

CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Director



Mayor Timothy M. Keller

January 4, 2024

Scott Eddings, P.E.
Huitt-Zollers Inc.
6561 Americas Parkway NE
Albuquerque, NM 87110

**RE: MDS - Montage Subdivision Unit 7 on Bobby Foster
Grading and Drainage Submittal for Building Permit
Grading Plan Engineer's Stamp Date: 8/16/2023
Hydrology File: R16D100A**

Dear Mr. Eddings,

Based upon the information provided in your submittal received 12/29/2023, the Grading and Drainage Plan is approved for Grading Permit (earthwork can get started for the earth pad on the house).

PO Box 1293

PRIOR TO BUILDING PERMIT:

Albuquerque

NM 87103

www.cabq.gov

1. Once the grading is complete (the earth pad is done for the house), please attach a **site photo** with the Hydrology submittal for Pad Certification and Building Permit approval.
2. An Engineer's Certification of the compacted pad and grading (Pad Certification), per the DPM Part 6-14 (G): Engineer's Certification Checklist for Subdivision and Part 6-14 (H): Required Certification Language must be placed on the certification.

As a reminder, if the project total area of disturbance (including the staging area and any work within the adjacent Right-of-Way) is 1 acre or more, then an Erosion and Sediment Control (ESC) Plan and Owner's certified Notice of Intent (NOI) is required to be submitted to the Stormwater Quality Engineer (Dough Hughes, PE, jhughes@cabq.gov, 924-3420) 14 days prior to any earth disturbance.

If you have any questions, please contact me at 505-924-3695 or tchen@cabq.gov.

Sincerely,

A handwritten signature in blue ink that reads "Tiequan Chen".

Tiequan Chen P.E.
Principal Engineer, Hydrology
Planning Department, Development Review Services



City of Albuquerque

Planning Department
Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (DTIS)

Project Title: _____ Hydrology File # _____

Legal Description: _____

City Address, UPC, OR Parcel: _____

Applicant/Agent: _____ Contact: _____

Address: _____ Phone: _____

Email: _____

Applicant/Owner: _____ Contact: _____

Address: _____ Phone: _____

Email: _____

(Please note that a DFT SITE is one that needs Site Plan Approval & ADMIN SITE is one that does not need it.)

TYPE OF DEVELOPMENT: PLAT (#of lots) _____ RESIDENCE
DFT SITE ADMIN SITE

RE-SUBMITTAL: YES NO

DEPARTMENT: TRANSPORTATION HYDROLOGY/DRAINAGE

Check all that apply under Both the Type of Submittal and the Type of Approval Sought:

TYPE OF SUBMITTAL:

ENGINEER/ARCHITECT CERTIFICATION
PAD CERTIFICATION
CONCEPTUAL G&D PLAN
GRADING & DRAINAGE PLAN
DRAINAGE REPORT
DRAINAGE MASTER PLAN
CLOMR/LOMR
TRAFFIC CIRCULATION LAYOUT (TCL)
ADMINISTRATIVE
TRAFFIC CIRCULATION LAYOUT FOR DFT
APPROVAL
TRAFFIC IMPACT STUDY (TIS)
STREET LIGHT LAYOUT
OTHER (SPECIFY) _____

TYPE OF APPROVAL SOUGHT:

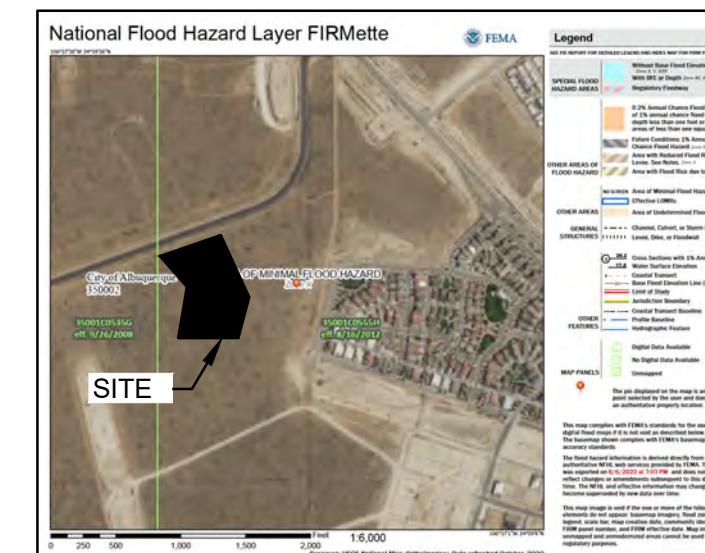
BUILDING PERMIT APPROVAL
CERTIFICATE OF OCCUPANCY
CONCEPTUAL TCL DFT APPROVAL
PRELIMINARY PLAT APPROVAL
FINAL PLAT APPROVAL
SITE PLAN FOR BLDG PERMIT DFT
APPROVAL
SIA/RELEASE OF FINANCIAL GUARANTEE
FOUNDATION PERMIT APPROVAL
GRADING PERMIT APPROVAL
SO-19 APPROVAL
PAVING PERMIT APPROVAL
GRADING PAD CERTIFICATION
WORK ORDER APPROVAL
CLOMR/LOMR
OTHER (SPECIFY) _____

DATE SUBMITTED: _____

PROPERTY

THE PROJECT SITE IS WITHIN TRACT A-1-A-5-C MESA DEL SOL INNOVATION PARK. TRACT A-1-A-5-C IS APPROXIMATELY 7.4572 ACRES AND PART OF THE LEVEL B MESA DEL SOL MASTER PLAN.

FIRMET



EXISTING DRAINAGE PLANS

- BOBBY FOSTER ROAD AND UNIVERSITY BOULEVARD IMPROVEMENTS
 - DRAINAGE STUDY FOR BOBBY FOSTER ROAD UNIVERSITY BOULEVARD DATED NOVEMBER 2020
 - DRB - PR-2020-004138
 - CITY PROJECT NUMBER 393581 - CONSTRUCTION PLANS APPROVED SEPTEMBER 20, 2021
 - BOBBY FOSTER ROAD AND UNIVERSITY BOULEVARD AMENDED DRAINAGE STUDY - MARCH 2023
 - CHANGE POND 1 TO RETENTION

EXISTING CONDITIONS

THE SITE IS UNDISTURBED SURROUNDED ON ALL SIDES BY FULLY IMPROVED ROADS, DRAINAGE AND UTILITIES. THE EXISTING DRAINAGE INFRASTRUCTURE WITHIN THE ADJACENT ROADWAYS (BOBBY FOSTER ROAD, SAGAN LOOP, STIEGLITZ AVENUE AND NEWHALL DRIVE) WAS CONSTRUCTED AS PART OF CPN 393581 AND SIZED TO ACCEPT DEVELOPED FLOWS FROM TRACT A-1-A-5-C.

PROPOSED MONTAGE 7 DRAINAGE STUDY

**MONTAGE 7 SUBDIVISION AT MESA DEL SOL DRAINAGE SUBMITTED
PREPARED BY HUITT-ZOLLARS AND SUBMITTED TO CITY OF
ALBUQUERQUE FOR APPROVAL MARCH 5, 2023.**

PROPOSED IMPROVEMENTS

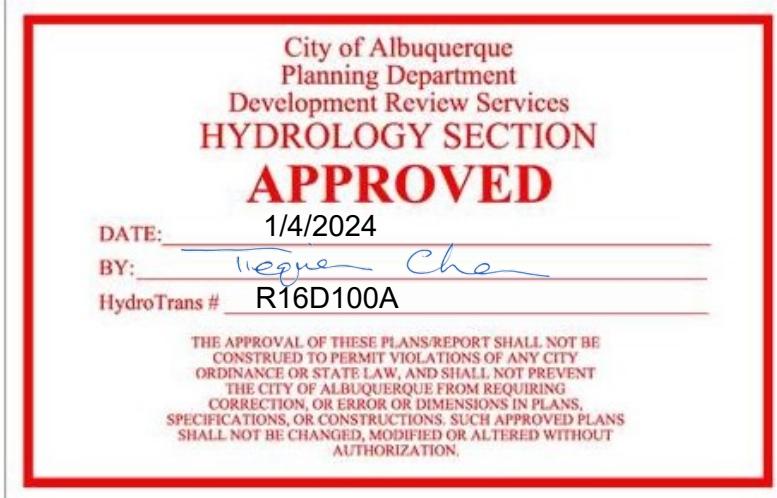
PROPOSED IMPROVEMENTS

PROPOSED DRAINAGE CONDITIONS

PROPOSED DRAINAGE SYSTEM

**HOPPER ALLEY DISCHARGES 7.5 CFS TO NEWHALL DRIVE VIA (2) EA
24-INCH WIDE SIDEWALK CULVERTS**

AARON ALLEY DISCHARGES 7.8 CFS TO NEWHALL DRIVE VIA (2) EA 24-INCH WIDE SIDEWALK CULVERTS.



APPROVAL OF GRADING & DRAINAGE PLAN(S) SHALL EXPIRE TWO (2) YEARS AFTER THE APPROVAL DATE BY THE CITY IF NO BUILDING PERMIT HAS BEEN PULLED ON THE DEVELOPMENT.

STORM WATER QUALITY

STORM WATER QUALITY IS PROVIDED WITHIN POND 1

BENCHMARK

A STANDARD CITY OF ALBUQUERQUE MONUMNET "5-R15 2006"
ALUMINUM DISC. NEW MEXICO STATE PLANE COORDINATES (CENTRAL
ZONE - N.A.D. 1983)
N=1,452,149.458 U.S. SURVEY FEET
E = 1,529,053.738 U.S. SURVEY FEET
PUBLISHED ELEVATION = 5306.674 U.S. SURVEY FEET (NAVD 1988)
GROUND TO GRID FACTOR = 0.999664300 DELTA ALPHA ANGLE =
-0°12'47.60".

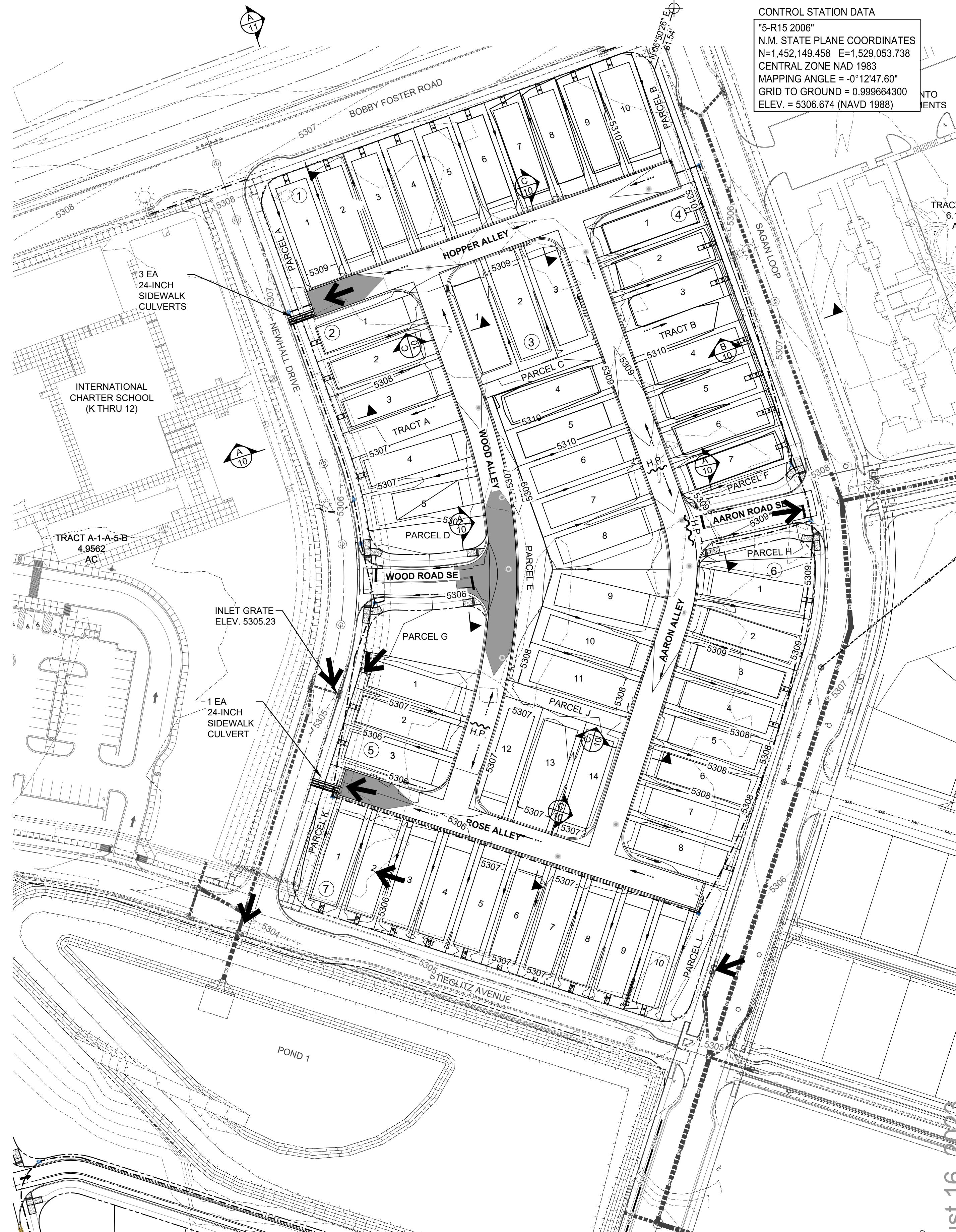
AREA OF DISTURBANCE IS APPROXIMATELY 7.5 AC.

ANALYSIS OF BIOCEROSITY IS A PROXIMATELY MORE

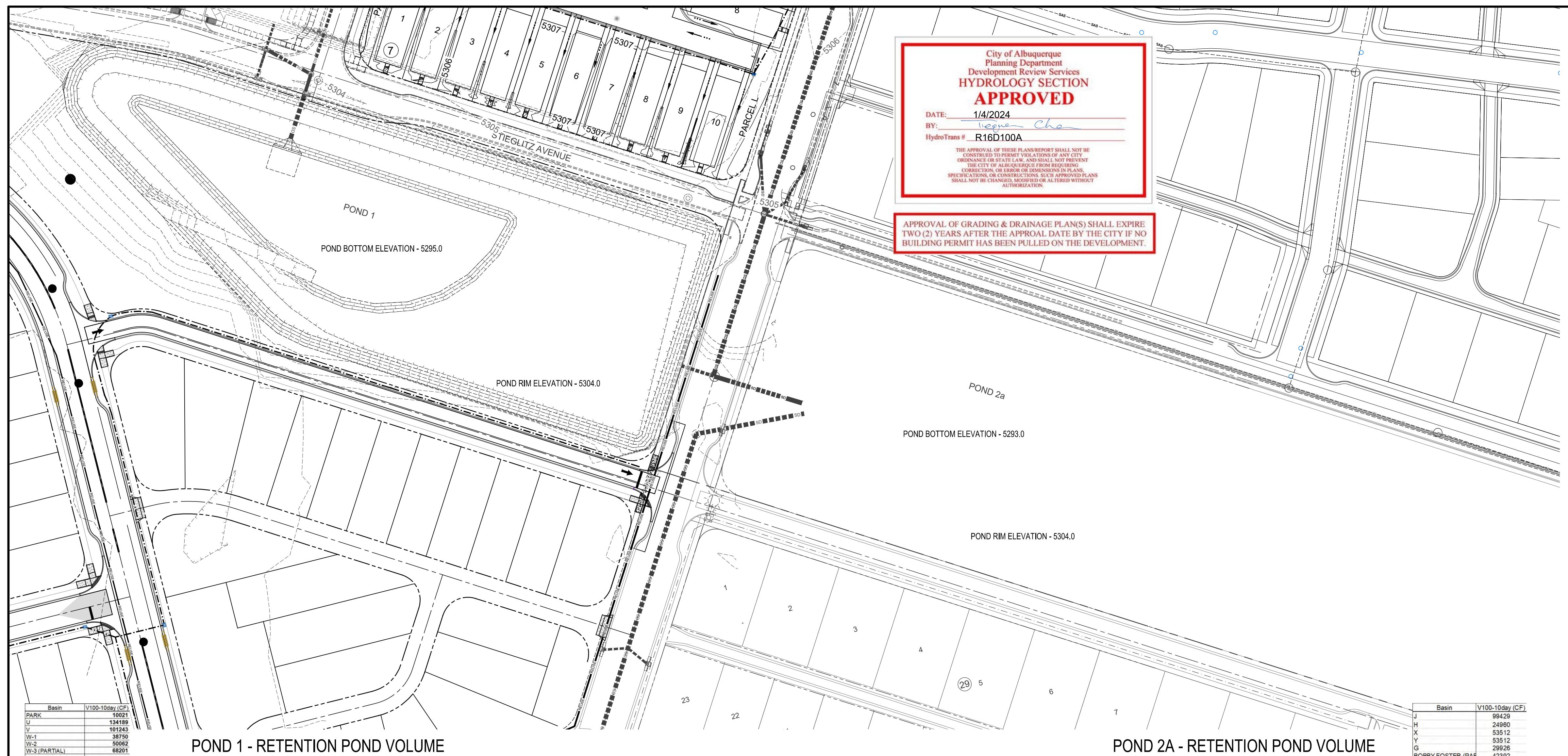
AN EROSION SEDIMENT CONTROL PLAN IS F

PLANIMETRIC AND TOPOGRAPHIC SURVEY
PROVIDED BY HUITT-ZOLLARS, DATED MARCH 2020 AND AUGMENTED

Plotted: 12/29/2023 9:05:31 AM, By:Eddings, Scott
H:\proj\RS1\5530.01 - Montage Unit 7 - Mesa del Sol\10 CADD & BIM\10.1 AutoCAD SHEET SET\Grading\Sht 1 2.dwg



August 16



POND 1 - RETENTION POND VOLUME

Basin U																		
PROPOSED EXCESS PRECIPITATION:																		
Weighted E =	(	0.62	)x(	0	)+(	0.8	)x(	4.48	)+(	1.03	)x(	4.482	)+(	2.23	)x(	7.636	y	16.6 ac.
=	1.5 in.																	
V100-360 =	(	1.49	)x(	16.6	)y	12 =	2.06	ac-ft	=	89838.65	cf							
V100-10day =	(	2.06	)x(	7.64	)x(	3.62	-	2.29	y	12 =	2.91	ac-ft	=	134188.5	cf			

Basin V																		
PROPOSED EXCESS PRECIPITATION:																		
Weighted E =	(	0.62	)x(	0	)+(	0.8	)x(	4.58	)+(	1.03	)x(	4.576	)+(	2.23	)x(	5.148	y	14.3 ac.
=	1.4	in.																
V100-360 =	(	1.37	)x(	14.3	y)	12 =	1.64	ac-ft	=	71343.73	cf							
V100-10day =	(	1.64	)x(	5.15	)x(	3.62	-	2.29	y	12 =	2.32	ac-ft	=	101243.3	cf			

Basin W-1																		
PROPOSED EXCESS PRECIPITATION:																		
Weighted E =	(	0.62	)x(	0	)+(	0.8	)x(	0.16	)+(	1.03	)x(	0.155	)+(	2.23	)x(	2.79	y	3.1 ac.
=	2.1	in.																
V100-360 =	(	2.00	)x(	3.1	y)	12 =	0.52	ac-ft	=	22545.39	cf							
V100-10day =	(	0.52	)x(	2.79	x(	3.62 -	2.29	y	12 =	0.89	ac-ft	=	38749.7	cf				

Basin W-2						
PROPOSED EXCESS PRECIPITATION:						
Weighted E =	(	0.62	)x(	0	)+(	0.8)x(
=	1.6 in.					1.48)+(
V100-360 =	(	1.54	)x(	5.9)/	12 =	0.76 ac-ft =
						32928.64 cf
V100-10day =	(	0.76	)x(	2.95)x(	3.62 -	2.29 y 12 =
						1.15 ac-ft =
						50062.2 cf

Basin W-3 Partial																		
PROPOSED EXCESS PRECIPITATION:																		
Weighted E =	(	0.62	)x(	0	)+(	0.8	)x(	0.98	)+(	1.03	)x(	0.975	)+(	2.23	)x(	4.55	y	6.5 ac.
=	1.8	in.																
V100-360 =	(	1.77	)x(	6.5	)y		12 =	0.96	ac-ft	=	41774.95	cf						
V100-10day =	(	0.96	)x(	4.55	)x(	3.62	-	2.29	y	12 =	1.57	ac-ft	=	68201.3	cf			

Basin Bobby Foster Partial

PROPOSED EXCESS PRECIPITATION:

Weighted E =	(	0.62	)x(	0	+ (	0.8	)x(	0.48	) + (	1.03	)x(	0	+ (	2.23	)x(	1.716	y	2.2 ac.
=	1.9 in.																	
V100-360 =	(	1.83	)x(	2.2	y	12 =	0.33	ac-ft	=	14576.05	cf							
V100-10day =	(	0.33	) + (	1.72	)x(	3.62 -	2.29	y	12 =	0.56	ac-ft	=	24542.6	cf				

POND 2A - RETENTION POND VOLUME

BOBBY FOSTER (FAT) 42392

EXCESS PRECIPITATION:

=	(	1.54 in.	0.62)x(	0 )+(	0.8)x(	3.321 )+(	1.03)x(	3.321 )+(	2.23)x(	5.769)/	12.3
-	(		1.54)x(	12.3)/	12 =	1.579	ac-ft	=	68760.55	cf	
y =	(		1.58 )+(	5.77)x(	3.62 -	2.29)/	12 =	2.91	ac-ft	=	126704.50

[View this post on Instagram](#)

$$= \frac{(1.84 \text{ in.})(0.62)(0) + (1.84 \text{ in.})(0.8)(5.1) / 12}{(0.765 \text{ ac-ft})} = \frac{0.78 \text{ ac-ft}}{0.765 \text{ ac-ft}} = 1.03 \text{ ac.}$$

$$r = \left(-0.78 \right) +$$

EXCESS PRECIPITATION:

0.92 in. (0.92) x

EXCESS PRECIPITATION:

EXCESS PRECIPITATION:

=	(	0.62)x(	0)+(-0.8)x(	0.765 )+(		1.03)x(		0.765 )+(	2.23)x(	3.57)/	5.1 ac.
y =	1.84 in.	(	1.84)x(	5.1)/	12 =	0.78	ac-ft	=	33980.61	cf	
=	(	0.78 )+(	3.57)x(-3.62 -	2.29)/		12 =		1.18	ac-ft	=	51216.21 cf

For further information, contact the author at www.susanna.com.

$$= \frac{0.62 \times (1.44 \text{ in.})}{(1.44 \text{ in.})} = 0.48 \text{ ac-ft}$$

$$f = \left(\quad \quad \quad 0.48 \right) +$$

$$= \left(-1.84 \text{ in} \right) + (0.62 \times (-0.1)) + (-0.8 \times (-0.1)) + (0.255 \times (-0.1)) + (1.03 \times (-0.1)) + (0.255 \times (-0.1)) + (2.23 \times (-0.1)) + (1.19 \times (-0.1)) + (1.7 \text{ ac.})$$

1.84 III.
(1.84)x

y Foster
EXCESS PRECIPITATION:

$$= (-0.62)x$$

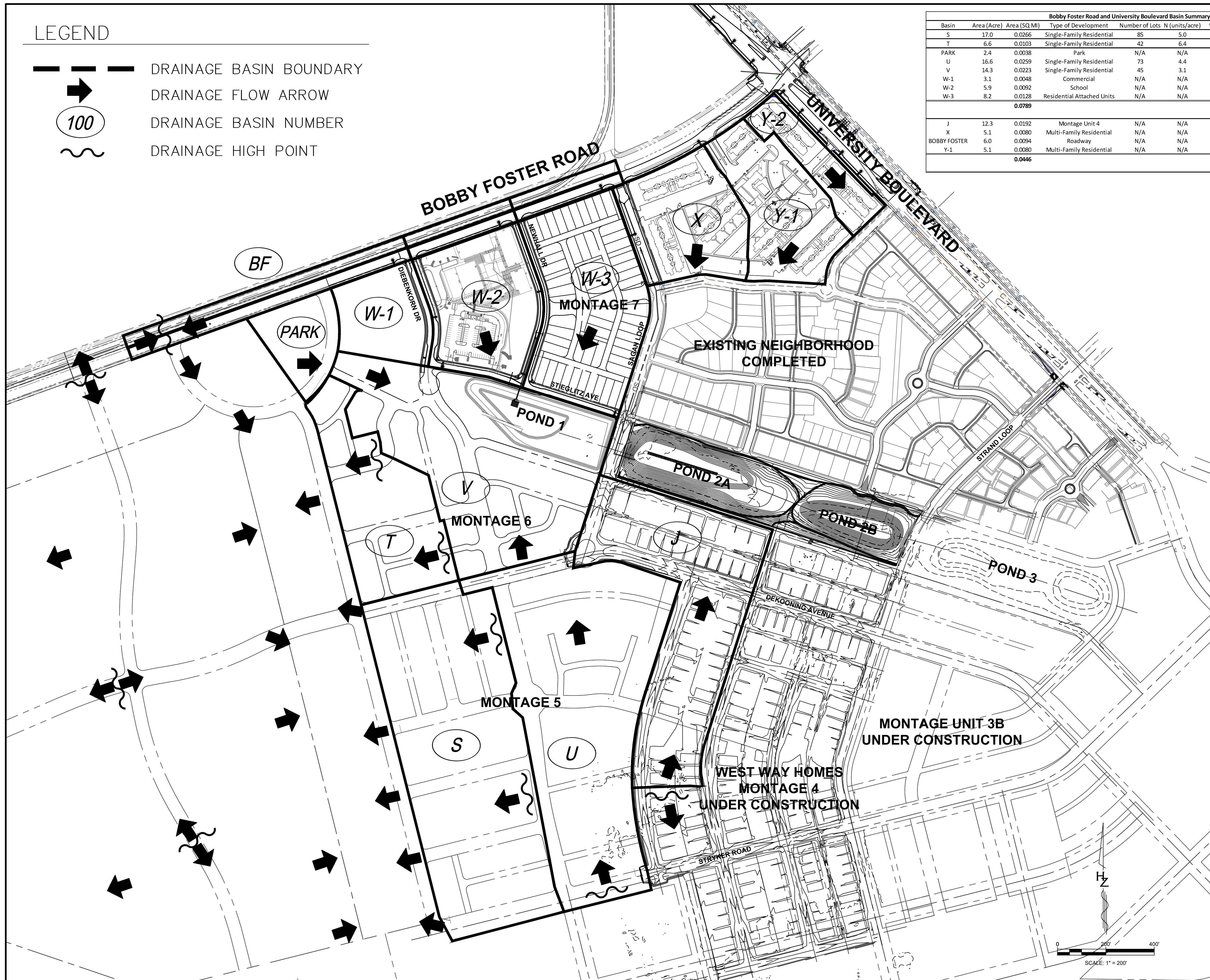
$$= \frac{(1.92 \text{ in.})(0.61)}{(3.8 \text{ in.})(3.62)} = \frac{0.607 \text{ ac-ft}}{2.29} = 0.94 \text{ ac-ft}$$

August 16, 2023

THE JOURNAL OF POLITICAL PHILOSOPHY

LEGEND

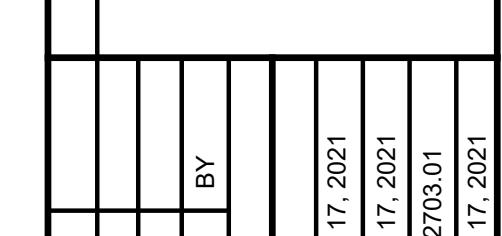
-  DRAINAGE BASIN BOUNDARY
-  DRAINAGE FLOW ARROW
-  DRAINAGE BASIN NUMBER
-  DRAINAGE HIGH POINT



Bobby Foster Road and University Boulevard Basin Summary - Developed Conditions											
Basin	Area (Acre)	Area (S0 MI)	Type of Development	Number of Lots N	units/acre)	%A	%B	%C	%D	100-Year V (AC-FT)	100-Year Q (CFS)
S	17.0	0.0266	Single-Family Residential	85	5.0	0	25	25	50	2.12	61.6
T	6.6	0.0103	Single-Family Residential	42	6.4	0	20	20	60	0.88	25.0
PARK	2.4	0.0038	Park	N/A	N/A	0	46	47	7	0.21	7.1
U	16.6	0.0259	Single-Family Residential	73	4.4	0	27	27	46	2.00	58.8
V	14.3	0.0223	Single-Family Residential	45	3.1	0	32	32	36	1.59	48.3
W-1	3.1	0.0048	Commercial	N/A	N/A	0	5	5	90	0.49	13.2
W-2	5.9	0.0092	School	N/A	N/A	0	25	25	50	0.73	21.3
W-3	8.2	0.0128	Residential Attached Units	N/A	N/A	0	15	15	70	1.17	32.4
						0.0789				Total Inflow to Pond 1 =	6.19 181.1
										Total Outflow from Pond 1 =	4.23 45.2
J	12.3	0.0192	Montage Unit 4	N/A	N/A	0	27	27	46	1.48	43.6
X	5.1	0.0080	Multi-Family Residential	N/A	N/A	0	15	15	70	0.73	20.3
BOBBY FOSTER	6.0	0.0094	Roadway	N/A	N/A	0	22	0	78	0.89	24.2
Y-1	5.1	0.0080	Multi-Family Residential	N/A	N/A	0	15	15	70	0.73	20.3
						0.0446				Total Inflow to Pond 2A =	8.06 153.46
										Total Outflow from Pond 2A =	6.58 13.9

AS BUILT INFORMATION	
BENCH MARKS	
FOUND MONUMENT 115-112-989*	DATE
STANDARD 3 1/4 ALUMINUM DISC	
NEW MEXICO STATE PLANE COORDINATES (CENTRAL ZONE NAD 1983)	
INSPECTOR'S SIGNATURE	
DATE	
RECORDING DATE	
DRAWINGS CORRECTED BY	
DATE	
MICROFILM INFORMATION	
RECORDED BY	
DATE	
NO.	

SURVEY INFORMATION	
FIELD NOTES	
BY	
NO.	
REMARKS	
REVISIONS	
DESIGN	
DRAWN BY:	DATE: May 17, 2021
DWG NAME: CAT	DATE: May 17, 2021
CHECKED BY:	PROJ #: R31270301
DESIGNED BY:	DATE: May 17, 2021



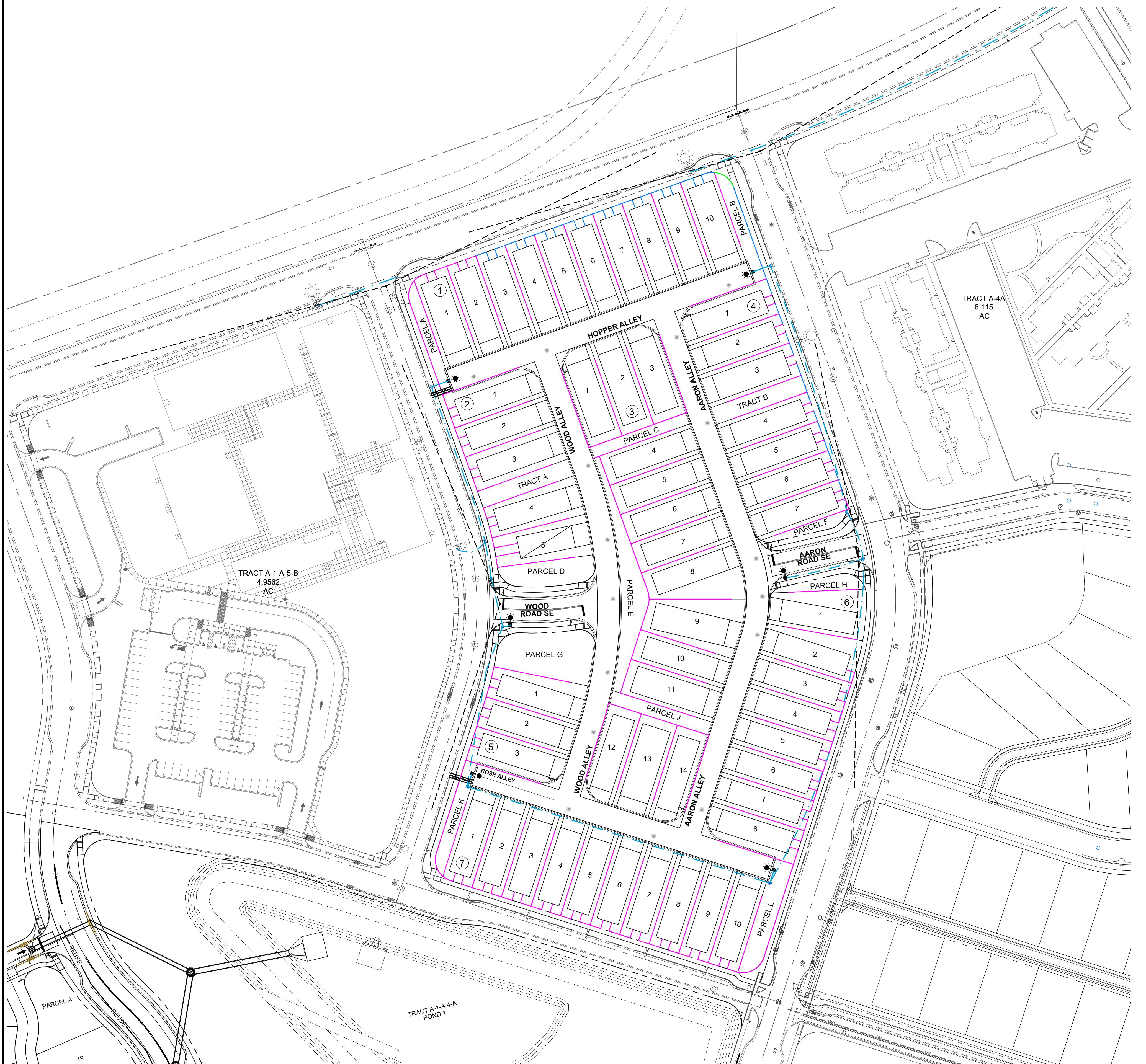
Know what's below.
Call 811 before you dig.
TWO WORKING DAYS
BEFORE YOU DIG CALL
811 OR 260-1990

Designed By:	
HUITT-ZOLLARS	
Huitt-Zollars, Inc. Albuquerque 6501 Americas Pkwy NE, Suite 550 Albuquerque, New Mexico 87110 Phone (505) 883-8114 Fax (505) 883-5022	

TITLE: DEVELOPED CONDITIONS BASIN MAP BOBBY FOSTER & UNIVERSITY BLVD

Design Review Committee	City Engineer	Mo./Day/Yr.	Mo./Day/Yr.
		Last Update	

City Project No.	Zone Map No.	Sheet Of
3935.81	R-15-Z, R-16-Z	EXHIBIT 1



August 16, 2023

SIGHT DISTANCE LEGEND

----- INTERSECTION CLEAR SIGHT TRIANGLE

* NOTE:

REFER TO DETAIL B/8 FOR INTERSECTION CLEAR SIGHT TRIANGLE DETAIL.

LEGEND

- TYPE A & X (0'-2')
- TYPE B (2'-4')
- TYPE C (4'-6')



**HUITT
HZ ZOLLARS**
**MESA DEL SOL
MONTAGE 7**

TITLE:

WALL COMPOSITE

Design Review Committee	City Engineer	Mo./Day/Yr.
		Last Update

City Project No.	Zone Map No.	Sheet
775685	R-15-Z, S-15-Z	5 Of 11

GENERAL NOTES

- THE WALL COURSES ON THIS PLAN INDICATE THE NUMBER OF EXPOSED BLOCK COURSES OF RETAINING WALL TO BE CONSTRUCTED, DETAILED ON SHEET 8, TO MATCH SURFACE ELEVATIONS ON THE GRADING PLAN. A MINIMUM OF ONE ADDITIONAL COURSE (8" HIGH) IS REQUIRED, BURIED BELOW THE LOWER SURFACE DESIGN ELEVATION. WHEN THE LOWER SLOPE IS SEVERE AND/OR THE FOOTER IS WIDE, AN ADDITIONAL BURIED COURSE MAY BE REQUIRED.
- RETAINING WALLS ARE SPECIFIED WHENEVER THE DIFFERENTIAL IN SURFACE ELEVATIONS EXCEED 1.50 FEET (2 EXPOSED CMU COURSES). ELEVATION DIFFERENCES OF LESS THAN 1.5 FT (2 CMU EXPOSED COURSES) SHALL BE INCLUDED IN THE COST OF THE PRIVACY WALL CONSTRUCTION UNLESS WALL IS PART OF PERIMETER WALL.
- PAY QUANTITIES INCLUDE THE COST OF EXCAVATION, GRADING, COMPACTION, FOOTERS, AND ALL COURSES (INCLUDING BURIED COURSES) OF CMU WALL WITH REINFORCING, GROUT, BOND BEAMS, PILASTERS, WATERPROOFING AND BACKFILL ALL PER SPECIFICATIONS.
- FINAL TYPE AND HEIGHTS OF CMU PERIMETER WALL WILL BE PROVIDED BY THE OWNER AT TIME OF BID PROPOSAL. INTERIOR PRIVACY WALLS WILL BE CONSTRUCTED BY HOME BUILDER.
- 2 TURNED BLOCKS ARE TO BE PROVIDED ALONG PERIMETER WALLS AT THE CORNERS WHERE LOTS DRAIN TO THE REAR.
- ALL PRIVACY AND RETAINING WALLS CONSTRUCTED AT INTERSECTIONS SHALL CONFORM TO AASHTO INTERSECTION SIGHT DISTANCE CRITERIA. SEE DETAIL B/8.
- BETWEEN PRIVATE PROPERTIES WALLS SHALL BE CONSTRUCTED WITH THE MIDDLE OF THE BLOCK ON THE PROPERTY LINE. ADJACENT TO PUBLIC RIGHT-OF-WAYS THE FACE OF THE WALL SHALL BE CONSTRUCTED ON THE RIGHT-OF-WAY LINE. NO PORTION OF THE BLOCK SHALL BE WITHIN THE PUBLIC RIGHT-OF-WAY.
- CONTRACTOR SHALL APPLY ANTI-GRAFFITI COATINGS TO ALL PERIMETER WALLS. CONTRACTOR SHALL USE PROSOCO DEFACER ERASER OR APPROVED EQUIVALENT.
- ALL INTERIOR SIDE YARD WALLS SHALL TERMINATE AT THE 10' PUE ALONG THE LOT FRONTRAGES.
- SEE PLAT FOR ALL BEARINGS, DISTANCES, AND CURVES DURING CONSTRUCTION OF WALLS.

AS BUILT INFORMATION		BENCH MARKS	
CONTRACTOR	DATE	WORKERS	DATE
FIELD	DATE	INSPECTORS	DATE
DRAWN BY	DATE	RECORDED BY	DATE
MICRO-FILM INFORMATION			
A. EDDINGS, SCOTT IN N.M.	12856	REGISTERED PROFESSIONAL ENGINEER	
N.M. STATE PLANE COORDINATES: (1983)			
NO. 1452-149458			
E= 529.051738			
ELEV-530.674 (NAVD 1988)			
GROUND TO GRID FACTOR=0.9986643200			
MAPPING ANGLE=01247.80°			
8/16/2023			

Scott Eddings

8/16/23

0
30'
60'
SCALE: 1" = 60'



August 16, 2023

SIGHT DISTANCE LEGEND

- - - - - INTERSECTION CLEAR SIGHT TRIANGLE

* NOTE:

REFER TO DETAIL B/8 FOR INTERSECTION CLEAR SIGHT TRIANGLE DETAIL.

LEGEND

- TYPE A & X (0'-2')
- TYPE B (2'-4')
- TYPE C (4'-6')



**HUITT
HZ ZOLLARS**
MESA DEL SOL
MONTAGE 7

TITLE:
ENLARGED WALL PLAN

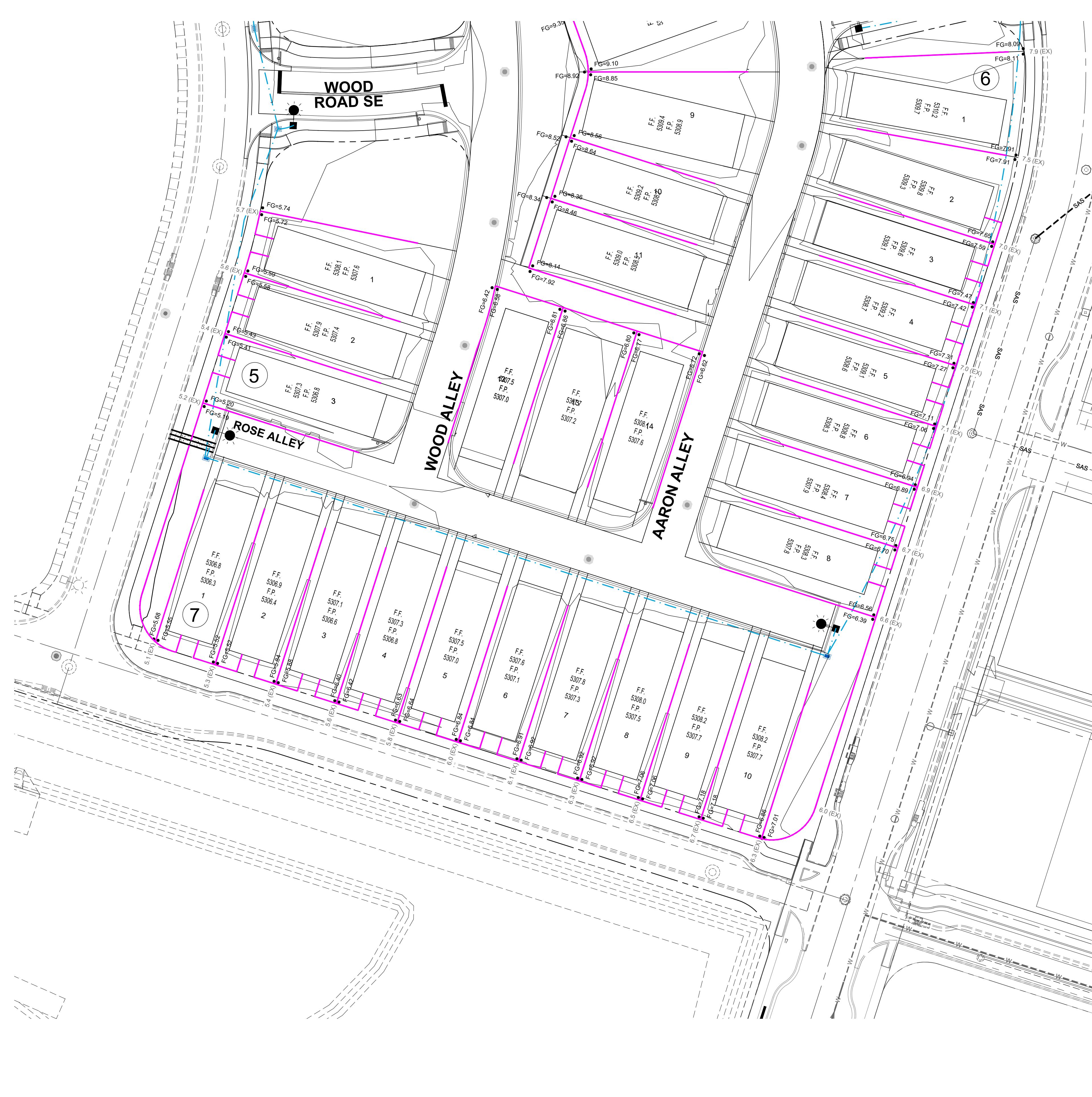
Design Review Committee		City Engineer		Mo./Day/Yr. Last Update
City Project No.	Zone Map No.			
775685	R-15-Z, S-15-Z	Sheet 6 Of 11		

GENERAL NOTES

- THE WALL COURSES ON THIS PLAN INDICATE THE NUMBER OF EXPOSED BLOCK COURSES OF RETAINING WALL TO BE CONSTRUCTED. DETAILED ON SHEET 8, TO MATCH SURFACE ELEVATIONS ON THE GRADING PLAN. A MINIMUM OF ONE ADDITIONAL COURSE (8" HIGH) IS REQUIRED, BURIED BELOW THE LOWER SURFACE DESIGN ELEVATION. WHEN THE LOWER SLOPE IS SEVERE AND/OR THE FOOTER IS WIDE, AN ADDITIONAL BURIED COURSE MAY BE REQUIRED.
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AS BUILT INFORMATION		BENCH MARKS		DATE
CONTRACTOR	WORK STAGED BY	STAKE BY	INSPECTORS BY	
A. EDDINGS & ASSOCIATES INC.	STANDARD 3 1/4" ALUMINUM DISC	FIELD	AGENCIES	DATE
12826	NEW MEXICO STATE PLANE COORDINATES (CENTRAL ZONE NAD 1983)	1462 149 458		
	E= 529 051 738	E= 529 051 738		
	ELEV-53061674 (NAVD 1988)	ELEV-53061674 (NAVD 1988)		
	GROUND TO GRID FACTOR=0.998664300	GROUND TO GRID FACTOR=0.998664300		
	MAPPING ANGLE=01247.807	MAPPING ANGLE=01247.807		

Staff Change 8/16/23



August 16, 2023

SIGHT DISTANCE LEGEND

INTERSECTION CLEAR SIGHT TRIANGLE

* NOTE:

REFER TO DETAIL B/8 FOR INTERSECTION CLEAR SIGHT TRIANGLE DETAIL.

LEGEND

- TYPE A & X (0'-2')
- TYPE B (2'-4')
- TYPE C (4'-6')



Designed by:
HUITT ZOLLARS
MESA DEL SOL MONTAGE 7

TITLE:
 ENLARGED WALL PLAN

Design Review Committee		City Engineer		Mo./Day/Yr. Last Update

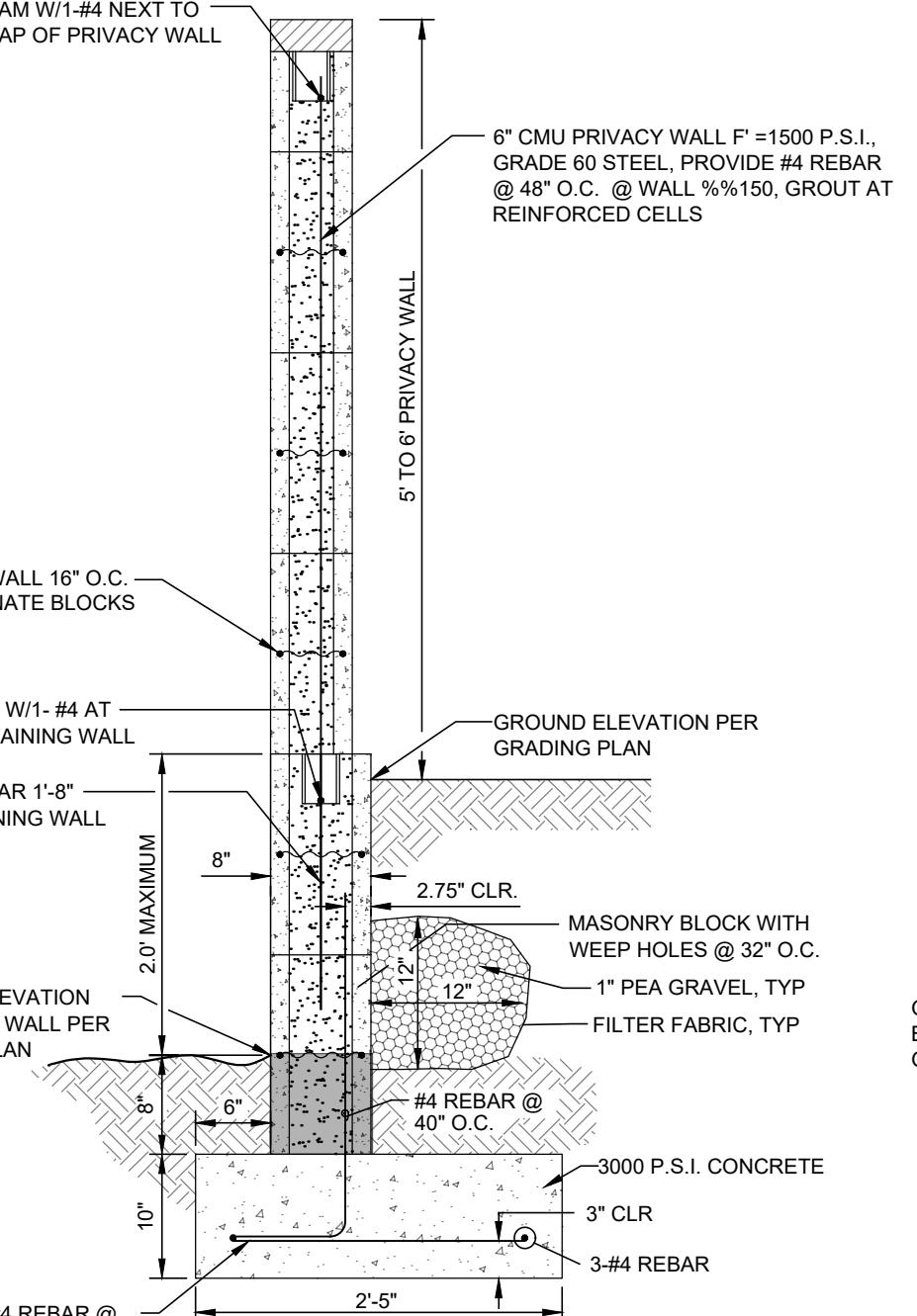
City Project No.	Zone Map No.	Sheet	Or
775685	R-15-Z, S-15-Z	7	11

GENERAL NOTES

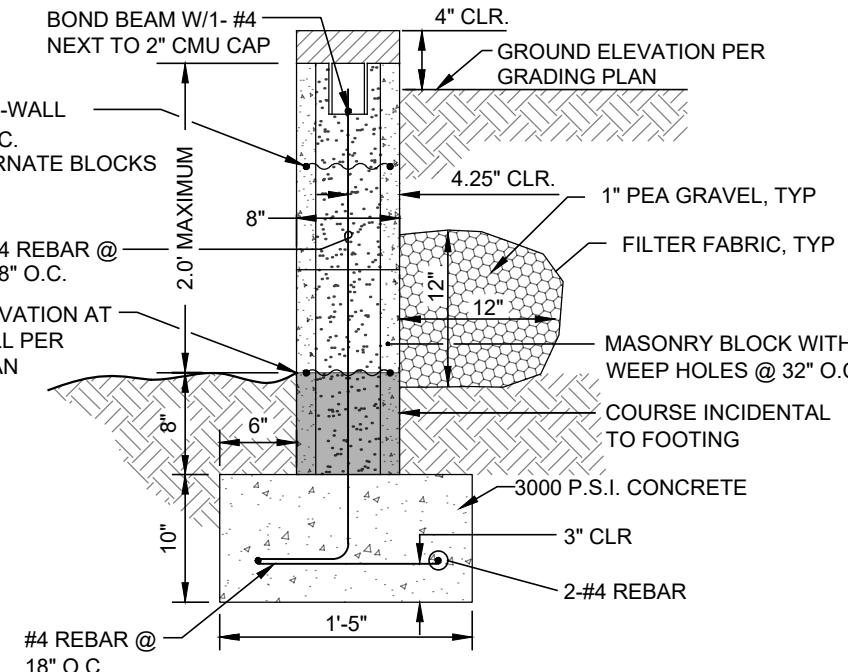
- THE WALL COURSES ON THIS PLAN INDICATE THE NUMBER OF EXPOSED BLOCK COURSES OF RETAINING WALL TO BE CONSTRUCTED. DETAILED ON SHEET 8, TO MATCH SURFACE ELEVATIONS ON THE GRADING PLAN. A MINIMUM OF ONE ADDITIONAL COURSE (8" HIGH) IS REQUIRED, BURIED BELOW THE LOWER SURFACE DESIGN ELEVATION. WHEN THE LOWER SLOPE IS SEVERE AND/OR THE FOOTER IS WIDE, AN ADDITIONAL BURIED COURSE MAY BE REQUIRED.
- RETAINING WALLS ARE SPECIFIED WHENEVER THE DIFFERENTIAL IN SURFACE ELEVATIONS EXCEED 1.50 FEET (2 EXPOSED CMU COURSES). ELEVATION DIFFERENCES OF LESS THAN 1.5 FT (2 CMU EXPOSED COURSES) SHALL BE INCLUDED IN THE COST OF THE PRIVACY WALL CONSTRUCTION UNLESS WALL IS PART OF PERIMETER WALL.
- PAY QUANTITIES INCLUDE THE COST OF EXCAVATION, GRADING, COMPACTION, FOOTERS, AND ALL COURSES (INCLUDING BURIED COURSES) OF CMU WALL WITH REINFORCING, GROUT, BOND BEAMS, PILASTERS, WATERPROOFING AND BACKFILL ALL PER SPECIFICATIONS.
- FINAL TYPE AND HEIGHTS OF CMU PERIMETER WALL WILL BE PROVIDED BY THE OWNER AT TIME OF BID PROPOSAL. INTERIOR PRIVACY WALLS WILL BE CONSTRUCTED BY HOME BUILDER.
- 2 TURNED BLOCKS ARE TO BE PROVIDED ALONG PERIMETER WALLS AT THE CORNERS WHERE LOTS DRAIN TO THE REAR.
- ALL PRIVACY AND RETAINING WALLS CONSTRUCTED AT INTERSECTIONS SHALL CONFORM TO AASHTO INTERSECTION SIGHT DISTANCE CRITERIA. SEE DETAIL B/8.
- BETWEEN PRIVATE PROPERTIES WALLS SHALL BE CONSTRUCTED WITH THE MIDDLE OF THE BLOCK ON THE PROPERTY LINE. ADJACENT TO PUBLIC RIGHT-OF-WAYS THE FACE OF THE WALL SHALL BE CONSTRUCTED ON THE RIGHT-OF-WAY LINE. NO PORTION OF THE BLOCK SHALL BE WITHIN THE PUBLIC RIGHT-OF-WAY.
- CONTRACTOR SHALL APPLY ANTI-GRAFFITI COATINGS TO ALL PERIMETER WALLS. CONTRACTOR SHALL USE PROSOCO DEFACER ERASER OR APPROVED EQUIVALENT.
- ALL INTERIOR SIDE YARD WALLS SHALL TERMINATE AT THE 10' PUE ALONG THE LOT FRONTRAGES.
- SEE PLAT FOR ALL BEARINGS, DISTANCES, AND CURVES DURING CONSTRUCTION OF WALLS.

AS BUILT INFORMATION		BENCH MARKS	
CONTRACTOR	DATE	WORK STAGED BY	DATE
FIELD TRAVERSE BY	DATE	INSPECTED BY	DATE
DRAWN BY	DATE	VERIFIED BY	DATE
MICRO-FILM INFORMATION	RECORDED BY	NO.	
A. EDDINGS, SCOTT	8/16/2023	REG. INSPECTOR	
12856		REG. ENGINEER	
NEW MEXICO STATE PLANE COORDINATES (CENTRAL ZONE NAD 1983)			
W= 1452.149,458			
E= 529,051,738			
ELEV= 530,674 (NAVD 1988)			
GROUND TO GRID FACTOR= 0.999664300			
MAPPING ANGLE= 0°12'47.80"			

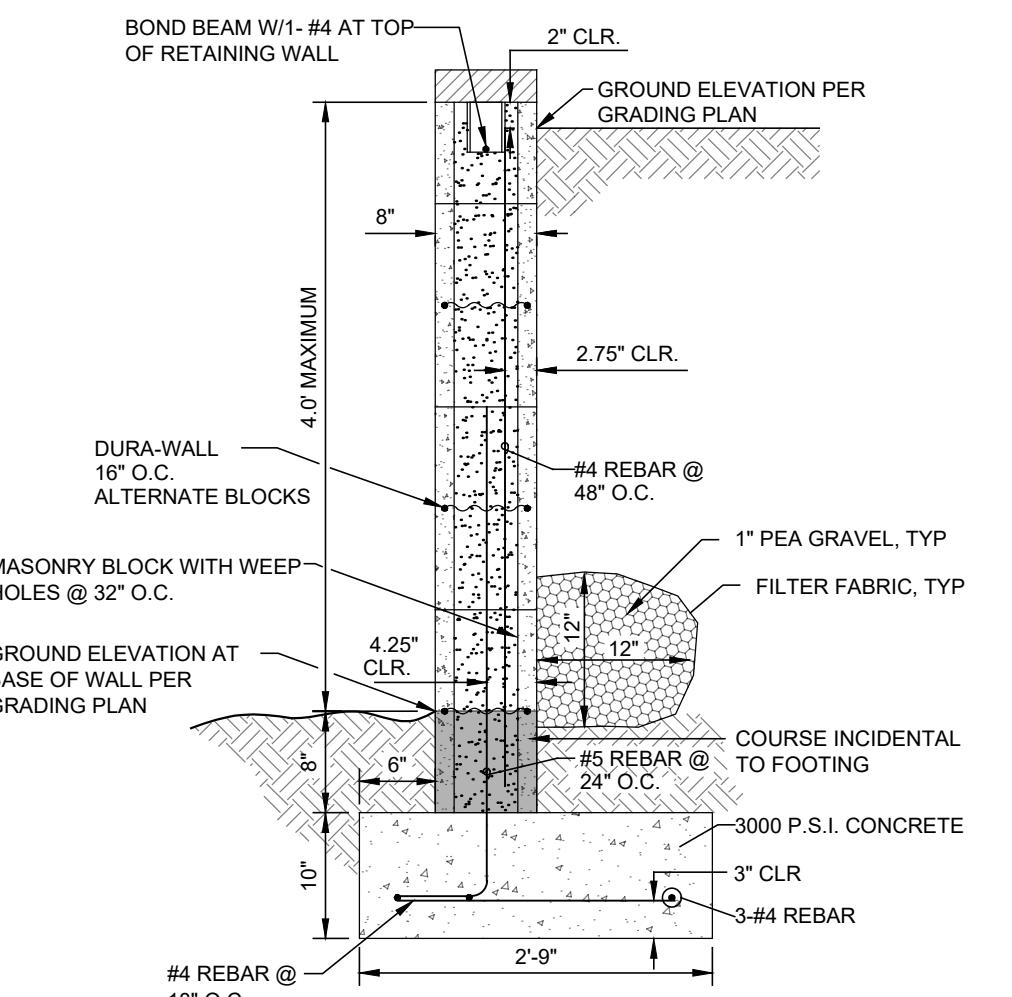
0 30' 60'
 SCALE: 1" = 30'



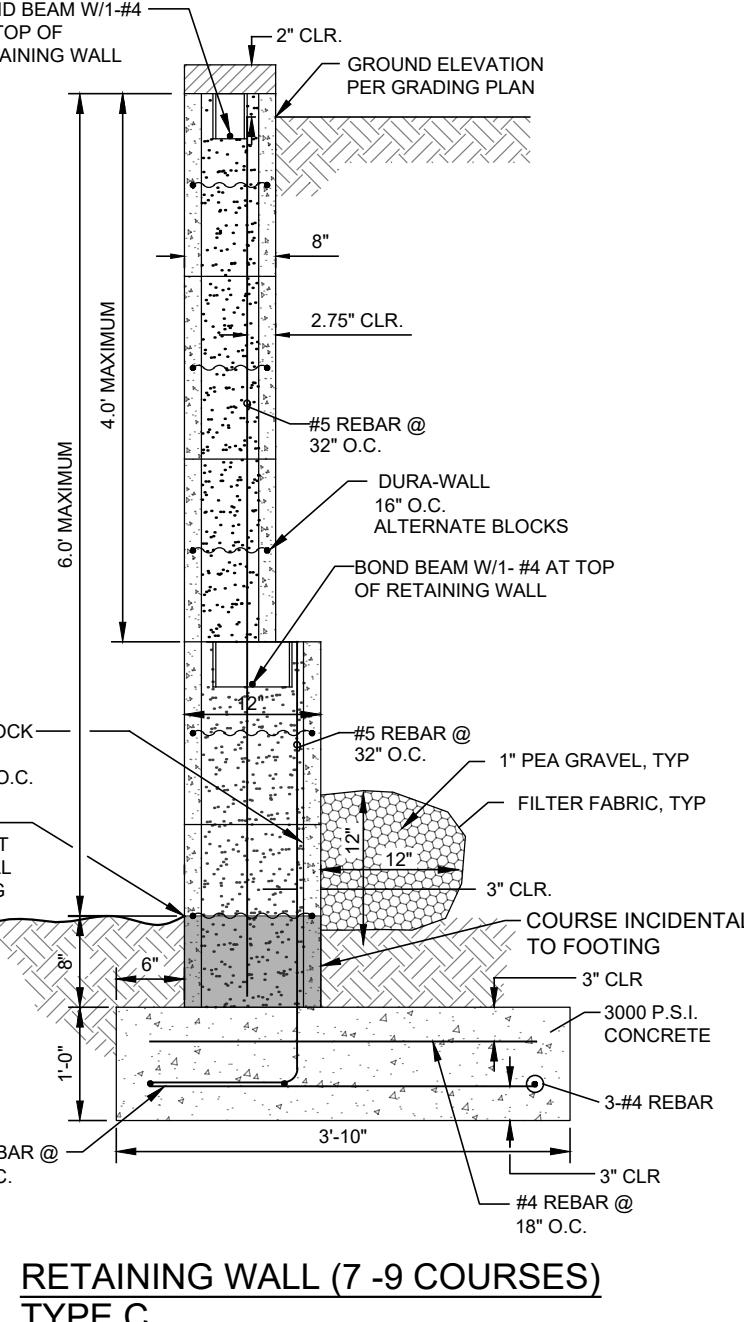
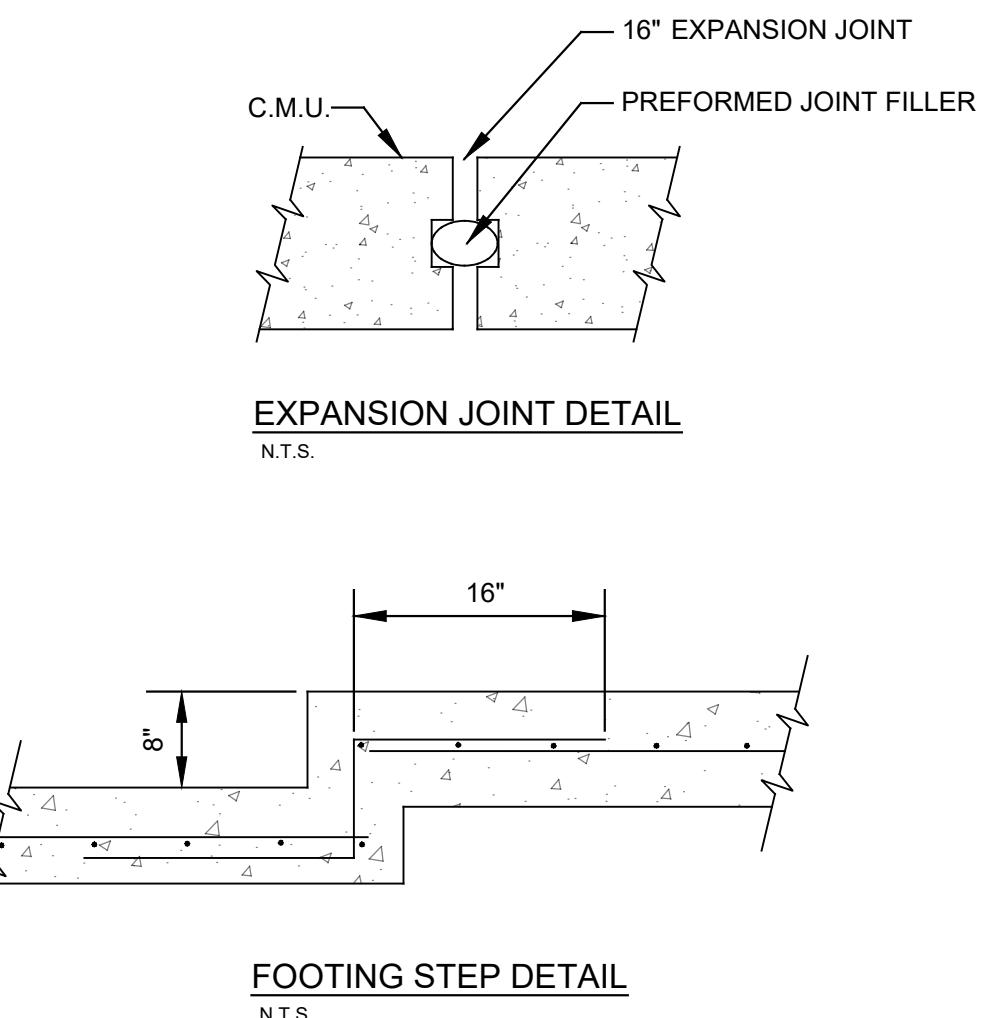
**RETAINING WALL W/ PRIVACY WALL (1 - 3 COURSES)
TYPE X**



**RETAINING WALL (1 - 3 COURSES)
TYPE A**



**RETAINING WALL (4 - 6 COURSES)
TYPE B**



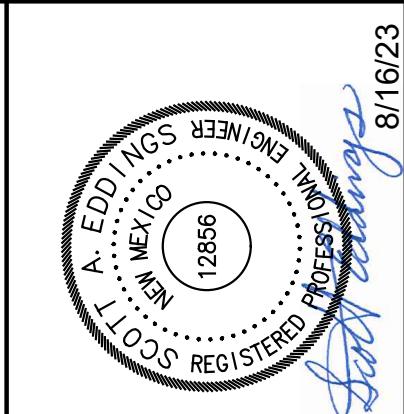
**RETAINING WALL (7 - 9 COURSES)
TYPE C**

MASONRY WALL CONSTRUCTION NOTES:

- RETAINING WALLS ARE REQUIRED WHENEVER THE DIFFERENCE IN SURFACE ELEVATIONS EXCEED 1.50 FEET (2 EXPOSED CMU COURSES).
- ALL MASONRY UNITS SHALL BE TYPE 1, GRADE N WITH A COMPRESSIVE STRENGTH OF 1900 PSI (NET AREA). FM=1500 PSI.
- MORTAR SHALL BE TYPE S.
- GROUT - F' = 2000 PSI
- CELLS CONTAINING REBAR SHALL BE GROUTED SOLID FROM THE BOTTOM TO THE TOP OF THE WALL IN ACCORDANCE WITH THE UNIFORM BUILDING CODE.
- PROVIDE PILASTERS AT 12' O.C. MAXIMUM, OR IF NO PILASTERS ARE USED, PROVIDE EXPANSION JOINTS AT 20' O.C.
- THE BACK OF WALLS BELOW GRADE SHALL BE WATERPROOFED PRIOR TO BACKFILLING.
- ALL CELLS BELOW GRADE SHALL BE GROUTED SOLID. LAP ALL REBAR 40 BAR DIAMETERS, UNLESS OTHERWISE NOTED.
- ALL HORIZONTAL REINFORCING IN BOND BEAMS SHALL BE CONTINUOUS AROUND CORNERS OR HAVE CORNER BARS OF THE SAME SIZE AND A LAP OF 48 BAR DIAMETERS OR 24' MINIMUM. VERTICAL STEEL SHALL CONTINUE THROUGH BOND BEAMS.
- PROVIDE STANDARD TRUSS TYPE JOINT REINFORCING AT 16' O.C. (ALTERNATE COURSES). USE PREFABRICATED CORNERS AND TEES AT ALL WALL CORNERS AND INTERSECTIONS RESPECTIVELY.
- MIN. CONCRETE COMPRESSIVE STRENGTH SHALL BE 3000 PSI.
- WEEPHOLES MAY BE PROVIDED BY ELIMINATING THE MORTAR BETWEEN EVERY OTHER JOINT OF THE SECOND COURSE OF BLOCK.
- SUBGRADE UNDER FOOTING SHALL BE COMPAKTED TO 95% ASTM D-1557, AND ALL BACKFILL SHALL BE COMPAKTED TO 90% ASTM D-1557 IN NON-PAVED AREAS, AND 95% ASTM D-1557 IN PAVED AREAS.
- REINFORCING STEEL SHALL CONFORM TO ASTM A-615, GRADE 60.
- ALL RETAINING WALLS REPRESENTED ON THIS SHEET HAVE BEEN DESIGNED TO ACCEPT A 5' TO 6' PRIVACY WALL.
- THE TOP COURSE OF RETAINING WALL SHOULD BE A 2" THICK SOLID MASONRY CAP UNLESS A PRIVACY WALL IS TO BE CONSTRUCTED ON TOP.
- PROVIDE ANTI-GRAFFITI SURFACE COATING ON THE CMU WALL WHEN FACING THE PUBLIC AREAS AND RIGHT-OF-WAY LOCATIONS.

GENERAL NOTE:

- WHERE C.M.U. PRIVACY WALLS OR RETAINING WALLS ARE INSTALLED, WEEP HOLES SHALL BE PROVIDED IN THE PORTION OF THE WALL BELOW GRADE, TO RELIEVE POTENTIAL HYDROSTATIC PRESSURE, BY ELIMINATING THE MORTAR FROM ALTERNATING VERTICAL JOINTS IN EVERY OTHER COURSE OF BLOCK BELOW GRADE. NO TURNED BLOCKS WILL BE ALLOWED.
- ADDITIONAL COURSE MAY BE BURIED AS A RESULT OF FIELD CONDITIONS.
- PAY ITEM IS FOR EXPOSED BLOCKS ONLY.



8/16/23
John [Signature]



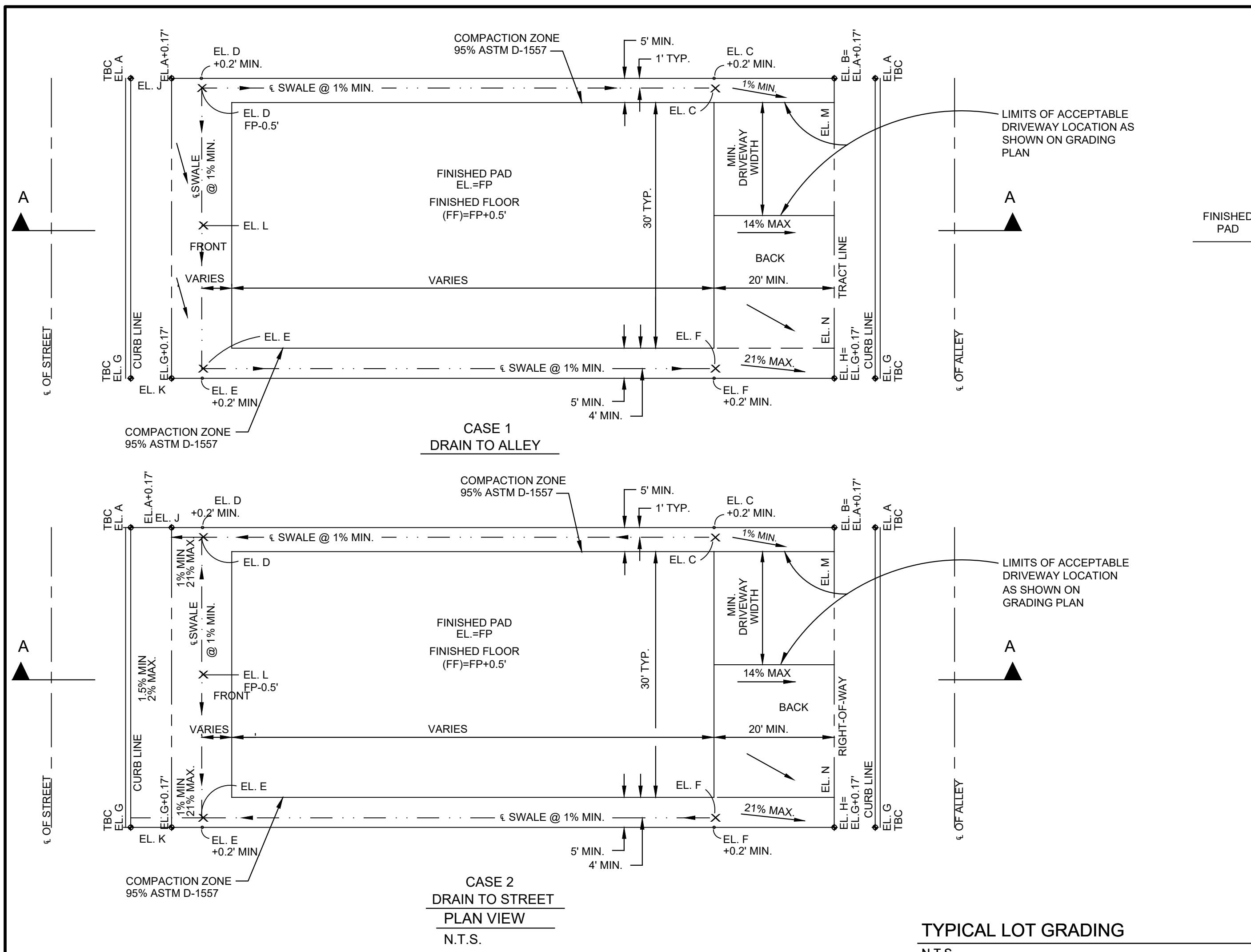
Designed by:
**HUITT
HZ ZOLLARS**

**MESA DEL SOL
MONTAGE 7**

TITLE:
RETAINING WALL DETAILS

Design Review Committee	City Engineer	Mo./Day/Yr.	Mo./Day/Yr.
		Last Update	
City Project No.	Zone Map No.	Sheet	of
775685	R-15-Z, S-15-Z	8	11

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TYPICAL LOT GRADING

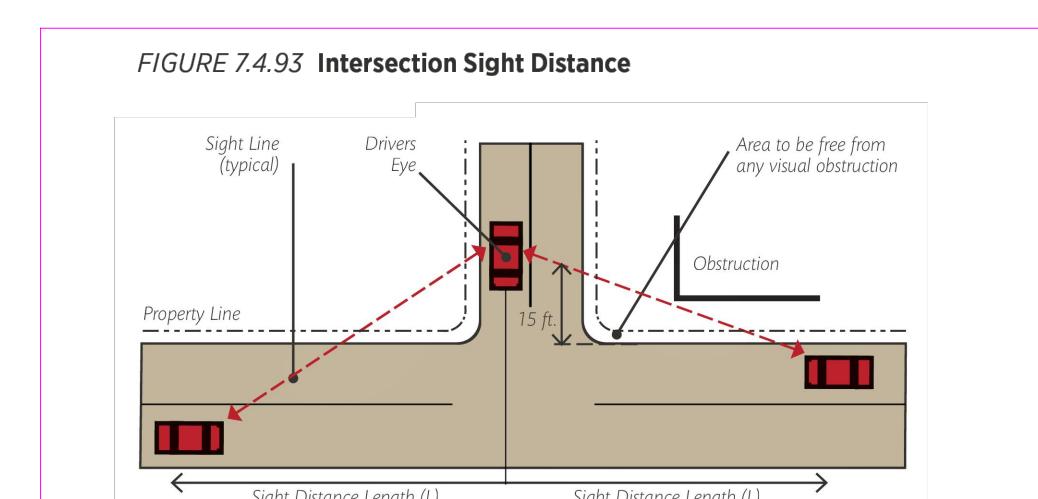


TABLE 7.4.65 Minimum Intersection Sight Distances

Speed Limit (MPH)	Minimum Intersection Sight Distance					
	2 Lane Undivided		3 Lane Undivided or 2 Lane Divided w/ 12 ft. Median		4 Lane Undiv	
	Left Turn	Right Turn	Left Turn	Right Turn	Left Turn	Right Turn
20	230 ft.	200 ft.	240 ft.	200 ft.	250 ft.	200 ft.
25	280 ft.	240 ft.	300 ft.	240 ft.	320 ft.	240 ft.
30	340 ft.	290 ft.	360 ft.	290 ft.	380 ft.	290 ft.
35	390 ft.	340 ft.	420 ft.	340 ft.	440 ft.	340 ft.
40	450 ft.	390 ft.	480 ft.	390 ft.	500 ft.	390 ft.
45	500 ft.	430 ft.	530 ft.	430 ft.	570 ft.	430 ft.
50	560 ft.	480 ft.	590 ft.	480 ft.	630 ft.	480 ft.

7-4(l)(5)(iv) Mini Clear Sight Triangle

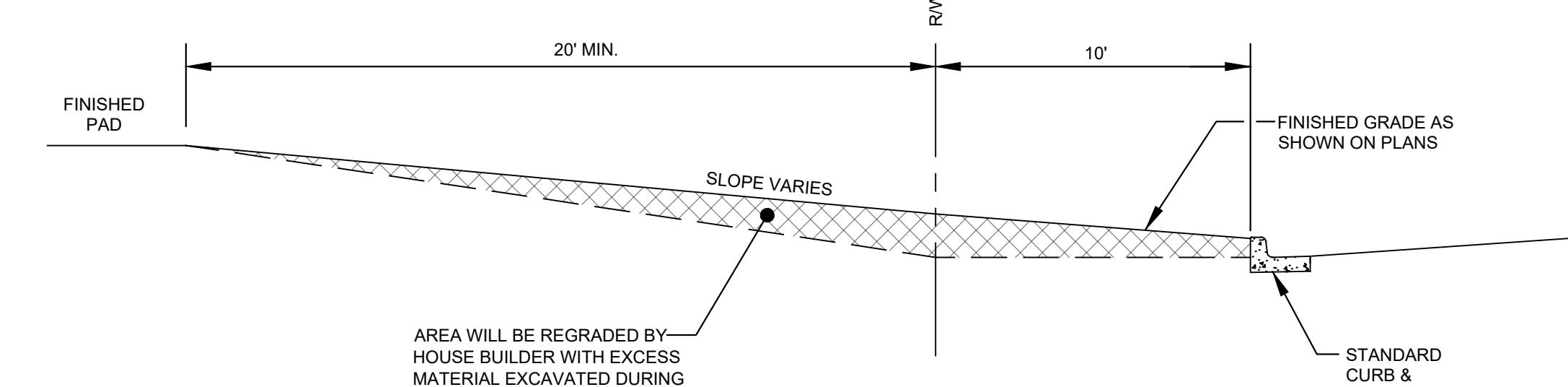
Driveways need to maintain the mini clear sight triangle as shown in [FIG 7.4.94](#). This triangle starts at the sidewalk and measures 11 feet on a side.

INTERSECTION CLEAR SIGHT TRIANGLE DESIGN

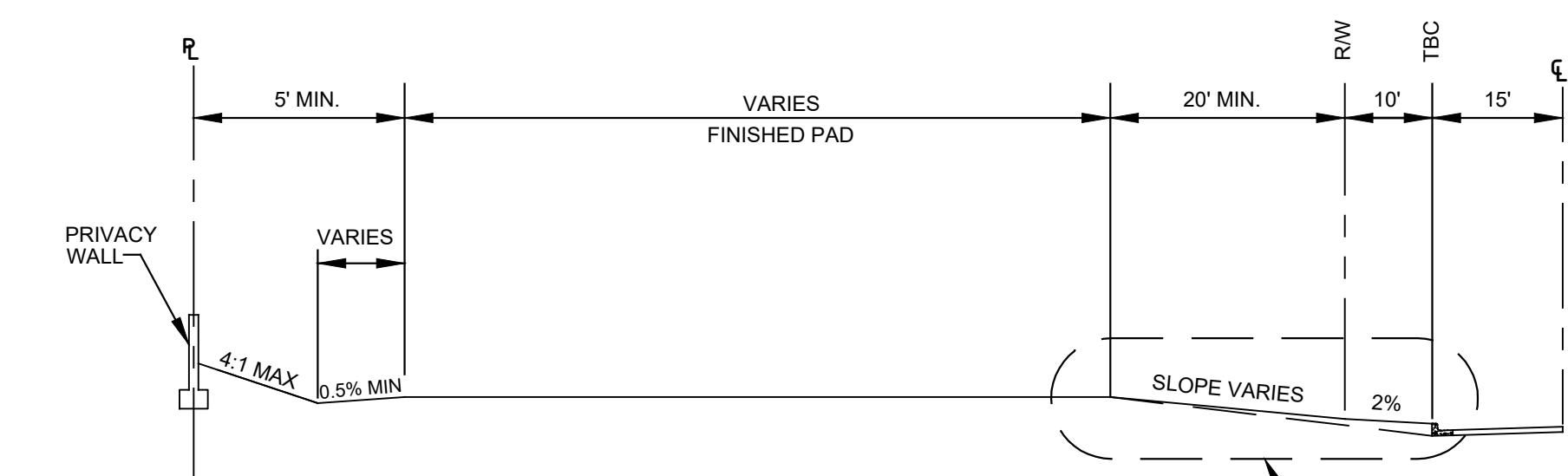
NOT

1. ALL PROPOSED IMPROVEMENTS WITHIN THE CLEAR SIGHT TRIANGLE SHALL PROVIDE AN UNOBSTRUCTED VISION AT STREET INTERSECTIONS BETWEEN 2.5 FT AND 7 FT ABOVE THE FLOW LINE.
 2. IF A PRIVACY WALL IS TO BE CONSTRUCTED AROUND RIGHT- OF-WAY RETURN, THE WALL SHALL BE CONSTRUCTED ALONG THE CLEAR SIGHT TRIANGLE IF RETURN IS LOCATED WITHIN CLEAR SIGHT TRIANGLE.
 3. SIGHT TRIANGLE DISTANCES SHOULD BE MEASURED ALONG CENTERLINE OF ROAD CONSTRUCTION, TYPICALLY CENTERLINE OF RIGHT-OF-WAY.
 4. STOPPING SIGHT DISTANCES ARE BASED ON DESIGN CRITERIA FROM THE CITY OF RIO RANCHO DEVELOPMENT PROCESS MANUAL.
 5. SIGHT TRIANGLES ARE INDICATED BASED ON DIMENSIONS PROVIDED IN DETAIL OR MODIFIED AS INDICATED ON THE PLANS

NOTE: THIS IS THE GRADING CONCEPT FOR THIS DEVELOPMENT. FOR SPECIFIC INFORMATION PLEASE SEE THE CONSTRUCTION PLANS.

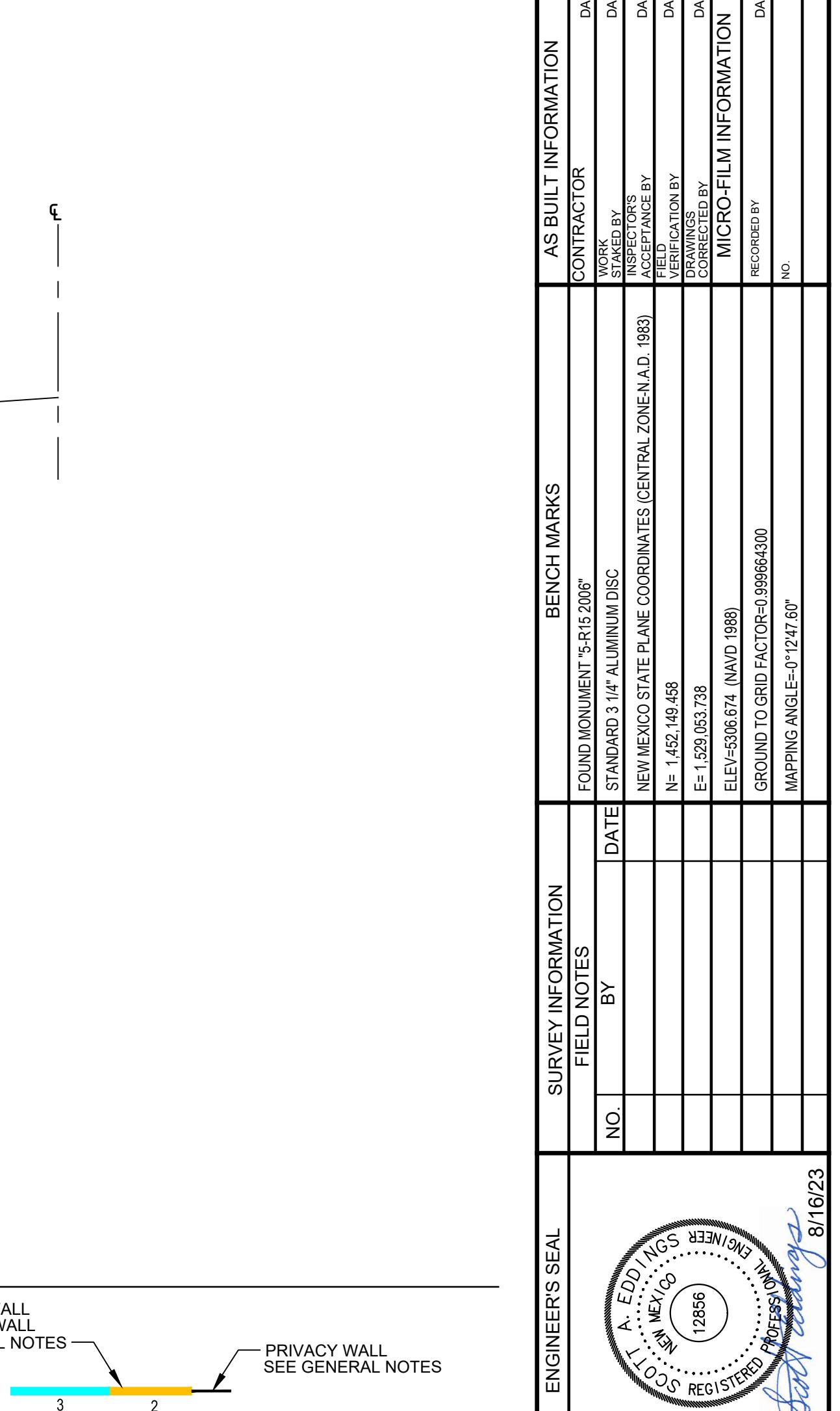


INTERIM GRADING DETAIL



SECTION A-A

LEGEND



**HUITT
ZOLLARS**

MESA DEL SOL

MONTAGE 7

GRADING DETAILS

M

City Engineer

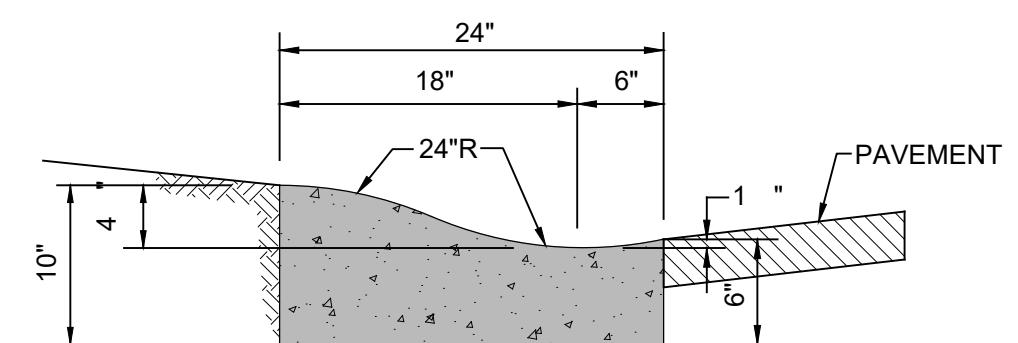
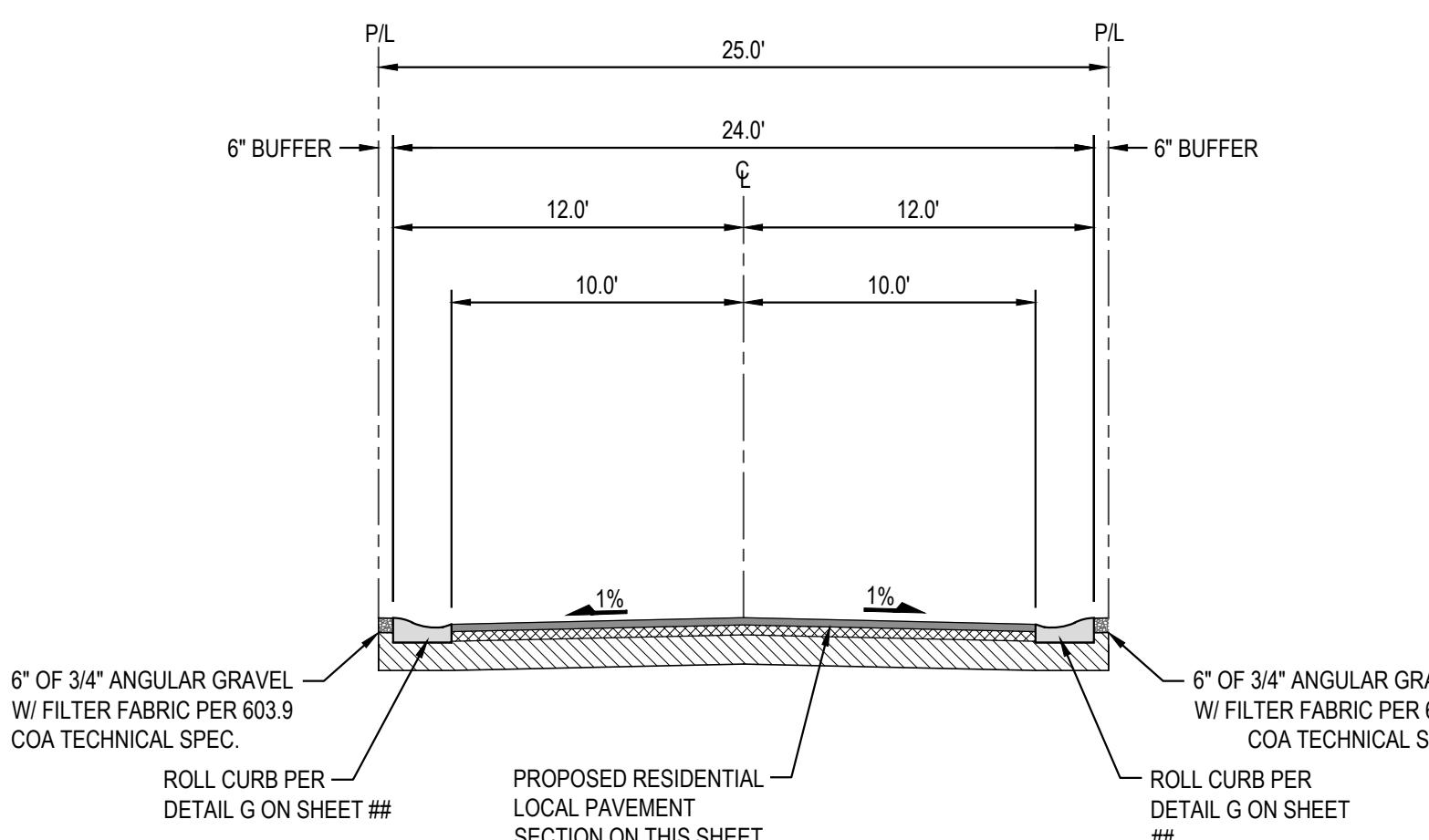
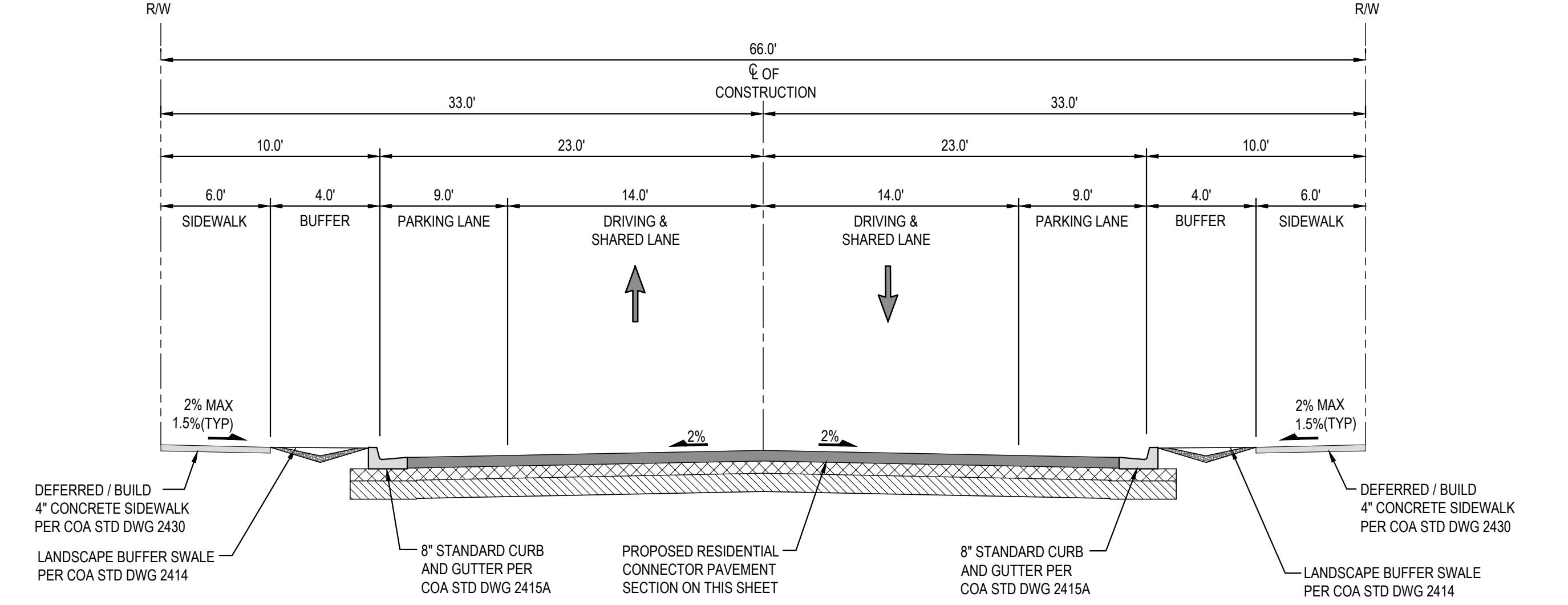
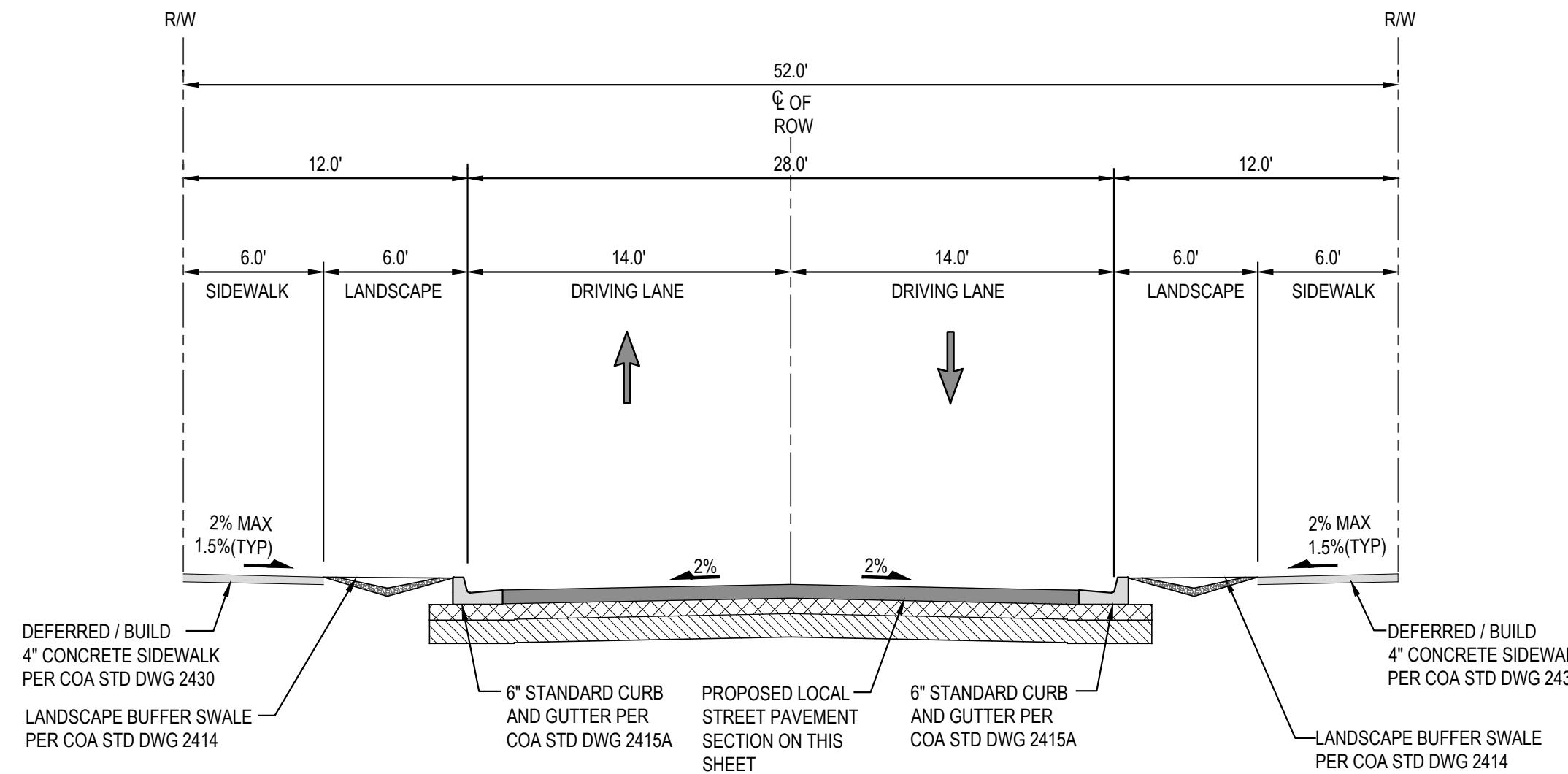
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Last

Zone Map No. _____ Sh

August 16, 2023



CONSTRUCT TRANSVERSE JOINTS AS FOLLOWS:
 - TOOLED CONTRACTION JOINTS AT 5' INTERVALS
 - 1/2" PRE-MOLDED BITUMINOUS EXPANSION
 6. DIMENSIONS AT ROUNDED CORNERS MEASURED TO INTERSECTION OF STRAIGHT LINES.
 7. 8" CURB AND GUTTER AND CUTOFF WALL IS NOT FOR USE IN NEW RESIDENTIAL DEVELOPMENT. USE MUST BE PREAPPROVED BY THE CITY.
 8. ASPHALT PLACEMENT SHALL BE EVEN WITH THE LIP OF GUTTER, BUT IN NO CASE SHALL IT EXCEED 1/4". ASPHALT PLACED LOWER THAN LIP OF GUTTER SHALL BE CORRECTED AT CONTRACTOR'S EXPENSE.



**HUITT
HZ ZOLLARS**

**MESA DEL SOL
MONTAGE 7**

TITLE:
ROADWAY TYPICAL SECTIONS

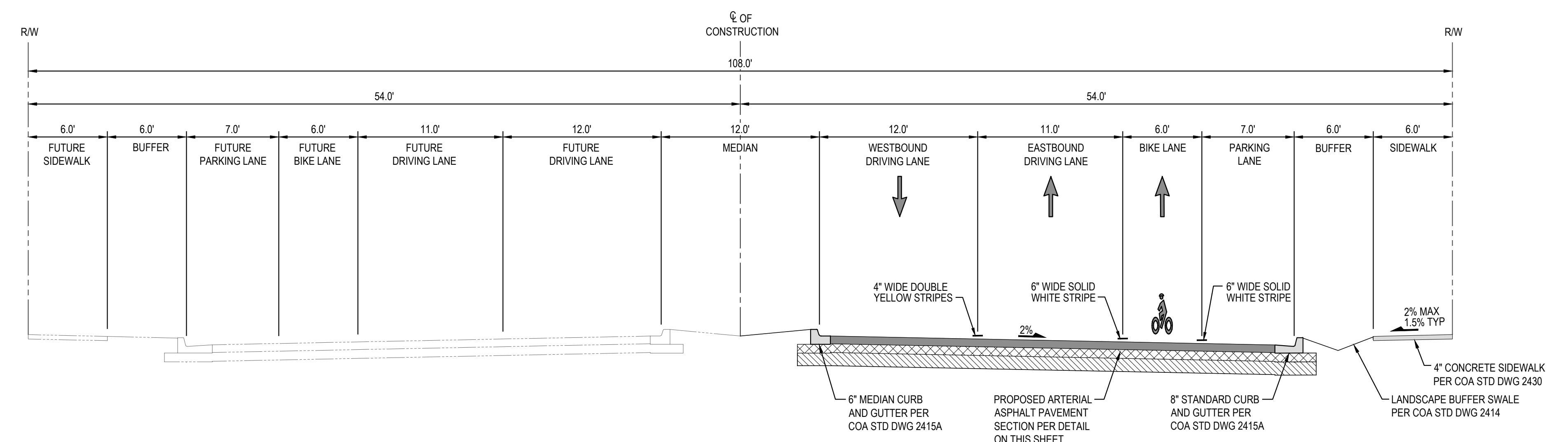
Design Review Committee	City Engineer	Mo./Day/Yr.	Mo./Day/Yr.
		Last Update	

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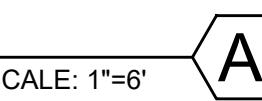
8/16/23



BOBBY FOSTER BLVD

**STA. 21+44.90 TO STA. 30+00
LOOKING EAST**

SC



Plotted: 12/6/2023 5:22:45 AM, By:Eddings, Scott
H:\proj\R315530.01 - Montage Unit 7 - Mesa del Sol\10 CADD & BIM\10.1 AutoCAD\SET\Grading\Shrt 10
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