

TOWN OF PARADISE VALLEY ARIZONA

MAYOR
MICHAEL COLLINS

VICE MAYOR
JERRY BIEN-WILLNER

TOWN COUNCIL

PAUL DEMBOW
SCOTT MOORE
JULIE PACE
DAVID SHERF
MARK STANTON

TOWN MANAGER
KEVIN BURKE



MARCH 2018 E MCDONALD DRIVE BOX CULVERT EXTENSION PROJECT NO. 2018-10

APPROVED _____ DATE _____
MARICOPA COUNTY ENVIRONMENTAL SERVICES DEPT.

APPROVED _____ DATE _____
PAUL MOOD
TOWN ENGINEER

100%
NOT FOR
CONSTRUCTION
OR RECORDING

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AS-BUILT CERTIFICATION

I HEREBY CERTIFY THAT THE "AS-BUILT" LOCATIONS SHOWN HEREON WERE PERFORMED UNDER MY SUPERVISION, AND ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED CIVIL ENGINEER/LAND SURVEYOR _____ DATE _____

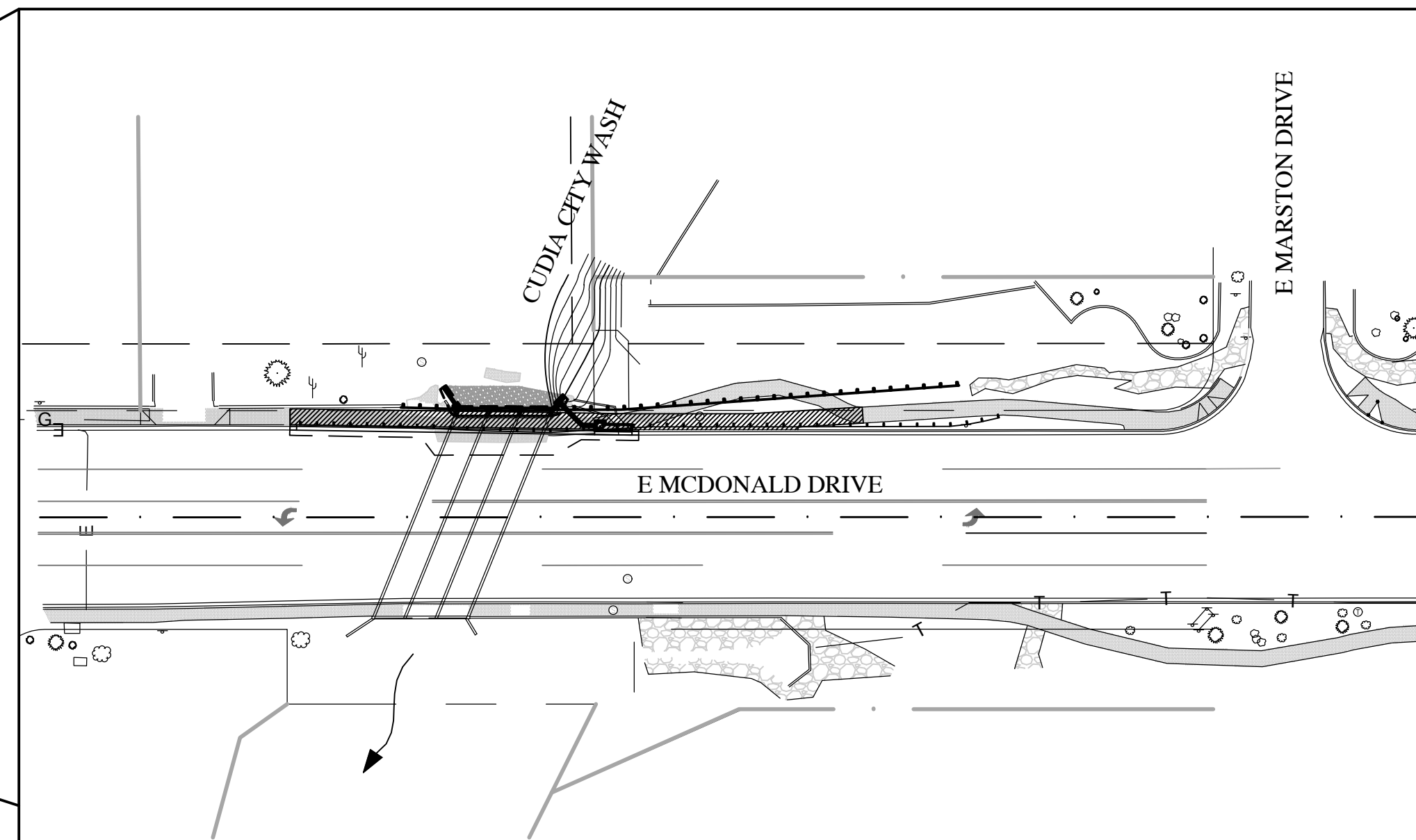
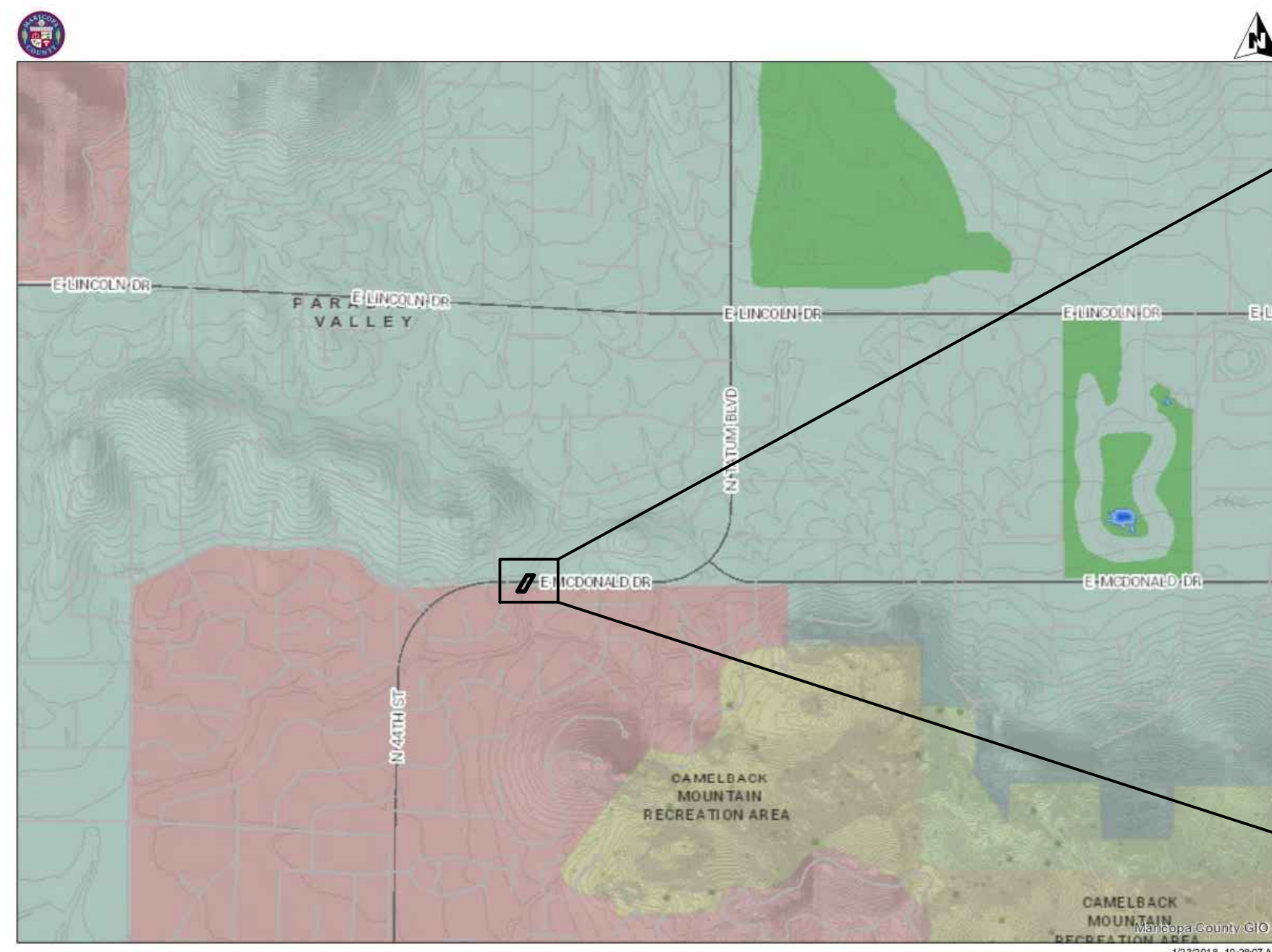
REGISTRATION NUMBER _____

SHEET INDEX

- 1 COVER SHEET
- 2 GENERAL NOTES, LEGEND & ABBREVIATIONS
- 3 PAVING PLAN & PROFILE
- 4 BOX CULVERT EXTENSION PLAN & DETAILS

BENCHMARK

MARICOPA COUNTY ENGINEERING DEPARTMENT BRASS CAP IN HANDHOLE 600 FEET EAST OF THE INTERSECTION OF MCDONALD DRIVE AND 47TH STREET.
ELEV. = 1337.90' (NAVD 88)



PROJECT LOCATION

NO CONFLICT SIGNATURE BLOCK				
Utility	Utility Company	Name of Company Representative	Telephone Number	Date Signed
Electric	APS	John Rael		
Telephone	Century Link	Debbie Ramsey	(602) 630-0492	
Natural Gas	Southwest Gas	Norma Jardin		
Cable TV	Cox Communications	Juris Drigants	(602) 694-1974	
Water	City of Phoenix	Jami Erickson		
Sewer	City of Scottsdale	Doug Mann	(480) 312-5636	

Engineer's Certification
I _____ as the Engineer of Record for this development, hereby certify that all utility companies listed above have been provided final improvement plans for review, and that all conflicts identified by the utilities have been resolved. In addition, "No Conflict" forms have been obtained from each utility company and are included in this submittal.
Signature _____ Date _____



DATE:	REVISION:	BY:
DATE:	REVISION:	BY:

ENGINEER'S NOTES

- 1. MARICOPA ASSOCIATION OF GOVERNMENTS (M.A.G.) UNIFORM STANDARD SPECIFICATIONS AND DETAILS FOR PUBLIC WORKS CONSTRUCTION (LATEST EDITION INCLUDING LATEST REVISION AND CURRENT SUPPLEMENTS THEREOF PER THE LOCAL TOWN OR CITY) ARE INCORPORATED INTO THIS PLAN IN THEIR ENTIRETY.
2. ALL WORK REQUIRED TO COMPLETE THE CONSTRUCTION COVERED BY THIS PLAN SHALL BE IN ACCORDANCE WITH THE M.A.G. STANDARD SPECIFICATIONS AND DETAILS AND CURRENT SUPPLEMENTS THEREOF PER THE LOCAL CITY OR TOWN UNLESS SPECIFIED OTHERWISE IN THESE PLANS OR ELSEWHERE IN THE CONTRACT DOCUMENTS.
3. THE CONTRACTOR IS RESPONSIBLE FOR ALL METHODS, SEQUENCING, AND SAFETY CONCERNS ASSOCIATED WITH THIS PROJECT DURING CONSTRUCTION, UNLESS SPECIFICALLY ADDRESSED OTHERWISE IN THIS PLAN OR ELSEWHERE IN THE CONTRACT.
4. THE CONTRACTOR IS TO COMPLY WITH ALL LOCAL, STATE, AND FEDERAL LAWS AND REGULATIONS APPLICABLE TO THE CONSTRUCTION COVERED BY THIS PLAN.
5. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND COMPLYING WITH ALL PERMITS REQUIRED TO COMPLETE ALL WORK COVERED BY THIS PLAN.
6. THE QUANTITIES AND SITE CONDITIONS DEPICTED IN THESE PLANS ARE FOR INFORMATIONAL PURPOSES ONLY AND ARE SUBJECT TO ERROR AND OMISSION. CONTRACTORS SHALL SATISFY THEMSELVES AS TO ACTUAL QUANTITIES AND SITE CONDITIONS PRIOR TO BIDDING THE WORK FOR THE CONSTRUCTION COVERED BY THIS PLAN.
7. A REASONABLE EFFORT HAS BEEN MADE TO SHOW THE LOCATIONS OF EXISTING UNDERGROUND FACILITIES AND UTILITIES IN THE CONSTRUCTION AREA. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO UTILITIES AND/OR FACILITIES CAUSED DURING THEIR CONSTRUCTION OPERATIONS.
8. THE CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION OF CONSTRUCTION AFFECTING UTILITIES AND THE COORDINATION OF ANY NECESSARY UTILITY RELOCATION WORK.
9. ALL PAVING, GRADING, EXCAVATION, TRENCHING, PIPE BEDDING, CUT FILL AND BACKFILL SHALL COMPLY WITH THE RECOMMENDATIONS SET FORTH IN THE SOILS (GEOTECHNICAL) REPORT FOR THIS PROJECT IN ADDITION TO THE REFERENCED REQUIRED SPECIFICATIONS AND DETAILS.
10. THE CONTRACTOR IS TO VERIFY THE LOCATION AND THE ELEVATIONS OF ALL EXISTING UTILITIES AT POINTS OF TIE-IN PRIOR TO COMMENCING ANY NEW CONSTRUCTION.
11. CONTRACTOR TO VERIFY AND COORDINATE ALL DIMENSIONS AND SITE LAYOUT WITH ARCHITECT'S FINAL SITE PLAN AND FINAL BUILDING DIMENSIONS BEFORE STARTING WORK.
12. COORDINATION BETWEEN ALL PARTIES IS ESSENTIAL PART OF CONTRACT.
13. CONTRACTOR IS RESPONSIBLE FOR PROJECT AND SITE CONDITIONS, AND TO WORK WITH WEATHER CONDITIONS AS THE PROJECT SITE MAY BE LOCATED IN A FLOOD PRONE AREA AND SUBJECT TO FLOODING AND ITS HAZARDS.
14. THE CONTRACTOR IS TO VERIFY THE LOCATION, ELEVATION, CONDITION, AND PAVEMENT CROSS-SLOPE OF ALL EXISTING SURFACES AT POINTS OF TIE-IN AND MATCHING.
15. CONTRACTOR IS RESPONSIBLE TO COORDINATE UTILITY CROSSINGS AT CULVERT CROSSINGS BEFORE STARTING WORK ON CULVERT.
16. CONSTRUCT RETENTION BASIN AS SHOWN. CONTRACTOR TO SCARIFY BOTTOM OF BASIN TWO FEET DEEP AND NOT ALLOW COMPACTION OVER 80%.
17. THIS PROJECT REQUIRES A REGULAR ONGOING MAINTENANCE PROGRAM FOR THE DESIGNED DRAINAGE SYSTEM(S) TO PRESERVE THE DESIGN INTEGRITY AND THE ABILITY TO PERFORM ITS OPERATIONAL INTENT.
18. SEWER LINES DESIGNED IN PROFILE AND PUBLIC WATER LINES ARE REQUIRED TO BE ASBUILT AND THE INSTALLATION AND TESTING WITNESSED BY A PROFESSIONAL ENGINEER IN ACCORDANCE WITH ARIZONA ADMINISTRATIVE CODES R18-9-E301 "4.01 GENERAL PERMIT: SEWAGE COLLECTIONS SYSTEMS" AND R18-5-507 AND 508 "APPROVAL OF CONSTRUCTION" AND "RECORD DRAWINGS", RESPECTIVELY.
19. THE WORK PRODUCT PRESENTED IS BELIEVED TO BE COMPLIANT WITH THE INTENT OF THE CURRENT AMERICANS DISABILITIES ACT (ADA) REQUIREMENTS AS INTERPRETED BY THE REVIEWING AGENCY(S).
20. LOWEST FLOOR (LF) REFERS TO EITHER FLOOR/SLAB ELEVATION OR TOP OF BASEMENT SLAB.

GENERAL CONSTRUCTION NOTES

- 1. ALL IMPROVEMENT CONSTRUCTION SHALL COMPLY WITH THE LATEST MARICOPA COUNTY ASSOCIATION OF GOVERNMENTS STANDARD SPECIFICATIONS AND DETAILS FOR PUBLIC WORKS CONSTRUCTION AND TOWN OF PARADISE VALLEY DESIGN STANDARDS.
2. THE ENGINEERING DESIGNS ON THESE PLANS ARE APPROVED BY THE TOWN IN SCOPE AND NOT IN DETAIL. IF CONSTRUCTION QUANTITIES ARE SHOWN ON THESE PLANS, THEY ARE NOT VERIFIED BY THE TOWN AND SHALL BE VERIFIED BY THE CONTRACTOR.
3. BASED ON THE INFORMATION SUBMITTED ON THE PLANS AND ASSOCIATED DOCUMENTS, THE TOWN HAS REVIEWED AND FOUND THEM TO BE IN ACCORDANCE WITH THE TOWN'S MUNICIPAL CODE AND ARE ACCEPTABLE FOR PERMIT ISSUANCE.
4. APPROVAL OF THE PLANS BY THE TOWN IS VALID FOR SIX MONTHS. IF A PERMIT FOR THE CONSTRUCTION HAS NOT BEEN ISSUED WITHIN SIX MONTHS OF REVIEW, THE PLANS SHALL BE RESUBMITTED TO THE TOWN FOR REAPPROVAL.
5. ANY DEVIATION FROM THE APPROVED PLANS SHALL BE REVIEWED AND APPROVED BY THE TOWN PRIOR TO THAT CHANGE BEING INCORPORATED INTO THE PROJECT.
6. A TOWN CAPITAL PROJECTS INSPECTOR WILL INSPECT ALL WORK WITHIN THE TOWN RIGHTS-OF-WAY, EASEMENTS AND FACILITIES.
7. ANY SPECIAL INSPECTION REQUIRED SHALL BE IN ADDITION TO ANY ROUTINE INSPECTION.
8. TOWN PERMITS ARE REQUIRED FOR WORK IN PUBLIC RIGHTS-OF-WAY, EASEMENTS GRANTED FOR PUBLIC PURPOSES AND FACILITIES.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FOR SALVAGING PROTECTED NATIVE PLANTS PRIOR TO THE START OF CONSTRUCTION.
10. WHEREVER EXCAVATION IS DONE CONTACT THE BLUE STAKE CENTER AT (602) 263-1100 TWO WORKING DAYS BEFORE EXCAVATION IS TO BEGIN.
11. ALL EXCAVATION AND GRADING WHICH IS NOT IN PUBLIC RIGHTS-OF-WAY OR IN EASEMENTS GRANTED FOR PUBLIC PURPOSES MUST CONFORM TO SECTION 1803 AND APPENDIX J OF THE 2009 EDITION OF THE INTERNATIONAL BUILDING CODE PREPARED BY THE INTERNATIONAL CODE COUNCIL.
12. THRUST RESTRAINT, WHERE REQUIRED, ON ALL CITY OF PHOENIX WATER LINES SHALL BE PROVIDED USING MEGALUG MECHANICAL JOINT RESTRAINTS OR CITY OF PHOENIX APPROVED EQUAL.
13. ANY ASPHALT MIX DESIGN USED ON TOWN PROJECTS SHALL APPEAR ON THE "APPROVED LIST OF ASPHALT MIXES" AS DISTRIBUTED BY THE EAST VALLEY ASPHALT COMMITTEE (EVAC).
14. ALL PAVING, GRADING, EXCAVATION, TRENCHING, PIPE BEDDING, CUT FILL AND BACKFILL SHALL COMPLY WITH THE RECOMMENDATIONS SET FORTH IN THE SOILS (GEOTECHNICAL) REPORT BY ALPHA GEOTECHNICAL & MATERIALS, INC., PROJECT #12-G-2689, DATED OCTOBER 11, 2012.
15. THE CONTRACTOR SHALL BE RESPONSIBLE TO REMOVE AND REPLACE, AT NO ADDITIONAL COST TO THE TOWN, ANY AND ALL PAVEMENT, SIDEWALK, CURB AND GUTTER, DRAINAGE STRUCTURES, ETC.
16. ALL CAPITAL IMPROVEMENT PROJECTS SHALL MEET THE PROCEDURES AND STANDARDS FOR THE USE OF TEMPORARY/SECURITY FENCING AROUND THE PERIMETER OF CONSTRUCTION SITES.
17. IF POOR SOIL CONDITIONS ARE IDENTIFIED DURING CONSTRUCTION ACTIVITIES CONTRACTOR SHALL REMOVE EXISTING SOIL AND PROVIDE COMPACTION AS IDENTIFIED IN THE GEOTECHNICAL REPORT.

ABBREVIATIONS

- A.B.C. AGGREGATE BASE COURSE
A.C. ASPHALT CONCRETE
A.D.A. AMERICANS WITH DISABILITIES ACT
A.L. AREA LIGHT
ARV AIR RELEASE VALVE
B.P. BARRIER POST
BB BOTTOM OF BANK
BC BACK OF CURB
BF BOTTOM OF FOOTING ELEVATION
BSL BUILDING SETBACK LINE
BW BOTTOM OF WALL ELEVATION
C CONCRETE ELEVATION
C.B. CATCH BASIN
C.J.B. CABLE TV JUNCTION BOX
C.O. CLEAN OUT
C.T.R. CABLE TV RISER
CF CUBIC FEET
CL CENTER LINE
CO CURB OPENING
D.W. DRYWELL
DE DRAINAGE EASEMENT
DG DECOMPOSED GRANITE
DIP DUCTILE IRON PIPE
E.M. ELECTRICAL METER
E.O. ELECRICAL OUTLET
E.S.V.A.E. EMERGENCY VEHICLE ACCESS EASEMENT
EE ELECTRICAL EASEMENT
EST ESTIMATED
FF FINISHED FLOOR
FG FINISHED GROUND
FH FIRE HYDRANT
FL FLOW LINE ELEVATION
FT. FOOT-FEET
GT/FT FOOT PER FOOT
G GUTTER ELEVATION
G.M. GAS METER
G.S. GAS SERVICE
G.T. GREASE TRAP
G.V. GAS VALVE
GB GRADE BREAK
HDPE HIGH DENMITY POLYETHYLENE
HWE HIGH WATER ELEVATION
I.V. IRRIGATION VALVE
I.V.B. IRRIGATION VALVE BOX
IN. INCH
INV INVERT ELEVATION
L.E. LANDSCAPE EASEMENT
LF LINEAR FEET
LFF LOWEST FINISHED FLOOR ELEVATION
M.U.E. MULTI-USE EASEMENT
MAG MARICOPA ASSOCIATION OF GOVERNMENTS
MAT MATERIAL
MAX MAXIMUM
MH MANHOLE
MIN MINIMUM
MJ MECHANICAL JOINT
ML MONUMENT LINE
N NORTH
NA NOT APPLICABLE
NG NATURAL GROUND ELEVATION
NIC NOT IN CONTRACT
NO. or # NUMBER
NPI NON-PAY ITEM
NTS NOT TO SCALE
O.C. ON CETER
P PAVEMENT ELEVATION
P.A.E. PRIVATE ACCESS EASEMENT
P.L. PARKING LIGHT
P.M. PARKING METER
P.P. POWER POLE
PAD FINISHED PAD ELEVATION
PCC PORTLAND CEMENT CONCRETE
PL PROPERTY LINE
PUE PUBLIC UTILITY EASEMENT

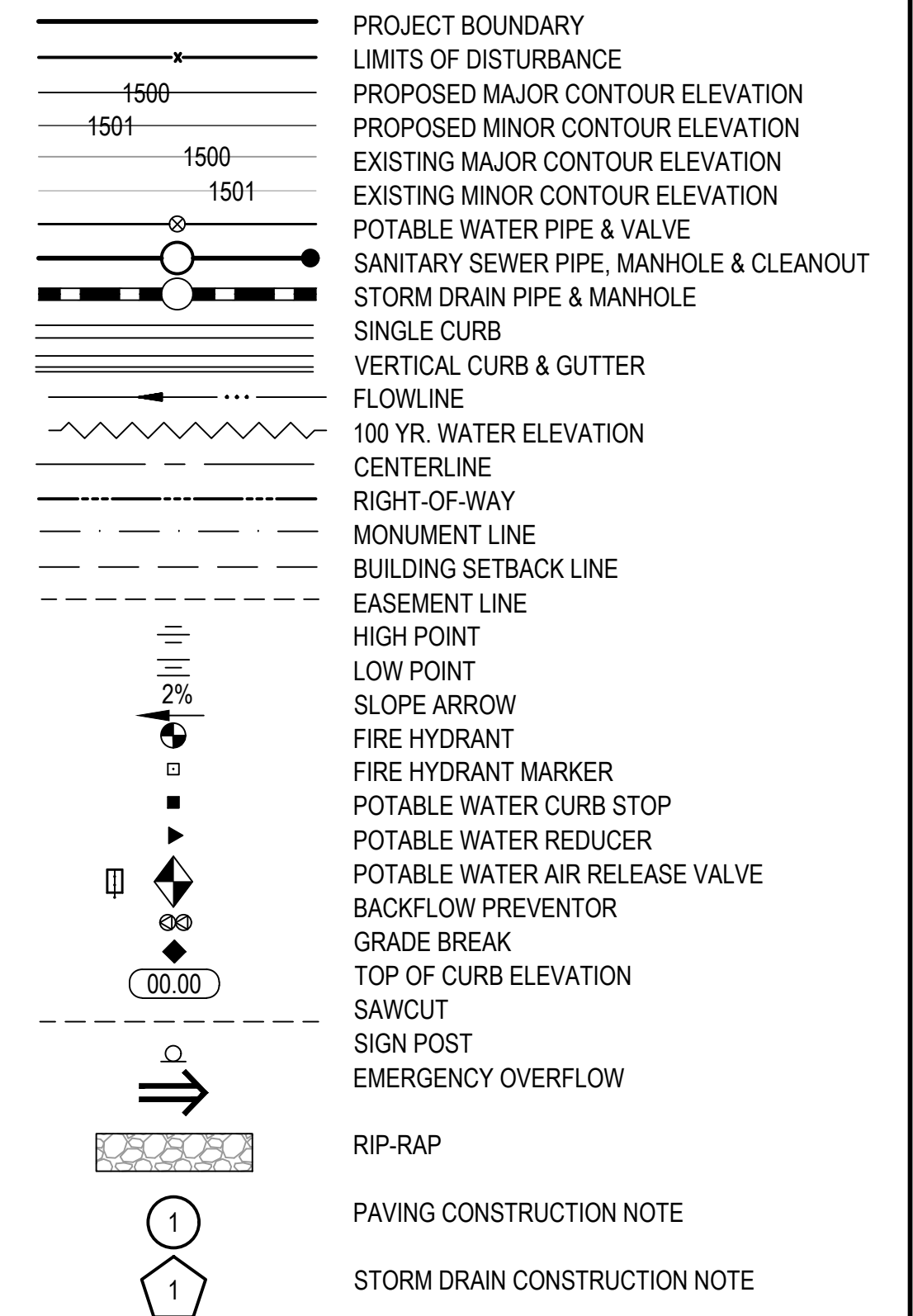
ABBREVIATIONS

- R.D. ROOF DRAIN
R/W RIGHT-OF-WAY
RGRCP RUBBER GASKET REINFORCED CONCRETE PIPE
RIM RIM ELEVATION
S SLOPE
S.D.E. STORM DRAIN EASEMENT
S.J.B. STREET LIGHT JUNCTION BOX
S.L. STREET LIGHT
S.L.E. SLOPE EASEMENT
S.L.M. STREET LIGHT MAST ARM
S.V.E. SIGHT VISIBILITY EASEMENT
S.V.T. SIGHT VISIBILITY TRIANGLE
S.W.E. SIDEWALK EASEMENT
SD STORM DRAIN
SDMH STORM DRAIN MANHOLE
SE SEWER EASEMENT
SMH SEWER MANHOLE
SS SEWER SERVICE
STA STATION
STD STANDARD
T.J.B. TELEPHONE JUNCTION BOX
TB TOP OF BANK
TC TOP OF CURB
TCE TEMPORARY CONSTRUCTION EASEMENT
TF TOP OF FOOTING ELEVATION
TRW TOP OF RETAINING WALL ELEVATION
TW TOP OF WALL ELEVATION
U.E. UTILITY EASEMENT
U.P. UTILITY POLE
UG UNDERGROUND
VCP VITRIFIED CLAY PIPE
VG VALLEY GUTTER
VP VOLUME PROVIDED
VR VOLUME REQUIRED
W&S.E. WATER & SEWER EASEMENT
W.B.O. WATER BLOW OFF
W.F. WATER FAUCET
W.S. WATER SERVICE
WE WATER EASEMENT
WO WALL OPENING
WSE WATER SURFACE ELEVATION

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LEGEND



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6401 E. LINCOLN DRIVE PARADISE VALLEY, ARIZONA 85253
SHEET TITLE NOTES, LEGEND & ABBREVIATIONS
PROJECT TITLE E MCDONALD DRIVE BOX CULVERT EXTENSION
SCALE DESIGNED DATE BID NO. SHT.
HORIZ. N/A CCC 03/2018
VERT. N/A DMS AS-BUILT PROJECT NO. 2018-10 2 OF 4

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REMOVAL / RELOCATION NOTES

No.	DESCRIPTION	QUANTITY
①	REMOVE EX PAVEMENT	66 SY
②	REMOVE CEMENT CONCRETE CURB & GUTTER	10 LF
③	REMOVE CONCRETE SIDEWALK, SPILLWAY AND SLAB	1605 SF
④	REMOVE & SALVAGE EX HANDRAIL	48 LF
⑤	REMOVE STRUCTURAL CONCRETE (WINGWALL)	2 EA
⑥	REMOVE & SALVAGE EX GUARDRAIL (STA 85+69 TO STA 88+32)	263 LF
⑦	RELOCATE TELCO LINE (BY OTHERS)	- NPI

NEW CONSTRUCTION NOTES

No.	DESCRIPTION	QUANTITY
①	NEW PAVEMENT. MATCH EX STRUCTURAL SECTION. (MINIMUM 6"AC/12"ABC)	66 SY
②	6' WIDE CONCRETE SIDEWALK PER COP STD DET P1230, 4" THICK (WITH SAN DIEGO BUFF CONCRETE COLOR)	1320 SF
③	CONCRETE CURB & GUTTER PER MAG STD DET 220, TYPE 'A', H=6"	131 LF
④	3-10'X6' CONCRETE BOX CULVERT EXTENSION PER ADOT STD DWG SD-6.01 & SD-6.03. CONSTRUCT PARAPET WALL PER DET D2. SEE DETAIL, SHEET 4.	3 LF
⑤	CONCRETE INLET WINGWALL PER ADOT STD DWG SD 6.08. USE 20° SKEW AND 2:1 SIDE SLOPE. SEE DETAILS SHEET 4	2 EA
⑥	GUARDRAIL PER ADOT STD DET C-10.02	173 LF
⑦	RIPRAP D ₅₀ =8", DEPTH 2' (USE FRACTURED ROCK EXPRESS BROWN)	23 CY
⑧	ADJUST EX MANHOLE FRAME & COVER PER MAG STD DET 422	1 EA
⑨	GRADE CHANNEL ACCESS RAMP	1 LS
S	SAWCUT AND MATCH EX	- NPI
P	PROTECT IN PLACE	- NPI

CATCH BASIN AND CONNECTOR PIPE

No.	INLET STATION	INLET TYPE	CONNECTION TYPE	PIPE	
				SIZE	LF
①	86+82.00	P1569-1 M-1, L=10 DEPTH=4'	DET D1	18"	18



DATE:	REVISION	BY:
DATE:	REVISION	BY:
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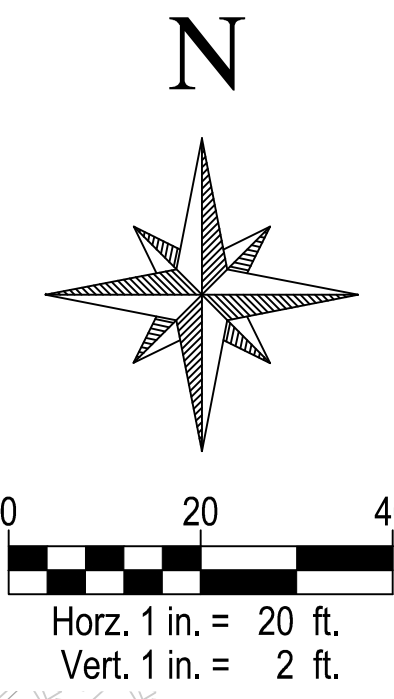
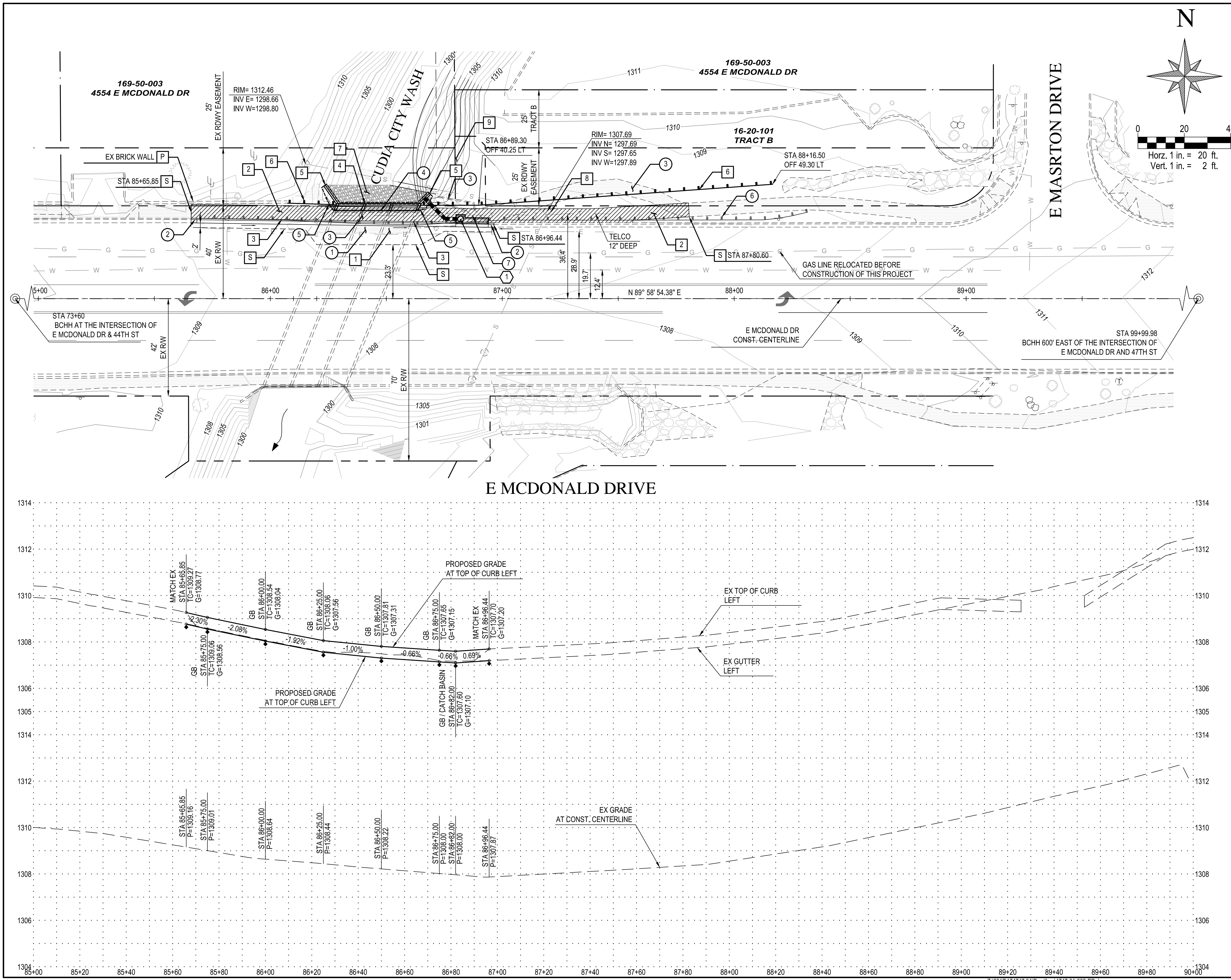
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SHEET TITLE
PAVING PLAN & PROFILE

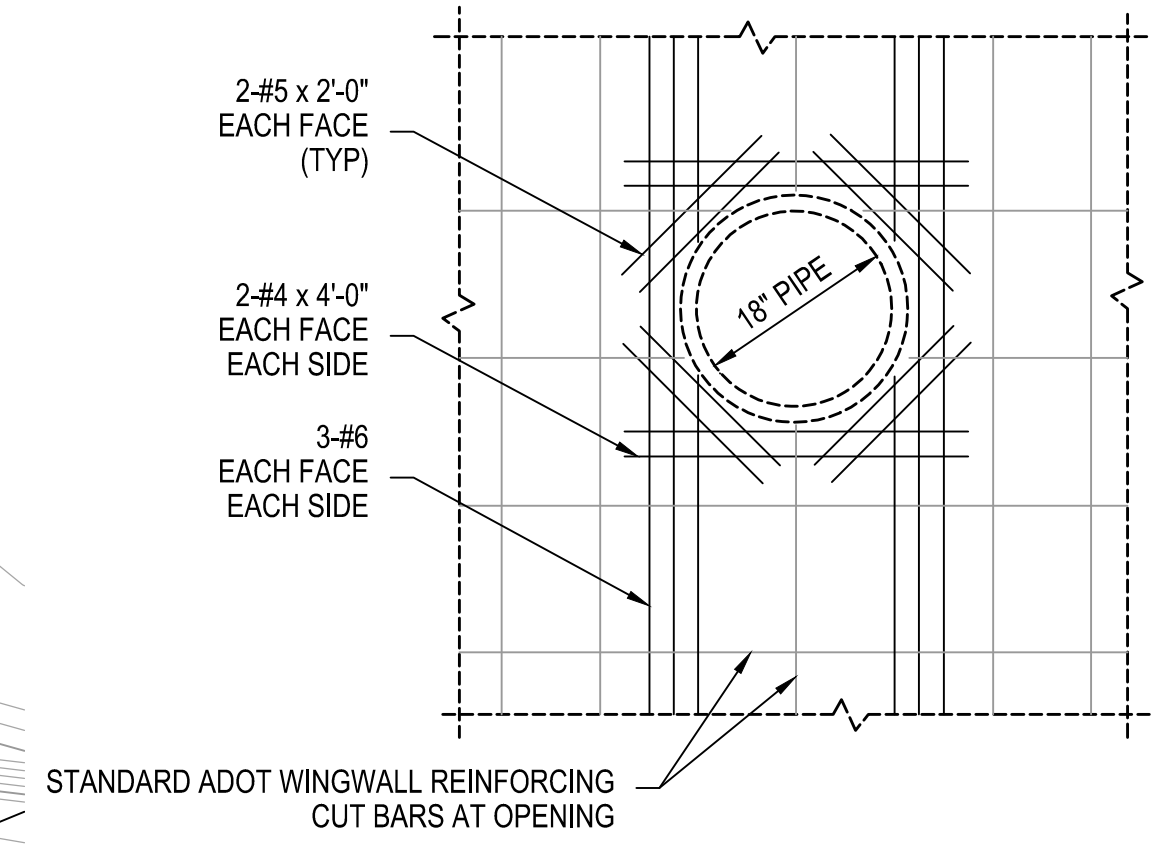
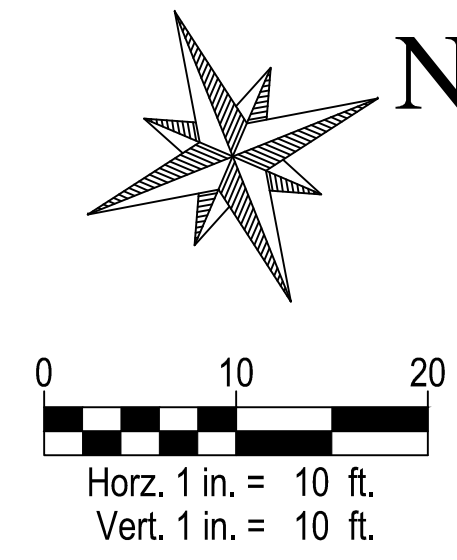
PROJECT TITLE
E MCDONALD DRIVE BOX CULVERT EXTENSION

SCALE	DESIGNED	DATE	BID NO.	SHT.
HORIZ. 1:20	CCC	03/2018		
VERT. 1:2	DMS	AS-BUILT	PROJECT NO. 2018-10	3 OF 4

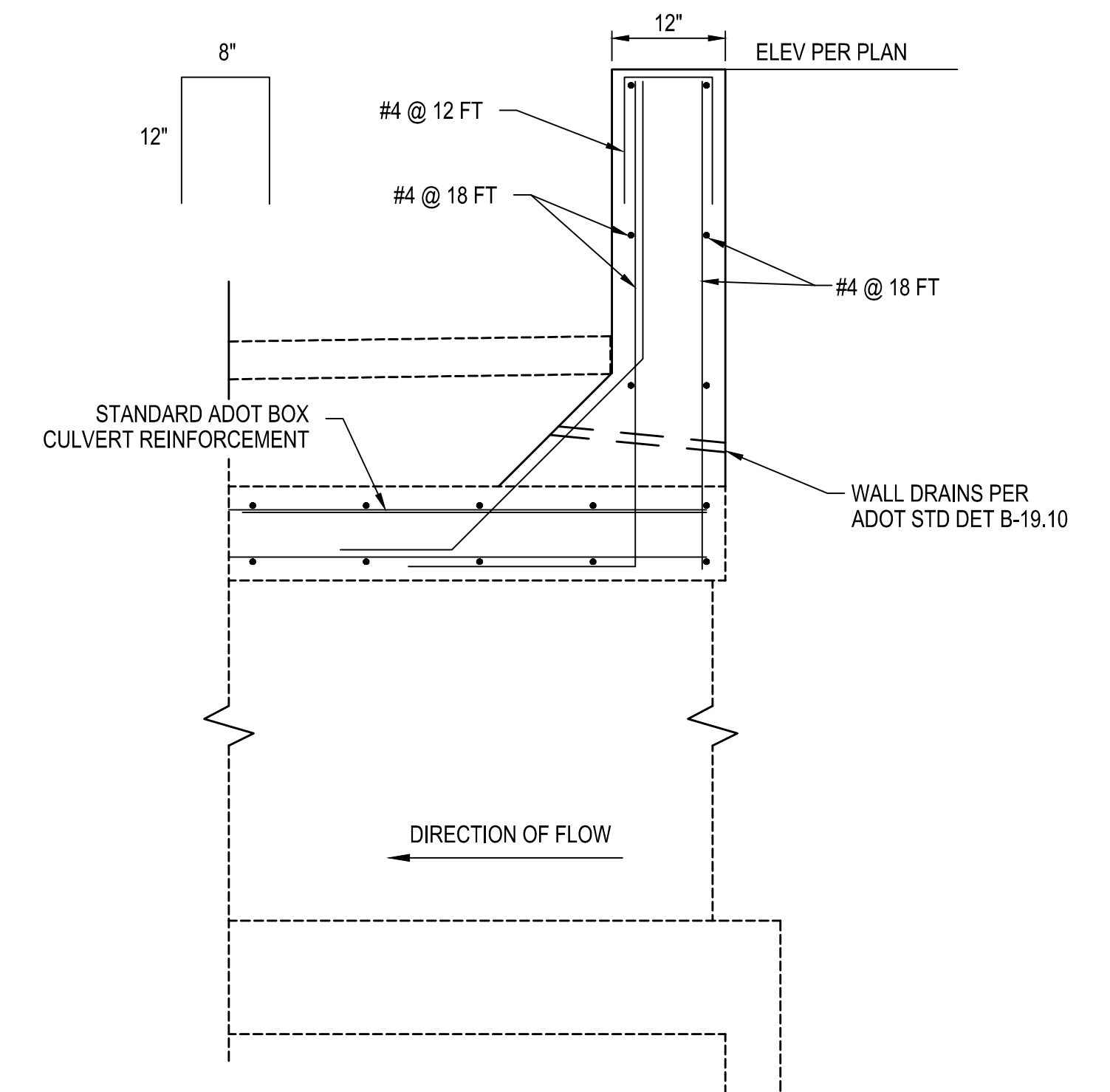
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100% SUBMITTAL
PROJECT No. 2018-10 E MCDONALD DRIVE BOX CULVERT EXTENSION



D1 PIPE PENETRATION
SCALE: NTS



D2 PARAPET WALL
SCALE: NTS



DATE:	REVISION	BY:
DATE:	REVISION	BY:
DATE:	REVISION	BY:

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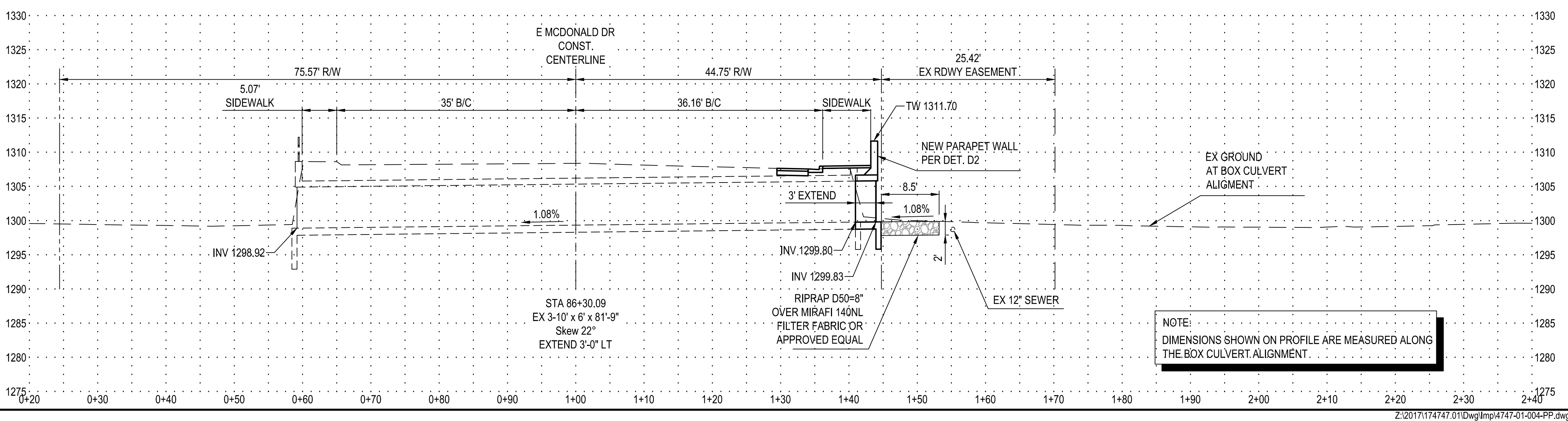
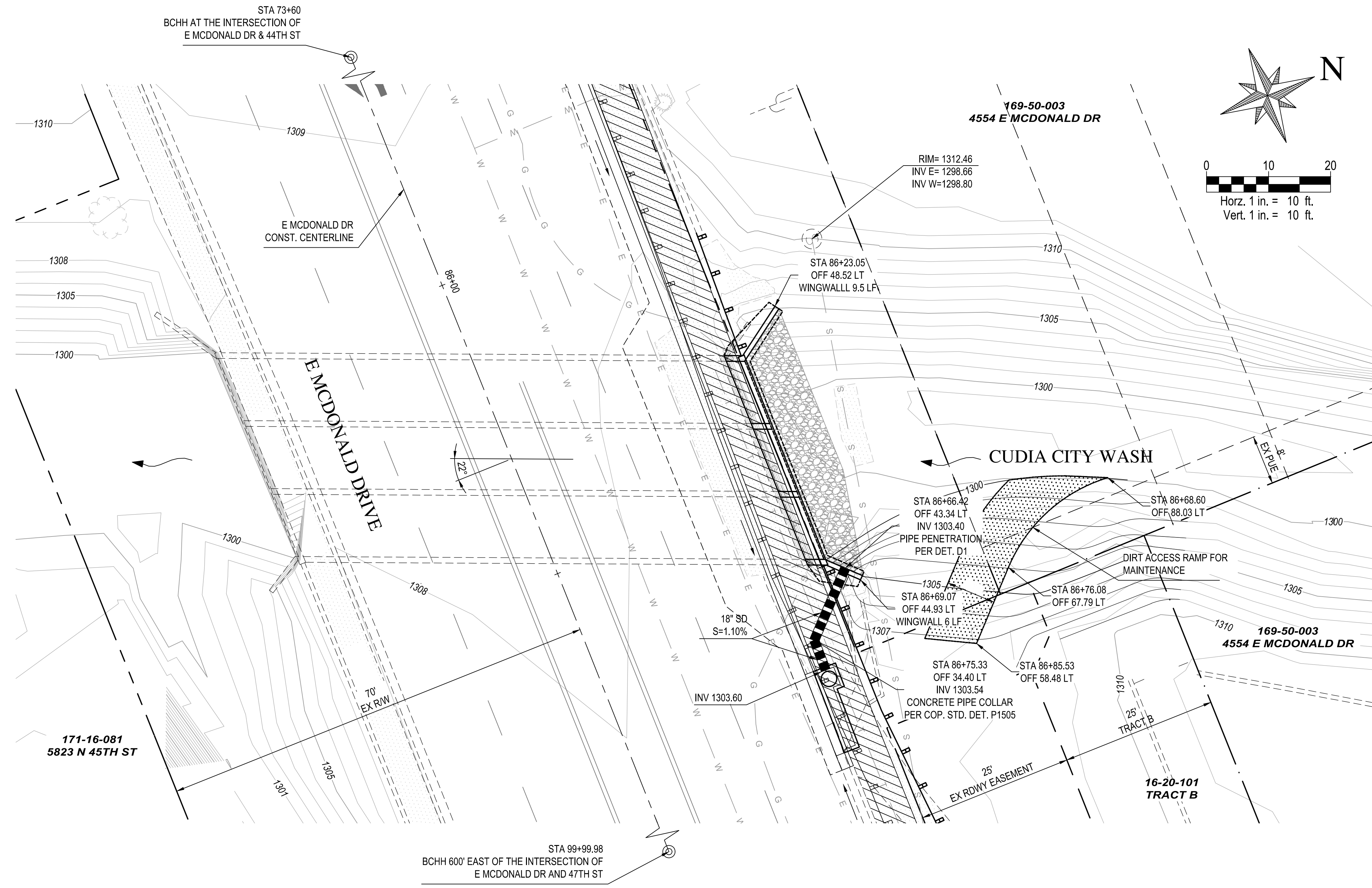
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SHEET TITLE
BOX CULVERT EXTENSION PLAN & DETAILS

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SCALE	DESIGNED	DATE	BID NO.	SHT.
HORIZ. 1" = 10'	CCC	03/2018		
VERT. 1" = 10'	DMS	AS-BUILT	PROJECT NO. 2018-10	4 OF 4

(CHECKED BY: DEW DESIGNED BY: CCC DRAFTED BY: DMS)



NOTE:
DIMENSIONS SHOWN ON PROFILE ARE MEASURED ALONG THE BOX CULVERT ALIGNMENT.

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PROJECT No. 2018-10 E MCDONALD DRIVE BOX CULVERT EXTENSION