



### **CONTRACT DRAWINGS** FOR THE CONSTRUCTION OF

# PAVEMENT REHABILITATION (APMS 1 & 2) TAXIWAY B4/C5

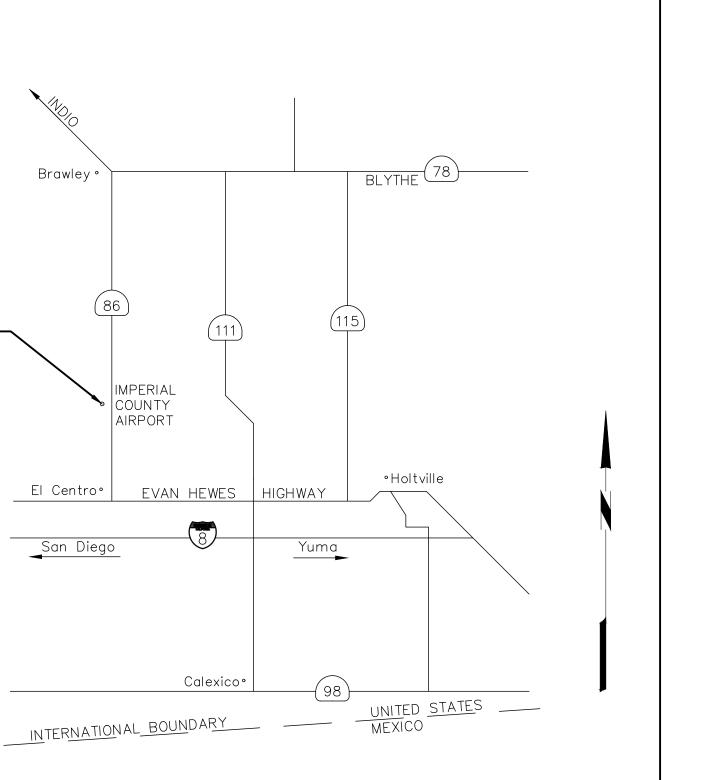
# IMPERIAL COUNTY AIRPORT

## IMPERIAL, CALIFORNIA

AIP NO.: 3-06-0109-037-2019

**C&S PROJECT: K30002019** 

**MAY 2023** 



Holtville

#### VICINITY MAP NOT TO SCALE

COUNTY

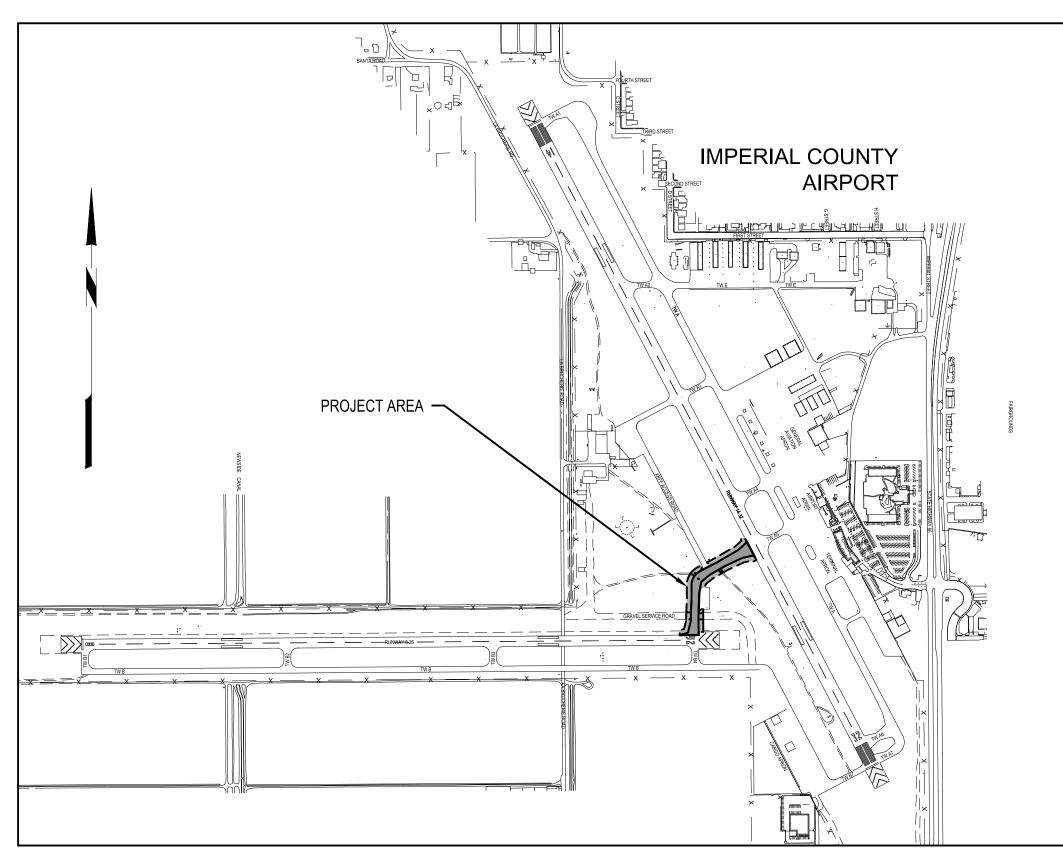
EVAN HEWES | HIGHWAY

Calexico®

Yuma

El Centro°

San Diego



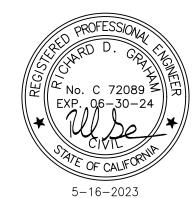
PROJECT LOCATION MAP NOT TO SCALE

#### **DECLARATION OF RESPONSIBLE CHARGE**

I HEREBY DECLARE THAT I AM THE ENGINEER OF WORK FOR THIS PROJECT, THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE DESIGN OF THE PROJECT AS DEFINED IN SECTION 6703 OF THE BUSINESS AND PROFESSIONS CODE THAT THE DESIGN IS CONSISTENT WITH CURRENT STANDARDS.

I UNDERSTAND THAT THE CHECK OF PROJECT DRAWINGS AND SPECIFICATIONS BY THE COUNTY OF IMPERIAL IS CONFINED TO A REVIEW ONLY AND DOES NOT RELIEVE ME, AS ENGINEER OF WORK, OF MY RESPONSIBILITIES FOR THE PROJECT DESIGN.

C&S COMPANIES 2355 NORTHSIDE DRIVE, SUITE 350 SAN DIEGO, CA 92108 (619) 296-9373



Richard Graham, P.E. Engineer of Records C 72089 06-30-24

Date

Underground Service Alert



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NO ALTERATION PERMITTED HEREON EXCEPT AS PROVIDED UNDER THE APPROVED REVISION PROCESS

> GI001 1 of 21

PROJECT SITE -

1	2	3	4	
SHEET   REFERENCE   TITLE	ITEM NO. FAA SPEC ITEM DESCRIPTION  1 C-101 CONTRACTOR QUALITY CONTROL PROGRAM (CQCP)  2 C-102 INSTALLATION AND REMOVAL OF SILT FENCE  3 C-102 INSTALLATION AND REMOVAL OF STORM DRAIN INLET PROTECTION  4 C-102 4" CRUSHED AGGREGATE SHOULDER AND SLOPE PROTECTION  5 C-105 MOBILIZATION (10% MAXIMUM)  6 C-106 SAFETY, SECURITY, AND MAINTENANCE OF TRAFFIC  7 P-101 AC PAVEMENT REMOVAL  8 P-152 UNCLASSIFED EXCAVATION  9 P-154 STRUCTURAL GEOGRID REINFORCEMENT  10 P-154 GEOTEXTILE FABRIC  11 P-209 CRUSHED AGGREGATE BASE COURSE, 6" THICK  12 P-219 RECYCLED CONCRETE AGGREGATE BASE COURSE  13 P-401 BITUMINOUS SURFACE COURSE, GRADATION 2 (4" THICK)  14 P-602 EMULSIFIED ASPHALT PRIME COAT	QUANTITY UNIT  1 LS  1,525 LF  2 EA  5,700 SY  1 LS  1 LS  4,900 SY  3,375 CY  6,000 SY  6,000 SY  6,300 SY  6,300 SY  1,420 TON  1,890 GAL  445 GAL		C&S Engineers, Inc.  2355 Northside Drive, Suite 350 San Diego, California 92108 Phone: 619-296-9373 Fax: 619-296-5683 www.cscos.com
16 EL101 AIRFIELD LIGHTING AND SIGNAGE PLAN 17 EL501 AIRFIELD LIGHTING AND SIGNAGE DETAILS 18 EL502 AIRFIELD LIGHTING AND SIGNAGE DETAILS 19 XM101 MARKING PLAN 20 XM501 MARKING DETAILS 21 XM502 MARKING DETAILS	16 P-620 MARKINGS 17 P-620 OBLITERATE EXISTING PAVEMENT MARKINGS 18 L-108 NO. 8 AWG, 5KV, 1/C AIRFIELD LIGHTING CABLE 19 L-108 COUNTERPOISE WIRE, TRENCH AND BACKFILL 20 L-110 2-INCH DIA. PVC CONDUIT 21 L-110 REMOVE EXISTING ELECTRICAL CONDUIT 22 L-115 EXISTING ELECTRICAL PULLBOX TO BE MODIFIED 23 L-125 REMOVE EXISTING TAXIWAY EDGE LIGHT, BASE MOUNTED 24 L-125 MEDIUM INTENSITY TAXIWAY EDGE LIGHT, BASE MOUNTED 25 L-125 REMOVE EXISTING LIGHTED GUIDANCE SIGN 26 L-125 RELOCATE EXISTING LIGHTED GUIDANCE SIGN 27 L-125 PROPOSED GUIDANCE SIGN	5,245 SF  1 LS 2,490 LF 2,040 LF 2,490 LF 2,300 LF 2 EACH 39 EACH 8 EACH 6 EACH 2 EACH 2 EACH		- ENAL COLORS
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(CADD (Package 2)\Sheet Files\K30002019_GI-SERIES.DWG				IMPERIAL COUNTY AIRPORT AVEMENT REHABILITATION APMS 1 & 2) TAXIWAY B4/C5
Sounty, CA\K30002019 - Povement Rehabilitation (Design)\Design\				MARK DATE DESCRIPTION  REVISIONS  PROJECT NO: K30002019  DATE: MAY 2023  DRAWN BY: G.C. HAYDEN  DESIGNED BY: M.E. BARR  CHECKED BY: S.L. UNDERWOOD  SHEET INDEX &  QUANTITIES FOR  CANVASS OF BIDS
Wdy 16, 2023 – 2:23PM  E. Project/K30 – Imperial  SCALE: NOT TO SCALE  1	A2 QUANTITIES FOR CANVASS OF BIDS  SCALE: NOT TO SCALE  2	3	4	GI002 2 of 21  Copyright ©

- THESE DRAWINGS HAVE BEEN PREPARED, IN PART, BASED UPON RECORD DRAWINGS AND/OR CAD FILES FURNISHED BY OTHERS. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, THOSE UTILIZING THE INFORMATION ON THESE DRAWINGS ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY BEFORE USING IT FOR ANY PURPOSE.
- EXISTING UTILITIES WERE TAKEN FROM PLANS OF RECORD. THEY HAVE BEEN SHOWN TO THE EXTENT KNOWN AND ARE OFFERED IN GOOD FAITH SOLELY FOR INFORMATIONAL PURPOSES. THEY MAY NOT REFLECT ACTUAL LOCATIONS AND MAY NOT BE INCLUSIVE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL UTILITIES PRIOR TO THE START OF CONSTRUCTION.
- THE ACTUAL LOCATION AND ELEVATION OF ALL UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION.
- IN THE EVENT OF DAMAGE TO EXISTING UTILITIES OR CABLES, THE ENGINEER AND OWNER SHALL BE NOTIFIED IMMEDIATELY.
- THE CONTRACTOR SHALL REPAIR ALL DAMAGE TO UTILITIES OR CABLES. AS DIRECTED BY THE ENGINEER, IMMEDIATELY AND AT THE CONTRACTOR'S EXPENSE.
- ALL AREAS DISTURBED AS A RESULT OF THE CONTRACTOR'S STAGING AND CONSTRUCTION OPERATIONS SHALL BE RESTORED EQUAL TO OR BETTER THAN ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
- DURING THE WORK OF THIS CONTRACT, THE CONTRACTOR SHALL FURNISH, ERECT AND MAINTAIN WHATEVER TEMPORARY LIGHTING MAY BE NECESSARY TO KEEP THE TAXIWAYS IN OPERATING CONDITION WHEN OPEN FOR AIRCRAFT.
- ALL DIRT, DUST, STONES AND LOOSE DEBRIS SHALL BE CONTINUOUSLY REMOVED FROM ALL PAVED SURFACES DURING THIS CONTRACT.
- 10. THE CONTRACTOR SHALL RECONSTRUCT AND MAINTAIN EXISTING ACCESS ROADS AS REQUIRED FOR ACCESS TO THE WORK AREAS.
- 11. THE CONTRACTOR SHALL CONSTRUCT AND MAINTAIN PROPOSED GRAVEL ACCESS ROADS AT THE APPROXIMATE LOCATION SHOWN.
- 12. PROPOSED ACCESS ROADS SHALL BE REMOVED UPON COMPLETION OF WORK AND THE AREA RESTORED TO ORIGINAL CONDITION.
- 13. ALL OF THE CONTRACTOR'S OPERATIONS SHALL REMAIN ON AIRPORT PROPERTY AT ALL TIMES. UNDER NO CIRCUMSTANCES WILL THE CONTRACTOR BE ALLOWED ON ADJACENT PROPERTY.
- 14. THIS CONTRACT DOES NOT ALLOW FOR PRICE INCREASES DUE TO ESCALATION IN COST OF UNIT BID ITEMS. THE CONTRACTOR SHALL TAKE THIS INTO CONSIDERATION WHEN PREPARING UNIT PRICES FOR BID.
- 15. THE COST OF ALL FAILING TESTS PERFORMED BY THE OWNER OR ON THE OWNER'S BEHALF SHALL BE BORNE BY THE CONTRACTOR.

#### GRADING AND EXCAVATION NOTES

- 16. SELECTIVE GRADING SHALL BE REQUIRED AS DIRECTED BY THE ENGINEER
- 17. QUALITY ASSURANCE TESTS WILL BE MADE BY AND AT THE EXPENSE OF THE OWNER, UNLESS OTHERWISE NOTED. THE COST OF ALL FAILING TESTS SHALL BE BORNE BY THE CONTRACTOR.
- 18. THE EXACT LOCATIONS AND DIMENSIONS OF PAVEMENT TO BE RECONSTRUCTED SHALL BE DETERMINED BY THE ENGINEER DURING CONSTRUCTION.
- 19. ALL SPOIL SHALL BE DISPOSED OF OFF-SITE AT THE CONTRACTORS EXPENSE.
- 20. ALL SPOIL MATERIAL WHICH IS SUITABLE FOR EMBANKMENT SHALL BE DISPOSED OF ON AIRPORT PROPERTY AS SHOWN ON THE CONTRACT DRAWINGS. UNLESS OTHERWISE DIRECTED BY THE AIRPORT AUTHORITIES. SPOIL MATERIAL WHICH IS NOT SUITABLE FOR EMBANKMENT SHALL BE DISPOSED OF OFF AIRPORT PROPERTY.
- 21. EMBANKMENTS SHALL BE CONSTRUCTED WITH SUITABLE ON-SITE MATERIAL UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- 22. ALL AREAS OUTSIDE OF THE GRADING LIMITS WHICH ARE DISTURBED SHALL BE RESTORED BY THE CONTRACTOR AT HIS EXPENSE.
- 23. THE COMBINATION OF SILT/CLAY SOILS AND HIGH NATURAL MOISTURE CONTENTS CREATE THE POTENTIAL FOR LOSS OF STRENGTH UNDER REPETITIVE LOADINGS OR VIBRATION. THE CONTRACTOR SHOULD TAKE THESE FACTORS INTO CONSIDERATION WHEN SELECTING EQUIPMENT, METHODS AND MEANS FOR CONSTRUCTION OF THIS PROJECT, AS WELL AS HAULING EQUIPMENT THAT WILL OPERATE IN THE AREA THROUGHOUT CONSTRUCTION. ANY DAMAGE TO THE SUBGRADE CONDITION AS A RESULT OF CONSTRUCTION OPERATIONS SHALL BE RESTORED TO EQUAL OR BETTER THAN ORIGINAL CONDITION, AS DIRECTED BY THE ENGINEER AND ALL AT THE CONTRACTOR'S EXPENSE.
- 24. TEMPORARY AIR AND WATER POLLUTION, SOIL EROSION AND SILTATION CONTROL WORK PERFORMED FOR PROTECTION OF CONSTRUCTION AREAS OUTSIDE THE CONSTRUCTION LIMITS, SUCH AS BORROW AREAS AND WASTE AREAS, HAUL ROADS, EQUIPMENT AND MATERIAL STORAGE SITES, AND TEMPORARY PLANT SITES, WILL NOT BE MEASURED AND PAID FOR DIRECTLY BUT SHALL BE CONSIDERED AS A SUBSIDIARY OBLIGATION OF THE CONTRACTOR.
- 25. ALL SOIL EROSION AND SEDIMENT CONTROL DEVICES AND MATERIALS SHALL BE IN PLACE PRIOR TO BEGINNING EARTHWORK OPERATIONS AND SHALL BE MAINTAINED UNTIL THE

NEW SLOPES ARE STABILIZED WITH SEEDING AND/OR SLOPE PROTECTION.

#### SURVEY NOTES

- 26. FOR TYPICAL SECTIONS, THE CONTOUR INTERVAL EQUALS 1 FOOT. FOR TRANSITIONAL AREAS TO KEYWAYS, THE CONTOUR INTERVAL EQUALS 0.1 FOOT.
- 27. ALL ELEVATIONS REFER TO NAVD 88 VERTICAL DATUM. COORDINATES REFER NAD 83 HORIZONTAL DATUM.
- 28. THE TOPOGRAPHIC FEATURES SHOWN HEREON WERE COMPILED FROM FIELD SURVEY PERFORMED BY GUYETT GEOMATICS INC., DATED 7/15/20.

#### PAVING NOTES

- 29. ALL AREAS TO BE OVERLAID SHALL BE PREPARED IN ACCORDANCE WITH ITEM P-101. "PREPARATION/REMOVAL OF EXISTING PAVEMENTS".
- THE CONTRACTOR'S ATTENTION IS DIRECTED TO ITEM P-101 "PREPARATION/REMOVAL OF EXISTING PAVMEMENTS" AS IT RELATES TO FILLING JOINTS AND CRACKS IN EXISTING PAVEMENT
- 31. EMULSIFIED ASPHALT TACK COAT, ITEM P-603, SHALL BE APPLIED PRIOR TO PLACING EACH LIFT OF PAVEMENT, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- 32. TRANSVERSE PAVING JOINTS IN ONE LAYER SHALL LINE UP WITH TRANSVERSE JOINTS IN THE PREVIOUS LAYERS UNLESS OTHERWISE APPROVED BY THE ENGINEER.
- 33. TRANSVERSE PAVING JOINTS IN ADJACENT LANES SHALL LINE UP WITH EACH OTHER EXTENDING ACROSS THE FULL WIDTH OF PAVEMENT.
- 34. IN CASES OTHER THAN CENTERLINE JOINTS, LONGITUDINAL PAVING JOINTS IN ONE LAYER SHALL BE OFFSET FROM THAT IN THE PREVIOUS LAYER BY AT LEAST ONE FOOT. THE JOINT AT THE CENTERLINE OF THE PAVEMENT SHALL LINE UP WITH PREVIOUS LAYER CENTERLINE JOINTS.
- 35. COLD JOINTS SHALL BE SAWCUT BACK A MINIMUM OF 6 INCHES TO EXPOSE A CLEAN, SOUND, UNIFORM VERTICAL SURFACE FOR THE FULL DEPTH OF THE LIFT. THE SAWCUT SHALL NOT BE PERFORMED UNTIL THE PAVEMENT HAS REACHED AMBIENT TEMPERATURE.
- DELAMINATED PAVEMENT SHALL BE REMOVED BY COLD MILLING. THE LIMITS OF DELAMINATED PAVEMENT SHALL BE SAW CUT. THE LOCATION OF THE LIMITS OF DELAMINATED PAVEMENT WILL BE DETERMINED BY THE ENGINEER.

#### ELECTRICAL AND SIGNAGE NOTES

- 37. ALL ELECTRICAL WORK SHALL CONFORM TO APPLICABLE LOCAL, STATE AND NATIONAL ELECTRICAL CODES.
- 38. THE ELECTRICAL CHARACTERISTICS OF PROPOSED EQUIPMENT SHALL BE VERIFIED TO BE COMPATIBLE WITH EXISTING EQUIPMENT MANUFACTURER PRIOR TO INSTALLATION.
- 39. ABANDONED CABLES MAY EXIST IN THE VICINITY OF THE PROPOSED WORK, IF ENCOUNTERED, CONTRACTOR SHALL VERIFY THAT THEY ARE ABANDONED PRIOR TO REMOVAL. IF THEY ARE NOT ABANDONED, CABLES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- 40. ITEMS OF SPECIFIC MANUFACTURE SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S PRINTED INSTRUCTIONS AND OR MANUFACTURER'S REPRESENTATIVE
- 41. ALL GROUND CONNECTIONS SHALL BE MADE USING EXOTHERMIC CONNECTIONS.
- 42. GROUND RODS SHALL BE INSTALLED AT 500-FT INTERVALS ALONG COUNTERPOISE WIRE.
- 43. ALL CABLE CONNECTIONS SHALL BE MADE AT LIGHT UNITS OR AT ENDS OF DUCT BANKS UNLESS DIRECTED OTHERWISE.
- 44. THE OWNER RESERVES THE RIGHT TO SALVAGE LIGHTING EQUIPMENT. THE EQUIPMENT TO BE SALVAGED IS IDENTIFIED IN THE SPECIFICATION. SALVAGED EQUIPMENT SHALL BE STOCKPILED AT A LOCATION DESIGNATED BY THE OWNER IN PROPER WORKING CONDITION. ALL OTHER LIGHTING EQUIPMENT SHALL BE SPOILED OFF AIRPORT PROPERTY AT A PROPER DISPOSAL SITE SELECTED BY THE CONTRACTOR.
- 45. PROVIDE WATERTIGHT TERMINATION FOR ALL BURIED CONDUIT ENDS
- 46. ALL RUNWAY AND TAXIWAY EDGE LIGHTS SHALL BE LOCATED 10 FEET OFF THE DEFINED PAVEMENT EDGE UNLESS OTHERWISE NOTED OR DIRECTED. THE CONTRACTOR SHALL ALIGN ALL LIGHTS ON TANGENT SECTIONS SUCH THAT THEY FORM A STRAIGHT LINE.
- 47. WHEN DETERMINING THE NUMBER OF CHARACTERS IN A GUIDANCE SIGN LEGEND THE CHARACTERS 1 . . (DOT) . - (DASH) WILL BE CONSIDERED ONE HALF CHARACTER. PAYMENT WILL BE FOR THE SUM OF ALL CHARACTERS ON THE LONGEST FACE ROUNDED UP TO THE WHOLE NUMBER. CHARACTERS ON THE OPPOSITE SIDE OF THE SIGN WILL NOT BE COUNTED.
- 48. WHEN DETERMINING THE NUMBER OF CHARACTERS IN A GUIDANCE SIGN LEGEND THE SYMBOL ON THE OPPOSITE SIDE OF A RUNWAY HOLDING POSITION SIGN WHICH REPRESENTS THE RUNWAY SAFETY AREA OR THE ILS CRITICAL AREA WILL BE CONSIDERED 4 CHARACTERS.

#### MARKING NOTES

49. REMOVAL OF EXISTING MARKINGS SHALL BE IN ACCORDANCE WITH ITEM P-101.

**COMPANIES** 

C&S Engineers, Inc. 2355 Northside Drive, Suite 350 San Diego, California 92108 Phone: 619-296-9373 Fax: 619-296-5683 www.cscos.com



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MARK DATE DESCRIPTION

PROJECT NO: K30002019 MAY 2023 DRAWN BY: G.C. HAYDEN

DESIGNED BY: M.E. BARR CHECKED BY: S.L. UNDERWOOD

**GENERAL NOTES** 

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GENERAL NOTES

SCALE: NOT TO SCALE

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