PRELIMINARY GRADING PLAN

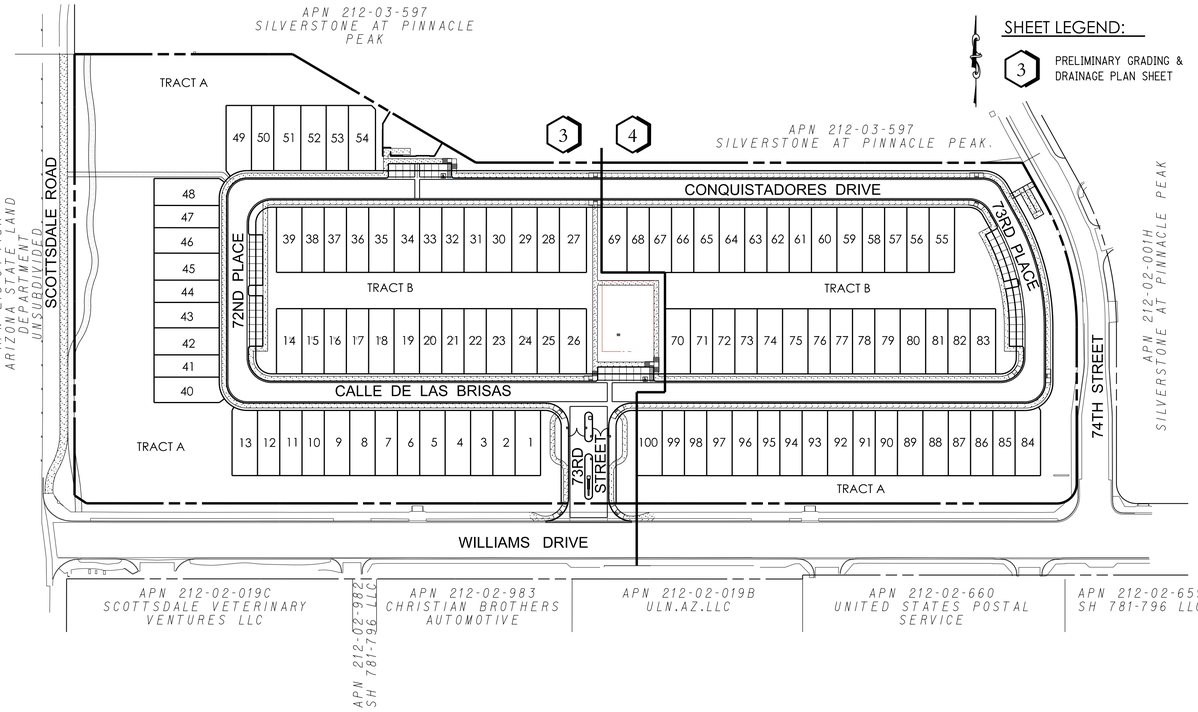
ARIA AT SILVERSTONE

SCOTTSDALE, ARIZONA 85255

LOCATED IN A PORTION SECTION 14, TOWNSHIP 4 NORTH, RANGE 4 EAST
OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA

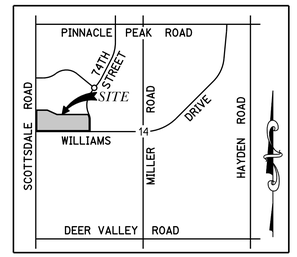
3 ENGINEERING GENERAL NOTES:

1. MARICOPA ASSOCIATION OF GOVERNMENTS (M.A.G.) UNIFORM STANDARD SPECIFICATIONS AND DETAILS FOR PUBLIC WORKS CONSTRUCTION (LATEST EDITION) INCLUDING LATEST REVISION AND CURRENT SUPPLEMENTALS THEREOF PER THE LOCAL TOWN OR CITY) ARE INCORPORATED INTO THIS PLAN IN THEIR ENTIRETY.
2. ALL WORK REQUIRED TO COMPLETE THE CONSTRUCTION COVERED BY THIS PLAN SHALL BE IN ACCORDANCE WITH THE M.A.G. STANDARD SPECIFICATIONS AND DETAILS AND CURRENT SUPPLEMENTS THEREOF PER THE LOCAL CITY OR TOWN UNLESS SPECIFIED OTHERWISE IN THESE PLANS OR ELSEWHERE IN THE CONTRACT DOCUMENTS. CONTRACTORS SHALL FAMILIARIZE THEMSELVES WITH ALL REQUIRED STANDARD SPECIFICATIONS, DETAILS AND SUPPLEMENTS PRIOR TO BIDDING THE WORK FOR THE CONSTRUCTION COVERED BY THIS PLAN.
3. ANY QUESTION RAISED RELATIVE TO THE ACCURACY OF IMPROVEMENT INSTALLATION SHALL NOT BE RAISED SUBSEQUENT TO COMPLETION OF THE WORK UNLESS ALL SURVEY STAKES ARE MAINTAINED INTACT. SHOULD SUCH STAKES NOT BE PRESENT AND VERIFIED AS TO THEIR ORIGIN, NO CLAIM FOR ADDITIONAL COMPENSATION FOR CORRECTION SHALL BE PRESENTED TO ANY PARTY AND SUCH WORK SHALL BE CORRECTED BY THE CONTRACTOR AT HIS EXPENSE.
4. CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOBSITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, AND THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, ACCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.
5. NEITHER THE OWNER, NOR THE ENGINEER OF WORK WILL ENFORCE SAFETY MEASURES OR REGULATIONS. THE CONTRACTOR SHALL DESIGN, CONSTRUCT, AND MAINTAIN ALL SAFETY DEVICES, INCLUDING SHORING, AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE, AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS AND REGULATIONS.
6. THE CONTRACTOR SHALL FOLLOW THE GUIDELINES AND REGULATIONS AS SET FORTH BY OSHA.
7. THE CONTRACTOR SHALL BE RESPONSIBLE TO INSURE THAT ALL GRADING AND STORM DRAINS ARE BUILT IN ACCORDANCE WITH THESE PLANS. IF THERE ARE ANY QUESTIONS REGARDING THESE PLANS OR FIELD STAKES, THE CONTRACTOR SHALL REQUEST AN INTERPRETATION BEFORE DOING ANY WORK BY CALLING THE ENGINEER OF WORK AT 602-334-4387. THE CONTRACTOR SHALL ALSO TAKE THE NECESSARY STEPS TO PROTECT THE PROJECT AND ADJACENT PROPERTY FROM ANY EROSION AND SILTATION THAT RESULT FROM HIS OPERATIONS BY APPROPRIATE MEANS (SAND BAGS, HAY BALES, TEMPORARY DESILTING BASINS, DIKES, SHORING, ETC.) UNTIL SUCH TIME THAT THE PROJECT IS COMPLETED AND ACCEPTED FOR MAINTENCE BY WHATEVER OWNER, AGENCY OR ASSOCIATION IS TO BE ULTIMATELY RESPONSIBLE.
8. THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITIES OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED FROM A SEARCH OF THE AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE THERE ARE NO OTHER EXISTING UTILITIES EXCEPT AS SHOWN ON THESE PLANS. THE CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN HEREON AND ANY OTHER NOT OF RECORD OR NOT SHOWN ON THESE PLANS. ALL DAMAGES THERETO CAUSED BY THE CONTRACTOR SHALL BE REPAIRED TO THE APPROPRIATE SPECIFICATIONS AND AT THE EXPENSE OF THE CONTRACTOR.
9. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL UNDERGROUND PIPELINES. TELEPHONE AND ELECTRIC CONDUITS AND STRUCTURES IN ADVANCE OF ANY CONSTRUCTION AND TO OBSERVE ALL POSSIBLE PRECAUTIONS TO AVOID ANY DAMAGE TO SUCH. THE ENGINEER AND/OR OWNER WILL NOT GUARANTEE ANY LOCATIONS AS SHOWN ON THESE PLANS OR THOSE OMITTED FROM SAME.
10. CONTRACTOR SHALL MAKE EXPLORATORY EXCAVATIONS AND LOCATE EXISTING UNDERGROUND FACILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS IF REVISIONS ARE NECESSARY BECAUSE OF ACTUAL LOCATIONS OF EXISTING FACILITIES.
11. BEFORE EXCAVATING FOR THIS CONTRACT, THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES WITH THE APPROPRIATE UTILITY COMPANY.
12. LOCATION AND ELEVATION OF IMPROVEMENTS TO BE MET BY WORK TO BE DONE SHALL BE CONFIRMED BY FIELD MEASUREMENTS PRIOR TO CONSTRUCTION OF NEW WORK.
13. CONTRACTOR SHALL TAKE THE NECESSARY PRECAUTIONS REQUIRED TO PROTECT ADJACENT PROPERTIES DURING THE GRADING OPERATIONS.
14. WHERE TRENCHES ARE WITHIN EASEMENTS OR WITHIN 10' OF ANY BUILDING, A SOILS REPORT SHALL BE SUBMITTED TO THE ENGINEER OF WORK BY A QUALIFIED SOILS ENGINEER WHICH INDICATES THAT TRENCH BACKFILL WAS COMPACTED UNDER THE OBSERVATION OF THE SOILS ENGINEER AND IN ACCORDANCE WITH THE ABOVE-NAMED SPECIFICATIONS.
15. ALL FRAMES, COVERS, VALVE BOXES AND MANHOLES SHALL BE ADJUSTED TO FINISHED GRADE UPON COMPLETION OF PAVING OR RELATED CONSTRUCTION.
16. THE SOILS (GEOTECHNICAL) REPORT FOR THIS PROJECT, INCLUDING ALL ADDENDUMS,SHALL BE CONSIDERED A PART OF THESE PLANS. ALL PAVING, GRADING, EXCAVATION, TRENCHING, PIPE BEDDING, CUT FILL AND BACKFILL SHALL BE DONE IN ACCORDANCE WITH THE RECOMMENDATIONS AND SPECIFICATIONS CONTAINED IN SAID REPORT.
17. ALL GRADING SHALL BE DONE UNDER THE OBSERVATION OF A QUALIFIED SOILS ENGINEER, ALL AREAS TO BE FILLED SHALL BE PREPARED TO BE FILLED AND ALL FILL SHALL BE PLACED IN ACCORDANCE WITH THE RECOMMENDED GRADING SPECIFICATIONS AND SPECIAL PROVISIONS ATTACHED TO THE SOILS INVESTIGATION FOR THIS SUBDIVISION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PLACE, SPREAD, WATER AND COMPACT THE FILL IN STRICT ACCORDANCE WITH THESE SPECIFICATIONS.
18. OBSERVATIONS AND COMPACTION TESTS SHALL BE MADE BY THE SOILS ENGINEER DURING THE FILLING AND COMPACTING OPERATIONS SO THAT HE CAN STATE HIS OPINION THAT THE FILL WAS CONSTRUCTED IN ACCORDANCE WITH THE EARTHWORK SPECIFICATIONS.
19. IN THE CASE OF CONFLICTS, THE REQUIREMENTS OF THE EARTHWORK SPECIFICATIONS PREPARED FOR THE PROJECT BY THE SOILS ENGINEER SHALL GOVERN THE REQUIREMENTS OF THIS PLAN AND THESE NOTES. PLANS SHALL BE REVISED ACCORDINGLY.
20. CUT AND FILL SLOPES SHALL BE TRIMMED TO THE FINISH GRADE TO PRODUCE A SMOOTH SURFACE AND UNIFORM CROSS SECTION. THE SLOPE OF THE EXCAVATIONS OR EMBANKMENTS SHALL BE SHAPED AND TRIMMED AS SHOWN ON THE PLANS AND LEFT IN A NEAT AND ORDERLY CONDITION. ALL STONES, ROOTS, OR OTHER WASTE MATTER EXPOSED ON EXCAVATION OR EMBANKMENT SLOPES SHALL BE REMOVED AND DISPOSED OF OFF SITE IN A LEGAL MANNER BY THE CONTRACTOR.
21. GRADING CONTRACTOR IS TO COORDINATE THE GRADING OPERATION WITH UTILITY COMPANIES PERTAINING TO POLE REMOVAL, ADJUSTING WATER BLOWOFFS AND WATER FACILITIES TO GRADE OR ANY OTHER UTILITY ADJUSTMENTS.
22. ANY EXISTING RETENTION AND DRAINAGE FACILITIES ON THIS SITE WILL NOT BE REMOVED FROM SERVICE UNTIL THE PERMANENT RETENTION AND DRAINAGE FACILITIES ARE FUNCTIONAL.
23. SCARIFY RETENTION AREAS 1 FOOT MINIMUM DEPTH PRIOR TO PLACEMENT OF LANDSCAPING ROCK OR TURF. PROVIDE 75-85 PERCENT COMPACTION WITHIN SCARIFIED ZONE AT COMPLETION OF GRADING.
24. FINISH GRADES IN RETENTION AND LANDSCAPE AREAS SHOWN ON THIS PLAN ARE FINAL GRADES AT COMPLETION OF LANDSCAPING.
25. CONTRACTOR SHALL NOTIFY THE ENGINEER REGARDING ANY DISCREPANCIES IN A.D.A. REQUIREMENTS BETWEEN THE PLANS AND THE FIELD INSPECTOR OR OTHER AGENCY PRIOR TO IMPLEMENTATION OF ANY CHANGES TO THE APPROVED PLANS.



SHEET LEGEND:

3 — PRELIMINARY GRADING & DRAINAGE PLAN SHEET



VICINITY MAP
N.T.S.

OWNER/DEVELOPER:

K HOVNANIAN GREAT WESTERN HOMES, LLC
8800 E. RAINTREE DRIVE, SUITE 300
SCOTTSDALE, AZ 85260
CONTACT: CHUCK CHISHOLM
PHONE: (480) 824-4175
EMAIL: CCHISHOLM@KHOV.COM

ENGINEER:

3 ENGINEERING
6370 E. THOMAS ROAD, SUITE 200
SCOTTSDALE, ARIZONA 85251
CONTACT: MATTHEW J. MANCINI, P.E.
PHONE: (602) 334-4387
EMAIL: MATT@3ENGINEERING.COM

SURVEYOR:

3 ENGINEERING
6370 E. THOMAS ROAD, SUITE 200
SCOTTSDALE, AZ 85251
CONTACT: JIM LOFTIS
PHONE: (602) 334-4387
EMAIL: JIM@3ENGINEERING.COM

PLANNER:

RVI
4900 N. SCOTTSDALE ROAD, SUITE 1200
SCOTTSDALE, ARIZONA 85251
CONTACT: ALEX STEDMAN
PHONE: (480) 586-2350
EMAIL: ASTEDMAN@RVIPLANNING.COM

PROJECT DESCRIPTION:

THIS PROJECT IS PROPOSED AS AN ATTACHED SINGLE FAMILY RESIDENTIAL DEVELOPMENT WITH A DENSITY OF 7.40 LOTS/AC. STANDARD LOT SIZES VARY WITH A MINIMUM LOT DIMENSION OF 24' x 82', AND WILL BE BUILT AS 3, 4, 5-PLEXES. THE PROJECT PROPOSES A TOTAL OF 100 LOTS WITH PRIVATE STREETS, AND PUBLIC WATER, AND SEWER.

BENCHMARK:

GDACS POINT 43083-1
FOUND BRASS CAP IN HANDHOLE AT INTERSECTION OF PINNACLE PEAK ROAD AND MILLER ROAD.

ELEV.=1878.32

BASIS OF BEARING:

THE BASIS OF BEARING IS THE MONUMENT LINE OF SCOTTSDALE ROAD, BETWEEN PINNACLE PEAK ROAD AND WILLIAMS ROAD, USING A BEARING OF NORTH 00 DEGREES 00 MINUTES 24 SECONDS EAST PER MAP OF DEDICATION AND PARCEL MAP FOR SILVERSTONE AT PINNACLE PEAK RECORDED IN BOOK 883 OF MAPS, PAGE 17 M.C.R.

BENCHMARK CERTIFICATION:

I HEREBY CERTIFY THAT ALL ELEVATIONS REPRESENTED ON THIS PLAN ARE BASED ON NAVD 1988 AND MEET FEMA BENCHMARK MAINTENANCE CRITERIA.

SITE DATA:

APN:	212-03-596
SITE AREA:	13.51 ACRES (GROSS)
MIN. LOT SIZE:	2,262 S.F.
RESIDENT PARKING:	200 (115x2-CAR GARAGES)
GUEST PARKING:	44
EXISTING ZONING:	CO-PCD (PC)
PROPOSED ZONING:	R5-PCD
NO. OF LOTS:	100 LOTS

DISTURBANCE AREA:

DISTURBED AREA: APPROXIMATELY 13.0 ACRES

NOTE: THI PROJECT WILL REQUIRE AN NOI AND SWPPP, AS REQUIRED BY ADEQ.

NOTE: ELEVATION CERTIFICATES WILL BE REQUIRED FOR LOTS/STRUCTURES WITHIN THE FLOODPLAIN.

UTILITIES:

TELEPHONE	- CENTURY LINK/ COX COMMUNICATIONS
ELECTRIC	- SRP
GAS	- SOUTHWEST GAS COMPANY
CABLE TV	- COX COMMUNICATIONS
SEWER	- CITY OF SCOTTSDALE
WATER	- CITY OF SCOTTSDALE
POLICE/FIRE	- CITY OF SCOTTSDALE
REFUSE	- CITY OF SCOTTSDALE
SANITATION	- CITY OF SCOTTSDALE

FLOOD INSURANCE RATE MAP (FIRM) INFORMATION:

COMMUNITY NUMBER	PANEL NUMBER	PANEL DATE	SUFFIX	FIRM DATE	FIRM ZONE	BASE FLOOD ELEVATION
045012	1310	OCTOBER 16, 2013	L	11/04/2015	X, A01, A02	A01 - 1FT ABOVE NATURAL GRADE A02 - 2FT ABOVE NATURAL GRADE

LEGAL DESCRIPTION:

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE COUNTY OF MARICOPA, STATE OF ARIZONA, AND IS DESCRIBED AS FOLLOWS:

PARCEL "D", MAP OF DEDICATION AND PARCEL MAP FOR SILVERSTONE AT PINNACLE PEAK, ACCORDING TO BOOK 883 OF MAPS, PAGE 17, RECORDS OF MARICOPA COUNTY, ARIZONA.

APN: 212-03-596

INDEX OF SHEETS

Contact Arizona 811 at least two full working days before you begin excavation
Arizona811
Call 811 or click Arizona811.com

SNOW3A38

ARIA AT SILVERSTONE
SCOTTSDALE, ARIZONA 85255
COVER SHEET

Registered Professional Engineer (Civil)
CERTIFICATE NO.
45652
MATTHEW J. MANCINI
Date Signed
8/26/24
ARIZONA, U.S.A.

EXPIRES: 12/31/2024

3engineering
surveying
civil engineering
planning

CIVIL TECH: EL BENTON
DESIGNER: M. MANCINI
ENGINEER: M. MANCINI

3 ENGINEERING, LLC
6370 E. THOMAS ROAD
SUITE # 200
SCOTTSDALE, ARIZONA 85251
PHONE: (602) 334-4387
FAX: (602) 490-3230
WWW.3ENGINEERING.COM

DATE: 8/26/24

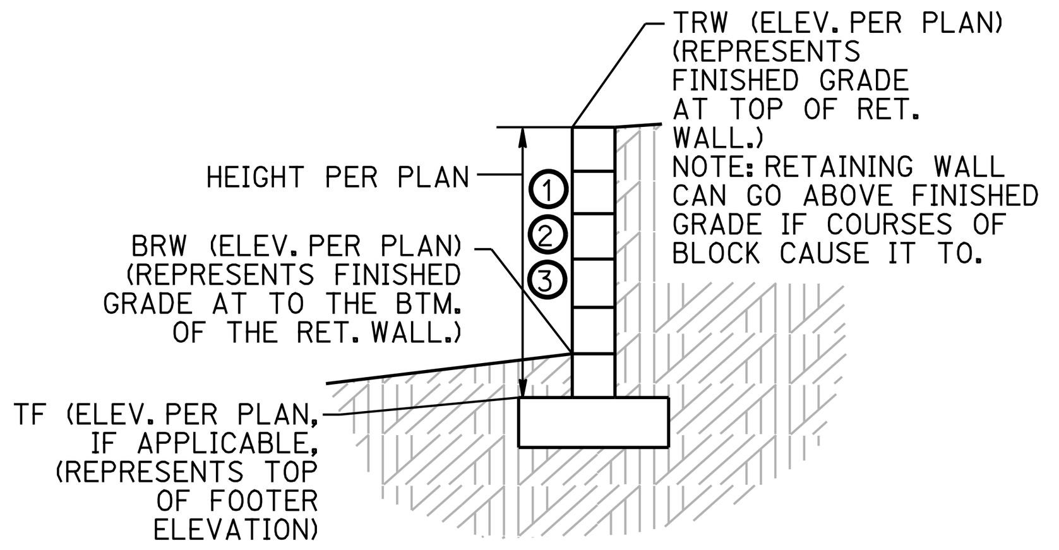
PROJECT NO.
5315

SHEET NO.
PGD01
1 of 5

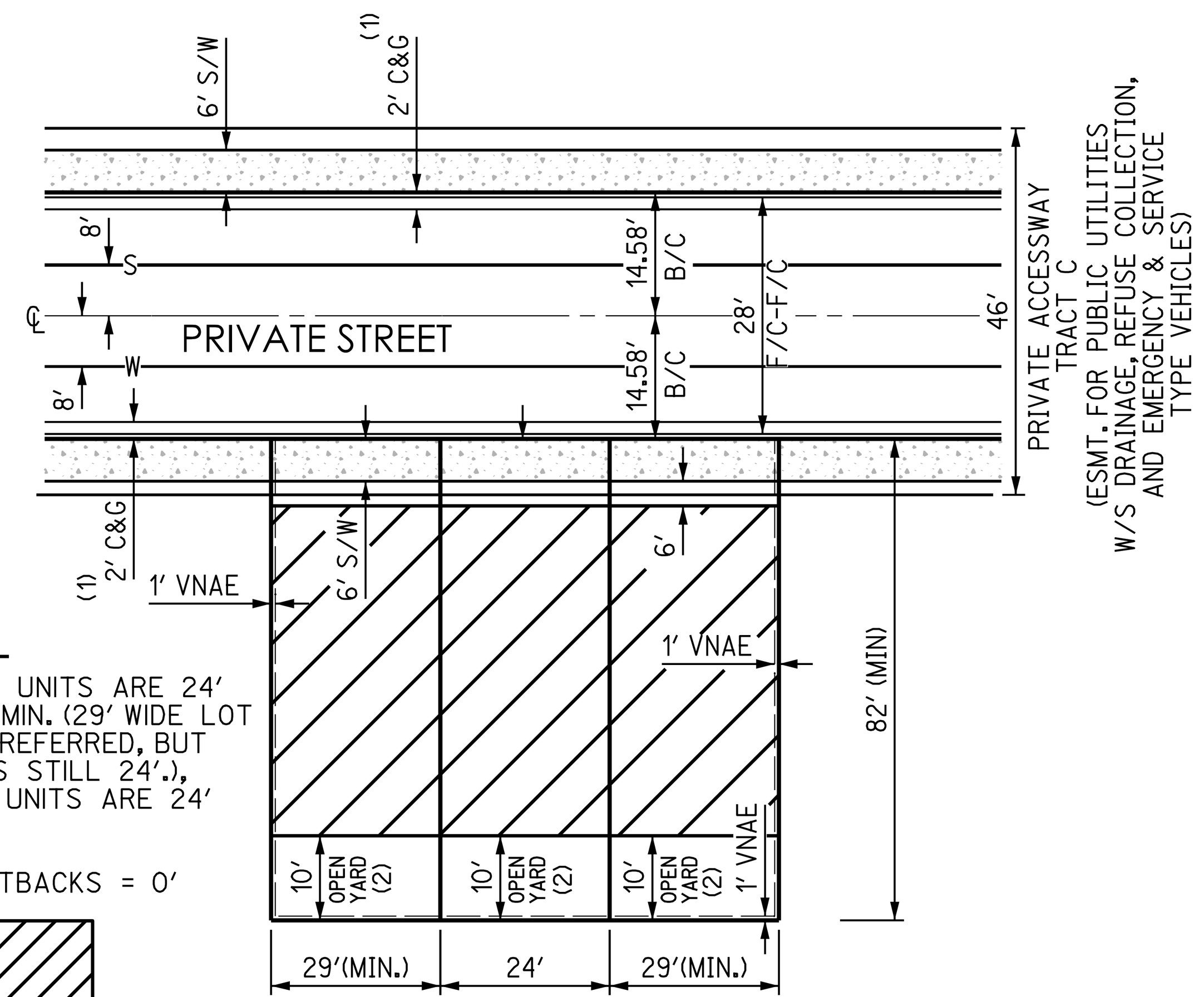
15-ZN-2005#4

PERIMETER, INTERIOR, AND RETAINING WALL NOTES

1. MASONRY WALL TO BE GROUTED SOLID & ALL VERTICAL & HORIZONTAL JOINTS TO BE MORTARED & WATERPROOFED FROM FOOTING TO AN ELEVATION EQUAL TO THE PAD ELEVATION ON THE HIGH SIDE (MINIMUM).
2. ALL FILL & COMPACTION PER M.A.G. STANDARD SPECIFICATION 211.
3. MAXIMUM GRADE DIFFERENTIAL TAKEN WITHIN THE SCREEN WALL IS 1.0' (INTERIOR WALL). STRUCTURAL CALCULATIONS & FINAL RETAINING WALL DESIGN PROVIDED BY STRUCTURAL ENGINEER.



RETAINING WALL IDENTIFICATION
N.T.S.

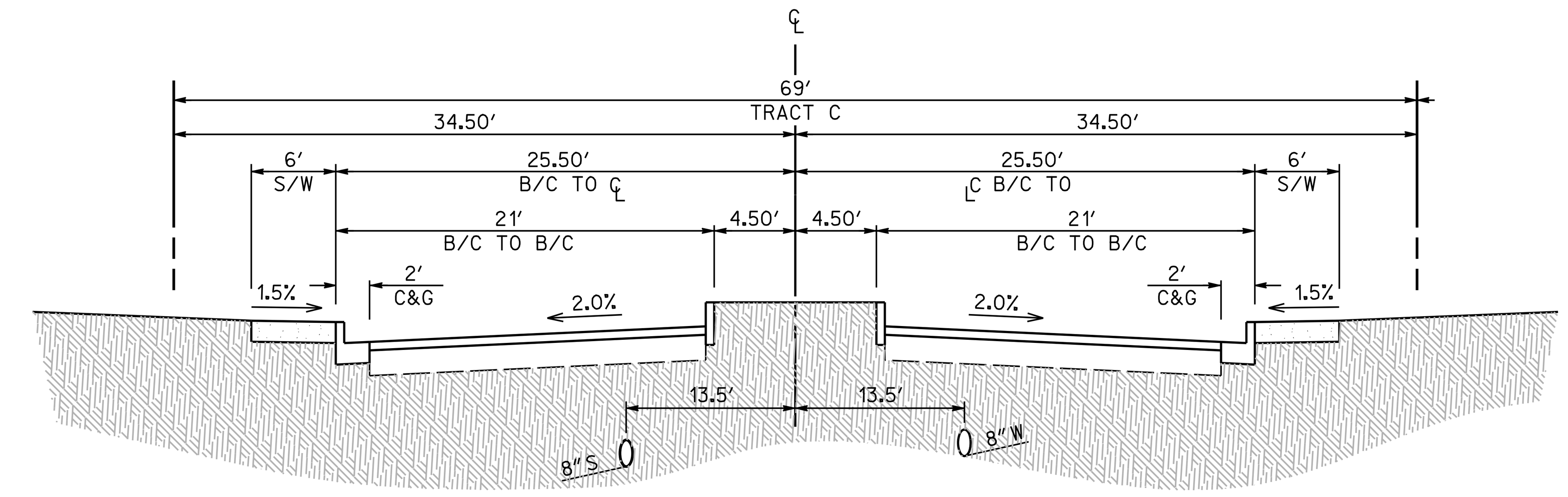


NOTES

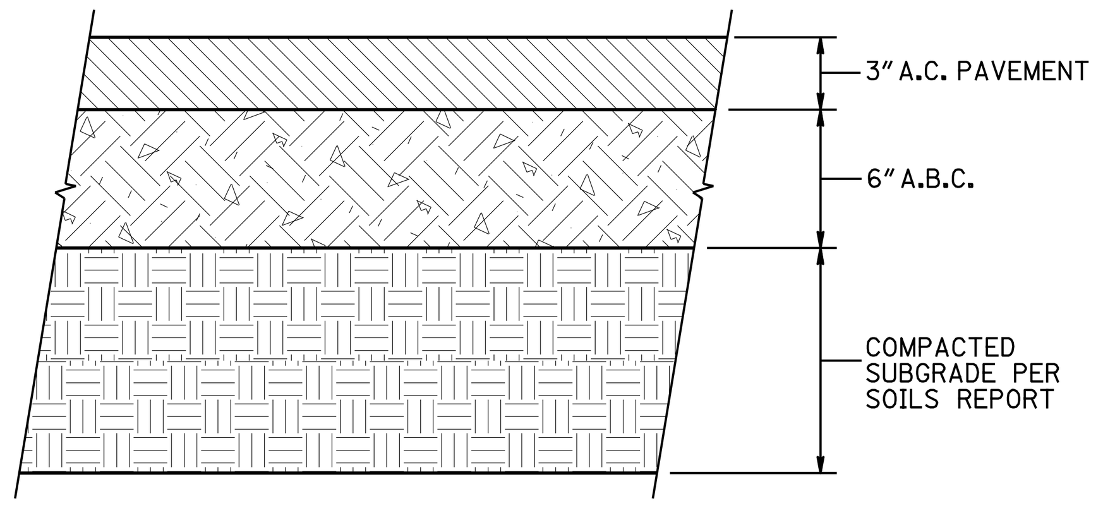
- OUTSIDE UNITS ARE 24' WIDE MIN. (29' WIDE LOT LINE PREFERRED, BUT UNIT IS STILL 24'.), INSIDE UNITS ARE 24' WIDE
- SIDE SETBACKS = 0'

BUILDING

TYPICAL INTERIOR LOT DETAIL
N.T.S.
(1) ROLL OR VERTICAL DEPENDING ON DRAINAGE
(2) NO ATTACHED SHADE STRUCTURES PERMITTED

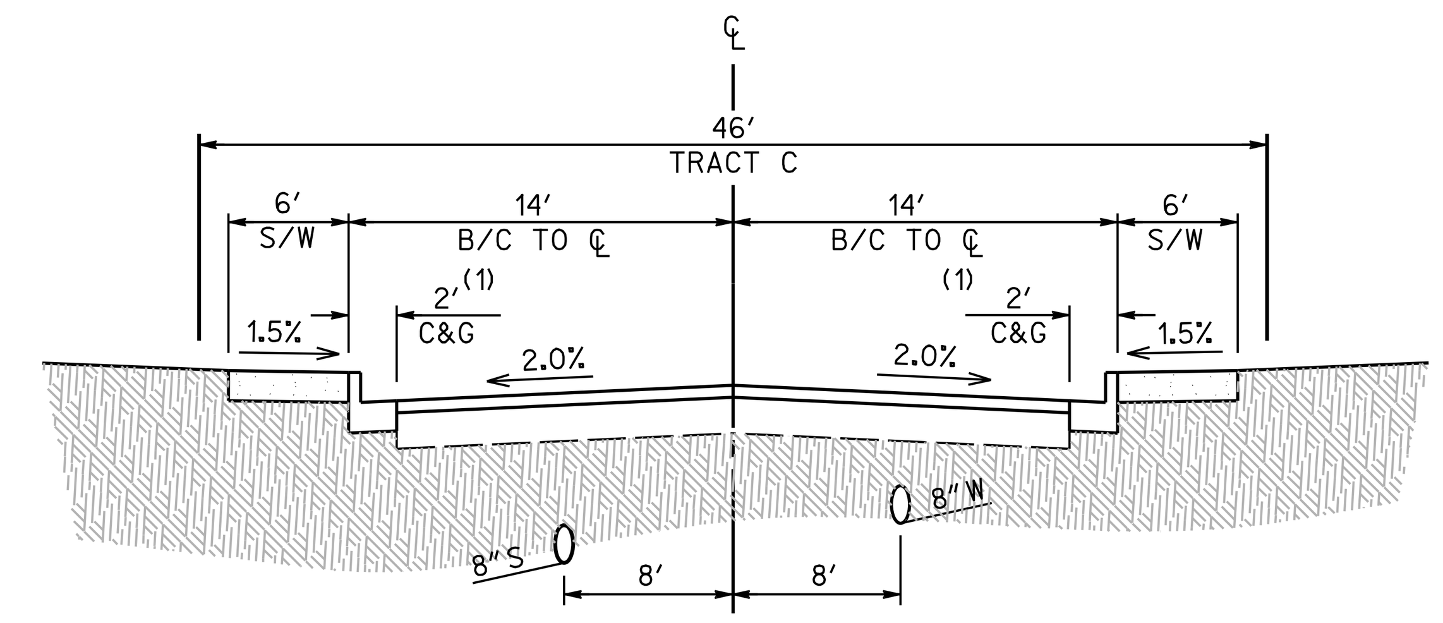


LOCAL STREET ENTRANCE (PRIVATE)
N.T.S.



NOTE:
PAVEMENT, BASE, SUBGRADE MATERIALS AND PREPARATION PER M.A.G. AND SOILS ENGINEER'S RECOMMENDATION

(1) TYPICAL PAVEMENT SECTION
N.T.S.
LOCAL STREET



LOCAL STREET (PRIVATE)
N.T.S.
(1) ROLL OR VERTICAL DEPENDING ON DRAINAGE

RIP-RAP GRADATION TABLE

% FINER BY WEIGHT (D)	30" THICK D50=15"	18" THICK D50=9"	12" THICK D50=6"
100-90	30"	18"	12"
85-70	23"	14"	9"
50-35	15"	9"	6"
35-15	8"	5"	3"
15-0	5"	3"	2"

Basin Percolation Rates - FOR VOLUME PROVIDED

Sub-Area	Rate of Bleedoff	Total Volume Provided	Dry-Up Time	# drywells for 36 hour dry up	
	(cfs)	(cf)	(hr)	#	
Basin A	0.1	14,686	40.8	1.1	**USE 2 DRYWELLS**
Basin B	0.1	20,141	55.9	1.6	**USE 2 DRYWELLS**
Basin C	0.1	25,035	69.5	1.9	**USE 2 DRYWELLS**
Basin D	0.1	19,002	52.8	1.5	**USE 2 DRYWELLS**
Basin E	0.1	2,232	6.2	0.2	**USE 1 DRYWELL**

RETENTION REQUIRED (Pre-Vs Post)

Sub-Area	Area	C-Value	C-Value	C-Value	P	Volume	Volume
-	(SF)	Pre	Post	Pre-v-Post	inches	CF	AF
A	136915	0.45	0.94	0.49	2.38	13306	0.31
B	70925	0.45	0.94	0.49	2.38	6893	0.16
C	106305	0.45	0.94	0.49	2.38	10331	0.24
D	187009	0.45	0.94	0.49	2.38	18174	0.42
E	13262	0.45	0.94	0.49	2.38	1289	0.03
Total	**514416**					**49993**	**1.15**

Basin Volume - Basin A

Elevation	Area	Average Area	TOTAL	TOTAL
FT	SF	SF	CF	AF
91	2278			0.00
92	3680	2979	2979	0.07
93	5719	4700	7679	0.18
94	8295	7007	14686	0.34
		TOTAL	**14686**	**CF**

Volume Required (Pre-vs-Post)	
Subbasin	
A	
(CF)	
13306	
Volume OK	CF

Basin Volume - Basin B

G	Area	Average Area	TOTAL	TOTAL
FT	SF	SF	CF	AF
2	1696			0.00
3	4926	3311	3311	0.08
4	8353	6640	9951	0.23
5	12028	10191	20141	0.46
		TOTAL	**20141**	**CF**

Volume Required (Pre-vs-Post)	
Subbasin	
B	
(CF)	
6893	
Volume OK	CF

Basin Volume - Basin C

Elevation	Area	Average Area	TOTAL	TOTAL
FT	SF	SF	CF	AF
1	5326			0.00
2	7112	6219	6219	0.14
3	9347	8230	14449	0.33
4	11825	10586	25035	0.57
		TOTAL	**25035**	**CF**

Volume Required (Pre-vs-Post)	
Subbasin	
C	
(CF)	
10331	
Volume OK	CF

Basin Volume - Basin D

Elevation	Area	Average Area	TOTAL	TOTAL
FT	SF	SF	CF	AF
1	1665			0.00
2	4705	3185	3185	0.07
3	7880	6293	9478	0.22
4	11168	9524	19002	0.44
		TOTAL	**19002**	**CF**

Volume Required (Pre-vs-Post)	
Subbasin	
D	
(CF)	
18174	
Volume OK	CF

Basin Volume - Basin E

Elevation	Area	Average Area	TOTAL	TOTAL
FT	SF	SF	CF	AF
3	0			0.00
4	50	25	25	0.00
5	1,289	670	695	0.02
6	1785	1537	2232	0.05
		TOTAL	**2232**	**CF**

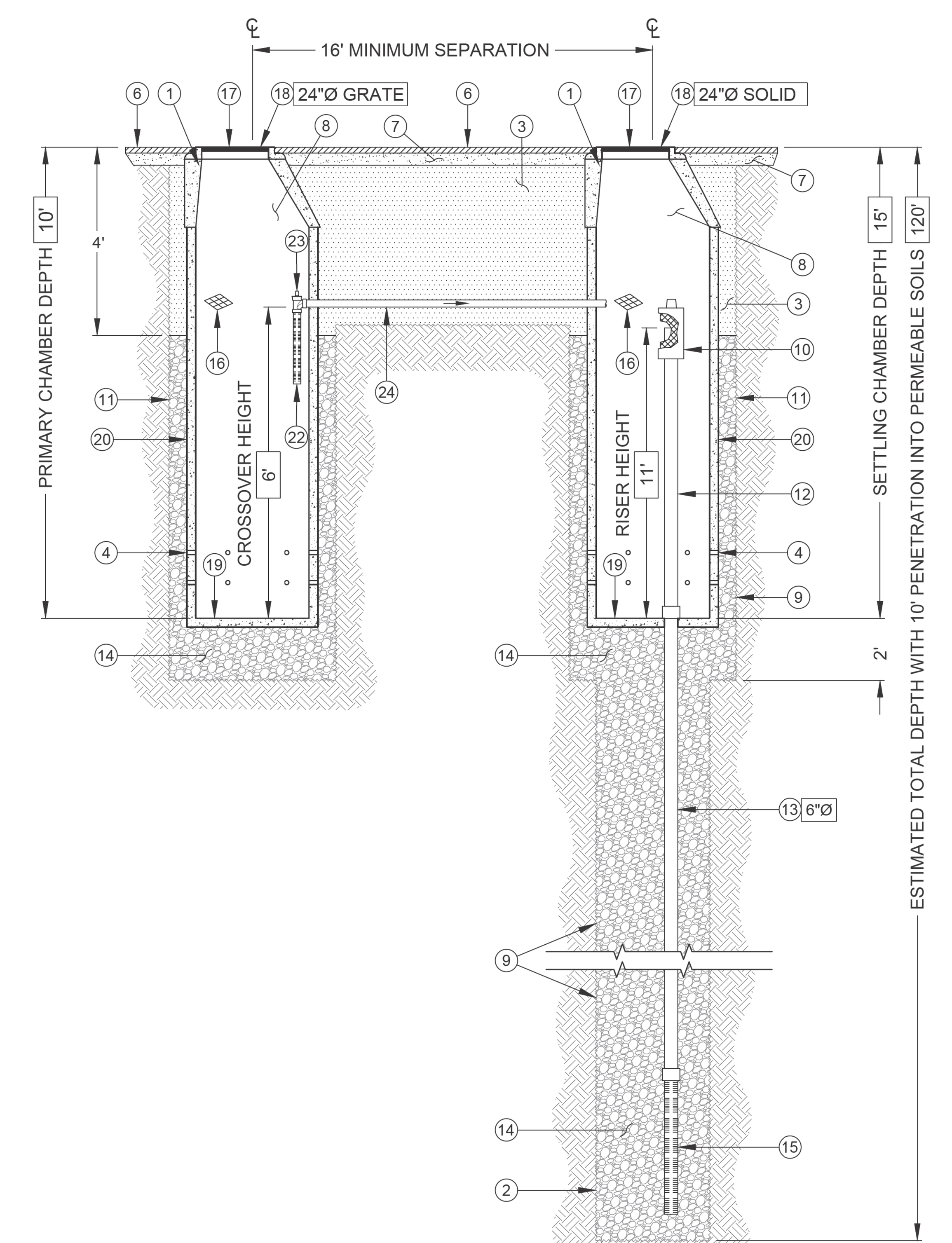
Volume Required (Pre-vs-Post)	
Subbasin	
E	
(CF)	
1289	
Volume OK	CF

LEGEND

Symbol	Description
	INDICATES PROPERTY / BOUNDARY LINE
1190	INDICATES EXISTING CONTOUR ELEVATION
92	INDICATES PROPOSED CONTOUR ELEVATION
76.5	INDICATES EXISTING SPOT ELEVATION
TC:14.75 G:14.25	INDICATES EXISTING TOP OF CURB & GUTTER ELEV.
P:13.91	INDICATES EXISTING PAVEMENT ELEVATION
C:15.25	INDICATES EXISTING CONCRETE ELEVATION
15.0	INDICATES PROPOSED GROUND ELEVATION
1%	INDICATES DIRECTION OF FLOW & SLOPE
TC= G=	INDICATES PROPOSED TOP OF CURB & GUTTER ELEV.
P=	INDICATES PROPOSED PAVEMENT ELEVATION
C=	INDICATES PROPOSED TOP OF CONC. ELEVATION
× GB	INDICATES PROPOSED GRADE BREAK
(52.21)	INDICATES TOP OF CURB ELEVATION
FG	FINISHED GRADE
FF=	INDICATES PROPOSED FINISHED FLOOR ELEVATION
PAD=	INDICATES PROPOSED PAD ELEVATION
	INDICATES PROPOSED CATCH BASIN
	INDICATES PROPOSED STORM DRAIN PIPE
	INDICATES PROPOSED DRYWELL
LP	INDICATES EXISTING LIGHT POLE
ET	INDICATES EXISTING ELECTRIC TRANSFORMER
EB	INDICATES EXISTING ELECTRIC BOX
WM	INDICATES EXISTING WATER METER
BWV	INDICATES EXISTING BACKFLOW PREVENTER VALVE
T	INDICATES EXISTING BURIED TELEPHONE CONDUIT
E	INDICATES EXISTING BURIED ELECTRIC CONDUIT
8"W WV	INDICATES EXISTING WATER LINE,VALVE & SIZE
FH	INDICATES EXISTING FIRE HYDRANT
8"S	INDICATES EXISTING SEWER LINE & SIZE
D/W	INDICATES REQUIRED D/W LOCATION
FL	FLOWLINE
	SWALE/FLOWLINE
	INDICATES SUBDIVISION CORNER
	INDICATES FLOODPLAIN

The MaxWell® Plus

DRAINAGE SYSTEM DETAILS AND SPECIFICATIONS
Silverstone Parcel D
Scottsdale, AZ



ITEM NUMBERS

1. **MANHOLE CONE** - MODIFIED FLAT BOTTOM.
2. **MIN. 4' Ø DRILLED SHAFT.**
3. **STABILIZED BACKFILL** - ONE SACK SLURRY MIX.
4. **6 PERFORATIONS MINIMUM PER ROW, 2 ROWS MINIMUM.**
5. NOT USED.
6. **GRADED BASIN OR PAVING** (BY OTHERS).
7. **COMPACTED BASE MATERIAL**, IF REQUIRED (BY OTHERS).
8. **FREEBOARD DEPTH VARIES** WITH INLET PIPE ELEVATION. INCREASE SETTLING CHAMBER DEPTH AS NEEDED TO MAINTAIN ALL INLET PIPE ELEVATIONS ABOVE RISER PIPE.
9. NOT USED.
10. **PUREFLO® DEBRIS SHIELD** - ROLLED 16 GA. STEEL X 24" LENGTH WITH VENTED ANTI-SIPHON AND INTERNAL 0.265" MAX. SWO FLATTENED EXPANDED STEEL SCREEN X 12" LENGTH. **FUSION BONDED EPOXY COATED**.
11. **MIN. 6' Ø DRILLED SHAFT.**
12. **RISER PIPE** - SCH. 40 PVC MATED TO DRAINAGE PIPE AT BASE SEAL.
13. **DRAINAGE PIPE** - ADS HIGHWAY GRADE OR SCH. 40 PVC WITH TRI-A COUPLER. SUSPEND PIPE DURING BACKFILL OPERATIONS. DIAMETER AS NOTED.
14. **ROCK** - WASHED, SIZED BETWEEN 3/8" AND 1-1/2".
15. **FLOFAST® DRAINAGE SCREEN** - SCH. 40 PVC 0.120" SLOTTED WELL SCREEN WITH MIN. 32 SLOTS PER ROW/FT. OVERALL LENGTH VARIES, UP TO 120" WITH TRI-B COUPLER.
16. **ABSORBENT** - HYDROPHOBIC PETROCHEMICAL SPONGE. MIN. 128 OZ. CAPACITY.
17. **FABRIC SEAL** - U.V. RESISTANT GEOTEXTILE - **TO BE REMOVED BY CUSTOMER** AT PROJECT COMPLETION. GRATED ONLY.
18. **BOLTED RING & GRATE/COVER** - DIAMETER & TYPE AS SHOWN. CLEAN CAST IRON WITH WORDING "STORMWATER ONLY" IN RAISED LETTERS. BOLTED IN 2 LOCATIONS AND SECURED TO CONE WITH MORTAR. RIM ELEVATION ±0.02' OF PLANS.
19. **BASE SEAL** - GEOTEXTILE.
20. **PRE-CAST LINER** - 4000 PSI CONCRETE 48" ID. X 54" ID. CENTER IN HOLE AND ALIGN SECTIONS.
21. NOT USED.
22. **INTAKE SCREEN** - 4"Ø SCH. 40 PVC 0.120" MODIFIED SLOTTED WELL SCREEN WITH MIN. 32 SLOTS PER ROW/FT. 48" OVERALL LENGTH WITH TRI-C END CAP.
23. **VENTED ANTI-SIPHON INTAKE WITH FLOW REGULATOR.**
24. **CONNECTOR PIPE** - 4" Ø SCH. 40 PVC.

Manufactured and Installed by
TorrentResources
A CRH COMPANY
An evolution of McGuckin Drilling
www.torrentresources.com

DETAIL: PL-4-SS-AZ	REVISED BY: JMD	
DRAWN ON: 11-07-23	REVISED DATE: 04-08-24	SCALE: N.T.S

Contact Arizona 811 at least two full working days before you begin excavation
Call 811 or click Arizona811.com

ARIA AT SILVERSTONE
SCOTTSDALE, ARIZONA 85255
NOTES, DETAILS AND LEGEND

Registered Professional Engineer
CERTIFICATE NO. 45652
MATTHEW J. MANCINI
8/26/24
Date Signed
ARIZONA, U.S.A.
EXPIRES: 12/31/2024

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planning | civil engineering | surveying
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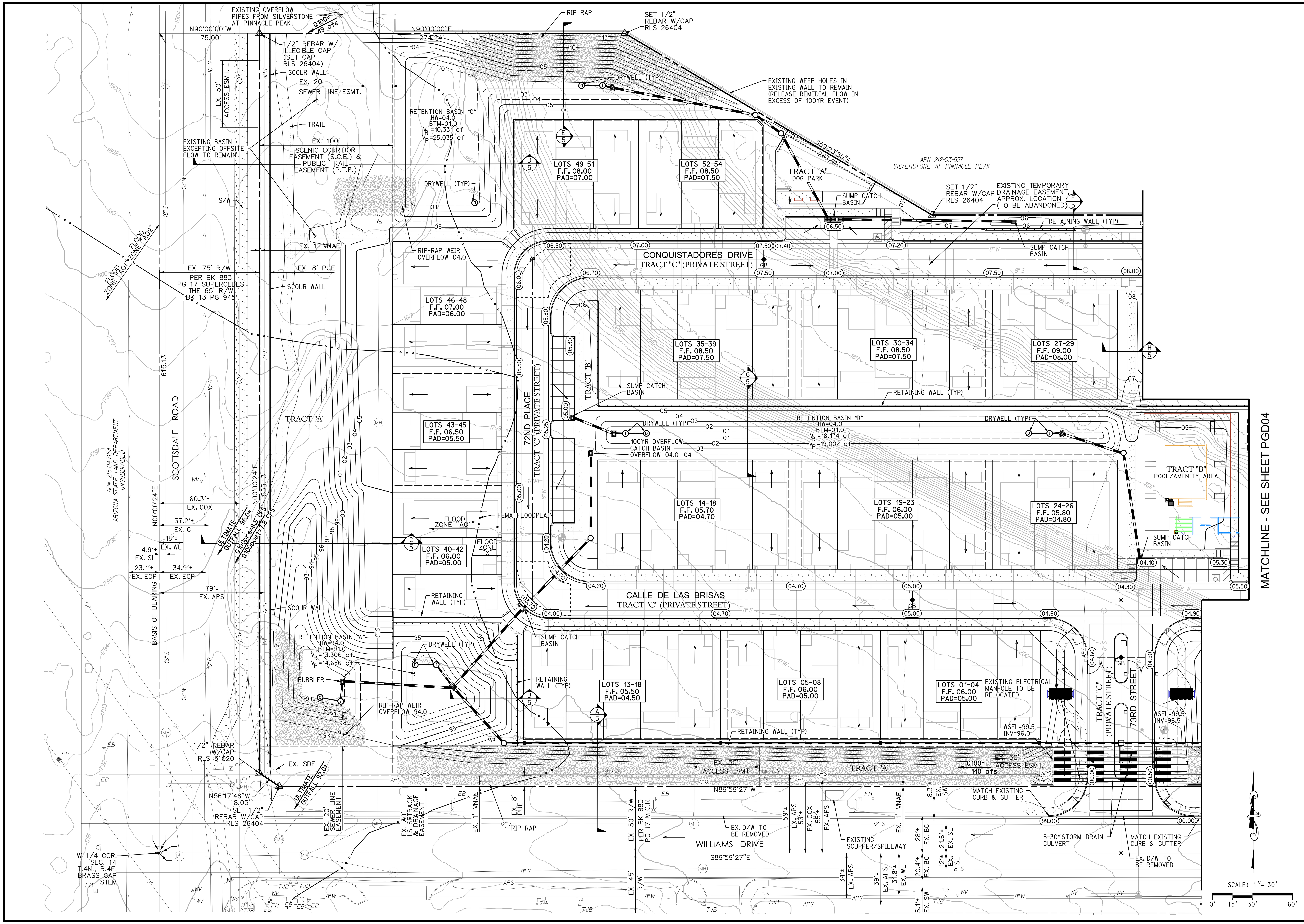
ENGINEER: M. MANCINI | DESIGNER: M. MANCINI | CAD TECH: D. DENTON
3 ENGINEERING, LLC
6370 E. THOMAS ROAD SUITE # 200
SCOTTSDALE, ARIZONA 85251
PHONE: (602) 334-4387
FAX: (602) 490-3230
WWW.3ENGINEERING.COM

DATE: 8/26/24
PROJECT NO. 5315
SHEET NO. PGD02

15-ZN-2005#4



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Call 811 or click Arizona811.com

REVISIONS

ARIA AT SILVERSTONE
SCOTTSDALE, ARIZONA 85255

GRADING & DRAINAGE PLAN

Registered Professional Engineer
CERTIFICATE NO. 45652
MATTHEW J. MANCINI
8/26/24
Date Signed
ARIZONA, U.S.A.

EXPIRES: 12/31/2024

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ENGINEER: M. MANCINI | DESIGNER: M. MANCINI | CAD TECH: D. DENTON

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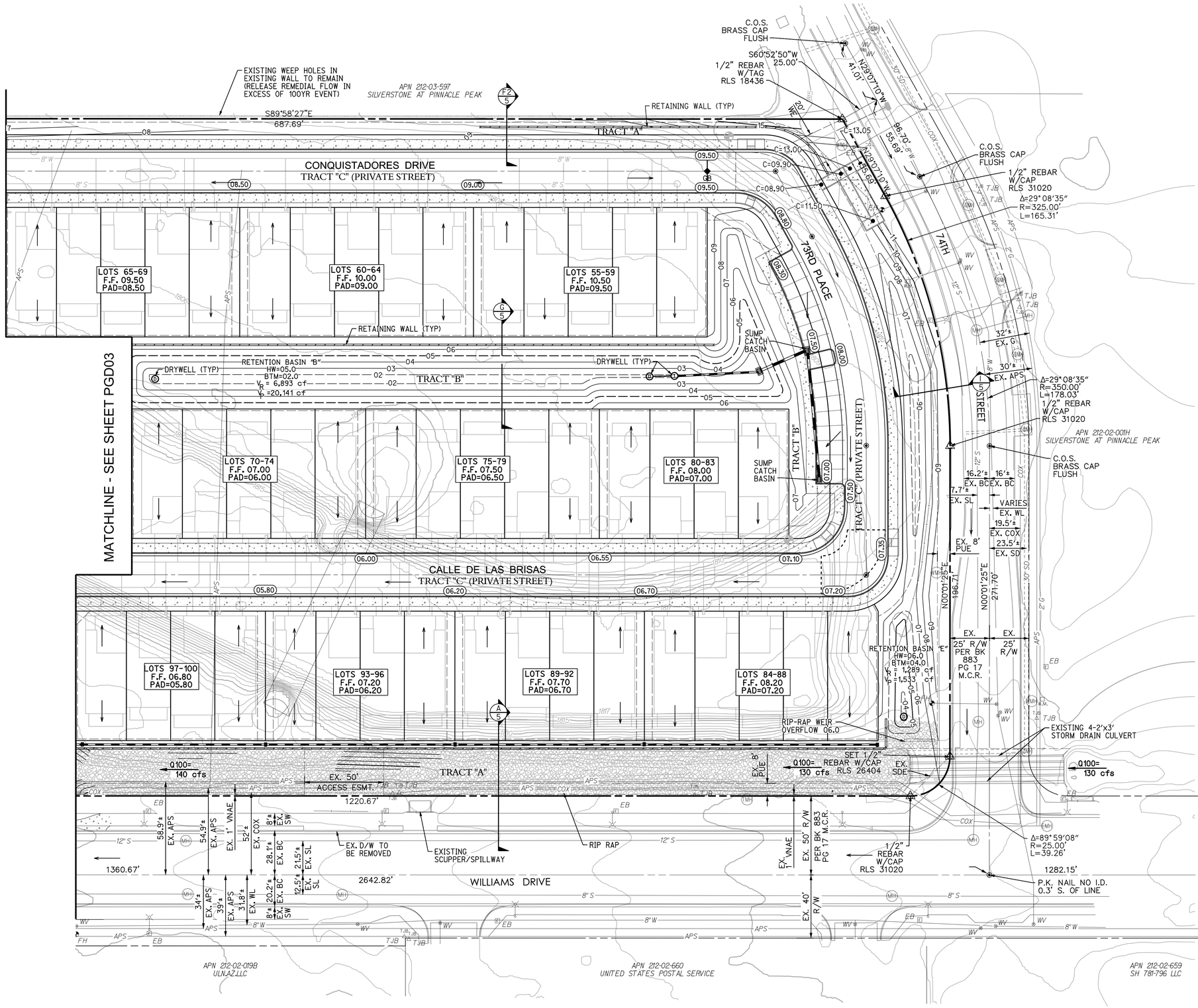
DATE: 8/26/24

PROJECT NO. 5315

SHEET NO. PGD03

15-ZN-2005#4



SCALE: 1"= 30'

0' 15' 30' 60'

Contact Arizona 811 at least two full working days before you begin excavation
Call 811 or click Arizona811.com

SNOW/ICE

ARIA AT SILVERSTONE

SCOTTSDALE, ARIZONA 85255

GRADING & DRAINAGE PLAN

Registered Professional Engineer
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MATTHEW J. MANCINI
8/26/24
Date Signed
ARIZONA, U.S.A.

EXPIRES: 12/31/2024

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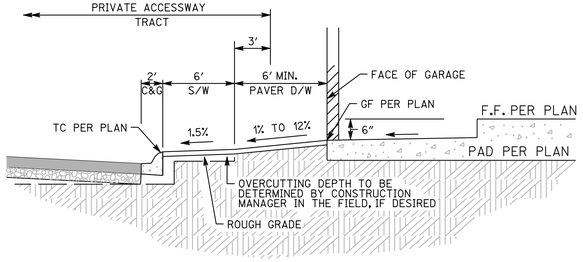
DATE: 8/26/24

PROJECT NO.
5315

SHEET NO.
PGD04
4 of 5

15-ZN-2005#4



TYPICAL FRONT YARD SECTION
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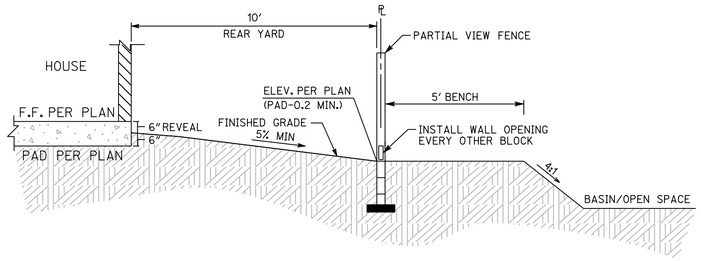
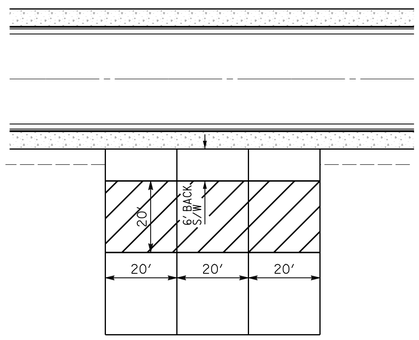
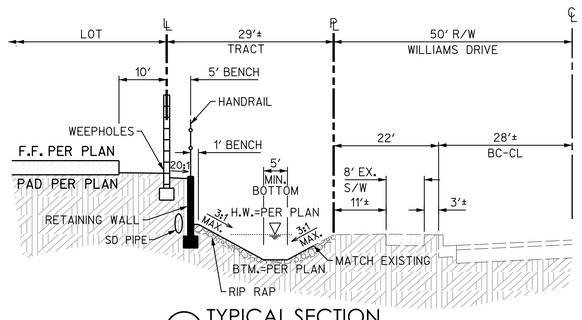


TYPICAL REAR YARD SECTION
DRAINAGE TO REAR YARD TO BASIN
N.T.S.



GARAGE OVERCUT SPEC
N.T.S.
CONTRACTOR TO OVERCUT 6" WITHIN A 20'X20' SPACE OF THE LOT AS SHOWN ABOVE



A TYPICAL SECTION
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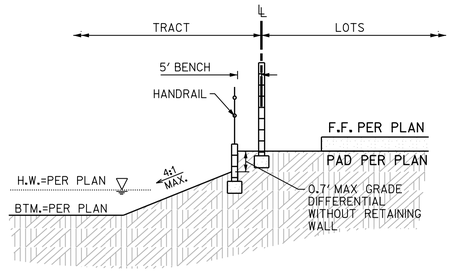

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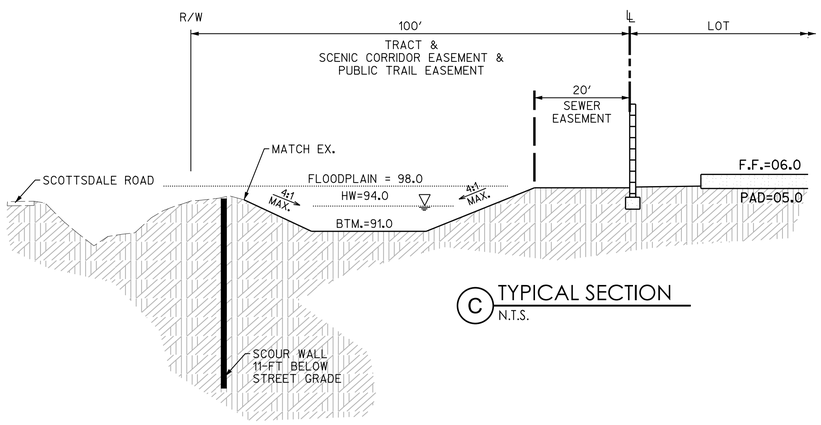

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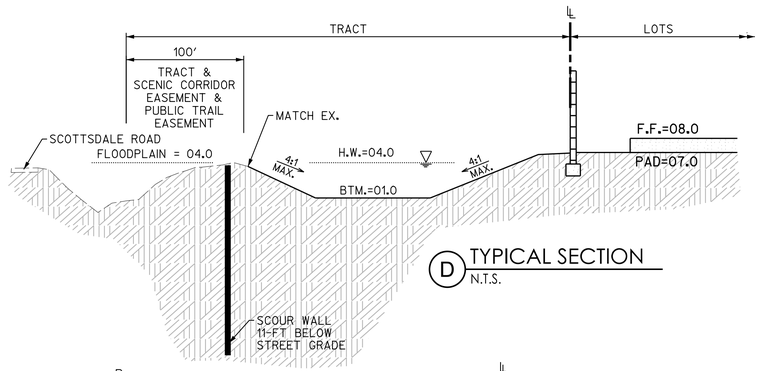

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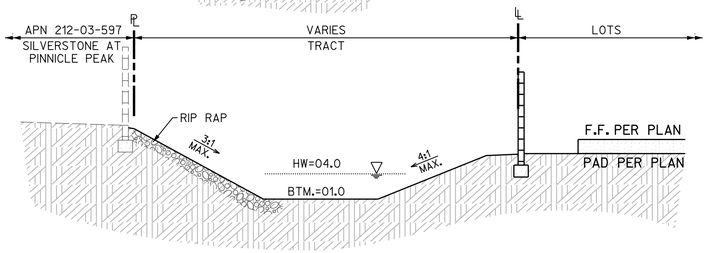

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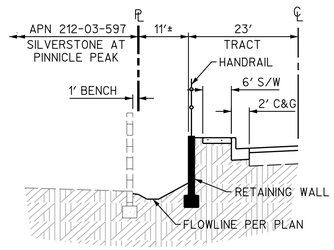

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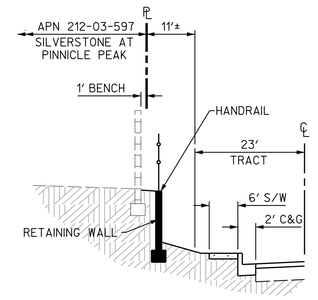

F2 TYPICAL SECTION
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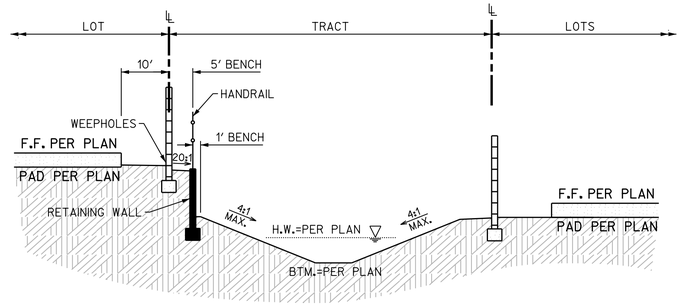

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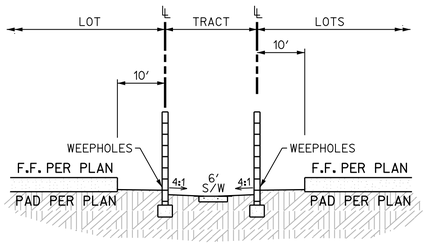

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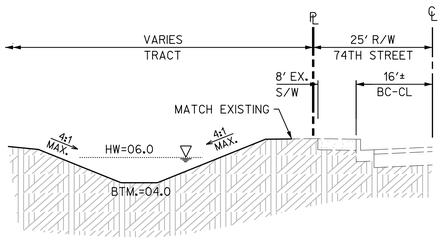

I TYPICAL SECTION
N.T.S.

SNOWBARR

ARIA AT SILVERSTONE
SCOTTSDALE, ARIZONA 85255
SECTIONS

Registered Professional Engineer
CERTIFICATE NO.
45652
MATTHEW J. MANCINI
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DESIGNER: M. MANCINI
ENGINEER: M. MANCINI

DATE: 8/26/24
PROJECT NO. 5315
SHEET NO. PGD05 5 of 5

15-ZN-2005#4