



Leo Lew  
County Manager

APRIL 25, 2024

Constructable  
4200 Research Forest Dr, Suite 500  
The Woodland, TX-77381

**Project Name: Ascent Aviation MRO Hanger**

County Case No: SPR-107-23

Dear Talha Khan,

On **December 28, 2023**, you submitted plans for a Specific Site Plan Review. The comments received to date by Pinal County departments are as follows:

**Community Development** – Approved as submitted

**Public Works** – No Comments

Any permit requirements from other departments or divisions of Pinal County will need to be met.

If you have questions concerning any of these comments, you may contact us at the numbers listed below:

Community Development (520) 866-6442

Public Works (520) 866-6454

Sincerely,

Sangeeta Deokar  
Senior Planner

COMMUNITY DEVELOPMENT  
Planning Division

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# SPECIFIC SITE PLAN FOR: Ascent Aviation MRO Hangars

THR3E Design Commission Number: 223-033

24641 E Pinal Air Park Road  
Marana, AZ 85653

**SPECIFIC SITE PLAN FOR:**

ASCENT AVIATION MRO HANGARS  
24641 E PINAL AIRPARK RD  
MARANA, AZ 85653

OWNER/DEVELOPER: ASCENT AVIATION SERVICES, LLC  
24641 E Pinal Airpark Rd  
Marana, AZ 85653  
(520) 616-5100  
David Querio

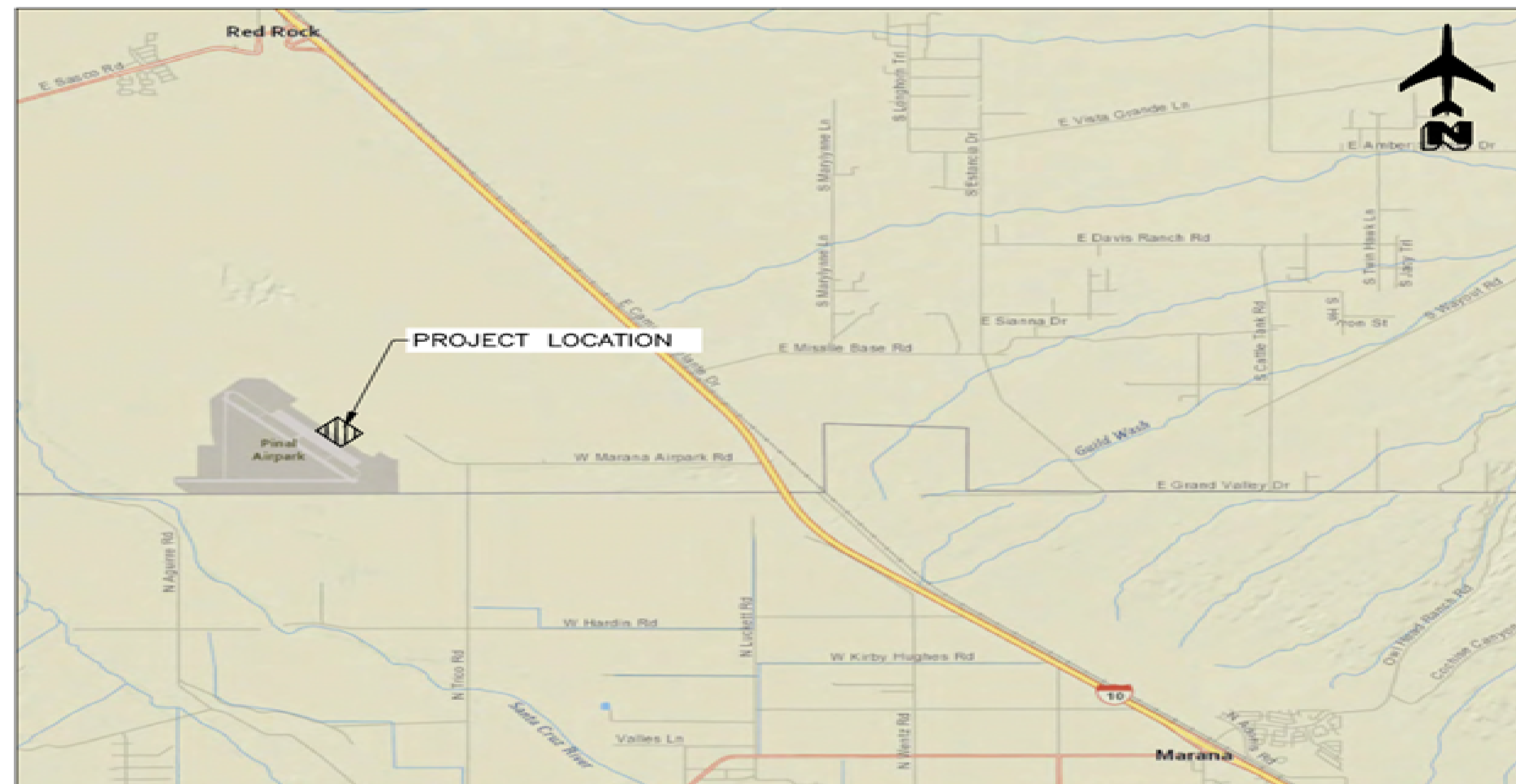
GENERAL CONTRACTOR: CONSTRUCTABLE, LLC  
4200 Research Forest Dr, Suite 500  
The Woodlands, TX 77381  
(832) 844-0500  
Jared Hellums

ARCHITECT: 3 DESIGN  
9301 Southwest Freeway, Suite 350  
Houston, TX 77074  
(346) 484-3300  
Ruben De La O

CIVIL CONSULTANT: DIBBLE CORPORATION  
3020 East Camelback Road, Suite 200  
Phoenix, AZ 85016  
(520) 495-4065  
Jim Cunningham

**LEGAL DESCRIPTION OF PROPERTY:**

Section 33 of Township 10S, Range 10E of the Gila and Salt River base & Meridian, Pinal County, Arizona



SHEET INDEX		
Page #	Drawing #	Name
1	---	COVER SHEET
2	A100	SITE PLAN
3	G1.00	CIVIL COVER SHEET
4	G1.02	GENERAL NOTES & QUANTITIES
5	G1.03	AIRPORT SITE PLAN
6	G1.04	PROJECT SITE PLAN
7	G1.05	SWPPP PLANS
8	G1.06	SWPPP DETAILS
9	G2.01	TYPICAL SECTIONS
10	D1.01	CIVIL DEMOLITION
11	C1.01	SITE & PAVING PLAN
12	C2.01	STORM DRAIN PLAN & PROFILE
13	C2.02	STORM DRAIN PLAN & PROFILE
14	C2.03	STORM DRAIN PLAN & PROFILE
15	C2.04	STORM DRAIN PLAN & PROFILE
16	C2.05	STORM DRAIN PLAN & PROFILE
17	C2.06	DRAINAGE DETAILS
18	C3.01	PAVEMENT ELEVATION PLAN
19	C4.01	PCCP JOINTING PLAN
20	C4.02	PCCP JOINTING PLAN
21	C6.01	UTILITY PLAN
22	W2.00	W&W NOTES
23	W2.01	W&W CONSTRUCTION
24	W2.02	W&W CONSTRUCTION SSWR
25	W2.03	W&W CONSTRUCTION SSWR LATERAL
26	E1.0	ELECTRICAL LEGEND AND NOTES
27	E2.0	ELECTRICAL DEMO PLAN
28	E3.0	ELECTRICAL SITE PLAN
29	E4.0	SINGLE LINE DIAGRAM & NOTES, PANEL SCHED
30	X1.00	CROSS SECTION
31	A101	PHOTOMETRICS SITE PLAN
32	A102	PHOTOMETRICS SITE CALCULATIONS
33	A103	PHOTOMETRICS SITE SECURITY CALCULATIONS
34	A104	LIGHTING CUT SHEETS

**PINAL COUNTY SPECIFIC SITE PLAN APPROVAL:**

*Mario S. Galdino* 4/25/24  
Engineering Division Date

*J. A. ...* 4/25/24  
Planning Division Date

*Kenneth Diamond* 04/16/24  
Fire District/Marshall Date

**RE-APPROVAL:**

Engineering Division Date

Planning Division Date

Fire District/Marshall Date

General Contractor  
Constructable  
4200 Research Forest Drive, Suite 500, The  
Woodlands, TX 77381

Architecture  
THR3E Design  
9301 Southwest Freeway, Suite 350 Houston,  
TX 77074

Mechanical / Electrical / Plumbing Consultant  
Affiliated Engineers, Inc.  
5802 Research Park Boulevard,  
Madison WI 53719

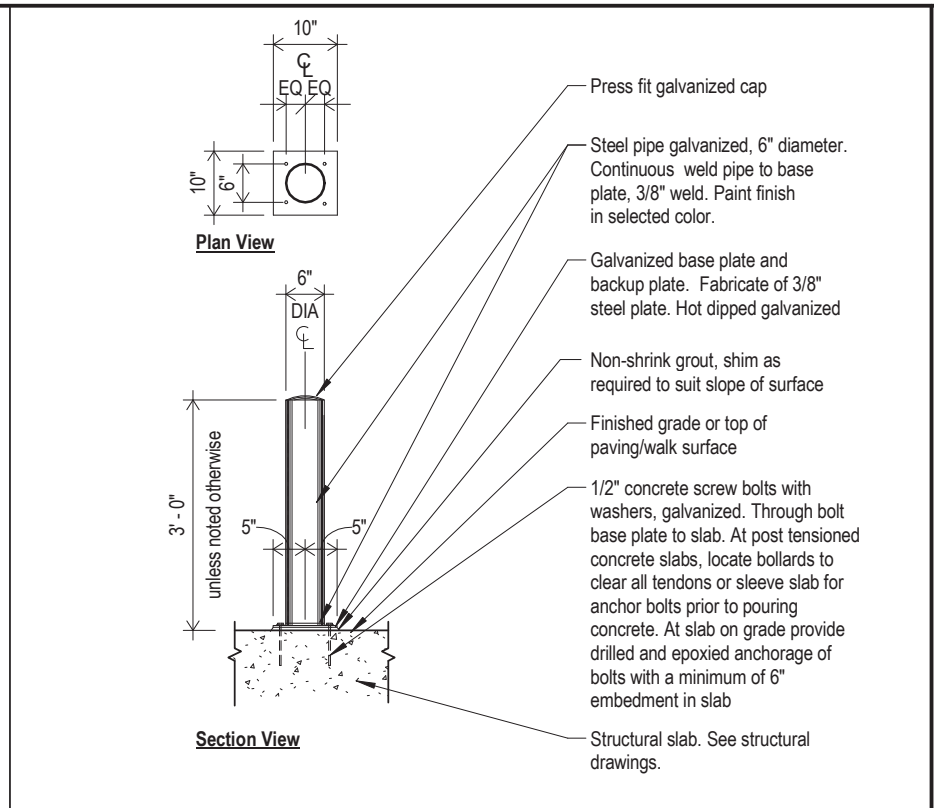
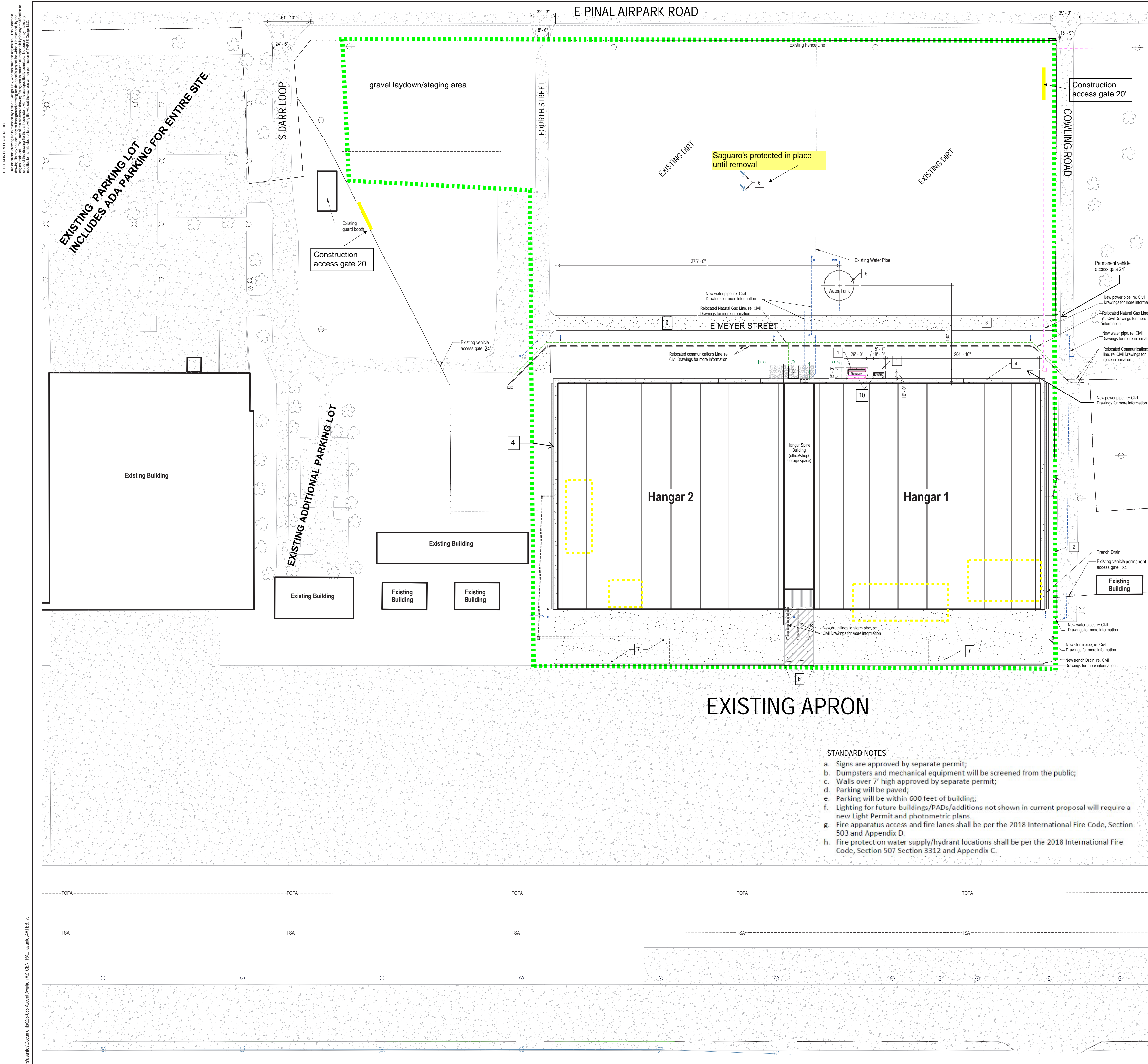
Civil Consultant  
Dibble  
3020 East Camelback Road, Suite 200  
Phoenix, AZ, 85016

Structural Consultant  
Pinnacle Structural Engineers  
3120 Southwest Freeway, Suite 410, Houston  
TX 77098



SPR-107-23

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**Surfaced Mounted Bollard** 1/2" = 1'-0" 5

SITE DATA TABLE	
1. PARCEL NUMBER	410-08-007G
2. ASCENT AVIATION HANGAR PARCEL AREA:	PORTION OF 410-08-007G
3. ZONING DESIGNATION & CASE #	I-3/PZ-PD-011-18
4. SETBACKS (FRONT-SIDE-REAR)	NOTED ON DRAWING C1.01/PAGE 11 OF 26
5. GROSS FLOOR AREA	192,796 SQ FT
6. ACTUAL BUILDING HEIGHT	30'
7. PARKING REQUIRED/PROVIDED	PARKING IS EXISTING
8. TOTAL LAND AREA	10 ACRES
9. IMPERVIOUS SURFACE EXISTING	0
10. IMPERVIOUS SURFACE PROPOSED	192,796 SQ FT
11. PERCENT OF OPEN SPACE (IF APPLICABLE)	N/A
12. FLOOD ZONE	X
13. ANY OTHER PERTINENT INFORMATION	N/A
14. NORTH ARROW AND GRAPHIC SCALE	BOTTOM RIGHT CORNER OF PAGE
15. EXISTING STRUCTURES/BUILDINGS TO BE SHOWN WITH TOTAL SQ FT OF AREA	NEW CONSTRUCTION ONLY
16. PARKING AREA SHOWN NEEDS TO BE SHOWING NUMBER OF PARKING, CIRCULATION, ACCESS (DETAILED PLAN)	NO NEW PARKING
17. PARKING CALCULATIONS (REQUIRED VS PROPOSED)	NO NEW PARKING
18. ZONING INFORMATION	NEW - A-3 EXISTING - I-3

REFER TO DRAWING G1.03 FOR PROPERTY LINE, SETBACKS, EASEMENTS & ROWS

- Keynotes Schedule - Site Plan**
1. Surface mounted bollard. Refer to Floor Plans for locations. Detail 5-A100.
  2. Refer to Civil drawings for new fence and gate locations.
  3. New concrete vehicle access road. Refer to Civil drawings for additional information.
  4. New 8' wide concrete sidewalk. Refer to Civil drawings for additional information.
  5. Proposed water tank on concrete pad. Refer to Fire Protection drawings for additional tank information and Structural drawings for concrete pad information.
  6. Protect existing cactus in place during construction.
  7. New concrete apron. Refer to Civil drawings for additional information.
  8. New asphalt apron. Refer to Civil drawings for additional information.
  9. New riprap area. Refer to Civil drawings for additional information.
  10. Concrete equipment pads.
  11. Asphalt road access. Refer to Civil drawings for additional information.

- STANDARD NOTES:**
- a. Signs are approved by separate permit;
  - b. Dumpsters and mechanical equipment will be screened from the public;
  - c. Walls over 7' high approved by separate permit;
  - d. Parking will be paved;
  - e. Parking will be within 600 feet of building;
  - f. Lighting for future buildings/PADs/additions not shown in current proposal will require a new Light Permit and photometric plans.
  - g. Fire apparatus access and fire lanes shall be per the 2018 International Fire Code, Section 503 and Appendix D.
  - h. Fire protection water supply/hydrant locations shall be per the 2018 International Fire Code, Section 507 Section 3312 and Appendix C.

**General Notes to Site Plan**

1. Existing Conditions:
  - a. All site paving, parking, signage, etc. is existing unless noted otherwise.
  - b. Refer to Civil drawings for site work.
  - c. No structures are located under overhead power lines.

- Legend - Site Plan**
- Accessible Route
  - demo buildings
  - construction footprint and leased area
  - water pipe
  - power pipe

**Notes and Legends** 1

General Contractor  
  
**CONSTRUCTABLE**  
 4200 Research Forest Drive, Suite 500  
 The Woodlands, TX 77381  
 (832) 844-0500

Architect  
  
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 Houston, TX 77098

Mechanical / Electrical / Plumbing Consultant  
**Affiliated Engineers, Inc.**  
 5802 Research Park Boulevard,  
 Madison WI 53719

COMMISSION NAME  
**Ascent Aviation MRO Hangars**

**ASCENT**  
 AVIATION SERVICES

Pinall Air Park Road  
 Marana, AZ 85653



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ISSUE	No.	Date	Description
	0	11/15/2023	Issued for Construction

**SPECIFIC SITE PLAN FOR ASCENT AVIATION MRO HANGARS AT 24641 E PINALL AIRPARK RD**

PROJECT TITLE  
**Site Plan**

Page 2 of 34

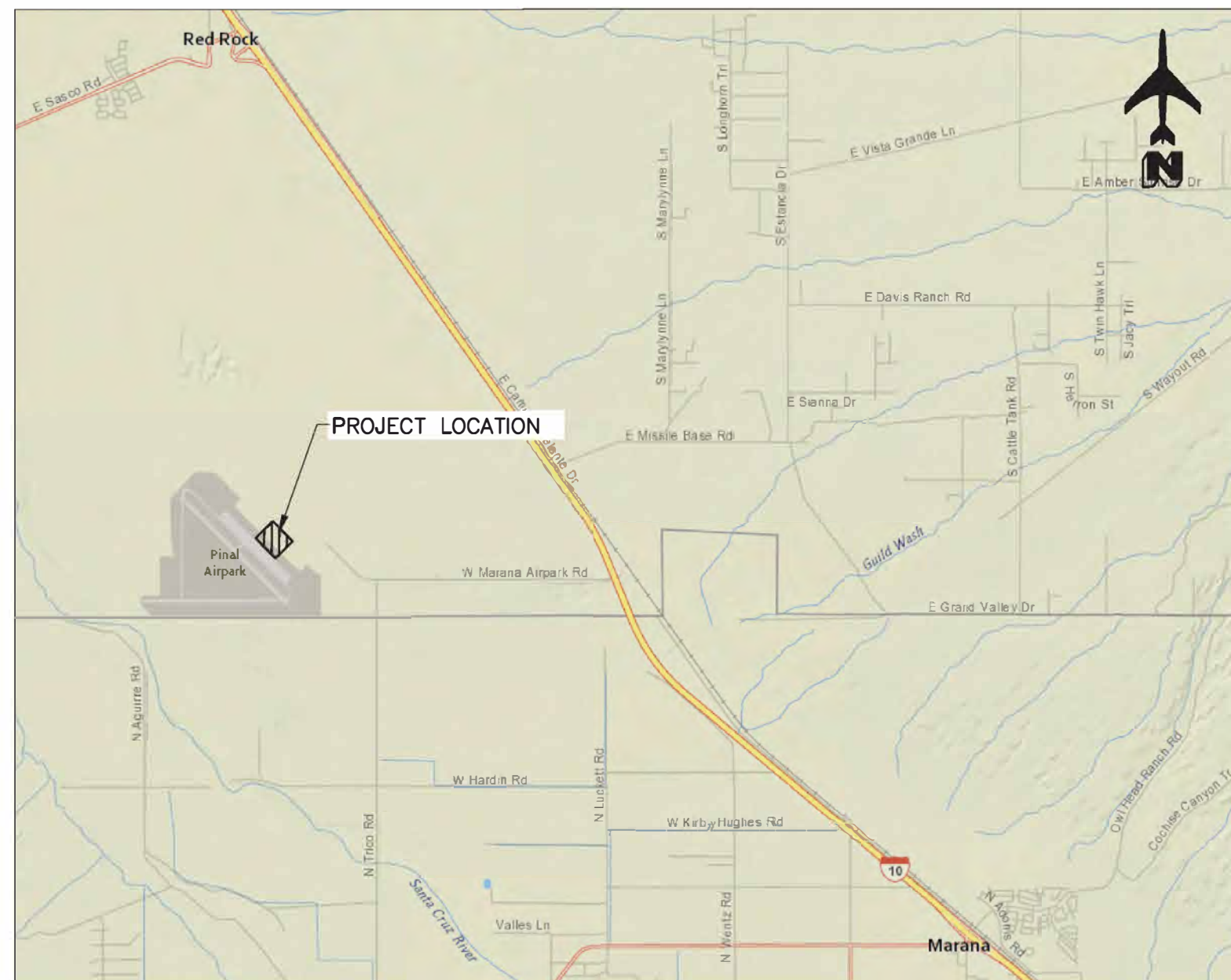
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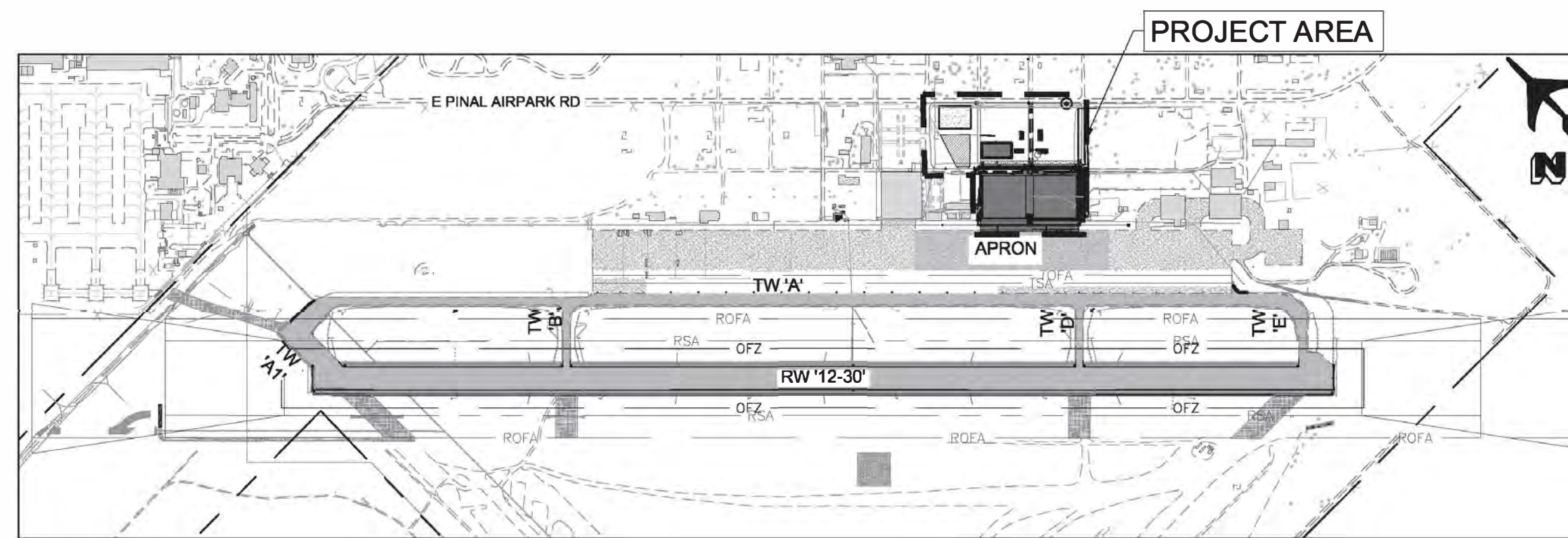
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VICINITY MAP  
NTS

# PINAL AIRPARK ASCENT AVIATION MRO HANGAR CONSTRUCTION

## ISSUED FOR CONSTRUCTION



LOCATION MAP  
NTS

SECTION 33 OF TOWNSHIP 10S, RANGE 10E OF  
THE GILA AND SALT RIVER BASE & MERIDIAN,  
PINAL COUNTY, ARIZONA

### SURVEYOR'S NOTES

#### UNITS:

COORDINATES, DISTANCES AND ELEVATIONS ARE SHOWN IN US SURVEY FEET.

#### HORIZONTAL DATUM (BASIS OF BEARINGS):

NAD83 (2011 Epoch) ARIZONA CENTRAL ZONE

SOUTH 45°29'39" EAST BETWEEN A BRASS CAP STAMPED "PINAL COUNTY HIGHWAY DEPARTMENT" AT THE NORTHWEST END OF THE RUNWAY 12-30 (POINT 103) AND A BRASS CAP STAMPED "PINAL COUNTY HIGHWAY DEPARTMENT" AT THE SOUTHEAST END OF THE RUNWAY 12-30 (POINT 102)

POINT 102 N: 547312.596 E: 884724.465 ELEV: 1893.38  
 POINT 103N: 552113.213 E: 879840.334 ELEV: 1874.91

#### HORIZONTAL ADJUSTMENT:

NONE

#### VERTICAL DATUM:

NAVD 88

#### PROJECT BENCHMARK:

POINT NUMBER 99  
 FOUND NGS PUBLISHED BENCHMARK DESCRIBED AS:  
 "NN 84" BEING AN IRON BAR IN A HANDHOLE SLEEVE:  
 GRID NORTHING = 546613.820  
 GRID EASTING = 888770.448  
 PUBLISHED ELEVATION = 1894.685

THIS IS NOT A PROPERTY BOUNDARY SURVEY.

#### UTILITY COORDINATION

UTILITY COMPANY	COMPANY REPRESENTATIVE	TELEPHONE NUMBER	DATE SENT	RESPONSE
COMCAST	DISPATCH CENTER	800-778-9140	9/16/2020	9/21/2020
CENTURY LINK	ROCKY VILLAREAL	480-200-1904	9/16/2020	9/29/2020
SOUTHWEST GAS	ZACH STEVENSON	520-289-0481	9/16/2020	9/21/2020
TRICO ELECTRIC	ROBERT QUIHUIS	520-744-2944	9/16/2020	9/25/2020

FEMA FLOOD ZONE X-  
see page 4 section 2.1  
of Drainage Report

#### AS-BUILT CERTIFICATION

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

REGISTERED LAND SURVEYOR/ENGINEER DATE

REGISTRATION NUMBER EXPIRATION DATE

THE INFORMATION SHOWN ON THIS RECORD DRAWING HAS BEEN PREPARED FROM INFORMATION PROVIDED BY THE CONTRACTOR. THE ENGINEER SHALL NOT BE LIABLE FOR ANY ERROR AND/OR OMISSIONS RESULTING FROM THE USE OF RECORD DRAWING SHOWN HEREIN.

#### CONTACT INFORMATION

OWNER/DEVELOPER:  
 DAVID QUERO  
 ASCENT AVIATION SERVICES  
 24641 PINAL AIRPARK ROAD  
 MARANA, AZ 85653  
 P: (520) 616-5100  
 www.ascentmro.com

ENGINEER:  
 CARMEN ROSE, P.E.  
 DIBBLE  
 3020 EAST CAMELBACK ROAD,  
 SUITE 200  
 PHOENIX, AZ 85016  
 P: (602) 957-1155  
 F: (602) 957-2838  
 www.dibblecorp.com



Architect



9301 Southwest Freeway, Suite 350  
 Houston, TX 77074  
 (346) 484-3300

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#### Structural Consultants

**Pinnacle Structural Engineers**  
 3120 Southwest Freeway, Ste 410,  
 Houston TX 77098

#### Mechanical / Electrical / Plumbing Consultant

**Affiliated Engineers, Inc.**  
 5802 Research Park Boulevard,  
 Madison WI 53719

#### COMMISSIONING

Ascent  
 Aviation MRO  
 Hangars



Pinaleir Air Park Road  
 Marana, AZ 85653

#### REVIEW EMPLOYER



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No.	Date	Description
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CIVIL COVER SHEET  
 Page 3 of 34

THRE DESIGN LLC COMMISSIONING NO: 223-033

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**GENERAL NOTES**

- ALL CONSTRUCTION TO CONFORM TO THE LATEST REVISIONS OF THE MARICOPA ASSOCIATION OF GOVERNMENTS (MAG) STANDARD SPECIFICATIONS AND DETAILS UNLESS SPECIFICALLY MODIFIED ON THE PLANS. IN CONJUNCTION WITH THE FEDERAL AVIATION ADMINISTRATION (FAA) ADVISORY CIRCULARS (AC) AS IDENTIFIED AND SPECIFIED WITHIN THE PLANS AND CONTRACT DOCUMENTS.
- IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN, AT HIS OWN EXPENSE, SUCH PERMITS AS ARE REQUIRED FROM THE APPROPRIATE AGENCIES.
- ANY WORK PERFORMED WITHOUT THE KNOWLEDGE AND APPROVAL OF THE ENGINEER AND/OR AIRPORT AND ALL WORK MATERIALS NOT IN CONFORMANCE WITH THE PLANS AND SPECIFICATIONS IS SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S SOLE EXPENSE.
- NO JOB WILL BE CONSIDERED SUBSTANTIALLY OR FINALLY COMPLETE UNTIL ALL OFFSITE CURBS, PAVEMENT AND SIDEWALKS HAVE BEEN SWEEPED CLEAN OF ALL DIRT AND DEBRIS, AS WELL AS ALL PAVEMENT WITHIN THE AIR OPERATIONS AREA (AOA).
- THE CONTRACTOR SHALL KEEP SUITABLE EQUIPMENT ON HAND AT THE JOBSITE FOR MAINTENANCE OF DUST CONTROL, AND SHALL CONTROL DUST AS DIRECTED BY THE APPROPRIATE AGENCIES, AS WELL AS ANY FOREIGN OBJECT DEBRIS (FOD) WITH THE AOA (I.E. SWEEPER).
- A THOROUGH ATTEMPT HAS BEEN MADE TO SHOW THE LOCATION OF ALL UNDERGROUND OBSTRUCTIONS AND UTILITY LINES IN THE WORK AREA. THE ENGINEER AND THE AIRPORT WILL NOT GUARANTEE ANY LOCATIONS OR ELEVATIONS OF EXISTING UNDERGROUND UTILITIES SHOWN ON THESE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE AND SHALL NOT BE RELIEVED OF RESPONSIBILITY FOR MAKING A COMPLETE AND ACCURATE ON-SITE DETERMINATION OF THE LOCATIONS OF ALL UTILITIES, STRUCTURES, AND FIELD CONDITIONS WHICH MAY AFFECT THE PROGRESS OF THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO STRUCTURES AND UTILITIES ENCOUNTERED DURING CONSTRUCTION AND SHALL FILL EXISTING UNDERGROUND UTILITIES PRIOR TO TRENCHING IN THEIR VICINITY.
- THE CONTRACTOR IS REQUIRED TO CONTACT BLUE STAKE (1-800-STAKE IT) A MINIMUM OF TWO WORKING DAYS (48 HOURS) PRIOR TO COMMENCEMENT OF CONSTRUCTION. THE APPROPRIATE UTILITY COMPANIES SHALL BE NOTIFIED BY THE CONTRACTOR PRIOR TO ANY CONSTRUCTION.
- ALL QUANTITIES SHOWN ON PLANS ARE APPROXIMATE, ARE NOT VERIFIED BY THE AIRPORT, AND ARE FURNISHED SOLELY FOR THE CONTRACTOR'S CONVENIENCE. THEY DO NOT NECESSARILY CORRESPOND TO BID SCHEDULE ITEMS. PAYMENT WILL BE BASED ON BID SCHEDULE ITEMS. THE CONTRACTOR SHALL NOT BE RELIEVED OF HIS RESPONSIBILITY FOR INDEPENDENTLY ESTIMATING WORK QUANTITIES PRIOR TO BIDDING.
- CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING TO THE ENGINEER FOR APPROVAL, TRAFFIC CONTROL PLANS WHICH SHALL BE MADE A PART OF THE PLAN REVIEW REQUEST. THE CONTRACTOR SHALL DETERMINE THE EXACT SIZE AND LOCATION OF TRAFFIC CONTROL DEVICES NECESSARY AND ALL TRAFFIC CONTROL WORK SHALL BE IN ACCORDANCE WITH THE LATEST REVISIONS THEREOF. NO STREET IS TO BE CLOSED, RESTRICTED, OR CONSTRUCTED UPON UNTIL A TRAFFIC PLAN IS PREPARED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER AND AIRPORT 1 WEEK IN ADVANCE FOR APPROVAL. APPROPRIATE EMERGENCY AGENCIES SHALL BE NOTIFIED 24 HOURS PRIOR TO ANY CLOSING OF STREETS.
- CONTRACTOR SHALL WARRANT ALL WORK FOR A MINIMUM OF A ONE YEAR PERIOD, UNLESS OTHERWISE NOTED IN THE SPECIFICATIONS.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN COPIES OF MAG STANDARDS AND SPECIFICATIONS AS WELL AS ALL OTHER FEDERAL STANDARDS AND SPECIFICATIONS NECESSARY TO COMPLETELY AND ACCURATELY INTERPRET THE PLANS AND CONTRACT DOCUMENTS.
- THE CONTRACTOR SHALL GUARD AGAINST DAMAGE DURING CONSTRUCTION TO EXISTING PROPERTIES AND IMPROVEMENTS. ANY ITEMS DAMAGED BY CONSTRUCTION SHALL BE REPLACED IN KIND OR BETTER AT CONTRACTOR'S SOLE EXPENSE.
- REMOVAL OF STRUCTURES AND OBSTRUCTIONS AS NECESSARY TO COMPLETE THE WORK, OTHER THAN SPECIFICALLY SCHEDULED IN THE BID, IS INCIDENTAL TO THE CONTRACT. NO SEPARATE MEASUREMENT OF OR PAYMENT FOR UNSCHEDULED REMOVAL ITEMS WILL BE MADE.
- ALL CONSTRUCTION STAKING SHALL BE BY THE CONTRACTOR WITH CONTROL PROVIDED BY THE DESIGN ENGINEER WHO STAMPED THE PLANS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION SURVEYING AND LAYOUT. ANY QUESTIONS SHALL BE ADDRESSED TO THE DESIGN ENGINEER WHO STAMPED THE PLANS.
- THE AIRPORT MAY ORDER ANY OR ALL WORKMANSHIP AND MATERIALS TO BE TESTED ACCORDING TO APPLICABLE STANDARDS.
- THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL REWORK AND/OR REMOVAL AND REPLACEMENT OF ALL MATERIALS AND/OR WORKMANSHIP REPRESENTED BY A FAILING MATERIAL TEST.
- THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL COSTS OF QUALITY CONTROL TESTING AND INSPECTION REQUIRED INCLUDING NIGHT AND ON WEEKENDS, (IF NECESSARY).
- APPROVAL OF A PORTION OF THE WORK IN PROGRESS DOES NOT GUARANTEE ITS SUBSTANTIAL OR FINAL ACCEPTANCE. TESTING AND EVALUATION MAY CONTINUE UNTIL WRITTEN FINAL ACCEPTANCE OF A COMPLETE AND WORKABLE UNIT.
- THE AIRPORT MAY SUSPEND THE WORK BY WRITTEN NOTICE WHEN, IN ITS JUDGEMENT, PROGRESS IS UNSATISFACTORY, WORK BEING DONE IS UNAUTHORIZED OR DEFECTIVE, WEATHER CONDITIONS ARE UNSUITABLE, OR THERE IS A DANGER TO THE PUBLIC HEALTH OR SAFETY.
- STREET AND TRAFFIC SIGNS WILL BE RELOCATED BY THE CONTRACTOR, IF NECESSARY, AT THE DIRECTION OF THE AIRPORT MANAGER.
- CLEARING AND GRUBBING SHALL BE CONSIDERED INCIDENTAL TO THE WORK UNLESS SPECIFIC AREAS REQUIRING SIGNIFICANT CLEARING AND GRUBBING ARE CALLED OUT IN THE PLANS AND SCHEDULED IN THE BID. ALL EXCAVATION, EMBANKMENTS, AND FILLS SHALL FIRST BE CLEARED OF STUMPS, TRASH, WEEDS, RUBBISH, AND LOOSE Boulders WHICH SHALL BE REMOVED AND DISPOSED OF. THE CONTRACTOR MUST SATISFY HIMSELF REGARDING THE CHARACTER AND AMOUNT OF LOAM, CLAY, SAND, QUICKSAND, HARDPAN, GRAVEL, ROCK AND OTHER MATERIAL TO BE ENCOUNTERED AND WORK TO BE PERFORMED.
- CONTRACTOR IS RESPONSIBLE FOR ALL QUALITY CONTROL TESTING, AND WILL PROVIDE ALL QUALITY CONTROL TESTING RESULTS TO THE ENGINEER WITHIN 48 HOURS OF RECEIPT BY THE CONTRACTOR.

PROPOSED UTILITY QUANTITIES

PINAL AIRPARK ASCENT AVIATION MRO HANGAR CONSTRUCTION SITE CIVIL QUANTITIES					
LINE NO.	SPEC NO.	DESCRIPTION	APPROX QTY.	UNIT	AS-BUILT QTY.
<b>CIVIL - QUANTITIES</b>					
1	GTP-30.01	Remove & Dispose of Chain Link Fence	450	LF	
2	GTP-30.02	Remove & Salvage Vehicle Access Gate, Motor & Keypad	450	LF	
3	GTP-30.03	Remove Service Road	3,486	SY	
4	GTP-30.04	Remove & Dispose of 2" Gas Line	1,010	LF	
5	GTP-30.05	Remove & Dispose of Gas Valve	1	EA	
6	GTP-30.06	Remove & Dispose of Fire Hydrant	3	EA	
7	GTP-30.07	Remove & Dispose of Bollard	6	EA	
8	GTP-40.01	2" Gas Line	817	LF	
9	GTP-40.02	6" Stabilized Millings	984	SY	
10	GTP-40.03	4" Concrete MAG STD Spec 725, Class AA	984	SY	
11	GTP-40.03	9" Concrete MAG STD Spec 725, Class AA	20	SY	
12	GTP-40.04	6" Compacted Subgrade MAG STD Spec 301	6,255	SY	
13	GTP-40.04	6" Aggregate Base Course (ABC) MAG STD Spec 310	5,043	SY	
14	GTP-40.04	8" Aggregate Base Course (ABC) MAG STD Spec 310	1,212	SY	
15	GTP-40.04	Asphalt Concrete (AC) MAG STD Spec 321	1,212	SY	
16	GTP-40.04	6" Concrete Vertical Curb & Gutter MAG STD DET 220-1, Type A	366	LF	
17	GTP-40.04	2" Wide Concrete Ribbon Curb MAG STD DET 220-1, Type B	1	EA	
18	GTP-40.04	V-Wheel Gate Track	48	LF	
19	GTP-40.05	Concrete Wedge Curb PAG STD DET 209, H=1"	603	LF	
20	GTP-40.06	Riprap w/ Filter Fabric D50-6", Depth=12"	120	SY	
21	P-101	Sawcut AC Full Depth	145	LF	
22	P101	Sawcut PCCP Full Depth	803	LF	
23	P-101	Remove & Dispose of Storm Drain	686	LF	
24	P-101	Remove & Dispose of Catch Basin	1	EA	
25	P-101	Remove & Dispose of 6" Water Line	142	LF	
26	P-101	Remove & Dispose of 8" Water Line	1,985	LF	
27	P-101	Remove & Dispose of 6" Sewer Line	806	LF	
28	P-101	Remove & Dispose of FO Line	1,238	LF	
29	P-101	Remove & Dispose of Comm Line	980	LF	
30	P-101	Remove Underground Utility Vault	1	EA	
31	P-151	Clear & Grub	14	AC	
32	P-151	Remove Tree	5	EA	
33	P-151	Remove Cactus/Vegetation	4	EA	
34	P-151	Remove, Salvage & Relocate 12' Single Spear Saguaro Cactus in Accordance with Department of Agriculture Requirements	1	EA	
35	P-152	12" Compacted Subgrade	4,852	SY	
36	P-209	6" Aggregate Base Course (ABC)	4,852	SY	
37	P-304	Cement-Treated Aggregate Base Course (CTB)	4,852	SY	
38	P-501	Portland Cement Concrete Pavement (PCCP)	4,852	SY	
39	P-610	Concrete Encasement/Reinforcement	686	LF	
40	P-620	Pavement Markings (12" White)	690	LF	

41	D-701	36" RGRCP CL V Storm Drain	686	LF	
42	D-701	18" RGRCP CL V Storm Drain	58	LF	
43	D-701	18" RGRCP CL III Storm Drain	378	LF	
44	D-701	15" RGRCP CL V Storm Drain	180	LF	
45	D-701	12" RGRCP CL V Storm Drain	66	LF	
46	D-701	12" RGRCP CL III Storm Drain	51	LF	
47	D-751	Zurn Model Z874-18 Trench Drain	604	LF	
48	D-751	Zurn Model Z874-12 Trench Drain	614	LF	
49	D-751	Storm Drain Lateral Connection MAG STD DET 524	2	EA	
50	D-751	Catch Basin, Type G Double MAG STD DET 537	2	EA	
51	D-751	Storm Drain Manhole MAG STD DET 520 & 522	3	EA	
52	D-751	Drain Basin w/ Solid Lid	2	EA	
53	D-751	Type A Curb Inlet Catch Basin MAG STD DET 530	1	EA	
54	F-162	7' Chain Link Security Fence	318	LF	
55	F-162	24' Wide Chain Link Double Swing Vehicle Gate w/ Barbed Wire	1	EA	
56	F-162	4' Wide Pedestrian Chain Link Swing Gate	1	EA	
57	F-162	Installation of Salvaged Vehicle Access Gate, Motor & Keypad	1	EA	

PINAL AIRPARK ASCENT AVIATION MRO HANGAR CONSTRUCTION SITE ELECTRICAL QUANTITIES					
LINE No.	DESCRIPTION	APPROX. QTY.	UNIT	AS-BUILT QTY.	
<b>ELECTRICAL - QUANTITIES</b>					
1	Remove two Power Poles and Pole Mounted Step down Transformers	2	EA		
2	Remove overhead lines back to last existing pole by Pinal building	375	LF		
3	Ascent Building Next to Pinal County Building Remove Underground power feed from pole to Transformer	75	LF		
4	Remove Underground Power from Switch Cab to Building T-61 (480V AC)	190	LF		
5	Remove Switch Cabinet	1	LS		
6	Remove one pad mounted transformer Behind Ascent Building, Salvage And Return to Owner	1	LS		
7	Remove Underground power from Existing power pole to Existing Building T-61	210	LF		
8	Remove Underground power from Existing Building 85 back to existing building 6	350	LF		
9	Remove Underground Power from Existing Building 6 back to Building 7	350	LF		
10	Install 6 - 4" Conduits Per Utility Design	500	LF		
11	Transformer Pad per Trico Requirements	2	LS		
12	Bollards Per Trico Requirements	8	EA		
13	Install 1-3" Conduit Per Utility Design	640	LF		
14	Install New Trico Sectionalizing Switch Cabinet Pad	1	LS		
15	Utility Coordination	1	LS		
16	Install 1-3" Conduit (Secondary Conduit) Per Utility Design for Pinal County Building Power	170	LF		
17	Install New Service Entrance Meter and Main Fused Disconnect (200A, 120/240V, 1Ø, 3 Wire, Nema 3R, 22KALC) Ground new SES Per NEC Requirements.	1	EA		
18	Install New Feeder (3-#10, #10 Gnd) in New Underground 1" Conduit to Existing Airport Access Gate Motor From Existing Panel at Pinal County Building (Circuit 14,16) Concrete Encased per Detail 501	35	LF		
19	Install New Feeder From New Service Entrance Meter Main Panel to Existing Panel on Pinal County Building (3-3/0, #6 GND in 2" IMC Conduit)	40	LF		
20	Install New 30 amp 2 Pole, 240V Circuit Breaker in Pinal County Building Panel for New Gate Power Match existing in Bracing and Type.	1	EA		

**GENERAL NOTES:**

- Developer shall obtain a Pinal County Right-of-Way Use Permit prior to any work being performed within the county right-of-way. Contact the Pinal County Public Works Inspection Section at least seven (7) days prior to work.
- Drainage Report and Grading & Drainage plan shall be in accordance with the current Pinal County Drainage Ordinance and Drainage Manual.
- A storm water pollution prevention plan (SWPPP) shall be submitted to Pinal County prior to issuance of construction permits. (If applicable, sites of 1 acre or more).
- The Contractor is responsible for obtaining an earth moving permit from Pinal county Air Quality Department and the EPA, and for complying with their requirements for dust control.
- Any work done in a drainage channel or wash must comply with state and federal regulations
- All work required to complete the construction within the County right-of-way covered by these plans shall be in accordance with the Pinal County Design Manual and applicable MAG standard specifications and details.
- All frames, covers, valve boxes and manhole covers shall be adjusted to finish grade prior to completion of paving or related construction.
- Contractor is responsible for Blue Stake marking as construction is in progress.
- No trench to be left open/uncovered after working hours.
- Traffic control and barricading shall be according to the Manual on Uniform Traffic Control Devices and/or Pinal County requirements.
- Any work on Arterial or Collector roads shall require an off-duty Pinal County Sheriff's Officer for traffic control. Contact shall be made through the PCSO representative.
- All retention basins must drain the design storm runoff volume within 36 hours. The owner is responsible for any basin failing to meet the requirement and must take corrective action to bring the basin into compliance with this criteria as well as Pinal County Standards and Drainage Ordinance.
- All dry wells shown on this project shall be maintained by the owners and are to be replaced by owners when they cease to drain the surface water in a 36 hour period. Regular maintenance of the dry well's silting chamber is required to achieve the best operation of the drywells. The owner shall be responsible for registering the drywells with ADEQ. Dry well grate elevation shall be a minimum 0.3' ft. above the bottom of retention basin (to allow for silt accumulation).
- An approved set of plans shall be maintained on the job site at all times while work is in progress. Deviation from the plans shall not be allowed without an approved plan revision.
- Any work performed without the approval of the County Engineer and/or all work and material not in conformance with the specifications is subject to removal and replacement at the contractor's expense.

**GENERAL NOTES & QUANTITIES**

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Architect



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Madison WI 53719

COMMISSION NAME


# Ascent Aviation MRO Hangars



**ASCENT**  
AVIATION SERVICES

Pinal Air Park Road  
Marana, AZ 85653

SEAL



Carmen Marie Rose

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**GENERAL NOTES &  
QUANTITIES**  
**Page 4 of 34**

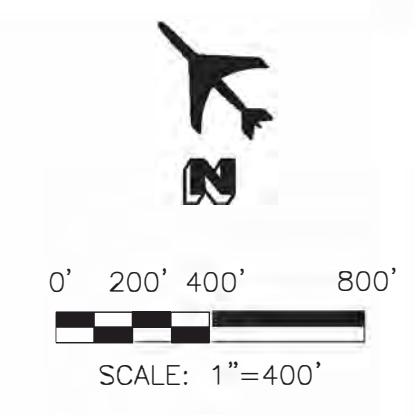
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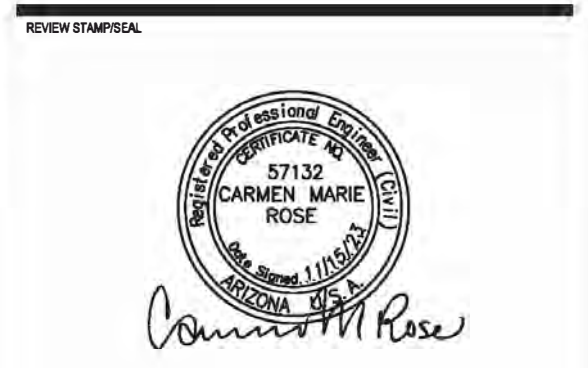
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**Affiliated Engineers, Inc.**  
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 Madison WI 53719

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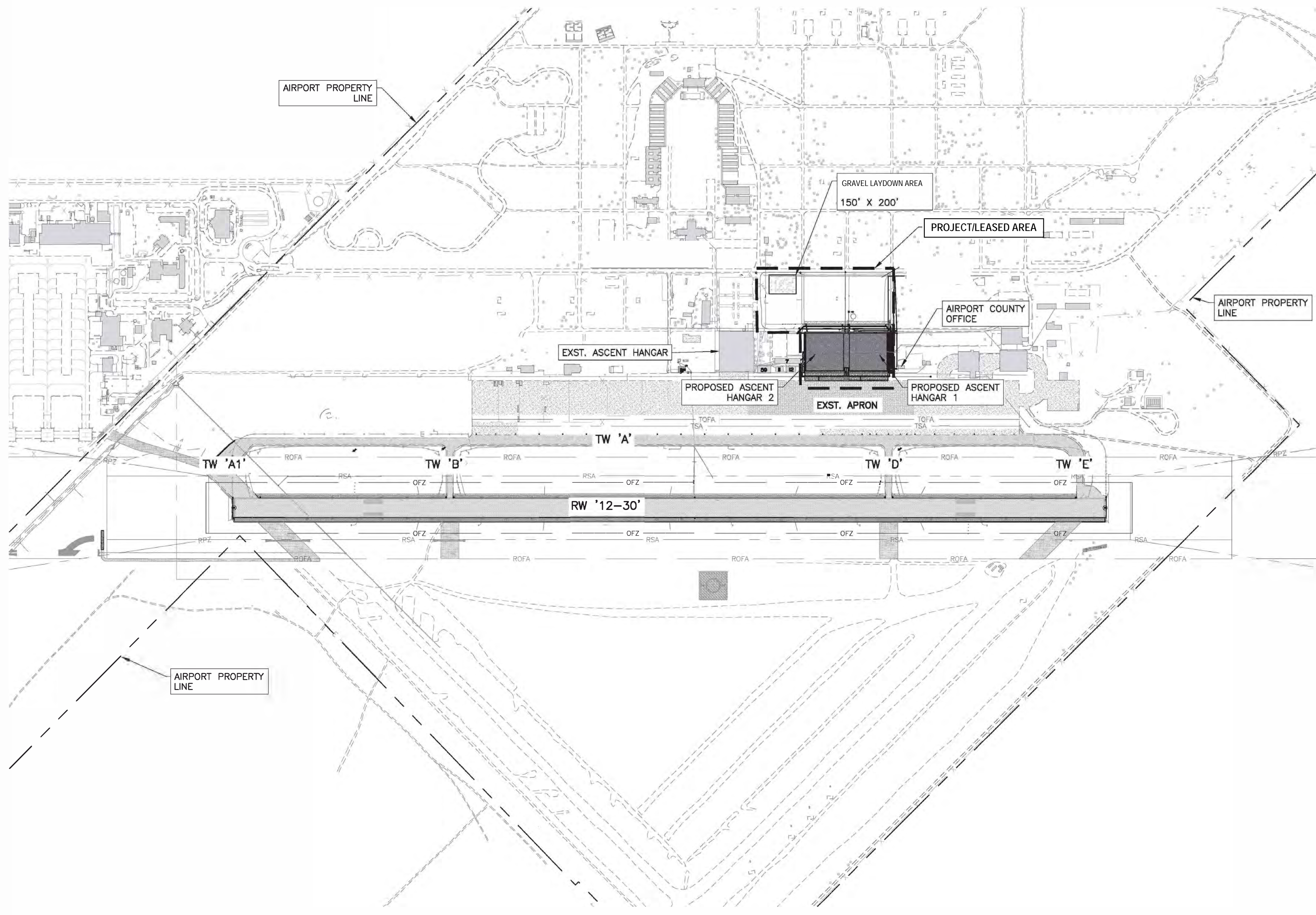
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SHEET TITLE  
**AIRPORT SITE PLAN**  
 Page 5 of 34

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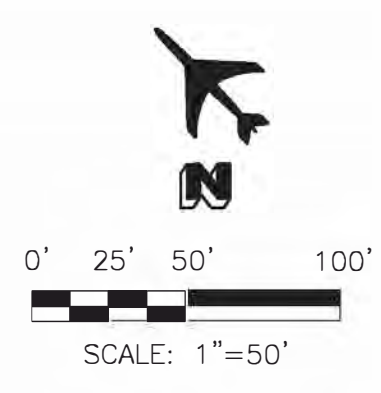
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REVIEW EMPLOYE  
  
 Carmen Marie Rose

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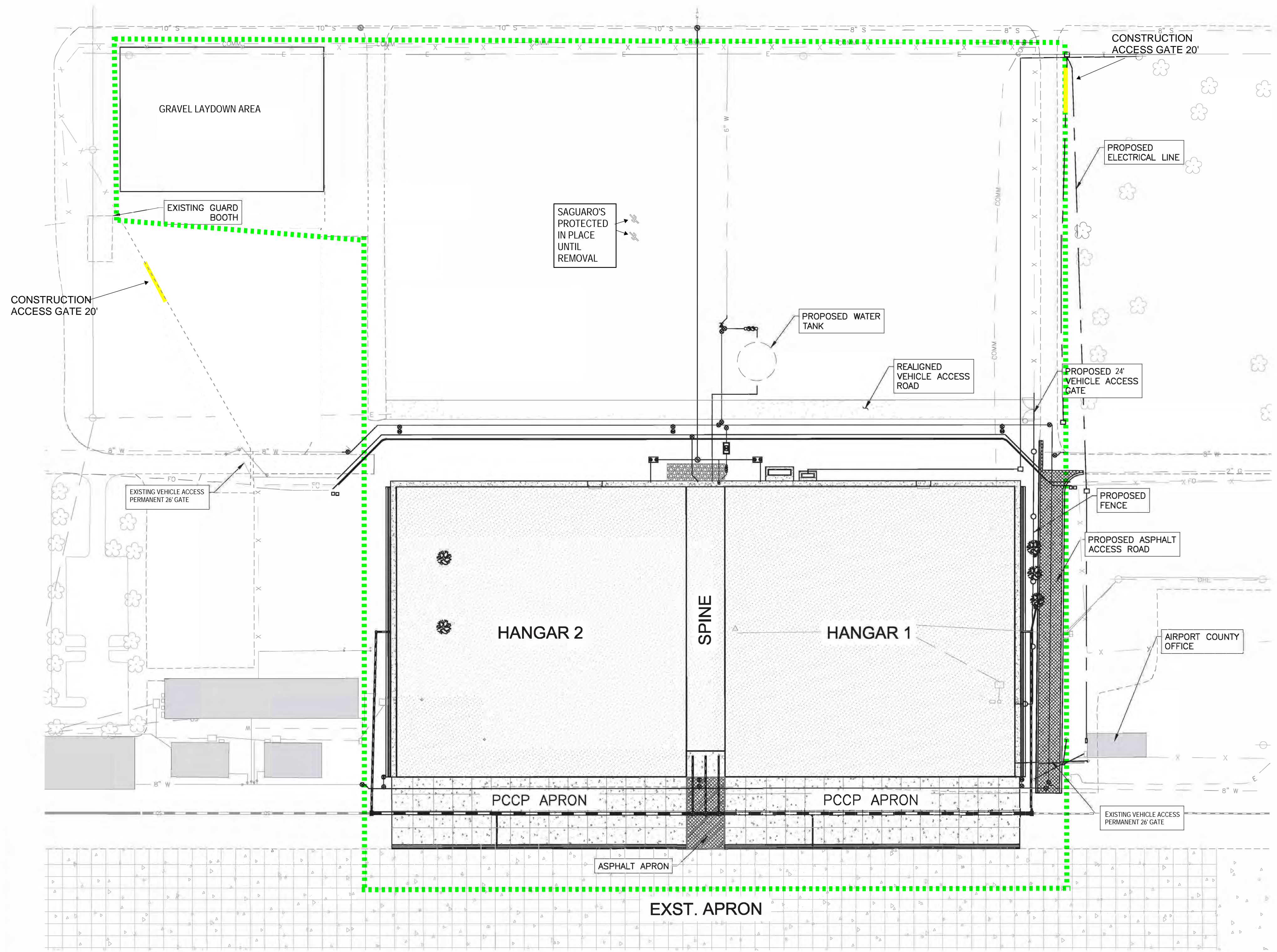
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PROJECT TITLE  
**PROJECT SITE PLAN**  
 Page 6 of 34

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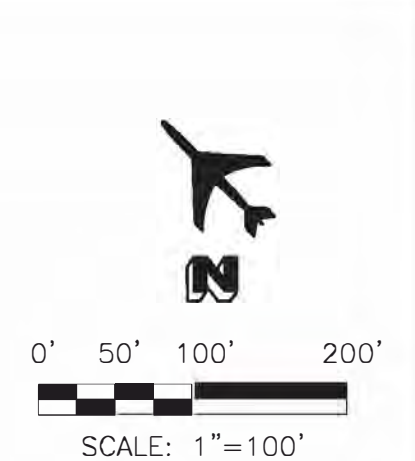


LEGEND

- EXISTING BUILDING
- EXISTING PCCP
- EXISTING AC
- GRAVEL PARKING LOT
- PROPOSED SERVICE ROAD
- PROPOSED RIPRAP
- NEW PCCP
- NEW AC
- LIMITS OF CONSTRUCTION (TYPICAL) AND LEASED AREA

REFER TO DRAWING G1.03 FOR PROPERTY LINE, SETBACKS, EASEMENTS & ROWS

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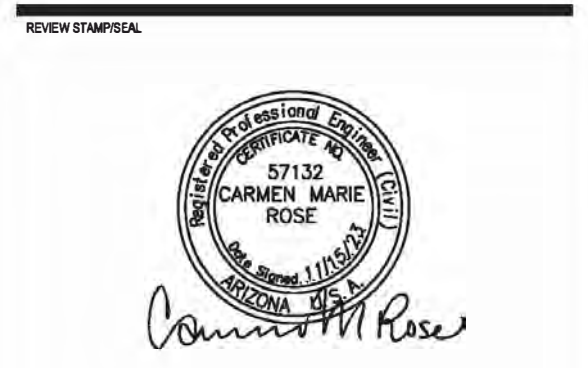
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Mechanical / Electrical / Plumbing Consultant  
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COMMISSION NAME  
**Ascent Aviation MRO Hangars**



Pinal Air Park Road  
 Marana, AZ 85653



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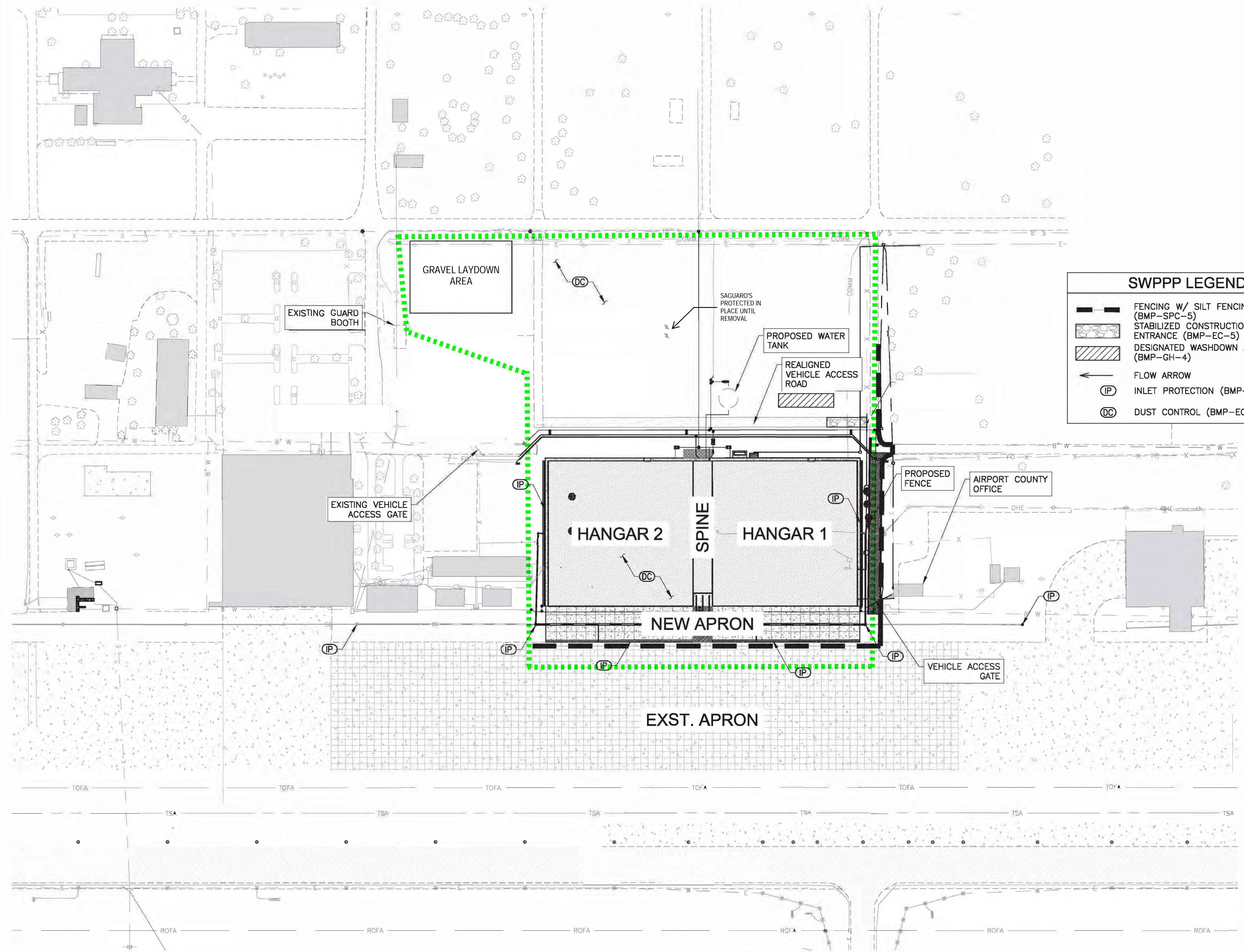
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SHEET TITLE  
**SWPP PLANS**  
 Page 7 of 34

THORSE DESIGN LLC COMMISSION NO. 223-033

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**G1.05**

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**SWPPP LEGEND**

- FENCING W/ SILT FENCING (BMP-SPC-5)
- STABILIZED CONSTRUCTION ENTRANCE (BMP-EC-5)
- DESIGNATED WASHDOWN AREA (BMP-GH-4)
- FLOW ARROW
- INLET PROTECTION (BMP-SPC-7)
- DUST CONTROL (BMP-EC-7)

- 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.
  - NO BODIES OF WATER (INCLUDING DRY WASHES) OR ENVIRONMENTALLY SENSITIVE AREAS ARE PRESENT ON-SITE.
  - 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.
- NOTE: CONTRACTOR MAY UTILIZE ADDITIONAL BMPs AS APPROVED BY PINAL COUNTY

**LEGEND**  
 CONSTRUCTION FOOTPRINT AND LEASED AREA

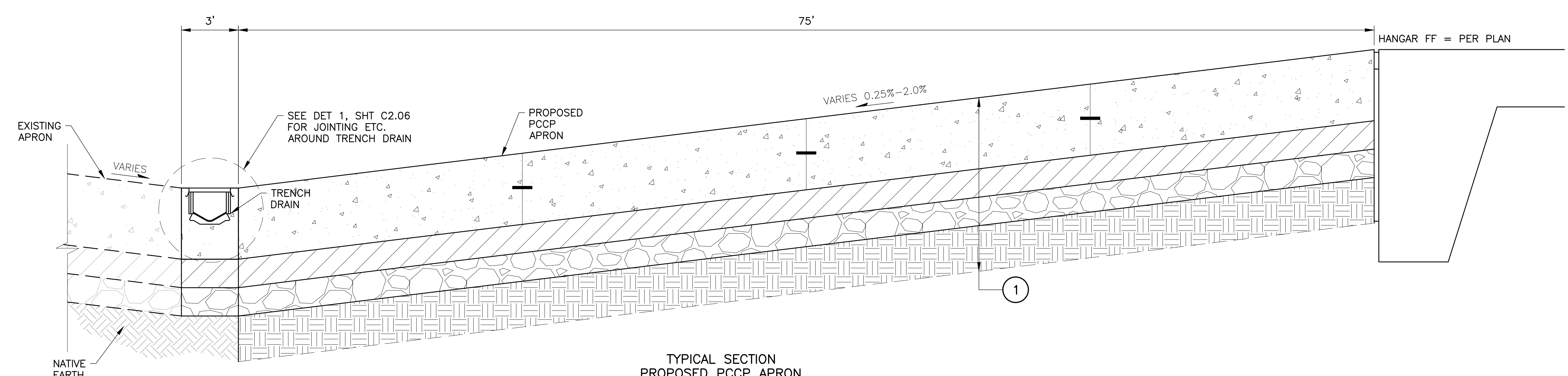
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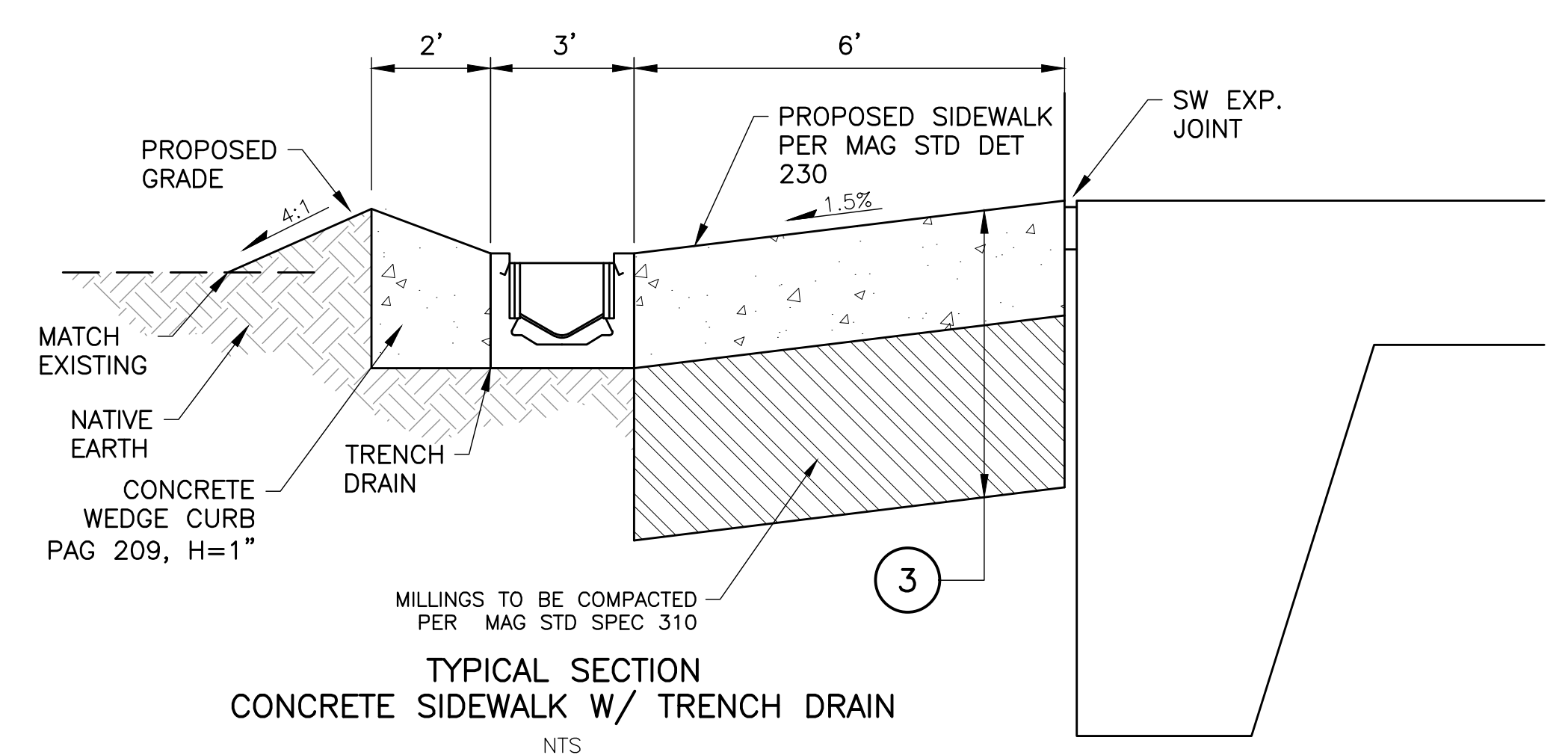
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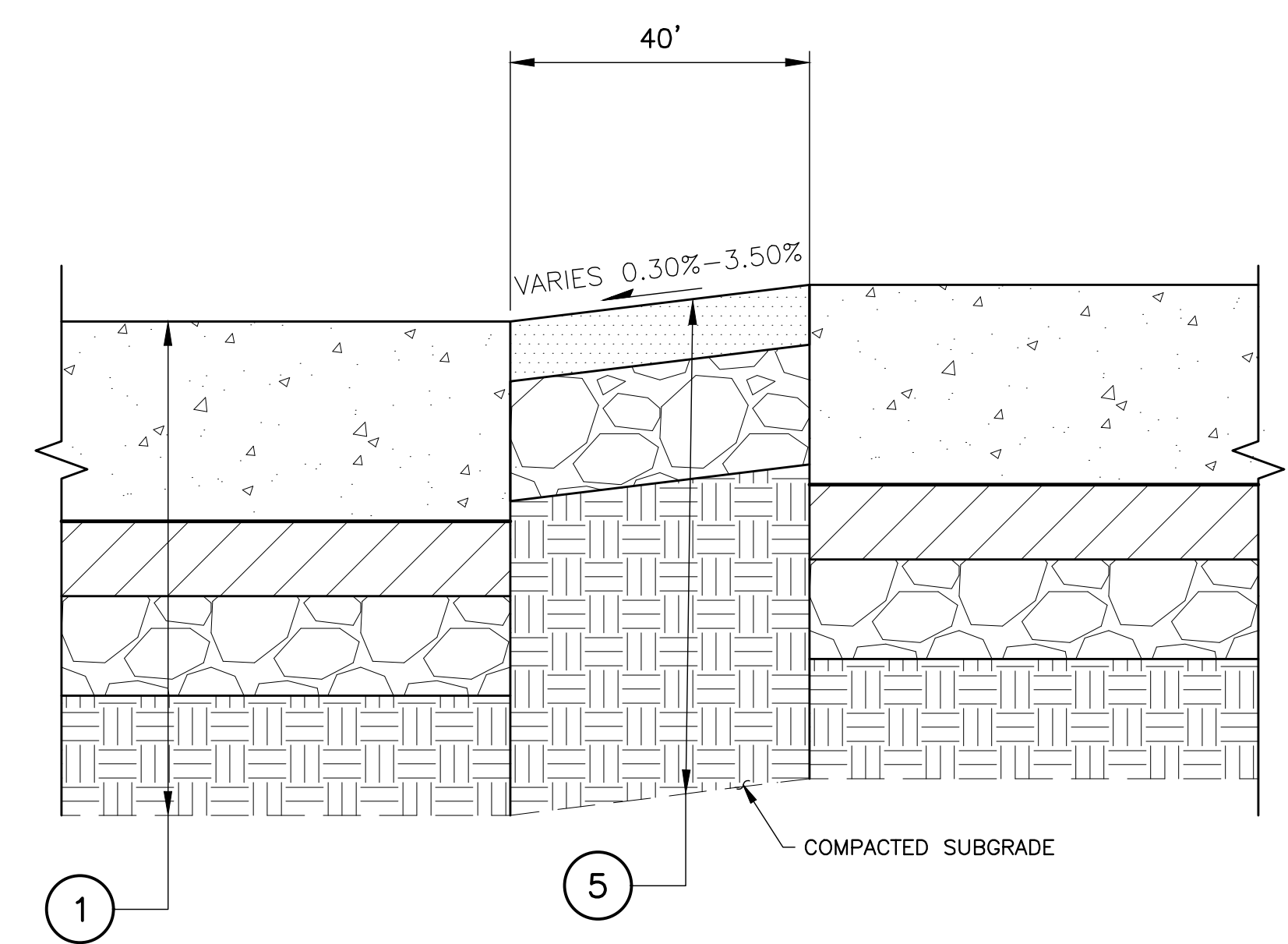
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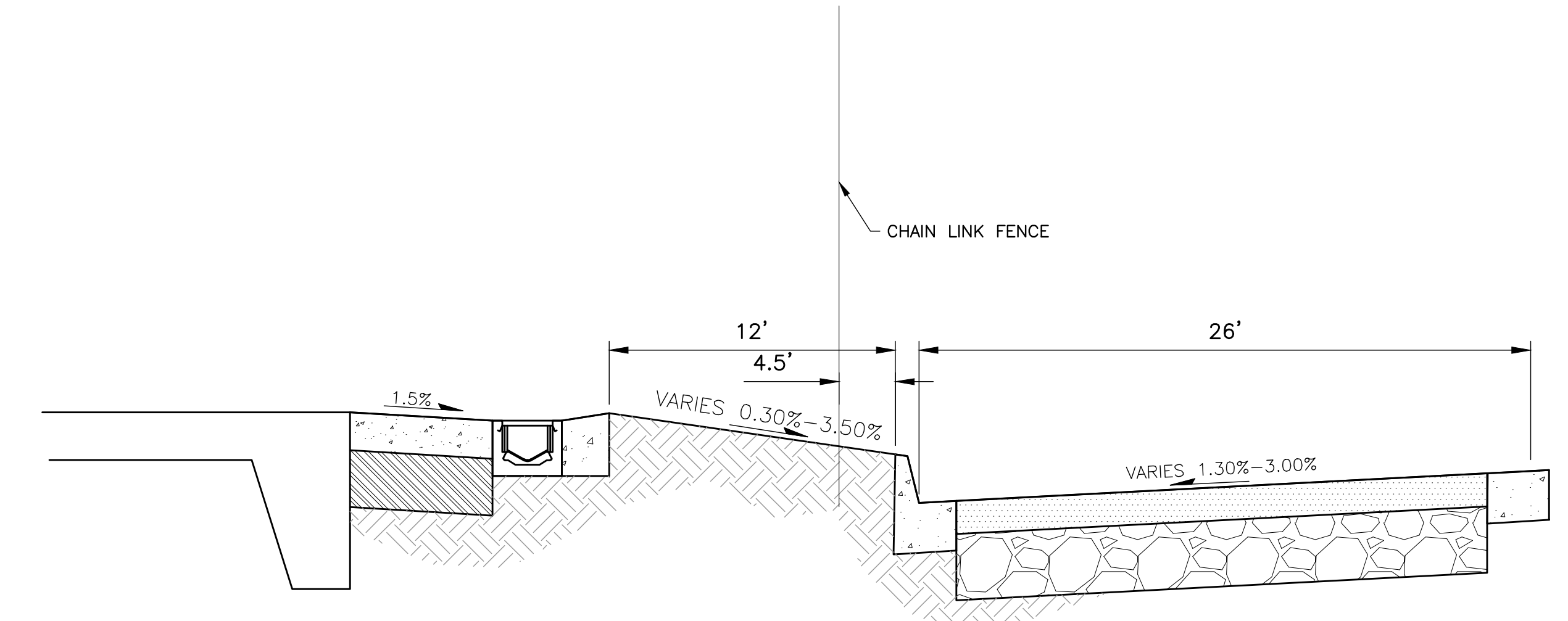
TYPICAL SECTION PROPOSED PCCP APRON NTS



TYPICAL SECTION CONCRETE SIDEWALK W/ TRENCH DRAIN NTS



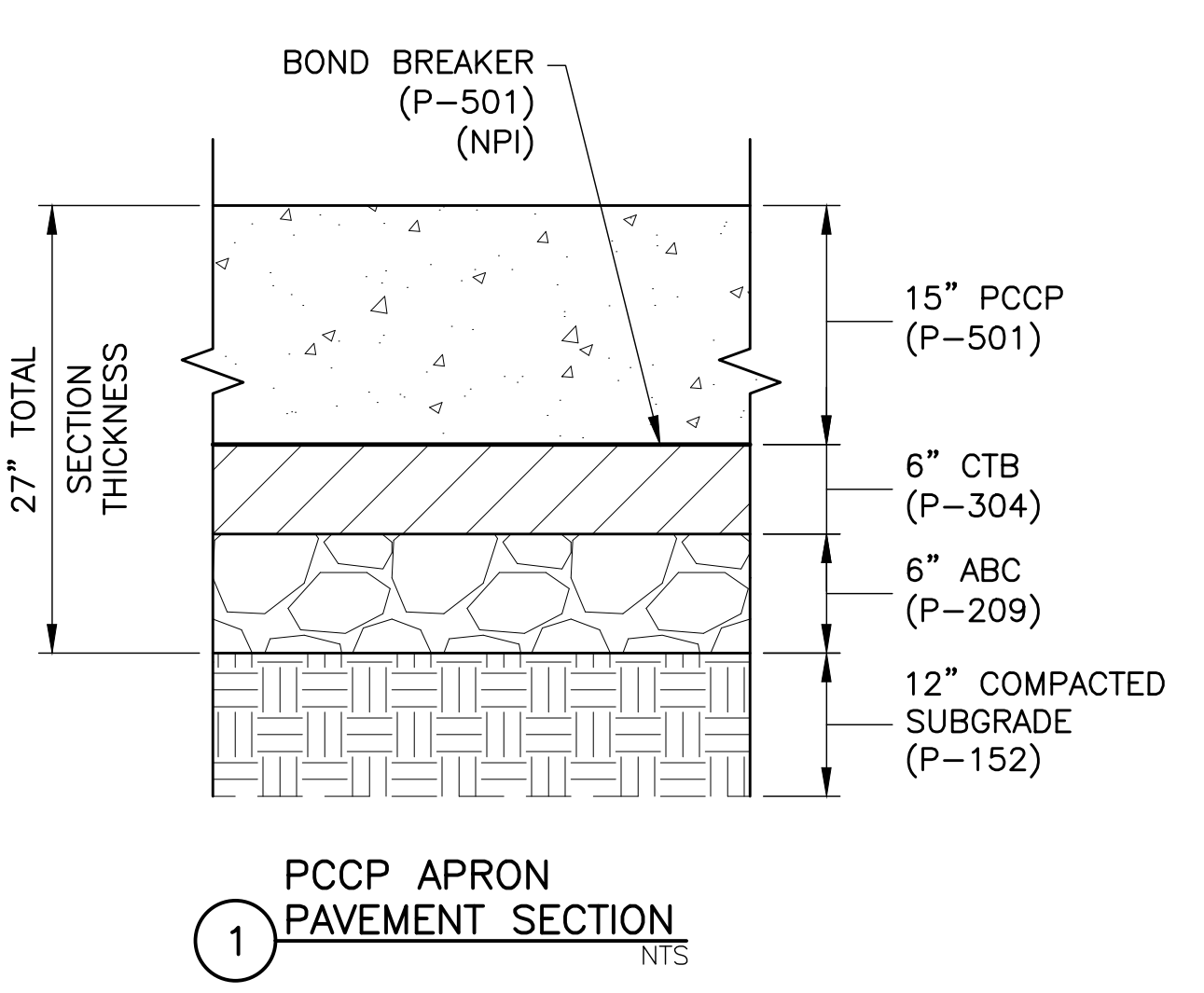
TYPICAL SECTION PROPOSED ASPHALT APRON NTS



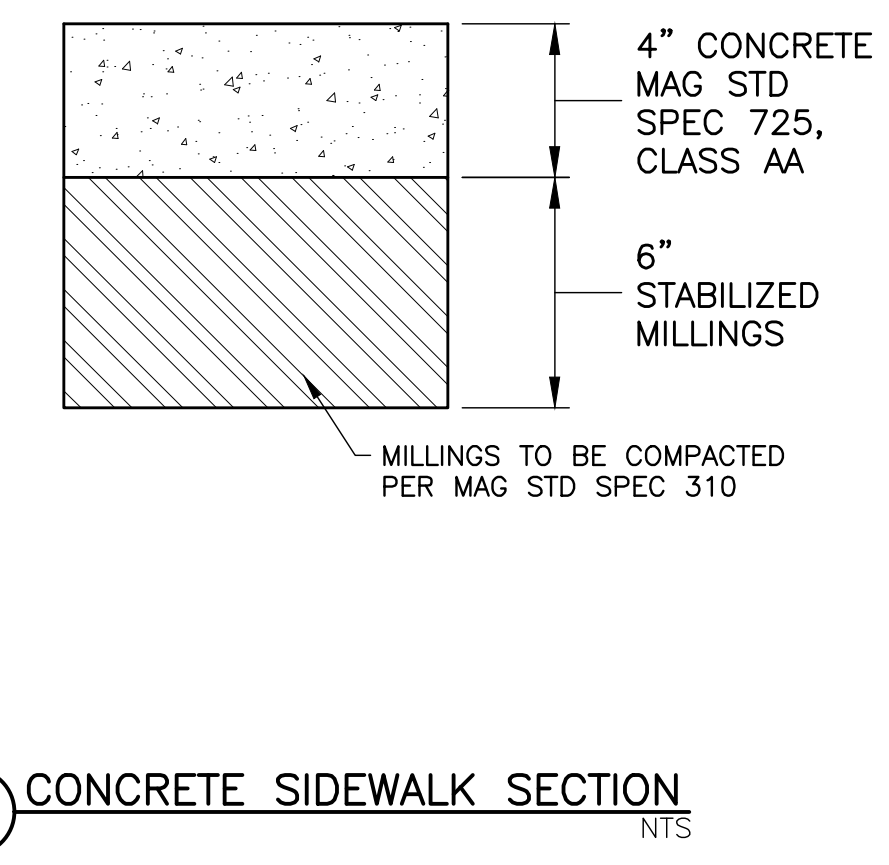
TYPICAL SECTION HANGAR 1 TO EAST SERVICE DRIVE NTS

ROW WIDTH	PVMT WIDTH	STRUCT SECT
110'	110'	4"AC/10"ABC
80'	80'	3"AC/8"ABC
60'	60'	3"AC/8"ABC
50'	50'	2"AC/6"ABC

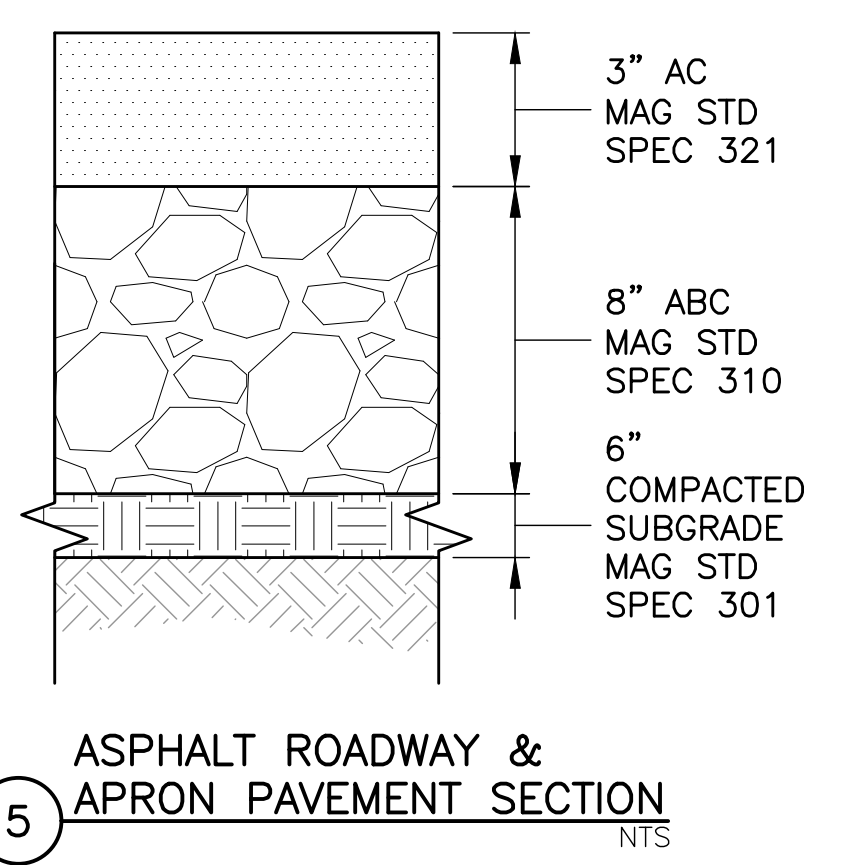
PAVEMENT SECTION STANDARDS PINAL COUNTY SPECS SECT 6.25.3



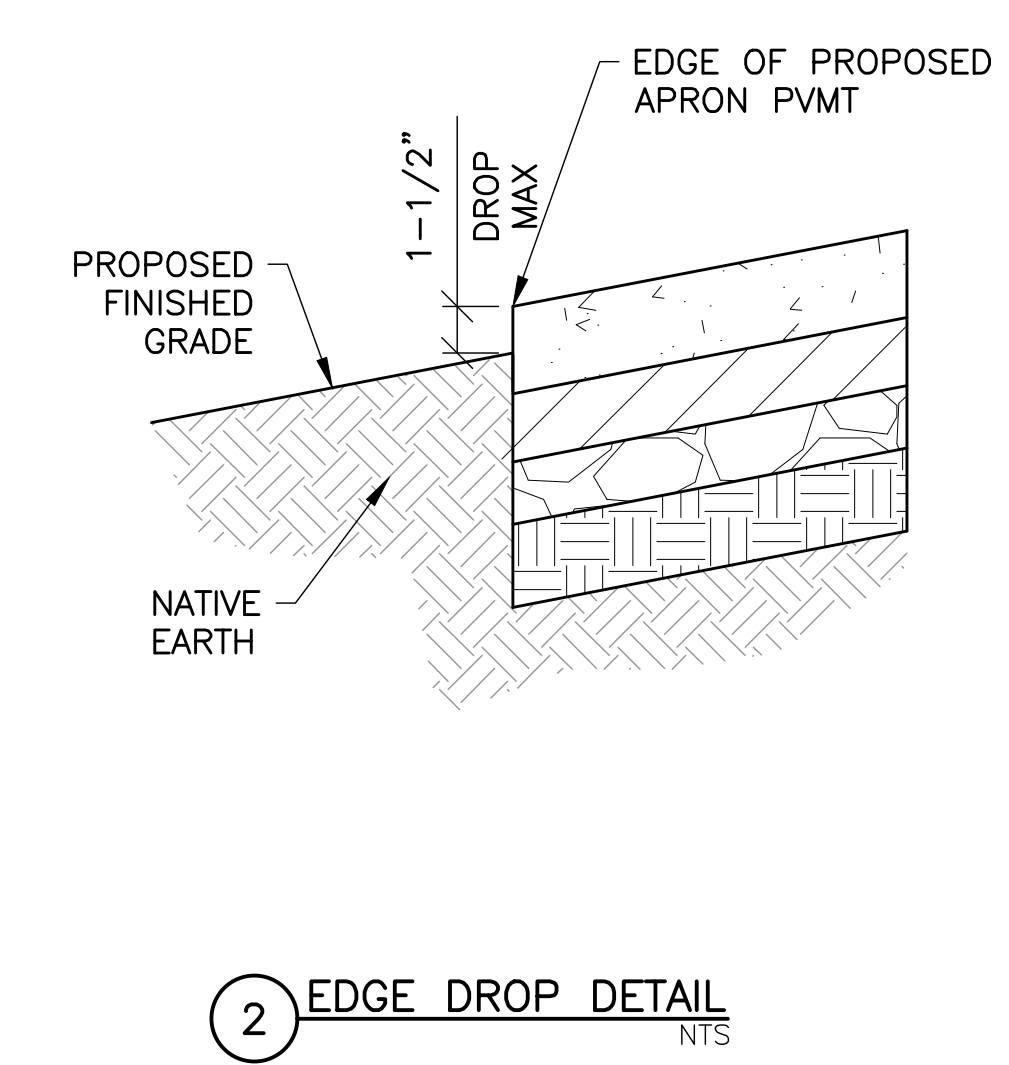
PCCP APRON PAVEMENT SECTION NTS



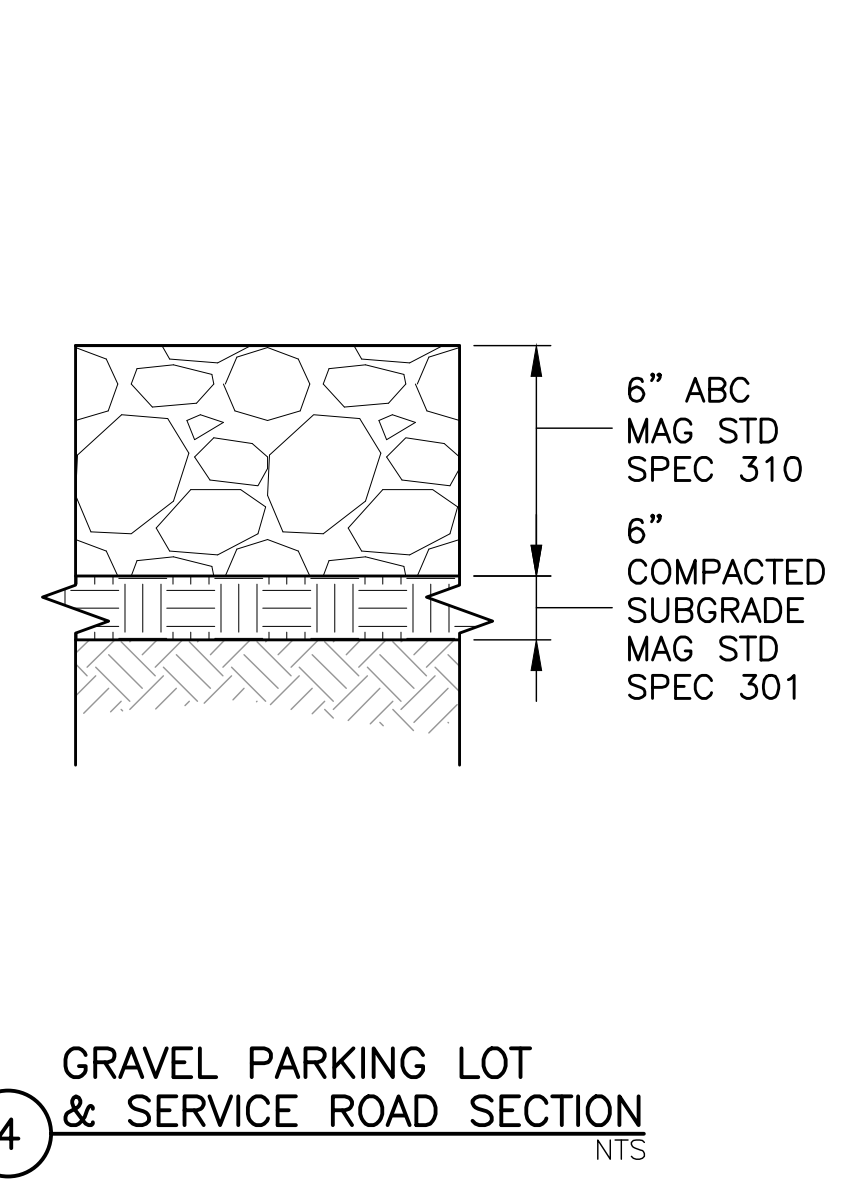
CONCRETE SIDEWALK SECTION NTS



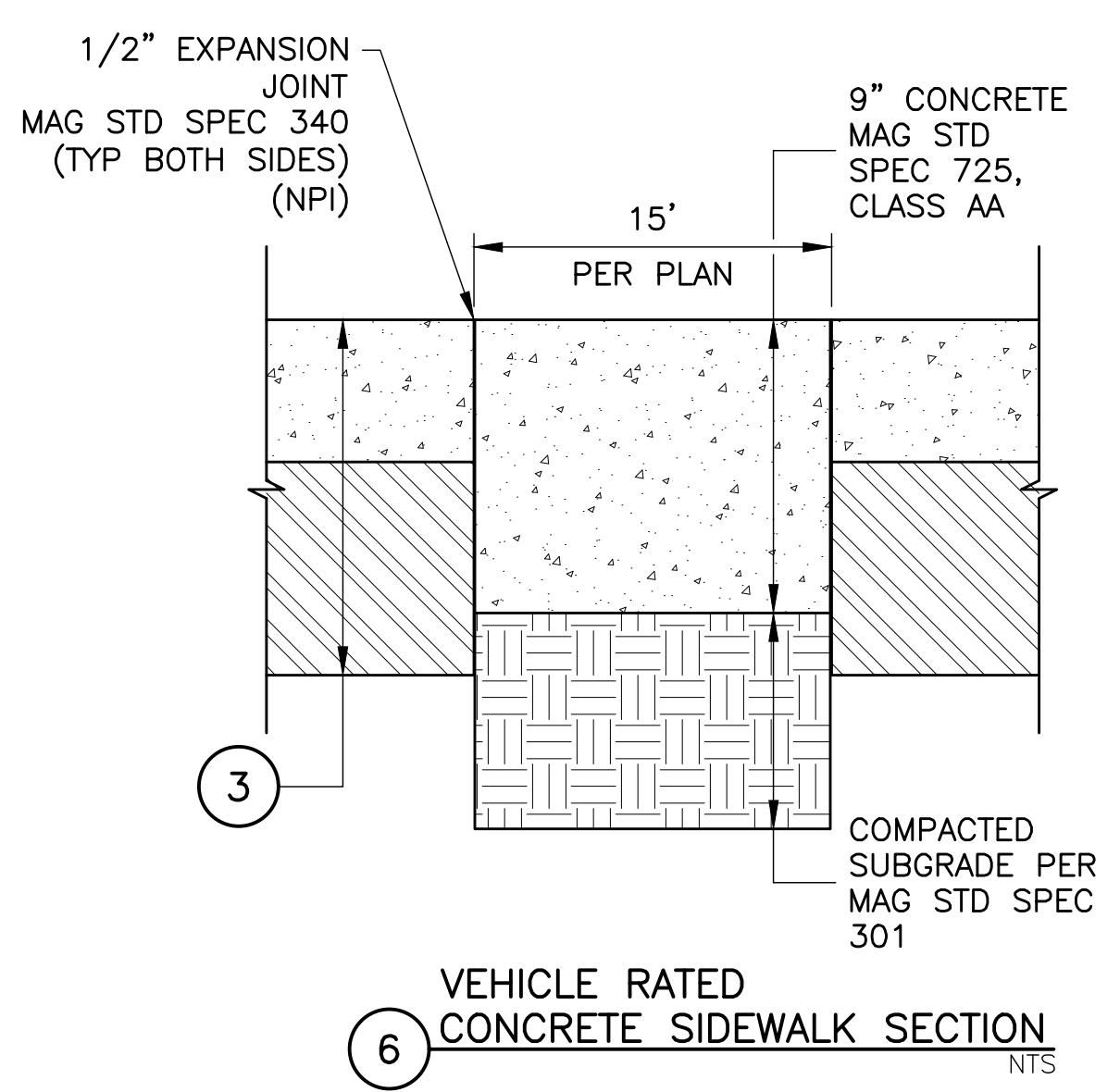
ASPHALT ROADWAY & APRON PAVEMENT SECTION NTS



EDGE DROP DETAIL NTS



GRAVEL PARKING LOT & SERVICE ROAD SECTION NTS



VEHICLE RATED CONCRETE SIDEWALK SECTION NTS

PAVEMENT STRUCTURE INFORMATION BY LAYER

NO.	TYPE	THICKNESS (IN.)	MODULUS PSI	POISSON'S RATIO	STRENGTH R PSI
1	P-501 PCC SURFACE	15.1	4,000,000	0.15	650
2	P-304 CEMENT TREATED BASE	6.0	500,000	0.35	0
3	P-209 CRUSHED AGGREGATE	6.0	29,437	0.35	0
4	SUBGRADE	0	9,924	0.4	0

AIRPLANE INFORMATION

NO.	NAME	GROSS WT. (LBS)	ANNUAL DEPARTURES	% ANNUAL GROWTH
1	B777-300 ER	77,700	4	0

ADDITIONAL AIRPLANE INFORMATION

NO.	NAME	CDF CONTRIBUTION	CDF MAX FOR AIRPLANE	P/C RATIO
1	B777-300 ER	1.00	1.00	3.84

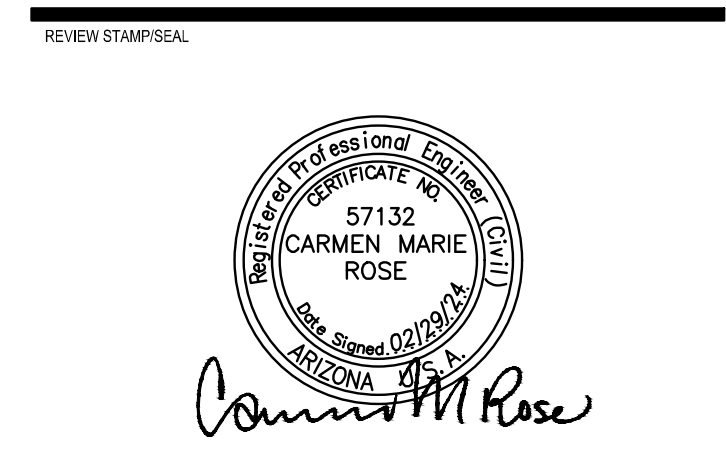
7 FAA FAARFIELD 2.0 PAVEMENT DESIGN TOOL OUTPUT TABLE NTS

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ISSUES

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**TYPICAL SECTIONS**

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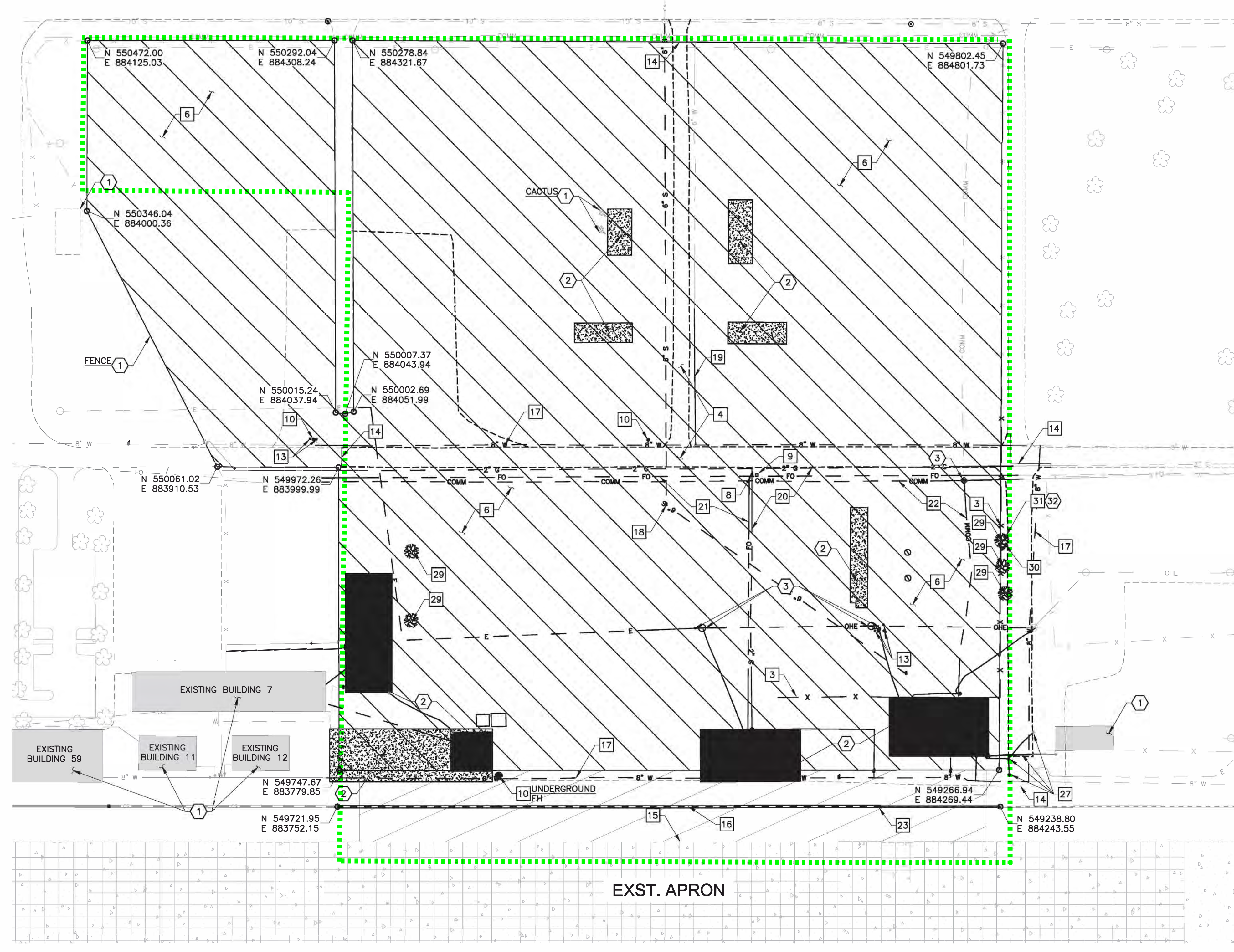
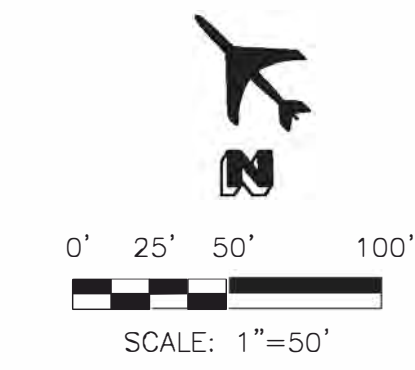
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REMOVAL NOTES		
3	REMOVE & DISPOSE OF CHAIN LINK FENCE	450 LF
4	REMOVE SERVICE ROAD	3,486 SY
6	CLEAR & GRUB	14 AC
8	REMOVE & DISPOSE OF GAS VALVE	1 EA
9	REMOVE UNDERGROUND UTILITY VAULT	1 EA
10	REMOVE & DISPOSE OF FIRE HYDRANT	3 EA
13	REMOVE & DISPOSE OF BOLLARD	6 EA
14	SAWCUT AC FULL DEPTH	145 LF
15	SAWCUT PCCP FULL DEPTH	803 LF
16	REMOVE & DISPOSE OF STORM DRAIN	686 LF
17	REMOVE & DISPOSE OF 8" WATER LINE	1,985 LF
18	REMOVE & DISPOSE OF 6" SEWER LINE	806 LF
19	REMOVE & DISPOSE OF 6" WATER LINE	142 LF
20	REMOVE & DISPOSE OF 2" GAS LINE	1,010 LF
21	REMOVE & DISPOSE OF FO LINE	1,238 LF
22	REMOVE & DISPOSE OF COMM LINE	980 LF
23	REMOVE & DISPOSE OF CATCH BASIN	1 EA
27	REMOVE & SALVAGE VEHICLE ACCESS GATE, MOTOR & KEYPAD	1 EA
29	REMOVE TREE	5 EA
30	REMOVE CACTUS/VEGETATION	4 EA
31	REMOVE, SALVAGE & RELOCATE 12' SINGLE SPEAR SAGUARO CACTUS IN ACCORDANCE WITH DEPARTMENT OF AGRICULTURE REQUIREMENTS	1 EA

**REFERENCE NOTES**

- 1 PROTECT IN PLACE UNTIL REMOVAL
- 2 BUILDING/CONCRETE FOUNDATION TO BE REMOVED REFER TO ARCH SHEET A001
- 3 REFER TO ELECTRICAL DEMOLITION PLANS
- 32 COORDINATE W/ PINAL COUNTY

**GENERAL NOTE:**  
 ALL UNDERGROUND UTILITIES TO BE CUT & CAPPED OUTSIDE OF FOOTPRINTS OF ALL BUILDINGS & SLABS BEING DEMOLISHED WITH THIS PROJECT - COORDINATE CAP LOCATIONS WITH OWNER/NEW IMPROVEMENTS

**LEGEND**

	REMOVE AC PAVEMENT
	CLEAR & GRUB
	BUILDING TO BE DEMOLISHED
	CONCRETE PAD TO BE DEMOLISHED
	CONSTRUCTION FOOTPRINT AND LEASED AREA

REFER TO DRAWING G1.03 FOR PROPERTY LINE, SETBACKS, EASEMENTS & ROWS

General Contractor  
  
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Mechanical / Electrical / Plumbing Consultant  
**Affiliated Engineers, Inc.**  
 5802 Research Park Boulevard,  
 Madison WI 53719

**COMMISSIONER**

**Ascent Aviation MRO Hangars**

Pinal Air Park Road  
 Marana, AZ 85653

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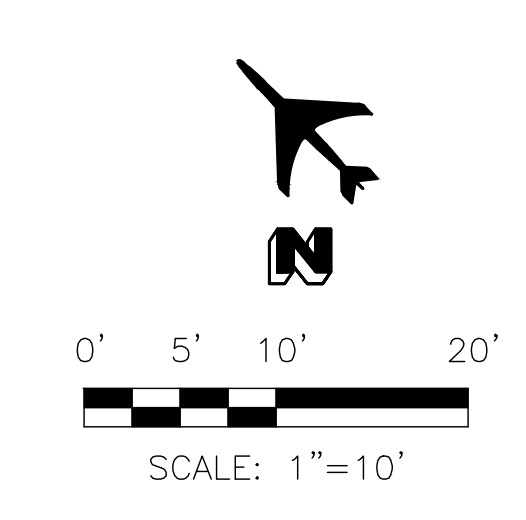
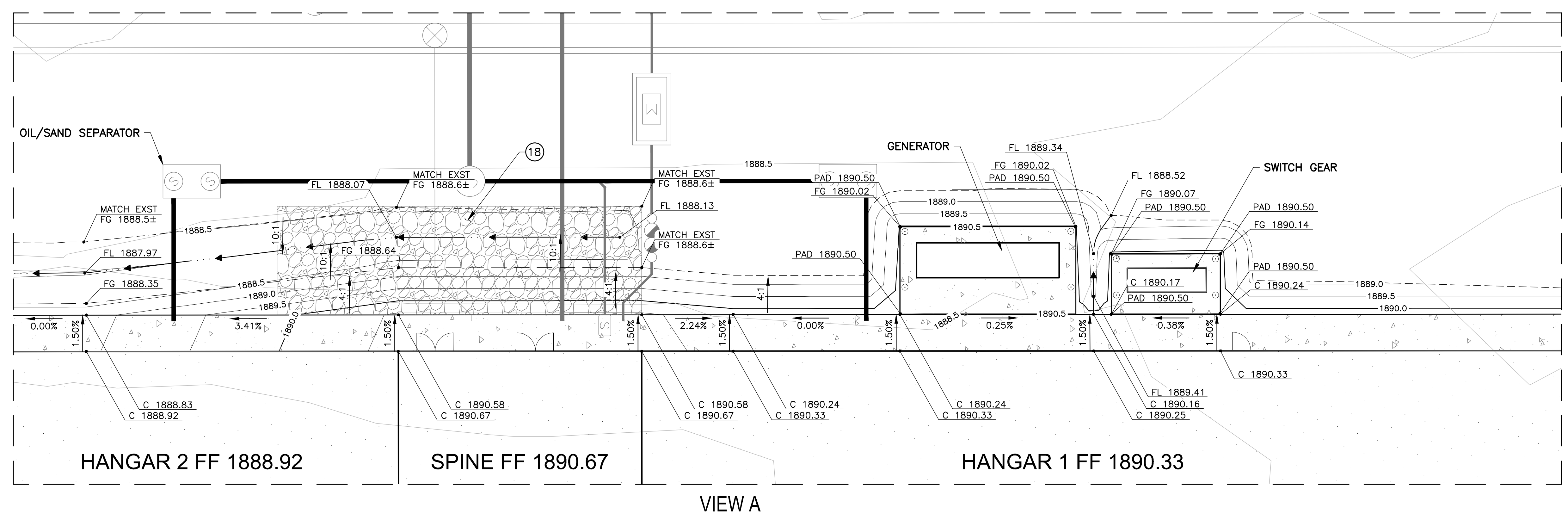
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**CONSTRUCTION NOTES**

(18) RIPRAP W/ FILTER FABRIC D50=6", DEPTH=12" DIMENSIONS PER PLAN 120 SY

**REFERENCE NOTES**

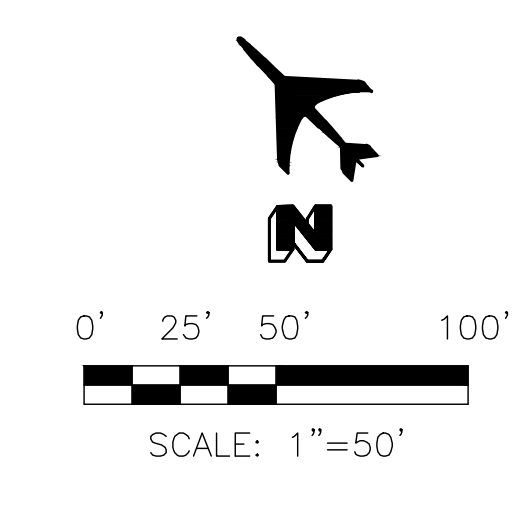
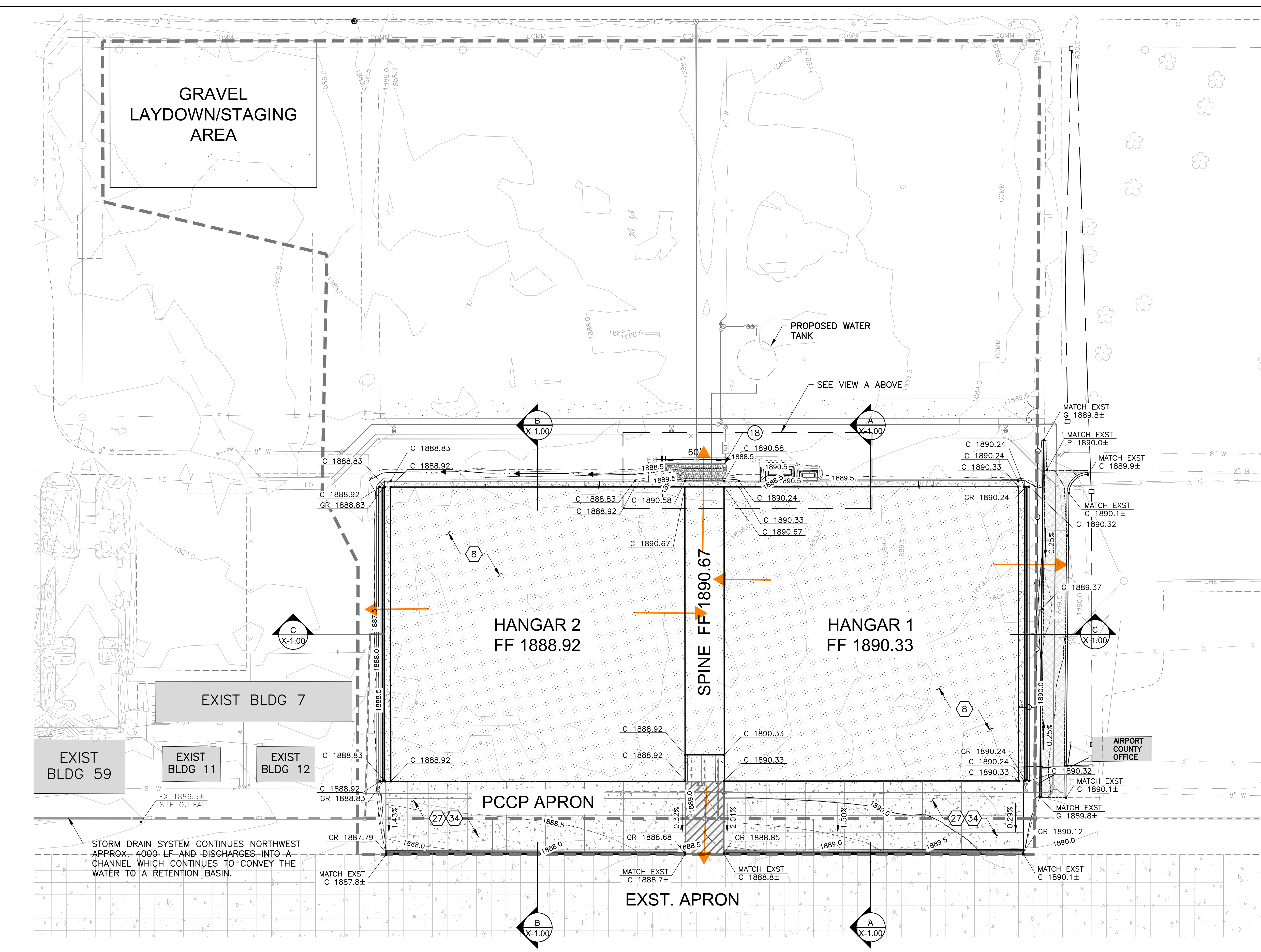
(B) HANGAR BUILDING REFER TO ARCHITECTURAL PLANS

(27) REFER TO DWG C1.01 FOR SITE AND PAVING PLAN

(34) REFER TO DWG C2.02-C2.05 FOR STORM DRAIN PLAN & PROFILES

**LEGEND**

- EXISTING BUILDING
- EXISTING PCCP
- EXISTING AC
- GRAVEL PARKING LOT
- PROPOSED SERVICE ROAD
- PROPOSED RIPRAP
- NEW PCCP
- NEW AC
- CONSTRUCTION FOOTPRINT AND LEASED AREA
- DIRECTION OF ROOF RUN OFF



**RETENTION CALCULATIONS**

	Vr/Vp
Existing capacity	2HR/0.60 ACRE-FOOT
New capacity	2HR/1.05 ACRE-FOOT

REFER TO DRAWING G1.03 FOR PROPERTY LINE, SETBACKS, EASEMENTS & ROWS

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PROJECT TITLE: GRADING & DRAINAGE PLAN

Page 12 of 34

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**Pinnacle Structural Engineers**

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**Affiliated Engineers, Inc.**

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COMMISSION NUMBER

**Ascent Aviation MRO Hangars**

**ASCENT AVIATION SERVICES**

Pinal Air Park Road  
Marana, AZ 85653

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**Carmen Marie Rose**

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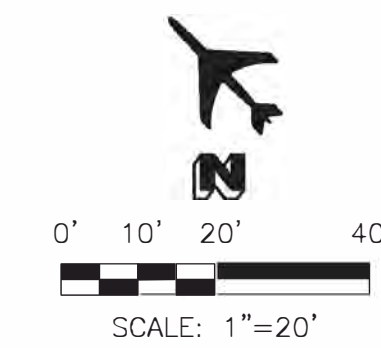
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- CONSTRUCTION NOTES**
- ⑥ 36" RGRCP CL V STORM DRAIN 330 LF
  - ⑧ 12" RGRCP CL V STORM DRAIN 33 LF
  - ⑨ CATCH BASIN, TYPE G DOUBLE MAG STD DET 537 1 EA
  - ⑩ ZURN MODEL Z874-12 TRENCH DRAIN W/ MODEL GDF AIRCRAFT RATED GALVANIZED DUCTILE IRON SLOTTED GRATE OR APPROVED EQUAL REFER TO DET 1, DWG C2.06 307 LF
  - ⑫ STORM DRAIN LATERAL CONNECTION MAG STD. DET. 524 1 EA
  - ⑬ CONCRETE ENCASUREMENT/REINFORCEMENT DET 7, SHT 2.06 330 LF

- REFERENCE NOTES**
- ① PROTECT IN PLACE UNTIL REMOVAL
  - ⑩ PROPOSED WATERLINE SEE W&W DWG W2.01
  - ⑫ REFER TO DWG C2.04 FOR STORM DRAIN LATERAL
  - ⑫ REFER TO DWG C1.01 FOR SITE AND PAVING PLAN
  - ⑬ REFER TO DWG C2.01 FOR GRADING AND DRAINAGE PLAN

General Contractor



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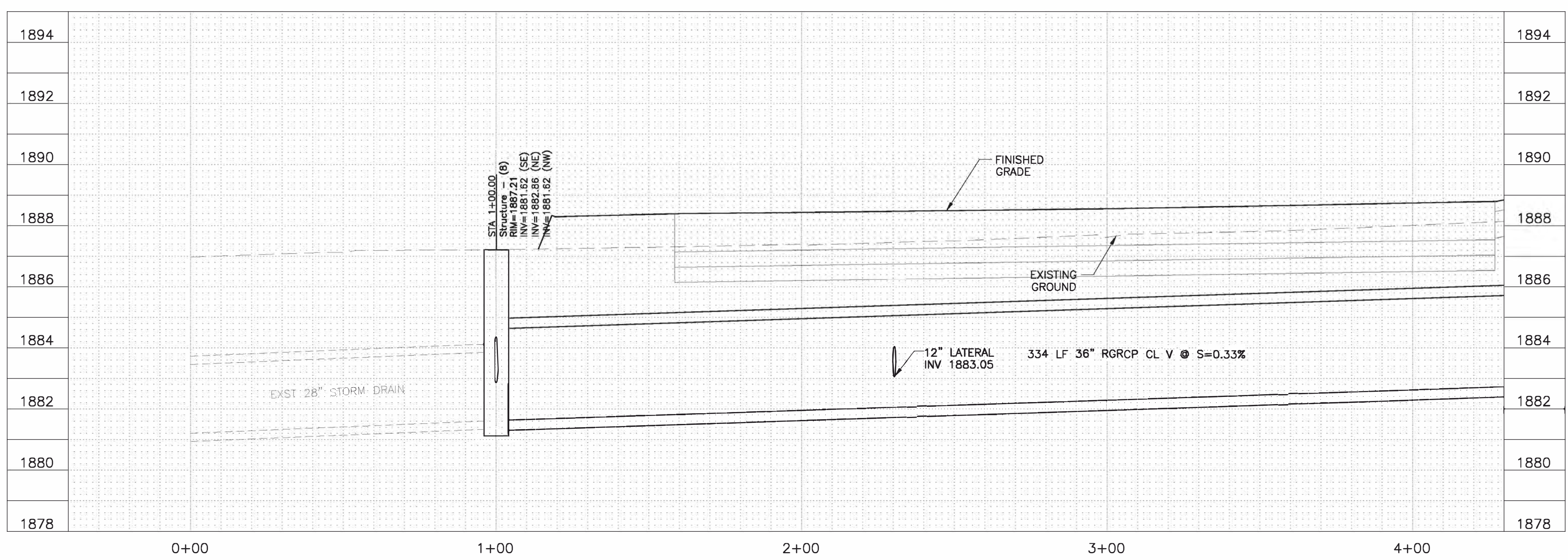
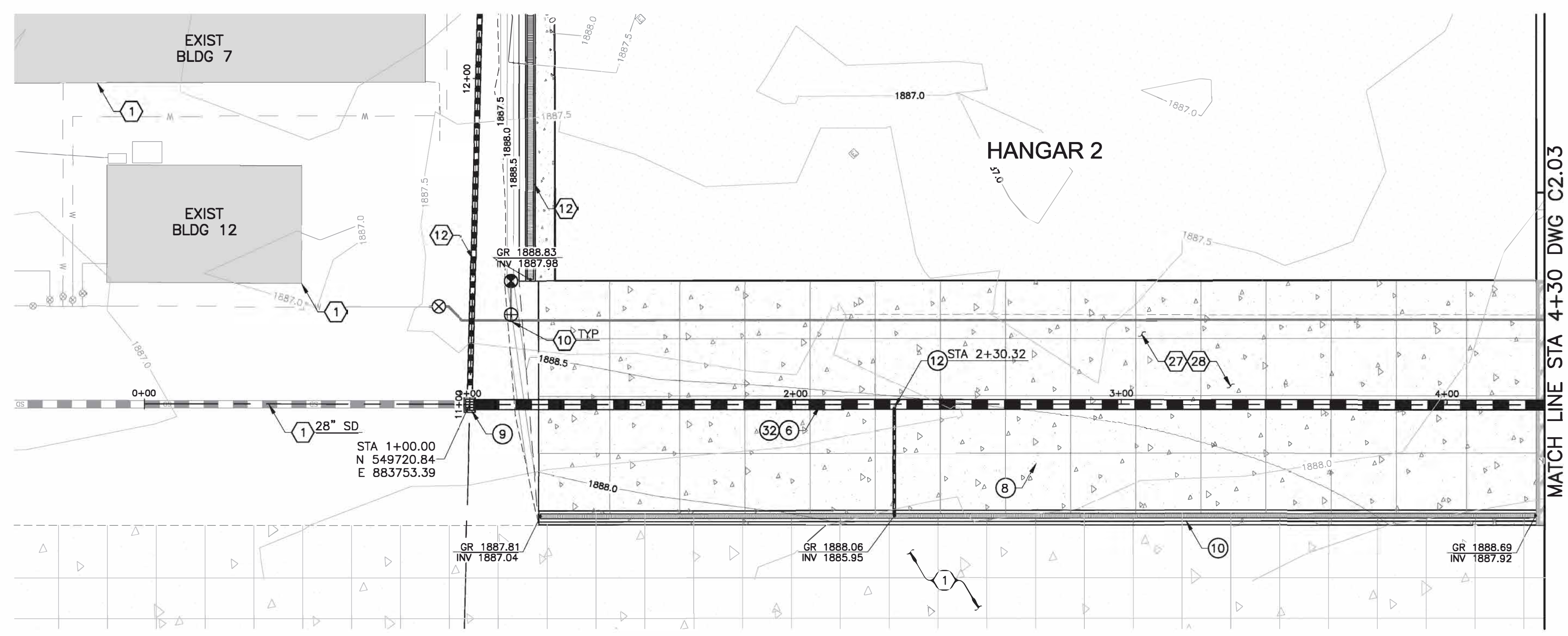
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**STORM DRAIN PLAN & PROFILE**  
 Page 13 of 34

THORSE DESIGN LLC COMMISSION NO: 223-033

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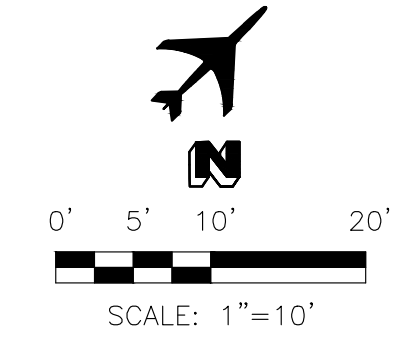
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**STORM DRAIN PLAN & PROFILE**



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CONSTRUCTION NOTES		
14	ZURN MODEL Z874-18 TRENCH DRAIN W/ MODEL GHPD GALVANIZED HEEL-PROOF LONGITUDINAL DUCTILE IRON GRATE OR APPROVED EQUAL REFER TO DET 2, DWG C2.06	302 LF
15	DRAIN BASIN W/ SOLID LID ASD NYOPLAST OR APPROVED EQUAL MINIMUM SIZE PER ADS REQUIREMENTS BASED ON CONNECTING PIPE DIAMETERS	1 EA
19	12" RGRCP CL III STORM DRAIN	15 LF
29	18" RGRCP CL III STORM DRAIN	189 LF

REFERENCE NOTES		
1	PROTECT IN PLACE UNTIL REMOVAL	
8	HANGAR BUILDING REFER TO ARCHITECTURAL PLANS	
10	PROPOSED WATERLINE SEE W&WW DWG W2.01	
14	REFER TO DWG C2.02 FOR APRON STORM DRAIN	
27	REFER TO DWG C1.01 FOR SITE AND PAVING PLAN	

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**ASCENT AVIATION SERVICES**

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REGISTERED PROFESSIONAL ENGINEER

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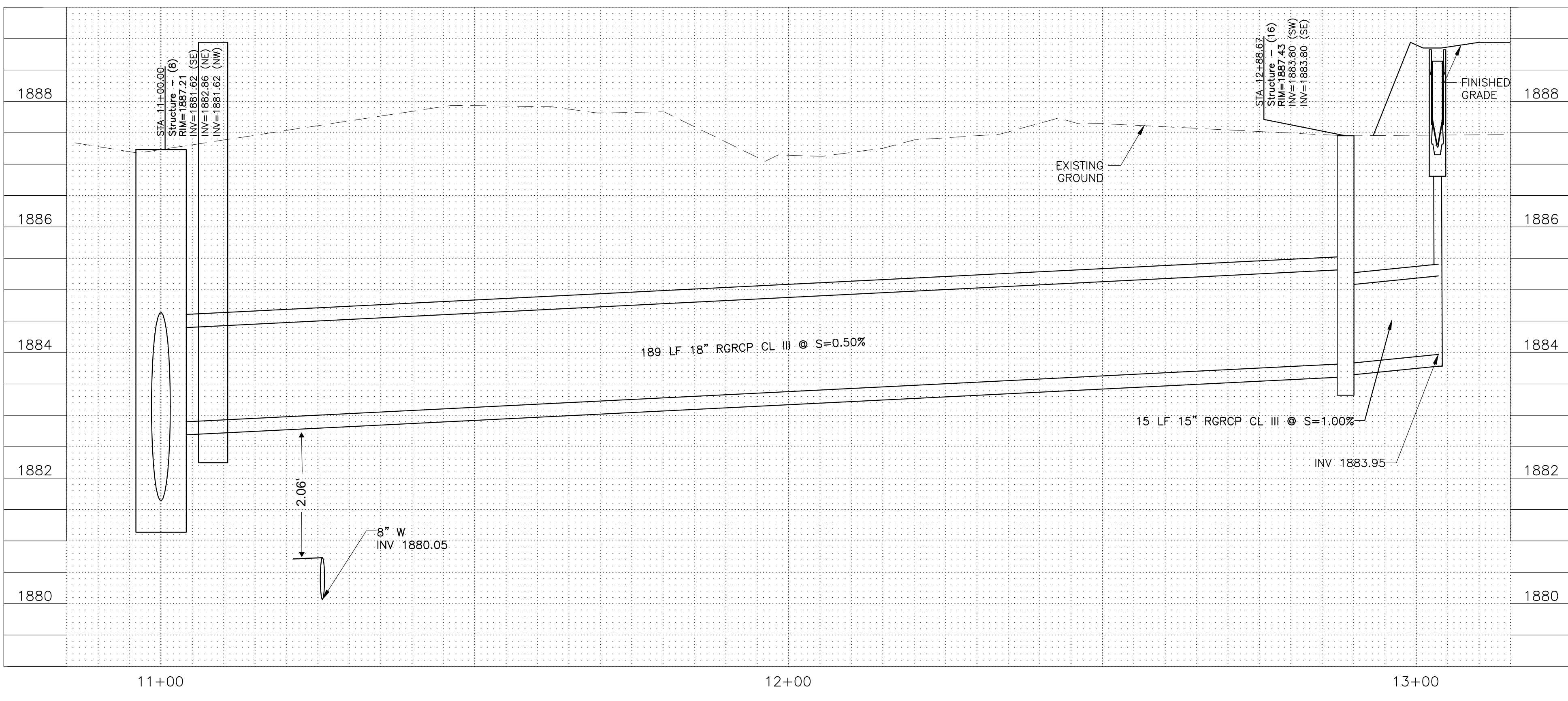
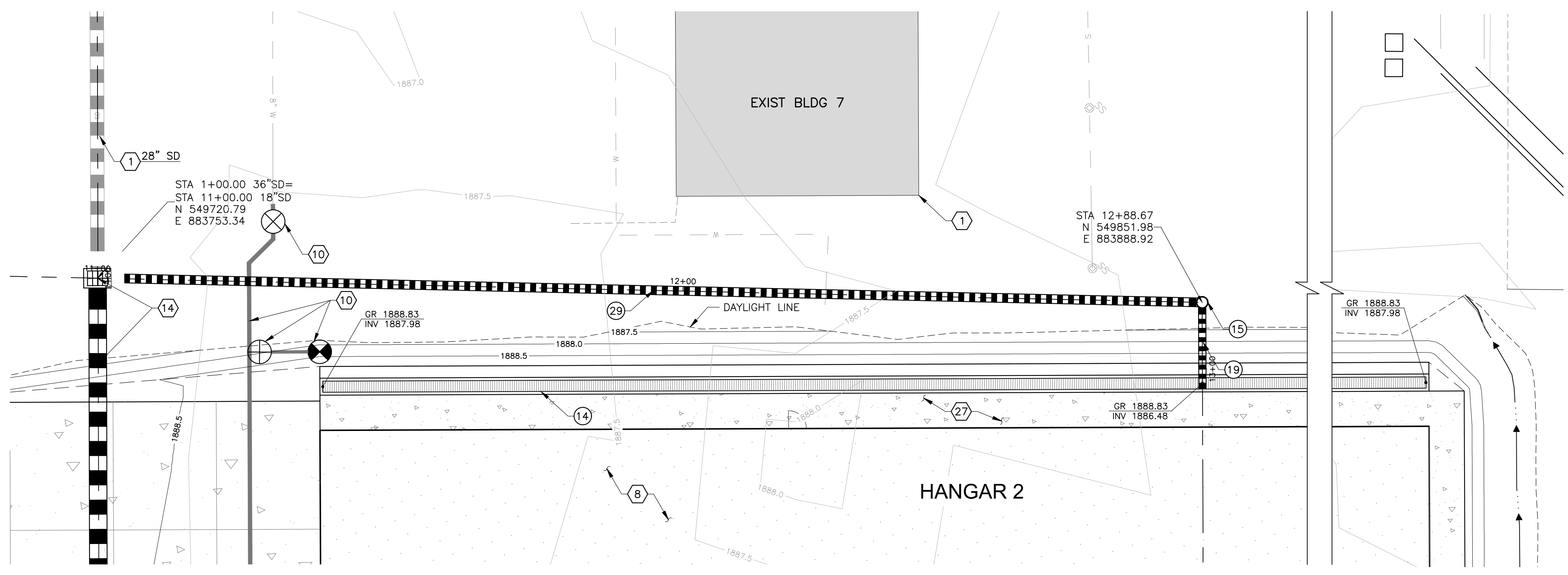
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PROJECT: **STORM DRAIN PLAN & PROFILE**  
**Page 15 OF 34**

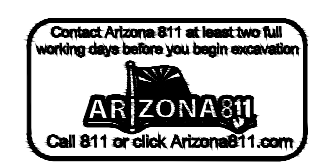
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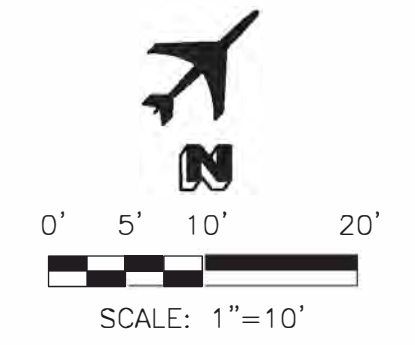
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- CONSTRUCTION NOTES**
- 14 ZURN MODEL Z874-18 TRENCH DRAIN W/ MODEL GHFD GALVANIZED HEEL-PROOF LONGITUDINAL DUCTILE IRON GRATE OR APPROVED EQUAL REFER TO DET 2, DWG C2.06
  - 15 DRAIN BASIN W/ SOLID LID ASD NYOPLAST OR APPROVED EQUAL MINIMUM SIZE PER ADS REQUIREMENTS BASED ON CONNECTING PIPE DIAMETERS
  - 19 12" RGRCP CL III STORM DRAIN
  - 27 TYPE A CURB INLET CATCH BASIN MAG STD DET 530
  - 29 18" RGRCP CL III STORM DRAIN
- REFERENCE NOTES**
- 1 PROTECT IN PLACE UNTIL REMOVAL
  - 8 HANGAR BUILDING REFER TO ARCHITECTURAL PLANS
  - 10 PROPOSED WATERLINE SEE W&W DWG W2.01
  - 15 REFER TO DWG C2.03 FOR APRON STORM DRAIN
  - 27 REFER TO DWG C1.01 FOR SITE AND PAVING PLAN

General Contractor



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**Ascent Aviation MRO Hangars**



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REVIEW EMPLOYEE



Carmen M. Rose

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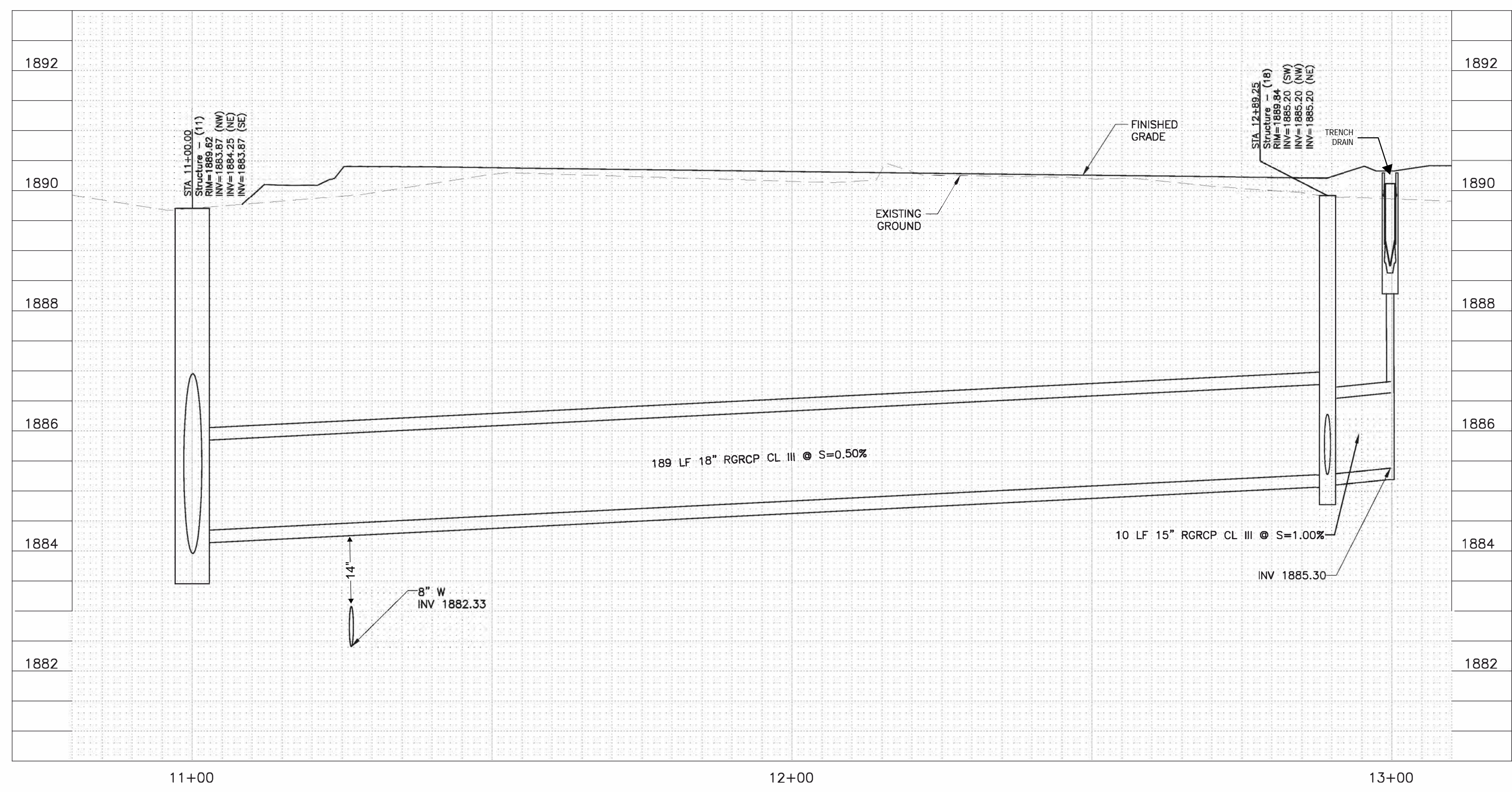
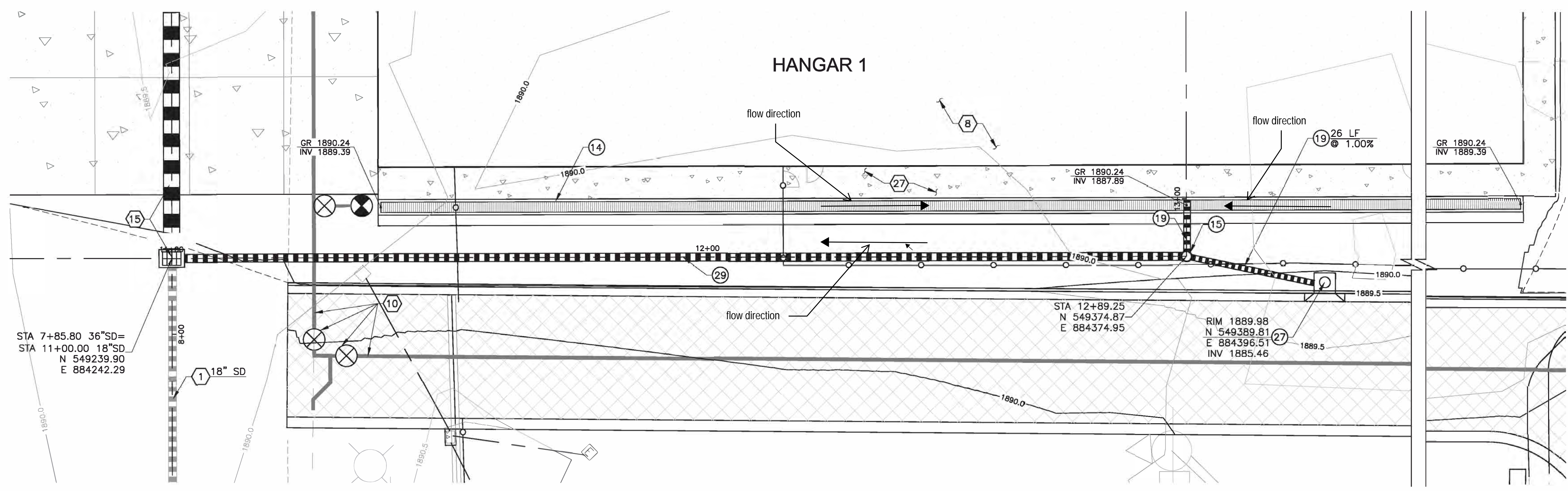
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STORM DRAIN PLAN & PROFILE  
**Page 16 of 34**

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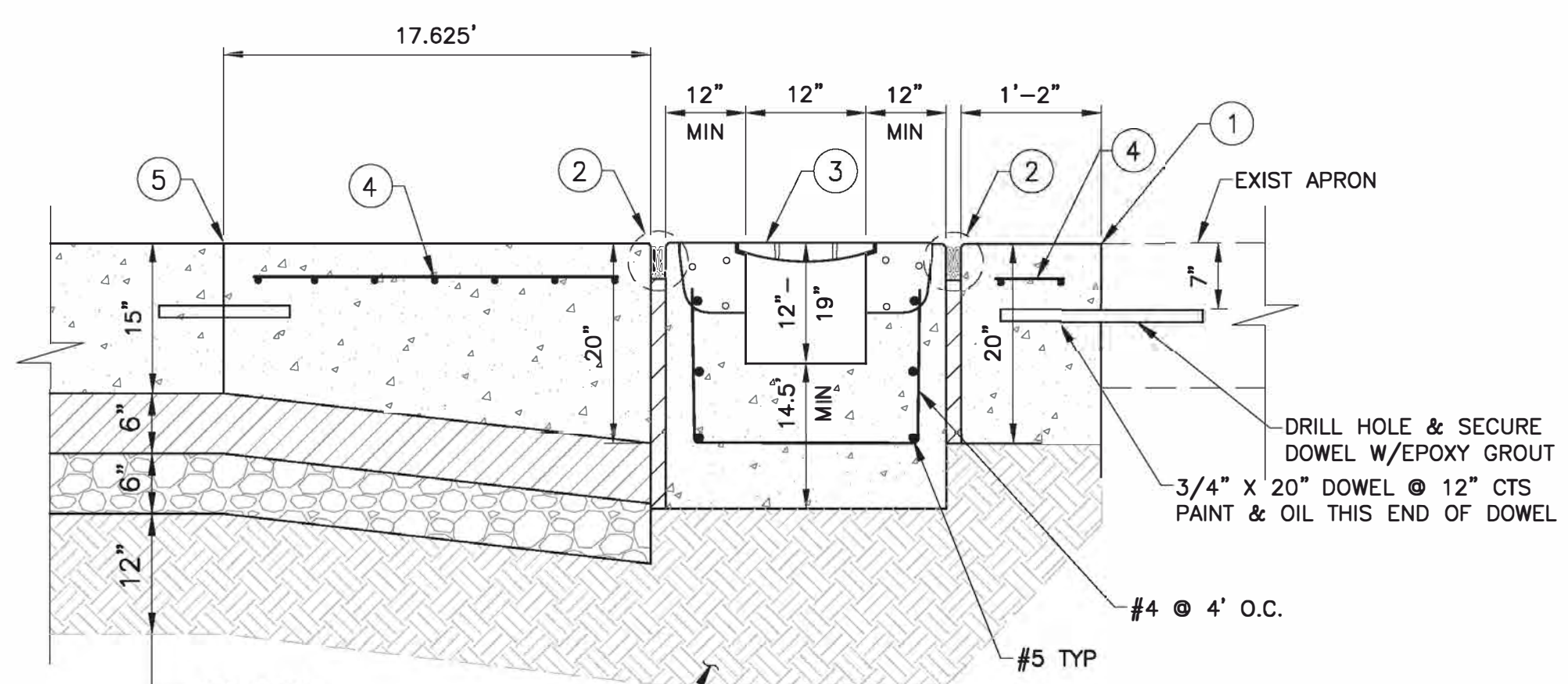
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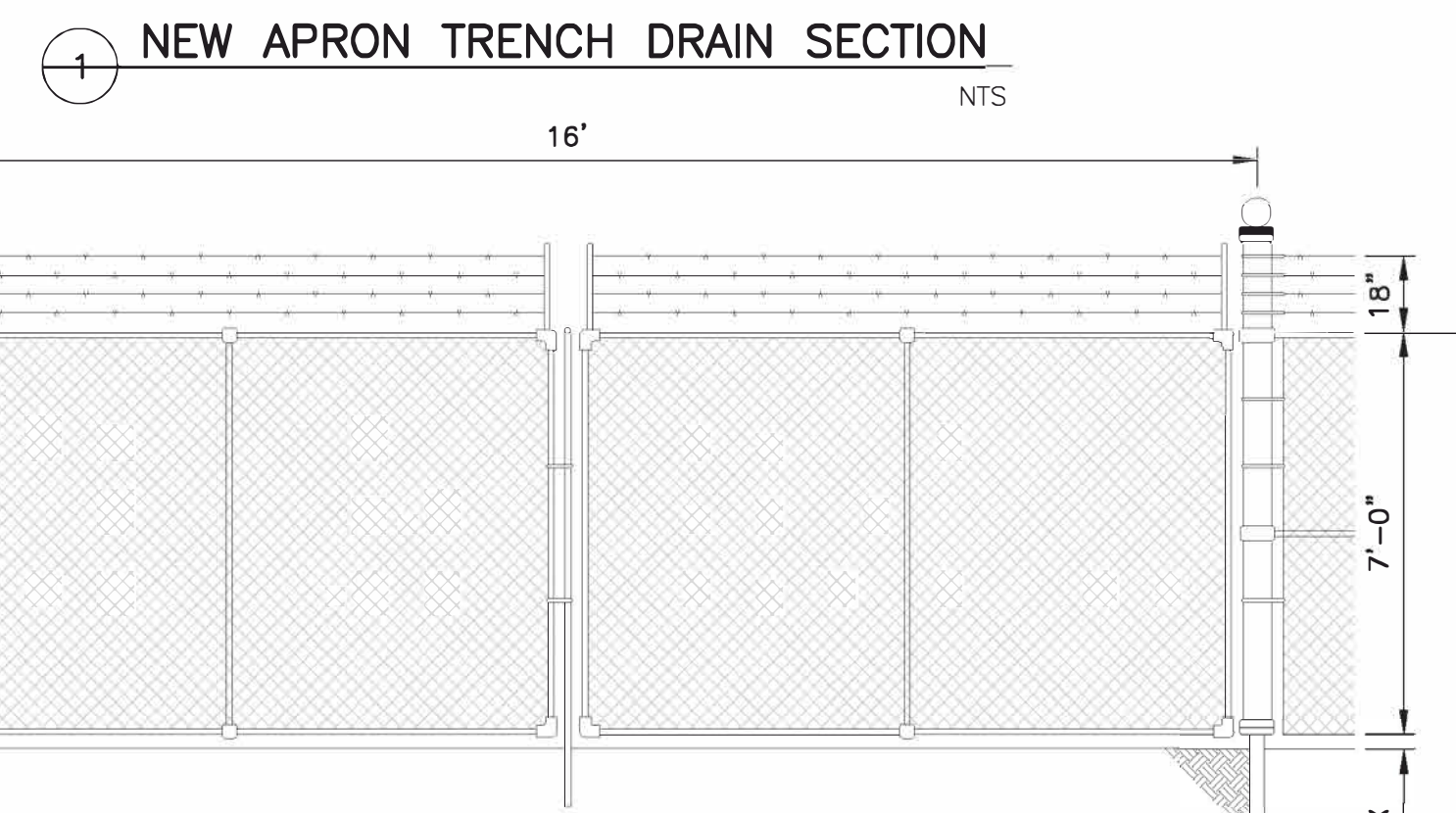
STORM DRAIN PLAN & PROFILE

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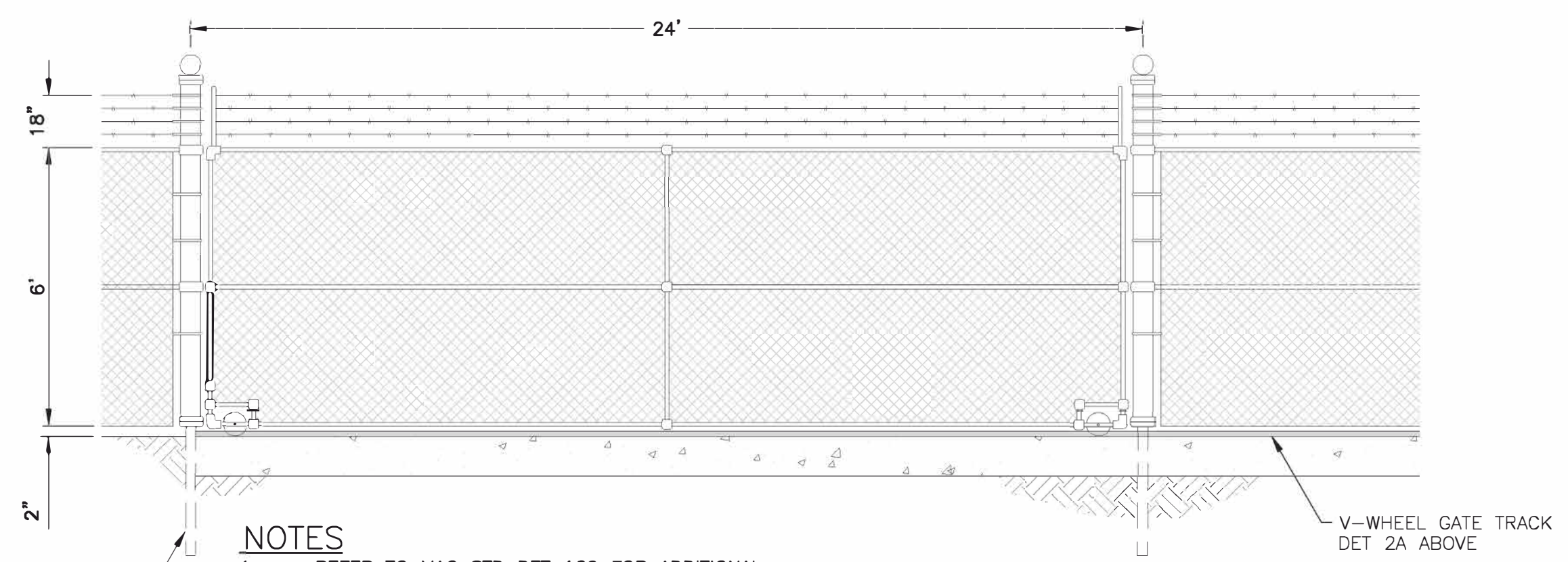


- GENERAL NOTES**
- ① Doweled construction transition joint REFER TO DET E2, DWG 4.02
  - ② EXPANSION JOINT SEAL REFER TO DET 1, DWG C4.02
  - ③ ZURN MODEL Z874-12 TRENCH DRAIN W/MODEL GDF AIRCRAFT RATED GALVANIZED DUCTILE IRON GRATE OR APPROVED EQUAL
  - ④ REINFORCED SLAB REFER TO DET 7, DWG C4.02
  - ⑤ CONTRACTION JOINT REFER TO DET C, DWG C4.02

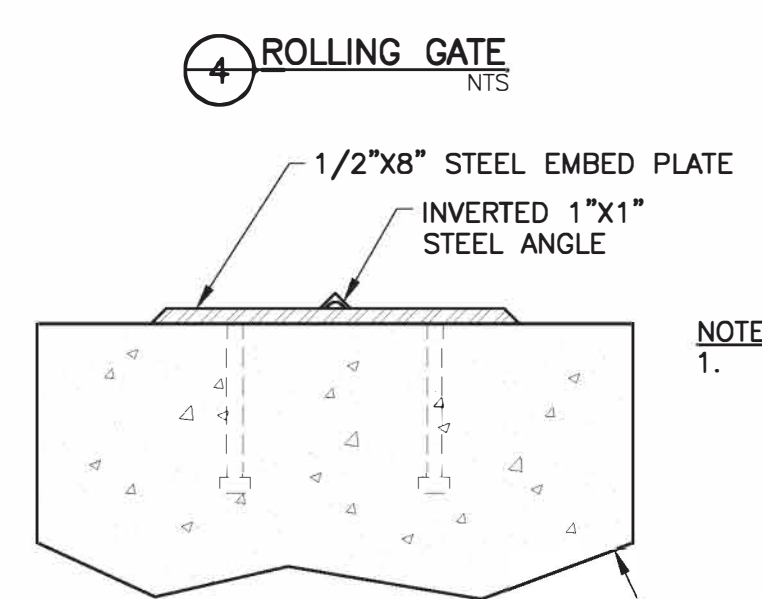


③ DOUBLE SWING GATE  
 NTS

- NOTES**
- REFER TO MAG STD DET 160 FOR ADDITIONAL INFORMATION

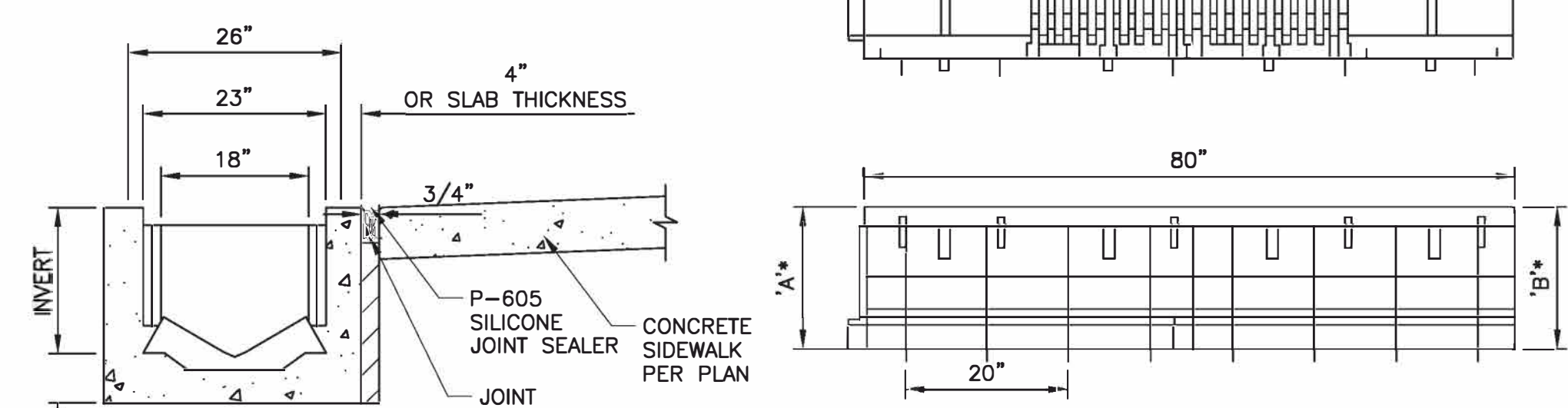


- NOTES**
- REFER TO MAG STD DET 160 FOR ADDITIONAL INFORMATION
  - INSTALL SALVAGED SIGNAGE ON NEW GATES TRACK TO BE SUPPLIED AND INSTALLED PER THE GATE MANUFACTURER'S RECOMMENDATIONS



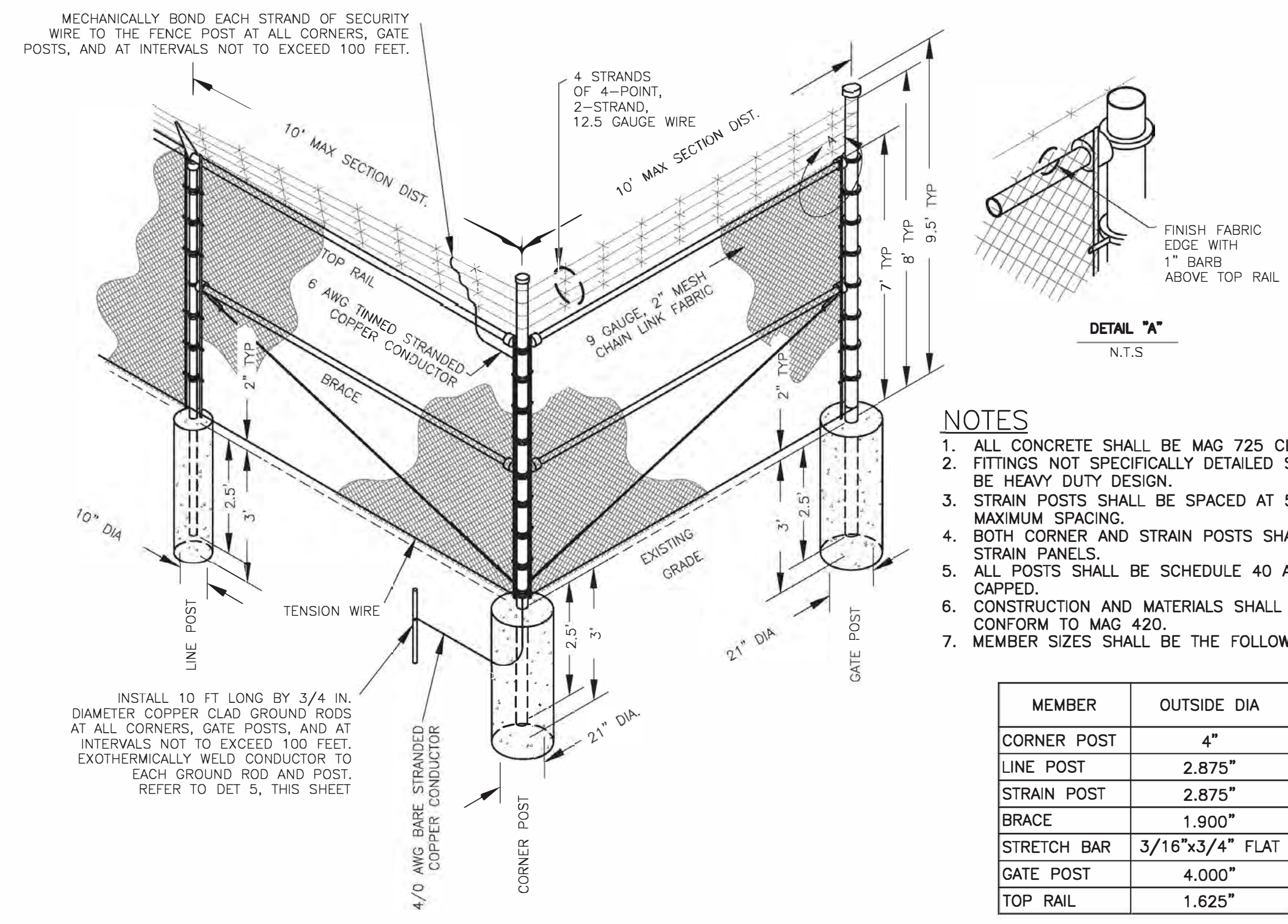
- NOTES**
- TRACK TO BE SUPPLIED AND INSTALLED PER THE GATE MANUFACTURER'S RECOMMENDATIONS

⑥ V-WHEEL GATE TRACK  
 NTS



\*INV DEPTHS VARY PER CHANNEL SECTION. REFER TO ZURN WIDE THROAT TRENCH DRAIN SYSTEM MODEL Z874-18 SPECIFICATION SHEET FOR SPECIFIC VALUES.

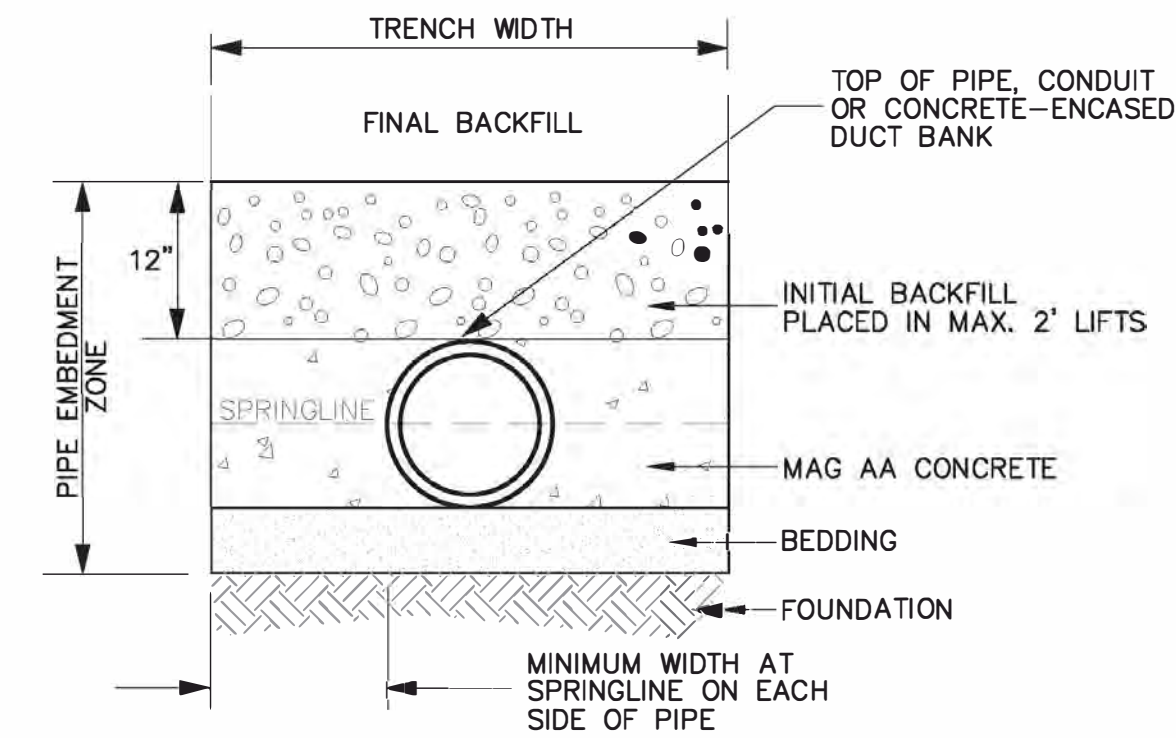
② NEW SIDEWALK TRENCH DRAIN SECTION  
 NTS



- NOTES**
- ALL CONCRETE SHALL BE MAG 725 CLASS AA.
  - FITTINGS NOT SPECIFICALLY DETAILED SHALL BE HEAVY DUTY DESIGN.
  - STRAIN POSTS SHALL BE SPACED AT 500' MAXIMUM SPACING.
  - BOTH CORNER AND STRAIN POSTS SHALL HAVE STRAIN PANELS.
  - ALL POSTS SHALL BE SCHEDULE 40 AND CAPPED.
  - CONSTRUCTION AND MATERIALS SHALL CONFORM TO MAG 420.
  - MEMBER SIZES SHALL BE THE FOLLOWING:

MEMBER	OUTSIDE DIA
CORNER POST	4"
LINE POST	2.875"
STRAIN POST	2.875"
BRACE	1.900"
STRETCH BAR	3/16"x3/4" FLAT
GATE POST	4.000"
TOP RAIL	1.625"

⑤ SECURITY FENCE DETAILS  
 NTS



- NOTE:**
- SEE MAG SPEC SECT 601 FOR ADDITIONAL TRENCH WIDTH, EXCAVATION, BACKFILLING AND COMPACTION REQUIREMENTS.

⑦ APRON STORM DRAIN TRENCH BACKFILL  
 NTS

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PROFESSIONAL ENGINEER  
  
 Carmen Marie Rose

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**REFERENCE NOTES**

- 8 HANGAR BUILDING  
REFER TO ARCHITECTURAL PLANS
- 27 REFER TO DWG C1.01 FOR SITE AND PAVING PLAN
- 28 REFER TO DWG C2.01 FOR GRADING AND DRAINAGE PLAN

**LEGEND**

- EXISTING BUILDING
- EXISTING PCCP
- EXISTING AC
- NEW PCCP
- NEW AC

General Contractor



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*Carmen M. Rose*

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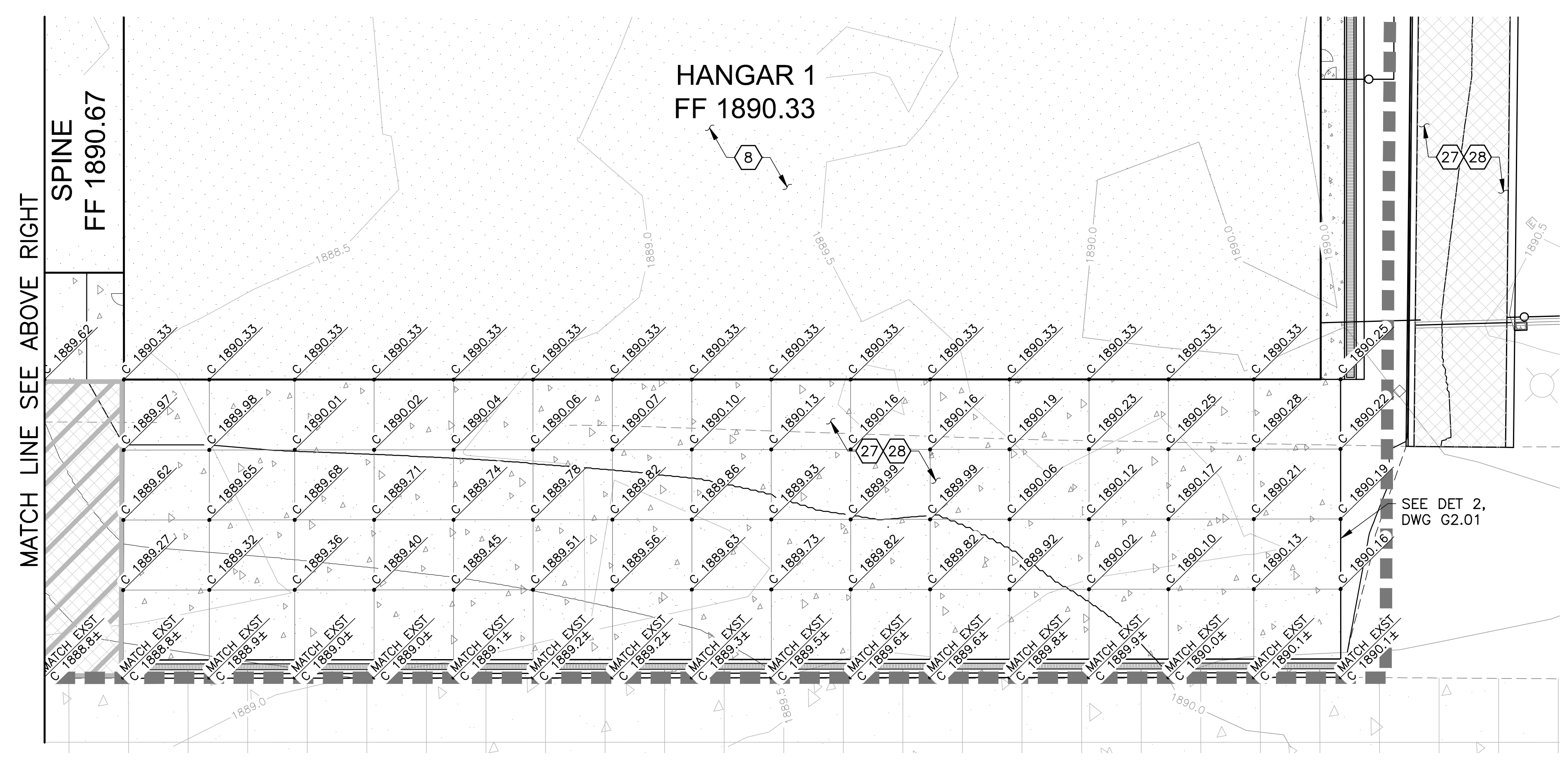
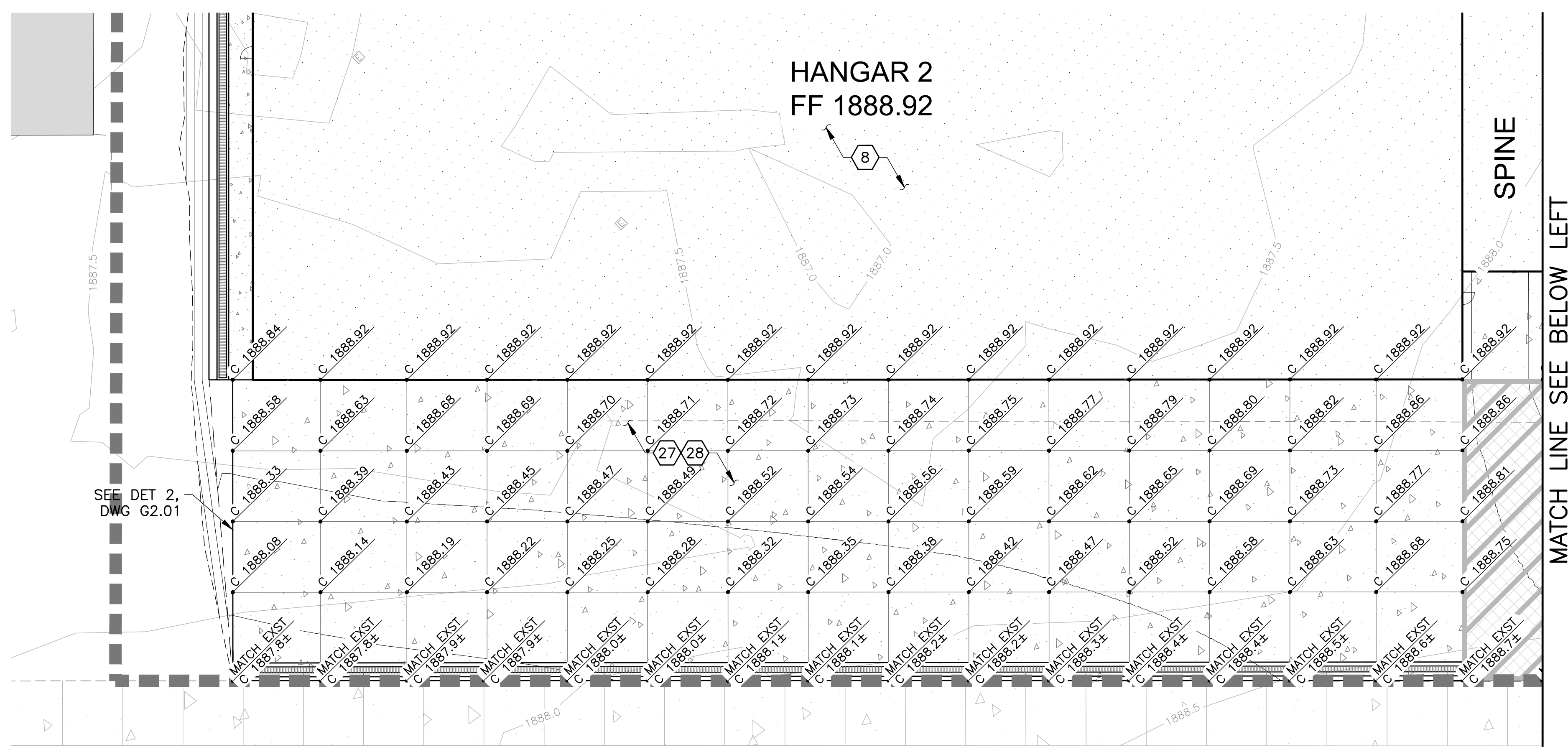


SHEET TITLE  
**PAVEMENT ELEVATION PLAN**  
Page 18 of 34

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 3120 Southwest Freeway, Ste 410,  
 Houston TX 77098

Mechanical / Electrical / Plumbing Consultant  
**Affiliated Engineers, Inc.**  
 5802 Research Park Boulevard,  
 Madison WI 53719

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 Carmen M. Rose

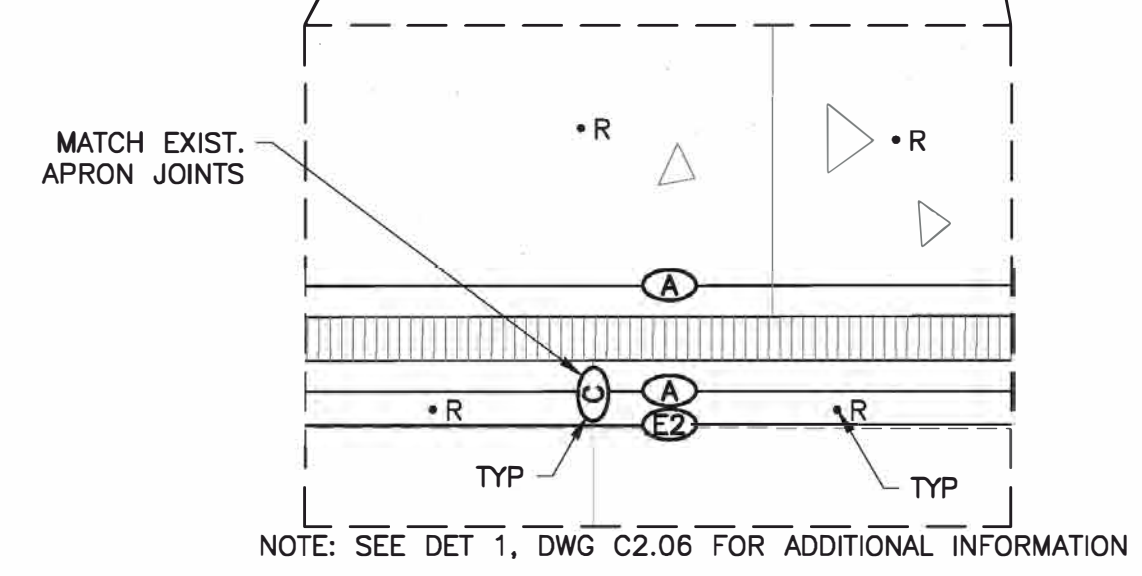
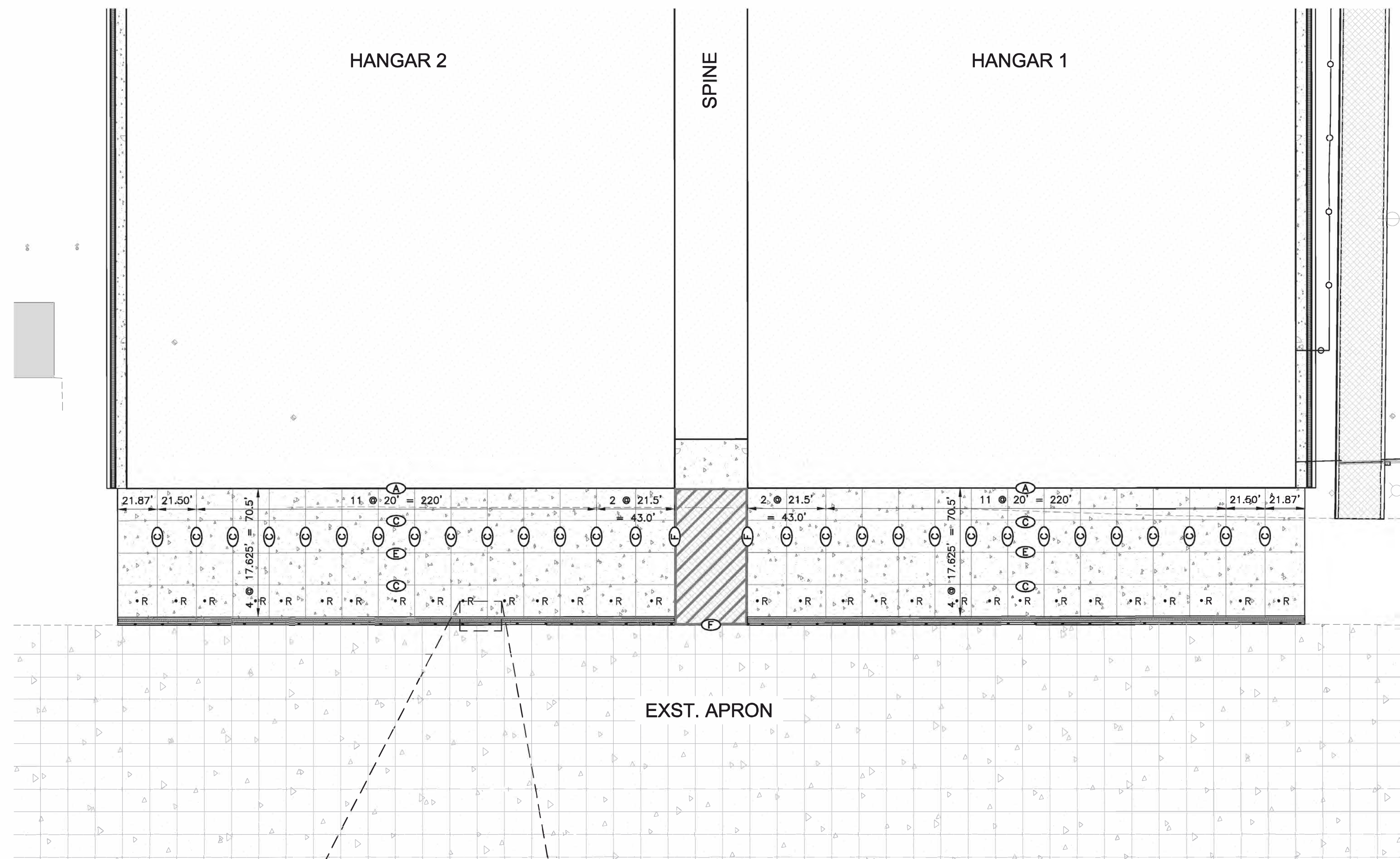
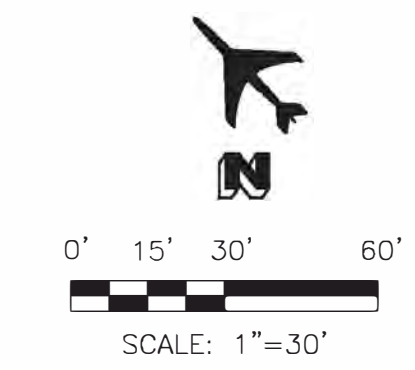
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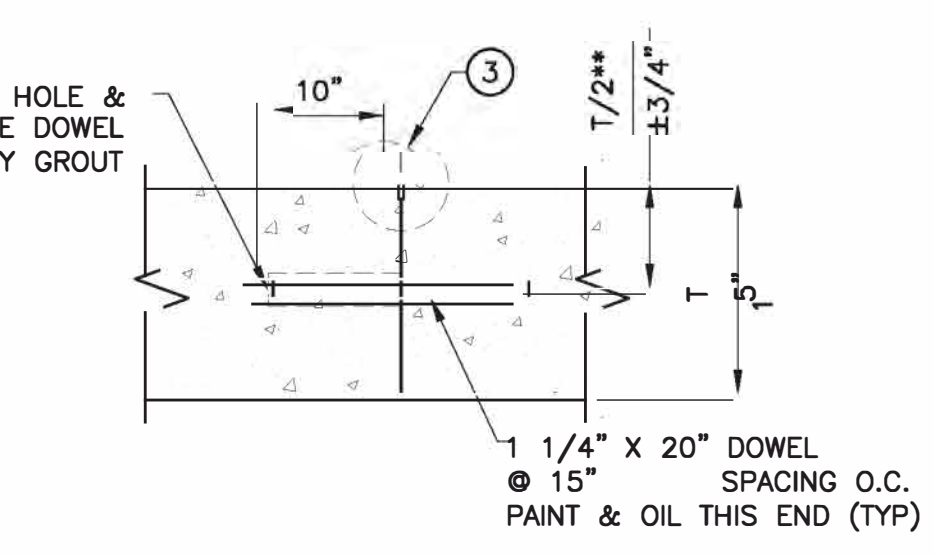
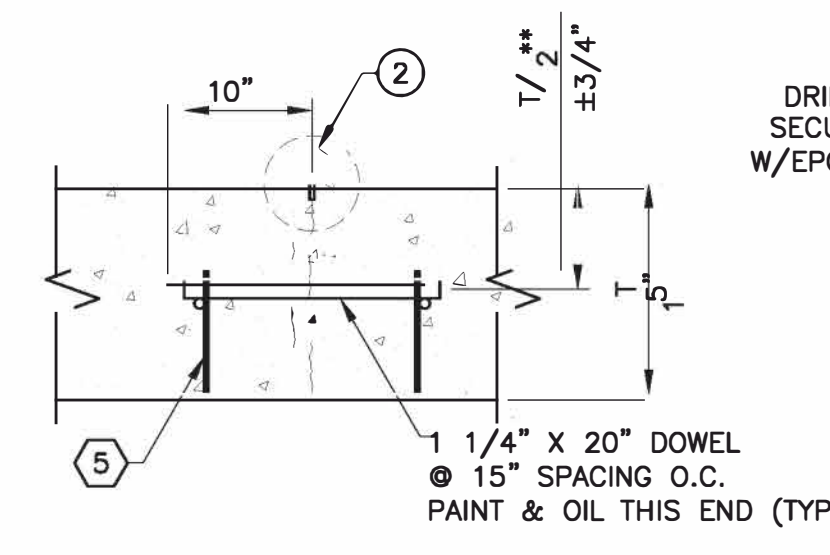
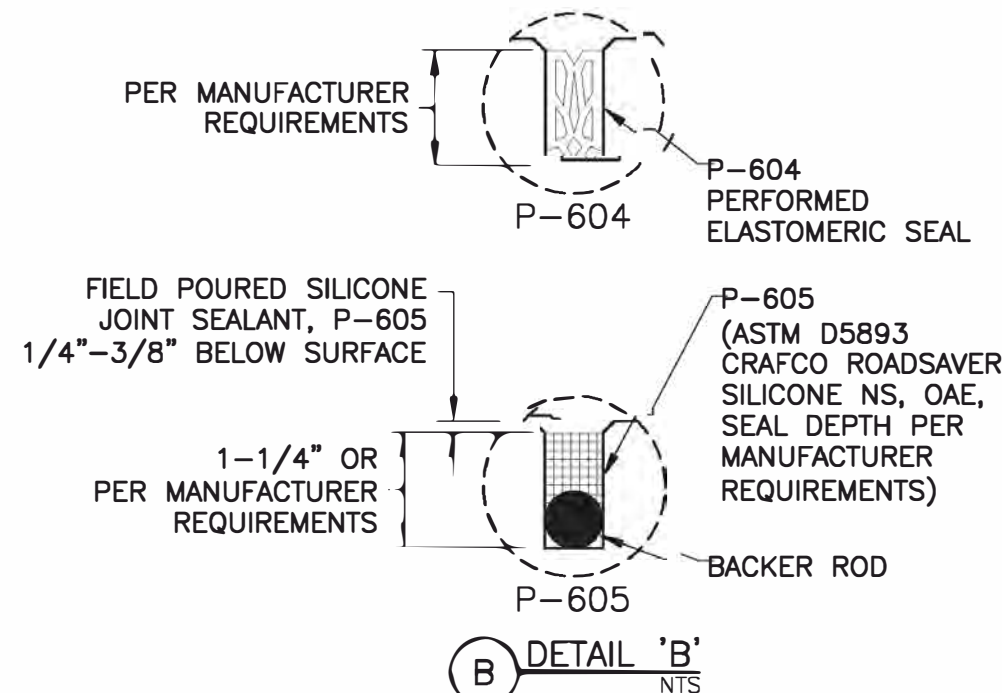
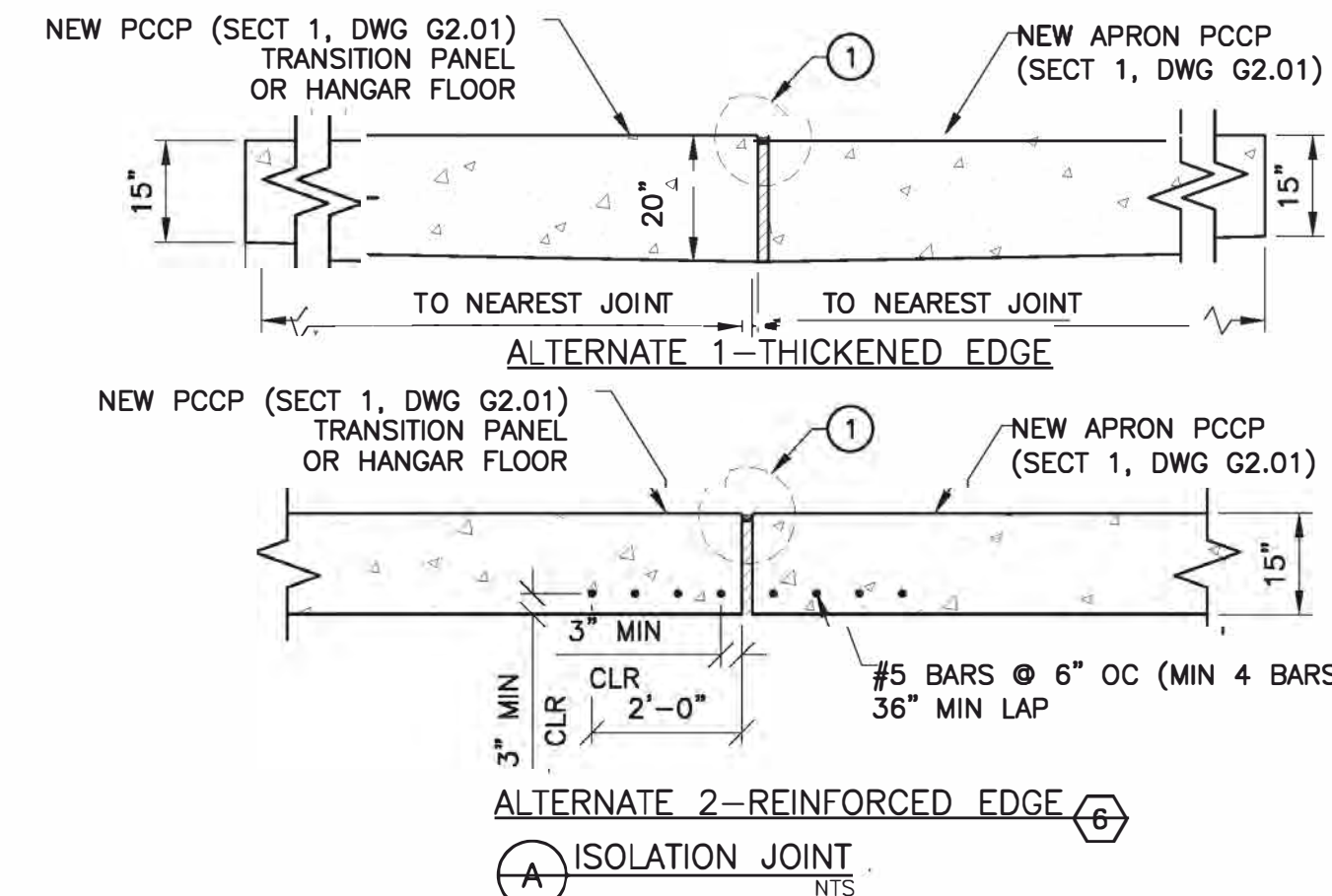
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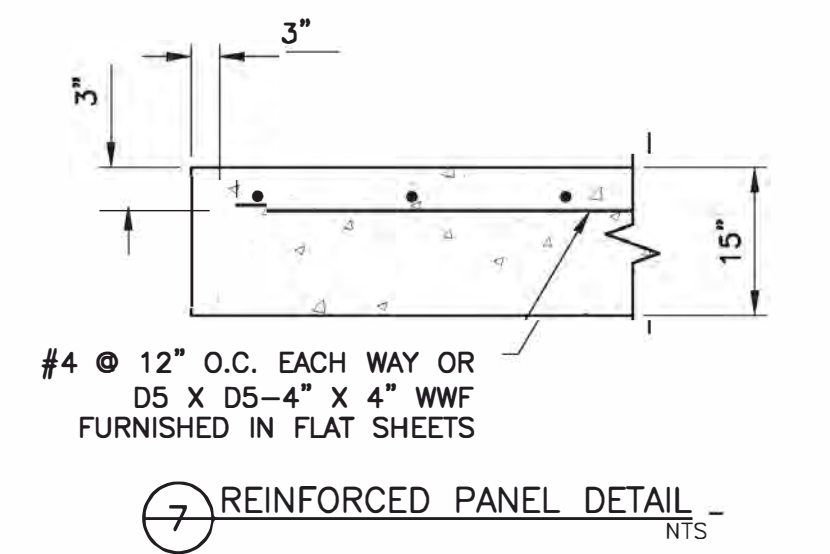
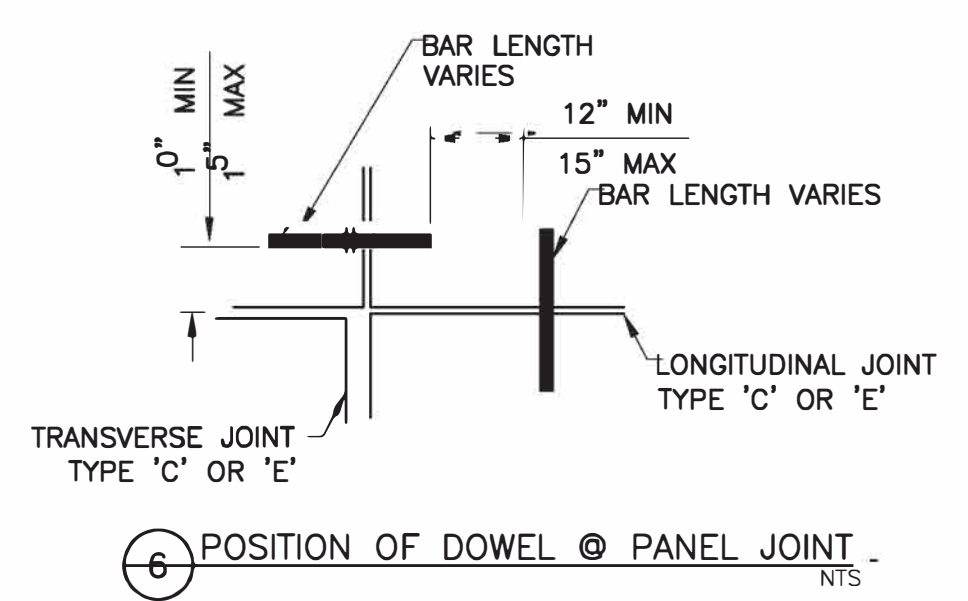
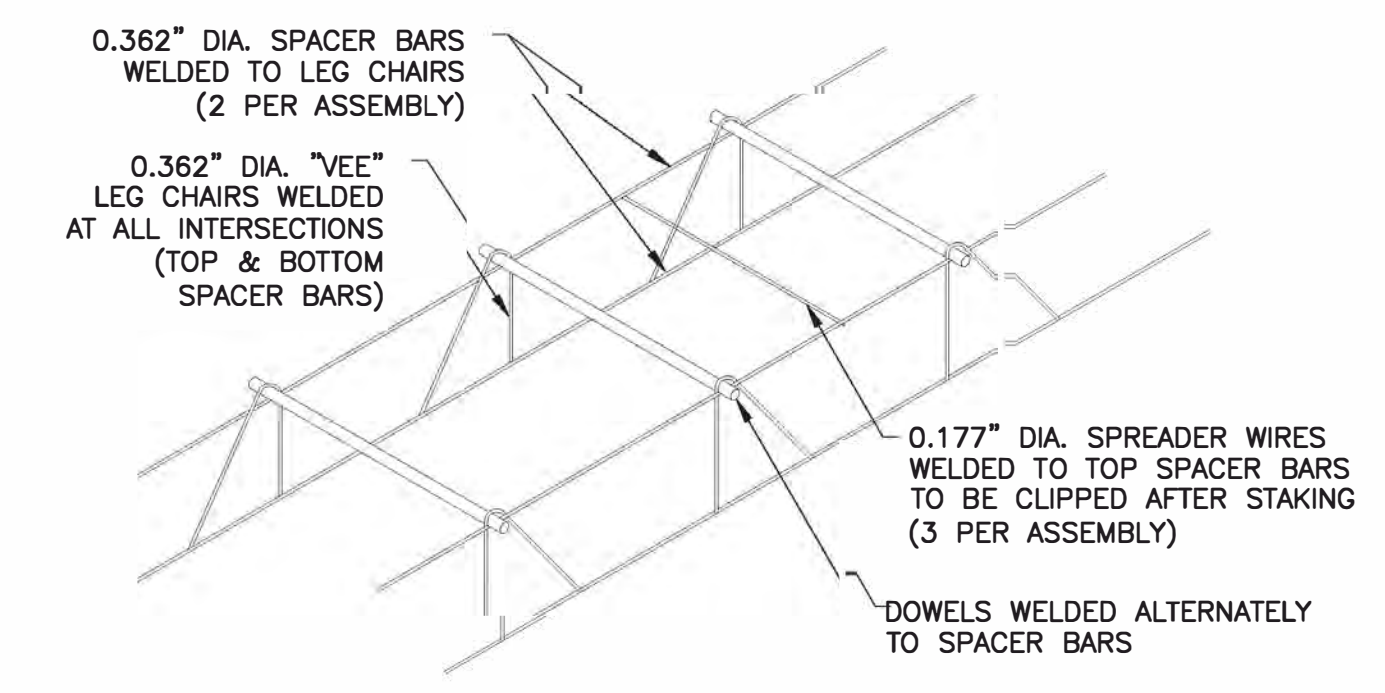
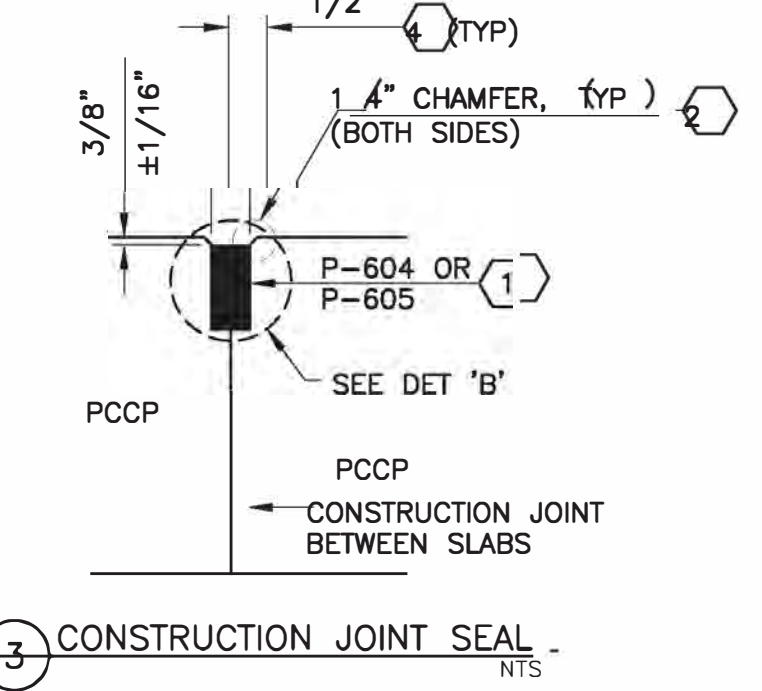
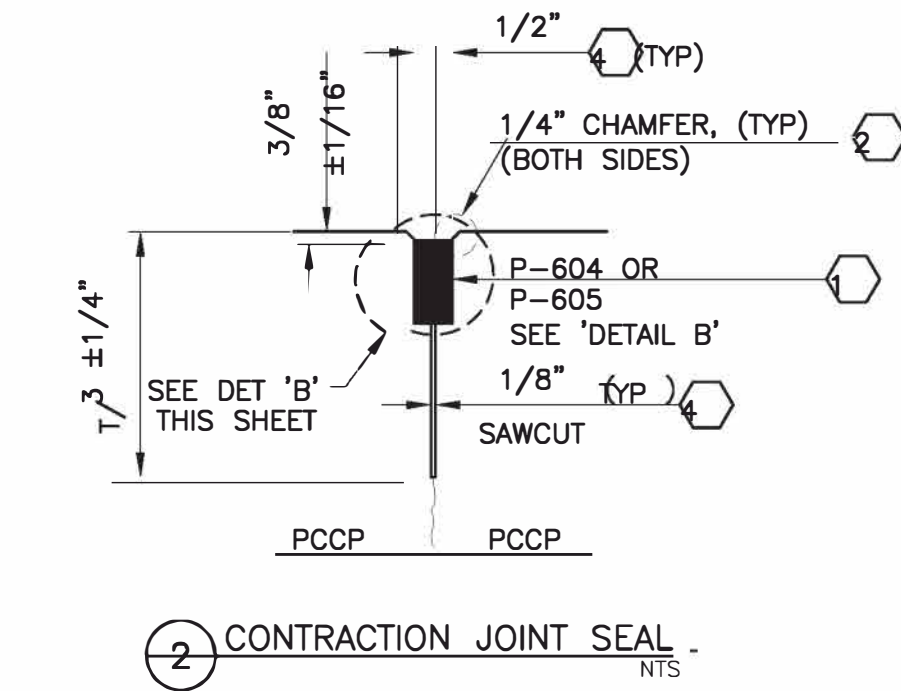
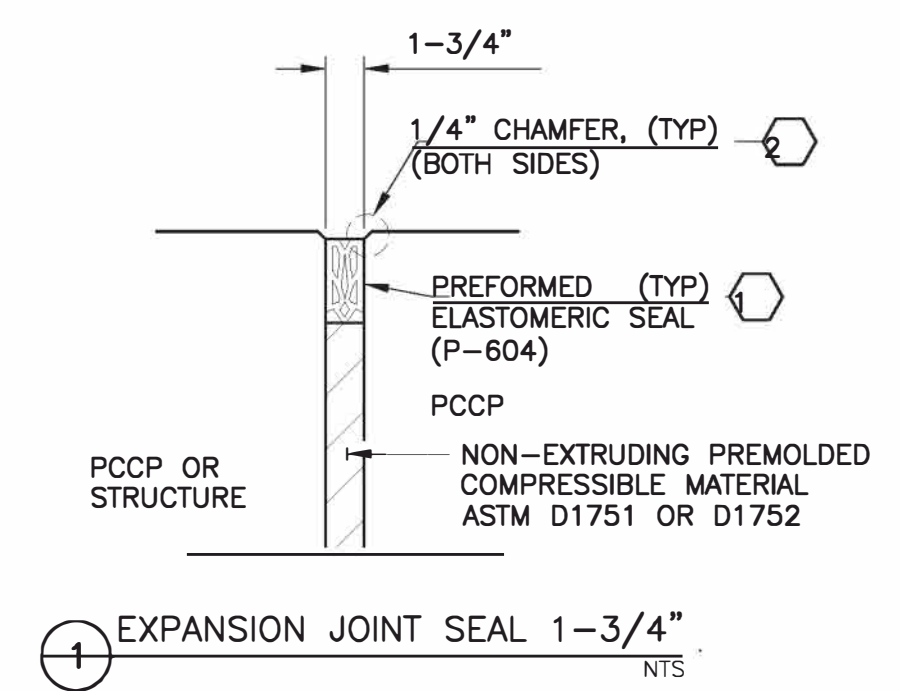
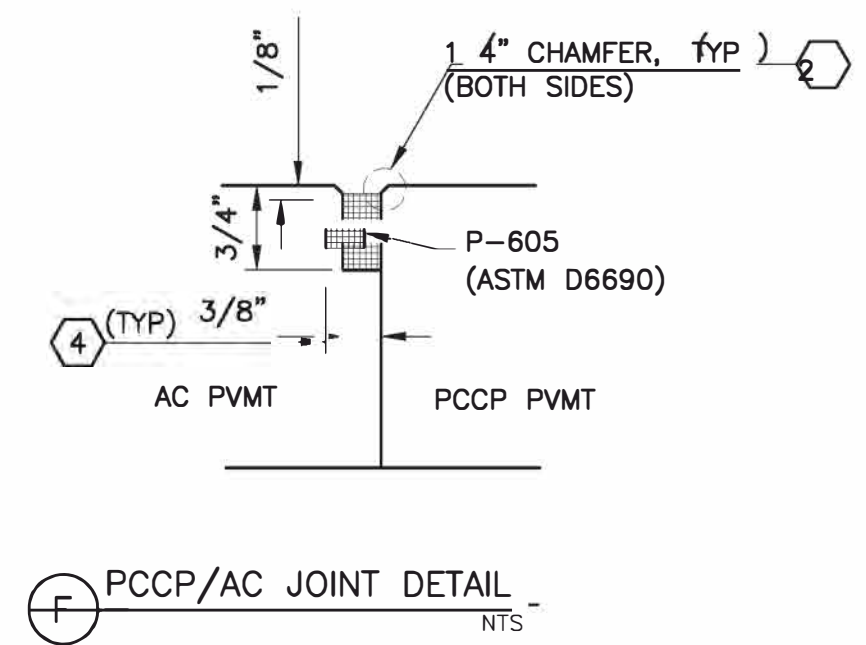
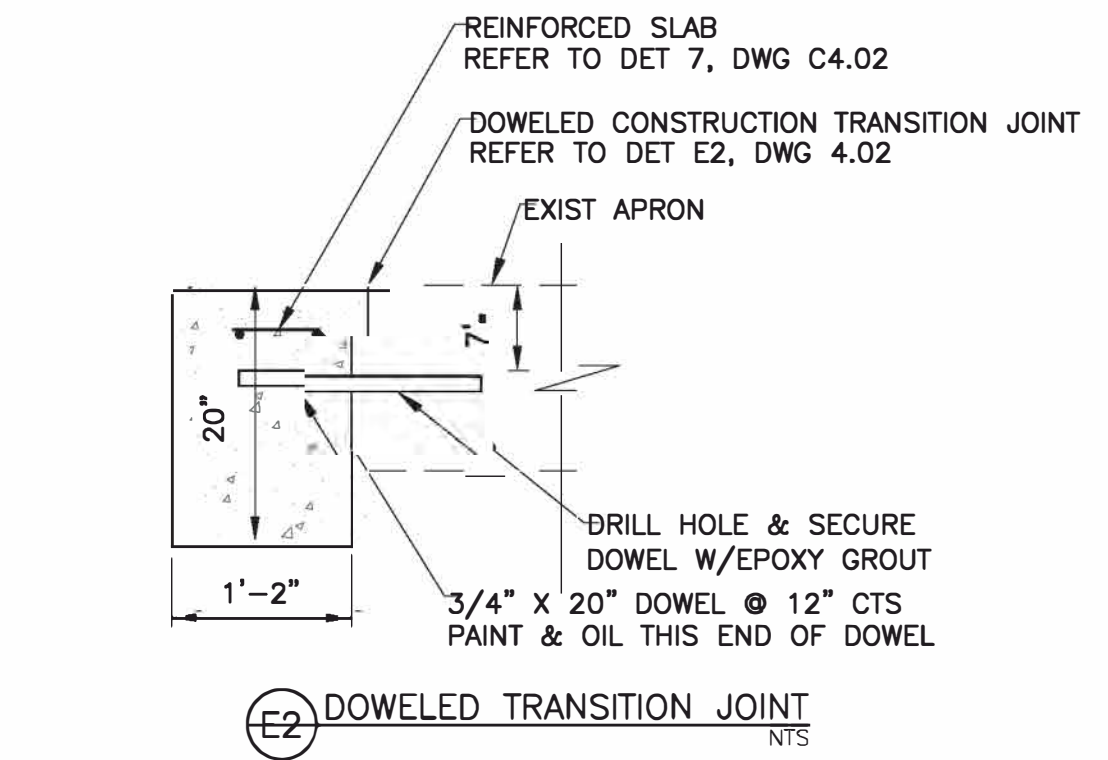
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- GENERAL PCCP DETAIL NOTES**
- 1 THE CONTRACTOR MAY USE EITHER P-604 PREFORMED ELASTOMERIC OR P-605 SILICONE MATERIAL MEETING ASTM D5893 (CRAFCO SILICONE NS, OAE)
  - 2 1/4" CHAMFER ALL JOINT EDGES
  - 3 TYPE E JOINT TO BE USED FOR TRANSVERSE CONSTRUCTION JOINTS BETWEEN PLACEMENTS
  - 4 ALL SEALANT AND CRACK-CONTROL JOINTS SHALL BE SAWCUT.
  - 5 SEE DOWEL BASKET DET 5 ON THIS SHEET
  - 6 REPLACES THICKENED EDGE. CONTRACTOR SHALL SELECT ONE ALTERNATE AND CLEARLY NOTE ON RECORD DRAWINGS



- NOTES**
1. BASKET SHALL BE FIRMLY ANCHORED TO GRADE
  2. ALL WIRE SIZES SHOWN ARE MINIMUM SIZE
  3. DOWELS SHALL BE HELD FIRMLY IN THE ASSEMBLY

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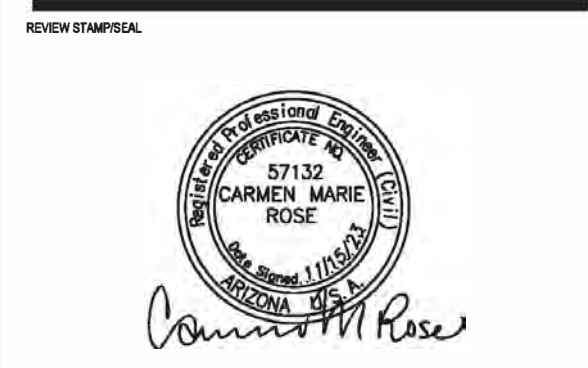
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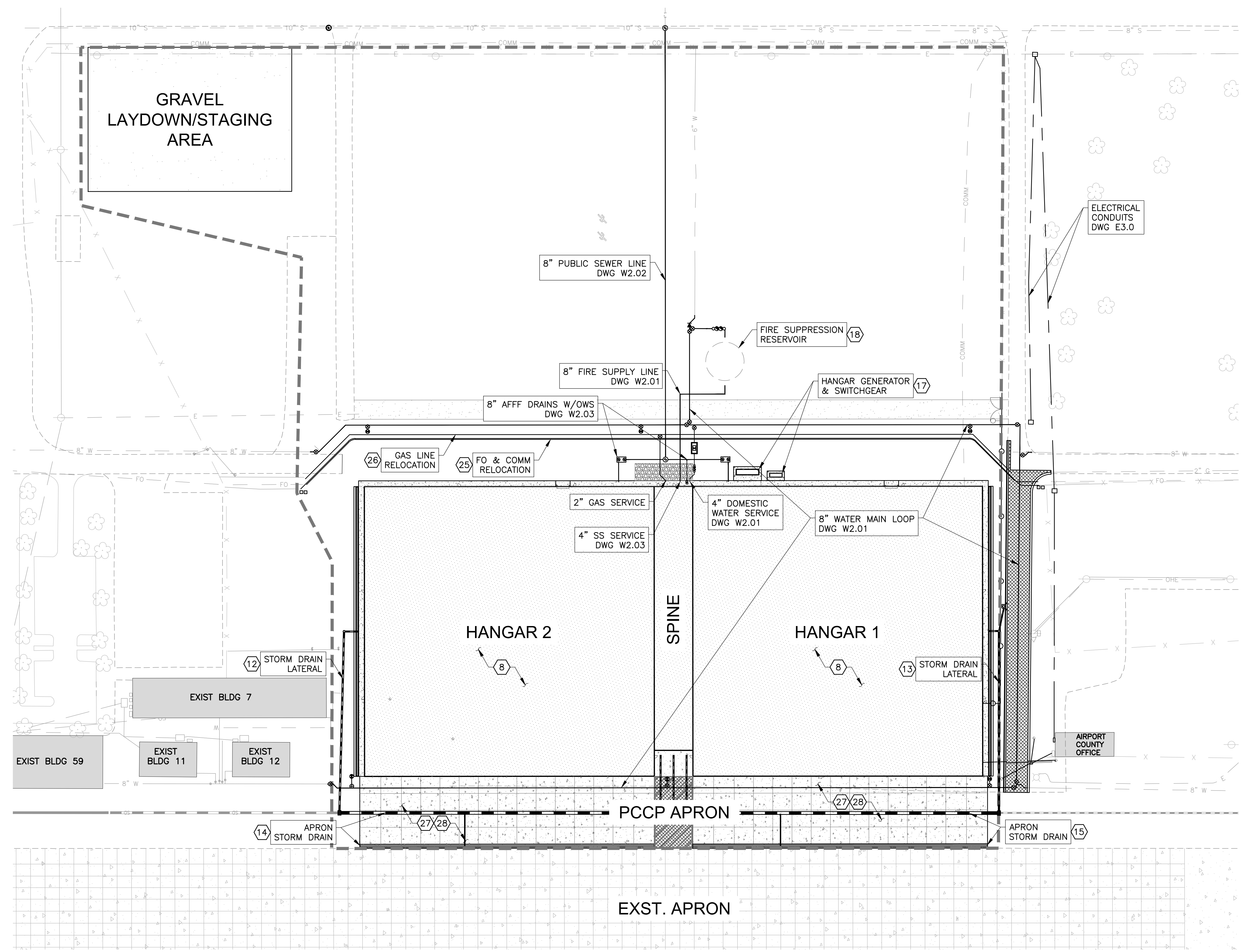
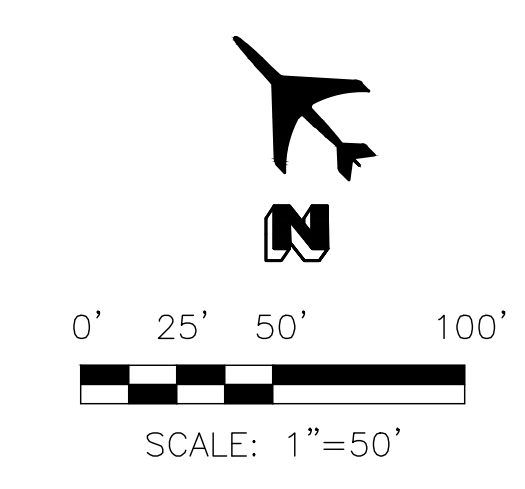
PROJECT  
**PCCP JOINTING DETAILS**  
 Page 20 of 34

THRISE DESIGN LLC COMMISSION NO. 223-033  
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- REFERENCE NOTES**
- 1 PROTECT IN PLACE UNTIL REMOVAL
  - 8 HANGAR BUILDING  
REFER TO ARCHITECTURAL PLANS
  - 12 REFER TO DWG C2.04 FOR STORM DRAIN LATERAL
  - 13 REFER TO DWG C2.05 FOR STORM DRAIN LATERAL
  - 14 REFER TO DWG C2.02 FOR APRON STORM DRAIN
  - 15 REFER TO DWG C2.03 FOR APRON STORM DRAIN
  - 17 ELECTRICAL IMPROVEMENTS  
REFER TO BUILDING ELECTRICAL PLANS
  - 18 FIRE SUPPRESSION SYSTEM & STORAGE RESERVOIR  
REFER TO FIRE PROTECTION PLANS
  - 25 COMMUNICATION LINE RELOCATION BY OTHERS
  - 26 GAS MAIN RELOCATION BY OTHERS
  - 27 REFER TO DWG C1.01 FOR SITE AND PAVING PLAN
  - 28 REFER TO DWG C2.01 FOR GRADING AND DRAINAGE PLAN

- TRENCHING NOTES:**
1. REFER TO ELECTRICAL PLANS DWG E4.0 FOR ELECTRICAL CONDUIT TRENCHING DETAILS.
  2. REFER TO DET 7, DWG C2.06 FOR STORM DRAIN UNDER PAVEMENT TRENCHING DETAILS.
  3. REFER TO MAG STD DET 200 AND MAG STD SPECS SECT 601 FOR STORM DRAIN, WATER & SEWER TRENCHING INFORMATION.

**LEGEND**

--- CONSTRUCTION FOOTPRINT AND LEASED AREA

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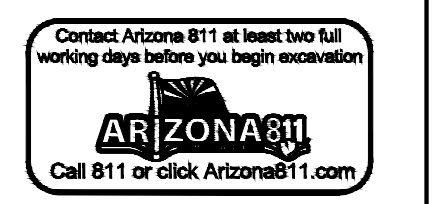
*Carmen M. Rose*

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**Utility Service Providers**

**Power** - Trico (520) 744-2944  
**Gas** - Southwest Gas (877) 860-6020  
**Communication** - Lumen/CenturyLink (800) 871-9244  
**Water** - Private owned & maintained by Ascent Aviation.  
**Sewer** - Private owned & maintained by Ascent Aviation.



Sheet Title  
**OVERALL UTILITY LAYOUT PLAN**  
Page 21 of 34

THRISE DESIGN LLC COMMISSION NO: 223-033

SHEET NUMBER  
**C6.01**

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**PINAL COUNTY WATER GENERAL NOTES**

- DEVELOPER SHALL OBTAIN A PINAL COUNTY RIGHT OF WAY USE PERMIT PRIOR TO ANY WORK BEING PERFORMED WITHIN THE COUNTY RIGHT OF WAY. CONTACT PINAL COUNTY PUBLIC WORKS INSPECTION SECTION AT LEAST 7 WORKING DAYS PRIOR TO WORK
- ALL WORK REQUIRED TO COMPLETE THE CONSTRUCTION COVERED BY THESE PLANS SHALL BE IN ACCORDANCE WITH MAG STANDARD SPECIFICATIONS AND DETAILS.
- ALL FRAMES, COVERS, VALVE BOXES, AND MANHOLE COVERS SHALL BE ADJUSTED TO FINISHED GRADE PRIOR TO COMPLETION OF CONSTRUCTION. (IF LOCATED OUTSIDE PAVEMENT SECTION, PREFER LEVEL WITH FINISHED GRADE BUT ALLOW 6" MAX ABOVE FINISHED GRADE.)
- CONTRACTOR IS RESPONSIBLE FOR BLUE STAKE MARKING AS CONSTRUCTION IS IN PROGRESS.
- TRAFFIC CONTROL AND BARRICADING SHALL BE ACCORDING TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES OR PINAL COUNTY REQUIREMENTS. CONTRACTOR TO SUPPLY LIGHTED BARRICADES AT 50' INTERVALS WITH OPEN TRENCH SIGNAGE.
- CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN TO PINAL COUNTY PUBLIC WORKS INSPECTION SECTION AT LEAST THREE (3) WORKING DAYS PRIOR TO WORK FOR REVIEW AND APPROVAL.
- ANY WORK ON ARTERIAL OR COLLECTOR ROADS SHALL REQUIRE AN OFF-DUTY PINAL COUNTY SHERIFFS' OFFICER FOR TRAFFIC CONTROL. CONTACT SHALL BE MADE THROUGH THE PCSO REPRESENTATIVE.
- NO TRENCH TO BE LEFT OPEN/UNCOVERED AFTER WORKING HOURS UNLESS PROPERLY SIGNED AND BARRICADED PER THE APPROVED TRAFFIC CONTROL PLAN.
- PLAN APPROVAL IS VALID FOR TWELVE (12) MONTHS FROM THE DATE OF COUNTY APPROVAL. IF APPROVAL EXPIRES, THE PLANS MUST BE RESUBMITTED TO PINAL COUNTY PUBLIC WORKS DEPARTMENT FOR UPDATE REVIEW AND RE-APPROVAL.

**ENGINEER'S GENERAL NOTES**

- ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE CONTRACT DRAWINGS, SPECIAL PROVISIONS, TECHNICAL SPECIFICATIONS, SUPPLEMENTAL GENERAL CONDITIONS, MARICOPA ASSOCIATION OF GOVERNMENTS (MAG) STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (LATEST EDITION), MAG UNIFORM STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION (LATEST EDITION) AND THE TOWN OF QUEEN CREEK STANDARD DETAILS AND SPECIFICATIONS (LATEST EDITION).
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ARIZONA 811 (602-263-1100) OR BY DIALING 811 FOR UTILITY LOCATION A MINIMUM OF 48 HOURS IN ADVANCE OF ANY EXCAVATION. UTILITY LOCATIONS SHALL BE PROTECTED, MAINTAINED AND UPDATED IN ACCORDANCE WITH APPLICABLE STATE AND MUNICIPAL LAWS.
- PRIOR TO THE START OF ANY WORK ACTIVITIES, THE CONTRACTOR SHALL PROVIDE NOTIFICATION TO THE OWNER AND THE ENGINEER. A PRE-ACTIVITY MEETING (PRECONSTRUCTION CONFERENCE) MAY BE REQUIRED.
- EXISTING UTILITIES AND OTHER FACILITIES HAVE BEEN SHOWN ON THE CONTRACT DRAWINGS BASED ON FIELD SURVEYS, EXISTING MAPS AND OTHER INFORMATION GATHERED BY THE ENGINEER DURING DESIGN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE EXACT LOCATIONS OF ALL UTILITIES IMPACTING CONSTRUCTION AND PROTECTION OF SAID UTILITIES. IF RELOCATION OF UTILITIES IS REQUIRED, THE CONTRACTOR SHALL COORDINATE THE RELOCATION WITH THE OWNER. UTILITIES DAMAGED BY CONTRACTORS ACTIVITIES SHALL BE REPAIRED WITH NEW MATERIALS AT NO COST TO THE OWNER TO THE OWNER'S SATISFACTION.
- CONTRACTOR SHALL SUPPORT AND PROTECT IN-PLACE UTILITIES WITHIN THE EXCAVATION IN ACCORDANCE WITH MAG SPECIFICATIONS, UNLESS OTHERWISE APPROVED IN WRITING BY THE OWNER OF THE UTILITY.
- EXISTING FEATURES AND FACILITIES WHICH ARE NOT SPECIFICALLY LOCATED WITH HORIZONTAL AND VERTICAL CONTROLS ARE LOCATED APPROXIMATELY WITH THE BEST AVAILABLE INFORMATION. VARIATIONS BETWEEN PLAN LOCATION AND ACTUAL DIMENSIONS WILL NOT BE A BASIS FOR A MODIFICATION OF THE CONTRACT AMOUNT.
- TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE GOVERNING AGENCY'S REQUIREMENTS. CONTRACTOR SHALL SUBMIT TRAFFIC CONTROL PLANS.
- CONTRACTOR'S WORK ACTIVITIES SHALL BE SCHEDULED AND PHASED SO AS NOT TO UNDULY IMPEDE OR PREVENT ACCESS TO PRIVATE RESIDENCES, PUBLIC FACILITIES, SCHOOLS, OR BUSINESS EXCEPT BY PRIOR WRITTEN AGREEMENT WITH THE IMPACTED OWNER(S) OR OPERATORS.
- ALL EQUIPMENT, MATERIALS, VEHICLES AND CONSTRUCTION ACTIVITIES SHALL REMAIN WITHIN PUBLIC RIGHTS-OF-WAY OR DESIGNATED PARCELS.
- ANY EXISTING FEATURES OR FACILITIES DISTURBED BY THE CONTRACTOR SHALL BE REPLACED IN KIND WITH NEW MATERIALS MEETING THE OWNER'S APPROVAL AT NO ADDITIONAL COST TO THE OWNER.
- CONSTRUCTION STAKING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- THE CONTRACTOR SHALL PROVIDE CLEAR AND ACCURATE REDLINES TO THE OWNER FOR PREPARATION OF RECORD DRAWINGS. THE REDLINES SHALL BE UPDATED ON A DAILY BASIS TO REFLECT THE CURRENT CONSTRUCTION ACTIVITIES AT ALL TIMES AND MAY BE INSPECTED BY THE OWNER/ENGINEER AT ANY TIME UPON REQUEST.
- THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SAFETY ON THE CONSTRUCTION SITE.
- THE CONTRACTOR SHALL PROVIDE SUITABLE PROTECTION FOR EXCAVATIONS. AT A MINIMUM, OSHA REGULATIONS REQUIRE PROTECTION FROM CAVE-INS FOR EXCAVATIONS GREATER THAN FIVE FEET IN DEPTH. WHERE EXCAVATIONS ARE DEEPER THAN TWENTY FEET, EXCAVATION PLANS AND SHORING SYSTEM DESIGN SHALL BE DESIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF ARIZONA.
- TRENCH EXCAVATION, BACKFILL, AND SURFACE REPLACEMENT SHALL BE AS SHOWN ON THE DRAWINGS AND/OR REQUIRED BY THE CONTRACT DOCUMENTS. IN NO CASE SHALL TRENCH EXCAVATION, BACKFILL AND SURFACE REPLACEMENT BE LESS STRINGENT THAN MAG REQUIREMENTS, EXCEPT AS MAY BE SPECIFICALLY ALLOWED IN WRITING BY THE ENGINEER. ALL BACKFILL SHALL BE MAG SPEC SECTION 601 TYPE 1 UNLESS OTHERWISE NOTED.
- CONTRACTOR SHALL USE EXTREME CAUTION WHILE WORKING IN THE VICINITY OF ALL GAS AND POWER LINES. THE CONTRACTOR SHALL MAINTAIN THE INTEGRITY OF THE GAS AND POWER TRENCHES AND PIPELINES AT ALL TIMES. SPECIAL ATTENTION SHALL BE GIVEN TO BRACING AND SUPPORT FOR UNDERGROUND POWER CROSSINGS. POLE BRACING MAY BE REQUIRED BY THE POWER COMPANY WHEN EXCAVATING NEAR POWER POLES.
- MANHOLE & VALVE ADJUSTMENTS REQUIRED SHALL BE INCIDENTAL TO THE CONTRACT ITEMS.

**ENGINEER'S NOTES FOR WATER MAIN CONSTRUCTION**

- WATER MAINS, INCLUDING PUBLIC WATER MAINS, ON-SITE PRIVATE WATER MAINS, AND FIRE LINES SHALL BE CONSTRUCTED IN ACCORDANCE WITH MAG SPEC SECTION 610.
  - ALL NEW ELEMENTS OF A DISTRIBUTION SYSTEM SHALL BE DISINFECTED IN ACCORDANCE WITH EB 8 OR AWWA C651 (MAG 611.3).
  - PRESSURE TESTING OF WATER LINES SHALL BE IN ACCORDANCE WITH AWWA C600 OR MAG STD 611.2.
  - WATER MAINS 36" OR SMALLER IN DIAMETER SHALL HAVE A MINIMUM DEPTH OF COVER OF 3- FEET IN ACCORDANCE WITH MAG SPEC SECTION 610.4.
- NEW WATER MAINS SHALL BE CONSTRUCTED OF MATERIALS IN ACCORDANCE WITH THE SPECIFICATIONS. ACCEPTABLE MATERIALS INCLUDE THE FOLLOWING:
  - DUCTILE IRON PIPE (DIP) IN ACCORDANCE WITH MAG STANDARD SPECIFICATION SECTION 750, AMERICAN WATER WORKS ASSOCIATION (AWWA) C-150 AND C-151, CEMENT MORTAR LINING IN ACCORDANCE WITH AWWA C-104. FITTINGS SHALL COMPLY WITH AWWA C-153 (MINIMUM PRESSURE RATING OF 250 PSI FOR FITTINGS). PRESSURE CLASS FOR PIPE SHALL BE 350 PSI OR AS DESIGNATED ON THE DRAWINGS. ALL DUCTILE IRON PIPE AND FITTINGS SHALL HAVE POLYETHYLENE WRAP IN ACCORDANCE WITH MAG STANDARD SPECIFICATION SECTION 610.6.
- VALVES SHALL BE OF THE TYPE DESIGNATED ON THE DRAWINGS AND SHALL COMPLY WITH MAG STANDARD SPECIFICATION SECTION 630. VALVE BOXES AND COVERS ARE REQUIRED FOR ALL BURIED GATE VALVES AND SHALL INCLUDE A CONCRETE COLLAR AS SHOWN IN MAG STANDARD DETAIL 391. VALVE BOXES SHALL BE ADJUSTED TO FINISH GRADE.
- ALL PIPE MUST HAVE RESTRAINED JOINTS. RESTRAINED JOINT LENGTHS SHALL BE IN ACCORDANCE WITH MAG STANDARD DETAIL 303 UNLESS OTHERWISE SHOWN ON THE DRAWINGS OR APPROVED BY THE ENGINEER. AT LOCATIONS WHERE PROPER JOINT RESTRAINT OF EXISTING PIPELINES CANNOT BE ACHIEVED, THE CONTRACTOR HAS THE OPTION TO USE THRUST BLOCKS PER MAG STANDARD DETAIL 380 OR REPLACE EXISTING PIPE WITH NEW RESTRAINED JOINT PIPE.
- THE CONTRACTOR SHALL CONFIRM PIPE MATERIAL AND SIZE AT DESIGNATED CONNECTION POINTS PRIOR TO ORDERING FITTINGS.
- ALL NEW WATER MAINS SHALL BE PRESSURE TESTED PRIOR TO ACCEPTANCE. UNLESS OTHERWISE NOTED IN THE SPECIFICATIONS, PRESSURE TESTING SHALL BE IN ACCORDANCE WITH MAG STANDARD SPECIFICATION SECTION 611. UNLESS SPECIFICALLY AUTHORIZED BY THE OWNER, PRESSURE TESTING AGAINST EXISTING SYSTEM COMPONENTS WILL NOT BE ALLOWED.
- ALL NEW WATER MAINS SHALL BE FLUSHED AND DISINFECTED PRIOR TO CONNECTION TO EXISTING SYSTEMS. OWNER SHALL BE PROVIDED WITH COPIES OF PASSING BACTERIOLOGICAL TEST FROM AN APPROVED LABORATORY PRIOR TO CONNECTING NEW WATER MAINS TO EXISTING SYSTEM. UNLESS OTHERWISE NOTED IN THE SPECIFICATIONS, FLUSHING, DISINFECTION AND BACTERIOLOGICAL TESTING SHALL BE IN ACCORDANCE WITH MAG STANDARD SPECIFICATION SECTION 611.
- ALL LATERAL AND HYDRANT RUNS SHALL SLOPE UP FROM THE WATER MAIN TO THE HYDRANT.
- CONTRACTOR SHALL COORDINATE ALL PERMITTING WITH ARCHITECT AND OWNER, INCLUDING ADEQ APPROVAL TO CONSTRUCT.

**ENGINEER'S NOTES FOR SANITARY SEWER CONSTRUCTION**

- NEW SANITARY SEWERS SHALL BE CONSTRUCTED OF MATERIALS IN ACCORDANCE WITH THE SPECIFICATIONS. ACCEPTABLE MATERIALS INCLUDE THE FOLLOWING:
  - POLYVINYL CHLORIDE (PVC) SDR 35 PIPE IN ACCORDANCE WITH MAG STANDARD SPECIFICATION SECTION 745.
- NEW SANITARY SEWERS SHALL BE TESTED IN ACCORDANCE WITH MAG STANDARD SPECIFICATION SECTION 615.11.
- NEW SANITARY SEWERS THAT ARE CONSTRUCTED OF FLEXIBLE OR SEMI RIGID PIPE (PVC) SHALL BE SUBJECT TO DEFLECTION TESTING IN ACCORDANCE WITH MAG STANDARD SPECIFICATION SECTION 615.11.C. THIS TEST SHALL BE COMPLETED BY PULLING A "GO/NO GO" DEFLECTION TEST MANDREL THROUGH THE COMPLETED PIPELINE. TESTING SHALL BE COMPLETED NO LESS THAN 30 DAYS AFTER THE TRENCH BACKFILL AND COMPACTION HAS BEEN COMPLETED. DEFLECTION SHALL NOT EXCEED THE SMALLER OF 5% OF THE BASE I.D. OR 75% OF THE MANUFACTURER'S SPECIFIED DEFLECTION. PIPE OR FITTINGS NOT PASSING THE MANDREL TEST SHALL BE REJECTED AND REPLACED BY THE CONTRACTOR.
- EACH MANHOLE SHALL BE TESTED IN ACCORDANCE WITH MAG STD SPEC SECTION 611.5 AND AAC R18-9-E301.D.3.E AND F.
- CONTRACTOR SHALL COORDINATE ALL PERMITTING WITH ARCHITECT AND OWNER, INCLUDING ADEQ CONSTRUCTION AUTHORIZATION.

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**Page 22 of 34**

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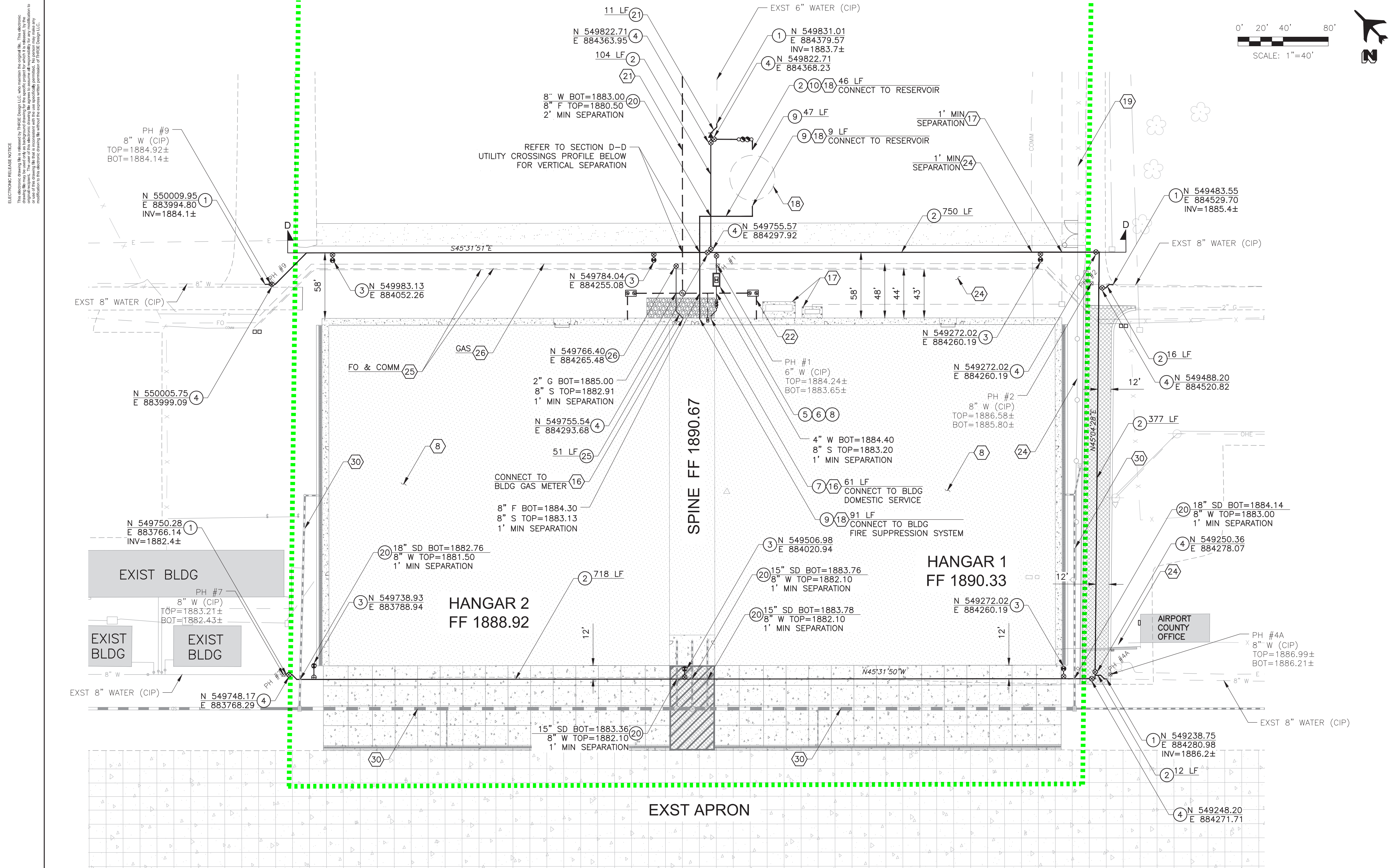
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**CONSTRUCTION NOTES**

- 1 SWING CONNECT TO EXST WATER MAIN W/ RESTRAINED COUPLING REFER TO DET 1, THIS SHT
- 2 8" WATER MAIN W/ FITTINGS, DIP, CL350 RESTRAINED W/ POLYWRAP
- 3 FIRE HYDRANT ASSEMBLY W/ 6" GATE VALVE MAG STD DET 391-1, TYPE C DEBRIS CAP, MAG STD DET 392
- 4 6" WATER MAIN & FITTINGS, DIP, CL350, RESTRAINED W/ POLYWRAP
- 5 8" GATE VALVE, VALVE BOX & COVER MAG STD DET 391-1, TYPE C DEBRIS CAP, MAG STD DET 392
- 6 4" GATE VALVE, VALVE BOX & COVER MAG STD DET 391-1, TYPE C DEBRIS CAP, MAG STD DET 392
- 7 4" REDUCED PRESSURE ZONE BACKFLOW PREVENTION ASSEMBLY MAG STD DET 611-2 WATTS MODEL NO. LF-909 OR APPROVED EQUAL
- 8 4" WATER SERVICE W/ FITTINGS, DIP, CL350 RESTRAINED W/ POLYWRAP
- 9 8" WATER METER VAULT MAG STD DET 345-2 & 321
- 10 8" FIRE LINE W/ FITTINGS, DIP, CL350, RESTRAINED W/ POLYWRAP
- 11 8" REDUCED PRESSURE ZONE BACKFLOW PREVENTION ASSEMBLY MAG STD DET 611-2 MOD. NO ENCLOSURE WATTS MODEL NO. LF-909 OR APPROVED EQUAL
- 12 VERTICAL REALIGNMENT MAG STD DET 370
- 13 6" WATER MAIN W/ FITTINGS, DIP, CL350 RESTRAINED W/ POLYWRAP
- 14 2" MDPE GAS SERVICE LINE & FITTINGS BUTT FUSION PER MFG RECOMMENDATION
- 15 2" BALL VALVE, MDPE GAS SERVICE LINE BUTT FUSION PER MFG RECOMMENDATION

**REFERENCE NOTES**

- 16 HANGAR BUILDING REFER TO ARCHITECTURAL PLANS
- 17 BUILDING PLUMBING REFER TO PLUMBING PLANS
- 18 ELECTRICAL IMPROVEMENTS REFER TO ELECTRICAL PLANS
- 19 FIRE SUPPRESSION SYSTEM & STORAGE RESERVOIR REFER TO FIRE PROTECTION PLANS
- 20 EXST FENCE PROTECT IN PLACE
- 21 PUBLIC SEWER REFER TO DWG W2.02
- 22 ON-SITE PRIVATE SEWER REFER TO DWG W2.02
- 23 SITE DEMOLITION REFER TO SITE DEMO PLAN
- 24 COMMUNICATION LINE RELOCATION BY OTHERS
- 25 GAS MAIN RELOCATION BY OTHERS
- 26 STORM DRAIN REFER TO STORM DRAIN PLANS

**LEGEND**

■■■■■■ CONSTRUCTION FOOTPRINT AND LEASED AREA

REFER TO DRAWING G1.03 FOR PROPERTY LINE, SETBACKS, EASEMENTS & ROWS

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**Ascent Aviation MRO Hangars**



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 Marana, AZ 85653



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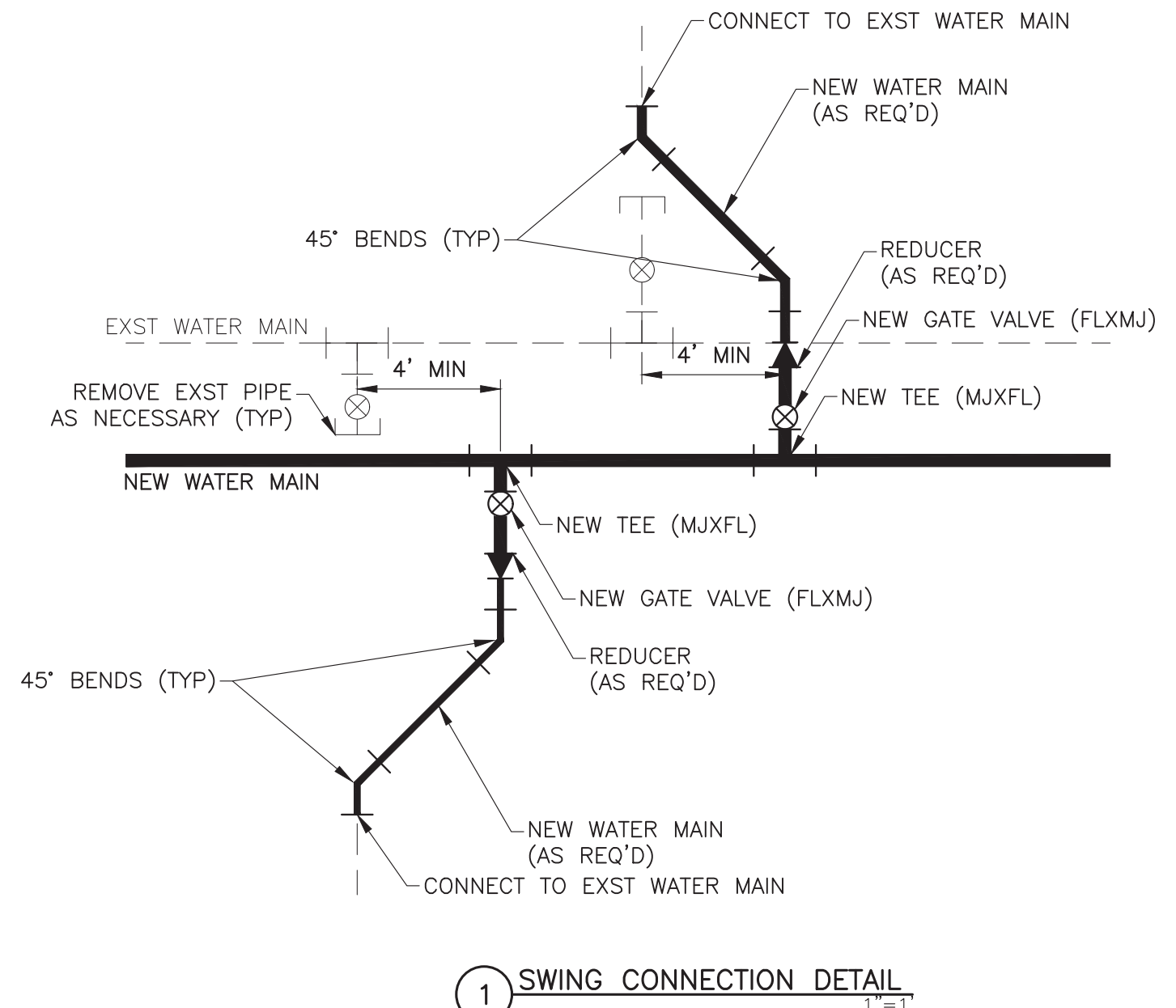
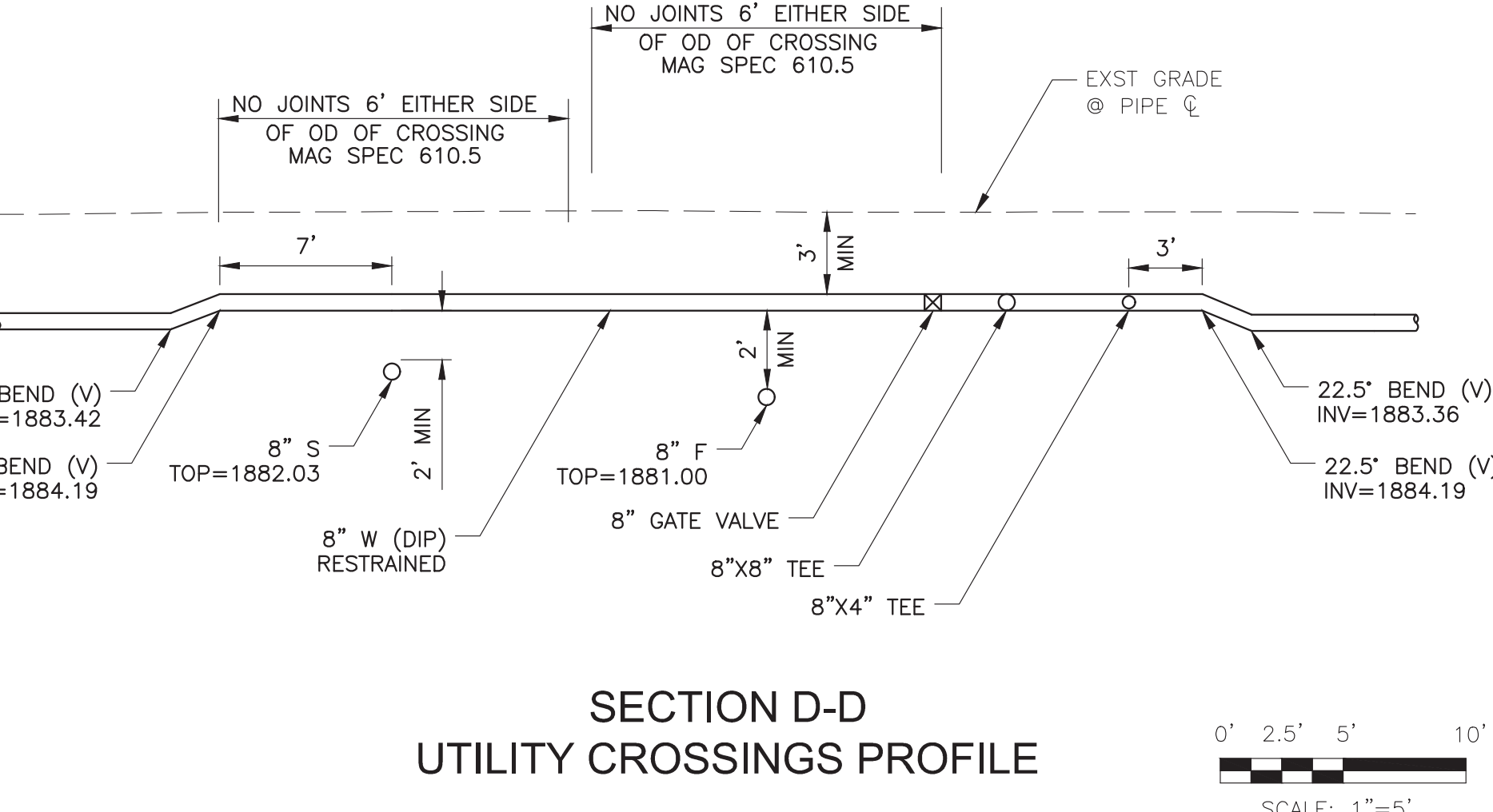
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 Page 23 of 34

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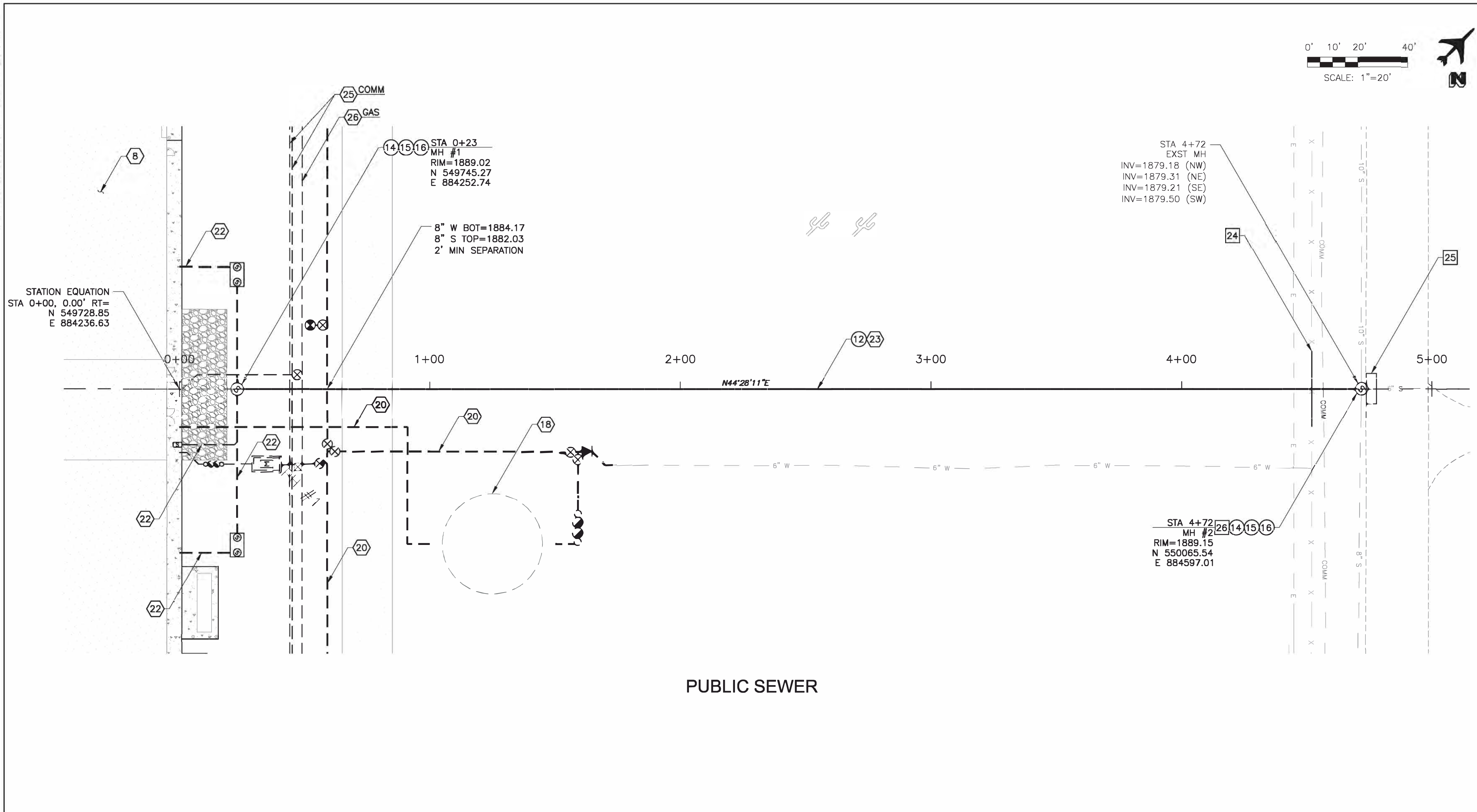


- NOTES:
1. CONTRACTOR SHALL MAKE "SWING CONNECTIONS" TO EXISTING WATER MAINS AS INDICATED ON THE APPROVED PLANS, AFTER THE NEW WATER MAINS ARE ACCEPTED FOR SERVICE AND ALL EXISTING SERVICES HAVE BEEN CONNECTED TO NEW WATER MAIN.
  2. "SWING CONNECTIONS" SHALL INCLUDE ALL PIPING AND APPURTENANCES (OFFSETS, BENDS, PIPE PLUGS, REDUCERS, ETC.) AND PIPING REMOVALS REQUIRED TO EFFECT THE CONNECTION OF THE NEW WATER MAIN TO THE EXISTING WATER MAIN.
  3. WATER MAINS SHALL BE DISINFECTED IN ACCORDANCE WITH ADEQ ENGINEERING BULLETIN NO. 8 "DISINFECTION OF WATER SYSTEMS", MAG STANDARD SPECIFICATION 611 AND AWWA STANDARD C651-14.
  4. UPON ACCEPTANCE OF WATER MAIN, FINAL CONNECTIONS FROM THE TEMPORARY PIPE TO THE EXISTING WATER MAIN SHALL BE CLEANED AND SWABBED, AS NECESSARY, WITH A 0.005 TO 0.10 PERCENT CHLORINE SOLUTION IN ACCORDANCE WITH AWWA STANDARD C651-14.
  5. CONTRACTOR SUBMITTAL REQUIRED ON ALL COMPONENTS.
  6. CONTRACTOR SHALL VERIFY EXST PIPE MATERIAL AND MAKE APPROPRIATE RESTRAINED TRANSITION COUPLING. THRUST BLOCKS SHALL BE INSTALLED AT CONNECTIONS TO EXISTING UNRESTRAINED PIPE. THRUST BLOCKING SHALL BE PER MAG STD DET 380.

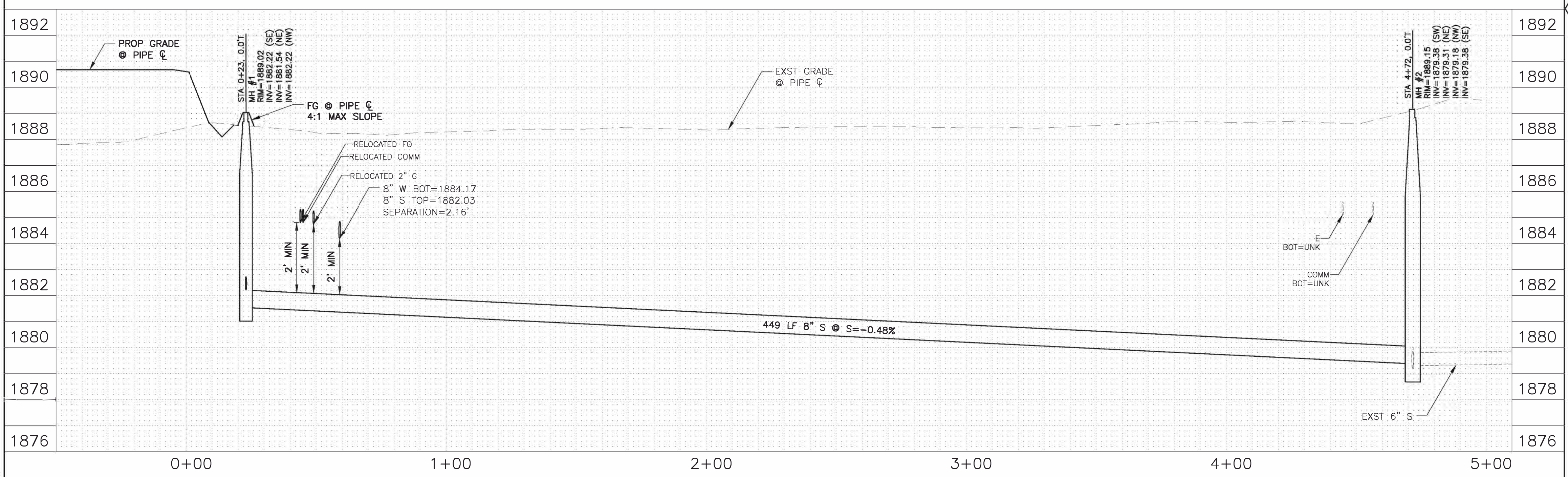
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PUBLIC SEWER



PROFILE ELEVATIONS LEGEND  
 (U) = UNKNOWN  
 (S) = FIELD MEASUREMENT - SURVEY  
 (PH) = FIELD MEASUREMENT - POT HOLE  
 (R) = RECORD DRAWING (DESIGN/AS-BUILT)

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

REMOVAL NOTES	
24 REMOVE & REPLACE EXST CHAIN LINK FENCE IN KIND	20 LF
25 REMOVE & REPLACE PAVEMENT T-TOP TRENCH REPAIR MAG STD DET 200 W/ PAVEMENT SECTION DET 5 SHT G2.01	6 SY
26 REMOVE EXST MANHOLE	1 EA

CONSTRUCTION NOTES	
12 8" SEWER PVC, SDR 35	449 LF
14 5' SEWER MANHOLE MAG STD DET 420-1	2 EA
15 30" FRAME & COVER MAG STD DET 423-2	2 EA
16 CONCRETE COLLAR MAG STD DET 422	2 EA

REFERENCE NOTES	
8 HANGAR BUILDING REFER TO ARCHITECTURAL PLANS	
18 FIRE SUPPRESSION SYSTEM & STORAGE RESERVOIR REFER TO FIRE PROTECTION PLANS	
20 ON-SITE WATER LINE REFER TO DWG W2.01	
22 ON-SITE PRIVATE SEWER REFER TO DWG W2.02	
23 EXST SEWER REFER TO DEMOLITION PLANS	
25 COMMUNICATION LINE RELOCATION BY OTHERS	
26 GAS MAIN RELOCATION BY OTHERS	

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**Affiliated Engineers, Inc.**  
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COMMISSIONING  
**Ascent Aviation MRO Hangars**

**ASCENT**  
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 Marana, AZ 85653

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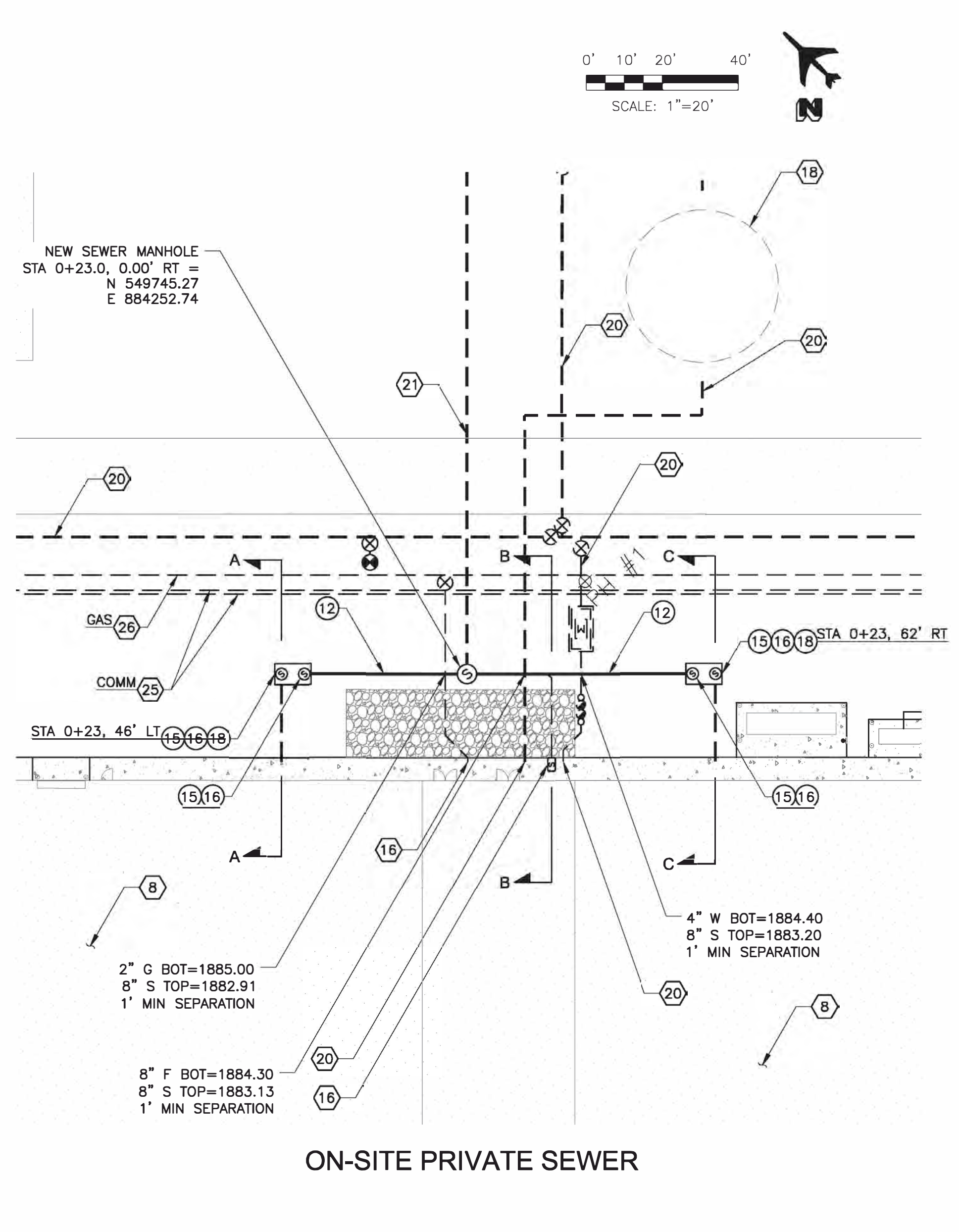
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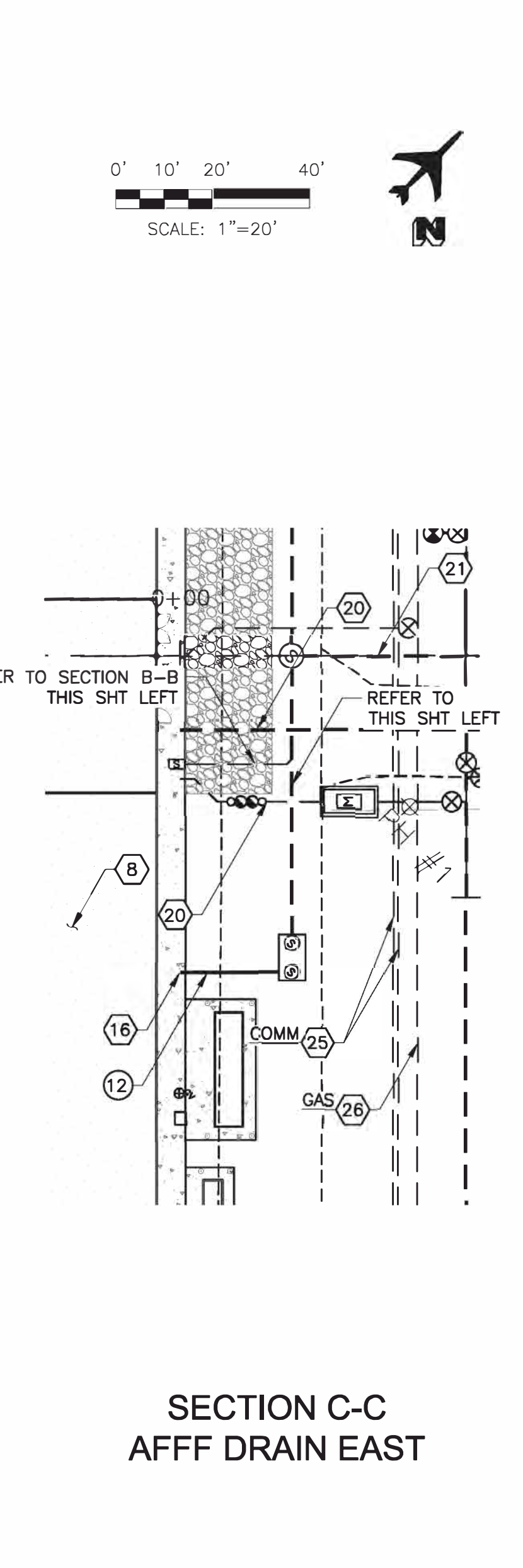
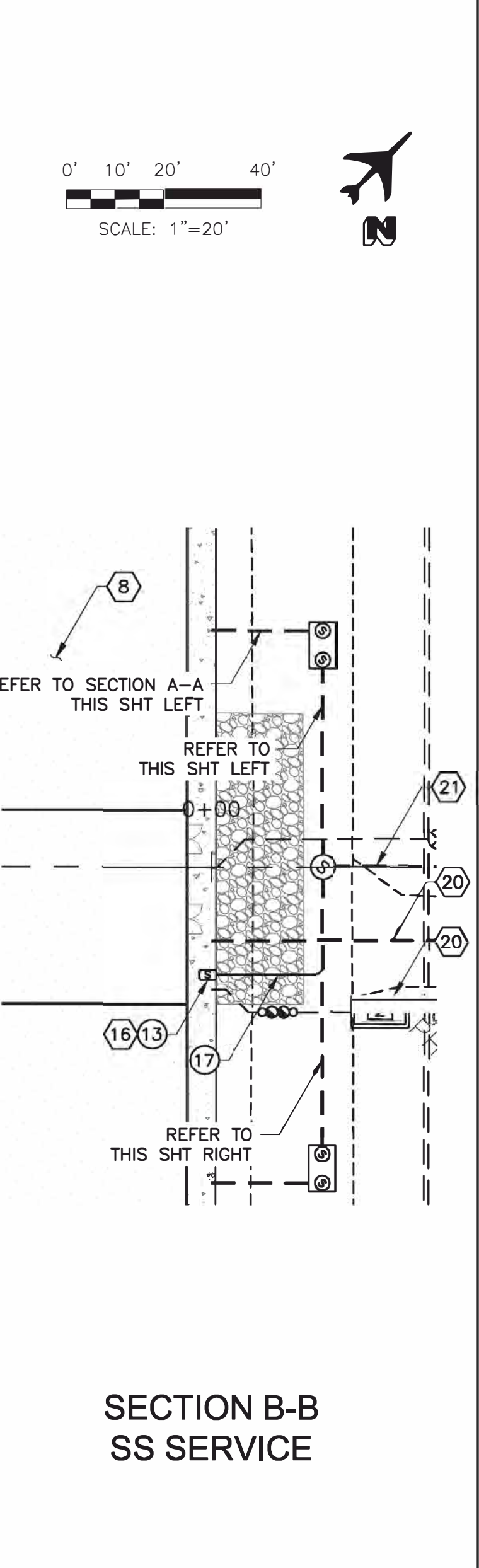
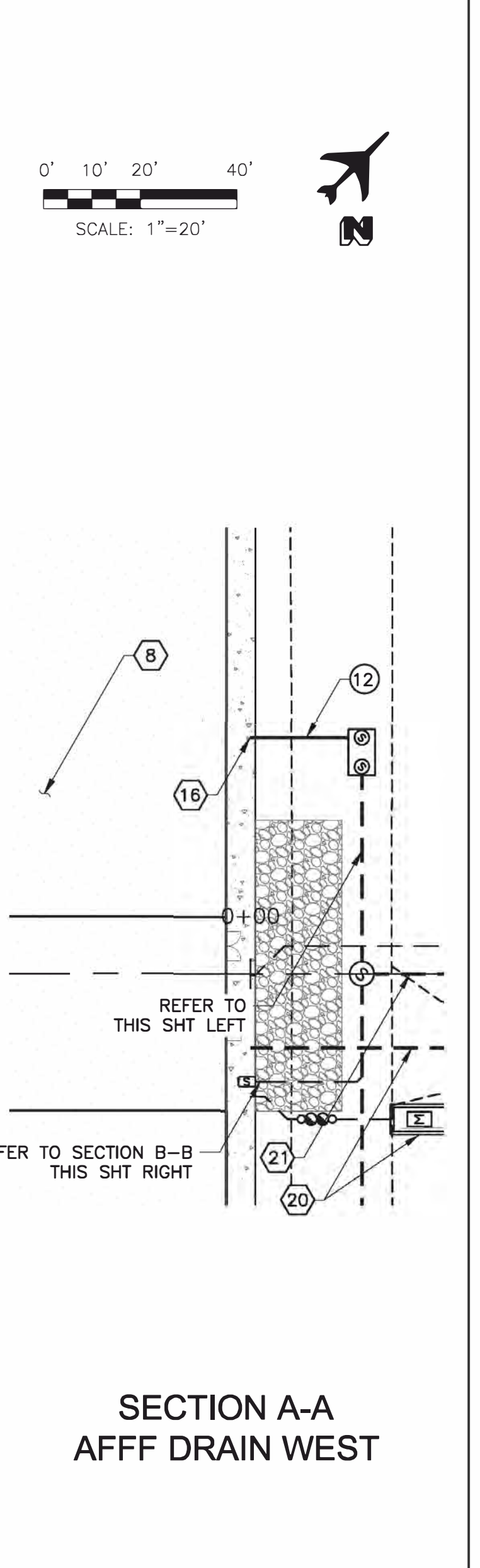
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ON-SITE PRIVATE SEWER



CONSTRUCTION NOTES

12	8" SEWER PVC, SDR 35	134	LF
13	SEWER CLEANOUT MAG STD DET 440-2, TYPE B	1	EA
15	30" FRAME & COVER MAG STD DET 423-2	4	EA
16	CONCRETE COLLAR MAG STD DET 422	4	EA
17	4" SEWER SERVICE PVC, SDR 35	24	LF
18	1500 GALLON OIL/SAND SEPARATOR HS 20 RATED JENSEN MODEL NO. 200033816 OR APPROVED EQUAL	2	EA

REFERENCE NOTES

8	HANGAR BUILDING REFER TO ARCHITECTURAL PLANS
16	BUILDING PLUMBING REFER TO PLUMBING PLANS
18	FIRE SUPPRESSION SYSTEM & STORAGE RESERVOIR REFER TO FIRE PROTECTION PLANS
20	ON-SITE WATER LINE REFER TO DWG W2.01
21	PUBLIC SEWER REFER TO DWG W2.02
25	COMMUNICATION LINE RELOCATION BY OTHERS
26	GAS MAIN RELOCATION BY OTHERS

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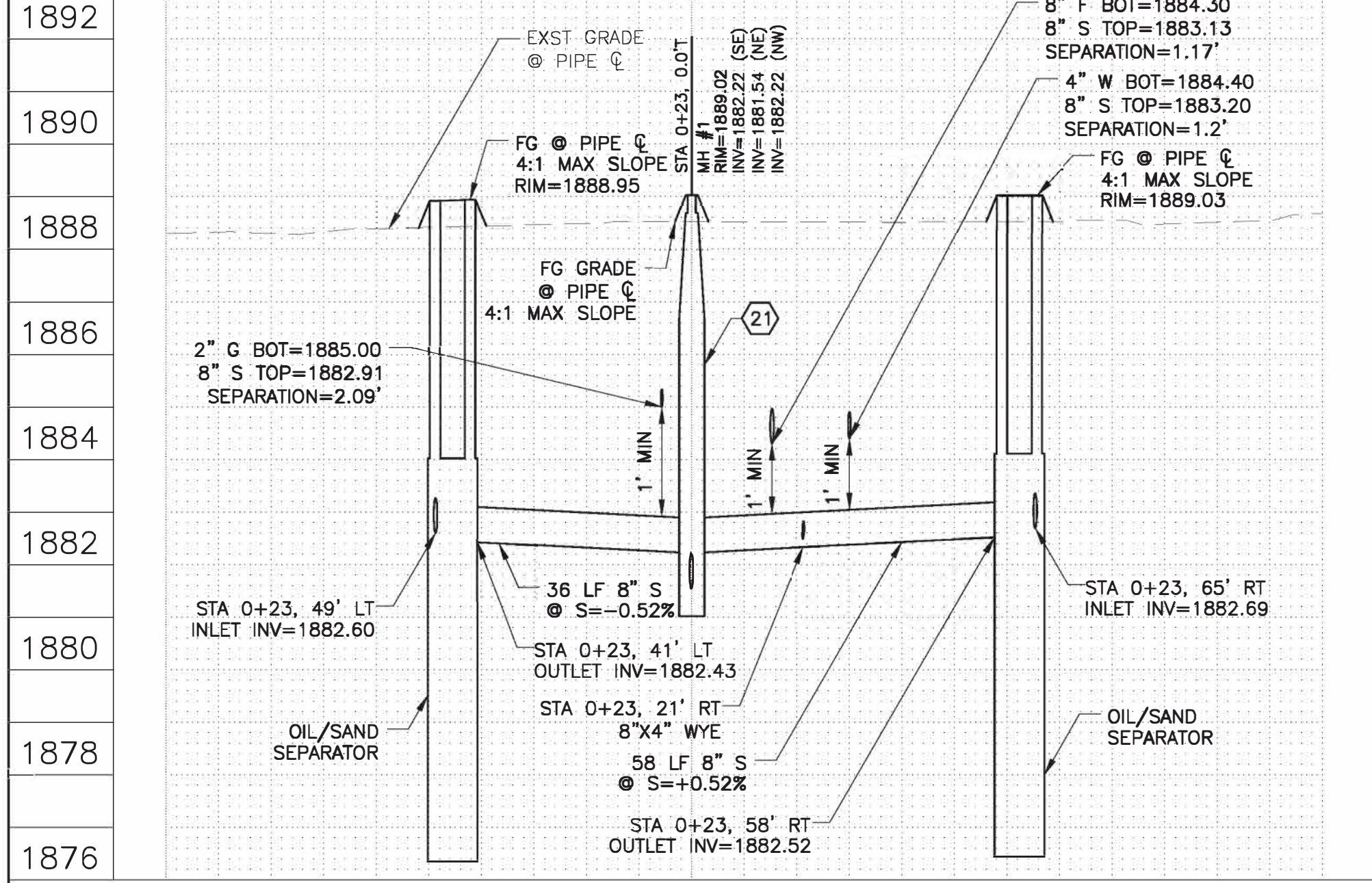
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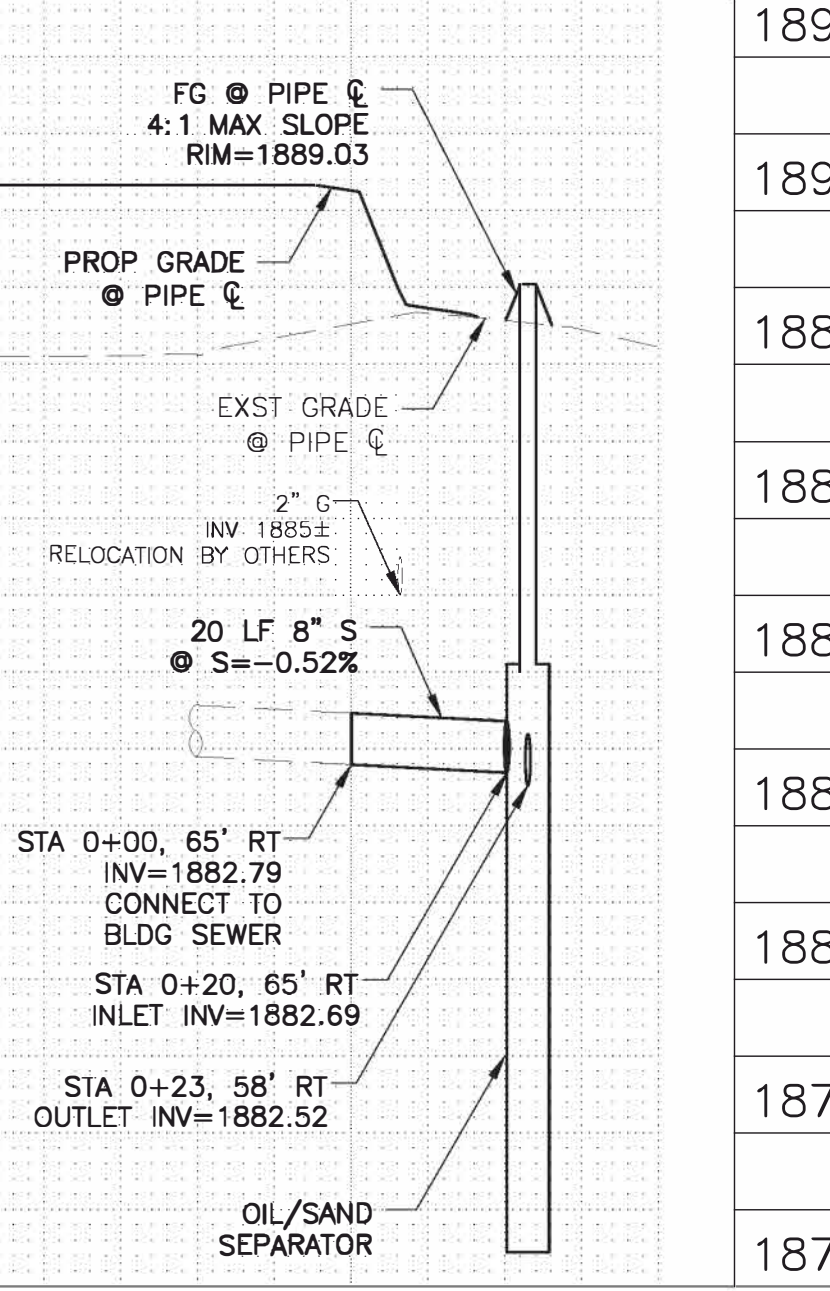
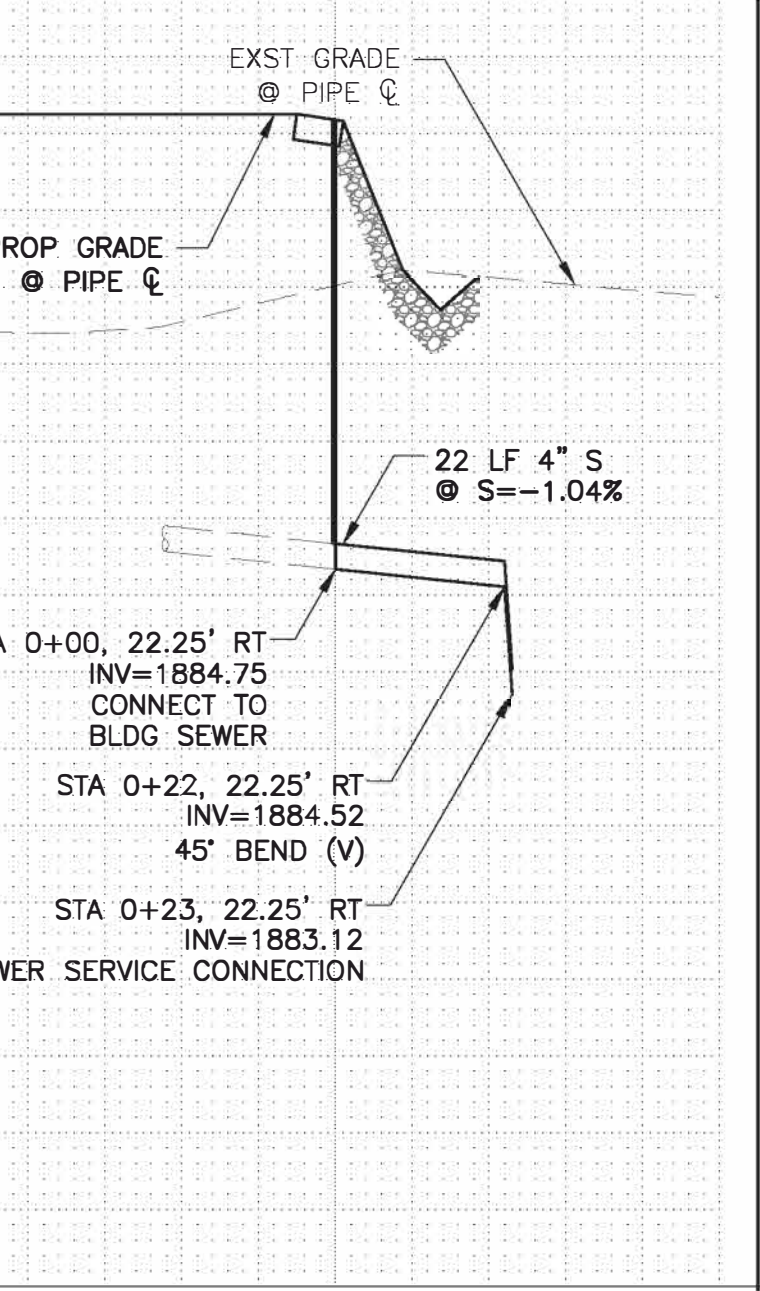
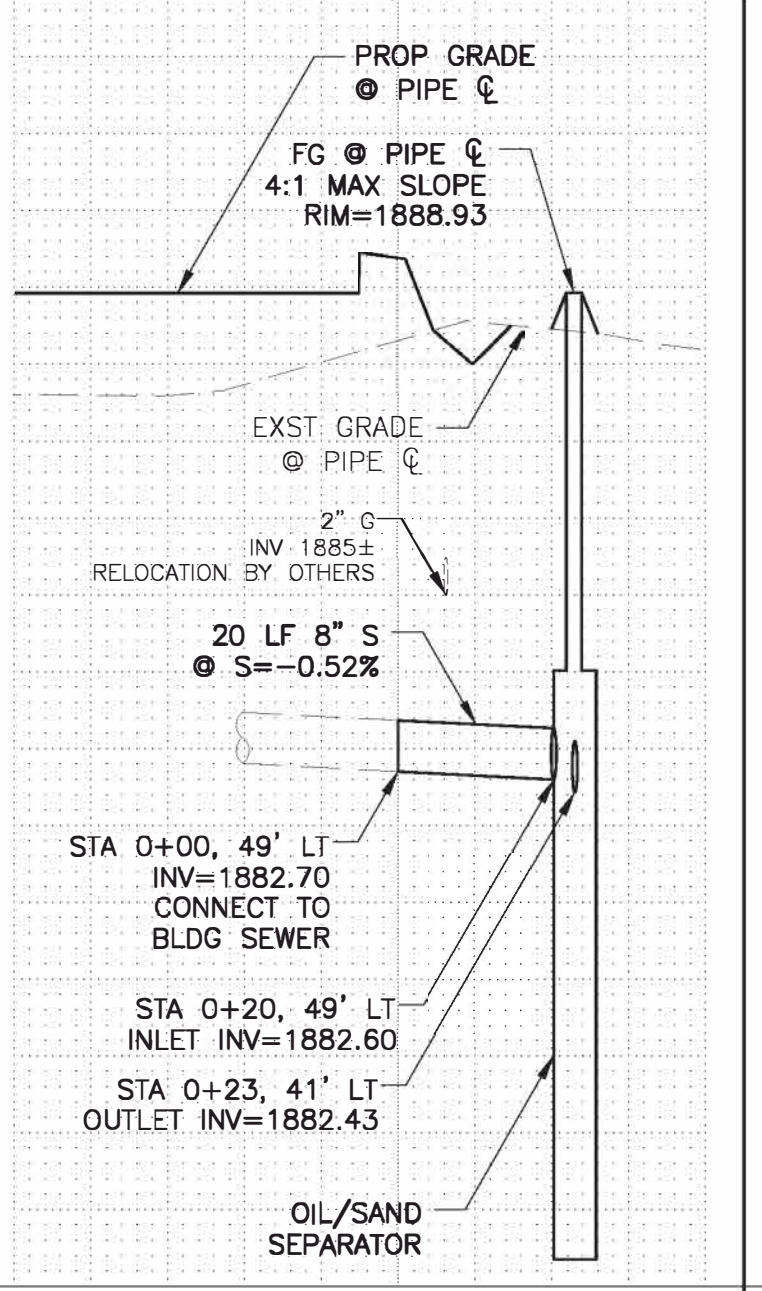
COMMISSION NAME

# Ascent Aviation MRO Hangars

Pin Air Park Road  
 Marana, AZ 85653



ON-SITE PRIVATE SEWER PROFILE



PROFILE ELEVATIONS LEGEND

(U) = UNKNOWN  
 (S) = FIELD MEASUREMENT - SURVEY  
 (PH) = FIELD MEASUREMENT - POTHOLE  
 (R) = RECORD DRAWING (DESIGN/AS-BUILT)

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

SEAL

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 Page 25 of 34

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SPR - 107 - 23

**GENERAL ELECTRICAL REQUIREMENTS:**

1. THE COMPLETED INSTALLATION SHALL CONFORM TO ALL APPLICABLE FEDERAL, STATE AND LOCAL CODE ORDINANCES AND REGULATIONS. CONTRACTOR SHALL OBTAIN NECESSARY PERMITS AND INSPECTIONS REQUIRED BY THE AUTHORITIES HAVING JURISDICTION. ALL WORK SHALL BE DONE IN A NEAT, WORKMANLIKE, FINISHED AND SAFE MANNER, ACCORDING TO THE LATEST PUBLISHED N.E.C.A. STANDARDS OF INSTALLATION, UNDER COMPETENT SUPERVISION. INSTALL GROUNDING AS REQUIRED BY THE CODE(S).
2. VISIT THE SITE PRIOR TO BIDDING TO BECOME FAMILIAR WITH EXISTING CONDITIONS AND ALL OTHER FACTORS WHICH MAY AFFECT THE EXECUTION OF THIS WORK. INCLUDE ALL RELATED COSTS IN THE INITIAL BID PROPOSAL.
3. ALL MATERIALS SHALL BE NEW AND OF THE BEST QUALITY, MANUFACTURED IN ACCORDANCE WITH NEMA, ANSI, U.L. OR OTHER APPLICABLE STANDARDS. THE USE OF MANUFACTURER'S NAMES, MODELS, AND NUMBERS IS INTENDED TO ESTABLISH STYLE, QUALITY, APPEARANCE, USEFULNESS AND BID PRICE. PROPOSED SUBSTITUTIONS SHALL BE SUBMITTED IN WRITING AND REVIEWED BY THE ENGINEER BEFORE ORDERING.
4. PROTECT ALL ELECTRICAL MATERIAL AND EQUIPMENT INSTALLED UNDER THIS DIVISION AGAINST DAMAGE BY OTHER TRADES, WEATHER CONDITIONS OR ANY OTHER CAUSES. EQUIPMENT FOUND DAMAGED OR IN OTHER THAN NEW CONDITION WILL BE REJECTED AS DEFECTIVE.
5. LEAVE THE SITE CLEAN, REMOVE ALL DEBRIS, EMPTY CARTONS, TOOLS, CONDUIT, WIRE SCRAPS AND ALL MISCELLANEOUS SPARE EQUIPMENT AND MATERIALS USED IN THE WORK DURING CONSTRUCTION. ALL COMPONENTS SHALL BE FREE OF DUST, GRIT AND FOREIGN MATERIALS, LEFT AS NEW BEFORE FINAL ACCEPTANCE OF WORK.
6. CIRCUIT CONDUCTORS #6 AWG OR SMALLER TO BE "XHHW" COPPER. #4 THRU #2 AWG TO BE "XHHW" STRANDED COPPER. #1 AWG OR LARGER SHALL BE "XHHW-2" STRANDED COPPER. MINIMUM CONDUCTOR SIZE TO BE #12 AWG WITH #12 GND.
7. UNDERGROUND CONDUITS TO BE SCHEDULE 40 PVC. MINIMUM DEPTH 24", MINIMUM SIZE 1", UNLESS OTHERWISE SHOWN ON THE PLANS.
8. EXPOSED CONDUITS TO BE GALVANIZED RIGID STEEL, MINIMUM SIZE 3/4", UNLESS OTHERWISE NOTED ON THE PLANS.

9. ALL SAFETY SWITCHES AND OTHER DISTRIBUTION AND CONTROL ELECTRICAL EQUIPMENT SHALL BE U.L. LISTED AND RATED FOR HEAVY DUTY SERVICE.
10. ALL WIRING DEVICES SHALL BE SPECIFICATION GRADE.
11. ALL ELECTRICAL EQUIPMENT, CONDUIT, WIRING, BOXES, ETC. SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO ORDERING. THE SUBMITTALS SHALL BE NEATLY GROUPED AND ORGANIZED. PERTINENT INFORMATION SHALL BE HIGHLIGHTED, AND THE SPECIFIC PRODUCT SHALL BE IDENTIFIED. ALL SUBMITTALS SHALL BE COMPLETE, AND PRESENTED IN ONE PACKAGE. THE SUBMITTAL SHALL INCLUDE A COMPLETE LIST OF THE EQUIPMENT AND MATERIALS, INCLUDING THE MANUFACTURER'S NAME, PRODUCT SPECIFICATION, DESCRIPTIVE DATA, TECHNICAL LITERATURE, PERFORMANCE CHARTS, CATALOG CUTS, INSTALLATION INSTRUCTIONS, AND SPARE PART RECOMMENDATIONS FOR EACH DIFFERENT ITEM OF THE EQUIPMENT SPECIFIED.
12. IT IS THE OBLIGATION OF THE CONTRACTOR TO ORGANIZE HIS WORK, SO THAT A COMPLETE ELECTRICAL, INSTRUMENTATION, AND CONTROL SYSTEM FOR THE FACILITY WILL BE PROVIDED, AND WILL BE SUPPORTED BY ACCURATE SHOP AND RECORD DRAWINGS, AND O & M MANUALS.
13. PRIOR TO PERFORMING UNDERGROUND EXCAVATION, THE CONTRACTOR SHALL CONTACT BLUE STAKE TO OBTAIN FIELD UNDERGROUND UTILITIES LOCATION MARKING. THE CONTRACTOR SHALL UNCOVER AHEAD OF CONSTRUCTION, ALL LINES BEING TIED INTO AND ALL INTERSECTING ELECTRICAL LINES AND UTILITIES AS SHOWN ON THE PLANS OR MARKED BY BLUE STAKE TO VERIFY THEIR LOCATION AND DEPTH. UTILITY SERVICES AND ALL EXISTING ELECTRICAL LINES SHALL BE LOCATED AND PROTECTED BY THE CONTRACTOR. COORDINATE WITH ENGINEER AND/OR APPROPRIATE UTILITY COMPANY. ALL PRECAUTIONS SHALL BE USED WHILE WORKING NEAR ALL UTILITIES, TO AVOID INJURY OR DEATH TO PERSONNEL, PROPERTY DAMAGE AND/OR INTERRUPTION OF SERVICE.

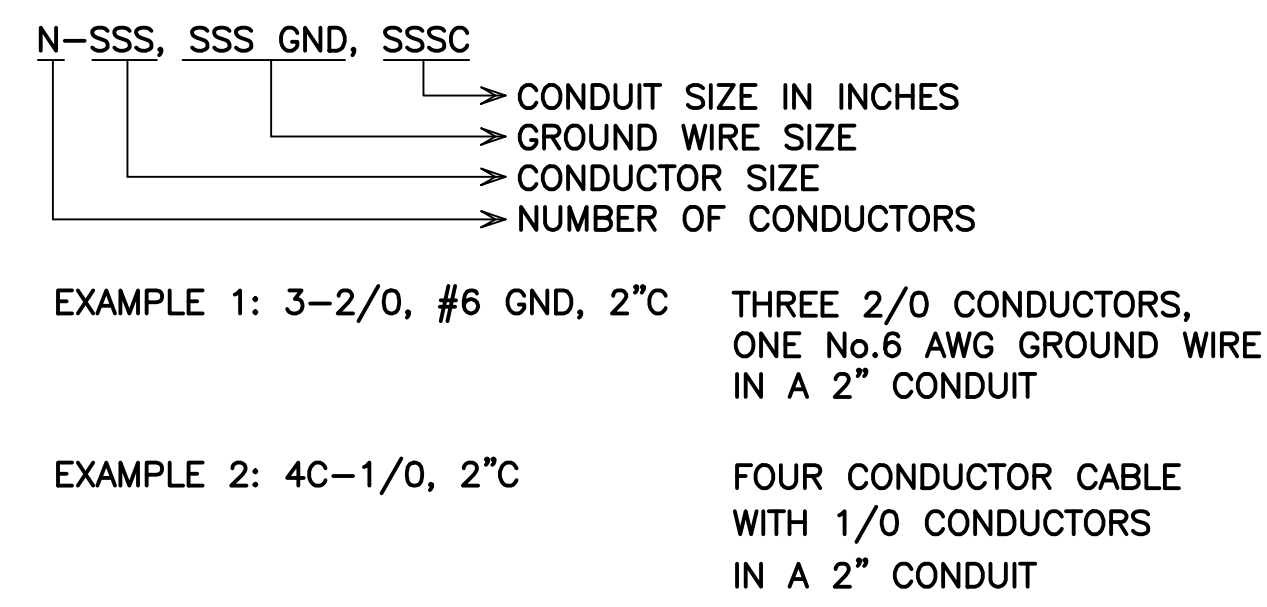
**SHEET INDEX**

- E1.0 ELECTRICAL LEGEND AND NOTES
- E2.0 ELECTRICAL DEMOLITION PLAN
- E3.0 ELECTRICAL SITE PLAN
- E4.0 SINGLE LINE DIAGRAM AND NOTES, AND PANEL SCHEDULE

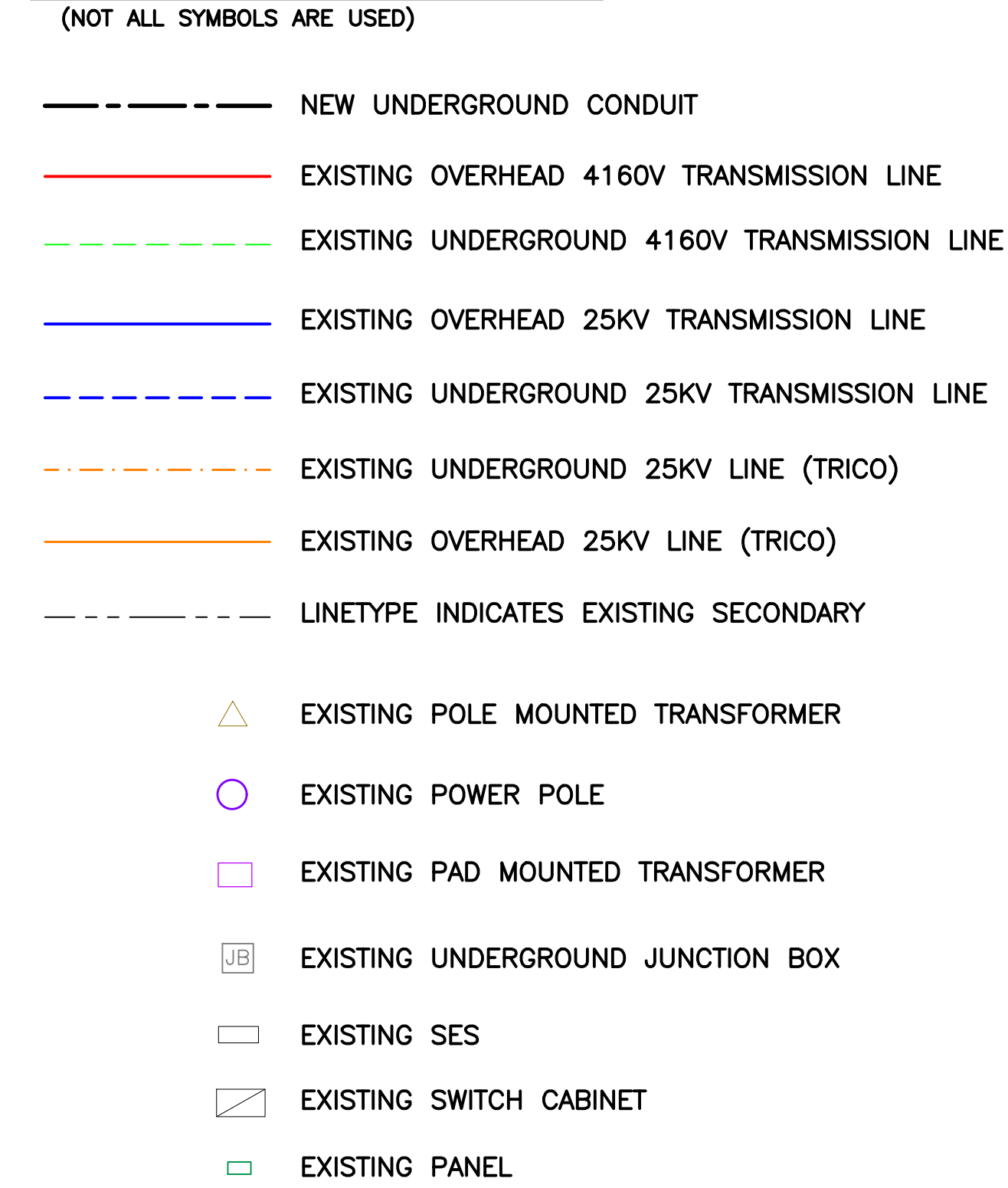
**UTILITY COORDINATION NOTES:**

- a) THE CONTRACTOR SHALL SUBMIT A COMPLETE SET OF DRAWINGS TO ELECTRICAL UTILITY (TRICO) WITHIN ONE WEEK OF NOTICE TO PROCEED.
- b) THE CONTRACTOR SHALL NOT TRENCH OR INSTALL CONDUITS (ON THE UTILITY OR LOAD SIDE) TO THE SES, THE UTILITY TRANSFORMER (PRIMARY OR SECONDARY), OR TO THE UTILITY CONNECTION POINT BEFORE RECEIVING A FINAL DESIGN FROM THE UTILITY (TRICO).
- c) THE CONTRACTOR SHALL NOT INSTALL EQUIPMENT PADS FOR THE SES OR ANY UTILITY EQUIPMENT (TRANSFORMERS, SWITCHING CABINETS, ETC.) PRIOR TO RECEIPT OF FINAL PLANS FROM THE UTILITY (TRICO).
- d) THE CONTRACTOR SHALL NOT BE COMPENSATED FOR ADDITIONAL WORK REQUIRED TO MEET THE REQUIREMENTS OF THE UTILITY WHICH IS THE RESULT OF PROCEEDING PRIOR TO RECEIPT OF A FINAL UTILITY (TRICO) DESIGN.
- e) THE CONTRACTOR SHALL VERIFY DISTANCE OF UTILITY TRENCH FROM UTILITY TRANSFORMER TO SERVICE ENTRANCE SECTION. CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH UTILITY SIDE TRENCH AND CONDUIT. TRENCH AND CONDUIT PER UTILITY (TRICO) STANDARDS.

**CONDUIT AND WIRE KEY**



**ELECTRICAL STANDARD LEGEND**



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COMMISSION NAME

**Ascent Aviation MRO Hangars**

**ASCENT**  
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Pinal Air Park Road  
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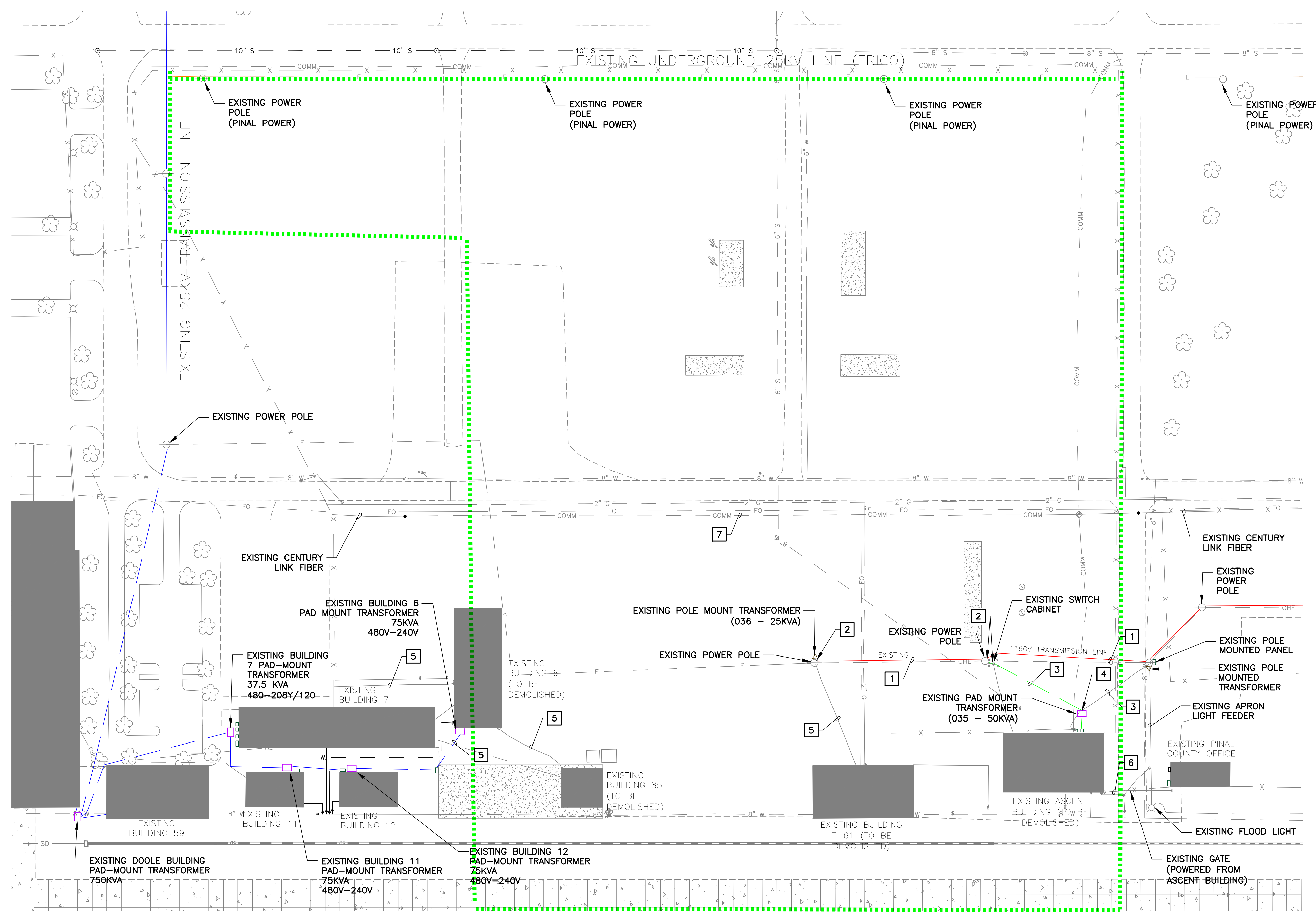
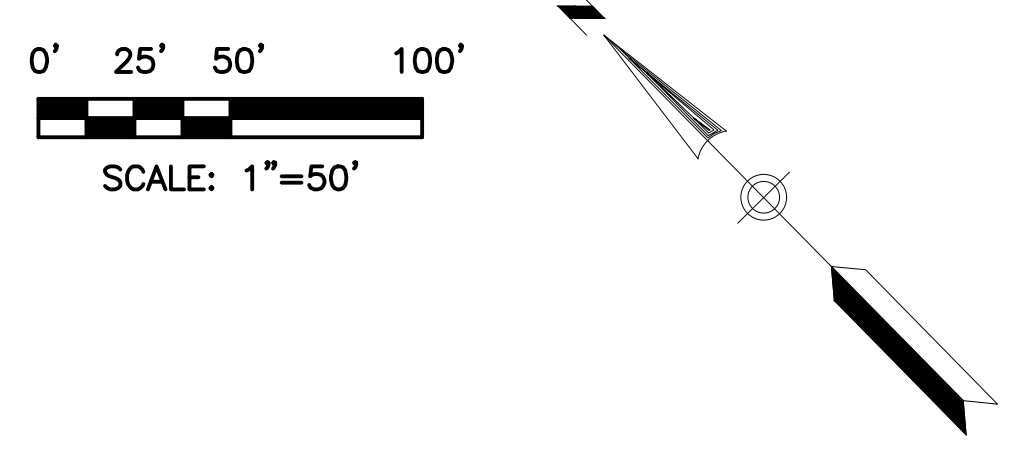
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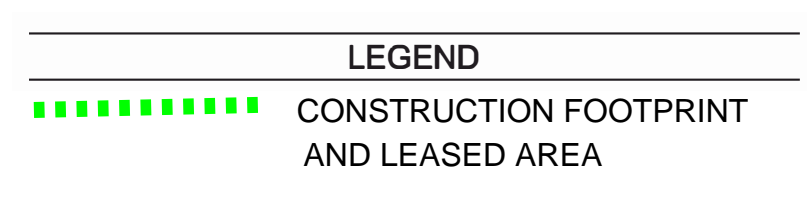
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- REMOVAL NOTE**
- 1 REMOVE OVERHEAD UTILITY LINES BACK TO EXISTING POLE.
  - 2 REMOVE UTILITY POLE AND SWITCH CABINET/TRANSFORMER.
  - 3 REMOVE UNDERGROUND UTILITY FEEDERS AND CONDUIT FROM UTILITY POLE TO BUILDING SERVICE ENTRANCE SECTION.
  - 4 REMOVE AND SALVAGE PAD MOUNT UTILITY TRANSFORMER (RETURN TO OWNER/UTILITY).
  - 5 REMOVE UNDERGROUND FEEDERS BETWEEN BUILDINGS - REMOVE CONDUITS.
  - 6 REMOVE UNDERGROUND FEEDERS BETWEEN BUILDINGS - CONDUIT TO REMAIN.
  - 7 RELOCATE EXISTING CENTURY LINK FIBER PER CENTURY LINK REQUIREMENTS.



REFER TO DRAWING G1.03 FOR PROPERTY LINE, SETBACKS, EASEMENTS & ROWS

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 Houston TX 77098

Mechanical / Electrical / Plumbing Consultant  
**Affiliated Engineers, Inc.**  
 5802 Research Park Boulevard,  
 Madison WI 53719

**DIBBLE** **engineers**  
 11711 East Pulteview Blvd., Suite 200  
 Phoenix, AZ 85024  
 Phone: (480) 874-1441  
 Fax: (480) 874-0464

COMMISSION NAME  
**Ascent Aviation MRO Hangars**

**ASCENT**  
 AVIATION SERVICES

Pin Air Park Road  
 Marana, AZ 85653

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SHEET TITLE  
**Electrical Demolition Plan**  
 Page 27 of 34

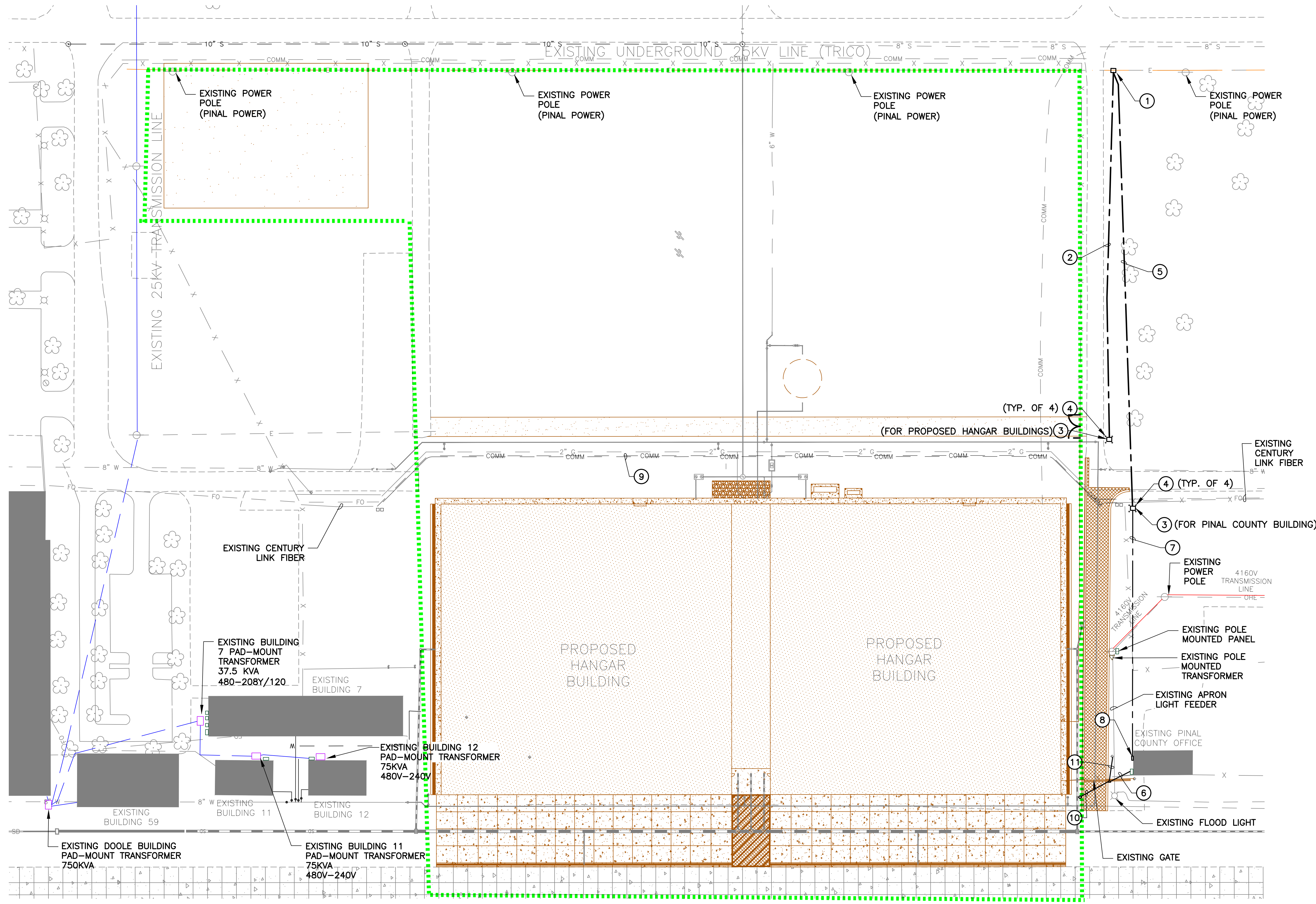
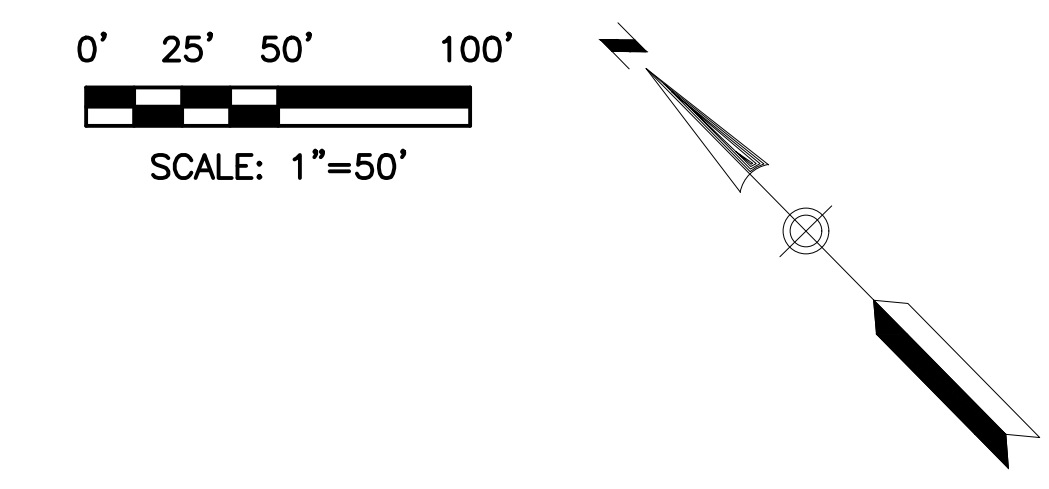
THRESE DESIGN LLC COMMISSION NO: 223-033  
 SHEET NUMBER  
**E2.0**

PRINT DATE/TIME: 10/18/2023 10:41:47 AM

© PROJECT: 20230002019 Pin Air Park Hangar Development/CAD/CAD SHEET: S2019 E2.0.dwg

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○ CONSTRUCTION NOTE ○

- 1 INSTALL SWITCH CABINET PER UTILITY REQUIREMENTS.
- 2 INSTALL 6-4°C PER UTILITY DESIGN.
- 3 INSTALL PAD-MOUNT TRANSFORMER AND CONCRETE PAD PER UTILITY DESIGN.
- 4 INSTALL CONCRETE VEHICLE PROTECT POST PER UTILITY DESIGN.
- 5 INSTALL 1-3°C PER UTILITY DESIGN.
- 6 INSTALL NEW FEEDER (3-#10, #10 GND) IN NEW UNDERGROUND 1" CONDUIT TO EXISTING AIRPORT ACCESS GATE MOTOR FROM EXISTING PANEL AT PINAL COUNTY BUILDING (CIRCUIT 14,16)
- 7 INSTALL 1-3°C (SECONDARY CONDUIT) PER UTILITY DESIGN.
- 8 NEW SERVICE ENTRANCE METER AND MAIN FUSED DISCONNECT (200A, 120/240V, 1φ, 3W, NEMA 3R, 22KAIC) MOUNTED ON EXTERIOR OF PINAL COUNTY BUILDING. CONNECT TO EXISTING PANELBOARD WITH 3-3/0, #6 GND, 2°C.
- 9 INTERCEPT EXISTING CENTURY LINK FIBER LINE AND RELOCATE PARALLEL TO NORTH ACCESS ROADWAY. COORDINATE WITH CENTURY LINK FOR REINSTALLATION DETAILS AND REQUIREMENTS.
- 10 INSTALL NEW UNDERGROUND 1" CONDUIT (CONCRETE ENCASED UNDER ROADWAY - SEE DETAIL 501 ON SHEET E4.0) TO NEW KEY PAD FROM GATE MOTOR.
- 11 INSTALL NEW UNDERGROUND 1" CONDUIT TO NEW KEY PAD FROM GATE MOTOR. SEE DETAIL 502 ON SHEET E4.0.

**LEGEND**  
 - - - - - CONSTRUCTION FOOTPRINT AND LEASED AREA

REFER TO DRAWING G1.03 FOR PROPERTY LINE, SETBACKS, EASEMENTS & ROWS.

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COMMISSION NAME  
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 Catherine M. Alcorn

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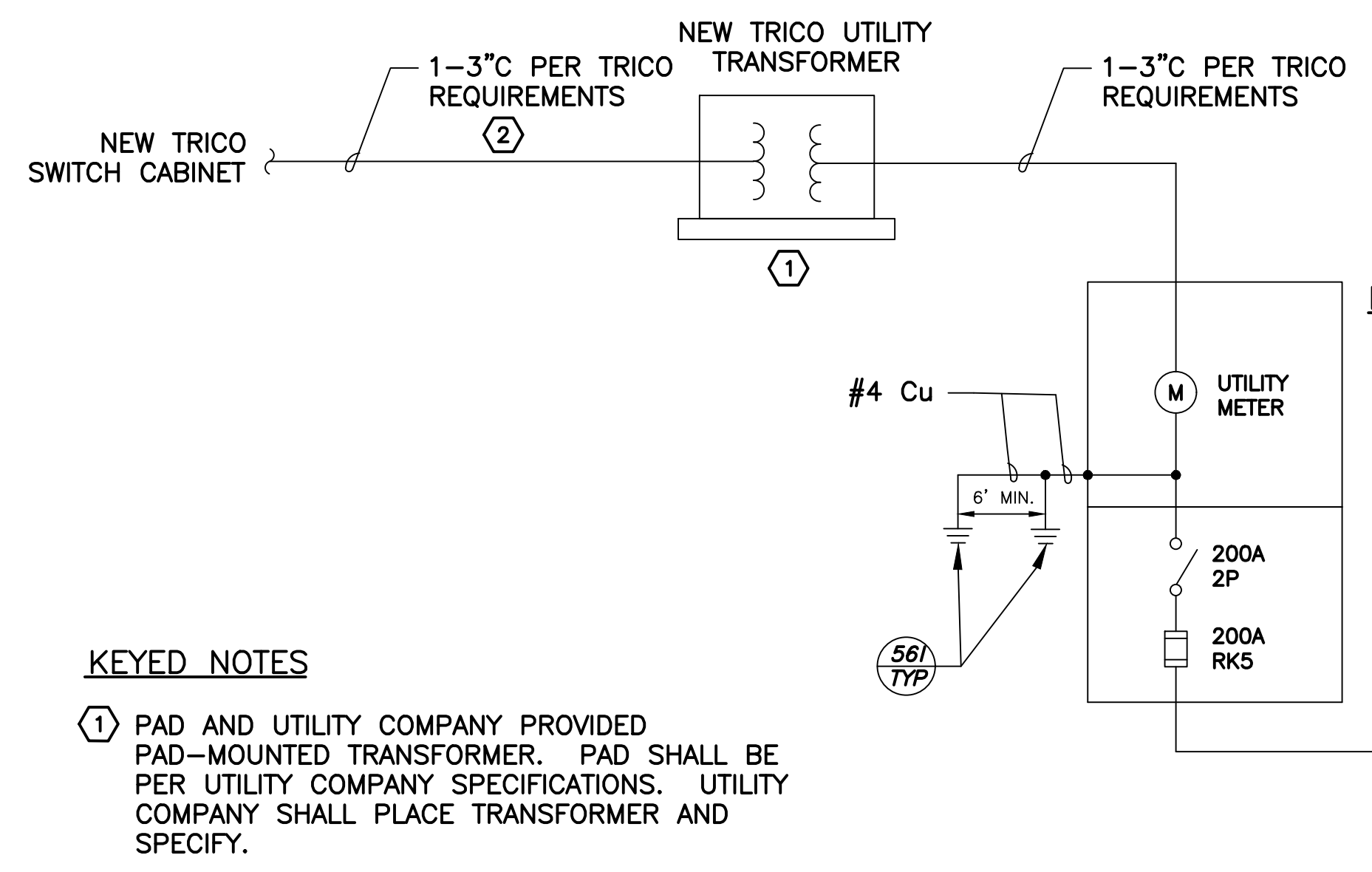
No.	Date	Description
0	11/15/2023	Issued for Construction

SHEET TITLE  
**Electrical Site Plan**  
 Page 28 of 34  
 THREZE DESIGN LLC COMMISSION NO.: 223-033  
 SHEET NUMBER  
**E3.0**

© PROJECT: 20230003019 Pinal Airport Hangar Development/CAD/CAD SHEET: S2019 E3.0.dwg

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- KEYED NOTES**
- PAD AND UTILITY COMPANY PROVIDED PAD-MOUNTED TRANSFORMER. PAD SHALL BE PER UTILITY COMPANY SPECIFICATIONS. UTILITY COMPANY SHALL PLACE TRANSFORMER AND SPECIFY.
  - UTILITY COMPANY PRIMARY CONDUITS AND CONDUCTORS. VERIFY EXACT LOCATION OF TRENCHING AND REQUIREMENTS PRIOR TO ROUGH-IN.

**(A) SERVICE ENTRANCE SECTION SINGLE LINE DIAGRAM**  
 (SERVICE ENTRANCE SECTION TO BE LOCATED AT PINAL COUNTY BUILDING)

**BONDING & GROUNDING DETAIL**

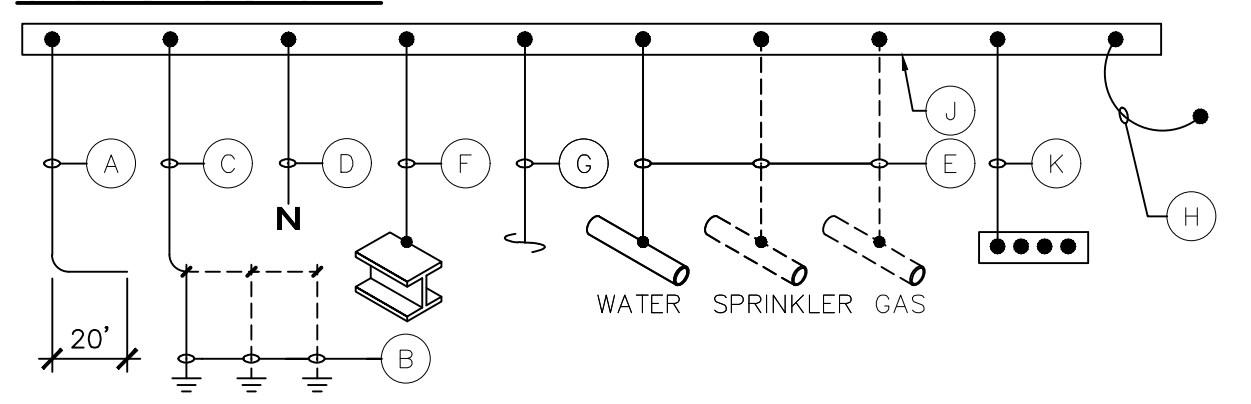
- KEY NOTES - GROUNDING DIAGRAM**
- CONCRETE ENCASED ELECTRODE (UFER) (GROUNDING ELECTRODE #1). REFER TO CHART FOR SIZE. MINIMUM 20'.
  - MINIMUM 10 MIL ANNEALED COPPER CLAD STEEL GROUND ROD. (GROUNDING ELECTRODE #2). REFER TO CHART FOR SIZE.
  - GROUNDING ELECTRODE CONDUCTOR. REFER TO CHART FOR SIZE.
  - INTEGRATED (FACTORY BONDED) BUS BAR MAIN BONDING JUMPER. REFER TO CHART FOR MINIMUM CONDUCTOR SIZE. (AMPACITY SHALL BE 150% RATED)
  - METALLIC PIPING BOND WIRE, REFER TO CHART FOR MINIMUM SIZE. BOND TO ALL METALLIC PIPING (WATER, SPRINKLER, GAS, PNEUMATIC LINES, ETC.) WITHIN THE FIRST ACCESSIBLE 5' OF PIPES ENTRY INTO BUILDING.
  - BUILDING STEEL BOND WIRE (IF REQUIRED PER BUILDING CONSTRUCTION TYPE). REFER TO CHART FOR MINIMUM SIZE.
  - BOND WIRE FOR USE WITH MULTIPLE SERVICE'S (WHEN PRESENT). REFER TO CHART FOR MINIMUM SIZE.
  - INTEGRATED (FACTORY BONDED) BUS BAR CASE BOND. REFER TO CHART FOR MINIMUM CONDUCTOR SIZE.
  - INTEGRATED (FACTORY INSTALLED) GROUND BUS BAR. SHALL BE SIZED TO ACCOMMODATE GROUND WIRE LUGS AS INDICATED ON THE ONE-LINE DIAGRAM.
  - INTERSYSTEM BONDING TERMINATION BAR, W/ MIN. 3 POINTS OF CONNECTION FOR OTHER SYSTEMS. CONDUCTOR SHALL BE MIN. #6 CU, UNLESS SPECIFIED ELSEWHERE.

**CONDUCTOR SIZE CHART**

CODE REFERENCE		250-53	250-53	250-66	250-66	250-66	250-66	
SES AMPACITY	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
200 AMP	#4	3/4" x 10' (x2)	#4	#4	#4	#4	#4	#4
400 AMP	#1/0	3/4" x 10' (x2)	#4	#1/0	#1/0	#1/0	#1/0	#1/0
600 AMP	#3/0	3/4" x 10' (x2)	#4	#3/0	#3/0	#3/0	#3/0	#3/0
800 AMP	#3/0	3/4" x 10' (x2)	#4	#3/0	#3/0	#3/0	#3/0	#3/0
1000 AMP	#3/0	3/4" x 10' (x2)	#4	#3/0	#3/0	#3/0	#3/0	#3/0

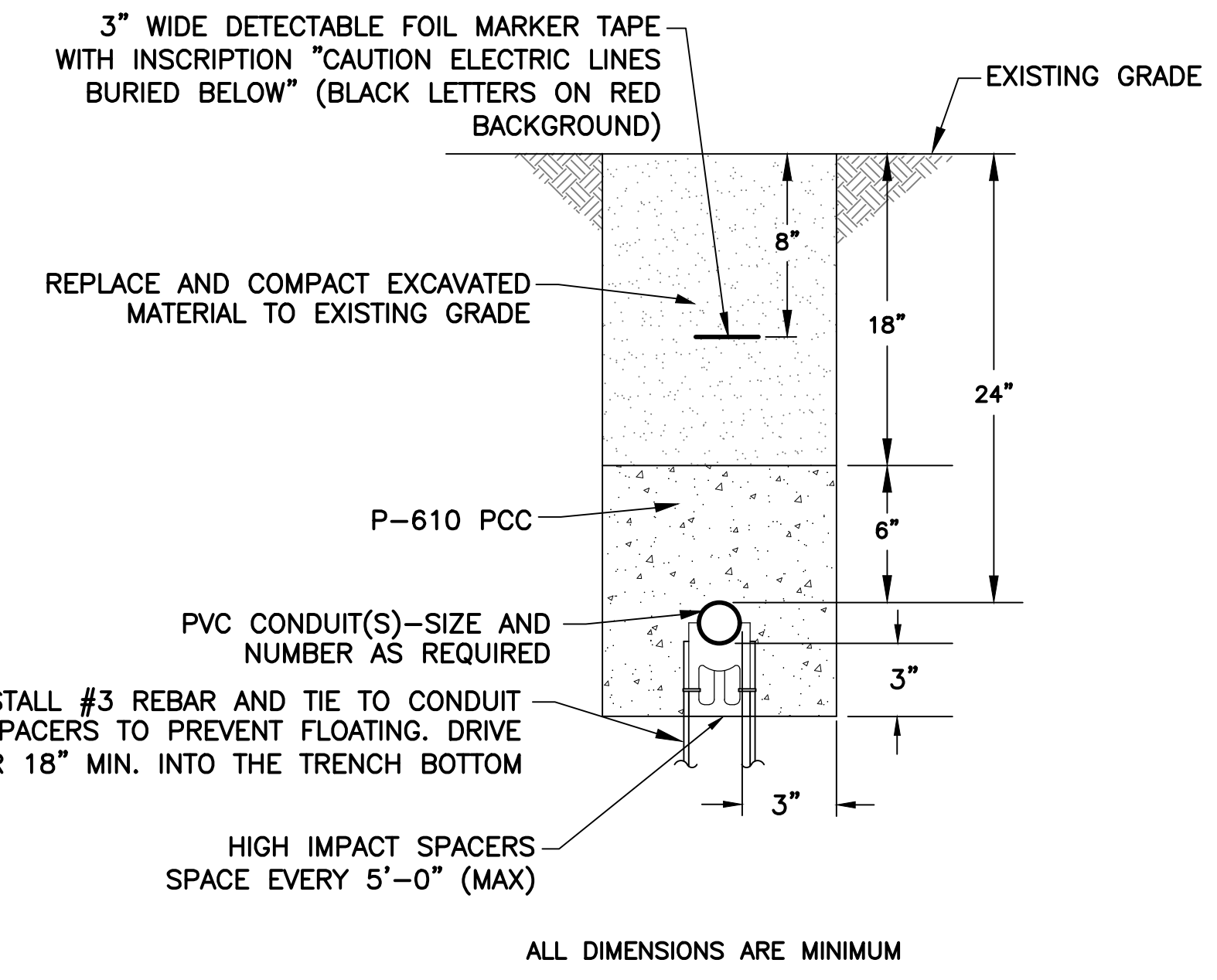
ALL SIZES SHOWN ARE FOR COPPER CONDUCTORS. ALUMINUM IS NOT PERMITTED.

**GROUNDING DIAGRAM**

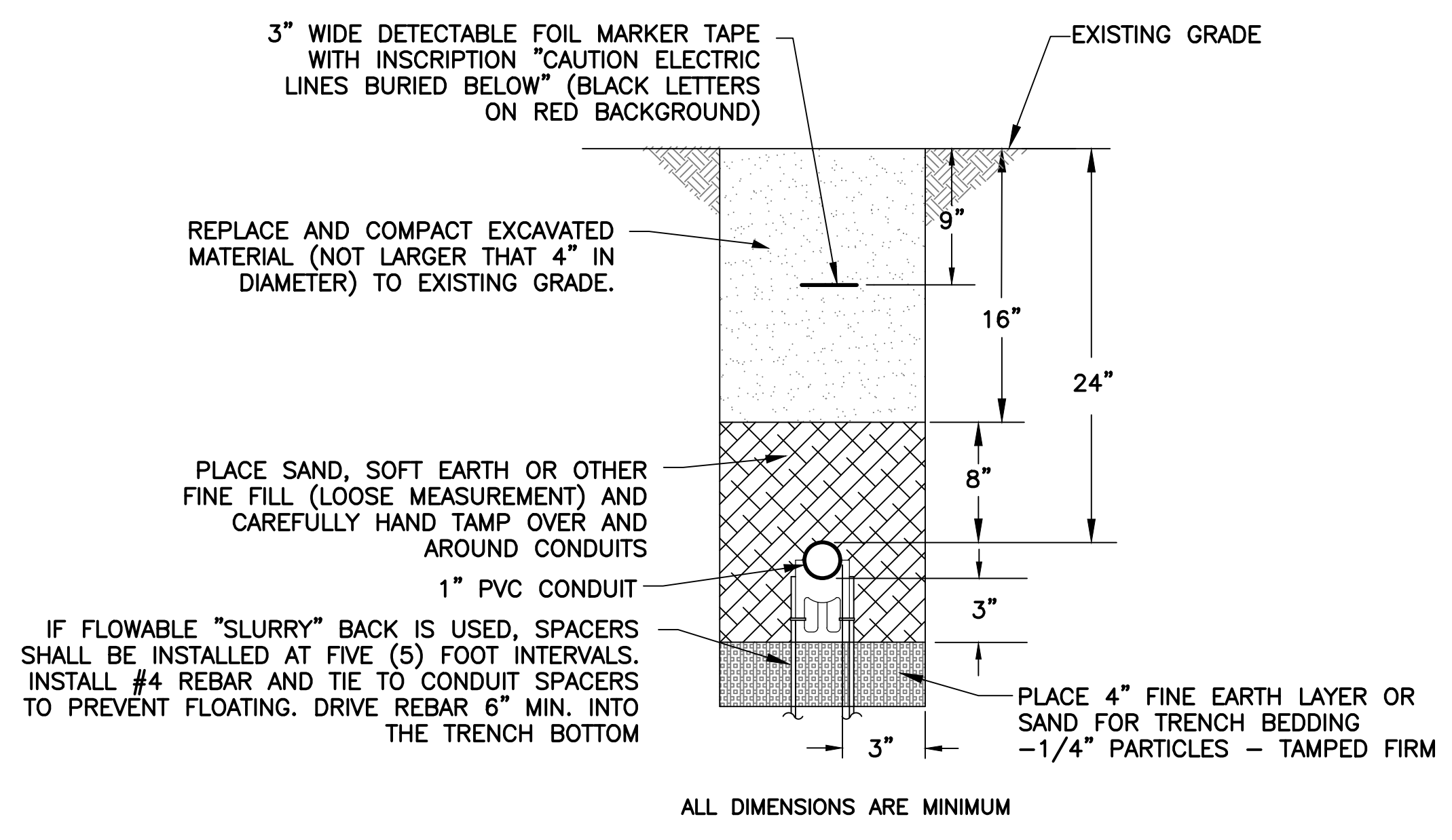


**GENERAL NOTES - GROUNDING DIAGRAM**

- THIS DETAIL IS PROVIDED IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE ARTICLE 250-50 PERTAINING TO THE "GROUNDING ELECTRODE SYSTEM".
- SPLICING OF CONDUCTORS SHALL BE ACCOMPLISHED VIA EXOTHERMIC WELD (CAD WELD) ONLY.
- ALL CONNECTIONS TO GROUND RODS BELOW GRADE OR IN CONCRETE SHALL BE MADE VIA EXOTHERMIC WELD (CAD WELD) ONLY. CONNECTIONS MADE ABOVE GROUND LEVEL CAN BE ACCOMPLISHED UTILIZING A U.L. LISTED MECHANICAL CLAMP SUITABLE FOR THE PURPOSE.
- ANY VARIANCE FROM THIS DRAWING AND/OR SPECIFICATION MUST BE REQUESTED AND APPROVED IN WRITING PRIOR TO INSTALLATION.
- ALL INSTALLATIONS SHALL COMPLY WITH THE LATEST ADOPTED EDITION OF ARTICLE 250 (ALL SUBPARAGRAPHS) OF THE NATIONAL ELECTRICAL CODE AND ALL STATE AND LOCAL CODE REQUIREMENTS.
- THE GROUNDING SYSTEM SHALL PROVIDE NO GREATER THAN (5) FIVE OHMS RESISTANCE TO GROUND AT THE SERVICE CONNECTION. THE RESULTS SHALL BE VERIFIED BY AN INDEPENDENT TESTING AGENCY VIA GROUND TEST (FALL-OF-POTENTIAL) AND SUBMITTED IN ACCORDANCE WITH THE ELECTRICAL SPECIFICATIONS CONTAINED HEREIN.
- THE GROUNDING ELECTRODE SYSTEM SHALL CONSIST OF ITEMS A, B, C AND K. ITEMS: E (METALLIC PIPING BOND), F (BUILDING STEEL BOND), AND G (2nd SERVICE BONDING) MUST BE BONDED TOGETHER AND TO THE GROUNDING ELECTRODE SYSTEM WHEN THEY ARE PRESENT.
- ITEMS: A,C,F,G AND E (WHEN PRESENT), SHALL EACH BE MADE IN SEPARATE CONDUCTORS AND SUITABLY PROTECTED BY CONDUIT WHERE EXPOSED TO DAMAGE OR THEFT.



**(501) CONCRETE ENCASED (CE) CONDUIT DUCTBANK**  
 NTS



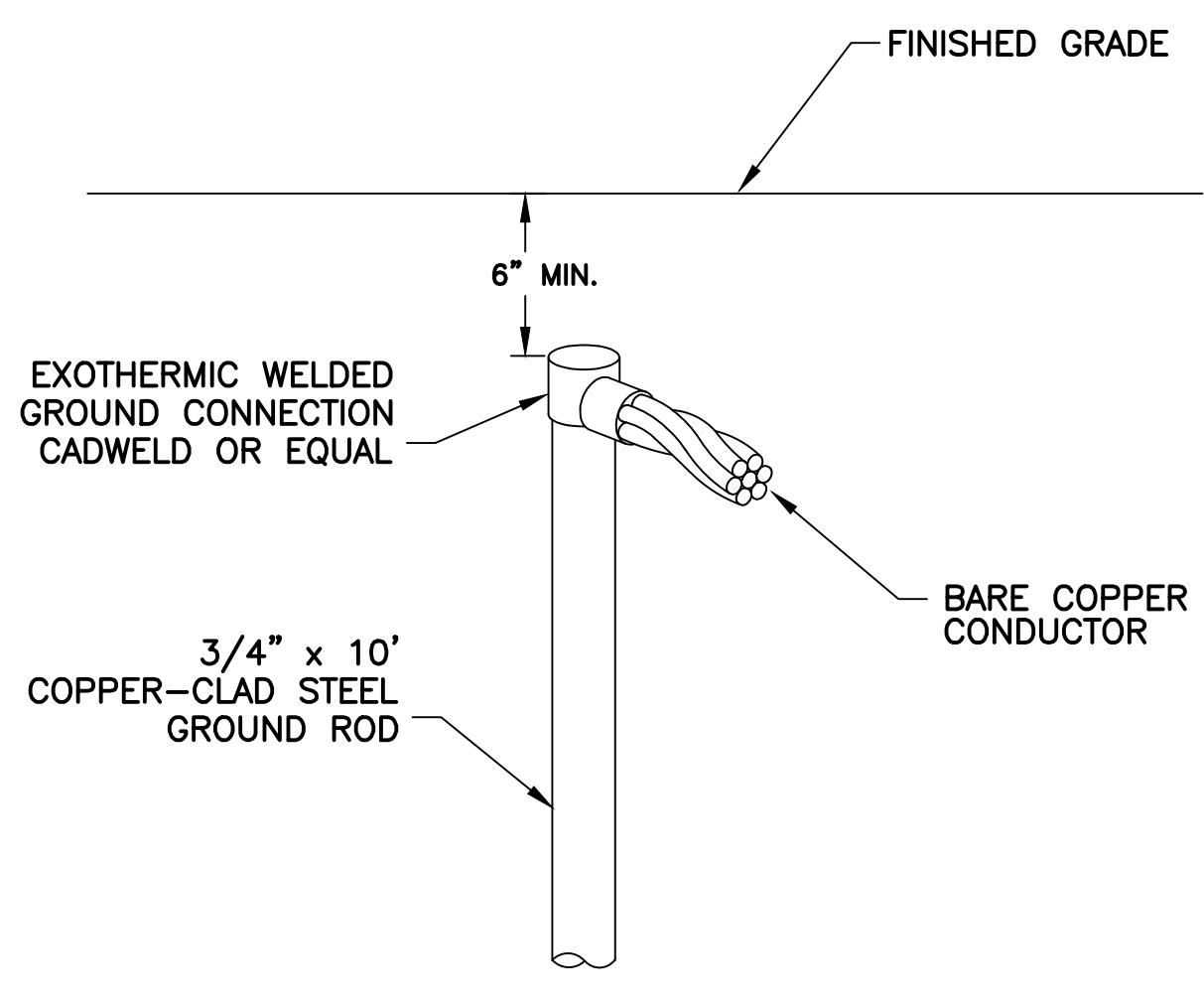
**(502) DIRECT EARTH BURIED (DEB) CONDUIT DETAIL**  
 NTS

CIRCUIT DESCRIPTION	BKR	MOUNTING SURFACE	VOLTAGE: 120/240		MAIN CB: 100A BRACING 22,000A		BUS AMPS: 225A	
			LINE 1	LINE 2	CIRCUIT	BKR AIC: 22K AIC	CIRCUIT DESCRIPTION	
A/C Unit	50	1	2340		2	50	A/C Unit	
	2	3	2340		4	2		
Lights	20-1	5	500		6	30-1	Hot Water Heater	
Lights	20-1	7	2320		8	20-1	Receptacles	
GRCI Receptacle	20-1	9	360		10	20-1	Receptacles	
Receptacles	20-1	11	720		12	20-1	Refrigerator	
SPARE	20-1	13	1020		14	20	RELOCATED GATE MOTOR OPERATOR	
		15			16	2		
		17			18			
		19			20			
		21			22			
		23			24			
		25			26			
		27			28			
		29			30			
		31			32			
		33			34			
		35			36			
		37			38			
		39			40			
		41			42			
CONNECTED KVA PER PHASE		9.6	8.3	NOTES: *DESIGNATES NEW CIRCUIT BREAKER (EATON POWERLINE C PRL 10)				
CONNECTED AMPS PER PHASE		80.0	69.5	MATCH EXISTING IN BRACING AND TYPE				
25% OF CONTINUOUS & LIGHTING LOAD (KV)		0.1	0.1					
LARGEST MOTOR (25%)		0.6	0.6					
CODE KVA PER PHASE		10.3	9.1					
CODE AMPS PER PHASE AT 120V		86.0	75.6					

**(B) PINAL COUNTY BUILDING PANEL SCHEDULE**

**GENERAL NOTES - ONE-LINE**

- THE ELECTRICAL CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS TO FULLY FAMILIARIZE HIMSELF WITH ALL EXISTING CONDITIONS PRIOR TO BID. NO ADDITIONAL CONSIDERATIONS WILL BE ALLOWED AFTER THE BID.
- THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL INDICATED EQUIPMENT TO CODE COMPLIANT CLEARANCES. PROVIDE SUBMITTALS AS INDICATED IN SPECIFICATIONS TO PROPERLY COORDINATE PHYSICAL LOCATIONS OF NEW AND/OR EXISTING EQUIPMENT.
- REFER TO ELECTRICAL SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS AND COMPLETE CONTRACTUAL OBLIGATIONS.
- GFP MUST BE ON-SITE TESTED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. ELECTRICAL CONTRACTOR SHALL PROVIDE A COPY OF MANUFACTURER'S INSTRUCTIONS AND TEST RESULTS TO AUTHORITY HAVING JURISDICTION.
- THE ELECTRICAL CONTRACTOR SHALL PROVIDE FOR AND COORDINATE ALL TESTING AND INSPECTIONS REQUIRED BY THE AUTHORITY HAVING JURISDICTION, AND SHALL PROVIDE WRITTEN REPORTS TO THE ENGINEER OF ALL TEST RESULTS AND INSPECTIONS REPORTS FOR THIS DISCIPLINE.
- UPON SUBSTANTIAL COMPLETIONS, THE ELECTRICAL CONTRACTOR SHALL NOTIFY THE ENGINEER AND SHALL ALLOW, AT THE ENGINEER'S DISCRETION, FOR THE INSPECTION OF NEW WORK PRIOR TO ENERGIZING.
- SES AND PANELBOARDS SHALL BE INSTALLED PER NEC ARC-FLASH HAZARD WARNINGS.
- SEE BONDING AND GROUND DETAIL ON THIS SHEET FOR MORE INFORMATION.



**(561) CABLE TO GROUND ROD CONNECTION**  
 NTS

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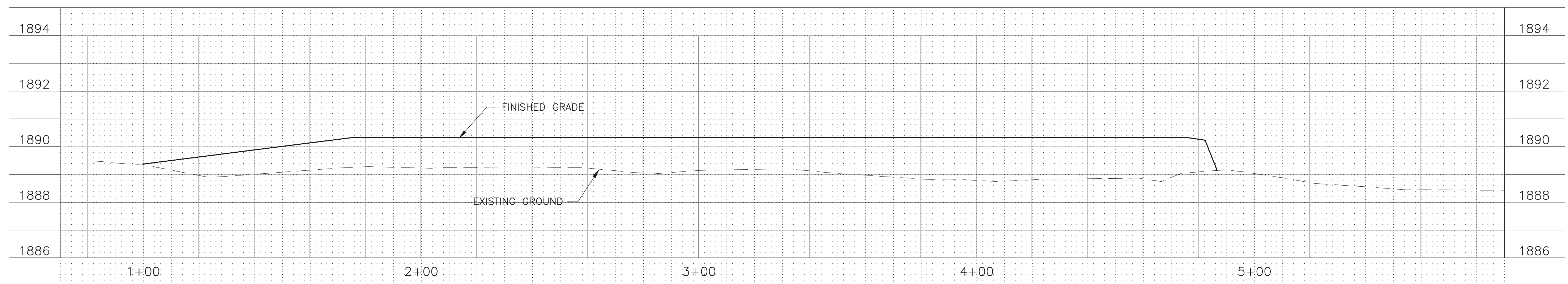
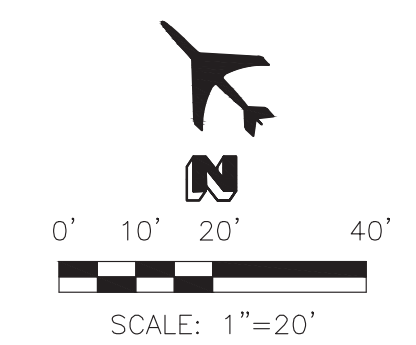
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**Single Line Diagram and Notes, and Panel Schedule**  
 Page 29 of 34

THRESE DESIGN LLC COMMISSION NO.: 223-033  
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**E4.0**

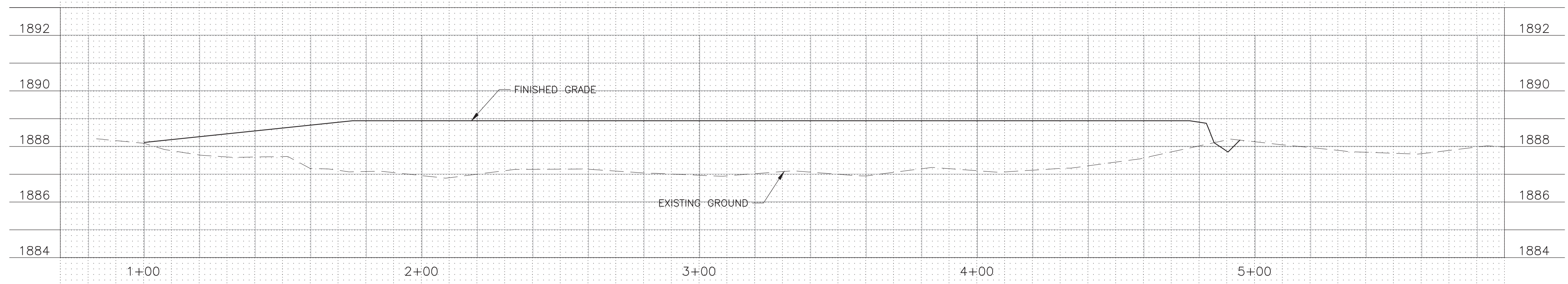
PROJECT: 2303003019 Pinal Airport Hangar Development CAD SHEET: 230319 E4.0.dwg

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SECTION A-A - APRON TO HANGAR 1 LOOKING NE



SECTION B-B - APRON TO HANGAR 2 LOOKING NE



SECTION C-C - HANGARS LOOKING NW



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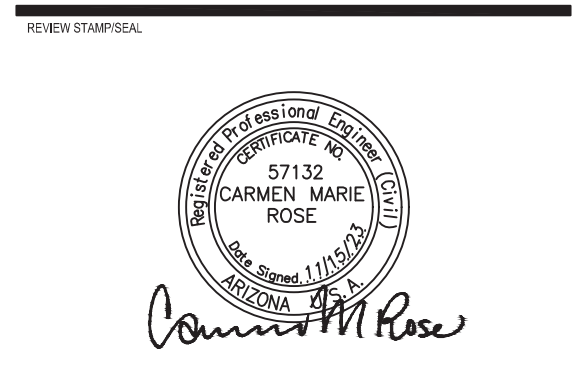
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COMMISSION NAME  
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CROSS SECTIONS  
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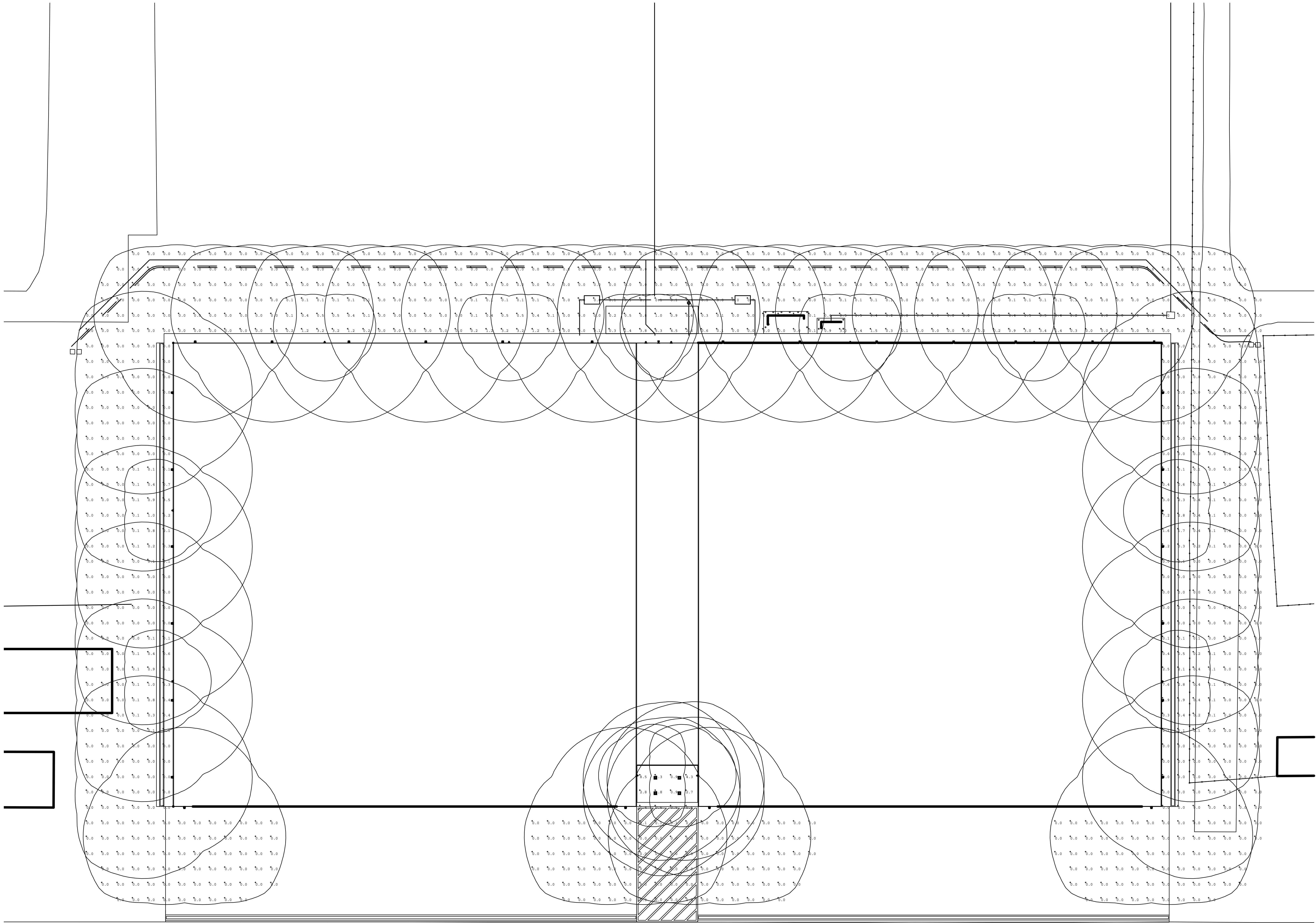
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LUMEN DENSITY CALCULATION POST-CURFEW			
FIXTURE	LUMENS	QUANTITY	TOTAL LUMENS
S1	2900	12	34800
S2	9200	0	0
S3	13600	0	0
SITE			34800
AREA:	435600 SQUARE FEET		
	34800 LUMENS/435600 S.F. = 0.08 LM/S.F.		

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ISSUES

No.	Date	Description
0	03/01/2024	ASI 002
1	04/04/2024	ASI 003

S P R - 1 0 7 - 2 3

**Job Name:** ASSENT AVIATION MRO HANGARS PINAL AIR PARK (PHASE 1) (PHASE 1)  
**Job Number:** 2024-0001  
**Designer:** Ruben Michael Delgado  
**Checker:** Ruben Michael Delgado  
**Notes:** RCL-10023-147954

**Catalog Number:** WPX1 LED P2-40K MVOLT PE DBLXD  
**Type:** S1  
 RCL-10023-147954

**WPX LED Wall Packs**

**Specifications**

Part No.	Height	Width	Depth	Weight	Power	Beam Angle	Temp
WPX1	11.1" (281mm)	8.2" (208mm)	3.1" (78mm)	1.1 lb (500g)	150W	120°	4000K
WPX2	12.7" (323mm)	8.2" (208mm)	3.1" (78mm)	1.1 lb (500g)	150W	120°	4000K
WPX3	14.6" (371mm)	8.2" (208mm)	3.1" (78mm)	1.1 lb (500g)	150W	120°	4000K

**Ordering Information**

Part No.	Quantity	Color Temperature	Package	Notes	Finish
WPX1 LED P1	1500 Lumens, 150W	50K	5000	5000	Dark Bronze
WPX1 LED P2	2500 Lumens, 250W	50K	5000	5000	Dark Bronze
WPX1 LED P3	4000 Lumens, 400W	50K	5000	5000	Dark Bronze

**Submitted On:** Jan 18, 2024 **1/2** **Index Page**

**Job Name:** ASSENT AVIATION MRO HANGARS PINAL AIR PARK (PHASE 1) (PHASE 1)  
**Job Number:** 2024-0001  
**Designer:** Ruben Michael Delgado  
**Checker:** Ruben Michael Delgado  
**Notes:** RCL-10023-147954

**Catalog Number:** WPX3 LED 40K MVOLT PE DBLXD  
**Type:** S2  
 RCL-10023-147954

**WPX LED Wall Packs**

**Specifications**

Part No.	Height	Width	Depth	Weight	Power	Beam Angle	Temp
WPX3	14.6" (371mm)	8.2" (208mm)	3.1" (78mm)	1.1 lb (500g)	150W	120°	4000K

**Ordering Information**

Part No.	Quantity	Color Temperature	Package	Notes	Finish
WPX3 LED P1	1500 Lumens, 150W	50K	5000	5000	Dark Bronze
WPX3 LED P2	2500 Lumens, 250W	50K	5000	5000	Dark Bronze
WPX3 LED P3	4000 Lumens, 400W	50K	5000	5000	Dark Bronze

**Submitted On:** Jan 18, 2024 **1/2** **Index Page**

**Job Name:** ASSENT AVIATION MRO HANGARS PINAL AIR PARK (PHASE 1) (PHASE 1)  
**Job Number:** 2024-0001  
**Designer:** Ruben Michael Delgado  
**Checker:** Ruben Michael Delgado  
**Notes:** RCL-10023-147954

**Catalog Number:** SCNY LED AL01-40K FPCL MVOLT DWHXD  
**Type:** S3  
 RCL-10023-147954

**SCNY LED Canopy/Soffit Luminaire**

**Specifications**

Part No.	Height	Width	Depth	Weight	Power	Beam Angle	Temp
SCNY LED	15.2"	15.2"	10.9"	1.1 lb (500g)	117W	120°	4000K

**Ordering Information**

Part No.	Quantity	Color Temperature	Package	Notes	Finish
SCNY LED P1	4000 Lumens, 400W	50K	5000	5000	Dark Bronze

**Submitted On:** Jan 18, 2024 **1/3** **Index Page**

**Job Name:** ASSENT AVIATION MRO HANGARS PINAL AIR PARK (PHASE 1) (PHASE 1)  
**Job Number:** 2024-0001  
**Designer:** Ruben Michael Delgado  
**Checker:** Ruben Michael Delgado  
**Notes:** RCL-10023-147954

**Catalog Number:** SCNY LED AL01-40K FPCL MVOLT DWHXD  
**Type:** S3  
 RCL-10023-147954

**SCNY LED Canopy/Soffit Luminaire**

**Specifications**

Part No.	Height	Width	Depth	Weight	Power	Beam Angle	Temp
SCNY LED	15.2"	15.2"	10.9"	1.1 lb (500g)	117W	120°	4000K

**Ordering Information**

Part No.	Quantity	Color Temperature	Package	Notes	Finish
SCNY LED P1	4000 Lumens, 400W	50K	5000	5000	Dark Bronze

**Submitted On:** Jan 18, 2024 **3/3** **Index Page**

**Job Name:** ASSENT AVIATION MRO HANGARS PINAL AIR PARK (PHASE 1) (PHASE 1)  
**Job Number:** 2024-0001  
**Designer:** Ruben Michael Delgado  
**Checker:** Ruben Michael Delgado  
**Notes:** RCL-10023-147954

**Catalog Number:** WPX1 LED P2-40K MVOLT PE DBLXD  
**Type:** S1  
 RCL-10023-147954

**WPX1 LED P2-40K MVOLT PE DBLXD**

**Performance Data**

Part No.	Height	Width	Depth	Weight	Power	Beam Angle	Temp
WPX1	11.1"	8.2"	3.1"	1.1 lb	150W	120°	4000K

**Electrical Load**

Part No.	Height	Width	Depth	Weight	Power	Beam Angle	Temp
WPX1	11.1"	8.2"	3.1"	1.1 lb	150W	120°	4000K

**Projected LED Lumen Maintenance**

Operating Hours	50,000	75,000	100,000
Maintenance Factor	>0.94	>0.92	>0.90

**HID Replacement Guide**

Luminaire	Equivalent HID Lamp	WPI Input Power
WPX1 LED P1	100W	110W
WPX1 LED P2	150W	210W
WPX2	200W	470W
WPX3	400W	600W

**Emergency Egress Battery Packs**

Standard	Part No.	Power	Notes
Standard	WPX1 LED P1	150W	WPX1 LED P1 150W 150W 150W 150W
Standard	WPX2	210W	WPX2 210W 210W 210W 210W
Standard	WPX3	470W	WPX3 470W 470W 470W 470W

**Photometric Diagrams**

**Submitted On:** Jan 18, 2024 **2/2** **Index Page**

**Job Name:** ASSENT AVIATION MRO HANGARS PINAL AIR PARK (PHASE 1) (PHASE 1)  
**Job Number:** 2024-0001  
**Designer:** Ruben Michael Delgado  
**Checker:** Ruben Michael Delgado  
**Notes:** RCL-10023-147954

**Catalog Number:** WPX3 LED 40K MVOLT PE DBLXD  
**Type:** S2  
 RCL-10023-147954

**WPX3 LED 40K MVOLT PE DBLXD**

**Performance Data**

Part No.	Height	Width	Depth	Weight	Power	Beam Angle	Temp
WPX3	14.6"	8.2"	3.1"	1.1 lb	150W	120°	4000K

**Electrical Load**

Part No.	Height	Width	Depth	Weight	Power	Beam Angle	Temp
WPX3	14.6"	8.2"	3.1"	1.1 lb	150W	120°	4000K

**Projected LED Lumen Maintenance**

Operating Hours	50,000	75,000	100,000
Maintenance Factor	>0.94	>0.92	>0.90

**HID Replacement Guide**

Luminaire	Equivalent HID Lamp	WPI Input Power
WPX3 LED P1	100W	110W
WPX3 LED P2	150W	210W
WPX3	200W	470W
WPX3	400W	600W

**Emergency Egress Battery Packs**

Standard	Part No.	Power	Notes
Standard	WPX3 LED P1	150W	WPX3 LED P1 150W 150W 150W 150W
Standard	WPX3 LED P2	210W	WPX3 LED P2 210W 210W 210W 210W
Standard	WPX3	470W	WPX3 470W 470W 470W 470W

**Photometric Diagrams**

**Submitted On:** Jan 18, 2024 **2/2** **Index Page**

**Job Name:** ASSENT AVIATION MRO HANGARS PINAL AIR PARK (PHASE 1) (PHASE 1)  
**Job Number:** 2024-0001  
**Designer:** Ruben Michael Delgado  
**Checker:** Ruben Michael Delgado  
**Notes:** RCL-10023-147954

**Catalog Number:** SCNY LED AL01-40K FPCL MVOLT DWHXD  
**Type:** S3  
 RCL-10023-147954

**SCNY LED AL01-40K FPCL MVOLT DWHXD**

**Photometric Diagrams**

**Performance Data**

Part No.	Height	Width	Depth	Weight	Power	Beam Angle	Temp
SCNY LED	15.2"	15.2"	10.9"	1.1 lb	117W	120°	4000K

**Lumen Output Flat Polycarbonate Clear Lens**

Part No.	Height	Width	Depth	Weight	Power	Beam Angle	Temp
SCNY LED	15.2"	15.2"	10.9"	1.1 lb	117W	120°	4000K

**Lumen Output Flat Polycarbonate Frosted Lens**

Part No.	Height	Width	Depth	Weight	Power	Beam Angle	Temp
SCNY LED	15.2"	15.2"	10.9"	1.1 lb	117W	120°	4000K

**Lumen Output Flat Polycarbonate Higher Frost Lens (PFL)**

Part No.	Height	Width	Depth	Weight	Power	Beam Angle	Temp
SCNY LED	15.2"	15.2"	10.9"	1.1 lb	117W	120°	4000K

**Submitted On:** Jan 18, 2024 **2/3** **Index Page**

**Job Name:** ASSENT AVIATION MRO HANGARS PINAL AIR PARK (PHASE 1) (PHASE 1)  
**Job Number:** 2024-0001  
**Designer:** Ruben Michael Delgado  
**Checker:** Ruben Michael Delgado  
**Notes:** RCL-10023-147954

**Catalog Number:** SCNY LED AL01-40K FPCL MVOLT DWHXD  
**Type:** S3  
 RCL-10023-147954

**SCNY LED AL01-40K FPCL MVOLT DWHXD**

**Photometric Diagrams**

**Performance Data**

Part No.	Height	Width	Depth	Weight	Power	Beam Angle	Temp
SCNY LED	15.2"	15.2"	10.9"	1.1 lb	117W	120°	4000K

**Lumen Output Flat Polycarbonate Clear Lens**

Part No.	Height	Width	Depth	Weight	Power	Beam Angle	Temp
SCNY LED	15.2"	15.2"	10.9"	1.1 lb	117W	120°	4000K

**Lumen Output Flat Polycarbonate Frosted Lens**

Part No.	Height	Width	Depth	Weight	Power	Beam Angle	Temp
SCNY LED	15.2"	15.2"	10.9"	1.1 lb	117W	120°	4000K

**Lumen Output Flat Polycarbonate Higher Frost Lens (PFL)**

Part No.	Height	Width	Depth	Weight	Power	Beam Angle	Temp
SCNY LED	15.2"	15.2"	10.9"	1.1 lb	117W	120°	4000K

**Lighting Fixture Schedule**

Type	Description	Manufacturer	Model	Lamp	Wattage	Voltage	Mounting Height	Lumens	Initial Color Temperature
S1	Exterior Egress Light	Lithonia Lighting	WPX1 LED P2-40K MVOLT PE DBLXD	LED	11 W	277 V	8' - 0"	2900 lm	4000 K
S2	Exterior Building Light	Lithonia Lighting	WPX3 LED-40K MVOLT PE DBLXD	LED	117 W	277 V	20' - 0"	9200 lm	4000 K
S3	LED Canopy Luminaire	Lithonia Lighting	SCNY LED-AL01-40K FPCL MVOLT DWHXD	LED	81 W	277 V	14' - 0"	12000 lm	4000 K

**Submitted On:** Jan 18, 2024 **3/3** **Index Page**

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**ISSUES**

No.	Date	Description
0	03/01/2024	ASI 002
1	04/04/2024	ASI 003

**SHEET TITLE**  
 Light Fixture Cut Sheets and Schedules  
 (FOR REFERENCE ONLY)  
 Page 34 of 34  
 THRE DESIGN LLC-COMMISSION NO. 223-033

**SHEET NUMBER**  
 A104

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