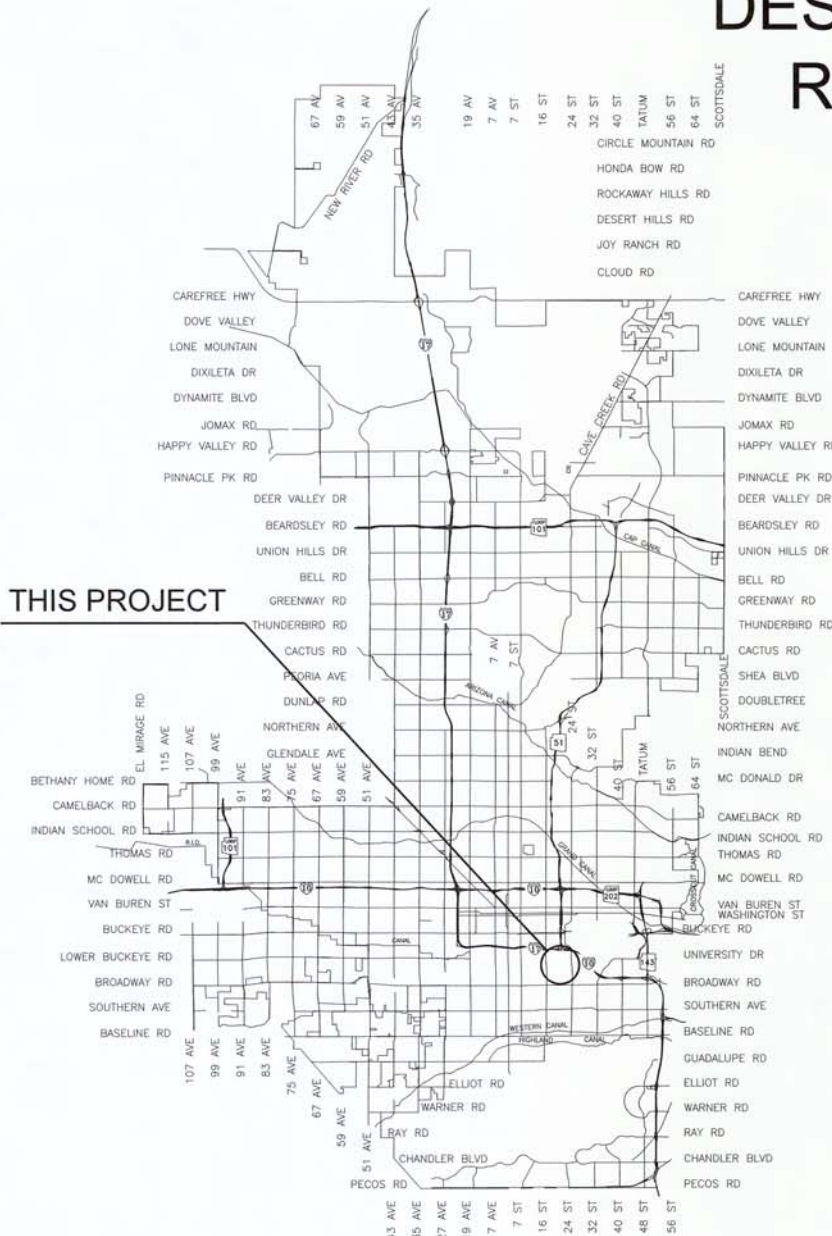


CITY OF PHOENIX
STREET TRANSPORTATION DEPARTMENT
DESIGN & CONSTRUCTION MANAGEMENT DIVISION
RIVERVIEW DRIVE 18TH PLACE TO 22ND STREET

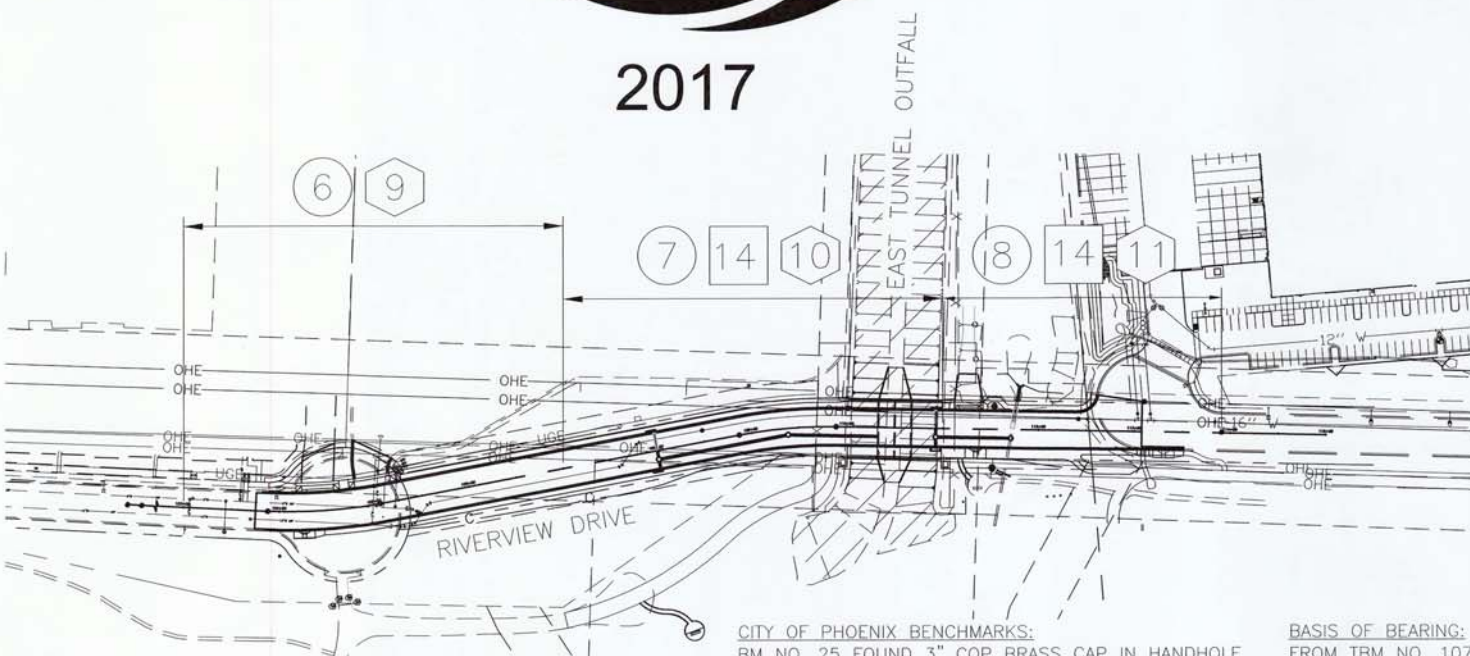
ST85110072



2017



VICINITY MAP
NTS



- PAVING PLAN/PROFILE SHEETS
- STORM DRAIN PLAN/PROFILE SHEET
- WATERLINE PLAN/PROFILE SHEETS

LENGTH OF PROJECT = 977 LF = 0.19 MILES
AREA OF DISTURBANCE = 2.0 ACRES

KEY MAP
NTS

PROJECT NO.	ST85110072	SHEET NO.	1	TOTAL SHEETS	68
DATE	08/17	STANLEY CONSULTANTS INC. CONSULTING ENGINEER			
DESIGN: IAM	DRAWN: IAM	CHECKED: MAL			

MAYOR
GREG STANTON
CITY MANAGER
ED ZUERCHER
CITY COUNCIL

- | | |
|----------------|--------------------|
| DISTRICT NO 1. | THELDA WILLIAMS |
| DISTRICT NO 2. | JIM WARING |
| DISTRICT NO 3. | DEBRA STARK |
| DISTRICT NO 4. | LAURA PASTOR |
| DISTRICT NO 5. | DANIEL VALENZUELA |
| DISTRICT NO 6. | SAL DICICCIO |
| DISTRICT NO 7. | MICHAEL NOWAKOWSKI |
| DISTRICT NO 8. | KATE GALLEG0 |

INDEX OF SHEETS

- | | |
|-------|--------------------------------|
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| 2 | LEGEND AND NOTES |
| 3-4 | BID ITEM SUMMARY |
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| 6-8 | PAVING PLANS |
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| 14 | STORM DRAIN PLAN |
| 15 | CONNECTOR PIPE PROFILES |
| 16 | ALTERNATE PIPE CHART |
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| 32-51 | LANDSCAPE PLANS |
| 52-54 | SPECIAL MANHOLE DETAILS |
| 55-60 | ADOT CHANNEL AS-BUILT DRAWINGS |
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CITY OF PHOENIX BENCHMARKS:
BM NO. 25 FOUND 3" COP BRASS CAP IN HANDHOLE
20TH ST AND BROADWAY RD
N=875,697.241' E=662,945.999' (NAD 83)
ELEV=1094.437' (NGVD 29)

BM NO. 34 FOUND 3" COP BRASS CAP IN HANDHOLE
16TH ST AND ELWOOD ST
N=878,322.735' E=660,320.344' (NAD 83)
ELEV=1086.519' (NGVD 29)

TBM NO. 107 FOUND 3" COP BRASS CAP FLUSH
WEST OF 18TH PL AND Q OF RIVERVIEW DR,
N=879,838.413' E=661,577.269' (NAD 83)
ELEV=1086.70' (NGVD 29)

TBM NO. 108 FOUND 3" COP BRASS CAP FLUSH
18TH PL AND Q OF RIVERVIEW DR,
N=879,837.634' E=661,592.190' (NAD 83)
ELEV=1086.72' (NGVD 29)

BASIS OF BEARING:
FROM TBM NO. 107 TO TBM NO. 108 IS A DISTANCE OF 14.94'
AND A BEARING OF SOUTH 87°00'37" EAST.

"PER CITY OF PHOENIX CITY CODE CHAPTER 2, SECTION 2-28, THESE PLANS ARE FOR OFFICIAL USE ONLY AND MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF CONTRACTOR'S CONTRACT WITH THE CITY OF PHOENIX."

AS-BUILT CERTIFICATION

I HERBY CERTIFY THAT THE "RECORD DRAWING" MEASUREMENTS AS SHOWN HEREON WERE MADE UNDER MY SUPERVISION OR AS NOTED AND ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED ENGINEER

DATE

REGISTRATION NUMBER

APPROVED ASSISTANT STREET TRANSPORTATION DIRECTOR
APPROVED DEPUTY STREET TRANSPORTATION DIRECTOR
APPROVED WATER SERVICES DEPARTMENT
APPROVED MARICOPA COUNTY ENVIRONMENTAL SERVICES DEPARTMENT

8/25/2017
DATE
8-22-17
DATE
8/16/17
DATE
8/16/17
DATE

ST85110072 FINAL SUBMITTAL

08/15/17 - 8:13AM

T:\01-Sheets\ST85110072CS.dwg

REVISION BY CITY OF PHOENIX				
DESCRIPTION				REV BY CKD BY DATE
NO.				
REVISION BY CITY OF PHOENIX				
DESCRIPTION				REV BY CKD BY DATE
NO.				
REVISION BY CITY OF PHOENIX				
DESCRIPTION				REV BY CKD BY DATE
NO.				

RIVERVIEW DRIVE
PHOENIX STREET – MARICOPA CO.
18TH PLACE – 22ND STREET

LEGEND

- BENCHMARK
- NEW SURVEY MONUMENT – M.A.G. DETAIL 120–1 TYPE "B"
- NEW SURVEY MONUMENT – M.A.G. DETAIL 120–1 TYPE "A"
- COMBINED CURB & GUTTER – M.A.G. DETAIL 220 TYPE "A"
- BACKFILL TYPE & SQ. YD. PVMT. REPLACEMENT – C.O.P. DETAIL P1200
- EXISTING CONCRETE PAVEMENT OR SIDEWALK
- NEW CONCRETE SIDEWALK – STD. DETAIL P1230
- NEW CONCRETE DRIVEWAY OR ALLEY ENT. PER DETAIL NO. ON PLANS
- NEW CONCRETE SIDEWALK RAMP PER DETAIL ON PLANS
- AVERAGE GROUND ELEVATION AT R/W LINE
- BACKFILL COMPACTION TYPE
- EXISTING DITCH
- EXISTING IRRIGATION LINE W/SIZE (NOTE PRIVATE, SALT RIVER OR R.I.D.)
- EXISTING IRRIGATION STRUCTURE
- EXISTING IRRIGATION STANDPIPE
- NEW IRRIGATION STANDPIPE – M.A.G. DETAIL 503
- NEW IRRIGATION VALVE – M.A.G. DETAIL 506 W/ CONC. SCOURING BASIN
- IRRIGATION BERM
- NEW IRRIGATION STRUCTURE PER DETAIL ON PLANS
- EXISTING WATER LINE W/SIZE & TYPE (12" AND SMALLER)
- EXISTING WATER LINE W/SIZE & TYPE (GREATER THAN 12")
- ADJUST EXIST. WATER VALVE BOX – C.O.P. DETAIL P1391
- WATER SERVICE W/SIZE AND WATER METER BOX
- EXISTING FIRE HYDRANT
- NEW OR RELOCATED FIRE HYDRANT BY CONTRACTOR
- EXISTING WATER VALVE W/TOP OF OPERATING NUT ELEVATION
- EXISTING SANITARY SEWER LINE W/SIZE & TYPE (12" AND SMALLER)
- EXISTING SANITARY SEWER LINE W/SIZE & TYPE (GREATER THAN 12")
- EXISTING MANHOLE
- NEW MANHOLE
- CATCH BASIN, GUTTER INLET (LENGTH TO SCALE)
- CATCH BASIN, CURB INLET (LENGTH TO SCALE)
- CATCH BASIN, CURB & GUTTER INLET (LENGTH TO SCALE)
- EXISTING STORM DRAIN LINE W/SIZE & TYPE (GREATER THAN 12")
- NEW PIPE FOR STORM DRAIN OR IRRIGATION LINE
- EXISTING GAS LINE W/SIZE
- EXISTING UNDERGROUND ELECTRIC CABLE OR SINGLE CONDUIT
- EXISTING UNDERGROUND ELECTRIC DUCT (SPECIFY NUMBER)
- EXISTING TELEPHONE BURIED CABLE OR SINGLE CONDUIT
- EXISTING UNDERGROUND TELEPHONE DUCT (SPECIFY NUMBER)
- EXISTING UNDERGROUND CABLE TV
- EXISTING UNDERGROUND FIBER OPTIC LINE
- EXISTING TRAFFIC SIGNAL POLE W/MAST ARM & SIGNAL INDICATIONS
- EXISTING STREET OR TRAFFIC SIGN
- EXISTING UTILITY POLE W/LINE INDICATING WIRE DIRECTION
- EXISTING WIRE FENCE
- EXISTING BLOCK FENCE
- EXISTING WOOD FENCE
- MAIL BOX
- EXISTING POWER POLE DOWN GUY ANCHOR
- EXISTING STREET LIGHT & POLE
- PROPOSED STREET LIGHT
- EXISTING TREE OR STUMP TO BE REMOVED – MORE THAN 12" DIA.
- EXISTING TREE TO BE TRANSPLANTED BY CONTRACTOR
- EASEMENT LINE
- EXISTING OR NEW R/W LINE
- PAVEMENT CENTER LINE OR MONUMENT LINE
- EXISTING TREE OR STUMP TO BE REMOVED 12" DIA. OR LESS (NON PAY ITEM)
- EXISTING TREE TO REMAIN
- EDGE OF CUT SLOPE
- EDGE OF FILL SLOPE
- NEW CHAIN LINK FENCE

NOTES

ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH CONTRACT SPECIAL PROVISIONS AND DETAILS, CITY OF PHOENIX SUPPLEMENTS TO MAG STANDARD SPECIFICATIONS AND DETAILS, AND MAG STANDARD SPECIFICATIONS AND DETAILS, IN THAT ORDER OF PRECEDENCE, AT THE TIME OF CONSTRUCTION BID.

ALL STORM SEWER MANHOLES ARE TO BE CONSTRUCTED WITHOUT STEPS.

PIPE CONNECTIONS TO EXISTING CONCRETE PIPE MAINS SHALL BE MADE IN ACCORDANCE WITH DETAILS CALLED OUT ON THE PLANS. CONNECTION TO MAINS SHALL NOT BE CLOSER THAN 5', CENTER TO CENTER.

PIPE CONNECTIONS TO NEW PRECAST CONCRETE PIPE MAINS, SHALL BE MADE WITH FACTORY MADE WYES OR TEES. THE DETAIL OF THE FITTINGS MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO MANUFACTURE. PIPE CONNECTIONS TO NEW CAST IN PLACE CONCRETE PIPE MAINS SHALL BE MADE PER C.O.P. DETAIL P1576.

CATCH BASIN CONNECTOR PIPES SHALL BE LAID ON A STRAIGHT ALIGNMENT AND SLOPE UNLESS OTHERWISE SPECIFIED. IF BREAKS IN ALIGNMENT OR SLOPE ARE NECESSARY TO MEET FIELD CONDITIONS. THE MAXIMUM DEFLECTION SHALL BE 22–1/2 . THE BEND SHALL BE COLLARED ACCORDING TO C.O.P. DETAIL P1505. ANY ANGLE BENDS GREATER THAN 22–1/2 SHALL BE PREFABRICATED.

CONNECTOR PIPES SHALL CONNECT TO CATCH BASIN WALLS AT AN ANGLE NOT TO EXCEED 22–1/2 FROM PERPENDICULAR.

FACILITIES WHICH ARE NOT SPECIFICALLY LOCATED WITH ACTUAL VERTICAL AND HORIZONTAL CONTROLS, ARE LOCATED ONLY APPROXIMATELY AND TO THE BEST AVAILABLE INFORMATION PROVIDED BY VARIOUS OWNERS OF THE FACILITIES, AND SUPPLEMENTED BY VISUAL SURFACE INFORMATION WHERE APPROPRIATE. ACCURACY, LOCATION AND COMPLETENESS OF THIS INFORMATION SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO INITIATION OF CONSTRUCTION.

AT LEAST TWO WORKING DAYS BEFORE CONSTRUCTION, THE CONTRACTOR SHALL CONTACT BLUESTAKE TO FIND AND FLAG UNDERGROUND UTILITIES. THE CONTRACTOR SHALL CONTACT OTHER APPROPRIATE UTILITIES DIRECTLY IF THEY ARE NOT ON BLUESTAKE SYSTEM.

VERTICAL CONTROL IS BASED ON NATIONAL GEODETIC SURVEY

UNLESS OTHERWISE NOTED, STATIONS SHOWN ON PIPE PROFILES ARE ALONG CENTERLINE OF PIPE.

UNLESS OTHERWISE NOTED, PIPE SHALL BE BEDDED IN ACCORDANCE WITH CITY OF PHOENIX DETAIL P1200.

CATCH BASINS ARE STATIONED PERPENDICULAR TO THE CENTERLINE OF THE STREET AT THE CENTERLINE OF THE MAINTENANCE BASIN.

SANITARY SEWER MAINS AND TAPS CROSSING OVER STORM DRAIN MAINS SHALL BE SUPPORTED PER M.A.G. DETAIL 403–1, 403–2, OR 403–3.

ALL EXISTING PRECAST CONCRETE SAFETY CURBS AND ALL EXISTING WOODEN PARKING CURBS, WHICH ARE INSIDE THE RIGHT OF WAY AND APPROXIMATELY PARALLEL TO THE NEW CURB LINE, SHALL BE RESET ON THE RIGHT OF WAY DIRECTLY OPPOSITE THEIR EXISTING LOCATION, WITH THE BACK EDGE ON THE RIGHT OF WAY LINE. ALL OTHER PRECAST CONCRETE SAFETY CURBS INSIDE THE STREET RIGHT OF WAY SHALL BE SALVAGED AND STOCK PILED FOR THE OWNER AT THE RIGHT OF WAY LINE.

EXISTING PRECAST CONCRETE SAFETY CURBS OUTSIDE THE RIGHT OF WAY, WHICH ARE DISTURBED BY NEW CONSTRUCTION SHALL BE RESET IN THEIR ORIGINAL POSITION BY THE CONTRACTOR.

ALL EXISTING DRIVEWAYS AND ALL EXISTING ALLEYS SHALL BE GRADED TO MATCH THE NEW WORK IN ACCORDANCE WITH STD. DETAIL P1164, UNLESS OTHERWISE SPECIFIED. EXISTING SURFACING SHALL BE REMOVED AND REPLACED AS NECESSARY.

UNLESS OTHERWISE PROVIDED ON THE PLANS:

–THE SPACE BETWEEN THE BACK OF NEW DRIVEWAY ENTRANCES AND EXISTING A.C. DRIVEWAYS SHALL BE FILLED WITH A MINIMUM OF 3" A.C.S.C. ON 100% COMPACTED NATIVE SOIL. WHERE EXISTING PAVEMENT AND BASE THICKNESS EXCEED THE MINIMUMS, MATCH THE EXISTING.

–THE SPACE BETWEEN THE BACK OF NEW SIDEWALKS AND EXISTING PRIVATE SIDEWALKS, AND THE SPACE BETWEEN THE BACK OF NEW DRIVEWAY ENTRANCES AND EXISTING P.C.C. DRIVEWAYS SHALL BE FILLED WITH P.C.C.. THE THICKNESS AND CLASS SHALL MATCH THAT OF THE NEW SIDEWALK OR DRIVEWAY ENTRANCE.

–THE SPACE BETWEEN THE BACK OF THE NEW SIDEWALKS, AND EXISTING A.C. PARKING LOTS, WHICH FALL WITHIN OR ABUT THE R/W SHALL BE FILLED WITH 2" A.C.S.C. ON 100% COMPACTED NATIVE SOIL.

EXISTING IRRIGATION BERMS DISTURBED BY NEW CONSTRUCTION SHALL BE RECONSTRUCTED AS SHOWN ON PLANS.

CATCH BASIN ACCESS FRAME AND COVERS SHALL BE CONSTRUCTED PER C.O.P. DETAIL P1561.

STRUCTURAL NOTES

"CLEAR" DIMENSIONS FOR DEPTH OF REINFORCING STEEL ARE FROM FACE OF CONCRETE TO FACE OF BARS.

ALL EXPOSED EDGES OF CONCRETE SHALL BE BEVELED OR ROUNDED.

ALL EXPOSED CONCRETE SURFACES SHALL BE FINISHED IN ACCORDANCE WITH ARIZONA DEPT. OF TRANSPORTATION STANDARD SPECIFICATION 601–3.05 – FINISHING CONCRETE, UNLESS OTHERWISE SPECIFIED.

WATER NOTES

STREET TRANSPORTATION CIVIL/SITE INSPECTION STAFF SHALL BE NOTIFIED 48 HOURS BEFORE ANY CONSTRUCTION BEGINS.

ALL WATER VALVE BOXES SHALL BE PER CITY OF PHOENIX SUPPLEMENT TO M.A.G. SPECIFICATIONS AND DETAILS P1391, TYPE A ONLY.

ALL CONSTRUCTION IN CITY OF PHOENIX RIGHT–OF–WAY, OR EASEMENT, IS TO CONFORM TO M.A.G. SPECIFICATIONS AND DETAILS AND CITY OF PHOENIX SUPPLEMENT TO M.A.G. SPECIFICATIONS AND DETAILS, UNLESS MODIFIED ON THE PLANS.

ALL DUCTILE IRON PIPE WATER MAIN VALVES, FITTINGS, AND BENDS SHALL BE RESTRAINED. RESTRAINED JOINT REQUIREMENTS AND APPROVED RESTRAINING SYSTEM ARE SHOWN IN CITY OF PHOENIX SUPPLEMENT TO M.A.G. SPECIFICATIONS, SECTION 750.3. THE LENGTH OF THE RESTRAINTS MUST BE PER M.A.G. STANDARD DETAIL 303–1 AND 303–2. THRUST BLOCKS ARE NOT ALLOWED TO BE USED IN LIEU OF APPROVED RESTRAINED JOINT SYSTEMS. THRUST BLOCKS CAN BE USED IN ADDITION TO THE APPROVED RESTRAINED JOINT SYSTEMS WHERE A SPECIFIC CITY OF PHOENIX SUPPLEMENT TO M.A.G. STANDARD DETAIL CALLS OUT FOR THRUST BLOCKING, SUCH AS CURRENT DETAILS, P1343, P1351, AND P1360 OR WHEN OTHERWISE APPROVED BY THE WATER SERVICES DEPARTMENT.

- THE FOLLOWING M.A.G. DETAILS ARE SPECIFICALLY NOT APPROVED:
- 302–1 JOINT RESTRAINT WITH TIE RODS
 - 302–2 JOINT RESTRAINT WITH TIE RODS – ANCHOR BLOCKS
 - 321 STANDARD WATER METER VAULT
 - 345–1 3", 4", AND 6" WATER METER
 - 345–2 4" AND 6" WATER METER WITH ON–SITE FIRE HYDRANTS
 - 370 VERTICAL REALIGNMENT OF WATER MAINS
 - 381 ANCHOR BLOCKS FOR VERTICAL BENDS
 - 390 CURB STOP WITH FLUSHING PIPE
 - 391–1 VALVE BOX INSTALLATION

COMPACTION SHALL COMPLY WITH M.A.G. SECTION 601 & CITY OF PHOENIX SUPPLEMENTS.

NEW WATER LINES ARE TO BE BUILT IN ACCORDANCE WITH THE CITY OF PHOENIX "STANDARD UTILITY LOCATIONS".

THIS SET OF PLANS HAS BEEN INITIALLY REVIEWED BY THE CITY OF PHOENIX. SUCH REVIEW IS PART OF THE PROCESS THAT DEVELOPER(S)/CONTRACTOR(S) MUST GO THROUGH IN ORDER TO OBTAIN A CONSTRUCTION PERMIT. THE RESULTS OF SUCH INITIAL REVIEW SHALL NOT DICTATE THE CITY OF PHOENIX'S FINAL DETERMINATION AS TO THE ACCEPTABILITY OF THE PLANS, NOR SHALL IT PREVENT THE CITY OF PHOENIX FROM REQUIRING ERRORS AND OMISSIONS, AS FOUND ON PLANS, BE ADDRESSED BY DEVELOPER(S) /CONTRACTOR(S), WHERE SUCH ERRORS AND OMISSIONS CAUSE THE PLANS TO BE IN VIOLATION OF OR INADEQUATE UNDER APPLICABLE FEDERAL/STATE/COUNTY/LOCAL CODES, ORDINANCES, REGULATIONS, OR OTHER LAWS. THIS REVIEWED AND STAMPED SET OF PLANS MUST BE KEPT AT THE CONSTRUCTION SITE AT ALL TIMES.

PIPE DEFLECTION SHALL BE PER MANUFACTURERS' RECOMMENDATIONS.

ALL WORK MUST COMPLY WITH REQUIREMENTS OF THE CURRENT CITY OF PHOENIX "TRAFFIC BARRICADE MANUAL".

THE CONTRACTOR IS TO NOTIFY THE PUBLIC THAT WILL BE AFFECTED BY ANY SHUTDOWNS A MINIMUM OF 48 HOURS IN ADVANCE.

A SIX (6) FOOT MINIMUM HORIZONTAL SEPARATION FROM ANY UNDERGROUND UTILITY SHALL BE PROVIDED FOR SEWER MAINS, SEWER SERVICES, WATER MAINS, AND WATER SERVICES. THE MINIMUM HORIZONTAL SEPARATION IS MEASURED FROM OUTSIDE OF SEWER MAIN, SEWER SERVICE, WATER MAIN, OR WATER SERVICE TO OUTSIDE OF UNDERGROUND UTILITY.

A ONE (1) FOOT MINIMUM VERTICAL SEPARATION FROM ANY DRY UNDERGROUND UTILITY CROSSING SHALL BE PROVIDED FOR SEWER MAINS, SEWER SERVICES, WATER MAINS, AND WATER SERVICES. THE MINIMUM VERTICAL SEPARATION IS MEASURED FROM OUTSIDE OF SEWER MAIN, SEWER SERVICE, WATER MAIN, OR WATER SERVICE TO OUTSIDE OF DRY UNDERGROUND UTILITY.

A TWO (2) FOOT MINIMUM VERTICAL SEPARATION SHALL BE PROVIDED BETWEEN ANY SEWER MAIN AND STORM DRAIN CROSSING A WATER MAIN. THE MINIMUM VERTICAL SEPARATION IS MEASURED FROM OUTSIDE OF WATER MAIN TO OUTSIDE OF SEWER MAIN OR STORM DRAIN MAIN. SEE M.A.G. STANDARD DETAIL 404 FOR ADDITIONAL INFORMATION AND/OR PROVISIONS FOR CLEARANCE.

EXCEPTIONS OR DEVIATIONS FROM THE ABOVE MINIMUM CLEARANCES MUST BE APPROVED AND SHOWN ON THE APPROVED WATER AND SEWER PLANS. WHEN UTILITY CONFLICTS ARE FOUND DURING CONSTRUCTION, ALL CHANGES AND REVISIONS MUST BE PRECEDED BY AN APPROVED PLAN REVISION.

ANY AND ALL MORE STRINGENT REQUIREMENTS REQUIRED BY FEDERAL, STATE, COUNTY, OR LOCAL CODES OR ORDINANCES TAKE PRECEDENCE.



F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	ST85110072	2	65	
11/17 DATE			STANLEY CONSULTANTS INC. CONSULTING ENGINEER		
DESIGN: IAM		DRAWN: IAM		CHECKED: MAL	

WATER NOTES (CONTINUED)

WATER SERVICES SHALL BE INSTALLED PERPENDICULAR TO THE WATER MAIN. WATER SERVICES AT THE END OF CUL–DE–SACS MAY VARY AS NECESSARY, BUT WILL BE APPROVED ON A CASE BY CASE BASIS.

ALL SERVICES SHALL RUN IN A STRAIGHT LINE FROM THE WATER MAIN TO THE METER BOX.

NEITHER WATER SERVICE METER BOX NOR ANY PORTION OF A WATER SERVICE SHALL BE INSTALLED UNDER AN EXISTING OR PROPOSED DRIVEWAY OR SIDEWALK RAMP.

CONCRETE OR ASPHALT DAMAGED DURING THE COURSE OF CONSTRUCTION SHALL BE REMOVED AND REPLACED IN KIND PRIOR TO FINAL INSPECTION.

RECORD DRAWING SUBMITTALS MUST COMPLY PER THE WATER SERVICES DEPARTMENT ENGINEERING POLICY P–68. A COPY OF THE POLICY CAN BE OBTAINED IN THE DEPARTMENT'S WEBSITE:
[HTTPS://WWW.PHOENIX.GOV/WATERSERVICESSITE/DOCUMENTS/WSDEPOL68.PDF](https://www.phoenix.gov/waterserviceSSite/documents/WSDEPOL68.PDF)

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.

A PAVEMENT CUT SURCHARGE SHALL BE ASSESSED ON THIS PROJECT FOR ANY TRENCHING OR POTHOLING IN NEW ASPHALT PAVEMENT THAT IS LESS THAN 30 MONTHS OLD. SURCHARGE FEES ASSESSED ARE IN ADDITION TO THE REGULAR PERMIT FEES AND ARE OVER AND ABOVE ANY SPECIAL BACKFILL, COMPACTION, AND PAVEMENT REPLACEMENT STIPULATIONS THAT MAY BE IMPOSED AS A CONDITION OF PERMITTING. PAVEMENT CUT SURCHARGE FEES ARE ASSESSED IN ACCORDANCE WITH SECTION 31–38 OF THE PHOENIX CITY CODE.

PLAN APPROVAL IS VALID FOR 180 DAYS. PRIOR TO PLAN APPROVAL EXPIRATION, ALL ASSOCIATED PERMITS SHALL BE PURCHASED OR THE PLANS SHALL BE RESUBMITTED FOR EXTENSION OF PLAN APPROVAL. THE EXPIRATION, EXTENSION, 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.

THIS PLAN IS APPROVED SUBJECT TO COMPLETION OF LINES LABELED "EXISTING" WHICH HAVE BEEN PROPOSED AS PART OF ANOTHER DEVELOPMENT. THE DEVELOPED OF THIS PROJECT MAY BE REQUIRED TO CONSTRUCT THOSE LINES PER CITY REQUIREMENTS PRIOR TO RECEIVING SERVICE FOR THIS PROJECT,

ALL DUCTILE IRON PIPE WATER MAINS WILL BE POLYETHYLENE WRAPPED PER C.O.P. SUPPLEMENT TO M.A.G. SPECIFICATIONS SECTION 750.2 AND M.A.G. SPECIFICATIONS SECTION 610.6.2 AND 610.6.3

JOINT RESTRAINT LIMITS PER M.A.G. STANDARD DETAIL 303–1 AND 303–2 MUST BE SHOWN ON ALL WATER MAIN CONSTRUCTION PLANS WHICH REQUIRE A PROFILE IN ADDITION TO PLAN VIEW.

WHEN THE PROPOSED WATER MAIN COMES INTO CONFLICT WITH ANOTHER UTILITY AND A VERTICAL RE–ALIGNMENT IS NECESSARY, THE RE–ALIGNMENT MUST BE APPROVED ON THE PROPOSED WATER MAIN PLAN OR THE ENGINEER MUST SUBMIT A SEPARATE WATER – VERTICAL RE–ALIGNMENT PLAN (DETAIL DCE–D01) PER THE WATER – VERTICAL RE–ALIGNMENT CHECKLIST. THE WATER– VERTICAL REALIGNMENT DETAIL CAN BE LOCATED AT THE FOLLOWING WEBSITE:
[HTTP://WWW.PHONEIX.GOV/WATERSERVICES/DESIGN/ENGDETAILS/INDEX.HTML](http://www.PHONEIX.GOV/WATERSERVICES/DESIGN/ENGDETAILS/INDEX.HTML)



"PER CITY OF PHOENIX CITY CODE CHAPTER 2, SECTION 2–28, THESE PLANS ARE FOR OFFICIAL USE ONLY AND MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF CONTRACTOR'S CONTRACT WITH THE CITY OF PHOENIX."

1661 East Camelback Road
Suite 400
Phoenix, Arizona 85016
(602) 333–2200
www.stanleygroup.com

LEGEND AND NOTES

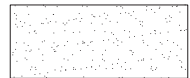
CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

RIVERVIEW DRIVE
18TH PL TO 22ND ST
ST85110072

DR: IAM	DES: IAM	CK: MAL	SHEET NO:	TOTAL SHEETS	AS BUILT
DATE: 11/17	DATE: 11/17	DATE: 11/17	2	65	
SCALE: NTS					

[illegible]

HATCHING LEGEND



EXISTING PAVEMENT OUTSIDE
ROADWAY PRISM - TO BE REMOVED



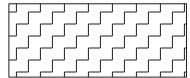
EXISTING PAVEMENT TO REMAIN



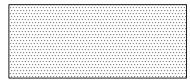
NEW PAVEMENT
2" D₂¹ / 4" A1₂¹



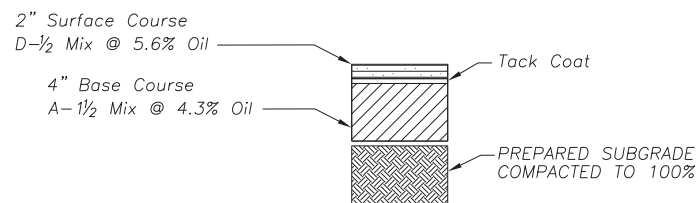
NEW 16' WIDE ASPHALT MAINTENANCE ROAD/TRAIL
SEE LANDSCAPE PLANS



NEW 10' WIDE TEMPORARY ASPHALT PATH.
SEE PAVING PLANS



NEW ASPHALT DRIVEWAY
CONNECTION 4" - C $\frac{3}{4}$



2" C- $\frac{3}{4}$ @ 5.5% Oil
2" C- $\frac{3}{4}$ @ 5.5% Oil

Tack Coat

PREPARED SUBGRADE
COMPACTED TO 100%

PAVEMENT STRUCTURAL SECTION @ DRIVEWAY CONNECTION



"PER CITY OF PHOENIX CITY CODE CHAPTER 2, SECTION 2-28, THESE PLANS ARE FOR OFFICIAL USE ONLY AND MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF CONTRACTOR'S CONTRACT WITH THE CITY OF PHOENIX."




Stanley Consultants INC. (602) 333-2200
www.stanleygroup.com

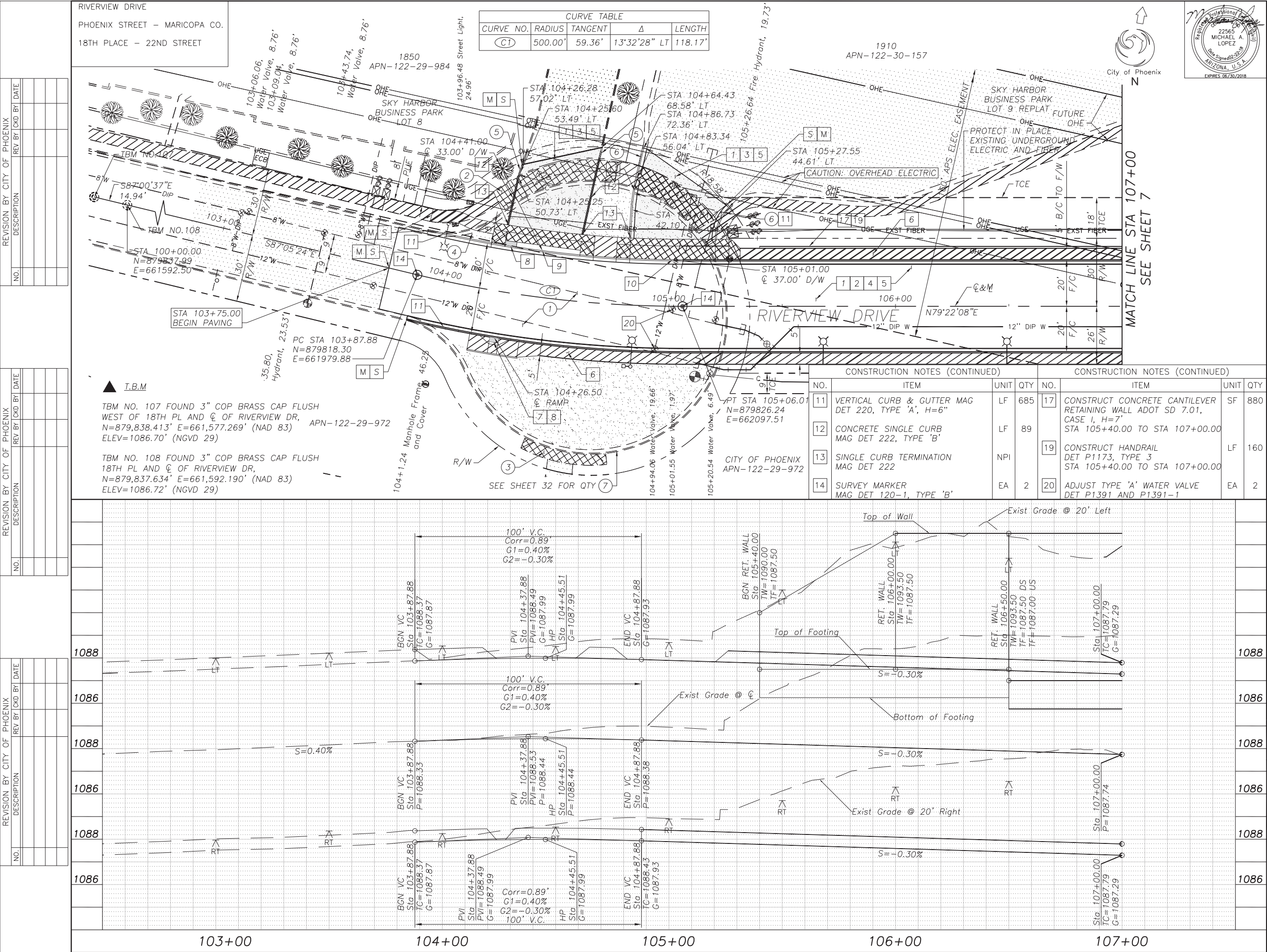
TYPICAL SECTIONS

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

RIVERVIEW DRIVE
18TH PL TO 22ND ST
ST85110072

DR: IAM	DES: IAM	CK: MAL	SHEET	TOTAL	AS
DATE: 11/17	DATE: 11/17	DATE: 11/17	NO:	SHEETS	BUILT
SCALE: NTS			5	65	

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	ST85110072	6	65	
02/18 DATE			STANLEY CONSULTANTS INC. CONSULTING ENGINEER		
DESIGN: IAM		DRAWN: IAM		CHECKED: MAL	
GENERAL CONSTRUCTION NOTES					
[S]	SAWCUT AND MATCH EXISTING				
[M]	MATCH EXISTING				
REMOVE EXISTING A.C. PAVEMENT					
NO.	STATION TO STATION			SIDE	SY
(1)	103+75.00 TO 105+24.00			LT/RT	1405
REMOVE CONC S/W, V.G., D/W SLAB					
NO.	STATION TO STATION			SIDE	SF
(2)	103+87.00 TO 105+30.00			LT	1230
(3)	104+42.00 TO 104+77.00			RT	187
REMOVE CONC CURB AND GUTTER					
NO.	STATION TO STATION			SIDE	LF
(4)	103+87.00 TO 105+25.00			LT	175
(5)	104+26.00 TO 104+65.00			LT	12
(6)	104+85.00 TO 105+26.00			LT	21
REMOVE AND SALVAGE CONC CURB AND GUTTER					
NO.	STATION TO STATION			SIDE	LF
(7)	103+87.00 TO 105+25.00			RT	-
CONSTRUCTION NOTES					
NO.	ITEM			UNIT	QTY
[1]	SUBGRADE PREPERATION			SY	1591
[2]	AC SURFACE COURSE TYPE D 1 1/2, 2" THICK			TON	146
[3]	AC SURFACE COURSE FOR DRIVEWAY CONNECTION TYPE C-3/4			TON	54
[4]	AC BASE COURSE TYPE A 1 1/2, 4" THICK			TON	292
[5]	TACK COAT, TYPE SS-1H			TON	0.53
[6]	CONCRETE SIDEWALK DET P1230			SF	2643
[7]	CURB RAMP (MID BLOCK) DET P1241-1			NPI	
[8]	TRUNCATED DOMES DET P1232			SF	18
[9]	CONCRETE DRIVEWAY ENTRANCE (9" THICK) DET P1244 MOD			SF	404
[10]	CONCRETE DRIVEWAY ENTRANCE (9" THICK) DET P1255-1			SF	482
SEE SHEET 9 FOR WATERLINE PLAN SEE SHEET 30 FOR STREET LIGHT PLAN SEE SHEET 32 FOR LANDSCAPE PLAN					
<div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>Call at least two full working days before you begin excavation.</p> <p>ARIZONA 811 Toll Free 800-4-A-ROOT</p> <p>Dial 8-1-1 or 1-800-STANLEY (782-5346) In Maricopa County: (602) 953-1100</p> </div>					
<p>"PER CITY OF PHOENIX CITY CODE CHAPTER 2, SECTION 2-28, THESE PLANS ARE FOR OFFICIAL USE ONLY AND MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF CONTRACTOR'S CONTRACT WITH THE CITY OF PHOENIX."</p>					
		<p>1661 East Camelback Road Suite 400 Phoenix, Arizona 85016 (602) 333-2200 www.stanleygroup.com</p>			
PAVING					
CITY OF PHOENIX, ARIZONA STREET TRANSPORTATION DEPARTMENT					
RIVERVIEW DRIVE 18TH PL TO 22ND ST ST85110072					
DR: IAM	DES: IAM	CK: MAL	SHEET NO:	TOTAL SHEETS	AS BUILT
DATE: 02/18	DATE: 02/18	DATE: 02/18	6	65	
SCALE: 1" = 20' HORIZONTAL 2" = 2' VERTICAL					



DESIGN: IAM	DRAWN: IAM	CHECKED: MAL
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S SAWCUT AND MATCH EXISTING

MISCELLANEOUS REMOVAL

CONSTRUCTION NOTES

SEE SHEET 10 FOR WATERLINE PLAN
SEE SHEET 14 FOR STORM DRAIN PLAN
SEE SHEET 18 FOR BOX CULVERT PLAN
SEE SHEET 30 FOR STREET LIGHT PLAN
SEE SHEET 33 FOR LANDSCAPE PLAN

"PER CITY OF PHOENIX CITY CODE CHAPTER 2, SECTION 2-28, THESE PLANS ARE FOR OFFICIAL USE ONLY AND MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF CONTRACTOR'S CONTRACT WITH THE CITY OF PHOENIX."

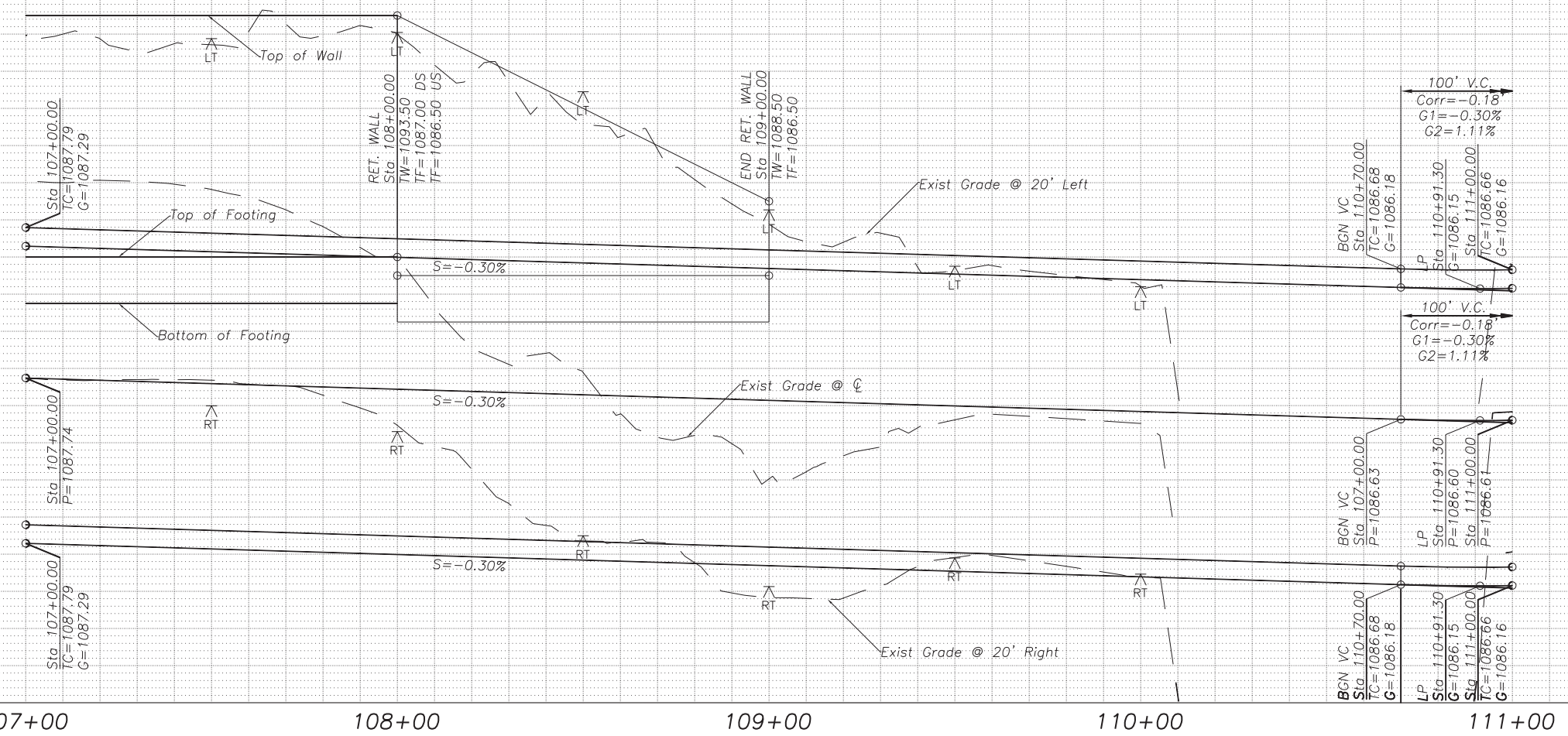
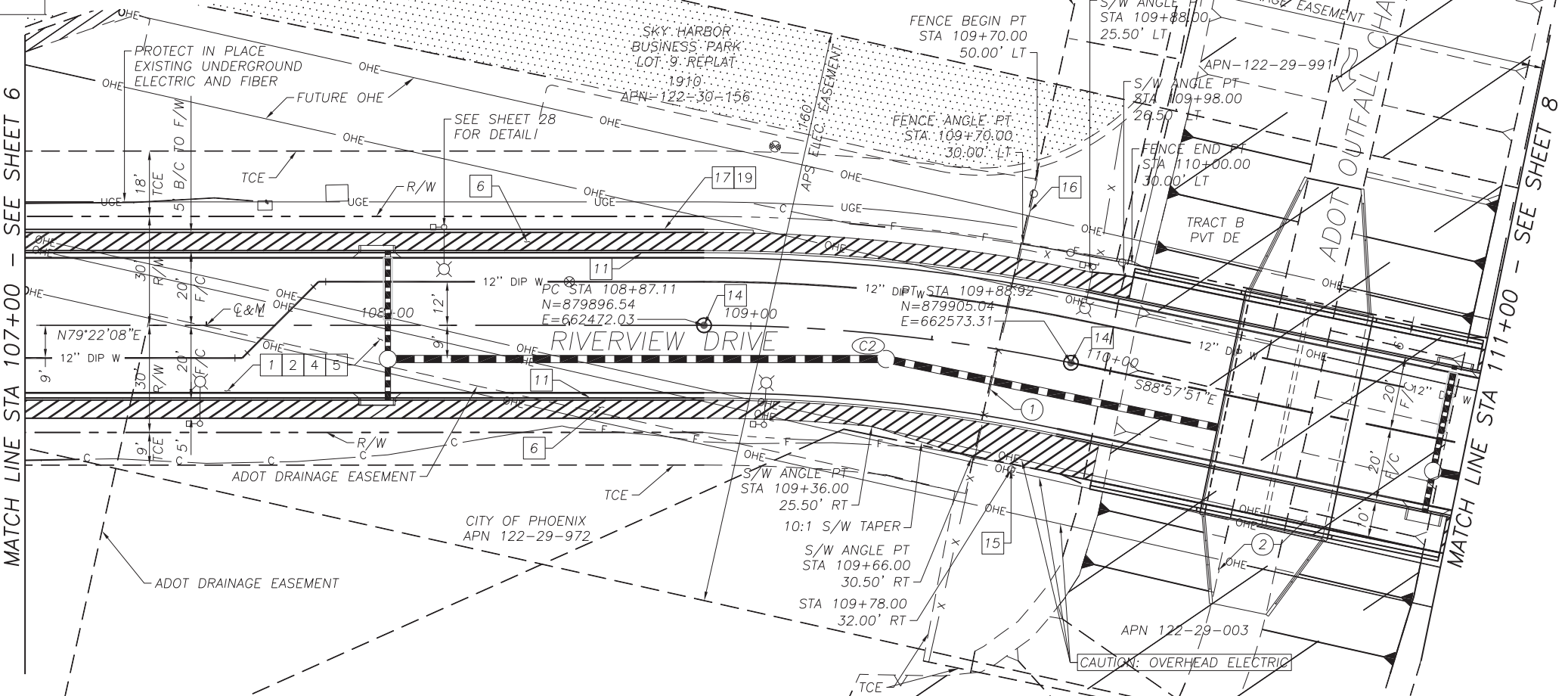
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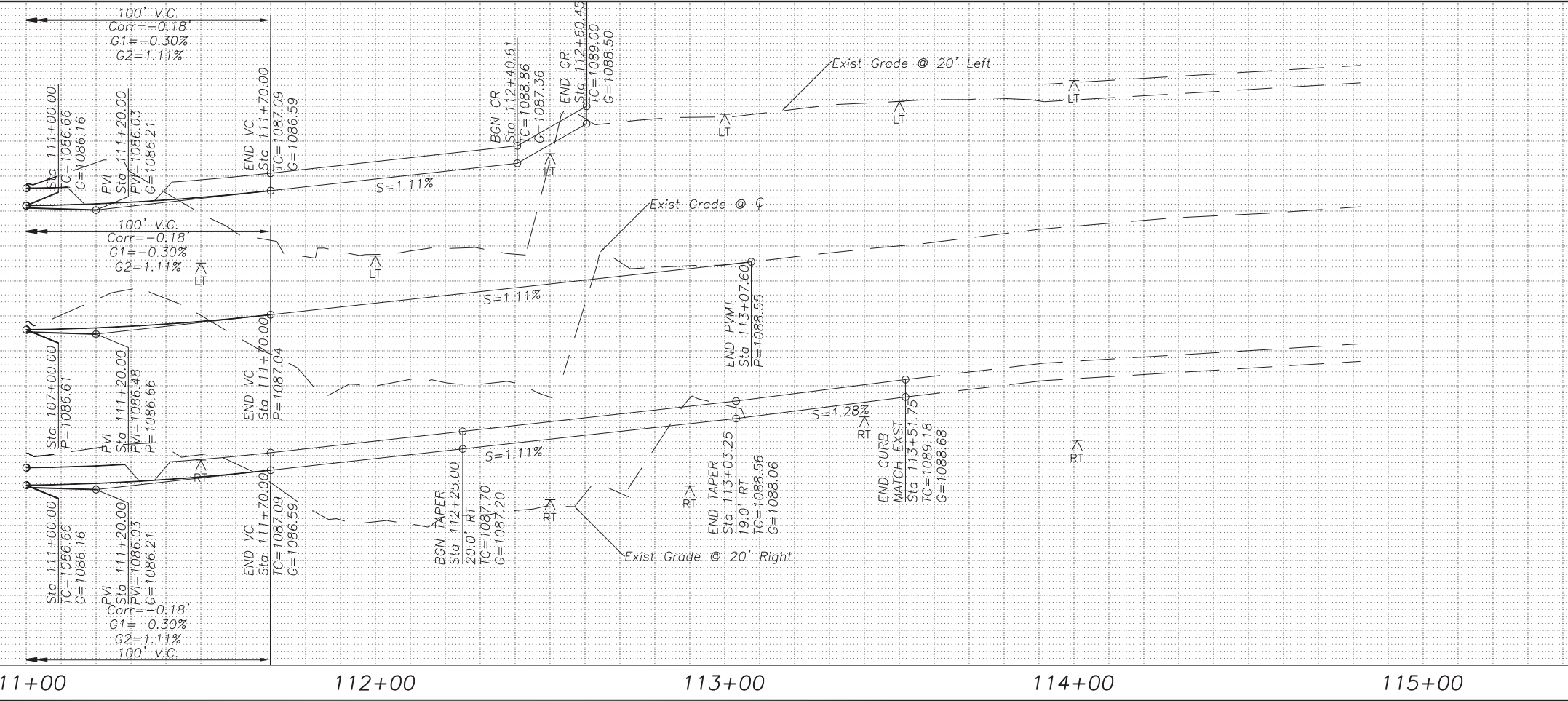
RIVERVIEW DRIVE
18TH PL TO 22ND ST
ST85110072

7 of 68

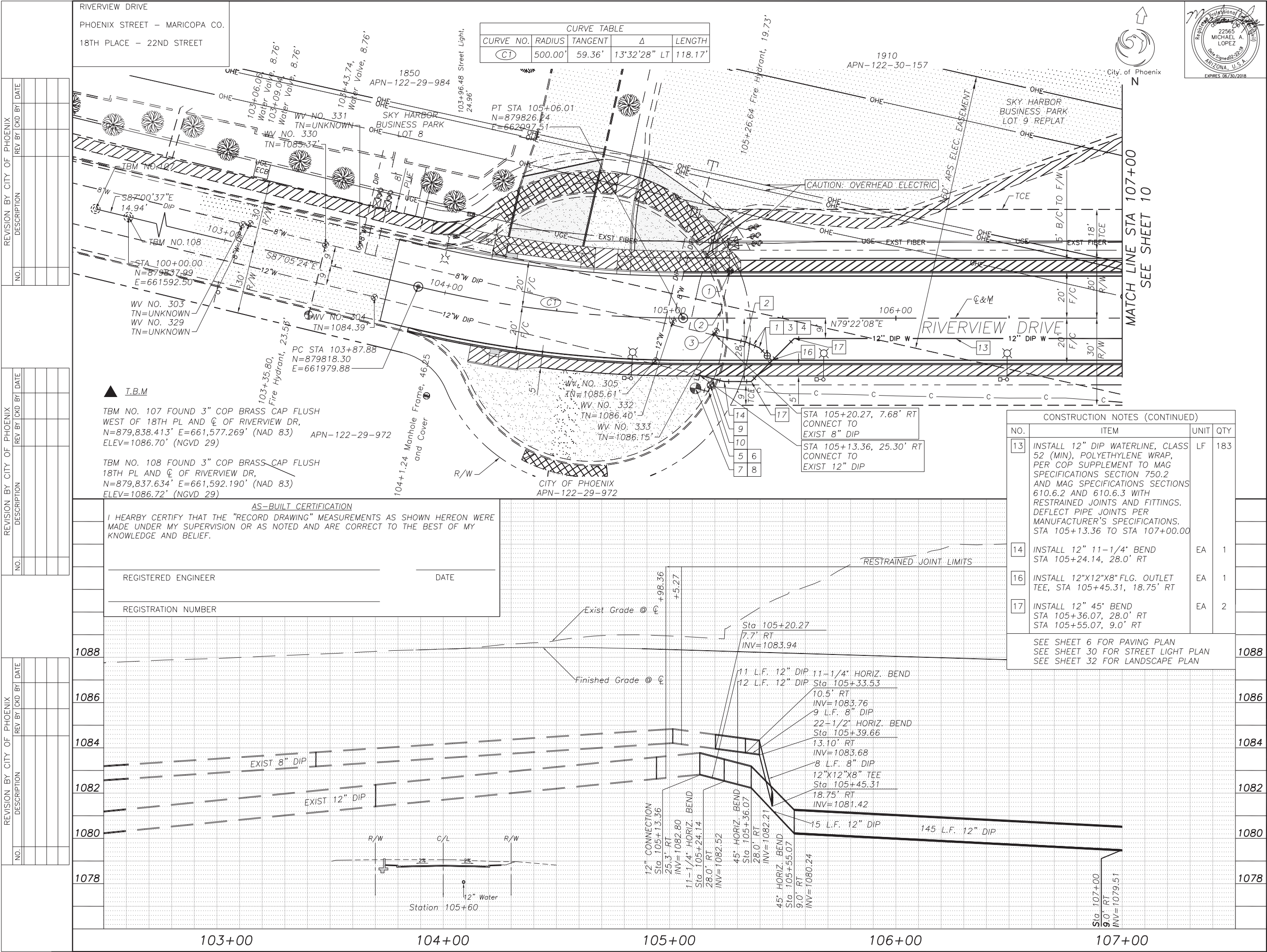
REVISION BY CITY OF PHOENIX				
NO.	DESCRIPTION	REV BY	CHK BY	DATE

CURVE TABLE				
CURVE NO.	RADIUS	TANGENT	Δ	LENGTH
C2	500.00'	51.08'	11°40'01" RT	101.81'



8 of 68

DR: IAM	DES: IAM	CK: MAL	SHEET	TOTAL	AS
DATE: 02/18	DATE: 02/18	DATE: 02/18	NO:	SHEETS	BUILT
SCALE: 1" = 20' HORIZONTAL 2' VERTICAL			9	65	



REVISION BY CITY OF PHOENIX	
NO.	DESCRIPTION

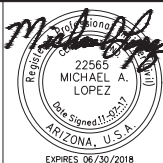
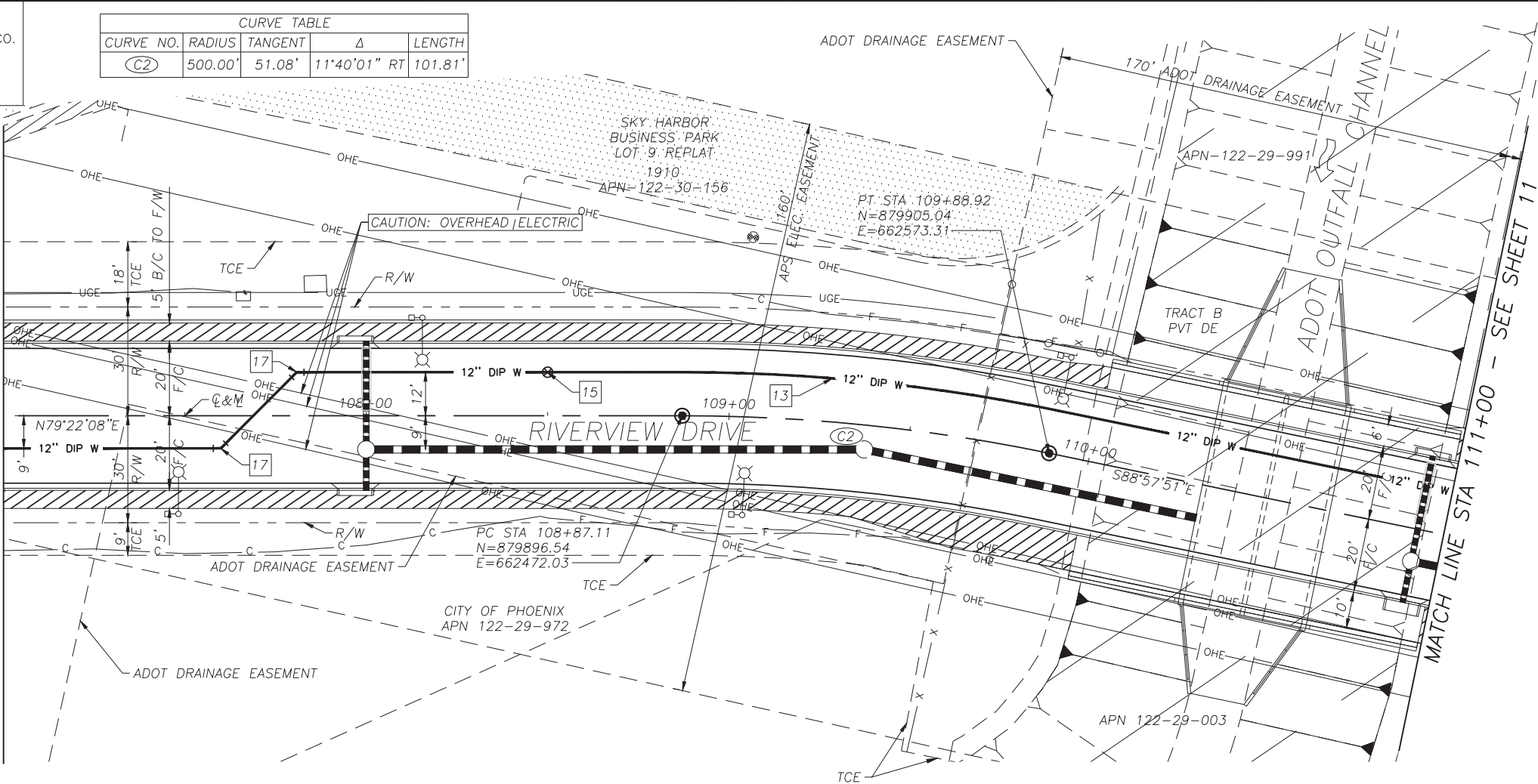
REVISION BY CITY OF PHOENIX	
NO.	DESCRIPTION

REVISION BY CITY OF PHOENIX	
NO.	DESCRIPTION

RIVERVIEW DRIVE
PHOENIX STREET – MARICOPA CO.
18TH PLACE – 22ND STREET

CURVE TABLE				
CURVE NO.	RADIUS	TANGENT	Δ	LENGTH
C2	500.00'	51.08'	11°40'01" RT	101.81'

MATCH LINE STA 107+00 – SEE SHEET 9



F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	ST85110072	10	65	

11/17 DATE
11/17 DATE
DESIGN: IAM
DRAWN: IAM
CHECKED: MAL

STANLEY CONSULTANTS INC.
CONSULTING ENGINEER

CONSTRUCTION NOTES

NO.	ITEM	UNIT	QTY
13	INSTALL 12" DIP WATERLINE, CLASS 52 (MIN), POLYETHYLENE WRAP, PER COP SUPPLEMENT TO MAG SPECIFICATIONS SECTION 750.2 AND MAG SPECIFICATIONS SECTIONS 610.6.2 AND 610.6.3 WITH RESTRAINED JOINTS AND FITTINGS. DEFLECT PIPE JOINTS PER MANUFACTURER'S SPECIFICATIONS. STA 107+00.00 TO STA 111+00.00	LF	411
15	INSTALL 12" VALVE (FLG. X M.J.) BOX & COVER W/ DEBRIS CAP P-1391, STA 108+50.00	EA	1
17	INSTALL 12" 45° BEND STA 107+60.00 STA 107+81.00	EA	2

SEE SHEET 7 FOR PAVING PLAN
SEE SHEET 14 FOR STORM DRAIN PLAN
SEE SHEET 18 FOR BOX CULVERT PLAN
SEE SHEET 30 FOR STREET LIGHT PLAN
SEE SHEET 33 FOR LANDSCAPE PLAN

Call at least two full working days before you begin excavation.
ARIZONA 811
Dig 8-11 or 1-800-STRABAT (782-8248) in Maricopa County: (602) 963-1100

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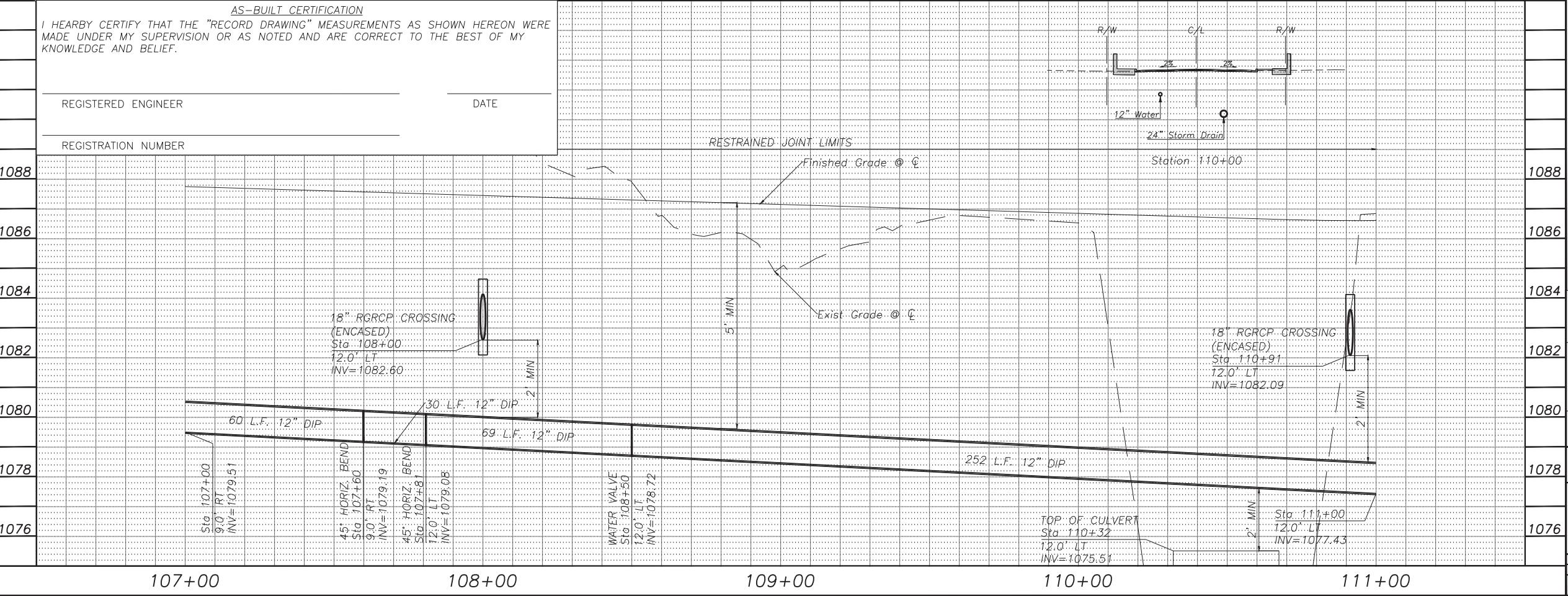
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1661 East Camelback Road Suite 400
Phoenix, Arizona 85016
(602) 333-2200
www.stanleygroup.com

WATER LINE
CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

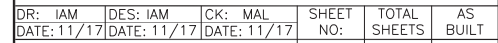
RIVERVIEW DRIVE
18TH PL TO 22ND ST
ST85110072

DR: IAM	DES: IAM	CK: MAL	SHEET NO:	TOTAL SHEETS:	AS BUILT
DATE: 11/17	DATE: 11/17	DATE: 11/17	10	65	

SCALE: 1" = 20' HORIZONTAL
2" VERTICAL



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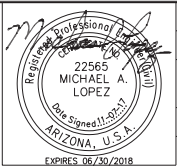
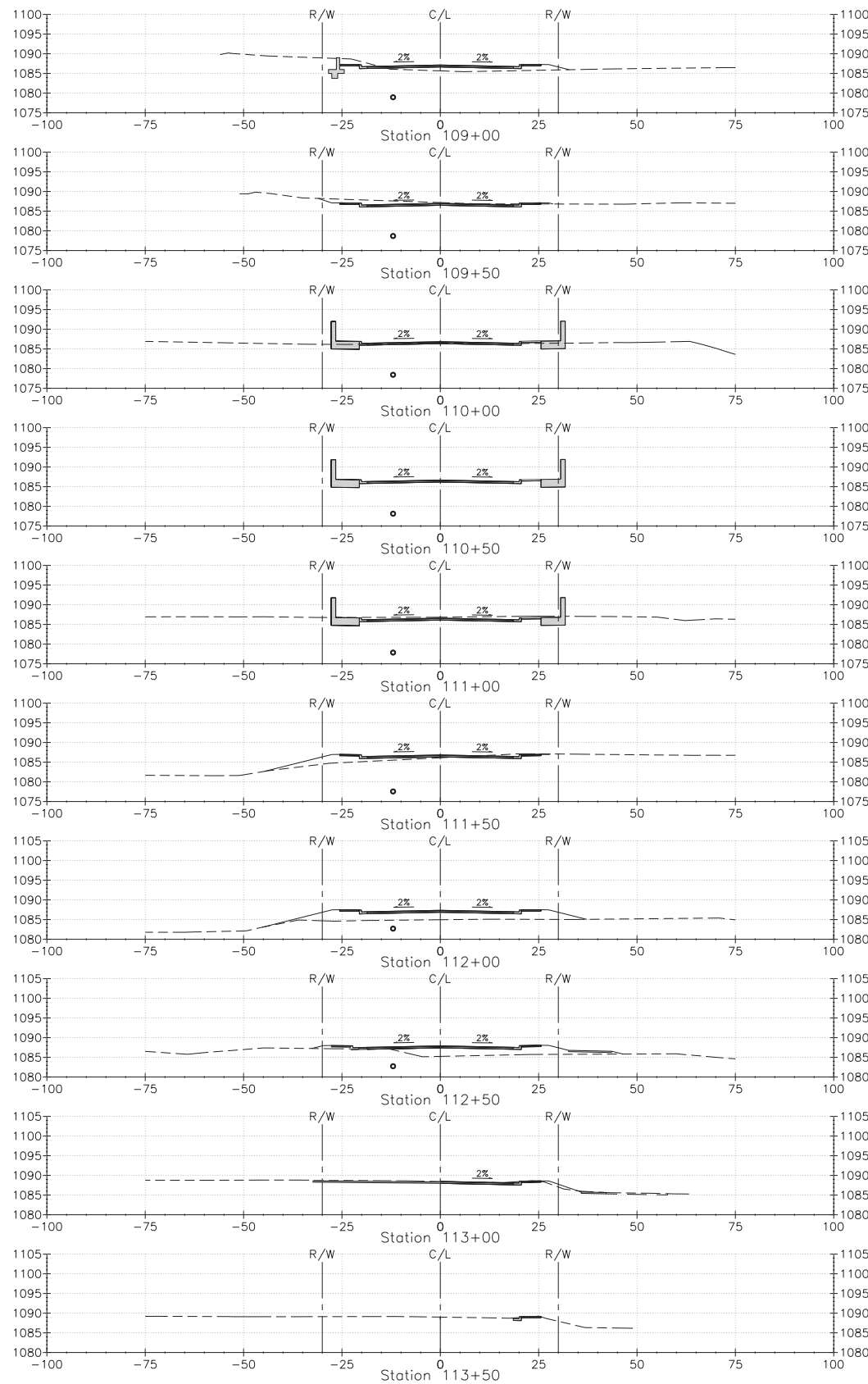
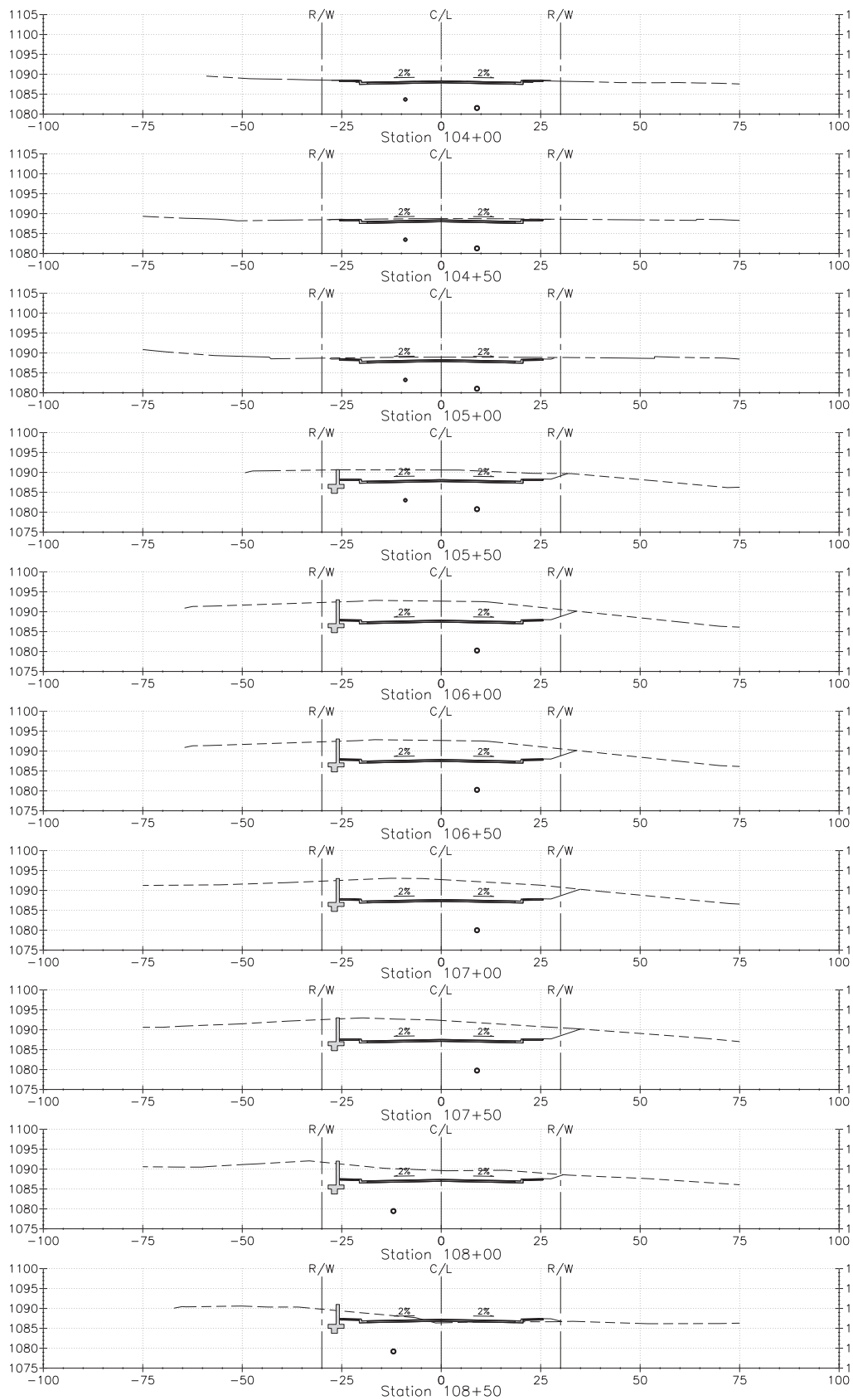
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REVISION BY CITY OF PHOENIX			
NO.	DESCRIPTION	REV BY	CHKD BY

RIVERVIEW DRIVE
PHOENIX STREET - MARICOPA CO.
18TH PLACE - 22ND STREET



F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	ST85110072	13	65	
<u>11/17</u> DATE			STANLEY CONSULTANTS INC. CONSULTING ENGINEER		
DESIGN: IAM		DRAWN: IAM		CHECKED: MAL	



"PER CITY OF PHOENIX CITY CODE CHAPTER 2, SECTION 2-28, THESE PLANS ARE FOR OFFICIAL USE ONLY AND MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF CONTRACTOR'S CONTRACT WITH THE CITY OF PHOENIX."



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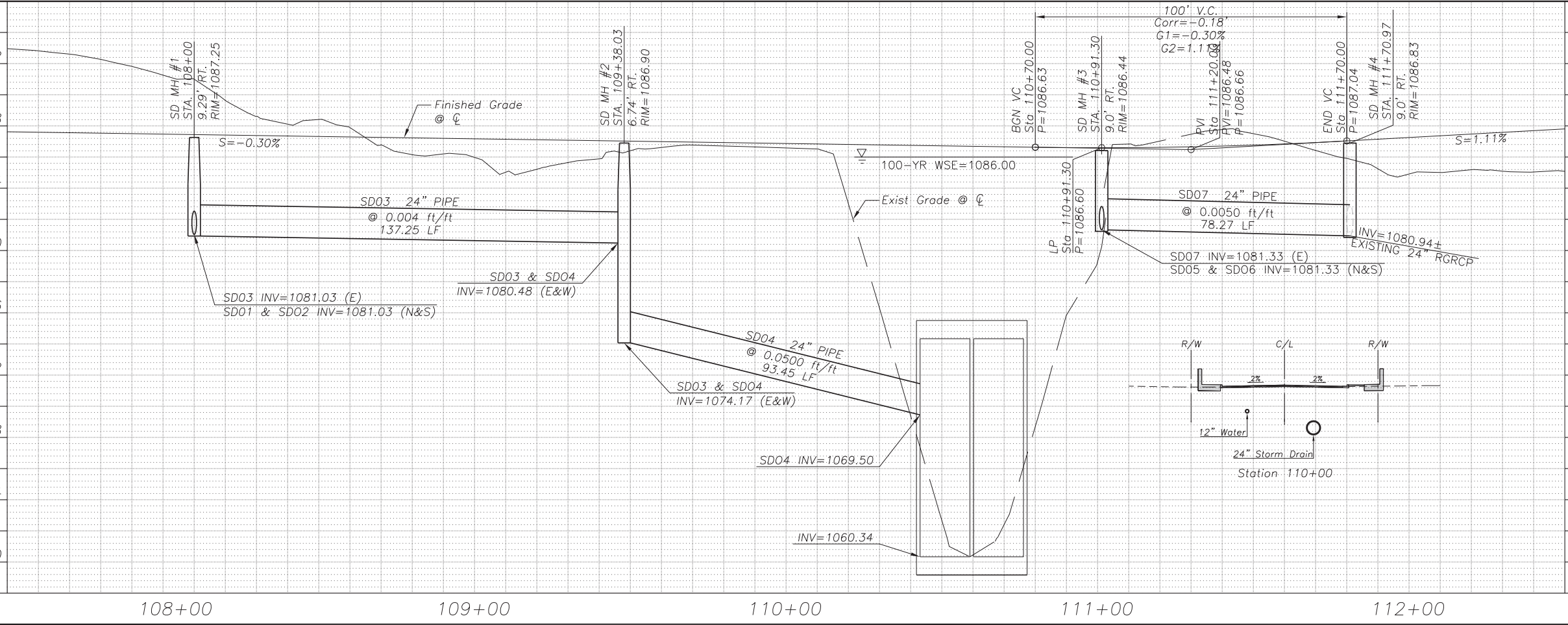
ROADWAY CROSS SECTIONS

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

RIVERVIEW DRIVE
18TH PL TO 22ND ST
ST85110072

DR: IAM	DES: IAM	CK: MAL	SHEET NO:	TOTAL SHEETS	AS BUILT
DATE: 11/17	DATE: 11/17	DATE: 11/17			
SCALE: NTS			13	65	

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[illegible]

"PER CITY OF PHOENIX CITY CODE CHAPTER 2, SECTION 2-28 THESE PLANS ARE FOR OFFICIAL USE ONLY AND MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF CONTRACTOR'S CONTRACT WITH THE CITY OF PHOENIX."



CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

DWG NO.	DR: NRD DATE: 02/18	DES: JML DATE: 02/18	CK: BPD DATE: 02/18	SHEET NO:	TOTAL SHEETS	AS BUILT
S2	SCALE: AS NOTED			18	65	



DWG NO.	DR: NRD DATE: 02/18	DES: JML DATE: 02/18	CK: BPD DATE: 02/18	SHEET NO:	TOTAL SHEETS	AS BUILT
S3	SCALE: AS NOTED			19	65	



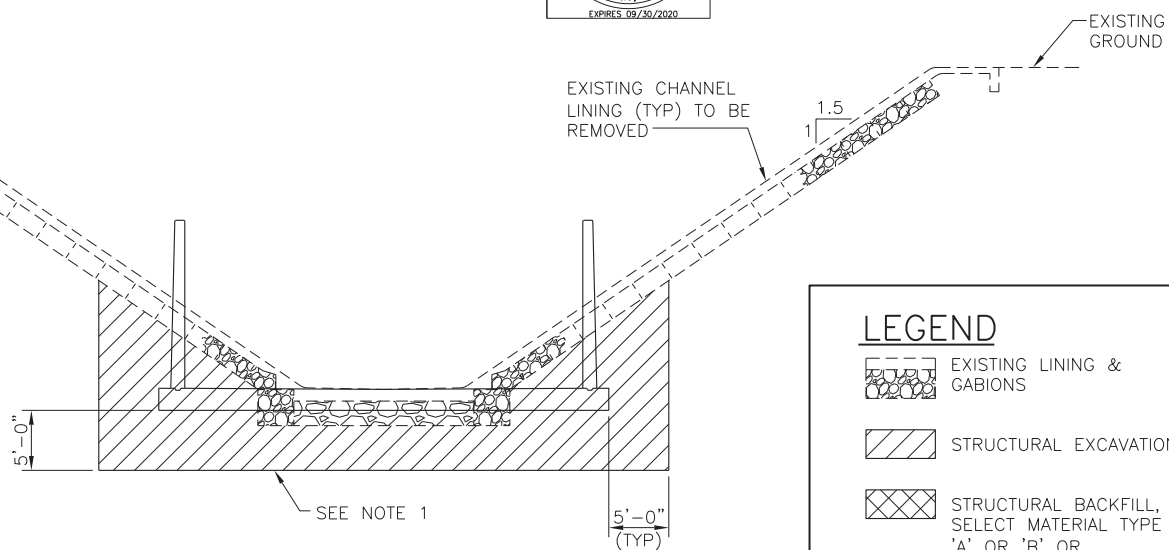

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RIVERVIEW DRIVE
18TH PL TO 22ND ST
ST85110072

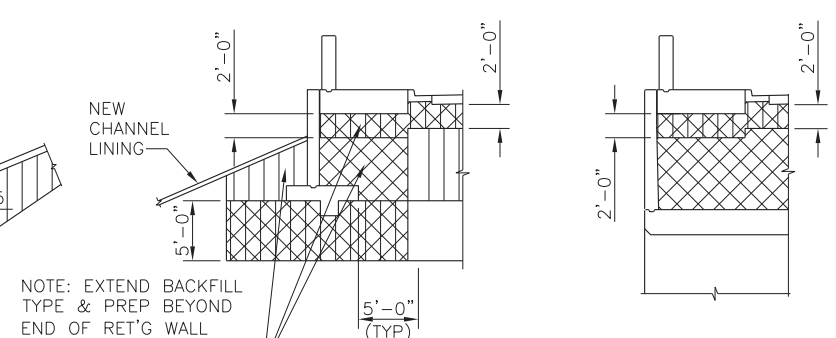
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REVISION BY CITY OF PHOENIX			
NO.	DESCRIPTION	REV BY	CHKD BY

[illegible][illegible]

INLET/OUTLET TRANSITION SECTION

STRUCTURAL EXCAVATION LIMITS
SCALE: $\frac{1}{8}" = 1'-0"$



INLET/OUTLET TRANSITION SECTION

SCALE: $\frac{1}{8}" = 1' - 0"$

STRUCTURAL BACKFILL LIMITS

5. SEE DWG S9 FOR ADDITIONAL RETAINING WALL STRUCTURAL BACKFILL INFORMATION.

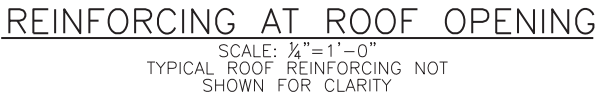
DWG NO.	DR: NRD DATE: 02/18	DES: JML DATE: 02/18	CK: BPD DATE: 02/18	SHEET NO:	TOTAL SHEETS	AS BUILT
S4	SCALE: AS NOTED			20	65	



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CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

DR: NRD	DES: JML	CK: BPD	SHEET	TOTAL	AS
DATE: 02/18	DATE: 02/18	DATE: 02/18	NO:	SHEETS	BUILT
SCALE: AS NOTED			20	65	

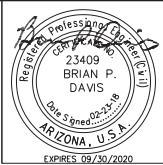


-OVEREXCAVATE & REPLACE WITH
COMPACTED STRUCTURAL BACKFILL
SEE NOTES & DWG NO S3

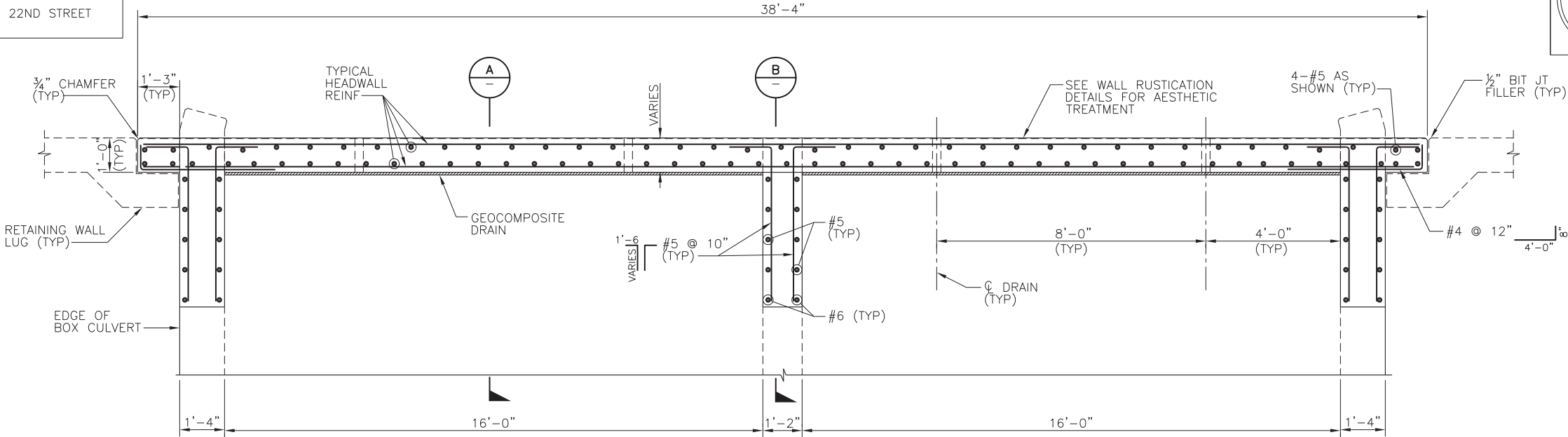
1. ALL EXCAVATIONS SHALL BE SLOPED AND SHORED IN THE INTEREST OF SAFETY IN ACCORDANCE WITH CURRENT OSHA EXCAVATION AND TRENCH SAFETY STANDARDS, THE FINAL GEOTECHNICAL EVALUATION REPORT AND ALL LOCAL, STATE AND FEDERAL REGULATIONS.
2. NOTHING SHOWN ON THE PLANS SHALL BE TAKEN TO IMPLY NON-CONFORMANCE TO CURRENT SAFETY REGULATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING COMPLIANT EXCAVATIONS AND/OR SHORING COMPLIANCE. WORK IS INCIDENTAL TO THE EXCAVATIONS REQUIRED AND NO ADDITIONAL PAYMENT WILL BE MADE TO MAINTAIN COMPLIANCE.
3. THE BOX CULVERT SHALL BE FOUNDED ON A ZONE OF MOISTURE-CONDITIONED AND COMPACTED STRUCTURAL BACKFILL, EXTENDING A MINIMUM OF 5 FEET BELOW THE BOTTOM OF FOUNDATION ELEVATION. THIS IMPROVED ZONE SHALL BE COMPACTED BY APPROPRIATE MECHANICAL METHODS TO A RELATIVE COMPACTION OF 100 PERCENT IN ACCORDANCE WITH ASTM D 698. THE IMPROVED ZONE SHALL EXTEND THE SAME DISTANCE HORIZONTALLY (BEYOND THE BASE SLAB FOOTPRINT) AS IT EXTENDS BELOW THE BOX CULVERT FOUNDATIONS.

REVISION BY CITY OF PHOENIX		REV BY	CHK BY	DATE
DESCRIPTION				
NO.				
REVISION BY CITY OF PHOENIX		REV BY	CHK BY	DATE
DESCRIPTION				
NO.				
REVISION BY CITY OF PHOENIX		REV BY	CHK BY	DATE
DESCRIPTION				
NO.				

RIVERVIEW DRIVE
PHOENIX STREET – MARICOPA CO.
18TH PLACE – 22ND STREET

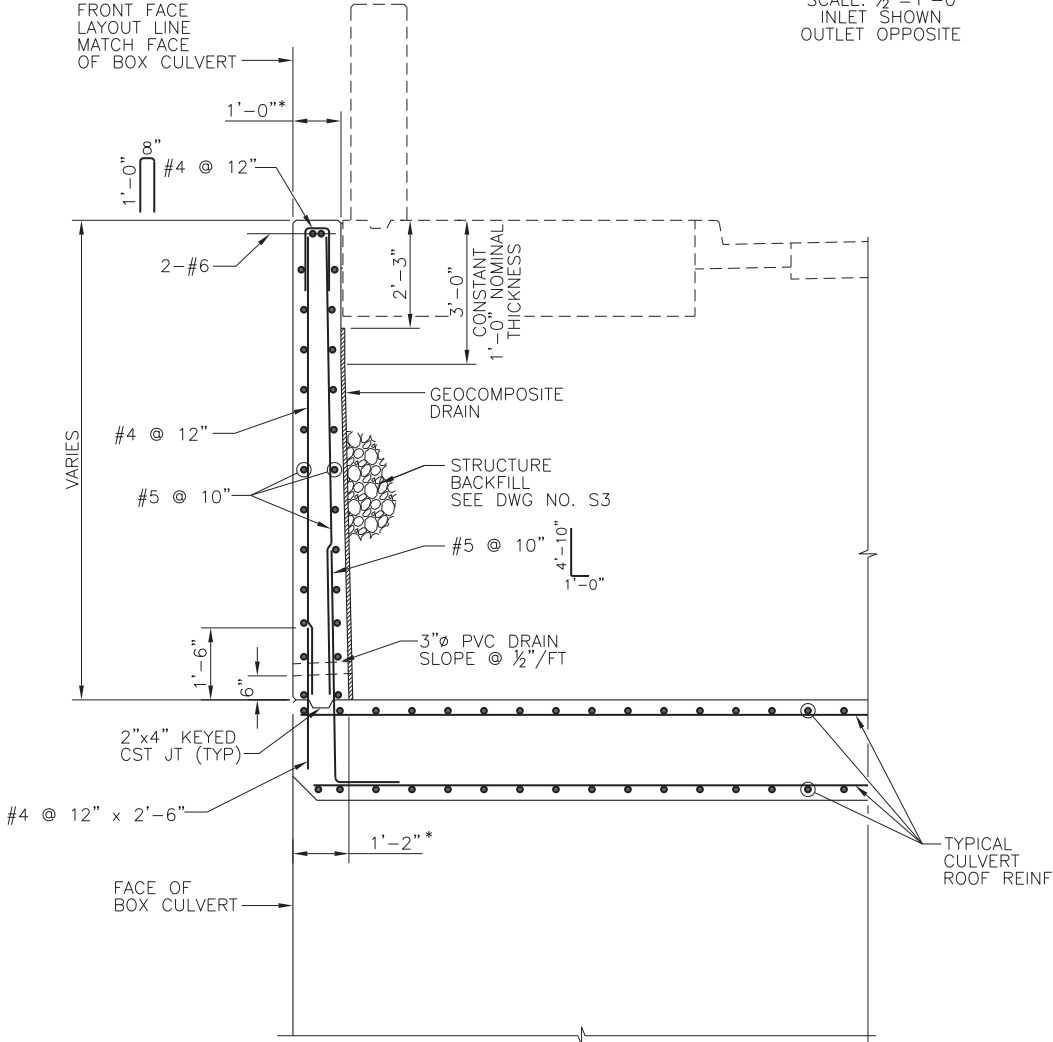


F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	ST85110072	21	65	
02/18 DATE			STANLEY CONSULTANTS INC. CONSULTING ENGINEER		
DESIGN: JML		DRAWN: NRD		CHECKED: BPD	



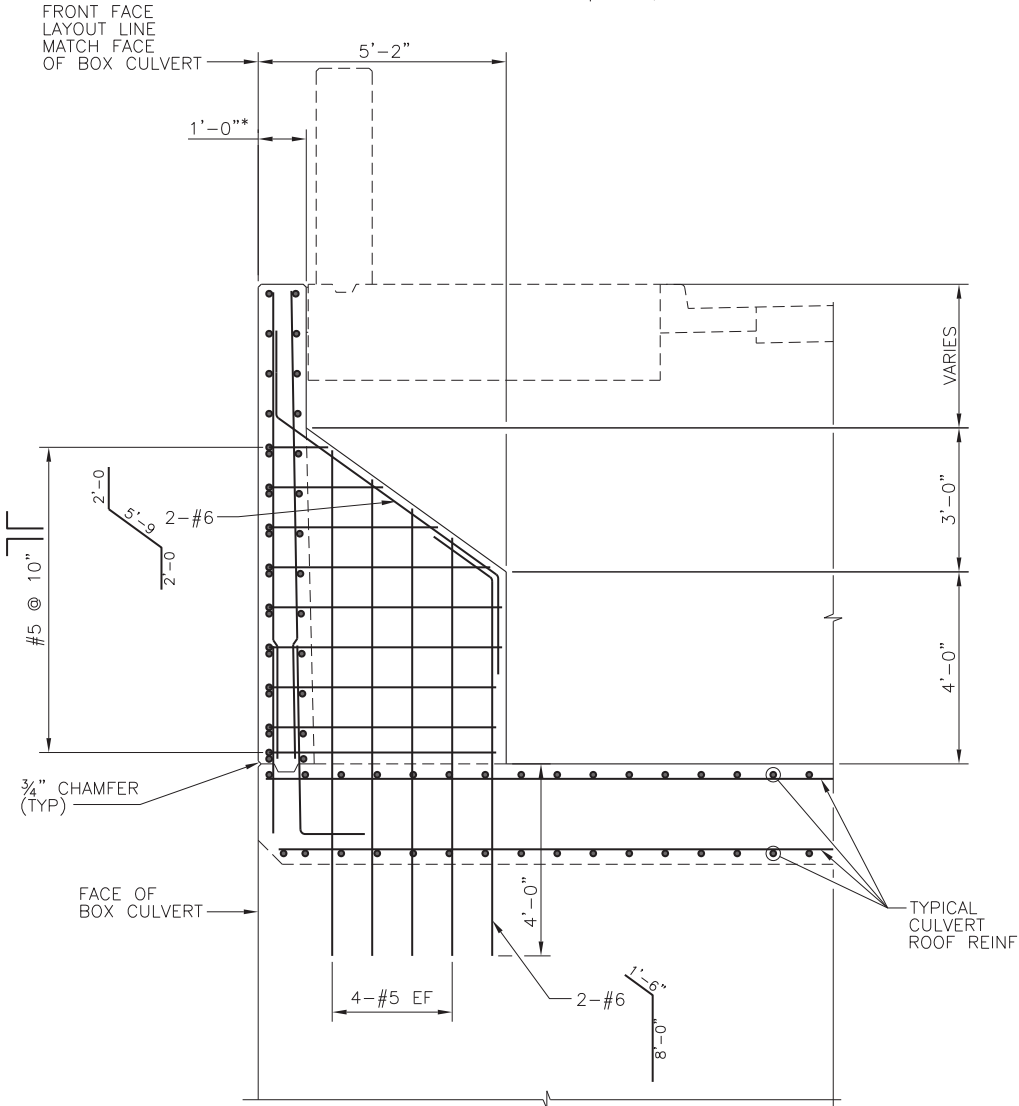
HEADWALL PLAN

SCALE: 1/2"=1'-0"
INLET SHOWN
OUTLET OPPOSITE



SECTION A

SCALE: 1/2"=1'-0"
INLET SHOWN
OUTLET OPPOSITE



SECTION B

SCALE: 1/2"=1'-0"
INLET SHOWN
OUTLET OPPOSITE

* NOMINAL WALL THICKNESS
INCLUDES RUSTICATION. MAX 1/4".
SEE WALL RUSTICATION DETAILS



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HEADWALL SECTIONS & DETAILS

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

RIVERVIEW DRIVE
18TH PL TO 22ND ST
ST85110072

DWG NO.	DR: NRD	DES: JML	CK: BPD	SHEET NO.	TOTAL SHEETS	AS BUILT
S5	DATE: 02/18	DATE: 02/18	DATE: 02/18	21	65	
SCALE: AS NOTED						

DWG NO.	DR: NRD DATE: 02/18	DES: JML DATE: 02/18	CK: BPD DATE: 02/18	SHEET NO:	TOTAL SHEETS	AS BUILT
S7	SCALE: AS NOTED			23	65	



1. ALL EXCAVATIONS SHALL BE SLOPED AND SHORED IN THE INTEREST OF SAFETY IN ACCORDANCE WITH CURRENT OSHA EXCAVATION AND TRENCH SAFETY STANDARDS, THE FINAL GEOTECHNICAL EVALUATION REPORT AND ALL LOCAL, STATE AND FEDERAL REGULATIONS.
2. NOTHING SHOWN ON THE PLANS SHALL BE TAKEN TO IMPLY NON-CONFORMANCE TO CURRENT SAFETY REGULATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING COMPLIANT EXCAVATIONS AND/OR SHORING COMPLIANCE. WORK IS INCIDENTAL TO THE EXCAVATIONS REQUIRED AND NO ADDITIONAL PAYMENT WILL BE MADE TO MAINTAIN COMPLIANCE.
3. THE CHANNEL TRANSITION FOUNDATIONS SHALL BE FOUNDED ON A ZONE OF MOISTURE-CONDITIONED AND COMPACTED STRUCTURAL BACKFILL, EXTENDING A MINIMUM OF 5 FEET BELOW THE BOTTOM OF FOUNDATION ELEVATION. THIS IMPROVED ZONE SHALL BE COMPACTED BY APPROPRIATE MECHANICAL METHODS TO A RELATIVE COMPACTION OF 100 PERCENT IN ACCORDANCE WITH ASTM D 698. THE IMPROVED ZONE SHALL EXTEND THE SAME DISTANCE HORIZONTALLY (BEYOND THE BASE SLAB FOOTPRINT) AS IT EXTENDS BELOW THE TRANSITION CHANNEL FOUNDATIONS.
4. BACKFILLING OPERATIONS AT EACH WALL SHALL TAKE PLACE CONCURRENTLY. AT NO TIME SHALL THE FILL HEIGHT DIFFERENCE BETWEEN WALLS BE GREATER THAN 2'-0".



SCALE: $\frac{1}{2}" = 1' - 0"$
INLET TRANSITION SHOWN
OUTLET TRANSITION SIMILAR

DIMENSIONS			V1 BARS			V2 BARS			B BARS	
H	B	T	SIZE	SPACING	LENGTH*	SIZE	SPACING	LENGTH	SIZE	SPACING
5'-0"	1'-0"	10"	#5	12"	VARIES	—	—	—	#6	12"
10'-0"	1'-4"	1'-2"	#7	12"	VARIES	—	—	—	#7	12"
16'-0"	2'-0"	1'-6"	#7	6"	7'-0"	#6	12"	VARIES	#8	6"

* LENGTH OF BAR INCLUDES HOOK.

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CHANNEL TRANSITION TYPICAL SECTION

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

RIVERVIEW DRIVE
18TH PL TO 22ND ST
ST85110072

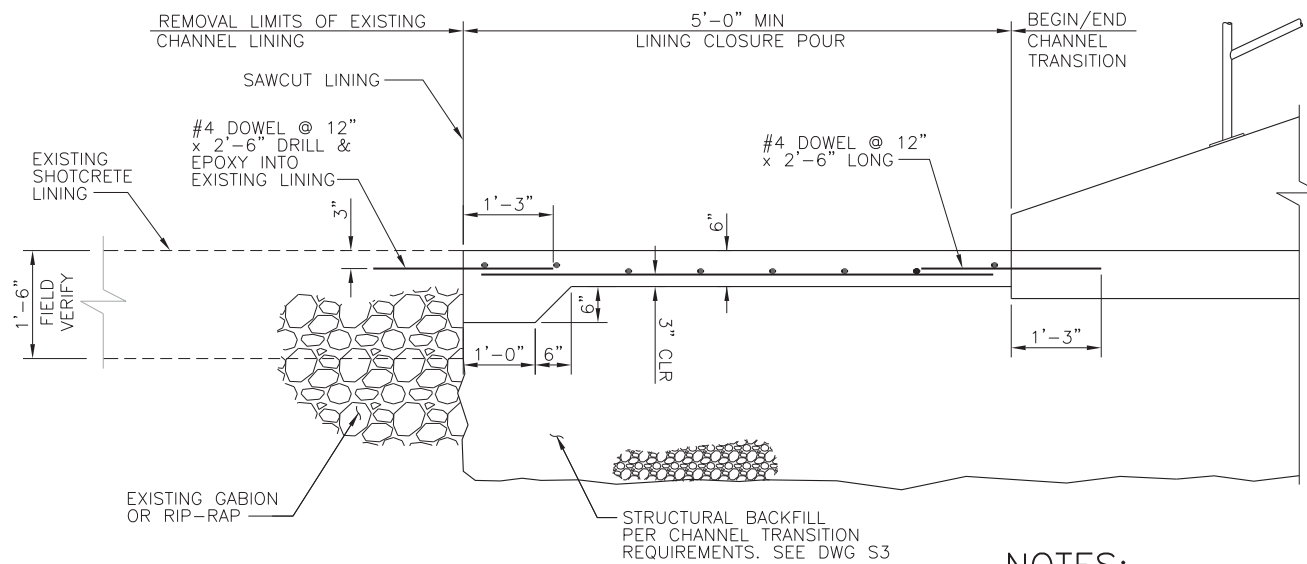
DWG NO.	DR: NRD DATE: 02/18	DES: JML DATE: 02/18	CK: BPD DATE: 02/18	SHEET NO:	TOTAL SHEETS	AS BUILT
S8	SCALE: AS NOTED			24	65	



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CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

DES: JML	CK: BPD	SHEET	TO
DATE: 02/18	DATE: 02/18	NO:	SH
S NOTED		24	6

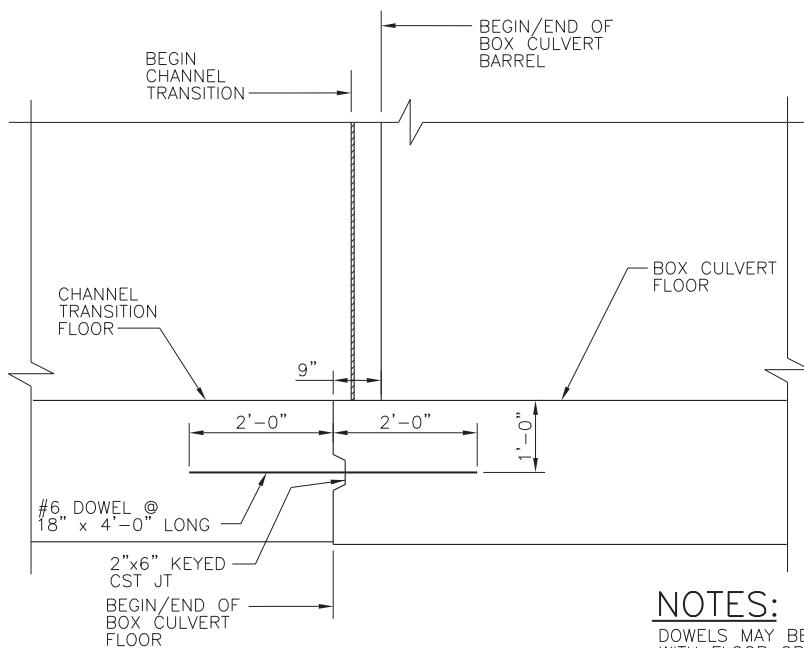


1. SEE EXISTING CHANNEL AS BUILT PLANS FOR LINING & RIP-RAP INFORMATION.
2. SAW CUT EXISTING CHANNEL LINING TO PROVIDE CLEAN EDGE.
3. DOWELS MAY BE CAST WITH FLOOR OR DRILLED & EPOXIED USING HILTI RE 500 ADHESIVE OR APPROVED EQUAL.

SECTION

SCALE: $\frac{3}{4}" = 1' - 0$

INLET (NORTH END) SHOWN
OUTLET (SOUTH END) SIMILAR



DOWELS MAY BE CAST
WITH FLOOR OR DRILLED
& EPOXIED USING HILTI
RE 500 ADHESIVE OR
APPROVED EQUAL.

SECTION

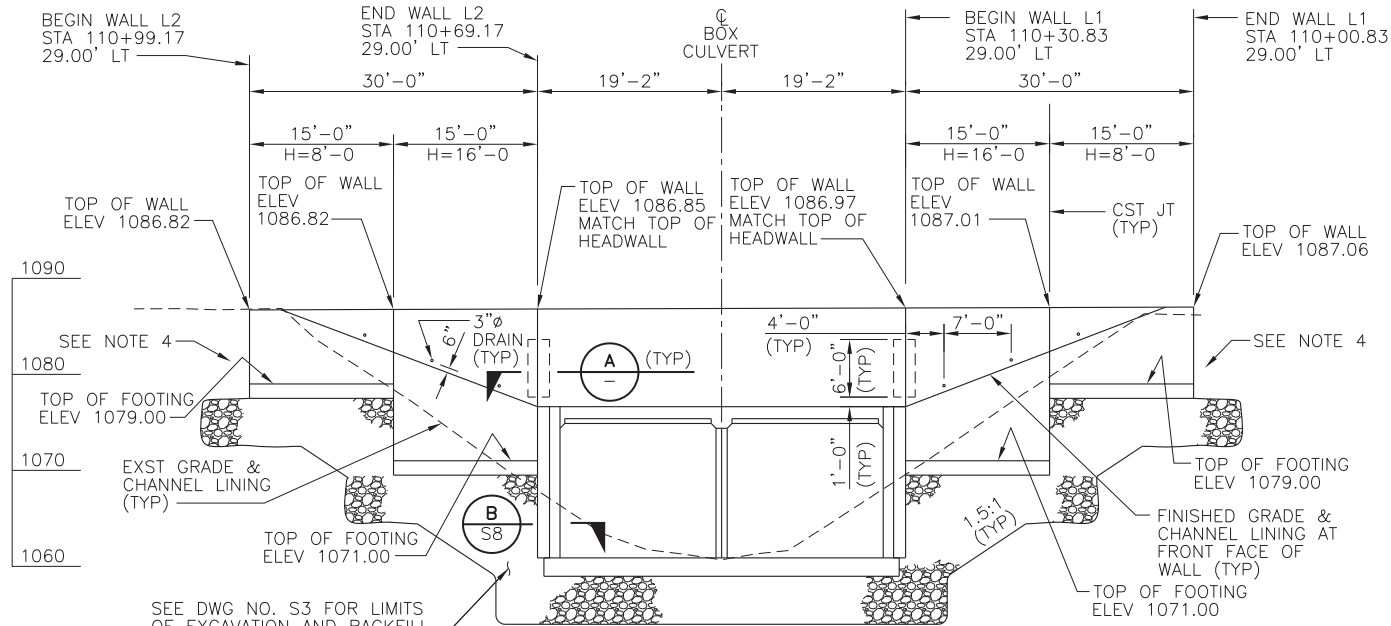
SCALE: $\frac{3}{4}" = 1' - 0$

INLET (NORTH END) SHOWN
OUTLET (SOUTH END) SIMILAR

[illegible]

REVISION BY CITY OF PHOENIX		DESCRIPTION	REV BY	CHK BY	DATE
NO.					
REVISION BY CITY OF PHOENIX		DESCRIPTION	REV BY	CHK BY	DATE
NO.					
REVISION BY CITY OF PHOENIX		DESCRIPTION	REV BY	CHK BY	DATE
NO.					
REVISION BY CITY OF PHOENIX		DESCRIPTION	REV BY	CHK BY	DATE
NO.					

RIVERVIEW DRIVE
PHOENIX STREET – MARICOPA CO.
18TH PLACE – 22ND STREET

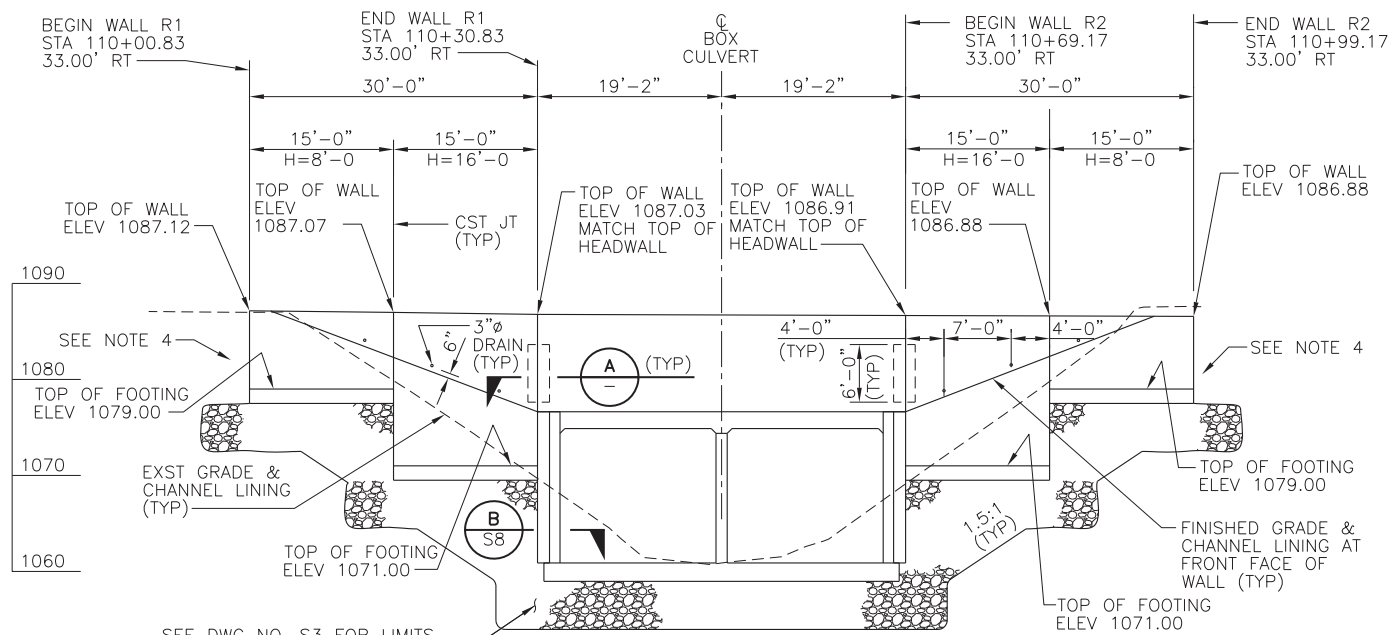


NORTH RETAINING WALL AND HEADWALL ELEVATION

(LOOKING SOUTH)
SCALE: 1"=10'

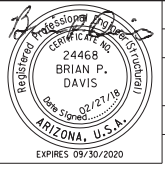
NOTES:

1. RETAINING WALLS SHALL BE PER ADOT STANDARD SD 7.01, CASE IV.
2. H = DESIGN HEIGHT OF WALL, WALLS TO BE CONSTRUCTED TO ELEVATIONS SHOWN.
3. SEE SPECIAL PROVISIONS FOR RETAINING WALL CONCRETE COLOR REQUIREMENTS.
4. EXTEND BACKFILL TYPE AND PREPARATION FOR LENGTH OF EXCAVATION PER SHEET S3

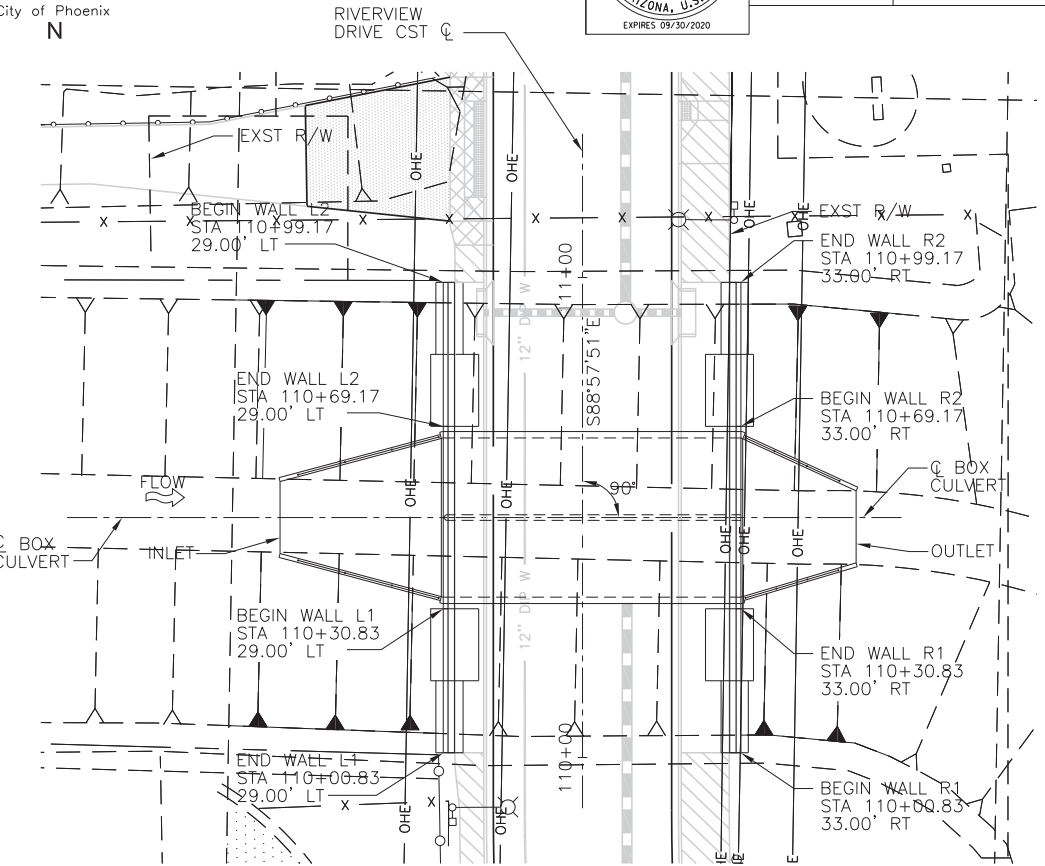


SOUTH RETAINING WALL AND HEADWALL ELEVATION

(LOOKING NORTH)
SCALE: 1"=10'

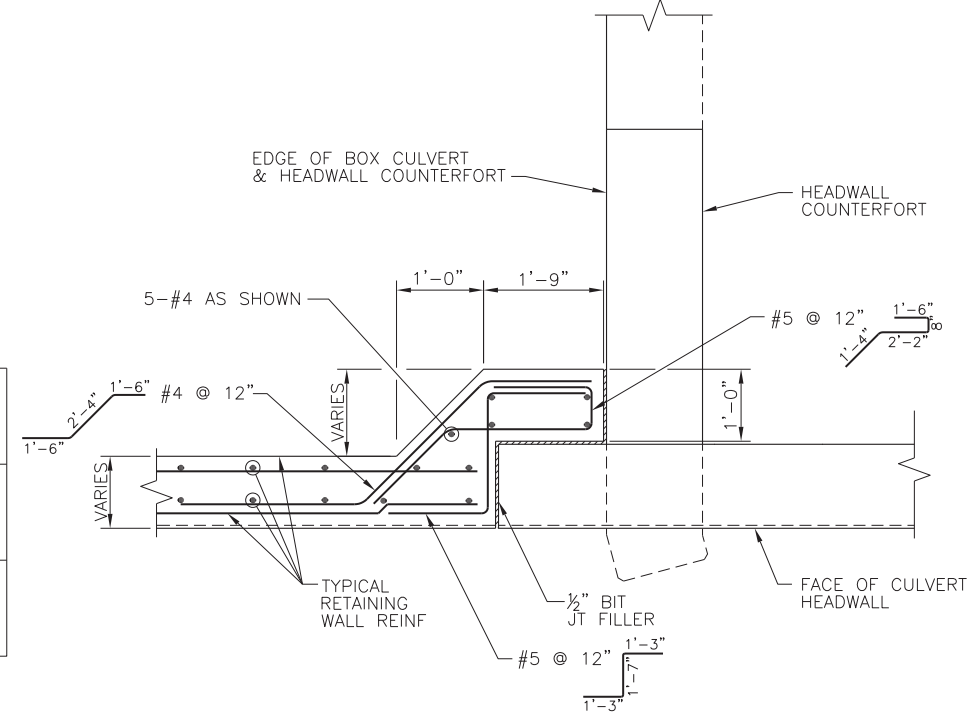


F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARZ.	ST85110072	25	65	
02/18 DATE			STANLEY CONSULTANTS INC. CONSULTING ENGINEER		
DESIGN: JML		DRAWN: NRD		CHECKED: BPD	



PLAN

SCALE: 1"=20'



SECTION

SCALE: 3/4"=1'-0'



"PER CITY OF PHOENIX CITY CODE CHAPTER 2, SECTION 2-28, THESE PLANS ARE FOR OFFICIAL USE ONLY AND MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF CONTRACTOR'S CONTRACT WITH THE CITY OF PHOENIX."

Stanley Consultants INC.
1661 East Camelback Road Suite 400
Phoenix, Arizona 85016
(602) 333-2200
www.stanleygroup.com

RETAINING WALL PLAN & ELEVATIONS

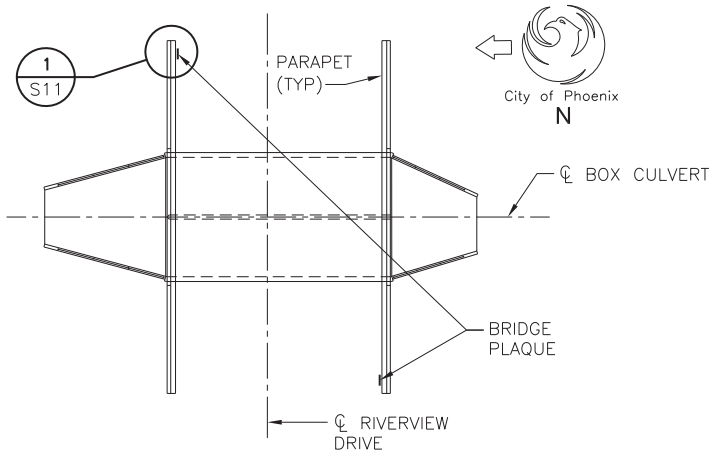
CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

RIVERVIEW DRIVE
18TH PL TO 22ND ST
ST85110072

DWG NO.	DR: NRD	DES: JML	CK: BPD	SHEET NO.	TOTAL SHEETS	AS BUILT
S9	DATE: 02/18	DATE: 02/18	DATE: 02/18	25	65	

SCALE: AS NOTED

<p>PER CITY OF PHOENIX CITY CODE CHAPTER 2, SECTION 2-28, THESE PLANS ARE FOR OFFICIAL USE ONLY AND MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF CONTRACTOR'S CONTRACT WITH THE CITY OF PHOENIX."</p>					
		<p>1661 East Camelback Road Suite 400 Phoenix, Arizona 85016 (602) 333-2200 www.stanleygroup.com</p>			
<p>Stanley Consultants INC.</p>					
<p>MISCELLANEOUS DETAILS</p>					
<p>CITY OF PHOENIX, ARIZONA STREET TRANSPORTATION DEPARTMENT</p>					
<p>RIVERVIEW DRIVE 18TH PL TO 22ND ST ST85110072</p>					
DR: NRD	DES: JML	CK: BPD	SHEET NO:	TOTAL SHEETS	AS BUILT
DATE: 02/18	DATE: 02/18	DATE: 02/18			
SCALE: AS NOTED			26	65	

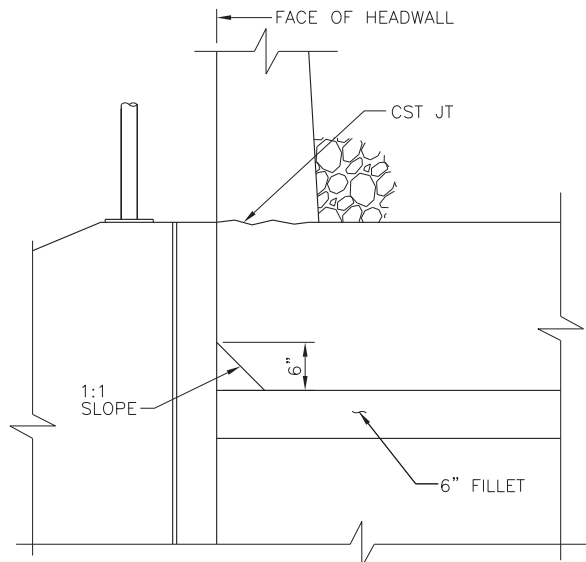


PLAQUE LOCATIONS

SCALE: NONE

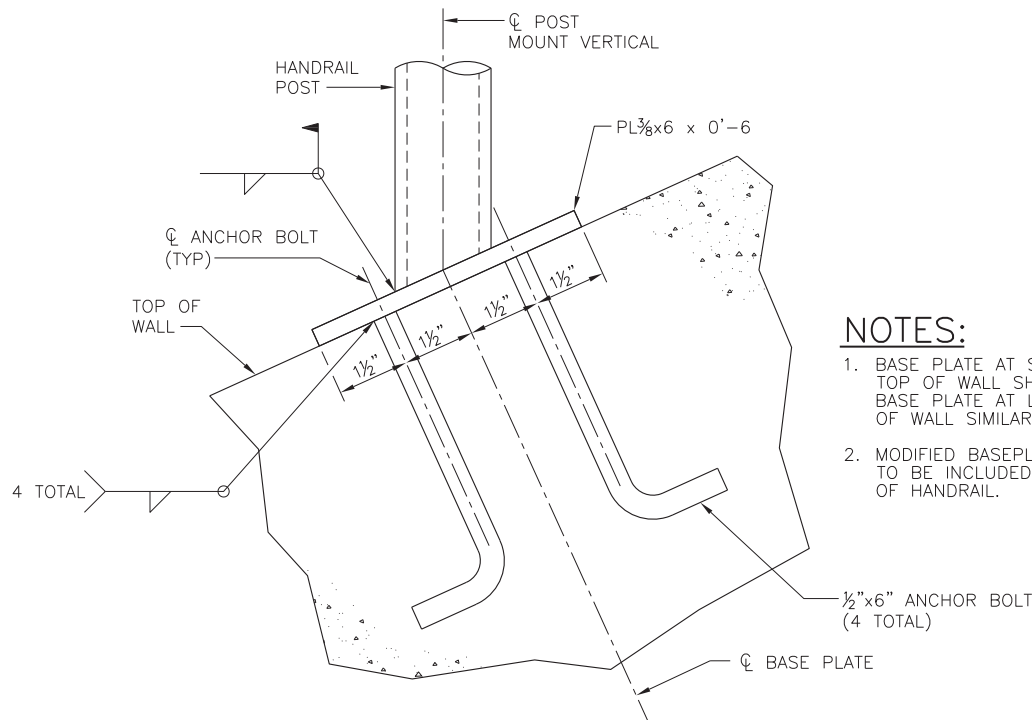
DETAIL

- 



MODIFIED TYPE 1 ANCHOR PLATE

SCALE: 6"=1'-0"



MODIFIED TYPE 1 ANCHOR PLATE

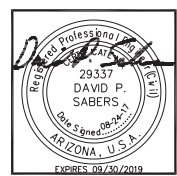
SCALE: 6"=1'-0"

1. BASE PLATE AT SLOPING TOP OF WALL SHOWN, BASE PLATE AT LEVEL TOP OF WALL SIMILAR.
2. MODIFIED BASEPLATE COST TO BE INCLUDED IN COST OF HANDRAIL.

CITY OF PHOENIX STREET LIGHTING

RIVERVIEW DRIVE

18TH PLACE TO 22ND STREET



F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85110072	29	65
<div><div></div><div>1661 East Camelback Road, Suite 400 Phoenix, Arizona 85016 Phone: (602) 333-2200</div></div>				
DR: IAM		DES: EDL	CK: MAL	DATE: 08/17

ARIZONA PUBLIC SERVICE (APS) NOTES

- CONTRACTOR SHALL CONTACT APS INSPECTOR IDENTIFIED ON THE APS CONSTRUCTION DRAWING FOR PRE-CONSTRUCTION MEETING PRIOR TO ANY EXCAVATION.
- CONTRACTOR TO SUPPLY ALL TRENCH AND CONDUIT, PER APS REQUIREMENTS, UNLESS OTHERWISE NOTED.
- GRADE STAKE WILL BE SET WITHIN 2' OF J-BOX LOCATION.
- CONTRACTOR WILL COORDINATE WITH APS AND CITY OF PHOENIX FOR DE-ENERGIZING OF STREETLIGHT CONDUCTOR.
- GROUND ROD TO BE PROVIDED AND INSTALLED BY CONTRACTOR IN APS J-BOX AT EACH STREETLIGHT LOCATION.
- IF THE CONTRACTOR INSTALLS THE POLE, THE BARE #6 COPPER GROUND WIRE SHALL BE CONNECTED FROM THE GROUND ROD IN THE APS J-BOX TO THE GROUND CONNECTION IN THE HAND-HOLE..
- ALL TRENCH AND CONDUIT TO BE INSPECTED BY APS. DO NOT BACKFILL UNTIL INSPECTED.
- APS CONSTRUCTION PRINT MUST BE USED AS A TRENCHING REFERENCE. TRENCHING VARIATIONS MUST HAVE WRITTEN APS CSR APPROVAL. FOLLOW DETAILS FOR CONSTRUCTION. VARIATIONS IN TRENCH ROUTE MAY RESULT IN A REDESIGN FEE.
- CONTACT APS FOR ALL TRENCH AND CONDUIT SPECIFICATIONS AND REQUIREMENTS.
- CONTRACTOR IS RESPONSIBLE FOR INTEGRITY OF ALL CONDUITS UNTIL APS HAS INSTALLED CONDUCTORS.
- CONTRACTOR IS RESPONSIBLE FOR OBTAINING REQUIRED VARIANCES PRIOR TO SUBMITTING CIP DRAWINGS TO THE UTILITIES.
- CONTRACTOR IS RESPONSIBLE FOR VERIFYING VERTICAL AND HORIZONTAL CLEARANCES TO EXISTING OVERHEAD LINES AND POLES WHEN PLACING NEW STREETLIGHTS.

STREETLIGHT NOTES

- 1

INSTALL ONE 70 W LED (6,634 LUMEN) CLEAR WHITE FIXTURE WITH PHOTOELECTRIC CONTROL ON A 38'-6" POLE PER STD 8040 (POLE CODE 1944.38) WITH A 2' MAST ARM PER APS STD. GROUNDING PER APS STANDARDS AND SPECIFICATIONS. INSTALL (2) #14 THHN/THWN FROM LUMINAIRE TO FUSE HOLDER IN POLE. INSTALL APS PULL BOX ADJACENT TO POLE WITH 1" FLEX CONDUIT TO POLE PER APS SPECIFICATIONS AND REQUIREMENTS. ALL WIRING, FUSING, AND GROUNDING PER APS DETAILS AND SPECIFICATIONS.
- 2

INSTALL ONE 70 W LED (6,634 LUMEN) CLEAR WHITE FIXTURE WITH PHOTOELECTRIC CONTROL ON A 30'-6" POLE PER STD 8040 (POLE CODE 1944.30), WITH A 2' MAST ARM PER APS STD. GROUNDING PER APS STANDARDS AND SPECIFICATIONS. INSTALL (2) #14 THHN/THWN FROM LUMINAIRE TO FUSE HOLDER IN POLE. INSTALL APS PULL BOX ADJACENT TO POLE WITH 1" FLEX CONDUIT TO POLE PER APS SPECIFICATIONS AND REQUIREMENTS. ALL WIRING, FUSING, AND GROUNDING PER APS DETAILS AND SPECIFICATIONS.
- 3

INSTALL ONE 70 W LED (6,634 LUMEN) CLEAR WHITE FIXTURE WITH PHOTOELECTRIC CONTROL ON A 30'-6" POLE PER STD 8040 (POLE CODE 1944.30) MOUNTED BEHIND WALL (SEE DETAIL ON SHEET 28) 5.24 FEET ABOVE SIDEWALK WITH A 2' MAST ARM PER APS STD. GROUNDING PER APS STANDARDS AND SPECIFICATIONS. INSTALL (2) #14 THHN/THWN FROM LUMINAIRE TO FUSE HOLDER IN POLE. INSTALL APS PULL BOX ADJACENT TO POLE WITH 1" FLEX CONDUIT TO POLE PER APS SPECIFICATIONS AND REQUIREMENTS. ALL WIRING, FUSING, AND GROUNDING PER APS DETAILS AND SPECIFICATIONS.

STREET LIGHTING GENERAL NOTES

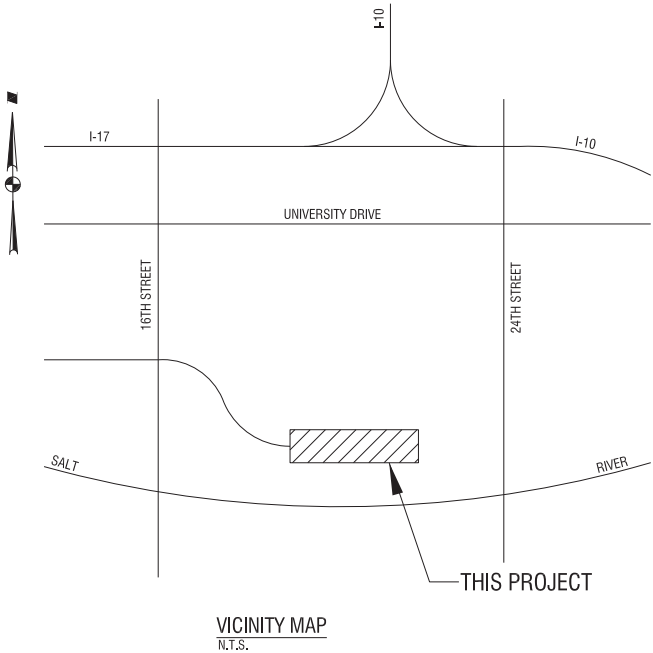
- THE FOLLOWING INFORMATION IS PROVIDED TO EMPHASIZE CRITICAL WORK AND IS INTENDED TO SUPPLEMENT THE SPECIFICATIONS.
- THE CONTRACTOR SHALL COMPLY WITH STATE AND CITY STATUTES AND ORDINANCES.
 - PRIOR TO SUBMITTAL, THE STREET LIGHT DESIGNER SHALL EXAMINE ALL GENERAL CONSTRUCTION DRAWINGS AND VISIT THE CONSTRUCTION SITE TO BECOME FAMILIAR WITH EXISTING CONDITIONS UNDER WHICH THEY WILL OPERATE AND WHICH WILL IN ANY WAY AFFECT THE WORK UNDER THE CONTRACT.
 - THE PROJECT INSPECTOR SHOULD VERIFY DIMENSIONS AT THE SITE AND IMMEDIATELY REPORT DIFFERENCES TO THE DEVELOPER'S CONSTRUCTION MANAGER AND NOT PROCEED WITH WORK UNTIL THE CONSTRUCTION MANAGER RENDERS A DECISION.
 - THE ELECTRICAL CONTRACTOR SHALL COMPLY WITH ALL LICENSING REQUIREMENTS SET FORTH BY THE STATE REGISTRAR OF CONTRACTORS OFFICE TO PERFORM WORK RELATING TO STREET LIGHT INSTALLATION IN CITY OF PHOENIX RIGHT-OF-WAY.
 - ONE DRY UTILITY PERMIT FOR EACH CITY OF PHOENIX STREET LIGHT PROJECT SHALL BE OBTAINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
 - LIGHT POLES SHALL BE INSTALLED PLUMB, BE ADJUSTED TO PROVIDE PROPER ALIGNMENT TO THE ROADWAY BEING LIGHTED AND BE PROPERLY GROUNDED WHEN THE INSTALLATION IS COMPLETED.
 - STREET LIGHTS ARE INSPECTED BY THE CITY OF PHOENIX STREETLIGHTING INSPECTOR. WHEN ACCEPTED AND ENERGIZED, THE POLE NUMBERS ARE TO BE INSTALLED BY THE CONTRACTOR.
 - LUMINAIRES SHALL BE INSTALLED LEVEL AND INCLUDE A LAMP AND PHOTOCELL. THE LUMINAIRES SHALL BE FREE OF DUST, DIRT OR ANYTHING THAT WOULD IMPAIR THE OUTPUT OF THE LIGHT
 - LUMINAIRES FURNISHED WITH MULTI-TAP BALLASTS SHALL BE REWIRED OR RECONNECTED TO MATCH THE VOLTAGE SUPPLIED BY THE ELECTRIC UTILITY COMPANY.
 - POLE SHALL BE SET PLUMB IN TWO DIRECTIONS, NINETY (90) DEGREES APART.
 - SURPLUS EXCAVATION SHALL BE DISPOSED OF BY THE CONTRACTOR.
 - WIRING SHALL BE INSTALLED PER SERVING UTILITY COMPANY STANDARDS. CONDUIT SHALL BE INSTALLED AT THE DEPTH SPECIFIED ON THEIR PLANS.
 - CONDUIT MUST BE UL RATED AND SUITABLE FOR UNDERGROUND USE PER UTILITY COMPANY REQUIREMENT.
 - CONNECTIONS SHALL BE PER SERVING UTILITY COMPANY STANDARDS. EACH POLE SHALL HAVE A 8' X 5/8" COPPER CLAD GROUND ROD DRIVEN BENEATH PULL BOX. A #6 BARE COPPER LEAD FROM THE GROUND ROD IN PULL BOX TO LANDING LUG IN STREET LIGHT POLE HAND HOLE IS REQUIRED.
 - EXCAVATION FOR PULL BOXES AND MATERIAL SPECIFICATIONS SHALL BE PER SERVING UTILITY COMPANY STANDARDS.
 - TRENCHES SHALL BE INSTALLED PER SERVING UTILITY COMPANY STANDARDS. THE USE OF A COMMON ELECTRIC UTILITY COMPANY TRENCH IS PERMITTED.
 - IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE UTILITY COMPANY FOR COORDINATION OF THE TRENCHING AND THE INSTALLATION OF CONDUIT.
 - IT IS THE CONTRACTOR'S RESPONSIBILITY TO RESTORE ALL PROPERTY, LANDSCAPING, PAVING AND DRIVEWAYS THAT ARE DISTURBED DURING STREET LIGHT CONSTRUCTION TO THEIR ORIGINAL CONDITION IN CONFORMANCE WITH MAG SPECIFICATION SECTION 107.9.
 - PRIOR TO ACCEPTANCE, THE DEVELOPER SHALL ENERGIZE AND OPERATE THE ENTIRE ROADWAY LIGHTING SYSTEM, FROM SUNSET TO SUNRISE FOR TWO (2) CONSECUTIVE DAYS WITHOUT INTERRUPTION OR FAILURE. IF A LAMP OR BALLAST SHOULD FAIL, IT SHALL BE IMMEDIATELY REPLACED. THE DEVELOPER SHALL BE RESPONSIBLE FOR FURNISHING ALL PERSONNEL AND EQUIPMENT TO SUCCESSFULLY PERFORM THIS TEST.
 - THE CONTRACTOR SHALL GUARANTEE ALL WORK FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE BY THE ENGINEERING MANAGER, AGAINST IMPERFECT WORKMANSHIP, FAILURE, MALFUNCTION OF MATERIALS AND/OR EQUIPMENT DUE TO FAULTY OR IMPERFECT WORKMANSHIP.
 - THIS GUARANTEE IS TO BE IN WRITING TO THE CITY AT THE TIME OF ISSUING FINAL ACCEPTANCE. MATERIALS AND WORKMANSHIP FOUND TO BE DEFECTIVE WITHIN THE WARRANTY PERIOD SHALL BE REPLACED WITHOUT COST TO THE CITY

LEGEND

- NEW STREETLIGHT POLE
(SEE NOTES ON DWG NP, SL-2 FOR DESCRIPTION)
- EXISTING STREET LIGHT POLE
- STREET LIGHT JUNCTION BOX PER APS STANDARDS

SHEET INDEX


COVER SHEET	29
SITE PLAN	30
DETAIL SHEET	31



ITEM NUMBER	TYPE OF STREET	QUANTITY	MOUNTING HEIGHT	POLE LENGTH	MAST ARM	APPROVED POLE & ARM MANUFACTURERS	LUMEN	TYPE	WATTAGE	VOLTAGE	APPROVED LUMINAIRE MANUFACTURERS
1	COLLECTOR	5	32'	38'-6"	2'	CEM-TEC MS-1944 VALMONT CB09159 SOUTHWEST FABRICATION, LLC 386RDB	6,634	LED	70 W	120/208/240/277 AS POWER CO. REQUIRES	AMERICAN ELECTRIC ATBM B MVOLT R2 27K MP NL P7 RFD213834
2	COLLECTOR	4	25'	30'-6"	2'	CEM-TEC MS-1944 VALMONT CB09159 SOUTHWEST FABRICATION, LLC 386RDB	6,634	LED	70 W	120/208/240/277 AS POWER CO. REQUIRES	AMERICAN ELECTRIC ATBM B MVOLT R2 27K MP NL P7 RFD213834
3	COLLECTOR	1	30,24'	30'-6"	2'	CEM-TEC MS-1944 VALMONT CB09159 SOUTHWEST FABRICATION, LLC 386RDB	6,634	LED	70 W	120/208/240/277 AS POWER CO. REQUIRES	AMERICAN ELECTRIC ATBM B MVOLT R2 27K MP NL P7 RFD213834

ALL CATALOG NUMBERS SHALL BE CONFIRMED WITH POWER COMPANY PRIOR TO ORDERING



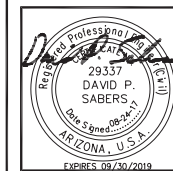
PER CITY OF PHOENIX CITY CODE CHAPTER 2, SECTION 2-28, THESE PLANS ARE FOR OFFICIAL USE ONLY & MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF CONTRACTOR'S CONTRACT WITH THE CITY OF PHOENIX.					
STREET LIGHT COVER SHEET					
<div><div></div><div>CITY OF PHOENIX, ARIZONA STREET TRANSPORTATION DEPARTMENT</div></div>					
RIVERVIEW DRIVE					
18TH PLACE TO 22ND STREET					
PROJECT #:		ST85110072		FILE NO:	
DR: IAM		DES: EDL		SHEET	
DATE: 08/17		DATE: 08/17		NO:	
SCALE: NTS		Q.S. #:		29	
				65	

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STREET LIGHT LAYOUT: RIVERVIEW DRIVE

PROJECT #: ST85110072

FILE #:

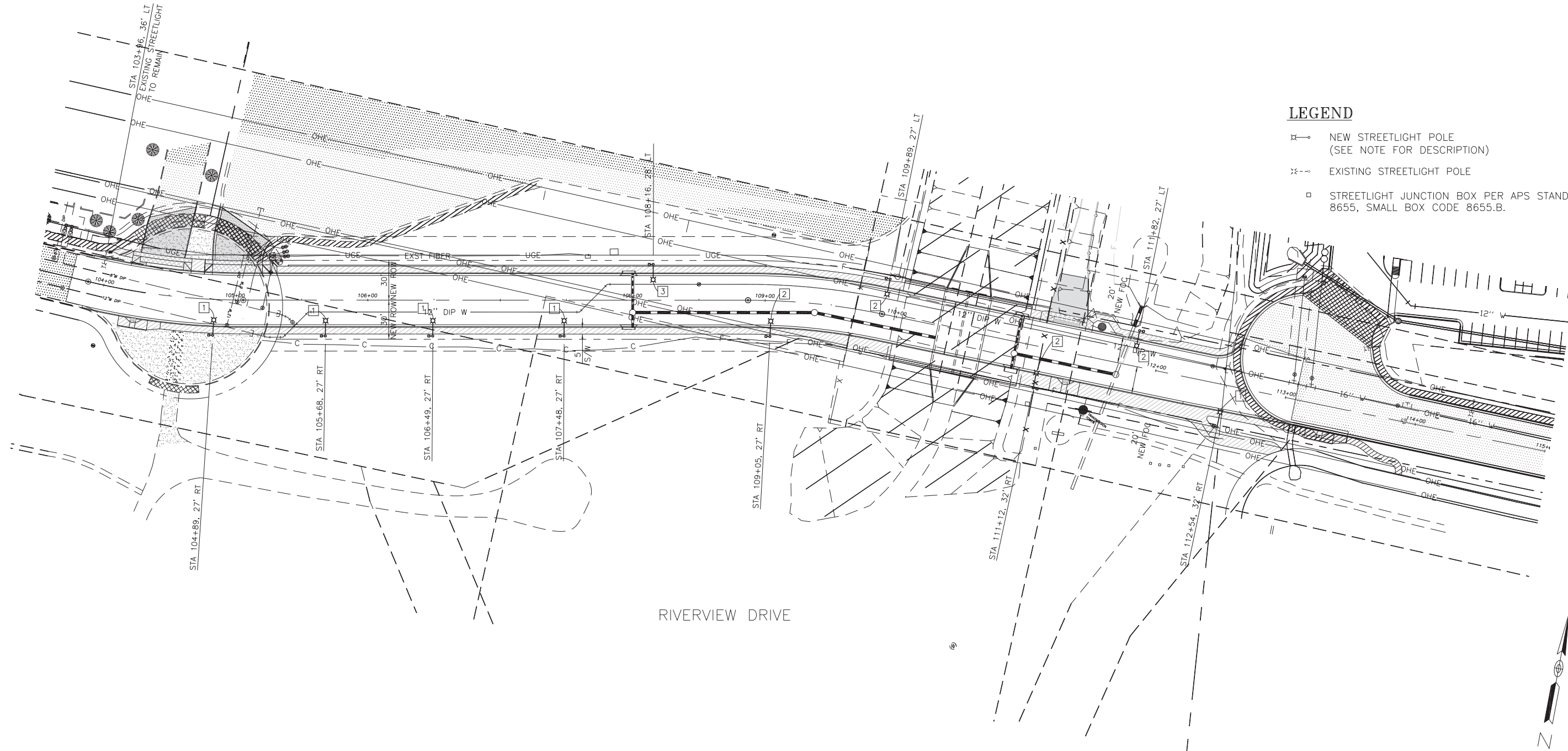


F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85110072	30	65

		1661 East Camelback Road, Suite 400 Phoenix, Arizona 85016 Phone: (602) 333-2200	
DR: IAM	DES: EDL	CK: MAL	DATE: 08/17

LEGEND

- NEW STREETLIGHT POLE
(SEE NOTE FOR DESCRIPTION)
- EXISTING STREETLIGHT POLE
- STREETLIGHT JUNCTION BOX PER APS STANDARD
8655, SMALL BOX CODE 8655.B.



STREETLIGHT NOTES

1. INSTALL ONE 70 W LED (6,634 LUMEN) CLEAR WHITE FIXTURE WITH PHOTOELECTRIC CONTROL ON A 38'-6" POLE PER STD 8040 (POLE CODE 1944.38) WITH A 2' MAST ARM PER APS STD. GROUNDING PER APS STANDARDS AND SPECIFICATIONS. INSTALL (2) #14 THHN/THWN FROM LUMINAIRE TO FUSE HOLDER IN POLE. INSTALL APS PULL BOX ADJACENT TO POLE WITH 1" FLEX CONDUIT TO POLE PER APS SPECIFICATIONS AND REQUIREMENTS. ALL WIRING, FUSING, AND GROUNDING PER APS DETAILS AND SPECIFICATIONS.
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


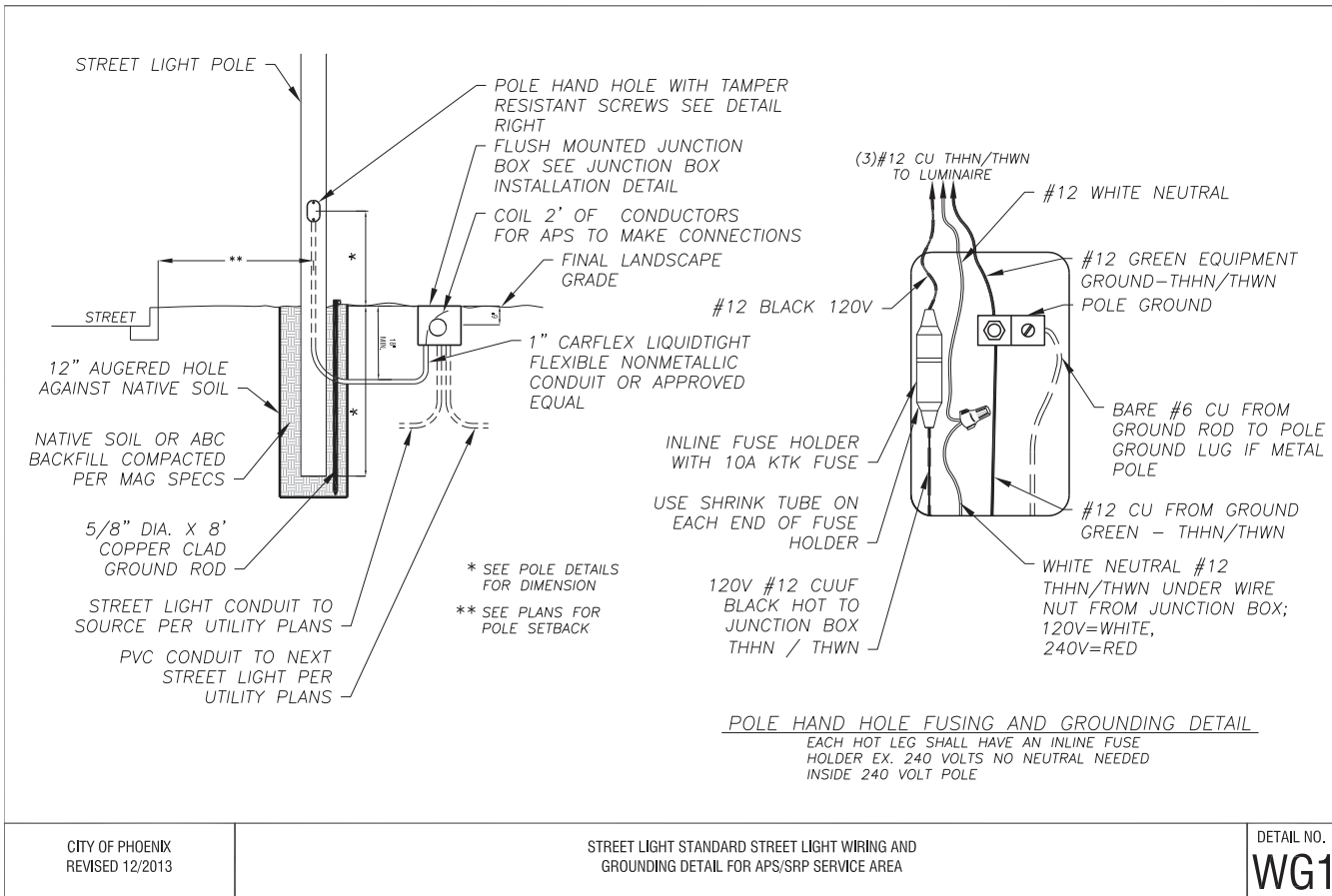
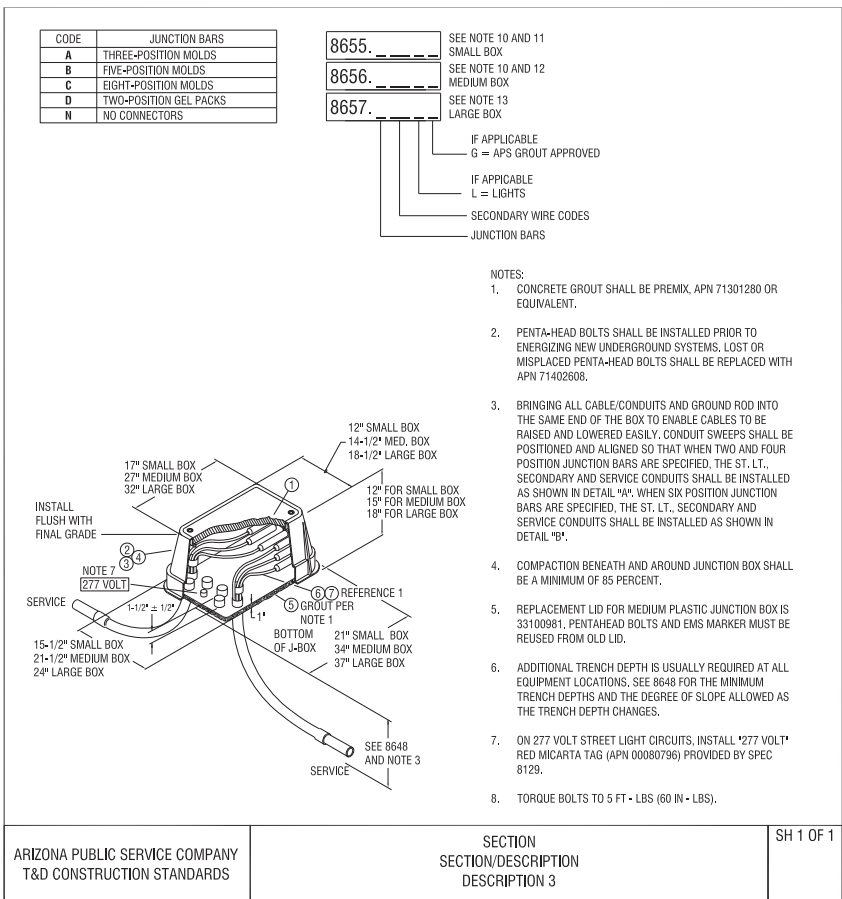
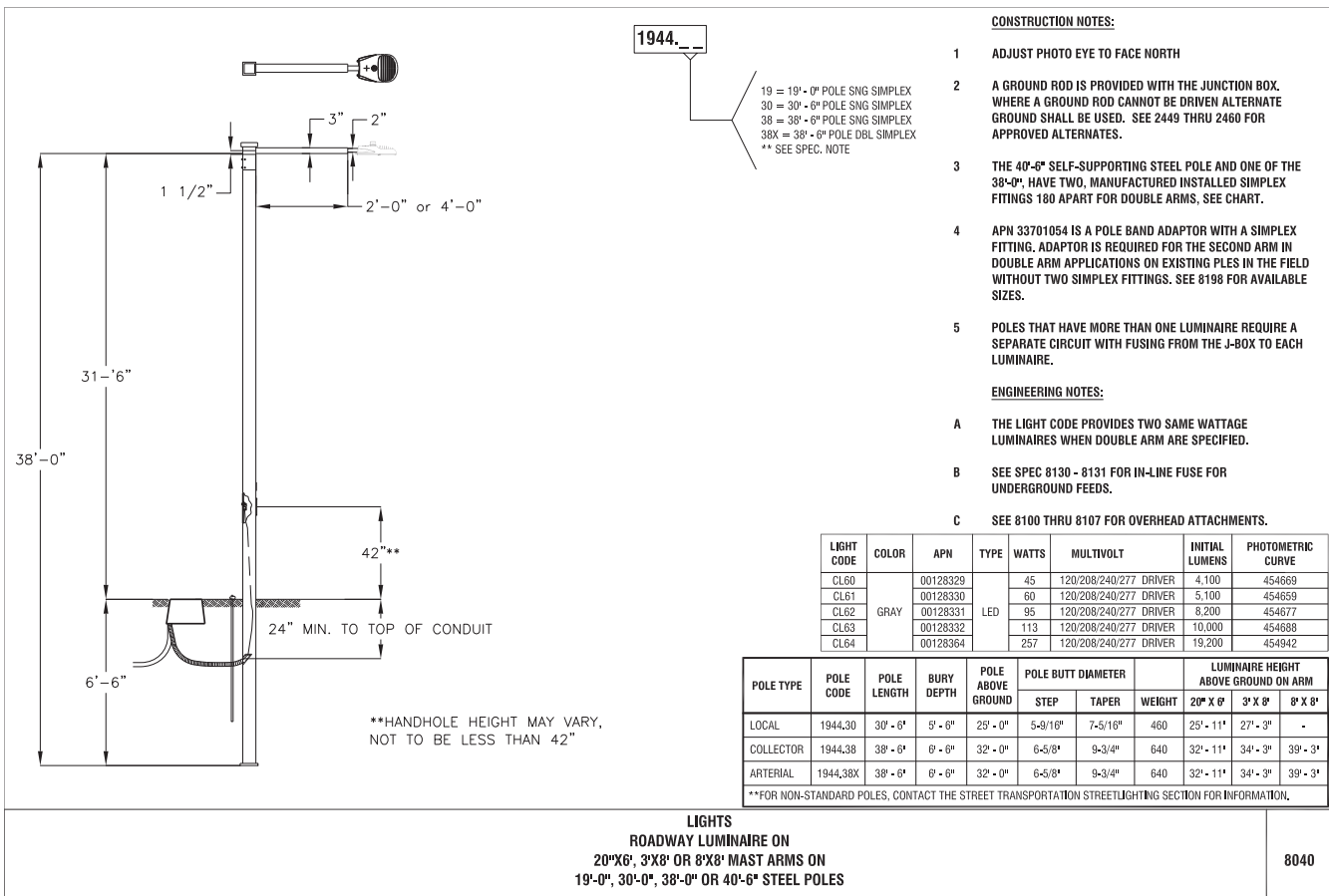
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PER CITY OF PHOENIX CITY CODE CHAPTER 2, SECTION 2-28, THESE PLANS ARE FOR OFFICIAL USE ONLY & MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF CONTRACTOR'S CONTRACT WITH THE CITY OF PHOENIX.					
STREET LIGHT LAYOUT					
CITY OF PHOENIX, ARIZONA STREET TRANSPORTATION DEPARTMENT					
RIVERVIEW DRIVE					
18TH PLACE TO 22ND STREET					
PROJECT #:		ST85110072		FILE NO: -	
DR: IAM	DES: EDL	CK: MAL	SHEET NO:		TOTAL SHEETS
DATE: 08/17	DATE: 08/17	DATE: 08/17	30		65
SCALE: 1" = 40'		QS. #:		-	

PROJECT #.: ST85110072

FILE #.: -

	F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
	9	ARIZ.	ST85110072	31	65
			1661 East Camelback Road, Suite 400 Phoenix, Arizona 85016 Phone: (602) 333-2200		
 Stanley Consultants INC.					
DR: IAM		DES: EDL	CK: MAL	DATE: 08/17	




STREETLIGHT NOTES

- 1 INSTALL ONE 70 W LED (6,344 LUMEN) CLEAR WHITE FIXTURE WITH PHOTOELECTRIC CONTROL ON A 38-6" POLE PER STD 8040 (POLE CODE 1944.38) WITH A 2" MAST ARM PER APS STD. GROUNDING PER APS STANDARDS AND SPECIFICATIONS. INSTALL (2) #14 THHN/THWN FROM LUMINAIRE TO FUSE HOLDER IN POLE. INSTALL APS PULL BOX ADJACENT TO POLE WITH 1" FLEX CONDUIT TO POLE PER APS SPECIFICATIONS AND REQUIREMENTS. ALL WIRING, FUSING, AND GROUNDING PER APS DETAILS AND SPECIFICATIONS.
- 2 INSTALL ONE 70 W LED (6,344 LUMEN) CLEAR WHITE FIXTURE WITH PHOTOELECTRIC CONTROL ON A 30-6" POLE PER STD 8040 (POLE CODE 1944.30), WITH A 2" MAST ARM PER APS STD. GROUNDING PER APS STANDARDS AND SPECIFICATIONS. INSTALL (2) #14 THHN/THWN FROM LUMINAIRE TO FUSE HOLDER IN POLE. INSTALL APS PULL BOX ADJACENT TO POLE WITH 1" FLEX CONDUIT TO POLE PER APS SPECIFICATIONS AND REQUIREMENTS. ALL WIRING, FUSING, AND GROUNDING PER APS DETAILS AND SPECIFICATIONS.
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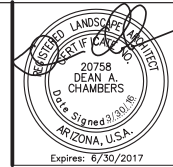
20 YEAR PHOTOCELL REQUIREMENTS

MODEL NO. DLL 127F UL 1.5 JU

PER CITY OF PHOENIX CITY CODE CHAPTER 2, SECTION 2-28, THESE PLANS ARE FOR OFFICIAL USE ONLY & MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF CONTRACTORS CONTRACT WITH THE CITY OF PHOENIX.					
STREET LIGHT DETAIL SHEET					
 CITY OF PHOENIX, ARIZONA STREET TRANSPORTATION DEPARTMENT					
RIVERVIEW DRIVE					
18TH PLACE TO 22ND D STREET					
PROJECT #:		S185110072		FILE NO: -	
DR: IAM	DES: EDL	CK: MAL	SHEET NO:	TOTAL SHEETS	
DATE: 08/17	DATE: 08/17	DATE: 08/17	SHEET NO:	TOTAL SHEETS	
SCALE: NTS		QS. #: -		31	65



RIVERVIEW DRIVE
PHOENIX STREET – MARICOPA CO.
18TH PLACE – 22ND STREET



F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	ST85110072	33	96	
03/16 DATE			STANLEY CONSULTANTS INC. CONSULTING ENGINEER		
DESIGN:		DRAWN:		CHECKED:	

HARDSCAPE CONSTRUCTION NOTES:

PROTECT IN PLACE

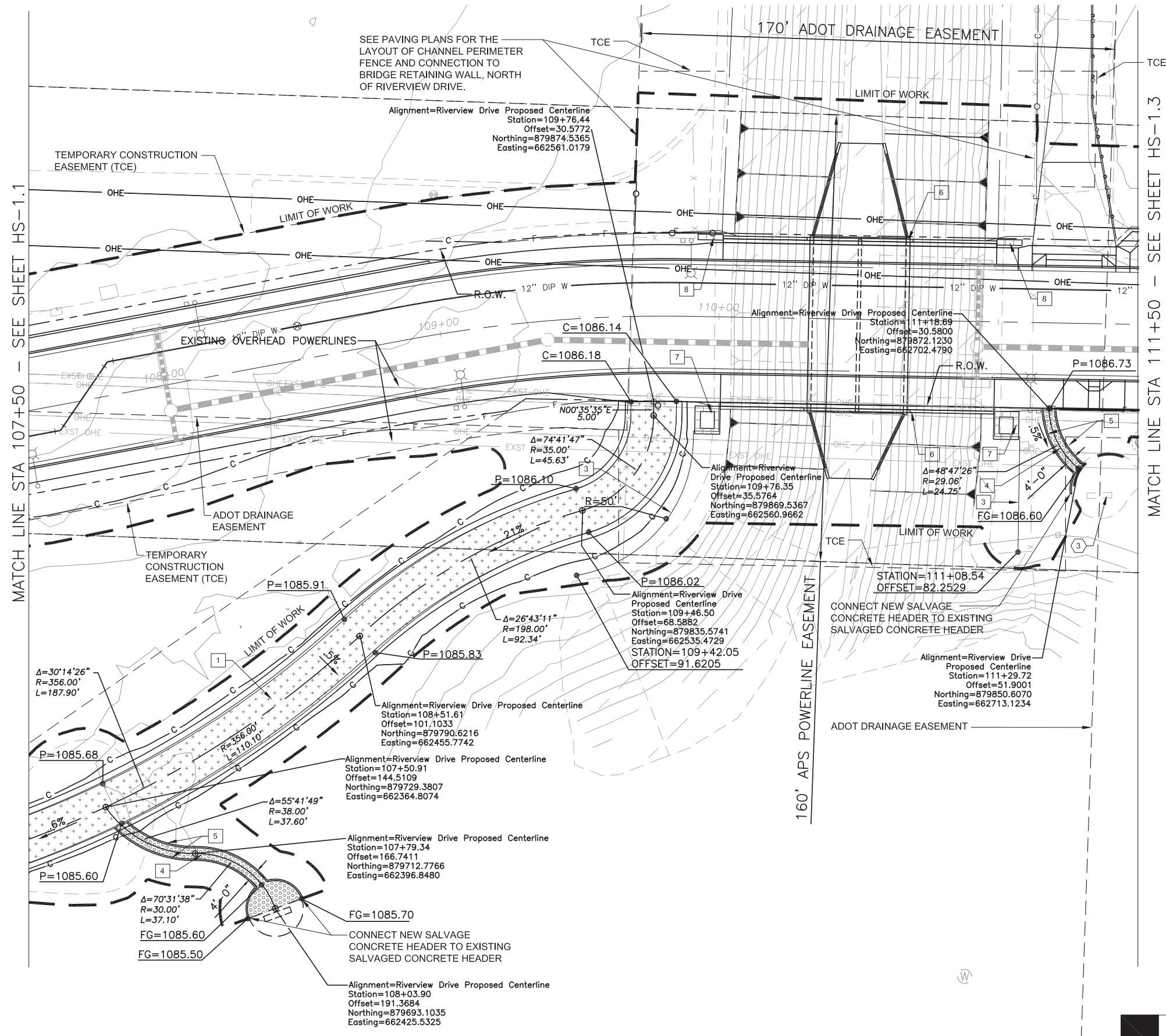
- ① EXISTING ASPHALT MAINTENANCE ROAD/ TRAIL- PROTECT IN PLACE
- ② EXISTING SAFETY ACCESS CONTROL DEVICE TO TERRACE RAMP- PROTECT IN PLACE
- ③ EXISTING TRAIL SEATING NODE WITH CONCRETE SEATWEALL & STABILIZED DECOMPOSED GRANITE- PROTECT IN PLACE
- ④ EXISTING TRANSMISSION LINE TOWER- PROTECT IN PLACE

REMOVALS

- ① SAWCUT AND REMOVE EXISTING ASPHALT MAINTENANCE ROAD/ TRAIL (NPI)
- ② EXISTING CURB TO BE REMOVED PER CIVIL PANS. RE-USE CONCRETE CURB AS SALVAGED CONCRETE HEADER PER DTL '5'; SHT SD-1.1.

CONSTRUCTION

- ① 16' WIDE ASPHALT MAINTENANCE ROAD/ TRAIL PER DTL '1'; SHT SD-1.1.
- ② RELOCATE (4) EXISTING BOULDERS FROM THE EXISTING PATHWAY DEAD END TO NEW LOCATION
- ③ 6' HIGH ARCHITECTURAL 'WAVE' FENCE PER DTL '3'; SHT SD-1.1.
- ④ STABILIZED DECOMPOSED GRANITE PATH PER DTL '4'; SHT SD-1.1.
- ⑤ SALVAGED CONCRETE HEADER PER DTL '5', SHT SD-1.1.
- ⑥ BOX CULVERT PARAPET WALL & HEAD WALL- SEE BRIDGE AESTHETIC PLANS & SHT SD-2.1 & SD-2.2.
- ⑦ ARCHITECTURAL GABION BASKET PLANTER PER DTL '1', SHT SD-1.2
- ⑧ ARCHITECTURAL GABION BASKET WALL PER DTL '1', SHT SD-1.3



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1661 East Camelback Road Suite 400 Phoenix, Arizona 85016 (602) 333-2200 www.stanleygroup.com

HARDSCAPE PLAN

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

RIVERVIEW DRIVE
18th PL TO 22nd ST.
ST85110072



J2 engineering and environmental design
4649 east cotton gin loop, suite B2
phoenix, arizona 85040
phone: 602.438.2221
www.j2design.us

DWG NO.	DR: SP	DES: DC/SP	CK: DC	SHEET NO.	TOTAL SHEETS	AS BUILT
HS-1.2	DATE: 03/16	DATE: 03/16	DATE: 03/16	33	96	
SCALE: 1" = 20'						

Diagram illustrating the cross-section of an asphalt maintenance road/trail. The total width is 16'-0". The structure consists of the following layers and dimensions:

- 3" D-3 MIX ASPHALT SURFACE COURSE**: The top layer of the pavement.
- 4" AGGREGATE BASE COURSE**: The layer below the asphalt surface course.
- FINISH GRADE - 1/2" BELOW PAVEMENT**: The edge of the pavement structure.
- 2% MAX. CROSS-SLOPE TOWARD RIVER**: The slope of the surface course.
- COMPACTED SUB-GRADE PER MAG 301 AND GEO-TECHNICAL REPORT**: The base layer below the aggregate base course.
- Dimensions**:
 - Overall width: 16'-0"
 - Asphalt surface course thickness: 3"
 - Aggregate base course thickness: 4"
 - Sub-grade thickness: 6"
 - Edge of pavement offset: 7"
 - Offset from centerline to edge of pavement: 6"
 - Offset from centerline to sub-grade edge: 4"

2 DETAIL NOT USED
SCALE: N.T.S.

Diagram illustrating the cross-section of a pavement structure with the following layers and dimensions:

- PAVEMENT**: The top layer of the structure.
- STABILIZER SOLUTION (BY STABILIZER SOLUTIONS, -336-2468 OR APPROVED EQUAL)**: A layer applied to the pavement, with a maximum thickness of **1/4" MAX.**
- FINISHED GRADE**: The surface level above the stabilizer solution.
- APPROVED PRE-EMERGENT**: A layer applied below the finished grade, with a thickness of **3"**.
- COMPACTED SUB-GRADE**: The base layer beneath the pre-emergent.

1. SIZE OF DECOMPOSED GRANITE TO BE 1/4" - MINUS. COLOR TO BE 'APACHE BROWN', SUPPLIED BY GRANITE EXPRESS, OR APPROVED EQUAL.
2. PRE-EMERGENT SHALL BE APPLIED TO FINISH GRADE BEFORE INSTALLATION OF DECOMPOSED GRANITE.
3. STABILIZER AND GRANITE SHALL BE PRE-MIXED PRIOR TO INSTALLATION MIX RATE: 12-16 LBS OF STABILIZER PER 1 TON OF DG).
4. FINAL APPLICATION OF PRE-EMERGENT SHALL BE APPLIED TO FINISH GRADE AFTER INSTALLATION OF DECOMPOSED GRANITE IS RAKED SMOOTH AND UNIFORM.
5. WHERE TRAIL MEETS EXISTING OR NEW CONCRETE SURFACES, THE VERTICAL DISTANCE BETWEEN THE TWO SURFACES SHALL BE NO GREATER THAN 1/4".

6'-0"

3'-0"

6"

6"

6"

4"

4"

18"

2"

3"

8' O.C.

4" O.C.

10" DIA.

#8 (ASTM A706) BENT HORIZONTAL REBAR IN SHAPE INDICATED, TYP. EA. PANEL

#4 (ASTM A706) HORIZONTAL REBAR

WELD HORIZ. REBAR TO POST; TYP. ALL HORIZ. REBAR

2" SQ. STD. TUBE STEEL POST AT 8'-0" O.C. IN CONCRETE FOOTING. CAP TOP OF POST.

#4 (ASTM A706) VERTICAL REBAR AT 4" O.C.

#5 (ASTM A706) HORIZONTAL REBAR

FINISH GRADE

2500 PSI CONCRETE FOOTING W/ DOME TOP

CAD WELD TO POST

#4 AWG GROUNDING WIRE

8' LONG, 5/8" COPPER GROUNDING ROD- COMPLETELY BURY ROD AND WIRE

UNDISTURBED SUB-GRADE

1. CONCRETE LENGTHS VARY BETWEEN 12" (MIN.) AND 24" (MAX.)
2. MAXIMUM SPACE BETWEEN CONCRETE REMNANTS TO BE 1/2"
3. CONTRACTOR TO RE-USE EXISTING CUL-DE-SAC CONCRETE CURB THAT IS BEING REMOVED AS A PART OF THIS PROJECT.



F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	ST85110072	35	96	
<u>03/16</u> DATE			STANLEY CONSULTANTS INC. CONSULTING ENGINEER		
DESIGN:		DRAWN:		CHECKED:	

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SITE DETAILS

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

RIVERVIEW DRIVE
18th PL TO 22nd ST.
ST85110072

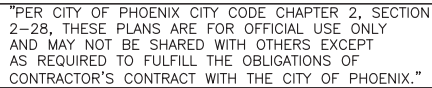
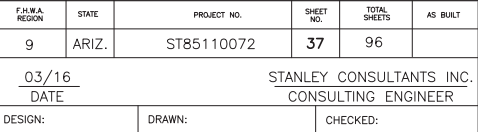
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SD-1.1	SCALE: 1" = 20'			35	96	

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18TH PLACE - 22ND STREET

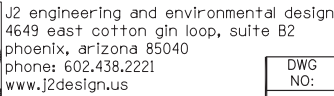


SCALE: $1/2"=1'-0"$



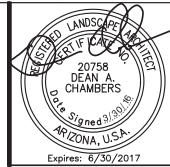
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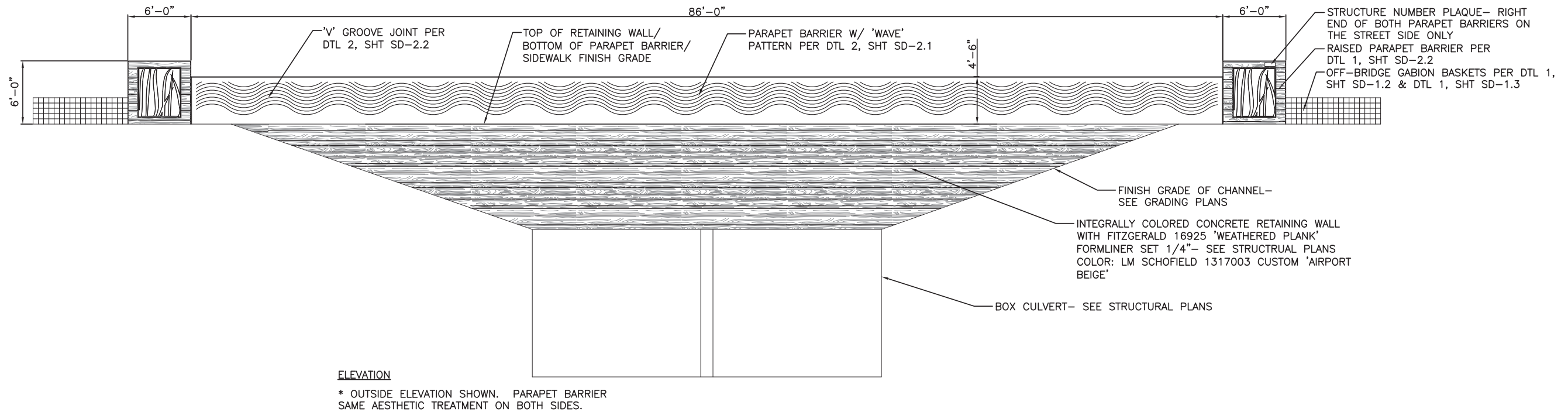


SD-1.3	SCALE: 1" = 20'
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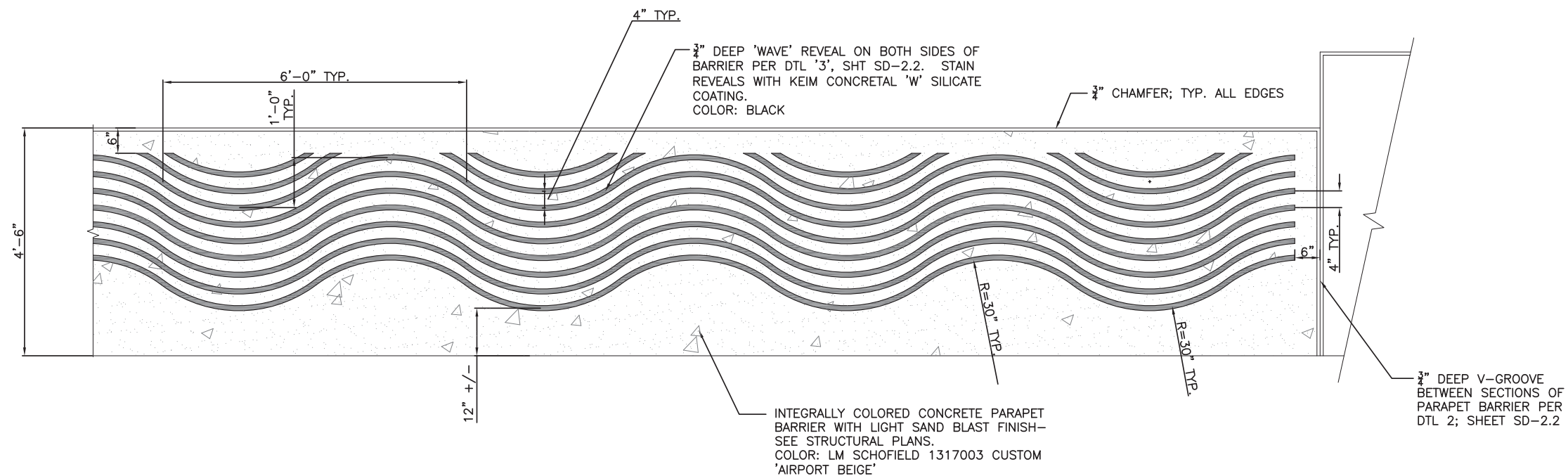
RIVERVIEW DRIVE
PHOENIX STREET – MARICOPA CO.
18TH PLACE – 22ND STREET



F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
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03/16 DATE			STANLEY CONSULTANTS INC. CONSULTING ENGINEER		
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1 RETAINING WALL & PARAPET BARRIER ELEVATION



NOTE:
COST OF FORMLINERS, REVEAL STRIPS,
SILICATE STAIN, INTEGRAL COLORED
CONCRETE, CONCRETE FINISHING, AND OTHER
ITEMS RELATED TO WALL RUSTIFICATION
SHALL BE CONSIDERED INCIDENTAL TO THE
COST OF THE RETAINING WALLS & PARAPET
BARRIERS.



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WALL RUSTICATION DETAILS

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2 4'-6" HIGH PARAPET BARRIER ELEVATION

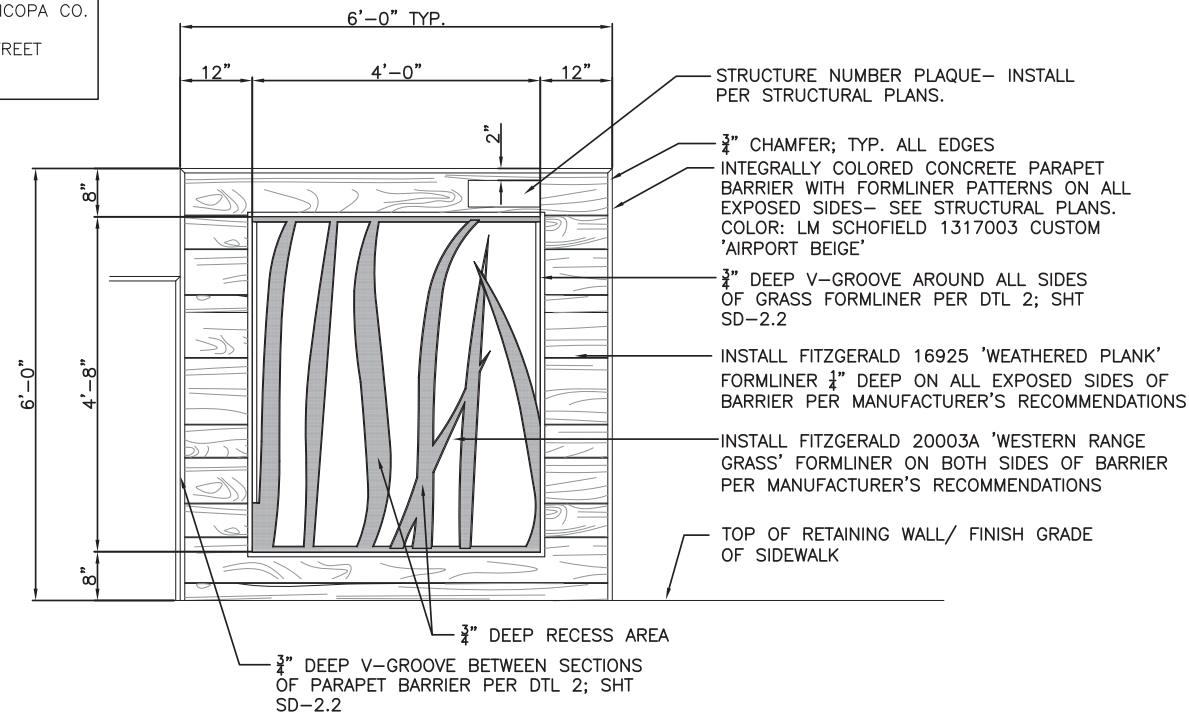


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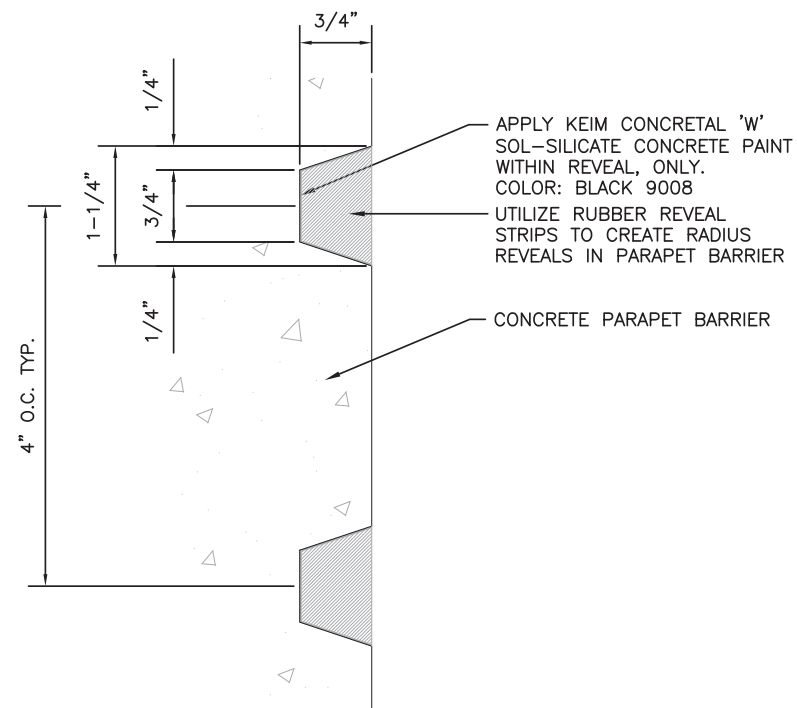
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SD-2.1	DATE: 03/16	DATE: 03/16	DATE: 03/16	38	96	
SCALE: 1" = 20'						

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RIVERVIEW DRIVE
PHOENIX STREET - MARICOPA CO.
18TH PLACE - 22ND STREET



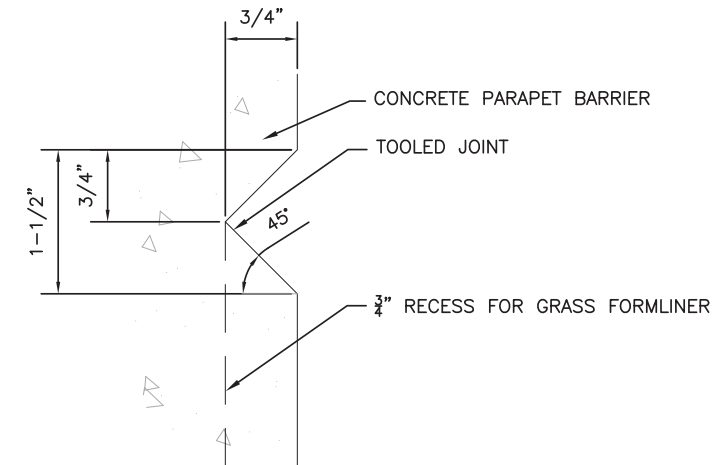
① 6'-0" HIGH PARAPET BARRIER ELEVATION



③ WAVE REVEAL DETAIL



F.H.R.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
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03/16 DATE			STANLEY CONSULTANTS INC. CONSULTING ENGINEER		
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② V-GROOVE DETAIL

NOTE:
COST OF FORMLINERS, REVEAL STRIPS,
SILICATE STAIN, INTEGRAL COLORED
CONCRETE, CONCRETE FINISHING, AND OTHER
ITEMS RELATED TO WALL RUSTICATION SHALL
BE CONSIDERED INCIDENTAL TO THE COST
OF THE RETAINING WALLS & PARAPET
BARRIERS.



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WALL RUSTICATION DETAILS

CITY OF PHOENIX, ARIZONA
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RIVERVIEW DRIVE
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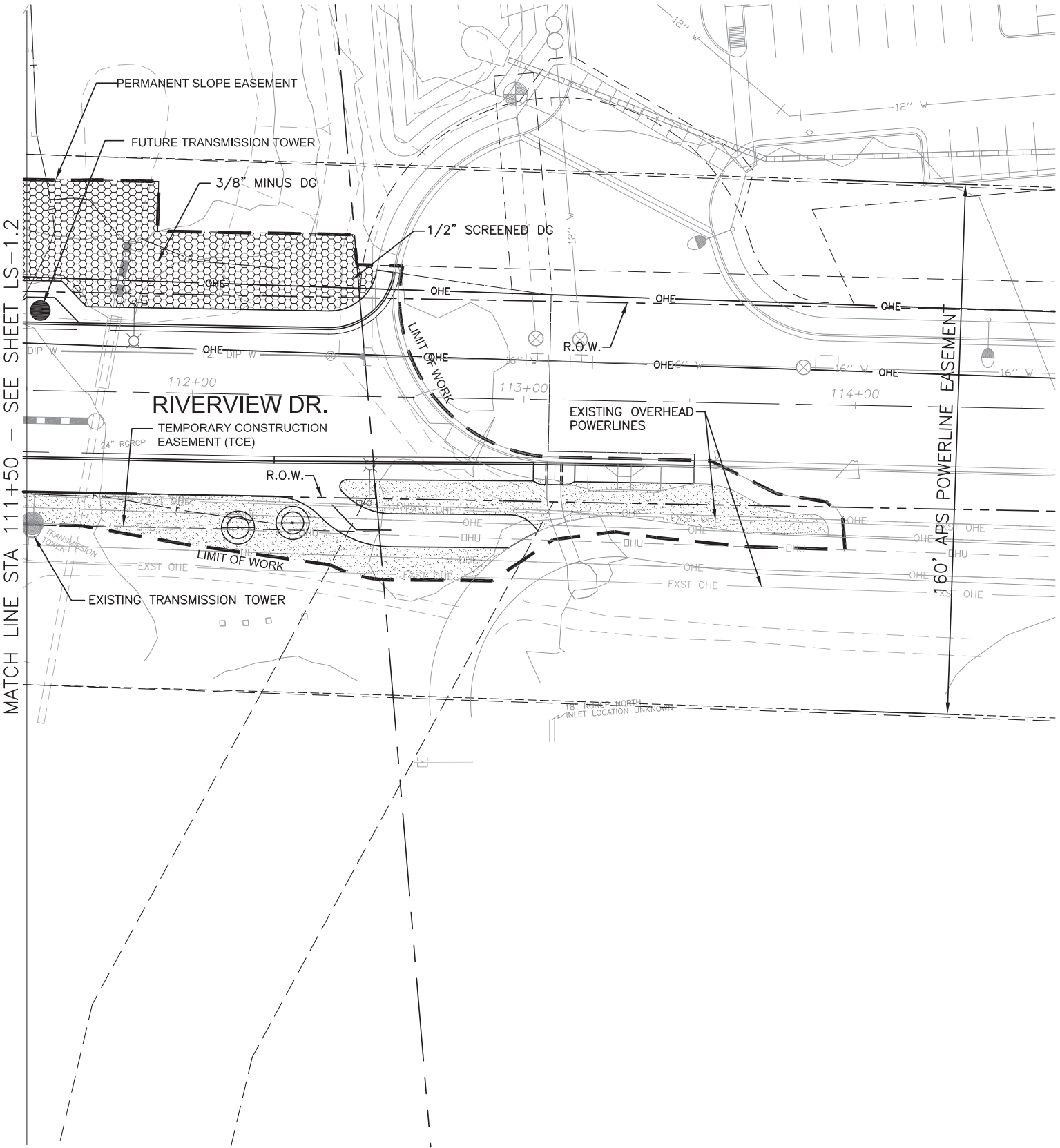


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SD-2.2	SCALE: 1" = 20'			39	96	

















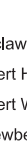

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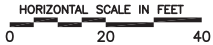
RIVERVIEW DRIVE
PHOENIX STREET - MARICOPA CO.
18TH PLACE - 22ND STREET



F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	ST85110072	43	96	
<u>03/16</u> DATE		STANLEY CONSULTANTS INC. CONSULTING ENGINEER			
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PLANT SCHEDULE:

<u>BOTANICAL NAME</u> TREES:	<u>COMMON NAME</u>
	Acacia greggii
	Celtis pallida
	Chilopsis linearis
	Prosopis pubescens
	Prosopis juliflora
	Catclaw Acacia
	Desert Hackberry
	Desert Willow
	Screwbean Mesquite
	Arizona Native Mesquite
ACCENTS/SHRUBS:	
	— Agave bovicornuta
	— Hesperaloe parviflora
	— Lantana camara
	'Gold Mound'
SEED MIX:	
	Native Lower Sonoran Mesquite
	Hydroseed Mix- See Specifications
INERT MATERIAL:	
	Decomposed Granite - 2" Thick
	Match Existing Size (per plan) & Color
	Stabilized Decomposed Granite - 3" Thick
	1/4" Minus Apache Brown
	Landscape Rip-Rap - 8" Thick
	4"-8" River Rock over Filter Fabric
EXISTING LANDSCAPE AREA:	
	Protect Existing Landscape Area in Place. Contractor to Restore Existing Plants, Decomposed Granite, & Irrigation Damaged on Private Property by Construction at Contractor's Expense. The TCE Contains the Following Existing Shrubs:
	(5) Gold Lantana
	(5) Desert Spoon
	(44) Green Cloud Sage
	(27) Red Yucca
	(11) Mexican Bird of Paradise
	(6) Baja Ruellia



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PLANTING PLAN

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

RIVERVIEW DRIVE
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DWG NO:	DR: SP DATE:03/16	DES: DC/SP DATE:03/16	CK: DC DATE:03/16	SHEET NO:	TOTAL SHEETS	AS BUILT
LS-1.3	SCALE: 1" = 20'			43	96	



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Diagram illustrating the components and instructions for a tree planting pit:

- TREES TO BE PRUNED BY CONTRACTOR AS DIRECTED BY LANDSCAPE ARCHITECT
- THREE-2" DIA. BY LENGTH VARIES LODGEPOLE TREE STAKE. DRIVEN MINIMUM OF 12" INTO UNDISTURBED SOIL AT OUTER FACE OF PLANTING PIT. CUT OFF POLE 6" ABOVE TOP WIRE.
- "ARBOR-GUARD" TREE TIES OR THE WIRES, 12 GA. WIRE THRU MULTI-PLY RUBBER HOSE, END OF WIRE STAPLED TO STAKE. PLACE TOP TIE FOR MAXIMUM SUPPORT ABOVE LOWEST SCAFFOLD BRANCHES. BOTTOM TIE PLACED HALFWAY BETWEEN TOP TIE AND GRADE, OR AS DIRECTED BY LANDSCAPE ARCHITECT.
- FERTILIZER TABLETS (10 GRAM 20-10-5) 3 PER 15 GAL. TREE, 4 PER 24" BOX, HALFWAY DOWN ALONG ROOTBALL
- WATER SETTLE PLANT PIT PRIOR TO PLANTING. HAND TAMP AND WATER SETTLE BACKFILL MIXTURE. SECOND WATERING SHALL BE WITHIN 24 HOURS.
- 1" DEPTH D.G. AROUND TRUNK (WHERE OCCURS)
- 2" DEPTH D.G. OVER NON PLANT PIT AREAS
- EXISTING SOIL
- ROOTBALL
- SCARIFY SIDES AND BOTTOM OF PLANTER PIT (INSPECTION REQUIRED)

120°

ROOT BALL

TREE PIT

12 GA WIRE

STAKE

TREE STAKE SPACING

HOSE

TREE TRUNK

STAPLE

TREE STAKE

TYP. WIRE ATTACHMENT

(OR) "ARBOR-GUARD" TREE TIES TO BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS

PROVIDE FINAL APPLICATION OF PRE-EMERGENT WEED CONTROL UPON FINAL RAKING

2" LAYER OF DECOMPOSED GRANITE (D.G.) COLOR & SIZE PER SHT. LS-01, (SEE PLANS FOR LOCATIONS). CONTRACTOR TO LAY IN 1" LIFTS AND COMPACT IN PLACE. FINISH SURFACE TO BE RAKED SMOOTH.

2" MIN.

PLY PRE-EMERGENT HERBICIDE PER MANUFACTURER'S COMMENDATIONS (SURFLAN OR PROVED EQUAL)

COMPACTED & FINE GRADED SUBGRADE PER MAG 301 AND SOILS REPORT

NOTES:

1. ALL D.G. SLOPES IN EXCESS OF 6:1 SHALL BE COMPACTED BY WATER & ROLLING.
2. CONTRACTOR TO PROVIDE PROPOSED D.G. SAMPLE TO OWNER REPRESENTATIVE PRIOR TO ORDERING AND INSTALLATION.

4"-8" RIP-RAP

8" DEPTH

HIGH SURVIVABILITY FILTER FABRIC

COMPACTED & FINE GRADED SUBGRADE PER MAG 301 AND SOILS REPORT

****NOTE:**
 *PLANTS DELIVERED WITH CRACKED OR BROKEN CONTAINERS WILL BE REJECTED.
 *SEE SPECIFICATIONS FOR PLANT BACKFILL MIX
 *MINIMUM PLANT PIT IS 2-1/2 TIMES THE DIAMETER OF ROOTBALL, AND NO DEEPER THAN DEPTH OF THE ROOTBALL
 *ROOTBALL CROWN TO BE 1/2" HIGHER THAN ADJACENT FINISH GRADE.

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

ARIZONA811
Arizona Blue Stake, Inc.

Dial 8-1-1 or 1-800-5TAKE-IT (782-5348)
in Maricopa County: (602) 263-1100

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CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

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LSD-2.1	SCALE: 1" = 20'			44	96	

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RIVERVIEW DRIVE
PHOENIX STREET - MARICOPA CO.
18TH PLACE - 22ND STREET



F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	ST85110072	45	96	
<u>03/16</u> DATE			STANLEY CONSULTANTS INC. CONSULTING ENGINEER		
DESIGN:		DRAWN:		CHECKED:	












INSTALLATION GENERAL NOTES

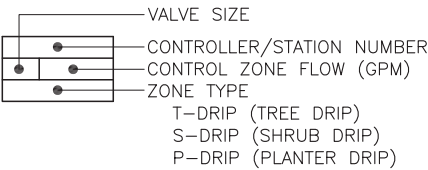
3. READ THOROUGHLY AND BECOME FAMILIAR WITH THE SPECIFICATIONS AND INSTALLATION DETAILS FOR THIS AND RELATED WORK PRIOR TO CONSTRUCTION.
2. COORDINATE UTILITY LOCATES ("CALL BEFORE YOU DIG") OF UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
3. DO NOT PROCEED WITH THE INSTALLATION OF THE IRRIGATION SYSTEM WHEN IT IS OBVIOUS IN THE FIELD THAT OBSTRUCTIONS OR GRADE DIFFERENCES EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED IN THE ENGINEERING, OR IF DISCREPANCIES IN CONSTRUCTION DETAILS, LEGEND, NOTES, OR SPECIFICATIONS ARE DISCOVERED. BRING ALL SUCH OBSTRUCTIONS OR DISCREPANCIES TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE IN WRITING PRIOR TO CONSTRUCTION.
4. THE DRAWINGS ARE DIAGRAMMATIC. THEREFORE, THE FOLLOWING SHOULD BE NOTED:
 - A. IRRIGATION COMPONENTS MAY BE SHOWN OUTSIDE PLANTING AREAS FOR GRAPHIC CLARITY ONLY. AVOID CONFLICTS BETWEEN THE IRRIGATION SYSTEM, UTILITIES, PLANTING MATERIALS, AND ARCHITECTURAL FEATURES. INSTALL IRRIGATION PIPE AND WIRING IN LANDSCAPED AREAS WHENEVER POSSIBLE.
 - B. USE ONLY STANDARD TEES AND ELBOW FITTINGS. USE OF CROSS TYPE FITTINGS IS NOT PERMITTED.
5. PROVIDE THE FOLLOWING COMPONENTS TO THE OWNER PRIOR TO THE COMPLETION OF THE PROJECT:
 - A. TWO OPERATING KEYS FOR EACH TYPE OF MANUALLY OPERATED VALVE.
 - B. TWO OF EACH SERVICING WRENCH OR TOOL NEEDED FOR COMPLETE ACCESS, ADJUSTMENT, AND REPAIR OF ALL ROTARY SPRINKLERS.
 - C. TWO RAIN BIRD 44K QUICK COUPLING KEYS, EACH WITH ATTACHED RAIN BIRD SH-1 SWIVEL HOSE ELL AND NIBCO T29-1 WATER CONTROL VALVE FOR OPERATION OF THE QUICK COUPLING VALVES SHOWN ON THE DRAWINGS.
6. THE IRRIGATION CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF IRRIGATION SLEEVING. SLEEVES ARE TO BE INSTALLED FOR BOTH PIPING AND ELECTRICAL WIRING AT EACH HARDSCAPE CROSSING. COORDINATE INSTALLATION OF SLEEVING WITH OTHER TRADES. ANY PIPE OR WIRE WHICH PASSES BENEATH EXISTING HARDSCAPE WHERE SLEEVING WAS NOT INSTALLED REQUIRES HORIZONTAL BORING BY THE IRRIGATION CONTRACTOR. SLEEVE AND CONDUIT SIZES SHALL BE A MINIMUM OF TWICE THE AGGREGATE DIAMETER OF ALL PIPE AND WIRE CONTAINED WITHIN SLEEVE OR CONDUIT PIPE.
7. INSTALL ALL ELECTRICAL POWER TO THE IRRIGATION CONTROL SYSTEM IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE AND ALL APPLICABLE LOCAL ELECTRIC UTILITY CODES.
8. WITH REGARD TO PIPE SIZING, THE FOLLOWING SHOULD BE NOTED: IF A SECTION OF UNSIZED PIPE IS LOCATED BETWEEN TWO IDENTICALLY SIZED SECTIONS, THE UNSIZED PIPE IS THE SAME NOMINAL SIZE AS THE TWO SIZED SECTIONS. THE UNSIZED PIPE SHOULD NOT BE CONFUSED WITH THE DEFAULT PIPE SIZE NOTED IN THE LEGEND.
9. INSTALL #12-1 AWG UF/UL 600 VOLT DIRECT-BURY WIRE FOR ALL COMMON WIRE. COLOR CODE WIRES AS DIRECTED BY CITY OF PHOENIX REPRESENTATIVE.

IRRIGATION QUANTITIES

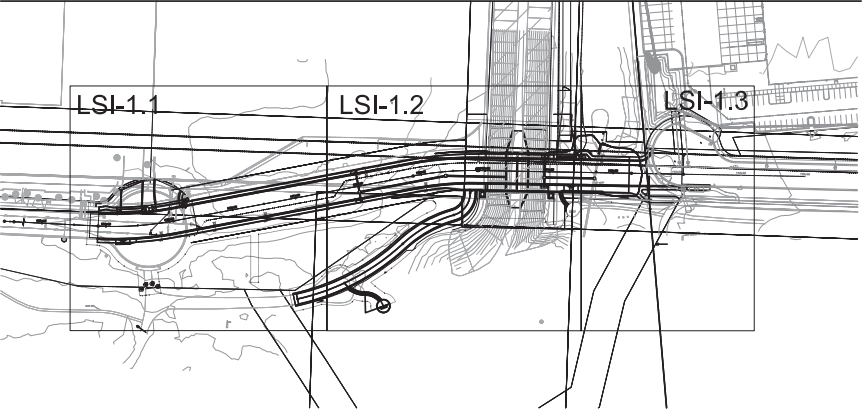
SUB—MAINLINE (1" SCH 40 PVC)	59 LF
DRIP LATERAL LINE (¾" SCH 40 PVC)	1,695 LF
ELECTRIC REMOTE CONTROL VALVE ASSEMBLY (1")	2 EA.
PRESSURE REGULATOR & BASKET FILTER (1")	2 EA.
GATE VALVE (1")	1 EA.
SLEEVE (4")	135 LF

LEGEND

-  SLEEPING: SCH 40 PVC PIPE (4-INCH SIZE UNLESS OTHERWISE INDICATED)
-  SUB-MAINLINE PIPE: CLASS 200 PVC (2-INCH AND 2.5-INCH)
SCH 40 PVC (1-INCH AND 1.5-INCH)
-  EXISTING 2" SCH 40 RIO SALADO SUB-MAINLINE
-  TREE EMITTER LATERAL PIPE: SCH 40 PVC
(3/4-INCH SIZE UNLESS OTHERWISE INDICATED)
SEE EMITTER PLACEMENT DETAIL FOR EMITTER LATERAL PIPE
SIZING AND INSTALLATION
-  SHRUB EMITTER LATERAL PIPE: SCH 40 PVC
(3/4-INCH SIZE UNLESS OTHERWISE INDICATED)
SEE EMITTER PLACEMENT DETAIL FOR EMITTER LATERAL PIPE
SIZING AND INSTALLATION
-  GABION PLANTER EMITTER LATERAL PIPE: SCH 40 PVC
(3/4-INCH SIZE UNLESS OTHERWISE INDICATED)
SEE EMITTER PLACEMENT DETAIL FOR EMITTER LATERAL PIPE
SIZING AND INSTALLATION
-  UNCONNECTED PIPE CROSSING
-  ISOLATION GATE VALVE ASSEMBLY - NIBCO T-113-K
-  REMOTE CONTROL VALVE ASSEMBLY FOR DRIP LATERALS:
RAIN BIRD 100-PEB
-  PRESSURE REGULATOR & WYE FILTER ASSEMBLY:
PLASTIC BODY, 25-75 PSI/ 30 MESH SCREEN - 1" SIZE
- MULTI-PORIT EMITTER - BOWSMITH ML-210
SEE EMITTER SCHEDULE
- SINGLE-PORIT EMITTER - BOWSMITH SL-210
SEE EMITTER SCHEDULE
-  FLUSH CAP ASSEMBLY: SEE DETAIL



KEY MAP



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IRRIGATION SCH & NOTES

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LSI-0.1	SCALE: 1" = 20'			45	96	



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SYM.	DESCRIPTION
	IRRIGATION CONTROLLER
	GATE VALVE
	REMOTE CONTROL VALVE ASSEMBLY
	DRIP FILTER/REGULATOR ASSEMBLY
	FLUSH END CAP ASSEMBLY
N/S	EMITTER—MULTI—OUTLET ASSEMBLY
N/S	EMITTER—SINGLE—OUTLET ASSEMBLY
	QUICK COUPLER ASSEMBLY

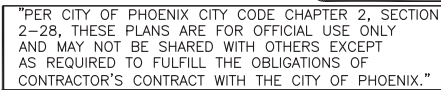
	IRRIGATION MAINLINE PIPE
	EXISTING MAINLINE PIPE
	TREE DRIP LATERAL
	SHRUB/ACCENT/GROUNDCOVER LATERAL
	GABION PLANTER LATERAL
	SLEEVE PIPE

Diagram of a 12-pin connector with labels:

- VALVE SIZE
- CONTROLLER/STATION NUMBER
- CONTROL ZONE FLOW (GPM)
- ZONE TYPE
 - T-DRIP (TREE DRIP)
 - S-DRIP (SHRUB DRIP)
 - P-DRIP (PLANTER DRIP)

HORIZONTAL SCALE IN FEET

A horizontal scale bar labeled "HORIZONTAL SCALE IN FEET" with markings at 0, 20, and 40. The bar is divided into 5 equal segments by 4 tick marks, indicating a scale of 8 feet per segment.



STREET TRANSPORTATION DEPARTMENT



DWG NO:	DR: SP DATE:03/16	DES: DC/SP DATE:03/16	CK: DC DATE:03/16	SHEET NO:	TOTAL SHEETS	AS BUILT
LSI-1.1	SCALE: 1" = 20'			46	96	

[illegible]







MATCH LINE STA 107+50 - SEE SHEET LSI-1.2

[illegible]

18TH PLACE - 22ND STREET



DESIGN:	DRAWN:	CHECKED:
---------	--------	----------

SYM.	DESCRIPTION
	IRRIGATION CONTROLLER
	GATE VALVE
	REMOTE CONTROL VALVE ASSEMBLY
	DRIP FILTER/REGULATOR ASSEMBLY
	FLUSH END CAP ASSEMBLY
N/S	EMITTER—MULTI—OUTLET ASSEMBLY
N/S	EMITTER—SINGLE—OUTLET ASSEMBLY
	QUICK COUPLER ASSEMBLY







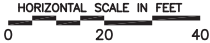
	IRRIGATION MAINLINE PIPE
	EXISTING MAINLINE PIPE
	TREE DRIP LATERAL
	SHRUB/ACCENT/GROUND COVER LATERAL
	GABION PLANTER LATERAL
	SLEEVE PIPE

Diagram of a 5-pin irrigation controller plug with labels:

- VALVE SIZE
- CONTROLLER/STATION NUMBER
- CONTROL ZONE FLOW (GPM)
- ZONE TYPE
 - T-DRIP (TREE DRIP)
 - S-DRIP (SHRUB DRIP)
 - P-DRIP (PLANTER DRIP)

NOTE:
ALL SLEEVES TO BE 4" PVC
UNLESS OTHERWISE NOTED



"PER CITY OF PHOENIX CITY CODE CHAPTER 2, SECTION 2-28, THESE PLANS ARE FOR OFFICIAL USE ONLY AND MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF CONTRACTOR'S CONTRACT WITH THE CITY OF PHOENIX."



Stanley Consultants

1661 East Camelback Road
Suite 400
Phoenix, Arizona
85016
(602) 333-2200
www.stanleygroup.com

IRRIGATION PLAN

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

RIVERVIEW DRIVE
18th PL TO 22nd ST.
ST85110072

DWG NO:	DR: SP DATE: 03/16	DES: DC/SP DATE: 03/16	CK: DC DATE: 03/16	SHEET NO:	TOTAL SHEETS	AS BUILT
LSI-1.3	SCALE: 1" = 20'			48	96	



J2 engineering and environmental design
4649 east cotton gin loop, suite B2
phoenix, arizona 85040
phone: 602.438.2221
www.j2design.us

DWG NO:

10-INCH ROUND VALVE BOX WITH COVER.

FINISH GRADE

BACKFILL TO DEPTH OF SEWER PIPE
W/3" OF 3/4 INCH WASHED GRAVEL.

BRICK (1 OF 4)

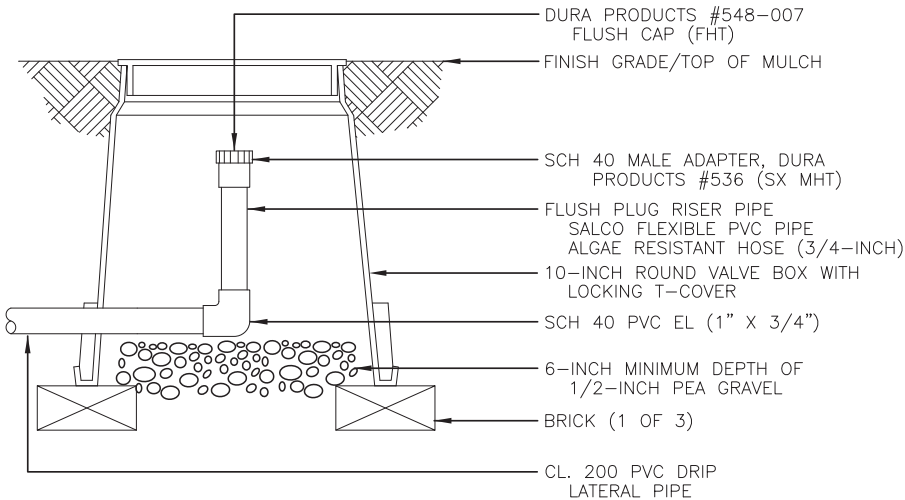
6 INCH PVC SEWER PIPE
(LENGTH AS REQUIRED)

GATE VALVE W/OPERATING NUT.
(SEE LEGEND FOR MAKE AND MODEL)

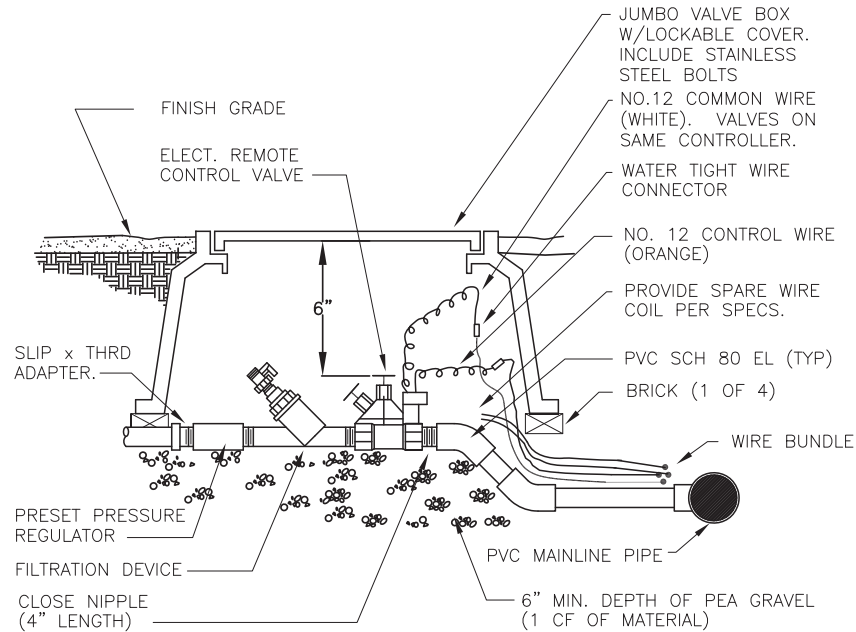
PVC MAINLINE PIPE

NO. 4 REBAR WITH MASTIC
COATING (1 OF 2)

1 ISOLATION GATE VALVE
ASSEMBLY



3 FLUSH CAP ASSEMBLY



2 EMITTER CONTROL VALVE
ASSEMBLY



F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	ST85110072	49	96	
<u>03/16</u> DATE			STANLEY CONSULTANTS INC. CONSULTING ENGINEER		
DESIGN:		DRAWN:		CHECKED:	



"PER CITY OF PHOENIX CITY CODE CHAPTER 2, SECTION 2-28, THESE PLANS ARE FOR OFFICIAL USE ONLY AND MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF CONTRACTOR'S CONTRACT WITH THE CITY OF PHOENIX."



Stanley Consultants INC. (602) 333-2200
www.stanleygroup.com

IRRIGATION DETAILS

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

RIVERVIEW DRIVE
18th PL TO 22nd ST.
ST85110072



J2 engineering and environmental design
4649 east cotton gin loop, suite B2
phoenix, arizona 85040
phone: 602.438.2221
www.j2design.us

DWG NO:

DWG NO:	DR: SP DATE:03/16	DES: DC/SP DATE:03/16	CK: DC DATE:03/16	SHEET NO:	TOTAL SHEETS	AS BUILT
LSID-2.1	SCALE: 1" = 20'			49	96	

REVISION BY CITY OF PHOENIX			REVISION BY CITY OF PHOENIX			REVISION BY CITY OF PHOENIX			REVISION BY CITY OF PHOENIX		
DESCRIPTION			DESCRIPTION			DESCRIPTION			DESCRIPTION		
REV BY CKD BY DATE			REV BY CKD BY DATE			REV BY CKD BY DATE			REV BY CKD BY DATE		
NO.			NO.			NO.			NO.		

REVISION BY CITY OF PHOENIX				REVISION BY CITY OF PHOENIX				REVISION BY CITY OF PHOENIX			
DESCRIPTION		REV BY CKD BY DATE		DESCRIPTION		REV BY CKD BY DATE		DESCRIPTION		REV BY CKD BY DATE	
NO.				NO.				NO.			

REVISION BY CITY OF PHOENIX

REVISION BY CITY OF PHOENIX

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CHK BY	DATE

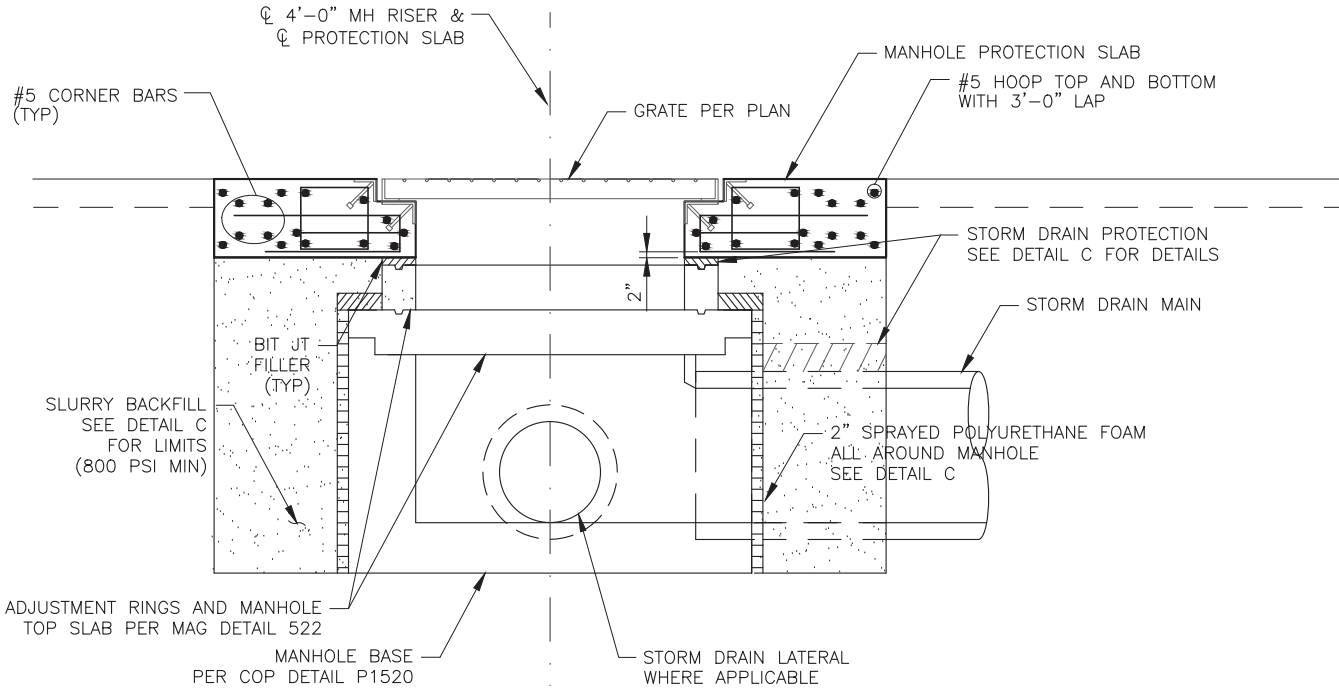
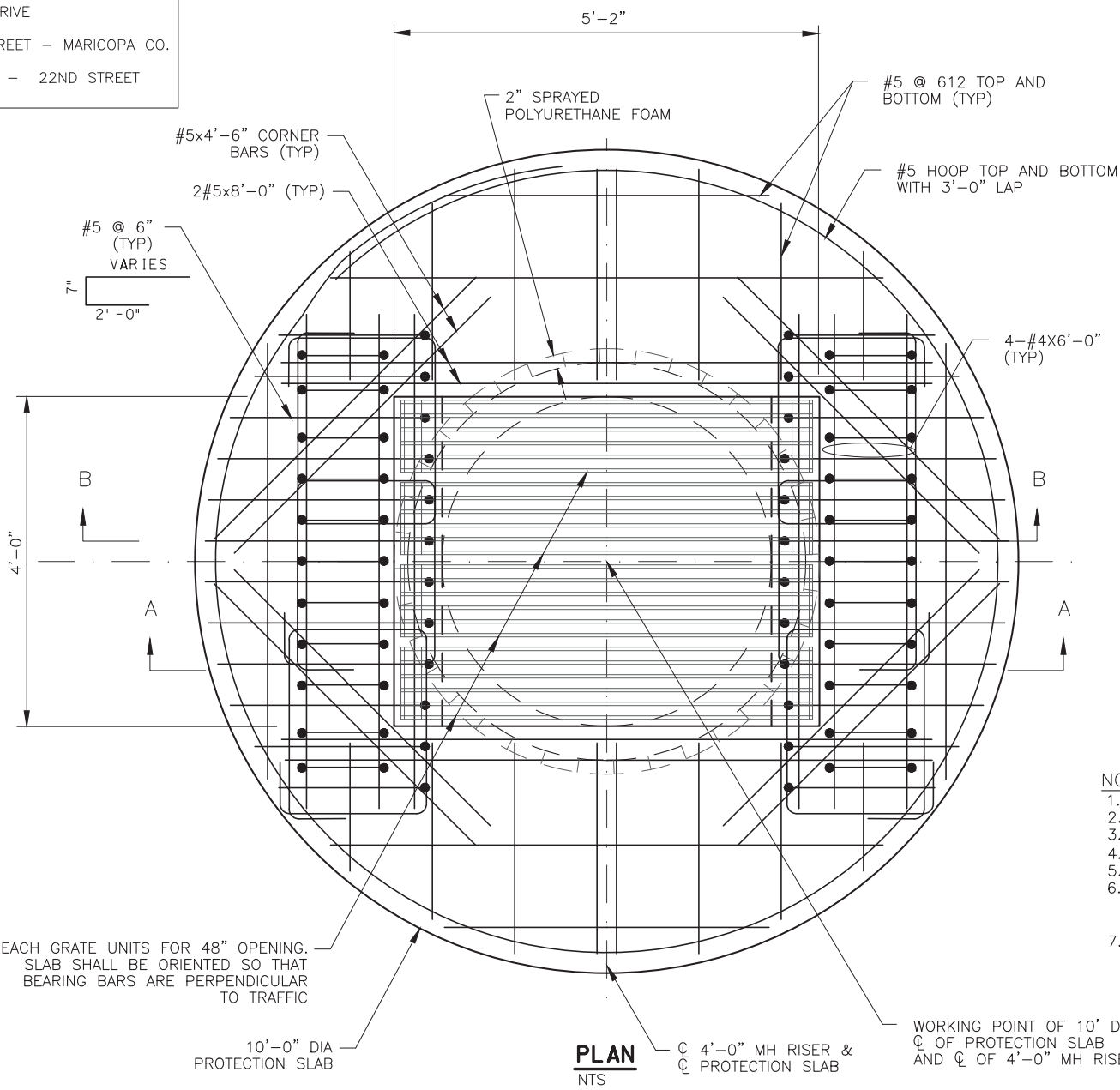
NO.	DESCRIPTION	REV BY	CHK BY	DATE

NO.	DESCRIPTION	REV BY	CHK BY	DATE

RIVERVIEW DRIVE
PHOENIX STREET – MARICOPA CO.
18TH PLACE – 22ND STREET



F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	ST85110072	53	68	
02/18 DATE		ethos ENGINEERING, LLC			
DESIGN:		DRAWN:		CHECKED:	



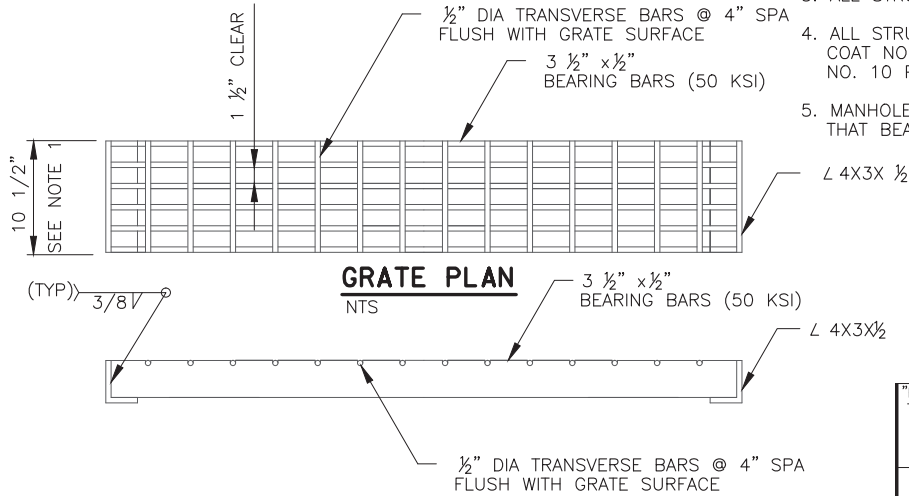
SECTION B-B
NTS

NOTES:

1. ALL CONCRETE SHALL BE MAG AA (f'c=4000 PSI).
2. ALL REBAR SHALL BE GRADE 60.
3. TOP OF SLAB SHALL HAVE A BROOM FINISH.
4. ALL REBAR SHALL HAVE A 2" CLEAR U.N.O.
5. ALL STRUCTURAL STEEL SHALL BE ASTM A36 U.N.O.
6. SLURRY TO BE PLACED IN 2 LIFTS. SECOND LIFT SHALL OCCUR AFTER THE SETTING OF FIRST LIFT.
7. MH MATERIAL THICKNESS SHALL BE 5", f'c=4,000 PSI BY JENSEN PRECAST OR APPROVED EQUAL.

GRATE NOTES:

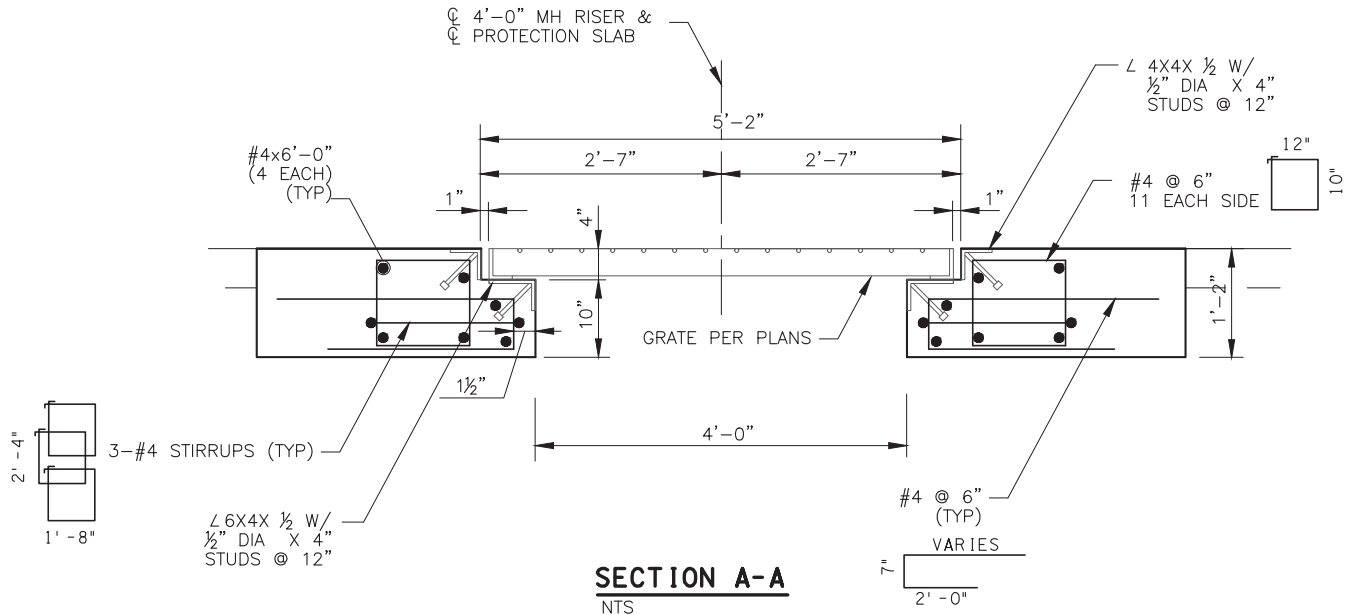
1. PROVIDE FOUR UNITS FOR 48" OPENING.
2. PROVIDE 1 1/2" DISTANCE BETWEEN UNITS.
3. ALL STRUCTURAL STEEL SHALL BE ASTM A36 U.N.O.
4. ALL STRUCTURAL STEEL TO BE PAINTED ONE SHOP COAT NO. 1 PAINT AND TWO FIELD COATS OF NO. 10 PAINT AS PER SECTION 790.
5. MANHOLE PROTECTION SLAB SHALL BE ORIENTED SO THAT BEARING BARS ARE PERPENDICULAR TO TRAFFIC



GRATE SECTION
NTS

DETAIL B

MANHOLE PROTECTION SLAB-TYPE II
USE AT STORM DRAIN MH#1, MH#3 & MH#4



SECTION A-A
NTS



"PER CITY OF PHOENIX CITY CODE, CHAPTER 2, SECTION 2-28, THESE PLANS ARE FOR OFFICIAL USE ONLY AND MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF CONTRACTOR'S CONTRACT WITH THE CITY OF PHOENIX."



9180 S Kyrene Rd
Suite #104
Tempe, AZ 85284

DETAIL B

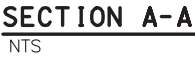
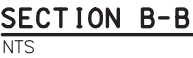
CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

RIVERVIEW DRIVE
18TH PL TO 22ND ST
ST85110072

DR: SRR	DES: SEO	CK: BAG	SHEET NO:	TOTAL SHEETS	AS BUILT
DATE: 02/18	DATE: 02/18	DATE: 02/18	53	68	
SCALE: AS NOTED					

REVISION BY CITY OF PHOENIX			
NO.	DESCRIPTION	REV BY	CHK BY


RIVERVIEW DRIVE
PHOENIX STREET - MARICOPA CO.
18TH PLACE - 22ND STREET



DETAIL C

STORM DRAIN PROTECTION MANHOLE PROTECTION SLAB TYPE I & II



FLA/WA REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	ST85110072	54	68	
<div style="display: flex; align-items: center; justify-content: space-between;"> <div> <u>02/18</u> DATE </div> <div style="text-align: center;">  <p>Ethos ENGINEERING, LLC</p> </div> <div> <p>1000 N. Pecos Rd Suite 100 Tucson, AZ 85705</p> </div> </div>					
DESIGN:		DRAWN:		CHECKED:	



"PER CITY OF PHOENIX CITY CODE CHAPTER 2, SECTION 2-28, THESE PLANS ARE FOR OFFICIAL USE ONLY AND MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF CONTRACTOR'S CONTRACT WITH THE CITY OF PHOENIX."



DETAIL C

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

RIVERVIEW DRIVE
18TH PL TO 22ND ST
ST85110072

DR: SRR	DES: SEO	CK: BAG	SHEET NO:	TOTAL SHEETS	AS BUILT
DATE: 02/18	DATE: 02/18	DATE: 02/18			
SCALE: AS NOTED		S-1.03	54	68	

10-MA-151 H0128-01C

7/5IF

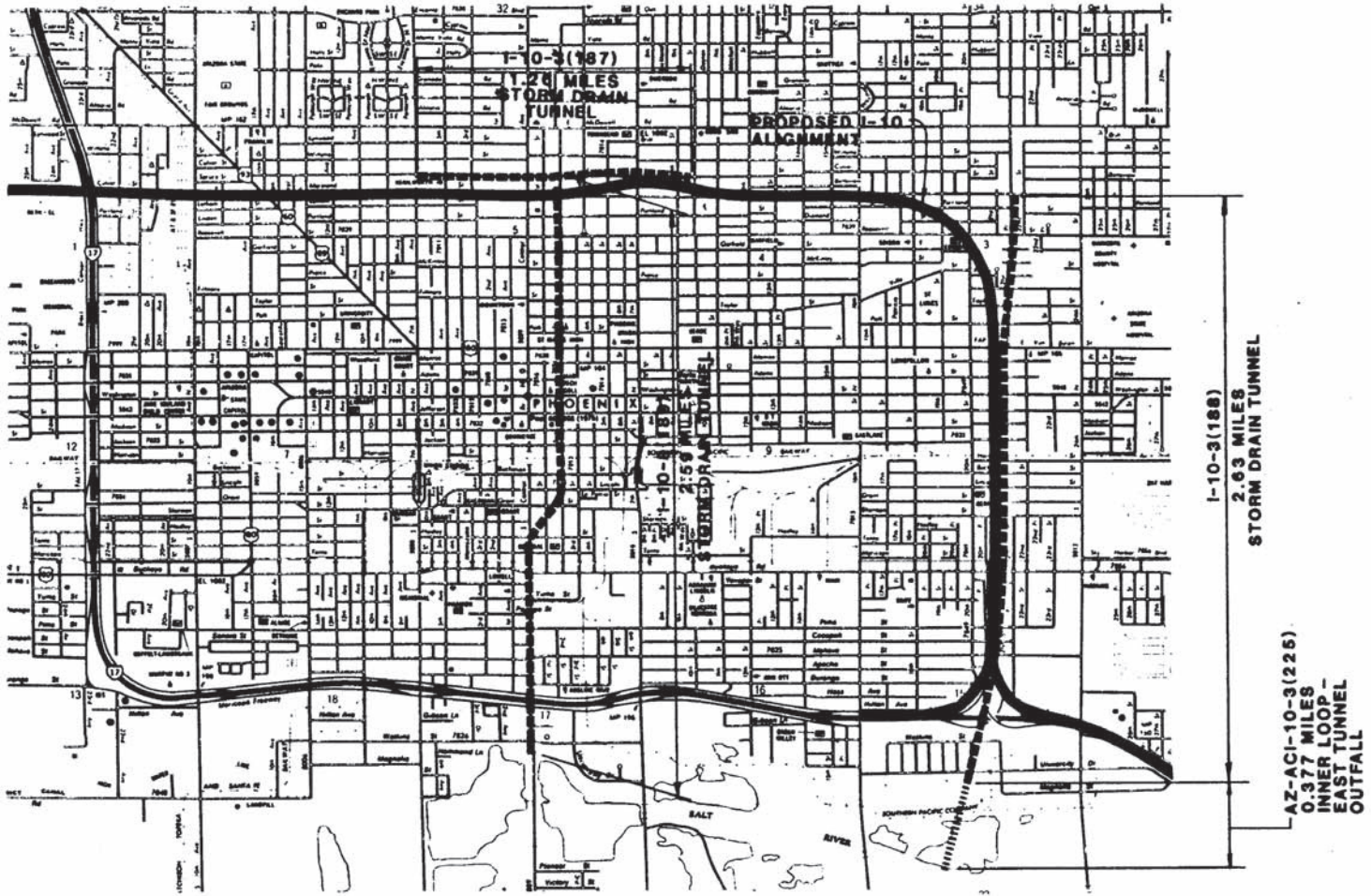


STATE OF ARIZONA
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
PLAN AND PROFILE OF PROPOSED
STATE HIGHWAY
PHOENIX-CASA GRANDE
MARICOPA COUNTY
AZ-ACI-10-3(225)



AS BUILT
DATE 6-4-90 JRD

FIELD AS BUILT 1/15/88
STEVEN A. JIMENEZ FIELD ENGINEER



PER THE CITY OF PHOENIX CITY CODE CHAPTER 2, SECTION 2-28, THESE PLANS ARE FOR OFFICIAL USE ONLY AND MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF THE CONTRACTOR'S CONTRACT WITH THE CITY OF PHOENIX

ARIZONA DEPARTMENT OF TRANSPORTATION
HIGHWAY DIVISION
APPROVED: WALTER O. FORD
ASSISTANT DIRECTOR
STATE ENGINEER

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED DATE
CHIEF DEPUTY STATE ENGINEER

APPROVED DATE
DIVISION ADMINISTRATOR

APPROVED DATE
DEPUTY STATE ENGINEER

**RIVERVIEW DRIVE
18TH PL TO 22ND ST
ST85110072**

NOTE: FOR ADDITIONAL CONSTRUCTION PROJECTS,
SEE FACE SHEET NUMBERS 7/5IC, D, & E.

PHOENIX - CASA GRANDE HIGHWAY
INNER LOOP - EAST TUNNEL OUTFALL
MARICOPA COUNTY



F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ	1-10-3 (225)	4	25	JRD 4-23-90
DATE 3/1/90 FOR THE CONSULTING ENGINEER					
DESIGN: G.E.S. DRAWN: R.L.C. CHECKED: E.L.					

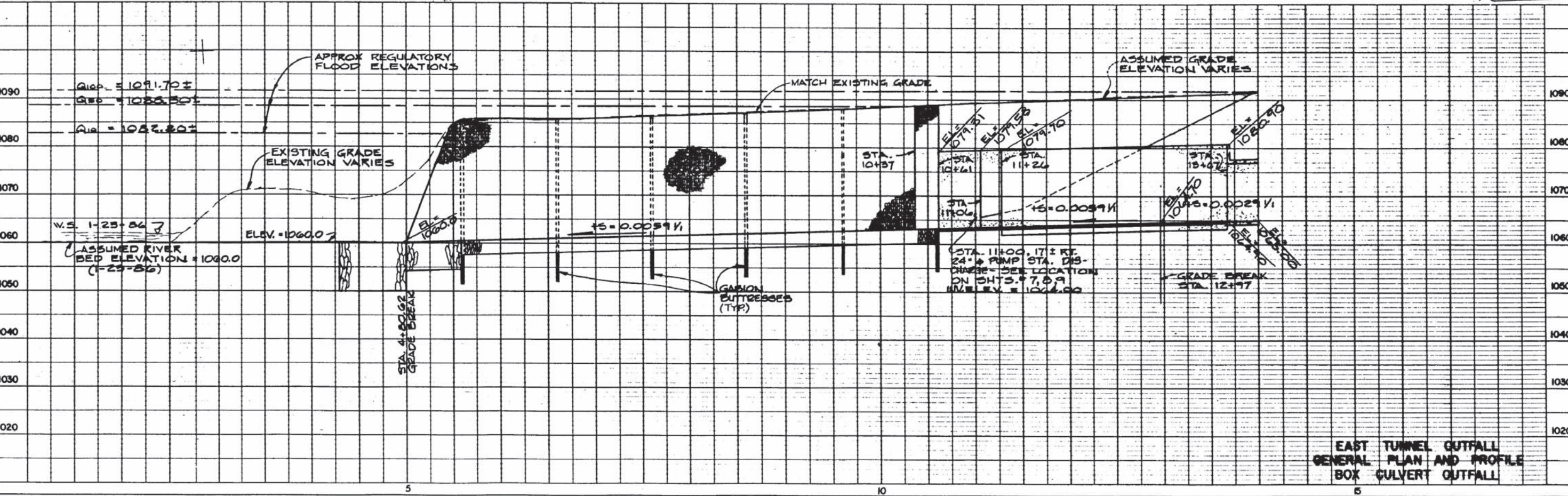
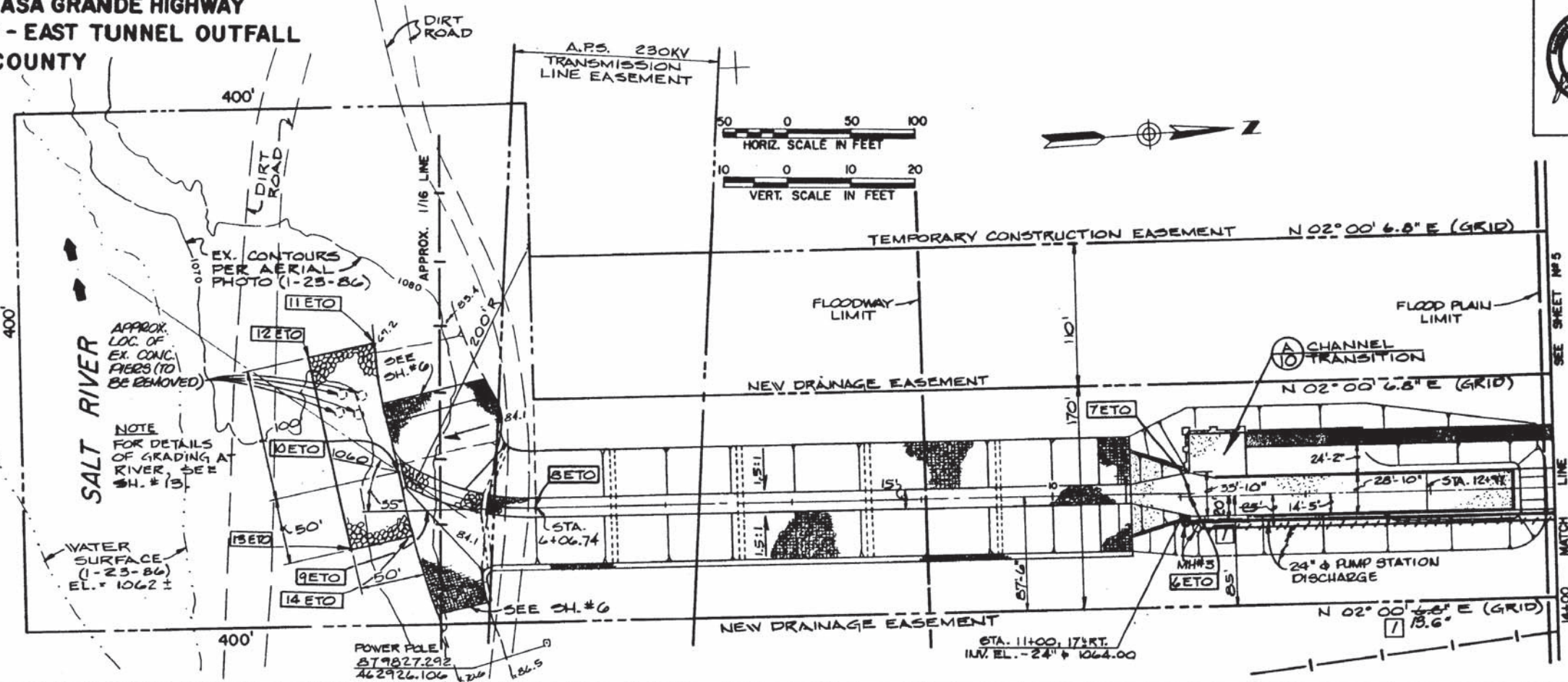
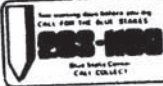
arthur board engineers, inc.
PHOENIX - TUCSON, ARIZONA

RIVERVIEW DRIVE
18TH PL TO 22ND ST
ST85110072

1
R/W Control is as stated
on R/W plans

PER THE CITY OF PHOENIX CITY CODE CHAPTER 2,
SECTION 2-28, THESE PLANS ARE FOR OFFICIAL USE
ONLY AND MAY NOT BE SHARED WITH OTHERS EXCEPT
AS REQUIRED TO FULFILL THE OBLIGATIONS OF THE
CONTRACTOR'S CONTRACT WITH THE CITY OF PHOENIX

NOTES
FOR GABION AND RIP-RAP
SIZING, SEE SH. #6.
FOR PERMANENT FENCE
LOCATION, SEE SH. #647



EAST TUNNEL OUTFALL
GENERAL PLAN AND PROFILE
BOX CULVERT OUTFALL

PHOENIX - CASA GRANDE HIGHWAY
INNER LOOP - EAST TUNNEL OUTFALL
MARICOPA COUNTY

ELECTRICAL NOTES
ELECTRICAL SERVICE, APS CONTRACTOR TO PROVIDE
4" PVC CONDUIT FROM METER FULL SECTION TO
APS SERVICE.
CONDUIT, EXCAVATION AND BACKFILL PER APS
REQUIREMENTS.
CONDUCTORS FURNISHED AND INSTALLED BY APS.
FINAL CONNECTION AT METER SECTION BY
CONTRACTOR.



F.M.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ	1-10-3 (225)	13	25	JRD 4-23-90
DATE 7/6/90 FOR THE CONSULTING ENGINEER					
DESIGN: E.L.S. DRAWN: R.L.C. CHECKED: E.L.					

Orthur board engineers, inc.
Phoenix - Tucson, Arizona

SAW-CUT & REMOVE 42 LF EXIST.
CURB & GUTTER
CONSTRUCT NEW RETURN TYPE
D.W.Y. ENT., M.A.S. STD. DET. 251.

CONNECT EXIST. FENCE TO NEW
CHAIN LINK FENCE.
CUT AND REPAIR STREET
PER CITY OF PHOENIX
REQUIREMENTS

40° ELBOW AND
20' UP POLE
IN 4" STEEL
CONDUIT

CONC. BUMPERS:
PRECAST SAFETY CURBS, TYPE
B-3, 72", M.A.S. DETAIL 150

DEWATERING WELLS & PIPING:
LOCATIONS OF EXIST. DEWATERING WELLS
AND DISCHARGE PIPING ARE APPROXIMATE.
CONTRACTOR TO VERIFY LOCATIONS PRIOR
TO THE START OF CONSTRUCTION AND SHALL
TAKE APPROPRIATE PROTECTIVE MEASURES
DURING CONSTRUCTION.

**RIVERVIEW DRIVE
18TH PL TO 22ND ST
ST85110072**

**EAST TUNNEL OUTFALL
MISCELLANEOUS DETAILS**

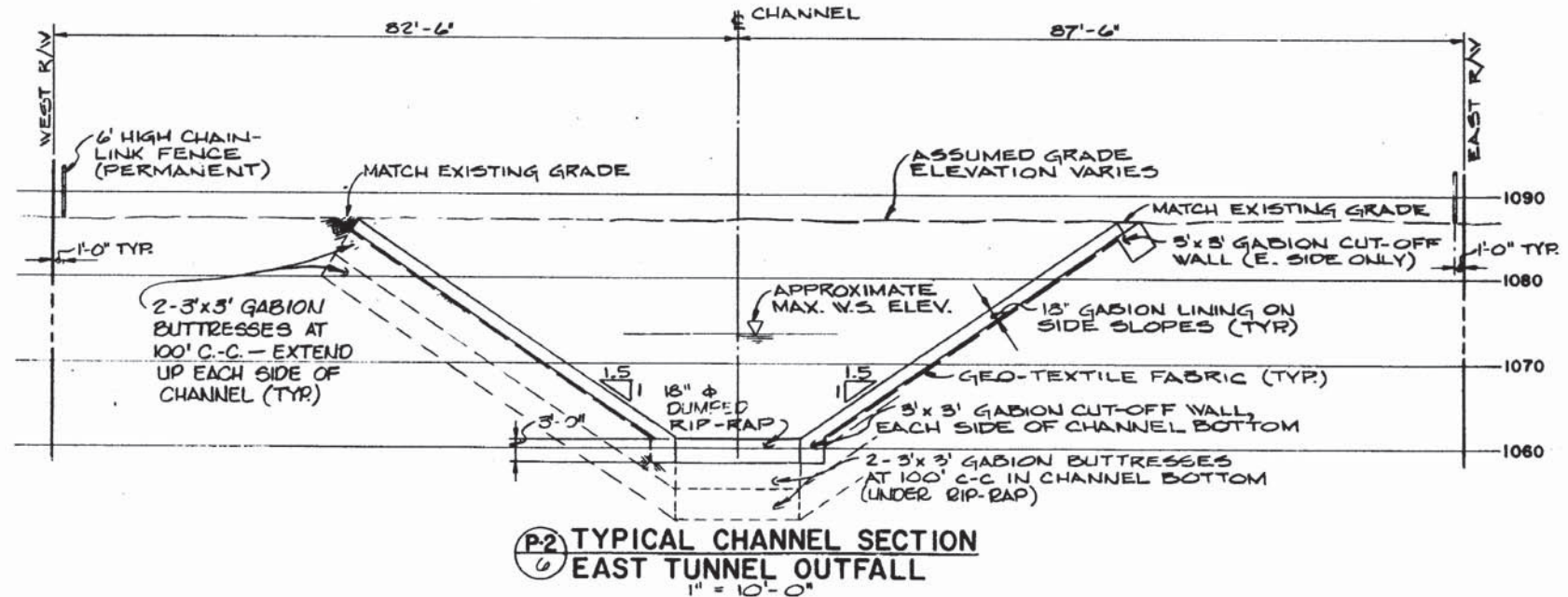
PER THE CITY OF PHOENIX CITY CODE CHAPTER 2,
SECTION 2-28, THESE PLANS ARE FOR OFFICIAL USE
ONLY AND MAY NOT BE SHARED WITH OTHERS EXCEPT
AS REQUIRED TO FULFILL THE OBLIGATIONS OF THE
CONTRACTOR'S CONTRACT WITH THE CITY OF PHOENIX

COORDINATES FOR LOCATIONS		
PT. NO.	NORTH	EAST
15 ETO	881,802.627	462,923.817
16 ETO	881,618.519	462,921.934
17 ETO	881,619.849	462,791.941
18 ETO	881,799.839	462,793.732

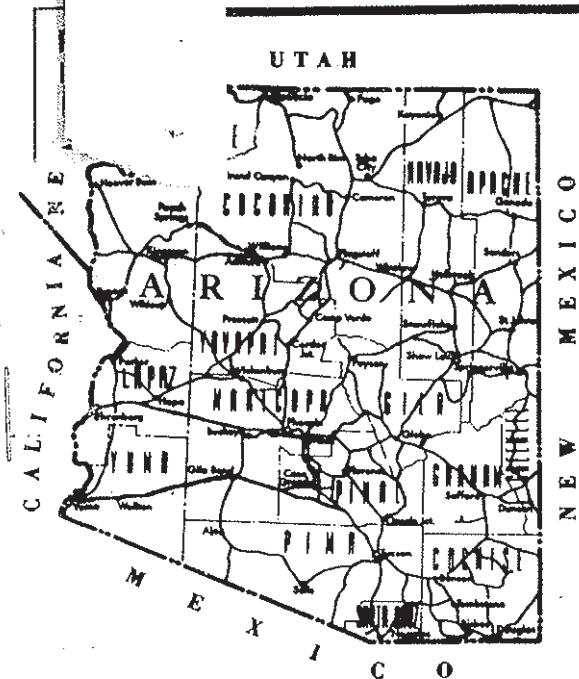
COORDINATES FOR LOCATIONS		
PT. NO.	NORTH	EAST
11 ETO	879,688.626	462,687.278
12 ETO	879,640.529	462,700.940
13 ETO	879,681.517	462,845.232
14 ETO	879,729.614	462,831.569

**GRADING PLAN
AT SALT RIVER**

1" = 20'-0"
1" = 50'-0"



As Built

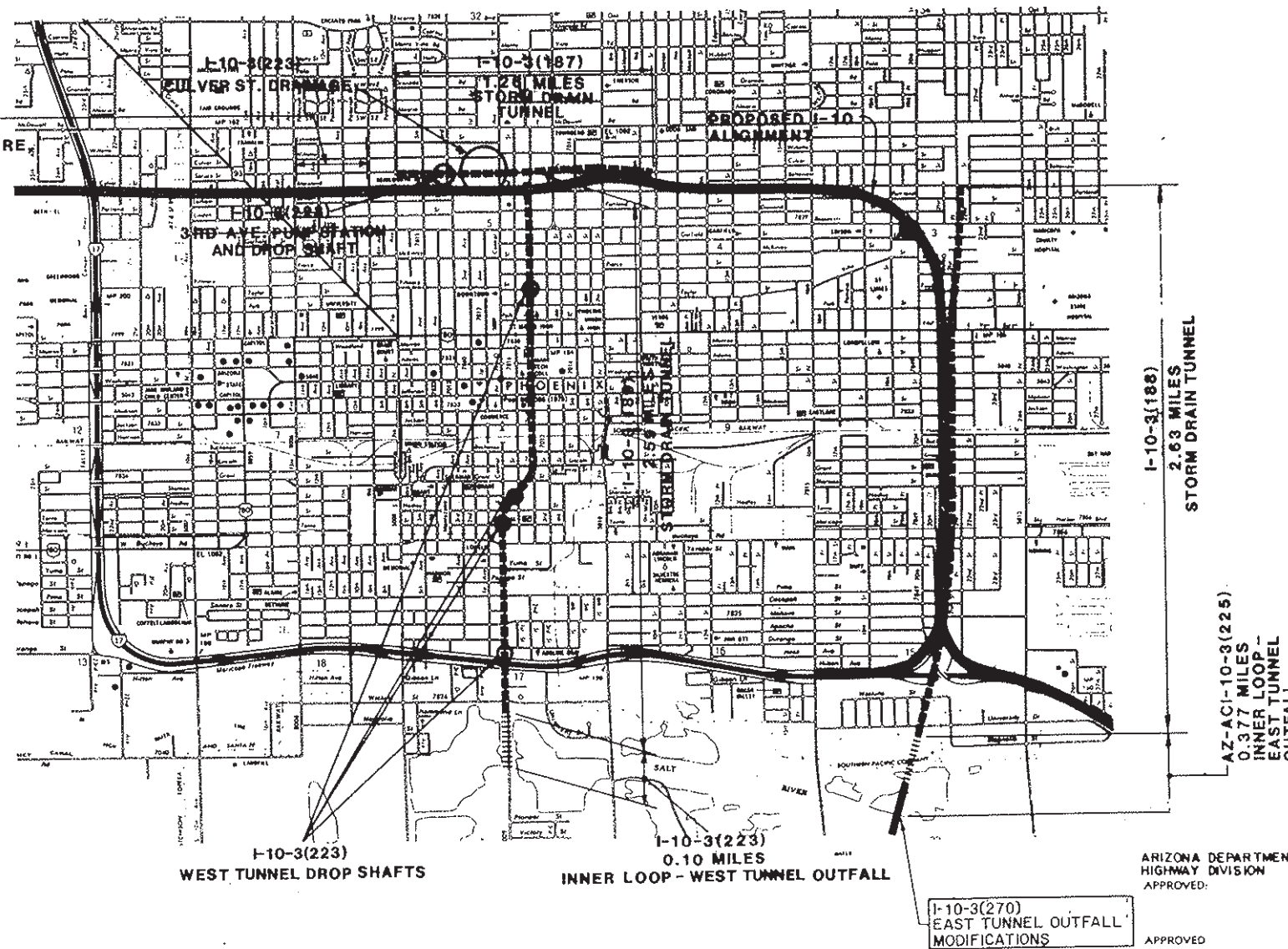


STATE OF ARIZONA
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
PLAN AND PROFILE OF PROPOSED
STATE HIGHWAY
PHOENIX-CASA GRANDE
MARICOPA COUNTY
I-10-3(270)

10-MA-149 H0128-05C



I-10-3(120)
0.34 MILES
BRIDGE, DRAINAGE STRUCTURE
GRADE & DRAIN



AS BUILT
DATE: 12-17-92 JMG

FIELD ENGINEER: MICHAEL J. HARRINGTON
FINISH DATE: OCTOBER 2, 1989

Disk 11-
11

PDF
DATE 1-25-02 DISK 11

PER THE CITY OF PHOENIX CITY CODE CHAPTER 2,
SECTION 2-28, THESE PLANS ARE FOR OFFICIAL USE
ONLY AND MAY NOT BE SHARED WITH OTHERS EXCEPT
AS REQUIRED TO FULFILL THE OBLIGATIONS OF THE
CONTRACTOR'S CONTRACT WITH THE CITY OF PHOENIX

ARIZONA DEPARTMENT OF TRANSPORTATION
HIGHWAY DIVISION
APPROVED:

APPROVED DATE
CHIEF DEPUTY STATE ENGINEER

APPROVED DATE
DEPUTY STATE ENGINEER

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED DATE
DIVISION ADMINISTRATOR

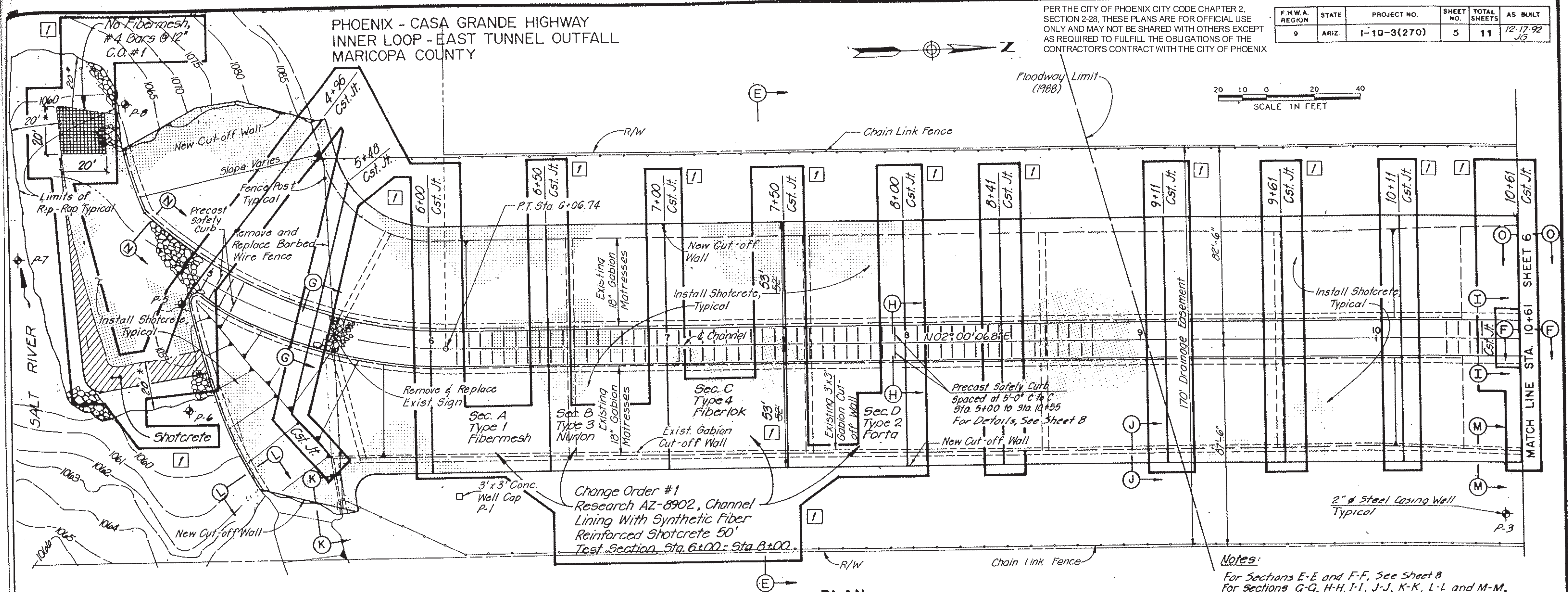
RIVERVIEW DRIVE
18TH PL TO 22ND ST
ST85110072

TRACS NO. 10 MA 149 H-0128-05-C

PHOENIX - CASA GRANDE HIGHWAY
INNER LOOP - EAST TUNNEL OUTFALL
MARICOPA COUNTY

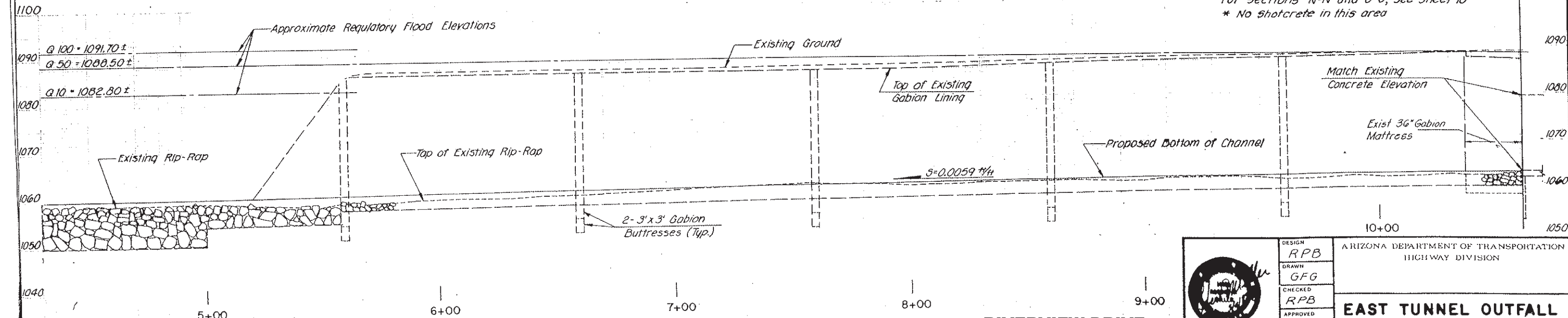
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AS REQUIRED TO FULFILL THE OBLIGATIONS OF THE
CONTRACTOR'S CONTRACT WITH THE CITY OF PHOENIX

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	I-10-3(270)	5	11	12-17-92 JG



PLAN

Notes:
For Sections E-E and F-F, See Sheet 8
For Sections G-G, H-H, I-I, J-J, K-K, L-L and M-M,
See Sheet 9.
For Sections N-N and O-O, See Sheet 10
* No Shotcrete in this area



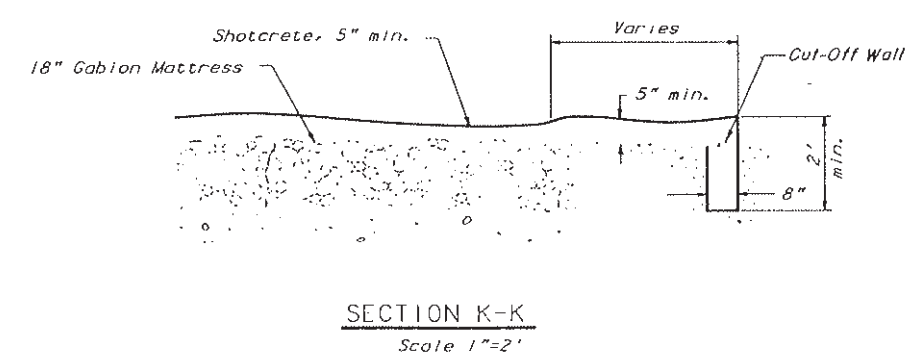
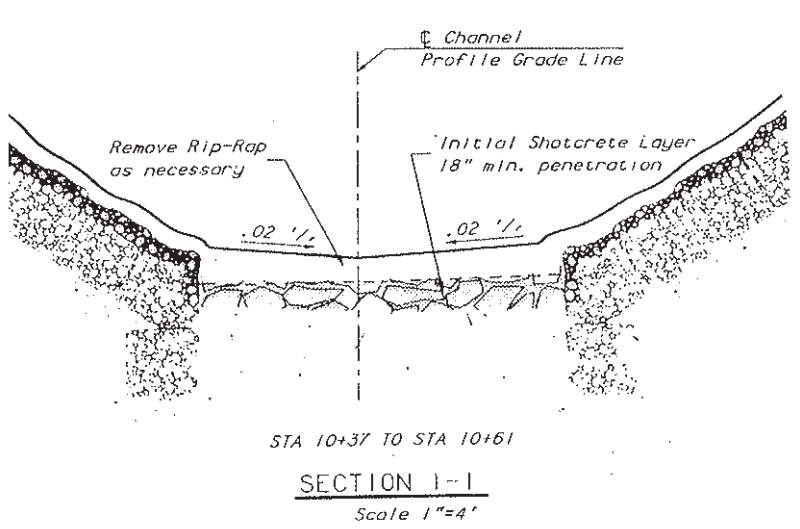
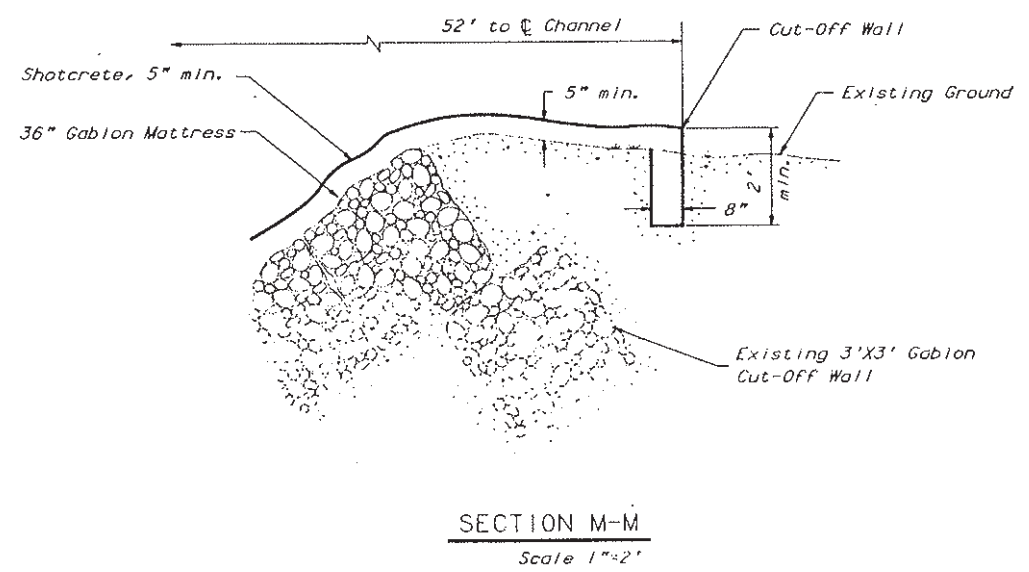
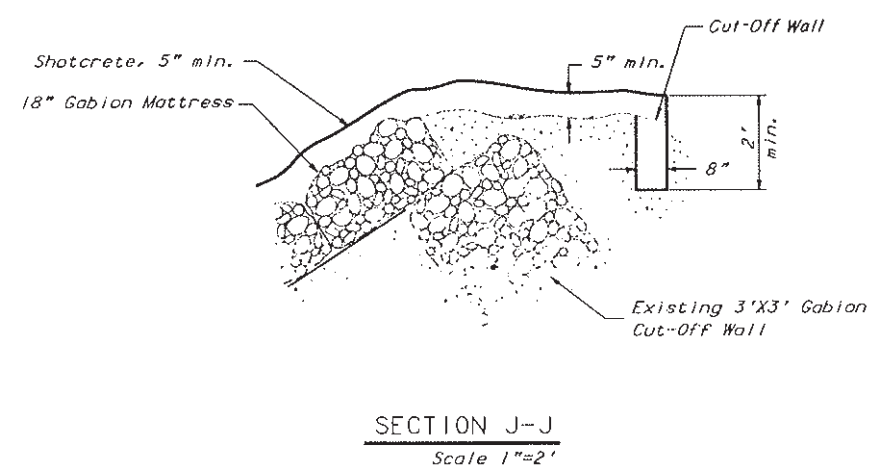
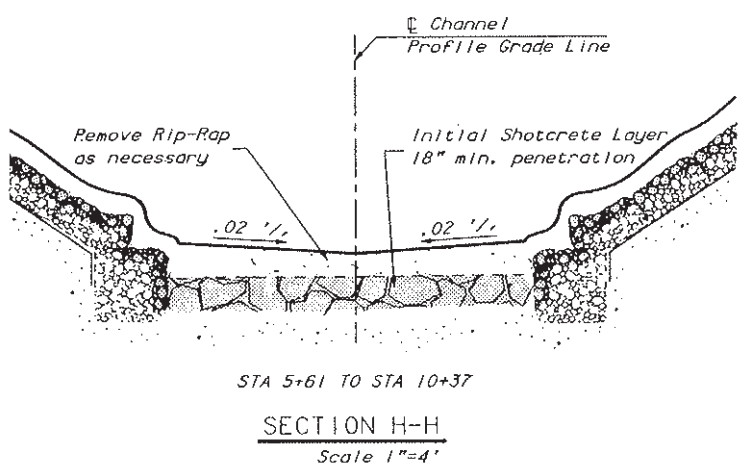
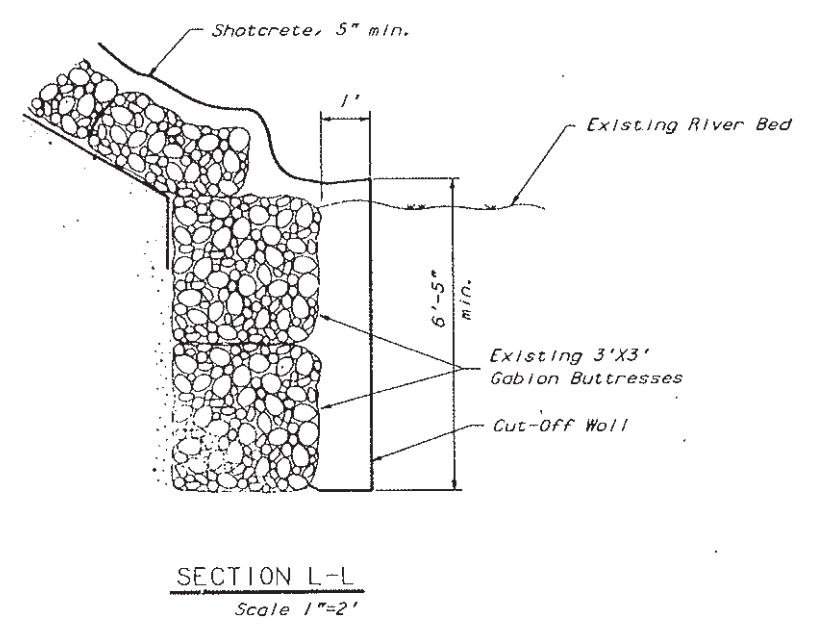
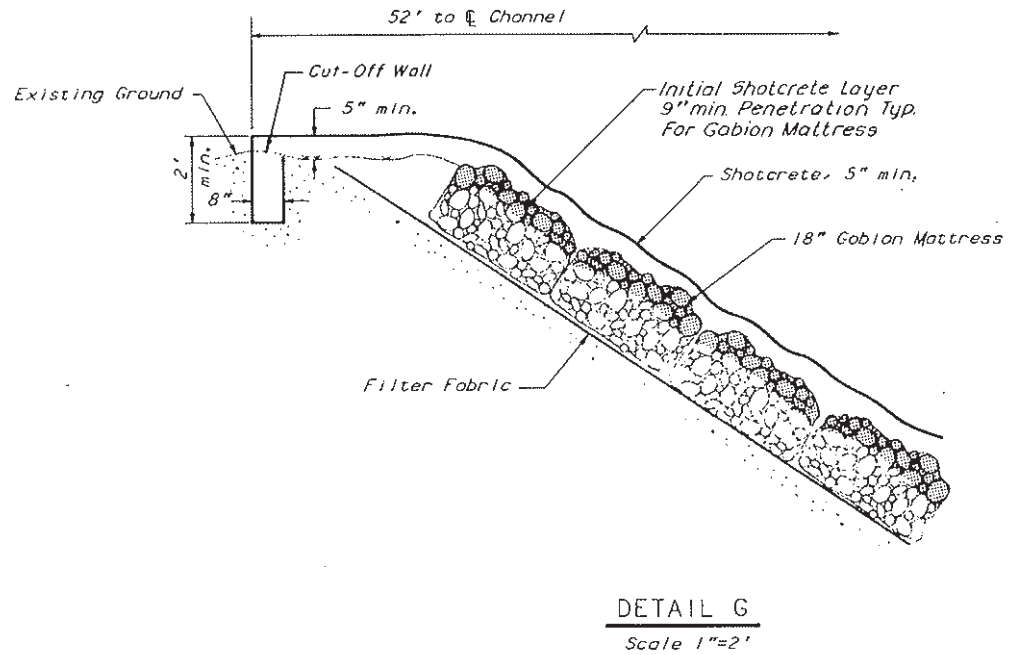
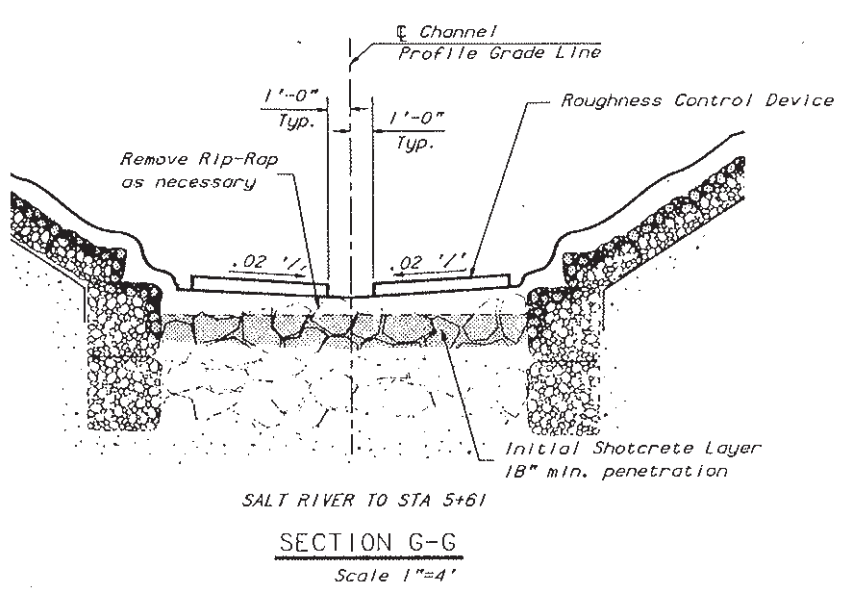
ELEVATION

RIVERVIEW DRIVE
18TH PL TO 22ND ST
ST85110072

	DESIGN RPB	ARIZONA DEPARTMENT OF TRANSPORTATION HIGHWAY DIVISION
	DRAWN GFG	
	CHECKED RPB	
	APPROVED RPB	
EAST TUNNEL OUTFALL PLAN AND ELEVATION SALT RIVER TO STA. 10+61		
TRACS NO. 10 MA 148 H-0128-05-C		DWG NO 5

DENIX-CASA GRANDE HIGHWAY
RIVER LOOP-EAST TUNNEL OUTFALL
RICOPA COUNTY

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	1-10-3(270)	9	11	12-17-92 JG



Notes:
For location of sections G-G, H-H, I-I, J-J, K-K, L-L, and M-M, see sheet 5.

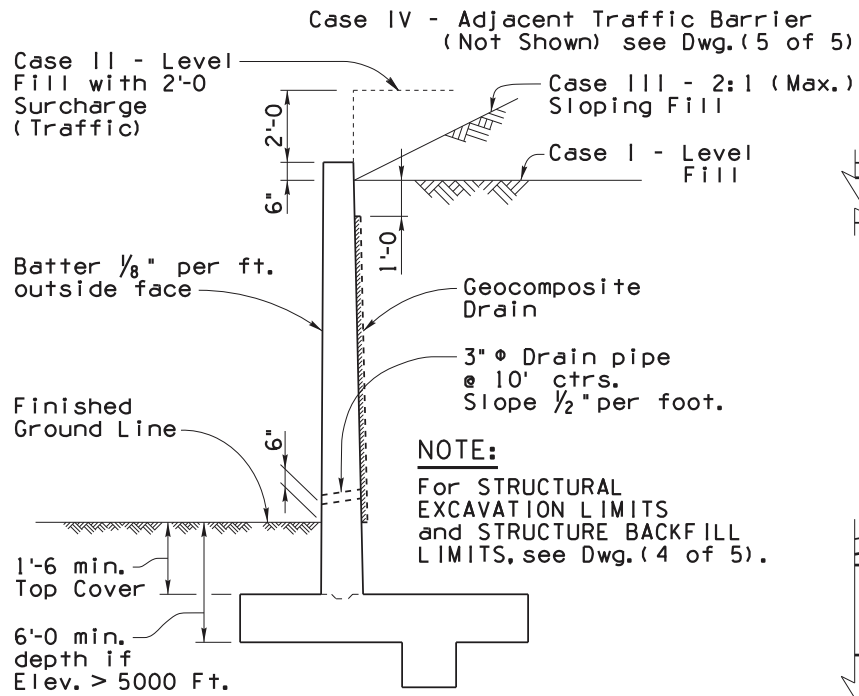
PER THE CITY OF PHOENIX CITY CODE CHAPTER 2, SECTION 2-28, THESE PLANS ARE FOR OFFICIAL USE ONLY AND MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF THE CONTRACTOR'S CONTRACT WITH THE CITY OF PHOENIX

RIVERVIEW DRIVE
18TH PL TO 22ND ST
ST85110072

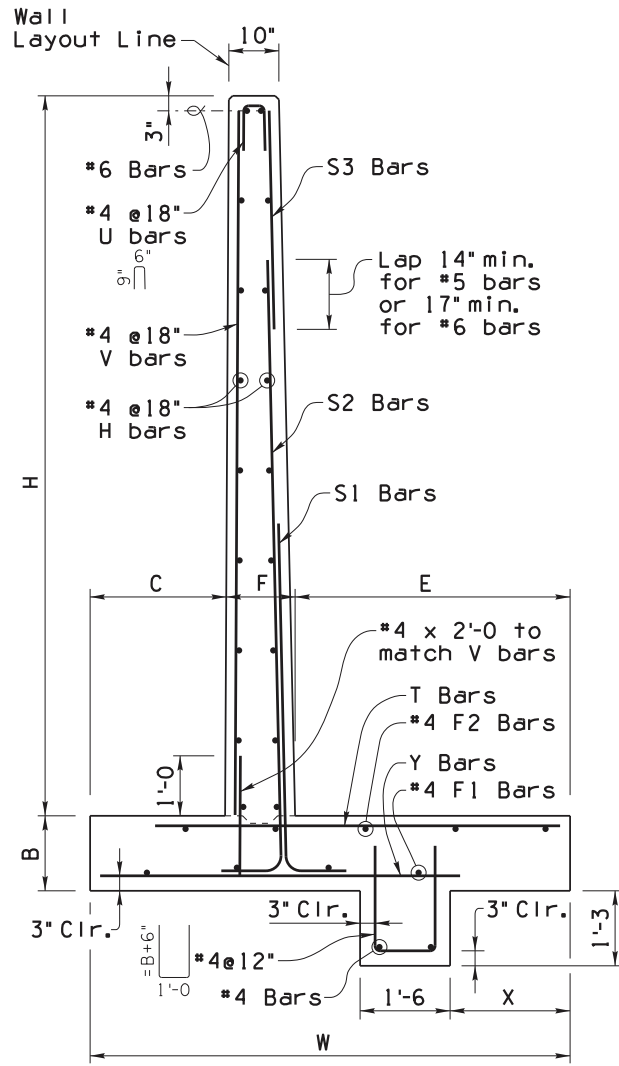
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	DRAWN	A.A.
	CHECKED	RPB
	APPROVED	RPB
ARIZONA DEPARTMENT OF TRANSPORTATION HIGHWAY DIVISION		
EAST TUNNEL OUTFALL CHANNEL DETAILS		
TRACS NO. 10 MA 149 H-0128-05-C		DWG. NO. 9

Note to Designer:
The information presented in this Standard Detail has been prepared in accordance with recognized engineering principles and is for general use. It should not be used for specific application without competent professional examination and verification of its suitability and applicability by a licensed professional engineer. Contents within the inner border line shall not be altered.

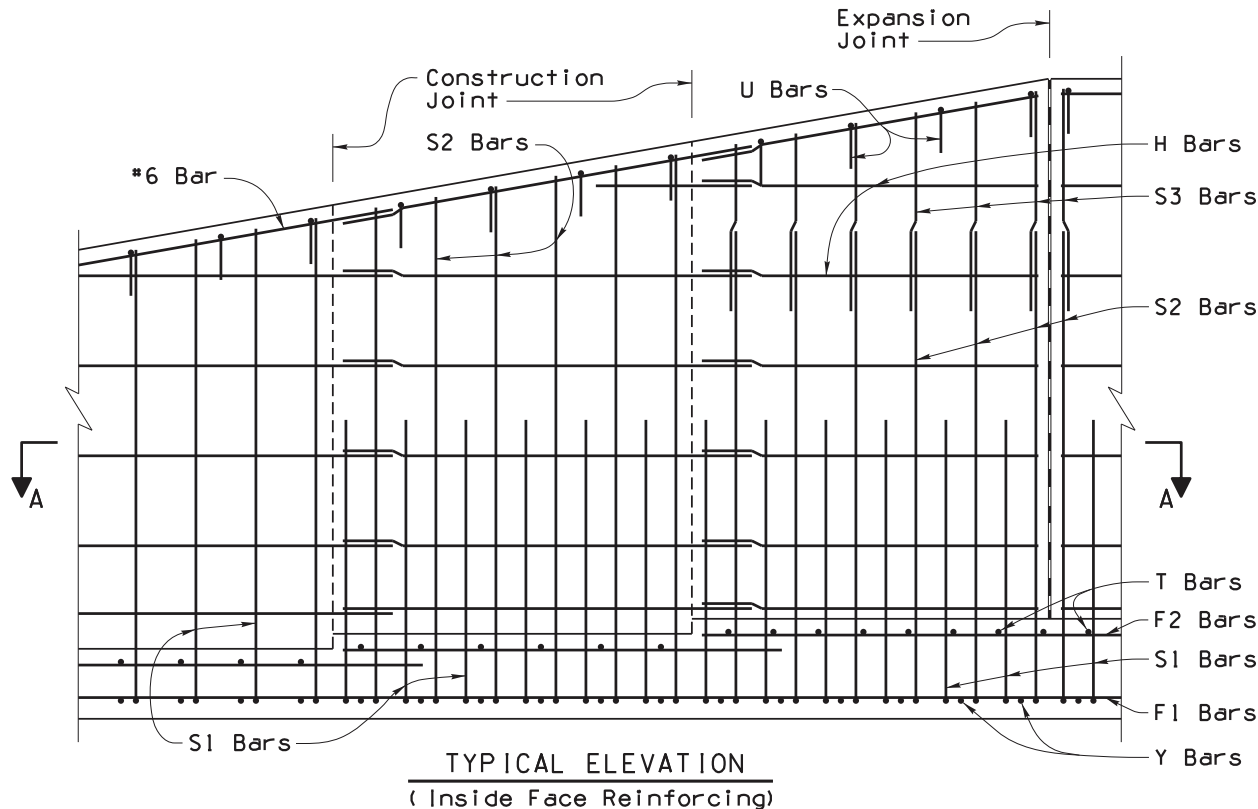
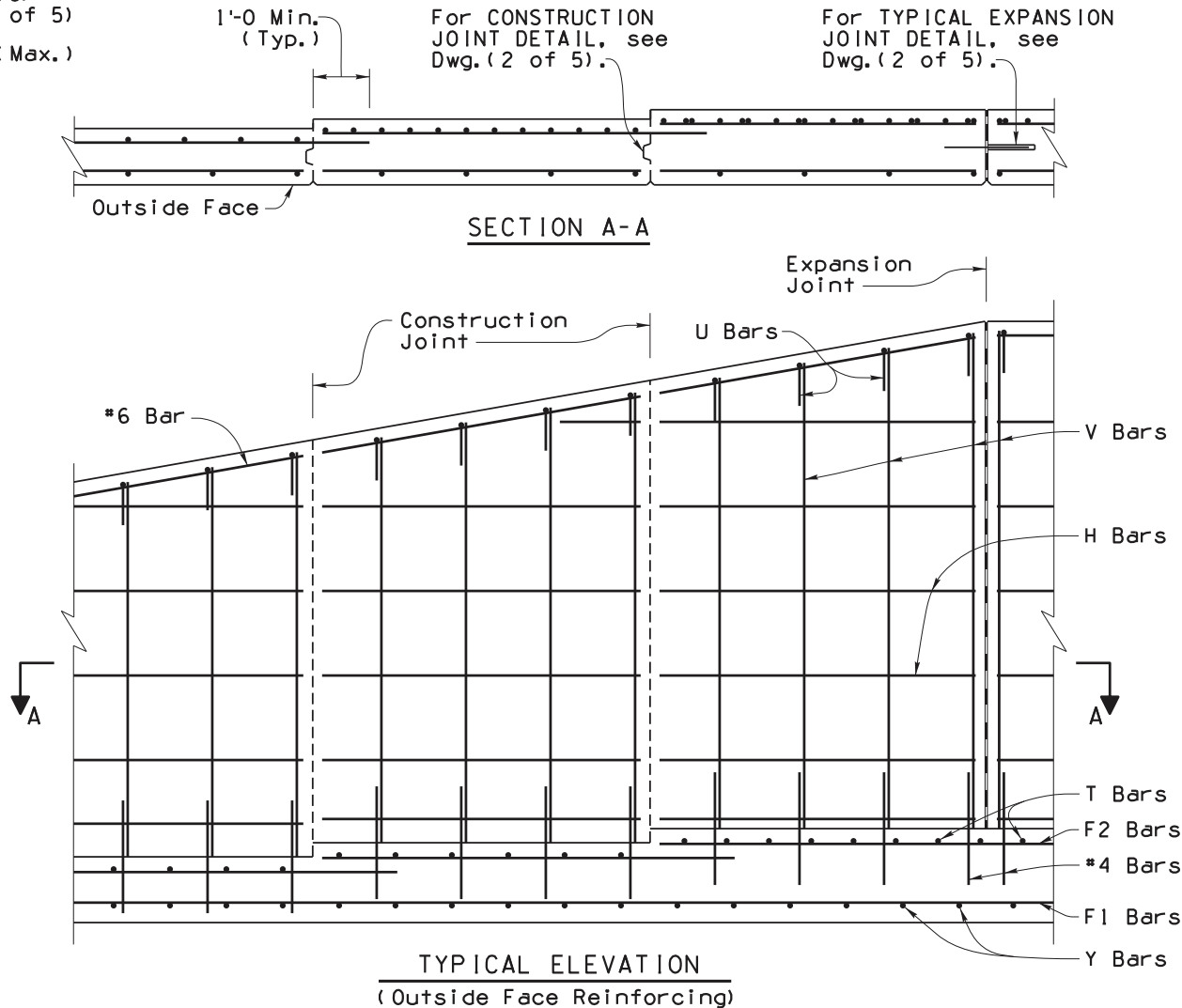
NO	DESCRIPTION OF REVISIONS	MADE BY	DATE
1	Original Issue	SJH	9-10
2	General update, added limit state values and notes.	D.B.B.	1-15
3			
4			



TYPICAL SECTION
(Case I, II, III)



TYPICAL WALL DETAILS



GENERAL NOTES:

Construction Specification - Arizona Department of Transportation Standard Specifications for Road and Bridge Construction, latest Edition.

Design Specifications - AASHTO LRFD Bridge Design Specifications, 7th Edition 2014.

Design:
Soil weight = 120 p.c.f.
Backfill angle of internal friction = 33°
Existing ground angle of internal friction = 31°

All Concrete shall be Class "S" (f'c = 3000 psi).

Reinforcing steel shall conform to ASTM Specification A615. All reinforcing shall be furnished as Grade 60.

All bends and hooks shall meet the requirements of AASHTO LRFD Article 5.10. All bend dimensions for reinforcing steel shall be out-to-out of bars. All placement dimensions for reinforcing steel shall be to center of bars unless noted otherwise.

All reinforcing steel shall have 2 inch clear cover unless noted otherwise.

Chamfer all exposed corners $\frac{3}{4}$ " unless noted otherwise.

Compact structure backfill for footing and wall base minimum 100 percent of ASTM D698 max. dry density.

See Project Plans for wall layout, top of footing and finished grade elevations, footing step and wall joint locations. Construction Joints shall match the locations of contraction joints. See Project Plans for wall surface treatment. Increase the wall thickness at the face for the depth of surface treatment.

Dimensions shall not be scaled from drawings.

Pay item measure of square foot of wall constructed is measured along front face of wall from top of footing to top of wall cap. Pay item includes all labor and materials for excavation, backfill, drainage and reinforced concrete wall with footing.

Item No. 9140178 RETAINING WALL (REINFORCED CONCRETE CANTILEVER)
Measure: Square Foot

PER THE CITY OF PHOENIX CITY CODE CHAPTER 2, SECTION 2-28, THESE PLANS ARE FOR OFFICIAL USE ONLY AND MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF THE CONTRACTOR'S CONTRACT WITH THE CITY OF PHOENIX

NOTE:

For Retaining Wall Dimensions, Quantities and additional Details, see SD 7.01 (2 to 5).

DESIGN APPROVED <i>Celina Aman</i>		ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION BRIDGE GROUP STRUCTURE DETAIL	
APPROVED FOR DISTRIBUTION <i>[Signature]</i>		RETAINING WALL (REINFORCED CONCRETE CANTILEVER)	
ROUTE	PROJECT NO.	FA NO.	DRAWING NO.
			SD 7.01 (1 of 5)
LOCATION	RIVERVIEW DRIVE		SHEET NO.
	18TH PL TO 22ND ST		OF
	ST85110072		

CASE I - LEVEL FILL

QUANTITIES

LIMIT STATE NOTES:

Dimensions							Steel List													Service Limit State			Strength Limit State								
H	W	B	C	F	E	X	S1			S2			S3			H	V	Y			F1	T			F2						
							Bar Size	Spacing	Length	Bar Size	Spacing	Length	Bar Size	Spacing	Length			Bar Size	Spacing	Length		Bar Size	Spacing	Length							
4'	3'-0	1'-0	10"	10"	1'-4	8"	5	12"	5'-6							4	3'-9	5	12"	2'-3	2	5	12"	2'-3	3	840	480	2.46	1130	650	2.36
5'	3'-6	1'-0	1'-0	10"	1'-8	9"	5	12"	6'-6							6	4'-9	5	12"	2'-9	2	5	12"	2'-9	3	920	560	2.91	1240	760	2.79
6'	4'-0	1'-0	1'-2	10"	2'-0	10"	5	12"	7'-6							6	5'-9	5	12"	3'-3	2	5	12"	3'-3	3	1010	650	3.31	1380	900	3.16
7'	4'-6	1'-0	1'-4	10"	2'-4	11"	5	12"	8'-6							8	6'-9	5	12"	3'-9	3	5	12"	3'-6	3	1110	750	3.70	1530	1040	3.52
8'	5'-0	1'-2	1'-6	10"	2'-8	1'-0	5	12"	9'-9							10	7'-9	5	12"	4'-3	3	5	12"	4'-0	3	1270	890	4.01	1750	1240	3.79
9'	5'-6	1'-2	1'-9	1'-0	2'-9	1'-2	5	12"	10'-9							10	8'-9	5	12"	4'-6	3	5	12"	4'-0	3	1350	970	4.40	1880	1370	4.14
10'	6'-0	1'-2	1'-9	1'-0	3'-3	1'-4	6	12"	11'-9							12	9'-9	5	12"	4'-9	3	5	12"	4'-6	4	1510	1130	4.73	2100	1590	4.45
11'	6'-6	1'-2	2'-0	1'-0	3'-6	1'-6	5	12"	4'-3	5	12"	12'-9				14	10'-9	5	12"	5'-3	4	5	12"	4'-9	4	1590	1210	5.12	2230	1710	4.81
12'	7'-0	1'-3	2'-0	1'-0	4'-0	1'-8	6	12"	5'-3	5	12"	13'-9				14	11'-9	5	12"	5'-6	4	6	12"	5'-6	5	1770	1380	5.42	2490	1960	5.08
13'	7'-6	1'-3	2'-3	1'-0	4'-3	1'-10	7	12"	6'-6	5	12"	14'-9				16	12'-9	5	12"	5'-9	4	6	9"	5'-9	5	1860	1470	5.81	2620	2090	5.43
14'	8'-0	1'-3	2'-3	1'-2	4'-7	2'-0	7	12"	7'-0	5	12"	15'-9				18	13'-9	5	12"	6'-3	4	7	12"	6'-9	5	2020	1630	6.14	2850	2320	5.74
15'	8'-6	1'-3	2'-6	1'-3	4'-9	2'-2	7	12"	8'-0	5	12"	16'-9				18	14'-9	6	12"	6'-6	5	7	12"	7'-0	5	2100	1710	6.53	2970	2450	6.10
16'	9'-0	1'-4	2'-6	1'-4	5'-2	2'-4	7	12"	7'-3	6	12"	8'-9	5	12"	10'-9	20	15'-9	6	12"	6'-9	5	8	12"	8'-3	6	2300	1900	6.82	3250	2710	6.36
17'	9'-6	1'-4	2'-9	1'-5	5'-4	2'-6	7	12"	6'-0	7	12"	9'-9	5	12"	10'-9	22	16'-9	6	9"	7'-3	5	8	12"	8'-6	6	2380	1980	7.21	3380	2840	6.72
18'	10'-0	1'-5	2'-9	1'-6	5'-9	2'-8	7	12"	7'-0	7	12"	10'-6	5	12"	11'-0	22	17'-9	6	9"	7'-6	5	7	8"	8'-6	6	2580	2170	7.50	3660	3110	6.99
19'	10'-6	1'-6	3'-0	1'-7	5'-11	2'-10	8	12"	8'-0	7	12"	10'-3	6	12"	12'-9	24	18'-9	6	9"	8'-0	6	8	9"	9'-3	7	2690	2270	7.86	3830	3260	7.30
20'	11'-0	1'-6	3'-0	1'-8	6'-4	3'-0	8	12"	7'-6	8	12"	11'-6	6	12"	12'-9	26	19'-9	6	8"	8'-3	6	8	8"	9'-6	7	2860	2440	8.19	4070	3500	7.61
21'	11'-6	1'-7	3'-3	1'-9	6'-6	3'-2	8	12"	8'-3	8	12"	12'-6	6	12"	12'-9	26	20'-9	7	12"	8'-9	6	9	9"	10'-6	7	2970	2540	8.54	4240	3660	7.92
22'	12'-0	1'-8	3'-3	1'-10	6'-11	3'-4	9	12"	9'-6	8	12"	13'-6	6	12"	13'-0	28	21'-9	7	12"	9'-0	6	9	9"	11'-0	7	3180	2740	8.83	4530	3940	8.18
23'	12'-6	1'-9	3'-6	2'-0	7'-0	3'-6	10	12"	12'-3	7	12"	14'-0	6	12"	13'-3	30	22'-9	8	12"	9'-3	6	8	6"	10'-3	7	3290	2840	9.18	4700	4100	8.49
24'	13'-0	1'-10	3'-6	2'-2	7'-4	3'-8	9	12"	9'-3	9	12"	15'-6	6	12"	13'-3	30	23'-9	8	12"	9'-6	7	8	6"	10'-6	8	3500	3040	9.47	5000	4380	8.76
25'	13'-6	2'-0	3'-9	2'-4	7'-5	3'-10	9	12"	10'-3	9	12"	16'-6	6	12"	13'-6	32	24'-9	8	12"	10'-0	7	8	6"	10'-9	8	3650	3170	9.78	5220	4580	9.02
26'	14'-0	2'-3	3'-9	2'-6	7'-9	4'-0	10	12"	13'-0	8	12"	17'-6	6	12"	13'-9	34	25'-9	8	12"	10'-3	7	8	6"	11'-0	8	3920	3410	9.99	5630	4940	9.19
27'	14'-6	2'-6	4'-0	2'-8	7'-10	4'-2	10	12"	12'-3	9	12"	18'-6	6	12"	14'-3	34	26'-9	8	12"	10'-6	7	8	6"	11'-0	8	4110	3570	10.26	5910	5180	9.41
28'	15'-0	2'-9	4'-0	2'-10	8'-2	4'-4	10	12"	13'-3	9	12"	19'-9	6	12"	14'-3	36	27'-9	8	12"	11'-0	7	8	6"	11'-6	8	4390	3820	10.47	6330	5550	9.58
29'	15'-6	3'-0	4'-3	3'-0	8'-3	4'-6	10	12"	12'-0	10	12"	21'-0	6	12"	14'-3	38	28'-9	8	12"	11'-3	7	8	6"	11'-9	9	4580	3980	10.73	6610	5800	9.79
30'	16'-0	3'-3	4'-3	3'-2	8'-7	4'-8	10	12"	13'-0	10	12"	22'-3	6	12"	14'-3	38	29'-9	8	12"	11'-6	8	8	6"	11'-9	9	4860	4230	10.94	7040	6180	9.97

CASE I			
H	Concrete C.Y./Ln.Ft.	Steel Lbs./Ln.Ft.	Steel (Horiz. Lap) Lbs./Splice
4'	.30	27	10
5'	.35	31	12
6'	.40	33	12
7'	.45	38	14
8'	.53	42	15
9'	.61	44	15
10'	.67	53	17
11'	.72	57	19
12'	.80	66	20
13'	.86	78	21
14'	.96	84	22
15'	1.04	92	23
16'	1.16	108	25
17'	1.25	119	26
18'	1.37	128	26
19'	1.50	153	29
20'	1.61	171	30
21'	1.75	185	30
22'	1.90	203	32
23'	2.09	229	33
24'	2.29	236	34
25'	2.54	248	36
26'	2.84	264	37
27'	3.16	279	37
28'	3.50	294	38
29'	3.85	317	40
30'	4.22	328	41

Qtveu-SERV = Total equivalent uniform vertical bearing stress to be used only for the evaluation of settlement based on the Service I Limit State as per ADOT SF-1.

Qnveu-SERV = Net equivalent uniform vertical bearing stress to be used only for the evaluation of settlement based on the Service I Limit State as per ADOT SF-1.

B' SERV = Effective footing width to be used only for the evaluation of settlement based on the Service I Limit State as per ADOT SF-1.

Qtveu-STR = Total equivalent uniform vertical bearing stress to be used only for the evaluation of bearing resistance based on the Strength I Limit State as per ADOT SF-1.

Qnveu-STR = Net equivalent uniform vertical bearing stress to be used only for the evaluation of bearing resistance based on the Strength I Limit State as per ADOT SF-1.

B' STR = Effective footing width to be used only for the evaluation of bearing resistance based on the Strength I Limit State as per ADOT SF-1.

For other applicable limit states, perform project specific-analysis using the procedures in ADOT SF-1. ADOT SF-1 (Materials Group memorandum) is found at Materials Group website.

QUANTITIES NOTE:

Quantities are shown for information purposes only. The pay item is measured per square foot of wall.

Quantities are for one L.F. of wall except for horizontal steel lap splices and footing steps.

Steel quantities for horizontal lap splices shall be added for wall segments greater than 30 feet, and add a splice for each additional wall segment greater than 30 feet. Horizontal 1'-0 lap splices occur at construction or contraction joints.

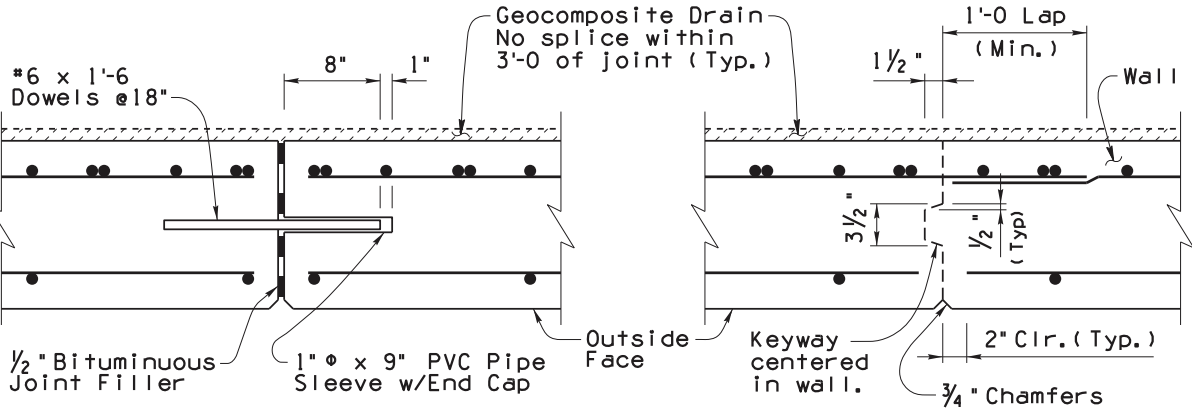
Steel and concrete quantities for footing steps shall be added to those shown in the table.

JOINT NOTES:

All retaining walls shall have construction joints or contraction joints spaced at not more than 30'-0 apart or as shown. Contraction joints may be substituted for construction joints for wall pours longer than 30'-0.

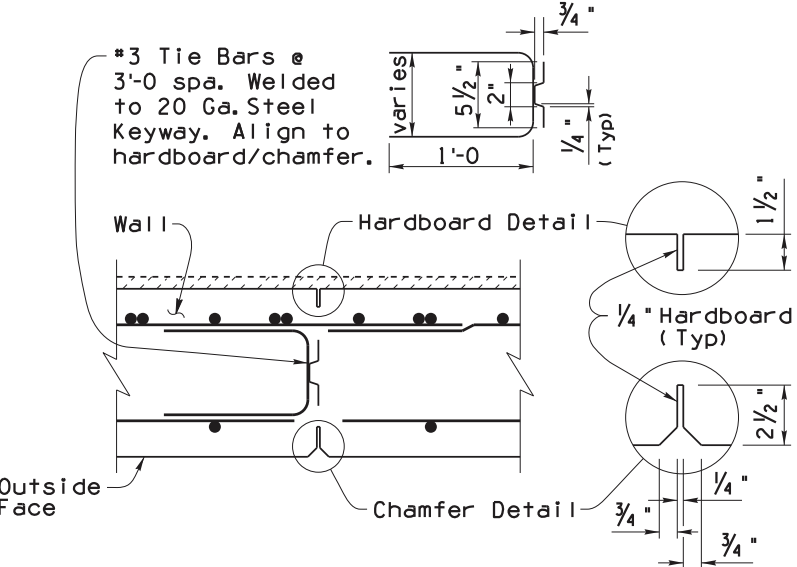
Expansion joints shall be provided at intervals not exceeding 90'-0.

Footings may be continuous with no joints (except at footing step locations).



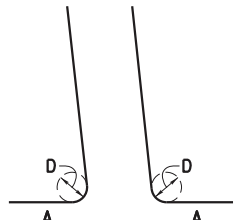
TYPICAL EXPANSION JOINT DETAIL

CONSTRUCTION JOINT DETAIL



CONTRACTION JOINT DETAIL

Bar Size	Dimension	
	A	D
5	1'-0	3 3/4"
6	1'-0	4 1/2"
7	1'-2	5 1/4"
8	1'-4	6"
9	1'-8	9"
10	1'-10	10"
11	2'-0	11"



S2 BAR S1 BAR

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NOTE:

For General Notes, Typical Elevations, Sections, and Details see SD 7.01 (1, 3 and 4).

DESIGN APPROVED <i>Celina Aman</i>		ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION BRIDGE GROUP STRUCTURE DETAIL	
APPROVED FOR DISTRIBUTION <i>[Signature]</i>		RETAINING WALL (REINFORCED CONCRETE CANTILEVER)	
ROUTE	PROJECT NO.	FA NO.	DRAWING NO.
			SD 7.01 (2 of 5)
LOCATION		SHEET NO.	
18TH PL TO 22ND ST		OF	

ST85110072

CASE III - 2:1 (MAX.) SLOPING FILL

QUANTITIES

LIMIT STATE NOTES:

CASE III			
H	Concrete C.Y./Ln.Ft.	Steel Lbs./Ln.Ft.	Steel (Horiz. Lap) Lbs./Splice
4'	.30	27	10
5'	.35	31	12
6'	.41	34	12
7'	.50	40	14
8'	.56	50	16
9'	.68	57	16
10'	.74	71	18
11'	.88	84	20
12'	.96	89	21
13'	1.13	107	24
14'	1.28	123	25
15'	1.44	140	26
16'	1.65	154	28
17'	1.81	181	29
18'	1.97	213	30
19'	2.20	229	32
20'	2.44	248	34
21'	2.69	292	34
22'	2.96	314	36
23'	3.35	320	38
24'	3.77	353	38
25'	4.25	400	39
26'	4.72	417	42
27'	5.22	432	42
28'	5.77	459	43
29'	6.35	473	45
30'	6.95	487	45

Qtveu-SERV = Total equivalent uniform vertical bearing stress to be used only for the evaluation of settlement based on the Service I Limit State as per ADOT SF-1.

Qnveu-SERV = Net equivalent uniform vertical bearing stress to be used only for the evaluation of settlement based on the Service I Limit State as per ADOT SF-1.

B' SERV = Effective footing width to be used only for the evaluation of settlement based on the Service I Limit State as per ADOT SF-1.

Qtveu-STR = Total equivalent uniform vertical bearing stress to be used only for the evaluation of bearing resistance based on the Strength I Limit State as per ADOT SF-1.

Qnveu-STR = Net equivalent uniform vertical bearing stress to be used only for the evaluation of bearing resistance based on the Strength I Limit State as per ADOT SF-1.

B' STR = Effective footing width to be used only for the evaluation of bearing resistance based on the Strength I Limit State as per ADOT SF-1.

For other applicable limit states, perform project specific-analysis using the procedures in ADOT SF-1. ADOT SF-1 (Materials Group memorandum) is found at Materials Group website.

QUANTITIES NOTE:

Quantities are shown for information purposes only. The pay item is measured per square foot of wall.

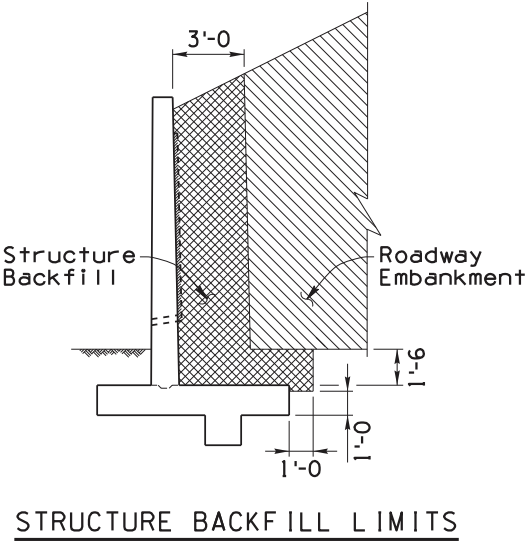
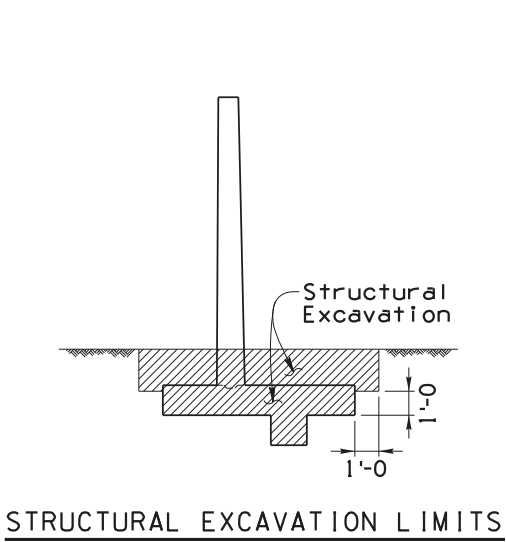
Quantities are for one L.F. of wall except for horizontal steel lap splices and footing steps.

Steel quantities for horizontal lap splices shall be added for wall segments greater than 30 feet, and add a splice for each additional wall segment greater than 30 feet. Horizontal 1'-0 lap splices occur at construction or contraction joints.

Steel and concrete quantities for footing steps shall be added to those shown in the table.

Dimensions							Steel List												Service Limit State			Strength Limit State									
H	W	B	C	F	E	X	S1			S2			S3			H	V	Y			F1	T			F2						
							Bar Size	Spacing	Length	Bar Size	Spacing	Length	Bar Size	Spacing	Length			Bar Size	Spacing	Length		Bar Size	Spacing	Length							
4'	3'-0	1'-0	1'-0	10"	1'-2	1'-0	5	12"	5'-6							4	3'-9	5	12"	2'-0	2	5	12"	2'-6	3	960	600	2.52	1320	830	2.44
5'	3'-6	1'-0	1'-0	10"	1'-8	1'-0	5	12"	6'-6							6	4'-9	5	12"	2'-6	2	5	12"	3'-0	3	1140	780	2.90	1570	1080	2.80
6'	4'-2	1'-0	1'-0	10"	2'-4	1'-0	5	12"	7'-6							6	5'-9	5	12"	3'-3	2	5	12"	3'-9	3	1300	940	3.46	1810	1320	3.34
7'	5'-0	1'-2	1'-2	10"	3'-0	1'-3	5	12"	8'-9							8	6'-9	5	12"	3'-9	3	5	12"	4'-3	4	1470	1090	4.19	2040	1530	4.05
8'	5'-9	1'-2	1'-4	10"	3'-7	1'-6	6	12"	9'-9							10	7'-9	5	12"	4'-3	3	6	12"	5'-0	4	1600	1220	4.89	2220	1710	4.73
9'	6'-6	1'-3	1'-6	1'-0	4'-0	1'-9	6	12"	10'-9							10	8'-9	5	12"	4'-9	3	6	9"	5'-6	5	1760	1370	5.55	2450	1930	5.37
10'	7'-3	1'-3	1'-8	1'-0	4'-7	2'-0	7	12"	12'-0							12	9'-9	5	12"	5'-3	4	7	12"	6'-9	5	1890	1500	6.25	2640	2110	6.06
11'	8'-3	1'-4	1'-10	1'-2	5'-3	2'-3	7	12"	13'-0							14	10'-9	5	12"	6'-0	4	8	12"	7'-9	6	2030	1630	7.25	2830	2290	7.04
12'	9'-0	1'-4	2'-0	1'-2	5'-10	2'-6	7	12"	14'-0							14	11'-9	5	12"	6'-6	4	8	12"	8'-6	7	2170	1770	7.95	3020	2480	7.73
13'	9'-9	1'-6	2'-2	1'-4	6'-3	2'-9	6	12"	6'-3	6	12"	15'-0				16	12'-9	5	12"	7'-0	5	8	9"	9'-3	8	2360	1940	8.58	3290	2730	8.34
14'	10'-6	1'-8	2'-4	1'-4	6'-10	3'-0	7	12"	8'-6	6	12"	16'-3				18	13'-9	5	12"	7'-6	5	7	6"	9'-0	8	2550	2110	9.22	3560	2970	8.95
15'	11'-3	1'-10	2'-6	1'-4	7'-5	3'-2	7	14"	6'-6	7	14"	17'-6				18	14'-9	6	14"	8'-3	5	8	7"	10'-9	9	2740	2280	9.86	3830	3210	9.56
16'	12'-0	2'-0	2'-8	1'-6	7'-10	3'-4	7	12"	6'-9	7	12"	10'-3	5	12"	10'-0	20	15'-9	5	12"	8'-9	6	8	6"	11'-0	9	2940	2460	10.49	4110	3460	10.18
17'	12'-6	2'-2	2'-8	1'-6	8'-4	3'-6	8	14"	7'-9	8	14"	11'-0	6	14"	11'-0	22	16'-9	6	14"	9'-3	6	9	7"	12'-0	9	3220	2720	10.72	4510	3840	10.37
18'	13'-0	2'-4	2'-10	1'-6	8'-8	3'-8	8	12"	8'-3	8	12"	11'-6	6	12"	11'-6	22	17'-9	6	12"	9'-6	6	9	6"	12'-6	10	3440	2920	11.02	4830	4130	10.64
19'	13'-6	2'-6	2'-10	1'-8	9'-0	3'-10	9	14"	8'-9	9	14"	13'-6	6	14"	11'-0	24	18'-9	6	12"	9'-9	7	9	6"	13'-0	10	3730	3190	11.24	5260	4530	10.83
20'	14'-0	2'-8	3'-0	1'-10	9'-2	4'-0	9	14"	9'-6	9	14"	14'-3	6	14"	11'-3	26	19'-9	6	12"	10'-3	7	10	7"	13'-6	11	3960	3400	11.53	5590	4840	11.10
21'	14'-6	2'-10	3'-2	2'-0	9'-4	4'-2	9	12"	9'-6	9	12"	14'-9	6	12"	12'-0	26	20'-9	6	12"	10'-6	7	10	6"	14'-0	11	4200	3620	11.82	5930	5150	11.36
22'	15'-0	3'-0	3'-2	2'-2	9'-8	4'-4	9	12"	10'-3	9	12"	15'-9	6	12"	12'-3	28	21'-9	7	12"	11'-0	8	10	6"	14'-6	11	4510	3910	12.04	6380	5570	11.54
23'	15'-8	3'-4	3'-4	2'-4	10'-0	4'-6	9	12"	11'-3	9	12"	16'-9	6	12"	12'-6	30	22'-9	7	12"	11'-6	8	10	6"	14'-9	12	4790	4150	12.48	6780	5920	11.96
24'	16'-4	3'-8	3'-6	2'-6	10'-4	4'-8	10	14"	11'-9	10	14"	19'-0	6	14"	12'-0	30	23'-9	7	12"	12'-0	8	11	7"	15'-9	12	5070	4390	12.93	7190	6270	12.37
25'	17'-0	4'-0	3'-8	2'-9	10'-7	4'-10	10	12"	13'-0	9	12"	19'-3	6	12"	12'-9	32	24'-9	7	12"	12'-6	8	11	6"	16'-6	12	5350	4630	13.38	7590	6620	12.79
26'	17'-6	4'-4	3'-10	3'-0	10'-8	5'-0	10	12"	13'-9	9	12"	20'-3	6	12"	13'-0	34	25'-9	7	12"	13'-0	9	11	6"	17'-0	13	5670	4910	13.59	8060	7030	12.96
27'	18'-0	4'-8	4'-0	3'-3	10'-9	5'-2	10	12"	15'-0	9	12"	21'-3	6	12"	13'-3	34	26'-9	7	12"	13'-0	9	11	6"	17'-6	13	6000	5200	13.81	8540	7460	13.14
28'	18'-8	5'-0	4'-3	3'-6	10'-11	5'-4	10	12"	13'-9	10	12"	22'-9	6	12"	13'-6	36	27'-9	7	12"	13'-6	9	11	6"	17'-9	13	6240	5400	14.29	8890	7760	13.59
29'	19'-4	5'-4	4'-6	3'-9	11'-1	5'-6	10	12"	14'-9	10	12"	24'-0	6	12"	13'-9	38	28'-9	7	12"	14'-0	10	11	6"	17'-9	13	6490	5610	14.77	9250	8060	14.03
30'	20'-0	5'-8	4'-9	4'-0	11'-3	5'-8	10	12"	15'-9	10	12"	25'-3	6	12"	13'-9	38	29'-9	7	12"	14'-6	10	11	6"	18'-0	13	6740	5820	15.25	9600	8360	14.48

⌀ Total number of bars in cross section.



PER THE CITY OF PHOENIX CITY CODE CHAPTER 2, SECTION 2-28, THESE PLANS ARE FOR OFFICIAL USE ONLY AND MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF THE CONTRACTOR'S CONTRACT WITH THE CITY OF PHOENIX

NOTE:

For General Notes, Typical Elevations, Sections and Details see SD 7.01 (1 to 3).

DESIGN APPROVED <i>Celina Aman</i>		ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION BRIDGE GROUP STRUCTURE DETAIL	
APPROVED FOR DISTRIBUTION <i>[Signature]</i>		RETAINING WALL (REINFORCED CONCRETE CANTILEVER)	
ROUTE	PROJECT NO.	FA NO.	DRAWING NO.
			SD 7.01 (4 of 5)
LOCATION		SHEET NO.	
18TH PL TO 22ND ST		OF	

ST85110072

Note to Designer:
The information presented in this Standard Detail has been prepared in accordance with recognized engineering principles and is for general use. It should not be used for specific application without competent professional examination and verification of its suitability and applicability by a licensed professional engineer. Contents within the inner border line shall not be altered.

NO	DESCRIPTION OF REVISIONS	MADE BY	DATE
1	Original Issue	SJH	9-10
2	General update, added limit state values and notes.	D.B.B.	1-15
3			
4			

CASE IV - ADJACENT TRAFFIC BARRIER

QUANTITIES

LIMIT STATE NOTES:

Dimensions							Steel List																	Service Limit State			Strength Limit State						
H	W	B	C	F	E	X	S1			S2			S3			H		V	Y			F1		T			F2	Qrveu-SERV Lbs. /Sq. Ft.	Qnveu-SERV Lbs. /Sq. Ft.	B'SERV Ft.	Qrveu-STR Lbs. /Sq. Ft.	Qnveu-STR Lbs. /Sq. Ft.	B'STR Ft.
							Bar Size	Spacing	Length	Bar Size	Spacing	Length	Bar Size	Spacing	Length	Number Φ	Length	Bar Size	Spacing	Length	Number Φ	Bar Size	Spacing	Length	Number Φ								
4'	5'-0	1'-0	1'-6	1'-0	2'-6	1'-0	5	12"	5'-6							4	3'-9	5	12"	4'-0	4	5	12"	3'-9	4	1970	1610	2.92	2450	1970	3.09		
5'	5'-0	1'-0	1'-6	1'-0	2'-6	1'-0	5	12"	6'-6							6	4'-9	5	12"	4'-0	4	5	12"	3'-9	4	1900	1540	3.27	2350	1860	3.49		
6'	5'-6	1'-0	1'-6	1'-0	3'-0	1'-6	5	12"	7'-6							6	5'-9	5	12"	4'-0	4	5	12"	4'-3	4	1610	1250	4.40	2030	1540	4.63		
7'	5'-6	1'-3	1'-6	1'-0	3'-0	1'-6	5	12"	8'-9							8	6'-9	5	12"	4'-0	4	5	12"	4'-3	4	1590	1200	4.91	1980	1450	5.22		
8'	6'-0	1'-3	1'-9	1'-0	3'-3	1'-8	5	12"	9'-9							10	7'-9	5	12"	4'-6	4	5	12"	4'-6	4	1520	1130	5.72	1950	1420	5.94		
9'	6'-6	1'-3	2'-0	1'-1	3'-5	1'-8	5	12"	6'-6	5	12"	10'-9				10	8'-9	5	12"	5'-0	4	5	12"	4'-9	4	1490	1100	6.50	2100	1570	6.12		
10'	7'-0	1'-3	2'-0	1'-1	3'-11	1'-10	5	12"	7'-6	5	12"	11'-9				12	9'-9	5	12"	5'-3	5	6	12"	5'-6	5	1670	1280	6.55	2370	1840	6.15		
11'	7'-6	1'-3	2'-3	1'-2	4'-1	2'-0	5	12"	8'-6	5	12"	12'-9				14	10'-9	5	12"	5'-6	5	6	12"	5'-9	5	1770	1380	6.82	2520	1990	6.38		
12'	8'-0	1'-3	2'-3	1'-2	4'-7	2'-0	6	12"	9'-6	5	12"	13'-9				14	11'-9	5	12"	6'-0	5	7	12"	6'-9	5	1950	1560	6.94	2790	2260	6.48		
13'	8'-6	1'-3	2'-6	1'-3	4'-9	2'-2	6	12"	7'-0	6	12"	10'-6	5	12"	5'-6	16	12'-9	6	12"	6'-6	5	8	12"	7'-9	5	2050	1660	7.24	2930	2410	6.74		
14'	9'-0	1'-3	2'-6	1'-4	5'-2	2'-4	6	12"	8'-3	6	12"	11'-6	5	12"	5'-6	18	13'-9	6	12"	6'-9	5	9	12"	8'-6	6	2230	1840	7.41	3200	2680	6.89		
15'	9'-6	1'-4	2'-9	1'-5	5'-4	2'-6	7	12"	5'-6	7	12"	12'-9	5	12"	5'-6	18	14'-9	6	12"	7'-0	5	9	12"	9'-0	6	2350	1950	7.69	3390	2850	7.13		
16'	10'-0	1'-5	2'-9	1'-6	5'-9	2'-8	7	12"	5'-6	7	12"	13'-9	5	12"	5'-6	20	15'-9	6	12"	7'-6	5	8	9"	9'-0	6	2560	2150	7.85	3700	3140	7.27		
17'	10'-6	1'-6	3'-0	1'-7	5'-11	2'-10	8	12"	7'-9	7	12"	15'-0	5	12"	5'-6	22	16'-9	7	12"	7'-9	6	8	8"	9'-3	7	2680	2260	8.15	3880	3310	7.52		
18'	11'-0	1'-7	3'-0	1'-8	6'-4	3'-0	8	12"	8'-0	8	12"	13'-0	6	12"	9'-3	22	17'-9	7	12"	8'-6	6	8	6"	9'-6	7	2880	2450	8.40	4180	3600	7.75		
19'	11'-6	1'-8	3'-3	1'-9	6'-6	3'-2	8	12"	10'-3	8	12"	13'-9	6	12"	9'-3	24	18'-9	7	12"	8'-6	6	8	6"	9'-9	7	2990	2550	8.74	4350	3760	8.04		
20'	12'-0	1'-9	3'-3	1'-10	6'-11	3'-4	9	12"	10'-6	8	12"	15'-0	6	12"	9'-3	26	19'-9	7	12"	9'-0	6	8	6"	10'-3	7	3200	2750	9.01	4650	4040	8.29		
21'	12'-6	1'-10	3'-6	1'-11	7'-1	3'-6	9	12"	10'-0	9	12"	16'-6	6	12"	9'-3	26	20'-9	7	9"	9'-6	6	8	6"	10'-6	8	3310	2850	9.35	4820	4200	8.58		
22'	13'-0	1'-11	3'-6	2'-0	7'-6	3'-8	9	12"	11'-0	9	12"	17'-6	6	12"	9'-3	28	21'-9	7	9"	9'-9	7	9	6"	11'-6	8	3520	3050	9.62	5120	4490	8.83		
23'	13'-6	2'-0	3'-9	2'-2	7'-7	3'-10	10	12"	12'-6	9	12"	19'-0	6	12"	9'-3	30	22'-9	8	12"	10'-0	7	9	6"	11'-9	8	3590	3110	9.98	5250	4600	9.14		
24'	14'-0	2'-2	3'-9	2'-4	7'-11	4'-0	10	12"	13'-6	9	12"	20'-0	6	12"	9'-3	30	23'-9	8	12"	10'-6	7	9	6"	12'-0	8	3830	3330	10.21	5600	4930	9.34		
25'	14'-6	2'-4	4'-0	2'-6	8'-0	4'-2	10	12"	14'-6	9	12"	21'-0	6	12"	9'-3	32	24'-9	8	12"	10'-9	7	9	6"	12'-6	9	4020	3500	10.50	5880	5170	9.58		
26'	15'-0	2'-6	4'-0	2'-8	8'-4	4'-4	10	12"	14'-6	10	12"	22'-6	6	12"	9'-3	34	25'-9	8	12"	11'-0	7	10	9"	13'-3	9	4270	3730	10.74	6240	5510	9.79		
27'	15'-6	2'-9	4'-3	2'-10	8'-5	4'-6	10	12"	15'-0	10	12"	23'-6	6	12"	10'-3	34	26'-9	8	12"	11'-6	8	10	9"	13'-3	9	4450	3880	11.00	6520	5750	9.99		
28'	16'-0	3'-0	4'-3	3'-0	8'-9	4'-8	10	12"	15'-6	10	12"	24'-6	6	12"	11'-3	36	27'-9	8	12"	12'-0	8	10	9"	13'-6	9	4730	4130	11.20	6940	6130	10.16		
29'	16'-6	3'-3	4'-6	3'-3	8'-9	4'-10	11	12"	16'-3	9	12"	25'-0	6	12"	12'-3	38	28'-9	8	12"	12'-6	8	10	9"	14'-0	9	4920	4290	11.46	7240	6380	10.36		
30'	17'-0	3'-6	4'-6	3'-6	9'-0	5'-0	11	12"	17'-0	10	12"	26'-0	6	12"	12'-9	38	29'-9	8	12"	13'-0	8	10	9"	14'-3	10	5210	4550	11.66	7670	6780	10.52		

Φ Total number of bars in cross section.

CASE IV			
H	Concrete C.Y./Ln.Ft.	Steel Lbs./Ln.Ft.	Steel (Horiz. Lap) Lbs./Splice
4'	.40	32	12
5'	.44	35	14
6'	.50	37	14
7'	.58	41	15
8'	.64	44	16
9'	.71	53	16
10'	.77	62	19
11'	.85	67	20
12'	.91	79	20
13'	.99	95	22
14'	1.07	109	24
15'	1.19	119	24
16'	1.31	126	25
17'	1.43	150	28
18'	1.57	179	28
19'	1.71	190	29
20'	1.85	207	30
21'	2.00	232	31
22'	2.16	264	33
23'	2.35	289	34
24'	2.60	301	34
25'	2.86	315	36
26'	3.13	334	38
27'	3.46	345	38
28'	3.81	358	40
29'	4.21	365	41
30'	4.63	401	42

Qtveu-SERV = Total equivalent uniform vertical bearing stress to be used only for the evaluation of settlement based on the Service I Limit State as per ADOT SF-1.

Qnveu-SERV = Net equivalent uniform vertical bearing stress to be used only for the evaluation of settlement based on the Service I Limit State as per ADOT SF-1.

B' SERV = Effective footing width to be used only for the evaluation of settlement based on the Service I Limit State as per ADOT SF-1.

Qtveu-STR = Total equivalent uniform vertical bearing stress to be used only for the evaluation of bearing resistance based on the Strength I Limit State as per ADOT SF-1.

Qnveu-STR = Net equivalent uniform vertical bearing stress to be used only for the evaluation of bearing resistance based on the Strength I Limit State as per ADOT SF-1.

B' STR = Effective footing width to be used only for the evaluation of bearing resistance based on the Strength I Limit State as per ADOT SF-1.

For other applicable limit states, perform project specific-analysis using the procedures in ADOT SF-1. ADOT SF-1 (Materials Group memorandum) is found at Materials Group website.

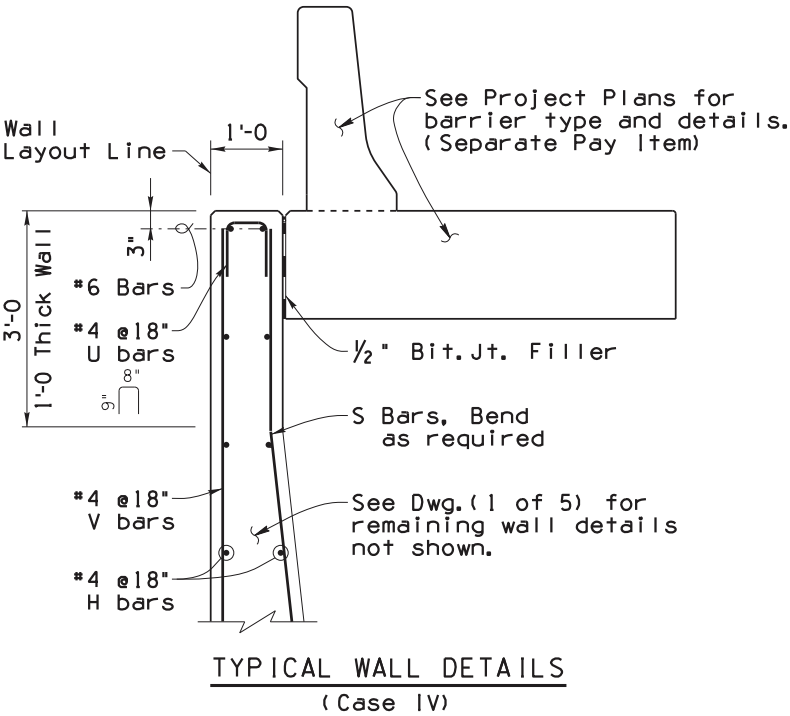
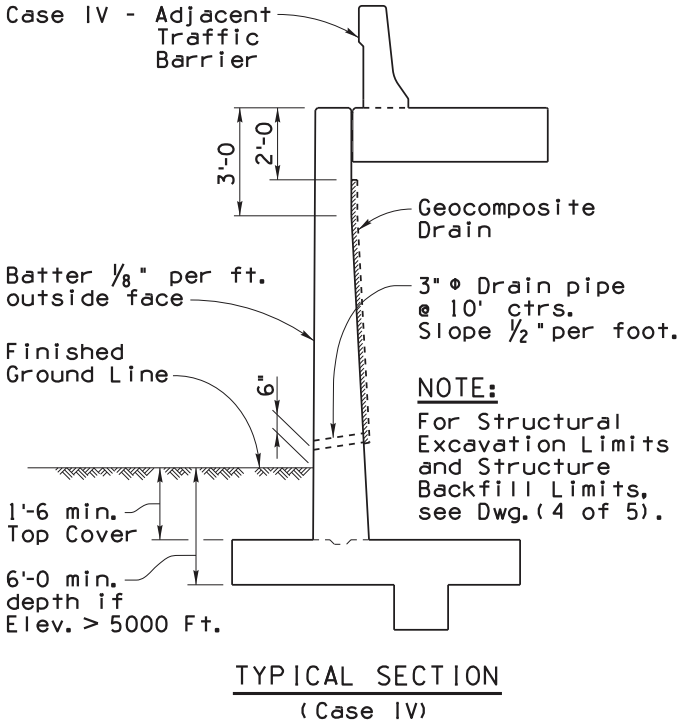
QUANTITIES NOTE:

Quantities are shown for information purposes only. The pay item is measured per square foot of wall.

Quantities are for one L.F. of wall except for horizontal steel lap splices and footing steps.

Steel quantities for horizontal lap splices shall be added for wall segments greater than 30 feet, and add a splice for each additional wall segment greater than 30 feet. Horizontal 1'-0 lap splices occur at construction or contraction joints.

Steel and concrete quantities for footing steps shall be added to those shown in the table.



PER THE CITY OF PHOENIX CITY CODE CHAPTER 2, SECTION 2-28, THESE PLANS ARE FOR OFFICIAL USE ONLY AND MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF THE CONTRACTOR'S CONTRACT WITH THE CITY OF PHOENIX

NOTE:
For General Notes, Typical Elevations, Sections and Details see SD 7.01 (1 to 4).

DESIGN APPROVED <i>Celina Aman</i>		ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION BRIDGE GROUP STRUCTURE DETAIL	
APPROVED FOR DISTRIBUTION <i>[Signature]</i>		RETAINING WALL (REINFORCED CONCRETE CANTILEVER)	
ROUTE	PROJECT NO.	FA NO.	DRAWING NO.
LOCATION		SHEET NO.	
18TH PL TO 22ND ST		OF	

ST85110072

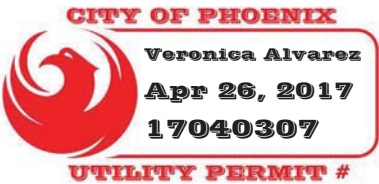
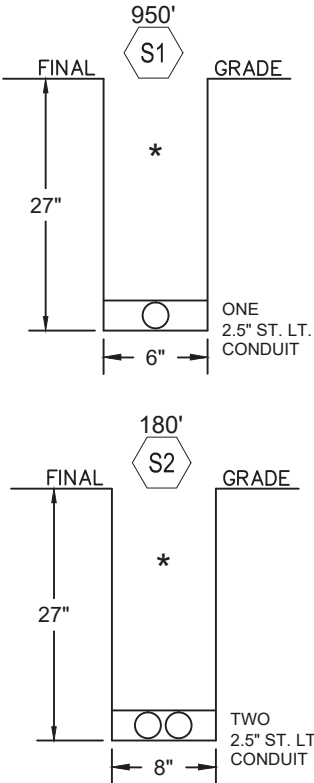
CITY OF PHOENIX GENERAL NOTES FOR UTILITY CONSTRUCTION

1. ALL UTILITY CONSTRUCTION SHALL CONFORM TO THE LATEST MARICOPA ASSOCIATION OF GOVERNMENTS (MAG) UNIFORM STANDARD SPECIFICATIONS AND DETAILS OF PUBLIC WORKS CONSTRUCTION, AND THE CITY OF PHOENIX SUPPLEMENTS TO MAG.
2. ALL WORK PERFORMED IN THE CITY OF PHOENIX RIGHTS-OF-WAY SHALL BE GOVERNED BY THE LATEST EDITION OF THE CITY OF PHOENIX TRAFFIC BARRICADE MANUAL.
3. THIS SET OF PLANS WAS REVIEWED BY THE CITY OF PHOENIX UTILITY COORDINATION SECTION IN COMPLIANCE WITH CITY REQUIREMENTS. HOWEVER, SUCH REVIEW SHALL NOT PREVENT THE CITY FOR REQUIRING CORRECTION OF ERRORS FOUND TO BE IN VIOLATION OF ANY LAW, ORDINANCE OR CITY OF PHOENIX REQUIREMENT FOR UTILITY CONSTRUCTION IN THE RIGHTS-OF-WAY.
4. THE CONTRACTOR SHALL HAVE A COPY OF THE APPROVED CONSTRUCTION PLANS AND APPROVED TRAFFIC CONTROL PLAN AT THE PROJECT SITE AT ALL TIMES.
5. ALL UTILITIES CROSSING STREETS MUST BE BORED OR PUNCHED UNLESS PERMISSION TO OPEN CUT AS BEEN GIVEN IN WRITING BY THE CITY ENGINEER.
6. BEFORE STARTING ANY WORK ON A MAJOR OR COLLECTOR STREET, THE UTILITY COMPANY SHALL SCHEDULE A PRE CONSTRUCTION MEETING WITH THE CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT'S UTILITY INSPECTION SECTION.
7. THE CITY OF PHOENIX DOES NOT WARRANT ANY QUANTITIES SHOWN ON THE PLANS.
8. UTILITY COMPANIES ARE TO COORDINATE ALLEY WORK WITH THE REFUSE SECTION.
9. THE UTILITY COMPANY SHALL CONTACT THE CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT'S UTILITY INSPECTION SECTION A MINIMUM OF 48 HOURS IN ADVANCE OF STARTING WORK, GIVING LOCATION AND PERMIT NUMBER IN ORDER TO SCHEDULE INSPECTIONS.
10. ALL WORK REQUIRING ASPHALT REPLACEMENT, CONCRETE REPLACEMENT, OR RESURFACING ALLEYS IN THE CITY OF PHOENIX RIGHTS-OF-WAY WILL REQUIRE A FINAL INSPECTION WITH THE UTILITY COMPANY REPRESENTATIVE AT TIME OF COMPLETION.
11. MAINTAIN A MINIMUM SIX (6) FEET HORIZONTAL SEPARATION AND ON (1) FOOT VERTICAL FROM ALL WATER AND SEWER MAINS, ALL MEASUREMENTS OUTSIDE TO OUTSIDE.

GENERAL TRENCHING NOTES

1. ALL WORK TO COMPLY WITH THE APS TRANSMISSION & DISTRIBUTION CONSTRUCTION STANDARDS (T.A.D.C.S) MANUAL. ALL WORK SHALL COMPLY WITH THE NECESSARY PERMIT RESTRICTIONS AND REQUIREMENTS AS PROMULGATED BY THE LOCAL GOVERNMENTAL AGENCY AND / OR OTHER PUBLIC REGULATORY AGENCIES.
2. ALL TRENCHING ACTIVITIES SHALL CONFORM TO O.S.H.A. REGULATIONS. PROTECTION FOR EMPLOYEES AND OTHERS PER O.S.H.A. REQUIREMENTS SHALL BE PROVIDED ON ALL WORK.
3. ★ DENOTES BACKFILL AND COMPACTION PER APS SPECIFICATIONS AS DEFINED IN THE 8601 SECTION OF THE APS T. & D.C.S. MANUAL. BEDDING, SHADING AND BACKFILL SHALL HAVE 100% COMPACTION IN TRAVELED AREAS AND 95% COMPACTION ELSEWHERE.
4. MAINTAIN MINIMUM 12" VERTICAL SEPARATION BETWEEN ALL APS FACILITIES (I.E. DUCT BANK, CONDUIT, AND CABLE) AND ANY EXISTING UNDERGROUND CONFLICTS. MAINTAIN A MINIMUM OF 24" VERTICAL SEPARATION FROM ANY PROPOSED UNDERGROUND CONFLICTS.
5. THE USABILITY OF ALL CONDUIT SYSTEMS MUST BE ENSURED. THE PARTY RESPONSIBLE FOR INSTALLING THE CONDUIT SHALL MANDRELL. MANDRELLING SHALL BE PER APS SPECIFICATIONS AS DEFINED IN THE 8601 SECTION OF THE APS T.A.D.C.S. MANUAL.
6. A POLYESTER, PRE-LUBRICATED FLAT STRAP PULL LINE (8895.MR) IS REQUIRED IN ALL CONDUIT RUNS. THE PULL LINE SHALL BE PROVIDED BY APS, AND INSTALLED BY THE CONTRACTOR.
7. TRENCH DEPTHS SHOWN ARE MINIMUM REQUIREMENTS.
8. THE TRENCH BOTTOM SHALL BE SMOOTH, FLAT AND WITHOUT SURFACE IRREGULARITIES, OTHERWISE A SUFFICIENT AMOUNT OF BEDDING MATERIAL SHALL BE INSTALLED TO PROVIDE THE REQUIRED SURFACE. THE BEDDING MATERIAL SHALL NOT CONTAIN ROCKS LARGER THAN 1-1/2" IN THEIR GREATEST DIMENSION. THE BEDDING MATERIAL SHALL CONTAIN A SUFFICIENT VOLUME OF FINES TO FILL ALL VOIDS.
9. CONTRACTOR SHALL NOT TRENCH CLOSER THAN 2' TO APS FACILITIES (EXCEPT 4' TO POLES) UNLESS AN APS REPRESENTATIVE IS PRESENT.
10. WHEN PASSING OVER OR UNDER CONFLICTS, TRENCH SHALL NOT BE SLOPED STEEPER THAN 1:12 RATIO OR MINIMUM RADIUS OF 160 TIMES THE OUTSIDE DIAMETER OF THE CONDUIT.
11. TRENCH WIDTHS SHOWN ARE MINIMUM REQUIREMENTS BASED ON CONDUIT SIZES. TRENCHES 46 INCHES OR MORE IN DEPTH, MEASURED TO THE TOP OF THE INSTALLED BEDDING MATERIAL, SHALL BE A MINIMUM OF 16 INCHES IN WIDTH WHEREVER A WORKER MUST ENTER THE TRENCH. TRENCHES 60 INCHES OR MORE IN DEPT, MEASURED TO THE TOP OF THE INSTALLED BEDDING MATERIAL, SHALL BE A MINIMUM OF 24 INCHES IN WIDTH WHEREVER A TRENCH MUST BE SHORED.
12. REFER TO 8648 FOR MINIMUM TRENCH DEPTH REQUIREMENTS AT THE APPROACH TO, AND BENEATH A.P.S. PAD-MOUNTED EQUIPMENT AND SUBSTRUCTURES. THESE MINIMUMS ARE REQUIRED TO ENSURE ADEQUATE VERTICAL SPACE IS AVAILABLE TO INSTALL THE CONDUIT SWEEPS. CONDUIT SWEEPS SHALL NOT BE CUT-OFF TO FACILITATE INSTALLATION.
13. THE TRENCHING CONTRACTOR IS REQUIRED TO PROVIDE A TRAFFIC CONTROL PLAN (T.C.P.) PRIOR TO APPLYING FOR A TRENCHING PERMIT.
14. SPACING BETWEEN APS LAYERS IS 6" MINIMUM WHEN MECHANICAL COMPACTION IS USED; OTHERWISE, IT CAN BE DECREASED TO 3".

TRENCH DETAILS:



ITEMS OF RESPONSIBILITY

1. TO BE PROVIDED BY THE CITY OF PHOENIX CONTRACTOR :

A. ALL TRENCH MATERIAL AND TRENCH RELATED WORK INCLUDING BUT NOT LIMITED TO; TRENCHING, ASPHALT CUTTING, MILLING, POT-HOLING, T-TOPS, PUNCHING, BORING, SPOILS REMOVAL, BACKFILL MATERIAL AND COMPACTION (PER APS T.A.D.C.S. MANUAL, SECTION 8601), ALL SURFACE RESTORATION (i.e., LANDSCAPING, SIDEWALKS, CURBS, GUTTERS, ASPHALT, ETC.) AS IT RELATES TO WORK PERFORMED ON THIS PROJECT BY THE CITY OF PHOENIX CONTRACTOR AND APS CREWS.

B. LABOR TO INSTALL ALL APS PROVIDED GROUND RODS (OR ALTERNATE GROUNDING MATERIAL); SECONDARY JUNCTION BOXES, PULL LINE, CONDUIT PLUGS, CONDUIT IDENTIFICATION RINGS, ELECTRONIC MARKERS AND ASSOCIATED MATERIALS.

C. LABOR AND MATERIAL FOR ALL STREET LIGHT POLES, STREET LIGHT MAST ARMS, STREET LIGHT LUMINAIRES, FUSES IN HAND HOLES AND STREET LIGHT SONO TUBE INSTALLATIONS PER APS SPECIFICATIONS.

D. ALL MISCELLANEOUS MATERIAL AND WORK INCLUDING BUT NOT LIMITED TO; BARRICADING, SHORING, STEEL PLATING AND TRAFFIC CONTROL.

E. ALL CONDUIT SHOWN TO BE INSTALLED IN ENERGIZED EQUIPMENT, WILL BE CAPPED AND LOCATED AT A POINT EITHER 2' FROM THE EQUIPMENT OR FROM THE BLUE STAKE MARKINGS FOR UNDERGROUND ELECTRIC CABLES UNLESS QUALIFIED PERSONNEL ARE UTILIZED.
WARNINGS: CUSTOMER CONTRACTOR SHALL NOT ENTER APS-OWNED EQUIPMENT.

F. ANY POT HOLES REQUIRED FOR LOCATING OTHER UTILITIES ALONG WITH SURFACE RESTORATIONS.
2. TO BE PROVIDED BY THE ARIZONA PUBLIC SERVICE COMPANY AND INSTALLED BY THE CITY OF PHOENIX CONTRACTOR :

A. ALL GROUND RODS OR ALTERNATE GROUNDING MATERIAL, SECONDARY JUNCTION BOXES, PULL STRAP, AND ELECTRONIC U.G. MARKERS.
3. PROVISIONS FOR SURVEY OF BOTH HORIZONTAL AND VERTICAL CONTROL :

A. THE CITY OF PHOENIX CONTRACTOR SHALL PROVIDE BENCHMARKS AND VERTICAL CONTROL.

B. APS SURVEY SHALL PROVIDE HORIZONTAL LAYOUT ONLY.

C. ALL TRENCH DEPTHS MUST INCORPORATE THE VERTICAL SPACE AND SEPARATIONS REQUIRED BY THE OTHER JOINT-USE TRENCH OCCUPANTS. THIS INCLUDES SECTIONS OF TRENCH THAT ARE NOT JOINTLY-USED WITH APS. MINIMUM COVER REQUIREMENTS FOR APS FACILITIES ARE NOTED WITH THE TRENCH DETAILS.

D. WHEN THOSE OTHER THAN APS, ARE REQUIRED TO PROVIDE SURVEY, THE REQUIREMENT IS AN EXCEPTION TO THE APS STANDARD 8601. APS STANDARD 8601 SPECIFIES THAT APS SHALL ALWAYS PROVIDE SURVEY. WHERE THE REQUIREMENT FOR OTHERS TO PROVIDE SURVEY IS SPECIFIED ON THE CONSTRUCTION SKETCH, THAT REQUIREMENT SHALL TAKE PRECEDENCE OVER THE CONFLICTING PORTION OF THE APS STANDARD 8601.
4. TO BE PROVIDED BY THE ARIZONA PUBLIC SERVICE COMPANY AND INSTALLED BY ARIZONA PUBLIC SERVICE COMPANY :

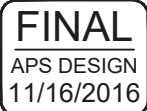
A. LABOR AND MATERIAL FOR ALL STREET LIGHT SECONDARY WIRE FROM JUNCTION BOX TO JUNCTION BOX, CONNECTIONS IN JUNCTION BOXES AND REMOVAL/REPLACEMENT OF EXISTING WIRE WHERE NOTED.

B. CONDUIT SYSTEM INSPECTION INCLUDING; TRENCH WORK AND DEPTHS, CONDUIT INSTALLATION, MISCELLANEOUS WORK AND INSTALLATIONS. CALL THE APS INSPECTOR, 602-708-8881 OR 602-371-6512 A MINIMUM OF FIVE WORKING DAYS PRIOR TO THE START OF TRENCHING.
5. HAULING AND DELIVERY :

A. APS DOES NOT DELIVER THE APS PROVIDED MATERIALS TO THE CONTRACTOR. IN ORDER TO LIMIT THE WAIT TIME FOR THE CITY'S TRENCHING CONTRACTOR, AN APPOINTMENT MUST BE SCHEDULED WITH THE APS WAREHOUSE FOR MATERIAL PICKUP. CALL ALISSA SCHAD (602-371-7758) TO SCHEDULE THE APPOINTMENT. AN ARRIVAL TIME LATER THAN TEN MINUTES, MAY RESULT IN AN APS CANCELLATION OF THE APPOINTMENT, DEPENDING ON THE CONGESTION AND WORKLOAD PRESENT AT THE APS WAREHOUSE.

TOTAL WIRE (ft)		
INSTALL		
● 6220.UA1/0AL	=	1194'
● 6220.UA4/0B	=	651'
REMOVE		
● 6220.UA1/0AL	=	651'

STREETLIGHT SUMMARY				
SYM	#/TYPE POLE	#/TYPE LAMP	INVEST.BY	INST/REM
A	6 - 1946.D32FD	6 - 16,000	O	I
B	4 - 1946.S23	4 - 16,000	O	I
BILL TO: CITY OF PHOENIX				




City of Phoenix
Riverview Drive
18th Place to 22nd Street
ST85110072

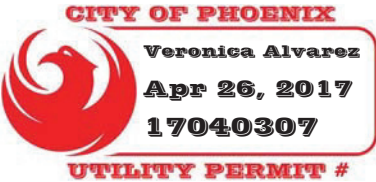
PER THE CITY OF PHOENIX CITY CODE CHAPTER 2, SECTION 2-28, THESE PLANS ARE FOR OFFICIAL USE ONLY AND MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF THE CONTRACTOR'S CONTRACT WITH THE CITY OF PHOENIX

APS SYMBOLS LEGEND		
EXISTING EQUIPMENT	PROPOSED EQUIPMENT	DESCRIPTION
		- PADMOUNTED TRANSFORMER
		- SWITCHING CABINETS
		- 10 SWITCHING CABINET
		- OH/UG CAPACITOR BANK
		- J-BOX / PULL BOX
		- MANHOLES
		-OH TRANSFORMER
		-OH SWITCH (KPF)
		- APS OWNED POLE
		- APS OWNED STEEL POLE
		- APS OWNED JOINT USE POLE
		- DIP (TRANSITION) POLE
		- STREET LIGHT
		- DUSK TO DAWN LIGHT

APS UTILITIES KEY		
EXISTING		PROPOSED
W	WATER	W
S	SEWER	S
G	GAS	G
SD	STORM DRAIN	SD
IRR	IRRIGATION	IRR
TS	TRAFFIC SIGNAL	TS
T	TELE	T
CATV	CATV	CATV
FO	FIBER	FO
UG ELECTRIC NOMINAL TRANSMISSION (69KV)*		
UG ELECTRIC NOMINAL PRIMARY (12,470/7,200V)*		
UG ELECTRIC NOMINAL SECONDARY/SERVICE (120/240V)*		
OH ELECTRIC NOMINAL TRANSMISSION (69KV)*		
OH ELECTRIC NOMINAL PRIMARY (12,470/7,200V)*		
OH ELECTRIC NOMINAL SECONDARY/SERVICE (120/240V)*		
CONDUIT		
TRENCH RUNNING LINE		
* UNLESS OTHERWISE NOTED		

DATA MODIFIED PER FIELD CONDITIONS				
VICINITY MAP				
<p>The map shows a grid of streets. University Drive runs horizontally at the top. Riverview Drive runs vertically on the left. 18th Place runs vertically in the center. 16th Street runs vertically on the far left. 22nd Street runs vertically on the far right. A horizontal dashed line represents the Rio Salado river. A hatched rectangular area is located between Riverview Drive and 18th Place, just south of University Drive. An arrow points to this area with the label 'JOB SITE'. A north arrow points upwards with the letter 'N' below it.</p>				
T 1N	R 3E	Sec 22	NW 1/4	MAP# 6-31
CONTACT: HENRY MIRANDA				
PHONE: 602-371-6605		PGR/MOBILE: 928-607-5429		
INSPECTOR: JOHN WILSON				
PHONE: 602-371-6512		PGR/MOBILE: 602-708-8881		
NO.	DATE	DESCRIPTION		BY
		RIVERVIEW STREET LIGHT IMPROVEMENTS		
WO#:		WA305192		DATE: 11/16/2016
BY:		A.SANCHEZ III		SCALE: 1:40
FILENAME: WA305192.DWG		SHEET		1 OF 4

City of Phoenix
Riverview Drive
18th Place to 22nd Street
ST85110072



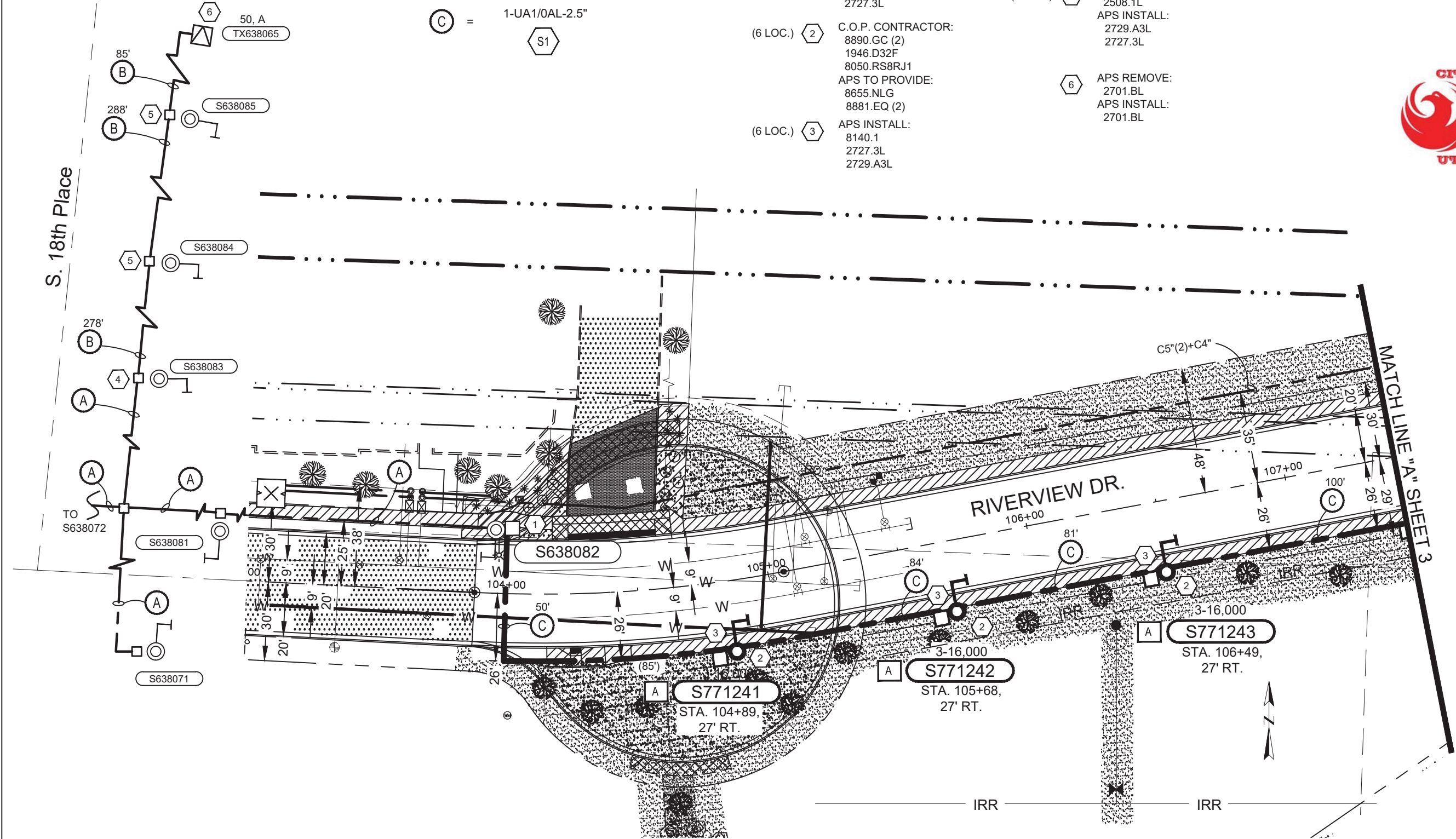
CABLE NOTES:

- (A) = 1-UA1/0AL-2.5"
- (B) = 1-UA1/0AL-2.5" / 1-UA4/0BL-2.5"
- (C) = 1-UA1/0AL-2.5"
- (S1)

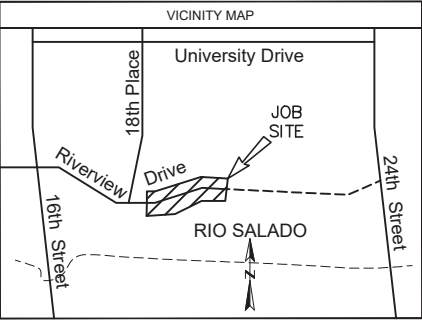
CONSTRUCTION NOTES:

- (2 LOC.) (1) APS T&C CONTRACTOR:
SWEEP OUT J-BOX
8890.GC
C.O.P. CONTRACTOR:
CONNECT TO STUB OUTS
AND EXTEND
APS INSTALL:
2727.3L
- (6 LOC.) (2) C.O.P. CONTRACTOR:
8890.GC (2)
1946.D32F
8050.RS8RJ1
APS TO PROVIDE:
8655.NLG
8881.EQ (2)
- (6 LOC.) (3) APS INSTALL:
8140.1
2727.3L
2729.A3L
- (2 LOC.) (4) APS REMOVE:
2727.3L (2)
APS INSTALL:
2727.3L (2)
- (2 LOC.) (5) APS REMOVE:
2508.1L
APS INSTALL:
2729.A3L
2727.3L
- (6) APS REMOVE:
2701.BL
APS INSTALL:
2701.BL

S. 18th Place



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T 1N R 3E Sec 22 NW 1/4 MAP# 6-31

CONTACT: HENRY MIRANDA
PHONE: 602-371-6605 PGR/MOBILE: 928-607-5429
INSPECTOR: JOHN WILSON
PHONE: 602-371-6512 PGR/MOBILE: 602-708-8881

NO.	DATE	DESCRIPTION	BY

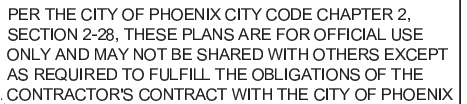
aps RIVERVIEW STREET LIGHT IMPROVEMENTS

WO#: WA305192 DATE: 11/16/2016
BY: A.SANCHEZ III SCALE: 1:40
FILENAME: WA305192.DWG SHEET 2 OF 4

ISSUED-FOR-CONSTRUCTION
FINAL DESIGN
WA305192 A.S.3 04-04-2017

FINAL
APS DESIGN
11/16/2016

ARIZONA BLUE STAKE
CALL TWO WORKING DAYS
BEFORE YOU DIG
Dial 811 or
602-263-1100
1-800-STAKE-IT
(OUTSIDE MARICOPA COUNTY)



(C) = 1-UA1/0AL-2.5"
S1

(D) = 2-UA1/0A-2.5"(2)
S2

(E) = C2.5"
S1

(2 LOC.)	1	APS T&C CONTRACTOR: SWEEP OUT J-BOX 8890.GC 8881.EQ C.O.P. CONTRACTOR: CONNECT TO STUB OUTS AND EXTEND	(3 LOCS)	7	APS INSTALL: 8140.1 2729.A3L
(6 LOC.)	2	C.O.P. CONTRACTOR: 8890.GC (2) 1946.D32F 8050.RS8RJ4 APS TO PROVIDE: 8655.NLG 8881.EQ (2)	(4 LOCS)	8	C.O.P. CONTRACTOR: 8890.GC (2) 1946.S23 8027.SS4AZ4 APS TO PROVIDE: 8655.NLG 8881.EQ (2)
(8 LOC.)	3	APS INSTALL: 8140.1 2727.3L 2729.A3L			

The City of Phoenix logo, which is a red stylized phoenix bird, is positioned to the left of the permit information. The permit information itself is contained within a red-bordered box with a white background. Inside this box, the text reads: "CITY OF PHOENIX" in red, "Veronica Alvarez" in black, "Apr 26, 2017" in black, "17040307" in black, and "UTILITY PERMIT #" in red.



ISSUED-FOR-CONSTRUCTION
FINAL DESIGN
WA305192 A.S.3 04-04-2017

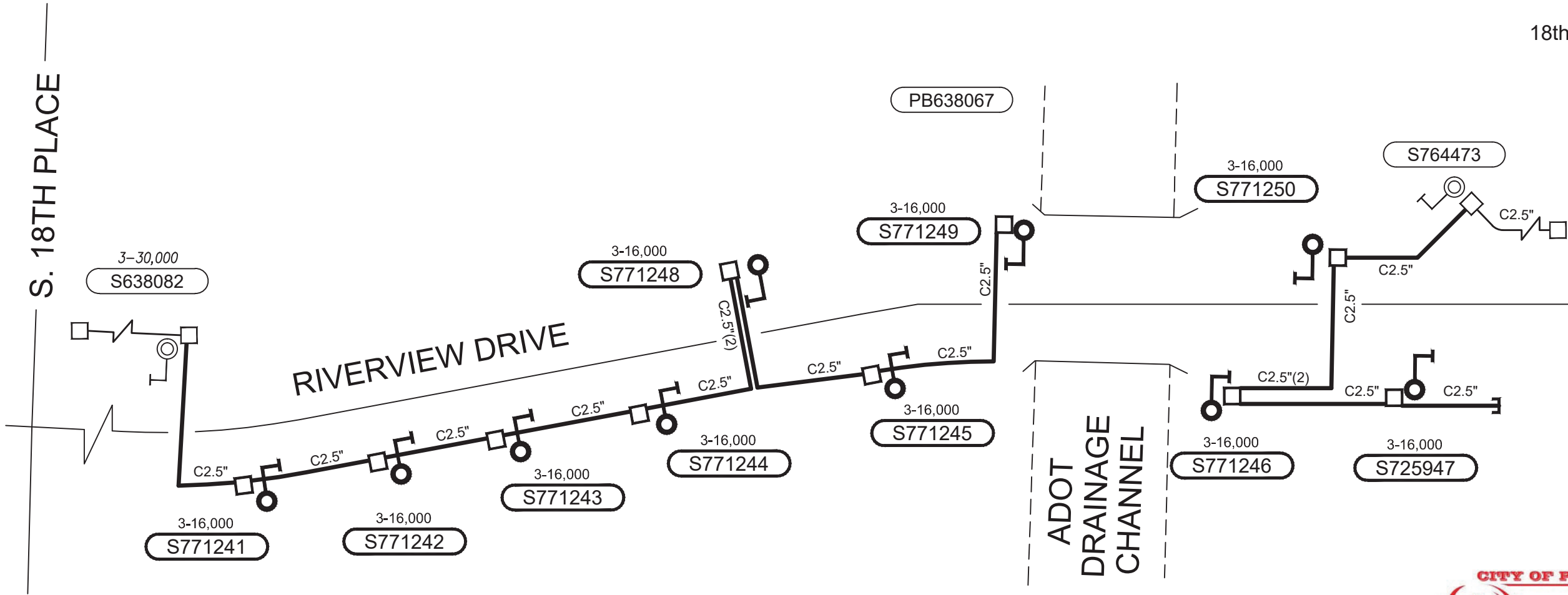
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67 of 68

City of Phoenix
Riverview Drive
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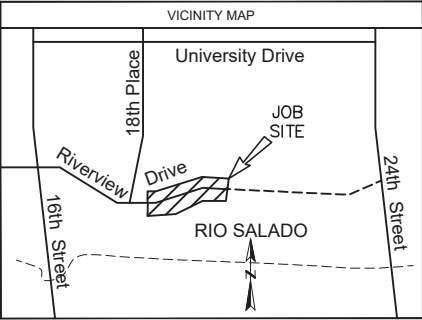
CITY OF PHOENIX
Veronica Alvarez
Apr 26, 2017
17040307
UTILITY PERMIT #

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CONDUIT LAYOUT
LEGEND

EXISTING CONDUIT
PROPOSED CONDUIT

NTS



T 1N R 3E Sec 22 NW 1/4 MAP# 6-31

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