

GENERAL NOTES

- 1. Profile design lines are based on centerline, as shown, unless otherwise noted.
2. All new construction to conform to the specifications of El Paso County Planning and Community Development, Widefield Water and Sanitation District, and the Fountain Mutual Irrigation Company (FMIC). Any asphalt removed is to be replaced to meet the specifications of the El Paso County Planning and Community Development.
3. For pavement design, curb and gutter, and sidewalks see individual plan and profile sheets. Pavement design to be based on Resistance Value 'R' derived from Hveem tests and are to be approved by the Engineering Division of the El Paso County Planning and Community Development prior to work above grade.
4. At intersections, all curb returns will have 20-foot radius unless otherwise noted.
5. All existing utilities have been shown according to the best available information. The contractor is responsible for field location and verification prior to beginning work. If it appears that there could be a conflict with any utilities, whether indicated on the plans or not, the contractor is to notify the engineer and owner immediately. The contractor is responsible for the protection and repair (if necessary) of all utilities.
6. A Pre-Construction meeting shall be held with the El Paso County Planning and Community Development and Widefield Water and Sanitation District prior to any construction.
7. Approved plans, Engineering Criteria Manual, etc. is required to be on-site at all times during construction.
8. All necessary permits, such as SWMP, ESQCP, Fugitive Dust, Access, C.O.E. 404, etc. shall be obtained prior to construction.
9. All handicap ramps to be per El Paso County Standard SD\_2-40.
10. The contractor shall coordinate exact locations and layout with the El Paso County Planning and Community Development on the placement of any pedestrian ramps prior to construction of the curb. Pedestrian ramp locations are as shown on the plans.
11. Where appropriate, newly saw cut all existing concrete and asphalt. Repair/replace all disturbed existing items with like materials and thicknesses.
12. All disturbed areas shall be revegetated with native grasses within 21 days of excavation per Erosion Control Plan.
13. The prepared Erosion/Sediment Control Plan is to be considered a part of these plans and its requirements adhered to during the construction of this project.
14. All storm and sanitary sewer pipe lengths and slopes are figured from center of manhole or bend. Pipe lengths are given as a horizontal length.
15. All storm sewer bedding to be per CDOT Standards.
16. All storm sewer pipe shall be Class III B Wall unless otherwise shown on the storm sewer plan and profile sheets.
17. All wyes and bends used in construction of storm sewer facilities shall be factory fabricated, unless approved by the El Paso County Planning and Community Development.
18. Construction and materials used in all storm and sanitary sewer manholes shall be per specifications. Storm sewer radial deflections to be grouted or installed per manufacturer's recommendations.
19. Storm sewer manholes sizes as follows unless otherwise shown:
18" thru 36" use 48" I.D. manhole
42" thru 48" use 60" I.D. manhole
54" thru 60" use 72" I.D. manhole
NOTE: Manhole sizes tabulated here shall be increased, if necessary, to accommodate incoming laterals.
20. Sanitary sewer manhole sizes and facilities per Widefield Water and Sanitation District Specifications. Sanitary sewers to be installed with Class 'C' bedding. Sanitary sewers deeper than 12-feet shall require Class 'B' bedding. Pipe used for construction of sanitary sewer shall be SDR 35 unless shown otherwise on plan and profiles.
21. For additional utility notes, see Utility Plan and/or Service Plan.
22. All horizontal stationing is based on the Face of Curb, unless otherwise shown.
23. All vertical design and top of curb are based on the design point shown in the typical cross section.
24. The curb line design point is located at the intersection of the face and top of curb for EPC Type A Standard 6-inch vertical curb. See typical street section for design point locations.
25. Water and sanitary sewer service provided by Widefield Water and Sanitation District. Telephone service provided by Qwest Communications. Gas service provided by BlackHills Energy. Electric service provided by Mountain View Electric.
26. All utility construction to be conducted in conformance with the current Widefield Water and Sanitation District Specifications and/or El Paso County Specifications, whichever is greater.
27. Vertical curb to be used between curb returns (CR) and at curb inlets. Transitions from ramp to vertical curb shall be 10-feet unless otherwise approved by the El Paso County Planning and Community Development. All other curb & gutter to be ramp curb & gutter.
28. Cross pans to be 6" wide and per El Paso County Standard Detail SD\_2-26.
29. Contractor responsible for meeting all Widefield Water and Sanitation District criteria when connecting to existing stubs.
30. Curb returns shall be straight graded from CR to CR unless otherwise noted.
31. Inlets are Type 'R' inlets (CDOT STD M-604-12) unless otherwise noted.
32. USPS CBU Mailboxes are to be determined by USPS.

BENCHMARK: Monument is located at the Northwest corner of the intersection of Powers Boulevard and Fontaine Street. The monument is a 3-inch aluminum cap (FIMS 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=2997.80 feet (NGVD 1929, 1980 Adj.).
BASIS OF BEARINGS is based upon a portion of the Eastern 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 Eastern 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 20686" and at the Point of Curvature of said boundary by a found rebar and cap marked "PLSC 20686". Said line bears N29°46'44"W, a distance of 1154.12 feet.

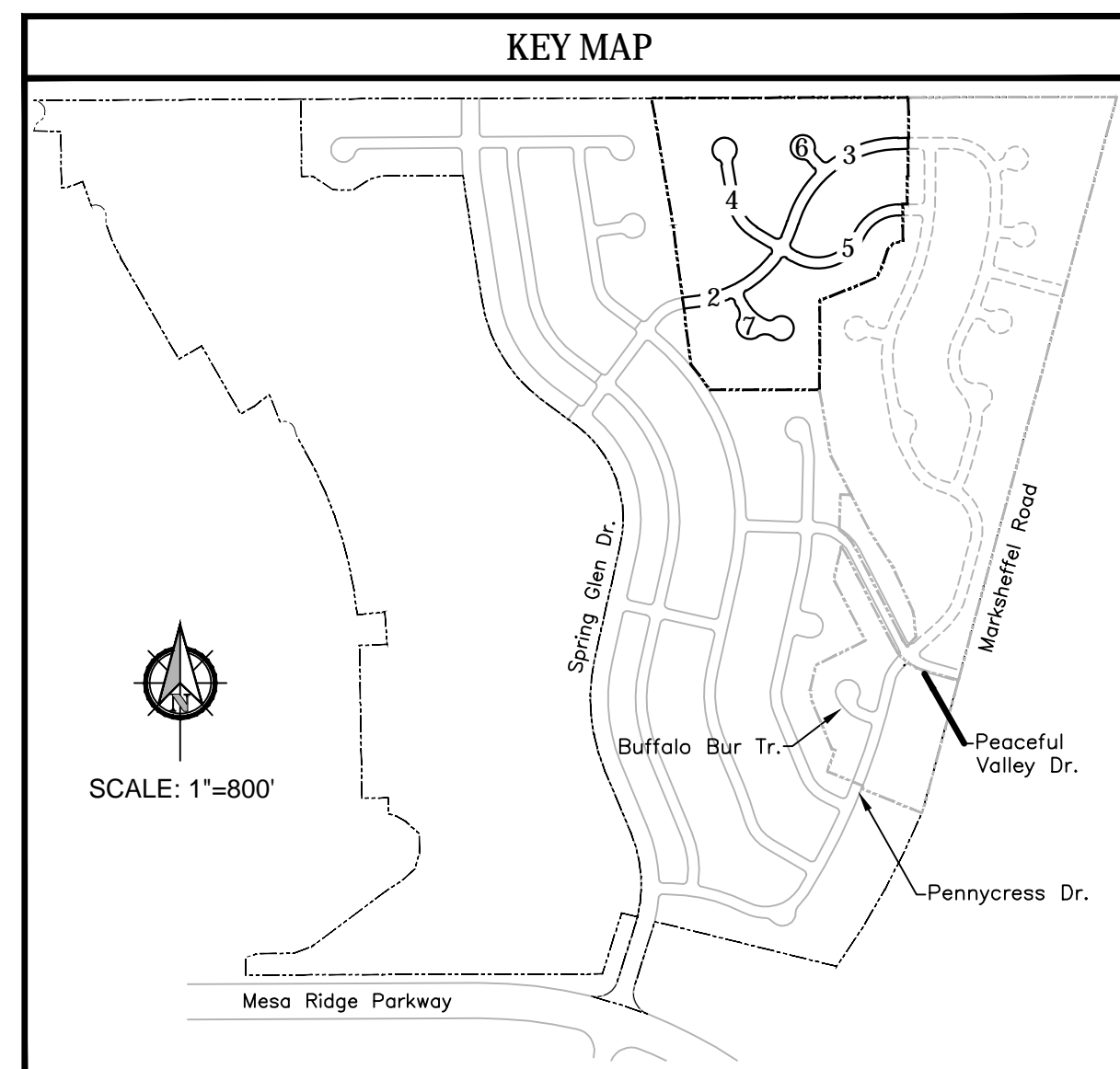
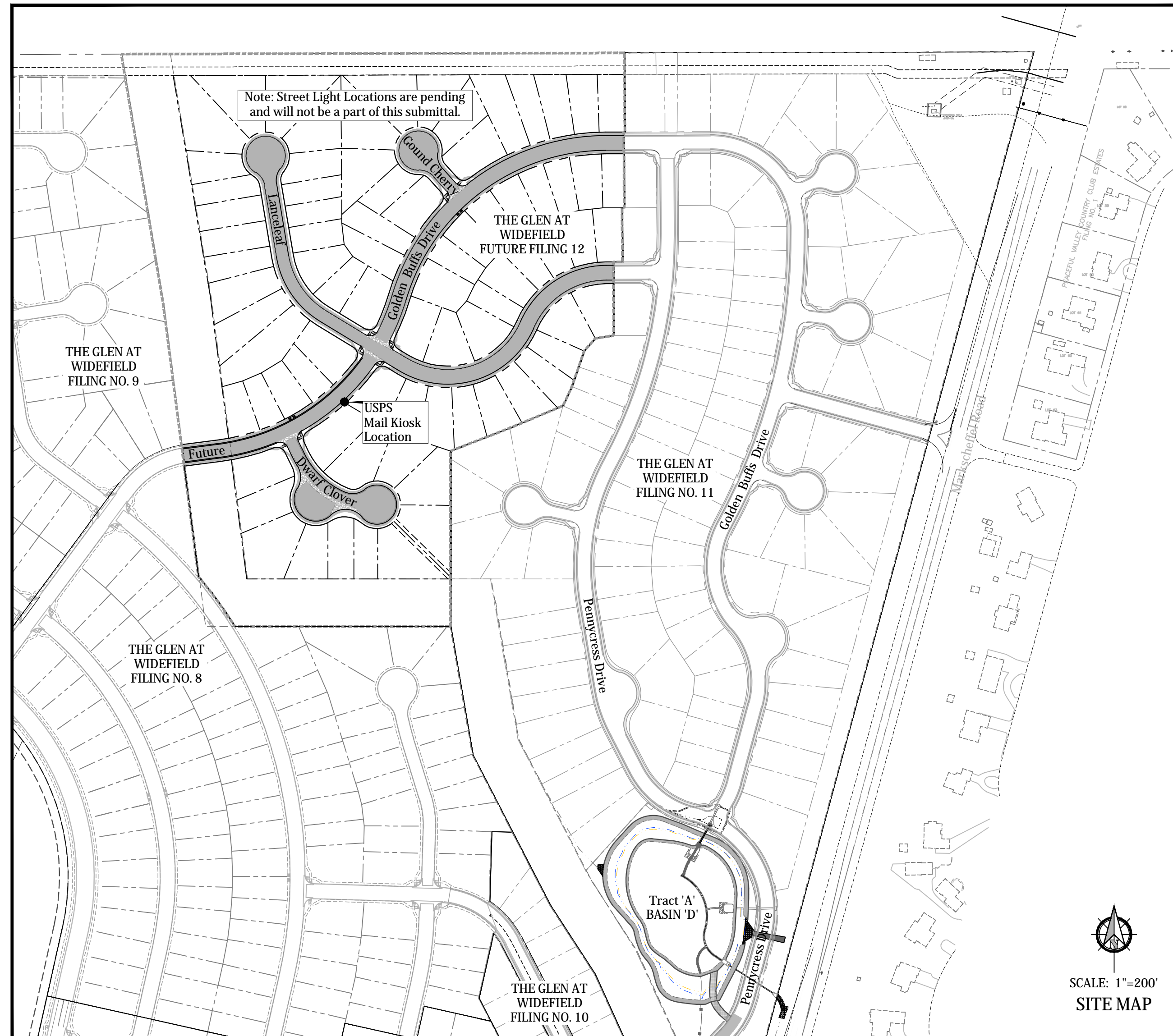
EL PASO COUNTY STANDARD NOTES

- 1. All drainage and roadway construction shall meet the standards and specifications of the City of Colorado Springs/El Paso County Drainage Criteria Manual, Volumes 1 and 2, and the El Paso County Engineering Criteria Manual.
2. Contractor shall be responsible for the notification and field notification of all existing utilities, whether shown on the plans or not, before beginning construction. Location of existing utilities shall be verified by the contractor prior to construction. Call 811 to contact the Utility Notification Center of Colorado (UNCC).
3. Contractor shall keep a copy of these approved plans, the Grading and Erosion Control Plan, the Stormwater Management Plan (SWMP), the soils and geotechnical report, and the appropriate design and construction standards and specifications at the job site at all times, including the following:
a. El Paso County Engineering Criteria Manual (ECM)
b. City of Colorado Springs/El Paso County Drainage Criteria Manual, Volumes 1 and 2
c. Colorado Department of Transportation (CDOT) Standard Specifications for Road and Bridge Construction
d. CDOT M & S Standards
4. Notwithstanding anything depicted in these plans in words or graphic representation, all design and construction related to roads, storm drainage and erosion control shall conform to the standards and requirements of the most recent version of the relevant El Paso County standards, including the Land Development Code, the Engineering Criteria Manual, the Drainage Criteria Manual, and the Drainage Criteria Manual Volume 2. Any deviations from regulations and standards must be requested, and approved, in writing. Any modifications necessary to meet criteria after-the-fact will be entirely the developer's responsibility to rectify.
5. It is the design engineer's responsibility to accurately show existing conditions, both onsite and offsite, on the construction plans. Any modifications necessary due to conflicts, omissions, or changed conditions will be entirely the developer's responsibility to rectify.
6. Contractor shall schedule a pre-construction meeting with El Paso County Planning and Community Development (P&CDD) - Inspections, prior to starting construction.
7. It is the contractor's responsibility to understand the requirements of all jurisdictional agencies and to obtain all required permits, including but not limited to El Paso County Erosion and Stormwater Quality Control Permit (ESQCP), Regional Building Floodplain Development Permit, U.S. Army Corps of Engineers-issued 401 and/or 404 permits, and county and state fugitive dust permits.
8. Contractor shall not deviate from the plans without first obtaining written approval from the design engineer and P&CDD. Contractor shall notify the design engineer immediately upon discovery of any errors or inconsistencies.
9. All storm drain pipe shall be Class III RCP unless otherwise noted and approved by P&CDD.
10. Contractor shall coordinate geotechnical testing per ECM standards. Pavement design shall be approved by El Paso County P&CDD prior to placement of curb and gutter and pavement.
11. All construction traffic must enter/exit the site at approved construction access points.
12. Sight visibility triangles as identified in the plans shall be provided at all intersections. Obstructions greater than 18 inches above flowline are not allowed within sight triangles.
13. Signing and striping shall comply with El Paso County DOT and MUTCD criteria. [If applicable, additional signing and striping notes will be provided.]
14. Contractor shall obtain any permits required by El Paso County DOT, including Work Within the Right-of-Way and Special Transport permits.
15. The limits of construction shall remain within the property line unless otherwise noted. The owner/developer shall obtain written permission and easements, where required, from adjoining property owner(s) prior to any off-site disturbance, grading, or construction.

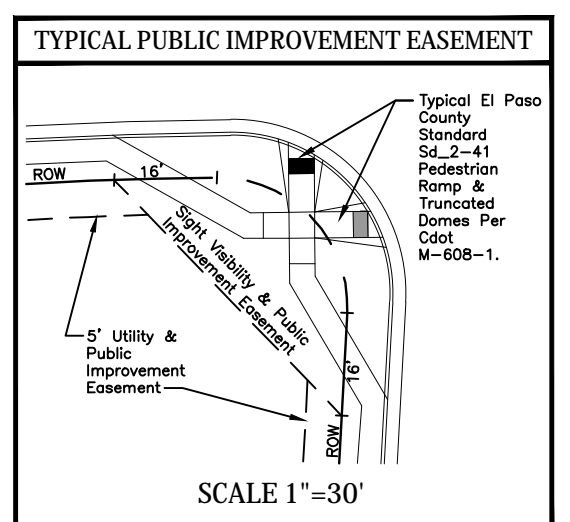
INDEX OF SHEETS

- THE GLEN AT WIDEFIELD FILING NO 12
1 Cover Sheet
2 Plan & Profile - Golden Buffs Drive
3 Plan & Profile - Golden Buffs Drive
4 Plan & Profile - Lanceleaf Drive
5 Plan & Profile - Lanceleaf Drive
6 Plan & Profile - Ground Cherry Trail
7 Plan & Profile - Dwarf Clover Court & Cul-de-Sac
8 Intersection Detail - Golden Buff Drive & Dwarf Clover Court & Cul-de-Sac
9 Intersection Detail - Golden Buff Drive, Lanceleaf Trail & Ground Cherry Court
10 Signing & Striping Plan - Overall
11 Storm Sewer Plan - Golden Buffs A1-A4
12 Storm Sewer Plan - Laterals 'F' - Filing 12 Portion
13 Grading and Erosion Control Cover Sheet
14 Grading and Erosion Control Plan - Overall
15 Grading and Erosion Control Plan - Detail
16 Utility Plan - Overall Utilities
17 Utility Plan - Utility Services
18 Site Detail Plan - Site Details
19 Site Detail Plan - Utility Details

THE GLEN AT WIDEFIELD FILING NO. 12
RESIDENTIAL SUBDIVISION CONSTRUCTION DRAWINGS
PREPARED FOR WIDEFIELD INVESTMENT GROUP



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



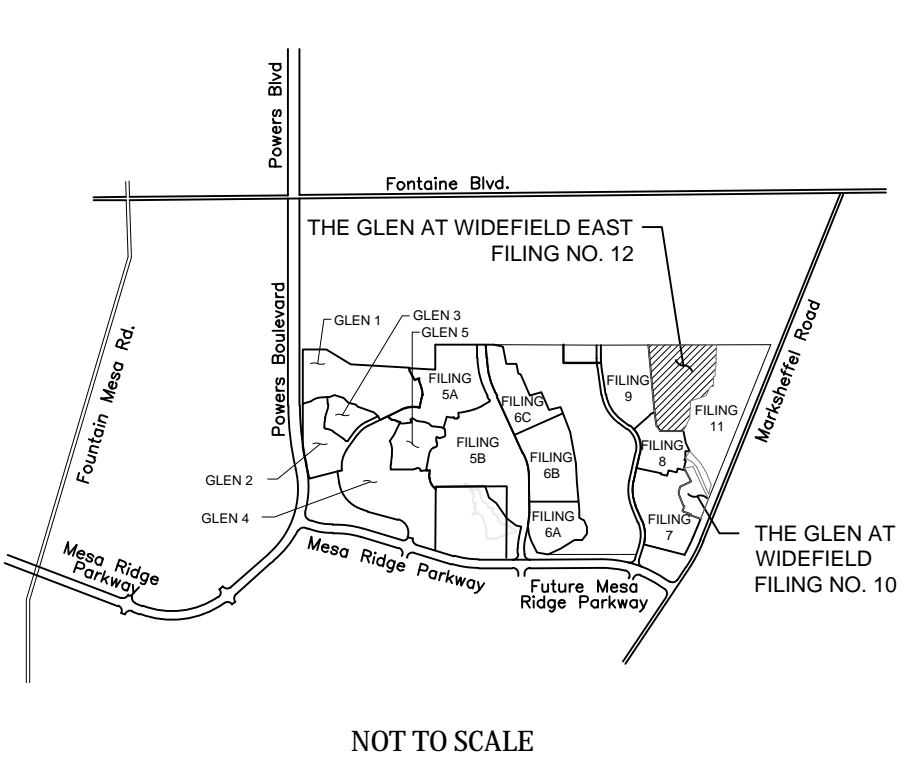
WIDEFIELD WATER AND SANITATION DISTRICT
GENERAL NOTES

- 1. All utility construction to be conducted in conformance with the current Widefield Water and Sanitation District specifications. 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.
2. 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.
3. 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.
4. All ductile iron pipe, to include fittings, valves and fire hydrants will be wrapped with polyethylene tubing, and electrically isolated.
5. All ductile iron pipe and fittings shall be double bonded. Specifications for cathodic protection on both Dip mains and PVC mains is specified in the Standards and Specifications.
6. PVC main lines shall be installed with coated No. 12 tracer wire.
7. The Contractor is required to notify the Widefield Water and Sanitation District (390-7111) a minimum of 48 hours and a maximum of 96 hours prior to the start of construction. 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.
8. 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.
9. All bends shall be field staked prior to construction.
10. Any water utility material removed and not reused shall be returned to the Widefield Water and Sanitation District if the District so requests.
11. 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.
12. Any pumping or bypass operations must be reviewed and approved prior to execution by both the Widefield Water and Sanitation District and the Engineer.
13. 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.
14. 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.
15. 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

Legend table defining symbols for Street R.o.w., Street Center Line, Proposed Water, Proposed Water Hydrant, Proposed Water Valve, Proposed Sanitary Mh, Proposed Sanitary Sewer, Proposed Storm Sewer, Proposed Storm Inlet, Proposed Storm Mh, Proposed Storm Fes, Proposed Boxbase Mh, Curb & Gutter (Curb Section As Shown On Plans), Existing Force Main, Existing Water Hydrant, Existing Water Valve, Existing Sanitary Mh, Existing Storm Sewer, Existing Storm Inlet, Existing Storm Mh, Existing Storm Fes.

VICINITY MAP



STATEMENTS

Design Engineer's Statement:
These detailed plans and specifications were prepared under my direction and supervision. Said plans and specifications have been prepared according to the criteria established by the County for detailed roadway, drainage, grading and erosion control plans and specifications, and said plans and specifications are in conformity with applicable master drainage plans and master transportation plans. 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 that may occur in preparation of these detailed plans and specifications.

Signature: Andrew W. McCormick, P.E. #25057
Date: June 8, 2023
For and on behalf of Kiowa Engineering Corporation

I, the owner/developer have read and will comply with all of the requirements of the grading and erosion control plan and all the requirements specified in these detailed plans and specifications.
Signature: J. Ryan Watson
Date: June 9th, 2023

J. Ryan Watson, President
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.

Approved:
By: Gilbert LaForce, P.E.
Engineering Manager
Date: 07/26/2023 04:11 AM
Condition of Approval:
Submittal of record drawings in accordance with ECM 1.12 and 5.10.6 will not be accepted without the fire authority approval signature.

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: J. Ryan Watson
Date: June 9th, 2023

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.

Signed: Security Fire Department
Date: \_\_\_\_\_

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: 6/13/2023 By: Robert R. Bandy

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: 6/13/2023 By: Robert R. Bandy

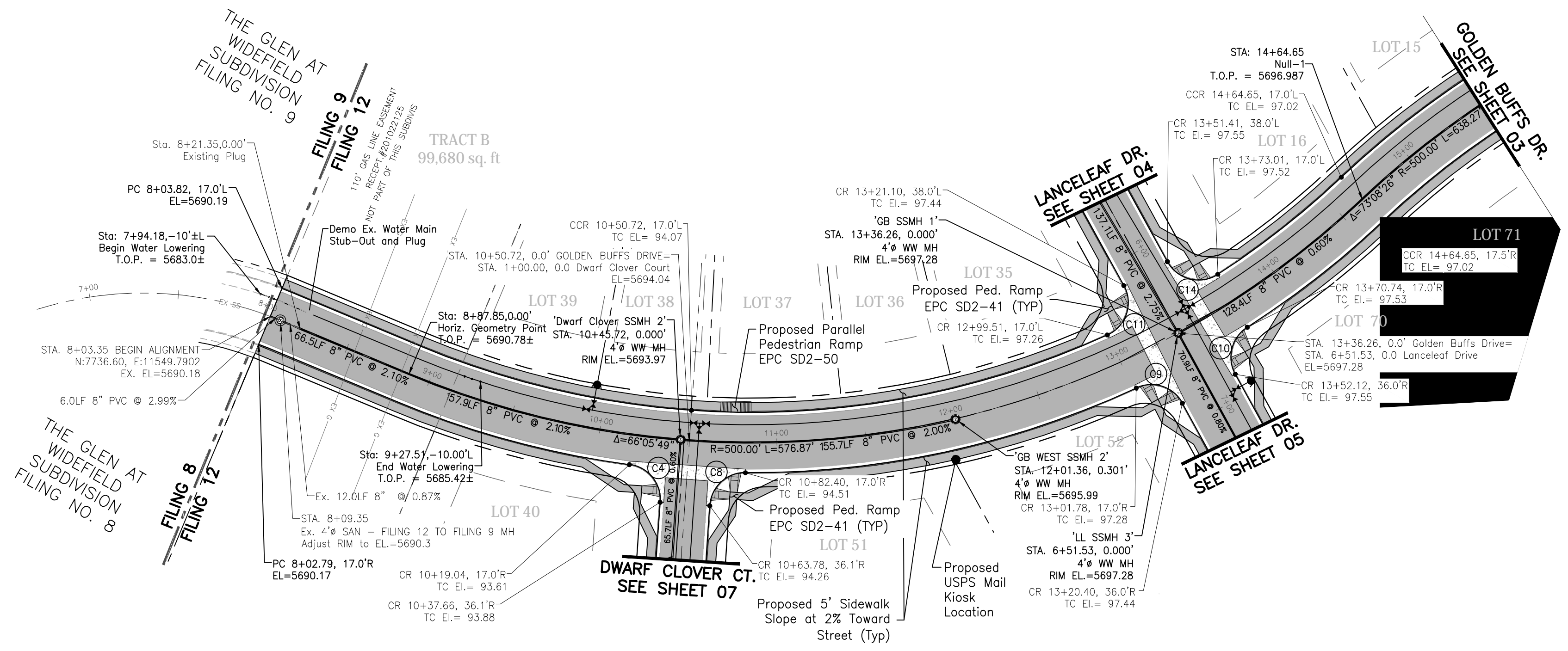
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Approval expires 180 days from Design Approval.

GOVERNING AGENCIES

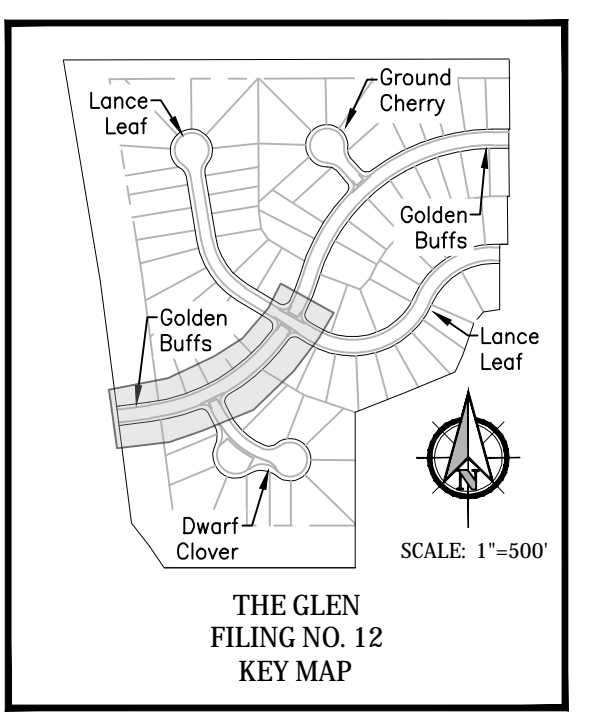
- El Paso County Planning & Community Development Department
2880 International Circle Suite 110
Colorado Springs Colorado
(719) 520-6300
Widefield Water & Sanitation District
37 Widefield Blvd.
Colorado Springs, Colorado
(719) 390-7111
Black Hills Energy
18965 Bas Camp Road Unit A7
Monument, Colorado
(719) 359-0586
Mountain View Electric Association
11140 East Woodmen Road
Falcon, Colorado
(719) 495-2283

DEVELOPER: WIDEFIELD Investment Group
1604 SOUTH 21ST STREET
1604 SOUTH 21ST STREET
COLORADO SPRINGS, CO 80911
PREPARED BY: Kiowa Engineering Corporation
1604 SOUTH 21ST STREET
COLORADO SPRINGS, COLORADO 80904
(719) 630-7342

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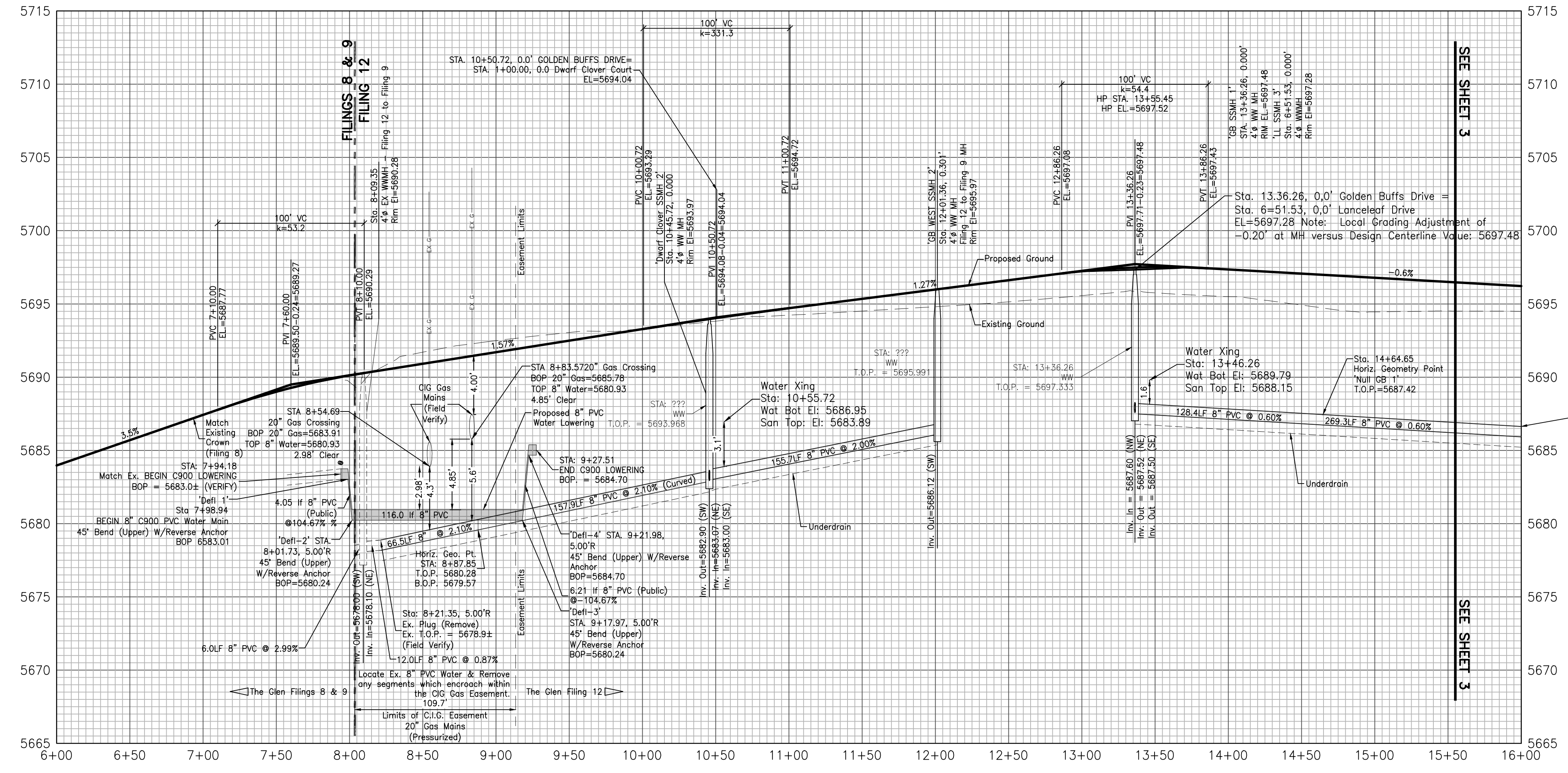


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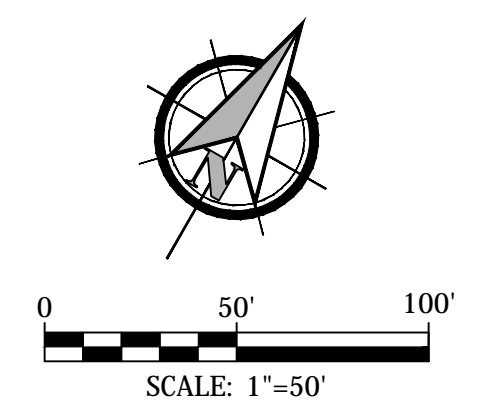


Note:  
Streetlight locations are pending  
and are not a part of this submittal.

### Golden Buffs Drive



NOTE:  
Slopes less than one percent (1.0%)  
will require special bedding and  
compaction methods.



PROFILE VIEW  
HORIZONTAL SCALE: 1"=50'  
VERTICAL SCALE: 1"=5'

Road Classification: Urban Local  
Residential Design Speed=25 MPH

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

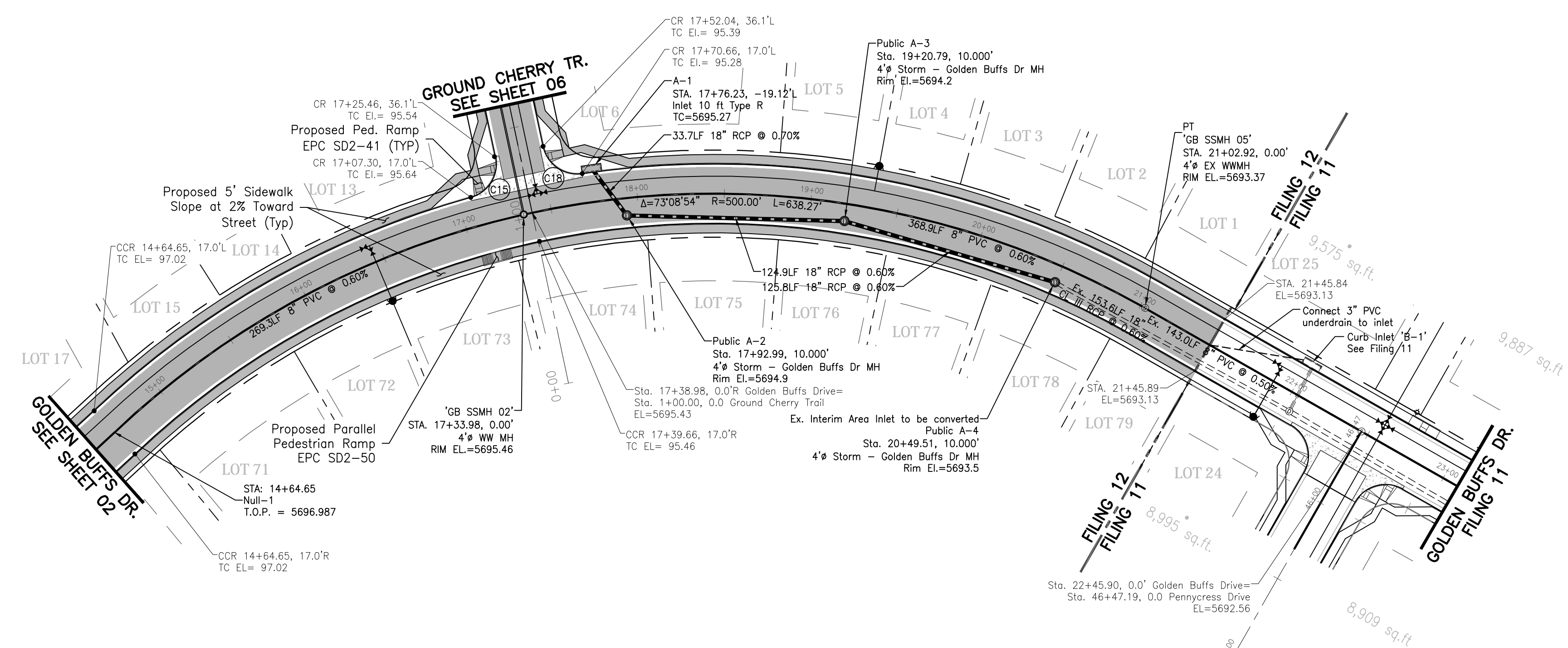
**W**  
WIDEFIELD  
Investment Group

**GLEN AT WIDEFIELD NO. 12**  
Plan and Profile - Golden Buffs Drive  
Sta: 8+00 to 15+50  
EL PASO, COUNTY, COLORADO

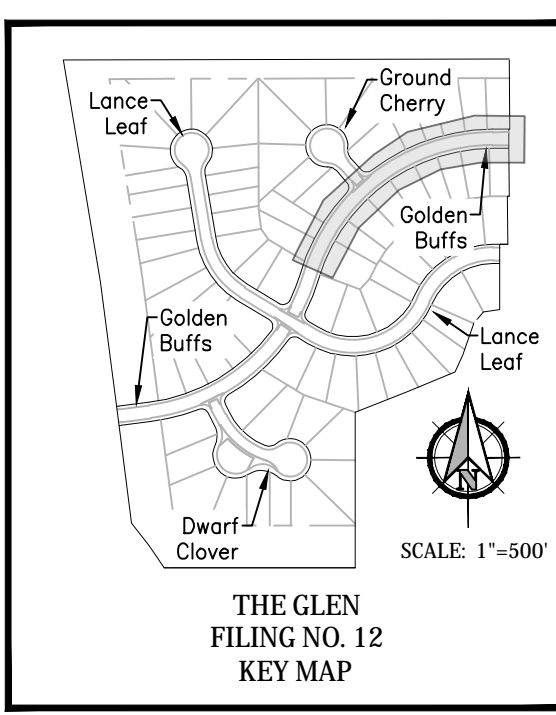
Project No.:	19016
Date:	May 17th, 2023
Design:	MJK
Drawn:	MJK
Check:	AWMc
Revisions:	

SHEET  
**2**  
02 of 19 Sheets

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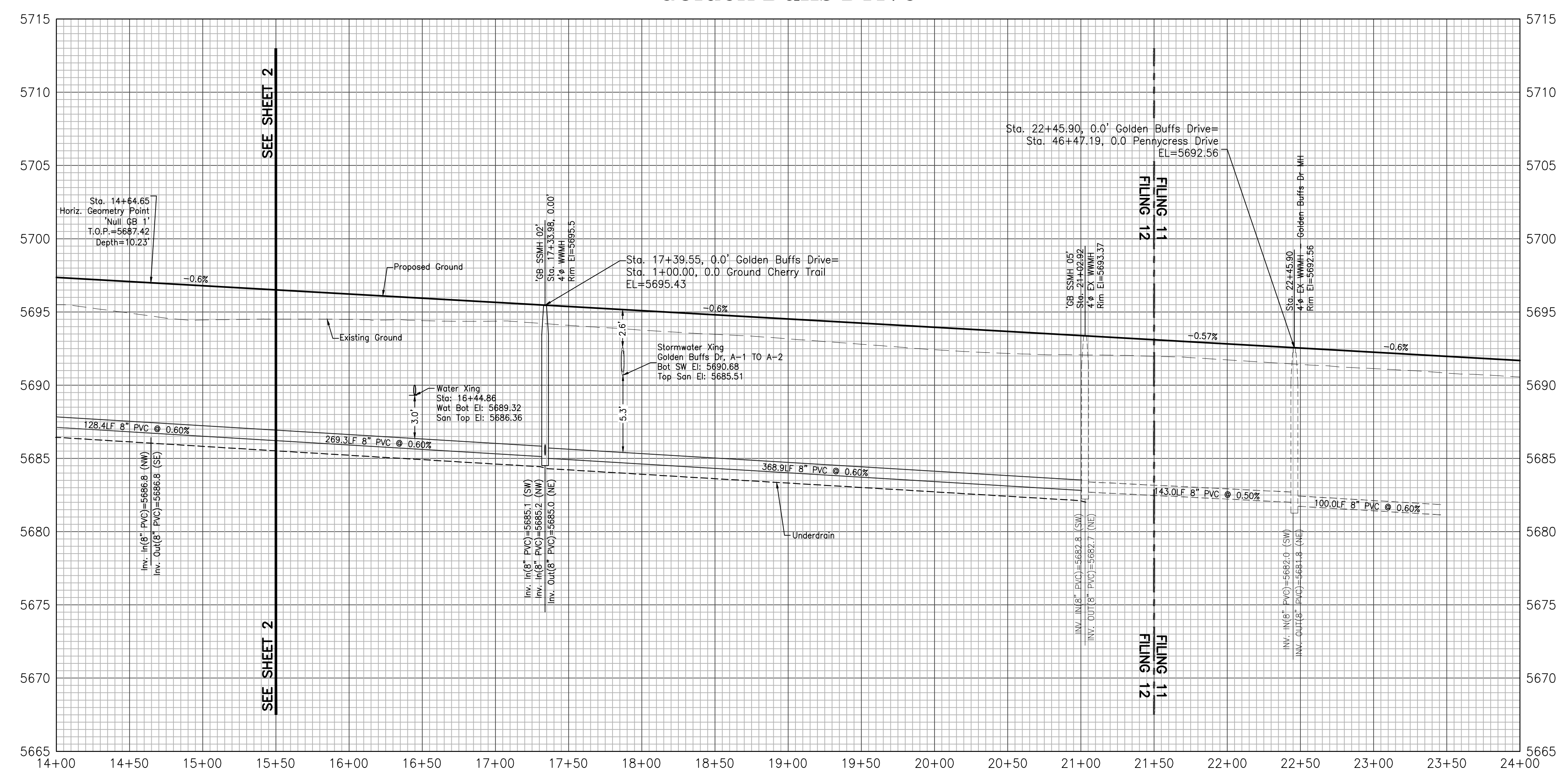


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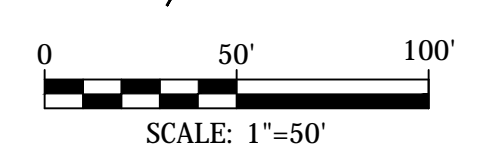
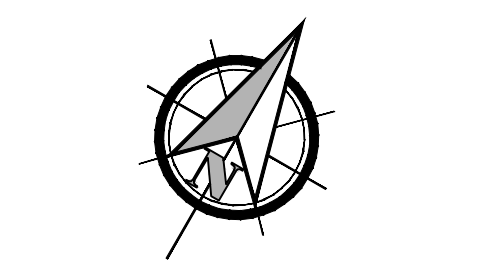
Note:  
Streetlight locations are pending and are not a part of this submittal.

### Golden Buffs Drive



PROFILE VIEW  
HORIZONTAL SCALE: 1"=50'  
VERTICAL SCALE: 1"=5'

Road Classification: Urban Local  
Residential Design Speed=25 MPH



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

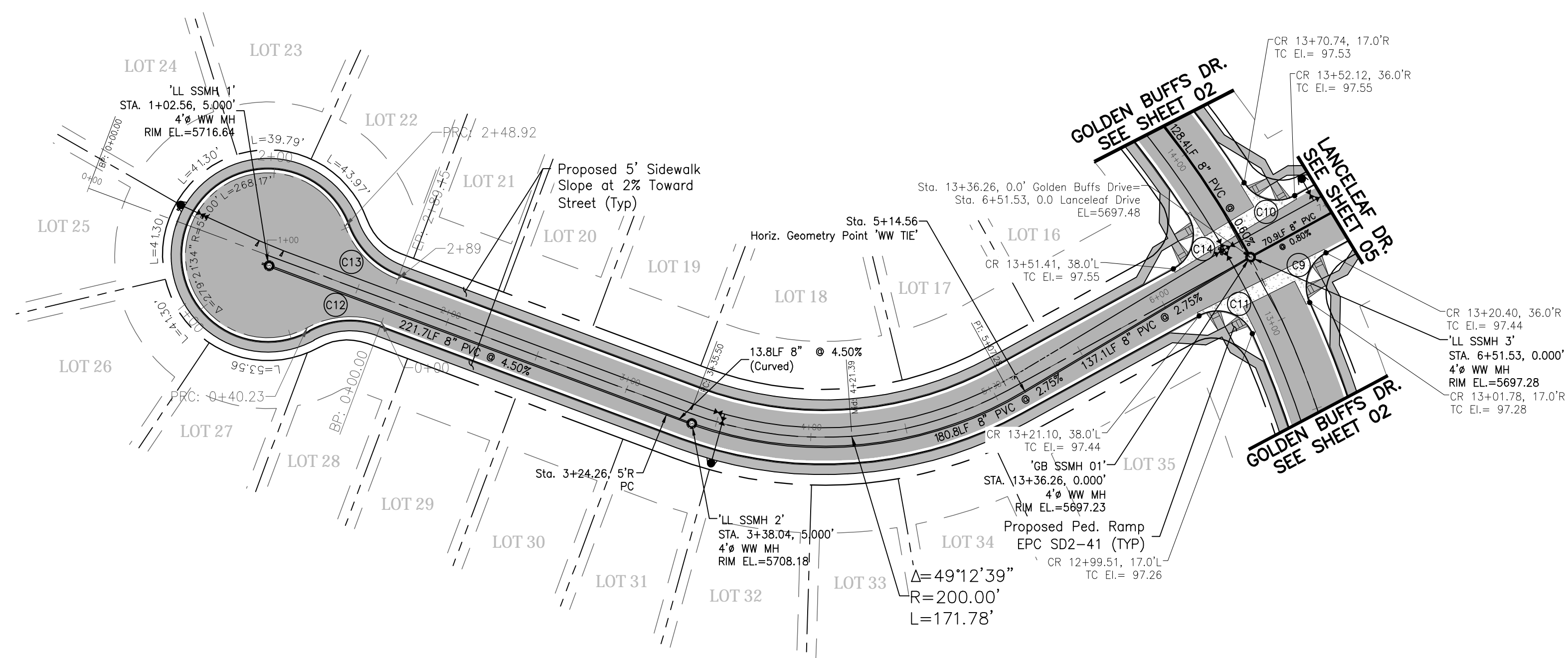
**W**  
WIDEFIELD  
Investment Group

**GLEN AT WIDEFIELD NO. 12**  
Plan and Profile - Golden Buffs Drive  
Sta: 15+50 to END  
EL PASO, COUNTY, COLORADO

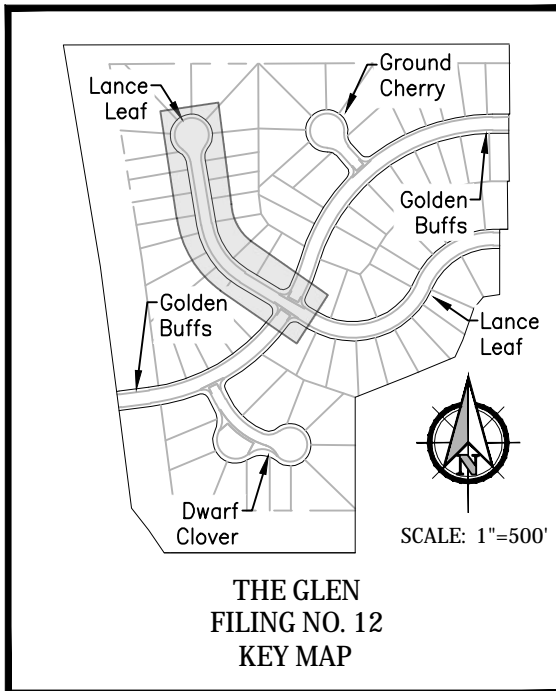
Project No.:	19016
Date:	May 17th, 2023
Design:	MJK
Drawn:	MJK
Check:	AWMc
Revisions:	

SHEET  
**3**  
03 of 19 Sheets

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C10	R=85'15.50' L=29.76'
C11	R=69'40.33' L=33.40'
C12	R=49'02.18' L=38.52'
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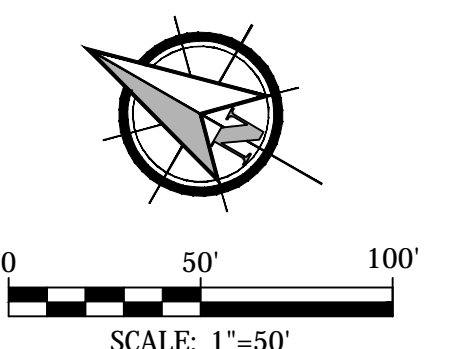
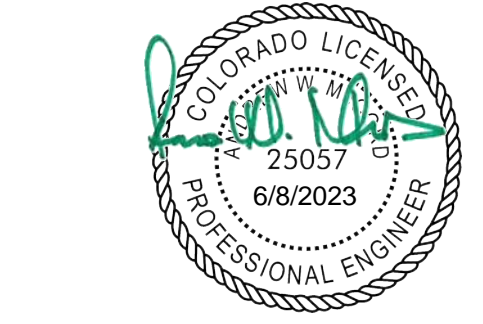
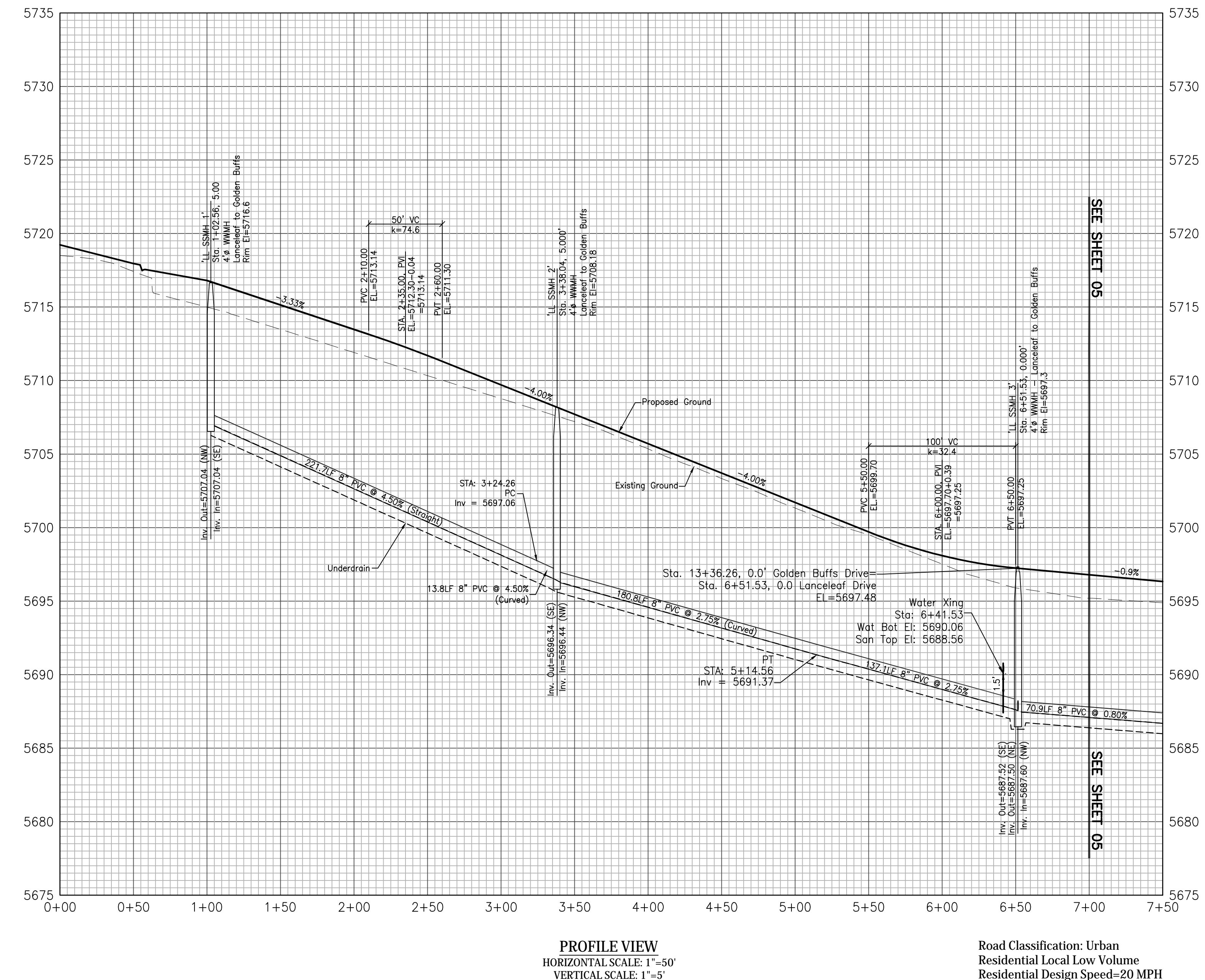
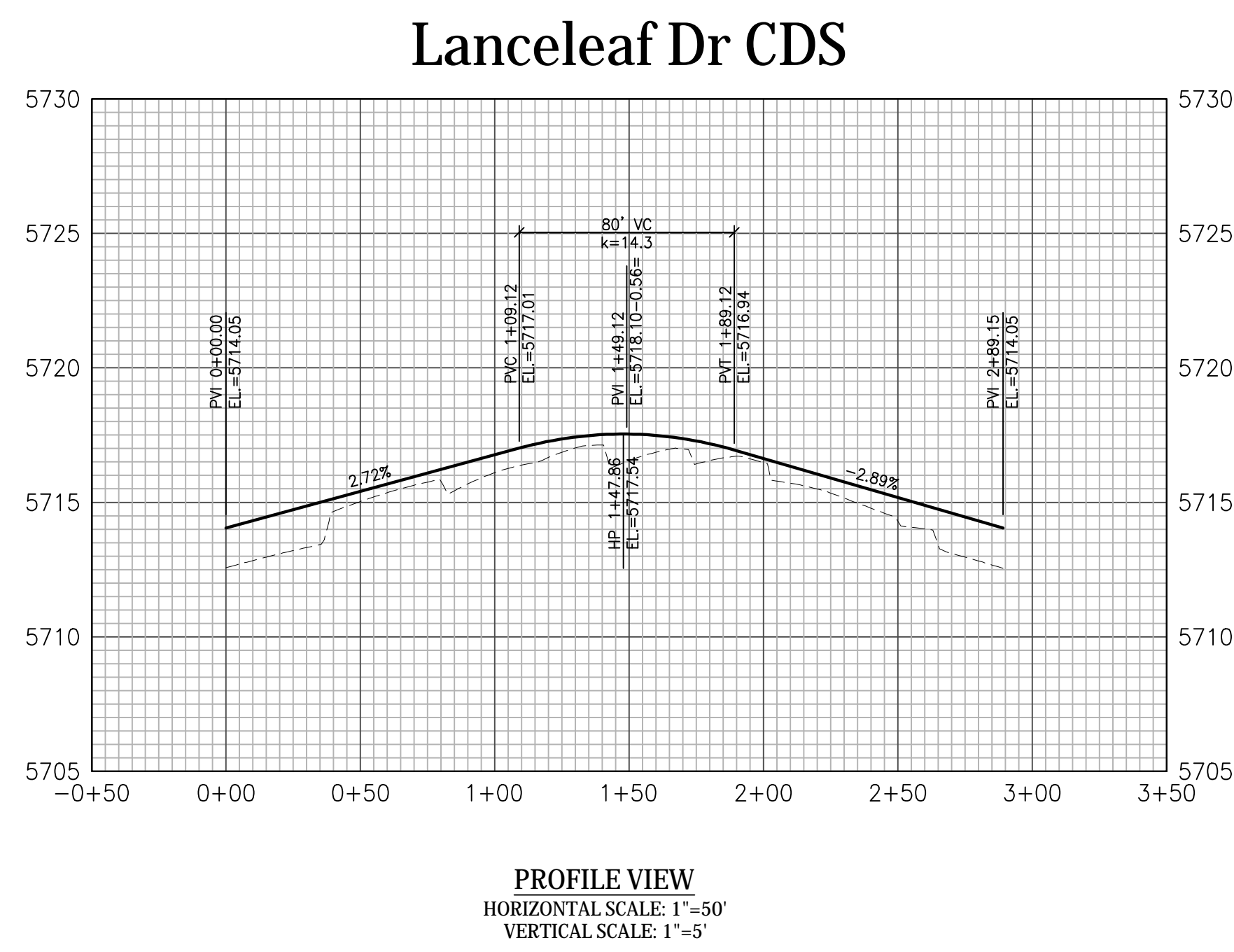


Note: Streetlight locations are pending and are not a part of this submittal.

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

**W**  
WIDEFIELD  
Investment Group

Lanceleaf Drive

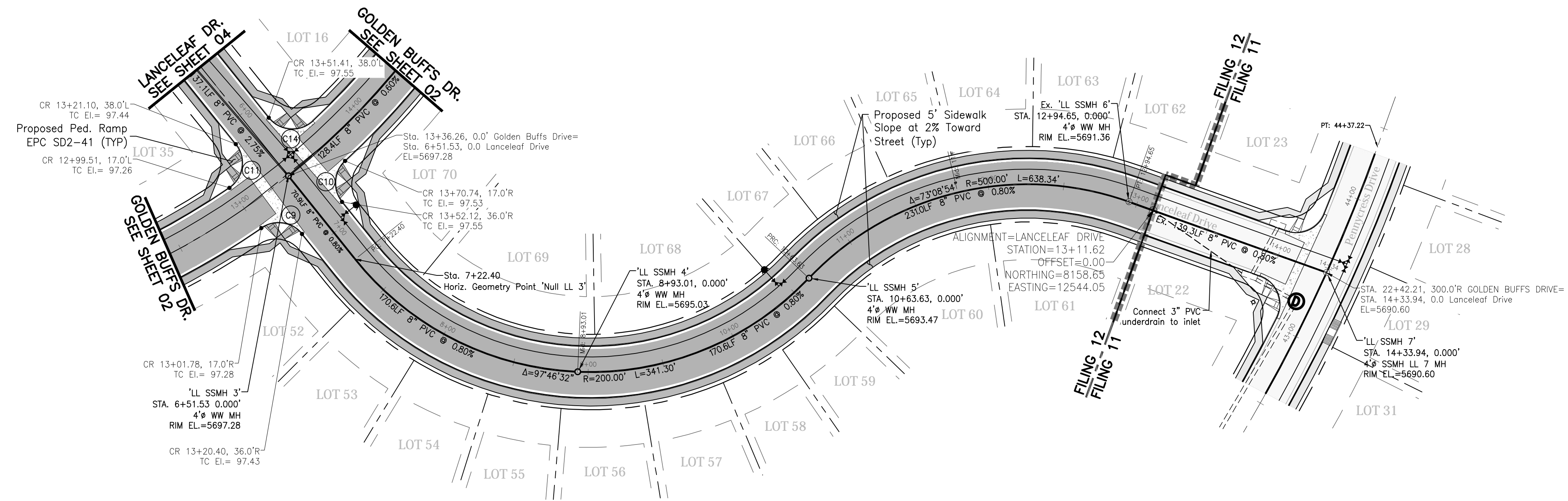


Road Classification: Urban  
Residential Local Low Volume  
Residential Design Speed=20 MPH

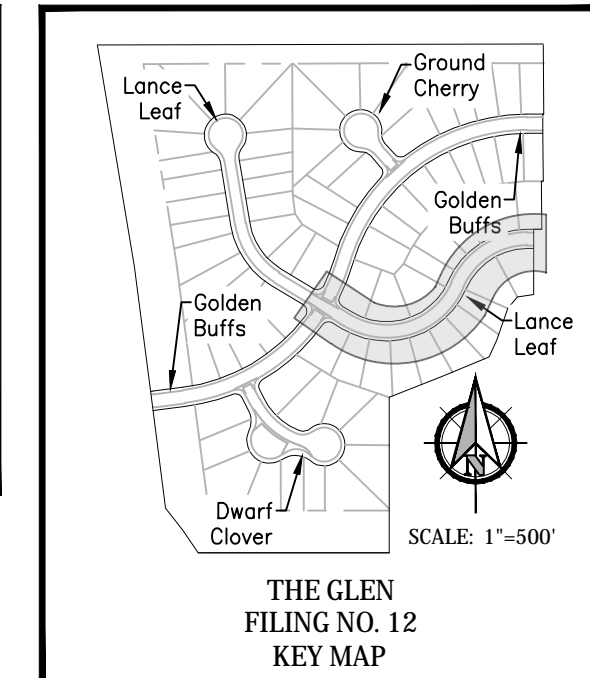
**GLEN AT WIDEFIELD NO. 12**  
Plan and Profile - Lanceleaf Drive  
Sta: 1+00 to 7+00  
EL PASO, COUNTY, COLORADO

Project No.:	19016
Date:	May 17th, 2023
Design:	MJK
Drawn:	MJK
Check:	AWMc
Revisions:	

w:\2019\19016 Gien at Widefield No. 12\Drawings\CDs\Filing No. 12\_19016-GW12-05-PF.dwg May 02, 2023 - 1:43pm



CURVE DATA	
C9	=85°15'50" R=20.00' L=29.76'
C10	=85°15'50" R=20.00' L=29.76'
C11	=69°40'33" R=20.00' L=33.40'
C14	=95°40'33" R=20.00' L=33.40'

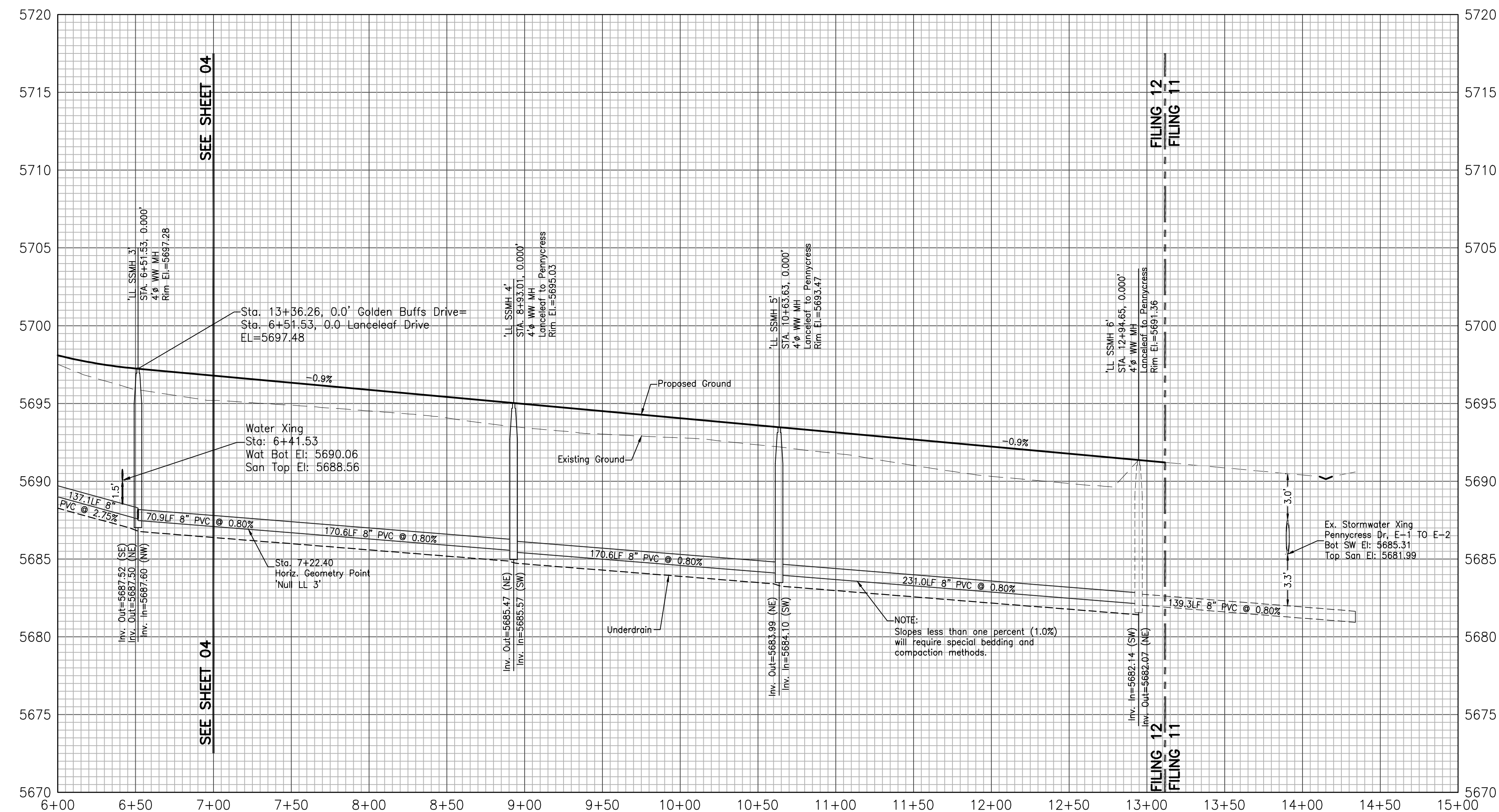


Note:  
Streetlight locations are pending  
and are not a part of this submittal.

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

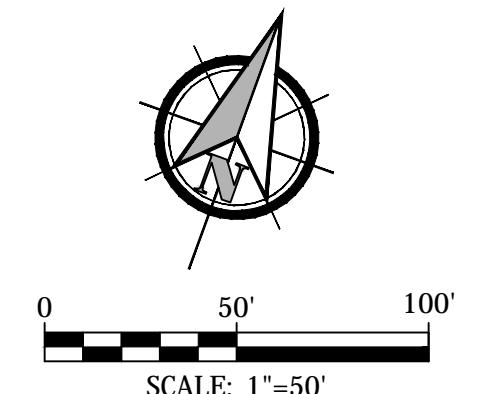
**W**  
WIDEFIELD  
Investment Group

Lancelleaf Drive



PROFILE VIEW  
HORIZONTAL SCALE: 1"=50'  
VERTICAL SCALE: 1"=5'

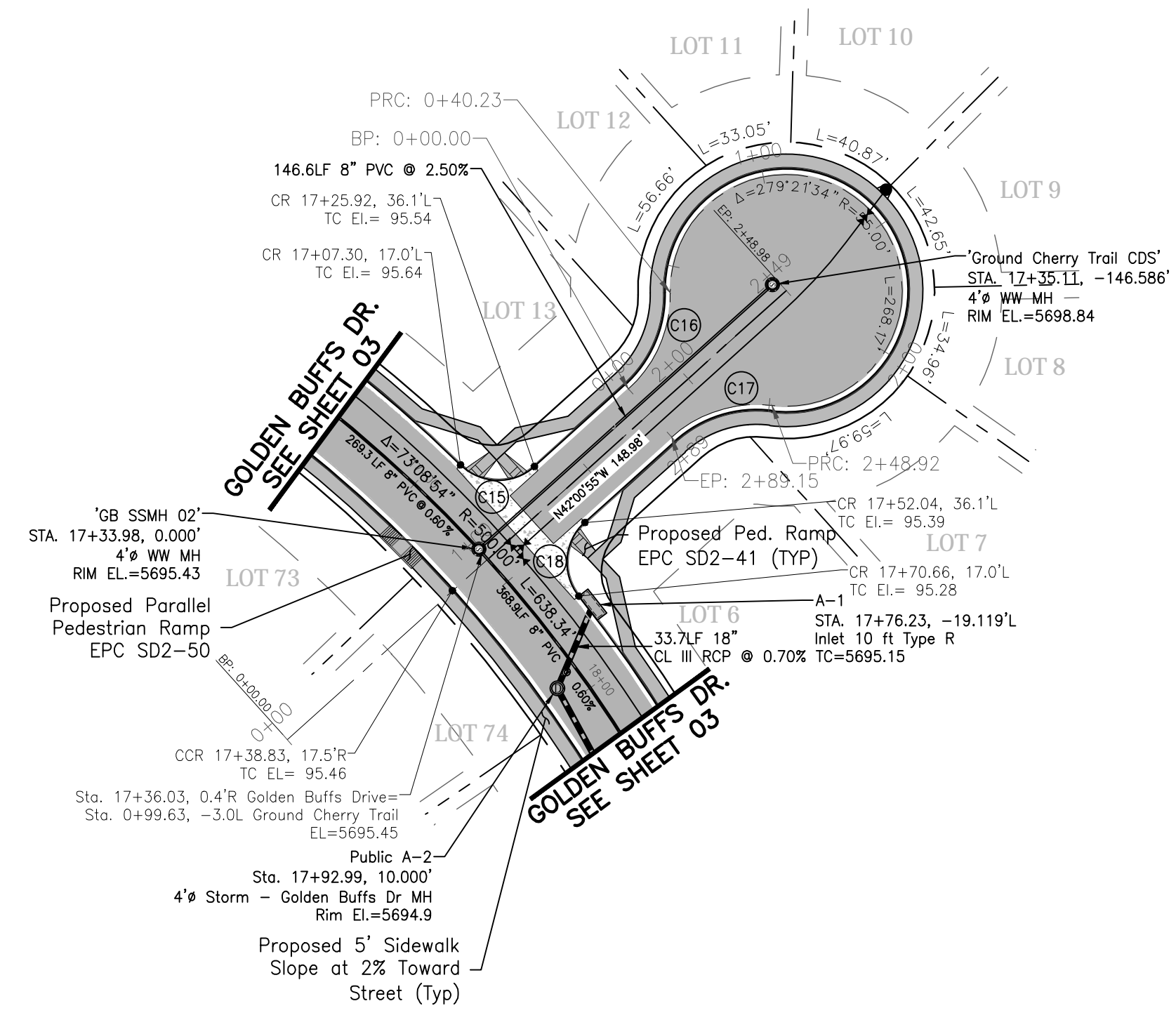
Road Classification: Urban  
Residential Local Low Volume  
Residential Design Speed=20 MPH



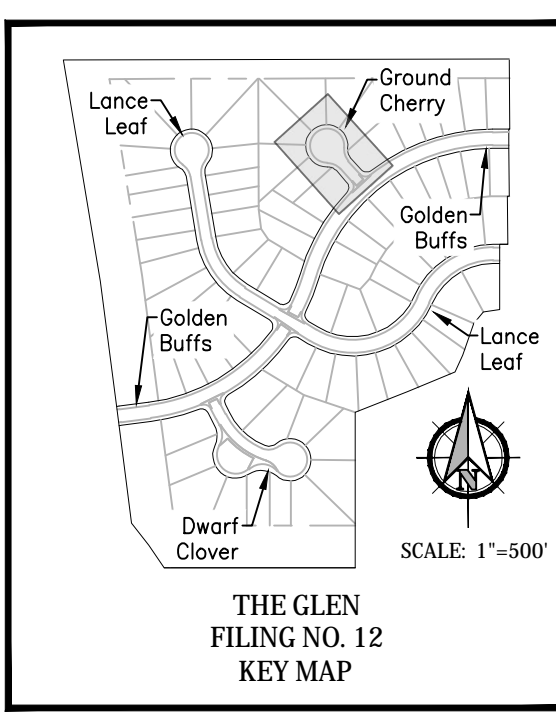
**GLEN AT WIDEFIELD NO. 12**  
Plan and Profile - Lancelleaf Drive  
Sta: 6+00 to End  
EL PASO, COUNTY, COLORADO

Project No.:	19016
Date:	May 3rd, 2023
Design:	MJK
Drawn:	MJK
Check:	AWMc
Revisions:	

w:\2019\19016 Gien at Widefield No. 10\Drawings\CDS\Filing No. 12\ 19016-gw12-06-PP.dwg Jun 07, 2023 - 11:28am



CURVE DATA	
C15	=85°15'05" R=20.00' L=29.76'
C16	=49°02'18" R=45.00' L=38.52'
C17	=49°02'18" R=45.00' L=38.52'
C18	=85°16'34" R=20.00' L=29.77'

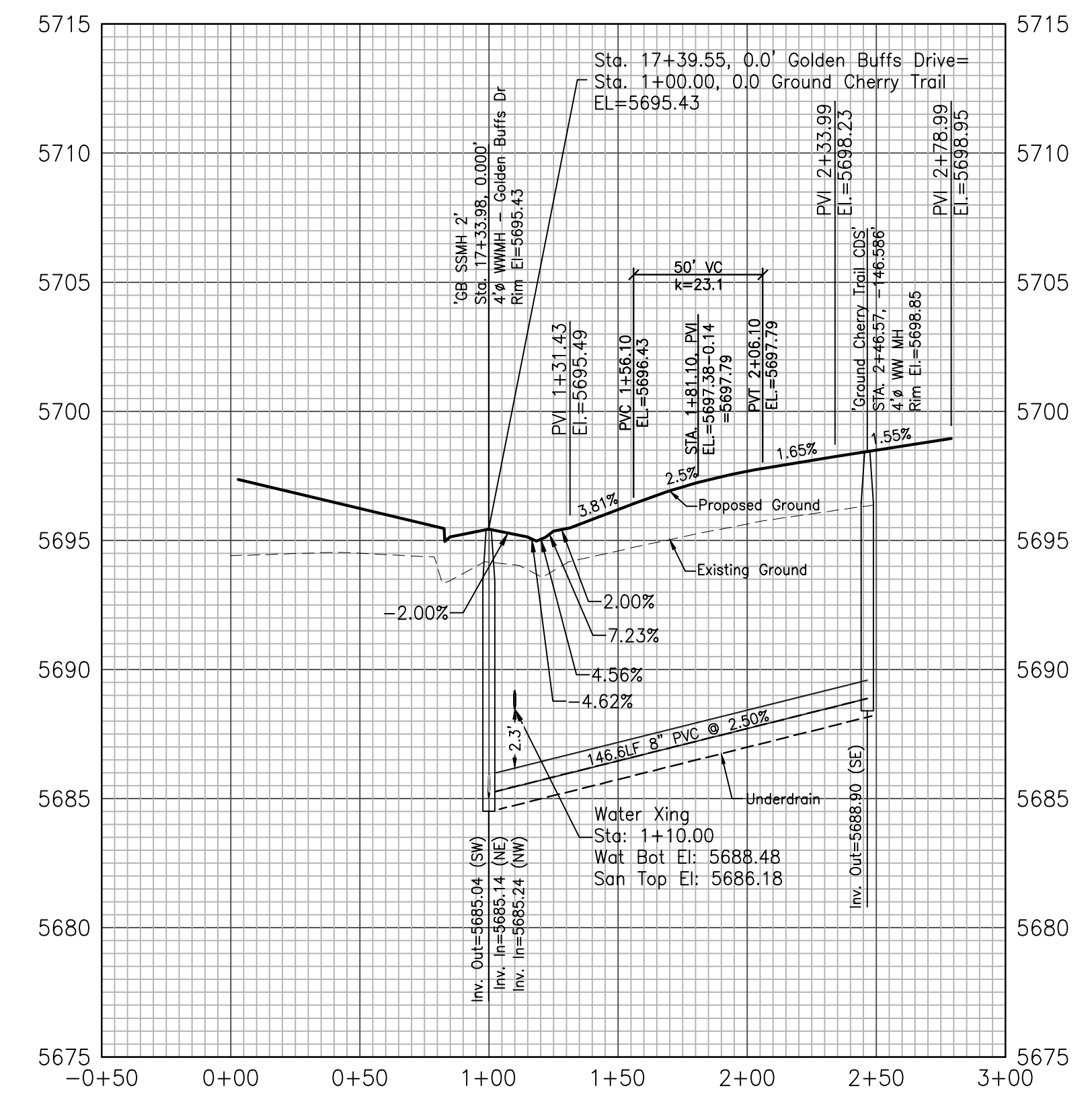


Note: Streetlight locations are pending and are not a part of this submittal.

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

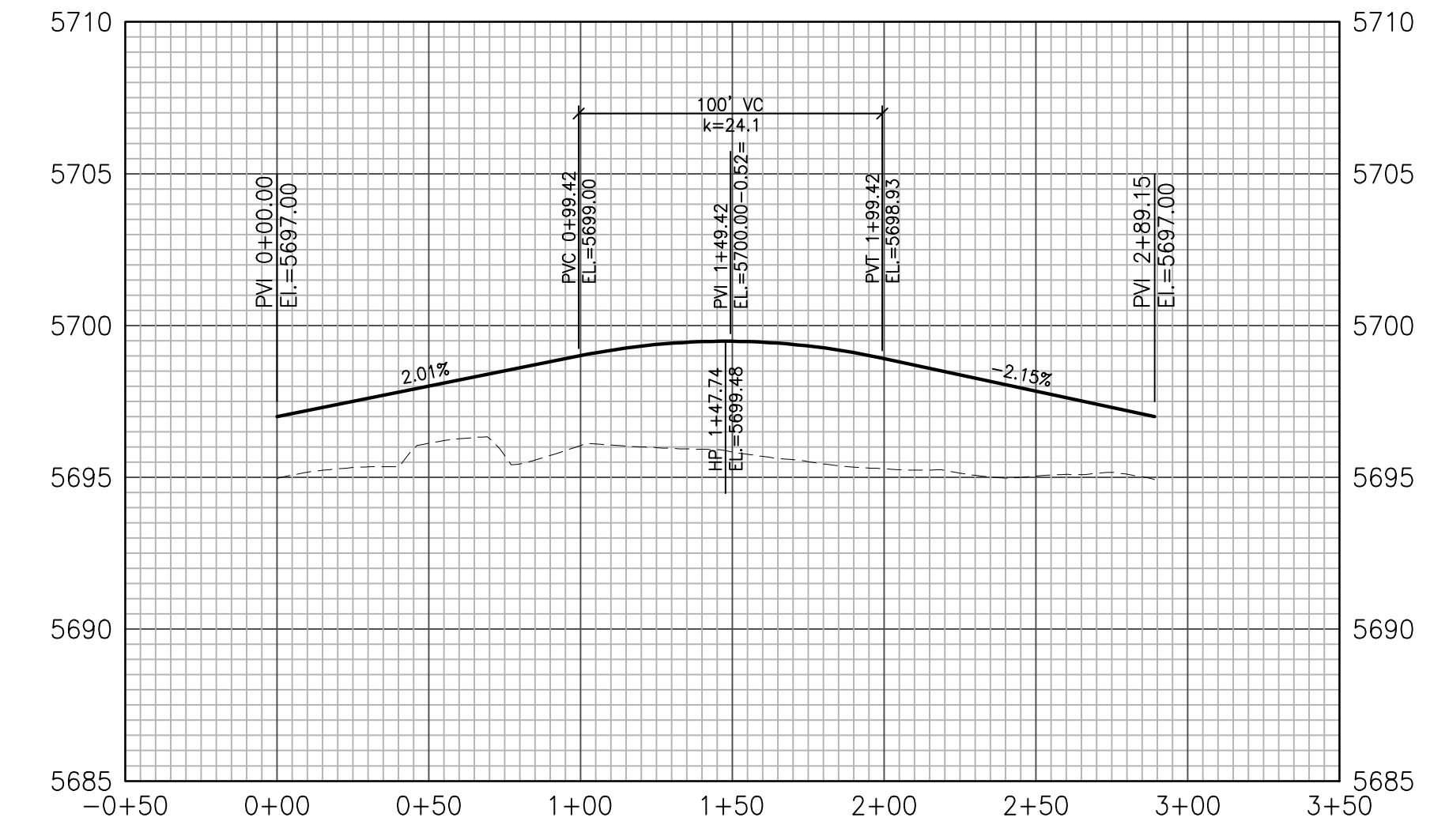
**W**  
WIDEFIELD  
Investment Group

Ground Cherry Trail

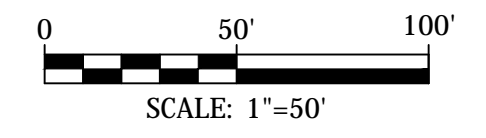
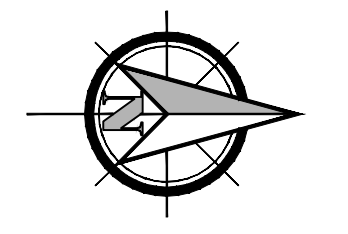


PROFILE VIEW  
HORIZONTAL SCALE: 1"=50'  
VERTICAL SCALE: 1"=5'  
Road Classification: Urban Residential Local Low Volume Residential Design Speed=20 MPH

Ground Cherry Trail CDS



PROFILE VIEW  
HORIZONTAL SCALE: 1"=50'  
VERTICAL SCALE: 1"=5'



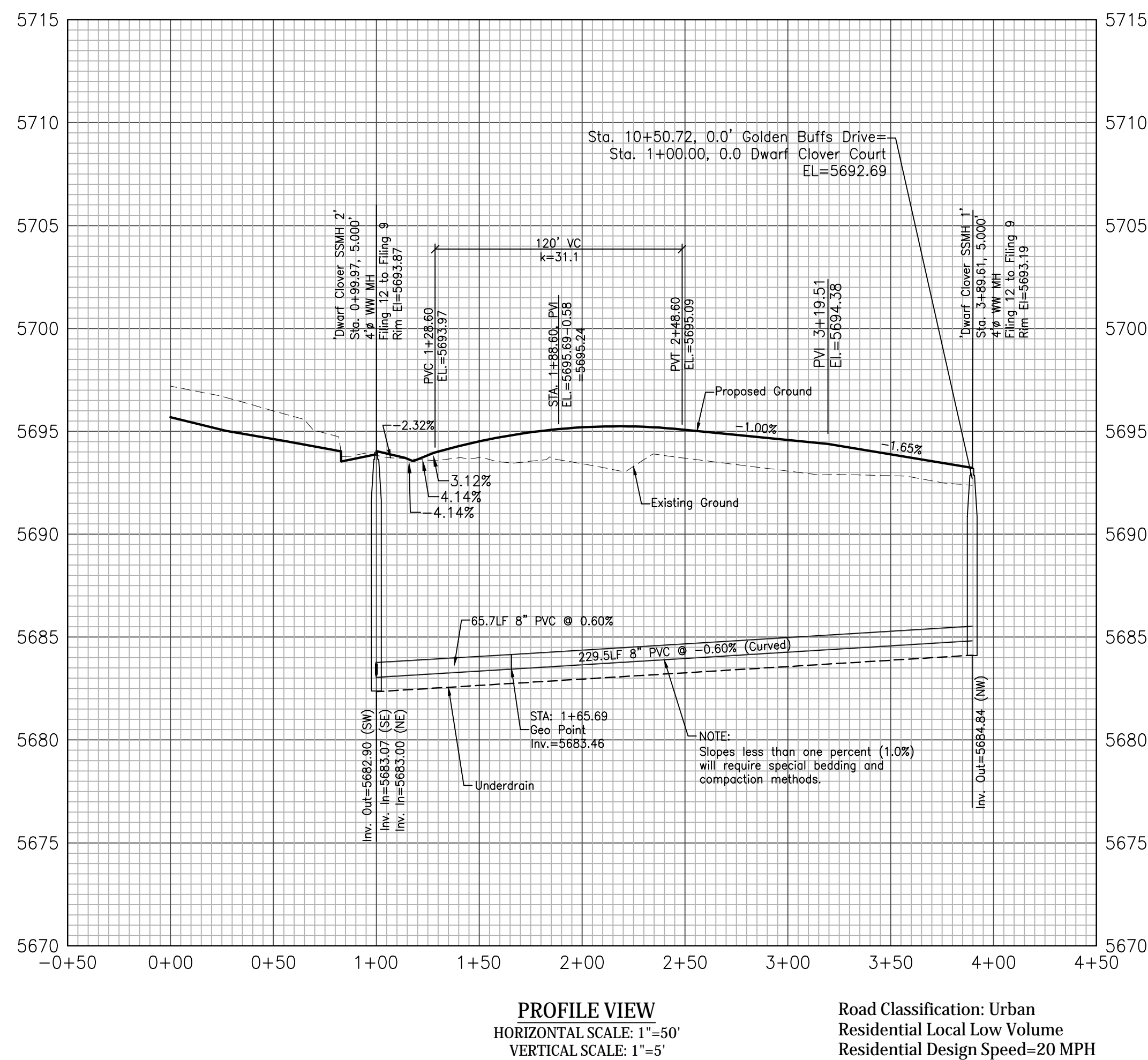
**GLEN AT WIDEFIELD NO. 12**  
Plan and Profile - Ground Cherry Trail  
Sta: 1+00 to END  
EL PASO, COUNTY, COLORADO

Project No.:	19016
Date:	May 17th, 2023
Design:	MJK
Drawn:	MJK
Check:	AWMc
Revisions:	

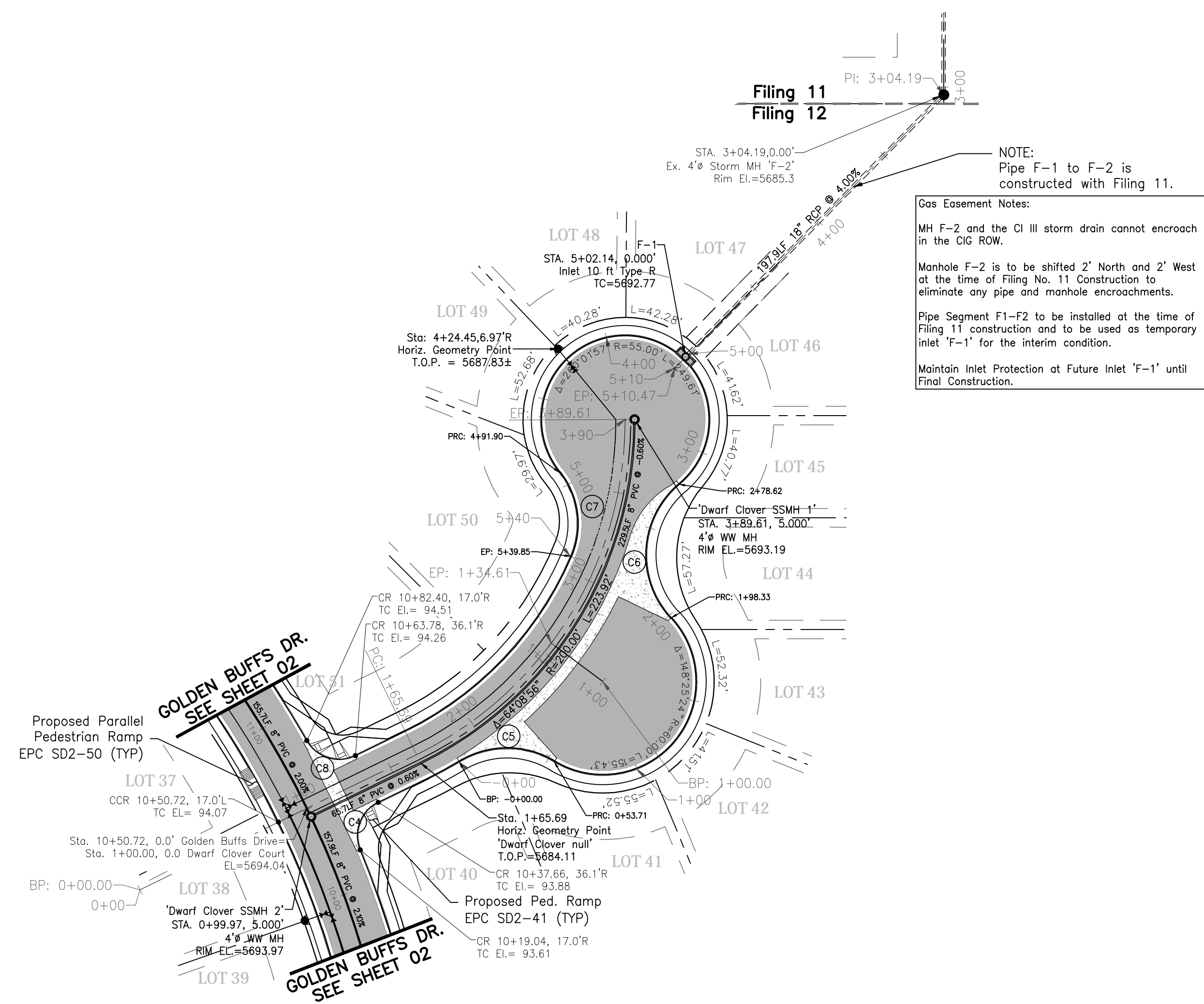
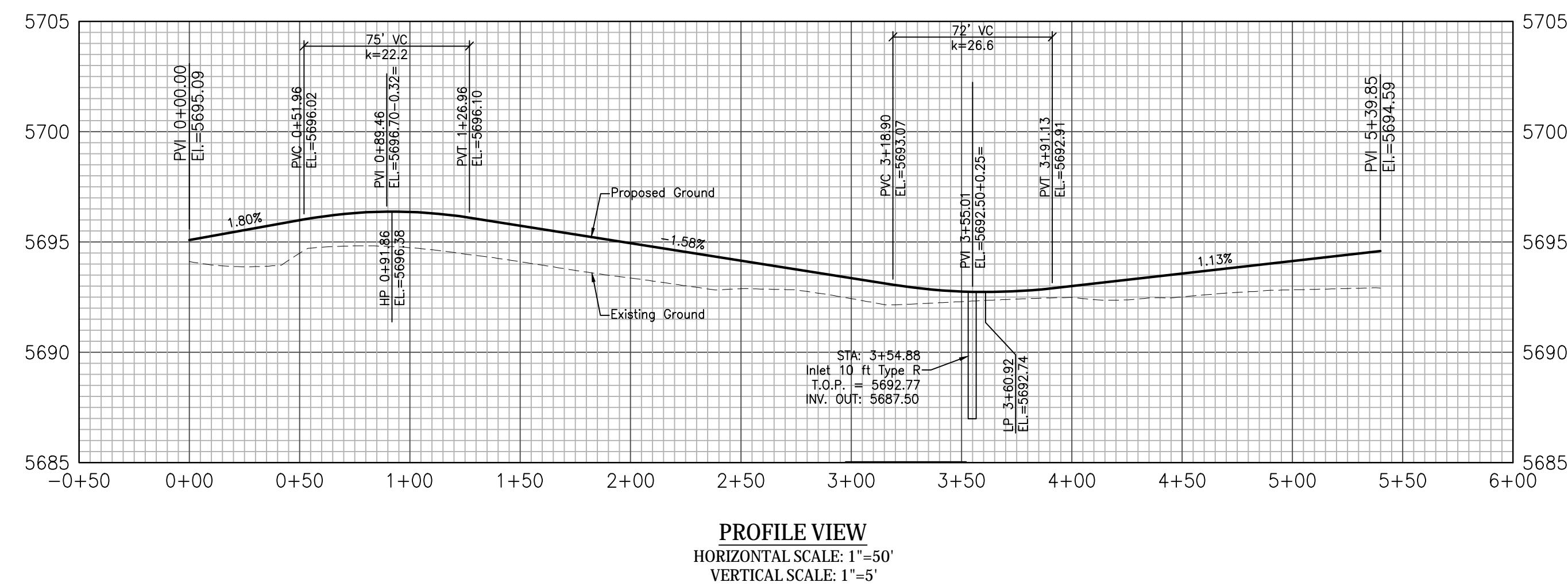
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06 of 19 Sheets

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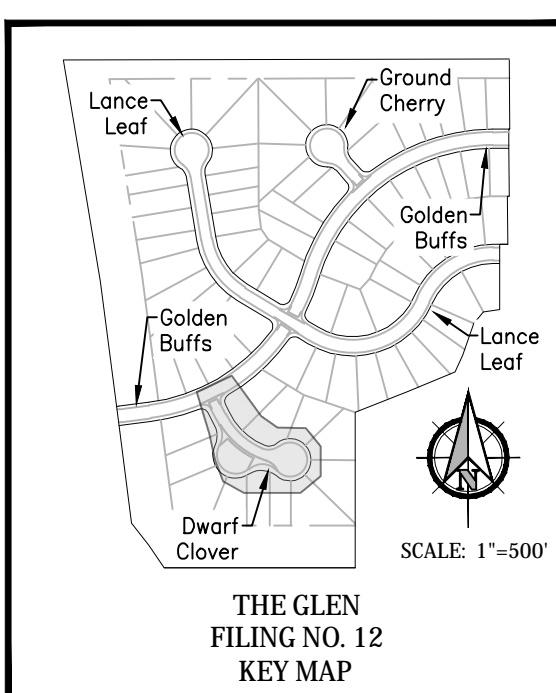
### Dwarf Clover Court



### Dwarf Clover Knuckle and CDS



CURVE DATA	
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C5	=53°36'28" R=60.00' L=56.14'
C6	=74°00'49" R=60.00' L=77.51'
C7	=61°44'03" R=45.00' L=47.95'
C8	=85°15'50" R=20.00' L=29.76'



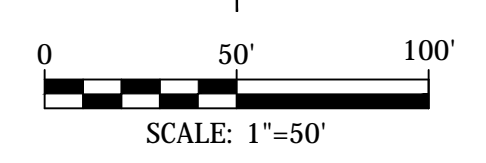
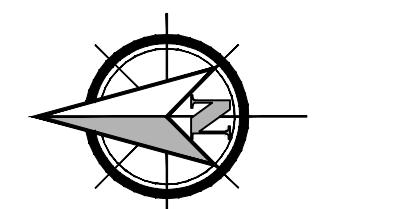
Note:  
Streetlight locations are pending and are not a part of this submittal.

NOTE:  
Pipe F-1 to F-2 is constructed with Filing 11.  
Gas Easement Notes:  
MH F-2 and the CI III storm drain cannot encroach in the CIG ROW.  
Manhole F-2 is to be shifted 2' North and 2' West at the time of Filing No. 11 Construction to eliminate any pipe and manhole encroachments.  
Pipe Segment F1-F2 to be installed at the time of Filing 11 construction and to be used as temporary inlet "F-1" for the interim condition.  
Maintain Inlet Protection at Future Inlet "F-1" until Final Construction.

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

**W** WIDEFIELD  
Investment Group

**GLEN AT WIDEFIELD NO. 12**  
Plan and Profile - Dwarf Clover Court, Knuckle & Cul-de-Sac  
Sta: 1+00 to END  
EL PASO, COUNTY, COLORADO



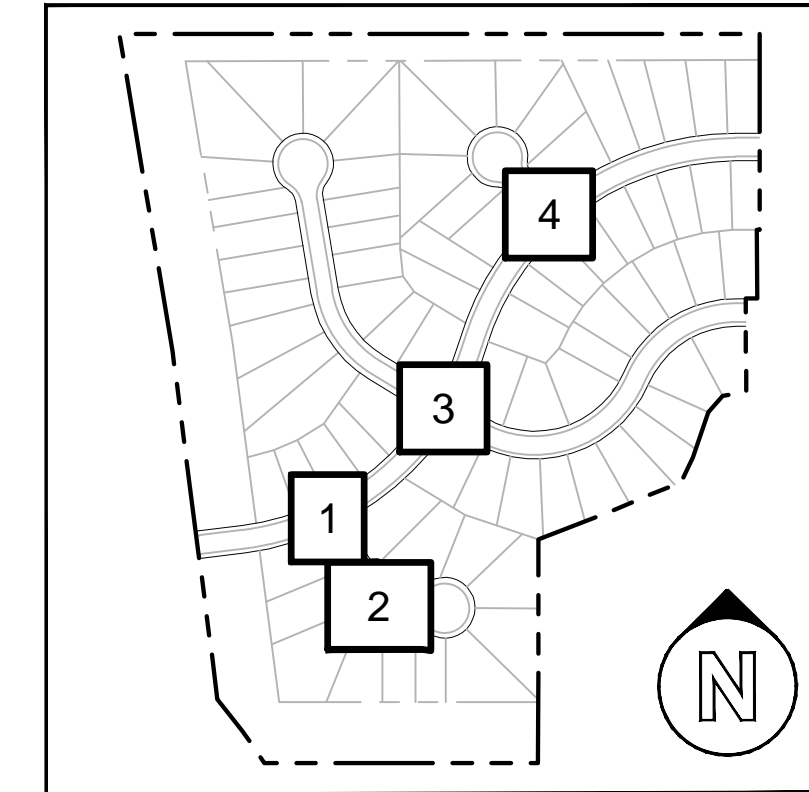
Project No.:	19016
Date:	May 17th, 2023
Design:	MJK
Drawn:	MJK
Check:	AWMc
Revisions:	

SHEET  
**7**  
07 of 19 Sheets



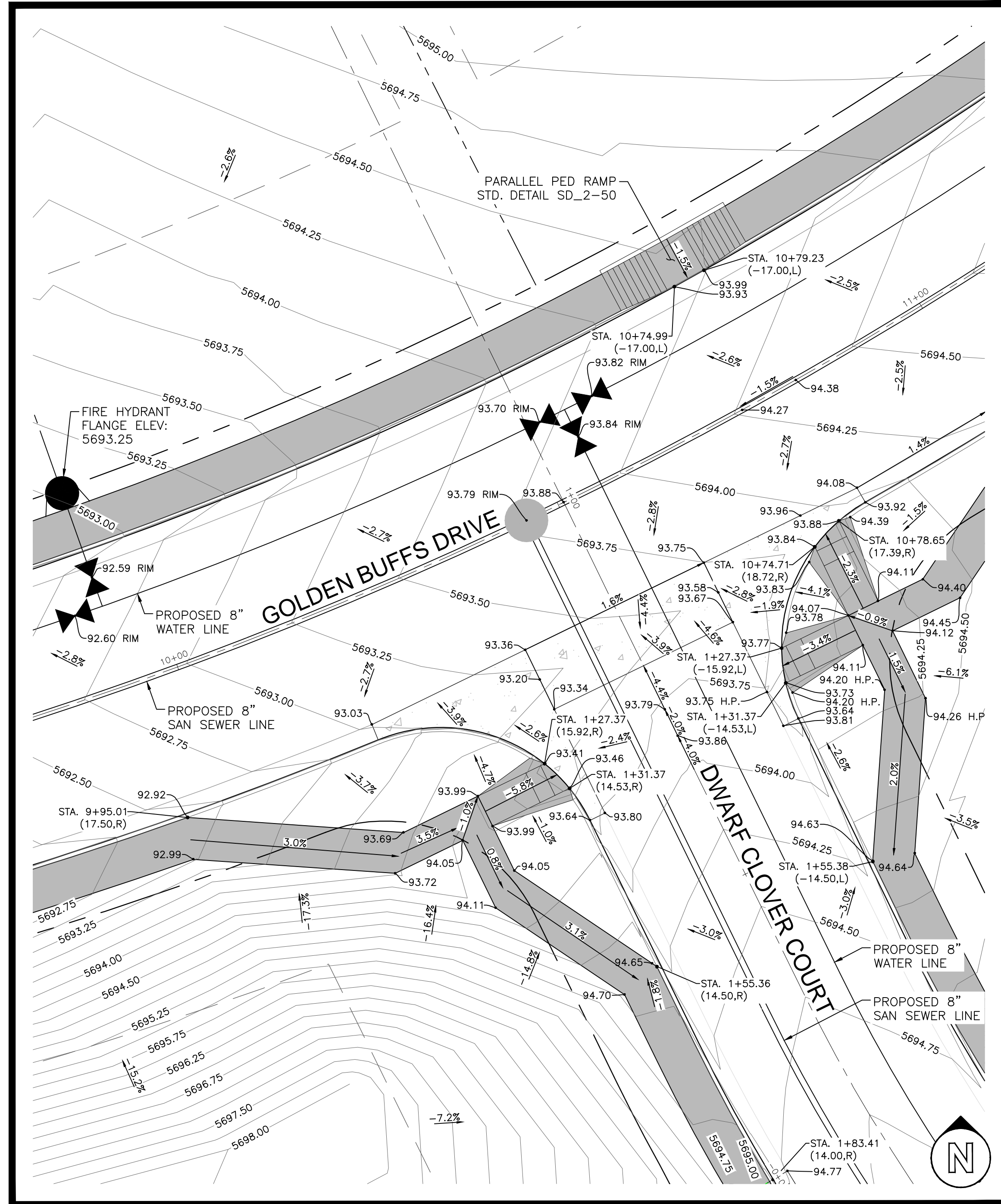
Know what's below.  
Call before you dig.

Note:  
Streetlight locations are pending  
and are not a part of this submittal.



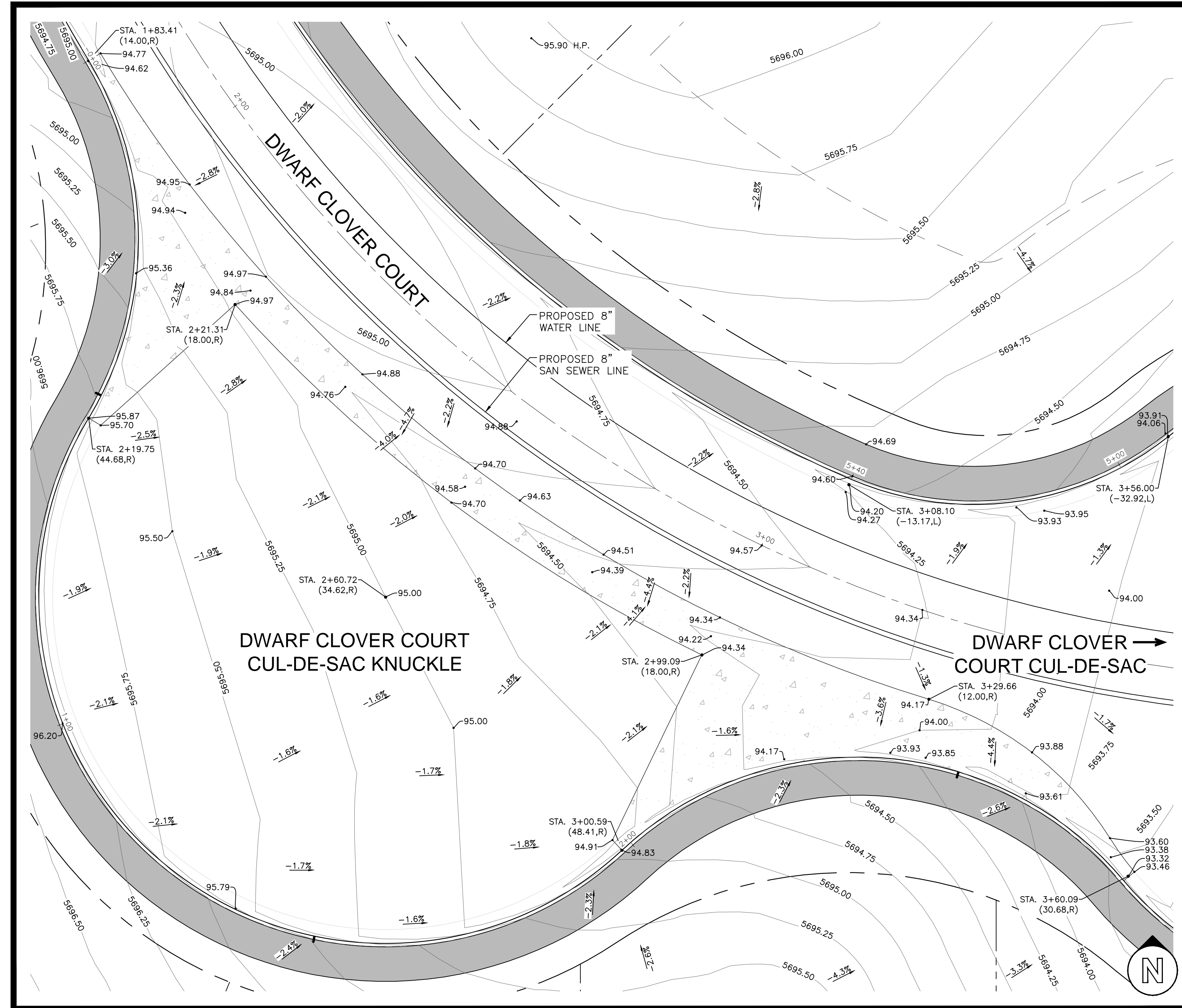
THE GLEN AT WIDEFIELD FILING NO. 12  
INTERSECTION KEY MAP

**Kiowa**  
Engineering Corporation  
1604 South 21st Street  
Colorado Springs, Colorado 80904  
(719) 650-7342



GRADING DETAIL 1 - GOLDEN BUFF DRIVE & DWARF CLOVER COURT

SCALE 1" = 10'



GRADING DETAIL 2 - DWARF CLOVER COURT CUL-DE-SAC KNUCKLE

SCALE 1" = 10'



**GLEN AT WIDEFIELD NO. 12**  
Intersection Grading Details  
Filing 12 Intersections 1 and 2  
EL PASO, COUNTY, COLORADO

Project No.:	19016
Date:	May 3rd, 2023
Design:	MIK
Drawn:	MIK
Check:	AWMc
Revisions:	

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8

08 of 19 Sheets

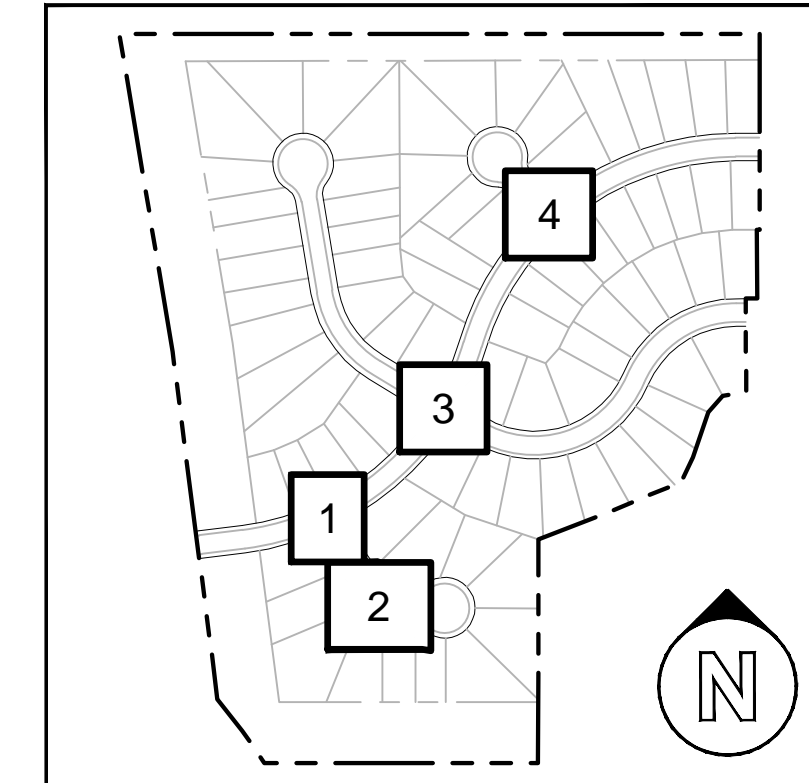
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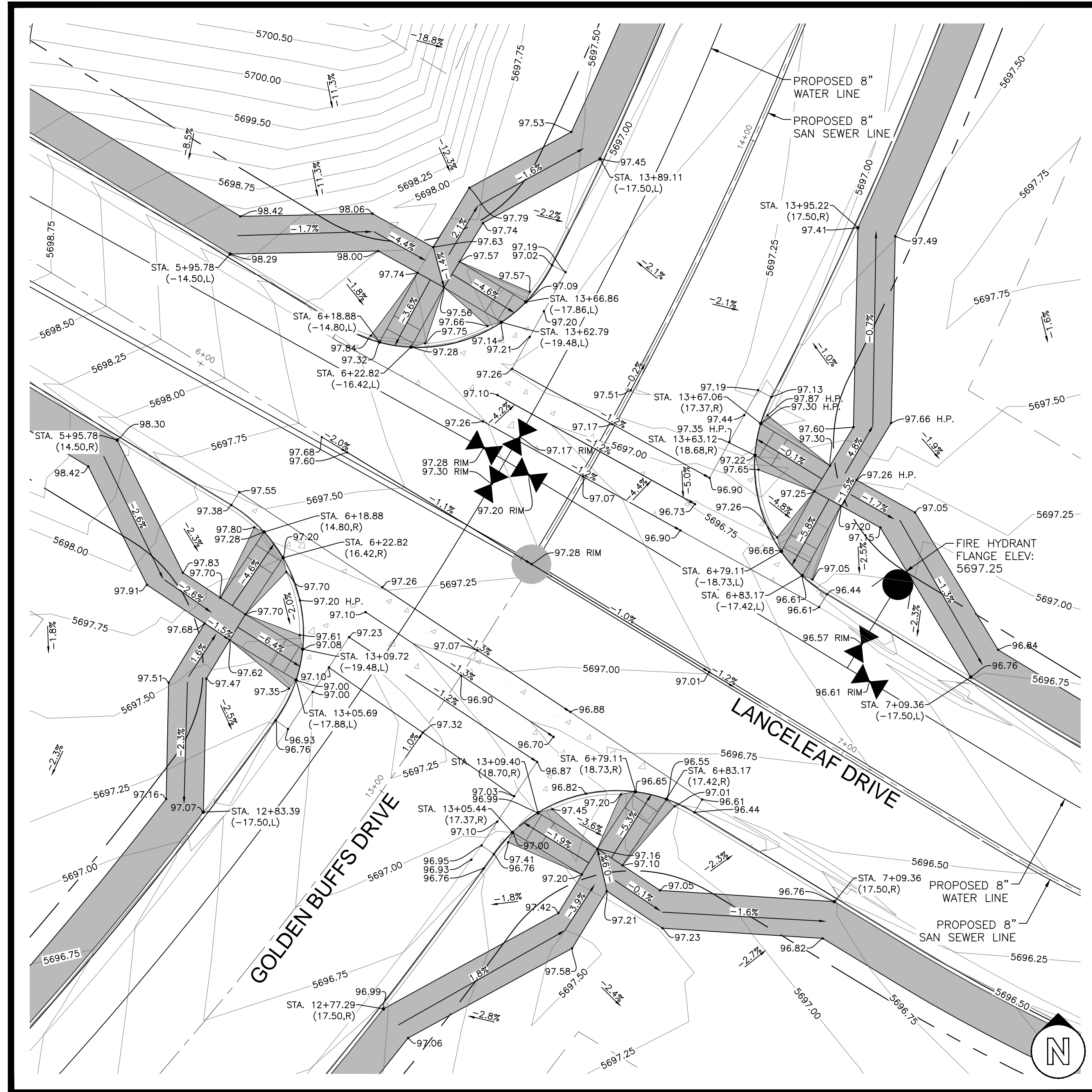
Know what's below.  
Call before you dig.

Note:  
Streetlight locations are pending  
and are not a part of this submittal.



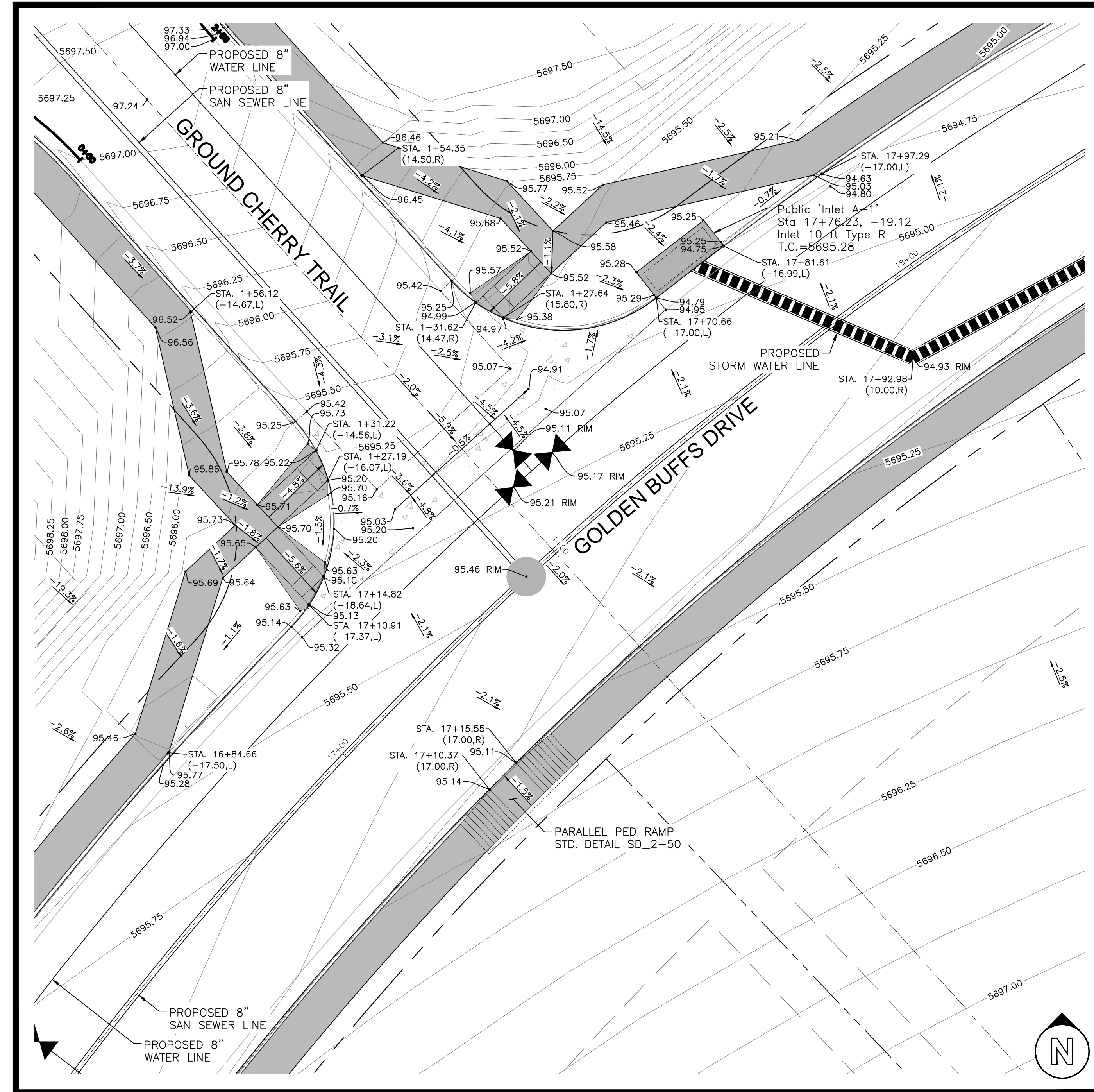
THE GLEN AT WIDEFIELD FILING NO. 12  
INTERSECTION KEY MAP

**Kiowa**  
Engineering Corporation  
1604 South 21st Street  
Colorado Springs, Colorado 80904  
(719) 650-7342



GRADING DETAIL 3 - GOLDEN BUFF DRIVE & LANCELEAF DRIVE

SCALE 1" = 10'



GRADING DETAIL 4 - GOLDEN BUFF DRIVE & GROUND CHERRY TRAIL

SCALE 1" = 10'



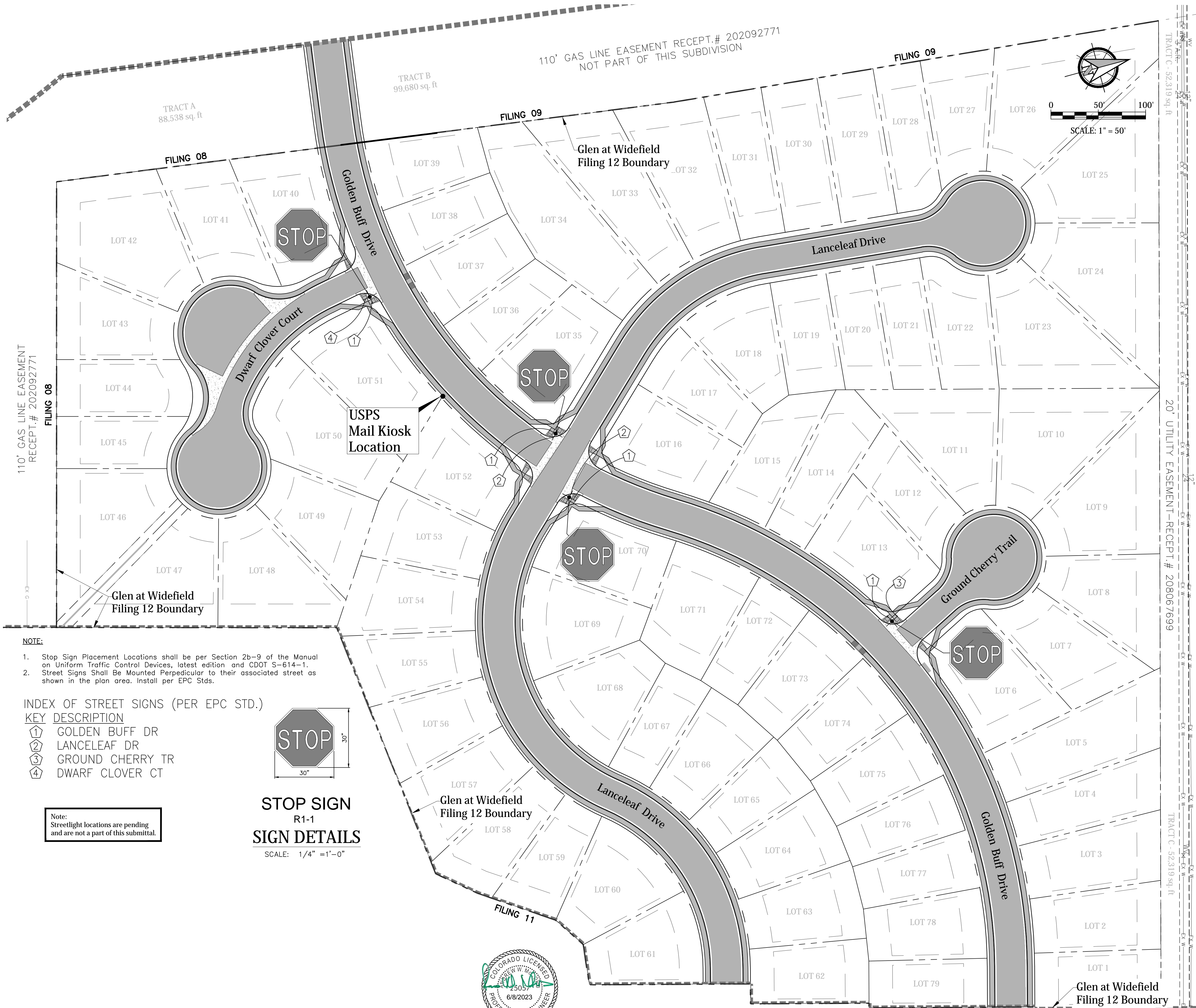
**GLEN AT WIDEFIELD NO. 12**  
Intersection Grading Details  
Filing 12 Intersections 3 and 4  
EL PASO, COUNTY, COLORADO

Project No.:	19016
Date:	May 3rd, 2023
Design:	MIK
Drawn:	MIK
Check:	AWMc
Revisions:	

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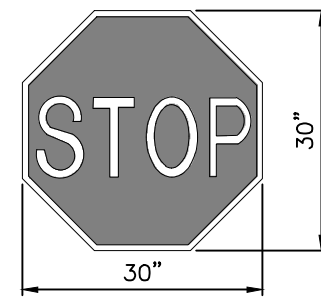
09 of 19 Sheets



- 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.

**INDEX OF STREET SIGNS (PER EPC STD.)**

KEY	DESCRIPTION
①	GOLDEN BUFF DR
②	LANCELEAF DR
③	GROUND CHERRY TR
④	DWARF CLOVER CT



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

**Note:**  
Streetlight locations are pending and are not a part of this submittal.

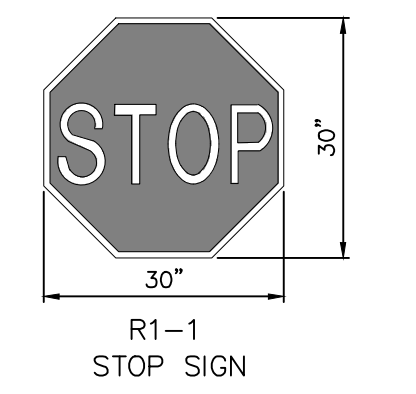
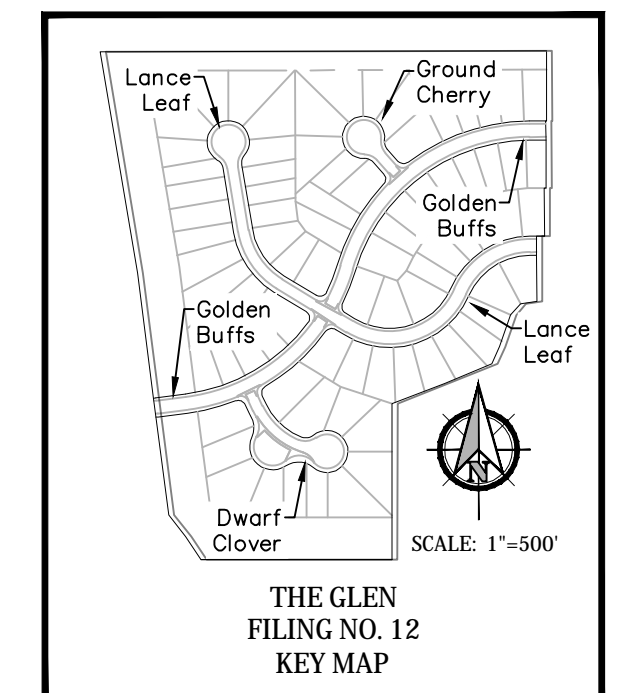


(R5-1) 30"x30"

(R3-2) 24"x24"

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

R3-5R, 18"x24"



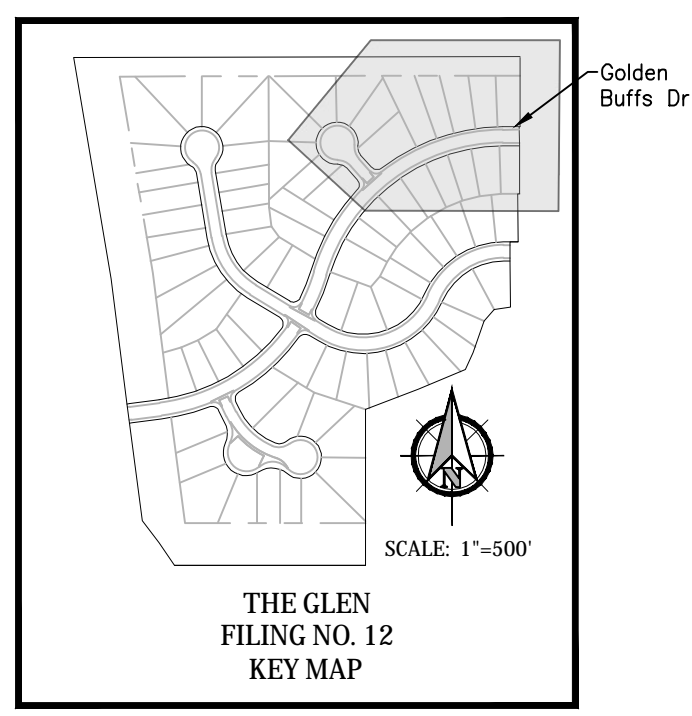
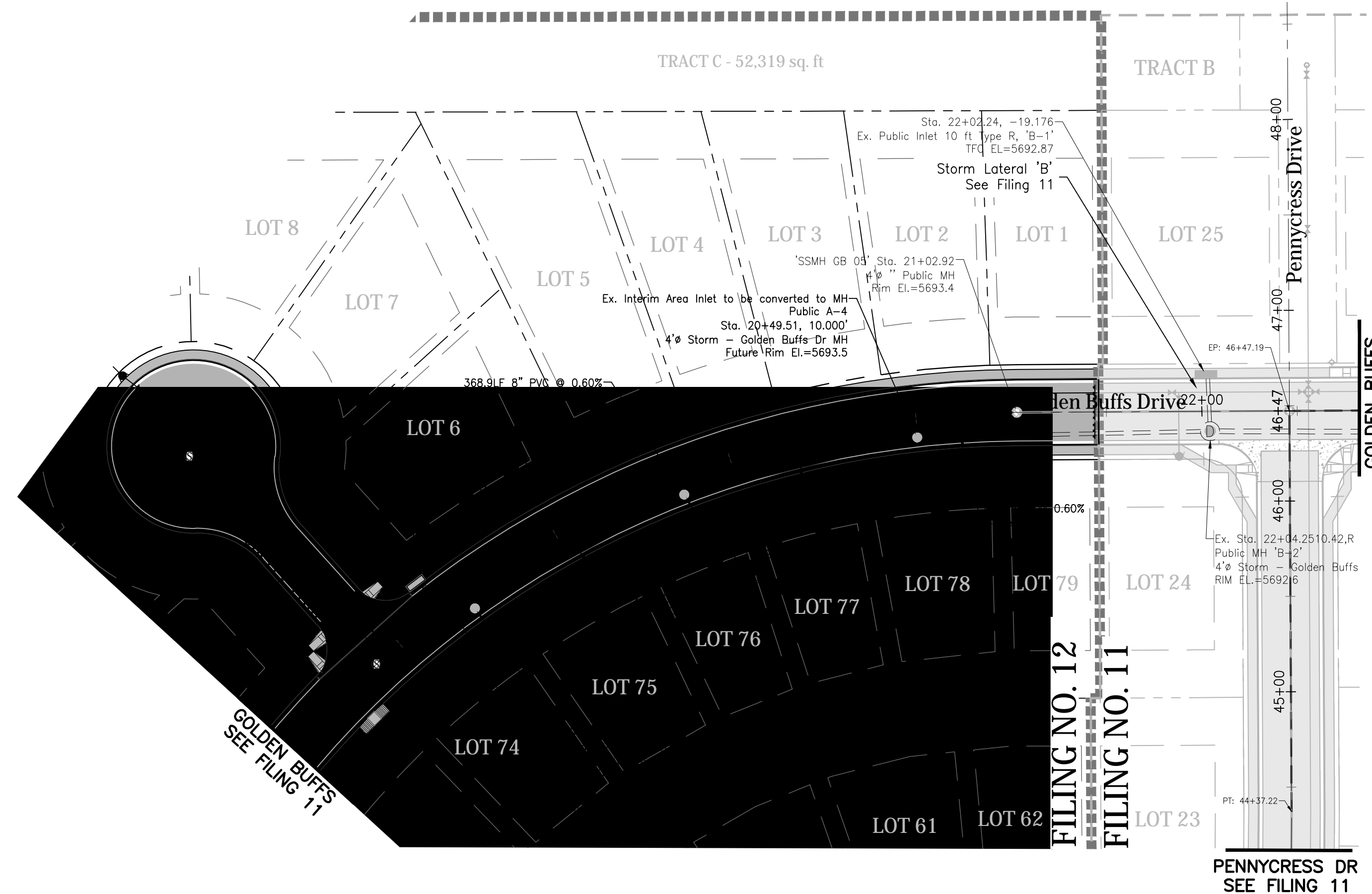
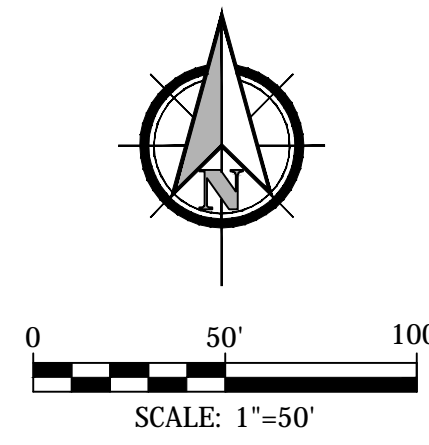
- Note:**
1. Stop sign placement locations shall be per section 2b-10 of the Manual on Uniform Traffic Control Devices, latest edition and CDOT S-614-1.
  2. Street Signs Shall Be Mounted Perpendicular to their associated street as shown in the plan area. Install per EPC Stds.

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

- 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 signing and striping 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.

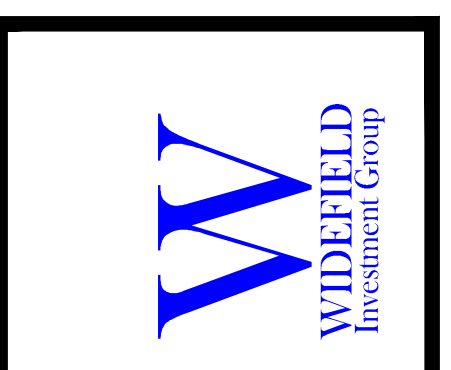
- General Notes:**
1. Before excavating, contractor shall verify location of underground utilities.
  2. Contractor shall be responsible for any monumentation and/or benchmarks which will be disturbed or destroyed by construction. Such points shall be referenced and replaced with appropriate monumentation 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.

Project No.:	19016
Date:	May 3rd, 2023
Design:	MJK
Drawn:	MJK
Check:	AWMc
Revisions:	

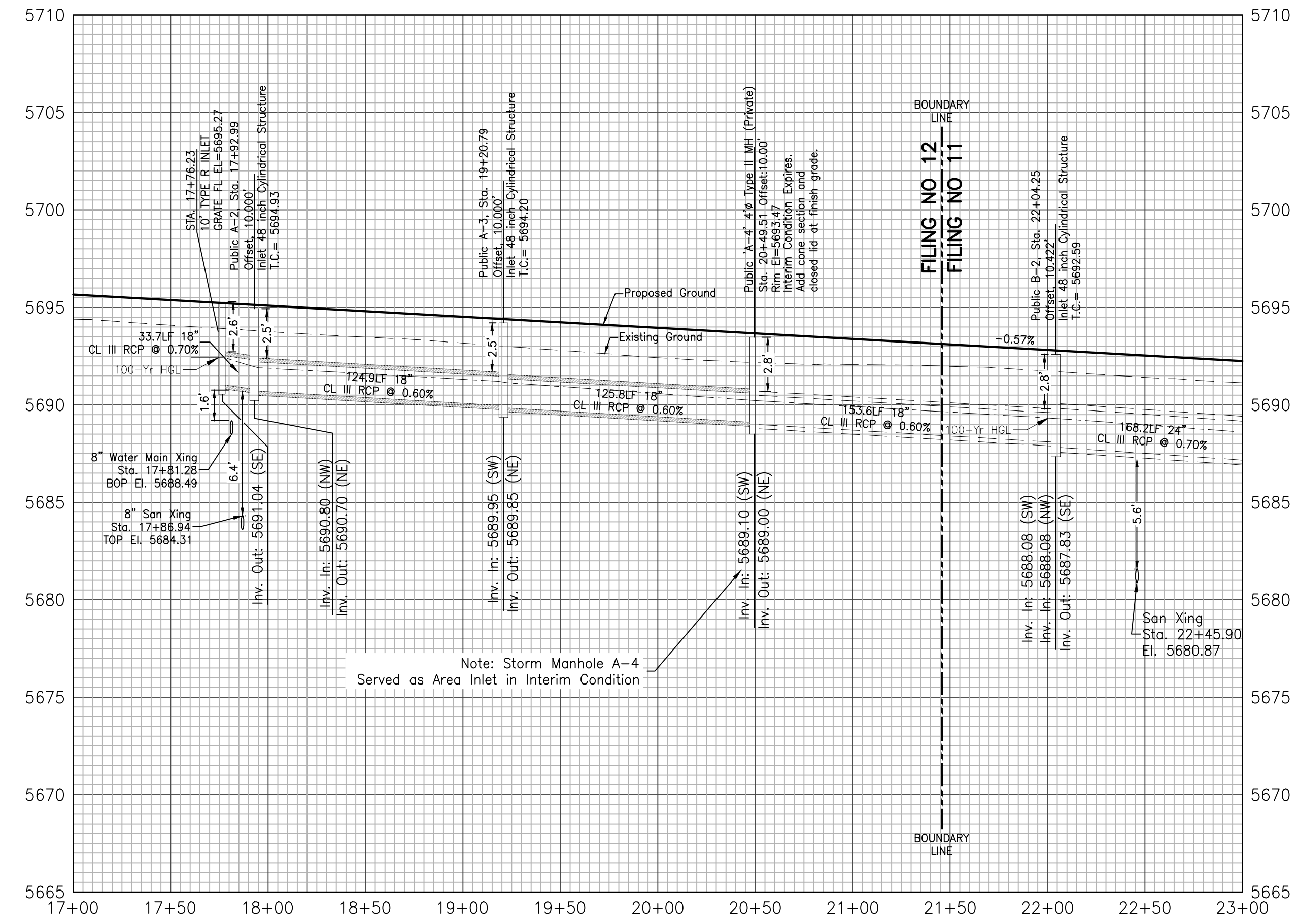


Note:  
Streetlight locations are pending  
and are not a part of this submittal.

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



Profile View of Golden Buffs Drive



PROFILE VIEW  
HORIZONTAL SCALE: 1"=50'  
VERTICAL SCALE: 1"=5'



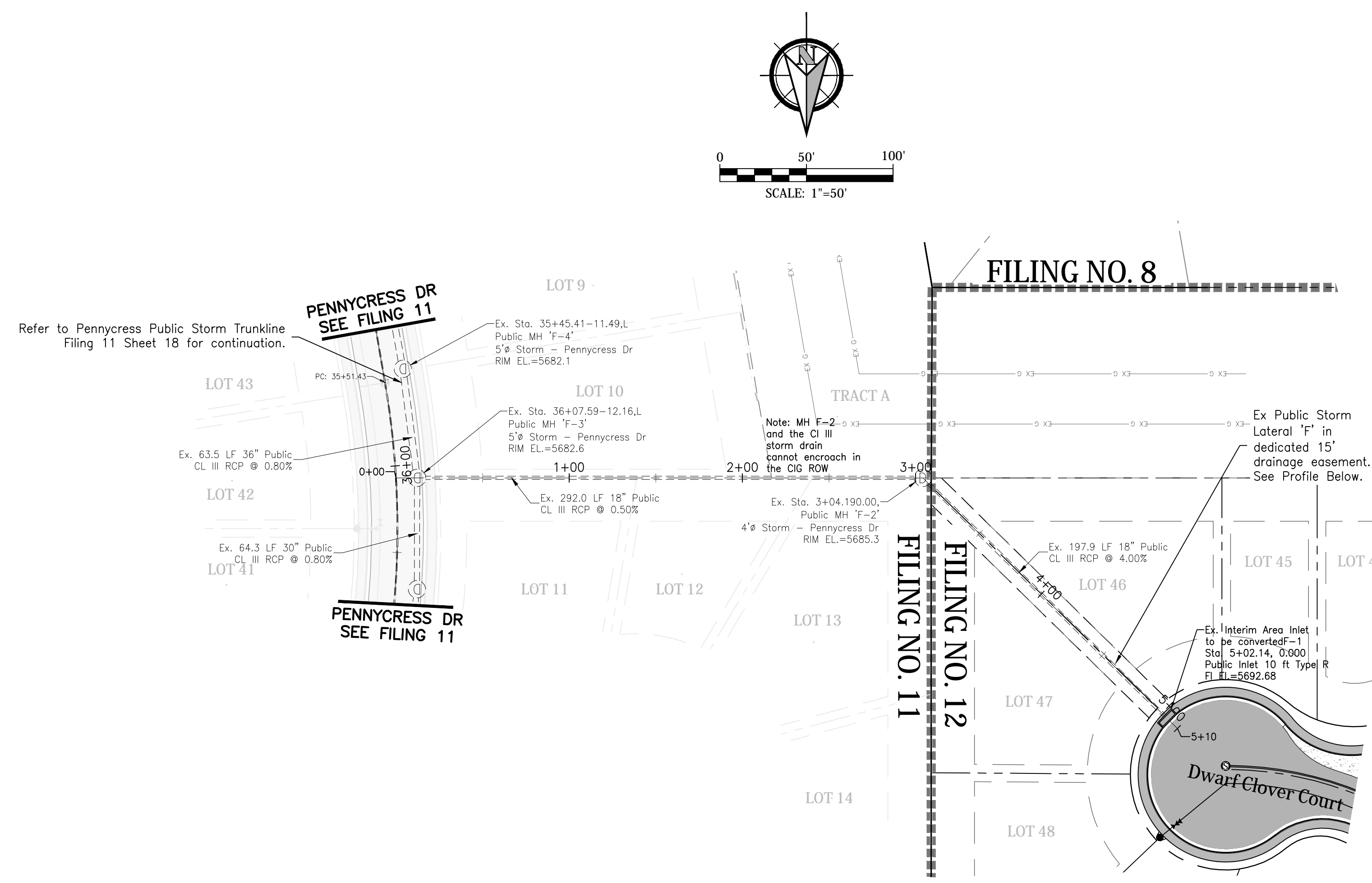
**GLEN AT WIDEFIELD NO. 12**  
Storm Sewer Plan - Golden Buffs A1-A4  
Begin Sta: 17+76.23 to 21+45.87  
EL PASO, COUNTY, COLORADO

Project No.:	19016
Date:	May 3rd, 2023
Design:	MJK
Drawn:	MJK
Check:	AWMc
Revisions:	

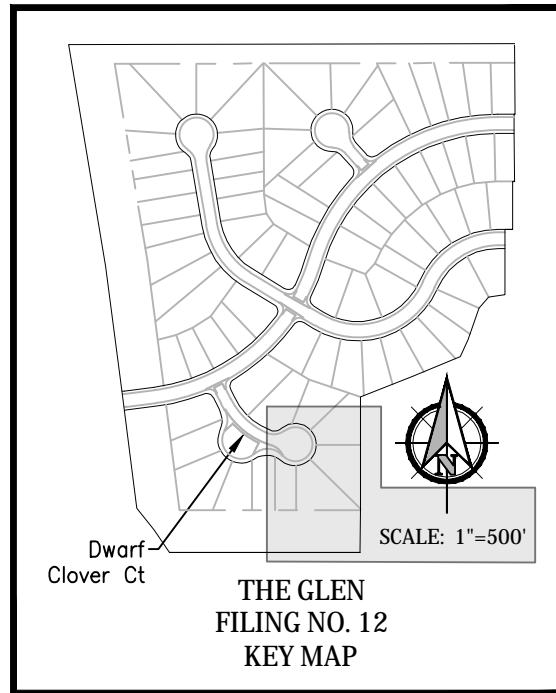
SHEET  
**11**  
11 of 19 Sheets

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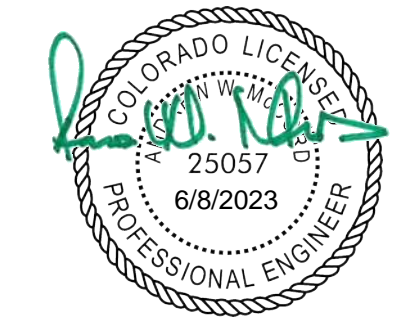
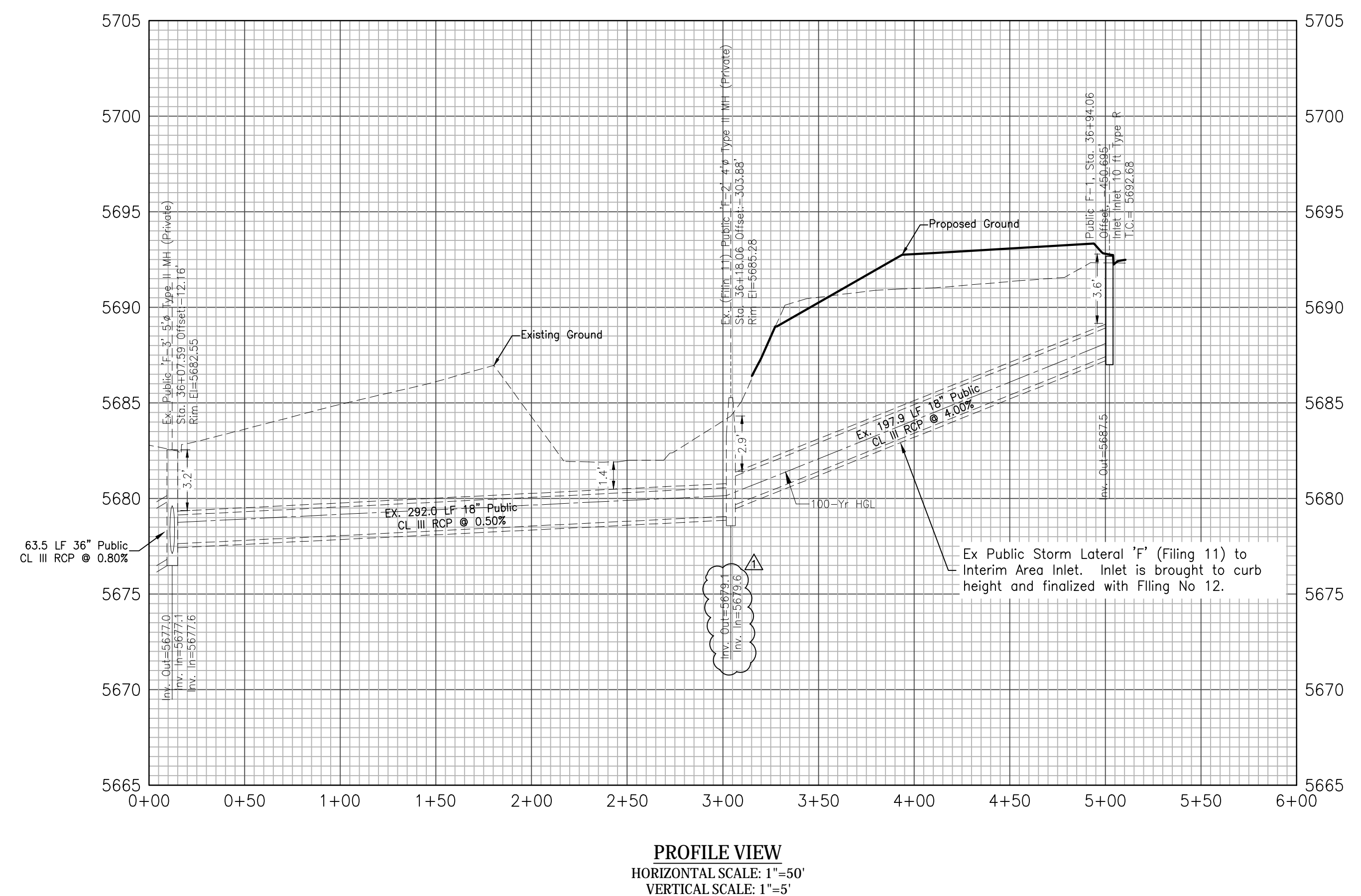


**Gas Easement Notes:**  
 MH F-2 and the CI III storm drain cannot encroach in the CIG ROW.  
 Manhole F-2 is to be shifted 2' North and 2' West at the time of Filing No. 11 Construction to eliminate pipe and manhole encroachments.  
 Pipe Segment F1-F2 to be installed at the time of Filing 11 construction and to be used as temporary inlet 'F-1' for the interim condition.  
 Maintain Inlet Protection at Future Inlet 'F-1' until Final Construction.



Note:  
 Streetlight locations are pending and are not a part of this submittal.

Profile View of Storm Lateral 'F'



**GLEN AT WIDEFIELD NO. 12**  
**Storm Sewer Plan - Laterals 'F' - Filing 12 Portion**  
**Ref: Pennycrest Storm Trunkline**  
**EL PASO, COUNTY, COLORADO**

Project No.:	19016
Date:	May 3rd, 2023
Design:	MJK
Drawn:	MJK
Check:	AWMc
Revisions:	

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12

12 of 19 Sheets

Kiowa

Engineering Corporation

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

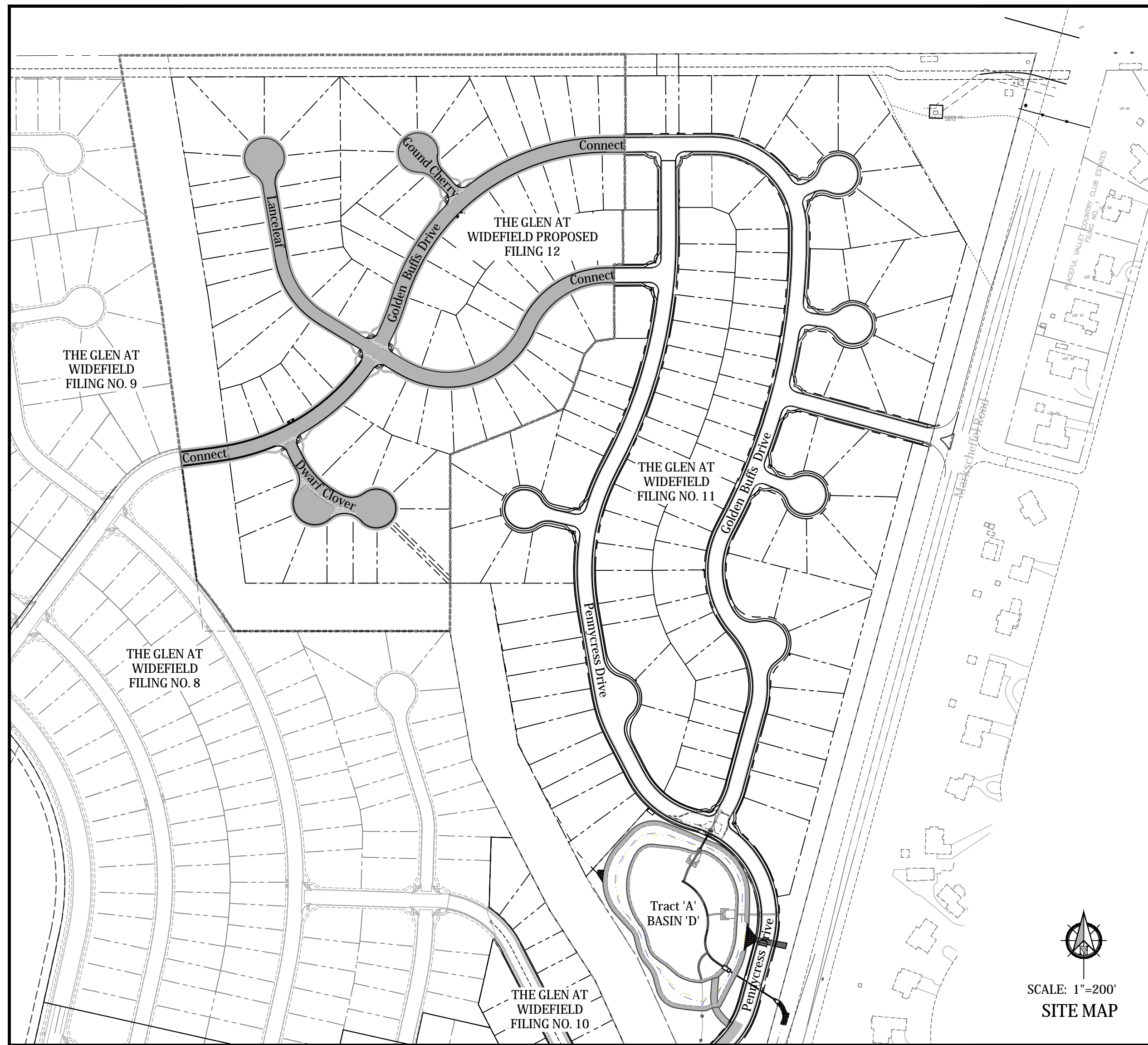
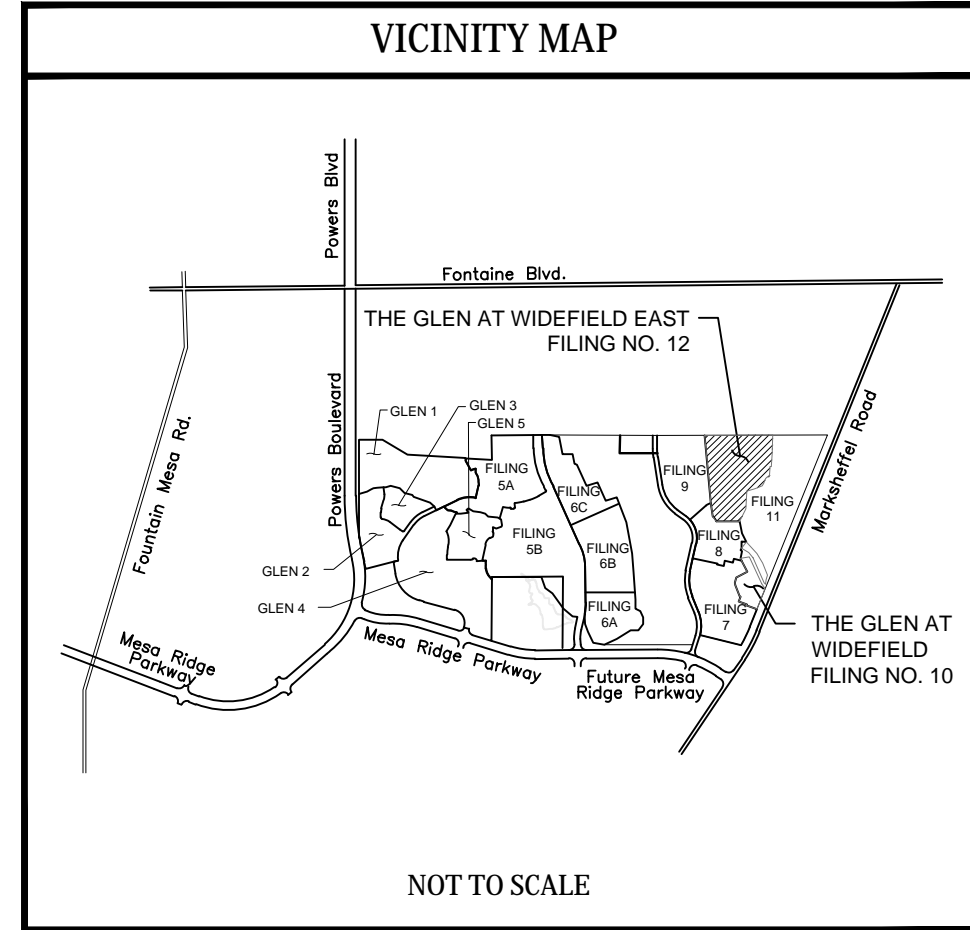
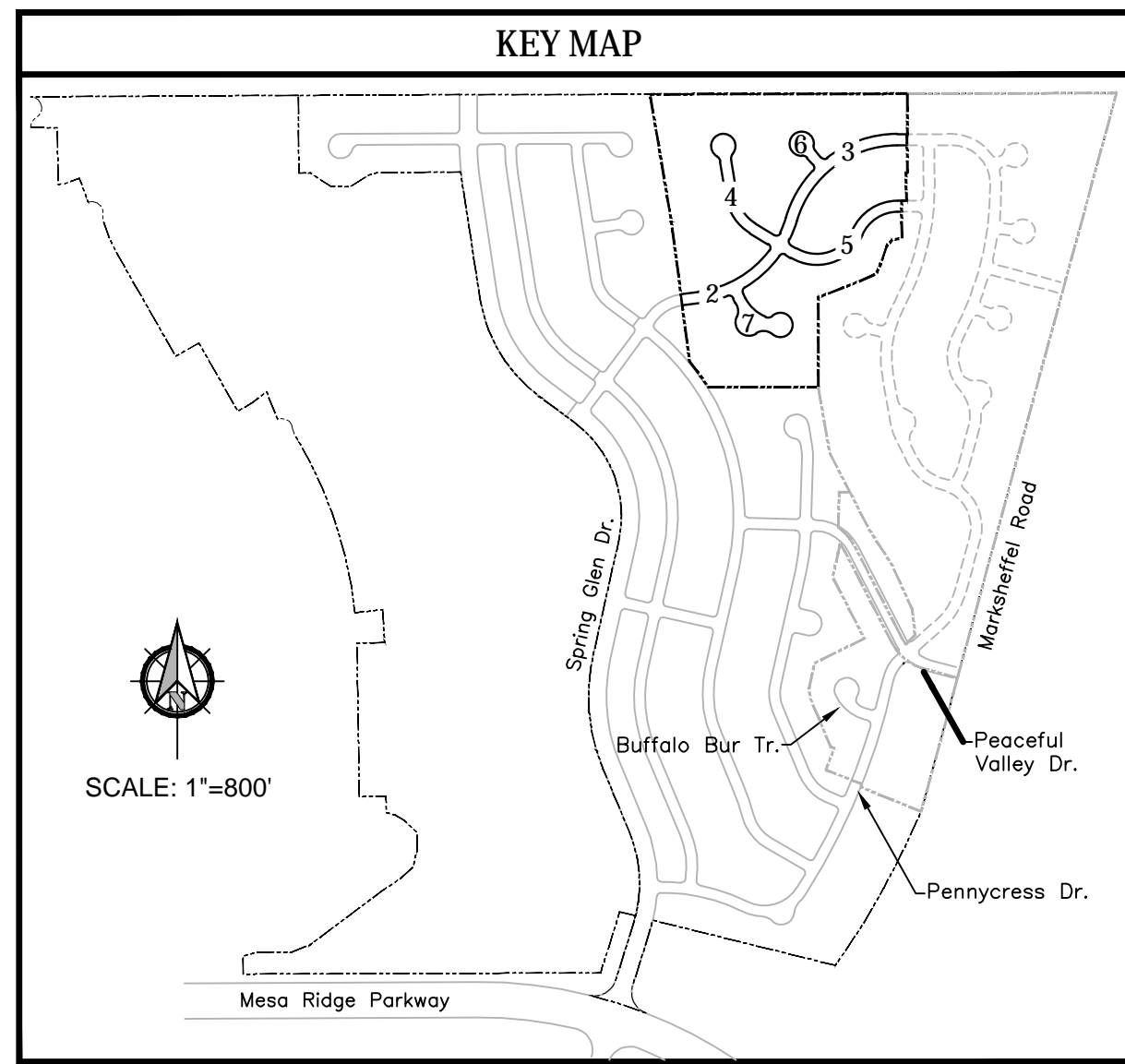
W

WIDEFIELD  
Investment Group

# THE GLEN AT WIDEFIELD FILING NO. 12

## Grading, Erosion & Sediment Control Cover Sheet

### PREPARED FOR WIDEFIELD INVESTMENT GROUP



- #### PROJECT SPECIFIC GRADING AND EROSION CONTROL NOTES
- Stormwater discharges from construction sites shall not cause or threaten to cause pollution, contamination, or degradation of State Waters. All work and earth disturbance shall be done in a manner that minimizes pollution of any on-site or off-site waters, including wetlands.
  - Notwithstanding anything depicted in these plans in words or graphic representation, all design and construction related to roads, storm drainage and erosion control shall conform to the standards and requirements of the most recent version of the relevant adopted El Paso County standards, including the Land Development Code, the Engineering Criteria Manual, the Drainage Criteria Manual, and the Drainage Criteria Manual Volume 2. Any deviations from regulations and standards must be requested, and approved, in writing.
  - A separate Stormwater Management Plan (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.
  - Once the ESQCP is approved and a "Notice to Proceed" has been issued, the contractor may install the initial stage erosion and sediment control measures as indicated on the approved GEO. A Preconstruction Meeting between the contractor, engineer, and El Paso County will be held prior to any construction. It is the responsibility of the applicant to coordinate the meeting time and place with County staff.
  - Control measures must be installed prior to commencement of activities that could contribute pollutants to stormwater. Control measures for all slopes, channels, ditches, and disturbed land areas shall be installed immediately upon completion of the disturbance.
  - All temporary sediment and erosion control measures shall be maintained and remain in effective operating condition until permanent soil erosion control measures are implemented and final stabilization is established. All persons engaged in land disturbance activities shall assess the adequacy of control measures at the site and identify if changes to those control measures are needed to ensure the continued effective performance of the control measures. All changes to temporary sediment and erosion control measures must be incorporated into the Stormwater Management Plan.
  - Temporary stabilization shall be implemented on disturbed areas and stockpiles where ground disturbing construction activity has permanently ceased or temporarily ceased for longer than 14 days.
  - Final stabilization must be implemented at all applicable construction sites. Final stabilization is achieved when all ground disturbing activities are complete and all disturbed areas either have a uniform vegetative cover with individual plant density of 70 percent of pre-disturbance levels established or equivalent permanent alternative stabilization method is implemented. All temporary sediment and erosion control measures shall be removed upon final stabilization and before permit closure.
  - All permanent stormwater management facilities shall be installed as designed in the approved plans. Any proposed changes that affect the design or function of permanent stormwater management structures must be approved by the ECM Administrator prior to implementation.
  - Earth disturbances shall be conducted in such a manner so as to effectively minimize accelerated soil erosion and resulting sedimentation. All disturbances shall be designed, constructed, and completed so that the exposed area of any disturbed land shall be limited to the shortest practical period of time. Pre-existing vegetation shall be protected and maintained within 50 horizontal feet of a waters of the state unless shown to be infeasible and specifically requested and approved.
  - Compaction of soil must be prevented in areas designated for infiltration control measures or where final stabilization will be achieved by vegetative cover. Areas designated for infiltration control measures shall also be protected from sedimentation during construction until final stabilization is achieved. If compaction prevention is not feasible due to site constraints, all areas designated for infiltration and vegetation control measures must be loosened prior to installation of the control measure(s).
  - Any temporary or permanent facility designed and constructed for the conveyance of stormwater around, through, or from the earth disturbance area shall be a stabilized conveyance designed to minimize erosion and the discharge of sediment off-site.
  - Concrete wash water shall be contained and disposed of in accordance with the SWMP. No wash water shall be discharged to or allowed to enter State Waters, including any surface or subsurface storm drainage system or facilities. Concrete washouts shall not be located in an area where shallow groundwater may be present, or within 50 feet of a surface water body, creek or stream.
  - During dewatering operations of uncontaminated ground water may be discharged on site, but shall not leave the site in the form of surface runoff unless an approved State dewatering permit is in place.
  - Erosion control blanketing or other protective covering shall be used on slopes steeper than 3:1.
  - Contractor shall be responsible for the removal of all wastes from the construction site for disposal in accordance with local and State regulatory requirements. No construction debris, tree slash, building material wastes or unused building materials shall be buried, dumped, or discharged at the site.
  - Waste materials shall not be temporarily placed or stored in the street, alley, or other public way, unless in accordance with an approved Traffic Control Plan. Control measures may be required by El Paso County Engineering if deemed necessary, based on specific conditions and circumstances.
  - Tracking of soils and construction debris off-site shall be minimized. Materials tracked off-site shall be cleaned up and properly disposed of immediately.
  - The owner/developer shall be responsible for the removal of all construction debris, dirt, trash, rock, sediment, soil, and sand that may accumulate in roads, storm drains and other drainage conveyance systems and stormwater appurtenances as a result of site development.
  - The quantity of materials stored on the project site shall be limited, as much as practical, to that quantity required to perform the work in an orderly sequence. All materials stored on-site shall be stored in a neat, orderly manner, in their original containers, with original manufacturer's labels.
  - No chemical(s) having the potential to be released in stormwater are to be stored or used onsite unless permission for the use of such chemical(s) is granted in writing by the ECM Administrator. In granting approval for the use of such chemical(s), special conditions and monitoring may be required.
  - Bulk storage of allowed petroleum products or other allowed liquid chemicals in excess of 55 gallons shall require adequate secondary containment protection to contain all spills onsite and to prevent any spilled materials from entering State Waters, any surface or subsurface storm drainage system or other facilities.
  - No chemical(s) having the potential to be released in stormwater shall be stored or used except with approved sediment control measures.
  - Owner/developer and their agents shall comply with the "Colorado Water Quality Control Act" (Title 25, Article 8, CRS), and the "Clean Water Act" (33 USC 1344), in addition to the requirements of the Land Development Code, DCM Volume II and the ECM Appendix I. All appropriate permits must be obtained by the contractor prior to construction (1041, NPDES, Floodplain, 404, fugitive dust, etc.). In the event of conflicts between these requirements and other laws, rules, or regulations of other Federal, State, local, or County agencies, the most restrictive laws, rules, or regulations shall apply.
  - All construction traffic must enter/exit the site only at approved construction access points.
  - Prior to construction the permittee shall verify the location of existing utilities.
  - A water source shall be available on site during earthwork operations and shall be utilized as required to minimize dust from earthwork equipment and wind.
  - The soils report for this site has been prepared by WVD Engineering Group (Dated: April 24, 2020) and shall be considered a part of these plans.
  - At least ten (10) days prior to the anticipated start of construction, for projects that will disturb one (1) acre or more, the owner or operator of construction activity shall submit a permit application for stormwater discharge to the Colorado Department of Public Health and Environment, Water Quality Division. The application contains certification of completion of a stormwater management plan (SWMP), of which this Grading and Erosion Control Plan may be a part. For information or application materials contact: Colorado Department of Public Health and Environment, Water Quality Control Division, WQCD - Permits, 4300 Cherry Creek Drive South, Denver, CO 80246-1530, Attn: Permits Unit.
  - Base mapping was provided by Pinnacle Land Surveying. The date of the last survey update was May 2019.
  - Proposed Construction Schedule:  
Start of Construction: Fall 2023  
Completion of Construction: Fall 2024  
Final Stabilization: Fall 2025  
Total Site Area = 27.23 Acres
  - Area to be disturbed = 22 Acres.  
Existing 100-year runoff coefficient = 0.50  
Proposed 100-year runoff coefficient = 0.51  
Existing Hydrologic Soil Groups: B & C  
(B-Nelson-Tassel fine sandy loams; B-Stoneham sandy loam; C-Nunn clay loam)
  - Site is currently undeveloped and covered with native grasses on moderate to steep slopes (3%-18%).
  - Site is located in the West Fork Jimmy Camp Creek Drainage Basin.
  - There are no Batch Plants utilized onsite.

Note: Streetlight locations are pending and are not a part of this submittal.

#### SEED MIX

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

SPECIES	VARIETY	lbs/acre
SIDEDOTS GRAMA	<i>El Reno</i>	3.0
WESTERN WHEAT GRASS	<i>Barton</i>	2.5
SLENDER WHEAT GRASS	<i>Native</i>	2.0
LITTLE BLUESTEM	<i>Prairie</i>	2.0
SAND DROPSEED	<i>Native</i>	0.5
SWITCH GRASS	<i>Nebraska 28</i>	3.0
WEERING LOVE GRASS	<i>Morpheus</i>	1.0
		14.0 lbs

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

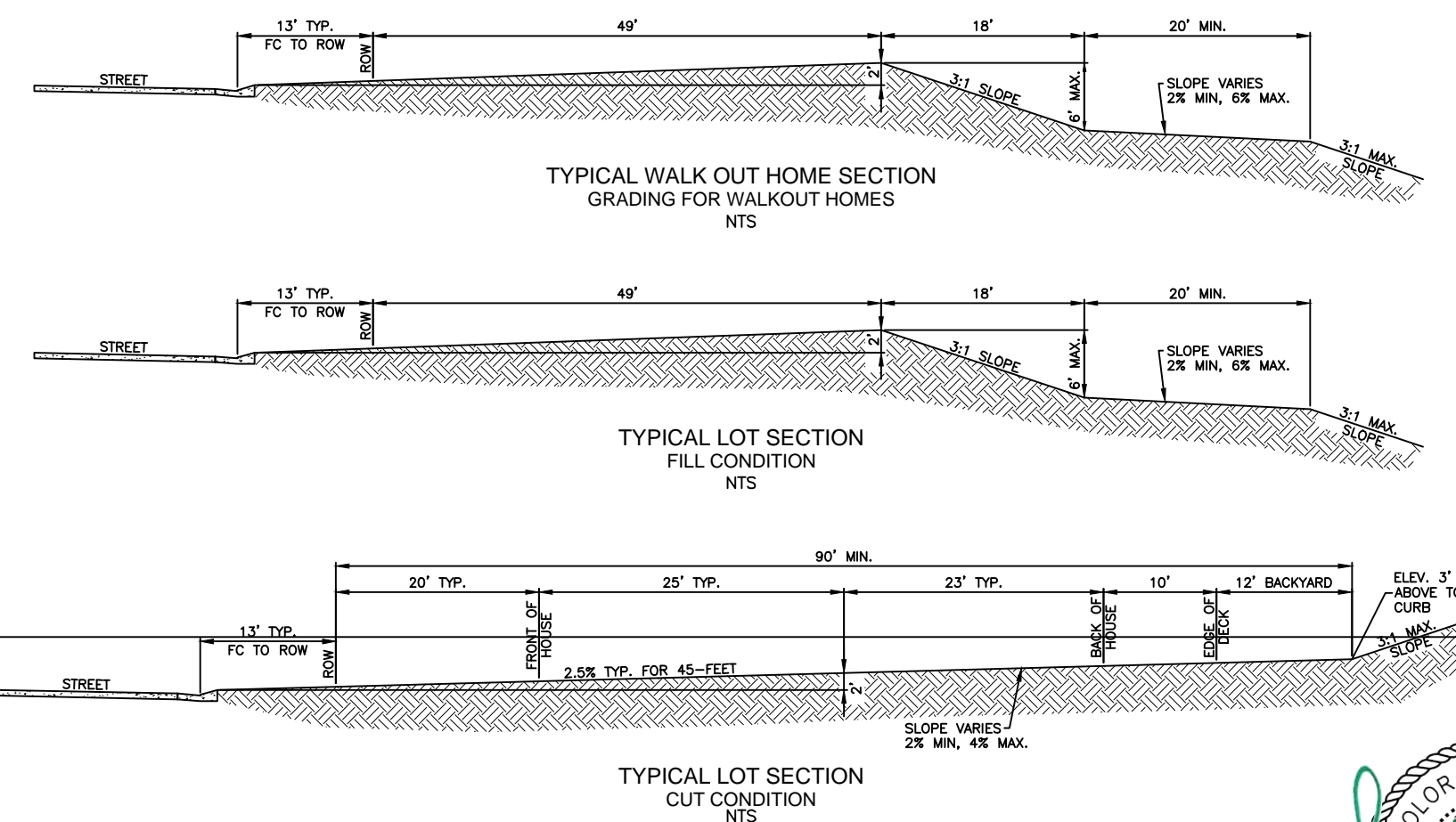
#### EROSION CONTROL INSPECTION AND MAINTENANCE

A Thorough Inspection of the Erosion Control Plan/Stormwater Management System shall be performed every 14 days as well as after any rain or snowmelt event that causes Surface Erosion:  
 \* When Straw Bale Barriers have silted up to half their height, the silt shall be removed, final grade 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.

#### OPINION OF COST FOR EROSION CONTROL REQUIREMENTS

Additional Erosion Control for Glen at Widefield Filing No. 12

ITEM	QUANTITY	UNITS	PRICE	AMOUNT
PERMANENT SEEDING	18	AC	\$1,875	\$33,750.00
PERMANENT E.C. BLANKET	0	SY	\$7	\$0.00
VEHICLE TRACKING CONTROL	2	EA	\$2,867	\$5,734.00
SURFACE ROUGHENING	9	AC	\$250	\$2,250.00
INLET PROTECTION	2	EA	\$202	\$404.00
CONCRETE WASHOUT BASIN	2	EA	\$1,089	\$2,178.00
SILT FENCING	6,453	LF	\$3	\$19,359.00
PRICES REFLECT CURRENT FAE			TOTAL	\$63,675.00



#### TYPICAL LOT CROSS SECTIONS

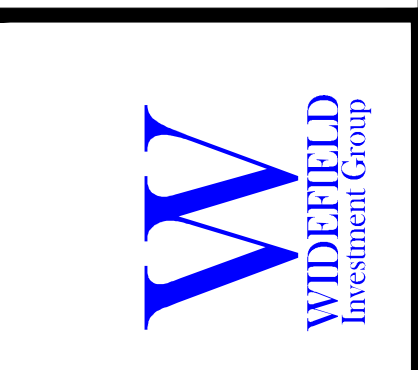
Kiowa Project No. 19016  
March XX, 2023



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

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



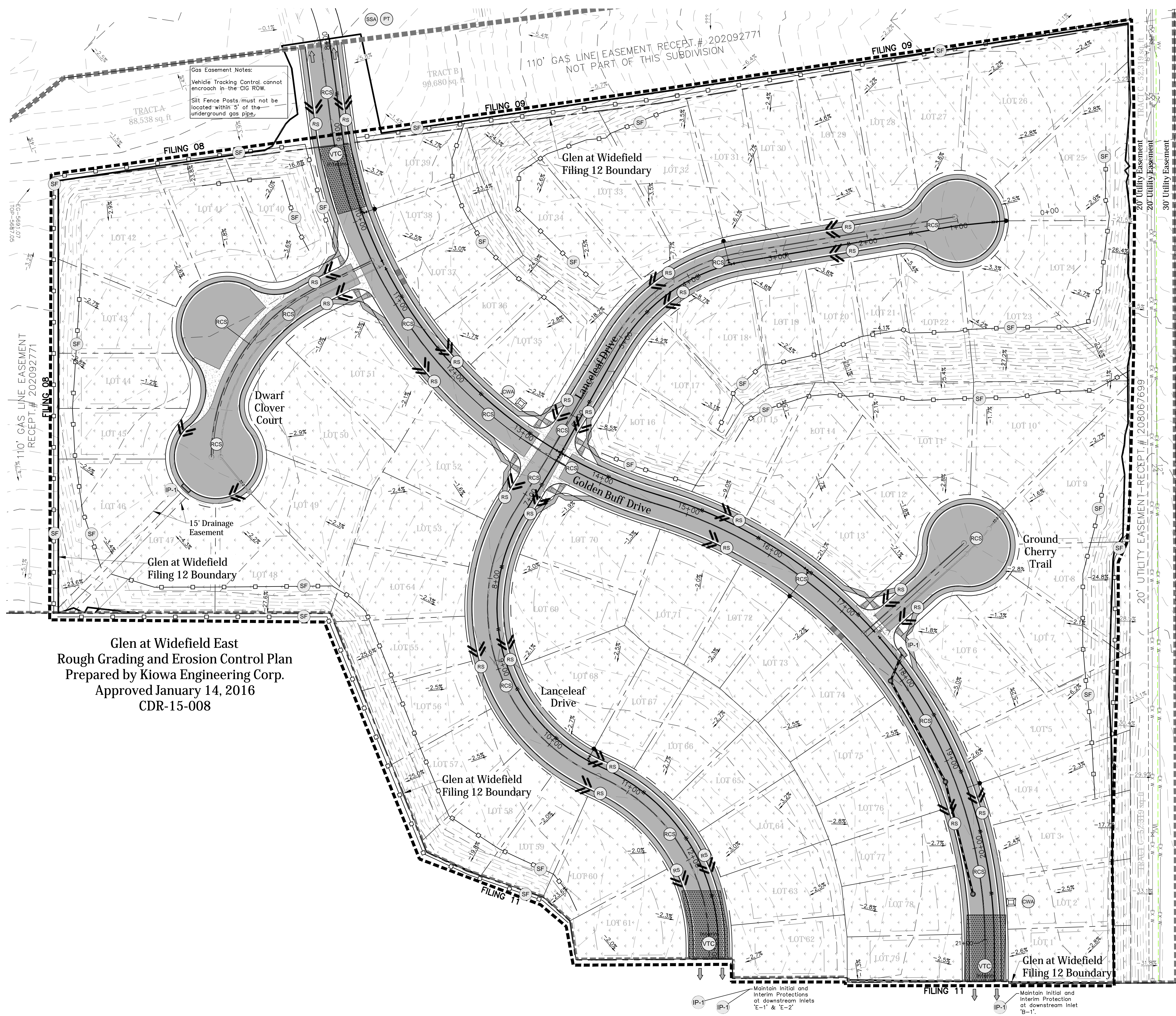
GLEN AT WIDEFIELD NO. 12  
Grading, Erosion & Sediment Control Cover Sheet  
Filing 12 (Entire Site)  
EL PASO, COUNTY, COLORADO

Project No.: 19016  
Date: May 3rd, 2023  
Design: MIK  
Drawn: MIK  
Check: AWMc  
Revisions:

SHEET

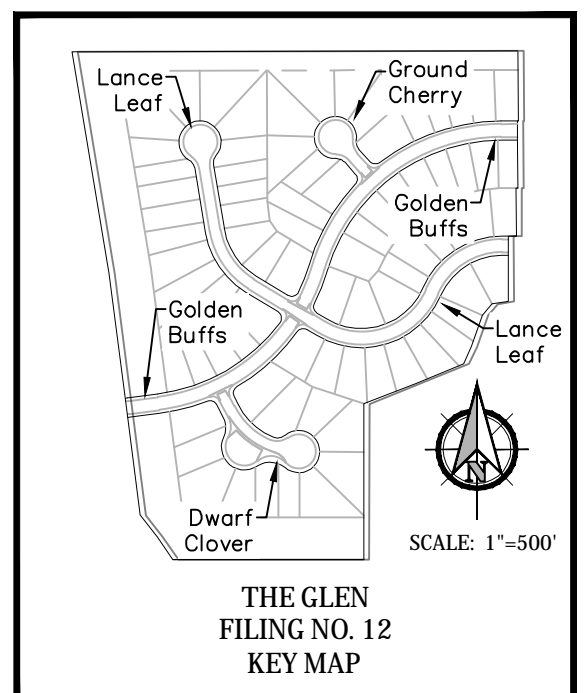
13  
13 of 19 Sheets

W:\2019\19016 Glen at Widefield No. 12\Drawings\CDs\Filing No. 12\19016-GW12-14-EC.dwg Jun 08, 2023 - 7:47am



Gas Easement Notes:  
 Vehicle Tracking Control cannot encroach in the CIG ROW.  
 Silt Fence Posts must not be located within 5' of the underground gas pipe.

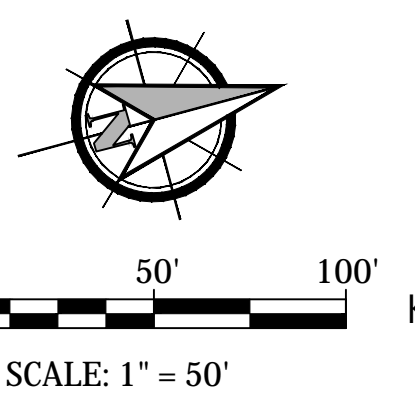
Glen at Widefield East  
 Rough Grading and Erosion Control Plan  
 Prepared by Kiowa Engineering Corp.  
 Approved January 14, 2016  
 CDR-15-008



Note:  
 Streetlight locations are pending and are not a part of this submittal.

LEGEND	
(SF) Initial/Interim	SILT FENCE
(VTC)	VEHICLE TRACKING CONTROL
(IP-1) Interim	INLET PROTECTION(S) (COUNT)
(RCS) Interim	ROUGH-CUT STREET CONTROL INITIAL CONDITION ONLY
(CWA)	CONCRETE WASHOUT AREA
(RS) Interim	ROCK SOCK(S) (COUNT)
(SSA) Interim	STABILIZED STAGING AREA
(PT) Interim	PORTABLE TOILET
(SP) Interim	STOCK PILE MANAGEMENT
(Interim)	PERMANENT SEEDING AND LANDSCAPING
(-30.1%)	EX. FLOW DIRECTION ARROW AND SLOPE
(2.0%)	NEW FLOW DIRECTION ARROW AND SLOPE
(---)	CUT/FILL DELINEATION*
(---)	LIMITS OF CONSTRUCTION / LIMITS OF SOIL DISTURBANCE
(---)	PROPERTY LINE
(---)	EXISTING CONTOUR
(---)	PROPOSED CONTOUR
(Interim/Final)	EMERGENCY OVERFLOW PATH

\*CUT/FILL QUANTITIES ARE OMITTED.  
 SURFACE GRADING COMPLETED UNDER EARLY PERMIT.



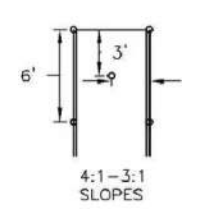
**GLEN AT WIDEFIELD NO. 12**  
**Grading & Erosion Control Plan**  
 Filing 12 (Entire Site)  
 EL PASO, COUNTY, COLORADO

Project No.:	19016
Date:	May 17th, 2023
Design:	MJK
Drawn:	MJK
Check:	AWMc
Revisions:	

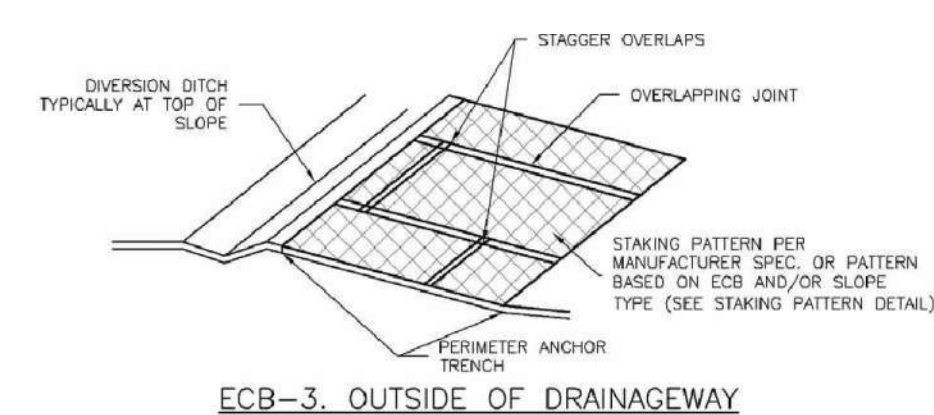
SHEET  
**14**  
 14 of 19 Sheets

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

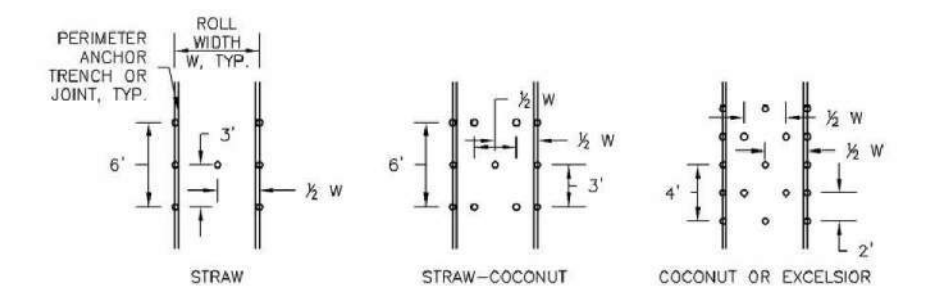
**W**  
 WIDEFIELD  
 Investment Group



STAKING PATTERNS BY SLOPE



ECB-3. OUTSIDE OF DRAINAGEWAY



STAKING PATTERNS BY ECB TYPE

TABLE ECB-1. ECB MATERIAL SPECIFICATIONS

TYPE	COCONUT CONTENT	STRAW CONTENT	EXCELSIOR CONTENT	RECOMMENDED NETTING*
STRAW**	-	100%	-	DOUBLE/NATURAL
STRAW-COCONUT	30% MIN	70% MAX	-	DOUBLE/NATURAL
COCONUT	100%	-	-	DOUBLE/NATURAL
EXCELSIOR	-	-	100%	DOUBLE/NATURAL

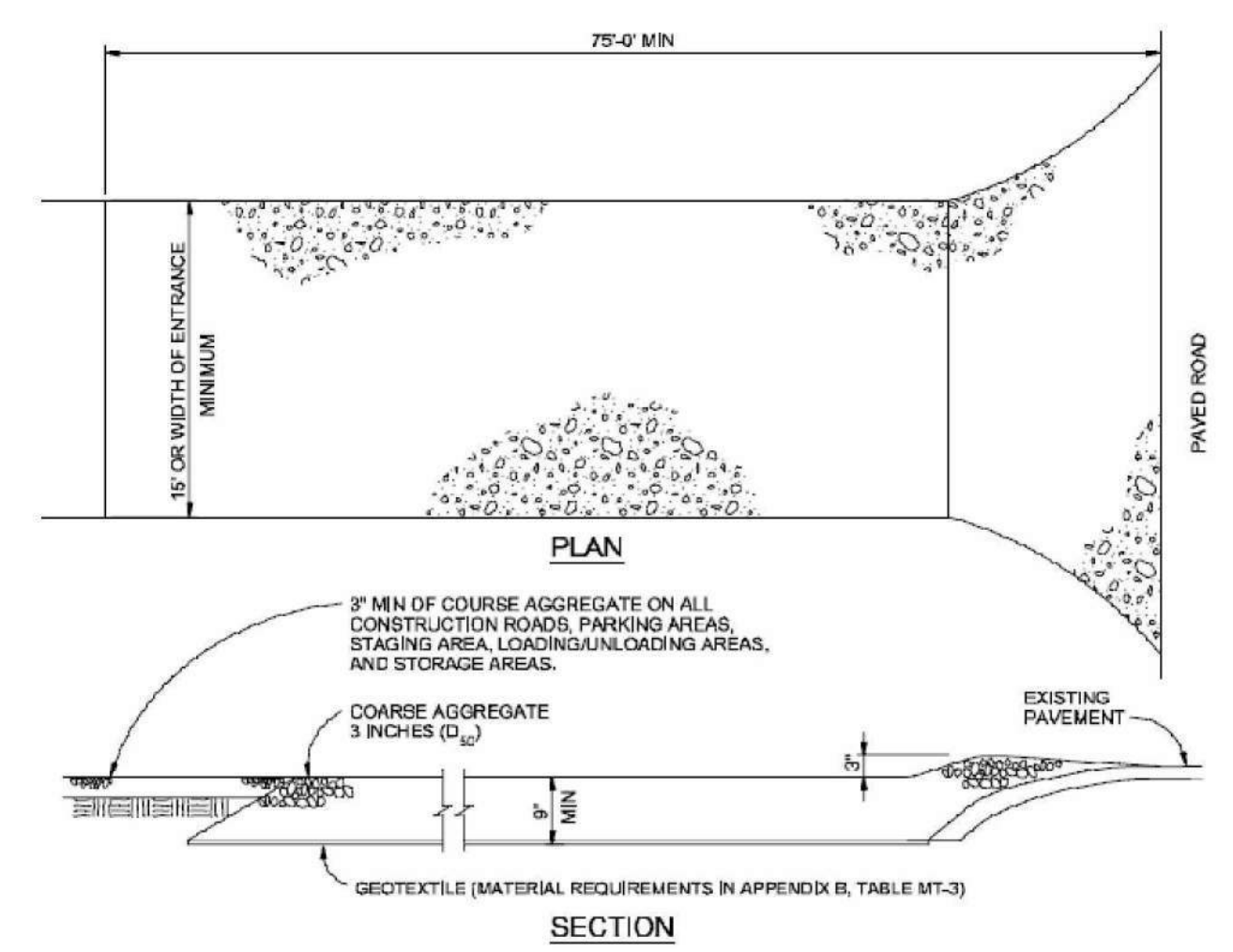
EROSION CONTROL BLANKET INSTALLATION NOTES

- SEE PLAN VIEW FOR:
  - LOCATION OF ECB
  - TYPE OF ECB (STRAW, STRAW-COCONUT, COCONUT, OR EXCELSIOR)
  - AREA, A, IN SQUARE YARDS OF EACH TYPE OF ECB
- 100% NATURAL AND BIODEGRADABLE MATERIALS ARE PREFERRED FOR RECPA, ALTHOUGH SOME JURISDICTIONS MAY ALLOW OTHER MATERIALS IN SOME APPLICATIONS.
- IN AREAS WHERE ECBs ARE SHOWN ON THE PLANS, THE PERMITTEE SHALL PLACE TOPSOIL AND PERFORM FINAL GRADING, SURFACE PREPARATION, AND SEEDING AND MULCHING. SUBGRADE SHALL BE SMOOTH AND MOST PRIOR TO ECB INSTALLATION AND THE ECB SHALL BE IN FULL CONTACT WITH SUBGRADE. NO GAPS OR VOIDS SHALL EXIST UNDER THE BLANKET.
- PERIMETER ANCHOR TRENCH SHALL BE USED ALONG THE OUTSIDE PERIMETER OF ALL BLANKET AREAS.
- JOINT ANCHOR TRENCH SHALL BE USED TO JOIN ROLLS OF ECBs TOGETHER (LONGITUDINALLY AND TRANSVERSELY) FOR ALL ECBs EXCEPT STRAW WHICH MAY USE AN OVERLAPPING JOINT.
- INTERMEDIATE ANCHOR TRENCH SHALL BE USED AT SPACING OF ONE-HALF ROLL LENGTH FOR COCONUT AND EXCELSIOR ECBs.
- OVERLAPPING JOINT DETAIL SHALL BE USED TO JOIN ROLLS OF ECBs TOGETHER FOR ECBs ON SLOPES.
- MATERIAL SPECIFICATIONS OF ECBs SHALL CONFORM TO TABLE ECB-1.
- ANY AREAS OF SEEDING AND MULCHING DISTURBED IN THE PROCESS OF INSTALLING ECBs SHALL BE RESEED AND MULCHED.

EROSION CONTROL BLANKET MAINTENANCE NOTES

- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
- ECBs SHALL BE LEFT IN PLACE TO EVENTUALLY BIODEGRADE, UNLESS REQUESTED TO BE REMOVED BY THE LOCAL JURISDICTION.
- ANY ECB PULLED OUT, TORN, OR OTHERWISE DAMAGED SHALL BE REPAIRED OR REINSTALLED. ANY SUBGRADE AREAS BELOW THE GEOTEXTILE THAT HAVE ERODED TO CREATE A VOID UNDER THE BLANKET, OR THAT REMAIN DEVOID OF GRASS SHALL BE REPAIRED, RESEED AND MULCHED AND THE ECB REINSTALLED.

VEHICLE TRACKING CONTROL (VCB) NTS



VEHICLE TRACKING NTS

VEHICLE TRACKING NOTES

- INSTALLATION REQUIREMENTS**
- ALL ENTRANCES TO THE CONSTRUCTION SITE ARE TO BE STABILIZED PRIOR TO CONSTRUCTION BEGINNING.
  - CONSTRUCTION ENTRANCES ARE TO BE BUILT WITH AN APRON TO ALLOW FOR TURNING TRAFFIC, BUT SHOULD NOT BE BUILT OVER EXISTING PAVEMENT EXCEPT FOR A SLIGHT OVERLAP.
  - AREAS TO BE STABILIZED ARE TO BE PROPERLY GRADED AND COMPACTED PRIOR TO LAYING DOWN GEOTEXTILE AND STONE.
  - CONSTRUCTION ROADS, PARKING AREAS, LOADING/UNLOADING ZONES, STORAGE AREAS, AND STAGING AREAS ARE TO BE STABILIZED.
  - CONSTRUCTION ROADS ARE TO BE BUILT TO CONFORM TO SITE GRADIES, BUT SHOULD NOT HAVE SIDE SLOPES OR ROAD GRADIES THAT ARE EXCESSIVELY STEEP.

- MAINTENANCE REQUIREMENTS**
- REGULAR INSPECTIONS ARE TO BE MADE OF ALL STABILIZED AREAS, ESPECIALLY AFTER STORM EVENTS.
  - STONES ARE TO BE REAPPLIED PERIODICALLY AND WHEN REPAIR IS NECESSARY.
  - SEDIMENT TRACKED ONTO PAVED ROADS IS TO BE REMOVED DAILY BY SHOVELING OR SWEEPING. SEDIMENT IS NOT TO BE WASHED DOWN STORM SEWER DRAINS.
  - STORM SEWER INLET PROTECTION IS TO BE IN PLACE, INSPECTED, AND CLEANED IF NECESSARY.
  - OTHER ASSOCIATED SEDIMENT CONTROL MEASURES ARE TO BE INSPECTED TO ENSURE GOOD WORKING CONDITION.

VEHICLE TRACKING CONTROL (VTC) NTS

ROUGH-CUT STREET CONTROL INSTALLATION NOTES

- SEE PLAN VIEW FOR:
  - LOCATION OF ROUGH-CUT STREET CONTROL MEASURES
- ROUGH-CUT STREET CONTROL SHALL BE INSTALLED AFTER A ROAD HAS BEEN CUT IN, AND WILL NOT BE PAVED FOR MORE THAN 14 DAYS OR FOR TEMPORARY CONSTRUCTION ROADS THAT HAVE NOT RECEIVED ROAD BASE.

ROUGH-CUT STREET CONTROL INSPECTION AND MAINTENANCE NOTES

- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

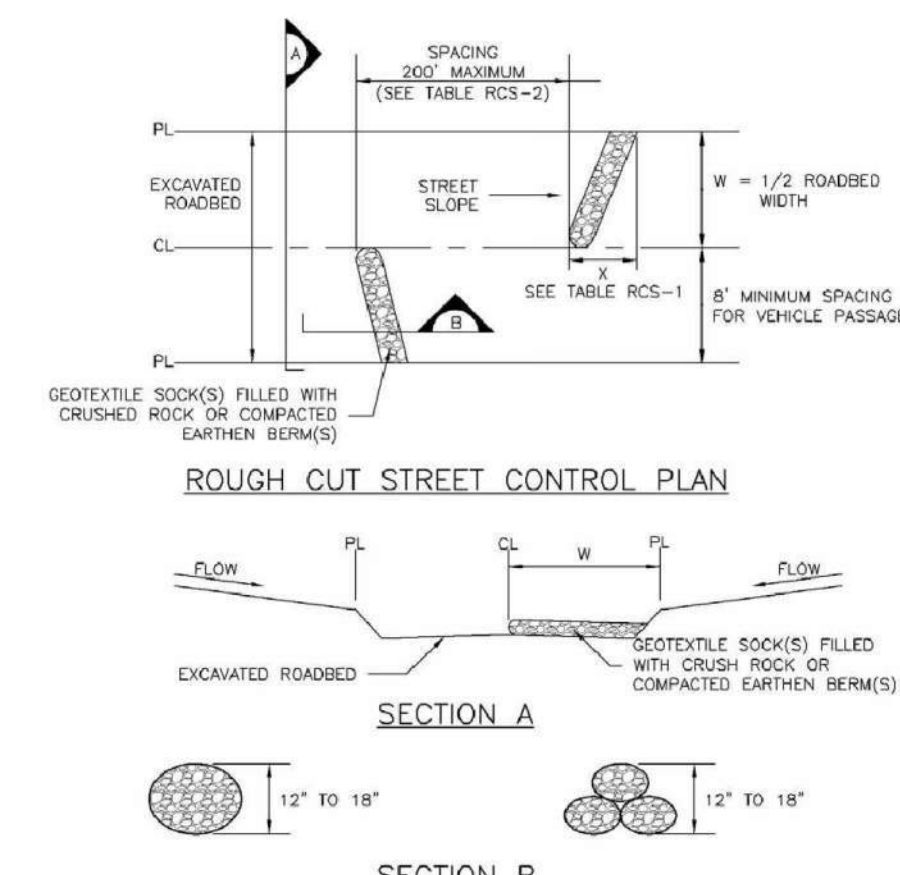


TABLE RCS-1

W (FT)	X (FT)
20-30	5
31-40	7
41-50	9
51-60	10.5
61-70	12

TABLE RCS-2

LONGITUDINAL STREET SLOPE (%)	SPACING (FT)
<2	NOT TYPICALLY NEEDED
3	200
4	150
5	100
6	50
7	25
8	25

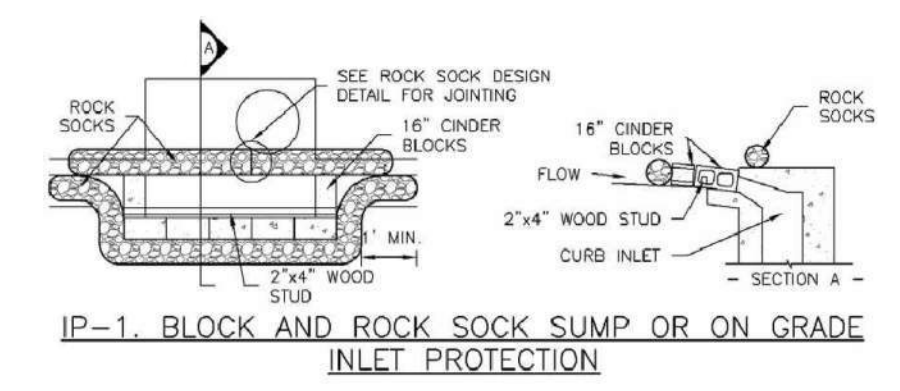
ROUGH-CUT STREET CONTROL (RCS) NTS

GENERAL INLET PROTECTION INSTALLATION NOTES

- SEE PLAN VIEW FOR:
  - LOCATION OF INLET PROTECTION
  - TYPE OF INLET PROTECTION (P.1, P.2, P.3, P.4, P.5, P.6)
- INLET PROTECTION SHALL BE INSTALLED PROMPTLY AFTER INLET CONSTRUCTION OR PAVING IS COMPLETE (TYPICALLY WITHIN 48 HOURS). IF A RAINFALL/RUNOFF EVENT IS FORECAST, INSTALL INLET PROTECTION PRIOR TO ONSET OF EVENT.
- MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

INLET PROTECTION MAINTENANCE NOTES

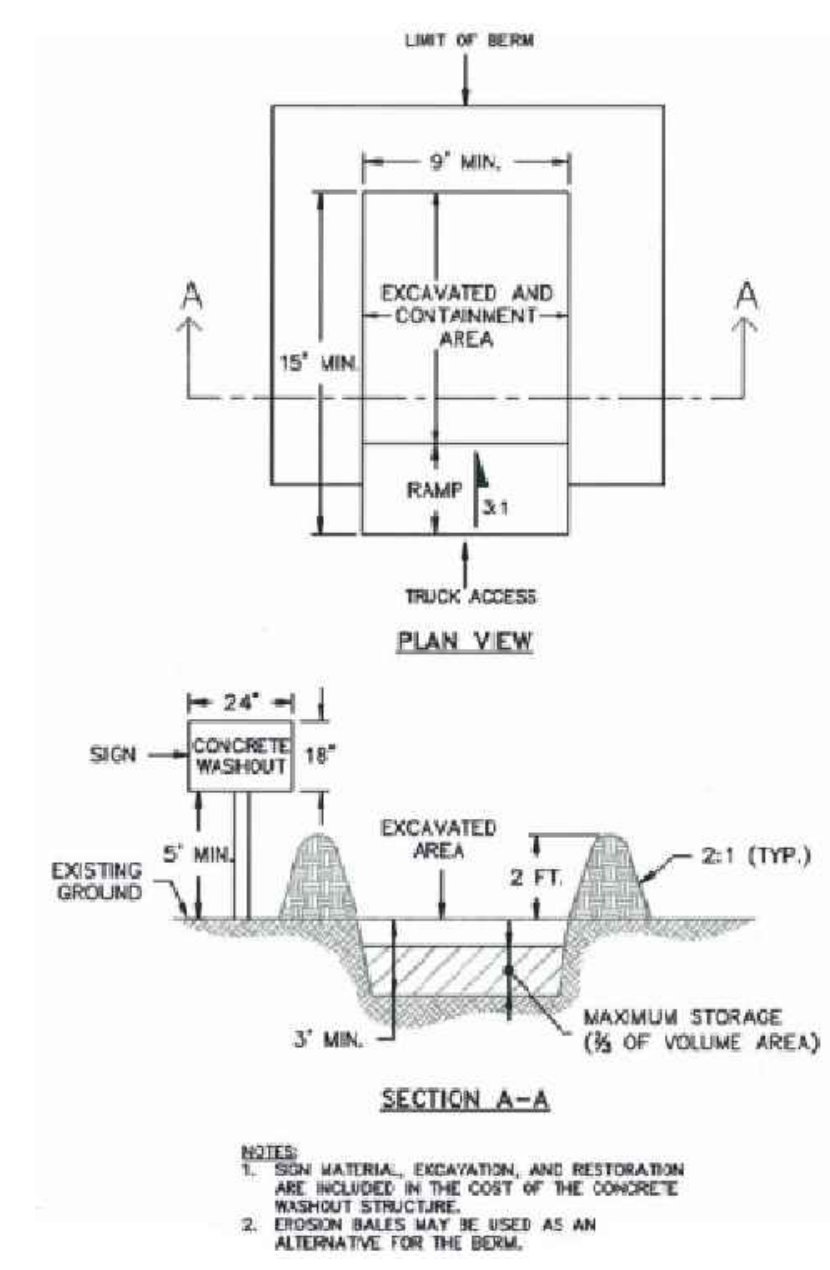
- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
- SEDIMENT ACCUMULATED UPSTREAM OF INLET PROTECTION SHALL BE REMOVED AS NECESSARY TO MAINTAIN BMP EFFECTIVENESS, TYPICALLY WHEN STORAGE VOLUME REACHES SIDE OF CAPACITY, A DEPTH OF 6" WHEN SILT FENCE IS USED, OR 1/4 OF THE HEIGHT FOR STRAW BALES.
- INLET PROTECTION IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS PERMANENTLY STABILIZED, UNLESS THE LOCAL JURISDICTION APPROVES EARLIER REMOVAL OF INLET PROTECTION IN STREETS.
- WHEN INLET PROTECTION AT AREA INLETS IS REMOVED, THE DISTURBED AREA SHALL BE COVERED WITH TOP SOIL, SEEDING AND MULCHED, OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.



IP-1. BLOCK AND ROCK SOCK SUMP OR ON GRADE INLET PROTECTION

- BLOCK AND ROCK SOCK INLET PROTECTION INSTALLATION NOTES**
- SEE ROCK SOCK DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.
  - CONCRETE "CINDER" BLOCKS SHALL BE LAD ON THEIR SIDES AROUND THE INLET IN A SINGLE ROW, ABUTTING ONE ANOTHER WITH THE OPEN END FACING AWAY FROM THE CURB.
  - GRAVEL BAGS SHALL BE PLACED AROUND CONCRETE BLOCKS, CLOSELY ABUTTING ONE ANOTHER AND JOINED TOGETHER IN ACCORDANCE WITH ROCK SOCK DESIGN DETAIL.

INLET PROTECTION (P-1) NTS



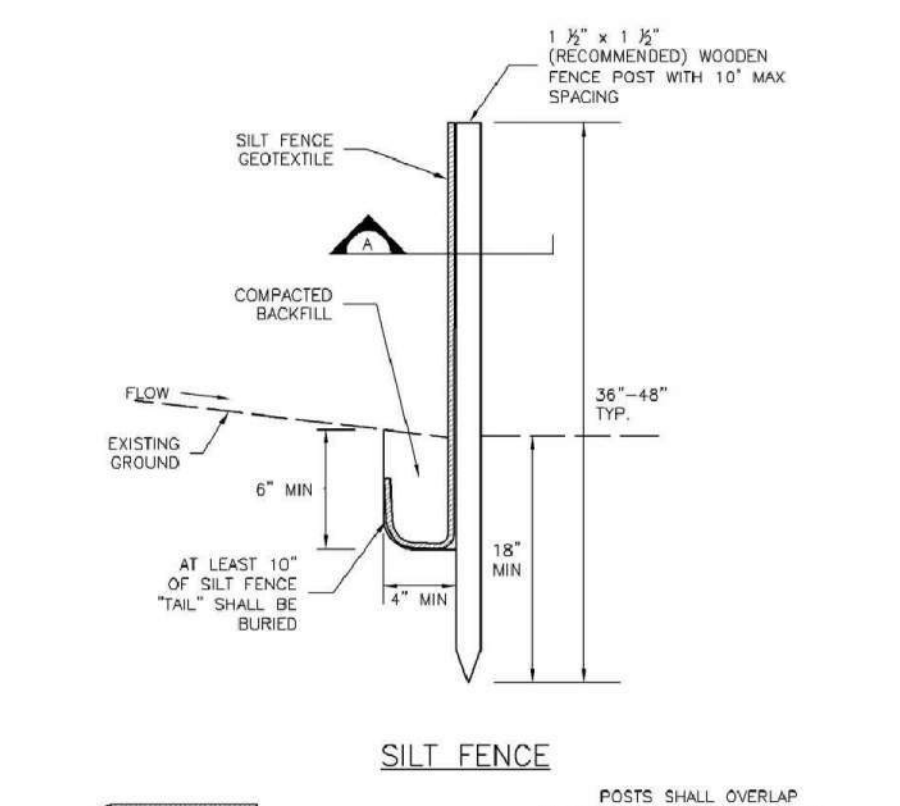
CONCRETE WASHOUT AREA (CWA) NTS EPC STD SD\_3-84

SILT FENCE INSTALLATION NOTES

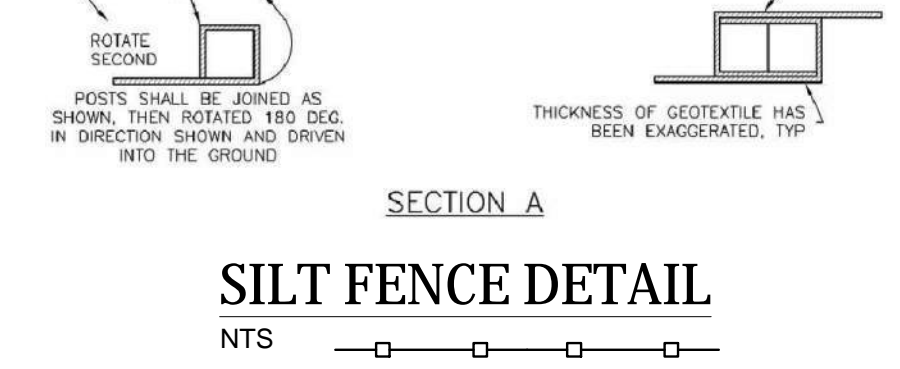
- SILT FENCE MUST BE PLACED AWAY FROM THE TOE OF THE SLOPE TO ALLOW FOR WATER PONDING. SILT FENCE AT THE TOE OF A SLOPE SHOULD BE INSTALLED IN A FLAT LOCATION AT LEAST SEVERAL FEET (2-5 FT) FROM THE TOE OF THE SLOPE TO ALLOW ROOM FOR PONDING AND DISPOSITION.
- A UNIFORM 6" X 4" ANCHOR TRENCH SHALL BE EXCAVATED USING TRENCHER OR SILT FENCE INSTALLATION DEVICE, NO ROAD GRADERS, BACKHOES, OR SIMILAR EQUIPMENT SHALL BE USED.
- COMPACT ANCHOR TRENCH BY HAND WITH A "JUMPING JACK" OR BY WHEEL ROLLING. COMPACTION SHALL BE SUCH THAT SILT FENCE RESISTS BEING PULLED OUT OF ANCHOR TRENCH BY HAND.
- SILT FENCE SHALL BE PULLED TIGHT AS IT IS ANCHORED TO THE STAKES. THERE SHOULD BE NO NOTICEABLE SAG BETWEEN STAKES AFTER IT HAS BEEN ANCHORED TO THE STAKES.
- SILT FENCE FABRIC SHALL BE ANCHORED TO THE STAKES USING 1" HEAVY DUTY STAPLES OR NAILS WITH 1" HEADS. STAPLES AND NAILS SHOULD BE PLACED 3" ALONG THE FABRIC DOWN THE STAKE.
- AT THE END OF A RUN OF SILT FENCE ALONG A CONTOUR, THE SILT FENCE SHOULD BE TURNED PERPENDICULAR TO THE CONTOUR TO CREATE A "J-HOOK." THE "J-HOOK" EXTENDING PERPENDICULAR TO THE CONTOUR SHOULD BE OF SUFFICIENT LENGTH TO KEEP RUNOFF FROM FLOWING AROUND THE END OF THE SILT FENCE (TYPICALLY 10' - 20').
- SILT FENCE SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.

SILT FENCE MAINTENANCE NOTES

- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
- SEDIMENT ACCUMULATED UPSTREAM OF THE SILT FENCE SHALL BE REMOVED AS NEEDED TO MAINTAIN THE FUNCTIONALITY OF THE BMP, TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY 6".
- REPAIR OR REPLACE SILT FENCE WHEN THERE ARE SIGNS OF WEAR, SUCH AS SAGGING, TEARING, OR COLLAPSE.
- SILT FENCE IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION, OR IS REPLACED BY AN EQUIVALENT PERMITTER SEGMENT CONTROL BMP.
- WHEN SILT FENCE IS REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDING AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.



SILT FENCE

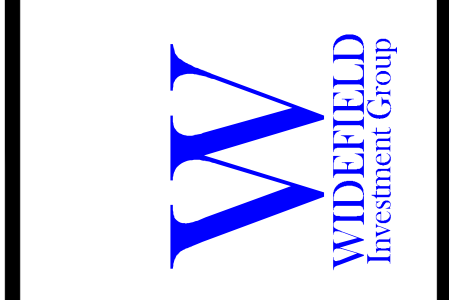


SILT FENCE DETAIL NTS

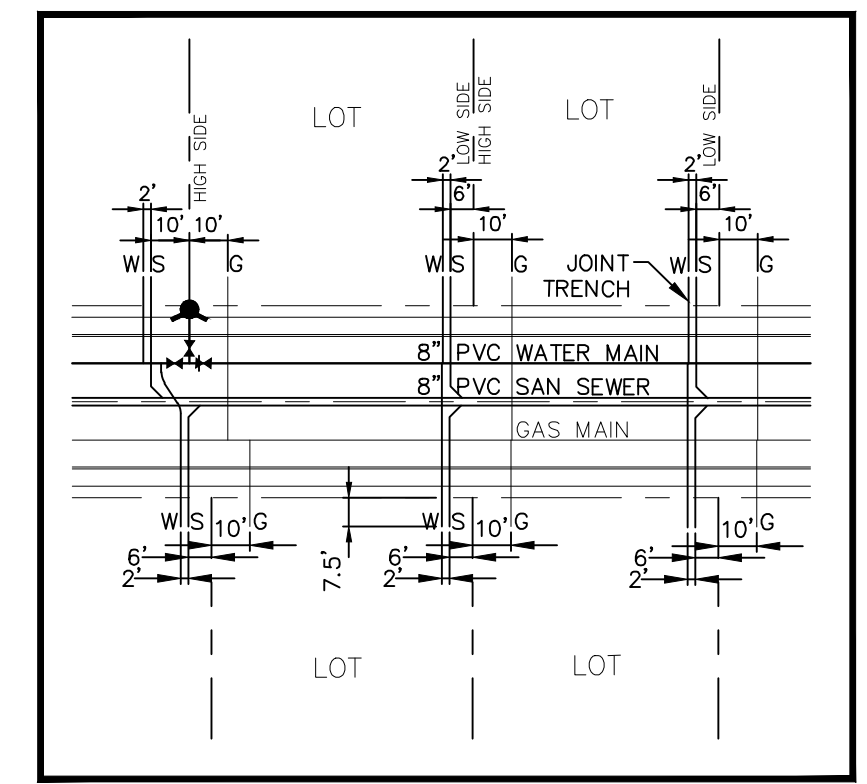
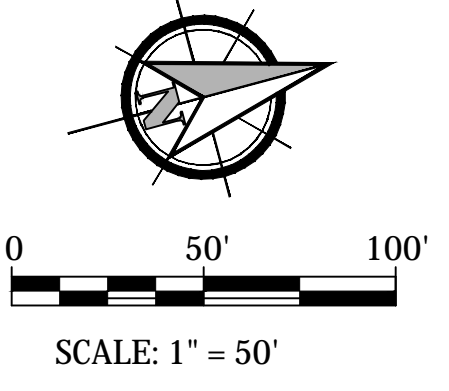
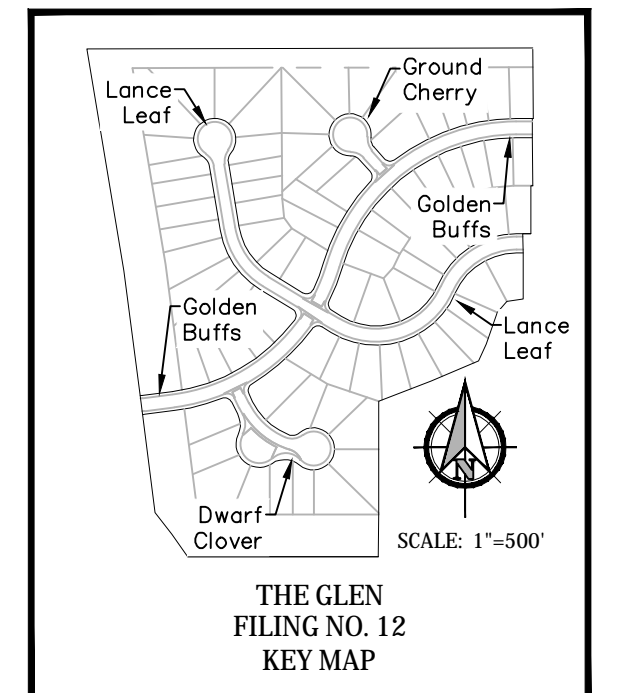
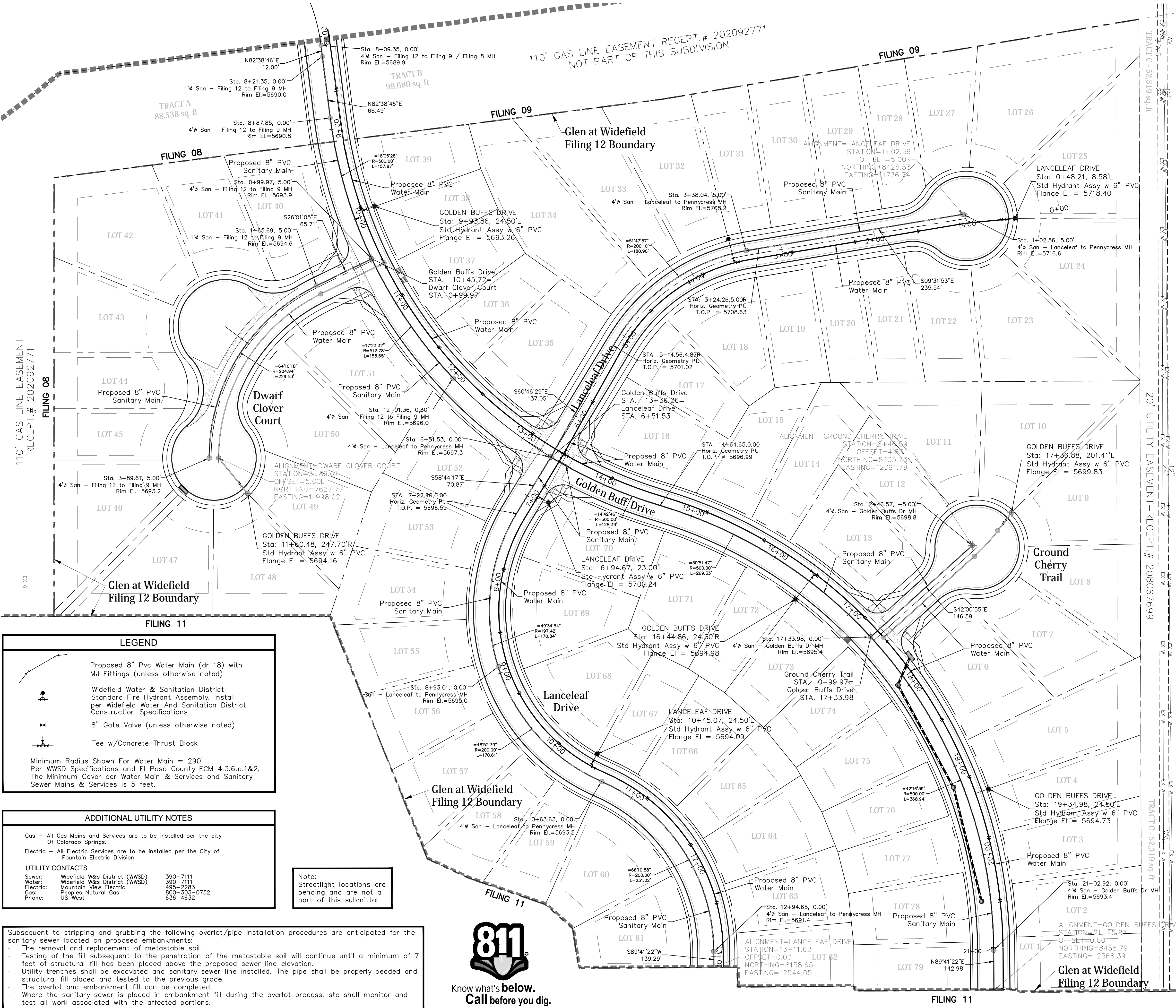


GLEN AT WIDEFIELD NO. 12  
 Proposed Grading & Erosion Control Details  
 Filing 12 Portions Only  
 EL PASO, COUNTY, COLORADO

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



Project No.:	19016
Date:	May 17th, 2023
Design:	MJK
Drawn:	MJK
Check:	AWMc
Revisions:	



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

Signed: *J. Mark Watson* Date: June 9th, 2023  
 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: 6/13/2023 By: *Robert P. [Signature]*

PROJECT NO. \_\_\_\_\_

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

**WIDEFIELD WATER AND SANITATION DISTRICT WATER DESIGN APPROVAL**  
 Date: 6/13/2023 By: *Robert P. [Signature]*

PROJECT NO. \_\_\_\_\_

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

**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 over Water Main & Services and Sanitary Sewer Mains & Services is 5 feet.

**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	485-2233
Gas:	Peoples Natural Gas	860-303-0752
Phone:	US West	636-4632

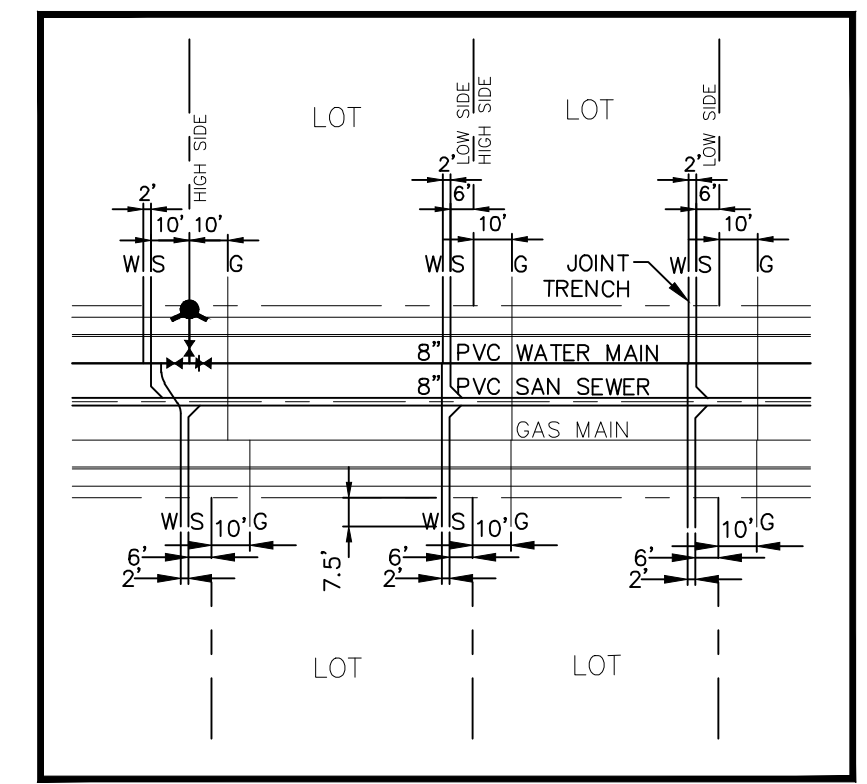
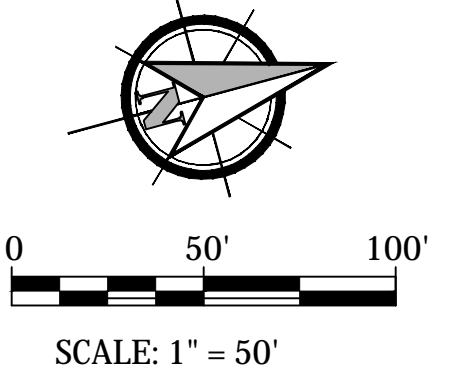
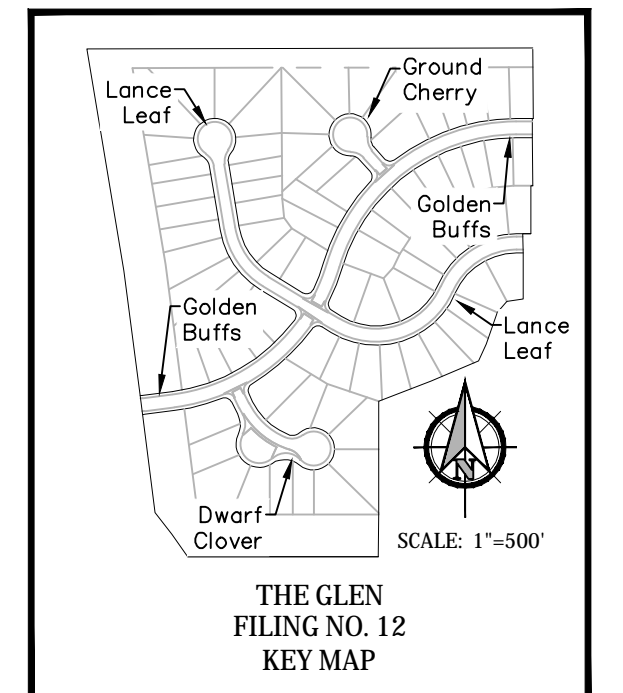
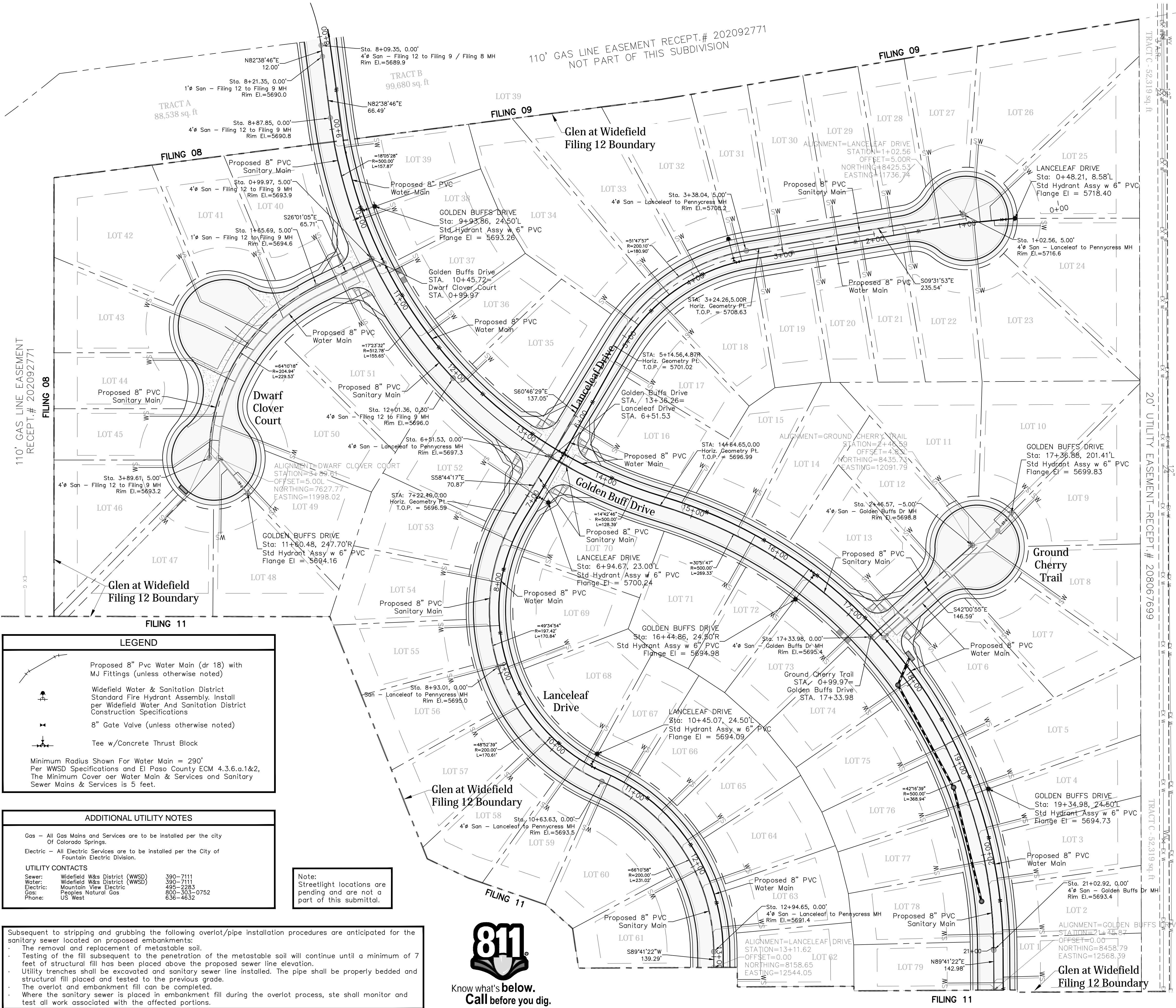
Note: Streetlight locations are pending and are not a part of this submittal.

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 MAIN EXTENSIONS**  
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Signed: *J. Mark Watson* Date: June 9th, 2023  
 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: 6/13/2023 By: *Robert Bandy*

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: 6/13/2023 By: *Robert Bandy*

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.

**LEGEND**

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- Widefield Water & Sanitation District Standard Fire Hydrant Assembly. Install per Widefield Water And Sanitation District Construction Specifications
- 8" Gate Valve (unless otherwise noted)
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Minimum Radius Shown For Water Main = 290'  
 Per WWSD 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.

**ADDITIONAL UTILITY NOTES**

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 Electric - All Electric Services are to be installed per the City of Fountain Electric Division.

**UTILITY CONTACTS**

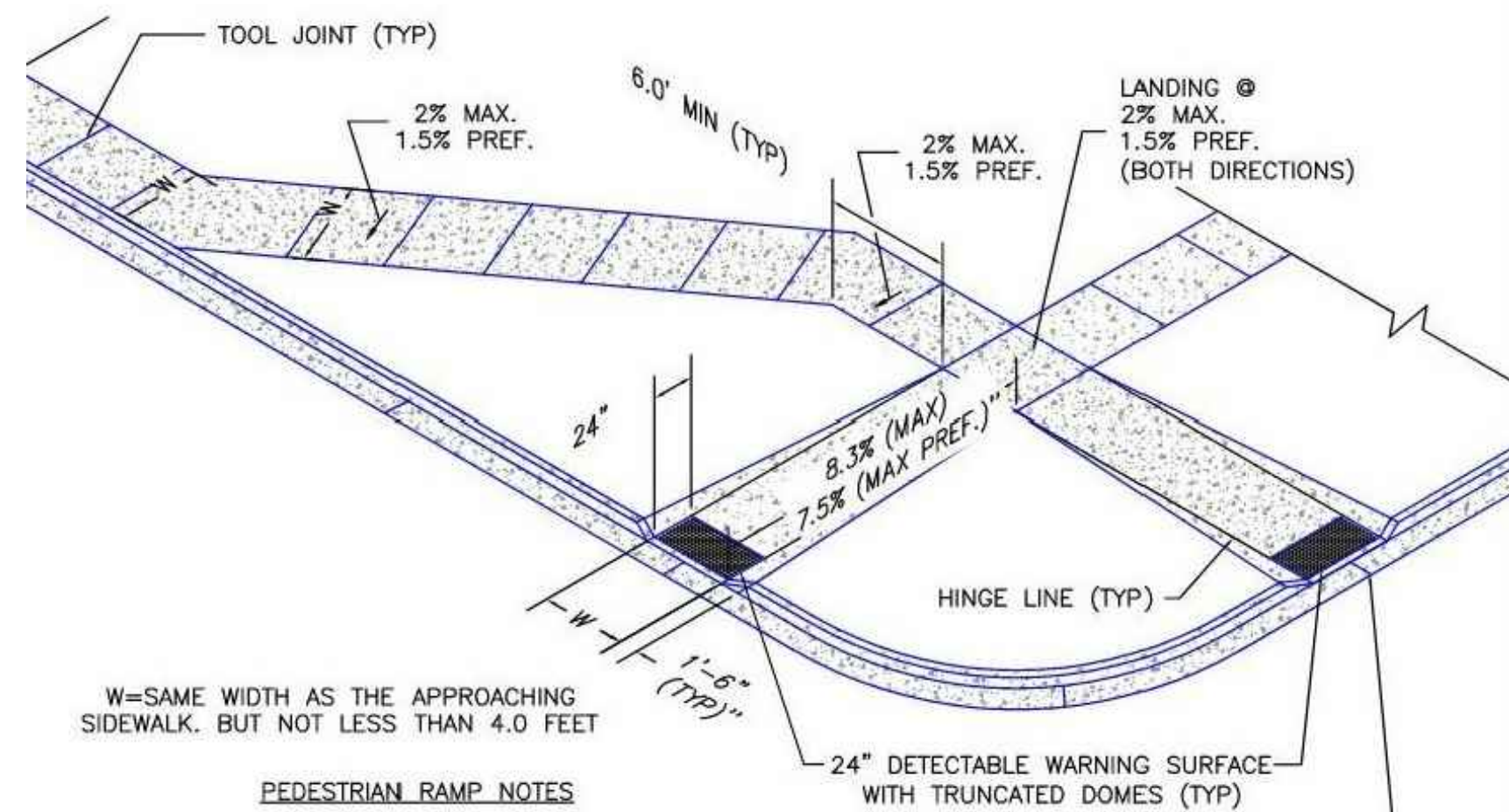
Sewer:	Widefield W&S District (WWSD)	390-7111
Water:	Widefield W&S District (WWSD)	390-7111
Electric:	Mountain View Electric	485-2253
Gas:	Peoples Natural Gas	860-303-0752
Phone:	US West	636-4632

Note: Streetlight locations are pending and are not a part of this submittal.

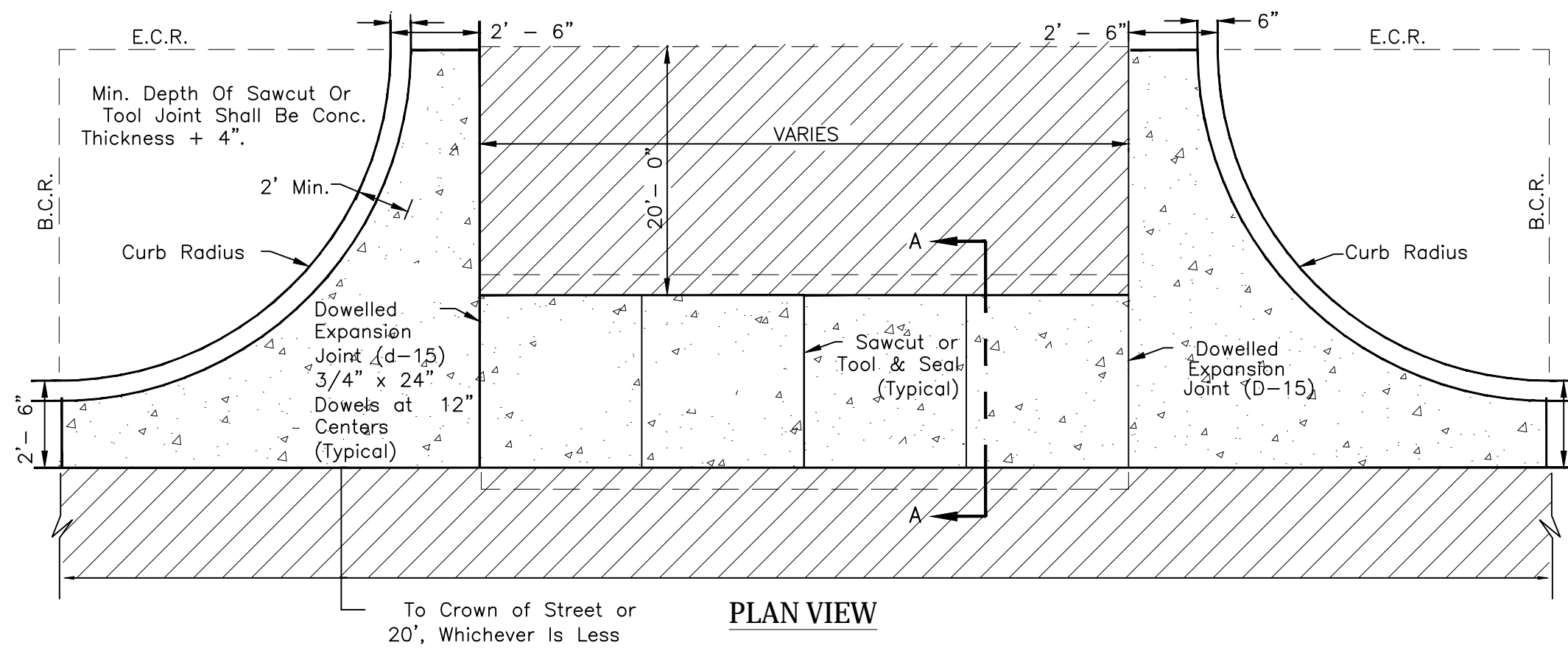
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- Testing of the fill subsequent to the penetration of the metastable soil will continue until a minimum of 7 feet of structural fill has been placed above the proposed sewer line elevation.
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- The 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.

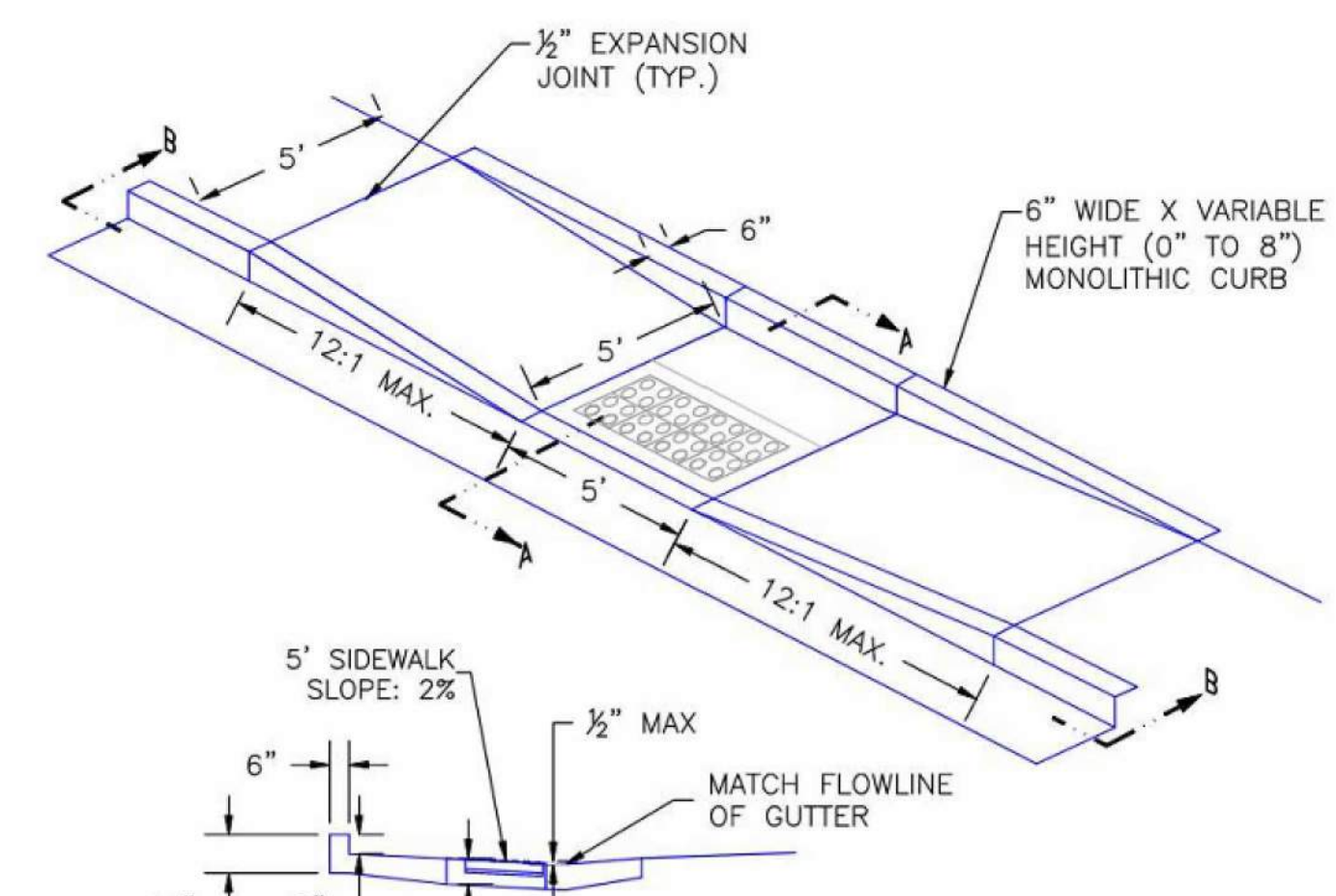




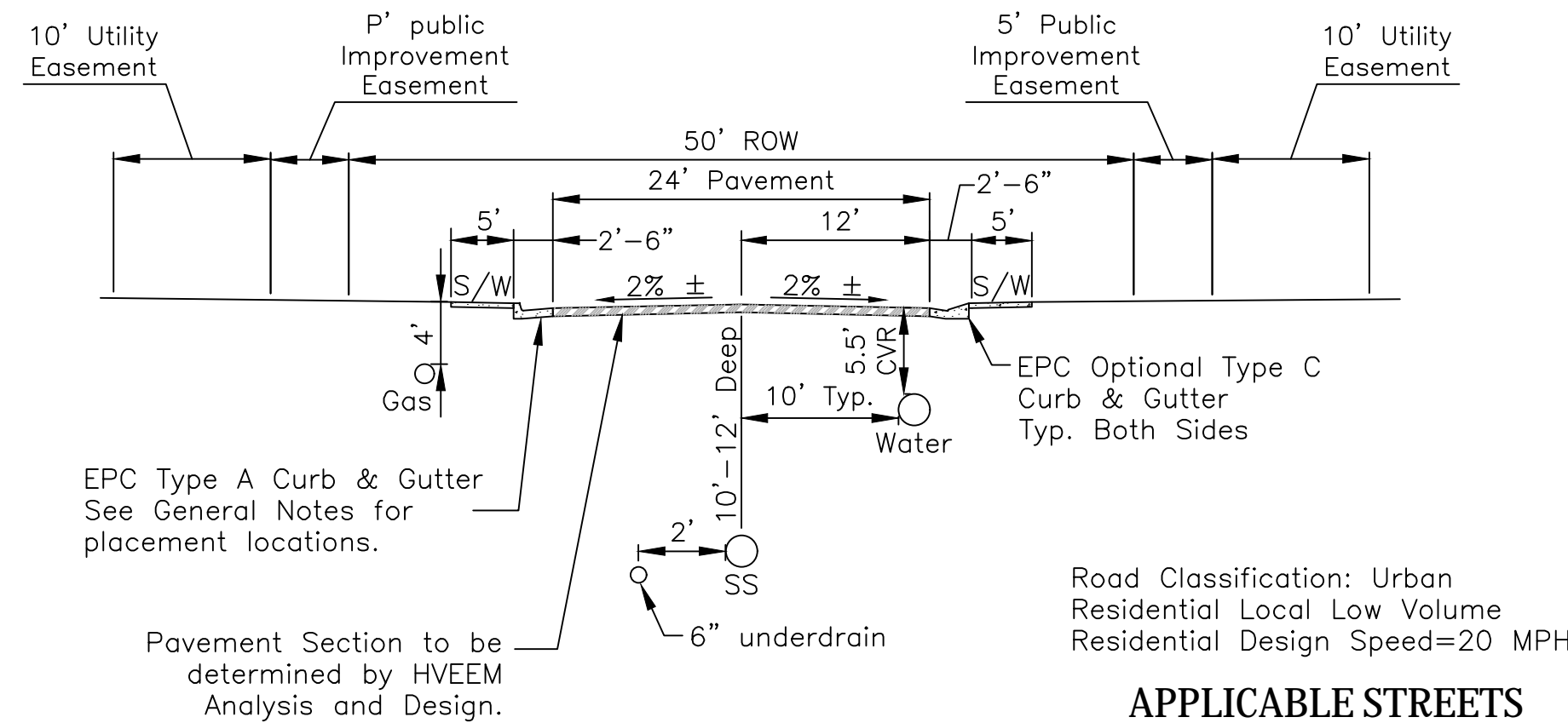
- PEDESTRIAN RAMP NOTES**
1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CURRENT ENGINEERING CRITERIA MANUAL AND ADA REQUIREMENTS.
  2. CONTRACTOR TO NOTIFY ENGINEERING DIVISION INSPECTION STAFF 48 HOURS PRIOR TO CONCRETE PLACEMENT.
  3. PEDESTRIAN CURB RAMP CONSTRUCTION SHALL BE A MINIMUM 4,500 PSI CONCRETE, MINIMUM 4" THICK, NON-COLORED, NON-SCORED, COARSE BROOM FINISH.
  4. PEDESTRIAN CURB RAMP LOCATION AND LENGTH MAY REQUIRE MODIFICATION TO MAINTAIN THE 8.3% MAXIMUM RUNNING RAMP SLOPE DUE TO STREET INTERSECTION GRADES AND/OR ALIGNMENTS. SEE EDCM SECTION 6.3.8 FOR PEDESTRIAN PUSHBUTTON LOCATION REQUIREMENTS.
  5. DETECTABLE WARNING SURFACE SHALL START A MINIMUM OF 6" BUT NOT MORE THAN 8" FROM THE FLOWLINE OF THE CURB AT ANY POINT.
  6. DETECTABLE WARNING SURFACE SHALL BE PREFABRICATED, CAST IRON (PATINA NATURAL FINISH) AND IN ACCORDANCE WITH EDCM CHAPTER 6 AND SD\_2-42. THERMOPLASTIC TRUNCATED DOMES AND PAVERS WILL NOT BE ACCEPTED.
  7. THE DETECTABLE WARNING SURFACE SHALL BE 24" IN LENGTH AND THE FULL WIDTH OF THE RAMP.
  8. PEDESTRIAN CURB RAMP WIDTH REQUIRED IS SAME AS APPROACHING SIDEWALK; 4" MINIMUM.
  9. ALL PEDESTRIAN CURB RAMPS WILL BE PERPENDICULAR TO TRAFFIC WITH THE EXCEPTION OF MID-BLOCK OR TERMINAL RAMPS WHICH MAY BE PARALLEL. SUBJECT TO APPROVAL.
  10. DRAINAGE STRUCTURES, TRAFFIC SIGNAL/SIGNAGE, UTILITIES/JUNCTION BOXES, OR OTHER OBSTRUCTIONS WITHIN PROPOSED PEDESTRIAN CURB RAMP AREAS AND LANDINGS ARE PROHIBITED.
  11. THE COUNTER SLOPE OF THE GUTTER OR ROAD AT THE FOOT OF A RAMP SHALL NOT EXCEED 5%.
- GENERAL NOTES**
1. WHERE THE 1'-6" FLARED SIDE(S) OF A PERPENDICULAR CURB RAMP IS (ARE) CONTIGUOUS WITH A PEDESTRIAN OR HARD SURFACE AREA (PEDESTRIAN CIRCULATION PATH), THE MAXIMUM FLARE SLOPE SHALL NOT EXCEED 10:1.
  2. PEDESTRIAN WALKWAY (PEDESTRIAN ACCESS ROUTE) AND/OR LOCATION OF EXISTING OR FUTURE PEDESTRIAN RAMPS ON OPPOSITE CORNERS SHALL BE REVIEWED BEFORE CONSTRUCTING NEW RAMPS.
  3. AT MARKED PEDESTRIAN CROSSINGS, THE BOTTOM OF THE RAMPS, EXCLUSIVE OF THE FLARE SIDES, SHALL BE TOTALLY CONTAINED WITHIN THE MARKINGS.
- PEDESTRIAN RAMP DETAIL**  
EPC STD. SD\_2-41  
Not To Scale



- CROSS PAN DETAIL**  
EPC STD. SD\_2-20  
Not To Scale
- Notes**
1. W = Width shall be 6' for local, 8' for collectors, and 10' for Arterial Roads.
  2. T = Squared-off Return to be poured Monolithic 8" P.C.C. Minimum with 6x6 - 4.4 W.W.F. Or #4 @ 18" E.W.
  3. = 3" minimum asphalt depth (2 lifts).
  4. Design to specify elevations at pi and pcr
  5. Flow Capture Depth (Depression) shall be 7/8" for Local, 1-1/8" for Collectors, and 1-1/2" for arterial roads.
  6. Flowline Grade shall be minimum 0.5%



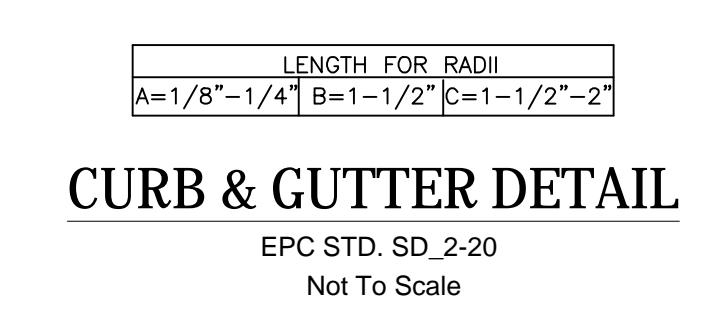
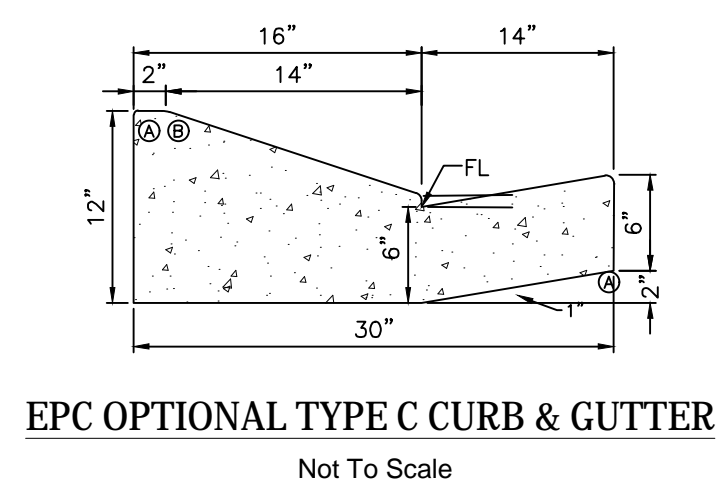
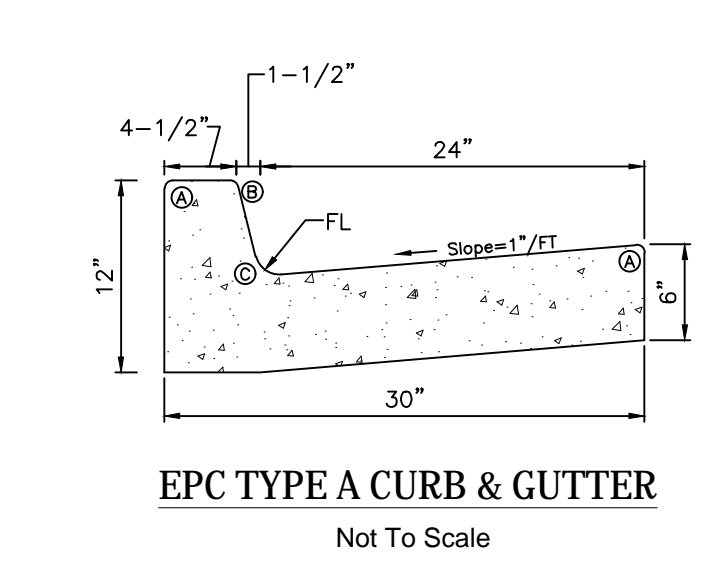
- PARALLEL PEDESTRIAN RAMP DETAIL**  
EPC STD. SD\_2-50  
Not To Scale
- Notes**
1. PROVIDE CENTERLINE CONSTRUCTION OR TOOL JOINT WHEN DRIVEWAY WIDTH (EDGE TO EDGE) IS 14' OR GREATER.
  2. ALL TOOL JOINTS SHALL BE A MINIMUM OF 1-1/2" DEEP.
  3. WHEN REPLACING EXISTING CURB AND GUTTER WITH NEW DRIVEWAY, ENTIRE CURB AND GUTTER SECTION SHALL BE REMOVED AND REPLACED WITH CURB AND GUTTER (VARIABLE-CURB-HEIGHT) AS SHOWN. DO NOT BREAK CURB FROM GUTTER SECTION.
  4. FLARED PORTION OF DRIVEWAY SHALL BE POURED MONOLITHIC WITH MAIN RECTANGULAR PORTION OF DRIVEWAY.
  5. WHERE THERE IS MORE THAN ONE DRIVEWAY ON A LOT, THE SPACING OF THE DRIVEWAYS SHALL MEET REQUIREMENTS IN EDCM.
  6. WHERE AN EXISTING SIDEWALK IS IN PLACE, AND ITS THICKNESS IS LESS THAN 4" (RESIDENTIAL) OR 8" (COMMERCIAL AND INDUSTRIAL) THE SIDEWALK THROUGH THE DRIVEWAY SHALL BE REMOVED AND REPLACED WITH PORTLAND CEMENT CONCRETE AT THE REQUIRED THICKNESS.
  7. WHEN A DRIVEWAY IS TO BE TAKEN OUT OF SERVICE, THE ENTIRE LENGTH OF CURB AND GUTTER SHALL BE REMOVED AND REPLACED WITH NEW CURB AND GUTTER MATCHING THE ADJUTING SECTIONS.
  8. ALL PROVISIONS IN THE LAND DEVELOPMENT CODE SHALL BE MET, WITH REGARD TO MINIMUM SETBACK FROM INTERSECTION AND SIDE PROPERTY LINES, MINIMUM SPACING, MAXIMUM WIDTH, ETC.
  9. SIDEWALKS ACROSS DRIVEWAYS SHALL BE ACCESSIBLE AND COMPLIANT WITH REQUIREMENTS OF EDCM CHAPTER 6.



**TYPICAL STREET SECTION**  
GLEN AT WIDEFIELD FILING NO. 12  
Not To Scale

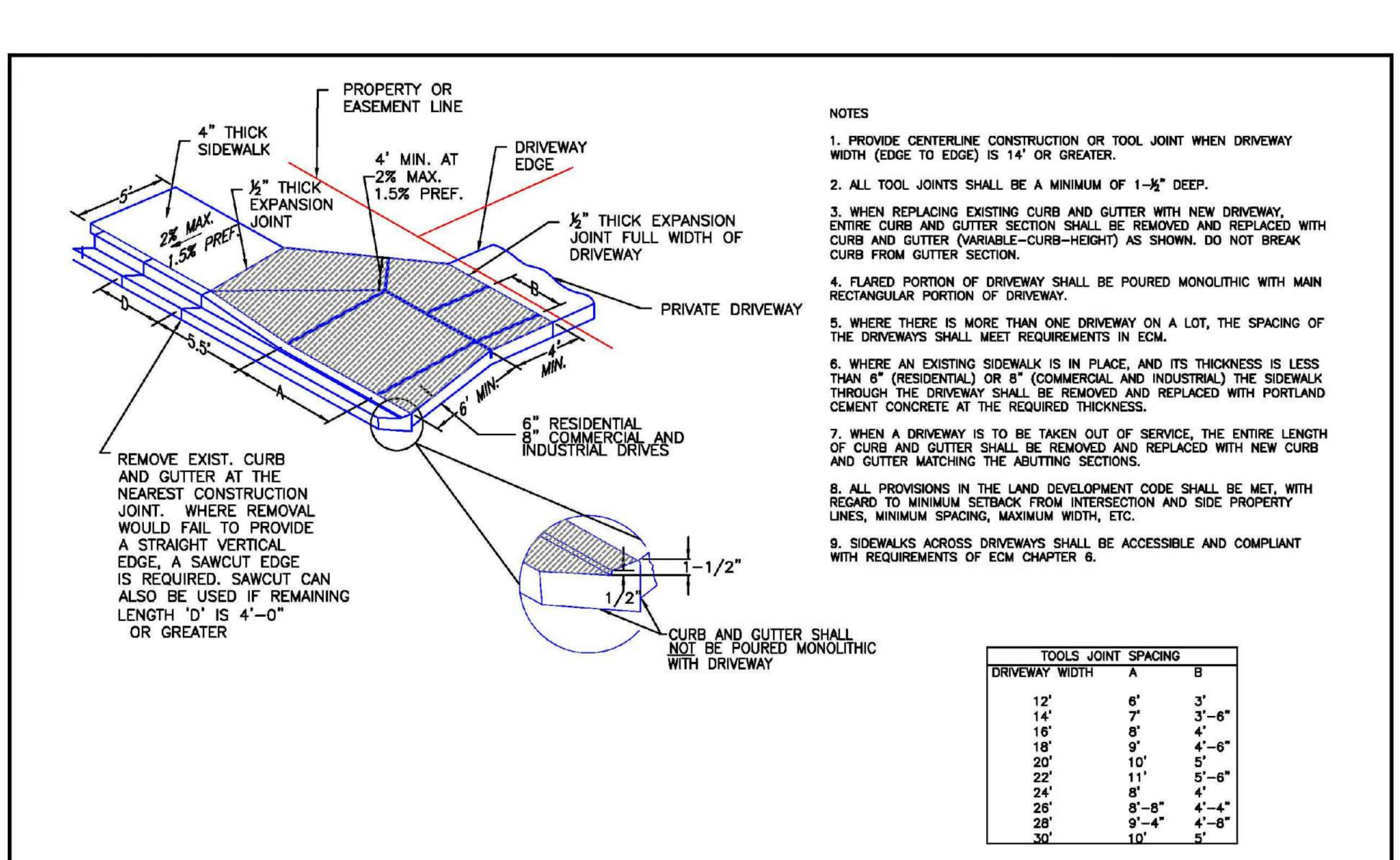
Road Classification: Urban Residential Local Low Volume Residential Design Speed=20 MPH

Applicable Streets: Lanceleaf Drive, Ground Cherry Trail, Dwarf Clover Court



**CURB & GUTTER DETAIL**  
EPC STD. SD\_2-20  
Not To Scale

- GENERAL NOTES**
1. All work shall be done in accordance with current Engineering Manual and ADA requirements.
  2. Contractor to notify Engineering Division inspection staff 48 hours prior to concrete placement.
  3. Pedestrian ramp construction shall be a minimum 4,500 psi concrete, minimum 4" thick, non-colored, non-scored, coarse broom finish.
  4. 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.
  5. Detectable warning area shall start a minimum of 6" but not more than 8" from the flow line of the curb at any point.
  6. Detectable warning area shall be prefabricated reddish integrally colored truncated-dome surfaced thermoplastic.
  7. The detectable warning area shall be 24" in length and the full width of the ramp.
  8. Ramp width required is the same as approaching sidewalk, 4" minimum.
  9. All ramps will be perpendicular to traffic with the exception of mid-block or terminal ramps which may be parallel subject to approval.
  10. Avoid palcing drainage structures, traffic signal / signage, utilities / junction boxes, or other obstructions within proposed ramp areas.
  11. 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.
  12. 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.
  13. At marked pedestrian crossings, the bottom of the ramps, exclusive of the flare sides, shall be totally contained within the markings.
  14. Sidewalk cross-slope: 1/4"/ft.
  15. Concrete mix design shall conform to the requirements of the color admixture manufacturer and the following:
    - 1) 28-day compressive strength = 4,500 PSI (min.)
    - 2) Water/cement ratio = 0.45 (max.)
    - 3) Cement content = 6-1/2 sacks/C.Y. (min.) (Type II cement)
    - 4) Maximum aggregate size = 3/4"
    - 5) Entrained air content = 6% - 10%
    - 6) Slump = 1 inch (min.) - 4 inches (max.)



**DRIVEWAY DETAIL WITH ATTACHED SIDEWALK**  
EPC STD. SD\_2-25  
Not To Scale

DATE APPROVED: 6/23/20  
Jennifer E. Irvine  
DEPARTMENT OF PUBLIC WORKS

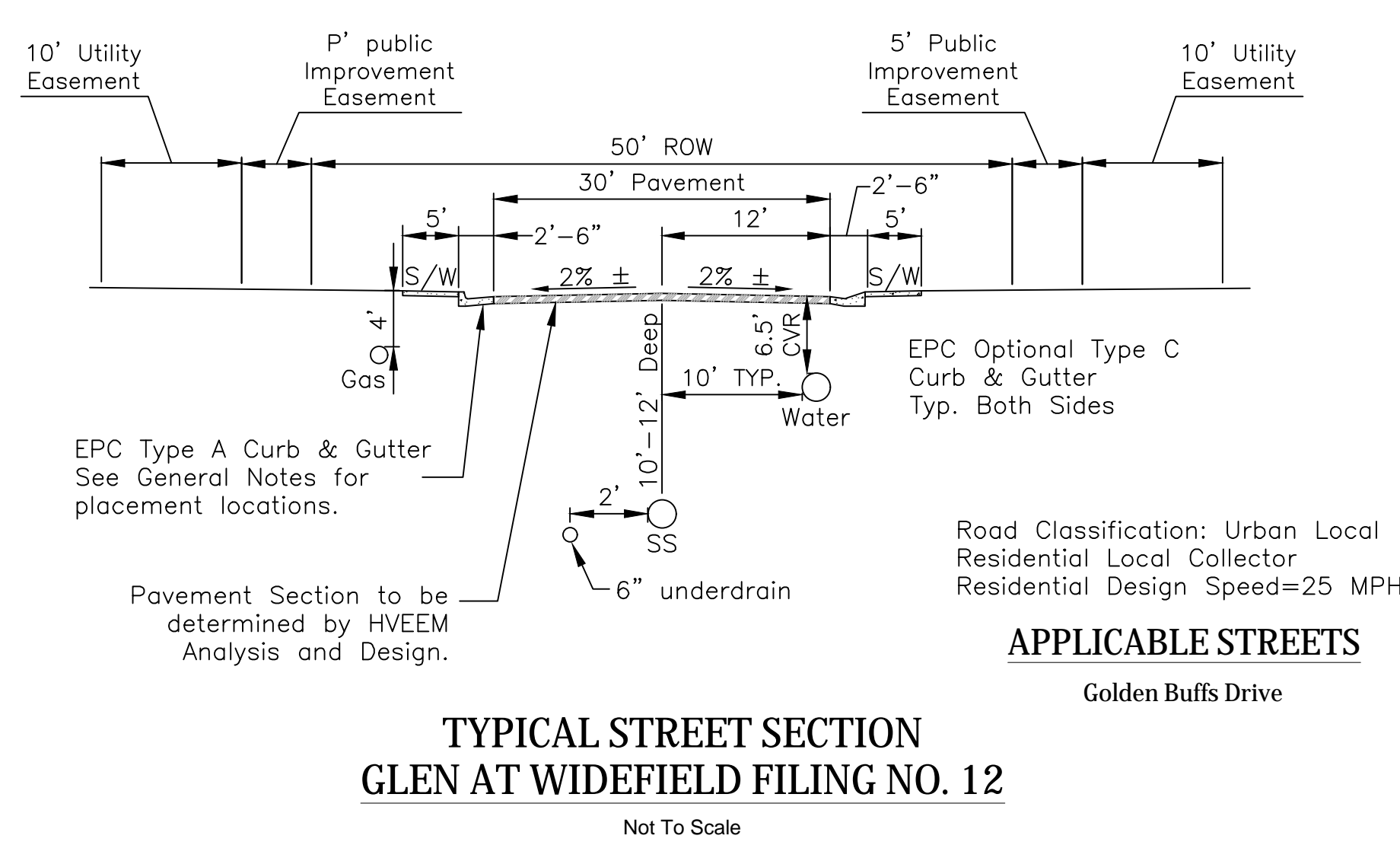
REVISION DATE: 6/23/20  
FILE NAME: SD\_2-24

DEPARTMENT OF PUBLIC WORKS

**TOOLS JOINT SPACING**

DRIVEWAY WIDTH	A	B
12'	6'	3'
14'	7'	3'-6"
16'	8'	4'
18'	9'	4'-6"
20'	10'	5'
22'	11'	5'-6"
24'	12'	6'
26'	13'	6'-6"
28'	14'	7'
30'	15'	7'-6"

SCALE: NOT TO SCALE



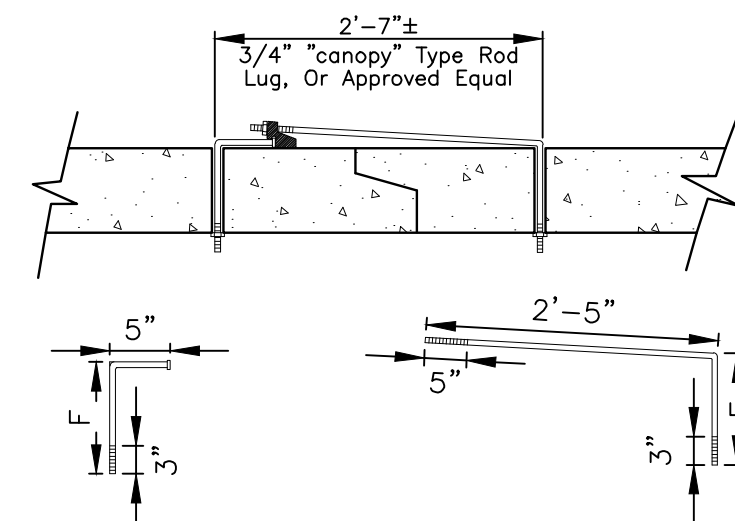
**TYPICAL STREET SECTION**  
GLEN AT WIDEFIELD FILING NO. 12  
Not To Scale

Road Classification: Urban Local Residential Local Collector Residential Design Speed=25 MPH

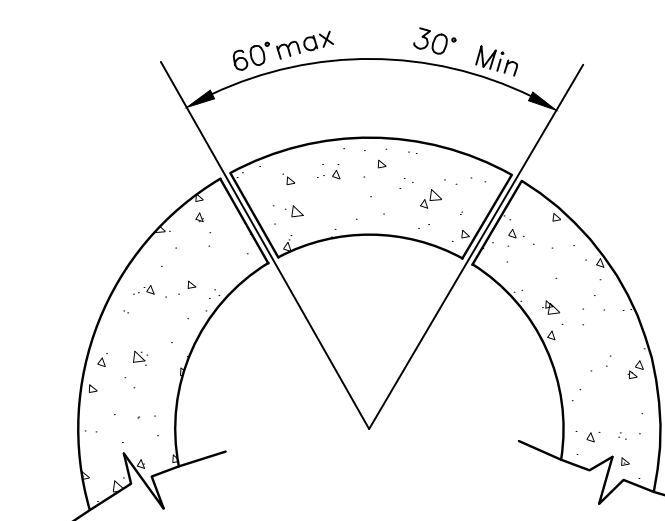
Applicable Streets: Golden Buffs Drive

**UNDERDRAIN NOTES**

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



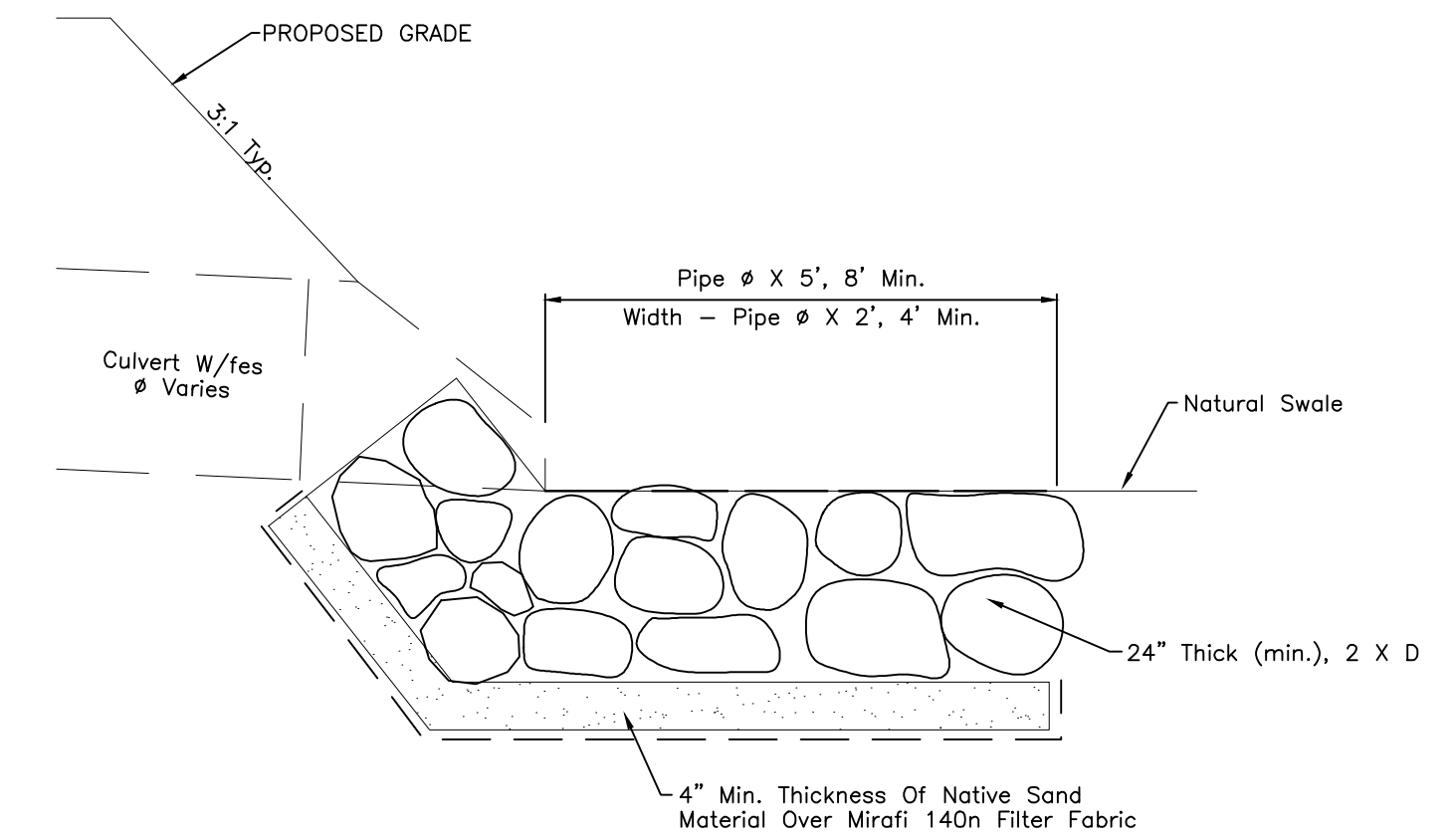
3/4" Galvanized Anchor Bolts, Nuts And Washers, Mild Steel, Astm A 307, Rod Lug Shall Be Coated With Coal-tar, Epoxy Paint Or Approved Equal.



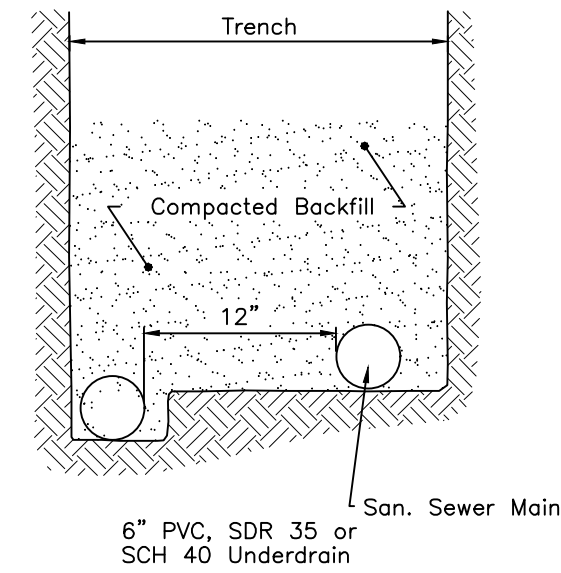
**CONCRETE PIPE JOINT FASTENER DETAIL**  
Not To Scale

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

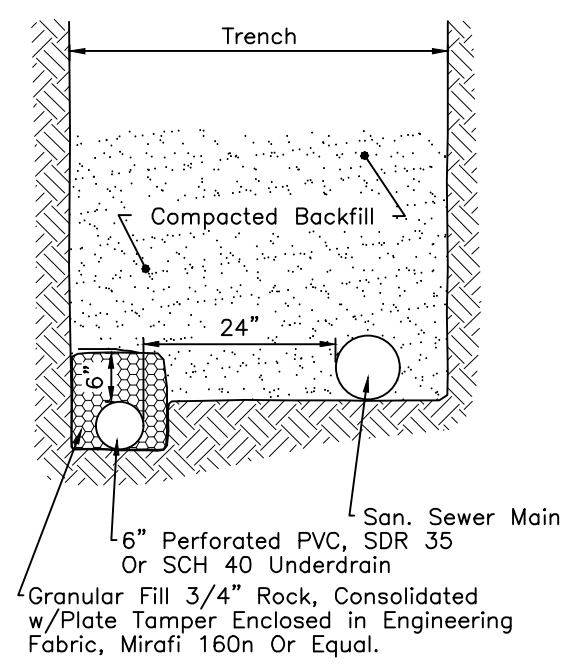
Pipe Diameter	F
18"-30"	5"
36"-42"	6"
48"-60"	7"
72"-84"	9"



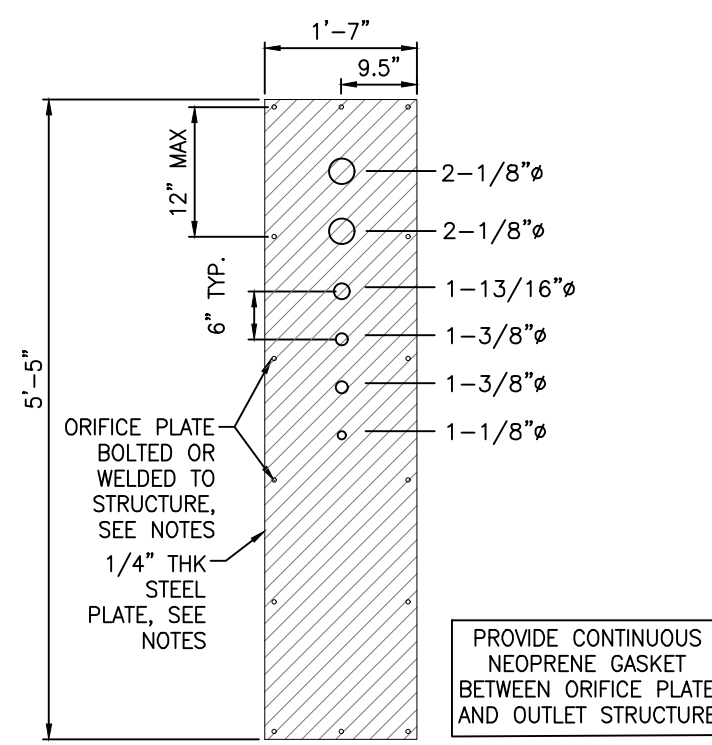
**TYPICAL CULVERT OUTLET PROTECTION**  
Not To Scale



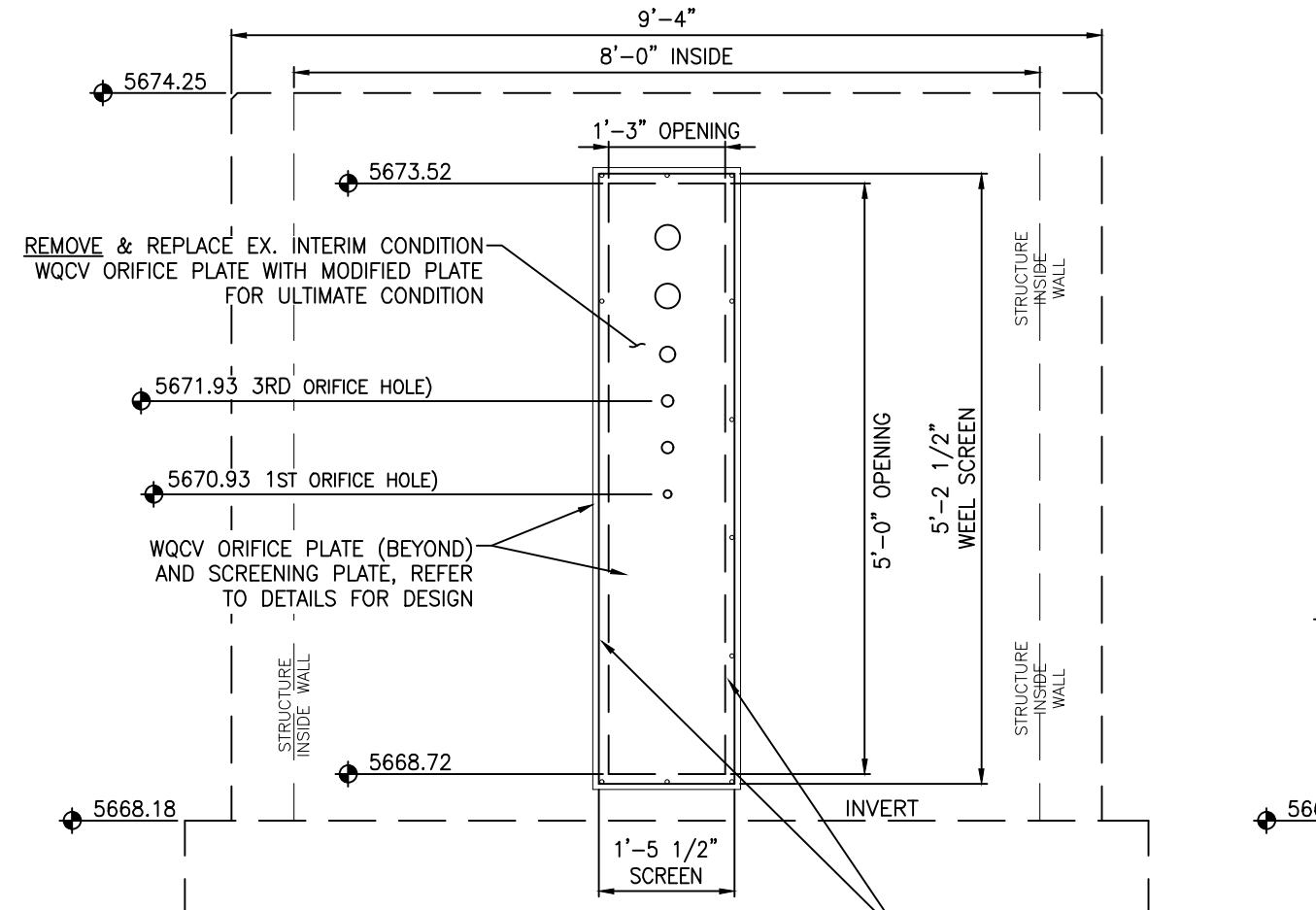
**PASSIVE UNDERDRAIN DETAIL**  
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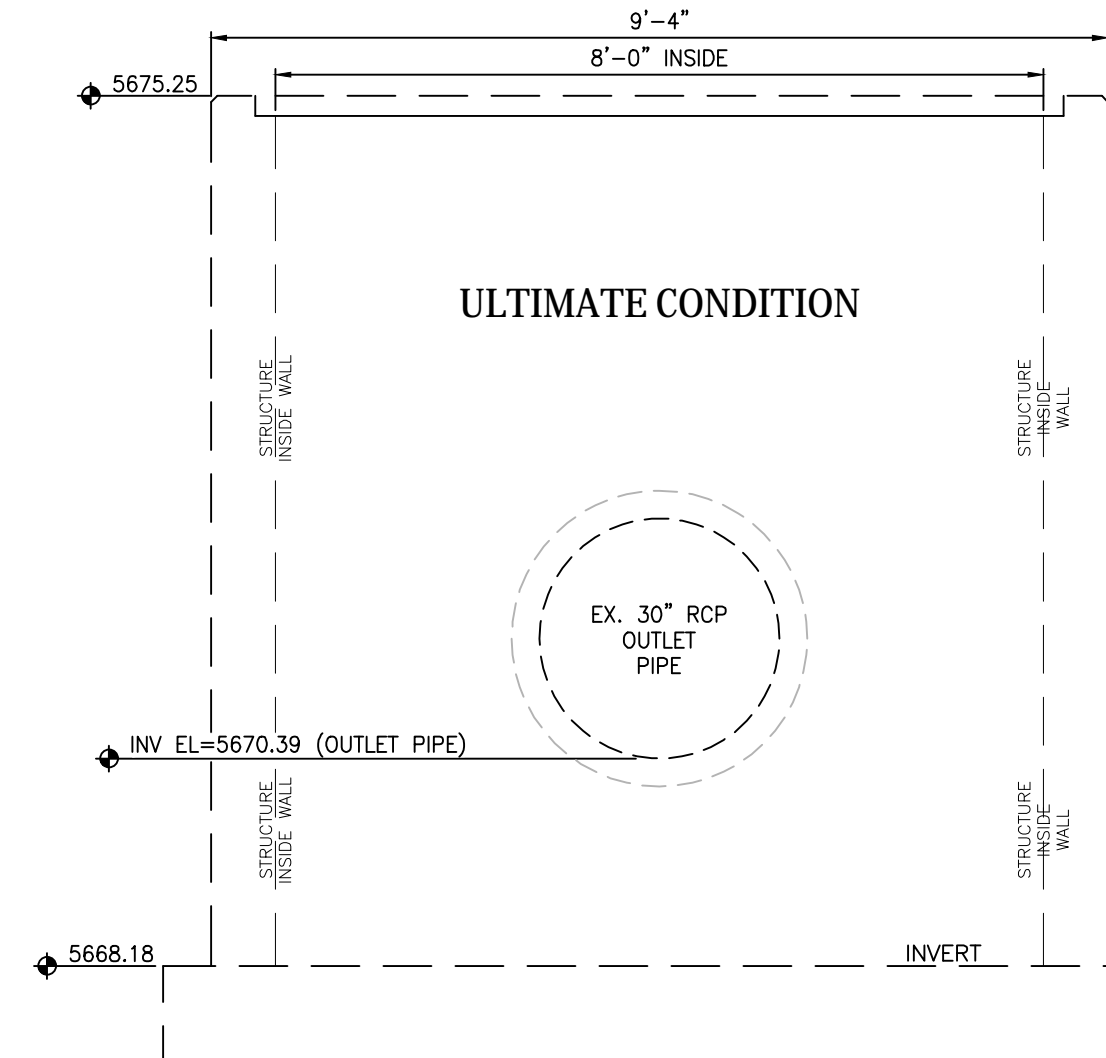
**ACTIVE UNDERDRAIN DETAIL**  
Not To Scale



**A WQCV ORIFICE PLATE**  
Not To Scale

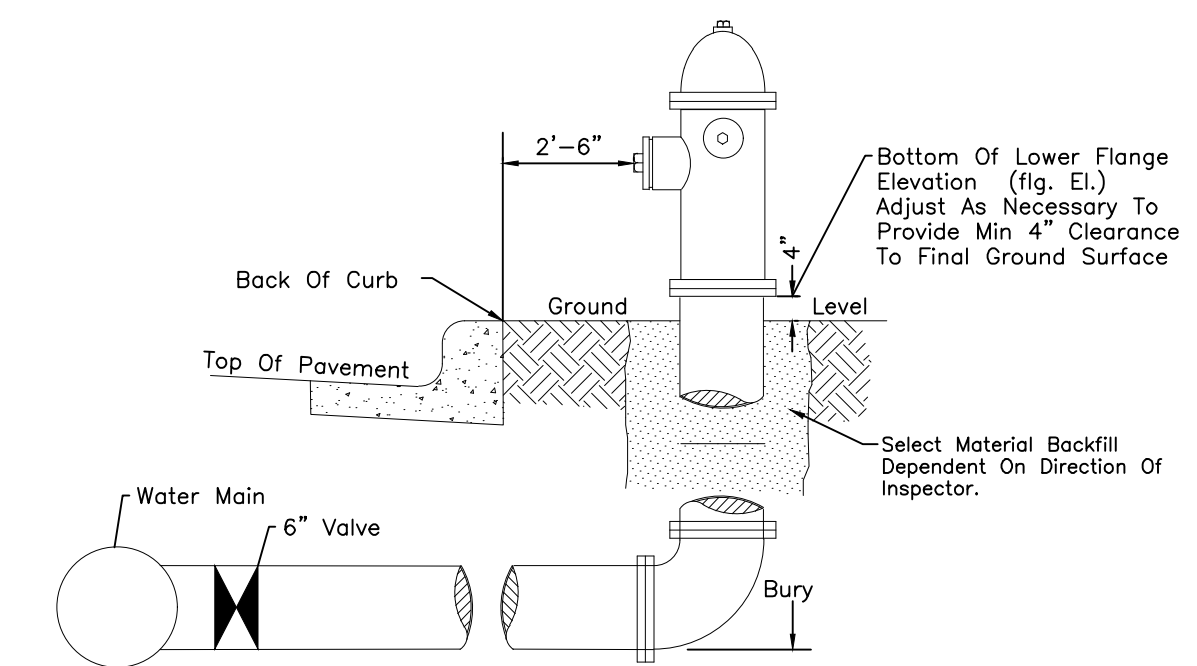


**C SECTION C-C**  
Not To Scale



**D SECTION D-D**  
Not To Scale

**ULTIMATE CONDITION AS DESIGNED W/ FILING 11 & INCLUSIVE OF FILING 12 SHOWN HEREON FOR REFERENCE AND INFORMATIONAL PURPOSES ONLY**  
NOTE: NO RESTRICTOR PLATE



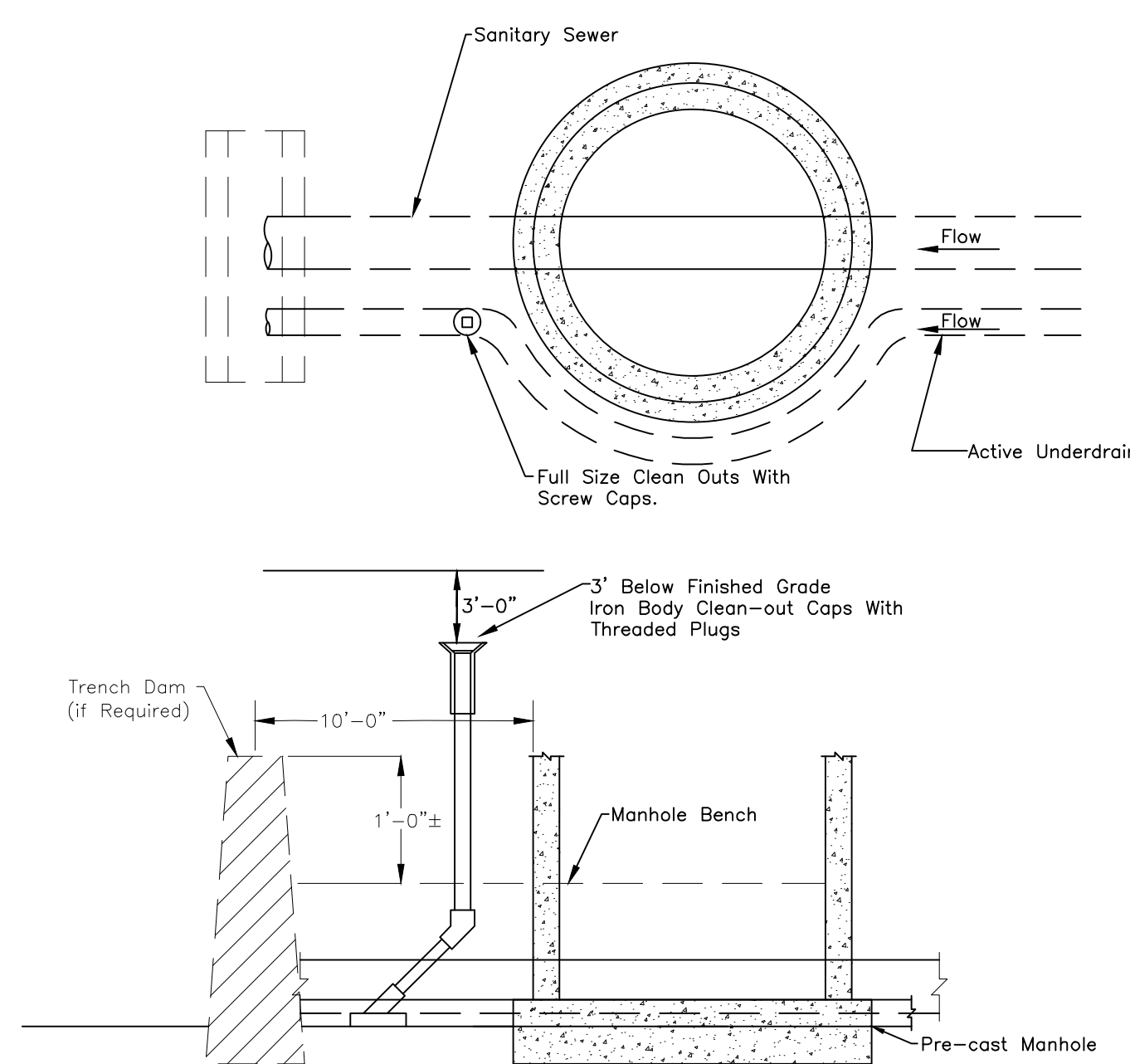
**GENERAL NOTES:**

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

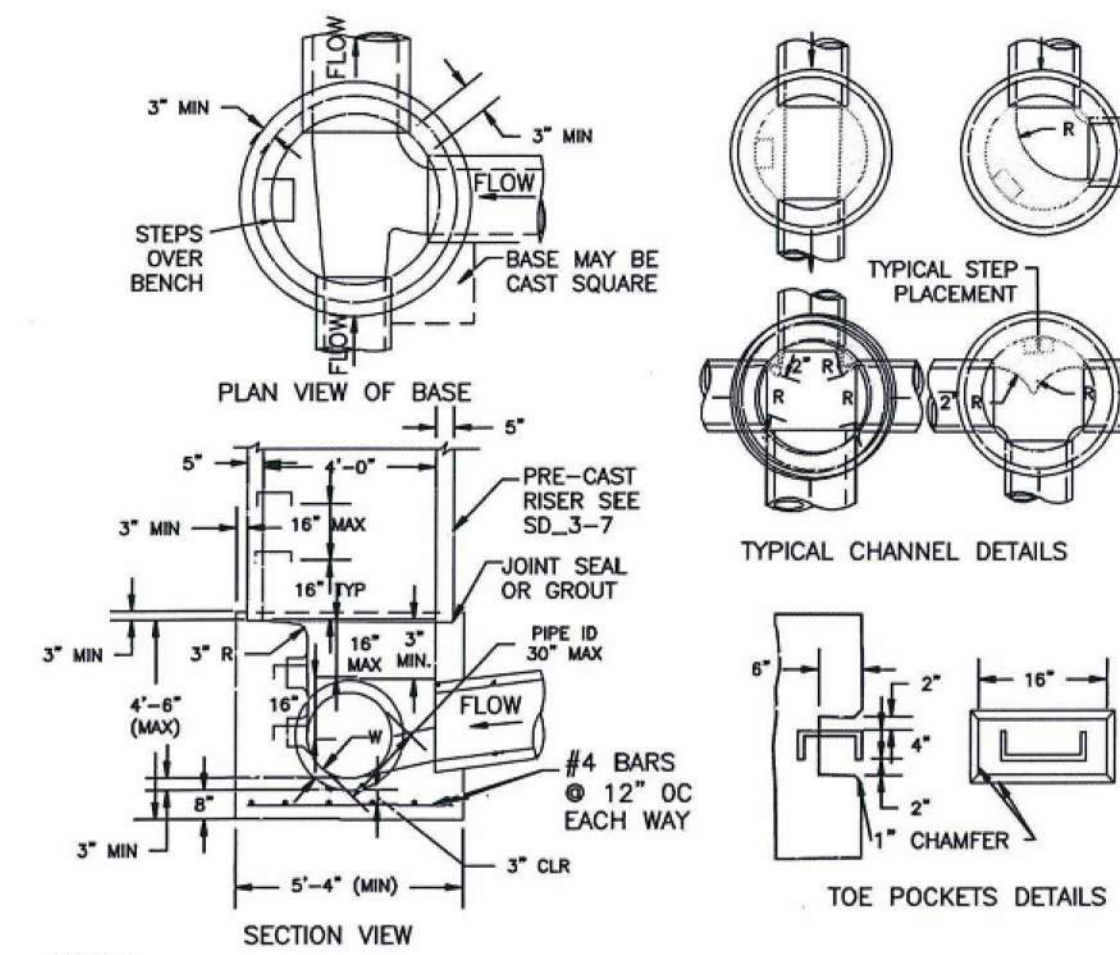
**FIRE HYDRANT DETAIL**  
Not To Scale

Subsequent To Stripping And Grubbing The Following Overlot/pipe Installation Procedures Are Anticipated For The Sanitary Sewer Located On Proposed Embankments:

- The Removal And Replacement Of Metastable Soil.
- Testing Of The Fill Subsequent To The Penetration Of The Metastable Soil Will Continue Until A Minimum Of 7 Feet Of Structural Fill Has Been Placed Above The Proposed Sewer Line Elevation.
- Utility Trenches Shall Be Excavated And Sanitary Sewer Line Installed. The Pipe Shall Be Properly Bedded And Structural Fill Placed And Tested To The Previous Grade.
- The Overlot And Embankment Fill Can Be Completed.
- Where The Sanitary Sewer Is Placed In Embankment Fill During The Overlot Process, Site Shall Monitor and Test All Work Associated with the Affected Portions.

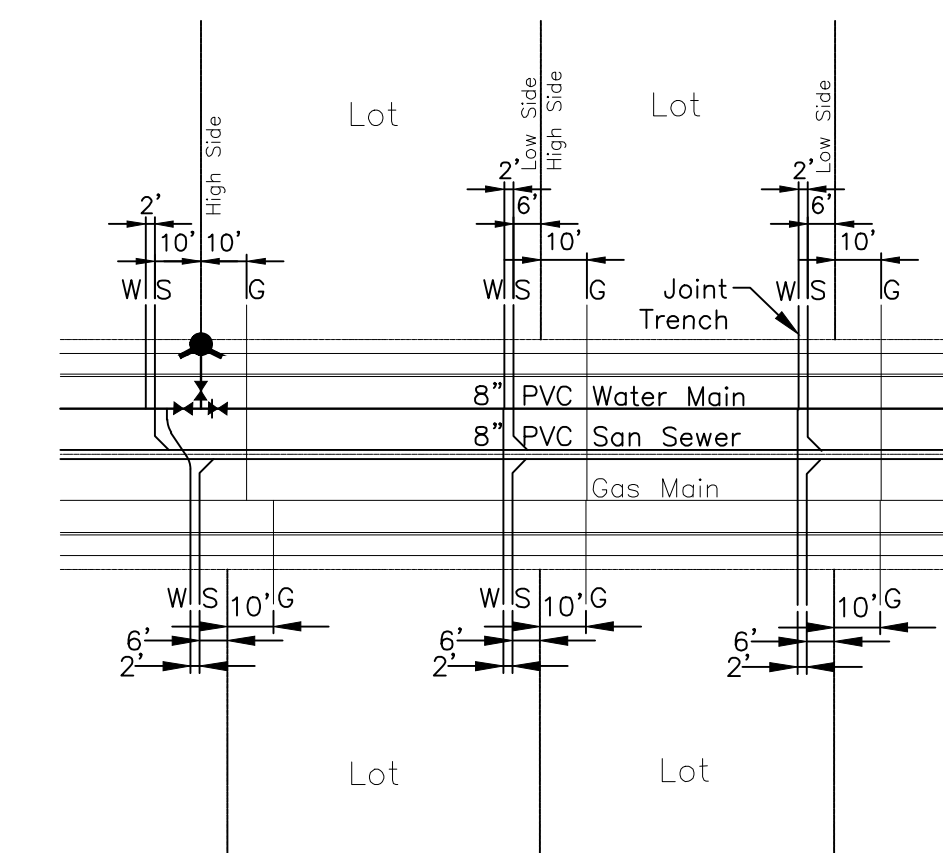


**GROUNDWATER UNDERDRAIN DETAIL**  
CLEANOUT LOCATIONS OUTSIDE MANHOLE

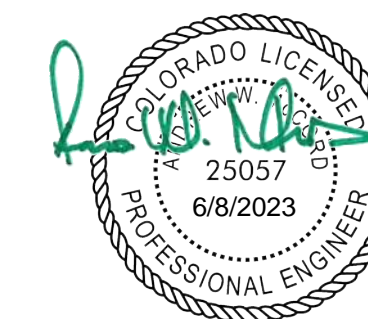


- NOTES**
- TYPE II MANHOLES SHALL BE USED WHEN APPROPRIATE AND TYPICALLY WHEN THE PIPE SIZES ARE 30" OR LESS INSIDE DIAMETER.
  - VIEW AND DETAILS ARE TYPICAL. DESIGN ENGINEER SHALL DETERMINE MANHOLE BASE CONFIGURATION AND DIMENSIONS FOR PARTICULAR PIPE SIZES AND ALIGNMENT.
  - EITHER LADDER OF STEPS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

**STORM SEWER MANHOLE DETAIL TYPE II**  
EPC STD. SD. 3-2  
Not To Scale



**TYPICAL JOINT-TRENCH UTILITY SERVICE DETAIL**  
Not To Scale



**GLEN AT WIDEFIELD NO. 12**  
Site Plan Details  
Utility Details  
EL PASO, COUNTY, COLORADO

Project No.: 19016  
Date: May 3rd, 2023  
Design: MKK  
Drawn: MKK  
Check: AWMc  
Revisions:

SHEET

**19**

19 of 19 Sheets

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