GENERAL PROJECT NOTES

1. THESE PROJECT NOTES APPLY ONLY TO DRAWINGS ISSUED BY SINE SOURCE ENGINEERING.
2. ALL ELECTRICAL INSTALLATIONS TO CONFORM TO THE LATEST NEC AND LOCAL CODES.
3. THE ELECTRICAL CONTRACTOR SHALL HAVE A COORDINATION MEETING WITH THE MECHANICAL CONTRACTOR, CONSTRUCTION SUPERINTENDANT AND ANY OTHER TRADES AS REQUIRED WITHIN SEVEN DAYS OF THE START OF THE JOB TO REVIEW CODE CLEARANCE REQUIREMENTS FOR PANELS, SWITCHES, AND OTHER ELECTRICAL GEAR SPECIFICALLY FOR THIS JOB. RECORD THE MEETING IN THE SUPERINDENT'S LOG. REPORT UNRESOLVED CONFLICTS TO THE ARCHITECT IMMEDIATELY.
4. ELECTRICAL CONTRACTOR'S PROJECT MANAGER AND ON-SITE PROJECT FOREMAN SHALL REVIEW VENDOR SUBMITTALS FOR ACCURACY PRIOR TO SUBMITTING TO ENGINEER. INACCURACIES SHALL BE CORRECTED PRIOR TO ENGINEER SUBMITTAL.
5. SUBMITTALS FOR EACH SYSTEM WILL BE REVIEWED BY ENGINEER UP TO TWO TIMES--ONE FULL SUBMITTAL FOR OVERALL COMPLIANCE AND ONE RESUBMITTAL. ADDITIONAL REVIEWS WILL BE CHARGED TO CONTRACTOR AT ENGINEER'S STANDARD BILLING RATE.
6. SUBMITTALS TO ENGINEER SHALL INCLUDE ALL SPECIFIED SYSTEMS IN FIRST SUBMITTAL. PARTIAL SUBMITTALS WILL BE RETURNED TO CONTRACTOR AS INCOMPLETE AND WILL BE CONSIDERED ONE OF TWO INCLUDED SUBMITTAL REVIEWS.
7. THE CLARITY OF RECORD DRAWING CHANGES MADE BY THE CONTRACTOR SHALL BE EQUAL TO THE ORIGINAL DRAWINGS AS JUDGED BY THE ARCHITECT OR THE RECORD SET WILL BE RETURNED TO THE CONTRACTOR FOR CLARIFICATION.
8. WHEN THE GENERAL CONTRACT CALLS FOR "RECORD" OR "AS-BUILT" DRAWINGS TO BE FURNISHED BY THE CONTRACTOR AT JOB COMPLETION, THE ELECTRICAL CONTRACTOR SHALL BE REQUIRED TO FURNISH A COMPLETE SET OF "BLUE-PRINT READY" AUTOCAD ELECTRICAL DRAWINGS FOR ALL CONTRACTOR GENERATED CHANGES FROM THE DRAWINGS OF A CLARITY EQUAL TO THE ORIGINAL DRAWINGS AS JUDGED BY THE ENGINEER. CONTACT ARCHITECT FOR DISKS OR REPRODUCIBLE ORIGINAL MEDIA. PROVIDE DRAWINGS ON CD IN AUTOCAD FORMAT.
9. DO NOT SCALE ELECTRICAL PLANS. SEE CIVIL DRAWINGS FOR ACCURATE DIMENSIONS AND FLOOR PLANS.
10. ELECTRICAL DEVICES CANNOT BE SHOWN TO SCALE AND SOMETIMES OVERLAP BUILDING AND SITE ELEMENTS. REFER TO CIVIL DRAWINGS FOR ACCURATE MOUNTING LOCATIONS
11. ELECTRICAL CONTRACTOR SHALL CONTACT POWER COMPANY WITHIN THE FIRST WEEK OF THE START OF CONSTRUCTION AND NOTIFY THEM OF THE PROBABLE DATE WHEN THE NEW ELECTRICAL SERVICE CONNECTION WILL BE NEEDED.
12. CONTRACTOR SHALL LOCATE AND INSTALL EQUIPMENT PADVAULTS PER POWER COMPANY SPECIFICATIONS. VERIFY PROPER CLEARANCES FROM BUILDING AND OTHER EQUIPMENT BEFORE INSTALLATION. THE LOCATION OF THE TRANSFORMER SHOWN ON THE PLANS IS AN APPROXIMATE LOCATION.
13. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE TO FIELD VERIFY ALL PANEL CLEARANCES PER NEC 110.26 AND NOTIFY ALL OTHER TRADES ON THE JOB OF THESE CODE REQUIREMENTS.
14. PANEL INDEXES SHALL INCLUDE ALL PERTINENT INFORMATION ON THE PANEL SCHEDULES INCLUDING DISTINCT NAMES FOR EACH CIRCUIT AND INFORMATION ON LIGHTS, OUTLETS, EQUIPMENT, ETC. DO NOT SIMPLY COPY THE CIRCUIT DESCRIPTION COLUMN. INDEXES TO BE TYPEWRITTEN.
15. EMT IS NOT ALLOWED OUT OF DOORS.
16. DO NOT INSTALL IN-GRADE JUNCTION BOXES UNLESS SPECIFICALLY SHOWN ON DRAWINGS. CONDUCTORS SHALL BE RUN CONTINUOUS WITHOUT SPLICING FROM SOURCE OR DEVICE TO NEXT DEVICE.
17. CIRCUIT WIRE SIZES MUST, AT MINIMUM, MATCH NEC REQUIRED CONDUCTOR SIZES FOR CORRESPONDING OVERCURRENT PROTECTIVE DEVICES. VERIFY WITH PANEL SCHEDULES BEFORE PULLING WIRE.
18. CIRCUIT WIRING SHALL BE INSTALLED AS SHOWN ON THE DRAWINGS. ANY DEVIATIONS SHALL BE INITIATED BY A CHANGE ORDER FROM THE ARCHITECT. OTHERWISE THE RECORD SET SHALL MATCH THE CONSTRUCTION SET.
19. PROVIDE AN EQUIPMENT GROUNDING CONDUCTOR, PULLED INTO THE CONDUIT WITH THE PHASE CONDUCTOR, IN ALL SERVICE, FEEDER, AND BRANCH CIRCUITS.
20. PROVIDE A NEUTRAL CONDUCTOR FOR EACH BREAKER TRIP HANDLE. NEUTRALS SHALL NOT BE SHARED BETWEEN BRANCH CIRCUITS.
21. ALL CIRCUITS TO BE MINIMUM #12 CU IN MINIMUM 3/4" CONDUIT UNLESS OTHERWISE NOTED.
22. IDENTIFY ALL OUTLET COVER PLATES WITH THE PANEL AND CIRCUIT NUMBER.
23. A GFI OUTLET SHALL BE INSTALLED AT EACH LOCATION DESIGNATED BY "GFI" ON THE DRAWINGS. DOWNSTREAM PROTECTION BY A GFI OUTLET UPSTREAM IS NOT ALLOWED.
24. REMOVE ALL OLD AND/OR UNUSED EXISTING CONDUIT AND ELECTRICAL APPARATUS FROM EXTERIOR OR INTERIOR EXPOSED SURFACES.
25. WHERE EXISTING ELECTRICAL EQUIPMENT IS TO REMAIN BUT THE SURFACE THAT IT IS MOUNTED ON IS TO BE REWORKED UNDER OTHER CONTRACTS, THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE TO REMOVE AND INSTALL OR MODIFY THE EXISTING EQUIPMENT AS REQUIRED TO MEET THE DESIGN INTENT. SEE ARCHITECTURAL DRAWINGS FOR ROOF, CEILINGS, WALLS, SOFFITS, FLOORS, ETC.
26. REMOVE ALL UNUSED CONDUITS AND CIRCUITS IN THE DEMOLTIONED AREA AS THEY ARE IDENTIFIED AS UNUSED OR ABANDONED.
27. REMOVE ALL EXISTING ELECTRICAL DEVICES, EQUIPMENT, AND APPARATUS AS THEY ARE IDENTIFIED AS UNUSED OR ABANDONED.
28. RELOCATE EXISTING CONDUITS AND CIRCUITS AS REQUIRED THAT ARE PRESENTLY SERVING EQUIPMENT THAT IS INTENDED TO REMAIN IN SERVICE BUT SAID CONDUITS ARE CURRENTLY RUNNING THROUGH AREAS TO BE DEMOLITIONED.
29. WHERE EXISTING CONDUIT RUNS ARE RE-USED BY SPECIAL PERMISSION FROM THE ARCHITECT, A SEPARATE GREEN, INSULATED GROUND WIRE SHALL BE PULLED IN THE CONDUIT AND BONDED AT EACH END AS REQUIRED.
30. RE-ROUTE EXISTING CIRCUIT CONDUITS AS REQUIRED AT ALL AREAS WHERE EXISTING WALLS ARE TO BE DEMOLITIONED OR HAVE DOORWAYS CUT IN THEM. PLAN ON AN AVERAGE OF ONE, 3/4" CONDUIT RELOCATION FOR EACH PENETRATION OR WALL REMOVAL.
31. FIELD VERIFY CONDITIONS FOR NEW WIRING. SURFACE RACEWAYS MUST RECEIVE PRIOR APPROVAL FROM THE OWNER AND WILL BE EVALUATED ON A CASE BY CASE BASIS DURING CONSTRUCTION. APPROVED RACEWAYS MUST BE PAINTED TO MATCH THE SURFACE ON WHICH THEY ARE MOUNTED.
32. ALL PATCH, REPAIR, REPAINT AND COVER UP REQUIRED AS A RESULT OF ELECTRICAL REMODEL IS TO BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR, BUT ACTUAL WORK IS TO BE PERFORMED BY QUALIFIED PERSONNEL.
33. DISCONNECT SWITCHES ARE SHOWN IN APPROXIMATE LOCATIONS ONLY. CONTRACTOR SHALL FIELD VERIFY LOCATION OF ALL ELECTRICAL SWITCHES AND MOTOR CONTROL FOR PROPER CODE CLEARANCES. NOTIFY ARCHITECT IMMEDIATELY OF ANY CONFLICTS WITH OTHER TRADES REGARDING PROPER EQUIPMENT CLEARANCES.
34. BEFORE RUNNING CONDUITS, PLACING OUTLETS OR ORDERING EQUIPMENT, THE CONTRACTOR SHALL REVIEW THE SPECIFICATIONS AND DESIGN AND SHOP DRAWINGS OF THE OTHER TRADES SERVED BY THE CONDUIT, OUTLETS, AND/OR EQUIPMENT.
35. PROVIDE NEUTRAL CONNECTION TO 208/240/480V, SINGLE-PHASE EQUIPMENT. RUN SEPARATE GROUND WIRE TO ALL OUTDOOR UNITS AND BOND TO THE EQUIPMENT GROUND LUG.
36. REVIEW THE STATE DESIGN REQUIREMENTS MANUAL PRIOR TO BID!
37. WHERE THERE ARE CONFLICTS IN THE DRAWINGS AND/OR SPECIFICATIONS THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER PRIOR TO BID. WHERE NO NOTIFICATION IS GIVEN THE MORE STRINGENT INTERPRETATION (GENERALLY INTERPRETED TO BE THE MORE COSTLY) WILL BE ENFORCED.

ELECTRICAL LEGEND

ANNOTATIONS

X / XXX	DETAIL CALL-OUT; TOP "X" REFERS TO DETAIL NUMBER & BOTTOM "XXX" REFERS TO SHEET NUMBER
#	KEYED NOTE CALLOUT
##	EQUIPMENT CALLOUT

SITE ELECTRICAL

----1ØOP---	1-PHASE OVERHEAD PRIMARY POWER
----1ØOS---	1-PHASE OVERHEAD SECONDARY POWER
----1ØUF---	1-PHASE UNDERGROUND FEEDER
----1ØUP---	1-PHASE UNDERGROUND PRIMARY POWER
----1ØUS---	1-PHASE UNDERGROUND SECONDARY POWER
--(E)3ØOP--	3-PHASE OVERHEAD PRIMARY POWER : EXISTING
----3ØOP---	3-PHASE OVERHEAD PRIMARY POWER
----3ØOS---	3-PHASE OVERHEAD SECONDARY POWER
----3ØOT---	3-PHASE OVERHEAD TRANSMISSION LINES
--(E)3ØUP--	3-PHASE UNDERGROUND PRIMARY POWER : EXISTING
--(E)3ØUS--	3-PHASE UNDERGROUND SECONDARY POWER : EXISTING
--(D)3ØUP--	3-PHASE UNDERGROUND PRIMARY POWER: DEMO
--(D)3ØUS--	3-PHASE UNDERGROUND SECONDARY POWER: DEMO
----3ØUP---	3-PHASE UNDERGROUND PRIMARY POWER
----3ØUS---	3-PHASE UNDERGROUND SECONDARY POWER
-----OT-----	OVERHEAD TELEPHONE
----OTV----	OVERHEAD TV
----(E)UT----	UNDERGROUND TELEPHONE : EXISTING
---(E)UTV---	UNDERGROUND TV : EXISTING
----(D)UT----	UNDERGROUND TELEPHONE : DEMO
---(D)UTV---	UNDERGROUND TV : DEMO
-----UT-----	UNDERGROUND TELEPHONE
----UTV-----	UNDERGROUND TV
	POINT OF DISCONNECTION
	POINT OF CONNECTION
	UTILITY POLE

ONE-LINE

XA / YP	BREAKER : "x" = BREAKER AMPERAGE "y" = QUANTITY OF POLES
	BRANCH PANEL
	BRANCH PANEL WITH MAIN BREAKER
	BRANCH PANEL WITH SUB FEED BREAKER
x	FEEDER SIZE (REFER TO CONDUIT AND CONDUCTOR SCHEDULE UNLESS OTHERWISE NOTED)
	GROUND
M	CT AND METER
M	DIRECT METER
	TRANSFORMER
hp	MOTOR : hp = MOTOR HORSEPOWER

SHEET INDEX

ELECTRICAL ABBREVIATIONS

A	AMPERE	CAB	CABINET	ELEC	ELECTRICAL	FT	FEET OR FOOT	MAX	MAXIMUM	NIC	NOT IN CONTRACT
AF	AMP FUSE	CAT	CATALOG/CATEGORY	ELEV	ELEVATOR	GFI	GROUND FAULT INTERRUPTER	MCB	MAIN CIRCUIT BREAKER	NL	NIGHT LITE
AFF	ABOVE FINISHED FLOOR	C/B	CIRCUIT BREAKER	EMER, EM	EMERGENCY	G, GND	GROUND	MECH	MECHANICAL	NO	NORMALLY OPEN
AFG	ABOVE FINISHED GRADE	CKT	CIRCUIT	EMT	ELECTRICAL METALLIC TUBING	HP	HORSEPOWER	MFR	MANUFACTURER	NTS	NOT TO SCALE
AFI	ARC-FAULT CIRCUIT-INTERRUPTER	CLG	CEILING	EOLR	END OF LINE RESISTOR	HVAC	HEATING, VENTILATING & AIR CONDITIONING	MIN	MINIMUM	OCP	OVERCURRENT PROTECTION
AIC	AMPERE INTERRUPTING CAPACITY	CO	CONDUIT ONLY	EQUIP	EQUIPMENT	IG	ISOLATED GROUND	MLO	MAIN LUGS ONLY	P	POLE
AL	ALUMINUM	COMM	COMMUNICATION	EX, EXIST	EXISTING	IMC	INTERMEDIATE METAL CONDUIT	MTD	MOUNTED	PH	PHASE
ARCH	ARCHITECT(URAL)	CONN	CONNECTION	FBO	FURNISHED BY OTHERS	IN	INCH(ES)	NEC	NATIONAL ELECTRICAL CODE	PNL	PANEL
AS	AMP SWITCH	CU	COPPER	FCU	FAN COIL UNIT	ISC	SHORT CIRCUIT AMPERES, KA	NECA	NATIONAL ELECTRICAL CONTRACTOR'S ASSOCIATION	PWR	POWER
AWG	AMERICAN WIRE GAUGE	DEMO	DEMOLITION/DEMOLISH	FF	FINISHED FLOOR	JB, J-BOX	JUNCTION BOX	NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION	QTY	QUANTITY
BLDG	BUILDING	DISC	DISCONNECT	FIXT	FIXTURE	KCMIL	THOUSAND CIRCULAR MILS	N, NEUT	NEUTRAL	RECEP	RECEPTACLE
BKBD	BACKBOARD	DN	DOWN	FLEX	FLEXIBLE METALLIC CONDUIT (STEEL)	KVA	KILOVOLT AMPERE	NFC	NATIONAL FIRE CODE	REQ'D	REQUIRED
C	CONDUIT	DWG	DRAWING	FLUOR	FLUORESCENT	KW	KILOWATT	NC	NORMALLY CLOSED	RGSC	RIGID GALVANIZED STEEL CONDUIT
		EA	EACH			LTG	LIGHTING			RM	ROOM

SCHED	SCHEDULE	XFMR	TRANSFORMER
SECT	SECTION	T-STAT	THERMOSTAT
SP	SINGLE POLE	TYP	TYPICAL
SN	SOLID NEUTRAL	UBC	UNIFORM BUILDING CODE
SPEC	SPECIFICATION	UL	UNDERWRITERS LABORATORY
SW	SWITCH	UMC	UNIFORM MECHANICAL CODE
SWBD	SWITCHBOARD	UNO	UNLESS NOTED OTHERWISE
SWGR	SWITCH GEAR	V	VOLT OR VOLTAGE
SYS	SYSTEM	VA	VOLT AMPERE
TEMP	TEMPORARY	W	WATT
TELE	TELEPHONE	W/	WITH
TWP	TWISTED PAIR	WG	WIRE GUARD
TWSP	TWISTED SHEILDED PAIR	WP	UL LISTED WEATHERPROOF, NEMA 3R or 4

REVIEW SET - NOT FOR CONSTRUCTION

#	DESCRIPTION	DATE
1		

Kimley»Horn
111 East Broadway, Suite 600 | Salt Lake City, UT 84111 | Tel. No. (385) 212-3176

ABBREVIATIONS G.P.N. LEGEND & SHEET INDEX

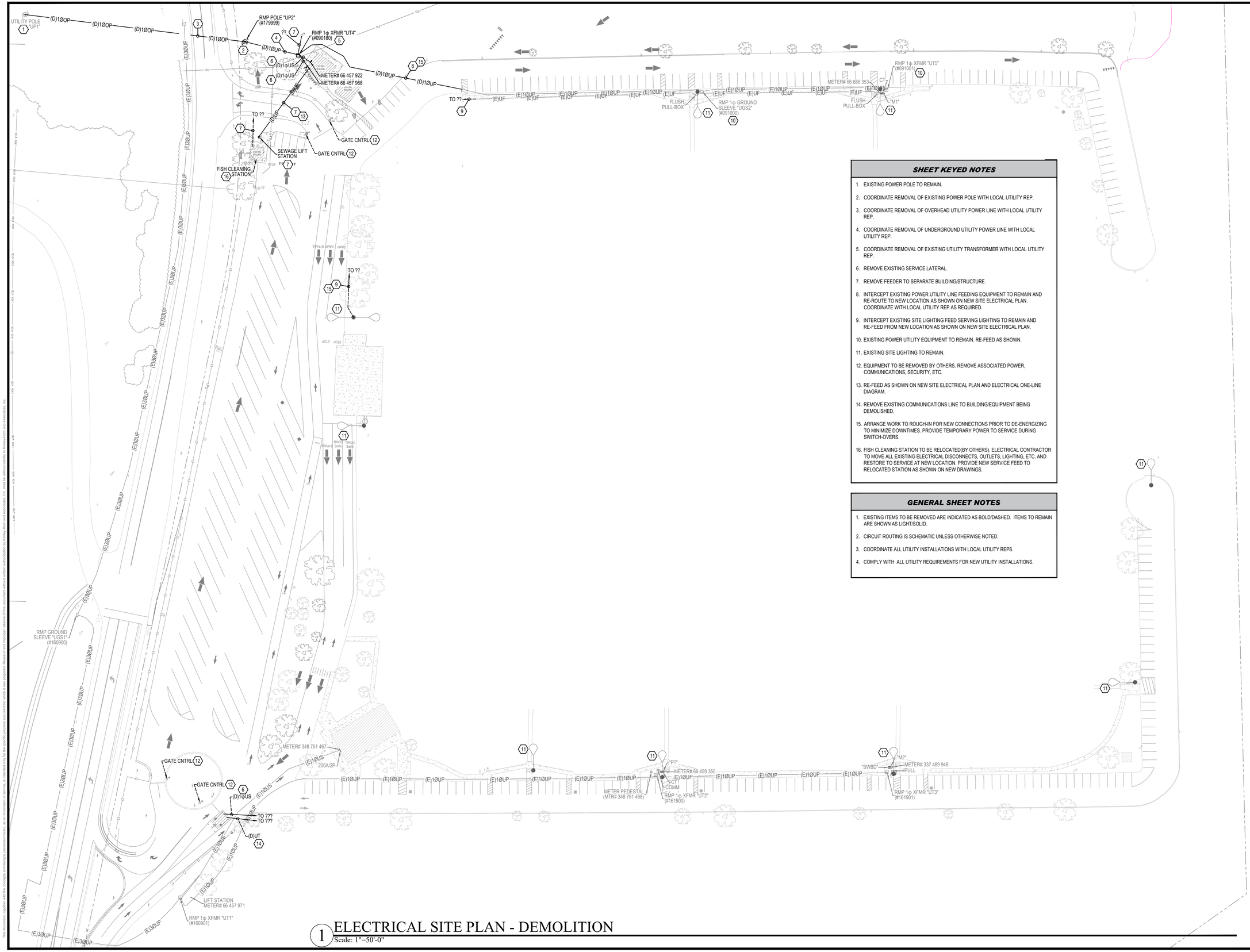
BEAR LAKE MARINA EXPANSION
DFCM PROJECT #23356510
GARDEN CITY, UT

DRAWN BY: D.PATTON 7/24/2024
DESIGNED BY: S.SWENSON 7/24/2024
CHECKED BY: S.SWENSON 7/24/2024
PROJECT No.: 23356510
SCALE: AS SHOWN

SEAL

PREPARED UNDER THE DIRECTION SUPERVISION OF CHRIS PRICE, P.E. UTAH REGISTRATION NO. XXXXXX FOR, AND ON BEHALF OF KIMLEY-HORN AND ASSOCIATES, INC.

SHEET
5200



SHEET KEYED NOTES

1. EXISTING POWER POLE TO REMAIN.
2. COORDINATE REMOVAL OF EXISTING POWER POLE WITH LOCAL UTILITY REP.
3. COORDINATE REMOVAL OF OVERHEAD UTILITY POWER LINE WITH LOCAL UTILITY REP.
4. COORDINATE REMOVAL OF UNDERGROUND UTILITY POWER LINE WITH LOCAL UTILITY REP.
5. COORDINATE REMOVAL OF EXISTING UTILITY TRANSFORMER WITH LOCAL UTILITY REP.
6. REMOVE EXISTING SERVICE LATERAL.
7. REMOVE FEEDER TO SEPARATE BUILDING/STRUCTURE.
8. INTERCEPT EXISTING POWER UTILITY LINE FEEDING EQUIPMENT TO REMAIN AND RE-ROUTE TO NEW LOCATION AS SHOWN ON NEW SITE ELECTRICAL PLAN. COORDINATE WITH LOCAL UTILITY REP AS REQUIRED.
9. INTERCEPT EXISTING SITE LIGHTING FEED SERVING LIGHTING TO REMAIN AND RE-FEED FROM NEW LOCATION AS SHOWN ON NEW SITE ELECTRICAL PLAN.
10. EXISTING POWER UTILITY EQUIPMENT TO REMAIN. RE-FEED AS SHOWN.
11. EXISTING SITE LIGHTING TO REMAIN.
12. EQUIPMENT TO BE REMOVED BY OTHERS. REMOVE ASSOCIATED POWER, COMMUNICATIONS, SECURITY, ETC.
13. RE-FEED AS SHOWN ON NEW SITE ELECTRICAL PLAN AND ELECTRICAL ONE-LINE DIAGRAM.
14. REMOVE EXISTING COMMUNICATIONS LINE TO BUILDING/EQUIPMENT BEING DEMOLISHED.
15. ARRANGE WORK TO ROUGH-IN FOR NEW CONNECTIONS PRIOR TO DE-ENERGIZING TO MINIMIZE DOWNTIMES. PROVIDE TEMPORARY POWER TO SERVICE DURING SWITCH-OVERS.
16. FISH CLEANING STATION TO BE RELOCATED(BY OTHERS). ELECTRICAL CONTRACTOR TO MOVE ALL EXISTING ELECTRICAL DISCONNECTS, OUTLETS, LIGHTING, ETC. AND RESTORE TO SERVICE AT NEW LOCATION. PROVIDE NEW SERVICE FEED TO RELOCATED STATION AS SHOWN ON NEW DRAWINGS.

GENERAL SHEET NOTES

1. EXISTING ITEMS TO BE REMOVED ARE INDICATED AS BOLD/DASHED. ITEMS TO REMAIN ARE SHOWN AS LIGHT/SOLID.
2. CIRCUIT ROUTING IS SCHEMATIC UNLESS OTHERWISE NOTED.
3. COORDINATE ALL UTILITY INSTALLATIONS WITH LOCAL UTILITY REPS.
4. COMPLY WITH ALL UTILITY REQUIREMENTS FOR NEW UTILITY INSTALLATIONS.

1 ELECTRICAL SITE PLAN - DEMOLITION
Scale: 1"=50'-0"

REVIEW SET - NOT FOR CONSTRUCTION

DESCRIPTION	DATE

Kimley»Horn
111 East Broadway, Suite 600 | Salt Lake City, UT 84111 | Tel. No. (385) 212-3176

ELECTRICAL SITE PLAN - DEMOLITION

BEAR LAKE MARINA EXPANSION
DFCM PROJECT #23356510
GARDEN CITY, UT

DRAWN BY:	DESIGNED BY:	CHECKED BY:	PROJECT No.:	SCALE:
D.PATTON 7/24/2024	S.SWENSON 7/24/2024	S.SWENSON 7/24/2024	23356510	AS SHOWN

SEAL

PREPARED UNDER THE DIRECTION SUPERVISION OF CHRIS PRICE, P.E. UTAH REGISTRATION NO. XXXXXX FOR AND ON BEHALF OF KIMLEY-HORN AND ASSOCIATES, INC.

SHEET
5201D

SHEET KEYED NOTES

1. PROPOSED LOCATION FOR NEW UTILITY GROUND SLEEVE. VERIFY LOCATION WITH LOCAL UTILITY REP.
2. DOCK DISCONNECT FED FROM OTHER SERVICE. REFER TO MARINA POWER DRAWINGS FOR ADDITIONAL INFORMATION.
3. STUB CONDUIT FOR FUTURE CONNECTION. SEE 5205 - ELECTRICAL ONE-LINE DIAGRAM - DEMO. CAP & MARK CONDUIT. DIMENSION END OF CONDUIT ON FIELD REDLINE SET.
4. EXISTING UTILITY GROUND SLEEVE TO REMAIN. VERIFY CONNECTION POINT WITH LOCAL UTILITY REP.
5. BORE UNDER HIGHWAY FOR NEW LINES. SEE 5205 - ELECTRICAL ONE-LINE DIAGRAM - DEMO FOR ADDITIONAL INFORMATION.
6. RE-FEED UTILITY CONTRACT LIGHTING FROM NEW TRANSFORMER LOCATION. COORDINATE WITH UTILITY REP. SEE ELECTRICAL SITE DEMO PLAN FOR ADDITIONAL INFORMATION.
7. RE-ROUTE UTILITY PRIMARY LINES TO NEW EQUIPMENT LOCATION. COORDINATE WORK WITH UTILITY REP. SEE ELECTRICAL SITE DEMO PLAN ELECTRICAL ONE-LINE DIAGRAMS FOR ADDITIONAL INFORMATION.
8. PROVIDE NEW SERVICE TO EXISTING LIFT STATION. SEE DETAIL FOR ADDITIONAL INFORMATION.

GENERAL SHEET NOTES

1. EXISTING ITEMS TO BE REMOVED ARE INDICATED AS BOLD/DASHED. ITEMS TO REMAIN ARE SHOWN AS LIGHT/SOLID.
2. CIRCUIT ROUTING IS SCHEMATIC UNLESS OTHERWISE NOTED.
3. COORDINATE ALL UTILITY INSTALLATIONS WITH LOCAL UTILITY REPS.
4. COMPLY WITH ALL UTILITY REQUIREMENTS FOR NEW UTILITY INSTALLATIONS.

1 ELECTRICAL SITE PLAN - NEW
Scale: 1"=50'-0"

REVIEW SET - NOT FOR CONSTRUCTION

DATE	DESCRIPTION

Kimley»Horn
111 East Broadway, Suite 600 | Salt Lake City, UT 84111 | Tel. No. (385) 212-2176

ELECTRICAL SITE PLAN - NEW

BEAR LAKE MARINA EXPANSION
DFCM PROJECT #23356510
GARDEN CITY, UT

DRAWN BY: D.PATTON 7/24/2024
DESIGNED BY: S.SWENSON 7/24/2024
CHECKED BY: S.SWENSON 7/24/2024
SCALE: AS SHOWN
PROJECT No.: 23356510

SEAL

PREPARED UNDER THE DIRECTION SUPERVISION OF CHRIS PRICE, P.E. UTAH REGISTRATION NO. XXXXXX FOR AND ON BEHALF OF KIMLEY-HORN AND ASSOCIATES, INC.

SHEET
5201N

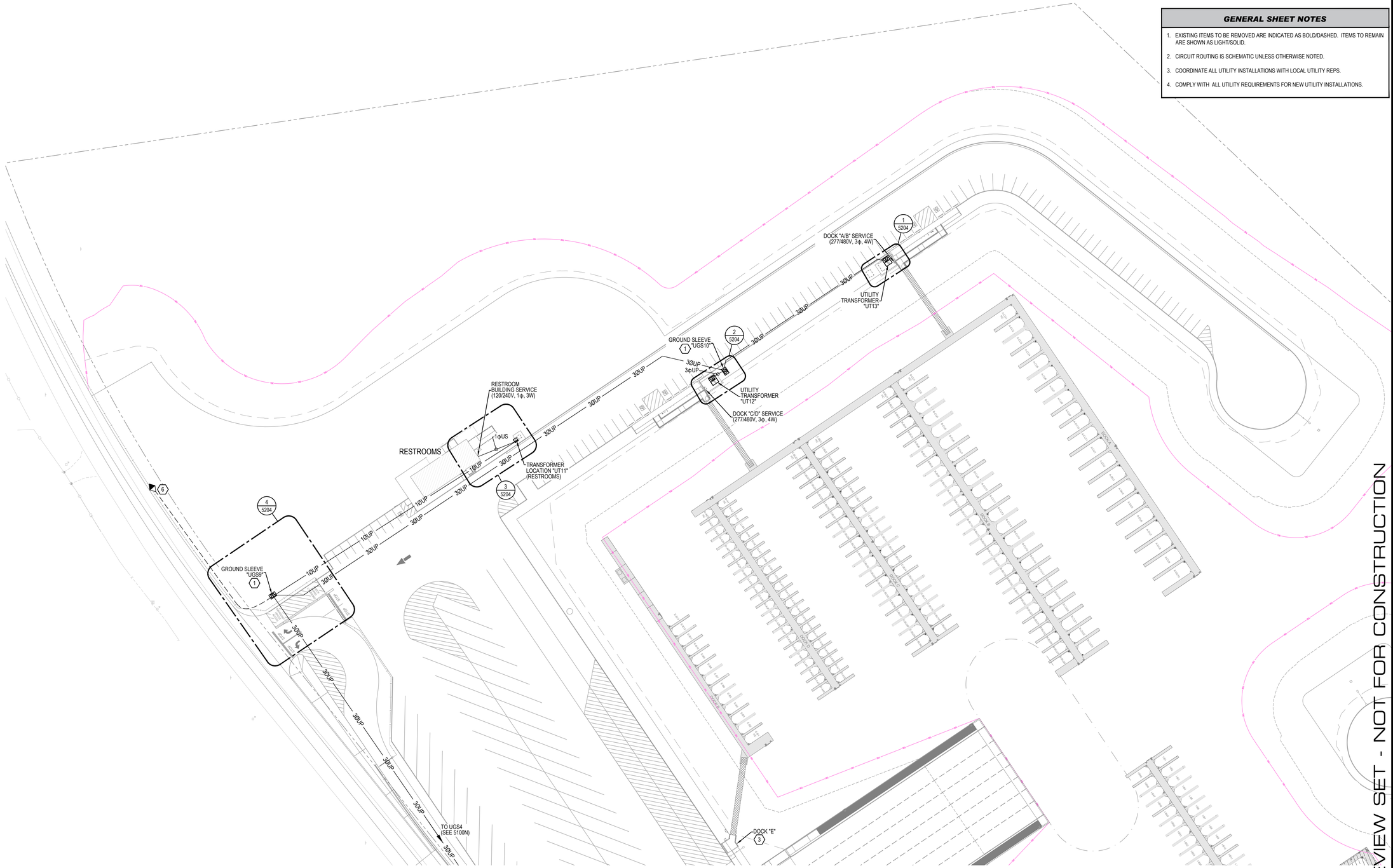
Date: 7/24/2024 2:01 PM User: DONALD.J.PATTON
Path: T:\OBS\2023031 BEAR LAKE MARINA PROJECT\01 DRAWINGS\05 ELECTRICAL\SINE SOURCE PROJECTS\SHEETS\5201N ELECTRICAL SITE PLAN - NEW.DWG

SHEET KEYED NOTES

1. PROPOSED LOCATION FOR NEW UTILITY GROUND SLEEVE. VERIFY LOCATION WITH LOCAL UTILITY REP.
2. DOCK DISCONNECT FED FROM OTHER SERVICE. REFER TO MARINA POWER DRAWINGS FOR ADDITIONAL INFORMATION.
3. STUB CONDUIT FOR FUTURE CONNECTION. SEE 5205 - ELECTRICAL ONE-LINE DIAGRAM - DEMO. CAP & MARK CONDUIT. DIMENSION END OF CONDUIT ON FIELD REDLINE SET.

GENERAL SHEET NOTES

1. EXISTING ITEMS TO BE REMOVED ARE INDICATED AS BOLD/DASHED. ITEMS TO REMAIN ARE SHOWN AS LIGHT/SOLID.
2. CIRCUIT ROUTING IS SCHEMATIC UNLESS OTHERWISE NOTED.
3. COORDINATE ALL UTILITY INSTALLATIONS WITH LOCAL UTILITY REPS.
4. COMPLY WITH ALL UTILITY REQUIREMENTS FOR NEW UTILITY INSTALLATIONS.



1 ELECTRICAL SITE PLAN - NEW
Scale: 1"=50'-0"

REVIEW SET - NOT FOR CONSTRUCTION

DESCRIPTION	DATE
1	

Kimley»Horn
111 East Broadway, Suite 600 | Salt Lake City, UT 84111 | Tel. No. (385) 212-3176

ELECTRICAL SITE PLAN - NEW

BEAR LAKE MARINA EXPANSION
DFCM PROJECT #23356510
GARDEN CITY, UT

DRAWN BY: D.PATTON 7/24/2024
DESIGNED BY: S.SWENSON 7/24/2024
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PROJECT No.: 23356510
SCALE: AS SHOWN

SEAL

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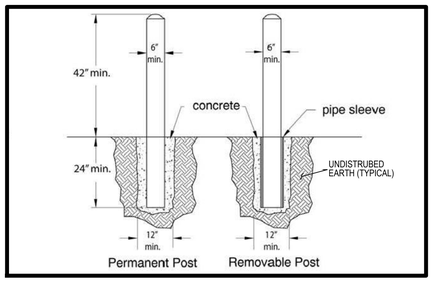
SHEET
5202N

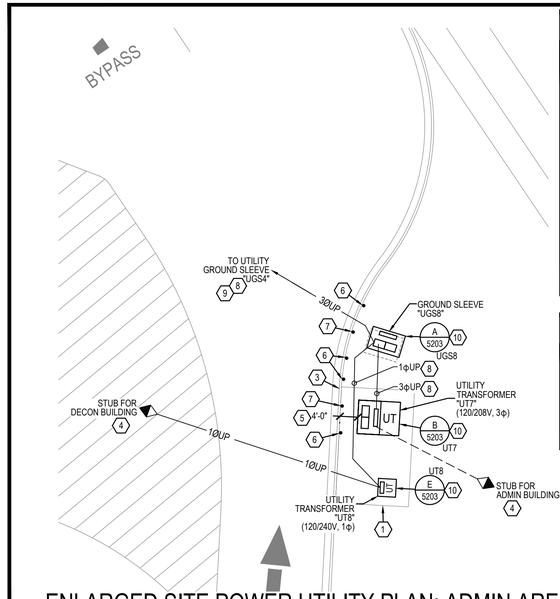


GENERAL NOTES

1. BARRIER POSTS SHALL BE 6-INCH-DIAMETER CONCRETE.
2. POSTS SHALL HAVE A DOMED TOP, FREE OF BURRS AND SHARP EDGES.
3. BARRIER POSTS SHALL BE PLACED SO AS NOT TO OBSTRUCT THE OPENING OF THE EQUIPMENT DOORS (DOORS SHALL OPEN LEAST 135 DEGREES), NOR TO IMPEDE THE OPERATION OF THE EQUIPMENT. IF SUCH POSITIONING IS NOT POSSIBLE, REMOVABLE POSTS SHALL BE USED IN THE OBSTRUCTIVE LOCATION(S).
4. REMOVABLE POSTS SHALL BE PLACED IN A NON-CORROSIVE PIPE SLEEVE.
5. EACH BARRIER POST SHALL BE SET IN A CONCRETE FOUNDATION AT LEAST 12 INCHES IN DIAMETER AND 24 INCHES IN DEPTH BELOW GRADE.

F BARRIER POST DETAIL

SCALE: NO SCALE



DETAIL KEYED NOTES

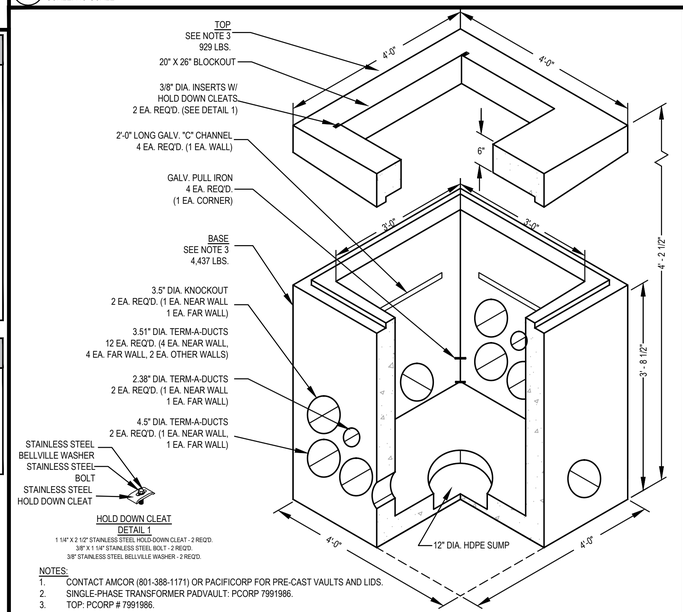
1. CONCRETE PAD BY OTHERS.
2. RETAINING WALL BY OTHERS.
3. CURB BY OTHERS.
4. STUB FOR FUTURE SERVICE. SEE 5206 - ELECTRICAL ONE-LINE DIAGRAM - NEW FOR ADDITIONAL INFORMATION.
5. REDUCED CLEARANCE FROM CURB HAS BEEN COORDINATED WITH LOCAL UTILITY REP AND APPROVED.
6. PROVIDE FIXED PROTECTIVE BOLLARD PER UTILITY STANDARDS. SEE DETAIL FI5203.
7. PROVIDE REMOVABLE BOLLARD PER UTILITY STANDARDS. SEE DETAIL FI5203.
8. SEE 5206 - ELECTRICAL ONE-LINE DIAGRAM - NEW FOR ADDITIONAL INFORMATION.
9. SEE SITE PLAN FOR EXTENSION.
10. PROVIDE PAD-VAULT PER UTILITY STANDARDS.

DETAIL GENERAL NOTES

1. COORDINATE MINIMUM UTILITY TRANSFORMER CLEARANCES WITH GENERAL CONTRACTOR PER UTILITY STANDARDS.
2. COORDINATE ALL INSTALLATIONS WITH LOCAL UTILITY REP PRIOR TO ROUGH-IN.
3. COMPLY WITH ALL UTILITY REQUIREMENTS FOR ALL UTILITY INSTALLATIONS.
4. CIRCUIT ROUTING IS SCHEMATIC UNLESS OTHERWISE NOTED.

H ENLARGED SITE POWER UTILITY PLAN: ADMIN AREA

SCALE: 1/16" = 1'-0"



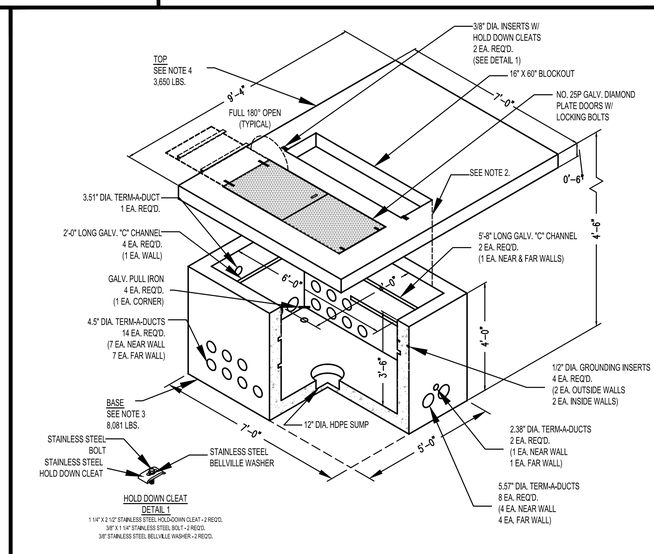
HOLD DOWN CLEAT DETAIL 1

1 1/4" X 2 1/2" STAINLESS STEEL HOLD-DOWN CLEAT - 2 REQ'D.
3/8" X 1 1/4" STAINLESS STEEL BOLT - 2 REQ'D.
3/8" STAINLESS STEEL BELLVILLE WASHER - 2 REQ'D.

NOTES:
1. CONTACT AMCOR (801-388-1171) OR PACIFICORP FOR PRE-CAST VAULTS AND LIDS.
2. SINGLE-PHASE TRANSFORMER PADVAULT: PCORP 7991986.
3. TOP: PCORP # 7991986.

E 3X3 1ϕ TRANSFORMER PAD-VAULT DETAIL

SCALE: NO SCALE



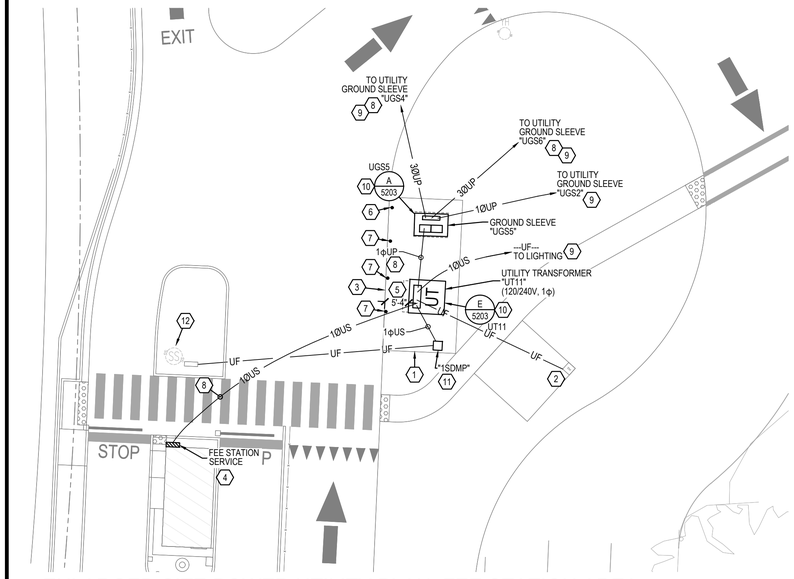
HOLD DOWN CLEAT DETAIL 1

1 1/4" X 2 1/2" STAINLESS STEEL HOLDDOWN CLEAT - 2 REQ'D.
3/8" X 1 1/4" STAINLESS STEEL BOLT - 2 REQ'D.
3/8" STAINLESS STEEL BELLVILLE WASHER - 2 REQ'D.

NOTES:
1. CONTACT AMCOR (801-388-1171) OR PACIFICORP FOR PRE-CAST VAULTS AND LIDS.
2. ALIGN BACK OF 16"x60" LID BLOCKOUT WITH BACK OF VAULT.
3. 2.4 - 25kV, 3-PHASE TRANSFORMER PADVAULT WITH ACCESS: PCORP 7992600 - SI 1790023
4. TOP: PCORP # 7992600 - SI 1790023

B 4X6 3ϕ TRANSFORMER PAD-VAULT DETAIL

SCALE: NO SCALE



D ENLARGED SITE POWER UTILITY PLAN: FEE STATION AREA

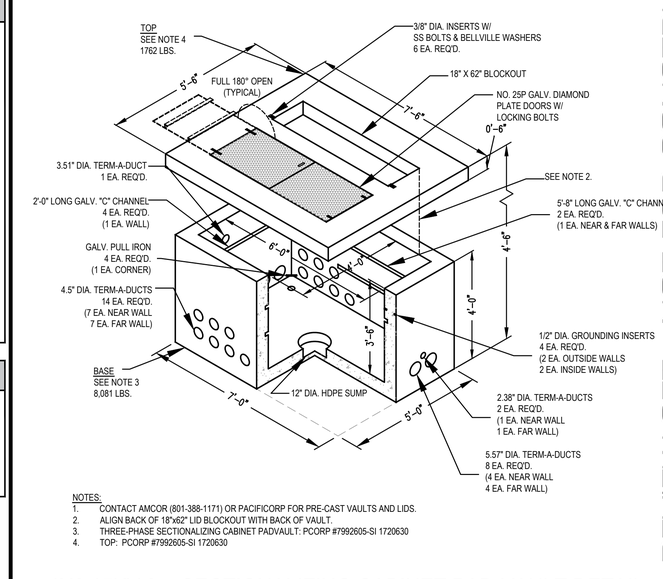
SCALE: 1/16" = 1'-0"

DETAIL KEYED NOTES

1. CONCRETE PAD BY OTHERS.
2. RE-FEED RELOCATED FISH CLEANING STATION. RELOCATE AND RE-ESTABLISH CONNECTION TO ALL OUTLETS, LIGHTING, ETC. AT STATION.
3. CURB BY OTHERS.
4. BUILDING SERVICE EQUIPMENT BY OTHERS.
5. REDUCED CLEARANCE FROM CURB HAS BEEN COORDINATED WITH LOCAL UTILITY REP AND APPROVED.
6. PROVIDE FIXED PROTECTIVE BOLLARD PER UTILITY STANDARDS. SEE DETAIL FI5203.
7. PROVIDE REMOVABLE BOLLARD PER UTILITY STANDARDS. SEE DETAIL FI5203.
8. SEE 5206 - ELECTRICAL ONE-LINE DIAGRAM - NEW FOR ADDITIONAL INFORMATION.
9. SEE SITE PLAN FOR EXTENSION.
10. PROVIDE PAD-VAULT PER UTILITY STANDARDS.
11. PROVIDE DUAL METERING CABINET WITH DUAL MAIN DISCONNECTS (MYERS MEUG28-M280/M200 (MOD- NO PANELS) AND BASE MEUG28-BASE OR EQUIVALENT).
12. RE-FEED EXISTING PUMP EQUIPMENT AS SHOWN ON 5205 - ELECTRICAL ONE-LINE DIAGRAM - DEMO & 5206 - ELECTRICAL ONE-LINE DIAGRAM - NEW.

DETAIL GENERAL NOTES

1. COORDINATE MINIMUM UTILITY TRANSFORMER CLEARANCES WITH GENERAL CONTRACTOR PER UTILITY STANDARDS.
2. COORDINATE ALL INSTALLATIONS WITH LOCAL UTILITY REP PRIOR TO ROUGH-IN.
3. COMPLY WITH ALL UTILITY REQUIREMENTS FOR ALL UTILITY INSTALLATIONS.
4. CIRCUIT ROUTING IS SCHEMATIC UNLESS OTHERWISE NOTED.



NOTES:
1. CONTACT AMCOR (801-388-1171) OR PACIFICORP FOR PRE-CAST VAULTS AND LIDS.
2. ALIGN BACK OF 18"x62" LID BLOCKOUT WITH BACK OF VAULT.
3. THREE-PHASE SECTIONALIZING CABINET PADVAULT: PCORP #7992605-SI 1720630
4. TOP: PCORP #7992605-SI 1720630

A 4X6 15KV 3ϕ SECTIONALIZING CABINET PAD-VAULT DETAIL

SCALE: NO SCALE

REVIEW SET - NOT FOR CONSTRUCTION

DATE	DESCRIPTION

Kimley»Horn
111 East Broadway, Suite 600 | Salt Lake City, UT 84111 | Tel. No. (385) 212-3176

ELECTRICAL SITE DETAILS

BEAR LAKE MARINA EXPANSION
DFCM PROJECT #23356510
GARDEN CITY, UT

DRAWN BY:	DATE	SCALE:
D.PATTON	7/24/2024	AS SHOWN
DESIGNED BY:	DATE	
S.SWENSON	7/24/2024	
CHECKED BY:	DATE	
S.SWENSON	7/24/2024	
PROJECT No.:		
23356510		

SEAL

PREPARED UNDER THE DIRECTION SUPERVISION OF CHRIS PRICE, P.E. UTAH REGISTRATION NO. XXXXXX FOR AND ON BEHALF OF KIMLEY-HORN AND ASSOCIATES, INC.

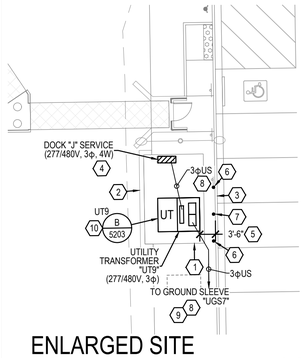
SHEET
5203

DETAIL KEYED NOTES

1. CONCRETE PAD BY OTHERS.
2. RETAINING WALL BY OTHERS.
3. CURB BY OTHERS.
4. MARINA SERVICE EQUIPMENT BY OTHERS.
5. REDUCED CLEARANCE FROM CURB HAS BEEN COORDINATED WITH LOCAL UTILITY REP AND APPROVED.
6. PROVIDE FIXED PROTECTIVE BOLLARD PER UTILITY STANDARDS. SEE DETAIL F\5203.
7. PROVIDE REMOVABLE BOLLARD PER UTILITY STANDARDS. SEE DETAIL F\5203.
8. SEE 5206 - ELECTRICAL ONE-LINE DIAGRAM - NEW FOR ADDITIONAL INFORMATION.
9. SEE SITE PLAN FOR EXTENSION.
10. PROVIDE PAD-VAULT PER UTILITY STANDARDS.

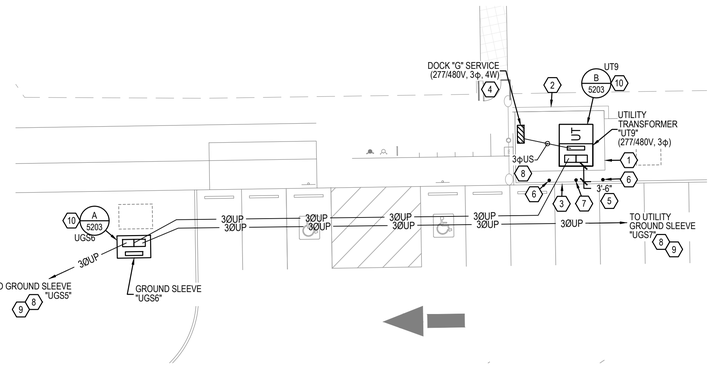
DETAIL GENERAL NOTES

1. COORDINATE MINIMUM UTILITY TRANSFORMER CLEARANCES WITH GENERAL CONTRACTOR PER UTILITY STANDARDS.
2. COORDINATE ALL INSTALLATIONS WITH LOCAL UTILITY REP PRIOR TO ROUGH-IN.
3. COMPLY WITH ALL UTILITY REQUIREMENTS FOR ALL UTILITY INSTALLATIONS.
4. CIRCUIT ROUTING IS SCHEMATIC UNLESS OTHERWISE NOTED.



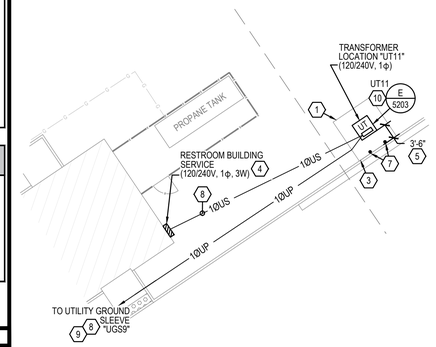
ENLARGED SITE POWER UTILITY PLAN: DOCK J

8 SCALE: 1/16" = 1'-0"



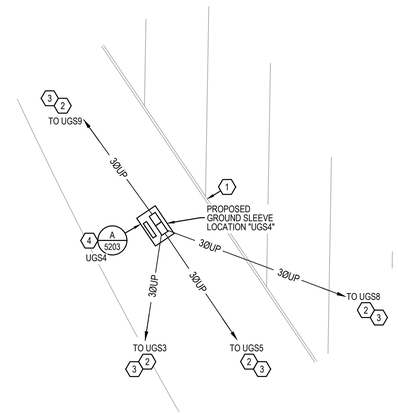
ENLARGED SITE POWER UTILITY PLAN: DOCK G

6 SCALE: 1/16" = 1'-0"



ENLARGED SITE POWER UTILITY PLAN: RESTROOM BLDG

3 SCALE: 1/16" = 1'-0"



ENLARGED SITE POWER UTILITY PLAN: PARKING AREA

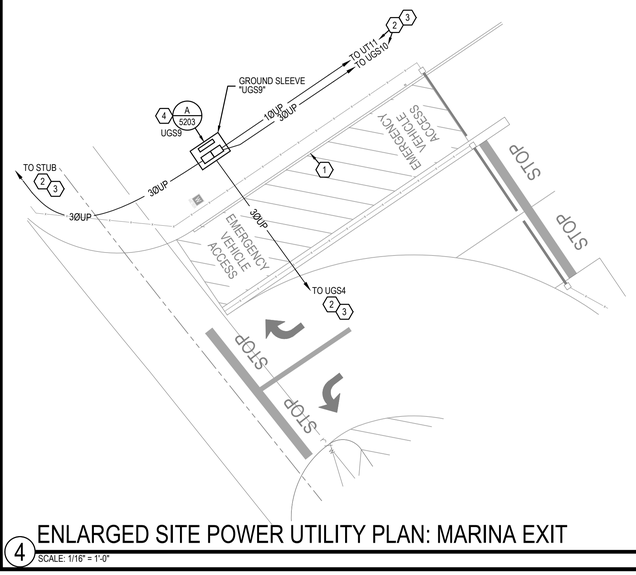
5 SCALE: 1/16" = 1'-0"

ENLARGED SITE POWER UTILITY PLAN: DOCK C/D

2 SCALE: 1/16" = 1'-0"

ENLARGED SITE POWER UTILITY PLAN:CAUSEWAY CORNER

7 SCALE: 1/16" = 1'-0"



ENLARGED SITE POWER UTILITY PLAN: MARINA EXIT

4 SCALE: 1/16" = 1'-0"

ENLARGED SITE POWER UTILITY PLAN: DOCK A/B

1 SCALE: 1/16" = 1'-0"

DATE	DESCRIPTION

Kimley»Horn
111 East Broadway, Suite 600 | Salt Lake City, UT 84111 | Tel. No. (385) 212-2176

ENLARGED ELECTRICAL SITE PLANS

BEAR LAKE MARINA EXPANSION
DFCM PROJECT #23356510
GARDEN CITY, UT

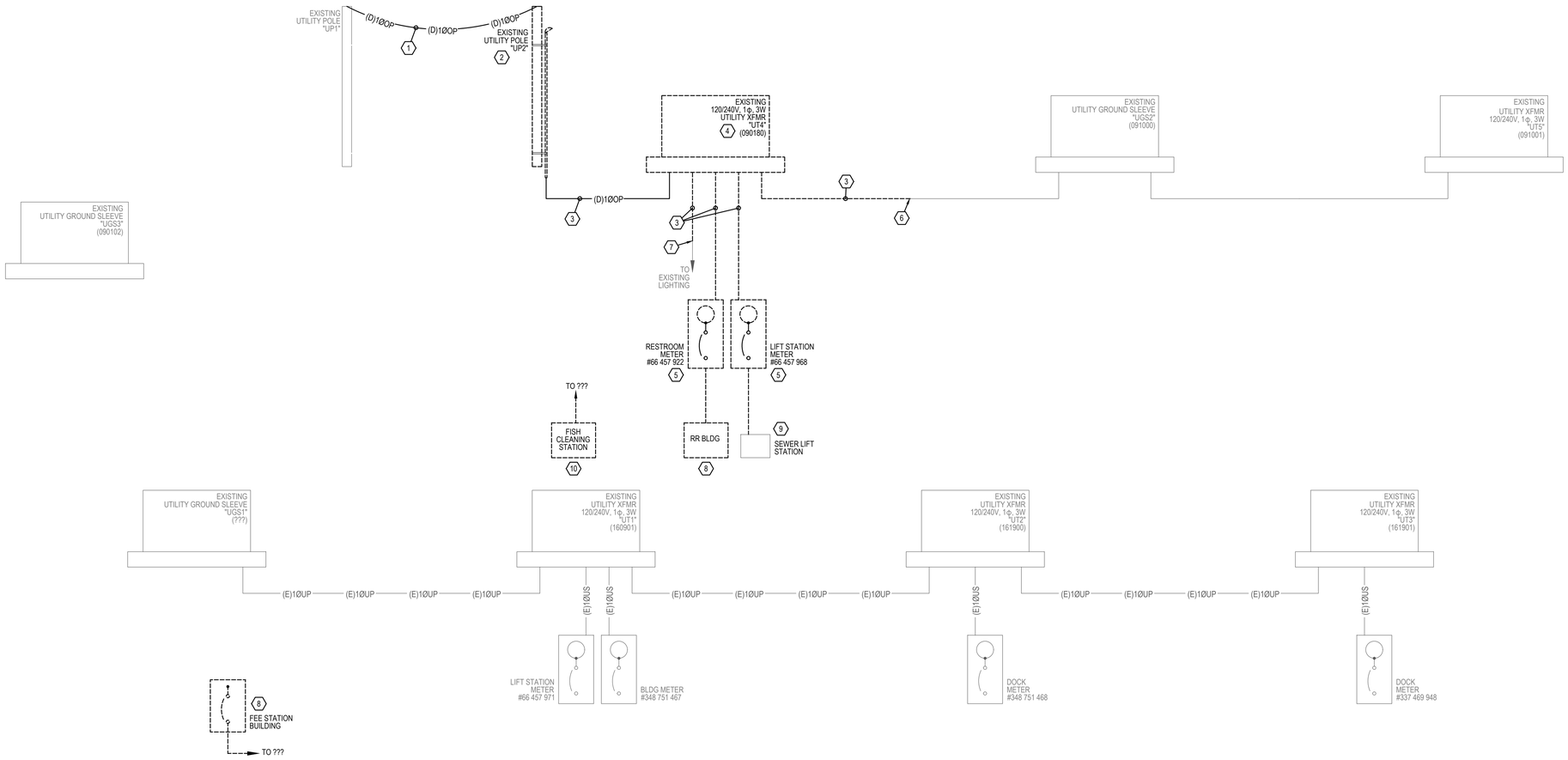
REVIEW SET - NOT FOR CONSTRUCTION

DRAWN BY: D.PATTON 7/24/2024
DESIGNED BY: S.SWENSON 7/24/2024
CHECKED BY: S.SWENSON 7/24/2024
PROJECT No.: 23356510
SCALE: AS SHOWN

SEAL

PREPARED UNDER THE DIRECTION SUPERVISION OF CHRIS PRICE, P.E. UTAH REGISTRATION NO. XXXXXX FOR, AND ON BEHALF OF KIMLEY-HORN AND ASSOCIATES, INC.

SHEET
5204



SHEET KEYED NOTES

1. COORDINATE REMOVAL OF OVERHEAD LINES WITH LOCAL UTILITY REP.
2. COORDINATE REMOVAL OF EXISTING POLE WITH LOCAL UTILITY REP.
3. COORDINATE REMOVAL OF UNDERGROUND POWER LINES WITH LOCAL UTILITY REP.
4. COORDINATE REMOVAL OF UTILITY TRANSFORMER WITH LOCAL UTILITY REP.
5. REMOVE EXISTING SERVICE INDICATED.
6. RE-ROUTE EXISTING PRIMARY CONNECTION TO NEW EQUIPMENT. SEE NEW SITE PLANS & NEW ELECTRICAL ONE-LINE DIAGRAM FOR ADDITIONAL INFORMATION.
7. RE-FEED EXISTING LIGHTING FROM NEW EQUIPMENT. SEE NEW SITE PLAN FOR ADDITIONAL INFORMATION.
8. REMOVE EXISTING ELECTRICAL AND FEEDERS FROM BUILDING TO BE REMOVED. FIELD VERIFY CONNECTION LOCATION.
9. RE-FEED EXISTING EQUIPMENT TO REMAIN. SEE NEW SITE PLANS & NEW ELECTRICAL ONE-LINE DIAGRAM FOR ADDITIONAL INFORMATION.
10. EXISTING POWER UTILITY EQUIPMENT TO REMAIN. RE-FEED AS SHOWN.

GENERAL SHEET NOTES

1. COORDINATE ALL UTILITY INSTALLATIONS WITH LOCAL UTILITY REPS.
2. COMPLY WITH ALL UTILITY REQUIREMENTS FOR NEW UTILITY INSTALLATIONS.
3. DEMOLITION PLAN IS ENGINEER'S ATTEMPT TO ASSIST BIDDERS IN ESTIMATING REMOVAL COSTS OF EXISTING EQUIPMENT. PLAN IS NOT INTENDED TO BE ALL-INCLUSIVE, AND IT IS THE BIDDERS RESPONSIBILITY TO VERIFY ALL EXISTING EQUIPMENT AND DEVICES TO BE REMOVED PRIOR TO BIDDING.
4. EXISTING ITEMS TO BE REMOVED ARE INDICATED AS BOLD/DASHED. ITEMS TO REMAIN ARE SHOWN AS LIGHT/SOLID.
5. MAINTAIN CIRCUIT CONTINUITY FOR DEVICES DOWNSTREAM OF ITEMS TO BE REMOVED.

1 ELECTRICAL ONE-LINE DIAGRAM - DEMO
Scale: NO SCALE

NO.	DESCRIPTION	DATE
1		

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ELECTRICAL ONE-LINE DIAGRAM - DEMO

BEAR LAKE MARINA EXPANSION
DFCM PROJECT #23356510
GARDEN CITY, UT

REVIEW SET - NOT FOR CONSTRUCTION

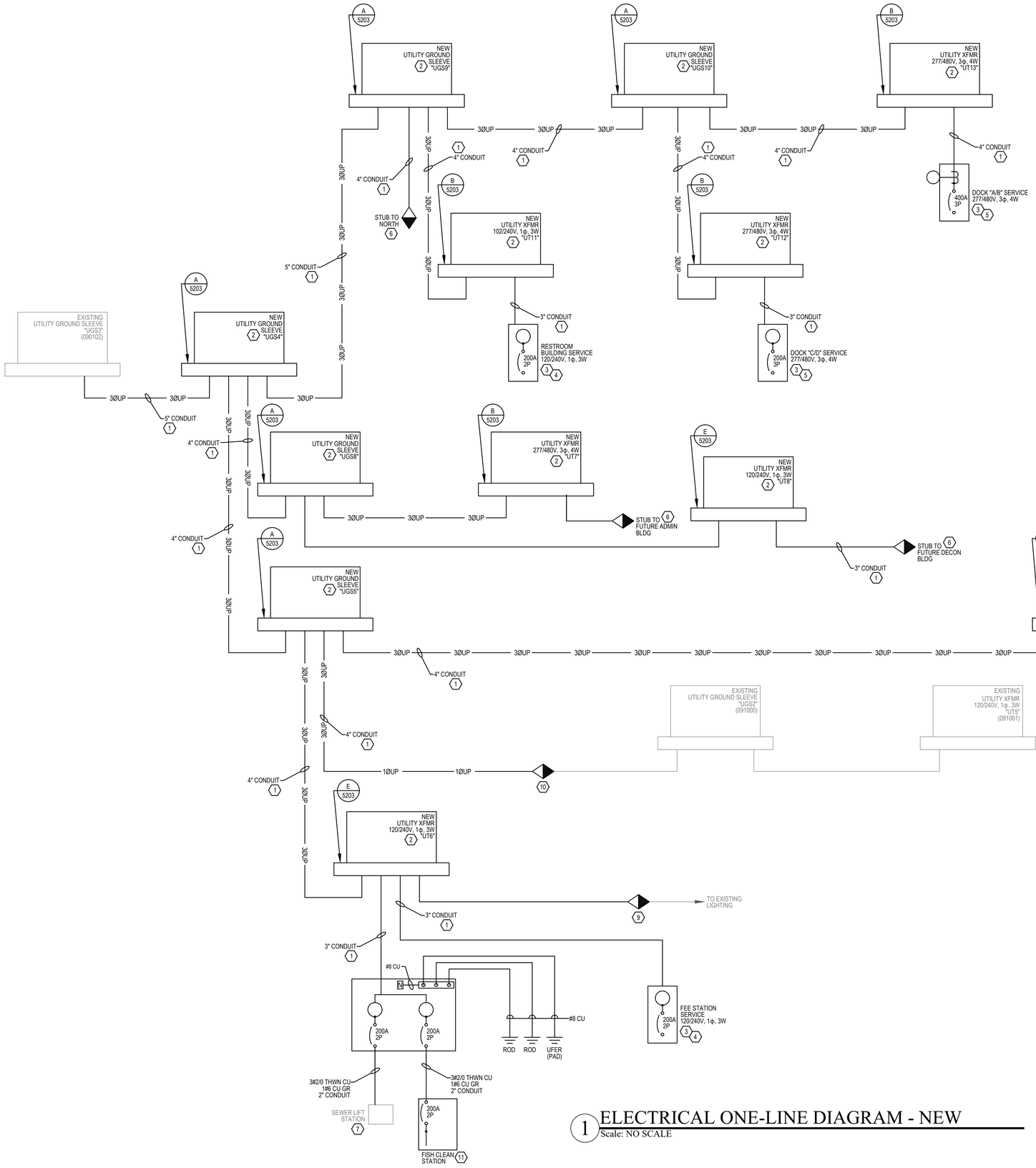
DRAWN BY:	DESIGNED BY:	CHECKED BY:	SCALE:
D.PATTON 7/24/2024	S.SWENSON 7/24/2024	S.SWENSON 7/24/2024	AS SHOWN

PROJECT No.: 23356510

SEAL

PREPARED UNDER THE DIRECTION SUPERVISION OF CHRIS PRICE, P.E. UTAH REGISTRATION NO. XXXXXX FOR AND ON BEHALF OF KIMLEY-HORN AND ASSOCIATES, INC.

SHEET
5205



1 ELECTRICAL ONE-LINE DIAGRAM - NEW
Scale: NO SCALE

SHEET KEYED NOTES

1. PRIMARY AND SECONDARY CONDUIT, TRENCHING, AND BACKFILL BY CONTRACTOR. CONDUCTORS BY UTILITY.
2. TRANSFORMER PAD-VAULT BY CONTRACTOR. EQUIPMENT BY UTILITY.
3. SERVICE EQUIPMENT SPECIFIED BY OTHERS.
4. SEE BUILDING DRAWINGS FOR ADDITIONAL INFORMATION.
5. SEE MARINA POWER DRAWINGS FOR ADDITIONAL INFORMATION.
6. STUB CONDUIT FOR FUTURE EXTENSION. SEE ELECTRICAL SITE PLAN FOR ADDITIONAL INFORMATION.
7. RE-FEED EXISTING EQUIPMENT TO REMAIN.
8. PROVIDE DUAL METERING CABINET WITH DUAL MAIN DISCONNECTS (MYERS MEUG28-M280/M200 (MOD- NO PANELS) AND BASE MEUG28-BASE OR EQUIVALENT).
9. RE-FEED UTILITY CONTRACT LIGHTING FROM NEW TRANSFORMER LOCATION. COORDINATE WITH UTILITY REP. SEE ELECTRICAL SITE DEMO PLAN FOR ADDITIONAL INFORMATION.
10. INTERCEPT EXISTING POWER UTILITY LINE FEEDING EQUIPMENT TO REMAIN AND RE-ROUTE TO NEW LOCATION AS SHOWN ON NEW SITE ELECTRICAL PLAN.
11. RE-FEED RELOCATED FISH CLEANING STATION. RELOCATE AND RE-ESTABLISH CONNECTION TO ALL OUTLETS, LIGHTING, ETC. AT STATION.

GENERAL SHEET NOTES

1. COMPLY WITH POWER UTILITY'S REQUIREMENTS FOR ALL UTILITY RELATED INSTALLATIONS. REVIEW CURRENT UTILITY STANDARDS MANUAL PRIOR TO BID. NOTIFY ENGINEER OF CONFLICTS PRIOR TO BID.
2. AIC RATINGS SHOWN INDICATE MINIMUM REQUIRED VALUES. SCCR RATINGS ARE TO MATCH OR EXCEED AIC RATINGS.
3. ALL CONDUCTORS ARE CONSIDERED TO BE COPPER UNLESS SPECIFICALLY NOTED OTHERWISE.
4. A FULL SIZE EQUIPMENT GROUNDING CONDUCTOR SIZED FOR THE OVERCURRENT PROTECTIVE DEVICE PROTECTING THE CIRCUIT IS REQUIRED IN EACH RACEWAY OR CABLE FOR PARALLELED CIRCUITS.
5. CONTRACTOR SHALL DOCUMENT FEEDER CONDUCTOR LENGTH ON FIELD REDLINE SET. FEEDER LENGTHS ARE REQUIRED FOR ARC FAULT STUDIES AS SPECIFIED.
6. FIELD MARK SERVICE EQUIPMENT WITH AVAILABLE FAULT CURRENT AND CALCULATION DATE PER NEC 110.24(A).
7. RUN PORTIONS OF GROUNDING ELECTRODE CONDUCTORS NOT CONCEALED IN BUILDING FINISHES IN CONDUIT.
8. REFER TO SPECIFICATIONS FOR SERIES VS. FULLY RATED REQUIREMENTS.
9. FIELD MARK ALL SERVICE EQUIPMENT WITH REQUIRED BREAKER CLEARING TIME. CONTRACTOR VERIFY WITH MANUFACTURER'S PUBLISHED DATA FOR MAIN BREAKER.

DESCRIPTION | DATE

Kimley»Horn
111 East Broadway, Suite 600 | Salt Lake City, UT 84111 | Tel. No. (385) 212-2176

REVIEW SET - NOT FOR CONSTRUCTION

ELECTRICAL ONE-LINE DIAGRAM - NEW

BEAR LAKE MARINA EXPANSION
DFCM PROJECT #23356510
GARDEN CITY, UT

DRAWN BY: D.PATTON 7/24/2024
DESIGNED BY: S.SWENSON 7/24/2024
CHECKED BY: S.SWENSON 7/24/2024
SCALE: AS SHOWN
PROJECT No.: 23356510

SEAL

PREPARED UNDER THE DIRECTION SUPERVISION OF CHRIS PRICE, P.E. UTAH REGISTRATION NO. XXXXXX FOR AND ON BEHALF OF KIMLEY-HORN AND ASSOCIATES, INC.

SHEET
5206

ELECTRICAL GENERAL NOTES

1. THE SUBMISSION OF A BID BY THE CONTRACTOR IS NOTIFICATION THAT THE CONTRACTOR HAS TOTALLY FAMILIARIZED HIMSELF WITH THE CONTRACT DOCUMENTS AND EXISTING SITE CONDITIONS AND HAS AGREED TO PROVIDE THE NECESSARY LABOR AND MATERIAL FOR THE COMPLETE INSTALLATION OF EACH SYSTEM IN A NEAT AND WORKMANLIKE MANNER IN ACCORDANCE WITH THE BEST PRACTICES OF THE INDUSTRY AND IN COMPLIANCE WITH ALL AUTHORITIES HAVING JURISDICTION.

2. THESE DRAWINGS ARE PRESENTED TO THE CONTRACTOR WITH THE UNDERSTANDING THAT THE CONTRACTOR IS AN EXPERT AND COMPETENT IN THE PREPARATION OF CONTRACT BID PRICES ON THE BASIS OF INFORMATION SUCH AS IS CONTAINED IN THESE DOCUMENTS. IT IS THE INTENT OF THE DRAWINGS AND SPECIFICATIONS TO CALL FOR FINISHED WORK, TESTED AND READY FOR OPERATION AND IN COMPLETE CONFORMANCE WITH ALL APPLICABLE CODES, RULES, AND REGULATIONS. MINOR ITEMS NOT USUALLY SHOWN OR SPECIFIED, BUT MANIFESTLY NECESSARY FOR THE PROPER INSTALLATION AND OPERATION OF THE VARIOUS SYSTEMS, SHALL BE INCLUDED IN THE WORK AND IN THE PROPOSAL THE SAME AS IF SPECIFIED OR SHOWN ON THE DRAWINGS. IF ANY DEPARTURES FROM THE DRAWINGS ARE DEEMED NECESSARY, DETAILS OF SUCH DEPARTURES AND THE REASONS THEREFORE SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. NO DEPARTURES SHALL BE MADE WITHOUT PRIOR APPROVAL.

3. THE CONTRACTOR SHALL VISIT THE SITE AND VERIFY ALL DIMENSIONS IN THE FIELD, AND SHALL ADVISE THE OWNER OF ANY DISCREPANCIES BEFORE PERFORMING THE WORK.

4. THE DRAWINGS INDICATE ARRANGEMENTS AND APPROXIMATE SIZES AND RELATIVE LOCATIONS OF PRINCIPAL APPARATUS, EQUIPMENT, DEVICES, AND SERVICES TO BE PROVIDED. DRAWINGS ARE DIAGRAMMATIC AND ARE A GRAPHIC REPRESENTATION OF CONTRACT REQUIREMENTS BASED ON THE INFORMATION PROVIDED BY THE MANUFACTURER IDENTIFIED IN THE EQUIPMENT SCHEDULE AT THE SCALE INDICATED.

5. LAYOUT OF EQUIPMENT INDICATED ON THE DRAWINGS SHALL BE CHECKED AND COMPARED AGAINST ALL DRAWINGS AND SPECIFICATIONS OF ALL TRADES AND EXACT LOCATIONS DETERMINED USING APPROVED SHOP DRAWINGS OF SUCH EQUIPMENT. WHERE PHYSICAL INTERFERENCES OCCUR, CONSULT WITH THE OWNER AND PREPARE DATED, DIMENSIONED DRAWINGS COORDINATED WITH ALL OTHER TRADES WORKING IN THIS AREA AND CORRECTING SUCH INTERFERENCE.

6. THE CONTRACTOR SHALL SCHEDULE THEIR WORK IN ACCORDANCE WITH THE CONSTRUCTION SCHEDULE SO THAT ALL OF THEIR WORK CAN BE INSTALLED WITHOUT DELAYING THE PROJECT. ALL WORK RELATED TO SHUTDOWN OF EXISTING SERVICES SHALL BE PERFORMED AT THE HOURS DESIGNATED BY THE OWNER WITH ALL ASSOCIATED COSTS BORN BY THE CONTRACTOR AT NO COST TO THE OWNER. PROVIDE ANY TEMPORARY FACILITIES REQUIRED TO PERMIT OWNER'S USE OF EXISTING FACILITIES AND SYSTEMS TO REMAIN UNDISTURBED. COORDINATE ALL WORK, INCLUDING ALL SHUTDOWNS THAT AFFECT SYSTEMS AND/OR PORTIONS OF THE BUILDING THAT MUST REMAIN IN OPERATION, WITH OWNER.

7. THE CONTRACTOR SHALL SECURE AND PAY ALL FEES, LICENSES, INSPECTIONS, AND PERMITS PERTAINING TO THE CONTRACT. SUBMIT TO OWNER DUPLICATE CERTIFICATES OF INSPECTION FROM APPROVED INSPECTION AGENCY.

8. ALL EQUIPMENT SHALL BE INSTALLED IN STRICT COMPLIANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.

9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR WORKMEN'S IDENTIFICATION AND BADGING, SAFETY AND FIRE PROTECTION, BARRICADES, WARNING SIGNS, TRASH REMOVAL, CUTTING AND PATCHING.

10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RIGGING, HANDLING, AND PROTECTION OF MATERIALS. ALL EQUIPMENT AND MATERIALS SHALL BE NEW AND WITHOUT BLEMISH OR DEFECT. ALL EQUIPMENT INSTALLED SHALL BEAR THE LABEL OF AN APPROVED AGENCY.

11. THE CONTRACTOR SHALL PROVIDE LABOR TO RECEIVE, UNLOAD, STORE, PROTECT, AND TRANSFER TO POINT OF INSTALLATION FOR ALL FURNISHED ITEMS. CONTRACTOR SHALL BE RESPONSIBLE FOR DELIVERY, STORAGE, AND HANDLING OF ALL MATERIALS AND EQUIPMENT PRIOR TO FINAL ACCEPTANCE. ANY DAMAGED MATERIAL OR EQUIPMENT SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SLAB OPENINGS, BEAM PENETRATIONS, AND CORING AS IT RELATES TO THEIR WORK. THE CONTRACTOR SHALL SUBMIT SIZE AND LOCATION FOR REVIEW AND APPROVAL.

13. THE CONTRACTOR SHALL SUBMIT SCHEDULE OF SUBMITTALS PRIOR TO SUBMITTING ANY SHOP DRAWINGS, ETC. TO BE SUBMITTED FOR THIS PROJECT, INCLUDING THE ANTICIPATED DATE OF EACH SUBMISSION. CONTRACTORS SHALL SUBMIT AN ELECTRONIC COPY OF THE COMPLETE SHOP DRAWINGS AND CATALOG CUTS, WIRING DIAGRAMS AND ASSOCIATED DATA TO THE OWNER FOR APPROVAL PRIOR TO PURCHASING EQUIPMENT OR STARTING ANY WORK. ANY WORK INSTALLED OR EQUIPMENT PURCHASED PRIOR TO RECEIPT OF OWNER APPROVED SUBMITTALS SHOP DRAWINGS THAT REQUIRES CHANGES SHALL BE REPLACED AT CONTRACTOR'S EXPENSE.

14. SUBMIT CATALOG INFORMATION, FACTORY ASSEMBLY DRAWINGS AND FIELD INSTALLATION DRAWINGS AS REQUIRED FOR A COMPLETE EXPLANATION AND DESCRIPTION OF ALL ITEMS TO BE PROVIDED. THE CONTRACTOR SHALL REVIEW AND APPROVE ALL SHOP DRAWINGS. NO SUBMISSION WILL BE ACCEPTED WITHOUT THE SIGNED APPROVAL OF THE CONTRACTOR. THE CONTRACTOR SHALL CHECK AND VERIFY ALL FIELD MEASUREMENTS.

15. UPON COMPLETION OF CONSTRUCTION, CONTRACTOR SHALL SUPPLY THE OWNER WITH (1) COMPLETE BOUND COPY OF ALL OWNER APPROVED SUBMITTALS AND ALL OPERATION AND MAINTENANCE MANUALS

16. ALL WORK FURNISHED UNDER THE CONTRACT SHALL BE GUARANTEED AGAINST ANY AND ALL DEFECTS IN WORKMANSHIP AND/OR MATERIALS FOR A PERIOD OF NOT LESS THAN (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE OF THE INSTALLATION, UNLESS NOTED OTHERWISE IN THE PROJECT SPECIFICATIONS, AND ANY DEFECTS OF WORKMANSHIP DEVELOPING DURING THIS PERIOD SHALL BE REMEDIED AND ANY DEFECTIVE MATERIAL REPLACED WITHOUT ADDITIONAL COST TO THE OWNER.

17. INSTALLED SYSTEMS SHALL OPERATE UNDER ALL CONDITIONS OF LOAD WITHOUT SOUND OR VIBRATION THAT IS OBJECTABLE TO THE OWNER. OBJECTABLE SOUND OR VIBRATION CONDITIONS DUE TO WORKMANSHIP SHALL BE CORRECTED IN APPROVED MANNER BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.

18. THE CONTRACTOR SHALL SIMILARLY NOTIFY OWNER OF COMPLETION OF ALL WORK, INDICATING THE CONTRACTOR IS READY FOR THE OWNER TO PERFORM THE FINAL PUNCHLIST INSPECTION.

19. UPON COMPLETION OF ALL UNFINISHED OR FAULTY WORK NOTED IN THE OWNER'S FINAL PUNCH LIST, THE CONTRACTOR SHALL SUBMIT TO THE OWNER IN WRITING A LETTER OF COMPLETION CERTIFYING THAT ALL PUNCH LIST ITEMS HAVE BEEN COMPLETED AND ALL AS-BUILTS, MANUALS, ETC. HAVE BEEN SUBMITTED.

20. SHOULD A CONTRACTOR REQUIRE REMOVAL, RELOCATION, OR REROUTING OF ANOTHER TRADE'S WORK THAT IS NOT INDICATED ON DRAWINGS, THE CONTRACTOR REQUIRING SUCH WORK SHALL BE RESPONSIBLE FOR THAT WORK, AND PAY ALL REQUIRED COSTS.

21. ALL WORK INVOLVING ALTERATIONS TO EXISTING SYSTEMS, EQUIPMENT, AND MATERIALS SHALL BE REVIEWED WITH THE OWNER BEFORE BEGINNING WORK.

22. DEFINITION: UNLESS OTHERWISE NOTED, ALL WORK SPECIFIED HEREIN OR NOTED ON DRAWINGS, SHALL BE BY THE CONTRACTOR. THE TERM "PROVIDE" WHENEVER ENCOUNTERED ON DRAWINGS OR IN THESE SPECIFICATIONS, SHALL MEAN "FURNISH AND INSTALL."

23. CODES AND STANDARDS: ALL MATERIALS AND WORKMANSHIP SHALL COMPLY WITH THE NATIONAL ELECTRICAL CODE, ALL APPLICABLE CODES, SPECIFICATIONS, LOCAL ORDINANCES, INDUSTRY STANDARDS, UTILITY COMPANY REGULATIONS AND FIRE INSURANCE CARRIER'S REQUIREMENTS.

24. MATERIALS: ALL MATERIALS FURNISHED BY THIS CONTRACTOR, SHALL BE NEW AND BEAR THE LABEL OR LISTING OF A NATIONALLY RECOGNIZED INDEPENDENT TESTING LABORATORY.

25. OUTLET AND SWITCH BOXES: PROVIDE AND INSTALL OUTLET BOXES OF PROPER TYPE AND SIZE AS REQUIRED AT ALL OUTLETS WHERE SHOWN. DEVICES SHALL BE SECURED FIRMLY IN PLACE AND SET TRUE AND SQUARE AND FLUSH WITH THE FINISHED SURFACE.

26. WIRING: WIRES SHALL BE COPPER AND RATED FOR THE LOCATIONS IN WHICH THEY ARE INSTALLED. ALL RACEWAYS ARE SHOWN DIAGRAMMATICALLY, EXACT LOCATION TO BE DETERMINED ON THE JOB. CONTRACTOR SHALL ARRANGE ALL NEW CIRCUITS IN PANELS SO AS TO BALANCE THE LOAD ON ALL PHASES. ALL WIRES SHALL BE RATED FOR A MINIMUM OF 600V.

27. A TYPED DIRECTORY CARD SHALL BE PROVIDED IN EACH PANEL WITH ADDED CIRCUITS TO INDICATE THE LOADS ACTUALLY SERVED.

28. GROUNDING: SHALL BE IN STRICT ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE ARTICLE 250. PROVIDE GROUND WIRES AS REQUIRED AND RESIZE CONDUIT IF NECESSARY.

29. DEMONSTRATION OF COMPLETE ELECTRICAL SYSTEMS: UPON COMPLETION OF THE WORK THE CONTRACTOR SHALL OBTAIN A CERTIFICATE OF APPROVAL FROM THE RESPECTIVE INSPECTION AGENCIES. CONTRACTOR SHALL NOTIFY AND MAKE ALL THE NECESSARY ARRANGEMENTS WITH THE INSPECTING AGENCY AND LOCAL AUTHORITIES SO THAT INSPECTION MAY BE CARRIED OUT AT THE PROPER TIME.

30. THE CONTRACTOR SHALL PROVIDE A UTILITY LOCATOR AND VERIFY THE ACTUAL LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITIES IN PLACE UNLESS NOTED OR SPECIFIED OTHERWISE. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.

31. IT IS THE CONTRACTOR'S RESPONSIBILITY TO RESTORE ALL PROPERTY, LANDSCAPING, PAVING AND DRIVEWAYS THAT ARE DISTURBED DURING CONSTRUCTION TO THEIR ORIGINAL CONDITION.

32. THE PLANS SHOW THE GENERAL PATH AND LOCATION OF CONDUIT AND PULL BOXES IN RELATION TO MAJOR PHYSICAL FEATURES. THE CONTRACTOR SHALL NOTE THAT ELEMENT LOCATIONS ARE APPROXIMATE AND MAY CHANGE DURING CONSTRUCTION. THESE CHANGES MAY RESULT IN CHANGES TO CONDUIT LENGTHS ALONG WITH MINOR QUANTITY CHANGES.

33. HOLES, CAVITIES, TRENCHES, AND DEPRESSIONS RESULTING FROM THE REMOVAL OF STRUCTURES OR OBSTRUCTIONS, EXCEPT IN AREAS TO BE EXCAVATED, SHALL BE BACKFILLED WITH SUITABLE MATERIAL WHICH SHALL BE COMPACTED TO A DENSITY OF NOT LESS THAN 95% OF THE MAXIMUM DENSITY AS DETERMINED BY ASTM D698, D-2922 AND D-3017. SURPLUS EXCAVATION MATERIALS SHALL BE LEGALLY DISPOSED OF BY THE CONTRACTOR.

34. ALL CONDUCTORS SHALL BE IDENTIFIED AT ALL PULL BOXES, LOAD CENTERS AND FIXTURES. ALL WIRING DEVICES SHALL HAVE A TAG ON BACK OF THE COVERPLATE IDENTIFYING THE PANEL AND CIRCUIT NUMBER FROM WHICH THEY ARE FED.

35. FOR MATERIAL INSTALLED AND/OR WORK PREFORMED PRIOR TO APPROVAL, THE CONTRACTOR SHALL BE LIABLE FOR ITS REMOVAL AND REPLACEMENT AT NO ADDITIONAL COST IF IN THE OPINION OF THE ENGINEER, THE MATERIAL OR EQUIPMENT DOES NOT MEET THE INTENT OF THE PLANS AND/OR SPECIFICATIONS.

36. CONTRACTOR SHALL BE RESPONSIBLE FOR DELIVERY, STORAGE, AND HANDLING OF ALL MATERIALS AND EQUIPMENT PRIOR TO FINAL ACCEPTANCE. ANY DAMAGED MATERIAL OR EQUIPMENT SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

37. PRIOR TO ACCEPTANCE, THE CONTRACTOR SHALL ENERGIZE AND OPERATE THE ENTIRE LIGHTING SYSTEM, FROM SUNSET TO SUNRISE FOR TWO (2) CONSECUTIVE DAYS WITHOUT INTERRUPTION OR FAILURE. IF ANY EQUIPMENT OR MATERIAL SHOULD FAIL, IT SHALL BE REPLACED IMMEDIATELY AND RETESTED.

38. "AS-BUILT" DRAWING REQUIREMENTS SHALL CONSIST OF RECORDING, BY THE CONTRACTOR, ANY CHANGE OR DEVIATION ON A SET OF APPROVED PLANS. PLANS SHALL BE FURNISHED TO THE INSPECTOR AT THE COMPLETION OF THE PROJECT. CONTRACTOR SHALL COORDINATE INSPECTION WITH ENGINEER OF RECORD. FINAL PAYMENT SHALL NOT BE MADE UNTIL THE AS-BUILT PRINTS ARE ACCEPTED BY THE ENGINEER OF RECORD.

39. CIRCUIT CONDUCTORS #2 AWG OR SMALLER TO BE COPPER TYPE "XHHW" FOR BELOW GRADE INSTALLATION OR COPPER TYPE THHN/THWN FOR ABOVE GRADE INSTALLATIONS. #1 AWG OR LARGER SHALL BE COPPER TYPE "XHHW-2" STRANDED COPPER.

40. OUTDOOR CONDUITS TO BE RIGID GALVANIZED STEEL (RGS), MINIMUM SIZE 1", UNLESS OTHERWISE NOTED ON THE PLANS. RGS CONDUIT SHALL EXTEND BELOW GRADE TO THE FIRST ELBOW. ALL RGS CONDUIT EXPOSED TO EARTH SHALL BE PVC COATED. EXTEND TO A HEIGHT OF 12" ABOVE GRADE. INDOOR CONDUITS SHALL BE IMC OR EMT UNLESS OTHERWISE SHOWN ON PLAN.

41. ALL UNDERGROUND CONDUIT SHALL BE WRAPPED RIGID STEEL WITH THREADED COUPLINGS AND CONNECTORS, AND/OR PVC SCHEDULE 40. ALL ELBOWS AND EXPOSED RISERS SHALL BE WRAPPED RIGID STEEL CONDUIT.

LIGHTING FIXTURE SCHEDULE

SYM	LAMPS	VOLTS	DESCRIPTION	MANUFACTURER	QTY.
○—■	(1) 174W LED	208	POLE MOUNTED LIGHT FIXTURE IN SINGLE CONFIGURATION FOR PARKING LOT/DRIVEWAY TYPE AFR MOUNTED AT 28' (25' POLE ON 3' ABOVE GROUND FOUNDATION)	RZR-PLED-III-W-80LED-700mA-30K-1	13
○—□	(1) 174W LED	208	POLE MOUNTED LIGHT FIXTURE IN SINGLE CONFIGURATION FOR PARKING LOT/DRIVEWAY TYPE AFR MOUNTED AT 28' (25' POLE ON 3' ABOVE GROUND FOUNDATION)	RZR-PLED-IV-FT-80LED-700mA-30K-1	1
■—○—■	(1) 348W LED	208	POLE MOUNTED LIGHT FIXTURE IN DUAL CONFIGURATION FOR PARKING LOT/DRIVEWAY TYPE AFR MOUNTED AT 28' (25' POLE ON 3' ABOVE GROUND FOUNDATION)	RZR-PLED-VSQ-W-80LED-700mA-30K-2-180	5
□—○—□	(1) 348W LED	208	POLE MOUNTED LIGHT FIXTURE IN DUAL CONFIGURATION FOR PARKING LOT/DRIVEWAY TYPE AFR MOUNTED AT 28' (25' POLE ON 3' ABOVE GROUND FOUNDATION)	RZR-PLED-III-W-80LED-700mA-30K-2-180	6

ABBREVIATIONS

AFG	ABOVE FINISHED GRADE	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
AIC	AMPS INTERRUPTING CURRENT	PLC	PROGRAMMABLE LOGIC CONTROLLER
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	PVC	POLYVINYL CHLORIDE
AWG	AMERICAN WIRE GAUGE	SCCR	SHORT CIRCUIT CURRENT RATING
DIA	DIAMETER	SES	SERVICE ENTRANCE SECTION
ENT	ELECTRICAL NON-METALLIC TUBING	SS	STAINLESS STEEL
FVNR	FULL VOLTAGE NON-REVERSING STARTER	TSP	TWISTED SHIELDED PAIR
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	UBC	UNIFORM BUILDING CODE
GND	GROUND	UL	UNDERWRITERS LABORATORY
IEEE	INSTITUTE FOR ELECTRICAL AND ELECTRONIC ENGINEERS	VFD	VARIABLE FREQUENCY DRIVE
KW	KILOWATT	W	WATTS, WIRE
KVA	KILOVOLT AMPERES	WP	WEATHERPROOF
MEP	MECHANICAL, ELECTRICAL, PLUMBING	WWTP	WASTE WATER TREATMENT PLANT
MCC	MOTOR CONTROL CENTER	XFMR	TRANSFORMER
NEC	NATIONAL ELECTRICAL CODE	3P	THREE PHASE
NEMA	NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION		

LEGEND

- [C] [E] — COMMUNICATION OR ELECTRICAL PULL BOX (SIZE AS REQUIRED)
- (J) — JUNCTION BOX, SIZE AS REQUIRED BY CODE
- — — — CONDUIT RUN CONCEALED UNDER SLAB OR BELOW GRADE. (CONCEALED IN SLAB WHERE SO NOTED OR WHERE ALLOWED PER SPECIFICATIONS).
- — — — EXISTING CONDUIT RUN

NO.	DATE	DESCRIPTION
1		

Kimley»Horn
111 East Broadway, Suite 600 | Salt Lake City, UT 84111 | Tel. No. (385) 212-3705

ELECTRICAL SYMBOL AND GENERAL NOTES

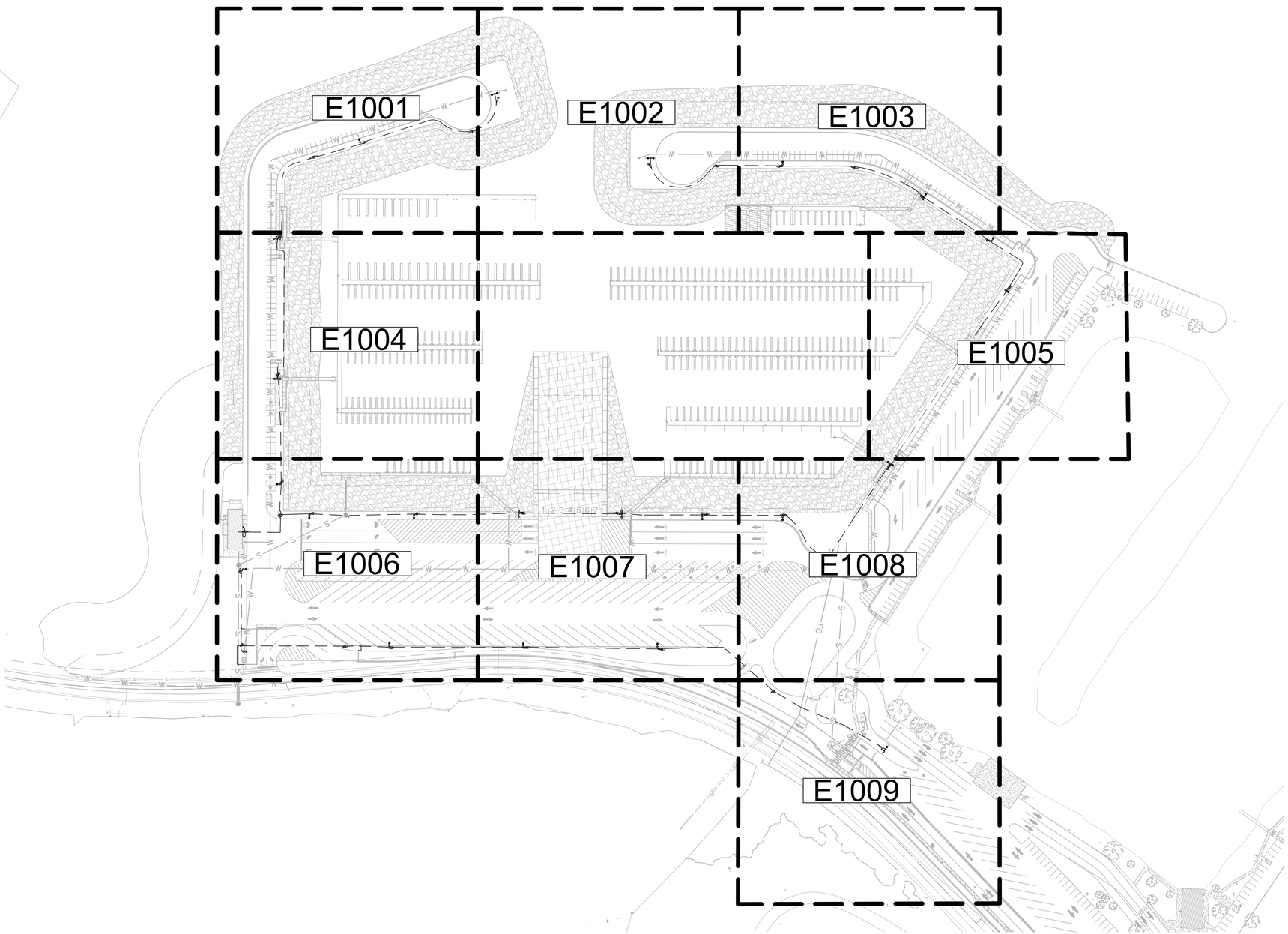
BEAR LAKE MARINA EXPANSION
DFCM PROJECT #23356510
RICH COUNTY, UT

DRAWN BY:	STS	7/29/2024
DESIGNED BY:	YSH	7/29/2024
CHECKED BY:		7/29/2024
PROJECT No.:	23356510	7/29/2024

SEAL

PREPARED UNDER THE DIRECTION SUPERVISION OF CHRIS PRICE, P.E. UTAH REGISTRATION NO. XXXXXX FOR AND ON BEHALF OF KIMLEY-HORN AND ASSOCIATES, INC.

SHEET
E0000



GRAPHIC SCALE IN FEET
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NORTH

DATE	DESCRIPTION

Kimley»Horn
111 East Broadway, Suite 600 | Salt Lake City, UT 84111 | Tel. No. (385) 212-3176

ELECTRICAL SITE LIGHTING PLAN
REFERENCE

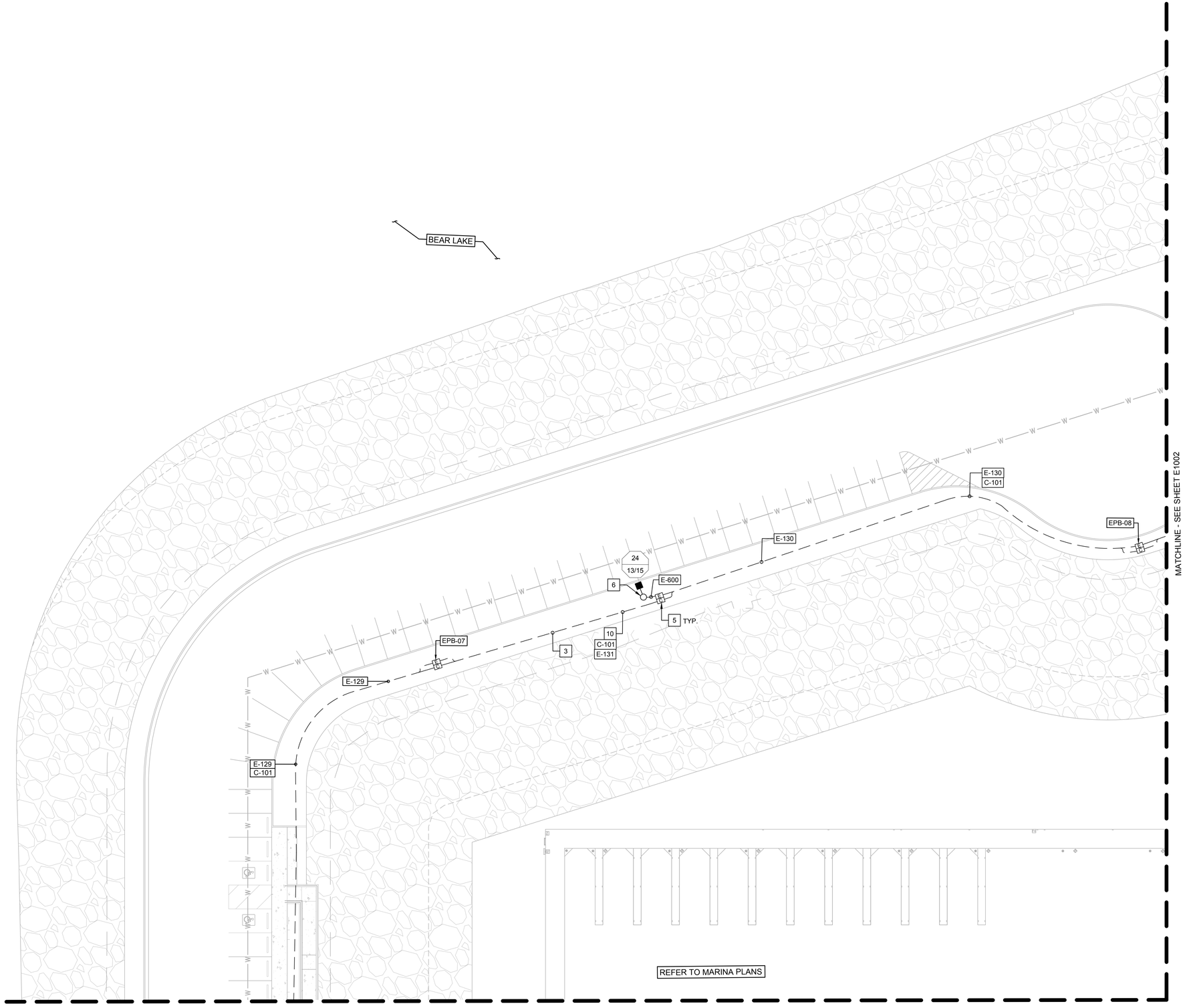
BEAR LAKE MARINA EXPANSION
DFCM PROJECT #23356510
RICH COUNTY, UT

DRAWN BY:	STS	7/29/2024
DESIGNED BY:	YSH	7/29/2024
CHECKED BY:		7/29/2024
PROJECT No.:	23356510	7/29/2024

SEAL

PREPARED UNDER THE DIRECTION SUPERVISION OF CHRIS PRICE, P.E. UTAH REGISTRATION NO. XXXXXX FOR AND ON BEHALF OF KIMLEY-HORN AND ASSOCIATES, INC.

SHEET
E1000



ELECTRICAL NOTES

3 PROPOSED LOCATION OF ELECTRICAL CONDUIT TRENCH. REFER TO TRENCH DETAIL D ON SHEET E2000 FOR FURTHER INFORMATION.

5 PROVIDE PULLBOX PER DETAIL B ON SHEET E2000.

6 PROVIDE AND INSTALL NEW PHOTOCELL CONTROLLED POLE-MOUNTED LIGHT FIXTURE MODEL RZR-PLED-III-M-80LED-700mA-30K-1 SINGLE-HEADED FIXTURE AND MOUNT TO NEW POLE AND FOUNDATION PER DETAIL A ON SHEET E2000.

10 INSTALL SPARE CONDUIT FOR FUTURE COMMUNICATIONS INTERCONNECTIONS. CONTRACTOR TO INSTALL STRING IN EACH SPARE CONDUIT.

NORTH

GRAPHIC SCALE IN FEET
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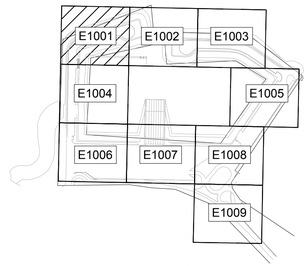


KEYMAP

	DATE	DESCRIPTION
1		

Kimley»Horn
111 East Broadway, Suite 600 | Salt Lake City, UT 84111 | Tel. No. (385) 212-3176

ELECTRICAL SITE LIGHTING PLAN REFERENCE

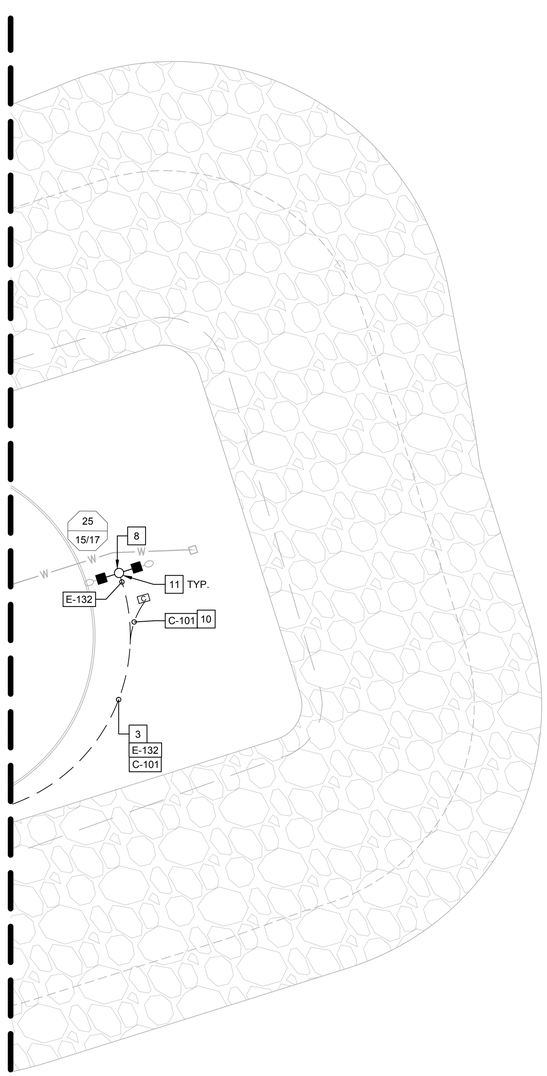
BEAR LAKE MARINA EXPANSION
DFCM PROJECT #23356510
RICH COUNTY, UT

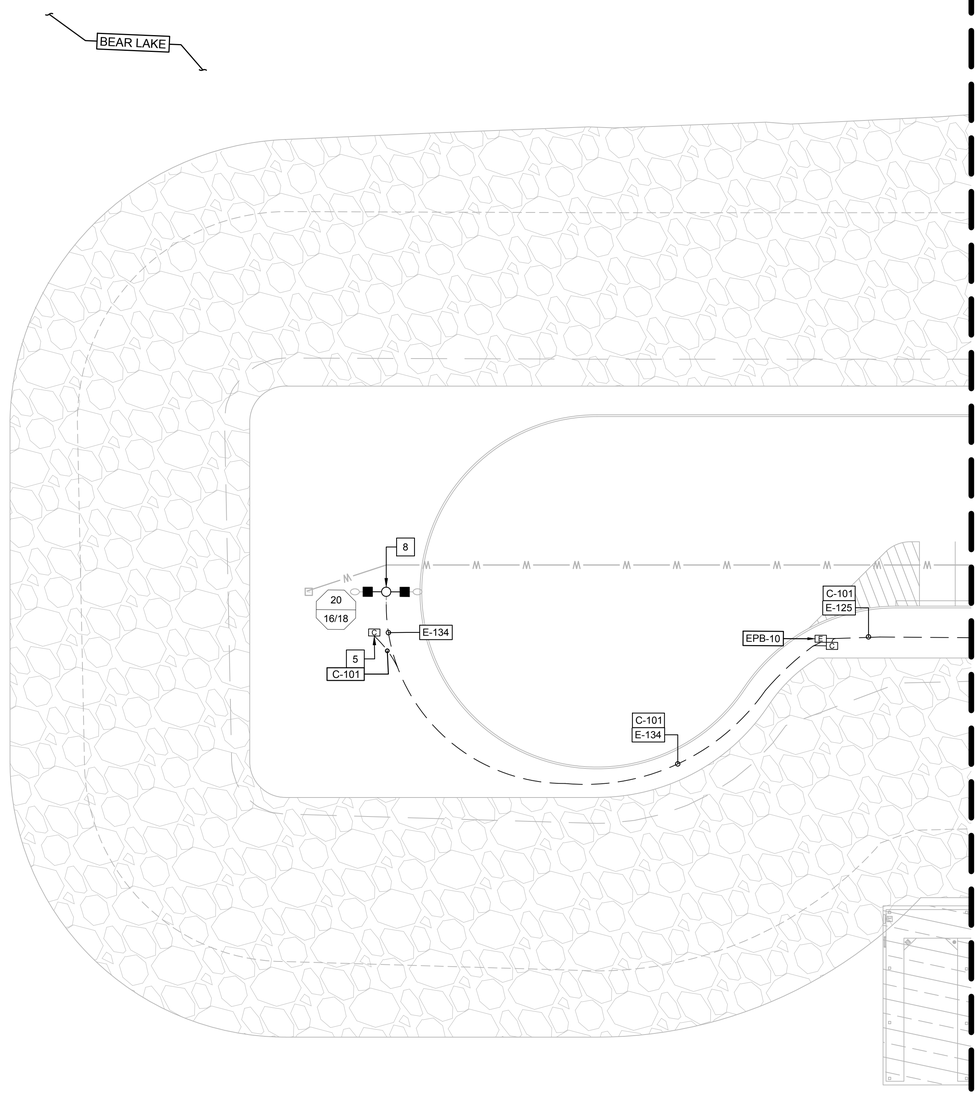
DRAWN BY: STS 7/29/2024
DESIGNED BY: YSH 7/29/2024
CHECKED BY: 7/29/2024
PROJECT No.: 23356510 7/29/2024

SEAL

PREPARED UNDER THE DIRECTION SUPERVISION OF CHRIS PRICE, P.E. UTAH REGISTRATION NO. XXXXXX FOR AND ON BEHALF OF KIMLEY-HORN AND ASSOCIATES, INC.

SHEET
E1001





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11 INSTALL PULLBOX AND CONDUIT BY LIGHT POLE AS SHOWN ON SHEET E2000 DETAIL E AND F.

GRAPHIC SCALE IN FEET
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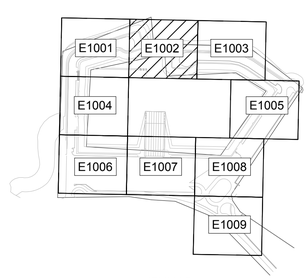


KEYMAP

	DESCRIPTION	DATE
1		

Kimley»Horn
111 East Broadway, Suite 600 | Salt Lake City, UT 84111 | Tel. No. (385) 212-3176

ELECTRICAL SITE LIGHTING PLAN

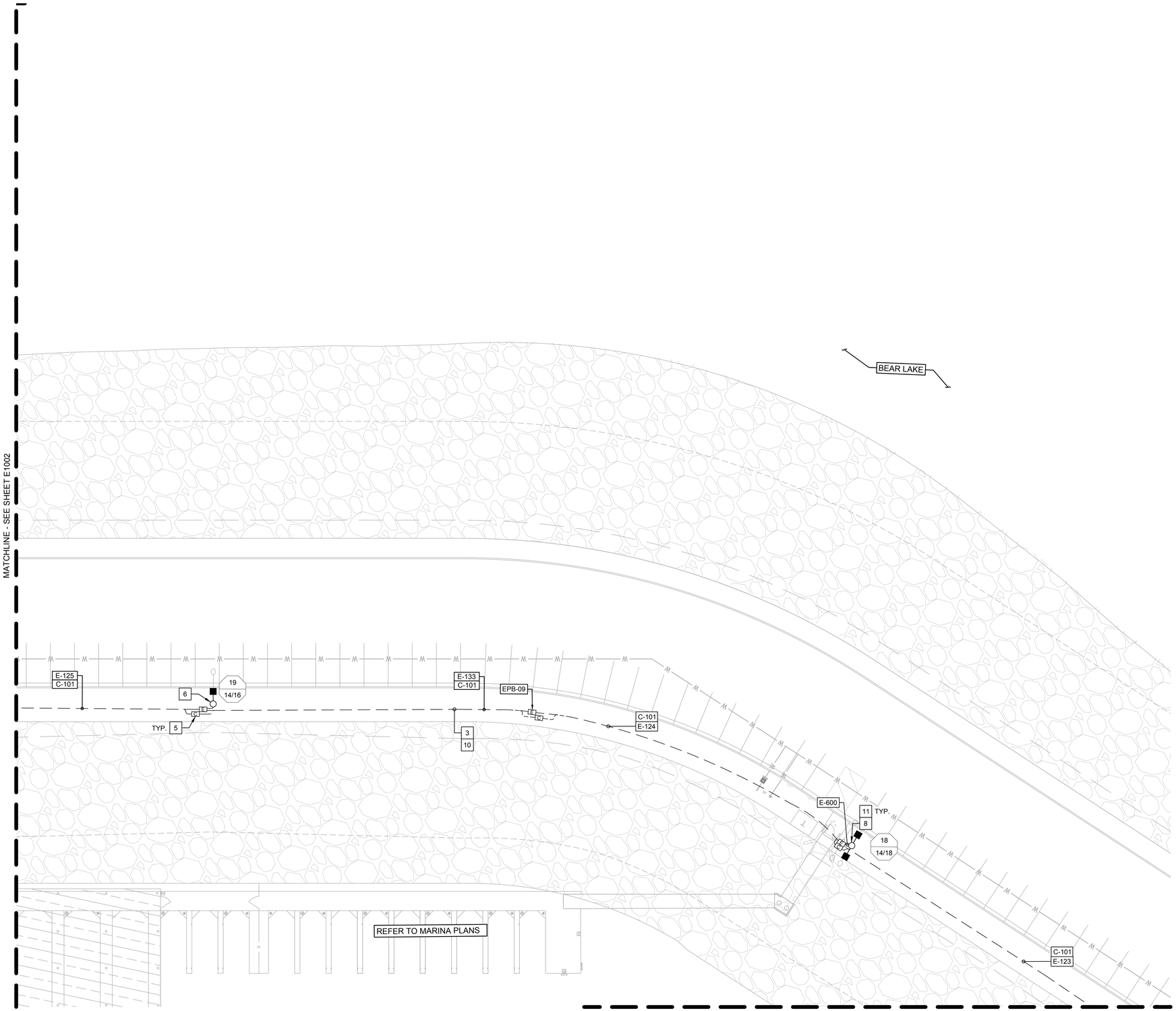
BEAR LAKE MARINA EXPANSION
DFCM PROJECT #23356510
RICH COUNTY, UT

DRAWN BY:	STS 7/29/2024
DESIGNED BY:	YSH 7/29/2024
CHECKED BY:	7/29/2024
PROJECT No.:	23356510 7/29/2024

SEAL

PREPARED UNDER THE DIRECTION SUPERVISION OF CHRIS PRICE, P.E. UTAH REGISTRATION NO. XXXXXX FOR AND ON BEHALF OF KIMLEY-HORN AND ASSOCIATES, INC.

SHEET
E1002



ELECTRICAL NOTES

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NORTH

GRAPHIC SCALE IN FEET
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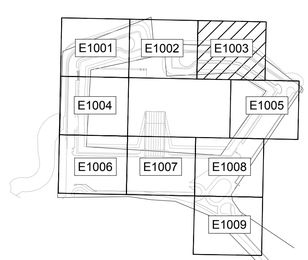


KEYMAP

	DATE	DESCRIPTION
1		

Kimley»Horn
111 East Broadway, Suite 600 | Salt Lake City, UT 84111 | Tel. No. (385) 212-3176

ELECTRICAL SITE LIGHTING PLAN

BEAR LAKE MARINA EXPANSION
DFCM PROJECT #23356510
RICH COUNTY, UT

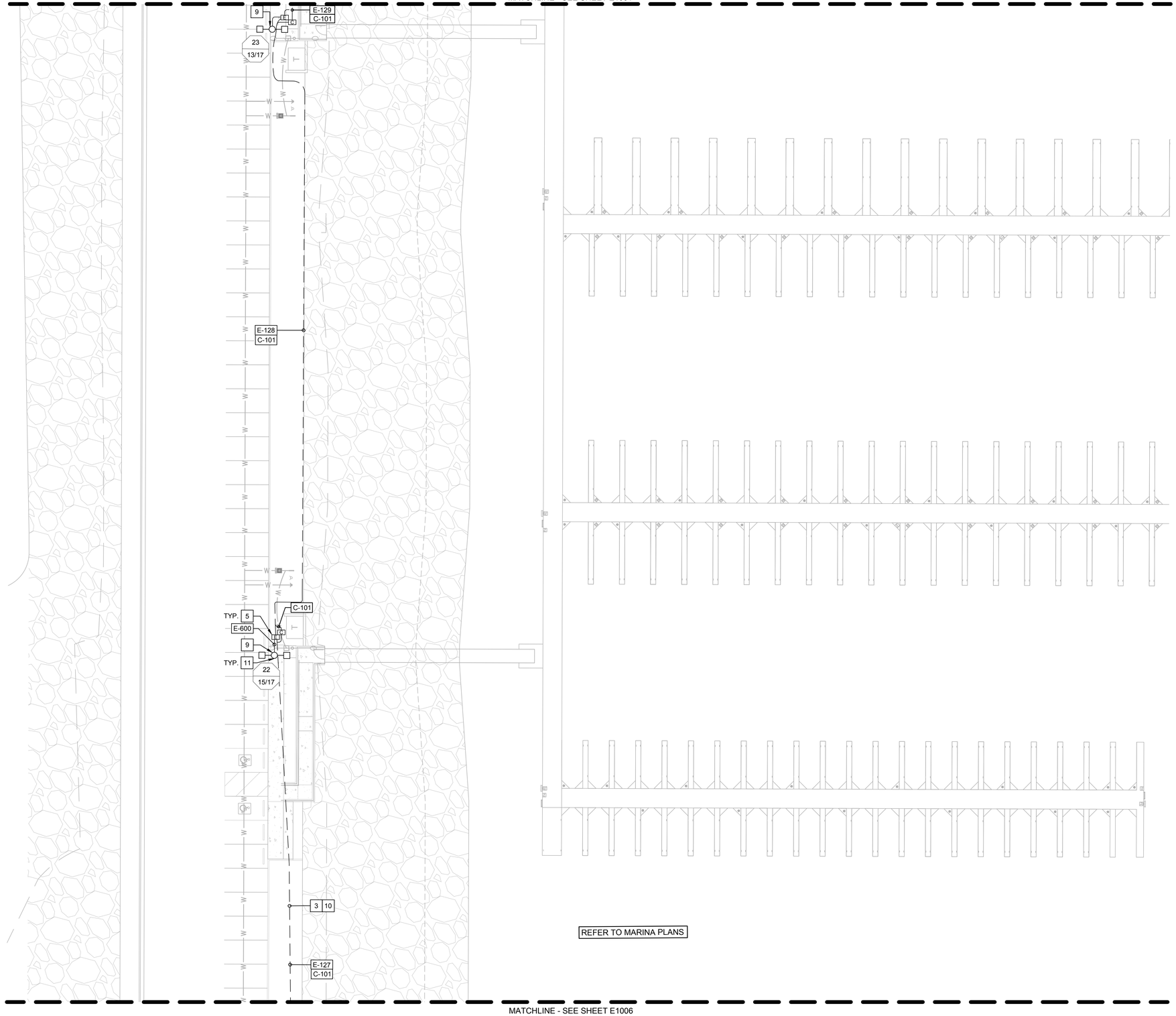
DRAWN BY: STS 7/29/2024
DESIGNED BY: YSH 7/29/2024
CHECKED BY: 7/29/2024
PROJECT No.: 23356510 7/29/2024

SEAL

PREPARED UNDER THE DIRECTION SUPERVISION OF CHRIS PRICE, P.E. UTAH REGISTRATION NO. XXXXXX FOR AND ON BEHALF OF KIMLEY-HORN AND ASSOCIATES, INC.

SHEET
E1003

MATCHLINE - SEE SHEET E1001



MATCHLINE - SEE SHEET E1006

ELECTRICAL NOTES

3 PROPOSED LOCATION OF ELECTRICAL CONDUIT TRENCH. REFER TO TRENCH DETAIL D ON SHEET E2000 FOR FURTHER INFORMATION.

5 PROVIDE PULLBOX PER DETAIL B ON SHEET E2000.

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11 INSTALL PULLBOX AND CONDUIT BY LIGHT POLE AS SHOWN ON SHEET E2000 DETAIL E AND F.

NORTH

GRAPHIC SCALE IN FEET
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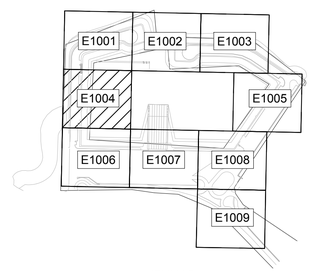

KEYMAP

DATE	DESCRIPTION

Kimley»Horn
111 East Broadway, Suite 600 | Salt Lake City, UT 84111 | Tel. No. (385) 212-3705

ELECTRICAL SITE LIGHTING PLAN

BEAR LAKE MARINA EXPANSION
DFCM PROJECT #23356510
RICH COUNTY, UT

DRAWN BY:	DESIGNED BY:	CHECKED BY:	PROJECT No.:
STS	YSH		23356510
7/29/2024	7/29/2024	7/29/2024	7/29/2024

SEAL

PREPARED UNDER THE DIRECTION SUPERVISION OF CHRIS PRICE, P.E. UTAH REGISTRATION NO. XXXXXX FOR AND ON BEHALF OF KIMLEY-HORN AND ASSOCIATES, INC.

SHEET
E1004

MATCHLINE - SEE SHEET E1003

REFER TO MARINA PLANS

E-123
C-101

6

17

16/18

YIELD

YIELD

TYP. 5

6

E-122
C-101

16

14/16

10

3

E-121
C-101

8

15

14/18

TYP. 11

E-120
C-101

C-101

C-101

E-120

EPB-06

MATCHLINE - SEE SHEET E1008

EXISITING MARINA

ELECTRICAL NOTES

3 PROPOSED LOCATION OF ELECTRICAL CONDUIT TRENCH. REFER TO TRENCH DETAIL D ON SHEET E2000 FOR FURTHER INFORMATION.

5 PROVIDE PULLBOX PER DETAIL B ON SHEET E2000.

6 PROVIDE AND INSTALL NEW PHOTOCELL CONTROLLED POLE-MOUNTED LIGHT FIXTURE MODEL RZR-PLED-III-M-80LED-700mA-30K-1 SINGLE-HEADED FIXTURE AND MOUNT TO NEW POLE AND FOUNDATION PER DETAIL A ON SHEET E2000.

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NORTH

GRAPHIC SCALE IN FEET
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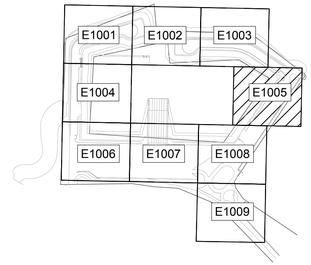

KEYMAP

	DATE	DESCRIPTION
1		

Kimley»Horn
111 East Broadway, Suite 600 | Salt Lake City, UT 84111 | Tel. No. (385) 212-3705

ELECTRICAL SITE LIGHTING PLAN

BEAR LAKE MARINA EXPANSION
DFCM PROJECT #23356510
RICH COUNTY, UT

DRAWN BY:	STS	7/29/2024
DESIGNED BY:	YSH	7/29/2024
CHECKED BY:		7/29/2024
PROJECT No.:	23356510	7/29/2024

SEAL

PREPARED UNDER THE DIRECTION SUPERVISION OF CHRIS PRICE, P.E. UTAH REGISTRATION NO. XXXXXX FOR AND ON BEHALF OF KIMLEY-HORN AND ASSOCIATES, INC.

SHEET
E1005

MATCHLINE - SEE SHEET E1004

REFER TO MARINA PLANS

TO UTILITY TRANSFORMER

E-100

1

UTILITY METER

C-100

2 PANEL 'L-1'

E-101
E-101A
E-101B
E-101C

EPB-01
C-101
E-103
E-101C

C-101

RESTROOMS AND CONCESSIONS BUILDING

E-102

6

1
19/21

E-127
C-101

6

21
13/15

E-123
C-101

5 (TYP.)
EPB-04

C-101

E-110
E-110A
C-101

E-111
C-101

6

7
14/16

E-600

E-112
C-101

6
C-101

8
16/18

E-113

11 (TYP.)

STOP

STOP

STOP

E-103
E-102A
C-101

3

E-102A

4

AUTOMATIC EXIT GATE #1

C-101

E-103

E-104

EPB-02

(TYP.) 11

7

2
21/23

4

E-102B

AUTOMATIC EXIT GATE #2

STOP

STOP

C-101
E-105

EPB-05

C-101
E-135

6

3
19/23

C-101
E-106

E-102C

AUTOMATIC EXIT GATE #3

4

REFER TO ROADWAY PLANS

HIGHWAY 89 (BEAR LAKE BOULEVARD)

MATCHLINE - SEE SHEET E1007

ELECTRICAL NOTES

1. SEE RESTROOM BUILDING PLAN SHEET E100-B FOR UTILITY POWER SERVICE INTERCONNECTION AND TRANSFORMER DETAILS.
2. SEE RESTROOM BUILDING PLAN SHEET E600-B FOR PANEL SCHEDULE AND ELECTRICAL EQUIPMENT INFORMATION.
3. PROPOSED LOCATION OF ELECTRICAL CONDUIT TRENCH. REFER TO TRENCH DETAIL D ON SHEET E2000 FOR FURTHER INFORMATION.
4. PROVIDE AND INSTALL A GATE MOUNTED 24" X 24" X 12" NEMA 3R ENCLOSURE FOR THE MOTOR CONTROLS AND GATE MOTOR. GATE SUPPLIER SHALL PROVIDE ALL REQUIRED CONTROLS, LOOP DETECTOR AND WIRING FOR CARD READER AND ELECTRIC GATE.
5. PROVIDE PULLBOX PER DETAIL B ON SHEET E2000.
6. PROVIDE AND INSTALL NEW PHOTOCELL CONTROLLED POLE-MOUNTED LIGHT FIXTURE MODEL RZR-PLED-III-M-80LED-700mA-30K-1 SINGLE-HEADED FIXTURE AND MOUNT TO NEW POLE AND FOUNDATION PER DETAIL A ON SHEET E2000.
7. PROVIDE AND INSTALL NEW PHOTOCELL CONTROLLED POLE-MOUNTED LIGHT FIXTURE MODEL RZR-PLED-IV-FT-80LED-700mA-30K-1 SINGLE-HEADED FIXTURE AND MOUNT TO NEW POLE AND FOUNDATION PER DETAIL A ON SHEET E2000.
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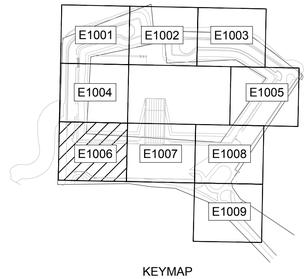
NORTH

GRAPHIC SCALE IN FEET
0 10 20 40



KEYMAP

NO.	DESCRIPTION	DATE
1		

Kimley»Horn
111 East Broadway, Suite 600 | Salt Lake City, UT 84111 | Tel. No. (385) 212-3276

ELECTRICAL SITE LIGHTING PLAN

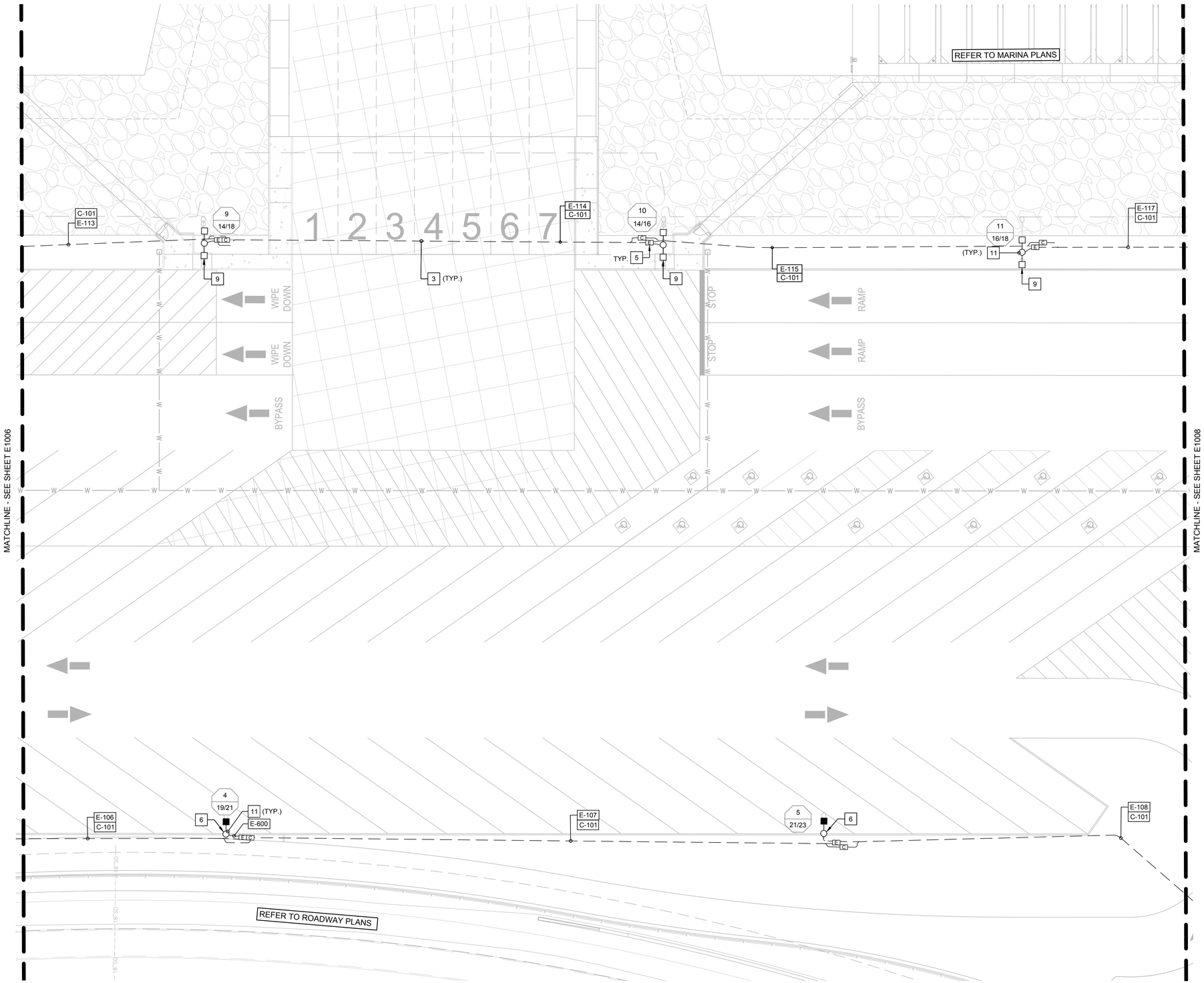
BEAR LAKE MARINA EXPANSION
DFCM PROJECT #23356510
RICH COUNTY, UT

DRAWN BY: STS 7/29/2024
DESIGNED BY: YSH 7/29/2024
CHECKED BY: 7/29/2024
PROJECT No.: 23356510 7/29/2024

SEAL

PREPARED UNDER THE DIRECTION SUPERVISION OF CHRIS PRICE, P.E. UTAH REGISTRATION NO. XXXXXX FOR AND ON BEHALF OF KIMLEY-HORN AND ASSOCIATES, INC.

SHEET
E1006



ELECTRICAL NOTES

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5 PROVIDE PULLBOX PER DETAIL B ON SHEET E2000.

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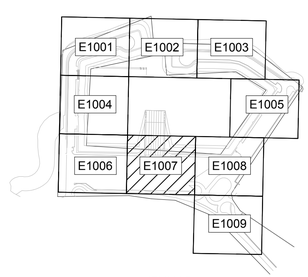
9 PROVIDE AND INSTALL NEW PHOTOCELL CONTROLLED POLE-MOUNTED LIGHT FIXTURE MODEL RZR-PLED-III-M-80LED-700mA-30K-2-180 DOUBLE-HEADED FIXTURE AND MOUNT TO NEW POLE AND FOUNDATION PER DETAIL A ON SHEET E2000.

11 INSTALL PULLBOX AND CONDUIT BY LIGHT POLE AS SHOWN ON SHEET E2000 DETAIL E AND F.

NORTH

GRAPHIC SCALE IN FEET
0 10 20 40



KEYMAP

DATE	DESCRIPTION

Kimley»Horn
111 East Broadway, Suite 600 | Salt Lake City, UT 84111 | Tel. No. (385) 212-3176

ELECTRICAL SITE LIGHTING PLAN

BEAR LAKE MARINA EXPANSION
DFCM PROJECT #23356510
RICH COUNTY, UT

DRAWN BY: STS	7/29/2024
DESIGNED BY: YSH	7/29/2024
CHECKED BY:	7/29/2024
PROJECT No.: 23356510	7/29/2024

SEAL

PREPARED UNDER THE DIRECTION SUPERVISION OF CHRIS PRICE, P.E. UTAH REGISTRATION NO. XXXXXX FOR AND ON BEHALF OF KIMLEY-HORN AND ASSOCIATES, INC.

SHEET
E1007

MATCHLINE - SEE SHEET E1007

MATCHLINE - SEE SHEET E1005

REFER TO MARINA PLANS

E-117
C-101

12
14/18

TYP. 11
6

E-600

E-118
C-101

C-101
E-119

3

5
6

13
14/16

8
TYP. 11
E-119

E-119A
C-101

14
16/18

RAMP

RAMP

BYPASS

NORTH MARINA

YIELD

EXISITING MARINA

HWY 89

E-108
C-101

SOUTH MARINA

MATCHLINE - SEE SHEET E1009

ELECTRICAL NOTES

3 PROPOSED LOCATION OF ELECTRICAL CONDUIT TRENCH. REFER TO TRENCH DETAIL D ON SHEET E2000 FOR FURTHER INFORMATION.

5 PROVIDE PULLBOX PER DETAIL B ON SHEET E2000.

6 PROVIDE AND INSTALL NEW PHOTOCELL CONTROLLED POLE-MOUNTED LIGHT FIXTURE MODEL RZR-PLED-III-M-80LED-700mA-30K-1 SINGLE-HEADED FIXTURE AND MOUNT TO NEW POLE AND FOUNDATION PER DETAIL A ON SHEET E2000.

8 PROVIDE AND INSTALL NEW PHOTOCELL CONTROLLED POLE-MOUNTED LIGHT FIXTURE MODEL RZR-PLED-VSQ-W-80LED-700mA-30K-2-180 DOUBLE-HEADED FIXTURE AND MOUNT TO NEW POLE AND FOUNDATION PER DETAIL A ON SHEET E2000.

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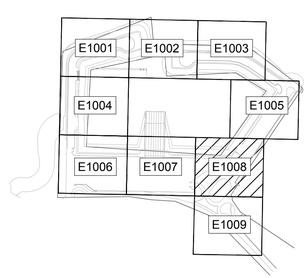
GRAPHIC SCALE IN FEET
0 10 20 40

KEYMAP



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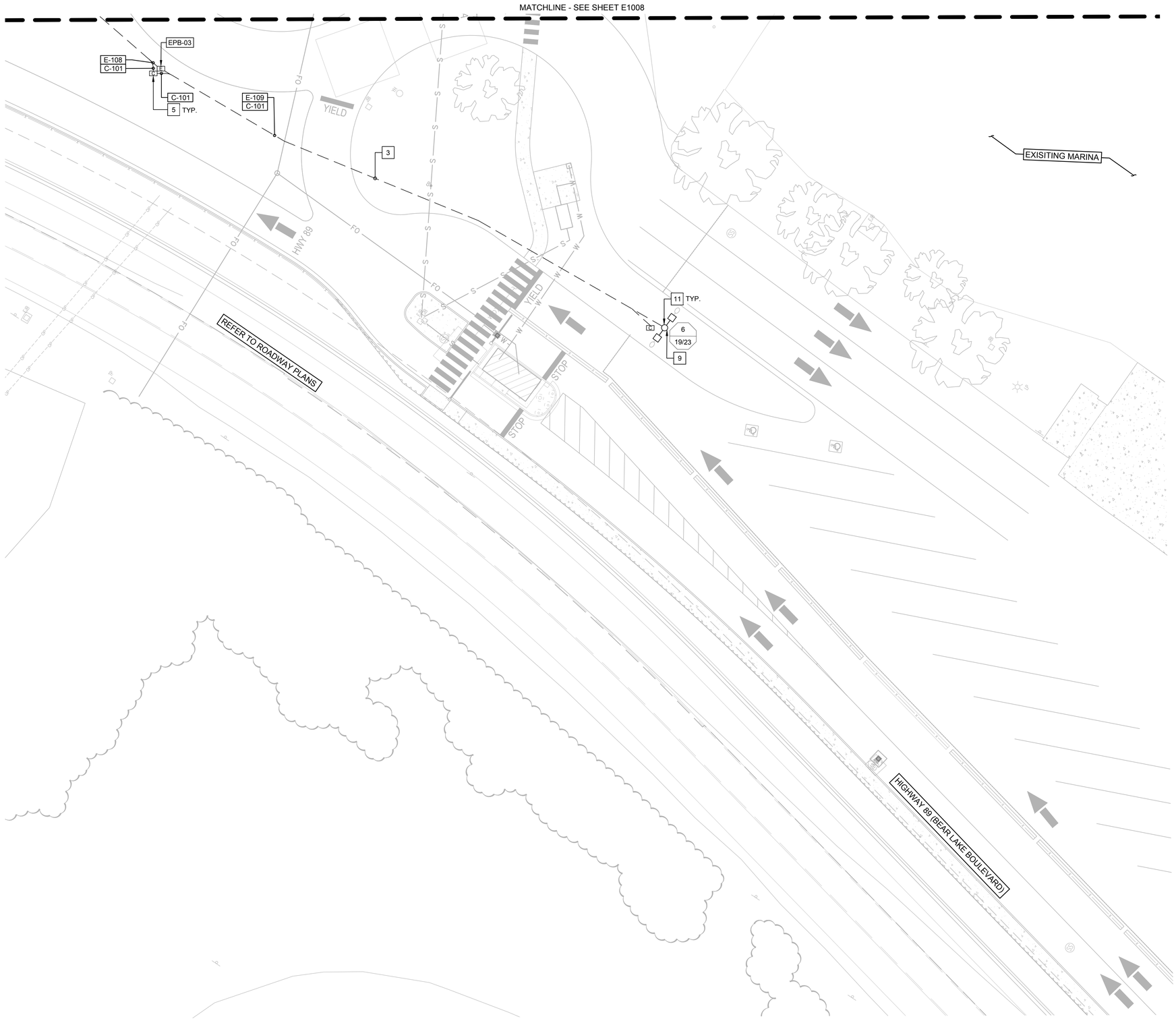
SHEET
E1008



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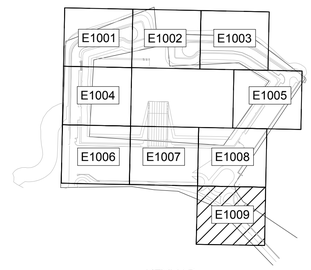

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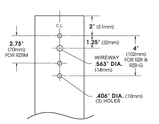
SHEET
E1009

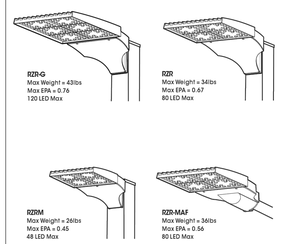
RZR SERIES - LED

SPECIFICATIONS

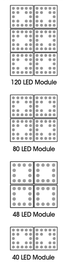
POLE DRILLING TEMPLATE



EPA & WEIGHT



PLED™ MODULES



ORDERING INFORMATION

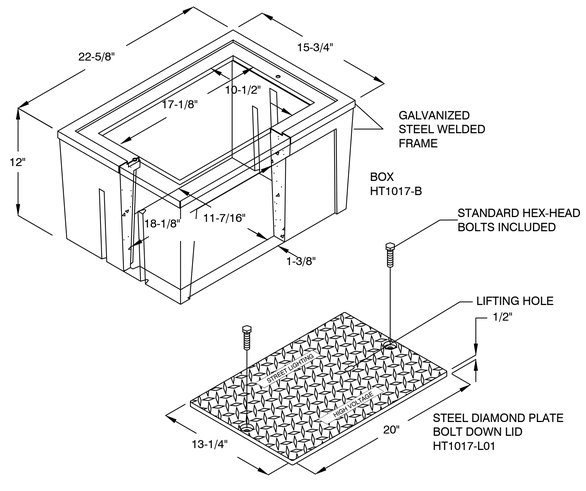
Spec/Order Example: RZR/PLED-IV/80LED-700mA/CW/277/RAL-8019-S

Luminaire	Optics	LED Mode	Voltage	Mounting	Finish	Options
Luminaire	**Optics**	**LED**	**Voltage**	**Mounting**	**Finish**	**Options**
☐ RZR-G	PLED™ Distribution Type ☐ Type II **PLED-II** ☐ Type II Front Row **PLED-II-FR** ☐ Type III Median Illuminator **PLED-II-MIL** ☐ Type III Med. **PLED-III** ☐ Type III Wide **PLED-III-W** ☐ Type IV **PLED-IV** ☐ Type IV **PLED-IV-FT** ☐ Type V Narrow **PLED-V5Q-N** ☐ Type V Med. **PLED-V-5Q-M** ☐ Type V Wide **PLED-V-5Q-W**	**RZR-G** # of LEDs: ☐ 120LED ☐ 80LED Drive Current: ☐ 1050mA[1] ☐ 875mA[1] ☐ 700mA[1] ☐ 525mA ☐ 350mA[2] Color Temp - CCT: ☐ 27K (2700K) ☐ 30K (3000K) ☐ 40K (4000K) ☐ 50K (5000K) ☐ TRA Trues Amber[3] Consult Factory for Other LED Color, CCT, & CRI Options **RZR / RZR-MAF** ☐ 80LED ☐ 40LED **RZRM** ☐ 48LED ☐ 24LED NOTES: 1 - 700mA, 875mA and 1050mA not for use with 70A LED's 2 - Available in 350mA & 525mA drive currents only Consult Factory for Other Drive Currents	☐ 120 ☐ 208 ☐ 240 ☐ 277 ☐ 347 ☐ 480	Arm Mount ☐ 1 ☐ 2-180 ☐ 2-90 ☐ 3-90 ☐ 3-120 ☐ 4-90 Wall Mount ☐ WM WM - Wall Mount provided with mounting bracket and cover.	Standard Textured Finish ☐ Black **RAL-9005-T** ☐ White **RAL-9003-T** ☐ Grey **RAL-7004-T** ☐ Dark Bronze **RAL-8019-T** ☐ Green **RAL-6005-T** Premium Finishes ☐ Rust ☐ Patina Copper **PC** For smooth finish replace suffix "T" with suffix "S" (Example: RAL-9003-S) Consult factor for custom colors	☐ Internal House Side Shield Inc. LED Count (Example: HS/R1D/48) **HS-PLED** ☐ External Glare Shield 4 Sided **EGS4** ☐ External Glare Shield 3 Sided Rear Wedge **EGS3W** ☐ Round Pole Adapter **RPA** ☐ Twist Lock Receptable Only **TPR** ☐ 7-Pin Twist Lock Receptable Only **TP07** ☐ High/Low Dimming for Switch by Others/Select Levels 50/100 or 25/100 (Example: HLSW/25) **HLSW** ☐ Twist Lock Photocell + Voltage (Example: TPC347V) **TPC+V** ☐ Photo Cell + Voltage (Example: PC120V) **PC+V** ☐ Single Fuse (120V, 277V) **SF** ☐ Double Fuse (208V, 240V) **DF** ☐ Blue-Tooth Programmable Photo/Motion Sensor (Factory - Motion 50/100, Photo 7fc) **MS-F311**

U.S. Pole Company Inc. An Employee Owned Company | 660 West Avenue O, Palmdale, CA 93551 Phone (661) 233-3000 www.uspltg.com | MADE IN THE USA | U.S. ARCHITECTURAL POLES LLC

A SITE LIGHTING CUTSHEET

N.T.S.



B HT1017-B TRAFFIC RATED PULLBOX

N.T.S

Point	Point Name	Source* Point	Source Amps	Conduit Type	Conductor Type	Wire Size/Quantity	Load (A)	Distance	Voltage	Phase	Isc	**% Vdrop
1	120 / 208 3ph 45	13879	13,879								13,879	
2	L1	1	13,879	NM	Copper	1 Set of 1	70.1	60	208	3	7,208	0.56%

OKT 14/16/18

* Point	Point Name	Source* Point	Source Amps	Conduit Type	Conductor Type	Wire Size/Quantity	Load (A)	Distance	Voltage	Phase	Isc	**% Vdrop
1	L1	7957	7,957								7,957	
2			#N/A	NM	Copper	Set of					#DIV/0!	#N/A
3	LGT. POLE 8	1	7,957	NM	Copper	1 Set of 4	6.274038	350	208	1	1,768	0.61%
4	LGT. POLE 9	3	1,768	NM	Copper	1 Set of 4	5.855769	200	208	1	1,224	0.94%
5	LGT. POLE 11	4	1,224	NM	Copper	1 Set of 4	5.019231	353	208	1	793	1.43%
6	LGT. POLE 12	5	793	NM	Copper	1 Set of 4	4.182692	160	208	1	684	1.62%
7	LGT. POLE 14	6	684	NM	Copper	1 Set of 4	3.764423	340	208	1	529	1.98%
8	LGT. POLE 15	7	529	NM	Copper	1 Set of 6	2.927885	240	208	1	423	2.27%
9	LGT. POLE 17	8	423	NM	Copper	1 Set of 6	2.091346	300	208	1	338	2.54%
10	LGT. POLE 18	9	338	NM	Copper	1 Set of 6	1.673077	160	208	1	305	2.65%
11	LGT. POLE 20	10	305	NM	Copper	1 Set of 6	0.836538	520	208	1	232	2.84%

OKT 13/15/17

* Point	Point Name	Source* Point	Source Amps	Conduit Type	Conductor Type	Wire Size/Quantity	Load (A)	Distance	Voltage	Phase	Isc	**% Vdrop
1	L1	7957	7,957								7,957	
2			#N/A	NM	Copper	Set of					#DIV/0!	#N/A
3	LGT. POLE 21	1	7,957	NM	Copper	1 Set of 10	2.509615	176	208	1	1,012	0.47%
4	LGT. POLE 22	3	1,012	NM	Copper	1 Set of 12	2.091346	210	208	1	381	1.19%
5	LGT. POLE 24	4	381	NM	Copper	1 Set of 12	1.254808	574	208	1	141	2.36%
6	LGT. POLE 25	5	141	NM	Copper	1 Set of 12	0.836538	326	208	1	104	2.81%

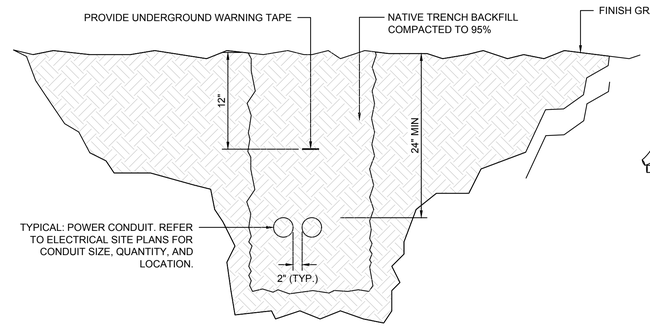
OKT 19/21/23

* Point	Point Name	Source* Point	Source Amps	Conduit Type	Conductor Type	Wire Size/Quantity	Load (A)	Distance	Voltage	Phase	Isc	**% Vdrop
1	L1	7957	7,957								7,957	
2			#N/A	NM	Copper	Set of					#DIV/0!	#N/A
3	LGT. POLE 1	1	7,957	NM	Copper	1 Set of 10	2.091346	110	208	1	1,504	0.24%
4	LGT. POLE 3	3	1,504	NM	Copper	1 Set of 12	1.673077	430	208	1	249	1.42%
5	LGT. POLE 4	4	249	NM	Copper	1 Set of 12	1.254808	260	208	1	166	1.95%
6	LGT. POLE 6	5	166	NM	Copper	1 Set of 12	0.836538	740	208	1	85	2.96%

*CONDUCTORS FROM THE BASE OF THE POLE TO THE LIGHT SHALL NOT BE LARGER THAN #10 AWG.

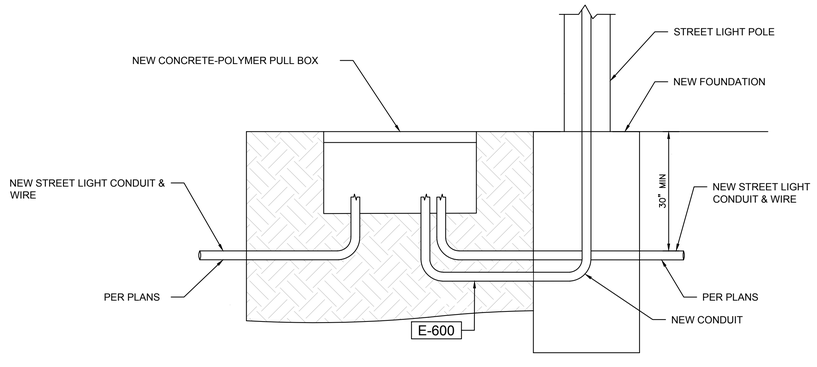
C VOLTAGE DROP CALCULATION

N.T.S.



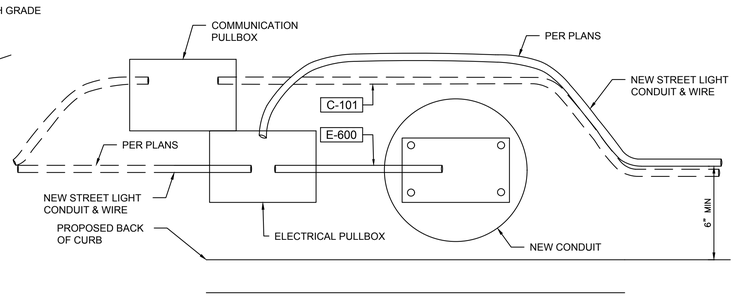
D SITE LIGHTING TRENCH DETAIL

N.T.S.



E ELECTRIC PULL BOX & CONDUIT DETAIL - GROUND VIEW

N.T.S



F ELECTRIC & COMMUNICATION PULL BOX DETAIL

N.T.S

	DATE	DESCRIPTION
1		

Kimley»Horn
111 East Broadway, Suite 600 | Salt Lake City, UT 84111 | Tel. No. (385) 212-3176

ELECTRICAL DETAILS I

BEAR LAKE MARINA EXPANSION
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RICH COUNTY, UT

DRAWN BY: STS 7/29/2024
DESIGNED BY: YSH 7/29/2024
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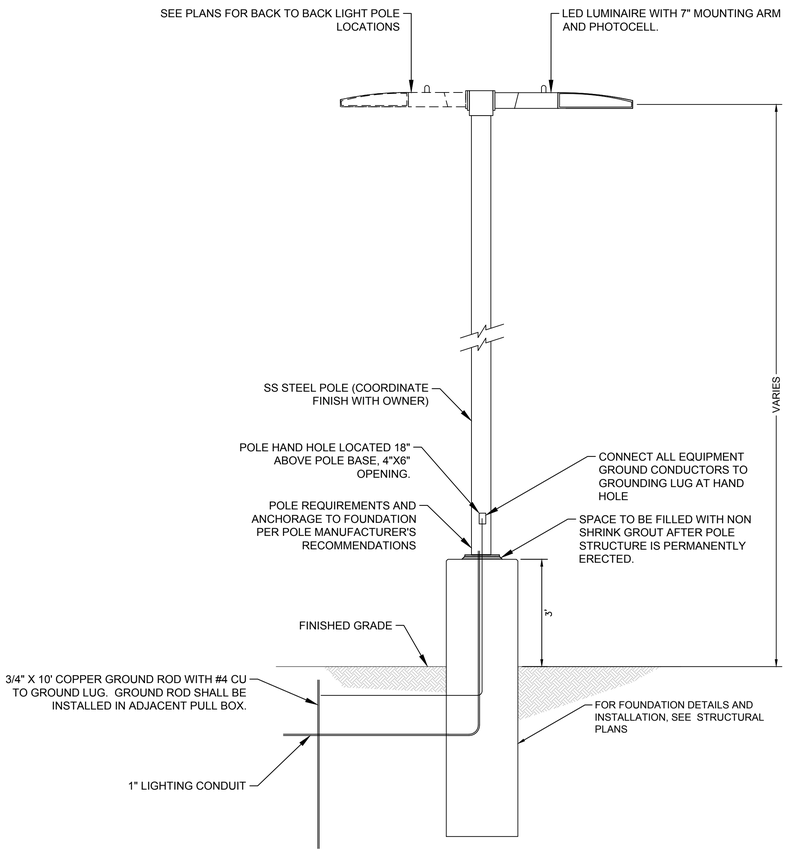
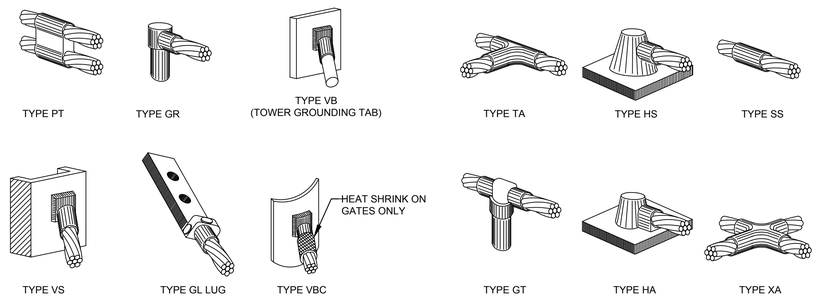
SHEET
E2000



A PARKING LOT LIGHT POLE DETAIL

N.T.S.



NOTES:

1. CADWELD "TYPES" SHOWN ABOVE ARE EXAMPLES. PROVIDE APPROPRIATE TYPES AS REQUIRED.

B TYPICAL CAD WELDS

N.T.S.

CONDUIT SCHEDULE

CONDUIT TAG	CONDUIT TYPE	CONDUIT SIZE	FROM	TO	CONDUCTOR (EACH CONDUIT)	COMMENTS
E-101	RGS/SCHED 40 UG	2"	PANEL 'L-1'	ELECTRICAL PULLBOX (EPB-01)	(3) #8 AWG + (1) #8 GND	SITE POWER DISTRIBUTION (CKT: 13/15/17)
E-101A	RGS/SCHED 40 UG	2"	PANEL 'L-1'	ELECTRICAL PULLBOX (EPB-01)	(3) #4 AWG + (1) #4 GND	SITE POWER DISTRIBUTION (CKT: 14/16/18)
E-101B	RGS/SCHED 40 UG	2"	PANEL 'L-1'	ELECTRICAL PULLBOX (EPB-01)	(3) #8 AWG + (1) #8 GND	SITE POWER DISTRIBUTION (CKT: 19/21/23)
E-101C	SCHED 40 UG	0.75"	PANEL 'L-1'	ELECTRICAL PULLBOX (EPB-01)	(6) #12 AWG + (1) #12 GND	POWER DISTRIBUTION TO AUTOMATIC EXIT GATE POWER (CKT: 25)
E-101D	SCHED 40 UG	0.75"	ELECTRICAL PULLBOX (EPB-01)	ELECTRICAL PULLBOX (EPB-02)	(4) #12 AWG + (1) #12 GND	POWER DISTRIBUTION TO AUTOMATIC EXIT GATE POWER
E-102	SCHED 40 UG	1"	ELECTRICAL PULLBOX (EPB-01)	LIGHT POLE #1 PULLBOX	(3) #10 AWG + (1) #10 GND	SINGLE-HEADED SITE LIGHT (CKT: 19/21)
E-102A	SCHED 40 UG	0.75"	ELECTRICAL PULLBOX (EPB-01)	AUTOMATIC EXIT GATE #1	(2) #12 AWG + (1) #12 GND	AUTOMATIC EXIT GATE POWER (CKT: 25)
E-102B	SCHED 40 UG	0.75"	ELECTRICAL PULLBOX (EPB-02)	AUTOMATIC EXIT GATE #2	(2) #12 AWG + (1) #12 GND	AUTOMATIC EXIT GATE POWER (CKT: 26)
E-102C	SCHED 40 UG	0.75"	ELECTRICAL PULLBOX (EPB-02)	AUTOMATIC EXIT GATE #3	(2) #12 AWG + (1) #12 GND	AUTOMATIC EXIT GATE POWER (CKT: 27)
E-103	SCHED 40 UG	1"	ELECTRICAL PULLBOX (EPB-01)	ELECTRICAL PULLBOX (EPB-02)	(3) #8 AWG + (1) #8 GND	POWER
E-104	SCHED 40 UG	1"	ELECTRICAL PULLBOX (EPB-02)	LIGHT POLE #2 PULLBOX	(3) #10 AWG + (1) #10 GND	SINGLE-HEADED SITE LIGHT (CKT: 21/23)
E-105	SCHED 40 UG	1"	ELECTRICAL PULLBOX (EPB-02)	ELECTRICAL PULLBOX (EPB-05)	(3) #12 AWG + (1) #12 GND	POWER
E-106	SCHED 40 UG	1"	LIGHT POLE #3 PULLBOX	LIGHT POLE #4 PULLBOX	(3) #12 AWG + (1) #12 GND	SINGLE-HEADED SITE LIGHT (CKT: 19/21)
E-107	SCHED 40 UG	1"	LIGHT POLE #4 PULLBOX	LIGHT POLE #5 PULLBOX	(3) #12 AWG + (1) #12 GND	DUAL-HEADED SITE LIGHT (CKT: 21/23)
E-108	SCHED 40 UG	1"	LIGHT POLE #5 PULLBOX	ELECTRICAL PULLBOX (EPB-03)	(3) #12 AWG + (1) #12 GND	POWER
E-109	SCHED 40 UG	1"	ELECTRICAL PULLBOX (EPB-03)	LIGHT POLE #6 PULLBOX	(3) #12 AWG + (1) #12 GND	DUAL-HEADED SITE LIGHT (CKT: 19/23)
E-110	SCHED 40 UG	1.25"	ELECTRICAL PULLBOX (EPB-01)	ELECTRICAL PULLBOX (EPB-04)	(3) #4 AWG + (1) #4 GND	POWER (CKT: 14/16/18)
E-110A	SCHED 40 UG	1"	ELECTRICAL PULLBOX (EPB-01)	ELECTRICAL PULLBOX (EPB-04)	(3) #10 AWG + (1) #10 GND	POWER (CKT: 13/15/17)
E-111	SCHED 40 UG	1.25"	ELECTRICAL PULLBOX (EPB-04)	LIGHT POLE #7 PULLBOX	(3) #4 AWG + (1) #4 GND	SINGLE-HEADED SITE LIGHT (CKT: 14/16)
E-112	SCHED 40 UG	1.25"	LIGHT POLE #7 PULLBOX	LIGHT POLE #8 PULLBOX	(3) #4 AWG + (1) #4 GND	SINGLE-HEADED SITE LIGHT (CKT: 16/18)
E-113	SCHED 40 UG	1.25"	LIGHT POLE #8 PULLBOX	LIGHT POLE #9 PULLBOX	(3) #4 AWG + (1) #4 GND	DUAL-HEADED SITE LIGHT (CKT: 14/18)
E-114	SCHED 40 UG	1.25"	LIGHT POLE #9 PULLBOX	LIGHT POLE #10 PULLBOX	(3) #4 AWG + (1) #4 GND	DUAL-HEADED SITE LIGHT (CKT: 14/16)
E-115	SCHED 40 UG	1"	LIGHT POLE #10 PULLBOX	LIGHT POLE #11 PULLBOX	(3) #8 AWG + (1) #8 GND	DUAL-HEADED SITE LIGHT (CKT: 16/18)
E-116	NOT USED					
E-117	SCHED 40 UG	1.25"	LIGHT POLE #11 PULLBOX	LIGHT POLE #12 PULLBOX	(3) #4 AWG + (1) #4 GND	SINGLE-HEADED SITE LIGHT (CKT: 14/18)
E-118	SCHED 40 UG	1.25"	LIGHT POLE #12 PULLBOX	LIGHT POLE #13 PULLBOX	(3) #4 AWG + (1) #4 GND	SINGLE-HEADED SITE LIGHT (CKT: 14/16)
E-119	SCHED 40 UG	1.25"	LIGHT POLE #13 PULLBOX	LIGHT POLE #14 PULLBOX	(3) #4 AWG + (1) #4 GND	DUAL-HEADED SITE LIGHT (CKT: 16/18)
E-119A	SCHED 40 UG	1"	LIGHT POLE #14 PULLBOX	ELECTRICAL PULLBOX (EPB-06)	(3) #6 AWG + (1) #6 GND	POWER
E-120	SCHED 40 UG	1"	ELECTRICAL PULLBOX (EPB-06)	LIGHT POLE #15 PULLBOX	(3) #6 AWG + (1) #6 GND	DUAL-HEADED SITE LIGHT (CKT: 14/18)
E-121	SCHED 40 UG	1"	LIGHT POLE #15 PULLBOX	LIGHT POLE #16 PULLBOX	(3) #6 AWG + (1) #6 GND	SINGLE-HEADED SITE LIGHT (CKT: 14/16)
E-122	SCHED 40 UG	1"	LIGHT POLE #16 PULLBOX	LIGHT POLE #17 PULLBOX	(3) #6 AWG + (1) #6 GND	SINGLE-HEADED SITE LIGHT (CKT: 16/18)
E-123	SCHED 40 UG	1"	LIGHT POLE #17 PULLBOX	LIGHT POLE #18 PULLBOX	(3) #6 AWG + (1) #6 GND	DUAL-HEADED SITE LIGHT (CKT: 14/18)
E-124	SCHED 40 UG	1"	LIGHT POLE #18 PULLBOX	ELECTRICAL PULLBOX (EPB-09)	(3) #6 AWG + (1) #6 GND	POWER
E-125	SCHED 40 UG	1"	LIGHT POLE #19 PULLBOX	ELECTRICAL PULLBOX (EPB-10)	(3) #6 AWG + (1) #6 GND	POWER
E-126	SCHED 40 UG	1"	ELECTRICAL PULLBOX (EPB-04)	LIGHT POLE #21 PULLBOX	(3) #10 AWG + (1) #10 GND	SINGLE-HEADED SITE LIGHT (CKT: 13/15)
E-127	SCHED 40 UG	1"	LIGHT POLE #21 PULLBOX	LIGHT POLE #22 PULLBOX	(3) #10 AWG + (1) #10 GND	DUAL-HEADED SITE LIGHT (CKT: 15/17)
E-128	SCHED 40 UG	1"	LIGHT POLE #22 PULLBOX	LIGHT POLE #23 PULLBOX	(3) #10 AWG + (1) #10 GND	DUAL-HEADED SITE LIGHT (CKT: 13/17)
E-129	SCHED 40 UG	1"	LIGHT POLE #23 PULLBOX	ELECTRICAL PULLBOX (EPB-07)	(3) #12 AWG + (1) #12 GND	POWER
E-130	SCHED 40 UG	1"	LIGHT POLE #24 PULLBOX	ELECTRICAL PULLBOX (EPB-08)	(3) #12 AWG + (1) #12 GND	POWER
E-131	SCHED 40 UG	1"	ELECTRICAL PULLBOX (EPB-07)	LIGHT POLE #24 PULLBOX	(3) #12 AWG + (1) #12 GND	SINGLE-HEADED SITE LIGHT (CKT: 13/15)
E-132	SCHED 40 UG	1"	ELECTRICAL PULLBOX (EPB-08)	LIGHT POLE #25 PULLBOX	(3) #12 AWG + (1) #12 GND	DUAL-HEADED SITE LIGHT (CKT: 15/17)
E-133	SCHED 40 UG	1"	ELECTRICAL PULLBOX (EPB-09)	LIGHT POLE #19 PULLBOX	(3) #6 AWG + (1) #6 GND	SINGLE-HEADED SITE LIGHT (CKT: 14/16)
E-134	SCHED 40 UG	1"	ELECTRICAL PULLBOX (EPB-10)	LIGHT POLE #20 PULLBOX	(3) #6 AWG + (1) #6 GND	DUAL-HEADED SITE LIGHT (CKT: 16/18)
E-135	SCHED 40 UG	1"	ELECTRICAL PULLBOX (EPB-05)	LIGHT POLE #3 PULLBOX	(3) #12 AWG + (1) #12 GND	SINGLE-HEADED SITE LIGHT (CKT: 19/23)
E-600	SCHED 40 UG	1"	ELECTRICAL PULLBOX	LIGHT POLE	(2) #12 AWG + (1) #12 GND	TYPICAL OF ALL PARKING LIGHT POLES

CONDUIT TAG	CONDUIT TYPE	CONDUIT SIZE	FROM	TO	CONDUCTOR (EACH CONDUIT)	COMMENTS
C-100	RGS/SCHED 40 AG	1.5"	JUNCTION BOX	COMMUNICATION PULLBOX	MULE TAPE	MULE TAPE
C-101	SCHED 40 UG	1.5"	COMMUNICATION PULLBOX	COMMUNICATION PULLBOX	MULE TAPE	MULE TAPE

C CONDUIT AND CONDUCTOR SCHEDULE

N.T.S.

NO.	DESCRIPTION	DATE
1		

Kimley»Horn
111 East Broadway, Suite 600 | Salt Lake City, UT 84111 | Tel. No. (385) 212-3176

ELECTRICAL DETAILS II

BEAR LAKE MARINA EXPANSION
DFCM PROJECT #23356510
RICH COUNTY, UT

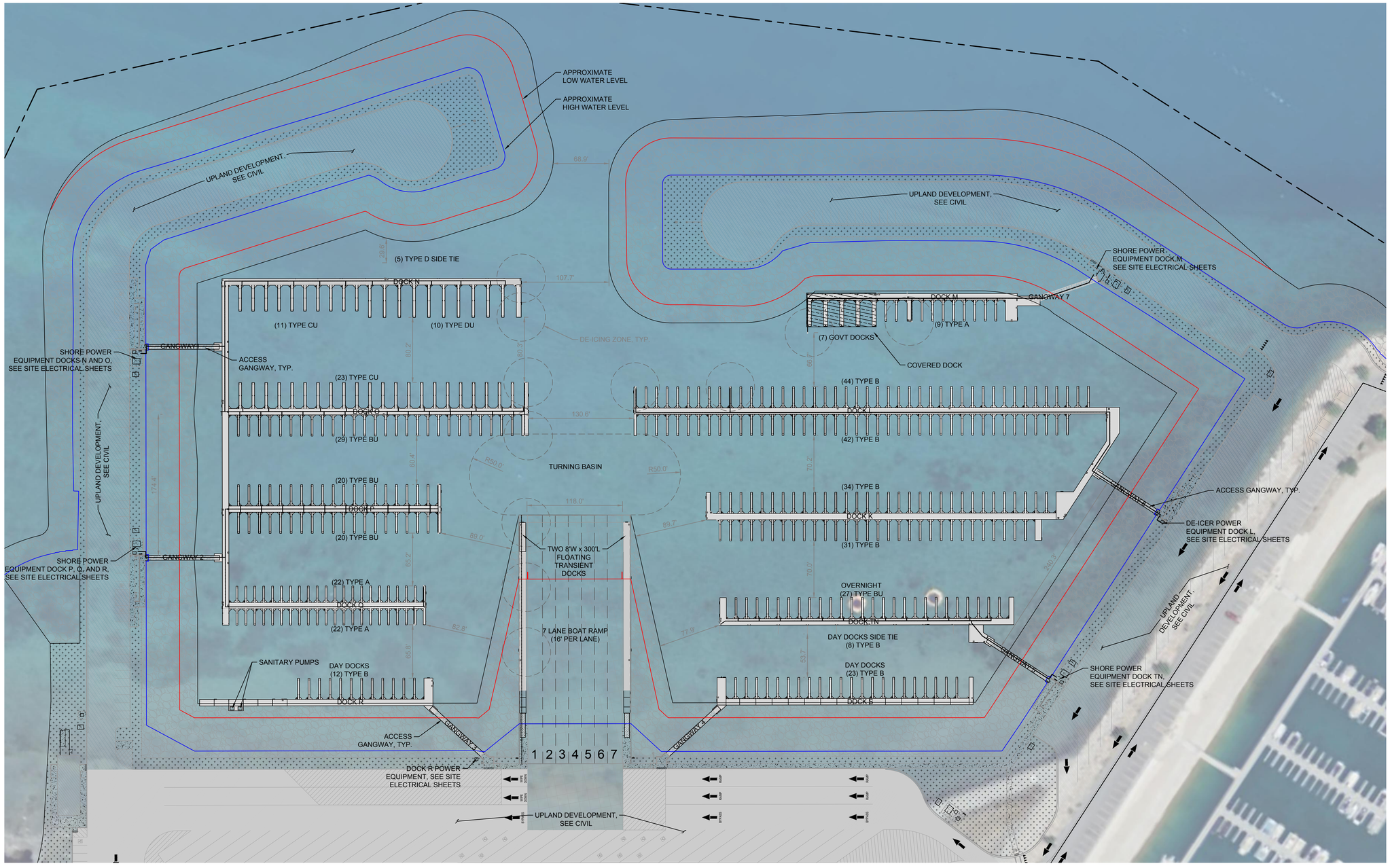
DRAWN BY: STS	DESIGNED BY: YSH	CHECKED BY:
7/29/2024	7/29/2024	7/29/2024

PROJECT No: 23356510 — 7/29/2024

SEAL

PREPARED UNDER THE DIRECTION SUPERVISION OF CHRIS PRICE, P.E. UTAH REGISTRATION NO. XXXXXXX FOR AND ON BEHALF OF KIMLEY-HORN AND ASSOCIATES, INC.

SHEET
E2001



A M6100 MARINA - OVERALL ELECTRICAL PLAN

SCALE: 1" = 60'-0"

NORTH

GRAPHIC SCALE IN FEET
0 30 60 120

	DATE	DESCRIPTION
1		

Kimley»Horn
111 East Broadway, Suite 600 | Salt Lake City, UT 84111 | Tel. No. (385) 212-3176

MARINA
OVERALL ELECTRICAL PLAN

BEAR LAKE MARINA EXPANSION
DFCM PROJECT #23356510
GARDEN CITY, UT

DRAWN BY:	DESIGNED BY:	CHECKED BY:	PROJECT No.:
AG	AG	CL	23356510
7/26/2024	7/26/2024	7/26/2024	7/26/2024

SEAL

####

PREPARED UNDER THE DIRECTION SUPERVISION OF J-CASEY LONG, P.E. UTAH REGISTRATION NO. 13378404-2202 FOR AND ON BEHALF OF KIMLEY-HORN AND ASSOCIATES, INC.

SHEET
M6100

LEGEND

P3 HARBOR LIGHT
SIDE 1: 30A 125V - 20A 125V GFCI, ¾" WATER
SIDE 2: 30A 125V - 20A 125V GFCI, ¾" WATER

P4 HARBOR LIGHT
SIDE 1: 30A 125V - 20A 125V GFCI, ¾" WATER
SIDE 2: BLANK

P5 MARINA MATE SS
SIDE 1: 30A 125V - GFCI
SIDE 2: EXTRA BREAKER FOR DE-ICING GEAR

P6 HARBOR LIGHT
SIDE 1: 30A 125V - 20A 125V GFCI - 50A 125/250V, ¾" WATER
SIDE 2: 30A 125V - 20A 125V GFCI - 50A 125/250V, ¾" WATER

P7 HARBOR LIGHT
SIDE 1: 30A 125V - 20A 125V GFCI - 50A 125/250V, ¾" WATER
SIDE 2: BLANK

F FIRE STATION
24" LIFE RING
10-LB TYPE ABC EXTINGUISHER

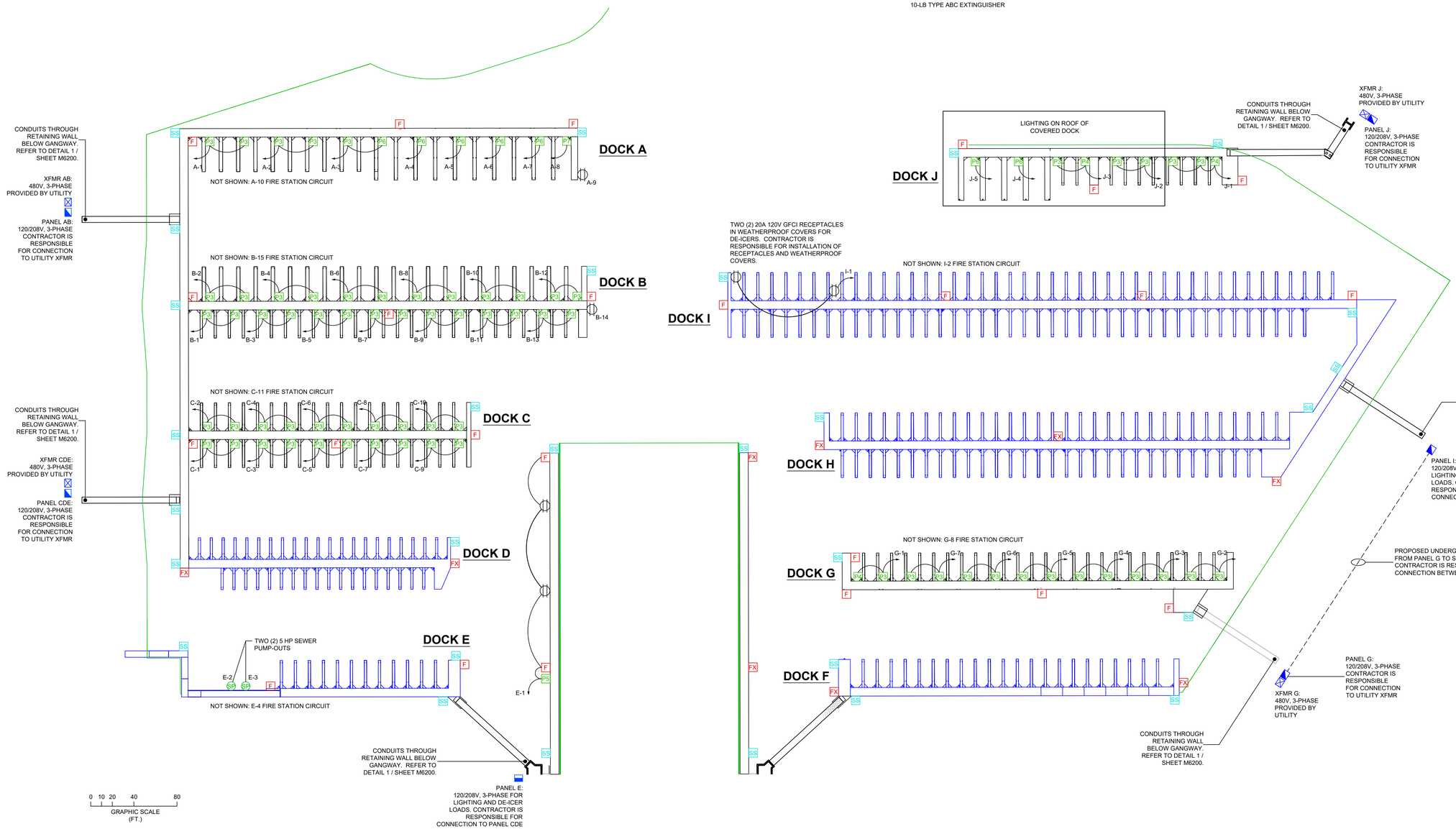
FX FIRE STATION - CABINET ONLY / NO ELECTRICAL
24" LIFE RING
10-LB TYPE ABC EXTINGUISHER

PANELBOARD

DISCONNECT
(ECB OR FUSIBLE)

UTILITY TRANSFORMER

SS SAFETY SIGNAGE PER NEC 555.25 & 110.21(B)(1). SHALL COMPLY WITH ANSI Z535.4-2011 PRODUCT SAFETY SIGNS AND LABELS. LOCATE AND MOUNT PER PROJECT MANAGER AND / OR DOCKMASTER PERSONNEL. REFER TO DETAIL 2 / SHEET E-2.



ALL PANELS AND EQUIPMENT LOCATIONS SHOWN ARE APPROXIMATE. VERIFY WITH PROJECT MANAGER AND ENGINEER OF RECORD REGARDING FINAL LOCATION PRIOR TO INSTALLATION.

Date: 7/12/2024 1:34 PM
User: CHRISD
Path: C:\USERS\CHRISD\DESKTOP\BEAR LAKE - K-H BORDER 7-12-24 CHECK SET.DWG

NO.	DATE	DESCRIPTION
1		

Marina Electrical Equipment, Inc.
1715 Merrimac Trail - Williamsburg, VA 23185
(757) 258-3939 - www.marinaec.com

Kimley»Horn
111 East Broadway, Suite 600 | Salt Lake City, UT 84111 | Tel. No. (801) 212-3176

MARINA
ELECTRICAL SITE PLAN

BEAR LAKE MARINA EXPANSION
DFCM PROJECT #23356510
GARDEN CITY, UT

DRAWN BY:	AG	7/12/2024
DESIGNED BY:	AG	7/12/2024
CHECKED BY:	CL	7/12/2024
PROJECT No.:	23356510	7/12/2024

SEAL

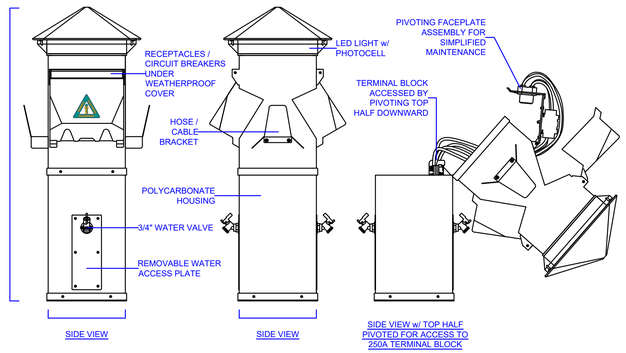
####

PREPARED UNDER THE DIRECTION SUPERVISION OF J-CASEY LONG, P.E. UT-H REGISTRATION NO. 13378404-2202 FOR AND ON BEHALF OF KIMLEY-HORN AND ASSOCIATES, INC.

SHEET
M6101

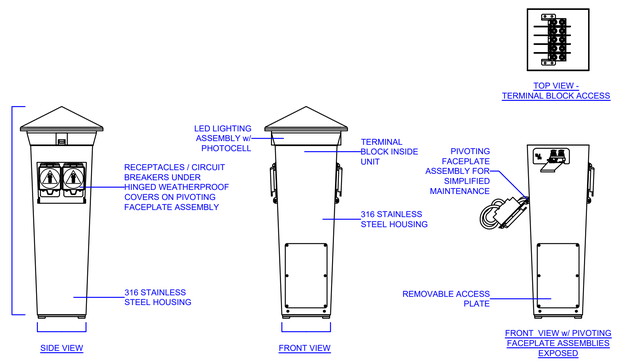
PROPOSED POWER PEDESTAL - HARBOR LIGHT BY MARINA ELECTRICAL EQUIPMENT (# HL30100) OR APPROVED EQUAL

P3 P4 P6 P7



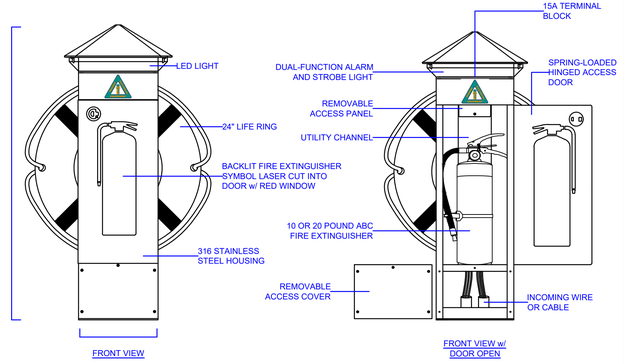
PROPOSED POWER PEDESTAL - MARINA MATE SS BY MARINA ELECTRICAL EQUIPMENT (# MMSS2050) OR APPROVED EQUAL

P5



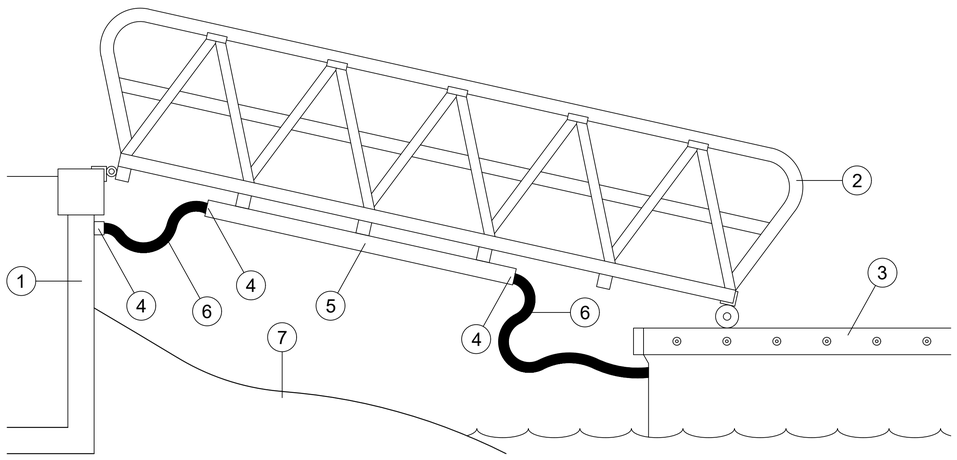
PROPOSED POWER PEDESTAL - FIRE STATION BY MARINA ELECTRICAL EQUIPMENT (# FS1020) OR APPROVED EQUAL

F FX



DETAIL:	1
SHEET:	M6200

TYPICAL GANGWAY ELECTRICAL FLEX CONNECTION



NOT TO SCALE

1. RETAINING WALL
2. GANGWAY
3. FLOATING DOCK
4. PVC END BELL FITTING
5. SCHEDULE 40 PVC SLEEVE ATTACHED TO UNDERSIDE OF GANGWAY
6. MULTI-CONDUCTOR TYPE "G" OR SINGLE-CONDUCTOR TYPE "W" CABLE - REFER TO PANEL SCHEDULES. PROVIDE SLACK AT TOP AND BOTTOM OF GANGWAY FOR HIGH AND LOW TIDES.
7. SLOPED BANK

DETAIL:	2
SHEET:	M6200

SAFETY SIGNAGE

SAFETY SIGNAGE SHALL BE INSTALLED PER 555.10 "SIGNAGE" OF THE 2020 NATIONAL ELECTRICAL CODE.

CONTRACTOR SHALL SUBMIT POST AND MOUNTING METHOD FOR REVIEW AND APPROVAL.

NO.	DATE	DESCRIPTION
1		

Marina Electrical Equipment, Inc.
1715 Merrimac Trail - Williamsburg, VA 23185
(855) 256-3838 - www.marinaec.com

Kimley»Horn
111 East Broadway, Suite 600 | Salt Lake City, UT 84111 | Tel. No. (801) 228-2170

MARINA ELECTRICAL DETAILS

BEAR LAKE MARINA EXPANSION
DFCM PROJECT #23356510
GARDEN CITY, UT

DRAWN BY:	AG	7/12/2024
DESIGNED BY:	AG	7/12/2024
CHECKED BY:	CL	7/12/2024
PROJECT No.:	23356510	7/12/2024

SEAL

####

PREPARED UNDER THE DIRECTION SUPERVISION OF J.CASEY LONG, P.E. (STATE) REGISTRATION NO. 13378404-2202 FOR AND ON BEHALF OF KIMLEY-HORN AND ASSOCIATES, INC.

SHEET
M6200

Panel: AB

Circuit ID	Phase	Phase Adj	Voltage	Receptacles: 20A GFCI, 125V	Receptacles: 30A, 125V	Receptacles: 50A, 125/250V	Receptacles: 100A 1Ø, 125/250V	Receptacles: 100A 3Ø, 120/208Y	Total Line Current	Total Line kW	Total Rec.	Demand Factors: Rec.	Demand Factors: Meter	Power Factor	Dem. Current	Dem. kW	CB Size	CB Poles	Cable: Cable Type	Cable: Circuit Length	Cable: Resist.	Cable: Size	Cable: Qty. Cond.	Cable: EGC	Cable: GEC	Cable: Phase Adj.	Cable: VD	Cable: VD%
A -1	1	2	120 / 208		4				60.00	7.20	4	100%	90%	1	54.00	12.96	60	2	G-GC	275	0.1900	#2	3	Incl.	-	2	5.64	2.71%
A -2	1	2	120 / 208		4				60.00	7.20	4	100%	90%	1	54.00	12.96	60	2	G-GC	340	0.1500	#1	3	Incl.	-	2	5.51	2.65%
A -3	1	2	120 / 208		2	2			130.00	15.60	4	100%	90%	1	117.00	28.08	125	2	G-GC	400	0.0620	#4/0	3	Incl.	-	2	5.80	2.79%
A -4	1	2	120 / 208			2			100.00	12.00	2	100%	90%	1	90.00	21.60	100	2	G-GC	435	0.0770	#3/0	3	Incl.	-	2	6.03	2.90%
A -5	1	2	120 / 208			2			100.00	12.00	2	100%	90%	1	90.00	21.60	100	2	G-GC	475	0.0620	#4/0	3	Incl.	-	2	5.30	2.55%
A -6	1	2	120 / 208			2			100.00	12.00	2	100%	90%	1	90.00	21.60	100	2	G-GC	510	0.0620	#4/0	3	Incl.	-	2	5.69	2.74%
A -7	1	2	120 / 208			2			100.00	12.00	2	100%	90%	1	90.00	21.60	100	2	G-GC	545	0.0620	#4/0	3	Incl.	-	2	6.08	2.92%
A -8	1	2	120 / 208			1			50.00	6.00	1	100%	90%	1	45.00	10.80	50	2	G-GC	575	0.1200	#1/0	3	Incl.	-	2	6.21	2.99%
B -1	1	2	120 / 208		4				60.00	7.20	4	100%	90%	1	54.00	12.96	60	2	G-GC	270	0.1900	#2	3	Incl.	-	2	5.54	2.66%
B -2	1	2	120 / 208		4				60.00	7.20	4	100%	90%	1	54.00	12.96	60	2	G-GC	270	0.1900	#2	3	Incl.	-	2	5.54	2.66%
B -3	1	2	120 / 208		4				60.00	7.20	4	100%	90%	1	54.00	12.96	60	2	G-GC	320	0.1500	#1	3	Incl.	-	2	5.18	2.49%
B -4	1	2	120 / 208		4				60.00	7.20	4	100%	90%	1	54.00	12.96	60	2	G-GC	335	0.1500	#1	3	Incl.	-	2	5.43	2.61%
B -5	1	2	120 / 208		4				60.00	7.20	4	100%	90%	1	54.00	12.96	60	2	G-GC	375	0.1500	#1	3	Incl.	-	2	6.08	2.92%
B -6	1	2	120 / 208		4				60.00	7.20	4	100%	90%	1	54.00	12.96	60	2	G-GC	400	0.1200	#1/0	3	Incl.	-	2	5.18	2.49%
B -7	1	2	120 / 208		4				60.00	7.20	4	100%	90%	1	54.00	12.96	60	2	G-GC	425	0.1200	#1/0	3	Incl.	-	2	5.51	2.65%
B -8	1	2	120 / 208		4				60.00	7.20	4	100%	90%	1	54.00	12.96	60	2	G-GC	460	0.1200	#1/0	3	Incl.	-	2	5.96	2.87%
B -9	1	2	120 / 208		4				60.00	7.20	4	100%	90%	1	54.00	12.96	60	2	G-GC	475	0.1200	#1/0	3	Incl.	-	2	6.16	2.96%
B -10	1	2	120 / 208		4				60.00	7.20	4	100%	90%	1	54.00	12.96	60	2	G-GC	525	0.1000	#2/0	3	Incl.	-	2	5.67	2.73%
B -11	1	2	120 / 208		4				60.00	7.20	4	100%	90%	1	54.00	12.96	60	2	G-GC	530	0.1000	#2/0	3	Incl.	-	2	5.72	2.75%
B -12	1	2	120 / 208		4				60.00	7.20	4	100%	90%	1	54.00	12.96	60	2	G-GC	580	0.0770	#3/0	3	Incl.	-	2	4.82	2.32%
B -13	1	2	120 / 208		4				60.00	7.20	4	100%	90%	1	54.00	12.96	60	2	G-GC	580	0.0770	#3/0	3	Incl.	-	2	4.82	2.32%
A -9	1	1	120 / 120	1					1.50	0.18	1	100%	100%	1	1.50	0.18	20	1	SOOW	625	1.2000	#10	3	Incl.	-	2	2.25	1.88%
A -10	1	1	120 / 120	Fire Station Circuit Dock A					0.33	0.04	0	100%	100%	1	0.33	0.04	20	1	SOOW	575	2.0000	#12	3	Incl.	-	2	0.75	0.62%
B -14	1	1	120 / 120	1					1.50	0.18	1	100%	100%	1	1.50	0.18	20	1	SOOW	600	1.2000	#10	3	Incl.	-	2	2.16	1.80%
B -15	1	1	120 / 120	Fire Station Circuit Dock B					0.33	0.04	0	100%	100%	1	0.33	0.04	20	1	SOOW	590	2.0000	#12	3	Incl.	-	2	0.77	0.64%
Panel	3	3	120 / 208	0	62	11	0	0	SEE PANEL SCHEDULE BELOW										THWN	10	0.0385	Two (2) #3/0	4	(2) #2	#2	1.732	0.18	0.09%
Feeder	3	3	480	0	62	11	0	0	SEE DISCONNECT SCHEDULE BELOW										UTILITY LOCATION NOT KNOWN									

TOTAL PHASE BALANCE

AØ kW	BØ kW	CØ kW
117.78	114.08	123.78

Total Connected kW:	355.64		Demand kW:	96.02	SPD Protection (kA/Phase):	130 kA
Total Receptacles:	73		Demand Current:	266.53	GFM Trip Setting (mA):	100 mA
Demand Factors:	Rec:	30%	Demand kVA:	96.02	GFM Branch/Main Protection:	Main
	Meter:	90%	MCB SIZE:	400	Enclosure Type:	NEMA 3R/X, Stainless Steel
	PF:	1.000	Poles:	3		

ALL CIRCUIT BREAKERS FEEDING POWER PEDESTALS SHALL INCLUDE A SHUNT TRIP MECHANISM TIED TO A 100mA GROUND-FAULT MONITOR.

Date: 7/12/2024 1:32 PM User: CHRISD
Path: C:\USERS\CHRISD\DESKTOP\BEAR LAKE - K-H BORDER 7-12-24 CHECK SET.DWG

NO.	DESCRIPTION	DATE
1		

Marina Electrical Equipment, Inc.
1715 Merrimac Trail - Williamsburg, VA 23185
(855) 256-3935 - www.marinaec.com

Kimley»Horn
111 East Broadway, Suite 600 | Salt Lake City, UT 84111 | Tel. No. (385) 224-3176

MARINA
PANEL SCHEDULES
DOCKS A & B

BEAR LAKE MARINA EXPANSION
DFCM PROJECT #23356510
GARDEN CITY, UT

DRAWN BY:	DESIGNED BY:	CHECKED BY:	PROJECT No.:
AG 7/12/2024	AG 7/12/2024	CL 7/12/2024	23356510 7/12/2024

SEAL

####

PREPARED UNDER THE DIRECTION SUPERVISION OF J-CASEY LONG, P.E. UT-1 REGISTRATION NO. 13378404-2202 FOR AND ON BEHALF OF KIMLEY-HORN AND ASSOCIATES, INC.

SHEET
M6201

Panel: CDE

Circuit ID	Phase	Phase Adj	Voltage	Receptacles: 20A GFCI, 125V	30A, 125V	50A, 125/250V	100A 1Ø, 125/250V	100A 3Ø, 120/208Y	Total Line Current	Total Line kW	Total Rec.	Demand Factors: Rec.	Demand Factors: Meter	Power Factor	Dem. Current	Dem. kW	CB Size	CB Poles	Cable: Cable Type	Circuit Length	Resist.	Size	Qty. Cond.	EGC	GEC	Phase Adj.	VD	VD%
C -1	1	2	120 / 208		4				60.00	7.20	4	100%	90%	1	54.00	12.96	60	2	G-GC	290	0.1900	#2	3	Incl.	-	2	5.95	2.86%
C -2	1	2	120 / 208		4				60.00	7.20	4	100%	90%	1	54.00	12.96	60	2	G-GC	280	0.1900	#2	3	Incl.	-	2	5.75	2.76%
C -3	1	2	120 / 208		4				60.00	7.20	4	100%	90%	1	54.00	12.96	60	2	G-GC	345	0.1500	#1	3	Incl.	-	2	5.59	2.69%
C -4	1	2	120 / 208		4				60.00	7.20	4	100%	90%	1	54.00	12.96	60	2	G-GC	335	0.1500	#1	3	Incl.	-	2	5.43	2.61%
C -5	1	2	120 / 208		4				60.00	7.20	4	100%	90%	1	54.00	12.96	60	2	G-GC	395	0.1200	#1/0	3	Incl.	-	2	5.12	2.46%
C -6	1	2	120 / 208		4				60.00	7.20	4	100%	90%	1	54.00	12.96	60	2	G-GC	385	0.1500	#1	3	Incl.	-	2	6.24	3.00%
C -7	1	2	120 / 208		4				60.00	7.20	4	100%	90%	1	54.00	12.96	60	2	G-GC	450	0.1200	#1/0	3	Incl.	-	2	5.83	2.80%
C -8	1	2	120 / 208		4				60.00	7.20	4	100%	90%	1	54.00	12.96	60	2	G-GC	440	0.1200	#1/0	3	Incl.	-	2	5.70	2.74%
C -9	1	2	120 / 208		4				60.00	7.20	4	100%	90%	1	54.00	12.96	60	2	G-GC	500	0.1000	#2/0	3	Incl.	-	2	5.40	2.60%
C -10	1	2	120 / 208		4				60.00	7.20	4	100%	90%	1	54.00	12.96	60	2	G-GC	490	0.1000	#2/0	3	Incl.	-	2	5.29	2.54%
E -1	3	3	120 / 208	Panel E					37.90	4.55	4	100%	100%	1	37.90	13.65	100	3	G	710	0.1200	#1/0	4	Incl.	-	1.732	5.59	2.69%
C -11	1	1	120 / 120	Fire Station Circuit Dock C					0.33	0.04	0	100%	100%	1	0.33	0.04	20	1	SOOW	510	2.0000	#12	3	Incl.	-	2	0.66	0.55%
Panel	3	3	120 / 208	0	40	0	0	0	SEE PANEL SCHEDULE BELOW										THWN	10	0.0520	250MCM	4	#4	#4	1.732	0.18	0.09%
Feeder	3	3	480	0	40	0	0	0	SEE DISCONNECT SCHEDULE BELOW										UTILITY LOCATION NOT KNOWN									

TOTAL PHASE BALANCE

AØ kW	BØ kW	CØ kW
55.10	54.73	47.86

Total Connected kW:	157.69		Demand kW:	70.96	SPD Protection (kA/Phase):	130 kA
Total Receptacles:	44		Demand Current:	196.97	GFM Trip Setting (mA):	100 mA
Demand Factors:	Rec:	50%	Demand kVA:	70.96	GFM Branch/Main Protection:	Main
	Meter:	90%	MCB SIZE:	250	Enclosure Type:	N3RX Stainless Steel Unit Substation
	PF:	1.000	Poles:	3		

Panel: E

Circuit ID	Phase	Phase Adj	Voltage	Receptacles: 20A GFCI, 125V	30A, 125V	50A, 125/250V	100A 1Ø, 125/250V	100A 3Ø, 120/208Y	Total Line Current	Total Line kW	Total Rec.	Demand Factors: Rec.	Demand Factors: Meter	Power Factor	Dem. Current	Dem. kW	CB Size	CB Poles	Cable: Cable Type	Circuit Length	Resist.	Size	Qty. Cond.	EGC	GEC	Phase Adj.	VD	VD%
E -1	1	2	120 / 208	4					3.00	0.36	4	100%	90%	1	2.70	0.65	30	2	SOOW	345	2.0000	#12	3	Incl.	-	2	3.73	1.79%
E -2	3	3	120 / 208	5 HP Sewer Pump					17.93	2.15	0	100%	100%	1	17.93	6.45	30	3	G	395	0.4900	#6	4	Incl.	-	1.732	6.01	2.89%
E -3	3	3	120 / 208	5 HP Sewer Pump					17.93	2.15	0	100%	100%	1	17.93	6.45	30	3	G	385	0.4900	#6	4	Incl.	-	1.732	5.86	2.82%
E -4	1	1	120 / 120	Fire Station Circuit Dock E					0.22	0.26	0	100%	100%	1	0.22	0.26	20	1	SOOW	360	2.0000	#12	3	Incl.	-	2	0.31	0.26%
Feeder	3	3	120 / 208	4	0	0	0	0	SEE DISCONNECT SCHEDULE BELOW										SEE PANEL CDE DESIGN SHEET									

TOTAL PHASE BALANCE

AØ kW	BØ kW	CØ kW
4.66	4.33	4.66

Total Connected kW:	13.66		Demand kW:	13.66	SPD Protection (kA/Phase):	-
Total Receptacles:	4		Demand Current:	37.90	GFM Trip Setting (mA):	-
Demand Factors:	Rec:	100%	Demand kVA:	13.66	GFM Branch/Main Protection:	-
	Meter:	100%	MCB SIZE:	100A MLO	Enclosure Type:	NEMA 4X
	PF:	1.000	Poles:	3		

ALL CIRCUIT BREAKERS FEEDING POWER PEDESTALS SHALL INCLUDE A SHUNT TRIP MECHANISM TIED TO A 100mA GROUND-FAULT MONITOR.

User: CHRISD
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NO.	DESCRIPTION	DATE
1		

Marina Electrical Equipment, Inc.
1715 Merrimac Trail - Williamsburg, VA 23185
(855) 256-3939 - www.marinaec.com

Kimley»Horn
111 East Broadway, Suite 600 | Salt Lake City, UT 84111 | Tel. No. (801) 228-3178

MARINA
PANEL SCHEDULES
DOCKS C, D, & E

BEAR LAKE MARINA EXPANSION
DFCM PROJECT #23356510
GARDEN CITY, UT

DRAWN BY:	DESIGNED BY:	CHECKED BY:	PROJECT No.:
AG 7/12/2024	AG 7/12/2024	CL 7/12/2024	23356510 7/12/2024

SEAL

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PREPARED UNDER THE DIRECTION SUPERVISION OF J-CASEY LONG, P.E. UT# REGISTRATION NO. 13378404-2202 FOR AND ON BEHALF OF KIMLEY-HORN AND ASSOCIATES, INC.

SHEET
M6202

Panel: G

Circuit ID	Phase	Phase Adj	Voltage	Receptacles: 20A GFCI, 125V	30A, 125V	50A, 125/250V	100A 1Ø, 125/250V	100A 3Ø, 120/208Y	Total Line Current	Total Line kW	Total Rec.	Demand Factors: Rec.	Demand Factors: Meter	Power Factor	Dem. Current	Dem. kW	CB Size	CB Poles	Cable: Cable Type	Circuit Length	Resist.	Size	Qty. Cond.	EGC	GEC	Phase Adj.	VD	VD%
G -1	1	2	120 / 208		4				60.00	7.20	4	100%	90%	1	54.00	12.96	60	2	G-GC	275	0.1900	#2	3	Incl.	-	2	5.64	2.71%
G -2	1	2	120 / 208		4				60.00	7.20	4	100%	90%	1	54.00	12.96	60	2	G-GC	245	0.1900	#2	3	Incl.	-	2	5.03	2.42%
G -3	1	2	120 / 208		4				60.00	7.20	4	100%	90%	1	54.00	12.96	60	2	G-GC	295	0.1900	#2	3	Incl.	-	2	6.05	2.91%
G -4	1	2	120 / 208		4				60.00	7.20	4	100%	90%	1	54.00	12.96	60	2	G-GC	355	0.1500	#1	3	Incl.	-	2	5.75	2.76%
G -5	1	2	120 / 208		4				60.00	7.20	4	100%	90%	1	54.00	12.96	60	2	G-GC	405	0.1200	#1/0	3	Incl.	-	2	5.25	2.52%
G -6	1	2	120 / 208		4				60.00	7.20	4	100%	90%	1	54.00	12.96	60	2	G-GC	460	0.1200	#1/0	3	Incl.	-	2	5.96	2.87%
G -7	1	2	120 / 208		3				60.00	5.40	3	100%	90%	1	54.00	9.72	60	2	G-GC	510	0.1000	#2/0	3	Incl.	-	2	5.51	2.65%
anel I	3	3	120 / 208	Panel I					1.98	0.41	2	100%	100%	1	1.98	0.72	100	3	THWN	275	0.2500	#3	4	#6	-	1.732	0.24	0.11%
G -8	1	1	120 / 120	Fire Station Circuit Dock G					0.43	0.05	0	100%	100%	1	0.43	0.05	20	1	SOOW	520	2.0000	#12	3	Incl.	-	2	0.90	0.75%
Panel	3	3	120 / 208	0	27	0	0	0	SEE PANEL SCHEDULE BELOW										THWN	10	0.0520	250MCM	4	#4	#4	1.732	0.15	0.07%
Feeder	3	3	480	0	27	0	0	0	SEE DISCONNECT SCHEDULE BELOW										UTILITY LOCATION NOT KNOWN									

TOTAL PHASE BALANCE

AØ kW	BØ kW	CØ kW
33.22	29.31	36.46

Total Connected kW:	99.00		Demand kW:	62.37	SPD Protection (kA/Phase):	130 kA
Total Receptacles:	29		Demand Current:	173.11	GFM Trip Setting (mA):	100 mA
Demand Factors:	Rec:	70%	Demand kVA:	62.37	GFM Branch/Main Protection:	Main
	Meter:	90%	MCB SIZE:	250	Enclosure Type:	N3RX Stainless Steel Unit Substation
	PF:	1.000	Poles:	3		

Panel: I

Circuit ID	Phase	Phase Adj	Voltage	Receptacles: 20A GFCI, 125V	30A, 125V	50A, 125/250V	100A 1Ø, 125/250V	100A 3Ø, 120/208Y	Total Line Current	Total Line kW	Total Rec.	Demand Factors: Rec.	Demand Factors: Meter	Power Factor	Dem. Current	Dem. kW	CB Size	CB Poles	Cable: Cable Type	Circuit Length	Resist.	Size	Qty. Cond.	EGC	GEC	Phase Adj.	VD	VD%
I -1	1	1	120 / 120	2					3.00	0.36	2	100%	90%	1	2.70	0.32	20	1	SOOW	820	0.7800	#8	3	Incl.	-	2	3.45	2.88%
I -2	1	1	120 / 120	Fire Station Circuit Dock I					0.43	0.05	0	100%	100%	1	0.43	0.05	20	1	SOOW	805	2.0000	#12	3	Incl.	-	2	1.40	1.16%
Feeder	3	3	120 / 120	2	0	0	0	0	SEE DISCONNECT SCHEDULE BELOW										SEE PANEL G DESIGN SHEET									

TOTAL PHASE BALANCE

AØ kW	BØ kW	CØ kW
0.36	0.05	0.00

Total Connected kW:	0.41		Demand kW:	0.41	SPD Protection (kA/Phase):	-
Total Receptacles:	2		Demand Current:	1.98	GFM Trip Setting (mA):	-
Demand Factors:	Rec:	100%	Demand kVA:	0.41	GFM Branch/Main Protection:	-
	Meter:	100%	MCB SIZE:	100A MLO	Enclosure Type:	NEMA 4X
	PF:	1.000	Poles:	3		

ALL CIRCUIT BREAKERS FEEDING POWER PEDESTALS SHALL INCLUDE A SHUNT TRIP MECHANISM TIED TO A 100mA GROUND-FAULT MONITOR.

Marina Electrical Equipment, Inc.
1715 Merrimac Trail - Williamsburg, VA 23185
(855) 256-3939 - www.marinaec.com
Kimley»Horn
111 East Broadway, Suite 600 | Salt Lake City, UT 84111 | Tel. No. (385) 212-3176

NO.	DESCRIPTION	DATE

MARINA
PANEL SCHEDULES
DOCKS G & I

BEAR LAKE MARINA EXPANSION
DFCM PROJECT #23356510
GARDEN CITY, UT

DRAWN BY:	DESIGNED BY:	CHECKED BY:	PROJECT No.:
AG 7/12/2024	AG 7/12/2024	CL 7/12/2024	23356510 7/12/2024

SEAL

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PREPARED UNDER THE DIRECTION SUPERVISION OF J-CASEY LONG, P.E. UT REGISTRATION NO. 13378404-2202 FOR AND ON BEHALF OF KIMLEY-HORN AND ASSOCIATES, INC.

SHEET
M6203

Panel: J

Circuit ID	Phase	Phase Adj	Voltage	Receptacles: 20A GFCI, 125V	Receptacles: 30A, 125V	Receptacles: 50A, 125/250V	Receptacles: 100A 1Ø, 125/250V	Receptacles: 100A 3Ø, 120/208Y	Total Line Current	Total Line kW	Total Rec.	Demand Factors: Rec.	Demand Factors: Meter	Power Factor	Dem. Current	Dem. kW	CB Size	CB Poles	Cable: Cable Type	Cable: Circuit Length	Cable: Resist.	Cable: Size	Cable: Qty. Cond.	Cable: EGC	Cable: GEC	Cable: Phase Adj.	Cable: VD	Cable: VD%
J -1	1	2	120 / 208		5				90.00	9.00	5	90%	90%	1	72.90	14.58	100	2	G-GC	240	0.1900	#2	3	Incl.	-	2	6.65	3.20%
J -2	1	2	120 / 208		4				60.00	7.20	4	100%	90%	1	54.00	12.96	60	2	G-GC	290	0.1900	#2	3	Incl.	-	2	5.95	2.86%
J -3	1	2	120 / 208		3				60.00	5.40	3	100%	90%	1	54.00	9.72	60	2	G-GC	350	0.0620	#4/0	3	Incl.	-	2	2.34	1.13%
J -4	1	2	120 / 208			2			100.00	12.00	2	100%	90%	1	90.00	21.60	100	2	G-GC	390	0.0770	#3/0	3	Incl.	-	2	5.41	2.60%
J -5	1	2	120 / 208			2			100.00	12.00	2	100%	90%	1	90.00	21.60	100	2	G-GC	430	0.0770	#3/0	3	Incl.	-	2	5.96	2.87%
J -6	1	1	120 / 120	Fire Station Circuit Dock J					0.33	0.04	0	100%	100%	1	0.33	0.04	20	1	SOOW	450	2.0000	#12	3	Incl.	-	2	0.59	0.49%
J -7	3	1	120 / 208	Overhead Lighting Circuit Dock J					5.00	0.60	0	100%	100%	1	5.00	0.60	20	3	THWN	450	1.2000	#10	4	#12	-	1.732	4.68	2.25%
Panel	3	3	120 / 208	0	12	4	0	0	SEE PANEL SCHEDULE BELOW										THWN	10	0.0620	#4/0	4	#4	#4	1.732	0.17	0.08%
Feeder	3	3	480	0	12	4	0	0	SEE DISCONNECT SCHEDULE BELOW										UTILITY LOCATION NOT KNOWN									

TOTAL PHASE BALANCE

AØ kW	BØ kW	CØ kW
30.64	30.60	31.80

Total Connected kW:	93.04		Demand kW:	58.61	SPD Protection (kA/Phase):	130 kA
Total Receptacles:	16		Demand Current:	162.70	GFM Trip Setting (mA):	100 mA
Demand Factors:	Rec:	70%	Demand kVA:	58.61	GFM Branch/Main Protection:	Main
	Meter:	90%	MCB SIZE:	225	Enclosure Type:	N3RX Stainless Steel Unit Substation
	PF:	1.000	Poles:	3		

ALL CIRCUIT BREAKERS FEEDING POWER PEDESTALS SHALL INCLUDE A SHUNT TRIP MECHANISM TIED TO A 100mA GROUND-FAULT MONITOR.

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NO.	DATE	DESCRIPTION
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MARINA
PANEL SCHEDULES
DOCK J

BEAR LAKE MARINA EXPANSION
DFCM PROJECT #23356510
GARDEN CITY, UT

DRAWN BY: AG 7/12/2024
DESIGNED BY: AG 7/12/2024
CHECKED BY: CL 7/12/2024
PROJECT No.: 23356510 7/12/2024

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PREPARED UNDER THE DIRECTION SUPERVISION OF J.CASEY LONG, P.E. (VA) REGISTRATION NO. 1337404-2202 FOR AND ON BEHALF OF KIMLEY-HORN AND ASSOCIATES, INC.

SHEET
M6204