

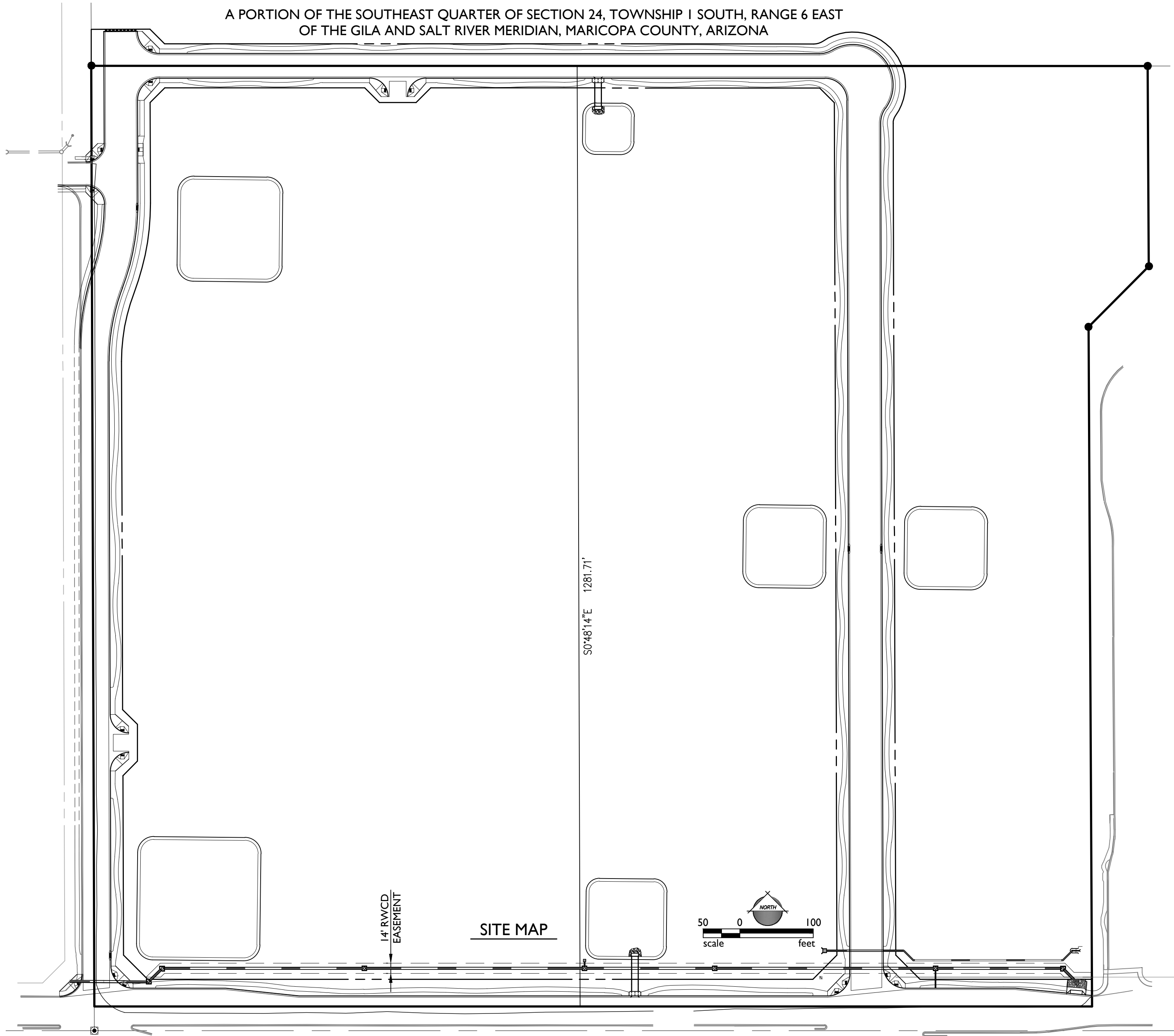
3. THESE PLANS ARE SUBJECT TO THE INTERPRETATION OF INTENT BY THE ENGINEER. ALL QUESTIONS REGARDING THESE PLANS SHALL BE PRESENTED TO THE ENGINEER. ANYONE WHO TAKES UPON HIMSELF THE INTERPRETATION OF THE DRAWINGS OR MAKES REVISIONS TO THEM WITHOUT CONFERRING WITH THE DESIGN ENGINEER SHALL BE RESPONSIBLE FOR THE CONSEQUENCES THEREOF.
2. THE PLANS PREPARED FOR THIS PROJECT PRESENT A DESCRIPTION OF THE WORK TO BE ACCOMPLISHED. THE CONTRACTOR SHALL VISIT THE PROJECT SITE AND DETERMINE, FROM HIS OWN INSPECTION, THE CONDITIONS UNDER WHICH IT IS TO BE PERFORMED. THE CONTRACTOR, BY MAKING HIS BID, REPRESENTS THAT HE HAS VISITED THE SITE AND FAMILIARIZED HIMSELF WITH LOCAL CONDITIONS, THE TYPE OF WORK TO BE PERFORMED, EVALUATED THE DIFFICULTY OF PERFORMING THE REQUIRED TASKS, AND THE LABOR, EQUIPMENT AND MATERIAL THAT ARE REQUIRED TO PROVIDE A COMPLETE PROJECT.
3. THE CONTRACTOR SHALL VERIFY WITH THE DESIGN ENGINEER THAT HE HAS THE MOST CURRENT SET OF CONSTRUCTION PLANS PRIOR TO COMMENCEMENT OF CONSTRUCTION AND MUST KEEP THE APPROVED SET OF PLANS ON-SITE FROM START OF CONSTRUCTION TO PROJECT COMPLETION. ANY CONSTRUCTION OR INSTALLATION BASED ON OUT-OF-DATE PLANS SHALL BE SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.
4. QUANTITIES LISTED ON THESE PLANS ARE ESTIMATES ONLY. THE CONTRACTOR SHALL VERIFY ALL QUANTITIES BEFORE SUBMITTING A BID FOR THIS WORK.
5. UNLESS NOTED OTHERWISE, THIS PROJECT WAS DESIGNED IN AN EFFORT TO BALANCE THE EARTHWORK AS MUCH AS POSSIBLE. ANY EARTHWORK VOLUMES SHOWN ON THESE PLANS ARE FOR INFORMATION ONLY AND SHALL NOT BE USED FOR BIDDING PURPOSES. THE CONTRACTOR'S BID SHALL INCLUDE ALL COSTS ASSOCIATED WITH IMPORTING AND PLACING MATERIAL OR STOCKPILING, HAULING AND DISPOSING OF EXCESS MATERIAL IN ACCORDANCE WITH THEIR CALCULATIONS AND DETERMINATION.
6. A THOROUGH ATTEMPT HAS BEEN MADE TO SHOW THE LOCATIONS OF ALL UNDERGROUND OBSTRUCTIONS AND UTILITY LINES IN THE WORK AREA; HOWEVER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO OBSTRUCTIONS AND UTILITY LINES ENCOUNTERED DURING CONSTRUCTION AND SHALL DETERMINE THE EXACT LOCATION OF SAID UTILITIES IN ADVANCE OF TRENCHING. THE ENGINEER WILL NOT GUARANTEE ANY ELEVATIONS OR LOCATIONS OF EXISTING UNDER-GROUND UTILITIES SHOWN ON THESE PLANS.
7. THE CONTRACTOR SHALL CALL BLUE STAKE PRIOR TO CONSTRUCTION AND VERIFY THE PRESENCE OF UTILITIES AND SHALL PROTECT ANY OVERHEAD OR UNDERGROUND UTILITIES DURING CONSTRUCTION, WHETHER OR NOT SAID UTILITIES ARE SHOWN ON THESE PLANS. THE CONTRACTOR SHALL MAKE EXPLORATORY EXCAVATIONS TO LOCATE UNDERGROUND UTILITIES AND/OR STRUCTURES IF NECESSARY TO VERIFY UNDERGROUND UTILITIES. WHERE EXISTING UNDERGROUND UTILITIES ARE EXPOSED, CONTRACTOR SHALL NOTIFY THE APPROPRIATE UTILITY COMPANY FOR INSPECTION PRIOR TO BACKFILLING.
8. THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL POINTS OF CONNECTION PRIOR TO DIGGING BEYOND THE POINT OF CONNECTION.
9. CONSTRUCTION OF THE SEWER LINE SHALL COMMENCE AT THE FURTHEST DOWNSTREAM POINT OF CONNECTION AND SHALL PROGRESS UPSTREAM FROM THAT POINT.
10. ALL HANDICAP ACCESS RAMPS, PARKING STALLS, AND DELINEATED WALKWAYS SHALL BE CONSTRUCTED AND MARKED IN ACCORDANCE WITH CURRENT FEDERAL AND/OR LOCAL A.D.A. STANDARDS AND REQUIREMENTS. THE CONTRACTOR SHALL COORDINATE WITH THE LOCAL AUTHORITIES PRIOR TO CONSTRUCTING AND/OR STRIPING TO CONFIRM CURRENT REQUIREMENTS.
11. ALL SLOPES HIGHER THAN ONE (1) FOOT AND STEEPER THAN 20:1, UNLESS LINED WITH TURF, SHALL BE COMPACTED AND TESTED PER MAG SPECIFICATION 215. RE-COMPACTION IS RECOMMENDED PER MAG SPECIFICATION 215 AFTER INSTALLATION OF IRRIGATION LINES, AND STABILIZATION OF DECOMPOSED GRANITE IS ALSO RECOMMENDED.
12. THE CONTRACTOR SHALL COMPLY WITH ALL PROVISIONS SPECIFIED IN THE GEOTECHNICAL INVESTIGATION, NO PONDING DEEPER THAN 0.05' IS PERMITTED WITHIN 10' OF ANY BUILDING.
13. THE CLIENT AND CONTRACTOR ASSUME ALL RESPONSIBILITY AND COSTS INCURRED IF THEY EJECT TO LANDSCAPE RETENTION BASINS BEFORE THE REQUIRED RETENTION VOLUMES HAVE BEEN CERTIFIED BY THE ENGINEER.
14. THE CONTRACTOR SHALL OBTAIN PERMISSION FROM THE OWNER'S ENGINEER-OF-RECORD PRIOR TO BACKFILLING ANY WET OR DRY UTILITY MAIN OR SERVICE LINES TO ENSURE ALL INSPECTIONS AND TESTING HAS BEEN COMPLETED. NO UTILITY LINES SHALL BE BACKFILLED UNTIL AS-BUILT HORIZONTAL AND VERTICAL LOCATIONS HAVE BEEN OBTAINED. ANY ADDITIONAL COST REQUIRED SHALL BE PAID BY THE CONTRACTOR.
15. THE CONTRACTOR SHALL REGISTER ALL DRYWELLS WITH THE ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY AT THE CONCLUSION OF INSTALLATION AND TESTING. DRYWELL REGISTRATION NUMBERS SHALL BE PROVIDED TO THE OWNER AND ENGINEER OR RECORD.

1. IN ACCORDANCE WITH AAC R18-4-213, ALL MATERIALS ADDED AFTER JANUARY 1, 1993, WHICH MAY COME INTO CONTACT WITH DRINKING WATER SHALL CONFORM TO NATIONAL SANITATION FOUNDATION STANDARDS 60 AND 61.
2. PER ARIZONA STATE STATUTE 40-360.22, M: ALL UNDERGROUND CABLE, PIPE AND CONDUITS SHALL BE DETECTABLE (METALLIC) OR HAVE A DETECTABLE UNDERGROUND LOCATION DEVICE INSTALLED WITH IT.
3. AN APPROVAL TO CONSTRUCT HAS, OR WILL BE, OBTAINED FROM THE MARICOPA COUNTY ENVIRONMENTAL SERVICES DEPARTMENT. AS SUCH, AN APPROVAL OF CONSTRUCTION WILL NEED TO BE APPLIED FOR AND OBTAINED BY THE CONTRACTOR.
4. ALL DRYWELLS SHOWN ON THIS PROJECT SHALL BE MAINTAINED BY THE OWNERS AND ARE TO BE REPLACED BY THE OWNER WHEN THEY CEASE TO DRAIN THE SURFACE WATER IN A 36 HOUR PERIOD. REGULAR MAINTENANCE OF THE DRYWELL SILTING CHAMBER IS REQUIRED TO ACHIEVE THE BEST OPERATION OF THE DRYWELL.
5. ALL RETENTION BASINS MUST DRAIN ANY STORM EVENT UP TO AND INCLUDING THE 50-YR, 24-HR STORM WITHIN 36 HOURS. OWNER(S) OF ANY BASIN FAILING TO MEET THE REQUIREMENT MUST TAKE CORRECTIVE ACTION TO BRING THE BASIN INTO COMPLIANCE. (ORDINANCE NO. 1051, AND I, 7-29-97)
6. ALL DESIGN AND CONSTRUCTION MUST BE IN ACCORDANCE WITH THE UNIFORM STANDARD SPECIFICATIONS AND DETAILS PUBLISHED BY THE MARICOPA ASSOCIATION OF GOVERNMENTS AND AS AMENDED BY THE TOWN OF GILBERT.

ONE SET OF STAKES WILL BE FURNISHED BY THE OWNER FOR THE WATER LINE, WATER SERVICES, FIRE HYDRANT LOCATIONS AND GRADE, SEWER LINES AND SERVICES, CONCRETE SUBGRADE AND A.B.C.. ALL ADDITIONAL STAKING TO BE CHARGED TO THE CONTRACTOR. 24 WORKING HOUR NOTICE IS REQUIRED FOR STAKING BY THE SUBDIVISION ENGINEER.

DESCRIPTION	REPRESENTATIVE	DATE	PHONE
SRP POWER	ROBERTA TEMPLE	09/26/2017	602-326-6262
CENTURY LINK	CHRIS LERTIQUE	09/26/2017	480-768-4427
SOUTHWEST GAS	GENE FLORES	09/26/2017	602-484-5302
COX COMMUNICATIONS	KEN DEGRAFFENREID	09/26/2017	328-328-3423
SPRINT	COLIN SWORD	09/26/2017	602-417-0970
KINDER MORGAN	DANIEL TARANGO	09/26/2017	602-278-2320
RWCD	BRAD STRADER	09/26/2017	480-988-9586

A PORTION OF THE SOUTHEAST QUARTER OF SECTION 24, TOWNSHIP 1 SOUTH, RANGE 6 EAST
OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA



VOLUME REQUIRED:
 $V_{REQ} = C * P * A / 12$
 WHERE: V_{REQ} = RUNOFF VOLUME (SF)
 C = COMPOSITE RUNOFF COEFFICIENT = 0.80
 P = 50-YR, 24-HR RAINFALL DEPTH (IN) = 3.00-IN
 A = AREA (SF)

<u>BASIN ID</u>	<u>AREA (SF)</u>	<u>V REQ. (CU-FT)</u>	<u>VOL. PRVD. (CU-FT)</u>	<u>EXCESS VOL. (CU-FT)</u>
B1	122,443	24,489	26,566	2,077
B2	86,608	17,322	18,991	1,669
B3	103,784	20,757	23,101	2,344
B4	103,784	20,757	23,101	2,344

METHOD OF DRAINING : ALL PROPOSED RETENTION BASINS ARE TEMPORARY AND ARE DESIGNED TO POND LESS THAN 1-FT DEEP AND DO NOT REQUIRE DRYWELLS. BASINS WILL BE RECONFIGURED WITH THE FINAL ONSITE DRAINAGE DESIGN.

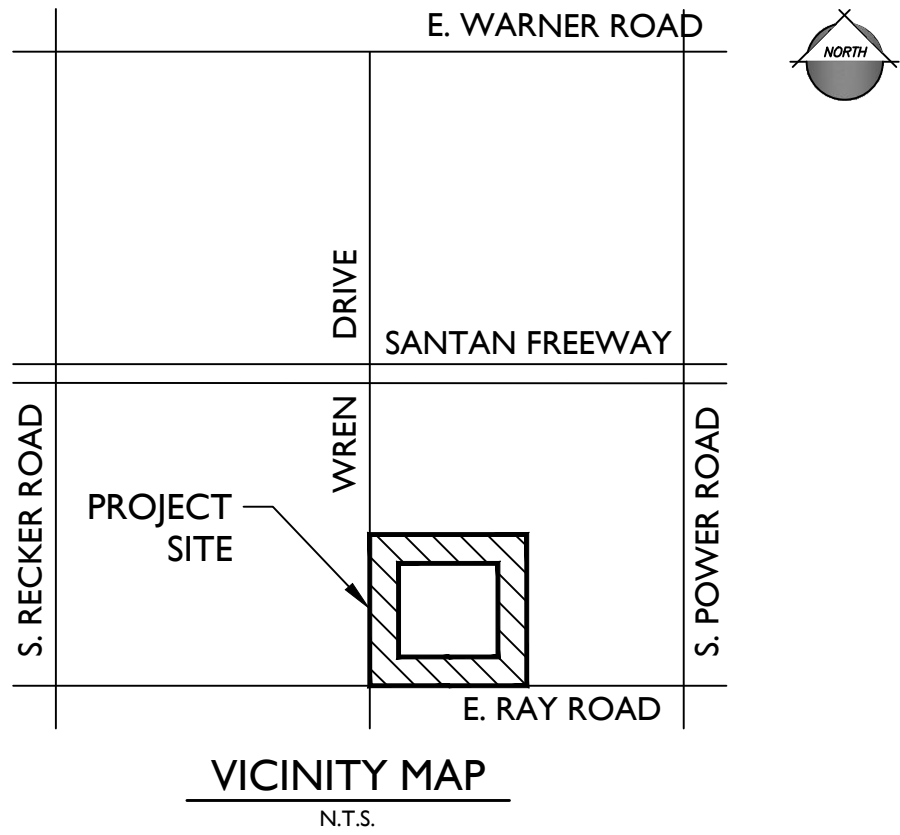
NOTICE: ALTHOUGH SOME PLANS AND DETAILING FOR SCHEMATIC PURPOSES WERE PROVIDED, THE SUBDIVISION SUBMITTAL PACKAGE REVIEWED DID NOT INCLUDE ALL SITE AMENITY/IMPROVEMENT PLANS AND DETAILS NECESSARY FOR THE CITY'S REVIEW AND APPROVAL. COMPLETE PLANS AND DETAILING INCLUDING STRUCTURAL AND ELECTRICAL PLANS AND DETAILS ARE BEING DEFERRED UNTIL THE FIRST BUILDING PERMIT FOR AN AMENITY IS REQUESTED FROM DEVELOPMENT SERVICES. ALL COMPLETE PLANS AND DETAILS MUST BE SUBMITTED WITH ALL SITE AMENITYS REQUIRING A BUILDING DEPARTMENT PERMIT. WHEN THE FIRST BUILDING PERMIT FOR AN AMENITY IS REQUESTED, A FEE WILL BE ISSUED FOR ANY SINGLE AMENITY WITHOUT APPROVAL OF THE OVERALL SITE PLAN AND ALL RELATED AND NECESSARY DETAILS.

PARTIAL PLANS SUBMITTED FOR REVIEW THROUGHOUT THE SUBDIVISION REVIEW PROCESS WILL NEED TO BE RESUBMITTED AS PART OF THE BUILDING PERMIT REQUEST PROCESS.

AMENITIES OR IMPROVEMENTS THAT REQUIRE BUILDING PERMITS INCLUDE, HOWEVER ARE NOT LIMITED TO: FENCES, RETAINING WALLS, MONUMENT WALLS, RAMADAS, ELECTRICAL PEDESTALS, SITE LIGHTING, ADA ACCESS (WHERE NOT SHOWN ON PRIOR DRAWINGS), WATER METERS (BOTH IRRIGATION AND DOMESTIC), DRINKING FOUNTAINS, WATER PUMPING STATIONS, SWIMMING POOLS, BATHHOUSES, BACKFLOW ASSEMBLIES.

CHECKING IS ONLY FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND GENERAL COMPLIANCE WITH THE INFORMATION GIVEN. ANY ACTION SHOWN SUBJECT TO THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS, CONTRACT, RESPONSIBILITIES, DIMENSIONS WHICH MAY BE CONFIRMED AND CORRELATED AT THE JOB SITE; FABRICATION, PROCESSES AND TECHNIQUES OF CONSTRUCTION; COORDINATION OF HIS WORK WITH THAT OF ALL OTHER TRADES; THE SATISFACTORY PERFORMANCE OF HIS WORK. THE DISTRICT'S REVIEW OF THE PLANS IS A VOLUNTARY AND DISCRETIONARY ACTION WHICH IS NOT A GUARANTEE OF THE ACCURACY OF THE DISTRICT'S VIEW OF THE INFORMATION PROVIDED. THE DISTRICT BENEFIT CONDUCTED WITH ONLY THE DISTRICT'S INTEREST IN MIND, AND SHOULD NOT BE RELIED UPON BY ANY THIRD PARTY. BY REVIEWING THE PLANS THE DISTRICT DOES NOT ASSUME ANY DUTY TO THIRD PARTIES.

RWCD: _____ DATE: _____



EPS GROUP, INC.
2045 S. VINEYARD AVE.
SUITE 101
MESA, ARIZONA 85210
PHONE: (480) 503-2250
FAX: (480) 503-2258
CONTACT: DANIEL AUXIER, P.E.

CIRCLE G
4915 E. BASELINE ROAD
SUITE 105
GILBERT, AZ 85254
TEL: (480)-503-7002
CONTACT: JOHN HARTMAN

WRIGHT ENGINEERING
165 E. CHILTON DRIVE
CHANDLER, AZ 85225
TEL: (480)-497-5829
CONTACT: ADAM BOWERS, P.E.

DESCRIPTION		SHEET NO
COVER SHEET	CS01	1
GENERAL NOTES	CS02 - CS03	2 - 3
DETAIL SHEETS	DT01	4
INDEX SHEET/STEEL CASING DETAIL	ID01	5
OFF-SITE IMPROVEMENT PLANS	OS01 - OS12	6 - 17
GRADING SECTIONS	GS01	18
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SIGNING AND STRIPING PLAN	SS02 - SS06	21 - 25
STORM WATER POLLUTION PREVENTION PLAN	SWP01	26
RWCD LATERAL 11 PLANS	ID01 - ID08	27-34

THE SOUTH QUARTER CORNER OF SECTION 24, TOWNSHIP
SOUTH RANGE 6 EAST OF THE GILA AND SALT RIVER BASE
AND MERIDIAN MARKED WITH A BRASS CAP FLUSH.
ELEVATION = 1313.14

BASIS OF BEARING IS THE SOUTH LINE OF SECTION 24,
TOWNSHIP 1 SOUTH RANGE 6 EAST OF THE GILA AND SALT
RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA, SAID
BEARING BEING: N 89°22' 42" E

THESE PLANS ARE SUBJECT TO THE INTERPRETATION OF INTENT BY THE ENGINEER. ALL QUESTIONS REGARDING THESE PLANS SHALL BE PRESENTED TO THE ENGINEER. ANYONE WHO TAKES UPON HIMSELF THE INTERPRETATION OF THE DRAWING OR MAKES REVISIONS TO THEM WITHOUT CONFERRING WITH THE DESIGN ENGINEER SHALL BE RESPONSIBLE FOR THE CONSEQUENCES THEREOF.

THE AUTHORIZED REPRESENTATIVES OF THE FOLLOWING AGENCIES HEREBY ACKNOWLEDGE OR HAVE
ACKNOWLEDGED THEY HAVE REVIEWED AND APPROVED THE DESIGN SHOWN BY THESE DRAWINGS.
CONSTRUCTION MAY BEGIN AFTER ALL APPROPRIATE PERMITS HAVE BEEN OBTAINED.

MARICOPA COUNTY _____ DATE _____
ENVIRONMENTAL SERVICES DEPARTMENT

TOWN OF GILBERT ENGINEERING _____ DATE _____

IN ACCORDANCE WITH AAC R18-4-213, ALL MATERIALS ADDED AFTER JANUARY 1, 1993 WHICH MAY COME INTO CONTACT WITH DRINKING WATER SHALL CONFORM TO NATIONAL SANITATION FOUNDATION STANDARDS 60 AND 61.

I HEREBY CERTIFY THAT THE "AS-BUILT" MEASUREMENTS AS SHOWN OR NOTED HEREON WERE MADE BY MYSELF OR UNDER MY SUPERVISION AND ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

SIGNATURE _____ DATE _____

TOWN OF GILBERT GENERAL NOTES

- CONSTRUCTION WITHIN PUBLIC EASEMENTS, EXCEPT BY PUBLIC AGENCIES AND UTILITY COMPANIES, SHALL BE LIMITED TO UTILITY AND WOOD, WIRE OR REMOVABLE SECTION TYPE FENCING, UNLESS APPROVED BY THE TOWN OF GILBERT.
- ALL UTILITIES SHALL BE CONSTRUCTED UNDERGROUND.
- ELECTRIC LINES TO BE CONSTRUCTED UNDERGROUND AS REQUIRED BY ARIZONA CORPORATION COMMISSION.
- ALL COMMUNICATION LINES TO BE CONSTRUCTED UNDERGROUND AS REQUIRED BY ARIZONA CORPORATION COMMISSION.
- A PROPERTY OWNERS ASSOCIATION SHALL MAINTAIN PRIVATE UTILITIES, PRIVATE FACILITIES, COMMON AREA LANDSCAPING AND LANDSCAPING IN THE RIGHT-OF-WAY ADJACENT TO THE PROJECT. THE TOWN OF GILBERT IS NOT RESPONSIBLE FOR AND WILL NOT ACCEPT MAINTENANCE OF SUCH AREAS.
- NO STRUCTURES SHALL BE CONSTRUCTED IN OR ACROSS NOR SHALL OTHER IMPROVEMENTS OR ALTERATIONS BE MADE TO THE DRAINAGE FACILITIES THAT ARE A PART OF THIS DEVELOPMENT WITHOUT WRITTEN AUTHORIZATION OF THE TOWN OF GILBERT.
- ALL RETENTION BASINS MUST DRAIN ANY STORM EVENT UP TO AND INCLUDING THE 50-YEAR 24 HOUR STORM WITHIN 36 HOURS. OWNER(S) OF ANY EXISTING BASIN FAILING TO MEET THIS REQUIREMENT MUST TAKE CORRECTIVE ACTION TO BRING THE BASIN INTO COMPLIANCE.
- ALL DRYWELLS SHOWN ON THIS PROJECT SHALL BE MAINTAINED BY THE OWNER(S) AND ARE TO BE REPLACED BY THE OWNER(S) WHEN THEY CEASE TO DRAIN THE SURFACE WATER IN A 36 HOUR PERIOD. REGULAR MAINTENANCE OF THE DRYWELL SILTING CHAMBER IS REQUIRED TO ACHIEVE THE BEST OPERATION ON THE DRYWELL.

TOWN OF GILBERT PUBLIC SEWER NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CURRENT MAG SPECIFICATIONS AND DETAILS, WITH THE TOWN OF GILBERT'S ADDITIONS AND DELETIONS.
 - THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION. THE TOWN ENGINEER SHALL BE NOTIFIED 24 HOURS PRIOR TO THE DIFFERENT PHASES OR CONSTRUCTION FOR SCHEDULING INSPECTIONS.
 - ACCEPTANCE OF THE COMPLETED RIGHT-OF-WAY IMPROVEMENTS WILL NOT BE GIVEN UNTIL 4 MIL PHOTO MYLAR REPRODUCIBLE "AS-BUILT" PLANS HAVE BEEN SUBMITTED TO AND APPROVED BY THE TOWN ENGINEER.
 - LOCATION OF ALL WATER VALVES MUST BE REFERENCED AT ALL TIMES DURING CONSTRUCTION AND MADE AVAILABLE TO THE PUBLIC WORKS DEPARTMENT. ONLY TOWN EMPLOYEES ARE AUTHORIZED TO OPERATE THE VALVES AND FIRE HYDRANT CONNECTIONS TO THE TOWN'S WATER SYSTEM.
 - ANY WORK PERFORMED WITHOUT THE APPROVAL OF THE TOWN ENGINEER AND/OR ALL WORK AND MATERIALS NOT IN CONFORMANCE WITH THE SPECIFICATIONS IS SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.
 - THE CONTRACTOR WILL UNCOVER ALL EXISTING LINES BEING TIED INTO TO VERIFY THEIR LOCATION PRIOR TO TRENCHING. THE CONTRACTOR WILL LOCATE OR WILL HAVE LOCATED ALL EXISTING UNDERGROUND PIPELINE, TELEPHONE AND ELECTRIC CONDUITS, AND STRUCTURES IN ADVANCE OF CONSTRUCTION AND WILL OBSERVE ALL POSSIBLE PRECAUTIONS TO AVOID DAMAGE TO THE SAME. CALL BLUE STAKE AT 263-1100 AND NOTIFY SRP.
 - ALL TAPS SHALL BE WYE TYPE.
 - ALL SEWER TAPS SHOULD BE 4-1/4 FEET DEEP AT THE PROPERTY LINE. A MINIMUM OF SIX FOOT HORIZONTAL SPACING BETWEEN SEWER AND WATER SERVICES SHALL BE MAINTAINED. VERTICAL SEPARATION SHALL CONFORM TO MAG STD DET 404.
 - TRAFFIC CONTROL SHALL BE PER THE 2003 EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES HANDBOOK AND TOWN OF GILBERT STANDARD DETAILS.
 - THE TOWN INSPECTOR WILL DETERMINE THE NUMBER AND LOCATION OF THE REQUIRED COMPACTION TESTS. THE CONTRACTOR/DEVELOPER WILL NOTIFY THE TESTING LAB, COORDINATE WITH THE INSPECTOR AND TESTING LAB, AND PAY THE COSTS TO PERFORM THE TESTS.
 - ORDINANCE #1437, APPROVED BY THE TOWN COUNCIL IN OCTOBER 2002, STATES: NO CONSTRUCTION WATER FROM FIRE HYDRANTS SHALL BE USED ON PARCELS OR LOTS OF TEN ACRES OR MORE IN SIZE. FOR MORE INFORMATION, THE ORDINANCE IS LOCATED ON THE TOWN OF GILBERT WEB SITE AT: WWW.CI.GILBERT.AZ.US. TO OBTAIN CONSTRUCTION WATER, THE CONTRACTOR IS REQUIRED TO MAKE APPLICATION WITH THE PUBLIC WORKS WATER DIVISION. A SECURITY DEPOSIT IS REQUIRED TO RECEIVE FIRE HYDRANT METER. THE TOWN RESERVES THE RIGHT TO SPECIFY THE TIME AND LOCATION THAT CONSTRUCTION WATER CAN BE DELIVERED.
 - THE TOWN WILL NOT ACCEPT SEWER LINES WITH LESS THAN FOUR (4) FEET OF COVER.
 - PRIOR TO FINAL APPROVAL AND ACCEPTANCE OF THE WORK, THE DEVELOPER/CONTRACTOR WILL BE REQUIRED TO CLEAN AND REPAIR ADJACENT (OFF-PROJECT) ROADWAYS USED DURING THE COURSE OF THEIR CONSTRUCTION.
 - CONSULTANT PREPARING PLANS SHALL ADD THIS NOTE, IN BOX WITH ARROW TO THE APPROPRIATE MANHOLE, ON ALL SEWER PLANS.
- NOTE: ACCESS TO EXISTING SANITARY SEWER MAINS WILL NOT BE PERMITTED UNTIL ALL NEW SEWER CONSTRUCTION HAS BEEN APPROVED AND ACCEPTED. NEW SEWER CONSTRUCTION SHALL BE ISOLATED FROM THE EXISTING SYSTEM AS FOLLOWS:
- A REINFORCED PLUG WILL BE PLACED IN THE OUTLET OF THE LATEST MANHOLE (MOST DOWNSTREAM) IN THE SYSTEM UNDER CONSTRUCTION. THIS PLUG WILL NOT BE REMOVED WITHOUT:
 - A. ALL PAVING COMPLETED AND MANHOLE RINGS AND COVERS AT CORRECT GRADE.
 - B. INSPECTOR'S PERMISSION.
- A 2"x4" STAKE (PAINTED GREEN) SHALL BE SET 1 FOOT BEHIND EACH SEWER SERVICE. ALL 2"x4" STAKES MARKING SEWER SERVICES SHALL BE FIRMLY SET INTO THE GROUND AT THE ELEVATION OF THE FLOW LINE AND SHALL EXTEND 2 FEET ABOVE THE GROUND SURFACE.

WHEN SPECIFIED BY THE DESIGN ENGINEER AND DETAILED ON THE APPROVED PLANS, PLASTIC SEWER PIPE MAY BE USED IN ACCORDANCE WITH THE

FOLLOWING MINIMUM REQUIREMENTS.

1. DESIGN

THE DESIGN ENGINEER SHALL ENSURE THAT HIS DESIGN SPECIFICATIONS AND DRAWINGS ARE MADE IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS, MAG STANDARD SPECIFICATIONS, STATE AND COUNTY HEALTH DEPARTMENT CODES AND THE FOLLOWING TOWN OF GILBERT STANDARD DETAILS.

2. INSPECTION FEES

INSPECTION FEES WILL BE IN ACCORDANCE WITH THE TOWN OF GILBERT'S OFF-SITE INSPECTION FEE SCHEDULE. "REQUIRED INSPECTIONS" REQUIRE A 24 HOUR NOTICE BY THE CONTRACTOR AND MUST BE SATISFACTORILY COMPLETED BEFORE WORK CONTINUES.

3. INSTALLATION AND TESTING (REPLACES MAG 745.8)

- PVC PIPE AND FITTING INSTALLATION SHALL BE IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF MAG SECTION 601 AND 615 AND TOWN OF GILBERT STANDARD DETAIL NO. 86.
- GRANULAR MATERIAL FOR THE PURPOSE OF THIS SECTION SHALL MEAN A MATERIAL APPROVED BY THE TOWN ENGINEER.
- AFTER TRENCHING HAS BEEN COMPLETED, A FOUR-INCH LAYER OF GRANULAR MATERIAL SHALL BE PLACED ON THE BOTTOM OF THE TRENCH AND HAND LEVELED. THE PIPE SHALL THEN BE INSTALLED IN ACCORDANCE WITH TOWN OF GILBERT STANDARD DETAIL NO. 86 P.V.C. PIPE BEDDING DETAIL.
- A REQUIRED INSPECTION WILL BE MADE BY THE TOWN'S INSPECTOR AFTER COMPLETION OF LAYING OF PIPE ("C" ABOVE) BUT PRIOR TO HAUNCHING.
- AFTER THE TOWN'S INSPECTOR IS SATISFIED WITH THE LAYING OF PIPE, THE CONTRACTOR WILL HAUNCH THE PIPE WITH A GRANULAR MATERIAL AROUND THE SIDE OF THE PIPE TO THE SPRING LINE BY HAND. THE GRANULAR MATERIAL SHALL BE CAREFULLY PLACED TO FILL ALL VOIDS AROUND THE PIPE AND PREVENT LATERAL MOVEMENT. THE CONTRACTOR WILL PLACE A SECOND LIFT OF GRANULAR MATERIAL AROUND THE PIPE TO A LEVEL OF AT LEAST SIX INCHES ABOVE THE PIPE.
- EACH LAYER OF GRANULAR MATERIAL SHALL BE COMPACTED TO 95% OF STANDARD PROCTOR DENSITY.
- A REQUIRED INSPECTION AFTER COMPLETION OF "G" ABOVE SHALL BE MADE BY THE TOWN'S INSPECTOR. COMPACTION TESTS OF THE MATERIAL AROUND THE PIPE MAY BE REQUIRED BY THE TOWN ENGINEER AND IF REQUIRED, THE TESTS SHALL BE PAID BY THE CONTRACTOR.
- UPON COMPLETION AND ACCEPTANCE OF BACKFILLING AND AFTER A MINIMUM OF 20 DAYS, BUT BEFORE SURFACE COURSE OF ASPHALT PAVING, A 5% DEFLECTION TESTING DEVICE (GO-NO-GO) WILL BE PULLED THROUGH THE ENTIRE LENGTH OF THE MAIN INSTALLED. ANY SECTION FAILING TO PASS THIS TEST SHALL BE REPAIRED AND RETESTED AT NO EXPENSE TO THE TOWN.
- THE CONTRACTOR SHALL HAVE A STRING PLACED THROUGH ALL LINES PRIOR TO CALLING FOR DEFLECTION TEST.

4. DEFLECTION LIMITS

PIPE SIZE	MINIMUM DIAMETER OF DEVICE	
	5%	7.5
8"	7.49	7.29
10"	9.37	9.12
12"	11.15	10.86
15"	13.66	13.30

5. ONE-YEAR WARRANTY

THE CONTRACTOR/DEVELOPER SHALL WARRANTY THE WORK PERFORMED UNDER THESE SPECIFICATIONS IN ACCORDANCE WITH MAG SECTION 108.8.

THE CONTRACTOR SHALL HAVE A TELEVISION INSPECTION PERFORMED ON ALL NEW SEWER LINES PRIOR TO ISSUANCE OF A CONDITIONAL LETTER OF ACCEPTANCE.

THE CONTRACTOR IS REQUIRED (AS PART OF THE PERMIT) TO APPLY PESTICIDE-LADEN (SUPER I.Q.) TO ALL MANHOLES ON THE PROJECT. SATISFACTORY TREATMENT OF ALL MANHOLES IS REQUIRED PRIOR TO FINAL ACCEPTANCE BY THE TOWN OF GILBERT.

IN ACCORDANCE WITH AAC R-18-4.213, ALL MATERIALS ADDED AFTER JANUARY 1, 1993 WHICH MAY COME INTO CONTACT WITH DRINKING WATER SHALL CONFORM TO NATIONAL SANITATION FOUNDATION STANDARDS 60 AND 61.

100 PERCENT OF SEWER LINE WILL BE INCLUDED IN LOW PRESSURE AIR TEST. THIS WILL BE PERFORMED UPON COMPLETION OF ALL UTILITIES AND PRIOR TO PLACEMENT OF ANY CONCRETE.

GRADING / EARTHWORKS NOTES

- ALL GRADING AND EARTHWORK REQUIRES A DUST CONTROL PERMIT FROM THE COUNTY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN THE PERMIT AND FOLLOW ALL REQUIREMENTS SET FORTH IN THE PERMIT.
- ALL GRADING AND EARTHWORK SHALL MEET ANY REQUIREMENTS SET FORTH UNDER THE AZPDES PERMIT RELATING TO CONSTRUCTION ACTIVITIES POTENTIAL FOR STORM WATER POLLUTION DISCHARGES. THIS WOULD INCLUDE FILING AN NOI AND FOLLOWING THE REQUIREMENTS SET FORTH IN A STORM WATER POLLUTION PREVENTION PLAN.
- A GEOTECHNICAL REPORT FOR THIS SITE HAS BEEN PREPARED BY SPEEDIE AND ASSOCIATES (JOB NO. 1212845A) DATED OCTOBER 5, 2012. THE CONTRACTOR SHALL OBTAIN A COPY OF SAID REPORT AND FOLLOW THE RECOMMENDATIONS SET FORTH IN THIS REPORT AS WELL AS ANY ADDENDUMS WHICH HAVE BEEN PREPARED.

STAKING NOTES

CALL THE BLUE STAKE CENTER (263-1100) 48 HOURS BEFORE DIGGING FOR LOCATION OF UNDERGROUND UTILITIES AND NOTIFY SRP.

ALL OFFSET OR REFERENCE STAKES SET BY THE ENGINEER ARE TO BE MAINTAINED INTACT. NO CLAIMS FOR ADDITIONAL COMPENSATION FOR CORRECTIONS SHALL BE PRESENTED TO ANY PARTY UNLESS SUCH STAKES ARE PRESENT AND THEIR ORIGIN IS VERIFIED. IF STAKES ARE NOT MAINTAINED INTACT ALL CORRECTIONS SHALL BE MADE BY THE CONTRACTOR AT HIS EXPENSE.

SANITARY SEWER SYSTEMS:

4"- 15" DIAMETER: PVC SDR-35, ASTM D-3034
* ALTERNATE PIPE MATERIALS MAY BE APPROVED ON A CASE BY CASE BASIS
16"- 30" DIAMETER: VITRIFIED CLAY PIPE (VCP), ASTM C-700
* ALTERNATE PIPE MATERIALS MAY BE APPROVED ON A CASE BY CASE BASIS

TRAFFIC SIGNING GENERAL NOTES

- THE CONTRACTOR INSTALLING SIGNING WITH THE TOWN'S RIGHT-OF-WAY WILL BE REQUIRED TO OBTAIN A SIGNING INSTALLATION PERMIT 15 DAYS PRIOR TO ANY INSTALLATION.
- THE SIGNING CONTRACTOR SHALL MAKE CONTACT WITH THE TRAFFIC ENGINEERING SECTION AT 480-503-6186 TO ARRANGE FOR A PRE-INSTALLATION MEETING. NO SIGNING IS TO BE INSTALLED PRIOR TO MEETING WITH A REPRESENTATIVE FROM THE TRAFFIC ENGINEERING SECTION.
- ALL SIGNING SHALL CONFORM TO THE REQUIREMENTS CONTAINED IN THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND HANDBOOK, AND THE LATEST EDITION OF THE ARIZONA SUPPLEMENT PUBLISHED BY THE ARIZONA DEPARTMENT OF TRANSPORTATION.
- ALL SIGNS SHALL BE INSTALLED USING 1-3/4 INCH OR 2 INCH SQUARE TUBING AS PER TOWN OF GILBERT STANDARD DETAIL GIL-227.
- SIGNS SHALL BE SECURED TO POST USING 3/8 INCH X 2-1/2 INCH PLATED HEX HEAD BOLTS WITH FLAT WASHERS (2 EACH) AND NYLON STOP NUTS. A NYLON WASHER SHALL BE PLACED NEXT TO SIGN FACE.
- SIGNS THAT ARE REQUIRED TO BE REMOVED OR RELOCATED DURING CONSTRUCTION WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. ANY SIGNING THAT IS TO BE RELOCATED OR REMOVED DUE TO CONSTRUCTION SHALL BE REINSTALLED IN ITS FINAL LOCATION PER TOWN OF GILBERT STANDARD DETAIL GIL-227.
- THE CONTRACTOR SHALL ALLOW THE CONCRETE IN THE POSTHOLES TO CURE FOR AT LEAST 24-HOURS PRIOR TO STANDING THE POLES AND HANGING ANY SIGNING.
- THE CONTRACTOR SHALL ENSURE THAT AT NO TIME A TRAFFIC SIGN IS INSTALLED IN SUCH A WAY AS TO BE BLOCKED BY TREES OR ANY TYPE OF VEGETATION. IN THESE CASES, THE CONTRACTOR SHALL CONTACT THE TRAFFIC ENGINEERING SECTION AT 480-503-6186 TO PROVIDE AN ALTERNATIVE LOCATION FOR THE INSTALLATION OF SIGNING IN QUESTION.
- ANY SIGNING THAT IS TO BE AFFIXED TO A STREET LIGHT POLE SHALL BE DONE SO USING 3/4 INCH STAINLESS STEEL BANDING WITH APPROPRIATE FASTENERS.
- ANY SIGNING INSTALLED WITHIN THE TOWN'S RIGHT-OF-WAY SHALL BE INSTALLED BY AN INDIVIDUAL THAT HAS CURRENT CERTIFICATION IN SIGNING INSTALLATION OR INSPECTION FROM AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION (ATSSA) OR THE INTERNATIONAL MUNICIPAL SIGNAL ASSOCIATION (IMSA). EQUIVALENTS WILL BE CONSIDERED BUT MUST BE SUBMITTED IN WRITING TO THE TRAFFIC ENGINEER 30 DAYS PRIOR TO INSTALLATION OF ANY SIGNING.
- SIGNING QUANTITIES AND INSTALLATION LOCATIONS ARE SUBJECT TO CHANGE AT THE TIME OF INSTALLATION BASED UPON CURRENT ACCEPTED PRACTICE. THE CONTRACTOR COMPLETING THE SIGNING INSTALLATION SHALL MAKE CONTACT WITH THE TRAFFIC ENGINEERING SECTION PRIOR TO ANY SIGNING BEING INSTALLED WITHIN THE TOWN'S RIGHT-OF-WAY.
- ALL SIGNING WILL INCORPORATE ASTM TYPE IV (HIGH INTENSITY) SHEETING AS A MINIMUM WITH THE FOLLOWING EXCEPTIONS:

ALL WARNING SIGNS (YELLOW SERIES) SHALL BE ASTM TYPE XI (FLUORESCENT YELLOW SHEETING).

ALL REGULATORY SIGNS SHALL BE ASTM TYPE XI SHEETING.

STREET NAME SIGNS:

ANY ARTERIAL STREET INTERSECTION (ALL BLADES) SHALL BE ASTM TYPE XI SHEETING

ALL OTHER INTERSECTIONS SHALL BE ASTM TYPE IV SHEETING

ALL OVERHEAD INTERNALLY ILLUMINATED STREET NAME SIGNS SHALL BE ASTM TYPE XI TRANSLUCENT SHEETING

ALL SCHOOL AREA SIGNING SHALL BE ASTM TYPE XI SHEETING (FLUORESCENT YELLOW-GREEN)

13. ALL SIGNING SPECIFIED TO BE ASTM TYPE IV (HIGH INTENSITY) SHALL BE 3M 3930 SHEETING OR EQUIVALENT, TO INCLUDE THE SAME WARRANTY PERIOD.

14. ALL SIGNING SPECIFIED TO BE ASTM TYPE XI SHALL BE 3M 4000 (DIAMOND GRADE) SHEETING OR EQUIVALENT, TO INCLUDE THE SAME WARRANTY PERIOD.

15. SIGN IMAGING SHALL BE IN COMPLIANCE WITH THE REFLECTIVE SHEETING MANUFACTURERS MATCHED COMPONENT SYSTEM. SIGN IMAGING SHALL CONSIST OF AN ACRYLIC BASED ELECTRONIC CUTTABLE FILM (3M 1170 SERIES OR EQUIVALENT) OR SILK SCREENED (DEPENDING ON THE QUANTITY OF SIGNAGE) WITH STANDARD HIGHWAY COLORS.

16. ANY REQUEST TO USE SHEETING OTHER THAN THAT SPECIFIED ABOVE SHALL BE MADE IN WRITING TO THE TRAFFIC ENGINEER 30 DAYS IN ADVANCE OF INSTALLATION.

TOWN OF GILBERT PUBLIC WATER NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CURRENT MAG SPECIFICATIONS AND DETAILS WITH THE TOWN OF GILBERT'S ADDITIONS AND DELETIONS.
- WATER LINES (4"-12") SHALL COMPLY TO AWWA STANDARD PVC C-900, DR-18, CLASS 235, ASTM C900-07. WATER LINES (14"-16") SHALL COMPLY TO AWWA STANDARD PVC C-905, DR-18, CLASS 235, ASTM C905-10. ALL LINES SHALL COMPLY TO AWWA STANDARD PVC C-905, DR-18, CLASS 235, ASTM C905-10 OR APPROVED ALTERNATIVE. RIEBER SEALING SYSTEM GASKET JOINT IS RECOMMENDED AND PREFERRED. PIPE BEDDING FOR PVC C-900 SHALL CONFORM TO TOWN OF GILBERT STANDARD DETAIL NO. 85. ALL FITTINGS AND VALVES SHALL BE "MECHANICAL JOINT" TYPE, EXCEPT AS SHOWN ON TOWN OF GILBERT STANDARD DETAIL NO. 60. ALL WATER LINES TO BE PROPERLY RESTRAINED USING JOINT SYSTEM SUCH AS: MEGALUG OR AN APPROVED EQUAL.
- THE TOWN ENGINEER SHALL BE NOTIFIED TWENTY-FOUR (24) HOURS PRIOR TO STARTING THE DIFFERENT PHASES OF CONSTRUCTION FOR SCHEDULING INSPECTIONS.
- ACCEPTANCE OF THE COMPLETED RIGHT-OF-WAY IMPROVEMENTS WILL NOT BE GIVEN UNTIL FOUR (4) MIL MYLAR REPRODUCIBLE "AS-BUILT" PLANS HAVE BEEN SUBMITTED TO AND APPROVED BY THE TOWN ENGINEER.
- LOCATION OF ALL WATER VALVES MUST BE REFERENCED AT ALL TIMES DURING CONSTRUCTION AND MADE AVAILABLE TO THE WATER DISTRIBUTION DIVISION. ONLY TOWN EMPLOYEES ARE AUTHORIZED TO OPERATE THE VALVES AND FIRE HYDRANT CONNECTIONS TO THE TOWN'S WATER SYSTEM.
- ANY WORK PERFORMED WITHOUT THE APPROVAL OF THE TOWN ENGINEER AND/OR ALL WORK AND MATERIALS NOT IN CONFORMANCE WITH THE SPECIFICATION IS SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR WILL UNCOVER ALL EXISTING LINES BEING TIED INTO TO VERIFY THEIR LOCATION PRIOR TO TRENCHING. THE CONTRACTOR WILL LOCATE OR HAVE LOCATED ALL EXISTING UNDERGROUND PIPELINES, TELEPHONE AND ELECTRIC CONDUITS, AND STRUCTURES IN ADVANCE OF CONSTRUCTION AND WILL OBSERVE ALL POSSIBLE PRECAUTIONS TO AVOID DAMAGE TO SAME. CALL BLUE STAKE AT (602) 263-1100 AND NOTIFY SRP.
- ALL VALVES SHALL BE GATE TYPE, UNLESS OTHERWISE NOTED, AND OPEN COUNTER CLOCKWISE. WATER VALVES SHALL BE MUELLER, CLOW, WATEROUS, OR APPROVED EQUAL.
- SUITS IN WATER LINES SHALL BE LOCATED AT FIRE HYDRANTS.
- BACKFILLING SHALL NOT BE STARTED UNTIL LINES ARE APPROVED BY THE TOWN ENGINEER'S REPRESENTATIVE.
- ALL BACKFILL FOR WATER LINES "SHALL" BE PER TOWN OF GILBERT STANDARD DETAIL NO. 85 (C-900 PVC WATER PIPE BEDDING DETAIL). ALL PAVEMENT AND SURFACE RESTORATION "SHALL" BE PER TOWN OF GILBERT STANDARD DETAIL NO. 45.
- THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION.
- THE TOWN OF GILBERT IS NOT RESPONSIBLE FOR LIABILITY ACCRUED DUE TO DELAYS AND/OR DAMAGE TO UTILITIES IN CONJUNCTION WITH THIS CONSTRUCTION. ALSO, THE TOWN WILL NOT PARTICIPATE IN THE COST OF CONSTRUCTION OR UTILITY RELOCATION.
- ORDINANCE #1437, APPROVED BY THE TOWN COUNCIL IN OCTOBER 2002, STATES: NO CONSTRUCTION WATER FROM FIRE HYDRANTS SHALL BE USED ON PARCELS OR LOTS OF TEN ACRES OR MORE IN SIZE. FOR MORE INFORMATION, THE ORDINANCE IS LOCATED ON THE TOWN OF GILBERT WEB SITE AT WWW.CI.GILBERT.AZ.US. TO OBTAIN CONSTRUCTION WATER, THE CONTRACTOR IS REQUIRED TO MAKE APPLICATION WITH THE PUBLIC WORKS WATER DIVISION. A SECURITY DEPOSIT IS REQUIRED TO RECEIVE A FIRE HYDRANT METER. THE TOWN RESERVES THE RIGHT TO SPECIFY THE TIME AND LOCATION THAT CONSTRUCTION WATER CAN BE DELIVERED.
- WATER SERVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE TOWN OF GILBERT STANDARD DETAIL NO. 62.
- FIRE HYDRANTS SHALL BE CLOW-MEDALLION, AVK, CLOW-F2500, WATEROUS, OR APPROVED EQUAL AND INSTALLED PER TOWN OF GILBERT STANDARD DETAIL 60, AND SHALL BE 3'-6" BURY DEPTH. ADJUSTMENTS IN GRADE SHALL BE DONE USING "GRADELOK" OFFSET. EXTENSIONS ON FIRE HYDRANTS WILL NOT BE PERMITTED. A BLACK, HEAVY DUTY BAG WITH A "TIE DOWN" SHALL BE PLACED OVER ALL NEW HYDRANTS AND MAINTAINED UNTIL THE SYSTEM HAS BEEN APPROVED BY THE INSPECTOR.
- TRAFFIC CONTROL SHALL BE PER 2003 EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES HANDBOOK AND TOWN OF GILBERT STANDARD DETAILS.
- THE TOWN INSPECTOR WILL DETERMINE THE NUMBER AND LOCATION OF THE REQUIRED COMPACTION TESTS. THE CONTRACTOR/DEVELOPER WILL NOTIFY THE TESTING LAB, AND PAY THE COSTS TO PERFORM THE TESTS.
- THE TOWN WILL NOT ACCEPT WATER LINES WITH LESS THAN THREE (3) FEET OF COVER.
- A MINIMUM OF SIX-FOOT HORIZONTAL SPACING BETWEEN SEWER AND WATER SERVICES SHALL BE MAINTAINED.
- PRIOR TO FINAL APPROVAL AND ACCEPTANCE OF THE WORK THE DEVELOPER/CONTRACTOR WILL BE REQUIRED TO CLEAN AND REPAIR ADJACENT (OFF-PROJECT) ROADWAYS USED DURING THE COURSE OF THEIR CONSTRUCTION.
- A 2" X 4" STAKE (PAINTED BLUE) SHALL BE SET ONE (1) FOOT BEHIND EACH WATER SERVICE. ALL 2" X 4" STAKES MARKING WATER SERVICES SHALL BE FIVE (5) FEET IN LENGTH AND FIRMLY SET INTO THE GROUND TO A DEPTH OF THREE (3) FEET.
- ALL BACK FLOW PREVENTION DEVICES SHALL MEET THE REQUIREMENTS OF THE TOWN OF GILBERT BACK FLOW PREVENTION ORDINANCE (#869), OTHERWISE KNOWN AS ARTICLE 7-14 OF THE TOWN OF GILBERT MUNICIPAL CODE: CROSS CONNECTION CONTROL.
- ALL BACK FLOW DEVICES SHALL BE TESTED BY A STATE CERTIFIED BACKFLOW TESTER AND TEST RESULTS FORWARDED TO THE TOWN OF GILBERT BACKFLOW SPECIALIST. THE TOWN WILL PROVIDE AN UP-TO-DATE LIST OF CERTIFIED TESTERS FROM WHICH TO BE SELECTED. TESTER FEES WILL BE AT THE EXPENSE OF THE INSTALLER.
- NOTE: A TOWN OF GILBERT PERMIT IS REQUIRED FOR THE INSTALLATION OF ANY LANDSCAPING OR IRRIGATION SYSTEM. IRRIGATION LINES MUST BE INSPECTED BEFORE BACKFILLING. FOUR (4) MIL MYLAR AS-BUILTS ARE ALSO REQUIRED.
- USE THE FOLLOWING TABLE FOR METER BOXES AND METER BOX COVERS:

METER SIZE	MAG STD DETAIL	MAG STD. BOX NO.
3/4"	#A6000485*	#A6000484*
1"	#A6000485*	#A6000484*
2"	320-4	313-NO. 4

*ARMORCAST PRODUCTS COMPANY; COVER WITH HOLE FOR TOUCH PAD.

CALL OUT THE NUMBER OF AND THE MAG STANDARD DETAIL NUMBERS FOR YOUR METER BOXES AND COVERS IN YOUR LIST OF QUANTITIES.

AA. WATER MAIN CHLORINATION:

CALCIUM HYPOCHLORITE SHALL BE ADDED TO ALL NEW WATER MAINS/FIRE LINES FOR DISINFECTION PER THE FOLLOWING TABLE:

12" MAINS - .35 LBS. OR 5.60 OZ PER ONE-HUNDRED (100) FEET OF PIPE
8" MAINS - .12 LBS. OR 1.92 OZ PER ONE-HUNDRED (100) FEET OF PIPE
6" MAINS - .08 LBS. OR 0.48 OZ PER ONE-HUNDRED (100) FEET OF PIPE

AB. WATER METER REGISTER ODOMETER RESOLUTION SPECIFICATION

ALL WATER METER REGISTERS FURNISHED TO, OR INSTALLED IN THE TOWN OF GILBERT, ARIZONA SHALL CONFORM TO THE FOLLOWING SPECIFICATIONS:

a. ALL REGISTERS SHALL HAVE AN ENCODED OUTPUT AND UTILIZE SENSUS PROTOCOL. REGISTERS WILL HAVE ELECTRONIC TOUCH READ CAPABILITY AND BE ENTIRELY COMPATIBLE WITH CURRENT TOWN OF GILBERT METER READING EQUIPMENT.

b. REGISTER RESOLUTION FOR METER SIZE SHALL BE AS FOLLOWS:

METER SIZE	REGISTER RESOLUTION (GAL)	METER TYPE
3/4" METRON FARNIER OR APPROVED EQUAL	1,000	MULTI-JET, OR SINGLE-JET
1" METRON FARNIER OR APPROVED EQUAL	1,000	MULTI-JET, OR SINGLE-JET
1-1/2" THRU 10" METRON FARNIER OR APPROVED EQUAL	1,000	SINGLE-JET

ALL METERS SHALL MEET AWWA NEW METER TEST STANDARDS.

WATER AND SEWER SERVICE INSTALLATION SPECIFICATIONS ARE DEPICTED IN THE TOWN OF GILBERT STANDARD DETAILS AS FOLLOWS:

NO. 62	1" TO 2" WATER SERVICE INSTALLATION
NO. 60	FIRE HYDRANT
NO. 60A	FIRE HYDRANT
NO. 61	PAVEMENT MARKERS FOR FIRE HYDRANTS
NO. 83	REDUCED PRESSURE PRINCIPLE DEVICE
NO. 83-A	AIR RELEASE VALVE
NO. 83-B	GUARD POSTS
NO. 83-C	DOUBLE CHECK VALVE ASSEMBLY
NO. 83-L	REDUCED PRESSURE PRINCIPLE-LANDSCAPE

POTABLE WATER SYSTEMS:

4" - 12" DIAMETER:	C-900, DR-18, CLASS 235, ASTM C900-07
14"- 16" DIAMETER:	C-905, DR-18, CLASS 235, ASTM C905-10
18" DIAMETER & ABOVE:	C-905, DR-18, CLASS 235, ASTM C905-10 OR APPROVED ALTERNATE

* ALTERNATE PIPE MATERIALS MAY BE APPROVED ON A CASE BY CASE BASIS

Note:
All Potable Pipe Designations shall conform to Town of Gilbert Standards as set forth is the Town of Gilbert Memorandum dated 04.15.2010 as shown below:

- 4" - 12" Diameter: C-900, DR-18, Class 235, ASTM C900-07
- 14" - 16" Diameter: C-905, DR-18, Class 235, ASTM C905-10
- 18" Diameter & above: C-905, DR-18, Class 235, ASTM C905-10 or Approved Alternate

o Alternate pipe materials may be approved on a case by case basis.

PAVEMENT MARKING GENERAL NOTES

- THE CONTRACTOR OR THE SUB-CONTRACTOR INSTALLING PAVEMENT MARKINGS WITHIN THE TOWN'S RIGHT-OF-WAY IS REQUIRED TO OBTAIN A STRIPING PERMIT PRIOR TO ANY INSTALLATION. PERMIT APPLICATIONS CAN BE OBTAINED FROM THE DEVELOPMENT SERVICES DEPARTMENT LOCATED AT 90 E. CIVIC CENTER DR, GILBERT, AZ. 85296, OR BY CALLING (480) 503-6700.
- ALL PAVEMENT MARKINGS SHALL CONFORM TO THE ARIZONA DEPARTMENT OF TRANSPORTATION STANDARD DRAWINGS AND SPECIFICATIONS UNLESS OTHERWISE SPECIFIED IN THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, OR AS NOTED ON THE PLANS.
- THE CONTRACTOR SHALL SPOT MARK THE ENTIRE PROJECT BEFORE APPLYING ANY MARKINGS. WHEN THE SPOTTING IS COMPLETE, THE CONTRACTOR SHALL CONTACT THE TRAFFIC ENGINEERING SECTION AT (480) 503-6186 TO MAKE ARRANGEMENTS FOR INSPECTION PRIOR TO APPLYING ANY PAINT (3 BUSINESS DAYS ADVANCE NOTICE IS REQUIRED). THE PERMANENT MARKING PLANS MAY BE MODIFIED AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL REFER ANY QUESTIONS CONCERNING PAVEMENT MARKINGS TO THE TOWN OF GILBERT TRAFFIC ENGINEERING SECTION.
- ANY PAVEMENT MARKINGS APPLIED PRIOR TO FIELD INSPECTION BY THE TOWN OF GILBERT'S TRAFFIC ENGINEERING SECTION SHALL BE REMOVED AND RE-STRIPED AT THE CONTRACTOR'S EXPENSE.
- ALL NO PASSING ZONES SHOWN ARE SUBJECT TO CHANGE IN THE FIELD BY THE ENGINEER. AS A RESULT, STRIPING QUANTITIES COULD VARY.
- ALL STRIPING WILL BE APPLIED INITIALLY IN PAINT (TO INCLUDE ALL ITEMS SPECIFIED TO BE APPLIED IN THERMOPLASTIC). THE CONTRACTOR WILL BE REQUIRED TO RE-STRIPED THE ENTIRE PROJECT 30 TO 45 DAYS AFTER INITIAL STRIPING. AT THIS TIME ALL SYMBOLS, TRANSVERSE MARKINGS, AND HOLDING BARS WILL BE RE-STRIPED IN A MELT-IN-PLACE PREFORMED THERMOPLASTIC TAPE OR EXTRUDED THERMOPLASTIC AND THE REMAINDER OF THE PROJECT IN PAINT.
- ALL STRIPING WITHIN 200 FEET OF SIGNALIZED INTERSECTION SHALL BE APPLIED IN EXTRUDED THERMOPLASTIC.
- PAINTED PAVEMENT MARKINGS SHALL BE PLACED ON THE PAVEMENT BY SPRAY-TYPE, SELF PROPELLED PAVEMENT MARKING MACHINE DESIGNED FOR APPLICATION OF PAINT AND BEADS.
- RAISED PAVEMENT MARKERS SHALL BE INSTALLED ON THE NEW PAVEMENT. THEY SHALL BE INSTALLED PER NON-ADHESIVE WITH AN ABRASIVE RESISTANT SURFACE. THEY SHALL BE SECURED TO THE PAVEMENT WITH A HOT FLEXIBLE MARKER ADHESIVE. ALL MARKERS SHALL BE INSTALLED SO THAT THE REFLECTIVE FACE OF EACH MARKER IS FACING THE DIRECTION OF TRAFFIC AND IS PERPENDICULAR TO THE DIRECTION OF TRAFFIC FLOW.
- WHERE RAISED PAVEMENT MARKERS ARE PLACED ALONG SOLID STRIPING, THE NEAREST EDGE OF EACH MARKER SHALL BE OFFSET NO LESS THAN 4 INCHES AND NO MORE THAN 6 INCHES FROM THE NEAREST EDGE OF THE STRIPING.
- THE DIMENSIONS SHOWN TO THE PAVEMENT MARKING STRIPES ARE TO THE CENTER OF THE STRIPE, OR IN THE CASE OF A DOUBLE STRIPE, TO THE CENTER OF THE DOUBLE STRIPE.
- ALL PERMANENT PAVEMENT LINES PARALLEL TO THE FLOW OF TRAFFIC SHALL BE INSTALLED AT A MINIMUM THICKNESS OF 15 MILLS AND SHALL BE PLACED IN ACCORDANCE WITH THE ARIZONA DEPARTMENT OF TRANSPORTATION SECTION 708 - PERMANENT PAVEMENT MARKINGS.
- ALL STRIPING SHALL BE A MINIMUM WIDTH OF 4 INCHES EXCEPT WHERE NOTED ON THE PLANS, OR AS NOTED BELOW:
 - ALL EDGE OR BIKE LINES SHALL BE 6 INCHES IN WIDTH
 - ALL HOLDING BARS SHALL BE 8 INCHES IN WIDTH
 - ALL CROSSWALK LINES SHALL BE 12 INCHES IN WIDTH
 - ALL STOP BARS SHALL BE 18 INCHES IN WIDTH
- THE PAVEMENT MARKING DIMENSIONS ON ANY GIVEN SET OF PLANS MAY BE SCHEMATIC AND NOT TO SCALE; THEREFORE, THE CONTRACTOR SHALL FOLLOW ALL STANDARD DETAILS THAT ARE NOTED ON THE PLANS WHEN INSTALLING PAVEMENT MARKINGS.
- WHEN STRIPING OBLITERATION IS NECESSARY, IT SHALL BE ACCOMPLISHED BY WATER BLASTING (OTHER METHODS MAY BE ALLOWED WITH PRIOR APPROVAL OF THE TOWN TRAFFIC ENGINEER). A SEALANT APPROVED BY THE TOWN OF GILBERT TRAFFIC ENGINEER SHALL BE PROVIDED AND APPLIED BY THE CONTRACTOR TO ALL AREAS OF PAVEMENT MARKING OBLITERATION. APPLYING PAINT OVER STRIPING DOES NOT CONSTITUTE STRIPE OR THATCHING. STRIPING OBLITERATION MAY GO BEYOND THE PROJECT LIMITS SO THAT THE NEW STRIPING WILL MATCH EXISTING PAVEMENT MARKINGS. THE TOWN OF GILBERT TRAFFIC ENGINEER MAY REQUIRE THE CONTRACTOR TO ADJUST SIGNING AND STRIPING AS NECESSARY. REMOVAL OF RAISED PAVEMENT MARKERS WITHIN OBLITERATION LIMITS IS INCIDENTAL.
- MEDIAN ENDS SHALL BE MARKED IN ACCORDANCE WITH THE TOWN OF GILBERT STANDARD DETAIL GIL-240.
- IF NECESSARY FOR SMOOTH TRAFFIC FLOW, THE CONTRACTOR MAY BE REQUIRED TO ADD ADDITIONAL ASPHALT TO ACCOMMODATE TRAFFIC. THE CONTRACTOR OR DEVELOPER WILL BE REQUIRED TO COMPLETE THIS AT THEIR EXPENSE.
- SHOULD FIELD CONDITIONS CHANGE DUE TO CONSTRUCTION ON ADJACENT PIECES OF ROADWAY, THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE TOWN OF GILBERT TRAFFIC ENGINEER AT (480) 503-6186 AND WILL BE REQUIRED TO SUBMIT FOR REVIEW, AN UPDATED PAVEMENT MARKING AND SIGNING PLAN 21 DAYS PRIOR TO PAVING. THE CONTRACTOR MAY BE REQUIRED TO RE-STRIPED, STRIPE, AND DESIGN SIGNING FOR ADJACENT PORTIONS OF ROADWAY THAT ARE AFFECTED BY THEIR CONSTRUCTION. ANY CHANGES, ADDITIONS, OR DELETIONS WILL BE ACCOMPLISHED BY THE CONTRACTOR AT THEIR EXPENSE.
- ALL SIGNING AND PAVEMENT MARKINGS SHALL BE INSTALLED WITHIN 5 DAYS OF COMPLETION OF THE FINAL LIFT OF ASPHALT OR AS REQUIRED BY THE ENGINEER. TEMPORARY TRAFFIC CONTROL MAY BE REQUIRED BETWEEN FINAL PAVING AND COMPLETION OF SIGNING AND STRIPING.

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Gateway Pointe - Offsite Improvements
Gilbert, Arizona

General Notes

Project:
Revisions:

Call at least two full working days before any beginning of work

Due to the fact that the project is located in Maricopa County, the project is subject to the jurisdiction of the Maricopa County Sheriff's Office (MCSO) and the Maricopa County Sheriff's Office (MCSO) is the authority for the project.
Designer: DMA
Drawn by: MSA

Expires: 12/31/2018
Job No.
17-265
CS02
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REVIEW 2017-01065

STANDARD FIRE DEPARTMENT NOTES

GENERAL FIRE PLAN SUBMITTALS:

THESE NOTES ARE REQUIRED TO BE ON THE COMMERCIAL, INDUSTRIAL AND MULTI-FAMILY PLANS FOR ALL SUBMITTALS

- 1. CONSTRUCTION WITHIN THE TOWN OF GILBERT SHALL COMPLY WITH THE 2012 INTERNATIONAL FIRE CODE (IFC) AS AMENDED AND ADOPTED BY FIRE CODE SUB-SECTIONS 10-37-1, 10-37-2 AND 2012 FIRE CODE INTERPRETATIONS & REGULATIONS.
- 2. THE APPLICANT IS RESPONSIBLE TO IDENTIFY AND COORDINATE DEFERRED SUBMITTALS.
- 3. PLANS AND SPECIFICATIONS FOR FIRE ALARM SYSTEMS, AUTOMATIC FIRE EXTINGUISHING SYSTEMS AND STANDPIPES SHALL BE SUBMITTED TO THE PERMITTING & PLAN REVIEW DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.
- 4. A KNOX BOX IS REQUIRED AT EVERY FIRE SPRINKLER RISER ROOM, WHEN RAPID ACCESS WOULD BE COMPROMISED BY LONG TRAVEL DISTANCE. KNOX BOXES SHALL BE REQUIRED AT OTHER LOCATIONS AT THE DISCRETION OF THE FIRE OFFICAL. REFER TO 2012 FIRE CODE INTERPRETATIONS & REGULATIONS 12-506.1

GENERAL FIRE SPRINKLER REQUIREMENTS:

- 1. PLANS AND SPECIFICATIONS FOR FIRE SPRINKLER SYSTEMS EXCEEDING 19 HEADS SUBMITTED FOR REVIEW SHALL BE SEALED BY A QUALIFIED ARIZONA REGISTRANT IN FIRE SPRINKLER DESIGN. THE INSTALLING CONTRACTOR'S NAME, ADDRESS AND PHONE NUMBER ARE TO BE INCLUDED ON THE DRAWINGS AND CALCULATIONS SUBMITTED FOR REVIEW AND APPROVAL. AS-BUILT DRAWINGS WILL BE REQUIRED WHERE FIELD CHANGES ARE MADE TO THE DESIGNED DRAWINGS. WHEN PIPING AND/OR SPRINKLER HEADS ARE ADDED TO INITIAL SPRINKLER SYSTEM INSTALLATIONS, UPDATED CALCULATIONS WILL BE REQUIRED. WHEN ADDITIONAL WIRING AND DEVICES ARE ADDED TO FIRE ALARM SYSTEMS, UPDATED VOLTAGE DROP AND BATTERY CALCULATIONS WILL BE REQUIRED.
- 2. FIRE SPRINKLERS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA STANDARDS AND TOWN OF GILBERT SPRINKLER ORDINANCE
- 3. THE FIRE SPRINKLER RISER SHALL BE LOCATED INSIDE A DEDICATED FIRE RISER ROOM AND SHALL COMPLY WITH TOWN OF GILBERT FIRE CODE AMENDED SECTION 903.3.
- 4. FIRE DEPARTMENT INLET CONNECTIONS (FDC) SHALL BE LOCATED ON THE WALL OF THE ADDRESS SIDE OR NATURAL APPROACH OF THE BUILDING IT SERVES AND SHALL IDENTIFY THE BUILDING(S) SERVED WITH PERMANENT SIGNAGE. A 2 1/2 INCH, NATIONAL STANDARD THREAD, SIAMSE CONNECTION (DOUBLE SNOOT) IS REQUIRED ON ALL NFPA 13 AND 13R FIRE SPRINKLER SYSTEMS.
- 5. ALL VALVES CONTROLLING THE WATER SUPPLY FOR AUTOMATIC SPRINKLER SYSTEMS AND WATER-FLOW SWITCHES ON ALL SPRINKLER SYSTEMS SHALL BE ELECTRICALLY MONITORED WHERE THE NUMBER OF SPRINKLER HEADS EXCEEDS 19. IBC SECTION 903.4
- 6. IN ADDITION TO AN EXTERIOR FIRE SPRINKLER SYSTEM ALARM BELL ABOVE THE FIRE RISER ROOM DOOR AND A WEATHER-PROOF 75CD HORN STROBE LOCATED OVER THE FIRE DEPARTMENT CONNECTION, INTERIOR ALARM NOTIFICATION SHALL BE PROVIDED IN ACCORDANCE WITH IFC SECTION 901.10 AND SECTION 4.28 OF ADA.

GENERAL FIRE ALARM REQUIREMENTS:

- 1. PLANS AND SPECIFICATIONS FOR FIRE ALARM SYSTEMS SUBMITTED FOR REVIEW SHALL BE SEALED BY A QUALIFIED ARIZONA REGISTRANT IN FIRE ALARM SYSTEM DESIGN.
- 2. ALARM INITIATING DEVICES, ALARM SIGNALING DEVICES AND OTHER FIRE ALARM SYSTEM COMPONENTS SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH 2006 IFC.
- 3. WHEN DUCT DETECTORS, REQUIRED BY IMC 606 OR IFC AND IBC SECTION 909, ARE CONCEALED FROM VIEW OR INSTALLED MORE THAN 10 FEET ABOVE FINISHED FLOOR OR IN ARRANGEMENTS WHERE THE DETECTORS ALARM INDICATOR IS NOT READILY VISIBLE TO RESPONDING PERSONNEL, AN LED WITH AUDIBLE DEVICE SHALL BE PROVIDED THROUGH THE CEILING LEVEL OR SIGHT OBSTRUCTION AT EACH DETECTOR. ALL DETECTION DEVICES PROVIDED SHALL BE MONITORED FOR INTEGRITY BY THE FIRE ALARM SYSTEM WHERE A FIRE ALARM IS INSTALLED.

GENERAL FIRE DEPARTMENT ACCESS:

- 1. APPROVED FIRE APPARATUS ACCESS ROADS SHALL BE PROVIDED FOR EVERY FACILITY, BUILDING OR PORTION OF A BUILDING HEREAFTER CONSTRUCTED OR MOVED INTO OR WITHIN THE JURISDICTION.
- 2. THE FIRE APPARATUS ACCESS ROAD SHALL COMPLY WITH THE REQUIREMENTS OF THIS SECTION AND SHALL EXTEND TO WITHIN 150 FEET OF ALL PORTIONS OF THE FACILITY AND ALL PORTIONS OF THE EXTERIOR WALLS OF THE FIRST STORY OF THE BUILDING AS MEASURED BY AN APPROVED ROUTE AROUND THE EXTERIOR OF THE BUILDING OR FACILITY. THE ROUTE IS TO BE MEASURED AROUND THE BUILDING AS THE FIRE HOSE WOULD BE LAID OUT AND IS NOT MEASURED THROUGH INTERIOR OR COVERED WALKWAYS OR WATER RETENTION BASINS. THE ROUTE OF THE FIRE APPARATUS ACCESS ROAD SHALL BE APPROVED BY THE FIRE DEPARTMENT.
- 3. APPARATUS ACCESS ROADS SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OR 20 FEET (FOC).
- 4. A MINIMUM VERTICAL CLEARANCE OF 15 FEET SHALL BE PROVIDED FOR THE APPARATUS ACCESS ROADS.
- 5. DEAD-END FIRE APPARATUS ACCESS ROADS IN EXCESS OF 150 FEET IN LENGTH SHALL BE PROVIDED WITH AN APPROVED MEANS FOR TURNING THE APPARATUS AROUND. FIRE APPARATUS TURNING RADIOS 35 FEET INSIDE AND 55 FEET OUTSIDE (FOC).
- 6. FIRE LANES SHALL BE MARKED BY SIGNS PER TOG DETAIL #63 AND/OR CURB PAINTED RED AND LABELED "FIRE LANE NO PARKING" PLACED NOT GREATER THAN 100 FEET APART AT THE BEGINNING AND END OF THE DESIGNATED FIRE LANE. REFER TO REGULATION 2006-003.
- 7. FIRE APPARATUS ACCESS ROADS SHALL HAVE A MAXIMUM GRADE OF
 - 0-4% GRADE ABC 61 95% COMPACTION
 - 4-10% GRADE CONCRETE ASPHALT, 4" OR MORE
 - GRADES STEEPER THAN 10% SHALL BE APPROVED BY THE FIRE OFFICIAL.

FIRE HYDRANT REQUIREMENTS:

- 1. THE MINIMUM NUMBER OF FIRE HYDRANTS SHALL NOT BE LESS THAN REQUIRED PER. THE MINIMUM REQUIRED FIRE FLOW IS 1500 (GPM) AT 20 (PSI) RESIDUAL PRESSURE.
- 2. A FIRE HYDRANT SHALL BE LOCATED WITHIN 150' OF THE FIRE DEPARTMENT CONNECTION (FDC). THE ROUTE IS TO BE MEASURED AS THE FIRE HOSE WOULD BE LAID OUT AND DOES NOT GO THROUGH WATER RETENTION BASINS, OVER WALLS OR SIMILAR OBSTRUCTIONS.
- 3. A 3-FOOT CLEAR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF ALL FIRE HYDRANTS.

FIRE SAFETY DURING CONSTRUCTION, ALTERATION OR DEMOLITION OF A BUILDING:

- 1. DURING CONSTRUCTION, YOU MUST PROVIDE AND MAINTAIN AN ALL WEATHER ROAD DESIGNED TO SUPPORT THE IMPOSED LOAD OF FIRE APPARATUS WEIGHING UP TO 85,000 POUNDS. SITES SHALL HAVE TWO POINTS OF ACCESS OR AS INDICATED AT PLAN REVIEW OR BY THE FIRE INSPECTOR. UNPAVED SURFACES SHALL HAVE A MINIMUM ABC 61 DEPTH COMPACTION TO 95% AND 20" WIDE. NO VEHICLE PARKING OR BUILDING MATERIAL OFF-LOADING ALLOWED ON THE EMERGENCY ACCESS ROAD. FIRE LAND SIGNS ARE REQUIRED TO BE POSTED ALONG THE ROAD.
- 2. A SIGN SHALL BE POSTED AT THE MAIN STREET ENTRANCE INDICATING EMERGENCY VEHICLE ENTRANCE. THE PROJECT NAME, THE PROJECT ADDRESS AND AN EMERGENCY CONTACT NUMBER OF A COMPANY REPRESENTATIVE. THE SIGN SHALL BE A MINIMUM OF 24" HIGH X 36" WIDE WITH WHITE REFLECTIVE BACKGROUND AND 3" RED REFLECTIVE LETTERS. IN ADDITION, ALL OFF-SITE WORK SHALL HAVE A SIGN POSTED AT THE MAIN STREET ENTRANCE THAT IS REFLECTIVE OF THE GEOGRAPHICAL LOCATION TO THE PROJECT. THE SIGN SHALL INCLUDE THE PROJECT NAME FOLLOWED BY THE CAPTION "OFF-SITE" AND THE GEOGRAPHICAL LOCATION.
- 3. ALL SITE HYDRANTS SHALL BE INSTALLED AND ACCEPTED BY THE TOWN ENGINEERING DEPARTMENT PRIOR TO COMBUSTIBLE MATERIALS BEING DELIVERED TO THE CONSTRUCTION SITE.
- 4. TEMPORARY DEAD END FIRE APPARATUS ACCESS ROADS IN EXCESS OF 150 FEET IN LENGTH SHALL BE PROVIDED WITH AN APPROVED MEANS FOR TURNING THE APPARATUS AROUND.
- 5. FIRE HYDRANTS PROVIDED DURING CONSTRUCTION SHALL BE LOCATED ALONG THE FIRE APPARATUS ACCESS ROADWAY.
- 6. FIRE HYDRANTS PROVIDED DURING CONSTRUCTION SHALL BE PROTECTED FROM VEHICULAR DAMAGE.

FIRE DEPARTMENT REQUIREMENTS FOR RESIDENTIAL DEVELOPMENT

- 1. RESIDENTIAL DEVELOPMENT WITHIN THE TOWN OF GILBERT SHALL COMPLY WITH THE 2012 INTERNATIONAL FIRE CODE AS AMENDED BY THE TOWN, FIRE DEPARTMENT REGULATIONS AND THE UNIFIED LAND DEVELOPMENT CODE.
- 2. FIRE SPRINKLERS SHALL BE INSTALLED IN ALL BUILDINGS EXCEPT DETACHED R-3 AND U-OCCUPANCIES IN ACCORDANCE WITH NFPA STANDARDS AND THE TOWN OF GILBERT

SPRINKLER ORDINANCE

- 3. THE MINIMUM NUMBER OF FIRE HYDRANTS SHALL NOT BE LESS THAN REQUIRED PER 2012 IFC APPENDIX B 8 C. FIRE HYDRANTS SHALL BE LOCATED ALONG THE ROUTE OF THE FIRE APPARATUS ACCESS ROADWAY. ADDITIONAL FIRE HYDRANTS ARE REQUIRED FOR ATTACHED HOMES, CLUSTER HOMES, AND PRIVATE STREET.
- 4. A 3-FOOT CLEAR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF ALL FIRE HYDRANTS.
- 5. A FIRE ACCESS ROAD SHALL BE PROVIDED WHEN ANY PORTION OF AN EXTERIOR WALL OF THE 1st STORY IS LOCATED MORE THAN 150' FROM FIRE APPARATUS ACCESS MEASURED BY AN APPROVED ROUTE AROUND THE EXTERIOR OF THE BUILDING. THE ROUTE IS TO BE MEASURED AROUND THE BUILDING AS THE FIRE HOSE WOULD BE LAID OUT AND IS NOT MEASURED THROUGH INTERIOR OR COVERED WALKWAYS OR WATER RETENTION BASINS.
- 6. THE ROUTE OF THE FIRE APPARATUS ACCESS ROAD SHALL BE APPROVED BY THE TOWN OF GILBERT FIRE DEPARTMENT.
- 7. APPARATUS ACCESS ROADS SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF 20 FEET (FOC). ALL ACCESS GATES, TRAFFIC CALMING DEVICES, AND ALLEYSWAYS ARE REQUIRED TO MEET FIRE DEPARTMENT REGULATIONS 2006-04.
- 8. A MINIMUM VERTICAL CLEARANCE OF 15 FEET SHALL BE PROVIDED FOR THE APPARATUS ACCESS ROADS.
- 9. CONFIRM FIRE APPARATUS MINIMUM TURNING RADIUS OF 35 FEET INSIDE, AND 55 FEET OUTSIDE (FOC). ALL TRAFFIC CALMING DEVICES, ROUND-TURNS, TRAFFIC MEDIANS, ETC. ARE REQUIRED TO MEET THIS STANDARD.
- 10. CUL-DE-SAC STREETS ARE REQUIRED TO MEET THE MINIMUM DESIGN STANDARD OF DETAIL 41.
- 11. FIRE LANES SHALL BE MARKED BY SIGNS PER FIRE DEPARTMENT REGULATION 2012, 12-0103.6R AND/OR CURB PAINTED RED AND LABELED "FIRE LANE NO PARKING". SIGNS ARE TO BE PLACED NOT GREATER THAN 100' APART AND AT THE BEGINNING AND END OF THE DESIGNATED FIRE LANE. CURB IS TO BE LABELED NOT GREATER THAN 25' APART AND AT THE BEGINNING AND END OF THE DESIGNATED FIRE LANE.
- 12. DEAD-END FIRE APPARATUS ACCESS ROADS IN EXCESS OF 150 FEET IN LENGTH SHALL BE PROVIDED WITH AN APPROVED MEANS FOR TURNING THE APPARATUS AROUND. THE TURNAROUND MUST MEET THE FIRE APPARATUS MINIMUM TURNING RADIUS OF 35 FEET INSIDE AND 55 FEET OUTSIDE (FOC). ANY DEVIATION FROM THIS STANDARD MUST BE APPROVED BY THE TOWN OF GILBERT FIRE MARSHAL.
- 13. ALL RESIDENTIAL DEVELOPMENTS ARE REQUIRED TO MEET THE 2012 IFC REQUIREMENTS OF PROVIDING AT LEAST TWO SEPARATE AND DISTINCT ACCESS POINTS. A SINGLE ROAD WITH A DIVIDED MEDIAN DOES NOT MEET THIS REQUIREMENT.
- 14. STREET WIDTH FOR FIRE LANE COMPLIANCE SHALL MEET THE REQUIREMENTS OF GILBERT FIRE REGULATION 2012, LESS THAN 26' (FOC) WILL REQUIRE "NO PARKING BOTH SIDES"; 26' TO LESS THAN 32' WILL REQUIRE "NO PARKING ONE SIDE"; 32' OR GREATER, PARKING BOTH SIDES ALLOWED. NO STREET WILL BE LESS THAN 20' WIDE (FOC). ALL TRAFFIC CALMING DEVICES, ROUNDTURNS, TRAFFIC MEDIANS, ETC. ARE REQUIRED TO MEET THIS STANDARD. 2006 IFC APPENDIX D.
- 15. THE MINIMUM SETBACK BETWEEN PROPERTY LINES IS 5' ON EACH SIDE. PATIOS OR OTHER FRAMED PARTS OF THE RESIDENCE MAY NOT ENCROACH ON THIS 5' SETBACK.
- 16. SECTION 10-35 OF THE TOWN OF GILBERT 2012 FIRE CODE – 903.2.1 ALL OCCUPANCIES EXCEPT DETACHED GROUP R, DIVISION 3 AND GROUP U OCCUPANCIES. EXCEPT FOR DETACHED GROUP R, DIVISION 3 AND GROUP U OCCUPANCIES, AN AUTOMATIC SPRINKLER SYSTEM SHALL BE INSTALLED THROUGHOUT ALL LEVELS OF ALL NEW OCCUPANCIES OF MORE THAN ZERO (0) SQUARE FEET. IN GROUP R, DIVISION 3 OCCUPANCIES, LICENSED AS RESIDENTIAL GROUP CARE FACILITIES ACCOMMODATING, 1 TO 5 CLIENTS OR RESIDENTS, EXCLUDING STAFF, AUTOMATIC SPRINKLER SYSTEMS IN DETACHED GROUP R, DIVISION 3 GROUP CARE FACILITIES MAY BE IN ACCORDANCE WITH NFPA 13-D AND TOG STANDARDS. 903.2.4 GROUP R, DIVISION 1 & 2 OCCUPANCIES. AN AUTOMATIC SPRINKLER SHALL BE INSTALLED THROUGHOUT ALL OF GROUP R, DIVISION 1 & 2 OCCUPANCIES. THERE SHALL BE NO SPRINKLER DELETIONS IN BATHROOMS, CLOSETS, GARAGES, ATTACHED CARPORTS, STAIR LANDINGS, BALCONIES, OR ATTACHED COVERED PATIOS, ENTRYWAYS OR ATTICS. ATTICS SHALL BE CALCULATED AT A MINIMUM OF FOUR STANDARD SPRAY HEADS OR AT A MINIMUM OF TWO EXTENDED HEADS, PROVIDED THAT IN ANY CASE THE CALCULATED AREA IS NOT LESS THAN FIVE HUNDRED SQUARE FEET. RESIDENTIAL OR QUICK RESPONSE STANDARD SPRINKLERS SHALL BE USED IN THE DWELLING UNITS AND GUEST ROOM PORTIONS OF THE BUILDINGS. 903.2.5 ATTACHED GROUP R, DIVISION 3 OCCUPANCIES AND GROUP R, DIVISION 4 OCCUPANCIES. AN AUTOMATIC SPRINKLER SYSTEM SHALL BE INSTALLED THROUGHOUT. THERE SHALL BE NO SPRINKLER DELETIONS IN BATHROOMS, ATTACHED GARAGES, ATTACHED CARPORTS OR ATTACHED COVERED PATIOS AND ENTRY PORCHES.
- 17. RESIDENTIAL PROJECTS THAT DO NOT FRONT DIRECTLY ONTO AN APPROVED, ACCESSIBLE PUBLIC ROADWAY PRESENT AN INHERENT DELAY AND PROBLEMS TO FIRE SUPPRESSION EFFORTS.
- 18. ALL DETACHED GROUP R, DIVISION 3 OCCUPANCIES THAT DO NOT FRONT DIRECTLY ONTO AN APPROVED, ACCESSIBLE PUBLIC ROADWAY SHALL INCORPORATE THE FOLLOWING COMPONENTS INTO THE PROPERTY:
 - AN ACCESS GATE SHALL BE PROVIDED INTO THE SIDE YARDS, BOTH FRONT AND REAR, BETWEEN STRUCTURES.
 - ALL STRUCTURES SHALL HAVE AT LEAST ONE SIDE YARD ACCESSIBLE ENTRY DOOR INTO THE STRUCTURE. THE DOOR MAY LEAD INTO THE MAIN STRUCTURE AND/OR GARAGE.
 - A MINIMUM SETBACK DISTANCE OF 5 FEET FROM THE PROPERTY LINE, OR A USE AND BENEFIT EASEMENT (UBE), FOR A TOTAL MINIMUM SEPARATION DISTANCE OF 10 FEET BETWEEN STRUCTURES.
- 19. ALL DETACHED GROUP R, DIVISION 3 OCCUPANCIES THAT DO NOT FRONT DIRECTLY ONTO AN APPROVED, ACCESSIBLE PUBLIC ROADWAY AND ANY PORTION OF THE STRUCTURE EXCEEDS 150 FEET FROM THE CURB LINE OF THE APPROVED ROADWAY, SHALL INCORPORATE THE FOLLOWING ADDITIONAL COMPONENT INTO THE PROPERTY:
 - AN AUTOMATIC FIRE SPRINKLER SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH NFPA STANDARD 13D WITH TOWN OF GILBERT AMENDMENTS AND 2012 IFC SECTIONS 903.2.1 THROUGH 903.2.7. THERE SHALL BE NO SPRINKLER DELETIONS IN BATHROOMS, CLOSETS, GARAGES, ATTACHED CARPORTS, ATTACHED COVERED PATIOS AND ENTRY PORCHES OR ATTICS.

NOTE: ALL OTHER STANDARD REQUIREMENTS FOR FIRE DEPARTMENT ACCESS AND WATER SUPPLY SHALL REMAIN IN EFFECT. AN APPROVED, ACCESSIBLE PUBLIC ROADWAY IS DEFINED AS:

- ROADS WITH AN UNOBSTRUCTED WIDTH OF NOT LESS THAN 20 FEET, AN UNOBSTRUCTED HEIGHT OF NOT LESS THAN 15 FEET, TURNING RADIUS OF 35 FEET INSIDE AND 55 FEET OUTSIDE WITH AN ALL WEATHER SURFACE DESIGNED AND MAINTAINED TO SUPPORT THE IMPOSED LOADS OF FIRE APPARATUS.
- PUBLIC ROADWAY IS INTENDED TO DIFFERENTIATE BETWEEN THE COMMON ACCESS ROADWAY, EITHER PUBLIC OR PRIVATE, AND THE DRIVEWAY/ALLEYSWAYS THAT PROVIDE ACCESS TO THE GARAGES OF THE RESIDENCES.

RWCD GENERAL NOTES

- 1. GENERAL CONDITIONS:
 - A. ALL CONSTRUCTION OF RWCD FACILITIES SHALL CONFORM TO THE LATEST RWCD SPECIFICATIONS (WWW.RWCD.ORG) AND LATEST MAG SPECIFICATION.
 - B. THE CONTRACTOR SHALL OBTAIN A PERMIT FROM RWCD BEFORE ANY WORK BEGINS THAT IMPACTS RWCD FACILITIES OR ACCESS TO RWCD FACILITIES.
 - C. IMPROVEMENT PLANS FOR RWCD FACILITIES SHALL NOT BE APPROVED UNTIL POTHOLE INFORMATION FOR CROSSING OR PARALLEL UTILITIES, OR OTHER CONFLICTS, IS RECEIVED, REVIEWED AND DEMAED ADEQUATE BY RWCD. POTHOLE RESULTS SHALL BE SEALED BY A LAND SURVEYOR OR CIVIL ENGINEER REGISTERED IN ARIZONA AND SHALL BE LOCATED BY PROJECT STATION AND OFFSET. EACH POTHOLE SHALL INCLUDE THE ELEVATIONS OF THE SURFACE AND THE TOP AND BOTTOM OF THE BURIED UTILITY BASED ON THE PROJECT DATUM.
 - D. AN APPROVED SET OF PLANS SHALL BE ON THE JOB SITE AT ALL TIMES THAT WORK IS IN PROGRESS. DEVIATION FROM THE PLANS SHALL NOT BE ALLOWED WITHOUT AN APPROVED PLAN REVISION FROM THE ENGINEER.
 - E. TRAFFIC CONTROL SHALL BE MAINTAINED IN ACCORDANCE WITH THE MAG SPECIFICATION 401, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, AND CURRENT TRAFFIC BARRICADE MANUAL.
 - F. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING, IF NECESSARY, AN EXCAVATION AND DIRT MOVING PERMIT FROM THE MARICOPA COUNTY ENVIRONMENTAL SERVICES DEPARTMENT AND COMPLYING WITH ITS REQUIREMENTS FOR DUST CONTROL.
 - G. NO ACTIVITY INVOLVING AN RWCD MANHOLE SHALL OCCUR WITHOUT PRIOR AUTHORIZATION BY RWCD. THIS INCLUDES, BUT IS NOT LIMITED TO, REMOVING THE MANHOLE LID, RIM OR ANY DEVICE HOLDING THE MANHOLE LID OR RIM IN PLACE. CONTACT RWCD'S CONSTRUCTION INSPECTOR AT 480.748.6416 TO COORDINATE.
- 2. LANDSCAPE NOTES:
 - A. TREES TO BE INSTALLED ADJACENT TO ANY RWCD FACILITY SHALL BE PLANTED NO CLOSER THAN 6' FROM THE OUTSIDE EDGE OF ROOT BALL TO THE OUTSIDE EDGE OF RWCD PIPE OR THE OUTSIDE EDGE OF ANY OTHER STRUCTURE, E.G. MANHOLE, DELIVERY STRUCTURE, ETC.. RWCD RESERVES THE RIGHT TO MODIFY THIS CONDITION AT ANY TIME PER OUR DISCRETION. CONTACT RWCD'S CONSTRUCTION INSPECTOR AT 480.748.6416 TO COORDINATE.
 - B. NO LANDSCAPE SPRINKLERS OR WATER EMITTERS ARE PERMITTED WITHIN 15 FEET OF ANY RWCD DELIVERY STRUCTURE.
 - C. THE HOME OWNER'S ASSOCIATION IS RESPONSIBLE TO MAKE REPAIRS TO LANDSCAPING (INCLUDING TREES, GROUND COVER, GRASS, ETC) WHERE IT IS DAMAGED DURING REPAIRS TO RWCD PIPE OR OTHER FACILITIES.
 - D. LANDSCAPE BOULDERS SHALL BE KEPT 15' AWAY FROM THE OUTSIDE OF RWCD MANHOLES, TURNOUT STRUCTURES, HEADWALLS, ETC.
 - E. LANDSCAPE FACILITIES SHALL ADHERE TO RWCD'S UTILITY CLEARANCE REQUIREMENTS (RWCD DETAIL 41).
- 3. CONSTRUCTION SEQUENCE AND REQUIREMENTS:
 - A. ALL CONSTRUCTION ACTIVITIES INVOLVING THE MODIFICATIONS AND/OR REPLACEMENT OF RWCD OWNED FACILITIES SHALL BE BONDED AT A FIGURE APPROVED BY THE GENERAL MANAGER. SUCH BOND SHALL BE MADE TO THE BENEFIT OF RWCD AND WILL NOT BE RELEASED UNTIL SUCH TIME THAT THE GENERAL MANAGER OR OTHER AUTHORIZED INDIVIDUAL HAS APPROVED ALL CONSTRUCTION ACTIVITIES FOR COMPLETENESS AND CORRECTNESS.
 - B. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING IRRIGATION DRY-UPS. CONTACT RWCD CONSTRUCTION INSPECTOR AT 480.748.6416 OR 480.988.9586 TO SCHEDULE A DRY-UP.
 - C. THE CONTRACTOR SHALL PROVIDE A COPY OF THE FOLLOWING TO THE RWCD INSPECTOR BEFORE THE PIPE IS INSTALLED.
 - 1) RESULTS OF D-LOAD TEST ON 1% OF THE PIPE LENGTH FOR EACH DAY OF BATCH PRODUCTION.
 - 2) A CONCRETE CYLINDER BREAK ON 1% OF THE PIPE LENGTH FOR EACH DAY OF BATCH PRODUCTION.
 - 3) THE DATE OF PIPE SHALL APPEAR AND CLASS OF PIPE SHALL APPEAR ON EVERY LENGTH OF PIPE DELIVERED TO THE JOBSITE. ALL PIPE SHALL HAVE A MINIMUM 14 DAYS OF CURE TIME BEFORE INSTALLATION.
 - D. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL UTILITIES PRIOR TO EXCAVATION AND AVOID DAMAGE TO SAME. CALL 811 OR 602.263.1100 FOR BLUE STAKE TWO WORKING DAYS PRIOR TO DIGGING. IF AN UNIDENTIFIED UTILITY IS ENCOUNTERED DURING CONSTRUCTION, ALL CONSTRUCTION ACTIVITIES SHALL CEASE UNTIL THE UTILITY IS POTHOLED TO VERIFY RWCD CLEARANCE REQUIREMENTS ARE MET AND A PLAN TO RESOLVE CLEARANCE DEFICIENCIES, SUBMITTED BY THE CONTRACTOR, IS ACCEPTED BY RWCD.
 - E. THE CONTRACTOR SHALL ENSURE NO CONSTRUCTION DEBRIS IS ALLOWED TO ENTER ANY RWCD DITCH OR FACILITY DURING CONSTRUCTION.
 - F. RWCD STRUCTURES ARE TO BE POURED MONOLITHICALLY. SHOULD IT BE NECESSARY TO CONSTRUCT AN RWCD STRUCTURE USING MULTIPLE CONCRETE POURS, THE CONTRACTOR WILL BE REQUIRED TO USE AN RWCD APPROVED METHOD OF WATER STOP ON EACH STRUCTURE THAT IS TO BE CONSTRUCTED USING MULTIPLE CONCRETE POURS. CONTACT RWCD'S CONSTRUCTION INSPECTOR AT 480.748.6416 TO COORDINATE.
 - G. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY RWCD FACILITY (HEADWALL, PIPE, DITCH, ACCESS ROADS, ETC) DAMAGED DURING CONSTRUCTION AS DIRECTED BY THE RWCD INSPECTOR. THE REPAIRED FACILITY SHALL BE AT THE LOCATION, ELEVATION AND GRADES PRIOR TO CONSTRUCTION OR AS DIRECTED BY RWCD.
 - H. RWCD MANHOLES ARE TO BE IDENTIFIED AND PROTECTED AT ALL TIMES BEFORE, DURING AND AFTER CONSTRUCTION. THE CONTRACTOR WILL BE REQUIRED TO INSTALL, AT A MINIMUM, TWO (2) 2X4s VERTICALLY ON OPPOSITE SIDES OF EACH MANHOLE TO PROVIDE IDENTIFICATION OF THE MANHOLE. CONTACT RWCD'S CONSTRUCTION INSPECTOR AT 480.748.6416 TO COORDINATE.
- 4. TRENCH EXCAVATION:
 - A. TRENCH EXCAVATION, BACKFILLING AND COMPACTION FOR RWCD FACILITIES SHALL BE PER MAG SPEC SECTION 601, OR AS MODIFIED ON THE PLAN. BACKFILLING SHALL NOT BEGIN ON ANY PIPE UNTIL THE LINE HAS BEEN APPROVED BY RWCD'S INSPECTOR. BACKFILLING SHALL CONSIST OF ABC PLACED IN LIFT DEPTHS PER MAG SPEC 601.4.2. ALL OTHER LIFT DEPTHS SHALL BE 21 FEET. ABC BACKFILL SHALL EXTEND TO TWELVE (12) INCHES ABOVE THE TOP OF THE PIPE. COMPACTION OF THE BEDDING MATERIAL SHALL BE PER MAG SPEC 601.4.5. THE TRENCH BACKFILL SHALL BE THOROUGHLY COMPACTED TO THE DENSITIES LISTED ON THE PLAN OR AS SPECIFIED IN MAG SPEC 601.4.4, WHICHEVER IS MORE STRINGENT. MECHANICAL COMPACTION FROM THE BOTTOM OF THE TRENCH TO 1' ABOVE THE PIPE SHALL BE ACCOMPLISHED BY HAND OR WALK BEHIND EQUIPMENT SUCH AS A WACKER OR JUMPING JACK STYLE COMPACTOR, OR OTHER, AS APPROVED BY THE RWCD INSPECTOR. CONTRACTOR MAY SUBSTITUTE 1/2 SACK CLSM PER MAG SPEC SECTION 604 FOR BACKFILL UP TO SPRINGLINE. THE RWCD INSPECTOR MAY REQUIRE THE USE OF VIBRATORY EQUIPMENT IN CONJUNCTION WITH THE PLACEMENT OF CLSM MATERIAL.
 - B. COMPACTION TESTS SHALL BE PERFORMED AT ALL STRUCTURES AND AT A MINIMUM OF EVERY 300 FEET ALONG THE PIPE AND AT LOCATIONS SPECIFIED BY THE RWCD INSPECTOR. A RESPONSIBLE PARTY FOR COMPACTION TESTING SHALL BE PRESENT DURING BACKFILLING OF ALL PIPE AND STRUCTURES. COPIES OF THE COMPACTION TESTS ARE TO BE SUBMITTED TO THE RWCD INSPECTOR AT THE CONCLUSION OF EACH DAY.
- 5. UTILITY CROSSINGS:
 - A. CALL THE RWCD INSPECTOR, GREG NEW, 480.748.6416 PRIOR TO MAKING THE UTILITY CROSSING. PERMIT MAY BE REQUIRED FOR EACH UTILITY THAT CROSSES RWCD FACILITY.
 - B. PROVIDE 2' CLEARANCE BETWEEN ANY RWCD FACILITY AND ANY NEW UTILITY WHEN CROSSING, EXCEPT TO PROVIDE MINIMUM 4" CLEARANCE BETWEEN ANY RWCD OPEN DITCH AND ANY NEW UTILITY WHEN CROSSING. SUCH UTILITY CROSSINGS SHALL ONLY OCCUR UNDER PIPES OR DITCHES.
 - C. UTILITY CROSSINGS UNDER RWCD PIPELINES, DITCHES, CANALS, AND BOX CULVERTS SHALL BE INSTALLED BY HORIZONTAL EARTH AUGERBORING. NO BORE PITS SHALL BE ALLOWED WITHIN RWCD RIGHT-OF-WAY OR EASEMENTS. ALL UTILITIES SHALL BE ENCASED IN STEEL CASING. NO UTILITY SHALL VARY FROM UTILITY CROSSING REQUIREMENTS WITHOUT WRITTEN APPROVAL FROM RWCD.
 - D. IF USING AN OPEN CUT TRENCH METHOD OF CONSTRUCTION, AS APPROVED BY RWCD, BACKFILL TO THE SPRINGLINE OF THE RWCD PIPE WITH 1/2 SACK SLURRY WHERE MECHANICAL COMPACTION CANNOT BE ACHIEVED, OR AS DIRECTED BY RWCD INSPECTOR.
 - E. IF ANY EXISTING UTILITY IS FOUND TO HAVE LESS THAN 2 FT OF CLEARANCE TO THE RWCD FACILITIES, THE CONTRACTOR SHALL CONSULT WITH THE RWCD INSPECTOR AND THE OTHER UTILITY COMPANY FOR EVALUATION OF CLEARANCE AND REMEDIATION.
 - F. ALL OVERHEAD WIRES THAT SUSPEND OVER THE RWCD RIGHT OF WAY SHALL HAVE 25 FEET MINIMUM OVERHEAD CLEARANCE.
- 6. RWCD INSPECTION:
 - A. CALL GREG NEW AT RWCD (480.748.6416) FOR RWCD INSPECTIONS. THE CONTRACTOR SHALL COORDINATE DAILY WITH THE RWCD INSPECTOR RELATIVE TO WORK ONGOING THAT DAY AND UPCOMING WORK THAT REQUIRES INSPECTION WITHIN THE NEXT 48 HOURS.
 - B. THE CONTRACTOR SHALL PROVIDE A SAFE TRENCH FOR THE RWCD INSPECTOR TO INSPECT WORK INCLUDING SHORING AND LADDERS.
 - C. CONSTRUCTION TAKING LATH SHALL INCLUDE STATIONING CONSISTENT WITH STATIONING SHOWN ON THE APPROVED IRRIGATION PLANS.
 - D. MANHOLE AND STRUCTURE RIM ELEVATIONS MUST BE VERIFIED DURING THE CONSTRUCTION BY A "HUB" PLACED BY SURVEYORS.
 - E. RWCD MAY REJECT ANY PART OR PORTION OF THE SUBJECT PIPE AT ANY POINT DURING THE INSTALLATION PROCESS AT ITS SOLE DISCRETION. SUCH DETERMINATION WILL BE BASED ON, AMONG OTHER POINTS, CURRENT ASTM STANDARDS FOR THE PIPE.
- 7. PROJECT ACCEPTANCE:
 - A. THE JOB SITE, AT THE COMPLETION OF THE CONSTRUCTION, SHALL BE CLEANED OF ANY DEBRIS OR SPOIL RESULTING FROM THE CONSTRUCTION INCLUDING REMOVAL OF CONSTRUCTION DEBRIS FROM RWCD DITCHES.
 - B. THE OWNER/DEVELOPER SHALL ACQUIRE PRIOR AUTHORIZATION FROM THE RWCD WATER DEPARTMENT AND RWCD INSPECTOR PRIOR TO PERFORMING AN AS-BUILT SURVEY. MANHOLE LIDS MUST BE TAKEN OFF BY PIPELINE CONTRACTOR. A NO-FEE DRY-UP IS REQUIRED FOR AS-BUILT SURVEY.
 - C. THE OWNER/DEVELOPER SHALL PROVIDE CERTIFIED AS-BUILTS FOR THE LOCATION, ELEVATION AND SIZE OF ALL RWCD FACILITIES FOR RWCD RECORDS PRIOR TO RELEASING THE PROJECT BOND.
- 8. RWCD GENERAL NOTES:
 - A. RWCD'S GENERAL NOTES ARE SUBJECT TO CHANGE WITHOUT NOTIFICATION AT ANY TIME PER OUR DISCRETION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE CONFORMANCE TO THE LATEST RWCD GENERAL NOTES. CONTACT RWCD'S CONSTRUCTION INSPECTOR AT 480.748.6416 TO RECEIVE THE MOST RECENT RWCD GENERAL NOTES.

FIRE HYDRANT NOTES

ALL FIRE HYDRANTS FURNISHED TO OR INSTALLED IN THE TOWN OF GILBERT ARIZONA SHALL CONFORM TO THE FOLLOWING SPECIFICATIONS:

- 1. HYDRANTS SHALL BE DESIGNED MANUFACTURED AND TESTED IN COMPLIANCE WITH THE LATEST EDITION OF AWWWA C-502 STANDARD FOR DRY-BARREL FIRE HYDRANTS AS PUBLISHED BY THE AMERICAN WATER WORKS ASSOCIATION.
- 2. HYDRANTS SHALL BE DESIGNED FOR 150 PSI WORKING PRESSURE AND TESTED TO 300 PSI HYDROSTATIC PRESSURE.
- 3. HYDRANTS SHALL BE OF THE BREAK FLANGE TRAFFIC MODEL TYPE WITH A REPLACEABLE BREAKABLE UNIT IMMEDIATELY ABOVE THE GROUND LINE FOR MINIMIZING REPAIRS DUE TO TRAFFIC DAMAGE.
- 4. HYDRANTS SHALL BE OF THE COMPRESSION TYPE CONSTRUCTION SUCH THAT THE MAIN VALVE CLOSSES WITH THE WATER PRESSURE TO ASSURE NO LOSS OF WATER IN THE EVENT OF DAMAGE TO THE UPPER PORTION OF THE FIRE HYDRANT.
- 5. MAIN VALVE OPENING SHALL HAVE A MINIMUM DIAMETER OF 5 1/4" TO ASSURE OPTIMUM FLOW. THE INSIDE DIAMETER OF THE BARREL SHALL BE A MINIMUM OF 7 INCHES. FACING OF THE VALVE AGAINST THE SEATS SHALL BE SYNTHETIC RUBBER OR BALATA.
- 6. HYDRANTS SHALL BE OF THE DROP TOP DESIGN WITH O-RING SEALS TO INSURE THAT THE OPERATING THREADS WILL BE PROTECTED FROM WATER ENTRY. DRY TOP DESIGN TO INCLUDE FACTORY LUBRICATED OPERATING MECHANISM WHICH ALLOWS SUPPLEMENTAL LUBRICANT TO BE ADDED IN THE FIELD WITHOUT REMOVAL OF THE TOP SECTION. STANDARD LUBRICANT SHALL BE EITHER OIL OR GREASE SUITABLE FOR A TEMPERATURE RANGE OF 40 DEGREES TO +150 DEGREES F.
- 7. ALL HYDRANTS SHALL HAVE A WEATHER SHIELD AT THE OPERATING NUT TO PROJECT THE CLEARANCE AREA BETWEEN THE TOP CASTING AND THE OPERATING NUT.
- 8. THE OPERATING NUT SHALL BE A ONE-PIECE BRONZE CASTING. BOTH THE OPERATING NUT AND THE NOZZLE CAP NUTS TO BE NATIONAL STANDARD PENTAGON IN SHAPE AND MEASURE 1 1/2" FROM POINT O FLAT AT THE BASE OF THE NUT. NOZZLE CAPS TO BE PROVIDED WITH RUBBER GASKETS.
- 9. HYDRANTS SHALL HAVE TWO 2 1/4" DIAMETER HOSE NOZZLES WITH NATIONAL STANDARD FIRE HOSE COUPLING SCREW THREADS AND ON A 4 1/4" DIAMETER PUMPER NOZZLE WITH NATIONAL STANDARD THREADS. BOTH THE PUMPER AND HOSE NOZZLE SHALL BE THREADED AND LOCKED INTO PLACE WITH O-RINGS USED AS PRESSURE SEALS. THE USE OF CAULKED TYPE NOZZLES IS PROHIBITED.
- 10. HYDRANT NOZZLE SECTION SHALL BE CAPABLE OF ROTATION THROUGH 360 DEGREES WITH RESPECT TO THE STANDPIPE TO ALLOW THE POSITIONING OF THE HOSE OR PUMPER NOZZLES.
- 11. MINIMUM DISTANCE ALLOWABLE BETWEEN THE CENTERLINE OF THE LOWEST NOZZLE AND GROUND LINE IS 18".
- 12. HYDRANT SHALL HAVE IDENTIFICATION MARK INDICATING THE DIRECTION OF OPENING RIGHT TO LEFT (COUNTER CLOCKWISE).
- 13. HYDRANTS SHALL HAVE PERMANENT MARKING IDENTIFYING THE MANUFACTURER NAME SIZE OF MAIN VALVE OPENING AND YEAR OF MANUFACTURE.
- 14. HYDRANTS SHALL HAVE AN AUTOMATIC DRAIN THAT IS OPERATED BY THE MAIN VALVE ROD. DRAIN VALVE IS TO OPEN AS THE MAIN VALVE IS CLOSED AND CLOSE AS THE MAIN VALVE IS OPENED. PORT AND SEATS OF DRAIN VALVE TO BE BRONZE.
- 15. THE OUTSIDE OF THE HYDRANT TOP SECTION SHALL BE PAINTED TO A MINIMUM OF ONE COAT OF PRIMER AND TWO FINISHED COSTS OF CHROME YELLOW ENAMEL.
- 16. THE SHOE OF THE HYDRANT SHALL BE PROVIDED WITH A MECHANICAL JOINT CONNECTION 6" IN SIZE. ALL INTERIOR FERROUS SURFACES OF THE SHOE EXPOSED TO CONTINUOUS FLUID FLOW (INCLUDING THE VALVE PLATE & CAP NUT) SHALL BE EPOXY COATED TO A MINIMUM DRY THICKNESS OF 6 MILS. EPOXY COATING SHALL BE FACTORY APPLIED BY AN ELECTROSTATIC OR THERMOSETTING PROCESS IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTRUCTIONS. THE EPOXY MATERIAL USED SHALL BE 100% POWDER EPOXY OR LIQUID EPOXY THAT CONFORMS TO THE REQUIREMENTS OF AWWWA C550-81 AND TO THE PREVAILING REQUIREMENTS OF THE FOOD AND DRUG ADMINISTRATION AND OF THE ENVIRONMENTAL PROTECTION AGENCY.
- 17. THE HYDRANT SHALL HAVE A BRONZE VALVE SEAT AND SHALL BE THREADED INTO A BRONZE DRAIN RING OR SHOE BUSHING TO PREVENT ELECTROLYSIS BETWEEN THESE COMPONENTS.
- 18. HYDRANTS SHALL BE DESIGNED TO PERMIT THE USE OF EXTENSION SECTIONS AND ALLOW ALL PARTS TO BE REMOVABLE FROM GROUND LEVEL WITHOUT REQUIRING EXCAVATION OF THE HYDRANT.
- 19. INSTALLATION SHALL BE IN ACCORDANCE WITH MAG STANDARD DETAIL 360 AND TESTING SHALL BE IN ACCORDING TO AWWWA STANDARDS.
- 20. THE HYDRANT SHALL BE SUITABLE FOR INSTALLATION IN 42" DEPTH OF TRENCH.
- 21. THE FRICTION LOSS MUST BE GUARANTEED BY THE MANUFACTURER TO SATISFY THE FOLLOWING TABLE:

MAXIMUM PERMISSIBLE LOSS OF HEAD FOR HYDRANTS			
NO. OF OUTLET NOZZLES	NOM. DIAMETER OF OUTLET	TOTAL FLOW FROM OUTLET NOZZLES GPM	MAX. PERMISSIBLE HEAD LOSS PSI
2	2 1/2"	500	2.0
1	4 1/2"	600	2.5
- 22. AT THIS TIME, THE TOWN OF GILBERT RECOGNIZES AND APPROVES FIVE FIRE HYDRANTS ONLY DUE TO MAINTENANCE AND INVENTORY PURPOSES:
 - a. THE MUELLER CENTURION FIRE HYDRANT
 - b. THE AVK MODEL 2700
 - c. THE AFC (AMERICAN FLOW CONTROL)
 - d. THE KENNEDY GUARDIAN
 - e. THE CLOW MEDALLION (NO. F2300 SERIES)

VALVE NOTES

TOWN OF GILBERT WATER DEPARTMENT SPECIFICATION RESILIENT SEAT GATE VALVES

AS AN ALTERNATE TO DOUBLE DISC GATE VALVES DISTRIBUTION VALVES IN SIZES THROUGH 12" MAY BE IRON BODY NON-RISING BRONZE STEM RESILIENT SEATED GATE VALVES AND SHALL MEET OR EXCEED AS APPLICABLE AWWWA STANDARDS INCLUDING AWWWA C509-80 AWWWA C504 C550-82 AND THE SPECIFIC REQUIREMENTS OUTLINED IN THESE SPECIFICATIONS.

- 1. VALVES SHALL HAVE A WORKING WATER PRESSURE RATING OF 200 PSI.
- 2. OPEN LEFT (COUNTER-CLOCKWISE).
- 3. TWO-INCH SQUARE OPERATING NUT.
- 4. END CONNECTION SHALL BE PUSH-ON FLANGED OR MECHANICAL JOINT AS REQUIRED AND BE FURNISHED WITH ALL NECESSARY JOINT MATERIALS.
- 5. VALVE BODY BONNET STUFFING BOX AND DISC CASTING SHALL BE MANUFACTURED OF ASTM A136 CLASS B GRAY IRON.
- 6. THE DISC SHALL HAVE AN INTEGRALLY CAST ASTM B-62 BRONZE STEM NUT TO PREVENT TWISTING OR ANGULING OF THE STEM.
- 7. ALL INTERNAL FERROUS METAL SURFACES SHALL BE FULLY COATED HOLIDAY FREE TO A MINIMUM THICKNESS OF 4 MILS WITH A TWO-PART THERMOSETTING EPOXY COATING IN ACCORDANCE WITH AWWWA C-550. SAID COATING SHALL BE NON-TOXIC AND SHALL PREVENT BUILDUP OF SCALE OR TUBERCULATION. ANY VALVE COATED EXTERNALLY WITH EPOXY SHALL BE EQUIPPED WITH STAINLESS STEEL FASTENERS.
- 8. THE SEALING MECHANISM SHALL PROVIDE ZERO LEAKAGE AT WORKING WATER PRESSURES UP THROUGH 200 PSI WITH FLOW IN EITHER DIRECTION. THE SEAT SHALL BE SEAT AGAINST AN ACCURATELY MACHINED SURFACE IN THE VALVE BODY. THE SHAPE OF THE SEAT SHALL BE SUCH THAT IT CANNOT BE INSTALLED IMPROPERLY.
- 9. VALVES SHALL BE PROVIDED WITH TWO 9-RING STEM SEALS. THE AREA OF THE O-RINGS, THRUST COLLAR BEARING SURFACES SHALL BE LUBRICATED TO REDUCE WEAR IN THESE AREAS.
- 10. THE STRUCTURAL DESIGN OF THE VALVE SHALL BE SUCH THAT IF EXCESSIVE TORQUE IS APPLIED TO THE STEM IN THE CLOSING DIRECTION WITH THE DISC SEATED FAILURE OF THE PRESSURE RETAINING PARTS SHALL NOT OCCUR. STEM FAILURE UNDER SUCH CONDITIONS SHALL OCCUR EXTERNALLY AT SUCH A POINT AS TO ENABLE THE STEM TO BE SAFELY TURNED IN THE OPENING DIRECTION BY USE OF PIPE WRENCH AFTER EXPOSURE OF THE VALVE THROUGH EXCAVATION.
- 11. THE DISC SHALL BE PROVIDED WITH A BUILT IN STOP TO PREVENT OVER-COMPRESSION OF THE RUBBER SEALING ELEMENT.
- 12. RECORDS OF HYDROSTATIC TESTS SPECIFIED IN THE APPLICABLE AWWWA STANDARD SHALL BE FURNISHED FOR EACH VALVE SUPPLIED AND AN AFFIDAVIT OF COMPLIANCE WITH THESE STANDARDS FOR EACH VALVE SUPPLIED WILL BE REQUIRED.

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Gateway Pointe - Offsite Improvements
Gilbert, Arizona

General Notes

Project:

Revisions:

Call at least two full working days before work begins to schedule inspection

GSI
GILBERT
10000 N. GILBERT AVE. SUITE 100
GILBERT, AZ 85238
(480) 263-1100
In Maricopa County (602) 263-1100

Designer: DMA
Drawn by: MSA

Expires: 12/31/2018
Job No.
17-265
CS03
Sheet No.
3
of 34

REVIEW 2017-01-065

PAVING NOTES

- (1A) PAVEMENT: 5" AC/ 21" ABC, SEE DETAIL ON SHEET DT01
- (1B) PAVEMENT: 3" AC/ 21" ABC, SEE DETAIL ON SHEET DT01
- (2B) SURVEY MONUMENT MAG 120-I TYPE B
- (3A) 6" V.C.&G. MAG 220 TYPE A
- (8) 6' TYP. VALLEY GUTTER (AND APRON WHERE SHOWN) MAG 240

- (9A) CORNER RAMP PER MAG 237-I
- (10) SIDEWALK MAG 230, WIDTH PER PLAN
- (11) STRAIGHT RAMP W/TRUNCATED DOMES MAG 235-4

- (20B) BARRICADE MAG 130 TYPE B
- (27) ADJUST FRAME & COVER MAG 391-I TYPE C
- (28) ADJUST MANHOLE FRAME & COVER MAG 422

WATER NOTES

- (1B) 8" PVC C-900 WATERLINE
- (4B) 8" WATER VALVE MAG 391-I TYPE C & 392 TYPE C
- (6B) 8"x2" CURB STOP W/ VALVE & FLUSHING PIPE MAG 390 TYPE B
- (6H) REMOVE WATER CAP AND CONNECT TO EXISTING WATERLINE
- (7) FIRE HYDRANT TOG DET GIL-320-I TYPE C, PAVEMENT MARKER TOG DET GIL-325

- (10) MECHANICAL JOINT WATERLINE FITTING, JOINT RESTRAINTS WITH MEGALUG SERIES 2000 OR ACCEPTABLE EQUAL & MAG 303
- (20) STAINLESS STEEL TAPPING SLEEVE & VALVE MAG 340, 391-C & 392, SIZE PER PLAN

- (31A) CONTRACTOR TO REMOVE EXISTING CURB STOP AND FLUSHING PIPE CONNECT TO EXISTING 12" WATER AND REDUCE TO 8"

SEWER NOTES

- (8) 8" PVC (SDR-35) SEWERLINE
- (3) 5' DIA SEWER MANHOLE MAG 420, 422 & 424 WITH 30" FRAME & COVER

- (5) SEWER PLUG PER MAG 427

- (6) CONTRACTOR TO CONNECT TO EXISTING MANHOLE PER MAG SPEC 625

- (7) CONTRACTOR SHALL ROTATE CONE TO ENSURE FRAME AND COVER REMAINS IN PAVEMENT

STORM DRAIN & IRRIGATION NOTES

- (2C) 18" RGRCP CL III STORM DRAIN
- (6) CATCH BASIN MAG 534 (DOUBLE)
- (7) CONCRETE HEADWALL MAG 502-I W/TRASHRACK C-503 TYP.
- (15) PROVIDE AND INSTALL TRASHRACK PER MAG 502-I, FIELD VERIFY DIME
- (19) PIPE FITTING
- (33) CONCRETE PIPE COLLAR PER MAG 505
- (53) 24" RGRCP CL V IRRIGATION PIPE
- (57) 24" P.I.P. 100 PSI, SDR-41 IRRIGATION PIPE

- (70) 30" CONCRETE IRRIGATION DITCH. SEE DETAIL ON SHEET DT01

- (71) SAWCUT, REMOVE, AND CONNECT TO EXISTING IRRIGATION DITCH. SEE DETAIL ON SHEET DT01

- (72) INSTALL IRRIGATION DITCH GATE. SEE DETAIL ON SHEET DT01

- (77) HEADWALL MAG 502-I, WITH GRATE. SEE DETAIL SHEET DT01

REMOVAL NOTES

- (1) SAWCUT & REMOVE EXISTING PAVEMENT, MIN 2'
- (2) REMOVE EXIST SIDEWALK
- (3) REMOVE EXIST SIDEWALK RAMP

ESTIMATED QUANTITIES

QUANTITIES ARE FOR ESTIMATING PURPOSES ONLY. ENGINEER MAKES NO GUARANTEE OF ACCURACY.
ITEM QUANTITY

- 3384 SY (4) REMOVE EXIST CURB AND GUTTER
- 13450 SY (12) REMOVE EXIST CONC DITCH (BACKFILL AND COMPACT TO REQUIRED DENSITY PER SOILS REPORT)
- 7 EA
- 7508 LF (20) REMOVE EXIST CONCRETE

2733 SF

11 EA

41419 SF

1 EA

42 LF

5 EA

11 EA

2708 LF

3 EA

2 EA

1 EA

3 EA

0 NPI

1 EA

1 EA

1 EA

1 EA

1 EA

1 EA

1 EA

1 EA

1 EA

1 EA

1 EA

1 EA

1 EA

170 LF

4 EA

4 EA

1 EA

2 EA

1 EA

105 LF

240 LF

10 LF

1 EA

2 EA

1 EA

1 EA

1 EA

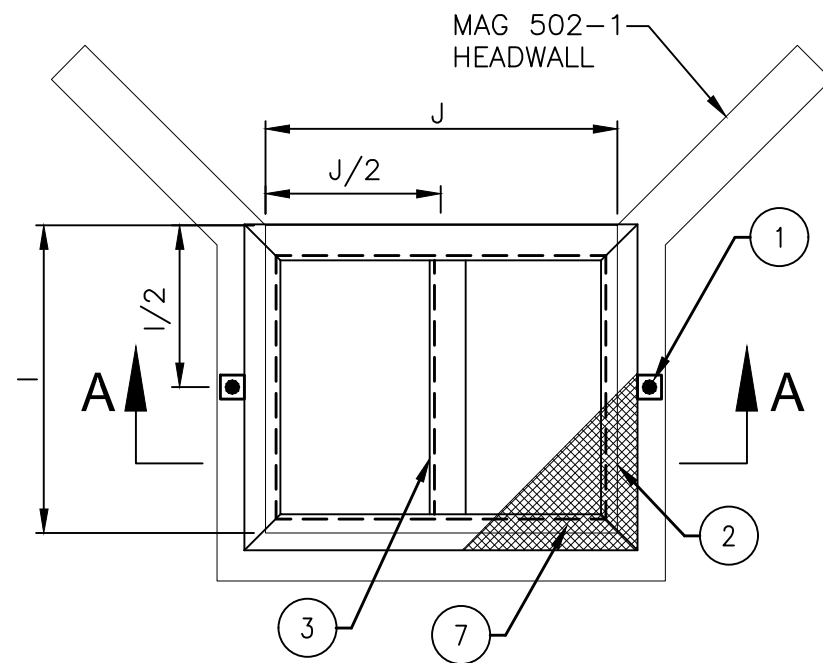
1 EA

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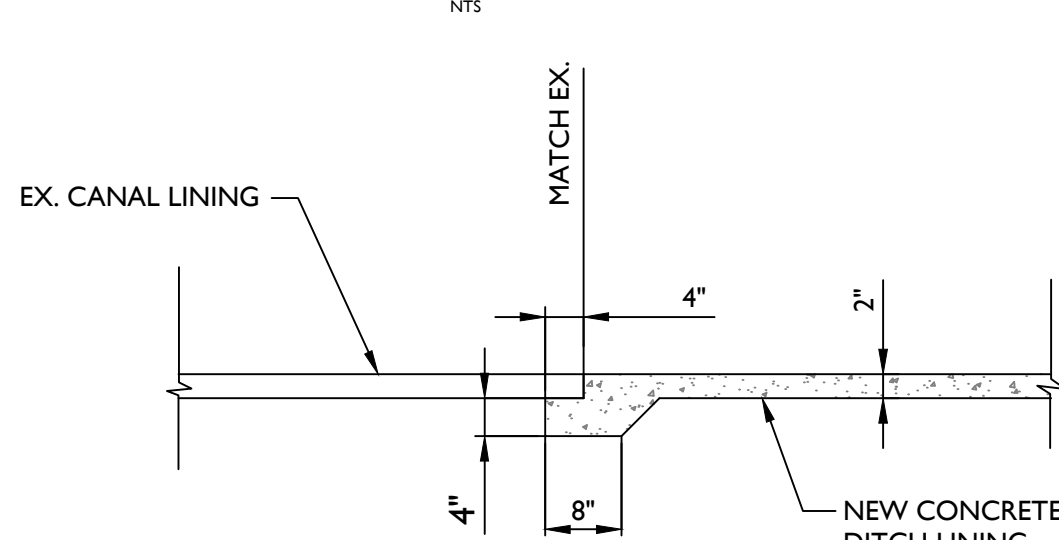
SECTION A-A

- (1) 3"x3"x3/8" CARBON STEEL PLATE WITH 11/16" HOLE WELDED TO THE ANGLE
- (2) 3"x3"x3/8" ANGLE
- (3) 4"x4"x3/8" ANGLE
- (7) 3 LB/FT STEEL EXPANDED METAL GRATING

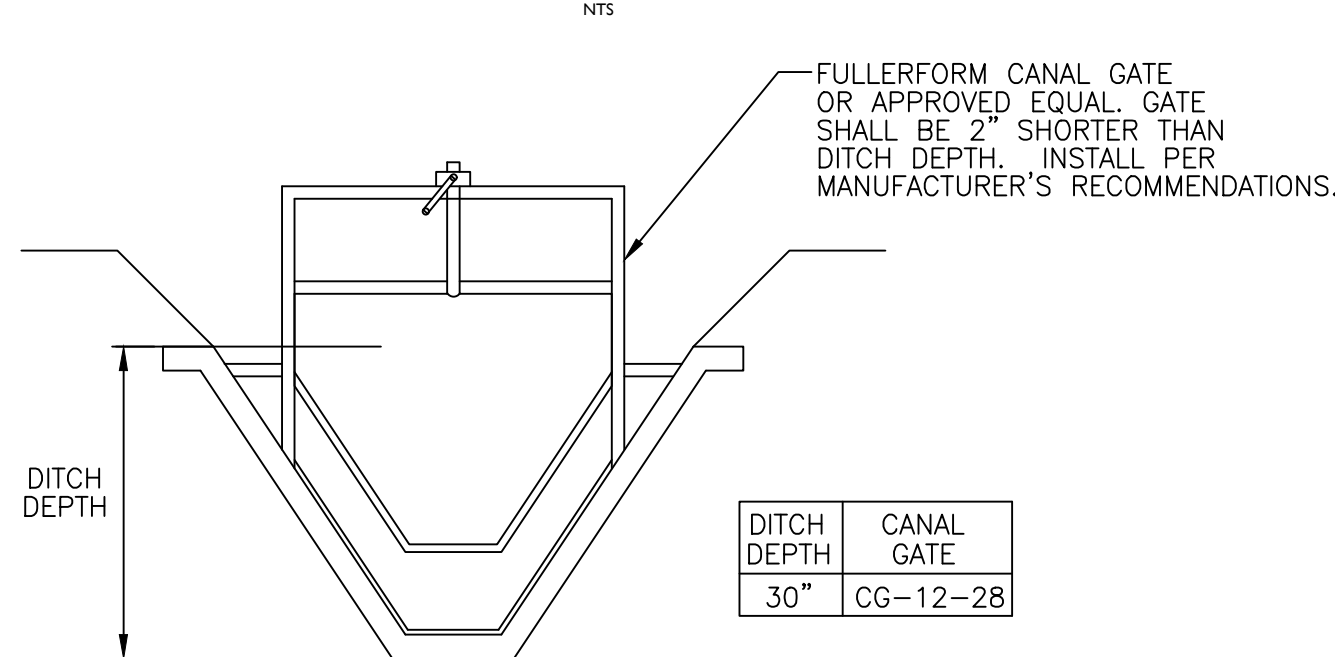
NOTES:

- DIMENSION I AND J VARY. SEE PLAN FOR DIMENSIONS.
- FIELD VERIFY HEADWALL DIMENSIONS PRIOR TO FABRICATING GRATE COVER.
- ALL WELDING MUST BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF AWS AND AISC CODES.
- ALL ANGLES, HASPS AND HINGES MUST BE CONNECTED WITH 3/8" FULL STRENGTH WELDING ALONG ENTIRE LENGTH OF THE CONNECTION.
- EXPANDED METAL GRATING MUST BE WELDED TO THE ANGLE FRAME WITH TACK WELD AT MAXIMUM DISTANCE OF 6" O.C.
- ALL METAL SURFACES AND WELDED CONNECTIONS MUST BE PAINTED WITH A SHOP PRIME COAT. THE SECOND AND FINISH COATS MUST BE DONE IN ACCORDANCE WITH THE MAG SPECIFICATIONS, SECTIONS 530 AND 790. FINISH COAT MUST BE No.10 ALUMINUM.

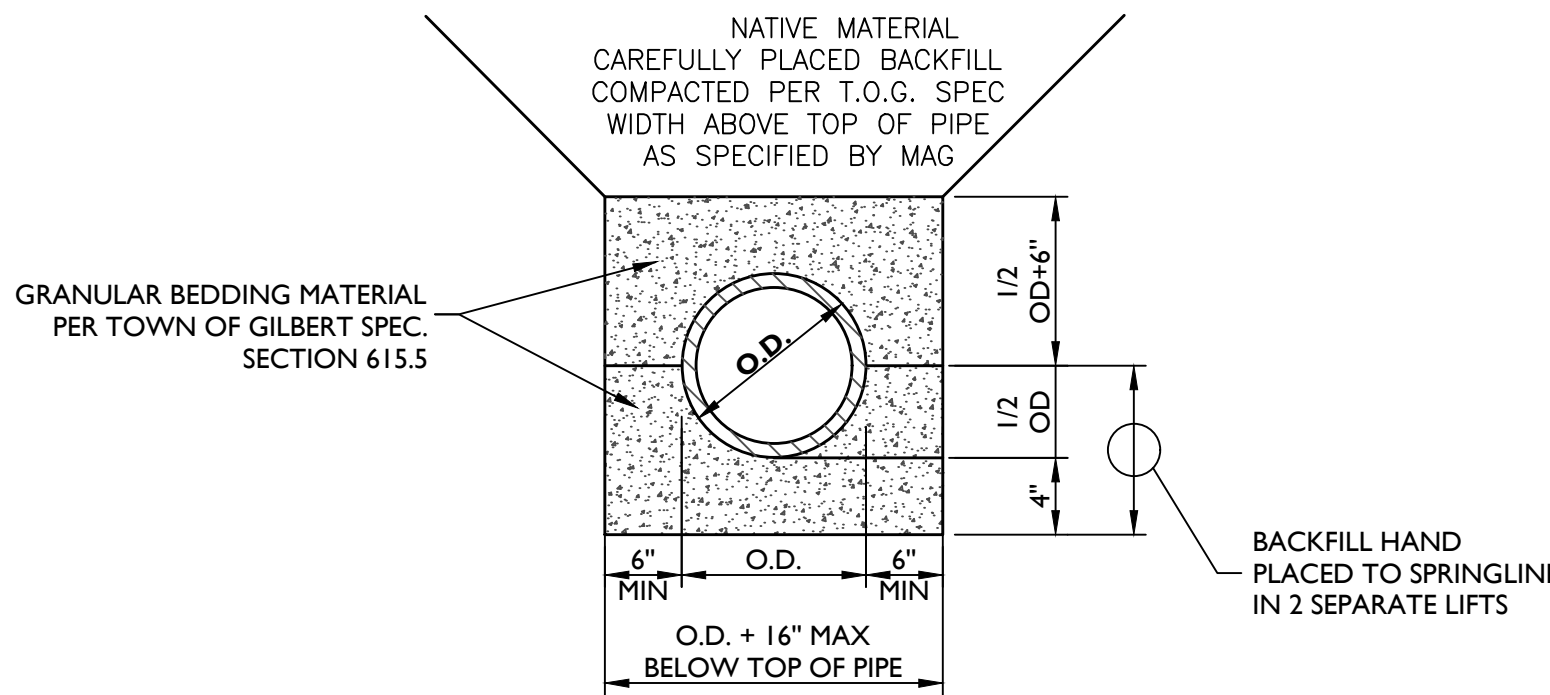
HEADWALL GRATE COVER DETAIL



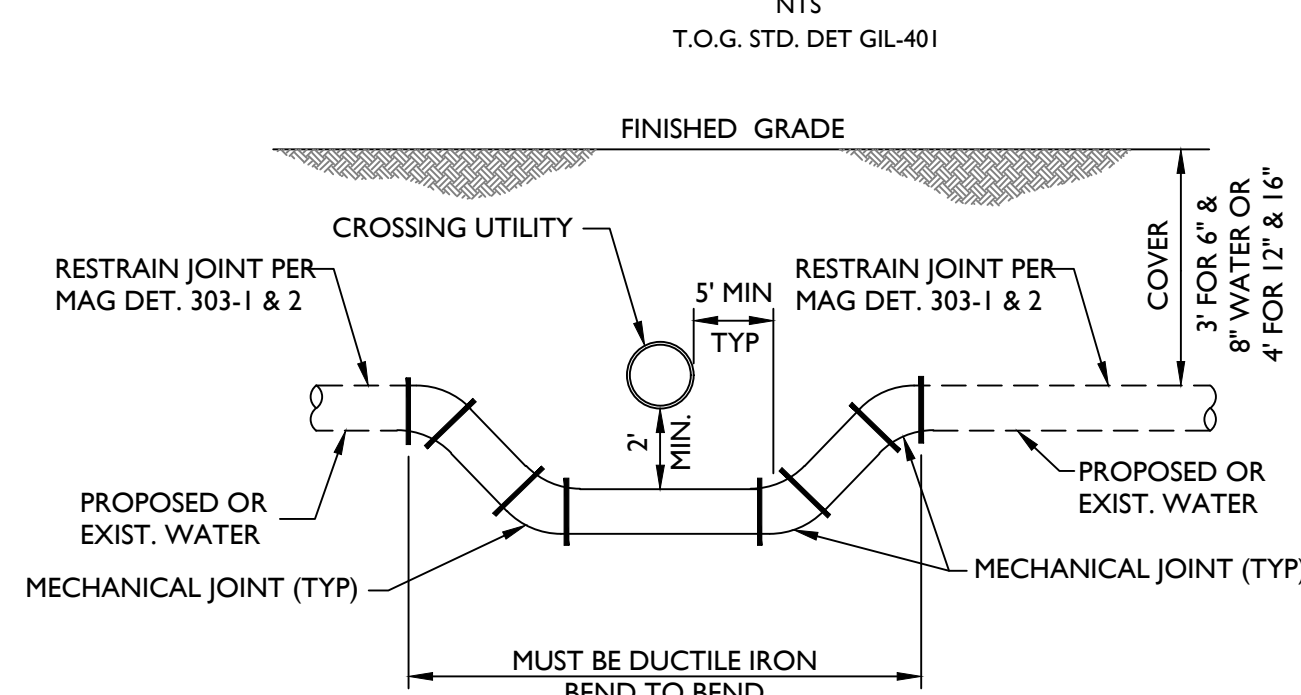
DITCH CONNECTION DETAIL



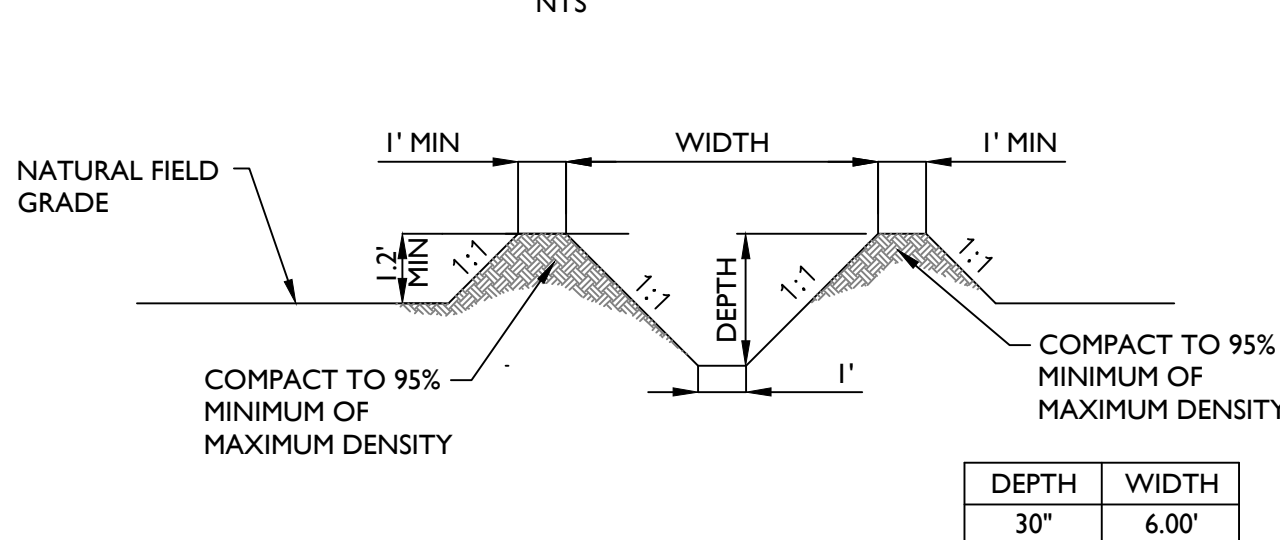
IRRIGATION DITCH GATE



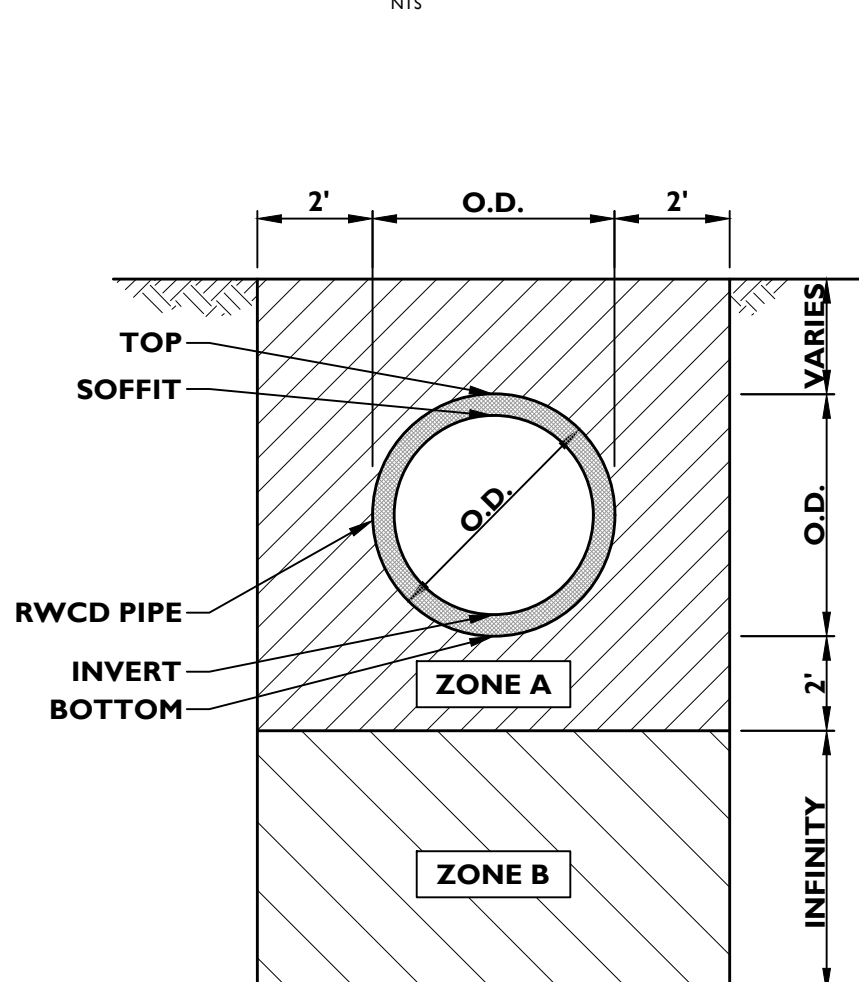
PVC SEWER PIPE BEDDING DETAIL



STANDARD WATERLINE DIP DETAIL
WATERLINE DIP PER MODIFIED MAG 370.
MODIFICATIONS AS SHOWN.



EARTHEN IRRIGATION DELIVERY DITCH



UTILITY CLEARANCE REQUIREMENTS

NOTES:

ZONE A: NO UTILITIES* PERMITTED WITHIN THIS ZONE.

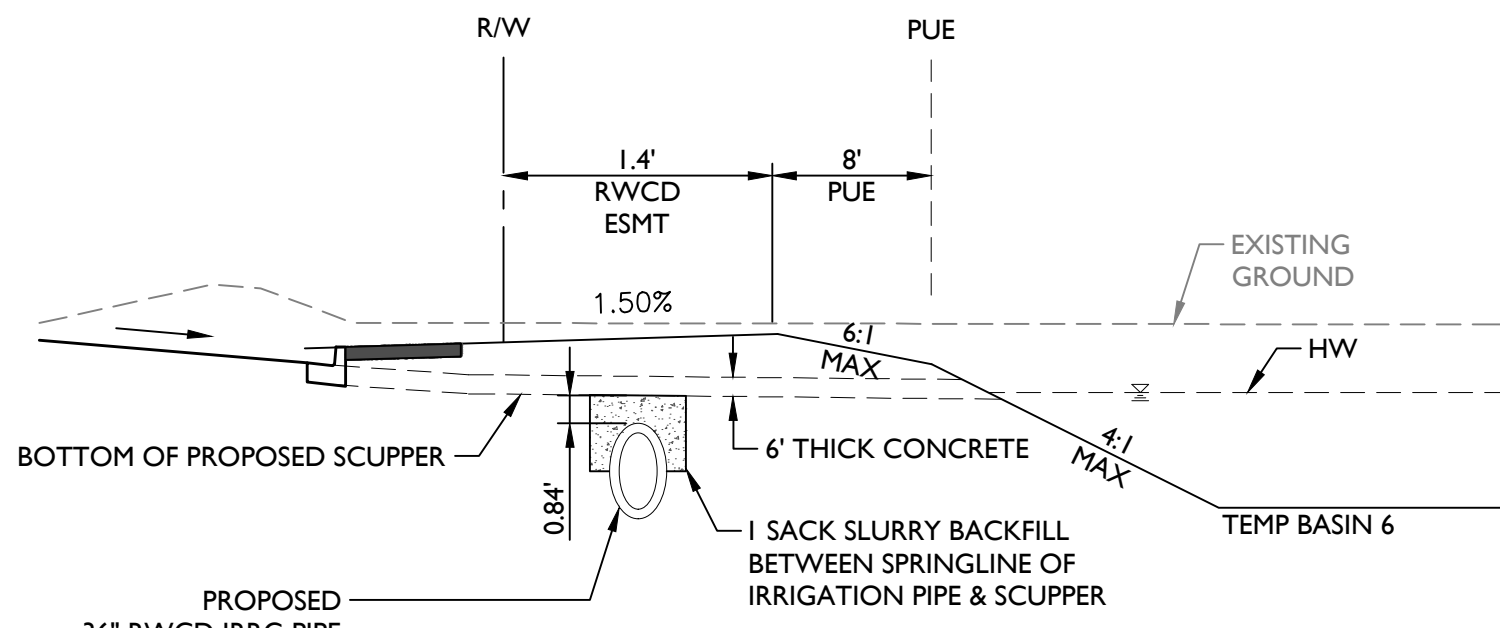
ZONE B: NO LONGITUDINAL UTILITIES PERMITTED WITHIN THIS ZONE. CROSSING UTILITIES PERMITTED WITH CROSSING PERMIT ISSUED BY RWCD. CONTACT RWCD INSPECTOR AT 480.748.6416 FOR CROSSING PERMIT.

O.D. = OUTSIDE DIAMETER OF THE BARREL OF THE PIPE.

CLEARANCE SHALL ACCOUNT FOR PIPE THICKNESS.

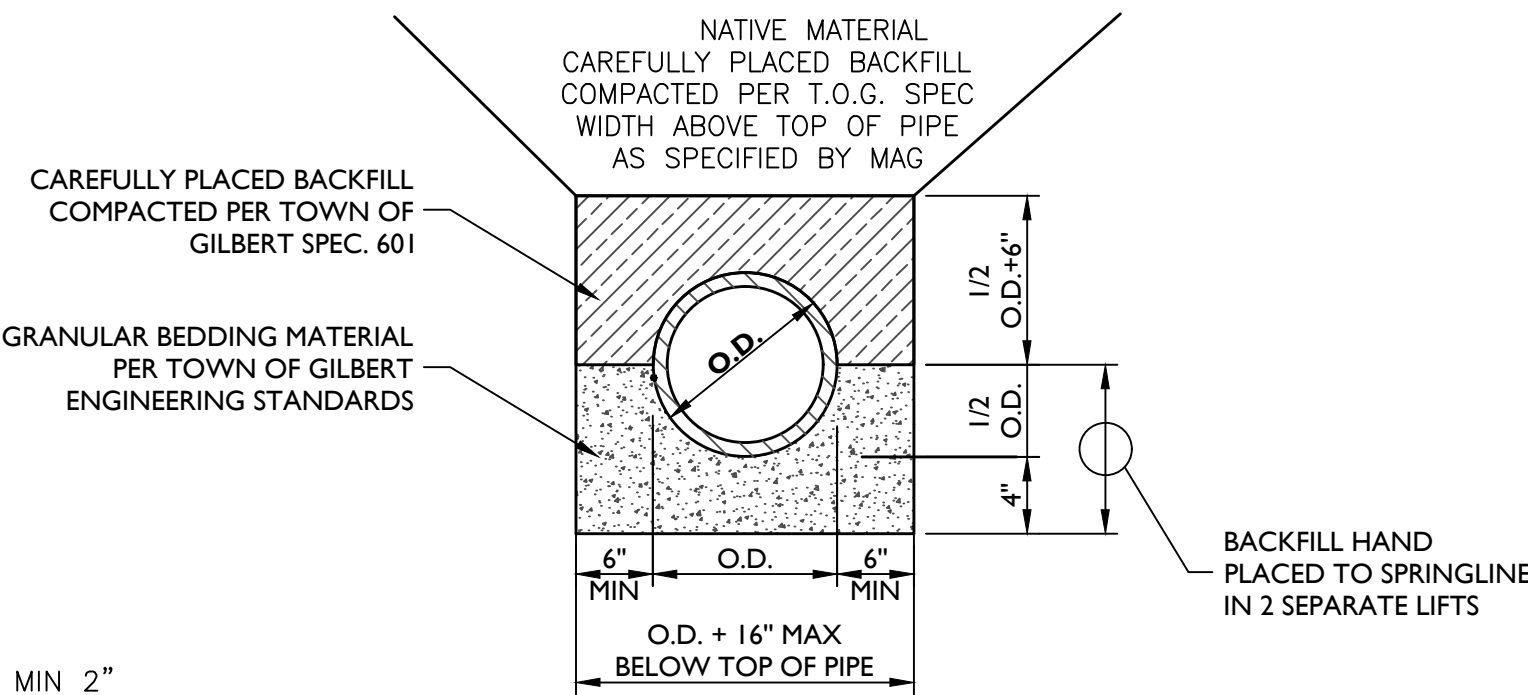
PIPE SIZE (IN)	PIPE THICKNESS (IN)
30"	4.5"
36"	5"
42"	5.5"

*UTILITIES INCLUDE ANY WATER LINE, SEWER LINE, RECLAIMED WATER LINE, GAS LINE, ELECTRICAL LINE, LANDSCAPE IRRIGATION LINE, COMMUNICATIONS LINE, ETC.



RWCD SCUPPER CROSSING DETAIL

NTS

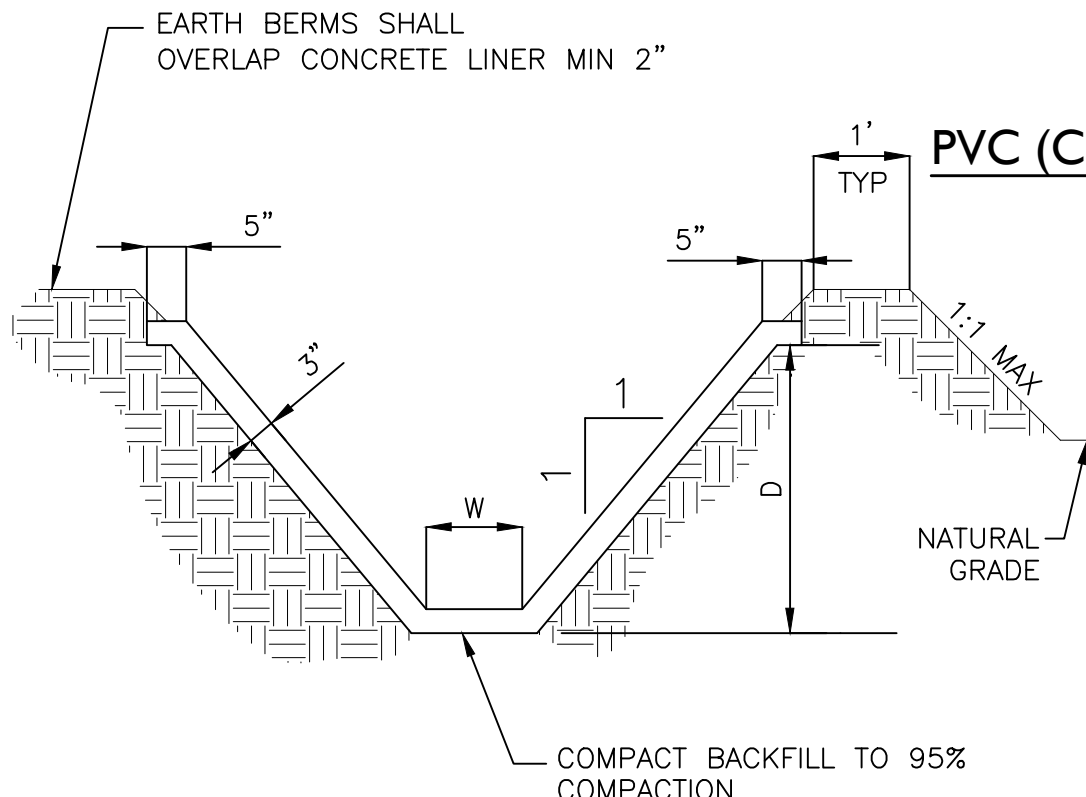


PVC (C-900) WATER PIPE BEDDING DETAIL

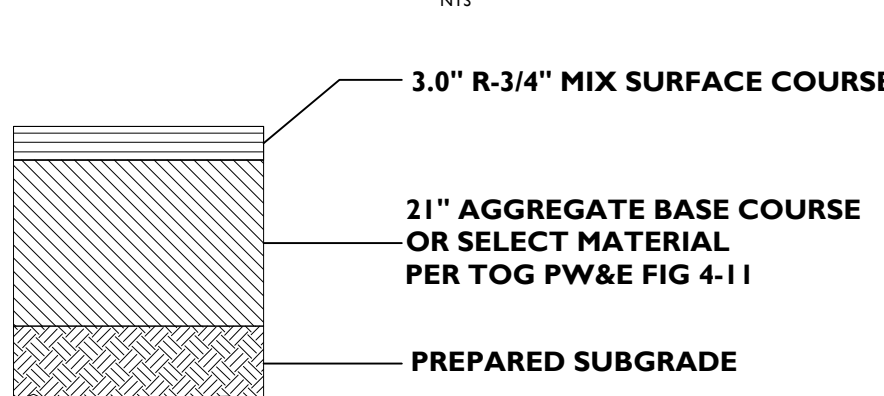
NTS
T.O.G. STD. DET GIL-302

CONCRETE DITCH NOTES:

- GRADE TO MATCH EXISTING DITCH INVERTS.
- USE 3000lb CONCRETE WITH FIBER MESH.
- CUT IN A CONTRACTION JOINT EVERY 6'.
- OVERLAP EARTHWORK ON EACH SIDE OF THE LINING.
- 95% COMPACTION REQUIRED UNDER DITCH LINING AND UNDER ACCESS ROAD.
- PROVIDE CURING COMPOUND PER MAG SPEC 726.
- PROVIDE DITCH LINING WITH A FINE BROOM FINISH.



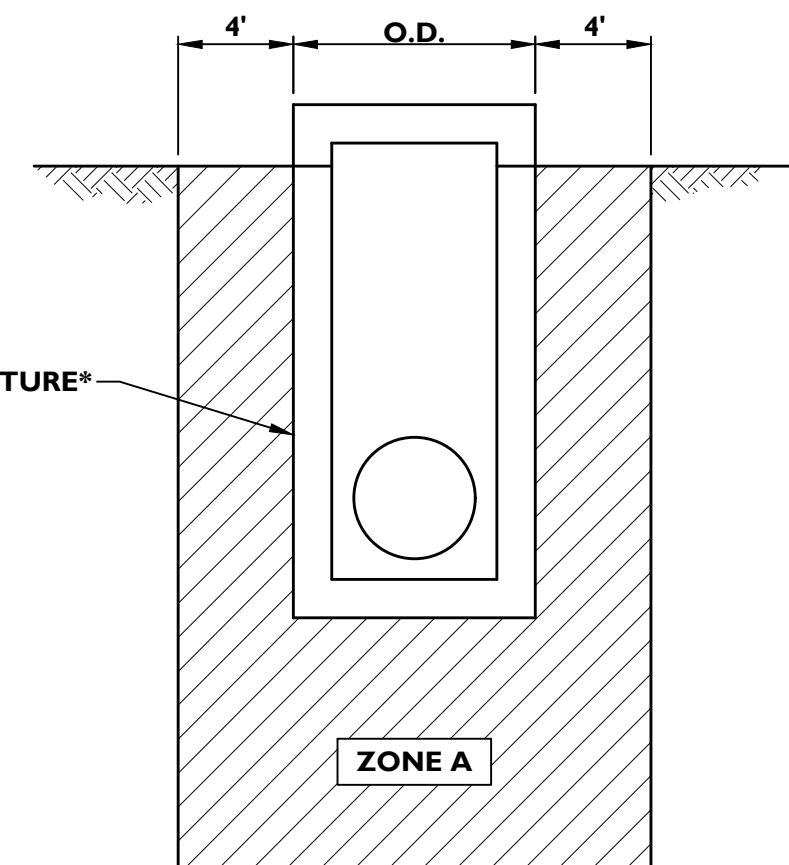
30" CONCRETE DELIVERY DITCH



OFFSITE ASPHALT PAVEMENT SECTION
MAJOR COLLECTOR HEAVY VEHICLE AREAS

PER TOG PW&E STANDARDS FIGURE 4-11

CONSTRUCTION NOTE (1B)

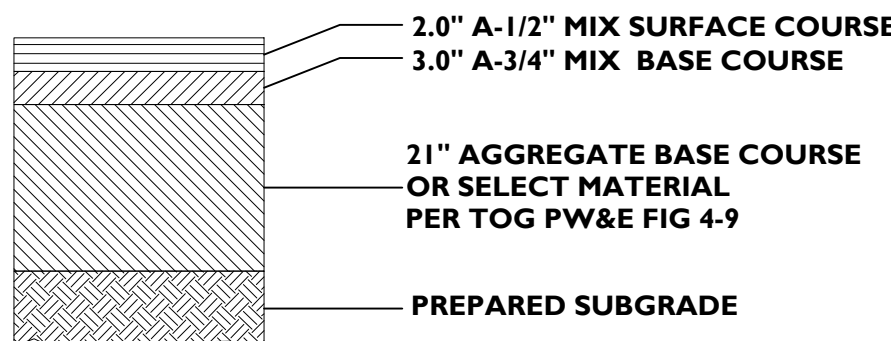


UTILITY CLEARANCE REQUIREMENTS

NOTES:

ZONE A: NO UTILITIES PERMITTED WITHIN THIS ZONE.

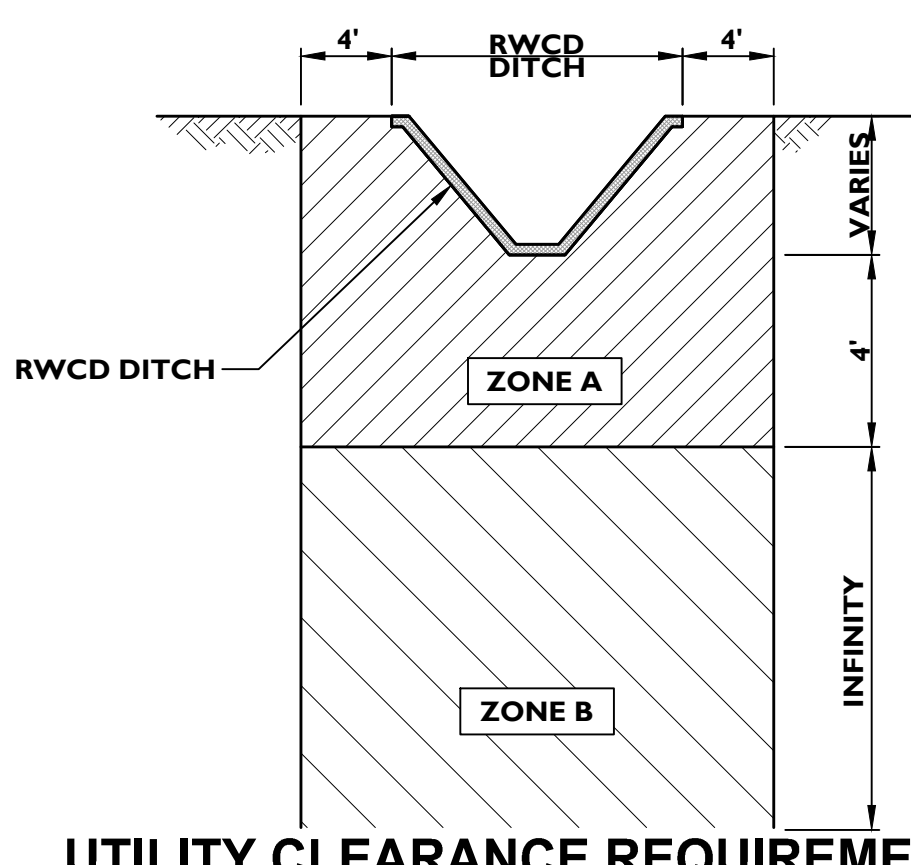
*RWCD STRUCTURE IS DEFINED AS A TURNOUT STRUCTURE, MANHOLE, HEADWALL, ETC.



OFFSITE ASPHALT PAVEMENT SECTION
E. RAY ROAD HEAVY VEHICLE AREAS

PER TOG PW&E STANDARDS FIGURE 4-9

CONSTRUCTION NOTE (1A)



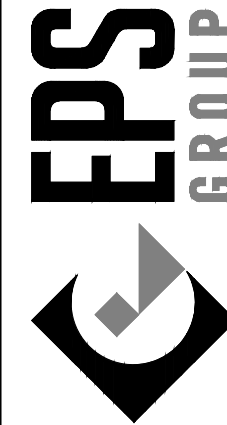
UTILITY CLEARANCE REQUIREMENTS

NOTES:

ZONE A: NO UTILITIES PERMITTED WITHIN THIS ZONE.

ZONE B: NO LONGITUDINAL UTILITIES PERMITTED WITHIN THIS ZONE. CROSSING UTILITIES PERMITTED WITH CROSSING PERMIT ISSUED BY RWCD. CONTACT RWCD INSPECTOR AT 480.748.6416 FOR CROSSING PERMIT.

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Mesa, AZ 85210
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Gateway Pointe - Offsite Improvements

Project:

Revisions:

Revisions:

Revisions:

Revisions:

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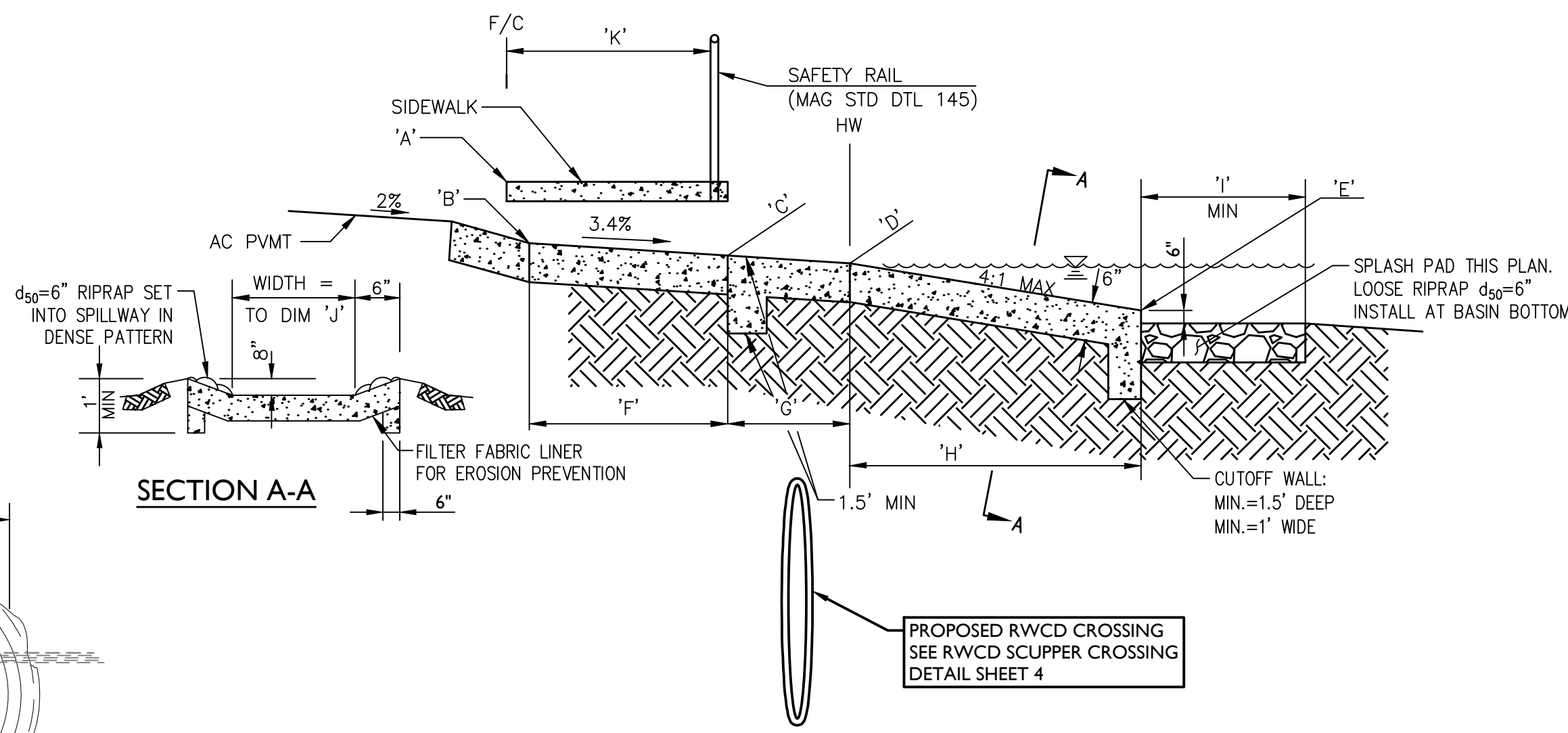
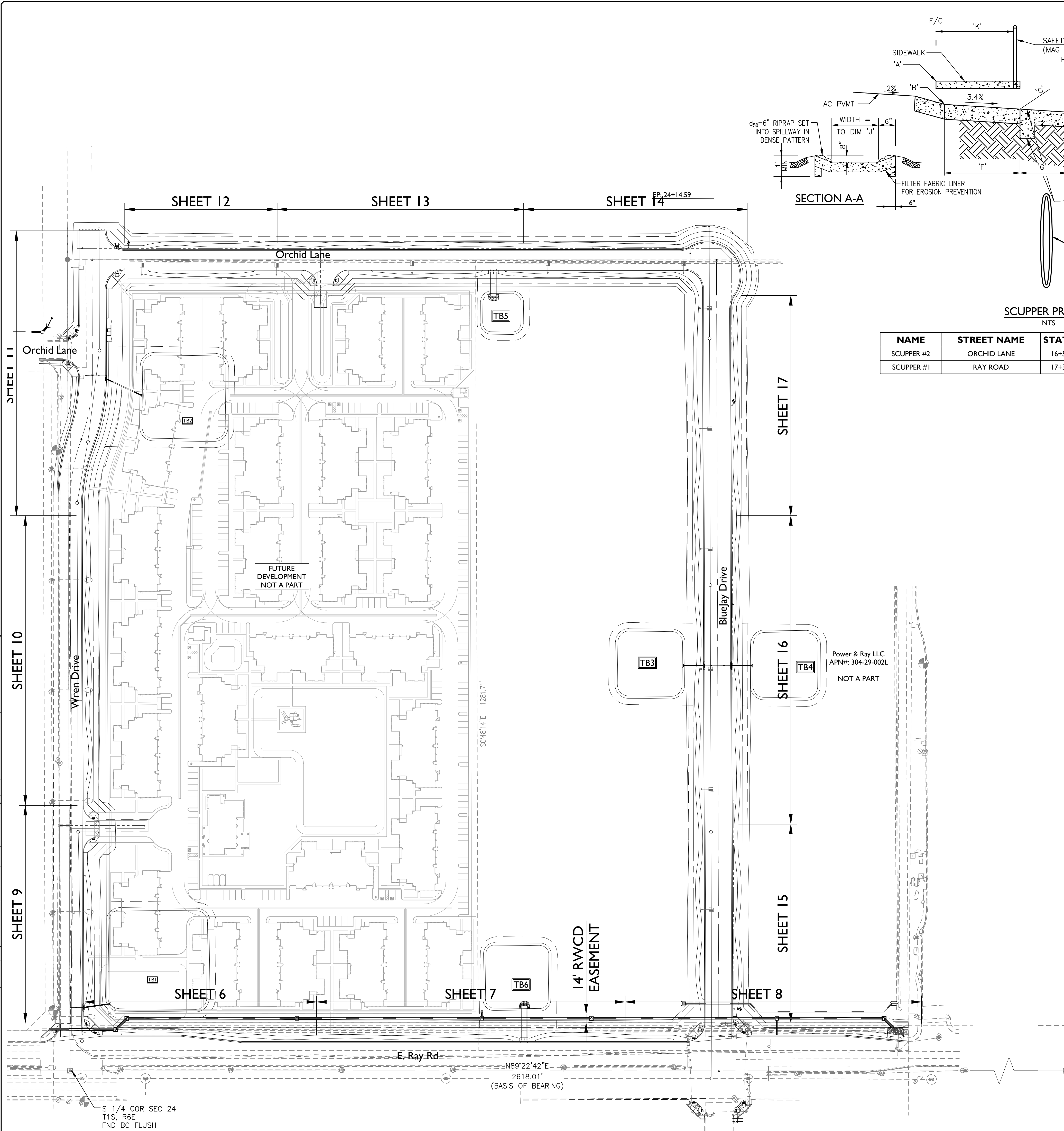
Revisions:

Revisions:

17-265 - Gateway Pointe - Offsite Improvements

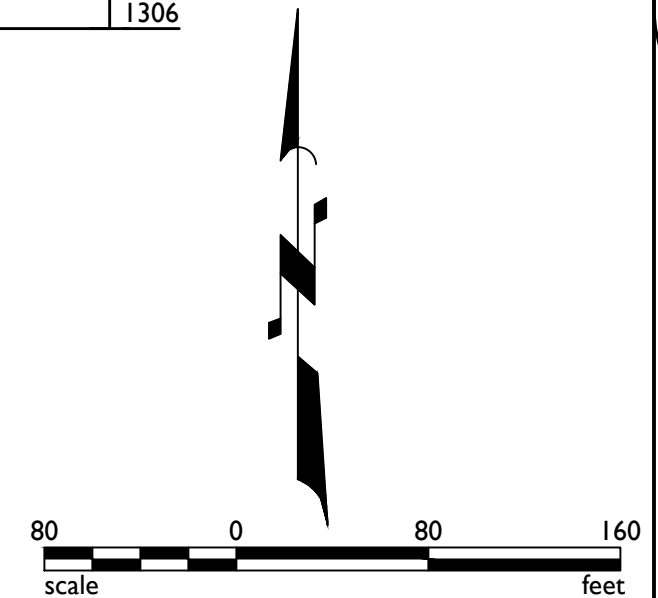
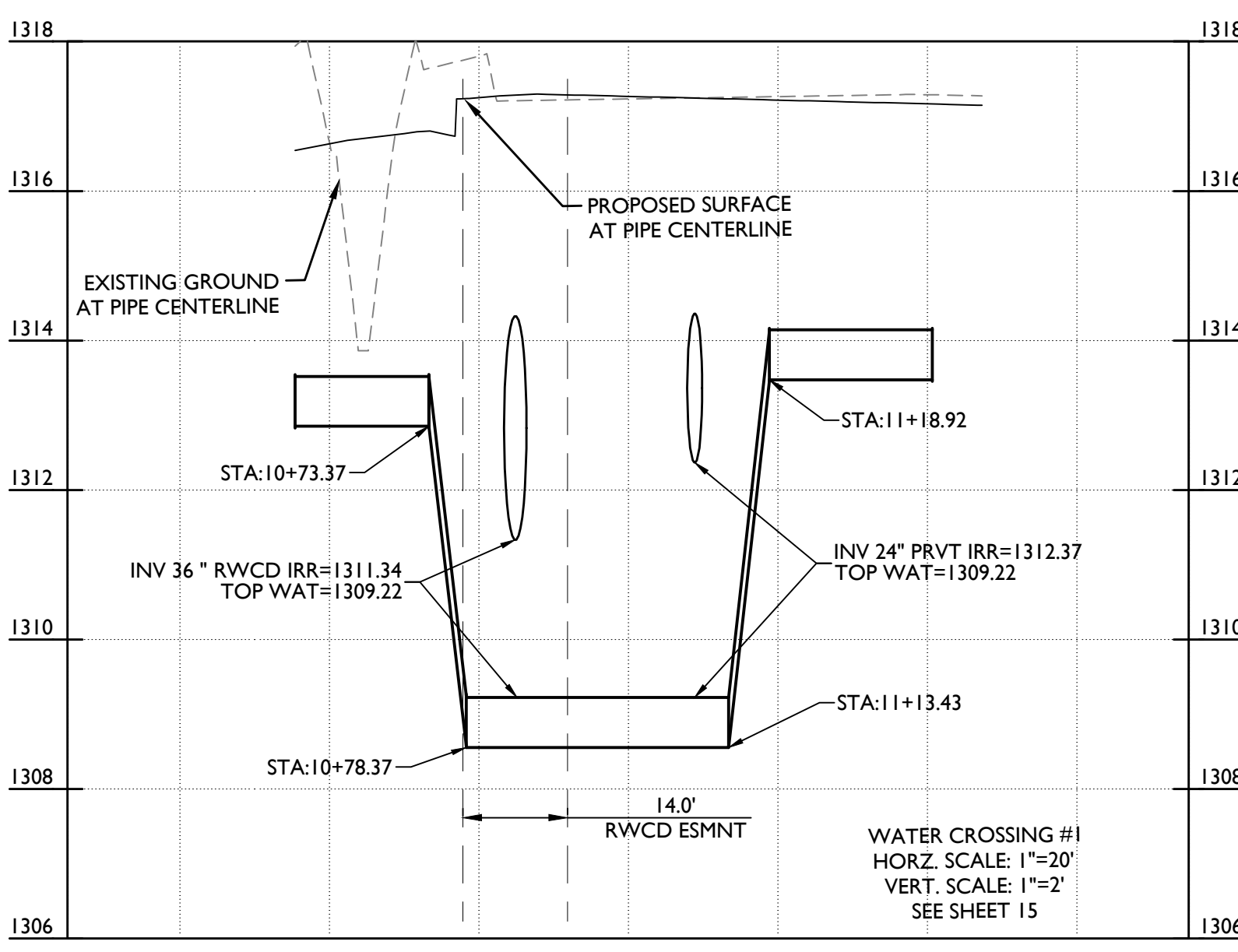
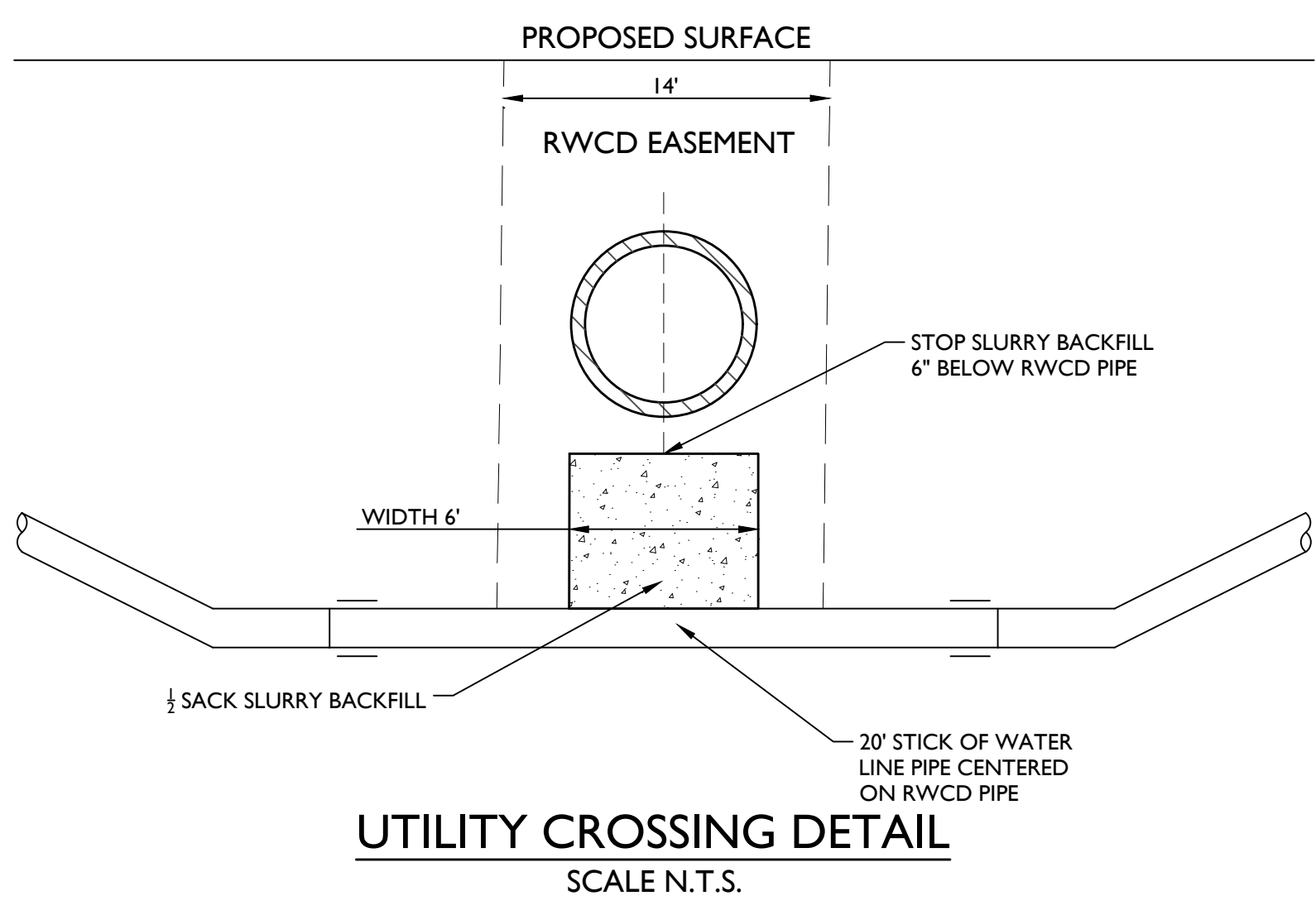
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akirkland



SCUPPER PROFILE
NTS

NAME	STREET NAME	STATION	OFFSET	'A'	'B'	'C'	'D'	'E'	'F'	'G'	'H'	'I'	'J'	'K'
SCUPPER #2	ORCHID LANE	16+50.74	17.00' LT	17.03	16.36	16.16	15.00	14.00	6.00'	27.60'	4.00'	4.00'	8.50'	6.00'
SCUPPER #1	RAY ROAD	17+33.60	47.50' LT	15.50	14.83	14.63	14.50	13.50	6.00'	43.50'	4.00'	4.00'	8.50'	6.00'



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EPS GROUP

Gateway Pointe - Offsite Improvements
Gilbert, Arizona

Project: 17-265
Sheet No. 5 of 34

Revisions:

Call at least two full working days before you begin excavation.

ARIZONA

Small Print: 1/4" = 1' - 0" (30' MAX) (1" = 10' MAX) in Maricopa County: (602)263-1100

Designer: DMA
Drawn by: MSA

Professional Engineer
50291
DANIEL B. AUXIER
Exp: 12/31/2018

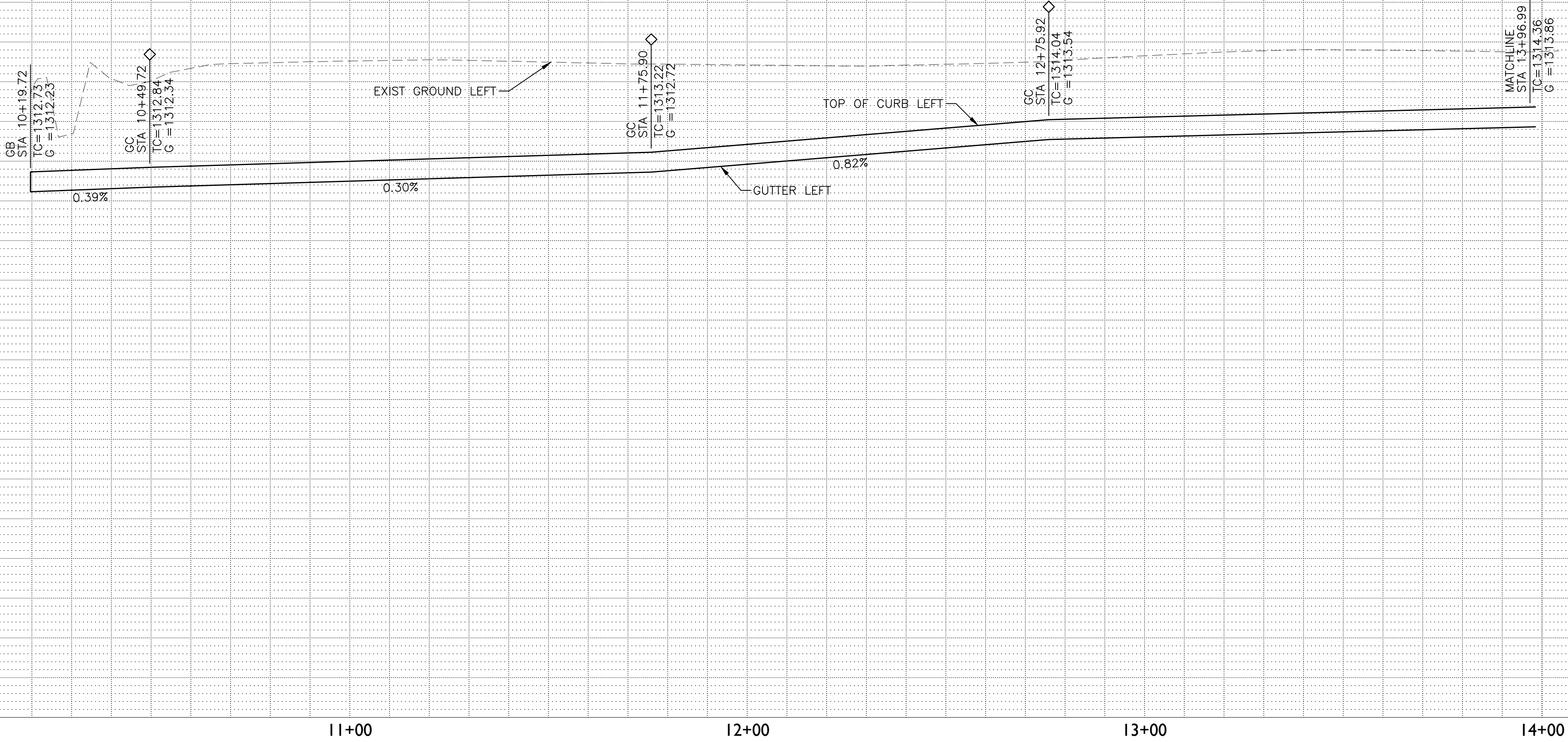
Job No.
17-265
ID01

Sheet No.
5
of 34

REVIEW 2017-01065

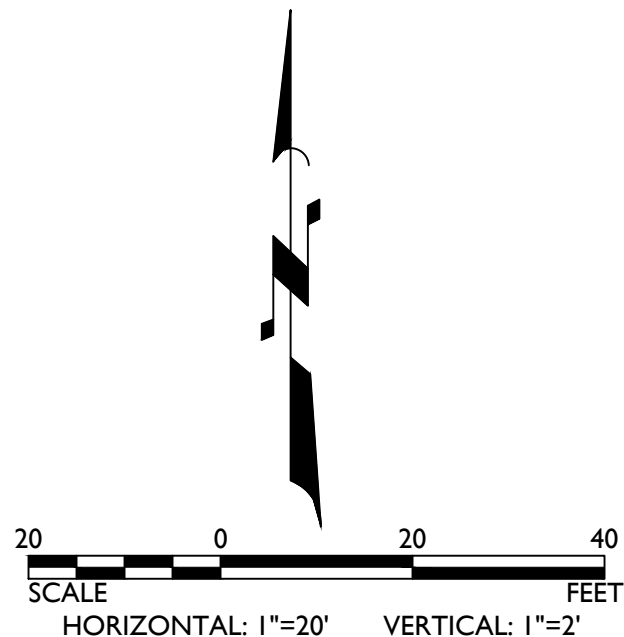
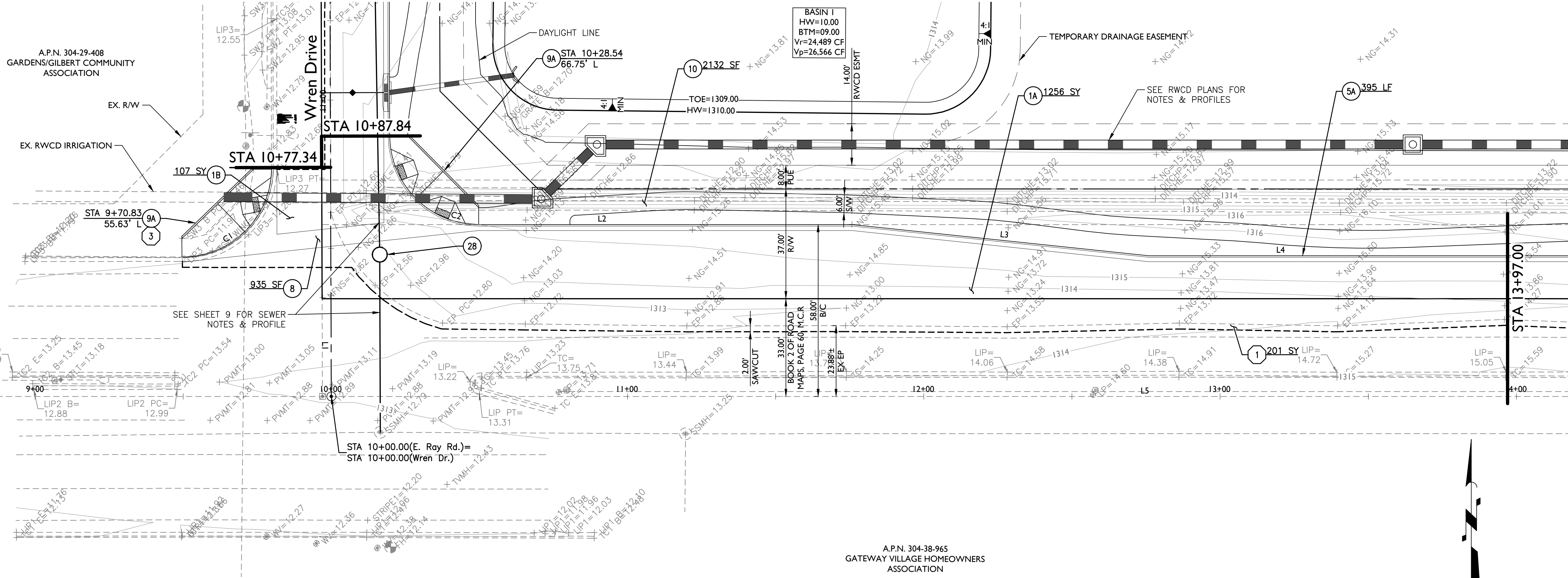
NOTE: WHERE CROSSING RWCD EXISTING FACILITIES, PROPOSED UTILITIES SHALL EITHER BE INSTALLED AFTER THE EXISTING RWCD FACILITY IS TAKEN OUT OF SERVICE OR THE UTILITY INSTALLATION SHALL BE BY HORIZONTAL EARTH AUGER BORE.

NOTE: WHERE CROSSING PROPOSED RWCD FACILITIES, PROPOSED UTILITIES SHALL EITHER BE INSTALLED PRIOR TO THE RWCD FACILITY INSTALLATION OR THE UTILITY INSTALLATION SHALL BE BY HORIZONTAL EARTH AUGER BORE.



A.P.N. 304-38-965
GATEWAY VILLAGE HOMEOWNERS
ASSOCIATION

E. Ray Road



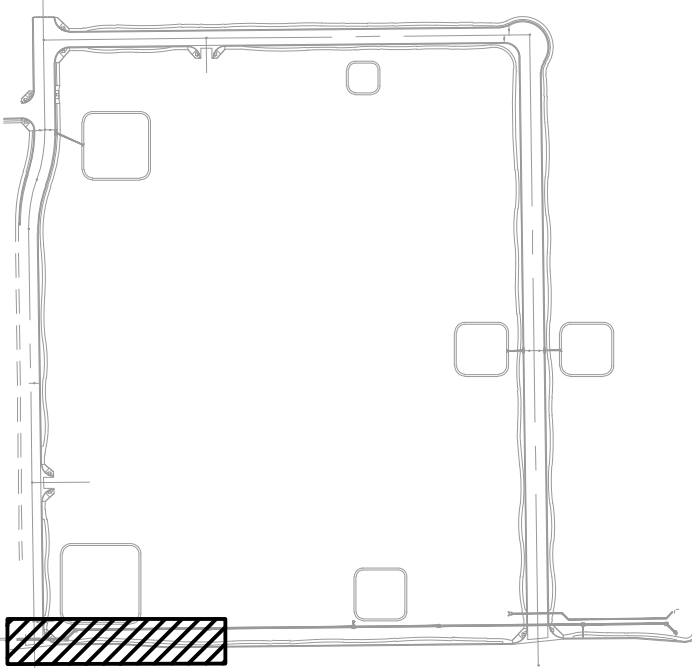
CONSTRUCTION NOTES

- PAVING NOTES
- 1A PAVEMENT: 5" AC/ 21" ABC, SEE DETAIL ON SHEET DT01 1256 SY
 - 1B PAVEMENT: 3" AC/ 21" ABC, SEE DETAIL ON SHEET DT01 107 SY
 - 5A 6" V.C.&G. MAG 220 TYPE A 395 LF
 - 8 6" TYP. VALLEY GUTTER (AND APRON WHERE SHOWN) MAG 240 935 SF
 - 9A CORNER RAMP PER MAG 237-1 2 EA
 - 10 SIDEWALK MAG 230, WIDTH PER PLAN 2132 SF
 - 28 ADJUST MANHOLE FRAME & COVER MAG 422 1 EA
- REMOVAL NOTES
- 1 SAWCUT & REMOVE EXISTING PAVEMENT. MIN 2' 201 SY
 - 3 REMOVE EXIST SIDEWALK RAMP 1 EA

BACK OF CURB AND CENTERLINE LINE TABLE		
LINE	LENGTH	BEARING
L1	87.84'	N00°48'14"W
L2	126.18'	N89°22'42"E
L3	100.56'	S84°37'41"E
L4	121.08'	N89°22'42"E
L5	397.00'	N89°22'42"E

CURVE TABLE				
CURVE	LENGTH	RADIUS	CHORD	DELTA
C1	46.97'	30.00'	42.32'	089°40'56"
C2	47.03'	30.00'	42.36'	089°49'03"

KEY MAP



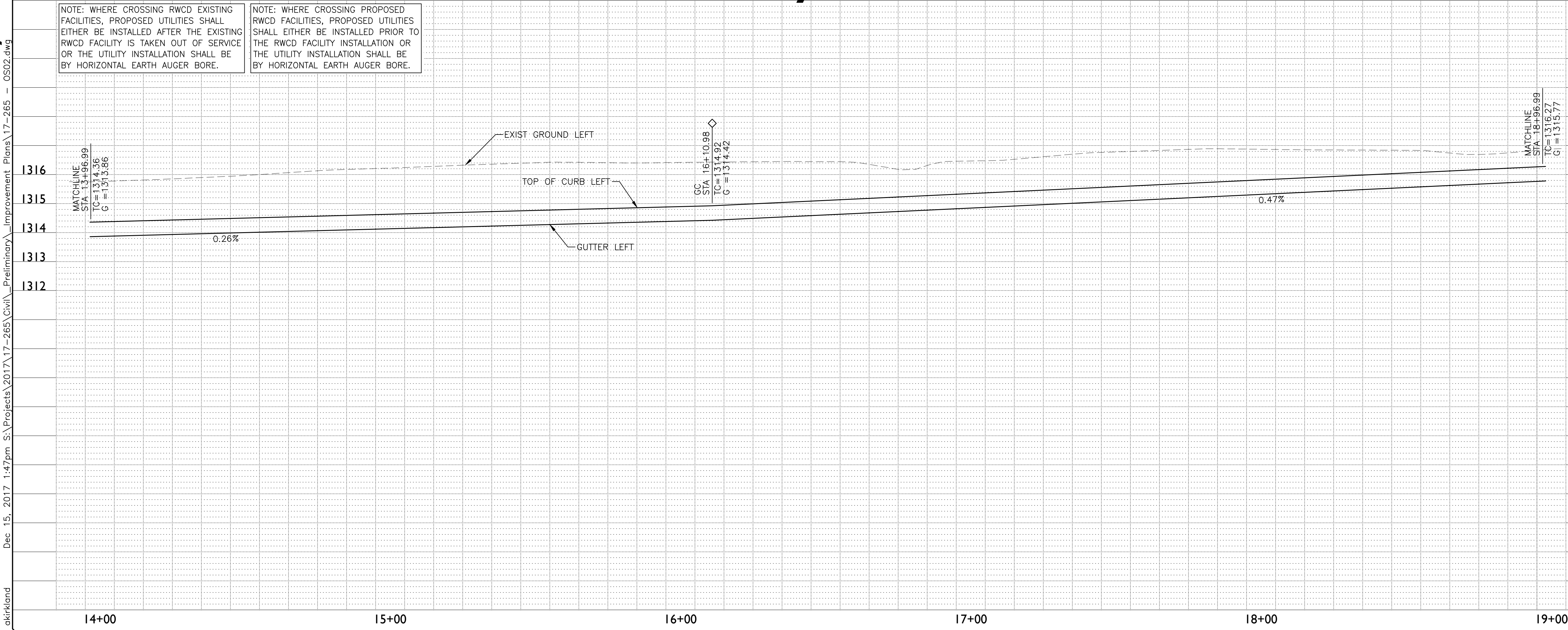
Gateway Pointe - Improvement Plans

Gilbert, Arizona

Offsite Improvement Plan

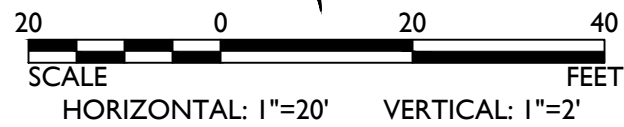


Designer: DMA	Job No. 17-265	Sheet No. 6
Drawn by: MSA	Dwg No. OS01	of 26



E. Ray Road

A.P.N. 304-38-965
GATEWAY VILLAGE HOMEOWNERS
ASSOCIATION



CONSTRUCTION NOTES

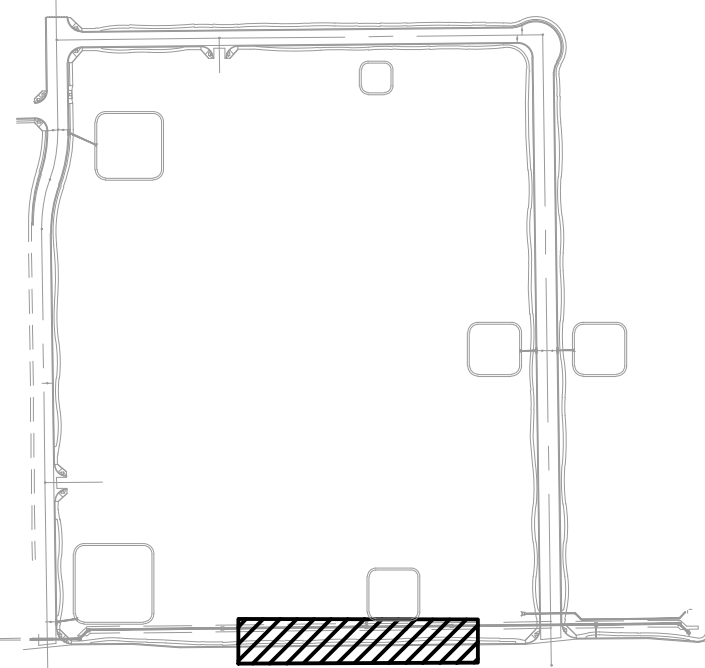
PAVING NOTES

- 1A PAVEMENT: 5" AC/ 21" ABC, SEE DETAIL ON SHEET DT01 1099 SY
 - 5A 6" V.C.&G. MAG 220 TYPE A 500 LF
 - 10 SIDEWALK MAG 230, WIDTH PER PLAN 2926 SF
- STORM DRAIN & IRRIGATION NOTES
- 9 CONCRETE SCUPPER, MAG 206, WIDTH PER PLAN 1 EA
- SEE DETAIL ON SHEET 5
- 12 GROUTED RIPRAP, d50=6". 1' THICK MINIMUM. 130 SF
- REMOVAL NOTES
- 1 SAWCUT & REMOVE EXISTING PAVEMENT. MIN 2' 111 SY

BACK OF CURB AND CENTERLINE LINE TABLE

LINE	LENGTH	BEARING
L1	500.00'	N89°22'42"E
L2	2618.01'	N89°22'42"E

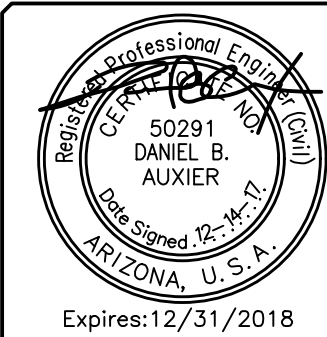
KEY MAP



Gateway Pointe - Improvement Plans

Gilbert, Arizona

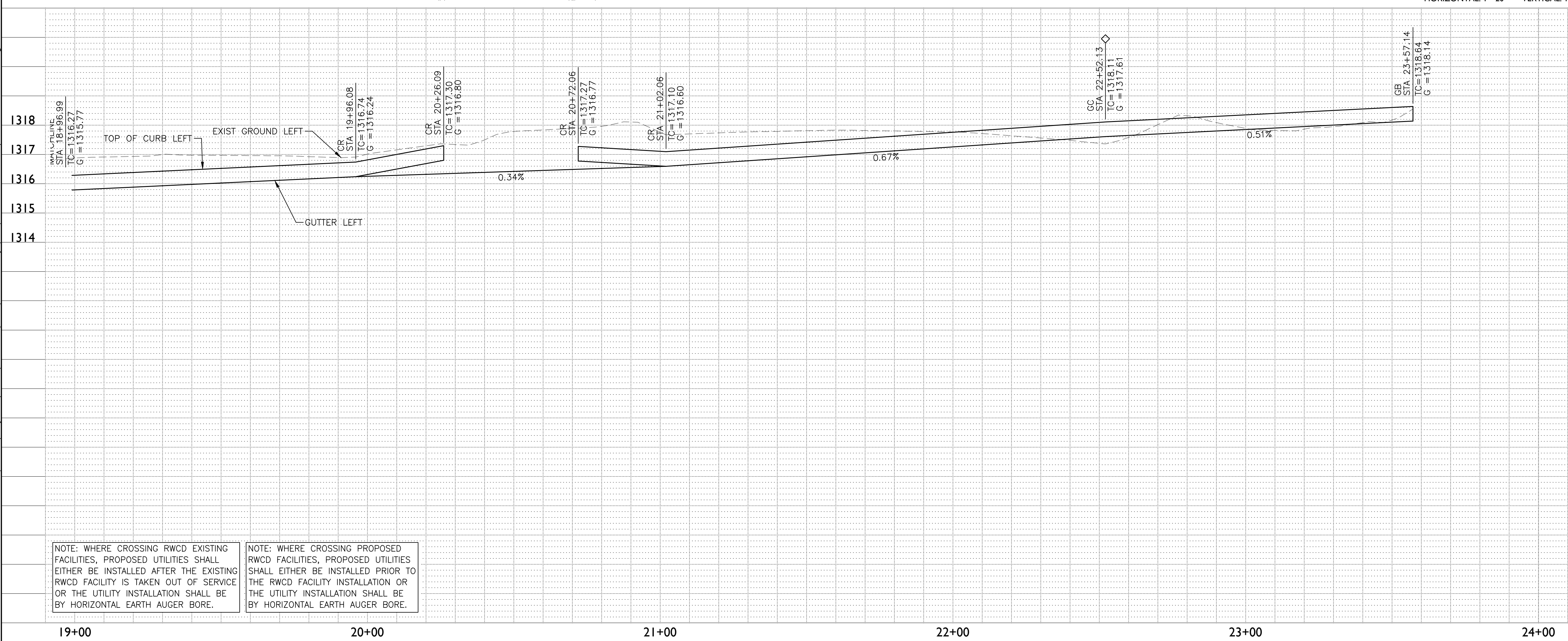
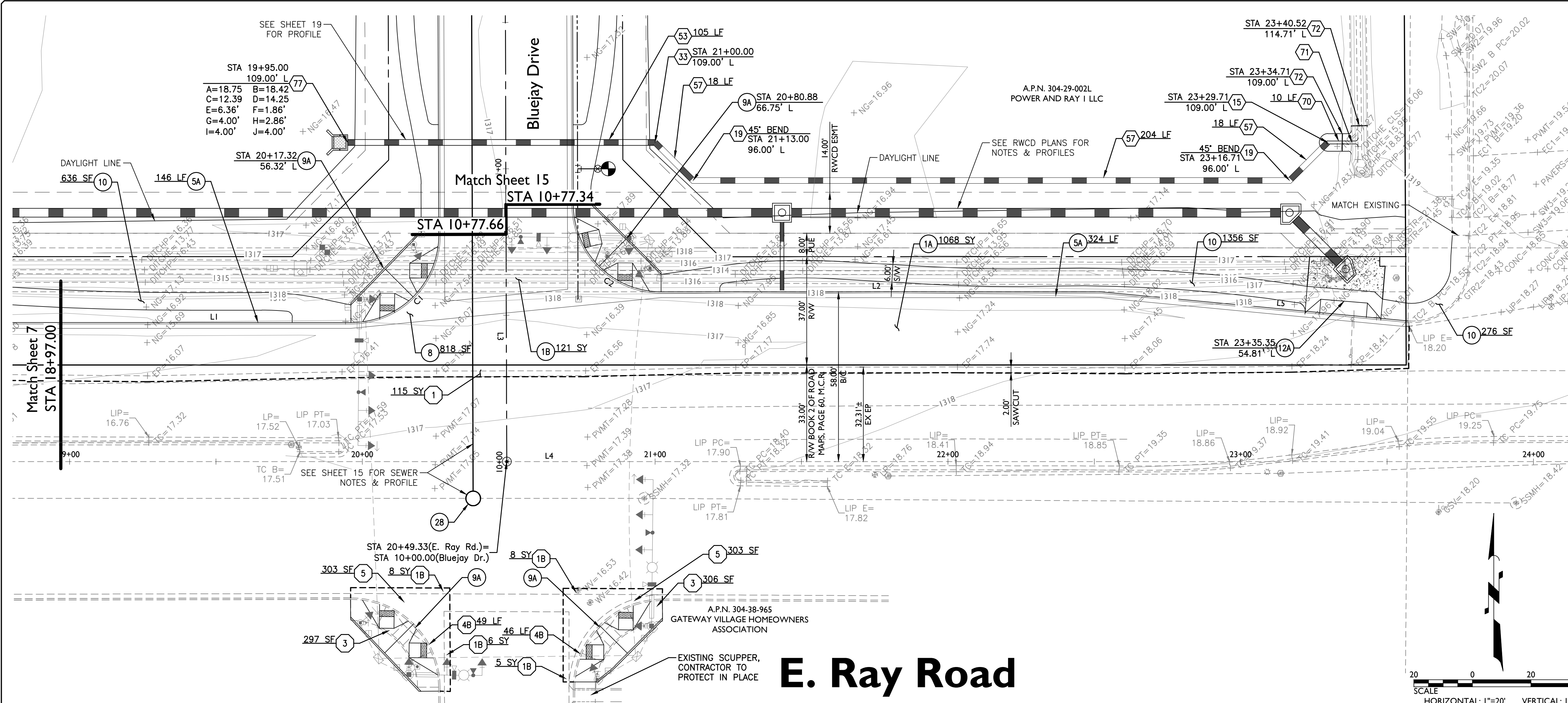
Offsite Improvement Plan



Designer: DMA	Job No. 17-265	Sheet No. 7
Drawn by: MSA	Dwg No. OS02	of 26

17-265 - Gateway Pointe - Improvement Plans

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NOTE: WHERE CROSSING RWCD EXISTING FACILITIES, PROPOSED UTILITIES SHALL EITHER BE INSTALLED AFTER THE EXISTING RWCD FACILITY IS TAKEN OUT OF SERVICE OR THE UTILITY INSTALLATION SHALL BE BY HORIZONTAL EARTH AUGER BORE.

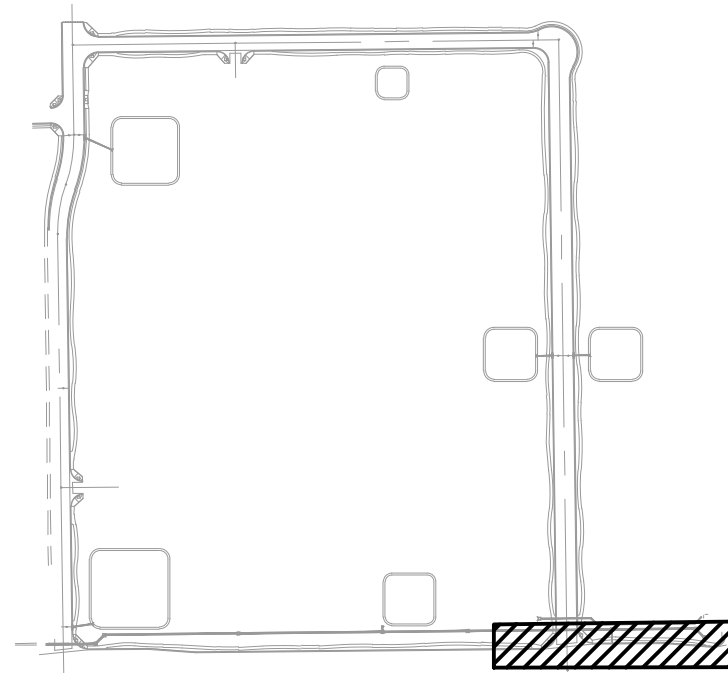
NOTE: WHERE CROSSING PROPOSED RWCD FACILITIES, PROPOSED UTILITIES SHALL EITHER BE INSTALLED PRIOR TO THE RWCD FACILITY INSTALLATION OR THE UTILITY INSTALLATION SHALL BE BY HORIZONTAL EARTH AUGER BORE.

CONSTRUCTION NOTES		
PAVING NOTES		
1A	PAVEMENT: 5" AC/ 21" ABC, SEE DETAIL ON SHEET DT01	1068 SY
1B	PAVEMENT: 3" AC/ 21" ABC, SEE DETAIL ON SHEET DT01	121 SY
5A	6" V.C.&G. MAG 220 TYPE A	470 LF
8	6" TYP. VALLEY GUTTER (AND APRON WHERE SHOWN) MAG 240	818 SF
9A	CORNER RAMP PER MAG 237-1	4 EA
10	SIDEWALK MAG 230, WIDTH PER PLAN	2268 SF
12A	CONTRACTOR TO INSTALL 9" THICK COMMERCIAL 16" DRIVEWAY ENTRANCE PER MAG 250-2	1 EA
28	ADJUST MANHOLE FRAME & COVER MAG 422	1 EA
STORM DRAIN & IRRIGATION NOTES		
15	PROVIDE AND INSTALL TRASHRACK PER MAG 502-1. FIELD VERIFY DIME	1 EA
19	PIPE FITTING	2 EA
33	CONCRETE PIPE COLLAR PER MAG 505	1 EA
53	24" GRCP CL V IRRIGATION PIPE	105 LF
57	24" P.I.P. 100 PSI, SDR-41 IRRIGATION PIPE	240 LF
70	30" CONCRETE IRRIGATION DITCH. SEE DETAIL ON SHEET DT01	10 LF
71	SAWCUT, REMOVE, AND CONNECT TO EXISTING IRRIGATION DITCH. SEE DETAIL ON SHEET DT01	1 EA
72	INSTALL IRRIGATION DITCH GATE. SEE DETAIL ON SHEET DT01	2 EA
77	HEADWALL MAG 502-1, WITH GRATE. SEE DETAIL SHEET DT01	1 EA
REMOVAL NOTES		
1	SAWCUT & REMOVE EXISTING PAVEMENT. MIN 2'	115 SY
1B	SAWCUT, REMOVE & REPLACE EXISTING PAVEMENT IN KIND	27 SY
3	REMOVE EXIST SIDEWALK & RAMP	603 SF
4B	REMOVE & REPLACE EXIST CURB AND GUTTER	95 LF
5	REMOVE EXIST VALLEY GUTTER (AND APRON WHERE SHOWN)	606 SY

BACK OF CURB AND CENTERLINE LINE TABLE		
LINE	LENGTH	BEARING
L1	99.09'	N89°22'42"E
L2	150.07'	N89°22'42"E
L3	1281.59'	S00°47'51"E
L4	2618.01'	N89°22'42"E
L5	105.48'	S85°12'20"E

BACK OF CURB AND CENTERLINE CURVE TABLE				
CURVE	LENGTH	RADIUS	CHORD	DELTA
C1	47.22'	30.00'	42.49'	090°10'33"
C2	37.58'	30.00'	35.17'	071°46'07"

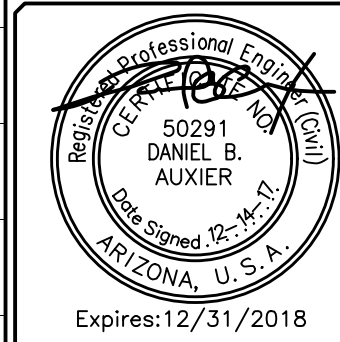
KEY MAP



Gateway Pointe - Improvement Plans

Gilbert, Arizona

Offsite Improvement Plan



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Designer: DMA	Job No. 17-265	Sheet No. 8
Drawn by: MSA	Dwg No. OS03	of 26

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17-265 - Gateway Pointe - Improvement Plans

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NOTE: WHERE CROSSING RWCD EXISTING FACILITIES, PROPOSED UTILITIES SHALL EITHER BE INSTALLED AFTER THE EXISTING RWCD FACILITY IS TAKEN OUT OF SERVICE OR THE UTILITY INSTALLATION SHALL BE BY HORIZONTAL EARTH AUGER BORE.

NOTE: WHERE CROSSING PROPOSED RWCD FACILITIES, PROPOSED UTILITIES SHALL EITHER BE INSTALLED PRIOR TO THE RWCD FACILITY INSTALLATION OR THE UTILITY INSTALLATION SHALL BE BY HORIZONTAL EARTH AUGER BORE.

EXMH-01
STA 9+87.66, 16.52' R
RIM=1312.79
8" INV=1292.63 E
8" INV=1295.21 N

SSMH-01
STA 10+47.89, 16.52' R
RIM=1312.79
8" INV=1293.41 N
8" INV=1293.41 S

GB STA 10+74.04
P=1312.66

GC STA 11+02.49
P=1312.83

GB STA 10+87.84
TC=1312.73
G=1312.23

GB STA 11+02.49
TC=1312.69
G=1312.19

SSMH-03
STA 13+97.37, 11.50' R
RIM=1314.07
8" INV=1294.53 N
8" INV=1294.63 E
8" INV=1294.53 S

CR STA 13+78.80
TC=1315.00
G=1314.50

CR STA 14+05.80
TC=1314.84
G=1314.34

CR STA 14+30.80
TC=1314.51
G=1314.01

10+00

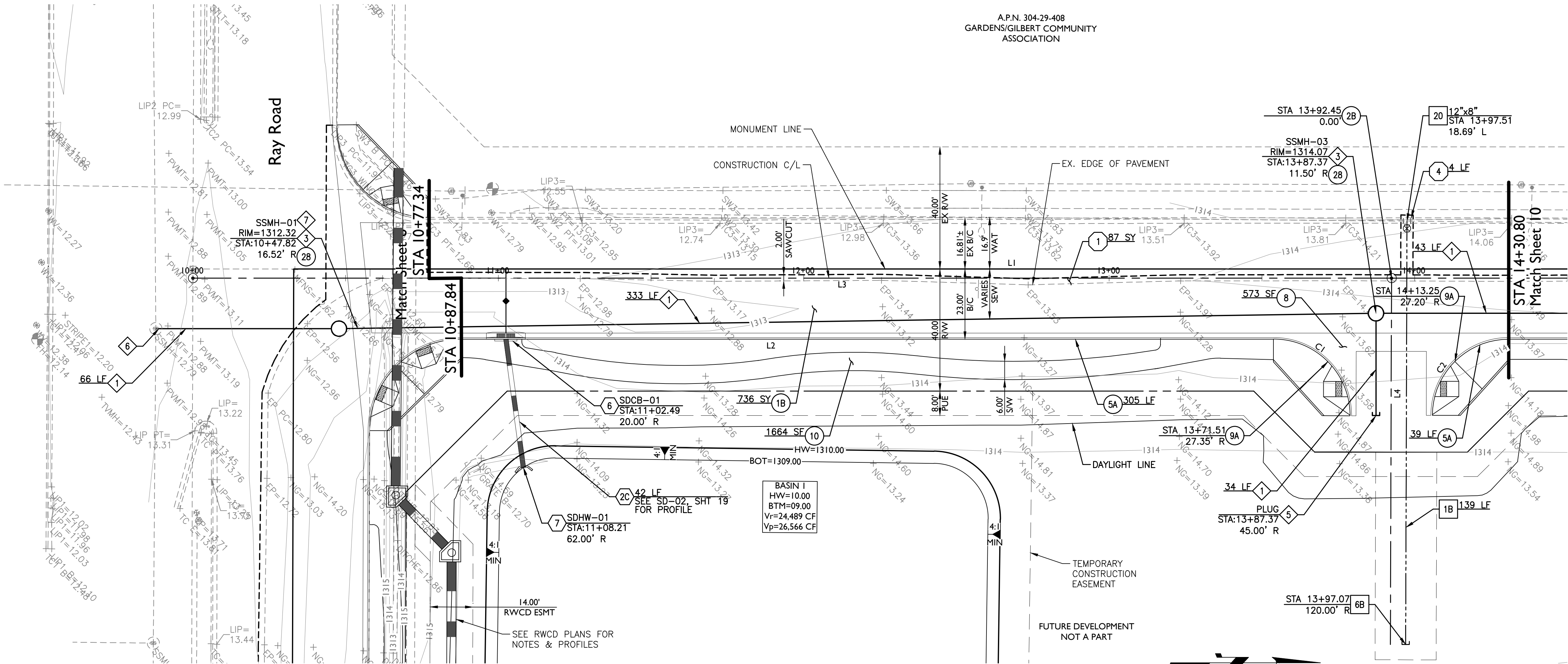
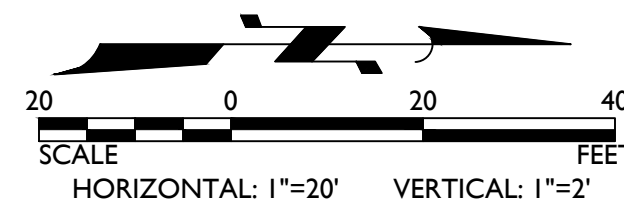
11+00

12+00

13+00

14+00

Wren Drive



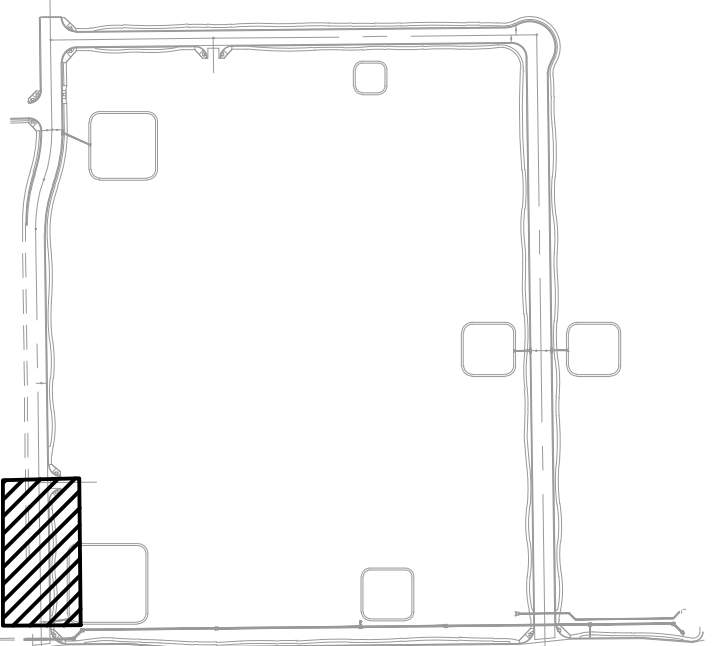
CONSTRUCTION NOTES

- PAVING NOTES
- 1B PAVEMENT: 3" AC/ 21" ABC, SEE DETAIL ON SHEET DT01 736 SY
 - 2B SURVEY MONUMENT MAG 120-1 TYPE B 1 EA
 - 5A 6" V.C.&G. MAG 220 TYPE A 344 LF
 - 8 6" TYP. VALLEY GUTTER (AND APRON WHERE SHOWN) MAG 240 573 SF
 - 9A CORNER RAMP PER MAG 237-1 2 EA
 - 10 SIDEWALK MAG 230, WIDTH PER PLAN 1664 SF
 - 2B ADJUST MANHOLE FRAME & COVER MAG 422 2 EA
- WATER NOTES
- 1B 8" PVC C-900 WATERLINE 139 LF
 - 6B 8"x2" CURB STOP W/ VALVE & FLUSHING PIPE MAG 390 TYPE B 1 EA
 - 20 STAINLESS STEEL TAPPING SLEEVE & VALVE MAG 340, 391-C & 392. 1 EA
- SIZE PER PLAN
- SEWER NOTES
- 1 8" PVC (SDR-35) SEWERLINE 476 LF
 - 5 5" DIA SEWER MANHOLE MAG 420, 422 & 424 WITH 30" FRAME & COVER 2 EA
 - 5 SEWER PLUG PER MAG 427 1 EA
 - 6 CONTRACTOR TO CONNECT TO EXISTING MANHOLE PER MAG SPEC 625 1 EA
 - 7 CONTRACTOR SHALL ROTATE CONE TO ENSURE FRAME AND COVER REMAINS IN PAVEMENT 1 EA
- STORM DRAIN & IRRIGATION NOTES
- 20 18" RGRCP CL III STORM DRAIN 42 LF
 - 6 CATCH BASIN MAG 534 (DOUBLE) 1 EA
 - 7 CONCRETE HEADWALL MAG 502-1 W/TRASHRACK C-503 TYP. 1 EA
- REMOVAL NOTES
- 1 SAWCUT & REMOVE EXISTING PAVEMENT. MIN 2' 87 SY
 - 4 REMOVE EXIST CURB AND GUTTER 4 LF

BACK OF CURB AND CENTERLINE LINE TABLE			
LINE	LENGTH	BEARING	
L1	2629.82'	S00°48'14"E	
L2	276.45'	S00°48'14"E	
L3	392.45'	S00°48'14"E	
L4	119.99'	N89°22'42"E	

BACK OF CURB AND CENTERLINE CURVE TABLE				
CURVE	LENGTH	RADIUS	CHORD	DELTA
C1	39.35'	25.01'	35.42'	090°08'05"
C2	38.92'	25.00'	35.11'	089°11'46"

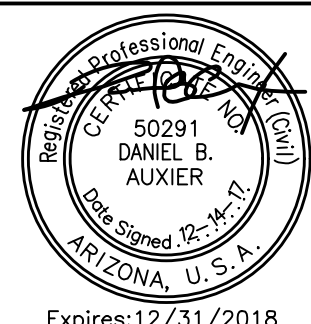
KEY MAP



Gateway Pointe - Improvement Plans

Gilbert, Arizona

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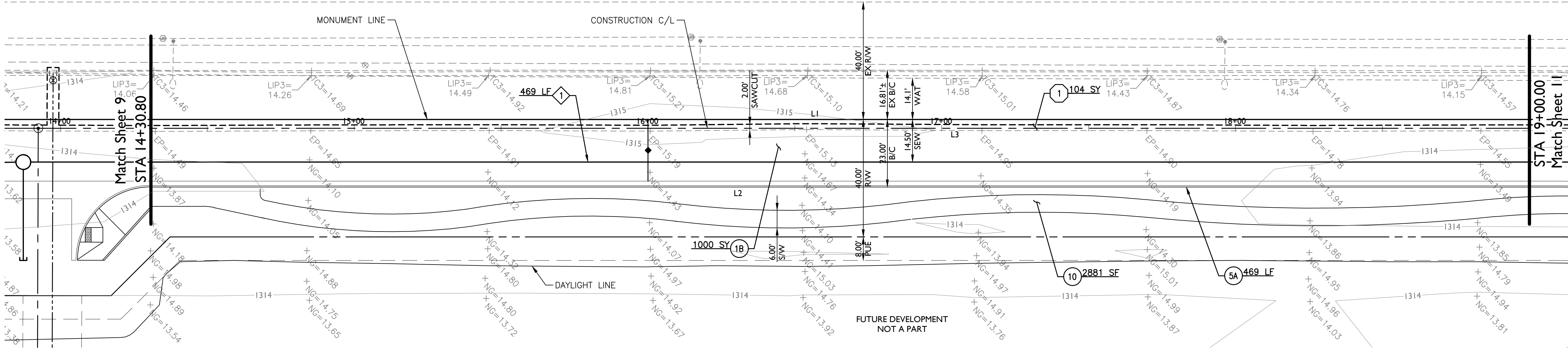
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Drawn by: MSA
Job No. 17-265
Dwg No. OS04
Sheet No. 9 of 26

REVIEW 2017-01065

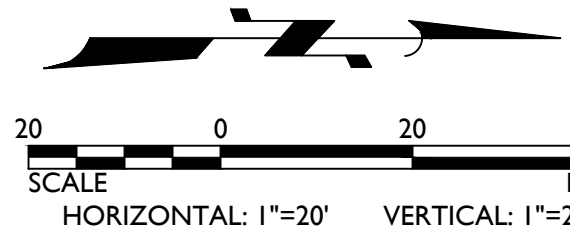
17-265 - Gateway Pointe - Improvement Plans

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ASSOCIATION



Wren Drive

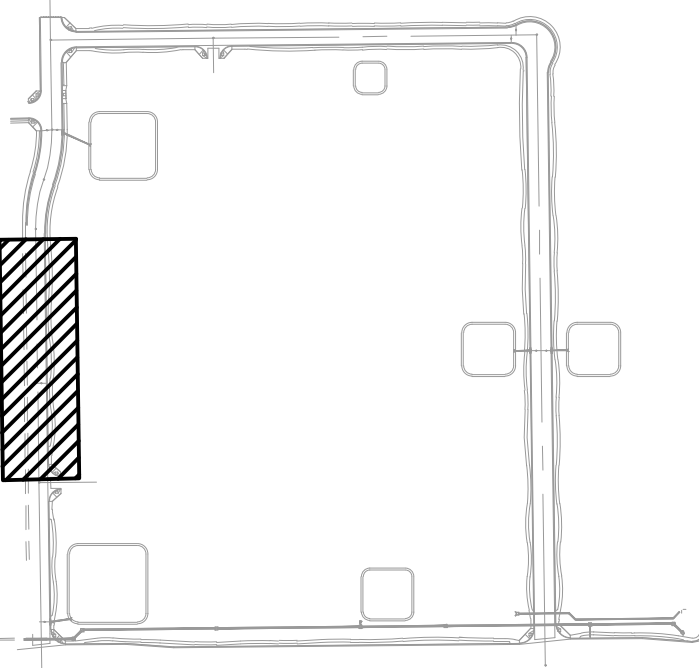


CONSTRUCTION NOTES

- PAVING NOTES
- 1B PAVEMENT: 3" AC/ 21" ABC, SEE DETAIL ON SHEET DT01 1000 SY
 - 5A 6" V.C.&G. MAG 220 TYPE A 469 LF
 - 10 SIDEWALK MAG 230, WIDTH PER PLAN 2881 SF
- SEWER NOTES
- 8" PVC (SDR-35) SEWERLINE 469 LF
- REMOVAL NOTES
- 1 SAWCUT & REMOVE EXISTING PAVEMENT. MIN 2' 104 SY

BACK OF CURB AND CENTERLINE LINE TABLE		
LINE	LENGTH	BEARING
L1	2629.82'	S00°48'14"E
L2	469.71'	S00°48'14"E
L3	528.18'	S00°48'14"E

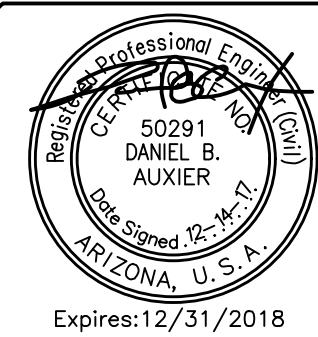
KEY MAP



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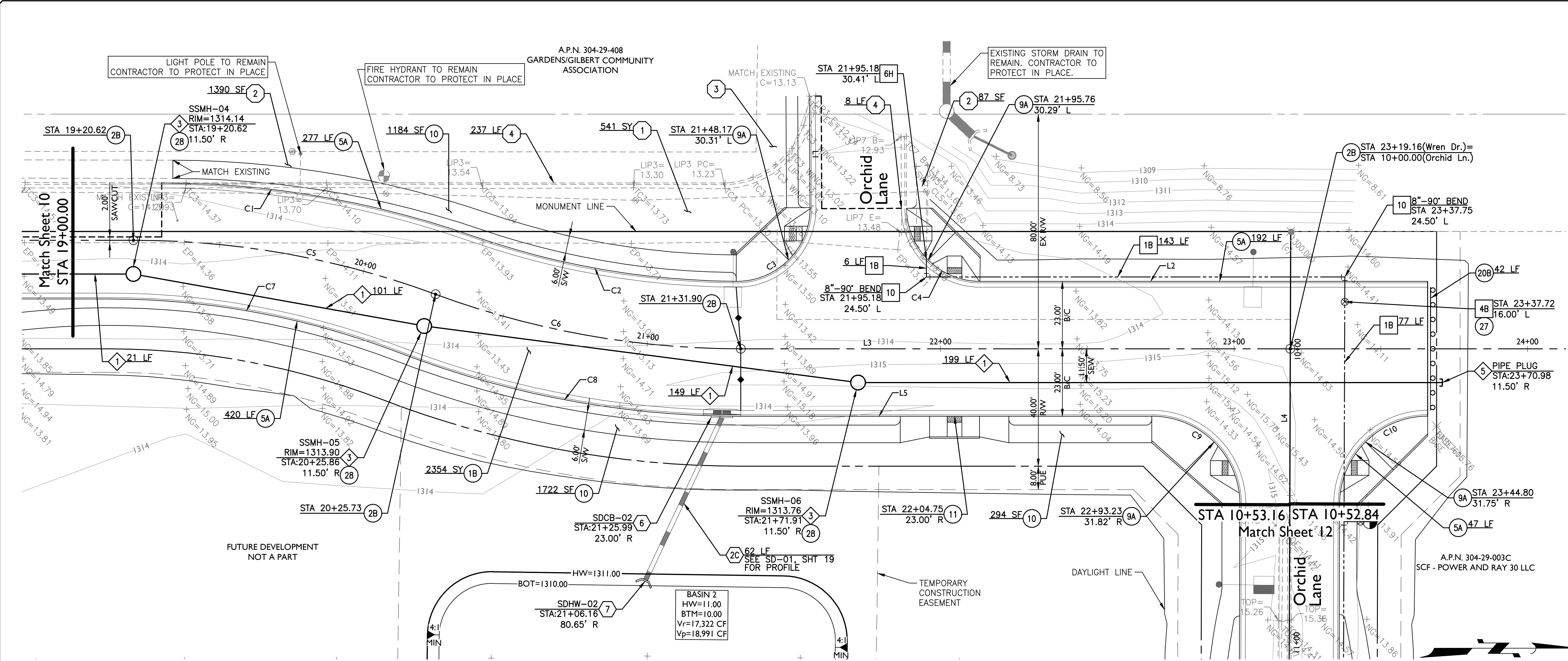
Revisions:

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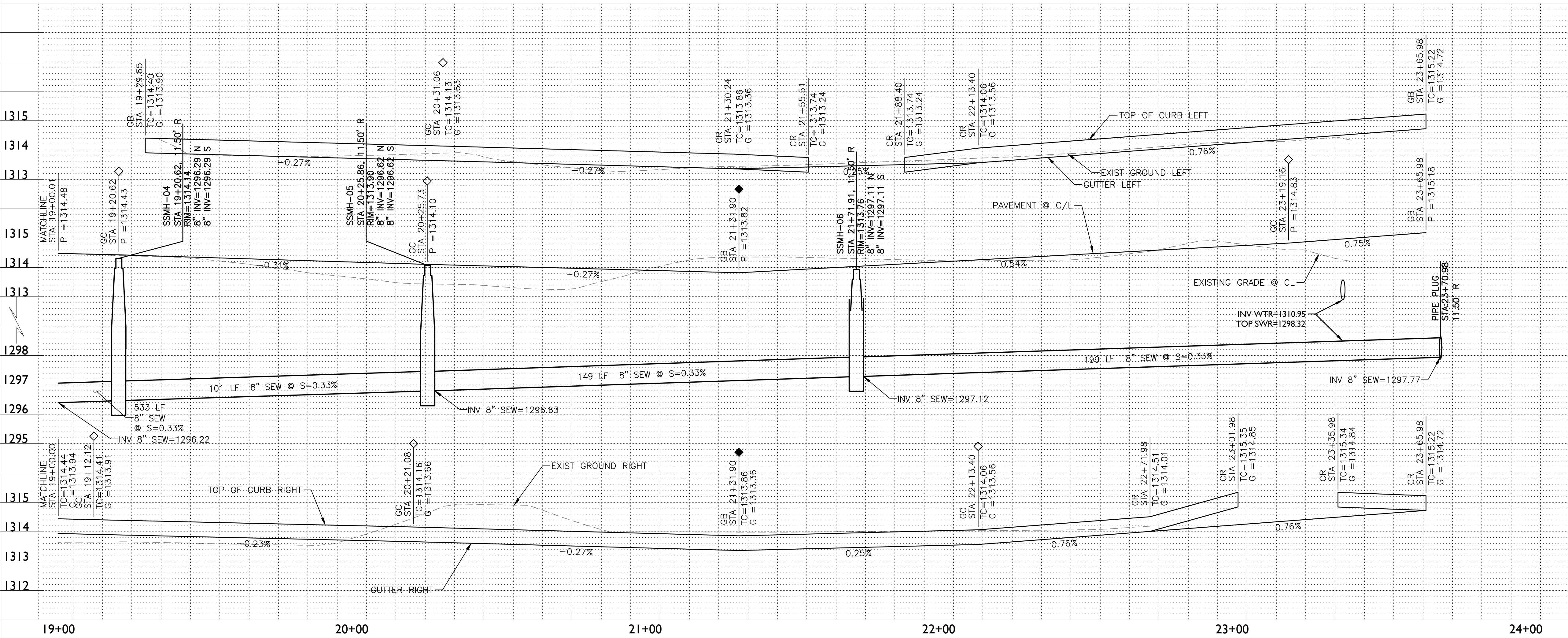
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Drawn by: MSA
Job No. 17-265
Dwg No. OS05
Sheet No. 10 of 26

17-265 - Gateway Pointe - Improvement Plans

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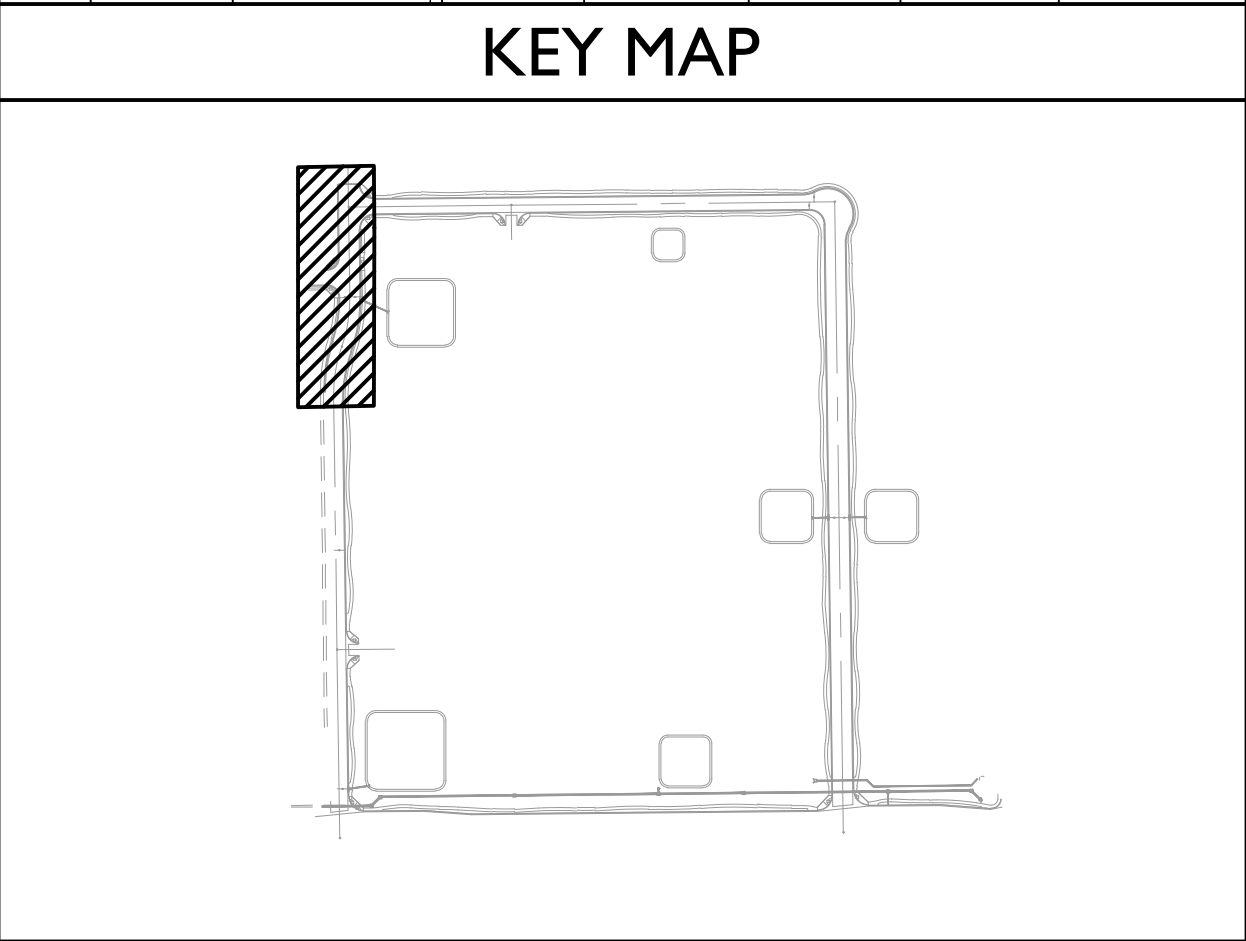
Wren Drive



CONSTRUCTION NOTES		
PAVING NOTES		
1B	PAVEMENT: 3" AC/ 21" ABC, SEE DETAIL ON SHEET DT01	2354 SY
2B	SURVEY MONUMENT MAG 120-1 TYPE B	4 EA
5A	6" V.C.&G. MAG 220 TYPE A	936 LF
9A	CORNER RAMP PER MAG 237-1	4 EA
10	SIDEWALK MAG 230, WIDTH PER PLAN	3200 SF
11	STRAIGHT RAMP W/TRUNCATED DOMES MAG 235-4	1 EA
20B	BARRICADE MAG 130 TYPE B	42 LF
27	ADJUST FRAME & COVER MAG 391-1 TYPE C	1 EA
28	ADJUST MANHOLE FRAME & COVER MAG 422	3 EA
WATER NOTES		
1B	8" PVC C-900 WATERLINE	226 LF
4B	8" WATER VALVE MAG 391-1 TYPE C & 392 TYPE C	1 EA
6H	REMOVE WATER CAP AND CONNECT TO EXISTING WATERLINE	1 EA
10	MECHANICAL JOINT WATERLINE FITTING. JOINT RESTRAINTS WITH MEGALUG SERIES 2000 OR ACCEPTABLE EQUAL & MAG 303	NPI
SEWER NOTES		
1	8" PVC (SDR-35) SEWERLINE	470 LF
3	5" DIA SEWER MANHOLE MAG 420, 422 & 424 WITH 30" FRAME & COVER	3 EA
5	SEWER PLUG PER MAG 427	1 EA
STORM DRAIN & IRRIGATION NOTES		
2C	18" RGRCP CL III STORM DRAIN	62 LF
6	CATCH BASIN MAG 534 (DOUBLE)	1 EA
7	CONCRETE HEADWALL MAG 502-1 W/TRASHRACK C-503 TYP.	1 EA
REMOVAL NOTES		
1	SAWCUT & REMOVE EXISTING PAVEMENT. MIN 2'	541 SY
2	REMOVE EXIST SIDEWALK	1477 SF
3	REMOVE EXIST SIDEWALK RAMP	1 EA
4	REMOVE EXIST CURB AND GUTTER	245 LF

BACK OF CURB AND CENTERLINE CURVE TABLE					
CURVE	LENGTH	RADIUS	CHORD	DELTA	
C1	107.94'	323.00'	107.44'	019°08'49"	
C2	91.57'	277.00'	91.15'	018°56'27"	
C3	39.51'	25.00'	35.53'	090°33'34"	
C4	39.16'	25.00'	35.28'	089°45'31"	
C5	105.11'	297.00'	104.56'	020°16'38"	
C6	106.17'	300.00'	105.62'	020°16'38"	
C7	101.71'	277.00'	101.14'	021°02'20"	
C8	118.61'	323.00'	117.94'	021°02'20"	
C9	47.23'	30.00'	42.50'	090°11'59"	
C10	47.02'	30.00'	42.35'	089°48'01"	

BACK OF CURB AND CENTERLINE LINE TABLE		
LINE	LENGTH	BEARING
L1	38.00'	N88°57'17"E
L2	152.58'	N00°48'14"W
L3	487.16'	N00°48'14"W
L4	2615.36'	N89°23'45"E
L5	140.07'	N00°48'14"W



Gateway Pointe - Improvement Plans

Gilbert, Arizona

Offsite Improvement Plan

Revisions

Professional Engineer

50291

DANIEL B. AUXIER

One signed 12-15-17

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Design: DMA

Drawn by: MSA

Job No. 17-265

Dwg No. OS06

Sheet No. 11 of 26

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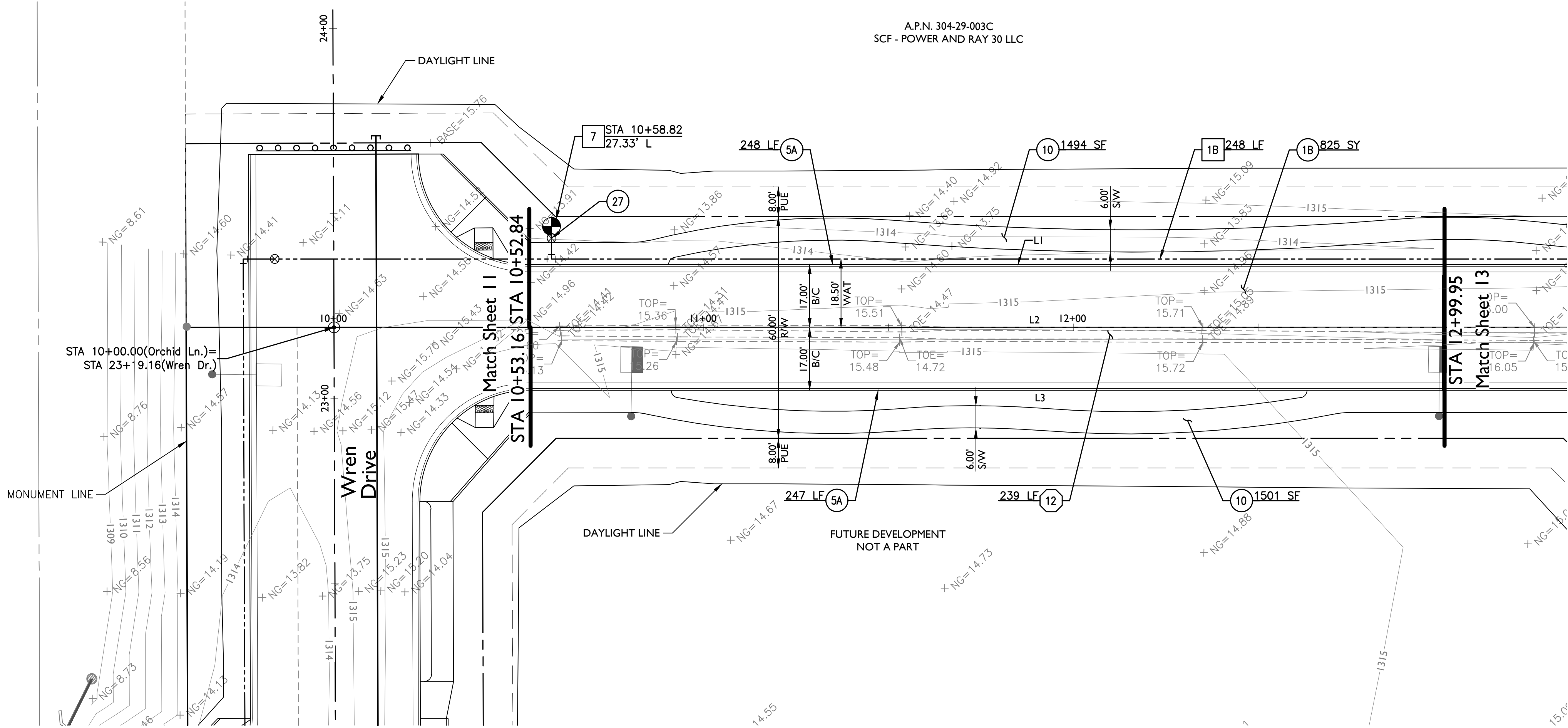
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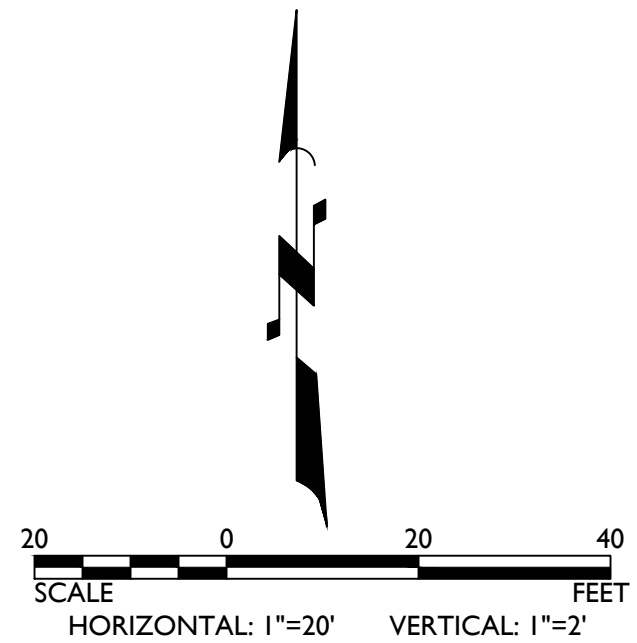
akirkland

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ASSOCIATION

A.P.N. 304-29-003C
SCF - POWER AND RAY 30 LLC



Orchard Lane

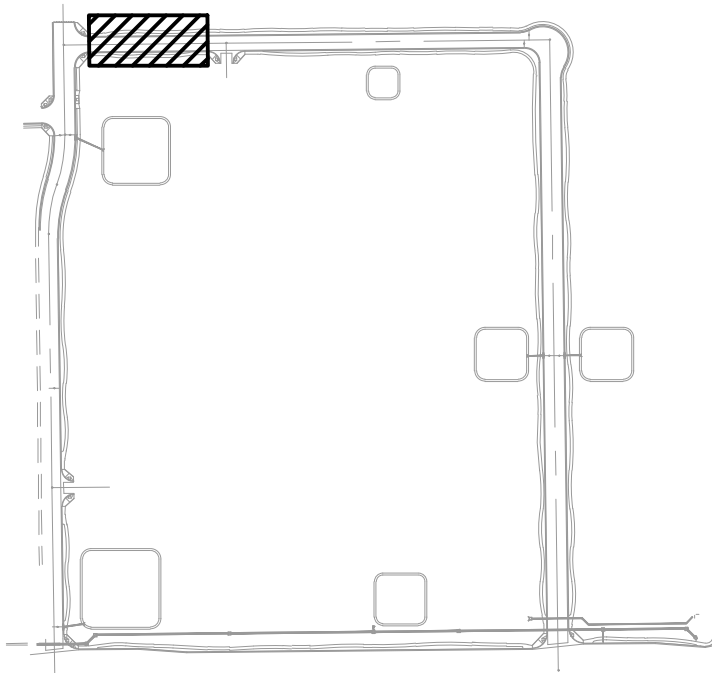


CONSTRUCTION NOTES

- PAVING NOTES
- 1B PAVEMENT: 3" AC/ 21" ABC, SEE DETAIL ON SHEET DT01 825 SY
 - 5A 6" V.C.&G. MAG 220 TYPE A 495 LF
 - 10 SIDEWALK MAG 230, WIDTH PER PLAN 2995 SF
 - 27 ADJUST FRAME & COVER MAG 391-1 TYPE C 1 EA
- WATER NOTES
- 1B 8" PVC C-900 WATERLINE 248 LF
 - 7 FIRE HYDRANT TOG DET GIL-320-1 TYPE C. PAVEMENT MARKER 1 EA
- TOG DET GIL-325
- REMOVAL NOTES
- 12 REMOVE EXIST CONC DITCH (BACKFILL AND COMPACT TO REQUIRED DENSITY PER SOILS REPORT) 239 LF

BACK OF CURB AND CENTERLINE LINE TABLE		
LINE	LENGTH	BEARING
L1	247.61'	N89°23'45"E
L2	68.48'	S89°23'12"W
L3	247.29'	S89°23'45"W

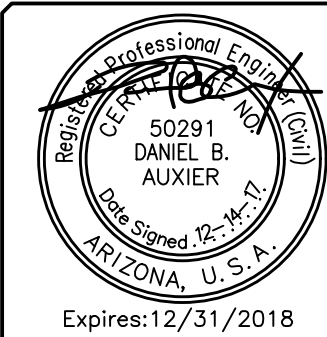
KEY MAP



Gateway Pointe - Improvement Plans

Gilbert, Arizona

Offsite Improvement Plan



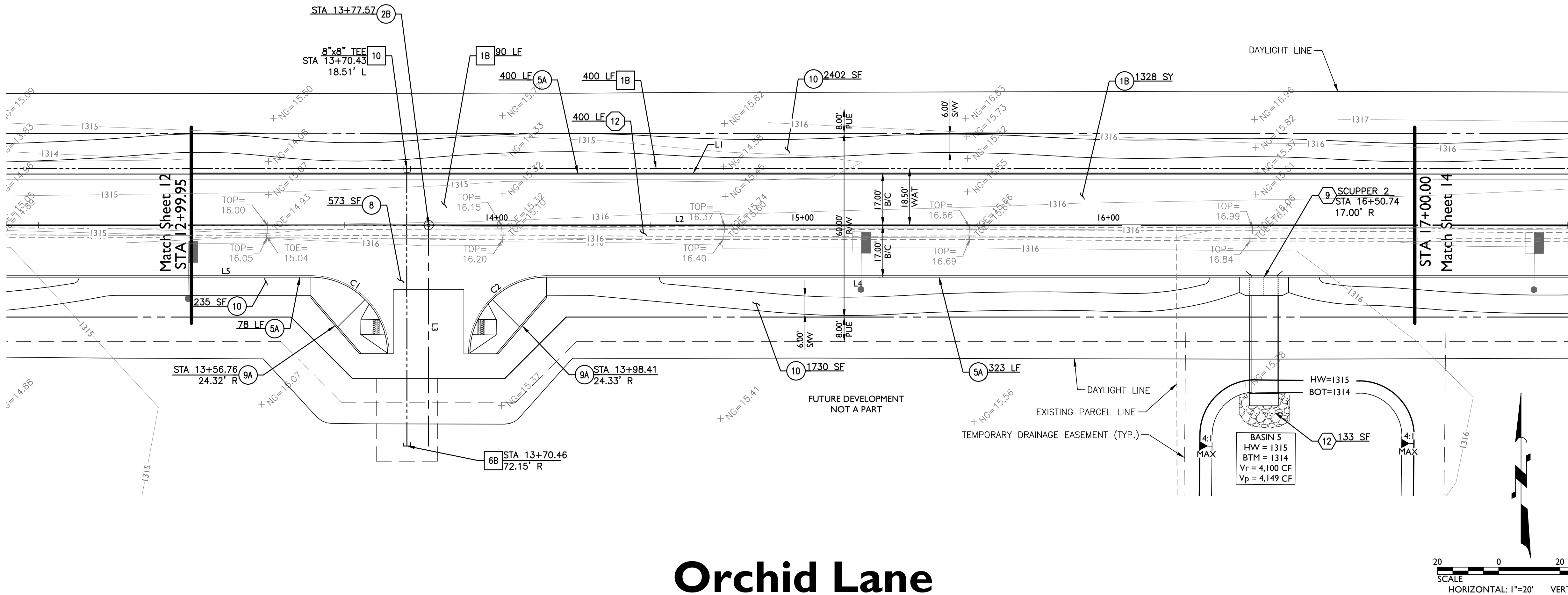
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Revisions:
Designer: DMA
Drawn by: MSA
Job No. 17-265
Dwg No. OS07
Sheet No. 12 of 26

REVIEW 2017-01065

A.P.N. 304-29-003C
SCF - POWER AND RAY 30 LLC



Orchid Lane

CONSTRUCTION NOTES

PAVING NOTES

- 1B PAVEMENT: 3" AC/ 21" ABC, SEE DETAIL ON SHEET DT01 1328 SY
- 2B SURVEY MONUMENT MAG 120-1 TYPE B 1 EA
- 5A 6" V.C.&G. MAG 220 TYPE A 801 LF
- 8 6" TYP. VALLEY GUTTER (AND APRON WHERE SHOWN) MAG 240 573 SF
- 9A CORNER RAMP PER MAG 237-1 2 EA
- 10 SIDEWALK MAG 230, WIDTH PER PLAN 4367 SF

WATER NOTES

- 1B 8" PVC C-900 WATERLINE 490 LF
- 6B 8"x2" CURB STOP W/ VALVE & FLUSHING PIPE MAG 390 TYPE B 1 EA
- 10 MECHANICAL JOINT WATERLINE FITTING. JOINT RESTRAINTS WITH MEGALUG SERIES 2000 OR ACCEPTABLE EQUAL & MAG 303 NPI

STORM DRAIN & IRRIGATION NOTES

- 9 CONCRETE SCUPPER, MAG 206, WIDTH PER PLAN 1 EA
- SEE DETAIL ON SHEET 5
- 12 GROUTED RIPRAP, d50=6". 1' THICK MINIMUM. 133 SF

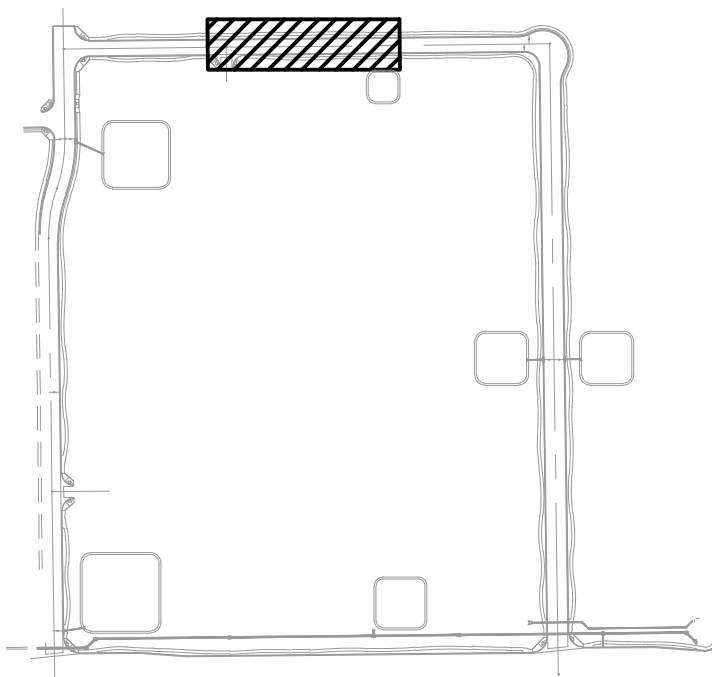
REMOVAL NOTES

- 12 REMOVE EXIST CONC DITCH (BACKFILL AND COMPACT TO REQUIRED DENSITY PER SOILS REPORT) 400 LF

BACK OF CURB AND CENTERLINE LINE TABLE		
LINE	LENGTH	BEARING
L1	399.55'	N89°23'45"E
L2	2615.36'	N89°23'45"E
L3	72.16'	S00°37'18"E
L4	284.51'	N89°23'45"E
L5	39.09'	N89°23'45"E

BACK OF CURB AND CENTERLINE CURVE TABLE				
CURVE	LENGTH	RADIUS	CHORD	DELTA
C1	39.26'	25.00'	35.35'	089°58'58"
C2	39.28'	25.00'	35.36'	090°01'02"

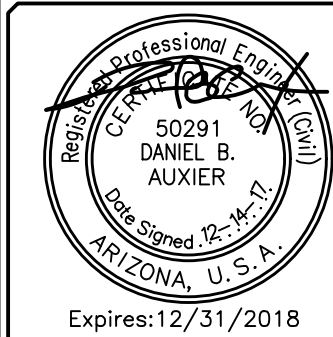
KEY MAP



Gateway Pointe - Improvement Plans

Gilbert, Arizona

Offsite Improvement Plan



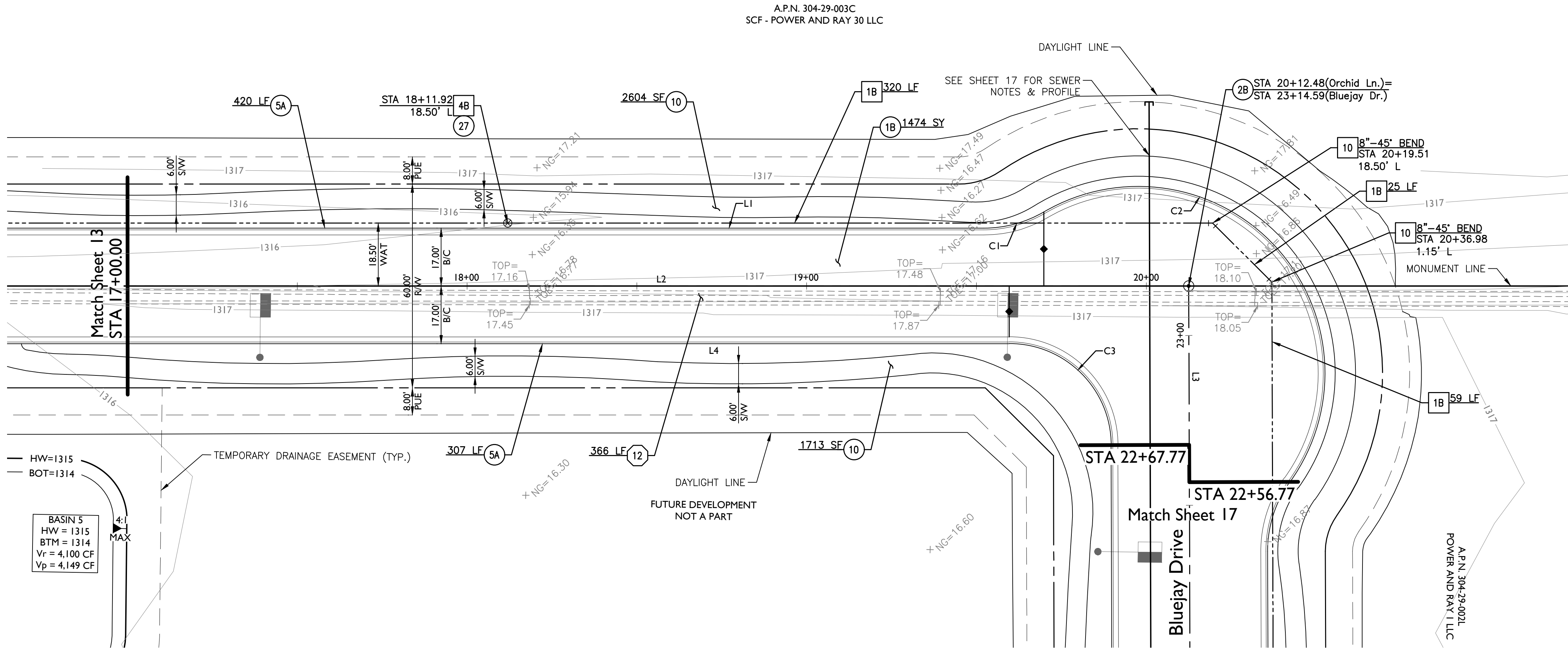
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Drawn by: MSA
Dwg No. OS08
Sheet No. 13 of 26

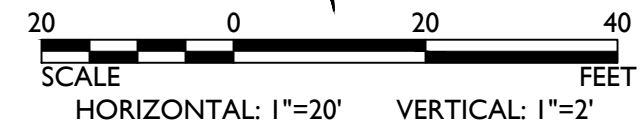
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mambrosio



Orchid Lane



CONSTRUCTION NOTES

- PAVING NOTES
- 1B PAVEMENT: 3" AC/ 21" ABC, SEE DETAIL ON SHEET DT01 1474 SY
 - 2B SURVEY MONUMENT MAG 120-1 TYPE B 1 EA
 - 5A 6" V.C.&G. MAG 220 TYPE A 727 LF
 - 10 SIDEWALK MAG 230, WIDTH PER PLAN 4317 SF
 - 27 ADJUST FRAME & COVER MAG 391-1 TYPE C 1 EA
- WATER NOTES
- 1B 8" PVC C-900 WATERLINE 404 LF
 - 4B 8" WATER VALVE MAG 391-1 TYPE C & 392 TYPE C 1 EA
 - 10 MECHANICAL JOINT WATERLINE FITTING. JOINT RESTRAINTS WITH MEGALUG SERIES 2000 OR ACCEPTABLE EQUAL & MAG 303 NPI
- REMOVAL NOTES
- 12 REMOVE EXIST CONC DITCH (BACKFILL AND COMPACT TO REQUIRED DENSITY PER SOILS REPORT) 366 LF

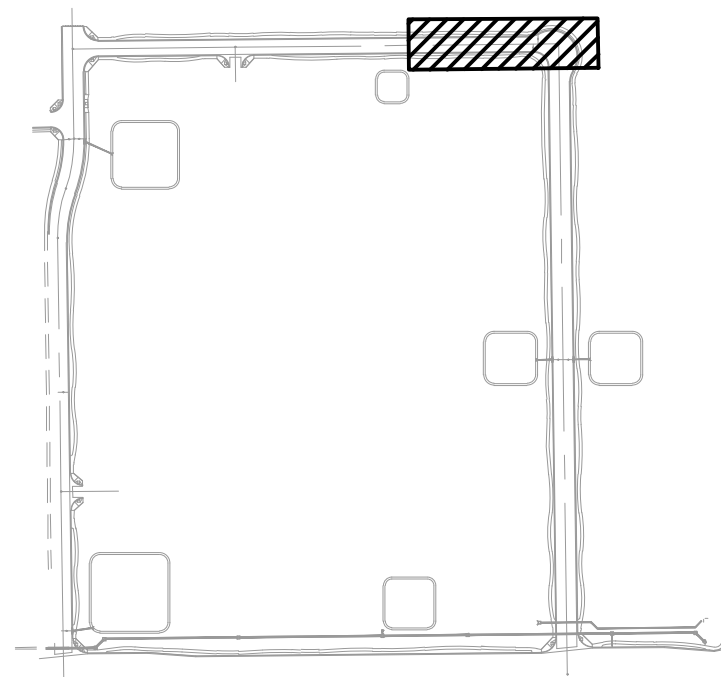
BACK OF CURB AND CENTERLINE LINE TABLE

LINE	LENGTH	BEARING
L1	252.15'	N89°23'45"E
L2	2615.36'	N89°23'45"E
L3	1281.59'	S00°47'51"E
L4	259.63'	S89°23'45"W

BACK OF CURB AND CENTERLINE CURVE TABLE

CURVE	LENGTH	RADIUS	CHORD	DELTA
C1	18.52'	35.00'	18.30'	030°18'50"
C2	149.68'	55.00'	107.58'	155°55'37"
C3	47.02'	30.00'	42.35'	089°48'26"

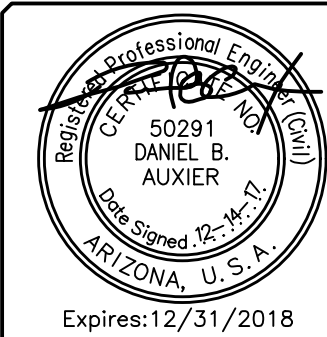
KEY MAP



Gateway Pointe - Improvement Plans

Gilbert, Arizona

Offsite Improvement Plan



Call at least two full working days before you begin excavation.

EPS GROUP
2045 S. Vineyard Ave, Ste 101
Mesa, AZ 85210
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www.epsgroupinc.com

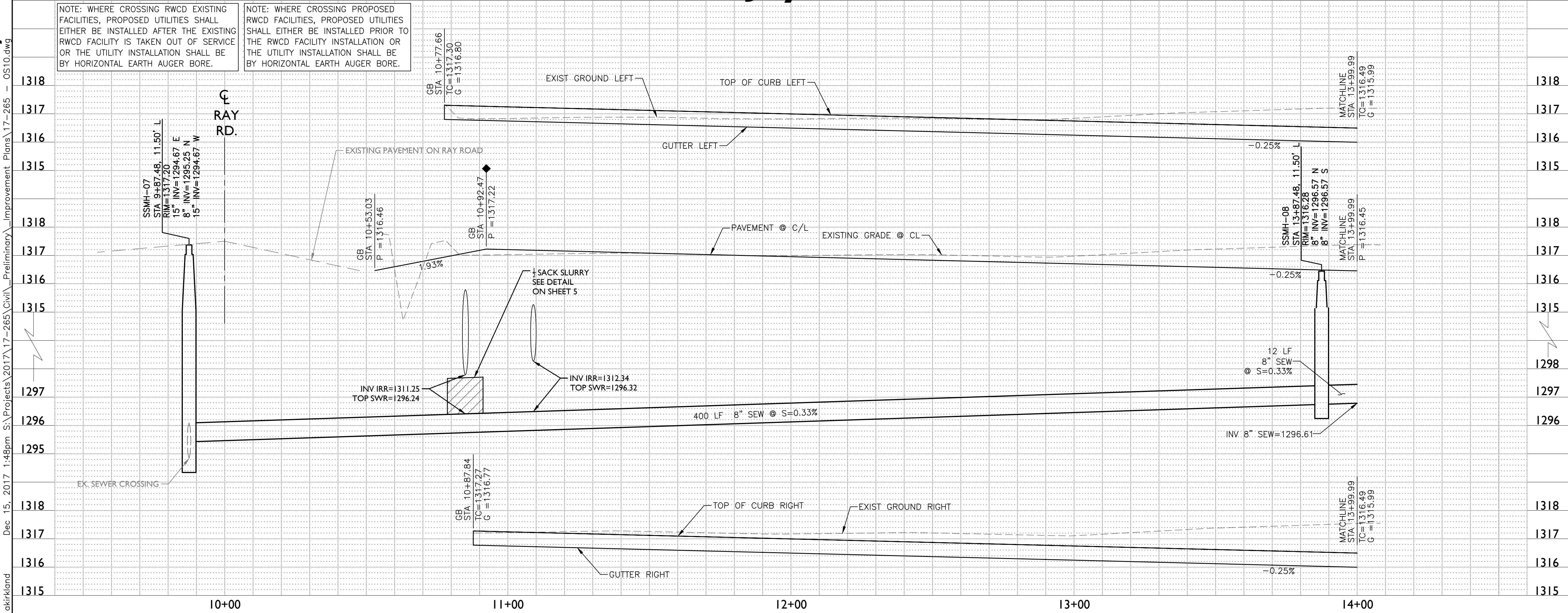
Revisions: _____

Design: DMA
Drawn by: MSA

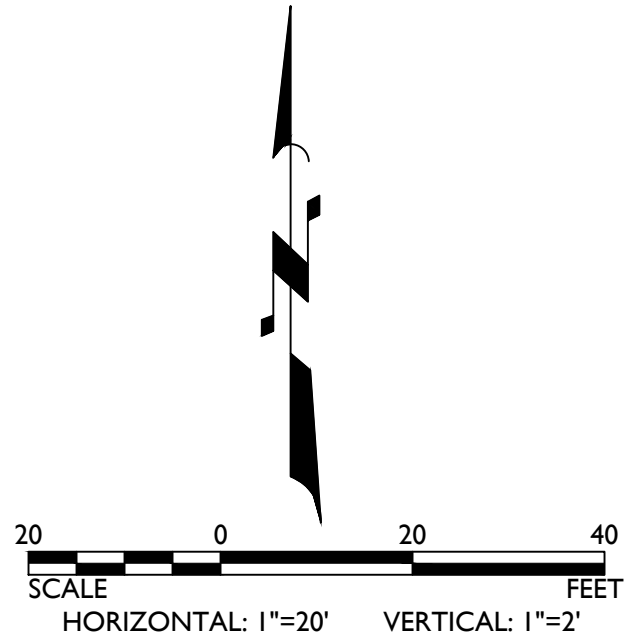
Job No. 17-265
Dwg No. OS09

Sheet No. 14 of 26

REVIEW 2017-01065



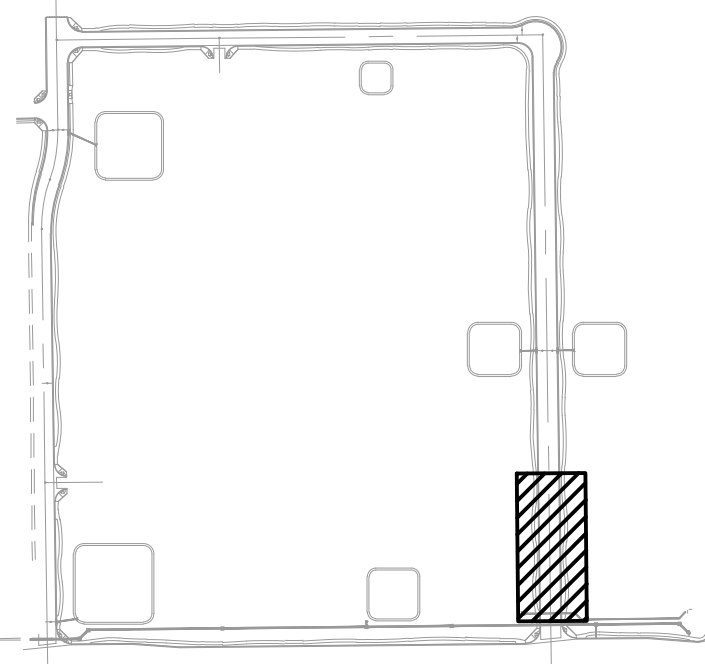
BlueJay Drive



CONSTRUCTION NOTES		
PAVING NOTES		
1B	PAVEMENT: 3" AC/ 21" ABC, SEE DETAIL ON SHEET DT01	1481 SY
5A	6" V.C.&G. MAG 220 TYPE A	635 LF
10	SIDEWALK MAG 230, WIDTH PER PLAN	3897 SF
28	ADJUST MANHOLE FRAME & COVER MAG 422	2 EA
WATER NOTES		
1B	8" PVC C-900 WATERLINE	344 LF
7	FIRE HYDRANT TOG DET GIL-320-1 TYPE C. PAVEMENT MARKER	1 EA
31A	CONTRACTOR TO REMOVE EXISTING CURB STOP AND FLUSHING PIPE	1 EA
SEWER NOTES		
1	8" PVC (SDR-35) SEWERLINE	412 LF
5	5' DIA SEWER MANHOLE MAG 420, 422 & 424 WITH 30" FRAME & COVER	2 EA

BACK OF CURB AND CENTERLINE LINE TABLE		
LINE	LENGTH	BEARING
L1	322.25'	N00°47'49"W
L2	1281.59'	S00°47'51"E
L3	322.49'	S00°47'49"E

KEY MAP



Gateway Pointe - Improvement Plans

Gilbert, Arizona

Offsite Improvement Plan



Call at least two full working days before you begin excavation.

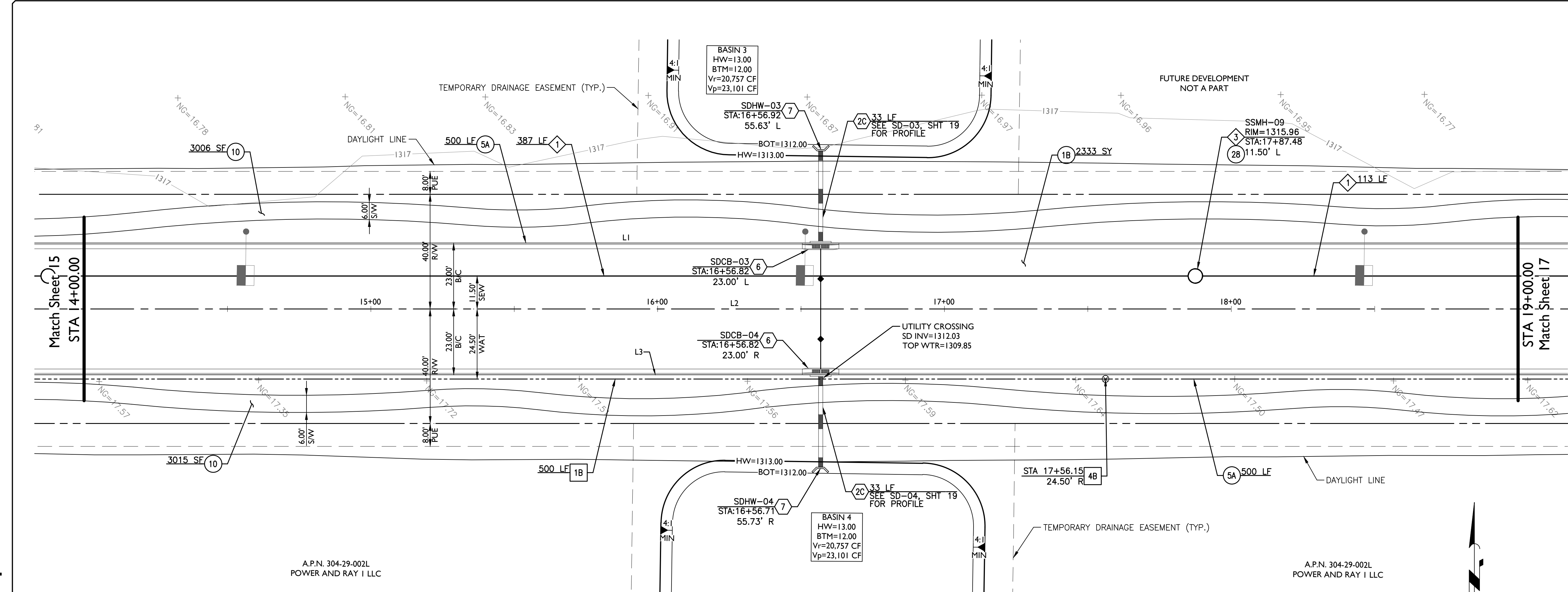
ARIZONA 811
Arizona One-Call System, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-6348)
In Maricopa County: (602)263-1100

EPS GROUP
2045 S. Vineyard Ave, Ste 101
Mesa, AZ 85210
T:480.503.2250 | F:480.503.2258
www.epsgroupinc.com

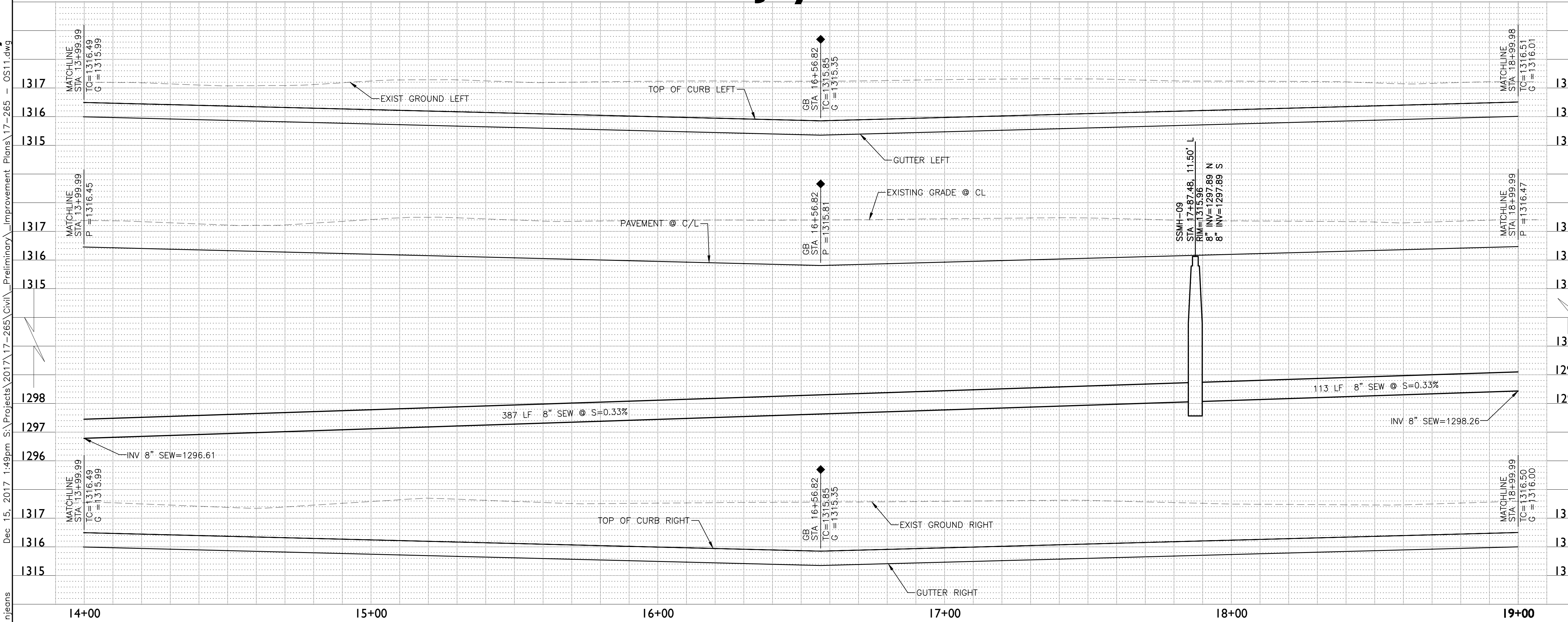
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Drawn by: MSA	Dwg No. OS10	

17-265 - Gateway Pointe - Improvement Plans

Dec 15, 2017 1:49pm S:\Projects\2017\17-265\Civil\Preliminary\Improvement Plans\17-265 - OS11.dwg



BlueJay Drive



CONSTRUCTION NOTES

PAVING NOTES

1B PAVEMENT: 3" AC/ 21" ABC, SEE DETAIL ON SHEET DT01 2333 SY

5A 6" V.C.&G. MAG 220 TYPE A 1000 LF

10 SIDEWALK MAG 230, WIDTH PER PLAN 6021 SF

2B ADJUST MANHOLE FRAME & COVER MAG 422 1 EA

WATER NOTES

1B 8" PVC C-900 WATERLINE 500 LF

4B 8" WATER VALVE MAG 391-1 TYPE C & 392 TYPE C 1 EA

SEWER NOTES

1 8" PVC (SDR-35) SEWERLINE 500 LF

5 5' DIA SEWER MANHOLE MAG 420, 422 & 424 WITH 30" FRAME & COVER 1 EA

STORM DRAIN & IRRIGATION NOTES

2C 18" RGRCP CL III STORM DRAIN 66 LF

6 CATCH BASIN MAG 534 (DOUBLE) 2 EA

7 CONCRETE HEADWALL MAG 502-1 W/TRASHRACK C-503 TYP. 2 EA

BACK OF CURB AND CENTERLINE LINE TABLE

LINE	LENGTH	BEARING
L1	500.00'	N00°47'49"W
L2	1281.59'	S00°47'51"E
L3	500.00'	S00°47'49"E

KEY MAP

Gateway Pointe - Improvement Plans

Gilbert, Arizona

Offsite Improvement Plan

Revisions

Professional Engineer

50291 DANIEL B. AUXIER

Expires: 12/31/2018

Call at least two full working days before you begin excavation.

ARIZONA 811

Design: DMA

Drawn by: MSA

Job No. 17-265

Dwg No. OS11

Sheet No. 16 of 26

2045 S. Vineyard Ave, Ste 101 Mesa, AZ 85210

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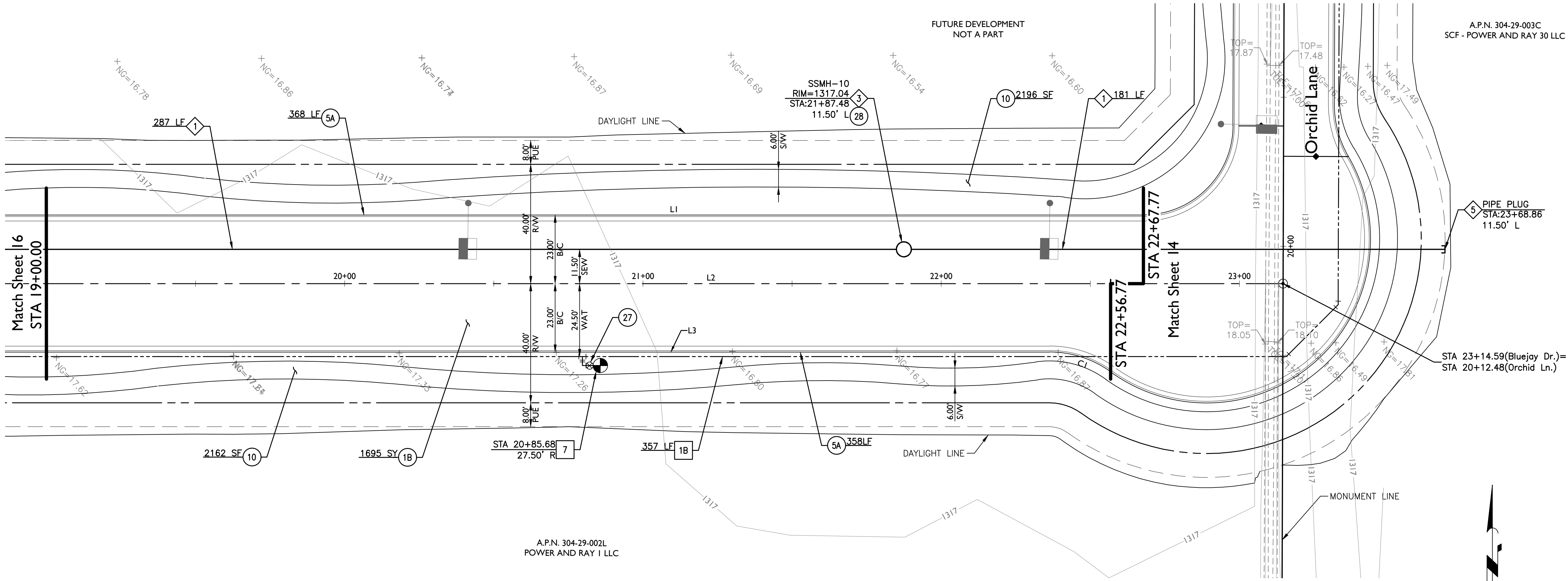
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17-265 - Gateway Pointe - Improvement Plans

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akirkland



A.P.N. 304-29-002L
POWER AND RAY I LLC

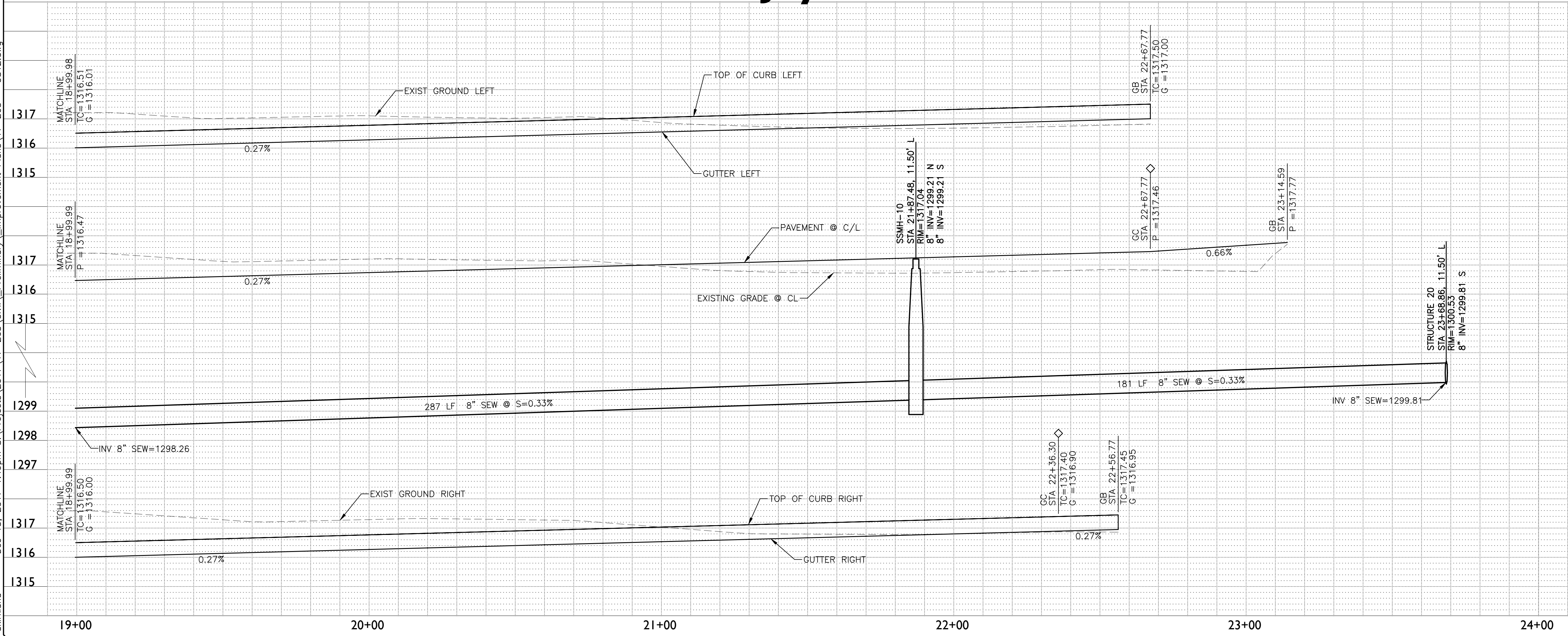
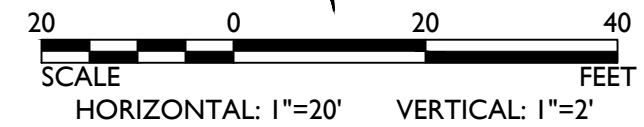
A.P.N. 304-29-003C
SCF - POWER AND RAY 30 LLC

CONSTRUCTION NOTES		
PAVING NOTES		
1B	PAVEMENT: 3" AC/ 21" ABC, SEE DETAIL ON SHEET DT01	1695 SY
5A	6" V.C.&G. MAG 220 TYPE A	726 LF
10	SIDEWALK MAG 230, WIDTH PER PLAN	4358 SF
27	ADJUST FRAME & COVER MAG 391-1 TYPE C	1 EA
28	ADJUST MANHOLE FRAME & COVER MAG 422	1 EA
WATER NOTES		
1B	8" PVC C-900 WATERLINE	357 LF
7	FIRE HYDRANT TOG DET GIL-320-1 TYPE C. PAVEMENT MARKER TOG DET GIL-325	1 EA
SEWER NOTES		
1	8" PVC (SDR-35) SEWERLINE	468 LF
3	5' DIA SEWER MANHOLE MAG 420, 422 & 424 WITH 30" FRAME & COVER	1 EA
5	SEWER PLUG PER MAG 427	1 EA

BACK OF CURB AND CENTERLINE LINE TABLE		
LINE	LENGTH	BEARING
L1	367.79'	N00°47'49"W
L2	1281.59'	S00°47'51"E
L3	336.28'	S00°47'49"E

BACK OF CURB AND CENTERLINE CURVE TABLE				
CURVE	LENGTH	RADIUS	CHORD	DELTA
CI	21.87'	35.00'	21.52'	035°48'21"

BlueJay Drive



KEY MAP

Gateway Pointe - Improvement Plans

Gilbert, Arizona

Offsite Improvement Plan

Professional Engineer

50291

DANIEL B. AUXIER

Expires: 12/31/2018

ARIZONA 811

Dial 8-1-1 or 1-800-STAKE-IT (782-6348)

In Maricopa County: (602)263-1100

Revisions

Design: DMA

Drawn by: MSA

Job No. 17-265

Dwg No. OS12

Sheet No. 17 of 26

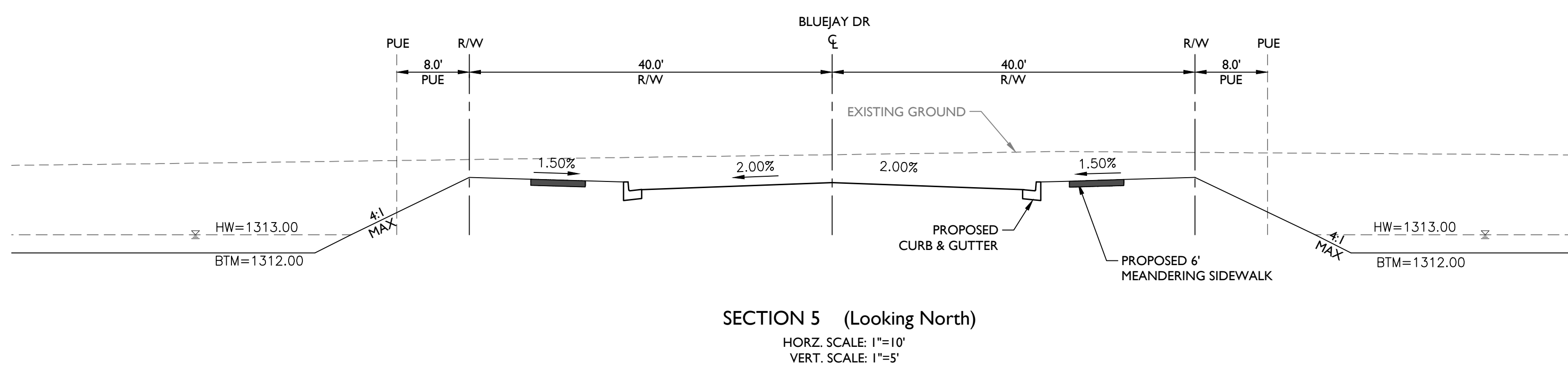
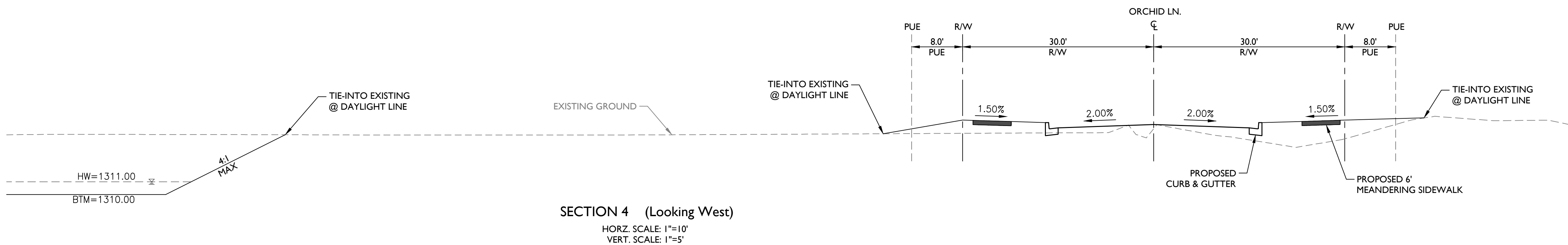
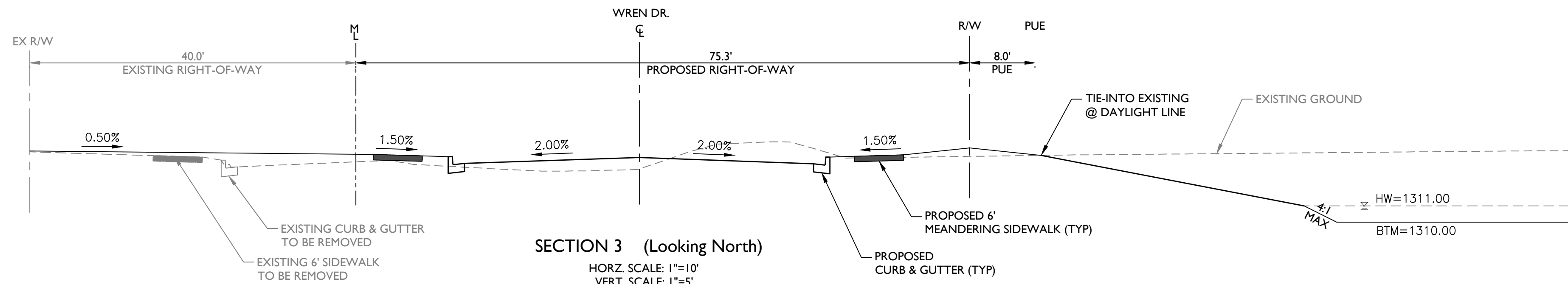
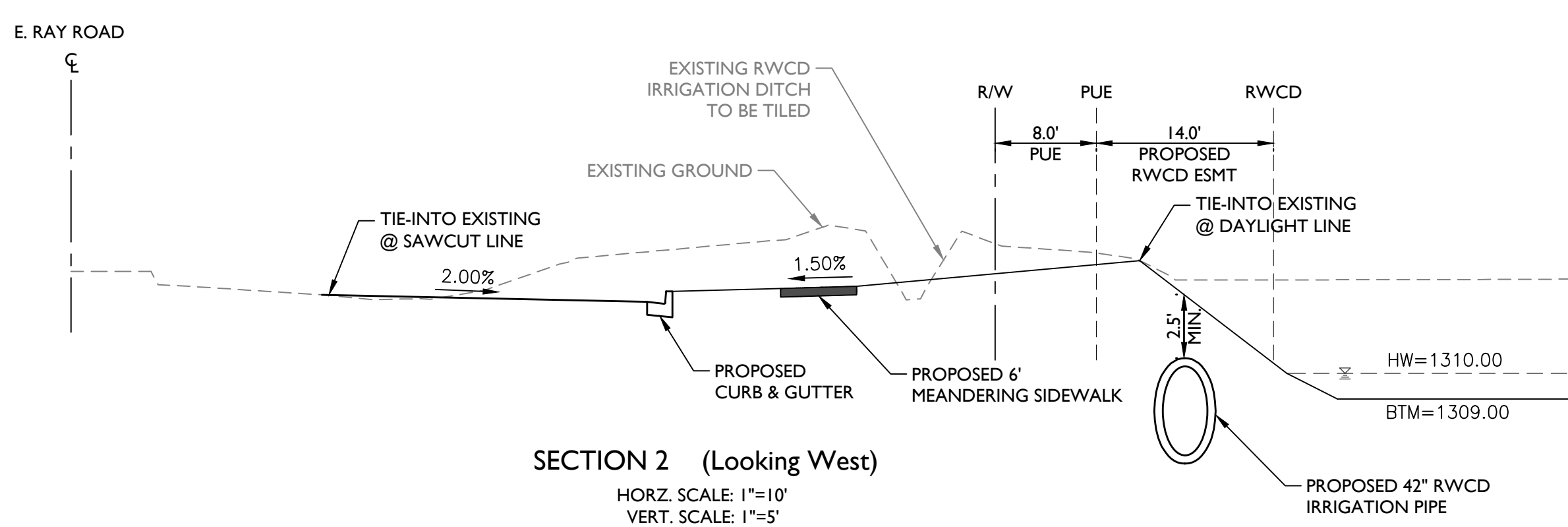
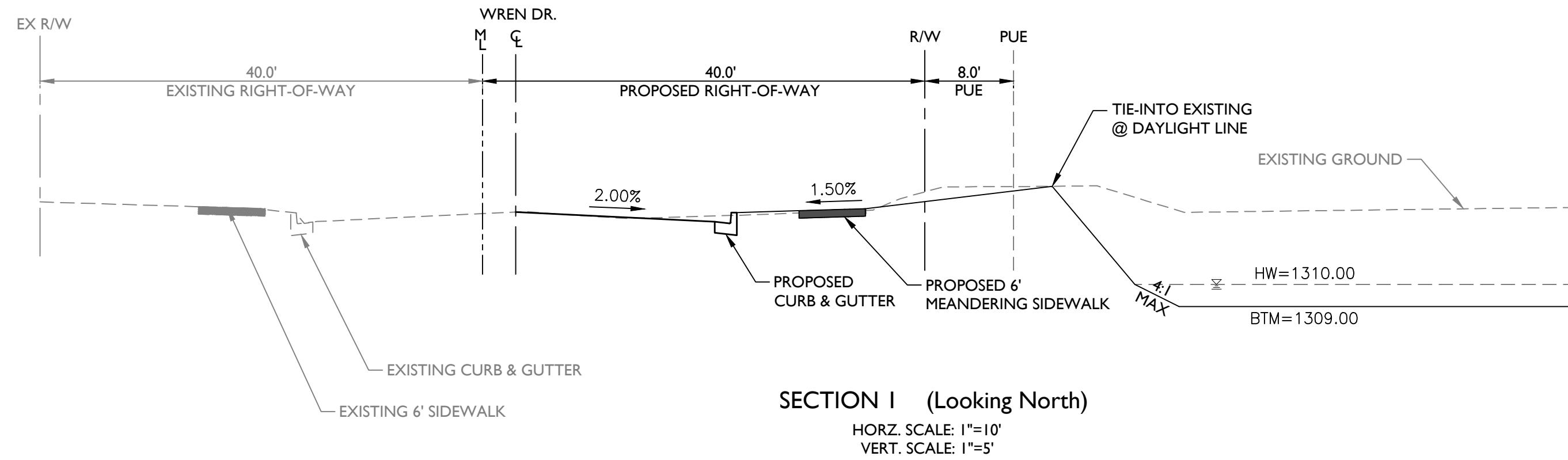
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Gateway Pointe - Offsite Improvements
Gilbert, Arizona

Grading Sections

Project:

Revisions:

Call at least two full working days before you begin excavation.

One Call 811 or 1-800-875-8282 (TOLL FREE)
In Maricopa County: (602)263-1100

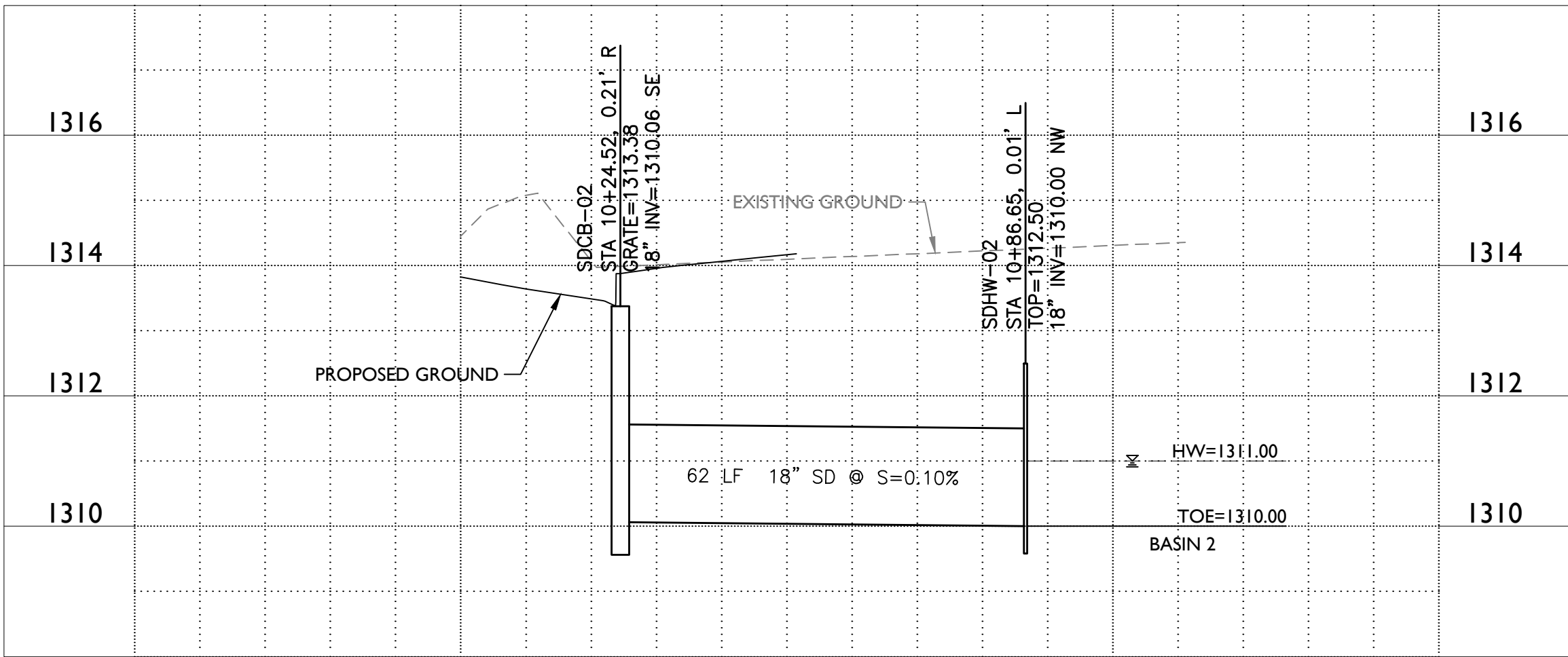
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Drawn by: MSA

Job No.
17-265

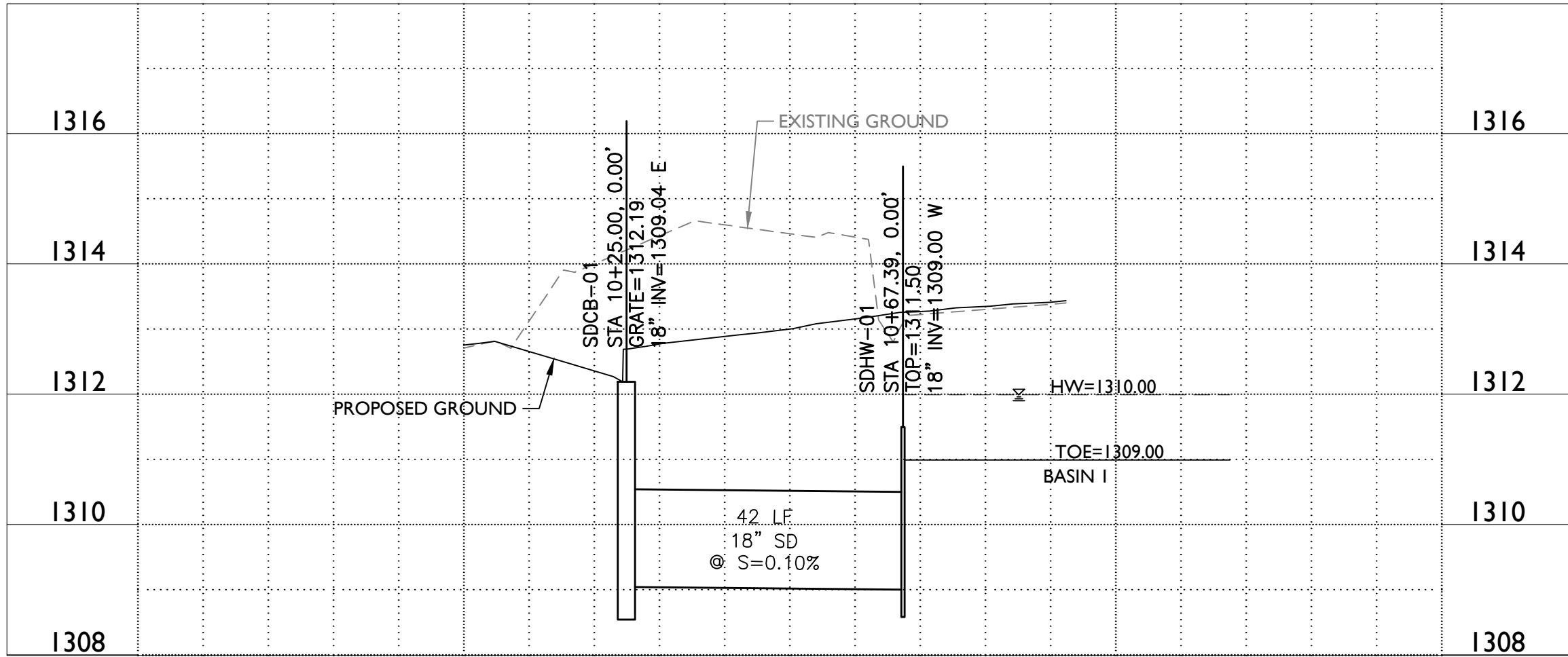
GS01

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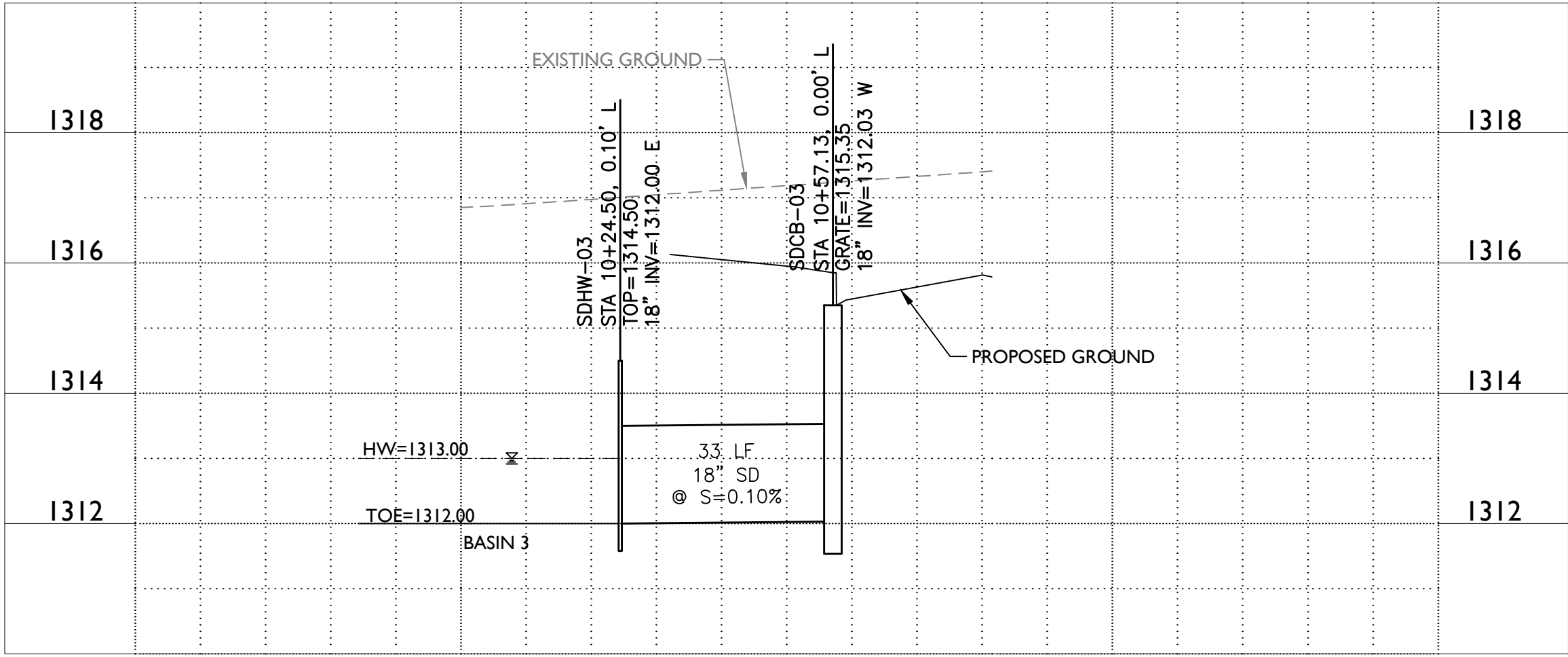
REVIEW 2017-01065



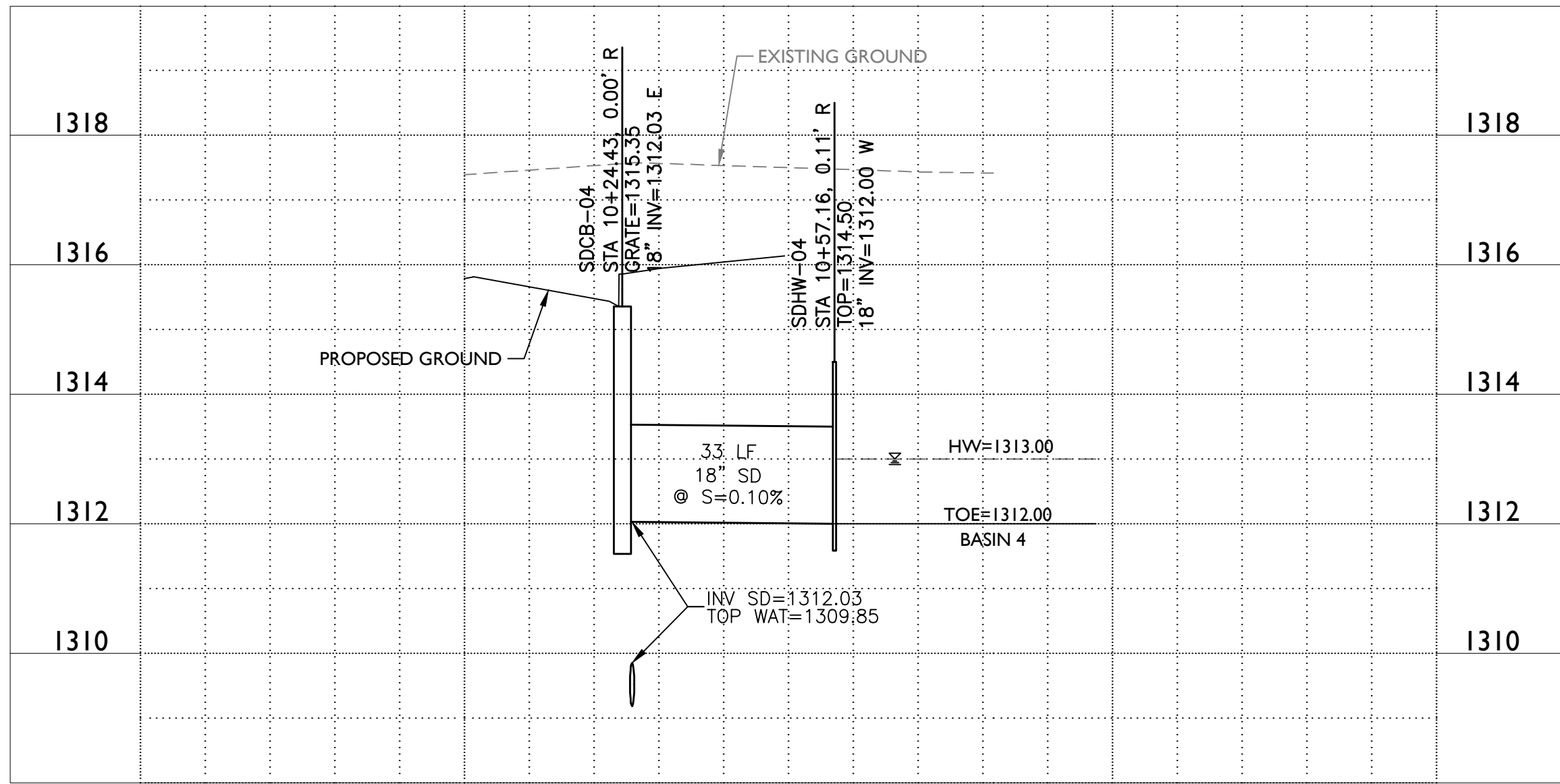
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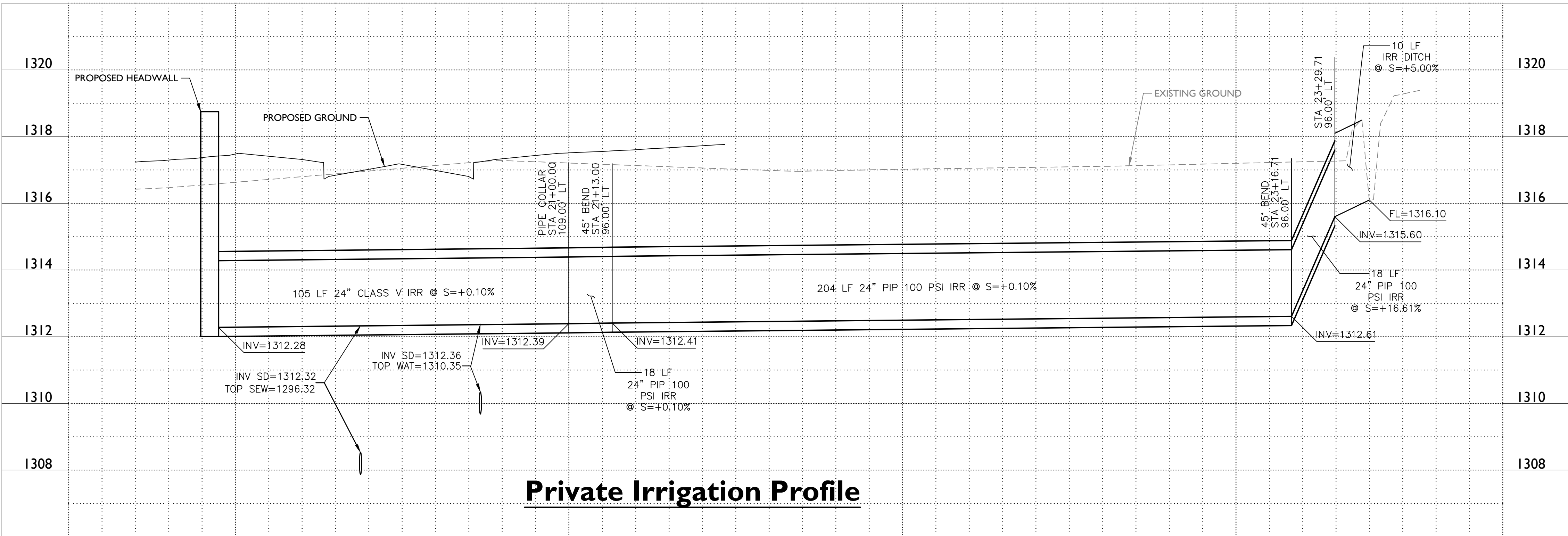
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SD-03



SD-04

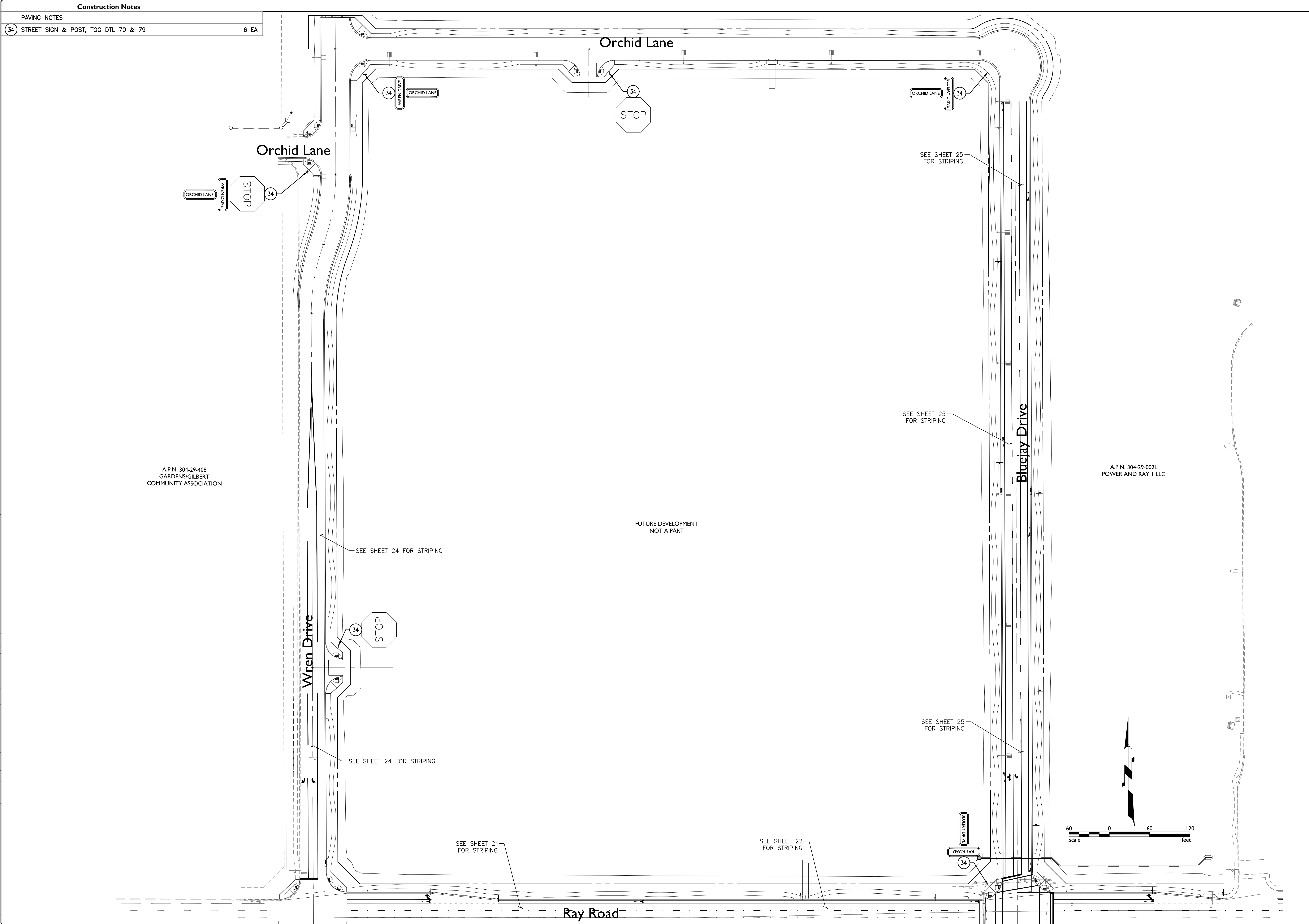


Private Irrigation Profile

17-265 - Gateway Pointe - Offsite Improvements

Dec 15, 2017 1:49pm S:\Projects\2017\17-265\Civil_Preliminary\Improvement Plans\17-265 - SS01.dwg

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Gilbert, Arizona

Signage Plan

Project:

Revisions:

Call at least two full working days
before you begin excavation.

800.481.1111 or 1-800-STRUCKIT (778-7348)
In Maricopa County: (602)263-1100

Designer: DMA
Drawn by: MSA

Expires: 12/31/2018

Job No.
17-265

SS01

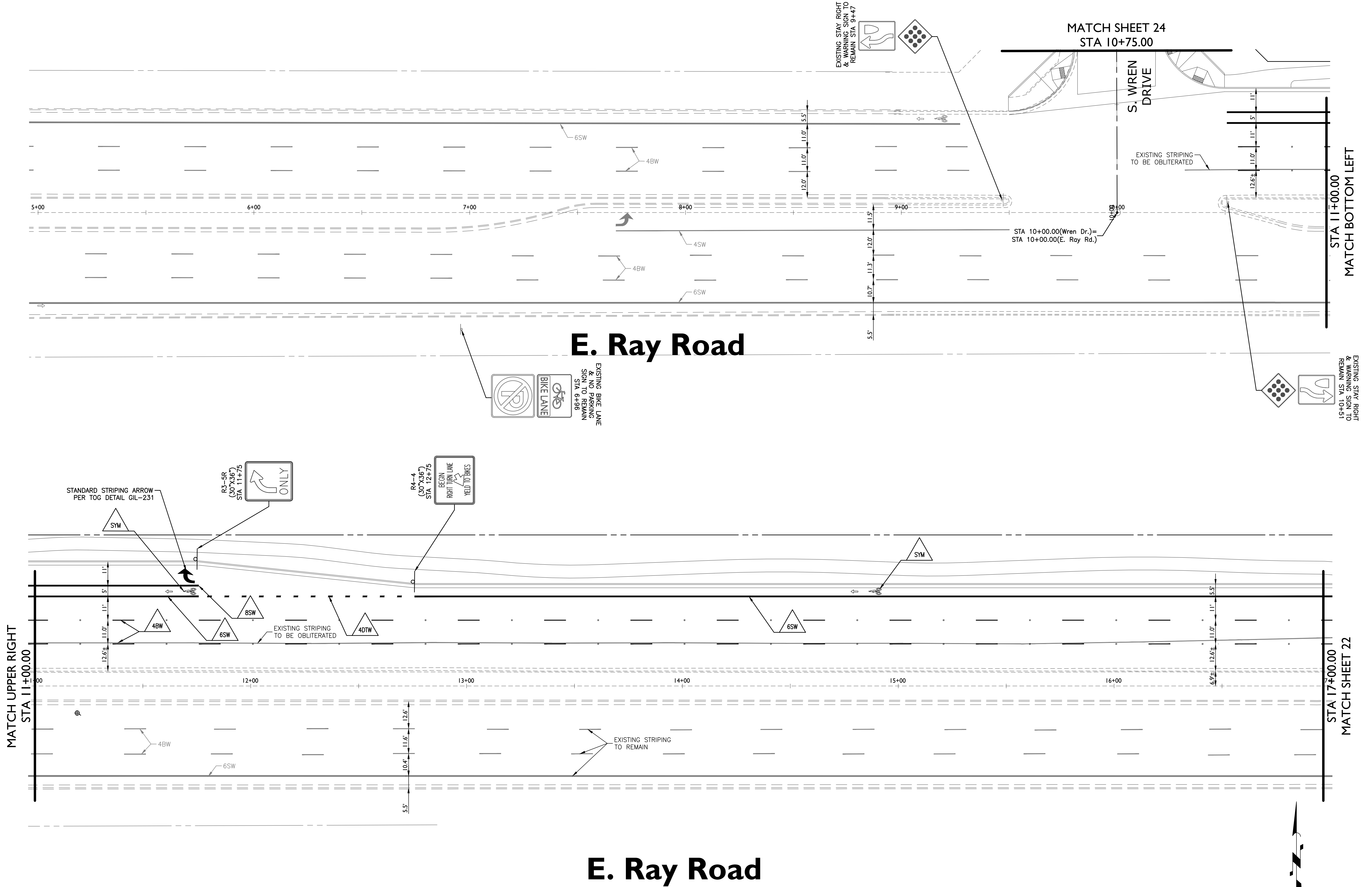
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17-265 - Gateway Pointe - Offsite Improvements

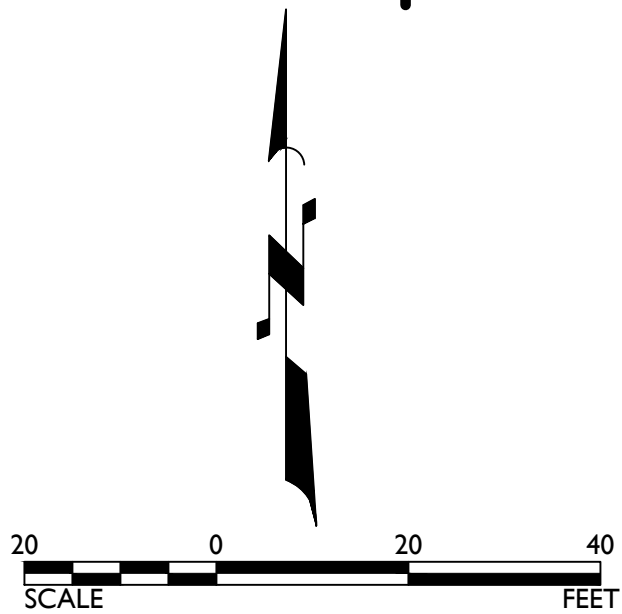
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E. Ray Road

E. Ray Road



Project: Gateway Pointe - Offsite Improvements
Gilbert, Arizona

Revisions:

Designer: DMA
Drawn by: MSA

Professional Engineer
50291
DANIEL B. AUXIER
Expire: 12/31/2018

Job No.
17-265

Sheet No.
21 of 34

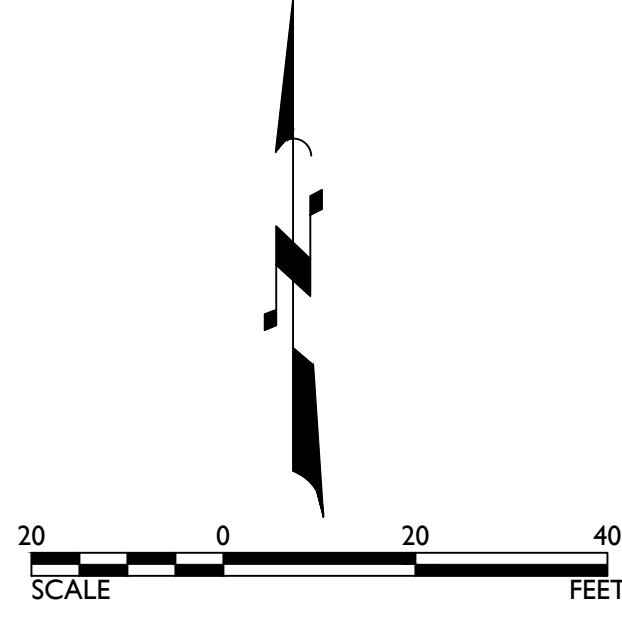
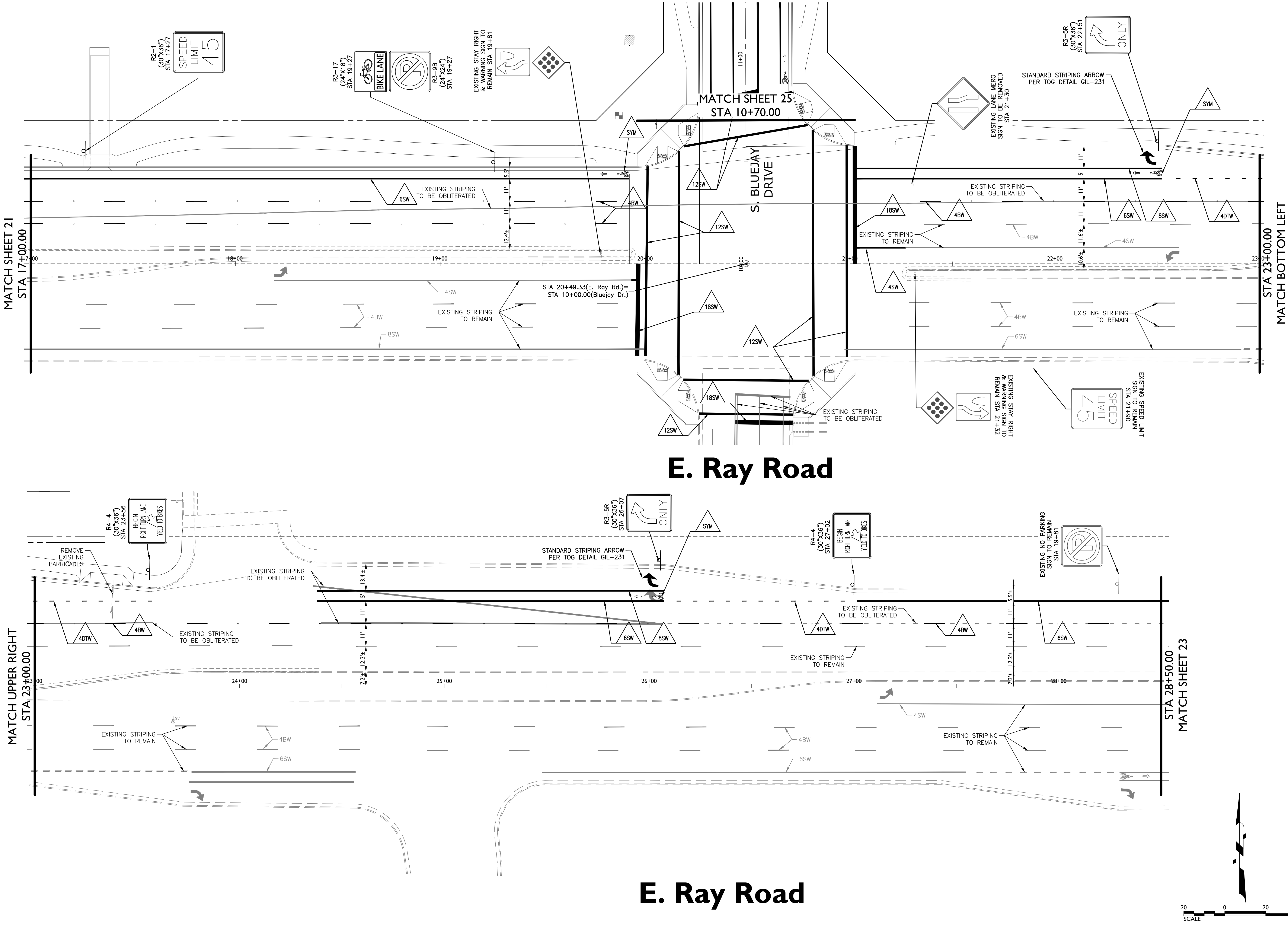
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17-265 - Gateway Pointe - Offsite Improvements

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Project:

Gateway Pointe - Offsite Improvements

Revisions:

Design:

DMA

Drawn by:

MSA

Professional Engineer

50291

DANIEL B. AUKER

Expires: 12/31/2018

Job No.

17-265

Sheet No.

22 of 34

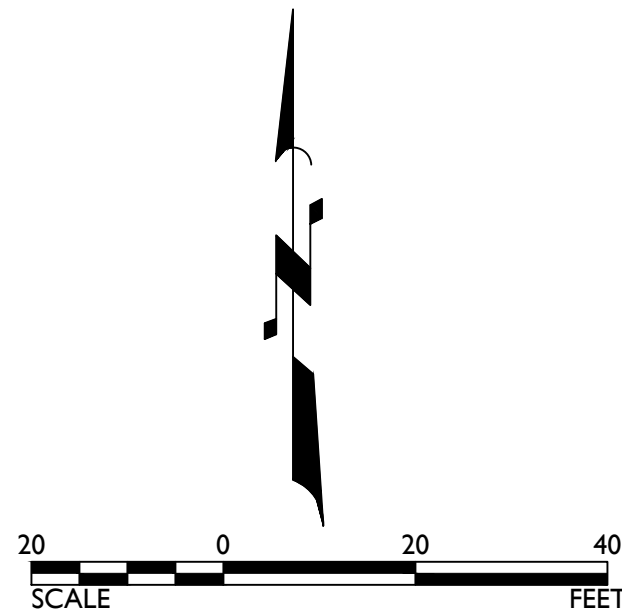
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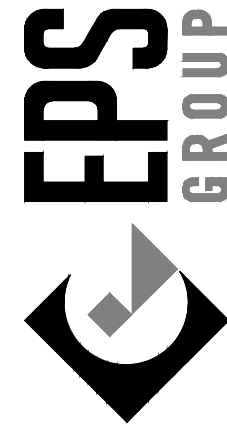
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E. Ray Road

Gateway Pointe - Offsite Improvements

Signage Plan



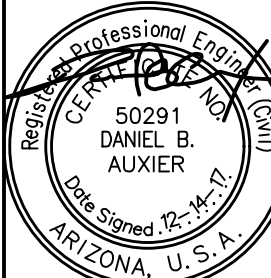
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Project:

Revisions:



Designer:	DMA
Drawn by:	MSA



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Job No.
17-265

SS04

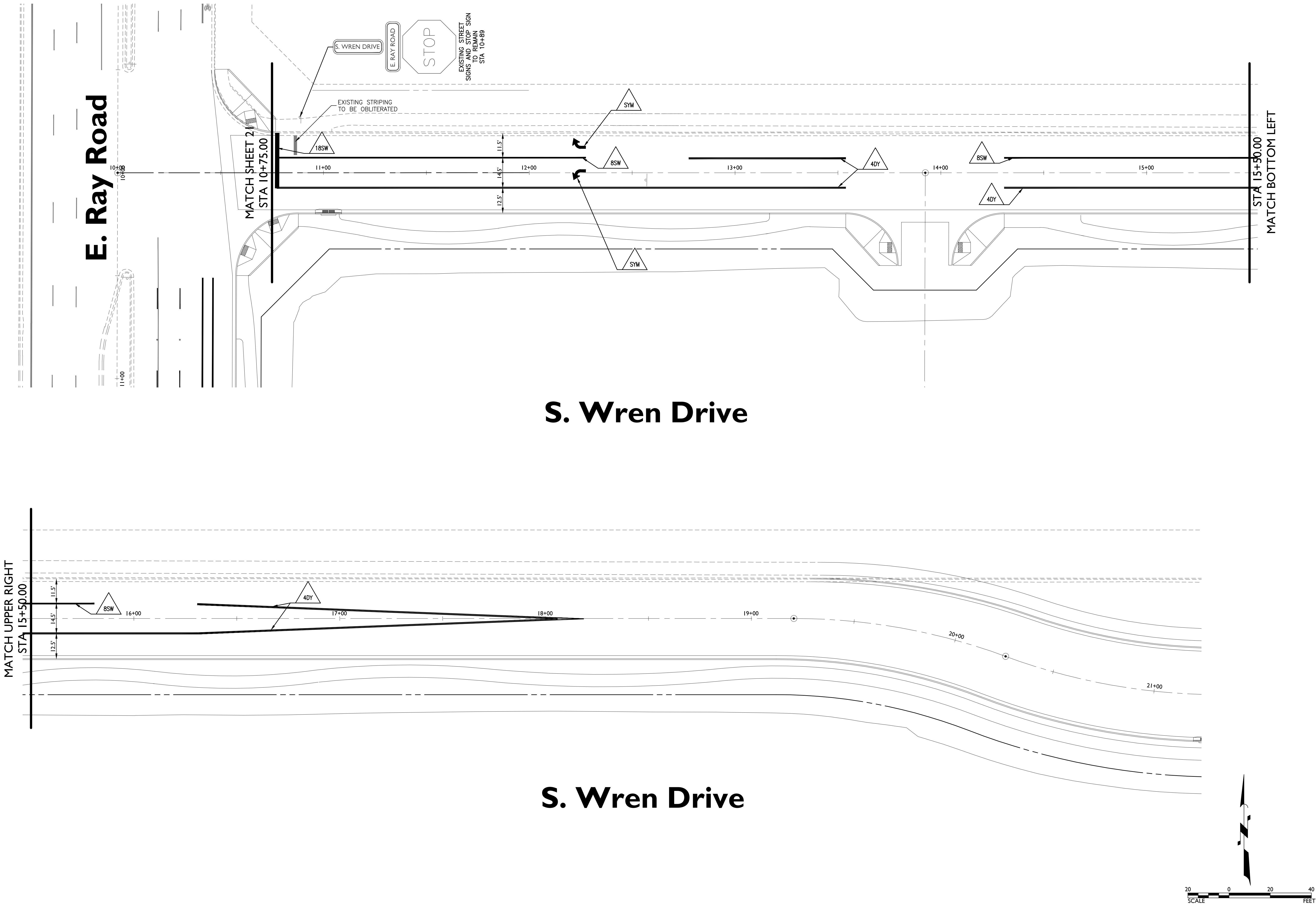
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Project:

Gateway Pointe - Offsite Improvements

Gilbert, Arizona

Signage Plan

Revisions:

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ARIZONA

Small Seal Not to Scale (Seal of the State of Arizona)

in Maricopa County: (602)263-1100

Designer:

DMA

Drawn by:

MSA

Professional Engineer

Expires: 12/31/2018

Job No.

17-265

Sheet No.

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SS05

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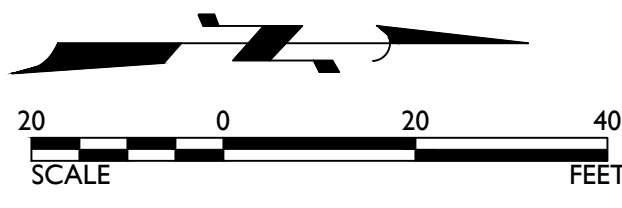
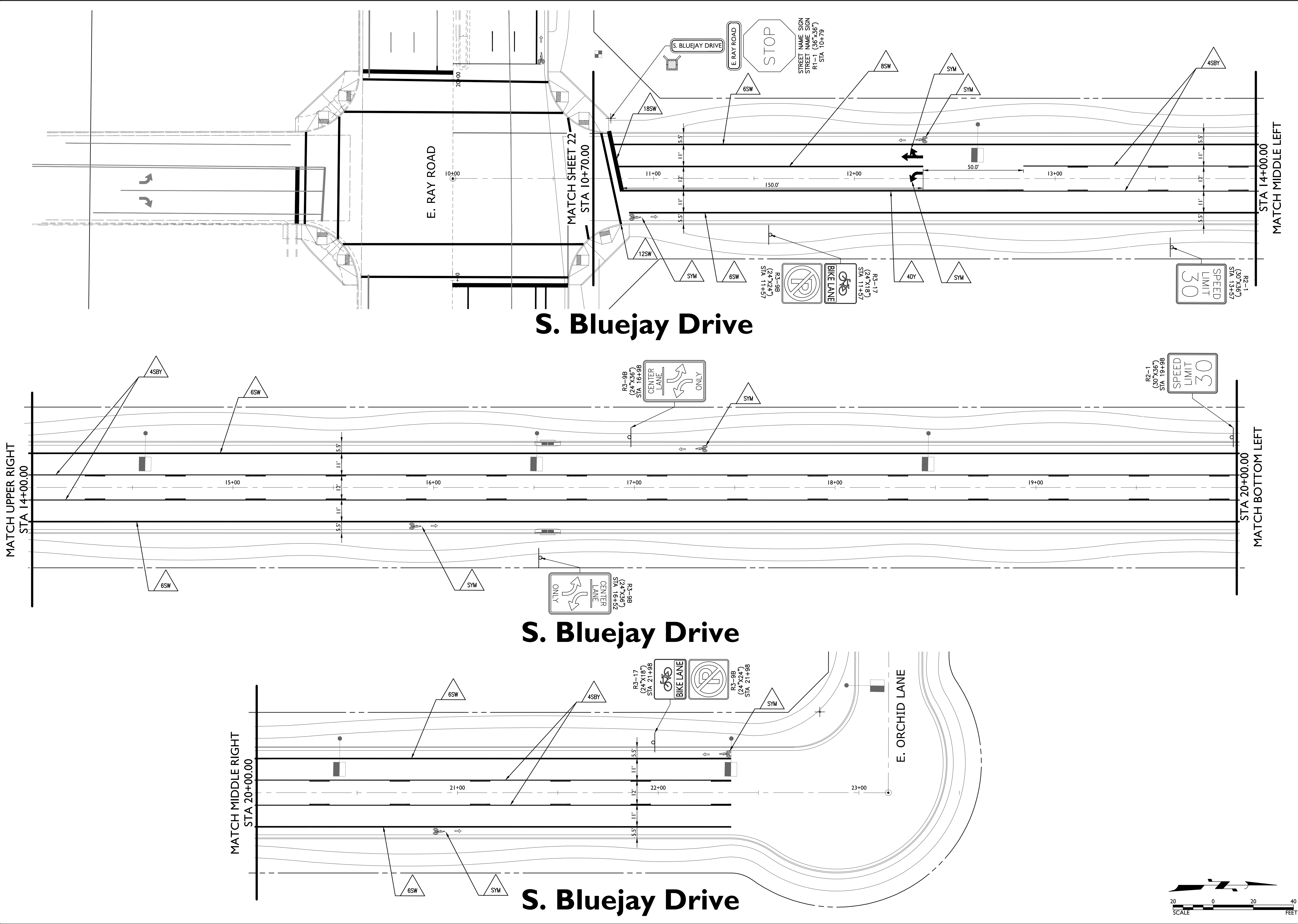
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REVIEW 2017-01065

17-265 - Gateway Pointe - Offsite Improvements

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Project: Gateway Pointe - Offsite Improvements

Revisions:

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Design: DMA
Drawn by: MSA

Professional Engineer
50291
DANIEL B. AUKER
Expire: 12/31/2018

Job No.
17-265

Sheet No.
25 of 34

SS06

Signage Plan

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Dec 15, 2017 1:50pm S:\Projects\2017\17-265\Civil_Preliminary_Improvement Plans\17-265 - SWP01.dwg

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THE OPERATOR SHALL AMEND THIS PLAN AS NECESSARY DURING THE COURSE OF CONSTRUCTION TO RESOLVE ANY PROBLEM AREAS, WHICH BECOME EVIDENT DURING THE CONSTRUCTION AND/OR DURING RAINFALLS.

THE PERMITTEE SHALL FILE A NOTICE OF TERMINATION (N.O.T.) AFTER COMPLETION OF CONSTRUCTION AND PLACEMENT OF FINAL LANDSCAPE MATERIALS. THE N.O.T. IS TO BE SUBMITTED TO THE PLANNING & DEVELOPMENT DEPARTMENT CIVIL/SITE INSPECTOR TO FINAL THE SWMP PERMIT.

THE PERMITTEE SHALL SAVE ALL RECORDS, INCLUDING THE N.O.I., SWMP, N.O.T. AND INSPECTION REPORTS, ON FILE FOR A MINIMUM OF THREE YEARS FROM THE DATE OF FILING THE N.O.T.

- DEPARTMENT CIVIL/SITE INSPECTOR FOR REVIEW AND APPROVAL. FACILITIES SHALL BE MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING. IN ADDITION, ALL TEMPORARY SILTATION CONTROLS SHALL BE MAINTAINED IN A SATISFACTORY CONDITION UNTIL SUCH TIME THAT CLEARING AND/OR CONSTRUCTION IS COMPLETED. PERMANENT DRAINAGE FACILITIES ARE OPERATIONAL, AND THE POTENTIAL FOR EROSION HAS PASSED.
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- THE PERMITTEE SHALL SAVE ALL RECORDS, INCLUDING THE N.O.I., SWMP, N.O.T., AND INSPECTION REPORTS, ON FILE FOR A MINIMUM OF THREE YEARS FROM THE DATE OF FILING THE N.O.T.
- THE IMPLEMENTATION OF THESE PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE FACILITIES IS THE RESPONSIBILITY OF THE PERMITTEE/CONTRACTOR UNTIL ALL CONSTRUCTION IS APPROVED AND THE N.O.T. IS SUBMITTED TO THE PLANNING & DEVELOPMENT DEPARTMENT CIVIL/SITE INSPECTOR.
- THE FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES IN SUCH A MANNER AS TO INSURE THAT SEDIMENT-LADEN WATER DOES NOT ENTER THE DRAINAGE SYSTEM OR VIOLATE APPLICABLE WATER STANDARDS, AND MUST BE INSTALLED AND IN OPERATION PRIOR TO ANY GRADING OR LAND CLEARING. WHEREVER POSSIBLE, MAINTAIN NATURAL VEGETATION FOR SILT CONTROL.
- PLAN APPROVAL IS VALID FOR 180 DAYS. PRIOR TO PLAN APPROVAL EXPIRATION, ALL ASSOCIATED PERMITS SHALL BE PURCHASED OR THE PLANS SHALL BE REAPPROVED FOR PLAN APPROVAL. THE EXTENSION OF PLAN APPROVAL AND REINSTATEMENT OF CIVIL ENGINEERING PLANS AND PERMITS SHALL FOLLOW THE SAME GUIDELINES AS THOSE INDICATED IN THE PHOENIX BUILDING CONSTRUCTION CODE ADMINISTRATIVE PROVISIONS SECTION 105.3 FOR BUILDING PERMITS.

ALL CATCH BASINS, DRAIN BASINS AND DRYWELLS ARE INLETS AND REQUIRE PROTECTION



Straw Tubes (SPC-I)

The diagram illustrates a storm drain catch basin system. At the top, a horizontal line represents the **STORM DRAIN**. Below it, two rectangular boxes represent **PROPOSED CATCH BASINS**; the first is empty, and the second contains a small house icon. Further down, a horizontal line with a small house icon represents the **HEADWALL**. Below the headwall, a horizontal line with a small house icon represents the **DRAINAGE AREA**. A large arrow points from the drainage area towards the catch basins, labeled **DRAINAGE DIRECTION**. Below the arrow, a grid of squares represents the **STABILIZED CONSTRUCTION ENTRANCE AND WASH BASIN**. To the right of the grid, text indicates **SUGGESTED LOCATIONS, CONTRACTOR TO PROVIDE ONLY AS NEEDED.** Below the grid, a dashed rectangular line represents the **FILTER FABRIC/STRAW BALE STORM WADDLE BARRIERS (INLET PROTECTION)**. Below the barriers, a horizontal line represents the **SILT FENCE**. Below the silt fence, a rectangular box with a house icon inside represents the **WASHOUT AREA**. At the bottom, a circle represents the **DRYWELL**.

RWCD IRRIGATION FACILITY RELOCATION DESIGN
FOR
RWCD LATERAL I I
LOCATED IN SECTION 24, TOWNSHIP I SOUTH, RANGE 6 EAST OF THE
GILA & SALT RIVER BASE & MERIDIAN, MARICOPA COUNTY, ARIZONA
PREPARED IN COORDINATION WITH OFFSITE IMPROVEMENT PLANS FOR
GATEWAY POINTE
PROJECT NO. 17-265
GILBERT, ARIZONA

ENGINEER

EPS GROUP
2045 S. VINEYARD, SUITE 101
MESA, AZ 85210
(480) 503-2250
CONTACT: BRUCE HALLSTED, P.E.

OWNER

RWCD
2344 S. HIGLEY RD.
GILBERT, AZ 85297
(480) 988-9586
CONTACT: BRAD STRADER, P.E.

COORDINATION LIST

DESCRIPTION	REPRESENTATIVE	PHONE
SRP POWER	ROBERTA TEMPLE	602-236-6262
CENTURYLINK	CHRIS LERTIQUE	480-768-4427
SOUTHWEST GAS	GENE FLORES	602-484-5302
COX COMMUNICATIONS	KEN DEGRAFFENREID	623-328-3423
SPRINT	COLIN SWORD	602-417-0970
RWCD	BRAD STRADER	480-988-9586
KINDER MORGAN	DANEIL TARANGO	602-278-2320

APPROVALS

ROOSEVELT WATER CONSERVATION DISTRICT

CHECKING IS ONLY FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND GENERAL COMPLIANCE WITH THE INFORMATION GIVEN. ANY ACTION SHOWN IS SUBJECT TO THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS. CONTRACTOR IS RESPONSIBLE FOR DIMENSIONS WHICH SHALL BE CONFIRMED AND CORRELATED AT THE JOB SITE; FABRICATION, PROCESSES AND TECHNIQUES OF CONSTRUCTION; COORDINATION OF HIS WORK WITH THAT OF ALL OTHER TRADES; THE SATISFACTORY PERFORMANCE OF HIS WORK. THE DISTRICT'S REVIEW OF THE PLANS IS A VOLUNTARY AND DISCRETIONARY ACTION WHICH IS NOT MANDATED BY STATE STATUTE. THE DISTRICT'S REVIEW OF THE PLANS IS SOLELY FOR THE DISTRICT'S BENEFIT, CONDUCTED WITH ONLY THE DISTRICT'S INTEREST IN MIND, AND SHOULD NOT BE RELIED UPON BY ANY THIRD PARTY. BY REVIEWING THE PLANS THE DISTRICT DOES NOT ASSUME ANY DUTY TO THIRD PARTIES.

ENGINEER: _____ DATE: _____
RWCD: _____ DATE: _____

APPROVALS

THE AUTHORIZED REPRESENTATIVES OF THE FOLLOWING AGENCIES HEREBY ACKNOWLEDGE OR HAVE ACKNOWLEDGED THEY HAVE REVIEWED AND APPROVED THE DESIGN SHOWN BY THESE DRAWINGS. CONSTRUCTION MAY BEGIN AFTER ALL APPROPRIATE PERMITS HAVE BEEN OBTAINED.

APPROVED FOR COMPLIANCE WITH CITY CODE (MESA)

CITY ENGINEER _____ DATE _____

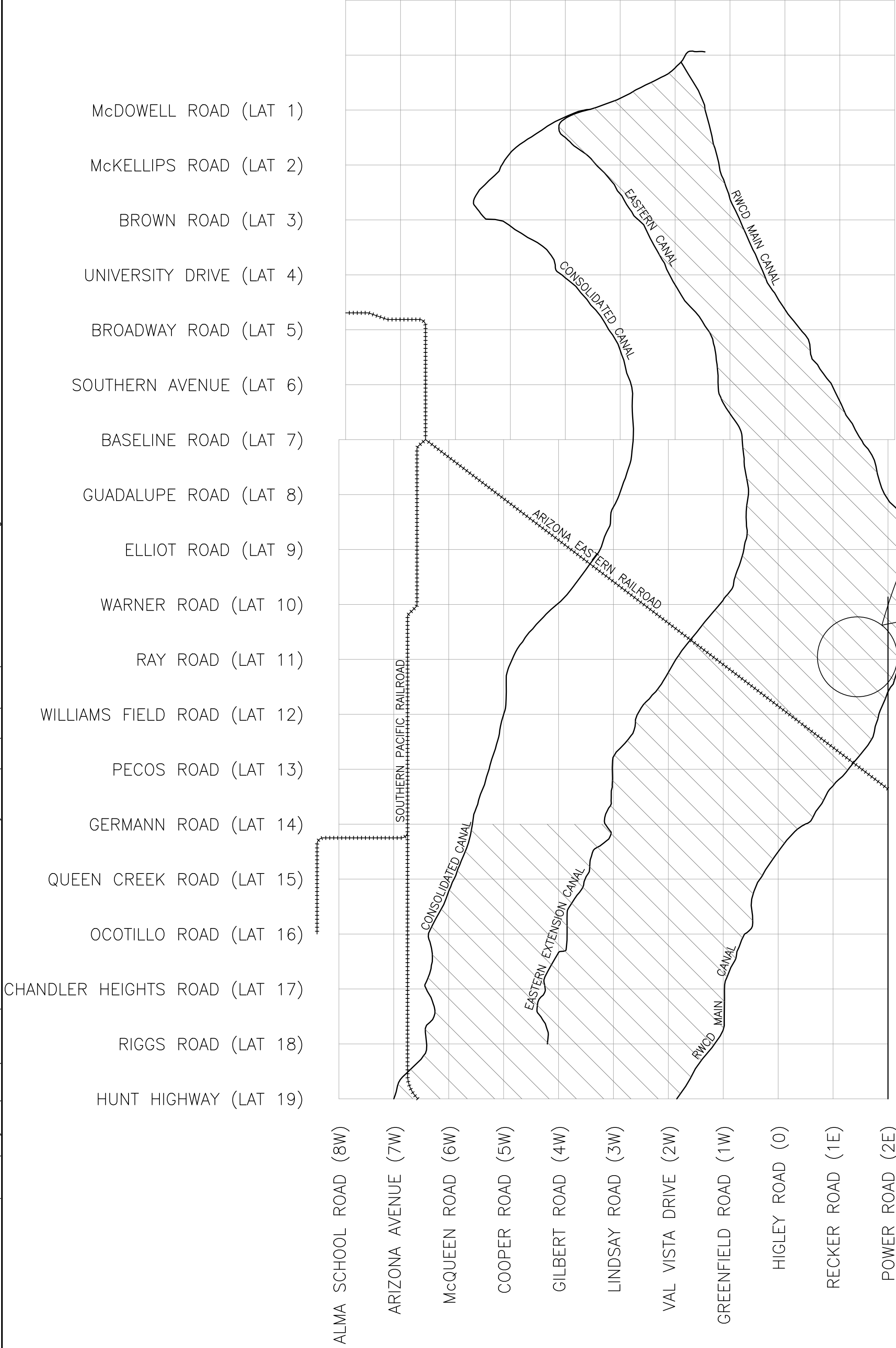
AS-BUILT CERTIFICATION

I HEREBY CERTIFY THAT THE "AS-BUILT" INFORMATION AS SHOWN HEREON WAS MADE UNDER MY SUPERVISION, OR AS NOTED, AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

SIGNATURE _____ DATE _____

SHEET INDEX

DESCRIPTION	SHEET NO	
COVER SHEET	27	ID01
NOTES SHEET	28	ID02
INDEX & HORIZONTAL CONTROL SHEET	29	ID03
DETAIL SHEETS	30 - 31	ID04 - ID05
IRRIGATION PLAN/PROFILE SHEETS	32 - 34	ID06 - ID08



RWCD SYSTEM MAP

2045 S. Vineyard Ave, Suite 101
Mesa, AZ 85210
T:480.503.2250 | F:480.503.2258
www.epsgroupinc.com

Project: RWCD Lateral I I
Gateway Pointe
Gilbert, Arizona

Cover Sheet

Revisions:

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Call at least two full working days before you begin excavation.

800.811.1111 or 480.374.8111 (Toll-Free)
In Maricopa County: (602)263-1100

Designer: JR
Drawn by: RW

Expires 3/31/2019
Job No.
17-007.49
ID01
Sheet No.
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of 34

RWCD GENERAL NOTES

1. GENERAL CONDITIONS:

A. ALL CONSTRUCTION OF RWCD FACILITIES SHALL CONFORM TO THE LATEST RWCD SPECIFICATIONS (WWW.RWCD.ORG) AND LATEST MAG SPECIFICATIONS.

B. THE CONTRACTOR SHALL OBTAIN A PERMIT FROM RWCD BEFORE ANY WORK BEGINS THAT IMPACTS RWCD FACILITIES OR ACCESS TO RWCD FACILITIES.

C. IMPROVEMENT PLANS FOR RWCD FACILITIES SHALL NOT BE APPROVED UNTIL POTHOLE INFORMATION FOR PARALLEL UTILITIES, OR OTHER CONFLICTS, IS RECEIVED, REVIEWED AND DEEMED ADEQUATE BY RWCD. POTHOLE RESULTS SHALL BE SEALED BY LAND SURVEYOR OR CIVIL ENGINEER REGISTERED IN ARIZONA AND SHALL BE LOCATED BY PROJECT STATION AND OFFSET. EACH POTHOLE SHALL INCLUDE THE ELEVATIONS OF THE SURFACE AND THE TOP AND BOTTOM OF THE BURIED UTILITY BASED ON THE PROJECT DATUM.

D. AN APPROVED SET OF PLANS SHALL BE ON THE JOB SITE AT ALL TIMES THAT WORK IS IN PROGRESS. DEVIATION FROM THE PLANS SHALL NOT BE ALLOWED WITHOUT AN APPROVED PLAN REVISION FROM THE ENGINEER.

E. TRAFFIC CONTROL SHALL BE MAINTAINED IN ACCORDANCE WITH THE MAG SPECIFICATION 401, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, AND CURRENT TRAFFIC BARRICADE MANUAL.

F. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING, IF NECESSARY, AN EXCAVATION AND DIRT MOVING PERMIT FROM THE MARICOPA COUNTY ENVIRONMENTAL SERVICES DEPARTMENT AND COMPLYING WITH ITS REQUIREMENTS FOR DUST CONTROL.

G. NO ACTIVITY INVOLVING AN RWCD MANHOLE SHALL OCCUR WITHOUT PRIOR AUTHORIZATION BY RWCD. THIS INCLUDES, BUT IS NOT LIMITED TO, REMOVING THE MANHOLE LID, RIM OR ANY DEVICE HOLDING THE MANHOLE LID OR RIM IN PLACE. CONTACT RWCD'S CONSTRUCTION INSPECTOR AT 480.748.6416 TO COORDINATE.

2. LANDSCAPE NOTES:

A. TREES TO BE INSTALLED ADJACENT TO ANY RWCD FACILITY SHALL BE PLANTED NO CLOSER THAN 6' FROM THE OUTSIDE EDGE OF ROOT BALL TO THE OUTSIDE EDGE OF RWCD PIPE OR THE OUTSIDE EDGE OF ANY OTHER STRUCTURE, E.G. MANHOLE, DELIVERY STRUCTURE, ETC. RWCD RESERVES THE RIGHT TO MODIFY THIS CONDITION AT ANY TIME PER OUR DISCRETION. CONTACT RWCD'S CONSTRUCTION INSPECTOR AT 480.748.6416 TO COORDINATE.

B. NO LANDSCAPE SPRINKLERS OR WATER EMITTERS ARE PERMITTED WITHIN 15 FEET OF ANY RWCD DELIVERY STRUCTURE.

C. THE HOME OWNER'S ASSOCIATION IS RESPONSIBLE TO MAKE REPAIRS TO LANDSCAPING (INCLUDING TREES, GROUND COVER, GRASS, ETC) WHERE IT IS DAMAGED DURING REPAIRS TO RWCD PIPE OR OTHER FACILITIES.

D. LANDSCAPE BOULDERS SHALL BE KEPT 15' AWAY FROM THE OUTSIDE OF RWCD MANHOLES, TURNOUT STRUCTURES, HEADWALLS, ETC.

E. LANDSCAPE FACILITIES SHALL ADHERE TO RWCD'S UTILITY CLEARANCE REQUIREMENTS (RWCD DETAIL 41).

3. CONSTRUCTION SEQUENCE AND REQUIREMENTS:

A. ALL CONSTRUCTION ACTIVITIES INVOLVING THE MODIFICATIONS AND/OR REPLACEMENT OF RWCD OWNED FACILITIES SHALL BE BONDED AT A FIGURE APPROVED BY THE GENERAL MANAGER. SUCH BOND SHALL BE MADE TO THE BENEFIT OF RWCD AND WILL NOT BE RELEASED UNTIL SUCH TIMES AS THE GENERAL MANAGER OR OTHER AUTHORIZED INDIVIDUAL HAS APPROVED ALL CONSTRUCTION ACTIVITIES FOR COMPLETENESS AND CORRECTNESS.

B. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING IRRIGATION DRY-UPS. CONTACT RWCD CONSTRUCTION INSPECTOR AT 480.748.6416 OR 480.988.9586 TO SCHEDULE A DRY-UP.

C. THE CONTRACTOR SHALL PROVIDE A COPY OF THE FOLLOWING TO THE RWCD INSPECTOR BEFORE THE PIPE IS INSTALLED.

1) RESULTS OF D-LOAD TEST ON 1% OF THE PIPE LENGTH FOR EACH DAY OF BATCH PRODUCTION.

2) A CONCRETE CYLINDER BREAK ON 1% OF THE PIPE LENGTH FOR EACH DAY OF BATCH PRODUCTION.

3) THE DATE OF PIPE MANUFACTURE AND CLASS OF PIPE SHALL APPEAR ON EVERY LENGTH OF PIPE DELIVERED TO THE JOBSITE. ALL PIPE SHALL HAVE A MINIMUM 14 DAYS OF CURE TIME BEFORE INSTALLATION.

D. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL UTILITIES PRIOR TO EXCAVATION AND AVOID DAMAGE TO SAME. CALL 811 OR 602.263.1100 FOR BLUE STAKE TWO WORKING DAYS PRIOR TO DIGGING. IF AN UNIDENTIFIED UTILITY IS ENCOUNTERED DURING CONSTRUCTION, ALL CONSTRUCTION ACTIVITIES SHALL CEASE UNTIL THE UTILITY IS POTHOLED TO VERIFY RWCD CLEARANCE REQUIREMENTS ARE MET AND A PLAN TO RESOLVE CLEARANCE DEFICIENCIES, SUBMITTED BY THE CONTRACTOR, IS ACCEPTED BY RWCD.

E. THE CONTRACTOR SHALL ENSURE NO CONSTRUCTION DEBRIS IS ALLOWED TO ENTER ANY RWCD DITCH OR FACILITY DURING CONSTRUCTION.

F. RWCD STRUCTURES ARE TO BE POURED MONOLITHICALLY. SHOULD IT BE NECESSARY TO CONSTRUCT AN RWCD STRUCTURE USING MULTIPLE CONCRETE POURS, THE CONTRACTOR WILL BE REQUIRED TO USE AN RWCD APPROVED METHOD OF WATER STOP ON EACH STRUCTURE THAT IS TO BE CONSTRUCTED USING MULTIPLE CONCRETE POURS. CONTACT RWCD'S CONSTRUCTION INSPECTOR AT 480.748.6416 TO COORDINATE.

G. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY RWCD FACILITY (HEADWALL, PIPE, DITCH, ACCESS ROADS, ETC.) DAMAGED DURING CONSTRUCTION AS DIRECTED BY THE RWCD INSPECTOR. THE REPAIRED FACILITY SHALL BE AT THE LOCATION, ELEVATION AND GRADES PRIOR TO CONSTRUCTION OR AS DIRECTED.

H. RWCD MANHOLES ARE TO BE IDENTIFIED AND PROTECTED AT ALL TIMES BEFORE, DURING AND AFTER CONSTRUCTION. THE CONTRACTOR WILL BE REQUIRED TO INSTALL, AT A MINIMUM, TWO (2) 2X4s VERTICALLY ON OPPOSITE SIDES OF EACH MANHOLE TO PROVIDE IDENTIFICATION OF THE MANHOLE. CONTACT RWCD'S CONSTRUCTION INSPECTOR AT 480.748.6416 TO COORDINATE.

4. TRENCH EXCAVATION:

A. TRENCH EXCAVATION, BACKFILLING AND COMPACTION FOR RWCD FACILITIES SHALL BE PER MAG SPEC SECTION 601, OR AS MODIFIED ON THE PLAN. BACKFILLING SHALL NOT BEGIN ON ANY PIPE UNTIL THE LINE HAS BEEN APPROVED BY RWCD'S INSPECTOR. BACKFILLING SHALL CONSIST OF ABC PLACED IN LIFT DEPTHS PER MAG SPEC 601.4.2. ALL OTHER LIFTS SHALL BE A MAX OF TWO (2) FEET. ABC BACKFILL SHALL EXTEND TO TWELVE (12) INCHES ABOVE THE TOP OF THE PIPE. COMPACTION OF THE BEDDING MATERIAL SHALL BE PER MAG SPEC 601.4.5. THE TRENCH BACKFILL SHALL BE THOROUGHLY COMPACTED TO THE DENSITIES LISTED ON THE PLAN OR AS SPECIFIED IN MAG SPEC 601.4.4, WHICHEVER IS MORE STRINGENT. MECHANICAL COMPACTION FROM THE BOTTOM OF THE TRENCH TO 1' ABOVE THE PIPE SHALL BE ACCOMPLISHED BY HAND OR WALK BEHIND EQUIPMENT SUCH AS A WACKER OR JUMPING JACK STYLE COMPACTOR, OR OTHER, AS APPROVED BY THE RWCD INSPECTOR. CONTRACTOR MAY SUBSTITUTE 1/2 SACK CLSM PER MAG SPEC SECTION 604 FOR BACKFILL UP TO SPRINGLINE. THE RWCD INSPECTOR MAY REQUIRE THE USE OF VIBRATORY EQUIPMENT IN CONJUNCTION WITH THE PLACEMENT OF CLSM MATERIAL.

B. COMPACTION TESTS SHALL BE PERFORMED AT ALL STRUCTURES AND AT A MINIMUM OF EVERY 300 FEET ALONG THE PIPE AND AT LOCATIONS SPECIFIED BY THE RWCD INSPECTOR. A RESPONSIBLE PARTY FOR COMPACTION TESTING SHALL BE PRESENT DURING BACKFILLING OF ALL PIPE AND STRUCTURES. COPIES OF THE COMPACTION TESTS ARE TO BE SUBMITTED TO THE RWCD INSPECTOR AT THE CONCLUSION OF EACH DAY.

5. UTILITY CROSSINGS:

A. CALL THE RWCD INSPECTOR, GREG NEW, 480.748.6416 PRIOR TO MAKING THE UTILITY CROSSING. PERMIT MAY BE REQUIRED FOR EACH UTILITY THAT CROSSES RWCD FACILITY.

B. PROVIDE 2' CLEARANCE BETWEEN ANY RWCD FACILITY AND ANY NEW UTILITY WHEN CROSSING, EXCEPT TO PROVIDE MINIMUM 4' CLEARANCE BETWEEN ANY RWCD OPEN DITCH AND ANY NEW UTILITY WHEN CROSSING. SUCH UTILITY CROSSINGS SHALL ONLY OCCUR UNDER PIPES OR DITCHES.

C. UTILITY CROSSINGS UNDER RWCD PIPELINES, DITCHES, CANALS, AND BOX CULVERTS SHALL BE INSTALLED BY HORIZONTAL EARTH AUGERBORING. NO BORE PITS SHALL BE ALLOWED WITHIN RWCD RIGHT-OF-WAY OR EASEMENTS. ALL UTILITIES SHALL BE ENCASED IN STEEL CASING. NO UTILITY SHALL VARY FROM UTILITY CROSSING REQUIREMENTS WITHOUT WRITTEN APPROVAL FROM RWCD.

D. IF USING AN OPEN CUT TRENCH METHOD OF CONSTRUCTION, AS APPROVED BY RWCD, BACKFILL TO THE SPRINGLINE OF THE RWCD PIPE WITH ½ SACK SLURRY WHERE MECHANICAL COMPACTION CANNOT BE ACHIEVED, OR AS DIRECTED BY RWCD INSPECTOR.

E. IF ANY EXISTING UTILITY IS FOUND TO HAVE LESS THAN 2 FT OF CLEARANCE TO THE RWCD FACILITIES, THE CONTRACTOR SHALL CONSULT WITH THE RWCD INSPECTOR AND THE OTHER UTILITY COMPANY FOR EVALUATION OF CLEARANCE AND RELOCATION REQUIREMENTS.

F. ALL OVERHEAD WIRES THAT SUSPEND OVER THE RWCD RIGHT OF WAY SHALL HAVE 25 FEET MINIMUM OVERHEAD CLEARANCE.

6. RWCD INSPECTION:

A. CALL GREG NEW AT RWCD (480.748.6416) FOR RWCD INSPECTIONS. THE CONTRACTOR SHALL COORDINATE DAILY WITH THE RWCD INSPECTOR RELATIVE TO WORK ONGOING THAT DAY AND UPCOMING WORK THAT REQUIRES INSPECTION WITHIN THE NEXT 48 HOURS.

B. THE CONTRACTOR SHALL PROVIDE A SAFE TRENCH FOR THE RWCD INSPECTOR TO INSPECT WORK INCLUDING SHORING AND LADDERS.

C. CONSTRUCTION STAKING LATH SHALL INCLUDE STATIONING CONSISTENT WITH STATIONING SHOWN ON THE APPROVED IRRIGATION PLANS.

D. MANHOLE AND STRUCTURE RIM ELEVATIONS MUST BE VERIFIED DURING THE CONSTRUCTION BY A "HUB" PLACED BY SURVEYORS.

E. RWCD MAY REJECT ANY PART OR PORTION OF THE SUBJECT PIPE AT ANY POINT DURING THE INSTALLATION PROCESS AT ITS SOLE DISCRETION. SUCH DETERMINATION WILL BE BASED ON, AMONG OTHER POINTS, CURRENT ASTM STANDARDS FOR THE PIPE.

RWCD GENERAL NOTES (CONTINUED)

7. PROJECT ACCEPTANCE:

A. THE JOB SITE, AT THE COMPLETION OF THE CONSTRUCTION, SHALL BE CLEANED OF ANY DEBRIS OR SPOIL RESULTING FROM THE CONSTRUCTION INCLUDING REMOVAL OF CONSTRUCTION DEBRIS FROM RWCD DITCHES.

B. THE OWNER/DEVELOPER SHALL ACQUIRE PRIOR AUTHORIZATION FROM THE RWCD WATER DEPARTMENT AND RWCD INSPECTOR PRIOR TO PERFORMING AN AS-BUILT SURVEY. MANHOLE LIDS MUST BE TAKEN OFF BY PIPELINE CONTRACTOR. A NO-FEE DRY-UP IS REQUIRED FOR AS-BUILT SURVEY.

C. THE OWNER/DEVELOPER SHALL PROVIDE CERTIFIED AS-BUILTS FOR THE LOCATION, ELEVATION AND SIZE OF ALL RWCD FACILITIES FOR RWCD RECORDS PRIOR TO RELEASING THE PROJECT BOND.

8. RWCD GENERAL NOTES:

A. RWCD'S GENERAL NOTES ARE SUBJECT TO CHANGE WITHOUT NOTIFICATION AT ANY TIME PER OUR DISCRETION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE CONFORMANCE TO THE LATEST RWCD GENERAL NOTES. CONTACT RWCD'S CONSTRUCTION INSPECTOR AT 480.748.6416 TO RECEIVE THE MOST RECENT RWCD GENERAL NOTES.

TOWN OF GILBERT GENERAL NOTES:

1. ANY CONTRACTOR FOUND WORKING ON A PROJECT WITHOUT AN OFFICIAL SET OF STAMPED, APPROVED DRAWINGS BY THE TOWN OF GILBERT WILL BE SHUT DOWN UNTIL FURTHER NOTICE.

2. THE CONTRACTOR SHALL NOTIFY THE EL PASO NATURAL GAS DISTRICT SUPERINTENDENT AND THE SOUTHWEST GAS DISTRICT SUPERINTENDENT 48 HOURS PRIOR TO COMMENCING CONSTRUCTION IN THE VICINITY OF THE RIGHTS-OF-WAY SO THAT THEY MAY HAVE A REPRESENTATIVE PRESENT AT ALL TIMES.

3. EXCAVATION AND CONSTRUCTION WORK WILL NOT BE PERMITTED IN PUBLIC RIGHTS-OF-WAY OR PUBLIC UTILITY EASEMENTS ON SATURDAY, SUNDAY, OR LEGAL HOLIDAYS.

4. ALL DESIGN AND CONSTRUCTION MUST BE IN ACCORDANCE WITH THE MOST RECENT VERSION OF THE UNIFORM STANDARD SPECIFICATIONS AND DETAILS PUBLISHED BY THE MARICOPA ASSOCIATION OF GOVERNMENTS AND AS AMENDED BY THE TOWN OF GILBERT.

5. A NOTE STATING WHICH LOTS WILL RECEIVE WATER AND SEWER SERVICES AND THE SIZES.

6. THE CONTRACTOR SHALL NOTIFY THE TOWN OF GILBERT DEVELOPMENT SERVICES DEPARTMENT AT LEAST 24 HOURS IN ADVANCE OF ANY CONSTRUCTION FOR INSPECTION. CALL (480) 503-6700.

7. A NOTE REGARDING THE COORDINATION BY THE DEVELOPER AND CONTRACTOR TO AVOID THE PLACEMENT OF DRIVEWAYS IN CONFLICT WITH UTILITY SERVICES.

8. A NOTE PERTAINING TO THE RESPONSIBILITY FOR THE COORDINATION OF THE RELOCATION OF POWER POLES AND OTHER UTILITIES.

9. A TYPICAL NOTE FOR THE CONTRACTOR TO ADJUST ALL VALVES, MANHOLES, CLEANOUTS, ETC., BOTH NEW AND OLD TO FINISHED PAVEMENT GRADE PER STANDARD DETAILS.

10. BACKFILL AND COMPACTION WITHIN COUNTY RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE LATEST MARICOPA COUNTY SPECIAL PROVISIONS FOR INSTALLATION OF UNDERGROUND UTILITIES.

11. CONTRACTOR SHALL COMPLY WITH THE PROVISION FOR TRAFFIC CONTROL AS PER THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES HANDBOOK.

12. CALL THE ARIZONA 811, BLUE STAKE CENTER (602) 263-1100, 48 HOURS BEFORE YOU DIG FOR LOCATION OF ALL UNDERGROUND UTILITIES.

13. ENGINEER CERTIFIES THAT HE HAS CONTRACTED ALL INTERESTED UTILITY COMPANIES AND HAS TRANSFERRED ALL EXISTING AND/OR PROPOSED UTILITY LINES AND RELATED INFORMATION ONTO THESE PLANS, AND THAT ENGINEER HAS ALSO CORRECTLY PLOTTED THE EXISTING AND PROPOSED RIGHT-OF-WAY AND EASEMENT LINES.

14. THE CONTRACTOR SHALL BE REQUIRED TO INSTALL A NIGHT TIE-IN FOR ANY NEW WATER LINE THAT WILL AFFECT EXISTING SERVICE SUFFICIENT TO WARRANT SAME IN THE OPINION OF THE TOWN OFF-SITE INSPECTOR.

15. ALL IMPROVEMENTS WITHIN THE RETENTION BASIN AND/OR ROADWAY PARKWAYS SHALL BE IN ACCORDANCE WITH THE LATEST TOWN OF GILBERT PROCEDURES FOR DEVELOPERS AND ENGINEERS.

16. CONTRACTOR IS ADVISED THAT AN EXCAVATION AND DIRT MOVING PERMIT IS REQUIRED BY THE MARICOPA COUNTY HEALTH DEPARTMENT AND THE TOWN OF GILBERT. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN THIS PERMIT AND COMPLY WITH ITS REQUIREMENTS.

17. ALL SPRINKLER AND LANDSCAPE MUST BE INSTALLED IN ACCORDANCE WITH THE APPROVED DESIGN REVIEW REQUIREMENTS AND APPROVED.

18. ALL SIGHT LINES SHALL COMPLY WITH TOWN OF GILBERT STANDARD DETAIL GIL-211 OR GIL-212 (WHICHEVER IS APPLICABLE) AT TIME OF INSTALLATION.

ESTIMATED QUANTITIES

Quantities are for estimating purposes only.
Engineer makes no guarantee of accuracy.

ITEM		QUANTITY
1	36 INCH RGRCP CLASS III	1193 LF
2	36 INCH RGRCP CLASS V	160 LF
3	15 INCH RGRCP CLASS III	30 LF
7	RWCD ACCESS ROAD, DTL 7 SHEET ID05	292 SF
8	TRENCH BACKFILL, DTL 3 SHEET ID04, TYPE A	1223 LF
9	TRENCH BACKFILL, DTL 3 SHEET ID04, TYPE B	160 LF
11	4 SIDED MANHOLE, DTL 5 SHEET ID05 (RWCD-19)	4 EA
14	5 SIDED MANHOLE, DTL 6 SHEET ID05 (RWCD-20)	4 EA
17	SAWCUT EXISTING PIPE FLUSH WITH INSIDE WALL OF NEW STRUCTURE	NPI
20	PIPE COLLAR, DTL 4 SHEET ID04 (RWCD-30)	2 EA
50	HEADWALL PER MAG STD DTL 502-1, MODIFIED NO WINGS. PROVIDE BOARD SLOT PER DETAIL 3 SHEET ID04. PROVIDE GRATE COVER PER DETAIL 8 ON SHEET ID05.	1 EA

REMOVAL NOTES

1	REMOVE EXISTING CONCRETE IRRIGATION DITCH, HAULOFF AND DISPOSE OF PROPERLY. BACKFILL WITH CLEAN NATIVE MATERIAL. COMPACT TO 95% (MIN) OF MAXIMUM DENSITY PER AASHTO T-99	1295 LF
2	REMOVE EXISTING IRRIGATION PIPE, HAULOFF AND DISPOSE OF PROPERLY. BACKFILL WITH CLEAN NATIVE MATERIAL. COMPACT TO 95% (MIN) OF MAXIMUM DENSITY PER AASHTO T-99	38 LF
3	REMOVE EXISTING IRRIGATION STRUCTURE, HEADWALL OR MANHOLE AND DISPOSE OF PROPERLY. BACKFILL WITH CLEAN NATIVE MATERIAL. COMPACT TO 95% (MIN) OF MAXIMUM DENSITY PER AASHTO T-99. CONTRACTOR SHALL SALVAGE ALL METAL ITEMS INCLUDING GRATING, MANHOLE LIDS, GATES, ETC., AND DELIVER TO THE RWCD YARD AT 2344 S. HIGLEY ROAD. CONTACT GREG NEW @ 480-748-6416 TO COORDINATE DELIVERY	2 EA

LEGEND

	PROPOSED CURB, GUTTER, AND SIDEWALK
	EXISTING CURB & GUTTER
	MANHOLE, SANITARY SEWER
	WATER VALVE
	WATER METER
	STREET LIGHT
	TRAFFIC SIGNAL
	TRANSFORMER
	UTILITY POLE
	GAS VALVE
	WATER VALVE
	FIRE HYDRANT
	CATCH BASIN
	CHAIN LINK FENCE
	4 SIDED MANHOLE
	5 SIDED MANHOLE
	DELIVERY STRUCTURE
	HEADWALL WITH GRATE
	EXISTING FENCE
	EXISTING CONCRETE LINED DITCH
	EXISTING IRRIGATION PIPE
	NEW IRRIGATION PIPE
	RIGHT OF WAY & PROPERTY LINE
	MONUMENT LINE
	SECTION/MID-SECTION LINE
	EXISTING SANITARY SEWER LINE
	EXISTING WATER LINE
	EXISTING GAS LINE
	EXISTING TELEPHONE LINE
	EXISTING UNDERGROUND ELECTRIC LINE
	EXISTING OVERHEAD ELECTRIC LINE
	EXISTING FIBER OPTIC LINE
	EXISTING TELEVISION LINE
	EXISTING RECLAIMED WATER LINE
	PROPOSED TREE

2045 S. Vineyard Ave, Suite 101
Mesa, AZ 85210
T:480.503.2250 F:480.503.2258
www.epsgroupinc.com

RWCD Lateral I I
Gateway Pointe
Gilbert, Arizona

Notes Sheet

Project:

Revisions:

Call it first too but working days before you begin excavation.

Due to it is not 800-878-6868 (Toll Free) 6048
In Maricopa County: (602)263-1100

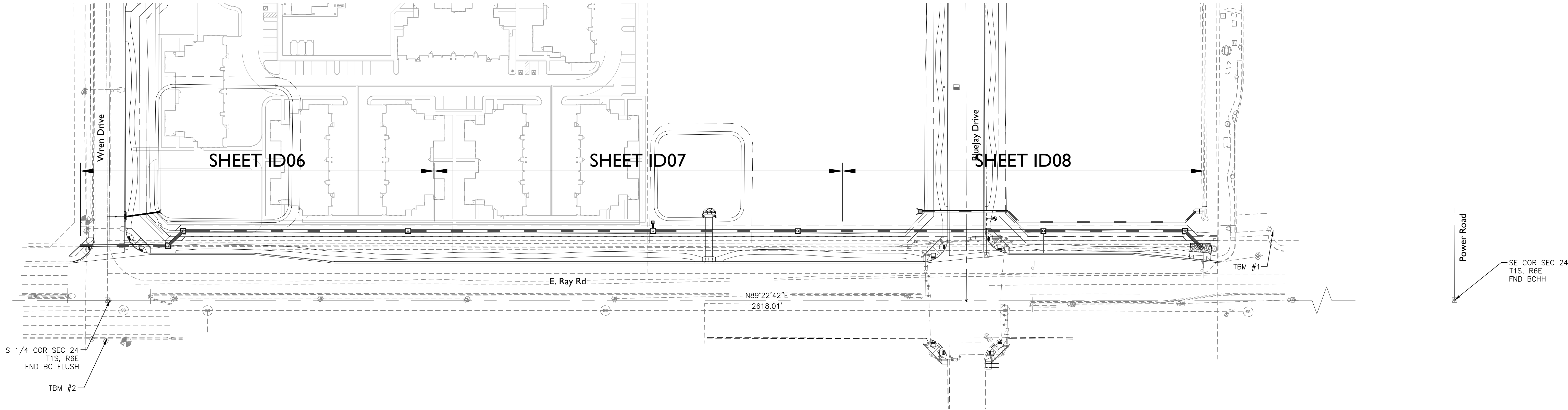
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Drawn by: RWV

EXPIRES 3/31/2019

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17-007.49

ID02

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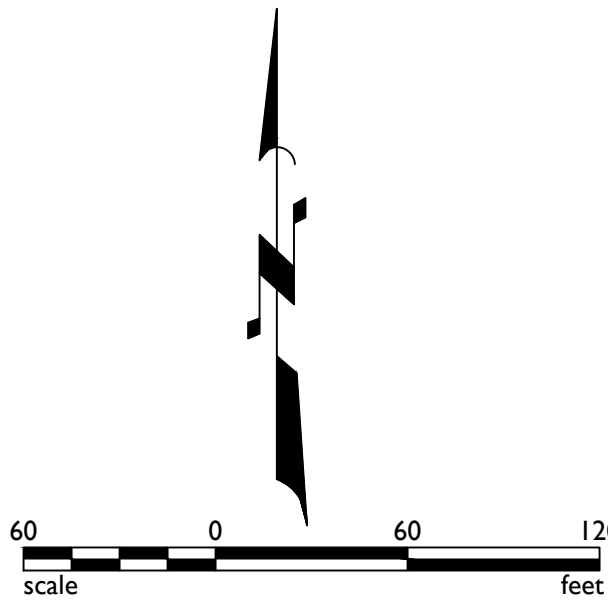


BENCHMARK:
THE SOUTH QUARTER CORNER OF SECTION 24, TOWNSHIP 1
SOUTH RANGE 6 EAST OF THE GILA AND SALT RIVER BASE
AND MERIDIAN MARKED WITH A BRASS CAP FLUSH.
ELEVATION = 1313.14

BASIS OF BEARING:
BASIS OF BEARING IS THE SOUTH LINE OF SECTION 24,
TOWNSHIP 1 SOUTH RANGE 6 EAST OF THE GILA AND SALT
RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA. SAID
BEARING BEING: N 89°22' 42" E

TBM #1:
CHISELLED X POINT
NORTHING: 844844.797
EASTING: 769106.264
ELEVATION = 1319.53

TBM #2:
CHISELLED X POINT
NORTHING: 844696.161
EASTING: 767679.357
ELEVATION = 1312.50



2045 S. Vineyard Ave, Suite 101
Mesa, AZ 85210
T:480.503.2250 | F:480.503.2258
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Project:

RWCD Lateral I I
Gateway Pointe
Gilbert, Arizona

Revisions:

No.	Description	By	Date

Call at least two full working days
before you begin excavation.

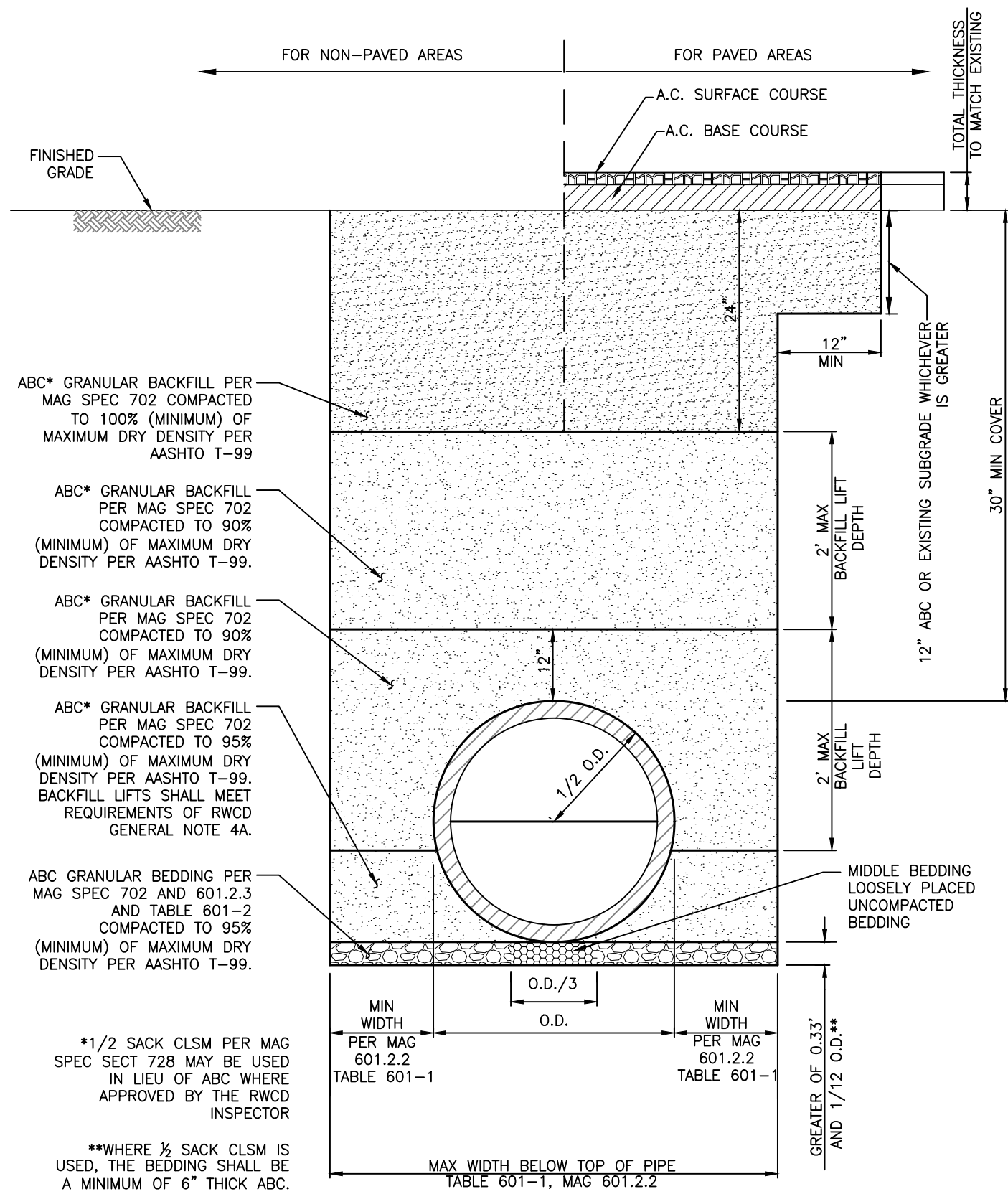
800.488.8111
In Maricopa County: (602)263-1100

Designer: JR
Drawn by: RW

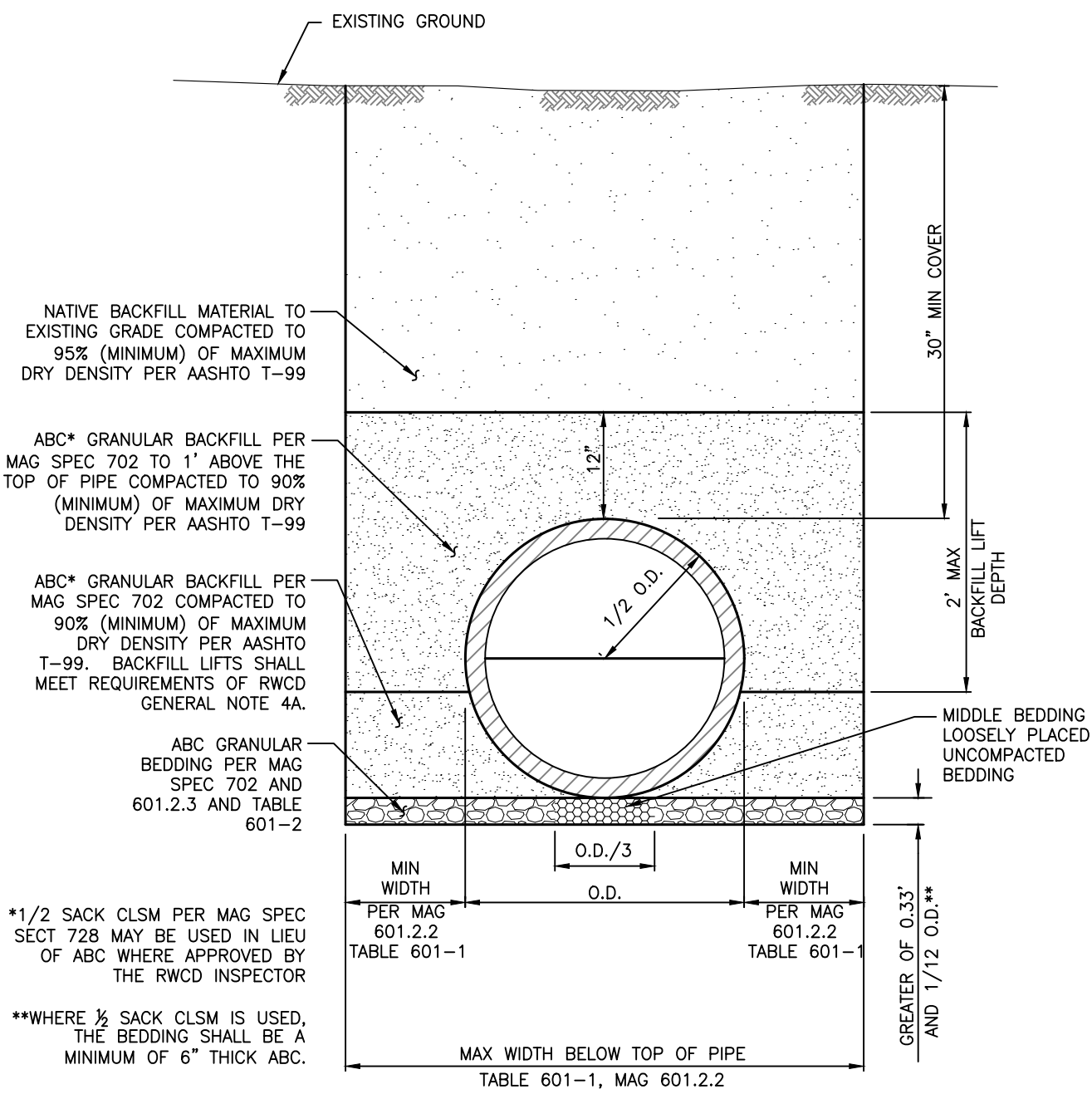
Job No.
17-007.49

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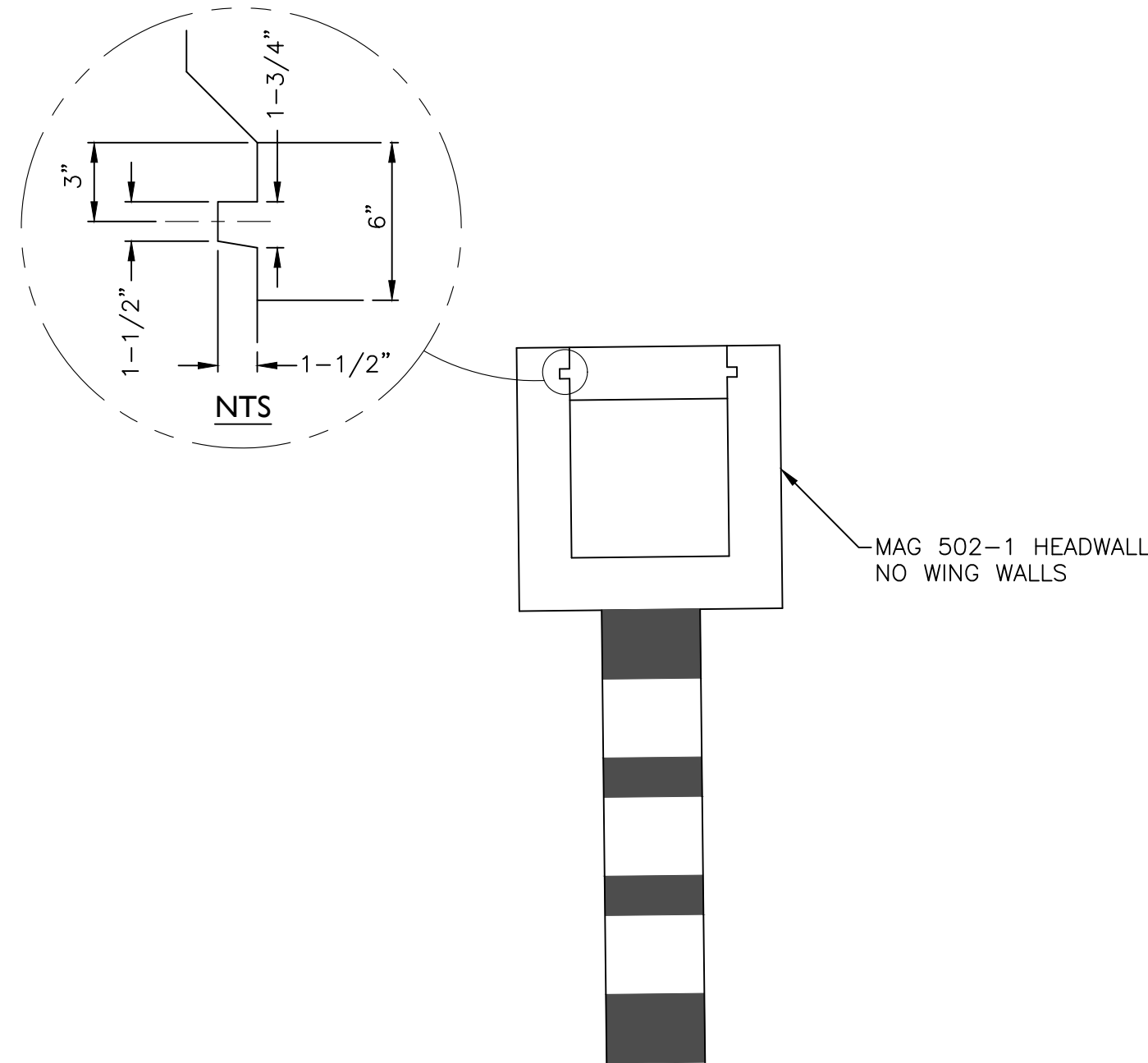


TYPE 'A'

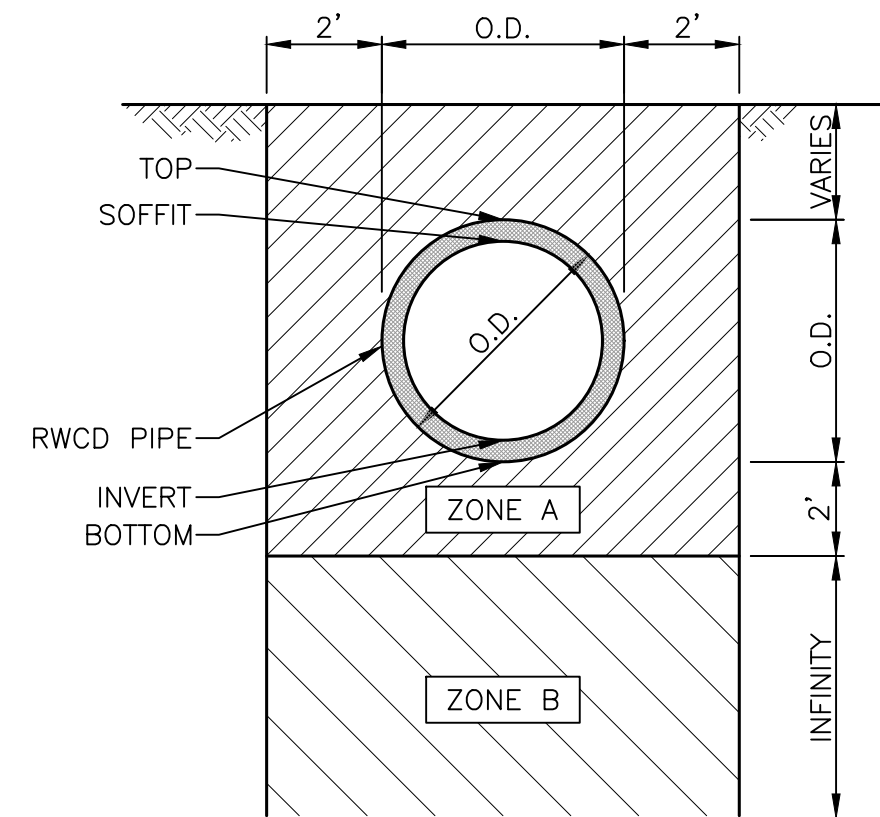


TYPE 'B'

DETAIL NO. 1 : TRENCH BACKFILL (RWCD-36)

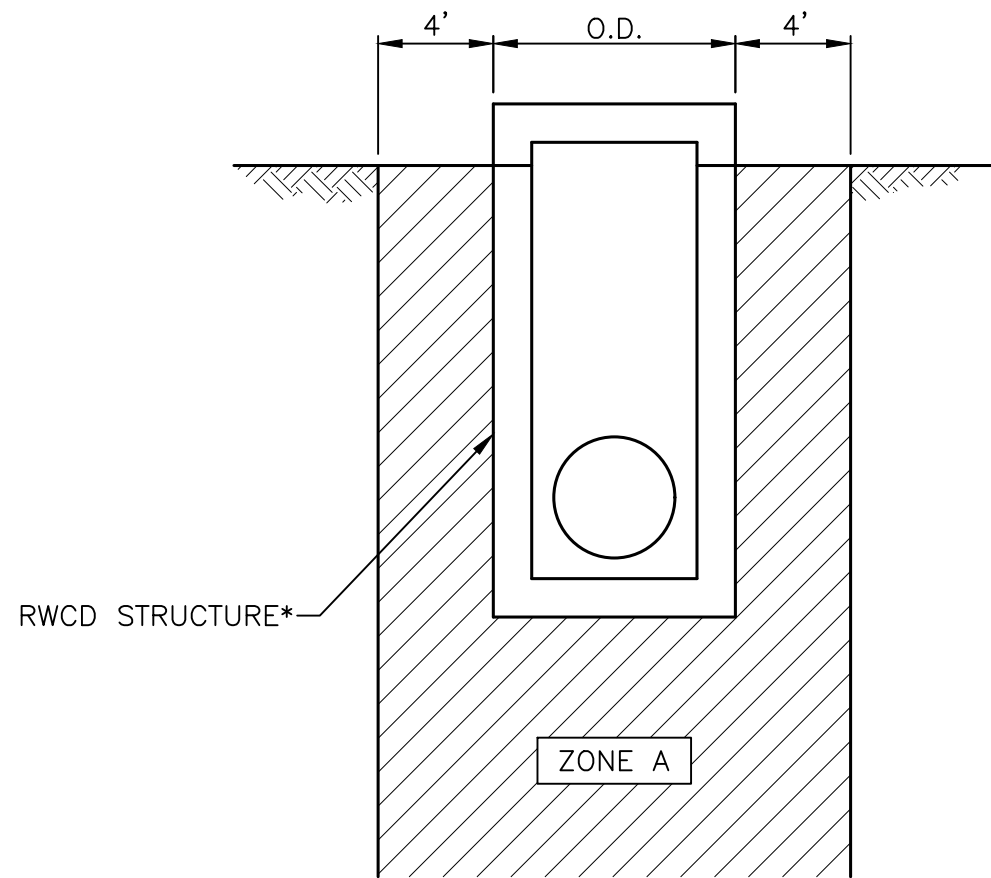


DETAIL NO. 3 : HEADWALL



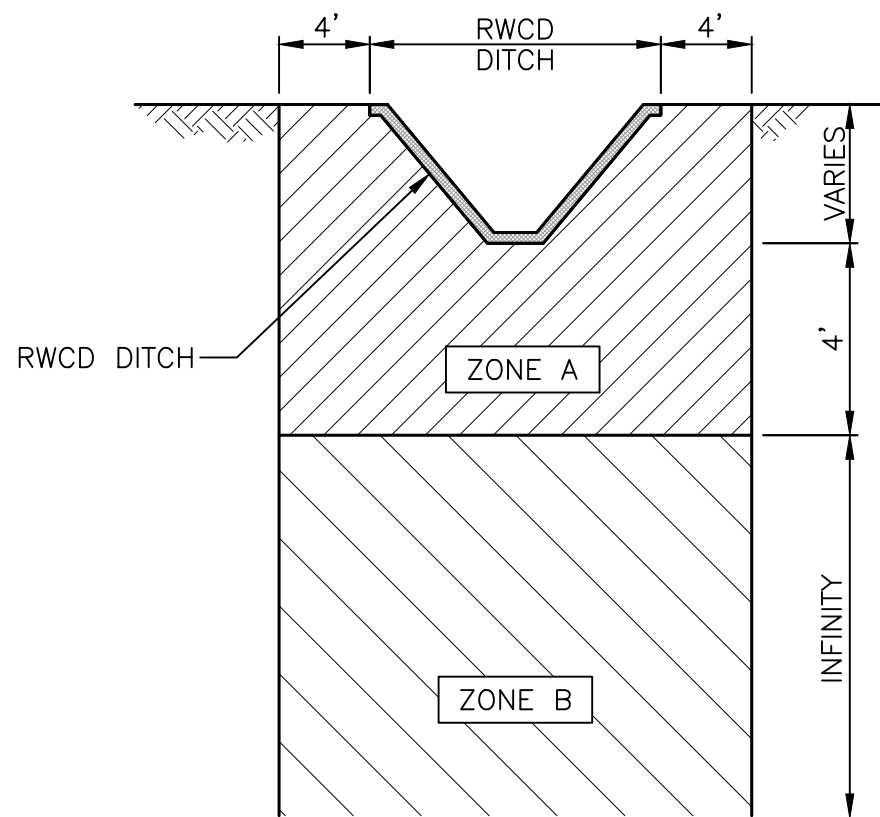
UTILITY CLEARANCE REQUIREMENTS

NTS



UTILITY CLEARANCE REQUIREMENTS

NTS



UTILITY CLEARANCE REQUIREMENTS

NTS

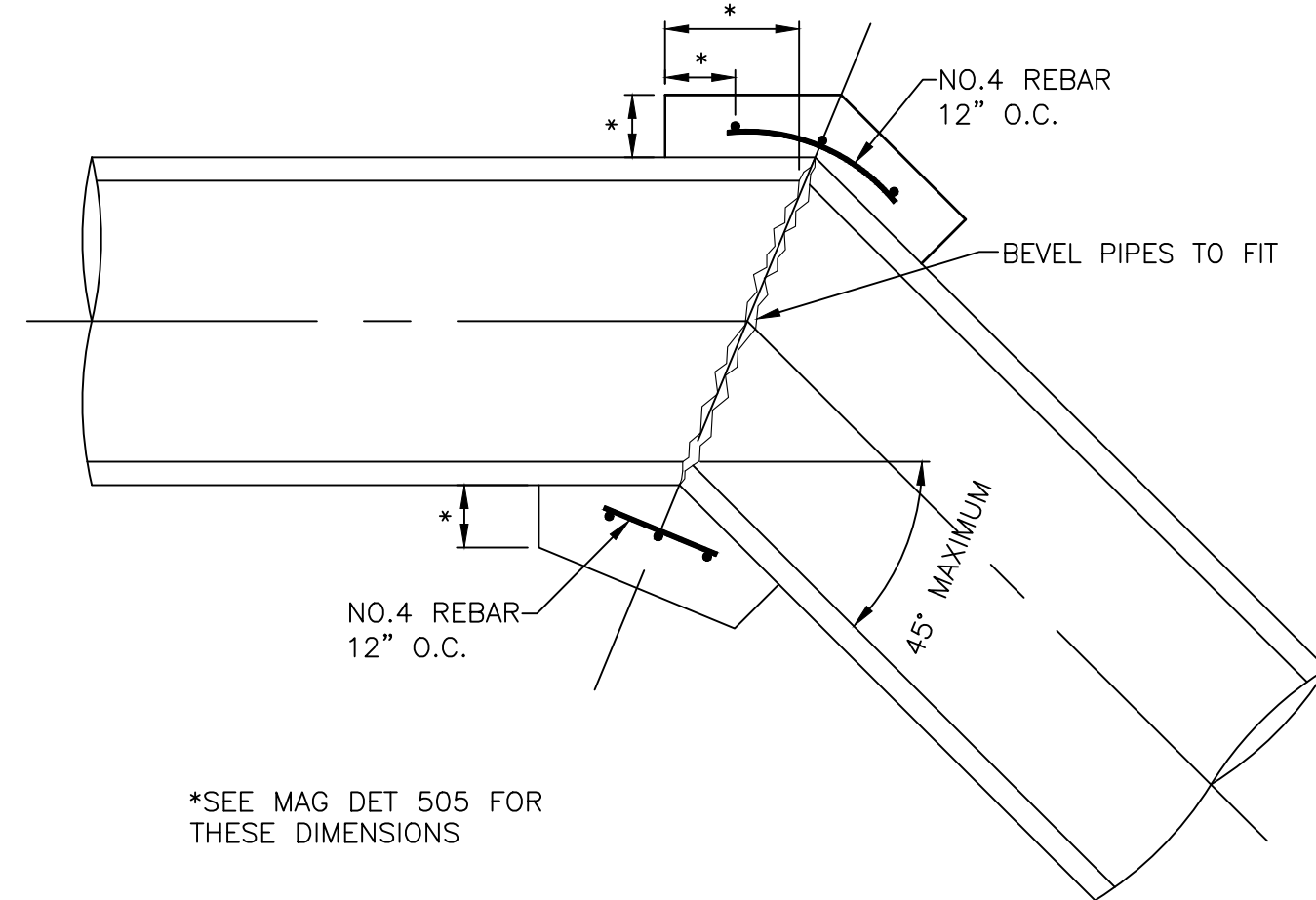
NOTES:
ZONE A: NO UTILITIES* PERMITTED WITHIN THIS ZONE.
ZONE B: NO LONGITUDINAL UTILITIES PERMITTED WITHIN THIS ZONE.
CROSSING UTILITIES PERMITTED WITH CROSSING PERMIT ISSUED BY RWCD. CONTACT RWCD INSPECTOR AT 480.748.6416 FOR CROSSING PERMIT.
O.D. = OUTSIDE DIAMETER OF THE BARREL OF THE PIPE.
CLEARANCE SHALL ACCOUNT FOR PIPE THICKNESS.

PIPE SIZE (IN)	PIPE THICKNESS (IN)
30"	4.5"
36"	5"
42"	5.5"

*UTILITIES INCLUDE ANY WATER LINE, SEWER LINE, RECLAIMED WATER LINE, GAS LINE, ELECTRICAL LINE, LANDSCAPE IRRIGATION LINE, COMMUNICATIONS LINE, ETC.

NOTES:
ZONE A: NO UTILITIES PERMITTED WITHIN THIS ZONE.
*RWCD STRUCTURE IS DEFINED AS A TURNOUT STRUCTURE, MANHOLE, HEADWALL, ETC.
ZONE B: NO LONGITUDINAL UTILITIES PERMITTED WITHIN THIS ZONE.
CROSSING UTILITIES PERMITTED WITH CROSSING PERMIT ISSUED BY RWCD. CONTACT RWCD INSPECTOR AT 480.748.6416 FOR CROSSING PERMIT.

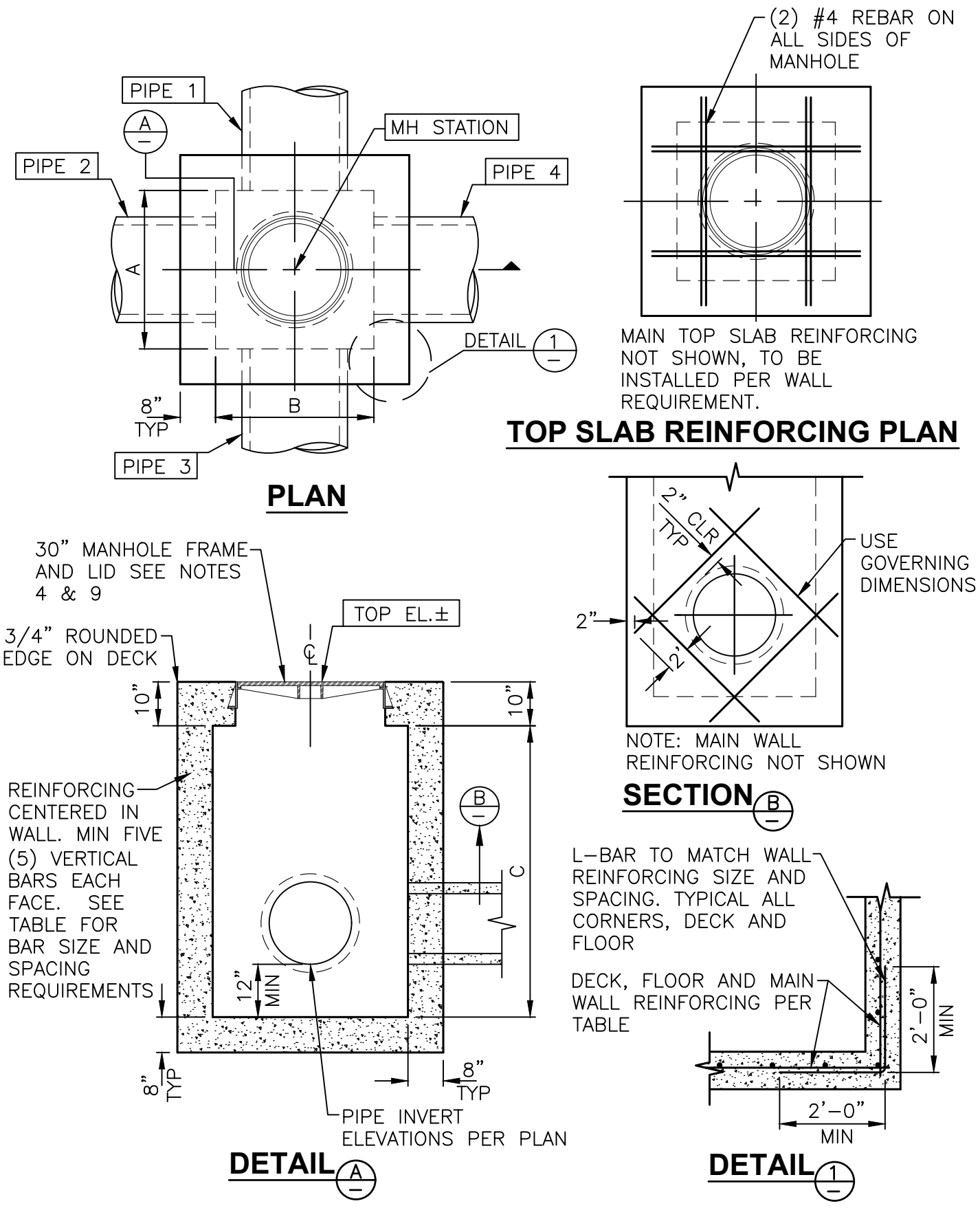
DETAIL NO. 3 : UTILITY CLEARANCE (RWCD-41)



*SEE MAG DET 505 FOR THESE DIMENSIONS

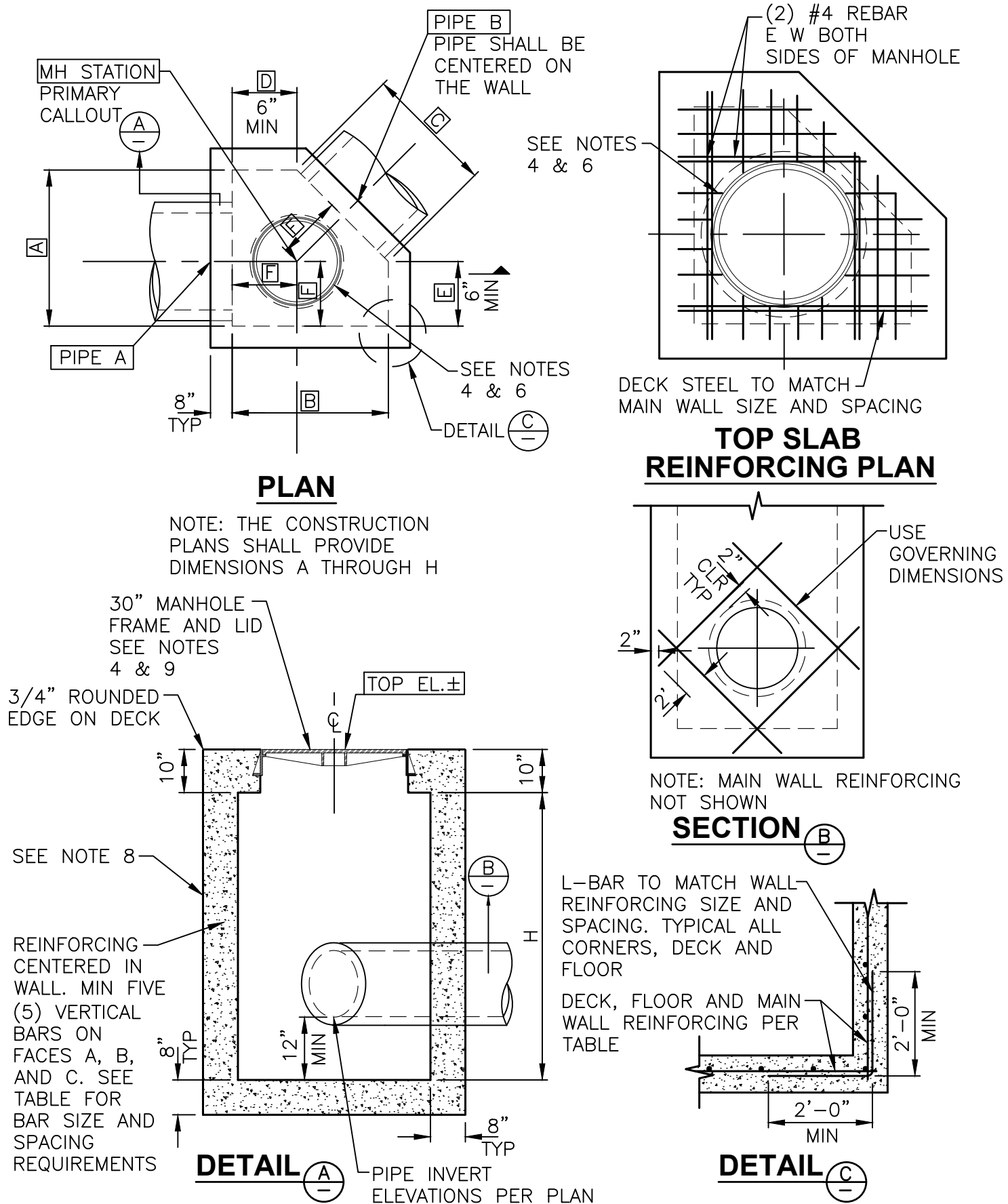
- NOTES:
- UNLESS MODIFIED HEREON, THE CONCRETE COLLAR SHALL BE CONSTRUCTED AS SPECIFIED IN MAG DET 505
 - THE PIPE ENDS SHALL BE SAWCUT TO MATCH THE PIPE DEFLECTION ANGLE
 - WIPE INSIDE OF COLLAR FLUSH AND SMOOTH WITH 3:1 SAND AND CEMENT MIX AND BRUSH SMOOTH
 - CONTRACTOR SHALL PROVIDE SANDBAGS, OR OTHER APPROVED METHOD, TO CONTROL PLACEMENT OF CONCRETE FOR COLLAR
 - ALL CONCRETE FOR THE COLLAR SHALL BE VIBRATED.
 - CONCRETE SHALL BE MAG CLASS A FOR ALL PIPE COLLARS.

DETAIL NO. 4 :PIPE COLLAR (RWCD-30)



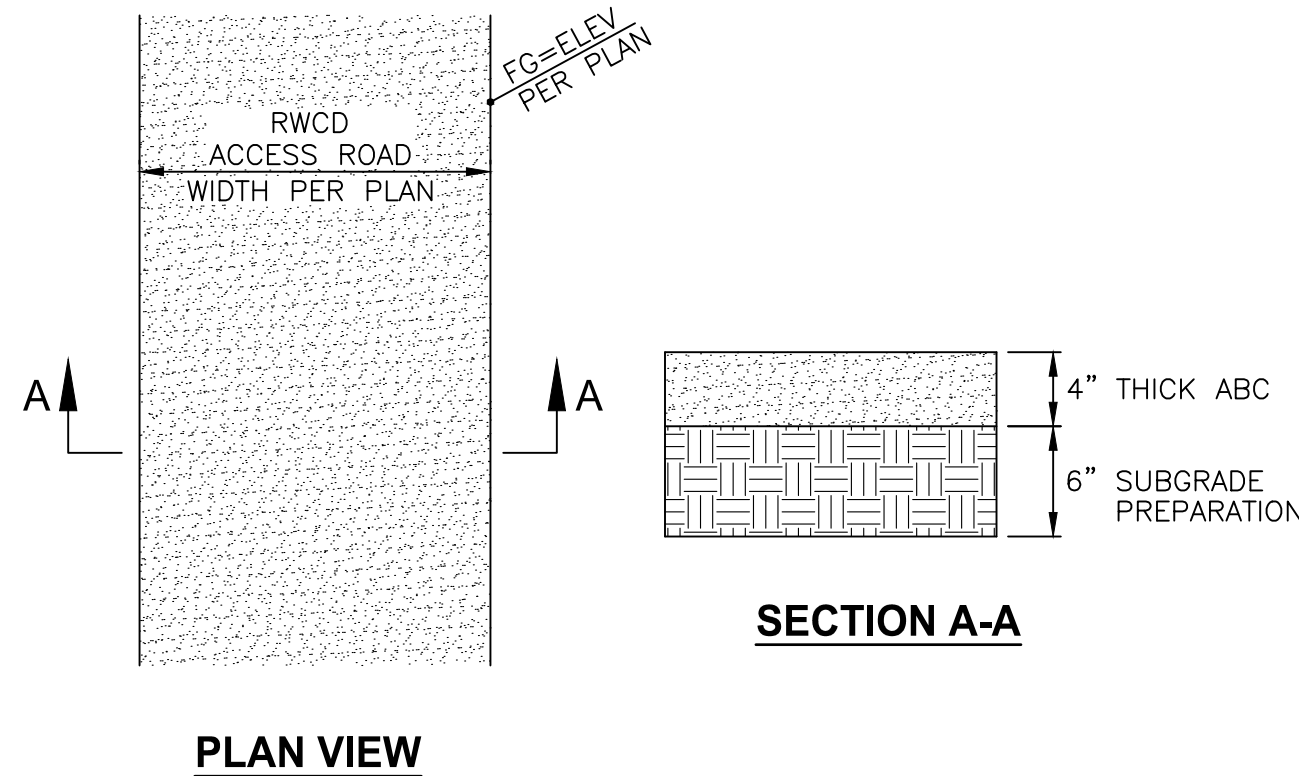
- MINIMUM REQUIREMENTS**
- | WALL DIMENSION | | REINFORCING STEEL |
|----------------|---------|----------------------------|
| PIPE DIAMETER | A, B, C | |
| 30" OR LESS | 48" | #4 @ 12" E.W. IF C ≤ 8' OR |
| 36" | 56" | |
| 42" | 62" | |
| 48" | 68" | #5 @ 12" E.W. IF C ≥ 8' |
| 54" OR 60" | 80" | |
| 66" OR 72" | 92" | |
| 78" OR 84" | 106" | |
- NOTES:**
- STRUCTURAL CONCRETE SHALL BE 3000 PSI @ 28 DAYS.
 - REINFORCING STEEL SHALL COMPLY WITH MAG SPEC 727.
 - SEE PLAN AND PROFILE DRAWING FOR CORRECT ORIENTATION OF MANHOLE.
 - USE 30" MANHOLE FRAME AND LID PER DEETER 1296B BOLTED AND GASKETED OR APPROVED EQUAL. LID SHALL HAVE RAISED LETTERING 2" IN HEIGHT STATING "RWCD IRRIGATION". FOR PRESSURE MANHOLES, SEE NOTE 9.
 - EXACT ELEVATION OF ROADWAY SURFACE OR SIDEWALK TO BE SET BY LICENSEE'S ENGINEER.
 - FIELD CUT REBAR AT MANHOLE.
 - CONCRETE SHALL BE PLACED WITH NO COLD JOINTS. ALL CONCRETE SHALL BE VIBRATED DURING PLACEMENT.
 - DIMENSIONS A AND B SHALL NOT EXCEED 106" AND DIMENSION C SHALL NOT EXCEED 180"
 - FOR PRESSURE MANHOLES, MAXIMUM HEAD SHALL NOT EXCEED 30" ABOVE RIM ELEVATION. COVER SHALL HAVE 2" LETTERING "RWCD IRR PMH".
 - A SURVEY HUB SHALL BE SET AT ALL MANHOLES PRIOR TO RWCD INSPECTION.
 - MANHOLE BACKFILL SPECIFICATIONS SHALL BE PER ADJACENT TRENCH BACKFILL SPECIFICATIONS EXCEPT TO PROVIDE JETTED AB OR 1/2 SACK SLURRY UP TO THE SPRINGLINE OF PIPE OR AS DIRECTED BY RWCD INSPECTOR.
 - FOR TEMPORARY GRADING PROVIDE 4:1 SLOPES FROM RIM ELEVATION TO EXISTING GRADE BEGINNING 2' FROM THE OUTSIDE EDGE OF THE MANHOLE IN ALL DIRECTIONS.
- DESIGN CRITERIA**
- HS20 HIGHWAY LOADING, 32 KIPS ON REAR AXLE (16 KIPS/WHEEL), WHEEL SPACING 6', 30% IMPACT ONE WHEEL CENTERED ON MANHOLE, OTHER WHEEL ADJACENT TO MANHOLE.

DETAIL NO. 5 : FOUR SIDED MANHOLE (RWCD-19)



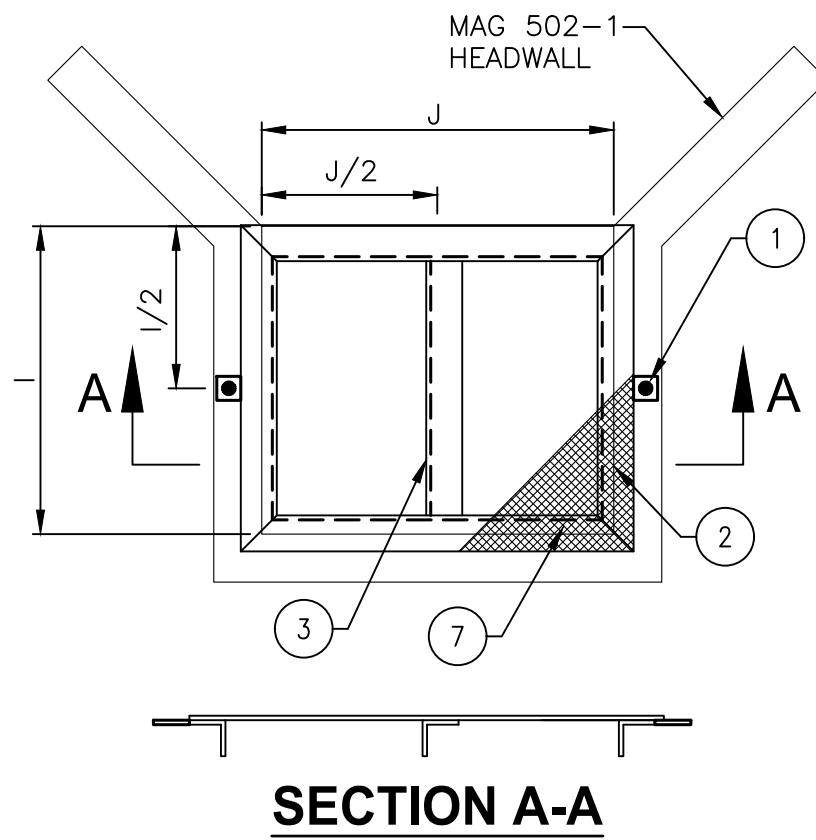
- MINIMUM REQUIREMENTS**
- | WALL DIMENSION | | | REINFORCING STEEL |
|----------------|----------|-----|----------------------------|
| PIPE DIAMETER | A, B & C | F | |
| 30" OR LESS | 48" | 24" | #4 @ 12" E.W. IF H ≤ 8' OR |
| 36" | 56" | 28" | |
| 42" | 62" | 31" | |
| 48" | 68" | 34" | #5 @ 12" E.W. IF H > 8' |
| 54" OR 60" | 80" | 40" | |
| 66" OR 72" | 92" | 46" | |
| 78" OR 84" | 106" | 53" | |
- NOTES:**
- STRUCTURAL CONCRETE SHALL BE 3000 PSI @ 28 DAYS.
 - REINFORCING STEEL SHALL COMPLY WITH MAG SPEC 727.
 - SEE PLAN AND PROFILE DRAWING FOR CORRECT ORIENTATION OF MANHOLE.
 - USE 30" MANHOLE FRAME AND LID PER DEETER 1296B BOLTED AND GASKETED OR APPROVED EQUAL. LID SHALL HAVE RAISED LETTERING 2" IN HEIGHT STATING "RWCD IRRIGATION". FOR PRESSURE MANHOLES, SEE NOTE 9.
 - EXACT ELEVATION OF ROADWAY SURFACE OR SIDEWALK TO BE SET BY LICENSEE'S ENGINEER.
 - FIELD CUT REBAR AT MANHOLE.
 - CONCRETE SHALL BE PLACED WITH NO COLD JOINTS. ALL CONCRETE SHALL BE VIBRATED DURING PLACEMENT.
 - DIMENSIONS A, B, AND C SHALL NOT EXCEED 106" AND DIMENSION H SHALL NOT EXCEED 180"
 - FOR PRESSURE MANHOLES, MAXIMUM HEAD SHALL NOT EXCEED 30" ABOVE RIM ELEVATION. COVER SHALL HAVE 2" LETTERING "RWCD IRR PMH".
 - A SURVEY HUB SHALL BE SET AT ALL MANHOLES PRIOR TO RWCD INSPECTION.
 - MANHOLE BACKFILL SPECIFICATIONS SHALL BE PER ADJACENT TRENCH BACKFILL SPECIFICATIONS EXCEPT TO PROVIDE JETTED AB OR 1/2 SACK SLURRY UP TO THE SPRINGLINE OF PIPE OR AS DIRECTED BY RWCD INSPECTOR.
 - FOR TEMPORARY GRADING PROVIDE 4:1 SLOPES FROM RIM ELEVATION TO EXISTING GRADE BEGINNING 2' FROM THE OUTSIDE EDGE OF THE MANHOLE IN ALL DIRECTIONS.
- DESIGN CRITERIA**
- HS20 HIGHWAY LOADING, 32 KIPS ON REAR AXLE (16 KIPS/WHEEL), WHEEL SPACING 6', 30% IMPACT ONE WHEEL CENTERED ON MANHOLE, OTHER WHEEL ADJACENT TO MANHOLE.

DETAIL NO. 6 : FIVE SIDED MANHOLE (RWCD-20)



- NOTES:**
- RWCD ACCESS ROAD SHALL BE CONSTRUCTED OF AGGREGATE BASE COURSE (ABC) MATERIAL PER MAG SPEC SECTION 702, COMPACTED TO 95% (MIN) OF MAXIMUM DENSITY PER AASHTO T-99.
 - SUBGRADE PREPARATION SHALL BE PERFORMED IN ACCORDANCE WITH MAG SPEC SECTION 301. ALL SUBGRADE AREAS UNDER RWCD ACCESS ROADS SHALL BE COMPACTED TO 95% (MIN) OF MAXIMUM DENSITY PER AASHTO T-99.
 - ALL RWCD ABC ACCESS ROAD AREAS SHALL BE TREATED WITH A PRE-EMERGENT HERBICIDE, SURFLAN OR BARRICADE, IN LIQUID FORM, OR APPROVED EQUAL. HERBICIDE SHALL BE APPLIED TO PREPARED SUBGRADE PRIOR TO ABC PLACEMENT.
 - WHERE ADJACENT TO LANDSCAPE AREAS, 2 INCHES OF DECOMPOSED GRANITE MAY BE PLACED ON TOP OF THE RWCD ACCESS ROAD ABC TO MATCH THE SURROUNDING LANDSCAPING. THE ABC THICKNESS SHALL NOT BE REDUCED. THE FINISHED GRADE OF THE ACCESS ROAD (TOP OF DECOMPOSED GRANITE) SHALL ADHERE TO THE GRADES PROVIDED ON THE PLAN.
 - THE REQUIREMENTS AND SPECIFICATIONS IDENTIFIED IN THIS DETAIL SHALL BE ADHERED TO FOR RWCD ACCESS ROAD CONSTRUCTION AND FOR ABC ACCESS AREA DIMENSIONS SHALL BE AS SPECIFIED ON THE PLANS.

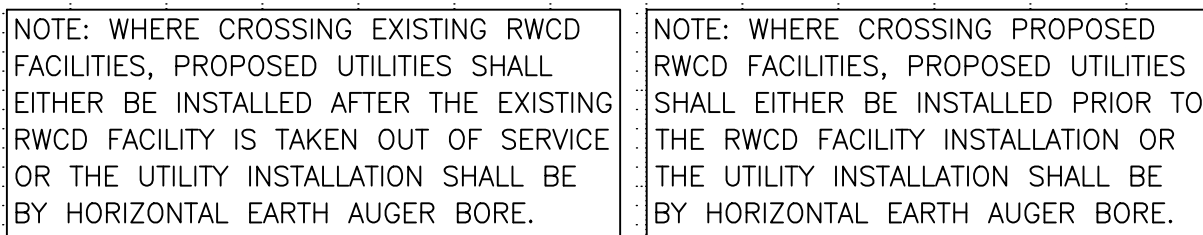
DETAIL NO. 7 : RWCD ACCESS ROAD (RWCD-42)



- 3"x3"x3/8" CARBON STEEL PLATE WITH 11/16" HOLE WELDED TO THE ANGLE
 - 3"x3"x3/8" ANGLE
 - 4"x4"x3/8" ANGLE
 - 3 LB/FT STEEL EXPANDED METAL GRATING
- NOTES:**
- DIMENSION I AND J VARY. SEE PLAN FOR DIMENSIONS.
 - FIELD VERIFY HEADWALL DIMENSIONS PRIOR TO FABRICATING GRATE COVER.
 - ALL WELDING MUST BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF AWS AND AISC CODES.
 - ALL ANGLES, HASPS AND HINGES MUST BE CONNECTED WITH 3/8" FULL STRENGTH WELDING ALONG ENTIRE LENGTH OF THE CONNECTION.
 - EXPANDED METAL GRATING MUST BE WELDED TO THE ANGLE FRAME WITH TACK WELD AT MAXIMUM DISTANCE OF 6" O.C.
 - ALL METAL SURFACES AND WELDED CONNECTIONS MUST BE PAINTED WITH A SHOP PRIME COAT. THE SECOND AND FINISH COATS MUST BE DONE IN ACCORDANCE WITH THE MAG SPECIFICATIONS, SECTIONS 530 AND 790. FINISH COAT MUST BE No.10 ALUMINUM.

DETAIL NO. 8 : HEADWALL GRATE COVER (RWCD-35)

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At least two full working days
before you begin excavation.

ARIZONA 811
Arizona Utility Service, Inc.


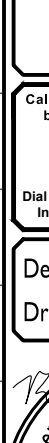
8-1-1 or 1-800-STAKE-IT (782-5348)
Maricopa County: (602)263-1100

EXPIRES 3/31/2019

ID06

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of 34

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rwilliams

 <div style="display: inline-block; vertical-align: middle; text-align: left;"> <p>EPS GROUP</p> </div>		<p>3045 S. Vineyard Ave, Suite 101 Mesa, AZ 85210</p> <p>T: 480.503.2250 F: 480.503.2258 WWW.EPSGROUPINC.COM</p>
<p>RWCD Lateral II Gateway Pointe Gilbert, Arizona</p>		
<p>Plan & Profile</p>		
Project:		
Revisions:		
<p>Call at least two full working days before you begin excavation.</p> <p>ARIZONA 811 Call for the Right to Know</p> <p>Dig 8-1-1 or 1-800-874-6811 (TDD) 1-800-874-6811 in Maricopa County: (602) 252-1100</p>		
Designer:	JR	
Drawn by:	RW	
		
<p>EXPIRES 3/31/2019</p>		
<p>Job No.</p>		
<p>17-007.49</p>		
<p>ID07</p>		
<p>Sheet No.</p>		
<p>33</p>		
<p>of 34</p>		

17-007.49 - RWCD Lateral II - Gateway Pointe

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