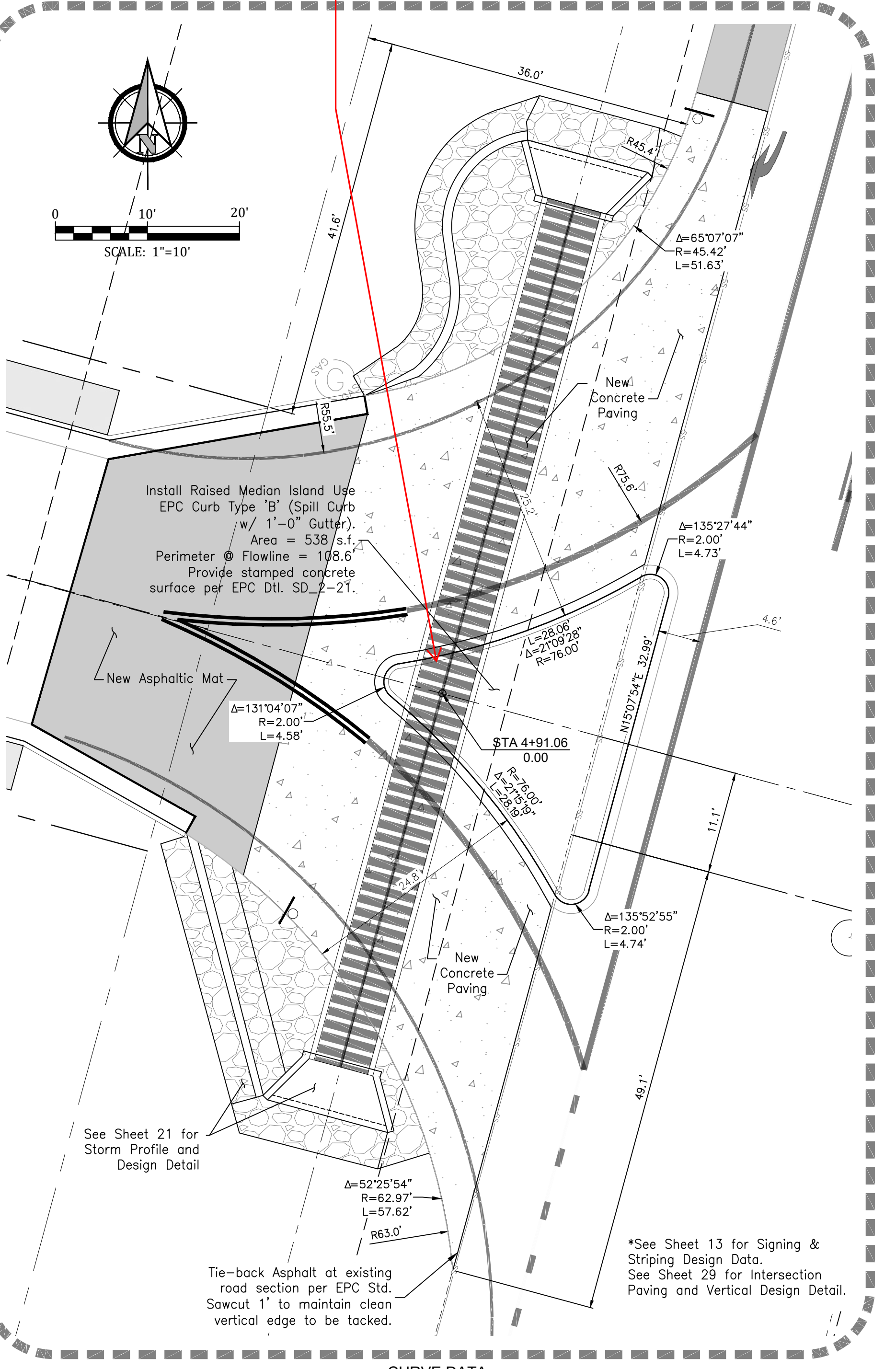
SHEET
11
11 of 30 Sheets



23B	Δ=4°39'34"
	L=115.23'
	R=1417.00'
23C	Δ=88°31'21"
	L=30.90'
	R=20.00'
30A	Δ=65°07'07"
	L=45.42'
	R=51.63'
30B	Δ=52°25'54"
	L=57.62'
	R=62.97'

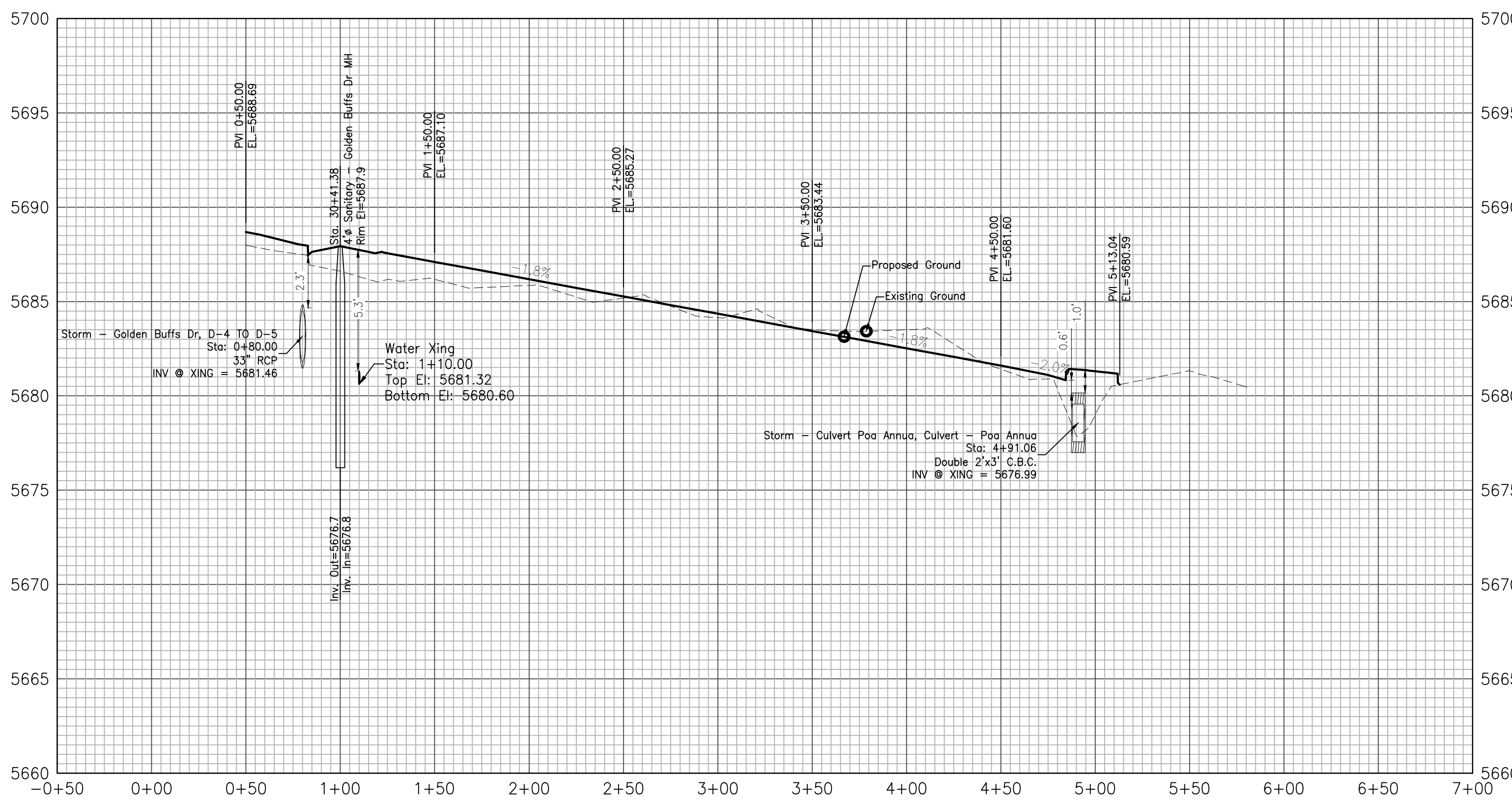


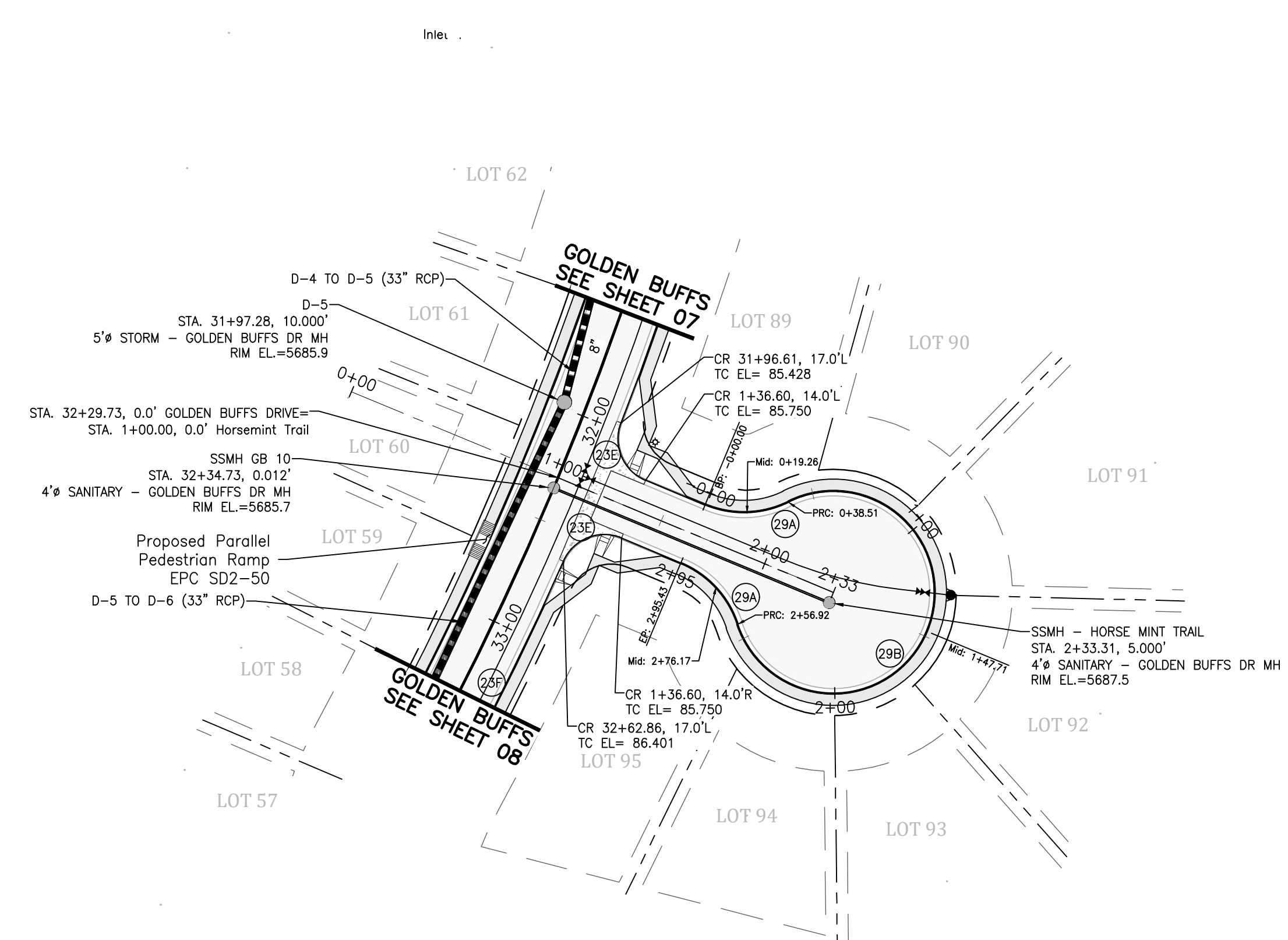
The proposed raised island and associated signage and striping for the right-in-right-out intersection improvements shall not be installed by the developer until a notice to proceed with construction is provided by El Paso County. This intersection will be allowed as an interim full movement intersection until either a connection becomes available through the property to the north to Lorson Boulevard, a traffic signal is installed at the intersection of Peaceful Valley Road and Marksheffel Road, or safety or operational problems arise which necessitate proceeding with the right-in-right-out intersection improvements at Poa Annu Street and Marksheffel Road.



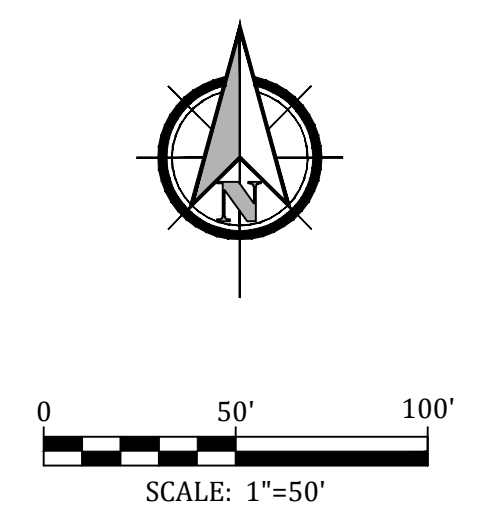
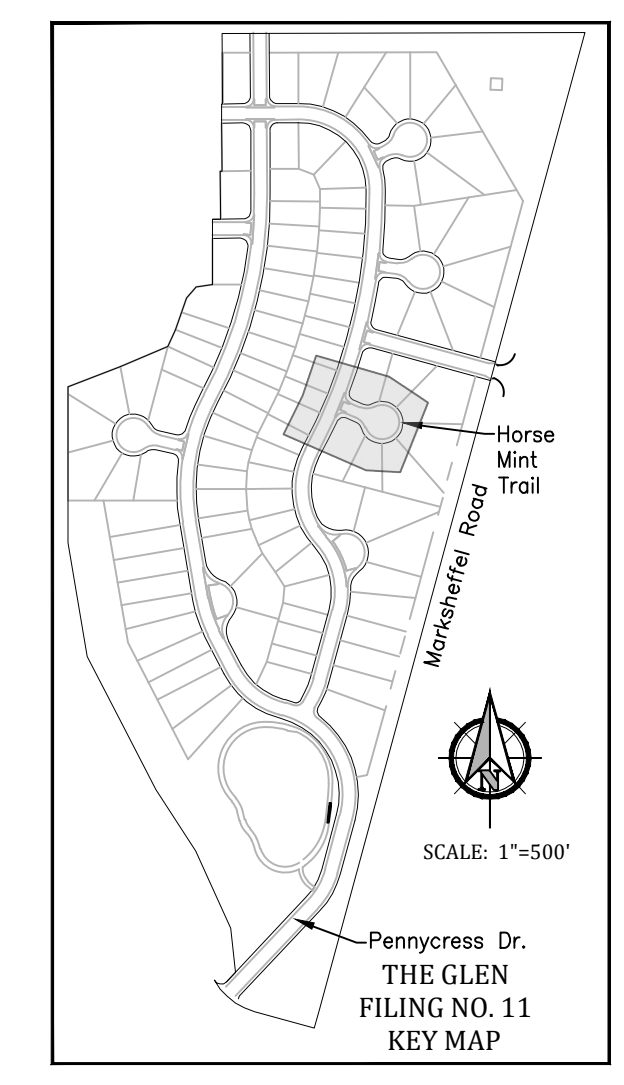
CURVE DATA
Detail for
Raised Island
Scale: 1" = 10'

EPC 1/18/22

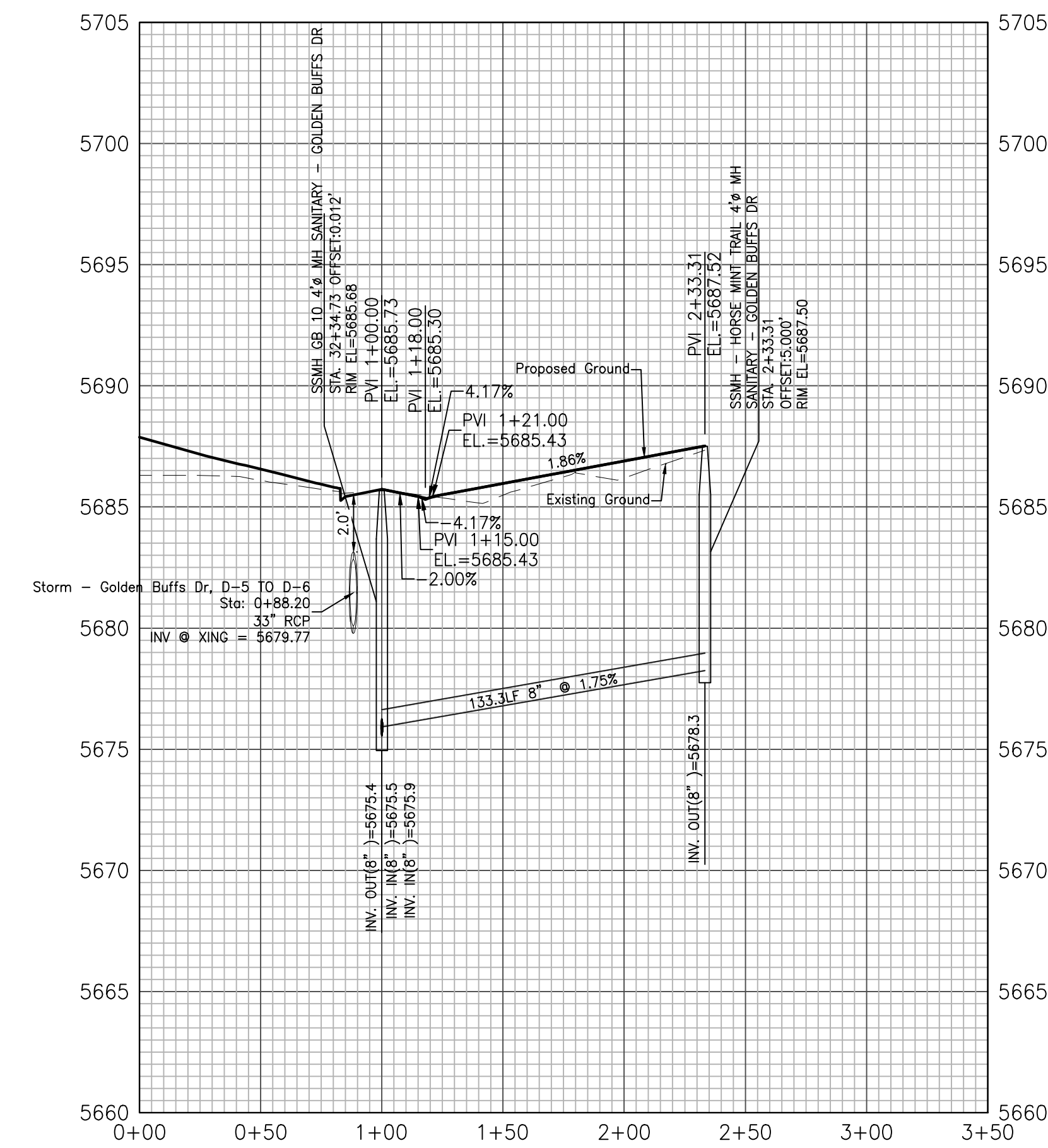




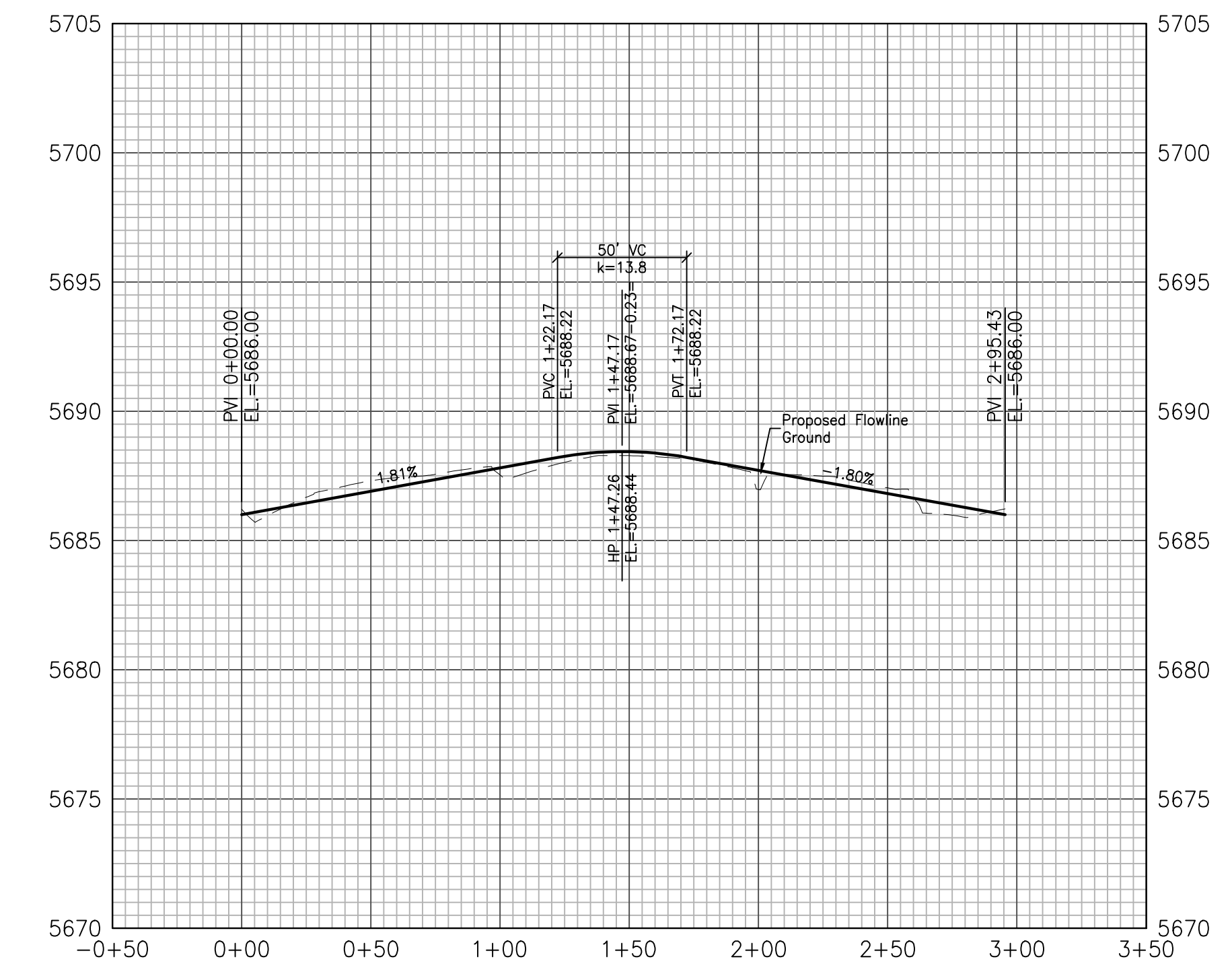
CURVE DATA	
28A	Δ=49°02'18" L=38.51' R=45.00'
28B	Δ=278°04'35" L=218.40' R=45.00'
23C	Δ=88°31'21" L=30.90' R=20.00'
23D	Δ=4°52'09" L=120.42' R=1417.00'
23E	Δ=88°38'39" L=30.94' R=20.00'
23F	Δ=4°30'38" L=111.55' R=1417.00'



HORSEMINT TRAIL

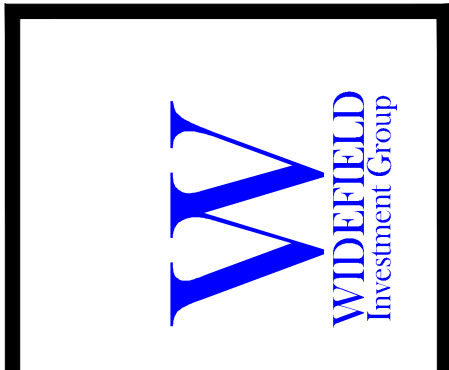


HORSEMINT TRAIL CDS



EPC 1/18/22

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



GLEN AT WIDEFIELD NO. 11
Plan and Profile - Horse Mint Trail
Sta: All
EL PASO, COUNTY, COLORADO

Project No.:	19016
Date:	June 21, 2021
Design:	MJK
Drawn:	MJK
Check:	AWMc
Revisions:	

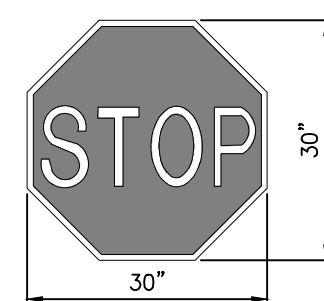
SHEET
12
12 of 30 Sheets

- 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 Review Services.
 - 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 5" 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 performed 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 and Community Development Review Services (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.

NOTE:

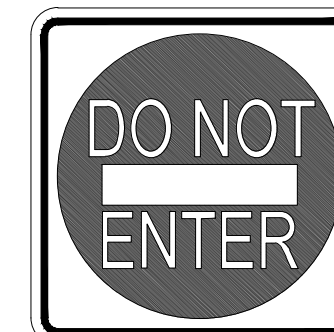
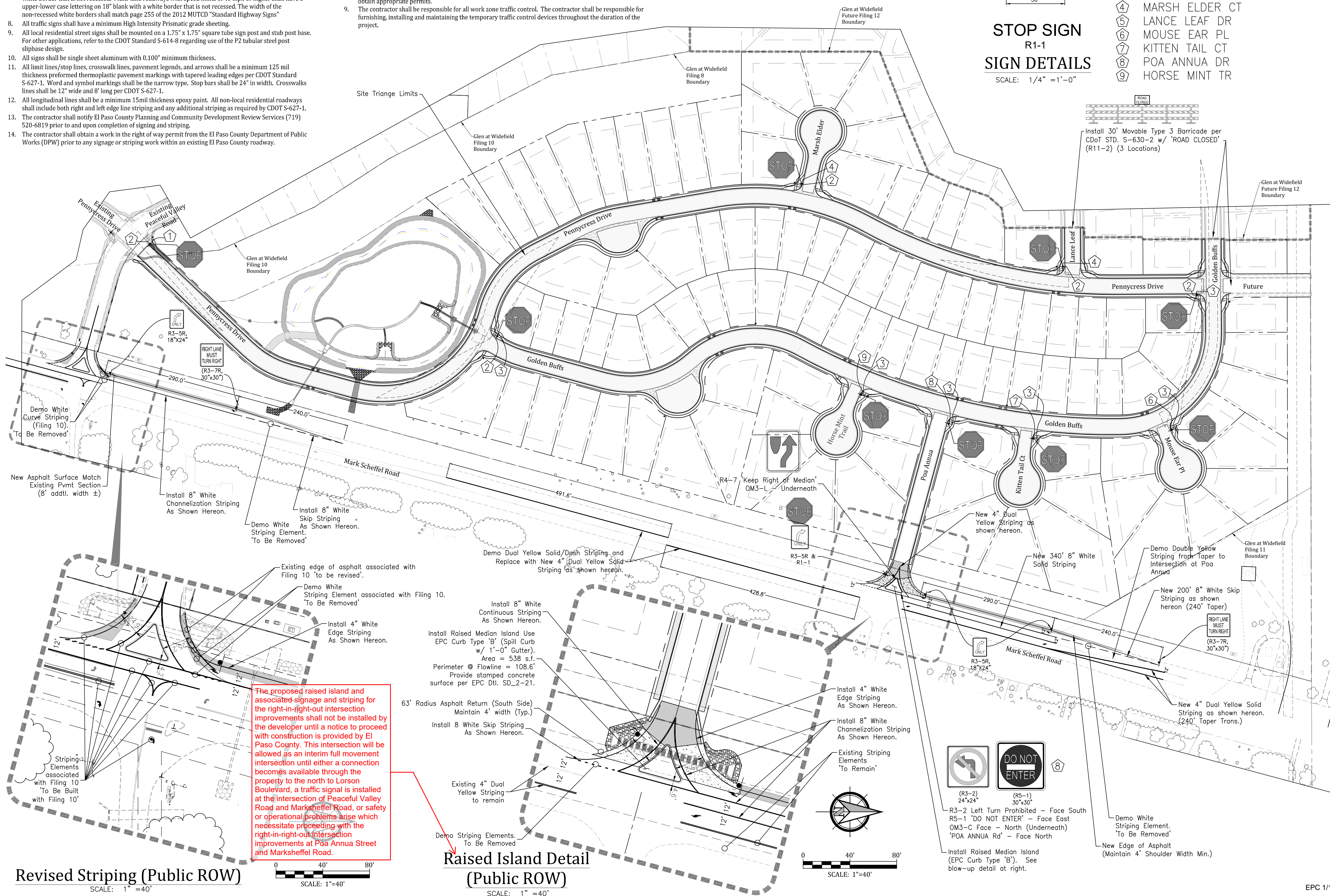
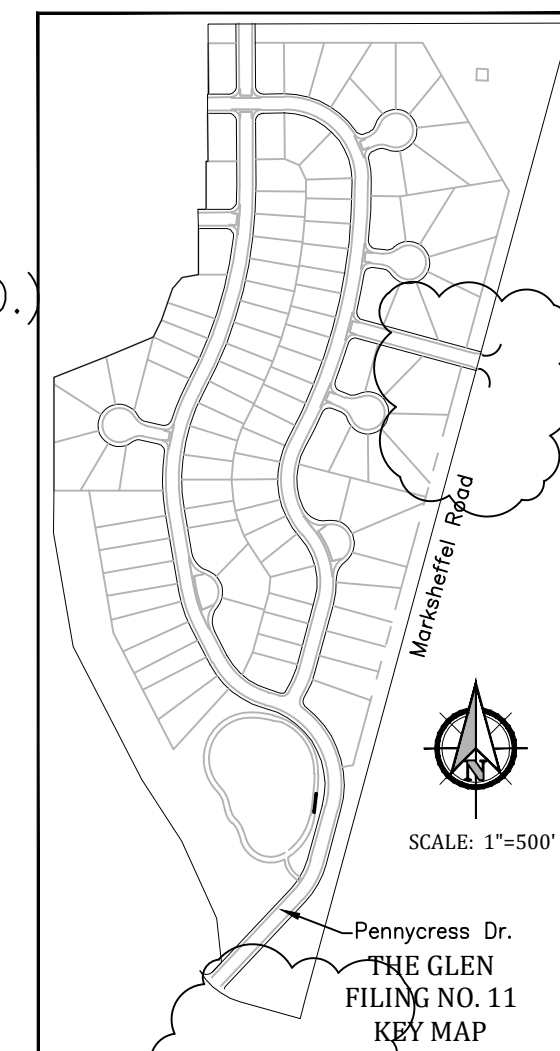
- Stop Sign Placement Locations shall be per Section 2b-9 of the Manual on Uniform Traffic Control Devices, latest edition and CDOT S-614-1.
- Street Signs Shall Be Mounted Perpendicular to their associated street as shown in the plan area. Install per EPC Stds.



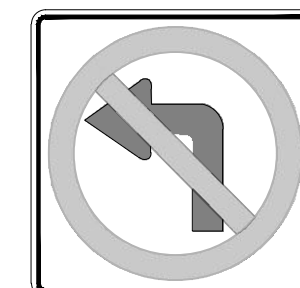
STOP SIGN R1-1 SIGN DETAILS
SCALE: 1/4" = 1'-0"

INDEX OF STREET SIGNS (PER EPC STD.)

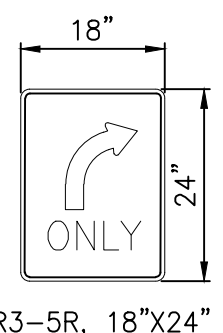
KEY	DESCRIPTION
1	PEACEFUL VALLEY DR
2	PENNYCRESS DR
3	GOLDEN BUFFS DR
4	MARSH ELDER CT
5	LANCE LEAF DR
6	MOUSE EAR PL
7	KITTEN TAIL CT
8	POA ANNUA DR
9	HORSE MINT TR



(R5-1) 30"x30"



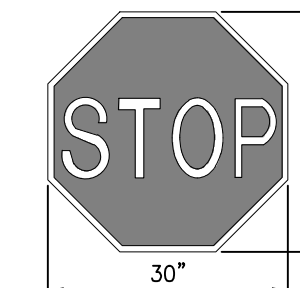
(R3-2) 24"x24"



R3-5R, 18"x24"



R4-7R, KEEP RIGHT OF MEDIAN (24"x30")



R1-1 STOP SIGN

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"



Revised Striping (Public ROW)
SCALE: 1" = 40'

SCALE: 1" = 40'

Raised Island Detail (Public ROW)
SCALE: 1" = 40'

SCALE: 1" = 40'

GLEN AT WIDEFIELD NO. 11
Signing & Striping - Overall

EL PASO, COUNTY, COLORADO

Project No.:	19016
Date:	June 21, 2021
Design:	MJK
Drawn:	MJK
Check:	AWMc
Revisions:	

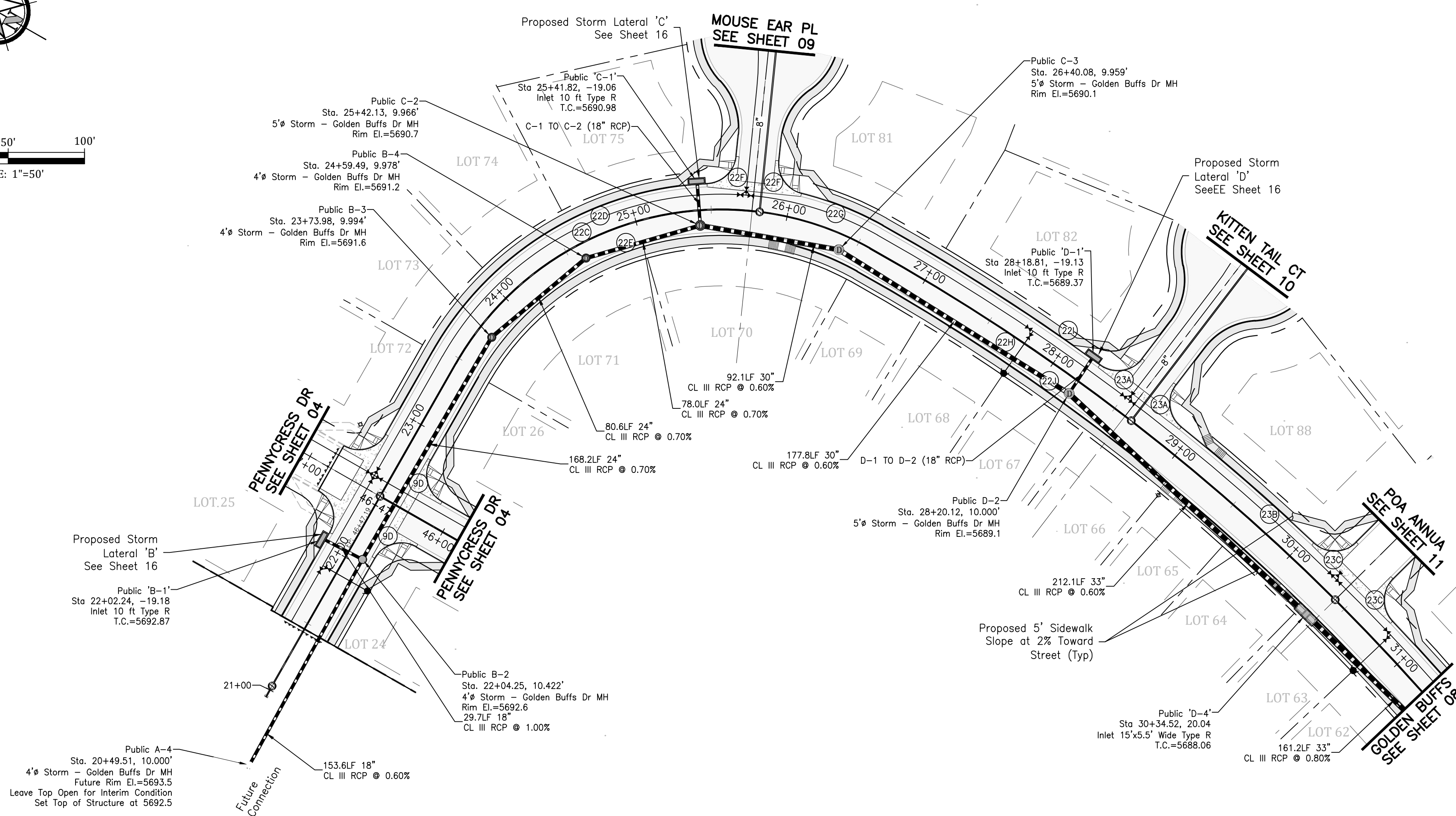
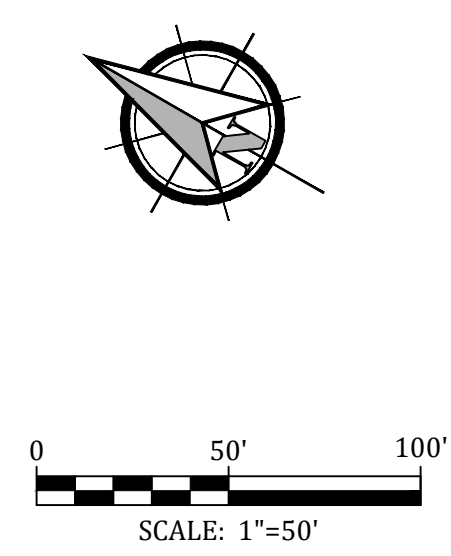
SHEET

13

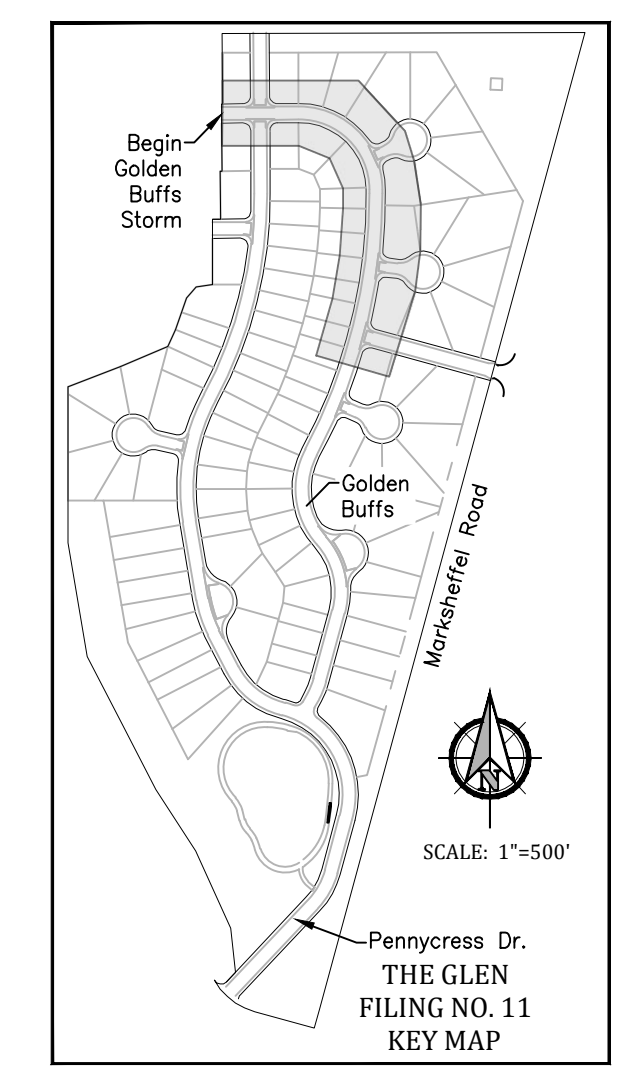
13 of 30 Sheets

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

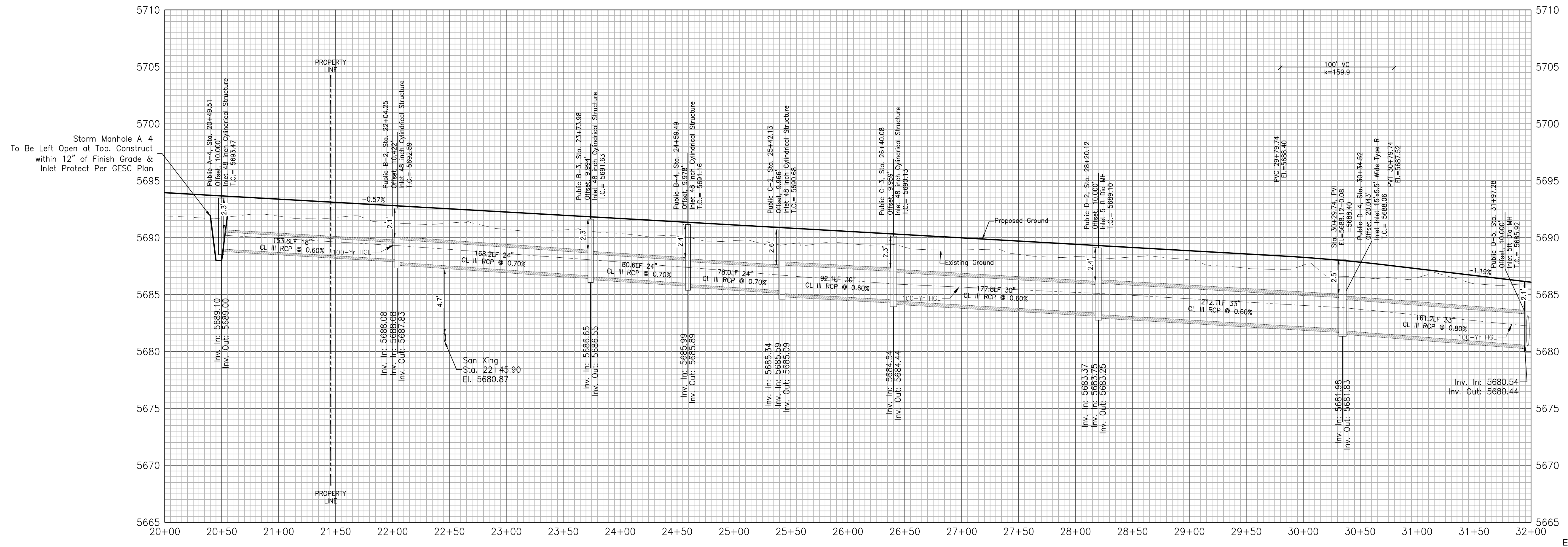
W
WIDEFIELD
Investment Group



CURVE DATA		
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	L=31.42'	R=20.00'
22C	Δ=90°00'00"	L=314.16'
	L=314.16'	R=200.00'
22D	Δ=57°53'35"	L=219.26'
	L=219.26'	R=217.00'
22E	Δ=90°00'00"	L=287.46'
	L=287.46'	R=183.00'
22F	Δ=81°45'07"	L=28.54'
	L=28.54'	R=20.00'
22G	Δ=15°36'39"	L=59.12'
	L=59.12'	R=217.00'
22H	Δ=28°46'26"	L=703.08'
	L=703.08'	R=1400.00'
22I	Δ=62°1'36"	L=157.31'
	L=157.31'	R=1417.00'
22J	Δ=28°46'26"	L=694.54'
	L=694.54'	R=1383.00'
23A	Δ=88°38'39"	L=30.94'
	L=30.94'	R=20.00'
23B	Δ=4°39'54"	L=115.23'
	L=115.23'	R=1417.00'
23C	Δ=88°31'21"	L=30.90'
	L=30.90'	R=20.00'



Profile View of Golden Buffs Drive

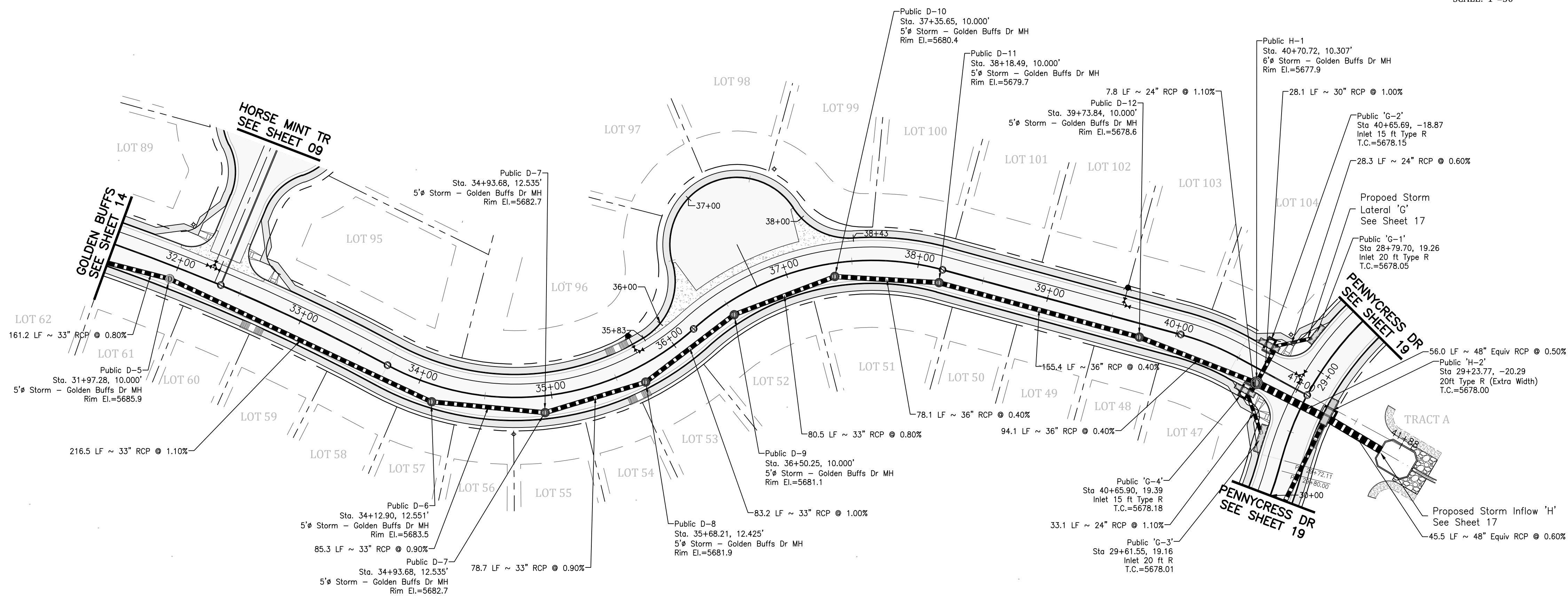


GLEN AT WIDEFIELD NO. 11
Storm Sewer Plan - Golden Buffs Trunkline
 Begin Sta: 21+45.87 to 31+50
 EL PASO, COUNTY, COLORADO

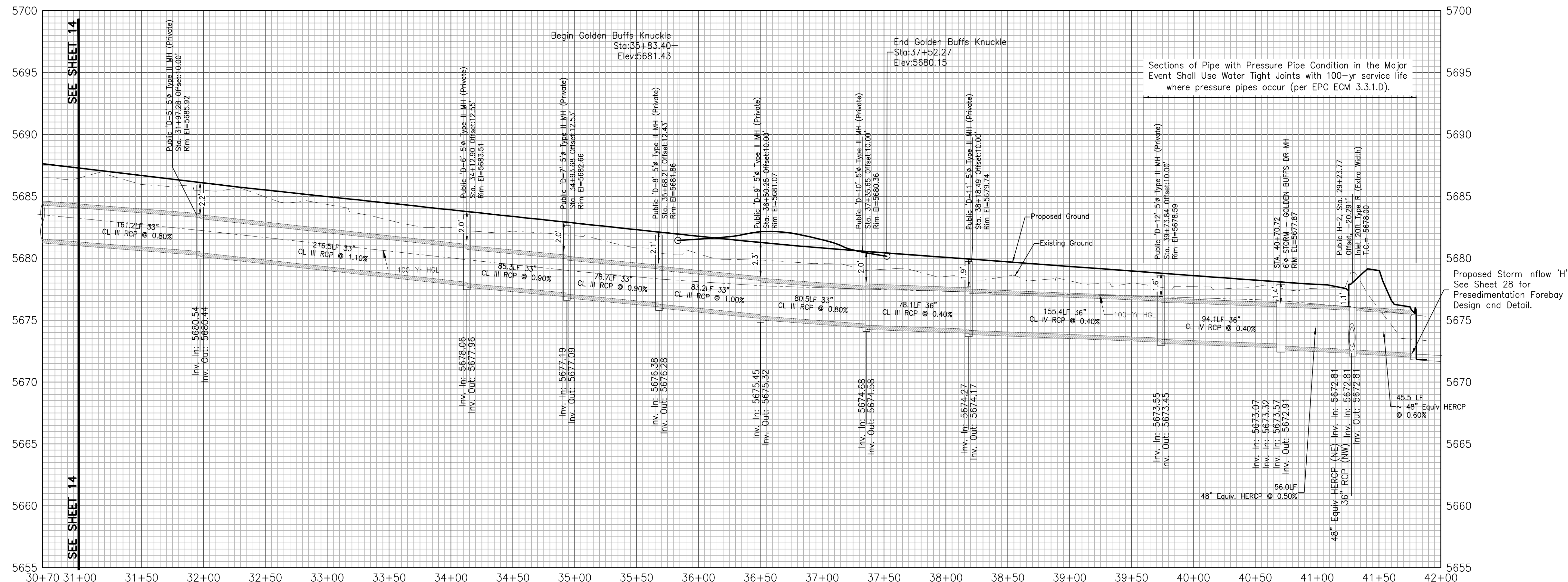
Project No.:	19016
Date:	June 21, 2021
Design:	MJK
Drawn:	MJK
Check:	AWMc
Revisions:	



SHEET
14
 14 of 30 Sheets



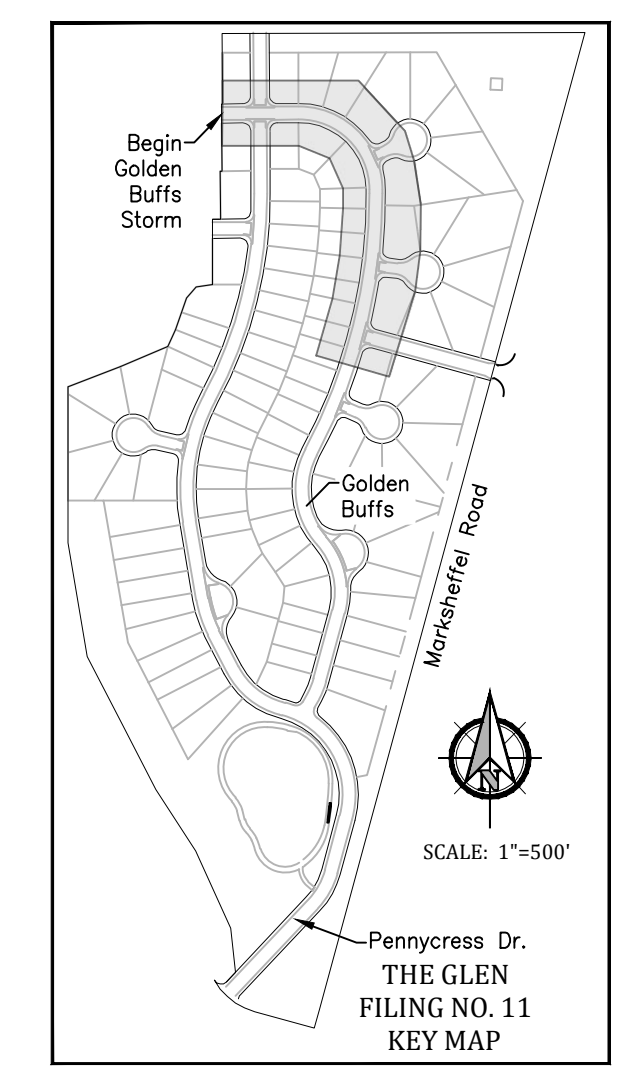
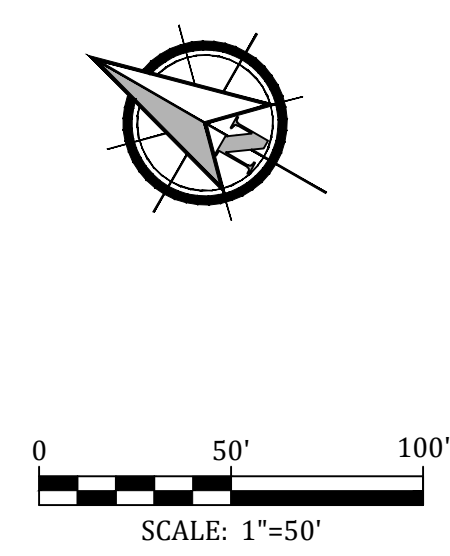
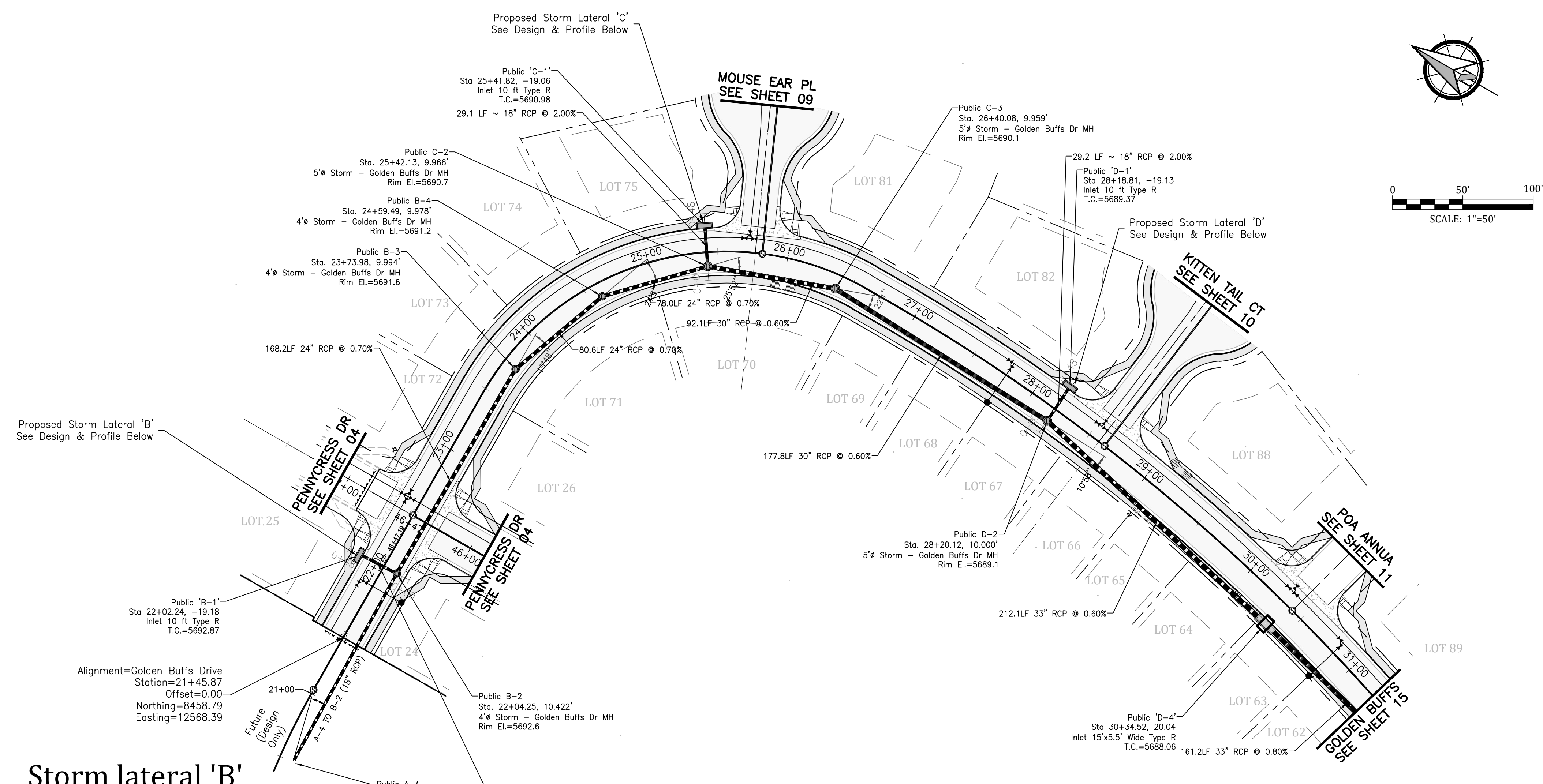
Profile View of Golden Buffs Drive



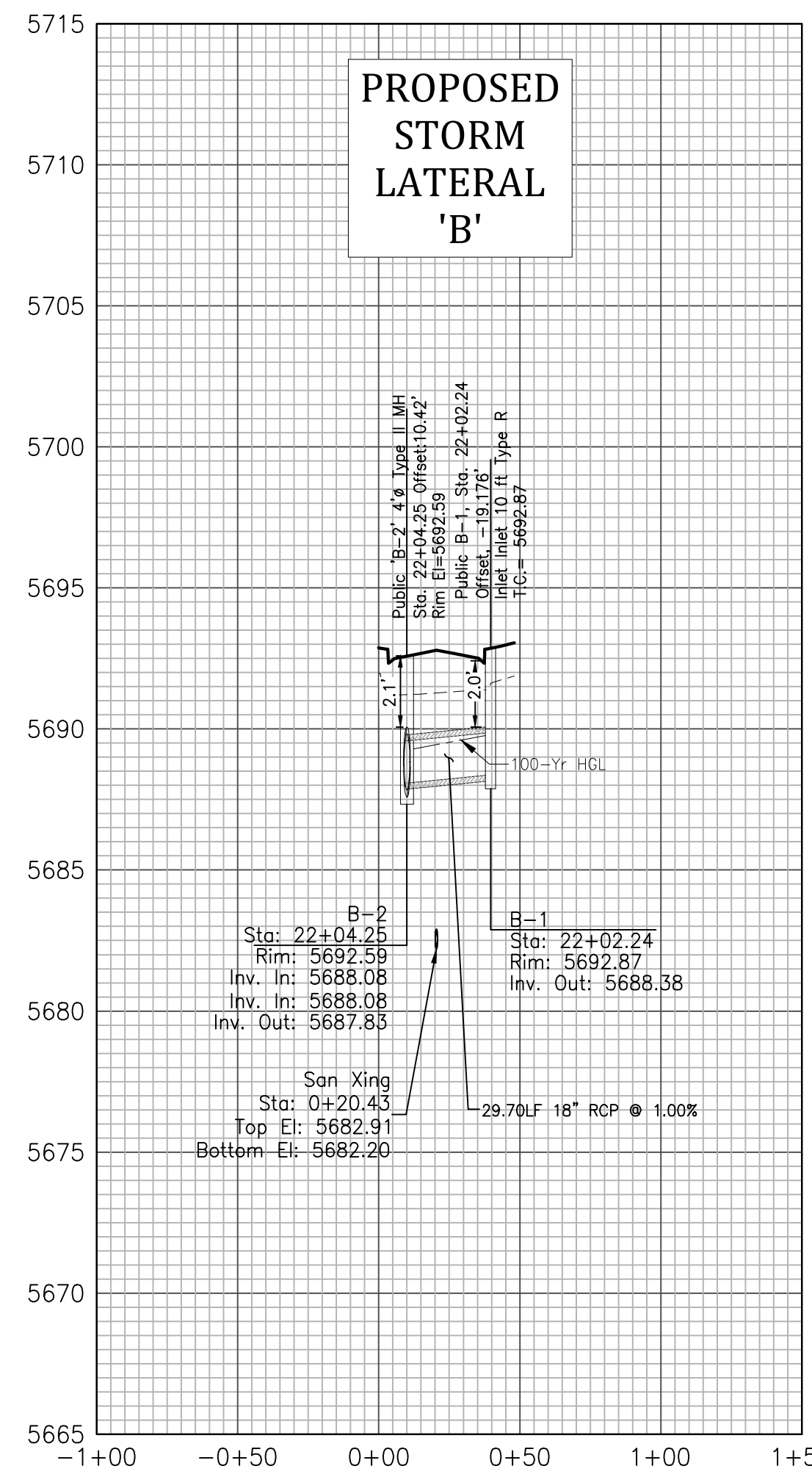
EPC 1/18/22



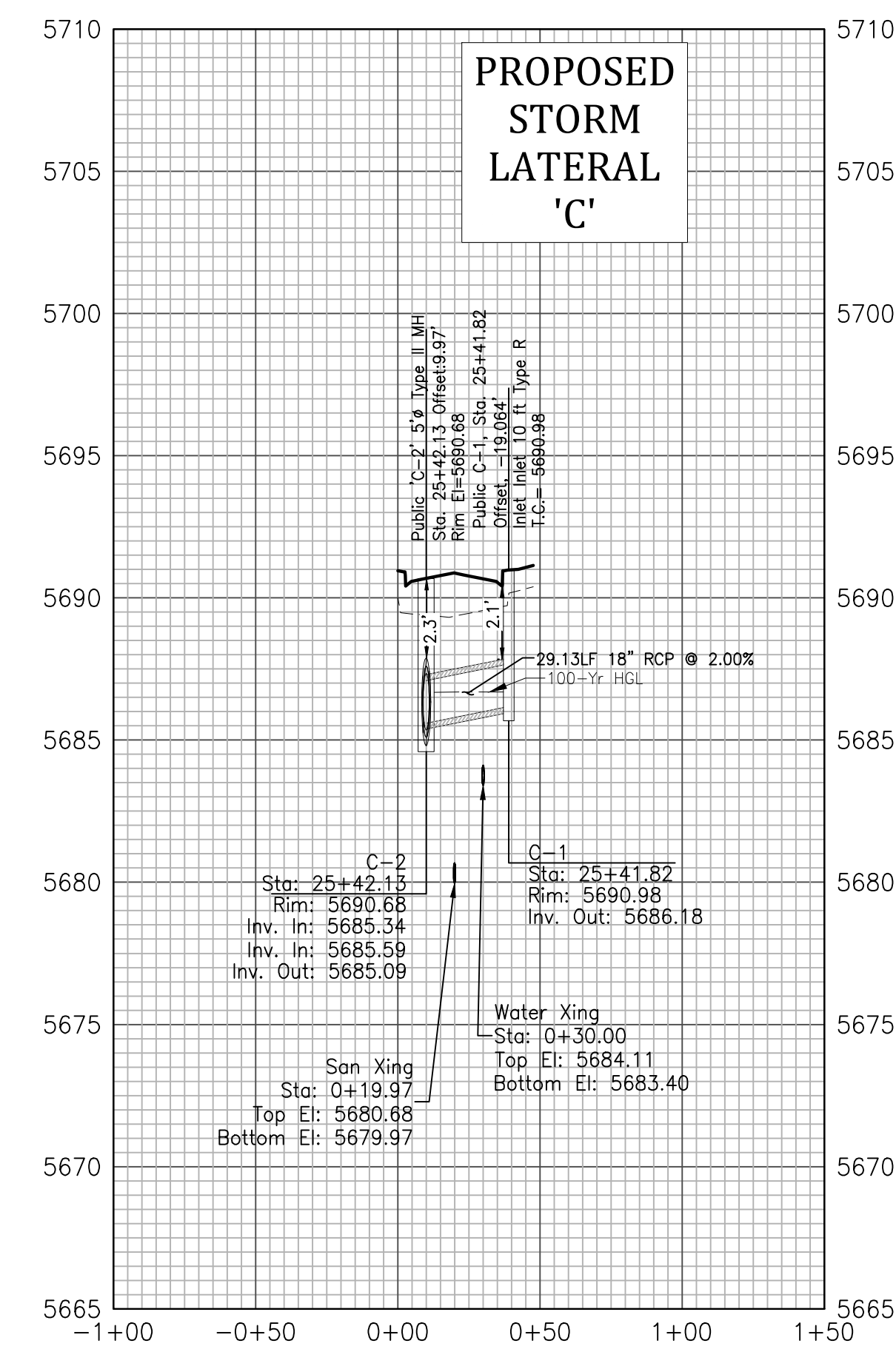
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Date:	November 24, 2021
Design:	MJK
Drawn:	MJK
Check:	AWMc
Revisions:	



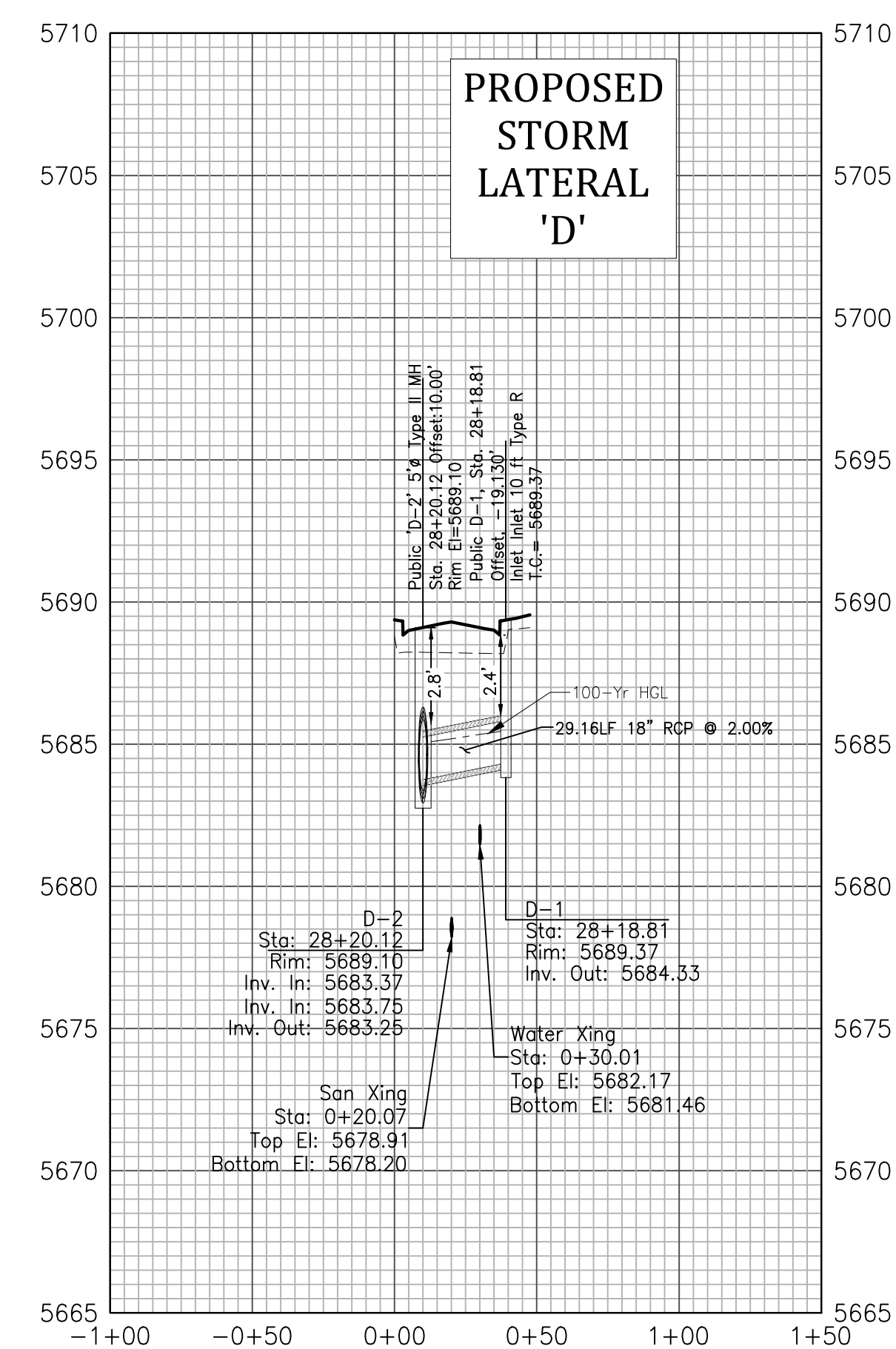
Storm lateral 'B'



Storm Lateral 'C'

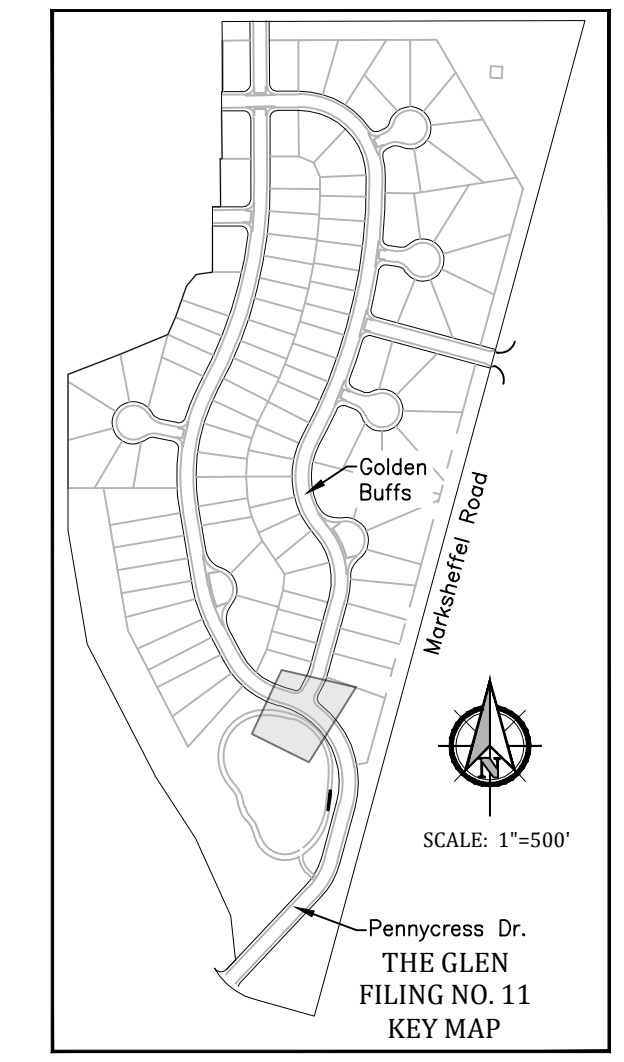
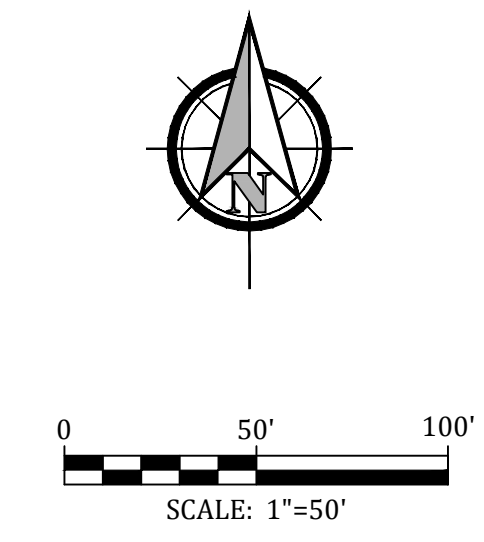
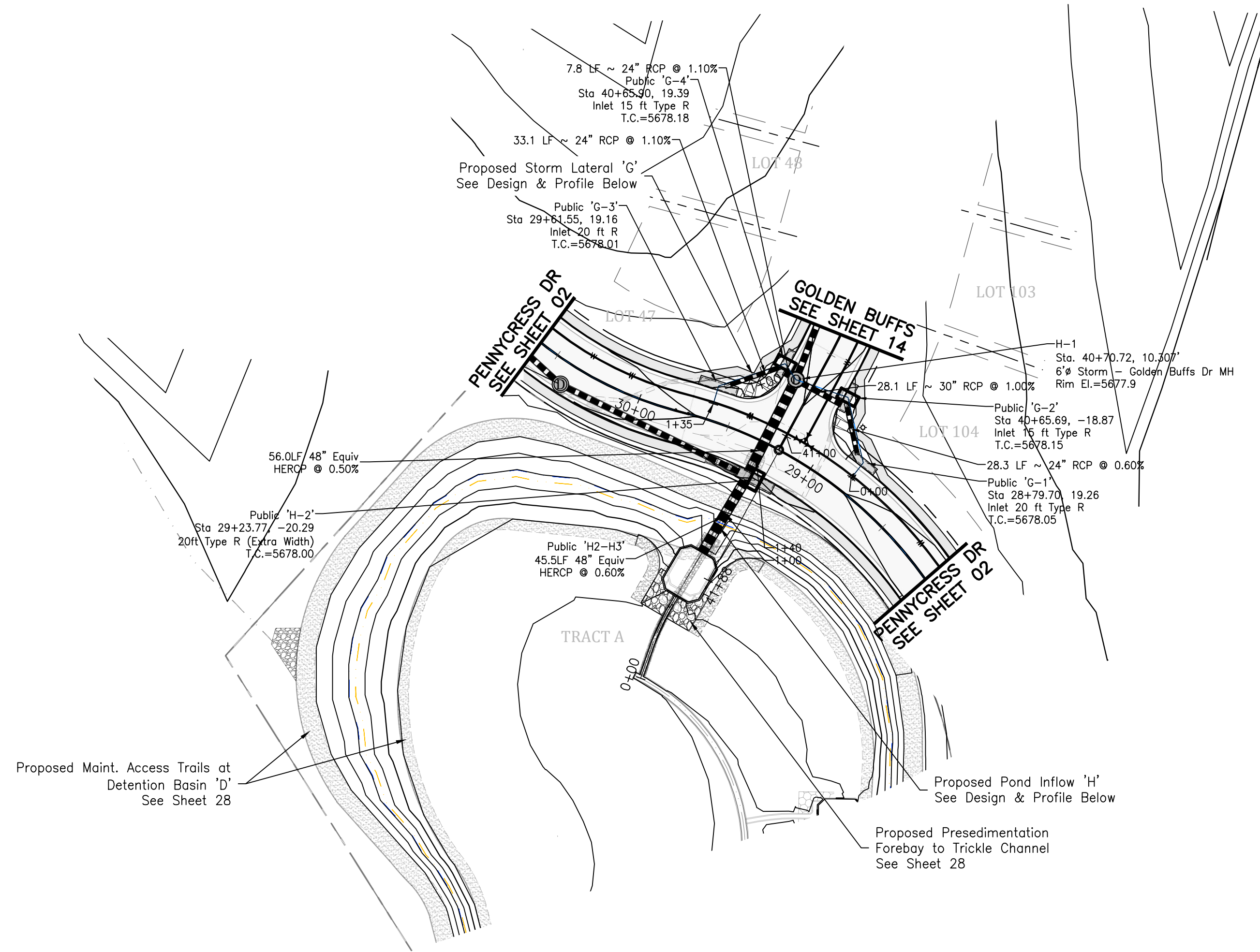


Storm Lateral 'D'

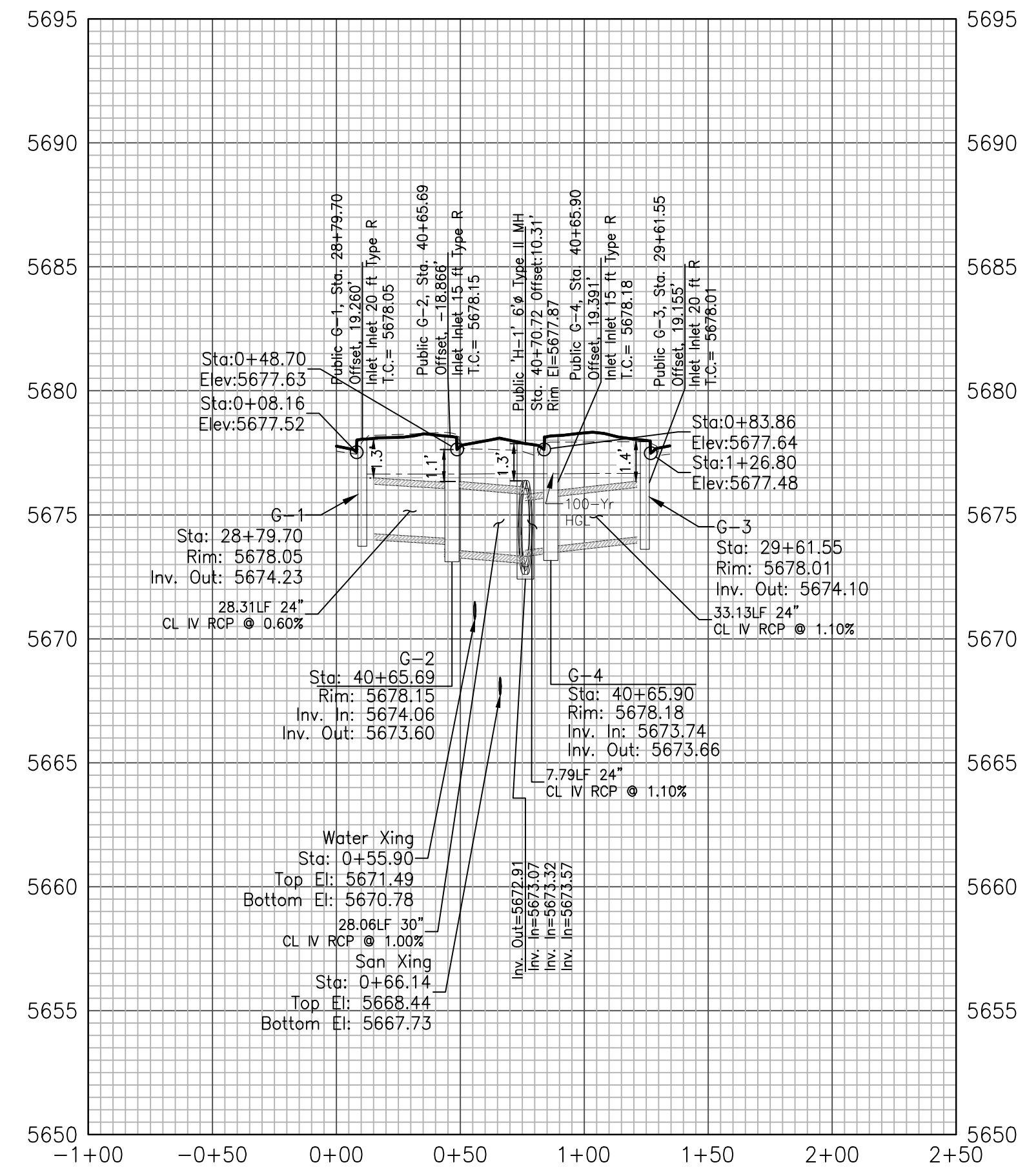


EPC 1/18/22

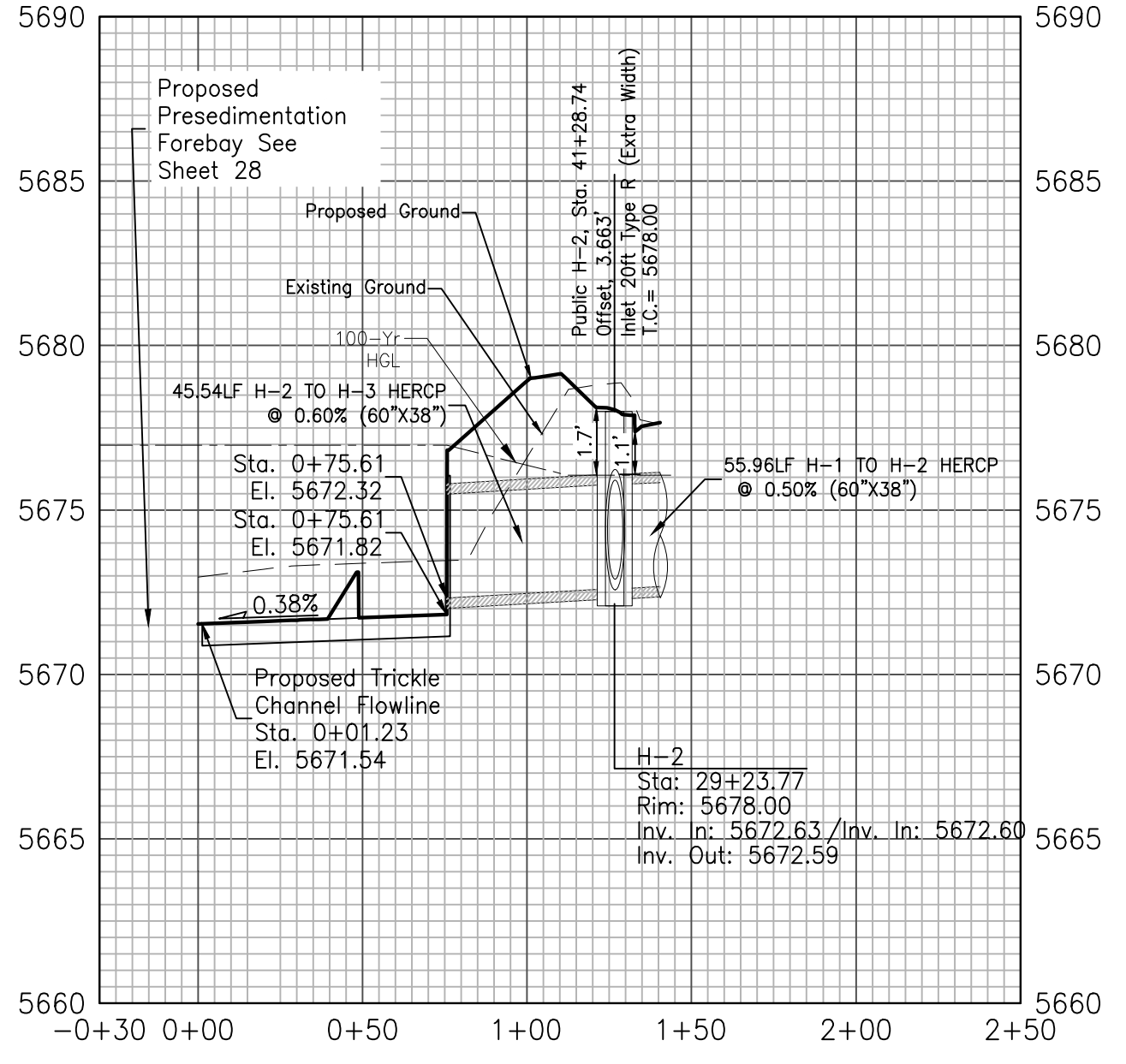
Project No.:	19016
Date:	June 21, 2021
Design:	MJK
Drawn:	MJK
Check:	AWMc
Revisions:	



Storm Lateral 'G'



Storm Lateral 'H' - Pond Inflow



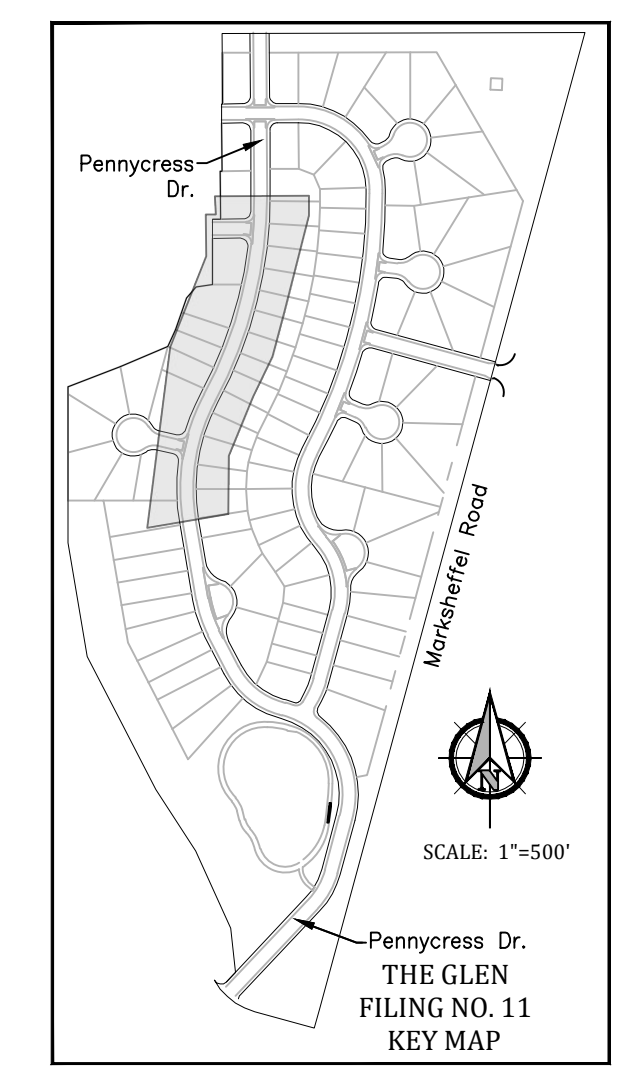
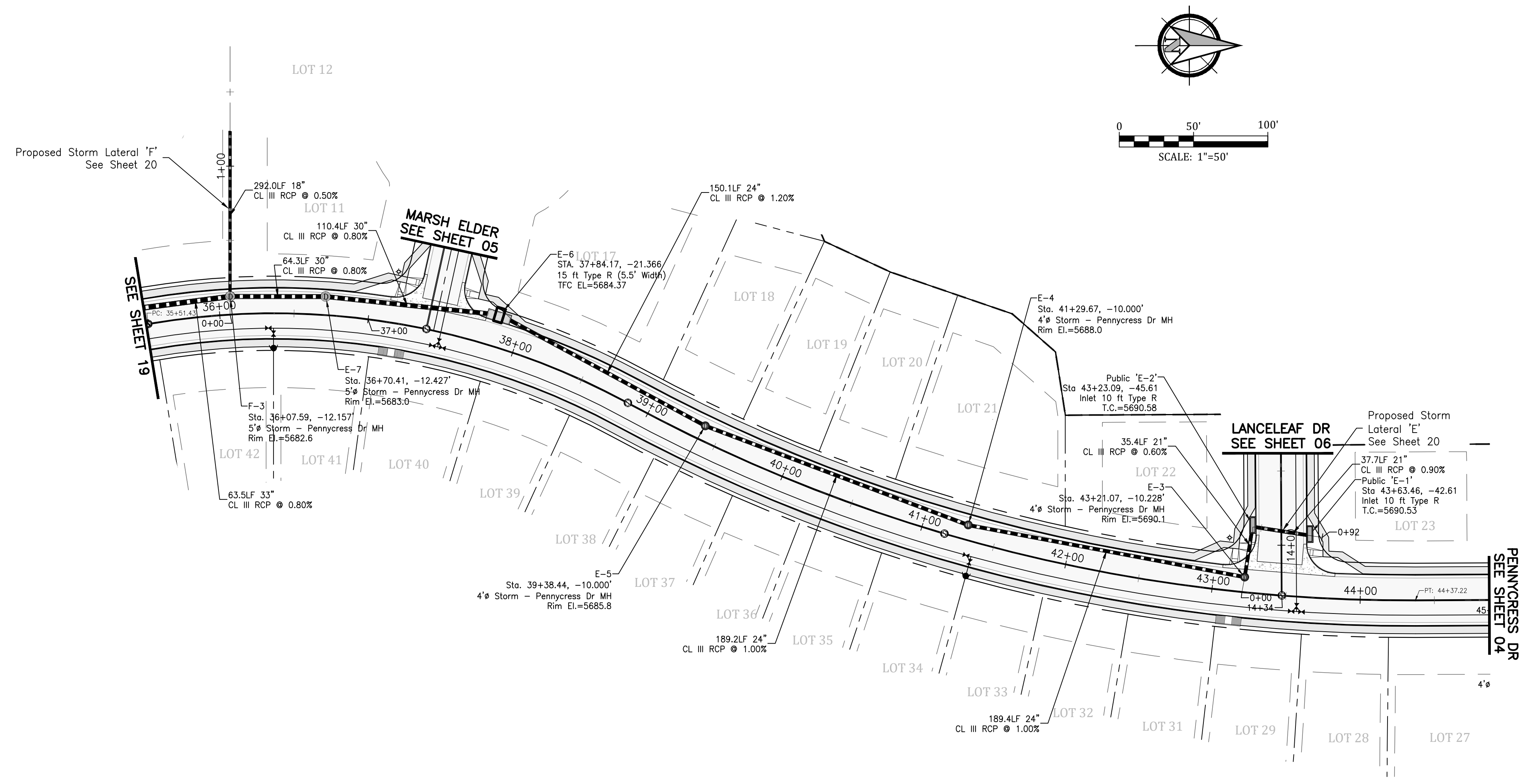
Kiowa
Engineering Corporation
1604 South 21st Street
Colorado Springs, Colorado 80904
(719) 630-7342

W
WIDEFIELD
Investment Group

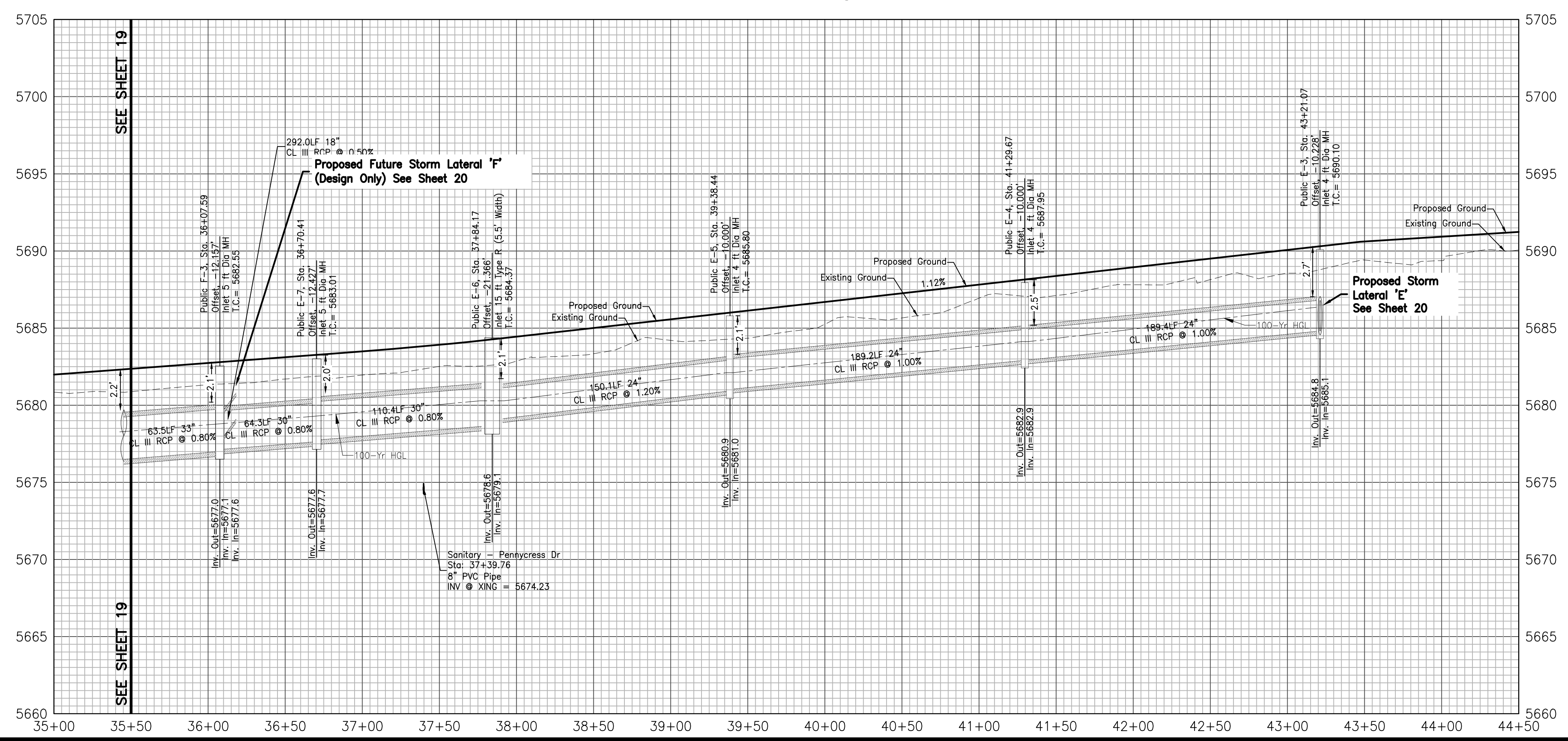
GLEN AT WIDEFIELD NO. 11
Storm Sewer Plan - Lateral 'G' & Pond Inflow 'H'
Sta: All
EL PASO, COUNTY, COLORADO

Project No.:	19016
Date:	June 21, 2021
Design:	MJK
Drawn:	MJK
Check:	AWMc
Revisions:	

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17 of 30 Sheets

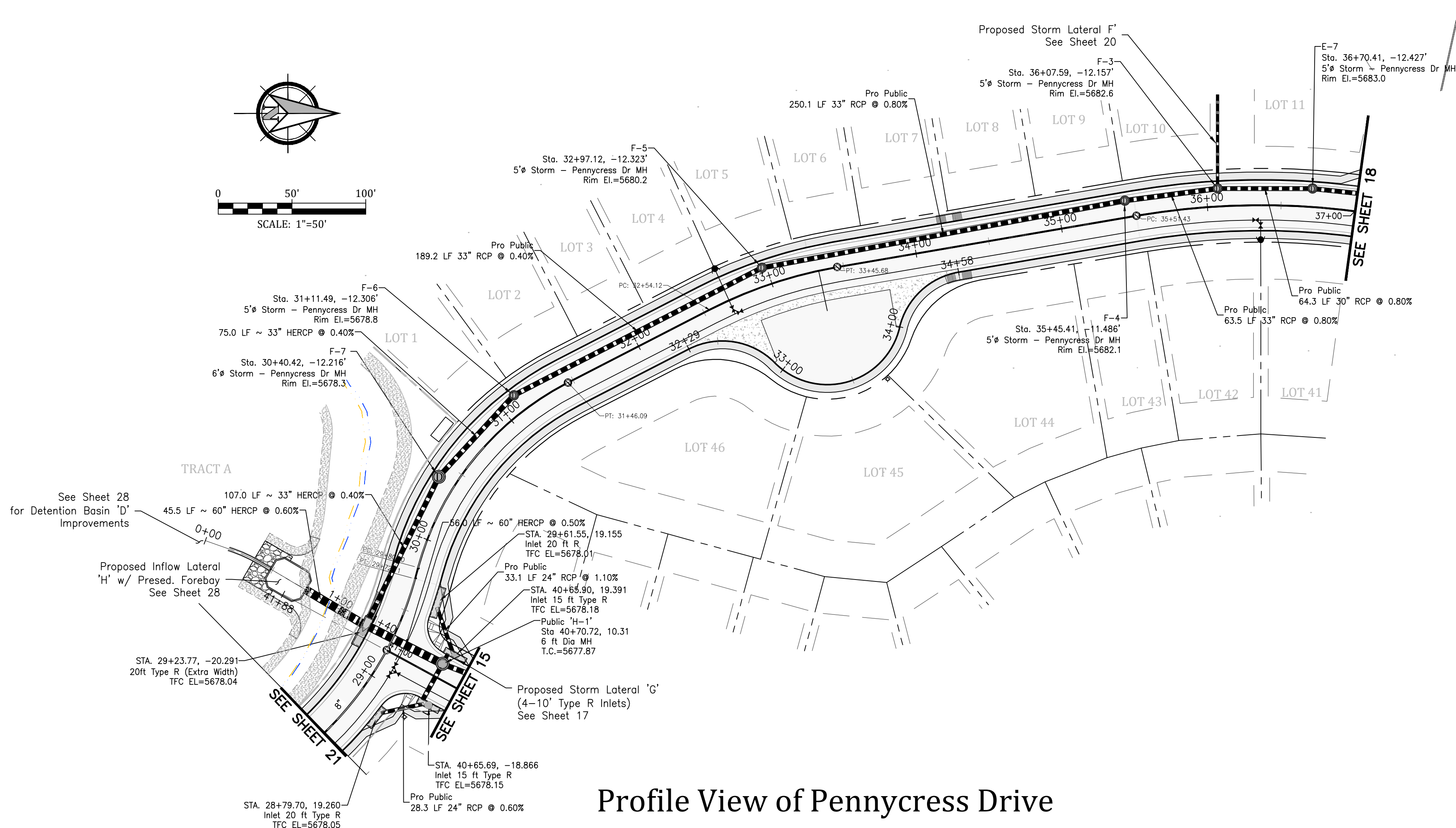


Profile View of Pennycress Drive

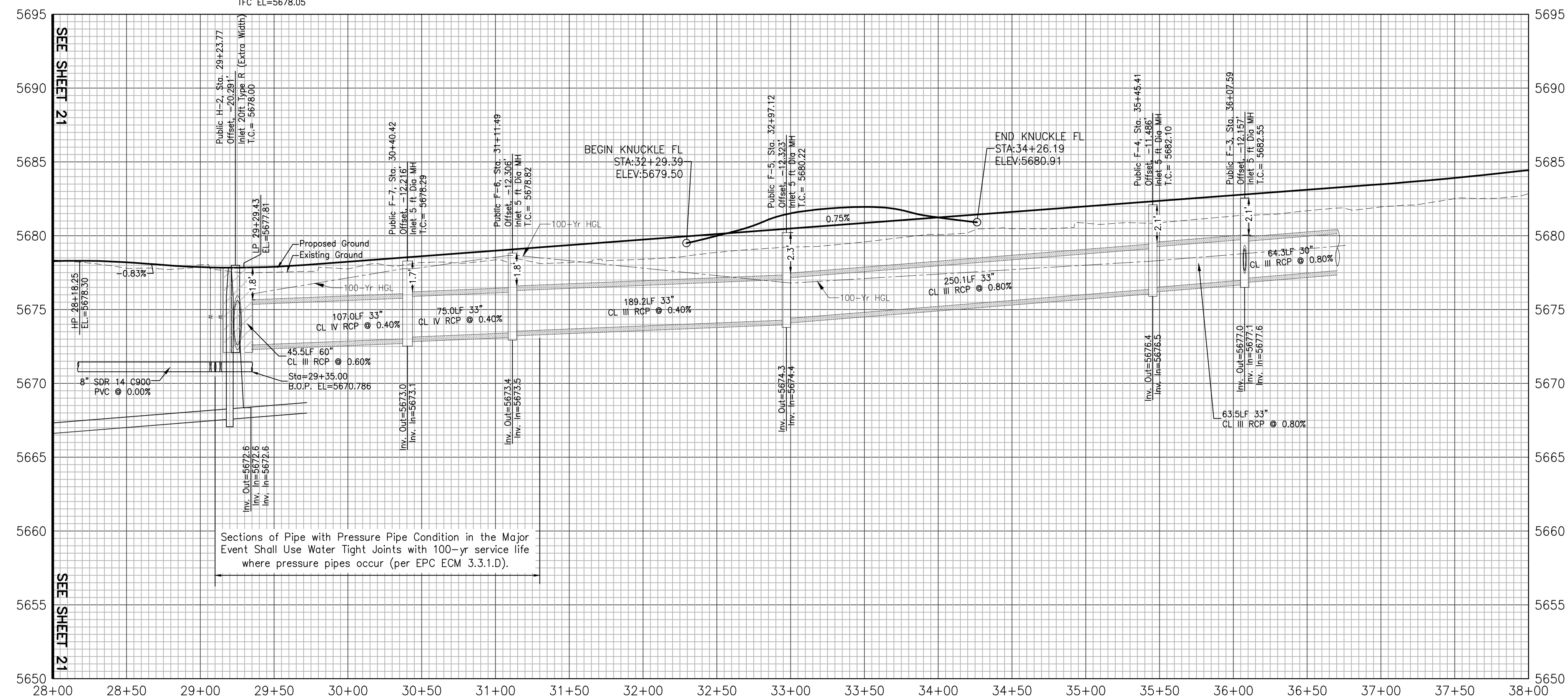


EPC 1/18/22

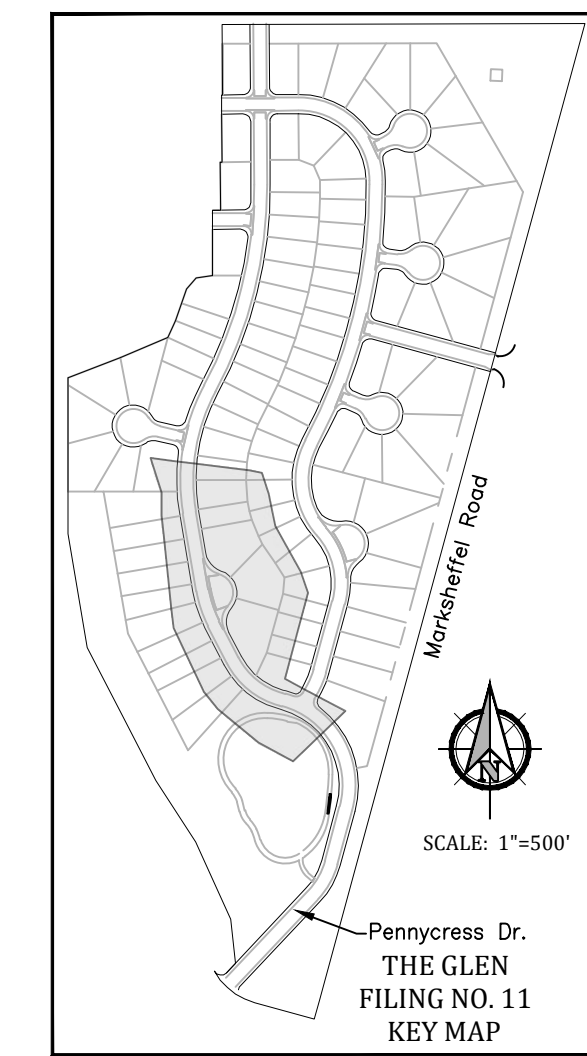
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Date:	June 21, 2021
Design:	MJK
Drawn:	MJK
Check:	AWMc
Revisions:	



Profile View of Pennycress Drive

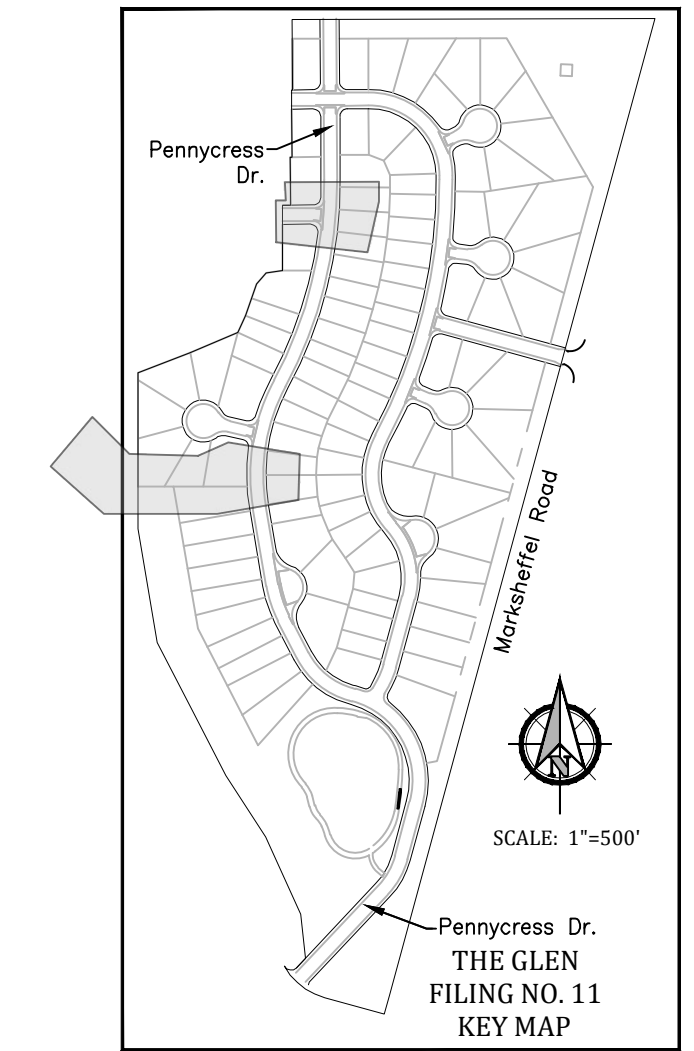
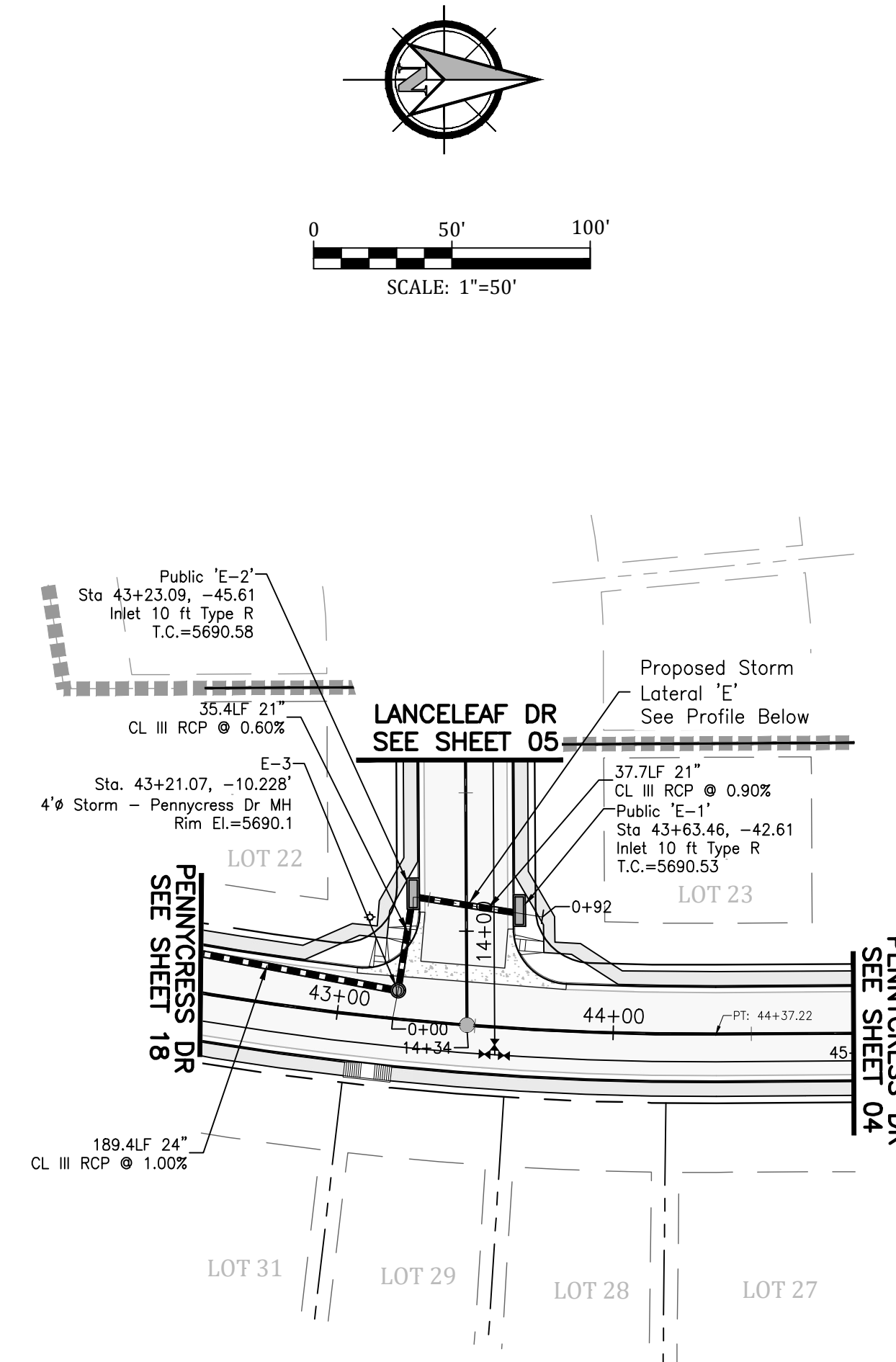
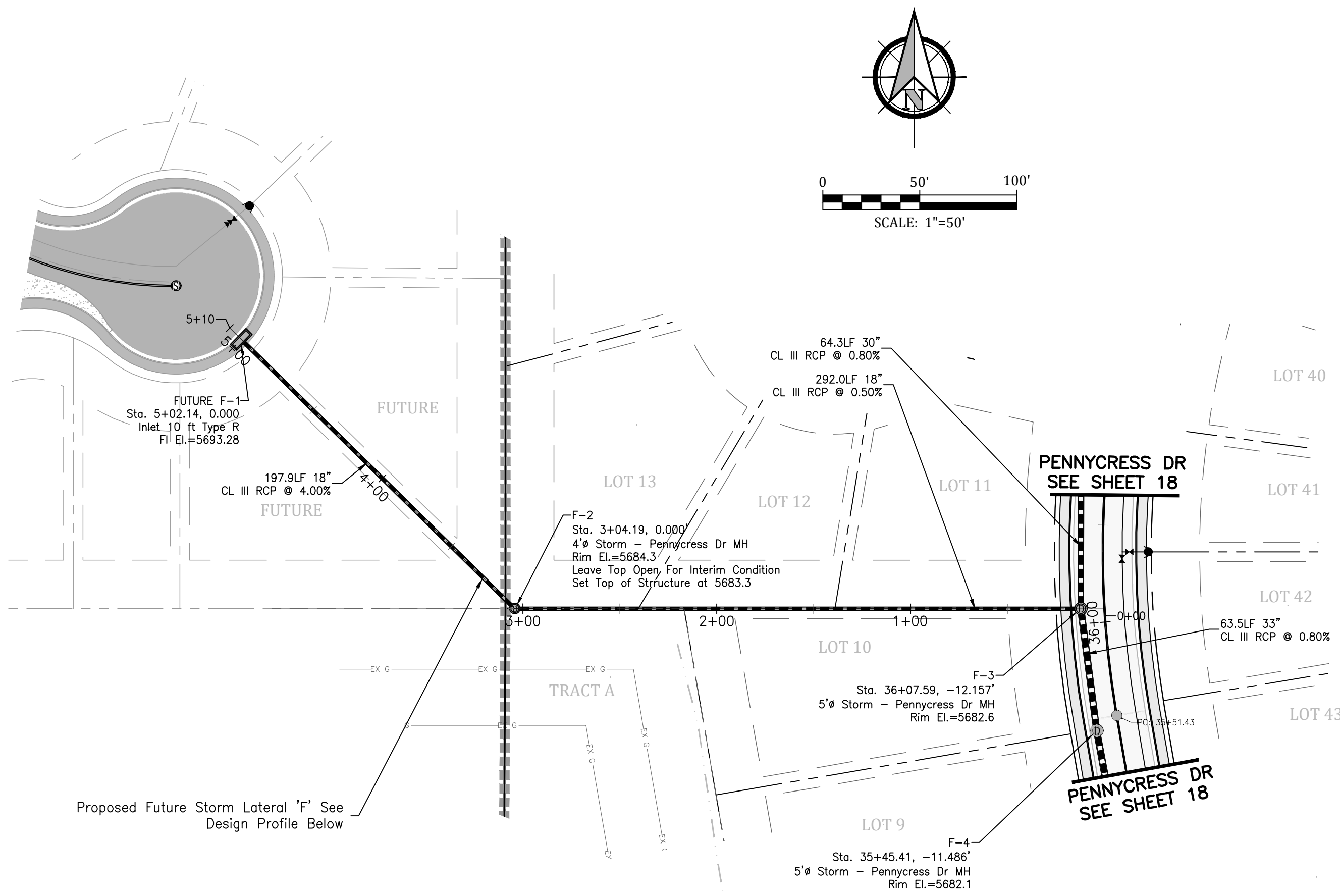


Sections of Pipe with Pressure Pipe Condition in the Major Event Shall Use Water Tight Joints with 100-yr service life where pressure pipes occur (per EPC ECM 3.3.1.D).

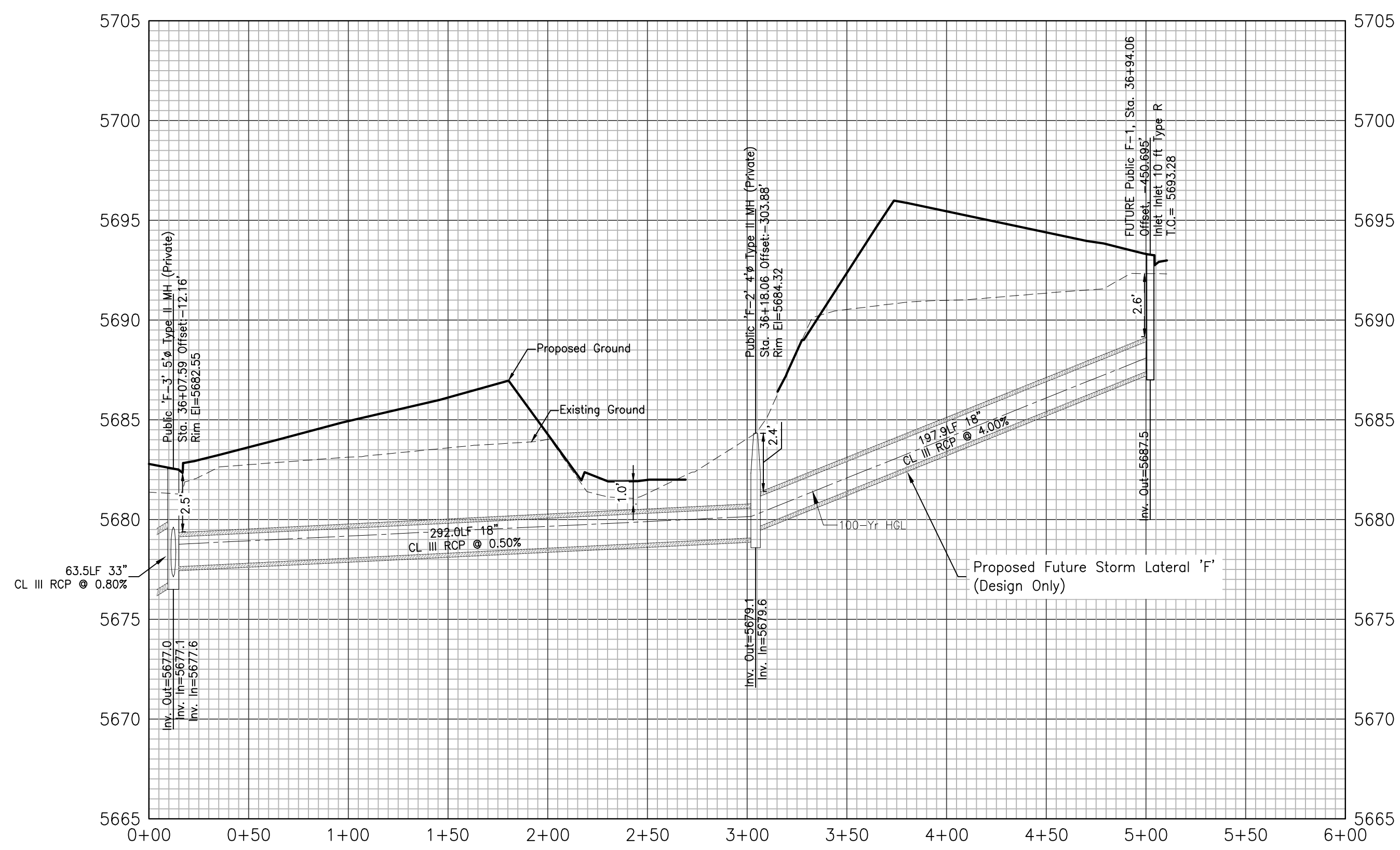


Project No.:	19016
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Revisions:	

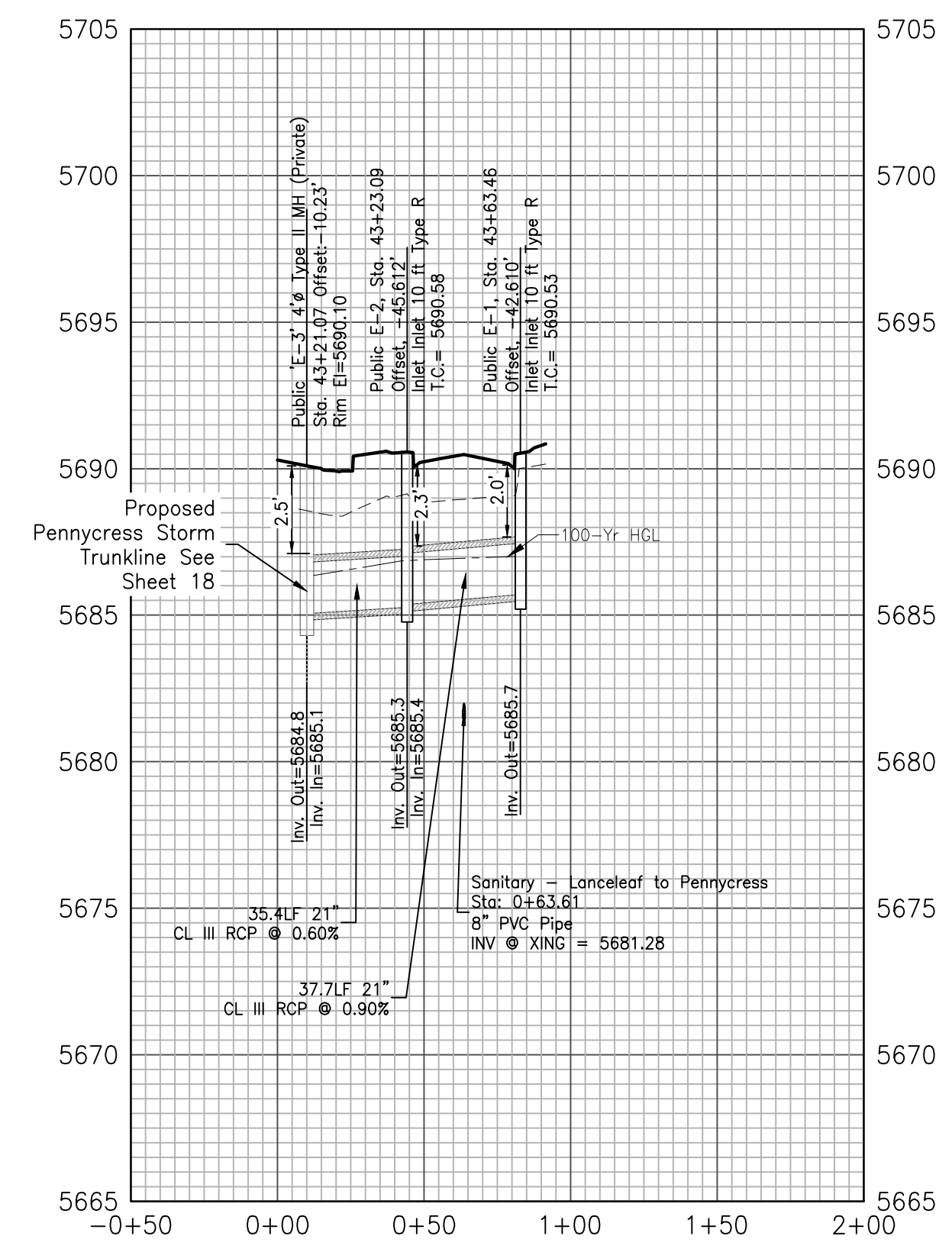




Profile View of Alignment - Storm Lateral 'F'



Profile View of Alignment - Storm Lateral 'E'

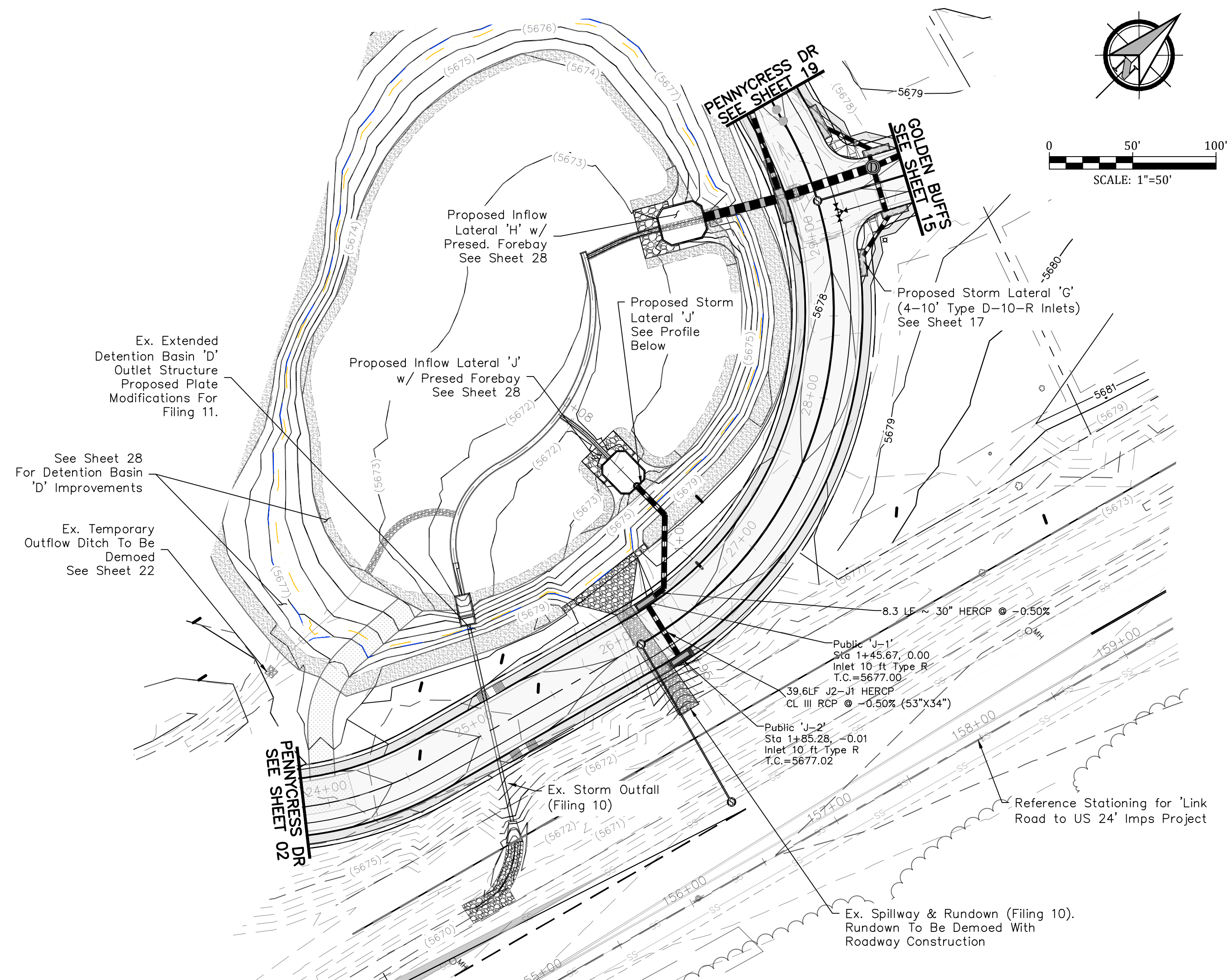


EPC 1/18/22

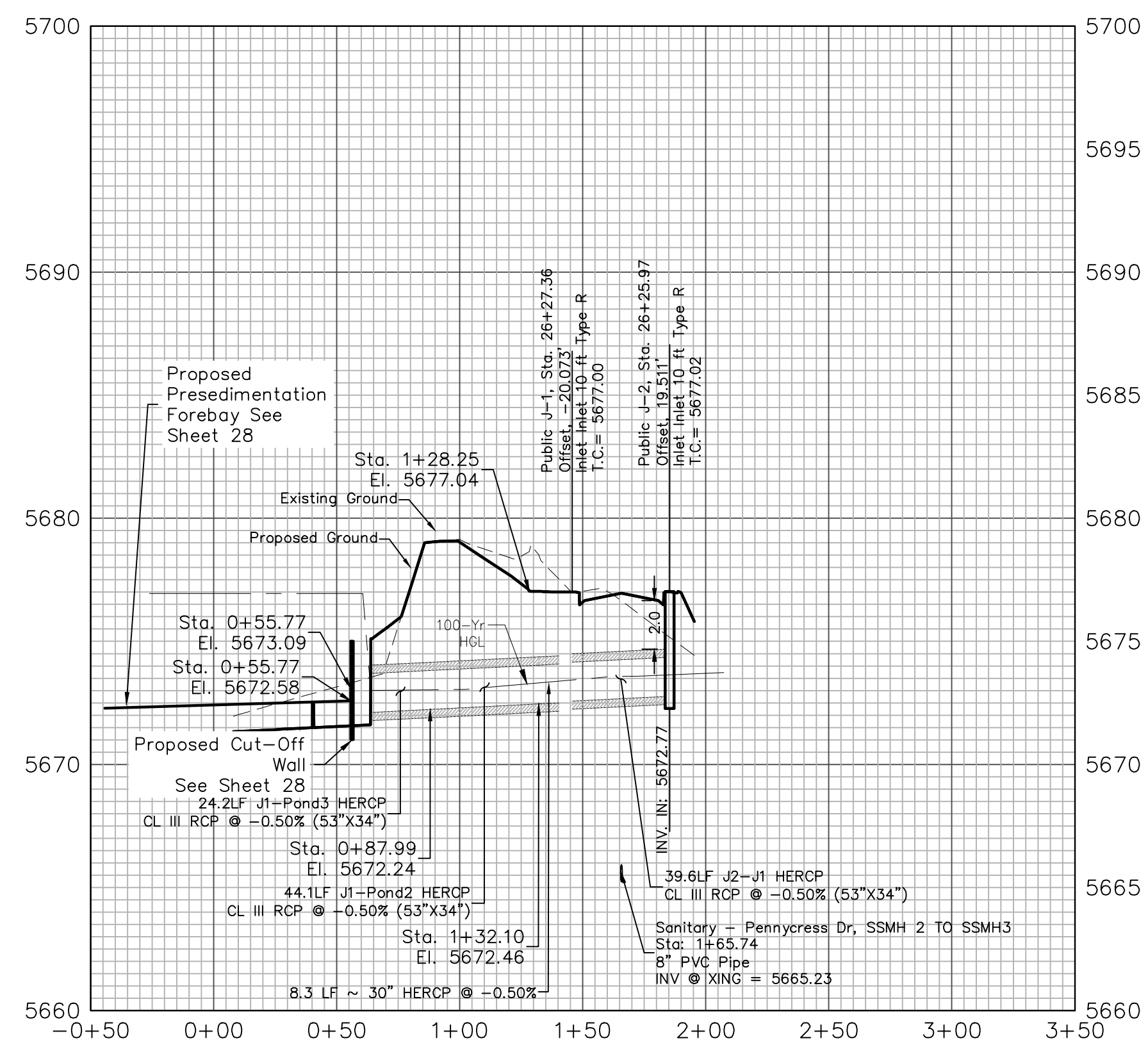
GLEN AT WIDEFIELD NO. 11
Storm Sewer Plan - Laterals 'E' & 'F'
 Ref: Pennycress Storm Trunkline
 EL PASO, COUNTY, COLORADO

Project No.:	19016
Date:	November 24, 2021
Design:	MJK
Drawn:	MJK
Check:	AWMc
Revisions:	

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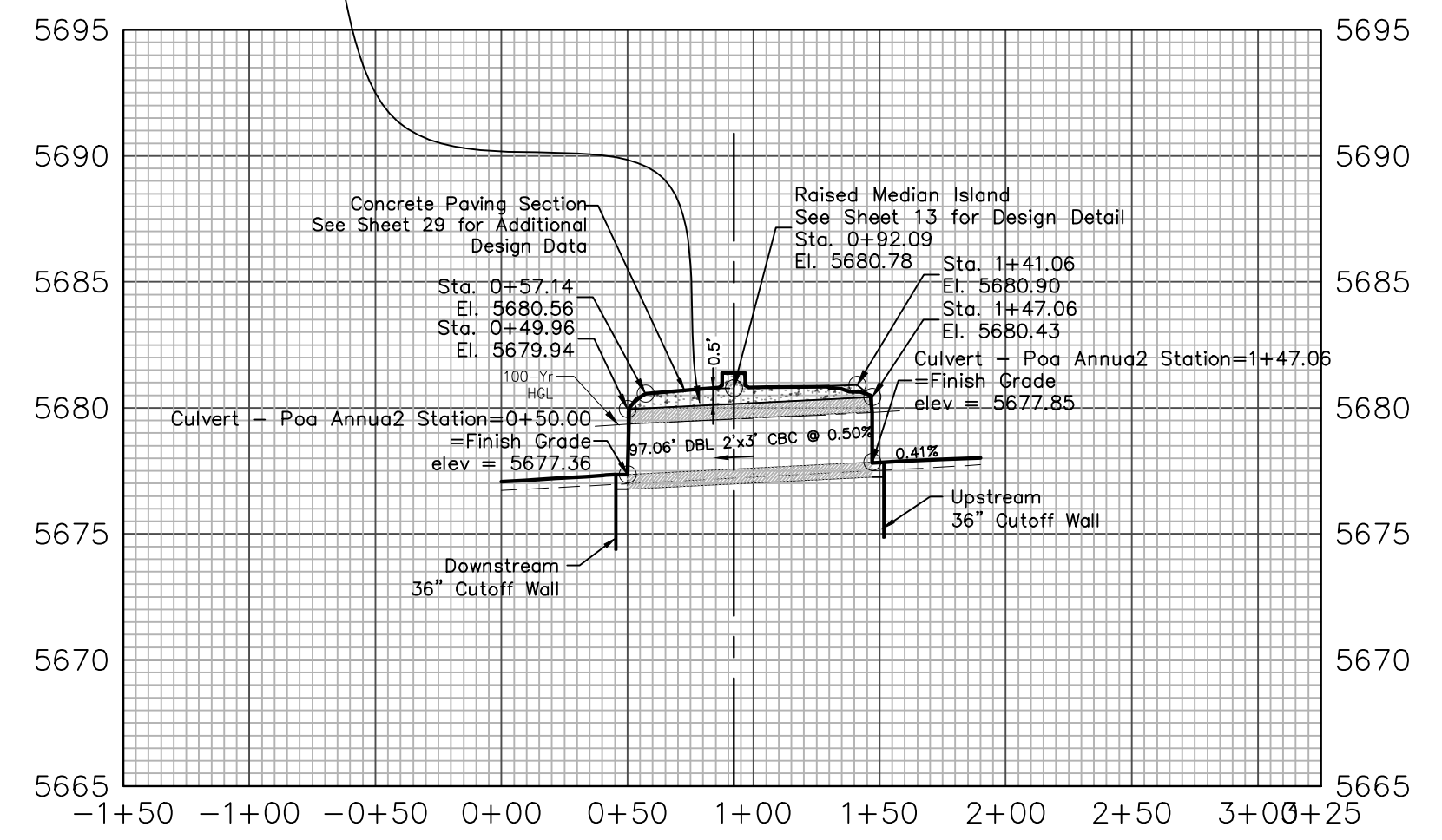


Profile View of Storm Lateral 'J' - Pond Inflow



The box culvert with concrete paving will be designed to meet the loading criteria specified within the current Engineering Criteria Manual (ECM), a certification letter from a structural engineer will be provided to El Paso County prior to construction/installation of the box culvert.

CULVERT - POA ANNUA



EPC 1/18/22



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Colorado Springs, Colorado 80904
(719) 630-7342

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GLEN AT WIDEFIELD NO. 11
Storm Sewer Plan - Lateral 'J' / Poa Annuia Culvert
Pond Inflow J & Culvert Crossing at Poa Annuia
EL PASO, COUNTY, COLORADO

Project No.:	19016
Date:	November 24, 2021
Design:	MJK
Drawn:	MJK
Check:	AWMc
Revisions:	

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19016-GW11-21-ST.dwg/Nov. 24, 2021

SEED MIX

Areas disturbed by the earthwork activities and not receiving other treatment shall be permanently revegetated with the following seed mix:

SPECIES	VARIETY	lbs/acre
SIDWAYS GRAMA	El Reno	3.0
WESTERN WHEAT GRASS	Barton	2.5
SLENDER WHEAT GRASS	Native	2.0
LITTLE BLUESTEM	Pasture	2.0
SAND DROPSEED	Native	0.5
SWITCH GRASS	Nebraska 28	3.0
WEEPING LOVE GRASS	Morpheus	1.0
		14.0 lbs

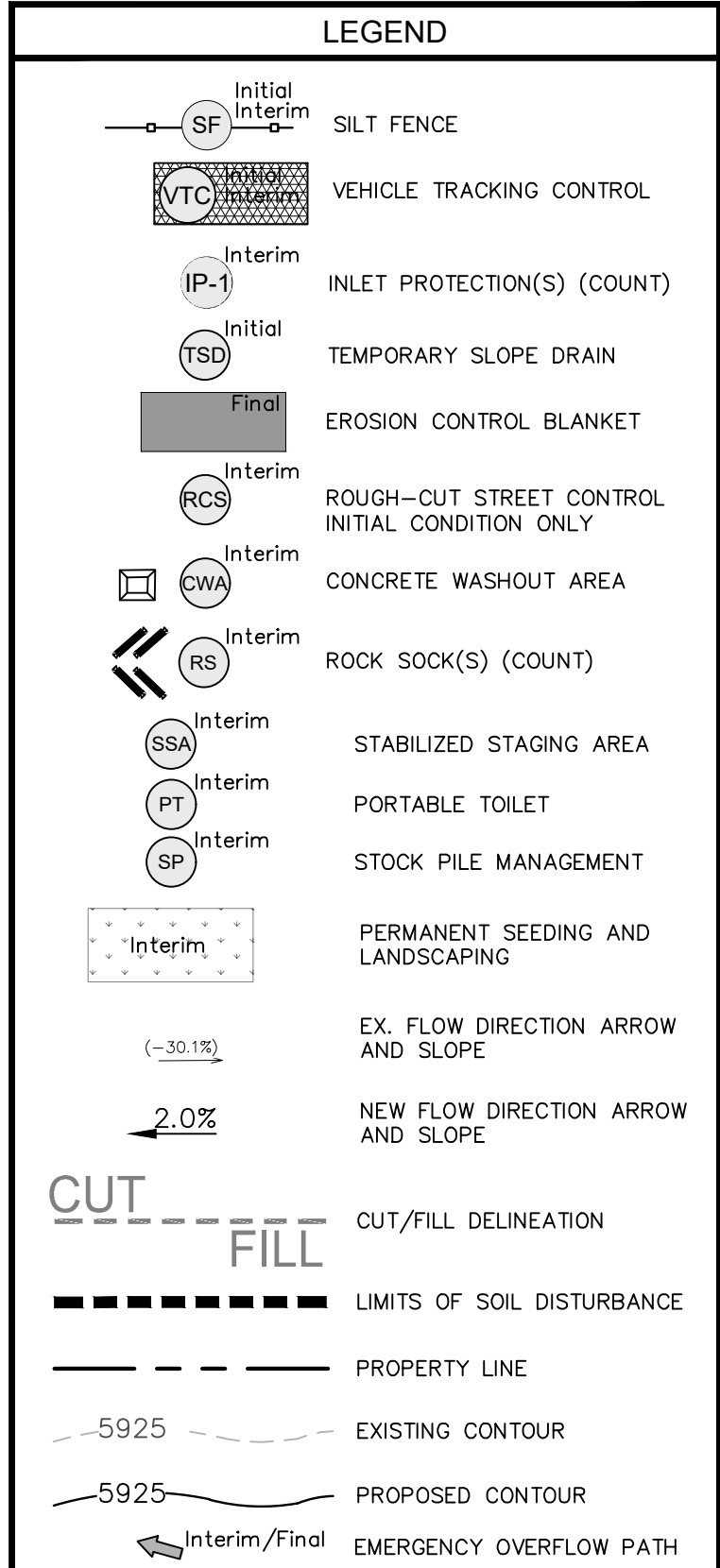
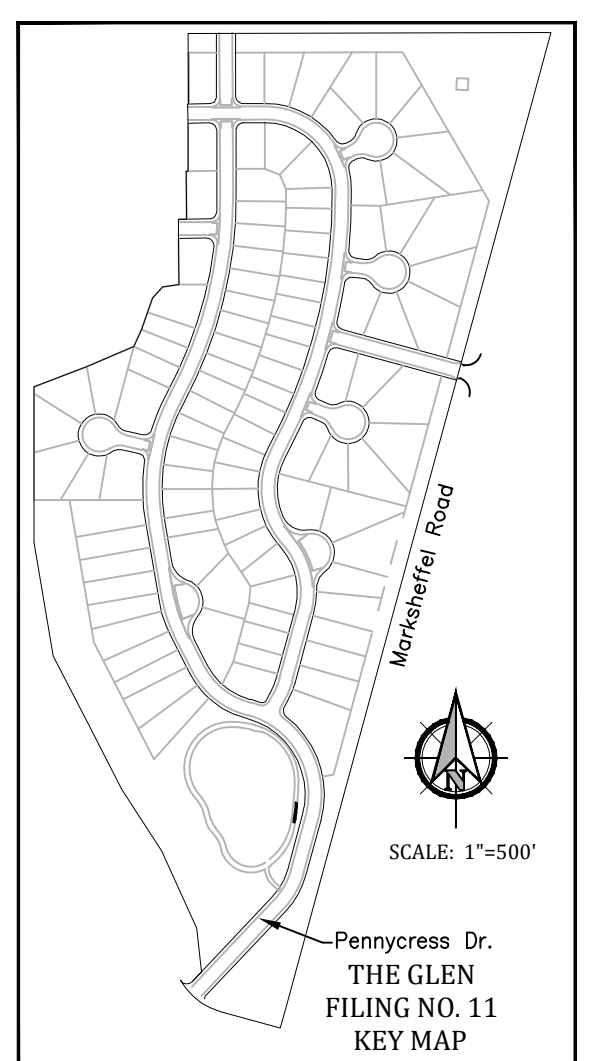
Seeding Application: Drill Seed 1/4" to 1/2" into topsoil. In areas inaccessible to a drill, hand broadcast at double the rate and rake 1/4" to 1/2" into the topsoil. Mulching application: 1-1/2 tons native hay per acre, mechanically crimped into the topsoil.

Remove Temporary Slope Drain
Install Presedimentation Forebay
See Sheets 17 & 28 of Const.
Dwgs. for Design Data and
Profiles

Provide Inlet Protection at partial manhole
to be installed for future connection.
Manhole functions as area inlet for interim
condition.

OPINION OF COST FOR EROSION CONTROL REQUIREMENTS
Additional Erosion Control for Glen at Widefield Filing No. 11

ITEM	QUANTITY	UNITS	PRICE	AMOUNT
PERMANENT SEEDING	1.0	AC	\$800	\$800.00
PERMANENT E.C. BLANKET	2416	SY	\$30	\$8,053.00
VEHICLE TRACKING CONTROL	2	EA	\$2,370	\$4,740.00
TEMPORARY SEEDING	29.3	AC	\$485	\$14,210.00
TEMPORARY MULCH	29.3	AC	\$507	\$14,855.00
INLET PROTECTION	16	EA	\$167	\$2,672.00
CONCRETE WASHOUT BASIN	2	EA	\$900	\$1,800.00
ROUGH CUT STREET CONTROL	1,170	LF	\$2	\$2,340.00
SILT FENCING	17,500	LF	\$2.50	\$43,750.00
TOTAL				\$93,220



EROSION CONTROL INSPECTION AND MAINTENANCE

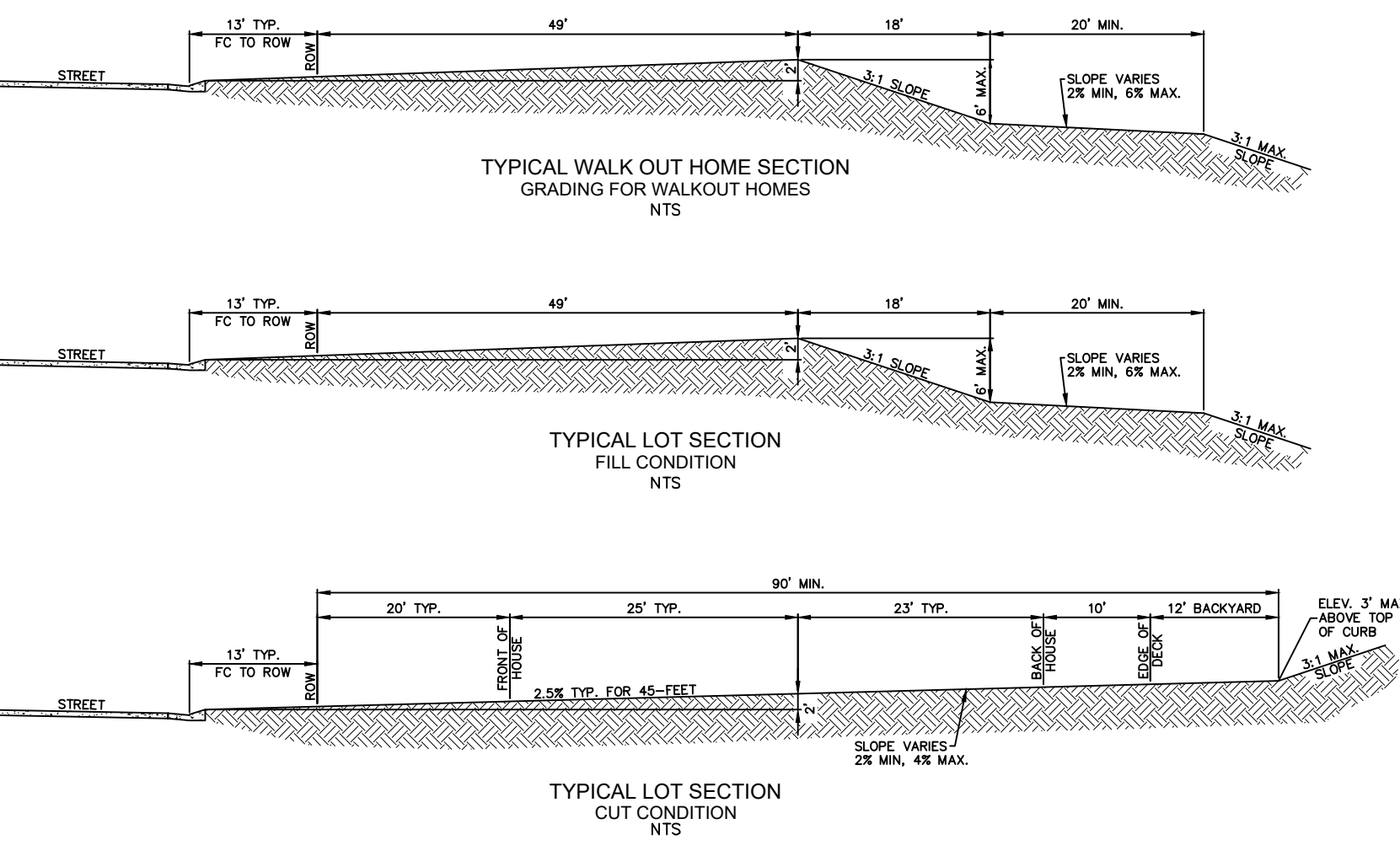
A Thorough inspection of the Erosion Control Plan Stormwater Management System shall be performed every 14 days as well as after any rain or snowmelt event that causes Surface Erosion:

- When Straw Bale Barriers have silted up to half their height, the silt shall be removed, final grade re-established and slopes re-seeded, 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. Curlex heavy duty erosion blanket by american excelsior or equal shall be used.

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 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 GEC. 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 and before permit closure.
- 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 waters 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 SWMP. 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 geotextiling 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, fugitive dust, etc.). In the event of conflicts between these requirements and other laws, rules, or regulations of other Federal, State, local, or County agencies, the most restrictive laws, rules, or 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 (Dated: April 24, 2020) 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 (SWMP), 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, 4300 Cherry 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: Spring 2021
End Construction: Autumn 2021
Total Site Area = 35.02 Acres
- Area to be disturbed = 33.09 Acres
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.



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

W
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GLEN AT WIDEFIELD NO. 11
Grading & Erosion Control Plan
Overall
EL PASO, COUNTY, COLORADO

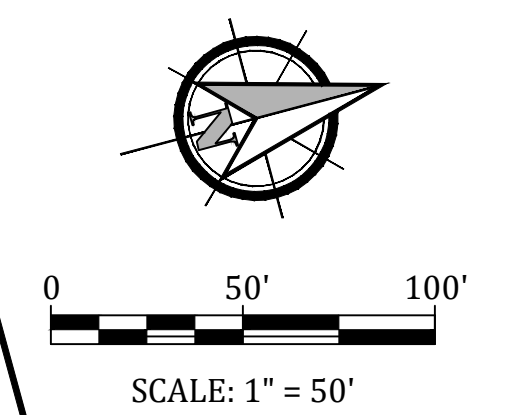
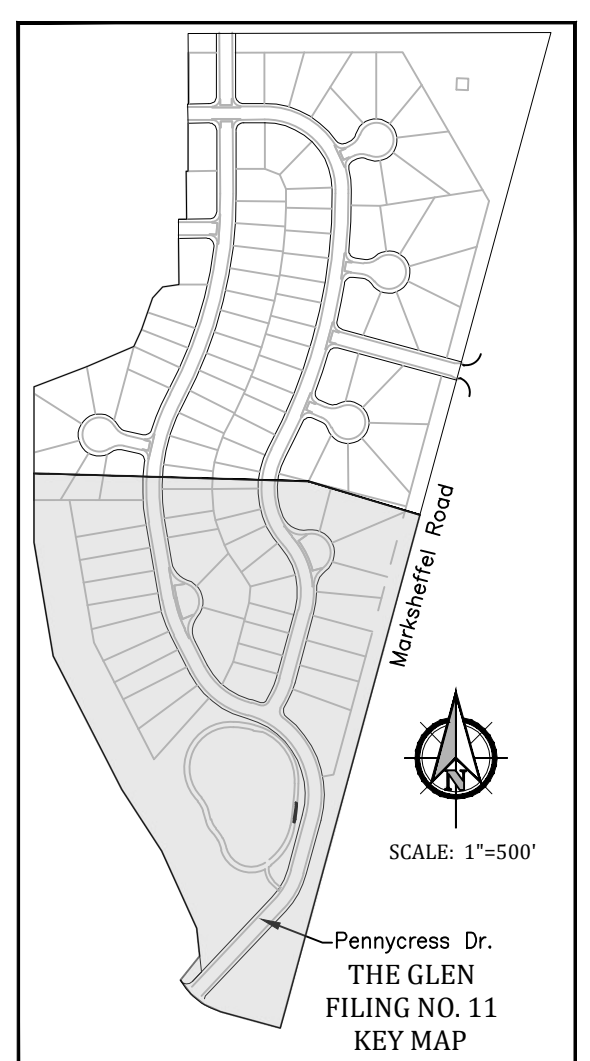
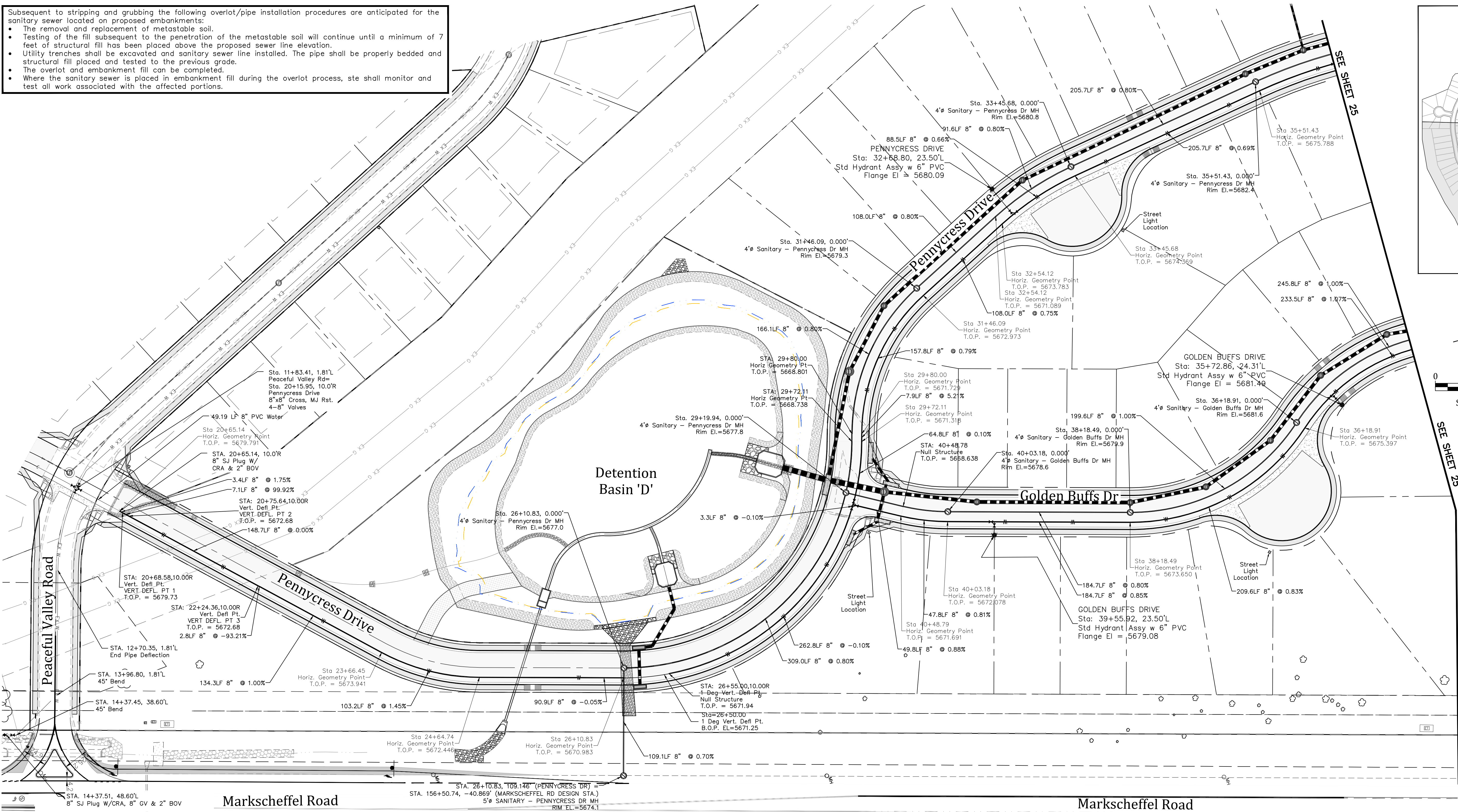
Project No.: 19016
Date: June 21, 2021
Design: MJK
Drawn: MJK
Check: AWMc
Revisions:



SHEET
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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.



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

W
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Investment Group

GLEN AT WIDEFIELD NO. 11
Utility Plan
SOUTH HALF OF SITE
EL PASO, COUNTY, COLORADO

Project No.: 19016
Date: June 21, 2021
Design: MJK
Drawn: MJK
Check: AWMc
Revisions:
SHEET
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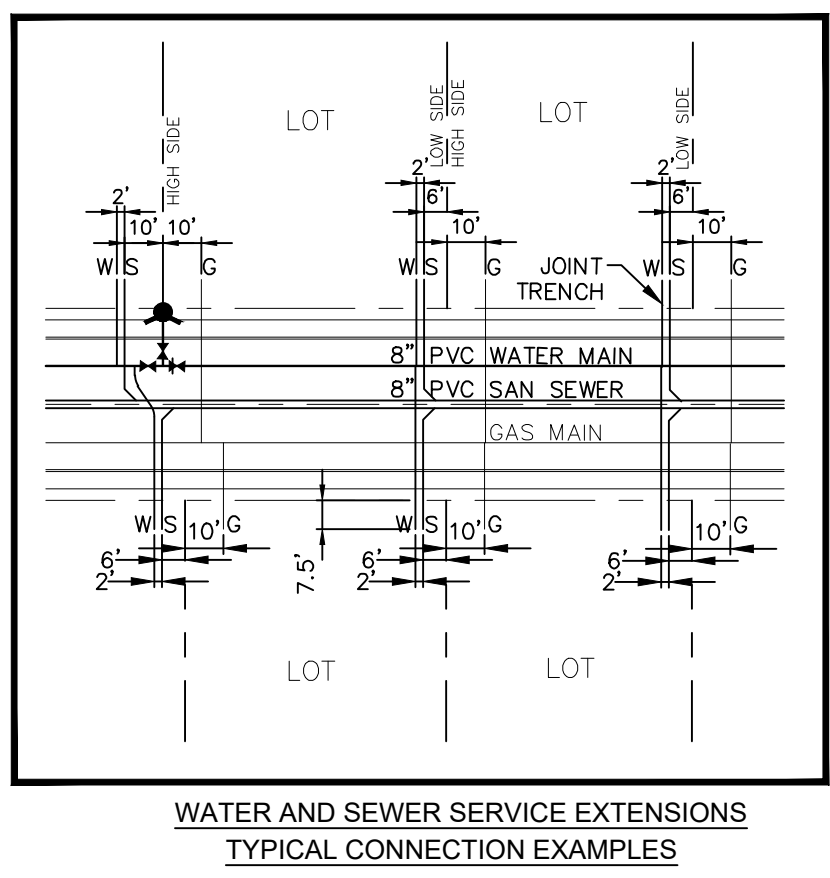
ADDITIONAL UTILITY NOTES

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&D)	390-7111
Water:	Widefield W&S District (WWS&D)	390-7111
Electric:	Mountain View Electric	435-2283
Gas:	Peoples Natural Gas	800-303-0752
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&D 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: *J. Ryan Watson* Date: Dec 30th, 2021

Print Name: **J. Ryan Watson, Assistant Vice President**

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: *BS/ASU* Date: 12/29/21

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: 12/9/2021 By: *Chris R. Denny*

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: 12/9/2021 By: *Chris R. Denny*

PROJECT NO. _____

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ADDITIONAL UTILITY NOTES

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UTILITY CONTACTS

Sewer:	Widefield W&S District (WWS&S)	390-7111
Water:	Widefield W&S District (WWS&S)	390-7111
Electric:	Mountain View Electric	495-2283
Gas:	Peoples Natural Gas	800-333-0752
Phone:	US West	636-4632

LEGEND

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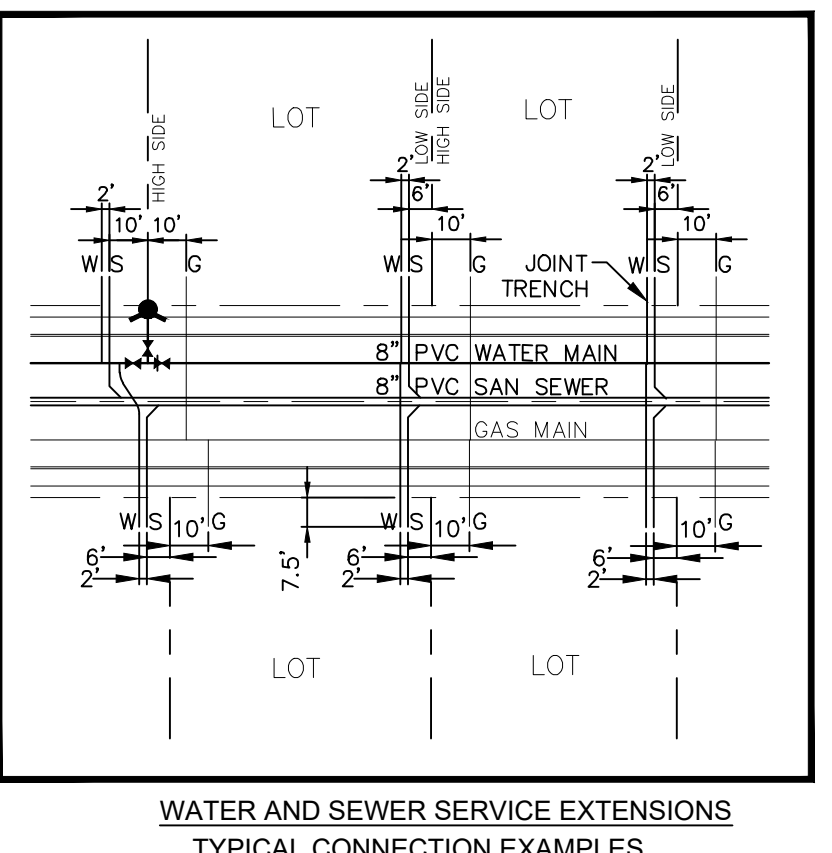
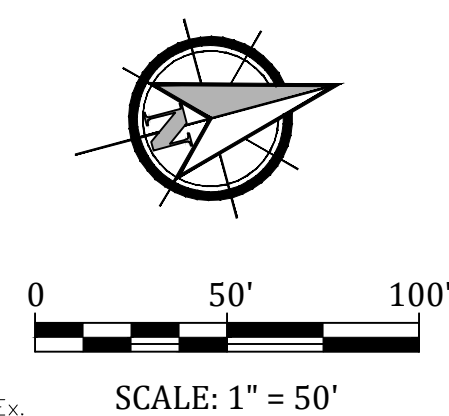
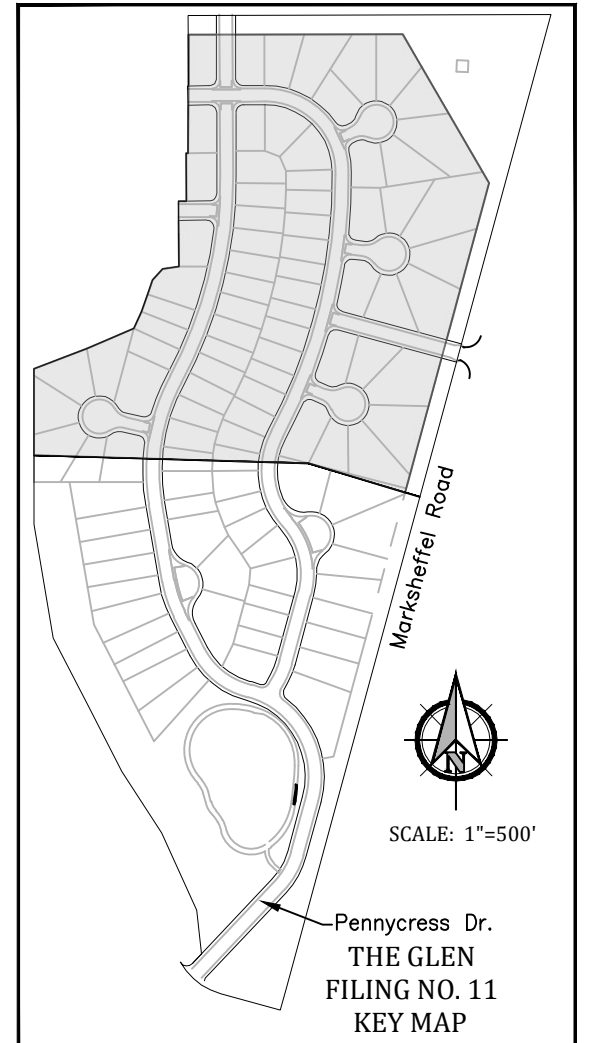
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Tee w/Concrete Thrust Block

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- 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.



Glen at Widefield Filing 11 Boundary

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: *J. Ryan Watson* Date: Dec 30th, 2021

Print Name: J. Ryan Watson, Assistant Vice President

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: *BSIASH* Date: 12/29/21

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: 12/9/2021 By: *Robert R. Bannister*

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: 12/9/2021 By: *Robert R. Bannister*

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.

GLEN AT WIDEFIELD NO. 11
Utility Plan
NORTH HALF OF SITE
EL PASO, COUNTY, COLORADO

Project No.:	19016
Date:	June 21, 2021
Design:	MK
Drawn:	MJK
Check:	AWMc
Revisions:	
SHEET	25

25 of 30 Sheets

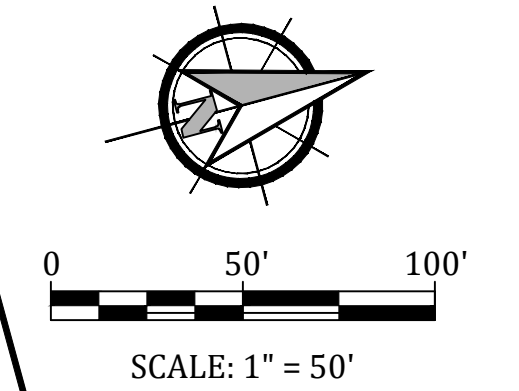
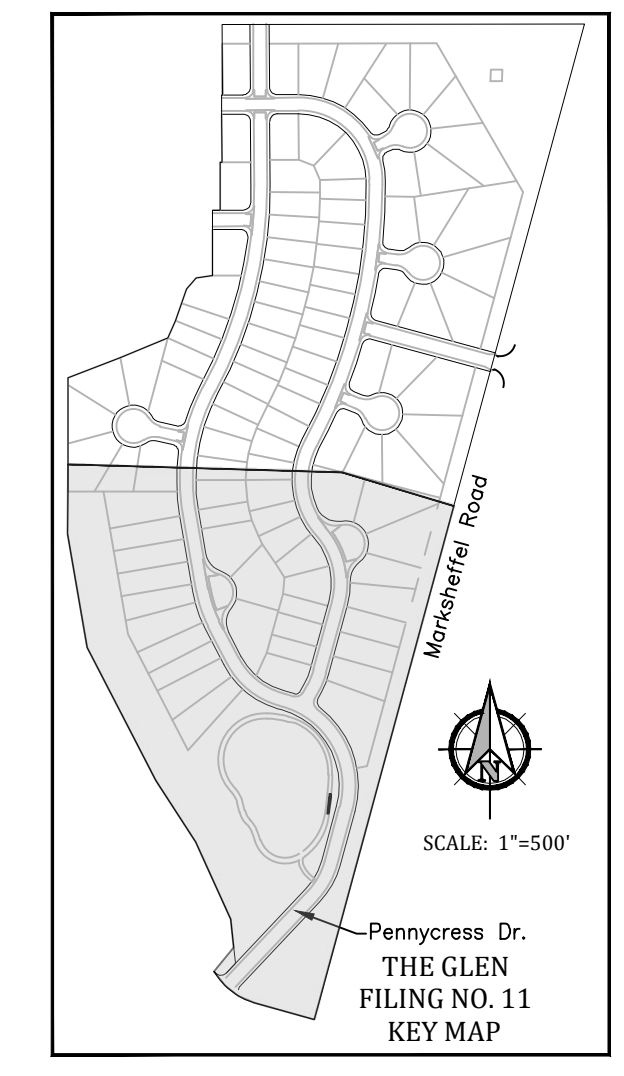
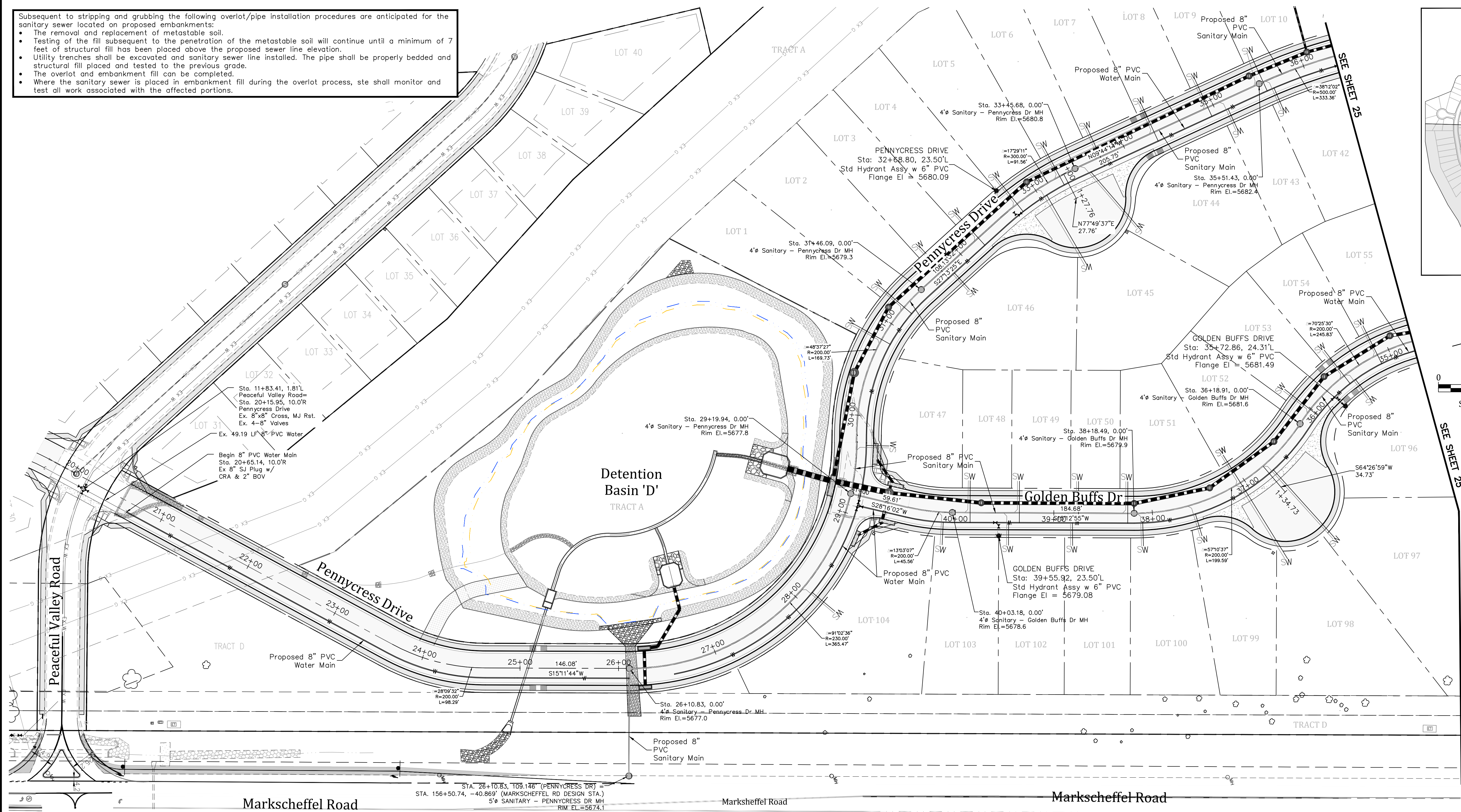
Kiowa
Engineering Corporation
1604 South 21st Street
Colorado Springs, Colorado 80904
(719) 630-7342

W
WIDEFIELD
Investment Group



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.
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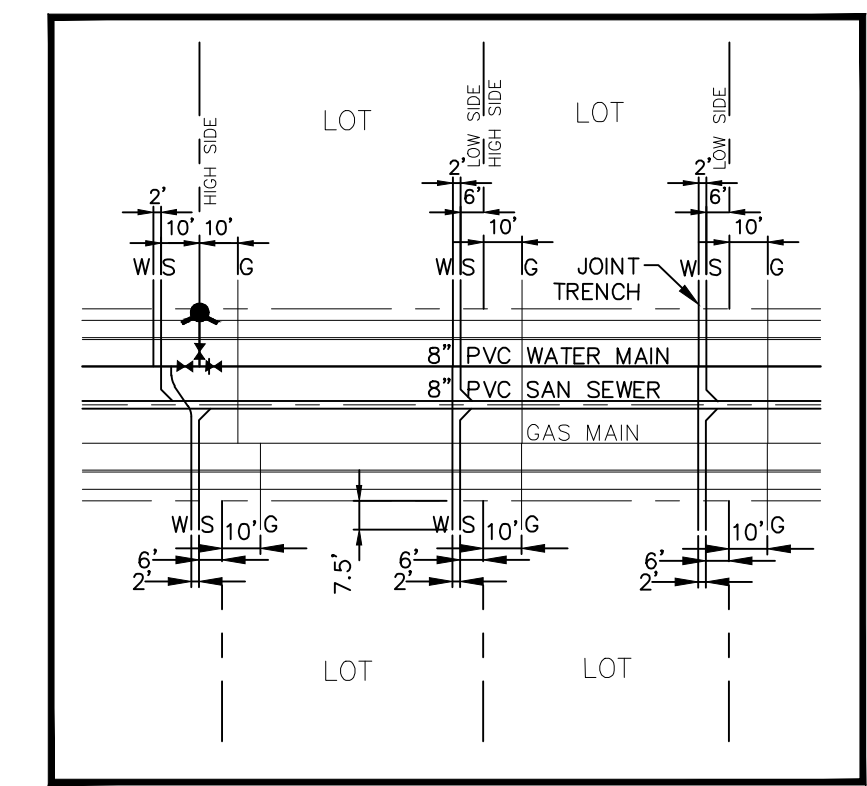
ADDITIONAL UTILITY NOTES

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&D)	390-7111
Water:	Widefield W&S District (WWS&D)	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)
- Te e w/Concrete Thrust Block

Minimum Radius Shown For Water Main = 290'
Per WWS&D 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

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Signed: *J. Ryan Watson* Date: Dec 30th, 2021

Print Name: J. Ryan Watson, Assistant Vice President

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: *BSJASU* Date: *12/29/21*

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: *12/9/2021* By: *Robert R. Bounie*

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: *12/9/2021* By: *Robert R. Bounie*

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.

GLEN AT WIDEFIELD NO. 11
Utility Services Plan
SOUTH HALF OF SITE
EL PASO, COUNTY, COLORADO

Project No.: 19016
Date: June 21, 2021
Design: MJK
Drawn: MJK
Check: AWMc
Revisions:
SHEET
26
26 of 30 Sheets



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 Wks District (WWSDD)	390-7111
Water:	Widefield Wks District (WWSDD)	390-7111
Electric:	Mountain View Electric	495-2283
Gas:	Peoples Natural Gas	800-363-0752
Phone:	US West	636-4632

LEGEND

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Widefield Water & Sanitation District Standard Fire Hydrant Assembly. Install per Widefield Water And Sanitation District Construction Specifications

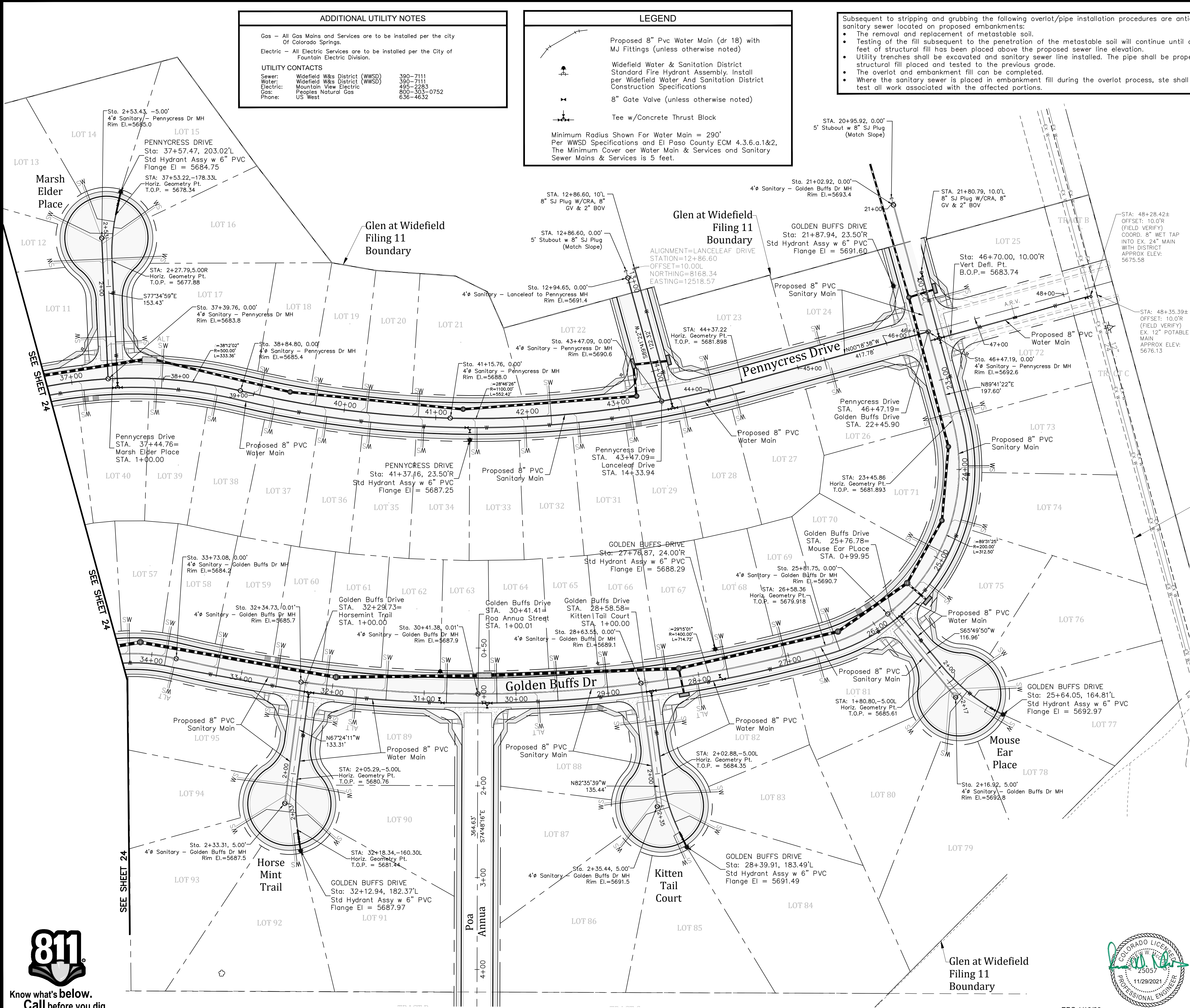
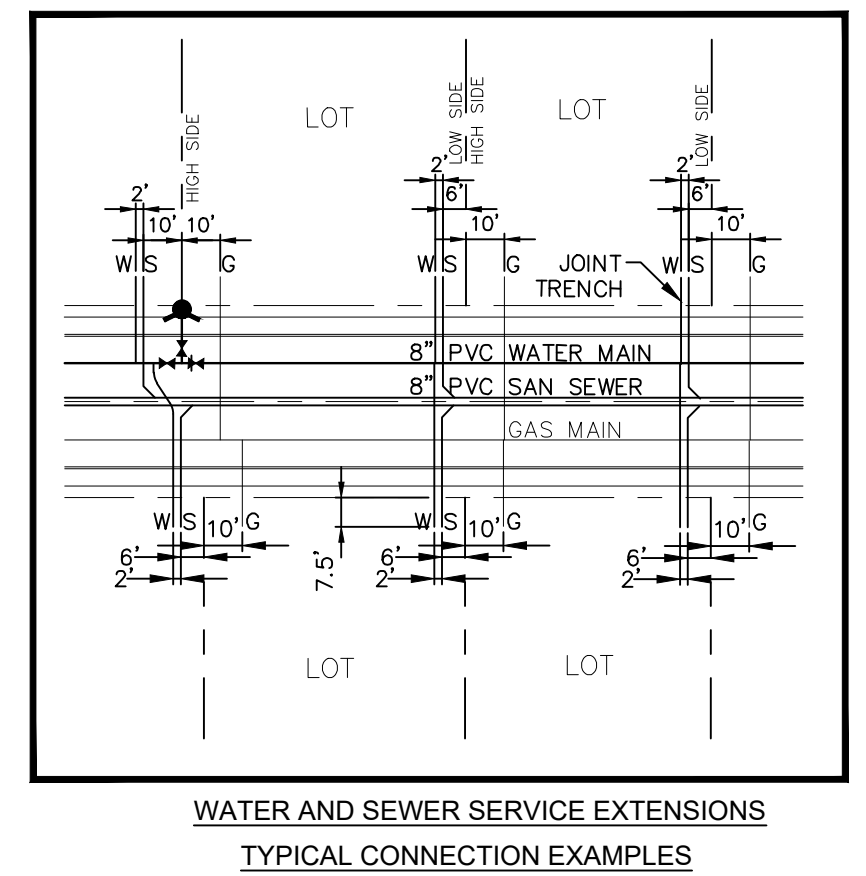
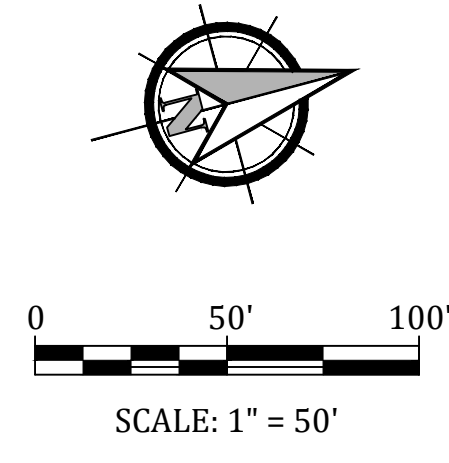
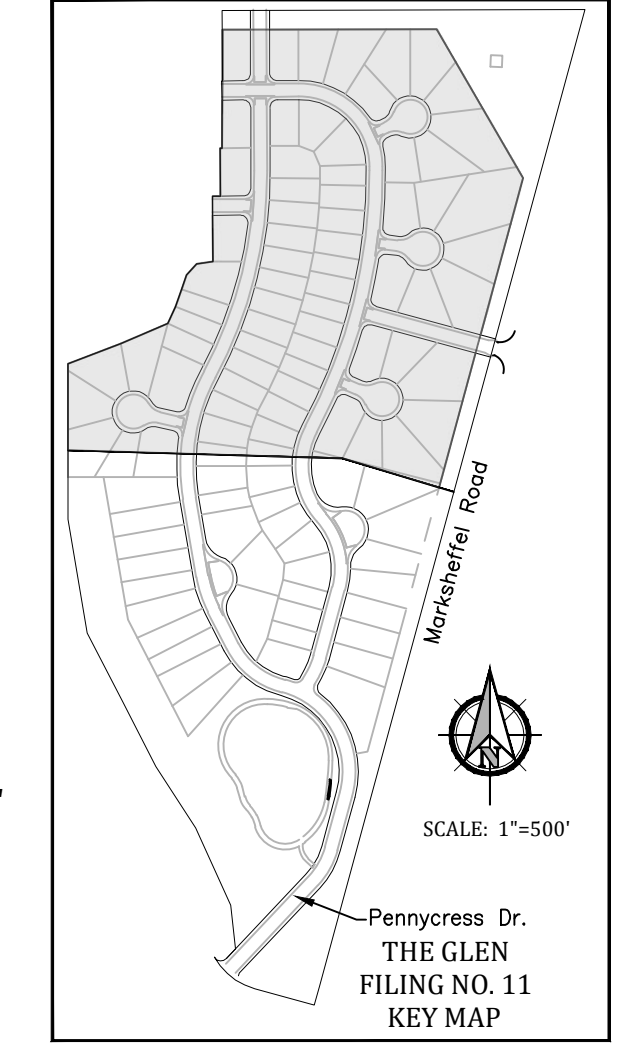
8" Gate Valve (unless otherwise noted)

Tee w/Concrete Thrust Block

Minimum Radius Shown For Water Main = 290'
Per WWSDD 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.

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Glen at Widefield Filing 11 Boundary

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Signed: *J. Ryan Watson* Date: Dec 30th, 2021
Print Name: J. Ryan Watson, Assistant Vice President
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: *[Signature]* Date: 12/29/21

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: 12/3/2021 By: *[Signature]*

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: 12/3/2021 By: *[Signature]*

PROJECT NO. _____

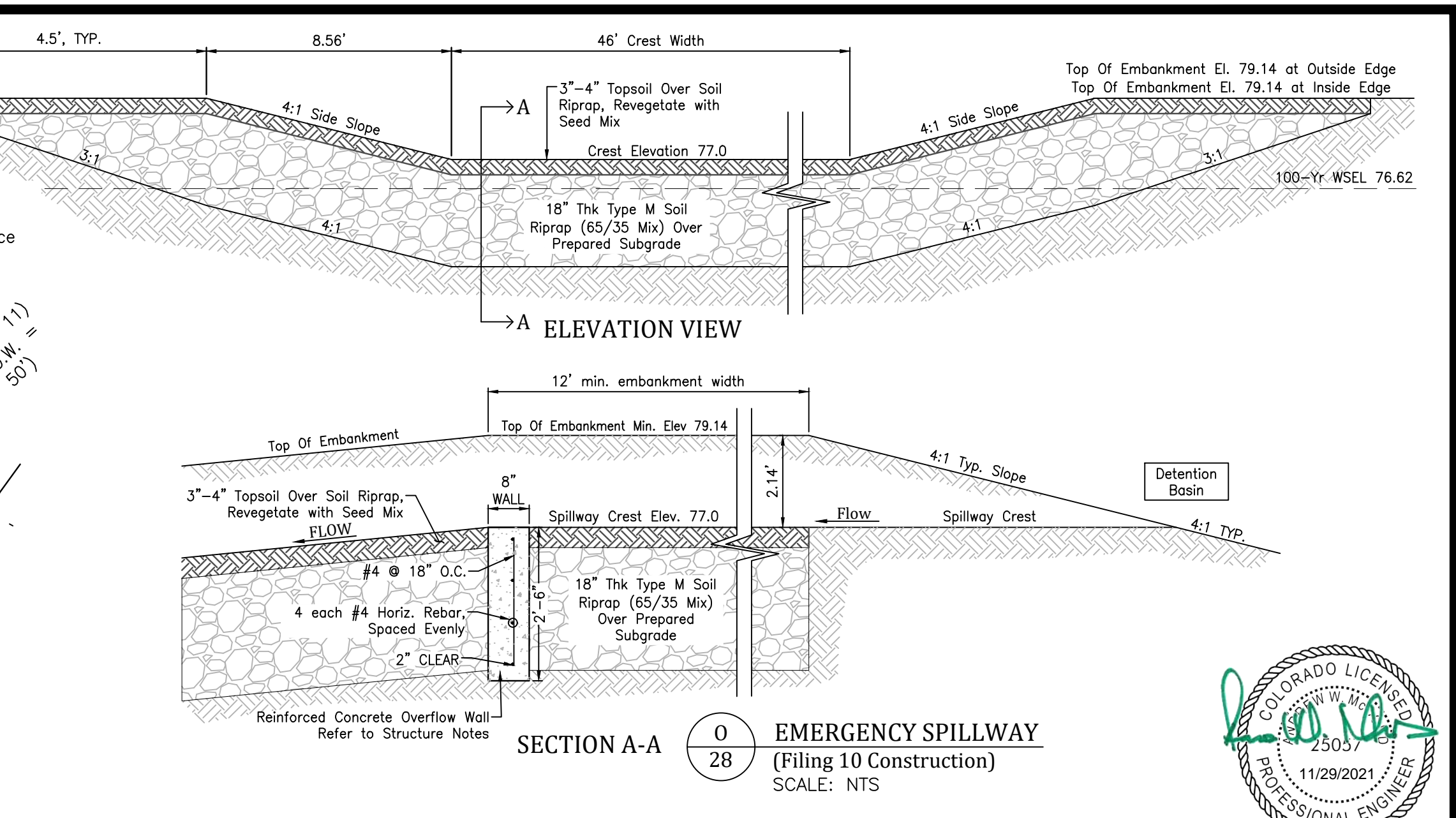
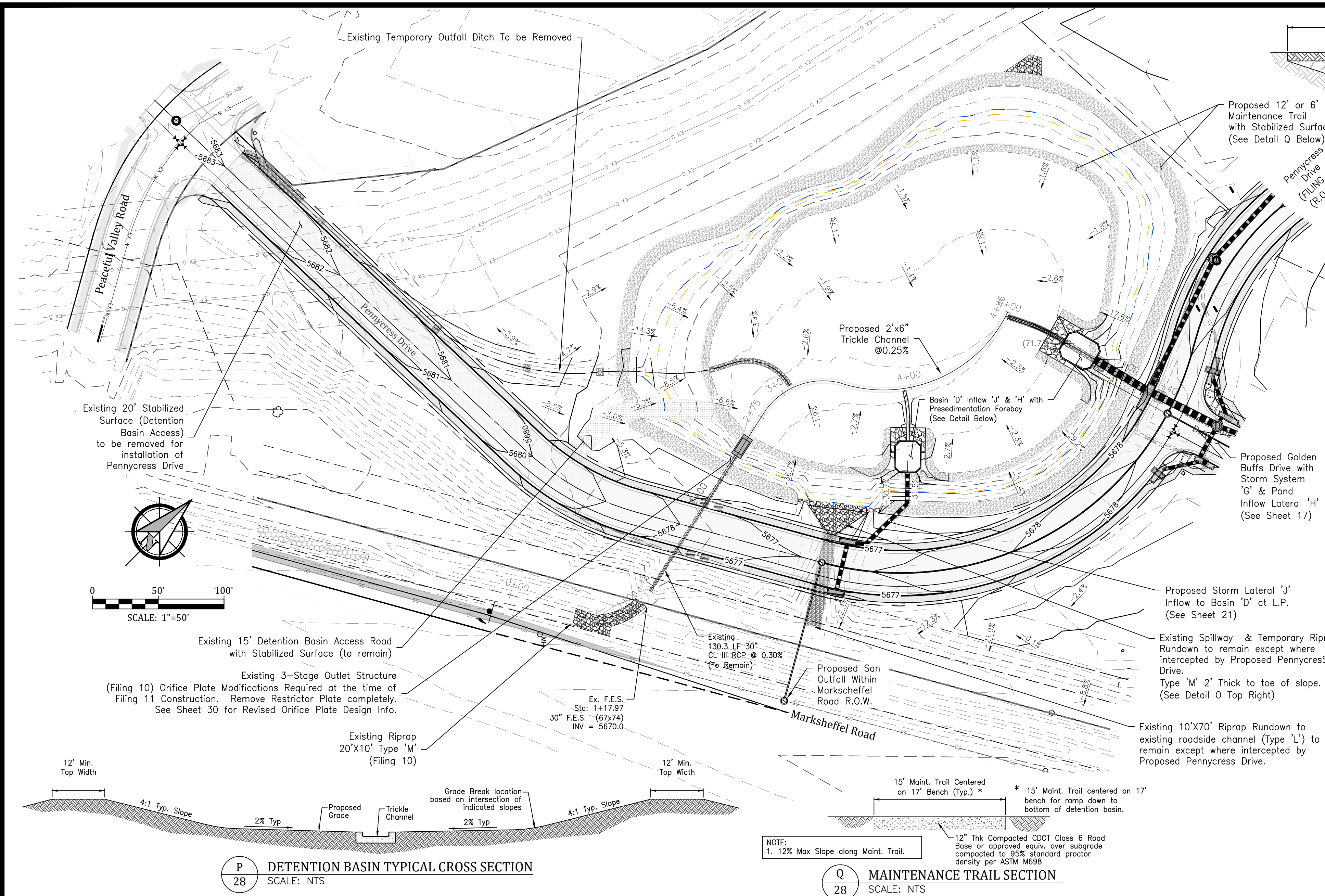
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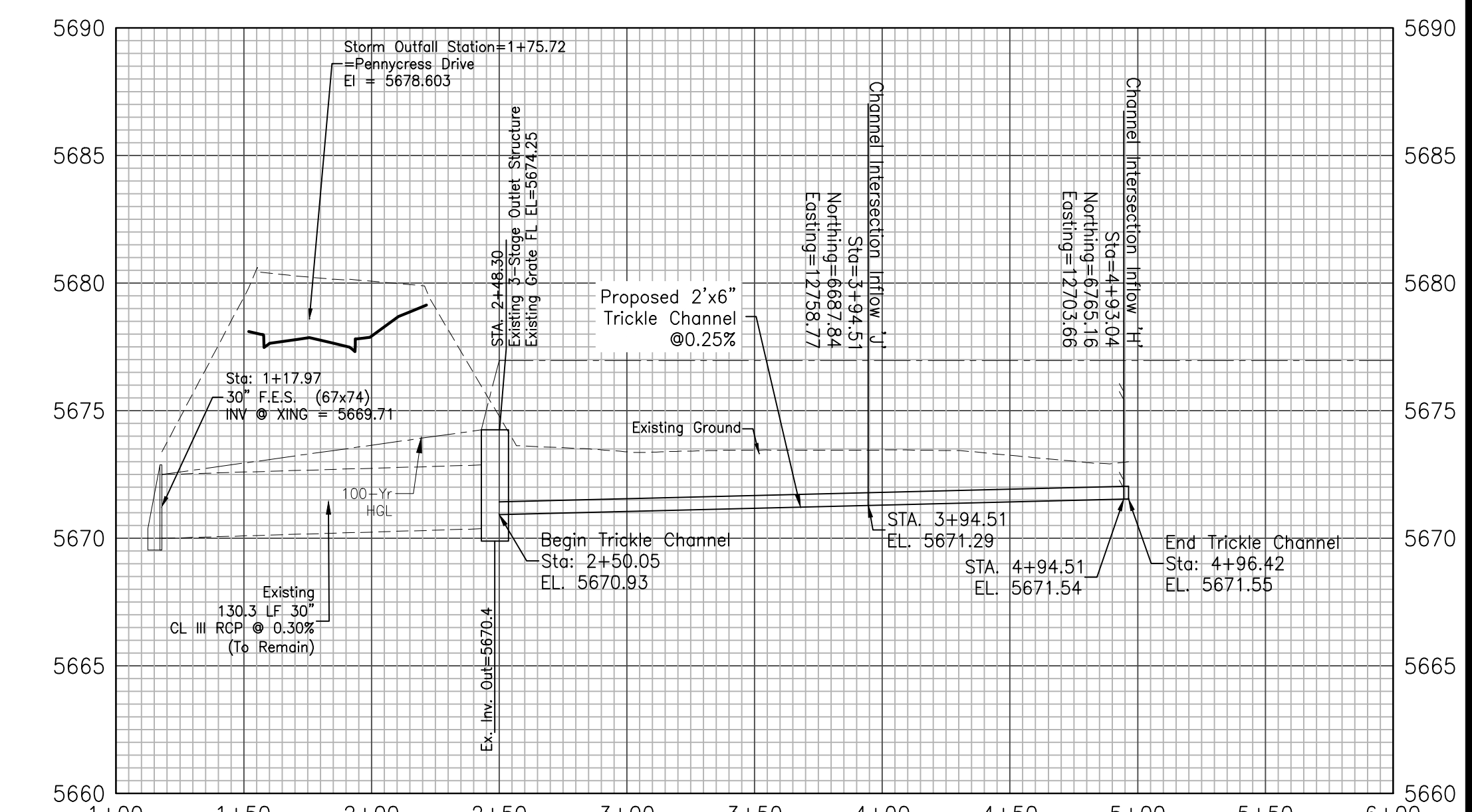
GLEN AT WIDEFIELD NO. 11
Utility Plan
NORTH HALF OF SITE
EL PASO, COUNTY, COLORADO

Project No.:	19016
Date:	June 21, 2021
Design:	MJK
Drawn:	MJK
Check:	AWMc
Revisions:	





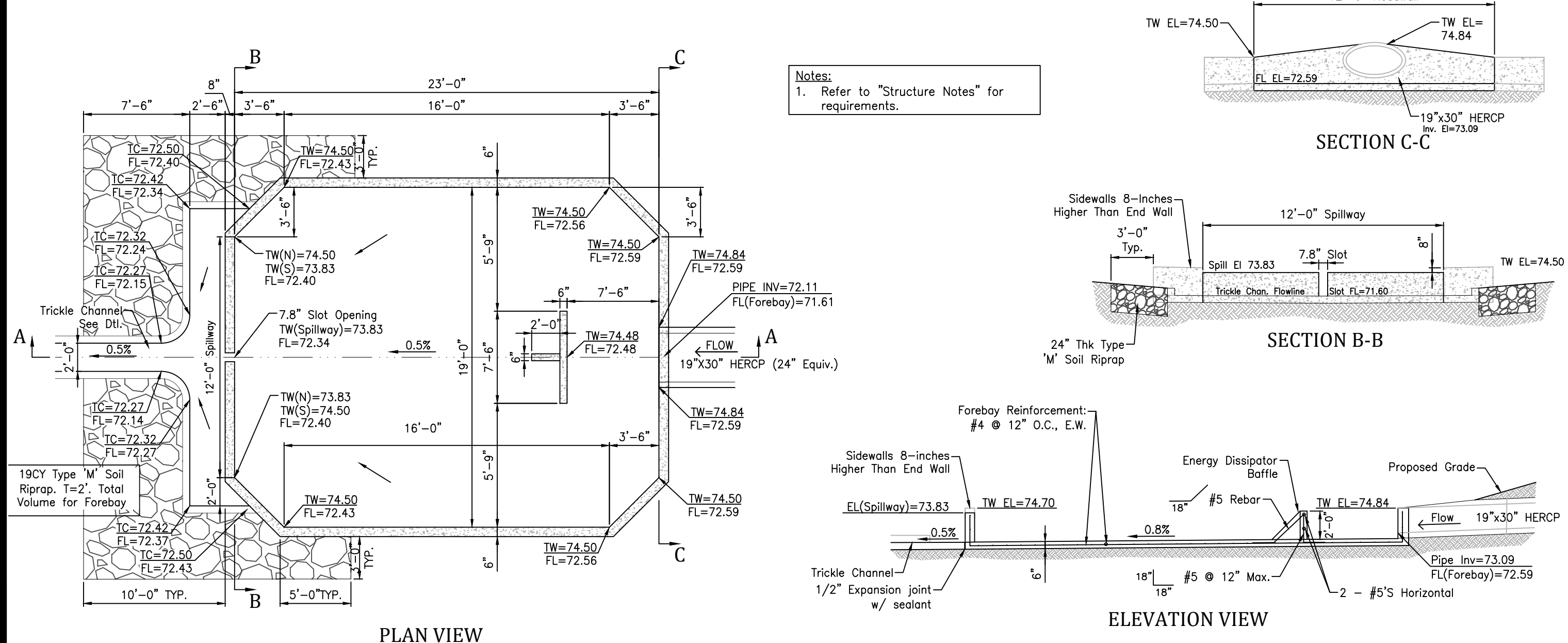
Profile View of Detention Basin Flowline



P 28 DETENTION BASIN TYPICAL CROSS SECTION SCALE: NTS

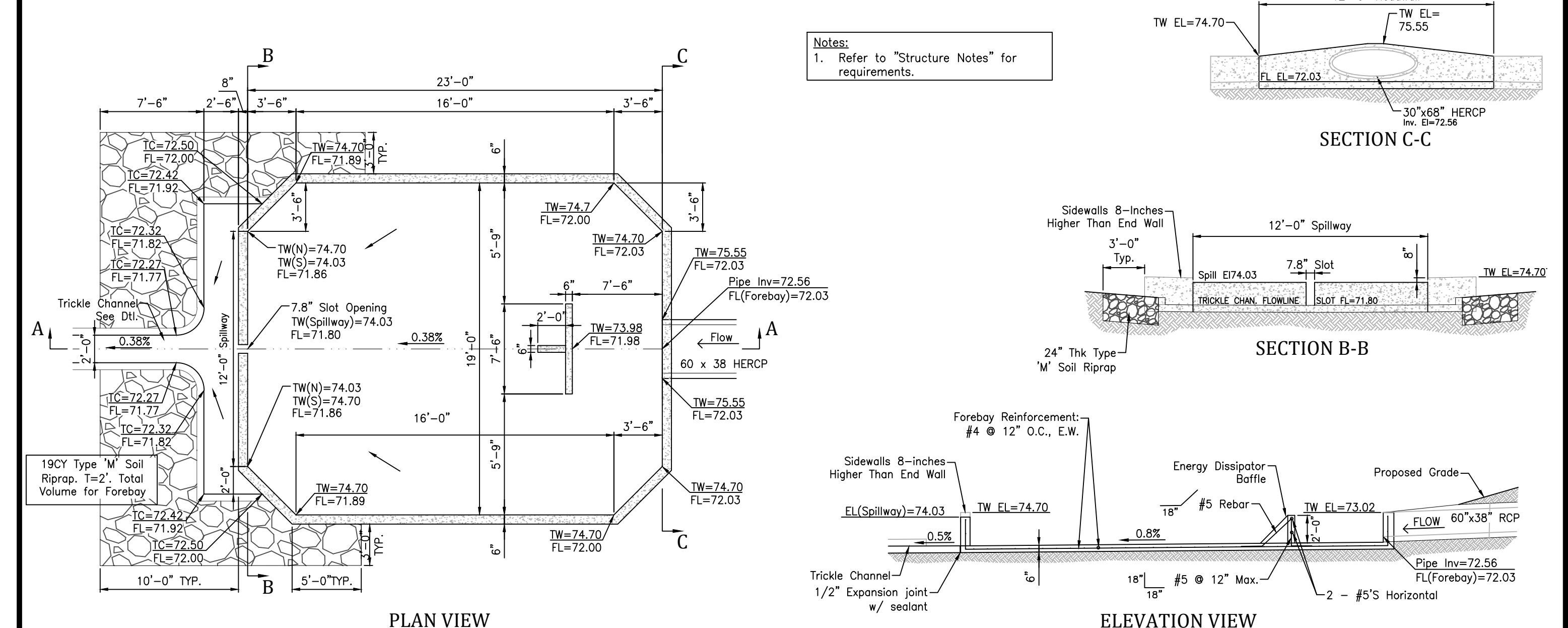
Q 28 MAINTENANCE TRAIL SECTION SCALE: NTS

Inflow 'J' Sedimentation Basin Detail



R 28 PRESEDIMENTATION FOREBAY SCALE: NTS

Inflow 'H' Sedimentation Basin Detail

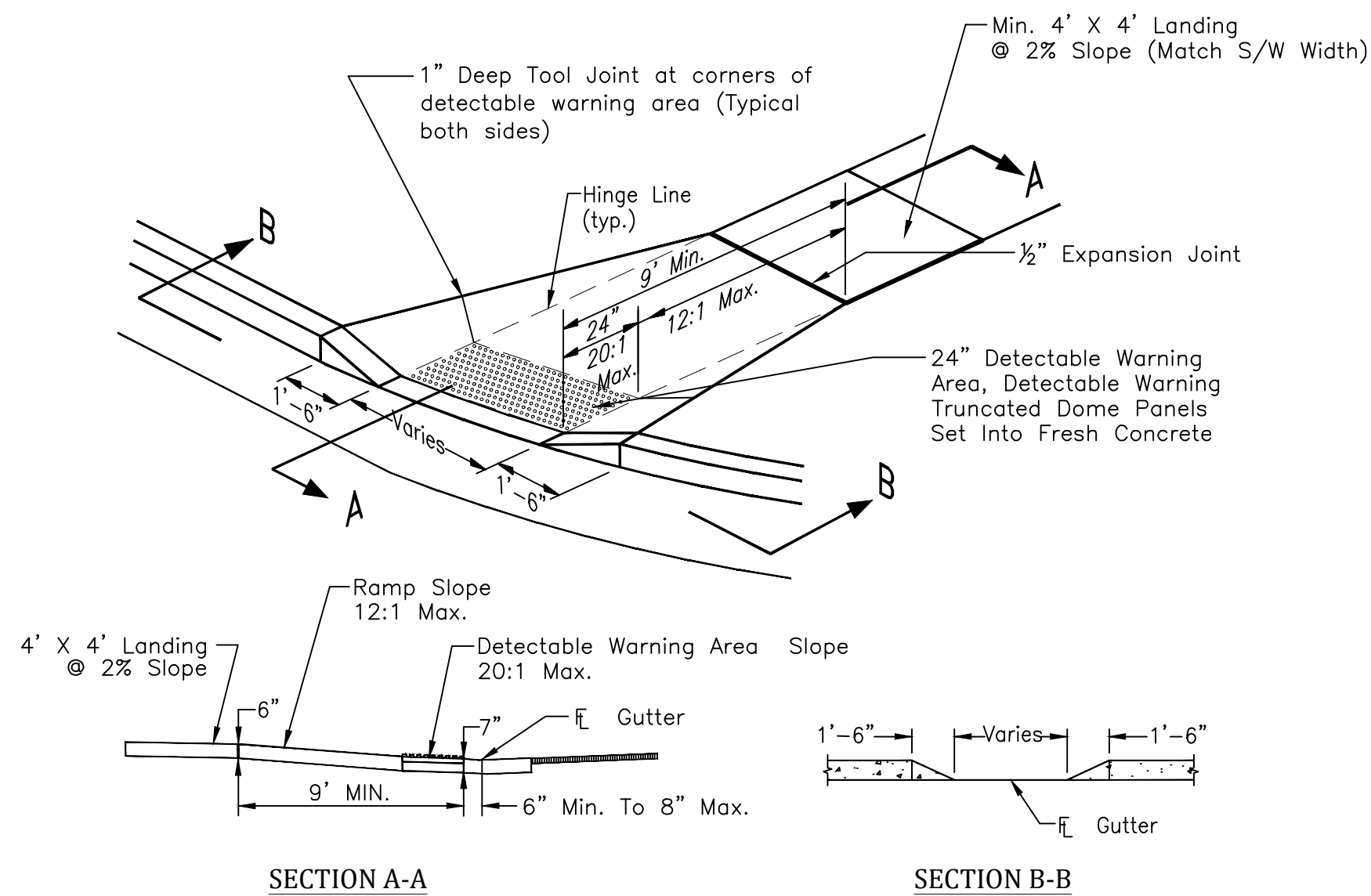


S 28 PRESEDIMENTATION FOREBAY SCALE: NTS

GENERAL NOTES

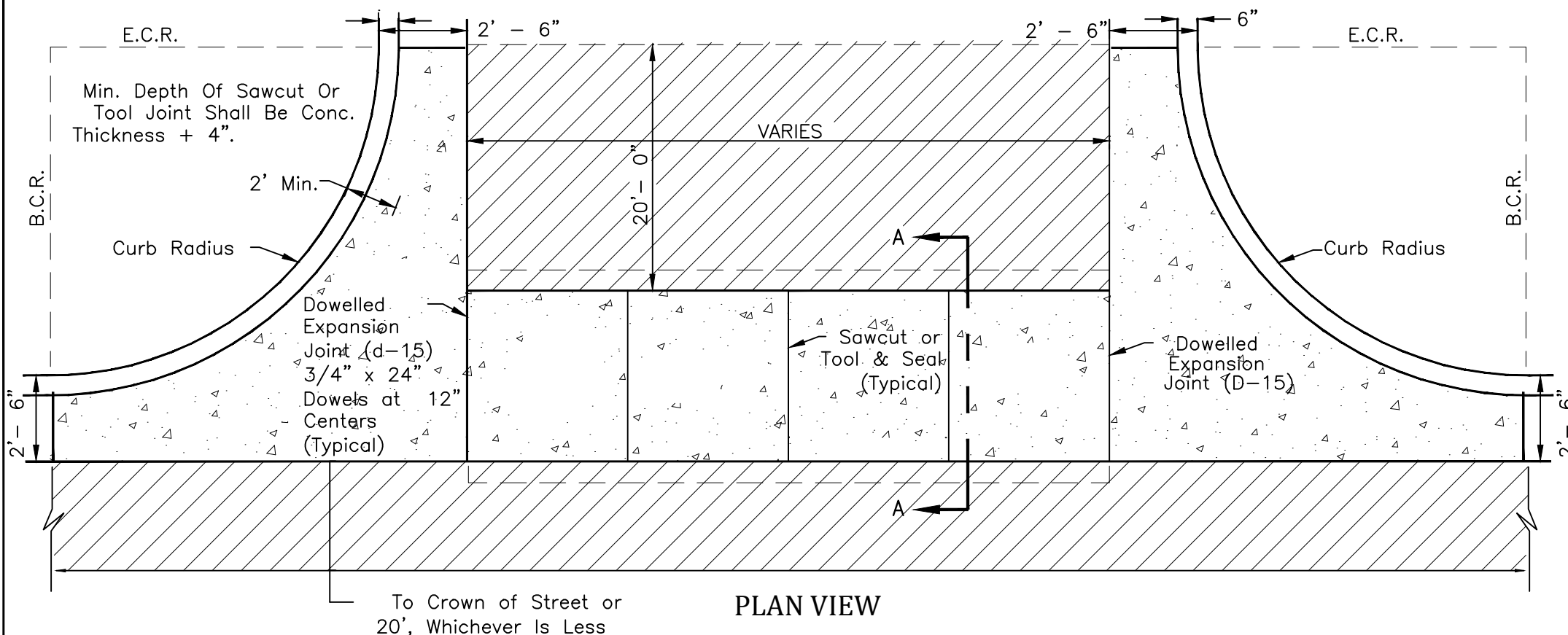
Expansion Joints shall be installed when abutting existing concrete or fixed structure. Expansion Joint Material shall be 1/2" thick and shall extend the full depth of contact surface.

Concrete Shall be per El Paso County Engineering Division Specifications.



PEDESTRIAN RAMP DETAILS

EPC STD. SD_2-40
Not To Scale



CROSS PAN DETAIL

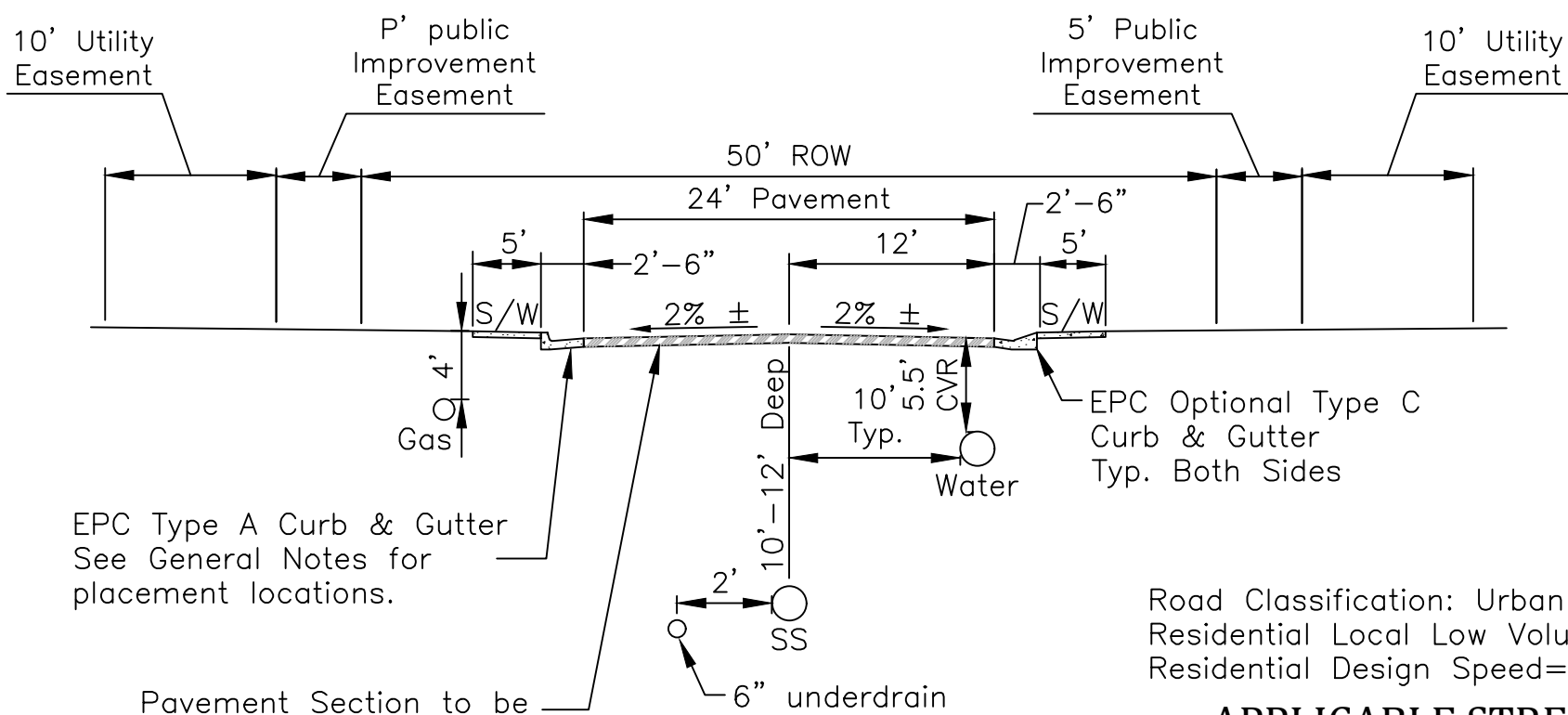
EPC STD. SD_2-26
Not To Scale

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.
- = 3" minimum asphalt depth (2 lifts).
- Design to specify elevations at pi and pcr
- Flow Capture Depth (Depression) shall be 7/8" for Local, 1-1/8" for Collectors, and 1-1/2" for arterial roads.
- Flowline Grade shall be minimum 0.5%

CROSS PAN DETAIL

EPC STD. SD_2-26
Not To Scale



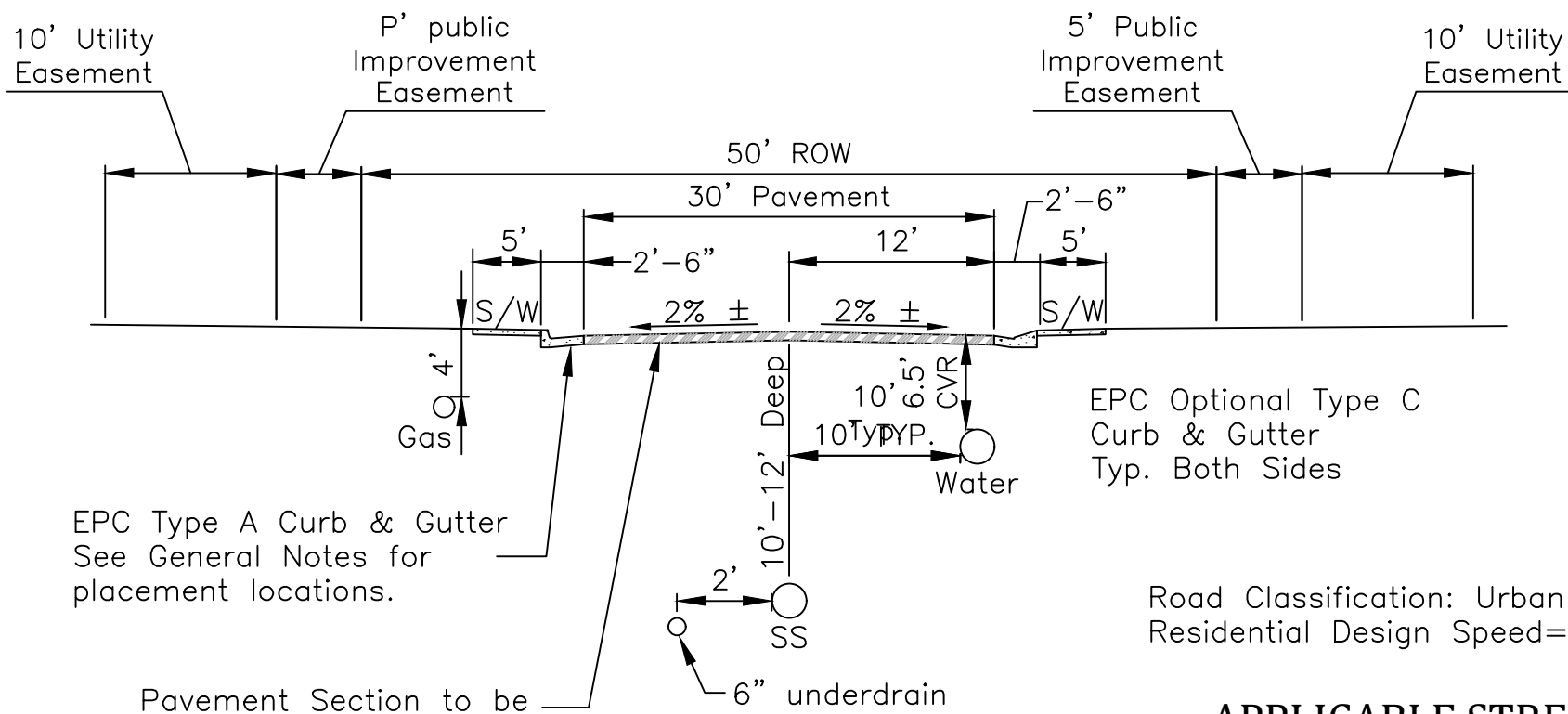
**TYPICAL STREET SECTION
GLEN AT WIDEFIELD FILING NO. 11**

Not To Scale

Road Classification: Urban Residential Local Low Volume Residential Design Speed=20 MPH

APPLICABLE STREETS

Kitten Tail Court
Horse Mint Trail
Mouse Ear Place
Marsh Elder Place



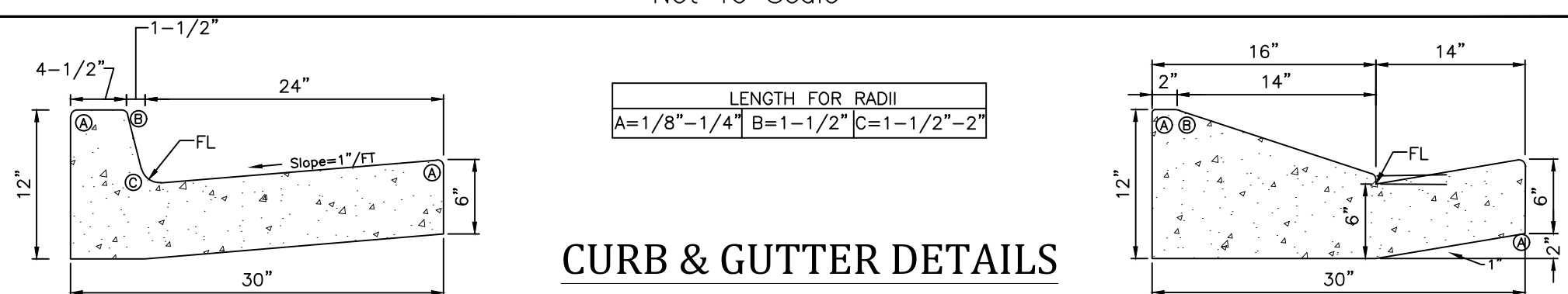
**TYPICAL STREET SECTION
GLEN AT WIDEFIELD FILING NO. 11**

Not To Scale

Road Classification: Urban Local Residential Design Speed=25 MPH

APPLICABLE STREETS

Golden Buffs Drive
Pennycrest Drive
Lanceleaf Drive



CURB & GUTTER DETAILS

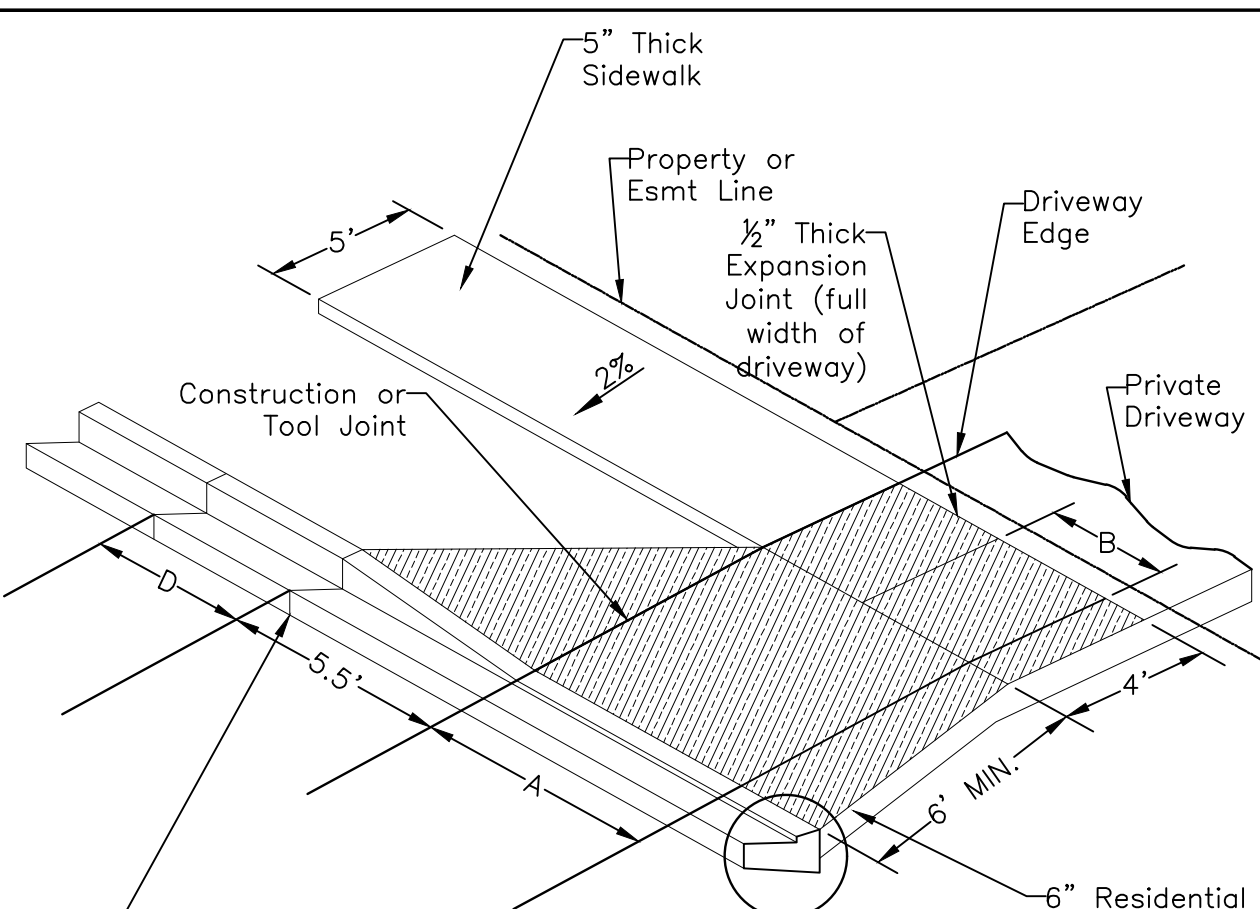
EPC STD. SD_2-20
NOT TO SCALE

EPC TYPE A CURB & GUTTER

NTS

EPC OPTIONAL TYPE C CURB & GUTTER

NTS



**DRIVEWAY DETAIL
WITH DETACHED SIDEWALK**

EPC STD. SD_2-25
Not To Scale

TOOL JOINT SPACING		
DRIVEWAY WIDTH	A	B
12'	6'	3'
14'	7'	3'-6"
16'	8'	4'
18'	9'	4'-6"
20'	10'	5'
22'	11'	5'-6"
24'	8'	4'
26'	8'-8"	4'-4"
28'	9'-4"	4'-8"
30'	10'	5'

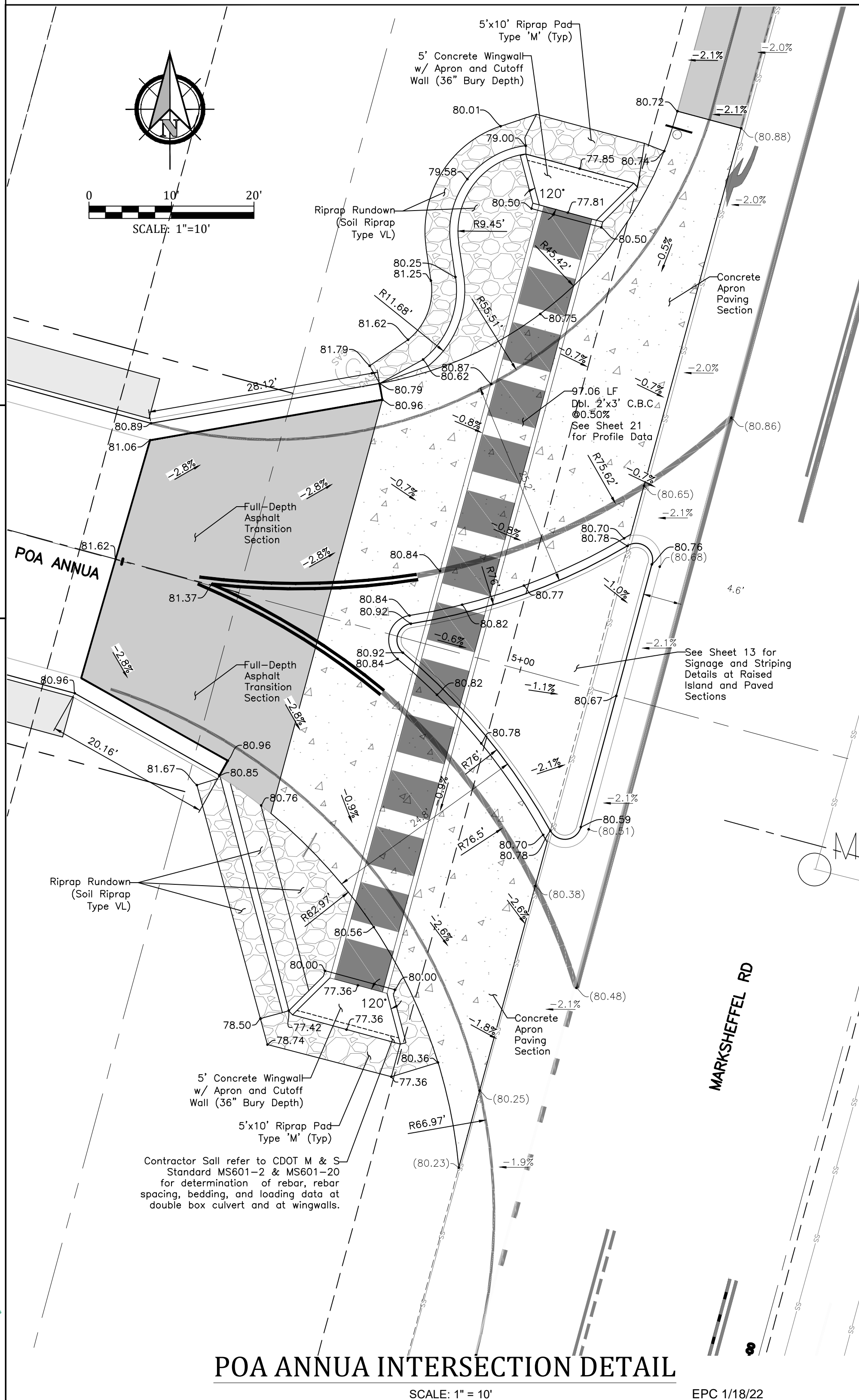
Curb and Gutter shall not be poured monolithic with driveway

Notes

- Provide Centerline Construction or tool joint when driveway width (edge to edge) is 14' or greater.
- All Tool Joints shall be a minimum of 1-1/2" deep.
- When replacing existing curb and gutter with new driveway, entire curb and gutter section shall be removed and replaced with curb and gutter (variable-curb-height) as shown. Do not break curb from gutter section.
- Flared portion of driveway shall be poured monolithic with main rectangular portion of driveway.
- Where there is more than one driveway on a lot, the spacing of the driveways shall meet requirements in ECM.
- Where an existing sidewalk is in place, and its thickness is less than 6" (residential) or 8" (commercial and industrial) the sidewalk through the driveway shall be removed and replaced with Portland Cement Concrete at the required thickness.
- When a driveway is to be taken out of service, the entire length of curb and gutter shall be removed and replaced with new curb and gutter matching the abutting sections.
- All Provisions in the Land Development Code shall be met, with regard to minimum setback from intersection and side property lines, minimum spacing, maximum width, etc.

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 4,500 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 paving 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.)



POA ANNUA INTERSECTION DETAIL

SCALE: 1" = 10'

EPC 1/18/22

GLEN AT WIDEFIELD NO. 11

Site Plan Details

Site Details

EL PASO, COUNTY, COLORADO

Project No.:	19016
Date:	November 24, 2021
Design:	MJK
Drawn:	MJK
Check:	AWMc
Revisions:	

SHEET

29

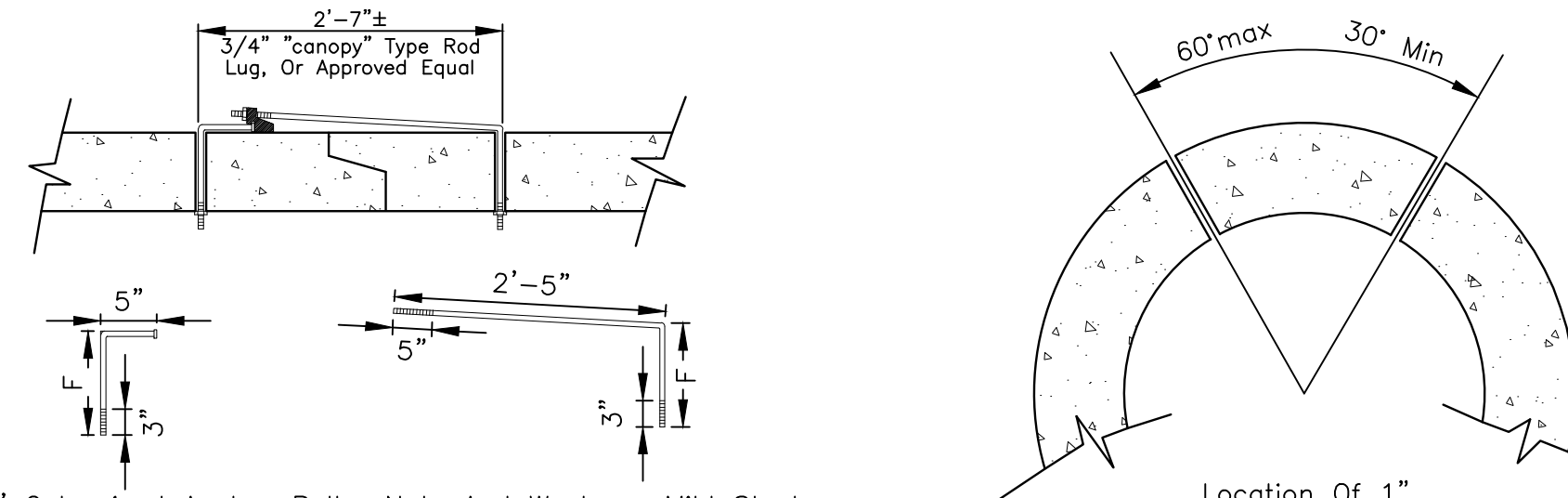
29 of 30 Sheets

19016-GW11-29-DT.dwg/Nov 24, 2021



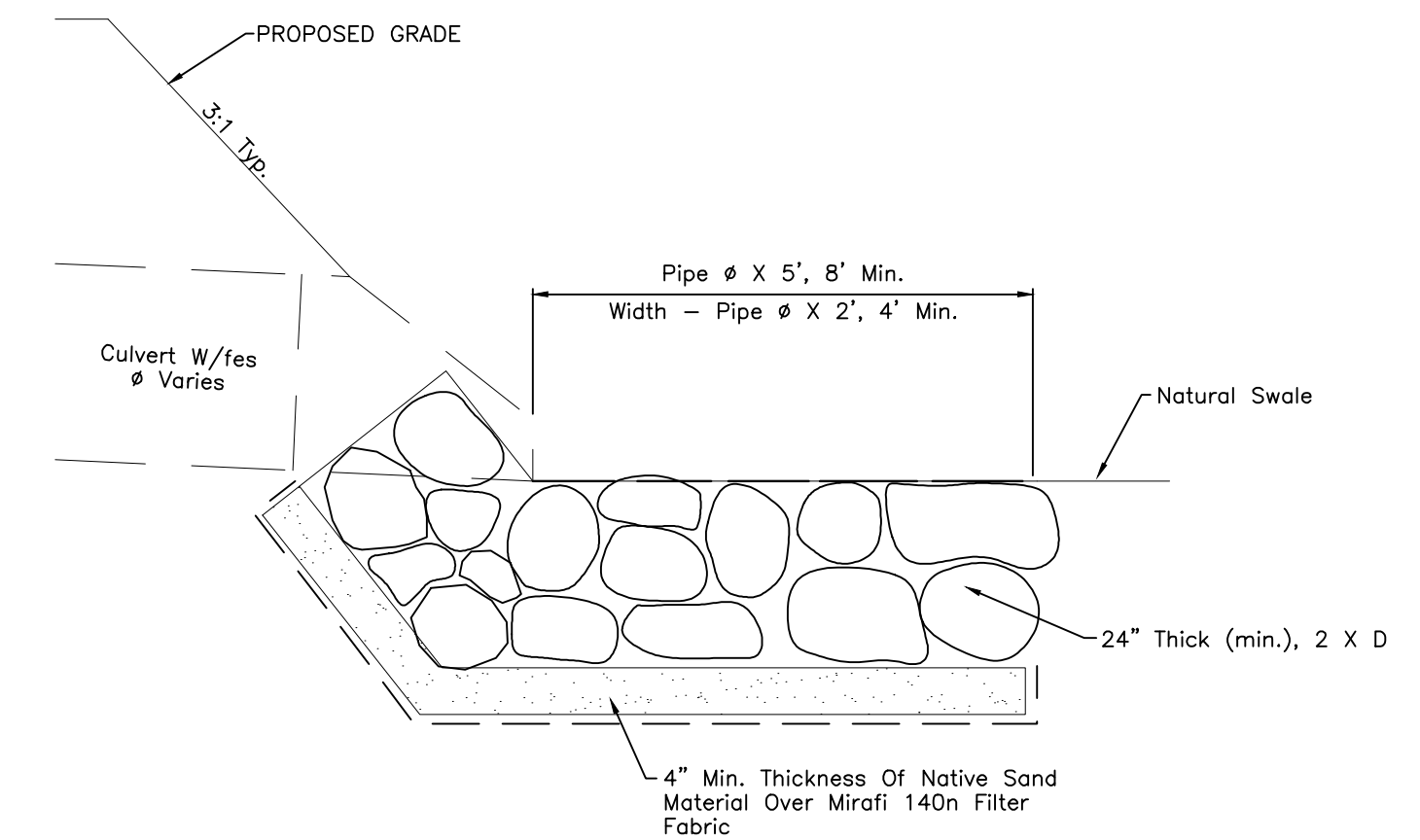
UNDERDRAIN NOTES

- Underdrain to be constructed where indicated by a dashed line (---).
- Solid drain pipe will be used in areas as shown on the plans and as directed by the Geotechnical Engineer.
- All underdrain construction shall conform with the latest City of Colorado Springs Standards.
- Engineering Fabric to have a minimum 12-inch overlap above underdrain granular fill.
- Underdrain Pipe to be constructed with the top of pipe equal to or below the bottom of the sanitary sewer pipe.
- Geotechnical Engineer to determine extent of active/passive underdrain depending upon conditions encountered during construction.
- 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.

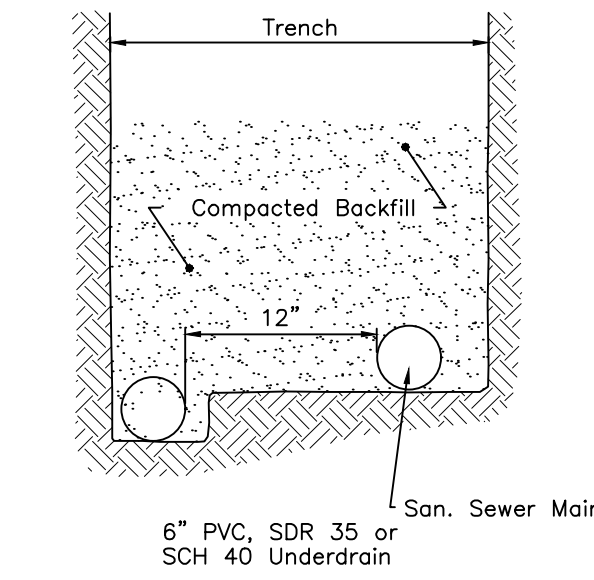


Note:
Concrete Joint Fasteners Required
On The First Two Pipe Joints From
A Flared End Section.

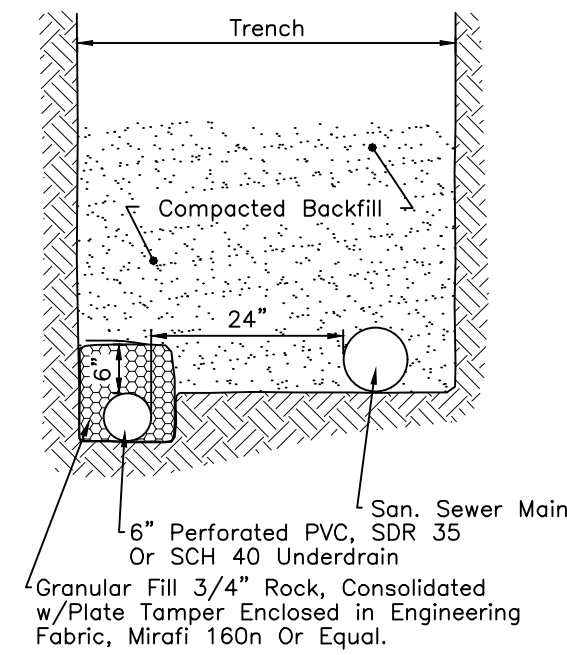
Pipe Diameter	F
18"-30"	5"
36"-42"	6"
48"-60"	7"
72"-84"	9"



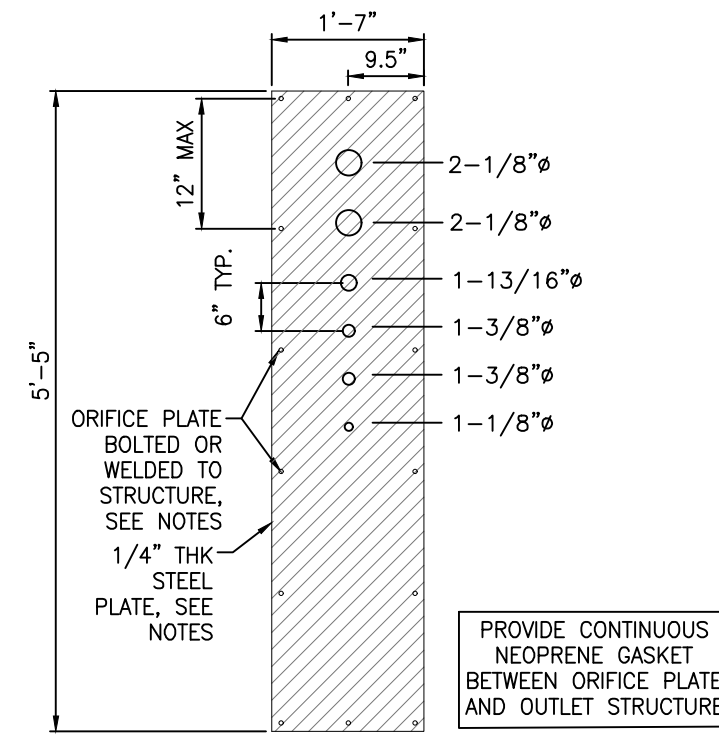
TYPICAL CULVERT OUTLET PROTECTION
Not To Scale



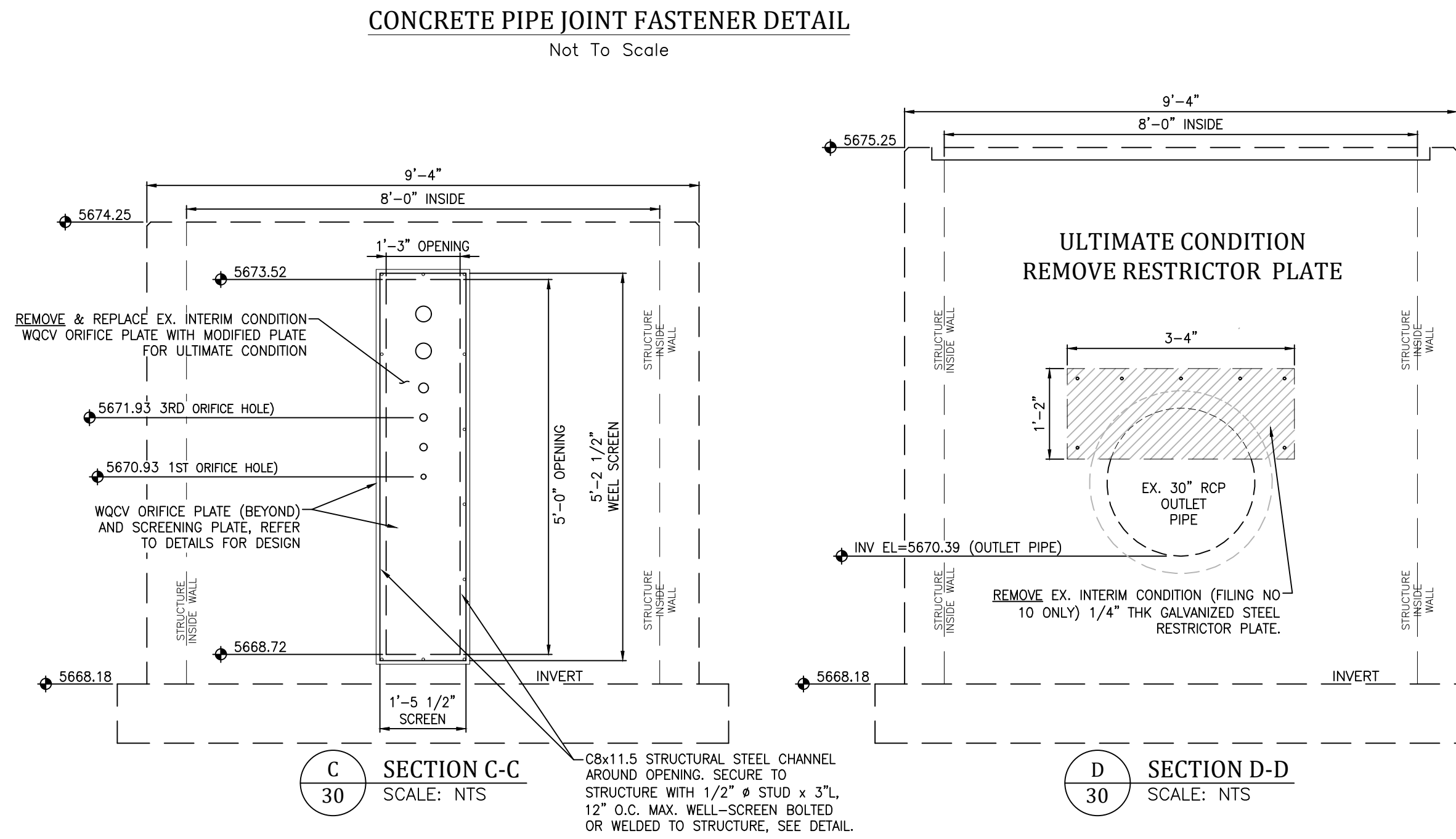
PASSIVE UNDERDRAIN DETAIL
Not To Scale



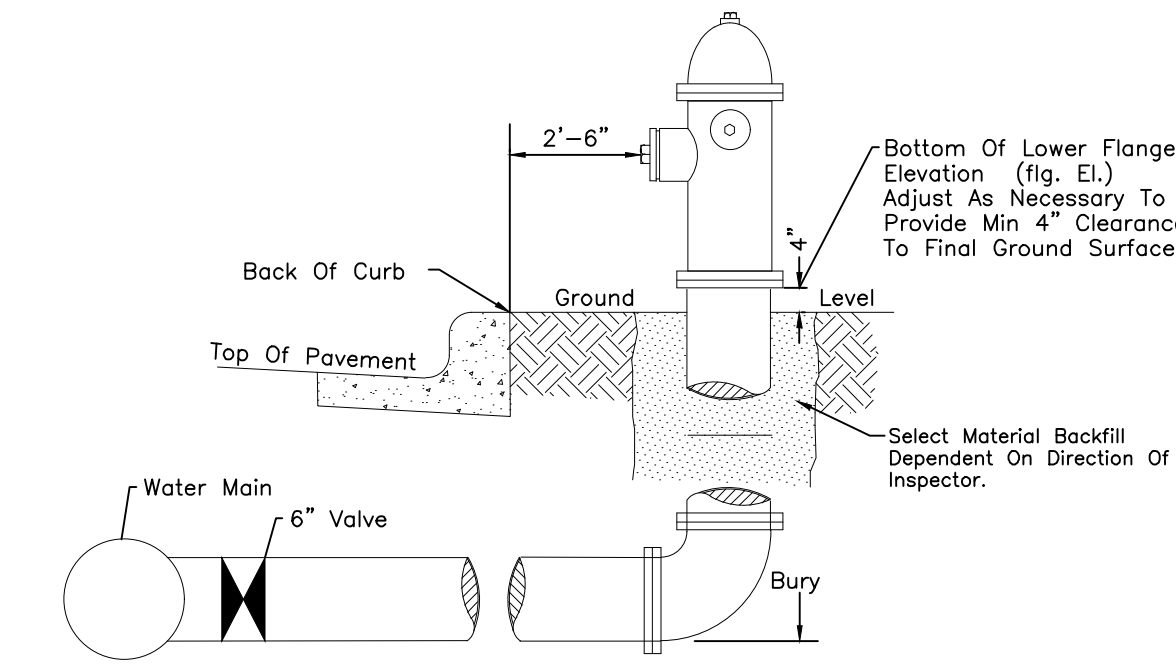
ACTIVE UNDERDRAIN DETAIL
Not To Scale



MODIFIED WQCV ORIFICE PLATE
SCALE: NTS

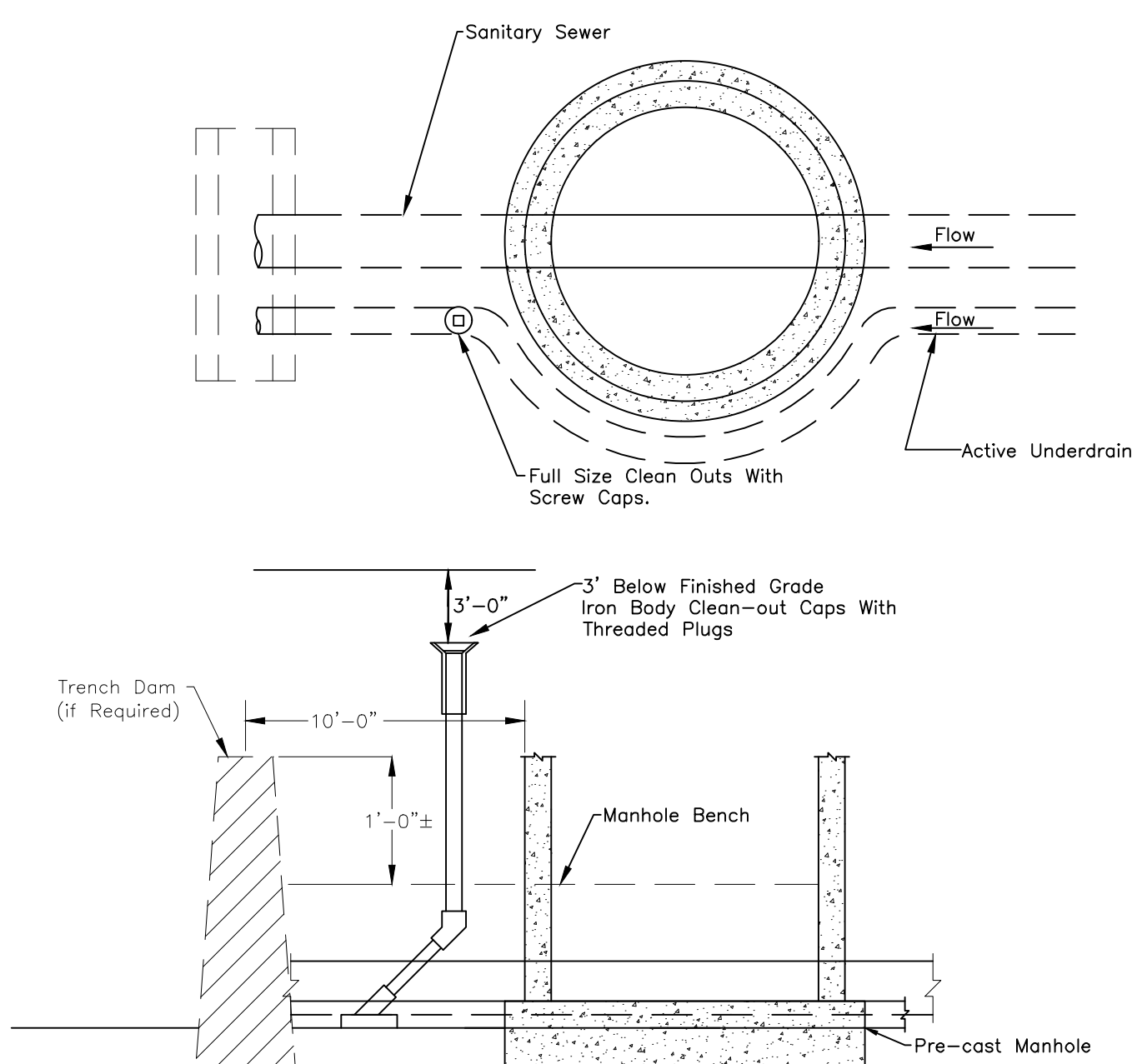


ULTIMATE CONDITION MODIFIED PLATE

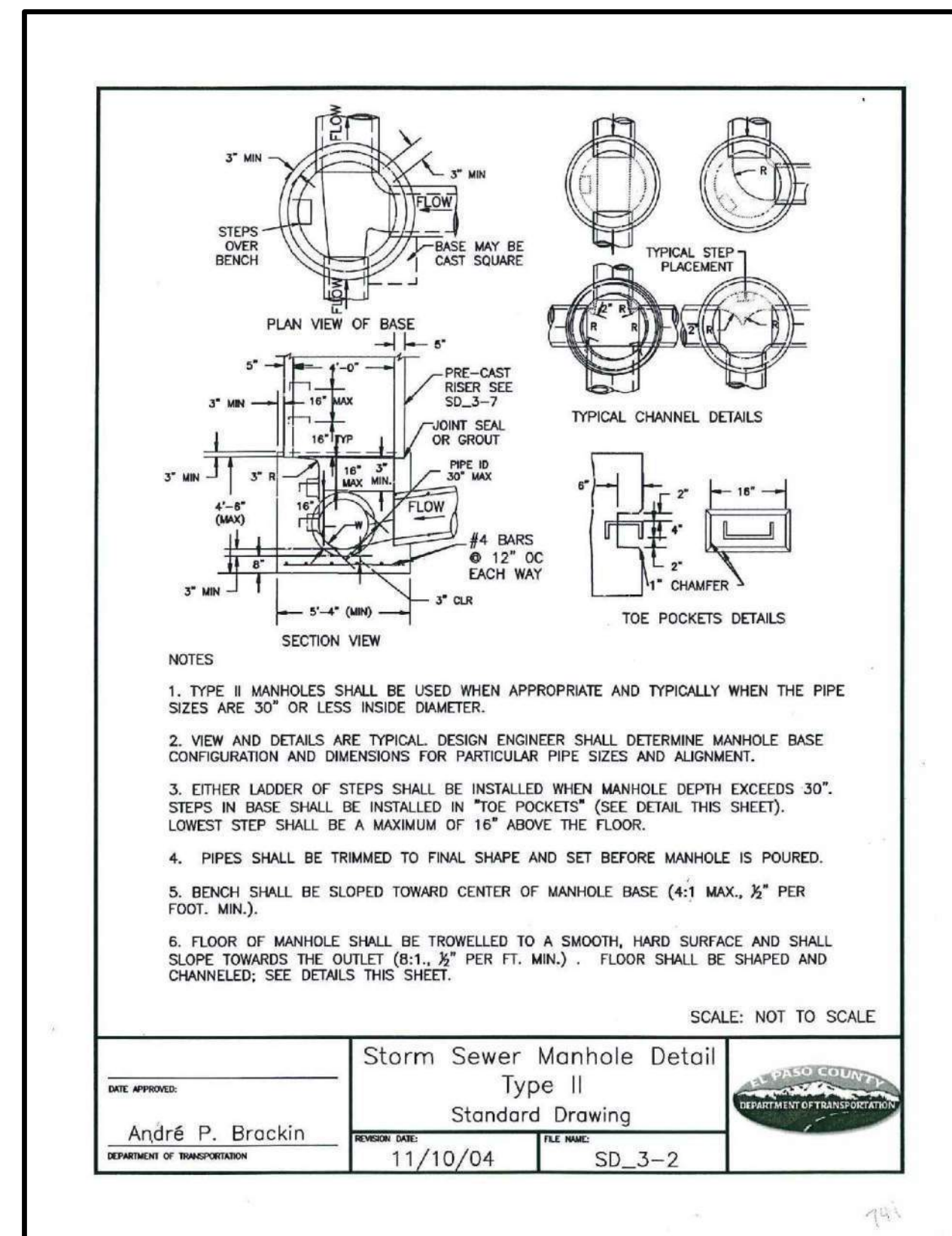


- GENERAL NOTES:**
- Hydrant nozzles shall be positioned at right angles to curb. If no curb or sidewalk exists, nozzles shall be placed at right angle to street or alley.
 - Hydrants shall be placed a minimum of 5.0 feet from any utility or drainage structure.
 - Any hydrant being installed with conditions other than those mentioned and/or detailed below will require signed approval from the Widefield Water District and Security Fire District.
 - See Site Utility Plan for hydrant locations and flange elevations.
 - The upper exposed section of the hydrant above ground shall be painted rustoleum 653 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



GROUNDWATER UNDERDRAIN DETAIL
CLEANOUT LOCATIONS OUTSIDE MANHOLE



- 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., 3/8" PER FOOT, MIN.).
 - FLOOR OF MANHOLE SHALL BE TROWELLED TO A SMOOTH, HARD SURFACE AND SHALL SLOPE TOWARDS THE OUTLET (8:1, 3/8" PER FT. MIN.). FLOOR SHALL BE SHAPED AND CHANNELLED; SEE DETAILS THIS SHEET.

DATE APPROVED: **André P. Brockin**
DESIGNER: **André P. Brockin**
REVISION DATE: **11/10/04**
FILE NAME: **SD_3-2**

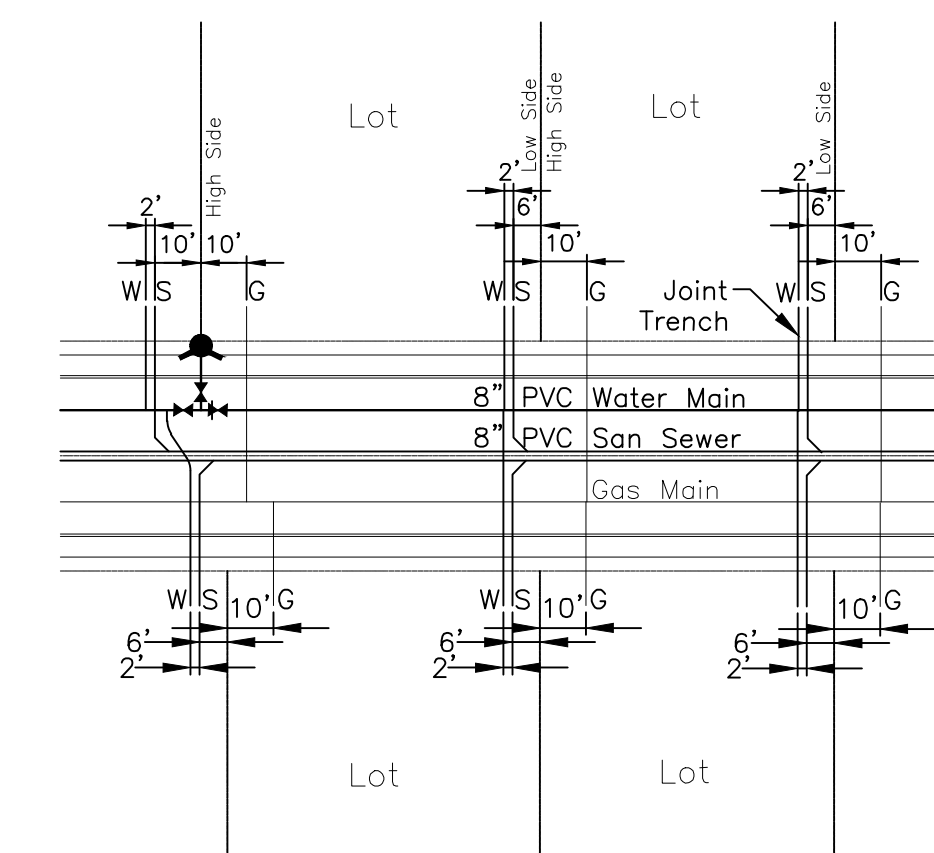
Storm Sewer Manhole Detail
Type II
Standard Drawing

STORM SEWER MANHOLE DETAIL TYPE II
EPC STD. SD_3-2
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

Project No.:	19016
Date:	November 24, 2021
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