

GENERAL NOTES

- Profile design lines are based on centerline, as shown, unless otherwise noted.
- 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.
- 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.
- At intersections, all curb returns will have 20-foot radius unless otherwise noted.
- 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.
- 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.
- Approved plans, Engineering Criteria Manual, etc. is required to be on-site at all times during construction.
- All necessary permits, such as SWMP, ESQCP, Fugitive Dust, Access, C.O.E. 404, etc. shall be obtained prior to construction.
- All handicap ramps to be per El Paso County Standard SD, 2-40.
- 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.
- Where appropriate, neatly saw cut all existing concrete and asphalt. Repair/replace all disturbed existing items with like materials and thicknesses.
- All disturbed areas shall be revegetated with native grasses within 21 days of excavation per Erosion Control Plan.
- 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.
- 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.
- All storm sewer bedding to be per CDOT Standards.
- All storm sewer pipe shall be Class III B Wall unless otherwise shown on the storm sewer plan and profile sheets.
- All eyes and bends used in construction of storm sewer facilities shall be factory fabricated, unless approved by the El Paso County Planning and Community Development.
- 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.
- 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.
- 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.
- For additional utility notes, see Utility Plan and/or Service Plan.
- All horizontal stationing is based on the 'Face of Curb', unless otherwise shown.
- All vertical design and top of curb are based on the design point shown in the typical cross section.
- The curb line design point is located at the intersection of the face and top of curb for EPC Type A Standard 6-inch vertical curb. See typical street section for design point locations.
- 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.
- 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.
- 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.
- Cross pans to be 6' wide and per El Paso County Standard Detail SD, 2-26.
- Contractor responsible for meeting all Widefield Water and Sanitation District criteria when connecting to existing stubs.
- Curb returns shall be straight graded from CR to CR unless otherwise noted.
- Inlets are Type 'R' inlets (CDOT STD M-604-12) unless otherwise noted.
- USPS CBU Mailboxes are to be determined by USPS.

BENCHMARK: Monument is located at the Northwest corner of the intersection of Powers Boulevard and Fontaine Street. 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 Adj.).

BASIS OF BEARINGS is based upon a portion of the Easterly boundary of the Glen at Widefield Subdivision Filing No. 5B as recorded under Reception No. 206712326 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

- 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.
- 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).
- 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:
 - El Paso County Engineering Criteria Manual (ECM)
 - City of Colorado Springs/El Paso County Drainage Criteria Manual, Volumes 1 and 2
 - Colorado Department of Transportation (CDOT) Standard Specifications for Road and Bridge Construction
 - CDOT M & S Standards
- 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.
- 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.
- Contractor shall schedule a pre-construction meeting with El Paso County Planning and Community Development (P&CDD) - Inspections, prior to starting construction.
- 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.
- 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.
- All storm drain pipe shall be Class III RCP unless otherwise noted and approved by P&CDD.
- 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.
- All construction traffic must enter/exit the site at approved construction access points.
- 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.
- Signing and striping shall comply with El Paso County DOT and MUTCD criteria. [If applicable, additional signing and striping notes will be provided.]
- Contractor shall obtain any permits required by El Paso County DOT, including Work Within the Right-of-Way and Special Transport permits.
- 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

THE GLEN AT WIDEFIELD FILING NO 10

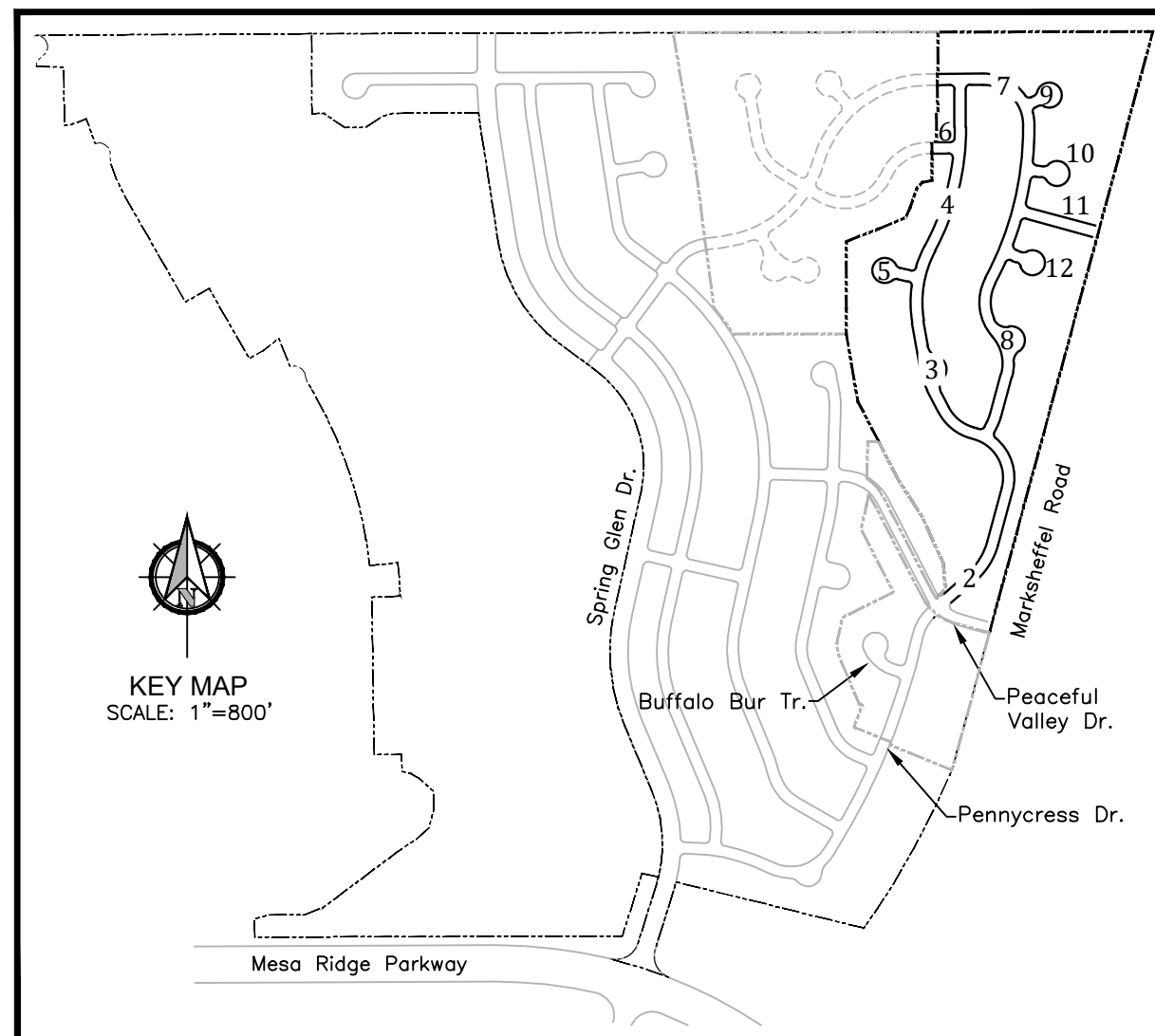
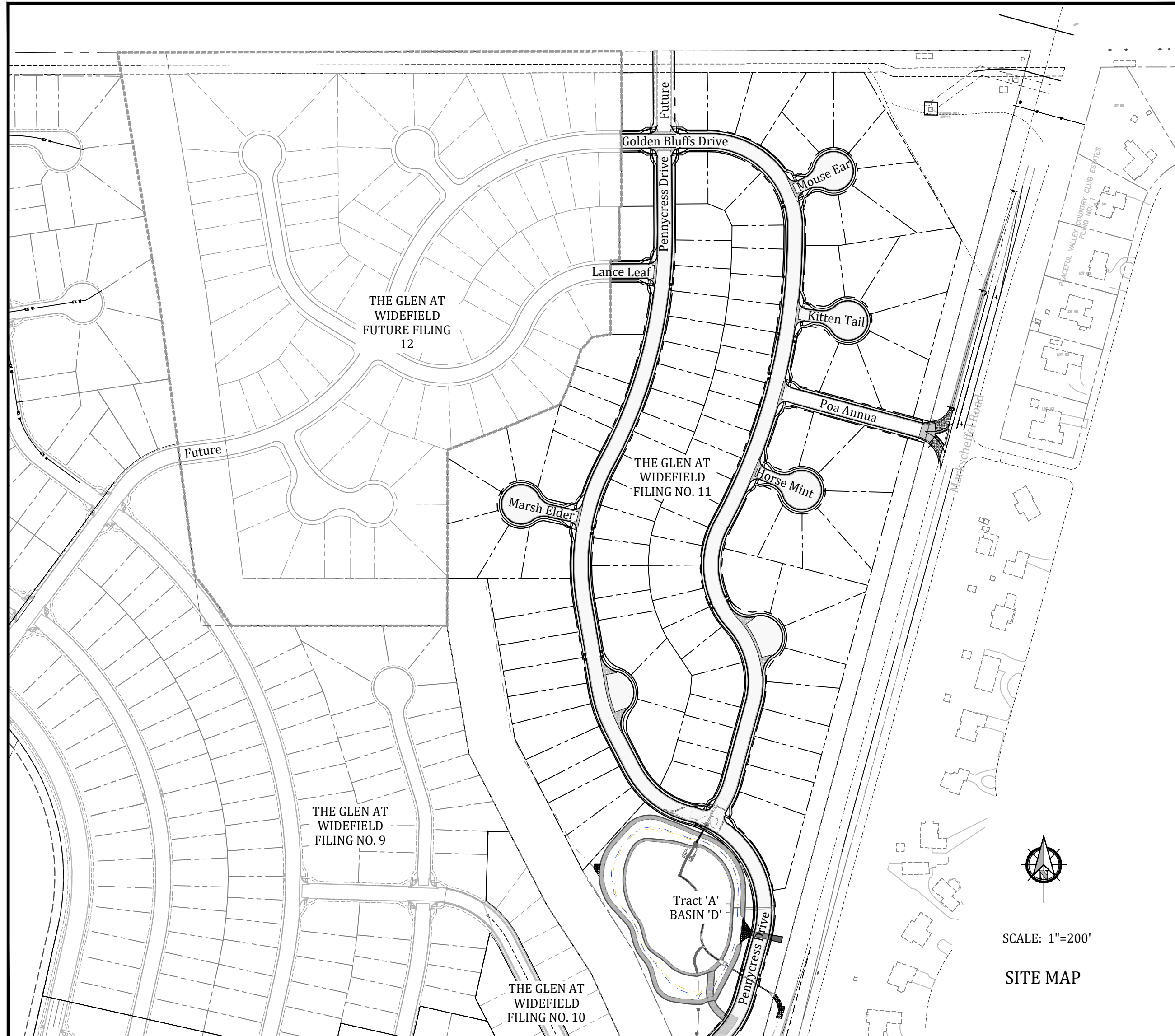
SHEET INDEX

1	Cover Sheet	20	Storm Sewer Plan - Laterals 'E' & 'F'
2	Plan & Profile - Pennycress Drive	21	Storm Sewer Plan - Detention Basin Inflow Lateral J
3	Plan & Profile - Pennycress Drive & Knuckle	22	Grading and Erosion Control Plan - Overall
4	Plan & Profile - Pennycress Drive	23	Grading and Erosion Control Plan Detail
5	Plan & Profile - Marsh Elder Place	24	Utility Plan - Overall Utilities - South Half
6	Plan & Profile - LanceLeaf Drive	25	Utility Plan - Overall Utilities - North Half
7	Plan & Profile - Golden Buffs Drive	26	Utility Plan - Utility Services - South Half
8	Plan & Profile - Golden Buffs Drive	27	Utility Plan - Utility Services - North Half
9	Plan & Profile - Mouse Ear Place	28	Site Detail Plan - Detention Basin 'D'
10	Plan & Profile - Kitten Tail Court	29	Site Detail Plan - Site Details
11	Plan & Profile - Poa Annua	30	Site Detail Plan - Utility Details
12	Plan & Profile - Horse Mint Trail		
13	Signing & Striping Plan - Overall		
14	Storm Sewer Plan - Golden Buffs Drive Trunkline		
15	Storm Sewer Plan - Golden Buffs Drive Trunkline		
16	Storm Sewer Plan - Laterals 'B', 'C', & 'D'		
17	Storm Sewer Plan - Lateral 'G' & Inflow Lateral 'H'		
18	Storm Sewer Plan - Pennycress Drive Trunkline		
19	Storm Sewer Plan - Pennycress Drive Trunkline		

THE GLEN AT WIDEFIELD FILING NO. 11

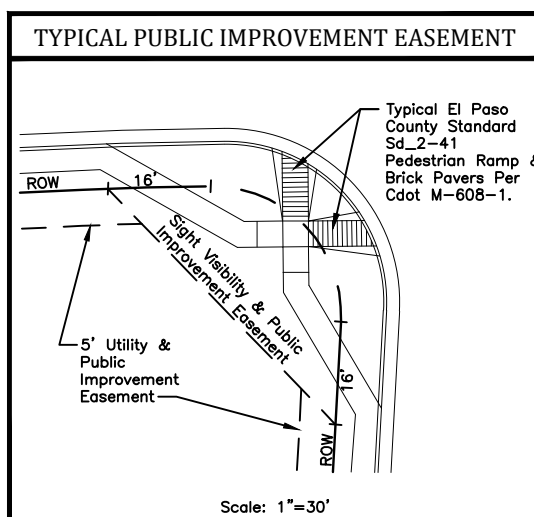
RESIDENTIAL SUBDIVISION CONSTRUCTION DRAWINGS

PREPARED FOR WIDEFIELD INVESTMENT GROUP



ABBREVIATIONS

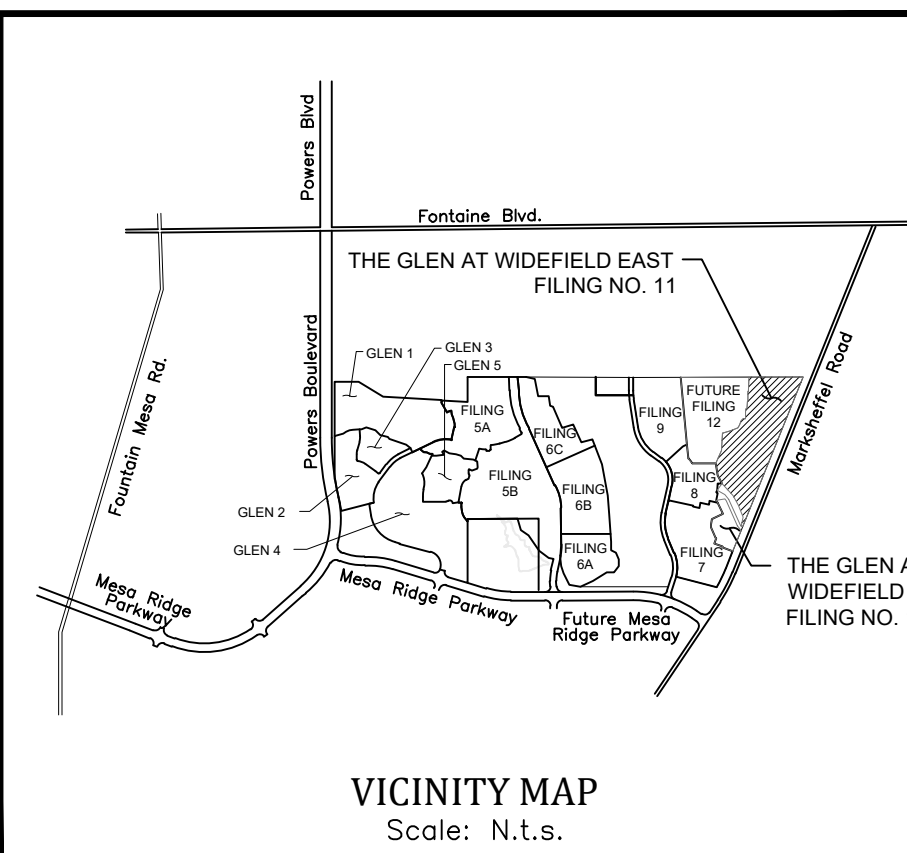
ASSY = Assembly	NTS = Not To Scale
BNDY = Boundary	OD = Outside Diameter
BOP = Bottom Of Pipe	PC = Point Of Horizontal Curvature
CL = Centerline	PP = Proposed
CRA = Concrete Reverse Anchor	PT = Point Of Horizontal Tangency
CTRB = Concrete Thrust Block	PVC = Poly Vinyl Chloride Pipe
CR = Point Of Curb Return	PVC = Point Of Vertical Curvature
DIP = Ductile Iron Pipe	PVI = Point Of Vertical Intersection
EL = Elevation	PVT = Point Of Vertical Tangency
ESMT = Easement	RCB = Reinforced Concrete Box
EX = Existing	RCP = Reinforced Concrete Pipe
FC = Face Of Curb	ROW = Right Of Way
FES = Flared End Section	RT = Right
FLG = Flange	SHT = Sheet
FL = Flowline	SS = Sanitary Sewer
GB = Grade Break	STA = Station
HP = High Point	STD = Standard
HORIZ = Horizontal	TA = Top Of Asphalt
HYD = Hydrant	TC = Top Of Curb
I.D. = Inside Diameter	TOP = Top Of Pipe
LT = Left	TYP = Typical
LF = Linear Feet	VC = Vertical Curve
LP = Low Point	VERT = Vertical
MAX = Maximum	
MH = Manhole	

WIDEFIELD WATER AND SANITATION DISTRICT
GENERAL NOTES

- All utility construction to be conducted in conformance with the current Widefield Water and Sanitation District specifications. Compaction requirements shall be 95% Standard Proctor as determined by ASTM D698, unless otherwise approved by the Widefield Water and Sanitation District or a higher standard is imposed by another agency having right-of-way jurisdiction.
- All materials and workmanship shall be subject to inspection by the Widefield Water and Sanitation District. The Widefield Water and Sanitation District reserves the right to accept or reject any such materials and workmanship that does not conform to its standards and specifications.
- The Developer or his Engineer has located all fire hydrants and future service stubs. Any required realignment, either horizontal or vertical, shall be at the expense of the Developer.
- All ductile iron pipe, to include fittings, valves and fire hydrants will be wrapped with polyethylene tubing, and electrically isolated.
- All ductile iron pipe and fittings shall be double bonded. Specifications for cathodic protection on both Dip mains and PVC mains is specified in the Standards and Specifications.
- PVC main lines shall be installed with coated No. 12 tracer wire.
- 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. The Contractor shall also notify affected utility companies 48 hours prior to construction adjacent to the known utility lines.
- The location of all utilities as shown on these drawings are approximate only. The location of all utilities shall be verified prior to construction by the Contractor.
- The Contractor shall field excavate and verify the vertical and horizontal location of all tie-ins. Contractor shall notify the Widefield Water and Sanitation District and the Engineer of the field verified information prior to construction.
- All bends shall be field staked prior to construction.
- Any water utility material removed and not reused shall be returned to the Widefield Water and Sanitation District if the District so requests.
- The Contractor shall at his expense support and protect all utility mains so that they will function continuously during construction. Should a utility main fail as a result of the Contractor's operation, it will be replaced immediately by either the Contractor or the Widefield Water and Sanitation District at full cost of labor and materials to the Contractor.
- Any pumping or bypass operations must be reviewed and approved prior to execution by both the Widefield Water and Sanitation District and the Engineer.
- 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.
- All water lines 6" and larger, and all sewer lines 8" and larger, shall have as "As-Built" plans prepared and approved prior to final acceptance by the Widefield Water and Sanitation District.
- Prior to construction, a Pre-Construction Conference is required a minimum of 72 hours in advance of commencement of work. To set the Pre-Construction conference, contact Brandon Bernard, Water Superintendent (464-2051) and/or Mark McCormick, Wastewater Superintendent (491-0128) of the Widefield Water and Sanitation District for a time. No Pre-Construction Conference times will be set until 4 sets of signed drawings are received by the Widefield W & S District. Pre-Construction Date: ____/____/____ Initials: ____

LEGEND

— Street R.o.w.	— Curb & Gutter (curb Section As Shown On Plans)
— Street Center Line	— FM Existing Force Main
Proposed Water	— W Existing Water
Proposed Water Hydrant	Existing Water Hydrant
Proposed Water Valve	Existing Water Valve
Proposed Sanitary Mh	Existing Sanitary Mh
Proposed Sanitary Sewer	Existing Sanitary Sewer
Proposed Storm Sewer	Existing Storm Sewer
Proposed Storm Inlet	Existing Storm Inlet
Proposed Storm Mh	Existing Storm Mh
Proposed Storm Fes	Existing Storm Fes
Proposed Boxbase Mh	



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. Said plans and specifications meet the purposes for which the particular roadway and drainage facilities are designed and are correct to the best of my knowledge and belief. I accept responsibility for any liability caused by any negligent acts, errors or omissions on my part in preparation of these detailed plans and specifications.

Richard N. Wray, P.E. #19310

Date

For and on behalf of Kiowa Engineering Corp.

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.

J. Ryan Watson, President

Date

Glen Development Company

3 Widefield Boulevard

Colorado Springs, Colorado 80911

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. The County through the approval of this document assumes no responsibility for completeness and/or accuracy of this document.

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. If construction has not started within those 2 years, the plans will need to be resubmitted for approval, including payment of review fees at the Planning and Community Development Directors discretion.

Jennifer Irvine, P.E.

Date

County Engineer / ECM Administrator

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. The Owner/Developer shall be responsible for all operational damages and defects in installation and material for mains and services from the date of approval until final acceptance is issued.

Signed: _____ Date: _____

Print Name: J. Ryan Watson

DBA: GLEN DEVELOPMENT COMPANY

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

FIRE AUTHORITY APPROVAL

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

Security Fire Department

Signed: _____ Date: _____

Security Fire Department

DISTRICT APPROVALS

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

WIDEFIELD WATER AND SANITATION DISTRICT
WASTEWATER DESIGN APPROVAL

Date: _____ By: _____

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

WIDEFIELD WATER AND SANITATION DISTRICT
WATER DESIGN APPROVAL

Date: _____ By: _____

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

GOVERNING AGENCIES

El Paso County Planning & Community
Development Department
2880 International Circle Suite 110
Colorado Springs Colorado
(719) 520-6300

Black Hills Energy
18965 Bas Camp Road Unit A7
Monument, Colorado
(719) 359-0586

Widefield Water & Sanitation District
11140 East Woodmen Road
Falcon, Colorado
(719) 495-2283

Mountain View Electric Association
11140 East Woodmen Road
Falcon, Colorado
(719) 495-2283

DEVELOPER:

W
WIDEFIELD
INVESTMENT GROUP

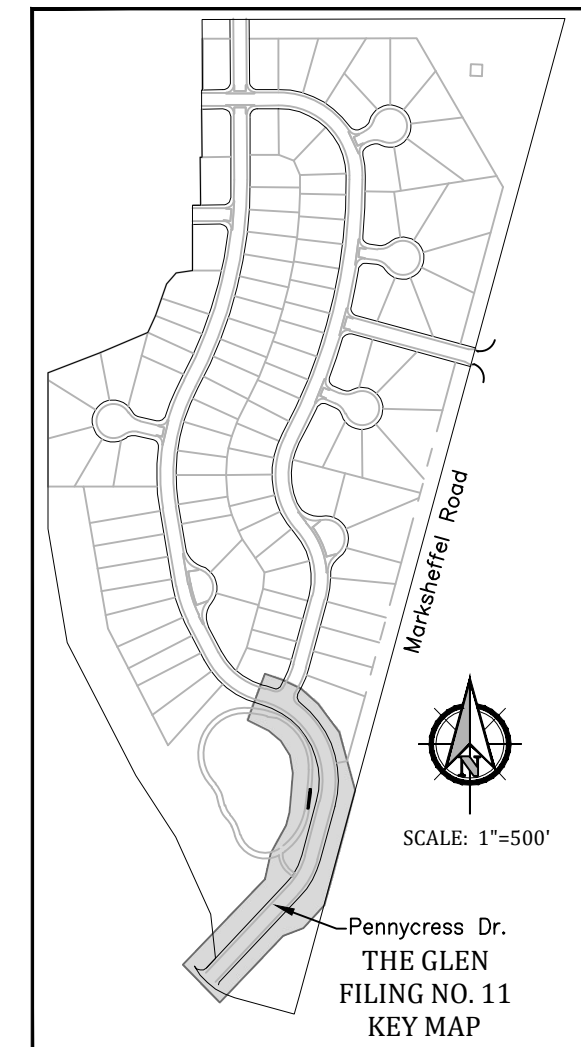
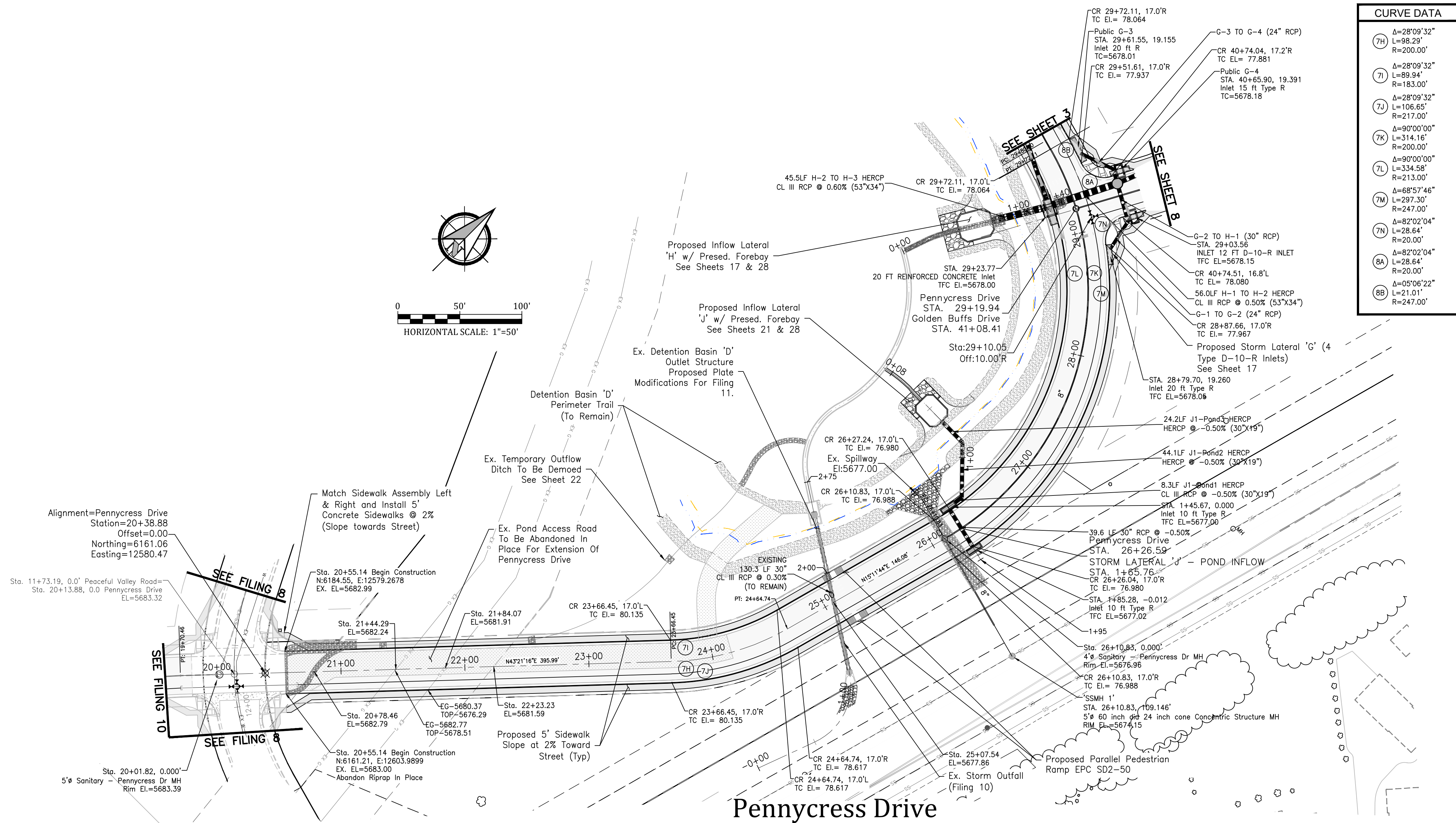
3 WIDEFIELD BOULEVARD
COLORADO SPRINGS, CO 80911

PREPARED BY:

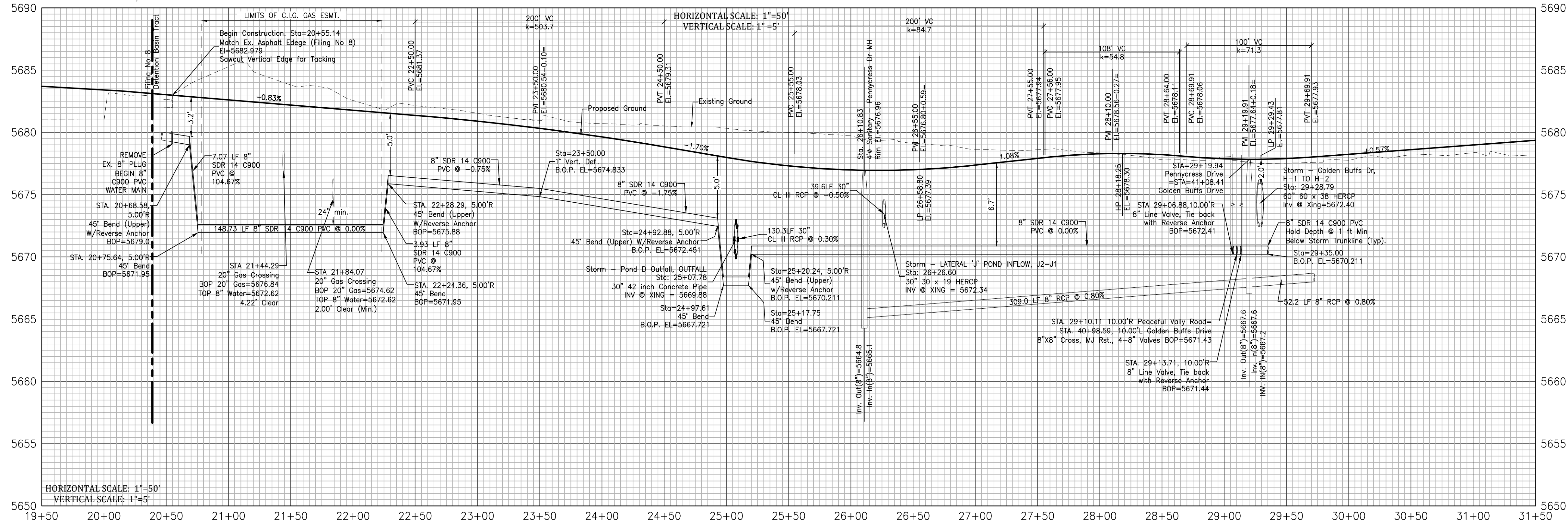
Kiowa
Engineering Corporation

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

PCD File No. SF-20-004



CURVE DATA	
(7H)	Δ=28°09'32" L=98.29' R=200.00'
(7I)	Δ=28°09'32" L=89.94' R=183.00'
(7J)	Δ=28°09'32" L=106.65' R=217.00'
(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'
(7O)	Δ=82°02'04" L=28.64' R=20.00'
(7P)	Δ=05°06'22" L=21.01' R=247.00'

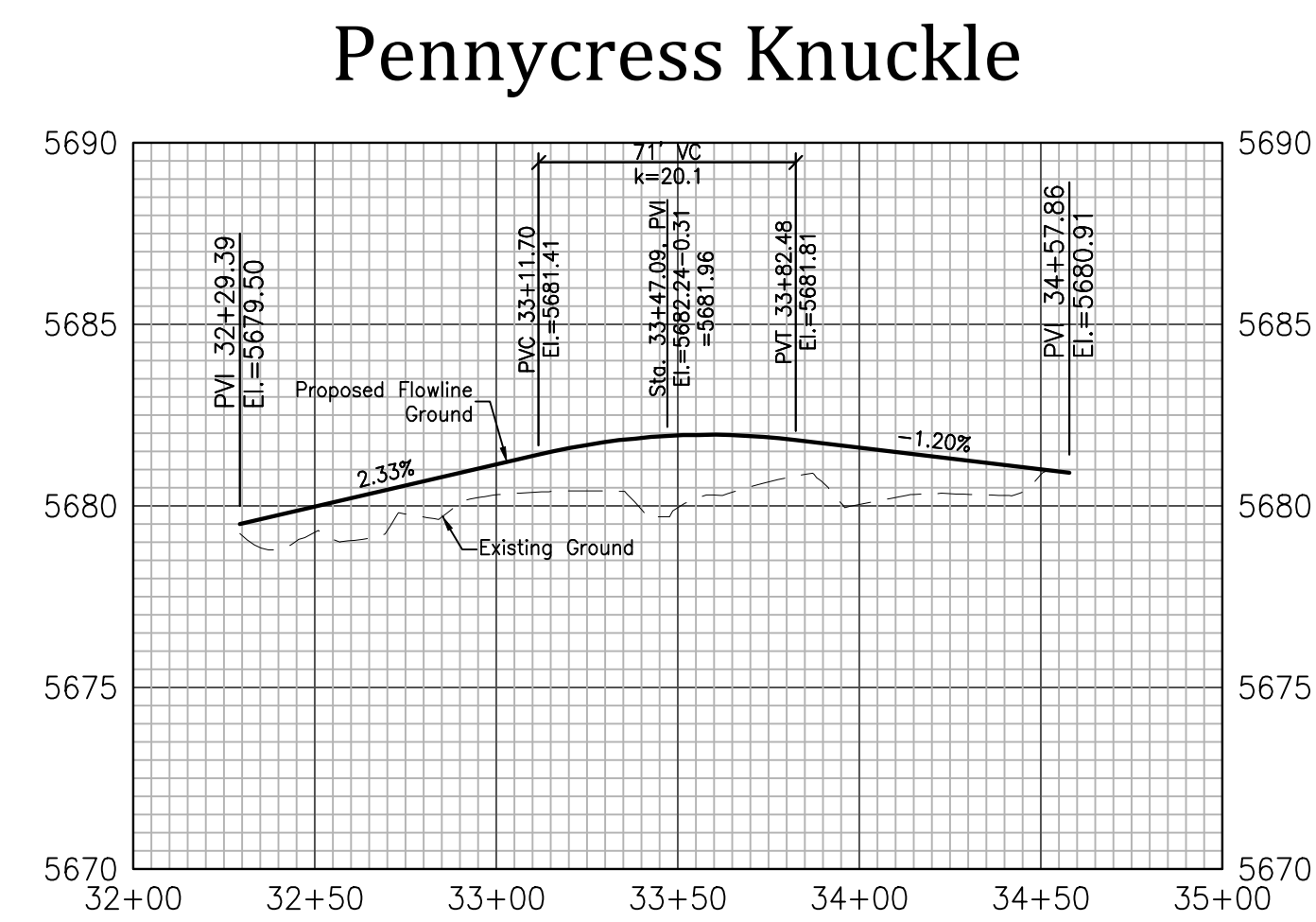
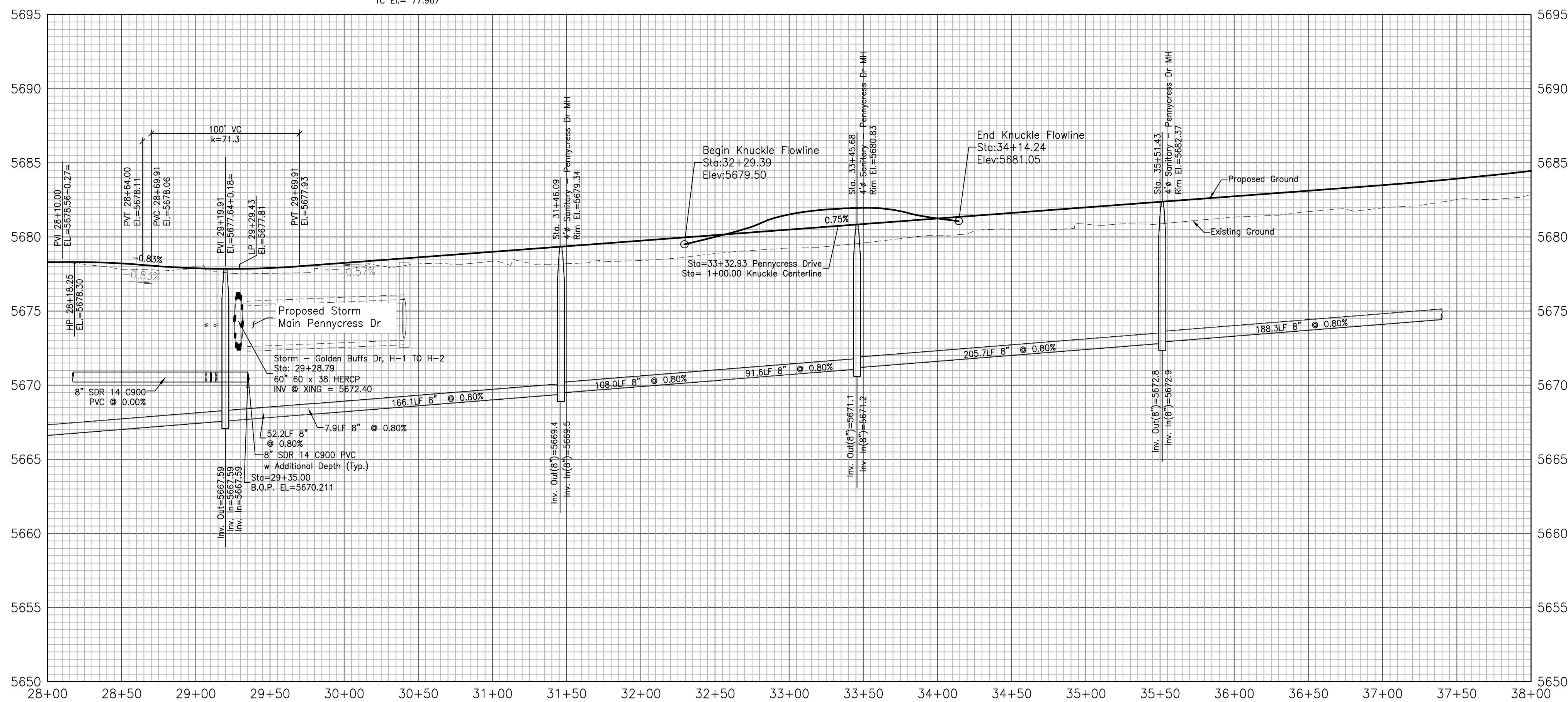
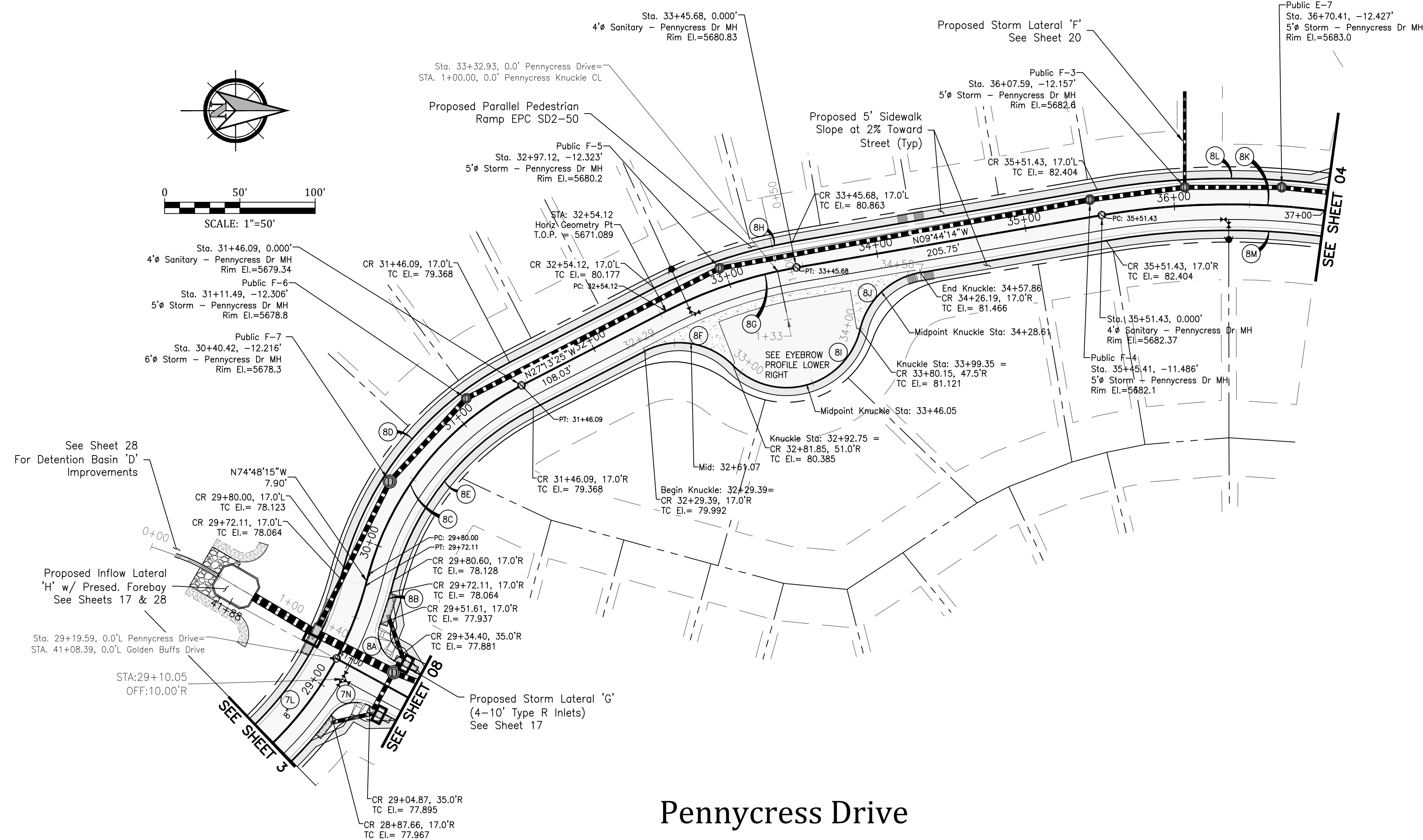


GLEN AT WIDEFIELD NO. 11

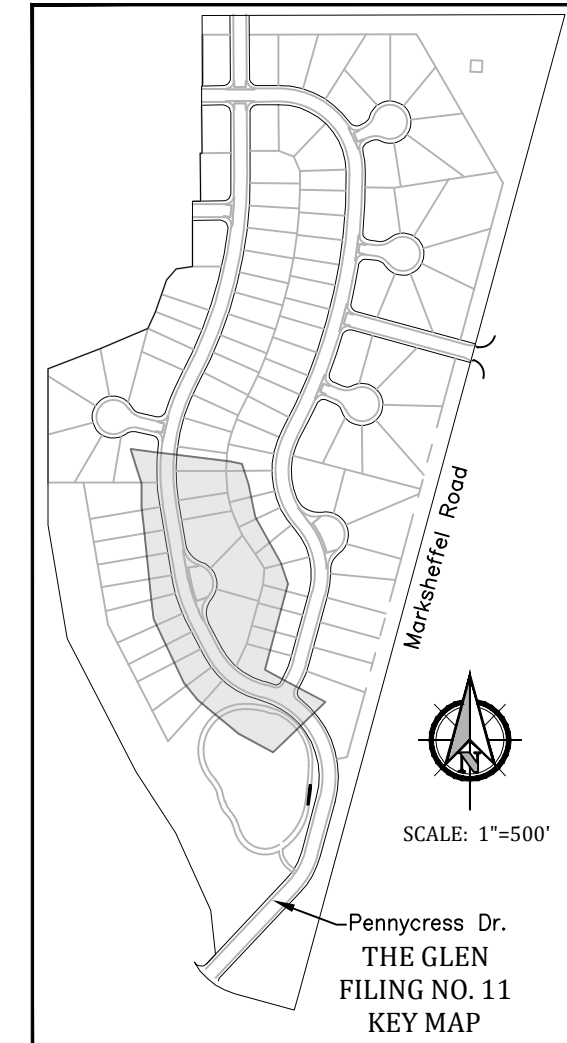
Plan and Profile - Pennycress Drive

Sta: 20+54.14 to 29+71.11
EL PASO, COUNTY, COLORADO

Project No.:	19016
Date:	April 30, 2021
Design:	MJK
Drawn:	MJK
Check:	AWMc
Revisions:	



CURVE DATA		
7L	$\Delta=90^{\circ}00'00''$	$L=334.58'$ $R=213.00'$
7N	$\Delta=82^{\circ}02'04''$	$L=28.64'$ $R=20.00'$
8A	$\Delta=82^{\circ}02'04''$	$L=28.64'$ $R=20.00'$
8B	$\Delta=05^{\circ}06'22''$	$L=21.01'$ $R=247.00'$
8C	$\Delta=47^{\circ}33'40''$	$L=166.02'$ $R=200.00'$
8D	$\Delta=47^{\circ}33'40''$	$L=160.13'$ $R=217.00'$
8E	$\Delta=47^{\circ}33'40''$	$L=151.91'$ $R=183.00'$
8F	$\Delta=72^{\circ}36'02''$	$L=63.36'$ $R=50.00'$
8G	$\Delta=17^{\circ}29'11''$	$L=91.56'$ $R=300.00'$
8H	$\Delta=17^{\circ}29'11''$	$L=96.75'$ $R=317.00'$
8I	$\Delta=122^{\circ}09'45''$	$L=106.61'$ $R=50.00'$
8J	$\Delta=67^{\circ}02'54''$	$L=56.51'$ $R=50.00'$
8K	$\Delta=38^{\circ}12'02''$	$L=33.36'$ $R=500.00'$
8L	$\Delta=18^{\circ}31'26''$	$L=167.15'$ $R=517.00'$
8M	$\Delta=38^{\circ}12'02''$	$L=322.03'$ $R=483.00'$



GLEN AT WIDEFIELD NO. 11 Plan and Profile - Pennycress Drive Sta: 29+71.11 to 37+00 EL PASO, COUNTY, COLORADO

Project No.: 19016
Date: April 30, 2021
Design: MJK
Drawn: MJK
Check: AWMc
Revisions:

SHEET

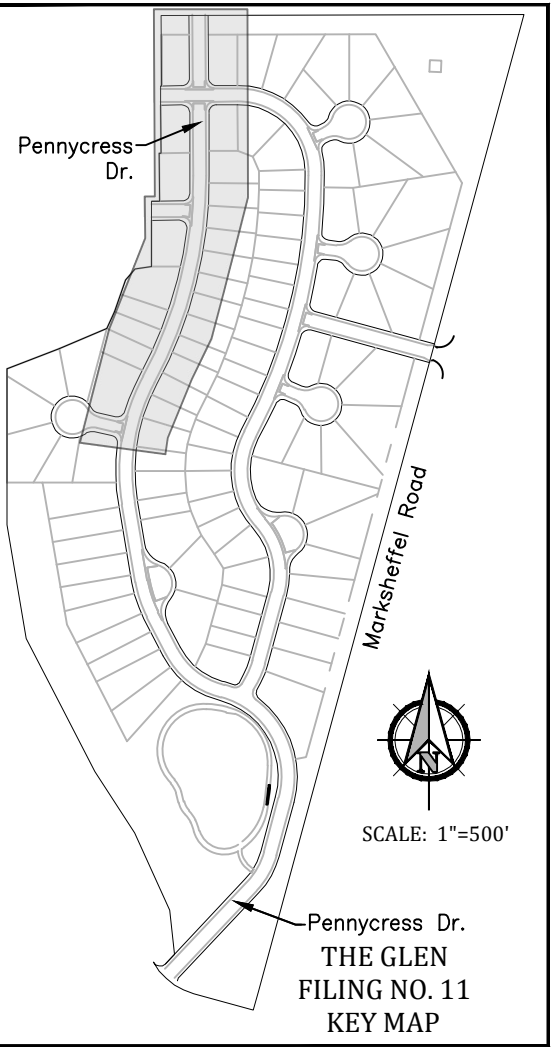
3

3 of 30 Sheets

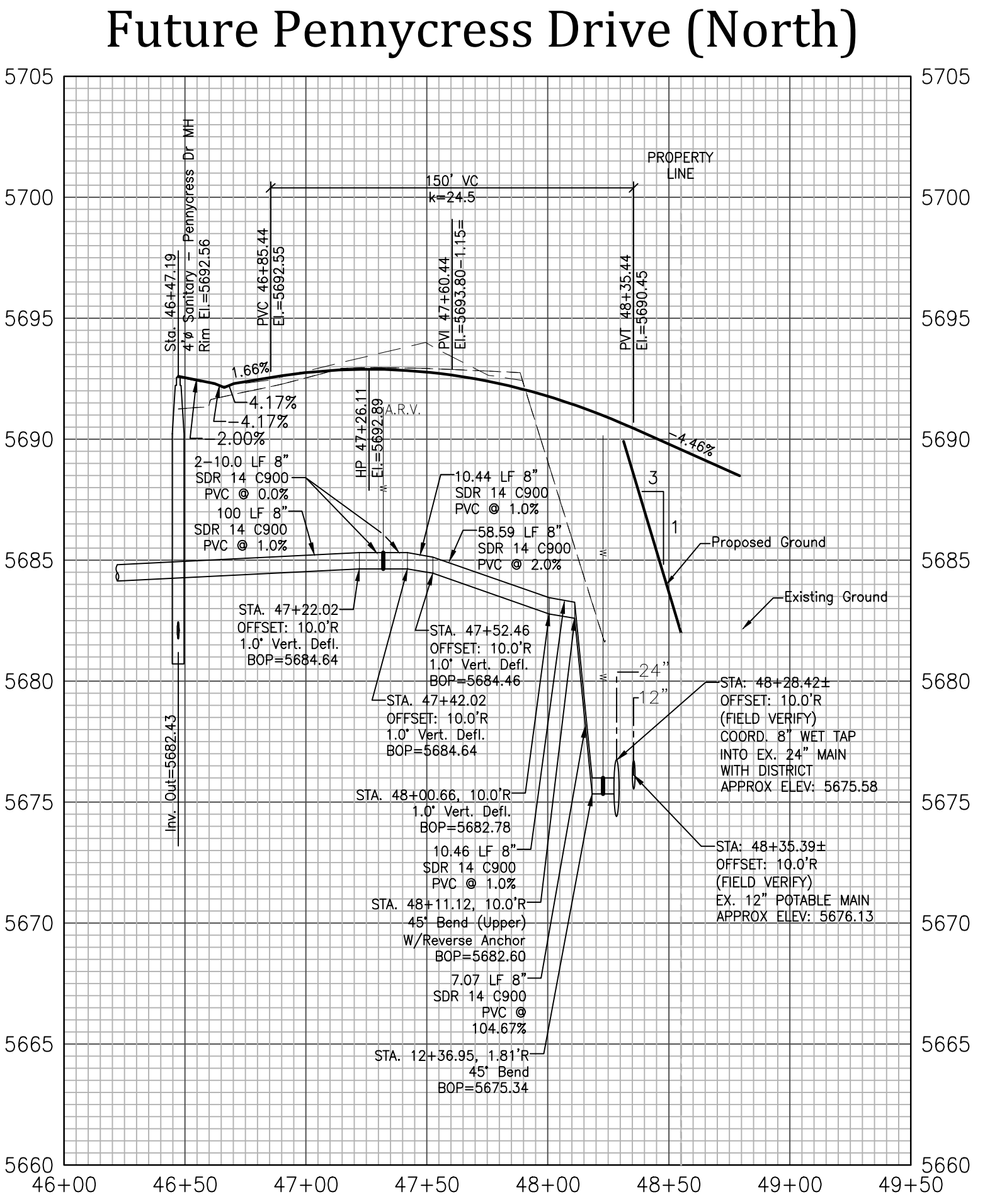
19016-GW11-03-PP.dwg/Apr 28, 2021

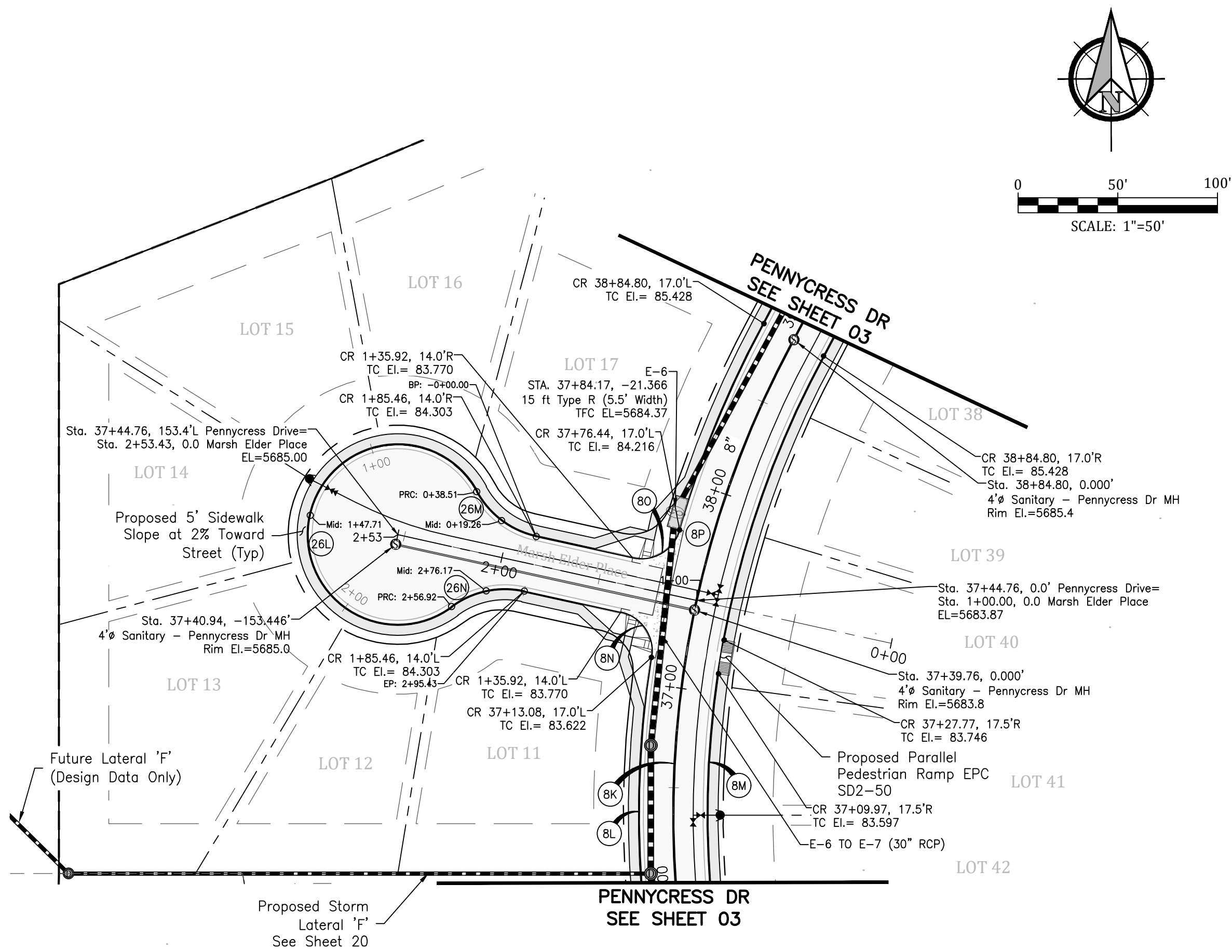
Kiowa
Engineering Corporation
1604 South 21st Street
Colorado Springs, Colorado 80904
(719) 630-7342

W
WIDEFIELD
Investment Group

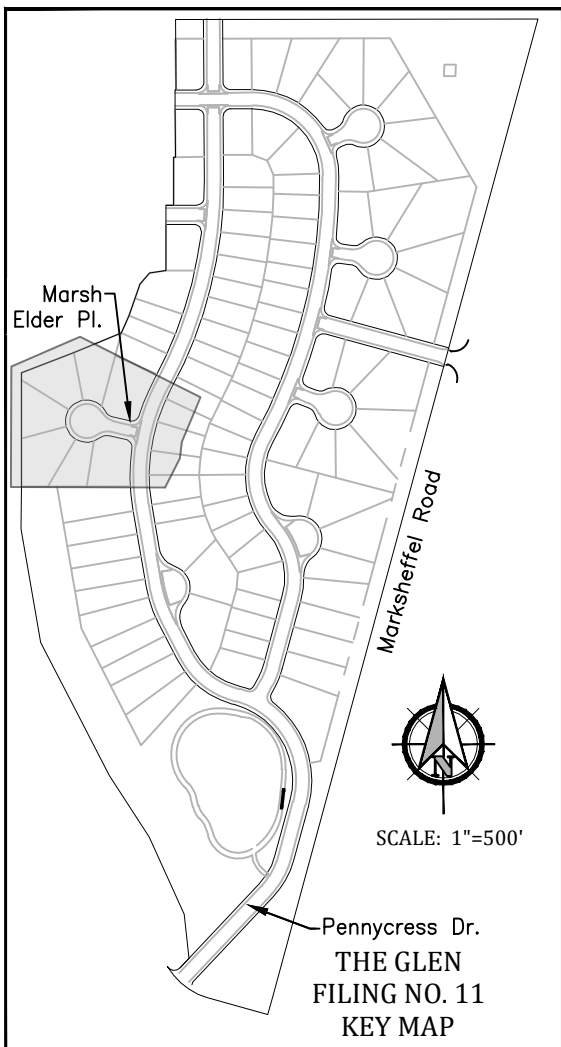


CURVE DATA	
8A	=86°22'12" L=30.15° R=20.00°
8B	=86°22'12" L=30.15° R=20.00°
8C	=124°24'59" L=12.04° R=517.00°
8D	=28°46'26" L=55.42° R=1100.00°
8E	=21°54'39" L=414.16° R=1083.00°
8S	=28°46'26" L=560.96° R=17.00°
9A	=96°51'47" L=33.81° R=20.00°
9B	=87°08'27" L=30.42° R=20.00°
9C	=25°51'33" L=54.05° R=1083.00°
9D	=90°00'00" L=12.2° R=20.00°





CURVE DATA	
(8K)	Δ=38°12'02" L=333.36' R=500.00'
(8L)	Δ=18°31'26" L=167.15' R=517.00'
(8M)	Δ=38°12'02" L=322.03' R=483.00'
(8N)	Δ=86°22'12" L=30.15' R=20.00'
(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'



Project No.:	19016
Date:	April 30, 2021
Design:	MJK
Drawn:	MJK
Check:	AWMc
Revisions:	

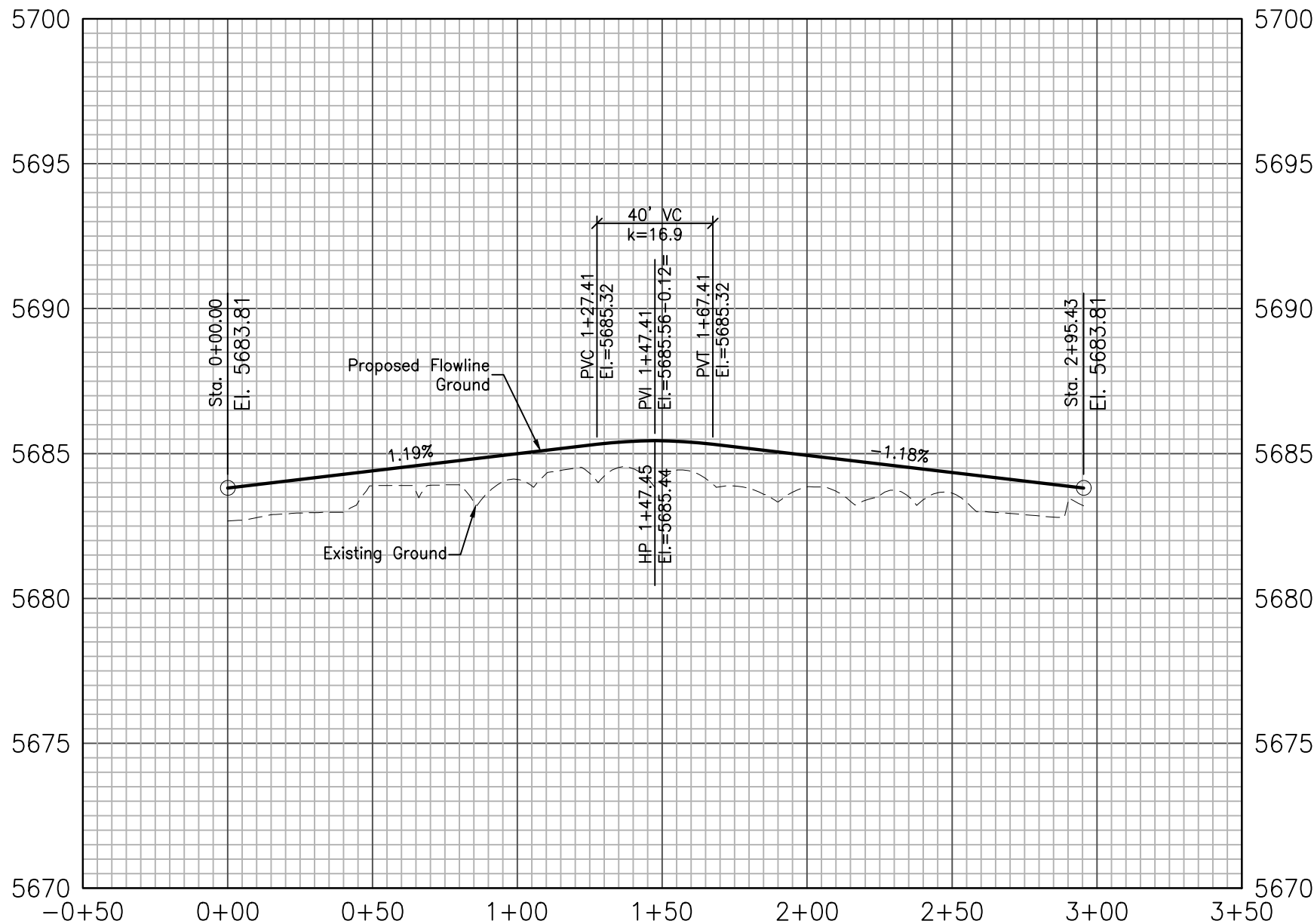
SHEET

5

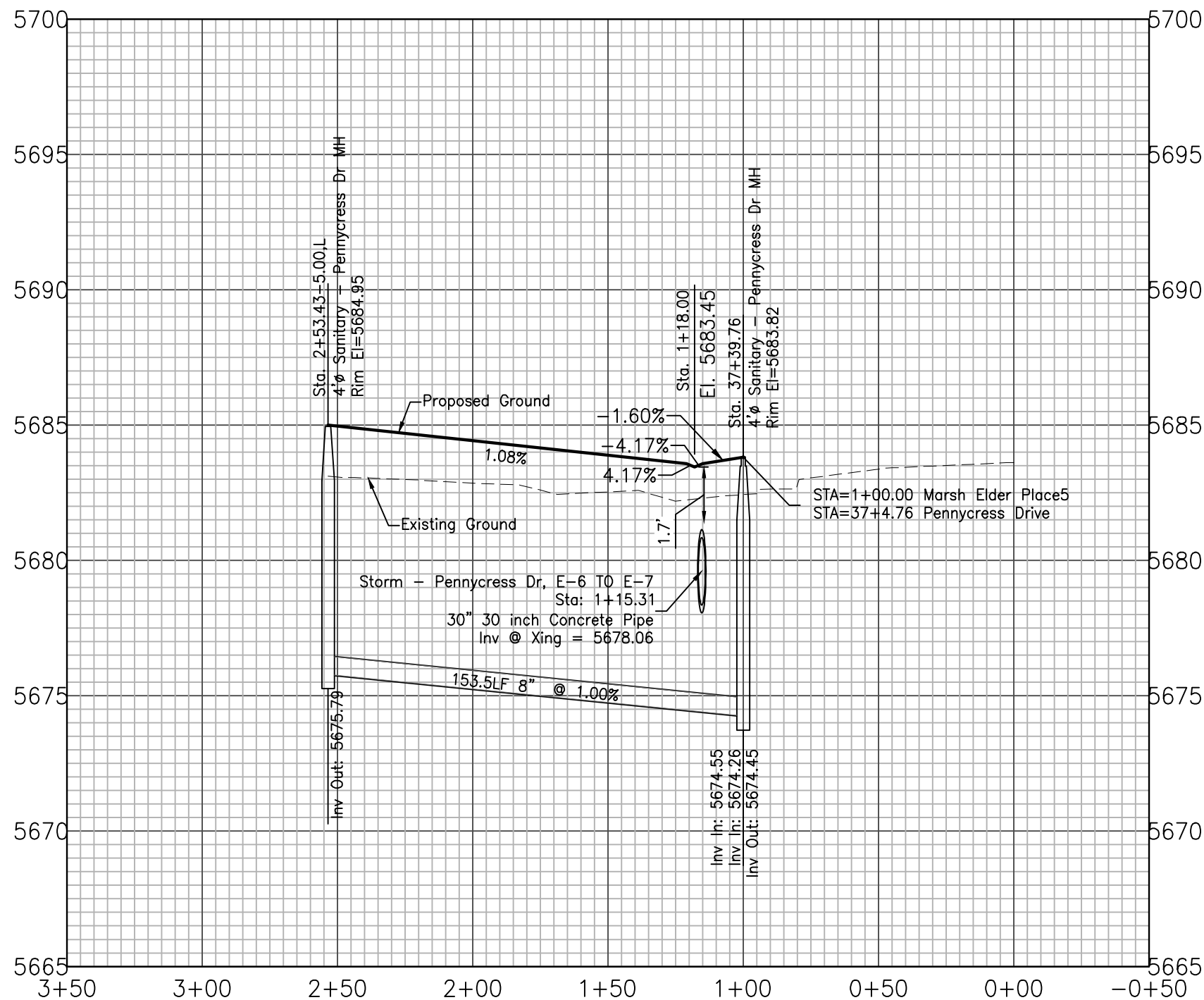
5 of 30 Sheets

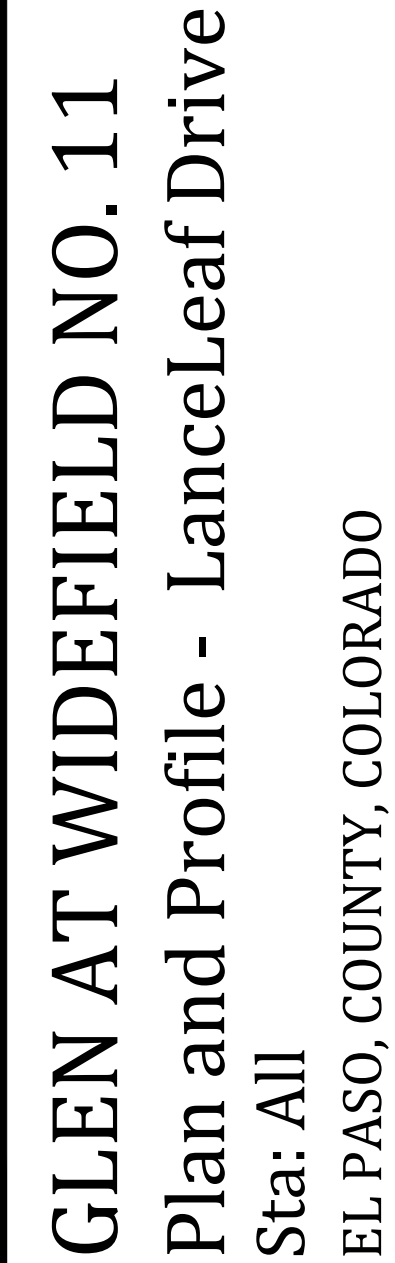
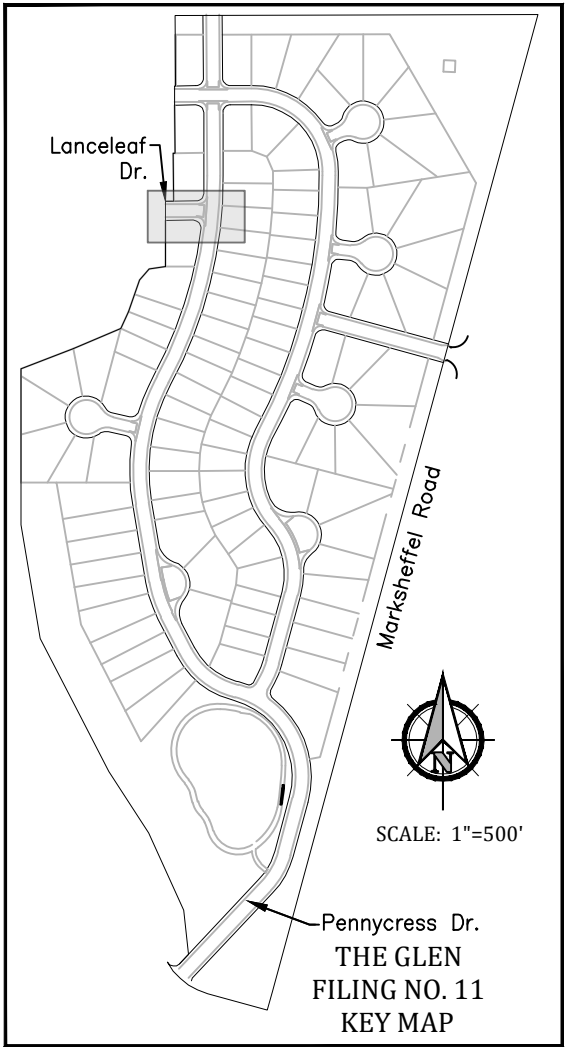
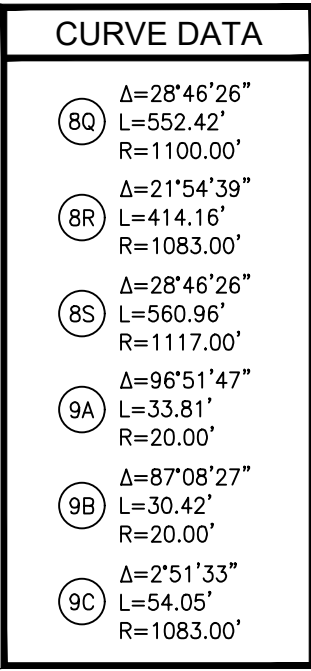
19016-GW11-05-PP.dwg/Apr 28, 2021

Marsh Elder CDS



Marsh Elder Place



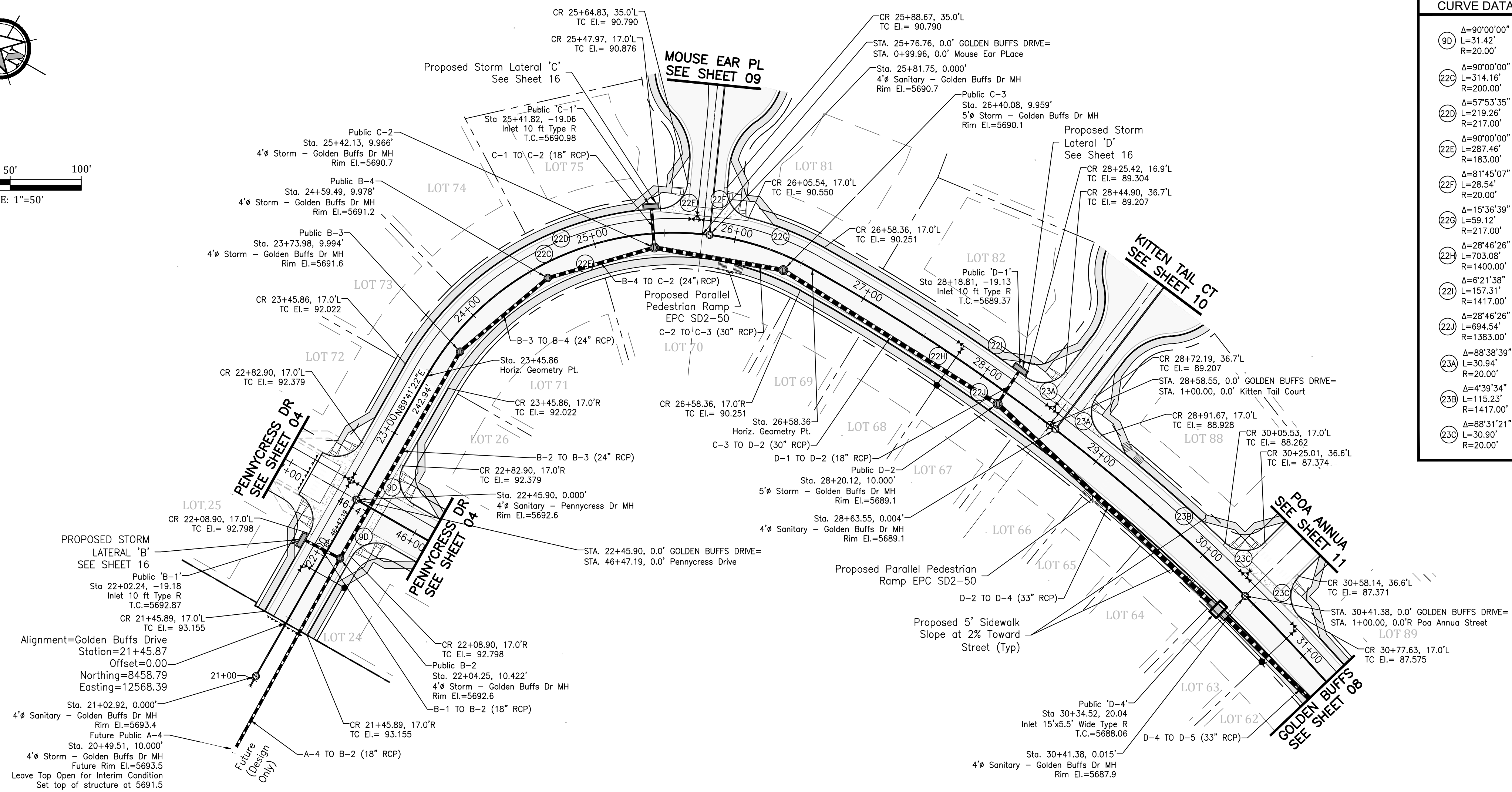
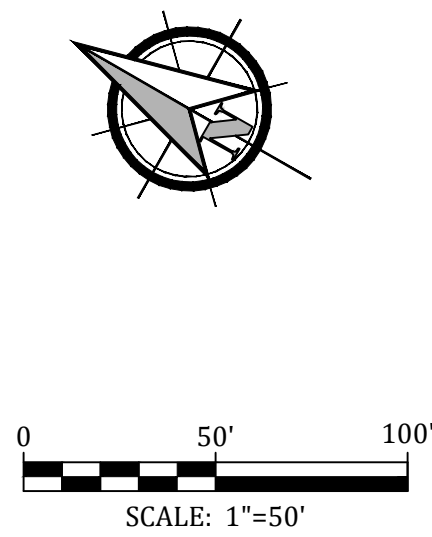


Project No.:	19016
Date:	April 30, 2021
Design:	MJK
Drawn:	MJK
Check:	AWMc
Revisions:	

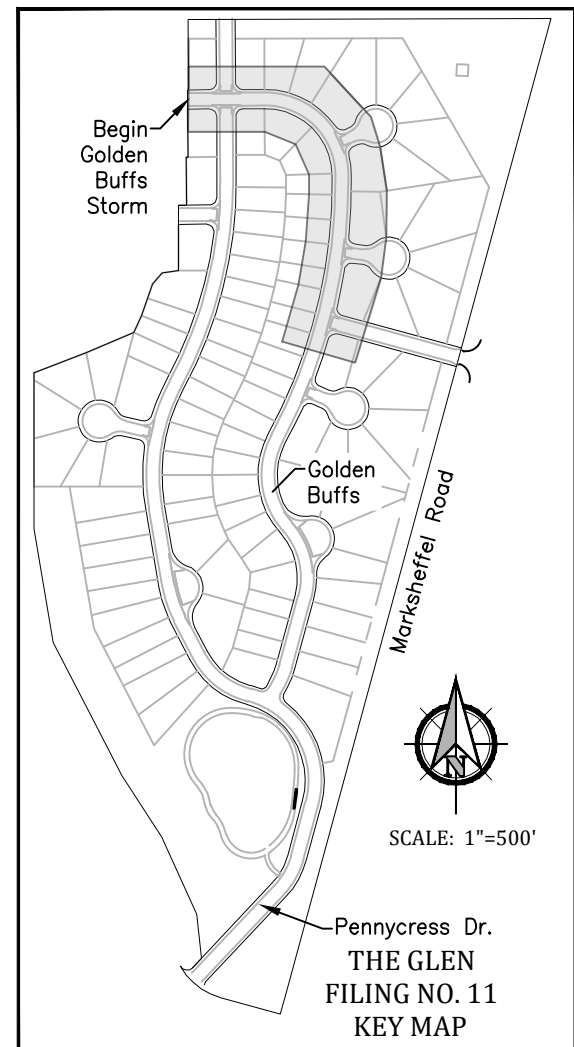
SHEET

6

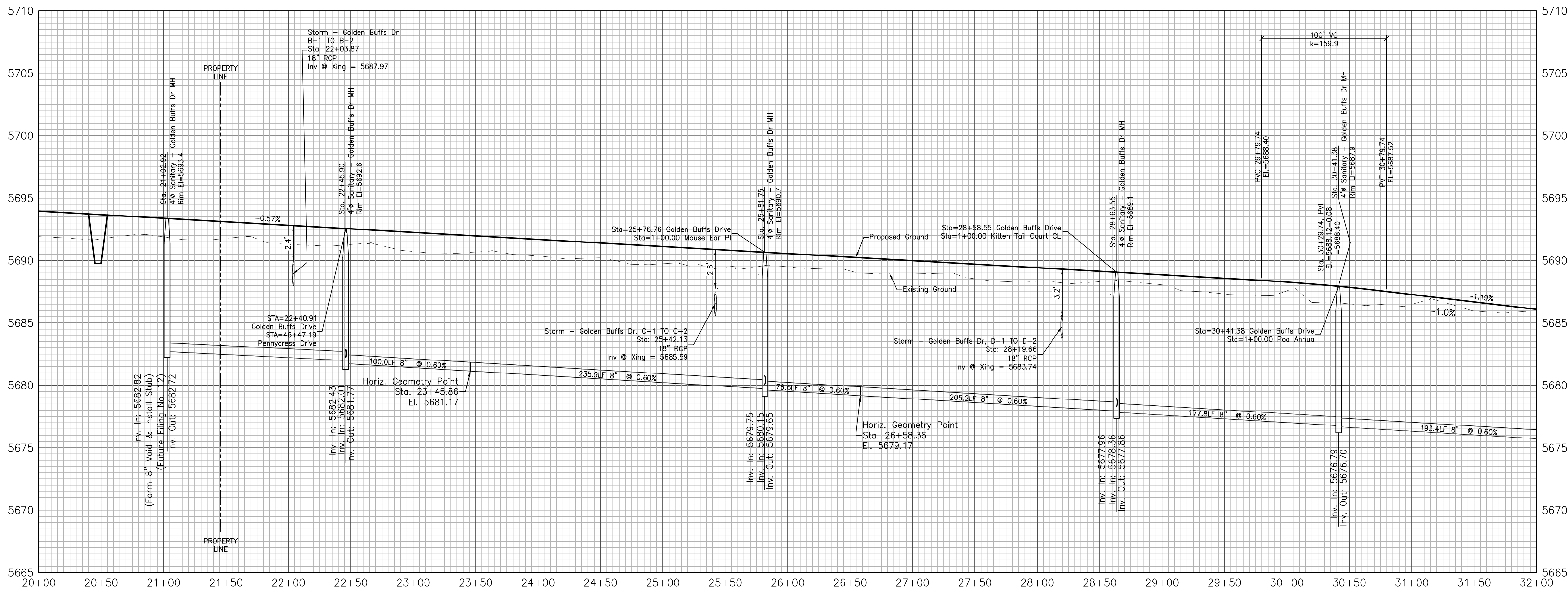
6 of 30 Sheets



CURVE DATA	
90	Δ=90°00'00" L=31.42' R=20.00'
220	Δ=90°00'00" L=314.16' R=200.00'
220	Δ=57°53'35" 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'
22H	Δ=28°46'26" L=703.08' R=1400.00'
22I	Δ=62°1'38" L=157.31' R=1417.00'
22J	Δ=28°46'26" L=694.54' R=1383.00'
23A	Δ=88°38'39" L=30.94' R=20.00'
23B	Δ=4°39'34" L=115.23' R=1417.00'
23C	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

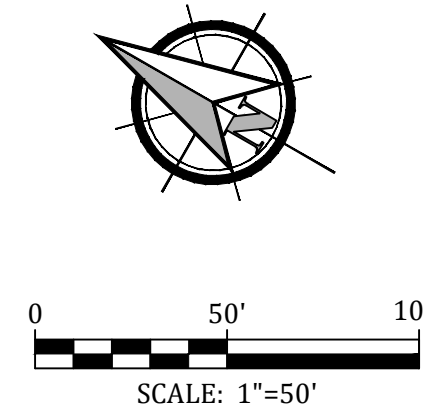
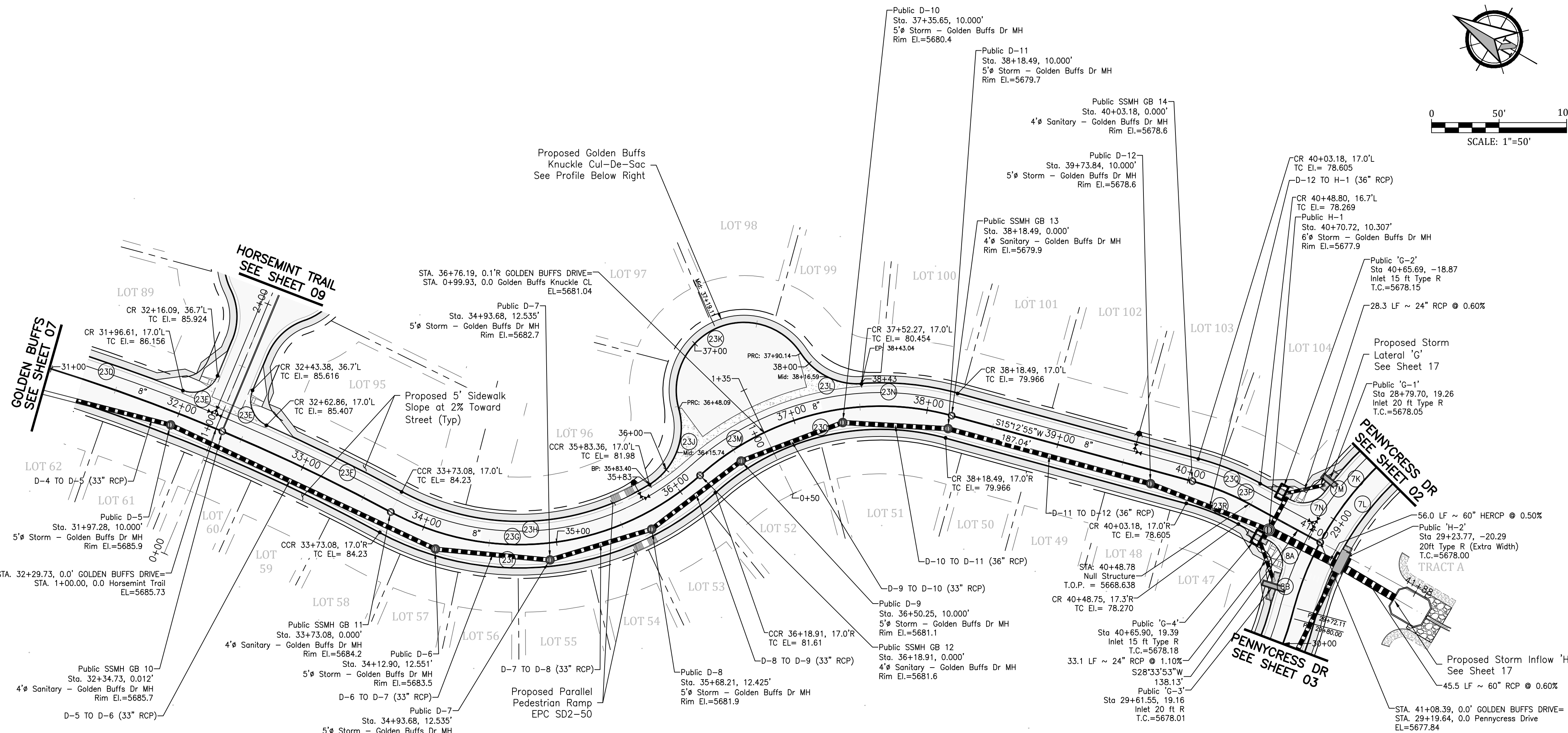
Project No.:	19016
Date:	April 30, 2021
Design:	MK
Drawn:	MJK
Check:	AWMc
Revisions:	

SHEET

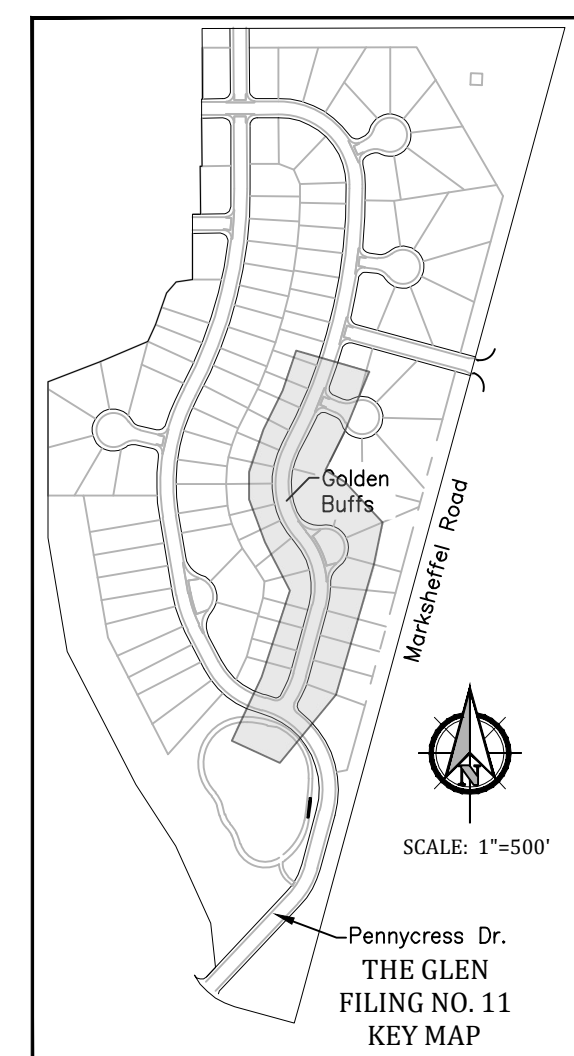
7

7 of 30 Sheets

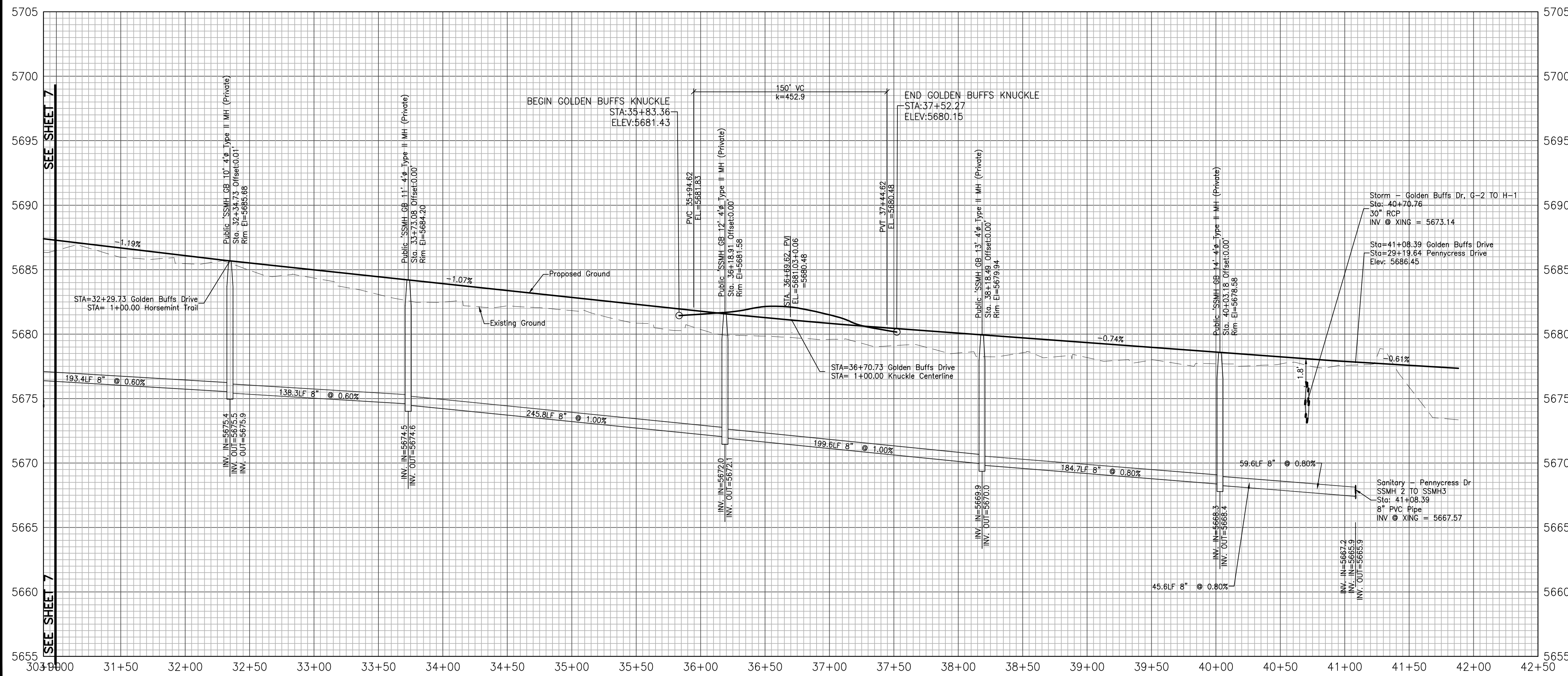
19016-GW11--07--PP.dwg/Apr 28, 2021



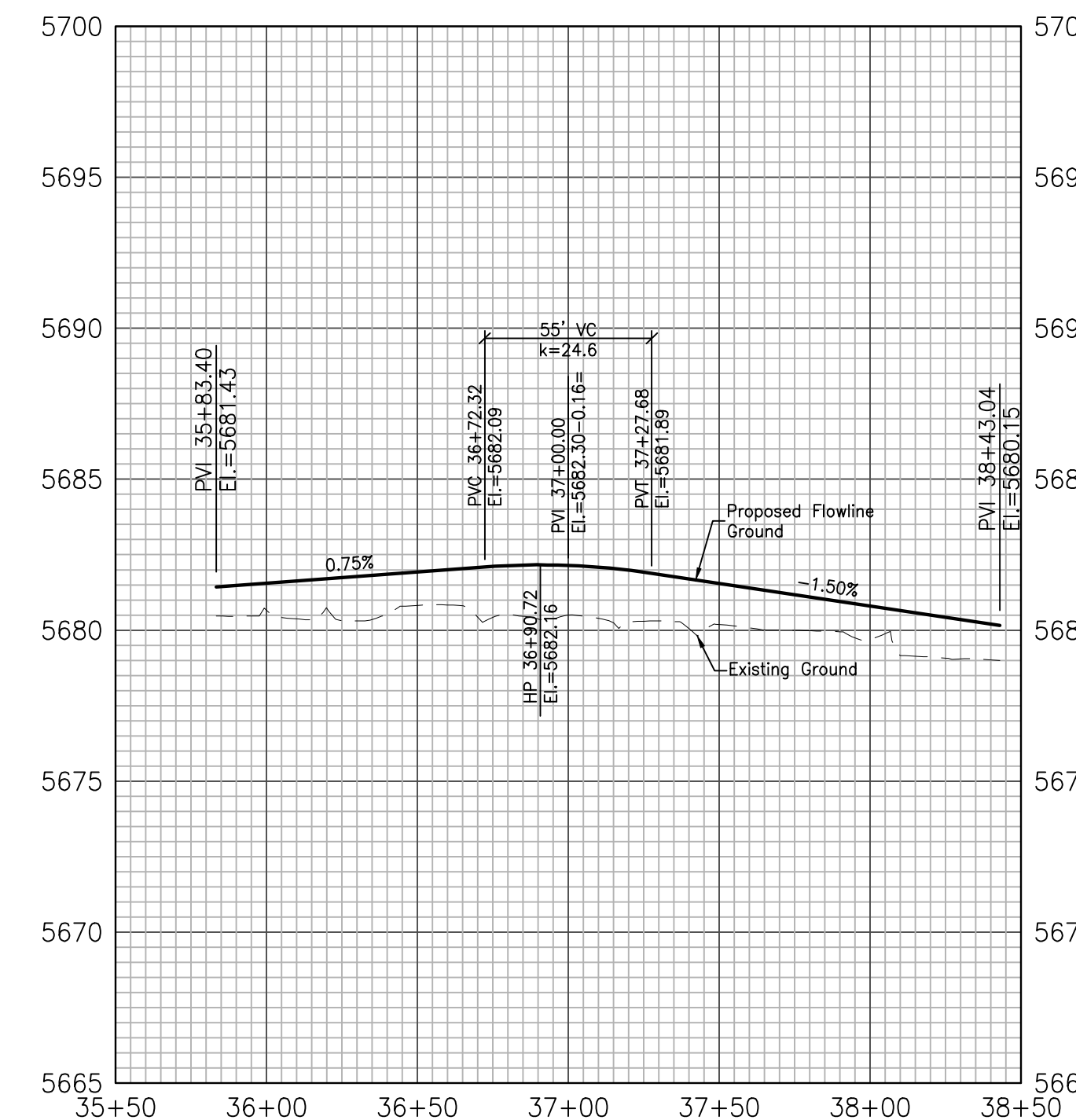
CURVE DATA	
(23A)	Δ=88°38'39" L=30.94' R=20.00'
(23B)	Δ=4°39'34" L=115.23' R=1417.00'
(23C)	Δ=88°31'21" L=30.90' R=20.00'
(23D)	Δ=4°52'09" L=120.42' R=1417.00'
(23E)	Δ=88°38'39" L=30.94' R=20.00'
(23F)	Δ=4°30'38" L=111.55' R=1417.00'
(23G)	Δ=70°25'30" L=245.83' R=200.00'
(23H)	Δ=60°14'28" L=192.41' R=183.00'
(23I)	Δ=70°25'30" L=245.83' R=200.00'
(23J)	Δ=60°14'28" L=192.41' R=183.00'
(23K)	Δ=74°07'33" L=64.69' R=50.00'
(23L)	Δ=162°46'33" L=142.05' R=50.00'
(23M)	Δ=60°37'45" L=52.91' R=50.00'
(23N)	Δ=57°10'37" L=199.59' R=200.00'
(23O)	Δ=18°58'19" L=71.85' R=217.00'
(23P)	Δ=57°10'37" L=199.59' R=200.00'
(23Q)	Δ=18°58'19" L=71.85' R=217.00'
(23R)	Δ=162°46'33" L=142.05' R=50.00'
(23S)	Δ=74°07'33" L=64.69' R=50.00'
(23T)	Δ=60°37'45" L=52.91' R=50.00'
(23U)	Δ=60°14'28" L=192.41' R=183.00'
(23V)	Δ=70°25'30" L=245.83' R=200.00'
(23W)	Δ=60°14'28" L=192.41' R=183.00'
(23X)	Δ=70°25'30" L=245.83' R=200.00'
(23Y)	Δ=60°14'28" L=192.41' R=183.00'
(23Z)	Δ=70°25'30" L=245.83' R=200.00'
(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: April 30, 2021
Design: MJK
Drawn: MJK
Check: AWMc
Revisions:

SHEET

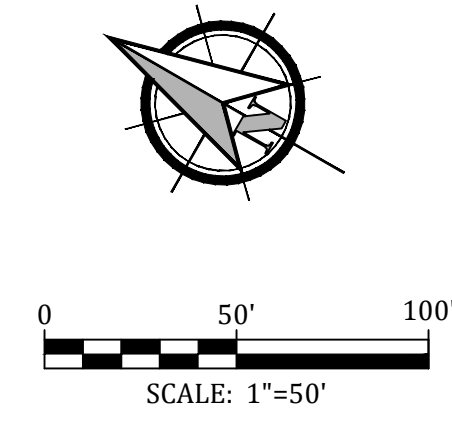
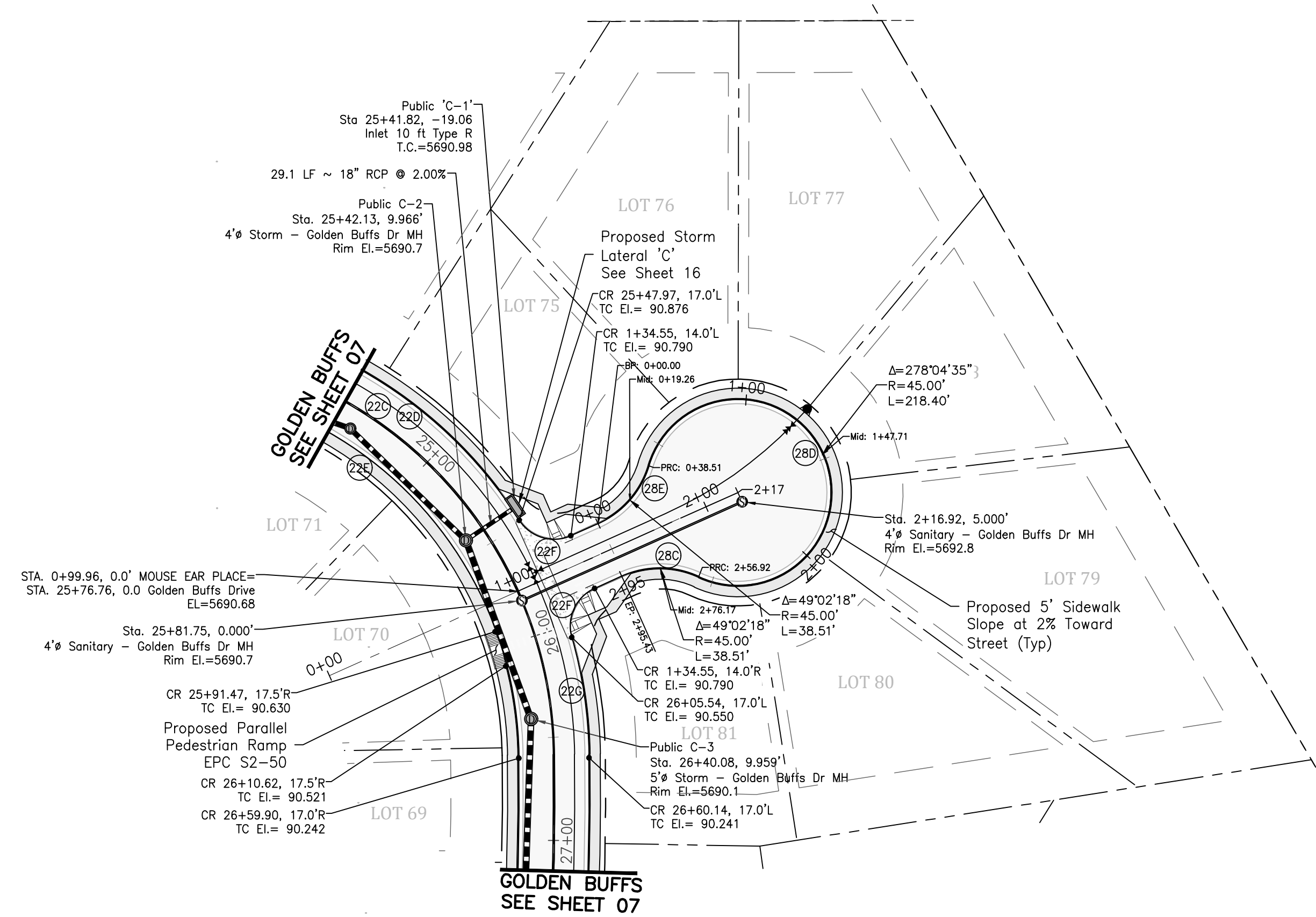
8

8 of 30 Sheets

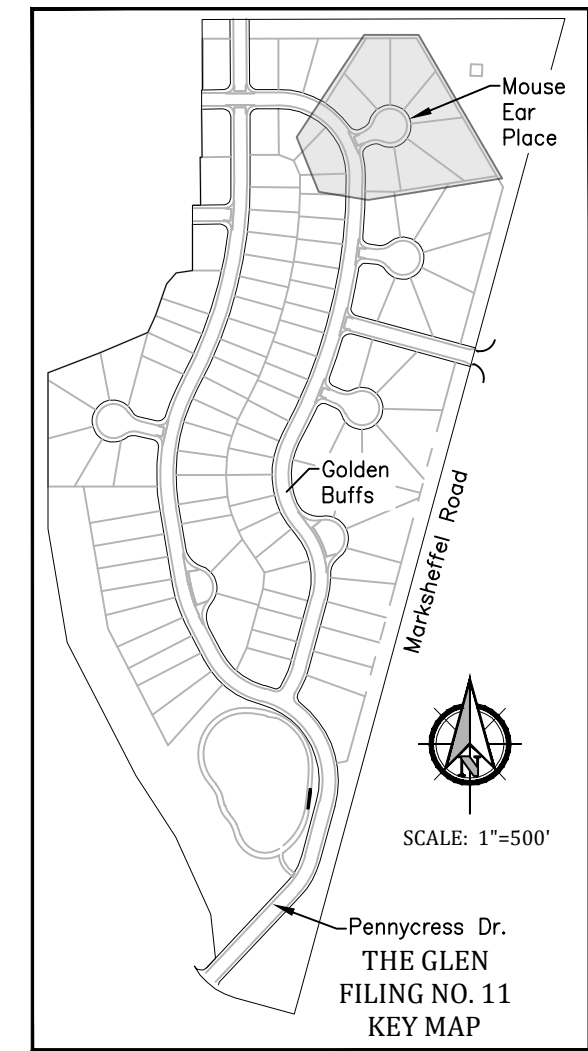
19016-GW11-08-PP.dwg/Apr 28, 2021

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

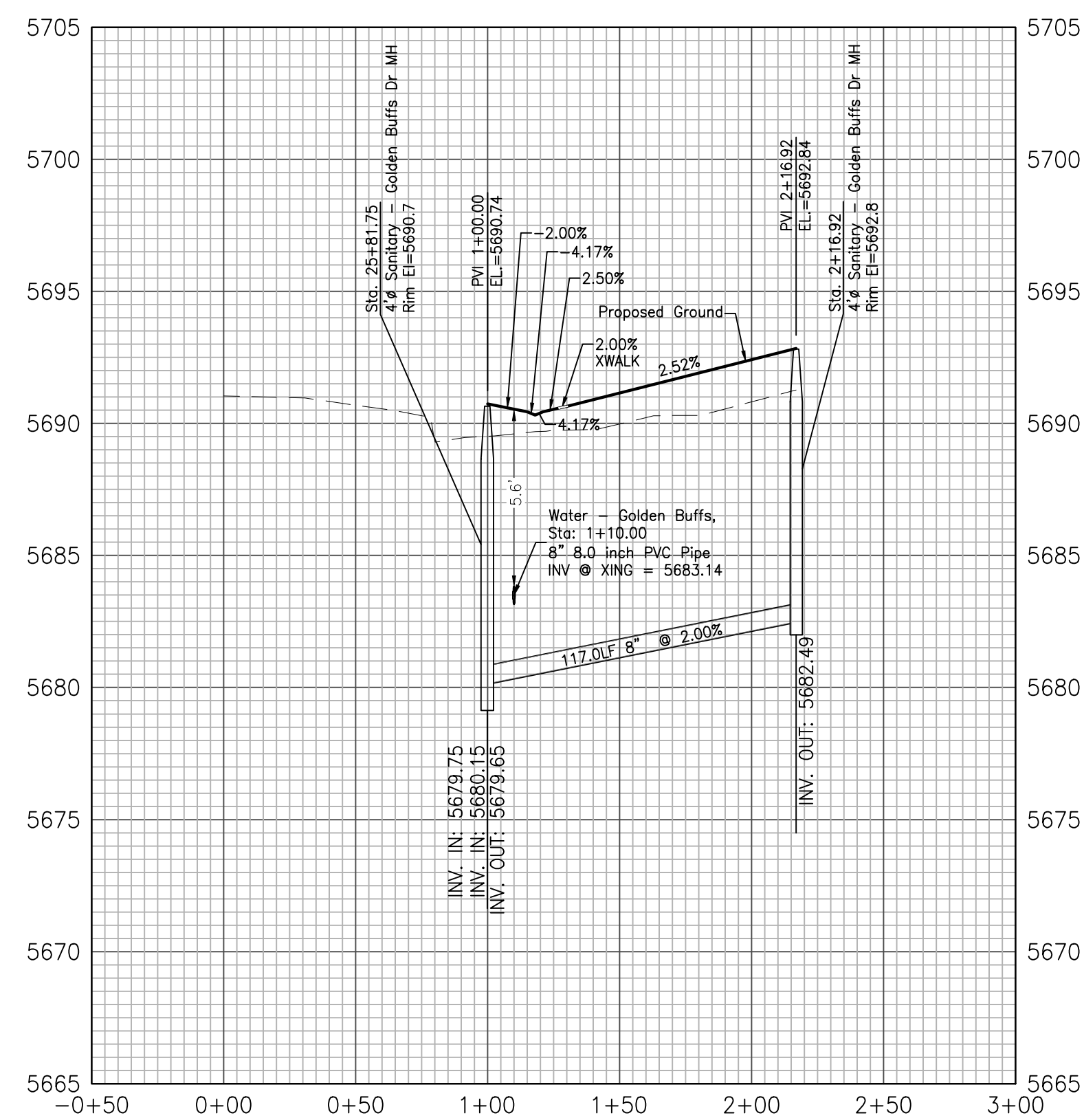
W
WIDEFIELD
Investment Group



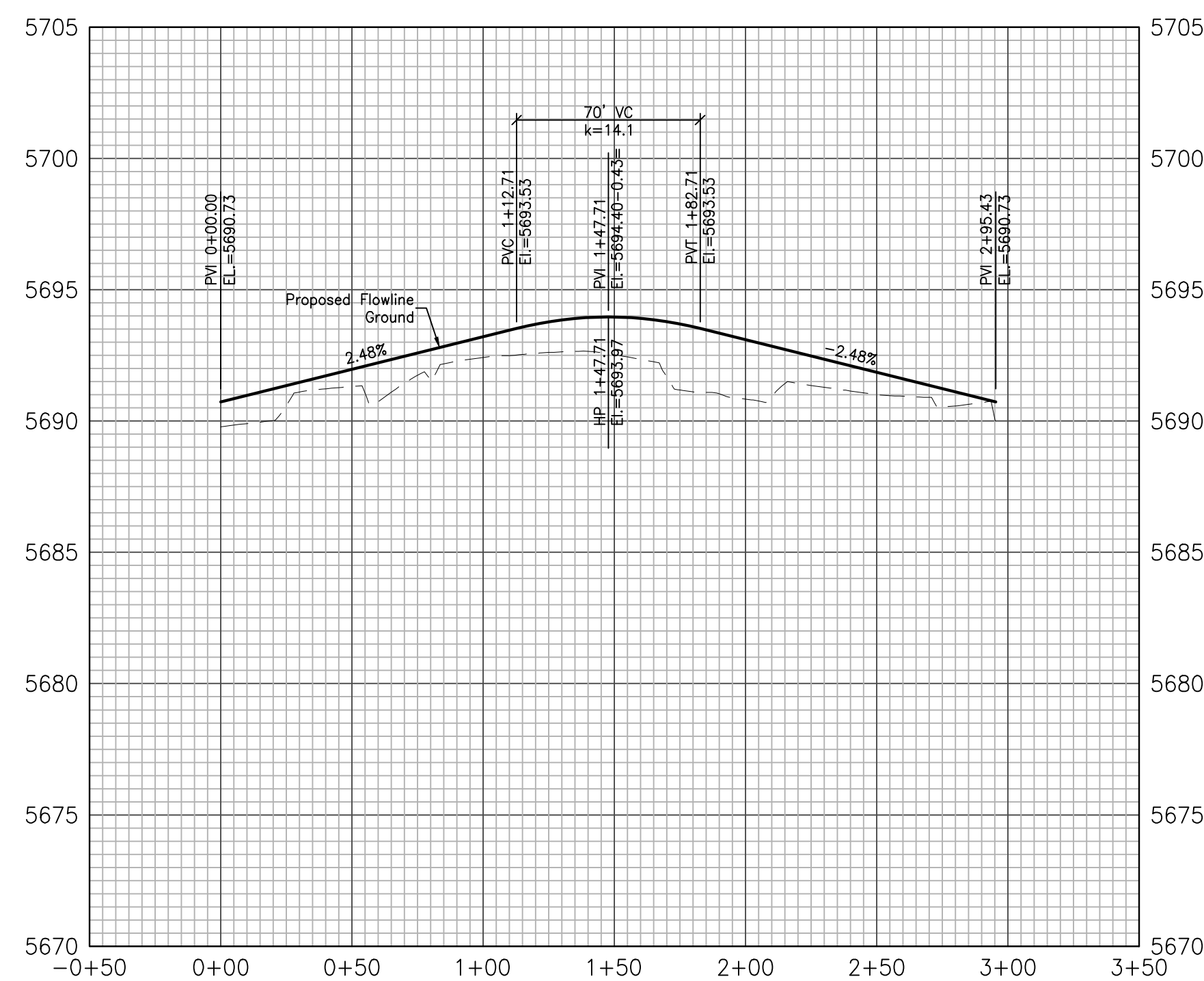
CURVE DATA	
(22C)	$\Delta=90^{\circ}00'00''$ $L=314.16'$ $R=200.00'$
(22D)	$\Delta=57^{\circ}33'35''$ $L=219.26'$ $R=217.00'$
(22E)	$\Delta=90^{\circ}00'00''$ $L=287.46'$ $R=183.00'$
(22F)	$\Delta=81^{\circ}45'07''$ $L=28.54'$ $R=20.00'$
(22G)	$\Delta=15^{\circ}36'39''$ $L=59.12'$ $R=217.00'$
(28E)	$\Delta=49^{\circ}02'18''$ $L=38.51'$ $R=45.00'$
(28F)	$\Delta=27^{\circ}04'35''$ $L=218.40'$ $R=45.00'$
(28C)	$\Delta=49^{\circ}02'18''$ $L=38.51'$ $R=45.00'$
(28D)	$\Delta=27^{\circ}04'35''$ $L=218.40'$ $R=45.00'$

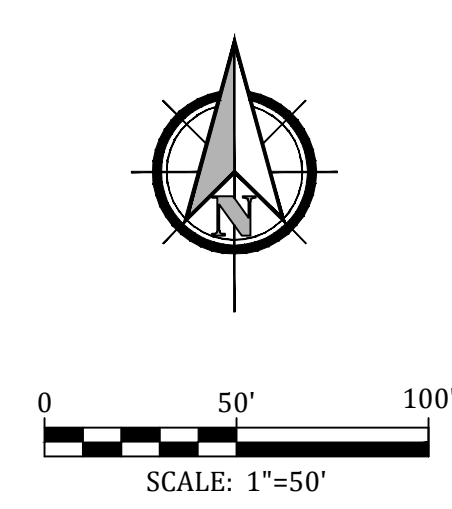
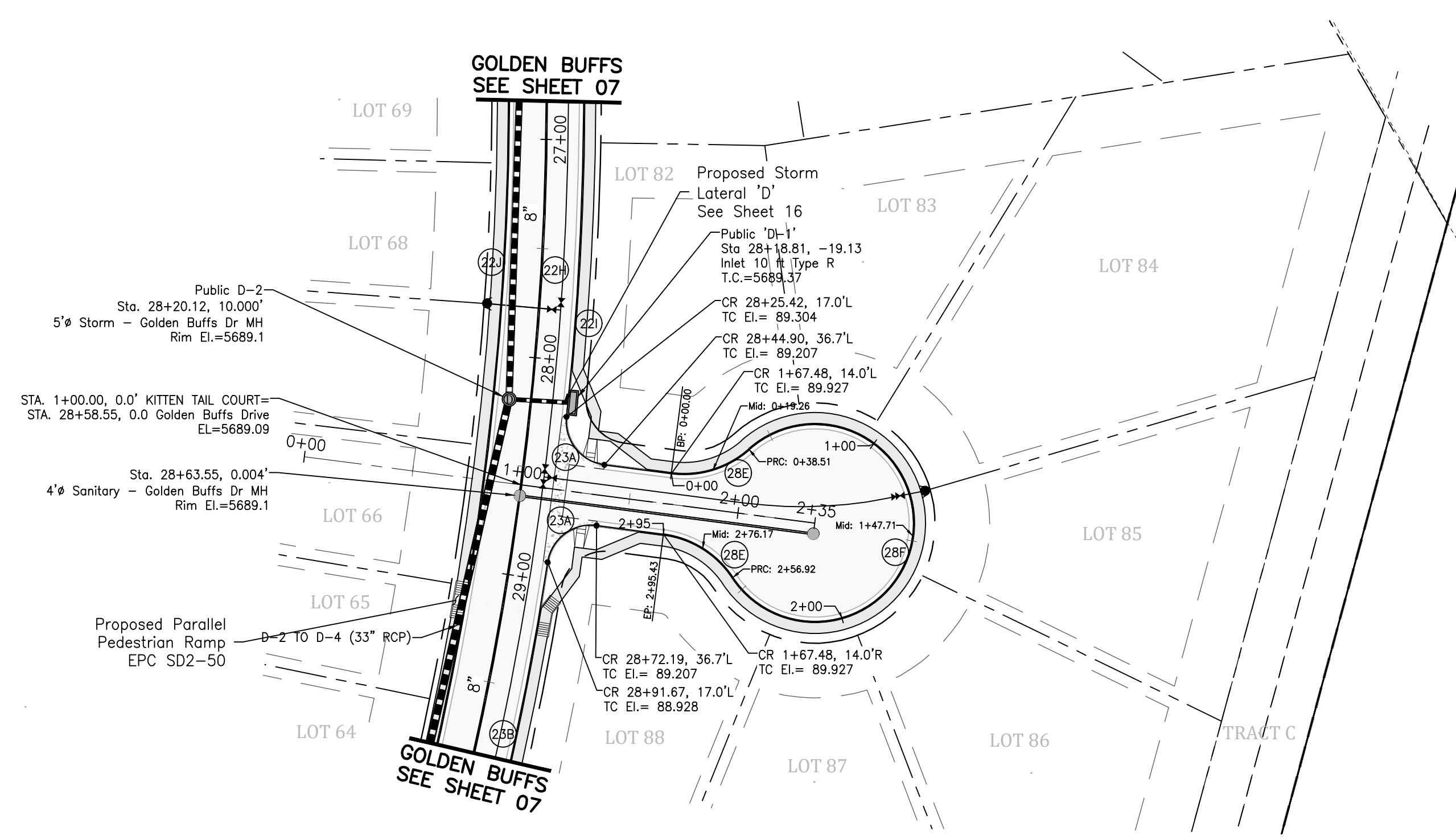


Profile View of Mouse Ear PLace

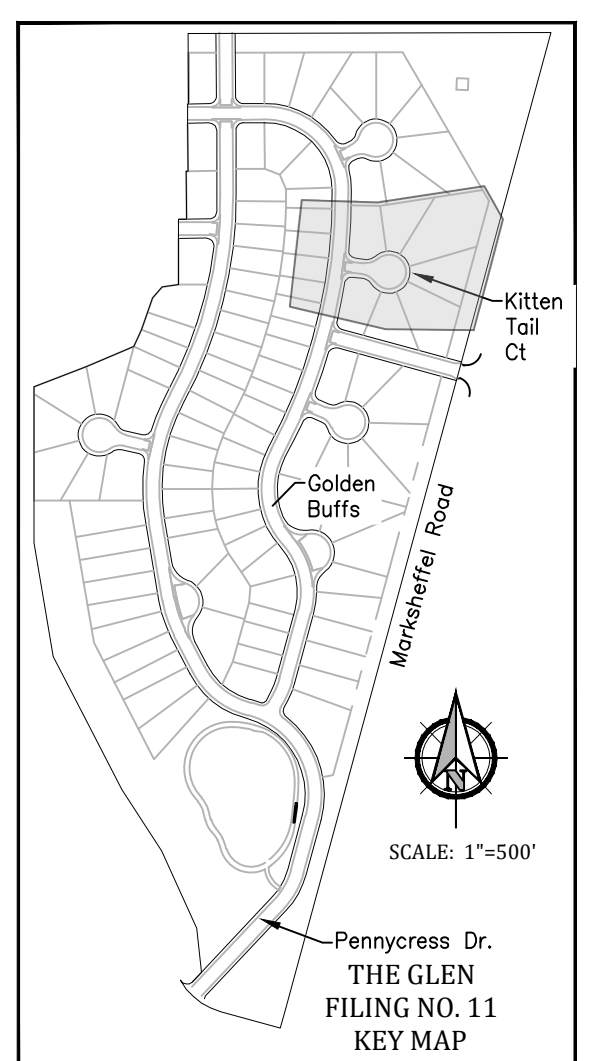


Profile View of Mouse Ear Place CDS

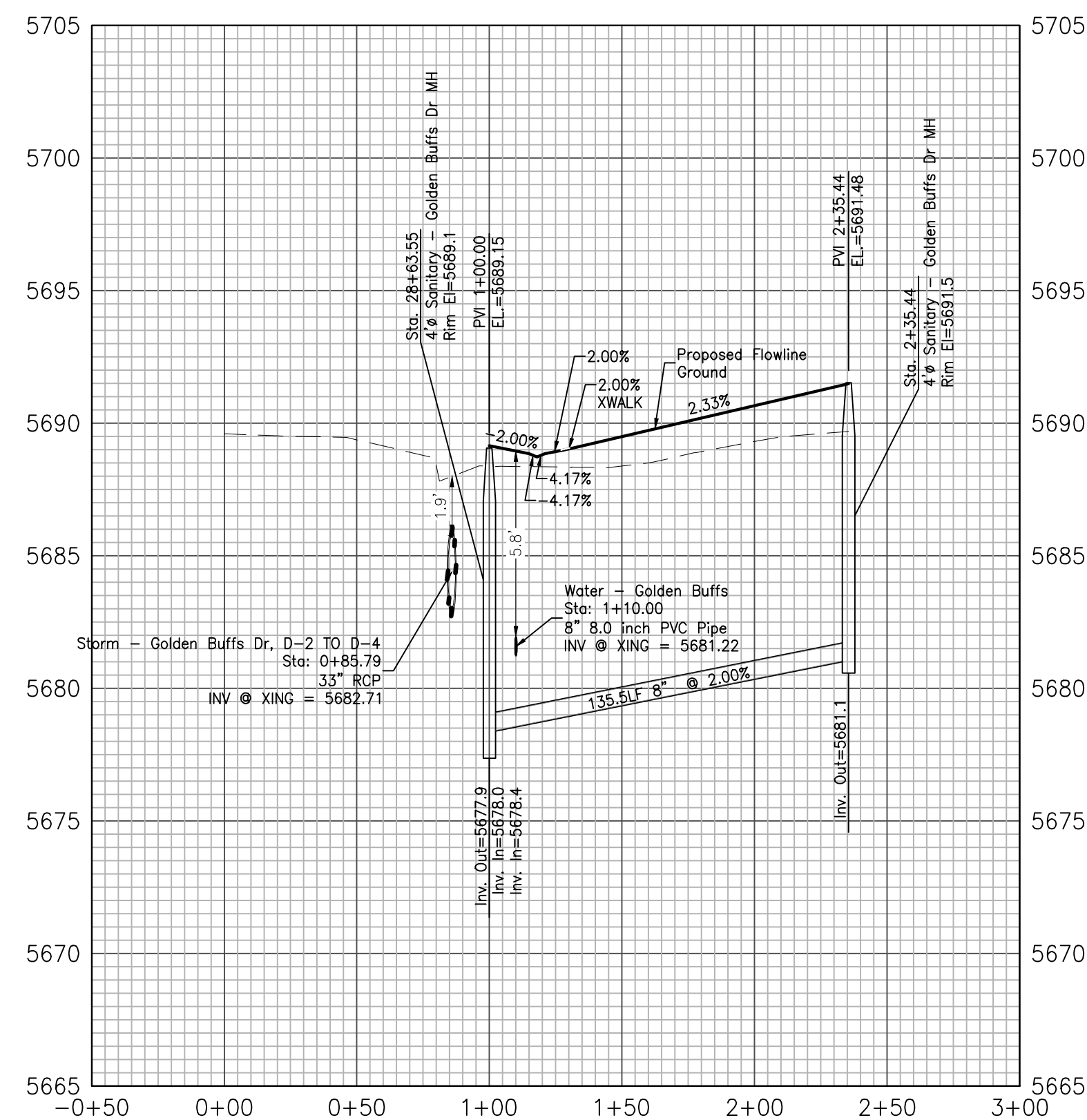




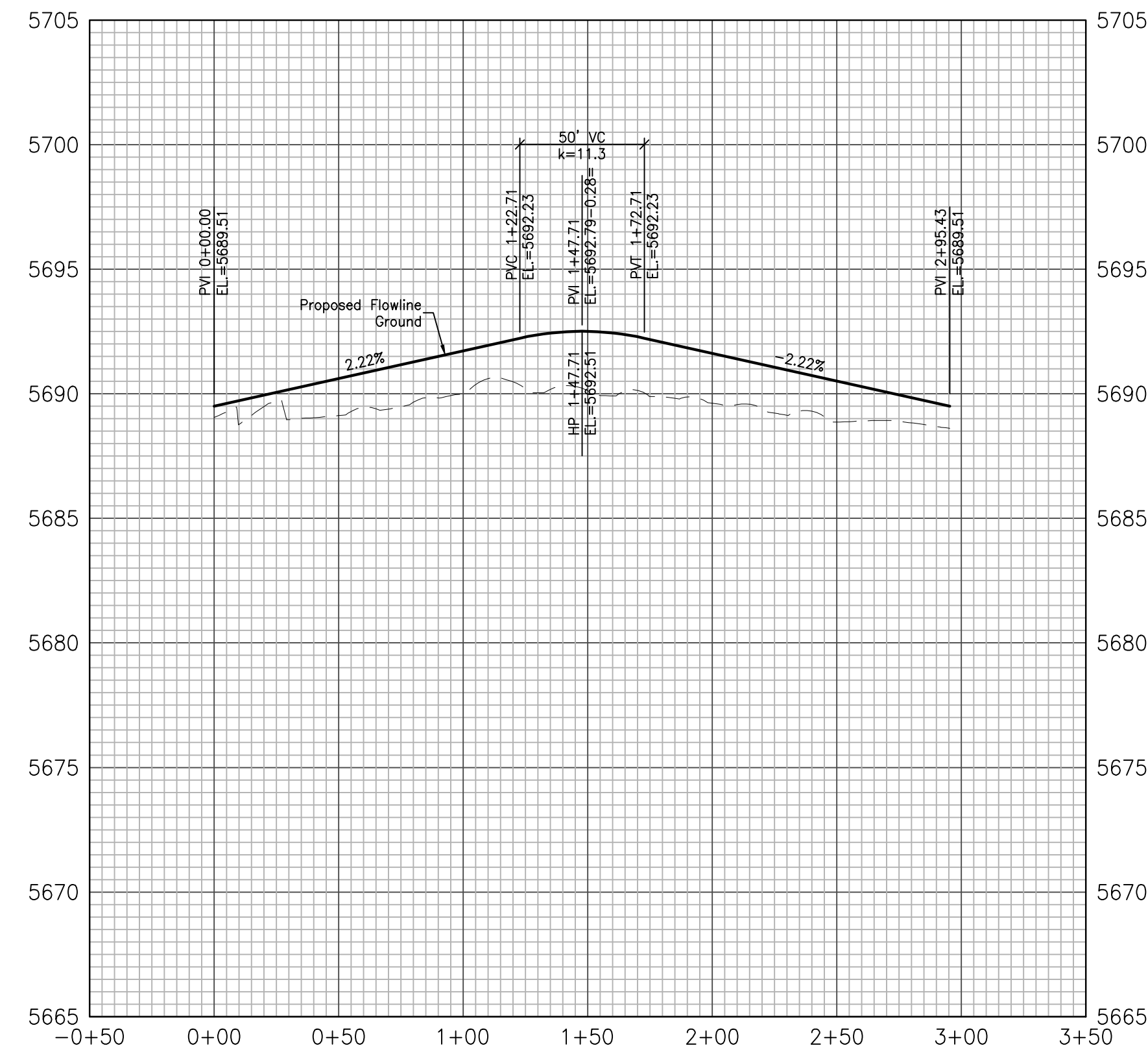
CURVE DATA	
(22A)	$\Delta=28^{\circ}46'26''$ $L=703.08'$ $R=1400.00'$
(22)	$\Delta=6^{\circ}21'38''$ $L=157.31'$ $R=1417.00'$
(22A)	$\Delta=28^{\circ}46'26''$ $L=694.54'$ $R=1363.00'$
(23A)	$\Delta=88^{\circ}38'39''$ $L=30.94'$ $R=20.00'$
(23B)	$\Delta=4^{\circ}39'34''$ $L=115.23'$ $R=1417.00'$
(28E)	$\Delta=49^{\circ}02'18''$ $L=38.51'$ $R=45.00'$
(28F)	$\Delta=278^{\circ}04'35''$ $L=218.40'$ $R=45.00'$



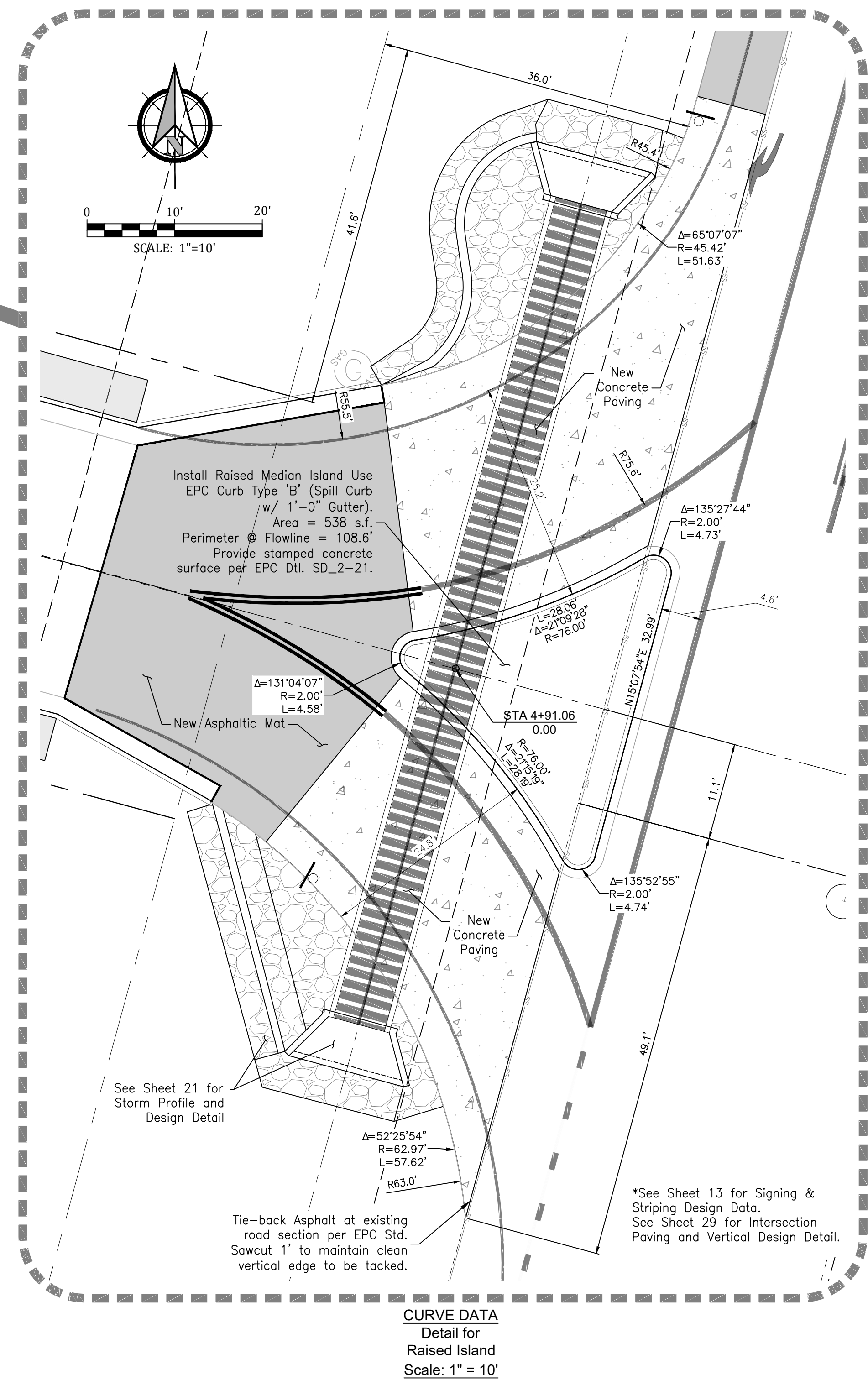
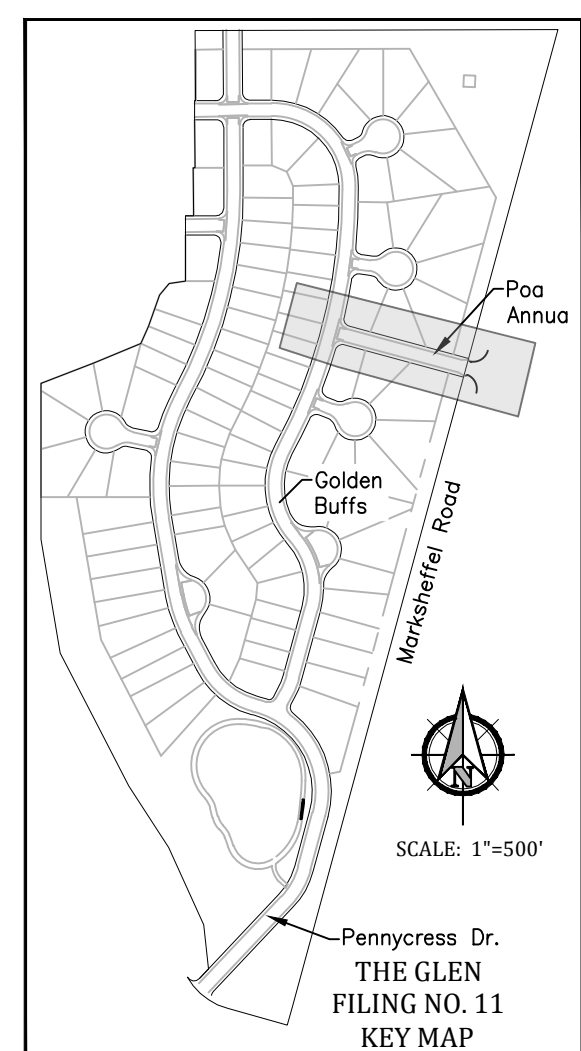
Profile View of Kitten Tail Court

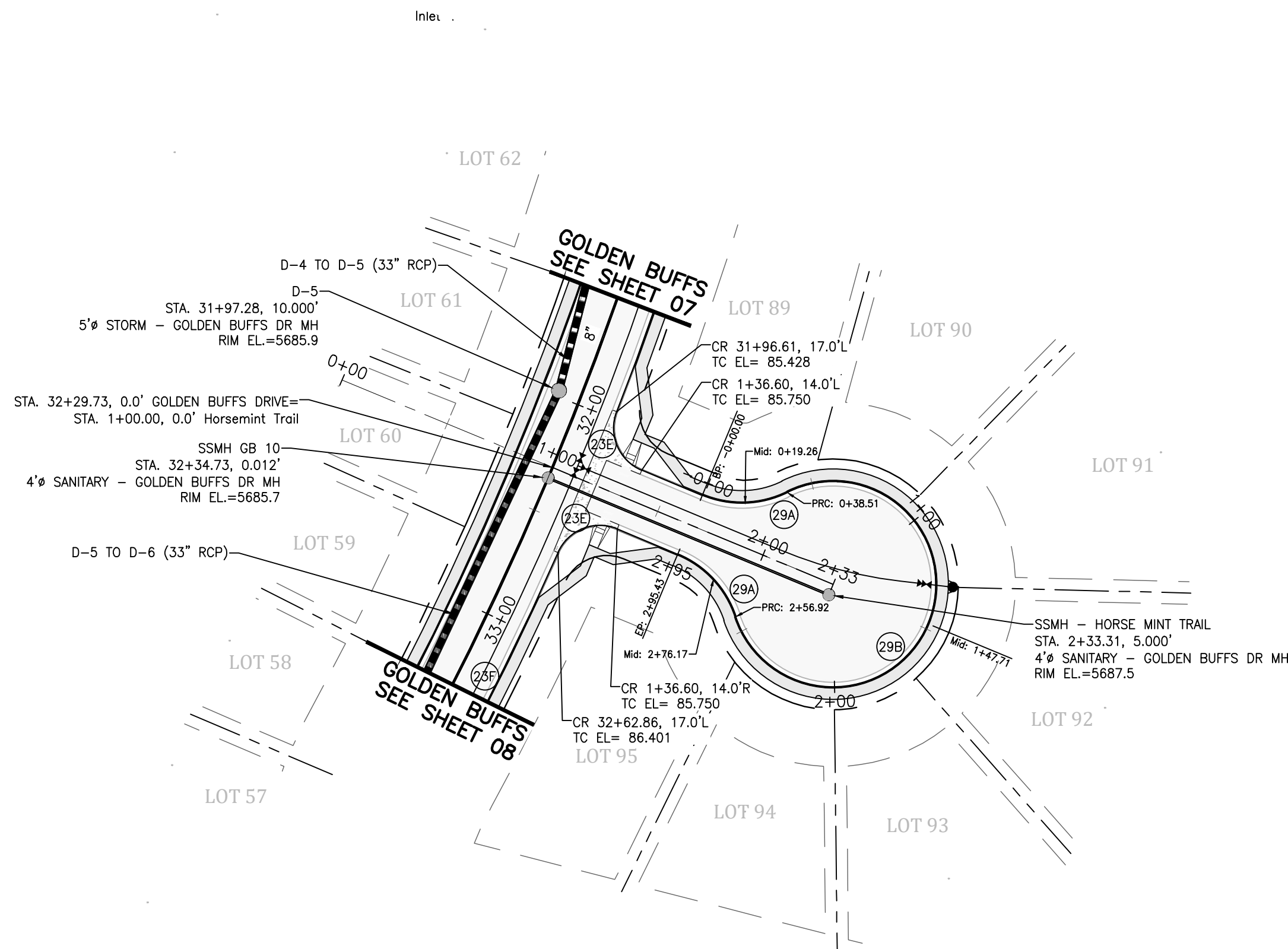


Profile View of Kitten Tail Court CDS

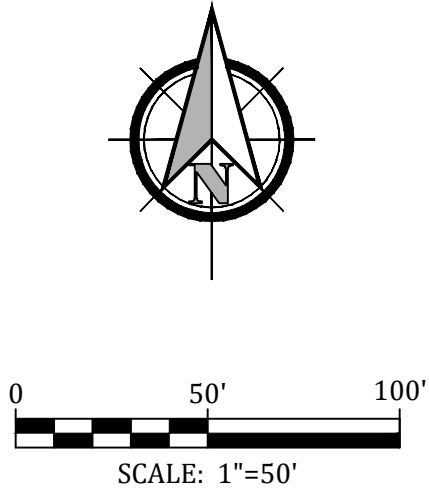
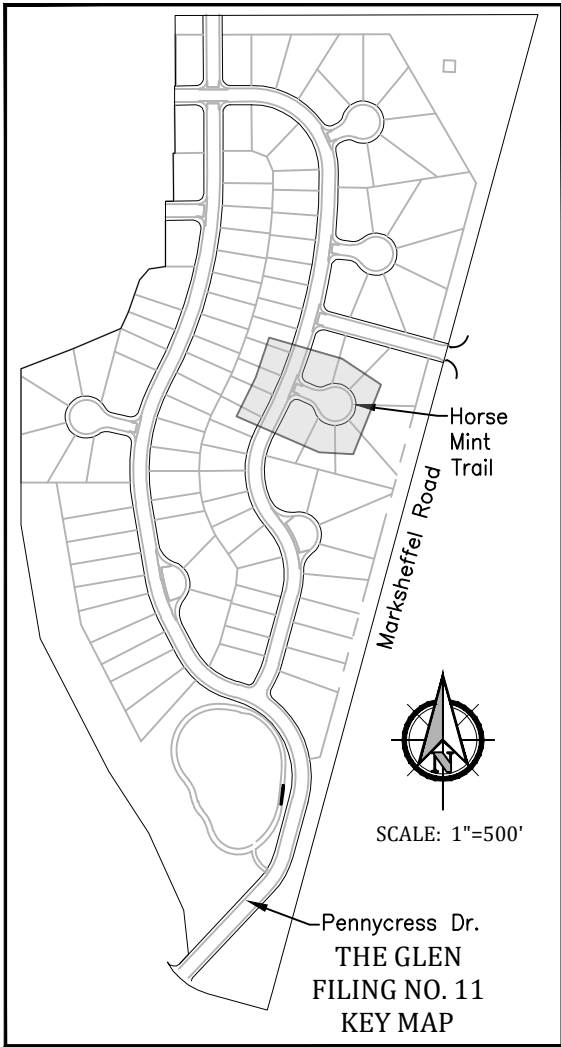


Project No.:	19016
Date:	April 30, 2021
Design:	MJK
Drawn:	MJK
Check:	AWMc
Revisions:	

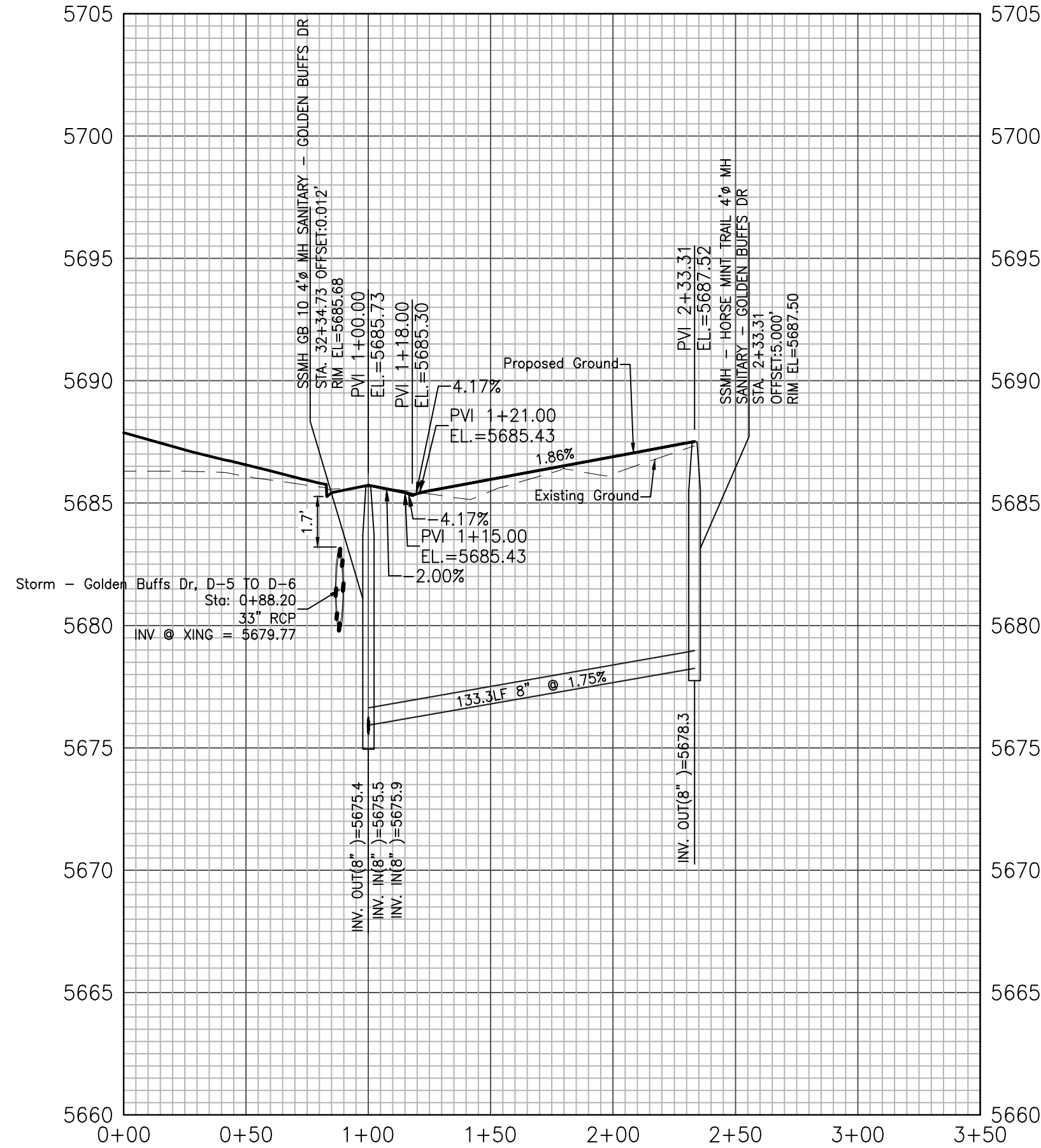




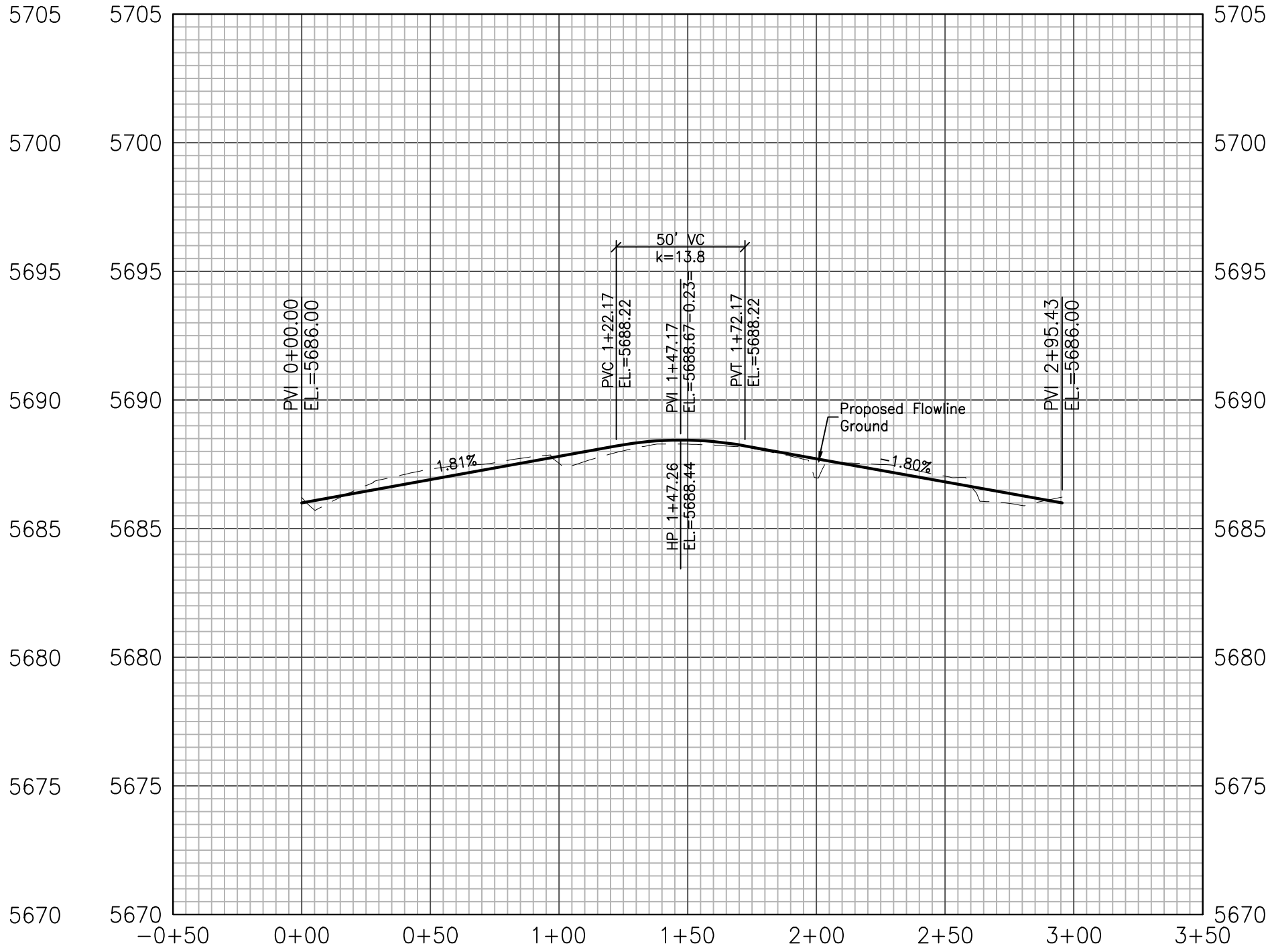
CURVE DATA	
(28A)	$\Delta=49^{\circ}02'18''$ $L=38.51'$ $R=45.00'$
(28B)	$\Delta=278^{\circ}04'35''$ $L=218.40'$ $R=45.00'$
(23)	$\Delta=88^{\circ}31'21''$ $L=30.90'$ $R=20.00'$
(230)	$\Delta=4^{\circ}52'09''$ $L=120.42'$ $R=1417.00'$
(23E)	$\Delta=88^{\circ}38'39''$ $L=30.94'$ $R=20.00'$
(23F)	$\Delta=4^{\circ}30'38''$ $L=111.55'$ $R=1417.00'$



HORSEMINT TRAIL



HORSEMINT TRAIL CDS

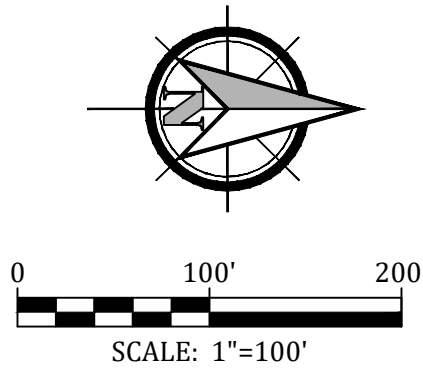


Signing and Striping Notes:

1. All signs and pavement markings shall be in compliance with the current Manual on Uniform Traffic Control Devices (MUTCD).
2. 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.
3. Any deviation from the striping and signing plan shall be approved by El Paso County Planning and Community Development Review Services.
4. 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.
5. Street name and regulatory stop signs shall be on the same post at intersections.
6. All removed signs shall be disposed of in a proper manner by the contractor.
7. All street name signs shall have "D" series letters, with local roadway signs being 4" upper-lower case lettering on 8" blank and non-local roadway signs being 6" lettering, upper-lower case on 12" blank, with a white border that is not recessed. Multi-lane roadways with speed limits of 40 mph or higher shall have 8" upper-lower case lettering on 18" blank with a white border that is not recessed. The width of the non-recessed white borders shall match page 255 of the 2012 MUTCD "Standard Highway Signs".
8. All traffic signs shall have a minimum High Intensity Prismatic grade sheeting.
9. 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.
10. All signs shall be single sheet aluminum with 0.100" minimum thickness.
11. All limit lines/stop lines, crosswalk lines, pavement legends, and arrows shall be a minimum 125 mil thickness preformed thermoplastic pavement markings with tapered leading edges per CDOT Standard S-627-1. Word and symbol markings shall be the narrow type. Stop bars shall be 24" in width. Crosswalks lines shall be 12" wide and 8' long per CDOT S-627-1.
12. 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.
13. 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.
14. 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.

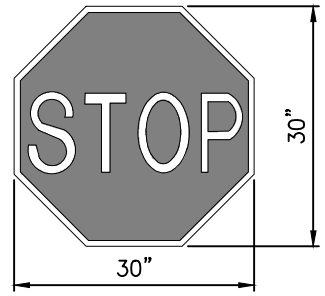
General Notes:

1. Before excavating, contractor shall verify location of underground utilities.
2. 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.
3. Approval of these plans by the County does not authorize any work to be performed until a permit has been issued.
4. The approval of these plans or issuance of a permit by El Paso County does not authorize the contractor, subdivider, or owner to violate any Federal, State, or City laws, ordinances, regulations, or policies.
5. 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.
6. All traffic signs, pavement, and traffic signals shall meet or exceed M.U.T.C.D. Standards.
7. 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.
8. The contractor shall prepare a detailed Traffic Control Plan, submit to El Paso County for approval, and obtain appropriate permits.
9. 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:

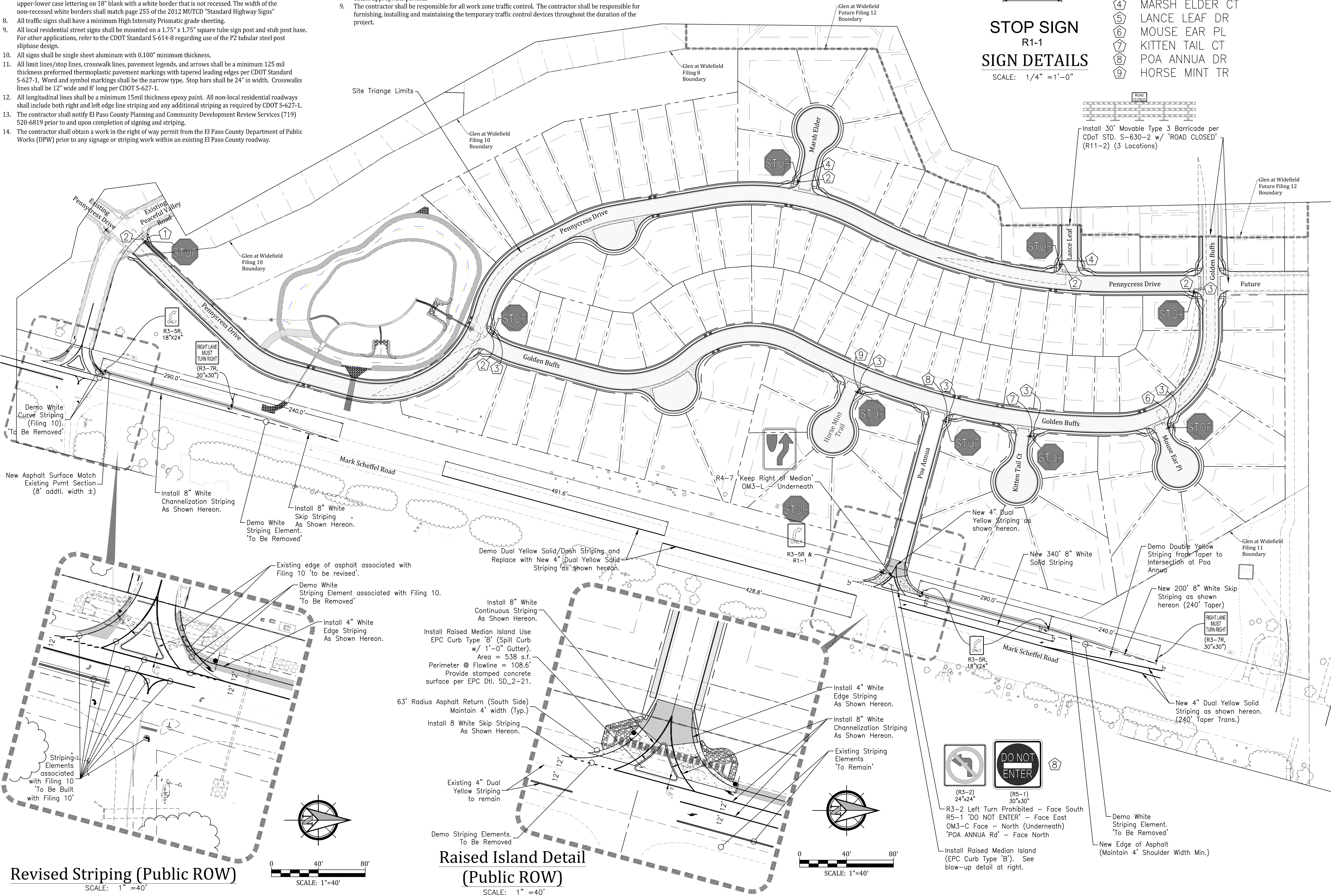
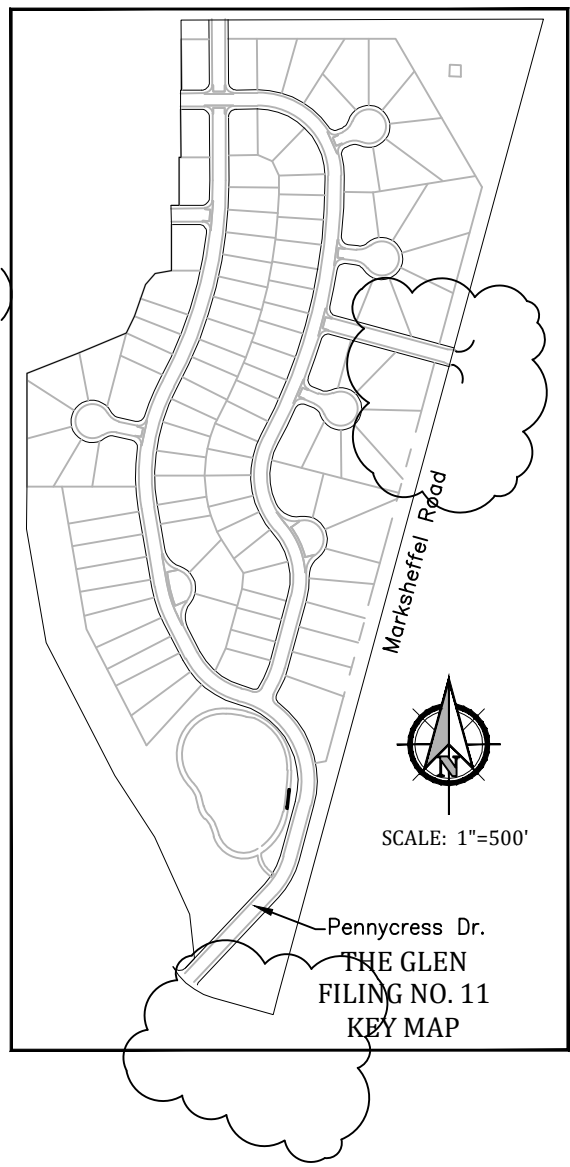
1. Stop Sign Placement Locations shall be per Section 2b-9 of the Manual on Uniform Traffic Control Devices, latest edition and CDOT S-614-1.
2. Street Signs Shall Be Mounted Perpendicular to their associated street as shown in the plan area. Install per EPC Stds.



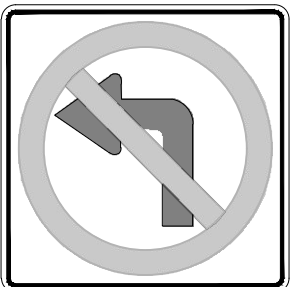
STOP SIGN
R1-1
SIGN DETAILS
SCALE: 1/4" = 1'-0"

INDEX OF STREET SIGNS (PER EPC STD.)
KEY DESCRIPTION

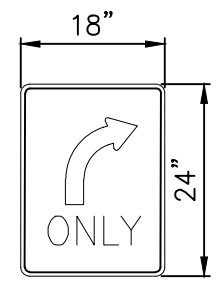
- | | |
|---|--------------------|
| 1 | PEACEFUL VALLEY DR |
| 2 | PENNYCRESS DR |
| 3 | GOLDEN BUFFS DR |
| 4 | MARSH ELDER CT |
| 5 | LANCE LEAF DR |
| 6 | MOUSE EAR PL |
| 7 | KITTEN TAIL CT |
| 8 | POA ANNUA DR |
| 9 | HORSE MINT TR |



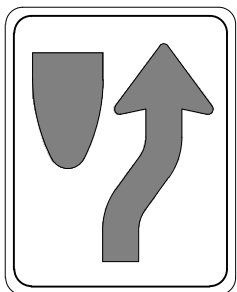
(R5-1)
30"x30"



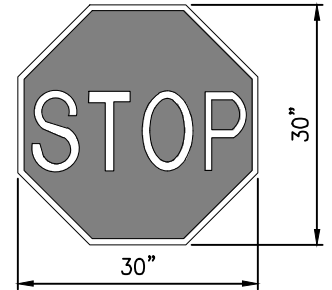
(R3-2)
24"x24"



R3-5R, 18"x24"



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



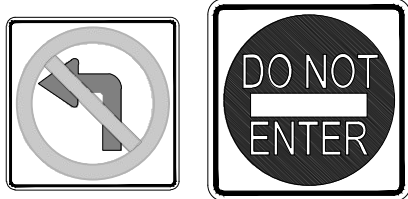
R1-1
STOP SIGN

Note:

1. 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"



R3-2 Left Turn Prohibited - Face South
R5-1 'DO NOT ENTER' - Face East
OM3-C Face - North (Underneath)
'POA ANNUA Rd' - Face North

Install Raised Median Island
(EPC Curb Type 'B'). See
blow-up detail at right.

Demo White
Striping Element.
'To Be Removed'
New Edge of Asphalt
(Maintain 4' Shoulder Width Min.)

Revised Striping (Public ROW)

SCALE: 1" = 40'

Raised Island Detail
(Public ROW)

SCALE: 1" = 40'

GLEN AT WIDEFIELD NO. 11
Signing & Striping - Overall

EL PASO, COUNTY, COLORADO

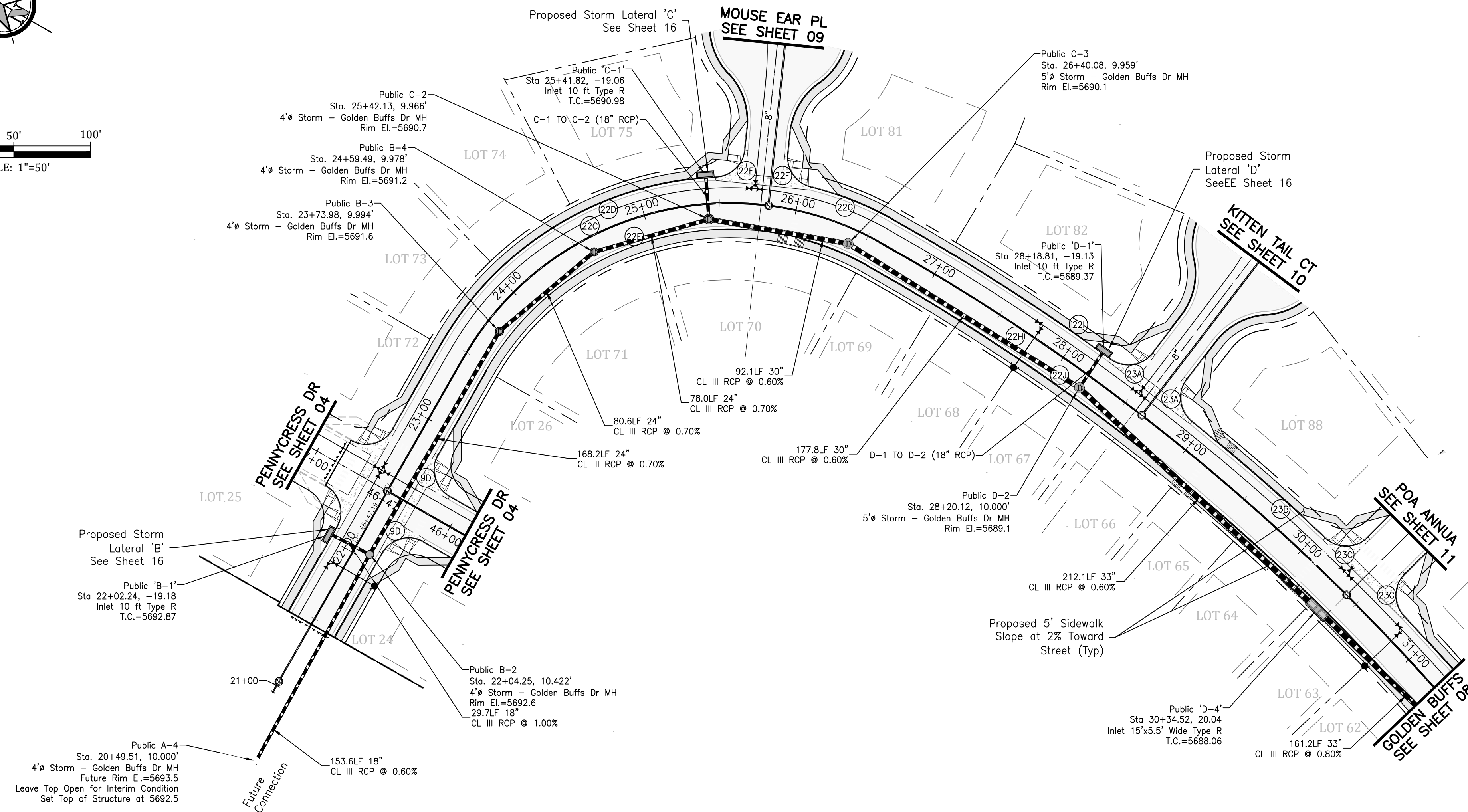
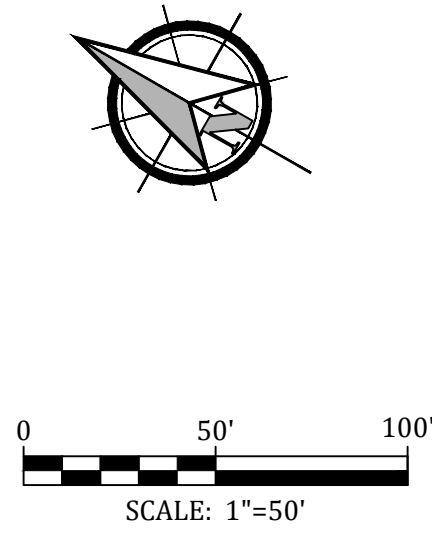
Project No.:	19016
Date:	April 30, 2021
Design:	MJK
Drawn:	MJK
Check:	AWMc
Revisions:	

SHEET

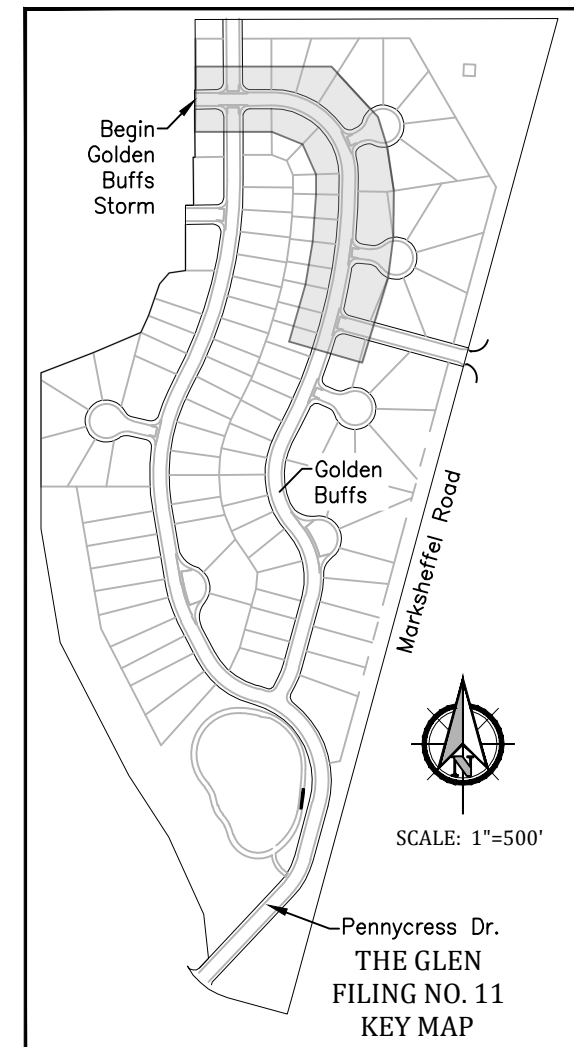
13

13 of 30 Sheets

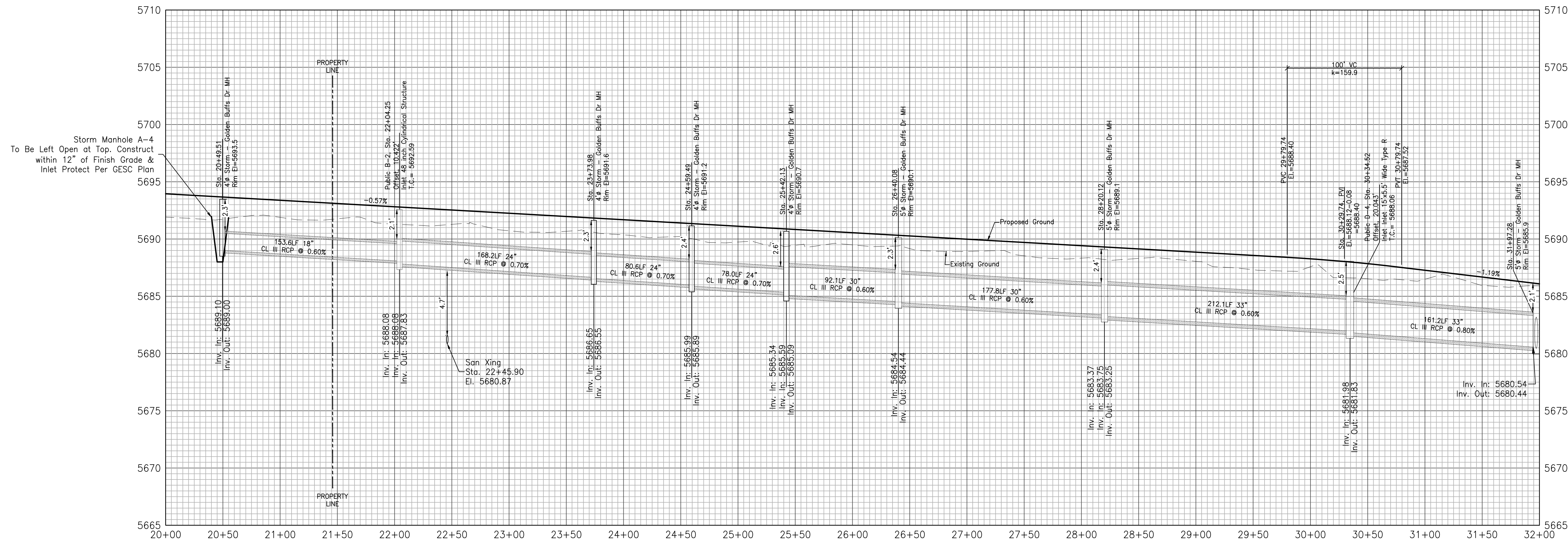
19016-GW11-13-SP.dwg/Apr. 28, 2021



CURVE DATA	
90	Δ=90°00'00" L=31.42 R=20.00'
220	Δ=90°00'00" L=314.16 R=200.00'
220	Δ=57°53'35" 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'
22H	Δ=28°46'26" L=703.08 R=1400.00'
22I	Δ=6°21'38" L=157.31 R=1417.00'
22J	Δ=28°46'26" L=694.54 R=1383.00'
23A	Δ=88°38'39" L=30.94 R=20.00'
23B	Δ=4°39'34" L=115.23 R=1417.00'
23C	Δ=88°31'21" 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

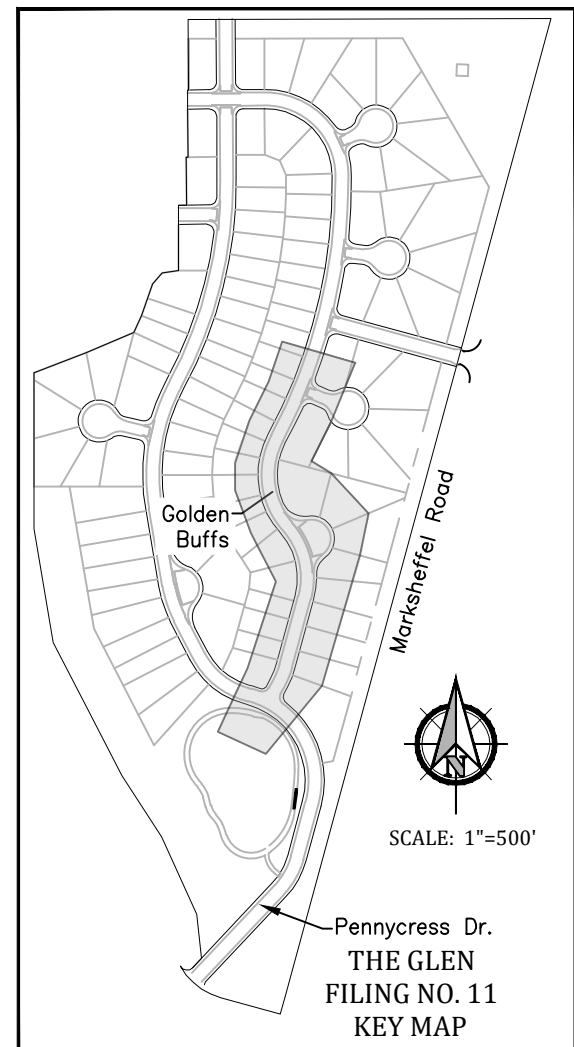
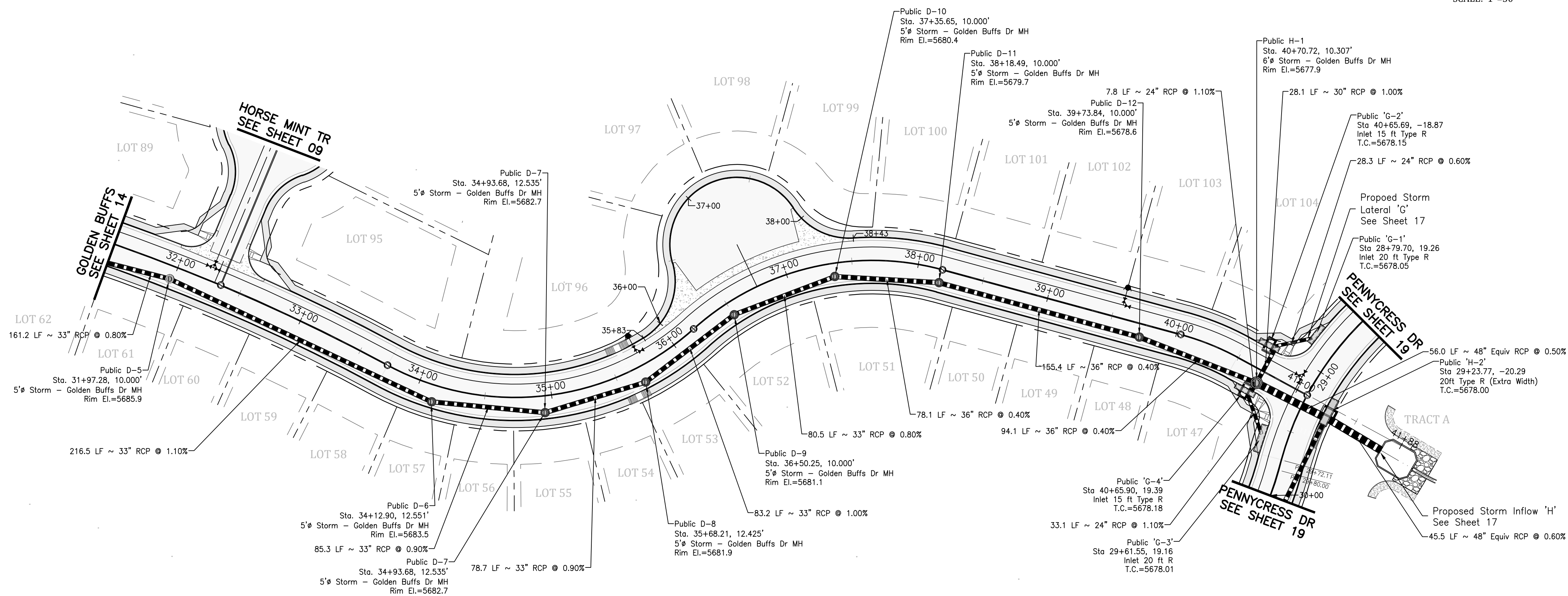
Project No.:	19016
Date:	April 30, 2021
Design:	MJK
Drawn:	MJK
Check:	AWMc
Revisions:	

SHEET

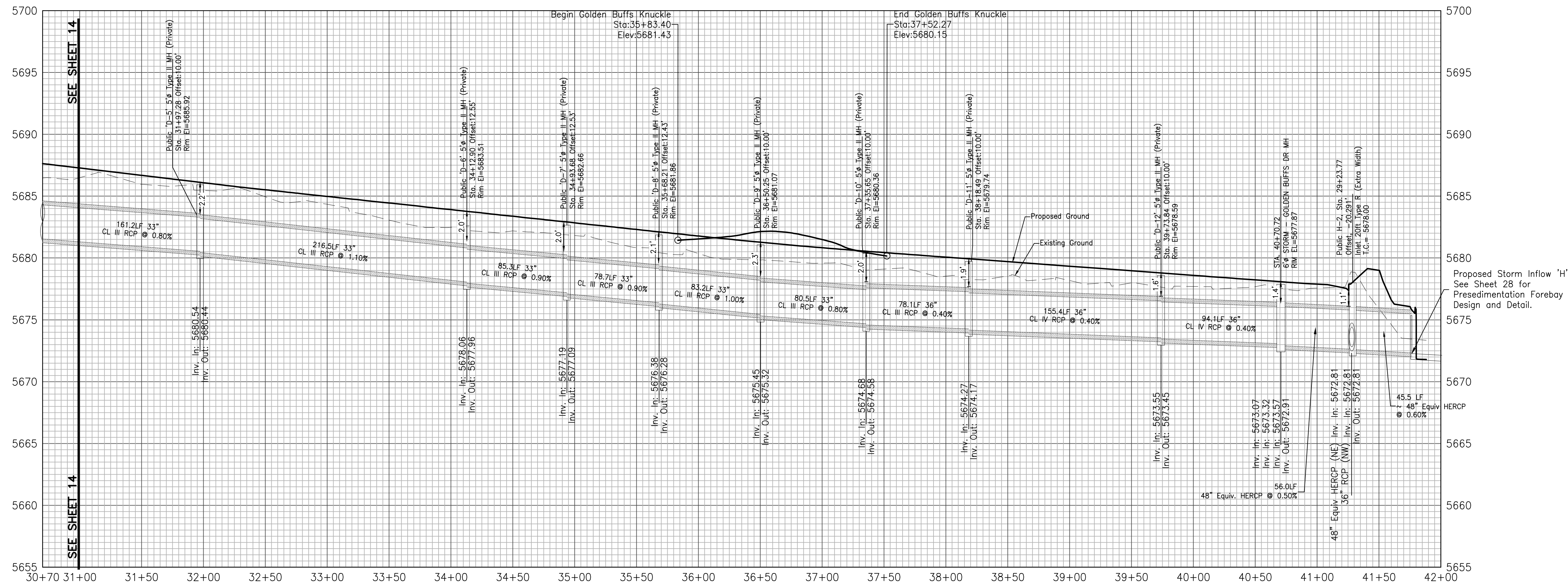
14

14 of 30 Sheets

19016-GW11-14-ST.dwg/Apr 28, 2021

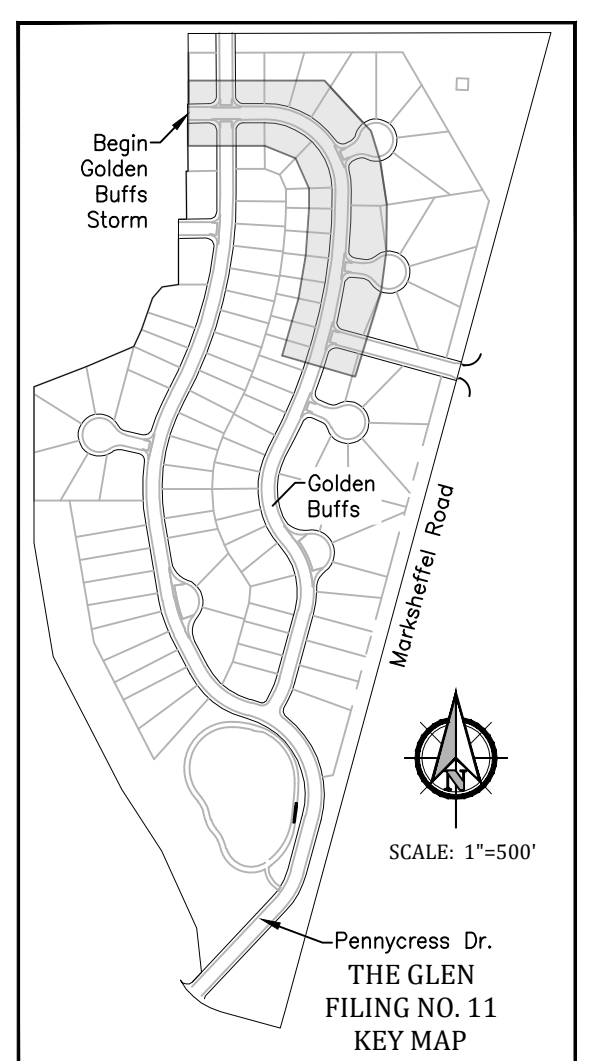
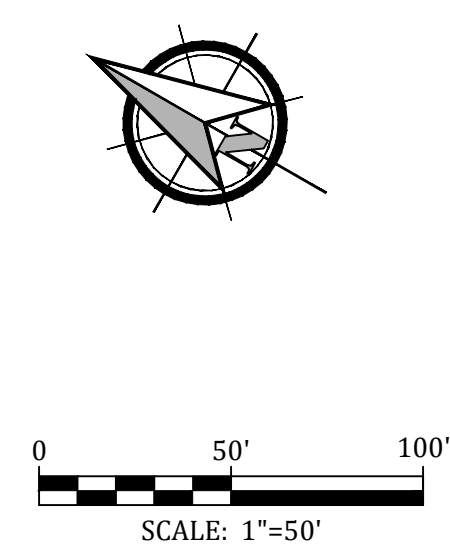
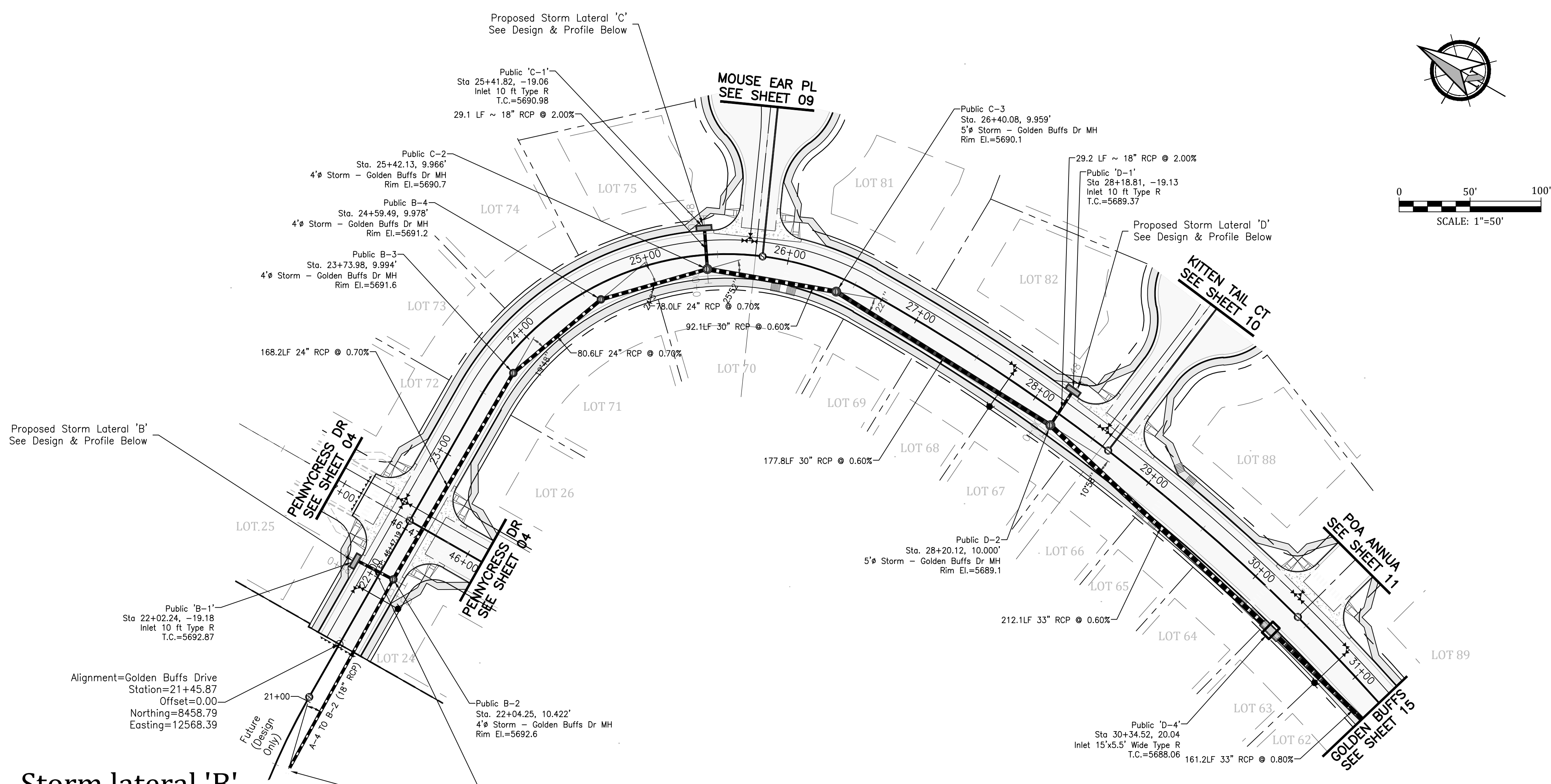


Profile View of Golden Buffs Drive

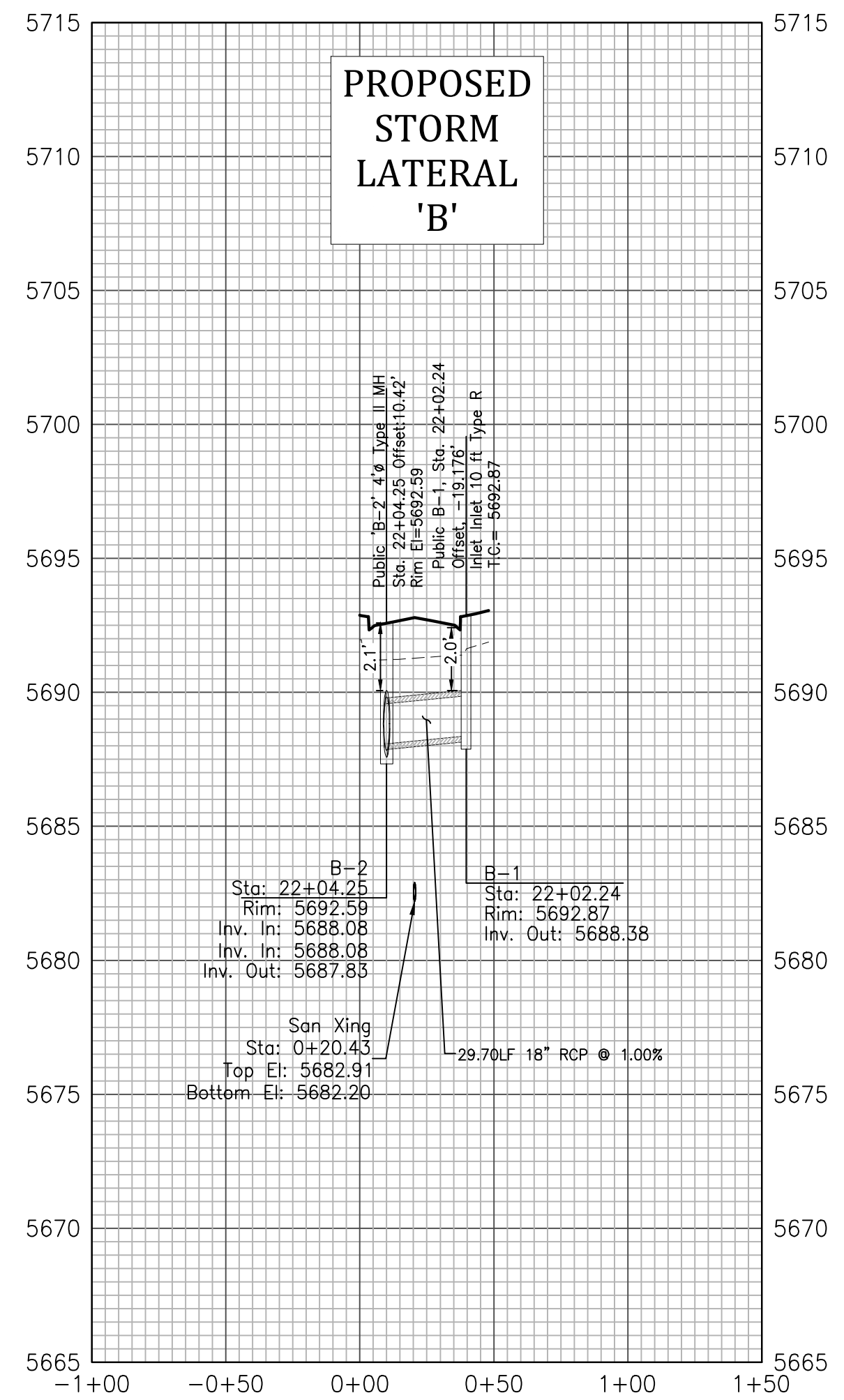


GLEN AT WIDEFIELD NO. 11
Storm Sewer Plan - Golden Buffs Drive Trunkline
Sta: 31+50 to END
EL PASO, COUNTY, COLORADO

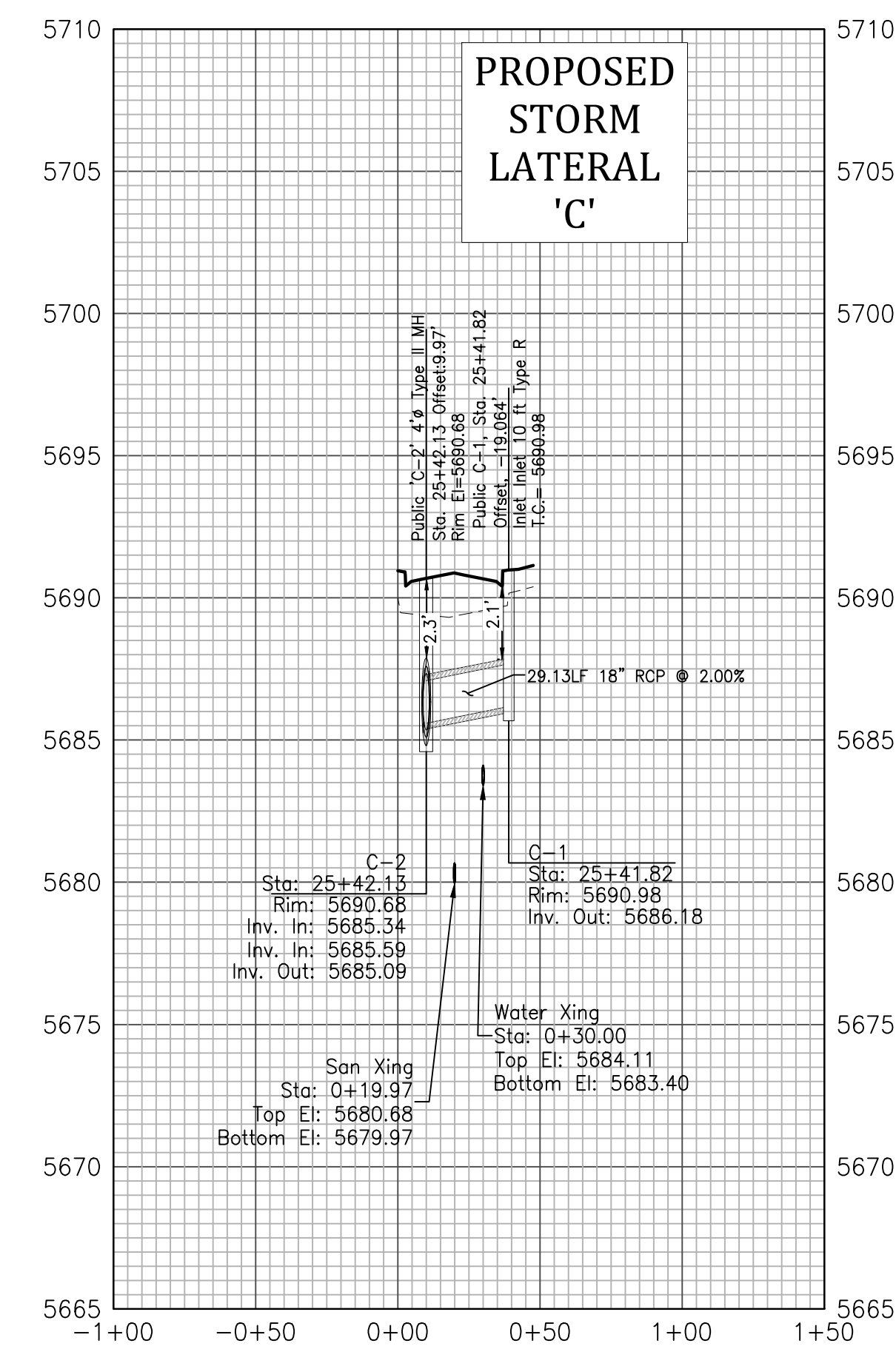
Project No.:	19016
Date:	April 30, 2021
Design:	MJK
Drawn:	MJK
Check:	AWMc
Revisions:	



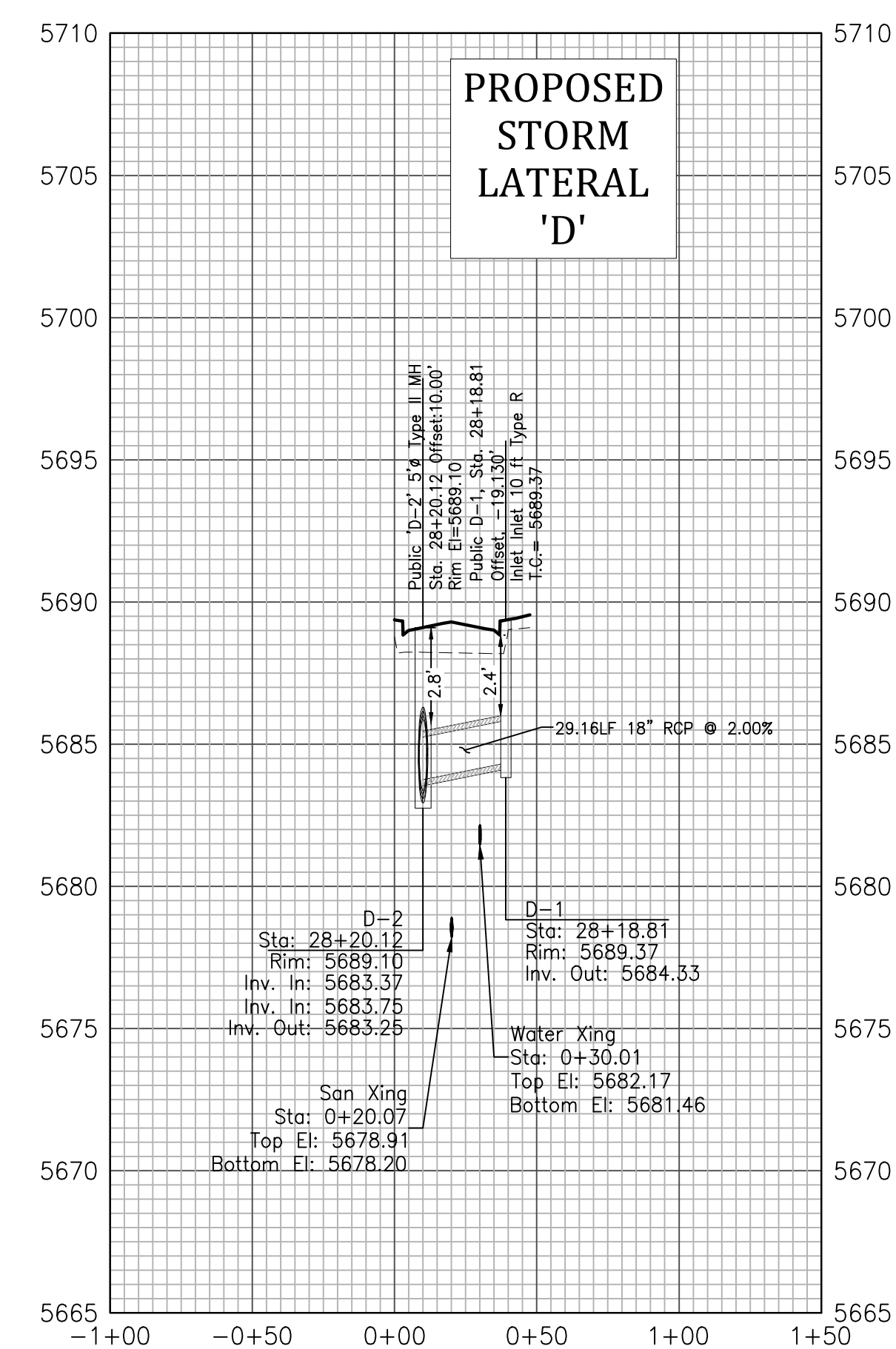
Storm lateral 'B'



Storm Lateral 'C'

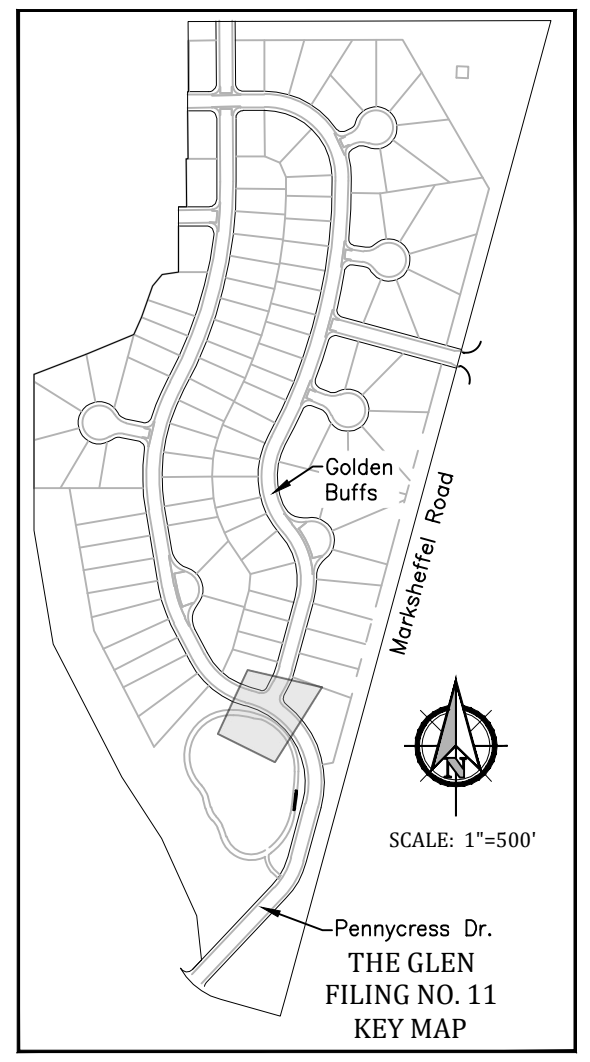
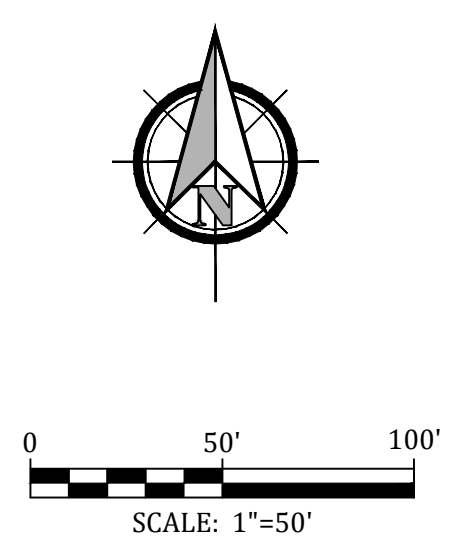
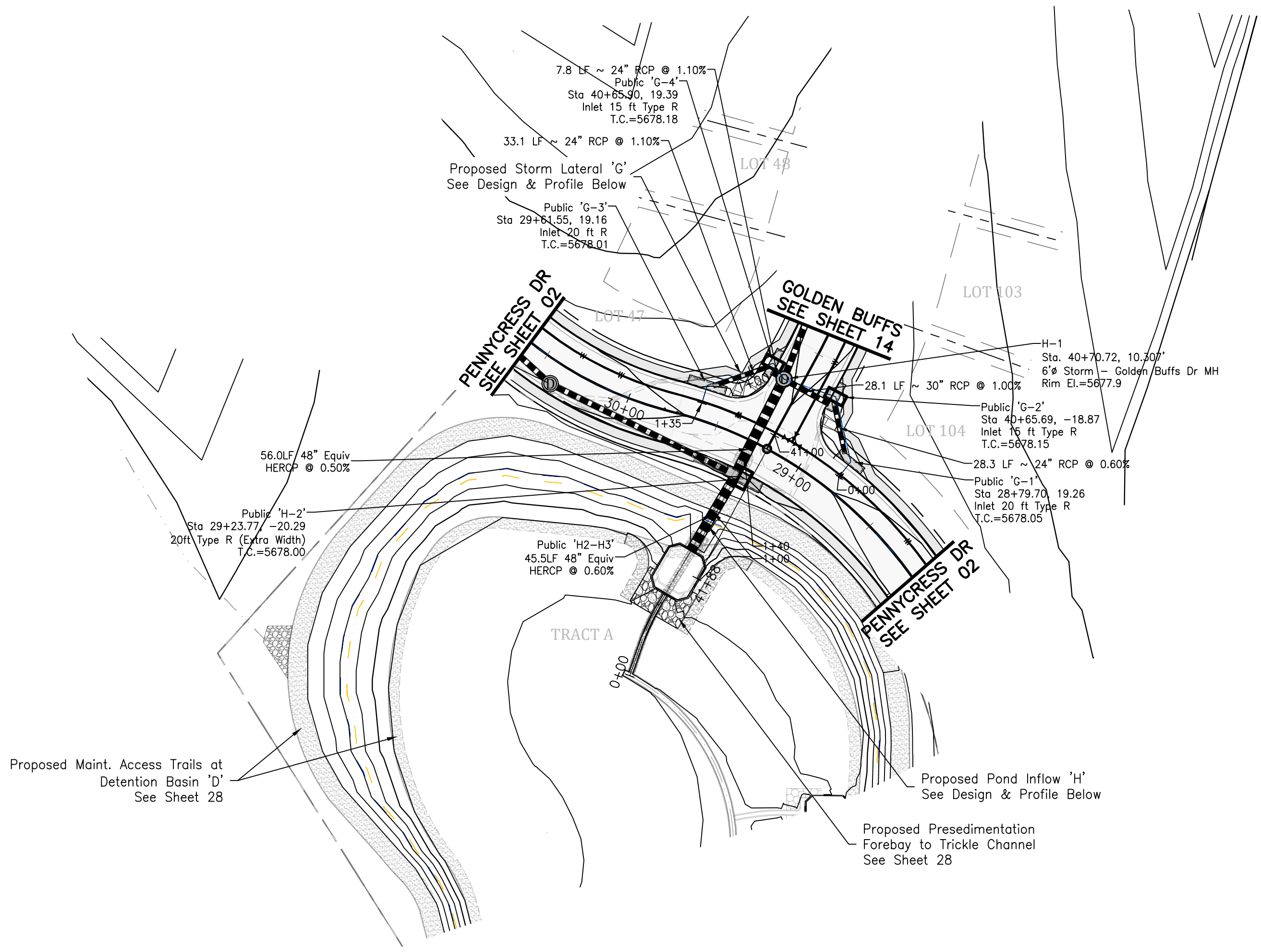


Storm Lateral 'D'

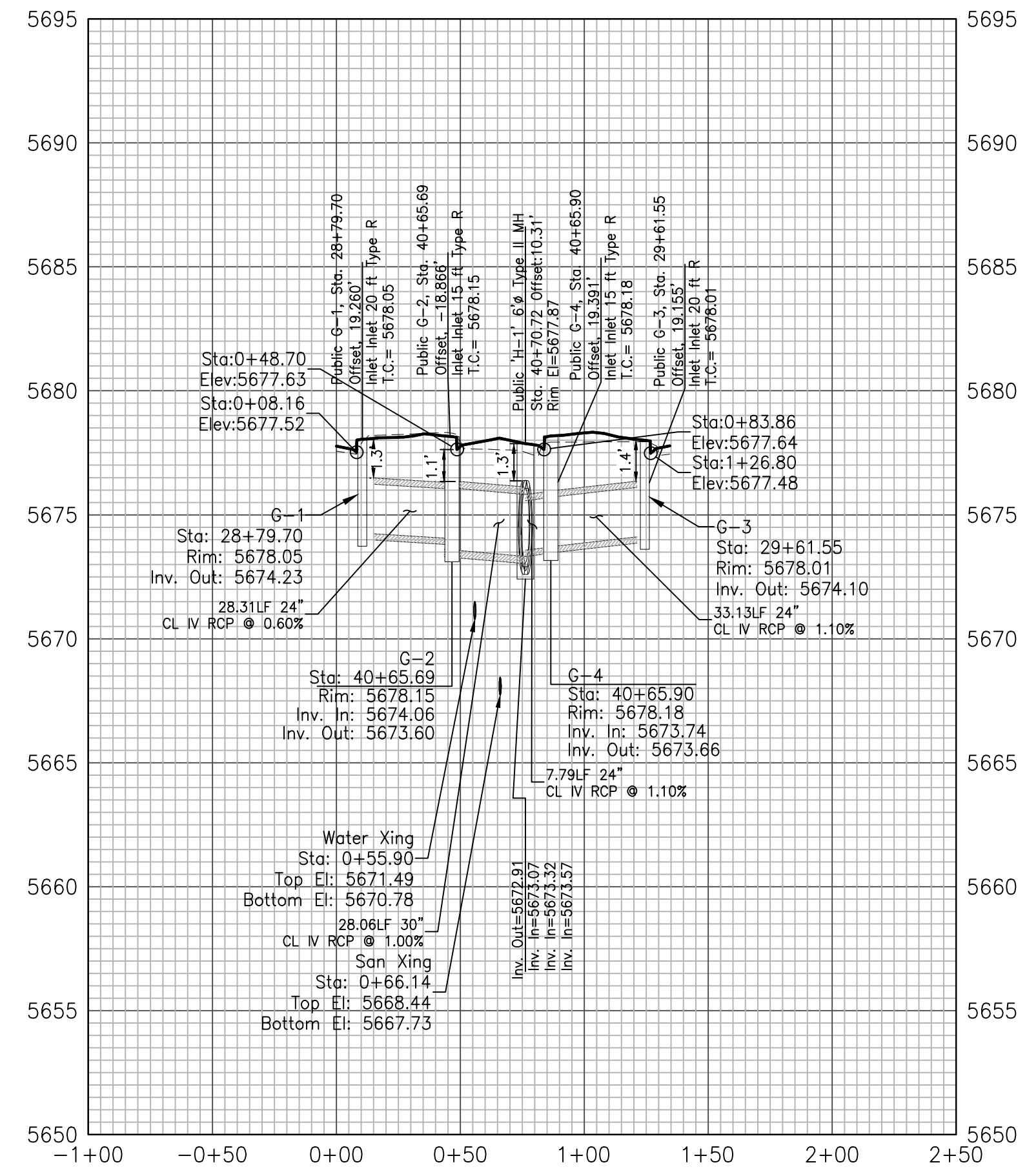


GLEN AT WIDEFIELD NO. 11
Storm Sewer Plan - Laterals 'B' 'C' & 'D'

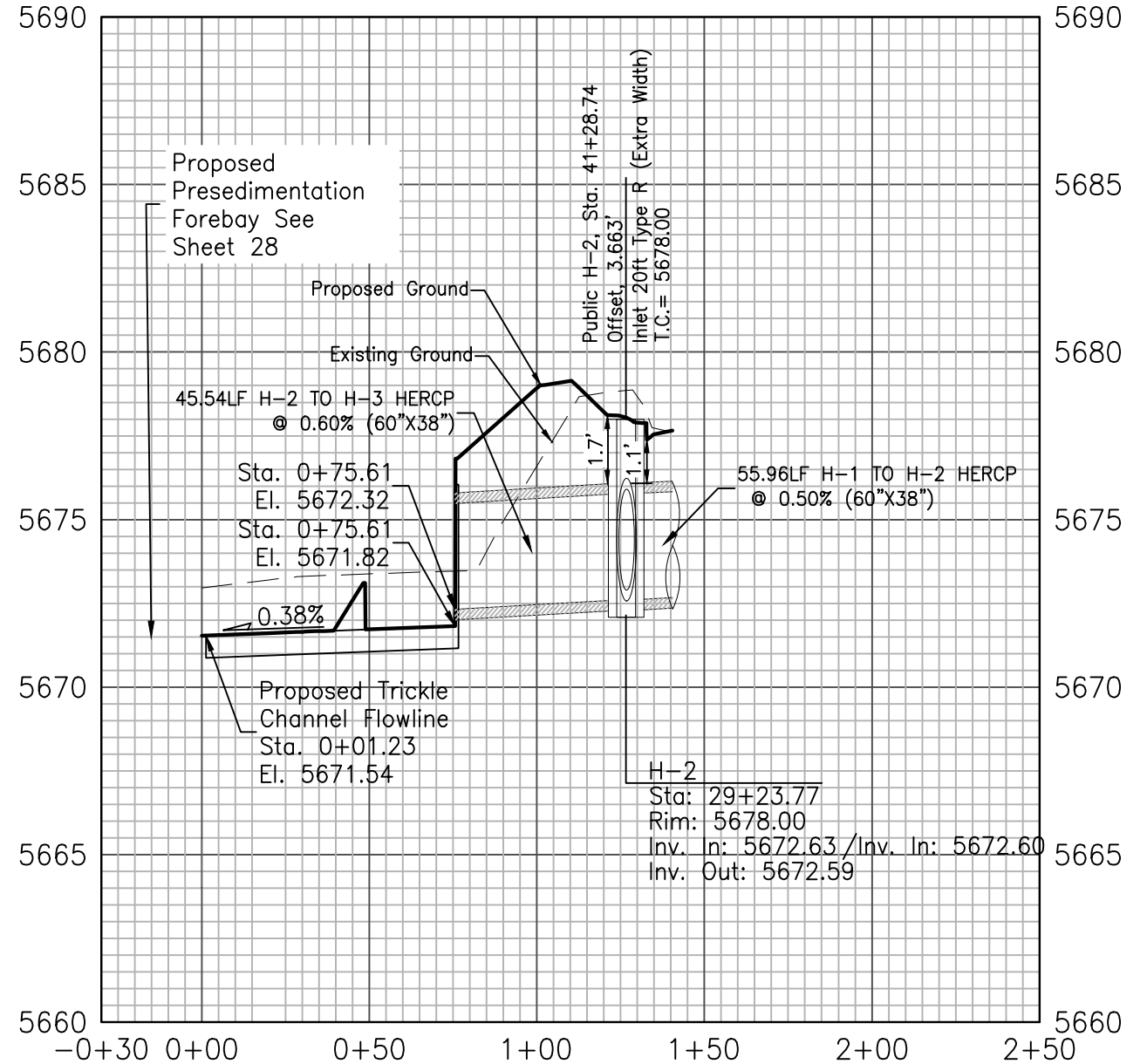
Project No.:	19016
Date:	April 30, 2021
Design:	MJK
Drawn:	MJK
Check:	AWMc
Revisions:	

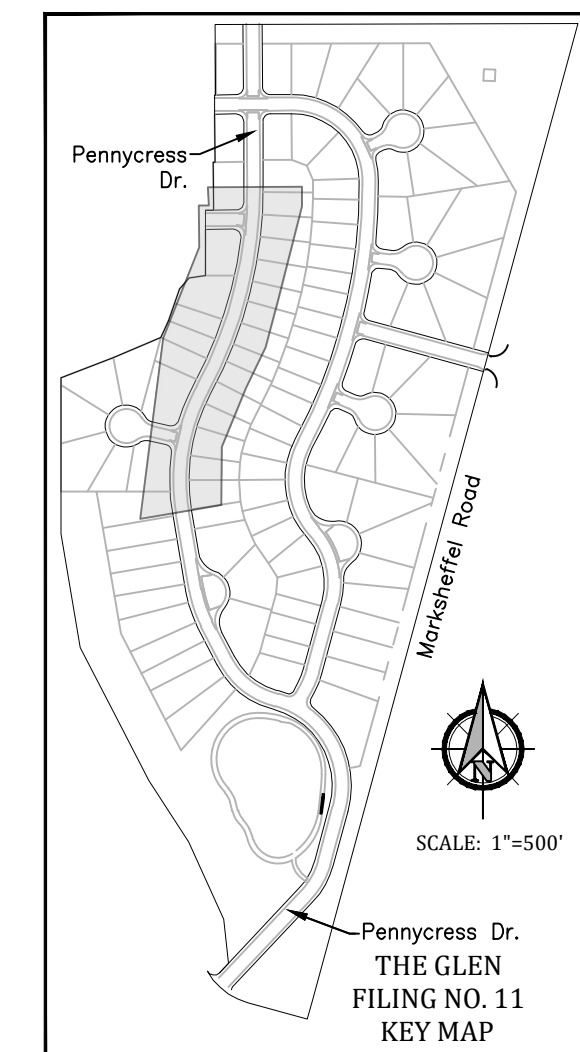


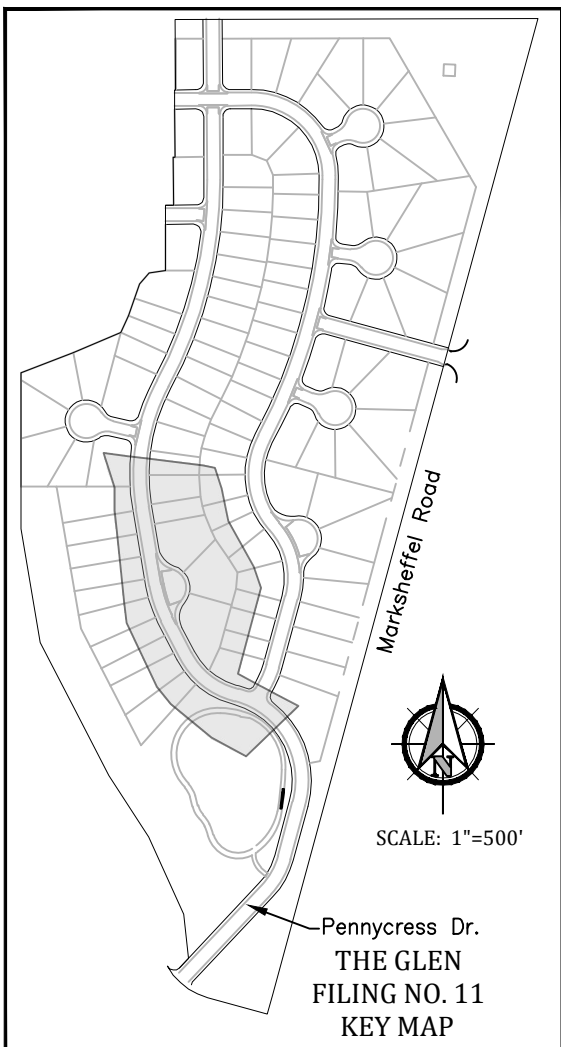
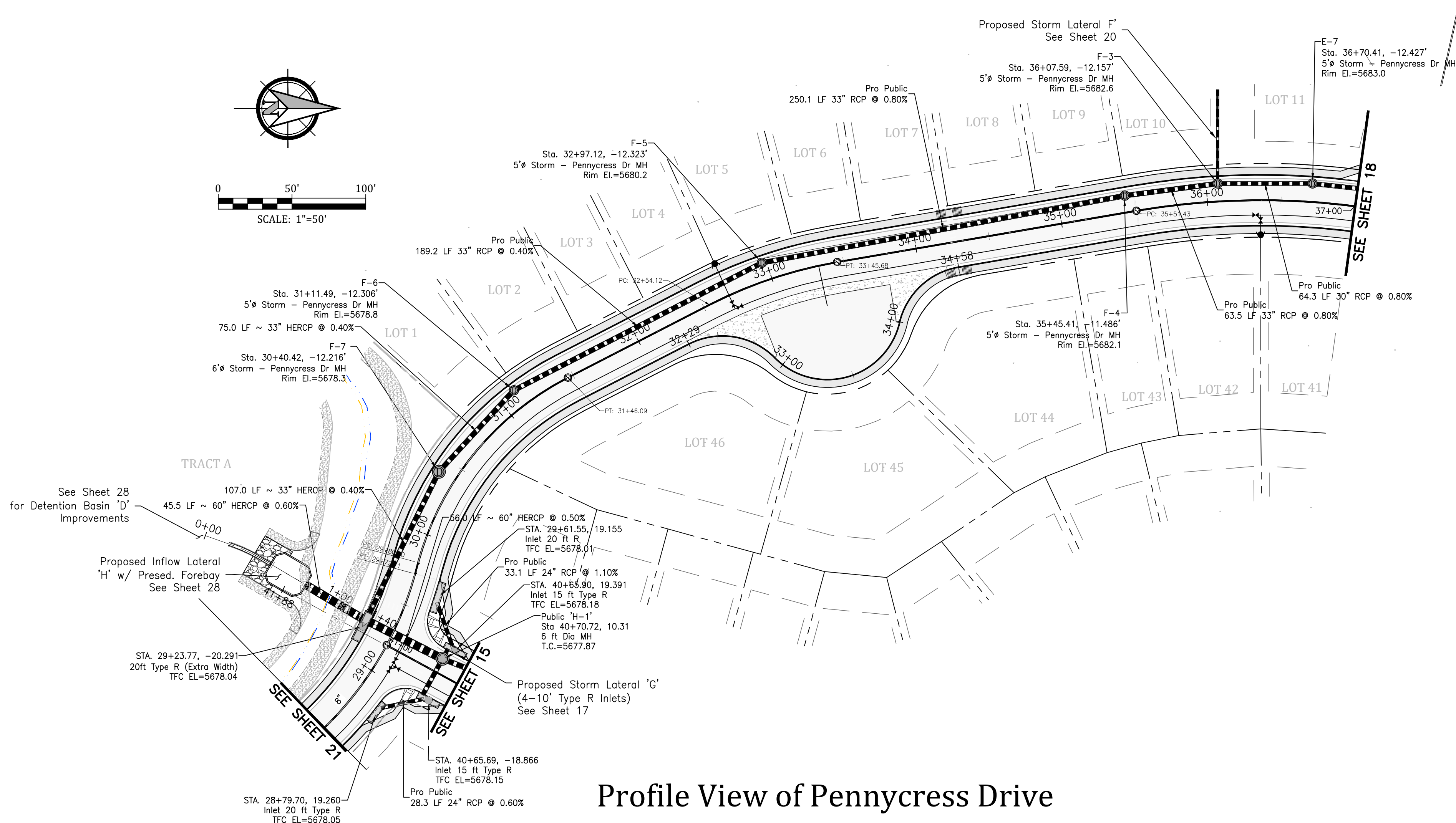
Storm Lateral 'G'



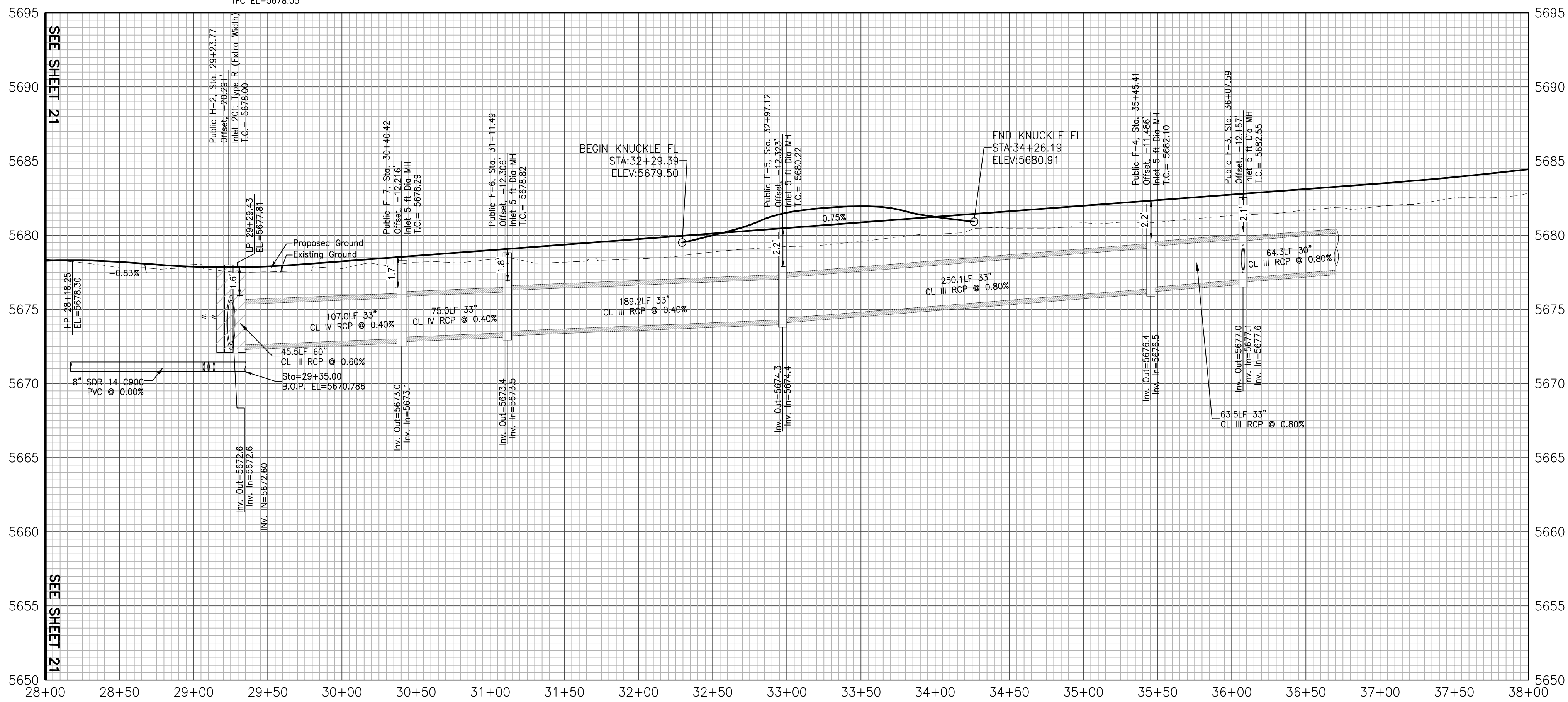
Storm Lateral 'H' - Pond Inflow





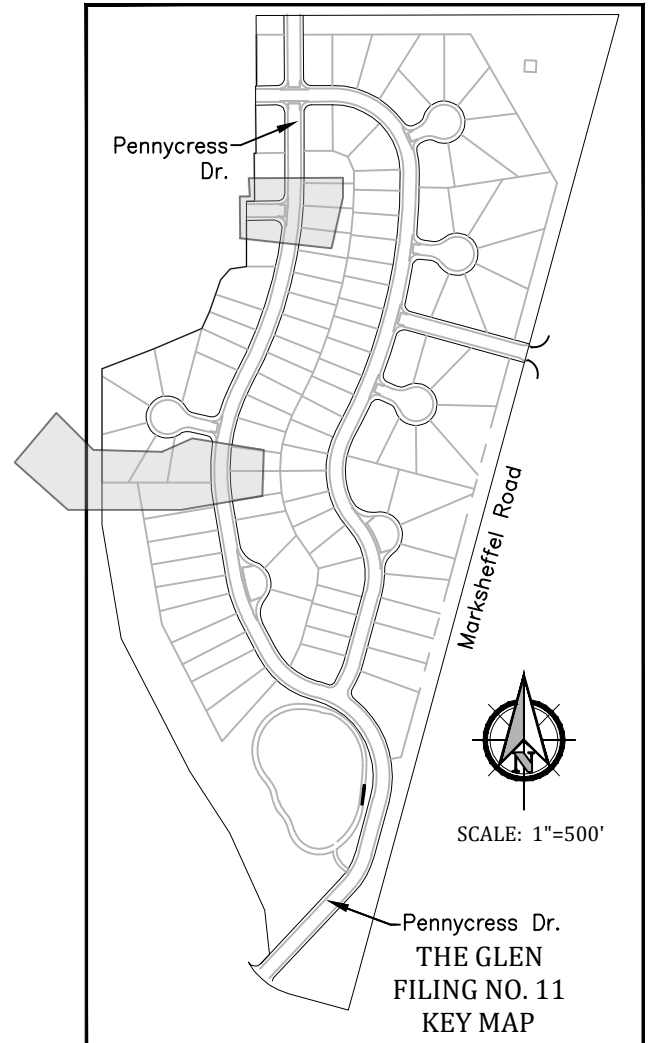
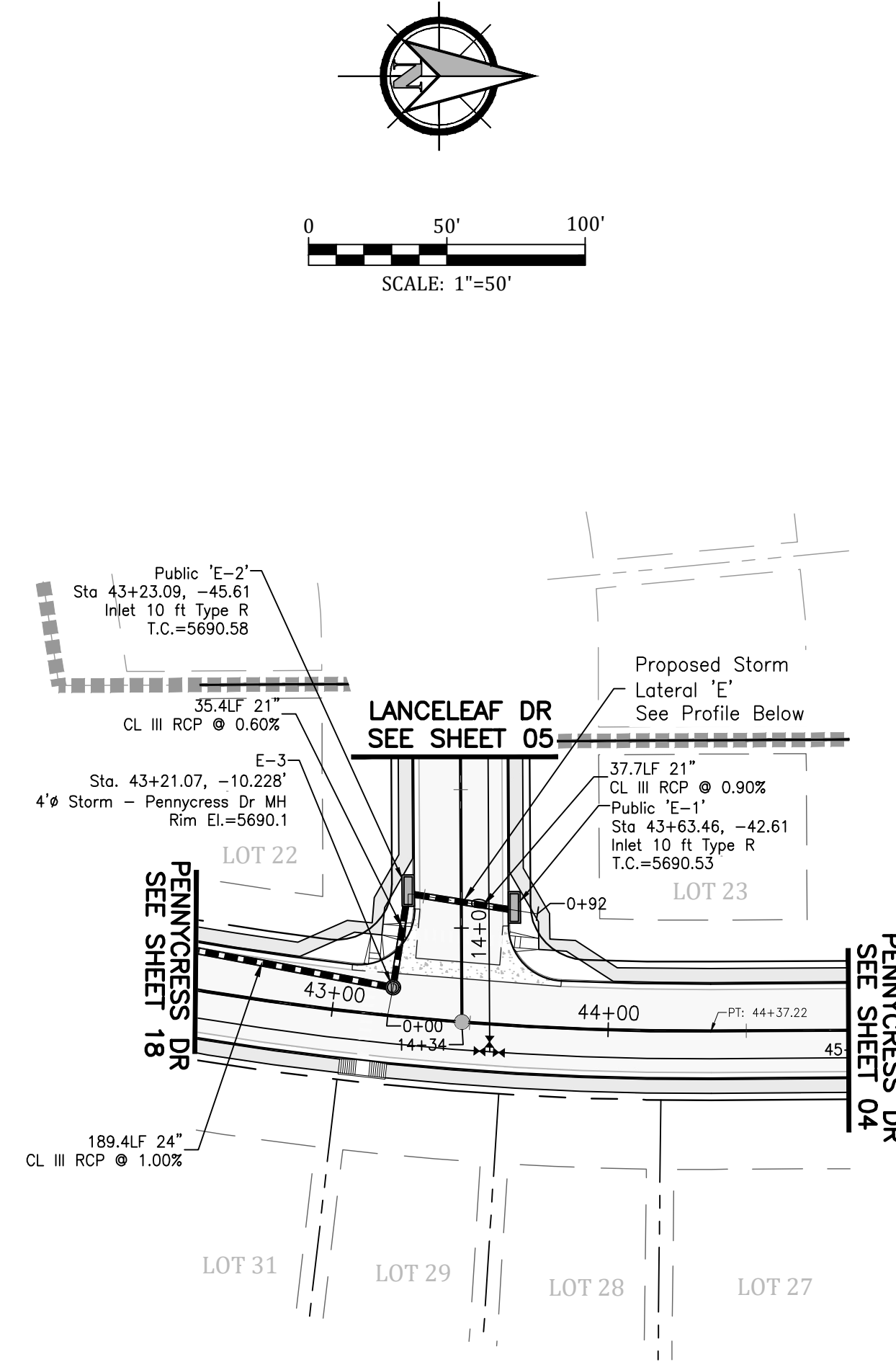
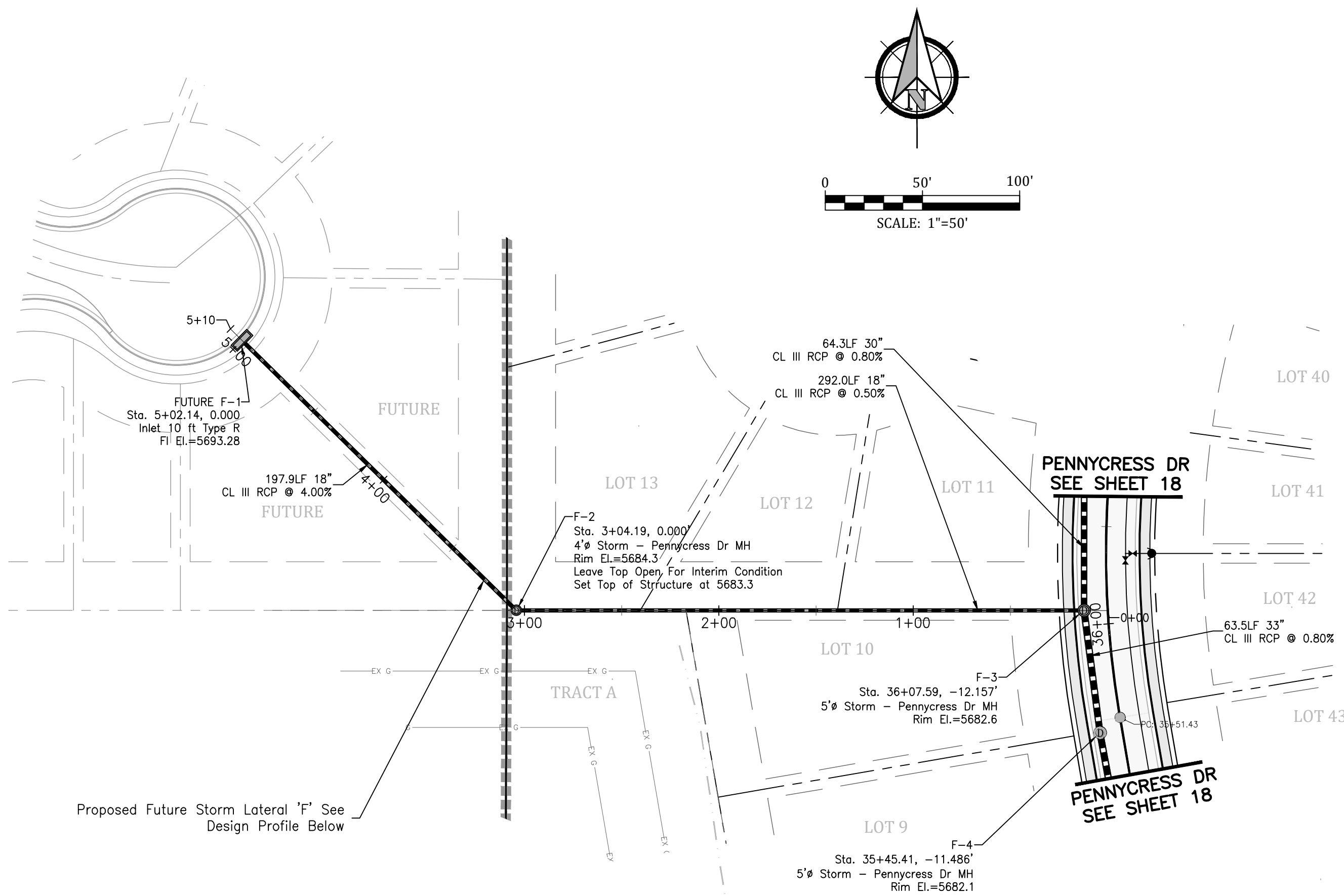


Profile View of Pennycress Drive

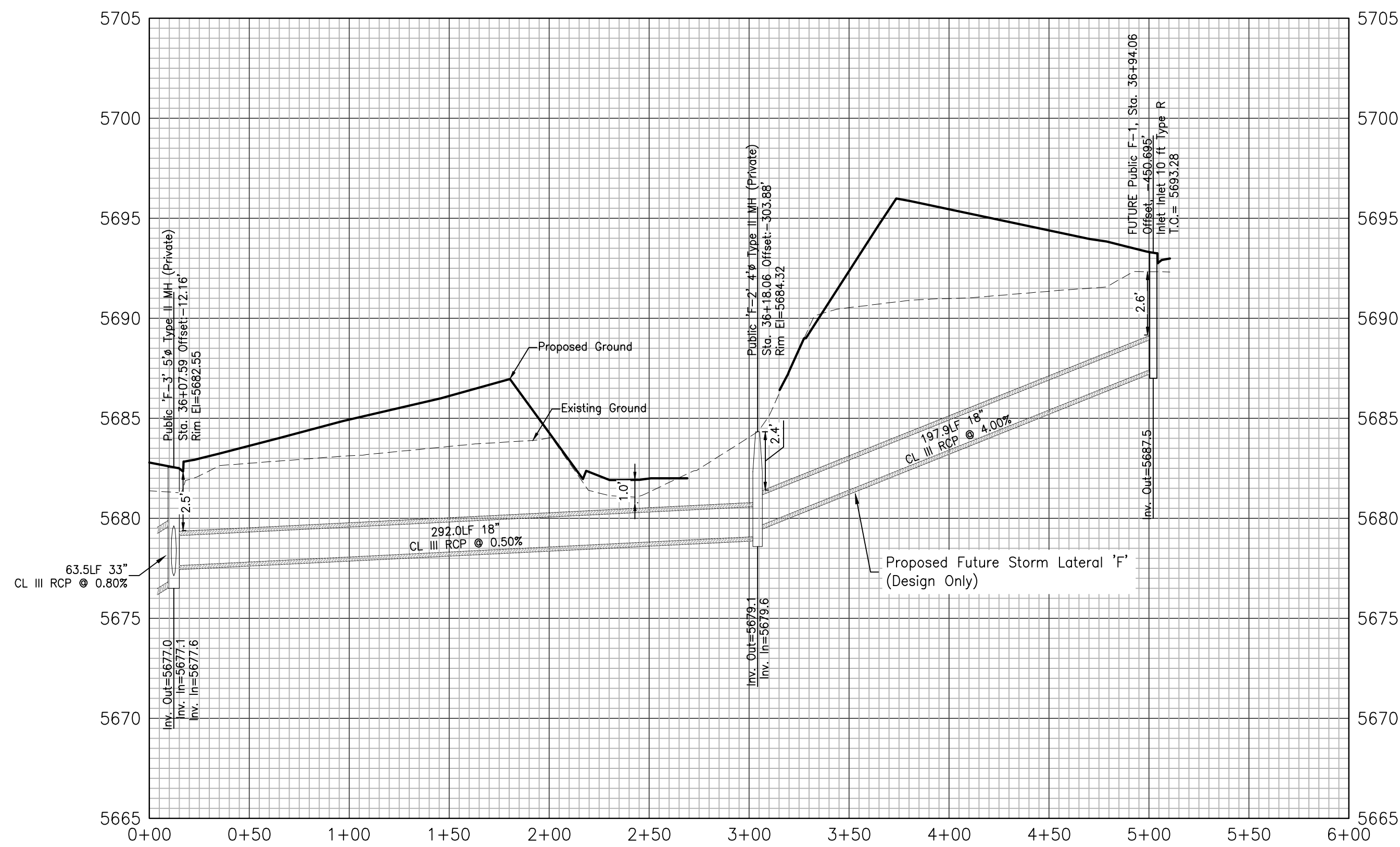


GLEN AT WIDEFIELD NO. 11
Storm Sewer Plan - Pennycress Drive
Sta: 29+71.11 to 35+50
EL PASO, COUNTY, COLORADO

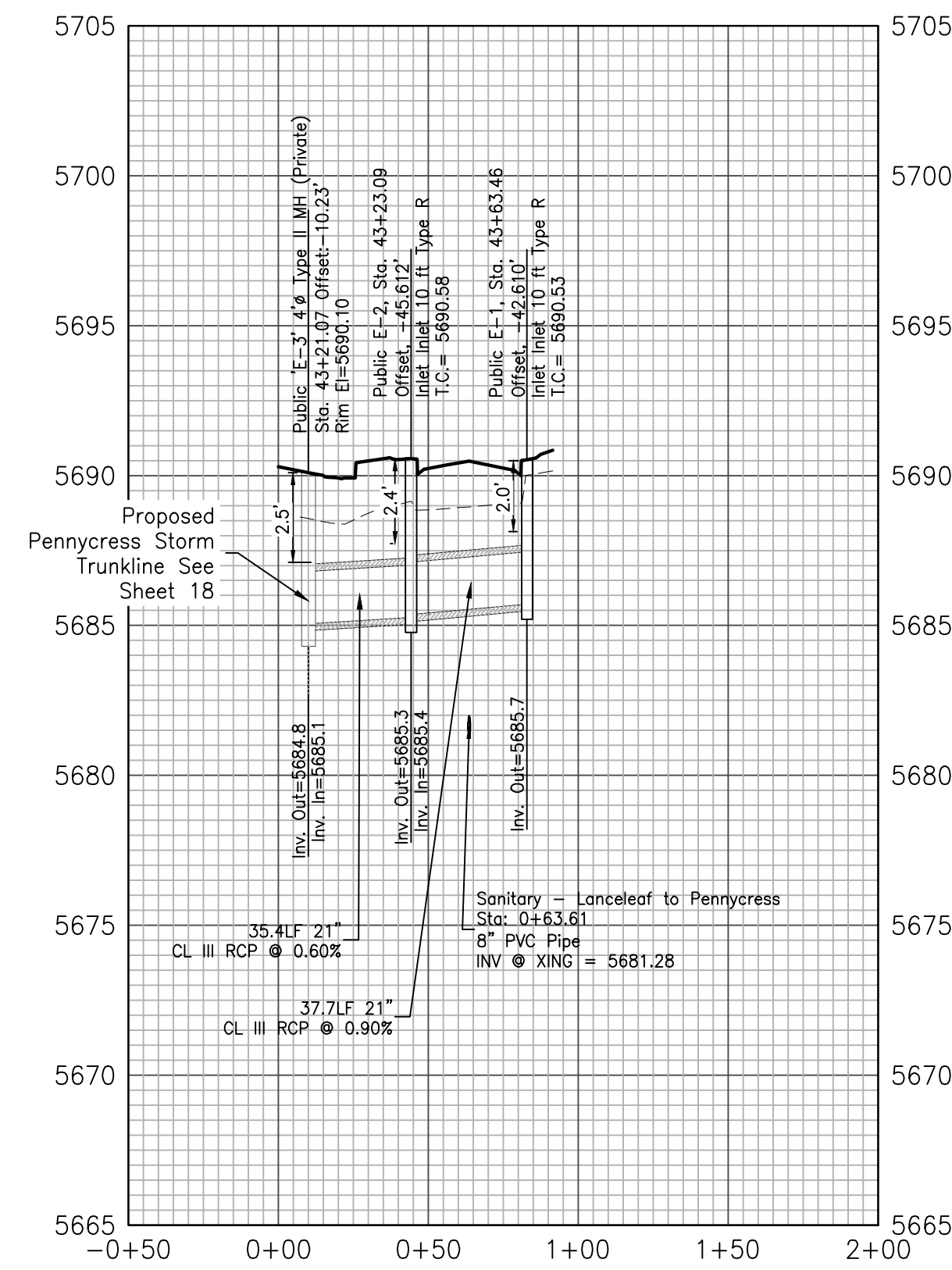
Project No.:	19016
Date:	April 30, 2021
Design:	MJK
Drawn:	MJK
Check:	AWMc
Revisions:	



PROFILE VIEW OF ALIGNMENT - STORM LATERAL 'F'

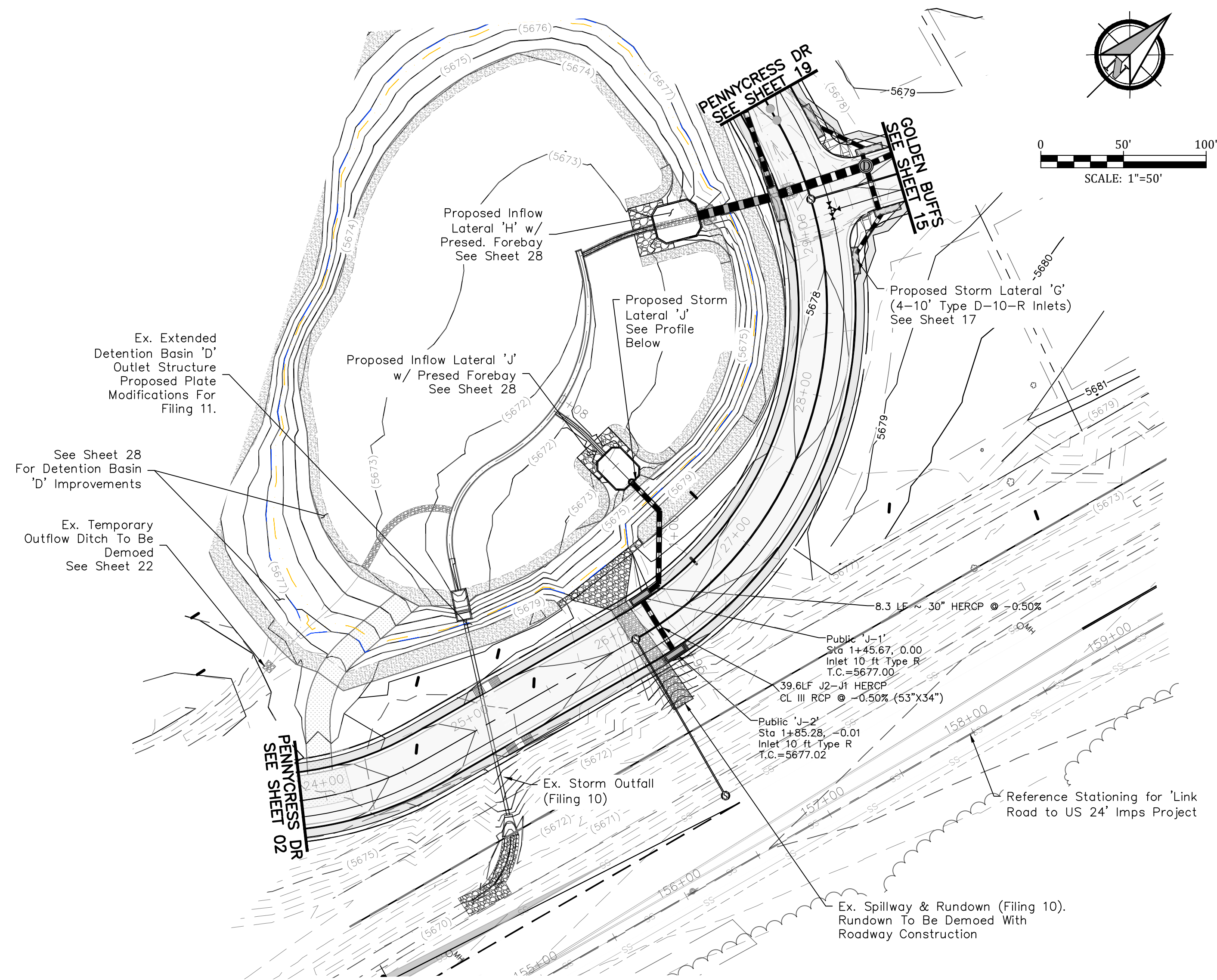


PROFILE VIEW OF ALIGNMENT - STORM LATERAL 'E'

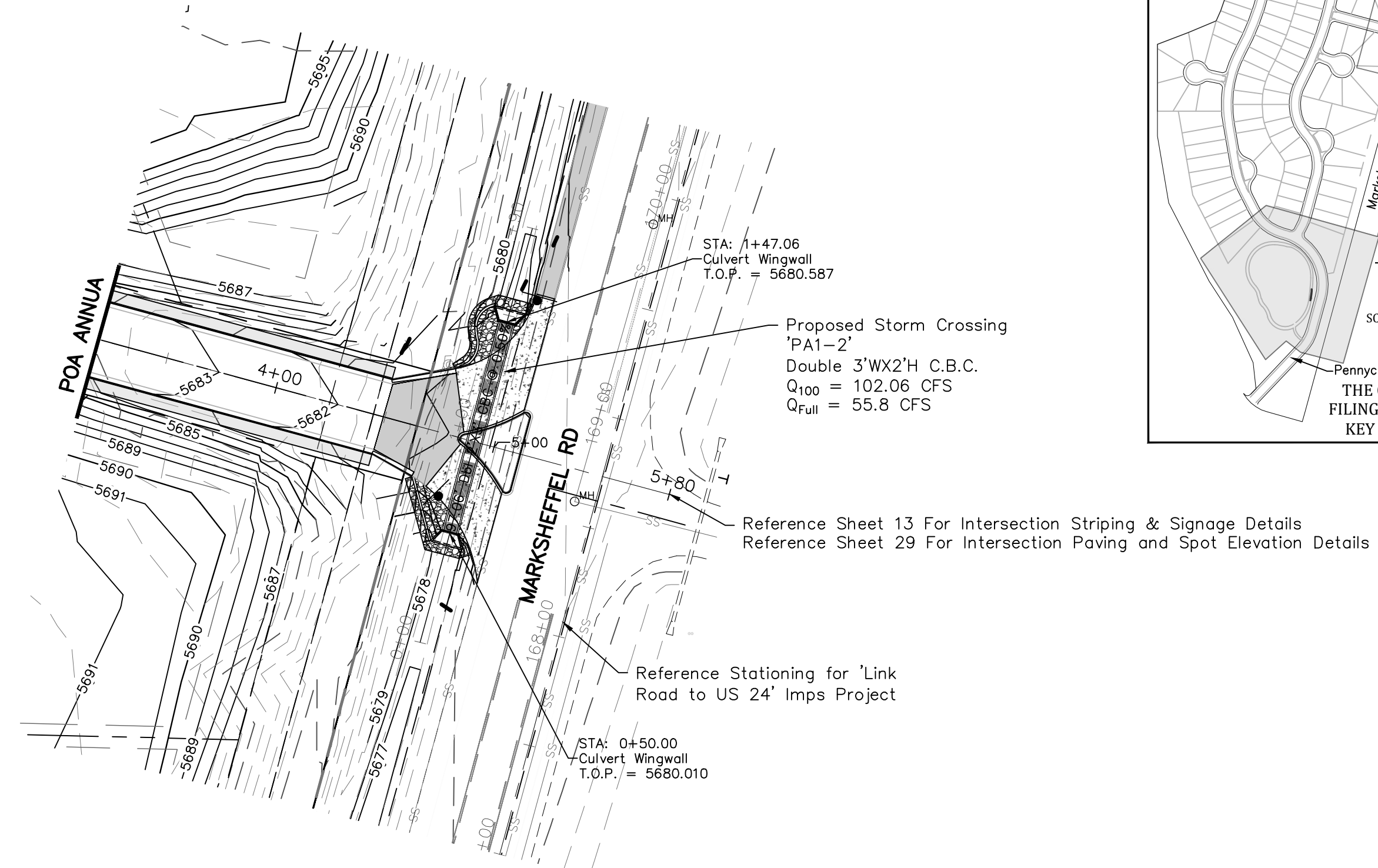
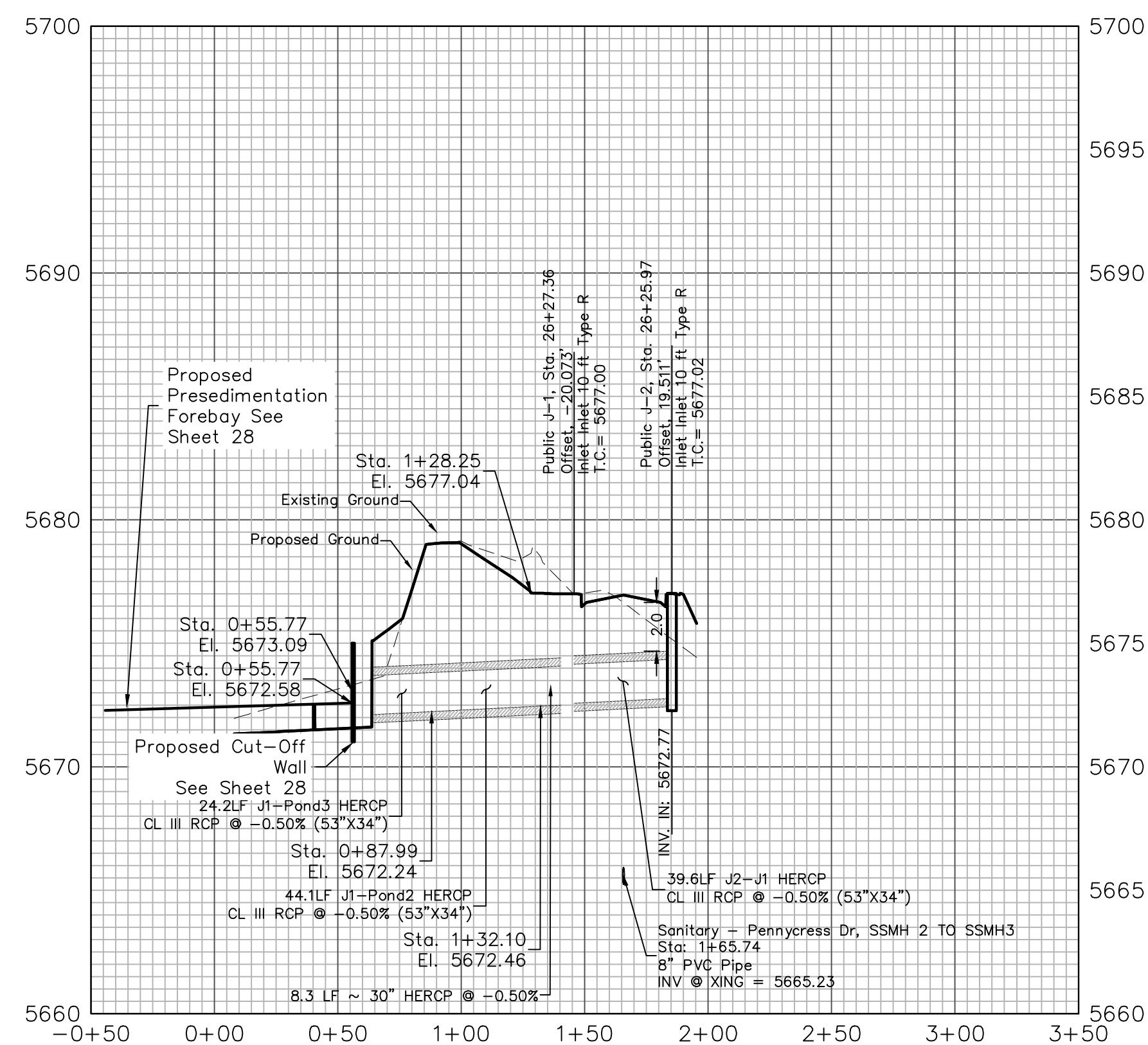


GLEN AT WIDEFIELD NO. 11
Storm Sewer Plan - Laterals 'E' & 'F'
Ref: Pennycress Storm Trunkline
EL PASO, COUNTY, COLORADO

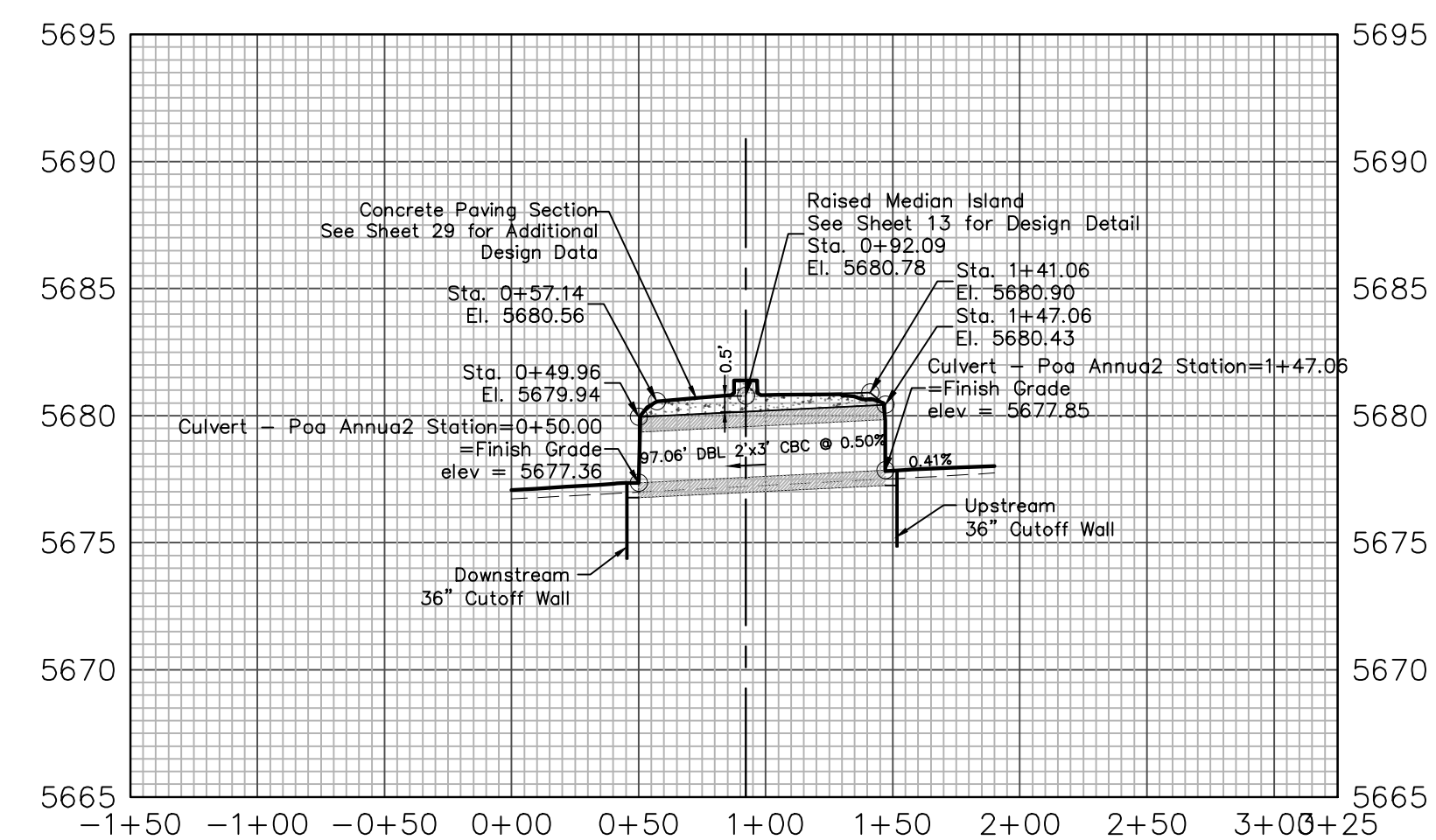
Project No.:	19016
Date:	April 30, 2021
Design:	MJK
Drawn:	MJK
Check:	AWMc
Revisions:	



Profile View of Storm Lateral 'J' - Pond Inflow



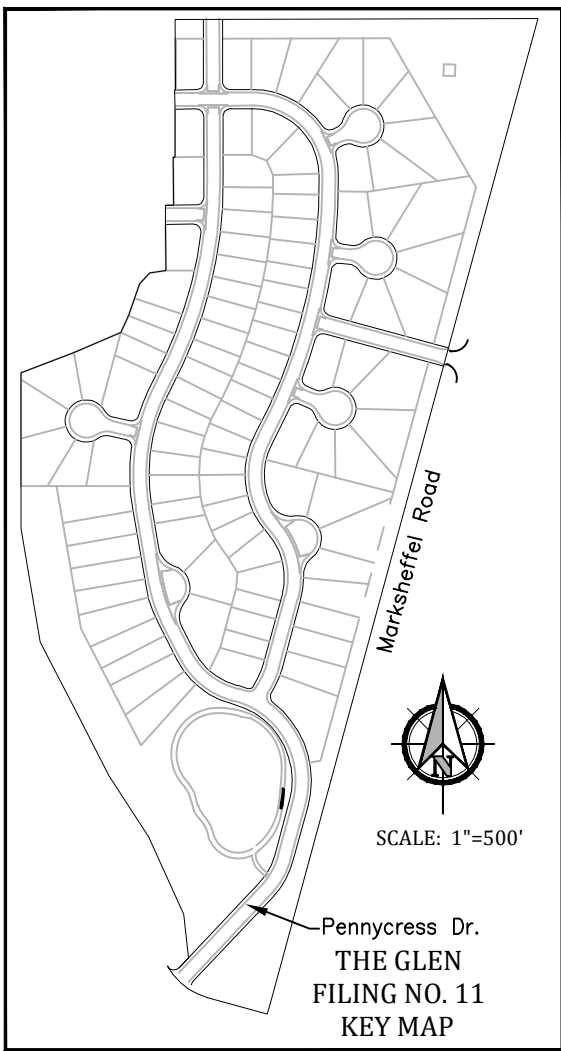
CULVERT - POA ANNUA



SEED MIX		
Areas disturbed by the earthwork activities and not receiving other treatment shall be permanently revegetated with the following seed mix:		
SEEDS	VARIETY	lbs./acre
SIDWAYS GRAMA	El Reno	3.0
WESTERN WHEAT GRASS	Barton	2.5
SLENDER WHEAT GRASS	Native	2.0
LITTLE BLUESTEM	Pastura	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.		



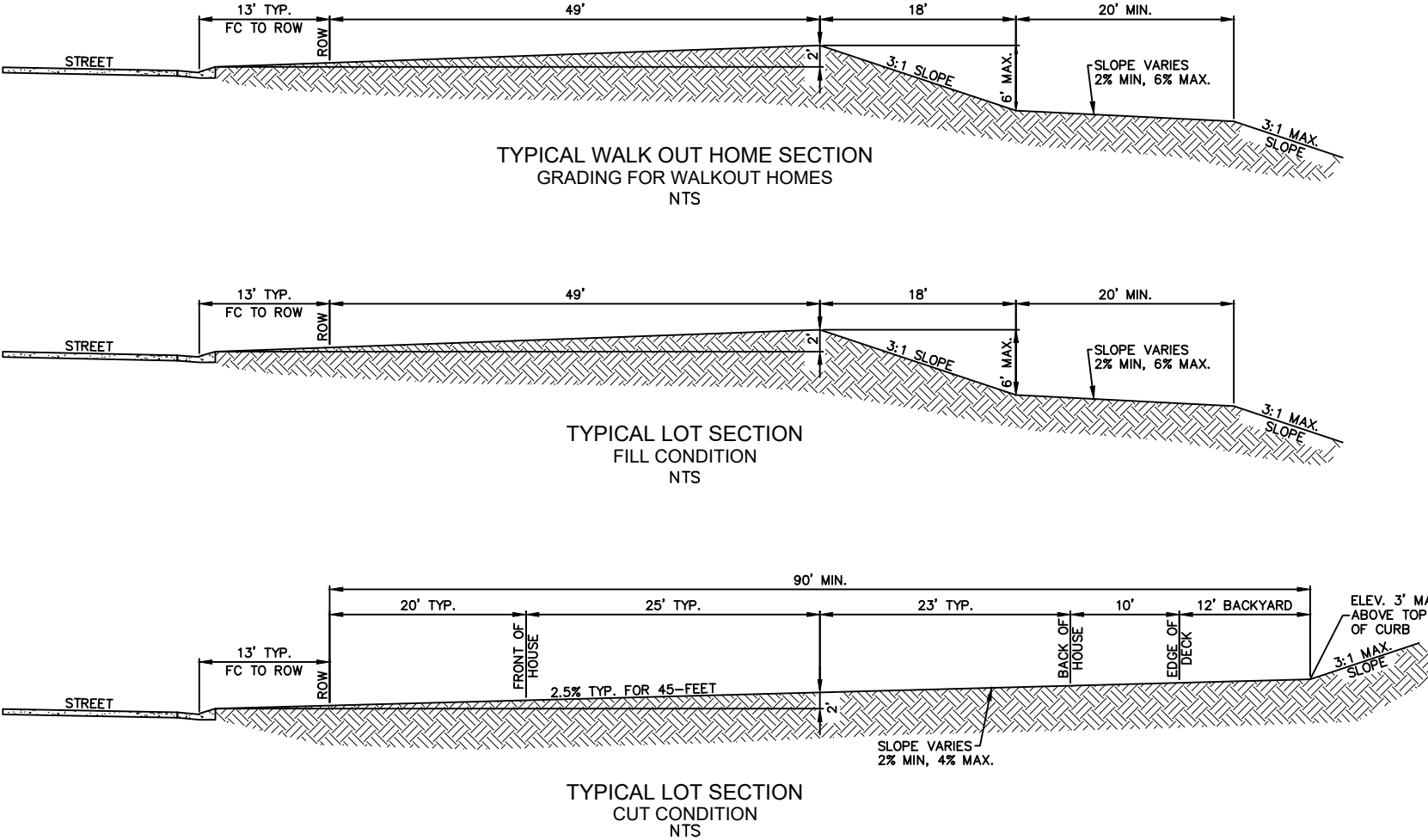
OPINION OF COST FOR EROSION CONTROL REQUIREMENTS				
Additional Erosion Control for Glen at Widefield Filing No. 11				
ITEM	QUANTITY	UNITS	PRICE	AMOUNT
PERMANENT SEEDING	1.0	AC	\$800	\$800.00
PERMANENT E.C. BLANKET	2416	SY	\$30	\$8,053.00
VEHICLE TRACKING CONTROL	2	EA	\$2,370	\$4,740.00
TEMPORARY SEEDING	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



LEGEND	
	SILT FENCE
	VEHICLE TRACKING CONTROL
	INLET PROTECTION(S) (COUNT)
	TEMPORARY SLOPE DRAIN
	EROSION CONTROL BLANKET
	ROUGH-CUT STREET CONTROL INITIAL CONDITION ONLY
	CONCRETE WASHOUT AREA
	ROCK SOCK(S) (COUNT)
	STABILIZED STAGING AREA
	PORTABLE TOILET
	STOCK PILE MANAGEMENT
	PERMANENT SEEDING AND LANDSCAPING
	EX. FLOW DIRECTION ARROW AND SLOPE
	NEW FLOW DIRECTION ARROW AND SLOPE
	CUT/FILL DELINEATION
	LIMITS OF SOIL DISTURBANCE
	PROPERTY LINE
	EXISTING CONTOUR
	PROPOSED CONTOUR
	EMERGENCY OVERFLOW PATH

EROSION CONTROL INSPECTION AND MAINTENANCE	
A Thorough Inspection of the Erosion Control Stormwater Management System shall be performed every 14 days or less 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 control blanket by american excelsior or equal shall be used.	

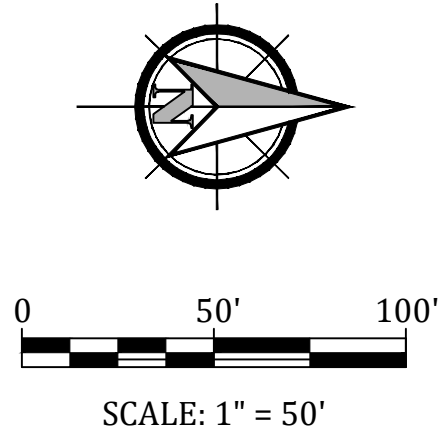
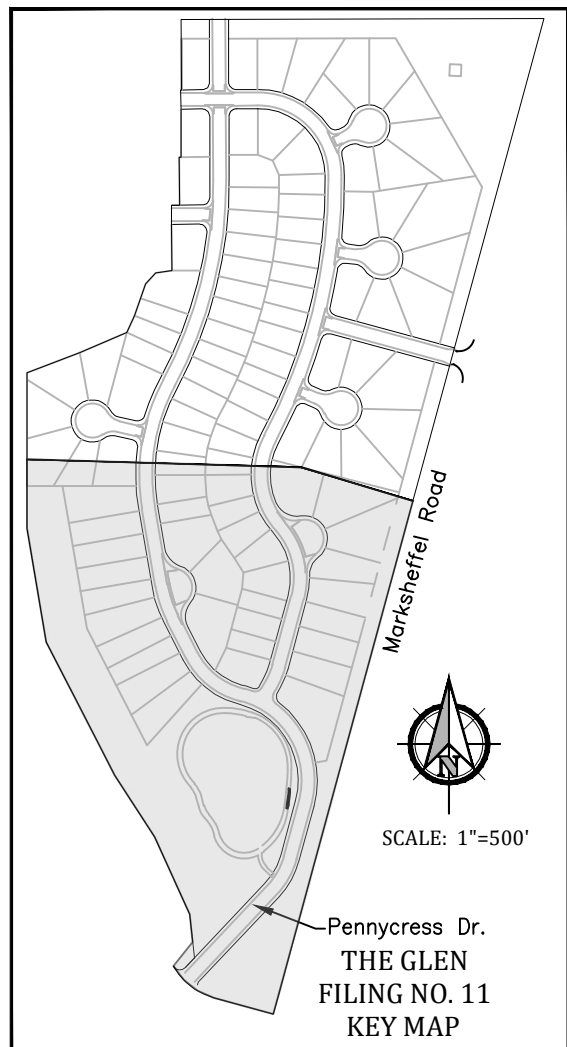
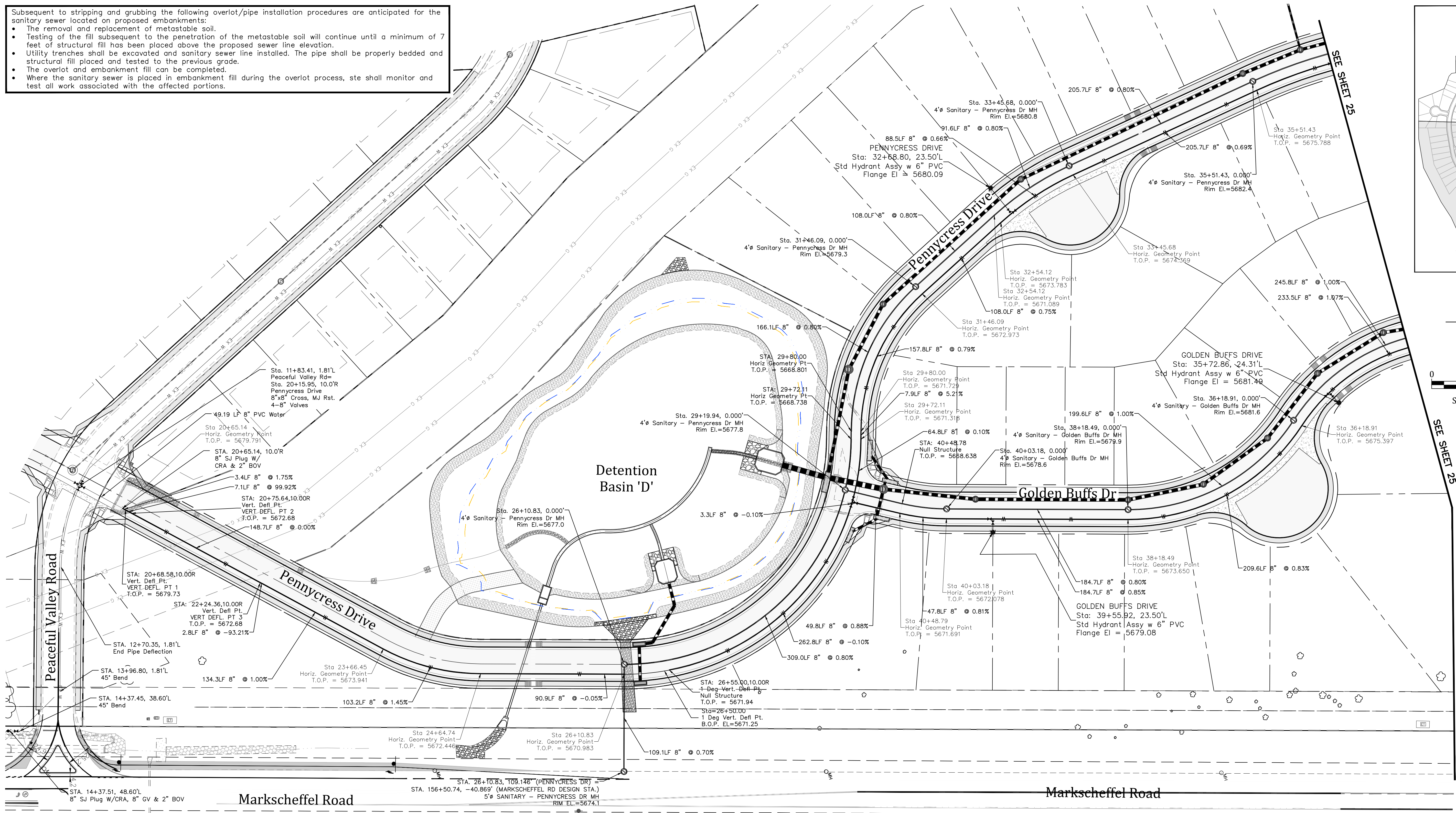
PROJECT SPECIFIC GRADING AND EROSION CONTROL NOTES	
1. Stormwater discharges from construction sites shall not cause or threaten to cause pollution, contamination, or degradation of State Waters. All work and earth disturbance shall be done in a manner that minimizes pollution of any on-site or off-site waters, including wetlands.	constructed, and completed so that the exposed area of any disturbed land shall be limited to the shortest practical period of time. Pre-existing vegetation shall be protected and maintained within 50 horizontal feet of a water's edge unless shown to be infeasible and specifically requested and approved.
2. 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.	21. 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.
3. A separate Stormwater Management Plan (SWMP) for this project shall be completed and an Erosion and Stormwater Quality Control Permit (ESQCP) issued prior to commencing construction. Management of the SWMP during construction is the responsibility of the designated Qualified Stormwater Manager or Certified Erosion Control Inspector. The SWMP 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.	22. 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.
4. Once the ESQCP is approved and a "Notice to Proceed" has been issued, the contractor may install the 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.	23. No person shall cause the impeding of stormwater flow in the curb and gutter or ditch except with approved sediment control measures.
5. 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.	24. 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.
6. 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.	25. All construction traffic must enter/exit the site only at approved construction access points.
7. 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.	26. Prior to construction the permittee shall verify the location of existing utilities.
8. 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.	27. 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.
9. 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.	28. 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.
10. 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,	29. 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 WQCD - Permits 4300 Cherry Creek Drive South Denver, CO 80248-1530 Attn: Permits Unit



TYPICAL LOT CROSS SECTIONS

Subsequent to stripping and grubbing the following overlaid/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 overlaid and embankment fill can be completed.
- Where the sanitary sewer is placed in embankment fill during the overlaid process, ste shall monitor and test all work associated with the affected portions.



GLEN AT WIDEFIELD NO. 11

Utility Plan

SOUTH HALF OF SITE

EL PASO, COUNTY, COLORADO

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

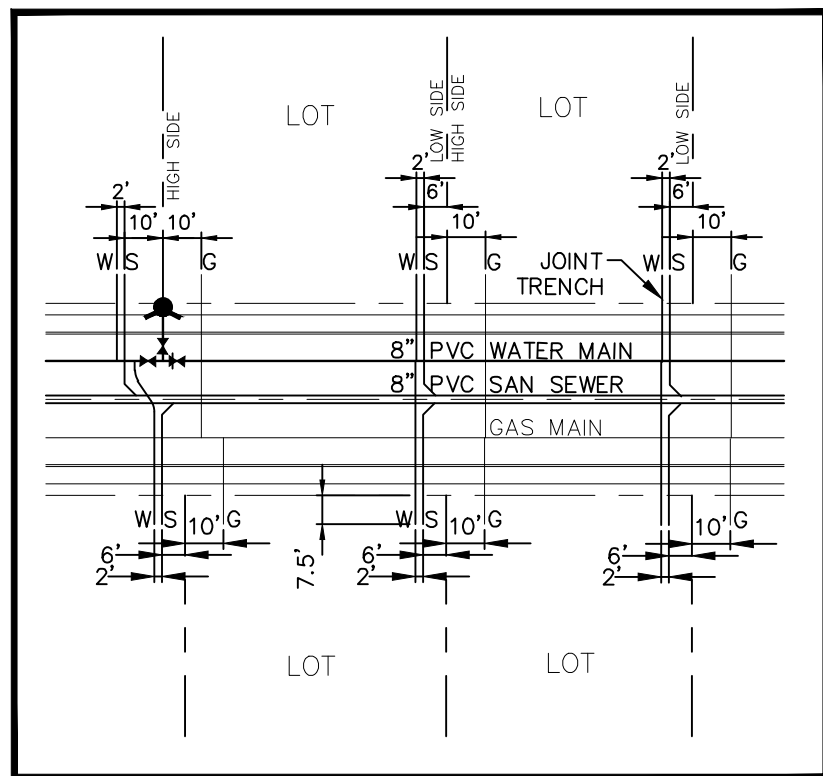
W
WIDEFIELD
Investment Group

ADDITIONAL UTILITY NOTES

Gas - All Gas Mains and Services are to be installed per the city of Colorado Springs.
Electric - All Electric Services are to be installed per the City of Fountain Electric Division.

UTILITY CONTACTS

Sewer: Widefield W&S District (WWS) 390-7111
Water: Widefield W&S District (WWS) 390-7111
Electric: Mountain View Electric 435-2283
Gas: Peoples Natural Gas 800-303-0752
Phone: US West 636-4632



WATER AND SEWER SERVICE EXTENSIONS
TYPICAL CONNECTION EXAMPLES

LEGEND

- Proposed 8" Pvc Water Main (dr 18) with MJ Fittings (unless otherwise noted)
- Widefield Water & Sanitation District Standard Fire Hydrant Assembly. Install per Widefield Water And Sanitation District Construction Specifications
- 8" Gate Valve (unless otherwise noted)
- Tee w/Concrete Thrust Block

Minimum Radius Shown For Water Main = 290'
Per WWS Specifications and El Paso County ECM 4.3.6.a.1&2,
The Minimum Cover over Water Main & Services and Sanitary
Sewer Mains & Services is 5 feet.

WATER AND SEWER MAIN EXTENSIONS

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

Signed _____ Date _____

Print Name J. Mark Watson, 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 _____ Date _____
Security Fire Department

UTILITY APPROVALS

DISTRICT APPROVALS

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

WIDEFIELD WATER AND SANITATION DISTRICT
WASTEWATER DESIGN APPROVAL

Date: _____ By: _____

PROJECT NO. _____

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

WIDEFIELD WATER AND SANITATION DISTRICT
WATER DESIGN APPROVAL

Date: _____ By: _____

PROJECT NO. _____

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.



Know what's below.
Call before you dig.

Project No.: 19016

Date: April 30, 2021

Design: MJK

Drawn: MJK

Check: AWMc

Revisions:

SHEET

24

24 of 30 Sheets

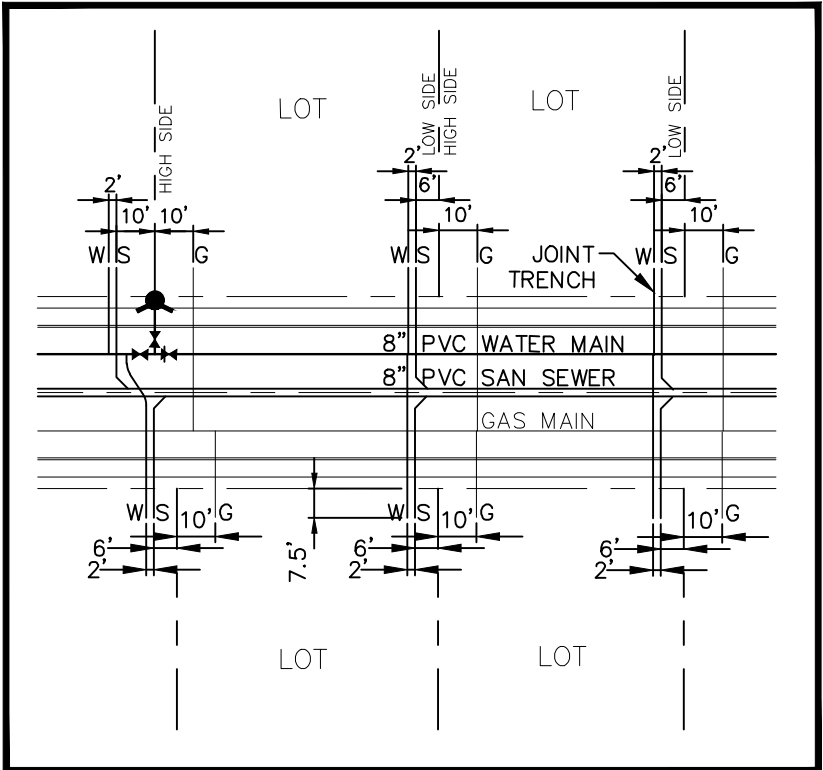
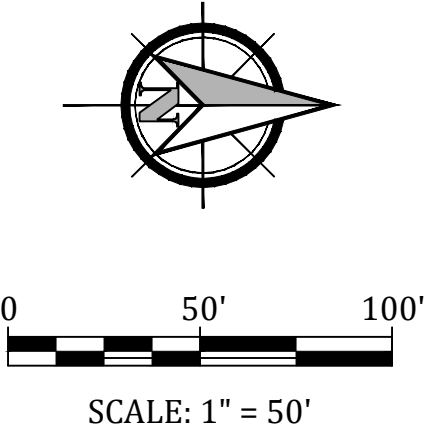
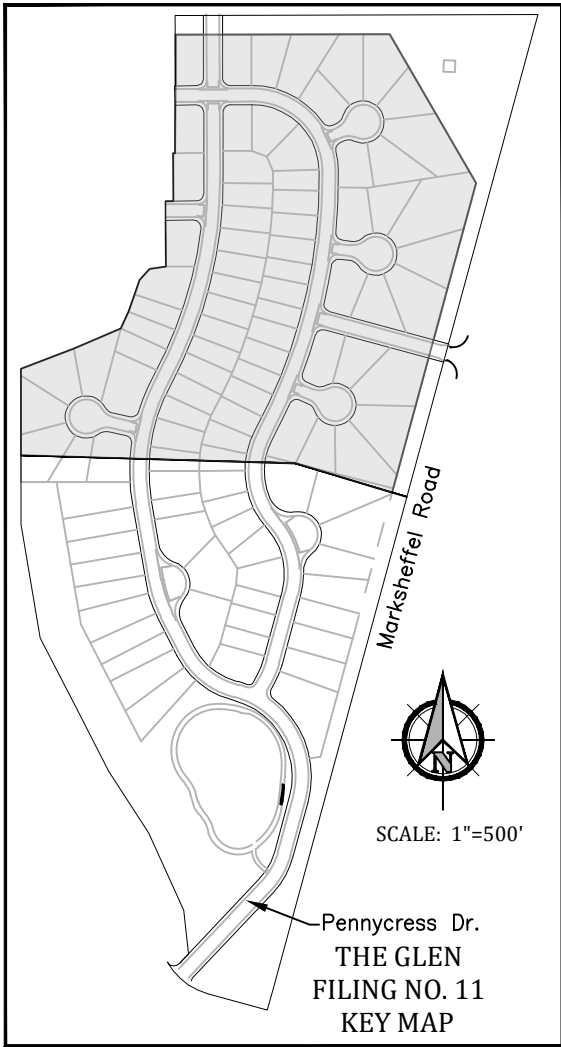
19016-GW11-24-UT.dwg/Apr 29, 2021

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 495-2283
Gas:	Peoples Natural Gas 800-363-0752
Phone:	US West 636-4632

LEGEND	
	Proposed 8" Pvc Water Main (dr 18) with MJ Fittings (unless otherwise noted)
	Widefield Water & Sanitation District Standard Fire Hydrant Assembly. Install per Widefield Water And Sanitation District Construction Specifications
	8" Gate Valve (unless otherwise noted)
	Tee w/Concrete Thrust Block
Minimum Radius Shown For Water Main = 290'	
Per WWS&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.	

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.



WATER AND SEWER SERVICE EXTENSIONS
TYPICAL CONNECTION EXAMPLES

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 _____ Date _____

Print Name J. Mark Watson, 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 _____ Date _____
Security Fire Department

UTILITY APPROVALS

DISTRICT APPROVALS

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

WIDEFIELD WATER AND SANITATION DISTRICT
WASTEWATER DESIGN APPROVAL

Date: _____ By: _____

PROJECT NO. _____

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

WIDEFIELD WATER AND SANITATION DISTRICT
WATER DESIGN APPROVAL

Date: _____ By: _____

PROJECT NO. _____

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.



Know what's below.
Call before you dig.

GLEN AT WIDEFIELD NO. 11

Utility Plan
NORTH HALF OF SITE
EL PASO, COUNTY, COLORADO

Project No.: 19016

Date: April 30, 2021

Design: MK

Drawn: MJK

Check: AWMc

Revisions:

SHEET

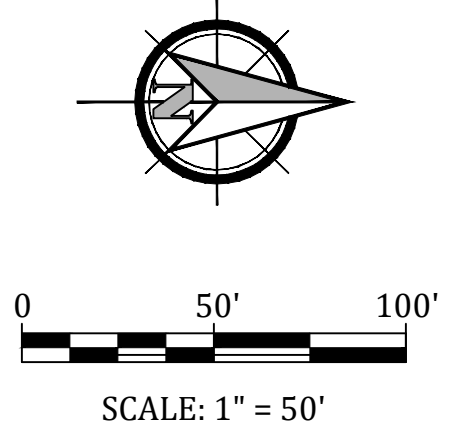
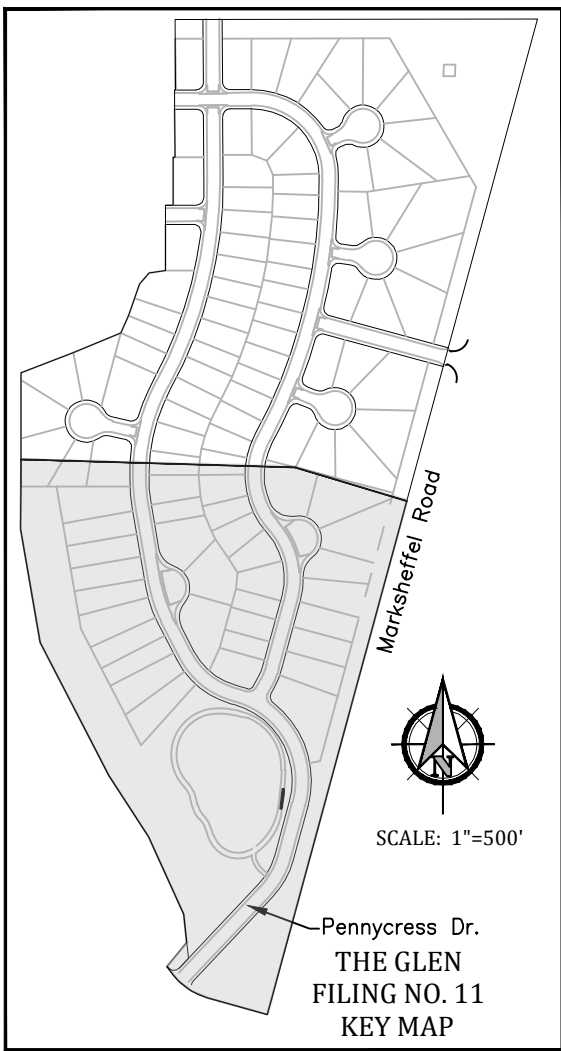
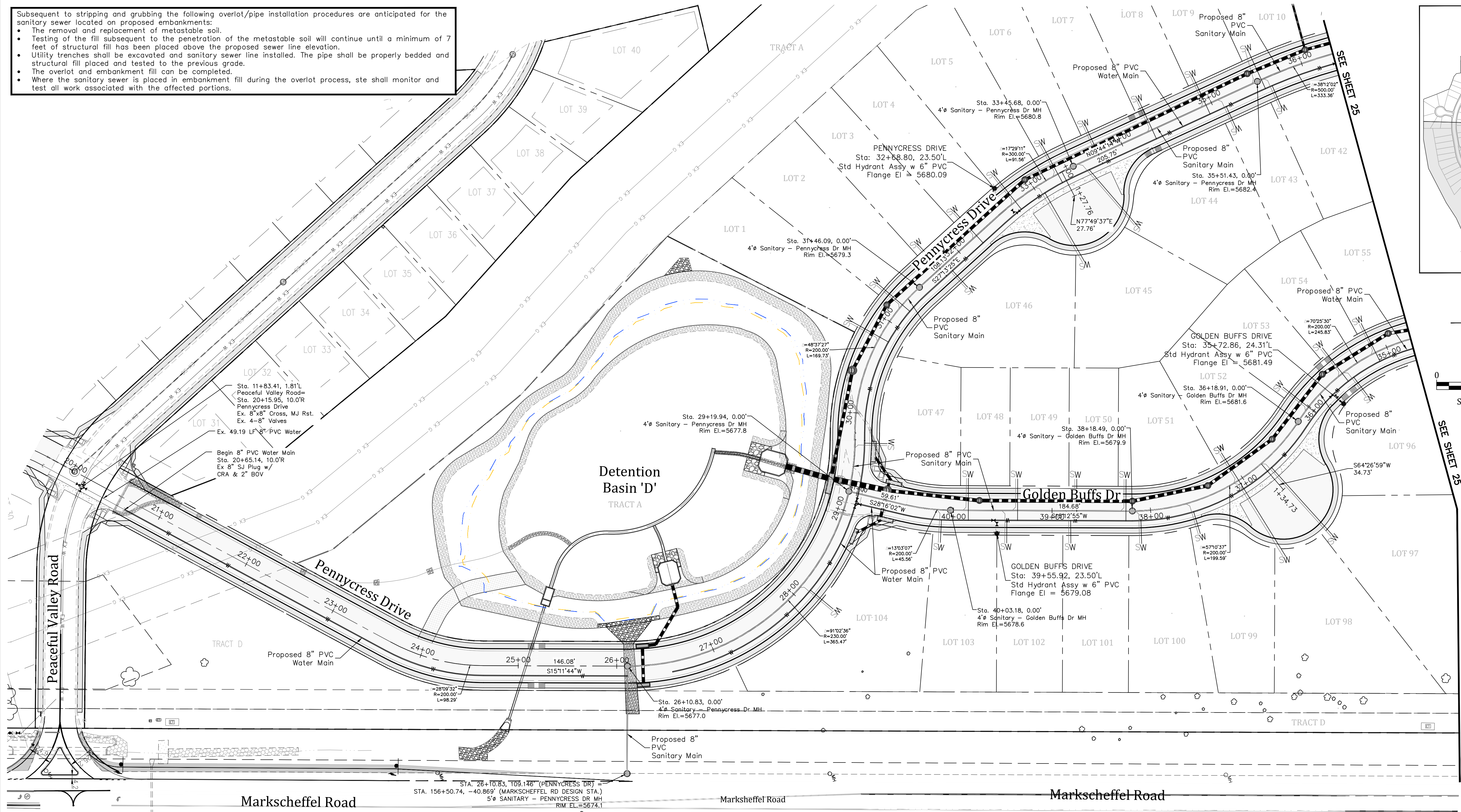
25

25 of 30 Sheets

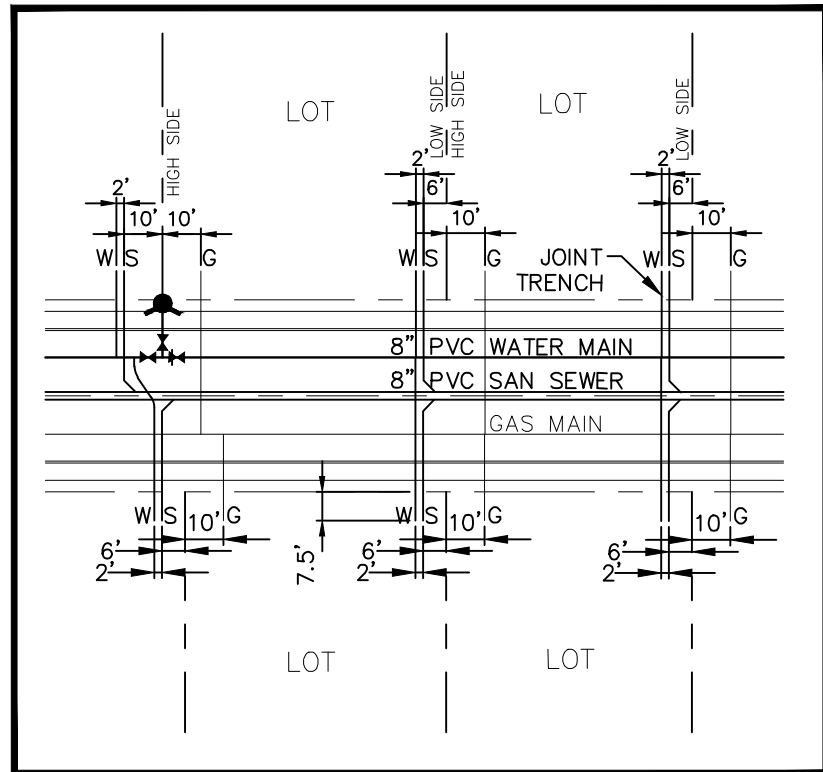
19016-GW11-25-UT.dwg/Apr 29, 2021

Subsequent to stripping and grubbing the following overlot/pipe installation procedures are anticipated for the sanitary sewer located on proposed embankments:

- The removal and replacement of metastable soil.
- Testing of the fill subsequent to the penetration of the metastable soil will continue until a minimum of 7 feet of structural fill has been placed above the proposed sewer line elevation.
- Utility trenches shall be excavated and sanitary sewer line installed. The pipe shall be properly bedded and structural fill placed and tested to the previous grade.
- The overlot and embankment fill can be completed.
- Where the sanitary sewer is placed in embankment fill during the overlot process, ste shall monitor and test all work associated with the affected portions.



ADDITIONAL UTILITY NOTES	
Gas - All Gas Mains and Services are to be installed per the city of Colorado Springs.	
Electric - All Electric Services are to be installed per the City of Fountain Electric Division.	
UTILITY CONTACTS	
Sewer:	Widefield W&S District (WWSD) 390-7111
Water:	Widefield W&S District (WWSD) 390-7111
Electric:	Mountain View Electric 485-2283
Gas:	Peoples Natural Gas 800-363-0752
Phone:	US West 636-4632



WATER AND SEWER SERVICE EXTENSIONS
TYPICAL CONNECTION EXAMPLES

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 WWSD Specifications and El Paso County ECM 4.3.6.a.1&2. The Minimum Cover oer Water Main & Services and Sanitary Sewer Mains & Services is 5 feet.	

WATER AND SEWER MAIN EXTENSIONS

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

Signed _____ Date _____

Print Name J. Mark Watson, 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 _____ Date _____

UTILITY APPROVALS

DISTRICT APPROVALS

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

**WIDEFIELD WATER AND SANITATION DISTRICT
WASTEWATER DESIGN APPROVAL**

Date: _____ By: _____

PROJECT NO. _____

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

**WIDEFIELD WATER AND SANITATION DISTRICT
WATER DESIGN APPROVAL**

Date: _____ By: _____

PROJECT NO. _____

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.



Know what's below.
Call before you dig.

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



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

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

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 495-2283
Gas:	Peoples Natural Gas 800-333-0752
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)

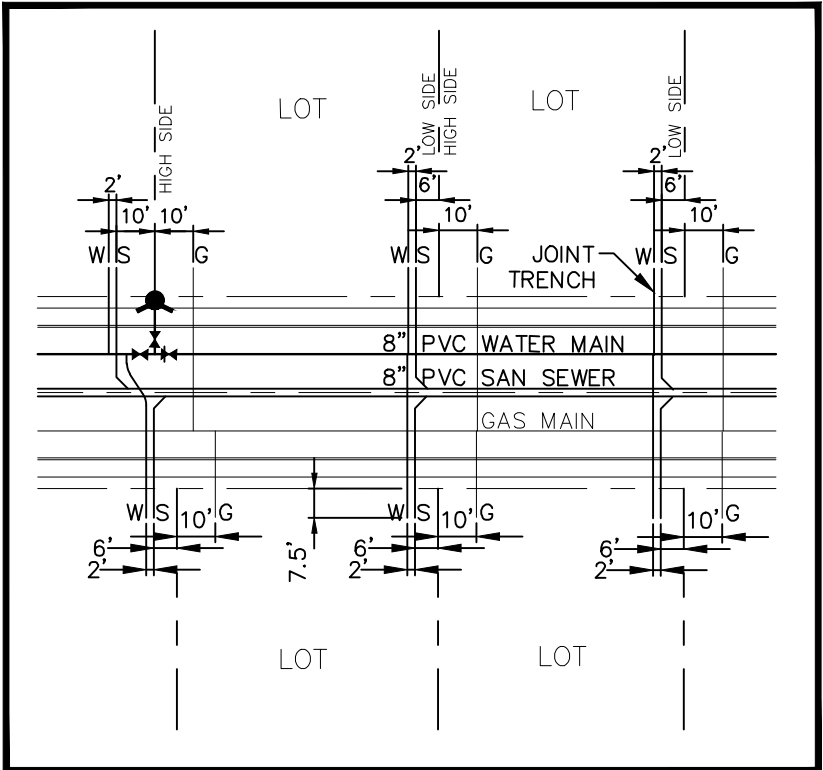
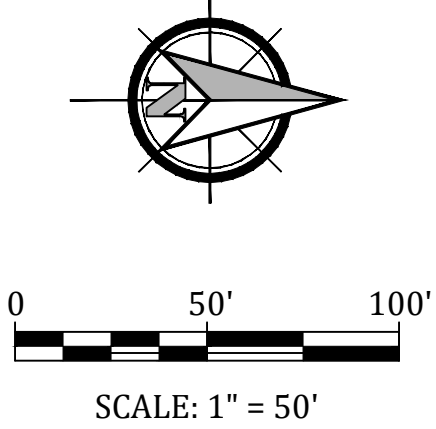
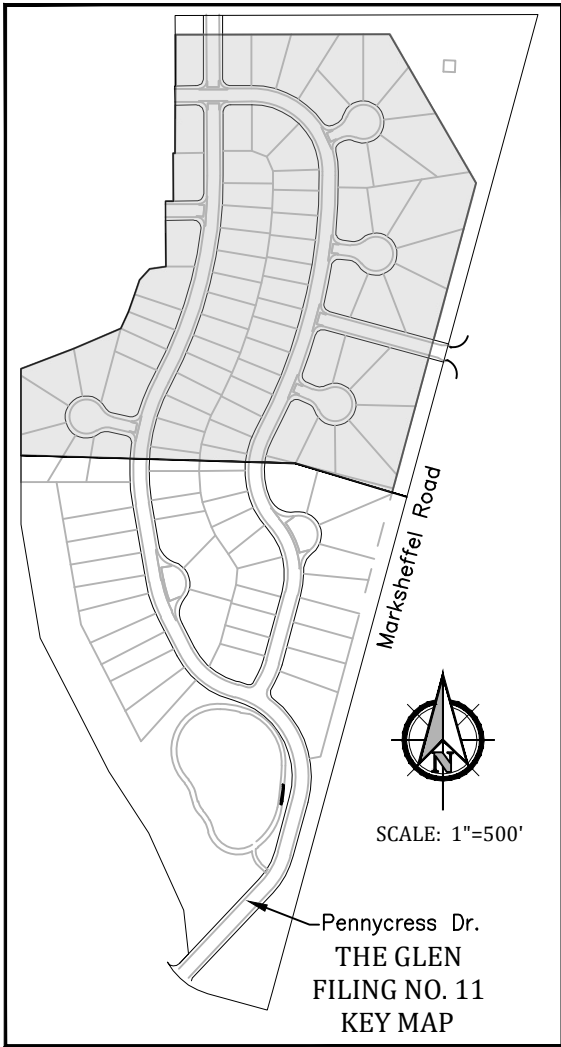
Tee w/Concrete Thrust Block

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.

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.



WATER AND SEWER SERVICE EXTENSIONS
TYPICAL CONNECTION EXAMPLES

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 _____ Date _____

Print Name J. Mark Watson, 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 _____ Date _____
Security Fire Department

UTILITY APPROVALS

DISTRICT APPROVALS

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

WIDEFIELD WATER AND SANITATION DISTRICT
WASTEWATER DESIGN APPROVAL

Date: _____ By: _____

PROJECT NO. _____

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

WIDEFIELD WATER AND SANITATION DISTRICT
WATER DESIGN APPROVAL

Date: _____ By: _____

PROJECT NO. _____

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: April 30, 2021

Design: MJK

Drawn: MJK

Check: AWMc

Revisions:

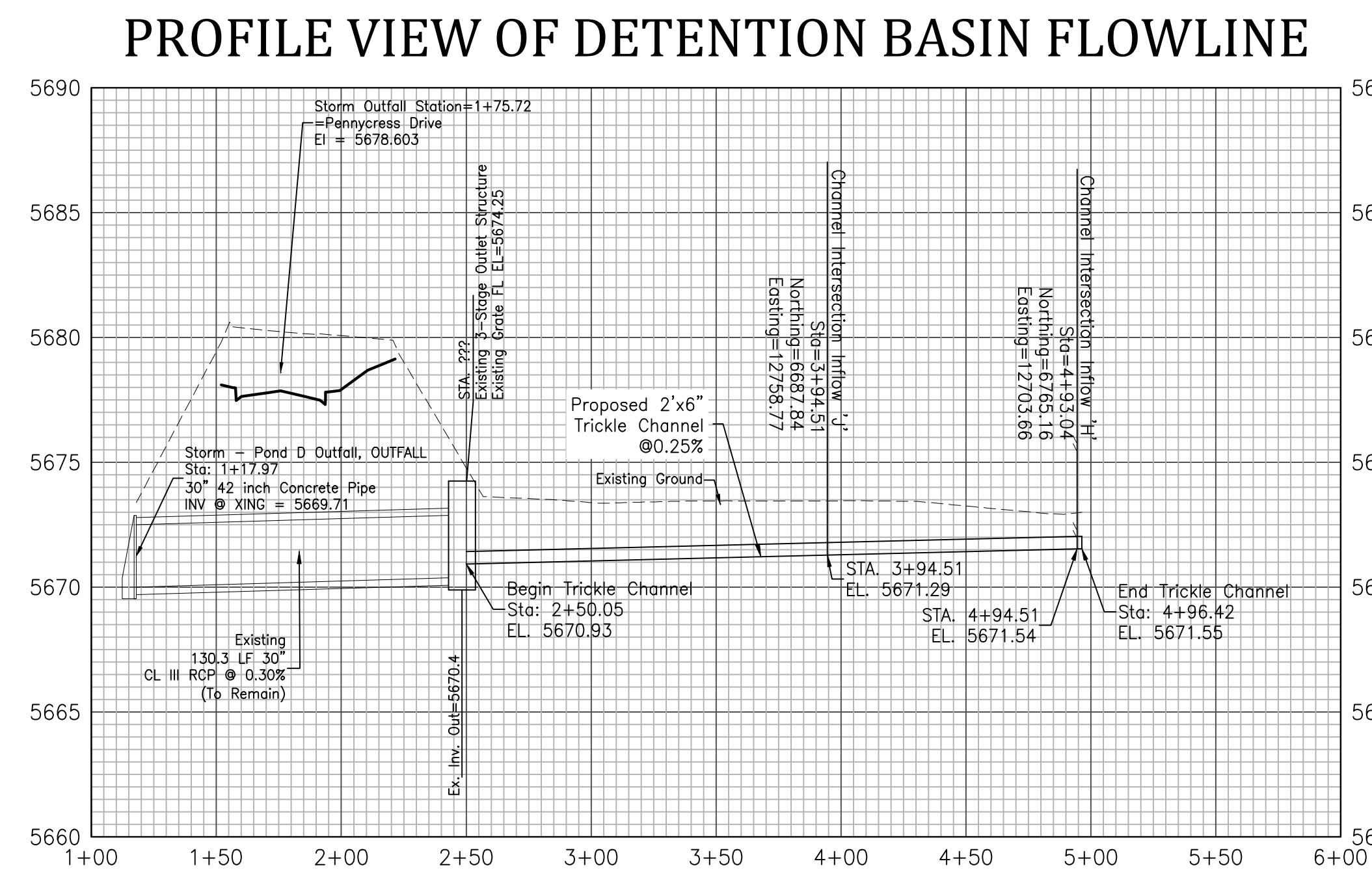
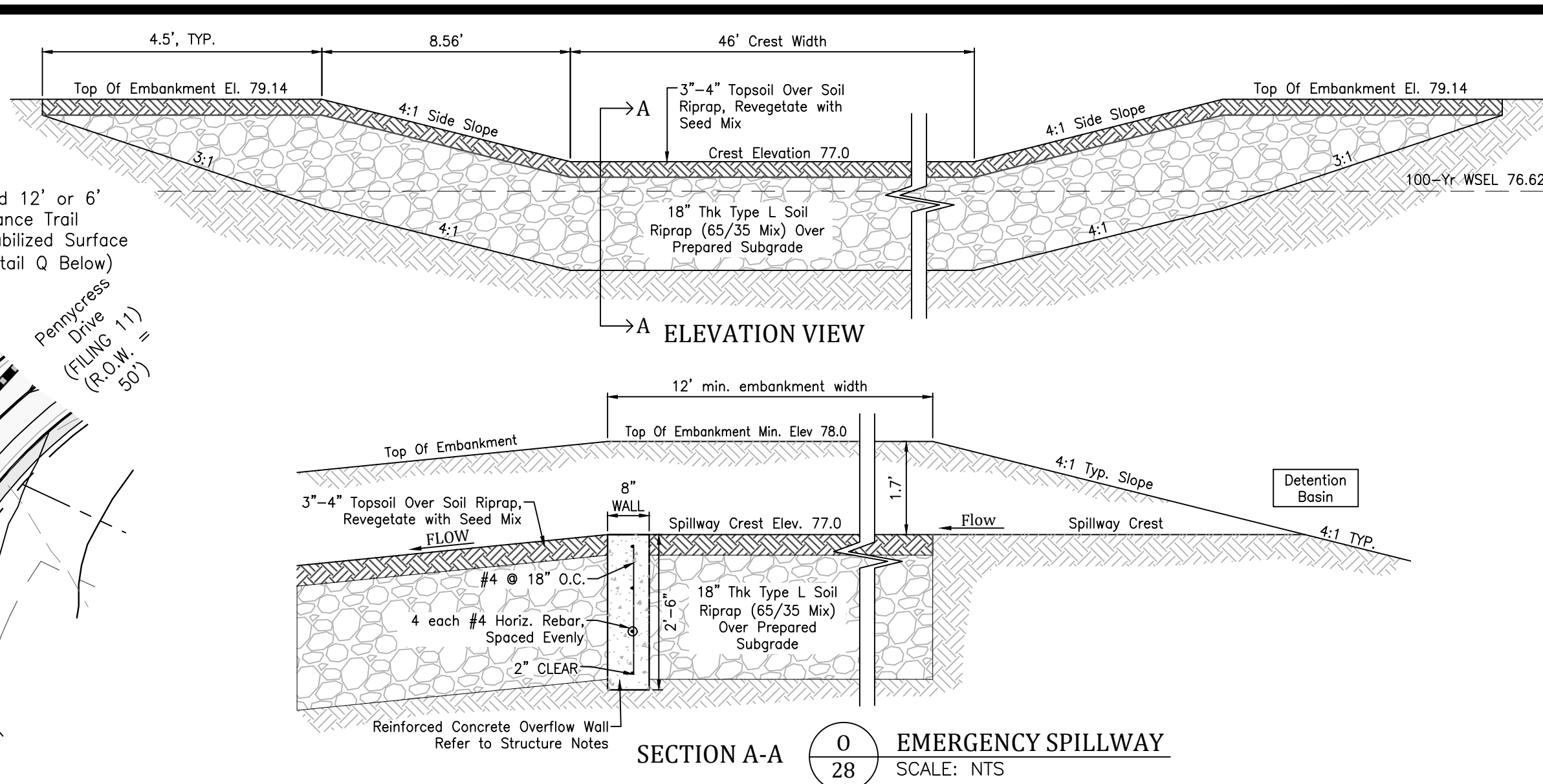
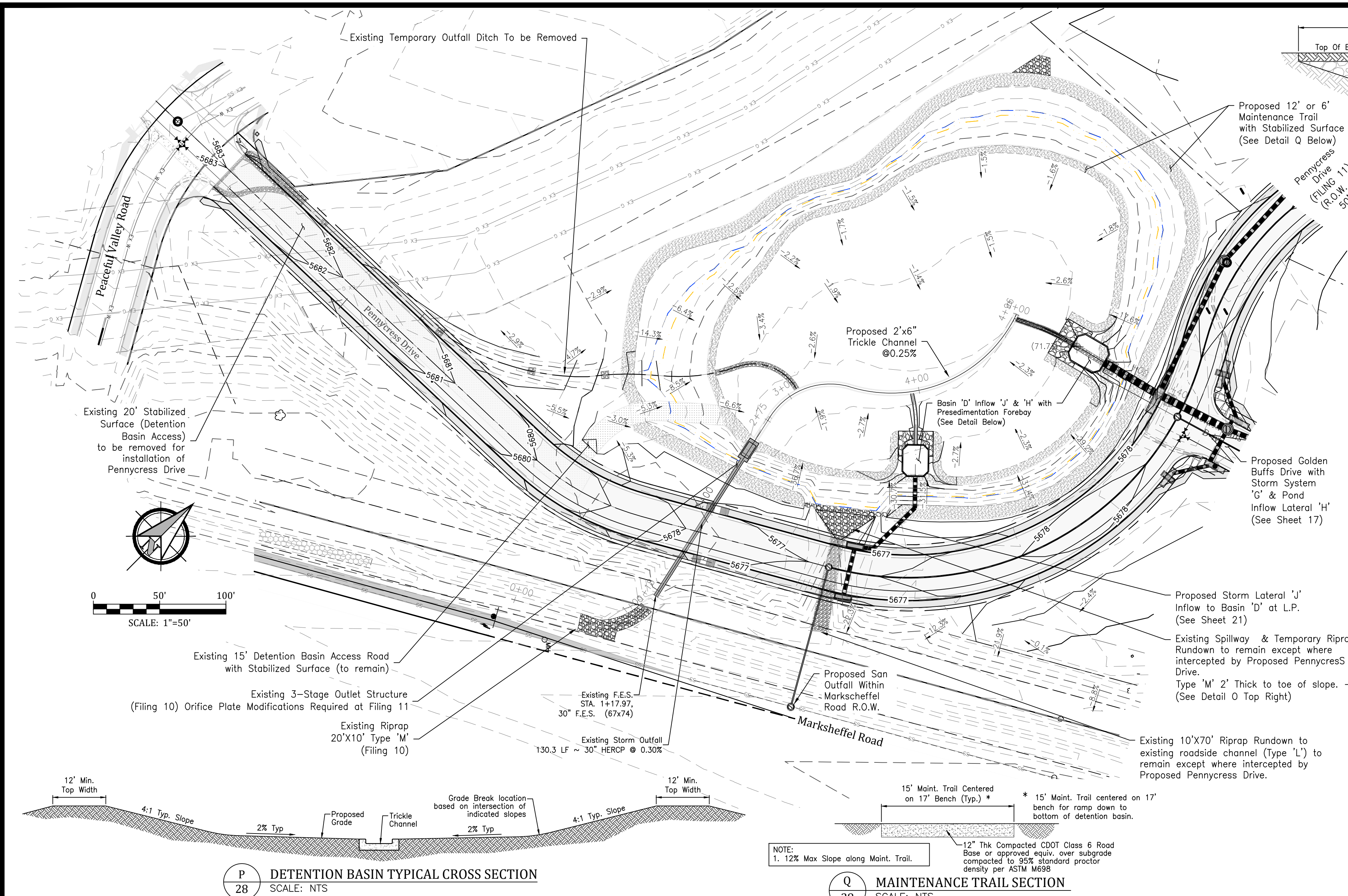
SHEET

27

27 of 30 Sheets



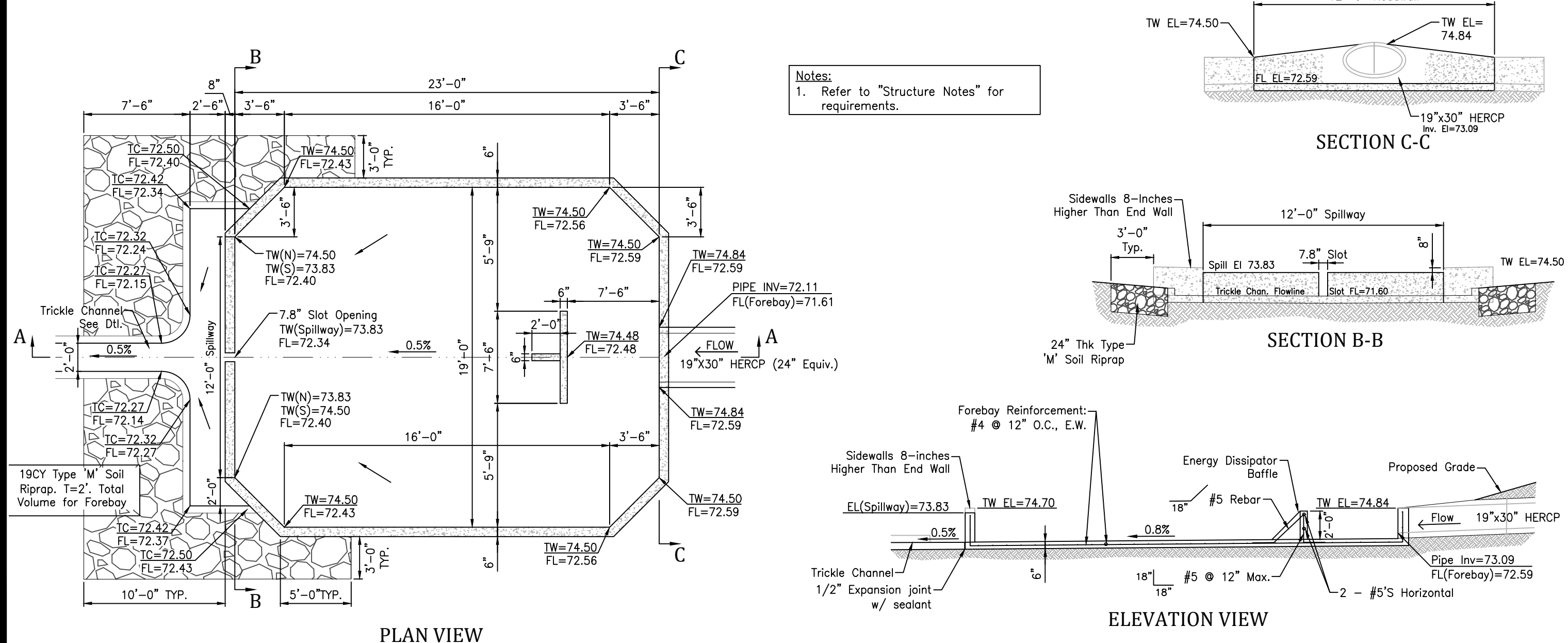
Know what's below.
Call before you dig.



P 28 DETENTION BASIN TYPICAL CROSS SECTION
SCALE: NTS

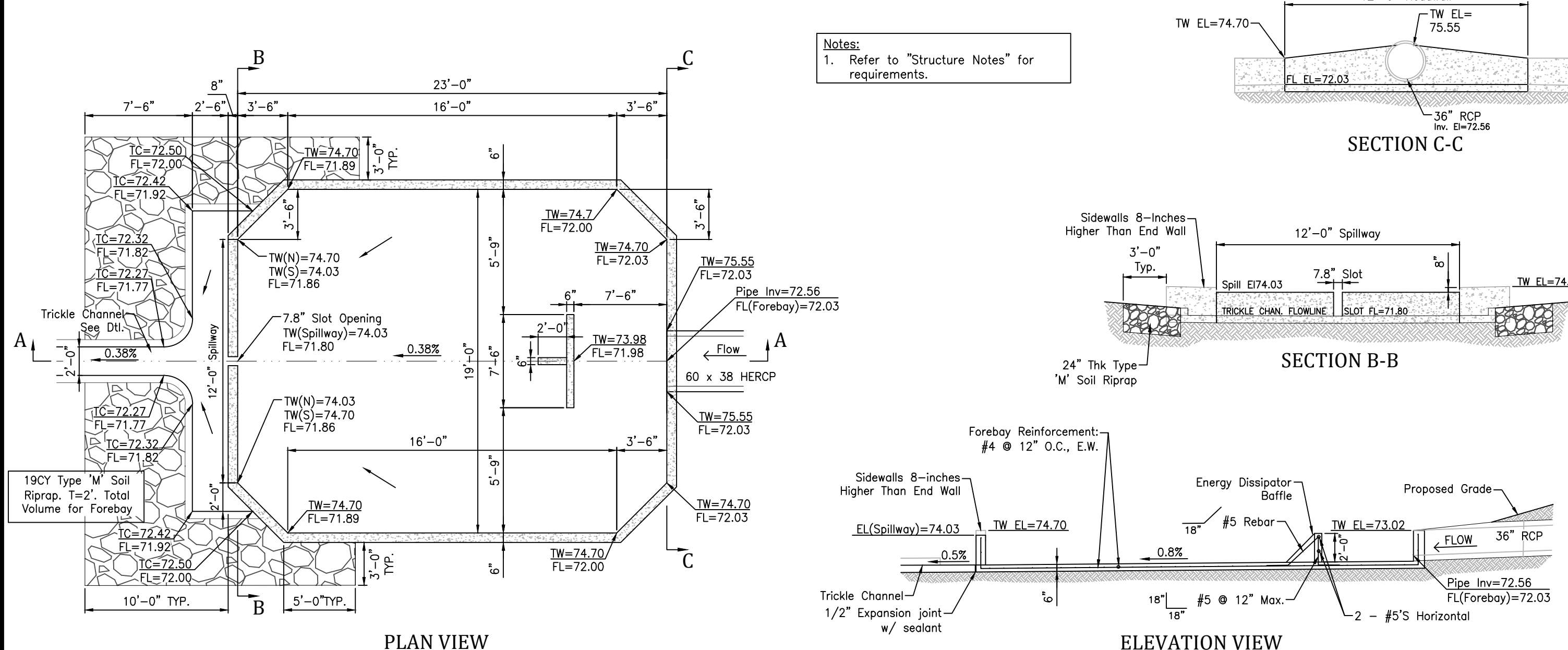
Q 28 MAINTENANCE TRAIL SECTION
SCALE: NTS

Inflow 'J' Sedimentation Basin Detail



R 28 PRESEDIMENTATION FOREBAY
SCALE: NTS

Inflow 'H' Sedimentation Basin Detail

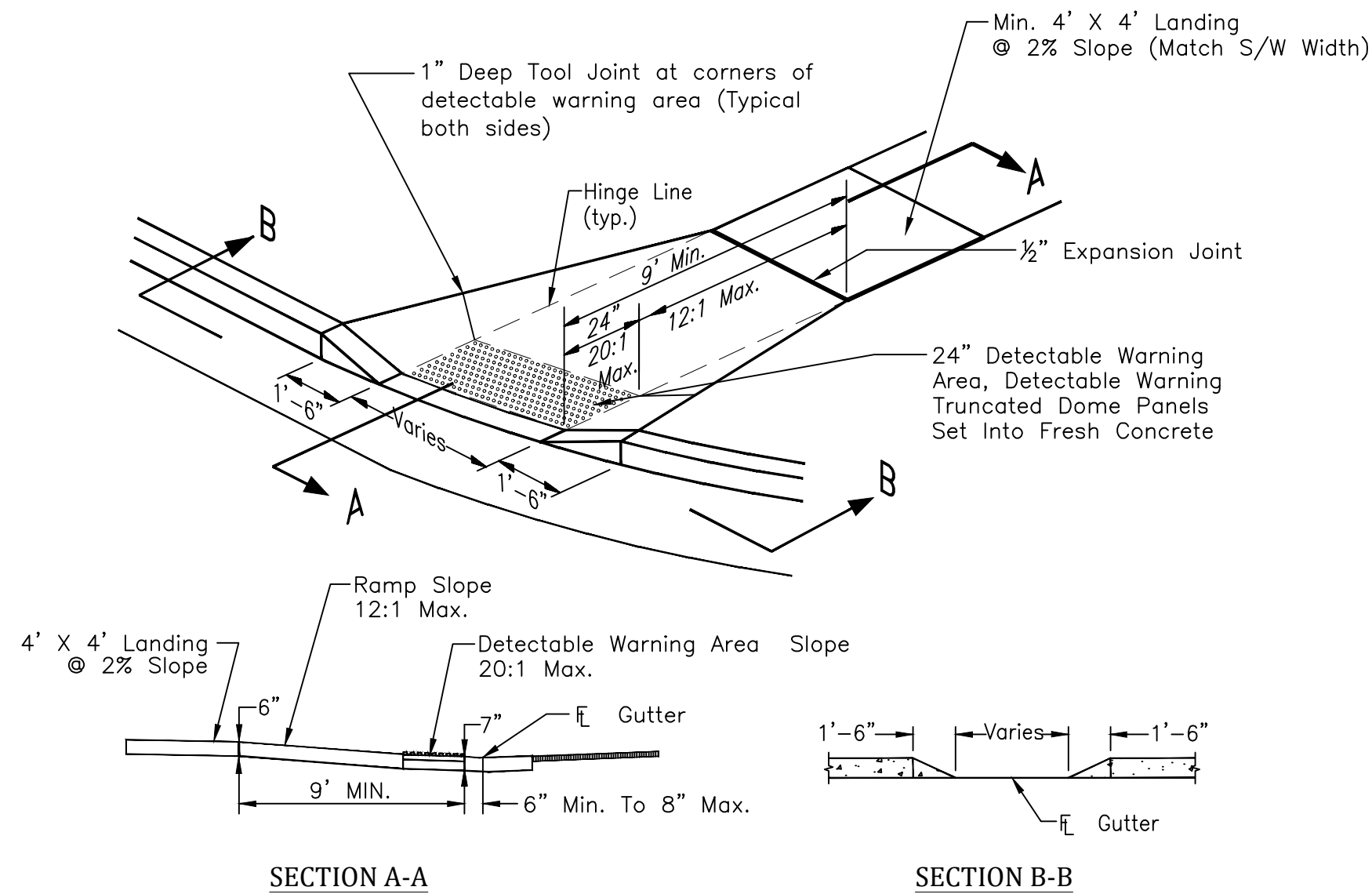


S 28 PRESEDIMENTATION FOREBAY
SCALE: NTS

GENERAL NOTES

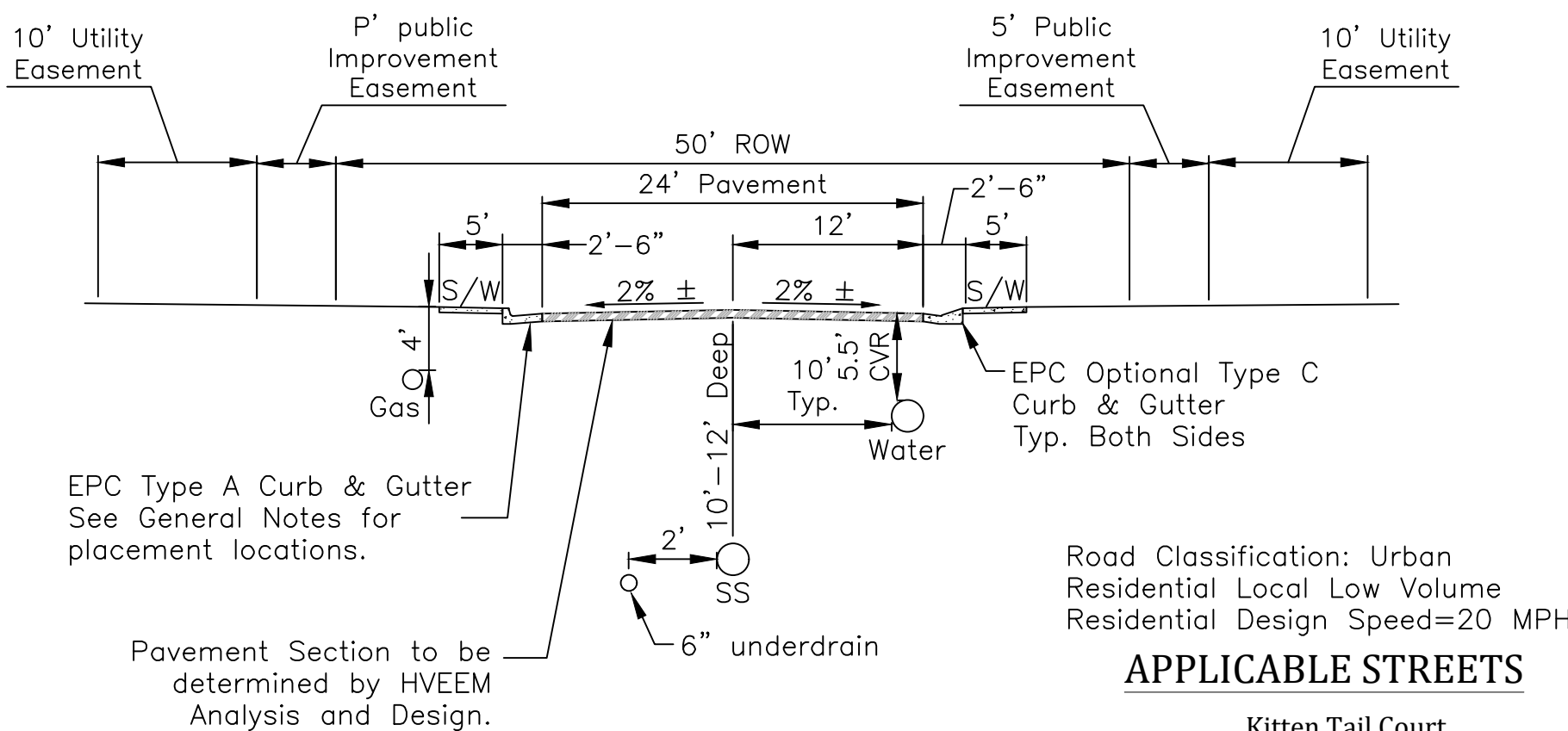
- ▲ Expansion Joints shall be installed when abutting existing concrete or fixed structure. Expansion Joint Material shall be 1/2" thick and shall extend the full depth of contact surface.

Concrete Shall be per El Paso County Engineering Division Specifications.



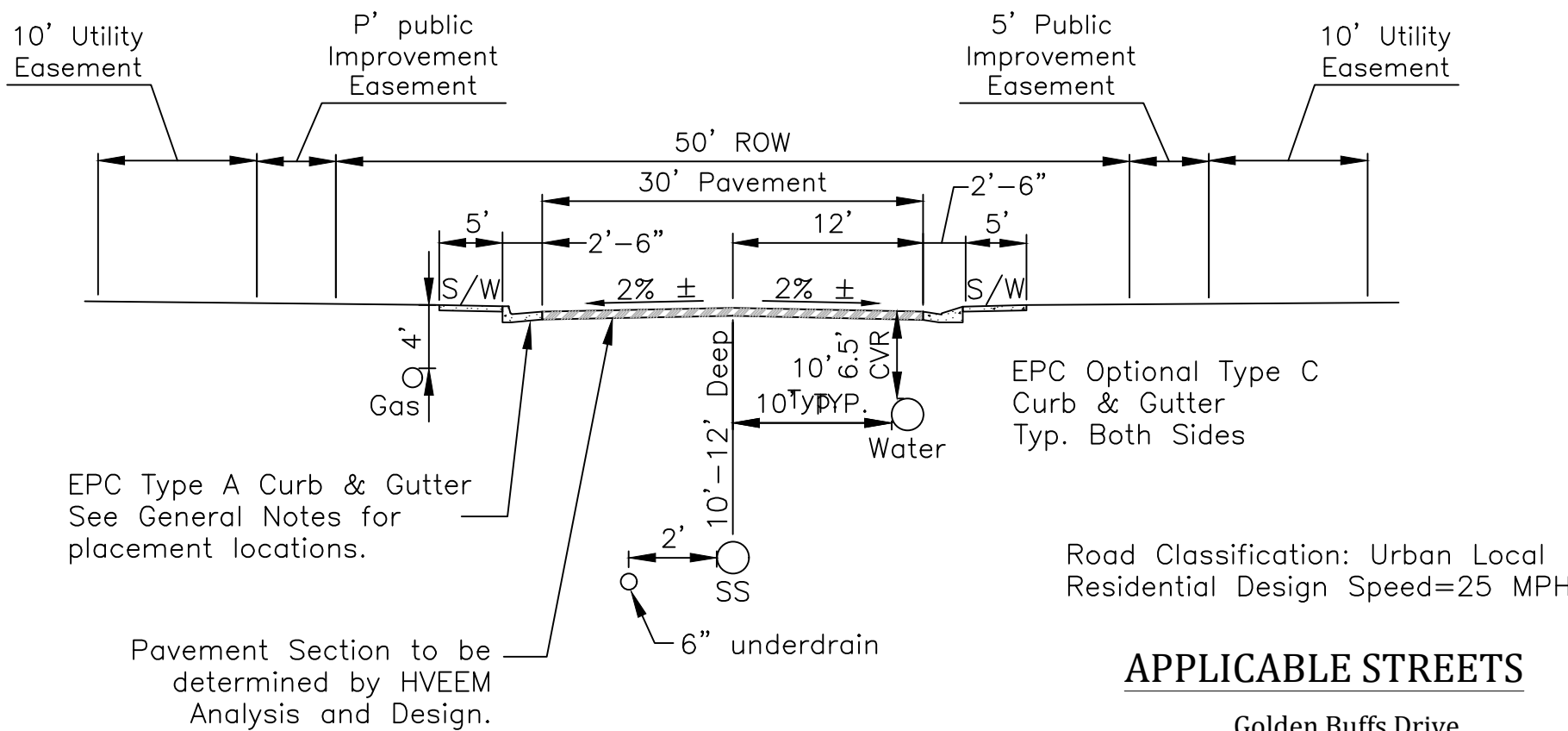
PEDESTRIAN RAMP DETAILS

EPC STD. SD_2-40
Not To Scale



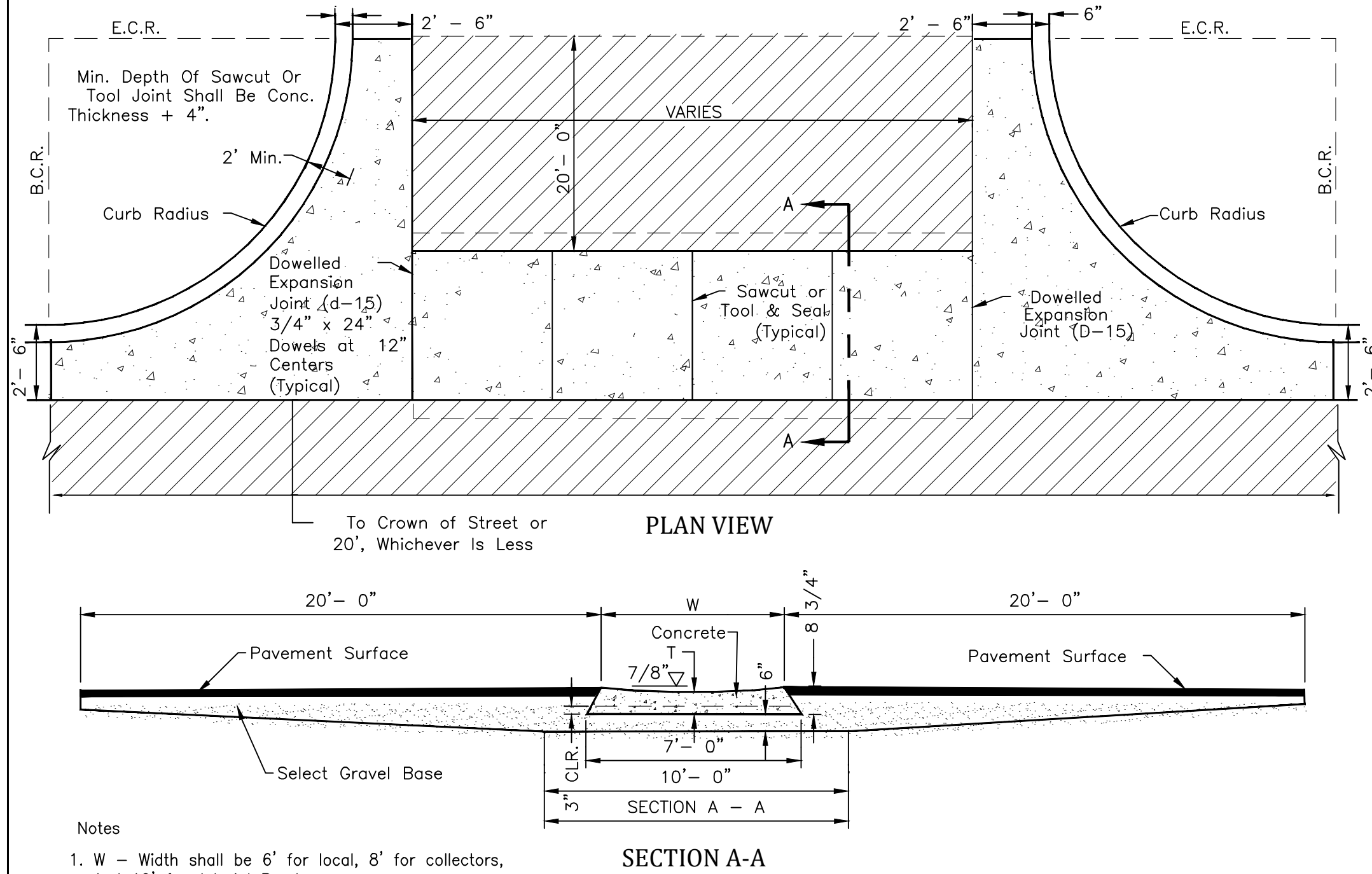
TYPICAL STREET SECTION GLEN AT WIDEFIELD FILING NO. 11

Not To Scale



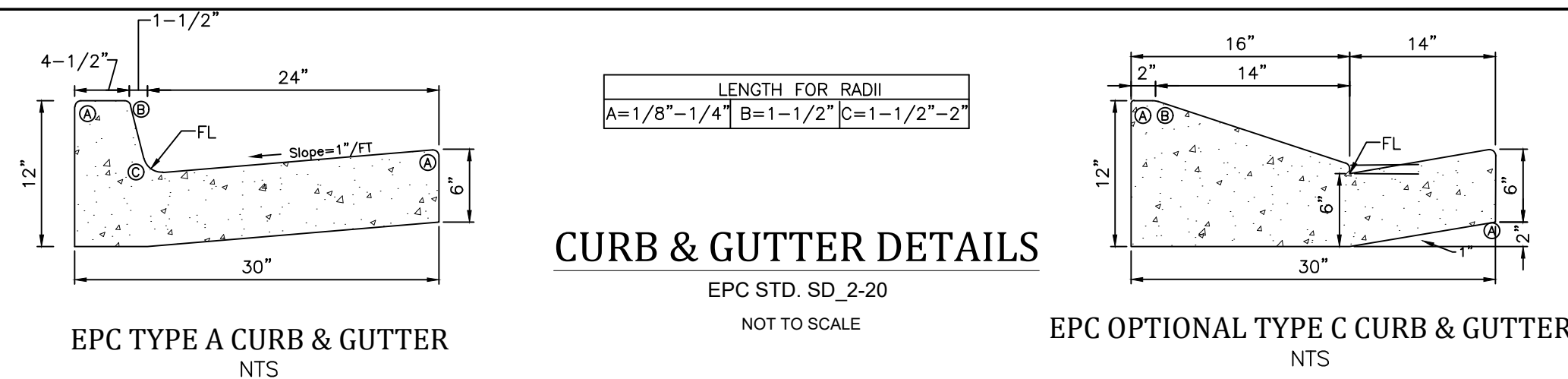
TYPICAL STREET SECTION GLEN AT WIDEFIELD FILING NO. 11

Not To Scale



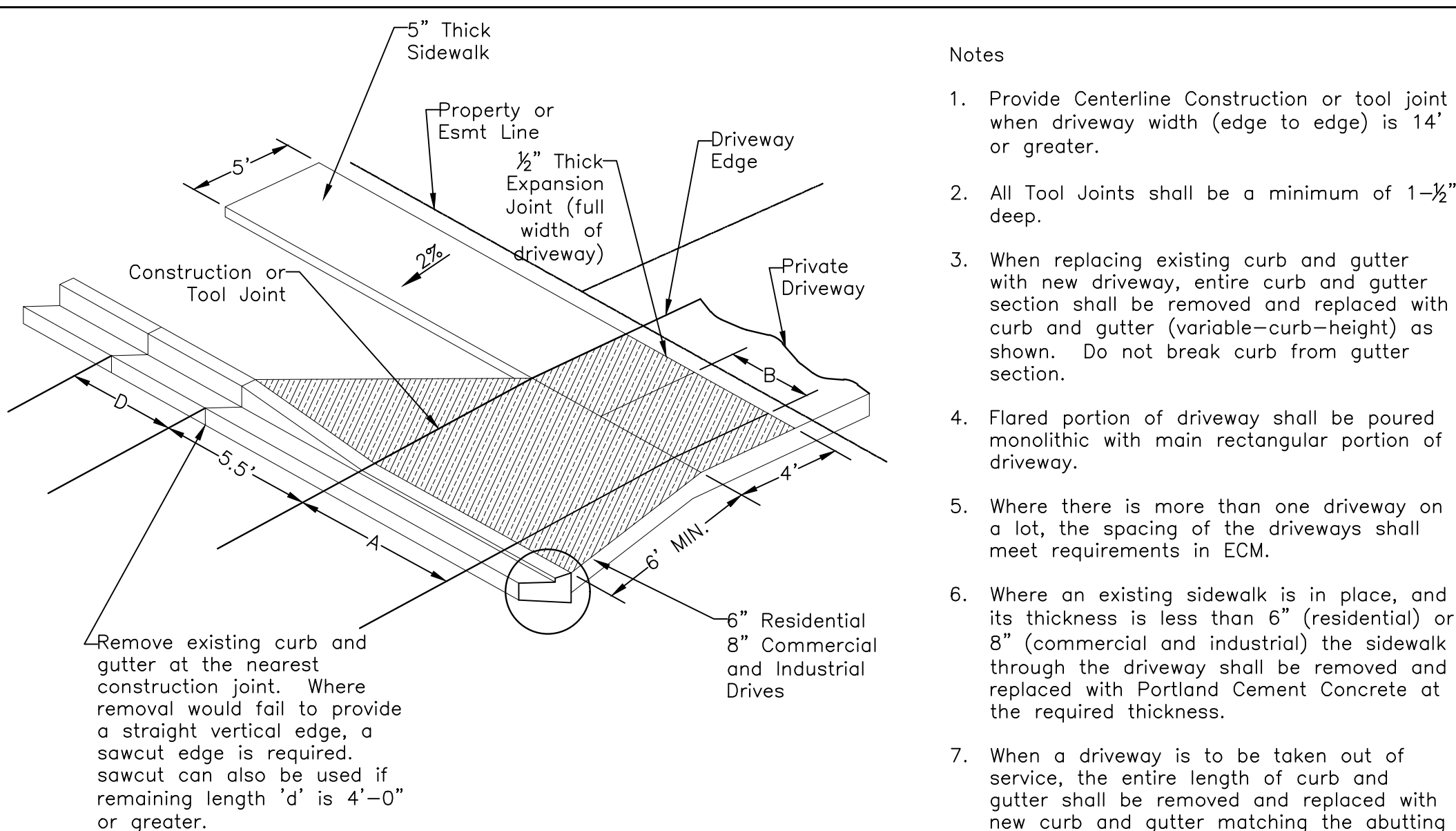
CROSS PAN DETAIL

EPC STD. SD_2-26
Not To Scale



CURB & GUTTER DETAILS

EPC STD. SD_2-20
NOT TO SCALE

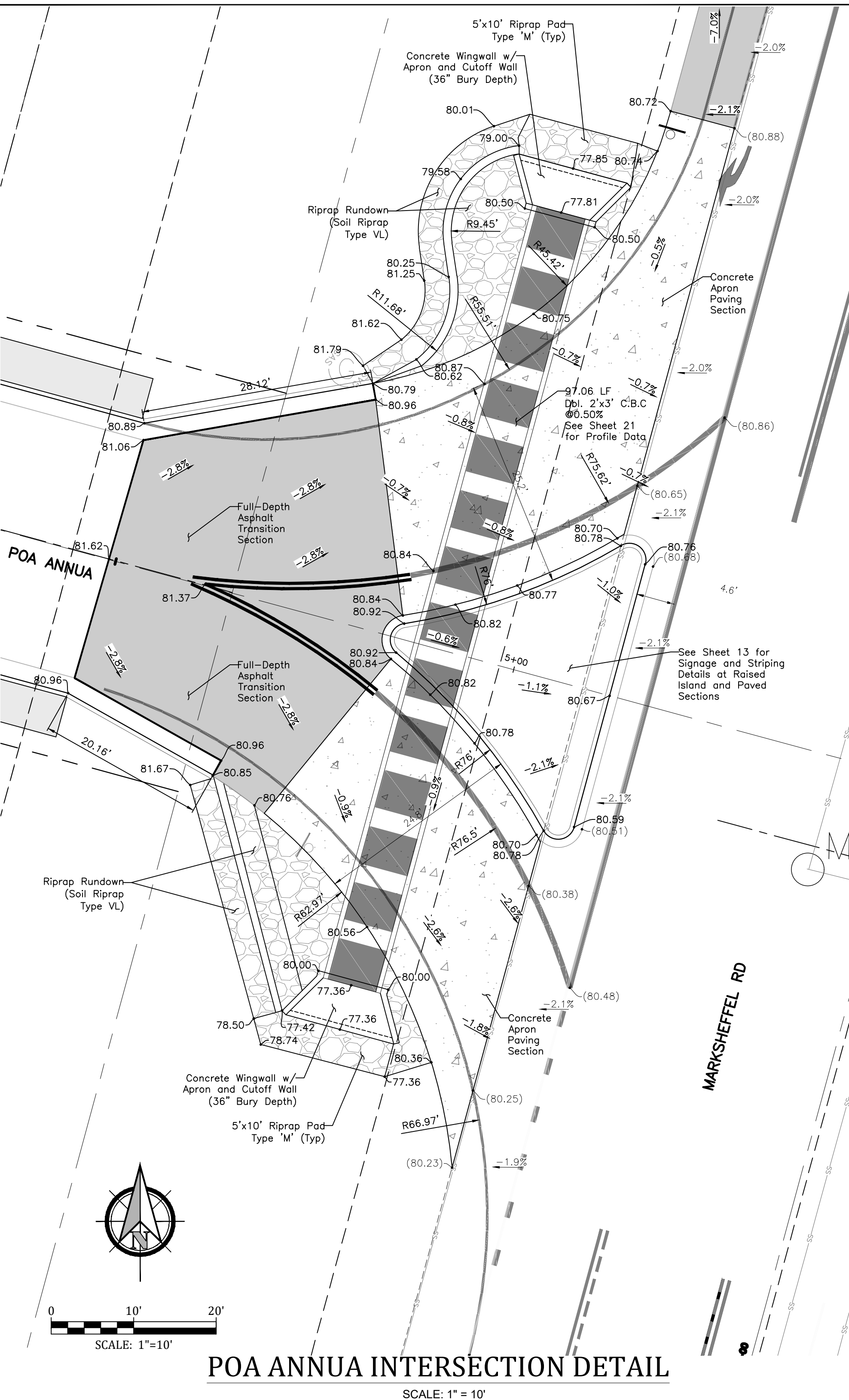


DRIVEWAY DETAIL WITH DETACHED SIDEWALK

EPC STD. SD_2-25
Not To Scale

GENERAL NOTES

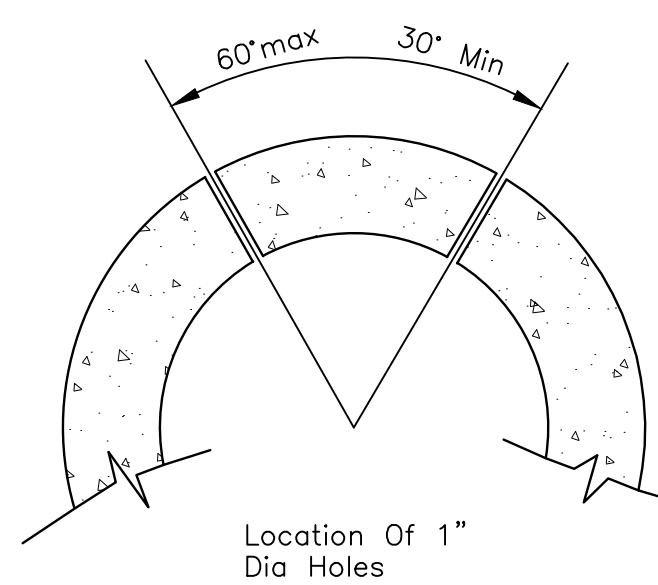
- All work shall be done in accordance with current Engineering Manual and ADA requirements.
- Contractor to notify Engineering Division inspection staff 48 hours prior to concrete placement.
- Pedestrian ramp construction shall be a minimum 4,500 psi concrete, minimum 4" thick, non-colored, coarse broom 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 pacing 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'

1. Underdrain to be constructed where indicated by a dashed line (-----).
2. Solid drain pipe will be used in areas as shown on the plans and as directed by the sanitary engineer.
3. All underdrain construction shall conform with the latest City of Colorado Springs Standards.
4. Engineered fabric to have a minimum 12-inch overlap above underdrain granular fill.
5. Underdrain Pipe to be constructed with the top of pipe equal to or below the bottom of the sanitary manhole.
6. Geotechnical Engineer to determine extent of active/passive underdrain depending upon conditions encountered during construction.
7. The Connection between the active and passive portions of the underdrain system is to be constructed with a check valve or barrier so that all collected groundwater is directed into the passive pipe section.



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

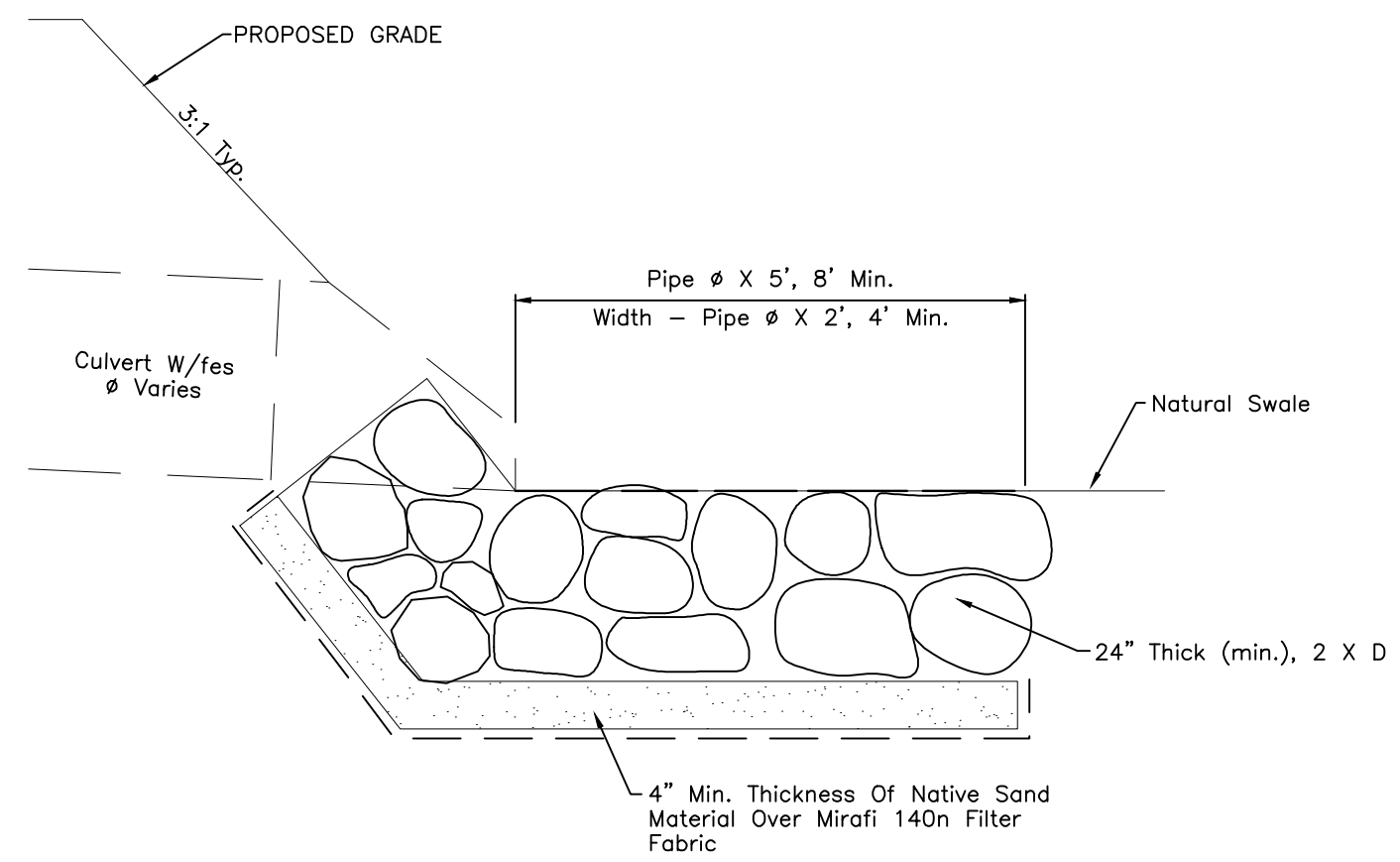
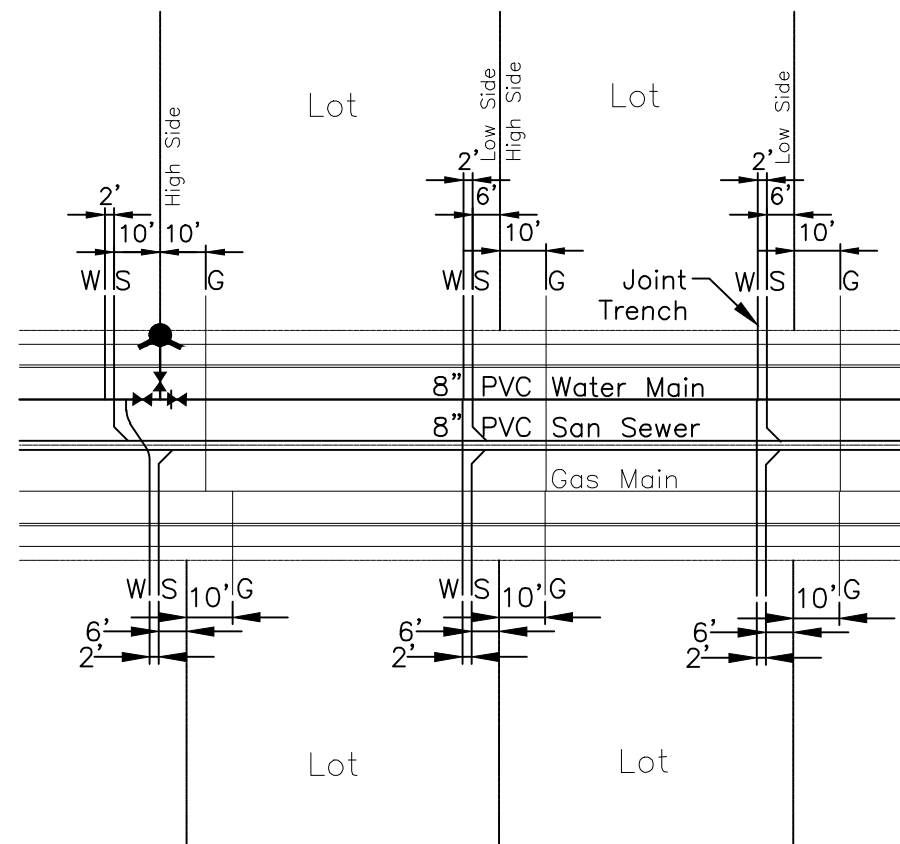


Diagram illustrating the installation of a water main valve. The valve is shown in cross-section, with the back of the curb and the top of the pavement indicated. The valve is set into the ground, with the bottom of the lower flange elevation (Fig. E1) adjusted as necessary to provide a minimum 4-inch clearance to the final ground surface. The backfill material is selected based on the direction of the inspector. The valve is labeled "Water Main" and "6" Valve". The diagram also shows the "Bury" depth and the "Level" of the ground surface.

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

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 Fill Shall Be Properly Bedded And Structural Fill Placed And Tested To The Proposed 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.



PASSIVE UNDERDRAIN DETAIL

Not To Scale

ACTIVE UNDERDRAIN DETAIL

Not To Scale

Sanitary Sewer

Flow

Flow

Active Underdrain

Full Size Clean Outs With Screw Caps.

3'-0" Below Finished Grade Iron Body Clean-out Caps With Threaded Plugs

10'-0"

1'-0"±

Manhole Bench

Pre-cast Manhole

Trench Dam (If Required)

PLAN VIEW OF BASE

SECTION VIEW

TYPICAL STEP PLACEMENT

TYPICAL CHANNEL DETAILS

TOE POCKETS DETAILS

NOTES

- TYPE II MANHOLES SHOULD BE USED WHEN APPROPRIATE AND TYPICALLY WHEN THE PIPE SIZES ARE 30" OR LESS INSIDE DIAMETER.
- VIEW AND DETAILS ARE TECHNICAL DESIGN ENGINEER SHALL DETERMINE MANHOLE BASE CONFIGURATION AND DIMENSIONS FOR PARTICULAR PIPE SIZES AND ALIGNMENT.
- OTHER LADDER OF STEPS SHALL BE INSTALLED WHEN MANHOLE DEPTH EXCEEDS 30". STEPS IN BASE SHALL BE INSTALLED IN "TOE POCKETS" (SEE DETAIL 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 ($\frac{1}{4}$ " MAX., $\frac{1}{8}$ " PER FOOT. MIN.).
- FLOOR OF MANHOLE SHALL BE TROWELLED TO A SMOOTH, HARD SURFACE AND SHALL SLOPE TOWARDS THE OUTLET ($\frac{1}{4}$, $\frac{1}{8}$ " PER FT. MIN.) . FLOOR SHALL BE SHAPED AND CHANNIELED, TOWARDS THIS SHEET.

SCALE: NOT TO SCALE

Storm Sewer Manhole Detail Type II		
Standard Drawing		
DATE APPROVED: André P. Brackin DEPARTMENT OF TRANSPORTATION	DRAWN BY: 11/10/04	CHECKED BY: SD-3-2

TYPICAL JOINT-TRENCH UTILITY SERVICE DETAIL

Not To Scale



Planning and Community
Development Department
2880 International Circle
Colorado Springs, Colorado 80910
Phone: 719.520.6300
Fax: 719.520.6695
Website www.elpasoco.com

DEVIATION REQUEST AND DECISION FORM

Updated: 6/26/2019

PROJECT INFORMATION

Project Name : The Glen at Widefield Filing No 11
Schedule No.(s) : 5522000009, 5522000007
Legal Description : See Attached Document

APPLICANT INFORMATION

Company : Glen Investment Group VIII, LLC
Name : Ryan Watson
☒ Owner ☐ Consultant ☐ Contractor
Mailing Address : 3 Widefield Blvd, Colorado Springs, CO 80911

Phone Number : 719-392-0194
FAX Number :
Email Address : ryan@widefieldinvestmentgroup.com

ENGINEER INFORMATION

Company : Kiowa Engineering Corp
Name : Andrew McCord
Colorado P.E. Number : 25057
Mailing Address : 1604 South 21st Street, Colorado Springs, CO 80904-4208

Phone Number : 719-630-7342
FAX Number : 719-630-0406
Email Address : amccord@kiowaengineering.com

OWNER, APPLICANT, AND ENGINEER DECLARATION

To the best of my knowledge, the information on this application and all additional or supplemental documentation is true, factual and complete. I am fully aware that any misrepresentation of any information on this application may be grounds for denial. I have familiarized myself with the rules, regulations and procedures with respect to preparing and filing this application. I also understand that an incorrect submittal will be cause to have the project removed from the agenda of the Planning Commission, Board of County Commissioners and/or Board of Adjustment or delay review until corrections are made, and that any approval of this application is based on the representations made in the application and may be revoked on any breach of representation or condition(s) of approval.

Signature of owner (or authorized representative)

April 15th 2021

Date

Engineer's Seal, Signature
And Date of Signature



DEVIATION REQUEST (Attach diagrams, figures, and other documentation to clarify request)

A deviation from the standards of or in Section **K.1.1 0** of the Engineering Criteria Manual (ECM) is requested.

Identify the specific ECM standard which a deviation is requested:

Minimum cover for prefabricated pipe shall be 2 feet (2').

State the reason for the requested deviation:

Topographical Constraint

Explain the proposed alternative and compare to the ECM standards (May provide applicable regional or national standards used as basis):

Proposing Alternate Storm Pipe (Class IV) at Affected Sections

LIMITS OF CONSIDERATION

(At least one of the conditions listed below must be met for this deviation request to be considered.)

- ☐ The ECM standard is inapplicable to the particular situation.
- ☒ Topography, right-of-way, or other geographical conditions or impediments impose an undue hardship and an equivalent alternative that can accomplish the same design objective is available and does not compromise public safety or accessibility.
- ☐ A change to a standard is required to address a specific design or construction problem, and if not modified, the standard will impose an undue hardship on the applicant with little or no material benefit to the public.

Provide justification:

Depth Adjustments Due to Public Improvement Project

US 24 Link Road Project impacted the subdivision's original outfall location such that several feet of outfall depth were no longer available for the site to use as a discharge point. At the time of the approved preliminary phase, the discharging channel and associated EDB were installed as designed.

The overall site was partially raised to improve pipe slopes as much as possible, and Class IV pipe is specified where granular cover, and street section can only provide between one to two feet of cover over Top Of Pipe (T.O.P.). The detention pond (EDB 'D') was reshaped and enlarged to partially accommodate this loss of depth. Minimal slopes were used at the outfall channel, outfall pipe, and at the trickle pan sections to partially accommodate the loss of depth. 6" Drops are still provided in design at both forebay inflow points, and the forebay designs meet all criteria.

See Attached Exhibits 'A' and 'B' for Class IV pipe locations planned with The Glen Filing 11 storm improvements.

CRITERIA FOR APPROVAL

Per ECM section 5.8.7 the request for a deviation may be considered if the request is **not based exclusively on financial considerations**. The deviation must not be detrimental to public safety or surrounding property. The applicant must include supporting information demonstrating compliance with **all of the following criteria**:

The deviation will achieve the intended result with a comparable or superior design and quality of improvement.

Class IV Pipe will provide adequate structural integrity for the areas indicated as having less than two feet of cover material.

The deviation will not adversely affect safety or operations.

There are no safety or operational impacts related to using Class IV pipe as an alternate.

The deviation will not adversely affect maintenance and its associated cost.

Class IV pipe does not create any additional maintenance concerns over Class III RCP.

The deviation will not adversely affect aesthetic appearance.

As the pipes are underground we anticipate no aesthetic concerns related to their use.

The deviation meets the design intent and purpose of the ECM standards.

The design intent is preserved by increasing the structural loading strength of pipes for the project where two feet of cover is not possible to attain.

The deviation meets the control measure requirements of Part I.E.3 and Part I.E.4 of the County's MS4 permit, as applicable.

Parts I.E.3 and I.E.4 of the MS4 Permit

The MS4 Permit Parts I.E.3 and I.E.4 are concerned with installation, erosion control, and ongoing maintenance of the subject improvements. We do not anticipate any additional measures beyond those planned within the current Erosion and Sedimentation Control Permitting and any updates made to the permit.

REVIEW AND RECOMMENDATION:

Approved by the ECM Administrator

This request has been determined to have met the criteria for approval. A deviation from Section _____ of the ECM is hereby granted based on the justification provided.

┌

┐

└

┘

Denied by the ECM Administrator

This request has been determined not to have met criteria for approval. A deviation from Section _____ of the ECM is hereby denied.

┌

┐

└

┘

ECM ADMINISTRATOR COMMENTS/CONDITIONS:

--

1.1. PURPOSE

The purpose of this resource is to provide a form for documenting the findings and decision by the ECM Administrator concerning a deviation request. The form is used to document the review and decision concerning a requested deviation. The request and decision concerning each deviation from a specific section of the ECM shall be recorded on a separate form.

1.2. BACKGROUND

A deviation is a critical aspect of the review process and needs to be documented to ensure that the deviations granted are applied to a specific development application in conformance with the criteria for approval and that the action is documented as such requests can point to potential needed revisions to the ECM.

1.3. APPLICABLE STATUTES AND REGULATIONS

Section 5.8 of the ECM establishes a mechanism whereby an engineering design standard can be modified when if strictly adhered to, would cause unnecessary hardship or unsafe design because of topographical or other conditions particular to the site, and that a departure may be made without destroying the intent of such provision.

1.4. APPLICABILITY

All provisions of the ECM are subject to deviation by the ECM Administrator provided that one of the following conditions is met:

- The ECM standard is inapplicable to a particular situation.
- Topography, right-of-way, or other geographical conditions or impediments impose an undue hardship on the applicant, and an equivalent alternative that can accomplish the same design objective is available and does not compromise public safety or accessibility.
- A change to a standard is required to address a specific design or construction problem, and if not modified, the standard will impose an undue hardship on the applicant with little or no material benefit to the public.

1.5. TECHNICAL GUIDANCE

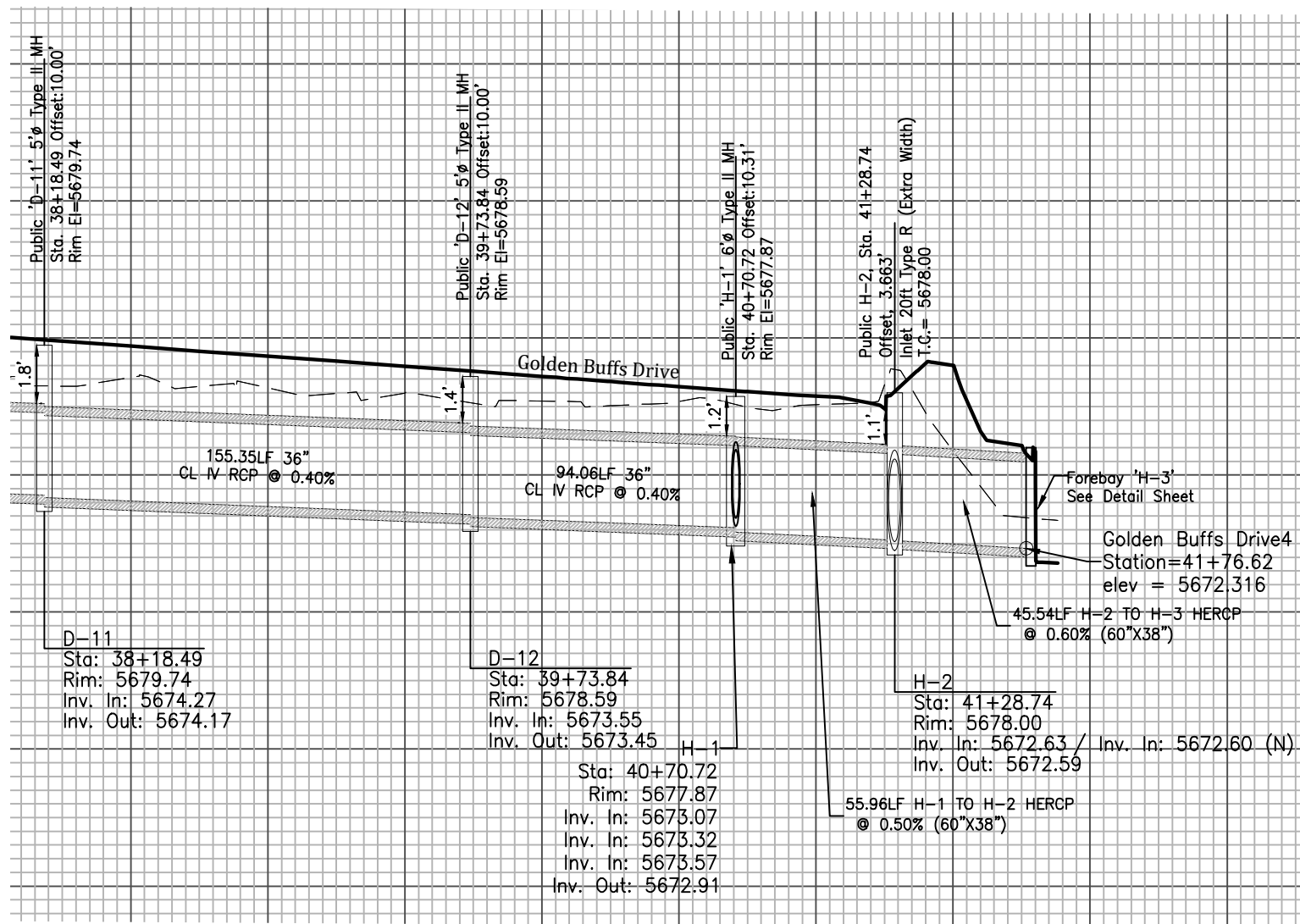
The review shall ensure all criteria for approval are adequately considered and that justification for the deviation is properly documented.

1.6. LIMITS OF APPROVAL

Whether a request for deviation is approved as proposed or with conditions, the approval is for project-specific use and shall not constitute a precedent or general deviation from these Standards.

1.7. REVIEW FEES

A Deviation Review Fee shall be paid in full at the time of submission of a request for deviation. The fee for Deviation Review shall be as determined by resolution of the BoCC.



DEVELOPER:

W
WIDEFIELD
Investment Group
3 WIDEFIELD BOULEVARD
COLORADO SPRINGS, CO 80911

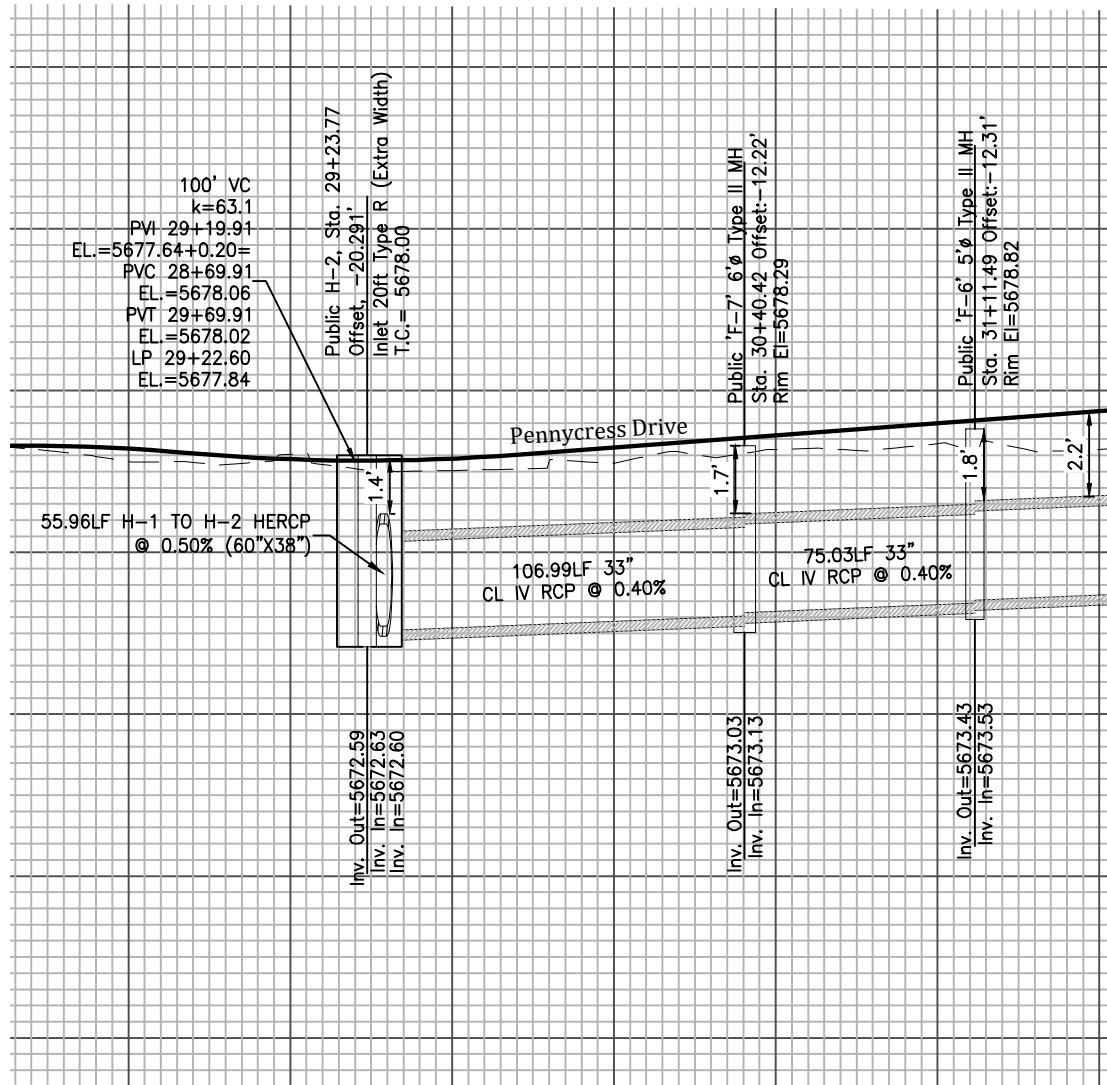
PREPARED BY:

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

THE GLEN AT WIDEFIELD FILING NO 11 Shallow Storm Sewer (use Class IV RCP)

Kiowa Project No. 19016
April 15, 2021

Exhibit 'A'



DEVELOPER:

W
WIDEFIELD
Investment Group
3 WIDEFIELD BOULEVARD
COLORADO SPRINGS, CO 80911

PREPARED BY:

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

THE GLEN AT WIDEFIELD FILING NO 11
Shallow Storm Sewer (use Class IV RCP)

Kiowa Project No. 19016
April 15, 2021

Exhibit 'B'