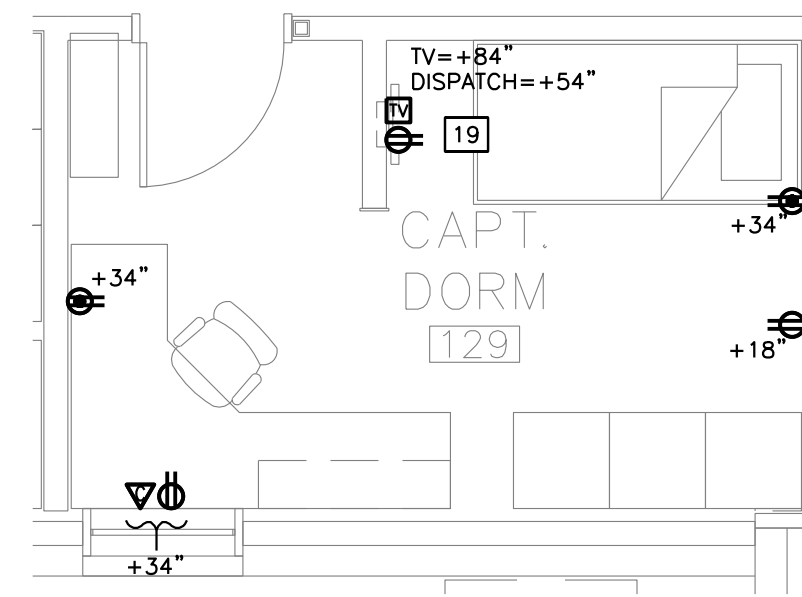


**TYPICAL DORM ROOM**  
 SCALE: 1/4"=1'-0"

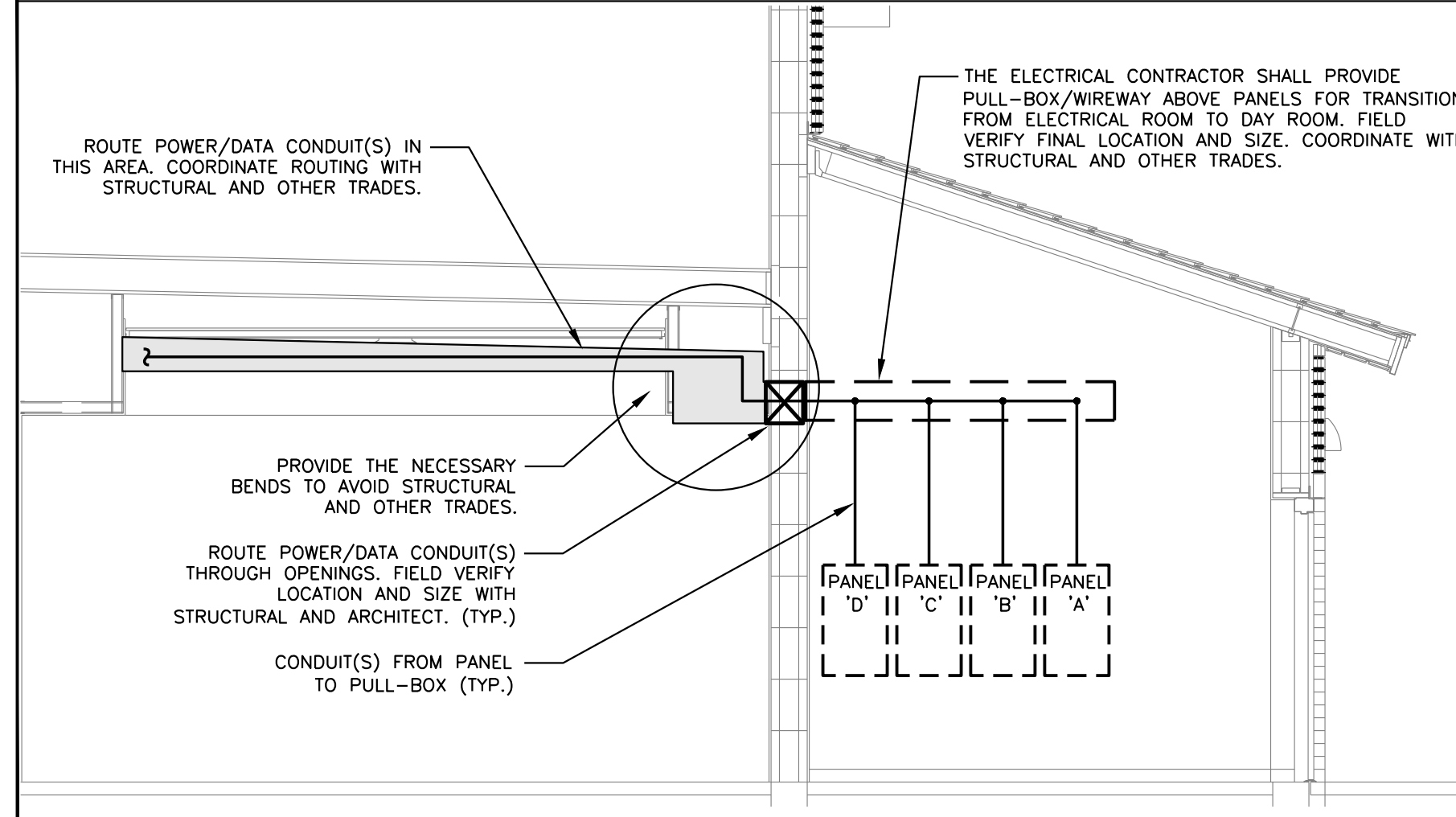
1  
 E3.2



**TYPICAL CAPT. DORM ROOM**  
 SCALE: 1/4"=1'-0"

2  
 E3.2

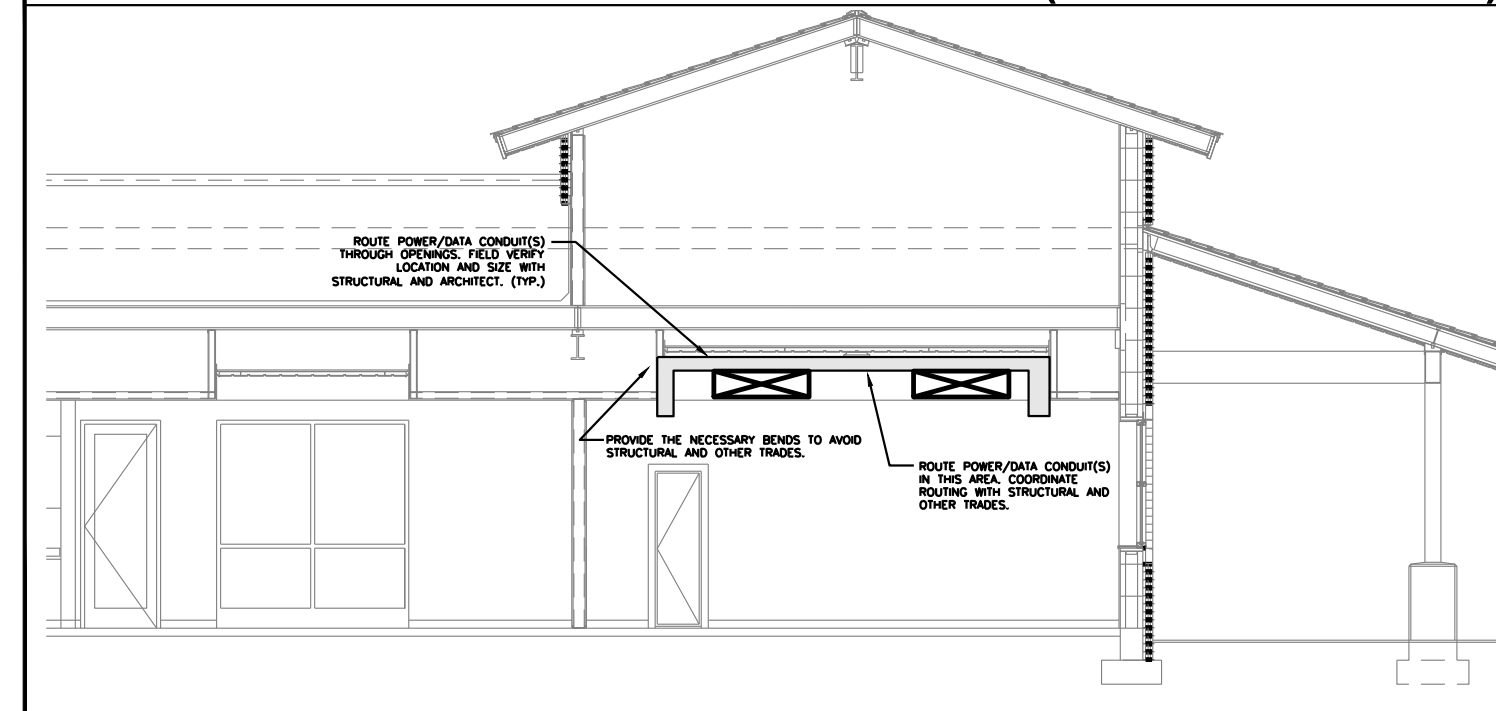
**DETAIL 2: ELEVATION DAY ROOM (LOOKING WEST)**



**ELECTRICAL ROOM DETAIL**  
 SCALE: 1/4"=1'-0"

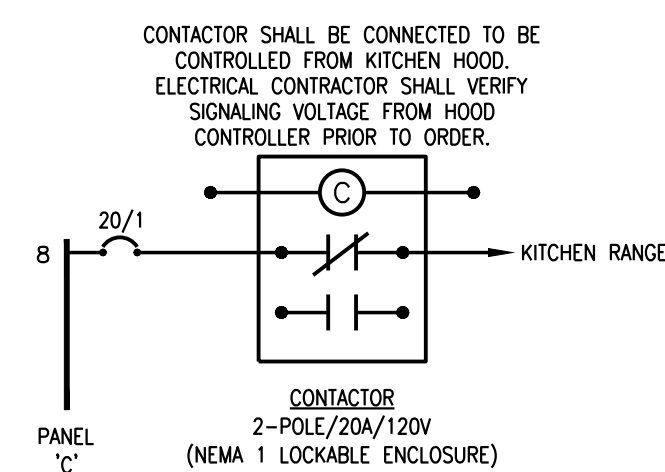
2  
 E3.2

**DETAIL 3: ELEVATION IT/TEL ROOM 137 (LOOKING NORTH)**



**ELECTRICAL ROOM DETAIL**  
 SCALE: 1/4"=1'-0"

3  
 E3.2



**CONTACTOR DETAIL**  
 SCALE: N.T.S.

**GENERAL NOTES**

1. DEVICE MOUNTING HEIGHTS ARE SHOWN FOR REFERENCE ONLY. COORDINATE ALL FINAL MOUNTING HEIGHTS AND/OR LOCATIONS AS REQUIRED WITH ARCHITECTURAL DETAILS, ELEVATIONS AND MILLWORK CONTRACTOR.
2. ALL RECEPTACLES IN THE APPARATUS BAY, WORKSHOP, TURNOUT, WORKSHOP, HAZMAT AND DECON SHALL BE MOUNTED AT A MINIMUM HEIGHT OF 24" ABOVE FINISHED FLOOR TO BOTTOM OF DEVICE.
3. HOMERUN CIRCUITS MAY BE COMBINED INTO COMMON CONDUITS WHERE ALLOWED BY NEC. PROVIDE DEDICATED NEUTRALS WHEN FEEDING AFCI OR GFCI CIRCUIT BREAKERS. PROVIDE COMMON TRIP HANDLES IF COMBINING CIRCUITS AND SHARING NEUTRAL CONDUCTORS.
4. MC CABLE FOR LIGHTING FIXTURE WHIP ONLY. NO MC CABLE IN WALLS OR RUNS FROM PANELBOARD(S). ALL RUNS SHALL BE IN EMT CONDUIT.
5. WHERE ROOM HAVE HARD LID CEILINGS, ALL LOW VOLTAGE CABLING SHALL BE RUN IN CONDUIT FOR FUTURE ACCESS.
6. DEVICE COLORS SHALL BE WHITE WITH STAINLESS STEEL COVER PLATES.

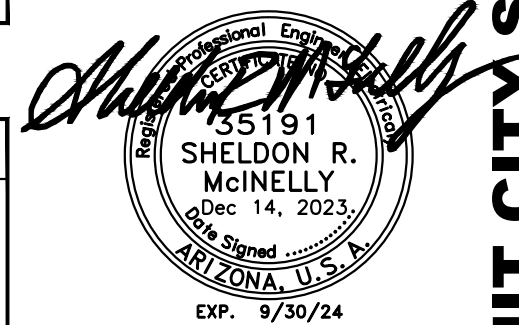
**KEY NOTES (NOT ALL NOTES APPLY)**

19. PROVIDE POWER/CABLE/DATA FOR WALL MOUNTED T.V. VERIFY EXACT HEIGHT WITH TENANT.

**PARTIAL SYMBOL LIST**

- ⊙ FACE-LESS GFCI CIRCUIT GUARD DEVICE  
 GFCI GUARD DEVICE BY HUBBELL, MODEL NO. GFBF20. MOUNT ABOVE 60" A.F.F. VERIFY COLOR WITH ARCHITECT.
- ⊕ COMBINATION USB/DUPLEX RECEPTACLE  
 USB/DUPLEX DEVICE BY HUBBELL, MODEL NO. USB20AC5. VERIFY COLOR WITH ARCHITECT.
- ▽ FIRE STATION COMMUNICATIONS (PHONE/DATA) DEVICE  
 PROVIDE 3/4" CONDUIT AND PULL STRING TO ABOVE ACCESSIBLE CEILING SPACE. PROVIDE WITH (2) TERMINATION DROPS AT EACH LOCATION.

Revisions	Date



Designed By:
Drawn By:
Checked By:
Date: 12/14/2023
Phase: PERMIT

**Perlman**  
 Architects of Arizona  
 2929 North Central Avenue, Suite # 1600  
 Phoenix, Arizona 85012  
 480.951.5900 480.951.3045 f  
 perlmanaz.com

**FIRE STATION #74**  
**1910 W. CHANDLER BLVD.**  
**PHOENIX, ARIZONA 85045**  
 Index No: **FD57100020-3**

**AKRIBIS**  
 ENGINEERING, L.L.C.  
 3231 SOUTH COUNTRY CLUB WAY, STE. 102 TEMPE, ARIZONA 85282  
 P: (602) 393-0201 F: (602) 393-0202  
 DRAWN BY: SB CHECKED BY: SM JOB NUMBER: 23224  
 FOR QUESTIONS PLEASE CALL: STEPHEN BENDER

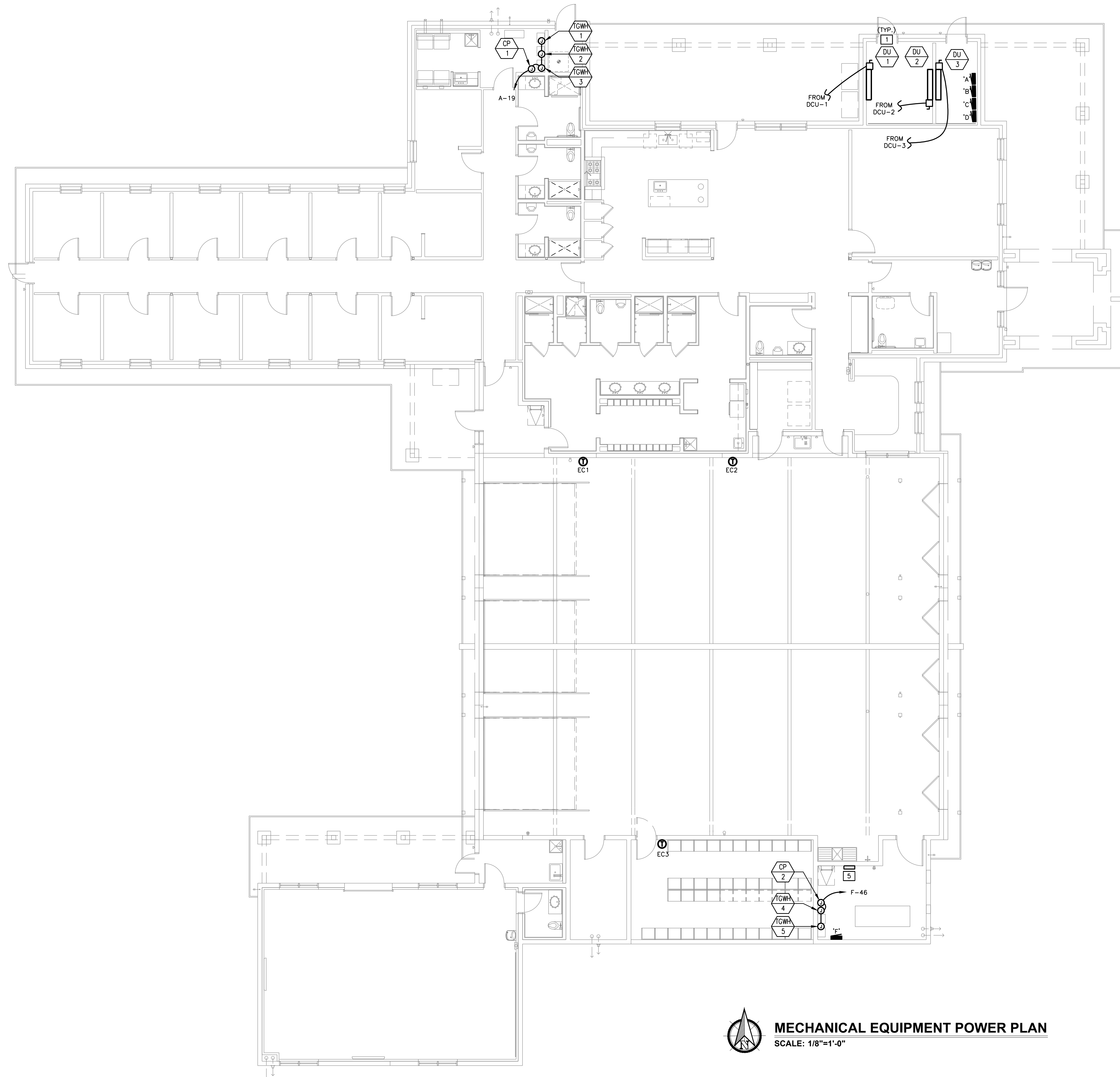
**KIVA # 23-1810**  
**SDEV # 2300473**

Note:  
 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 your contract with the City of Phoenix.

POWER DETAILS  
**E3.2**

CITY OF PHOENIX OFFICE OF THE CITY ENGINEER FIRE DEPARTMENT STATION 74 - PERMIT CITY SUBMITTAL

File=C:\2023\23224 - Phoenix Fire Station No 74\23224 E33 E34.dwg  
 Date Printed=Dec 15, 2023 - 2:34:56PM Printed By=Stephen



**MECHANICAL EQUIPMENT POWER PLAN**  
 SCALE: 1/8"=1'-0"

**GENERAL NOTES**

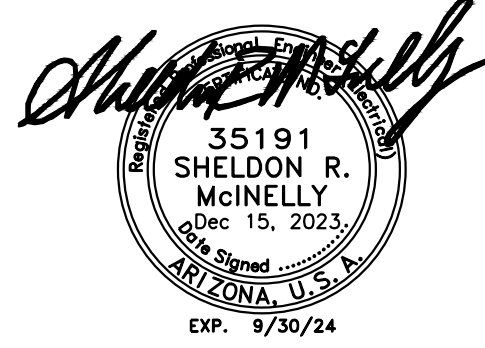
- WHERE EQUIPMENT DESIGNATION SYMBOL IS SHOWN, REFER TO HVAC/PLUMBING EQUIPMENT SCHEDULE (SHEET E3.5) FOR CONTROL/FEEDER, COP INFORMATION AND SOURCE PANEL. REFER TO PANEL SCHEDULES (SHEET E5.2) FOR CIRCUITING (TYPICAL).
- COORDINATE LOCATION OF ALL EQUIPMENT WITH OTHER TRADES AND ARCHITECTURAL DETAILS.

**KEY NOTES** (NOT ALL MAY BE USED)

- REFER TO GENERAL NOTE #1 AND HVAC/PLUMBING EQUIPMENT SCHEDULE FOR FEEDER, SOURCE AND UNIT DISCONNECT INFORMATION.
- PROVIDE WP, 120V CONNECTION TO EVAP COOLER PUMP.
- PROVIDE 3/4" CONDUIT WITH PULL STRING TO MECHANICAL EQUIPMENT T-STAT/CONTROL. TYPICAL.
- PROVIDE INTERFACE/CONTROL 3/4" CONDUIT WITH PULL STRING TO CLIMATEC CONTROL PANEL AT S.C.B.A. ROOM 135. COORDINATE WITH MECHANICAL PLANS AND CLIMATEC VENDOR/CONTRACTOR.
- CLIMATEC CONTROL PANEL. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR. REFER TO MECHANICAL PLANS AND HVAC/PLUMBING EQUIPMENT SCHEDULE FOR ADDITIONAL INFORMATION.
- DISCONNECT SWITCHES SHOWN ARE A REPRESENTATION OF EQUIPMENT REQUIRED. ELECTRICAL CONTRACTOR SHALL MOUNT SWITCH ON PARAPET WALL NEAREST THE UNIT IT CONTROLS. ALL CONDUIT SHALL BE CONCEALED WITHIN WALLS AND/OR CEILING SPACE. EXPOSED HORIZONTAL CONDUITS WILL NOT BE ACCEPTED.
- PROVIDE EXTERIOR RATED, WP, GFCI RECEPTACLE WITHIN 25' OF HVAC UNITS.
- ROUTE CIRCUIT THROUGH KITCHEN HOOD/FAN CONTROL PANEL (BY OTHERS). SEE MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.
- UNDER EAVE RECEPTACLE, MOUNT WEATHERPROOF GFCI RECEPTACLE UNDER EAVE. COORDINATE EXACT LOCATIONS AND CONTROLS WITH ARCHITECT PRIOR TO ROUGH IN.

REFER TO SHEET E5.3 FOR ADDITIONAL DETAILS.

Revisions	Date



Designed By:  
 Drawn By:  
 Checked By:  
 Date: 12/14/2023  
 Phase: PERMIT

**Perlman**  
 Architects of Arizona  
 2929 North Central Avenue, Suite # 1600  
 Phoenix, Arizona 85012  
 480.951.5900 perlmanaz.com

Title:  
**FIRE STATION #74**  
**1910 W. CHANDLER BLVD.**  
**PHOENIX, ARIZONA 85045**  
 Index No: **FD57100020-3**

**OFFICE OF THE CITY ENGINEER**  
**FIRE DEPARTMENT STATION 74 - PERMIT CITY SUBMITTAL**  
**CITY OF PHOENIX**

**AKRIBIS**  
 MECHANICAL • PLUMBING • ELECTRICAL  
 ENGINEERING, L.L.C.  
 3231 SOUTH COUNTRY CLUB WAY, STE. 102 TEMPE, ARIZONA 85282  
 P: (602) 393-0201 F: (602) 393-0202  
 DRAWN BY: SB CHECKED BY: SM JOB NUMBER: 23224  
 FOR QUESTIONS PLEASE CALL: STEPHEN BENDER

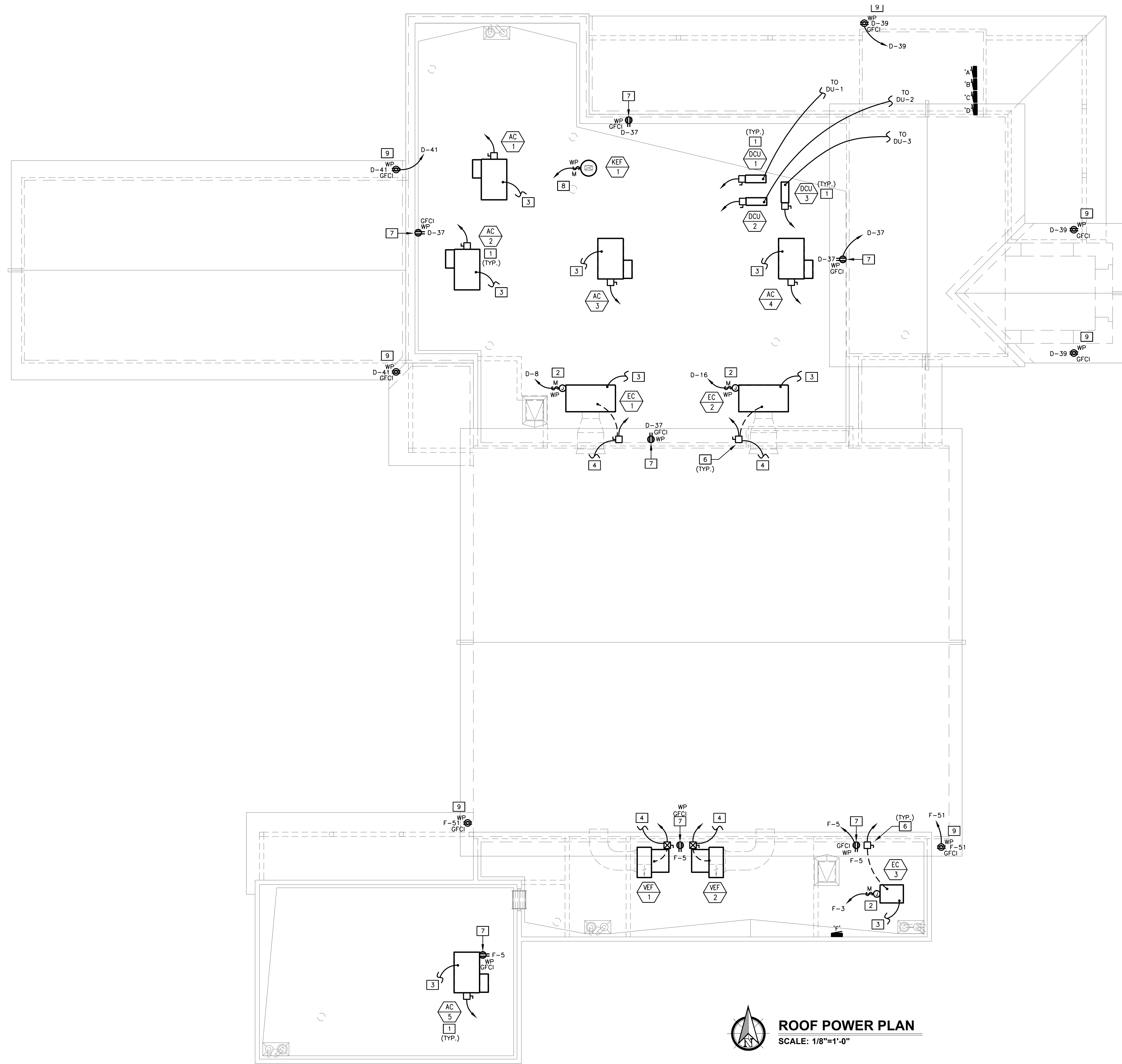
Note:  
 Per City of Phoenix City Code Chapter 2, section 2-28, these plans are for official use only and may not be shared with others except as required to fulfill the obligations of your contract with the City of Phoenix.

KIVA # 23-1810  
 SDEV # 2300473

MECHANICAL EQUIPMENT POWER PLAN  
**E3.3**



File=C:\2023\23224 - Phoenix Fire Station No 74\23224 E33 E34.dwg  
 Date Printed=Dec 15, 2023 - 2:34:40PM Printed By=Stephen



**ROOF POWER PLAN**  
 SCALE: 1/8"=1'-0"

**GENERAL NOTES**

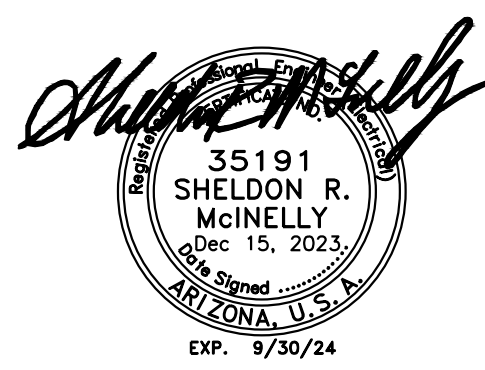
- WHERE EQUIPMENT DESIGNATION SYMBOL IS SHOWN, REFER TO HVAC/PLUMBING EQUIPMENT SCHEDULE (SHEET E3.5) FOR CONTROL/FEEDER, COP INFORMATION AND SOURCE PANEL. REFER TO PANEL SCHEDULES (SHEET E5.2) FOR CIRCUITING (TYPICAL).
- COORDINATE LOCATION OF ALL EQUIPMENT WITH OTHER TRADES AND ARCHITECTURAL DETAILS.

**KEY NOTES** (NOT ALL MAY BE USED)

- REFER TO GENERAL NOTE #1 AND HVAC/PLUMBING EQUIPMENT SCHEDULE FOR FEEDER, SOURCE AND UNIT DISCONNECT INFORMATION.
- PROVIDE WP, 120V CONNECTION TO EVAP COOLER PUMP.
- PROVIDE 3/4" CONDUIT WITH PULL STRING TO MECHANICAL EQUIPMENT T-STAT/CONTROL. TYPICAL.
- PROVIDE INTERFACE/CONTROL 3/4" CONDUIT WITH PULL STRING TO CLIMATEC CONTROL PANEL AT S.C.B.A. ROOM 135. COORDINATE WITH MECHANICAL PLANS AND CLIMATEC VENDOR/CONTRACTOR.
- CLIMATEC CONTROL PANEL. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR. REFER TO MECHANICAL PLANS AND HVAC/PLUMBING EQUIPMENT SCHEDULE FOR ADDITIONAL INFORMATION.
- DISCONNECT SWITCHES SHOWN ARE A REPRESENTATION OF EQUIPMENT REQUIRED. ELECTRICAL CONTRACTOR SHALL MOUNT SWITCH ON PARAPET WALL NEAREST THE UNIT IT CONTROLS. ALL CONDUIT SHALL BE CONCEALED WITHIN WALLS AND/OR CEILING SPACE. EXPOSED HORIZONTAL CONDUITS WILL NOT BE ACCEPTED.
- PROVIDE EXTERIOR RATED, WP, GFCI RECEPTACLE WITHIN 25' OF HVAC UNITS.
- ROUTE CIRCUIT THROUGH KITCHEN HOOD/FAN CONTROL PANEL (BY OTHERS). SEE MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.
- UNDER EAVE RECEPTACLE. MOUNT WEATHERPROOF GFCI RECEPTACLE UNDER EAVE. COORDINATE EXACT LOCATIONS AND CONTROLS WITH ARCHITECT PRIOR TO ROUGH IN.

REFER TO SHEET E5.3 FOR ADDITIONAL DETAILS.

Revisions	Date



Designed By:  
 Drawn By:  
 Checked By:  
 Date:  
 12/14/2023  
 Phase:  
 PERMIT

**Perلمان**  
 Architects of Arizona  
 2929 North Central Avenue, Suite # 1600  
 Phoenix, Arizona 85012  
 480.951.5900 perلمان.com

Title:  
**FIRE STATION #74**  
**1910 W. CHANDLER BLVD.**  
**PHOENIX, ARIZONA 85045**  
 Index No: **FD57100020-3**

**AKRIBIS**  
 MECHANICAL • PLUMBING • ELECTRICAL  
 ENGINEERING, L.L.C.  
 3231 SOUTH COUNTRY CLUB WAY, STE. 102 TEMPE, ARIZONA 85282  
 P: (602) 393-0201 F: (602) 393-0202  
 DRAWN BY: SB CHECKED BY: SM JOB NUMBER: 23224  
 FOR QUESTIONS PLEASE CALL: STEPHEN BENDER

KIVA # 23-1810  
 SDEV # 2300473  
 ROOF POWER PLAN

Note:  
 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 your contract with the City of Phoenix.

**E3.4**

CITY OF PHOENIX OFFICE OF THE CITY ENGINEER FIRE DEPARTMENT STATION 74 - PERMIT CITY SUBMITTAL



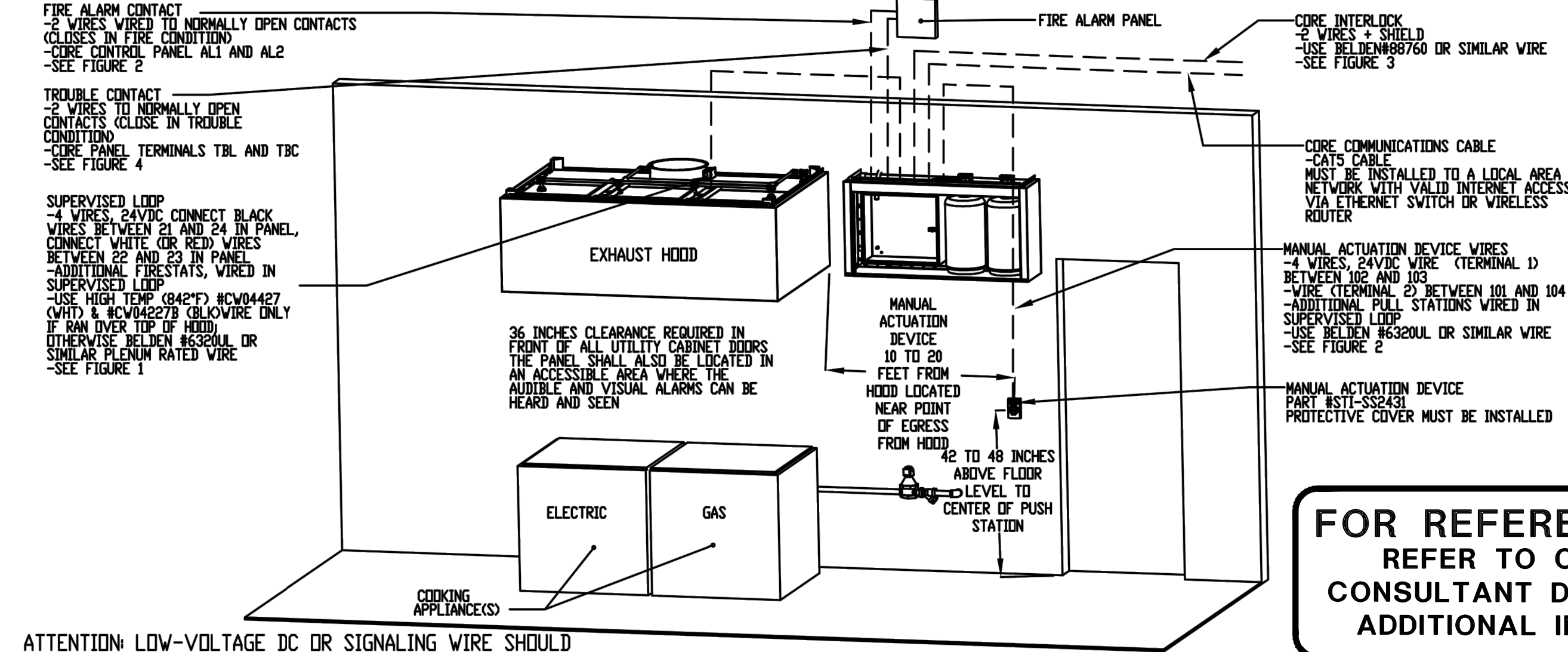
WALL MOUNT UTILITY CABINET GAS ELECTRIC WET CHEMICAL PROTECTION LOW-VOLTAGE DETAIL

02/05/2018 Rev. 1

FS-1: MASTER

1. ALARM CONTRACTOR REQUIREMENT
2. COMPLETE FINAL WIRING OF SYSTEM
3. VERIFY FINAL FIRE SYSTEM TEST

ITEM	CONNECTION IN PANEL	CONNECTION ON DEVICE	VOLTAGE	AMPERAGE	COMMENTS
MANUAL ACTUATION DEVICE(S)	101 AND 104 102 AND 103	1 & 2	24 VDC	< 1.0 AMPS	WIRE MANUAL ACTUATION DEVICE TERMINAL 1 BETWEEN CORE PANEL TERMINALS 102 AND 103 WIRE MANUAL ACTUATION DEVICE TERMINAL 2 BETWEEN CORE PANEL TERMINALS 101 AND 104 JUMPER 101 TO 104 AND 102 TO 103 IF NO MANUAL ACTUATION DEVICE IS INSTALLED
MANUAL ACTUATION DEVICE COVER	N/A	N/A	N/A	N/A	MANUAL ACTUATION DEVICE COVER MUST BE INSTALLED IF SURFACE MOUNTED. USE COVER EXTENSION STI-6531B
REMOTE FIRESTAT SENSOR(S)	21 AND 24 22 AND 23	BLACK AND WHITE	24 VDC	< 1.0 AMPS	WIRE FIRE SENSOR WHITE WIRES BETWEEN HOOD CORE PANEL TERMINALS 22 AND 23 WIRE FIRE SENSOR BLACK WIRES BETWEEN HOOD CORE PANEL TERMINALS 21 AND 24 HIGH TEMP (342°F) #CVD4427 (VHT) & #CVD4427B (GLOWVIRE) OR SIMILAR ONLY IF RAN OVER TOP OF HOOD OTHERWISE BELDEN #6320UL OR SIMILAR PLENUM RATED WIRE SEE FIGURE 1
FIRE ALARM CONTACT	AL1, AL2	VARIES	24 VDC	UP TO 1 AMP	FIRE ALARM RELAY CONTACTS FOR BUILDING FIRE ALARM LOCATED IN THE CORE ELECTRICAL CONTROL PANEL
CORE INTERLOCK(S)	ILA, ILB, ILC	ILA, ILB, ILC	RS-485 COMMUNICATIONS SIGNAL		CORE SYSTEM (1) ILA, TO CORE SYSTEM (2) ILA, CORE SYSTEM (1) ILB, TO CORE SYSTEM (2) ILB, CORE SYSTEM (1) ILC, TO CORE SYSTEM (2) ILC. USE BELDEN #89760 OR SIMILAR WIRE
TROUBLE CONTACT	TBC, TBL, TDK	VARIES	MAX 120 VAC	UP TO 6 AMPS	WIRE TO TBL & TBC NORMALLY OPEN CONTACT, CLOSURES IN TROUBLE CONDITION
CORE COMMUNICATIONS CABLE	RJ-45 Jack	INTERNET CONNECTION	SIGNAL	<1.0 AMPS	TYPICAL CONNECTION CAT5 CABLE TO LOCAL AREA NETWORK VIA ETHERNET SWITCH OR WIRELESS ROUTER WITH VALID INTERNET CONNECTION



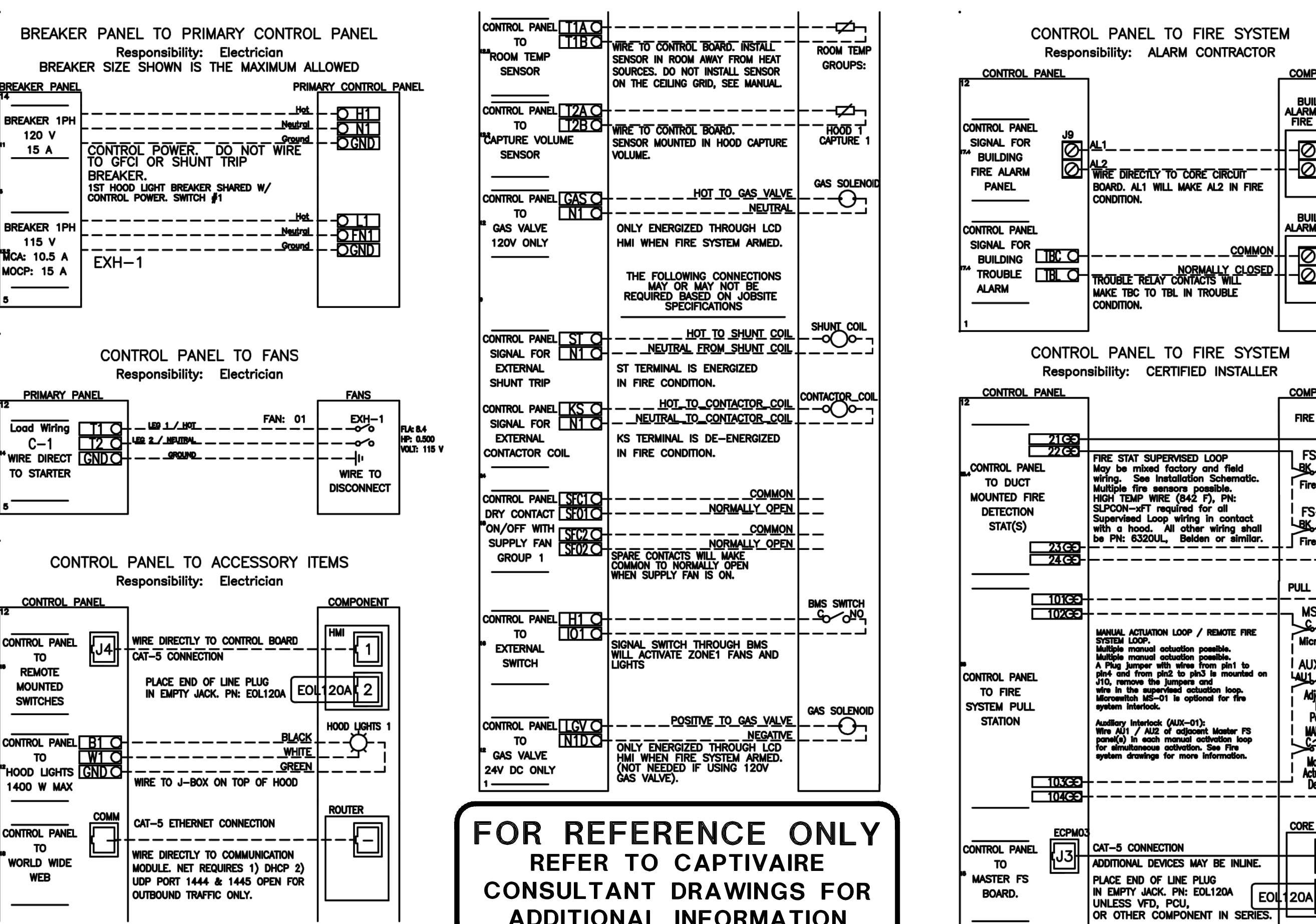
ATTENTION: LOW-VOLTAGE DC OR SIGNALING WIRE SHOULD BE ROUTED IN SEPARATE CONDUIT FROM ALL AC SOURCES  
NOTE: SEE INSTALLATION, OPERATION, AND MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS

FOR REFERENCE ONLY  
REFER TO CAPTIVAIRE  
CONSULTANT DRAWINGS FOR  
ADDITIONAL INFORMATION

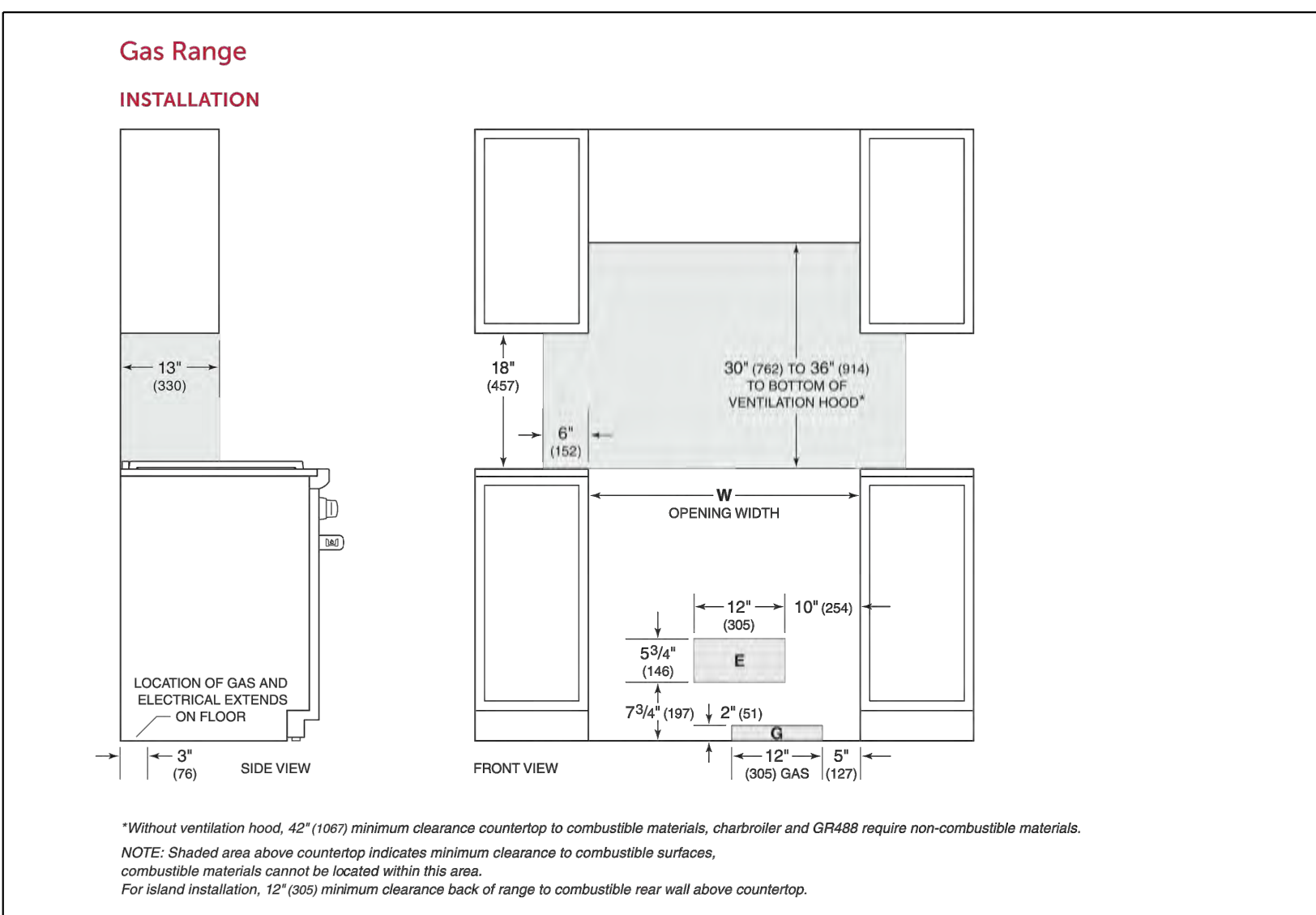
HVAC/PLUMBING EQUIPMENT SCHEDULE													
UNIT ID	TONS	HP	KW	STARTER	FLA	VOLTAGE	PHASE	DISC.	FUSE	SOURCE	FEEDER	NOTES	
AC-1	4T				23.1	208	3	30A/3P	30A RK1	D	(3) #10, (1) #10 GND, 3/4" CONDUIT.	1,3	
AC-2	4T				23.1	208	3	30A/3P	30A RK1	D	(3) #10, (1) #10 GND, 3/4" CONDUIT.	1,3	
AC-3	5T				28.1	208	3	60A/3P	45A RK1	D	(3) #8, (1) #10 GND, 3/4" CONDUIT.	1,3	
AC-4	5T				28.1	208	3	60A/3P	45A RK1	D	(3) #8, (1) #10 GND, 3/4" CONDUIT.	1,3	
AC-5	5T				28.1	208	3	60A/3P	45A RK1	F	(3) #8, (1) #10 GND, 3/4" CONDUIT.	1,3	
DCU-1	2T				12.0	208	1	30A/2P	25A RK1	D	(2) #10, (1) #10 GND, 3/4" CONDUIT.	1,3	
DCU-2	2T				12.0	208	1	30A/3P	N.F.	DCU-1	(3) #12, (1) #12 GND, 3/4" CONDUIT.	2	
DCU-3	2T				12.0	208	1	30A/2P	25A RK1	D	(2) #10, (1) #10 GND, 3/4" CONDUIT.	1,3	
DCU-4	2T				12.0	208	1	30A/3P	N.F.	DCU-2	(3) #12, (1) #12 GND, 3/4" CONDUIT.	2	
DCU-5	2T				12.0	208	1	30A/2P	25A RK1	D	(2) #10, (1) #10 GND, 3/4" CONDUIT.	1,3	
DCU-6	2T				12.0	208	1	30A/3P	N.F.	DCU-3	(3) #12, (1) #12 GND, 3/4" CONDUIT.	2	
EC-1		3			0	6.2	208	3	30A/3P	20A RK1	D	(3) #12, (1) #12 GND, 3/4" CONDUIT.	1,3,7,8
EC-2		3			0	6.2	208	3	30A/3P	20A RK1	D	(3) #12, (1) #12 GND, 3/4" CONDUIT.	1,3,7,8
EC-3		1/3			0	7.4	120	1	30A/1P	10A RK1	F	(2) #12, (1) #12 GND, 3/4" CONDUIT.	1,3
VEF-1		3			0	11.0	208	3	30A/3P	20A RK1	F	(3) #12, (1) #12 GND, 3/4" CONDUIT.	1,3,7,8
VEF-2		3			0	11.0	208	3	30A/3P	20A RK1	F	(3) #12, (1) #12 GND, 3/4" CONDUIT.	1,3,7,8
KEF-1		1/2			8.4	120	1	30A/1P	15A RK1	C	(2) #12, (1) #12 GND, 3/4" CONDUIT.	4	
EF-1	FRAC.				3.4	120	1	20A TS	N/A	F	(2) #12, (1) #12 GND, 3/4" CONDUIT.	4	
EF-2	1/2				9.8	120	1	20A TS	N/A	F	(2) #12, (1) #12 GND, 3/4" CONDUIT.	4,5	
EF-3	FRAC.				3.4	120	1	20A TS	N/A	C	(2) #12, (1) #12 GND, 3/4" CONDUIT.	4,5	
EF-4	FRAC.				0.7	120	1	20A TS	N/A	A	(2) #12, (1) #12 GND, 3/4" CONDUIT.	6,9	
EF-5	FRAC.				0.7	120	1	20A TS	N/A	A	(2) #12, (1) #12 GND, 3/4" CONDUIT.	6,9	
EF-6	FRAC.				0.7	120	1	20A TS	N/A	A	(2) #12, (1) #12 GND, 3/4" CONDUIT.	6,9	
EF-7	FRAC.				0.7	120	1	20A TS	N/A	A	(2) #12, (1) #12 GND, 3/4" CONDUIT.	6,9	
EF-8	FRAC.				0.7	120	1	20A TS	N/A	B	(2) #12, (1) #12 GND, 3/4" CONDUIT.	6,9	
EF-9	FRAC.				0.7	120	1	20A TS	N/A	B	(2) #12, (1) #12 GND, 3/4" CONDUIT.	6,9	
EF-10	FRAC.				0.7	120	1	20A TS	N/A	F	(2) #12, (1) #12 GND, 3/4" CONDUIT.	6,9	
WH-1	(GAS)				0.1	120	1	20A TS	NF	SEE PLANS	(2) #12, (1) #12 GND, 3/4" CONDUIT.	4	
WH-2	(GAS)				0.1	120	1	20A TS	NF	SEE PLANS	(2) #12, (1) #12 GND, 3/4" CONDUIT.	4	
WH-3	(GAS)				0.1	120	1	20A TS	NF	SEE PLANS	(2) #12, (1) #12 GND, 3/4" CONDUIT.	4	
WH-4	(GAS)				0.1	120	1	20A TS	NF	SEE PLANS	(2) #12, (1) #12 GND, 3/4" CONDUIT.	4	
WH-5	(GAS)				0.1	120	1	20A TS	NF	SEE PLANS	(2) #12, (1) #12 GND, 3/4" CONDUIT.	4	
CP-1	FRAC.				2.2	120	1	20A TS	NF	SEE PLANS	(2) #12, (1) #12 GND, 3/4" CONDUIT.	4	
CP-2	FRAC.				2.2	120	1	20A TS	NF	SEE PLANS	(2) #12, (1) #12 GND, 3/4" CONDUIT.	4	

NOTES:  
1. PROVIDE GD/MOTOR RATED, WP DISCONNECT SWITCH.  
2. FED FROM OUTSIDE UNIT.  
3. FUSE PER MANUFACTURER NAME PLATE RATING.  
4. PROVIDE 120V, MOTOR RATED SWITCH.  
5. SHALL RUN 24/7.  
6. THIS FAN PROVIDED WITH INTEGRAL DISCONNECT.  
7. PROVIDE COMBINATION DISCONNECT SWITCH/STARTER WITH 24V COIL, CONTROL TRANSFORMER FOR INTERFACE WITH CLIMATEC CONTROLS AND INTERLOCK WITH CLIMATEC CONTROLS. REFER TO MECHANICAL PLANS FOR SEQUENCE OF OPERATION WITH DOOR SWITCHES.  
8. THIS FAN SHALL BE CONTROLLED BY INTERLOCK TO DDC CONTROL SYSTEM FOR BAY EXHAUST.  
9. SHALL BE CONTROLLED BY OCCUPANCY SENSOR/SWITCH.  
10. UNIT PLUGS INTO RECEPTACLE.  
© 2010-2023 AKRIBIS Engineering, L.L.C. 2.81

JOB NO	6244325	MODEL NUMBER	SC-110110MA	DRAWN BY		SCHEMATIC TYPE	INSTALL	DESCRIPTION OF OPERATION:
JOB NAME	City of Phoenix Fire Station ...	DATE	9/27/2023	DWG NO	ECP #1-1			120V 1 Phase w/ control for 1 Exhaust Fan, Exhaust on In Fire, Lights out In Fire, Relay On/Off with Supply Fan, Fan On/Off Thermally Controlled, Room temperature sensor shipped loose for field installation.



FOR REFERENCE ONLY  
REFER TO CAPTIVAIRE  
CONSULTANT DRAWINGS FOR  
ADDITIONAL INFORMATION



\*Without ventilation hood, 42" (1067) minimum clearance countertop to combustible materials, charcoal and GR488 require non-combustible materials.  
NOTE: Shaded area above countertop indicates minimum clearance to combustible surfaces, combustible materials cannot be located within this area.  
For island installation, 12" (305) minimum clearance back of range to combustible rear wall above countertop.

Revisions	Date



Designed By:  
Drawn By:  
Checked By:  
Date:  
12/14/2023  
Permit

Periman  
Architects of Arizona  
2929 North Central Avenue, Suite # 1600  
Phoenix, Arizona 85012  
480.951.5900  
perimanaz.com

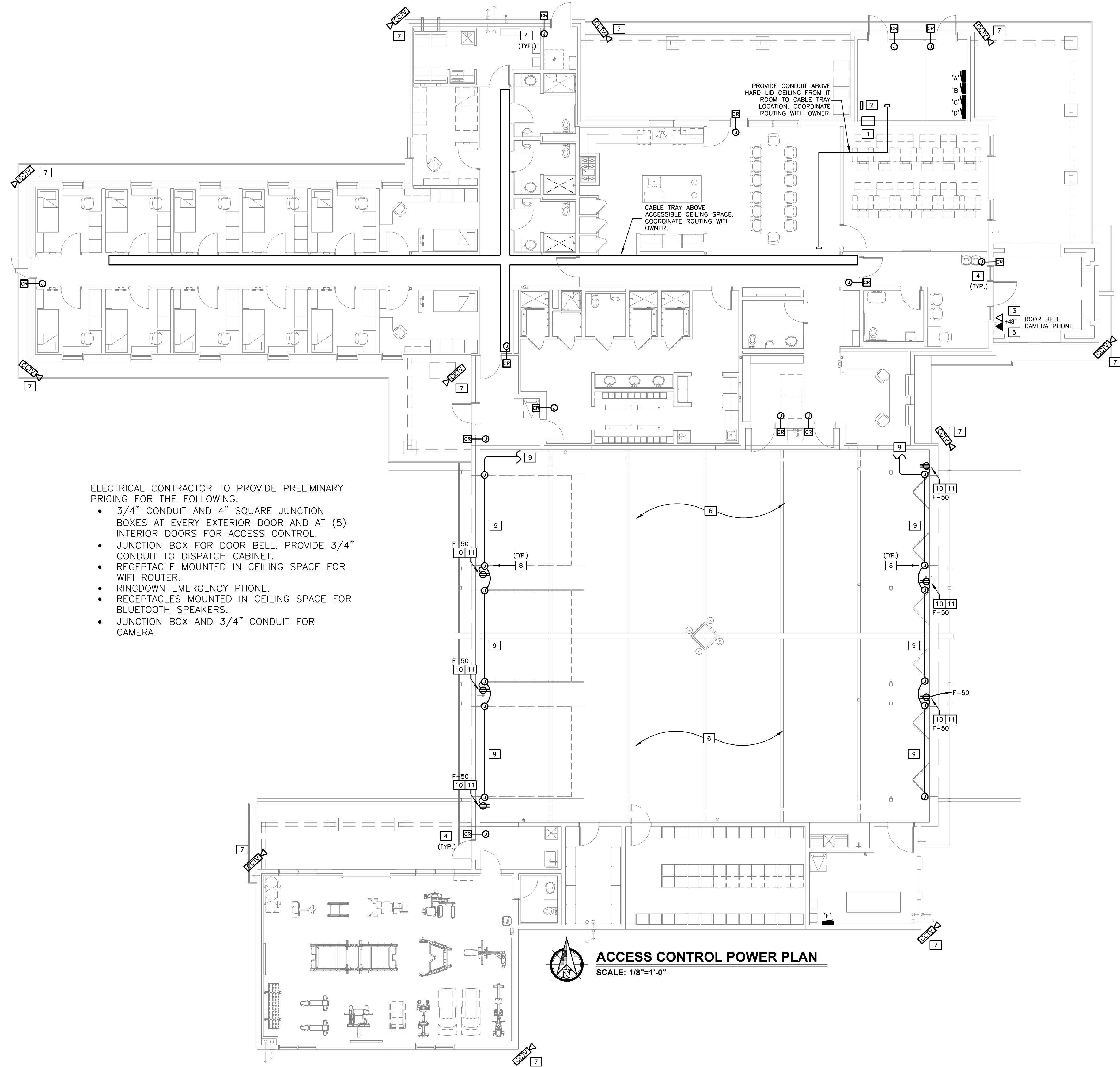
Title:  
FIRE STATION #74  
1910 W. CHANDLER BLVD.  
PHOENIX, ARIZONA 85045  
FD57100020-3  
Index No:

AKRIBIS  
MECHANICAL • PLUMBING • ELECTRICAL  
ENGINEERING, L.L.C.  
3231 SOUTH COUNTRY CLUB WAY, STE. 102 TEMPE, ARIZONA 85282  
P: (602) 393-0201 F: (602) 393-0202  
DRAWN BY: SB CHECKED BY: SM JOB NUMBER: 23224  
FOR QUESTIONS PLEASE CALL: STEPHEN BENDER

KIVA # 23-1810  
SDEV # 2300473  
MECH/POWER DETAILS

E3.5





- ELECTRICAL CONTRACTOR TO PROVIDE PRELIMINARY PRICING FOR THE FOLLOWING:
- 3/4" CONDUIT AND 4" SQUARE JUNCTION BOXES AT EVERY EXTERIOR DOOR AND AT (5) INTERIOR DOORS FOR ACCESS CONTROL.
  - JUNCTION BOX FOR DOOR BELL. PROVIDE 3/4" CONDUIT TO DISPATCH CABINET.
  - RECEPTACLE MOUNTED IN CEILING SPACE FOR WIFI ROUTER.
  - RINGDOWN EMERGENCY PHONE.
  - RECEPTACLES MOUNTED IN CEILING SPACE FOR BLUETOOTH SPEAKERS.
  - JUNCTION BOX AND 3/4" CONDUIT FOR CAMERA.

**ACCESS CONTROL POWER PLAN**  
 SCALE: 1/8"=1'-0"

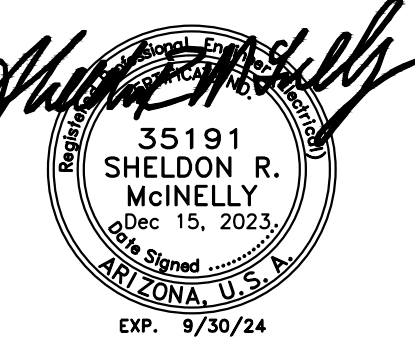
**GENERAL NOTES**

1. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
2. PROVIDE 3/4" CONDUIT FROM ALL VOICE CABLE TELEVISION AND DATA OUTLETS.
3. COORDINATE ALL INTERIOR AUDIO SPEAKERS LOCATION AND MOUNTING HEIGHT WITH ARCHITECTURAL RCP AND ELEVATIONS.
4. ALL INTERIOR AUDIO SPEAKERS TO BE MOUNTED TO A 4-SQUARE JUNCTION BOX.

**KEY NOTES**

1. WIDE AREA DISPATCH CABINET.
2. CARD READER SYSTEM CONTROL PANEL. REFER TO ARCHITECTURAL PLANS AND SPECIFICATIONS FOR ADDITIONAL DETAILS. VERIFY EXACT LOCATION WITH ARCHITECT.
3. PROVIDE JUNCTION BOX FOR DOOR BELL. PROVIDE 3/4" CONDUIT TO DISPATCH CABINET.
4. PROVIDE JUNCTION BOX AND 3/4" CONDUITS FOR KEY-PAD TO KEY-PAD SYSTEM. REFER TO SPECIFICATIONS FOR ADDITIONAL DETAILS. COORDINATE INSTALLATION WITH ALL OTHER TRADES.
5. RINGDOWN EMERGENCY PHONE. VERIFY FINAL LOCATION WITH FIRE MARSHAL PRIOR TO ROUGH-IN.
6. ALL CABLING IN APPARATUS BAY SHALL BE INSTALLED IN CONDUIT.
7. PROVIDE 4-SQUARE WP J-BOX IN SOFIT WITH 3/4" CONDUIT TO IT/CAD ROOM FOR OWNER SECURITY CAMERA. COORDINATE FINAL ROUGH-IN LOCATION WITH ARCHITECT/CITY PROJECT MANAGER VERIFY LOCATION WITH FIRE MARSHAL PRIOR TO ROUGH-IN.
8. PROVIDE CONNECTION TO DOOR POSITION SWITCH. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT REQUIREMENTS, LOCATIONS OF CONDUITS, ETC. VERIFY EXACT REQUIREMENTS FOR INSTALLATION WITH EQUIPMENT SUPPLIER.
9. ROUTE CONDUIT TO IT ROOM 137.
10. ELECTRICAL CONTRACTOR SHALL SUPPLY AND INSTALL RECEPTACLE FOR CONNECTION TO RED/GREEN 'TRAFFIC LIGHT'. REFER TO INSTALLATION MANUAL AND/OR ARCHITECTURAL DRAWINGS FOR EXACT MOUNTING HEIGHT AND LOCATION.
11. ELECTRICAL CONTRACTOR SHALL PROVIDE 3/4" EMPTY CONDUIT WITH NYLON PULL STRING FROM 'TRAFFIC LIGHT' TO DOOR POSITION SWITCH.

Revisions	Date



Designed By:  
 Drawn By:  
 Checked By:  
 Date:  
**12/14/2023**  
 Phase:  
**PERMIT**

**Perلمان**  
 Architects of Arizona  
 2929 North Central Avenue, Suite # 1600  
 Phoenix, Arizona 85012  
 480.951.5900 perلمان.com

Title:  
**FIRE STATION #74**  
**1910 W. CHANDLER BLVD.**  
**PHOENIX, ARIZONA 85045**  
 Index No: **FD57100020-3**

**AKRIBIS**  
 MECHANICAL • PLUMBING • ELECTRICAL  
 ENGINEERING, L.L.C.  
 3231 SOUTH COUNTRY CLUB WAY, STE. 102 TEMPE, ARIZONA 85282  
 P: (602) 393-0201 F: (602) 393-0202  
 DRAWN BY: SB CHECKED BY: SM JOB NUMBER: 23224  
 FOR QUESTIONS PLEASE CALL: STEPHEN BENDER

KIVA # **23-1810**  
 SDEV # **2300473**

Note:  
 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 your contract with the City of Phoenix.

ACCESS CONTROL  
 POWER PLAN  
**E4.1**

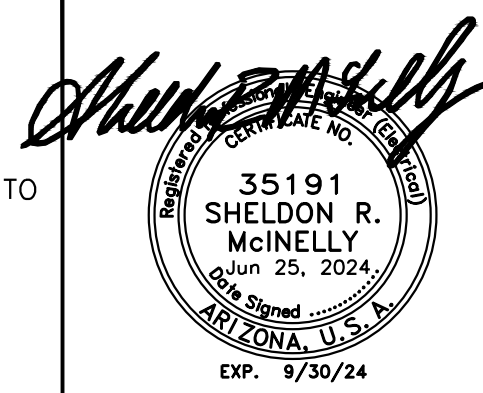
CITY OF PHOENIX OFFICE OF THE CITY ENGINEER FIRE DEPARTMENT STATION 74 - PERMIT CITY SUBMITTAL



Revisions	Date
1 CITY COMMENTS	3/7/24

- GENERAL NOTES**
- COORDINATE ALL EXTERIOR SPEAKERS LOCATION AND MOUNTING HEIGHT WITH ARCHITECTURAL RCP AND ELEVATIONS.
  - ALL MR2 DEVICES SHALL BE MOUNTED IN IT ROOM.
  - ALL SIGN BACK BOXES TO BE INSTALLED HORIZONTALLY AND LOCATED 0'-6" FROM CEILING OR CENTERED BETWEEN CEILING AND DOORS, CEILING AND SOFFITS, UNLESS NOTED OTHERWISE. REFER TO ARCHITECTURAL FOR MORE INFORMATION.
  - INSTALL 1" CONDUITS WITH PULL STRING FOR ALL VOICE, DATA AND CABLE TV OUTLETS.

- KEY NOTES**
- PROVIDE WIDE AREA DISPATCH CABINET.
  - PROVIDE WEATHERPROOF PUSH BUTTON AT DOOR WITH 18/2, 1/2"-C. TO DISPATCH CABINET IN COMMUNICATIONS ROOM.
  - PROVIDE DORM REMOTE. REFER TO DORM REMOTE CONTROL DETAIL ON SHEET E5.2.
  - PROVIDE CAT 6 CABLE TO WIDE AREA DISPATCH CABINET. REFER TO DISPATCH SYSTEM AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
  - DISPATCH WARNING LIGHT. PROVIDE JUNCTION BOX WITH 1/2" CONDUIT TO DORM SIGN. VERIFY LOCATION.
  - PROVIDE 12" X 12" X 8" JUNCTION BOX LOCATED IN CEILING FOR WIDE AREA DISPATCH SYSTEM CABLEING.
  - PROVIDE (1) 3" CONDUIT FROM JUNCTION BOX TO WIDE AREA DISPATCH CABINET. ROUTE CONDUIT UNDERGROUND, UNDERNEATH APPARATUS BAY TO DISPATCH CABINET.
  - ALL CABLEING IN APPARATUS BAY SHALL BE INSTALLED IN CONDUIT.
  - WIDE AREA DISPATCH HORN. CONFIRM MOUNTING HEIGHT WITH ARCHITECT PRIOR TO ROUGH-IN.
  - ANTENNAS:** PROVIDE ROOF PENETRATIONS FOR ANTENNA MASTS: COORDINATE WITH PHOENIX FIRE FOR FINAL DESIGN. EMT CAN BE USED INSIDE OF STRUCTURE. REFER TO DETAIL ON SHEET E5.3 FOR ADDITIONAL INFORMATION.
    - PROVIDE ONE (1) 2.5" & TWO (2) FULLY SUPPORTED 1.25" RIGID CONDUIT RUNS FROM THE CJB TO THE ROOF PENETRATION LOCATIONS.
      - PROVIDE SMOOTH SWEEPING BENDS, NO 90 DEGREE CORNERS, JUNCTION BOXES OR ELBOWS.
      - THE LENGTH OF CONDUIT FROM CJB TO TIP OF ANTENNA MAST SHALL NOT EXCEED 80 LINEAR FEET.
      - AT ROOF PENETRATION, PROVIDE THREADED RIGID CONDUIT ENDS WITH WEATHERHEADS. SEAL PENETRATIONS IN ROOF WITH APPROVED ROOFING MANUFACTURER METHODS TO OBTAIN / MAINTAIN ROOF WARRANTY.
      - PROVIDE MULE TAPE IN ANTENNA CONDUIT
      - ANTENNA SHALL BE A MINIMUM OF 6 FEET APART.
      - PROVIDE (1) 3/4" CONDUIT WITH #6 GROUND FROM SYSTEM BONDING LOCATION FOR GROUNDING MASTS.
    - ANTENNA: PROVIDE ROOF PENETRATIONS FOR ANTENNA MAST. COORDINATE WITH PHOENIX FIRE FOR FINAL DESIGN. EMT CAN BE USED INSIDE OF STRUCTURE. REFER TO DETAIL ON SHEET E5.3 FOR ADDITIONAL INFORMATION.
      - PROVIDE ONE (1) FULLY SUPPORTED 2.5" RIGID CONDUIT RUN FROM THE CJB TO THE ROOF PENETRATION LOCATION.
        - PROVIDE SMOOTH SWEEPING BENDS, NO 90 DEGREE CORNERS, JUNCTION BOXES OR ELBOWS.
        - THE LENGTH OF CONDUIT FROM CJB TO TIP OF ANTENNA MAST SHALL NOT EXCEED 80 LINEAR FEET.
        - AT ROOF PENETRATION, PROVIDE THREADED RIGID CONDUIT ENDS WITH WEATHERHEADS. SEAL PENETRATIONS IN ROOF WITH APPROVED ROOFING MANUFACTURER METHODS TO OBTAIN / MAINTAIN ROOF WARRANTY.
        - PROVIDE MULE TAPE IN ANTENNA CONDUIT.
        - PROVIDE (1) 3/4" CONDUIT WITH #6 GROUND FROM SYSTEM BONDING LOCATION FOR GROUNDING MAST.



Designed By:  
 Drawn By:  
 Checked By:  
 Date:  
**12/14/2023**  
 Phase:  
**PERMIT**

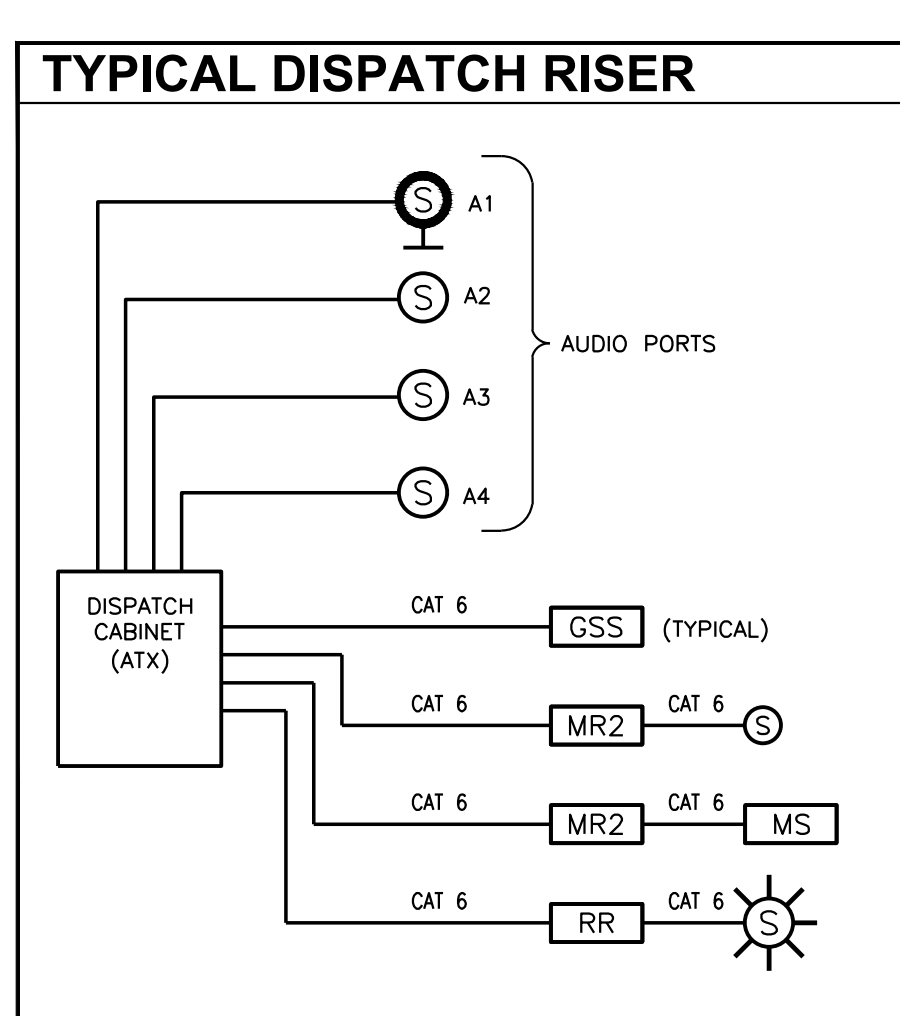
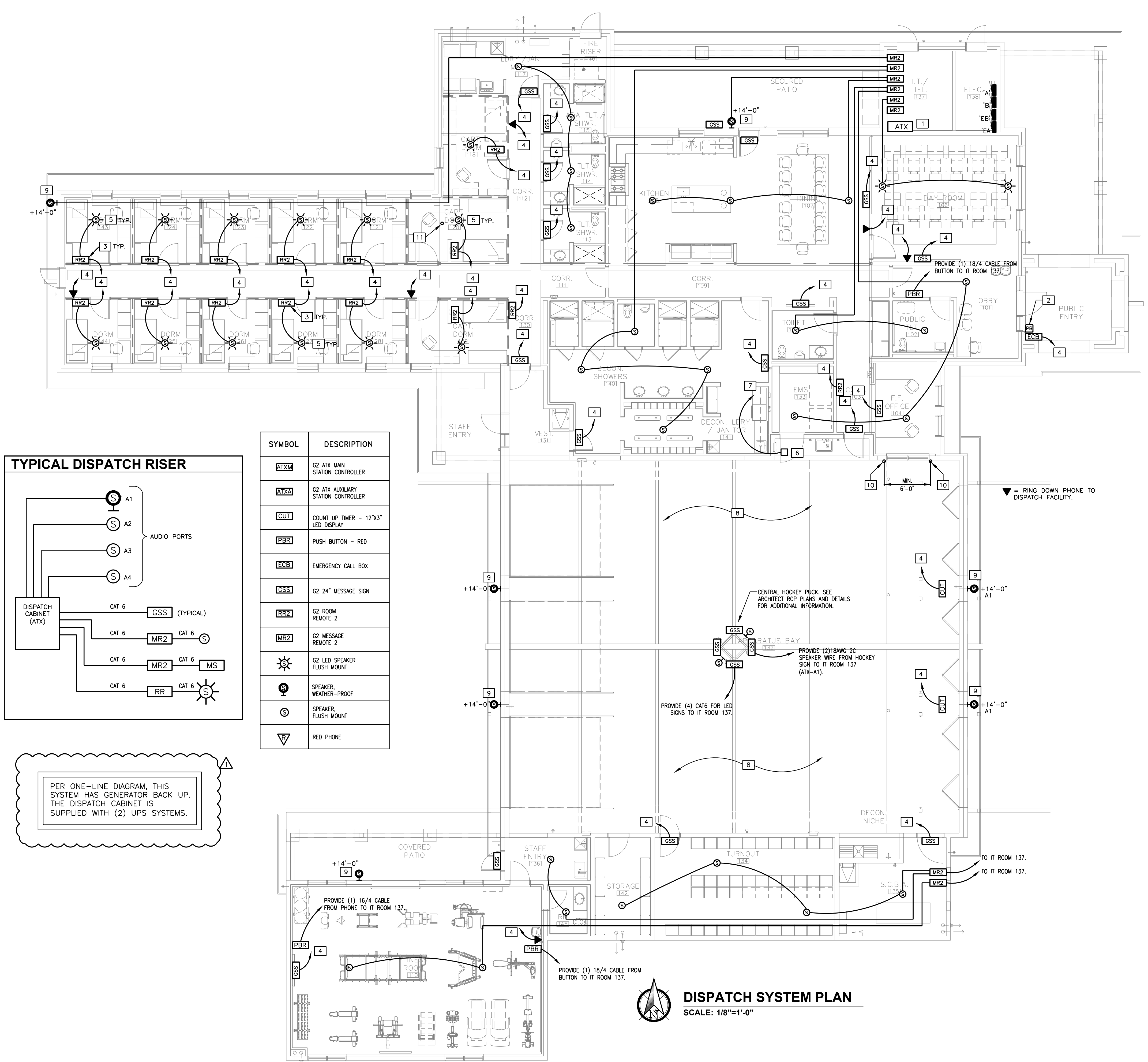
**Perلمان**  
 Architects of Arizona  
 2929 North Central Avenue, Suite # 1600  
 Phoenix, Arizona 85012  
 480.951.3045 f  
 perlmanaz.com

Title:  
**FIRE STATION #74**  
**1910 W. CHANDLER BLVD.**  
**PHOENIX, ARIZONA 85045**  
 Index No:  
**FD57100020-3**

**AKRIBIS**  
 ARCHITECTURAL • PLUMBING • ELECTRICAL  
 ENGINEERING, L.L.C.  
 3231 SOUTH COUNTRY CLUB WAY, STE. 102 TEMPE, ARIZONA 85282  
 P: (602) 393-0201 F: (602) 393-0202  
 DRAWN BY: SB CHECKED BY: SM JOB NUMBER: 23224  
 FOR QUESTIONS PLEASE CALL: STEPHEN BENDER

KIVA # 23-1810  
 SDEV # 2300473

DISPATCH SYSTEM PLAN  
**E4.2**



SYMBOL	DESCRIPTION
ATXM	G2 ATX MAIN STATION CONTROLLER
ATXA	G2 ATX AUXILIARY STATION CONTROLLER
CUT	COUNT UP TIMER - 12"x3" LED DISPLAY
PBR	PUSH BUTTON - RED
ECB	EMERGENCY CALL BOX
GSS	G2 24" MESSAGE SIGN
RR2	G2 ROOM REMOTE 2
MR2	G2 MESSAGE REMOTE 2
☀	G2 LED SPEAKER FLUSH MOUNT
☎	SPEAKER, WEATHER-PROOF
☎	SPEAKER, FLUSH MOUNT
☎	RED PHONE

PER ONE-LINE DIAGRAM, THIS SYSTEM HAS GENERATOR BACK UP. THE DISPATCH CABINET IS SUPPLIED WITH (2) UPS SYSTEMS.

**DISPATCH SYSTEM PLAN**  
 SCALE: 1/8"=1'-0"

CITY OF PHOENIX OFFICE OF THE CITY ENGINEER FIRE DEPARTMENT STATION 74 - PERMIT CITY SUBMITTAL

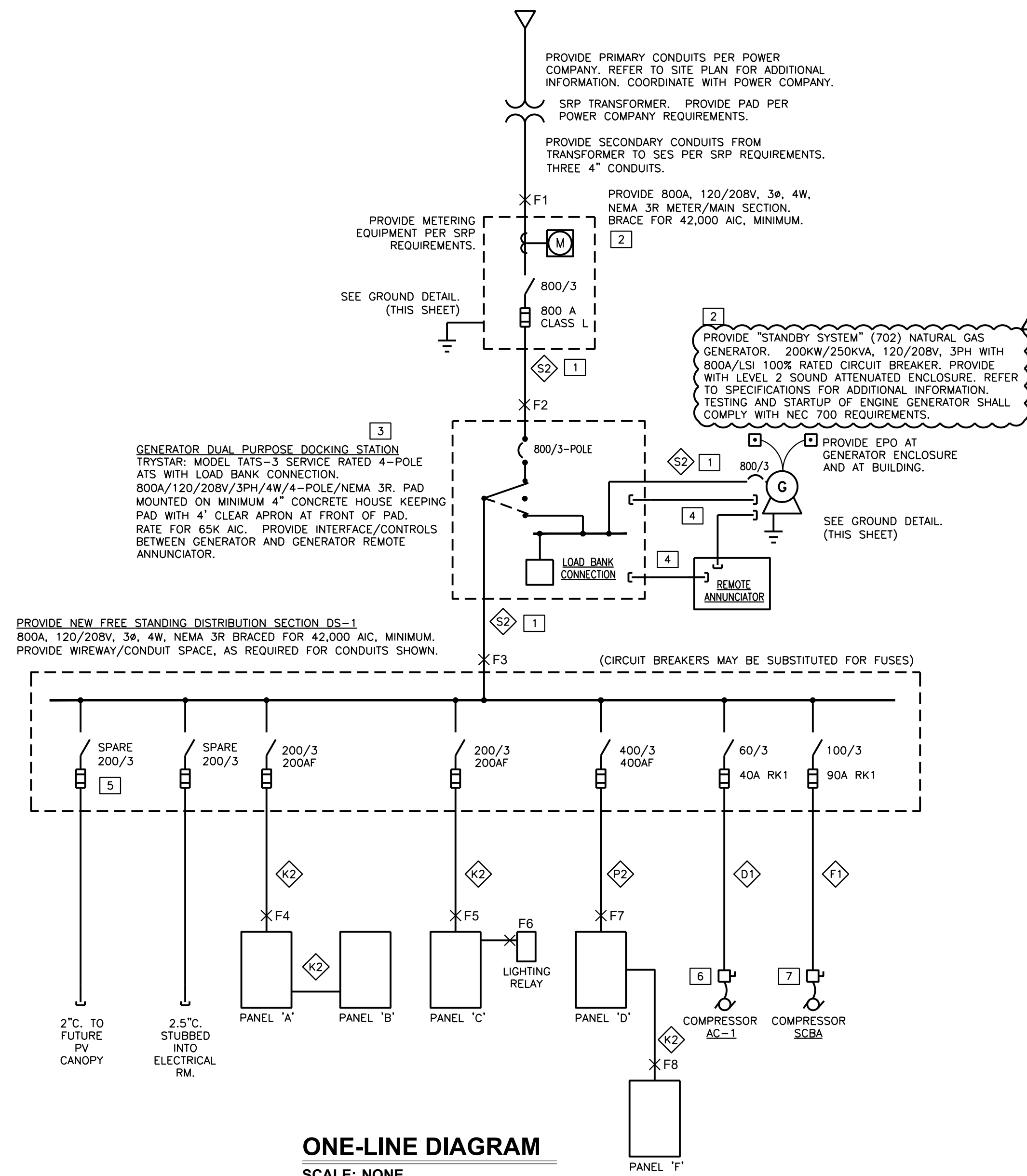


ELECTRICAL LOAD CALCULATION				
SES				
SES VOLTAGE =	120/208V			
SES AMPERAGE RATING =	800			
LOADS	Φ A	Φ B	Φ C	KVA
PANEL A	12.95	13.57	10.01	36.53
PANEL C	7.60	8.76	9.85	26.21
PANEL D	40.12	37.00	38.99	115.11
SCBA @125%	9.32	9.32	9.32	27.96
AC-1 (7.5 HP AIR COMP.)	3.04	3.04	3.04	9.12
<b>TOTAL KVA :</b>	<b>73.02</b>	<b>71.68</b>	<b>71.20</b>	<b>215.90</b>
<b>TOTAL AMPS:</b>	<b>609</b>	<b>597</b>	<b>593</b>	<b>1800</b>
SES IS RATED FOR 800 AMPS AT 120/208V				
<b>NOTES:</b>				
© 2010-2024 AKRIBS Engineering, L.L.C. 2.81				

FAULT CURRENT CALCULATION - SES								
Fault	F1	F2	F3	F4	F5	F6	F7	F8
Location	SES	'ATS'	'DS-1'	PANEL 'A'	PANEL 'C'	LIGHT RELAY	PANEL 'D'	PANEL 'F'
AFC (from source)	37979	37979	35072	31003	31003	12969	31003	17678
Conductor size	500 MCM	500 MCM	#5/0	#3/0	#12	500 MCM	#3/0	#3/0
Conductor type	Cu	Cu	Cu	Cu	Cu	Cu	Cu	Cu
Length	14	24	70	75	6	78	140	140
# of Sets	2	2	1	1	1	1	1	1
Type of Conduit	PVC	PVC	PVC	PVC	STEEL	PVC	PVC	PVC
C value	26706	26706	13923	13923	617	26706	13923	13923
Voltage primary	208	208	208	208	208	208	208	208
Voltage secondary (xlmr)								
xlmr impedance								
xlmr kva								
'F' Factor	0.08	0.13	1.30	1.39	1.05	0.75	1.48	1.48
Multiplier	0.92	0.88	0.44	0.42	0.49	0.57	0.40	0.40
Calculated Fault Current	37979	35072	31003	13492	12969	6326	17678	7127
Rated (Series/Fully)	Fully @ 42K	Fully @ 42K	Series @ 42/10K	Series @ 42/10K	Fully @ 10K	Fully @ 10K	Fully @ 18K	Fully @ 10K
NOTE: CONDUCTOR LENGTHS SHOWN IN THIS CALCULATION ARE SHORTEST DISTANCE DIRECT ROUTE AND SHALL NOT BE USED FOR BIDDING PURPOSES.								

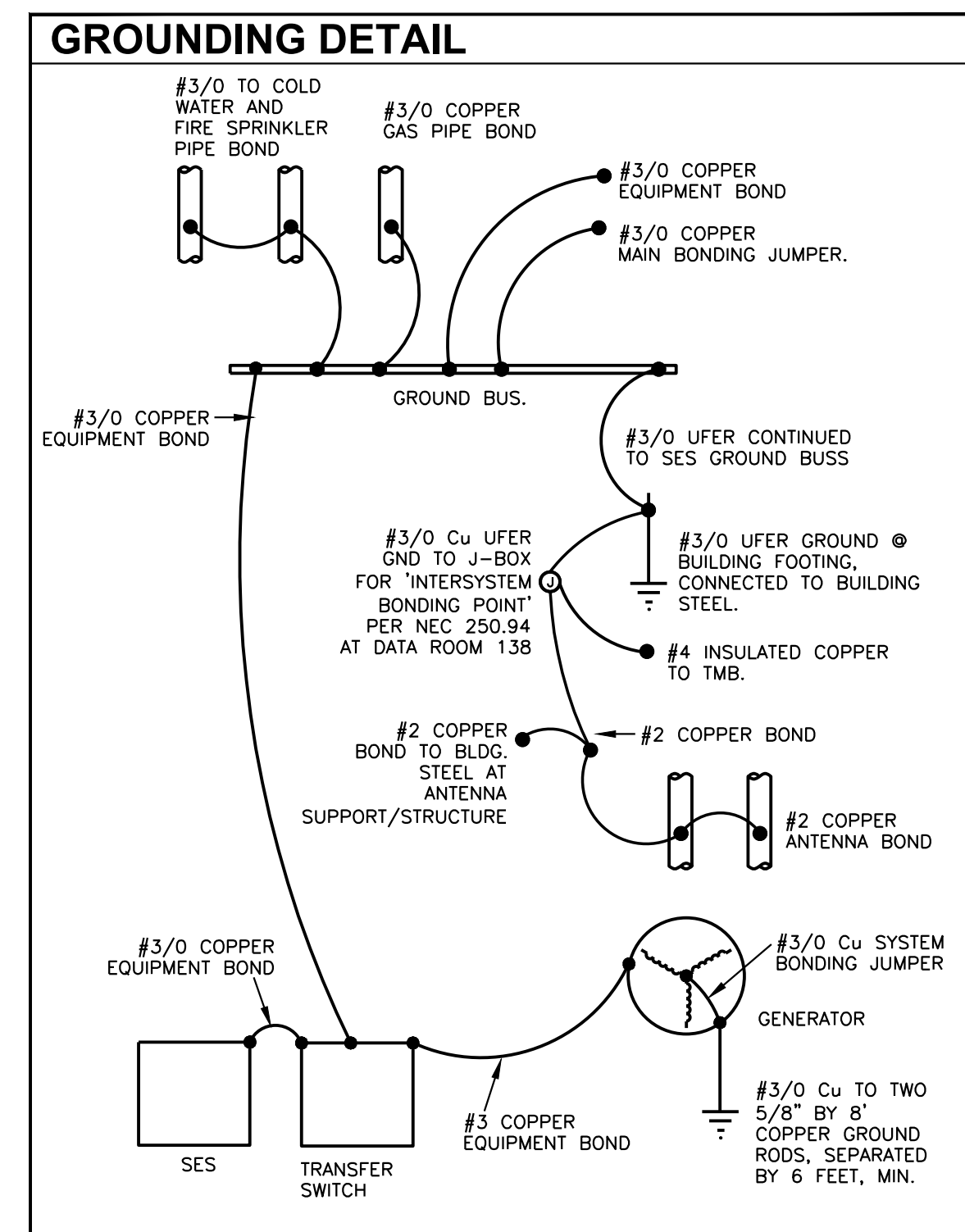
FEEDER SCHEDULE		
ID	MAX. AMP	FEEDER SIZE
A1	20A	2#12 & 1#12GRD, 3/4"C
A2	20A	3#12 & 1#12GRD, 3/4"C
A3	20A	4#12 & 1#12GRD, 3/4"C
B1	30A	2#10 & 1#10GRD, 3/4"C
B2	30A	3#10 & 1#10GRD, 3/4"C
B3	30A	4#10 & 1#10GRD, 3/4"C
B4	30A	6#10 & 1#10GRD, 3/4"C
C1	40A	2#8 & 1#10GRD, 3/4"C
C2	40A	3#8 & 1#10GRD, 3/4"C
C3	40A	4#8 & 1#10GRD, 3/4"C
D1	60A	3#6 & 1#10GRD, 3/4"C
D2	60A	4#6 & 1#10GRD, 1"C
E1	80A	3#4 & 1#8GRD, 1 1/4"C
E2	80A	4#4 & 1#8GRD, 1 1/4"C
F1	100A	3#3 & 1#8GRD, 1 1/4"C
F2	100A	4#3 & 1#8GRD, 1 1/4"C
FT	100A	4#3 & 1#8GRD, 1 1/4"C (30KVA)
G1	125A	3#1 & 1#6GRD, 1 3/4"C
G2	125A	4#1 & 1#6GRD, 1 1/2"C
H1	150A	3#1/0 & 1#6GRD, 1 1/2"C
H2	150A	4#1/0 & 1#6GRD, 1 1/2"C
HT	150A	4#1/0 & 1#6GRD, 1 1/2"C (45KVA)
J1	175A	3#2/0 & 1#6GRD, 2"C
J2	175A	4#2/0 & 1#6GRD, 2"C
K1	200A	3#3/0 & 1#6GRD, 2"C
K2	200A	4#3/0 & 1#6GRD, 2"C
KT	200A	4#3/0 & 1#2GRD, 2"C (75KVA)
L1	225A	3#4/0 & 1#4GRD, 2"C
L2	225A	4#4/0 & 1#4GRD, 2 1/2"C
LT	225A	4#4/0 & 1#2GRD, 2 1/2"C (75KVA)
M1	250A	3#250MCM & 1#4GRD, 2 1/2"C
M2	250A	4#250MCM & 1#4GRD, 2 1/2"C
N1	300A	3#350MCM & 1#4GRD, 3"C
N2	300A	4#350MCM & 1#4GRD, 3"C
P1	400A	3#500MCM & 1#3GRD, 3"C
P2	400A	4#500MCM & 1#3GRD, 4"C
P2	400A	TWO SETS 4-3/0 & 1#3 GRD, 2"C
PT	400A	TWO SETS 4-3/0 & 1#1/0GRD, 2.5"C (112.5KVA)
R1	600A	TWO SETS OF 3#350MCM & 1#1GRD, 3"C
R2	600A	TWO SETS OF 4#350MCM & 1#1GRD, 3"C
S1	800A	TWO SETS OF 3#500MCM & 1#1/0GRD, 3"C
S2	800A	TWO SETS OF 4#500MCM & 1#1/0GRD, 4"C

PER CITY OF PHOENIX.  
COPPER WIRES ONLY

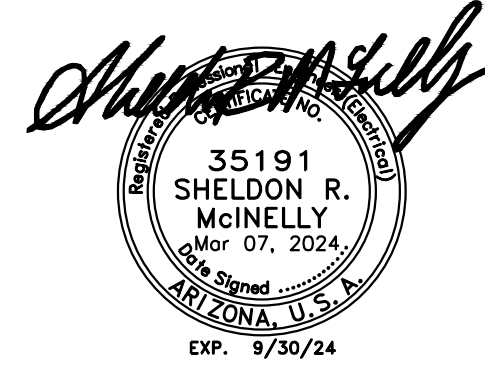


- ### GENERAL NOTES
- REFER TO FAULT CURRENT CALCULATION FOR EACH SYSTEM AIC RATING.
  - NO DESIGN CHANGES MAY BE MADE TO THE SYSTEM WITHOUT PRIOR APPROVAL OF THE DESIGN ENGINEER & THE ELECTRICAL INSPECTOR.
  - PROVIDE 75" TERMINATIONS ON EQUIPMENT AND GEAR.
  - PROVIDE ALL ARC-FLASH LABELING AS REQUIRED PER NEC 110.16.
  - CONTRACTOR SHALL HAVE INDEPENDENT HI-POT AND MEGGER TESTING PERFORMED ON SERVICE ENTRANCE SECTION, AUTOMATIC TRANSFER SWITCH AND DISTRIBUTION SECTION DS-1.
  - CONTRACTOR SHALL SUBMIT S.E.S. SHOP DRAWINGS TO SRP. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

- ### KEY NOTES
- PROVIDE RIGID STEEL OR PVC SCHEDULE 80 CONDUIT.
  - PROVIDE SIGN INDICATING TYPE AND LOCATION OF ON-SITE EMERGENCY POWER SOURCES.
  - PROVIDE COMBINATION ATS WITH INTEGRAL GENERATOR CONNECTION BUSS AND CAM-LOK CONNECTION SYSTEM WITHIN GENERATOR ENCLOSURE. PROVIDE (5) 800AMP/120/208V RATED CAM-LOK RECEPTACLES FOR OWNER USE IN PROVIDING YEARLY LOAD BANK TESTING.
  - PROVIDE (2) 1" CONDUIT WITH PULL STRING BETWEEN GEN SET AND ATS AND REMOTE ANNUNCIATOR.
  - PROVIDE FUSIBLE SWITCH PLACED AT OPPOSITE END OF BUSBAR IN DS-1 FROM MAIN INCOMING FEED. LABEL SWITCH, "PHOTOVOLTAIC ELECTRIC POWER SOURCE. FUSES ARE BACKFEED. OPERATING VOLTAGE - 208 VOLTS." LABELING SHALL COMPLY WITH NEC 705.10, PER NEC 690.64(b)(5) AND NEC 690.54.
  - PROVIDE 60A, 250V, 3P, GD MOTOR RATED NON-FUSIBLE DISCONNECT SWITCH. PROVIDE CONNECTION TO EQUIPMENT INDICATED. PROVIDE FUSIBLE SWITCH IF BREAKERS ARE USED AT SES.
  - PROVIDE 100A, 250V, 3P, GD MOTOR RATED NON-FUSIBLE DISCONNECT SWITCH. TERMINATE CONDUCTORS IN J-BOX AT ROOM. PROVIDE FUSIBLE SWITCH IF BREAKERS ARE USED AT SES.



Revisions	Date
△ CITY COMMENTS	3/10/24



Designed By:  
Drawn By:  
Checked By:  
Date: 12/14/2023  
Phase: PERMIT

**Perlman**  
Architects of Arizona  
2929 North Central Avenue, Suite # 1600  
Phoenix, Arizona 85012  
480.951.5900  
perlmanaz.com

Title:  
**FIRE STATION #74**  
**1910 W. CHANDLER BLVD.**  
**PHOENIX, ARIZONA 85045**  
Index No: **FD57100020-3**

**AKRIBIS**  
ENGINEERING, L.L.C.  
3231 SOUTH COUNTRY CLUB WAY, STE. 102 TEMPE, ARIZONA 85282  
P: (602) 393-0201 F: (602) 393-0202  
DRAWN BY: SB CHECKED BY: SM JOB NUMBER: 23224  
FOR QUESTIONS PLEASE CALL: STEPHEN BENDER

KIVA # 23-1810  
SDEV # 2300473

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 your contract with the City of Phoenix.

CALCULATIONS AND ONE-LINE DIAGRAM  
**E5.1**



PANEL A		AMPACITY: 200		MAINS: MLO		KAIC: 10		RATING: Series @ 42/10K				
		VOLTAGE: 120/208V		NEMA: 1		MOUNTING: SURF		PANEL CIRCUITS: 42				
LOAD	NO.	M	C	N	R	L	R	N	C	M	NO.	LOAD
[A] REC - DORM 144	1				0.72	201					2	[A] REC - DORM 143
[A] REC - DORM 125	3				0.72	201					4	[A] REC - DORM 124
[A] REC - DORM 126	5				0.72	201					6	[A] REC - DORM 123
[A] REC - DORM 127	7				0.72	201					8	[A] REC - DORM 122
[A] REC - DORM 128	9				0.72	201					10	[A] REC - DORM 121
[A] REC - CAPT DORM 129	11				0.90	201					12	[A] REC - CAPT DORM 120
[A] REC - WEST CORRIDORS	13				0.90	201					14	[A] REC - CAPT DORM 118
REC - EXTERIOR NW	15				0.36	201					16	REC - LTU/SHWR 113
REC - WEST VENDING	17				1.00	201					18	REC - LTU/SHWR 114
CP-1, WH-1.2.3	19	0.24			0.30	201					20	REC - LTU/SHWR 115
[A] REC - WEST CORRIDORS	21				0.72	201					22	REC - FIRE RISER
[A] REC - WEST CORRIDORS	23				0.60	201					24	SPARE
[A] LTG WEST CORRIDORS	25				0.08	201					26	LAUNDRY DRYER A
[A] LTG MECH. W. RR. EF.4.5.6.7	27	0.34			0.21	201					28	LAUNDRY GAS DRYER A
SPARE	29					201					30	LAUNDRY DRYER B
SPARE	31					201					32	LAUNDRY GAS DRYER B
SPARE	33					201					34	LAUNDRY WASHER A
SPARE	35					201					36	LAUNDRY WASHER B
SPARE	37					201					38	LAUNDRY WASHER C
SPARE	39					201					40	LAUNDRY WASHER D
SPARE	41					201					42	REC - LAUNDRY COUNTER

**PER NEC 210.4(B)**  
 PROVIDE COMMON TRIP HANDLES FOR ALL MULTI-CIRCUIT CONDUIT RUNS.

NOTES:  
 TOTAL DEMAND KVA IS THE TOTAL DEMAND FOR PANEL A AND PANEL B AS ONE SYSTEM, AND MAY NOT EQUAL THE SUM OF THE TWO DEMANDS.  
 PROVIDE FULLY RATED SUB-FEED LUGS TO FEED PANEL B. REFER TO ONE LINE DIAGRAM FOR ADDITIONAL INFORMATION.  
 [A] PROVIDE COMBINATION AFCI BREAKER.  
 [B] PROVIDE RED LOCK ON DEVICE.  
 [C] PROVIDE GFCI BREAKER.

PANEL B		AMPACITY: 200		MAINS: MLO		KAIC: 10		RATING: Series @ 42/10K				
		VOLTAGE: 120/208V		NEMA: 1		MOUNTING: SURF		PANEL CIRCUITS: 42				
LOAD	NO.	M	C	N	R	L	R	N	C	M	NO.	LOAD
[A] REC - EXTERIOR NE	1				0.72	201					2	REC - IT/ TEL A
[A] REC - DAY ROOM W.	3				1.08	201					4	REC - IT/ TEL B
[A] REC - DAY ROOM E.	5				1.26	201					6	REC - IT/ TEL C
[A] REC - LOBBY CORR 103	7				0.72	201					8	REC - IT/ TEL D
REC - LOBBY EDF	9				0.60	201					10	REC - IT/ TEL E
REC - PUBLIC RESTROOM	11				0.18	201					12	REC - IT/ TEL F
[A] REC - CORR 103 COUNTER	13				0.18	201					14	REC - IT/ TEL G
[A] REC - CORR 103 COUNTER	15				0.72	201					16	[B] DISPATCH SYS.
REC - RESTROOM 105	17				0.18	201					18	[B] SECURITY SYS.
REC - EMS VENDING A	19				1.00	201					20	[B] CARD READER SYS.
REC - EMS VENDING B	21				1.00	201					22	[B] CABLE / TV CABINET
[A] REC - OFFICE 104	23				0.72	201					24	REC - ELEC RM.
REC - N. PATIO. RRIGATION	25				0.10	201					26	[B] FACP
REC - N. PATIO VENDING A	27				1.00	201					28	[B] FIRE ALARM BELL
REC - N. PATIO VENDING B	29				1.00	201					30	SPARE
REC - N. PATIO BBQS	31				0.36	201					32	SPARE
[A] REC - OFFICE 104	33	0.08			0.24	201					34	SPARE
[A] FF OFFICE BMS. RR. EF.9	35	0.08			0.16	201					36	SPARE
SPARE	37					201					38	SPARE
SPARE	39					201					40	SPARE
SPARE	41					201					42	SPARE

**PER NEC 210.4(B)**  
 PROVIDE COMMON TRIP HANDLES FOR ALL MULTI-CIRCUIT CONDUIT RUNS.

NOTES:  
 PROVIDE WITH ISOLATED GROUND BUSS.  
 [A] PROVIDE COMBINATION AFCI BREAKER.  
 [B] PROVIDE RED LOCK ON DEVICE.

PANEL C		AMPACITY: 200		MAINS: MLO		KAIC: 10		RATING: Series @ 42/10K				
		VOLTAGE: 120/208V		NEMA: 1		MOUNTING: SURF		PANEL CIRCUITS: 42				
LOAD	NO.	M	C	N	R	L	R	N	C	M	NO.	LOAD
[A] REC - KITCHEN REFRIGERATOR A	1				1.00	201					2	[A] KITCHEN HOOD CONTROLS
[A] REC - KITCHEN REFRIGERATOR B	3				1.00	201					4	[B] KEF-1
[A] REC - KITCHEN REFRIGERATOR C	5				1.00	201					6	SPARE
[A] REC - DINING CORR. 109	7				0.72	201					8	[A] REC - KITCHEN RANGE/OVEN
[A] REC - DINING COUNTERS	9				0.18	201					10	SHUNT
[A] SPARE	11					201					12	[A] REC - KITCHEN COUNTER A
REC - SHOWERS	13				0.36	201					14	[A] REC - KITCHEN COUNTER B
REC - SHOWERS COUNTER W.	15				0.50	201					16	[A] REC - KITCHEN COUNTER C
REC - SHOWERS COUNTER E.	17				0.50	201					18	[A] REC - KITCHEN COUNTER D
LAUNDRY GAS DRYER C	19				1.20	201					20	[A] REC - KITCHEN DISHWASHER W.
LAUNDRY DRYER C	21				2.50	201					22	[A] REC - KITCHEN DISPOSAL
[A] LTG MECH. W. RR. EF.4.5.6.7	23				2.50	201					24	[A] REC - KITCHEN DISHWASHER E
LAUNDRY WASHER C	25				1.20	201					26	[A] REC - KITCHEN COUNTER E
REC - LAUNDRY S. COUNTER	27				0.18	201					28	[A] REC - KITCHEN ISLAND
[B] EF-3	29	0.41				201					30	[A] REC - KITCHEN DISPOSAL ISLAND
LTG - POLE LIGHTS N.	31				0.46	201					32	[A] LTG KITCHEN DINING
LTG - POLE LIGHTS S.	33				0.36	201					34	[A] LTG EAST CORRIDORS
LTG - BUILDING EXTERIOR	35				0.55	201					36	[A] LTG SHOWERS, DECON DRY
LTG - FLAG POLE	37				0.09	201					38	SPARE
LTG - DORM STEP LIGHTS	39				0.04	201					40	SPARE
EXT. LIGHTING CONTROL	41				0.10	201					42	[C] LTG - INVN

**PER NEC 210.4(B)**  
 PROVIDE COMMON TRIP HANDLES FOR ALL MULTI-CIRCUIT CONDUIT RUNS.

NOTES:  
 LIGHTING LOAD @ 125% = 1.06 0.61 1.79 KVA  
 RECEPTACLES (1ST 10KVA @ 100% + REMAINDER @ 50%) = 5.34 2.74 2.39 KVA  
 NON-CONTINUOUS LOAD @ 100% = 1.20 4.15 5.15 KVA  
 CONTINUOUS LOAD @ 125% + MOTORS + 25% OF LARGEST MOTOR = 0.00 0.00 0.00 KVA  
 TOTAL PANEL C DEMAND = 7.60 8.76 9.85 KVA

[A] PROVIDE COMBINATION AFCI BREAKER.  
 [B] PROVIDE HACR C/B FOR HVAC LOAD.  
 [C] PROVIDE RED LOCK ON DEVICE.  
 [D] PROVIDE COMBINATION AFCI/GFCI BREAKER.

PANEL D		AMPACITY: 400		MAINS: MLO		KAIC: 18		RATING: Fully @ 10K				
		VOLTAGE: 120/208V		NEMA: 1		MOUNTING: SURF		PANEL CIRCUITS: 54				
LOAD	NO.	M	C	N	R	L	R	N	C	M	NO.	LOAD
[A] AC-1 (4T)	1	2.77				3.51					2	[A] EC-1
	3	2.77				3.51					4	[A] EC-2
	5	2.77				3.51					6	[A] EC-3
[A] AC-2 (4T)	7	2.77				3.51					8	[A] VEF-1
	9	2.77				3.51					10	[A] EC-2
	11	2.77				3.51					12	[A] EC-2
[A] AC-3 (5T)	13	3.37				4.11					14	[A] VEF-2
	15	3.37				4.11					16	[A] VEF-2
[A] AC-4 (5T)	17	3.37				4.11					18	GEN. JACKET HEATER
	19	3.37				4.11					20	GEN. BATT. CHARGER
	21	3.37				4.11					22	GEN. BATT. CHARGER
[A] DCU-1 (2T)	23	3.37				4.11					24	GEN. RECEPTACLE
	25	1.14				2.08					26	GATE OPENER
	27	1.14				2.08					28	FUEL PUMP
[A] DCU-2 (2T)	29	1.14				2.08					30	FUEL PNEUMATORICATOR
	31	1.14				2.08					32	FUEL PNEUMATORICATOR
[A] DCU-3 (2T)	33	1.14				2.08					34	FUEL PNEUMATORICATOR
	35	1.14				2.08					36	FUEL PNEUMATORICATOR
REC - ROOF NORTH	37				0.72	201					38	(SWITCHED NEUTRAL)
REC - EAVE NW	39				0.54	201					40	FUEL ALARM
REC - EAVE NE	41				0.36	201					42	(SWITCHED NEUTRAL)
SPACE	43					201					44	FUEL CONTROL
SPACE	45					201					46	(SWITCHED NEUTRAL)
SPACE	47					201					48	SPACE
SPACE	49					201					50	[C] LIFT STATION PUMP
SPACE	51					201					52	SPACE
SPACE	53					201					54	SPACE

**PER NEC 210.4(B)**  
 PROVIDE COMMON TRIP HANDLES FOR ALL MULTI-CIRCUIT CONDUIT RUNS.

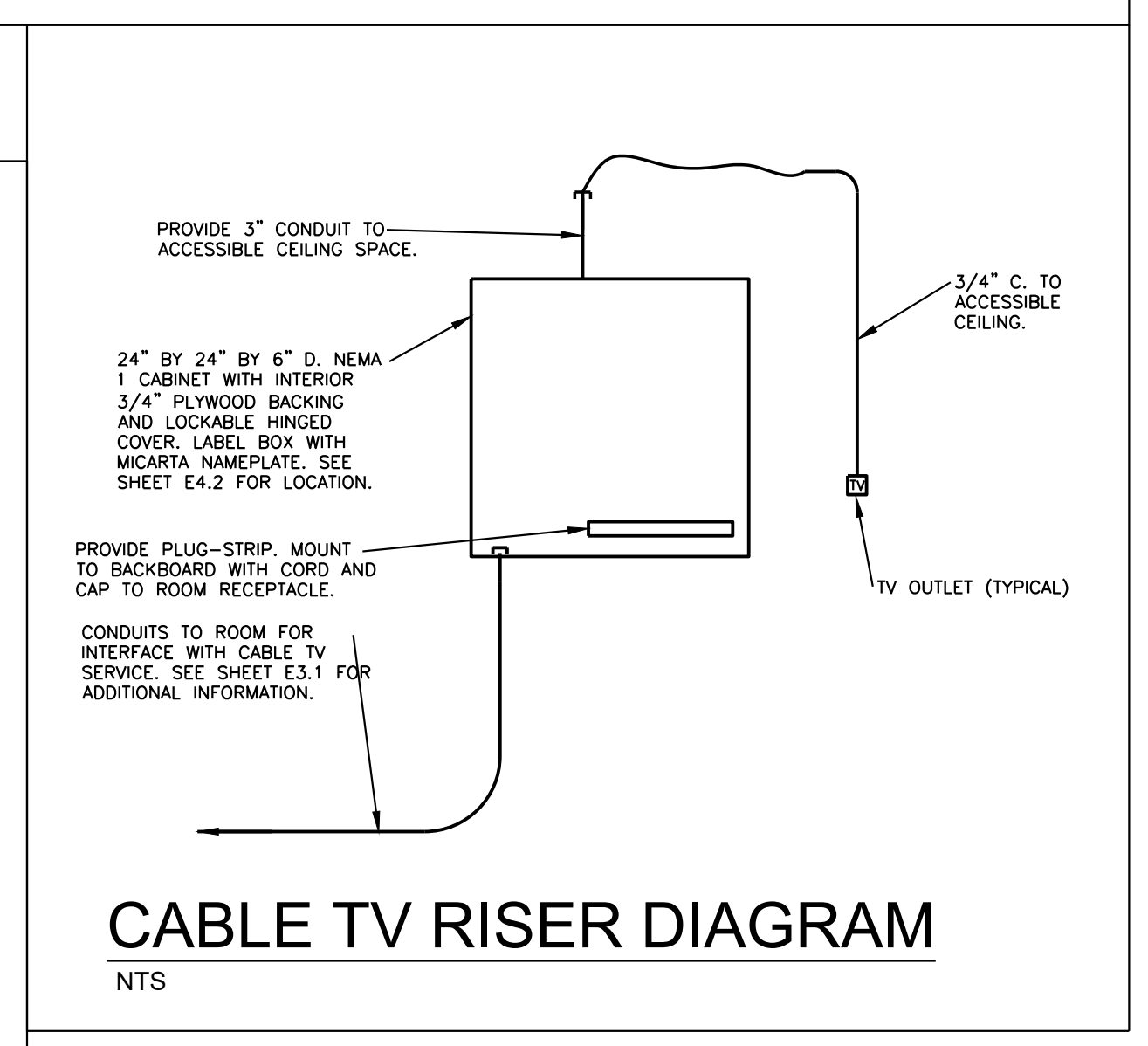
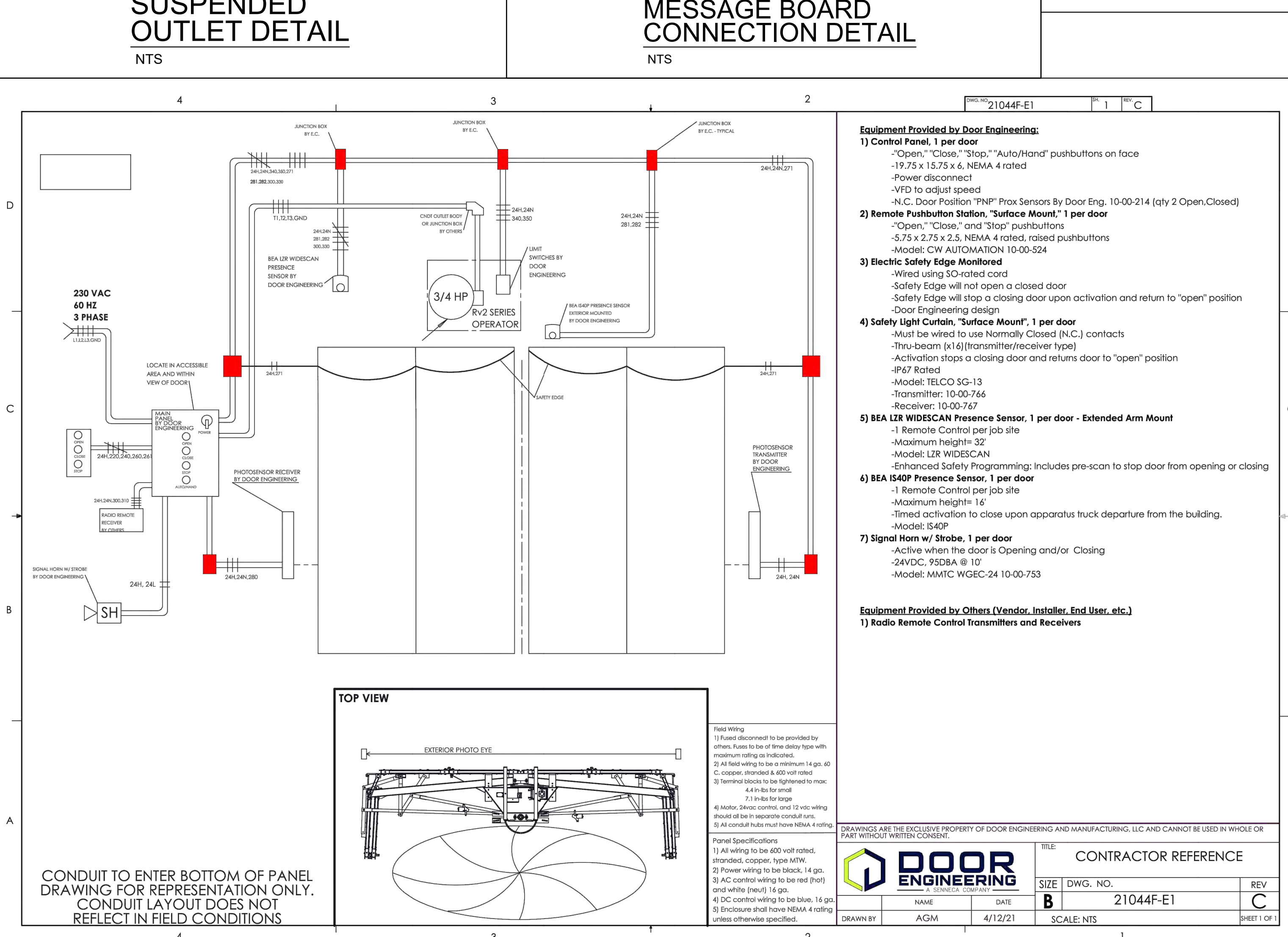
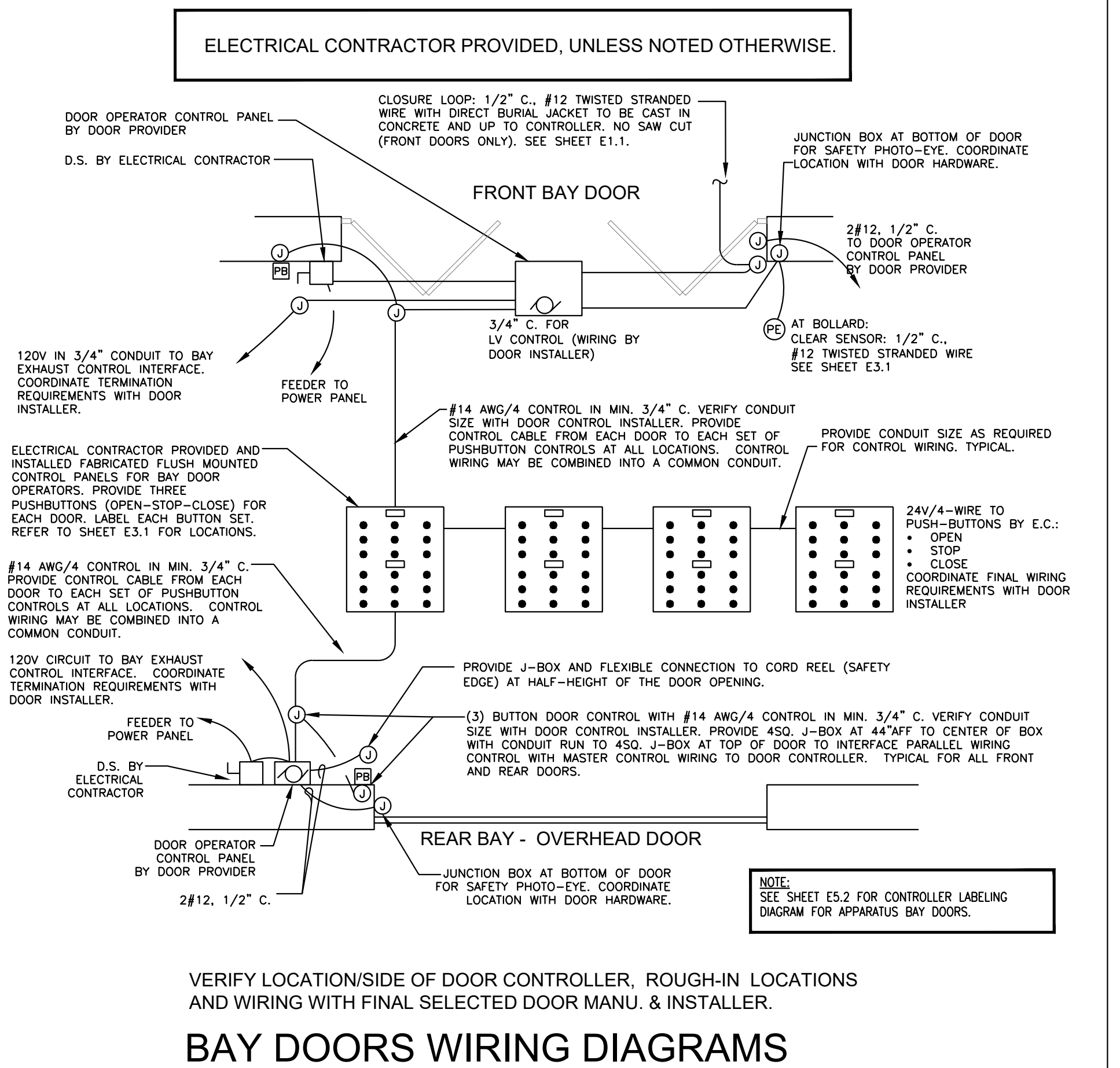
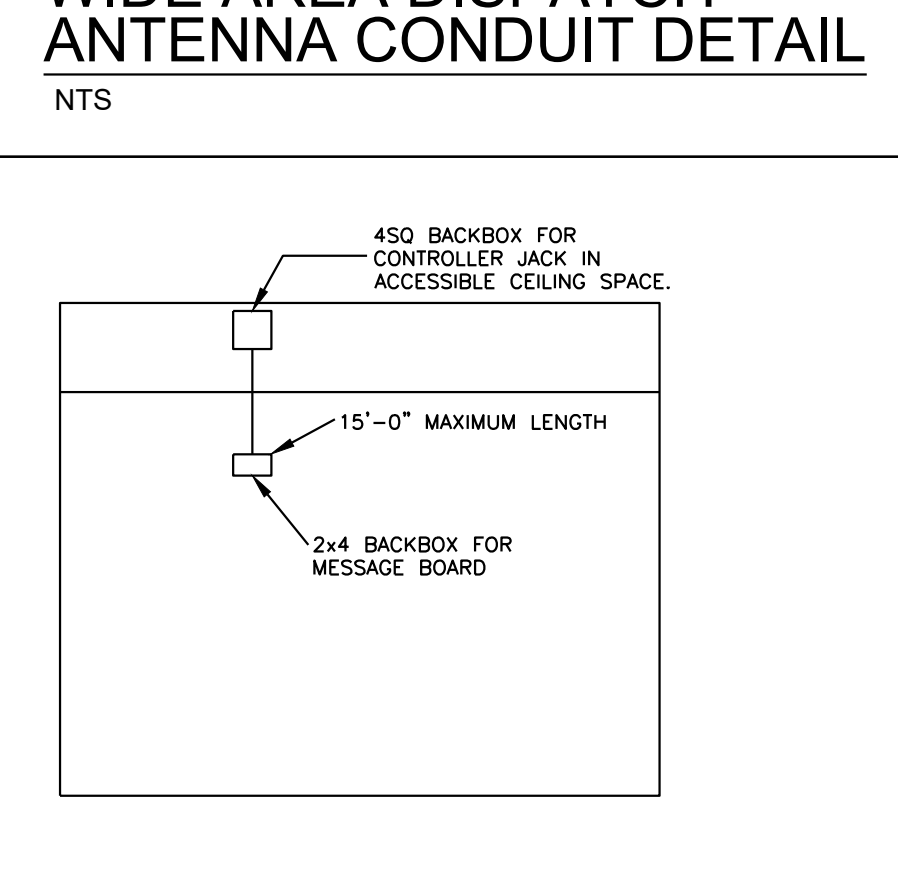
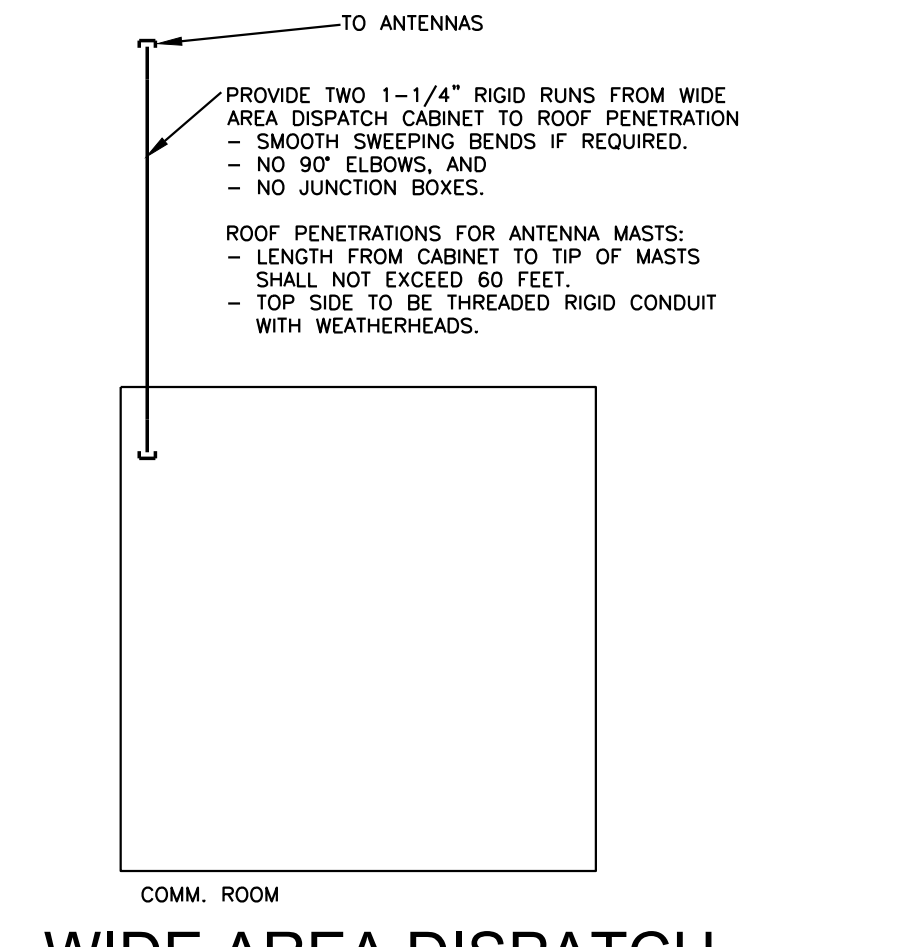
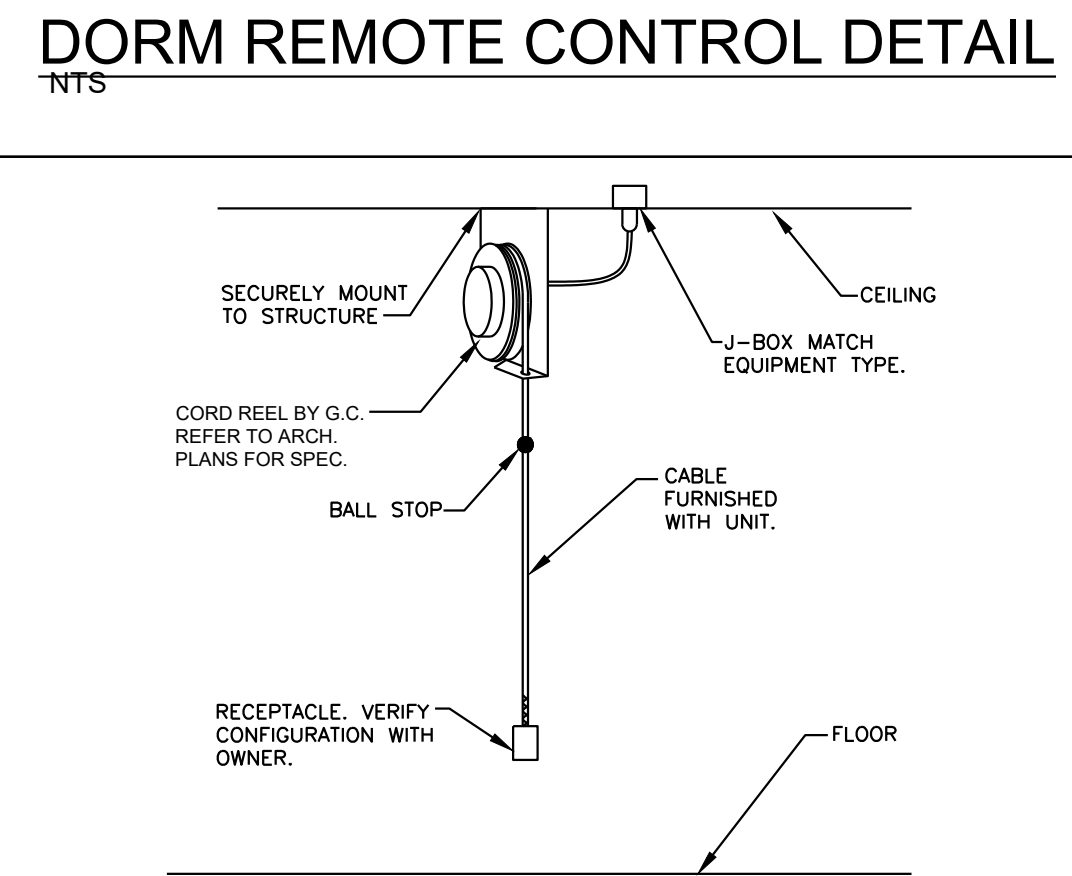
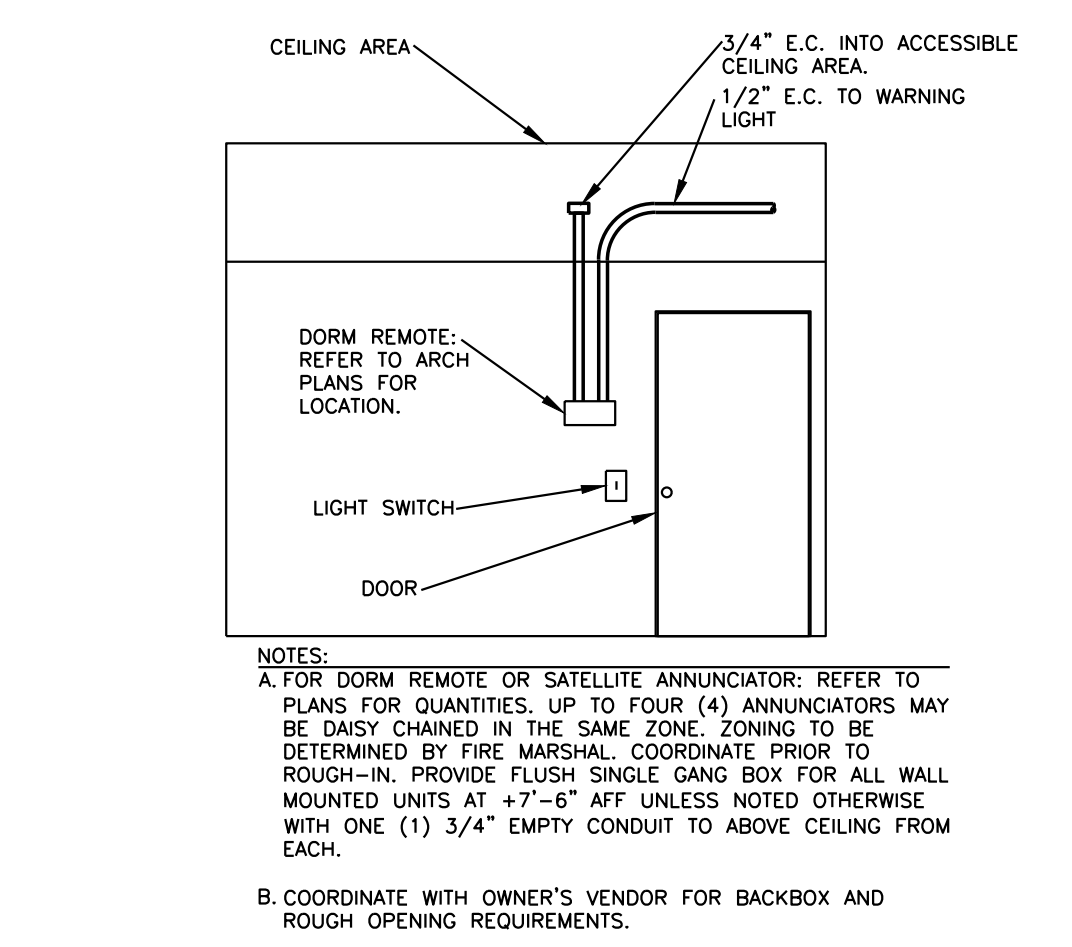
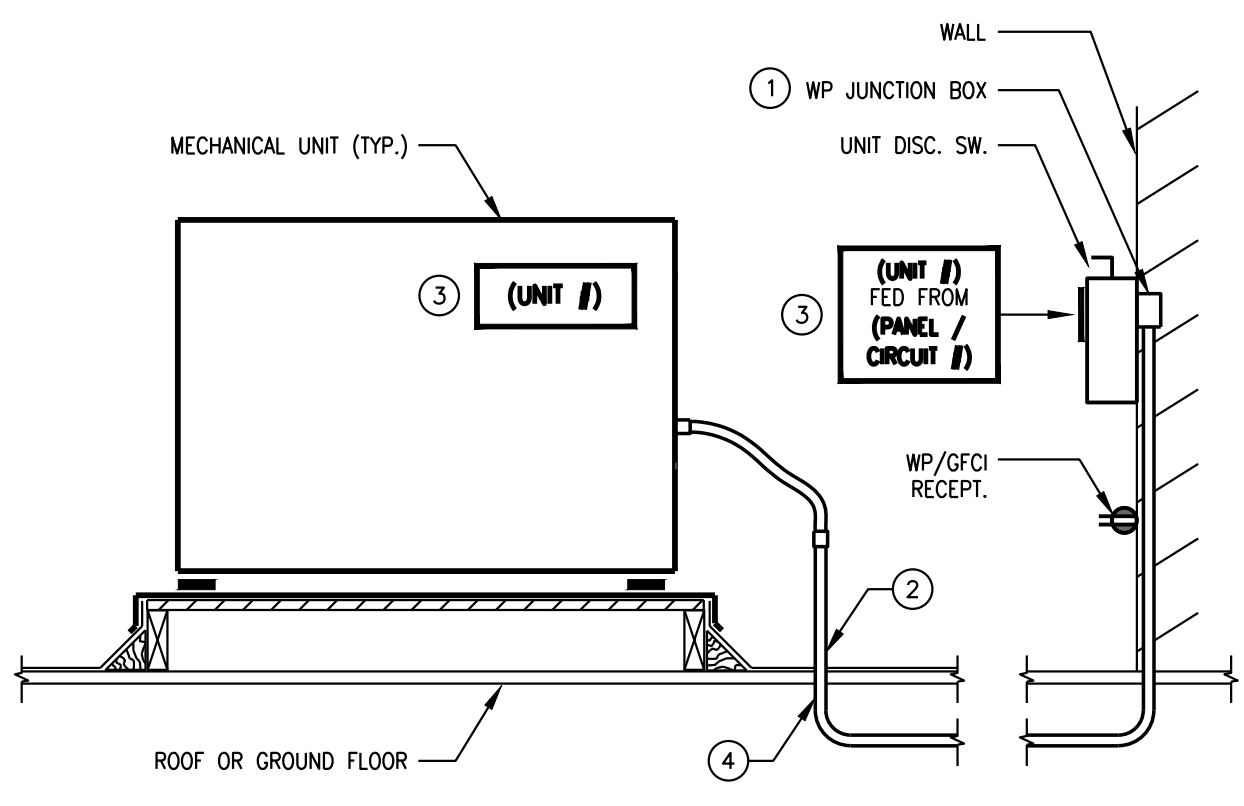
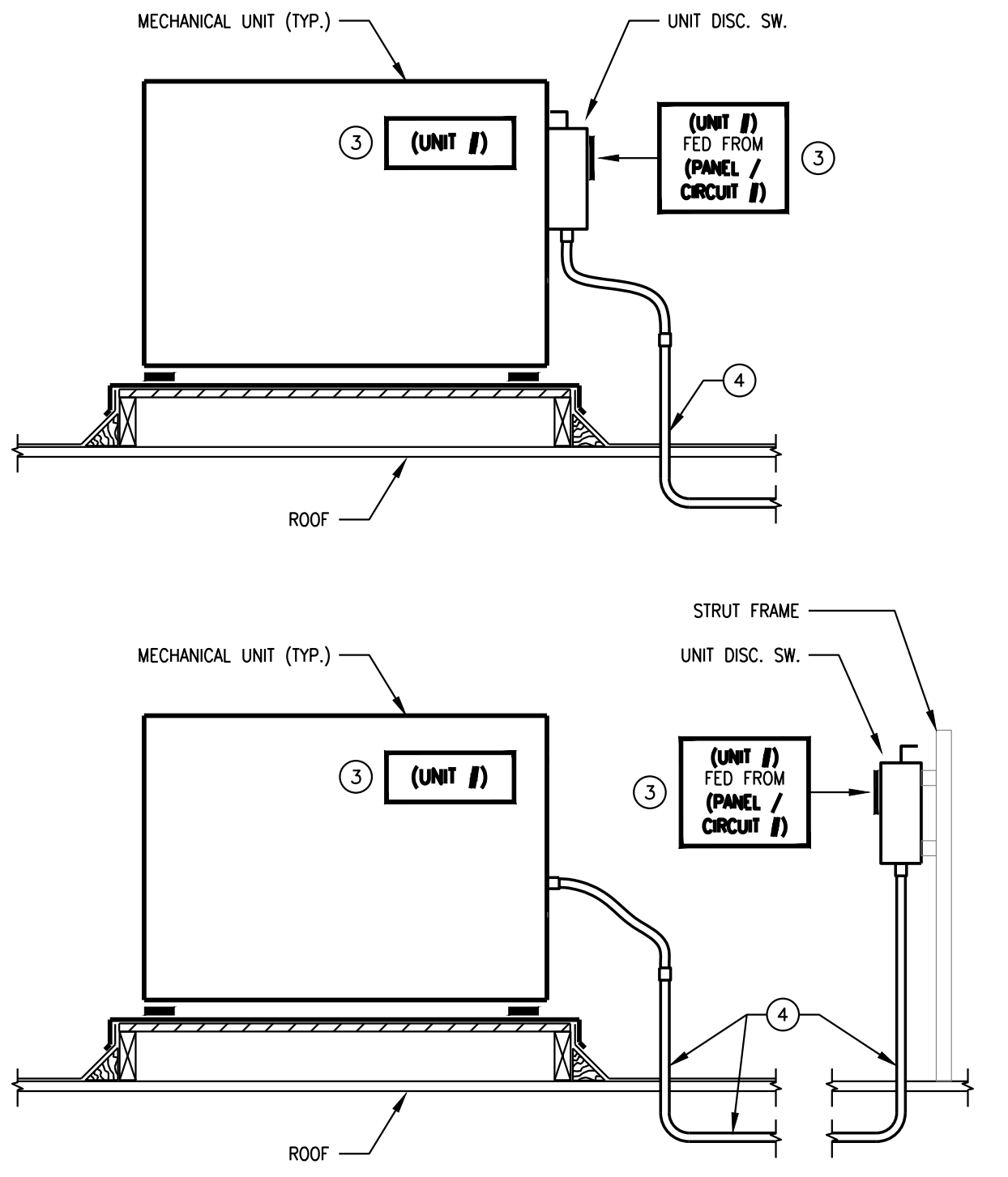
NOTES:  
 LIGHTING LOAD @ 125% = 0.00 0.00 0.00 KVA  
 RECEPTACLES (1ST 10KVA @ 100% + REMAINDER @ 50%) = 0.72 0.54 0.54 KVA  
 NON-CONTINUOUS LOAD @ 100% = 20.48 17.53 18.86 KVA  
 CONTINUOUS LOAD @ 125% + MOTORS + 25% OF LARGEST MOTOR = 18.92 18.92 19.59 KVA  
 TOTAL PANEL D DEMAND = 40.12 37.00 38.99 KVA  
 TOTAL DEMAND AMPS = 334.32 308.30 324.89 AMPS

[A] PROVIDE HACR C/B FOR HVAC LOAD.  
 [B] PROVIDE RED LOCK ON DEVICE.  
 [C] PROVIDE GFCI BREAKER.

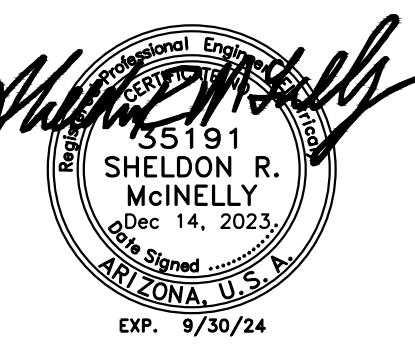
PANEL F		AMPACITY: 200		MAINS: MLO		KAIC: 10		RATING: Fully @ 10K				
		VOLTAGE: 120/208V		NEMA: 1		MOUNTING: SURF		PANEL CIRCUITS: 72				
LOAD	NO.	M	C	N	R	L	R	N	C	M	NO.	LOAD
EC-3	1	0.89				4.26					2	[A] AC-5 (5T)
EC-3 PUMP	3	0.20				3.57					4	[A] AC-5 (5T)
REC - ROOF SOUTH	5				0.54	201					6	[A] VEF-1
APP BAY DOOR OPENERS E.	7	1.33				2.65					8	[A] VEF-1
[3] @ 3/4 HP	9	1.33				2.65					10	[A] VEF-1
[3] @ 3/4 HP	11	1.33				2.65					12	[A] VEF-1
DOOR OPENER CONTROL E.	13				0.10	201					14	[A] VEF-2
REC - APP BAY E.	15											



- KEY NOTES**
1. WP JUNCTION BOX MOUNTED RECESSED IN WALL / PARAPET.
  2. STUB CONDUIT DOWN INTO ROOF DECK AND UP INTO WALL MOUNTED JUNCTION BOX FOR CONNECTION TO MECHANICAL UNIT.
  3. THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL MELAMINE PLASTIC LAMINATED TAG (WITH RIVETS) TO UNIT AND UNIT DISCONNECT SWITCH. PROVIDE IDENTIFICATIONS DETAILS AS SHOWN WITH UNIT ID TAG AND CIRCUIT NUMBER.
  4. ROUTE CONDUIT DOWN THROUGH ROOF DECK AND OVER TO PANEL OR UNIT DISCONNECT SWITCH.



Revisions	Date



Designed By:  
Drawn By:  
Checked By:  
Date: 12/14/2023  
Phase: PERMIT

**Perلمان**  
Architects of Arizona  
2929 North Central Avenue, Suite # 1600  
Phoenix, Arizona 85012  
480.951.5900  
perleman.com

**FIRE STATION #74**  
**1910 W. CHANDLER BLVD.**  
**PHOENIX, ARIZONA 85045**  
Index No: **FD57100020-3**

**AKRIBIS**  
ENGINEERING, L.L.C.  
3231 SOUTH COUNTRY CLUB WAY, STE. 102 TEMPE, ARIZONA 85282  
P: (602) 393-0201 F: (602) 393-0202  
DRAWN BY: SB CHECKED BY: SM JOB NUMBER: 23224  
FOR QUESTIONS PLEASE CALL: STEPHEN BENDER

**KIVA # 23-1810**  
**SD# 2300473**  
ELECTRICAL DETAILS

**E5.3**



# PHOENIX FIRE STATION NO. 74

## NWC 19TH AVENUE & CHANDLER, PHOENIX, AZ 85045

### GENERAL FIRE PROTECTION NOTES

1. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE REFERENCED EDITIONS OF NFPA-13 AND IFC (HEREIN), INCLUDING ALL ASSOCIATED APPENDICES. INSTALLATION SHALL ALSO CONFORM TO ALL AUTHORITIES HAVING JURISDICTION (AHJ's) INCLUDING LOCAL AND STATE FIRE MARSHAL REQUIREMENTS.
2. THE ELECTRONIC FILE SET OF THE APPROVED ENGINEERED CONSTRUCTION DOCUMENTS IS AVAILABLE TO THE INSTALLING FIRE PROTECTION CONTRACTOR AT NO COST. THIS SET IS MADE SOLELY AVAILABLE FOR THE FABRICATION PORTION OF THE PROJECT. CONTACT EJ ENGINEERING GROUP, INC. IN WRITING TO REQUEST. FP CONTRACTOR SHALL PROVIDE PROOF THAT PROJECT IS UNDER CONTRACT FOR INSTALLATION. THE DETAILS, DRAWINGS AND OTHER DATA INCLUDED IN THE CONSTRUCTION SET OF DOCUMENTS ARE FOR INFORMATION PURPOSES ONLY AND ARE SPECIFIC TO THIS PROJECT. ALL DRAWINGS, CONCEPTS, DETAIL INFORMATION AND DATA CONTAINED HEREIN SHALL REMAIN THE SOLE PROPERTY OF EJ ENGINEERING GROUP, INC. AND SHALL NOT BE UTILIZED FOR ANY OTHER PROJECT OR PURPOSE WITHOUT THE EXPRESSED WRITTEN CONSENT OF EJ ENGINEERING GROUP, INC.
3. THE INTENT OF THIS SET OF ENGINEERED CONSTRUCTION DOCUMENTS IS TO MEET THE LOCAL AUTHORITY HAVING JURISDICTION REQUIREMENTS FOR A PROFESSIONALLY DESIGNED AUTOMATIC FIRE SPRINKLER SYSTEM. THE INSTALLING CONTRACTOR SHALL SUBMIT 'PRODUCT DATA' SUBMITTALS AS REQUIRED IN THE PROJECT MANUAL FOR THE INSTALLATION RECORD. THE INSTALLING CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND/OR OBTAINING ALL PERMITS ASSOCIATED WITH THIS SET OF DOCUMENTS.
4. ALL WIRING OF ELECTRIC INITIATION DEVICES (HORN-STROBES, WATER SUPERVISORY AND TAMPER DEVICES) SHALL BE BY THE ELECTRICAL AND/OR ALARM CONTRACTOR.
5. THE PIPING HEREIN HAS BEEN DESIGNED TO MEET UNDERWRITERS LABORATORIES (U.L.) CORROSION RESISTANCE RATIO (CRR) MINIMUM OF 1.00. REFER TO PIPING PLANS, HYDRAULIC CALCULATIONS AND SPECIFICATIONS FOR SPECIFIC PIPE WEIGHTS AND WALL THICKNESS ASSOCIATED WITH THIS SPECIFIC PROJECT. THE UTILIZATION OF A CRR LESS THAN 1.00 IS NOT ACCEPTABLE UNDER ANY CIRCUMSTANCES. THE USE OF SUCH PIPING SUBJECTS THE CONTRACTOR TO POTENTIAL REMOVAL AND REPLACEMENT OF ALL PIPING AT HIS/HER COST.
6. A MINIMUM SAFETY FACTOR HAS BEEN INCLUDED IN THE WATER SUPPLY FOR THIS PROJECT. ADDITIONAL SAFETY FACTORS, AS REQUIRED BY LOCAL AHJ HAVE ALSO BEEN IMPLEMENTED. EJ ENGINEERING GROUP, INC. IS NOT RESPONSIBLE FOR ADDITIONAL CHANGES IN WATER SUPPLY (GPM OR PRESSURE) THAT MAY ADVERSELY AFFECT THIS AUTOMATIC FIRE SPRINKLER SYSTEM IN THE FUTURE.
7. THE FIRE PROTECTION CONTRACTOR IS FULLY RESPONSIBLE FOR THE FIELD FIT OF ALL SPRINKLERS AND PIPING. THE ACCURACY OF SCALED CONSTRUCTION DOCUMENTS IS NOT ASCERTAINABLE. ALL POSSIBLE ATTEMPTS HAVE BEEN MADE TO INCLUDE SLOPED PIPE LENGTHS AND TO MINIMIZE VARIATIONS. THEREFORE, THE FP CONTRACTOR IS RESPONSIBLE FOR THE ACCURACY OF FIELD CUT AND PRE-FABRICATED PIPING.
8. THE FP CONTRACTOR IS RESPONSIBLE FOR GENERAL WORKMANSHIP, DIMENSIONING, COORDINATION WITH OTHER TRADES AND THE ACCEPTANCE OF THE FIELD INSPECTIONS. THE COORDINATION OF FIELD INSTALLED PIPING AND SPRINKLERS TO STRUCTURAL COMPONENTS, DUCTWORK, EQUIPMENT, CEILING, LIGHTS, ETC., IS THE RESPONSIBILITY OF THIS LICENSED CONTRACTOR.
9. FIELD VERIFY ALL CONDITIONS PRIOR TO THE INSTALLATION OF ANY PIPING. FIELD ADJUSTMENTS MAY BE MADE TO THESE DOCUMENTS AS REQUIRED FOR FIELD ACCEPTANCE BY THE AHJ.
10. THE FIRE PROTECTION CONTRACTOR SHALL VERIFY THE SPRINKLER SPACING TO THE STRUCTURAL MEMBERS, ROOF DECK AND ALL OBSTRUCTIONS. PROVIDE ADDITIONAL, OR RESPACE, SPRINKLERS WHERE REQUIRED TO AVOID SUCH UNFORESEEN OBSTRUCTIONS TO SPRINKLER DISCHARGE PATTERNS.
11. THE FIRE PROTECTION CONTRACTOR SHALL SUBMIT, IN A TIMELY MANNER, REQUEST FOR INFORMATION (RFI) FORMS FOR ALL CHANGES NOT ASSOCIATED WITH MINOR FIELD ADJUSTMENTS. PRIOR TO MAKING THE CHANGE IN THE FIELD. CHANGES MADE TO THE APPROVED CONSTRUCTION DOCUMENTS WITHOUT AN ASSOCIATED RFI ARE NOT ACCEPTABLE AND SHALL BE CONSIDERED TO BE THE SOLE RESPONSIBILITY OF THE FIRE PROTECTION AND GENERAL CONTRACTOR. RFIs ARE NOT ACCEPTED ONCE THE CHANGE HAS BEEN MADE IN THE FIELD; THIS INCLUDES PRODUCT AND LABOR COSTS. ALL RFIs ARE TO BE SUBMITTED BY THE GC IN WRITING TO THE ARCHITECT.
12. INSTALL PIPING SYSTEM ON APPROVED HANGERS PER AHJ & NFPA. C-CLAMPS WITH RETAINING STRAPS SHALL BE PROVIDED.
13. FUTURE IMPROVEMENTS OR RENOVATIONS TO THIS AUTOMATIC FIRE SPRINKLER SYSTEM SHALL OCCUR UNDER A SEPARATE PERMIT.
14. THE UTILITY CONTRACTOR SHALL FLUSH ALL UNDERGROUND MAINS PRIOR TO CONNECTION TO OVERHEAD SYSTEM PIPING.
15. PROVIDE SLEEVES AT ALL PIPING PENETRATIONS THROUGH MASONRY AND/OR FIRE RATED WALLS, FLOORS OR CEILINGS. PACK WITH SEALANT COMMENSURATE WITH THE WALL CONSTRUCTION AND APPROVAL OF ALL AUTHORITIES HAVING JURISDICTION.
16. BACKFLOW DEVICES, WHEN UTILIZED FOR THIS PROJECT, SHALL BE INSTALLED PER LOCAL AHJ APPROVAL LIST. PRIOR TO REQUEST FOR FINAL INSPECTION, EACH BACKFLOW ASSEMBLY DEVICE SHALL BE TESTED AND APPROVED BY A CERTIFIED TECHNICIAN LICENSED TO PERFORM SUCH WORK IN THIS PARTICULAR MUNICIPALITY.
17. THIS FP CONTRACTOR SHALL PROVIDE THE OWNER WITH A COPY OF NFPA-25 & NFPA-20 AND A DETAILED DESCRIPTION OF THE MAINTENANCE REQUIRED FOR THIS PROJECT. SUCH A MAINTENANCE SUMMARY SHALL BE PROVIDED, AS IT WOULD APPEAR IN AN INDUSTRY STANDARD MAINTENANCE CONTRACT. IN ADDITION, AS A MINIMUM, TWO (2) SETS OF THE APPROVED 'RECORD DRAWINGS' AND ASSOCIATED EQUIPMENT SUBMITTALS SHALL BE PROVIDED TO THE OWNER.
18. THIS FP CONTRACTOR SHALL INSTALL A SYSTEM DESIGN PLACARD FOR EACH FIRE RISER AND ASSOCIATED REMOTE AREA OF OPERATION AS INDICATED ON THE APPROVED CONSTRUCTION DOCUMENTS. SYSTEM DEMAND AT THE BASE OF THE RISER IN PSI AND GPM SHALL BE PROVIDED WITH THE AREA OF OPERATION SQUARE FOOTAGE AND NUMBER OF OPERATING SPRINKLERS. EACH DESIGN PLACARD SHALL BE PERMANENTLY EMBOSSED SUCH THAT DATA MAY BE AVAILABLE FOR FUTURE USE. THE UTILIZATION OF PERMANENT MARKING PENS IS NOT APPROPRIATE OR ACCEPTABLE.
19. THIS FP CONTRACTOR SHALL PROVIDE A SPARE SPRINKLER CABINET, IN AN APPROVED LOCATION, WITH ASSOCIATED SPARE SPRINKLERS, AS REQUIRED BY NFPA-13. INCLUDE TWO (2) SETS OF SPRINKLER WRENCHES FOR EACH SPRINKLER TYPE AS REQUIRED.
20. THIS FP CONTRACTOR SHALL BE LICENSED TO PERFORM THIS PARTICULAR TYPE OF WORK WITH THE STATE REGISTRAR OF CONTRACTORS AND WITH LOCAL AND STATE AUTHORITIES HAVING JURISDICTION. IN ADDITION, CONTRACTOR SHALL BE REQUIRED TO COMPLY WITH ALL PLAN REVIEW AND AHJ FIELD INSPECTIONS AS NECESSARY FOR A COMPLETELY APPROVED WORKING SYSTEM.
21. WHERE REQUIRED, THIS AUTOMATIC FIRE SPRINKLER SYSTEM SHALL BE MONITORED BY A UL OR FM LISTED CENTRAL STATION SYSTEM. ALL SYSTEMS OVER 100 SPRINKLERS SHALL BE MONITORED FOR TAMPER, TROUBLE AND FLOW.
22. ALL CONTROL VALVES SHALL BE CHAIN-LOCKED AND SECURED INCLUDING MAIN DRAIN ANGLE VALVES. ALL EXTERIOR FIRE RISERS SHALL BE LOCATED IN A SECURED AREA TO PREVENT DAMAGE DUE TO VANDALISM.
23. COMBUSTIBLE CONTENTS SHALL NOT BE MOVED INTO THE BUILDING WITHOUT THE APPROVAL OF THE AUTHORITIES HAVING JURISDICTION. IN ADDITION, THIS FP CONTRACTOR SHALL ENSURE THAT TEMPORARY INTERIOR FIRE PROTECTION IS IN PLACE PER AUTHORITY HAVING JURISDICTION. THIS INCLUDES PROVISIONS FOR TEMPORARY FIRE DEPARTMENT WATER SUPPLIES, HOSE CONNECTIONS, ETC.
24. THE GENERAL CONTRACTOR SHALL PROVIDE A FIRE DEPARTMENT LOCK BOX FOR ALL NEW CONSTRUCTION AS DELINEATED ON THE ARCHITECTURAL DOCUMENTS. DEVICES SHALL BE SIMILAR OR EQUIVALENT TO 'KNOX MANUFACTURING'.
25. THE USE OF MECHANICAL (CUT-IN) TEES OR SIMILAR TYPE OF CONNECTIONS ARE NOT ALLOWED FOR NEW CONSTRUCTION PROJECTS. FP CONTRACTOR SHALL UTILIZE JOINING/CONNECTION METHODS SUCH AS WELDED-OUTLETS.

### SCOPE OF PROJECT

REMOTE AREA #1: ORDINARY HAZARD GROUP 1 (APPARATUS BAYS)  
 AREA OF APPLICATION - 1,950 SF (SLOPE 4 IN 12 = 30% INCREASE)  
 DENSITY - .15 GPM PER SF OVER 1,975 SF (ACTUAL)  
 COVER PER SPRINKLER - 130 SF S.S.U. ORD. HAZARD GROUP 1  
 HOSE STREAM ALLOWANCE - 250 GPM

REMOTE AREA #2: LIGHT HAZARD (ATTIC SPACE ABOVE SUPPORT AREAS)  
 AREA OF APPLICATION - 1,389 SF ACTUAL (INCREASE & DECREASE)  
 DENSITY - .10 GPM PER SF  
 COVER PER SPRINKLER - 130 SF S.S.U. LIGHT HAZARD ATTIC  
 HOSE STREAM ALLOWANCE - 100 GPM

REMOTE AREA #3: LIGHT HAZARD (ATTIC SPACE ABOVE FITNESS ROOM)  
 AREA OF APPLICATION - 1,049 SF ACTUAL (Q.R. REDUCTION)  
 DENSITY - .10 GPM PER SF  
 COVER PER SPRINKLER - 130 SF S.S.U. LIGHT HAZARD ATTIC  
 HOSE STREAM ALLOWANCE - 100 GPM

REMOTE AREA #4: LIGHT HAZARD (ATTIC SPACE ABOVE SUPPORT AREAS)  
 AREA OF APPLICATION - 934 SF ACTUAL (ENTIRE ATTIC SPACE)  
 DENSITY - .10 GPM PER SF  
 COVER PER SPRINKLER - 130 SF S.S.U. LIGHT HAZARD ATTIC  
 HOSE STREAM ALLOWANCE - 100 GPM

HYDRAULIC REFERENCE POINTS ARE NUMBERED TO CORRESPOND WITH ATTACHED HYDRAULIC CALCULATIONS; SEE FP1.1 AND FP2.0 FOR HYDRAULIC REFERENCE NODE LOCATIONS.

THIS PROJECT INVOLVES A SINGLE STORY STAND-ALONE FIRE STATION APPROXIMATELY 14,360 SF.

ALL AREAS WILL EMPLOY A WET-AUTOMATIC FIRE SPRINKLER SYSTEM CONNECTED TO THE PUBLIC WATER SUPPLY VIA NEW 8-INCH FIRE LINE (BY CIVIL ENGINEER AND UTILITY CONTRACTOR). A NEW FIRE DEPARTMENT CONNECTION (CHROME FINISH) WILL BE WALL MOUNTED AS SHOWN ON THE FP1.1 SHEET. THE BACKFLOW ASSEMBLY IS REMOTE ON THE FIRE LINE.

INSPECTOR'S TEST LOCATION SHALL BE LOCATED REMOTELY BEHIND A SUITABLY LABELED ACCESS PANEL. FP SUB TO COORDINATE FINAL LOCATION WITH ARCHITECT AND GC. LOCATIONS SHOWN HEREIN ARE POSSIBLE OPTIONS.

ANY PIPING OUTSIDE OF THE BUILDING ENVELOPE (NOT WITHIN THE INSULATED AND HEATED BUILDING ENVELOPE) SHALL BE EITHER GALVANIZED OR PAINTED TO PROTECT FROM CORROSION.

THE ARCHITECT WILL LOCATE KEY BOXES AS REQUIRED BY FOR EMERGENCY FIRE DEPT. ACCESS TO BUILDING AND THE FP & GC WILL COORDINATE SAME WITH LOCKING FDC CAPS AS REQUIRED BY LOCAL FD.

QUICK RESPONSE PENDENT AND QUICK RESPONSE UPRIGHT SPRINKLERS SHALL BE PRIMARILY UTILIZED THROUGHOUT THE BUILDING. IN COMBUSTIBLE CONCEALED AREAS ABOVE CEILINGS (ATTIC), UPRIGHT SPRINKLERS WILL BE SPACED FOR COVERAGE NOT EXCEEDING 130 SF. PENDENT SPRINKLERS WILL BE USED BELOW CEILINGS WITH MAXIMUM COVERAGES OF 225 SF (LIGHT HAZARD) AND 130 SF (ORDINARY HAZARD).

FLOW SWITCHES AND TAMPER SWITCHES WILL BE REFERENCED AND SPECIFIED ON THE FIRE PROTECTION DRAWINGS, BUT SHALL BE WIRED ON THE ELECTRICAL DRAWINGS. THESE ANNUNCIATION DEVICES SHALL ALSO BE INTERCONNECTED TO THE MAIN FIRE ALARM CONTROL PANEL BY THE ELECTRICAL ENGINEER. THE GENERAL CONTRACTOR AND SUBCONTRACTORS SHALL BE REQUIRED TO FULLY WIRE AND INTEGRATE ALL SYSTEMS. FIRE ALARM SYSTEM IS NOT PART OF THIS CONTRACT.

ALL SPRINKLER DEFLECTOR DISTANCES TO CEILINGS AND BELOW ROOF DECKS SHALL BE PER NFPA-13.

HYDRAULIC CALCULATIONS PROVIDED AT MOST REMOTE AND DEMANDING AREAS (ATTIC SPACE AND APPARATUS BAY). ALL AREAS SIZED PER THESE CALCS. SEE HYD. CALCS AND FP2.0 FOR ADD'L INFO.

PROVIDE HORIZONTAL SIDEWALL SPRINKLERS BELOW ALL OVERHEAD DOORS. PROVIDE DRAIN AT LOW POINT OF PIPING FOR TRAPPED WATER.

REFER TO ATTACHED 8-1/2" X 11" HYD. CALCS, FP SPECS, AND DATA SHEETS FOR ADD'L INFO.

THIS ENGINEERED SET OF DOCUMENTS REPRESENT CENTER-TO-CENTER AND HORIZONTAL DIMENSIONS. FP SUB IS RESPONSIBLE TO ASCERTAIN CUT LENGTHS AND CALCULATE ANY ACTUAL PIPE LENGTHS ON SLOPE.

NOTE:  
 USE OF FOREIGN-MADE PIPING, FITTINGS, COUPLINGS OR WELDED OUTLETS SHALL NOT BE ALLOWED! IF DISCOVERED SUCH PRODUCT SHALL BE REMOVED AT CONTRACTOR'S EXPENSE AND COSTS ASSOCIATED WITH PROJECT DELAYS SHALL ALSO BE THE RESPONSIBILITY OF THE FP AND GENERAL CONTRACTORS. NEGOTIATIONS FOR ADDITIONAL WARRANTIES OR CREDITS SHALL NOT BE CONSIDERED. MUST COMPLY WITH THE BUY AMERICAN ACT. DIVIATION FROM THIS SHALL BE BY OWNER/ARCHITECT IN WRITTEN FORM TO E.O.R.

GENERAL IDENTIFICATION NOTE:  
 PROVIDE METAL EMBOSSED DESIGN PLACARDS, IDENTIFICATION SIGNS AND PIPE LABELS ON ALL SYSTEM EQUIPMENT AND PIPING.

### FIRE PROTECTION SYMBOLS & ABBREVIATIONS

	AUTOMATIC SPRINKLER RISER
A.S.	AUTOMATIC SPRINKLER(S)
FDC	FIRE DEPARTMENT CONNECTION
N.S.T.	NATIONAL STANDARD THREAD FOR F.D.C.
RN	RISER NIPPLE
R.A.	HYDRAULICALLY MOST REMOTE AREA OF SPRINKLER OPERATION
BFA	BACKFLOW ASSEMBLY
	NODE NUMBER - HYDRAULIC CALCULATION REFERENCE POINT
	PIPE SEGMENT SIZE & LENGTH MEASURED IN FEET AND INCHES
	FULLY AUTOMATICALLY SPRINKLERED SPACE
	PARTIALLY AUTOMATICALLY SPRINKLERED SPACE
	NON-SPRINKLERED SPACE
	SPRINKLER PIPE
	PIPE HANGER ON PIPE IT SUPPORTS
	EXISTING SPRINKLER PIPE
	PRESSURE GAUGE (0-300 PSI)
	SPARE SPRINKLER CABINET W/ STOCK OF SPRINKLERS AND WRENCHES PER NFPA-13
	EXTERIOR ELECTRIC BELL WITH WIRE GUARD - WIRING BY ELECT/ALARM CONTRACTOR - VERIFY REQUIRED VOLTAGE. PROVIDED BY FP SUB.
	2-WAY FIRE DEPARTMENT CONNECTION (CHROME FINISH)
	CODE APPROVED PIPE SLEEVE WITH CAULKING COMMENSURATE WITH CONSTRUCTION
	2-WAY SWAY BRACE
	4-WAY SWAY BRACE
	RISER CLAMP ATTACHED TO WALL

NOTE: REFER TO THE ARCHITECTURAL STANDARD SYMBOLS AND ABBREVIATIONS FOR ADDITIONAL ITEMS NOT SHOWN HERE. NOT ALL SYMBOLS MAY BE USED.

### PROJECT DATA

ADDRESS:  
 PHOENIX FIRE STATION NO. 74  
 NWC 19TH AVENUE & CHANDLER  
 PHOENIX, AZ 85045

OWNER:  
 PHOENIX FIRE DEPARTMENT  
 2925 S. 19TH AVE.  
 PHOENIX AZ 85009

USE:  
 FIRE STATION AND SUPPORT AREAS

OCCUPANCY SEPARATION WALL:  
 SEE ARCHITECTURAL DRAWINGS.

OCCUPANCY:  
 R-2 / S-1

TYPE OF CONSTRUCTION:  
 V-B, FULLY SPRINKLERED

BUILDING HEIGHT:  
 SINGLE STORY

BUILDING AREA:  
 ±14,360 SF

APPLICABLE CODES:  
 2019 ED. OF NFPA-13  
 2018 IFC WITH PHOENIX AMENDMENTS

SPRINKLER COUNT  
 TOTAL NUMBER OF SPRINKLERS  
 THIS PROJECT: 289 SPRINKLERS.  
 REFER TO FP2.0 SHEET FOR  
 SPRINKLER LEGEND.

### PROJECT TEAM

AUTHORITY HAVING JURISDICTION (AHJ):  
 CITY OF PHOENIX FIRE PREVENTION  
 602.262.6771

ARCHITECT:  
 PERLMAN ARCHITECTS OF ARIZONA  
 2929 N. CENTRAL AVE., SUITE 1600  
 PHOENIX, AZ 85012  
 480.951.5900

CIVIL ENGINEER:  
 DIBBLE  
 1626 N. LITCHFIELD ROAD, SUITE 150  
 GOODYEAR, AZ 85395  
 602.251.7105

MECHANICAL & PLUMBING ENGINEER:  
 ASSOCIATED MECHANICAL ENGINEERS  
 1121 W. WARNER ROAD, SUITE 107  
 TEMPE, AZ 85284  
 480.966.3996

ELECTRICAL ENGINEER:  
 AKRIBIS ENGINEERING L.L.C.  
 3231 S. COUNTRY CLUB WAY, SUITE 102  
 TEMPE, AZ 85282  
 602.393.0201

STRUCTURAL ENGINEER:  
 SIMPLY STRUCTURAL  
 730 N. 52ND STREET, SUITE 105  
 PHOENIX, AZ 85008  
 602.443.0303

### SHEET INDEX

- FP1.0 FIRE PROTECTION COVER SHEET
- FP1.1 FIRE LINE REFERENCE PLAN
- FP2.0 FIRE PROTECTION PIPING PLAN
- FP3.0 FIRE PROTECTION REFLECTED CEILING PLAN
- FP4.0 FIRE PROTECTION SECTION & DETAILS

Revisions	Date



Associated Mechanical Engineers, PLLC  
 1121 W. Warner Rd., Suite 107  
 Tempe, AZ 85284

Designed By:  
**JLE/CIR**

Drawn By:  
**CIR/ATG**

Checked By:  
**JLE/GJJ**

Date:  
**12/13/2023**

Phase:  
**100% CD**

**Perlman**  
 Architects of Arizona  
 2929 North Central Avenue, Suite # 1600  
 Phoenix, Arizona 85012  
 480.951.5900  
 perlmanaz.com

**FIRE STATION #74**  
**NWC 19TH AVE. & CHANDLER**  
**PHOENIX, ARIZONA 85045**  
 Index No.: **FD57100020-3**

EJE# 23250  
 JOHN L. ECHEVERRI, SET, CFPSS  
 DATE: 12.13.2023  
 THESE CONSTRUCTION DOCUMENTS AND ASSOCIATED HYDRAULIC CALCULATIONS (WHERE SUBMITTED) HAVE BEEN PREPARED BY:  
 JOHN L. ECHEVERRI, SET, CFPSS  
 NICET CERTIFICATION NUMBER 78493  
 LEVEL IV AUTOMATIC SPRINKLER SYSTEMS  
 LEVEL III SPECIAL HAZARDS  
 NFPA CERTIFICATION NUMBER 1915  
 CERTIFIED FIRE PROTECTION SPECIALIST  
 THIS ENGINEERED SYSTEM IS THE SOLE PROPERTY OF EJ ENGINEERING GROUP, INC.

KIVA # \_\_\_\_\_  
 SDEV # \_\_\_\_\_

**FIRE PROTECTION COVER SHEET**  
**FP1.0**

E-J  
Engineering  
Group

E-J  
Flow  
Tests

EJ2  
Construction  
Group

EJ Engineering Group, Inc - Fire Protection Consulting Engineers  
 EJ2 Construction Group, LLC - Licensed FP Contractors - ROC271705 AZ C-16  
 EJ Flow Test, LLC - Water Supply and Flow Testing Professionals  
 21505 N. 78th Ave. • Suite 130 • Peoria, AZ 85382 • 623.362.1400 • www.ejengineering.com

Note:  
 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 your contract with the City of Phoenix.

CITY OF PHOENIX OFFICE OF THE CITY ENGINEER FIRE DEPARTMENT STATION 74 - PERMIT CITY SUBMITTAL

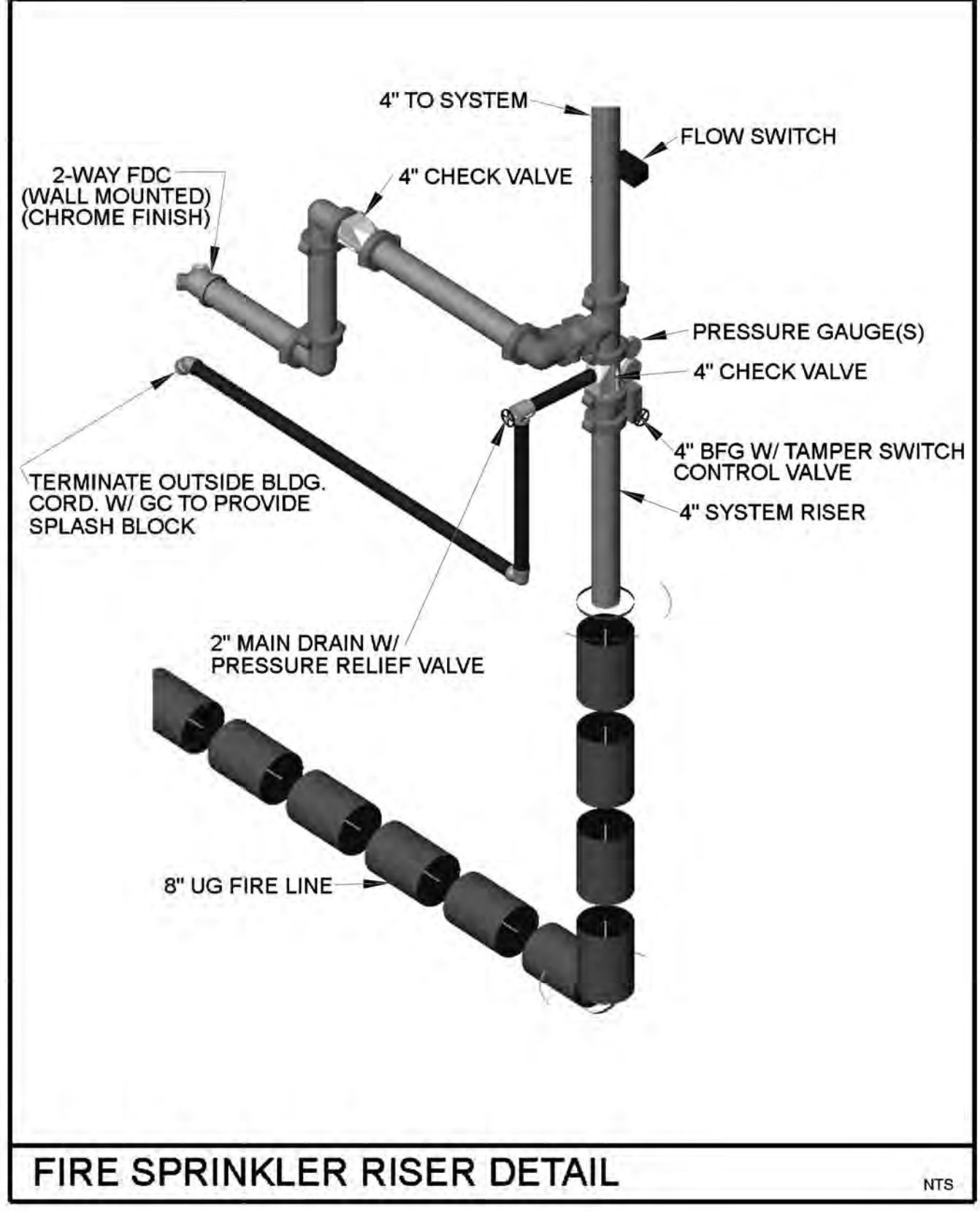


Location:	1900 W CHANDLER BLVD	011-24
Project #:	2300023	
Requested By:	KGGY	Request Date: 09/22/2023
Phone:	E-MAIL	
Test Type:	2.5" Std. 4" Std. COMPLEX	
Classifiers:	2.5" Std. 4" Std.	
TIME	7:40 AM	Test Date: 03/04/2024

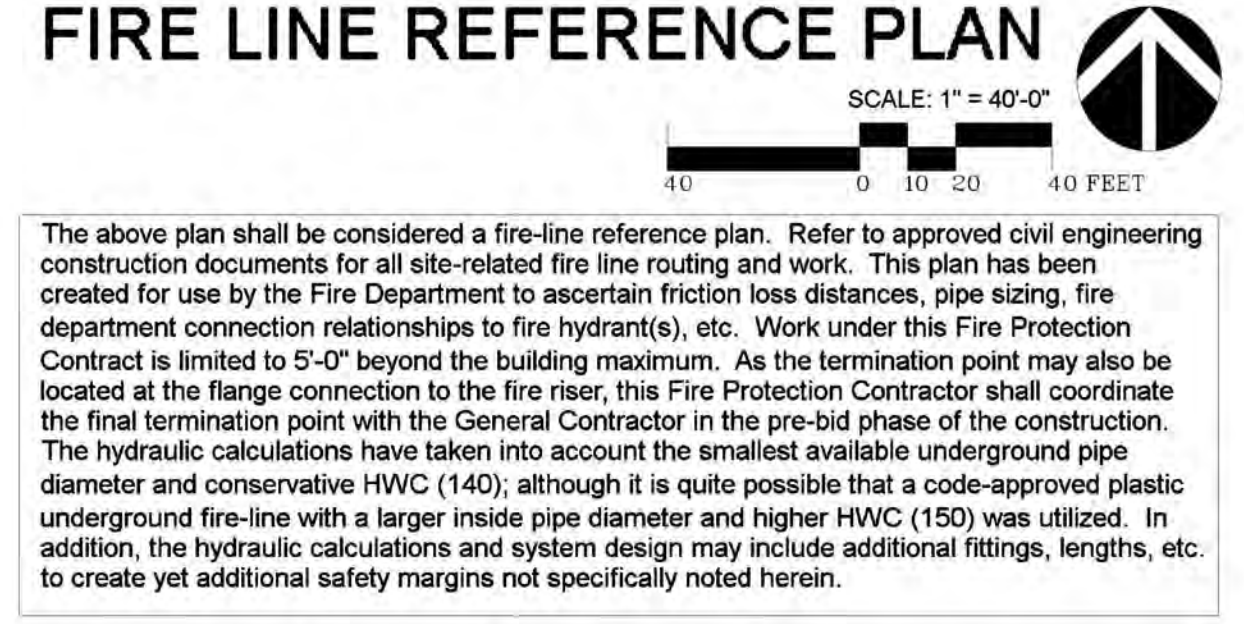
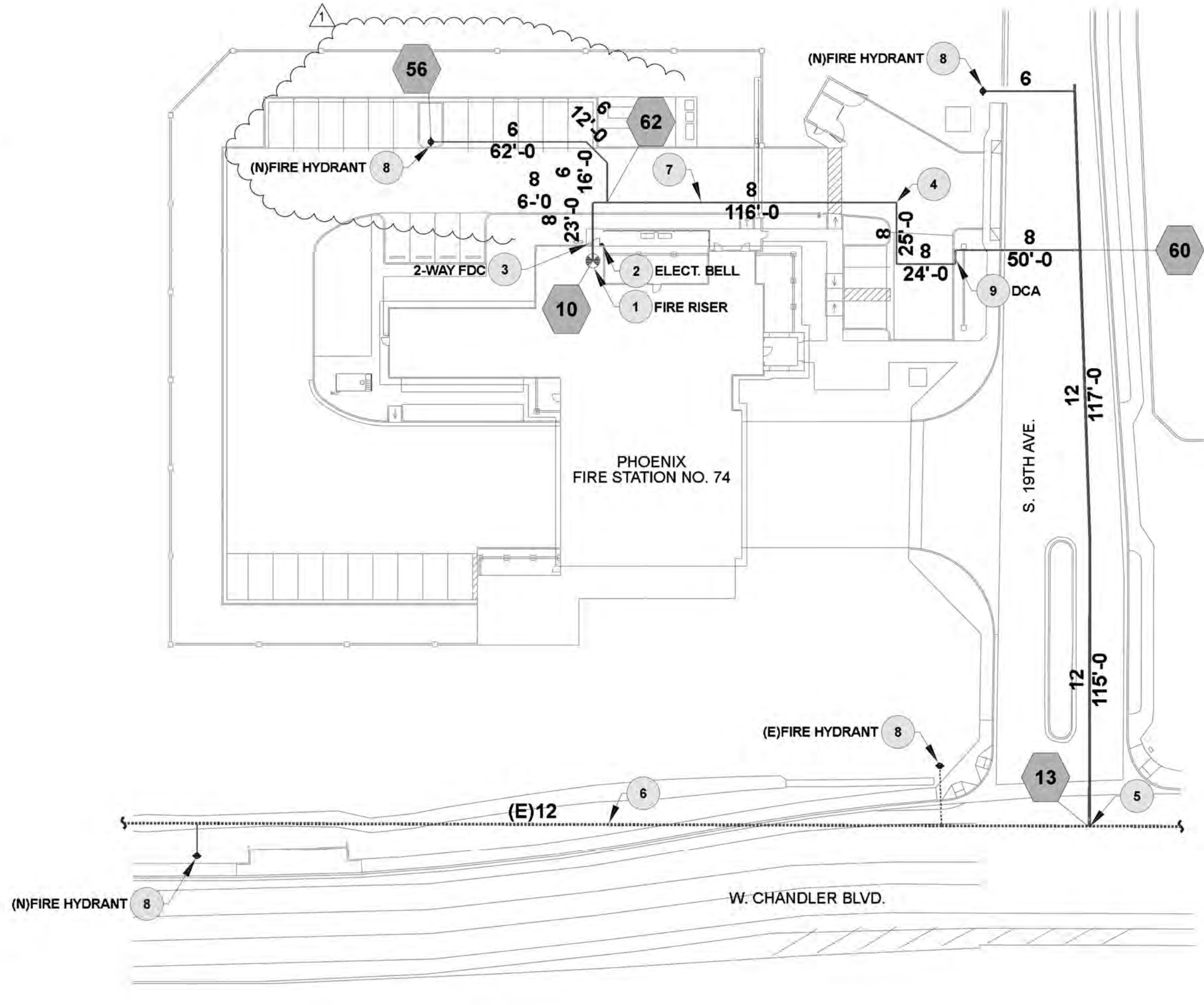
Hydrant (Designation)	Hydrant Number	Flow Control (2.5" or 4")	Static Pressure (psi)	Residual Pressure (psi)	Flow (gpm)
Pressure R					
Flow F1					2495
Flow F2					
Flow F3					
Flow F4					

Notes:   
 \*Pressure Drop is 13.9%   
 Total Flow: 2495   
 Theoretical calculation of expected flow or rated capacities are based on sufficient discharge to cause a drop in pressure of the residual hydrant of at least 20%.   
 Calculated flow values will not appear if a 25% pressure drop between static and residual pressure is not reached. If additional volume is required, a complex 4-inch port fire flow test may be needed.



- NOTES
- FIRE SPRINKLER SYSTEM TO BE MONITORED BY A U.L. OR F.M. LISTED CENTRAL STATION FOR FLOW, TAMPERS AND TROUBLE.
  - INSTALL DESIGN PLACARD ON EACH RISER PER NFPA-13.
  - ALL VALVES SHALL BE A MAX. OF 7'-0" A.F.F.
  - WHERE REQUIRED BY A.H.J., PROVIDE MEANS DOWNSTREAM OF ALL BACKFLOW PREVENTION VALVES TO ACCOMMODATE FLOW TESTS AT SYSTEM DEMAND. IF ACCEPTABLE BY AHJ, FDC CAN BE UTILIZED.
  - PROVIDE SPARE SPRINKLER BOX (QUANT. PER NFPA-13) AND AS-BUILT CABINET.
  - PROVIDE FLEXIBLE COUPLINGS AND BRACING FOR THE FIRE RISER AS REQUIRED IN NFPA-13.

- SITE PLAN KEYNOTES
- FIRE RISER, REFER TO FIRE RISER DETAIL FOR ADDITIONAL INFORMATION. REFER TO FP2.0 AND HYDRAULIC CALCULATIONS FOR SIZING.
  - EXTERIOR ELECTRIC BELL WITH WIRE GUARD (WIRED BY ELECT. CONTR.), COORDINATE FINAL LOCATION w/ AHJ. FP CONTR. TO PROVIDE.
  - WALL MOUNTED CHROME FINISH 2-WAY FIRE DEPT. CONNECTION WITH 4-INCH CHECK VALVE & 1/2" AUTO. DRIP VALVE. SEE CIVIL DRAWINGS FOR ADDL INFO. THREADS PER LOCAL FD. COORDINATE AFF HEIGHT WITH AHJ.
  - THRUST BLOCK (PER NFPA), (TYP.) REFER TO CIVIL DRAWINGS.
  - NEW CONNECTION TO EXISTING WATER MAIN BY UTILITY CONTR. REFER TO CIVIL DRAWINGS.
  - EXISTING WATER MAIN. REFER TO CIVIL DRAWINGS.
  - 8-INCH D.I.P. CL 350 FIRE LINE. MIN. BURY DEPTH PER CIVIL PLANS. HYDRAULIC CALCULATIONS ACCOUNT FOR AN INSIDE PIPE DIA. OF 8.55-INCHES. ANY MATERIAL UTILIZED WITH A SMALLER INSIDE PIPE DIAMETER SHALL BE REVIEWED BY E.O.R. VIA RFI.
  - FIRE HYDRANT, SEE CIVIL PLANS FOR ADDL INFO.
  - 8-INCH DOUBLE CHECK VALVE ASSEMBLY BACKFLOW PREVENTER. REFER TO CIVIL PLANS FOR ADDL INFO.



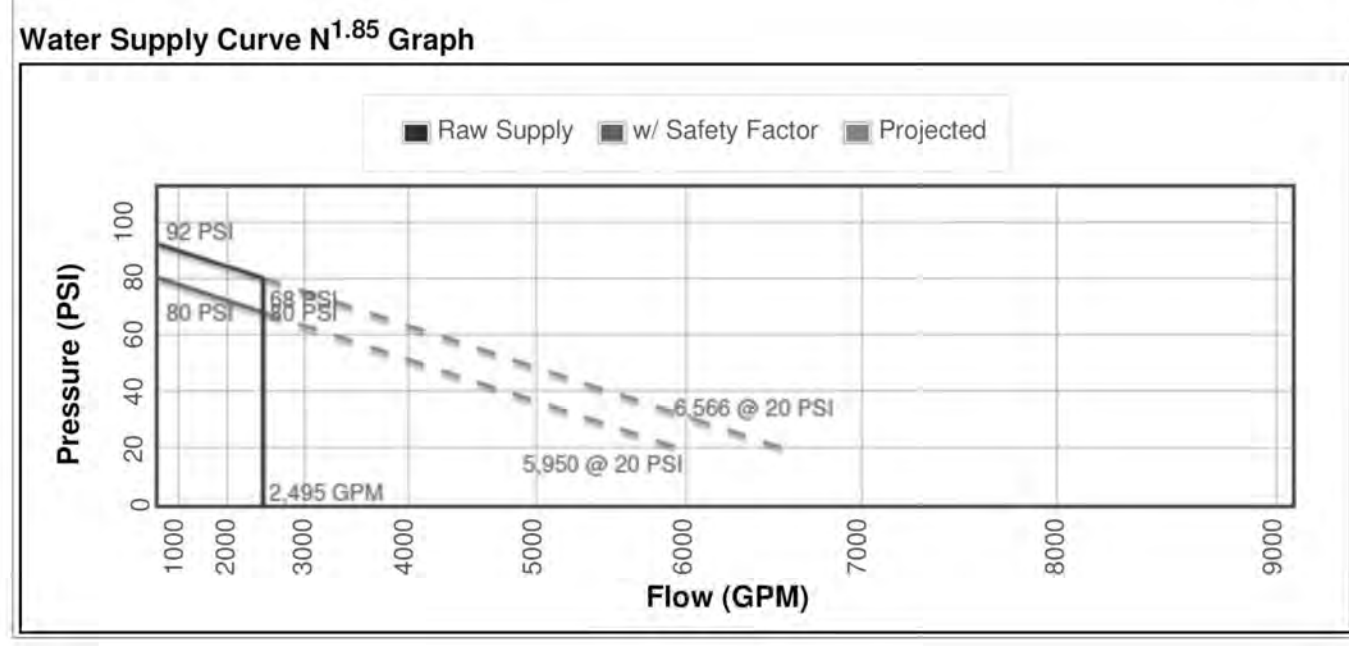
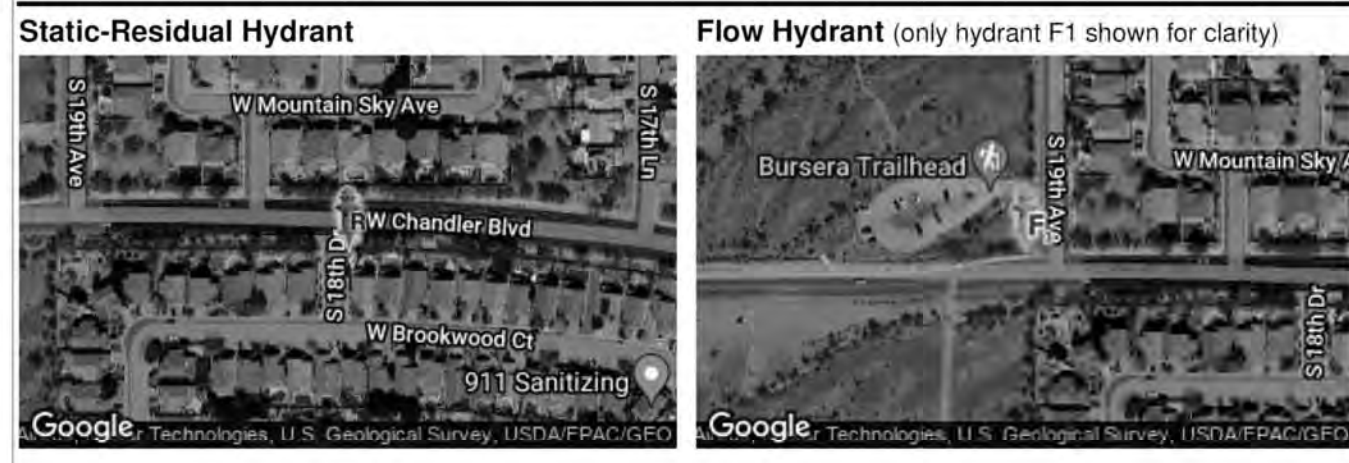
# E·J Flow Test Summary

Project Name: EJE 23250 - Phoenix FS #74  
 Project Address: 1900 W Chandler Blvd, Phoenix, AZ 85045  
 Date of Flow Test: 2023-05-04  
 Time of Flow Test: 7:40 AM  
 Data Reliable Until: 2024-05-04  
 Conducted By: COP Water Services Department (602.262.5077)  
 City Forces Contacted: COP Water Services Department (602.262.5077)  
 Permit Number: WSFT 23008035

Raw Flow Test Data	Data with a 12 PSI Safety Factor
Static Pressure: 92.0 PSI	Static Pressure: 80.0 PSI
Residual Pressure: 80.0 PSI	Residual Pressure: 68.0 PSI
Flowing GPM: 2,495	Flowing GPM: 2,495
GPM @ 20 PSI: 6,566	GPM @ 20 PSI: 5,950

Hydrant F1  
 Pilot Pressure (1): 45 PSI  
 Coefficient of Discharge (1): 1.34  
 Hydrant Orifice Diameter (1): 3.05 inches

The maximum design static pressure in the City of Phoenix shall be 80 PSI for sprinkler systems.  
 Note: A Big Boy Hose-Monster was utilized during the flow test.



Revisions	Date
CITY COMMENTS	3/10/24



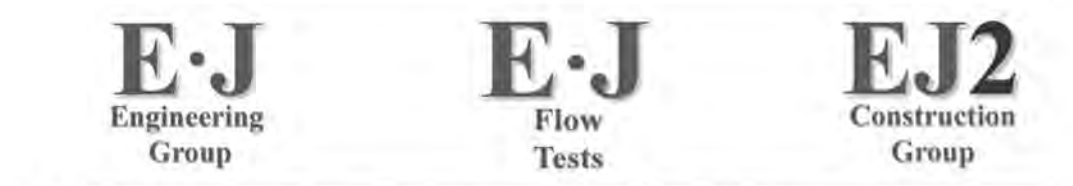
Associated Mechanical Engineers, PLLC  
 1121 W. Warner Rd., Suite 107  
 Tempe, AZ 85284

Designed By: JLE/CIR  
 Drawn By: CIR/ATG  
 Checked By: JLE/GJJ  
 Date: 03/06/2024  
 Phase: PERMIT

**Perlman**  
 Architects of Arizona  
 2929 North Central Avenue, Suite # 1600  
 Phoenix, Arizona 85012  
 480.951.5900 480.951.3045 f  
 perlmanaz.com

Title: FIRE STATION #74  
 1910 W. CHANDLER BLVD.  
 PHOENIX, ARIZONA 85045  
 Index No: FD57100020-3

EJE# 23250  
 JOHN L. ECHEVERRI, SET, CPFS DATE 03.06.2024  
 THESE CONSTRUCTION DOCUMENTS AND ASSOCIATED HYDRAULIC CALCULATIONS (WHERE SUBMITTED) HAVE BEEN PREPARED BY:  
 JOHN L. ECHEVERRI, SET, CPFS  
 NICET CERTIFICATION NUMBER 78493  
 LEVEL IV AUTOMATIC SPRINKLER SYSTEMS  
 LEVEL III SPECIAL HAZARDS  
 NFPA CERTIFICATION NUMBER 1915  
 CERTIFIED FIRE PROTECTION SPECIALIST  
 THIS ENGINEERED SYSTEM IS THE SOLE PROPERTY OF E·J ENGINEERING GROUP, INC.



EJ Engineering Group, Inc - Fire Protection Consulting Engineers  
 EJ2 Construction Group, LLC - Licensed FP Contractors - ROC271705 AZ C-16  
 EJ Flow Test, LLC - Water Supply and Flow Testing Professionals  
 21505 N. 78th Ave. • Suite 130 • Peoria, AZ 85382 • 623.362.1400 • www.ejengineering.com

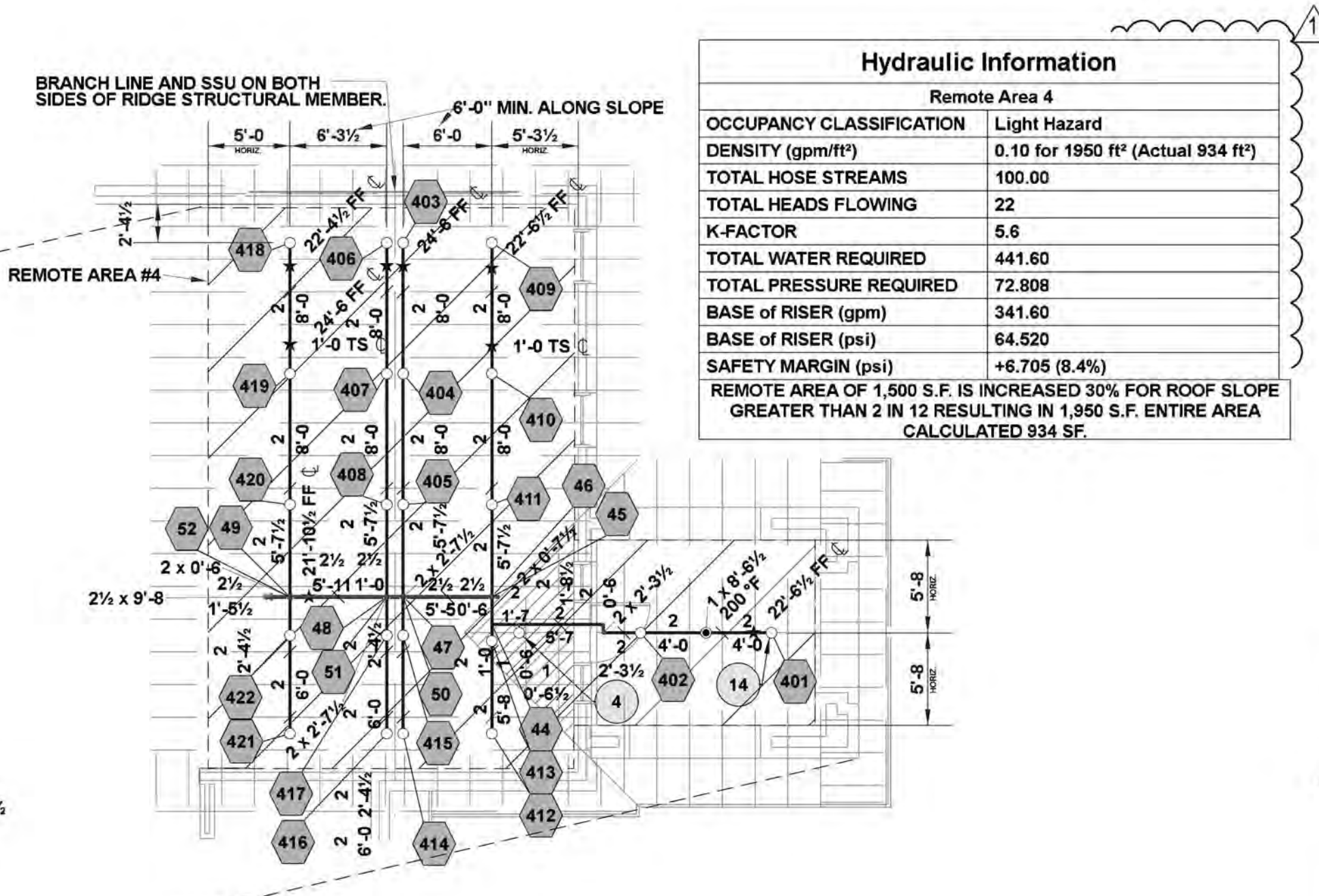
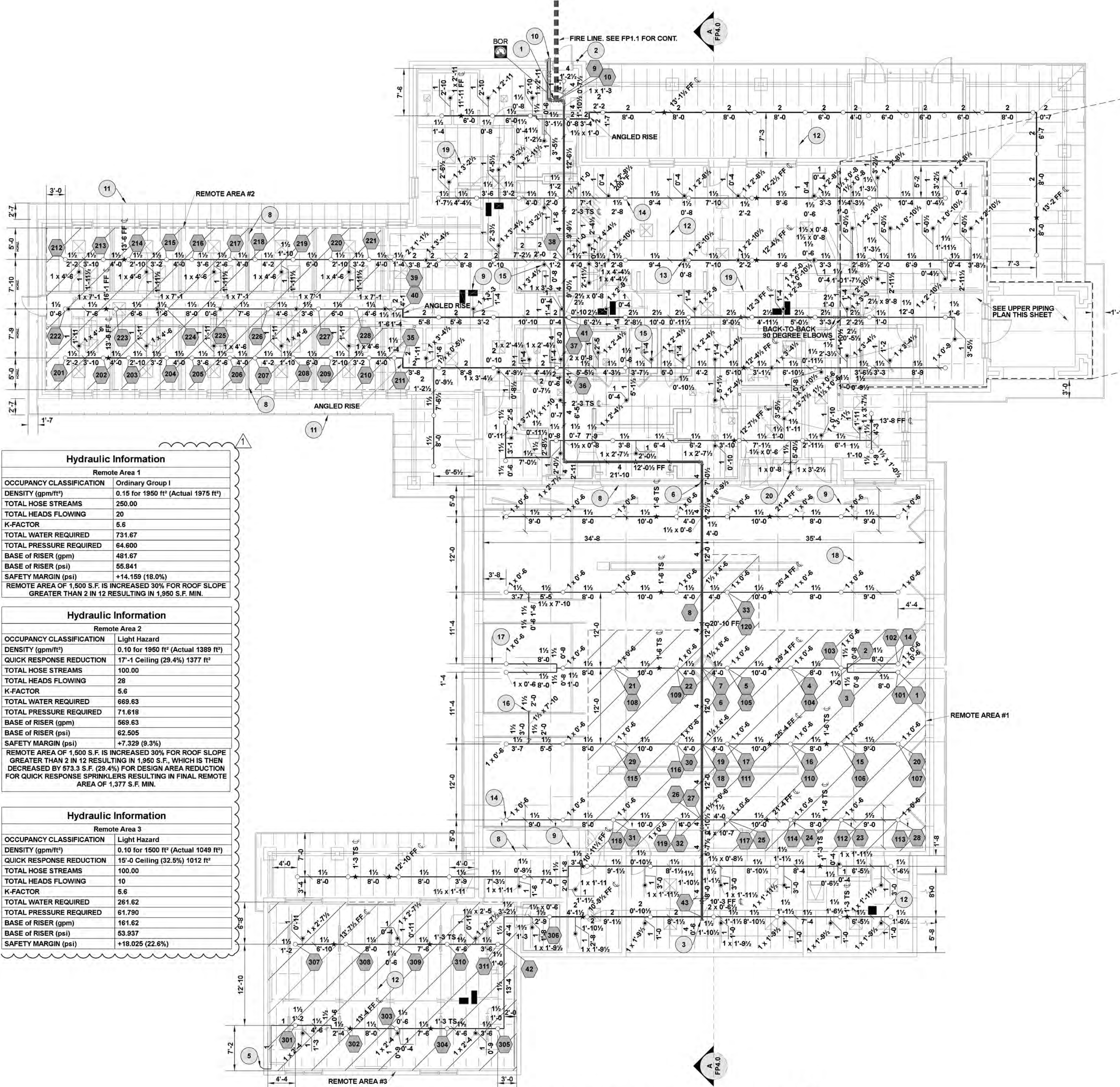
Note:  
 Per City of Phoenix City Code Chapter 2, section 2-28, these plans are for official use only and may not be shared with others except as required to fulfill the obligations of your contract with the City of Phoenix.

KIVA # 23-1810  
 SDEV # 2300473

FIRE LINE REFERENCE PLAN  
 FP1.1

CITY OF PHOENIX OFFICE OF THE CITY ENGINEER FIRE DEPARTMENT STATION 74 - PERMIT CITY SUBMITTAL





Hydraulic Information	
Remote Area 4	
OCCUPANCY CLASSIFICATION	Light Hazard
DENSITY (gpm/ft²)	0.10 for 1950 ft² (Actual 934 ft²)
TOTAL HOSE STREAMS	100.00
TOTAL HEADS FLOWING	22
K-FACTOR	5.6
TOTAL WATER REQUIRED	441.60
TOTAL PRESSURE REQUIRED	72.808
BASE OF RISER (gpm)	341.60
BASE OF RISER (psi)	64.520
SAFETY MARGIN (psi)	+6.705 (8.4%)
REMOTE AREA OF 1,500 S.F. IS INCREASED 30% FOR ROOF SLOPE GREATER THAN 2 IN 12 RESULTING IN 1,950 S.F. ENTIRE AREA CALCULATED 934 SF.	

Hydraulic Information	
Remote Area 1	
OCCUPANCY CLASSIFICATION	Ordinary Group I
DENSITY (gpm/ft²)	0.15 for 1950 ft² (Actual 1975 ft²)
TOTAL HOSE STREAMS	250.00
TOTAL HEADS FLOWING	20
K-FACTOR	5.6
TOTAL WATER REQUIRED	731.67
TOTAL PRESSURE REQUIRED	64.600
BASE OF RISER (gpm)	481.67
BASE OF RISER (psi)	55.841
SAFETY MARGIN (psi)	+14.159 (18.0%)
REMOTE AREA OF 1,500 S.F. IS INCREASED 30% FOR ROOF SLOPE GREATER THAN 2 IN 12 RESULTING IN 1,950 S.F. MIN.	

Hydraulic Information	
Remote Area 2	
OCCUPANCY CLASSIFICATION	Light Hazard
DENSITY (gpm/ft²)	0.10 for 1500 ft² (Actual 1389 ft²)
QUICK RESPONSE REDUCTION	17'-1 Ceiling (29.4%) 1377 ft²
TOTAL HOSE STREAMS	100.00
TOTAL HEADS FLOWING	28
K-FACTOR	5.6
TOTAL WATER REQUIRED	669.63
TOTAL PRESSURE REQUIRED	71.618
BASE OF RISER (gpm)	569.63
BASE OF RISER (psi)	62.505
SAFETY MARGIN (psi)	+7.329 (9.3%)
REMOTE AREA OF 1,500 S.F. IS INCREASED 30% FOR ROOF SLOPE GREATER THAN 2 IN 12 RESULTING IN 1,950 S.F., WHICH IS THEN DECREASED BY 573.3 S.F. (29.4%) FOR DESIGN AREA REDUCTION FOR QUICK RESPONSE SPRINKLERS RESULTING IN FINAL REMOTE AREA OF 1,377 S.F. MIN.	

Hydraulic Information	
Remote Area 3	
OCCUPANCY CLASSIFICATION	Light Hazard
DENSITY (gpm/ft²)	0.10 for 1500 ft² (Actual 1049 ft²)
QUICK RESPONSE REDUCTION	15'-0 Ceiling (32.5%) 1012 ft²
TOTAL HOSE STREAMS	100.00
TOTAL HEADS FLOWING	10
K-FACTOR	5.6
TOTAL WATER REQUIRED	261.62
TOTAL PRESSURE REQUIRED	61.790
BASE OF RISER (gpm)	161.62
BASE OF RISER (psi)	53.937
SAFETY MARGIN (psi)	+18.025 (22.6%)

**FIRE PROTECTION UPPER PIPING PLAN**  
SCALE: 1/8" = 1'-0"  
8 0 2 4 8 FEET

- NOTE: NOT ALL KEYNOTES UTILIZED HEREIN. REFER TO OTHER SHEETS.
- FIRE PROTECTION KEYNOTES**
- 4-INCH FIRE RISER, REFER TO FIRE RISER DETAIL AND HYDRAULIC CALCULATIONS FOR ADDITIONAL INFORMATION.
  - EXTERIOR ELECTRIC BELL WITH WIRE GUARD (WIRED BY ELECTRICAL CONTR. PROVIDED BY FIRE ALARM CONTR.)
  - PROVIDE 3/4" THREADED & CAPPED OUTLET FOR AUX. DRAINAGE OF THIS PORTION OF THE SYSTEM.
  - ADDITIONAL UPRIGHT SPKR SHOWN HEREIN FOR STRUCTURAL OVERFRAMING, GC AND FP CONTR. TO FIELD COORD.
  - 1-INCH INSPECTOR'S TEST / AUX. DRAIN. LOCATE ON MOST REMOTE PORTION OF SYSTEM. PROVIDE WITH 1/2-INCH ORIFICE TERMINATING OUTSIDE BUILDING 6-INCHES ABOVE FINISHED GRADE. LOCATED CONCEALED BEHIND LABELED 8-INCH X 8-INCH ACCESS PANEL. PROVIDE SIGHT GLASS WHERE DISCHARGE IS NOT VISIBLE.
  - PIPE SLEEVE WITH CAULKING, COMMENSURATE WITH BUILDING CONSTRUCTION. PROVIDE ADEQUATE CLEAR SPACE PER NFPA-13. (TYP)
  - NFPA-13 SMALL ROOM RULE IN EFFECT. TYPICAL WHERE SHOWN. SPRINKLERS PERMITTED NOT MORE THAN 9-FEET FROM ANY SINGLE WALL.
  - FULL HEIGHT WALL, SPACE A.S. TO THIS VERTICAL OBSTRUCTION AS INDICATED HEREIN.
  - HVAC EQUIPMENT COORDINATED WITH THIS A.S. LAYOUT.
  - WALL MOUNTED CHROME 2-WAY FDC.
  - COMBUSTIBLE OVERHANG LESS THAN 4-FEET. NO A.S. REQUIRED. NO STORAGE BELOW.
  - WOOD " JOISTS. LOCATE UPRIGHT SPRINKLER DEFLECTOR 1-INCH OF HORIZONTAL PLANE OF THE BOTTOM WOOD FLANGE. MAXIMUM DISTANCE FROM DEFLECTOR TO ROOF DECK/INSULATION SHALL BE 22-INCHES. (TYP.)
  - QUICK RESPONSE PENDENT SPRINKLER. REFER TO SPRINKLER SCHEDULE FOR ADDL INFO. (TYP.)
  - QUICK RESPONSE UPRIGHT SPRINKLER. REFER TO SPRINKLER SCHEDULE FOR ADDL INFO. (TYP.)
  - QUICK RESPONSE PENDENT, WITH POLY COAT / CORR. RESISTANT AT ALL SHOWERS & AREAS NOTED IN THE FP SPECS. SPRINKLER AND ESCUTCHEON FINISH TO BE WHITE. COORD. W/ ARCH. (TYP.)
  - STANDARD COVERAGE, QUICK RESPONSE, HORIZONTAL SIDEWALL SPRINKLER. SEE SPRINKLER SCHEDULE FOR ADDL INFO. (TYP.). FIELD COORD. FINAL LOCATION WITH OVERHEAD DOOR BASED ON MAXIMUM OPENING DISTANCE. PROVIDE AUX. DRAIN AT DROP.
  - 1/2" CONNECTION AT SYSTEM HIGH POINT FOR AUTOMATIC AIR RELEASE VALVE. ROUTE DISCHARGE TO OUTSIDE.
  - STEEL TRUSS. REFER TO STRUCTURAL DWGS. FOR ADDITIONAL INFORMATION.
  - WOOD BEAM. REFER TO STRUCTURAL DWGS. FOR ADDITIONAL INFORMATION.
  - UP-OVER-DOWN, UPRIGHT AND PENDENT COMBINATION. LOCATE UPRIGHT WITHIN 1' OF BOTTOM OF INSULATION.

Sprinkler Legend											
Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Type	Size	Response	Finish	Temperature	Note
○	Tyco	TY3131	TY-FRB	191	5.6	Upright	1/2"	Quick	Natural Brass	200 °F	
◐	Tyco	TY3331	TY-FRB	3	5.6	Horizontal Sidewall	1/2"	Quick	Chrome	200 °F	
◑	Tyco	TY3231	TY-FRB	93	5.6	Pendent	1/2"	Quick	Chrome	175 °F	
●	Tyco	TY3231	TY-FRB	2	5.6	Pendent	1/2"	Quick	Chrome	200 °F	
				<b>Total = 289</b>							

NOTE: VERIFY ALL SPRINKLER QUANTITIES PRIOR TO COMMENCEMENT OF WORK. VERIFY SPRINKLER SPACING TO STRUCTURAL MEMBERS, ROOFLINE AND OTHER OBSTRUCTIONS. PROVIDE ADDITIONAL SPRINKLERS, OR RE-SPACE SPRINKLERS, WHERE REQUIRED TO AVOID SUCH UNFORESEEN OBSTRUCTIONS TO SPRINKLER DISCHARGE PATTERN PER NFPA-13. PROVIDE STANDARD ESCUTCHEONS AS REQUIRED TO AVOID OBSTRUCTIONS SUCH AS SURFACE MOUNTED LIGHTS PER NFPA-13.

ALL BRANCH LINE PIPING, 1" DROPS AND ARMORERS TO BE SCHEDULE 40 OR EQUIV.  
ALL CROSS MAIN, BULK AND RISER PIPING TO BE SCHEDULE 10 OR EQUIV.

**FIRE PROTECTION PIPING PLAN**  
SCALE: 1/8" = 1'-0"  
8 0 2 4 8 FEET



EJ Engineering Group, Inc - Fire Protection Consulting Engineers  
EJ2 Construction Group, LLC - Licensed FP Contractors - ROC271705 AZ C-16  
EJ Flow Test, LLC - Water Supply and Flow Testing Professionals  
21505 N. 78th Ave., Suite 130 • Peoria, AZ 85382 • 623.362.1400 • www.ejengineering.com

EJE# 23250  
DATE: 03.06.2024  
JOHN L. ECHEVERRI, SET, CPFS  
THESE CONSTRUCTION DOCUMENTS AND ASSOCIATED HYDRAULIC CALCULATIONS (WHERE SUBMITTED) HAVE BEEN PREPARED BY:  
JOHN L. ECHEVERRI, SET, CPFS  
NICET CERTIFICATION NUMBER 78493  
LEVEL IV AUTOMATIC SPRINKLER SYSTEMS  
LEVEL III SPECIAL HAZARDS  
NFPA CERTIFICATION NUMBER 1915  
CERTIFIED FIRE PROTECTION SPECIALIST  
THIS ENGINEERED SYSTEM IS THE SOLE PROPERTY OF E-J ENGINEERING GROUP, INC.

Note:  
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 your contract with the City of Phoenix.

Revisions	Date
1	3/10/24
CITY COMMENTS	



Associated Mechanical Engineers, PLLC  
1121 W. Warner Rd., Suite 107  
Tempe, AZ 85284

Designed By: JLE/CIR  
Drawn By: CIR/ATG  
Checked By: JLE/GJJ  
Date: 03/06/2024  
Phase: PERMIT

**Perlman**  
Architects of Arizona  
2929 North Central Avenue, Suite # 1000  
Phoenix, Arizona 85012  
480.951.5900  
perlmanaz.com

Title: **FIRE STATION #74**  
**1910 W. CHANDLER BLVD.**  
**PHOENIX, ARIZONA 85045**  
Index No: **FD57100020-3**

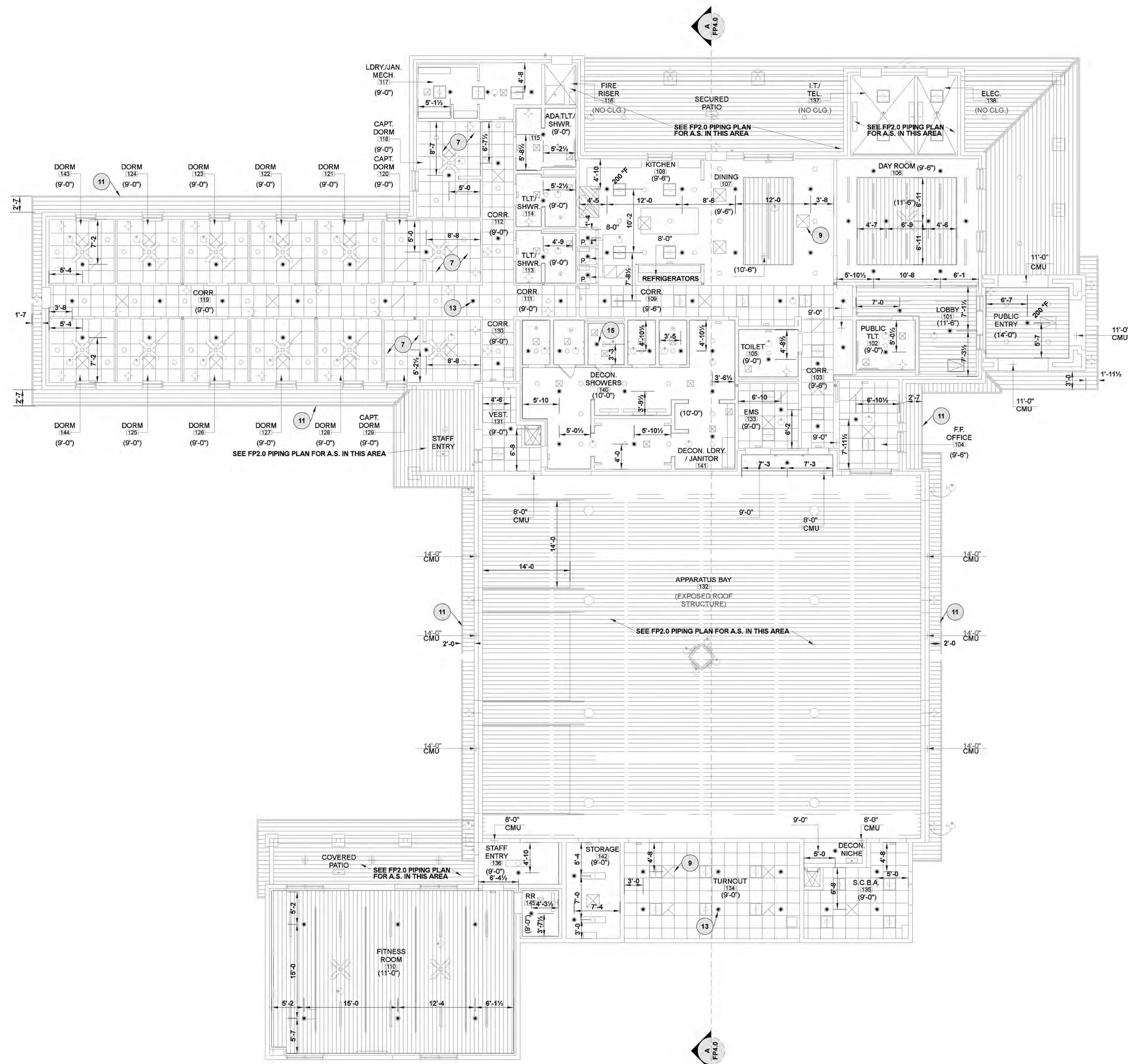
OFFICE OF THE CITY ENGINEER  
CITY OF PHOENIX

KIVA # 23-1810  
SDEV # 2300473

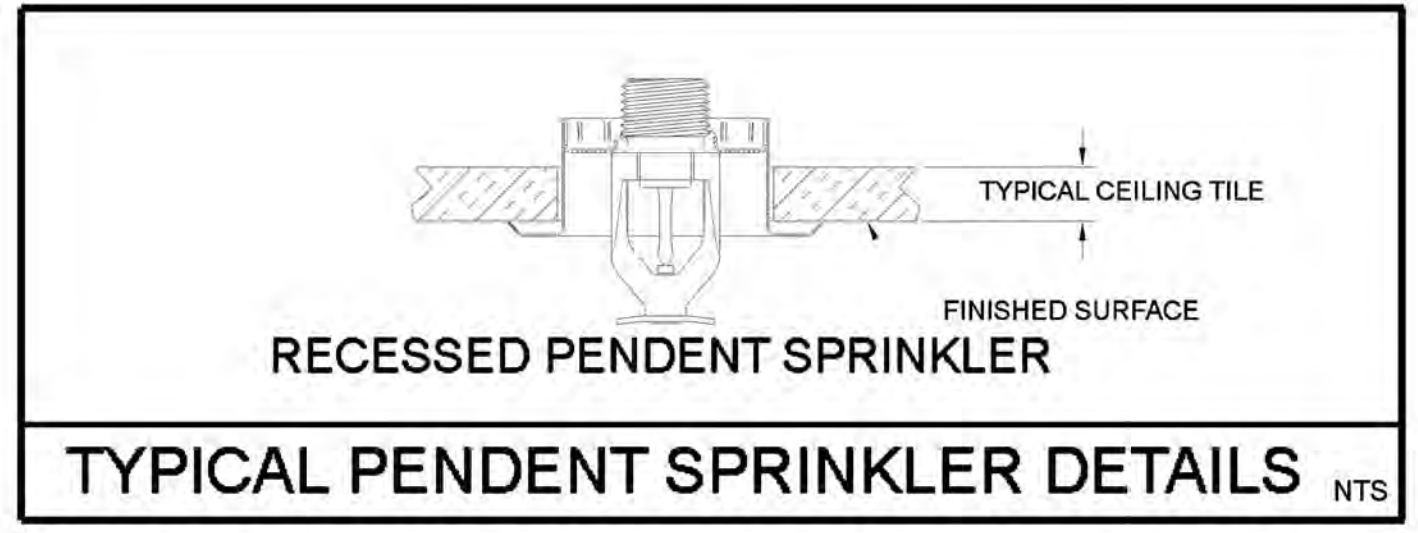
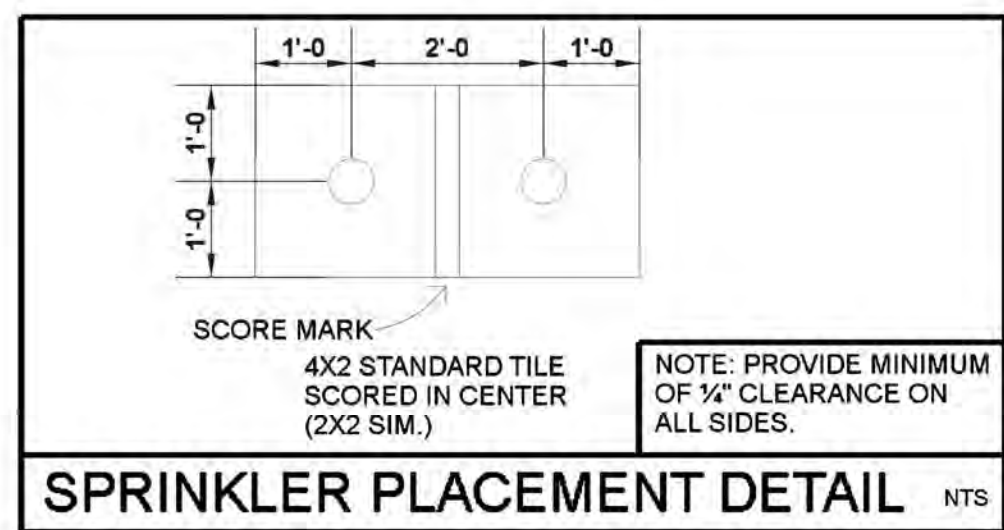
**FIRE PROTECTION PIPING PLAN**  
**FP2.0**

FIRE DEPARTMENT STATION 74 - PERMIT CITY SUBMITTAL





- NOTE: NOT ALL KEYNOTES UTILIZED HEREIN. REFER TO OTHER SHEETS.
- ### FIRE PROTECTION KEYNOTES
- 4-INCH FIRE RISER, REFER TO FIRE RISER DETAIL AND HYDRAULIC CALCULATIONS FOR ADDITIONAL INFORMATION.
  - EXTERIOR ELECTRIC BELL WITH WIRE GUARD (WIRED BY ELECTRICAL CONTR. PROVIDED BY FIRE ALARM CONTR.)
  - PROVIDE 3/4" THREADED & CAPPED OUTLET FOR AUX. DRAINAGE OF THIS PORTION OF THE SYSTEM.
  - ADDITIONAL UPRIGHT SPKR SHOWN HEREIN FOR STRUCTURAL OVERFRAMING. GC AND FP CONTR. TO FIELD COORD.
  - 1-INCH INSPECTOR'S TEST / AUX. DRAIN. LOCATE ON MOST REMOTE PORTION OF SYSTEM. PROVIDE WITH 1/2-INCH CRIFICE TERMINATING OUTSIDE BUILDING 6-INCHES ABOVE FINISHED GRADE. LOCATED CONCEALED BEHIND LABELED 8-INCH X 8-INCH ACCESS PANEL. PROVIDE SIGHT GLASS WHERE DISCHARGE IS NOT VISIBLE.
  - PIPE SLEEVE WITH CAULKING. COMMENSURATE WITH BUILDING CONSTRUCTION. PROVIDE ADEQUATE CLEAR SPACE PER NFPA-13. (TYP)
  - NFPA-13 SMALL ROOM RULE IN EFFECT. TYPICAL WHERE SHOWN. SPRINKLERS PERMITTED NOT MORE THAN 9-FEET FROM ANY SINGLE WALL.
  - FULL HEIGHT WALL. SPACE A.S. TO THIS VERTICAL OBSTRUCTION AS INDICATED HEREIN.
  - HVAC EQUIPMENT COORDINATED WITH THIS A.S. LAYOUT.
  - WALL MOUNTED CHROME 2-WAY FDC.
  - COMBUSTIBLE OVERHANG LESS THAN 4-FEET. NO A.S. REQUIRED. NO STORAGE BELOW.
  - WOOD "I" JOISTS. LOCATE UPRIGHT SPRINKLER DEFLECTOR 1-INCH OF HORIZONTAL PLANE OF THE BOTTOM WOOD FLANGE. MAXIMUM DISTANCE FROM DEFLECTOR TO ROOF DECK/INSULATION SHALL BE 22-INCHES. (TYP)
  - QUICK RESPONSE PENDENT SPRINKLER. REFER TO SPRINKLER SCHEDULE FOR ADD'L INFO. (TYP).
  - QUICK RESPONSE UPRIGHT SPRINKLER. REFER TO SPRINKLER SCHEDULE FOR ADD'L INFO. (TYP).
  - QUICK RESPONSE PENDENT, WITH POLY COAT / CORR. RESISTANT AT ALL SHOWERS & AREAS NOTED IN THE FP SPECS. SPRINKLER AND ESCUTCHEON FINISH TO BE WHITE. COORD. W/ ARCH. (TYP)
  - STANDARD COVERAGE, QUICK RESPONSE, HORIZONTAL SIDEWALL SPRINKLER. SEE SPRINKLER SCHEDULE FOR ADD'L INFO. (TYP). FIELD COORD. FINAL LOCATION WITH OVERHEAD DOOR BASED ON MAXIMUM OPENING DISTANCE. PROVIDE AUX. DRAIN AT DROP.
  - 1/2" CONNECTION AT SYSTEM HIGH POINT FOR AUTOMATIC AIR RELEASE VALVE. ROUTE DISCHARGE TO OUTSIDE.
  - STEEL TRUSS. REFER TO STRUCTURAL DWGS. FOR ADDITIONAL INFORMATION.
  - WOOD BEAM. REFER TO STRUCTURAL DWGS. FOR ADDITIONAL INFORMATION.
  - UP-OVER-DOWN, UPRIGHT AND PENDENT COMBINATION. LOCATE UPRIGHT WITHIN 1" OF BOTTOM OF INSULATION.



**FIRE PROTECTION RCP**  
SCALE: 1/8" = 1'-0"

Revisions	Date
CITY COMMENTS	3/10/24



Associated Mechanical Engineers, PLLC  
1121 W. Warner Rd., Suite 107  
Tempe, AZ 85284

Designed By:  
**JLE/CIR**

Drawn By:  
**CIR/ATG**

Checked By:  
**JLE/GJJ**

Date:  
**03/06/2024**

Phase:  
**PERMIT**

**Perلمان**  
Architects of Arizona  
2929 North Central Avenue, Suite # 1600  
Phoenix, Arizona 85012  
480.951.5900 480.951.3045 f  
perلمان.com

Title:  
**FIRE STATION #74**  
**1910 W. CHANDLER BLVD.**  
**PHOENIX, ARIZONA 85045**  
Index No: **FD57100020-3**

EJE# 23250  
**03.06.2024**  
DATE  
JOHN L. ECHEVERRI, SET, CFPS  
DATE  
THESE CONSTRUCTION DOCUMENTS AND ASSOCIATED HYDRAULIC CALCULATIONS (WHERE SUBMITTED) HAVE BEEN PREPARED BY:  
JOHN L. ECHEVERRI, SET, CFPS  
NICET CERTIFICATION NUMBER 78493  
LEVEL IV AUTOMATIC SPRINKLER SYSTEMS  
LEVEL III SPECIAL HAZARDS  
NFPA CERTIFICATION NUMBER 1915  
CERTIFIED FIRE PROTECTION SPECIALIST  
THIS ENGINEERED SYSTEM IS THE SOLE PROPERTY OF E.J. ENGINEERING GROUP, INC.

**E-J** Engineering Group  
**E-J** Flow Tests  
**EJ2** Construction Group

EJ Engineering Group, Inc - Fire Protection Consulting Engineers  
EJ2 Construction Group, LLC - Licensed FP Contractors - ROC271705 AZ C-16  
EJ Flow Test, LLC - Water Supply and Flow Testing Professionals  
21505 N. 78th Ave. • Suite 130 • Peoria, AZ 85382 • 623.362.1400 • www.ejengineering.com

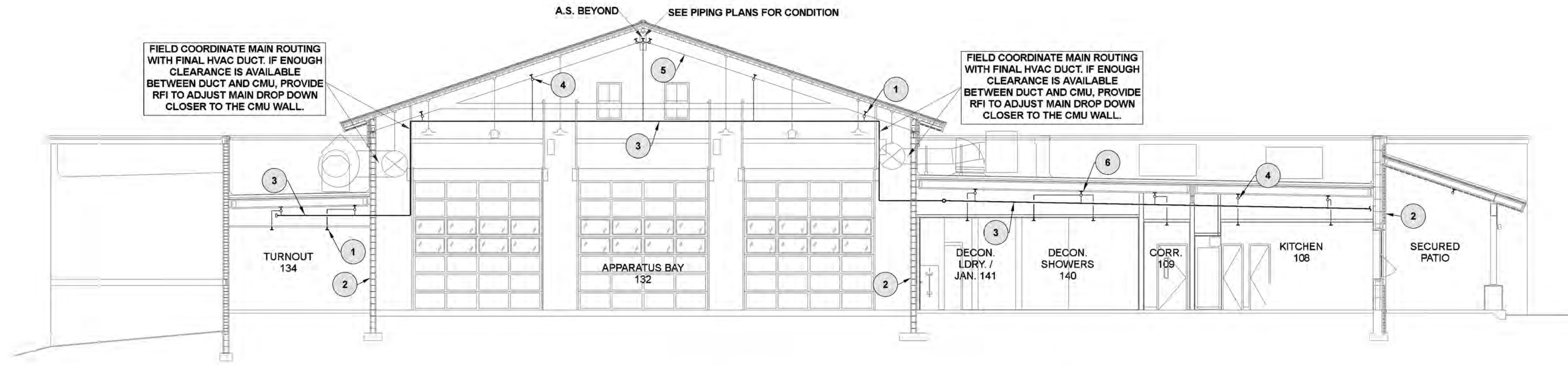
Note:  
Per City of Phoenix City Code Chapter 2, section 2-28, these plans are for official use only and may not be shared with others except as required to fulfill the obligations of your contract with the City of Phoenix.

KIVA # **23-1810**  
SDEV # **2300473**

**FIRE PROTECTION RCP**  
**FP3.0**

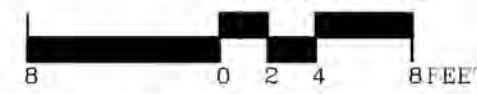
CITY OF PHOENIX OFFICE OF THE CITY ENGINEER FIRE DEPARTMENT STATION 74 - PERMIT CITY SUBMITTAL





### FIRE PROTECTION SECTION A

SCALE: 1/8" = 1'-0"



THE ABOVE SECTION(S) IS/ARE FOR REFERENCE ONLY. REFER TO APPROVED ARCHITECTURAL AND STRUCTURAL PLANS FOR EXACT SIZES, LOCATIONS, AND ALL ADDITIONAL INFORMATION THAT IS NOT SHOWN ON THIS PLAN.

Revisions	Date



Associated Mechanical Engineers, PLLC  
1121 W. Warner Rd., Suite 107  
Tempe, AZ 85284

Designed By: <b>JLE/CIR</b>
Drawn By: <b>CIR/ATG</b>
Checked By: <b>JLE/GJJ</b>
Date: <b>12/13/2023</b>
Phase: <b>100% CD</b>

**Perlman**  
Architects of Arizona  
2929 North Central Avenue, Suite # 1000  
Phoenix, Arizona 85012  
480.951.5900 480.951.3045 f  
perlmanaz.com

**FIRE STATION #74**  
**NWC 19TH AVE. & CHANDLER**  
**PHOENIX, ARIZONA 85045**  
Index No: **FD57100020-3**

**OFFICE OF THE CITY ENGINEER**  
**FIRE DEPARTMENT STATION 74 - PERMIT CITY SUBMITTAL**  
**CITY OF PHOENIX**

#### SECTION MODULUS REQUIRED FOR TRAPEZE MEMBERS

ACTUAL TRAPEZE SPAN	NOMINAL DIA. OF PIPE BEING HUNG	SCHEDULE 10 MODULUS	SCHEDULE 40 MODULUS
6'-0"	2 1/2"	.41	.44
6'-6"	2 1/2"	.44	.48
7'-6"	2 1/2"	.51	.55
6'-0"	3"	.44	.49
6'-6"	3"	.48	.54
7'-6"	3"	.55	.62
6'-0"	4"	.51	.59
6'-6"	4"	.56	.64
7'-6"	4"	.64	.74
6'-0"	6"	.71	.87
6'-6"	6"	.77	0.94
7'-6"	6"	.89	1.08
6'-0"	8"	1.02	1.20
6'-6"	8"	1.11	1.31
7'-6"	8"	1.28	1.51

#### SCHEDULE-40 PIPE SPECIFICATIONS

NPS	NOMINAL I.D.	WT. Lbs/Ft	WT. (H2O FILLED) Lbs/Ft
1"	1.049	1.680	2.055
1 1/4"	1.380	2.270	2.918
1 1/2"	1.610	2.720	3.602
2"	2.067	3.660	5.114

#### SCHEDULE-10 PIPE SPECIFICATIONS

NPS	NOMINAL I.D.	WT. Lbs/Ft	WT. (H2O FILLED) Lbs/Ft
2 1/2"	2.635	3.530	5.893
3"	3.260	4.340	7.957
4"	4.260	5.620	11.796
6"	6.357	9.290	23.038
8"	8.249	16.940	40.086

#### HANGER ROD SIZES

NOMINAL PIPE SIZES	HANGER ROD SIZES
PIPE UP TO AND INCLUDING 4"	3/8"
6" AND 8"	1/2"
10" AND 12"	5/8"

#### EYE ROD SIZES

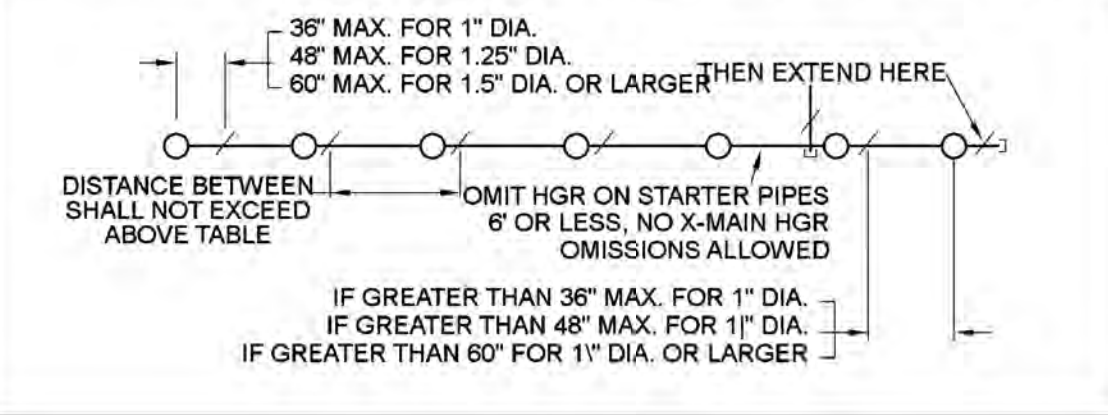
NOMINAL PIPE SIZES	W/BENT EYE	W/WELDED EYE
PIPE UP TO AND INCLUDING 4"	3/8"	3/8"
6"	1/2"	1/2"
8"	3/4"	1/2"

#### FASTENERS - MIN. BOLT SIZE (CONCRETE or STEEL)

NOMINAL PIPE SIZES	SIZE OF BOLT
PIPE UP TO AND INCLUDING 4"	3/8"
6" AND 8"	1/2"

#### MAX. HANGER SPACING

PIPE TYPE	NOMINAL PIPE SIZE (IN)								
	1	1.25	1.5	2	2.5	3	4	6	8
SCH 10, 40	12-0	12-0	15-0	15-0	15-0	15-0	15-0	15-0	15-0

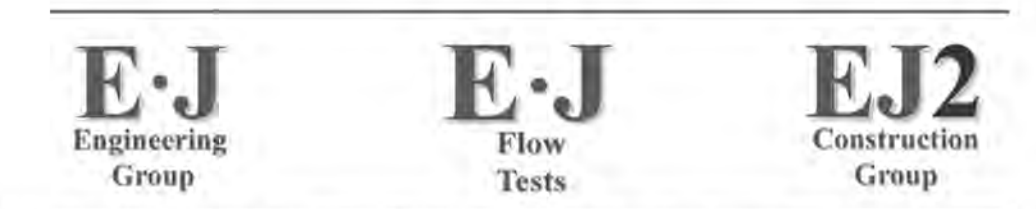


NOTE: SWAY BRACING SHALL BE "TOLCO" FIG. 1001. IF ALT. PIPING IS UTILIZED TO MAINTAIN U.L. LISTING.

ALL HANGING METHODS SHALL BE IN ACCORDANCE WITH NFPA-13 & APPROVED BY AHJ AND THE JOIST MANUFACTURER

- #### FIRE PROTECTION SECTION KEYNOTES
- 1 TYPICAL SPRINKLER. SEE FLOOR PLANS FOR ADDITIONAL INFORMATION.
  - 2 FULL HEIGHT WALL TO ROOF DECK.
  - 3 TYPICAL MAIN. SEE FLOOR PLAN FOR ADD'L INFORMATION.
  - 4 TYPICAL BRANCH LINE. SEE FLOOR PLAN FOR ADD'L INFORMATION.
  - 5 STEEL TRUSS. REFER TO STRUCTURAL DWGS. FOR ADDITIONAL INFORMATION. (TYP)
  - 6 WOOD T" JOISTS. LOCATE UPRIGHT SPRINKLER DEFLECTOR 1-INCH OF HORIZONTAL PLANE OF THE BOTTOM WOOD FLANGE. MAXIMUM DISTANCE FROM DEFLECTOR TO ROOF DECK/INSULATION SHALL BE 22-INCHES. (TYP)

 <b>CEILING PLATE, ROD AND RING</b>	 <b>COACH SCREW ROD AND RING</b>	 <b>THREADED SIDE BEAM BRACKET, ROD &amp; RING</b>	 <b>EYE ROD AND RING</b>	 <b>BEAM CLAMP, SIDE BEAM BRACKET, ROD &amp; RING</b>
 <b>CEILING PLATE, ROD AND RING</b>	 <b>'U' HANGER</b>	 <b>HEAVY DUTY BAND HANGER (FOR TRAPEZE)</b>	 <b>TOP BEAM CLAMP, ROD, AND RING</b>	 <b>FAST CLAMP RISER BRACE</b>



EJ Engineering Group, Inc - Fire Protection Consulting Engineers  
EJ2 Construction Group, LLC - Licensed FP Contractors - ROC271705 AZ C-16  
EJ Flow Test, LLC - Water Supply and Flow Testing Professionals  
21505 N. 78th Ave., Suite 130 • Peoria, AZ 85382 • 623.362.1400 • www.ejengineering.com

**John L. Echeverri, SET, CPFS**  
DATE: **12.13.2023**  
THESE CONSTRUCTION DOCUMENTS AND ASSOCIATED HYDRAULIC CALCULATIONS (WHERE SUBMITTED) HAVE BEEN PREPARED BY:  
**JOHN L. ECHEVERRI, SET, CPFS**  
NICET CERTIFICATION NUMBER 78493  
LEVEL IV AUTOMATIC SPRINKLER SYSTEMS  
LEVEL III SPECIAL HAZARDS  
NFPA CERTIFICATION NUMBER 1915  
CERTIFIED FIRE PROTECTION SPECIALIST  
THIS ENGINEERED SYSTEM IS THE SOLE PROPERTY OF EJ ENGINEERING GROUP, INC.

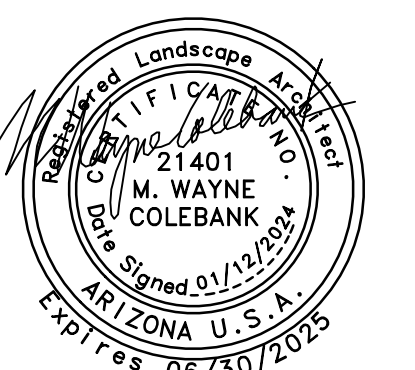
Note:  
Per City of Phoenix City Code Chapter 2, section 2-28, these plans are for official use only and may not be shared with others except as required to fulfill the obligations of your contract with the City of Phoenix.

KIVA # \_\_\_\_\_  
SDEV # \_\_\_\_\_  
**FIRE PROTECTION SECTION & DETAILS**  
**FP4.0**



# CITY OF PHOENIX - FIRE STATION NO. 74 LANDSCAPE, INVENTORY / SALVAGE COMBO PLAN

Revisions	Date
△ CITY COMMENTS	01/12/24



Designed By:  
**JM/TR**

Drawn By:  
**TR**

Checked By:  
**JM**

Date:  
**01/12/2024**

Phase:  
**PERMIT**

**Perلمان**  
Architects of Arizona  
2828 North Central Avenue, Suite #1000  
Phoenix, Arizona 85012  
480.951.5900 480.951.3045 f  
perلمانaz.com

Title:  
**FIRE STATION #74  
1910 W. CHANDLER BLVD.  
PHOENIX, ARIZONA 85045**

Index No:  
**FD57100020-3**

KIVA # **23-1810**  
SDEV # **2300473**

**INVENTORY /  
SALVAGE COMBO  
COVER  
LP1.0**

CITY OF PHOENIX OFFICE OF THE CITY ENGINEER FIRE DEPARTMENT STATION 74 - PERMIT CITY SUBMITTAL

## CITY OF PHOENIX GENERAL INVENTORY/SALVAGE NOTES

- THE CITY OF PHOENIX GENERAL NOTES ARE THE ONLY NOTES APPROVED ON THIS PLAN. ADDITIONAL GENERAL NOTES 9. GENERATED BY THE SEALANT AND PLACED ON THE PLANS ARE NOT APPROVED AS PART OF THIS PLAN AND ARE NOTED AS SUCH ON THE PLANS.
- PLANT MATERIALS MUST BE INDIVIDUALLY TAGGED IN THE FIELD AT THE TIME THE INVENTORY PLANS ARE SUBMITTED. TAGGED MATERIAL MUST BE CLEARLY MARKED WITH WATERPROOF INK AND INCLUDE THE NUMBER WHICH CORRESPONDS TO THE NUMBER SHOWN ON THE PLAN. A FIELD REVIEW WILL NOT OCCUR UNTIL CLEARLY MARKED TAGS ARE IN PLACE ON EACH PLANT TO BE INCLUDED IN THE INVENTORY.
- TAGS MUST BE ATTACHED SO THAT THEY WILL REMAIN ON THE PLANT FOR THE DURATION OF THE SALVAGE AND NURSERY STORAGE PERIOD. PLANT MATERIALS WITHOUT NUMBERED TAGS IN THE NURSERY WILL NOT BE COUNTED TOWARD THE TOTAL REQUIREMENT FOR THE PROJECT.
- ALL SALVAGEABLE MATERIAL IS TO BE CLEARLY FLAGGED WITH TAPE OR PLASTIC TAGS VISIBLE FROM ALL DIRECTIONS. TAGS SHALL BE NUMBERED TO CORRESPOND WITH THE PLANT INVENTORY PLAN AND LEGEND. COLOR CODE AS FOLLOWS:  
RED - SALVAGE AND RELOCATE.  
WHITE - PRESERVE AND PROTECT IN PLACE  
BLUE - DESTROY, NOT SALVAGEABLE AND CANNOT REMAIN IN PLACE.
- CONTACT THE PARKS & RECREATION DEPARTMENT, FORESTRY SUPERVISOR, AT 602-262-6862, TO VERIFY OWNERSHIP OF ANY PLANT MATERIAL IN THE PUBLIC ROW PRIOR TO ANY PLANT RE-LOCATIONS OR REMOVALS. OBTAIN WRITTEN PERMISSION FROM THE PARKS & RECREATION DEPARTMENT PRIOR TO THE RE-LOCATION OR REMOVAL OF ANY CITY PLANT MATERIAL OR EQUIPMENT.
- CONTACT THE STREET TRANSPORTATION DEPARTMENT HORTICULTURIST, AT 602-262-6284, PRIOR TO THE RE-LOCATION OR REMOVAL OF EXISTING PLANT MATERIAL IN THE ADOT ROW THAT IS ON THE CITY'S SIDE OF THE SOUND WALL. OBTAIN WRITTEN PERMISSION FROM THE STREET TRANSPORTATION DEPARTMENT PRIOR TO THE RE-LOCATION OR REMOVAL OF ANY PLANT MATERIAL OR EQUIPMENT.
- A SALVAGE PERMIT SHALL BE OBTAINED AND COMPLETED PRIOR TO THE GRADING AND DRAINAGE PERMIT BEING ISSUED. NO CLEARING OR GRUBBING MAY OCCUR PRIOR TO THE PURCHASE OF THE SALVAGE PERMIT, FIELD APPROVAL OF THE CONSTRUCTION FENCE, AND ALL SALVAGED PLANTS PLACED IN THE NURSERY AND FIELD INSPECTED.
- ALL PROTECTIVE FENCING SHALL BE IN PLACE BEFORE ANY EARTH MOVING EQUIPMENT IS MOVED ONTO THE SITE AND BEFORE ANY SALVAGE, CLEARING OR GRUBBING TAKES PLACE. CALL
- 202-262-7811 TO SCHEDULE AN INSPECTION OF CONSTRUCTION FENCE. ALL MATERIAL TO BE SALVAGED SHALL BE REMOVED AND PLACED IN THE DESIGNATED NURSERY AREA BEFORE ANY CLEARING OR GRADING TAKES PLACE. CALL 602-262-7811 TO SCHEDULE AN INSPECTION AFTER SALVAGE IS COMPLETED.
- ALL TAGGED MATERIALS MUST REMAIN IN NURSERY OR ON-SITE UNTIL NURSERY CHECK IS APPROVED.
- NO NAILS, WIRES OR OTHER OBJECTS THAT DAMAGE THE CAMBIUM OR CAUSE INJURY TO THE TREE MAY BE USED DURING THE SALVAGE PROCESS. ALL EFFORTS SHALL BE TAKEN BY USING PADDING OR OTHER METHODS TO PRESERVE THE INTEGRITY OF THE BARK.
- TREES AND PROTECTED PLANT MATERIAL OR MATERIAL NOTED FOR SALVAGE THAT ARE DESTROYED OR DIE DURING THE SALVAGE, RELOCATION, OR MAINTENANCE PERIOD WILL BE REPLACED WITH A PLANT OF EQUAL OR GREATER SIZE AND TYPE BY THE RESPONSIBLE PARTY A MINIMUM OF 90 DAYS BEFORE THE COMPLETION OF THE PROJECT. NO CERTIFICATES OF OCCUPANCY WILL BE ISSUED BEFORE ALL REQUIRED MATERIAL HAS BEEN REPLACED. ALL REPLACEMENT MATERIAL SHALL BE APPROVED BY THE PLANNING & DEVELOPMENT LANDSCAPE ARCHITECT. A MAXIMUM OF 10% OF THE SALVAGEABLE PLANT MATERIAL WILL NOT BE REQUIRED TO BE REPLACED IF LOST
- ALL REQUIREMENTS OF THE STATE OF ARIZONA, INCLUDING THE "NOTICE OF INTENT TO CLEAR LAND", SHALL BE MET NOTWITHSTANDING ANY APPROVALS BY THE CITY OF PHOENIX.
- FILE NOTICE OF INTENT (NOI) TO CLEAR LAND WITH THE STATE OF ARIZONA, 602-542-6408. PROVIDE A COPY OF THE NOI PERMIT TO THE INSPECTOR. [HTTP://WWW.AZDA.GOV/ESD/CLEARLAND.PDF](http://www.azda.gov/ESD/CLEARLAND.PDF)
- PROVIDE A COPY OF THE COUNTY DUST CONTROL PERMIT TO THE INSPECTOR.
- NO SALVAGE MATERIAL SHALL BE REMOVED FROM THE SITE WITHOUT PLANNING & DEVELOPMENT LANDSCAPE ARCHITECT APPROVAL.
- KNOWINGLY OR NEGLIGENTLY PROVIDING FALSE OR MISLEADING INFORMATION TO THE CITY OF PHOENIX REGARDING SALVAGEABLE MATERIALS MAY RESULT IN DELAYS AND/OR SUSPENSION OF PERMITS AND INSPECTIONS.
- 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 INVENTORY/SALVAGE COMBINATION 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.

## PROJECT TEAM

**OWNER**  
CITY OF PHOENIX FIRE DEPARTMENT  
2625 SOUTH 19TH AVENUE  
PHOENIX, AZ  
JIM ZWERG  
DIRECT (602) 370-7639  
JAMES.ZWERG@PHOENIX.GOV

**CIVIL ENGINEER**  
DIBBLE ENGINEERING  
1626 NORTH LITCHFIELD ROAD  
SUITE 150, GOODYEAR, AZ 85395  
CHRIS DOLAN, PE | (623) 251.7105  
CHRIS.DOLAN@DIBBLECORP.COM

## SALVAGE COST

PLANTS	SIZE	CALIPER SIZE	TOTAL
PROSOPIS VELUTINA	12"H X 13"W	15" CAL.	\$4500
OLNEYA TESOTA	12"H X 21"W	21" CAL.	\$6300
CARNEGIA GIGANTEA	3'H X 0"W	N/A	\$75
CARNEGIA GIGANTEA	2'H X 0"W	N/A	\$50
CARNEGIA GIGANTEA	12"H X 21"W	N/A	\$2100

NOTE: SALVAGE TREE COST IS \$300 PER INCH OF CALIPER

**ARCHITECT**  
PERLMAN ARCHITECTS INC.  
2929 NORTH CENTRAL AVENUE, SUITE 1600  
PHOENIX, AZ 85016  
GERRALD ADAMS | (480) 951.3045  
GERRALDA@PERLMANAZ.COM

**LANDSCAPE ARCHITECT**  
LOGAN SIMPSON  
51 WEST THIRD STREET, SUITE 450  
TEMPE, AZ 85281  
WAYNE COLEBANK | (480) 967.1343  
WCOLEBANK@LOGANSIMPSON.COM

INVENTORY/SALVAGE PLAN APPROVAL, CITY OF PHOENIX			DATE
<b>TOTALS &amp; PERCENTAGES</b>	<b>QTY TREES</b>	<b>QTY CACTI</b>	
REMAIN/PROTECT-IN-PLACE	2 5%	1 20%	4 ACRES OF AREA BEING EVALUATED FOR USABLE MATERIAL
SALVAGE	2 5%	3 60%	45 TOTAL NUMBER OF PLANTS INVENTORIED ON-SITE
DESTROY	36 90%	1 20%	

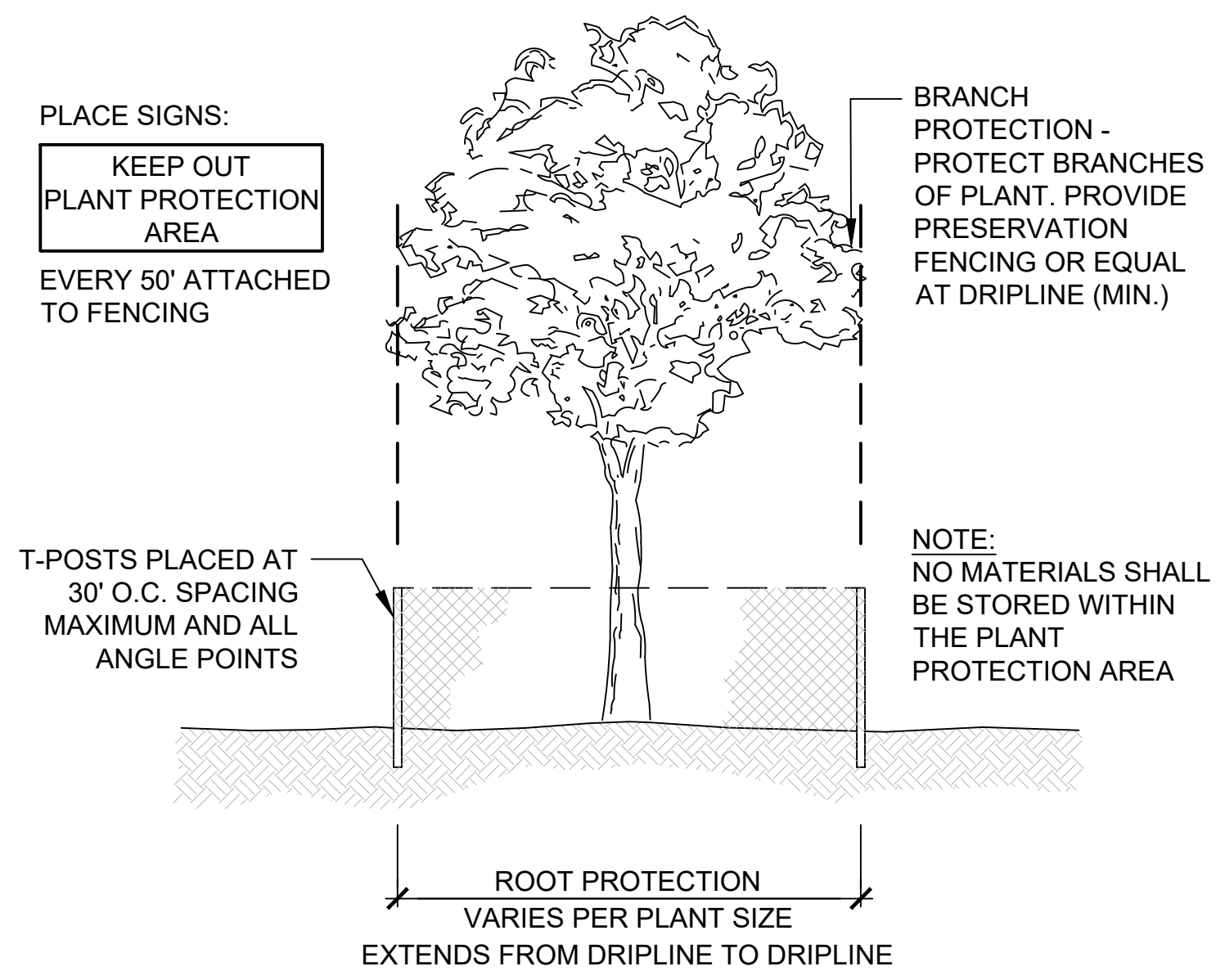
## SEASONAL SALVAGE PROCESS

DIFFERENT PLANT SPECIES HAVE DIFFERENT TIMES OF YEAR THAT ARE OPTIMAL FOR SALVAGING. THE MAJORITY OF THE PLANTS LOCATED IN PHOENIX HAVE A GREATER CHANCE OF SURVIVAL WHEN SALVAGED DURING MILD WEATHER CONDITIONS.

TIME OF YEAR FOR SALVAGING PROCESS: **MARCH 2024**

I, \_\_\_\_\_, UNDERSTAND THAT WINTER SALVAGE OPERATIONS OF SONORAN \_\_\_\_\_ (DEVELOPER/ DEVELOPER REPRESENTATIVE) PLANT MATERIAL HAVE AN INCREASED POTENTIAL FOR LOSS OF PLANT MATERIAL (LOW SURVIVABILITY RATE). I ALSO UNDERSTAND THAT THE CITY OF PHOENIX ONLY ALLOWS A TEN PERCENT LOSS DURING THE SALVAGE PROCESS. ANY ADDITIONAL LOSS OF PLANT MATERIALS (BEYOND THE ALLOWED TEN PERCENT) MUST BE REPLACED WITH LIKE KIND AND LIKE SIZED PLANT MATERIALS.

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_



## 1 PRESERVATION FENCING SCALE: N.T.S.

- NOTES:**
- THE EXISTING SITE IS THE BURSERA TRAILHEAD WITHIN THE SOUTH MOUNTAIN PRESERVE WITH TREES THAT REQUIRE A NATIVE OR NON-NATIVE PLANT INVENTORY. NPI REQUIRED FOR THIS PROJECT.
  - THERE ARE SIGNIFICANT NATURAL FEATURES INCLUDING WASHES.
  - THERE ARE NO OVERHEAD POWER LINES ON SITE.

## PROJECT INFORMATION

**ASSESSOR PARCEL NO.:** 300-96-719A (PARCEL 9)  
**PUC:** 9700  
**S/T/R:** 36/1S/2E  
**DISTRICT:** STATE PLATE NO. 30  
**SOUTH MOUNTAIN 620 AMD**  
**SITE ZONING:** PCD

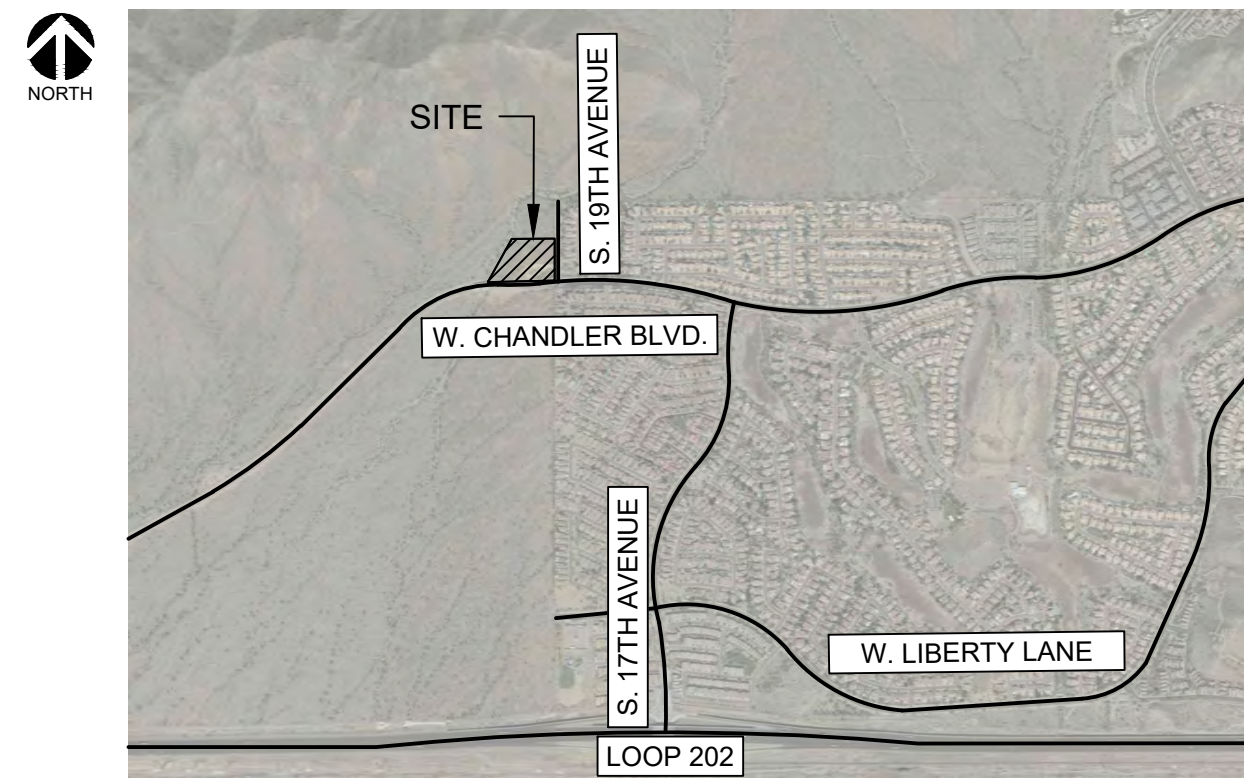
**AREAS - GROSS/NET:** 206,856 SF (7.74 AC) / 184,324 SF (7.03 AC)

**ADJACENT ZONE:** RE-35 (NORTH PROPERTY) R1-6 (EAST PROPERTY) PCD (WEST AND SOUTH PROPERTY)

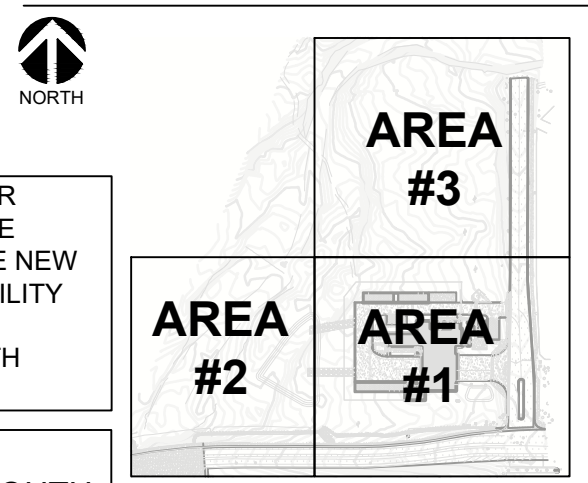
## SHEET INDEX

- LP1.0 INVENTORY / SALVAGE COMBO COVER
- LP1.1 INVENTORY / SALVAGE COMBO PLAN
- LP1.2 INVENTORY / SALVAGE COMBO PLAN
- LP1.3 INVENTORY / SALVAGE COMBO PLAN
- LP2.1 INVENTORY TABLE

## VICINITY MAP SCALE: NTS



## KEY MAP: SCALE: NTS



## CITY TRACK NUMBER:

KIVA#: 23-1810  
SDEV#: 2300473  
PAPP/FACT#: 2306585  
LSPL#: N/A  
LSIS#: 2400051  
CITY QUARTER SECTION#: Q011-24  
HILLSIDE PRESERVATION H#: NO  
ZONING: PCD\*  
OVERLAY DISTRICT: N/A

Note:  
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 your contract with the City of Phoenix.



MATCH LINE SEE SHEET LP1.3

MATCH LINE SEE SHEET LP1.2

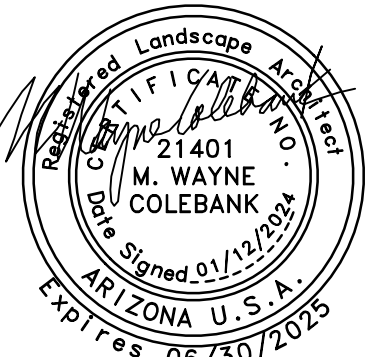


**LEGEND**

SYMBOL	DISPOSITION
○	SALVAGE
○	NO SALVAGE
○	PRESERVE IN PLACE
XX	ABBREVIATION OF BOTANICAL NAME
XXX	PLANT ID NUMBER

NOTE:  
SEE SHEET LP2.1 FOR INVENTORY TABLE

Revisions	Date
△ CITY COMMENTS	01/12/24



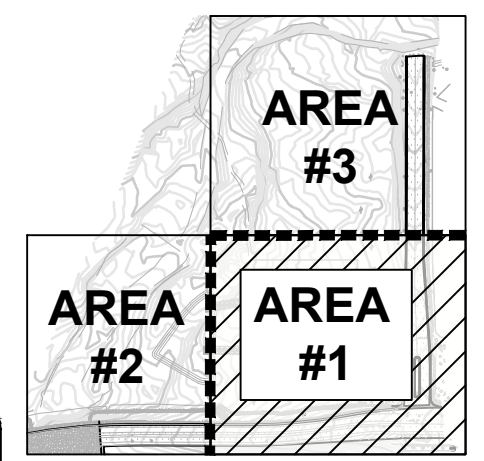
Designed By:	JM/TR
Drawn By:	TR
Checked By:	JM
Date:	01/12/2024
Phase:	PERMIT

**Perلمان**  
Architects of Arizona  
2229 North Central Avenue, Suite #100  
Phoenix, Arizona 85012  
480.951.5900 480.951.3045 f  
perلمانaz.com

Title:  
**FIRE STATION #74**  
**1910 W. CHANDLER BLVD.**  
**PHOENIX, ARIZONA 85045**  
Index No: **FD57100020-3**

**CITY OF PHOENIX**  
OFFICE OF THE CITY ENGINEER  
**FIRE DEPARTMENT STATION 74 - PERMIT CITY SUBMITTAL**

KEY MAP: SCALE: NTS

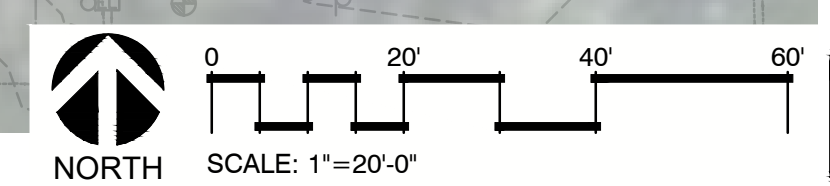


**CITY TRACK NUMBER:**

KIVA#: 23-1810  
SDEV#: 2300473  
PAPP/FACT#: 2306585  
LSPL#: N/A  
LSIS#: 2400051  
CITY QUARTER SECTION#: Q011-24  
HILLSIDE PRESERVATION H#: NO  
ZONING: PCD\*  
OVERLAY DISTRICT: N/A

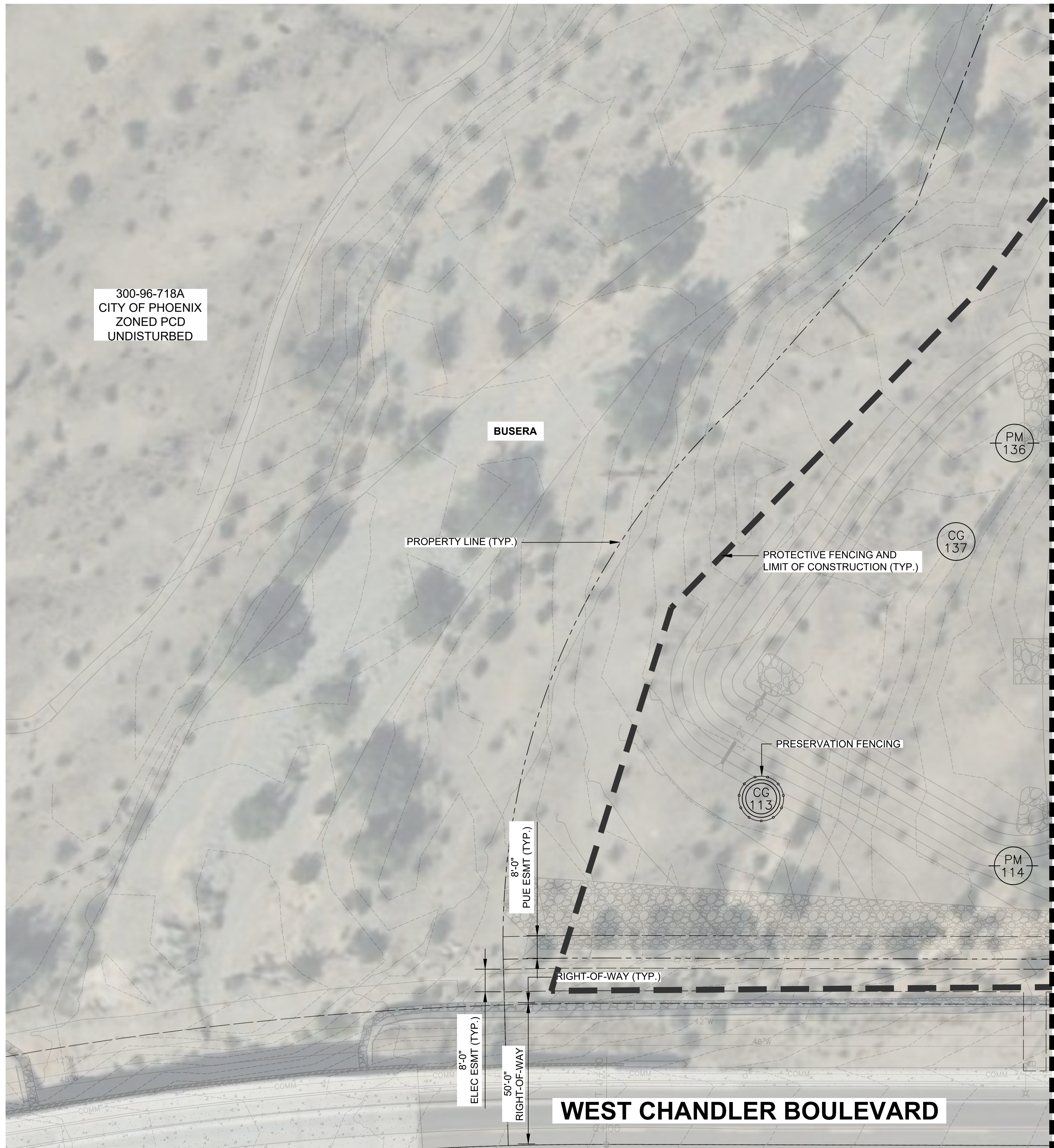
Note:  
Per City of Phoenix City Code Chapter 2, section 2-28, these plans are for official use only and may not be shared with others except as required to fulfill the obligations of your contract with the City of Phoenix.

300-96-708A RESERVE 100 LLC  
#53-121529 ZONED PCD





300-96-718A  
CITY OF PHOENIX  
ZONED PCD  
UNDISTURBED

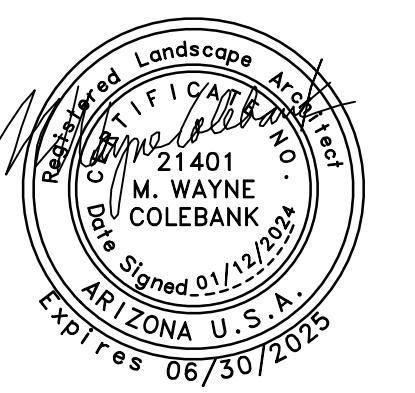


**LEGEND**

SYMBOL	DISPOSITION
	SALVAGE
	NO SALVAGE
	PRESERVE IN PLACE
	ABBREVIATION OF BOTANICAL NAME
	PLANT ID NUMBER

NOTE:  
SEE SHEET LP2.1 FOR INVENTORY TABLE

Revisions	Date
CITY COMMENTS	01/12/24



Designed By:	JM/TR
Drawn By:	TR
Checked By:	JM
Date:	01/12/2024
Phase:	PERMIT

**Perlman**  
Architects of Arizona  
2229 North Central Avenue, Suite #100  
Phoenix, Arizona 85012  
480.951.5900 480.951.3045 f  
perlmanaz.com

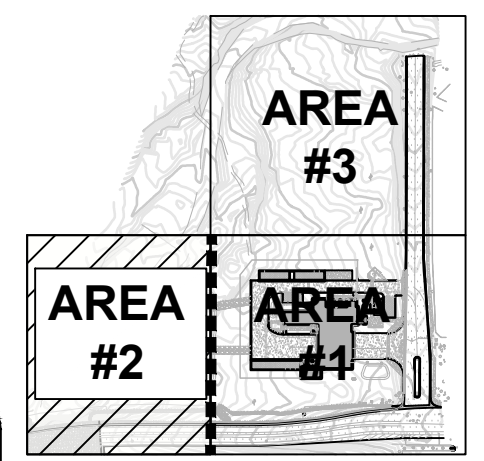
Title:  
**FIRE STATION #74**  
**1910 W. CHANDLER BLVD.**  
**PHOENIX, ARIZONA 85045**  
Index No: **FD57100020-3**

**CITY OF PHOENIX**  
OFFICE OF THE CITY ENGINEER  
FIRE DEPARTMENT STATION 74 - PERMIT CITY SUBMITTAL

KIVA # 23-1810  
SDEV # 2300473

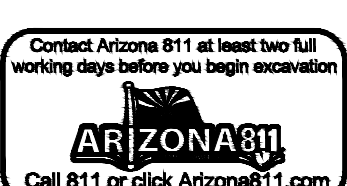
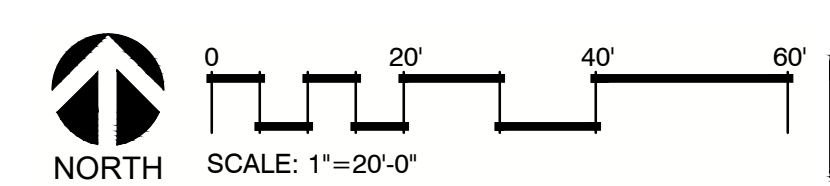
**INVENTORY / SALVAGE COMBO PLAN LP1.2**

**KEY MAP: SCALE: NTS**



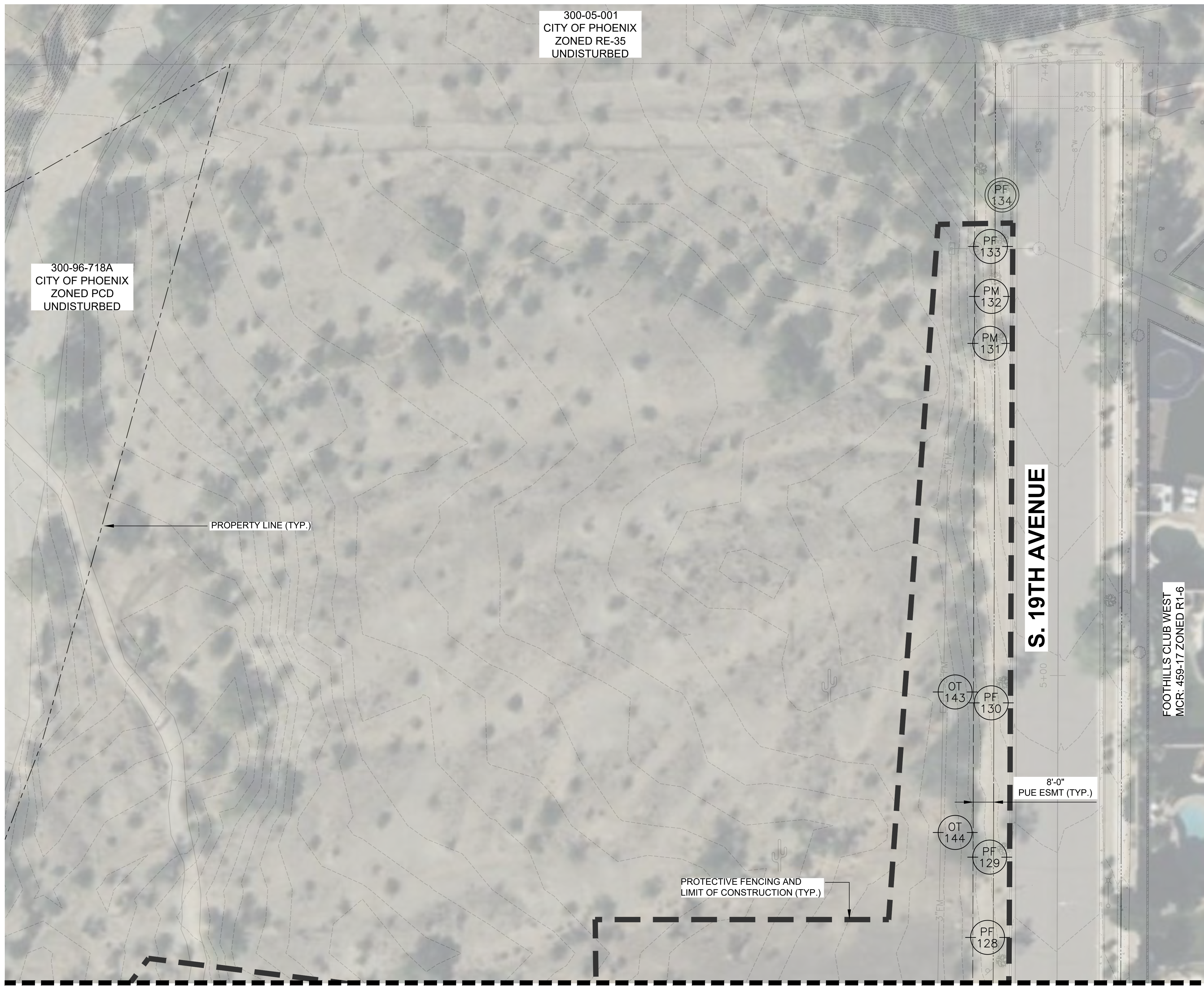
**CITY TRACK NUMBER:**

KIVA#: 23-1810  
SDEV#: 2300473  
PAPP/FACT#: 2306585  
LSPL#: N/A  
LSIS#: 2400051  
CITY QUARTER SECTION#: Q011-24  
HILLSIDE PRESERVATION H#: NO  
ZONING: PCD\*  
OVERLAY DISTRICT: N/A

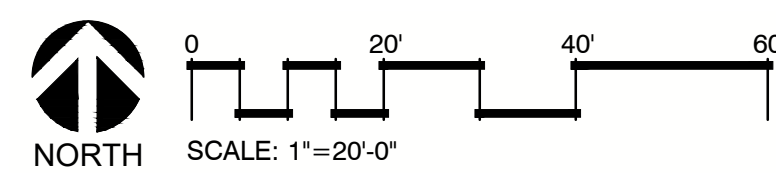


Note:  
Per City of Phoenix City Code Chapter 2, section 2-28, these plans are for official use only and may not be shared with others except as required to fulfill the obligations of your contract with the City of Phoenix.





MATCH LINE SEE SHEET LP1.1

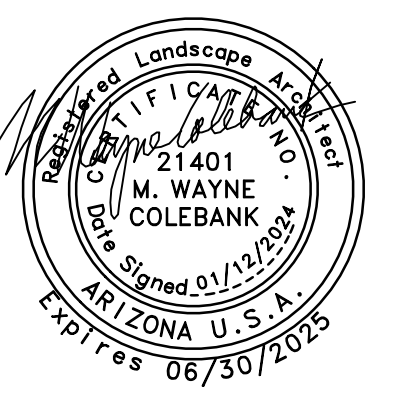


**LEGEND**

SYMBOL	DISPOSITION
	SALVAGE
	NO SALVAGE
	PRESERVE IN PLACE
	ABBREVIATION OF BOTANICAL NAME
	PLANT ID NUMBER

NOTE:  
SEE SHEET LP2.1 FOR INVENTORY TABLE

Revisions	Date
CITY COMMENTS	01/12/24

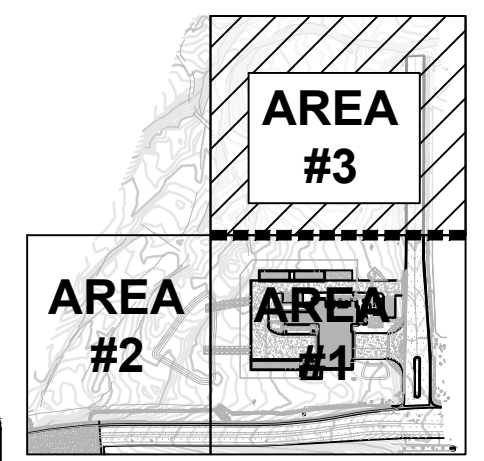


Designed By: JM/TR
Drawn By: TR
Checked By: JM
Date: 01/12/2024
Phase: PERMIT

**Perlman**  
Architects of Arizona  
2229 North Central Avenue, Suite #100  
Phoenix, Arizona 85012  
480.951.5900 480.951.3045 f  
perlmanaz.com

Title:  
**FIRE STATION #74**  
**1910 W. CHANDLER BLVD.**  
**PHOENIX, ARIZONA 85045**  
Index No: **FD57100020-3**

**KEY MAP: SCALE: NTS**



**CITY TRACK NUMBER:**

KIVA#: 23-1810  
SDEV#: 2300473  
PAPP/FACT#: 2306585  
LSPL#: N/A  
LSIS#: 2400051  
CITY QUARTER SECTION#: Q011-24  
HILLSIDE PRESERVATION H#: NO  
ZONING: PCD\*  
OVERLAY DISTRICT: N/A



KIVA # 23-1810  
SDEV # 2300473

Note:  
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 your contract with the City of Phoenix.

INVENTORY /  
SALVAGE COMBO  
PLAN  
**LP1.3**

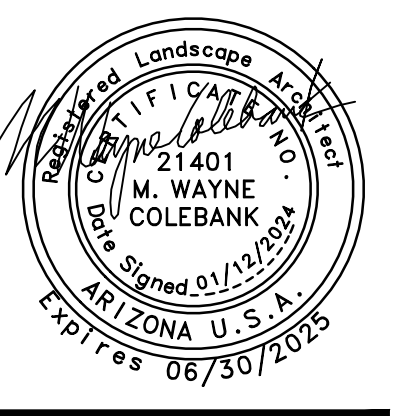
CITY OF PHOENIX OFFICE OF THE CITY ENGINEER FIRE DEPARTMENT STATION 74 - PERMIT CITY SUBMITTAL



**INVENTORY TABLE**

ID	Code	Botanical Name	Common Name	Height (FT.)	Canopy (FT.)	Caliper (IN.)	Condition	Salvage Designation	Intended Designation	Reason for No Salvage	Comments	Arms	Arm 1H	Arm 2H	Arm 3H	Arm 4H	Arm 5H	Arm 6H	Arm 7H	
100	PF	Parkinsonia florida	Blue Palo Verde	12	11	7	Fair	No Salvage	Destroy	Proximity		-	-	-	-	-	-	-	-	-
101	PF	Parkinsonia florida	Blue Palo Verde	10	11	6	Fair	No Salvage	Destroy	Proximity		-	-	-	-	-	-	-	-	-
102	PF	Parkinsonia florida	Blue Palo Verde	12	14	14	Fair	No Salvage	Destroy	Leaning		-	-	-	-	-	-	-	-	-
103	AS	Acacia salicina	Willow Acacia	28	31	32	Fair	No Salvage	Destroy	Proximity		-	-	-	-	-	-	-	-	-
104	PM	Parkinsonia microphylla	Foothill Palo Verde	16	13	4	Fair	No Salvage	Destroy	Leaning		-	-	-	-	-	-	-	-	-
105	SG	Senegalia greggii	Catclaw Acacia	17	19	14	Fair	No Salvage	Destroy	Proximity		-	-	-	-	-	-	-	-	-
106	PV	Prosopis velutina	Velvet Mesquite	11	13	10	Fair	No Salvage	Destroy	Leaning		-	-	-	-	-	-	-	-	-
107	PF	Parkinsonia florida	Blue Palo Verde	20	22	31	Fair	No Salvage	Destroy	Leaning		-	-	-	-	-	-	-	-	-
108	PV	Prosopis velutina	Velvet Mesquite	12	13	15	Good	Salvage	Salvage	-		-	-	-	-	-	-	-	-	-
109	PF	Parkinsonia florida	Blue Palo Verde	9	11	7	Fair	No Salvage	Destroy	Dead Wood		-	-	-	-	-	-	-	-	-
110	PH	Prosopis hybrid	Hybrid Mesquite	7	8	6	Fair	No Salvage	Destroy	Leaning		-	-	-	-	-	-	-	-	-
111	PV	Prosopis velutina	Velvet Mesquite	10	14	5	Fair	No Salvage	Destroy	Leaning		-	-	-	-	-	-	-	-	-
112	PF	Parkinsonia florida	Blue Palo Verde	12	12	8	Fair	No Salvage	Destroy	Proximity		-	-	-	-	-	-	-	-	-
113	CG	Carnegia gigantea	Saguaro	5	-	-	Good	Protect In Place	Protect In Place	-		-	-	-	-	-	-	-	-	-
114	PM	Parkinsonia microphylla	Foothill Palo Verde	11	14	17	Fair	No Salvage	Destroy	Dead Wood		-	-	-	-	-	-	-	-	-
115	OT	Olneya tesota	Ironwood	9	13	10	Fair	No Salvage	Destroy	Leaning		-	-	-	-	-	-	-	-	-
116	PM	Parkinsonia microphylla	Foothill Palo Verde	10	14	13	Fair	No Salvage	Destroy	Dead Wood		-	-	-	-	-	-	-	-	-
117	PM	Parkinsonia microphylla	Foothill Palo Verde	15	18	12	Fair	No Salvage	Destroy	Dead Wood		-	-	-	-	-	-	-	-	-
118	CG	Carnegia gigantea	Saguaro	3	-	-	Good	Salvage	Salvage	-		-	-	-	-	-	-	-	-	-
119	PF	Parkinsonia florida	Blue Palo Verde	9	12	6	Fair	No Salvage	Destroy	Leaning		-	-	-	-	-	-	-	-	-
120	OT	Olneya tesota	Ironwood	13	16	13	Fair	No Salvage	Destroy	Leaning		-	-	-	-	-	-	-	-	-
121	OT	Olneya tesota	Ironwood	12	21	21	Good	Salvage	Salvage	-		-	-	-	-	-	-	-	-	-
122	PM	Parkinsonia microphylla	Foothill Palo Verde	13	19	12	Fair	No Salvage	Destroy	Exposed Roots		-	-	-	-	-	-	-	-	-
123	OT	Olneya tesota	Ironwood	9	13	22	Fair	No Salvage	Destroy	Dead Wood		-	-	-	-	-	-	-	-	-
124	OT	Olneya tesota	Ironwood	15	19	16	Fair	No Salvage	Destroy	Poor Form		-	-	-	-	-	-	-	-	-
125	PM	Parkinsonia microphylla	Foothill Palo Verde	7	11	11	Fair	No Salvage	Destroy	Damage		-	-	-	-	-	-	-	-	-
126	PF	Parkinsonia florida	Blue Palo Verde	13	11	5	Fair	No Salvage	Destroy	Proximity		-	-	-	-	-	-	-	-	-
127	CG	Carnegia gigantea	Saguaro	2	-	-	Good	Salvage	Salvage	-		-	-	-	-	-	-	-	-	-
128	PF	Parkinsonia florida	Blue Palo Verde	9	8	7	Fair	No Salvage	Destroy	Poor Health		-	-	-	-	-	-	-	-	-
129	PF	Parkinsonia florida	Blue Palo Verde	11	10	7	Fair	No Salvage	Destroy	Poor Health		-	-	-	-	-	-	-	-	-
130	PF	Parkinsonia florida	Blue Palo Verde	15	11	7	Fair	No Salvage	Destroy	Proximity		-	-	-	-	-	-	-	-	-
131	PM	Parkinsonia microphylla	Foothill Palo Verde	7	8	5	Fair	No Salvage	Destroy	Proximity		-	-	-	-	-	-	-	-	-
132	PM	Parkinsonia microphylla	Foothill Palo Verde	5	5	4	Fair	No Salvage	Destroy	On Slope		-	-	-	-	-	-	-	-	-
133	PF	Parkinsonia florida	Blue Palo Verde	10	9	7	Fair	No Salvage	Destroy	Proximity		-	-	-	-	-	-	-	-	-
134	PF	Parkinsonia florida	Blue Palo Verde	24	21	11	Fair	Protect In Place	Protect In Place	Dead Wood		-	-	-	-	-	-	-	-	-
135	PM	Parkinsonia microphylla	Foothill Palo Verde	13	17	13	Fair	No Salvage	Destroy	Dead Wood		-	-	-	-	-	-	-	-	-
136	PM	Parkinsonia microphylla	Foothill Palo Verde	11	13	8	Fair	No Salvage	Destroy	Leaning		-	-	-	-	-	-	-	-	-
137	CG	Carnegia gigantea	Saguaro	32	-	-	Good	Salvage	Salvage	-	MOVE ONCE	6	6	6	10	11	6	7	-	-
138	OT	Olneya tesota	Ironwood	7	11	10	Fair	No Salvage	Destroy	Dead Wood		-	-	-	-	-	-	-	-	-
139	OT	Olneya tesota	Ironwood	9	11	14	Fair	No Salvage	Destroy	Dead Wood		-	-	-	-	-	-	-	-	-
140	CG	Carnegia gigantea	Saguaro	25	-	-	Poor	No Salvage	Destroy	Poor Health	BACTERIAL NECROSIS	7	10	6	8	10	3	3	10	-
141	OT	Olneya tesota	Ironwood	9	13	15	Fair	No Salvage	Destroy	-		-	-	-	-	-	-	-	-	-
142	OT	Olneya tesota	Ironwood	8	11	7	Fair	No Salvage	Destroy	Dead Wood		-	-	-	-	-	-	-	-	-
143	OT	Olneya tesota	Ironwood			12	Fair	No Salvage	Destroy	Leaning, On Slope		-	-	-	-	-	-	-	-	-
144	OT	Olneya tesota	Ironwood			12	Poor	No Salvage	Destroy	Infestation	BORER DAMAGE	-	-	-	-	-	-	-	-	-

Revisions	Date
△ CITY COMMENTS	01/12/24



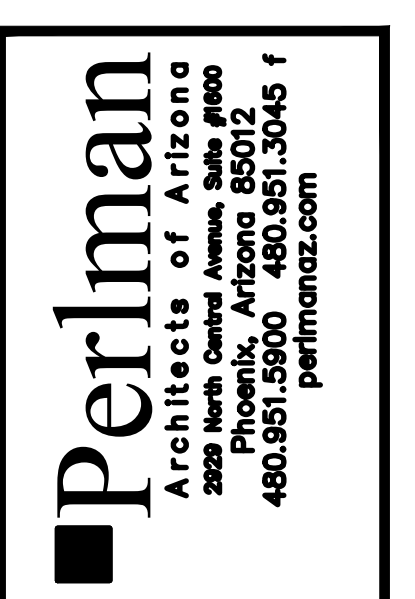
Designed By:  
JM/TR

Drawn By:  
TR

Checked By:  
JM

Date:  
01/12/2024

Phase:  
PERMIT



Title:  
**FIRE STATION #74  
1910 W. CHANDLER BLVD.  
PHOENIX, ARIZONA 85045**  
Index No: **FD57100020-3**

**CITY TRACK NUMBER:**

KIVA#: 23-1810  
SDEV#: 2300473  
PAPP/FACT#: 2306585  
LSPL#: N/A  
LSIS#: 2400051  
CITY QUARTER SECTION#: Q011-24  
HILLSIDE PRESERVATION H#: NO  
ZONING: PCD\*  
OVERLAY DISTRICT: N/A

KIVA # 23-1810  
SDEV # 2300473

INVENTORY TABLE  
**LP2.1**

Note:  
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 your contract with the City of Phoenix.

CITY OF PHOENIX OFFICE OF THE CITY ENGINEER FIRE DEPARTMENT STATION 74 - PERMIT CITY SUBMITTAL



**PROJECT NARRATIVE**

THE CITY OF PHOENIX (CITY) IS DEVELOPING A NEW SINGLE STORY BUILDING, FIRE STATION NO.74, APPROXIMATELY 11,000 SQUARE FEET (THE PROJECT). THE PROPOSED FACILITY WILL CONSIST OF THREE APPARATUS BAYS, 10 DORMITORIES, FITNESS ROOM AND WORK/LIVING SPACE. SANITARY SEWER AND ROADWAY IMPROVEMENTS ASSOCIATED WITH THE PROJECT INCLUDE STAFF AND VISITOR PARKING, FIRE EQUIPMENT PREP/STAGING AREA, GENERATOR, FLAGPOLE, TRASH/RECYCLE, LANDSCAPE, AND RETENTION AREAS. THE PROJECT AIMS TO PROVIDE SUSTAINABLE DESIGN CONCEPTS/STRATEGIES WITHIN THE PROJECT BUDGET & MEET CITY/FIRE DEPARTMENT OPERATIONAL & FACILITY MAINTENANCE REQUIREMENTS. THE PROJECT WILL FOLLOW THE CITY INVENTORY / SALVAGE PLAN REQUIREMENTS.

LOCATED ON THE NORTHWEST CORNER OF 19TH AVE AND CHANDLER BOULEVARD, THE SITE IS APPROXIMATELY 7 ACRES WITHIN THE SOUTH MOUNTAIN PARK AND PRESERVE OF BURSELA PEAK. TO PROMOTE NATURAL RESOURCE CONSERVATION, STORM WATER MANAGEMENT PRACTICES WILL INCORPORATE CURB OPENINGS WITH RIP RAP SPILLWAYS, DRAINAGE SWALES AND RETENTION BASINS. INDIGENOUS PLANT MATERIALS (TREES, SHRUBS, AND ACCENTS) WILL FOLLOW THE SONORAN PRESERVE STANDARDS ALONG THE PROPERTY PERIMETER LANDSCAPE AREAS ADJACENT TO ARTERIAL STREETS AND WITHIN THE PUBLIC RIGHT-OF-WAY. THE LANDSCAPE DESIGN SHALL BE PRACTICAL AND SAFE FOR THE FUNCTIONALITY OF THE FIRE STATION. ALL TREES AND SHRUBS WILL BE DESIGNED TO BE VISIBLY CLEAR OF VEHICULAR/APPARATUS CIRCULATION AND INGRESS/EGRESS. THE FIRE APPARATUS DRIVE EGRESS WILL BE DESIGNED WITH AN "EMERGENCY/SAFETY SITE DISTANCE" TRIANGLE THAT MEASURES 50' FROM THE BACK OF THE CURB AND 100' ON EITHER SIDE OF THE STREET CURB. THE EMERGENCY SITE DISTANCE TRIANGLE PREVENTS TREES AND SHRUBS (36" IN HEIGHT OR GREATER AT MATURITY) FROM SCREENING THE VIEW OF ONCOMING TRAFFIC FOR THE FIRE APPARATUS EXITING THE STATION. ALSO, NO PLANT MATERIAL WILL BE IN THE DESIGNATED TRAINING AREA, EQUIPMENT STAGING AREAS, AND OTHER FIRE STATION FUNCTIONAL SITE PROGRAM AREAS.

TO LIMIT OVERALL SITE MAINTENANCE, THE LANDSCAPE LOCATED WITHIN NON-PUBLIC SECURED AREAS SCREENED FROM PUBLIC VIEW SHOULD BE DESIGNED WITH DUST CONTROL/INERT MATERIALS WITH SHADE TREES. THERE WILL BE MINIMAL UNDERSTORY PLANT MATERIAL (PRIMARILY CACTI ACCENTS) LOCATED IN THE NON-PUBLIC SECURED AREAS. THE HIGHER PUBLIC PROFILE AREAS, INCLUDING THE STREET FRONTAGE AND THE STATION'S PUBLIC ENTRY AND PARKING, WILL BE DESIGNED WITH A LANDSCAPE THAT PROMOTES SHADE, THEMING, WAYFINDING, AND SEASONAL INTEREST.

**LANDSCAPE SCHEDULE**

TREES	QTY	BOTANICAL NAME	COMMON NAME	CONT	SIZE	CALIPER
	3	CHILOPSIS LINEARIS	DESERT WILLOW	24" BOX (MULTI-TRUNK)	20'H X 15'W	2" CAL.
	1	OLNEYA TESOTA	IRONWOOD	24" BOX (MULTI-TRUNK)	25'H X 20'W	2" CAL.
	1	OLNEYA TESOTA	IRONWOOD	SALVAGED	12'H X 21'W	21" CAL.
	19	PROSOPIS X 'AZT' SEEDLESS	AZT THORNLESS SEEDLESS MESQUITE	36" BOX (SINGLE-TRUNK)	30'H X 30'W	2" CAL.
	4	PROSOPIS X 'AZT' SEEDLESS	AZT THORNLESS SEEDLESS MESQUITE	48" BOX (SINGLE-TRUNK)	30'H X 30'W	3" CAL.
	1	PROSOPIS VELUTINA	VELVET MESQUITE	SALVAGED	12'H X 13'W	15" CAL.
	11	PARKINSONIA FLORIDA	BLUE PALO VERDE	24" BOX (SINGLE-TRUNK)	25'H X 25'W	1.5" CAL.
SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	CONT		
	21	AMBROSIA DELTOIDEA	TRIANGLELEAF BURSAGE	5 GAL		
	16	ENCELIA FARINOSA	BRITTLEBUSH	5 GAL		
	13	ERICAMERIA LARICIFOLIA	TURPENTINE BUSH	5 GAL		
	11	LARREA TRIDENTATA	CREOSOTE BUSH	5 GAL		
	85	LEUCOPHYLLUM CANDIDUM	VIOLET SILVERLEAF SAGE	5 GAL		
	12	LEUCOPHYLLUM SP. 'LYNN'S LEGACY'	LYNN'S LEGACY TEXAS RANGER	5 GAL		
ACCENTS	QTY	BOTANICAL NAME	COMMON NAME	CONT		
	3	AGAVE WEBERI	WEBER'S AGAVE	5 GAL		
	26	DASYLIRION WHEELERI	DESERT SPOON	5 GAL		
	52	ECHINOCACTUS GRUSONII	GOLDEN BARREL CACTUS	5 GAL		
	2	EUPHORBIA TRIGONA 'RUBRA'	RED AFRICAN MILK TREE (POTS)	5 GAL		
	42	FEROCACTUS CYLINDRACEUS	COMPASS BARREL	5 GAL		
	36	FOUQUIERIA SPLENDENS	OCOTILLO	15 GAL		
	7	PACHYCREUS MARGINATUS	MEXICAN FENCE POST	15 GAL		
	1	CARNEGIEA GIGANTEA	SAGUARO (PROTECT-IN-PLACE)	5' H		
	1	CARNEGIEA GIGANTEA	SAGUARO (SALVAGED)	32' H		
	2	CARNEGIEA GIGANTEA	SAGUARO (SALVAGED)	3'H, 2'H		
GROUNDCOVERS	QTY	BOTANICAL NAME	COMMON NAME	CONT		
	30	LANTANA MONTEVIDENSIS	PURPLE TRAILING LANTANA	5 GAL		
INERT MATERIALS	QTY	TYPE	PRODUCT	CONT		
	23	BOULDERS	KALAMAZOO (SURFACE SELECT)	2' X 3' X 2'		
	2	POTS - (FRONT ENTRANCE) COLOR - DARK GRAY 20	OLD TOWN FIBERGLASS CURRENT CU3642 (SAND FINISH)	42"H X 25"W		
	863 SF	RIP- RAP SUPERIOR APACHE BROWN	KALAMAZOO ANGULAR ROCK	3"-8" MINUS (12" DEEP)		
	21,090 SF	DECOMPOSED GRANITE SUPERIOR APACHE BROWN	KALAMAZOO	3/4" SCREENED (2" DEEP)		
NATIVE SEED MIX	QTY					
	76,373 SF					

**PLAN REFERENCE NOTES**

- SEE CIVIL AND ARCHITECTURAL SHEETS FOR ALL HARDSCAPE BEYOND CURB AND GUTTER (I.E. SITE WALLS, FENCES, GATES, SIGNAGE, AND SIDEWALKS).
- SEE CIVIL SHEETS FOR ALL GRADING AND DRAINAGE, INCLUDING RETENTION BASINS. THERE ARE NO LANDSCAPE BERMS.
- SEE CIVIL SHEETS FOR ALL VEHICULAR COMPONENTS (I.E. STRIPING, SIGNAGE, CURB AND GUTTER).
- SEE ELECTRICAL SHEETS FOR ALL SITE LIGHTING.

**NATIVE SEED MIX**

NOTE: ALL PLANT MATERIAL IS PRESENT IN THE ARIZONA LOW WATER USE DROUGHT TOLERANT PLANT LIST.

BOTANICAL NAME	COMMON NAME	PLS LBS/ACRE	BOTANICAL NAME	COMMON NAME	PLS LBS/ACRE
AMBROSIA DELTOIDEA	TRIANGLELEAF BURSAGE	2.5	OLNEYA TESOTA	IRONWOOD	2.0
ARISTIDA PURPUREA	PURPLE THREEAAWN	1.0	PARKINSONIA FLORIDA	BLUE PALO VERDE	0.75
BAILEYA MULTIRADIATA	DESERT MARIGOLD	0.5	PARKINSONIA MICROPHYLLA	FOOTHILLS PALO VERDE	2.0
BOUTELOUA ARISTIDOIDES	NEEDLE GRAMA	1.0	PHACELIA CRENULATA	SCALLOP LEAF PHACELIA	0.75
CALLIANDRA ERIOPHYLLA	FAIRY DUSTER	0.5	PLANTAGO OVATA	DESERT INDIAN-WHEAT	1.5
ENCELIA FARINOSA	BRITTLEBUSH	1.0	PROSOPIS VELUTINA	VELVET MESQUITE	0.25
ESCHSCHOLTZIA MEXICANA	MEXICAN GOLD POPPY	0.75	SALVIA COLUMBARIAE	DESERT CHIA	1.0
LARREA TRIDENTATA	CREOSOTE BUSH	2.0	SENNA COVESII	DESERT SENNA	1.0
LUPINUS SPARSIFLORUS	DESERT LUPINE	1.0	SPHAERALCEA AMBIGUA	GLOBEMALLOW	0.5
LYCIUM ANDERSONII	ANDERSON THORNBUSH	0.5	VULPIA OCTOFLORA	SIXWEEKS FESCUE	0.5

**LANDSCAPE SCHEDULE NOTES**

- RIP RAP SHOWN ON THE CIVIL PLANS SHALL BE SIMILAR TO / OR MATCH THE LANDSCAPE RIP RAP COLOR.

LANDSCAPE CALCULATIONS:  
60% OF TREES SHALL BE 2" CALIPER MINIMUM  
TOTAL TREES: 28  
TREES REQUIRED: 17  
PROVIDED: 21 (75%)

PARKING LOTS REQUIRE 5% LANDSCAPE COVERAGE  
TOTAL PARKING AREA: 7,951 SF  
LANDSCAPE AREA: 1,608 SF = (20%)

THE CONTRACTOR SHALL VERIFY THE LOCATION OF THE NEW AND EXISTING UTILITY LINES BEFORE PROCEEDING WITH CONSTRUCTION.

# CITY OF PHOENIX - FIRE STATION NO. 74 LANDSCAPE AND IRRIGATION

**PROJECT TEAM**

**OWNER**  
CITY OF PHOENIX FIRE DEPT.  
2625 SOUTH 19TH AVENUE  
PHOENIX, AZ  
JAIME GARRIDO  
(602) 723-4844  
JAIME.GARRIDO@PHOENIX.GOV

**ARCHITECT**  
PERLMAN ARCHITECTS INC.  
2929 NORTH CENTRAL AVENUE, SUITE 1600  
PHOENIX, AZ 85016  
GERRALD ADAMS | (480) 951.3045  
GERRALDA@PERLMANAZ.COM

**CIVIL ENGINEER**  
DIBBLE ENGINEERING  
1626 NORTH LITCHFIELD ROAD  
SUITE 150, GOODYEAR, AZ 85395  
CHRIS DOLAN, PE | (623) 251.7105  
CHRIS.DOLAN@DIBBLECORP.COM

**LANDSCAPE ARCHITECT**  
LOGAN SIMPSON  
51 WEST THIRD STREET, SUITE 450  
TEMPE, AZ 85281  
WAYNE COLEBANK | (480) 967-1343  
WCOLEBANK@LOGANSIMPSON.COM

**PHOENIX GENERAL LANDSCAPE NOTES:**

- THE CITY OF PHOENIX GENERAL NOTES ARE THE ONLY NOTES APPROVED ON THIS PLAN. ADDITIONAL GENERAL NOTES GENERATED BY THE SEALANT AND PLACED ON THE PLANS ARE NOT APPROVED AS PART OF THIS PLAN AND ARE NOTED AS SUCH ON THE PLANS.
- THE DESIGN ON THESE PLANS IS ONLY APPROVED BY THE CITY IN SCOPE AND NOT IN DETAIL. CONSTRUCTION QUANTITIES ON THESE PLANS ARE NOT VERIFIED BY THE CITY. APPROVAL OF THESE PLANS ARE FOR PERMIT PURPOSES ONLY AND SHALL NOT PREVENT THE CITY FROM REQUIRING CORRECTION OF ERRORS IN THE PLANS WHERE SUCH ERRORS ARE SUBSEQUENTLY FOUND TO BE IN VIOLATION OF ANY LAW, ORDINANCE, HEALTH, SAFETY, OR OTHER DESIGN ISSUES.
- CONSTRUCTION WITHIN THE RIGHT-OF-WAY SHALL CONFORM TO THE LATEST APPLICABLE MARICOPA ASSOCIATION OF GOVERNMENTS (MAG) UNIFORM STANDARD SPECIFICATIONS AND DETAILS AND THE LATEST CITY OF PHOENIX SUPPLEMENT TO THE MAG UNIFORM STANDARD SPECIFICATIONS AND DETAILS.
- FINAL BUILDING PERMIT CANNOT BE OBTAINED UNTIL BONDING OR APPROVED ASSURANCES ARE PROVIDED FOR THE LANDSCAPING WITHIN THE RIGHT-OF-WAY.
- NO PLANT SUBSTITUTIONS, TYPE, SIZE, OR QUANTITY, OR DEVIATIONS FROM THE APPROVED LANDSCAPE OR IRRIGATION PLANS, ARE ALLOWED WITHOUT PRIOR APPROVAL FROM THE CITY OF PHOENIX LANDSCAPE SECTION AT 602-262-7811.
- ALL PLANT MATERIAL AND SPECIFICATIONS SHALL CONFORM TO THE ARIZONA NURSERYMAN ASSOCIATION STANDARDS.
- ALL RIGHT-OF-WAY AND CITY REQUIRED (PERIMETER, RETENTION, AND PARKING) PLANT MATERIAL SHALL BE IN COMPLIANCE WITH THE DEPARTMENT OF WATER RESOURCES LOW WATER USE PLANT LIST.
- CONTACT THE PARKS & RECREATION DEPARTMENT, FORESTRY SUPERVISOR, AT 602-262-6862, TO VERIFY OWNERSHIP OF ANY PLANT MATERIAL IN THE PUBLIC R.O.W. PRIOR TO ANY PLANT RE-LOCATIONS OR REMOVALS. OBTAIN WRITTEN PERMISSION FROM THE PARKS AND RECREATION DEPARTMENT PRIOR TO THE RE-LOCATION OF REMOVAL OF ANY CITY PLANT MATERIAL OR EQUIPMENT.
- CONTACT THE STREET TRANSPORTATION DEPARTMENT, HORTICULTURIST, AT 602-262-6284, PRIOR TO THE RE-LOCATION OR REMOVAL OF EXISTING PLANT MATERIAL IN THE A.D.O.T. R.O.W. THAT IS ON THE CITY'S SIDE OF THE SOUND WALL. OBTAIN WRITTEN PERMISSION FROM THE STREET TRANSPORTATION DEPARTMENT PRIOR TO THE RE-LOCATION OR REMOVAL OF ANY PLANT MATERIAL OR EQUIPMENT.
- PERMISSION FROM THE STREET TRANSPORTATION DEPARTMENT PRIOR TO THE RE-LOCATION OR REMOVAL OF ANY PLANT MATERIAL OR EQUIPMENT.
- ALL EXISTING TREES AND SHRUBS IN RIGHT-OF-WAY DESIGNATED TO REMAIN BUT ARE DAMAGED OR DESTROYED WILL BE REPLACED IN LIKE SIZE AND KIND BY THE CONTRACTOR.
- THE PROPOSED IRRIGATION SYSTEM SHALL INCLUDE ANY MODIFICATIONS REQUIRED TO TIE THE EXISTING CITY OF PHOENIX IRRIGATION SYSTEM IN RIGHT-OF-WAY TO THE PROPOSED SYSTEM. ALL THROUGH IRRIGATION SYSTEMS IN THE RIGHT-OF-WAY SHALL BE MAINTAINED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CAPPING AND/OR ABANDONING EXISTING IRRIGATION TO PLANT MATERIALS AND PROVIDING NEW IRRIGATION TO THE EXISTING PLANT MATERIAL, IN RIGHT-OF-WAY, PER THE APPROVED PLAN.
- WALLS ARE NOT APPROVED AS PART OF THE LANDSCAPE PLAN BUT ARE SHOWN FOR REFERENCE ONLY.
- TREES ADJACENT TO PEDESTRIAN WALKWAYS SHOULD HAVE A MINIMUM CANOPY CLEARANCE OF SIX FEET EIGHT INCHES (6'8") PER SECTION 507 TAB A.II.A3.1.10 OF THE CITY OF PHOENIX ZONING ORDINANCE.
- P.V.C. PIPE LATERALS ARE REQUIRED. A MAXIMUM OF FIVE FEET (5') OF POLY TUBING OFF OF THE P.V.C. PIPE LATERAL IS ALLOWED. NO POLY TUBING LATERALS ARE ALLOWED.
- PLANT QUANTITIES AND CALIPER SIZES, PER THE SPECIFIC ZONING REQUIREMENTS FOR THIS SITE, PROVIDED IN THE LEGEND ON THE APPROVED PLANS ARE REQUIRED TO BE INSTALLED IN THE FIELD. ANY DEVIATIONS FROM THE PLAN WILL REQUIRE A REVISION TO THE APPROVED PLAN. **NOTE:** MINIMUM CALIPER SIZE IS A ZONING REQUIREMENT. IF THE MINIMUM CALIPER CANNOT BE MET AT BOX SIZE THAT IS SPECIFIED, THEN THE BOX SIZE MUST BE INCREASED TO MEET CALIPER REQUIREMENTS.
- 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, EXTENSIONS, AND REINSTATEMENT OF LANDSCAPE 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.

**CITY LANDSCAPE ARCHITECT**

LANDSCAPE ARCHITECT, CITY OF PHOENIX	DATE
ESTIMATED RIGHT-OF-WAY COST \$ 14,391	ESTIMATED S.F. OF LANDSCAPE IN RIGHT-OF-WAY 9,594 SF
MAINTENANCE BY: <input checked="" type="checkbox"/> CITY <input type="checkbox"/> OWNER	TOTAL ACRES OF LANDSCAPED AREA 2 ACRES
SQUARE FOOTAGE OF TURF 0 SF	DATE OF PRELIMINARY SITE PLAN APPROVAL 12/07/23

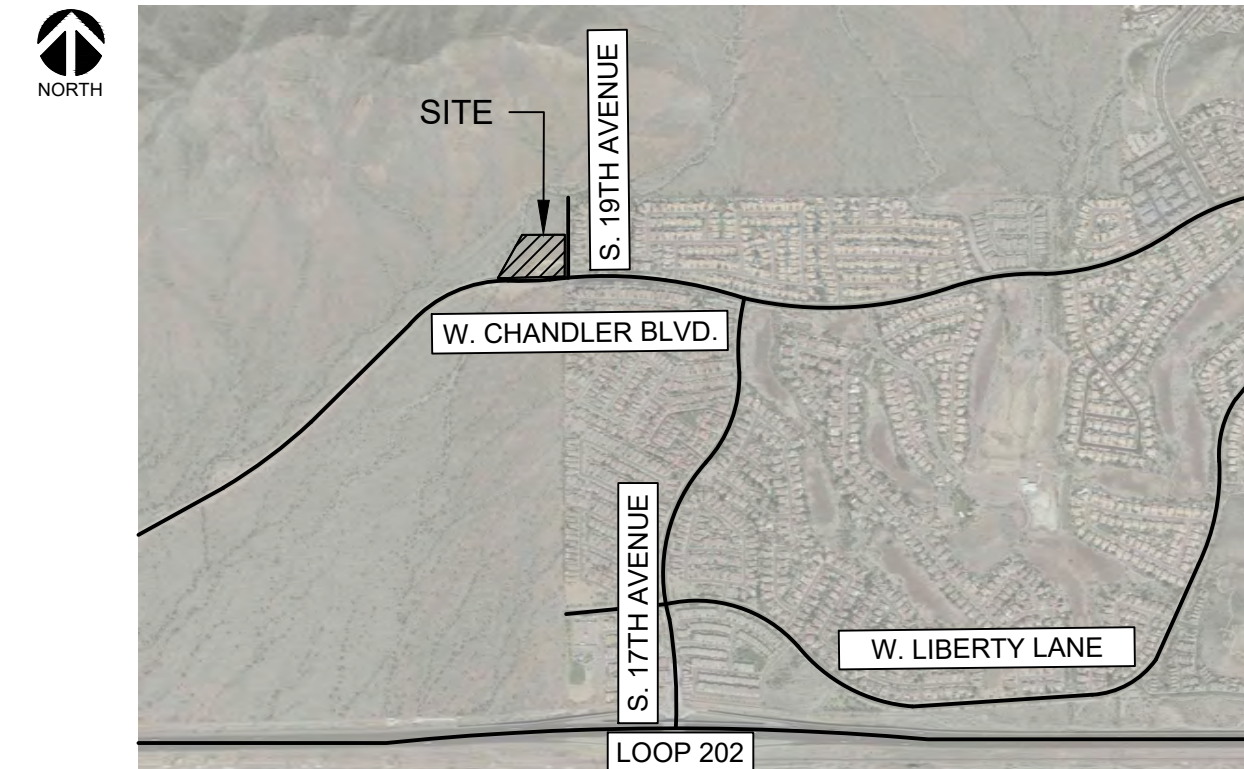
**PROJECT INFORMATION**

ASSESSOR PARCEL NO.: 300-96-719A (PARCEL 9)  
PUC: 9700  
S/T/R: 36/1S/2E  
DISTRICT: STATE PLATE NO. 30  
SOUTH MOUNTAIN 620 AMD  
SITE ZONING: PCD

AREAS - GROSS/NET:  
206,856 SF (7.74 AC) /  
184,324 SF (7.03 AC)

ADJACENT ZONE:  
RE-35 (NORTH PROPERTY)  
R1-6 (EAST PROPERTY)  
PCD (WEST AND SOUTH PROPERTY)

**VICINITY MAP** SCALE: NTS



**SHEET INDEX**

LC1.1 LANDSCAPE COVER	LL2.2 LANDSCAPE DETAILS
LL1.1 LANDSCAPE PLAN - AREA 1	LI3.1 IRRIGATION PLAN - AREA 1
LL1.2 LANDSCAPE PLAN - AREA 2	LI3.2 IRRIGATION PLAN - AREA 2
LL1.3 LANDSCAPE PLAN - AREA 3	LI3.3 IRRIGATION PLAN - AREA 3
LL2.1 LANDSCAPE DETAILS	LI4.1 IRRIGATION DETAILS

**PROJECT RECORD (AS-BUILT) DRAWINGS FOR IRRIGATION SYSTEM:**

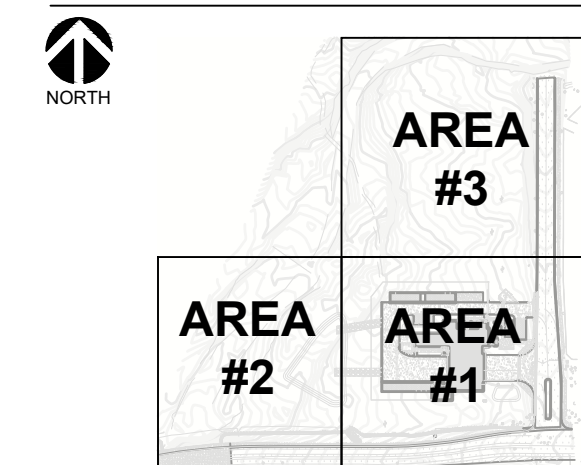
- MAINTAIN ON SITE AND SEPARATE FROM DOCUMENTS USED FOR CONSTRUCTION. ONE COMPLETE SET OF CONTRACT DOCUMENTS AS PROJECT RECORD DOCUMENTS. KEEP DOCUMENTS CURRENT. DO NOT PERMANENTLY COVER WORK UNTIL AS-BUILT INFORMATION IS RECORDED.
- RECORD PIPE AND WIRING NETWORK ALTERATIONS. RECORD WORK WHICH IS INSTALLED DIFFERENTLY THAN SHOWN ON THE CONSTRUCTION DRAWINGS. RECORD ACCURATE REFERENCE DIMENSIONS, MEASURED FROM AT LEAST TWO PERMANENT REFERENCE POINTS, OF EACH IRRIGATION SYSTEM VALVE, EACH BACKFLOW PREVENTION DEVICE, THE CONTROLLER UNIT, EACH SLEEVE END, EACH STUB-OUT FOR FUTURE PIPE OR WIRING CONNECTIONS, AND OTHER IRRIGATION COMPONENTS ENCLOSED WITHIN A VALVE BOX.

**NOTES:**

- THE EXISTING SITE IS THE BURSELA TRAILHEAD WITHIN THE SOUTH MOUNTAIN PRESERVE WITH TREES THAT REQUIRE A NATIVE OR NON-NATIVE PLANT INVENTORY. NPI REQUIRED FOR THIS PROJECT.
- THERE ARE SIGNIFICANT NATURAL FEATURES INCLUDING WASHES.
- THERE ARE NO OVERHEAD POWER LINES ON SITE.

APPROVAL STAMPS

**KEY MAP: SCALE: NTS**



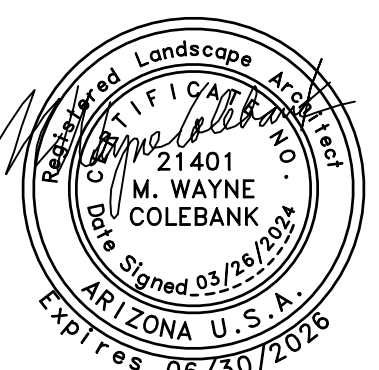
**CITY TRACK NUMBER:**

KIVA#: 23-1810  
SDEV#: 2300473  
PAPP/FACT#: 2306585  
LSPL#: 2400050  
LSIS#: 2400051  
CITY QUARTER SECTION#: Q011-24  
HILLSIDE PRESERVATION H#: NO  
ZONING: PCD\*  
OVERLAY DISTRICT: N/A



Note: 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 your contract with the City of Phoenix.

Revisions	Date



Designed By:  
**TR / JM**

Drawn By:  
**TR**

Checked By:  
**JM / RS**

Date:  
**03/26/2024**

Phase:  
**PERMIT**

**Perlman Architects of Arizona**  
2929 North Central Avenue, Suite #1600  
Phoenix, Arizona 85016  
480.951.3045  
perlmanaz.com

Title:  
**FIRE STATION #74**  
**1910 W. CHANDLER BLVD.**  
**PHOENIX, ARIZONA 85045**  
Index No:  
**FD57100020-3**

**OFFICE OF THE CITY ENGINEER**

KIVA # **23-1810**  
SDEV # **2300473**

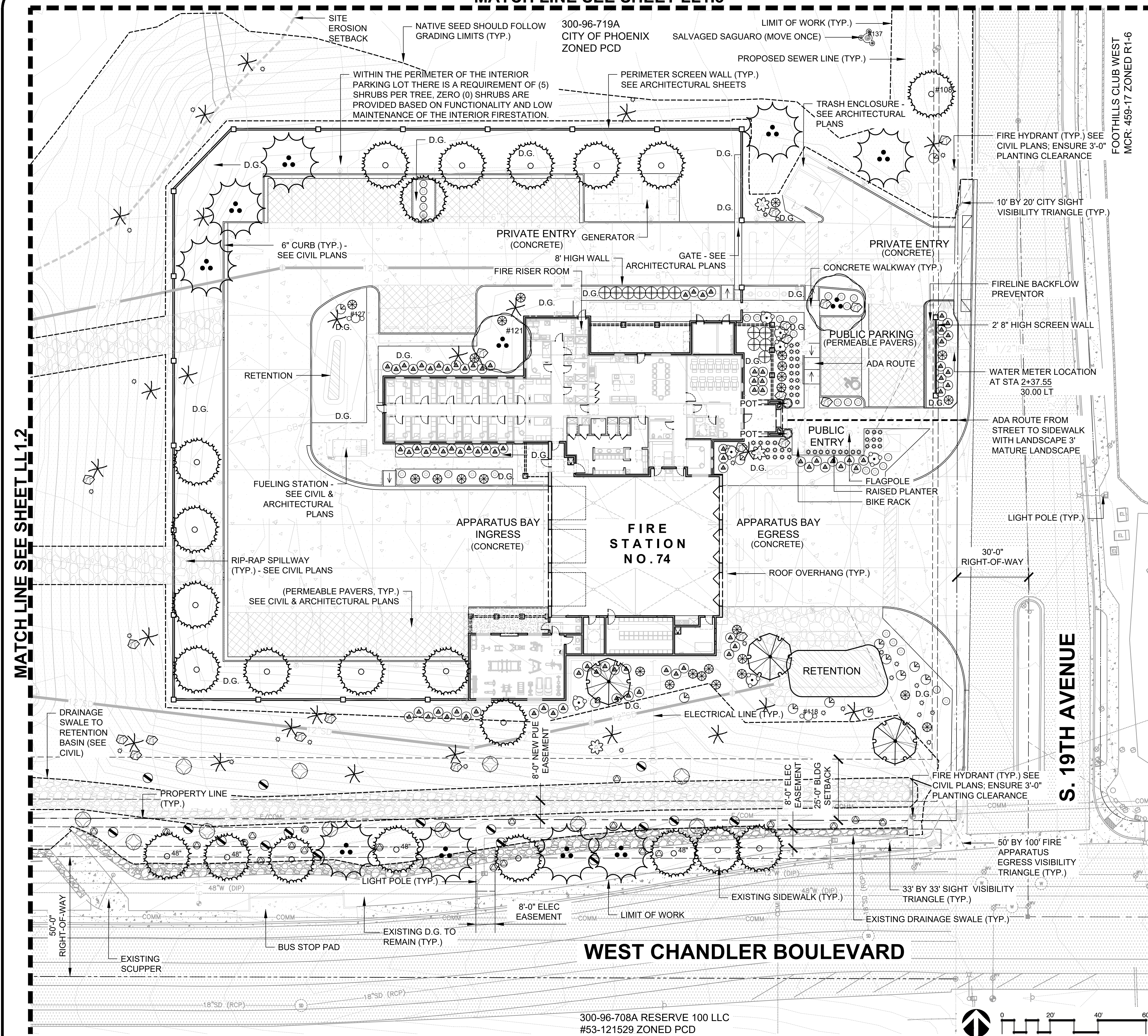
**LANDSCAPE COVER**  
**LC1.1**

CITY OF PHOENIX OFFICE OF THE CITY ENGINEER FIRE DEPARTMENT STATION 74 - PERMIT CITY SUBMITTAL



MATCH LINE SEE SHEET LL1.3

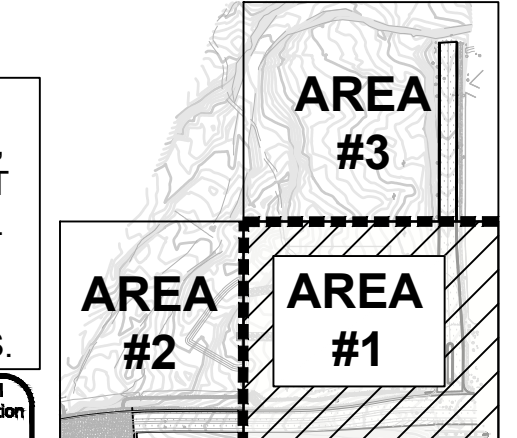
MATCH LINE SEE SHEET LL1.2



**LANDSCAPE LEGEND**

- TREES**
- COMMON NAME
  - DESERT WILLOW
  - IRONWOOD
  - IRONWOOD
  - AZT THORNLESS SEEDLESS MESQUITE
  - AZT THORNLESS SEEDLESS MESQUITE
  - VELVET MESQUITE
  - BLUE PALO VERDE
- SHRUBS**
- COMMON NAME
  - TRIANGLELEAF BURSAGE
  - BRITTLEBUSH
  - TURPENTINE BUSH
  - CREOSOTE BUSH
  - VIOLET SILVERLEAF SAGE
  - LYNN'S LEGACY TEXAS RANGER
- ACCENTS**
- COMMON NAME
  - WEBER'S AGAVE
  - DESERT SPOON
  - GOLDEN BARREL CACTUS
  - RED AFRICAN MILK TREE (POTS)
  - COMPASS BARREL
  - OCOTILLO
  - MEXICAN FENCE POST
  - SAGUARO (PROTECT-IN-PLACE)
  - SAGUARO (SALVAGED)
  - SAGUARO (SALVAGED)
- GROUNDCOVERS**
- COMMON NAME
  - PURPLE TRAILING LANTANA
- INERT MATERIALS**
- PRODUCT
  - KALAMAZOO (SURFACE SELECT)
  - OLD TOWN FIBERGLASS CURRENT CU3642 (SAND FINISH)
  - KALAMAZOO ANGULAR ROCK
  - KALAMAZOO

**KEY MAP SCALE: NTS**



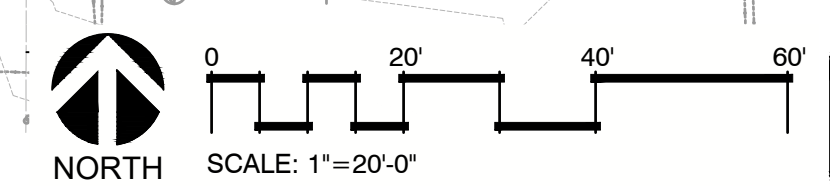
NOTE: TO PREVENT WEEDS, A PRE-EMERGENT HERBICIDE SHALL BE APPLIED TO NON-VEGETATIVE INERT MATERIALS.

Contact Arizona 811 at least two full working days before you begin excavation.

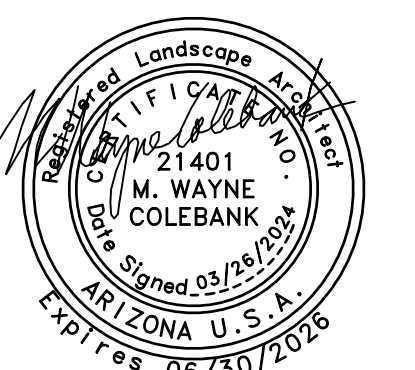
**ARIZONA 811**  
Call 811 or click Arizona811.com

**CITY TRACK NUMBER:**

KIVA#: 23-1810  
 SDEV#: 2300473  
 PAPP/FACT#: 2306585  
 LSPL#: 2400050  
 LSIS#: 2400051  
 CITY QUARTER SECTION#: Q011-24  
 HILLSIDE PRESERVATION H#: NO  
 ZONING: PCD\*  
 OVERLAY DISTRICT: N/A



Revisions	Date



Designed By:  
**TR / JM**

Drawn By:  
**TR**

Checked By:  
**JM / RS**

Date:  
**03/26/2024**

Phase:  
**PERMIT**

**Perlman Architects of Arizona**  
 2929 North Central Avenue, Suite #1600  
 Phoenix, Arizona 85016  
 Phone: 602.957.3045  
 Fax: 602.957.3045  
 perlmanaz.com

Title:  
**FIRE STATION #74**  
**1910 W. CHANDLER BLVD.**  
**PHOENIX, ARIZONA 85045**  
 Index No: **FD57100020-3**

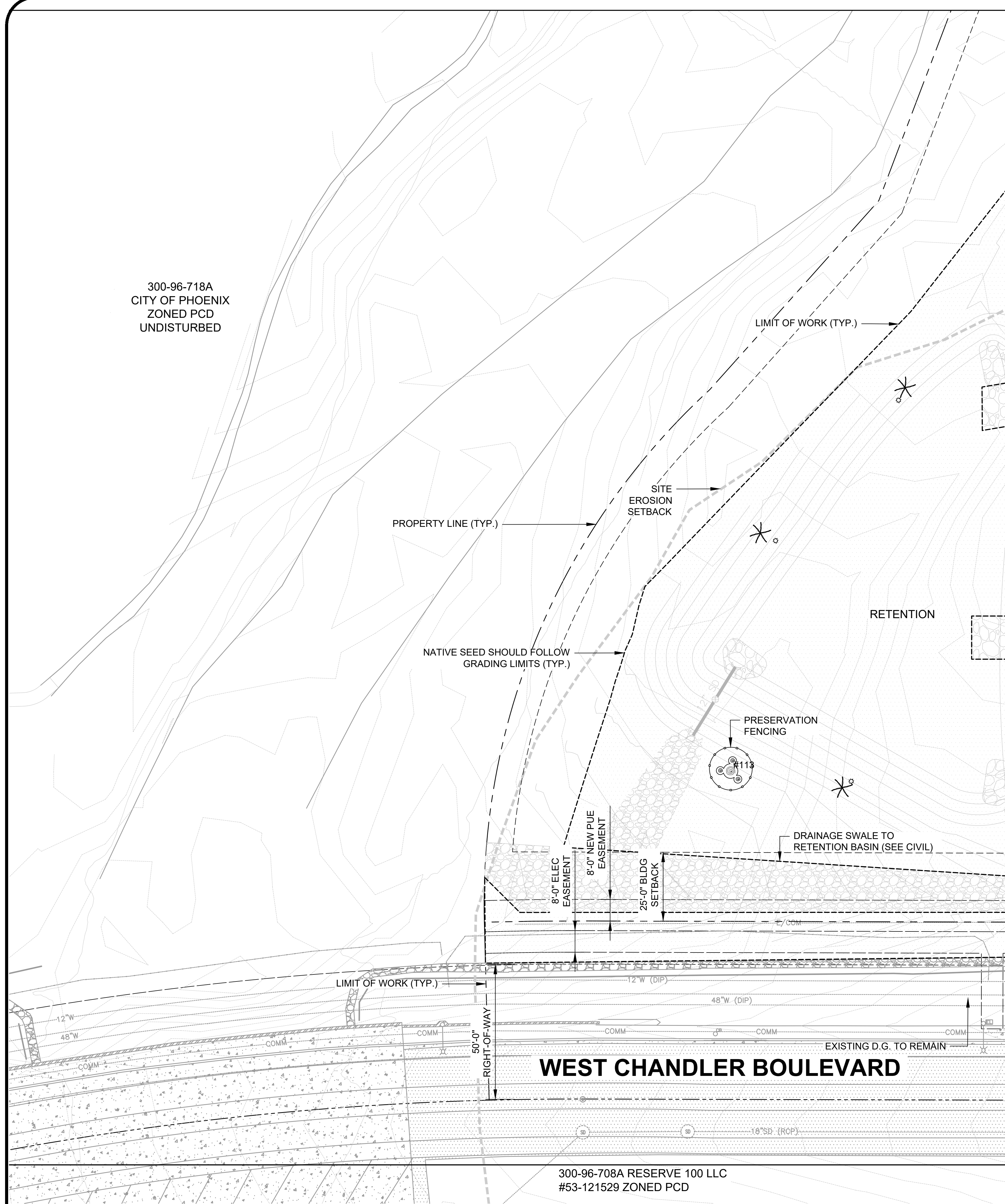


KIVA # **23-1810**  
 SDEV # **2300473**

CITY OF PHOENIX OFFICE OF THE CITY ENGINEER FIRE DEPARTMENT STATION 74 - PERMIT CITY SUBMITTAL



300-96-718A  
CITY OF PHOENIX  
ZONED PCD  
UNDISTURBED

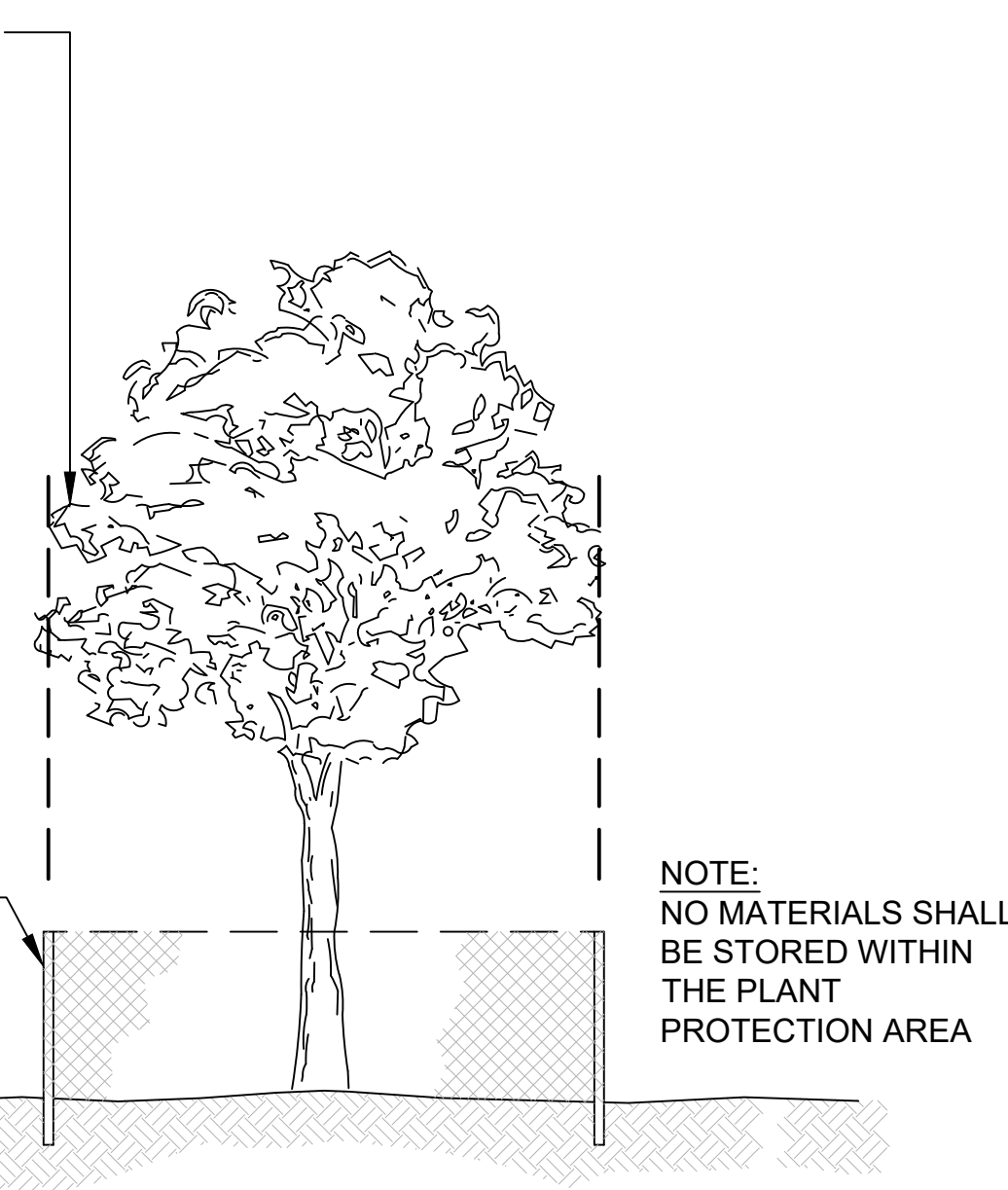


MATCH LINE SEE SHEET LL1.1

BRANCH PROTECTION -  
PROTECT BRANCHES  
OF PLANT. PROVIDE  
PRESERVATION  
FENCING OR EQUAL AT  
DRIPLINE (MIN.)

PLACE SIGNS:  
KEEP OUT  
PLANT PROTECTION  
AREA  
EVERY 50' ATTACHED  
TO FENCING

T-POSTS PLACED AT  
30' O.C. SPACING  
MAXIMUM AND ALL  
ANGLE POINTS

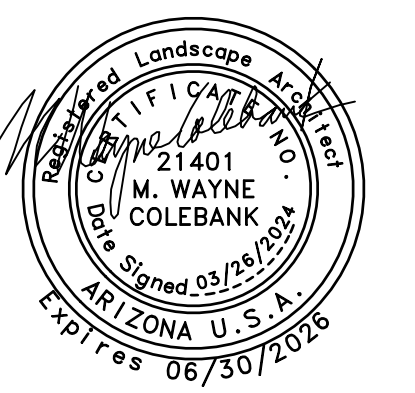


**1 PRESERVATION FENCING**  
SCALE: N.T.S.

**LANDSCAPE LEGEND**

TREES	COMMON NAME
	DESERT WILLOW
	IRONWOOD
	IRONWOOD
	AZT THORNLESS SEEDLESS MESQUITE
	AZT THORNLESS SEEDLESS MESQUITE
	VELVET MESQUITE
	BLUE PALO VERDE
SHRUBS	COMMON NAME
	TRIANGLELEAF BURSAE
	BRITTLEBUSH
	TURPENTINE BUSH
	CREOSOTE BUSH
	VIOLET SILVERLEAF SAGE
	LYNN'S LEGACY TEXAS RANGER
ACCENTS	COMMON NAME
	WEBER'S AGAVE
	DESERT SPOON
	GOLDEN BARREL CACTUS
	RED AFRICAN MILK TREE (POTS)
	COMPASS BARREL
	OCOTILLO
	MEXICAN FENCE POST
	SAGUARO (PROTECT-IN-PLACE)
	SAGUARO (SALVAGED)
	SAGUARO (SALVAGED)
GROUNDCOVERS	COMMON NAME
	PURPLE TRAILING LANTANA
INERT MATERIALS	PRODUCT
	KALAMAZOO (SURFACE SELECT)
	OLD TOWN FIBERGLASS CURRENT CU3642 (SAND FINISH)
	KALAMAZOO ANGULAR ROCK
	KALAMAZOO

Revisions	Date

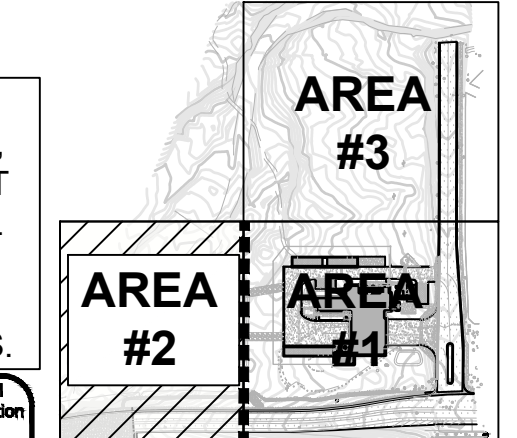


Designed By:	TR / JM
Drawn By:	TR
Checked By:	JM / RS
Date:	03/26/2024
Phase:	PERMIT

**Perlman Architects of Arizona**  
2929 North Central Avenue, Suite #1600  
Phoenix, Arizona 85012  
480.951.5900 perlmanaz.com

Title: **FIRE STATION #74**  
**1910 W. CHANDLER BLVD.**  
**PHOENIX, ARIZONA 85045**  
Index No: **FD57100020-3**

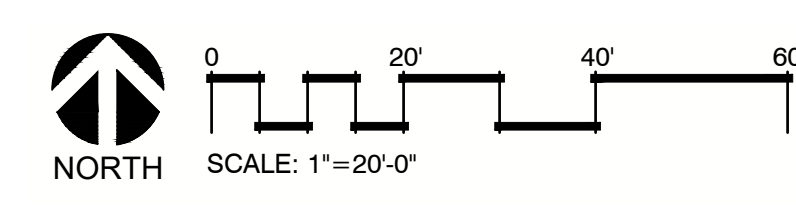
**KEY MAP SCALE: NTS**



**CITY TRACK NUMBER:**

KIVA#: 23-1810  
SDEV#: 2300473  
PAPP/FACT#: 2306585  
LSPL#: 2400050  
LSIS#: 2400051  
CITY QUARTER SECTION#: Q011-24  
HILLSIDE PRESERVATION H#: NO  
ZONING: PCD\*  
OVERLAY DISTRICT: N/A

NOTE: TO PREVENT WEEDS, A PRE-EMERGENT HERBICIDE SHALL BE APPLIED TO NON-VEGETATIVE INERT MATERIALS.



300-96-708A RESERVE 100 LLC  
#53-121529 ZONED PCD

KIVA # **23-1810**  
SDEV # **2300473**

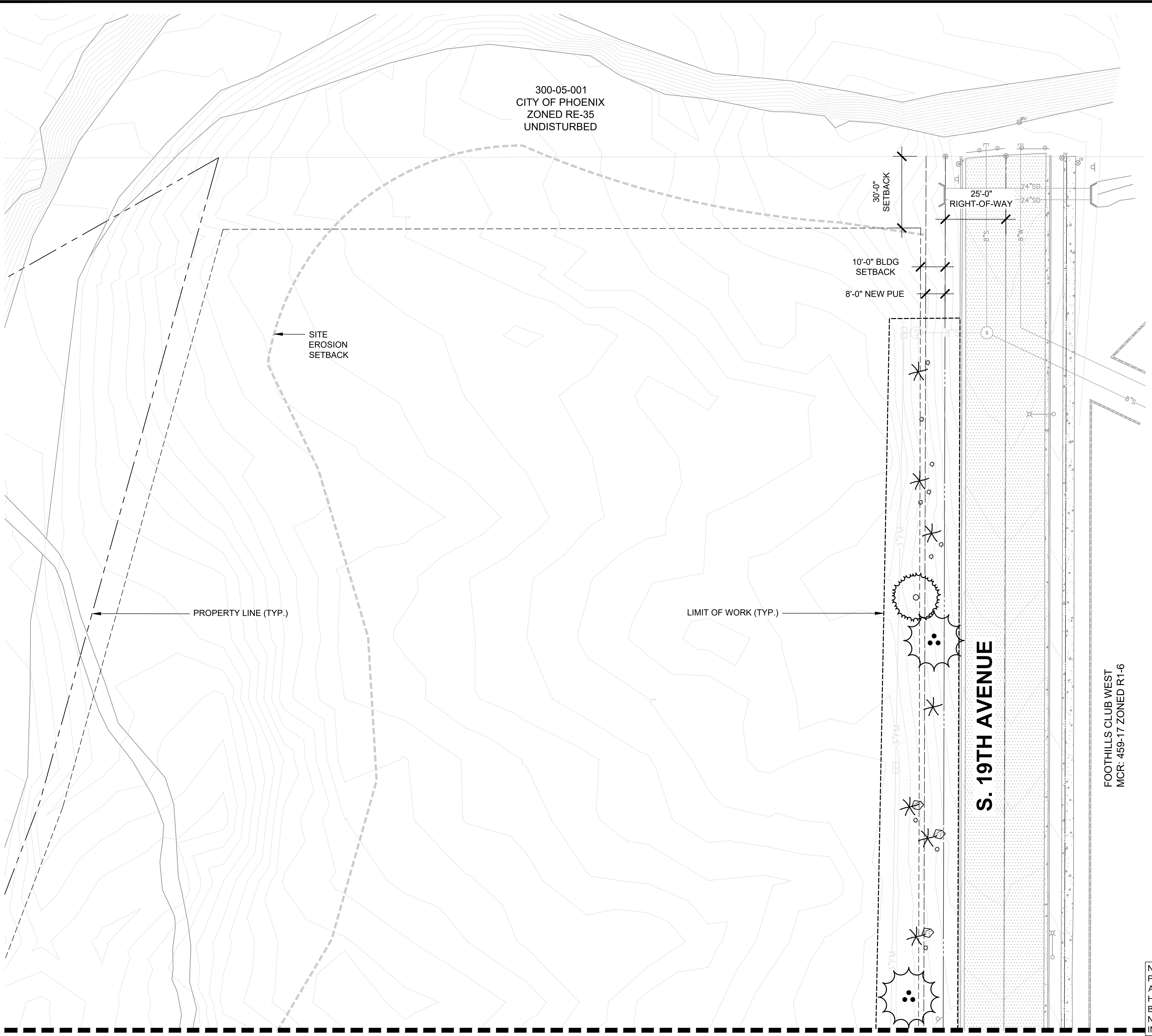
**LANDSCAPE PLAN**  
**AREA 2**  
**LL1.2**

Note: 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 your contract with the City of Phoenix.

CITY OF PHOENIX OFFICE OF THE CITY ENGINEER FIRE DEPARTMENT STATION 74 - PERMIT CITY SUBMITTAL



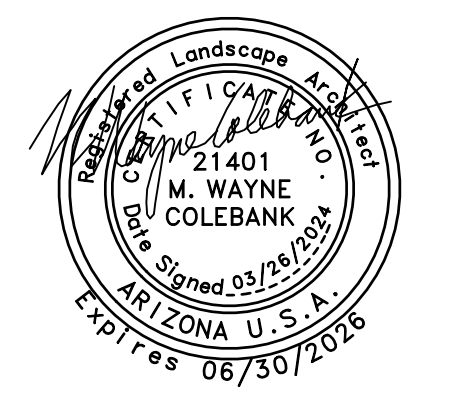
300-05-001  
CITY OF PHOENIX  
ZONED RE-35  
UNDISTURBED



**LANDSCAPE LEGEND**

- TREES**
- COMMON NAME: DESERT WILLOW
  - COMMON NAME: IRONWOOD
  - COMMON NAME: IRONWOOD
  - COMMON NAME: AZT THORNLESS SEEDLESS MESQUITE
  - COMMON NAME: AZT THORNLESS SEEDLESS MESQUITE
  - COMMON NAME: VELVET MESQUITE
  - COMMON NAME: BLUE PALO VERDE
- SHRUBS**
- COMMON NAME: TRIANGLELEAF BURSAGE
  - COMMON NAME: BRITTLEBUSH
  - COMMON NAME: TURPENTINE BUSH
  - COMMON NAME: CREOSOTE BUSH
  - COMMON NAME: VIOLET SILVERLEAF SAGE
  - COMMON NAME: LYNN'S LEGACY TEXAS RANGER
- ACCENTS**
- COMMON NAME: WEBER'S AGAVE
  - COMMON NAME: DESERT SPOON
  - COMMON NAME: GOLDEN BARREL CACTUS
  - COMMON NAME: RED AFRICAN MILK TREE (POTS)
  - COMMON NAME: COMPASS BARREL
  - COMMON NAME: OCOTILLO
  - COMMON NAME: MEXICAN FENCE POST
  - COMMON NAME: SAGUARO (PROTECT-IN-PLACE)
  - COMMON NAME: SAGUARO (SALVAGED)
  - COMMON NAME: SAGUARO (SALVAGED)
- GROUNDCOVERS**
- COMMON NAME: PURPLE TRAILING LANTANA
- INERT MATERIALS**
- PRODUCT: KALAMAZOO (SURFACE SELECT)
  - PRODUCT: OLD TOWN FIBERGLASS CURRENT CU3642 (SAND FINISH)
  - PRODUCT: KALAMAZOO ANGULAR ROCK
  - PRODUCT: D.G. KALAMAZOO

Revisions	Date



Designed By: <b>TR / JM</b>
Drawn By: <b>TR</b>
Checked By: <b>JM / RS</b>
Date: <b>03/26/2024</b>
Phase: <b>PERMIT</b>

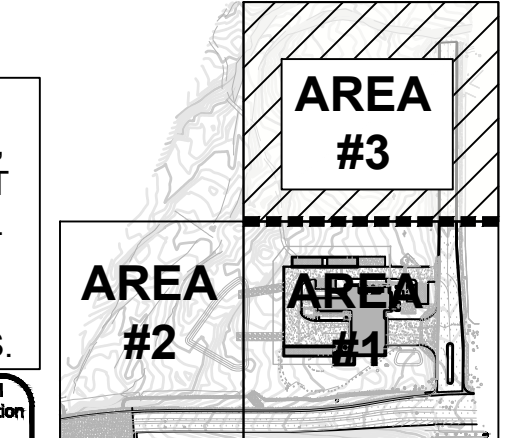
**Perlman Architects of Arizona**  
2929 North Central Avenue, Suite #1000  
Phoenix, Arizona 85018  
480.951.5000 | perlmanaz.com

**Title:**  
**FIRE STATION #74**  
**1910 W. CHANDLER BLVD.**  
**PHOENIX, ARIZONA 85045**  
Index No: **FD57100020-3**

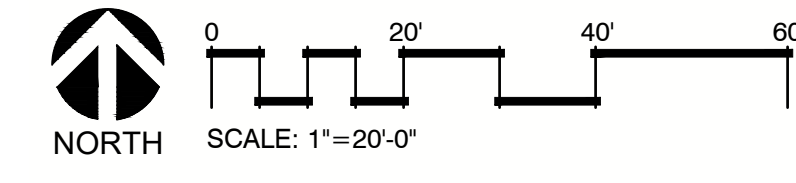
**CITY TRACK NUMBER:**  
KIVA#: 23-1810  
SDEV#: 2300473  
PAPP/FACT#: 2306585  
LSPL#: 2400050  
LSIS#: 2400051  
CITY QUARTER SECTION#: Q011-24  
HILLSIDE PRESERVATION H#: NO  
ZONING: PCD\*  
OVERLAY DISTRICT: N/A

**LANDSCAPE PLAN**  
**AREA 3**  
**LL1.3**

**KEY MAP SCALE: NTS**



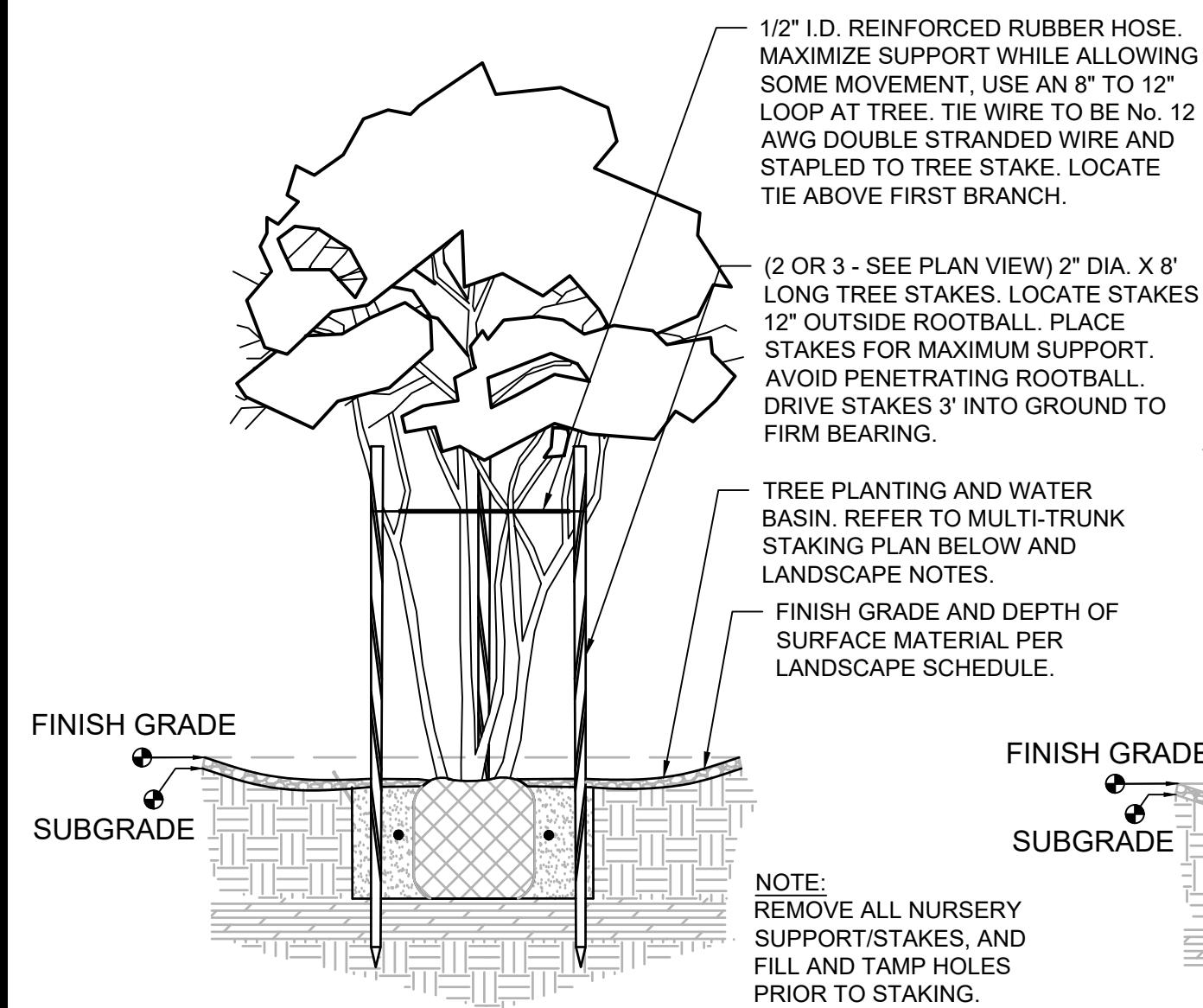
NOTE: TO PREVENT WEEDS, A PRE-EMERGENT HERBICIDE SHALL BE APPLIED TO NON-VEGETATIVE INERT MATERIALS.



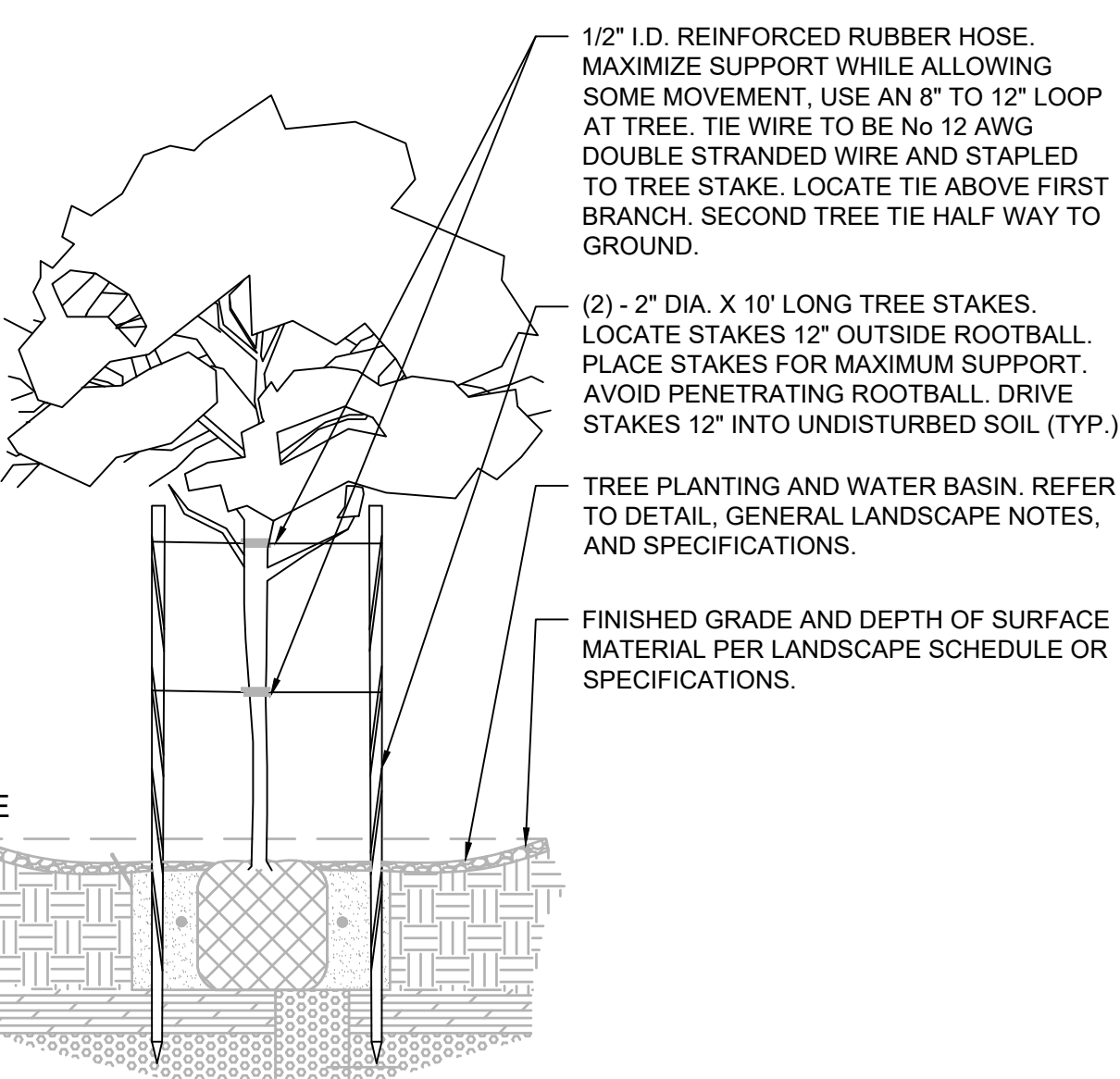
**MATCH LINE SEE SHEET LL1.1**

**CITY OF PHOENIX OFFICE OF THE CITY ENGINEER FIRE DEPARTMENT STATION 74 - PERMIT CITY SUBMITTAL**

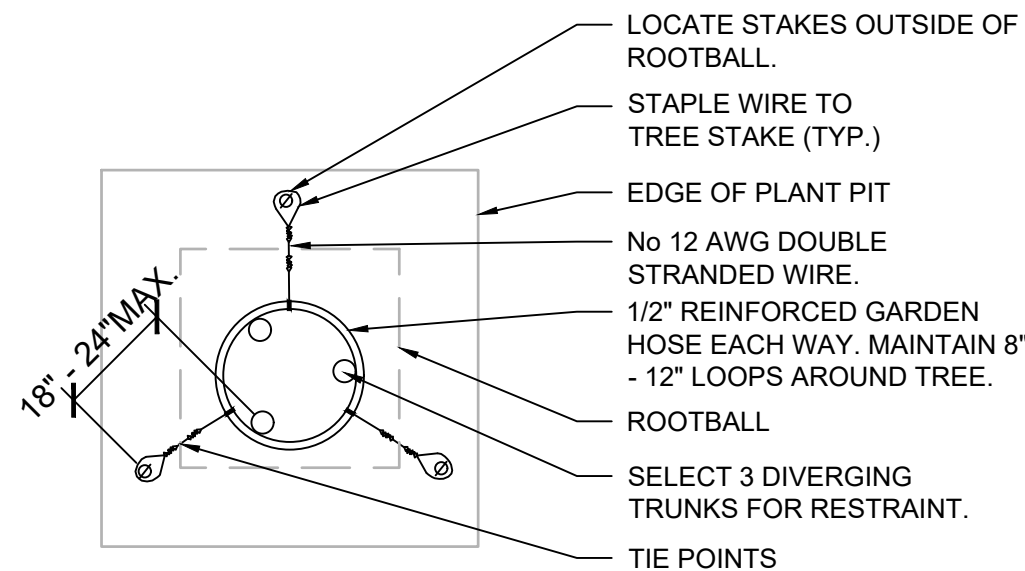




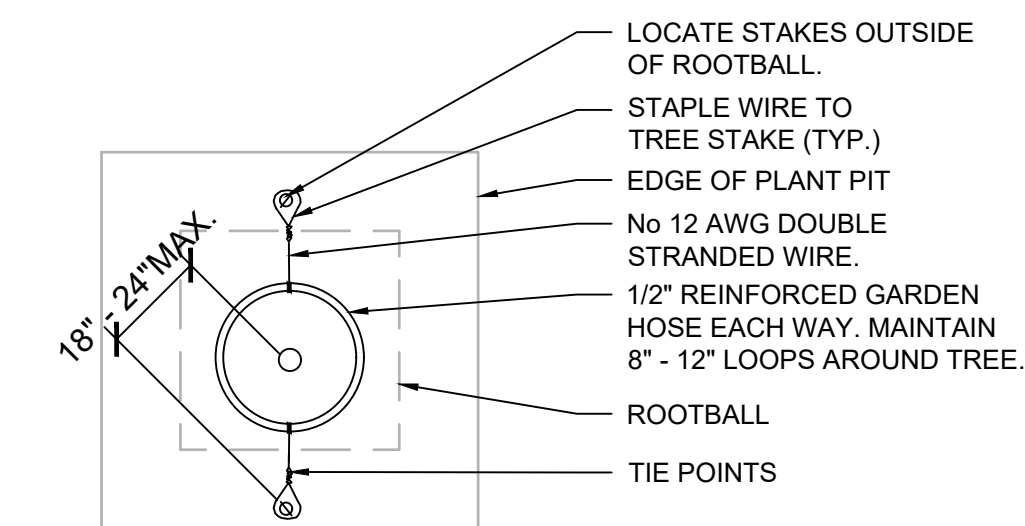
**1 TREE STAKING**  
SCALE: N.T.S.



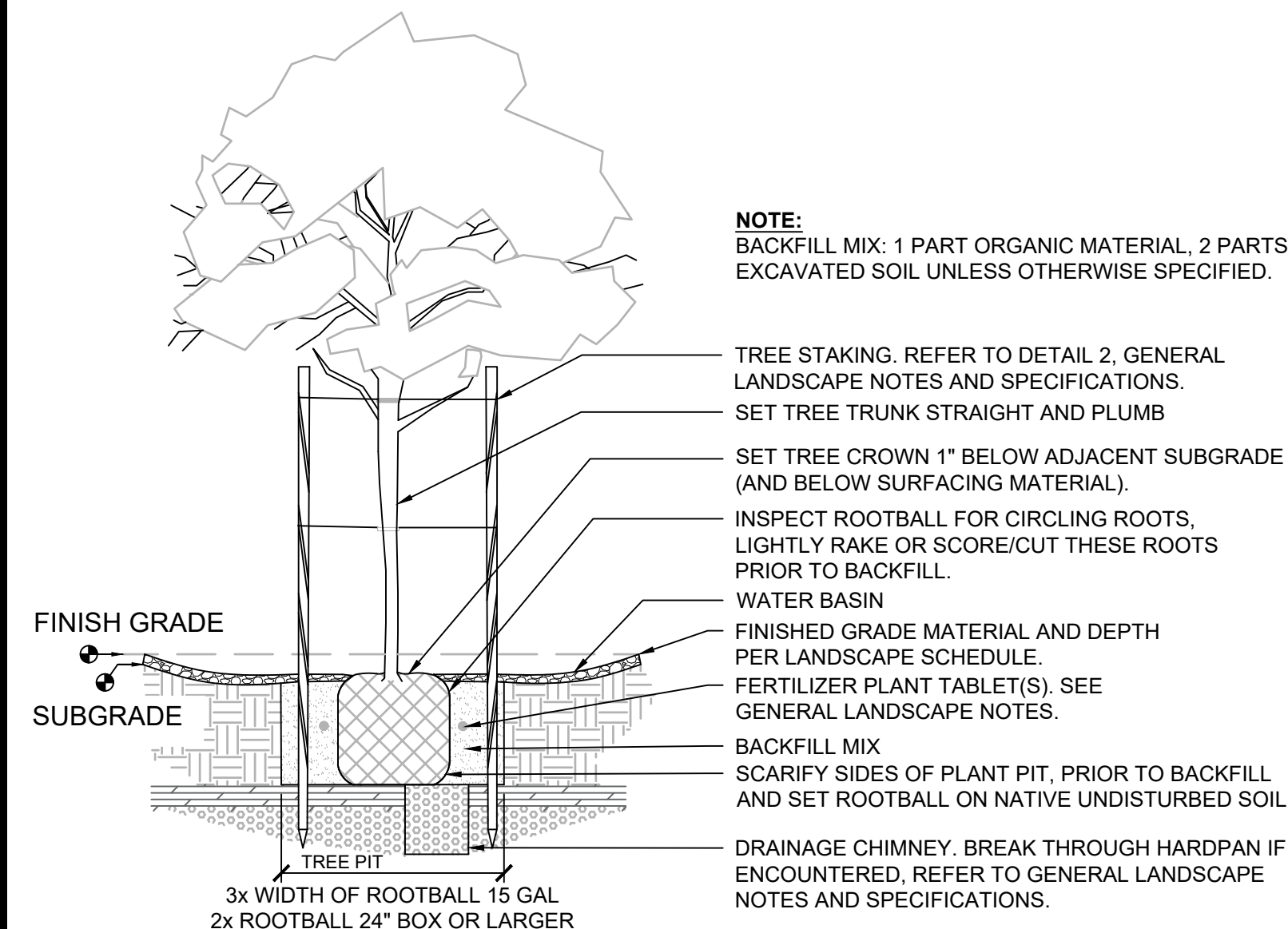
**2 TREE STAKING**  
SCALE: N.T.S.



**3 MULTI-TRUNK STAKING PLAN VIEW**



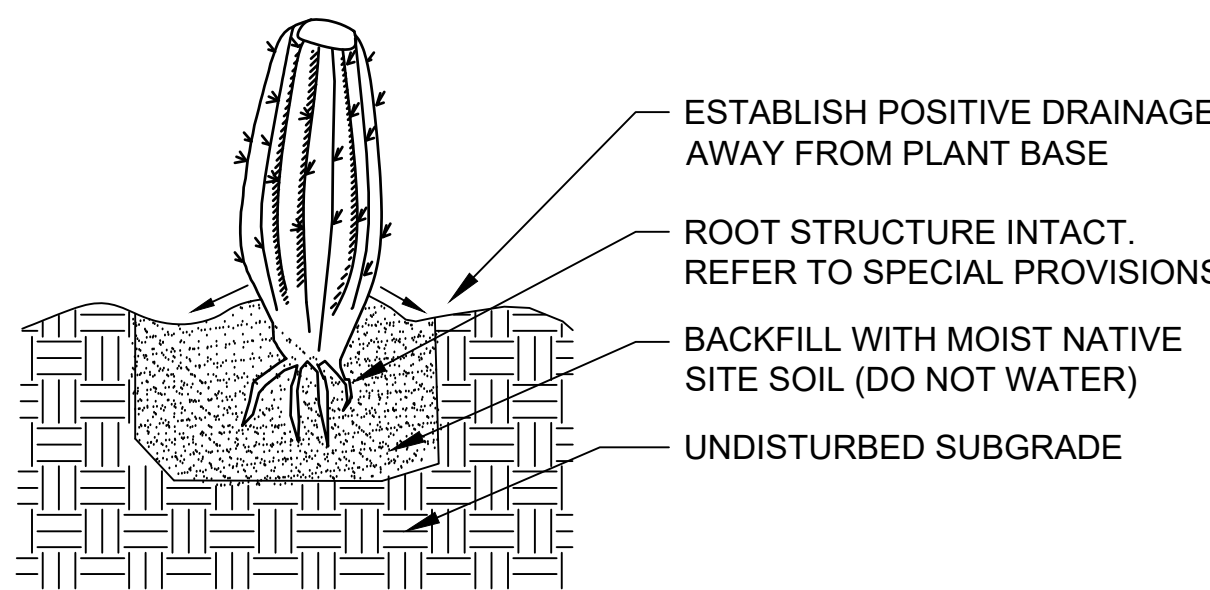
**4 SINGLE-TRUNK STAKING PLAN VIEW**



**2 TREE PLANTING (CONTAINER STOCK)**  
SCALE: N.T.S.

**NOTES:**

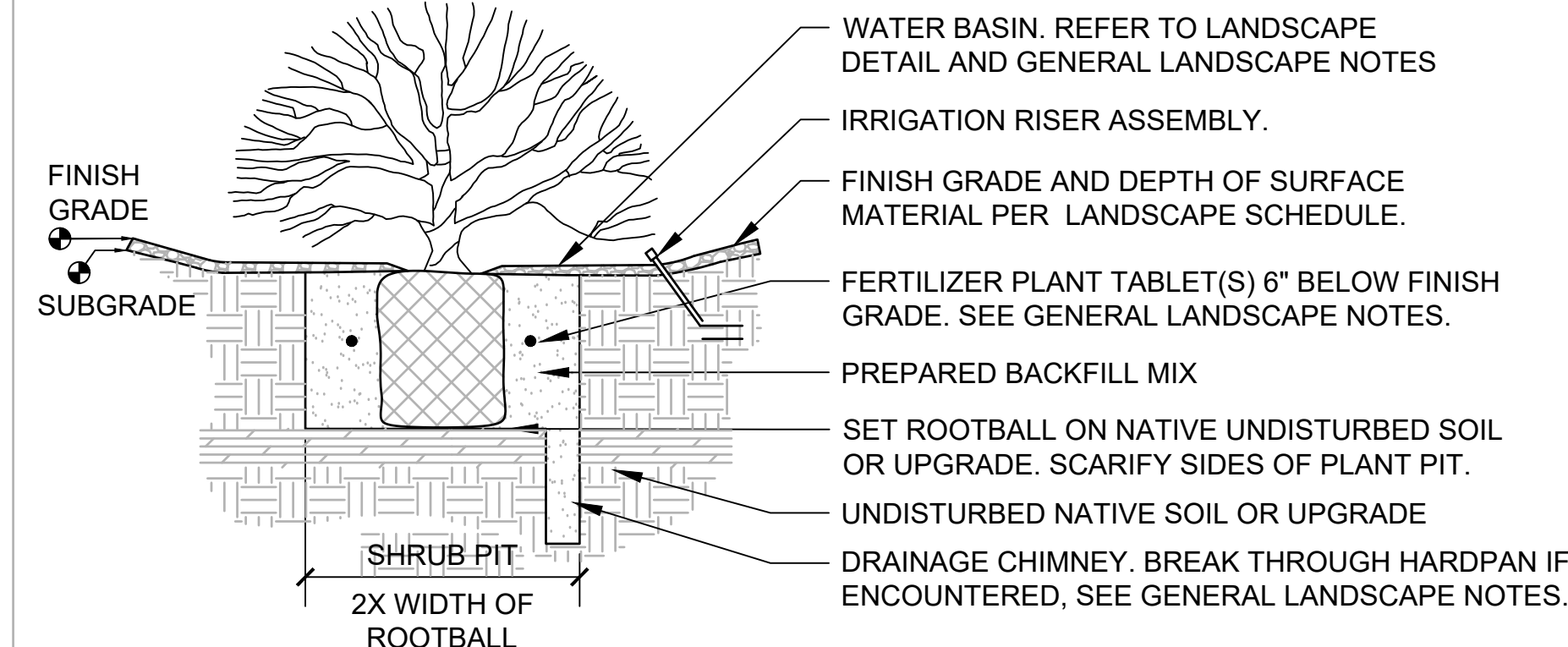
1. ROOT PRUNE ALL SHREDDED OR DAMAGED ROOTS.
2. ENSURE ALL WOUNDS TO THE ROOT SYSTEM ARE CLEAN CUT BEFORE PLANTING. APPLY DUSTING SULFUR TO ALL ROOTS BELOW GRADE.
3. ROUGHEN BOTTOM AND SIDES OF PLANT PIT PRIOR TO SETTING.
4. BARE ROOTS SHALL NOT BE OUT OF THE GROUND FOR MORE THAN FIVE DAYS BEFORE PLANTING.
5. PLANTING DEPTH SHALL BE DEPTH AT WHICH PLANT WAS GROWN.
6. MAINTAIN ORIGINAL PLANT ORIENTATION.
7. PLANT MIN. 4'-0" FROM SIDEWALKS/PATHS.
8. PREPARED BACKFILL MIX:
  - 60% - 70% NATIVE SOIL,
  - 30% - 40% COARSE LANDSCAPE SAND.



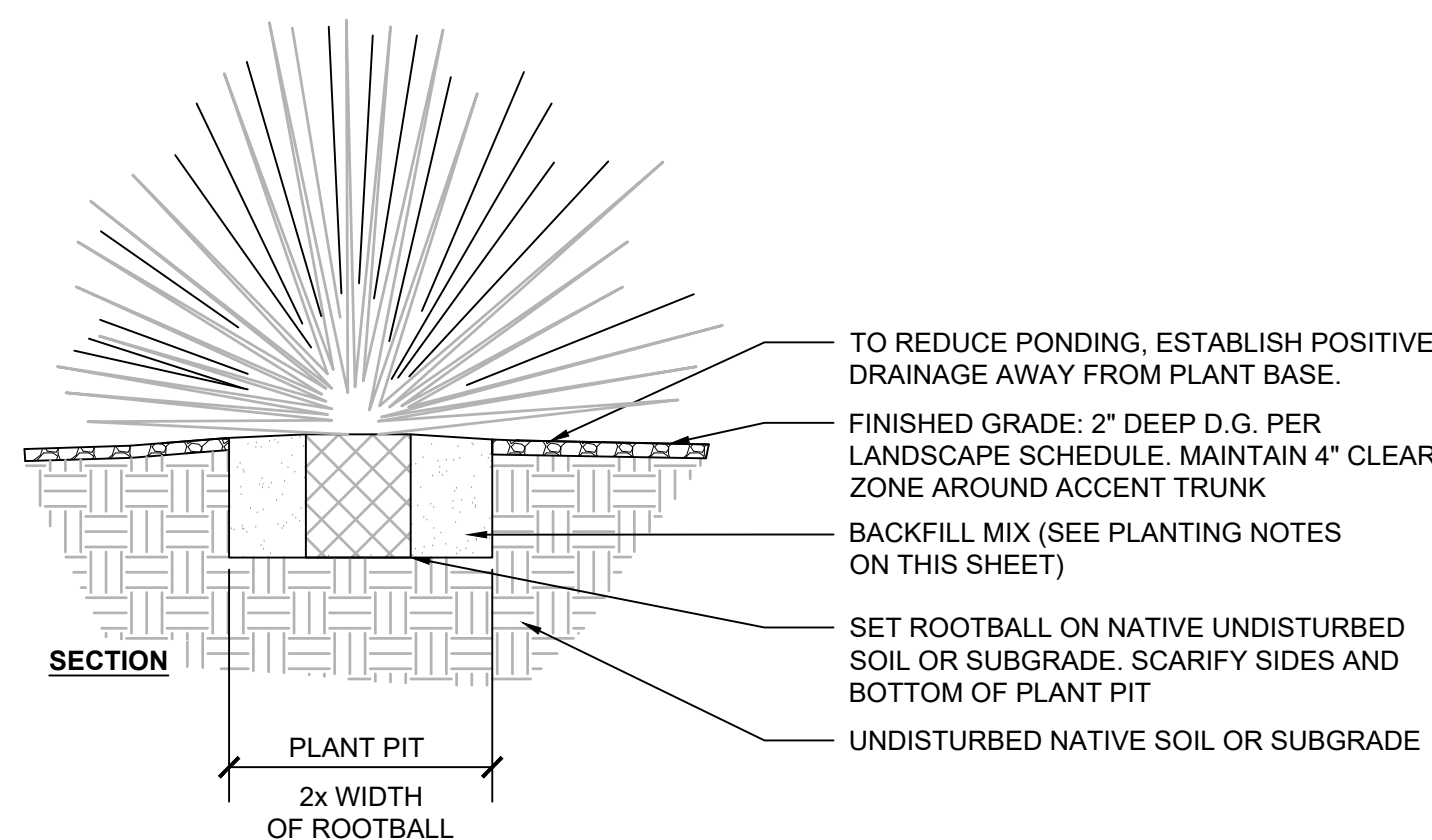
**5 CACTUS PLANTING**  
SCALE: N.T.S.

**NOTES:**

1. PREPARED BACKFILL MIX:
  - 1 PART ORGANIC MATERIAL,
  - 2 PARTS EXCAVATED SOIL
 UNLESS OTHERWISE SPECIFIED
2. PRE-WET PITS WHEN TEMPERATURE IS ABOVE 100°.
3. SCARIFY SIDES OF PLANT PIT WHEN GLAZED SMOOTH OR OVERLY COMPACTED.
4. PLACE PLANT ACCORDING TO BEST ORIENTATION.
5. SCORE ROOTBALL WITH VERTICAL CUTS (1/2" DEEP). A MINIMUM OF 6 LOCATIONS AROUND ROOTBALL.
6. SET TOP OF ROOTBALL FLUSH OR 1" ABOVE ESTABLISHED SOIL GRADE.
7. WATER SETTLE AND TAMP BACKFILL MATERIAL TO REMOVE AIR POCKETS.



**5 SHRUB PLANTING (CONTAINER STOCK)**  
SCALE: N.T.S.



**4 ACCENT PLANTING (CONTAINER STOCK)**  
SCALE: N.T.S.

**LANDSCAPE GENERAL NOTES (NOT CITY APPROVED)**

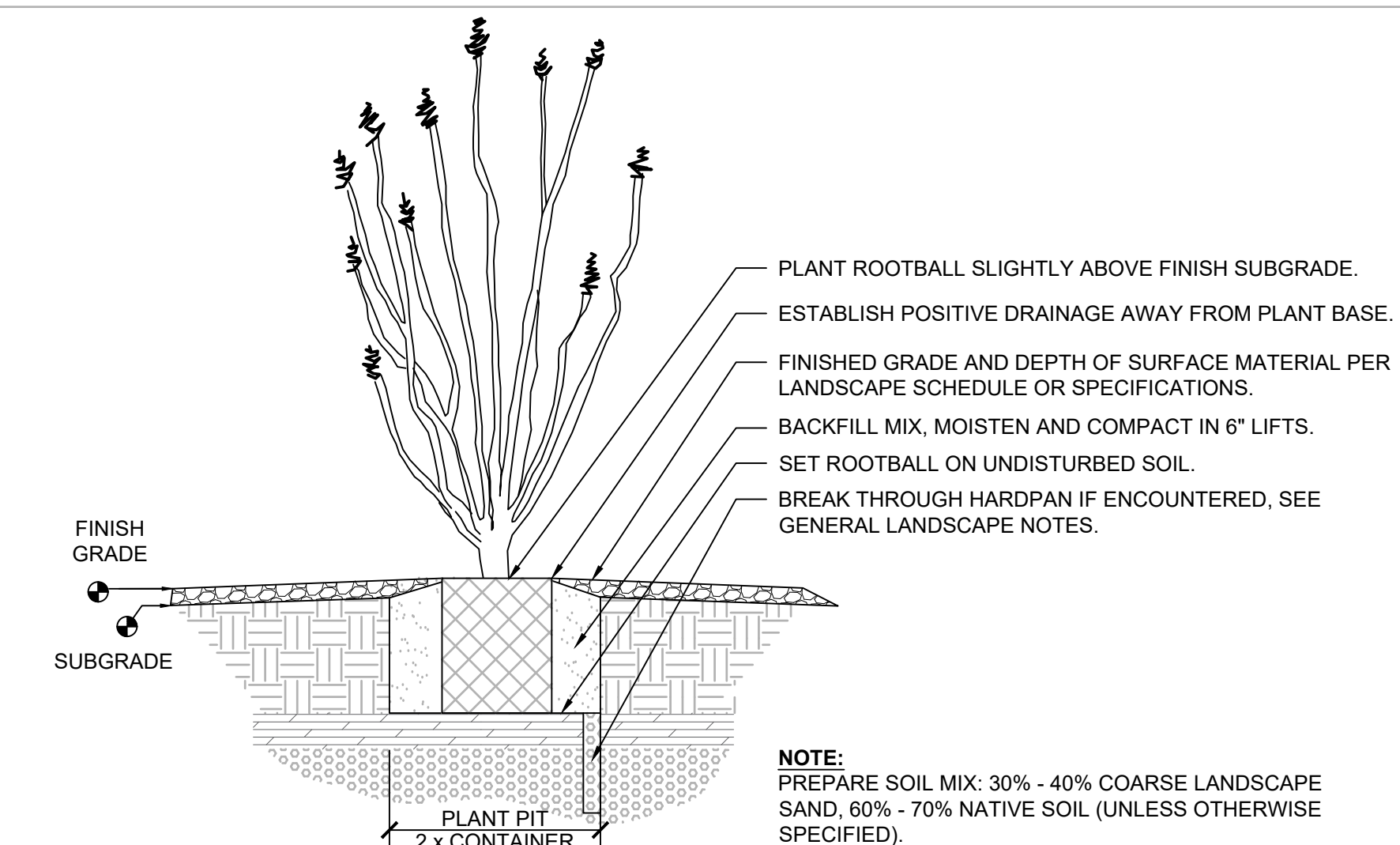
**GENERAL INFORMATION:**

1. ALL PLANT MATERIAL SHALL HAVE A ONE-YEAR WARRANTY FROM OWNER'S ACCEPTANCE DATE OF SUBSTANTIAL COMPLETION.
2. PLANT ESTABLISHMENT BY THE CONTRACTOR SHALL BE FOR 90 CALENDAR DAYS, BEGINNING ON START DATE OF SUBSTANTIAL COMPLETION OF LANDSCAPING. MAINTENANCE SHALL CONSIST OF MAINTAINING ALL WORK INSTALLED UNDER CONTRACT AND MONITORING THE WATERING SYSTEM (INCLUDING IF INSTALLED BY OTHERS). AFTER 90 CALENDAR DAYS THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE FOR A SITE INSPECTION. UPON ACCEPTANCE OF PLANTS AND MAINTENANCE, THE OWNER ASSUMES MAINTENANCE RESPONSIBILITIES. PROJECT WARRANTY REMAINS IN EFFECT FOR ONE YEAR FROM DATE OF SUBSTANTIAL COMPLETION ACCEPTANCE.
3. PRIOR TO COMMENCEMENT OF ANY WORK, DETERMINE LOCATION OF ALL UNDERGROUND UTILITIES THROUGH 'BLUE STAKE' OR OTHER METHOD AND PERFORM WORK IN A MANNER WHICH WILL AVOID POSSIBLE DAMAGE. HAND EXCAVATE, AS REQUIRED. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES CAUSED AS A RESULT OF HIS WORK.
4. ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE REPAIRED TO THEIR ORIGINAL CONDITION WHEN NO LANDSCAPE IMPROVEMENTS ARE SHOWN ON THE PLANS. VERIFY TREATMENT WITH THE OWNER'S REPRESENTATIVE PRIOR TO IMPLEMENTATION.

**FINISH GRADE / LANDSCAPE PREPARATION**

5. SITE GRADING NECESSITATED BY THE WORK AS IT PROGRESSES AND NOT SPECIFICALLY CALLED OUT ON THE PLANS WILL BE CONSIDERED INCIDENTAL WORK.
6. CONTRACTOR SHALL INSPECT SUBGRADES PREPARED BY OTHERS PRIOR TO COMMENCING WITH CONTRACTED LANDSCAPING OR IRRIGATION ACTIVITIES. ADVISE OWNER'S REPRESENTATIVE OF DISCREPANCIES WITH DRAWINGS OR TECHNICAL SPECIFICATIONS. ALL PLANTING AREAS SHALL BE LEFT FREE OF CONSTRUCTION DEBRIS AND/OR TOXIC MATERIAL AND SUBGRADED TO A LEVEL TO PERMIT LANDSCAPE CONSTRUCTION. TRENCHES OR OTHER FILLED EXCAVATIONS SHALL BE COMPACTED PRIOR TO LANDSCAPE INSTALLATION.
7. ALL TEMPORARY CONSTRUCTION ROADS AND COMPACTED AREAS THAT ARE WITHIN THE LANDSCAPE AREAS SHALL BE SCARIFIED AND LOOSENED THEN WATER-SETTLED TO A DEPTH OF 12" PRIOR TO BEGINNING LANDSCAPE AND IRRIGATION WORK.
8. ALL SUBGRADE SURFACES SHALL BE RAKED OR GROOMED UNIFORMLY TO CONFORM TO THE TYPICAL SECTIONS OF PROPOSED GRADES PRIOR TO THE PLACEMENT OF INERT MATERIALS. SUBGRADE SURFACES SHALL BE REASONABLY SMOOTH, COMPACTED, AND FREE OF IRREGULAR DRAINAGE INCONSISTENCIES (SUBGRADE FORM SHALL MATCH FINISH GRADE FORMS). THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FINISH GRADE AND SHALL BEAR FINAL RESPONSIBILITY FOR PROPER SURFACE DRAINAGE OF PLANTED AREAS. FINISH GRADES SHALL MATCH ENGINEER'S PLANS AND SPECIFICATIONS.
9. ALL IRRIGATION VALVES, CLEAN-OUTS, METERS, AND BOXES SHALL BE ADJUSTED TO FINISH GRADE AND SHALL BE INCIDENTAL TO CONSTRUCTION WORK.
10. FINISH GRADE FOR PLANTED AREAS SHALL BE PER THE DETAILS WITH SMOOTH EVEN LINES AT EDGES

11. FINISH GRADE IF NOT SPECIFIED ON THE PROJECT'S GRADING PLANS SHALL SLOPE AT A 2% GRADE AWAY FROM CURBS, WALKS, AND WALLS FOR A MINIMUM OF 10 FEET.
12. ALL PLANT MATERIAL AND SPECIFICATIONS TO CONFORM TO THE ARIZONA NURSERY ASSOCIATION STANDARDS UNLESS OTHERWISE NOTED. THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO REFUSE PLANT MATERIAL NOT MATCHING THE STANDARD FOR SIZE, HEALTH, AND FORM. DO NOT MAKE SUBSTITUTIONS; IF SPECIFIED LANDSCAPE MATERIAL IS NON-OBTAINABLE, SUBMIT PROOF OF NON-AVAILABILITY FROM AT LEAST FIVE SUPPLIERS TO OWNER'S REPRESENTATIVE, TOGETHER WITH A PROPOSAL FOR SUBSTITUTION OF EQUIVALENT MATERIAL FOR ACCEPTANCE.
13. LAYOUT INDIVIDUAL PLANT LOCATIONS, STAKE LOCATIONS AND OUTLINE AREAS AND SECURE OWNER'S REPRESENTATIVE ACCEPTANCE BEFORE START OF PLANTING WORK. MAKE MINOR ADJUSTMENTS AS MAY BE DIRECTED.
14. PLANT QUANTITIES LISTED IN THE LANDSCAPE SCHEDULE ARE FOR THE CONVENIENCE OF THE CONTRACTOR. IN THE CASE OF ANY DISCREPANCIES, PLANS SHALL OVERRIDE THE LANDSCAPE AND BID SCHEDULE QUANTITIES. CONTRACTOR SHALL VERIFY QUANTITIES SHOWN ON THE PLANS AND BASE THEIR BID ACCORDINGLY.
15. ALL PLANT MATERIALS SHALL HAVE A MINIMUM SETBACK FROM EDGE OF CURBS, WALKS, WALLS, PADS, ETC. AS FOLLOWS UNLESS OTHERWISE DIRECTED BY THE OWNER'S REPRESENTATIVE:
  - TREES 5 FOOT MINIMUM SETBACK
  - SHRUBS & GRASSES 3 FOOT MINIMUM SETBACK
  - ACCENTS 4 FOOT MINIMUM SETBACK
16. IF ROCK, UNDERGROUND CONSTRUCTION, ADVERSE DRAINAGE CONDITIONS, OR OTHER OBSTRUCTIONS ARE ENCOUNTERED IN EXCAVATION FOR PLANTING PLANTS NOTIFY OWNER'S REPRESENTATIVE. NEW LOCATIONS MAY BE DETERMINED, OR INSTRUCTIONS MAY BE ISSUED TO DIRECT REMOVAL OF OBSTRUCTION. PROCEED WITH WORK ONLY AFTER APPROVAL OF OWNER'S REPRESENTATIVE.
17. ALL PLANT BACKFILL MIXES SHALL BE AMENDED AS DESCRIBED ON THE LANDSCAPE DRAWING DETAILS, UNLESS SUPERCEDED BY SPECIFIC SOIL TESTING AND OR LANDSCAPE SPECIFICATIONS. BACKFILL MIX SHALL BE PLACED IN 6" LIFTS AND TAMPED INTO PLACE TO OBTAIN COMPACTION. NO TRANSPANTING SHALL BE DONE WHEN SOIL IS EXCESSIVELY WET. DO NOT COUNTERSINK AROUND CACTI OR SUCCULENTS. PROVIDE POSITIVE DRAINAGE AWAY FROM PLANT.
18. PLANT BACKFILL MIX SHALL CONFORM TO LANDSCAPE DETAIL NOTES, UNLESS OTHERWISE SPECIFIED.
19. **FERTILIZER**  
FERTILIZER TABLETS SHALL BE AGRIFORM (21 GRAM 20-10-5) OR EQUAL. QUANTITY OF TABLETS SHALL BE PLACED 1/2 THE DEPTH OF THE ROOTBALL AT THE FOLLOWING RATE:
  - 1 TABLET PER 1 GALLON CONTAINER
  - 2 TABLETS PER 5 GALLON CONTAINER
  - 3 TABLETS PER 15 GALLON CONTAINER
  - 4 TABLETS PER 25 GALLON CONTAINER
  - AT A RATE OF 1 TABLET PER EACH ADDITIONAL 6" BOX SIZE.
 WHEN MULTIPLE QUANTITIES OF TABLETS ARE REQUIRED THEY SHALL BE EQUALLY SPACED AT THE SPECIFIED DEPTH.
- 20.

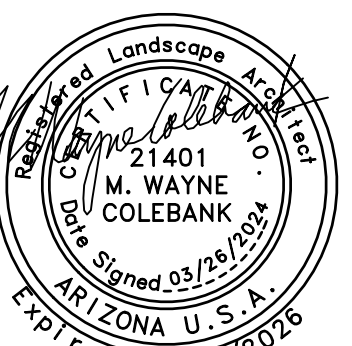


**6 OCOTILLO PLANTING (CONTAINER STOCK)**  
SCALE: N.T.S.

**Note:**

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 your contract with the City of Phoenix.

Revisions	Date



Designed By:  
TR / JM

Drawn By:  
TR

Checked By:  
JM / RS

Date:  
03/26/2024

Phase:  
PERMIT

**Perlman**  
Architects of  
Arizona  
2929 North Central  
Avenue, Suite #1000  
Phoenix, Arizona 85018  
480.951.5000  
perlmanaz.com

Title:  
**FIRE STATION #74**  
**1910 W. CHANDLER BLVD.**  
**PHOENIX, ARIZONA 85045**  
Index No: **FD57100020-3**

**CITY TRACK NUMBER:**

KIVA#: 23-1810  
SDEV#: 2300473  
PAPP/FACT#: 2306585  
LSPL#: 2400050  
LSIS#: 2400051  
CITY QUARTER SECTION#: Q011-24  
HILLSIDE PRESERVATION H#: NO  
ZONING: PCD\*  
OVERLAY DISTRICT: N/A



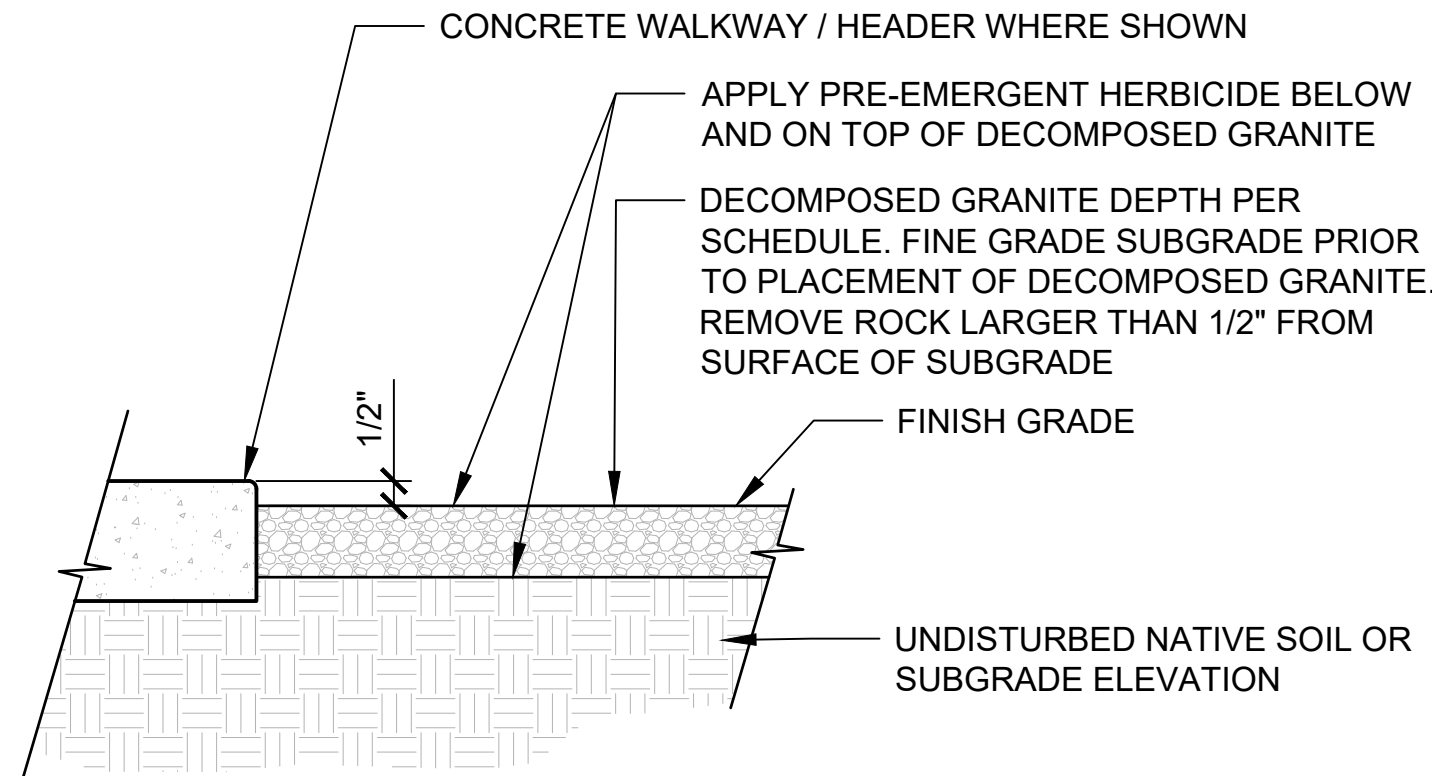
KIVA # 23-1810  
SDEV # 2300473

**LANDSCAPE DETAILS**  
**LL2.1**



**NOTES:**

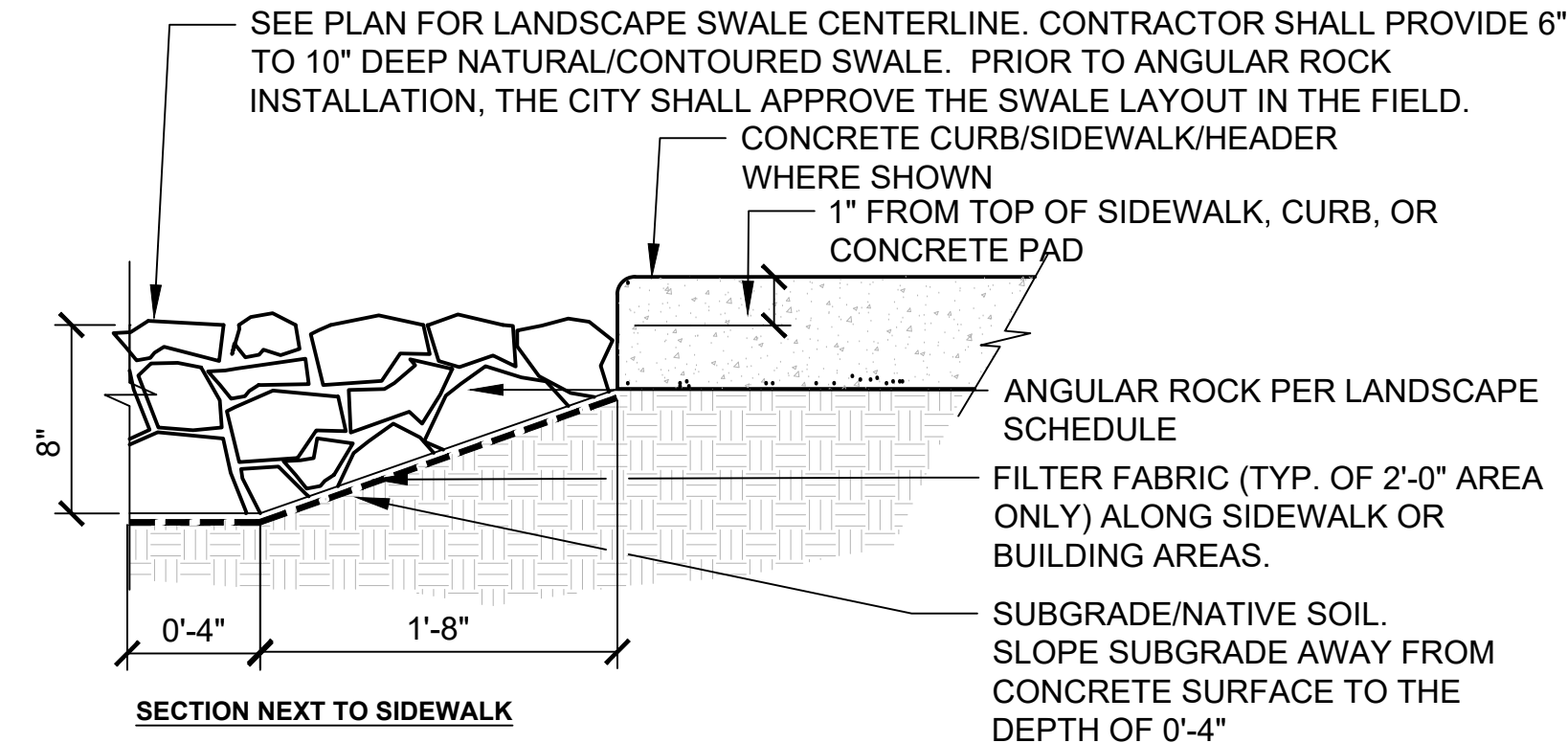
1. FINISH GRADE SHALL BE RAKED SMOOTH WITH NO CONTAMINATES OF CONSTRUCTION AND/OR UNDULATION CREATED BY CONSTRUCTION.
2. APPLY PRE-EMERGENT HERBICIDE PRIOR TO INSTALLATION AND ONE WEEK AFTER INSTALLATION OF DECOMPOSED GRANITE. EACH APPLICATION OF PRE-EMERGENT HERBICIDE SHALL BE WATERED PER MANUFACTURER'S RECOMMENDATIONS.
3. 2" DEPTH MINIMUM, 1" MINIMUM FOR DUST CONTROL AREAS.
4. WATER AND SETTLE DECOMPOSED GRANITE POST INSTALLATION AND LEVELING.
5. ENSURE DECOMPOSED GRANITE CREATES LEVEL AND SMOOTH CONNECTIONS AT STRUCTURES, WALLS, BUILDINGS AND OTHER SITE FEATURES.



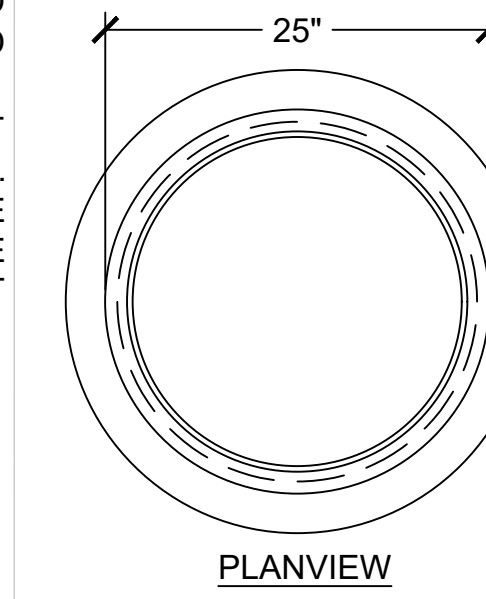
**1 DECOMPOSED GRANITE**  
SCALE: N.T.S.

**NOTES:**

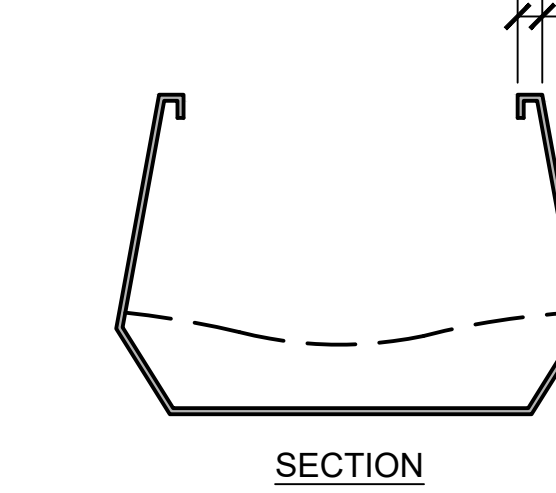
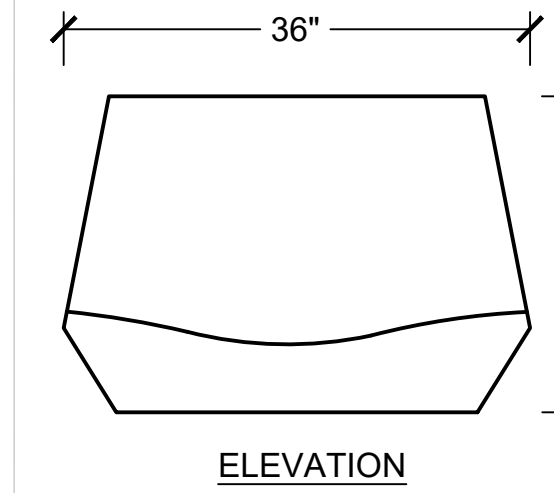
1. PRIOR TO INSTALLATION, CONTRACTOR SHALL PROVIDE A FIVE (5) GALLON BUCKET SAMPLE OF ANGULAR ROCK FOR THE CITY AND/OR LANDSCAPE ARCHITECT TO REVIEW AS PART OF THE PROJECT SHOP DRAWING PROCESS.
2. THE PLAN SHOWS DELINEATION OF ROCK ONLY. THE EDGE OF THE ROCK SHALL BE NATURAL AND BLEND WITH THE CITY'S APPLICATION OF THE DECOMPOSED GRANITE. CONTRACTOR SHALL COORDINATE WITH THE CITY ON THE EDGE TREATMENT AND POSSIBLY SCATTER ANGULAR ROCK AFTER INSTALLATION OF THE DECOMPOSED GRANITE TO ACHIEVE THE NATURAL/BLENDED EDGE (NO SHOVEL CUT-EDGE).
3. AFTER INSTALLATION AND APPROVAL OF ROCK, CONTRACTOR SHALL SPRAY ROCK WITH PRE-EMERGENT (SURFLAN OR APPROVED EQUAL). TWO (2) APPLICATIONS - FIRST AFTER INSTALL AND SECOND PRIOR TO FINAL COMPLETION.
4. THE CITY AND/OR LANDSCAPE ARCHITECT SHALL ACCEPT SUBGRADE OF SWALES PRIOR TO PLACEMENT OF ROCK. ROCK SHALL BE WETTED PRIOR TO PLACEMENT TO ELIMINATE POWDERING. AFTER PLACING THE ANGULAR ROCK, THE CONTRACTOR SHALL WATER SETTLE THE ROCK WITH A LIGHT SPRAY TO REMOVE FINES.



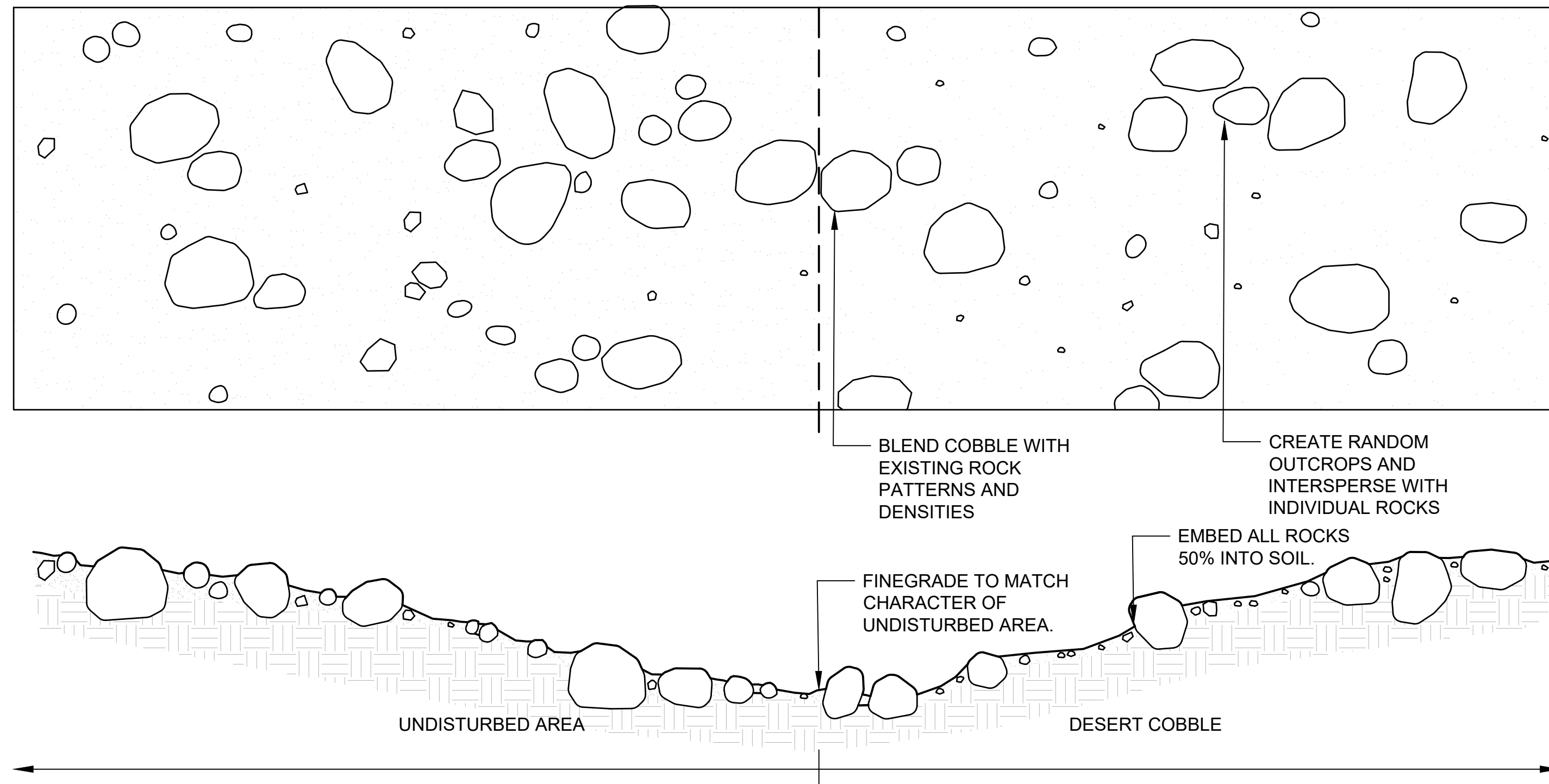
**2 ANGULAR ROCK**  
SCALE: N.T.S.



- NOTES:**
1. ALL PLANTERS WILL HAVE TAPERED DRAFT
  2. ALL EDGES TO HAVE 1/4" R MIN.
  3. MANUFACTURING TOLERANCE ± 1/4" (MAY VARY BY MODEL)



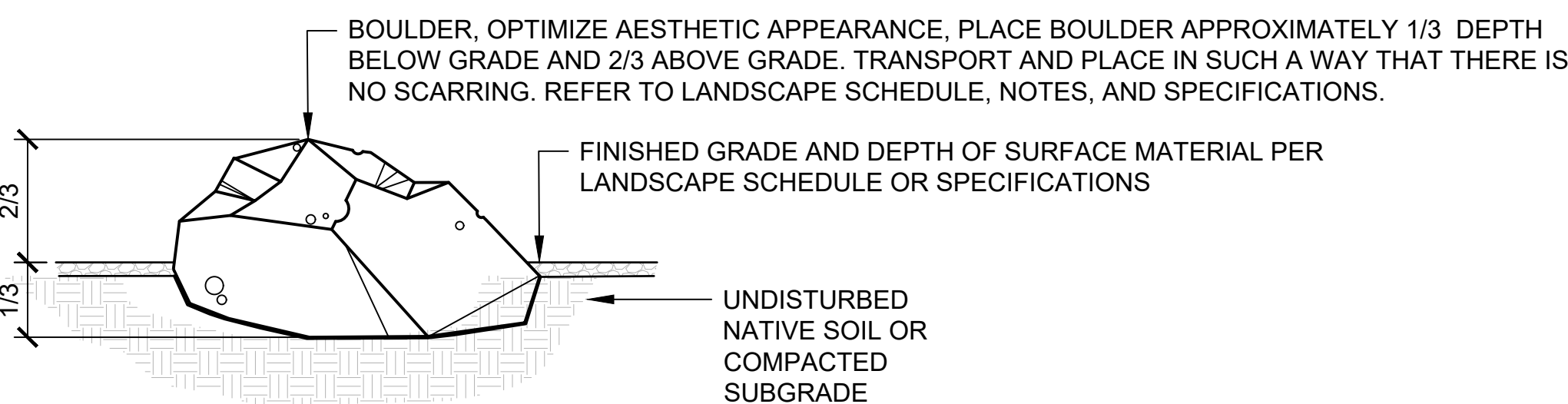
**3 OLD TOWN FIBERGLASS - CURRENT (CU3642)**  
SCALE: N.T.S.



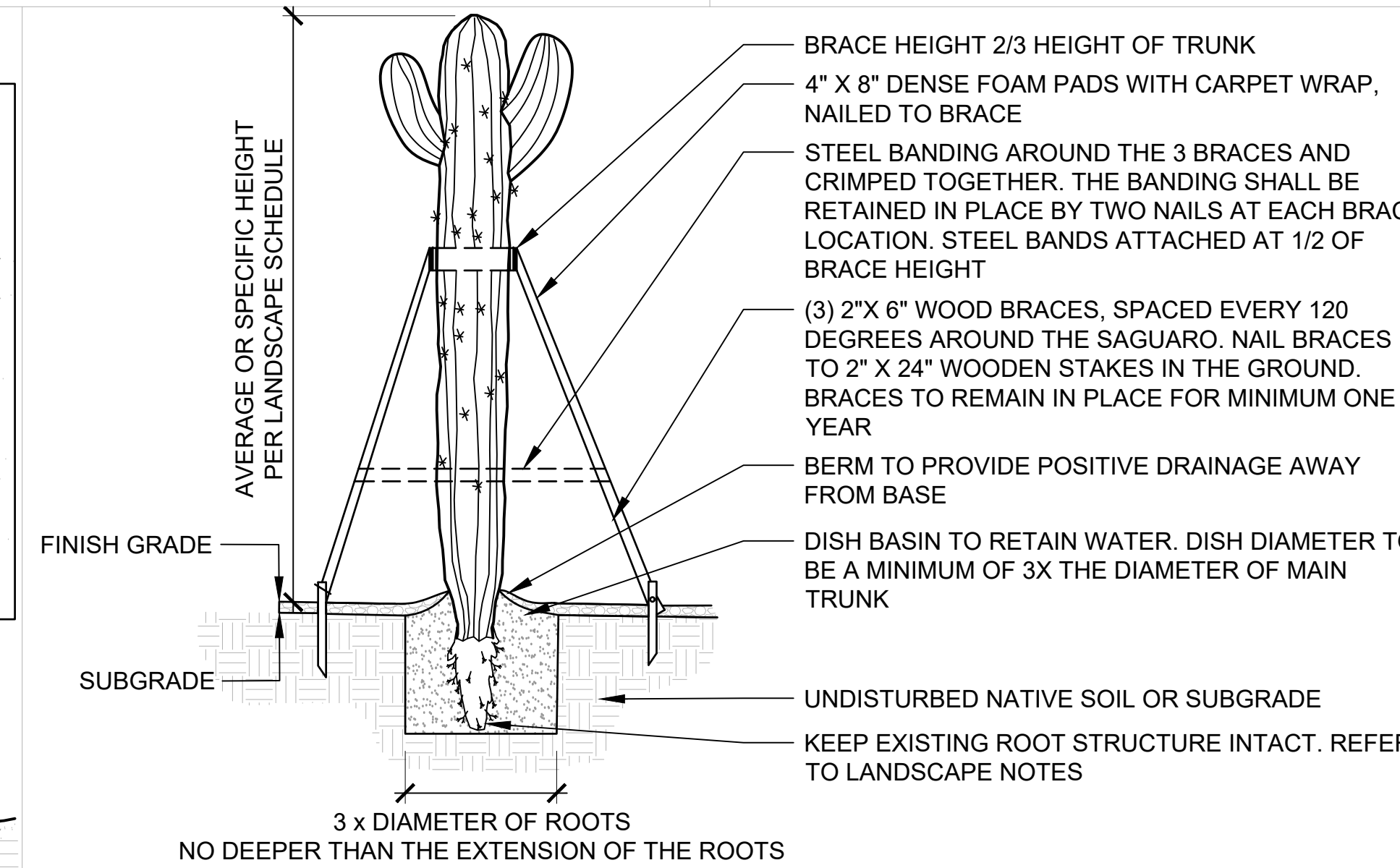
**NOTES:**

1. DESERT COBBLE TO CONSIST OF NATIVE GRANULAR SOILS, ROCKS, AND LARGER STONES UNEARTHED DURING CONSTRUCTION. NO IMPORT OF SOILS SHALL BE NEEDED.
2. INSTALL DESERT COBBLE AFTER ALL FINE GRADING, HARDSCAPE, PLANTING AND IRRIGATION WORK HAS BEEN COMPLETED AND APPROVED BY LANDSCAPE ARCHITECT.
3. CONFIRM LIMITS OF WORK AND QUANTITY OF UNEARTHED ROCK MATERIAL WITH LANDSCAPE ARCHITECT, EXCESSIVE AMOUNTS OF ROCK MAY REQUIRE REMOVAL TO AN APPROVED STOCKPILE LOCATION.
4. UPON APPROVAL TO PROCEED, GROUP OR CLUSTER ROCKS 2" TO 8" IN SIZE INTO POCKETS RANDOMLY BETWEEN PLANTINGS, SET SINGLE ROCKS INTERMITTENTLY THROUGHOUT SITE.
5. EMBED ALL ROCKS 50% INTO GRANULAR SOIL. SPREAD AND RAKE OUT EXCAVATED MATERIAL FROM POCKETS. AVOID FILLING OF PLANT SWALES. SPRAY ENTIRE AREA WITH WATER TO CLEAN ROCKS AND SETTLE FINES.

**4 DESERT COBBLE**  
SCALE: N.T.S.



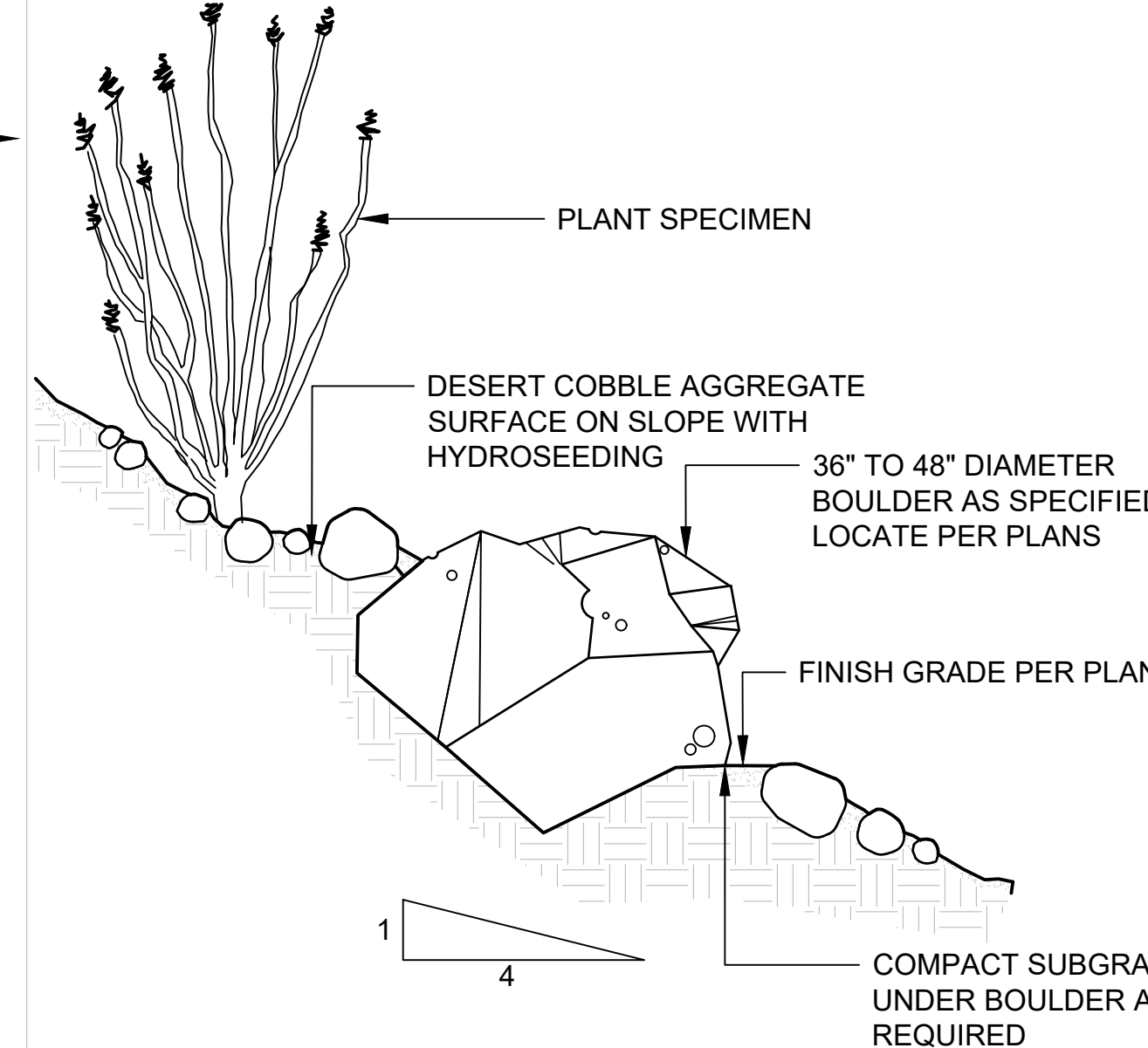
**6 BOULDER**  
SCALE: N.T.S.



**NOTES:**

1. INSPECT ROOTS FOR DAMAGE. PRUNE DAMAGED OR SHREDDED ROOTS MAKING A CLEAN CUT. CUT THROUGH TAP ROOT TO PROVIDE A FLAT BASE WITH A DIAMETER SUFFICIENT TO SUPPORT THE WEIGHT OF THE UNSUPPORTED SAGUARO.
2. TREAT ENTIRE ROOT SYSTEM WITH A WETTABLE SULPHUR AND AGRA-MYCIN SOLUTION AFTER PRUNING AND IMMEDIATELY BEFORE PLANTING.
3. PLANTING DEPTH SHALL BE THE DEPTH AT WHICH THE PLANT ORIGINALLY GREW OR SLIGHTLY DEEPER, BUT THE TAPER ABOVE THE ROOT COLLAR MUST BE VISIBLE.
4. PLANT PIT WIDTH SHALL BE 3 TIMES LARGER THAN DIAMETER OF THE ROOTS AND NO DEEPER THAN THE DIMENSION OF ROOT COLLAR TO BOTTOM OF ROOT STRUCTURE.
5. ROUGHEN BOTTOM AND SIDES OF THE PLANT PIT PRIOR TO PLANTING SAGUARO.
6. PREPARED BACKFILL MIX:
  - 100% NATIVE SOIL UNLESS OTHERWISE SPECIFIED. DO NOT ADD MULCH.
7. BACKFILL PLANTING: MOISTEN SOIL MIX AND BACKFILL PLANT IN 6" LIFTS, ROD AND COMPACT EACH LAYER FIRMLY.
8. PLANT SAGUARO TO PROVIDE POSITIVE DRAINAGE, AND ENSURE SURFACE WATER CANNOT STAND AGAINST ROOT COLLAR.
9. ALL SAGUARO PLACEMENTS SHALL MATCH ORIGINAL ORIENTATION (NORTH SIDE FACING NORTH).
10. PROVIDE DISH BASIN AT OUTSIDE PERIMETER OF PLANTING PIT.
11. SAGUARO SHALL BE INSTALLED PLUMB AND LEVEL.
12. DO NOT WATER / IRRIGATE FOR TWO WEEKS AFTER PLANTING.

**5 SAGUARO PLANTING (WITH WOOD BRACES)**  
SCALE: N.T.S.

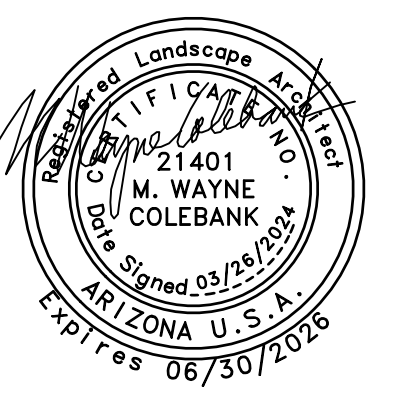


**NOTES:**

1. MASS-GRADING CONTRACTOR SHALL SALVAGE EXISTING ON-SITE DESERT COBBLE/PAVEMENT FROM THE DESIGNATED AREA OF DISTURBANCE.
2. SALVAGED MATERIAL SHALL BE STOCKPILED ON-SITE IN PILES NO HIGHER THAN 6' TALL.
3. SALVAGED MATERIAL SHALL INCLUDE THE TOP 4" OF DESERT MATERIAL.
4. THE SALVAGED MATERIAL SHALL CONTAIN MINIMAL AMOUNTS OF CALICHE, AND UNDESIRABLE ROCK PARTICLES OR OTHER DELETERIOUS MATERIALS THAT IS INCONSISTENT WITH THE INTENDED FINAL APPEARANCE.
5. VEGETATIVE MATTER ALLOWED TO REMAIN IN THE FINISHED DESERT COBBLE INSTALLATION MAY INCLUDE LEAVES, TWIGS (LESS THAN 1" DIAMETER), ROOTS, SMALL BRANCHES (LESS THAN 1 FOOT IN LENGTH), TREE BARK, AND OTHER MINOR LEVELS OF DEBRIS GENERATED DURING THE CLEARING AND GRUBBING OPERATION.
6. THE CONTRACTOR SHALL PLACE BOULDERS LOCATED WITHIN THE LIMITS OF DISTURBANCE. CONTRACTOR SHALL PROVIDE A QUANTITY OF ALL BOULDERS TO THE LANDSCAPE ARCHITECT.
7. CARE SHOULD BE TAKEN WHEN HARVESTING BOULDERS TO LIMIT/PREVENT SCARRING OR BREAKAGE. HEAVY DUTY STRAPS OR SLINGS ARE PREFERRED OVER BOULDERS WITH LOADER BUCKETS.
8. SALVAGED MATERIALS SHALL BE STOCKPILED AT LOCATIONS THAT WILL REMAIN UNDISTURBED FOR THE DURATION OF CONSTRUCTION.

**7 BOULDER AND COBBLE**  
SCALE: N.T.S.

Revisions	Date



Designed By: TR / JM
Drawn By: TR
Checked By: JM / RS
Date: 03/26/2024
Phase: PERMIT

**Perلمان Architects of Arizona**  
2929 North Central Avenue, Suite #1600  
Phoenix, Arizona 85018  
480.951.5000  
perلمانaz.com

**FIRE STATION #74**  
**1910 W. CHANDLER BLVD.**  
**PHOENIX, ARIZONA 85045**  
Index No: **FD57100020-3**

**CITY TRACK NUMBER:**

KIVA#: 23-1810  
SDEV#: 2300473  
PAPP/FACT#: 2306585  
LSPL#: 2400050  
LSIS#: 2400051  
CITY QUARTER SECTION#: Q011-24  
HILLSIDE PRESERVATION H#: NO  
ZONING: PCD\*  
OVERLAY DISTRICT: N/A

**CITY OF PHOENIX**  
KIVA # 23-1810  
SDEV # 2300473

**LANDSCAPE DETAILS LL2.2**



MATCH LINE SEE SHEET LI3.3

300-96-719A  
CITY OF PHOENIX  
ZONED PCD

LIMIT OF WORK (TYP.)

FOOTHILLS CLUB WEST  
MCR: 459-17 ZONED R1-6

**IRRIGATION LEGEND**

SYMBOL	BRAND	MODEL	DESCRIPTION
[M]			WATER METER SEE CIVIL PLAN
[Hexagon]	FEBCO	825YA (1 1/2")	REDUCED PRESSURE ASSEMBLY
[Triangle]	HUNTER	XC CONTROLLER	6 STATION
[Circle]	RAIN BIRD	PEB	REMOTE CONTROL VALVE
[Square]	RAIN BIRD	PRF-075-25	PRESSURE REGULATING FILTER
[Circle]	RAIN BIRD	XBT-05-06	MULTI OUTLET EMITTER (0.5 GPH)
[Circle]	RAIN BIRD	XBT-10-06	MULTI OUTLET EMITTER (1.0 GPH)
[Diamond]	SPEARS	M-66-P/CAP	END CAP
[Solid Line]			3/4" SCHEDULE 40 PVC PIPE LATERAL (TREE)
[Dashed Line]			3/4" SCHEDULE 40 PVC PIPE LATERAL (SHRUB)
[Thick Solid Line]			1" SCHEDULE 40 PVC MAINLINE
[Thin Solid Line]			SCHEDULE 40 PVC SLEEVE

**IRRIGATION SLEEVES**

- USE SCHEDULE 40 PIPE, 2 TIMES THE DIAMETER OF THE PIPE(S) BEING SLEEVED, MINIMUM 2"
- CONTROL WIRES INSTALLED THROUGH IRRIGATION SLEEVES SHALL BE ENCASED IN A PVC ELECTRICAL CONDUIT SIZED TO CONTAIN THE REQUIRED NUMBER OF CONDUCTORS. WIRE SLEEVES CROSSING STREET PAVING SHALL HAVE A 10" PULL BOX AT EACH END.

**VALVE CALLOUT**



**EMITTER SCHEDULE**

COMMON NAME	FLOW PER OUTLET	MANIFOLD OUTLET	OPEN OUTLETS	GPH PER PLANT
<b>TREES</b>				
DESERT WILLOW	1.0 GPH	MULTI-OUTLET	6	6.0 GPH
IRONWOOD	1.0 GPH	MULTI-OUTLET	6	6.0 GPH
MESQUITE	1.0 GPH	MULTI-OUTLET	6	6.0 GPH
PALO VERDE	1.0 GPH	MULTI-OUTLET	6	6.0 GPH
SAGUARO	0.5 GPH	SINGLE OUTLET	1	0.5 GPH
<b>SHRUBS/ACCENTS</b>				
TURPENTINE BUSH	0.5 GPH	MULTI-OUTLET	2	1.0 GPH
SAGE	0.5 GPH	MULTI-OUTLET	2	1.0 GPH
AGAVE	0.5 GPH	MULTI-OUTLET	1	0.5 GPH
DESERT SPOON	0.5 GPH	MULTI-OUTLET	1	0.5 GPH
GOLDEN BARREL	0.5 GPH	MULTI-OUTLET	1	0.5 GPH
MILK TREE	0.5 GPH	MULTI-OUTLET	6	0.5 GPH
COMPASS BARREL	0.5 GPH	MULTI-OUTLET	1	0.5 GPH
OCOTILLO	0.5 GPH	MULTI-OUTLET	1	0.5 GPH
MEXICAN FENCE POST	0.5 GPH	MULTI-OUTLET	1	0.5 GPH

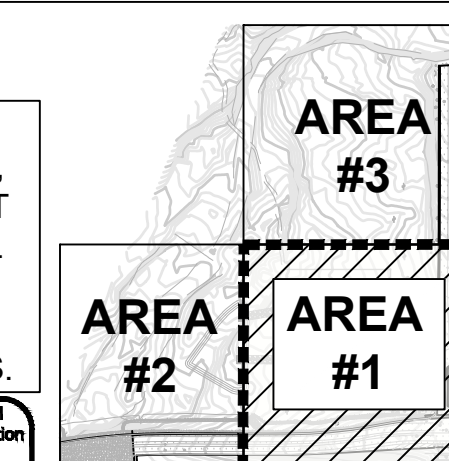
**EMITTER NOTES**

- REFER TO EMITTER DETAILS FOR EMITTER SPECIFICATIONS AND LAYOUT
- ADJUST IRRIGATION OPERATING TIMES TO ACCOMMODATE PLANT MATURITY, SOIL TYPE, PLANT EXPOSURE AND SEASONAL REQUIREMENTS.

**IRRIGATION TERMS AND ABBREVIATIONS**

BFP	BACK FLOW PREVENTOR
G/V	GATE VALVE
GAL	GALLON
GALV	GALVANIZED
GPM	GALLONS PER MINUTE
ICV	IRRIGATION CONTROL VALVE
IRR	IRRIGATION
JB	JUNCTION BOX
PB	BULL BOX
POC	POINT OF CONNECTION
PRV	PRESSURE REGULATING VALVE
PVC	POLYVINYL CHLORIDE
QCV	QUICK COUPLER VALVE
RPFBA	REDUCED PRESSURE BACK-FLOW ASSEMBLY
SCU	STATION CONTROL UNIT
WV	WATER VALVE

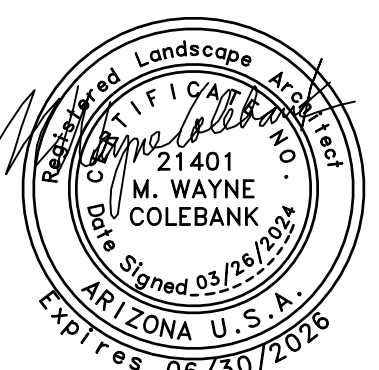
**KEY MAP SCALE: NTS**



**CITY TRACK NUMBER:**

KIVA#: 23-1810  
SDEV#: 2300473  
PAPP/FACT#: 2306585  
LSPL#: 2400050  
LSIS#: 2400051  
CITY QUARTER SECTION#: Q011-24  
HILLSIDE PRESERVATION H#: NO  
ZONING: PCD\*  
OVERLAY DISTRICT: N/A

Revisions	Date



Designed By:  
**TR / JM**

Drawn By:  
**TR**

Checked By:  
**JM / RS**

Date:  
**03/26/2024**

Phase:  
**PERMIT**

**Perlman**  
Architects of  
Arizona  
2929 North Central  
Avenue, Suite #1600  
Phoenix, Arizona 85018  
480.951.5000  
perlmanaz.com

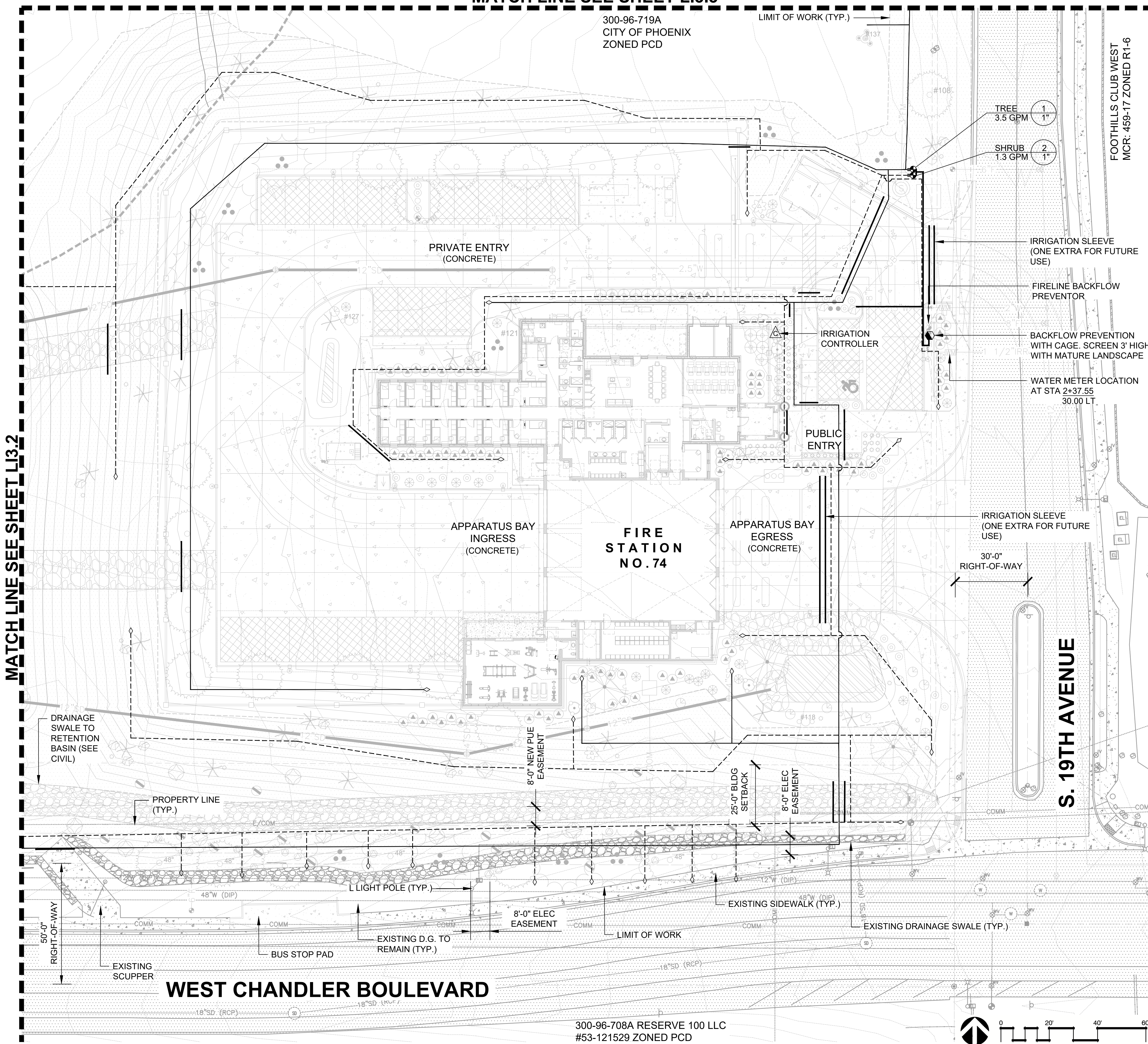
Title:  
**FIRE STATION #74  
1910 W. CHANDLER BLVD.  
PHOENIX, ARIZONA 85045**  
Index No:  
**FD57100020-3**

KIVA # 23-1810  
SDEV # 2300473

**IRRIGATION PLAN  
AREA 1  
LI3.1**

Note:  
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 your contract with the City of Phoenix.

MATCH LINE SEE SHEET LI3.2



**WEST CHANDLER BOULEVARD**

**S. 19TH AVENUE**

**FIRE STATION NO. 74**

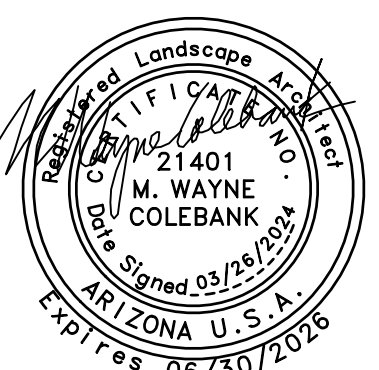
300-96-708A RESERVE 100 LLC  
#53-121529 ZONED PCD

NOTE: TO PREVENT WEEDS, A PRE-EMERGENT HERBICIDE SHALL BE APPLIED TO NON-VEGETATIVE INERT MATERIALS.  
Contact Arizona 811 at least two full working days before you begin excavation.  
**ARIZONA 811**  
Call 811 or click Arizona811.com

CITY OF PHOENIX OFFICE OF THE CITY ENGINEER FIRE DEPARTMENT STATION 74 - PERMIT CITY SUBMITTAL



Revisions	Date



Designed By:  
**TR / JM**

Drawn By:  
**TR**

Checked By:  
**JM / RS**

Date:  
**03/26/2024**

Phase:  
**PERMIT**

**Perlman**  
Architects of  
Arizona  
2929 North Central  
Avenue, Suite #1600  
Phoenix, Arizona 85012  
480.951.5000 perlmanaz.com

Title:  
**FIRE STATION #74  
1910 W. CHANDLER BLVD.  
PHOENIX, ARIZONA 85045**  
Index No:  
**FD57100020-3**

**CITY OF PHOENIX**  
OFFICE OF THE CITY ENGINEER  
**FIRE DEPARTMENT STATION 74 - PERMIT CITY SUBMITTAL**

KIVA # **23-1810**  
SDEV # **2300473**

**IRRIGATION PLAN  
AREA 2  
LI3.2**

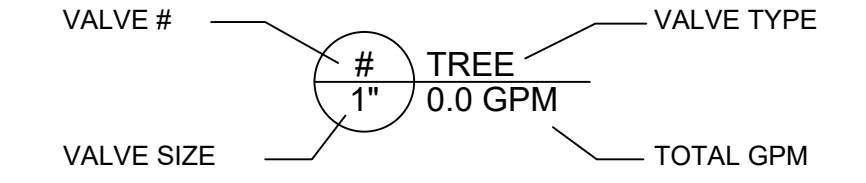
**IRRIGATION LEGEND**

SYMBOL	BRAND	MODEL	DESCRIPTION
[M]			WATER METER SEE CIVIL PLAN
[Hexagon]	FEBCO	825YA (1 1/2")	REDUCED PRESSURE ASSEMBLY
[Triangle]	HUNTER	XC CONTROLLER	6 STATION
[Circle]	RAIN BIRD	PEB	REMOTE CONTROL VALVE
[Square]	RAIN BIRD	PRF-075-25	PRESSURE REGULATING FILTER
[Circle]	RAIN BIRD	XBT-05-06	MULTI OUTLET EMITTER (0.5 GPH)
[Circle]	RAIN BIRD	XBT-10-06	MULTI OUTLET EMITTER (1.0 GPH)
[Diamond]	SPEARS	M-66-P/CAP	END CAP
[Solid Line]			3/4" SCHEDULE 40 PVC PIPE LATERAL (TREE)
[Dashed Line]			3/4" SCHEDULE 40 PVC PIPE LATERAL (SHRUB)
[Thick Solid Line]			1" SCHEDULE 40 PVC MAINLINE
[Thin Solid Line]			SCHEDULE 40 PVC SLEEVE

**IRRIGATION SLEEVES**

- USE SCHEDULE 40 PIPE, 2 TIMES THE DIAMETER OF THE PIPE(S) BEING SLEEVED, MINIMUM 2'
- CONTROL WIRES INSTALLED THROUGH IRRIGATION SLEEVES SHALL BE ENCASED IN A PVC ELECTRICAL CONDUIT SIZED TO CONTAIN THE REQUIRED NUMBER OF CONDUCTORS. WIRE SLEEVES CROSSING STREET PAVING SHALL HAVE A 10" PULL BOX AT EACH END.

**VALVE CALLOUT**



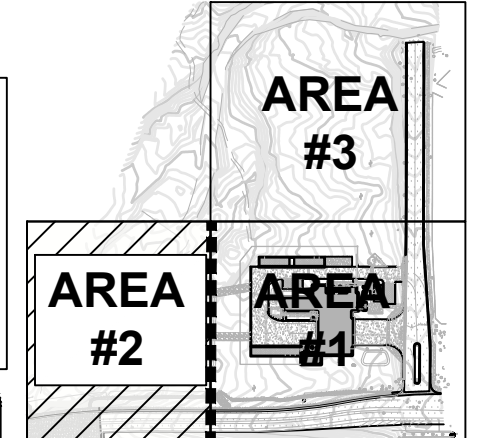
**EMITTER SCHEDULE**

COMMON NAME	FLOW PER OUTLET	MANIFOLD OUTLET	OPEN OUTLETS	GPH PER PLANT
<b>TREES</b>				
DESERT WILLOW	1.0 GPH	MULTI-OUTLET	6	6.0 GPH
IRONWOOD	1.0 GPH	MULTI-OUTLET	6	6.0 GPH
MESQUITE	1.0 GPH	MULTI-OUTLET	6	6.0 GPH
PALO VERDE	1.0 GPH	MULTI-OUTLET	6	6.0 GPH
SAGUARO	0.5 GPH	SINGLE OUTLET	1	0.5 GPH
<b>SHRUBS/ACCENTS</b>				
TURPENTINE BUSH	0.5 GPH	MULTI-OUTLET	2	1.0 GPH
SAGE	0.5 GPH	MULTI-OUTLET	2	1.0 GPH
AGAVE	0.5 GPH	MULTI-OUTLET	1	0.5 GPH
DESERT SPOON	0.5 GPH	MULTI-OUTLET	1	0.5 GPH
GOLDEN BARREL	0.5 GPH	MULTI-OUTLET	1	0.5 GPH
MILK TREE	0.5 GPH	MULTI-OUTLET	6	0.5 GPH
COMPASS BARREL	0.5 GPH	MULTI-OUTLET	1	0.5 GPH
OCOTILLO	0.5 GPH	MULTI-OUTLET	1	0.5 GPH
MEXICAN FENCE POST	0.5 GPH	MULTI-OUTLET	1	0.5 GPH

**EMITTER NOTES**

- REFER TO EMITTER DETAILS FOR EMITTER SPECIFICATIONS AND LAYOUT
- ADJUST IRRIGATION OPERATING TIMES TO ACCOMMODATE PLANT MATURITY, SOIL TYPE, PLANT EXPOSURE AND SEASONAL REQUIREMENTS.

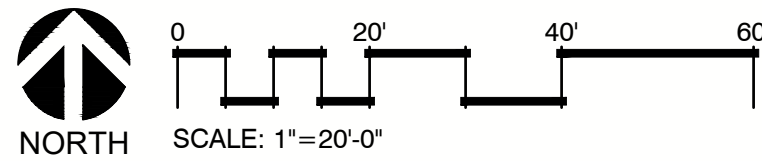
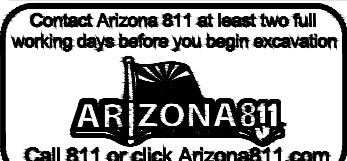
**KEY MAP SCALE: NTS**



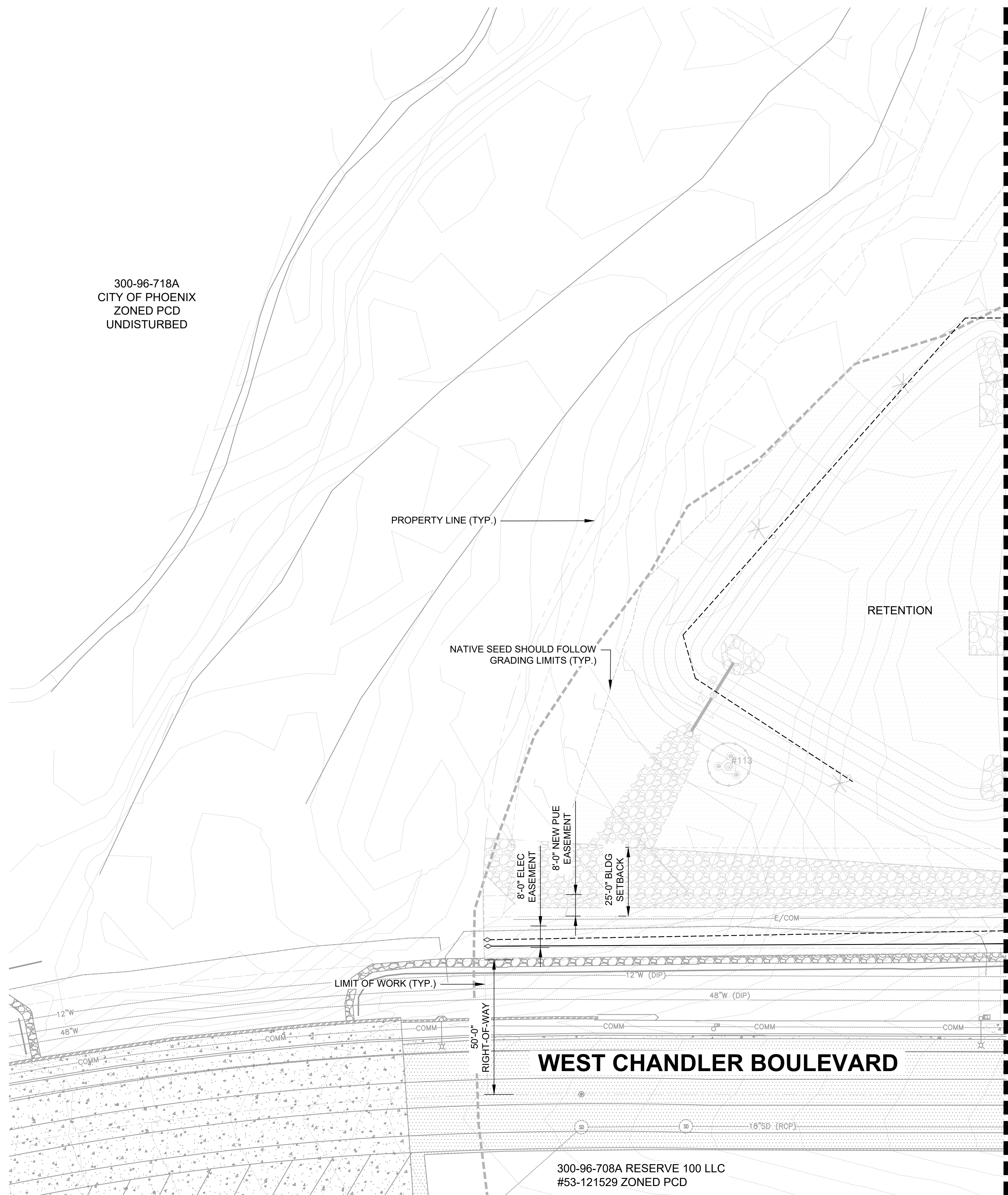
**CITY TRACK NUMBER:**

KIVA#: 23-1810  
SDEV#: 2300473  
PAPP/FACT#: 2306585  
LSPL#: 2400050  
LSIS#: 2400051  
CITY QUARTER SECTION#: Q011-24  
HILLSIDE PRESERVATION H#: NO  
ZONING: PCD\*  
OVERLAY DISTRICT: N/A

NOTE: TO PREVENT WEEDS, A PRE-EMERGENT HERBICIDE SHALL BE APPLIED TO NON-VEGETATIVE INERT MATERIALS.



MATCH LINE SEE SHEET LI3.1



300-96-718A  
CITY OF PHOENIX  
ZONED PCD  
UNDISTURBED

PROPERTY LINE (TYP.)

NATIVE SEED SHOULD FOLLOW GRADING LIMITS (TYP.)

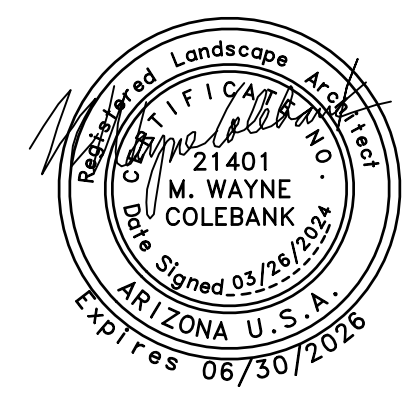
RETENTION

**WEST CHANDLER BOULEVARD**

300-96-708A RESERVE 100 LLC  
#53-121529 ZONED PCD



Revisions	Date



Designed By:  
TR / JM

Drawn By:  
TR

Checked By:  
JM / RS

Date:  
03/26/2024

Phase:  
PERMIT

**Perlman**  
Architects of  
Arizona  
2929 North Central  
Avenue, Suite #100  
Phoenix, Arizona 85018  
480.951.5000  
perlmanaz.com

Title:  
**FIRE STATION #74**  
**1910 W. CHANDLER BLVD.**  
**PHOENIX, ARIZONA 85045**  
Index No:  
**FD57100020-3**

**KIVA # 23-1810**  
**SDEV # 2300473**

**IRRIGATION PLAN**  
**AREA 3**  
**LI3.3**

CITY OF PHOENIX OFFICE OF THE CITY ENGINEER FIRE DEPARTMENT STATION 74 - PERMIT CITY SUBMITTAL

**IRRIGATION LEGEND**

SYMBOL	BRAND	MODEL	DESCRIPTION
[M]			WATER METER SEE CIVIL PLAN
[Hexagon]	FEBCO	825YA (1 1/2")	REDUCED PRESSURE ASSEMBLY
[Triangle]	HUNTER	XC CONTROLLER	6 STATION
[Circle]	RAIN BIRD	PEB	REMOTE CONTROL VALVE
[Square]	RAIN BIRD	PRF-075-25	PRESSURE REGULATING FILTER
[Circle]	RAIN BIRD	XBT-05-06	MULTI OUTLET EMITTER (0.5 GPH)
[Circle]	RAIN BIRD	XBT-10-06	MULTI OUTLET EMITTER (1.0 GPH)
[Diamond]	SPEARS	M-66-P/CAP	END CAP
[Solid Line]			3/4" SCHEDULE 40 PVC PIPE LATERAL (TREE)
[Dashed Line]			3/4" SCHEDULE 40 PVC PIPE LATERAL (SHRUB)
[Thick Solid Line]			1" SCHEDULE 40 PVC MAINLINE
[Thin Solid Line]			SCHEDULE 40 PVC SLEEVE

**IRRIGATION SLEEVES**

- USE SCHEDULE 40 PIPE, 2 TIMES THE DIAMETER OF THE PIPE(S) BEING SLEEVED, MINIMUM 2'
- CONTROL WIRES INSTALLED THROUGH IRRIGATION SLEEVES SHALL BE ENCASED IN A PVC ELECTRICAL CONDUIT SIZED TO CONTAIN THE REQUIRED NUMBER OF CONDUCTORS. WIRE SLEEVES CROSSING STREET PAVING SHALL HAVE A 10" PULL BOX AT EACH END.

**VALVE CALLOUT**



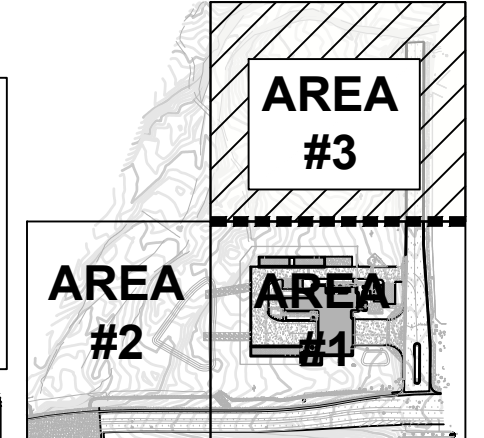
**EMITTER SCHEDULE**

COMMON NAME	FLOW PER OUTLET	MANIFOLD OUTLET	OPEN OUTLETS	GPH PER PLANT
<b>TREES</b>				
DESERT WILLOW	1.0 GPH	MULTI-OUTLET	6	6.0 GPH
IRONWOOD	1.0 GPH	MULTI-OUTLET	6	6.0 GPH
MESQUITE	1.0 GPH	MULTI-OUTLET	6	6.0 GPH
PALO VERDE	1.0 GPH	MULTI-OUTLET	6	6.0 GPH
SAGUARO	0.5 GPH	SINGLE OUTLET	1	0.5 GPH
<b>SHRUBS/ACCENTS</b>				
TURPENTINE BUSH	0.5 GPH	MULTI-OUTLET	2	1.0 GPH
SAGE	0.5 GPH	MULTI-OUTLET	2	1.0 GPH
AGAVE	0.5 GPH	MULTI-OUTLET	1	0.5 GPH
DESERT SPOON	0.5 GPH	MULTI-OUTLET	1	0.5 GPH
GOLDEN BARREL	0.5 GPH	MULTI-OUTLET	1	0.5 GPH
MILK TREE	0.5 GPH	MULTI-OUTLET	6	0.5 GPH
COMPASS BARREL	0.5 GPH	MULTI-OUTLET	1	0.5 GPH
OCOTILLO	0.5 GPH	MULTI-OUTLET	1	0.5 GPH
MEXICAN FENCE POST	0.5 GPH	MULTI-OUTLET	1	0.5 GPH

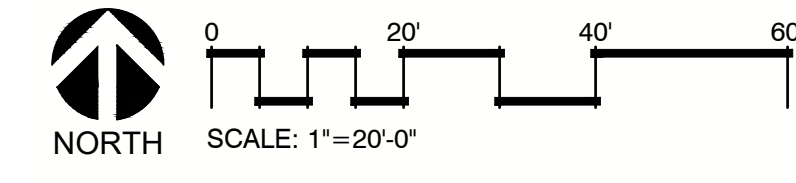
**EMITTER NOTES**

- REFER TO EMITTER DETAILS FOR EMITTER SPECIFICATIONS AND LAYOUT
- ADJUST IRRIGATION OPERATING TIMES TO ACCOMMODATE PLANT MATURITY, SOIL TYPE, PLANT EXPOSURE AND SEASONAL REQUIREMENTS.

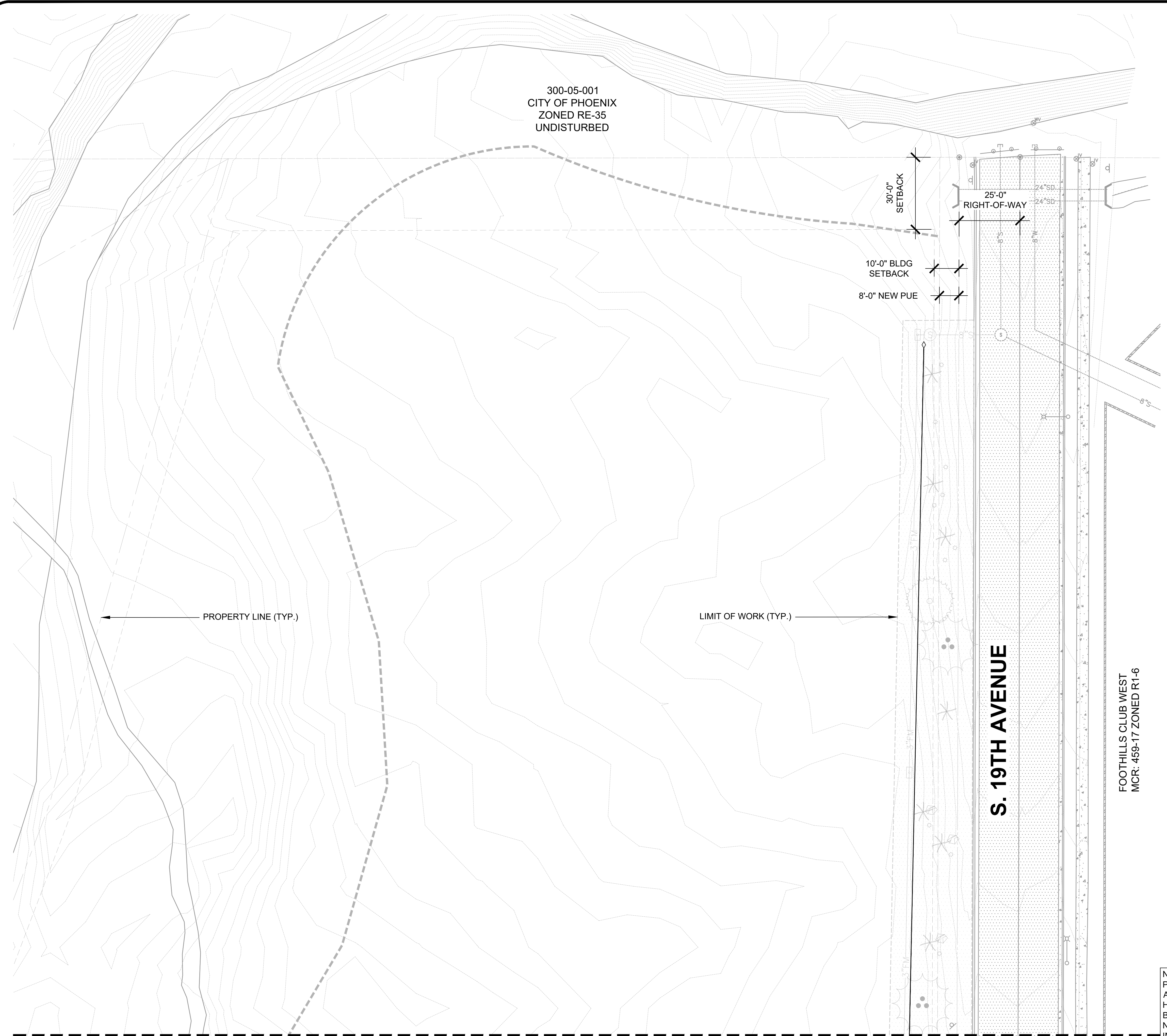
**KEY MAP SCALE: NTS**



NOTE: TO PREVENT WEEDS, A PRE-EMERGENT HERBICIDE SHALL BE APPLIED TO NON-VEGETATIVE INERT MATERIALS.



MATCH LINE SEE SHEET LI3.1



300-05-001  
CITY OF PHOENIX  
ZONED RE-35  
UNDISTURBED

**S. 19TH AVENUE**

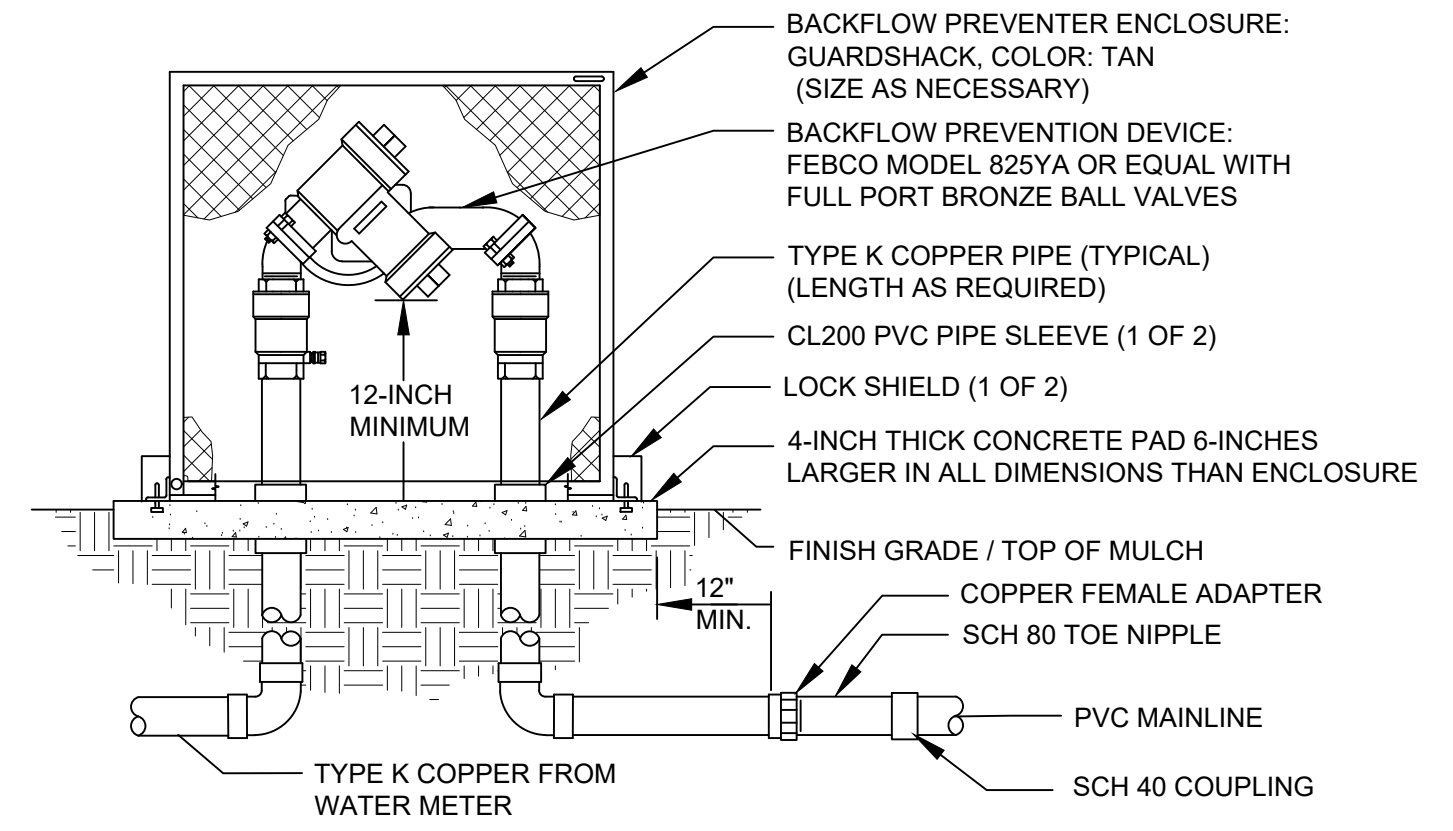
FOOTHILLS CLUB WEST  
MCR: 459-17 ZONED R1-6

**CITY TRACK NUMBER:**

KIVA#: 23-1810  
SDEV#: 2300473  
PAPP/FACT#: 2306585  
LSPL#: 2400050  
LSIS#: 2400051  
CITY QUARTER SECTION#: Q011-24  
HILLSIDE PRESERVATION H#: NO  
ZONING: PCD\*  
OVERLAY DISTRICT: N/A

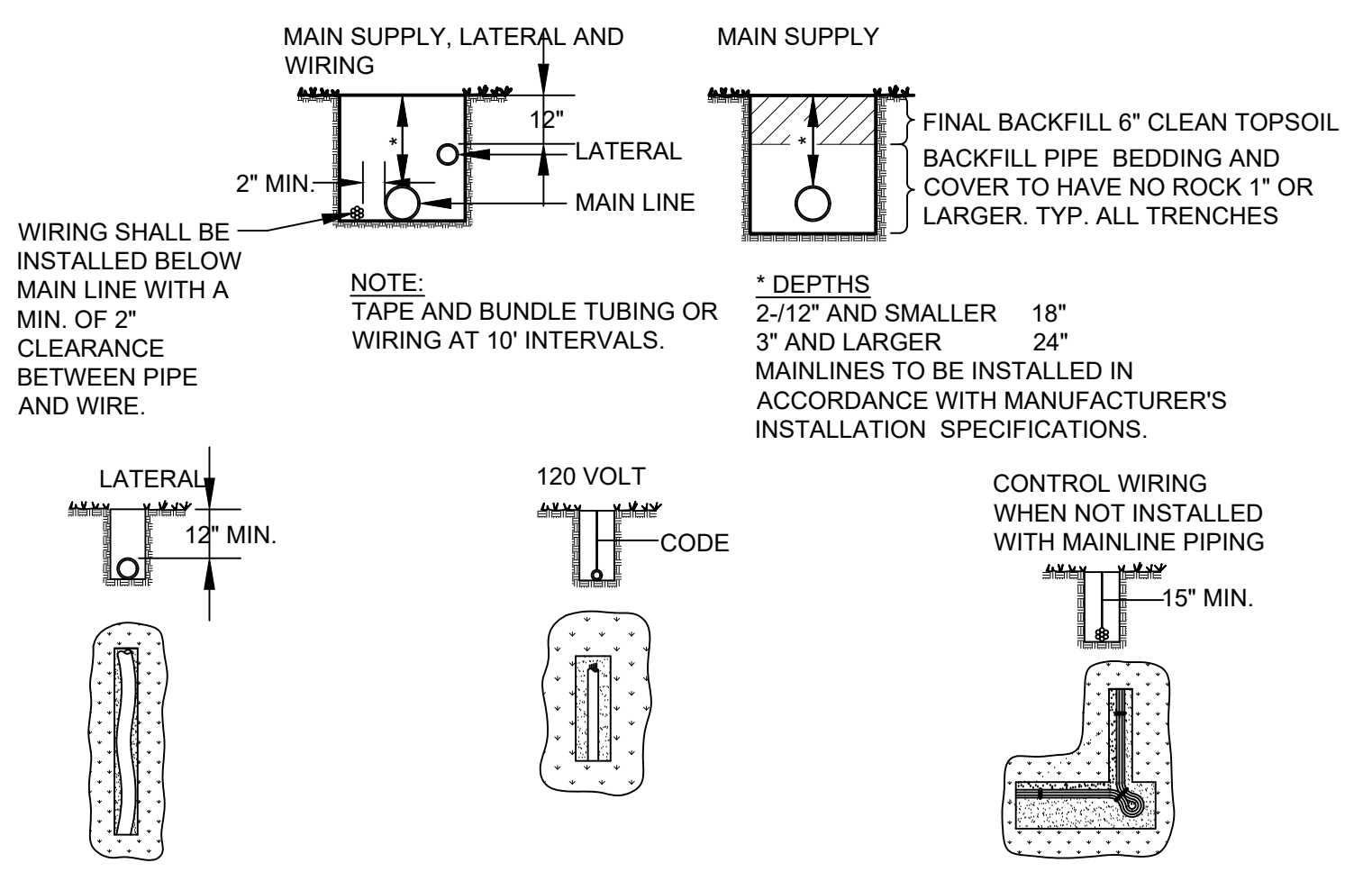
Note:  
Per City of Phoenix City Code Chapter 2, section 2-28, these plans are for official use only and may not be shared with others except as required to fulfill the obligations of your contract with the City of Phoenix.



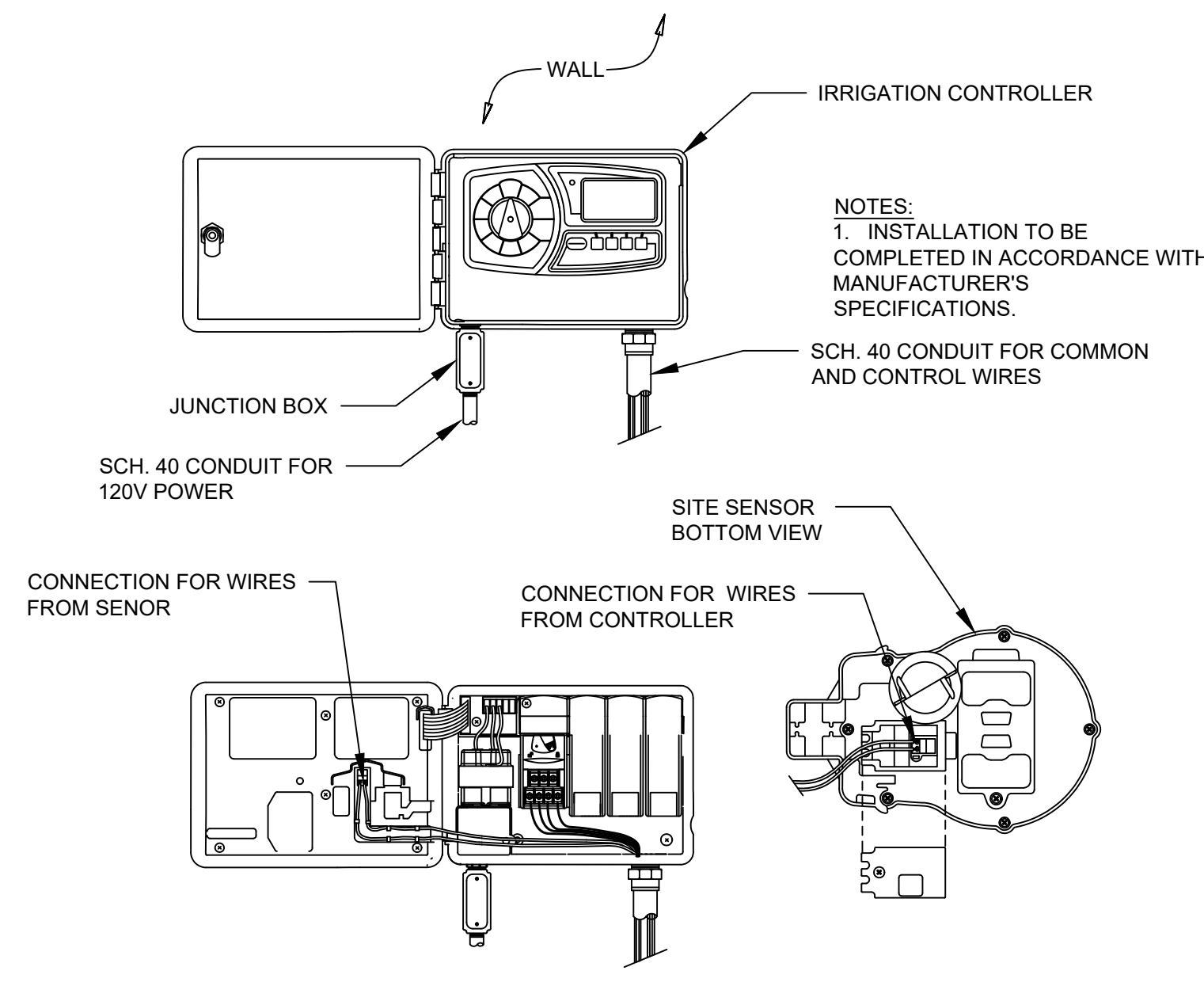


- NOTES:  
 1. FURNISH FITTINGS AND PIPING SIZED IDENTICALLY WITH NOMINAL BACKFLOW PREVENTION DEVICE.  
 2. SUBMIT SHOP DRAWINGS SPECIFYING ENCLOSURE SIZE AND SHOWING RELATIVE LAYOUT OF EQUIPMENT.  
 3. CONTRACTOR SHALL PROVIDE A LOCK FOR THE ENCLOSURE UNTIL SUBSTANTIAL COMPLETION APPROVAL. AT THAT TIME CONTRACTOR SHALL REMOVE HIS LOCK AND THE CITY SHALL PROVIDE A LOCK FOR THE ENCLOSURE.  
 4. A THREE FOOT CLEARANCE AROUND THE BACKFLOW PREVENTER FOR ACCESS SHALL BE MAINTAINED.

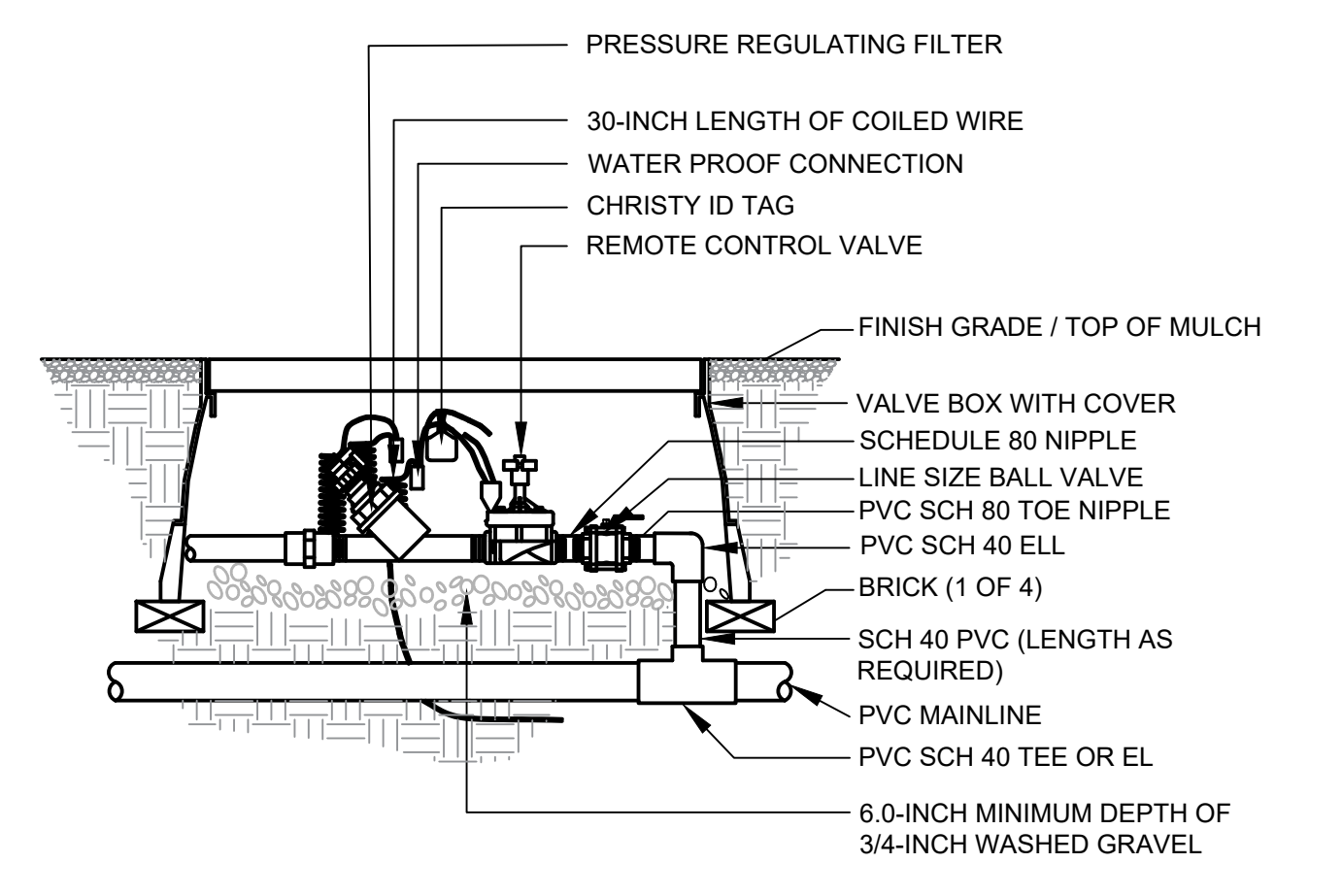
1 REDUCED PRESSURE ASSEMBLY  
 SCALE: N.T.S.



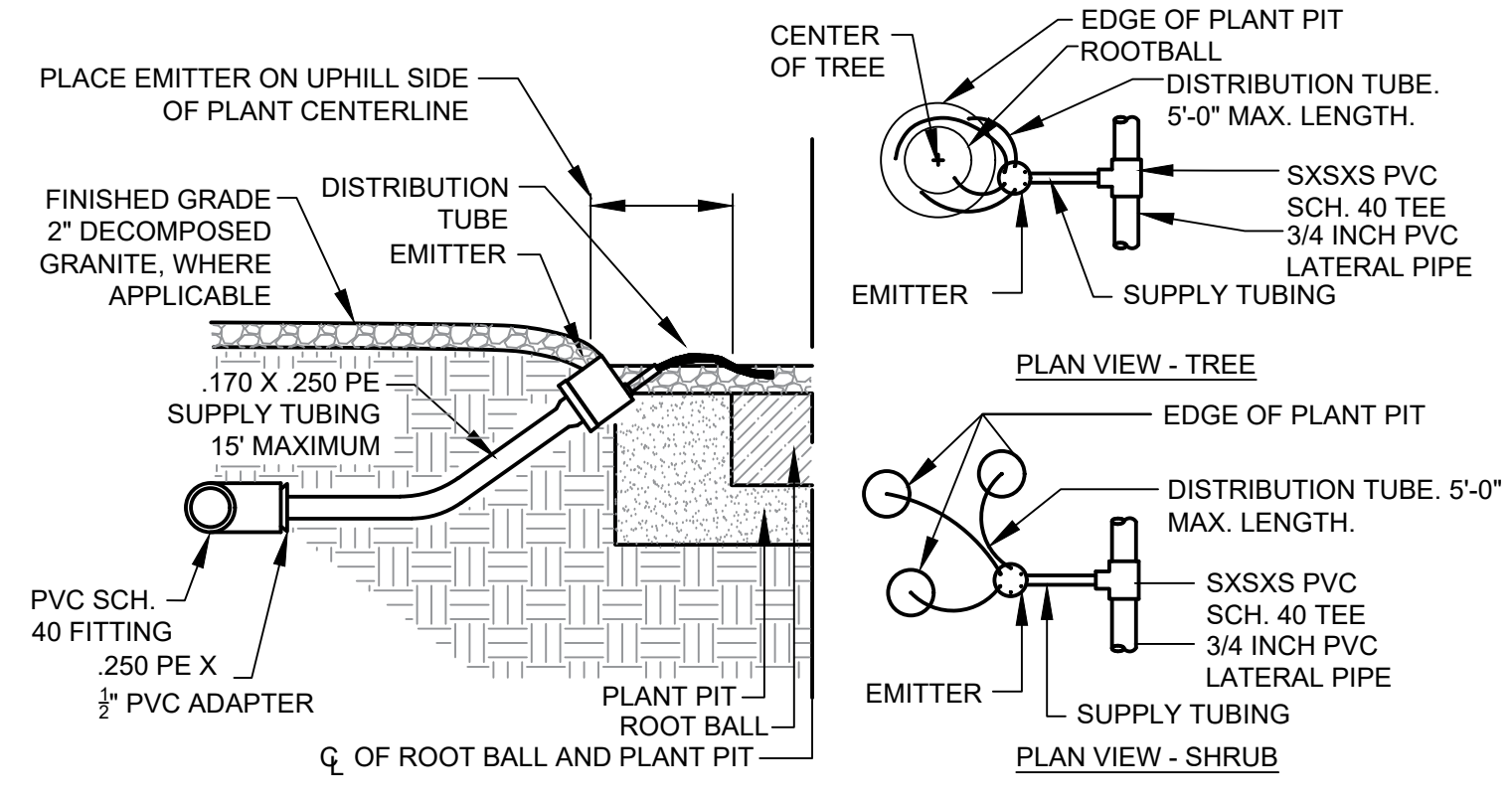
2 TYPICAL TRENCHING  
 SCALE: N.T.S.



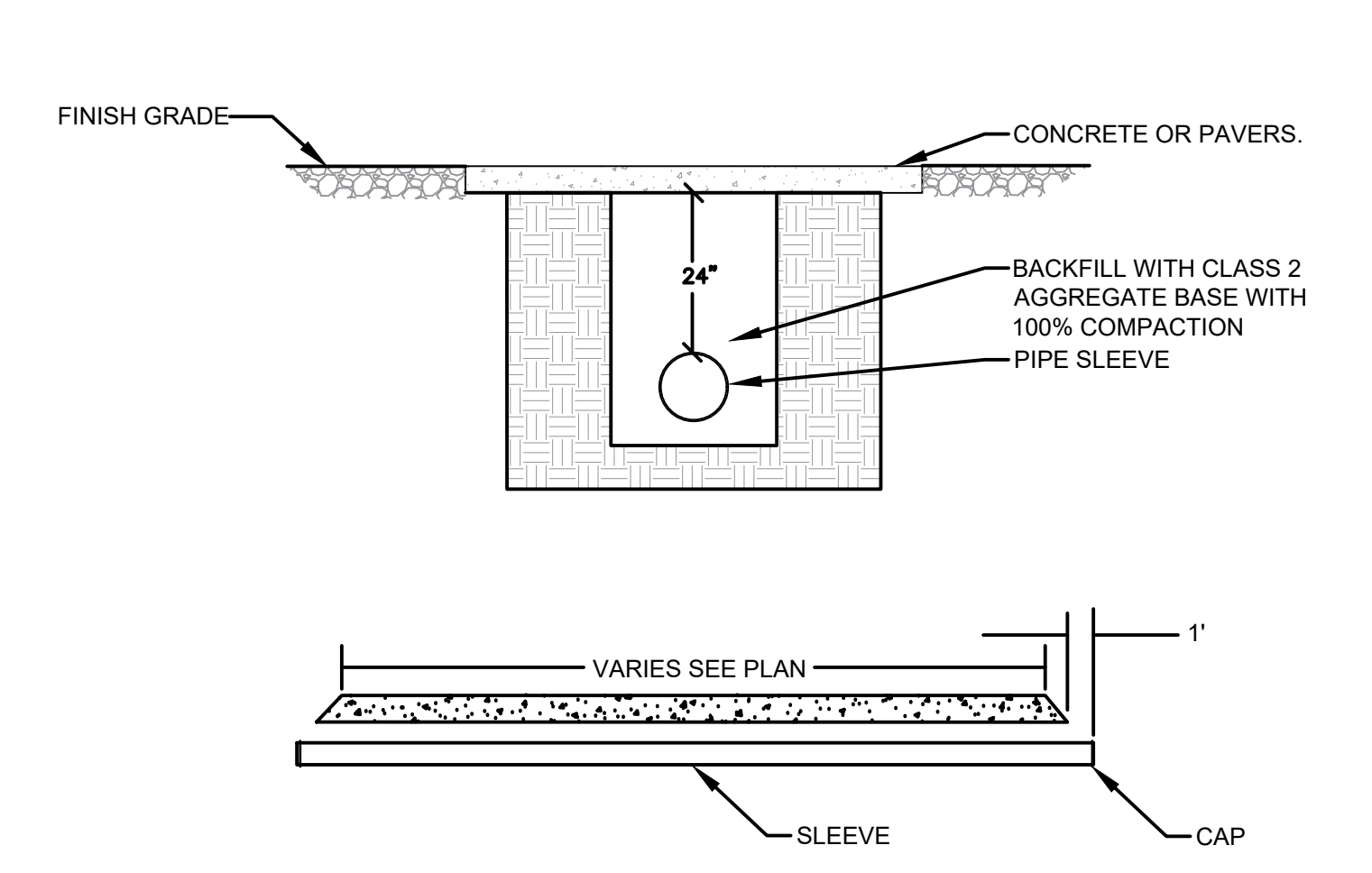
3 CONTROLLER WALL MOUNT  
 SCALE: N.T.S.



4 DRIP REMOTE CONTROL VALVE ASSEMBLY  
 SCALE: N.T.S.



5 DRIP EMITTERS  
 SCALE: N.T.S.



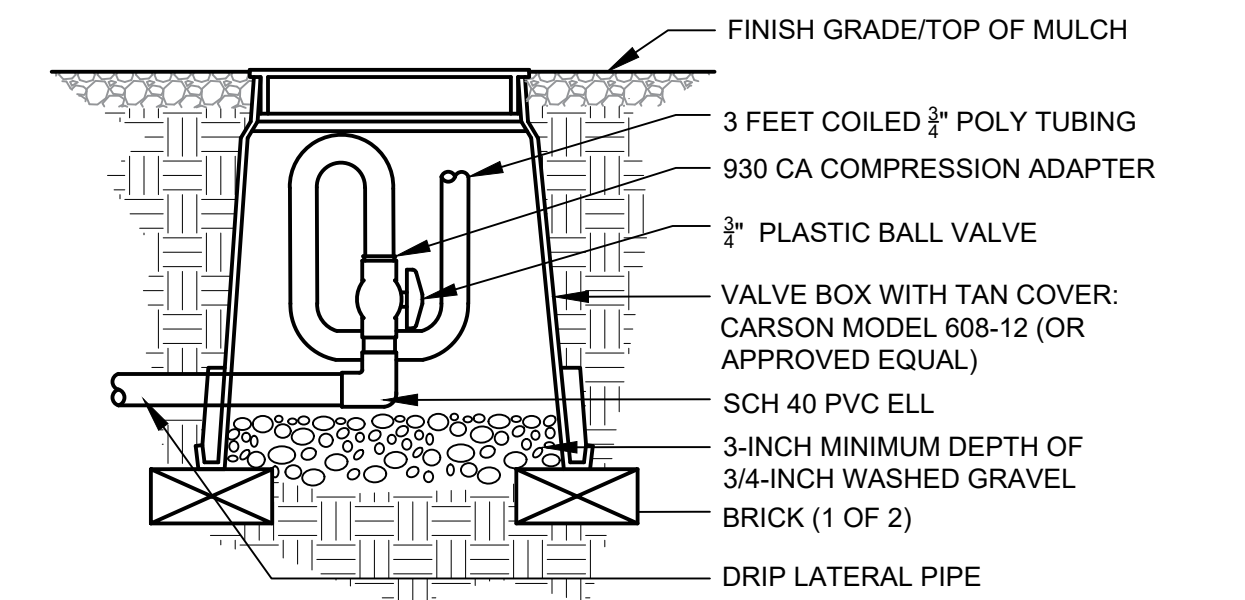
6 IRRIGATION SLEEVE  
 SCALE: N.T.S.

SLEEVE SCHEDULE (PIPE AND WIRE)

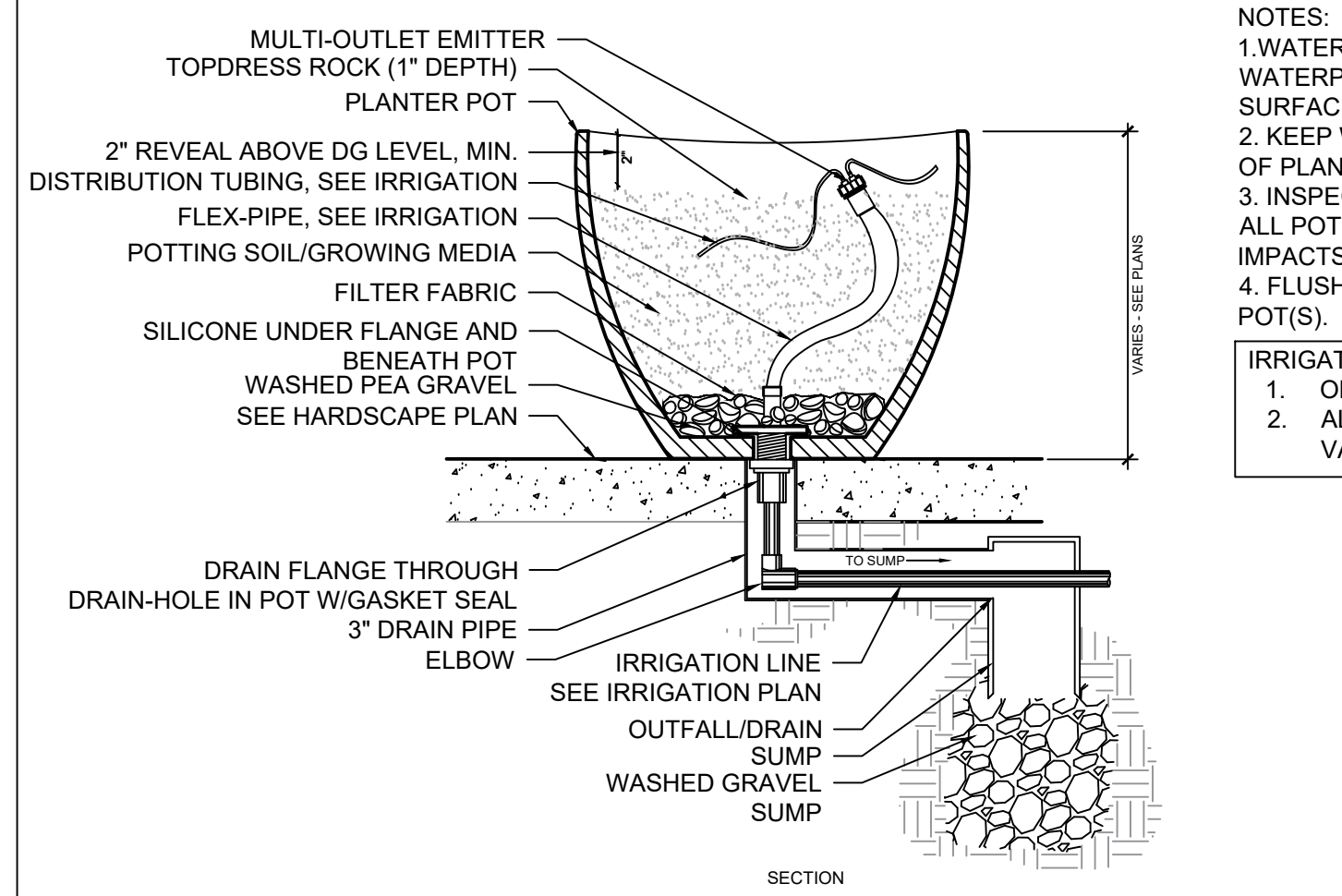
WIRE SIZE	NUMBER OF WIRES	SLEEVE SIZE (MIN)	PIPE MATERIAL
14 AWG	24	2"	SCH40 PVC PIPE
12 AWG	20	2"	SCH40 PVC PIPE
14 AWG	40	2 1/2"	SCH40 PVC PIPE
12 AWG	30	2 1/2"	SCH40 PVC PIPE
14 AWG	56	3"	SCH40 PVC PIPE
12 AWG	50	3"	SCH40 PVC PIPE

IRRIGATION PIPE SIZE	SLEEVE SIZE (MIN)	PIPE MATERIAL
1/2"	2"	SCH40 PVC PIPE
3/4"	2"	SCH40 PVC PIPE
1"	2"	SCH40 PVC PIPE
1 1/2"	3"	SCH40 PVC PIPE
2"	4"	SCH40 PVC PIPE
2 1/2"	6"	SCH40 PVC PIPE
3"	6"	SCH40 PVC PIPE
4"	10"	SCH40 PVC PIPE

8 SLEEVE SCHEDULE (PIPE AND WIRE)



7 FLUSH CAP ASSEMBLY  
 SCALE: N.T.S.



9 LANDSCAPE POT IRRIGATION/DRAIN  
 SCALE: N.T.S.

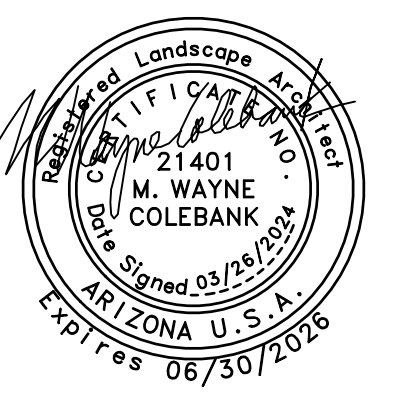
- NOTES:  
 1. WATERPROOF ALL POTS PRIOR TO FINAL PLACEMENT. WATERPROOFING AGENT WILL STAIN ADJACENT SURFACES; PROTECT ALL SURFACES WHEN APPLYING.  
 2. KEEP WATERPROOFING AGENT 3" MIN. BELOW TOP RIM OF PLANTER POT.  
 3. INSPECT ALL POTS PRIOR TO ACCEPTING. PROTECT ALL POTS FROM CHIPPING, SCRATCHING, AND OTHER IMPACTS UNTIL FINAL PLACEMENT.  
 4. FLUSH ALL DRAIN-LINES PRIOR TO BACKFILLING POT(S).  
 IRRIGATION NOTES:  
 1. ONE (1) EMITTER PER POT  
 2. ALL SIX (6) PORTS OPEN FOR VALVE TO OPERATE PROPERLY

CITY TRACK NUMBER:

KIVA#: 23-1810  
 SDEV#: 2300473  
 PAPP/FACT#: 2306585  
 LSPL#: 2400050  
 LSIS#: 2400051  
 CITY QUARTER SECTION#: Q011-24  
 HILLSIDE PRESERVATION #: NO  
 ZONING: PCD\*  
 OVERLAY DISTRICT: N/A

Note:  
 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 your contract with the City of Phoenix.

Revisions	Date



Designed By:  
 TR / JM  
 Drawn By:  
 TR  
 Checked By:  
 JM / RS  
 Date:  
 03/26/2024  
 Phase:  
 PERMIT

Perlman Architects of Arizona  
 2929 North Central Avenue, Suite #1600  
 Phoenix, Arizona 85004  
 480.951.5000  
 perlmanaz.com

Title:  
**FIRE STATION #74**  
**1910 W. CHANDLER BLVD.**  
**PHOENIX, ARIZONA 85045**  
 Index No:  
**FD57100020-3**



KIVA # 23-1810  
 SDEV # 2300473

IRRIGATION DETAILS  
**L4.1**

CITY OF PHOENIX OFFICE OF THE CITY ENGINEER FIRE DEPARTMENT STATION 74 - PERMIT CITY SUBMITTAL



Revisions table with columns for Revisions and Date.



Design, Drawn, Checked, Date, and Phase information table.

Periman Architects of Arizona logo and contact information.

Periman Fire Station #74 NWC 19th Ave & Chandler Phoenix, Arizona 85045. Index No: FD57100020-3.

City of Phoenix logo, KIVA # 23-1810, DECV #, and COVER C1.0 information.

GRADING & DRAINAGE PLAN WITH OFFSITE IMPROVEMENTS

CITY OF PHOENIX FIRE STATION 74 W CHANDLER BLVD & S 19TH AVE. PHOENIX, AZ

A PORTION OF THE NE 1/4 OF NE 1/4 SECTION 36, T1S, R2E

CONTACT INFORMATION

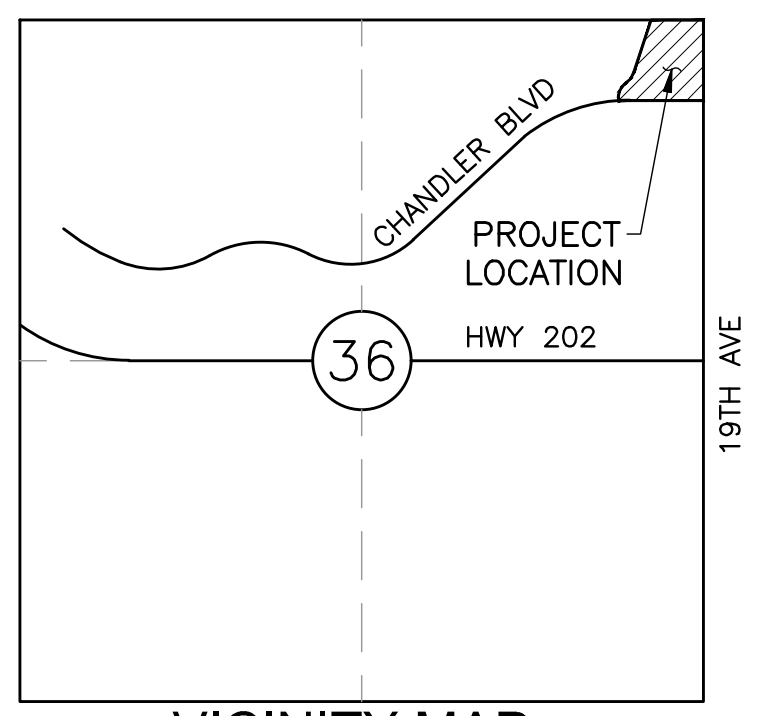
OWNER: PHOENIX FIRE DEPARTMENT, ADDRESS: 2625 S 19TH AVENUE, PHOENIX, AZ 85009, CONTACT: JAIME GARRIDO, PHONE: 602.534.9875. ENGINEER: DIBBLE, ADDRESS: 1626 N. LITCHFIELD RD, SUITE 150, GOODYEAR, AZ 85395, CONTACT: SHANNON MAUCK, PHONE: 623.935.2258. ARCHITECT: PERLMAN ARCHITECTS OF ARIZONA, INC., ADDRESS: 2929 N. CENTRAL AVENUE, SUITE 100, PHOENIX, AZ 85012, CONTACT: GERRALD ADAMS, PHONE: 480.951.5900.

SITE ACREAGE

GROSS: 7.74 AC, NET: 7.03 AC, DISTURBED: 2.27 AC

SHEET INDEX

C1.0 COVER, C2.1 DEMOLITION PLAN, C3.1 SITE PLAN, C4.1-C4.2 GRADING & DRAINAGE PLAN, C5.1-C5.2 DETAILS, C6.1-C6.2 CROSS SECTIONS



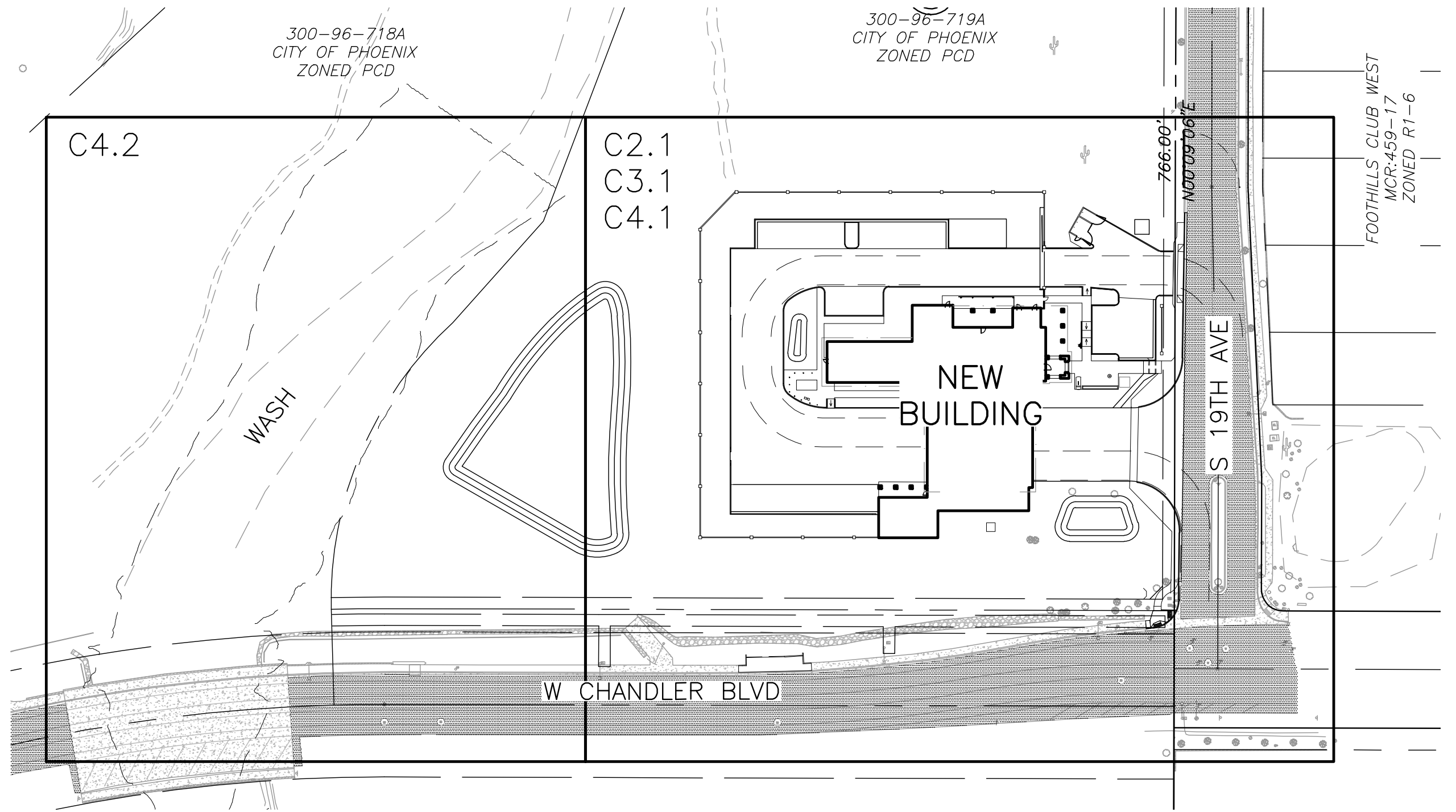
VICINITY MAP SEC 36, T1S, R2E NTS

BENCHMARK & METADATA

HORIZONTAL DATUM: NAD83 (EPOCH 2011) ARIZONA CENTRAL ZONE, PROJECT BENCHMARK: FOUND CITY OF PHOENIX PUBLISHED BENCHMARK DESCRIBED AS: BRASS CAP FLUSH AT THE INTERSECTION OF 19TH AVENUE AND CHANDLER BLVD. GROUND NORTHING = 837958.95, GROUND EASTING = 643975.94, PUBLISHED ELEVATION = 1264.73, NGVD '29 (CITY OF PHOENIX DATUM)

LEGEND

Legend table with columns for EXIST and NEW, listing symbols for monument flush, hydrant, manhole, street light, etc.



KEY MAP NTS

LEGAL DESCRIPTION

LOT 9 OF AMENDED STATE PLAT NO. 30 SOUTH MOUNTAIN 650 BK. 1002, PG. 50, MCR 2008-0760929

PROJECT DESCRIPTION

A NEW SINGLE STORY FIRE STATION INCLUDING DRAINAGE AND HARDSCAPE IMPROVEMENTS.

100-YEAR 2-HOUR STORM WATER RETENTION TABLE with columns for Drainage Area, Basin Name, Contributing Area, Required Volume Calculation, Volume Provided, AS-Built Volume, # of Drywells, Drain Time, and Depth.

VOLUME = AxCx(D/12), A=DRAINAGE AREA (SF) C=0.81 D=2.24 (INCHES)

CITY OF PHOENIX OFFSITE NOTES, 2023

- 1. A GRADING PERMIT IS REQUIRED UNDER PCC CHAPTER 32A. 2. WHEN HAUL PERMITS ARE REQUIRED, THEY MUST BE OBTAINED PRIOR TO OR CONCURRENTLY WITH THE G&D PERMIT. 3. EXCAVATING CONTRACTOR MUST GIVE LOCATION FOR WASTING EXCESS EXCAVATION AND A LETTER FROM OWNER GIVING PERMISSION FOR DUMPING PRIOR TO STARTING ON-SITE CONSTRUCTION. 4. PLANNING & DEVELOPMENT DEPARTMENT FIELD INSPECTION GROUP SHALL BE NOTIFIED 48 HOURS BEFORE ANY ON-SITE AND/OR OFF-SITE CONSTRUCTION BEGINS. 5. STAKING BUILDING PAD ELEVATIONS IS THE RESPONSIBILITY OF THE OWNER AND HIS PROFESSIONAL ENGINEER. 6. BUILDING PAD CERTIFICATIONS WILL BE REQUIRED ON ALL LOTS WITHIN THE SUBDIVISION AND SUBMITTED TO THE CIVIL/SITE INSPECTOR PRIOR TO ANY CONCRETE CONSTRUCTION. 7. A SEPARATE PERMIT IS NECESSARY FOR ANY OFFSITE CONSTRUCTION. 8. AN APPROVED G&D PLAN SHALL BE ON THE JOB SITE AT ALL TIMES. 9. G&D PLAN APPROVAL INCLUDES THE CONSTRUCTION OF ALL SURFACE IMPROVEMENTS SHOWN ON THE APPROVED PLAN. 10. GRADES SHOWN IN RETENTION BASINS ARE DESIGN FINISHED GRADES. 11. CONTRACTOR IS RESPONSIBLE FOR LOCATING AND CONFIRMING DEPTHS OF ALL THE EXISTING UTILITY LINES WITHIN PROPOSED RETENTION BASIN AREAS. 12. ALL DRAINAGE PROTECTIVE DEVICES SUCH AS SWALES, INTERCEPTOR DITCHES, PIPES, PROTECTIVE BERMS, BARRIER WALLS, CONCRETE CHANNELS, OR OTHER MEASURES DESIGNED TO PROTECT ADJACENT BUILDINGS OR PROPERTY FROM STORM RUNOFF MUST BE COMPLETED PRIOR TO BUILDING CONSTRUCTION. 13. PER SECTION 6.8.7 OF THE CITY STORM WATER POLICIES AND STANDARDS, SIDE SLOPES OF STORM WATER STORAGE FACILITIES SHALL BE NO STEEPER THAN 5:1 FOR IRRIGATED GRASS AREAS AND 3:1 FOR LANDSCAPE AREAS. 14. ALL RETAINING WALLS ARE TO BE REVIEWED, PERMITTED, AND INSPECTED BY THE BUILDING SAFETY BRANCH OF THE PLANNING & DEVELOPMENT DEPARTMENT. 15. ALL RAMPS MUST MEET 2010 AMERICANS WITH DISABILITIES ACT (ADA) STANDARDS FOR ACCESSIBLE DESIGN AND CITY OF PHOENIX SUPPLEMENT TO MAG UNIFORM STANDARD SPECIFICATIONS AND DETAILS; 2% MAX CROSS SLOPES AND 12:1 MAX LONGITUDINAL SLOPES. 16. CERTIFICATE OF OCCUPANCY (C OF O) AND/OR FINAL ELECTRICAL CLEARANCE FOR ANY BUILDING IS DENIED UNTIL ALL G&D IMPROVEMENTS ARE COMPLETED. 17. EXISTING OR NEWLY DAMAGED AND/OR DISPLACED CONCRETE CURB, GUTTER, SIDEWALK, OR DRIVEWAY SLAB THAT IS WITHIN THE R/W SHALL BE REPAIRED OR REPLACED, AS NOTED BY CITY INSPECTORS, BEFORE FINAL ACCEPTANCE OF THE WORK. 18. THE ENGINEERING DESIGN ON THESE PLANS IS ONLY APPROVED BY THE CITY IN SCOPE AND NOT IN DETAIL. CONSTRUCTION QUANTITIES ON THESE PLANS ARE NOT VERIFIED BY THE CITY. 19. THE CITY POLICE DEPARTMENT ENFORCES LAWS REGULATING THE OPERATION OF COMMERCIAL VEHICLES. 20. PLAN APPROVAL IS VALID FOR 12 MONTHS. 21. CONSTRUCTION WITHIN THE R/W SHALL CONFORM TO THE LATEST APPLICABLE MAG UNIFORM STANDARD SPECIFICATIONS AND DETAILS AND THE LATEST CITY OF PHOENIX SUPPLEMENT TO THE MAG UNIFORM STANDARD SPECIFICATIONS AND DETAILS. 22. COMPACTION SHALL COMPLY WITH MAG SECTION 601. 23. OBSTRUCTIONS TO PROPOSED IMPROVEMENTS IN THE R/W SHALL BE REMOVED OR RELOCATED BEFORE BEGINNING CONSTRUCTION OF THE PROPOSED IMPROVEMENTS. 24. THE ACTUAL POINT OF PAVEMENT MATCHING AND/OR TERMINATION SHALL BE DETERMINED IN THE FIELD BY THE CITY PLANNING & DEVELOPMENT DEPARTMENT FIELD INSPECTOR. 25. PAVEMENT REPLACEMENT THICKNESS AND TYPE ARE TO BE PER MAG. SECTION 336 AND CITY DETAIL P1200 -TYPE B. CURB AND GUTTER REPLACEMENT SHALL BE A MINIMUM OF ONE (1) FULL SECTION, PER MAG STANDARD DETAIL 220. SIDEWALK REPLACEMENT SHALL BE A MINIMUM OF ONE (1) FULL PANEL PER C.O.P. DETAIL P1230. 26. TREES AND SHRUBBERY IN THE R/W THAT CONFLICT WITH PROPOSED IMPROVEMENTS SHALL NOT BE REMOVED WITHOUT APPROVAL OF THE CITY LANDSCAPE ARCHITECT OR HIS ASSIGNEES. 27. PER THE STREET PAVEMENT CUT POLICY (TRT 00164) AND CITY ORDINANCE G-6308, ALL STREET PAVEMENT CUTS WILL REQUIRE ASPHALT RESURFACING TREATMENTS BASED ON THE AGE OF THE PAVEMENT. 28. THE OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR REGISTERING THE DRYWELLS SHOWN ON THE G&D PLAN WITH THE ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY (ADEQ). 29. DRYWELLS MUST BE DRILLED A MINIMUM OF 10 FEET INTO PERMEABLE POROUS STRATA OR PERCOLATION TESTS WILL BE REQUIRED. 30. THE OWNER/DEVELOPER IS RESPONSIBLE FOR INSTALLING DRYWELL(S) SHOULD THE RETENTION BASINS FAIL TO DRAIN WITHIN 36 HOURS.

EARTHWORK

1,755 CY CUT, 26,408 CY FILL, 24,653 CY NET FILL (IMPORT). EARTHWORK CALCULATIONS ARE AN ESTIMATE ACTUAL FIELD CONDITIONS MAY VARY EARTHWORK MEASURES SUBGRADE CONDITIONS, FILL SHRINK.

FEMA FLOOD INSURANCE RATE MAP

THE SUBJECT PARCEL LIES IN FLOOD ZONE "X" AS DELINEATED ON THE FEDERAL EMERGENCY MANAGEMENT AGENCY FIRM MAP NUMBER 04013C2690L, REVISED OCTOBER 16, 2013.

FLOOD ZONE "X" IS DEFINED AS AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL FLOOD.

DRAINAGE STATEMENT

SITE IS NOT IN A SPECIAL FLOOD HAZARD AREA. OFFSITE FLOWS FROM THE UNNAMED WASH DO NOT AFFECT THIS SITE. OFF-SITE FLOWS FROM THE DEVELOPMENT EAST OF THE PROJECT ARE CONVEYED UNDER 19TH AVE IN AN EXISTING PIPE AND ARE CAPTURED IN A SWALE AND ROUTED TO THE UNNAMED WASH TO THE WEST.

THE PROJECT DOES NOT CHANGE DRAINAGE PATTERNS OR HAVE ANY AFFECT ON OFFSITE PROPERTIES, PER THE DRAINAGE REPORT.

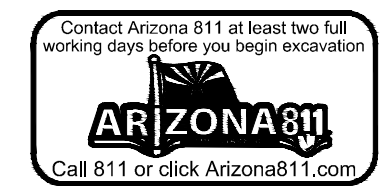
ON-SITE RETENTION FOR THE PARCEL IS PROVIDED FOR THE 100 YEAR 2 HOUR STORM. PROPOSED RETENTION WILL PROVIDE 37,784 CF. THE REQUIRED VOLUME IS 32,784 CF. THE SITE EXTREME STORM OUTFALL IS AT THE SOUTHWEST CORNER OF THE SITE AT AN ELEVATION OF 1240.33.

AS-BUILT CERTIFICATION

I HEREBY 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/LAND SURVEYOR DATE

REGISTRATION NUMBER



Note: 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 your contract with the City of Phoenix.



Revisions	Date

**FOR REFERENCE ONLY**

**REMOVAL NOTES**

- 1 SAWCUT & REMOVE AC PAVEMENT FULL DEPTH, WIDTH PER PLAN
- 2 REMOVE CONCRETE CURB & GUTTER TO NEAREST JOINT
- 3 REMOVE CONCRETE SIDEWALK TO NEAREST JOINT
- 5 SALVAGE BOULDERS
- 6 REMOVE SIGN
- 7 REMOVE GATE & POSTS/FOUNDATIONS
- 8 SALVAGE PARKING BLOCKS
- 9 REMOVE CONCRETE DRIVEWAY APRON
- 13 REMOVE HEADWALL
- 14 REMOVE DETECTABLE WARNING SURFACE

**REFERENCE NOTES**

- 1 PROTECT IN PLACE
- 10 TREE/VEGETATION REMOVALS & SALVAGES REFER TO LANDSCAPE PLANS
- 32 UTILITY BOXES TO BE RELOCATED COORDINATE WITH UTILITY PROVIDER



Designed By:  
AG  
 Drawn By:  
JL  
 Checked By:  
CD  
 Date:  
05/21/2024  
 Phase:  
CD

**Periman**  
 Architects of Arizona  
 2929 North Central Avenue, Suite #1600  
 Phoenix, Arizona 85012  
 480.951.5900 480.951.3045  
 perimanaz.com

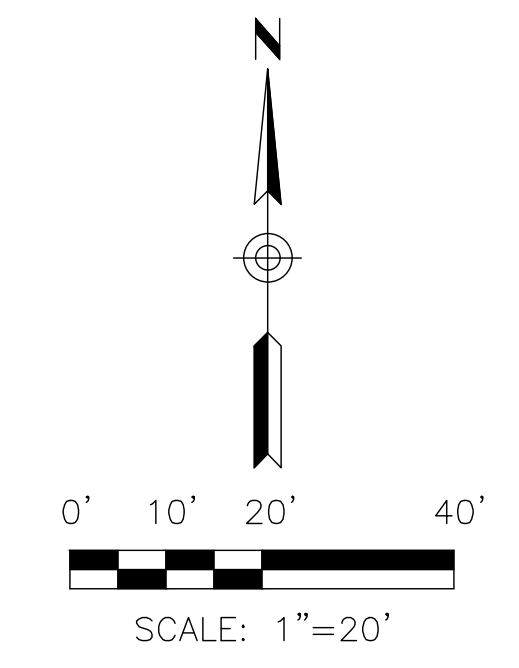
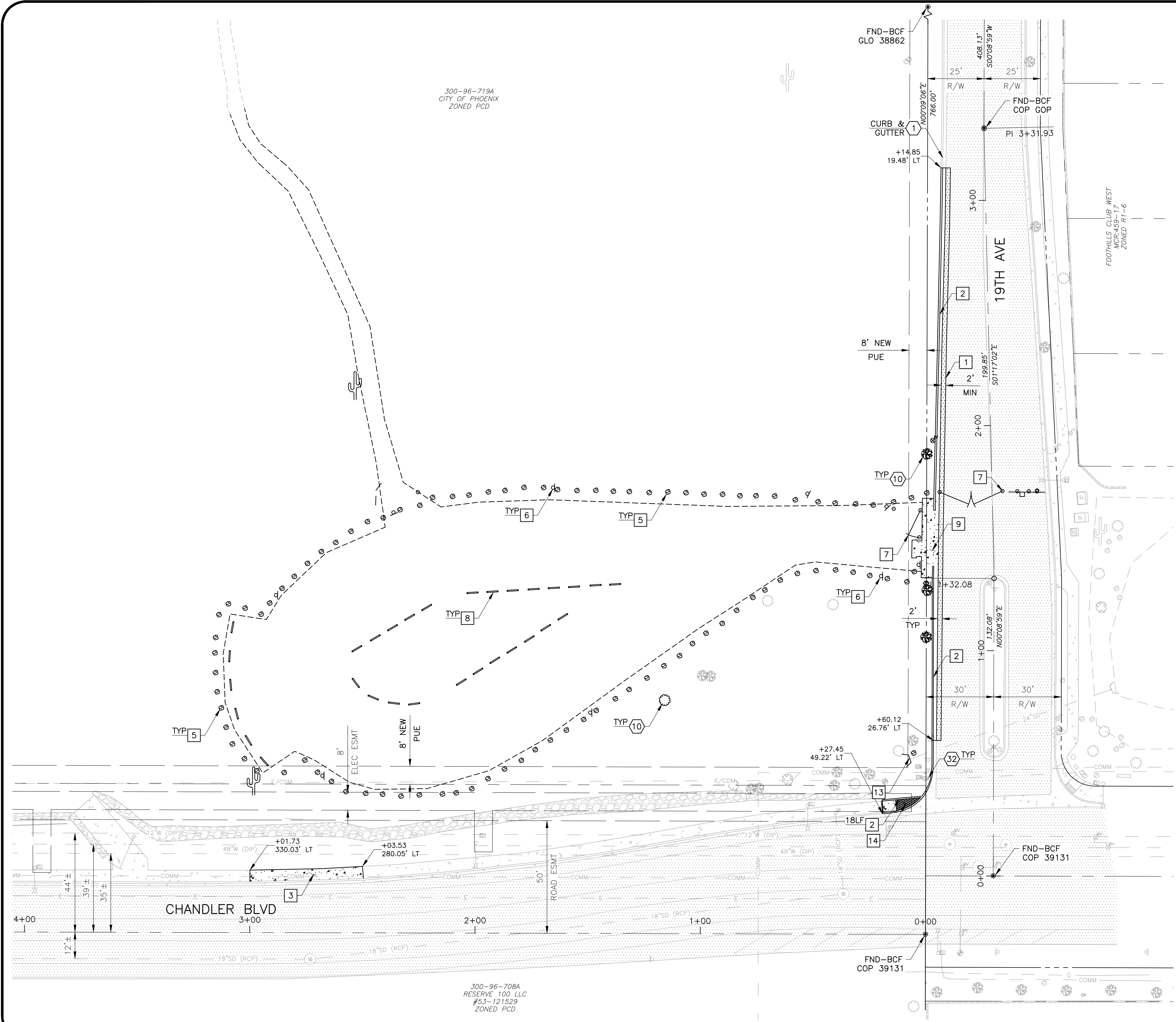
**Title:**  
**FIRE STATION #74**  
**NWC 19TH AVE & CHANDLER**  
**PHOENIX, ARIZONA 85045**  
 Index No: **FD57100020-3**

**OFFICE OF THE CITY ENGINEER**  
**FIRE DEPARTMENT STATION 74 - PERMIT CITY SUBMITTAL**  
**CITY OF PHOENIX**  
 KIVA # 23-1810  
 SDEV #  
 DEMOLITION PLAN  
**C2.1**

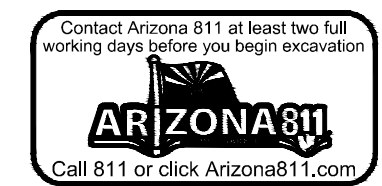
300-96-719A  
 CITY OF PHOENIX  
 ZONED PCO

300-96-708A  
 RESERVE 100 LLC  
 #93-121529  
 ZONED PCO

FILE:\2023\102300201\_Phoenix\_Fire\_Station\_74\CAO\2300201\_C2\_X-DEMO.dwg DATE:5/25/2024 TIME:1:47 PM (by:john.teach)



**Note:**  
 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 your contract with the City of Phoenix.





Revisions	Date



Designed By:	AG
Drawn By:	JL
Checked By:	CD
Date:	05/21/2024
Phase:	CD

**Perلمان**  
Architects of Arizona  
2929 North Central Avenue, Suite #1600  
Phoenix, Arizona 85012  
480.951.5900 480.951.3045  
perلمانaz.com

**Title:**  
**FIRE STATION #74**  
**NWC 19TH AVE & CHANDLER**  
**PHOENIX, ARIZONA 85045**  
Index No: **FD57100020-3**

**OFFICE OF THE CITY ENGINEER**  
**FIRE DEPARTMENT STATION 74 - PERMIT CITY SUBMITTAL**  
**CITY OF PHOENIX**

KIVA # 23-1810  
SDEV #  
SITE PLAN  
C3.1

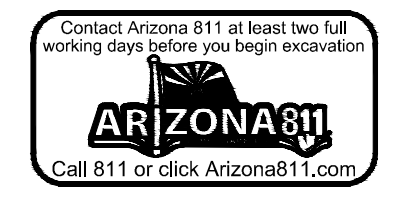
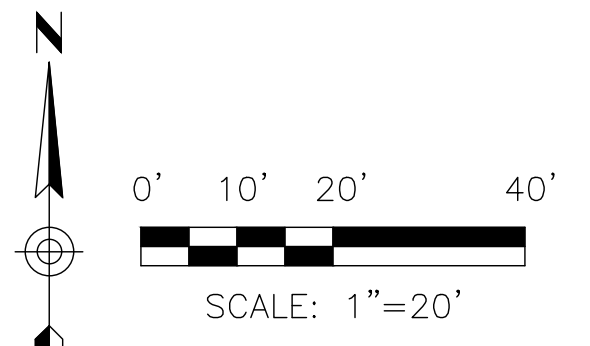
CONSTRUCTION NOTES

- 3 CONCRETE PAVEMENT  
6"CONC/4"ABC/NATIVE COMPACTED TO 95%  
REFER TO GEOTECHNICAL REPORT PREPARED  
BY SPEEDIE DATED JUNE 7, 2023
- 4 CONCRETE SINGLE CURB  
MAG STD DET 222, TYPE A
- 5 CONCRETE CURB & GUTTER  
MAG STD DET 220-1, TYPE A
- 6 FLUSH CONCRETE SINGLE CURB  
MAG STD DET 222, TYPE B (MOD)
- 7 CONCRETE SIDEWALK, WIDTH PER PLAN  
MAG STD DET 230
- 8 SIDEWALK SCUPPER  
MAG STD DET 203
- 12 AC PAVEMENT REPLACEMENT  
COP STD DET P1200, TYPE B
- 13 CONCRETE SIDEWALK RAMP  
DET 1, SHEET C5.1
- 14 CONCRETE SIDEWALK RAMP  
DET 2, SHEET C5.1
- 15 CONCRETE SIDEWALK RAMP  
DET 3, SHEET C5.1
- 16 PARKING BLOCK  
MAG STD DET 150, TYPE B-3
- 19 CURB TERMINATION  
MAG STD DET 222
- 20 DRIVEWAY  
COP STD DET P1243
- 21 DRIVEWAY  
COP STD DET P1255-1
- 27 GATE  
DET 1, SHEET C5.2
- 37 20' R - RADIAL CURB RAMPS  
MAG STD DET 236-3 (MODIFIED)
- 39 BUS PAD  
COP STD DET P1258
- 40 RIPRAP W/FILTER FABRIC  
D50=3", DEPTH=6"  
DIMENSIONS PER PLAN
- 42 RIPRAP W/FILTER FABRIC  
D50=6", DEPTH=12"  
DIMENSIONS PER PLAN
- 43 CURB OPENING & RIPRAP SPILLWAY  
W/ FILTER FABRIC, DET 5, SHEET C5.1

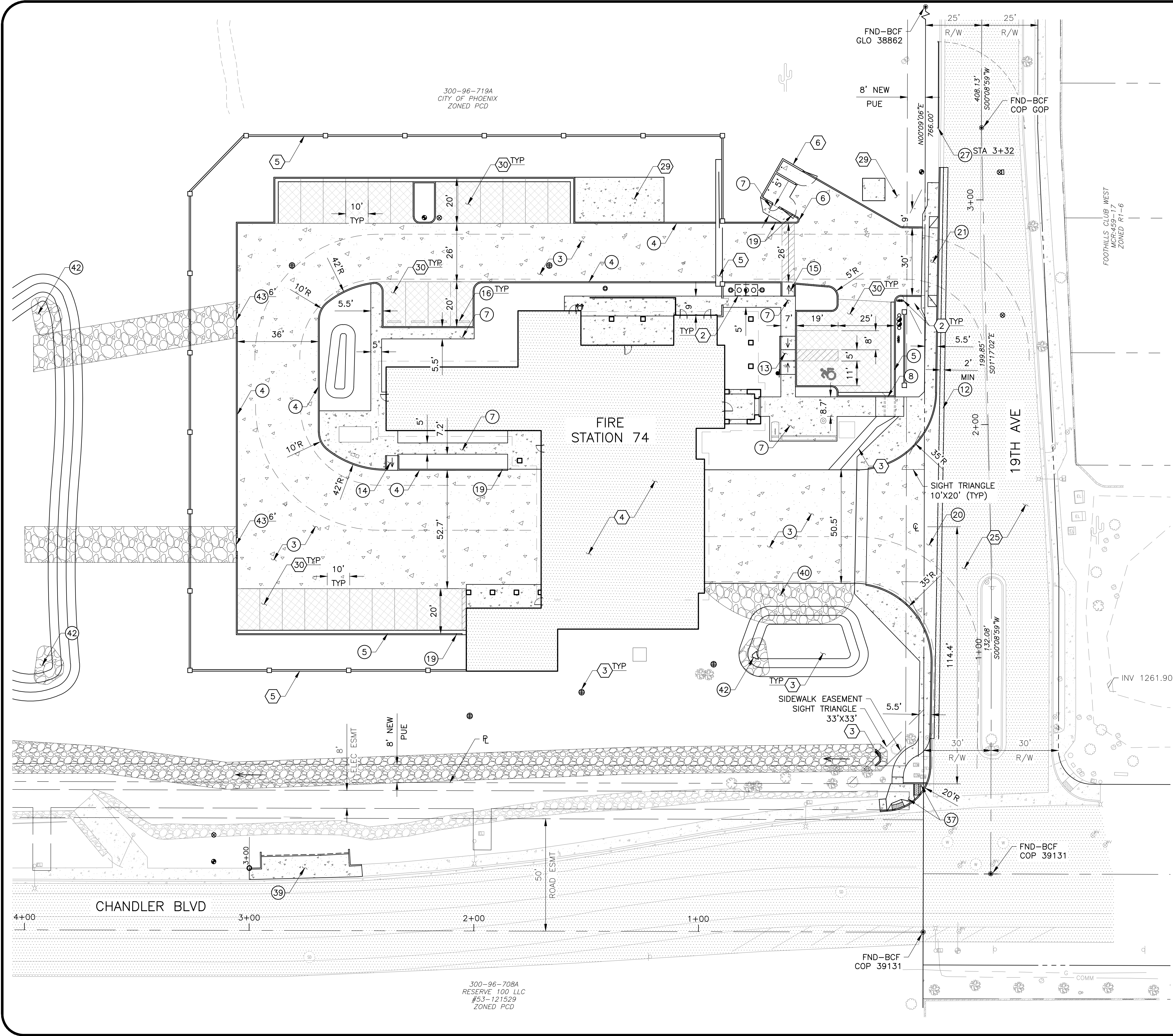
REFERENCE NOTES

- 2 UTILITY IMPROVEMENTS  
REFER TO UTILITY PLANS
- 3 DRAINAGE IMPROVEMENTS  
REFER TO GRADING & DRAINAGE PLANS
- 4 NEW BUILDING  
REFER TO ARCHITECTURAL PLANS
- 5 WALL/FENCE/GATE  
REFER TO ARCHITECTURAL PLANS
- 6 TRASH ENCLOSURE  
REFER TO ARCHITECTURAL PLANS
- 25 CONCURRENT SLURRY SEAL  
REFER TO OFF-SITE WATER MAIN PLAN
- 29 CONCRETE ELECTRICAL EQUIPMENT PAD
- 30 PERMEABLE PAVEMENT  
REFER TO HARDSCAPE PLANS

1. ALL DIMENSIONS ARE MEASURED TO FACE OF CURB UNLESS OTHERWISE NOTED.
2. REFER TO LANDSCAPE PLANS FOR ALL CUSTOM CONCRETE FINISHES, COLORS, GEOMETRIC LAYOUTS AND ADDITIONAL INFORMATION. ALL CONTROL AND EXPANSION JOINTS PER MAG SPECS



Note:  
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 your contract with the City of Phoenix.



FILE:\2023\1023002.01\_Phoenix\_Fire\_Station\_74\CAO\23002.01\_C3.X-SITE.dwg DATE:6/25/2024 TIME:1:47 PM (bjrjhn.tech)

300-96-708A  
RESERVE 100 LLC  
#93-121529  
ZONED PCD



Revisions	Date



Designed By:  
AG

Drawn By:  
JL

Checked By:  
CD

Date:  
05/21/2024

Phase:  
CD

**Periman**  
Architects of Arizona  
43320 Christina Shannon Mauck  
2929 North Central Avenue, Suite #1600  
Phoenix, Arizona 85012  
480.951.5900 480.951.3045  
perimanaz.com

Title:  
**FIRE STATION #74**  
**NWC 19TH AVE & CHANDLER**  
**PHOENIX, ARIZONA 85045**  
Index No:  
**FD57100020-3**

KIVA # 23-1810  
SDEV #  
GRADING & DRAINAGE PLAN  
**C4.1**

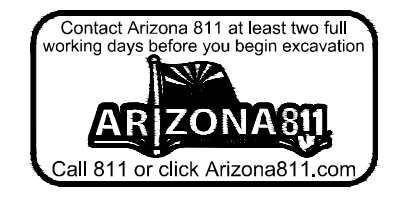
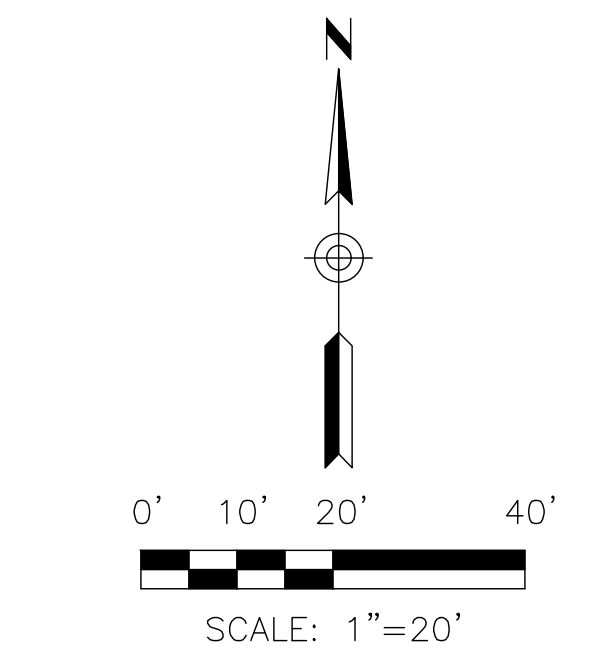
CONSTRUCTION NOTES

- 41 RIP RAP SWALE D50=6", DEPTH=12", SIZE PER PLAN
- 46 BIOSWALE WIDTH PER PLAN
- 47 CONCRETE HEADWALL MAG STD DET 501-1, TYPE U WITH HANDRAILS
- 49 CONCRETE PIPE COLLAR COP STD DET P1505 SIZE PER PLAN
- 50 STORM DRAIN, HDPE (WATER TIGHT) SIZE PER PLAN ADS N-12 WT OR APPROVED EQUAL
- 52 STORM DRAIN, RGRCP CLASS V SIZE PER PLAN
- 57 DRAIN BASIN W/GRATED LID (H-20 TRAFFIC) DET 4, SHEET C5.1 ADS NYLOPLAST OR APPROVED EQUAL
- 60 FLARED END SECTION ADS STEEL END SECTION OR APPROVED EQUAL RIPRAP, D50=6", DEPTH=12", AROUND ALL SIDES 3'
- 65 INSTALL TRASH RACK/ACCESS BARRIER COP STD DET P1563

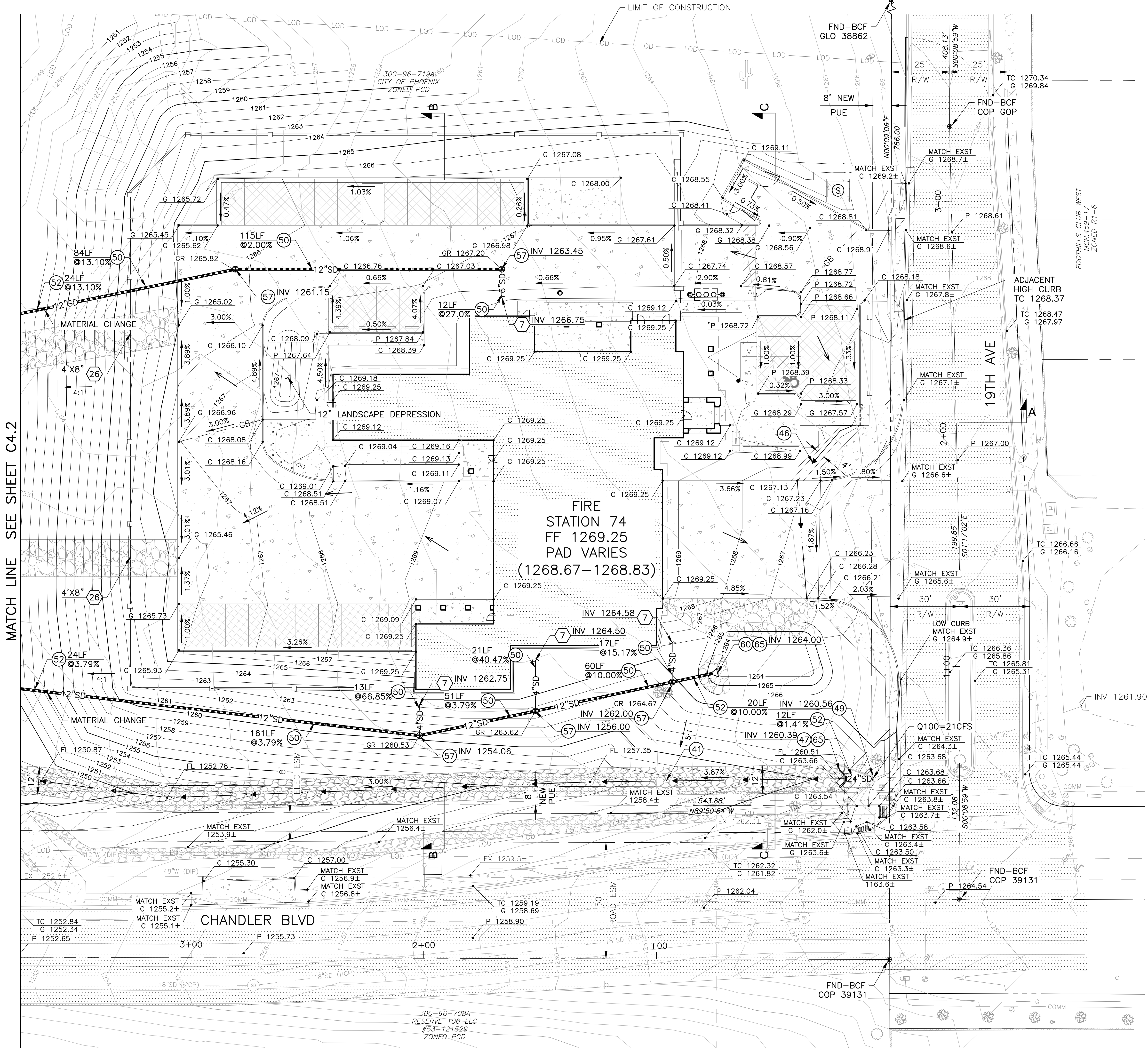
REFERENCE NOTES

- 7 FOR CONTINUATION REFER TO PLUMBING PLANS
- 26 DRAINAGE OPENING THROUGH WALL SIZE PER PLAN REFER TO STRUCTURAL PLANS

1. ONLY STORM DRAIN UTILITIES SHOWN FOR CLARITY.
2. ADD 1200' TO ALL SPOT GRADES & INVERT ELEVATIONS.
3. ALL TOP OF CURBS ARE 6" ABOVE PAVEMENT ELEVATION UNLESS OTHERWISE NOTED.
4. ALL UTILITY SURFACE FEATURES SHALL BE ADJUSTED TO FINISH GRADE INCLUDING BUT NOT LIMITED TO UTILITY BOXES, VALVES, METER BOXES, VAULTS, MANHOLES, BACKFLOWS, GRATES, ETC.
5. ALL NEW SIDEWALK, PAVING AND OTHER HARDSCAPE FEATURES SHALL MATCH IN WITH EXISTING ADJACENT GRADES.
6. ALL SIDEWALK AND ADA ROUTES SHALL BE CONSTRUCTED WITH 5% MAX SLOPE IN THE DIRECTION OF TRAVEL AND 2% MAX CROSS SLOPE.



Note:  
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 your contract with the City of Phoenix.



MATCH LINE SEE SHEET C4.2

FILE:\2023\10230020-01\_Phoenix\_Fire\_Station\_74\_CAD\30020-01\_C4\_X-GRAD.dwg DATE: 6/25/2024 TIME: 1:48 PM (by: jphm, kscb)

300-96-708A  
RESERVE 100-LLC  
#63-121529  
ZONED-PCD

CITY OF PHOENIX OFFICE OF THE CITY ENGINEER FIRE DEPARTMENT STATION 74 - PERMIT CITY SUBMITTAL



Revisions	Date



Designed By:  
AG

Drawn By:  
JL

Checked By:  
CD

Date:  
05/21/2024

Phase:  
CD

**Periman**  
Architects of Arizona  
2929 North Central Avenue, Suite #1600  
Phoenix, Arizona 85012  
480.951.5900 480.951.3045  
perimanaz.com

Title:  
**FIRE STATION #74  
NWC 19TH AVE & CHANDLER  
PHOENIX, ARIZONA 85045**  
Index No: **FD57100020-3**

**CITY OF PHOENIX**  
OFFICE OF THE CITY ENGINEER  
FIRE DEPARTMENT STATION 74 - PERMIT CITY SUBMITTAL

KIVA # 23-1810  
SDEV #

GRADING & DRAINAGE PLAN  
**C4.2**

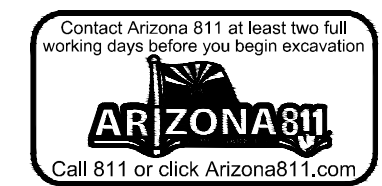
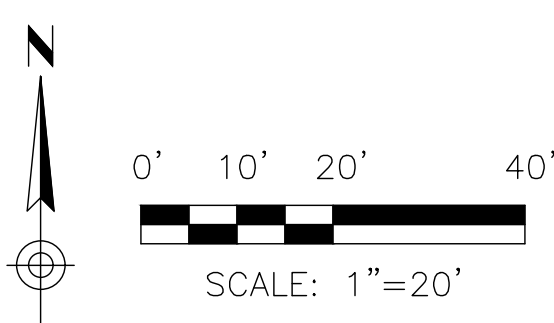
CONSTRUCTION NOTES

- 41 RIP RAP SWALE  
D50=6", DEPTH=12", SIZE PER PLAN
- 50 STORM DRAIN, HDPE (WATER TIGHT)  
SIZE PER PLAN  
ADS N-12 WT OR APPROVED EQUAL
- 52 STORM DRAIN, RGRCP CLASS V  
SIZE PER PLAN
- 60 FLARED END SECTION  
ADS STEEL END SECTION OR APPROVED EQUAL  
RIPRAP, D50=6", DEPTH=12", AROUND ALL  
SIDES 3'
- 61 HYDRODYNAMIC SEPARATOR  
ADS BARRACUA OR APPROVED EQUAL  
MODEL PER PLAN
- 62 U-TYPE HEADWALL W/ HANDRAIL  
MAG STD DET 145 & 501  
W/ 4" ORIFACE PLATE DET 6, SHEET C5.1  
WITH RIP RAP D50=6" 3' ALL SIDES
- 65 INSTALL TRASH RACK/ACCESS BARRIER  
COP STD DET P1563

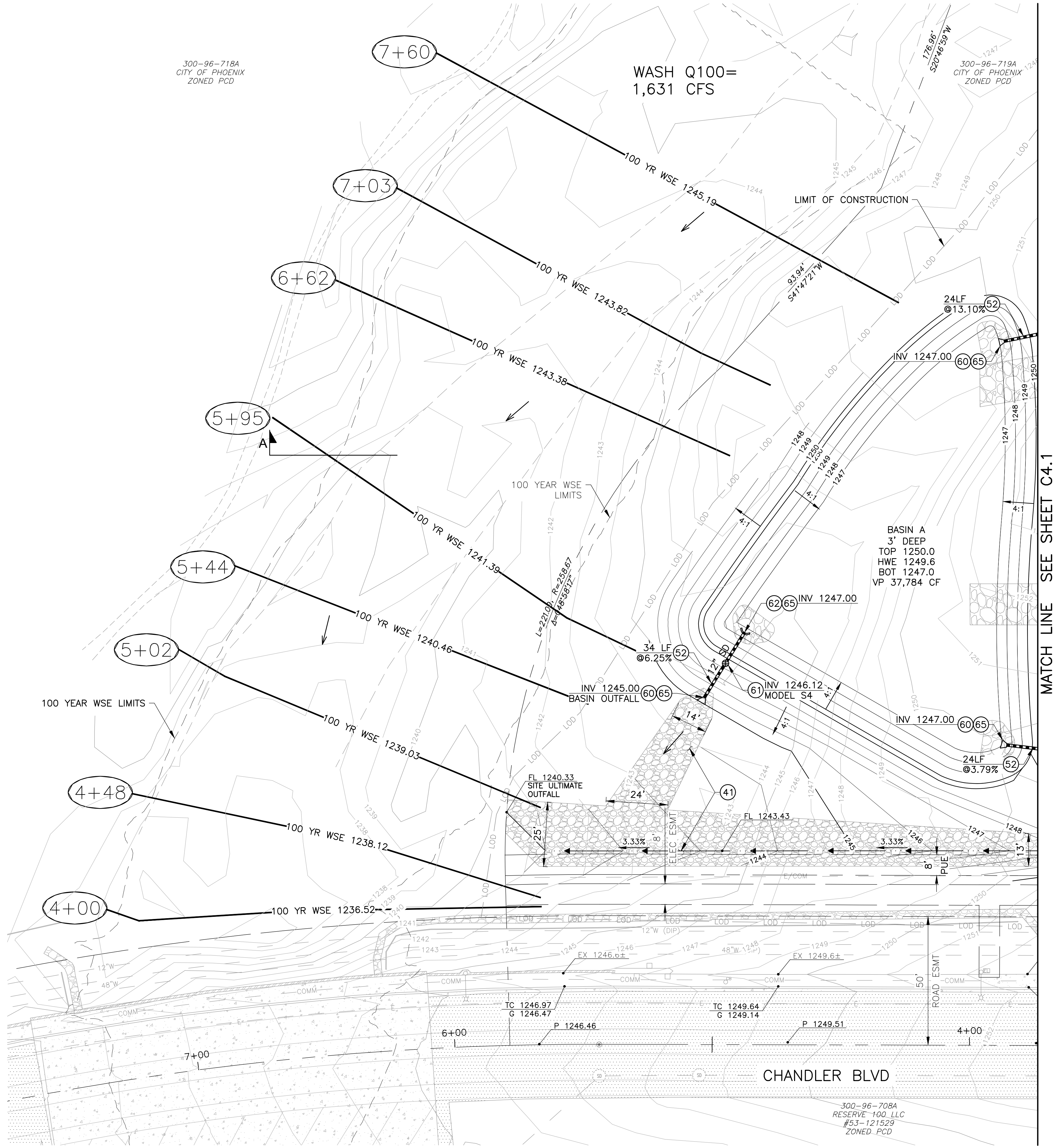
LEGEND

- SURFACE FLOW DIRECTION
- GB GRADE BREAK
- FL FLOW LINE
- HP HIGH POINT
- LP LOW POINT
- C XX.XX CONCRETE SPOT GRADE
- FL XX.XX FLOW LINE SPOT GRADE
- P XX.XX PAVEMENT SPOT GRADE
- TC XX.XX TOP OF CURB SPOT GRADE
- G XX.XX GUTTER SPOT GRADE
- TOW XX.XX TOP OF WALL
- EX XX.XX EXISTING SPOT GRADE
- XXXX EXISTING MAJOR CONTOUR
- XXXX EXISTING MINOR CONTOUR
- XXXX NEW MAJOR CONTOUR
- XXXX NEW MINOR CONTOUR
- (X+XX) RIVER STATIONING FROM HEC RAS

- ONLY STORM DRAIN UTILITIES SHOWN FOR CLARITY.
- ADD 1200' TO ALL SPOT GRADES & INVERT ELEVATIONS.
- ALL TOP OF CURBS ARE 6" ABOVE PAVEMENT ELEVATION UNLESS OTHERWISE NOTED.
- ALL UTILITY SURFACE FEATURES SHALL BE ADJUSTED TO FINISH GRADE INCLUDING BUT NOT LIMITED TO UTILITY BOXES, VALVES, METER BOXES, VAULTS, MANHOLES, BACKFLOWS, GRATES, ETC.
- ALL NEW SIDEWALK, PAVING AND OTHER HARDSCAPE FEATURES SHALL MATCH IN WITH EXISTING ADJACENT GRADES.
- ALL SIDEWALK AND ADA ROUTES SHALL BE CONSTRUCTED WITH 5% MAX SLOPE IN THE DIRECTION OF TRAVEL AND 2% MAX CROSS SLOPE
- 100 YEAR WATER SURFACE ELEVATIONS AND REACH STATIONING ARE FROM THE FINAL DRAINAGE REPORT FOR CHANDLER BOULEVARD 27TH AVENUE TO 19TH AVENUE PREPARED BY KIMLEY HORN DATED MAY 2016.



Note:  
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 your contract with the City of Phoenix.



FILE:\2023\1023002.01\_Phoenix\_Fire\_Station\_74\_CAD\3002.01\_C4\_X-GRAD.dwg DATE:6/25/2024 TIME:1:48 PM (by:jphm,keach)

300-96-708A  
RESERVE-100 LLC  
#53-121529  
ZONED\_PCD



Revisions	Date



Designed By:	AG
Drawn By:	JL
Checked By:	CD
Date:	12/15/2023
Phase:	CD

**Periman**  
Architects of Arizona  
2929 North Central Avenue, Suite #1600  
Phoenix, Arizona 85012  
480.951.5900 480.951.3045  
perimanaz.com

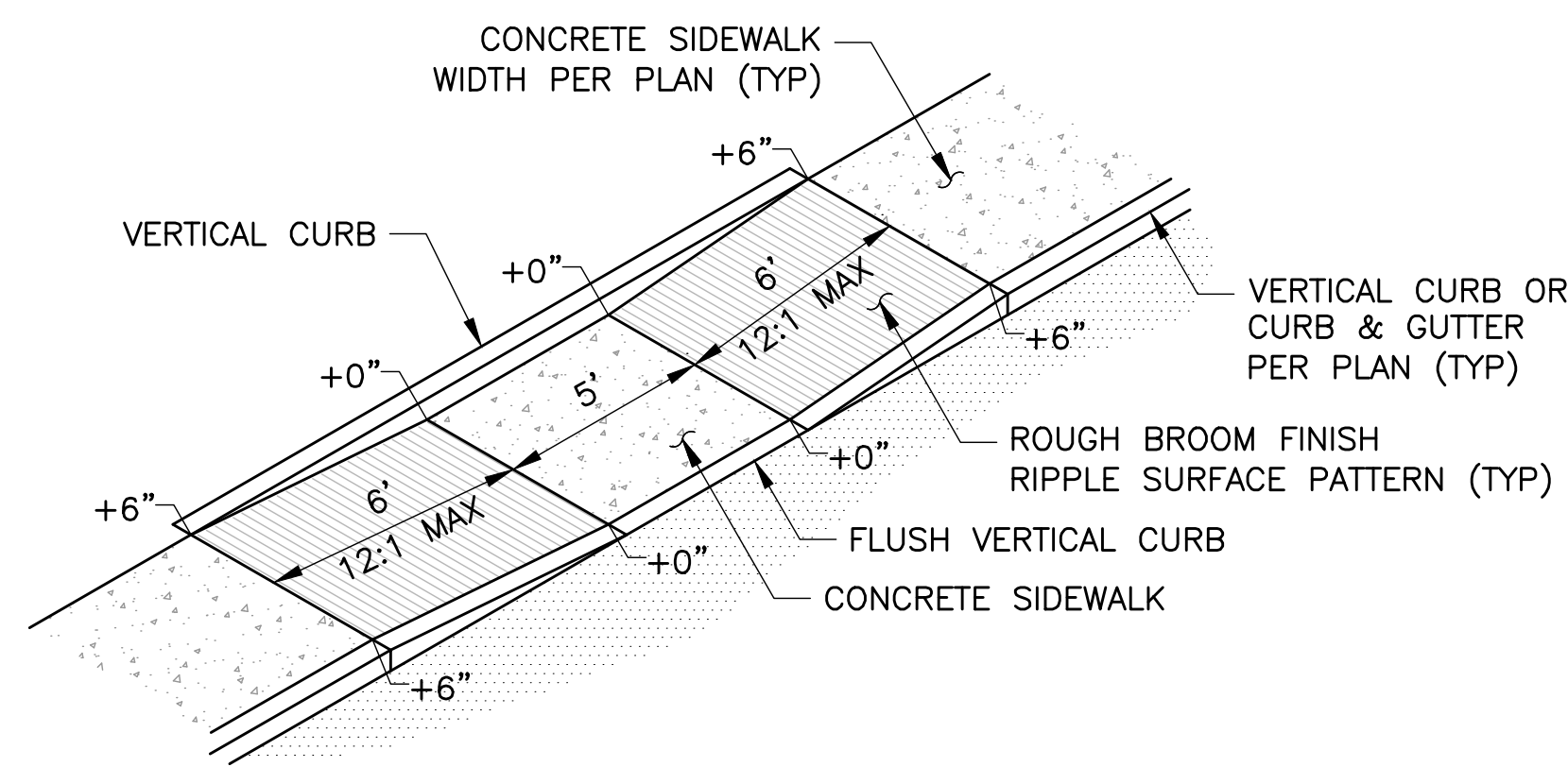
**FIRE STATION #74**  
**NWC 19TH AVE & CHANDLER**  
**PHOENIX, ARIZONA 85045**  
Index No: **FD57100020-3**

**ARIZONA811**  
Contact Arizona 811 at least two full working days before you begin excavation.  
Call 811 or click Arizona811.com

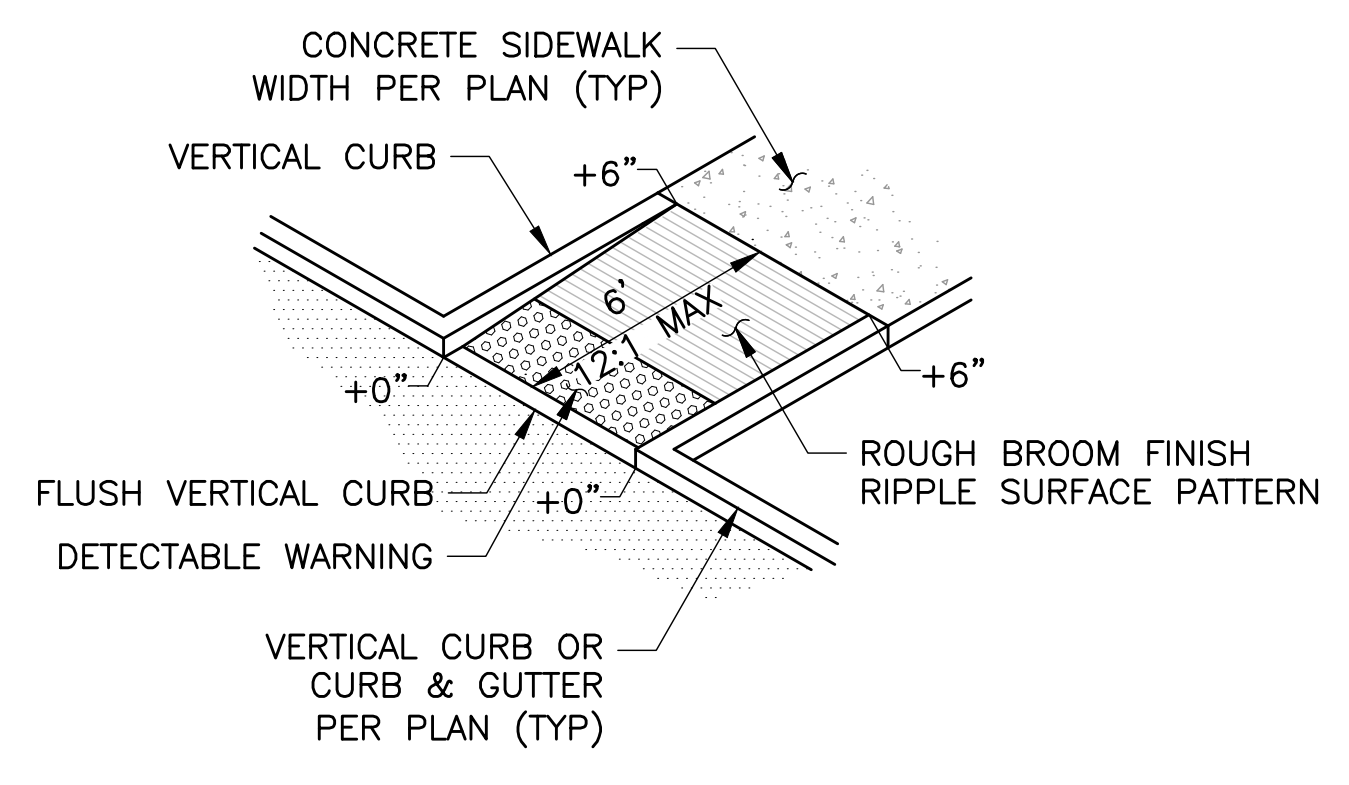
**KIVA # 23-1810**  
SDEV #

**DETAILS**  
**C5.1**

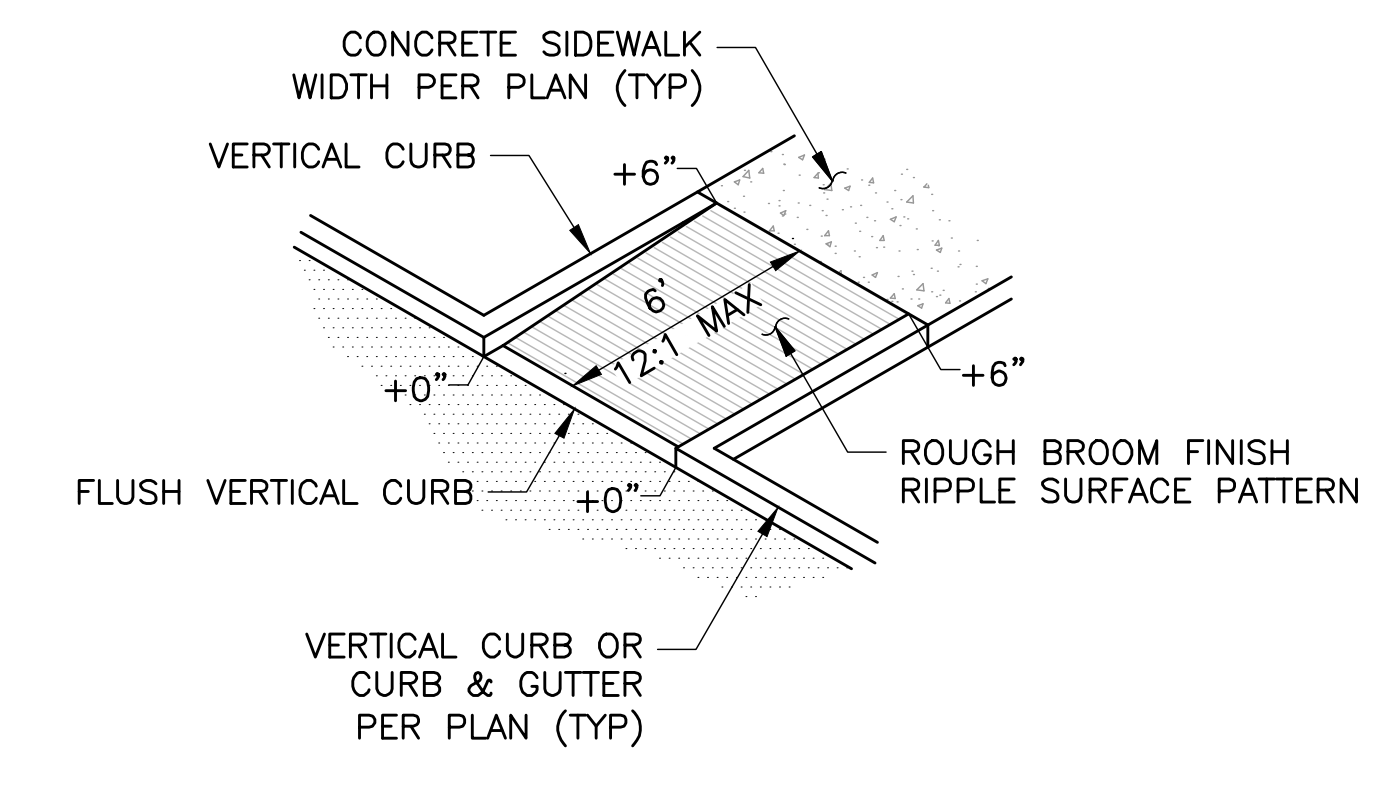
CITY OF PHOENIX OFFICE OF THE CITY ENGINEER FIRE DEPARTMENT STATION 74 - PERMIT CITY SUBMITTAL



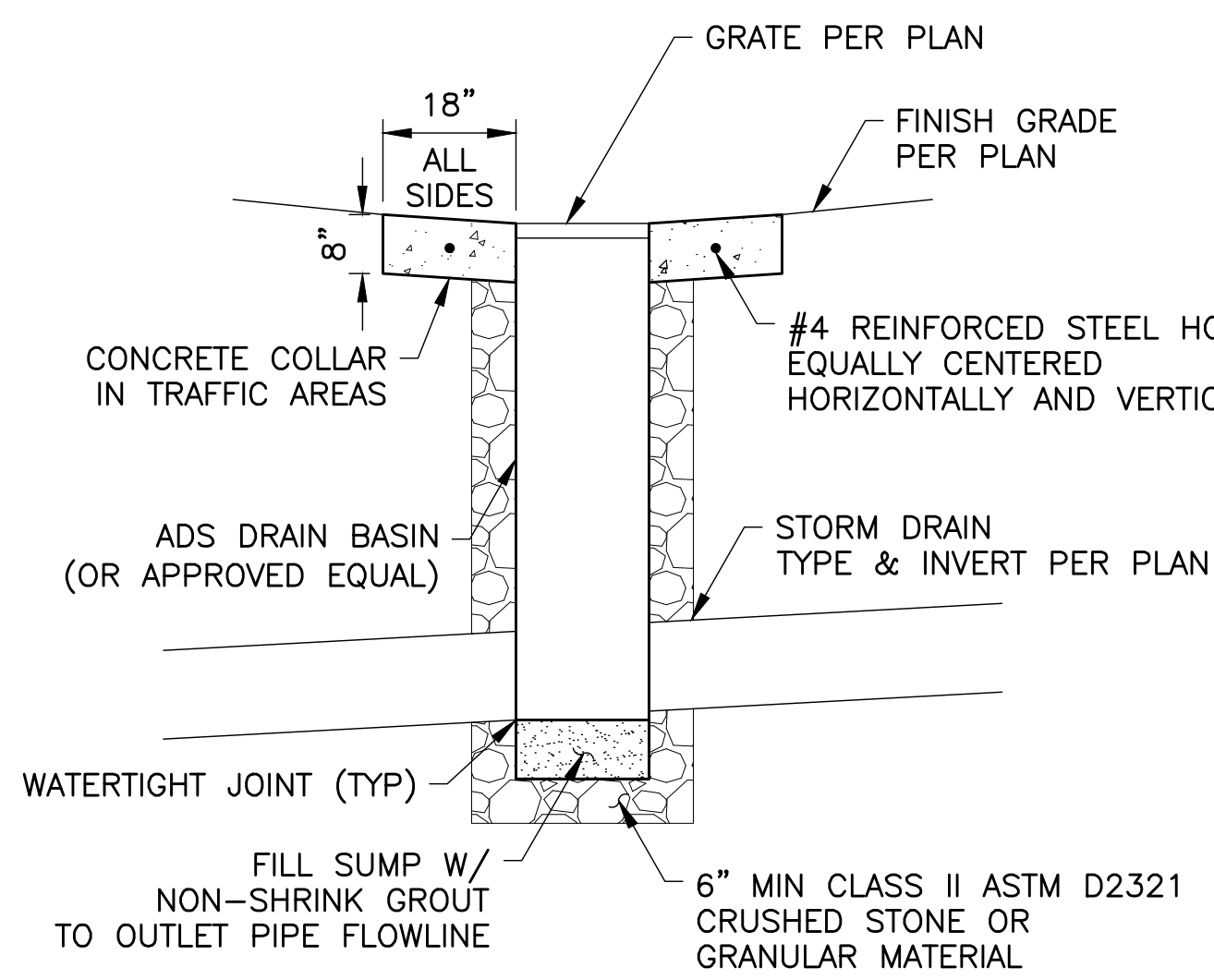
**1 CONCRETE SIDEWALK RAMP**  
NO SCALE



**2 CONCRETE SIDEWALK RAMP**  
NO SCALE

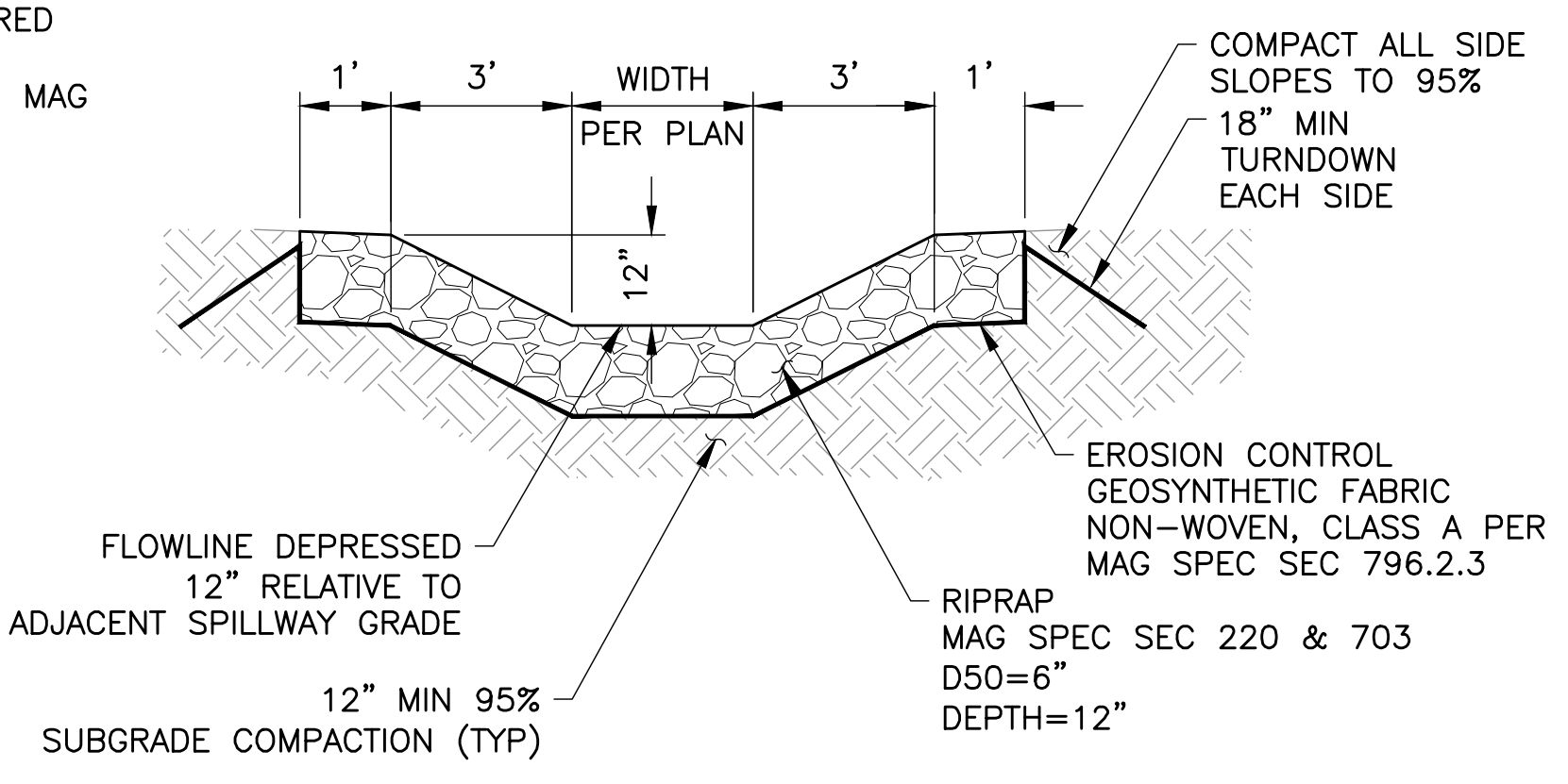


**3 CONCRETE SIDEWALK RAMP**  
NO SCALE



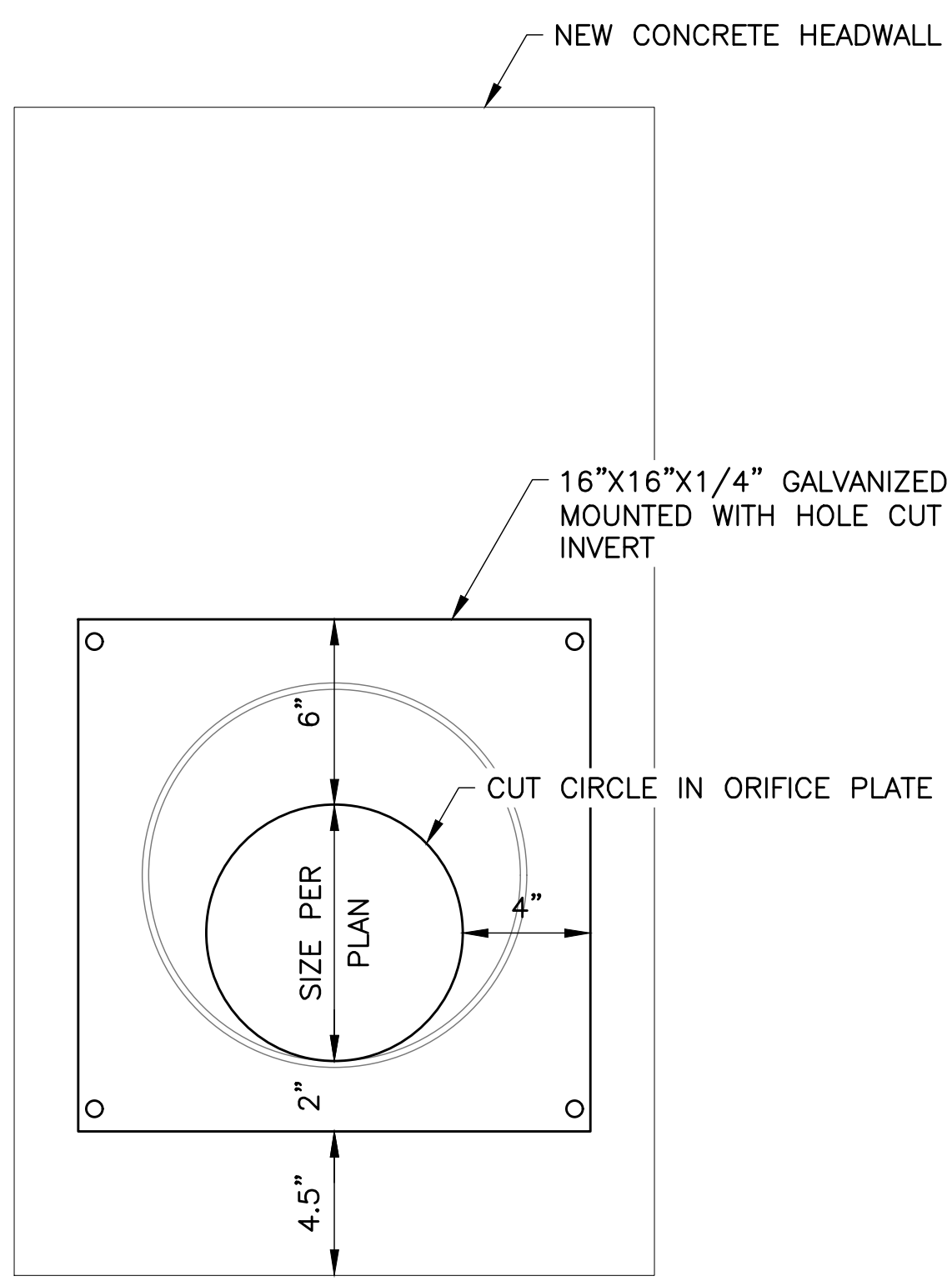
**4 DRAIN BASIN**  
NO SCALE

- NOTES:
1. DRAIN BASINS SHALL BE INSTALLED PER MANUFACTURERS RECOMMENDATIONS
  2. CONCRETE COLLARS & H-20 GRATES SHALL BE INSTALLED WHEN LOCATED IN TRAFFIC AREAS
  3. CONCRETE COLLAR SHALL HAVE A MEDIUM BROOM FINISH WITH RADIALLY SCORED MARKS (4 MIN)
  4. CONCRETE SHALL BE CLASS AA PER MAG SPEC SEC 725

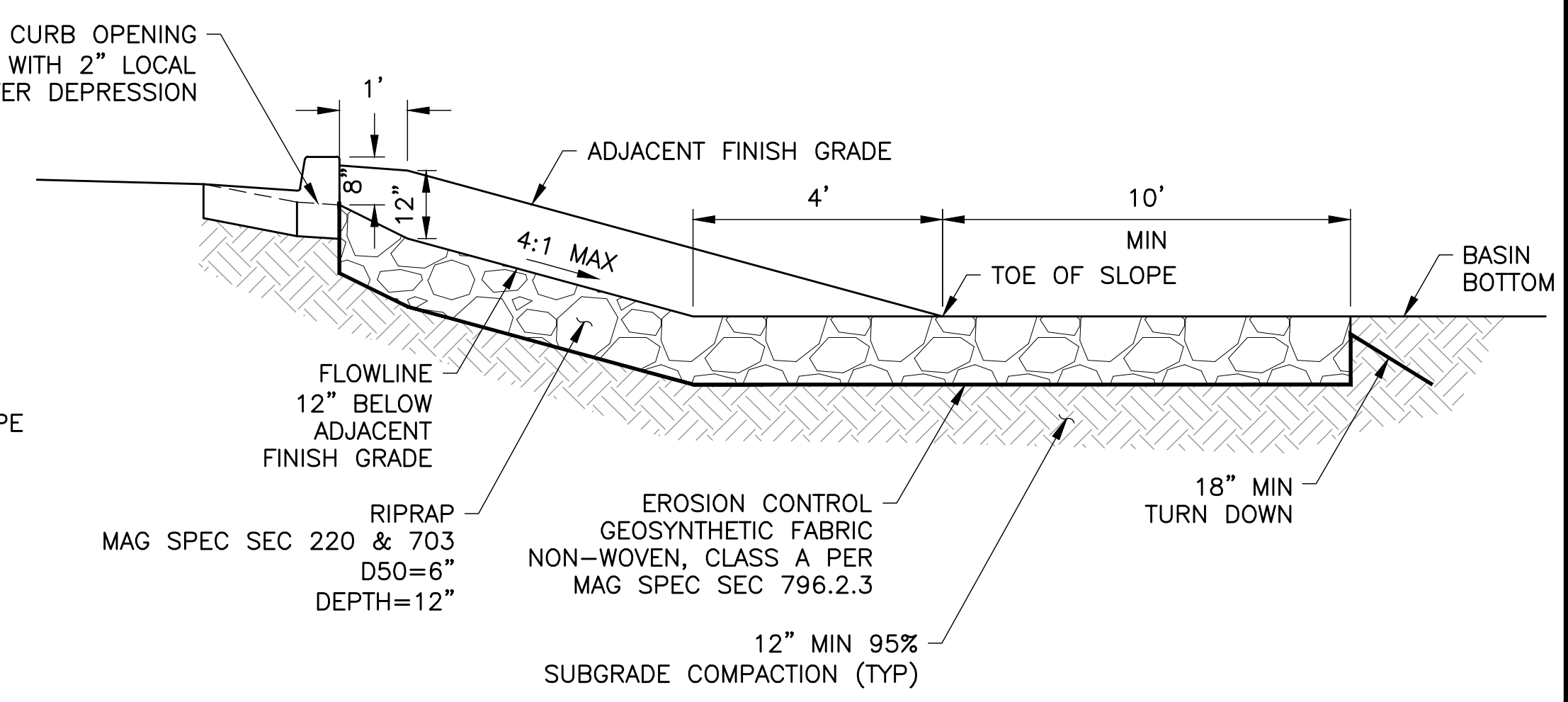
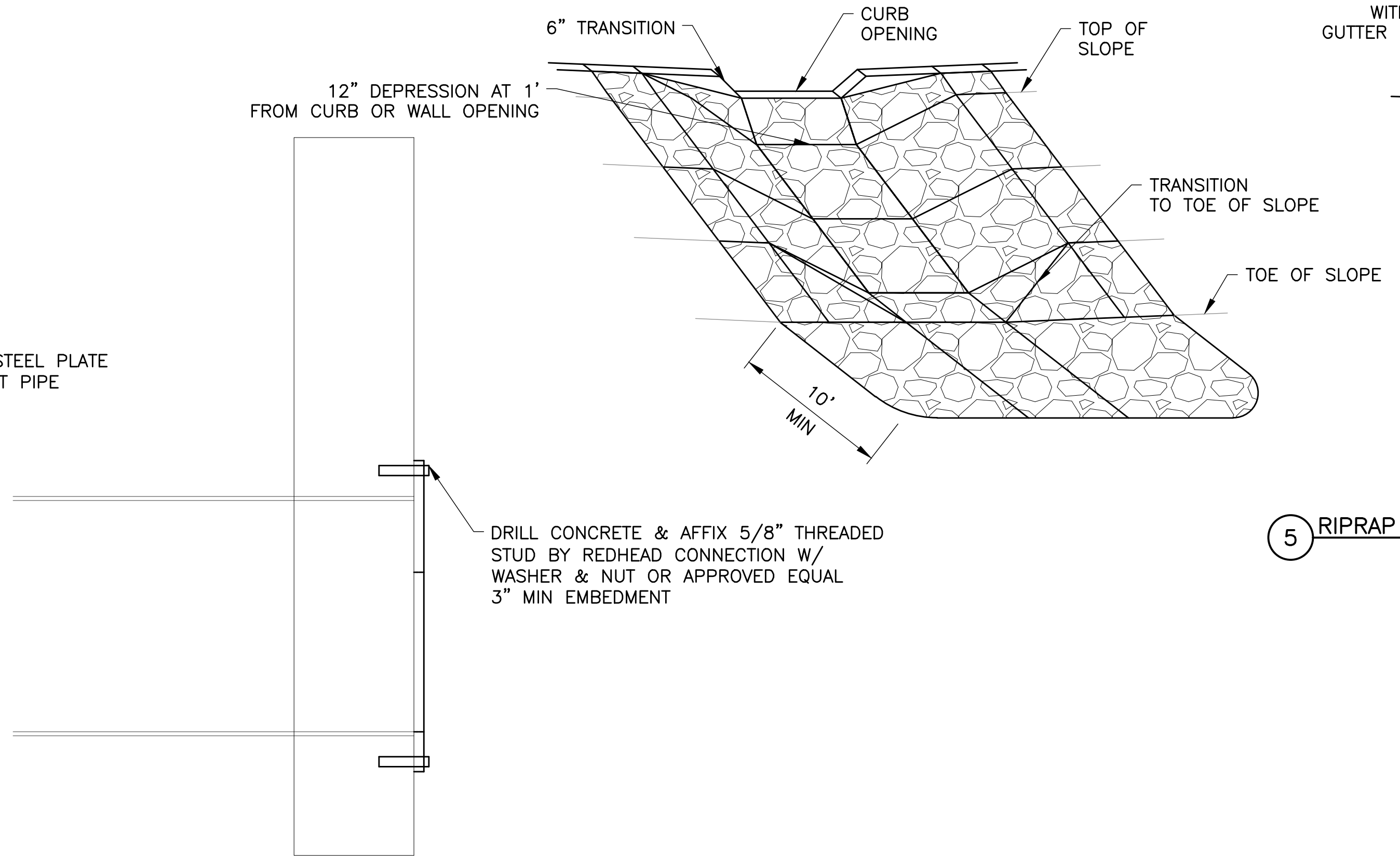


**5 RIPRAP SPILLWAY**  
NO SCALE

- NOTES:
1. ANY CONSTRUCTED SPILLWAYS OBSERVED TO NOT CONFORM TO THIS DETAIL SHALL BE RECONSTRUCTED AT THE CONTRACTOR'S EXPENSE
  2. CONTRACTOR SHALL IMPLEMENT STORM WATER BEST MANAGEMENT PRACTICES TO PREVENT EROSION DURING CONSTRUCTION AND SHALL TAKE IMMEDIATE CORRECTIVE MEASURES SHOULD EROSION BE OBSERVED
  3. ALL RIPRAP SPILLWAYS SHALL BE INSTALLED WITH A 12" DEPRESSED FLOW LINE RELATIVE TO ADJACENT FINISH GRADE
  4. 12" MIN SUBGRADE UNDER THE SPILLWAY AND FINISH GRADE ADJACENT TO SPILLWAY SHALL BE COMPACTED TO 95%
  5. CONTRACTOR SHALL MAINTAIN POSITIVE SLOPE ALONG FLOWLINE
  6. MATCH COLOR TO ADJACENT LANDSCAPE ROCK / DG SURFACE PER LANDSCAPE PLAN
  7. ROCK SHALL BE ANGULAR IN SHAPE, NOT ROUNDED
  8. RIPRAP CONSTRUCTION SHALL CONFORM TO MAG SPEC SECTION 220 & 703



**6 ORIFICE PLATE**  
NO SCALE



FILE:\2023\1023002.01\_Phoenix\_Fire\_Station\_74\CA0\23002.01\_C5\_X-DETL.dwg DATE:3/28/2024 TIME:5:18 PM (jychristina.dolan)

Note:  
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 your contract with the City of Phoenix.



Revisions	Date



Designed By: AG
Drawn By: JL
Checked By: CD
Date: 05/21/2024
Phase: CD

**Periman**  
Architects of Arizona  
2929 North Central Avenue, Suite #1600  
Phoenix, Arizona 85012  
480.951.5900 480.951.3045  
perimanaz.com

**FIRE STATION #74**  
**NWC 19TH AVE & CHANDLER**  
**PHOENIX, ARIZONA 85045**  
Index No: **FD57100020-3**



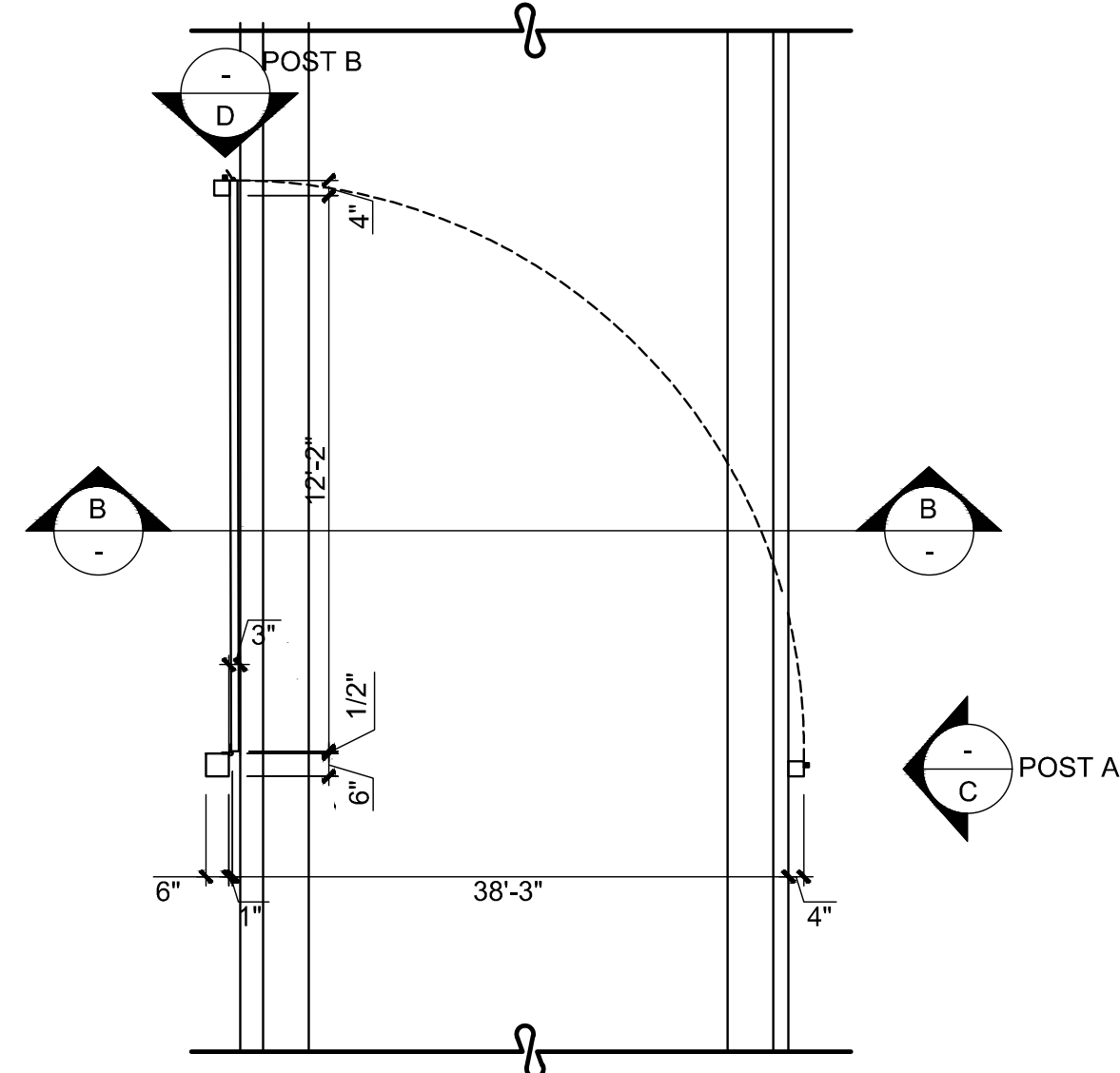
KIVA # **23-1810**  
SDEV #

DETAILS

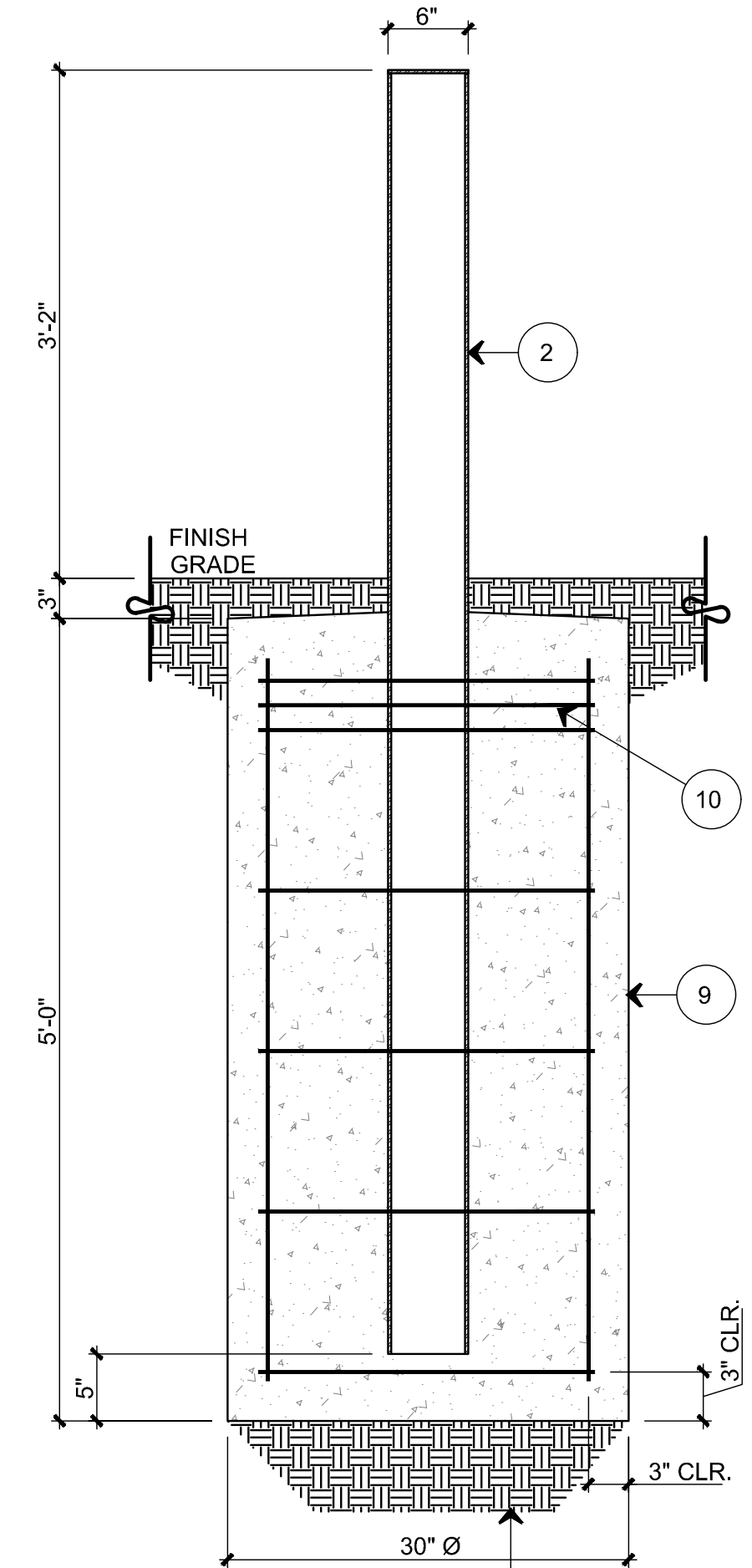
**C5.2**

**CITY OF PHOENIX OFFICE OF THE CITY ENGINEER FIRE DEPARTMENT STATION 74 - PERMIT CITY SUBMITTAL**

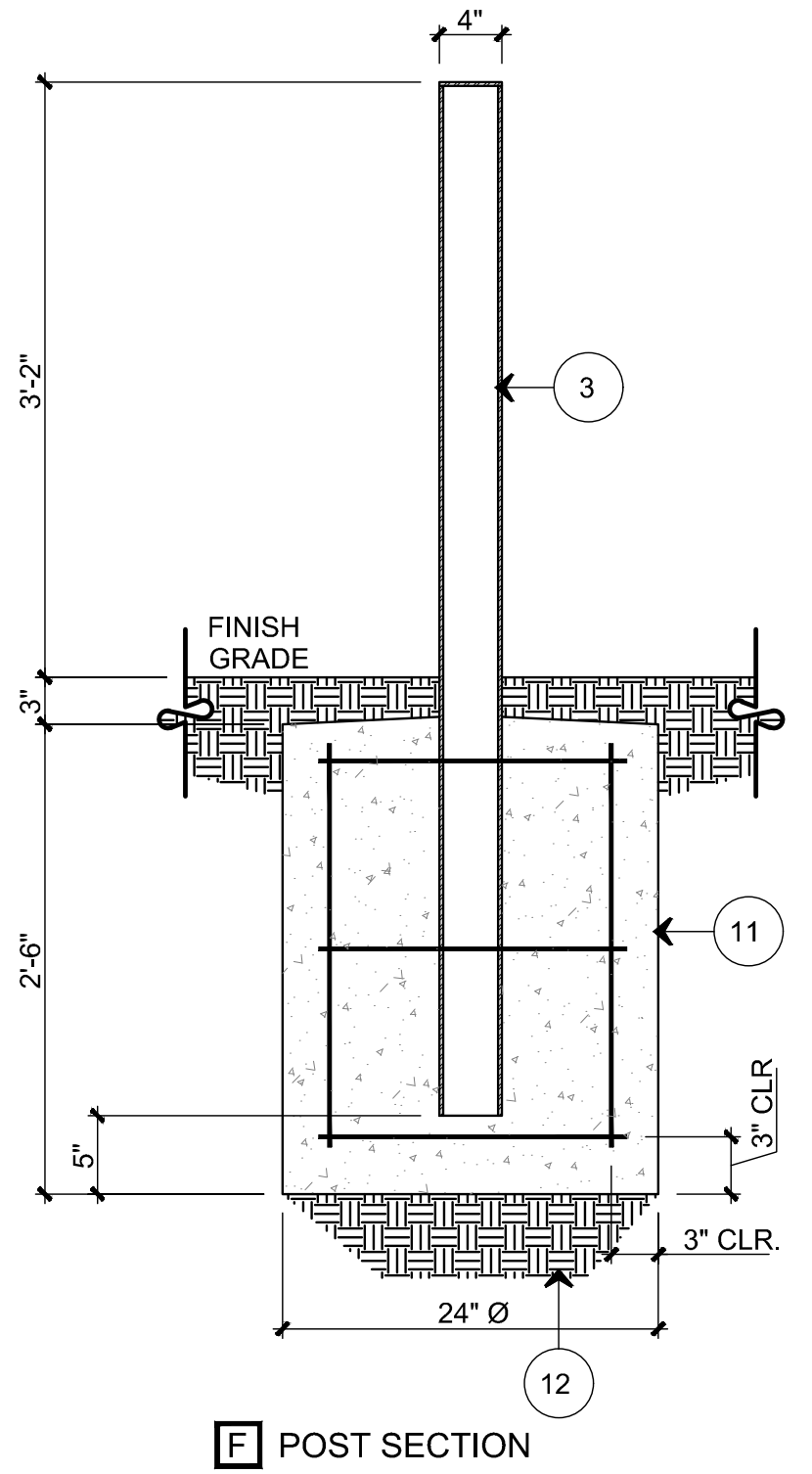
- KEYED NOTES:**
- 1 CONCRETE PAVEMENT, SEE PLANS
  - 2 HSS 6" x 6" x 1/4" STEEL POST WITH 1/4" CAP PLATE
  - 3 HSS 4" x 4" x 1/4" STEEL POST WITH TOP CAP WITH 1/4" CAP PLATE
  - 4 HSS 2" x 4" x 1/4" STEEL FRAME
  - 5 HSS 2" x 2" x 1/4" STEEL SUPPORT
  - 6 HEAVY DUTY GALVANIZED GATE HINGES TO MATCH GATE COLOR
  - 7 HEAVY DUTY GALVANIZED GATE HASP, THAT SWINGS TWO WAYS (180°) TO BE SECURED AT BOTH POSTS. TO BE SECURED WITH GATE LOCK PROVIDED BY OWNER
  - 8 TYPE I OBJECT MARKER 18" X 18" .080 ALUMINUM, 9 YELLOW REFLECTORS ON A YELLOW BACKGROUND MOUNTED TO GATE
  - 9 30" Ø 3000 PSI CONCRETE FOOTING WITH (8) #6 VERTICALS & #4 TIES AT 12" O.C.
  - 10 (3) #4 TIES AT TOP
  - 11 24" Ø 3000 PSI CONCRETE FOOTING WITH (6) #4 VERTICALS AND #3 TIES AT 12" O.C.
  - 12 COMPACTED SUBGRADE
- GENERAL NOTES:**
1. ALL STEEL IS TO BE NATURAL FINISH



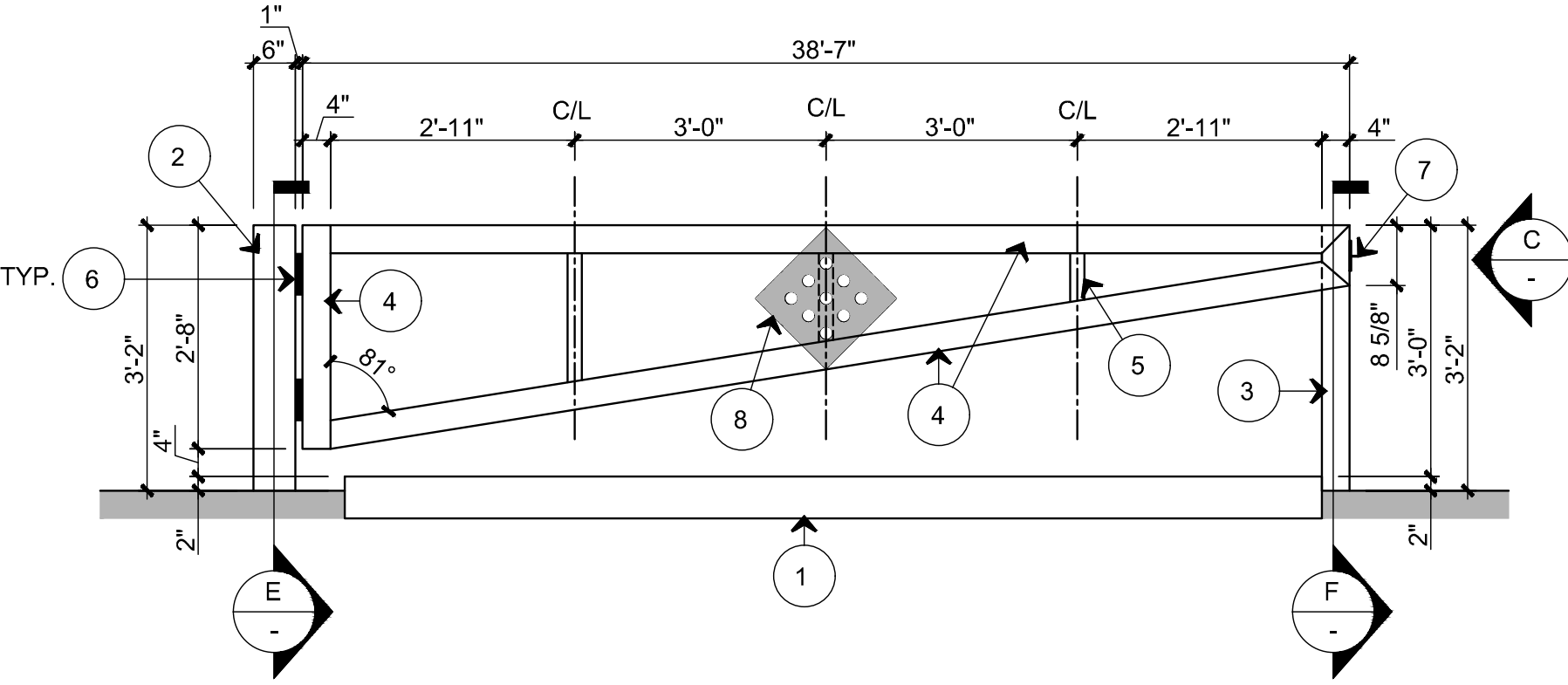
**A** PLAN VIEW



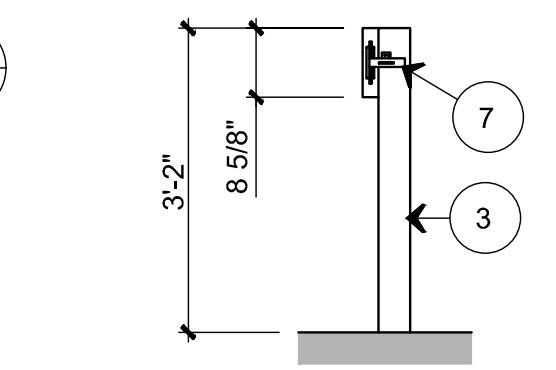
**E** GATE POST SECTION



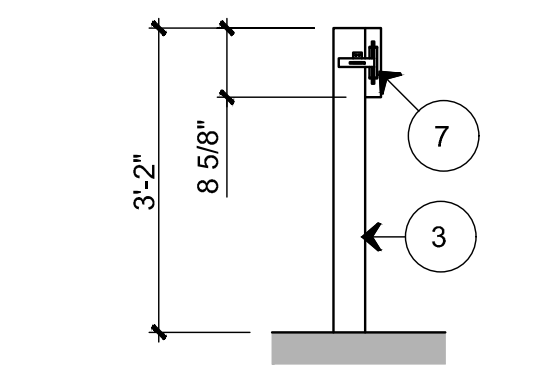
**F** POST SECTION



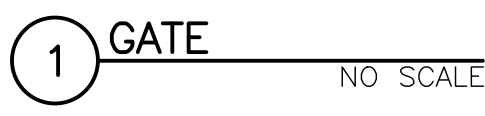
**B** ELEVATION



**C** ELEVATION AT POST A

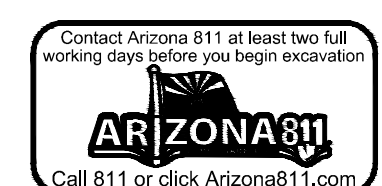


**D** ELEVATION AT POST B



**1** GATE NO SCALE

FILE:\2023\1023002.01\_Phoenix\_Fire\_Station\_74\CAD\3002.01\_C5\_X-DETL.dwg DATE:6/25/2024 TIME:1:48 PM (pjcph/leach)



Note:  
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 your contract with the City of Phoenix.



Revisions	Date



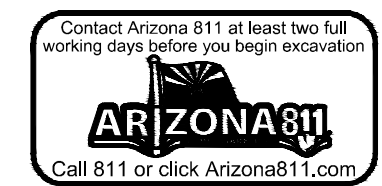
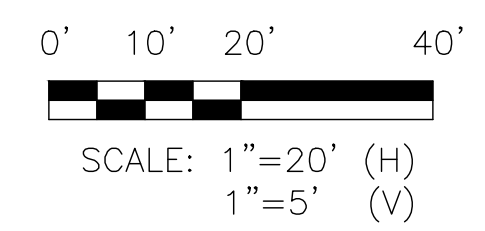
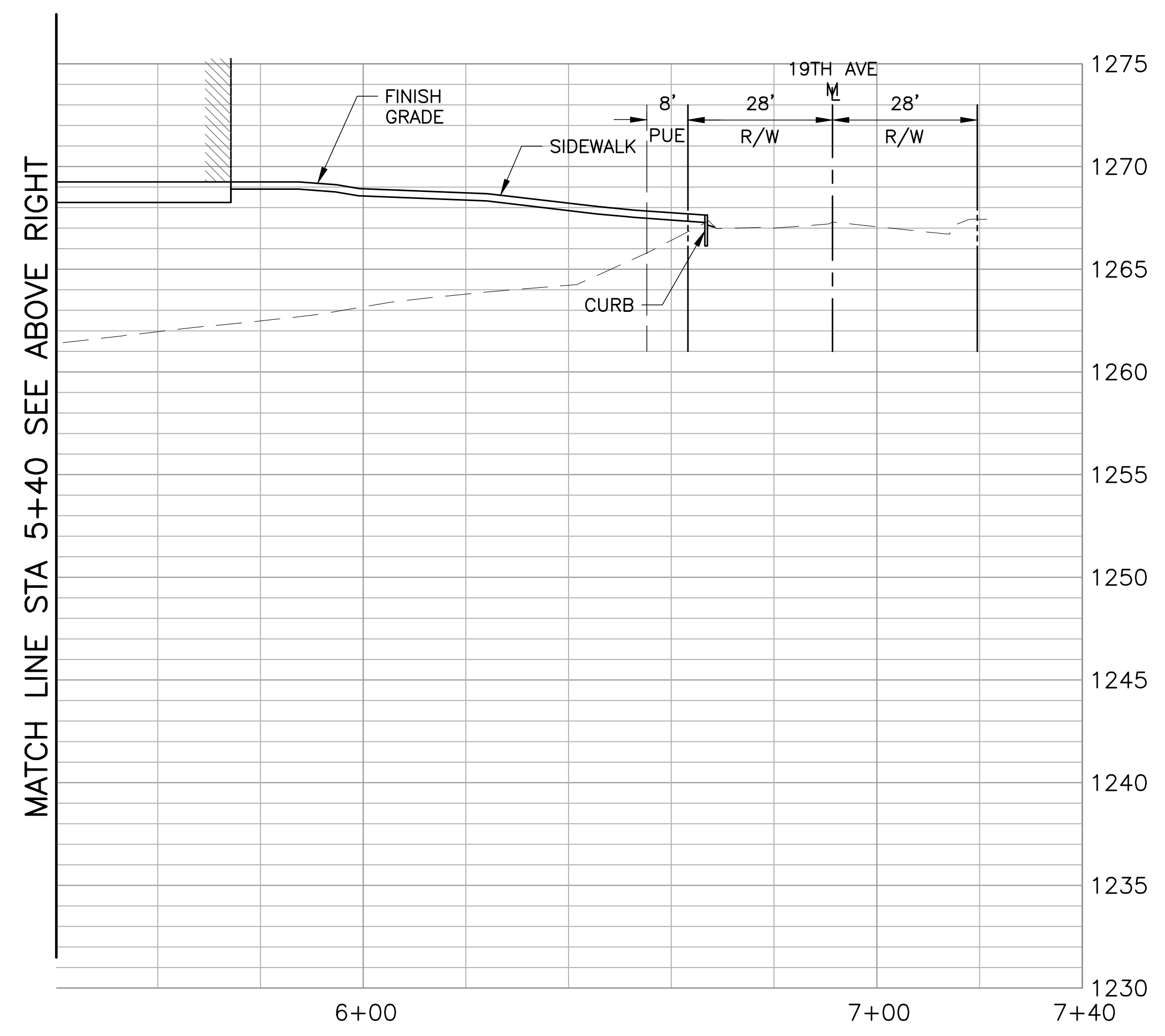
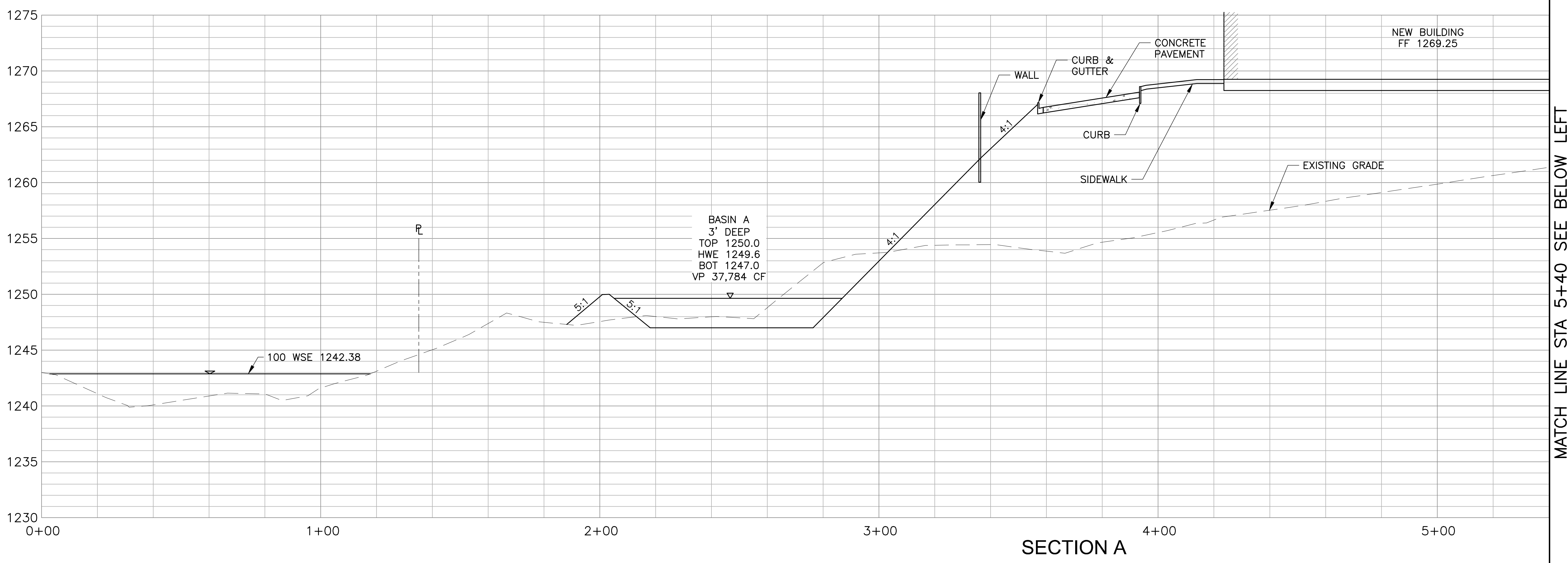
Designed By:	AG
Drawn By:	JL
Checked By:	CD
Date:	12/15/2023
Phase:	CD

**Perlman**  
 Architects of Arizona  
 2929 North Central Avenue, Suite #600  
 Phoenix, Arizona 85012  
 480.951.5900 480.951.3045  
 perlmanaz.com

**Title:**  
**FIRE STATION #74**  
**NWC 19TH AVE & CHANDLER**  
**PHOENIX, ARIZONA 85045**  
 Index No: **FD57100020-3**

**OFFICE OF THE CITY ENGINEER**  
**FIRE DEPARTMENT STATION 74 - PERMIT CITY SUBMITTAL**  
**CITY OF PHOENIX**

KIVA # **23-1810**  
 SDEV #  
 CROSS SECTIONS  
**C6.1**



**Note:**  
 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 your contract with the City of Phoenix.

FILE:\2023\1023002.01\_Phoenix\_Fire\_Station\_74\CAD\31002.01\_C6-X-SEC.dwg DATE:3/28/2024 TIME:4:29 PM (by:Chris.Dolan)



Revisions	Date



Designed By: AG
Drawn By: JL
Checked By: CD
Date: 12/15/2023
Phase: CD

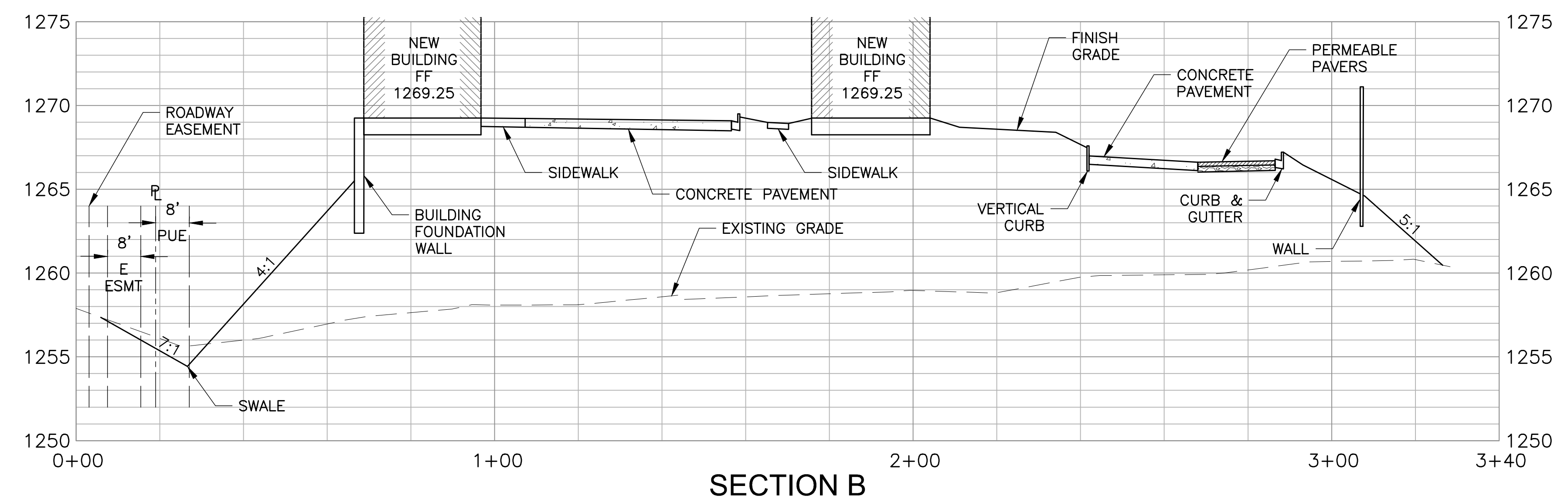
**Perlman**  
Architects of Arizona  
2929 North Central Avenue, Suite #1600  
Phoenix, Arizona 85012  
480.951.5900 480.951.3045  
perlmanaz.com

**Title:**  
FIRE STATION #74  
NWC 19TH AVE & CHANDLER  
PHOENIX, ARIZONA 85045  
Index No: FD57100020-3

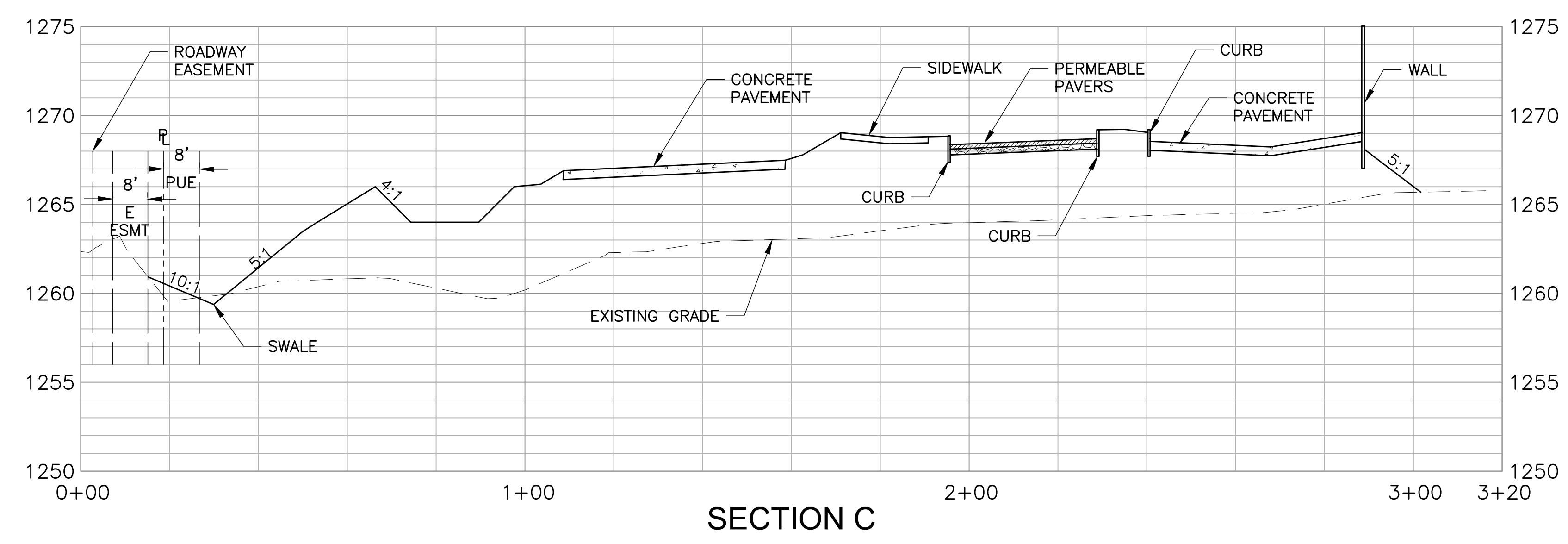
**OFFICE OF THE CITY ENGINEER**  
**CITY OF PHOENIX**

KIVA # 23-1810  
SDEV #

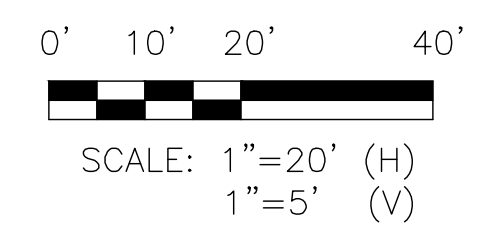
CROSS SECTIONS  
**C6.2**



SECTION B



SECTION C

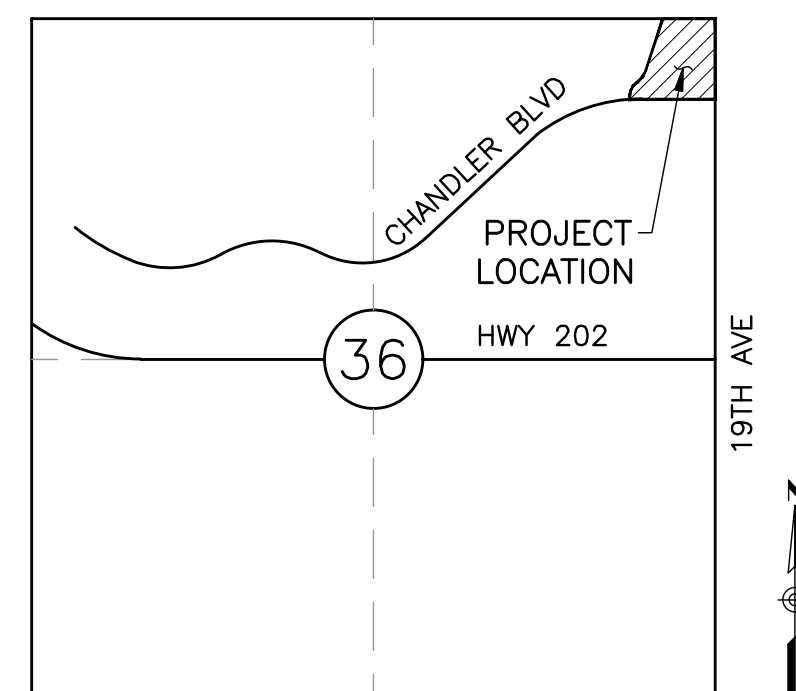


**Note:**  
Per City of Phoenix City Code Chapter 2, section 2-28, these plans are for official use only and may not be shared with others except as required to fulfill the obligations of your contract with the City of Phoenix.

FILE:\2023\1023002.01\_Phoenix\_Fire\_Station\_74\CA0\3002.01\_C6\_X-SEC.dwg DATE:3/26/2024 TIME:5:18 PM (by:Chris.Dolan)



Revisions	Date



VICINITY MAP  
SEC 36, T1S, R2E N7S

# STORM WATER MANAGEMENT PLAN

FOR

## CITY OF PHOENIX FIRE STATION 74

### CHANDLER BLVD & 19TH AVE PHOENIX, AZ 85004

**CONTACT INFORMATION**

OWNER: PHOENIX FIRE DEPARTMENT  
 ADDRESS: 2625 S 19TH AVENUE  
 PHOENIX, AZ 85009

CONTACT: JAIME GARRIDO  
 PHONE: 602.534.9875

ENGINEER: DIBBLE  
 ADDRESS: 1626 N. LITCHFIELD RD  
 SUITE 150  
 GOODYEAR, AZ 85395

CONTACT: SHANNON MAUCK  
 PHONE: 623.935.2258

ARCHITECT: PERLMAN ARCHITECTS OF ARIZONA, INC.  
 ADDRESS: 2929 N. CENTRAL AVENUE, SUITE 100  
 PHOENIX, AZ 85012

CONTACT: GERRALD ADAMS  
 PHONE: 480.951.5900



Designed By:	AG
Drawn By:	JL
Checked By:	CD
Date:	12/15/2023
Phase:	CD

**SHEET INDEX**

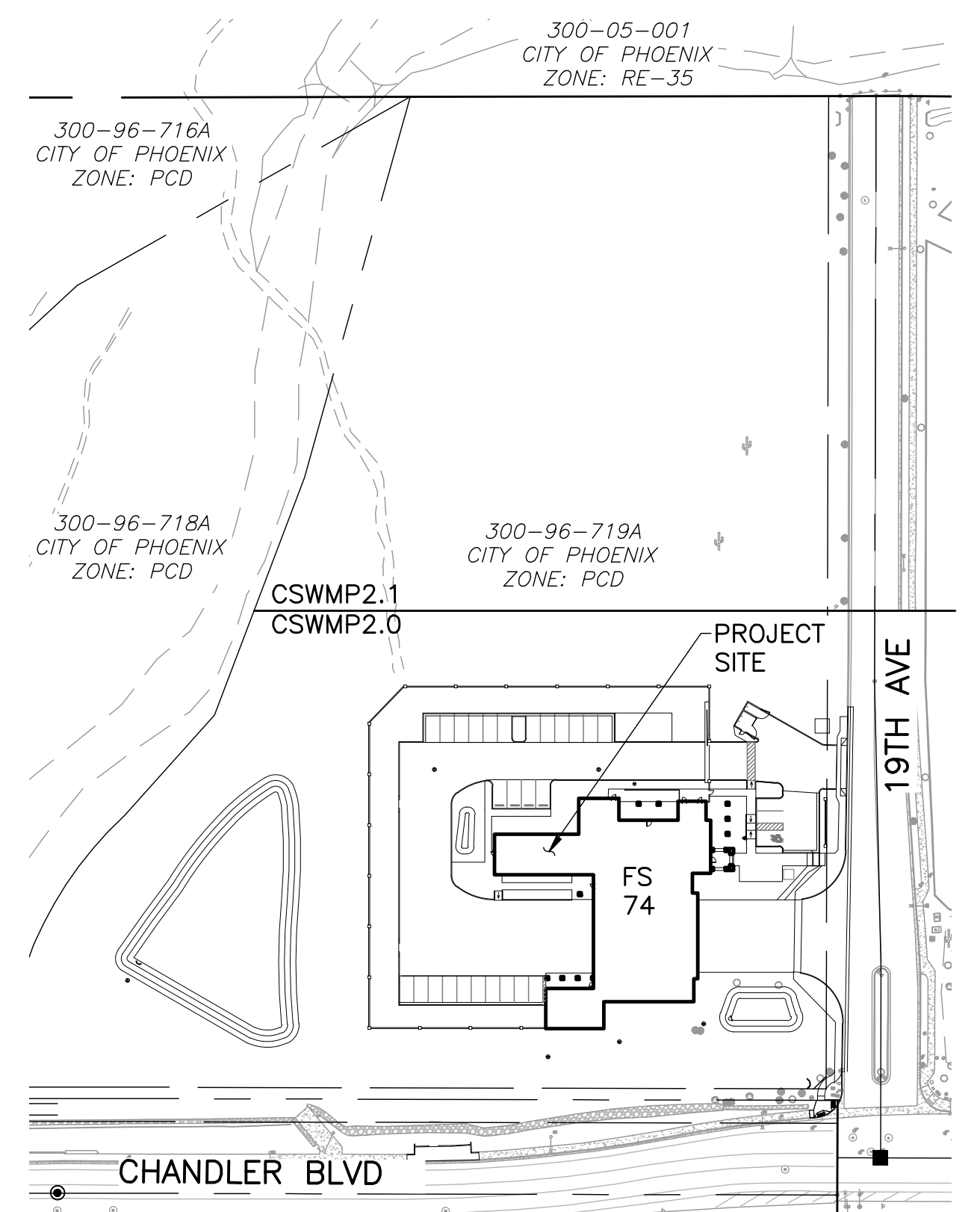
CSWMP1.0 COVER  
 CSWMP2.0-CSWMP2.2 STORM WATER MANAGEMENT PLAN  
 CSWMP3.1 DETAILS

**SITE ACREAGE**

GROSS: 7.74 AC  
 NET: 7.03 AC  
 DISTURBED: 2.27 AC

**LEGAL DESCRIPTION**

LOT 9 OF AMENDED STATE PLAT NO. 30 SOUTH MOUNTAIN 650 BK. 1002, PG. 50, MCR 2008-0760929



VICINITY MAP  
NTS

**BENCHMARK & METADATA**

HORIZONTAL DATUM: NAD83 (EPOCH 2011) ARIZONA CENTRAL ZONE  
 PROJECT BENCHMARK:  
 FOUND CITY OF PHOENIX PUBLISHED BENCHMARK DESCRIBED AS:  
 BRASS CAP FLUSH AT THE INTERSECTION OF 19TH AVENUE AND  
 CHANDLER BLVD.  
 GROUND NORTHING = 837958.95  
 GROUND EASTING = 643975.94  
 PUBLISHED ELEVATION = 1264.73  
 NGVD '29 (CITY OF PHOENIX DATUM)

**PROJECT DESCRIPTION**

STORM WATER MANAGEMENT FOR THE CONSTRUCTION OF A NEW FIRE STATION INCLUDING PARKING & SIDEWALK IMPROVEMENTS.

**FEMA FLOOD INSURANCE RATE MAP**

THE SUBJECT PARCEL LIES IN FLOOD ZONE "X" AS DELINEATED ON THE FEDERAL EMERGENCY MANAGEMENT AGENCY FIRM MAP NUMBER 04013C2690L, REVISED OCTOBER 16, 2013.

FLOOD ZONE "X" IS DEFINED AS AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL FLOOD.

**LEGEND**

EXIST	NEW
▲ BENCHMARK	⊙ BACKFLOW PREVENTION DEVICE
● MONUMENT FLUSH	☀ CACTUS
⊙ MONUMENT IN HANDHOLE	⊙ DRYWELL
⊙ BACKFLOW PREVENTION DEVICE	⊙ FIRE HYDRANT
⊙ DRYWELL	⊙ FIRE DEPT CONNECTION
⊙ FIRE HYDRANT	⊙ GATE
⊙ FIRE DEPT CONNECTION	⊙ MANHOLE
⊙ GRATE	⊙ METER
⊙ GUY WIRE	⊙ PIPE CAP
⊙ MANHOLE (TYPE NOTED)	⊙ PULLBOX
⊙ METER (TYPE NOTED)	⊙ RIPRAP
⊙ PEDESTAL (TYPE NOTED)	⊙ ROCK
⊙ PULLBOX (TYPE NOTED)	⊙ SHRUB
⊙ SIGN	⊙ SIGN
⊙ STREET LIGHT	⊙ STREET LIGHT
⊙ TREE	⊙ VALVE
⊙ UTILITY POLE	⊙ CENTERLINE
⊙ VALVE (TYPE NOTED)	⊙ EASEMENT
⊙ EASEMENT	⊙ RIGHT-OF-WAY
⊙ PROPERTY LINE	⊙ FLOWLINE
⊙ RIGHT-OF-WAY	⊙ MASONRY WALL/RETAINING WALL
⊙ FENCE WIRE	⊙ MAJOR CONTOUR
⊙ FENCE CHAINLINK	⊙ MINOR CONTOUR
⊙ FLOWLINE	⊙ STORM DRAIN
⊙ GUARDRAIL	⊙ UTILITY LINE (TYPE NOTED)
⊙ MASONRY WALL/RETAINING WALL	⊙ NEW BUILDING
⊙ MAJOR CONTOUR	⊙ SEWER CLEANOUT
⊙ MINOR CONTOUR	⊙ MONUMENT LINE
⊙ UTILITY LINE (TYPE NOTED)	⊙ CENTER LINE
⊙ EXST BUILDING	⊙ PROPERTY LINE

**CITY OF PHOENIX STORM WATER MANAGEMENT NOTES, MAY 2023**

1. A COPY OF THE APPROVED GRADING AND DRAINAGE PLAN FOR THIS PROJECT, TOGETHER WITH A COPY OF THE NOI, AND CONSTRUCTION SWMP, SHALL BE MAINTAINED ON THE SITE AND AVAILABLE FOR REVIEW. THOSE ELEMENTS OF THE GRADING AND DRAINAGE PLAN PERTINENT TO OR REFERENCED ON THE CONSTRUCTION SWMP SHALL BE CONSIDERED A PART OF THE CONSTRUCTION SWMP.
2. PLANNING & DEVELOPMENT DEPARTMENT'S CIVIL/SITE INSPECTION GROUP SHALL BE NOTIFIED 48 HOURS BEFORE ANY ON-SITE AND/OR OFF-SITE CONSTRUCTION BEGINS, AT (602) 262-7811.
3. THE OPERATOR SHALL OBTAIN A DUST CONTROL PERMIT FROM MARICOPA COUNTY'S AIR QUALITY DEPARTMENT AND PERFORM MEASURES AS REQUIRED BY THE PERMIT TO PREVENT EXCESS DUST.
4. THE OPERATOR SHALL PERFORM, AT A MINIMUM, A VISUAL INSPECTION OF THE CONSTRUCTION SITE ONCE (1) EVERY MONTH AND WITHIN 24 HOURS OF RAINFALL GREATER THAN OR EQUAL TO A HALF OF AN INCH OR MORE. THE OPERATOR SHALL PREPARE A REPORT DOCUMENTING HIS/HER FINDINGS ON THE CONDITIONS OF THE BMPS AND NOTE ANY EROSION PROBLEM AREAS PER TECHNICAL REVIEW TEAM (TRT) DOCUMENT #00318, STORM WATER POLLUTION PLAN -SAMPLE LETTER. THE OPERATOR'S REPORT IS TO BE SUBMITTED TO THE PLANNING & DEVELOPMENT DEPARTMENT CIVIL/SITE INSPECTOR FOR REVIEW AND APPROVAL. FACILITIES SHALL BE MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING. IN ADDITION, ALL TEMPORARY SILTATION CONTROLS SHALL BE MAINTAINED IN A SATISFACTORY CONDITION UNTIL SUCH TIME THAT CLEARING AND/OR CONSTRUCTION IS COMPLETED, PERMANENT DRAINAGE FACILITIES ARE OPERATIONAL, AND THE POTENTIAL FOR EROSION HAS PASSED.
5. THE OPERATOR SHALL AMEND THE SWMP AS NECESSARY DURING THE COURSE OF CONSTRUCTION TO RESOLVE ANY PROBLEM AREAS, WHICH BECOME EVIDENT DURING THE CONSTRUCTION AND/OR DURING RAINFALLS.
6. THE PERMITTEE SHOULD FILE AN NOT AFTER COMPLETION OF CONSTRUCTION AND PLACEMENT OF FINAL LANDSCAPE MATERIALS, AND/OR AS REQUIRED BY ADEQ'S CONSTRUCTION ACTIVITY GENERAL PERMIT (CGP).
7. THE PERMITTEE SHOULD SAVE ALL RECORDS, INCLUDING BUT NOT LIMITED TO THE NOI, SWMP, NOT, AND INSPECTION REPORTS ON FILE FOR A MINIMUM OF THREE (3) YEARS FROM THE DATE THE PERMIT COVERAGE EXPIRES OR IS TERMINATED, AND/OR AS REQUIRED BY ADEQ.
8. THE IMPLEMENTATION OF THESE PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE FACILITIES IS THE RESPONSIBILITY OF THE PERMITTEE/CONTRACTOR UNTIL ALL CONSTRUCTION IS APPROVED BY THE PLANNING & DEVELOPMENT DEPARTMENT CIVIL/SITE INSPECTOR.
9. THE FACILITIES SHOWN ON THE CONSTRUCTION SWMP MUST BE CONSTRUCTED IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES IN SUCH A MANNER AS TO ENSURE THAT SEDIMENT-LADEN WATER DOES NOT ENTER THE DRAINAGE SYSTEM OR VIOLATE APPLICABLE WATER STANDARDS AND MUST BE INSTALLED AND IN OPERATION PRIOR TO ANY GRADING OR LAND CLEARING. WHEREVER POSSIBLE, MAINTAIN NATURAL VEGETATION FOR SILT CONTROL.
10. PLAN APPROVAL IS VALID FOR 12 MONTHS. 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.

**Perlman**  
 Architects of Arizona  
 2929 North Central Avenue, Suite #1600  
 Phoenix, Arizona 85012  
 480.951.5900 | perlmanaz.com

**FIRE STATION #74**  
**NWC 19TH AVE & CHANDLER**  
**PHOENIX, ARIZONA 85045**  
 Index No: **FD57100020-3**



KIVA #	23-1810
SDEV #	
COVER	
CSWMP1.0	

CPWS: 2400135  
 QS: 11-24



**Note:**  
 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 your contract with the City of Phoenix.

FILE:\2023\1023002.01\_Phoenix\_Fire\_Station\_74\CAD\23002.01\_CSWMP1.X-SWMP.dwg DATE: 3/26/2024 TIME: 5:19 PM (By: Chris.Bohn)

CITY OF PHOENIX OFFICE OF THE CITY ENGINEER FIRE DEPARTMENT STATION 74 - PERMIT CITY SUBMITTAL





Revisions	Date



Designed By:	AG
Drawn By:	JL
Checked By:	CD
Date:	12/15/2023
Phase:	CD

**Periman**  
 Architects of Arizona  
 2929 North Central Avenue, Suite #600  
 Phoenix, Arizona 85012  
 480.951.5900 480.951.3045  
 perimanaz.com

**Title:**  
**FIRE STATION #74**  
**NWC 19TH AVE & CHANDLER**  
**PHOENIX, ARIZONA 85045**  
 Index No: **FD57100020-3**

**OFFICE OF THE CITY ENGINEER**  
**FIRE DEPARTMENT STATION 74 - PERMIT CITY SUBMITTAL**

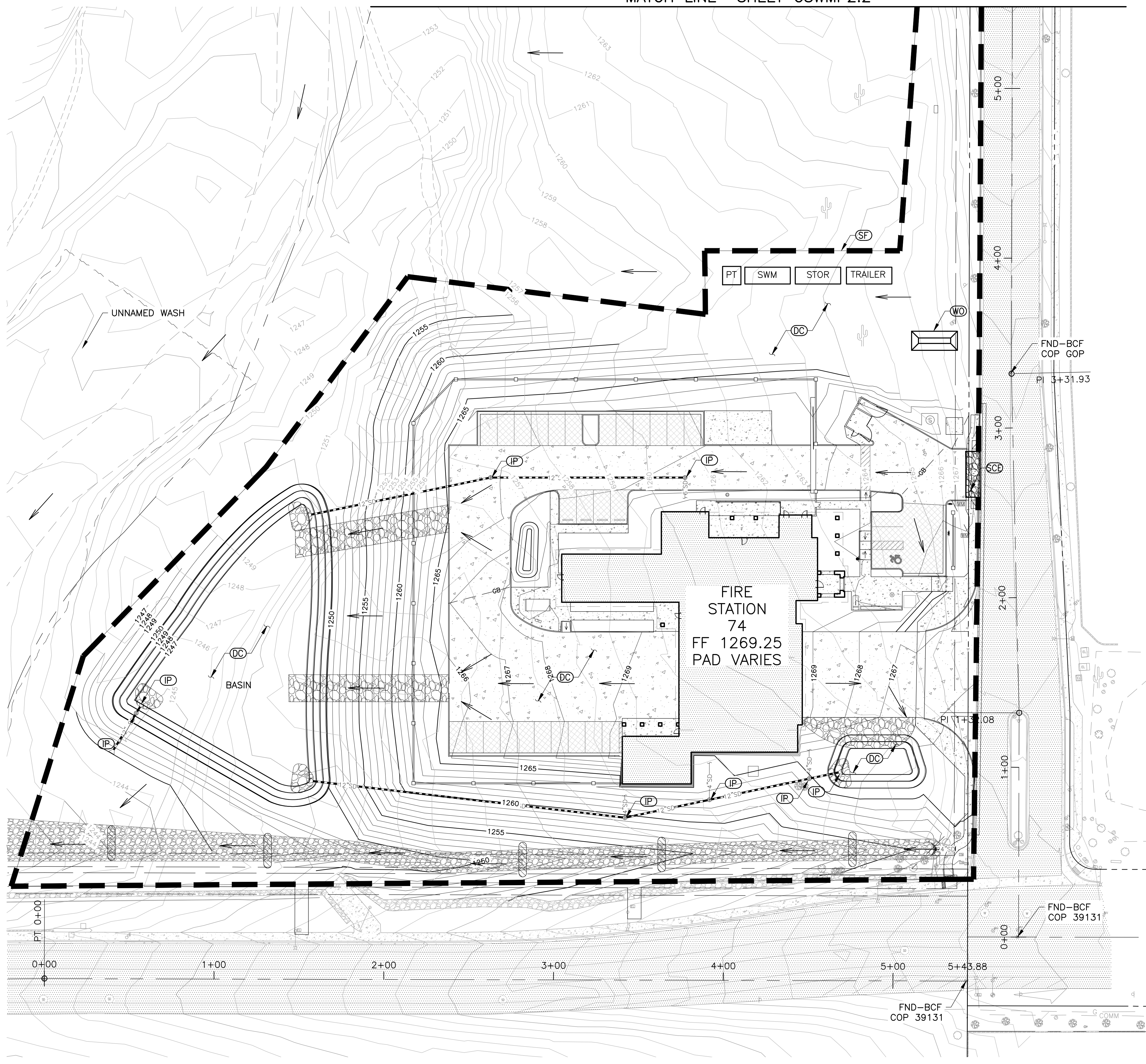
KIVA # **23-1810**  
 SDEV #

**STORM WATER MANAGEMENT PLAN CSWMP2.1**

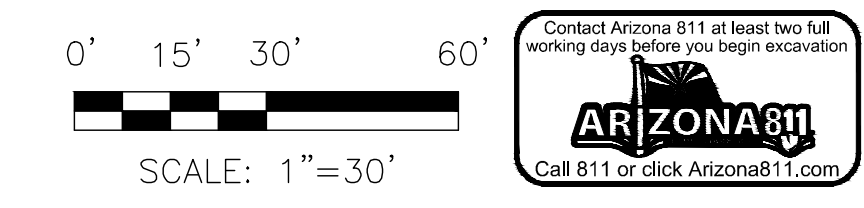
### SWMP LEGEND

	SCF	STABILIZED CONSTRUCTION ENTRANCE (DET EC-5, SHT CSWMP3.1)
	SF	FENCING W/ SILT FENCING (DET SPC-5, SHT CSWMP3.1)
	WO	DESIGNATED WASHOUT AREA (DET GH-4, SHT CSWMP3.1)
	DC	DUST CONTROL (DET EC-7, SHT CSWMP3.1)
	IP	STORM DRAIN INLET PROTECTION (DET SPC-7, SHT CSWMP3.1)
	PT	PORTABLE TOILET/HOLDING TANK (BMP GH-5)
	STOR	MATERIAL / CHEMICAL STORAGE (BMP GH-1)
	SWM	SOLID WASTE MGMT (BMP GH-2)
	TRAILER	CONSTRUCTION TRAILER
		FLOW DIRECTION
		ORGANIC FILTER BARRIER

- NOTE:
- CONTRACTOR TO UPDATE MAP BY INDICATING ALL AREAS WHERE FINAL STABILIZATION HAS BEEN ACHIEVED.
  - CONTRACTOR TO UPDATE BEST MANAGEMENT PRACTICES (BMP) ON MAP DURING CONSTRUCTION TO REFLECT ACTUAL SITE CONDITIONS.
  - ALL AREAS WITHIN THE PROJECT LIMITS ARE EXPECTED TO INVOLVE SOIL DISTURBANCE DURING GRADING AND CONSTRUCTION OF NEW SITE FACILITIES.
  - ALL BMP DEVICES & PROCEDURES SHALL ADHERE TO THE DETAILS & SPECIFICATIONS IN THE MARICOPA COUNTY BEST MANAGEMENT PRACTICES MANUAL.



FILE:\2023\1023002.01\_Phoenix\_Fire\_Station\_74\CAO\23002.01\_CSWMP2.X-SWMP.dwg DATE:12/13/2023 TIME:3:38 PM (by:Chris.Dolan)


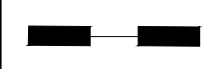
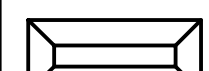






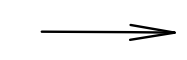


Per City of Phoenix City Code Chapter 2, section 2-28, these plans are for official use only and may not be shared with others except as required to fulfill the obligations of your contract with the City of Phoenix.



Revisions	Date

### SWMP LEGEND

	<b>SCP</b> STABILIZED CONSTRUCTION ENTRANCE (DET EC-5, SHT CSWMP2.2)
	<b>SF</b> FENCING W/ SILT FENCING (DET SPC-5, SHT CSWMP2.2)
	<b>WD</b> DESIGNATED WASHOUT AREA (DET GH-4, SHT CSWMP2.2)
	<b>DC</b> DUST CONTROL (DET EC-7, SHT CSWMP2.2)
	<b>IP</b> STORM DRAIN INLET PROTECTION SANDBAG BERM (DET SPC-7, SHT CSWMP2.2)
	<b>PT</b> PORTABLE TOILET/HOLDING TANK (BMP GH-5)
	<b>STOR</b> MATERIAL / CHEMICAL STORAGE (BMP GH-1)
	<b>SWM</b> SOLID WASTE MGMT (BMP GH-2)
	<b>TRAILER</b> CONSTRUCTION TRAILER
	FLOW DIRECTION



Designed By:	AG
Drawn By:	JL
Checked By:	CD
Date:	12/15/2023
Phase:	CD

- NOTE:**
- CONTRACTOR TO UPDATE MAP BY INDICATING ALL AREAS WHERE FINAL STABILIZATION HAS BEEN ACHIEVED.
  - CONTRACTOR TO UPDATE BEST MANAGEMENT PRACTICES (BMP) ON MAP DURING CONSTRUCTION TO REFLECT ACTUAL SITE CONDITIONS.
  - ALL AREAS WITHIN THE PROJECT LIMITS ARE EXPECTED TO INVOLVE SOIL DISTURBANCE DURING GRADING AND CONSTRUCTION OF NEW SITE FACILITIES.
  - ALL BMP DEVICES & PROCEDURES SHALL ADHERE TO THE DETAILS & SPECIFICATIONS IN THE MARICOPA COUNTY BEST MANAGEMENT PRACTICES MANUAL.

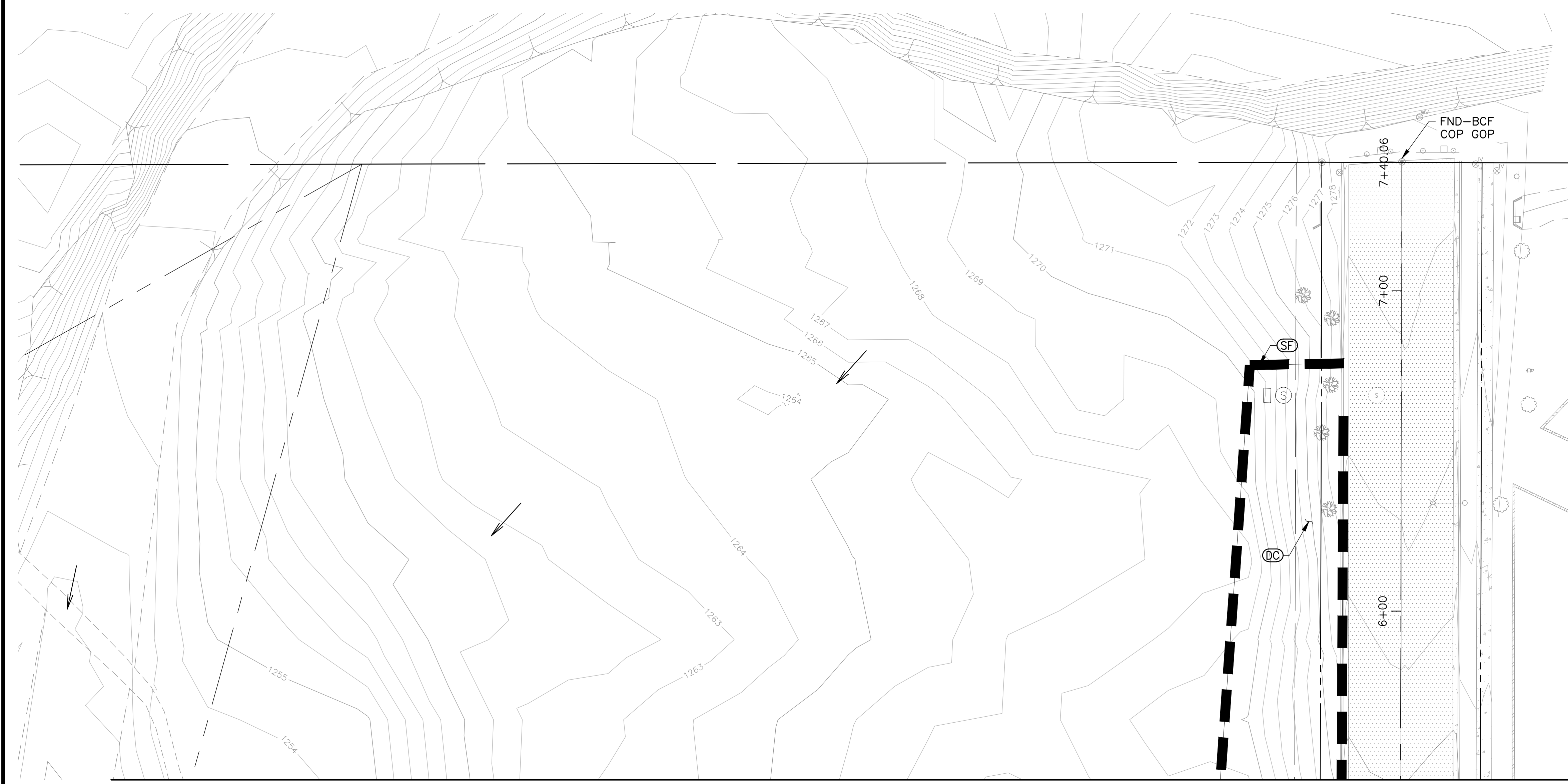
**Perلمان**  
Architects of Arizona  
2929 North Central Avenue, Suite #1600  
Phoenix, Arizona 85012  
480.951.5900 480.951.3045 f  
perlemanaz.com

**Title:**  
**FIRE STATION #74**  
**NWC 19TH AVE & CHANDLER**  
**PHOENIX, ARIZONA 85045**  
Index No: **FD57100020-3**

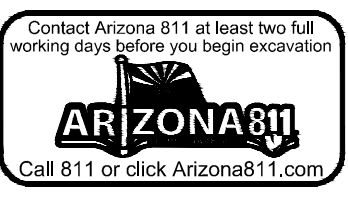
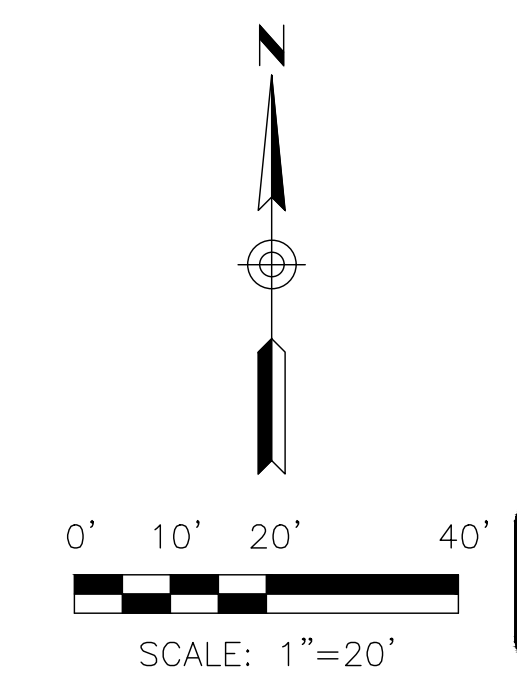


KIVA # **23-1810**  
SDEV #

**STORM WATER MANAGEMENT PLAN CSWMP2.2**



MATCH LINE SHEET CSWMP2.1



**Note:**  
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 your contract with the City of Phoenix.

FILE:\2023\1023002.01\_Phoenix\_Fire\_Station\_74\CA0\33002.01\_CSWMP2.X-SWMP.dwg DATE: 3/26/2024 TIME: 5:19 PM (By: Chris.Bohn)

**CITY OF PHOENIX OFFICE OF THE CITY ENGINEER FIRE DEPARTMENT STATION 74 - PERMIT CITY SUBMITTAL**



### SPC-1 Organic Filter Barrier Photos



Properly staked organic filter barrier.

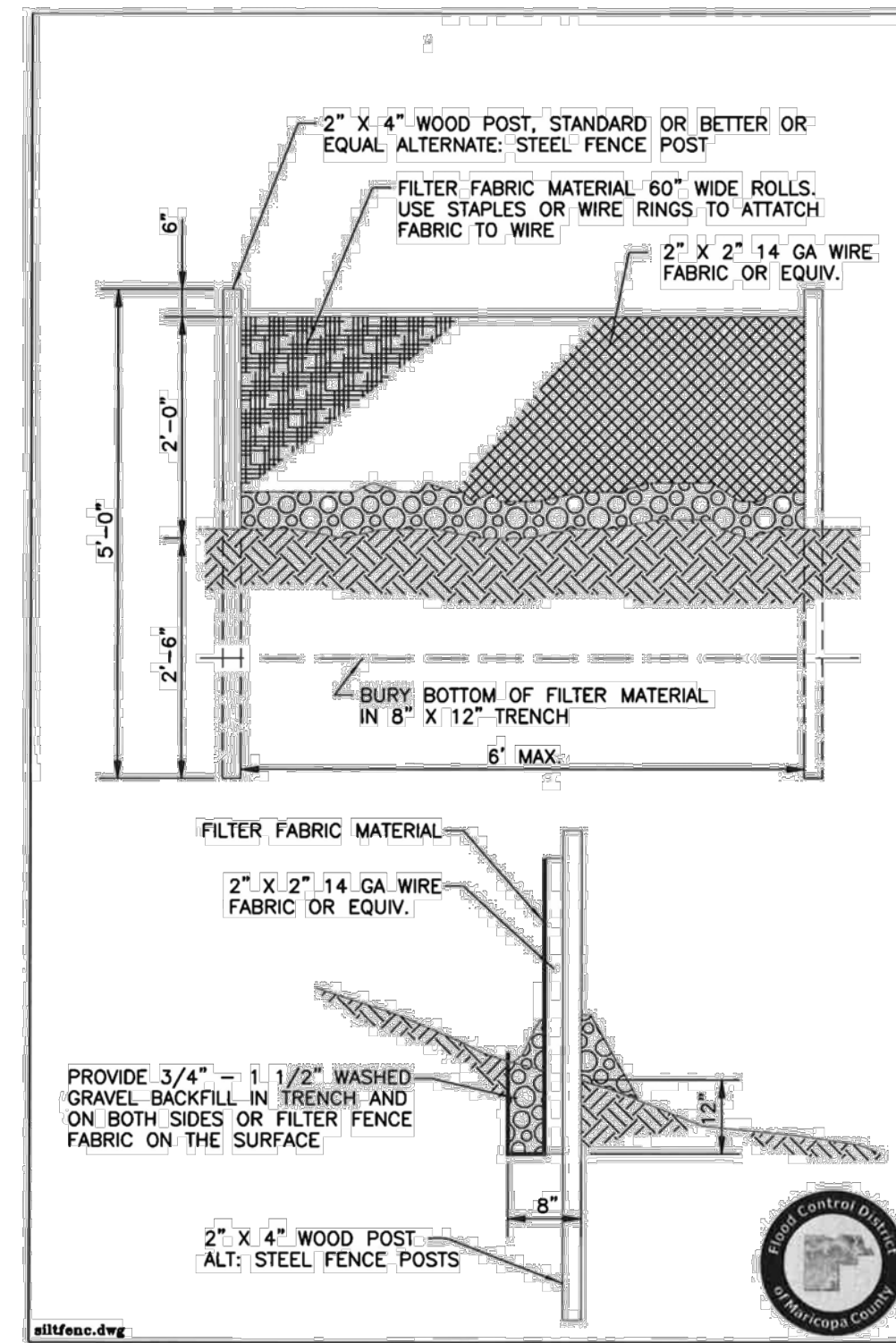


Storm wattle (wrapped).  
Courtesy of Krüger

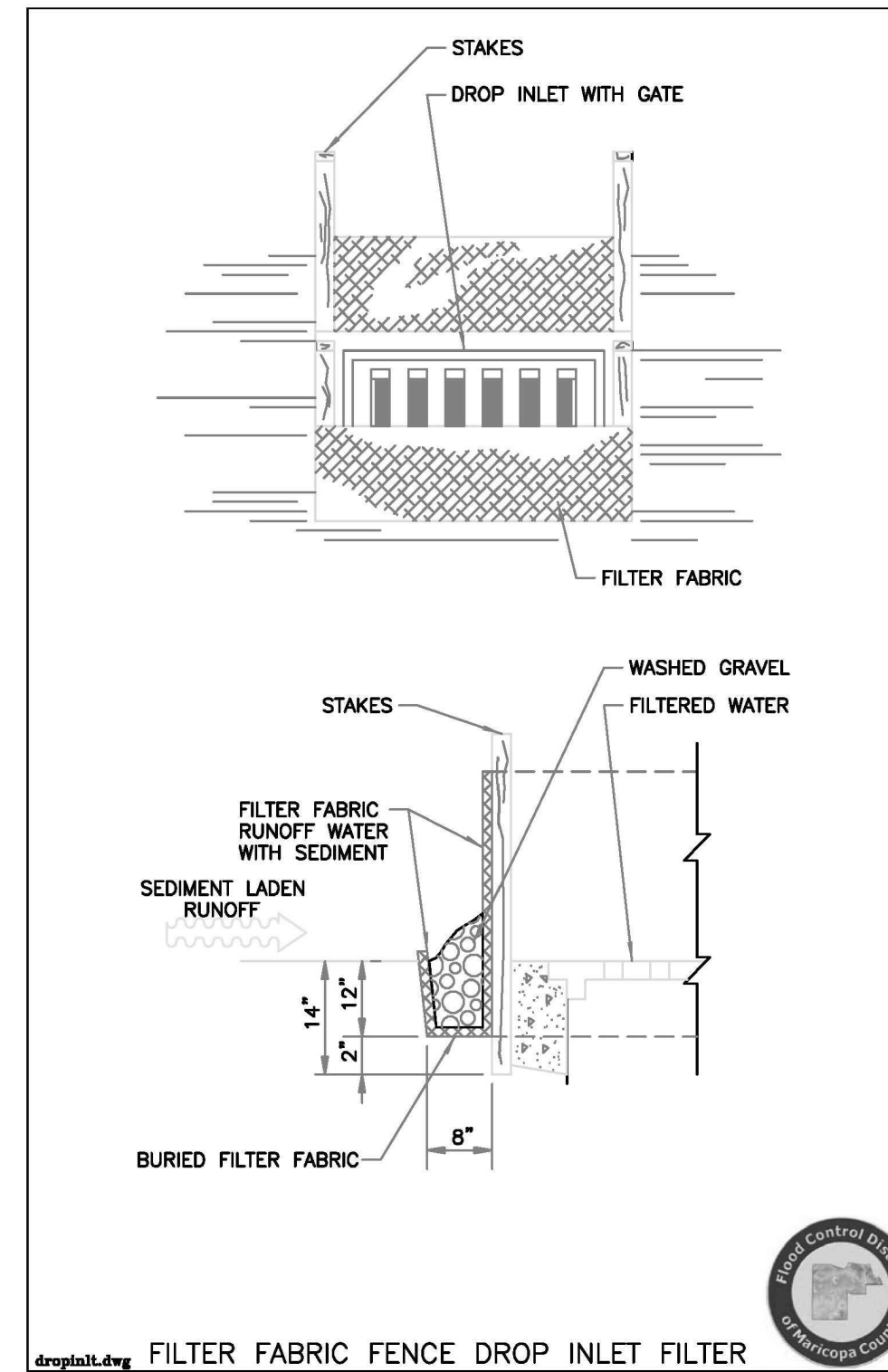


Use of an organic filter barrier in the highway median.

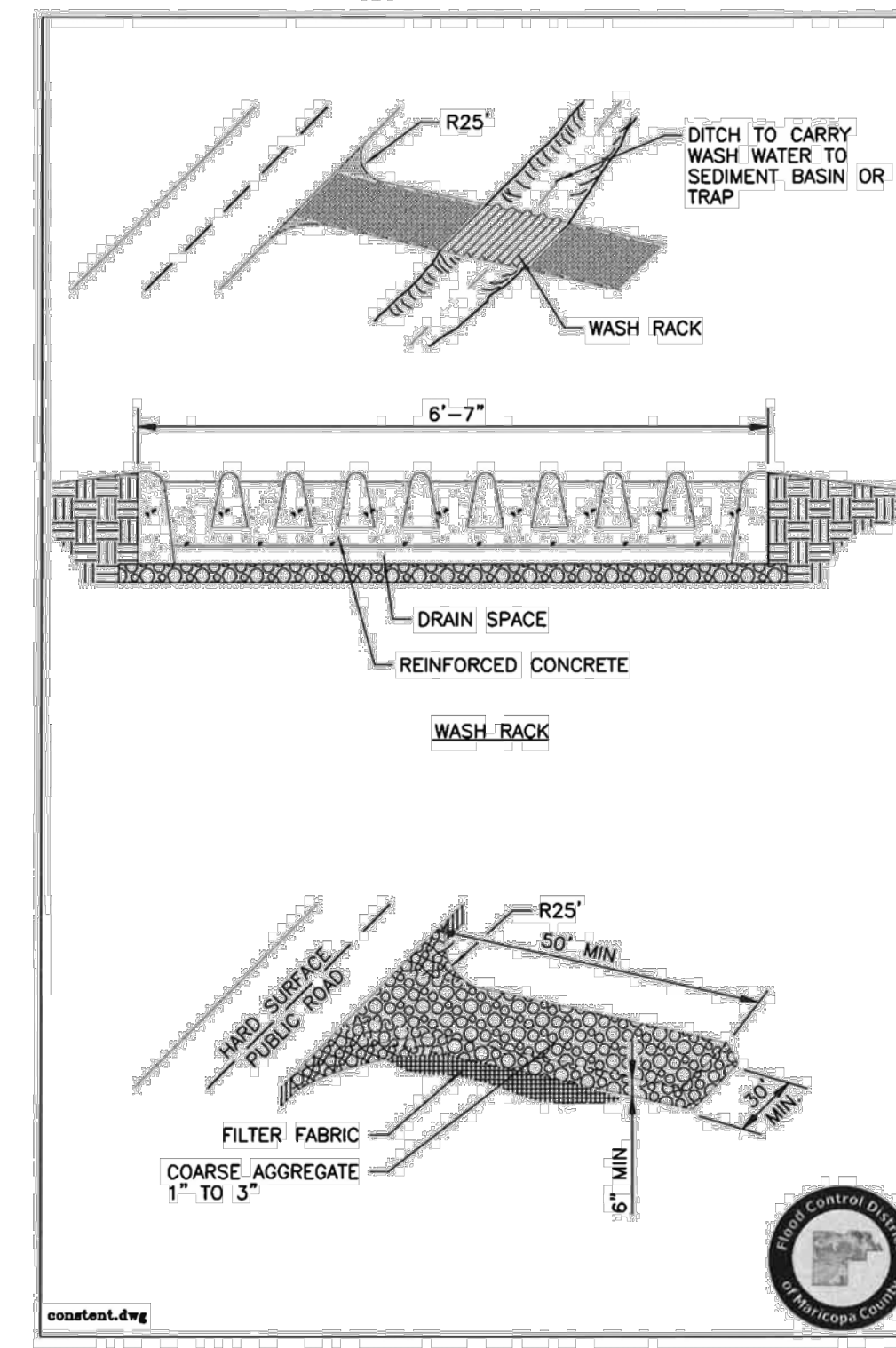
### SPC-5 Silt Fence Drawing



### SPC-7 Storm Drain Drop Inlet Protection Drawing



### EC-5 Stabilized Construction Entrance Drawing



### GH-2 Solid Waste Management Photos

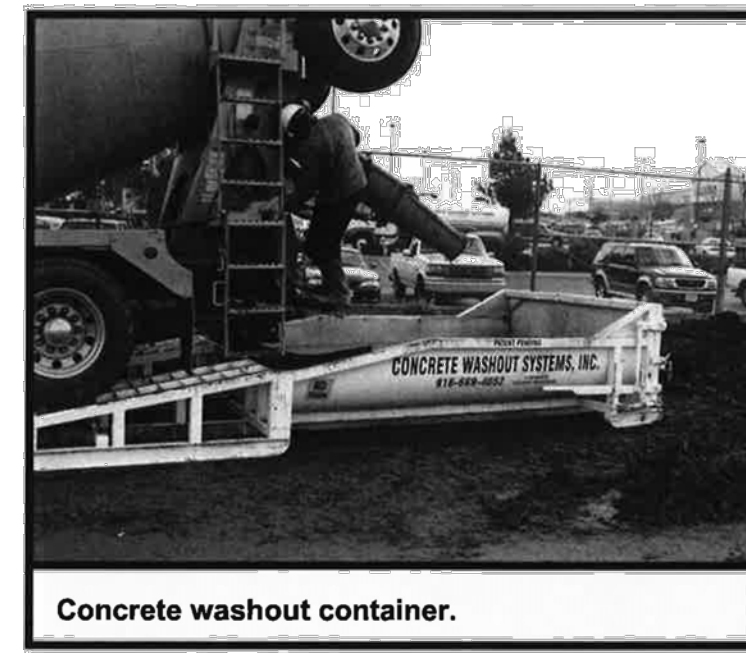


Separate out different wastes from each other for recycling.

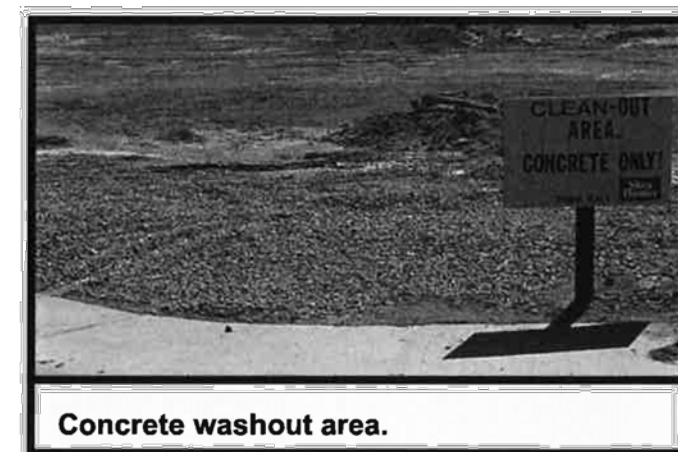


Place signage on the dumpster to prevent improper disposal of hazardous wastes.

### GH-4 Designated Washdown Areas Photos



Concrete washout container.  
Courtesy of Concrete Washout Systems, Inc.



Concrete washout area.  
Courtesy of Douglas County

### EC-7 Dust Control Table

TABLE 5.2  
COMMONLY USED DUST SUPPRESSANTS (CONTINUED)

Types	Ideal Soil Characteristics	Relative Cost Comparison (average life expectancy)	Environmental Considerations
Freshwater	None	Low initial cost, high long-term maintenance cost (0 months)	Minimal environmental hazard. If applied excessively, may result in erosion and sediment runoff. Supply may be limited in some areas and, depending on the source, may require a water right permit.
Calcium Chloride	Plasticity index > 8 10-20 percent fines passing the No. 200 sieve (by weight)	Low initial cost, medium long-term maintenance cost (1-6 months)	Repeated applications and long term use may harm adjacent vegetation. (See the manufacturer's product information.)
Magnesium Chloride	Plasticity index > 8 10-20 percent fines passing the No. 200 sieve (by weight)	Low initial cost, medium long-term maintenance cost (1-6 months)	Repeated applications and long term use may harm adjacent and nearby vegetation. (See the manufacturer's product information.)
Lignin Derivatives	Plasticity index > 8 10-30 percent fines passing the No. 200 sieve (by weight)	Medium initial cost, low long-term maintenance cost (3-12 months)	Lignin products have high BOD (biological oxygen demand) in aquatic systems. Spills or runoff into surface or groundwaters may create low dissolved oxygen conditions resulting in fish kills or increases in ground water concentrations of iron, sulfur compounds and other pollutants. (See the product MSDS for specific information.)
Tree Resin Emulsions (tall oil)	Plasticity index < 3 10-20 percent fines passing the No. 200 sieve (by weight)	Medium initial cost, low long-term maintenance cost (1-6 months)	(See the manufacturer's product information.)
Synthetic Polymer	Plasticity index < 3 5-20 percent fines passing the No. 200 sieve (by weight)	High initial cost, low long-term maintenance cost (1-3 months)	(See the manufacturer's product information.)
Bitumens, Tars, and Resins	Plasticity index < 3 < 20 percent fines passing the No. 200 sieve (by weight)	High initial cost, high long-term maintenance cost (1-3 months)	Use of used oils prohibited. Some petroleum based products may contain carcinogenic polycyclic aromatic hydrocarbons (PAHs). (See the manufacturer's product information.)
Cementitious Based Binders	Depending on the type of cementitious based binder, will work with both high and low plasticity index soils.	Low initial cost, medium long-term maintenance cost (3-6 months)	None

### EC-7 Dust Control Table

TABLE 5.2  
COMMONLY USED DUST SUPPRESSANTS

Types	Functional Mechanism	Advantages	Limitations
Freshwater	Moisture wets particles, thereby increasing their mass and binding them together.	Usually readily available, low material cost, and easy to apply	Frequent light applications may be necessary during hot dry weather and can be labor intensive. Over application may result in loss of traction, erosion, or potholes of road failure.
Calcium Chloride	At a relative humidity greater than approximately 30% (77°F), the salts within the soil will pull moisture from the air above and retain it in the soil.	Reduces evaporation rate of surface moisture, lowers the freezing point of water, which reduces frost heave and freeze-thaw cycles, thereby reducing required road maintenance. Calcium Chloride also increases the compacted density of existing road base material more than Calcium Chloride. Effectiveness is retained after reblading.	Effectiveness in arid and semi-arid regions may be limited due to low relative humidity. It is very corrosive to aluminum alloys and slightly corrosive to steel. Solubility of calcium chloride results in leaching during heavy precipitation. Releases heat when mixed with water.
Magnesium Chloride	At a relative humidity greater than approximately 30% (77°F), the salts within the soil will pull moisture from the air above and retain it in the soil.	Reduces evaporation rate of surface moisture, lowers the freezing point of water, which reduces frost heave and freeze-thaw cycles, thereby reducing required road maintenance. Magnesium Chloride increases the compacted density of existing road base material more than Calcium Chloride. Effectiveness is retained after reblading.	Effectiveness in arid and semi-arid regions may be limited due to low relative humidity. It is very corrosive to aluminum alloys and slightly corrosive to steel. Solubility of calcium chloride results in leaching during heavy precipitation.
Lignin Derivatives	Act as adhesives by binding soil particles together and curing.	Greatly increases dry strength of soil, not humidity-dependent, imparts some plasticity to road surfaces, and lowers freezing point of road surfaces. Proper aggregate mix is important to performance. Becomes slippery when wet and brittle when dry.	High solubility results in leaching during heavy precipitation. It is corrosive to aluminum alloys due to acidity (CaCl <sub>2</sub> can neutralize the acidity). Proper aggregate mix is important to performance. Becomes slippery when wet and brittle when dry.
Tree Resin Emulsions (tall oil)	Act as adhesives by binding soil particles together and curing.	Low solubility after curing minimizes leaching and provides degree of surface waterproofing. Imparts some plasticity to road surfaces, has a high bonding strength, and is non-corrosive.	Requires proper weather and time to cure. No residual effectiveness after reblading. Equipment requires prompt cleanup to avoid curing of resin in hoses and pipes.
Synthetic Polymer	Bind soil particles together by forming a polymerizing matrix, a function similar to adhesives.	Applicable to a range of emission sources and function well in sandy soil conditions. Some types allow seeded vegetation to grow through the polymer matrix.	Requires proper weather and time to cure. Water repellent. May be subject to UV (sunlight) degradation. Application equipment requires timely cleaning. There is no residual effectiveness after reblading.
Bitumens, Tars, and Resins	Asphalt and resinous products are adhesive binding soil particles together. Petroleum oil products coat soil particles, increasing their mass and binding them together.	Water insoluble when dry; provides a degree of surface waterproofing. Good residual effectiveness.	Surface cracking and potholing may develop. Long-term application may cause road to become too hard for reblading. Bitumens won't lower freezing point and petroleum oil products lack adhesive characteristics.
Cementitious Based Binders	High purity gypsum mixes with water and mesh to form a thin cement-like crust on the soil surface.	Flexible, durable, water permeable, and resists soil chemicals. Reduces amount of aggregate required during initial contribution and has lower maintenance costs than other dust suppressants.	Cementitious based binders are only effective for dust control in non-traffic areas. Instead, consider mixing cementitious based binders with sub-base soils for greater soil strength.



Revisions	Date



Designed By:  
AG

Drawn By:  
JL

Checked By:  
CD

Date:  
12/15/2023

Phase:  
CD

**Periman**  
Architects of Arizona  
43320  
CHRISTINA SHANNON MAUCK  
Professional Engineer  
No. 12345  
Arizona, U.S.A.  
C. Shannon Mauck

**FIRE STATION #74**  
**NWC 19TH AVE & CHANDLER**  
**PHOENIX, ARIZONA 85045**  
Index No: **FD57100020-3**



KIVA # **23-1810**  
SDEV #

DETAILS

CSWMP3.1

Note:  
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 your contract with the City of Phoenix.



Revisions	Date

# ONSITE FIRE LINE PLAN

## FOR CITY OF PHOENIX FIRE STATION 74 CHANDLER BLVD & 19TH AVE. PHOENIX, AZ

A PORTION OF THE NE ¼ OF NE ¼  
SECTION 36, T1S, R2E

### LEGAL DESCRIPTION

LOT 9 OF AMENDED STATE PLAT NO. 30 SOUTH MOUNTAIN 650  
BK. 1002, PG. 50, MCR 2008-0760929

### SHEET INDEX

CF1.0 COVER  
CFS2.1 FIRE LINE PLAN

### QUANTITIES

ITEM	ON-SITE	UNIT
6" DIP CL 350 FIRE LINE	43	LF
8" DIP CL 350 FIRE LINE	190	LF
6" GATE VALVE	1	EA
FIRE HYDRANT	1	EA
8" DC BACKFLOW PREVENTER	1	EA

### AS-BUILT CERTIFICATION

I HEREBY 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/LAND SURVEYOR

DATE

REGISTRATION NUMBER

### UTILITY DISCLAIMER

I HEREBY CERTIFY THAT ALL UTILITY COMPANIES WITH FACILITIES IN THE AREA  
OF THIS PROJECT HAVE BEEN CONTACTED AND THE DATA PROVIDED IS SHOWN  
ON THIS PLAN. I AGREE TO INDEMNIFY, DEFEND, SAVE, AND HOLD HARMLESS  
THE CITY OF PHOENIX, ITS OFFICERS, AGENTS, EMPLOYEES AND VOLUNTEERS  
FROM ANY AND ALL CLAIMS, DEMANDS, ACTIONS, LIABILITIES, DAMAGES, LOSSES,  
OR EXPENSES INCURRED FOR ANY UTILITY CONFLICTS THAT MAY ARISE.



*Christina Shannon Mauck*

ENGINEER'S SIGNATURE AND SEAL

3/26/24

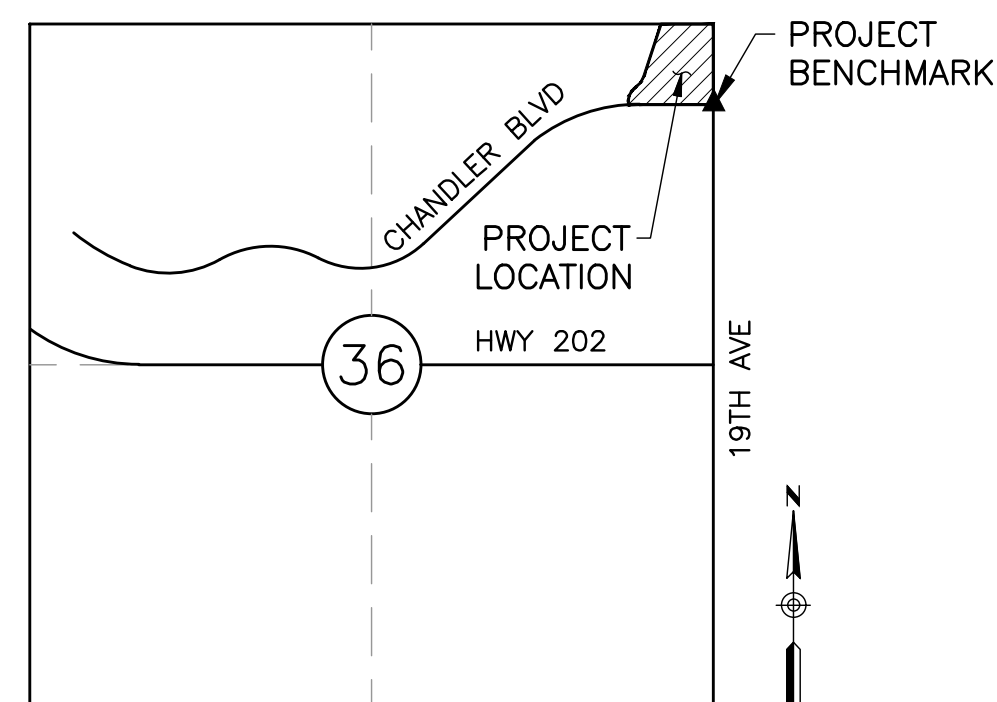
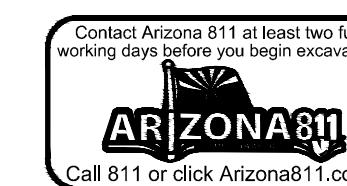
DATE

### APPROVAL BLOCK

APPROVED FOR:  
THE CITY OF PHOENIX

PLANNING & DEVELOPMENT DEPARTMENT

DATE



VICINITY MAP  
SEC 36, T1S, R2E NTS

### BENCHMARK & METADATA

HORIZONTAL DATUM: NAD83 (EPOCH 2011) ARIZONA CENTRAL ZONE  
PROJECT BENCHMARK:  
FOUND CITY OF PHOENIX PUBLISHED BENCHMARK DESCRIBED AS:  
BRASS CAP FLUSH AT THE INTERSECTION OF 19TH AVENUE AND  
CHANDLER BLVD.  
GROUND NORthing = 837958.95  
GROUND EASTING = 643975.94  
PUBLISHED ELEVATION = 1264.73  
NGVD '29 (CITY OF PHOENIX DATUM)

### PROJECT DESCRIPTION

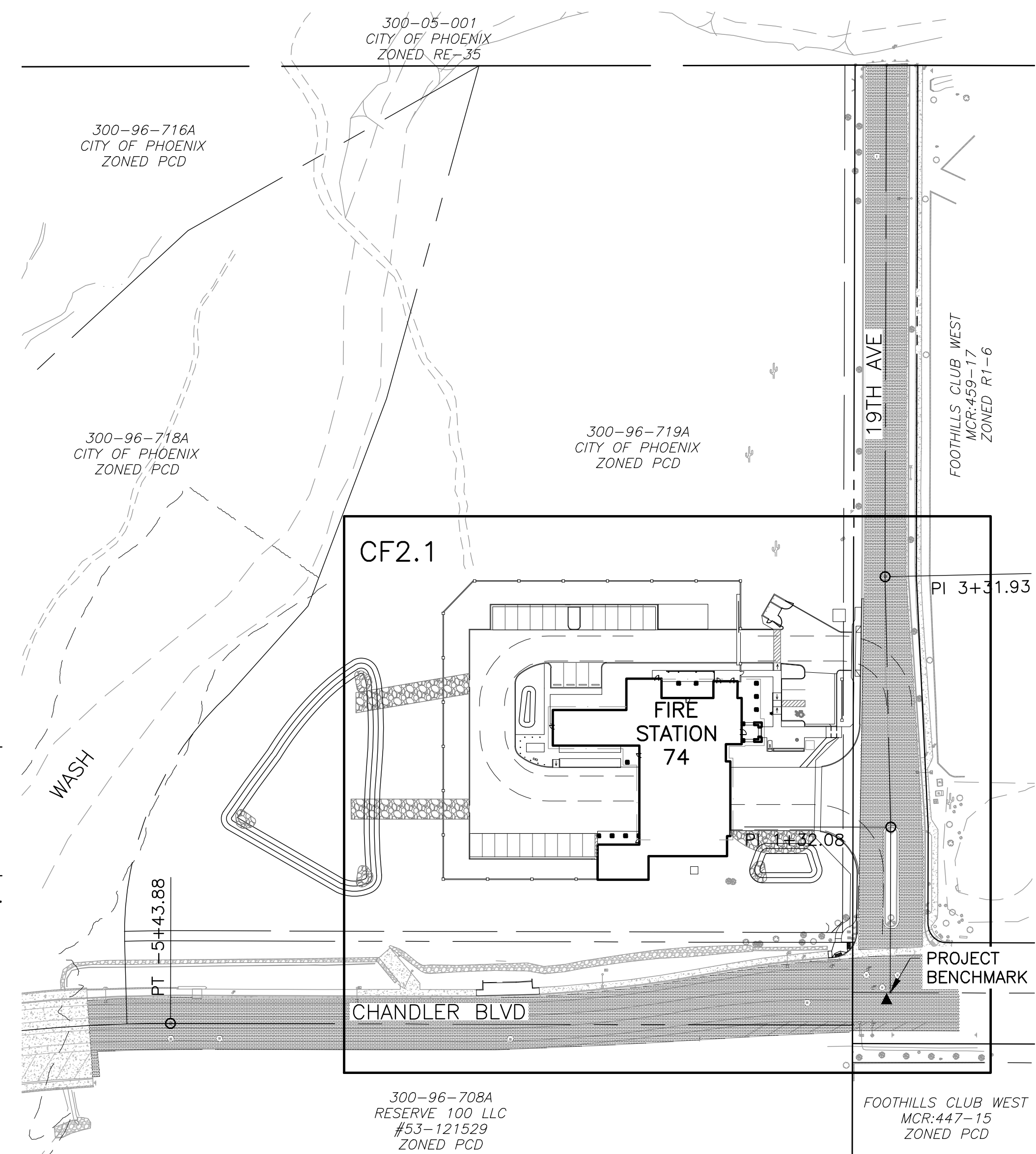
AN 8" FIRE LINE WILL PROVIDE FIRE PROTECTION  
SERVICES TO A NEW FIRE STATION WHICH  
INCLUDES PARKING & SIDEWALK IMPROVEMENTS.

### BUILDING INFORMATION

BUILDING SF: 13,233 SF  
CONSTRUCTION TYPE: V-B

### CONTACT INFORMATION

OWNER: PHOENIX FIRE DEPARTMENT	ARCHITECT: PERLMAN ARCHITECTS OF ARIZONA, INC.
ADDRESS: 2625 S 19TH AVENUE	ADDRESS: 2929 N. CENTRAL AVENUE, SUITE 100
PHOENIX, AZ 85009	PHOENIX, AZ 85012
CONTACT: JAIME GARRIDO	CONTACT: GERRALD ADAMS
PHONE: 602.534.9875	PHONE: 480.951.5900
ENGINEER: DIBBLE	
ADDRESS: 1626 N. LITCHFIELD RD	
SUITE 150	
GOODYEAR, AZ 85395	
CONTACT: SHANNON MAUCK, PE	
OWNER: 623.935.2258	



KEY MAP  
NTS

### CITY OF PHOENIX FIRE LINE NOTES, SEP 2020

- ALL CONSTRUCTION IN CITY OF PHOENIX R.O.W. 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.
- PLANNING & DEVELOPMENT DEPARTMENT'S CIVIL/SITE INSPECTION STAFF SHALL BE NOTIFIED 48 HOURS BEFORE ANY CONSTRUCTION BEGINS, TELEPHONE (602) 262-7811.
- IT IS REQUIRED THAT A FORMAL WRITTEN REQUEST FOR A FIRE LINE TURN-ON BE RECEIVED BY CIVIL ENGINEERING OF THE PLANNING & DEVELOPMENT DEPARTMENT FROM CITY OF PHOENIX FIRE PREVENTION UPON COMPLETION OF THE FIRE LINE WORK. THIS JOB IS NOT COMPLETE UNTIL THIS HAS BEEN DONE AND THE LINE TURNED ON BY THE WATER SERVICES DEPARTMENT.
- THE FOLLOWING M.A.G. DETAILS ARE SPECIFICALLY NOT APPROVED:
  - 390 CURB STOP WITH FLUSHING PIPE
  - 391-1 VALVE BOX INSTALLATION
  - 346 FIRE LINE DETECTOR CHECK VAULT
- 8" X 2" TAPPED CAP WITH BALL VALVE, RATE 300 PSI OR GREATER, AT THE END OF OFFSITE WORK IS REQUIRED IF ONSITE WORK IS NOT CONCURRENT WITH OFFSITE CONSTRUCTION. THE TAPPED CAP MUST BE INSTALLED BEFORE THE BACKFLOW PREVENTION DEVICE.
- FIRE LINE CONNECTION TO CITY MAINS SHALL BE USED FOR FIRE PROTECTION SYSTEM ONLY. NO METERED SERVICES CAN BE CONNECTED TO A FIRE LINE.
- BACKFLOW PREVENTION DEVICES ARE REQUIRED ON ALL FIRE LINES. CONNECTIONS ARE TO BE IN ACCORDANCE WITH UNIVERSITY OF SOUTHERN CALIFORNIA - MANUAL OF CROSS-CONNECTION CONTROL. SEE BUILDING SAFETY FOR DETAILS. BACKFLOW DEVICES ARE TO BE SHOWN ON THE OFFSITE PLAN. FIRE LINES THAT ARE PROPOSED WITH BACKFLOW PREVENTION DEVICES SHALL BE REQUIRED TO PROVIDE A CERTIFICATE OF APPROVAL FROM THE UNIVERSITY OF SOUTHERN CALIFORNIA FOUNDATION FOR CROSS-CONNECTION CONTROL AND HYDRAULIC RESEARCH (USC - FCCCHR), PRIOR TO FIRE LINE PERMIT ISSUANCE, PER ARIZONA ADMINISTRATIVE CODE R18-4-115D.
- BACKFLOW PREVENTION DEVICES SHALL NOT BE LOCATED IN DRIVEWAYS, VISIBILITY TRIANGLES, OR OTHER LOCATIONS WHERE ACCIDENTAL DAMAGE OR VISIBILITY OBSTRUCTION WOULD BE A LIKELY CONSEQUENCE.
- BACKFLOW PREVENTION DEVICES SHALL BE INSTALLED OUTSIDE OF RIGHT-OF-WAY AT (OR NEAR) THE PROPERTY LINE (POINT OF SERVICE) AND SHALL BE FULLY ACCESSIBLE FOR THE PERIODIC TESTING, REPAIRS, AND REPLACEMENT. THERE SHALL BE AN UNOBSTRUCTED RADIUS OF NO LESS THAN THREE (3) FEET FROM THE OUTER PERIMETER OF THE BACKFLOW PREVENTION DEVICE PER THE 2006 PHOENIX FIRE CODE (INTERNATIONAL FIRE CODE) SECTION 901.10.
- IN THE ABSENCE OF SPECIFIC PRESSURE DROP INFORMATION, THE DIAMETER OF THE INLET OR OUTLET OF ANY BACKFLOW PREVENTION DEVICE OR ITS CONNECTING PIPING SHALL NOT BE LESS THAN THE DIAMETER OF SUCH WATER DISTRIBUTION PIPING TO THE FIXTURES SERVED BY THE DEVICE, PER UPC 610.2. IF AVAILABLE, PRESSURE DROP INFORMATION SHALL BE PROVIDED WITH THE SUBMITTED PLANS.
- LOOPED ONSITE FIRE LINE SYSTEMS SHALL BE PROVIDED A BACKFLOW PREVENTER AT EACH POINT OF CONNECTION TO THE PUBLIC WATER SYSTEM, PER UPC 603.3.11.
- ALL WORK MUST COMPLY WITH REQUIREMENTS OF THE CURRENT CITY OF PHOENIX TRAFFIC BARRICADE MANUAL.
- PAVEMENT REPLACEMENT THICKNESS AND TYPE ARE TO BE PER M.A.G. SECTION 336 AND C.O.P. DETAIL P1200 - TYPE B. CURB AND GUTTER REPLACEMENT SHALL BE A MINIMUM OF ONE (1) FULL SECTION, PER M.A.G. STANDARD DETAIL 220. SIDEWALK REPLACEMENT SHALL BE A MINIMUM OF ONE (1) FULL PANEL PER C.O.P. DETAIL P1230. AT THE DISCRETION OF THE CITY OF PHOENIX PLANNING & DEVELOPMENT OFFSITE INSPECTOR, TUNNELING UNDER EXISTING CURB AND GUTTER, IN CITY OF PHOENIX R.O.W., WILL BE ALLOWED. TUNNELING UNDER EXISTING SIDEWALK WILL NOT BE ALLOWED IN THE CITY OF PHOENIX R.O.W.
- MINIMUM COVERAGE OVER THE TOP OF PIPE SHALL BE FOUR (4) FEET IF THE MAIN IS LOCATED IN A MAJOR STREET OR THE MAIN IS 12" OR LARGER. OTHERWISE, THREE (3) FEET OF COVER OVER THE TOP OF THE PIPE IS REQUIRED.
- COMPACTION SHALL COMPLY WITH M.A.G. SEC. 601, 95% MINIMUM IN A PUBLIC STREET.
- ASPHALT RESTORATION IS REQUIRED FOR ANY STREET CUT. REFER TO STREET PAVEMENT CUT POLICY (TRT 00164 AND ORDINANCE G-6308).
- APPROVAL OF THESE PLANS SHALL NOT PREVENT THE CITY FROM REQUIRING CORRECTION OF ERRORS IN THE PLANS WHERE SUCH ERRORS ARE SUBSEQUENTLY FOUND TO BE IN VIOLATION OF ANY LAW, ORDINANCE OR OTHER HEALTH/SAFETY ISSUE.
- PLAN APPROVAL IS VALID FOR TWELVE MONTHS. 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.
- CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION SURVEY & STAKING.



Designed By: AG
Drawn By: JL
Checked By: CD
Date: 12/15/2023
Phase: CD

**Perlman**  
Architects of Arizona  
2929 North Central Avenue, Suite #1600  
Phoenix, Arizona 85012  
480.951.5900 480.951.3045 f  
perlmanaz.com

Title:  
**FIRE STATION #74  
NWC 19TH AVE & CHANDLER  
PHOENIX, ARIZONA 85045**  
Index No: **FD57100020-3**

**CITY OF PHOENIX**

KIVA # **23-1810**  
SDEV #

COVER - FIRE  
LINE PLAN  
**CF1.0**

Note:  
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 your contract with the City of  
Phoenix.

QS 11-24  
CPFL 2400136







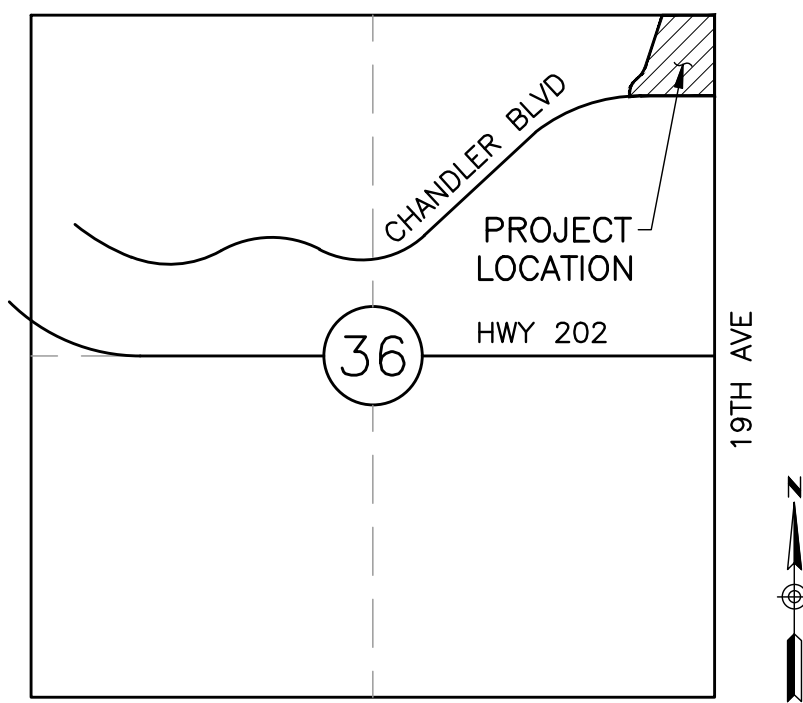
# OFF-SITE PUBLIC WATER MAIN PLAN

## FOR CITY OF PHOENIX FIRE STATION 74 1910 W CHANDLER BLVD PHOENIX, AZ

A PORTION OF THE NE ¼ OF NE ¼  
SECTION 36, T1S, R2E



Revisions	Date



VICINITY MAP  
SEC 36, T1S, R2E  
NTS

### BENCHMARK

- ▲ HORIZONTAL DATUM: NAD83 (EPOCH 2011) ARIZONA CENTRAL ZONE
- PROJECT BENCHMARK: FOUND CITY OF PHOENIX PUBLISHED BENCHMARK DESCRIBED AS: BRASS CAP FLUSH AT THE INTERSECTION OF 19TH AVENUE AND CHANDLER BLVD.
- GROUND NORTHING = 837958.95
- GROUND EASTING = 643975.94
- PUBLISHED ELEVATION = 1264.73
- NGVD '29 (CITY OF PHOENIX DATUM)

### SHEET INDEX

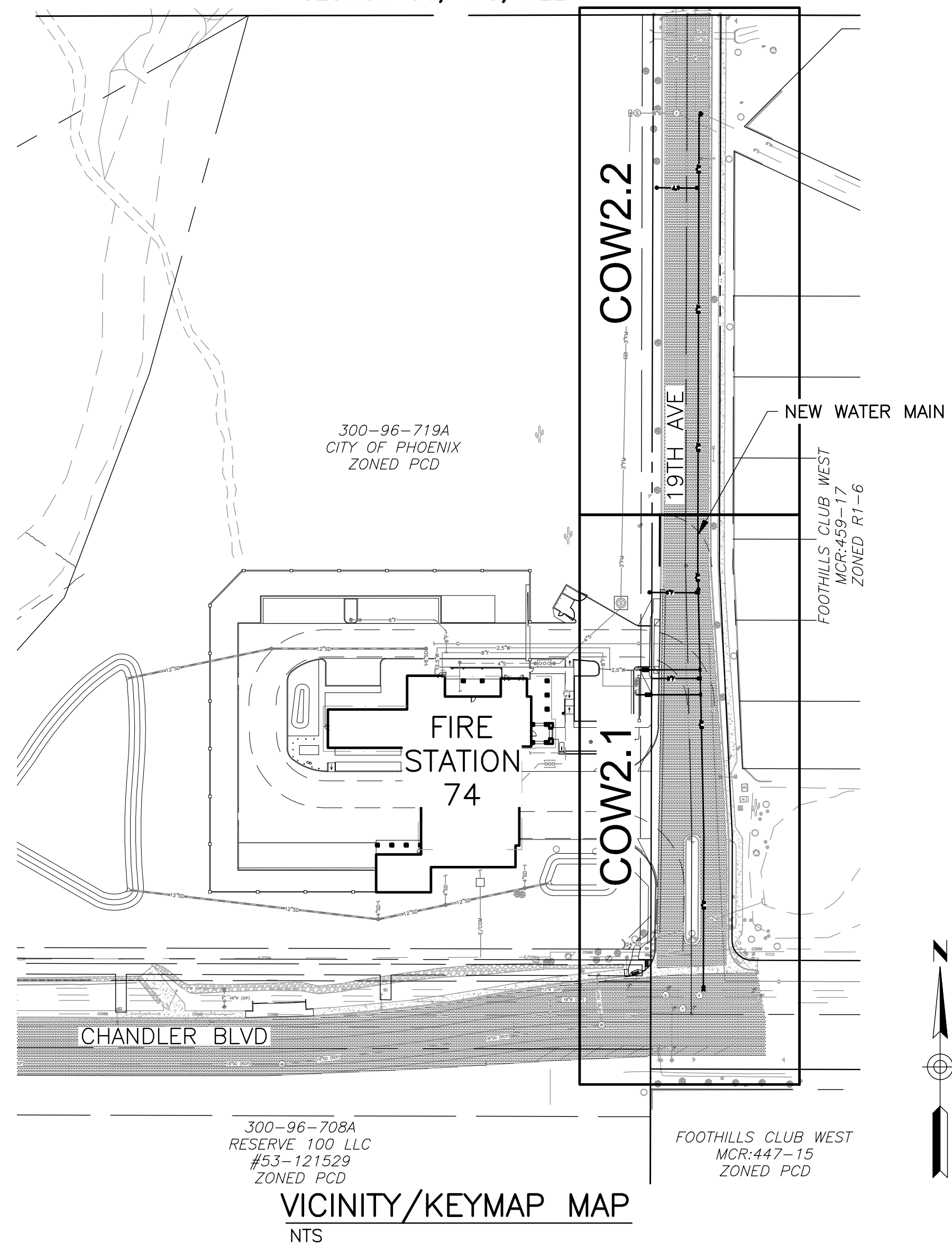
- COW1.0 COVER
- COW2.1 OFF-SITE WATER MAIN PLAN & PROFILE
- COW2.2 OFF-SITE WATER MAIN PLAN & PROFILE

### PROJECT DESCRIPTION

THIS PROJECT INCLUDES CONSTRUCTING 650 LF OF NEW PUBLIC 8" DIP WATER MAIN IN 19TH AVE CONNECTING TO THE EXISTING 12" WATER MAIN IN CHANDLER BLVD.

### PROJECT INFORMATION

- OWNER: CITY OF PHOENIX
- ADDRESS: 2625 S 19TH AVENUE, PHOENIX, AZ 85009
- CONTACT: JAIME GARRIDO, 602.534.9875
- ENGINEER: DIBBLE
- ADDRESS: 1626 N. LITCHFIELD RD, SUITE 150, GOODYEAR, AZ 85395
- CONTACT: SHANNON MAUCK, PE, 623.935.2258
- ARCHITECT: PERLMAN ARCHITECTS OF ARIZONA, INC.
- ADDRESS: 2929 N. CENTRAL AVENUE, SUITE 1600, PHOENIX, AZ 85012
- CONTACT: GERRALD ADAMS, 480.951.5900



### LEGEND

EXST	NEW
▲ BENCHMARK	⊗ BACKFLOW PREVENTION DEVICE
⊙ MONUMENT FLUSH	⊕ CACTUS
⊙ MONUMENT IN HANDHOLE	⊕ DRYWELL
⊕ FIRE HYDRANT	⊕ FIRE HYDRANT
⊕ GRATE	⊕ FIRE DEPT CONNECTION
⊕ GUY WIRE	⊕ GATE
⊕ MANHOLE (TYPE NOTED)	⊕ MANHOLE
⊕ METER (TYPE NOTED)	⊕ METER
⊕ PEDESTAL (TYPE NOTED)	⊕ PIPE CAP
⊕ PULLBOX (TYPE NOTED)	⊕ RIPRAP
⊕ SIGN	⊕ SIGN
⊕ STREET LIGHT	⊕ STREET LIGHT
⊕ TREE	⊕ VALVE
⊕ UTILITY POLE	⊕ CENTERLINE
⊕ VALVE (TYPE NOTED)	⊕ EASEMENT
⊕ EASEMENT	⊕ RIGHT-OF-WAY
⊕ PROPERTY LINE	⊕ FLOWLINE
⊕ RIGHT-OF-WAY	⊕ MASONRY WALL/RETAINING WALL
⊕ FENCE WIRE	⊕ MAJOR CONTOUR
⊕ FENCE CHAINLINK	⊕ MINOR CONTOUR
⊕ FLOWLINE	⊕ STORM DRAIN
⊕ GUARDRAIL	⊕ UTILITY LINE (TYPE NOTED)
⊕ MASONRY WALL/RETAINING WALL	⊕ NEW BUILDING
⊕ MAJOR CONTOUR	⊕ SEWER CLEANOUT
⊕ MINOR CONTOUR	⊕ MONUMENT LINE
⊕ UTILITY LINE (TYPE NOTED)	⊕ CENTER LINE
⊕ EXST BUILDING	⊕ PROPERTY LINE
	⊕ BACKFILL COMPACTION TYPE MAG STD SPEC 601
	⊕ BACKFILL COP STD DET P1200 TYPE B & SY AC PAVEMENT REPLACEMENT



Designed By: AG
Drawn By: JL
Checked By: CD
Date: 05/21/2024
Phase: CD

### AS-BUILT CERTIFICATION

I HEREBY 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 FOR:

THE CITY OF PHOENIX

HEALTH DELEGATE \_\_\_\_\_ DATE \_\_\_\_\_  
PLANNING AND DEVELOPMENT DEPARTMENT

OFF-SITE QUANTITIES					
DESCRIPTION	NUMBER	UNITS	MANUFACTURER	COST PER UNIT	MODEL
AC PAVEMENT REPLACEMENT	311	SY			
TYPE III OR IV SLURRY SEAL	3,020	SY			
VALLEY GUTTER	3	SY			
8" GATE VALVE	3	EA			
12"X8" TS&V&B&C	1	EA			
8"X8" TEE	1	EA			
8" DIP WATER MAIN	650	LF			
8" DIP WATER LINE, CL350	36	LF			
6" DIP WATER LINE, CL350	68	LF			
FIRE HYDRANT ASSEMBLY	2	EA			
2" DOMESTIC METER	1	EA			
1.5" LANDSCAPE METER	1	EA			
2" SERVICE LINE	45	LF			
1.5" LANDSCAPE LINE	48	LF			

NOTE: QUANTITIES PROVIDED FOR PERMITTING PURPOSES ONLY. CONTRACTOR SHALL INDEPENDENTLY PERFORM QUANTITY TAKEOFF AND SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION COSTS.

### WATER MAIN NOTES (CITY OF PHOENIX, 2020)

- PLANNING & DEVELOPMENT DEPARTMENT'S CIVIL/SITE INSPECTION STAFF SHALL BE NOTIFIED 48 HOURS BEFORE ANY CONSTRUCTION BEGINS TELEPHONE 602-262-7811.
- 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.
- 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: [HTTP://PHOENIX.GOV/WATERSERVICES/DESIGN/ENGPOLICIES/INDEX.HTML](http://PHOENIX.GOV/WATERSERVICES/DESIGN/ENGPOLICIES/INDEX.HTML)
- 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.
- PER PHOENIX CITY CODE, CHAPTER 2, SECTION 2-28, THESE PLANS ARE FOR OFFICIAL USE ONLY AND MAY NOT BE FURNISHED FOR INSPECTION OR COPYING, EXCEPT AS SPECIFICALLY STATED IN THE CITY CODE, OR AS REQUIRED BY LAW.
- ASPHALT RESTORATION IS REQUIRED FOR ANY STREET CUT. REFER TO STREET PAVEMENT CUT POLICY (TRT 00164 AND ORDINANCE G-6308.)
- PLAN APPROVAL IS VALID FOR 12 MONTHS. 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.



**Perleman**  
Architects of Arizona  
2929 North Central Avenue, Suite #600  
Phoenix, Arizona 85012  
480.951.5900 480.951.3045  
perlemanaz.com

**FIRE STATION #74**  
**NWC 19TH AVE & CHANDLER**  
**PHOENIX, ARIZONA 85045**  
Index No: **FD57100020-3**

**OFFICE OF THE CITY ENGINEER**  
**FIRE DEPARTMENT STATION 74 - PERMIT CITY SUBMITTAL**  
**CITY OF PHOENIX**

DSAP 24055  
QS 11-24  
CPWT 2400137

KIVA # **23-1810**  
SDEV # \_\_\_\_\_  
COVER  
**COW1.0**



Note: 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 your contract with the City of Phoenix.

FILE:\2023\1023002.01\_Phoenix\_Fire\_Station\_74\CAD\23002.01\_COW1X-COVR.dwg DATE:05/26/2024 TIME:4:58 PM (By:Christa.Dolan)



Revisions	Date

BID ADDENDUM

- 1 SAWCUT & REMOVE AC PAVEMENT FULL DEPTH, WIDTH PER PLAN
- 12 AC PAVEMENT REPLACEMENT COP STD DET P1200, TYPE B
- 22 TYPE III CRACK & SLURRY SEAL PAVEMENT TREATMENT PER CITY CODE CHAPTER 31, ARTICLE III, SECTION 31-49.1, FULL STREET WIDTH AND 25 FT BEYOND SAWCUT LIMITS
- 68 8" DIP WATER MAIN, RESTRAINED JOINT INSTALLATION OF 8" DIP MINIMUM CLASS 350 POLYETHYLENE WRAP PER COP SUPPLEMENT TO MAG SPECIFICATIONS SECTION 750.2 AND MAG SPECIFICATIONS SECTION 610.6.2 AND 610.6.3

REMOVAL NOTES

- 1 SAWCUT & REMOVE AC PAVEMENT FULL DEPTH, WIDTH PER PLAN
- 12 REMOVE CONCRETE VALLEY GUTTER TO NEAREST JOINT

CONSTRUCTION NOTES

- 10 CONCRETE VALLEY GUTTER MAG STD DET 240 MATCH EXST
- 12 AC PAVEMENT REPLACEMENT COP STD DET P1200, TYPE B
- 22 TYPE III CRACK & SLURRY SEAL PAVEMENT TREATMENT PER CITY CODE CHAPTER 31, ARTICLE III, SECTION 31-49.1, FULL STREET WIDTH AND 25 FT BEYOND SAWCUT LIMITS
- 26 PAVEMENT RESTORATION PER COP PAVEMENT CUT POLICY. ARTERIALS - HALF WIDTH CRACK/MICRO SEAL UP TO 25' BEYOND SAWCUTS
- 66 TEE SIZE PER PLAN
- 67 INSTALL A 12"x8" TAPPING SLEEVE & VALVE, BOX & COVER PER MAG STD DET 340 AND CITY OF PHOENIX SUPPLEMENTAL DETAIL P1391 CONFORM TO MAG SPECIFICATIONS SUBSECTION 630.4.2(A)(1)
- 68 8" DIP WATER MAIN, RESTRAINED JOINT INSTALLATION OF 8" DIP MINIMUM CLASS 350 POLYETHYLENE WRAP PER COP SUPPLEMENT TO MAG SPECIFICATIONS SECTION 750.2 AND MAG SPECIFICATIONS SECTION 610.6.2 AND 610.6.3
- 78 GATE VALVE W/BOX & COVER COP STD DET P1391, TYPE A AND PER COP SUPPLEMENT TO MAG SPEC 750.3 SIZE PER PLAN
- 82 INSTALL 6" FIRE HYDRANT AS FOLLOWS:  
A. 1-6" FIRE HYDRANT; COP DTL P1360;  
B. 1-6" GATE VALVE, W/BOC & COVER; COP DTL P1391-1, TYPE 'A'  
C. 6" DIP (CLASS 350)  
D. 1-12" OR 8"x6" TEE WITH RESTRAINED JOINTS PER MAG STD DET 303-1 & 303-2 AND COP SUPPLEMENT TO MAG SPEC 750.3;  
E. INSTALL PER COP STD DTL 1361 & 1362
- 83 FIRE LINE W/FITTINGS, DIP CL 350 W/POLYWRAP & JOINT RESTRAINT PER NFPA 24 SIZE PER PLAN
- 84 INSTALL 2" DOMESTIC WATER SERVICE METER BOX & COVER PER MAG STD DET 320 & COP STD DET P1342, P1363 & P1315
- 85 INSTALL 1.5" LANDSCAPE WATER SERVICE METER BOX & COVER PER MAG STD DET 320 & COP STD DET P1342, P1363 & P1315

NOTE: WORK PROVIDED FOR THIS BID ITEM, THE OFF SITE WATER EXTENSION FROM STA 3+17 TO STA: 6+67, IS TO BE PROVIDED AS A LINE ITEM UNIT COST BY THE CONTRACTOR, AS THE COSTS ASSOCIATED WITH THIS IS TO BE TRACKED DUE TO DIFFERENT FUNDING SOURCES.



Designed By: AG  
 Drawn By: JL  
 Checked By: CD  
 Date: 05/21/2024  
 Phase: CD

**Periman**  
 Architects of Arizona  
 2929 North Central Avenue, Suite #1600  
 Phoenix, Arizona 85012  
 Phone: 951.5900 480.951.3045  
 perimanaz.com

**FIRE STATION #74**  
**NWC 19TH AVE & CHANDLER**  
**PHOENIX, ARIZONA 85045**  
 Index No: **FD57100020-3**



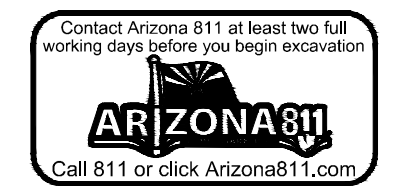
KIVA # 23-1810  
 SDEV #

OFF-SITE WATER MAIN PLAN & PROFILE COW2.1

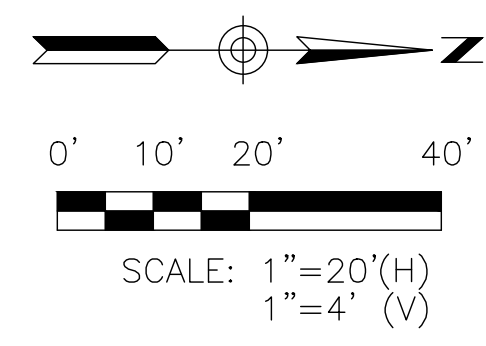
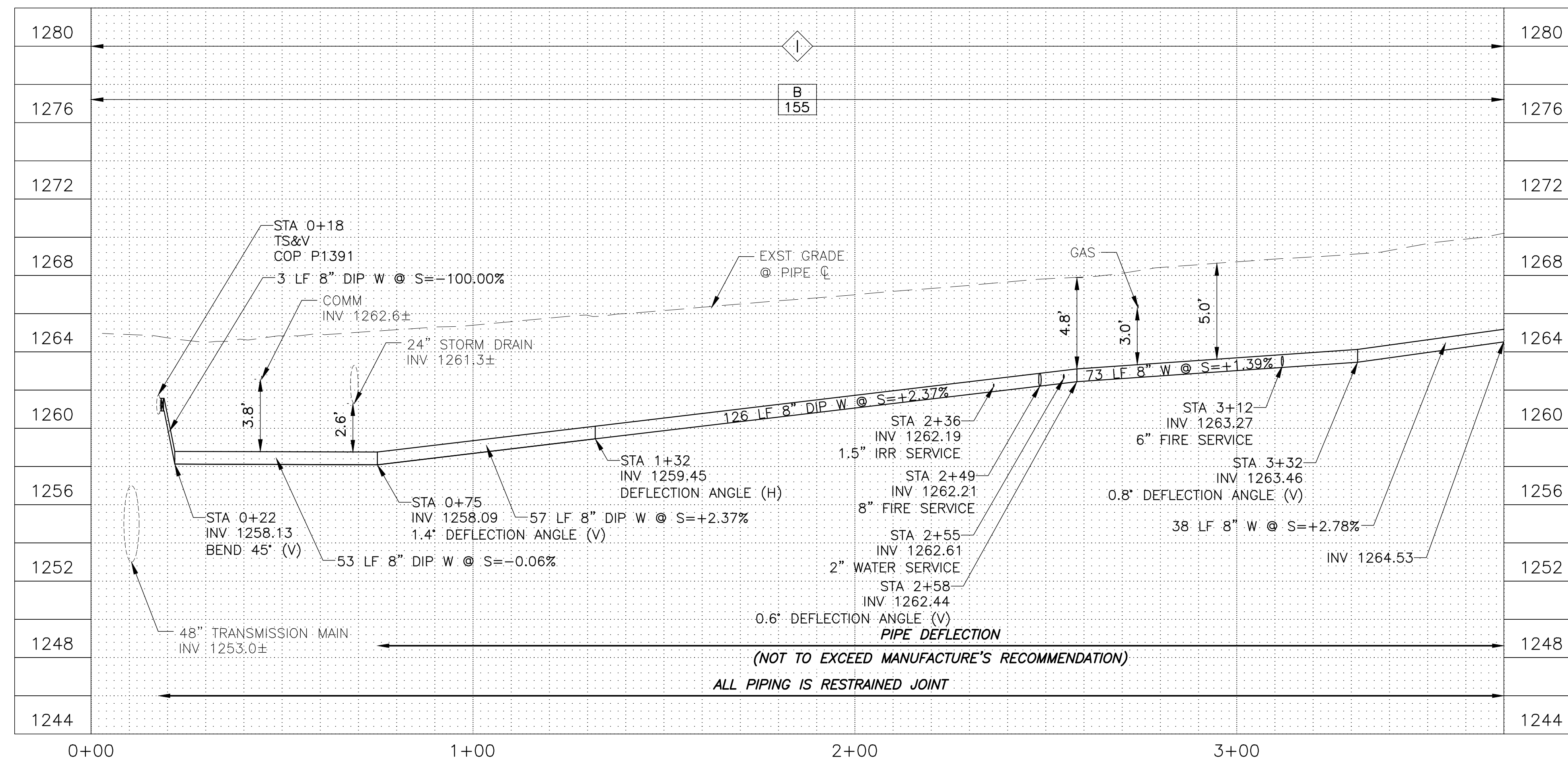
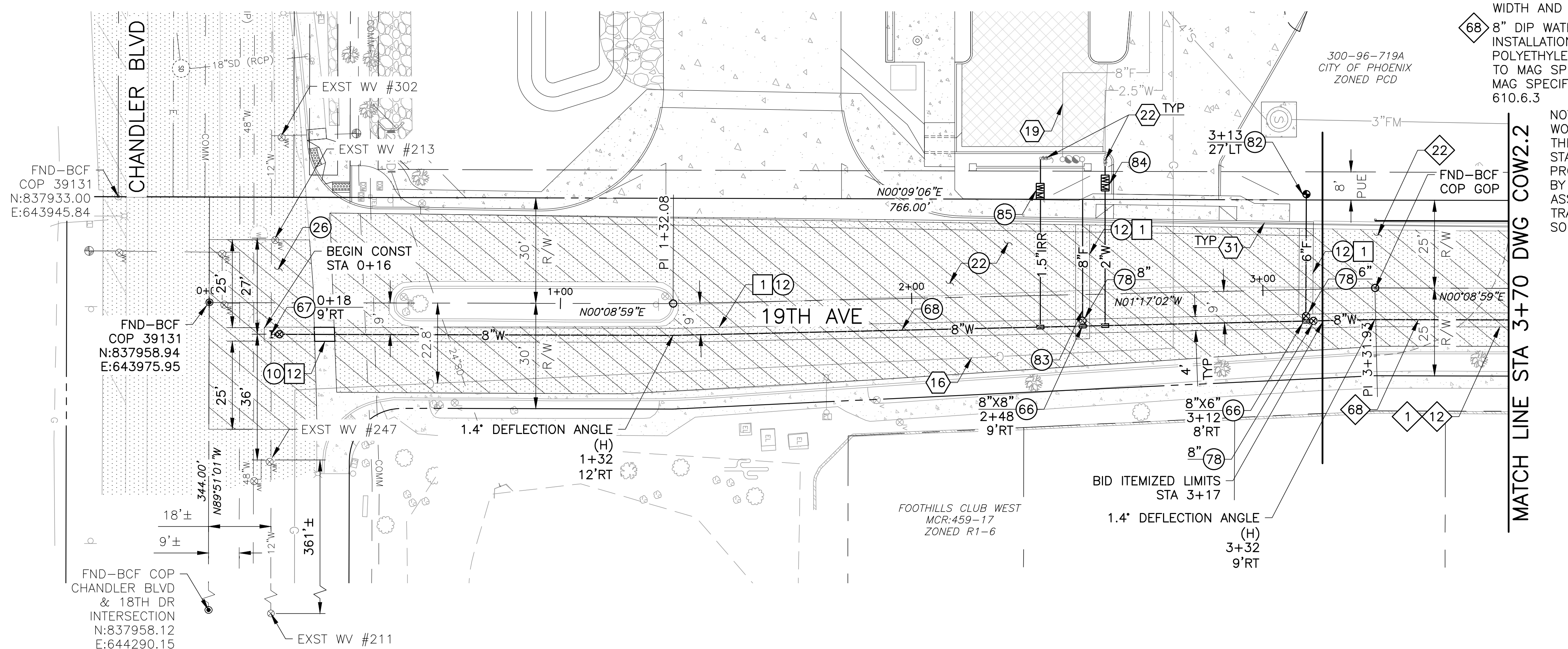
REFERENCE NOTES

- 16 NEW GAS SERVICE LINE REFER TO UTILITY PROVIDER
- 19 NEW FIRE LINE REFER TO FIRE LINE PLAN
- 22 REFER TO ON-SITE WATER & SEWER PLAN FOR CONTINUATION
- 31 CONCURRENT IMPROVEMENTS REFER TO GRADING & DRAINAGE PLAN

- NOTES:
- EXISTING UTILITIES ARE SHOWN WITH BEST AVAILABLE INFORMATION. NOT ALL UTILITIES MAY BE SHOWN. CONTRACTOR SHALL VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
  - PER PHOENIX CITY CODE CHAPTER 2, SECTION 2-28, THESE PLANS ARE FOR OFFICIAL USE ONLY AND MAY NOT BE FURNISHED FOR INSPECTION OR COPYING, EXCEPT AS SPECIFICALLY STATED IN THE CITY CODE, OR AS REQUIRED BY LAW.
  - PAVEMENT REPLACEMENT THICKNESS AND TYPE ARE TO BE PER M.A.G. SECTION 336 AND C.O.P. DETAIL P1200 - TYPE B. CURB AND GUTTER REPLACEMENT SHELL BE MINIMUM OF ONE (1) FULL SECTION, PER M.A.G. STANDARD DETAIL 220.
  - PIPE DEFLECTION ANGLES WITHIN MANUFACTURERS SPECIFICATIONS



Note: 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 your contract with the City of Phoenix.

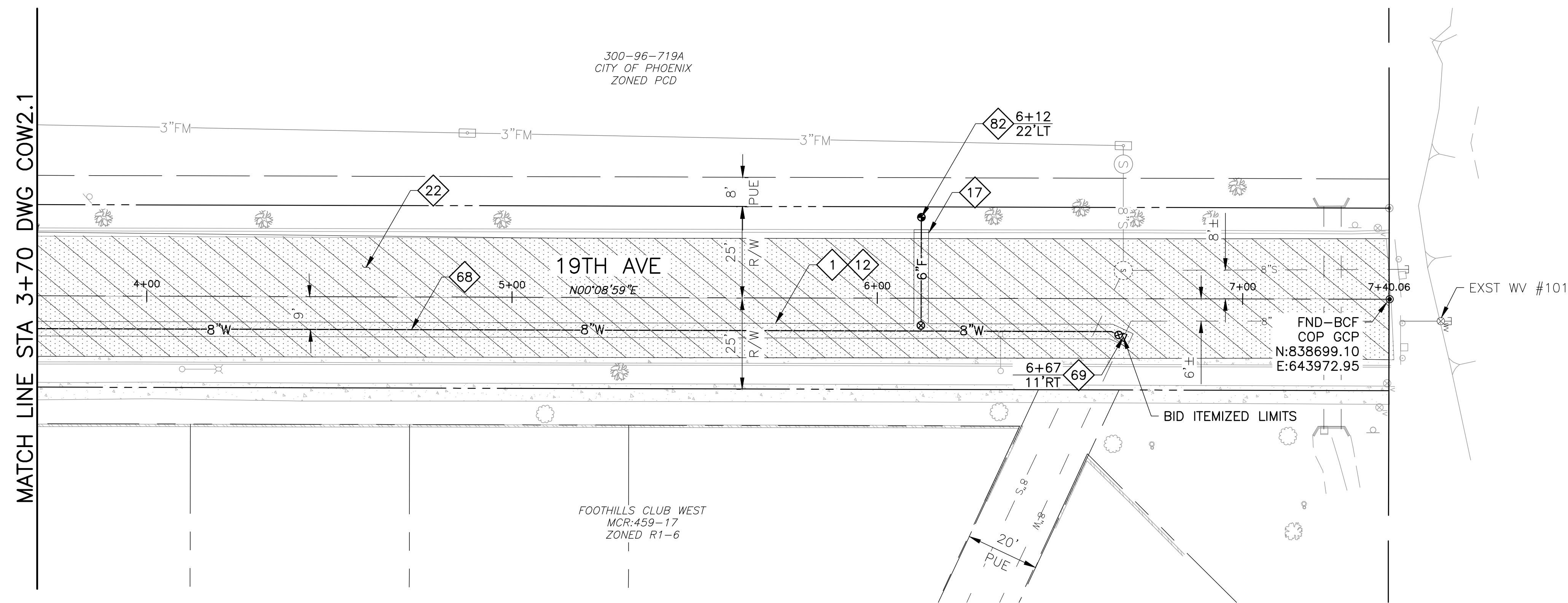


FILE: \\2023\1023002\01\_Phoenix\_Fire\_Station\_74\CAD\3002\01\_COW2-X-UTIL.dwg DATE: 6/26/2024 TIME: 4:58 PM (by: Chris.Dolan)

CITY OF PHOENIX OFFICE OF THE CITY ENGINEER FIRE DEPARTMENT STATION 74 - PERMIT CITY SUBMITTAL



Revisions	Date



**BID ADDENDUM**

- 1 SAWCUT & REMOVE AC PAVEMENT FULL DEPTH, WIDTH PER PLAN
- 12 AC PAVEMENT REPLACEMENT COP STD DET P1200, TYPE B
- 17 REMOVE & REPLACE CONCRETE CURB & GUTTER TO NEAREST JOINT
- 22 TYPE III CRACK & SLURRY SEAL PAVEMENT TREATMENT PER CITY CODE CHAPTER 31, ARTICLE III, SECTION 31-49.1, FULL STREET WIDTH AND 25 FT BEYOND SAWCUT LIMITS
- 68 8" DIP WATER MAIN, RESTRAINED JOINT INSTALLATION OF 8" DIP MINIMUM CLASS 350 POLYETHYLENE WRAP PER COP SUPPLEMENT TO MAG SPECIFICATIONS SECTION 750.2 AND MAG SPECIFICATIONS SECTION 610.6.2 AND 610.6.3
- 69 INSTALL A 8"x8" TAPPING SLEEVE & VALVE, BOX & COVER, MAG STD DET 340 & COP STD DET P1391 CONFORM TO MAG SPECIFICATIONS SUBSECTION 630.4.2(A)(1)
- 82 INSTALL 6" FIRE HYDRANT AS FOLLOWS:
  - A. 1-6" FIRE HYDRANT; COP DTL P1360;
  - B. 1-6" GATE VALVE, W/BOC & COVER; COP DTL P1391-1, TYPE 'A'
  - C. 6" DIP (CLASS 350)
  - D. 1-12" OR 8"x6" TEE WITH RESTRAINED JOINTS PER MAG STD DEL 303-1 & 303-2 AND COP SUPPLEMENT TO MAG SPEC 750.3;
  - E. INSTALL PER COP STD DTL 1361 & 1362

NOTE:  
 WORK PROVIDED FOR THIS BID ITEM, THE OFF SITE WATER EXTENSION FROM STA 3+17 TO STA: 6+67, IS TO BE PROVIDED AS A LINE ITEM UNIT COST BY THE CONTRACTOR, AS THE COSTS ASSOCIATED WITH THIS IS TO BE TRACKED DUE TO DIFFERENT FUNDING SOURCES.



Designed By:	AG
Drawn By:	JL
Checked By:	CD
Date:	05/21/2024
Phase:	CD

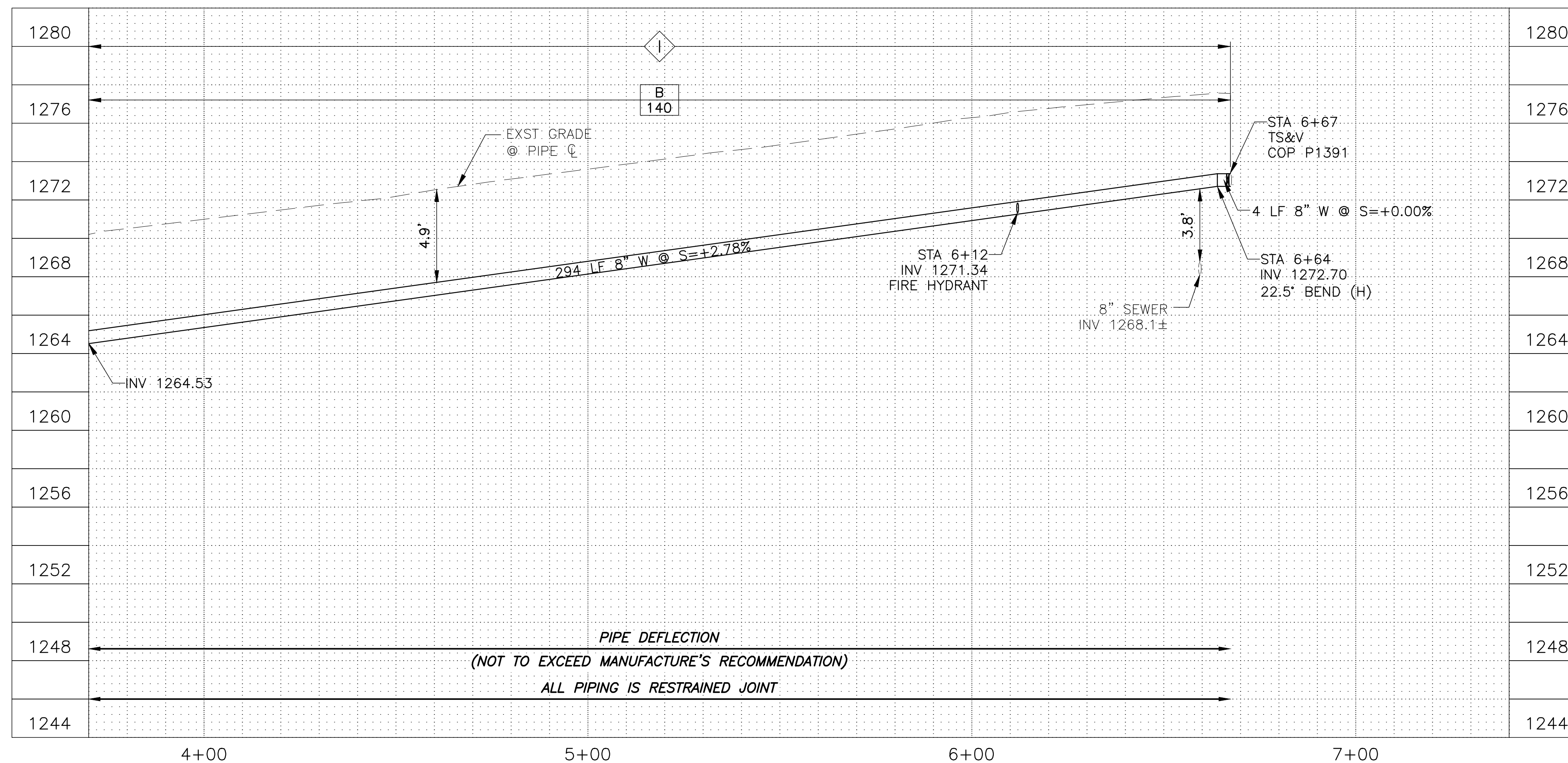
**Perlman**  
 Architects of Arizona  
 2929 North Central Avenue, Suite #1600  
 Phoenix, Arizona 85012  
 480.951.5900 480.951.3045  
 perlmanaz.com

**FIRE STATION #74**  
**NWC 19TH AVE & CHANDLER**  
**PHOENIX, ARIZONA 85045**  
 Index No: **FD57100020-3**

**CITY OF PHOENIX**  
 OFFICE OF THE CITY ENGINEER  
**FIRE DEPARTMENT STATION 74 - PERMIT CITY SUBMITTAL**

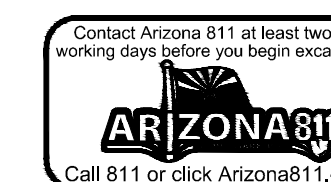
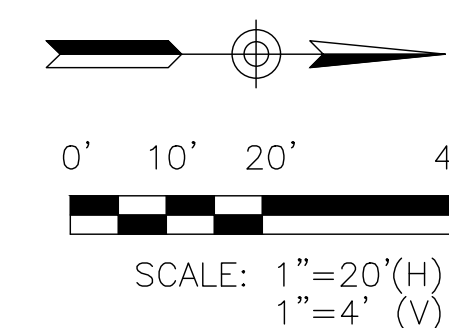
KIVA # 23-1810  
 SDEV #

OFF-SITE WATER  
 MAIN PLAN &  
 PROFILE  
**COW2.2**



**NOTES:**

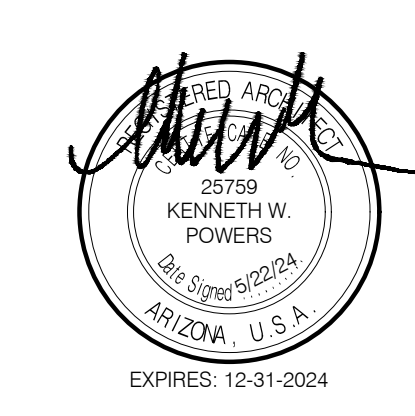
- EXISTING UTILITIES ARE SHOWN WITH BEST AVAILABLE INFORMATION. NOT ALL UTILITIES MAY BE SHOWN. CONTRACTOR SHALL VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
- PER PHOENIX CITY CODE CHAPTER 2, SECTION 2-28, THESE PLANS ARE FOR OFFICIAL USE ONLY AND MAY NOT BE FURNISHED FOR INSPECTION OR COPYING, EXCEPT AS SPECIFICALLY STATED IN THE CITY CODE, OR AS REQUIRED BY LAW.
- PAVEMENT REPLACEMENT THICKNESS AND TYPE ARE TO BE PER M.A.G. SECTION 336 AND C.O.P. DETAIL P1200 - TYPE B. CURB AND GUTTER REPLACEMENT SHELL BE MINIMUM OF ONE (1) FULL SECTION, PER M.A.G. STANDARD DETAIL 220.
- PIPE DEFLECTION ANGLES WITHIN MANUFACTURERS SPECIFICATIONS



Note:  
 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 your contract with the City of Phoenix.



Revisions	Date
△ CITY COMMENTS	5/22/24



Designed By:  
ET / GA

Drawn By:  
TA / RS

Checked By:  
GA / TA

Date:  
12/14/2023

Phase:  
PERMIT

**Perlman**  
Architects of Arizona  
2929 North Central Avenue, Suite # 1600  
Phoenix, Arizona 85012  
480.951.5900 480.951.3045  
perlmanar.com

Title:  
**FIRE STATION #74  
1910 W. CHANDLER BLVD.  
PHOENIX, ARIZONA 85045**  
Index No:  
**FD57100020-3**

KIVA # **23-1810**  
SD# **2300473**

**GRAVITY SEWER  
TAP  
S512**

City of Phoenix - Water Services Dept / Planning & Development Dept  
Gravity Wastewater Tap in Manhole **Standard Detail S-512**

PROJECT NAME: PHOENIX FIRE STATION 74 LOCATION: CHANDLER BLVD & 19TH AVE  
PROJ / KIVA / CCPR / CSPR / WSPR # KIVA# 23-1810 WSPR 2400014

**S-512 CONSTRUCTION NOTES**

ALL CONSTRUCTION SHALL BE PERFORMED IN COMPLIANCE WITH ALL APPLICABLE UNIFORM STANDARD DETAILS AND SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OF MARICOPA ASSOCIATION OF GOVERNMENTS (MAG) AND THE CITY OF PHOENIX (COP) SUPPLEMENTAL(SUPPL) STANDARD (STD) DETAILS (DTL) AND SPECIFICATIONS.

VERIFY LOCATION OF CROSSING UTILITIES IN THE RIGHT OF WAY (ROW) / EASEMENT IN THE LOCATION PLAN VIEW.

THE NEW TAP SHALL BE VITRIFIED CLAY PIPE OR DUCTILE IRON PIPE WITH PROTECTO 401 CERAMIC EPOXY LINING WITH A MINIMUM REQUIRED SLOPE OF 1/8 INCH PER FOOT.

ALL ELEVATIONS SHOWN HERE ARE RELATIVE TO EACH OTHER.

INVERT OF THE PROPOSED WASTEWATER TAP SHALL BE EQUAL TO OR HIGHER THAN THE CROWN OF THE EXISTING MAIN. FOR EXISTING MANHOLES RECONSTRUCT BASE TO MATCH DETAIL.

THE INTERIOR OF ALL MANHOLES NEWLY CONSTRUCTED OR EXISTING SHALL BE PAINTED WITH INSECTICIDE PAINT PER COP SUPPL TO MAG SEC 627. PAINT SHALL BE APPLIED AFTER CORROSION COATING IS APPLIED, IF REQUIRED.

ALL MANHOLES ON PIPE 15-INCHES AND LARGER OR GREATER THAN 12 FT IN DEPTH, SHALL BE CORROSION COATED PER COP SUPPL TO MAG SEC 628. ANY COATING DAMAGE CAUSED BY TAPPING OPERATIONS TO EXISTING MANHOLES, CONTRACTOR SHALL REPAIR COATING PER THE MANUFACTURER'S INSTRUCTIONS AS INDICATED IN THE COP SUPPL.

TRAFFIC REGULATIONS SHALL BE PER CITY OF PHOENIX "TRAFFIC BARRICADE POLICY".

COMPACTION SHALL COMPLY WITH MAG SPEC 601-95% MINIMUM IN A PUBLIC STREET.

A PAVEMENT CUT SURCHARGE MAY BE ASSESSED TO PROJECTS TRENCHING IN NEWLY PAVED OR OVERLAID PAVEMENT.

PAVEMENT REPLACEMENT THICKNESS AND TYPE ARE TO BE PER MAG SEC 336, COP STD DTL P1200 TYPE B. CURBS AND GUTTER REPLACEMENT SHALL BE A MINIMUM OF ONE (1) FULL SECTION, PER MAG STD DTL 220. SIDEWALK REPLACEMENT SHALL BE A MINIMUM OF ONE (1) FULL PANEL PER COP DTL P1230. AT THE DISCRETION OF THE COP INSPECTOR, TUNNELING UNDER EXISTING CURB AND GUTTER, IN COP ROW, WILL BE ALLOWED. TUNNELING UNDER EXISTING SIDEWALK WILL NOT BE ALLOWED IN THE COP ROW.

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 CODE ADMINISTRATIVE PROVISIONS SECTION 105.3 FOR BUILDING PERMITS.

PER THE CITY OF PHOENIX ORDINANCE G-496, THIS PLAN IS FOR OFFICIAL USE ONLY AND MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF YOUR CONTRACT WITH THE CITY OF PHOENIX.

**THE FOLLOWING DISCLAIMER CAN ONLY BE USED FOR LOCAL OR RESIDENTIAL STREETS. FOR MAJOR AND COLLECTOR STREETS, UTILITY CONFLICT NOTICES SHALL BE PROVIDED.**

I HEREBY CERTIFY THAT ALL UTILITY COMPANIES WITH FACILITIES IN THE AREA OF THIS PROJECT HAVE BEEN CONTACTED AND THE DATA PROVIDED IS SHOWN ON THIS PLAN. I AGREE TO INDEMNIFY, DEFEND, SAVE AND HOLD HARMLESS THE CITY OF PHOENIX, ITS OFFICERS, OFFICIALS, AGENTS, EMPLOYEES AND VOLUNTEERS FROM ANY AND ALL CLAIMS, DEMANDS, DAMAGES, ACTIONS, LIABILITIES, DAMAGES, LOSSES, OR EXPENSES INCURRED FOR ANY UTILITY CONFLICTS THAT MAY ARISE.

ENGINEER'S SIGNATURE, SEAL AND DATE

43320  
CHRISTINA  
SHANNON  
MAUCK

Sheet 2 of 2  
Revised: September 15, 2011 DMFD S:\000001\_SHARED\0000M\_Resource & Development\Planning\City\CityData

City of Phoenix - Water Services Dept / Planning & Development Dept  
Gravity Wastewater Tap in Manhole **Standard Detail S-512**

PROJECT NAME: PHOENIX FIRE STATION 74 LOCATION: CHANDLER BLVD & 19TH AVE  
PROJ / KIVA / CCPR / CSPR / WSPR # KIVA# 23-1810 WSPR 2400014  
Q.S.#: 011-24

**MANHOLE INFO**

DISTANCE TO NEAREST EXISTING DOWNSTREAM MANHOLE 197 LF  
INDICATE EXISTING DOWNSTREAM MANHOLE NO. 228  
 EXISTING MANHOLE NO. 228  
 INSTALL NEW MANHOLE

**MATERIAL LIST IN ROW OR EASEMENT**

PIPE (SIZE / TYPE) 8" VCP 17 LF  
PAVEMENT REPLACEMENT 9 SY  
SIDEWALK 0 SF  
CURB & GUTTER 2 LF

CALL TWO WORKING DAYS BEFORE YOU DIG 602-263-1100 1-800-STAKE-IT

INTERSECTION 19TH AVE & CHANDLER BLVD  
NGVD 29  
COP BENCHMARK: 1264.73  
GROSS ACREAGE: 7.74

RIM per Site survey 1277.74 (C) RIM ELEV.

(A) TAP INVERT ELEV. 1268.85  
(B) MAIN CROWN ELEV. 1268.85

TAP SIZE 8"  
SLOPE S=0.65%  
MINIMUM SLOPE 1/8" PER FOOT

SECTION A - A  
1268.18 Invert per Site survey  
WASTEWATER MAIN INVERT ELEVATION

RECORD DRAWING CERTIFICATION: I HEREBY 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.

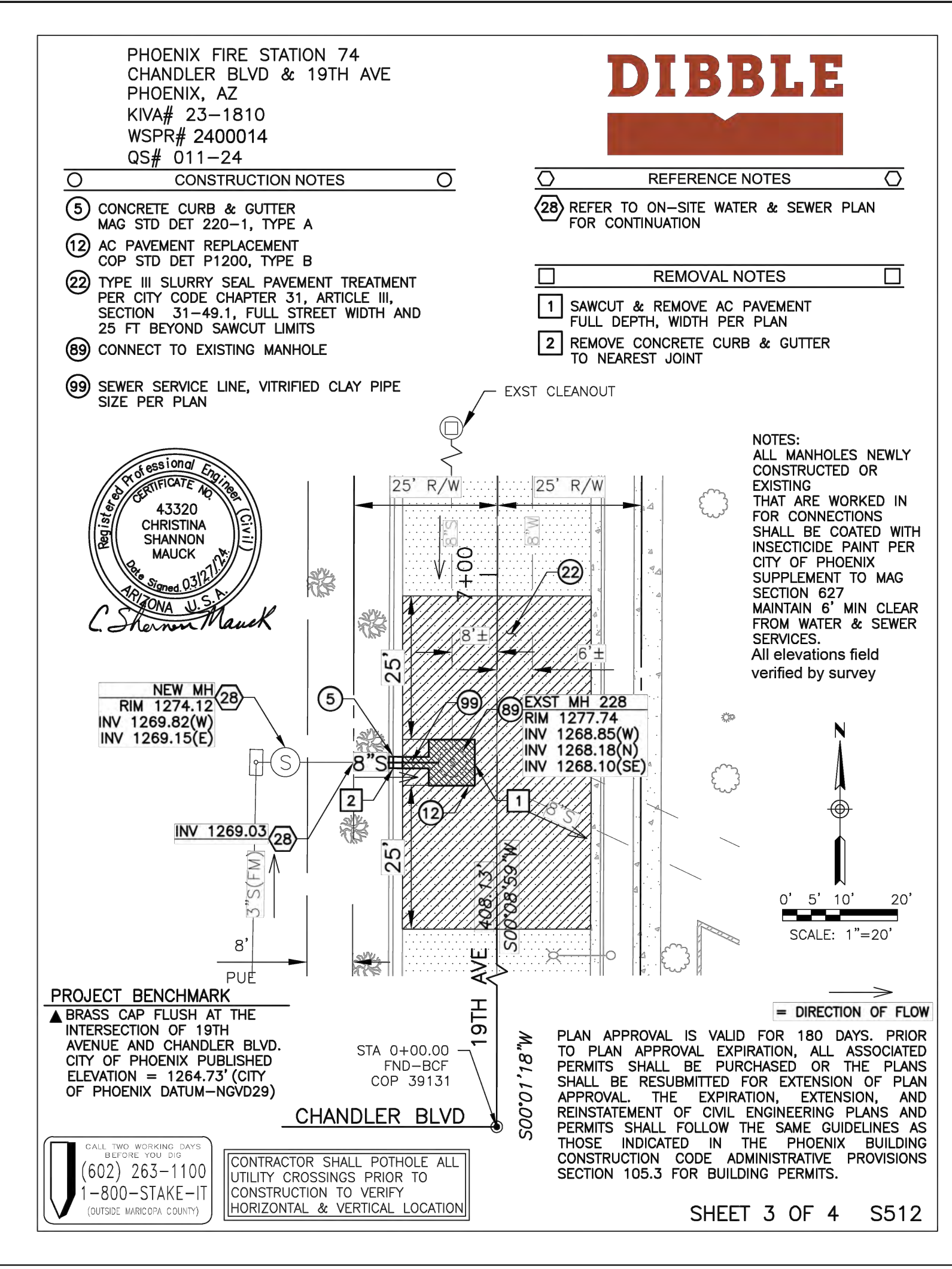
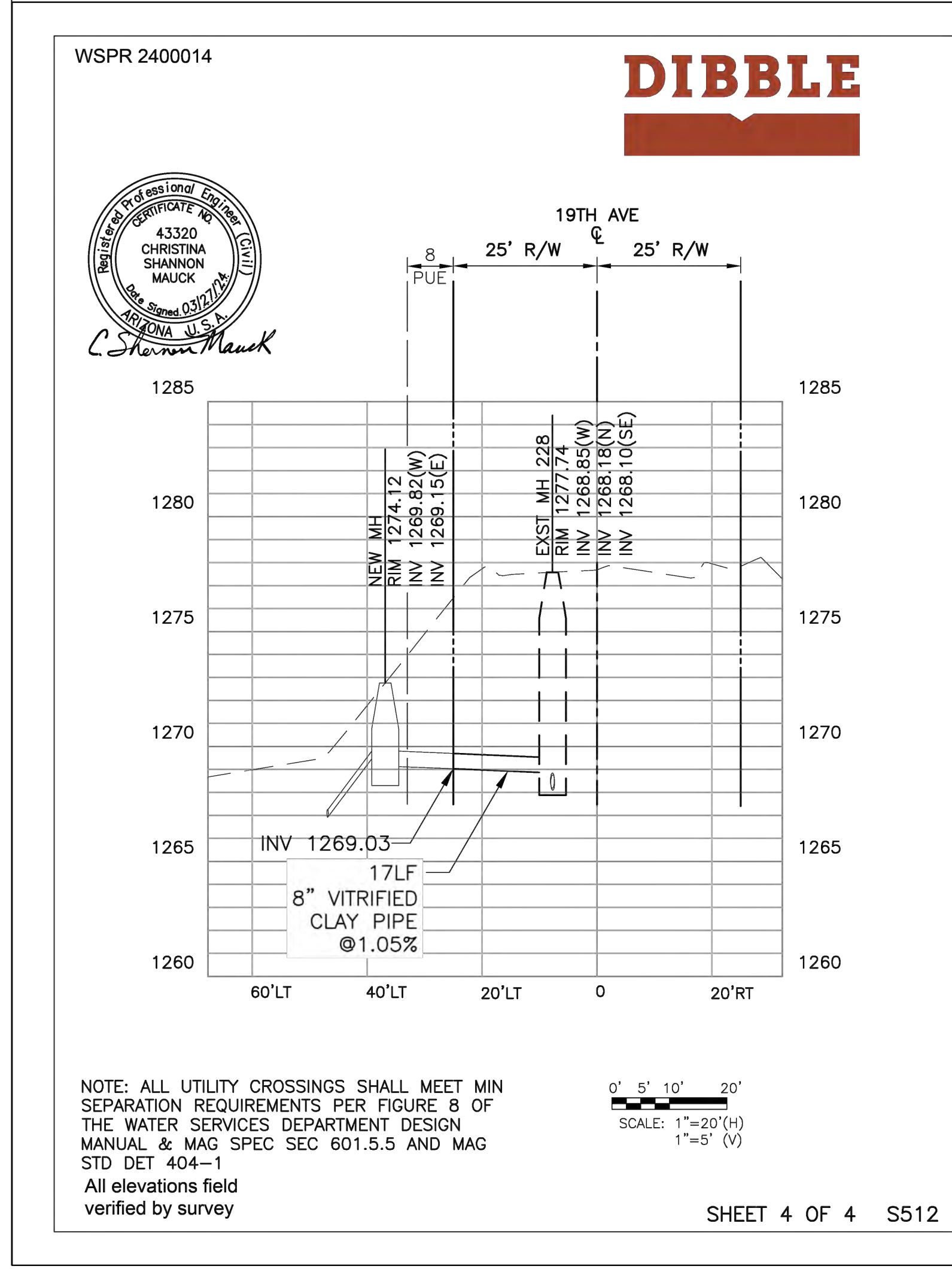
REGISTERED ENGINEER DATE

REGISTRATION #

ENGINEER: DIBBLE ENGINEERING, INC  
CONTACT: SHANNON MAUCK  
ADDRESS: 1626 N Litchfield Rd, Suite 150  
Goodyear, AZ 85395  
PHONE #: (623)935-2258

For City Use Only:  
Approved By: \_\_\_\_\_ Date: \_\_\_\_\_  
Dept. Approval  P&D  WSD  
Plan Reviewer \_\_\_\_\_

Sheet 1 of 2 Refer to Sheet 2 of 2 for Construction Notes



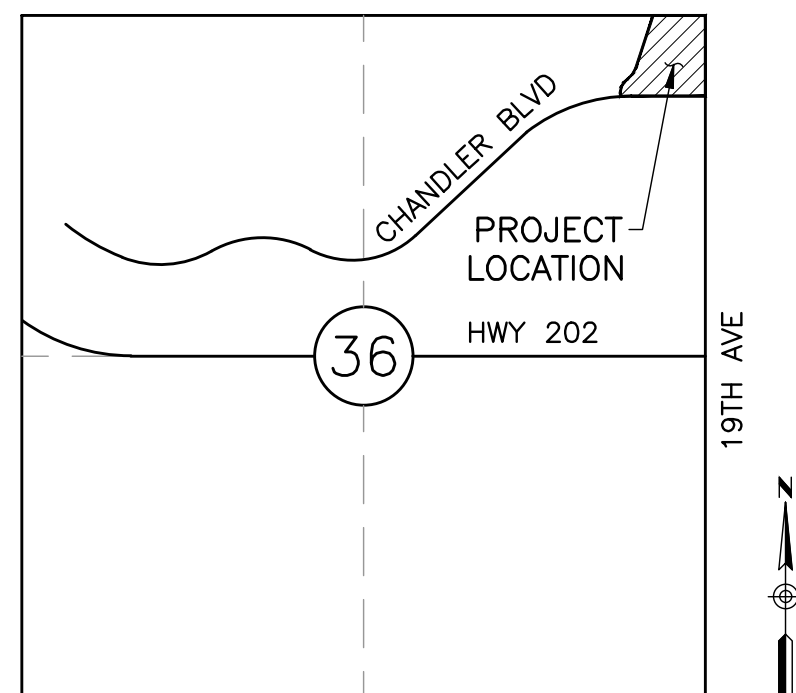


Revisions	Date

**ON-SITE WATER & SEWER PLANS**

**FOR  
CITY OF PHOENIX  
FIRE STATION 74  
CHANDLER BLVD & 19TH AVE.  
PHOENIX, AZ**

A PORTION OF THE NE ¼ OF NE ¼ SECTION 36, T1S, R2E



**VICINITY MAP**  
SEC 36, T1S, R2E NTS

**BENCHMARK & METADATA**

HORIZONTAL DATUM: NAD83 (EPOCH 2011) ARIZONA CENTRAL ZONE  
PROJECT BENCHMARK:  
FOUND CITY OF PHOENIX PUBLISHED BENCHMARK DESCRIBED AS:  
BRASS CAP FLUSH AT THE INTERSECTION OF 19TH AVENUE AND  
CHANDLER BLVD.  
GROUND NORTHING = 837958.95  
GROUND EASTING = 643975.94  
PUBLISHED ELEVATION = 1264.73  
NGVD '29 (CITY OF PHOENIX DATUM)

**PROJECT DESCRIPTION**

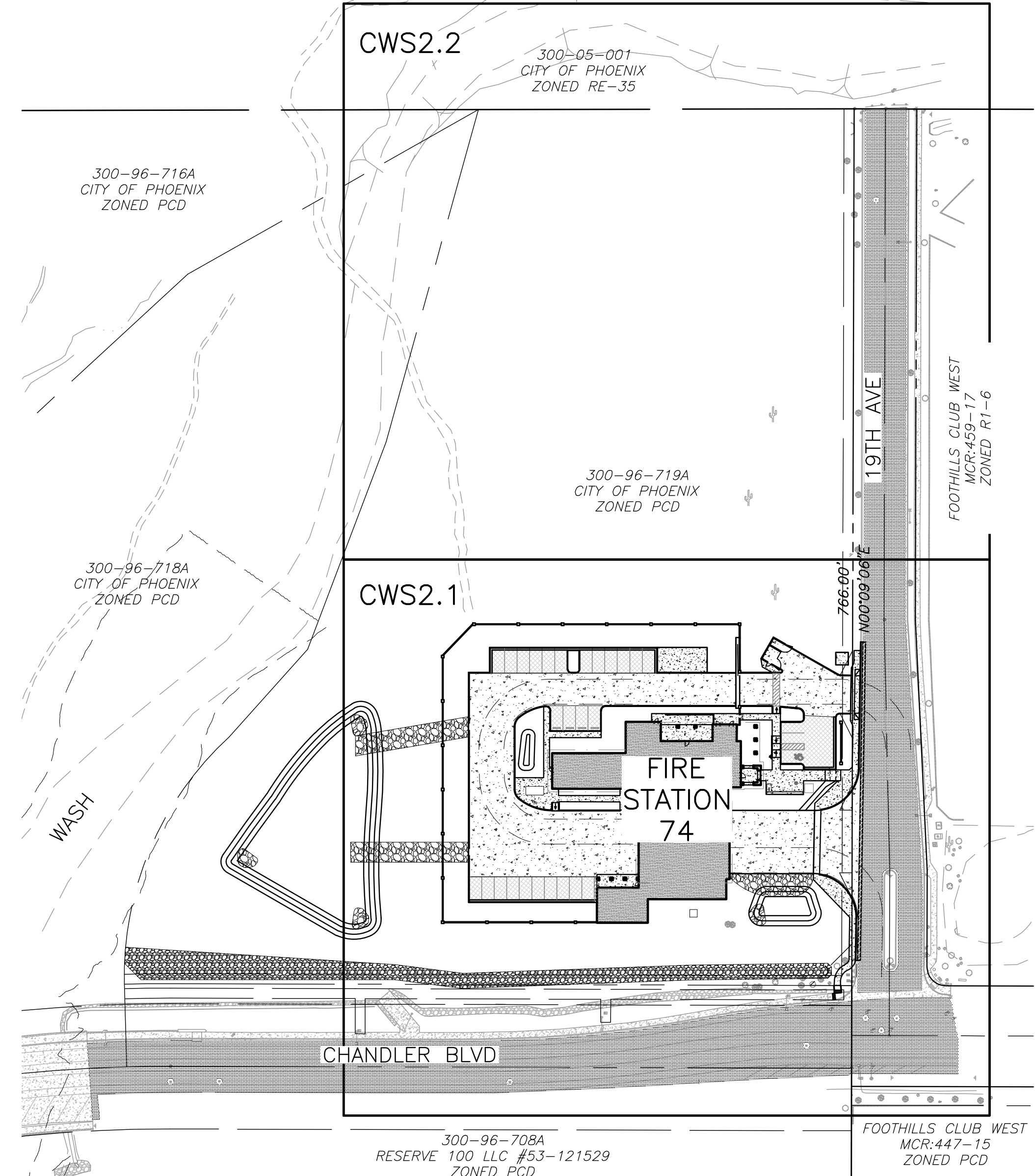
A NEW FIRE STATION INCLUDING WATER LINE AND SEWER LINE IMPROVEMENTS.

**CONTACT INFORMATION**

**OWNER:** PHOENIX FIRE DEPARTMENT  
**ADDRESS:** 2625 S 19TH AVENUE  
PHOENIX, AZ 85009  
**CONTACT:** JAIME GARRIDO  
**PHONE:** 602.534.9875

**OWNER:** DIBBLE  
**ADDRESS:** 1626 N. LITCHFIELD RD  
SUITE 150  
PHOENIX, AZ 85395  
**CONTACT:** SHANNON MAUCK  
**PHONE:** 623.935.2258

**ARCHITECT:** PERLMAN ARCHITECTS OF ARIZONA, INC.  
**ADDRESS:** 2929 N. CENTRAL AVENUE, SUITE 100  
PHOENIX, AZ 85012  
**CONTACT:** GERRALD ADAMS  
**PHONE:** 480.951.5900



**KEY MAP**  
NTS

**SHEET INDEX**

CWS1.0	COVER
CWS2.1-C2.2	UTILITY PLAN
CWS2.3	UTILITY DETAILS

**LEGEND**

EXST	NEW
▲ BENCHMARK	○ BACKFLOW PREVENTION DEVICE
● MONUMENT FLUSH	☼ CACTUS
⊙ MONUMENT IN HANDHOLE	⊖ DRYWELL
⊕ FIRE HYDRANT	⊕ FIRE HYDRANT
⊞ GRATE	⊕ FIRE DEPT CONNECTION
↑ GUY WIRE	⊞ GATE
⊞ MANHOLE (TYPE NOTED)	○ MANHOLE
⊞ METER (TYPE NOTED)	⊞ METER
⊞ PEDESTAL (TYPE NOTED)	⊞ PIPE CAP
⊞ PULLBOX (TYPE NOTED)	⊞ RIPRAP
⊞ SIGN	⊞ SIGN
⊞ STREET LIGHT	⊞ STREET LIGHT
⊞ TREE	⊞ VALVE
⊞ UTILITY POLE	⊞ CENTERLINE
⊞ VALVE (TYPE NOTED)	⊞ EASEMENT
⊞ EASEMENT	⊞ RIGHT-OF-WAY
⊞ PROPERTY LINE	⊞ FLOWLINE
⊞ RIGHT-OF-WAY	⊞ MASONRY WALL/RETAINING WALL
⊞ FENCE WIRE	⊞ MAJOR CONTOUR
⊞ FENCE CHAINLINK	⊞ MINOR CONTOUR
⊞ FLOWLINE	⊞ STORM DRAIN
⊞ GUARDRAIL	⊞ UTILITY LINE (TYPE NOTED)
⊞ MASONRY WALL/RETAINING WALL	⊞ NEW BUILDING
⊞ MAJOR CONTOUR	⊞ SEWER CLEANOUT
⊞ MINOR CONTOUR	⊞ MONUMENT LINE
⊞ UTILITY LINE (TYPE NOTED)	⊞ CENTER LINE
⊞ EXST BUILDING	⊞ PROPERTY LINE

**AS-BUILT CERTIFICATION**

I HEREBY 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/LAND SURVEYOR \_\_\_\_\_ DATE \_\_\_\_\_  
REGISTRATION NUMBER \_\_\_\_\_

**ENGINEER'S UTILITY NOTES**

- EXISTING UTILITIES ARE SHOWN WITH BEST AVAILABLE INFORMATION HOWEVER NOT ALL UTILITIES MAY BE SHOWN. CONTRACTOR SHALL VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ARIZONA 811 PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL DAMAGE THAT MAY BE INCURRED TO THE UTILITIES AND BE LIABLE FOR ANY REPAIR COSTS INCLUDING ACCIDENTAL COSTS. THE CONTRACTOR WILL BE RESPONSIBLE FOR CONTACTING THE OWNER OF EACH VARIOUS UTILITY AND FACILITY WITH WHICH THERE ARE CONFLICTS WITH THE NEW CONSTRUCTION AND MAKING ALL NECESSARY ARRANGEMENTS WITH THE OWNER FOR RELOCATION OR ABANDONING THE UTILITY OR FACILITY AS REQUIRED BY ITS OWNER.
- ALL PIPE TRENCH CROSS SECTIONS SHALL CONFORM TO MAG STANDARD DETAIL 200-1 TYPE B AND 200-2 UNLESS OTHERWISE NOTED PER PLAN.
- ALL WATER PIPING SHALL BE INSTALLED WITH RESTRAINED JOINTS.
- LOCATOR MARKER BALLS SHALL BE LOCATED AT ALL FITTINGS AND SERVICE CONNECTIONS AND AT MINIMUM 200" SPACING ALONG THE PIPE FOR WATER & SEWER LINES.
- ALL PIPING SHALL BE INSTALLED WITH TRACER WIRE AND WARNING TAPE 6" ABOVE THE PIPE.
- CONTRACTOR SHALL VERTICALLY REALIGN WATER LINES AS REQUIRED AT UTILITY CROSSINGS PER MAG STD DET 370. CONTRACTOR SHALL MEET WATER/SEWER SEPARATION AND ADD EXTRA PROTECTION PER MAG STD DET 404-1, 2 & 3 WHERE REQUIRED.
- ALL WATER LINES SHALL BE DISINFECTED IN ACCORDANCE WITH MAG SPEC 610.16 AND 611.
- ALL DIP PIPING SHALL BE INSTALLED WITH POLYWRAP.
- ALL DAMAGED OR DISTURBED FINISH GRADE MATERIALS (DG, ROCK MULCH, RIPRAP, GRASS, ETC) SHALL BE REPLACED IN-KIND. GRASS SHALL BE REPLACED WITH SOD AND MATCH TO THE EXISTING VARIETY AND A SAMPLE SHALL BE SUBMITTED TO THE OWNER FOR APPROVED PRIOR TO CONSTRUCTION. DG, ROCK MULCH AND RIPRAP SHALL MATCH TO EXISTING ON-SITE COLOR & TYPE AND A SAMPLE SHALL BE SUBMITTED TO THE OWNER FOR APPROVAL PRIOR TO CONSTRUCTION.
- IN ACCORDANCE WITH THE SAFE DRINKING WATER ACT AND AAC R18-4-213, ALL MATERIALS INSTALLED AFTER JANUARY 4, 2014 WHICH MAY COME INTO CONTACT WITH DRINKING WATER SHALL CONFORM TO NATIONAL SANITATION FOUNDATION STANDARDS 60, 61, & 372. ALL POTABLE WATERLINES AND FITTINGS SHALL HAVE A NSF-PW SEAL. ALL MATERIALS SHALL BE LEAD FREE AS DEFINED IN NSF 372, AAC R18-5-504 & AAC R18-4-101.
- ALL ABOVE GROUND PIPING AND PIPING EXPOSED TO THE ATMOSPHERE SHALL BE COATED WITH A PRIMER COAT AND A FINISH COAT AS FOLLOWS:  
FERROUS METAL: PRIME COATS SHALL BE AN EPOXY PRIMER COMPATIBLE FOR USE WITH URETHANE FINISH COATS AND APPLIED IN ACCORDANCE WITH WRITTEN INSTRUCTIONS OF THE COATING MANUFACTURER.  
NONFERROUS AND GALVANIZED METAL: NONFERROUS AND GALVANIZED METAL SHALL BE CLEANED PRIOR TO THE APPLICATION OF THE PRIME COAT PRIMER SHALL BE ONE COATING AT MANUFACTURER'S RECOMMENDED DRY FILM THICKNESS FINISH SHALL BE ONE OR MORE COATS AT MANUFACTURER'S RECOMMENDED DRY FILM THICKNESS PER COAT TO A DRY SYSTEM THICKNESS OF 2 MILLS.

**ENGINEER'S GENERAL NOTES**

- ALL CONSTRUCTION SHALL CONFORM WITH THE LATEST EDITION OF THE MARICOPA ASSOCIATION OF GOVERNMENTS (MAG) STANDARDS AND SPECIFICATIONS, THE PLUMBING CODE ADOPTED BY THE LOCAL JURISDICTION, AND ALL APPLICABLE CODES & ORDINANCES. WHERE SPECIFICATIONS PROVIDE OVERLAPPING REQUIREMENTS, THE MOST STRINGENT REQUIREMENT SHALL APPLY.
- CONSTRUCTION STAKING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- CONTRACTOR SHALL OBTAIN ANY AND ALL PERMITS REQUIRED.
- CONTRACTOR IS RESPONSIBLE FOR ALL COSTS INCLUDING INCIDENTAL, SURVEYING & INSPECTION.
- CONTRACTOR SHALL INSTALL SIGNAGE, PAINT, PAVEMENT MARKINGS, REFLECTORS AND OTHER REQUIRED COMPONENTS AS DIRECTED BY THE FIRE MARSHAL.
- ALL QUANTITIES SHOWN ON PLANS ARE APPROXIMATE. CONTRACTOR SHALL INDEPENDENTLY VERIFY QUANTITIES.
- CONTRACTOR SHALL WARRANT ALL WORK FOR A MINIMUM OF 1 YEAR.
- CONTRACTOR SHALL PROVIDE REPRODUCIBLE "AS-BUILT RECORD DRAWINGS" SEALED BY A REGISTERED LAND SURVEYOR TO THE OWNER PRIOR TO FINAL ACCEPTANCE OF THE WORK.
- ALL DIMENSIONS ARE FROM FACE OF CURB UNLESS OTHERWISE NOTED.



Designed By:  
**AG**

Drawn By:  
**JL**

Checked By:  
**CD**

Date:  
**12/15/2023**

Phase:  
**CD**

**Perlman**  
Architects of Arizona  
43320  
Christina Shannon Mauck  
Professional Engineer  
License #43320  
2929 North Central Avenue, Suite #1600  
Phoenix, Arizona 85012  
480.951.5900 480.951.3045 f  
perlmanaz.com

Title:  
**FIRE STATION #74  
NWC 19TH AVE & CHANDLER  
PHOENIX, ARIZONA 85045**  
Index No: **FD57100020-3**



KIVA # **23-1810**  
SDEV # \_\_\_\_\_

**COVER -  
UTILITIES PLAN**  
**CWS1.0**



Note:  
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 your contract with the City of Phoenix.



Revisions	Date

CONSTRUCTION NOTES

- 12 AC PAVEMENT REPLACEMENT  
COP STD DET P1200, TYPE B
- 72 WATER SERVICE LINE W/FITTINGS, PVC SCH 40  
SIZE PER PLAN
- 75 1-1/2" REDUCED PRESSURE  
BACKFLOW PREVENTER, COP STD DET P1353
- 80 2" REDUCED PRESSURE BACKFLOW PREVENTER  
COP STD DET P1353
- 90 SEWER SERVICE LINE, PVC SDR 35  
SIZE PER PLAN
- 97 FORCE MAIN  
PVC SCH 80, SIZE PER PLANS
- 98 SEWER LIFT STATION  
DET 1, SHEET CWS2.3



Designed By:  
AG

Drawn By:  
JL

Checked By:  
CD

Date:  
05/21/2024

Phase:  
CD

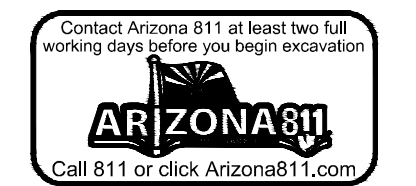
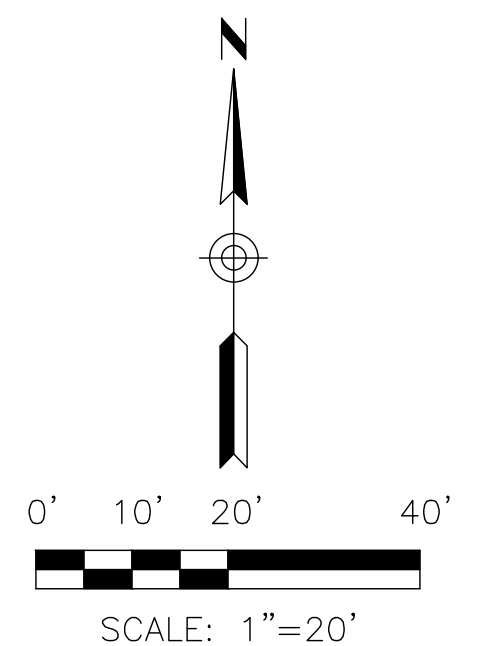
REFERENCE NOTES

- 7 FOR CONTINUATION  
REFER TO PLUMBING PLANS
- 13 REFER TO COMBO FIRE LINE PLAN
- 14 SAND/OIL INTERCEPTOR VAULT  
REFER TO MEP PLANS
- 15 GREASE INTERCEPTOR VAULT  
REFER TO MEP PLANS
- 16 NEW GAS SERVICE LINE  
REFER TO UTILITY PROVIDER
- 17 NEW COMMUNICATION SERVICE LINE  
REFER TO UTILITY PROVIDER
- 18 WATER SERVICE CONNECTION  
TO BE INSTALLED BY CITY FORCES UPON  
PAYMENT OF PREVAILING PERMIT FEE  
COP STD DET 1342
- 23 REFER TO OFFSITE WATER PLAN
- 25 CONCURRENT SLURRY SEAL  
REFER TO OFF-SITE WATER MAIN PLAN

GENERAL NOTES

1. EXISTING UTILITIES ARE SHOWN WITH BEST AVAILABLE INFORMATION. NOT ALL UTILITIES MAY BE SHOWN. CONTRACTOR SHALL VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION OF UTILITIES PRIOR TO CONSTRUCTION



**Perلمان**  
Architects of Arizona  
43320 CHRISTINA SHANNON MAUCK  
2929 North Central Avenue, Suite #1600  
Phoenix, Arizona 85012  
480.951.5900 480.951.3045  
perلمانaz.com

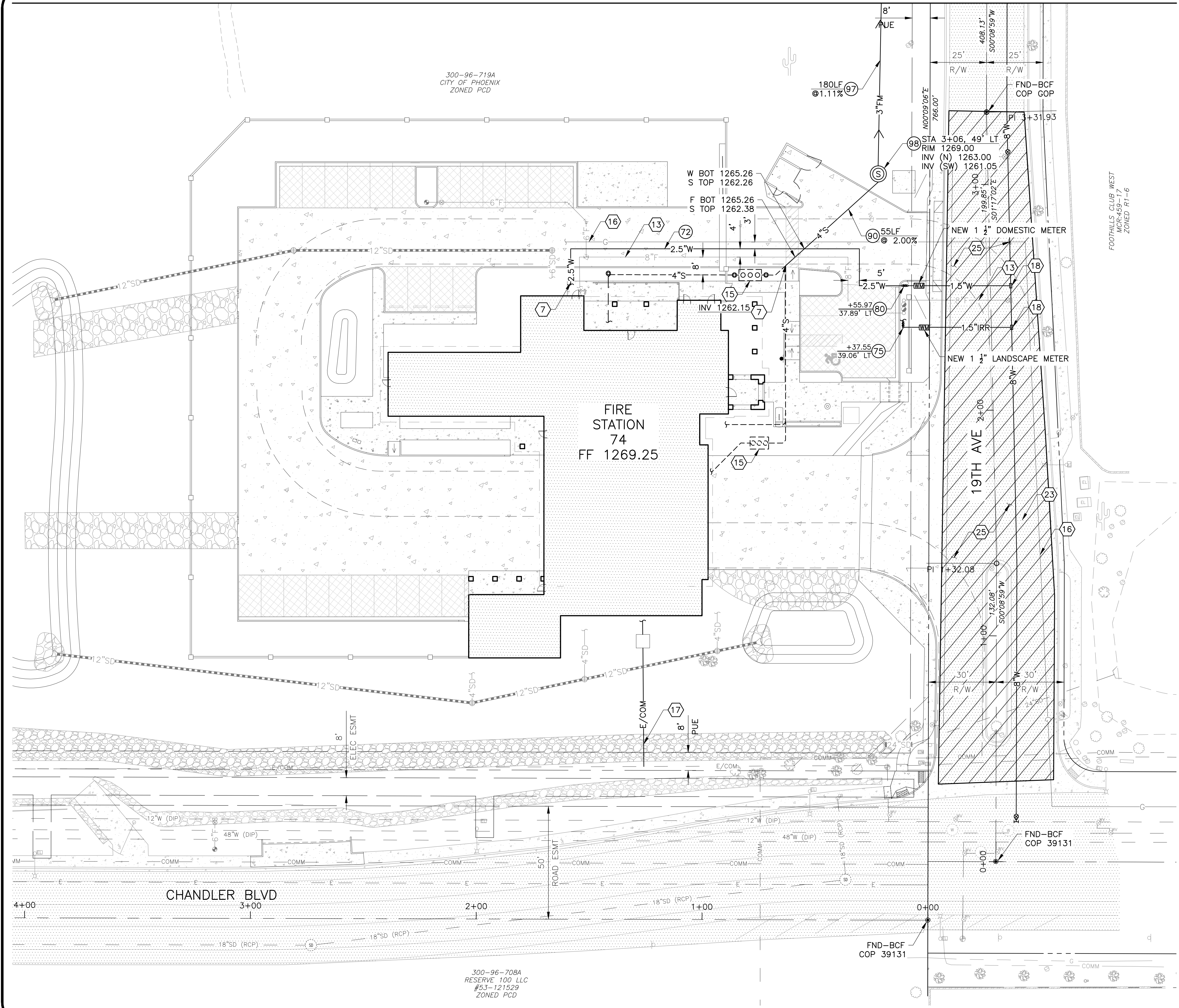
**Title:**  
FIRE STATION #74  
NWC 19TH AVE & CHANDLER  
PHOENIX, ARIZONA 85045  
Index No: FD57100020-3

**KIVA #** 23-1810  
**SDEV #**  
**UTILITY PLAN**  
**CWS2.1**

300-96-719A  
CITY OF PHOENIX  
ZONED PCD

300-96-708A  
RESERVE 100 LLC  
#93-121529  
ZONED PCD

FILE:\2023\1023002.01\_Phoenix\_Fire\_Station\_74\CAO\23002.01\_0652-X-UTIL.dwg DATE:5/20/2024 TIME:5:12 PM (by:Chris.Dolan)





Revisions	Date

- CONSTRUCTION NOTES
- 88 SEWER FORCE CLEANOUT DET 2, SHEET CWS2.3
  - 91 SEWER LINE, PVC SDR 35 SIZE PER PLAN
  - 92 SEWER MANHOLE MAG STD DET 420-1, 420-3, 422 & 424
  - 97 FORCE MAIN PVC SCH 80, SIZE PER PLANS
  - 99 SEWER SERVICE LINE, VITRIFIED CLAY PIPE SIZE PER PLAN

- REFERENCE NOTES
- 24 REFER TO S-512 PLAN



Designed By: AG  
 Drawn By: JL  
 Checked By: CD  
 Date: 12/15/2023  
 Phase: CD

**Perlman**  
 Architects of Arizona  
 2929 North Central Avenue, Suite #1600  
 Phoenix, Arizona 85012  
 480.951.5900 480.951.3045  
 perlmanaz.com

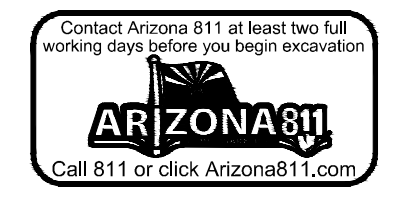
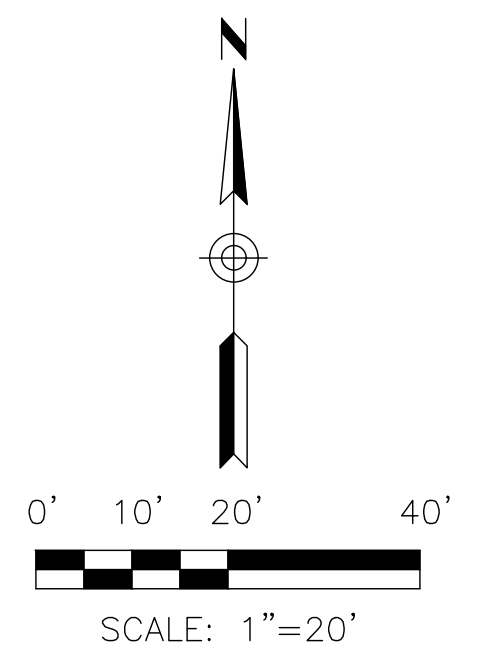
**FIRE STATION #74**  
**NWC 19TH AVE & CHANDLER**  
**PHOENIX, ARIZONA 85045**  
 Index No: **FD57100020-3**

**CITY OF PHOENIX**  
**OFFICE OF THE CITY ENGINEER**  
**FIRE DEPARTMENT STATION 74 - PERMIT CITY SUBMITTAL**

KIVA # 23-1810  
 SDEV #  
 UTILITY PLAN  
**CWS2.2**

- GENERAL NOTES
- EXISTING UTILITIES ARE SHOWN WITH BEST AVAILABLE INFORMATION. NOT ALL UTILITIES MAY BE SHOWN. CONTRACTOR SHALL VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

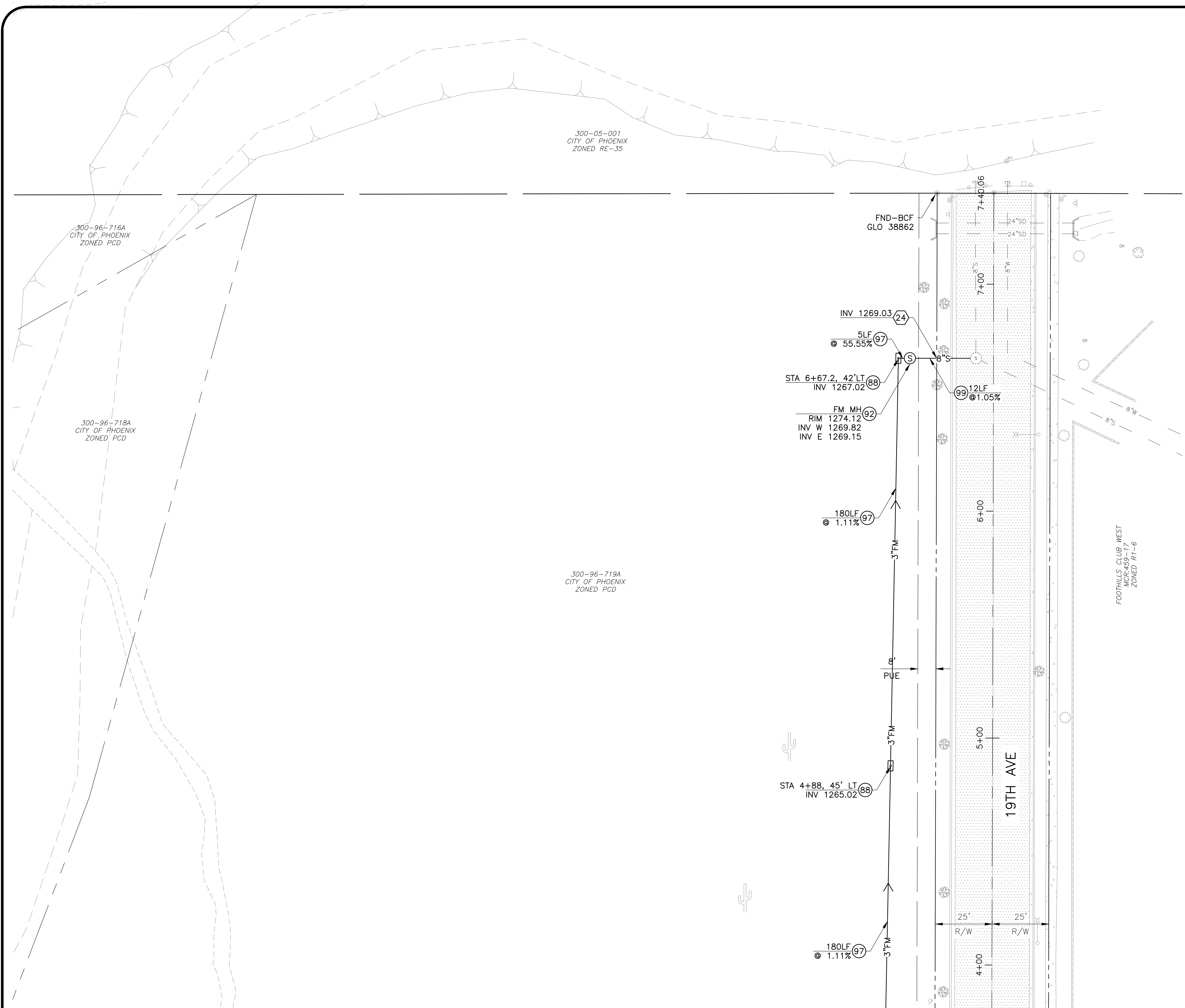
CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION OF UTILITIES PRIOR TO CONSTRUCTION



Note:  
 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 your contract with the City of Phoenix.

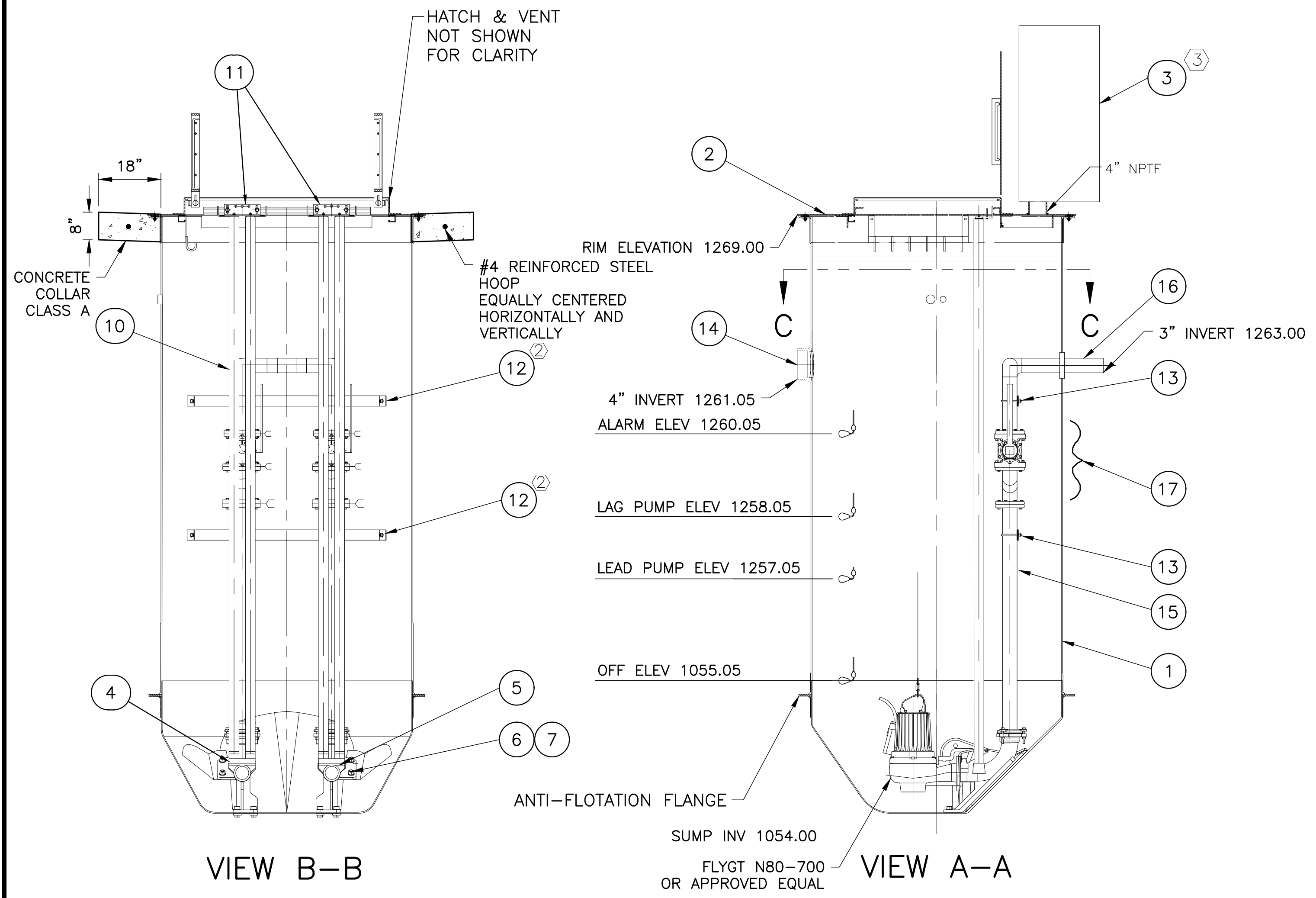
MATCH LINE SHEET CWS2.1

FILE:\2023\1023002.01\_Phoenix\_Fire\_Station\_74\CAD\31002.01\_0652-X-UTIL.dwg DATE:12/13/2023 TIME:4:51 PM (By:Chris.Dolan)





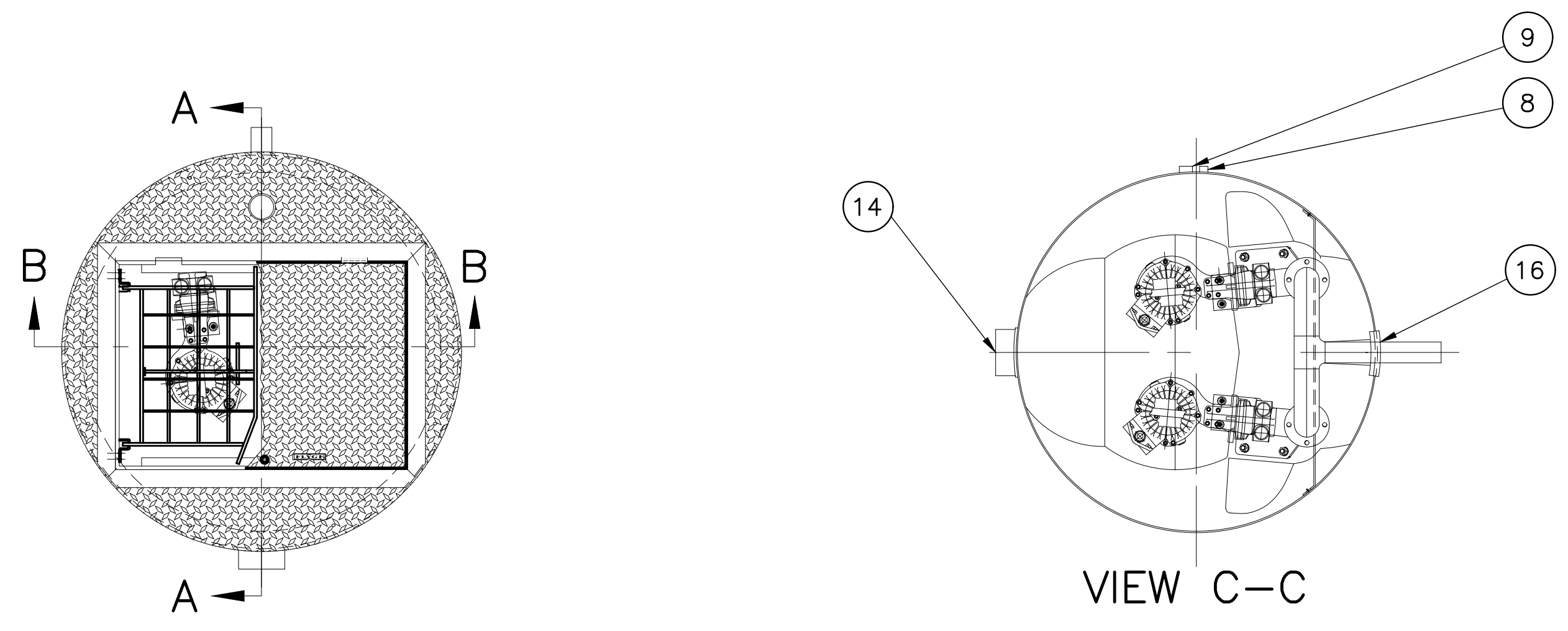
Revisions	Date



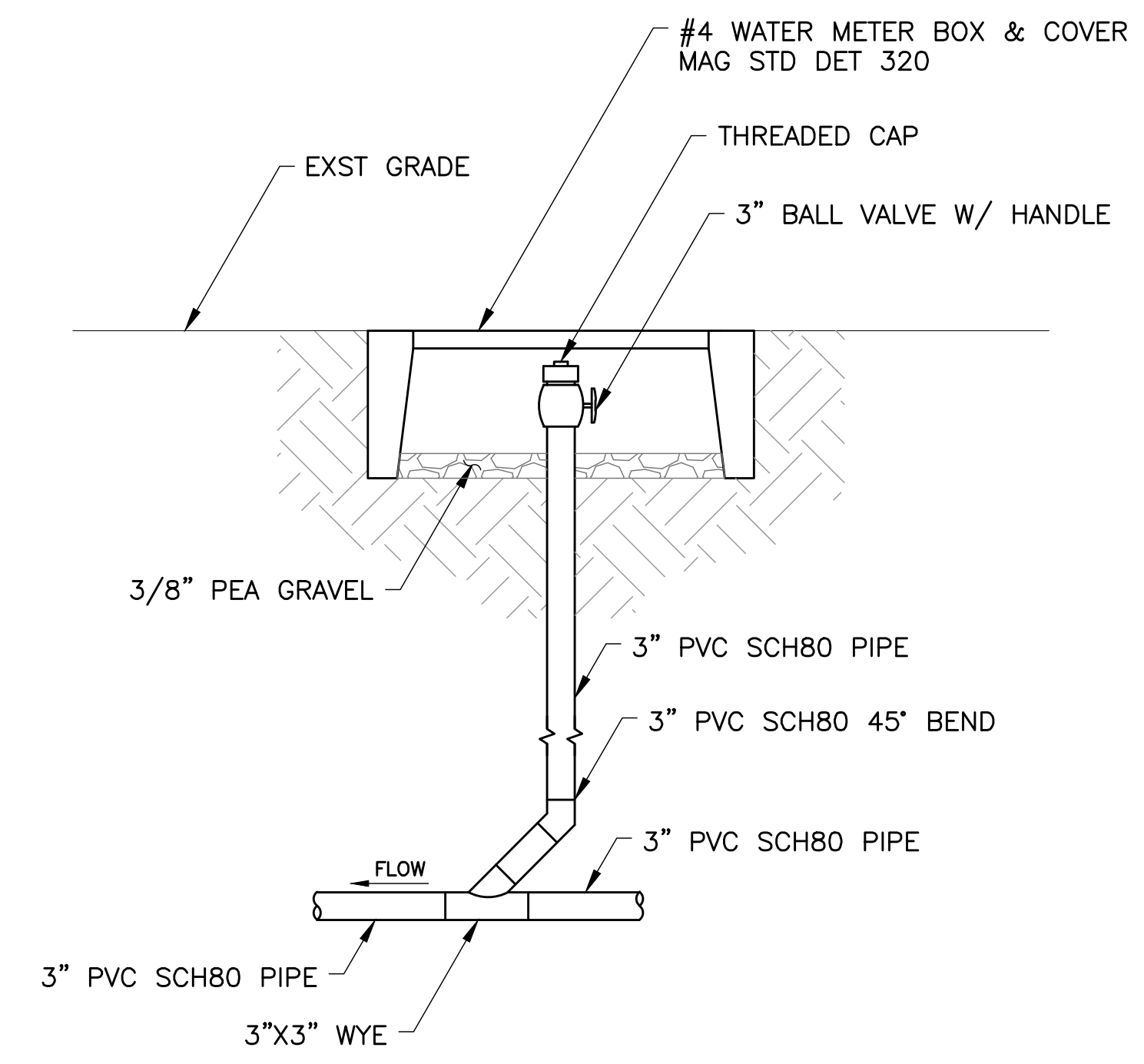
- NOTES:**
1. FLYGT TOP5 OR APPROVED EQUAL
  2. STATION DEPTH: MIN 6ft., MAX 25ft. AVAILABLE IN 1ft. INCREMENTS.
  3. ALL BOLT PENETRATIONS THRU WALLS MUST BE SEALED WITH SILICONE SEALANT.
  4. OPTIONAL PVC CANDY CANE STYLE VENT SHOWN. MUSHROOM STYLE VENT ALSO AVAILABLE.

\* McMASTER-CARR

ITEM	DESCRIPTION	PART NUMBER	QTY
17	3" FLANGED VALVING KIT		2
16	PIPING KIT		1
15	PIPE, 3", SCH 10, 316 STAINLESS STEEL		ft (4x)
14	HUB		1
13	U-BOLT 1/2-16 x 3-8, 3" PIPE	2960518	4
12	BRACING, DISCHARGE PIPE		2
11	UPPER GUIDE BAR KIT, 2"		2
10	GUIDE BAR, 2", SCH 40, 316 SST		4
9	SEAL, CABLE WALL, PUMP		1
8	SEAL, CABLE WALL, LEVEL SENSOR		1
7	WASHER, 1/2 ID, 1 1/2 OD, GENERAL PURPOSE, 316 SST	91950A036	8
6	NUT, 3/4-10, 316 SST	94805A135	8
5	DISCHARGE CONNECTION, RIGHT, 3"	619 99 10	1
4	DISCHARGE CONNECTION, LEFT, 3"	620 00 10	1
3	WAGER ODOR CONTROL VALVE (OR APPROVED EQUAL)	MODEL 2050-50	1
2	COVER, 5'		1
1	BASIN/CYLINDER ASSEMBLY, 5'		1



1 SEWER LIFT STATION  
NO SCALE



2 FORCE CLEANOUT  
NO SCALE



Designed By:  
**AG**

Drawn By:  
**JL**

Checked By:  
**CD**

Date:  
**12/15/2023**

Phase:  
**CD**

**Perlman**  
Architects of Arizona  
2929 North Central Avenue, Suite #1600  
Phoenix, Arizona 85012  
480.951.5900 480.951.3045  
perlmanaz.com

Title:  
**FIRE STATION #74  
NWC 19TH AVE & CHANDLER  
PHOENIX, ARIZONA 85045**

Index No:  
**FD57100020-3**



KIVA # **23-1810**  
SDEV #

UTILITY DETAILS

**CWS2.3**

Note:  
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 your contract with the City of Phoenix.



# CITY OF PHOENIX

## OFFICE OF THE CITY ENGINEER

## CONSTRUCTION DOCUMENTS



06/24/2024

### CITY OF PHOENIX BURSERA HELIPAD S 19TH AVE. #ZA-734-23-7

# 2024



LEGAL DESCRIPTION	
LOT 9 OF AMENDED STATE PLAT NO. 30 SOUTH MOUNTAIN 650 BK. 1002, PG. 50, MCR 2008-0760929	

LEGAL DESCRIPTION

4

SITE DATA	
PROJECT ADDRESS	S 19TH AVE
APN	A300-96-719A
CURRENT ZONING	PCD
CURRENT LAND USE	UNDEVELOPED
PROPOSED LAND USE	HELIPAD
FLOOR AREA RATIO	N/A
LOT COVERAGE	0.80 AC (11%)
OVERALL SITE AREA	7.03 AC
PROPOSED FLOOR AREA	N/A
BUILDING HEIGHT	N/A

SITE ANALYSIS

3

PROJECT DESCRIPTION / SCOPE OF WORK	
A NEW PRIVATE HELIPAD FOR MOUNTAIN RESCUE OPERATIONS, INCLUDING DRAINAGE AND HARDSCAPE IMPROVEMENTS.	

PROJECT DESCRIPTION

2

IECC COMPLIANCE SUMMARY	

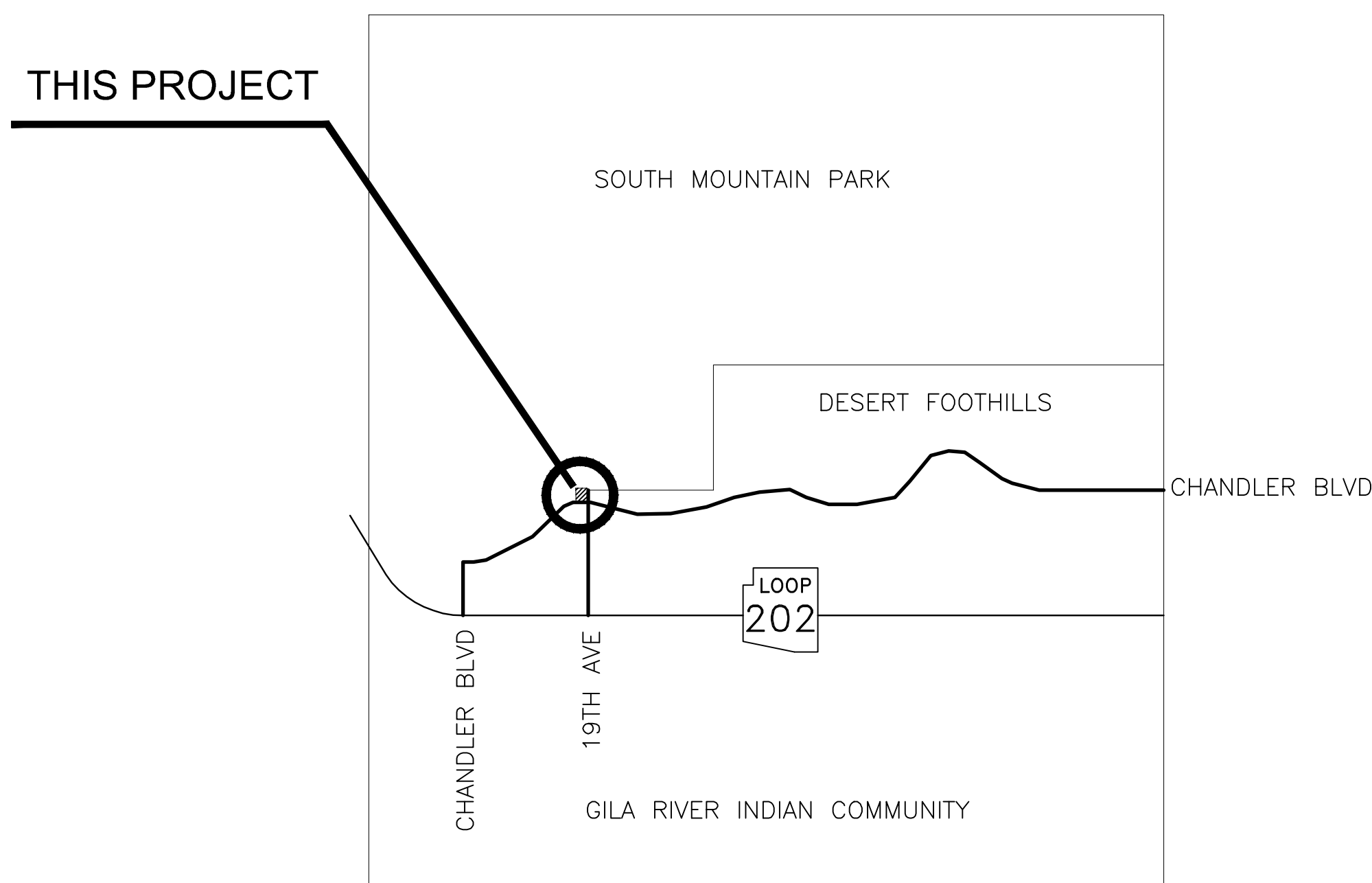
IECC COMPLIANCE SUMMARY

1

#### AE DESIGN & CONSTRUCTION TEAM

ENGINEER: DIBBLE  
ADDRESS: 1626 N. LITCHFIELD RD, SUITE 150  
GOODYEAR, AZ 85395  
CONTACT: SHANNON MAUCK  
PHONE: 623.935.2258

ARCHITECT: PERLMAN ARCHITECTS OF ARIZONA, INC.  
ADDRESS: 2929 N. CENTRAL AVENUE, SUITE 100  
PHOENIX, AZ 85012  
CONTACT: GERRALD ADAMS  
PHONE: 480.951.5900



MAYOR  
KATE GALLEGRO

#### CITY COUNCIL

- DISTRICT NO. 1 - ANN O'BRIEN
- DISTRICT NO. 2 - JIM WARING
- DISTRICT NO. 3 - DEBRA STARK
- DISTRICT NO. 4 - LAURA PASTOR
- DISTRICT NO. 5 - BETTY GUARDADO
- DISTRICT NO. 6 - KEVIN ROBINSON
- DISTRICT NO. 7 - CARLOS GALINDO-ELVIRA
- DISTRICT NO. 8 - KESHA HODGE WASHINGTON

CITY MANAGER  
JEFF BARTON

CITY ENGINEER  
ERIC J. FROBERG, PE

#### APPROVALS

(CLIENT DEPARTMENT) \_\_\_\_\_

DATE \_\_\_\_\_

ENGINEERING MANAGER \_\_\_\_\_

DATE \_\_\_\_\_

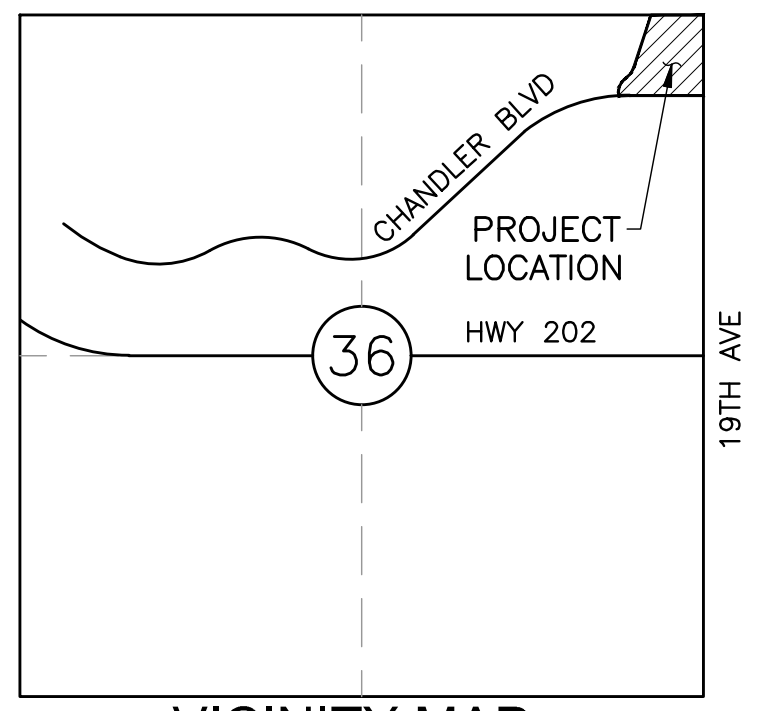
#### VERTICAL PROJECT MANAGEMENT SECTION

KIVA # 23-1810

SDEV # \_\_\_\_\_

Note:  
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 your contract with the City of Phoenix.





VICINITY MAP  
SEC 36, T1S, R2E NTS

**SITE ACREAGE**

GROSS:	7.74 AC
NET:	7.03 AC
DISTURBED:	0.80 AC

**SHEET INDEX**

C1.0	COVER
C2.1	SITE PLAN
C3.1	GRADING & DRAINAGE PLAN
C4.1	DETAILS
C5.1	CROSS SECTIONS

# GRADING & DRAINAGE PLAN WITH OFFSITE IMPROVEMENTS

## FOR CITY OF PHOENIX BURSERA HELIPAD W CHANDLER BLVD & S 19TH AVE. PHOENIX, AZ

A PORTION OF THE NE 1/4 OF NE 1/4  
SECTION 36, T1S, R2E

**CONTACT INFORMATION**

OWNER: CITY OF PHOENIX  
ADDRESS: 2625 S 19TH AVENUE  
PHOENIX, AZ 85009  
CONTACT: JAIME GARRIDO  
PHONE: 602.534.9875

ENGINEER: DIBBLE  
ADDRESS: 1626 N. LITCHFIELD RD,  
SUITE 150  
GOODYEAR, AZ 85395  
CONTACT: SHANNON MAUCK  
PHONE: 623.935.2258

ARCHITECT: PERLMAN ARCHITECTS OF ARIZONA, INC.  
ADDRESS: 2929 N. CENTRAL AVENUE, SUITE 100  
PHOENIX, AZ 85012  
CONTACT: GERRALD ADAMS  
PHONE: 480.951.5900



Revisions	Date

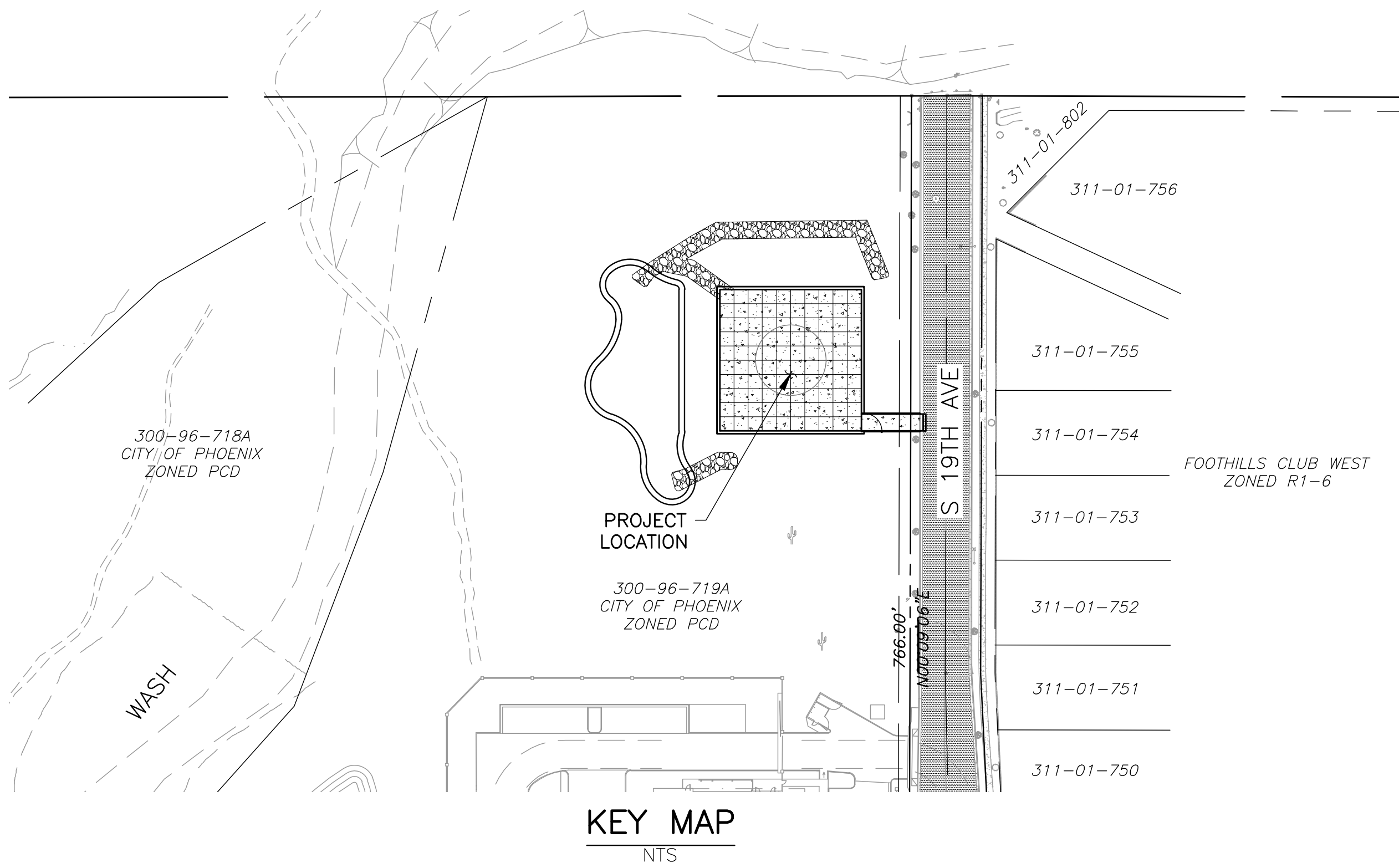


**BENCHMARK & METADATA**

▲ HORIZONTAL DATUM: NAD83 (EPOCH 2011) ARIZONA CENTRAL ZONE  
PROJECT BENCHMARK:  
FOUND CITY OF PHOENIX PUBLISHED BENCHMARK DESCRIBED AS:  
BRASS CAP FLUSH AT THE INTERSECTION OF 19TH AVENUE AND CHANDLER BLVD.  
GROUND NORTHING = 837958.95  
GROUND EASTING = 643975.94  
PUBLISHED ELEVATION = 1264.73  
NGVD '29 (CITY OF PHOENIX DATUM)

**LEGEND**

EXST	NEW



**LEGAL DESCRIPTION**

LOT 9 OF AMENDED STATE PLAT NO. 30 SOUTH MOUNTAIN 650  
BK. 1002, PG. 50, MCR 2008-0760929

**PROJECT DESCRIPTION**

A NEW HELIPAD INCLUDING DRAINAGE AND HARDSCAPE IMPROVEMENTS.

100-YEAR 2-HOUR STORM WATER RETENTION TABLE

DRAINAGE AREA	BASIN NAME	CONTRIBUTING AREA (SF)	REQUIRED VOLUME CALCULATION (CF)	VOLUME PROVIDED (CF)	AS-BUILT VOLUME (CF)	# OF DRYWELLS	DRAIN TIME (HR)	DEPTH
AREA A	BASIN A	63,961	63,961 x 0.57 x (2.28 / 12) = 6,967	7,547		0	<= 36 HR	1'

VOLUME = AxCx(D/12)  
A=DRAINAGE AREA (SF) C=0.81 D=2.24 (INCHES)

**EARTHWORK**

757 CY CUT  
1,493 CY FILL  
736 CY NET FILL (IMPORT)

EARTHWORK CALCULATIONS ARE AN ESTIMATE ACTUAL FIELD CONDITIONS MAY VARY EARTHWORK MEASURES SUBGRADE CONDITIONS, FILL SHRINK.

**FEMA FLOOD INSURANCE RATE MAP**

THE SUBJECT PARCEL LIES IN FLOOD ZONE "X" AS DELINEATED ON THE FEDERAL EMERGENCY MANAGEMENT AGENCY FIRM MAP NUMBER 04013C2690L, REVISED OCTOBER 16, 2013.

FLOOD ZONE "X" IS DEFINED AS AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL FLOOD.

**DRAINAGE STATEMENT**

SITE IS NOT IN A SPECIAL FLOOD HAZARD AREA. OFFSITE FLOWS FROM THE UNNAMED WASH DO NOT AFFECT THIS SITE. OFF-SITE FLOWS FROM THE DEVELOPMENT EAST OF THE PROJECT ARE CONVEYED UNDER 19TH AVE IN AN EXISTING PIPE AND ARE CAPTURED IN A SWALE AND ROUTED TO THE UNNAMED WASH TO THE WEST.

THE PROJECT DOES NOT CHANGE DRAINAGE PATTERNS OR HAVE ANY AFFECT ON OFFSITE PROPERTIES, PER THE DRAINAGE REPORT.

ON-SITE RETENTION FOR THE PARCEL IS PROVIDED FOR THE 100 YEAR 2 HOUR STORM. PROPOSED RETENTION WILL PROVIDE 6,949 CF. THE REQUIRED VOLUME IS 6,769 CF. THE SITE EXTREME STORM OUTFALL IS AT THE SOUTHWEST CORNER OF THE SITE AT AN ELEVATION OF 1240.33.

**AS-BUILT CERTIFICATION**

I HEREBY 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/LAND SURVEYOR \_\_\_\_\_ DATE \_\_\_\_\_

REGISTRATION NUMBER \_\_\_\_\_

**CITY OF PHOENIX OFFSITE NOTES, 2023**

- A GRADING PERMIT IS REQUIRED UNDER PCC CHAPTER 32A.
- WHEN HAUL PERMITS ARE REQUIRED, THEY MUST BE OBTAINED PRIOR TO OR CONCURRENTLY WITH THE G&D PERMIT.
- EXCAVATING CONTRACTOR MUST GIVE LOCATION FOR WASTING EXCESS EXCAVATION AND A LETTER FROM OWNER GIVING PERMISSION FOR DUMPING PRIOR TO STARTING ON-SITE CONSTRUCTION. IF EXCESS EXCAVATION EXCEEDS 100 CUBIC YARDS, THE DISPOSAL SITE WILL ALSO REQUIRE A G&D PERMIT.
- PLANNING & DEVELOPMENT DEPARTMENT FIELD INSPECTION GROUP SHALL BE NOTIFIED 48 HOURS BEFORE ANY ON-SITE AND/OR OFF-SITE CONSTRUCTION BEGINS, TELEPHONE (602) 262-7811 OR 7-1-1 (TTY).
- STAKING BUILDING PAD ELEVATIONS IS THE RESPONSIBILITY OF THE OWNER AND HIS PROFESSIONAL ENGINEER. THE OWNER'S PROFESSIONAL ENGINEER SHALL SUBMIT THREE SEALED COPIES OF THIS GRADING AND DRAINAGE PLAN DESIGNATED AS "RECORD DRAWING" (BEARING AN ORIGINAL SIGNATURE) PRIOR TO THE REQUEST FOR FINAL INSPECTION.
- BUILDING PAD CERTIFICATIONS WILL BE REQUIRED ON ALL LOTS WITHIN THE SUBDIVISION AND SUBMITTED TO THE CIVIL/SITE INSPECTOR PRIOR TO ANY CONCRETE CONSTRUCTION IN THE R/W. BUILDING PAD CERTIFICATION CAN BE SUBMITTED TO THE CIVIL/SITE INSPECTOR BY EITHER SUBMITTING ONE APPROVED BLACK-LINE AS-BUILT GRADING AND DRAINAGE PLAN OR IN LETTER FORMAT SHOWING THE DESIGN AND AS-BUILT BUILDING PAD ELEVATIONS AS SHOWN ON THE APPROVED GRADING AND DRAINAGE PLAN. IT IS REQUIRED THAT THE AS-BUILT PLAN AND LETTER BE SEALED BY A CIVIL PROFESSIONAL ENGINEER OR LAND SURVEYOR REGISTERED IN THE STATE OF ARIZONA.
- A SEPARATE PERMIT IS NECESSARY FOR ANY OFFSITE CONSTRUCTION.
- AN APPROVED G&D PLAN SHALL BE ON THE JOB SITE AT ALL TIMES. DEVIATIONS FROM THE PLAN MUST BE PRECEDED BY AN APPROVED PLAN REVISION.
- G&D PLAN APPROVAL INCLUDES THE CONSTRUCTION OF ALL SURFACE IMPROVEMENTS SHOWN ON THE APPROVED PLAN, INCLUDING, BUT NOT LIMITED TO, RETENTION AREAS, SEDIMENTATION BASINS, AND/OR OTHER DRAINAGE FACILITIES, DRAINAGE PATTERNS, WALLS, CURBS, ASPHALT PAVEMENT, AND BUILDING FLOOR ELEVATION.
- GRADES SHOWN IN RETENTION BASINS ARE DESIGN FINISHED GRADES. SHOULD THE CONTRACTOR OR ANY SUB- CONTRACTOR PLAN TO PLACE SPOIL DIRT FROM FOOTINGS, UTILITY TRENCHES, LANDSCAPING, SWIMMING POOLS, ETC. IN THE BASINS, THE BASINS SHOULD BE SUFFICIENTLY OVER-EXCAVATED DURING THE ROUGH GRADING OPERATION TO ALLOW FOR THE PLACEMENT OF THE FILL OR LANDSCAPING MATERIALS.
- CONTRACTOR IS RESPONSIBLE FOR LOCATING AND CONFIRMING DEPTHS OF ALL THE EXISTING UTILITY LINES WITHIN PROPOSED RETENTION BASIN AREAS. IF THE BASIN CANNOT BE CONSTRUCTED PER PLAN BECAUSE OF CONFLICTS, THE CONTRACTOR SHOULD DISCUSS MODIFICATION OF BASIN CONFIGURATION WITH THE CITY INSPECTOR TO DETERMINE IF A PLAN REVISION OR A FIELD CHANGE IS REQUIRED.
- ALL DRAINAGE PROTECTIVE DEVICES SUCH AS SWALES, INTERCEPTOR DITCHES, PIPES, PROTECTIVE BERMS, BARRIER WALLS, CONCRETE CHANNELS, OR OTHER MEASURES DESIGNED TO PROTECT ADJACENT BUILDINGS OR PROPERTY FROM STORM RUNOFF MUST BE COMPLETED PRIOR TO BUILDING CONSTRUCTION.
- PER SECTION 6.8.7 OF THE CITY STORM WATER POLICIES AND STANDARDS, SIDE SLOPES OF STORM WATER STORAGE FACILITIES SHALL BE NO STEEPER THAN 5:1 FOR IRRIGATED GRASS AREAS AND 3:1 FOR LANDSCAPE AREAS. SLOPE STABILIZATION MEASURES ARE REQUIRED FOR ALL SLOPES GREATER THAN 5:1. THE SLOPE STABILIZATION MEASURES MUST BE READILY MAINTAINABLE USING COMMON MAINTENANCE EQUIPMENT AND BE DESIGNED WITH CONSIDERATION TO AESTHETICS. THE SLOPE STABILIZATION MEASURES SHALL BE CONSISTENT WITH COMMONLY USED ENGINEERING PRACTICES. UN-STABILIZED DECOMPOSED GRANITE IS NOT ALLOWED ON SLOPES GREATER THAN 5:1.
- ALL RETAINING WALLS ARE TO BE REVIEWED, PERMITTED, AND INSPECTED BY THE BUILDING SAFETY BRANCH OF THE PLANNING & DEVELOPMENT DEPARTMENT. ALL RETAINING WALLS ARE TO BE IN ACCORDANCE WITH SECTION 703 OF THE ZONING ORDINANCE AND SECTION 32-32 OF THE SUBDIVISION ORDINANCE FOR SPECIFIC WALL HEIGHT REQUIREMENTS.
- ALL RAMPS MUST MEET 2010 AMERICANS WITH DISABILITIES ACT (ADA) STANDARDS FOR ACCESSIBLE DESIGN AND CITY OF PHOENIX SUPPLEMENT TO MAG UNIFORM STANDARD SPECIFICATIONS AND DETAILS; 2% MAX CROSS SLOPES AND 12:1 MAX LONGITUDINAL SLOPES.
- CERTIFICATE OF OCCUPANCY (C OF O) AND/OR FINAL ELECTRICAL CLEARANCE FOR ANY BUILDING IS DENIED UNTIL ALL G&D IMPROVEMENTS ARE COMPLETED.
- EXISTING OR NEWLY DAMAGED AND/OR DISPLACED CONCRETE CURB, GUTTER, SIDEWALK, OR DRIVEWAY SLAB THAT IS WITHIN THE R/W SHALL BE REPAIRED OR REPLACED, AS NOTED BY CITY INSPECTORS, BEFORE FINAL ACCEPTANCE OF THE WORK.
- THE ENGINEERING DESIGN ON THESE PLANS IS ONLY APPROVED BY THE CITY IN SCOPE AND NOT IN DETAIL. CONSTRUCTION QUANTITIES ON THESE PLANS ARE NOT VERIFIED BY THE CITY. APPROVAL OF THESE PLANS ARE FOR PERMIT PURPOSES ONLY AND SHALL NOT PREVENT THE CITY FROM REQUIRING CORRECTION OF ERRORS IN THE PLANS WHERE SUCH ERRORS ARE SUBSEQUENTLY FOUND TO BE IN VIOLATION OF ANY LAW, ORDINANCE, HEALTH, SAFETY, OR OTHER DESIGN ISSUES.
- THE CITY POLICE DEPARTMENT ENFORCES LAWS REGULATING THE OPERATION OF COMMERCIAL VEHICLES. THIS INCLUDES ENFORCEMENT OF FEDERAL, STATE, COUNTY AND LOCAL LAWS AND ORDINANCES. QUESTIONS REGARDING COMMERCIAL VEHICLE ENFORCEMENT MAY BE DIRECTED TO THE COMMERCIAL VEHICLE ENFORCEMENT SUPERVISOR AT (602) 495-7813 (TRAFFIC BUREAU SOUTH) OR (602) 495-6784 (TRAFFIC BUREAU NORTH), OR 7-1-1 (TTY).
- PLAN APPROVAL IS VALID FOR 12 MONTHS. 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.
- CONSTRUCTION WITHIN THE R/W SHALL CONFORM TO THE LATEST APPLICABLE MAG UNIFORM STANDARD SPECIFICATIONS AND DETAILS AND THE LATEST CITY OF PHOENIX SUPPLEMENT TO THE MAG UNIFORM STANDARD SPECIFICATIONS AND DETAILS.
- COMPACTION SHALL COMPLY WITH MAG SECTION 601.
- OBSTRUCTIONS TO PROPOSED IMPROVEMENTS IN THE R/W SHALL BE REMOVED OR RELOCATED BEFORE BEGINNING CONSTRUCTION OF THE PROPOSED IMPROVEMENTS.
- THE ACTUAL POINT OF PAVEMENT MATCHING AND/OR TERMINATION SHALL BE DETERMINED IN THE FIELD BY THE CITY PLANNING & DEVELOPMENT DEPARTMENT FIELD INSPECTOR.
- PAVEMENT REPLACEMENT THICKNESS AND TYPE ARE TO BE PER MAG. SECTION 336 AND CITY DETAIL P1200 -TYPE B. CURB AND GUTTER REPLACEMENT SHALL BE A MINIMUM OF ONE (1) FULL SECTION, PER MAG STANDARD DETAIL 220. SIDEWALK REPLACEMENT SHALL BE A MINIMUM OF ONE (1) FULL PANEL PER C.O.P. DETAIL P1230.
- TREES AND SHRUBBERY IN THE R/W THAT CONFLICT WITH PROPOSED IMPROVEMENTS SHALL NOT BE REMOVED WITHOUT APPROVAL OF THE CITY LANDSCAPE ARCHITECT OR HIS ASSIGNEES. THE PERMITTEE SHALL BE RESPONSIBLE FOR OBTAINING AUTHORIZATION TO REMOVE AND/OR RELOCATE SAID TREES OR SHRUBBERY BY CALLING THE PARKS AND RECREATION DEPARTMENT AT (602) 262-6501 AND TRANSPORTATION DEPARTMENT AT (602) 534-9898.
- PER THE STREET PAVEMENT CUT POLICY (TRT 00164) AND CITY ORDINANCE G-6308, ALL STREET PAVEMENT CUTS WILL REQUIRE ASPHALT RESURFACING TREATMENTS BASED ON THE AGE OF THE PAVEMENT. FOR STREETS LESS THAN TWO (2) YEARS OLD, THE PERMITTEE MUST APPLY AN ASPHALT MILL AND OVERLAY PAVEMENT TREATMENT. FOR STREETS GREATER THAN TWO (2) YEARS OLD, THE PERMITTEE MUST APPLY A SLURRY SEAL AND/OR MICROSEAL TREATMENT.
- THE OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR REGISTERING THE DRYWELLS SHOWN ON THE G&D PLAN WITH THE ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY (ADEQ). FOR INFORMATION ABOUT SPECIFIC REQUIREMENTS, CONTACT THE WATER PERMITS UNIT AT (602) 771-1440.
- DRYWELLS MUST BE DRILLED A MINIMUM OF 10 FEET INTO PERMEABLE POROUS STRATA OR PERCOLATION TESTS WILL BE REQUIRED. THE G&D INSPECTOR MUST BE PRESENT BEFORE BACKFILL OR WELL PIPES ARE PLACED WITHIN ANY DRY WELLS.
- THE OWNER/DEVELOPER IS RESPONSIBLE FOR INSTALLING DRYWELL(S) SHOULD THE RETENTION BASINS FAIL TO DRAIN WITHIN 36 HOURS.

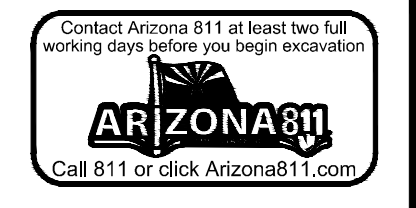
Periman Architects of Arizona  
2929 North Central Avenue, Suite #1600  
Phoenix, Arizona 85012  
480.951.5900 480.951.3045 f  
perimanaz.com

**BURSERA HELIPAD**  
**NWC 19TH AVE & CHANDLER**  
**PHOENIX, ARIZONA 85045**  
Index No: **FD57100020-3**

OS 11-24  
CPGD

KIVA # **23-1810**  
SDEV # \_\_\_\_\_

COVER  
**C1.0**



Note:  
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 your contract with the City of Phoenix.

FILE:\A\2023\1023002.01\_Phoenix\_Fire\_Station\_74\CAO\23002.01\_HELL\_C1\_X-COV.RVT DATE: 6/26/2024 TIME: 4:52 PM (by: Christina Dolan)

CITY OF PHOENIX OFFICE OF THE CITY ENGINEER BURSERA HELIPAD -







Revisions	Date



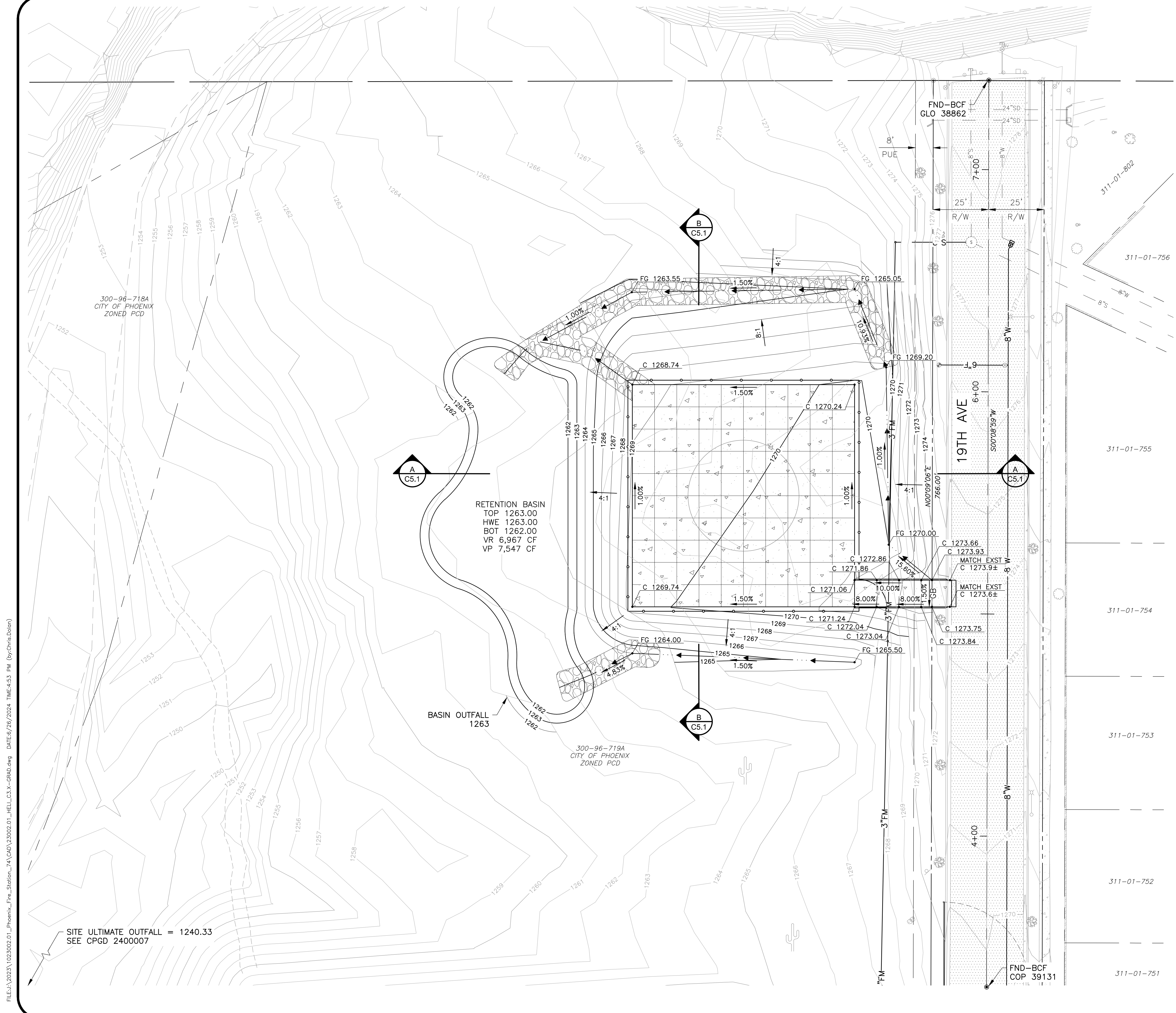
Designed By:	AG
Drawn By:	JL
Checked By:	CD
Date:	06/24/2024
Phase:	CD

**Periman**  
Architects of Arizona  
2929 North Central Avenue, Suite #1600  
Phoenix, Arizona 85012  
480.951.5900 480.951.3045  
perimanaz.com

**BURSER HELIPAD**  
**NWC 19TH AVE & CHANDLER**  
**PHOENIX, ARIZONA 85045**  
Index No: **FD57100020-3**

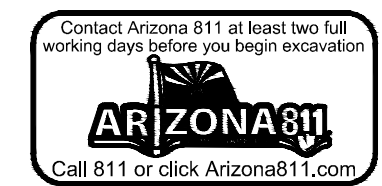
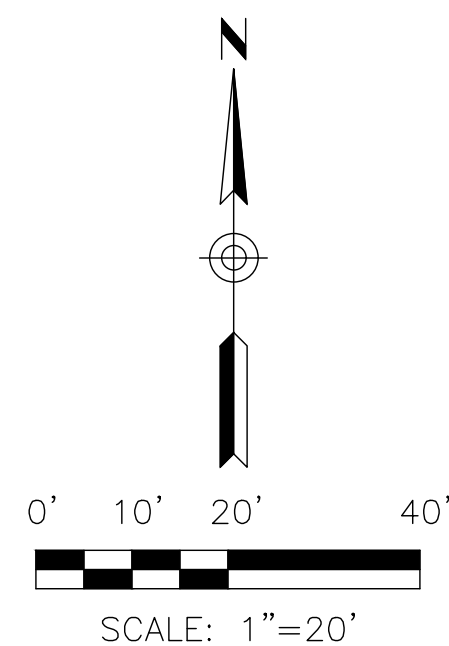
**CITY OF PHOENIX**  
OFFICE OF THE CITY ENGINEER  
**BURSER HELIPAD -**

KIVA # **23-1810**  
SDEV #  
GRADING & DRAINAGE PLAN  
**C3.1**



FILE: \\2023\1023002\01\_Phoenix\_Fire\_Station\_74\CA0\23002.01\_HELL\_C3X-GRAD.dwg DATE: 6/26/2024 TIME: 4:53 PM (by: Chris.Dolan)

SITE ULTIMATE OUTFALL = 1240.33  
SEE CPGD 2400007



Note:  
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 your contract with the City of Phoenix.



Revisions	Date



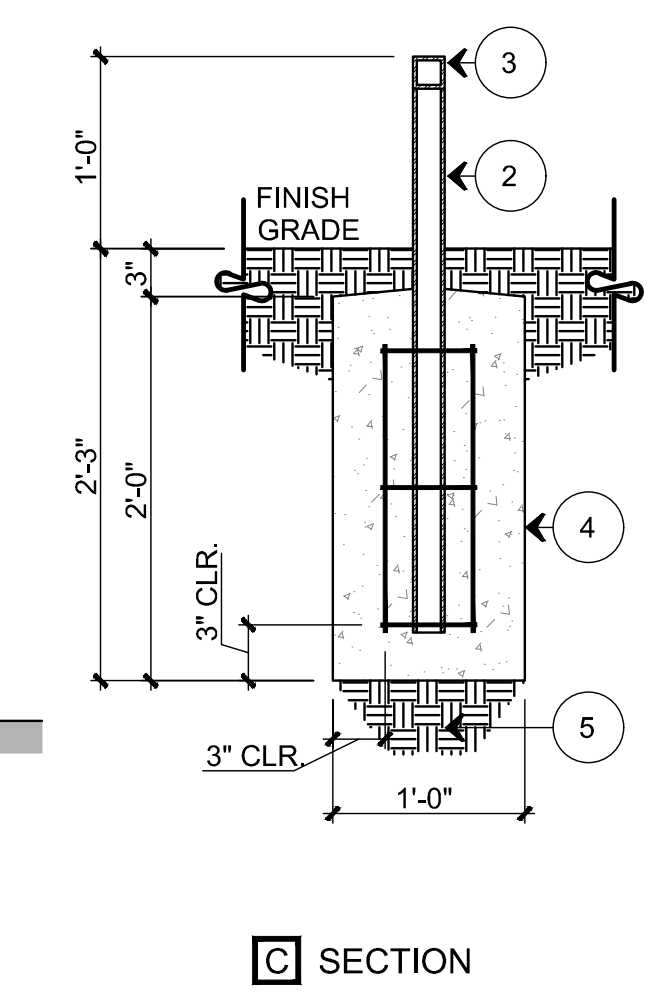
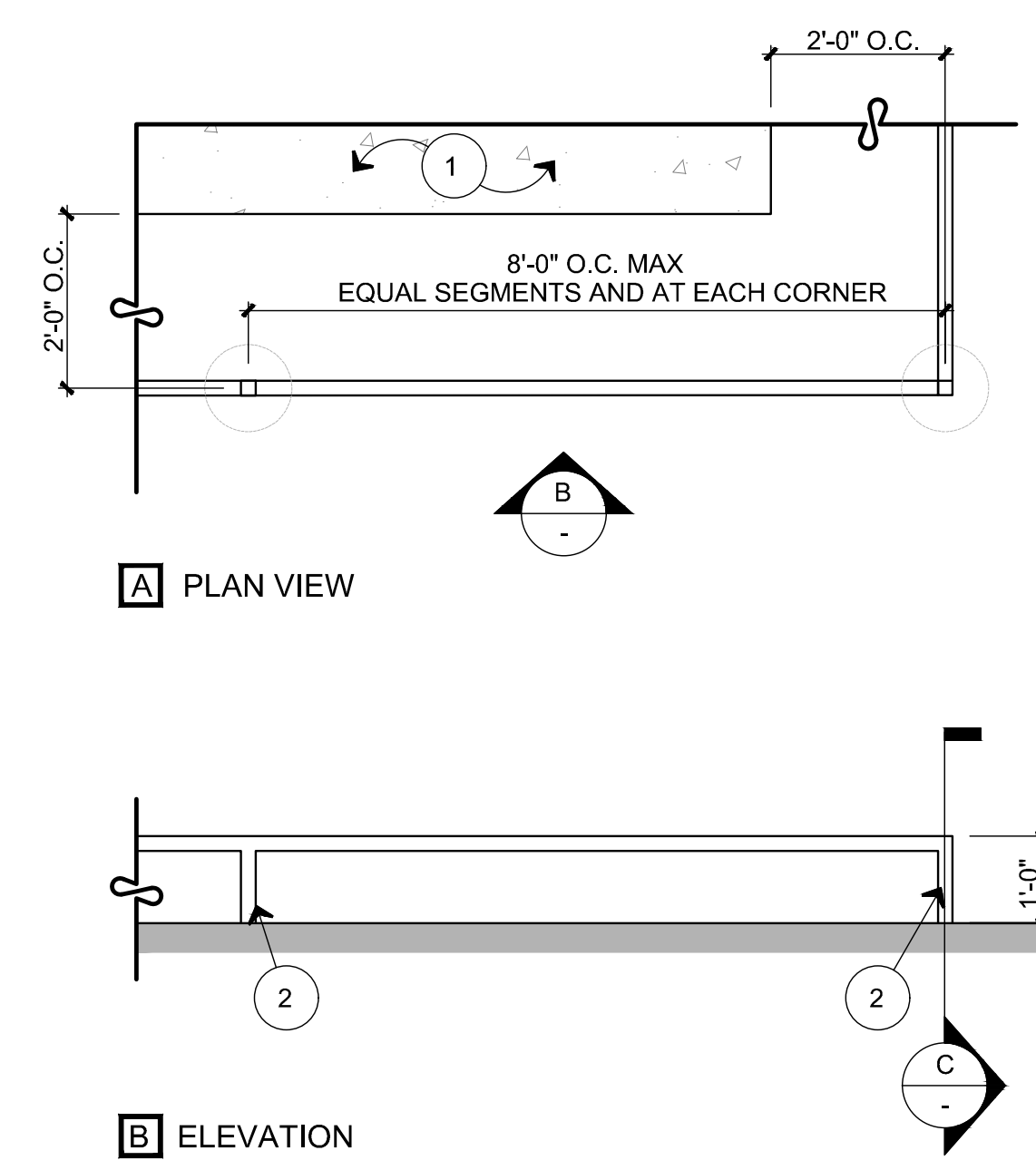
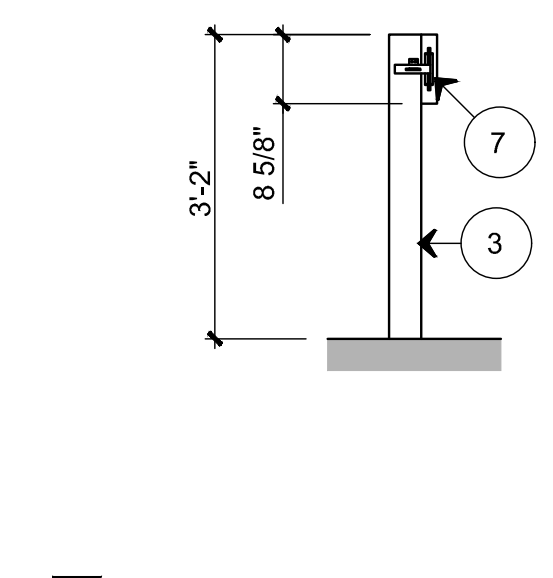
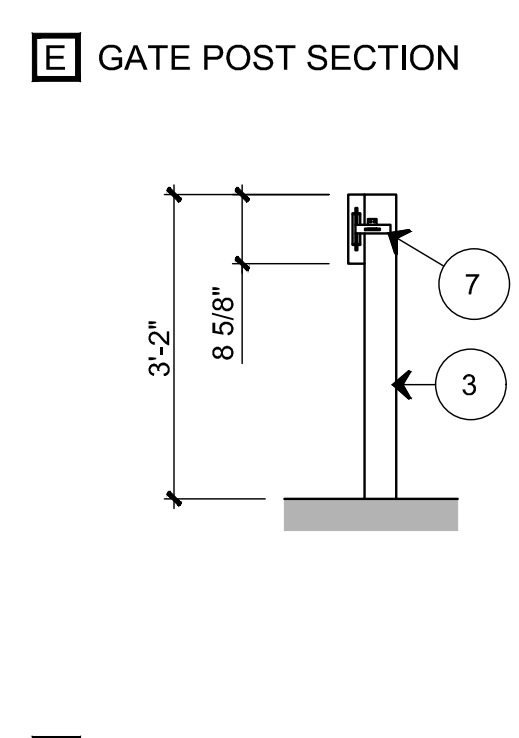
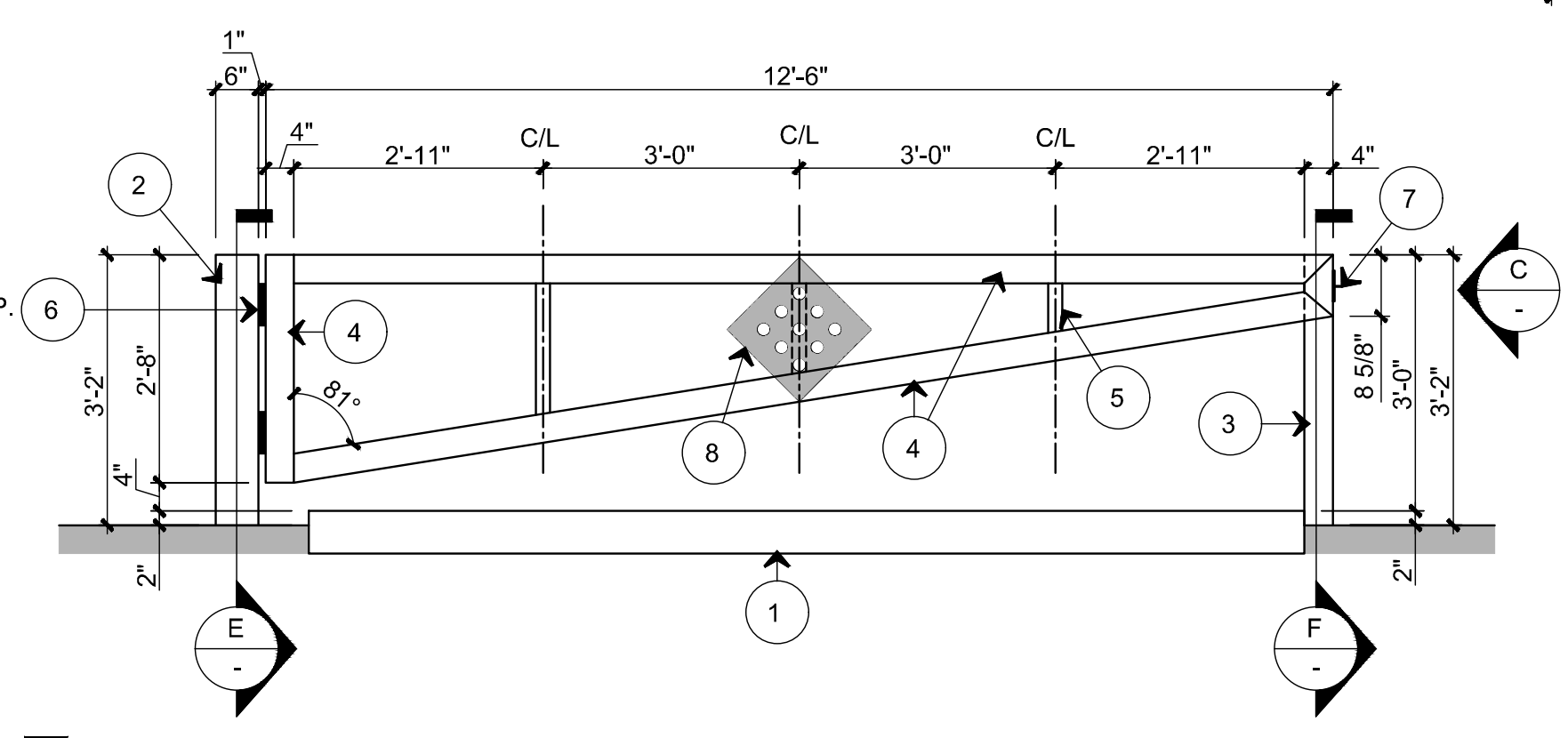
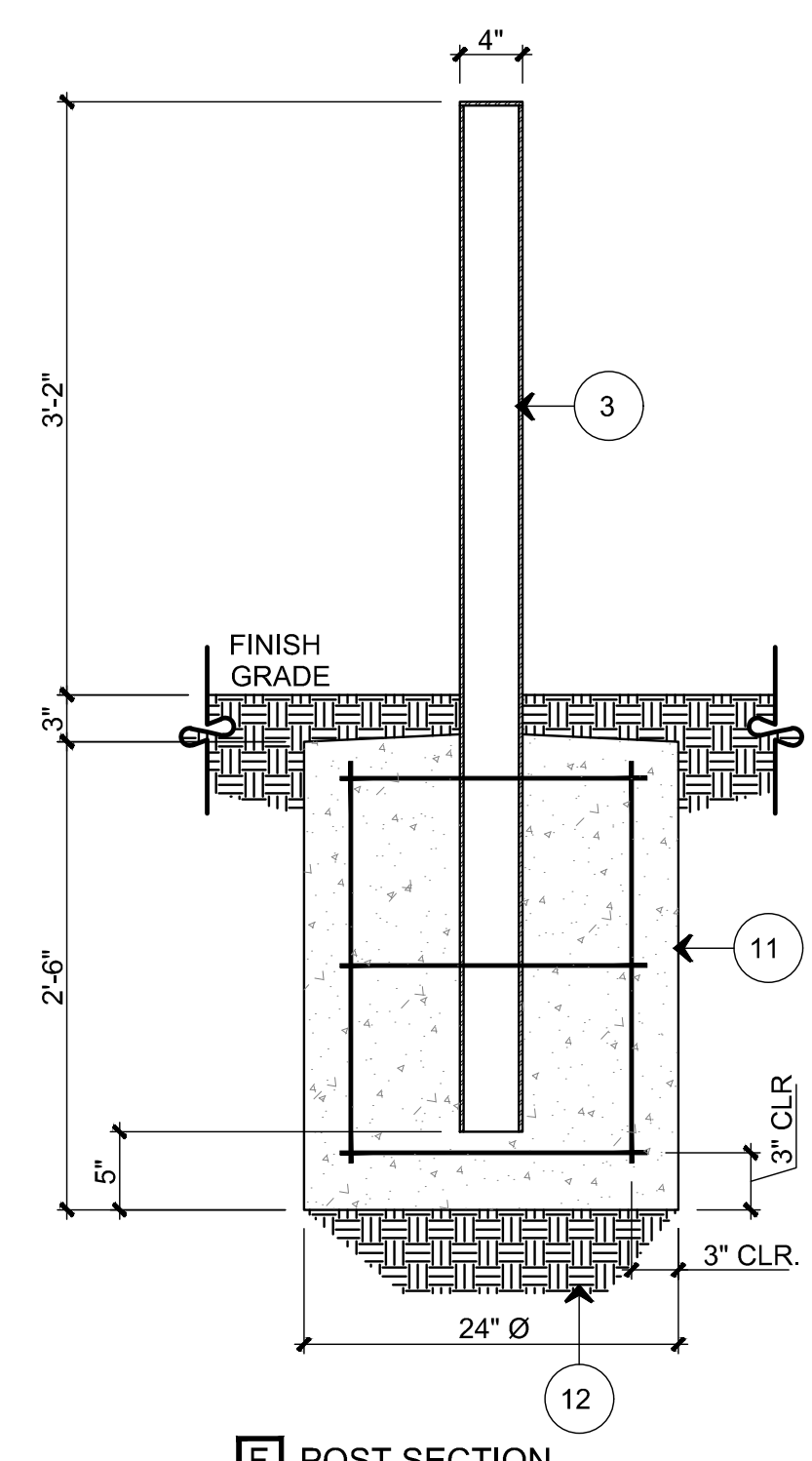
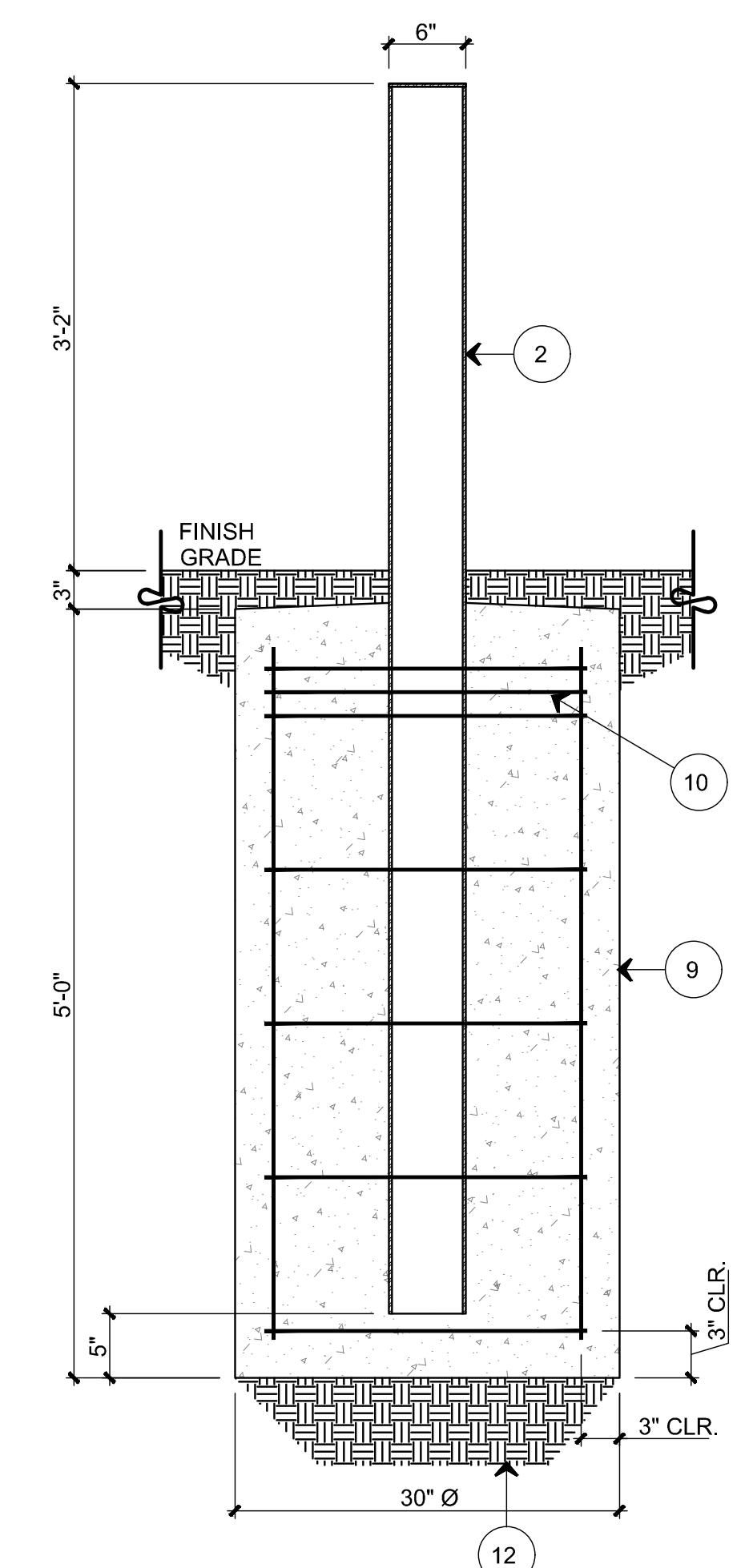
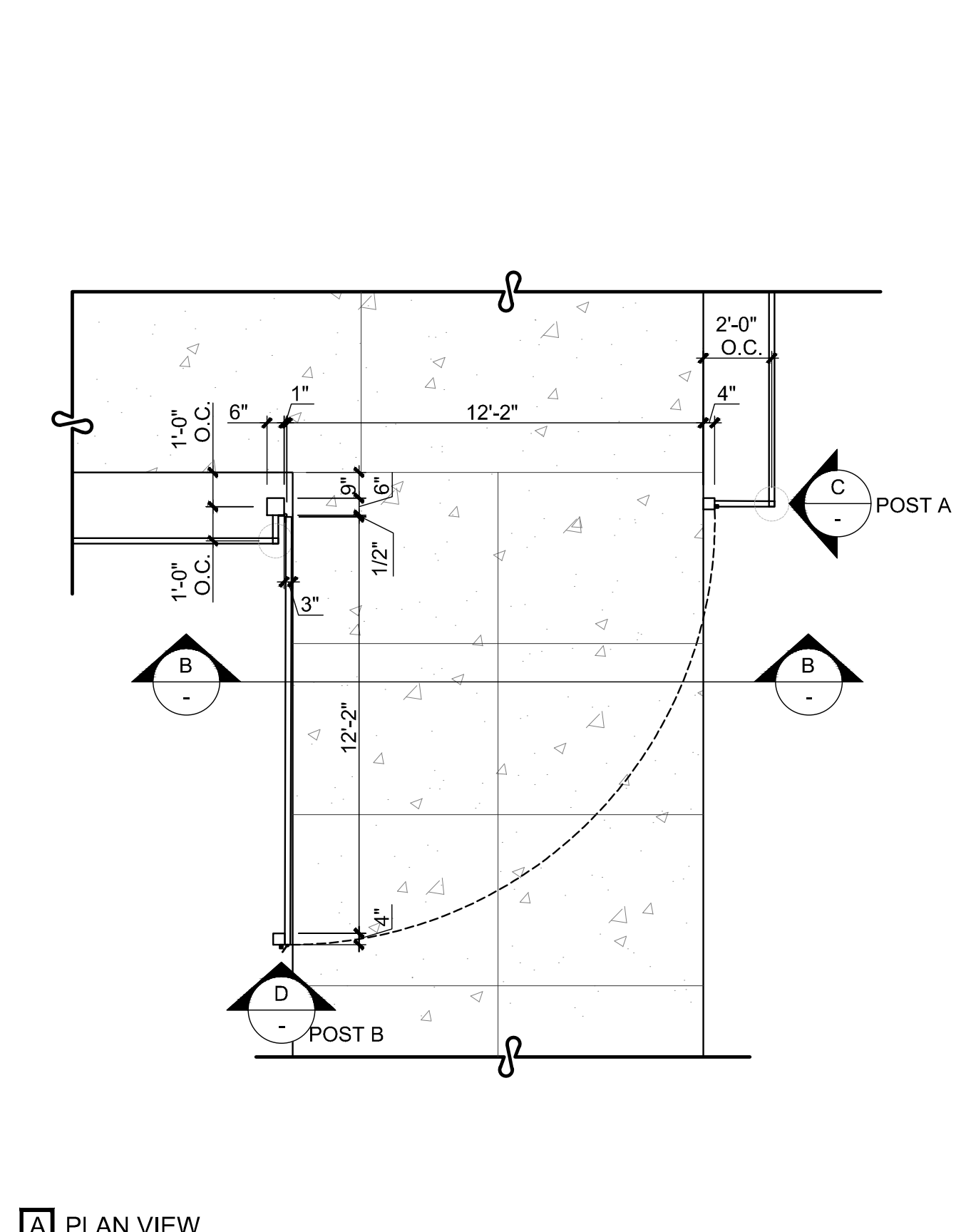
Designed By:	AG
Drawn By:	JL
Checked By:	CD
Date:	06/24/2024
Phase:	CD

**Periman**  
Architects of Arizona  
2929 North Central Avenue, Suite #1600  
Phoenix, Arizona 85012  
480.951.5900 480.951.3045  
perimanaz.com

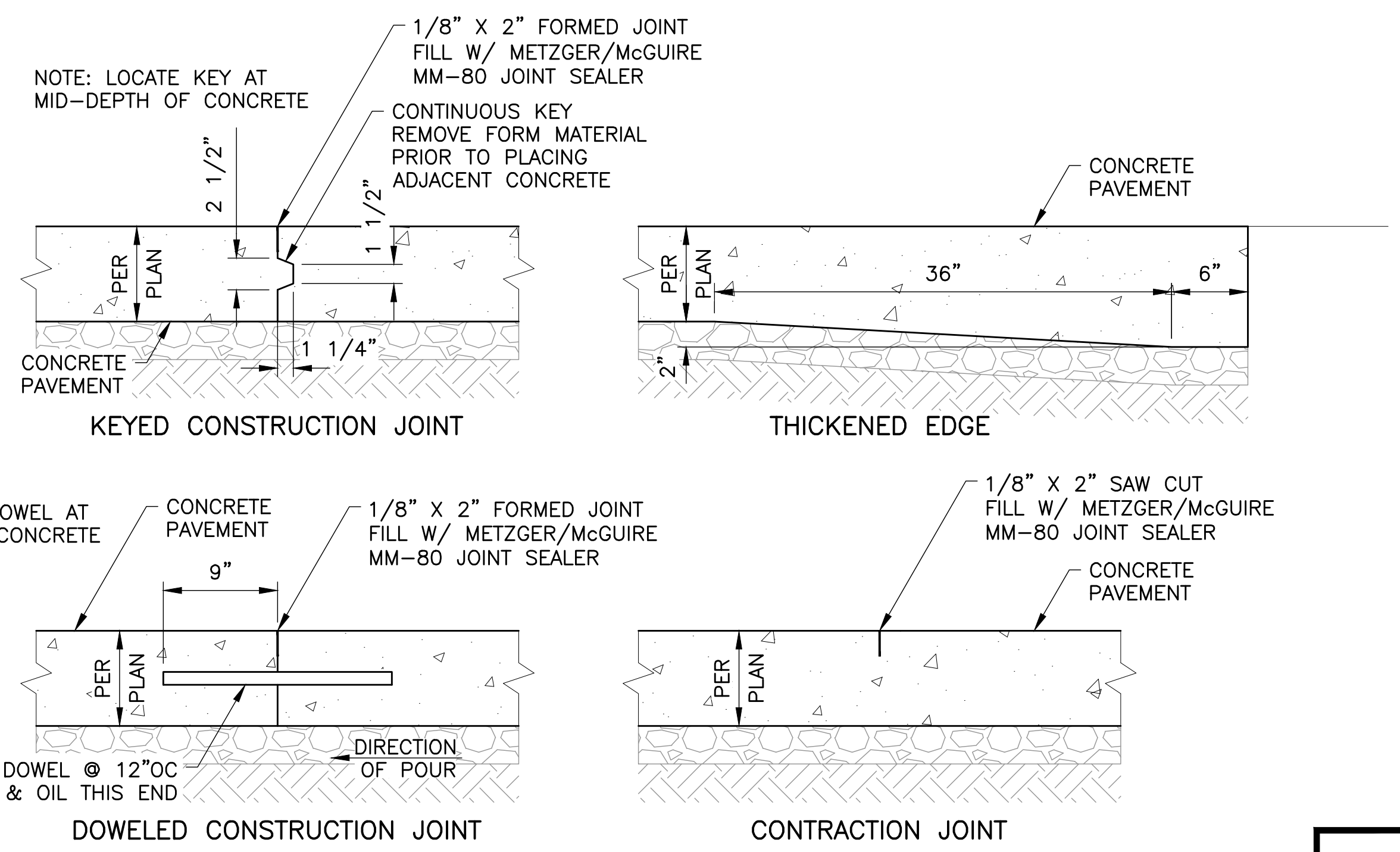
**BURSER HELIPAD**  
NWC 19TH AVE & CHANDLER  
PHOENIX, ARIZONA 85045  
Index No: FD57100020-3

**CITY OF PHOENIX**  
OFFICE OF THE CITY ENGINEER  
**BURSER HELIPAD**  
KIVA # 23-1810  
SDEV #  
DETAILS  
C4.1

- KEYED NOTES:**
- 1 CONCRETE PAVEMENT, SEE PLANS
  - 2 HSS 6" x 6" x 1/4" STEEL POST WITH 1/4" CAP PLATE
  - 3 HSS 4" x 4" x 1/4" STEEL POST WITH TOP CAP WITH 1/4" CAP PLATE
  - 4 HSS 2" x 4" x 1/4" STEEL FRAME
  - 5 HSS 2" x 2" x 1/4" STEEL SUPPORT
  - 6 HEAVY DUTY GALVANIZED GATE HINGES TO MATCH GATE COLOR
  - 7 HEAVY DUTY GALVANIZED GATE HASP, THAT SWINGS TWO WAYS (180°) TO BE SECURED AT BOTH POSTS. TO BE SECURED WITH GATE LOCK PROVIDED BY OWNER
  - 8 TYPE I OBJECT MARKER 18" X 18" Ø80 ALUMINUM, 9 YELLOW REFLECTORS ON A YELLOW BACKGROUND MOUNTED TO GATE
  - 9 30" Ø 3000 PSI CONCRETE FOOTING WITH (6) #6 VERTICALS & #4 TIES AT 12" O.C.
  - 10 (3) #4 TIES AT TOP
  - 11 24" Ø 3000 PSI CONCRETE FOOTING WITH (6) #4 VERTICALS AND #3 TIES AT 12" O.C.
  - 12 COMPACTED SUBGRADE
- GENERAL NOTES:**
1. ALL STEEL IS TO BE NATURAL FINISH



- KEYED NOTES:**
- 1 CONCRETE PAVEMENT, SEE PLANS
  - 2 HSS 2" x 2" x 1/4" STEEL POST
  - 3 HSS 2" x 2" x 1/4" STEEL RAIL
  - 4 12" Ø 3000 PSI CONCRETE FOOTING WITH (4) #4 VERTICALS AND (3) #3 TIES
  - 5 COMPACTED SUBGRADE
- GENERAL NOTES:**
1. ALL STEEL IS TO BE NATURAL FINISH

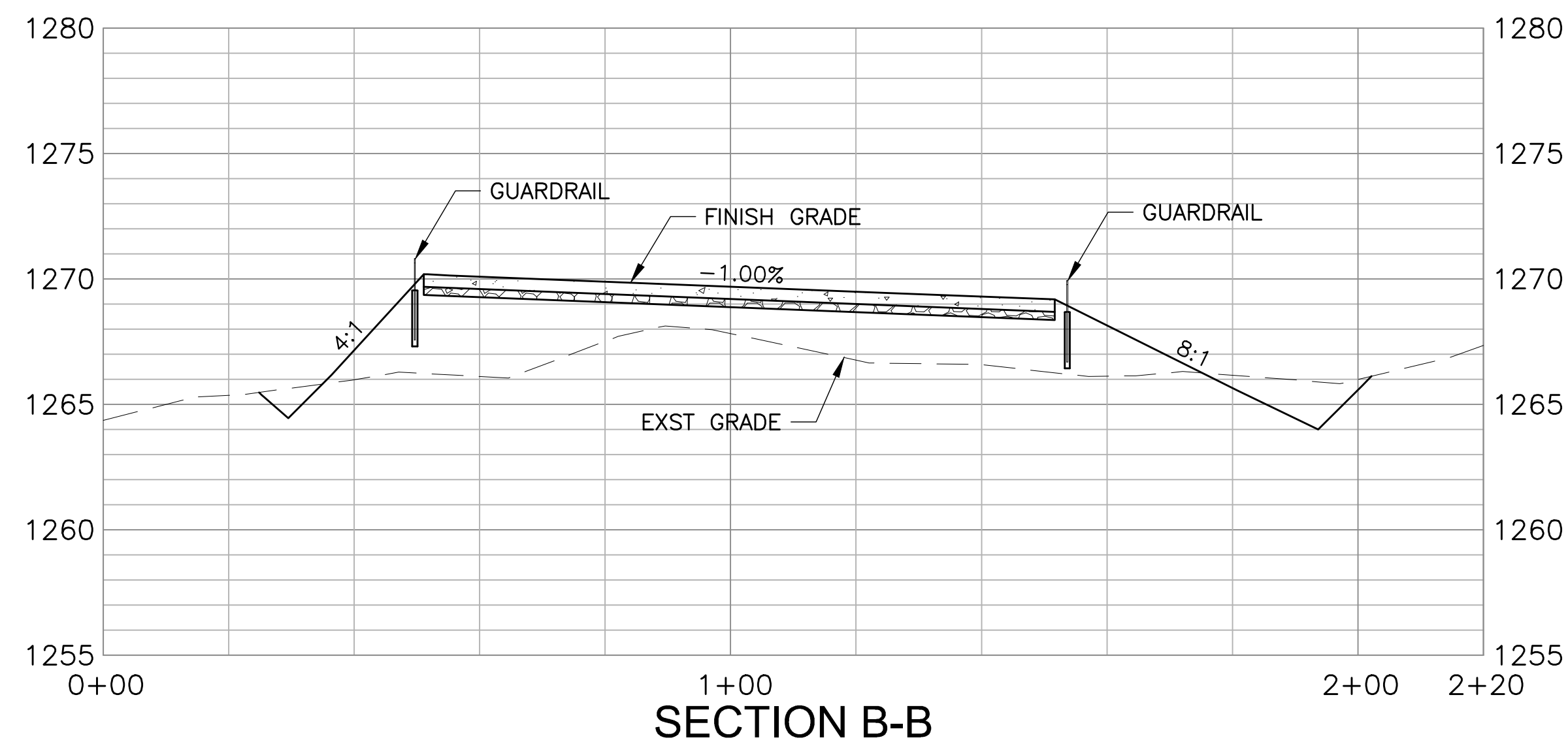
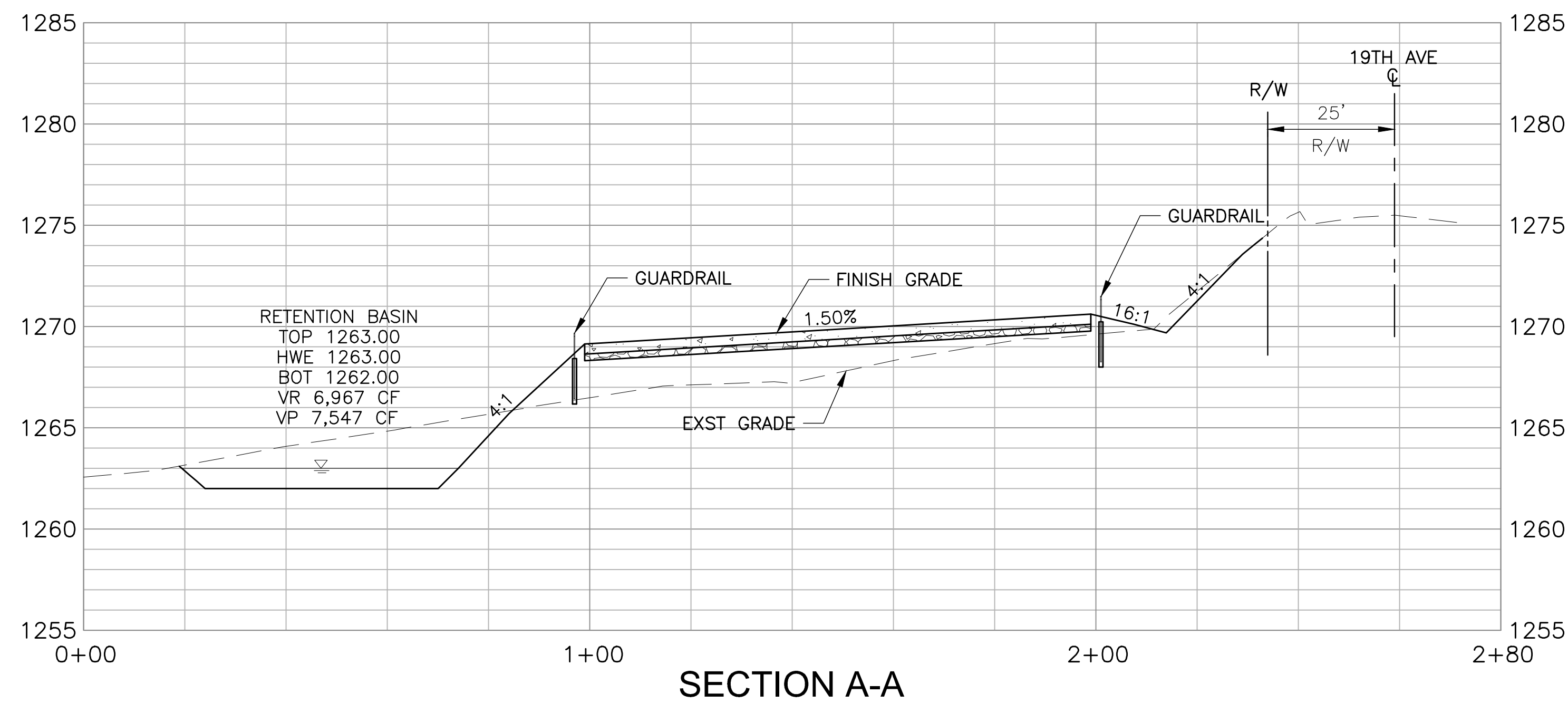


Note:  
Per City of Phoenix City Code Chapter 2, section 2-28, these plans are for official use only and may not be shared with others except as required to fulfill the obligations of your contract with the City of Phoenix.

FILE:\2023\102300201\_Phoenix\_Fire\_Station\_74(CAD)\300201\_HELL\_C4-X-BEEL.dwg DATE:6/26/2024 TIME:4:53 PM (by:Chris.Dolan)



Revisions	Date



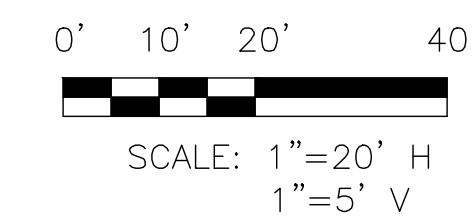
Designed By:	AG
Drawn By:	JL
Checked By:	CD
Date:	06/24/2024
Phase:	CD

**Perlman**  
 Architects of Arizona  
 2929 North Central Avenue, Suite #1600  
 Phoenix, Arizona 85012  
 480.951.5900 | 480.951.3045  
 perlmanaz.com

**BURSER HELIPAD**  
**NWC 19TH AVE & CHANDLER**  
**PHOENIX, ARIZONA 85045**  
 Index No: **FD57100020-3**



KIVA # **23-1810**  
 SDEV #  
**CROSS SECTIONS**  
**C4.1**



**Note:**  
 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 your contract with the City of Phoenix.