# CITY OF LINDSAY

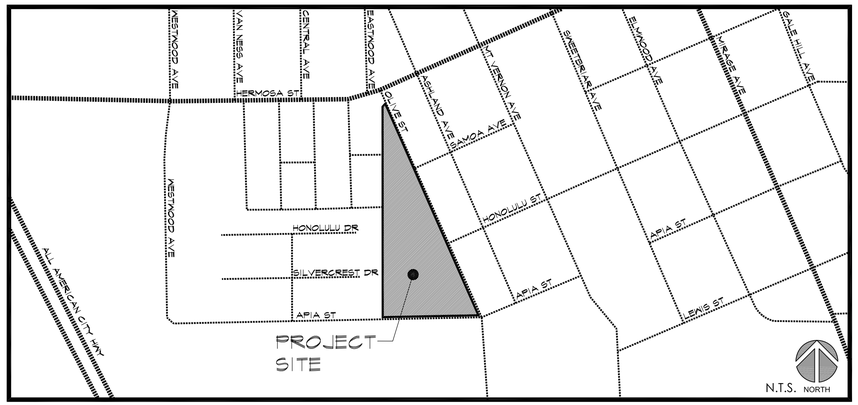
## RENOVATION & EXPANSION PLAN

# OLIVE BOWL / KAKU PARK PROJECT

## 18 NORTH OLIVE AVENUE, LINDSAY, CA 93247

### VICINITY MAP

Not to Scale




### PROJECT BASE BID PHASE 1

PHASE 1 - BALLFIELD PARK IMPROVEMENTS: ONE (300') PREMIERE LIGHTED BALLFIELD, TWO (200') BALLFIELDS, CONCESSION/RESTROOM, CENTER PLAZA PLAY AREA #2, BASKETBALL COURT, PICNIC AREAS, DETENTION BASIN.

### ADDITIVE ALTERNATES

CONTRACTOR SHALL INCLUDE ALL LABOR, MATERIALS, SERVICES AND EQUIPMENT NECESSARY FOR COMPLETION OF THE CONSTRUCTION OF THE FOLLOWING (REFER TO SPECIFICATIONS FOR DETAILED DESCRIPTIONS):

ADD ALT A PHASE 3 - NORTH PARK IMPROVEMENTS: LIGHTING, RESTROOM, PLAYGROUND, PICNIC AREAS, DETENTION BASIN
ALT ALT B PHASE 2 - LIGHTED PARKING LOT IMPROVEMENTS
ADD ALT NO. 1 FIELD #2 (200'/200'/200') - MUSCO LED LIGHTS, POLES AND BRANCH CIRCUIT WIRES
ADD ALT NO. 2 FIELD #3 (200'/200'/200') - MUSCO LED LIGHTS, POLES AND BRANCH CIRCUIT WIRES
ADD ALT NO. 3 20' SAFETY NETTING AT FIELDS #2 AND #3
ADD ALT NO. 4 10X30' CANTILEVER SHADE STRUCTURE OVER BLEACHERS AT FIELDS #1
ADD ALT NO. 5 10X22' CANTILEVER SHADE STRUCTURE OVER BLEACHERS AT FIELDS #2 & #3
ADD ALT NO. 6 PLAY AREA #3 (SOUTH OF BALLFIELD #2)
ADD ALT NO. 7 FITNESS EQUIPMENT, SURFACE, AND CURB (7 PIECES TOTAL)

### NOTES

NOTICE TO CONTRACTOR
IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CALL THE USA UNDERGROUND 811 ALERT FOR LOCATIONS OF EXISTING UTILITIES NO LESS THAN TWO DAYS NOR MORE THAN 7 DAYS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL ASSUME SOLE RESPONSIBILITY FOR ANY DAMAGE DONE TO EXISTING UTILITIES OR STREET IMPROVEMENTS INCLUDING CONCRETE/LANDSCAPE DURING CONSTRUCTION.

GENERAL NOTES
1. THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY OR SUBSTRUCTURE SHOWN ON THESE PLANS WAS OBTAINED BY A SEARCH OR AVAILABLE RECORDS. APPROVAL OF THESE PLANS BY THE CITY DOES NOT CONSTITUTE A REPRESENTATION AS TO THE ACCURACY OR COMPLETENESS OF THE LOCATION OR THE EXISTENCE OR NONEXISTENCE OF ANY UNDERGROUND UTILITY OR SUBSTRUCTURE WITHIN THE LIMITS OF THE PROJECT.
2. ALL PLAYGROUND EQUIPMENT SHALL COMPLY WITH CBC SECTIONS 11B-206.2.17, 17.1, 17.2, 206.7.8, 11B-240, 240.2, 240.2.1, 240.2.1.1, 240.2.2 &1008.4.
3. DRINKING FOUNTAINS SHALL COMPLY WITH CBC SECTION 11B-211.
4. TOILET FACILITIES SHALL COMPLY WITH CBC SECTION 11B-213.
5. DIRECTIONAL AND INFORMATIONAL SIGNAGE SHALL COMPLY WITH CBC SECTION 11B-216.3.
6. BENCH & BLEACHER SHALL COMPLY WITH CBC SECTIONS 11B-903 & 11B-802.2
7. BABY DIAPER CHANGING STATION SHALL COMPLY WITH CBC SECTION 11B-226.4
8. REFER TO GEOTECH REPORT FOR ALL OVER-EXCAVATION RECOMMENDATIONS WHICH SHALL BE IMPLEMENTED UNLESS OTHERWISE NOTED. STRICTER REQUIREMENT SHALL TAKE PRECEDENCE.
9. TREES, SHRUBS, AND ASSOCIATED MULCH WILL BE PROVIDED AND INSTALLED BY OTHERS. CONTRACTOR SHALL NOT INCLUDE THESE ITEMS WITHIN BID, HOWEVER CONTRACTOR IS RESPONSIBLE FOR ALL FINAL GRADING WITHIN PLANTING AREAS.

### PUBLIC UTILITIES

WATER & SEWER
CITY OF LINDSAY
CITY SERVICES & PLANNING DEPARTMENT
150 N MIRAGE AVE
LINDSAY, CA 93247
559-562-7102 EXT 4

ELECTRICITY
SOUTHERN CALIFORNIA EDISON COMPANY
(800) 665-4555

GAS
SOUTHERN CALIFORNIA GAS COMPANY
EMERGENCY CALLS
(818) 701-3342

TELEPHONE
AT&T
(877) 754-8711
VERIZON
(559) 268-2100

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| 4. | C1.1 | GENERAL NOTES | 47. | L4.1 | PLANTING PLAN |
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| 11. | C3.2 | DEMOLITION PLAN | | LD-4 | (NOT USED) CONSTRUCTION DETAILS |
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| 19. | C5.2 | PRECISE GRADING PLAN | 60. | LD-12 | CONSTRUCTION DETAILS |
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| 41. | L3.4 | IRRIGATION PLAN | | | |
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| 43. | L3.6 | IRRIGATION DETAILS | | | |


CITY OF LINDSAY APPROVAL

CITY SERVICES & PLANNING DIRECTOR — DATE

### PROJECT TEAM


LANDSCAPE ARCHITECT
MOORE IACOFANO GOLTSMAN, INC.
109 W. UNION AVE.
FULLERTON, CA 92831
TEL: 714/871-3638

CIVIL ENGINEER
BKF
4675 MACARTHUR CT SUITE 400
NEWPORT BEACH, CA 92660
TEL: 949/526-8487

ELECTRICAL ENGINEER
LRA ENGINEERS
1326 BOTTLEBRUSH STREET
CORONA, CA 92882
TEL: 951/737-4569

SKATE PARK DESIGNER
SPOHN RANCH SKATEPARKS
6824 S. CENTINELA
LOS ANGELES, CA 90230
TEL: 626-330-5803


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FULLERTON, CA 92832
TEL 714/871-3638
www.migcom.com


CONSULTANT:

PROJECT TEAM:

LANDSCAPE ARCHITECT
**MOORE IACOFANO GOLTSMAN, INC.**
ELECTRICAL ENGINEER
**LRA ENGINEERS**
CIVIL ENGINEER
**BKF**
STRUCTURAL ENGINEER
**ISE**

OLIVE BOWL
KAKU
PARK

LINDSAY, CA
93247

SHEET TITLE

TITLE SHEET

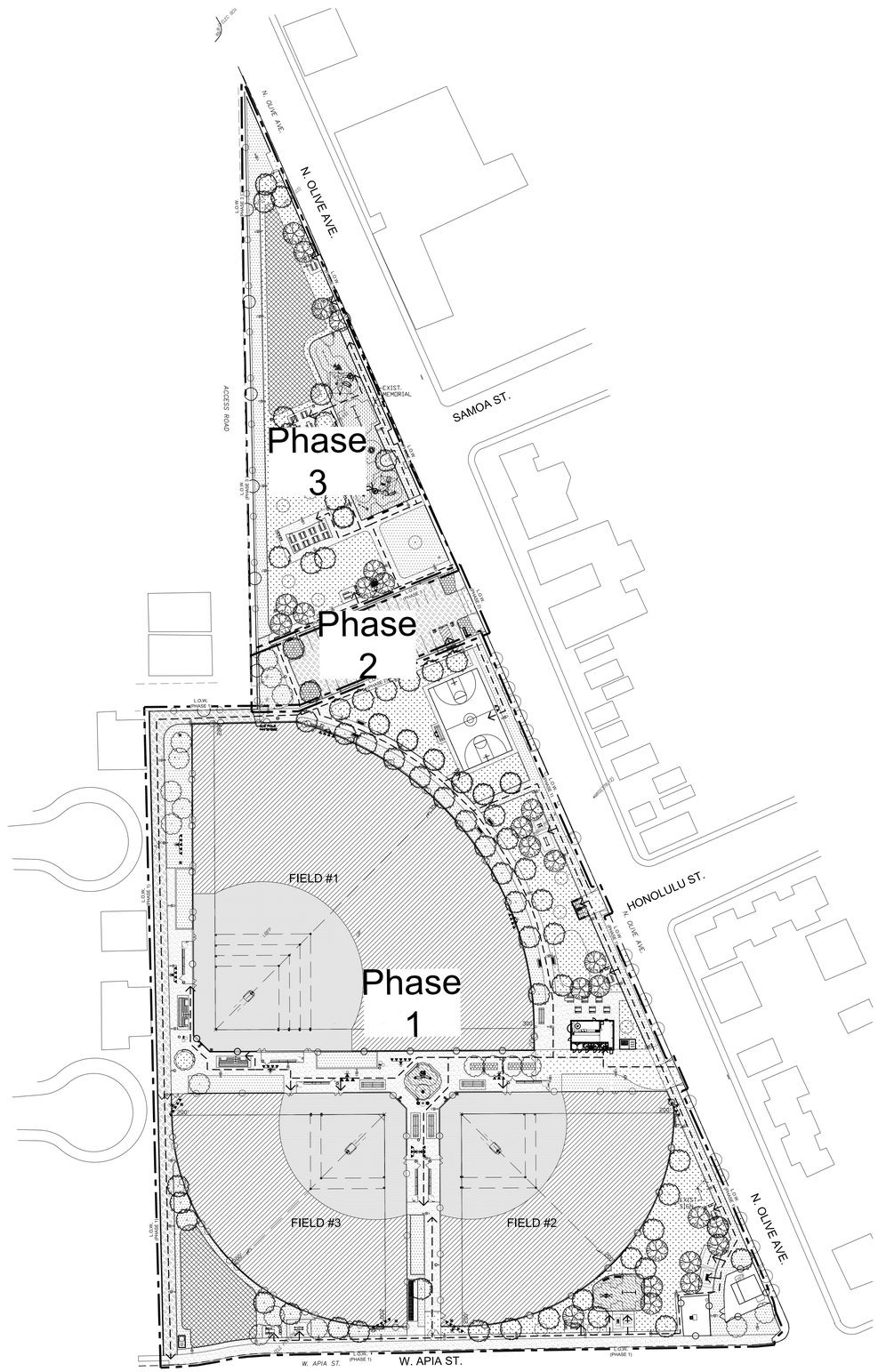
| DATE | REVISION |
|---|---|
| 10-18-21 | 50% CD Submittal |
| 12-8-21 | 90% CD Submittal |
| 12-14-22 | 90% CD Submittal |
| 2-13-23 | 100% CD Submittal |
| 10-3-23 | ADDENDUM #1 |
| 10-27-23 | ADDENDUM #3 |
| 6-10-24 | 3 PHASE RE-PACKAGE |

STAMP

LICENSED LANDSCAPE ARCHITECT
STEVEN H. LANG NO. 4117
SIGNATURE
6-10-24
RENEWAL DATE
6-10-24
DATE
STATE OF CALIFORNIA

| CHECKED BY | DATE |
|---|---|
| O.J. | 6-10-24 |
| DRAWN BY | JOB NO. |
| H.D. | 05567.02 |

SHEET
T-1




SYMBOLS LEGEND:

PHASE LIMIT OF WORK

ACCESSIBLE ROUTE

0 30' 60' 120'

NORTH

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www.migcom.com

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ELECTRICAL ENGINEER
**LRA ENGINEERS**

CIVIL ENGINEER
**BKF**

STRUCTURAL ENGINEER
**ISE**

# OLIVE BOWL KAKU PARK

LINDSAY, CA
93247

SHEET TITLE

## OVERALL SITE PLAN

| DATE | REVISION |
|---|---|
| 10-18-21 | 50% CD Submittal |
| 12-8-21 | 90% CD Submittal |
| 12-14-22 | 90% CD Submittal |
| 2-13-23 | 100% CD Submittal |
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| 10-27-23 | ADDENDUM #3 |
| 6-10-24 | 3 PHASE RE-PACKAGE |

STAMP

LICENSED LANDSCAPE ARCHITECT
STEVEN R. LANG NO. 1173
SIGNATURE OF
6-10-24
RENEWAL DATE
6-10-24
DATE
STATE OF CALIFORNIA

| CHECKED BY | DATE |
|---|---|
| O.J. | 6-10-24 |
| DRAWN BY | JOB NO. |
| H.D. | 05567.02 |

SHEET

T-2

SHEET 2 OF 79 SHEETS

# RENOVATION & EXPANSION PLAN

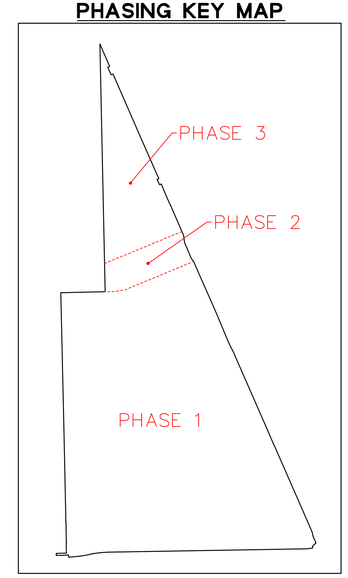
# OLIVE BOWL/KAKU PARK PROJECT

## 18 NORTH OLIVE AVENUE, LINDSAY, CA 93247

## VICINITY MAP

SCALE: N.T.S.

## PHASING KEY MAP




## SHEET INDEX:


| SHEET NO. | DESCRIPTION |
|---|---|
| C-1.0 | TITLE SHEET |
| C-1.1 | GENERAL NOTES |
| C-2.0 | EXISTING CONDITIONS PLAN |
| C-2.1 | EXISTING CONDITIONS PLAN |
| C-2.2 | EXISTING CONDITIONS PLAN |
| C-2.3 | EXISTING CONDITIONS PLAN |
| C-3.0 | DEMOLITION PLAN |
| C-3.1 | DEMOLITION PLAN |
| C-3.2 | DEMOLITION PLAN |
| C-3.3 | DEMOLITION PLAN |
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| C-7.1 | EROSION CONTROL PLAN |
| C-7.2 | EROSION CONTROL PLAN |
| C-7.3 | EROSION CONTROL DETAILS |
| C-7.4 | EROSION CONTROL DETAILS |
| C-8.0 | DETAILS |
| C-8.1 | DETAILS |


## GENERAL GRADING NOTES:

1. ALL GRADING AND CONSTRUCTION SHALL CONFORM TO THE LATEST EDITION OF THE CALIFORNIA BUILDING CODE UNLESS SPECIFICALLY NOTED ON THESE PLANS.
2. ANY MODIFICATIONS OF OR CHANGES TO THE APPROVED GRADING PLANS SHALL BE APPROVED BY THE CITY ENGINEER.
3. SLOPES SHALL BE A MAXIMUM 2:1, UNLESS OTHERWISE APPROVED AND CERTIFIED BY THE GEOTECHNICAL ENGINEER.
4. SLOPES SHALL BE STRAIGHT GRADE FROM CONTOURS TO ELEVATIONS SHOWN.
5. TRENCHES AND SLOPES WITH A VERTICAL HEIGHT GREATER THAN 4 FT SHALL BE PROPERLY PROTECTED PER OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS.
6. A COPY OF THE GRADING PERMIT AND APPROVED GRADING PLANS SHALL BE AVAILABLE AT THE SITE AT ALL TIMES.
7. PRIOR TO GRADING, SITE BOUNDARIES, EASEMENTS, DRAINAGE DEVICES, AND RESTRICTED USE AREAS SHALL BE LOCATED PER CONSTRUCTION STAKING BY THE CIVIL ENGINEER OR LICENSED SURVEYOR.

## PROPERTY INFORMATION TABLE:

PROPERTY INFORMATION
- ADDRESS: 18 NORTH OLIVE AVENUE
  LINDSAY, CA 93247
- AREA: 9.7 ACRES
- OWNER: CITY OF LINDSAY

CONSULTANT INFORMATION
ARCHITECT
- MIG
  109 WEST UNION AVENUE
  FULLERTON, CA 92832
  (714) 871-3638

CIVIL ENGINEER
- BKF ENGINEERS
  4675 MACARTHUR COURT, SUITE 400
  NEWPORT BEACH, CA 92660
  (949) 526-8460

## ABBREVIATIONS

| | |
|---|---|
| AB | AGGREGATE BASE |
| AC | ASPHALT CONCRETE |
| APN | ASSESSOR'S PARCEL NUMBER |
| BLDG | BUILDING |
| BFP | BACKFLOW PREVENTER |
| BW | BACK OF WALK |
| CF | CURB FACE |
| ℄ | CENTERLINE |
| CO | CLEANOUT |
| CONC | CONCRETE |
| CTRL | CONTROL |
| DCDA | DOUBLE CHECK DETECTOR ASSEMBLY |
| DEMO | DEMOLITION |
| DI | DRAINAGE INLET |
| E | ELECTRIC |
| EB | ELECTRIC BOX |
| EG | EXISTING GRADE |
| EP | EDGE OF PAVEMENT |
| EX | EXISTING |
| FF | FINISHED FLOOR |
| FG | FINISHED GRADE |
| FH | FIRE HYDRANT |
| FL | FLOWLINE |
| FS | FINISHED SURFACE |
| GB | GRADEBREAK |
| GR | GRATE |
| HDPE | HIGH DENSITY POLYETHYLENE |
| HP | HIGH POINT |
| HYD | HYDRANT |
| INV | INVERT |
| IRR | IRRIGATION |
| ISA | INTERNATIONAL SYMBOL OF ACCESSIBILITY |
| LF | LINEAR FEET |
| LG | LIP OF GUTTER |
| LS | LANDSCAPING |
| MA | MATCH |
| MIN | MINIMUM |
| NTS | NOT TO SCALE |
| PCC | PORTLAND CEMENT CONCRETE |
| PIV | POST INDICATOR VALVE |
| PL | PROPERTY LINE |
| PLNT | PLANTING |
| POC | POINT OF CONNECTION |
| PR | PROPOSED |
| PVC | POLYVINYL CHLORIDE |
| R/W | RIGHT-OF-WAY |
| S | SLOPE |
| SC | SAWCUT |
| SDCB | STORM DRAIN CATCH BASIN |
| SDMH | STORM DRAIN MANHOLE |
| SPPWC | STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION |
| SSCO | SANITARY SEWER CLEANOUT |
| SSMH | SANITARY SEWER MANHOLE |
| STLT | STREETLIGHT |
| STND | STANDARD |
| SW | SIDEWALK |
| T | TELEPHONE |
| TC | TOP OF CURB |
| TF | TOP OF FOOTING |
| TG | TOP OF GRATE |
| TMH | TOP OF MANHOLE |
| TP | TOP OF PAVEMENT |
| TR | TREE |
| TV | CABLE TELEVISION |
| TW | TOP OF WALL |
| TYP | TYPICAL |
| UB | UTILITY BOX |
| UT | UTILITY |
| VLT | VAULT |
| W | WATER |
| WM | WATER METER |
| WV | WATER VALVE |

## NOTE TO CONTRACTOR:

"THERE SHALL BE NO TRENCHES NOR EXCAVATIONS FIVE (5) OR MORE IN DEPTH, INTO WHICH A PERSON IS REQUIRED TO DESCEND; OR OBTAIN A PERMIT FROM THE STATE OF CALIFORNIA, DIVISION OF OCCUPATIONAL SAFETY, AND HEALTH ADMINISTRATION (CAL/OSHA). THIS PERMIT AND ANY OTHER SAFETY PERMIT SHALL BE OBTAINED PRIOR TO THE COMMENCEMENT OF ANY WORK." CONTACT CAL/OSHA AT 714-558-4451 FOR ADDITIONAL INFORMATION."

## BASIS OF BEARINGS & COORDINATES:

CALIFORNIA STATE PLANE COORDINATE SYSTEM, NAD 83, ZONE 4, DERIVED FROM GPS OBSERVATIONS

THE FOLLOWING CORS STATIONS WERE USED BY OPUS TO DETERMINE THE COORDINATES:

PID DP2483 CAASN SANTA BARBARA CORS ARP
PID DE6246 CMOD MODESTO COOP CORS ARP
PID DE6586 JPLM JPL MESA CORS ARP

THE EPOCH USED WAS 2010.00 AND THE GEOID WAS GEOID12B

THE COMBINED SCALE FACTOR IS 0.99995495. TO CONVERT GRID DISTANCES TO GROUND DISTANCES DIVIDE THE GRID DISTANCE BY THE COMBINED SCALE FACTOR

## BENCHMARK:

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SOUTHEAST CORNER CENTRAL AND KERN
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CONSULTANT:
BKF
4675 MACARTHUR CT.
SUITE 400
NEWPORT BEACH, CA 92660
(949) 526-8460
www.bkf.com

PROJECT TEAM:
LANDSCAPE ARCHITECT
**MOORE IACOFANO GOLTSMAN, INC.**
ELECTRICAL ENGINEER
**LRA ENGINEERS**
CIVIL ENGINEER
**BKF**
STRUCTURAL ENGINEER
**ISE**
SKATEPARK DESIGNER
**SPOHN RANCH**


OLIVE BOWL
KAKU
PARK

LINDSAY, CA
93247

TITLE SHEET

| DATE | REVISION |
|---|---|
| 10-18-21 | 50% CD Submittal |
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| 2-13-23 | 100% CD Submittal |
| 10-3-23 | ADDENDUM #1 |
| 10-27-23 | ADDENDUM #3 |
| 6-10-24 | 3 PHASE RE-PACKAGE |

STAMP
REGISTERED PROFESSIONAL ENGINEER
BRUCE W. KIRBY
No. C 42393
CIVIL
STATE OF CALIFORNIA

| CHECKED BY | DATE |
|---|---|
| B.K. | 6-10-24 |
| DRAWN BY | JOB NO. |
| V.L. | 05500.00 |

SHEET
C1.0

## CAUTION:

1. CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT FOR LOCATION OF UNDERGROUND UTILITIES AT LEAST 48 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION– PHONE (800) 642–2444. CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES PRIOR TO BEGINNING ANY WORK ON THIS SITE.

## GENERAL SITE NOTES:

1. CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING ON THIS WORK AND CONSIDER THE EXISTING CONDITIONS AND SITE CONSTRAINTS IN THE BID. CONTRACTOR SHALL BE IN THE POSSESSION OF AND FAMILIAR WITH ALL APPLICABLE GOVERNING AGENCIES STANDARD DETAILS AND SPECIFICATIONS PRIOR TO SUBMITTING OF A BID.
2. THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (GREENBOOK)", LATEST EDITION INCLUDING SUPPLEMENTS THERETO, IS HEREBY MADE A PART OF THIS PLAN.
3. ALL WORK ON–SITE AND IN THE PUBLIC RIGHT–OF–WAY SHALL CONFORM TO ALL APPLICABLE GOVERNING AGENCIES STANDARD DETAILS & SPECIFICATIONS.
4. PRIOR TO BEGINNING WORK, AND AFTER INITIAL HORIZONTAL CONTROL STAKING, CONTRACTOR SHALL FIELD CHECK ALL ELEVATIONS MARKED WITH (E) AND REPORT ANY DISCREPANCIES GREATER THAN 0.05' TO PROJECT MANAGER.
5. DAMAGE TO ANY EXISTING SITE IMPROVEMENTS, UTILITIES AND/OR SERVICES TO REMAIN SHALL BE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR SHALL REPAIR AND/OR REPLACE IN KIND.
6. CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT INCLUDING SAFETY OF ALL PERSONS AND PROPERTY THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS AND THAT THE CONTRACTOR SHALL DEFEND INDEMNIFY AND HOLD THE CLIENT, THE CONSULTING ENGINEER AND THE TOWN HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE CLIENT OR THE CONSULTING ENGINEER.

## DEMOLITION NOTES :

1. CONTRACTOR IS TO COMPLY WITH ALL GENERAL AND STATE REQUIREMENTS INVOLVING THE REMOVAL AND DISPOSAL OF HAZARDOUS MATERIAL(S).
2. CONTRACTOR'S BID IS TO INCLUDE ALL VISIBLE SURFACE AND ALL SUBSURFACE FEATURES IDENTIFIED TO BE REMOVED OR ABANDONED IN THESE DOCUMENTS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR A SITE INSPECTION TO FULLY ACKNOWLEDGE THE EXTENT OF THE DEMOLITION WORK.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY AND ALL PERMITS NECESSARY FOR ENCROACHMENT, GRADING, DEMOLITION, AND DISPOSAL OF SAID MATERIALS AS REQUIRED BY PRIVATE, LOCAL AND STATE JURISDICTIONS. THE CONTRACTOR SHALL PAY ALL FEES ASSOCIATED WITH THE DEMOLITION WORK.
5. BACKFILL ALL DEPRESSIONS AND TRENCHES FROM DEMOLITION TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER.
6. REMOVAL OF LANDSCAPING SHALL INCLUDE ROOTS AND ORGANIC MATERIALS TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER.
7. PRIOR TO BEGINNING DEMOLITION WORK ACTIVITIES, CONTRACTOR SHALL INSTALL EROSION CONTROL MEASURES OUTLINED IN THE EROSION CONTROL PLAN & DETAILS.
8. THE CONTRACTOR SHALL MAINTAIN ALL SAFETY DEVICES, AND SHALL BE RESPONSIBLE FOR CONFORMANCE TO ALL LOCAL, STATE AND FEDERAL SAFETY AND HEALTH STANDARDS LAWS AND REGULATIONS.
9. THE CONTRACTOR SHALL PROTECT FROM DAMAGE ALL EXISTING IMPROVEMENTS FACILITIES AND STRUCTURES WHICH ARE TO REMAIN. ANY ITEMS DAMAGED BY THE CONTRACTOR OR HIS AGENTS OR ANY ITEMS REMOVED FOR HIS USE SHALL BE REPLACED IN EQUAL OR BETTER CONDITION AS APPROVED BY THE ARCHITECT OR OWNER'S REPRESENTATIVE.
10. COORDINATE WITH ELECTRICAL, MECHANICAL, LANDSCAPING AND ARCHITECTURAL DRAWINGS FOR UTILITY SHUT–DOWN/DISCONNECT LOCATIONS. CONTRACTOR IS TO SHUT OFF ALL UTILITIES AS NECESSARY PRIOR TO DEMOLITION. CONTRACTOR IS TO COORDINATE SERVICE INTERRUPTIONS WITH THE CLIENT. DO NOT INTERRUPT SERVICES TO ADJACENT OFF–SITE OWNERS. ALSO SEE ARCHITECTURAL PLANS FOR ADDITIONAL DEMOLITION SCOPE OF WORK.
11. THIS PLAN IS NOT INTENDED TO BE A COMPLETE CATALOGUE OF ALL EXISTING STRUCTURES AND UTILITIES. THIS PLAN INTENDS TO DISCLOSE GENERAL INFORMATION KNOWN BY THE ENGINEER AND TO SHOW THE LIMITS OF THE AREA WHERE WORK WILL BE PERFORMED. THIS PLAN SHOWS THE EXISTING FEATURES TAKEN FROM A FIELD SURVEY, FIELD INVESTIGATIONS AND AVAILABLE INFORMATION. THIS PLAN MAY OR MAY NOT ACCURATELY REFLECT THE TYPE OR EXTENT OF THE ITEMS TO BE ENCOUNTERED AS THEY ACTUALLY EXIST. WHERE EXISTING FEATURES ARE NOT SHOWN, IT IS NOT IMPLIED THAT THEY ARE NOT TO BE DEMOLISHED OR REMOVED. THE CONTRACTOR SHALL PERFORM A THOROUGH FIELD INVESTIGATION AND REVIEW OF THE SITE WITHIN THE LIMIT OF WORK SHOWN IN THIS PLAN SET TO DETERMINE THE TYPE, QUANTITY AND EXTENT OF ANY AND ALL ITEMS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR DETERMINING THE EXTENT OF EXISTING STRUCTURES AND UTILITIES AND QUANTITY OF WORK INVOLVED IN REMOVING THESE ITEMS FROM THE SITE.

## RECORD DRAWINGS:

1. THE CONTRACTOR SHALL KEEP UP–TO–DATE AND ACCURATE A COMPLETE RECORD SET OF PRINTS OF THE CONTRACT DRAWINGS SHOWING EVERY CHANGE FROM THE ORIGINAL DRAWINGS MADE DURING THE COURSE OF CONSTRUCTION INCLUDING EXACT FINAL LOCATION, ELEVATION, SIZES, MATERIALS, AND DESCRIPTION OF ALL WORK. RECORDS SHALL BE "REDLINED" ON A SET OF CONSTRUCTION PLAN DRAWINGS. A COMPLETE SET OF CORRECTED AND COMPLETED RECORD DRAWING PRINTS SHALL BE SUBMITTED TO THE TOWN ENGINEER AND DEVELOPER'S CIVIL ENGINEER PRIOR TO FINAL ACCEPTANCE FOR REVIEW AND APPROVAL BY THE TOWN ENGINEER.

## TREE/PLANT PROTECTION NOTES:

1. PRIOR TO BEGINNING CONSTRUCTION ON SITE, CONTRACTOR SHALL IDENTIFY AND PROTECT EXISTING TREES AND PLANTS DESIGNATED AS TO REMAIN.
2. PROTECT EXISTING TREES TO REMAIN FROM SPILLED CHEMICALS, FUEL OIL, MOTOR OIL, GASOLINE AND ALL OTHER CHEMICALLY INJURIOUS MATERIAL; AS WELL AS FROM PUDDLING OR CONTINUOUSLY RUNNING WATER. SHOULD A SPILL OCCUR, STOP WORK IN THAT AREA AND CONTACT THE TOWN'S ENGINEER/INSPECTOR IMMEDIATELY. CONTRACTOR SHALL BE RESPONSIBLE TO MITIGATE DAMAGE FROM SPILLED MATERIAL AS WELL AS MATERIAL CLEAN UP.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR ONGOING MAINTENANCE OF ALL TREES DESIGNATED TO REMAIN AND FOR MAINTENANCE OF RELOCATED TREES STOCKPILED DURING CONSTRUCTION. CONTRACTOR WILL BE REQUIRED TO REPLACE TREES THAT DIE DUE TO LACK OF MAINTENANCE.

## SITE MAINTENANCE:

1. REMOVE ALL DIRT, GRAVEL, RUBBISH, REFUSE, AND GREEN WASTE FROM STREET PAVEMENT AND STORM DRAINS ADJOINING THE SITE. LIMIT CONSTRUCTION ACCESS ROUTES ONTO THE SITE AND PLACE GRAVEL PADS AT THESE LOCATIONS. DO NOT DRIVE VEHICLES AND EQUIPMENT OFF THE PAVED OR GRAVELED AREAS DURING WET WEATHER.
2. SWEEP OR VACUUM THE STREET PAVEMENT AND SIDEWALKS ADJOINING THE PROJECT SITE AND THE ON–SITE PAVED AREAS ON A DAILY BASIS. SCRAPE CAKED–ON MUD AND DIRT FROM THESE AREAS BEFORE SWEEPING. CORNERS AND HARD TO REACH AREAS SHALL BE SWEPT MANUALLY.
3. CREATE A CONTAINED AND COVERED AREA ON THE SITE FOR THE STORAGE OF BAGS, CEMENT, PAINTS, OILS, FERTILIZERS, PESTICIDES, OR OTHER MATERIALS USED ON THE SITE THAT HAVE THE POTENTIAL OF BEING DISCHARGED INTO THE STORM DRAIN SYSTEM THROUGH EITHER BEING WIND–BLOWN OR IN THE EVENT OF A MATERIAL SPILL.
4. NEVER CLEAN MACHINERY, EQUIPMENT OR TOOLS INTO A STREET, GUTTER OR STORM DRAIN.
5. ENSURE THAT CEMENT TRUCKS, PAINTERS, OR STUCCO/PLASTER FINISHING CONTRACTORS DO NOT DISCHARGE WASH WATER FROM EQUIPMENT, TOOLS OR RINSE CONTAINERS INTO GUTTERS OR DRAINS.
6. UPON PROJECT COMPLETION THE CLIENT SHALL BE SOLELY RESPONSIBLE TO ROUTINELY INSPECT AND MAINTAIN ALL ON–SITE STORM DRAIN FACILITIES. STORM DRAIN SYSTEM SHALL BE CLEANED AND/OR FLUSHED ON A BIANNUAL BASIS OR AS FOUND NECESSARY.

## DUST CONTROL:

1. WATER TRUCKS SHALL BE PRESENT AND IN USE AT THE CONSTRUCTION SITE. ALL PORTIONS OF THE SITE SUBJECT TO BLOWING DUST SHALL BE WATERED AS OFTEN AS DEEMED NECESSARY BY THE CLIENT/INSPECTOR IN ORDER TO INSURE PROPER CONTROL OF BLOWING DUST FOR THE DURATION OF THE PROJECT.
2. ALL PUBLIC STREETS AND MEDIANS SOILED OR LITTERED DUE TO THIS CONSTRUCTION ACTIVITY SHALL BE CLEANED AND SWEPT ON A DAILY BASIS DURING THE WORK WEEK, OR AS OFTEN AS DEEMED NECESSARY BY THE CLIENT/INSPECTOR, OR TO THE SATISFACTION OF THE TOWN'S DEPARTMENT OF PUBLIC WORKS.
3. ALL TRUCKS HAULING SOIL, SAND, AND OTHER LOOSE MATERIALS SHALL BE COVERED WITH TARPAULINS OR OTHER EFFECTIVE COVERS.
4. WHEEL WASHERS SHALL BE INSTALLED AND USED TO CLEAN ALL TRUCKS AND EQUIPMENT LEAVING THE CONSTRUCTION SITE. IF WHEEL WASHERS CANNOT BE INSTALLED, TIRES OR TRACKS OF ALL TRUCKS AND EQUIPMENT SHALL BE WASHED OFF BEFORE LEAVING THE CONSTRUCTION SITE.
5. THE CONTRACTOR SHALL DEMONSTRATE DUST SUPPRESSION MEASURES, SUCH AS REGULAR WATERING, WHICH SHALL BE IMPLEMENTED TO REDUCE EMISSIONS DURING CONSTRUCTION AND GRADING IN A MANNER MEETING THE APPROVAL OF THE CONSTRUCTION MANAGER. THIS SHALL ASSIST IN REDUCING SHORT–TERM IMPACTS FROM PARTICLES WHICH COULD RESULT IN NUISANCES THAT ARE PROHIBITED BY RULE 403 (FUGITIVE DUST).
6. GRADING OR ANY OTHER OPERATIONS THAT CREATES DUST SHALL BE STOPPED IMMEDIATELY IF DUST AFFECTS ADJACENT PROPERTIES. THE CONTRACTOR SHALL PROVIDE SUFFICIENT DUST CONTROL FOR THE ENTIRE PROJECT SITE IN ACCORDANCE WITH THE PROJECT NPDES AT ALL TIMES. THE SITE SHALL BE SPRINKLERED AS NECESSARY TO PREVENT DUST NUISANCE. IN THE EVENT THAT THE CONTRACTOR NEGLECTS TO USE ADEQUATE MEASURES TO CONTROL DUST, THE CLIENT RESERVES THE RIGHT TO TAKE WHATEVER MEASURES ARE NECESSARY TO CONTROL DUST AND CHARGE THE COST TO THE CONTRACTOR.
7. THE CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL MEASURES AND FOR OBTAINING ALL REQUIRED PERMITS AND APPROVALS.

## NPDES REQUIREMENTS:

1. ALL CONSTRUCTION ON OFF–SITE OR ON–SITE IMPROVEMENTS SHALL ADHERE TO NPDES (NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM) BEST MANAGEMENT PRACTICES TO PREVENT DELETERIOUS MATERIALS OR POLLUTANTS FROM ENTERING THE TOWN OR COUNTY STORM DRAIN SYSTEMS.
2. ERODED SEDIMENTS AND OTHER POLLUTANTS MUST BE RETAINED ON SITE AND MAY NOT BE TRANSPORTED FROM THE SITE VIA SHEET FLOW, SWALES, AREA DRAINS, NATURAL DRAINAGE COURSES, OR WIND.
3. STOCKPILES OF EARTH AND OTHER CONSTRUCTION RELATED MATERIALS MUST BE PROTECTED FROM BEING TRANSPORTED FROM THE SITE BY THE FORCES OF WIND OR WATER.
4. FUELS, OILS, SOLVENTS, AND OTHER TOXIC MATERIALS MUST BE STORED IN ACCORDANCE WITH THEIR LISTING AND ARE NOT TO CONTAMINATE THE SOIL AND SURFACE WATERS. ALL APPROVED STORAGE CONTAINERS ARE TO BE PROTECTED FROM THE WEATHER. SPILLS MUST BE CLEANED UP IMMEDIATELY AND DISPOSED OF IN A PROPER MANNER. SPILLS MAY NOT BE WASHED INTO THE DRAINAGE SYSTEM.
5. EXCESS OR WASTE CONCRETE MAY NOT BE WASHED INTO THE PUBLIC RIGHT–OF–WAY OR ANY OTHER DRAINAGE SYSTEM. PROVISIONS SHALL BE MADE TO RETAIN CONCRETE WASTES ON SITE UNTIL THEY CAN BE DISPOSED OF AS SOLID WASTE.
6. TRASH AND CONSTRUCTION RELATED SOLID WASTES MUST BE DEPOSITED INTO A COVERED RECEPTACLE TO PREVENT CONTAMINATION AND DISPERSAL BY WIND.
7. SEDIMENTS AND OTHER MATERIALS MAY NOT BE TRACKED FROM THE SITE BY VEHICLE TRAFFIC. THE CONSTRUCTION ENTRANCE ROADWAYS MUST BE STABILIZED SO AS TO INHIBIT SEDIMENTS FROM BEING DEPOSITED INTO THE PUBLIC RIGHT–OF–WAY. ACCIDENTAL DEPOSITIONS MUST BE SWEPT UP IMMEDIATELY AND MAY NOT BE WASHED DOWN BY RAIN OR OTHER MEANS.
8. ANY SLOPES WITH DISTURBED SOILS OR DENUDED OF VEGETATION MUST BE STABILIZED SO AS TO INHIBIT EROSION BY WIND AND WATER.
9. CLEAN UP ALL SPILLS USING DRY METHODS.
10. SWEEP ALL GUTTERS AT THE END OF EACH WORKING DAY. GUTTERS SHALL BE KEPT CLEAN AFTER LEAVING CONSTRUCTION SITE.
11. CALL 911 IN CASE OF A HAZARDOUS SPILL.
12. BMP'S AS OUTLINED IN, BUT NOT LIMITED TO, CALIFORNIA STORM WATER QUALITY TASK FORCE, SACRAMENTO, CALIFORNIA, JANUARY 2003, OR THE LATEST REVISED EDITION, MAY APPLY DURING THE CONSTRUCTION OF THIS PROJECT (ADDITIONAL MEASURES MAY BE REQUIRED IF DEEMED APPROPRIATE BY TOWN INSPECTORS).
13. UPON SATISFACTORY COMPLETION OF THE WORK, THE ENTIRE WORK SITE SHALL BE CLEANED BY THE CONTRACTOR AND LEFT WITH A SMOOTH AND NEATLY GRADED SURFACE FREE OF CONSTRUCTION WASTE, RUBBISH, AND DEBRIS OF ANY NATURE.

## SITE FENCE NOTES:

1. CONTRACTOR SHALL PROVIDE A CONSTRUCTION FENCE AROUND THE ENTIRE AREA OF DEMOLITION AND CONSTRUCTION, INCLUDING ALL STAGING, STORAGE, CONSTRUCTION OFFICE AND LAYDOWN AREAS.
2. CONSTRUCTION FENCE SHALL BE A MINIMUM OF A 6' HIGH GALVANIZED CHAIN LINK WITH GREEN WINDSCREEN FABRIC ON THE OUTSIDE OF THE FENCE.
3. CONSTRUCTION FENCE ADDRESSED IN THESE NOTES IS ONLY FOR VISUAL CONFORMANCE OF THIS CONSTRUCTION SITE TO THE TOWN STANDARDS. CONTRACTOR MAY BE REQUIRED TO PROVIDE ADDITIONAL FENCING, BARRICADES OR OTHER SAFETY DEVICES TO KEEP THE SITE SECURE AND SAFE.

## GENERAL UTILITY SYSTEM NOTES :

1. ALL TRENCHES SHALL BE BACK FILLED PER THE SPECIFICATIONS WITH APPROPRIATE TESTS BY THE GEOTECHNICAL ENGINEER TO VERIFY COMPACTION VALUES.
2. CLEAN OUTS, CATCH BASINS AND AREA DRAINS ARE TO BE ACCURATELY LOCATED BY THEIR RELATIONSHIP TO THE BUILDING, FLATWORK, ROOF DRAINS, AND/OR CURB LAYOUT, NOT BY THE LENGTH OF PIPE SPECIFIED IN THE DRAWINGS (WHICH IS APPROXIMATE).
3. CONTRACTOR SHALL STAKE LOCATION OF ABOVE GROUND UTILITY EQUIPMENT (BACKFLOW PREVENTOR, SATELLITE DISH, TRANSFORMER, GAS METER, ETC.) AND MEET WITH CLIENT TO REVIEW LOCATION PRIOR TO INSTALLATION. PLANNING DEPARTMENT MUST SPECIFICALLY AGREE WITH LOCATION PRIOR TO PROCEEDING WITH THE INSTALLATION.
4. CONTRACTOR SHALL PREPARE AN ACCURATE COMPOSITE UTILITY PLAN THAT TAKES INTO ACCOUNT THE ACTUAL LOCATION OF EXISTING UTILITIES AS DETERMINED DURING THE DEMOLITION WORK, THE UTILITIES SHOWN ON THE CIVIL DRAWINGS, AND THE SITE POWER, CONDUITS AND LIGHTING SHOWN ON THE ELECTRICAL PLANS. THE FIRE SPRINKLER SYSTEM SHALL BE INCLUDED AS DESIGNED BY THE DESIGN/BUILD UNDERGROUND FIRE SPRINKLER CONTRACTOR.
5. CATHODIC PROTECTION MAY BE REQUIRED ON ALL METALLIC FITTINGS AND ASSEMBLIES THAT ARE IN CONTACT WITH THE SOIL, IF RECOMMENDED BY THE GEOTECHNICAL REPORT. CONTRACTOR IS RESPONSIBLE TO FULLY ENGINEER AND INSTALL THIS SYSTEM AND COORDINATE ANODE AND TEST STATION LOCATIONS WITH OWNER'S PROJECT MANAGER.
6. COMPLETE SYSTEMS: ALL UTILITY SYSTEMS ARE DELINEATED IN A SCHEMATIC MANNER ON THESE PLANS. CONTRACTOR IS TO PROVIDE ALL FITTINGS, ACCESSORIES AND WORK NECESSARY TO COMPLETE THE UTILITY SYSTEM SO THAT IT IS FULLY FUNCTIONING FOR THE PURPOSE INTENDED.
7. UNDERGROUND UTILITIES OR STRUCTURES ARE SHOWN IN THEIR APPROXIMATE LOCATIONS AND EXTENT BASED UPON RECORD INFORMATION. LOCATIONS MAY NOT HAVE BEEN VERIFIED IN THE FIELD AND NO GUARANTEE IS MADE TO THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN. THE CLIENT, BY ACCEPTING THESE PLANS OR PROCEEDING WITH IMPROVEMENTS PURSUANT THERETO, AGREES TO ASSUME LIABILITY AND TO HOLD UNDERSIGNED HARMLESS FOR ANY DAMAGES RESULTING FROM THE EXISTENCE OF UNDERGROUND UTILITIES OR STRUCTURES NOT REPORTED TO THE UNDERSIGNED; NOT INDICATED ON THE PUBLIC RECORDS EXAMINED, LOCATED AT VARIANCE WITH THOSE REPORTED OR SHOWN ON RECORDS EXAMINED.
8. CONTRACTOR SHALL VERIFY ALL EXISTING INVERT ELEVATIONS FOR STORM DRAIN AND SANITARY SEWER CONSTRUCTION PRIOR TO COMMENCEMENT OF ANY WORK. ALL WORK FOR STORM AND SANITARY SEWER INSTALLATION SHALL BEGIN AT THE DOWNSTREAM CONNECTION POINT. THIS WILL ALLOW FOR ANY NECESSARY ADJUSTMENTS TO BE MADE PRIOR TO THE INSTALLATION OF THE ENTIRE LINE. IF THE CONTRACTOR FAILS TO BEGIN AT THE DOWNSTREAM CONNECTION POINT AND WORKS UP STREAM, HE SHALL PROCEED AT HIS OWN RISK AND BE RESPONSIBLE FOR ANY ADJUSTMENTS NECESSARY. CONTRACTOR SHALL VERIFY LOCATION OF SANITARY SEWER LATERAL WITH OWNER PRIOR TO CONSTRUCTION.
9. EXISTING UTILITY CROSSINGS OF NEW PIPELINE ARE SHOWN ACCORDING TO THE BEST AVAILABLE INFORMATION. GAS, WATER AND SEWER SERVICE LATERALS ARE SHOWN ACCORDING TO THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL VERIFY THE TYPE, SIZE, LOCATION AND DEPTH OF ALL THE UTILITY CROSSING (BOTH MAINS AND LATERALS) ARE CORRECT AS SHOWN. NO GUARANTEE IS MADE THAT ALL EXISTING UTILITIES (BOTH MAINS AND LATERALS) ARE SHOWN. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN EXCAVATING AND SHALL PROTECT ALL EXISTING UTILITIES (BOTH MAINS AND LATERALS) FROM DAMAGE DUE TO HIS OPERATION.
10. VERTICAL SEPARATION REQUIREMENTS:

    A MINIMUM OF SIX (6) INCHES VERTICAL CLEARANCE SHALL BE PROVIDED BETWEEN CROSSING UTILITY PIPES, EXCEPT THAT THE MINIMUM VERTICAL CLEARANCE BETWEEN WATER AND SANITARY SEWER PIPELINES SHALL BE 12 INCHES AND ALL NEW WATER PIPES SHALL BE TYPICALLY INSTALLED TO CROSS ABOVE/OVER EXISTING SANITARY SEWER PIPELINES.

    WHERE NEW WATER PIPELINES ARE REQUIRED TO CROSS UNDER EXISTING AND/OR NEW SANITARY SEWER PIPELINES, THE MINIMUM VERTICAL SEPARATION SHALL BE 12 INCHES. WATER LINE PIPE ENDS SHALL BE INSTALLED NO CLOSER THAN 10' MINIMUM HORIZONTAL DISTANCE FROM CENTERLINE OF UTILITY CROSSINGS, WHERE FEASIBLE.
11. HORIZONTAL SEPARATION REQUIREMENTS:

    A MINIMUM HORIZONTAL SEPARATION BETWEEN NEW PIPELINES AND ANY EXISTING UTILITIES SHALL BE 5' FEET, EXCEPT THAT THE MINIMUM HORIZONTAL SEPARATION FOR WATER AND SANITARY SEWER PIPELINES SHALL BE 10' MINIMUM, UNLESS OTHERWISE NOTED.

    A MINIMUM HORIZONTAL SEPARATION BETWEEN NEW PIPELINES AND JOINT TRENCH SHALL BE 5 FEET.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING APPROPRIATE UTILITIES AND REQUESTING VERIFICATION OF SERVICE POINTS, FIELD VERIFICATION OF LOCATION, SIZE, DEPTH, ETC. FOR ALL THEIR FACILITIES AND TO COORDINATE WORK SCHEDULES.
13. ANY EXISTING UNDERGROUND UTILITY LINES TO BE ABANDONED, SHOULD BE REMOVED FROM WITHIN THE PROPOSED BUILDING ENVELOPE AND THEIR ENDS CAPPED OUTSIDE OF THE BUILDING ENVELOPE.

## EROSION AND SEDIMENTATION CONTROL NOTES:

1. CONTRACTOR SHALL ASSUME THE CONCEPTS ON THE EROSION CONTROL PLAN, IF PROVIDED, ARE SCHEMATIC MINIMUM REQUIREMENTS, THE FULL EXTENT OF WHICH ARE TO BE DETERMINED BY THE CONTRACTOR. CONTRACTOR IS RESPONSIBLE FOR THE EXACT DESIGN AND EXTENT OF THE EROSION CONTROL SYSTEM SO THAT IT WORKS WITH THE CONTRACTOR'S INTENDED USE AND MANAGEMENT OF THE CONSTRUCTION SITE.
2. ALL EROSION CONTROL FACILITIES SHALL BE INSPECTED BY THE CONTRACTOR AND REPAIRED, AS REQUIRED, AT THE CONCLUSION OF EACH WORKING DAY. THE CONTRACTOR SHALL INSPECT THE EROSION CONTROL FACILITIES AND MAKE NECESSARY REPAIRS PRIOR TO ANTICIPATED STORMS AND AT REASONABLE INTERVALS DURING STORMS OF EXTENDED DURATION. REPAIRS TO DAMAGED FACILITIES SHALL BE MADE IMMEDIATELY UPON DISCOVERY.
3. AS SOON AS PRACTICAL FOLLOWING EACH STORM, THE CONTRACTOR SHALL REMOVE ANY ACCUMULATION OF SILT OR DEBRIS FROM THE EROSION CONTROL SEDIMENT BASINS AND SHALL CLEAR THE OUTLET PIPES OF ANY BLOCKAGE.
4. STOCKPILED MATERIAL SHALL BE COVERED WITH VISQUEEN OR A TARPAULIN UNTIL THE MATERIAL IS REMOVED FROM THE SITE. ANY REMAINING BARE SOIL THAT EXISTS AFTER THE STOCKPILE HAS BEEN REMOVED SHALL BE COVERED UNTIL A NATURAL GROUND COVER IS ESTABLISHED OR IT MAY BE SEEDED OR PLANTED TO PROVIDE GROUND COVER.
5. PRIOR TO THE COMMENCEMENT OF ANY CLEARING, GRADING, OR EXCAVATION, THE CONTRACTOR SHALL VERIFY THAT THE CLIENT HAS SUBMITTED TO THE STATE WATER RESOURCES CONTROL BOARD A NOTICE OF INTENT (NOI) FOR COVERAGE UNDER THE STATE CONSTRUCTION STORM WATER GENERAL PERMIT, IF REQUIRED BY THE STATE. THE CONTRACTOR SHALL MAINTAIN A COPY OF THE NOI ON THE CONSTRUCTION SITE.
6. NECESSARY MATERIALS SHALL BE AVAILABLE ON SITE AND STOCKPILED AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY DEVICES WHEN RAIN IS IMMINENT.
7. PROTECT ADJACENT PROPERTIES AND UNDISTURBED AREAS FROM CONSTRUCTION IMPACTS USING VEGETATIVE BUFFER STRIPS, SEDIMENT BARRIERS OR FILTERS, DIKES, MULCHING OR OTHER MEASURES AS APPROPRIATE.
8. CONTRACTOR SHALL MAINTAIN ADJACENT STREETS IN A NEAT, CLEAN, DUST FREE AND SANITARY CONDITION AT ALL TIMES AND TO THE SATISFACTION OF THE TOWN INSPECTOR. THE ADJACENT STREET SHALL BE KEPT CLEAN OF DEBRIS, WITH DUST AND OTHER NUISANCE BEING CONTROLLED AT ALL TIMES. DEVELOPER SHALL BE RESPONSIBLE FOR ANY CLEAN UP ON ADJACENT STREETS AFFECTED BY THEIR CONSTRUCTION, METHOD OF STREET CLEANING SHALL BE BY DRY SWEEPING OF ALL PAVED AREAS. NO STOCKPILING OF BUILDING MATERIALS WITHIN THE TOWN'S RIGHT–OF–WAY IS PERMITTED.
9. ALL EROSION CONTROL MATERIALS SHALL BE FURNISHED AND INSTALLED BY CONTRACTOR UNLESS OTHERWISE NOTED.
10. PROTECT DOWN SLOPE DRAINAGE COURSES, STREAMS AND STORM DRAINS WITH ROCK FILLED SAND BAGS, TEMPORARY DRAINAGE SWALES, SILT FENCES, EARTH BERMS, STORM DRAIN INLET FILTERS AND/OR STRAW BALES USED ONLY IN CONJUNCTION WITH PROPERLY INSTALLED SILT FENCES.


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PROJECT TEAM:

LANDSCAPE ARCHITECT
**MOORE IACOFANO GOLTSMAN, INC.**

ELECTRICAL ENGINEER
**LRA ENGINEERS**

CIVIL ENGINEER
**BKF**

STRUCTURAL ENGINEER
**ISE**

SKATEPARK DESIGNER
**SPOHN RANCH**


OLIVE BOWL
KAKU
PARK

LINDSAY, CA
93247

GENERAL NOTES

| DATE | REVISION |
|---|---|
| 10-18-21 | 50% CD Submittal |
| 12-8-21 | 90% CD Submittal |
| 12-14-22 | 90% CD Submittal |
| 2-13-23 | 100% CD Submittal |
| 10-3-23 | ADDENDUM #1 |
| 10-27-23 | ADDENDUM #3 |
| 6-10-24 | 3 PHASE RE-PACKAGE |
| | |
| | |
| | |
| | |

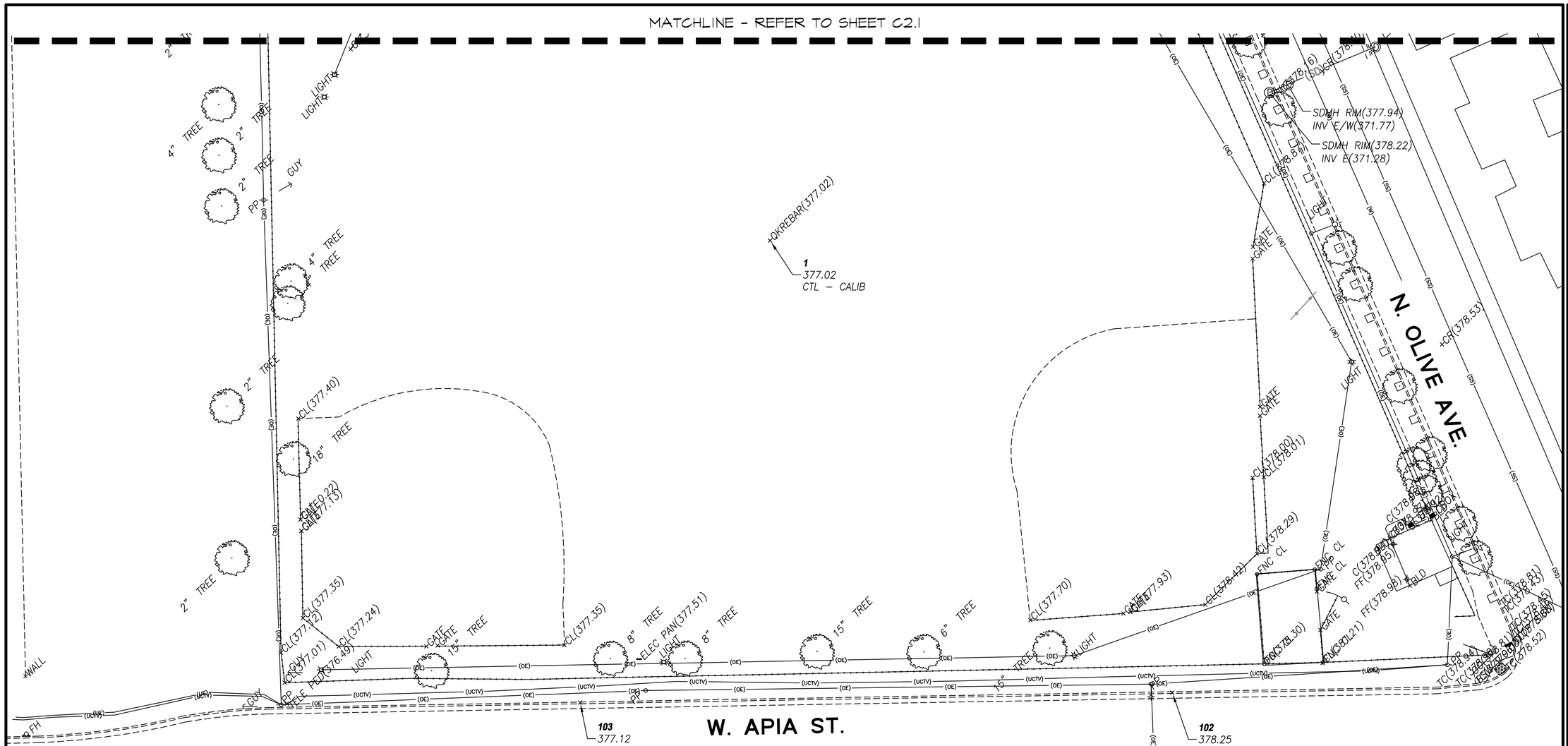
STAMP

REGISTERED PROFESSIONAL ENGINEER
BRUCE W. KIRBY
No. C 42393
CIVIL
STATE OF CALIFORNIA

| CHECKED BY | DATE |
|---|---|
| B.K. | 6-10-24 |
| DRAWN BY | JOB NO. |
| V.L. | 05500.00 |

SHEET

C1.1




**BASIS OF BEARINGS & COORDINATES:**

CALIFORNIA STATE PLANE COORDINATE SYSTEM, NAD 83, ZONE 4, DERIVED FROM GPS OBSERVATIONS

THE FOLLOWING CORS STATIONS WERE USED BY OPUS TO DETERMINE THE COORDINATES:

PID DP2483 CAASN SANTA BARBARA CORS ARP
PID DE6246 CMOD MODESTO COOP CORS ARP
PID DE6586 JPLM JPL MESA CORS ARP

THE EPOCH USED WAS 2010.00 AND THE GEOID WAS GEOID12B

THE COMBINED SCALE FACTOR IS 0.99995495. TO CONVERT GRID DISTANCES TO GROUND DISTANCES DIVIDE THE GRID DISTANCE BY THE COMBINED SCALE FACTOR

**BENCHMARK:**

CITY BENCHMARK No. 68
EAST END CURB RETURN AT
SOUTHEAST CORNER CENTRAL AND KERN
ELEV = 372.57 (NGVD)

**ABBREVIATIONS & LEGEND**:

| | |
|---|---|
| BFP | WATER BACK–FLOW PREVENTER |
| BOL | BOLLARD |
| BSW | BACK OF SIDEWALK |
| C | CONCRETE |
| CR | CROWN OF ROAD |
| FF | FINISHED FLOOR |
| FH | FIRE HYDRANT |
| FL | FLOWLINE |
| ELEC BOX | ELECTRIC CHRISTY BOX |
| ELEC PAN | ELECTRICAL PANEL |
| GUY | GUYED WIRE |
| IVB | IRRIGATION VALVE BOX |
| LIGHT | POLE LIGHT |
| | POWER POLE W/ LIGHT |
| | STREET LIGHT |
| LIP | LIP OF GUTTER |
| OG | ORIGINAL GROUND |
| P | PAVEMENT |
| PALM | PALM TREE |
| PP | POWER POLE |
| | POWER POLE W/ TRANSFORMER |
| RISER | IRRIGATION RISER |
| SDMH | STORM DRAIN MANHOLE |
| SIGN | SIGN |
| SPK | IRRIGATION SPRINKLER |
| SSCO | SANITARY SEWER CLEANOUT |
| SSMH | SANITARY SEWER MANHOLE |
| TC | TOP OF CURB AT BACK, CONCRETE |
| TREE | TREE |
| WM | WATER METER |
| WV | WATER VALVE |
| | FENCE, CHAIN–LINK |
| | EDGE OF BUILDING |
| | ELECTRICAL LINE OVERHEAD (OE) |
| | ELECTRICAL LINE UNDERGROUND (UE) |
| | SANITARY SEWER LINE (SS) |
| | STORM DRAIN LINE (SD) |
| | TELEPHONE LINE OVERHEAD (OT) |
| | UNDERGROUND TELECOM LINE (UCTV) |

GRAPHIC SCALE

10 0 10 20 40 80

( IN FEET )
1 inch = 20 ft.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# OLIVE BOWL KAKU PARK

LINDSAY, CA
93247

EXISTING CONDITIONS

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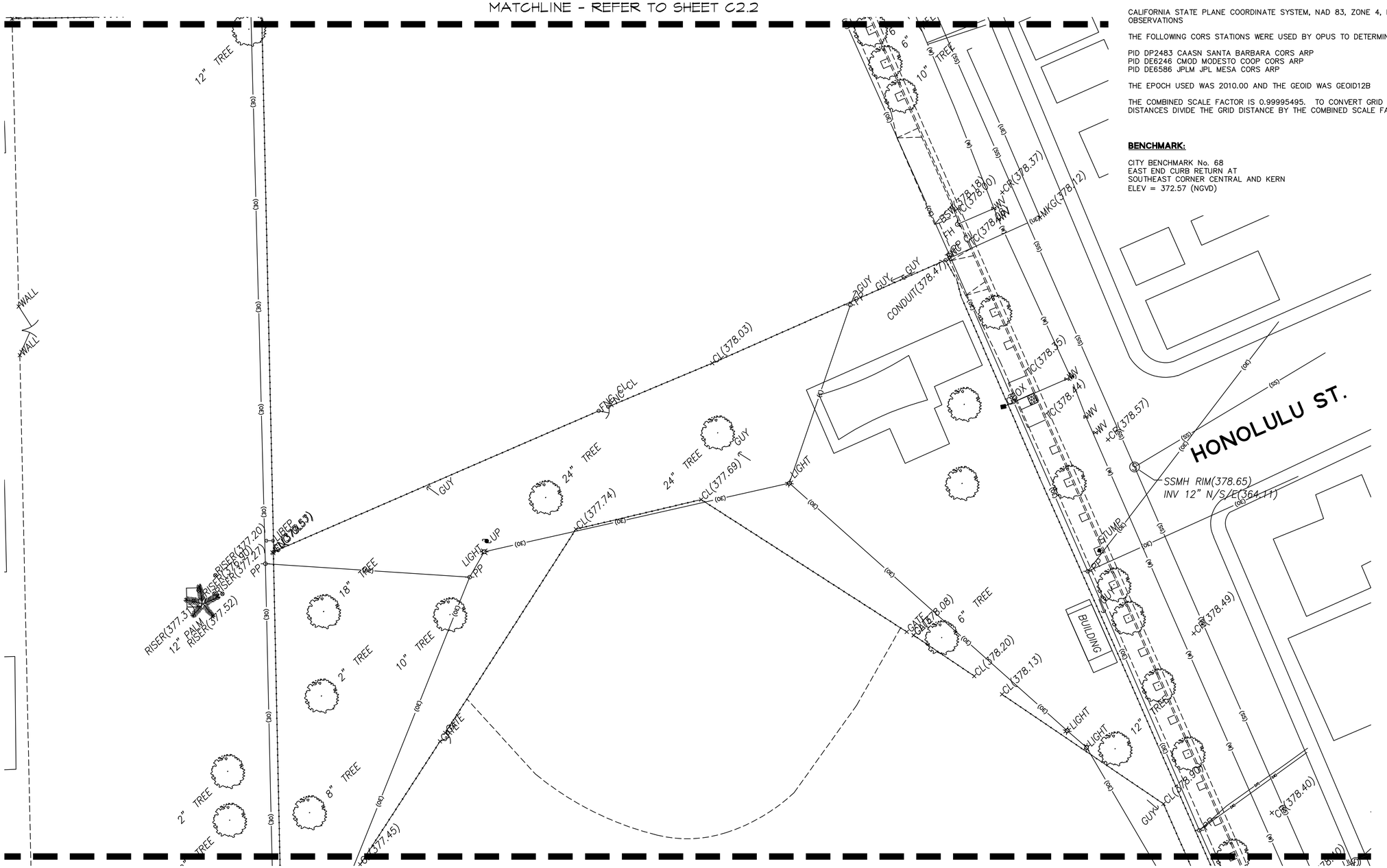
SHEET

C2.0

SHEET 5 OF 79 SHEETS

MATCHLINE - REFER TO SHEET C2.2




MATCHLINE - REFER TO SHEET C2.0

**BASIS OF BEARINGS & COORDINATES:**

CALIFORNIA STATE PLANE COORDINATE SYSTEM, NAD 83, ZONE 4, DERIVED FROM GPS OBSERVATIONS

THE FOLLOWING CORS STATIONS WERE USED BY OPUS TO DETERMINE THE COORDINATES:

PID DP2483 CAASN SANTA BARBARA CORS ARP
PID DE6246 CMOD MODESTO COOP CORS ARP
PID DE6586 JPLM JPL MESA CORS ARP

THE EPOCH USED WAS 2010.00 AND THE GEOID WAS GEOID12B

THE COMBINED SCALE FACTOR IS 0.99995495. TO CONVERT GRID DISTANCES TO GROUND DISTANCES DIVIDE THE GRID DISTANCE BY THE COMBINED SCALE FACTOR

**BENCHMARK:**

CITY BENCHMARK No. 68
EAST END CURB RETURN AT
SOUTHEAST CORNER CENTRAL AND KERN
ELEV = 372.57 (NGVD)

**ABBREVIATIONS & LEGEND:**

| | |
|---|---|
| BFP | WATER BACK-FLOW PREVENTER |
| BOL | BOLLARD |
| BSW | BACK OF SIDEWALK |
| C | CONCRETE |
| CR | CROWN OF ROAD |
| FF | FINISHED FLOOR |
| FH | FIRE HYDRANT |
| FL | FLOWLINE |
| ELEC BOX | ELECTRIC CHRISTY BOX |
| ELEC PAN | ELECTRICAL PANEL |
| GUY | GUYED WIRE |
| IVB | IRRIGATION VALVE BOX |
| LIGHT | POLE LIGHT |
| | POWER POLE W/ LIGHT |
| | STREET LIGHT |
| LIP | LIP OF GUTTER |
| OG | ORIGINAL GROUND |
| P | PAVEMENT |
| PALM | PALM TREE |
| PP | POWER POLE |
| | POWER POLE W/ TRANSFORMER |
| RISER | IRRIGATION RISER |
| SDMH | STORM DRAIN MANHOLE |
| SIGN | SIGN |
| SPK | IRRIGATION SPRINKLER |
| SSCO | SANITARY SEWER CLEANOUT |
| SSMH | SANITARY SEWER MANHOLE |
| TC | TOP OF CURB AT BACK, CONCRETE |
| TREE | TREE |
| WM | WATER METER |
| WV | WATER VALVE |
| | FENCE, CHAIN-LINK |
| | EDGE OF BUILDING |
| | ELECTRICAL LINE OVERHEAD (OE) |
| | ELECTRICAL LINE UNDERGROUND (UE) |
| | SANITARY SEWER LINE (SS) |
| | STORM DRAIN LINE (SD) |
| | TELEPHONE LINE OVERHEAD (OT) |
| | UNDERGROUND TELECOM LINE (UCTV) |

GRAPHIC SCALE

10 0 10 20 40 80

( IN FEET )
1 inch = 20 ft.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STRUCTURAL ENGINEER
**ISE**
SKATEPARK DESIGNER
**SPOHN RANCH**


# OLIVE BOWL KAKU PARK

LINDSAY, CA
93247

EXISTING CONDITIONS

| DATE | REVISION |
|---|---|
| 10-18-21 | 50% CD Submittal |
| 12-8-21 | 90% CD Submittal |
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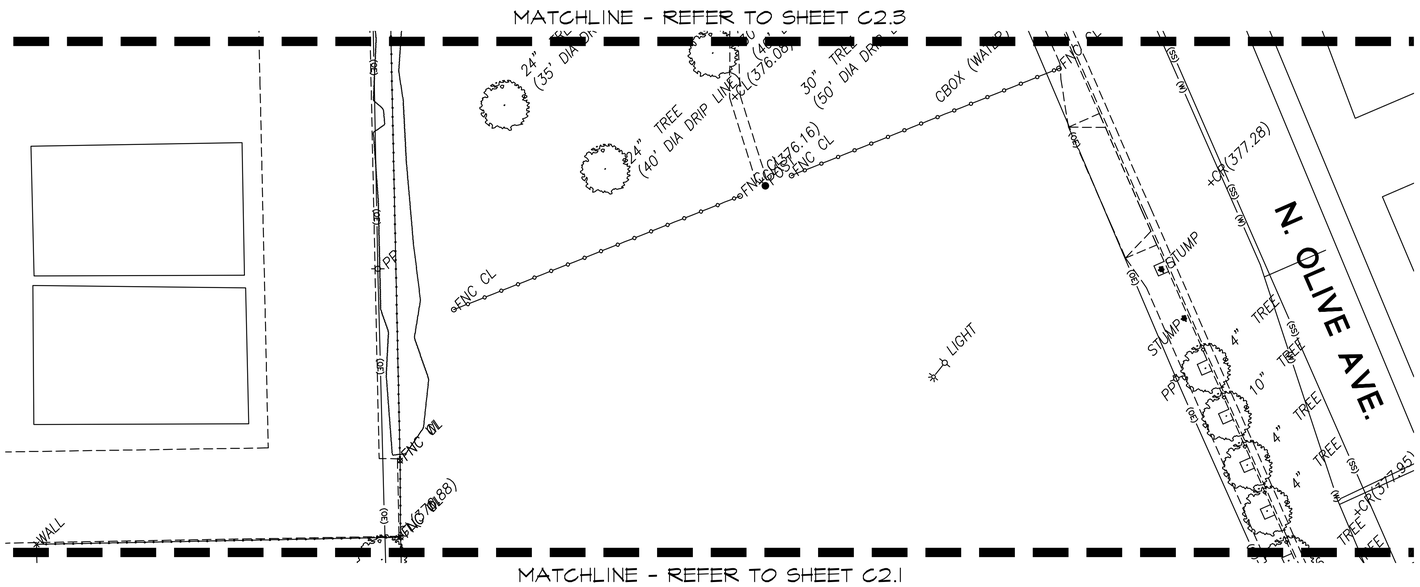
| 2-13-23 | 100% CD Submittal |
| 10-3-23 | ADDENDUM #1 |
| 10-27-23 | ADDENDUM #3 |
| 6-10-24 | 3 PHASE RE-PACKAGE |

STAMP

REGISTERED PROFESSIONAL ENGINEER
BRUCE W. KIRBY
No. C 42393
CIVIL
STATE OF CALIFORNIA

| CHECKED BY | DATE |
|---|---|
| B.K. | 6-10-24 |
| DRAWN BY | JOB NO. |
| V.L. | 05500.00 |

SHEET
C2.1

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SHEET
C2.2

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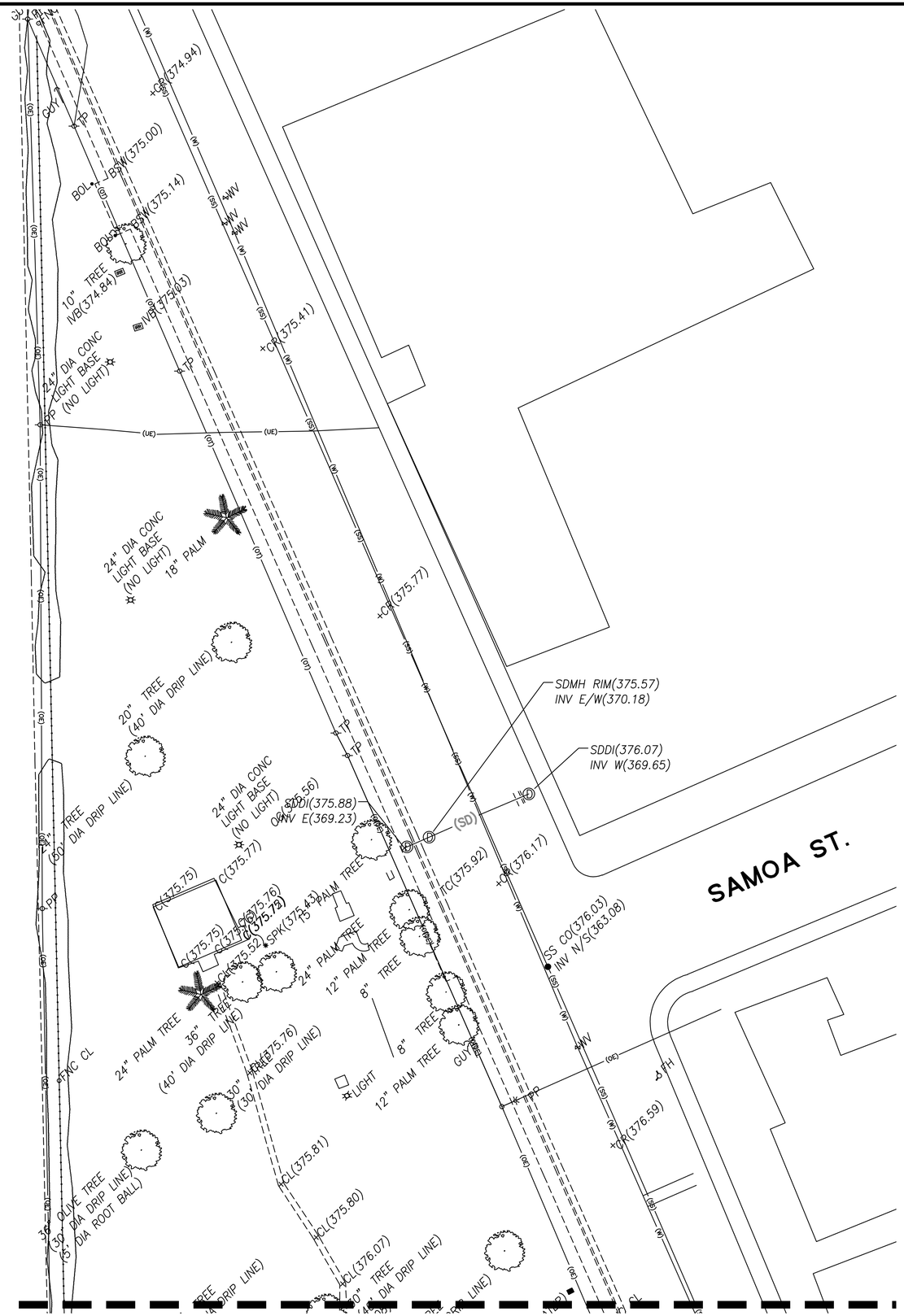


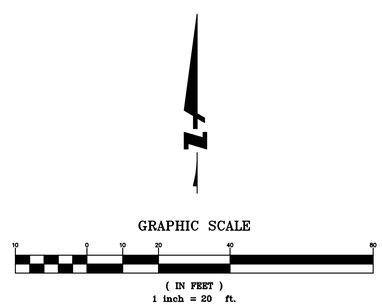


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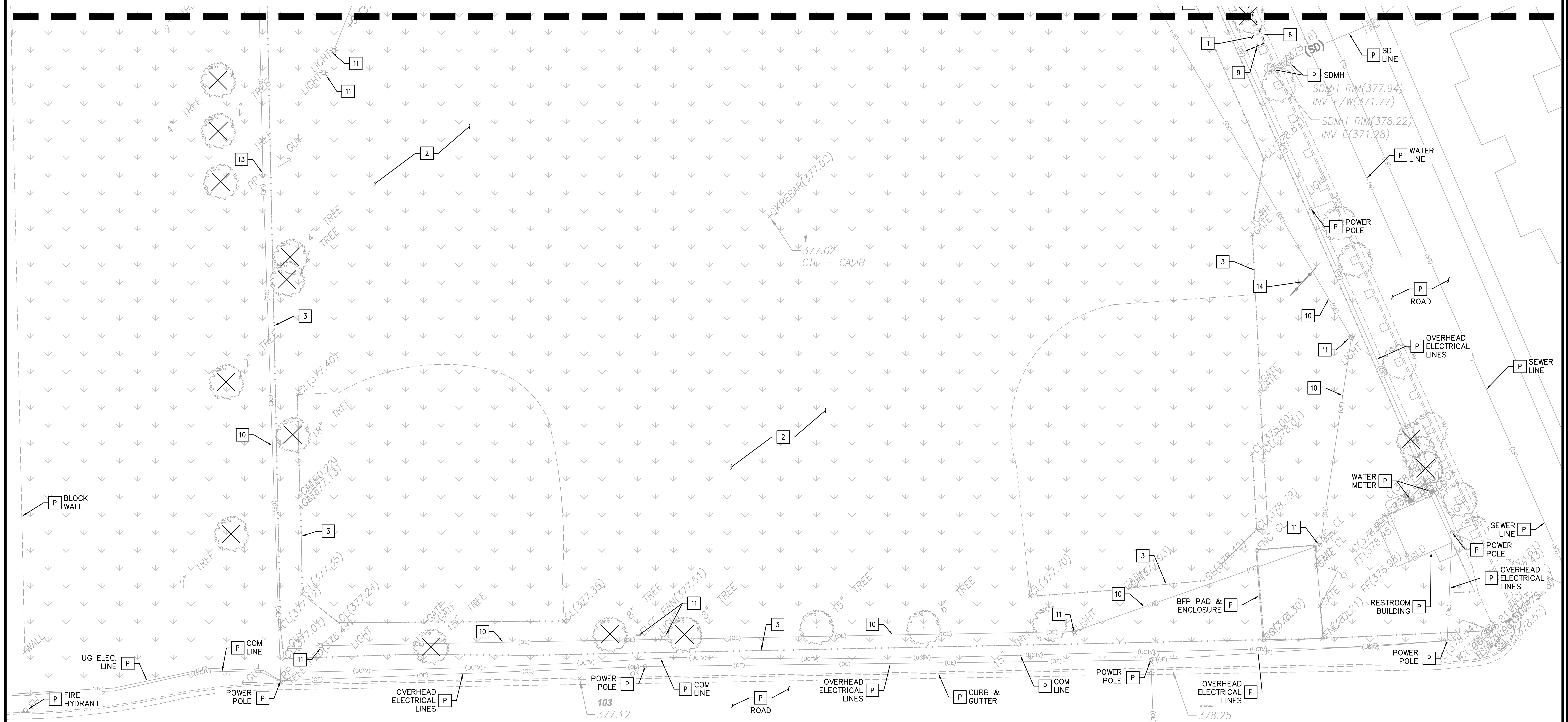
SHEET

C2.3

SHEET 8 OF 79 SHEETS

MATCHLINE - REFER TO SHEET C3.1




## DEMOLITION CONSTRUCTION NOTES:

| | |
|---|---|
| P | PROTECT IN PLACE |
| 1 | REMOVE EXISTING HARDSCAPE (PCC PAVEMENT, ASPHALT PAVEMENT, ETC.) |
| 2 | CLEAR AND GRUB EXISTING LANDSCAPE |
| 3 | FENCE TO BE REMOVED |
| 4 | SIGN TO BE REMOVED |
| 5 | BUILDING TO BE DEMOLISHED |
| 6 | CONCRETE CURB TO BE REMOVED |
| 7 | SHADE STRUCTURE CANOPY, FRAME AND POSTS TO BE RELOCATED. REMOVE OLD FOOTINGS. CONTRACTOR TO PROVIDE CALCULATIONS AND DRAWINGS FOR NEW FOOTING |
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| 9 | SAWCUT EX. CONCRETE |
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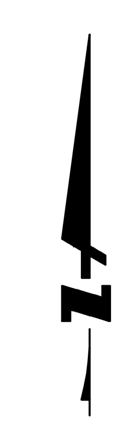
| 14 | REMOVE & RELOCATE SIGN PER LANDSCAPE PLANS |

## LEGEND:

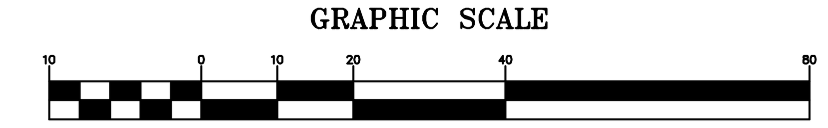
- PHASING LIMIT LINE SEE SHEET C1.0 FOR PHASING KEY MAP
- SAWCUT
- LANDSCAPE CLEAR AND GRUB
- CONCRETE TO BE REMOVED
- CONCRETE CURB TO BE REMOVED
- EXISTING TREE TO REMAIN. PROTECT IN PLACE
- EXISTING TREE TO BE REMOVED IN TOTAL. GRIND STUMP TO MIN. 12" BELOW F.S. OR AS NEEDED FOR NEW IMPROVEMENTS.

## DEMOLITION NOTES:

1. CONTRACTOR'S BID IS TO INCLUDE ALL VISIBLE SURFACE AND ALL SUBSURFACE FEATURES IDENTIFIED TO BE REMOVED OR ABANDONED IN THESE DOCUMENTS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR A SITE INSPECTION TO FULLY ACKNOWLEDGE THE EXTENT OF THE DEMOLITION WORK.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY AND ALL PERMITS NECESSARY FOR ENCROACHMENT, GRADING, DEMOLITION, AND DISPOSAL OF SAID MATERIALS AS REQUIRED BY PRIVATE, LOCAL AND STATE JURISDICTIONS. THE CONTRACTOR SHALL PAY ALL FEES ASSOCIATED WITH THE DEMOLITION WORK.
4. PRIOR TO BEGINNING DEMOLITION WORK ACTIVITIES, CONTRACTOR SHALL INSTALL EROSION CONTROL MEASURES OUTLINED IN THE EROSION CONTROL PLAN & DETAILS.
5. THE CONTRACTOR SHALL MAINTAIN ALL SAFETY DEVICES, AND SHALL BE RESPONSIBLE FOR CONFORMANCE TO ALL LOCAL, STATE AND FEDERAL SAFETY AND HEALTH STANDARDS LAWS AND REGULATIONS.
6. THE CONTRACTOR SHALL PROTECT FROM DAMAGE ALL EXISTING IMPROVEMENTS FACILITIES AND STRUCTURES WHICH ARE TO REMAIN. ANY ITEMS DAMAGED BY THE CONTRACTOR OR HIS AGENTS OR ANY ITEMS REMOVED FOR HIS USE SHALL BE REPLACED IN EQUAL OR BETTER CONDITION AS APPROVED BY THE ARCHITECT OR THE OWNER'S REPRESENTATIVE.
7. THIS PLAN IS NOT INTENDED TO BE A COMPLETE CATALOGUE OF EXISTING STRUCTURES AND UTILITIES. THIS PLAN INTENDS TO DISCLOSE GENERAL INFORMATION KNOWN BY THE ENGINEER AND TO SHOW THE LIMITS OF THE AREA WHERE WORK WILL BE PERFORMED. THIS PLAN SHOWS THE EXISTING FEATURES TAKEN FROM A FIELD SURVEY, FIELD INVESTIGATIONS AND AVAILABLE INFORMATION. THE CONTRACTOR SHALL PERFORM A THOROUGH FIELD INVESTIGATION AND REVIEW OF THE SITE WITHIN THE LIMIT OF WORK AS SHOWN IN THIS PLAN SET TO DETERMINE THE TYPE, QUANTITY AND EXTENT OF ANY AND ALL ITEMS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR DETERMINING THE EXTENT OF EXISTING STRUCTURES AND UTILITIES AND QUALITY OF WORK INVOLVED IN REMOVING THESE ITEMS FROM THE SITE.
8. REFER TO ELECTRICAL PLANS FOR ADDITIONAL EXISTING ELECTRICAL REMOVALS AND NOTES



GRAPHIC SCALE



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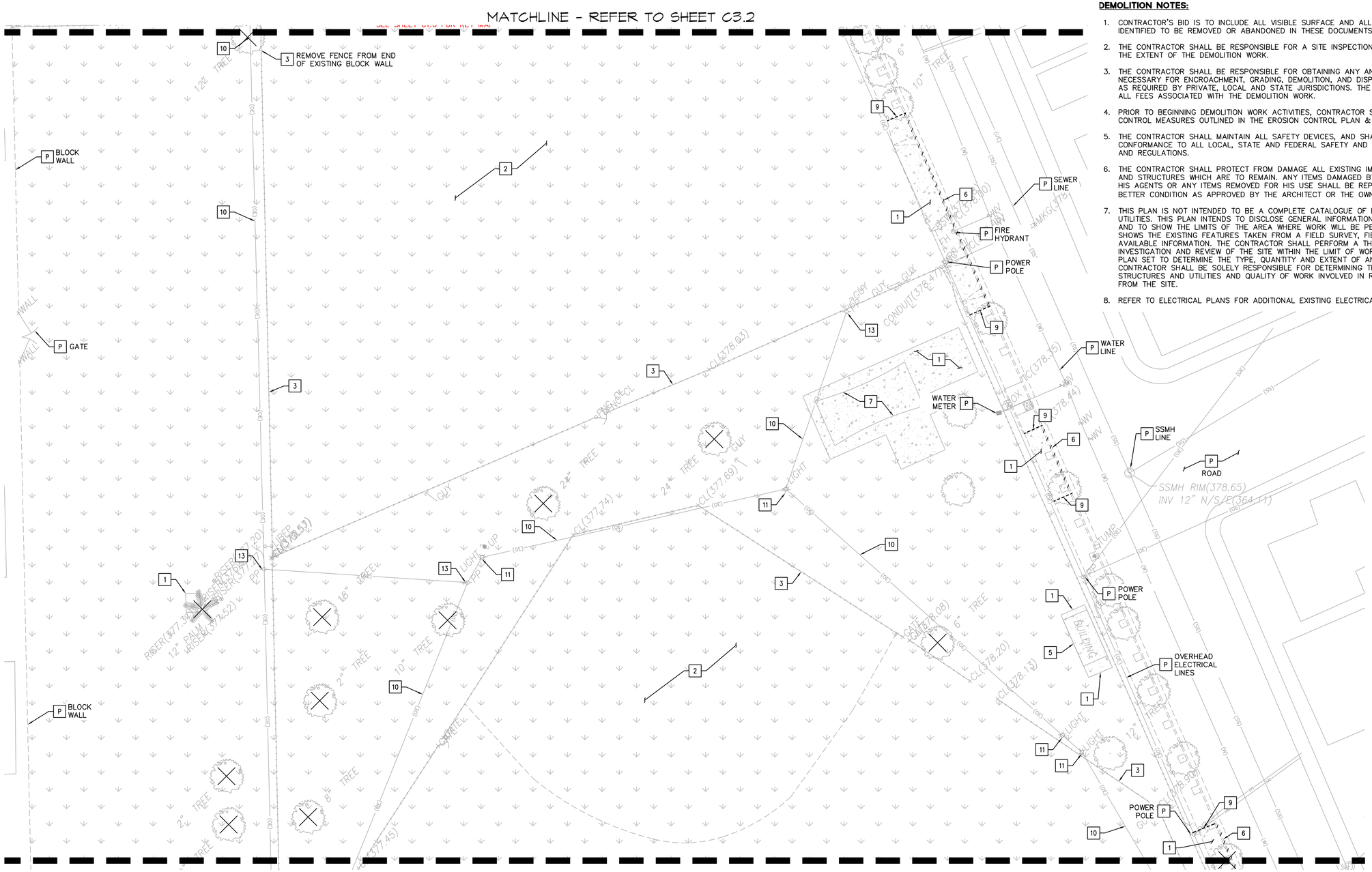


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- P PROTECT IN PLACE
- 1 REMOVE EXISTING HARDSCAPE (PCC PAVEMENT, ASPHALT PAVEMENT, ETC.)
- 2 CLEAR AND GRUB EXISTING LANDSCAPE
- 3 FENCE TO BE REMOVED
- 4 SIGN TO BE REMOVED
- 5 BUILDING TO BE DEMOLISHED
- 6 CONCRETE CURB TO BE REMOVED
- 7 SHADE STRUCTURE CANOPY, FRAME AND POSTS TO BE RELOCATED. REMOVE OLD FOOTINGS. CONTRACTOR TO PROVIDE CALCULATIONS AND DRAWINGS FOR NEW FOOTIN
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- 9 SAWCUT EX. CONCRETE
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**LEGEND:**

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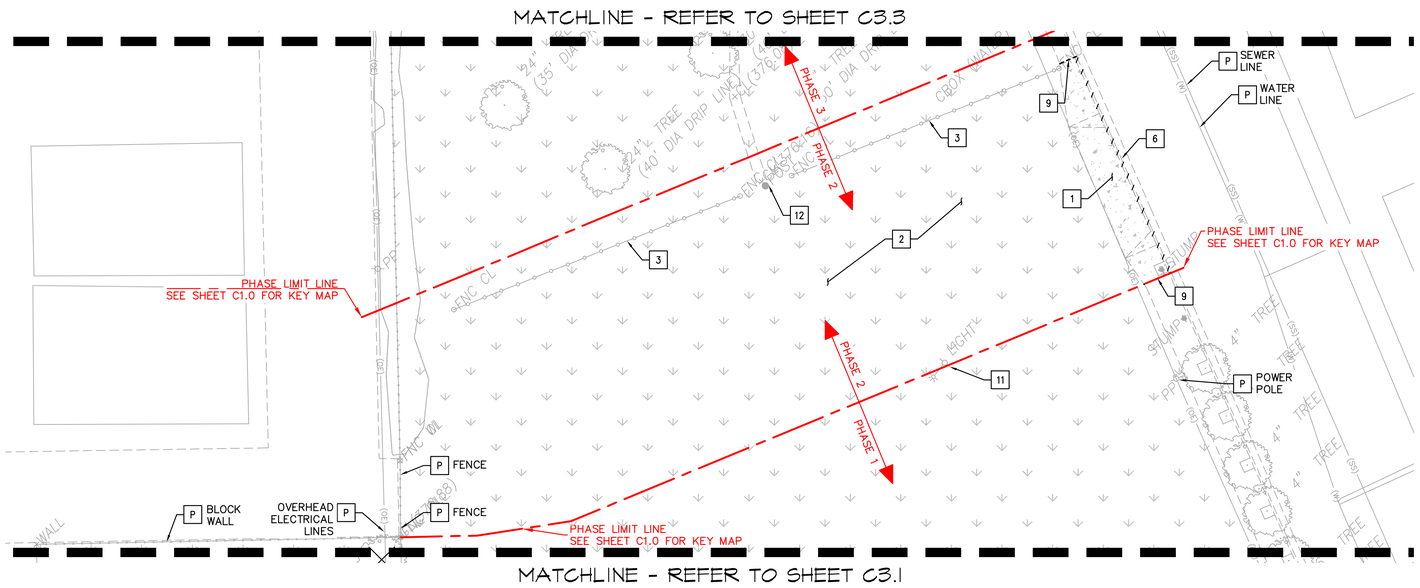


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- 6 CONCRETE CURB TO BE REMOVED
- 7 SHADE STRUCTURE CANOPY, FRAME AND POSTS TO BE RELOCATED. REMOVE OLD FOOTINGS. CONTRACTOR TO PROVIDE CALCULATIONS AND DRAWINGS FOR NEW FOOTINGS.
- 8 CURB TO BE DEMOLISHED
- 9 SAWCUT EX. CONCRETE
- 10 OVERHEAD ELECTRIC LINE TO BE REMOVED BY EDISON
- 11 LIGHTS & ASSOCIATED ELECTRICAL LINE TO BE REMOVED. REFER TO ELEC. PLANS & APPARATUS
- 12 EXISTING POST TO BE REMOVED INCLUDING FOOTING
- 13 POWER POLE AND FOUNDATION TO BE REMOVED. SEE ELECTRICAL DRAWINGS
- 14 REMOVE & RELOCATE SIGN PER LANDSCAPE PLANS

**LEGEND:**

- PHASING LIMIT LINE SEE SHEET C1.0 FOR PHASING KEY MAP
- SAWCUT
- LANDSCAPE CLEAR AND GRUB
- CONCRETE TO BE REMOVED
- CONCRETE CURB TO BE REMOVED
- EXISTING TREE TO REMAIN. PROTECT IN PLACE
- EXISTING TREE TO BE REMOVED IN TOTAL. GRIND STUMP TO MIN. 12" BELOW F.S. OR AS NEEDED FOR NEW IMPROVEMENTS.

**DEMOLITION NOTES:**

1. CONTRACTOR'S BID IS TO INCLUDE ALL VISIBLE SURFACE AND ALL SUBSURFACE FEATURES IDENTIFIED TO BE REMOVED OR ABANDONED IN THESE DOCUMENTS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR A SITE INSPECTION TO FULLY ACKNOWLEDGE THE EXTENT OF THE DEMOLITION WORK.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY AND ALL PERMITS NECESSARY FOR ENCROACHMENT, GRADING, DEMOLITION, AND DISPOSAL OF SAID MATERIALS AS REQUIRED BY PRIVATE, LOCAL AND STATE JURISDICTIONS. THE CONTRACTOR SHALL PAY ALL FEES ASSOCIATED WITH THE DEMOLITION WORK.
4. PRIOR TO BEGINNING DEMOLITION WORK ACTIVITIES, CONTRACTOR SHALL INSTALL EROSION CONTROL MEASURES OUTLINED IN THE EROSION CONTROL PLAN & DETAILS.
5. THE CONTRACTOR SHALL MAINTAIN ALL SAFETY DEVICES, AND SHALL BE RESPONSIBLE FOR CONFORMANCE TO ALL LOCAL, STATE AND FEDERAL SAFETY AND HEALTH STANDARDS LAWS AND REGULATIONS.
6. THE CONTRACTOR SHALL PROTECT FROM DAMAGE ALL EXISTING IMPROVEMENTS FACILITIES AND STRUCTURES WHICH ARE TO REMAIN. ANY ITEMS DAMAGED BY THE CONTRACTOR OR HIS AGENTS OR ANY ITEMS REMOVED FOR HIS USE SHALL BE REPLACED IN EQUAL OR BETTER CONDITION AS APPROVED BY THE ARCHITECT OR THE OWNER'S REPRESENTATIVE.
7. THIS PLAN IS NOT INTENDED TO BE A COMPLETE CATALOGUE OF EXISTING STRUCTURES AND UTILITIES. THIS PLAN INTENDS TO DISCLOSE GENERAL INFORMATION KNOWN BY THE ENGINEER AND TO SHOW THE LIMITS OF THE AREA WHERE WORK WILL BE PERFORMED. THIS PLAN SHOWS THE EXISTING FEATURES TAKEN FROM A FIELD SURVEY, FIELD INVESTIGATIONS AND AVAILABLE INFORMATION. THE CONTRACTOR SHALL PERFORM A THOROUGH FIELD INVESTIGATION AND REVIEW OF THE SITE WITHIN THE LIMIT OF WORK AS SHOWN IN THIS PLAN SET TO DETERMINE THE TYPE, QUANTITY AND EXTENT OF ANY AND ALL ITEMS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR DETERMINING THE EXTENT OF EXISTING STRUCTURES AND UTILITIES AND QUALITY OF WORK INVOLVED IN REMOVING THESE ITEMS FROM THE SITE.
8. REFER TO ELECTRICAL PLANS FOR ADDITIONAL EXISTING ELECTRICAL REMOVALS AND NOTES

GRAPHIC SCALE

10 0 10 20 40 80

( IN FEET )
1 inch = 20 ft.


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OLIVE BOWL
KAKU
PARK

LINDSAY, CA
93247

DEMOLITION PLAN

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| 10-3-23 | ADDENDUM #1 |
| 10-27-23 | ADDENDUM #3 |
| 6-10-24 | 3 PHASE RE-PACKAGE |
| | |
| | |
| | |
| | |

STAMP

REGISTERED PROFESSIONAL ENGINEER
BRUCE W. KIRBY
No. C 42393
CIVIL
STATE OF CALIFORNIA

| CHECKED BY | DATE |
|---|---|
| B.K. | 6-10-24 |
| DRAWN BY | JOB NO. |
| V.L. | 05500.00 |

SHEET
C3.2

## DEMOLITION NOTES:

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8. REFER TO ELECTRICAL PLANS FOR ADDITIONAL EXISTING ELECTRICAL REMOVALS AND NOTES

## LEGEND:

- PHASING LIMIT LINE — SEE SHEET C1.0 FOR PHASING KEY MAP
- SAWCUT
- LANDSCAPE CLEAR AND GRUB
- CONCRETE TO BE REMOVED
- CONCRETE CURB TO BE REMOVED
- EXISTING TREE TO REMAIN. PROTECT IN PLACE
- EXISTING TREE TO BE REMOVED IN TOTAL. GRIND STUMP TO MIN. 12" BELOW F.S. OR AS NEEDED FOR NEW IMPROVEMENTS.

## DEMOLITION CONSTRUCTION NOTES:

- P — PROTECT IN PLACE
- 1 — REMOVE EXISTING HARDSCAPE (PCC PAVEMENT, ASPHALT PAVEMENT, ETC.)
- 2 — CLEAR AND GRUB EXISTING LANDSCAPE
- 3 — FENCE TO BE REMOVED
- 4 — SIGN TO BE REMOVED
- 5 — BUILDING TO BE DEMOLISHED
- 6 — CONCRETE CURB TO BE REMOVED
- 7 — SHADE STRUCTURE CANOPY, FRAME AND POSTS TO BE RELOCATED. REMOVE OLD FOOTINGS. CONTRACTOR TO PROVIDE CALCULATIONS AND DRAWINGS FOR NEW FOOTINGS.
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GRAPHIC SCALE

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1 inch = 20 ft.


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# OLIVE BOWL KAKU PARK

LINDSAY, CA
93247

DEMOLITION PLAN

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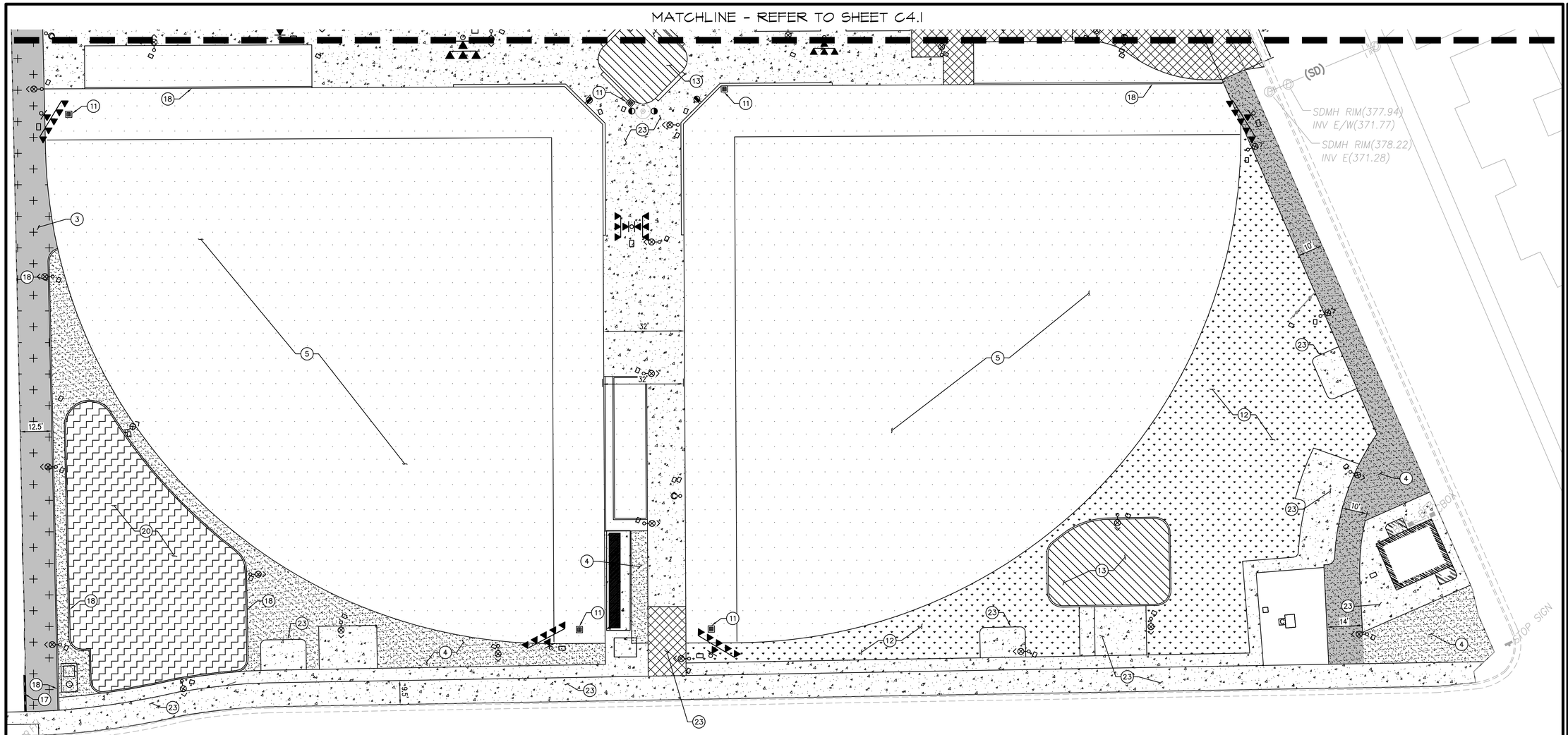
| V.L. | 05500.00 |

SHEET
C3.3




**LEGEND:**

- MATCH LINE
- PHASING LIMIT LINE SEE SHEET C1.0 FOR PHASING KEY MAP
- AC PAVEMENT
- STABILIZED DECOMPOSED GRANITE
- PEDESTRIAN CONCRETE
- RUBBERIZED SURFACE
- GENERAL TURF
- HEAVY DUTY CONCRETE
- BIO-FILTRATION BASIN
- PLAY FIELD
- BUILDING
- PLANTING AREA
- AC PAVEMENT (ADD ALTERNATIVE 7" CONCRETE)
- STABILIZED DECOMPOSED GRANITE (ADD ALTERNATIVE 4" CONCRETE)
- ENGINEERED WOOD FIBER

**CONSTRUCTION NOTES:**

1. JOIN EXISTING PAVEMENT
2. CONSTRUCT CURB & GUTTER PER DETAIL 8/C8.0
3. CONSTRUCT AC PAVEMENT PER DETAIL 2/C8.0
4. CONSTRUCT STABILIZED DECOMPOSED GRANITE PER LANDSCAPE PLANS
5. CONSTRUCT FIELD PER LANDSCAPE DRAWINGS
6. CONSTRUCT CURB RAMP PER DETAIL 2 (CASE A)/C8.1
7. CONSTRUCT ACCESSIBLE STALL AND MARKINGS PER DETAIL 5/C8.0
8. CONSTRUCT CURB INLET PER DETAIL 6/C8.0
9. PAINT 4" WIDE PARKING STALL STRIPE. COLOR PER LANDSCAPE PLANS.
10. CONSTRUCT DRIVEWAY PER DETAIL 1/C8.0
11. CONSTRUCT STORM DRAIN INLET PER DETAIL 4/C8.0
12. LANDSCAPING PER LANDSCAPE PLANS
13. RUBBERIZED SURFACE MATERIAL PER LANDSCAPE PLANS
14. RUBBERIZED RAMP PER LANDSCAPE PLANS
15. TRASH ENCLOSURE PER CITY STANDARD MI-1
16. CONSTRUCT CURB PER DETAIL 1/C8.1
17. CONSTRUCT CMU WALL TO MATCH EXISTING
18. CONSTRUCT MOW CURB PER LANDSCAPE PLANS
19. PROPOSED RESTROOM/CONCESSION BUILDING PER LANDSCAPE PLANS
20. PROPOSED BIO-FILTRATION BASIN PER GRADING PLAN
21. RELOCATED SIGN, SEE LANDSCAPE PLANS
22. CONSTRUCT STORM DRAIN MANHOLE PER DETAIL 5/C8.1
23. CONSTRUCT CONCRETE PAVEMENT PER LANDSCAPE DRAWINGS
24. CONSTRUCT PLAY AREA CURB PER LANDSCAPE DRAWINGS
25. ENGINEERED WOOD FIBER MATERIAL PER LANDSCAPE PLANS

**NOTES:**

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GRAPHIC SCALE

10 0 10 20 40 80

( IN FEET )
1 inch = 20 ft.

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# OLIVE BOWL KAKU PARK

LINDSAY, CA
93247

SITE IMPROVEMENT PLAN

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| 6-10-24 | 3 PHASE RE-PACKAGE |

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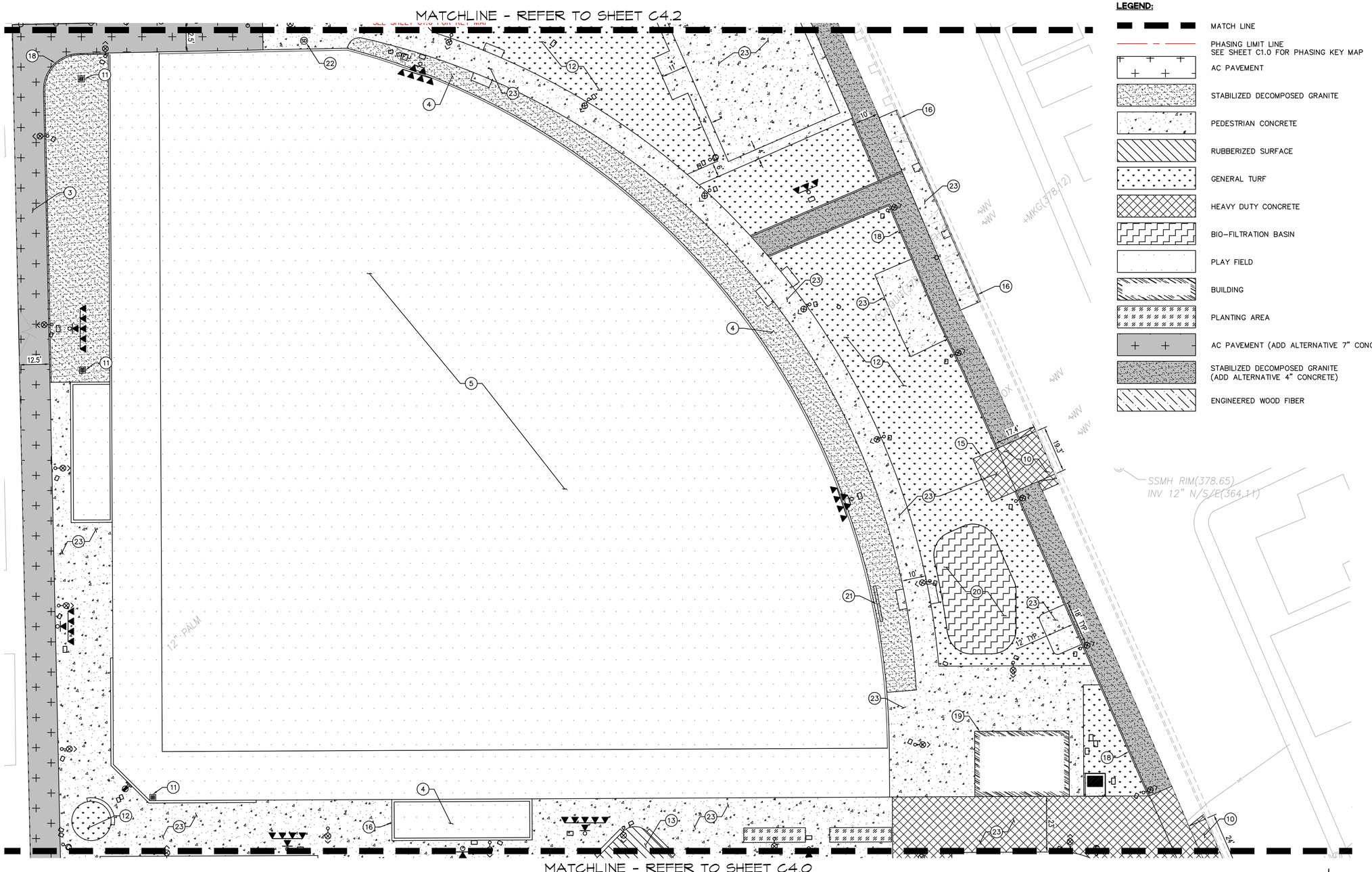
| DRAWN BY | JOB NO. |
| V.L. | 05500.00 |

SHEET
C4.0




**LEGEND:**

- MATCH LINE
- PHASING LIMIT LINE SEE SHEET C1.0 FOR PHASING KEY MAP
- AC PAVEMENT
- STABILIZED DECOMPOSED GRANITE
- PEDESTRIAN CONCRETE
- RUBBERIZED SURFACE
- GENERAL TURF
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- BIO–FILTRATION BASIN
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- BUILDING
- PLANTING AREA
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**CONSTRUCTION NOTES:**

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2. CONSTRUCT CURB & GUTTER PER DETAIL 8/C8.0
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GRAPHIC SCALE

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SHEET
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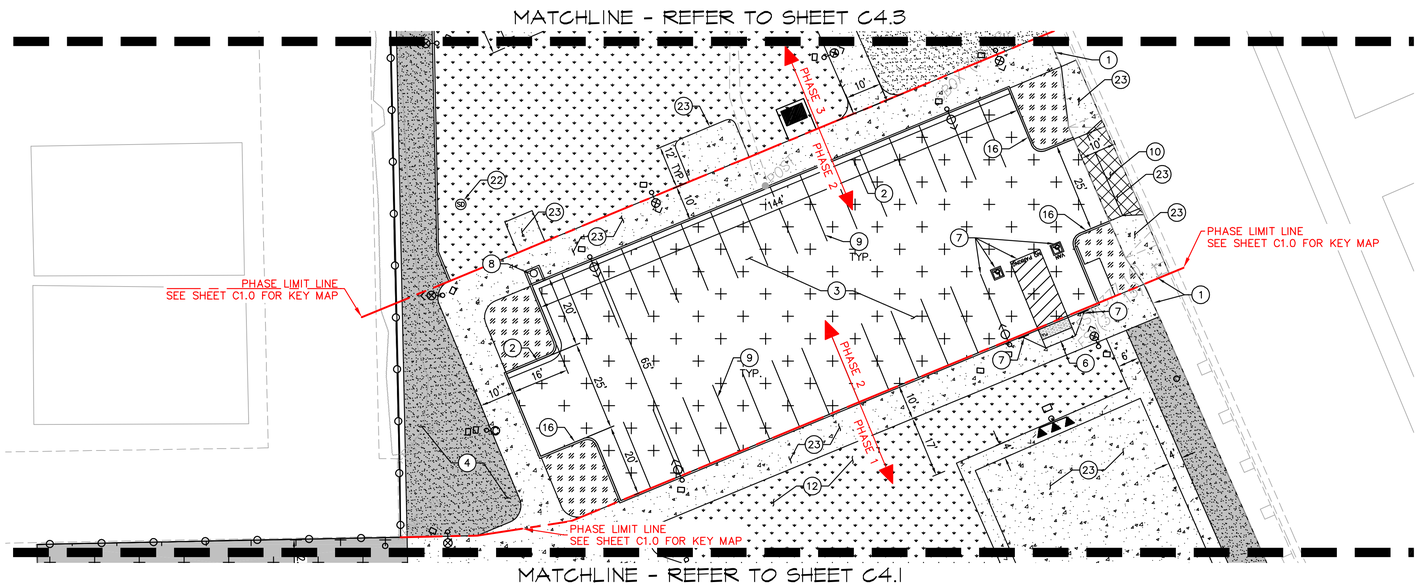


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SHEET
C4.2

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**CONSTRUCTION NOTES:**

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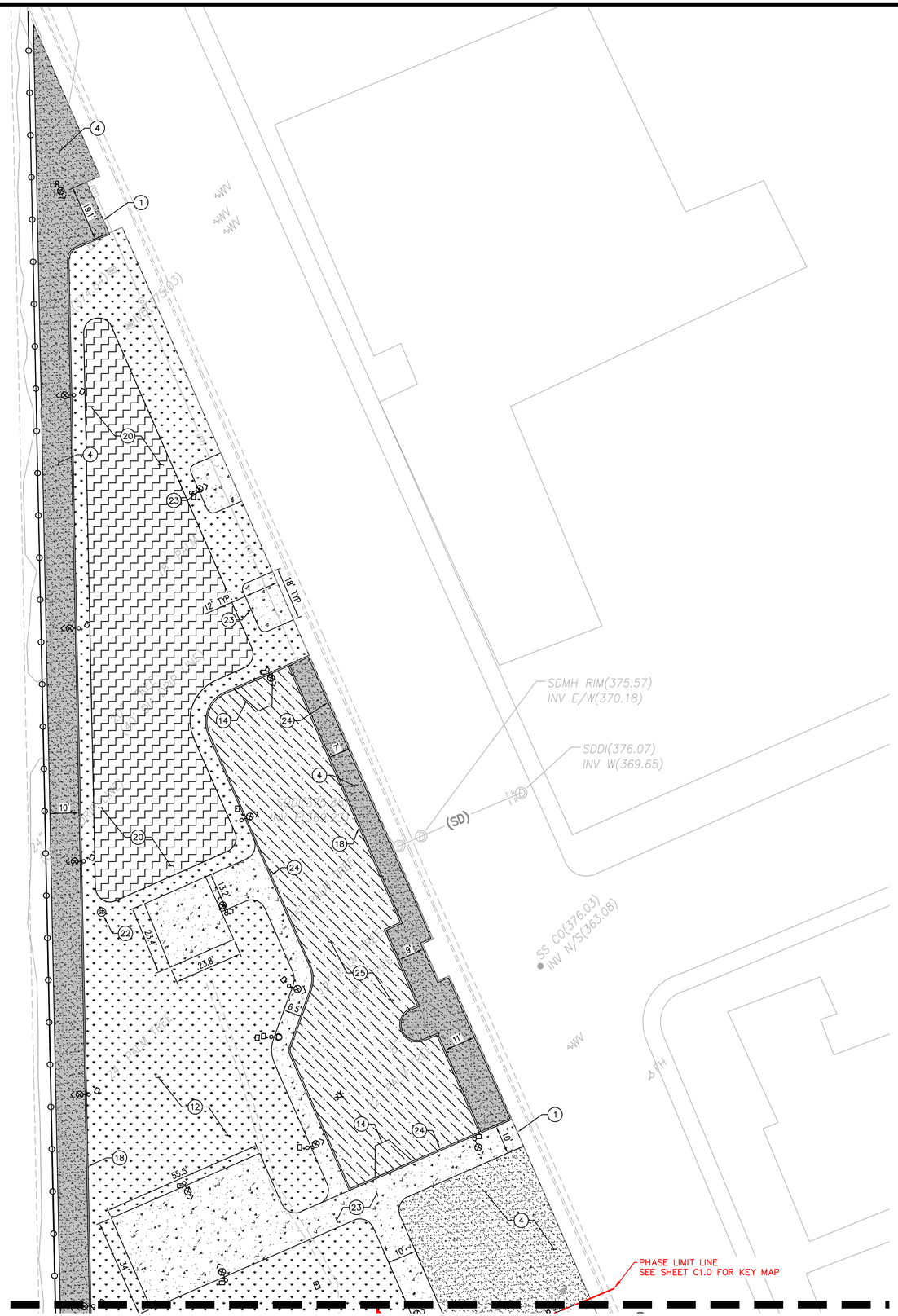
5. CONSTRUCT FIELD PER LANDSCAPE DRAWINGS
6. CONSTRUCT CURB RAMP PER DETAIL 2 (CASE A)/C8.1
7. CONSTRUCT ACCESSIBLE STALL AND MARKINGS PER DETAIL 5/C8.0
8. CONSTRUCT CURB INLET PER DETAIL 6/C8.0
9. PAINT 4" WIDE PARKING STALL STRIPE. COLOR PER LANDSCAPE PLANS.
10. CONSTRUCT DRIVEWAY PER DETAIL 1/C8.0
11. CONSTRUCT STORM DRAIN INLET PER DETAIL 4/C8.0
12. LANDSCAPING PER LANDSCAPE PLANS
13. RUBBERIZED SURFACE MATERIAL PER LANDSCAPE PLANS
14. RUBBERIZED RAMP PER LANDSCAPE PLANS
15. TRASH ENCLOSURE PER CITY STANDARD MI-1
16. CONSTRUCT CURB PER DETAIL 1/C8.1
17. CONSTRUCT CMU WALL TO MATCH EXISTING
18. CONSTRUCT MOW CURB PER LANDSCAPE PLANS
19. PROPOSED RESTROOM/CONCESSION BUILDING PER LANDSCAPE PLANS
20. PROPOSED BIO-FILTRATION BASIN PER GRADING PLAN
21. RELOCATED SIGN, SEE LANDSCAPE PLANS
22. CONSTRUCT STORM DRAIN MANHOLE PER DETAIL 5/C8.1
23. CONSTRUCT CONCRETE PAVEMENT PER LANDSCAPE DRAWINGS
24. CONSTRUCT PLAY AREA CURB PER LANDSCAPE DRAWINGS
25. ENGINEERED WOOD FIBER MATERIAL PER LANDSCAPE PLANS




GRAPHIC SCALE

( IN FEET )
1 inch = 20 ft.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**BKF**

STRUCTURAL ENGINEER
**ISE**

SKATEPARK DESIGNER
**SPOHN RANCH**


# OLIVE BOWL KAKU PARK

LINDSAY, CA
93247

SITE IMPROVEMENT PLAN

| DATE | REVISION |
|---|---|
| 10-18-21 | 50% CD Submittal |
| 12-8-21 | 90% CD Submittal |
| 12-14-22 | 90% CD Submittal |
| 2-13-23 | 100% CD Submittal |
| 10-3-23 | ADDENDUM #1 |
| 10-27-23 | ADDENDUM #3 |
| 6-10-24 | 3 PHASE RE-PACKAGE |
| | |
| | |
| | |
| | |

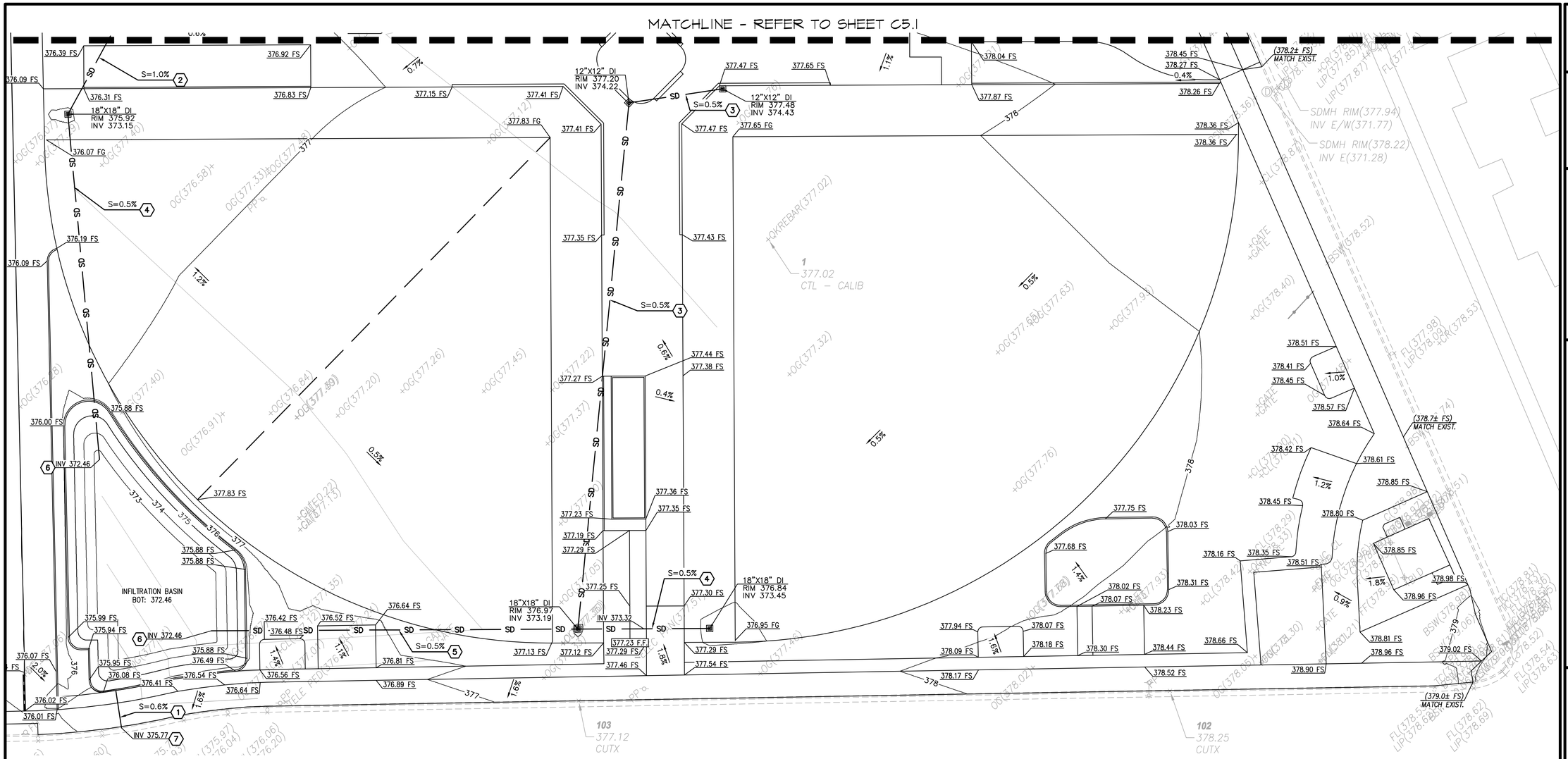
STAMP

REGISTERED PROFESSIONAL ENGINEER
BRUCE W. KIRBY
No. C 42393
CIVIL
STATE OF CALIFORNIA

| CHECKED BY | DATE |
|---|---|
| B.K. | 6-10-24 |
| DRAWN BY | JOB NO. |
| V.L. | 05500.00 |

SHEET

C4.3




BKF LIMIT OF WORK

MATCH LINE

PHASING LIMIT LINE
SEE SHEET C1.0 FOR PHASING KEY MAP

GB — GRADE BREAK

XXX — EXISTING CONTOUR LINE

XXX — PROPOSED CONTOUR LINE

XXX.XX FS — PROPOSED GRADE ELEVATION

X.X% — PROPOSED GRADE SLOPE

UTILITY MANHOLE

UTILITY CLEAN OUT

STORM DRAIN CURB INLET

STORM DRAIN AREA DRAIN

STORM DRAIN DROP INLET

SD — PROPOSED STORM DRAIN LINE

**NOTES:**

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3. GRADING SHALL NOT EXCEED A 4:1 MAXIMUM SLOPE.
4. SEE LANDSCAPE PLANS FOR PAD ELEVATION.

**CONSTRUCTION NOTES:**

1. INSTALL 3" SDR35 PVC PIPE AND FITTINGS
2. INSTALL 6" SDR35 PVC PIPE AND FITTINGS
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6. INSTALL MITERED DRAIN PER DETAIL 3, SHEET C8.1
7. INSTALL CURB DRAIN PER DETAIL 6, SHEET C8.1
   USE THE CENTERLINE OF DETAIL AT THIS LOCATION

GRAPHIC SCALE

10 0 10 20 40 80

( IN FEET )
1 inch = 20 ft.

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# OLIVE BOWL KAKU PARK

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GRADING & DRAINAGE PLAN

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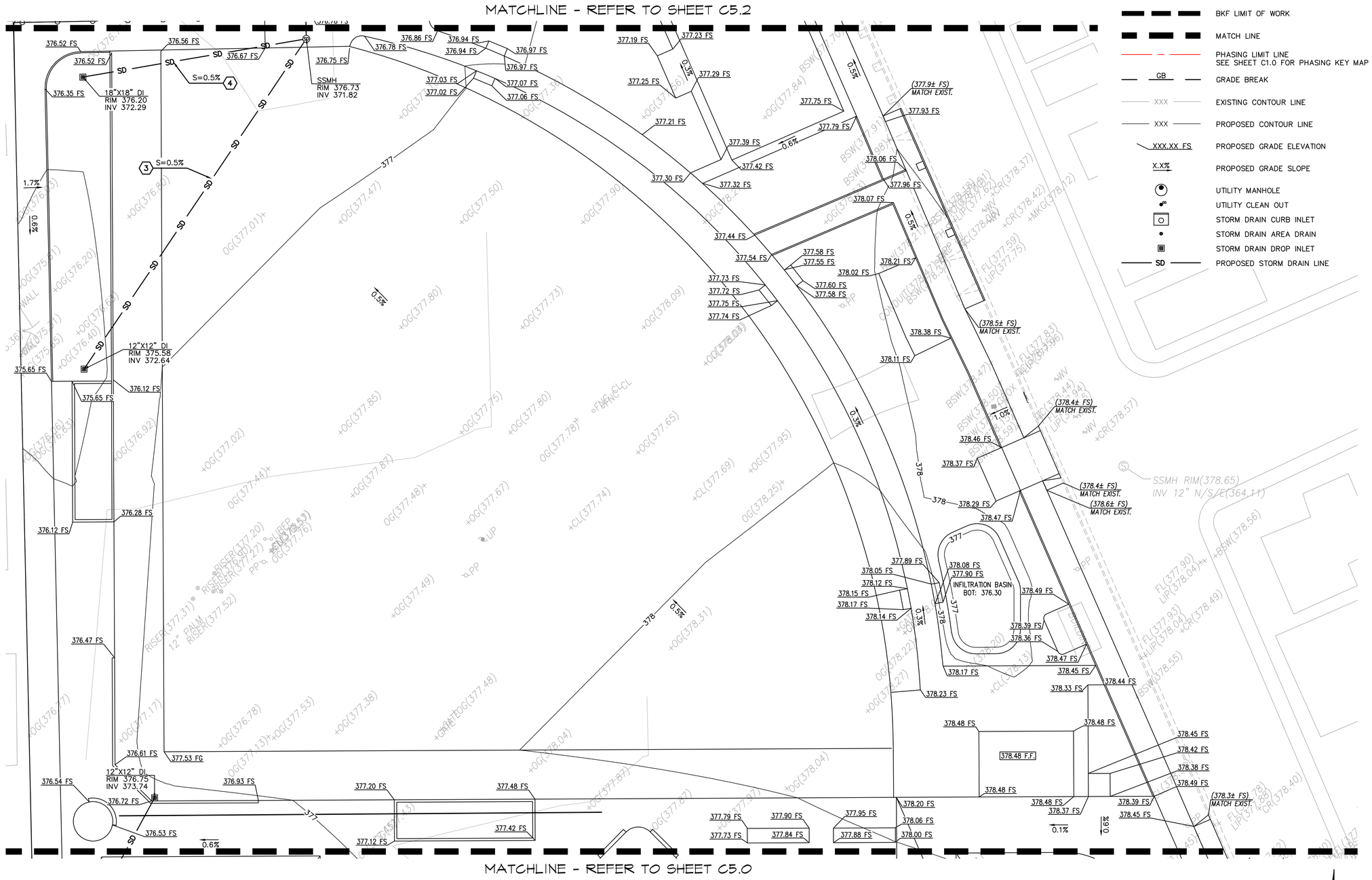
SHEET

C5.0

SHEET 17 OF 79 SHEETS

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UTILITY MANHOLE

UTILITY CLEAN OUT

STORM DRAIN CURB INLET

STORM DRAIN AREA DRAIN

STORM DRAIN DROP INLET

SD — PROPOSED STORM DRAIN LINE

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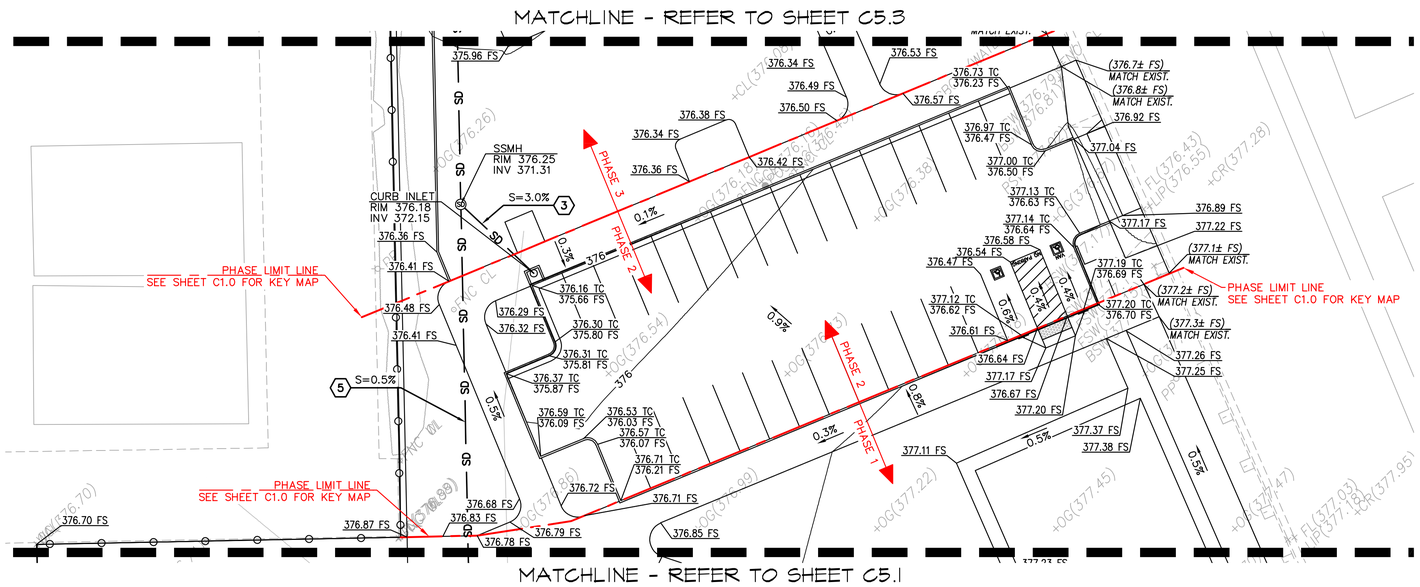
SHEET

C5.1

SHEET 18 OF 79 SHEETS




| | |
|---|---|
| ▬ ▬ ▬ | BKF LIMIT OF WORK |
| ▬ ▬ ▬ | MATCH LINE |
| —— – —— | PHASING LIMIT LINE SEE SHEET C1.0 FOR PHASING KEY MAP |
| — GB — | GRADE BREAK |
| —— XXX —— | EXISTING CONTOUR LINE |
| —— XXX —— | PROPOSED CONTOUR LINE |
| XXX.XX FS | PROPOSED GRADE ELEVATION |
| X.X% | PROPOSED GRADE SLOPE |
| ⊙ | UTILITY MANHOLE |
| | UTILITY CLEAN OUT |
| ⊡ | STORM DRAIN CURB INLET |
| • | STORM DRAIN AREA DRAIN |
| ▣ | STORM DRAIN DROP INLET |
| —— SD —— | PROPOSED STORM DRAIN LINE |

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GRAPHIC SCALE

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SHEET
C5.2

BKF LIMIT OF WORK

MATCH LINE

PHASING LIMIT LINE
SEE SHEET C1.0 FOR PHASING KEY MAP

GB — GRADE BREAK

XXX — EXISTING CONTOUR LINE

XXX — PROPOSED CONTOUR LINE

XXX.XX FS — PROPOSED GRADE ELEVATION

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UTILITY MANHOLE

UTILITY CLEAN OUT

STORM DRAIN CURB INLET

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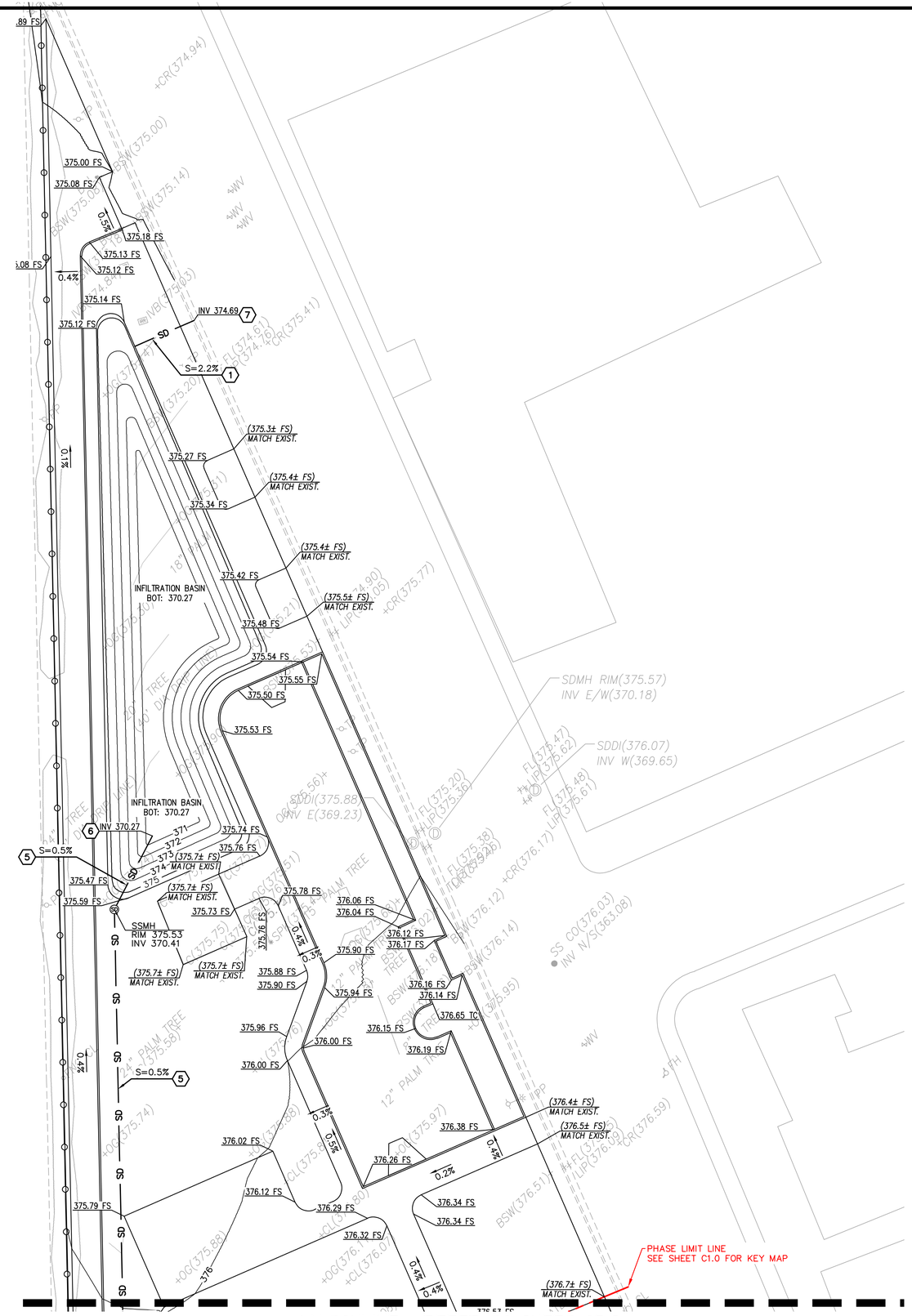


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# OLIVE BOWL KAKU PARK

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GRADING & DRAINAGE PLAN

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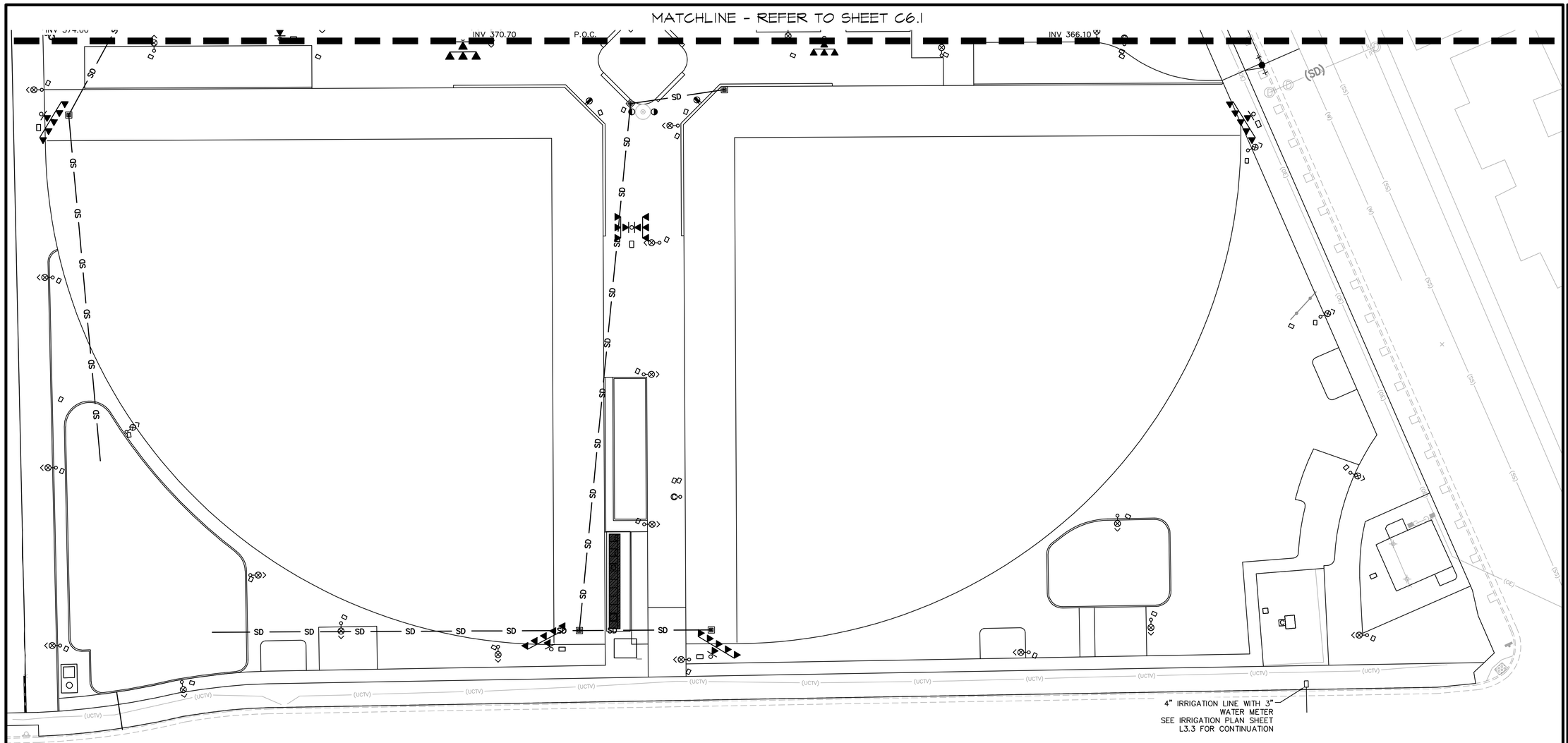
| V.L. | 05500.00 |

SHEET

C5.3

SHEET 20 OF 79 SHEETS




**LEGEND:**

- BKF LIMIT OF WORK
- MATCH LINE
- PHASING LIMIT LINE SEE SHEET C1.0 FOR PHASING KEY MAP
- SS — PROPOSED SANITARY SEWER LINE
- SD — PROPOSED STORM DRAIN LINE
- W — PROPOSED DOMESTIC WATER LINE
- FW — PROPOSED FIRE WATER LINE
- SSMH — SANITARY SEWER MANHOLE
- SDMH — STORM DRAIN MANHOLE
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- THRUST BLOCK

**NOTES:**

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2. CONTRACTOR SHALL VERIFY ALL EX INV ELEVATIONS AND LATERAL LOCATIONS FOR STORM DRAIN AND SANITARY SEWER CONSTRUCTION PRIOR TO COMMENCEMENT OF ANY WORK. ALL WORK FOR STORM AND SANITARY SEWER INSTALLATION SHALL BEGIN AT THE DOWNSTREAM CONNECTION POINT. THIS WILL ALLOW FOR NECESSARY ADJUSTMENTS TO BE MADE PRIOR TO THE INSTALLATION OF THE ENTIRE LINE. IF THE CONTRACTOR FAILS TO BEGIN AT THE DOWNSTREAM CONNECTION POINT, AND WORKS UPSTREAM, HE SHALL PROCEED AT HIS OWN RISK AND BE RESPONSIBLE FOR ANY ADJUSTMENTS NECESSARY.
3. VERTICAL SEPARATION REQUIREMENTS:

   A MIN OF 6 INCHES VERTICAL CLEARANCE SHALL BE PROVIDED BETWEEN CROSSING UTILITY PIPES, EXCEPT THAT THE MIN VERTICAL CLEARANCE BETWEEN WATER AND SANITARY SEWER PIPELINES SHALL BE 12 INCHES AND ALL NEW WATER PIPES SHALL BE TYP INSTALLED TO CROSS ABOVE/OVER EX SANITARY SEWER PIPELINES.

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4. HORIZONTAL SEPARATION REQUIREMENTS:

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GRAPHIC SCALE

10 0 10 20 40 80

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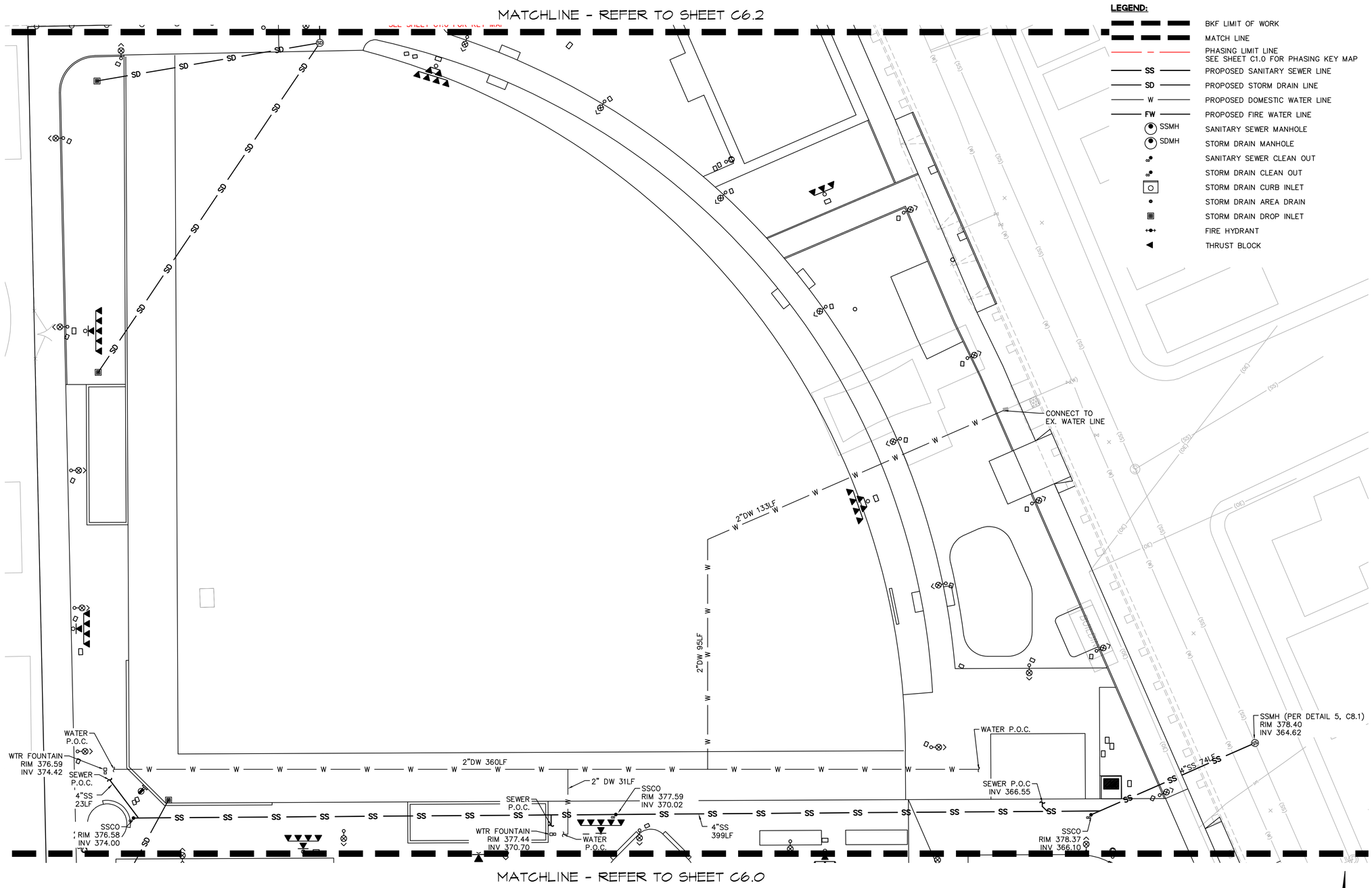
SHEET

C6.0

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| 2-13-23 | 100% CD Submittal |
| 10-3-23 | ADDENDUM #1 |
| 10-27-23 | ADDENDUM #3 |
| 6-10-24 | 3 PHASE RE-PACKAGE |
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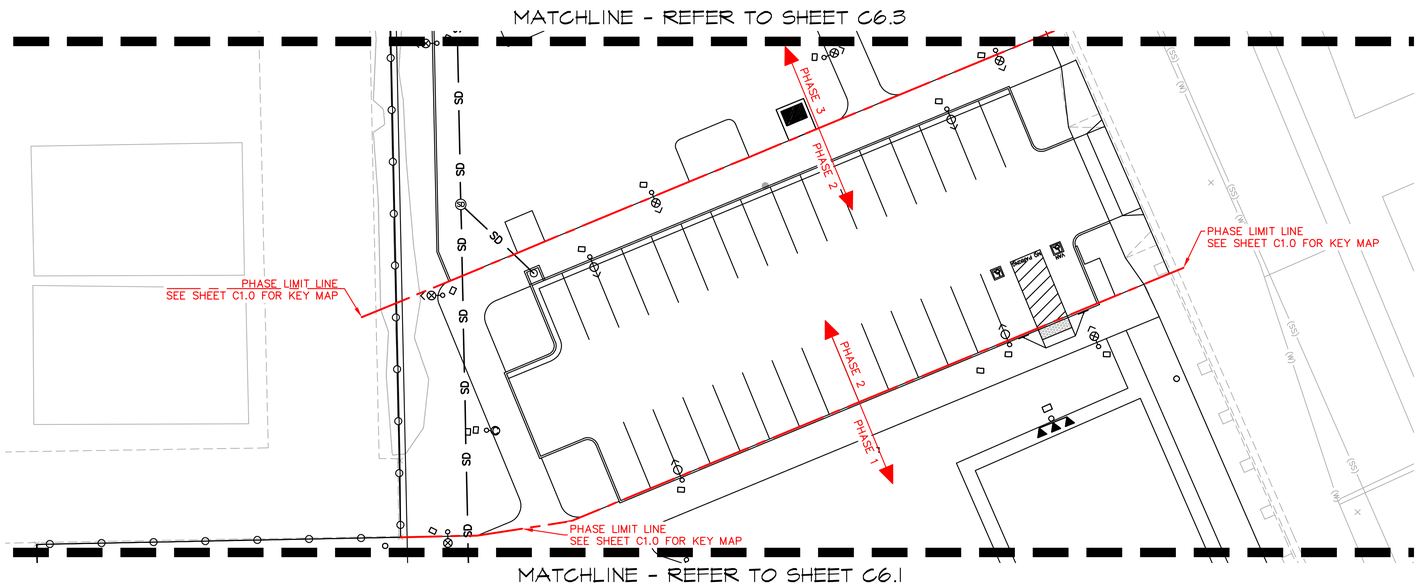
STAMP

REGISTERED PROFESSIONAL ENGINEER
BRUCE W. KIRBY
No. C 42393
CIVIL
STATE OF CALIFORNIA

| CHECKED BY | DATE |
|---|---|
| B.K. | 6-10-24 |
| DRAWN BY | JOB NO. |
| V.L. | 05500.00 |

SHEET

C6.1




**LEGEND:**

- BKF LIMIT OF WORK
- MATCH LINE
- PHASING LIMIT LINE SEE SHEET C1.0 FOR PHASING KEY MAP
- SS — PROPOSED SANITARY SEWER LINE
- SD — PROPOSED STORM DRAIN LINE
- W — PROPOSED DOMESTIC WATER LINE
- FW — PROPOSED FIRE WATER LINE
- SSMH — SANITARY SEWER MANHOLE
- SDMH — STORM DRAIN MANHOLE
- SANITARY SEWER CLEAN OUT
- STORM DRAIN CLEAN OUT
- STORM DRAIN CURB INLET
- STORM DRAIN AREA DRAIN
- STORM DRAIN DROP INLET
- FIRE HYDRANT
- THRUST BLOCK

**NOTES:**

1. UNDERGROUND UTILITIES OR STRUCTURES ARE SHOWN IN THEIR APPROXIMATE LOCATION. LOCATIONS MAY NOT HAVE BEEN VERIFIED IN THE FIELD AND NO GUARANTEE IS MADE TO THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN.
2. CONTRACTOR SHALL VERIFY ALL EX INV ELEVATIONS AND LATERAL LOCATIONS FOR STORM DRAIN AND SANITARY SEWER CONSTRUCTION PRIOR TO COMMENCEMENT OF ANY WORK. ALL WORK FOR STORM AND SANITARY SEWER INSTALLATION SHALL BEGIN AT THE DOWNSTREAM CONNECTION POINT. THIS WILL ALLOW FOR NECESSARY ADJUSTMENTS TO BE MADE PRIOR TO THE INSTALLATION OF THE ENTIRE LINE. IF THE CONTRACTOR FAILS TO BEGIN AT THE DOWNSTREAM CONNECTION POINT, AND WORKS UPSTREAM, HE SHALL PROCEED AT HIS OWN RISK AND BE RESPONSIBLE FOR ANY ADJUSTMENTS NECESSARY.
3. VERTICAL SEPARATION REQUIREMENTS:

   A MIN OF 6 INCHES VERTICAL CLEARANCE SHALL BE PROVIDED BETWEEN CROSSING UTILITY PIPES, EXCEPT THAT THE MIN VERTICAL CLEARANCE BETWEEN WATER AND SANITARY SEWER PIPELINES SHALL BE 12 INCHES AND ALL NEW WATER PIPES SHALL BE TYP INSTALLED TO CROSS ABOVE/OVER EX SANITARY SEWER PIPELINES.

   WHERE NEW WATER PIPELINES ARE REQUIRED TO CROSS UNDER EX AND/OR NEW SANITARY SEWER PIPELINES, THE MIN VERTICAL SEPARATION SHALL BE 12 INCHES. WATER LINE PIPE ENDS SHALL BE INSTALLED NO CLOSER THAN 10' MIN HORIZONTAL DISTANCE FROM THE CENTERLINE OF UTILITY CROSSINGS, WHERE FEASIBLE.
4. HORIZONTAL SEPARATION REQUIREMENTS:

   A MIN HORIZONTAL SEPARATION BETWEEN NEW PIPELINES AND ANY EX UTILITIES SHALL BE 5', EXCEPT THAT THE MIN HORIZONTAL SEPARATION FOR WATER AND SANITARY SEWER PIPELINES SHALL BE 10' MIN, UNLESS OTHERWISE NOTED.

   A MIN HORIZONTAL SEPARATION BETWEEN NEW PIPELINES AND JOINT TRENCH SHALL BE 5'.

GRAPHIC SCALE

10 0 10 20 40 80

( IN FEET )
1 inch = 20 ft.

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**ISE**

SKATEPARK DESIGNER
**SPOHN RANCH**

# OLIVE BOWL KAKU PARK

LINDSAY, CA
93247

UTILITY PLAN

| DATE | REVISION |
|---|---|
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| 12-8-21 | 90% CD Submittal |
| 12-14-22 | 90% CD Submittal |
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| 10-3-23 | ADDENDUM #1 |
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| 6-10-24 | 3 PHASE RE-PACKAGE |
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| DRAWN BY | JOB NO. |
| V.L. | 05500.00 |

SHEET

C6.2

**LEGEND:**

| | |
|---|---|
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| | PHASING LIMIT LINE<br>SEE SHEET C1.0 FOR PHASING KEY MAP |
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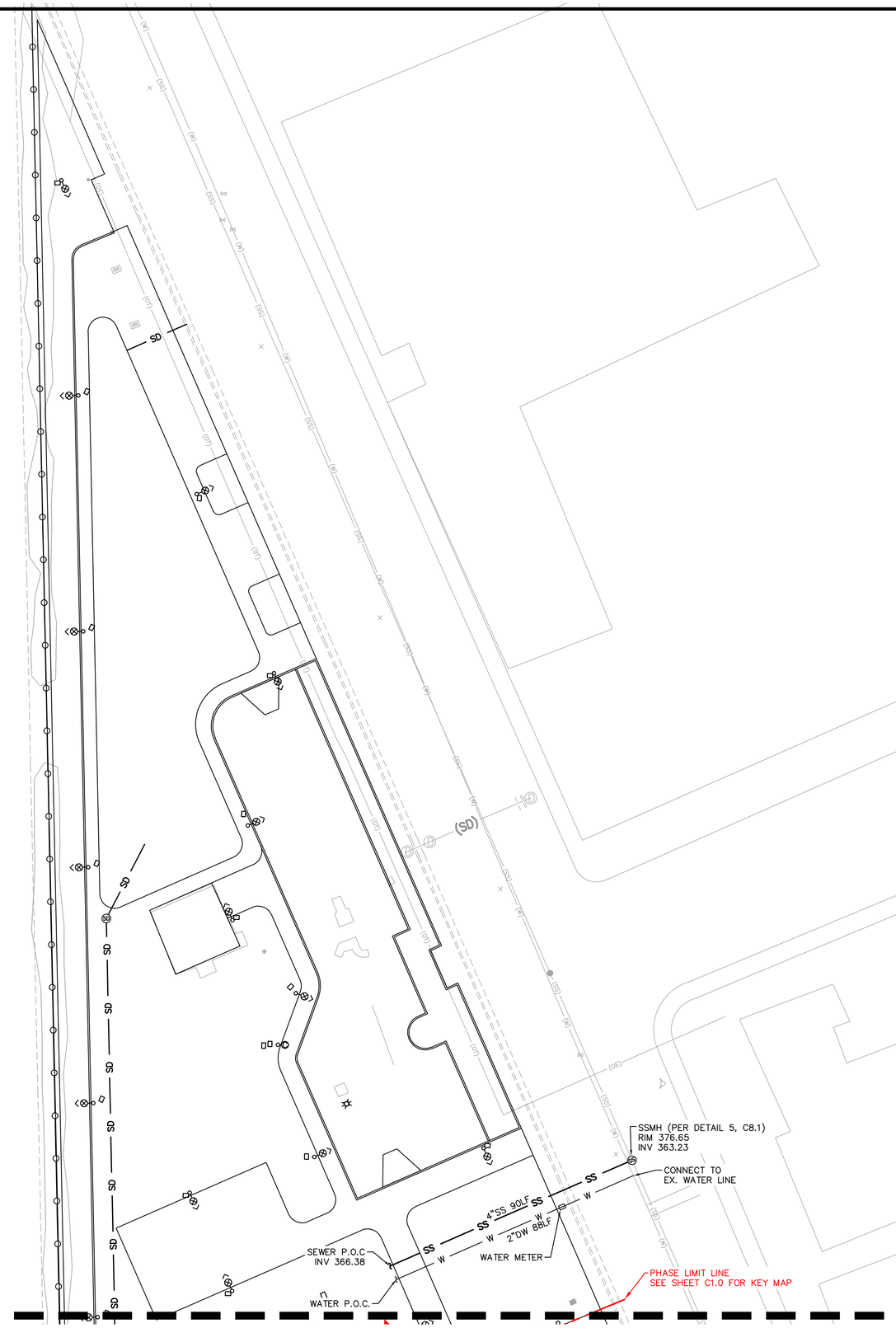


GRAPHIC SCALE

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( IN FEET )
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**SPOHN RANCH**

# OLIVE BOWL KAKU PARK

LINDSAY, CA
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UTILITY PLAN

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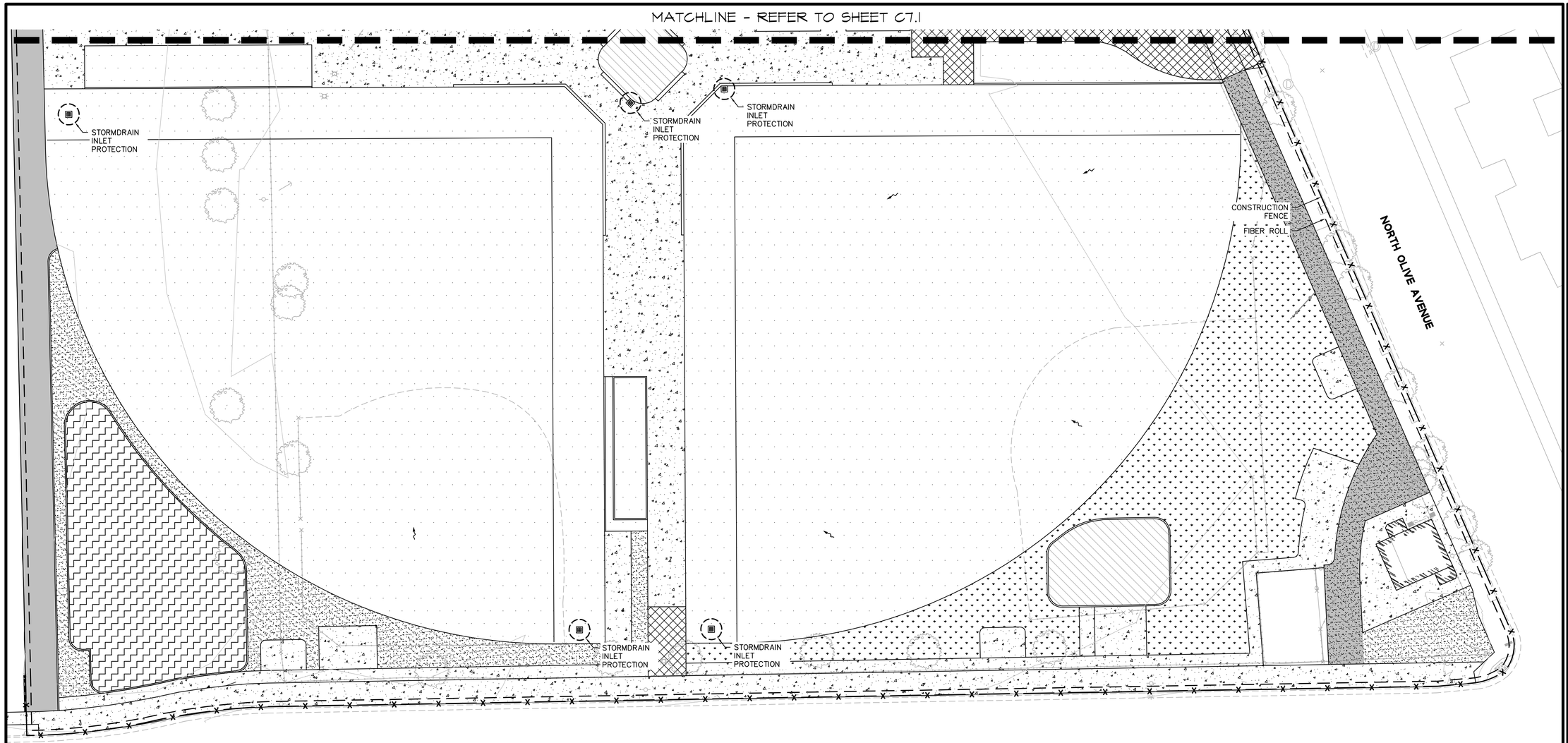
| V.L. | 05500.00 |

SHEET

C6.3




**LEGEND:**

- PHASING LIMIT LINE SEE SHEET C1.0 FOR PHASING KEY MAP
- FIBER ROLL (SE-5)
- CONSTRUCTION FENCE TO BE PLACED BY CONTRACTOR
- STORM DRAIN INLET PROTECTION (SE-10)
- STABILIZED CONSTRUCTION ENTRANCE (TC-1). LOCATION VARIES BY CONTRACTOR.
- CONCRETE WASHOUT PIT (NS-8). LOCATION VARIES BY CONTRACTOR.

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EROSION CONTROL PLAN

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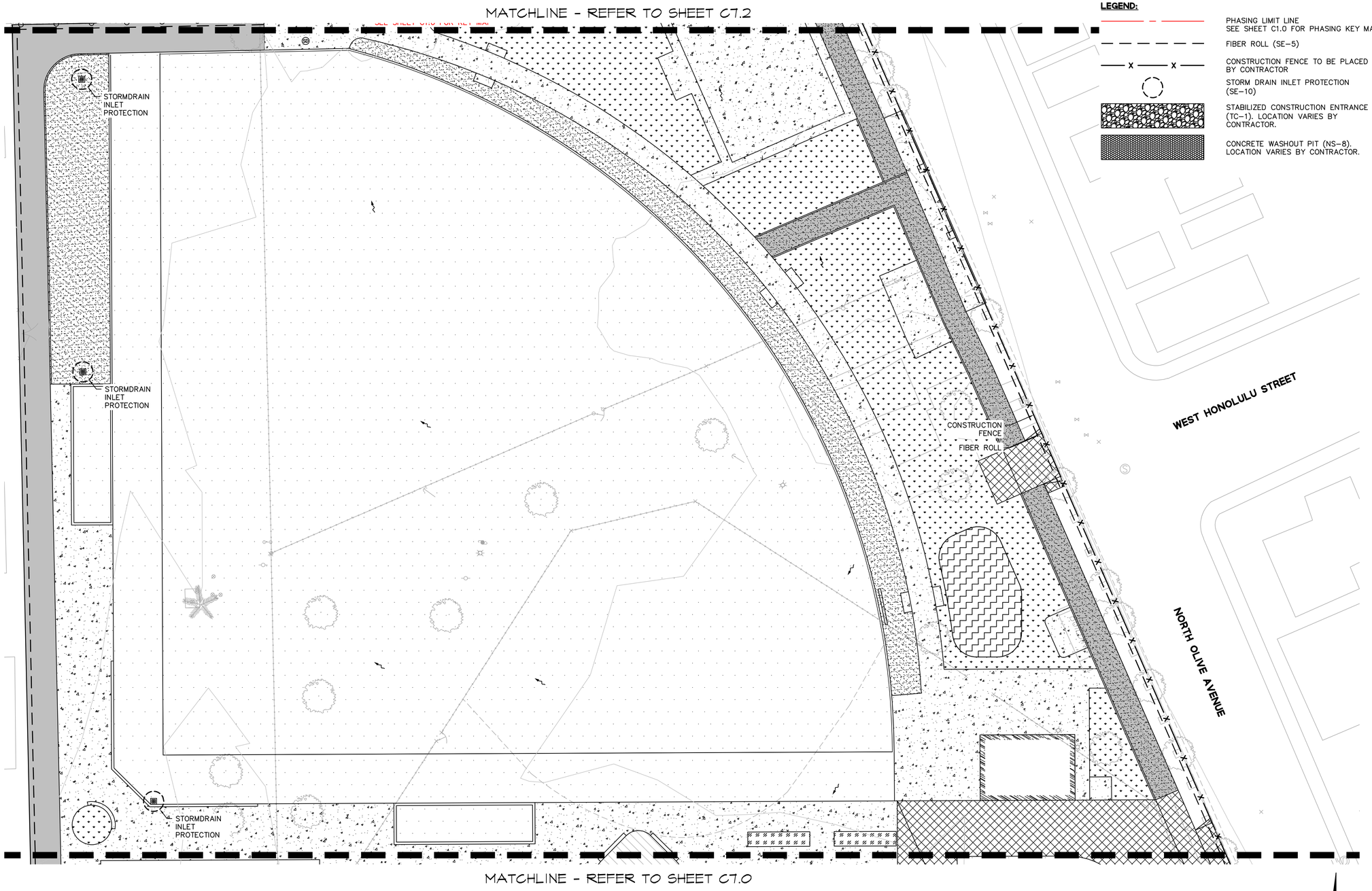


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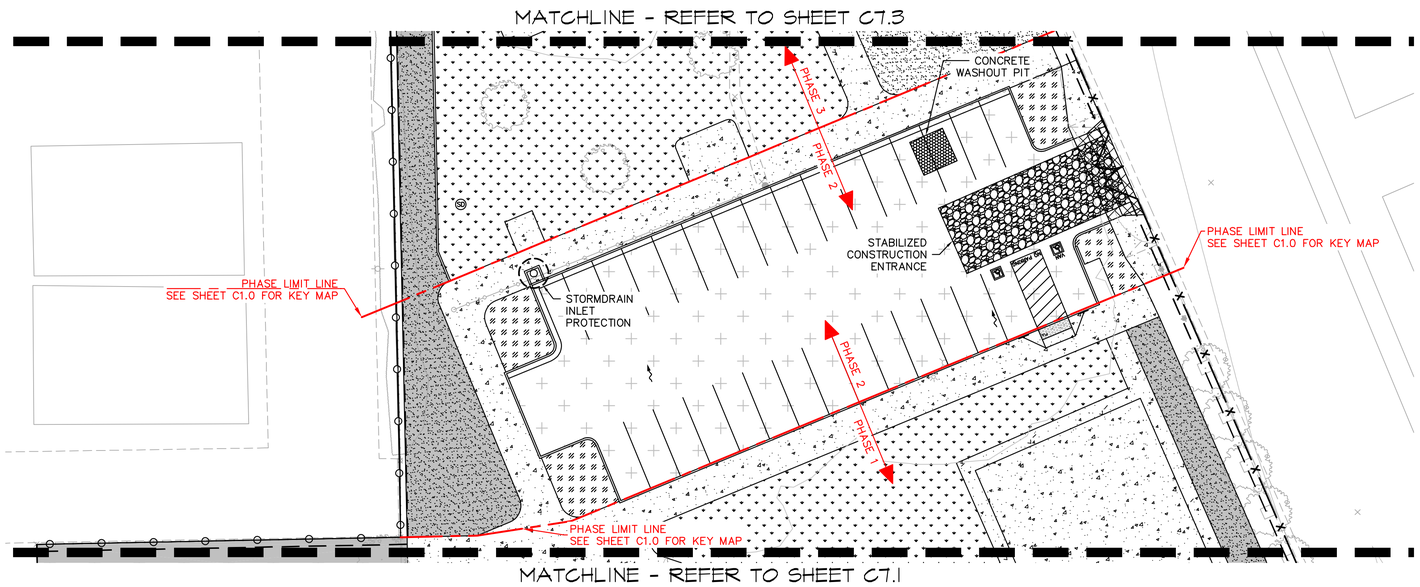


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SHEET
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**LEGEND:**

PHASING LIMIT LINE
SEE SHEET C1.0 FOR PHASING KEY MAP

FIBER ROLL (SE-5)

CONSTRUCTION FENCE TO BE PLACED BY CONTRACTOR

STORM DRAIN INLET PROTECTION (SE-10)

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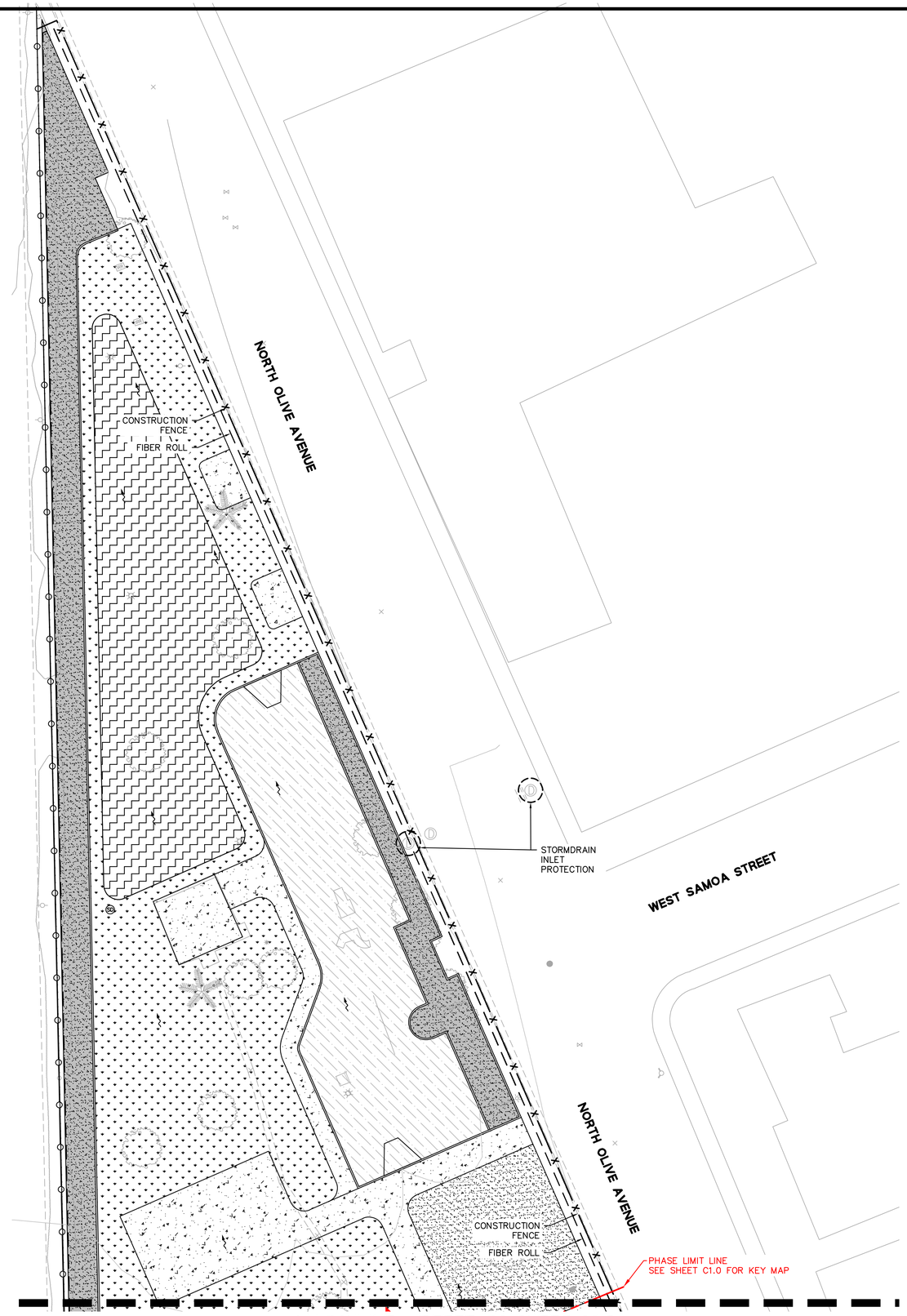


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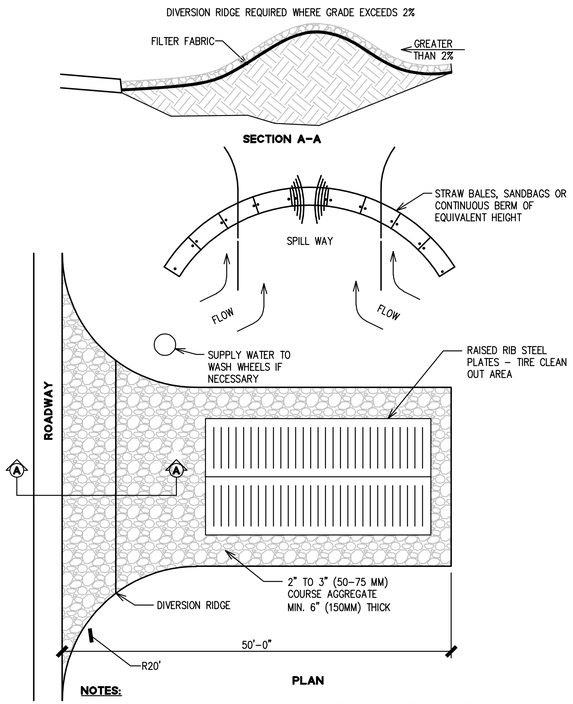
SHEET

C7.3

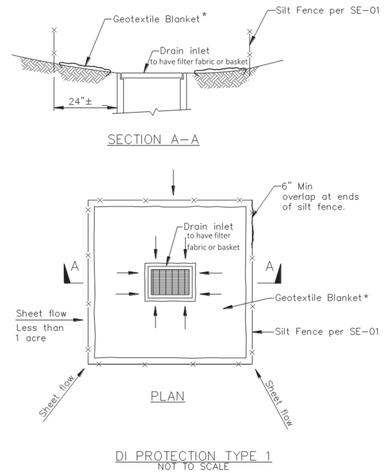
SHEET 28 OF 79 SHEETS




**NOTES:**

1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT OF WAYS. THIS MAY REQUIRED TOP DRESSING, REPAIR AND / OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT OF WAY.
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ONTO AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

**1 – STABILIZED CONSTRUCTION ENTRANCE**
NTS

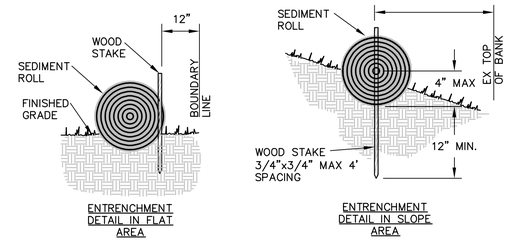



DI PROTECTION TYPE 1
NOT TO SCALE

NOTES:

1. For use in areas where grading has been completed and final soil stabilization and seeding are pending.
2. Not applicable in paved areas.
3. Not applicable with concentrated flows.

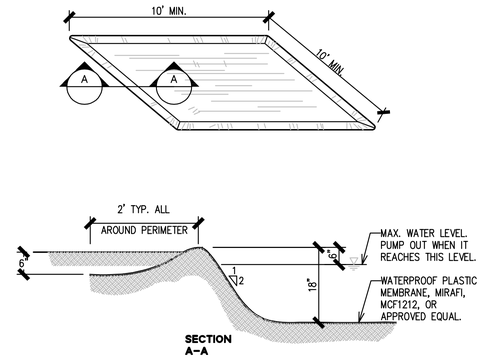
**2 – STORM DRAIN INLET PROTECTION**
NTS



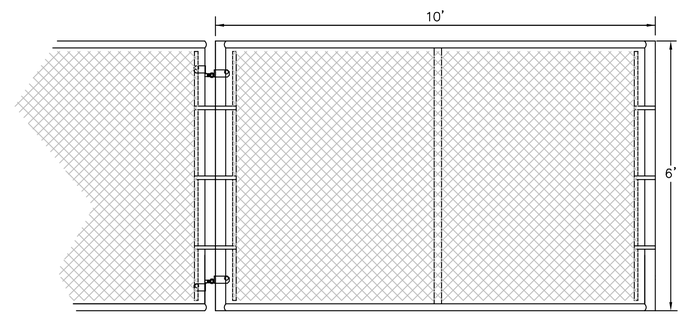

INSTALLATION PROCEDURE:

1. FIBER ROLLS ARE TUBES MADE FROM POROUS BIODEGRADABLE FIBER STUFFED IN A PHOTO–DEGRADABLE OPEN WEAVE NETTING. THEY ARE APPROX. 8" DIAMETER.
2. FIBER ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE ROLL IN A TRENCH, 2"–4" DEEP, DUG ON CONTOUR. RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND ROLL. ROLLS SHOULD BE ABUTTED SECURELY TO PROVIDE A TIGHT JOINT, NOT OVERLAPPED.

**3 – FIBER ROLL DETAIL**
NTS




**4 – WASHOUT PIT**
NTS




NOTE:

1. CONTRACTOR TO PROVIDE TEMPORARY CHAIN LINK CONSTRUCTION FENCE WITH SAND BAGS FOR ANCHORING.
2. INSTALL "CONSTRUCTION SITE, NO TRESPASSING" SIGNS. ENSURING SIGNS ARE LEGIBLE FROM 5' AWAY.

**5 – CONSTRUCTION FENCE**
NTS


MIG
109 W. UNION AVE.
FULLERTON, CA 92832
TEL 714/871-3638
www.migcom.com

CONSULTANT:
BKF
4675 MACARTHUR CT.
SUITE 400
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PROJECT TEAM:
LANDSCAPE ARCHITECT
**MOORE IACOFANO GOLTSMAN, INC.**
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STRUCTURAL ENGINEER
**ISE**
SKATEPARK DESIGNER
**SPOHN RANCH**


OLIVE BOWL
KAKU
PARK

LINDSAY, CA
93247

EROSION CONTROL DETAILS

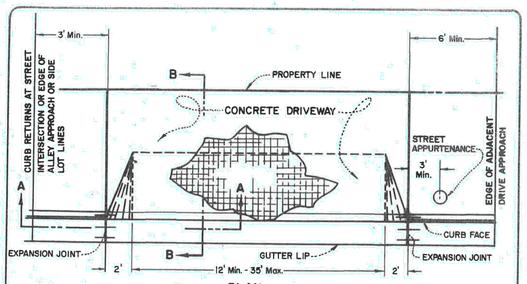
| DATE | REVISION |
|---|---|
| 10-18-21 | 50% CD Submittal |
| 12-8-21 | 90% CD Submittal |
| 12-14-22 | 90% CD Submittal |
| 2-13-23 | 100% CD Submittal |
| 10-3-23 | ADDENDUM #1 |
| 10-27-23 | ADDENDUM #3 |
| 6-10-24 | 3 PHASE RE-PACKAGE |
| | |
| | |
| | |
| | |

STAMP

REGISTERED PROFESSIONAL ENGINEER
BRUCE W. KIRBY
NO. C 42393
CIVIL
STATE OF CALIFORNIA

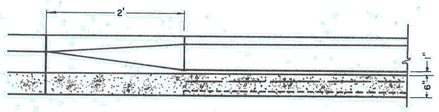
| CHECKED BY | DATE |
|---|---|
| B.K. | 6-10-24 |
| DRAWN BY | JOB NO. |
| V.L. | 05500.00 |

SHEET
C7.4
SHEET 29 OF 79 SHEETS

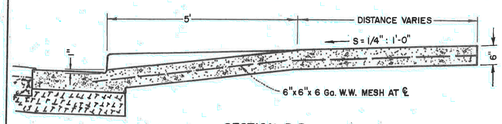



PLAN

NOTE:
NOT MORE THAN 60 % OF LOT FRONTAGE SHALL BE DRIVE APPROACH




SECTION A-A




SECTION B-B

NOTES:
1. CONCRETE SHALL BE 2500psi. (5 SACK MIX )
2. DRIVE APPROACH SHALL HAVE A HEAVY BROOM FINISH
3. CURING COMPOUND SHALL BE APPLIED AS APPROVED BY THE CITY ENGINEER.

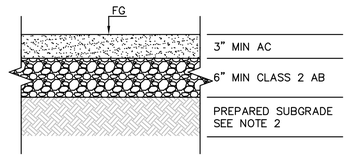
CITY OF Lindsay DEPARTMENT OF PUBLIC WORKS

COMMERCIAL DRIVE APPROACH

| MARK | DATE | REVISION |
|---|---|---|
| | | |

Engineering Standard
Approved
Date 9/13/79
ST-12

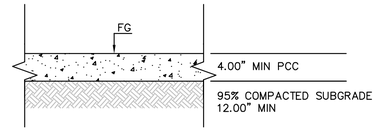
**1 – VEHICULAR CONCRETE SECTION**
NTS




| PAVEMENT SECTION DESIGN | | |
|---|---|---|
| CLASSIFICATION | TI–VALUE | AC (IN) | AB (IN) |
| VEHICULAR PAVEMENT | 6.0 | 3 | 6 |

NOTES:
1. THIS SECTION TO BE USED IN LOCATIONS WHERE NEW ASPHALT PAVEMENT IS REQUIRED.
2. SUBGRADE IS TO BE COMPACTED NATIVE SOIL AT 95% RELATIVE COMPACTION FOR 12.00" MIN. KEEP THE MOISTURE CONTENT SLIGHTLY ABOVE OPTIMUM.
3. POSITIVE DRAINAGE SHOULD BE PROVIDED AWAY FROM ALL PAVEMENT AREAS TO PREVENT SEEPAGE OF SURFACE AND/OR SUBSURFACE WATER INTO THE PAVEMENT BASE AND/OR SUBGRADE
4. THE EXPANSION POTENTIAL OF THE SITE SOILS SHOULD BE VERIFIED AFTER GRADING. IF THE EXPANSION POTENTIAL OF MIXED SOIL IS FOUND TO BE ABOVE 20, CONVERSE RECOMMENDS MIXING ON–SITE SOIL USED FOR SUPPORT OF WALKWAYS AND PAVEMENTS WITH 5% CEMENT TO REDUCE EXPANSION POTENTIAL.

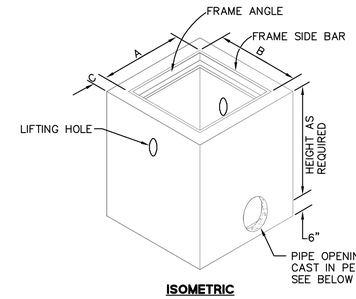
**2 – VEHICULAR ASPHALT SECTION**
NTS




| PAVEMENT SECTION DESIGN | | |
|---|---|---|
| CLASSIFICATION | PCC (IN) | AB (IN) |
| PEDESTRIAN PAVEMENT | 4 | 0 |

NOTES:
1. THIS SECTION TO BE USED IN LOCATIONS WHERE NEW CONCRETE PAVEMENT IS REQUIRED FOR PEDESTRIAN TRAFFIC, SUCH AS SIDEWALKS AND WALKWAYS.
2. SUBGRADE IS TO BE COMPACTED NATIVE SOIL AT 95% RELATIVE COMPACTION. KEEP THE MOISTURE CONTENT SLIGHTLY ABOVE OPTIMUM.
3. REFER TO LANDSCAPE DRAWINGS FOR CONCRETE FINISHING, SCORE LINE & EXPANSION JOINT INFORMATION.
4. POSITIVE DRAINAGE SHOULD BE PROVIDED AWAY FROM ALL PAVEMENT AREAS TO PREVENT SEEPAGE OF SURFACE AND/OR SUBSURFACE WATER INTO THE PAVEMENT BASE AND/OR SUBGRADE
5. THE EXPANSION POTENTIAL OF THE SITE SOILS SHOULD BE VERIFIED AFTER GRADING. IF THE EXPANSION POTENTIAL OF MIXED SOIL IS FOUND TO BE ABOVE 20, CONVERSE RECOMMENDS MIXING ON–SITE SOIL USED FOR SUPPORT OF WALKWAYS AND PAVEMENTS WITH 5% CEMENT TO REDUCE EXPANSION POTENTIAL.

**3 – PEDESTRIAN CONCRETE SECTION**
NTS

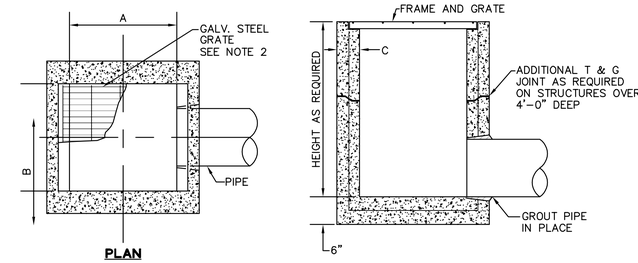



ISOMETRIC

DIMENSION TABLE

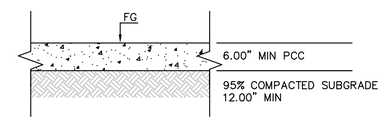
| MODEL | A | B | C |
|---|---|---|---|
| 1212–HDI | 12" | 12" | 4" |
| 1616–HDI | 16" | 16" | 5" |
| DI242448 | 24" | 24" | 5" |
| DI363648 | 36" | 36" | 6" |

NOTES:
1. DROP INLET SHALL BE JENSEN PRECAST OR EQUAL.
2. FRAMES AND GRATES SHALL BE FOR PEDESTRIAN LOADING AND ADA ACCESSIBLE.




PLAN

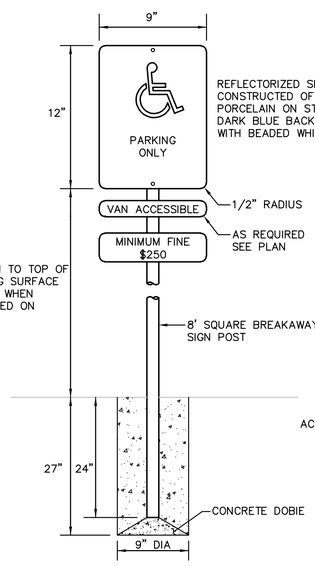
**4 – DROP INLET**
NTS



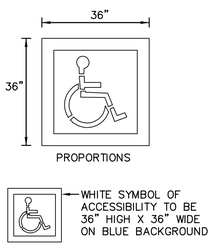

| PAVEMENT SECTION DESIGN | | |
|---|---|---|
| CLASSIFICATION | PCC (IN) | AB (IN) |
| VEHICULAR PAVEMENT | 7 | 0 |

NOTES:
1. THIS SECTION TO BE USED IN LOCATIONS WHERE NEW CONCRETE PAVEMENT IS REQUIRED FOR VEHICULAR TRAFFIC, SUCH AS SIDEWALKS AND WALKWAYS.
2. SUBGRADE IS TO BE COMPACTED NATIVE SOIL AT 95% RELATIVE COMPACTION. KEEP THE MOISTURE CONTENT SLIGHTLY ABOVE OPTIMUM.
3. REFER TO LANDSCAPE DRAWINGS FOR CONCRETE FINISHING, SCORE LINE & EXPANSION JOINT INFORMATION.
4. POSITIVE DRAINAGE SHOULD BE PROVIDED AWAY FROM ALL PAVEMENT AREAS TO PREVENT SEEPAGE OF SURFACE AND/OR SUBSURFACE WATER INTO THE PAVEMENT BASE AND/OR SUBGRADE
5. THE EXPANSION POTENTIAL OF THE SITE SOILS SHOULD BE VERIFIED AFTER GRADING. IF THE EXPANSION POTENTIAL OF MIXED SOIL IS FOUND TO BE ABOVE 20, CONVERSE RECOMMENDS MIXING ON–SITE SOIL USED FOR SUPPORT OF WALKWAYS AND PAVEMENTS WITH 5% CEMENT TO REDUCE EXPANSION POTENTIAL.
6. CONCRETE SECTION TO BE APPROVED BY GEOTECHNICAL ENGINEER PRIOR TO CONSTRUCTION.

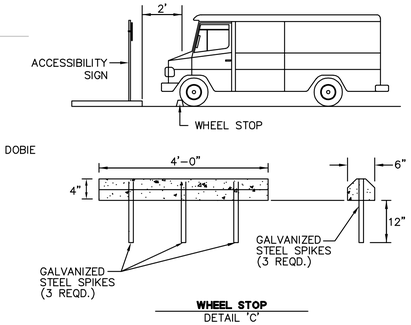
**7 – VEHICULAR CONCRETE SECTION**
NTS



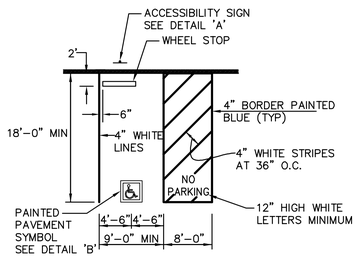

VAN ACCESSIBILITY SIGN
DETAIL 'A'




PAINTED PAVEMENT SYMBOL
DETAIL 'B'



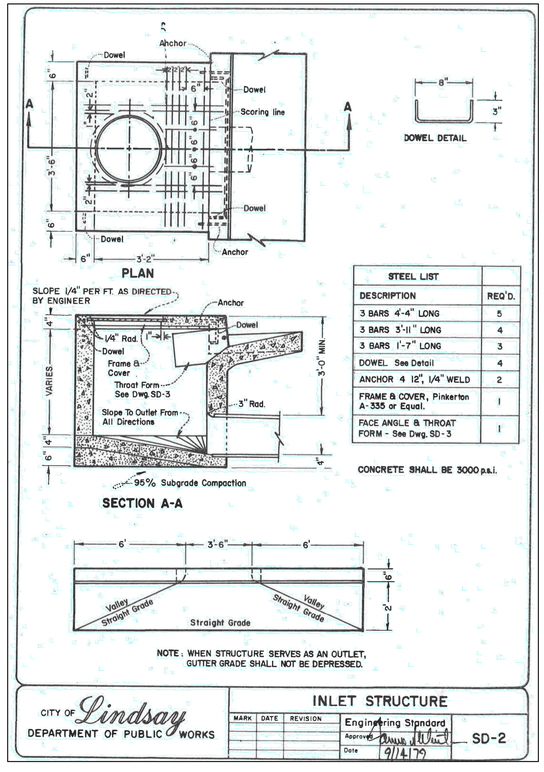

WHEEL STOP
DETAIL 'C'




PAINTED PAVEMENT STALL
VAN ACCESSIBLE PARKING STALL
DETAIL 'D'

NOTES:
1. EACH PARKING SPACE RESERVED FOR PERSONS WITH DISABILITIES SHALL BE IDENTIFIED BY A REFLECTORIZED SIGN PERMANENTLY POSTED IMMEDIATELY ADJACENT TO AND VISIBLE FROM EACH STALL OR SPACE, CONSISTING OF A PROFILE VIEW OF A WHEELCHAIR OCCUPANT IN WHITE ON DARK BLUE BACKGROUND. THE SIGN SHALL NOT BE SMALLER THAN 70 SQUARE INCHES IN AREA AND WHEN IN A PATH OF TRAVEL, SHALL BE POSTED AT A MINIMUM HEIGHT OF 80 INCHES FROM THE BOTTOM OF THE SIGN TO THE PARKING SPACE FINISHED GRADE. SIGNS MAY ALSO BE CENTERED ON THE WALL AT THE INTERIOR OF THE PARKING SPACE AT A MINIMUM HEIGHT OF 36 INCHES FROM THE PARKING SPACE FINISHED GRADE, GROUND, OR SIDEWALK.
2. VAN STALLS TO BE LABELED ON PAVEMENT IN 12" HIGH LETTERS WITH WHITE PAINT AND BE DESIGNATED BY AN ADDITIONAL SIGN STATING "VAN ACCESSIBLE" MOUNTED BELOW THE REFLECTORIZED SIGN.

**5 – AMERICANS WITH DISABILITIES ACT (ADA) VAN ACCESSIBLE PARKING STALL**
NTS




| STEEL LIST | |
|---|---|
| DESCRIPTION | REQ'D. |
| 3 BARS 4'-4" LONG | 5 |
| 3 BARS 3'-11" LONG | 4 |
| 3 BARS 1'-7" LONG | 3 |
| DOWEL See Detail | 4 |
| ANCHOR 4 12", 1/4" WELD | 2 |
| FRAME & COVER, Pinkerton A-335 or Equal. | 1 |
| FACE ANGLE & THROAT FORM - See Dwg. SD-3 | 1 |

CONCRETE SHALL BE 3000 p.s.i.

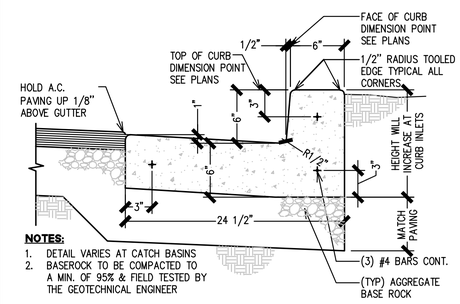
CITY OF Lindsay DEPARTMENT OF PUBLIC WORKS

INLET STRUCTURE

| MARK | DATE | REVISION |
|---|---|---|
| | | |

Engineering Standard
Approved
Date 9/14/79
SD-2

**6 – CURB INLET**
NTS




NOTES:
1. DETAIL VARIES AT CATCH BASINS
2. BASEROCK TO BE COMPACTED TO A MIN. OF 95% & FIELD TESTED BY THE GEOTECHNICAL ENGINEER

**8 – CURB & GUTTER**
NTS


MIG
109 W. UNION AVE.
FULLERTON, CA 92832
TEL 714/871-3638
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CONSULTANT:
BKF
4675 MACARTHUR CT.
SUITE 400
NEWPORT BEACH, CA 92660
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**ISE**
SKATEPARK DESIGNER
**SPOHN RANCH**


OLIVE BOWL
KAKU
PARK

LINDSAY, CA
93247

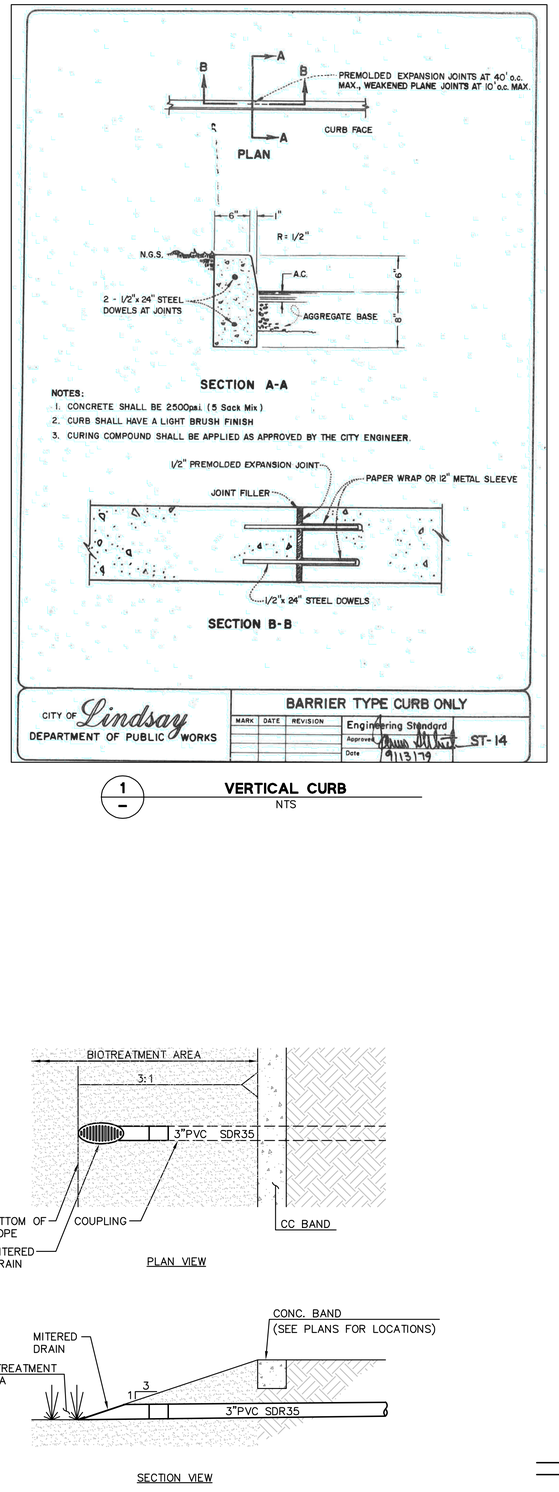
DETAILS

| DATE | REVISION |
|---|---|
| 10-18-21 | 50% CD Submittal |
| 12-8-21 | 90% CD Submittal |
| 12-14-22 | 90% CD Submittal |
| 2-13-23 | 100% CD Submittal |
| 10-3-23 | ADDENDUM #1 |
| 10-27-23 | ADDENDUM #3 |
| 6-10-24 | 3 PHASE RE-PACKAGE |

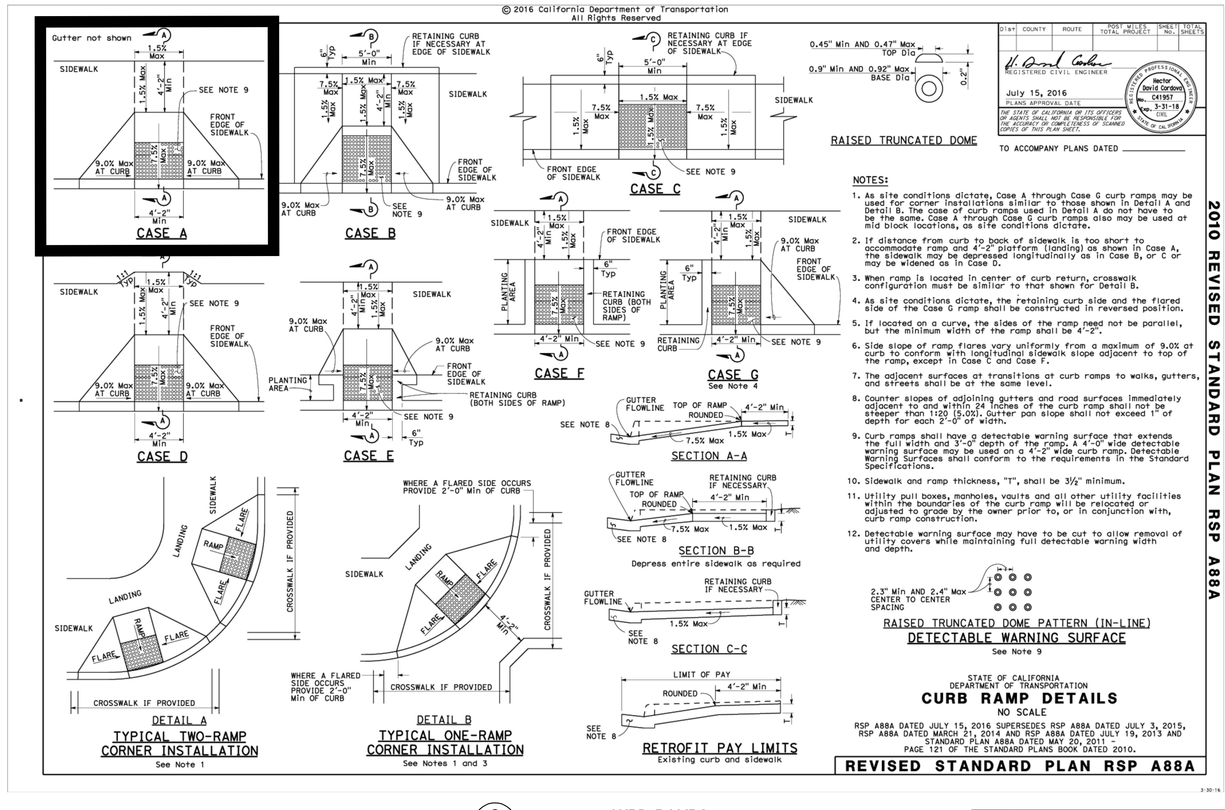
STAMP
REGISTERED PROFESSIONAL ENGINEER
BRUCE W. KIBBY
No. C 42393
CIVIL
STATE OF CALIFORNIA

| CHECKED BY | DATE |
|---|---|
| B.K. | 6-10-24 |
| DRAWN BY | JOB NO. |
| V.L. | 05500.00 |

SHEET
C8.0
SHEET 30 OF 79 SHEETS



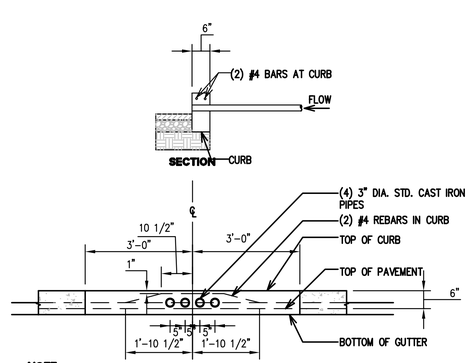

1 VERTICAL CURB
NTS




2 CURB RAMPS
NTS

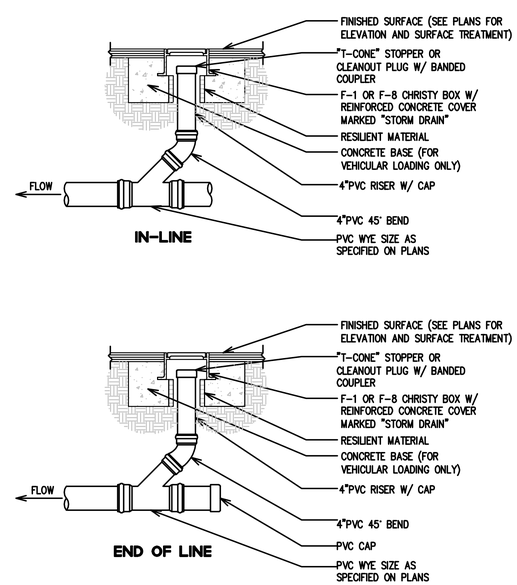



3 BIORETENTION BASIN & MITERED DRAIN
NTS



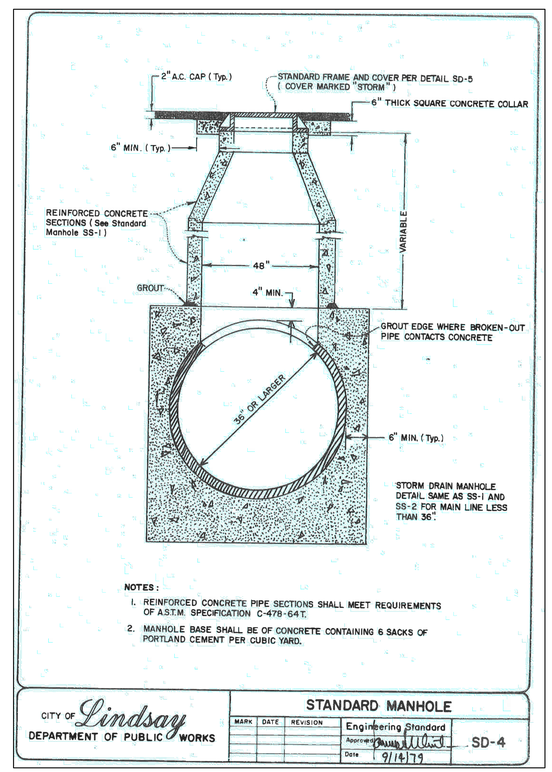

NOTE:
1. MATCH THE CENTERLINE TO THE PLAN LOCATION.

6 CURB DRAIN
NTS




NOTE:
GLUED FITTINGS MAY BE SUBSTITUTED FOR GASKETED FITTINGS AT THE OPTION OF THE INSTALLATION CONTRACTOR.

4 CLEANOUT
NTS




5 MANHOLE


MIG
109 W. UNION AVE.
FULLERTON, CA 92832
TEL 714/871-3638
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CONSULTANT:
BKF
4675 MACARTHUR CT.
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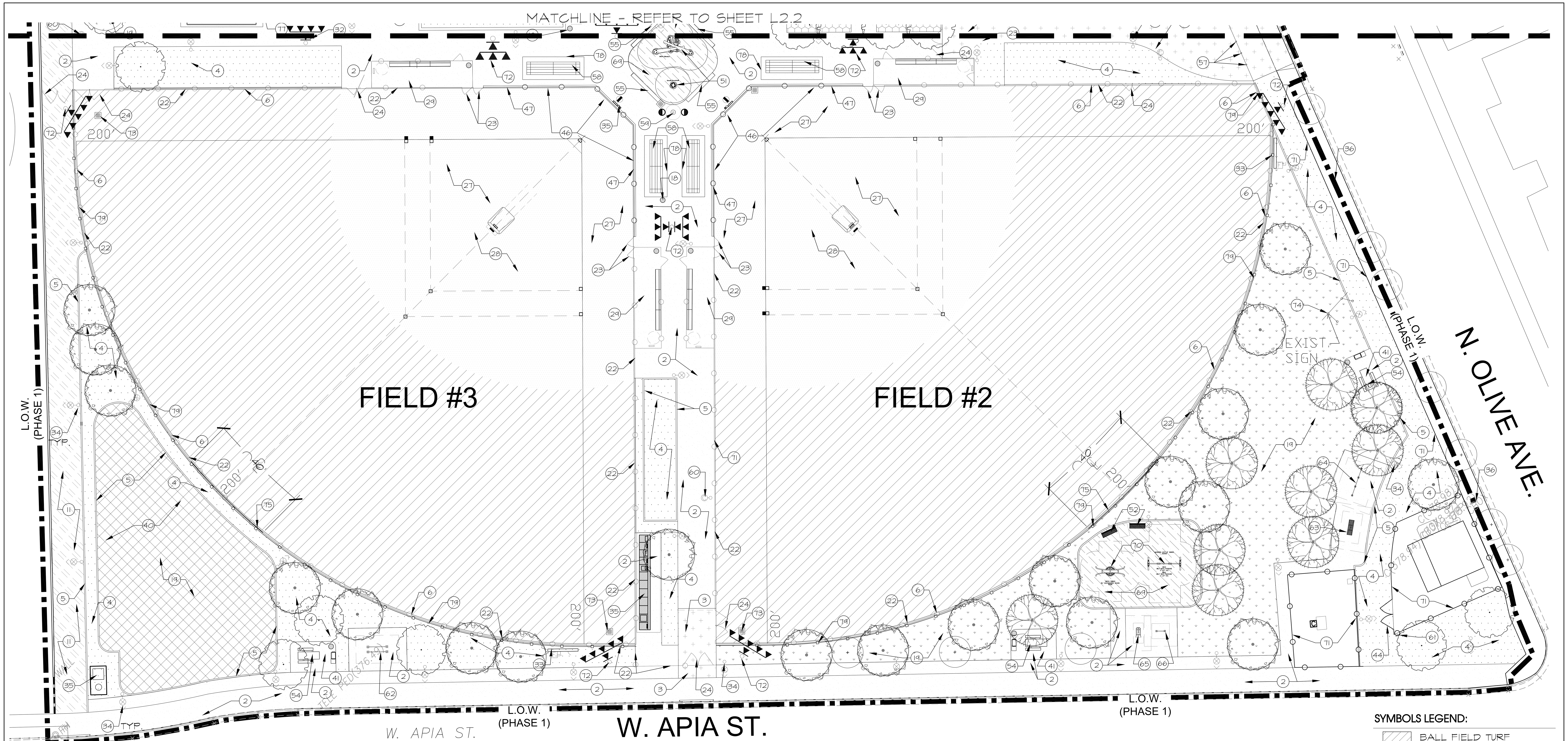
STAMP
REGISTERED PROFESSIONAL ENGINEER BRUCE W. KIRBY No. C 42393 CIVIL STATE OF CALIFORNIA

| CHECKED BY | DATE |
|---|---|
| B.K. | 6-10-24 |
| DRAWN BY | JOB NO. |
| V.L. | 05500.00 |

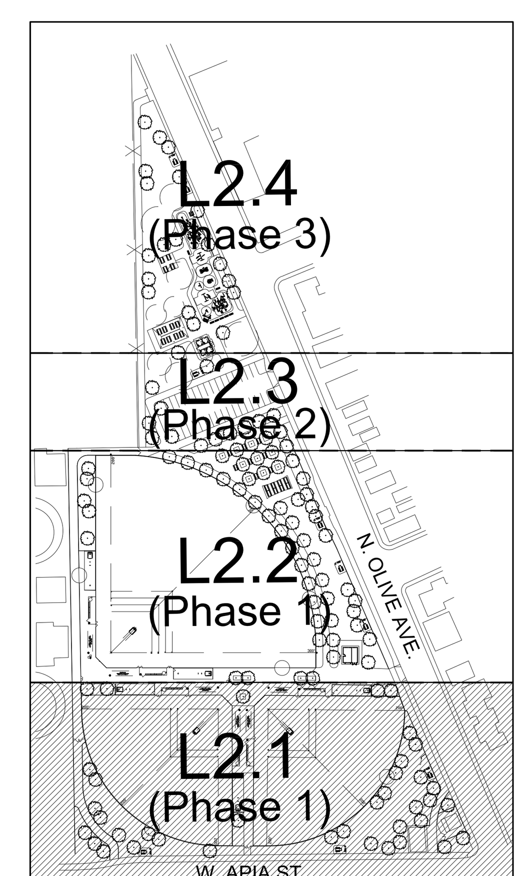
SHEET
C8.1
SHEET 31 OF 79 SHEETS




REFER TO SHEET L2.3 FOR CONSTRUCTION LEGEND.

## CONSTRUCTION NOTES:

1. ALL FORMS AND ALIGNMENTS OF PAVING, LAYOUT, AND SPECIAL PAVING AREAS SHALL BE REVIEWED AND APPROVED BY THE CITY'S AUTHORIZED REPRESENTATIVE PRIOR TO POURING (GIVE A MINIMUM OF 48 HOURS NOTICE).
2. CONTRACTOR SHALL VERIFY LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION AND SHALL BE HELD LIABLE FOR ALL DAMAGES INCURRED.
3. CONTRACTOR SHALL NOTE AND INSTALL SLEEVE LOCATIONS SHOWN ON IRRIGATION PLANS IN EXCESS OF EXISTING SLEEVES PER CITY'S APPROVAL.
4. ALL CONSTRUCTION AND WORKMANSHIP SHALL CONFORM TO THE 2010 EDITION OF THE CALTRANS STANDARD SPECIFICATIONS.
5. THESE NOTES SHALL BE USED IN CONJUNCTION WITH THE PLANS AND ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT AND CITY'S REPRESENTATIVE.
6. CONTRACTOR MUST CHECK ALL DIMENSIONS, FRAMING CONDITIONS AND SITE CONDITIONS BEFORE STARTING WORK. LANDSCAPE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES OR POSSIBLE DEFICIENCIES.
7. CONDITIONS NOT SPECIFICALLY SHOWN SHALL BE CONSTRUCTED SIMILAR TO THE DETAILS FOR THE RESPECTIVE MATERIALS.
8. THE DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED WORK. ALL BRACING, TEMPORARY SUPPORTS, SHORING, MASONRY, ETC. IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. OBSERVATION VISITS TO THE JOB SITE BY THE LANDSCAPE ARCHITECT DOES NOT INCLUDE INSPECTION OF CONSTRUCTION METHODS AND SAFETY CONDITIONS AT THE WORKSITE. THESE VISITS SHALL NOT BE CONSTRUED AS CONTINUOUS AND DETAILED INSPECTIONS.
9. CLEAN-UP SHALL TAKE PLACE ON A DAILY BASIS.
10. REFER TO SPECIFICATIONS FOR ANY ADDITIONAL INFORMATION.
11. CONTRACTOR TO VERIFY USE ZONE REQUIREMENTS FOR ALL FINTESS EQUIPMENT AND COORDINATE INSTALLATION ON CONCRETE PAD WITH MANUF.




KEYMAP

## SYMBOLS LEGEND:

- BALL FIELD TURF
- STABILIZED D.G
- INFIELD STABILIZED D.G.
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- ENGINEERED WOOD FIBER (SEE ADD ALT #10)
- GENERAL TURF
- BASIN TURF
- PLANTING AREA
- NEW TREE
- EXISTING TREE

0 10' 20' 40'

NORTH

DIGALERT
DIAL TOLL FREE 1-800-422-4133
AT LEAST TWO DAYS BEFORE YOU DIG
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA

MIG
109 W. UNION AVE.
FULLERTON, CA 92832
TEL 714/871-3638
www.migcom.com

CONSULTANT:

PROJECT TEAM:

LANDSCAPE ARCHITECT
**MOORE IACOFANO GOLTSMAN, INC.**
ELECTRICAL ENGINEER
**LRA ENGINEERS**
CIVIL ENGINEER
**BKF**
STRUCTURAL ENGINEER
**ISE**

# OLIVE BOWL KAKU PARK

LINDSAY, CA
93247

SHEET TITLE

## CALLOUT PLAN Phase 1

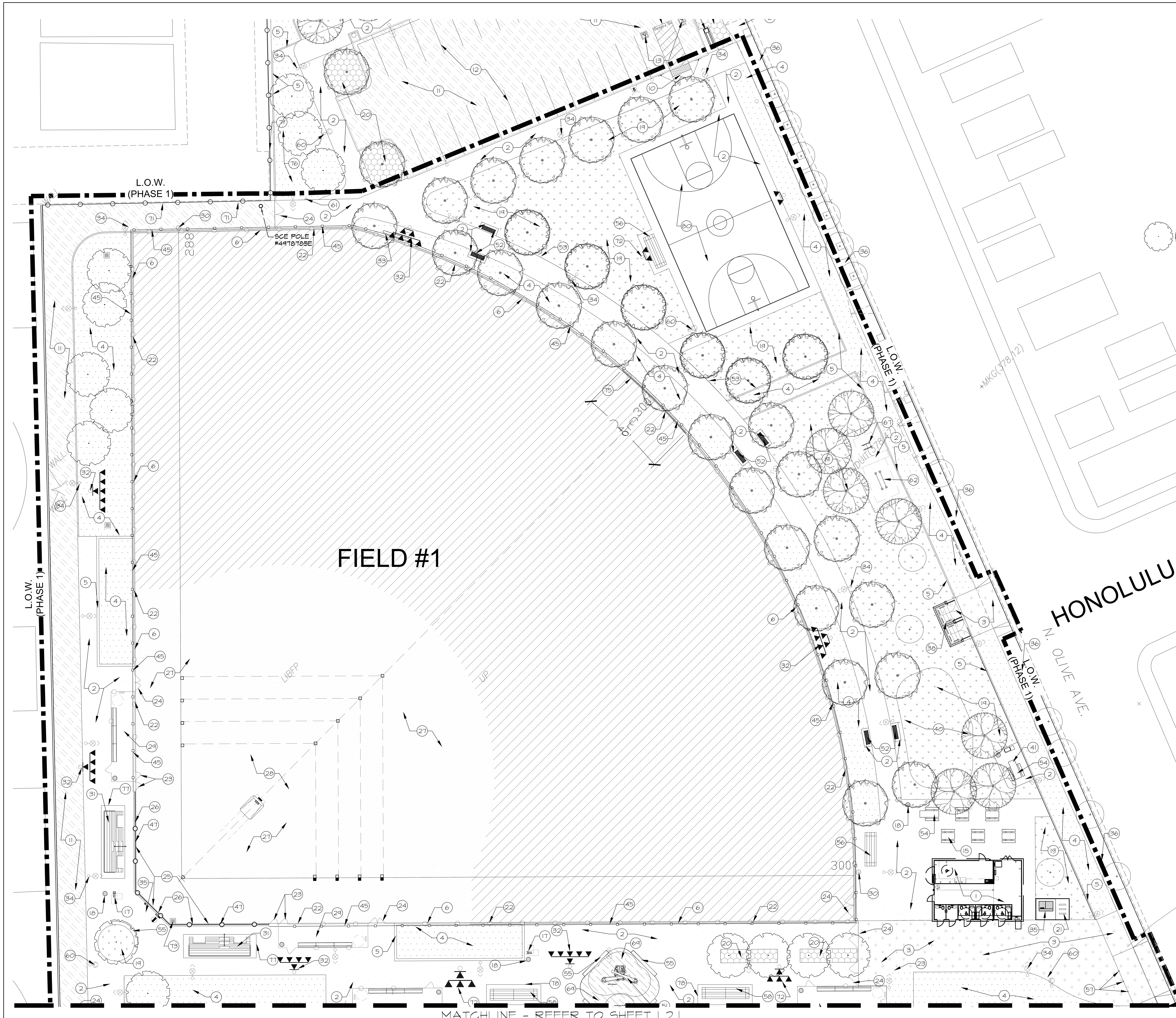
| DATE | REVISION |
|---|---|
| 10-18-21 | 50% CD Submittal |
| 12-8-21 | 90% CD Submittal |
| 12-14-22 | 90% CD Submittal |
| 2-13-23 | 100% CD Submittal |
| 10-3-23 | ADDENDUM #1 |
| 10-27-23 | ADDENDUM #3 |
| 6-10-24 | 3 PHASE RE-PACKAGE |

STAMP

LICENSED LANDSCAPE ARCHITECT
STEVEN N LANG NO. 1771
SIGNATURE
11-30-24
RENEWAL DATE
6-10-24
DATE
STATE OF CALIFORNIA

| CHECKED BY | DATE |
|---|---|
| O.J. | 6-10-24 |
| DRAWN BY | JOB NO. |
| H.D. | 05567.02 |

SHEET
**L2.1**




SYMBOLS LEGEND:

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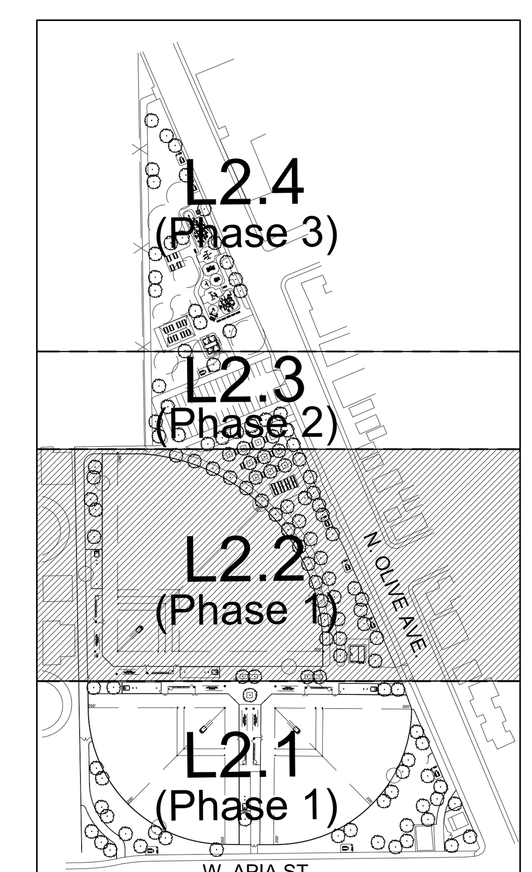
REFER TO SHEET L2.3 FOR CONSTRUCTION LEGEND AND NOTES.




KEYMAP

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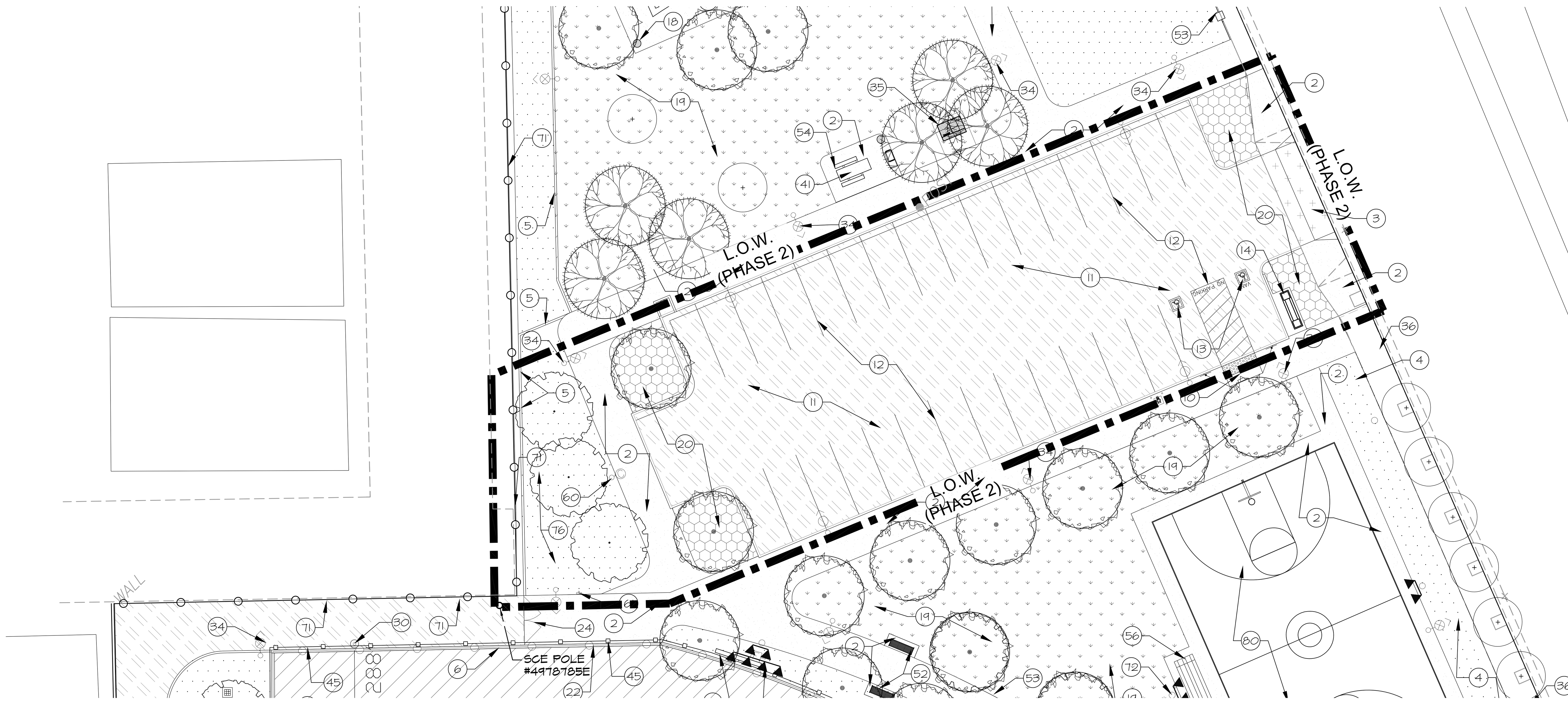
SHEET
L2.2
SHEET 33 OF 79 SHEETS

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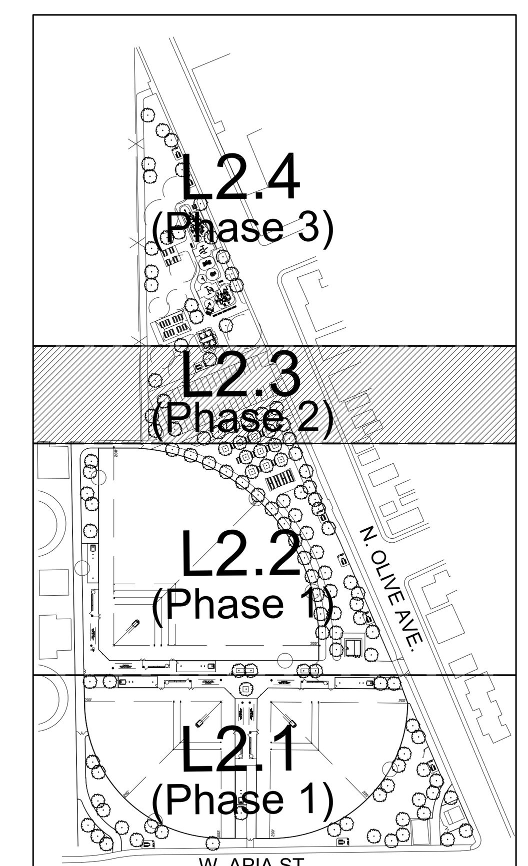
3. 7" THICK VEHICULAR CONCRETE PAVING. REFER TO DETAIL 'B', SHEET LD-1.
4. STABILIZED DECOMPOSED GRANITE. REFER TO DETAIL 'C', SHEET LD-1.
5. 6" CONCRETE MOWBAND. REFER TO DETAIL 'E', SHEET LD-1.
6. 9" CONCRETE MOWBAND. REFER TO DETAIL 'F', SHEET LD-1 & 'E', SHEET LD-6.
7. RESTROOM BLDG. REFER TO DETAIL 'A', SHEET LD-11.
8. PLAY AREA CURB. REFER TO DETAIL 'B', SHEET LD-5.
9. ENGINEERED WOOD FIBER W/ CURB CONTAINMENT. REFER TO DETAIL 'B', SHEET LD-5.
10. ADA ACCESS RAMP. REFER TO CIVIL PLANS.
11. A.C. PAVING. REFER TO CIVIL PLANS.
12. PARKING STRIPING. REFER TO CIVIL PLANS.
13. ADA PARKING. REFER TO CIVIL PLANS.
14. ENTRY MONUMENT SIGN. REFER TO DETAIL 'C', SHEET LD-2.
15. PARK PICNIC TABLE BY QCP, INC. MODEL#QLBT72PT. COLOR:NATURAL. REFER TO MANUFACTURER'S SPECIFICATION AND INSTALLATION.
16. FAMILY BBQ AND PREP TABLE BY QCP, INC. MODEL#QC-BBQ1824-FPC. REFER TO DETAIL 'B', SHEET LD-2. INSTALL PER MANUFACTURER'S SPECIFICATIONS.
17. HI-LOW DRINKING FOUNTAIN WITH PET FOUNTAIN BY HAWS. MODEL#3500D. REFER TO DETAIL 'I', SHEET LD-1.
18. TRASH RECEPTACLE BY VICTOR STANLEY. MODEL#DYN-36. REFER TO DETAIL 'G', SHEET LD-1 FOR CONCRETE PAD. INSTALL PER MANUFACTURER'S SPECS.
19. TURF AREA. REFER TO PLANTING PLAN.
20. PLANTED AREA. REFER TO PLANTING PLAN.
21. BIKE RACK BY DUMOR, MODEL #29000/S-2. INSTALL PER MANUF SPEC.
22. 8' HIGH GALV. CHAIN LINK FENCE (CLF) WITH CONC. MOWBAND. REFER TO DETAIL 'E', SHEET LD-6.
23. 8' HIGH GALV. SINGLE CHAIN LINK GATE. REFER TO DETAIL 'K', SHEET LD-6.
24. 8' HIGH GALV. DOUBLE CHAIN LINK GATE. REFER TO DETAIL 'L', SHEET LD-6.
25. 30' HIGH GALV. CHAIN LINK BACKSTOP WITH HOOD. REFER TO DETAIL 'B', SHEET LD-7.
26. 30' H CHAINLINK BACKSTOP FOOTING. REFER TO DETAIL 'E', SHEET LD-7.
27. INFIELD MIX. REFER TO DETAIL 'J', SHEET LD-7.
28. INFIELD ENLARGEMENT. REFER TO DETAIL 'A & B', SHEET LD-8.
29. DUGOUT. REFER TO DETAIL 'I & K', SHEET LD-9.
30. 30' FOUL BALL POLE BY TOMARK. FOOTING MOUNTED, MODEL: TB-K-30241. REFER TO MANUF SPEC FOR INSTALLATION, REFER TO DETAIL 'D', SHEET LD-6.
31. 4-ROW ALUMINUM SPECTATOR BLEACHERS WITH 2 DOUBLE WHEEL CHAIR SPACE BY KAY PARK REC. MODEL#BLA4A27V4F4 AHR48 2DWC. INSTALL PER MANUFACTURER'S SPECS.
32. SPORTS FIELD LIGHTING POLES. REFER TO ELECTRICAL PLANS.
33. ELECTRONIC SCOREBOARD BY DAKTRONICS. FIELD #1 MODEL BA-2022 WITH ARCH TRUSS LETTERING AND AD/ID PANEL. FIELD #2 & #3 MODEL BA-2518. SUBMIT DESIGNS FOR FINAL APPROVAL. REFER TO MANUF SPEC FOR INSTALLATION. REFER TO DETAIL 'J', SHEET LD-6. CONTRACTOR TO PROVIDE STRUCTURAL FOOTING DESIGN FOR FIELD #1 SCOREBOARD.
34. PEDESTRIAN LIGHTING. REFER TO ELECTRICAL PLANS.
35. ELECTRICAL EQUIPMENT. REFER TO ELECTRICAL PLANS.
36. EXISTING SIDEWALK TO REMAIN. PROTECT IN PLACE.
37. RELOCATED SHADE STRUCTURE. REFER TO CIVIL PLANS.
38. TRASH ENCLOSURE. REFER TO DETAIL 'B & F', SHEET LD-3.
39. PLAY AREA RAMP. REFER TO DETAIL 'A', SHEET LD-5.
40. INFILTRATION BASIN. REFER TO CIVIL PLANS.
41. PICNIC PAD LAYOUT. REFER TO DETAIL 'H', SHEET LD-1.
42. EXISTING MEMORIAL AND PEDESTAL AT PLAYGROUND TO BE REMOVED, RELOCATED AND INSTALLED AT GRADE.
43. 6' HIGH GALV. SINGLE CHAIN LINK GATE. REFER TO DETAIL 'K', SHEET LD-6.
44. 6' HIGH GALV. DOUBLE CHAIN LINK GATE. REFER TO DETAIL 'L', SHEET LD-6.
45. 30' HIGH SAFETY NETTING. REFER TO DETAIL 'C', SHEET LD-6.
46. 20' HIGH GALV. CHAIN LINK BACKSTOP WITH HOOD. REFER TO DETAIL 'D', SHEET LD-9.
47. BACKSTOP WINGS. REFER TO DETAIL 'I', SHEET LD-7.
48. <u>ADD ALT #2</u> - FIELD #3 LIGHTING POLES. REFER TO ELECTRICAL PLANS.
49. CANTILEVERED FABRIC SHADE SHELTER AT SKATE PARK AVAILABLE THROUGH GREAT WESTERN, PH:435-245-5055. SEE QUOTE #103562-01-04. INSTALL PER MANUF. SPEC.
50. 2-5, 5-12 PLAY AREA #1 BY GAMETIME. AVAILABLE THROUGH GREAT WESTERN, PH:435-245-5055. SEE QUOTE #103562-01-04. INSTALL PER MANUF. SPEC.
51. 2-5, 5-12 PLAY AREA #2 AT BALLFIELDS BY UNIVERSAL PRECASE. AVAILABLE THROUGH MIRACLE PLAYGROUNDS, PH:800-264-7225. SEE QUOTE #MPS 352. INSTALL PER MANUF. SPEC.
52. PARK BENCH BY VICTOR STANLEY. MODEL#RB-28. SURFACE MOUNT, COLOR: BLACK. REFER TO DETAIL 'J', SHEET LD-1.
53. 4' HIGH TUBE STEEL FENCE. REFER TO DETAIL 'A', SHEET LD-2.
54. ADA PICNIC TABLE BY QCP, INC. MODEL#QLBT102ADA.
55. PRECAST CONCRETE SEATWALL WITH RECYCLE LUMBER SEAT TOPPER. REFER TO DETAIL 'A', SHEET LD-3.
56. 3-ROW ALUMINUM SPECTATOR BLEACHERS BY KAY PARK REC. MODEL#BLA3A15. INSTALL PER MANUFACTURER'S SPECIFICATIONS.
57. COLLAPSIBLE BOLLARD BY TRAFFIC GUARD. MODEL#HRP36. COLOR: YELLOW. REFER TO DETAIL 'F', SHEET LD-2. INSTALL PER MANUF SPEC.
58. 3-ROW ALUMINUM SPECTATOR BLEACHERS BY KAY PARK REC. MODEL#BLA3A21. INSTALL PER MANUF SPEC.
59. FLAG POLE BY STEELCRAFT. MODEL#EC45. REFER TO DETAIL 'E', SHEET LD-3. INSTALL PER MANUF SPEC.
60. SECURITY CAMERA. REFER TO ELECTRICAL PLANS.
61. PET WASTE BAG DISPENSER. BELSON DOGIPOT STATION #DP-1003-L (3) TOTAL. CONTACT BELSON OUTDOORS INC, TEL: (800) 323-5664. INSTALL PER MANUF. SPECS.
62. <u>ADD ALT #7</u> - FITNESS EQUIPMENT BY TRIACTIVE USA. PARALLEL BARS, MODEL #PBAR. CONTACT LUCAS RIPHAGEN, TEL: (800)509-0597. INSTALL PER MANUF. SPEC. SEE CONSTRUCTION NOTES FOR ADDITIONAL INFO.
63. <u>ADD ALT #7</u> - FITNESS EQUIPMENT BY TRIACTIVE USA. MULTI BENCH, MODEL #PHRS. CONTACT LUCAS RIPHAGEN, TEL: (800)509-0597. INSTALL PER MANUF. SPEC. SEE CONSTRUCTION NOTES FOR ADDITIONAL INFO.
64. <u>ADD ALT #7</u> - FITNESS EQUIPMENT BY TRIACTIVE USA. MULTI BARS, MODEL #MBAR. CONTACT LUCAS RIPHAGEN, TEL: (800)509-0597. INSTALL PER MANUF. SPEC. SEE CONSTRUCTION NOTES FOR ADDITIONAL INFO.
65. <u>ADD ALT #7</u> - FITNESS EQUIPMENT BY TRIACTIVE USA. BACK EXTENSION, MODEL #BEXT. CONTACT LUCAS RIPHAGEN, TEL: (800)509-0597. INSTALL PER MANUF. SPEC. SEE CONSTRUCTION NOTES FOR ADDITIONAL INFO.
66. <u>ADD ALT #7</u> - FITNESS EQUIPMENT BY TRIACTIVE USA. HORIZONTAL BAR, MODEL #HBAR. CONTACT LUCAS RIPHAGEN, TEL: (800)509-0597. INSTALL PER MANUF. SPEC. SEE CONSTRUCTION NOTES FOR ADDITIONAL INFO.
67. <u>ADD ALT #7</u> - FITNESS EQUIPMENT BY TRIACTIVE USA. PULL UP AND DIP STATION, MODEL #PDIP. CONTACT LUCAS RIPHAGEN, TEL: (800)509-0597. INSTALL PER MANUF. SPEC. SEE CONSTRUCTION NOTES FOR ADDITIONAL INFO.
68. PERMALOC CLEANLINE ALUMINUM EDGING. SIZE $\frac{3}{16}$" X 4", COLOR: MILL FINISH OR EQUAL. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
69. RUBBERIZED SAFETY SURFACING. REFER TO DETAIL 'E', SHEET LD-5. INSTALL PER MANUF SPEC.
70. <u>ADD ALT #6</u> - 2-5, 5-12 PLAY AREA #3 AT BALLFIELD #2 BY GAMETIME. AVAILABLE THROUGH GREAT WESTERN, PH:435-245-5055. SEE QUOTE #103562-01-04. INSTALL PER MANUF. SPEC.
71. 6' HIGH GALV. CHAIN LINK FENCE (CLF). REFER TO DETAIL 'E', SHEET LD-6.
72. <u>ADD ALT #1</u> - FIELD #2 LIGHTING POLES. REFER TO ELECTRICAL PLANS.
73. FIELD DRAINAGE. REFER TO CIVIL PLANS.
74. EXISTING OLIVE BOWL SIGNAGE TO BE REMOVED IN TOTAL INCLUDING FOOTINGS AND ELECTRICAL.
75. BATTER'S EYE SCREEN. 6' HIGH BLACK TUFFY WINDSCREEN BY BSN SPORTS. ATTACH TO TOP OF C.L.F., 40' WIDE. INSTALL PER MANUF. SPEC.
76. DECOMPOSED GRANITE FOR PLANTING AREA. REFER TO DETAIL 'C', SHEET LD-1.
77. <u>ADD ALT #4</u> - 10'X30' CANTILEVERED FABRIC SHADE SHELTER AT BASEBALL BLEACHERS FIELD #1. AVAILABLE THROUGH GREAT WESTERN, PH:435-245-5055. SEE QUOTE #103562-01-04. INSTALL PER MANUF. SPEC.
78. <u>ADD ALT #5</u> - 10X22' CANTILEVERED FABRIC SHADE SHELTER AT BASEBALL BLEACHERS FIELDS #2 & #3. AVAILABLE THROUGH GREAT WESTERN, PH:435-245-5055. SEE QUOTE #103562-01-04. INSTALL PER MANUF. SPEC.
79. <u>ADD ALT #3</u> - 20' SAFETY NETTING AT FIELDS #2 AND #3. REFER TO DETAIL 'C', SHEET LD-6.
80. BASKETBALL COURT. REFER TO DETAIL 'G & D', SHEET LD-5.

## CONSTRUCTION NOTES:

1. ALL FORMS AND ALIGNMENTS OF PAVING, LAYOUT, AND SPECIAL PAVING AREAS SHALL BE REVIEWED AND APPROVED BY THE CITY'S AUTHORIZED REPRESENTATIVE PRIOR TO POURING (GIVE A MINIMUM OF 48 HOURS NOTICE).
2. CONTRACTOR SHALL VERIFY LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION AND SHALL BE HELD LIABLE FOR ALL DAMAGES INCURRED.
3. CONTRACTOR SHALL NOTE AND INSTALL SLEEVE LOCATIONS SHOWN ON IRRIGATION PLANS IN EXCESS OF EXISTING SLEEVES PER CITY'S APPROVAL.
4. ALL CONSTRUCTION AND WORKMANSHIP SHALL CONFORM TO THE 2010 EDITION OF THE CALTRANS STANDARD SPECIFICATIONS.
5. THESE NOTES SHALL BE USED IN CONJUNCTION WITH THE PLANS AND ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT AND CITY'S REPRESENTATIVE.
6. CONTRACTOR MUST CHECK ALL DIMENSIONS, FRAMING CONDITIONS AND SITE CONDITIONS BEFORE STARTING WORK. LANDSCAPE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES OR POSSIBLE DEFICIENCIES.
7. CONDITIONS NOT SPECIFICALLY SHOWN SHALL BE CONSTRUCTED SIMILAR TO THE DETAILS FOR THE RESPECTIVE MATERIALS.
8. THE DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED WORK. ALL BRACING, TEMPORARY SUPPORTS, SHORING, MASONRY, ETC. IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. OBSERVATION VISITS TO THE JOB SITE BY THE LANDSCAPE ARCHITECT DOES NOT INCLUDE INSPECTION OF CONSTRUCTION METHODS AND SAFETY CONDITIONS AT THE WORKSITE. THESE VISITS SHALL NOT BE CONSTRUED AS CONTINUOUS AND DETAILED INSPECTIONS.
9. CLEAN-UP SHALL TAKE PLACE ON A DAILY BASIS.
10. REFER TO SPECIFICATIONS FOR ANY ADDITIONAL INFORMATION.
11. CONTRACTOR TO VERIFY USE ZONE REQUIREMENTS FOR ALL FINTESS EQUIPMENT AND COORDINATE INSTALLATION ON CONCRETE PAD WITH MANUF.

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PLAN
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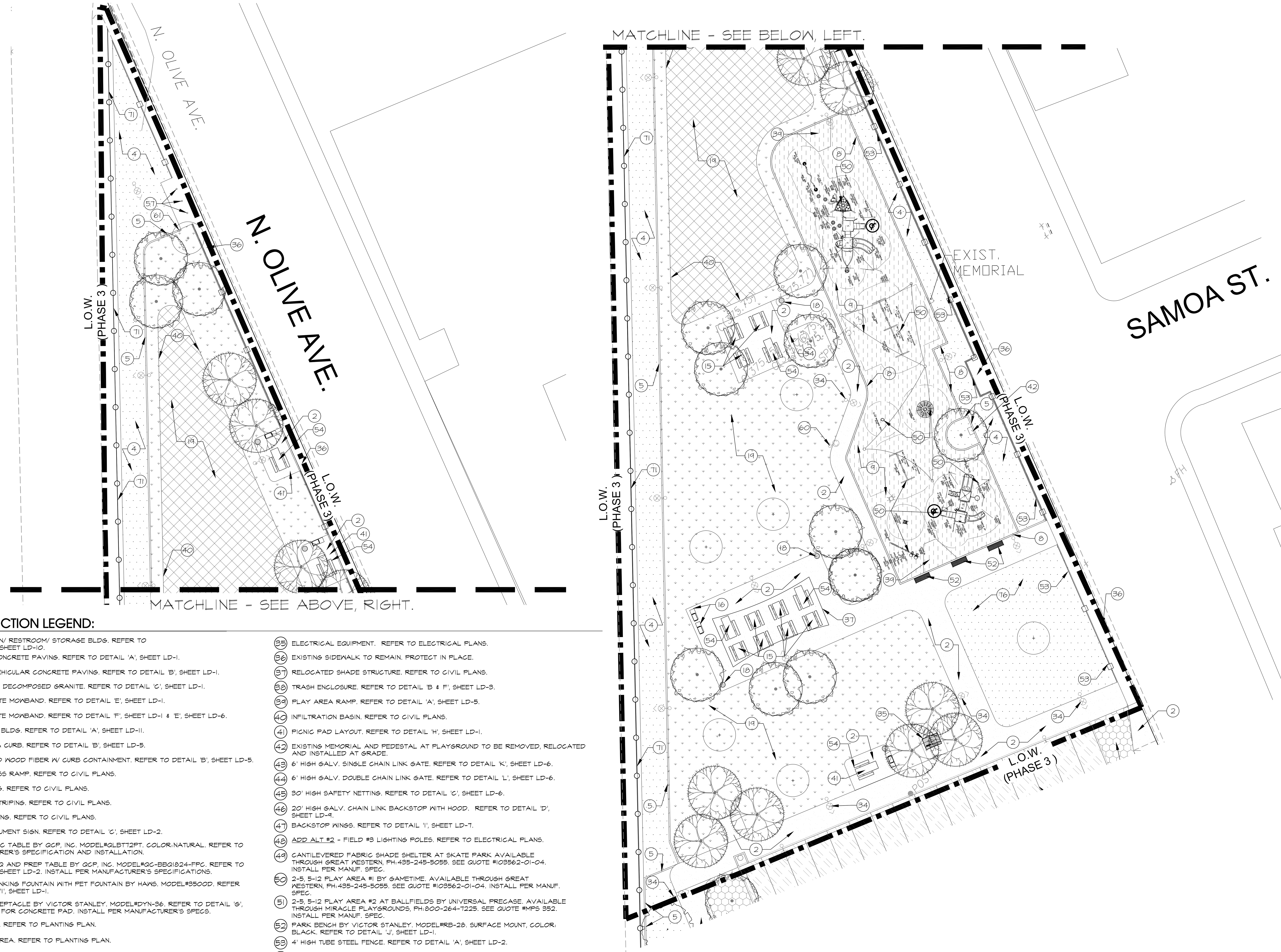


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REFER TO SHEET L2.3 FOR CONSTRUCTION NOTES.

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13. ADA PARKING. REFER TO CIVIL PLANS.
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18. TRASH RECEPTACLE BY VICTOR STANLEY. MODEL#DYN-36. REFER TO DETAIL 'G', SHEET LD-1 FOR CONCRETE PAD. INSTALL PER MANUFACTURER'S SPECS.
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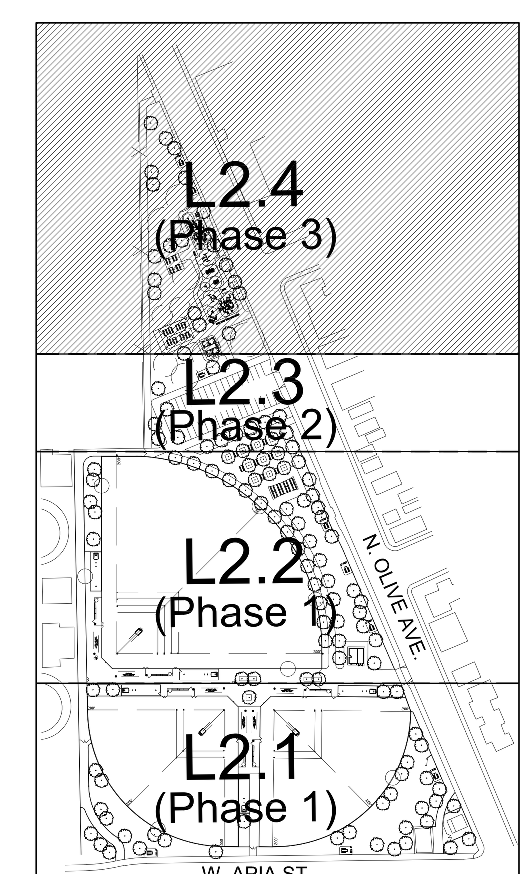
43. 6' HIGH GALV. SINGLE CHAIN LINK GATE. REFER TO DETAIL 'K', SHEET LD-6.
44. 6' HIGH GALV. DOUBLE CHAIN LINK GATE. REFER TO DETAIL 'L', SHEET LD-6.
45. 30' HIGH SAFETY NETTING. REFER TO DETAIL 'C', SHEET LD-6.
46. 20' HIGH GALV. CHAIN LINK BACKSTOP WITH HOOD. REFER TO DETAIL 'D', SHEET LD-9.
47. BACKSTOP WINGS. REFER TO DETAIL 'I', SHEET LD-7.
48. ADD ALT #2 - FIELD #3 LIGHTING POLES. REFER TO ELECTRICAL PLANS.
49. CANTILEVERED FABRIC SHADE SHELTER AT SKATE PARK AVAILABLE THROUGH GREAT WESTERN, PH:435-245-5055. SEE QUOTE #103562-01-04. INSTALL PER MANUF. SPEC.
50. 2-5, 5-12 PLAY AREA #1 BY GAMETIME. AVAILABLE THROUGH GREAT WESTERN, PH:435-245-5055. SEE QUOTE #103562-01-04. INSTALL PER MANUF. SPEC.
51. 2-5, 5-12 PLAY AREA #2 AT BALLFIELDS BY UNIVERSAL PRECASE. AVAILABLE THROUGH MIRACLE PLAYGROUNDS, PH:800-264-7225. SEE QUOTE #MPS 352. INSTALL PER MANUF. SPEC.
52. PARK BENCH BY VICTOR STANLEY. MODEL#RB-28. SURFACE MOUNT, COLOR: BLACK. REFER TO DETAIL 'J', SHEET LD-1.
53. 4' HIGH TUBE STEEL FENCE. REFER TO DETAIL 'A', SHEET LD-2.
54. ADA PICNIC TABLE BY QCP, INC. MODEL#QLBT102ADA.
55. PRECAST CONCRETE SEATWALL WITH RECYCLE LUMBER SEAT TOPPER. REFER TO DETAIL 'A', SHEET LD-3.
56. 3-ROW ALUMINUM SPECTATOR BLEACHERS BY KAY PARK REC. MODEL#BLA3A15. INSTALL PER MANUFACTURER'S SPECIFICATIONS.
57. COLLAPSIBLE BOLLARD BY TRAFFIC GUARD. MODEL#HRP36. COLOR: YELLOW. REFER TO DETAIL 'F', SHEET LD-2. INSTALL PER MANUF SPEC.
58. 3-ROW ALUMINUM SPECTATOR BLEACHERS BY KAY PARK REC. MODEL#BLA3A21. INSTALL PER MANUF SPEC.
59. FLAG POLE BY STEELCRAFT. MODEL#EC45. REFER TO DETAIL 'E', SHEET LD-3. INSTALL PER MANUF SPEC.
60. SECURITY CAMERA. REFER TO ELECTRICAL PLANS.
61. PET WASTE BAG DISPENSER. BELSON DOGIPOT STATION #DP-1003-L (3) TOTAL. CONTACT BELSON OUTDOORS INC, TEL: (800) 323-5664. INSTALL PER MANUF. SPECS.
62. ADD ALT #7 - FITNESS EQUIPMENT BY TRIACTIVE USA. PARALLEL BARS, MODEL #PBAR. CONTACT LUCAS RIPHAGEN, TEL: (800)509-0597. INSTALL PER MANUF. SPEC. SEE CONSTRUCTION NOTES FOR ADDITIONAL INFO.
63. ADD ALT #7 - FITNESS EQUIPMENT BY TRIACTIVE USA. MULTI BENCH, MODEL #PHRS. CONTACT LUCAS RIPHAGEN, TEL: (800)509-0597. INSTALL PER MANUF. SPEC. SEE CONSTRUCTION NOTES FOR ADDITIONAL INFO.
64. ADD ALT #7 - FITNESS EQUIPMENT BY TRIACTIVE USA. MULTI BARS, MODEL #MBAR. CONTACT LUCAS RIPHAGEN, TEL: (800)509-0597. INSTALL PER MANUF. SPEC. SEE CONSTRUCTION NOTES FOR ADDITIONAL INFO.
65. ADD ALT #7 - FITNESS EQUIPMENT BY TRIACTIVE USA. BACK EXTENSION, MODEL #BEXT. CONTACT LUCAS RIPHAGEN, TEL: (800)509-0597. INSTALL PER MANUF. SPEC. SEE CONSTRUCTION NOTES FOR ADDITIONAL INFO.
66. ADD ALT #7 - FITNESS EQUIPMENT BY TRIACTIVE USA. HORIZONTAL BAR, MODEL #HBAR. CONTACT LUCAS RIPHAGEN, TEL: (800)509-0597. INSTALL PER MANUF. SPEC. SEE CONSTRUCTION NOTES FOR ADDITIONAL INFO.
67. ADD ALT #7 - FITNESS EQUIPMENT BY TRIACTIVE USA. PULL UP AND DIP STATION, MODEL #PDIP. CONTACT LUCAS RIPHAGEN, TEL: (800)509-0597. INSTALL PER MANUF. SPEC. SEE CONSTRUCTION NOTES FOR ADDITIONAL INFO.
68. PERMALOC CLEANLINE ALUMINUM EDGING. SIZE 3/16" X 4", COLOR: MILL FINISH OR EQUAL. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
69. RUBBERIZED SAFETY SURFACING. REFER TO DETAIL 'E', SHEET LD-5. INSTALL PER MANUF SPEC.
70. ADD ALT #6 - 2-5, 5-12 PLAY AREA #3 AT BALLFIELD #2 BY GAMETIME. AVAILABLE THROUGH GREAT WESTERN, PH:435-245-5055. SEE QUOTE #103562-01-04. INSTALL PER MANUF. SPEC.
71. 6' HIGH GALV. CHAIN LINK FENCE (CLF). REFER TO DETAIL 'E', SHEET LD-6.
72. ADD ALT #1 - FIELD #2 LIGHTING POLES. REFER TO ELECTRICAL PLANS.
73. FIELD DRAINAGE. REFER TO CIVIL PLANS.
74. EXISTING OLIVE BOWL SIGNAGE TO BE REMOVED IN TOTAL INCLUDING FOOTINGS AND ELECTRICAL.
75. BATTER'S EYE SCREEN. 6' HIGH BLACK TUFFY WINDSCREEN BY BSN SPORTS. ATTACH TO TOP OF C.L.F., 40' WIDE. INSTALL PER MANUF. SPEC.
76. DECOMPOSED GRANITE FOR PLANTING AREA. REFER TO DETAIL 'C', SHEET LD-1.
77. ADD ALT #4 - 10'X30' CANTILEVERED FABRIC SHADE SHELTER AT BASEBALL BLEACHERS FIELD #1. AVAILABLE THROUGH GREAT WESTERN, PH:435-245-5055. SEE QUOTE #103562-01-04. INSTALL PER MANUF. SPEC.
78. ADD ALT #5 - 10X22' CANTILEVERED FABRIC SHADE SHELTER AT BASEBALL BLEACHERS FIELDS #2 & #3. AVAILABLE THROUGH GREAT WESTERN, PH:435-245-5055. SEE QUOTE #103562-01-04. INSTALL PER MANUF. SPEC.
79. ADD ALT #3 - 20' SAFETY NETTING AT FIELDS #2 AND #3. REFER TO DETAIL 'C', SHEET LD-6.
80. BASKETBALL COURT. REFER TO DETAIL 'G & D', SHEET LD-5.



KEYMAP

0 10' 20' 40'

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KAKU
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93247

SHEET TITLE

CALLOUT PLAN
ADD ALT A
Phase 3

| DATE | REVISION |
|---|---|
| 10-18-21 | 50% CD Submittal |
| 12-8-21 | 90% CD Submittal |
| 12-14-22 | 90% CD Submittal |
| 2-13-23 | 100% CD Submittal |
| 10-3-23 | ADDENDUM #1 |
| 10-27-23 | ADDENDUM #3 |
| 6-10-24 | 3 PHASE RE-PACKAGE |

STAMP
LICENSED LANDSCAPE ARCHITECT
STEVEN N LANG NO. 1771
SIGNATURE
11-30-24
RENEWAL DATE
6-10-24
DATE
STATE OF CALIFORNIA

| CHECKED BY | DATE |
|---|---|
| O.J. | 6-10-24 |
| DRAWN BY | JOB NO. |
| H.D. | 05567.02 |

SHEET
L2.4

# IRRIGATION EQUIPMENT LEGEND

| SYMBOL | MFG'R (OR APPROVED EQUAL) | MODEL # (OR APPROVED EQUAL) | DESCRIPTION | REMARKS | DETAIL |
|---|---|---|---|---|---|
| | N/A | N/A | DEDICATED IRRIGATION WATER METER AND SERVICE LINE FOR SECONDARY WATER SOURCE (200 GPM DEMAND AT 54 PSI) | 3" SIZE. LOCATION PER PLAN. WILL FILL IRRIGATION STORAGE TANK IF PRIMARY WELL WATER SUPPLY IS UNAVAILABLE. VERIFY PRESSURE PRIOR TO CONSTRUCTION. | N/A |
| | N/A | N/A | IRRIGATION POINT-OF-CONNECTION (POC) TO EXISTING IRRIGATION WELL. | WELL LOCATION PER PLAN. INSTALL SHUT OFF VALVE AS SHOWN ON PLANS. GATE VALVE SHALL BE MAINLINE SIZE. FIELD VERIFY SIZE, LOCATION. ADJUST LAYOUT AS REQUIRED. | N/A |
| | ZURN WILKINS | 375-4" | BACKFLOW PREVENTION DEVICE (FOR SECONDARY DOMESTIC WATER SUPPLY) | 4" SIZE. REDUCED PRESSURE TYPE. LEAD FREE. INSTALL PER DETAIL AND AS REQUIRED BY LOCAL CODES. INSTALL WITH WEATHER BLANKET WITHIN FENCED WELL EQUIPMENT AREA. | 9/L3.6 |
| F | WATER-TRONICS | INCLUDED WITH BOOSTER PUMP | AUTOMATIC SELF FLUSHING FILTER. | 4" AUTOMATIC SELF-FLUSHING FILTER WITH 100 MICRON SCREEN OR AS REQUIRED BASED UPON WATER QUALITY TEST. | 1/L3.8 |
| | NIBCO | P-619-RW | MAINLINE ISOLATION GATE VALVE (3" -INCH AND LARGER) | CAST IRON, RESILIENT WEDGE, SQUARE OPERATING NUT, PUSH-ON GASKETED. INSTALL WITHIN VALVE BOX AS DETAILED. MATCH SIZE OF MAINLINE PIPE. | 8/L3.6 |
| | NIBCO | T-113-BHW | MAINLINE ISOLATION GATE VALVE (2-1/2-INCH AND SMALLER) | BRONZE, NON-RISING STEM, THREADED. INSTALL WITHIN VALVE BOX AS DETAILED. MATCH MAIN LINE PIPE SIZE. | 5/L3.5 |
| P | WATER-TRONICS | SHFV-1-5K-20-480-3-200-85 | IRRIGATION BOOSTER PUMP, 5000 GALLON IRRIGATION STORAGE TANK, SELF FLUSHING FILTER | SKY HARVESTER VFD BOOSTER PUMP ASSEMBLY IN STAINLESS STEEL ENCLOSURE WITH 4" INLET AND DISCHARGE PIPES. 20HP. CONNECT TO 480 VOLT A.C., PHASE 3 POWER AT BOOSTER PUMP LOCATION. INSTALL PER DETAILS AND MANUFACTURER'S INSTRUCTIONS. INCLUDES TANK, FILTER AND CONTROLS. | 1/L3.8 |
| M | GRISWOLD | 2000-N-E | SECONDARY MASTER CONTROL VALVE (NORMALLY CLOSED) | 3" FIPT CAST IRON, EPOXY COATED MASTER CONTROL VALVE. LOCATE DOWNSTREAM FROM BACKFLOW PREVENTER. THIS VALVE WILL OPEN WHEN THE TANK FLOAT REACHES LOW LEVEL MARK. | 1/L3.6 |
| | RAIN BIRD | 44-LRC | QUICK COUPLING VALVE (QCV) | 1-INCH SIZE; DOUBLE TRACK KEY LUG WITH THERMOPLASTIC TOP. SUPPLY WITH (2) VALVE KEYS (MODEL #44-DK) AND MATCHING HOSE SWIVELS (MODEL #SH-0). INSTALL WITH HARCO QUICK COUPLER ANTI-ROTATION ANCHOR. LOCATE QCV AS SHOWN ON PLANS, BUT NO MORE THAN 250' O.C. ACTIVATE PUMP & MASTER VALVE TO USE. | 4/L3.6<br>3,4/L3.5 |
| A | HIT | LP-128S-C/L-PED<br>/LP-HHRP<br>/L-RP-ID<br>/LP-SPD-F<br>/LP-RAD-COM | AUTOMATIC IRRIGATION CONTROLLER WITH HAND HELD REMOTE. | 128 STATION 2-WIRE CONTROLLER WITH STAINLESS STEEL PEDESTAL, HAND HELD RECEIVER (DECODER) PROGRAMMER, IDENTIFICATION TAG SET, SURGE PROTECTION LINE DEVICES (INSTALL WITH GROUNDING ROD EVERY 300'-500' AND AT CONTROLLER AND AT ENDS OF WIRE RUNS), AND A COMMANDER RADIO REMOTE UNIT KIT. SYNC WITH RAIN SWITCH 'R'. WIRE TO CONTROL VALVES WITH #12AWG DIRECT BURIAL WIRES PER MANUFACTURER'S RECOMMENDATIONS. | 1,2,3/L3.7 |
| R | HUNTER | WRS-KIT | WIRELESS RAIN SENSOR. | WIRELESS RAIN SWITCH. DISTANCE FROM CONTROLLER SHALL NOT EXCEED 200-FEET. REFER TO PLAN FOR ADDITIONAL INFO. SENSOR SHALL BE FIELD LOCATED ON SOUTH FACING FENCE POST. LOCATE TO PROVIDE OPTIMAL EXPOSURE TO WEATHER ELEMENTS AS PER MANUFACTURER'S RECOMMENDATIONS. | PER MANUFT'R |
| M | GRISWOLD | 2000-P-E | PRIMARY MASTER CONTROL VALVE (NORMALLY CLOSED) | 4" CAST IRON, EPOXY COATED MASTER CONTROL VALVE. LOCATE DOWNSTREAM FROM BOOSTER PUMP. THIS VALVE WILL OPEN AT THE SAME TIME AS THE BOOSTER PUMP. FLOW: .1-200 GPM. | 4/L3.7 |
| H | NETAFIM | LS360CT04GAL-NO | OCTAVE ULTRASONIC WATER METER | 4-INCH SIZE, NO OUTPUT FOR FLOW (METER ONLY). MINIMUM OPERATING FLOW OF 1 GPM AND A MAXIMUM OPERATING FLOW OF 200 GPM. THIS DEVICE WILL RECORD WELL WATER USE. | 4/L3.7 |
| NOT SHOWN | HIT | BVT SERIES | MAINIFOLD ISOLATION BALL VALVE (2" AND SMALLER) | PVC, FULL PORT. MATCH REMOTE CONTROL VALVE SIZE. NPT THREADED ENDS. USE ONLY ON MANIFOLD SUB-MAINLINES. | 6/L3.5 |
| | RAIN BIRD | 100-PESB (1")<br>150-PESB (1.5")<br>200-PESB (2") | REMOTE CONTROL VALVE (RCV) | GLASS FILLED NYLON AUTOMATIC GLOBE VALVE. SIZE AS INDICATED ON PLANS. INSTALL WITHIN PLASTIC VALVE BOX AND BOLT DOWN COVER. INSTALL WITHIN MANIFOLD WHEN GROUPED WITH OTHER VALVES. SIZE MANIFOLD TO MATCH LARGEST LATERAL LINE SIZE. USE INCLUDED DBC-BR SPLICE KITS FOR WIRE CONNECTIONS TO 2-WIRE PATH. INSTALL WITH LP-RP RECEIVER (2-WIRE DECODER). LATCHING SOLENOID NOT REQUIRED. | 1/L3.6<br>3,4/L3.5 |
| | PW PIPE | - | PRESSURE MAINLINE PIPE | 4-INCH SIZE UNLESS NOTED DIFFERENTLY ON PLANS. USE CLASS 200 GASKETED PVC PIPE WITH DEEP BELL DUCTILE IRON GASKETED FITTINGS AND JOINT RESTRAINTS FOR PIPING 3" AND LARGER. USE SCHEDULE 40 PVC FOR MAINLINE PIPE 2-1/2-INCH AND SMALLER. MINIMUM DEPTH OF COVER IS 24". INSTALL WITH COPPER TRACE WIRE ABOVE ALL MAINLINE PIPE. 3" AND LARGER MAINLINE SHALL BE INSTALLED WITH THRUST BLOCKS IF NOT USING JOINT RESTRAINTS. | 1,2/L3.5 |
| | PW PIPE | - | SOLVENT WELD NON-PRESSURE LATERAL PIPE | SIZE PER PLAN; SCHEDULE 40 PVC PIPE WITH SCHEDULE 40 PVC SOLVENT WELD FITTINGS FOR LATERAL LINE, 3/4" MIN. SIZE. LATERAL COVER DEPTH 12" | |
| | PW PIPE | - | IRRIGATION PIPE/ CONTROL WIRES/ SENSOR WIRE SLEEVE | QUANTITIES SHOWN ON PLANS ARE FOR BIDDING PURPOSES ONLY. CONTRACTOR SHALL PROVIDE SIZE AND QUANTITY AS REQUIRED. REFER TO PIPE/WIRE SLEEVING CHART FOR SIZE (SHEET L3.0) | 2/L3.5 |
| NOT SHOWN | N/A | N/A | CONCRETE THRUST BLOCK | TO BE INSTALLED WITH 3" AND LARGER MAINLINE (IF NOT USING JOINT RESTRAINTS). | 7/L3.6 |

## OVERHEAD POP-UP ROTOR SPRINKLERS (ADJUSTABLE ARC)

| SYMBOL | MFG'R (OR APPROVED EQUAL) | MODEL # | DESCRIPTION | NOZZLE | OPER. PSI | RADIUS (FEET) | FLOW (GPM) | DETAIL |
|---|---|---|---|---|---|---|---|---|
| | HUNTER | I-25-06-SS-10 | **TURF AREAS:** FULL-CIRCLE 6-INCH POP-UP ROTOR BODY W/ STAINLESS STEEL RISER AND STANDARD NOZZLE | 10 | 60 | 52 | 11.1 | 2/L3.6 |
| | HUNTER | I-25-06-SS-23 | | 23 | 60 | 64 | 21.9 | 2/L3.6 |

## OVERHEAD POP-UP ROTOR SPRINKLERS (ADJUSTABLE ARC)

| SYMBOL | MFG'R (OR APPROVED EQUAL) | MODEL # | DESCRIPTION | NOZZLE | OPER. PSI | RADIUS (FEET) | FLOW (GPM) | DETAIL |
|---|---|---|---|---|---|---|---|---|
| | HUNTER | I-25-06-SS-23 | **TURF AREAS:** FULL-CIRCLE 6-INCH POP-UP ROTOR BODY W/ STAINLESS STEEL RISER AND STANDARD NOZZLE | 23 | 60 | 64 | 21.9 | 2/L3.6 |

## OVERHEAD POP-UP ROTATING STREAM SPRAY SPRINKLERS (ADJUSTABLE ARC)

| SYMBOL | MFG'R (OR APPROVED EQUAL) | MODEL # | DESCRIPTION | NOZZLE | OPER. PSI | RAD. | FLOW (GPM) 45° | 90° | 180° | 210° | 270° | 360° | DETAIL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11 | HUNTER | PROS-##-PRS40-CV-F-MP1000-# | **TURF AREAS:** ROTATING STREAM SPRAY NOZZLE ON 6-INCH POP-UP SPRINKLER BODY W/ FACTORY INSTALLED DRAIN CHECK VALVE, 40 PSI IN-STEM PRESSURE REGULATION, AND FLOGUARD TECHNOLOGY (PROS-06-PRS-CV-F).<br><br>**SHRUB AREAS:** ROTATING STREAM SPRAY NOZZLE ON 12-INCH POP-UP SPRINKLER BODY W/ FACTORY INSTALLED DRAIN CHECK VALVE, 40 PSI IN-STEM PRESSURE REGULATION, AND FLOGUARD TECHNOLOGY (PROS-12-PRS-CV-F). | MAROON | 40 | 8'-15' | | 0.21 | 0.42 | 0.49 | | | 3/L3.6 |
| 10 | HUNTER | PROS-##-PRS40-CV-F-MP1000-# | | OLIVE | 40 | 8'-15' | | | | | | 0.84 | 3/L3.6 |
| 21 | HUNTER | PROS-##-PRS40-CV-F-MP2000-# | | BLACK | 40 | 13'-21' | | 0.43 | 0.77 | 0.86 | | | 3/L3.6 |
| 20 | HUNTER | PROS-#3-PRS40-CV-F-MP2000-# | | RED | 40 | 13'-21' | | | | | | 1.48 | 3/L3.6 |
| 31 | HUNTER | PROS-##-PRS40-CV-F-MP3000-# | | BLUE | 40 | 22'-30' | | 0.86 | 1.82 | 2.12 | | | 3/L3.6 |
| 30 | HUNTER | PROS-##-PRS40-CV-F-MP3000-# | | GRAY | 40 | 22'-30' | | | | | | 3.64 | 3/L3.6 |
| MC | HUNTER | PROS-##-PRS40-CV-F-MPCORNER | | TURQUOISE | 40 | 8'-15' | 0.19 | 0.39 | 0.45 | | | | 3/L3.6 |

## OVERHEAD POP-UP SPRAY SPRINKLERS (FIXED ARC)

| SYMBOL | MFG'R (OR APPROVED EQUAL) | MODEL # | DESCRIPTION | NOZZLE | OPER. PSI | RAD. | FLOW (GPM) 90° | 120° | 180° | 240° | 270° | 360° | DETAIL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15Q 15H 15F | HIT RAIN-PRO | 90#-CKV- PRD30 M- 501-1## | **TURF AREAS:** SPRAY NOZZLE ON 6-INCH POP-UP SPRINKLER BODY W/ FACTORY INSTALLED CHECK VALVE, AND 30 PSI IN-STEM PRESSURE REGULATION (906-CKV-PRD30).<br><br>**SHRUB AREAS:** SPRAY NOZZLE ON 12-INCH POP-UP SPRINKLER BODY W/ FACTORY INSTALLED CHECK VALVE, AND 30 PSI IN-STEM PRESSURE REGULATION (912-CKV-PRD30). | M-501-11# (BLACK) | 30 | 15' | 0.91 | 1.21 | 1.81 | 2.40 | 2.70 | 3.60 | 3/L3.6 |
| 12Q 12H 12F | HIT RAIN-PRO | 90#-CKV- PRD30 M- 501-1## | | M-501-1## (BROWN) | 30 | 12' | 0.60 | 0.81 | 1.21 | 1.60 | 1.85 | 2.45 | 3/L3.6 |
| 10Q 10H 10F | HIT RAIN-PRO | 90#-CKV- PRD30 M- 501-1## | | M-501-1## (BLUE) | 30 | 10' | 0.40 | 0.51 | 0.77 | | | 1.54 | 3/L3.6 |

## OVERHEAD POP-UP SPRAY SPRINKLERS (FIXED SPECIAL PATTERN)

| SYMBOL | MFG'R (OR APPROVED EQUAL) | MODEL # | DESCRIPTION | NOZZLE | OPER. PSI | RAD. | FLOW (GPM) SST | EST | CST | DETAIL |
|---|---|---|---|---|---|---|---|---|---|---|
| 15E | HIT RAIN-PRO | 90#-CKV- PRD30 M- 501-133 | **TURF AREAS:** SPRAY NOZZLE ON 6-INCH POP-UP SPRINKLER BODY W/ FACTORY INSTALLED CHECK VALVE, AND 30 PSI IN-STEM PRESSURE REGULATION (906-CKV-PRD30). | M-501-133 (15EST) | 30 | 4'X15' | | 0.60 | | 3/L3.6 |
| 15C | HIT RAIN-PRO | 90#-CKV- PRD30 M- 501-134 | **SHRUB AREAS:** SPRAY NOZZLE ON 12-INCH POP-UP SPRINKLER BODY W/ FACTORY INSTALLED CHECK VALVE, AND 30 PSI IN-STEM PRESSURE REGULATION (912-CKV-PRD30). | M-501-134 (15CST) | 30 | 4'X30' | | | 1.20 | 3/L3.6 |

## TREE ROOT WATERING SYSTEMS AND VINE BUBBLERS

| SYMBOL | MFG'R (OR APPROVED EQUAL) | MODEL # | TREE/ VINE LOCATION | OPERATING PRESSURE | RADIUS | FLOW (GPM) | FLOW | DETAIL |
|---|---|---|---|---|---|---|---|---|
| | RAIN BIRD | RWS-B-1402 | LANDSCAPE AREAS | 30 PSI | N/A | 0.50 | INSTALL (2) RWS PER TREE. 1.0 GPM TOTAL FLOW PER TREE. | 5,6/L3.6 |
| | RAIN BIRD | RWS-B-1401 | DECOMPOSED GRANITE | 30 PSI | N/A | 0.25 | INSTALL (4) RWS PER TREE. 1.0 GPM TOTAL FLOW PER TREE. | 5,6/L3.6 |
| ■ | HUNTER | IH-18-60-CV | VINE POCKETS | 30 PSI | N/A | 0.1 | INSTALL (1) LOW FLOW BUBBLER PER VINE ON A FLEX RISER. LOCATE BUBBLER ON TOP OF ROOT BALL. | 2/L3.8 |

### NON-PRESSURE LATERAL PIPE SIZING CHART SCHEDULE 40 IPS U.S. PVC PLASTIC PIPE (FOR REFERENCE USE ONLY)

| PIPE SIZE | MAXIMUM GALLONS PER MINUTE |
|---|---|
| 3/4 -INCH | 0 - 6 |
| 1 - INCH | 7 - 12 |
| 1-1/4 - INCHES | 13 - 20 |
| 1-1/2 - INCHES | 21 - 30 |
| 2 - INCHES | 31 - 45 |
| 2-1/2 - INCHES | 46 - 70 |
| 3 - INCHES | 71 - 100 |

### PRESSURE MAINLINE PIPE SIZING CHART CLASS 200 & SCH. 40 IPS U.S. PVC PLASTIC PIPE (FOR REFERENCE USE ONLY)

| PIPE SIZE | MAXIMUM GALLONS PER MINUTE |
|---|---|
| 1 - INCH | 0 - 12 |
| 1-1/4 - INCHES | 13 - 20 |
| 1-1/2 - INCHES | 21 - 30 |
| 2 - INCHES | 31 - 45 |
| 2-1/2 - INCHES | 46 - 70 |
| 3 - INCHES | 71 - 100 |
| 4 - INCHES | 101 - 200 |

### CONDUIT/PIPE SLEEVE SIZING CHART (FOR REFERENCE USE ONLY)

| SCHEDULE 40 PVC PIPE SLEEVE SIZE | MAXIMUM IRRIGATION PIPE/WIRE CONDUIT SIZE |
|---|---|
| 2 - INCHES | 1 - INCH |
| 2-1/2 - INCHES | 1-1/4 - INCH |
| 3 - INCHES | 1-1/2 - INCH |
| 4 - INCHES | 2 - INCHES |
| 6 - INCHES | 3 - INCHES |
| 8 - INCHES | 4 - INCHES |
| SPARE SLEEVE SIZE TO MATCH LARGEST SLEEVE AT SAME CROSSING LOCATION. | |

## GENERAL IRRIGATION LEGEND

SLEEVING: REFER TO IRRIGATION LEGEND ON SHEET L3.0 FOR TYPE AND SIZE.

#M MAINLINE PIPE SLEEVE QUANTITY
#L LATERAL PIPE SLEEVE QUANTITY
#S EMPTY SLEEVE QUANTITY
#W WIRE SLEEVE QUANTITY

VALVE CALLOUT:

CONTROLLER NUMBER
GALLONS PER MINUTE
VALVE SIZE

RWS - TREE ROOT WATERING SYSTEM
ROT - POP-UP ROTOR
MPR - POP-UP STREAM ROTOR
SPR - POP-UP SPRAY
BUB - VINE BUBBLER

1-1/2" PIPE SIZING CALL-OUT

## GENERAL NOTES

1. REFER TO THE IRRIGATION EQUIPMENT LEGEND ON L3.0 AND THE GENERAL IRRIGATION NOTES ON SHEET L3.0A FOR ADDITIONAL INFO.
2. REFER TO THE IRRIGATION DETAILS ON SHEETS L3.5, L3.6, L3.7 AND L3.8 FOR ADDITIONAL INFORMATION.
3. REFER TO THE MWELO WATER USE CALCULATIONS AND HYDROZONE CHART ON SHEET L3.9 FOR ADDITIONAL INFORMATION.
4. ALL MAINLINE, LATERAL PIPE, VALVES, AND OTHER IRRIGATION SYSTEM APPURTENANCES SHOWN IN PAVED AREA IS FOR GRAPHICAL CLARITY ONLY. CONTRACTOR TO PLACE MAINLINE, LATERAL PIPE, VALVES AND ALL IRRIGATION APPURTENANCES WITHIN ADJACENT PLANTING AREAS UNLESS NOTED OTHERWISE ON THE PLANS.
5. CONTRACTOR SHALL ROUTE ALL IRRIGATION MAINLINE, LATERAL PIPE AND SLEEVES AROUND ALL SERVICE LINES, UTILITIES, STORM DRAINAGE FACILITIES, ETC. IN ORDER TO AVOID ANY CONFLICTS IN THE FIELD. INSTALL IRRIGATION PIPE BELOW STORM DRAINAGE PIPES WHERE REQUIRED TO MAINTAIN THE MINIMAL DEPTH REQUIREMENTS.

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CONSULTANT:

PROJECT TEAM:
LANDSCAPE ARCHITECT
**MOORE IACOFANO GOLTSMAN, INC.**
ELECTRICAL ENGINEER
**LRA ENGINEERS**
CIVIL ENGINEER
**BKF**
STRUCTURAL ENGINEER
**ISE**


OLIVE BOWL
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PARK

LINDSAY, CA
93247

SHEET TITLE

IRRIGATION LEGEND

| DATE | REVISION |
|---|---|
| 10-18-21 | 50% CD Submittal |
| 12-8-21 | 90% CD Submittal |
| 12-14-22 | 90% CD Submittal |
| 2-13-23 | 100% CD Submittal |
| 10-3-23 | ADDENDUM #1 |
| 10-27-23 | ADDENDUM #3 |
| 6-10-24 | 3 PHASE RE-PACKAGE |

STAMP

LICENSED LANDSCAPE ARCHITECT STEVEN N LANG NO. 1771 SIGNATURE 11-30-24 RENEWAL DATE 6-10-24 DATE STATE OF CALIFORNIA

| CHECKED BY | DATE |
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| O.J. | 6-10-24 |
| DRAWN BY | JOB NO. |
| H.D. | 05567.02 |

SHEET
L3.0

## AUTOMATIC IRRIGATION CONTROLLER NOTES

1. CONTROLLERS SHALL BE INSTALLED AT THE APPROXIMATE LOCATIONS SHOWN ON THE IRRIGATION PLANS. FINAL LOCATION SHALL BE APPROVED BY OWNER'S REPRESENTATIVE. REFER TO THE ELECTRICAL ENGINEERING DWGS FOR THE POINT OF CONNECTION TO THE POWER SOURCE.

2. ALL CABLES AND CONDUCTORS MUST BE INSTALLED IN CONDUIT AND SEALED PER NOTE 7 BELOW. EXTEND CONDUITS ALONG WITH APPROPRIATE CABLES/CONDUCTORS TO LOCATIONS SHOWN ON PLANS. REMOTE CONTROL WIRES SHALL BE DIRECT BURIAL.

3. PRIOR TO CONSTRUCTION, CONTRACTOR TO SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE OWNER'S REPRESENTATIVE, CONTROLLER REPRESENTATIVE, AND OTHER NECESSARY PARTIES ASSOCIATED WITH THE INSTALLATION OF IRRIGATION EQUIPMENT.

4. IRRIGATION CONTROLLER ASSEMBLY BY CALSENSE.

5. ALL CONDUCTORS AND WIRING SHALL BE NEATLY ARRANGED AND ORDERED SO THAT CLEAR ACCESS TO ALL EQUIPMENT IS MAINTAINED.

6. PROVIDE ENGRAVED SCREW-ON PHENOLIC NAMEPLATE ON DEVICE BOX INDICATING LOCATION AND NAME OF ORIGINATING ELECTRICAL PANEL AND BRANCH CIRCUIT IDENTIFICATION NUMBER.

7. CONTRACTOR SHALL SEAL OFF ENDS OF CONDUIT AFTER INSTALLING CONDUCTORS/WIRES WITH DUCT SEAL, AND CAP ENDS OF ALL SPARE CONDUITS. EXTEND SPARE CONDUITS 24" BEYOND FOUNDATION AND CAP WITH BRASS CAP.

8. THE CONTRACTOR SHALL INSTALL THREE (3) SPARE CONTROL WIRES FROM THE CONTROLLER ALONG THE ENTIRE LENGTH OF MAIN LINE PIPE, AND PROVIDE 36" OF EXTRA WIRE WITHIN FURTHEST VALVE BOX(ES) ON EACH BRANCH OF MAIN LINE PIPE. THE SPARE WIRES SHALL BE A DIFFERENT COLOR THAN THE ACTIVE CONTROL WIRES OR THE COMMON WIRE. CAP SPARE WIRES WITH WIRE NUTS WRAPPED WITH VINYL ELECTRICAL TAPE. LABEL "SPARE".

9. CONTROLLER SHALL BE COVERED BY A 5 YEAR MINIMUM MANUFACTURER'S WARRANTY.

10. CONTRACTOR TO FURNISH, INSTALL, AND TEST COMPLETE ITS AUTOMATIC IRRIGATION CONTROLLER ASSEMBLY CONSISTING OF CONTROLLER(S), ENCLOSURE, TERMINAL INTERFACE BOARDS, 120 VOLT GFI OUTLET, ON/OFF SWITCH, CABLING, TRANSFORMERS, SURGE ARRESTERS, AND ALL OTHER ITEMS SPECIFIED.

11. REFER TO IRRIGATION LEGEND SHEET FOR OTHER IRRIGATION SYSTEM COMPONENTS AND MATERIALS REQUIRED FOR PROJECT.

12. UPON COMPLETION OF INSTALLATION, CONTACT CONTROLLER REPRESENTATIVE TO PERFORM A SITE VISIT TO VERIFY THE SYSTEM HAS BEEN INSTALLED PER MANUFACTURER'S INSTRUCTIONS. THE SYSTEM WILL NOT BE ACCEPTED UNTIL THE REPRESENTATIVE HAS INDICATED THAT THE SYSTEM HAS BEEN INSTALLED CORRECTLY AND IS OPERATING SATISFACTORILY. CONTRACTOR TO PROVIDE PROGRAMMING OF CONTROLLER, WITH TRAINING (AT NO CHARGE) FROM CONTROLLER MANUFACTURER.

13. CONTRACTOR SHALL PROVIDE TWO KEYS FOR EACH OF THE THE CONTROLLER ENCLOSURES, AND SECURE THE ENCLOSURES WITH THE LOCK DURING CONSTRUCTION AND MAINTENANCE. LOCKS SHALL BE KEYED TO THE OWNER'S NUMBER ASSIGNED. IMMEDIATELY PRIOR TO PROJECT ACCEPTANCE, THE CONTRACTOR SHALL TURN THE KEYS OVER TO THE CITY.

## EXISTING LANDSCAPE IRRIGATION NOTES

1. IRRIGATION DESIGN IS BASED ON CITY PROVIDED INFORMATION AND MAY NOT REFLECT ACTUAL FIELD CONDITIONS. CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE OF SITE CONDITIONS WHICH MAY PREVENT INSTALLATION OF WORK PER PLANS, DETAILS AND SPECIFICATIONS. ALL EXISTING IRRIGATION SYSTEM LAYOUT SHALL BE FIELD VERIFIED WITH THE OWNER'S REPRESENTATIVE AT THE START OF WORK.

2. CONTRACTOR SHALL FIELD VERIFY (POTHOLE IF NECESSARY) SIZE, MATERIAL, LOCATION AND DEPTH OF ALL MAINLINES THAT ARE TO BE CONNECTED TO OR CROSSED AT THE START OF WORK AND PROVIDE FINDINGS TO OWNER'S REPRESENTATIVE IN WRITING PRIOR TO THE START OF DEMOLITION.

3. THE CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH ANY EXISTING IRRIGATION SYSTEMS DIRECTLY ADJACENT AND OUTSIDE OF THE LIMIT-OF-WORK AREAS PRIOR TO THE START OF WORK. CONTRACTOR SHALL DOCUMENT ANY BROKEN OR MALFUNCTIONING PIECE OF IRRIGATION EQUIPMENT AND PROVIDE THE OWNER'S REPRESENTATIVE WITH A WRITTEN REPORT. ANY REPAIRS REQUIRED TO COMPONENTS NOT NOTED IN THE REPORT DURING OR AFTER DEMOLITION IS COMPLETED SHALL BECOME THE RESPONSIBILITY OF THE CONTRACTOR AND ALL REPAIR WORK SHALL BE TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING IRRIGATION SYSTEM TO REMAIN CAUSED BY EITHER THEIR OR THEIR SUB-CONTRACTORS OPERATIONS OR NEGLECT. IN CASE OF DAMAGE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING ANY REQUIRED REPAIRS AS SOON AS POSSIBLE. REPAIRS SHALL BE THE DIRECTION OF THE OWNER'S AUTHORIZED REPRESENTATIVE AND SHALL BE TO THE EXACT DUPLICATE OF ORIGINAL WORK OR HIGHER QUALITY.

5. EXISTING IRRIGATION OUTSIDE OF AREAS OF WORK SHALL REMAIN FULLY OPERATIONAL. NO DISRUPTION OF THE EXISTING IRRIGATION SYSTEM'S WATERING OR OPERATION SHALL BE ALLOWED DURING THE COURSE OF CONSTRUCTION. THE EXISTING IRRIGATION SYSTEM SHALL MAINTAIN AUTOMATIC PROGRAMMED WATERING SCHEDULES THROUGHOUT CONSTRUCTION AND SHALL BE SUPPLEMENTED BY MANUAL WATERING ONLY WHEN REQUIRED OR REQUESTED BY THE OWNER'S AUTHORIZED REPRESENTATIVE.

6. PROTECT ALL EXISTING MAINLINE, CONTROL VALVES AND WIRES, AND IRRIGATION EQUIPMENT, INCLUDING BY NOT LIMITED TO PRESSURE REDUCING VALVES, MASTER VALVES, FLOW SENSORS, ETC., NECESSARY FOR THE OPERABILITY OF THE EXISTING IRRIGATION SYSTEM TO REMAIN. REMOVE EXISTING IRRIGATION EQUIPMENT ONLY WHEN REQUIRED AS PART OF NEW IRRIGATION SYSTEM INSTALLATION.

7. ANY EXISTING IRRIGATION CONTROL VALVES CONNECTED TO EXISTING CONTROLLER(S) SHALL REMAIN CONNECTED UNLESS OTHERWISE NOTED ON PLANS. CONFIRM PROPER EXISTING CONTROLLER OPERATION WITH CITY'S REPRESENTATIVE UPON COMPLETION OF WORK.

8. EXISTING EQUIPMENT MAY BE RELOCATED FROM THE AREA OF WORK IF REQUIRED IN ORDER TO MAINTAIN OPERABILITY OF THE EXISTING IRRIGATION SYSTEM DURING AND AFTER CONSTRUCTION. RELOCATE EXISTING EQUIPMENT ONLY AS REQUIRED TO REMAIN FUNCTIONAL AND AS PER CITY'S REPRESENTATIVE APPROVAL.

## EXISTING UTILITIES NOTES

1. THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, VERIFY THE LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES, STRUCTURES, AND SERVICES WHICH MAY AFFECT CONTRACTOR'S OPERATION DURING CONSTRUCTION BEFORE COMMENCING WORK. THE LOCATIONS OF UTILITIES, STRUCTURES, AND SERVICES SHOWN IN THESE PLANS ARE APPROXIMATE ONLY. ANY DISCREPANCIES BETWEEN THE PLANS AND ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE.

2. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN WORKING NEAR OVERHEAD OR UNDERGROUND POWER AND/OR TELEPHONE, WATER, GAS, OIL, SEWER, ETC., SO AS TO SAFELY PROTECT ALL UTILITIES, PERSONNEL, AND EQUIPMENT, AND SHALL BE RESPONSIBLE FOR ALL COSTS AND LIABILITY IN CONNECTION HEREIN.

3. WHERE IT IS NECESSARY TO EXCAVATE IN AREAS OF EXISTING UTILITIES, THE CONTRACTOR SHALL POTHOLE TO CONFIRM EXACT LOCATIONS OF EXISTING UTILITIES.

4. IN EXCAVATING AND WORKING NEAR EXISTING UTILITIES THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO THE SAME.

5. IN CASE OF INTERRUPTION OF UTILITIES CAUSED BY THE CONTRACTOR'S OPERATION OR NEGLECT, THE CONTRACTOR SHALL BE RESPONSIBLE TO REPAIR OR RECONSTRUCT DAMAGED ITEMS TO THE OWNER'S AND/OR UTILITY'S REPRESENTATIVE SATISFACTION AT THE CONTRACTOR'S EXPENSE. CONTRACTOR SHALL BE RESPONSIBLE TO HAVE THE UTILITIES IN SERVICE AS SOON AS POSSIBLE.

## GENERAL LANDSCAPE IRRIGATION NOTES:

1. THE CONTRACTOR SHALL OBTAIN ANY PERTINENT ENGINEERING AND/OR ARCHITECTURAL PLANS BEFORE BEGINNING WORK.

2. THE CONTRACTOR IS RESPONSIBLE FOR THE ACQUISITION OF ALL NECESSARY PERMITS ASSOCIATED WITH THE CONSTRUCTION WORK INDICATED HEREIN BEFORE BEGINNING WORK.

3. THE IRRIGATION SYSTEM DESIGN IS BASED ON THE MINIMUM OPERATING PRESSURE AND THE MAXIMUM FLOW DEMAND SHOWN ON THE IRRIGATION DRAWINGS AT THE POINT-OF-CONNECTION. THE CONTRACTOR SHALL VERIFY WATER PRESSURE FOR APPROVAL BY OWNER'S REPRESENTATIVE AND PRIOR TO CONSTRUCTION AND PRIOR TO ORDERING MATERIALS. CONTRACTOR SHALL REPORT ANY DIFFERENCE BETWEEN THE WATER PRESSURE INDICATED ON THE DRAWINGS AND THE ACTUAL PRESSURE READING AT THE IRRIGATION POINT OF CONNECTION TO THE OWNER's REPRESENTATIVE. IN THE EVENT PRESSURE DIFFERENCES ARE NOT REPORTED PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS, AND COSTS ASSOCIATED WITH SAID REVISIONS.

4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BECOME FAMILIAR WITH EXISTING CONDITIONS, EXISTING IRRIGATION SYSTEM TO REMAIN AND BE MODIFIED, GRADE DIFFERENCES, AND LOCATIONS OF ARCHITECTURAL FEATURES, INCLUDING BUT NOT LIMITED TO WALLS, PAVING, FENCING, ETC. CONTRACTOR SHALL COORDINATE WORK WITH ALL TRADES FOR LOCATION OF PIPE SLEEVES THROUGH WALLS, UNDER PAVING, STRUCTURES, ETC.

3. IN ADDITIONAL TO SLEEVES SHOWN ON THE DRAWINGS THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF PIPE SLEEVEING FOR ALL PIPE UNDER PAVED AREAS, HARDSCAPE, AND AS DIRECTED BY OWNER'S REPRESENTATIVE. SLEEVING SHALL BE OF ADEQUATE SIZE BUT NO LESS A MINIMUM OF TWICE THE DIAMETER OF THE PIPE OR WIRE BUNDLE CARRIED. SLEEVES SHALL EXTEND AT LEAST 12" PAST THE EDGE OF PAVING. REFER TO SLEEVING CHART FOR MORE INFORMATION.

4. THE CONTRACTOR IS REQUIRED TO NOTIFY AND COORDINATE LANDSCAPE IRRIGATION CONTRACT WORK WITH ALL APPLICABLE CONTRACTORS AND TRADES FOR THE LOCATION AND INSTALLATION OF PIPE, CONDUIT, AND SLEEVES THROUGH OR UNDER WALLS, ROADWAYS, PAVING, STRUCTURES, ETC., BEFORE CONSTRUCTION. IN THE EVENT THESE NOTIFICATIONS ARE NOT PERFORMED, THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ALL REQUIRED REVISIONS.

5. IRRIGATION COMPONENTS SHOWN WITHIN PAVED AREAS ARE FOR GRAPHIC CLARITY ONLY. PLACE ALL PIPING, VALVES, QUICK COUPLING VALVES, AND OTHER IRRIGATION COMPONENTS WITHIN LIMIT OF WORK BOUNDARIES AND IN SHRUB PLANTING AREAS EXCEPT WHERE PIPES CROSS PAVING OR AS NOTED. AVOID ANY CONFLICTS BETWEEN THE IRRIGATION SYSTEM AND TREES, PLANTINGS, SITE FEATURES AND UTILITIES INCLUDING STORM DRAINAGE.

6. INSTALLATION OF THE IRRIGATION SYSTEM UNDER THIS CONTRACT SHALL CONFORM TO ALL LOCAL, COUNTY, AND STATE PROVISIONS AND REGULATIONS GOVERNING OR RELATING TO ANY PORTION OF THE WORK TO BE PERFORMED AND ARE HEREBY INCORPORATED INTO AND MADE PART OF THESE CONSTRUCTION DOCUMENTS AND SHALL BE CARRIED OUT BY THE CONTRACTOR. IN THE EVENT OF DIFFERENCES BETWEEN THE CODE COMPLIANCE REQUIREMENTS OF THIS CONTRACT, THE BETTER QUALITY, HIGHER STANDARD, LARGER SIZE, AND MORE STRINGENT REQUIREMENT SHALL PREVAIL.

7. PRIOR TO ANY TRENCHING THE CONTRACTOR SHALL ASCERTAIN THE LOCATION OF ALL NEW AND EXISTING UNDERGROUND UTILITY LINES. CALL 811 A MINIMUM OF FORTY-EIGHT (48) HOURS PRIOR TO THE START OF CONSTRUCTION.

8. THE INTENT OF THIS IRRIGATION SYSTEM IS TO PROVIDE THE MINIMUM AMOUNT OF WATER TO MAINTAIN GOOD PLANT HEALTH, APPEARANCE AND REASONABLE GROWTH. THE AMOUNT OF SUPPLEMENTAL WATER A PLANT REQUIRES IS DEPENDENT ON SOIL TYPE, PLANT MATERIAL, ROOTING DEPTH, CLIMATE, SEASONAL CHANGES, SLOPES, MOUNDS, SUN, SHADE AND WIND. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ADJUST THE IRRIGATION SCHEDULE AND ET VARIABLES AS NEEDED. IN ADDITION, THE CONTRACTOR SHALL PROVIDE SUPPLEMENTAL WATER TO ACCOMMODATE SPECIAL WATERING NEEDS OF PLANT MATERIAL THROUGH THE MAINTENANCE PERIOD. ACTUAL STATION RUN TIMES MAY VARY IN ACCORDANCE WITH VARYING SITE CONDITIONS.

9. ALL HEADS ARE TO BE INSTALLED WITH THE NOZZLE AND ARCS SHOWN ON THE PLANS. ALL HEADS ARE TO BE ADJUSTED TO PREVENT OVERSPRAY ONTO BUILDINGS, STRUCTURES, WALLS, FENCES AND HARDSCAPE. THIS INCLUDES, BUT NOT LIMITED TO, ADJUSTMENT OF DIFFUSER PIN OR ADJUSTMENT SCREW, REPLACEMENT OF NOZZLE WITH MORE APPROPRIATE RADIUS UNITS AND THE REPLACEMENT OF NOZZLES WITH ADJUSTABLE ARC UNITS. WHEN VERTICAL OBSTRUCTIONS (PROPS, STREET LIGHTS, TREES, ETC.) INTERFERE WITH THE SPRAY PATTERN OF THE SPRINKLER HEADS PREVENTING PROPER COVERAGE, THE CONTRACTOR SHALL FIELD ADJUST THE SPRINKLER SYSTEM BY INSTALLING A QUARTER CIRCLE OR HALF CIRCLE SPRINKLER HEAD ON EACH SIDE OF THE OBSTRUCTION SO AS TO PROVIDE PROPER COVERAGE ALL ADJUSTMENTS SHALL BE MADE AT NO ADDITIONAL COST TO THE OWNER. NO EXTRA PAYMENT WILL BE MADE WHERE PIPING MUST BE OFFSET TO AVOID EXISTING CONDITIONS, OTHER WORK OR WHERE CHANGES ARE NECESSARY TO FACILITATE INSTALLATION.

10. CONTRACTOR SHALL ADJUST THE PLACEMENT OF THE DRIPLINE LAYOUT AS PER ACTUAL FIELD CONDITIONS TO ACHIEVE FULL COVERAGE OF ALL PLANTED AREAS. THE CONTRACTOR WILL BE RESPONSIBLE OF INSTALLING ADDITIONAL DRIPLINE, AS NEEDED, TO PROVIDE ADEQUATE COVERAGE, AT NO ADDITIONAL COST TO THE CLIENT. REFER TO IRRIGATION EQUIPMENT LEGEND FOR MAXIMUM ALLOWED VERTICAL DRIPLINE SPACING.

11. IRRIGATION SYSTEM SHALL BE OPERATIONAL & COVERAGE APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION OF PLANTING MATERIAL.

12. THE CONTRACTOR SHALL ADJUST THE PRESSURE REGULATOR ON EACH REMOTE CONTROL VALVE SO THAT THE SPRINKLER HEAD FARTHEST AND HIGHEST IN ELEVATION FROM ITS RESPECTIVE CONTROL VALVE OPERATES WITHIN THE OPERATING PRESSURE SHOWN ON THE IRRIGATION LEGEND. NOT TO EXCEED FIVE (5) PSI ABOVE THE GIVEN OPERATING PRESSURE FROM THE SPECIFIED PRESSURE LOCATED ON THE IRRIGATION LEGEND.

13. THE CONTRACTOR SHALL FLUSH ALL EMISSION EQUIPMENT FOR OPTIMUM PERFORMANCE TO PROVIDE OPTIMAL EVEN DISTRIBUTION OF WATER, AND TO PROVIDE PROPER COVERAGE.

14. DRIPLINE EMITTER FLOW RATE, EMITTER SPACING AND LATERAL SPACING IS BASED ON TYPICAL SOILS ENCOUNTERED IN THE AREA. THE CONTRACTOR SHALL MAKE ANY MODIFICATION TO EMITTER FLOW RATE, EMITTER SPACING, AND LATERAL SPACING AS REQUIRED TO COMPLY WITH MANUFACTURER'S RECOMMENDATIONS FOR AN EVEN WETTED PATTERN, BASED ON ACTUAL SOIL ANALYSIS. REFER TO DRIPLINE MANUFACTURER RECOMMENDATIONS FOR ADDITIONAL INFORMATION. FINAL EMITTER SPACING AND FLOW RATE TO BE APPROVED BY THE CLIENT REPRESENTATIVE

15. DRAINAGE OF IRRIGATION WATER THROUGH DRIP EMITTERS WILL NOT BE ALLOWED. DURING THE COURSE OF CONSTRUCTION, THE CONTRACTOR SHALL INSTALL ADDITIONAL IN-LINE CHECK VALVES AS REQUIRED IN ANY AREA WHERE EMISSION DEVICES SHOW SIGNS OF DRAINAGE AFTER IRRIGATION SYSTEM HAS OPERATED FROM AN ON TO OFF POSITION. INSTALLATION OF ADDITIONAL IN-LINE CHECK VALVES SHALL BE INCLUDED IN THE BID PRICE WITHOUT ADDITIONAL COST TO THE CLIENT.

16. CONTRACTOR SHALL ADJUST THE DRIPLINE LAYOUT, WHEN PLANTER SLOPE IS GREATER THAN 5 PERCENT,TO PROVIDE LATERAL ROW SPACING THAT IS 25 PERCENT GREATER WITHIN THE BOTTOM ONE-THRID OF THE SLOPE.

17. LOCATIONS AND THE QUANTITIES OF FLUSH VALVES SHOWN ON PLANS ARE APPROXIMATE. CONTRACTOR IS RESPONSIBLE FOR VERIFYING FOR INSTALLING ADDITIONAL FLUSH VALVES, AS NEEDED, ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

18. ALL VALVES PROVIDING IRRIGATION TO SLOPES AREAS SHALL BE SCHEDULED IN MULTIPLE, SHORT CYCLES TO HELP ELIMINATE IRRIGATION WATER RUNOFF.

19. SHOULD FIELD CONDITIONS REQUIRE PIPE INSTALLATION OTHER THAN THAT SHOWN ON THE PLANS, THE CONTRACTOR SHALL LIMIT EXCESS FLOW AND SIZE ALL PIPE NOT TO EXCEED A VELOCITY OF 5-FEET PER SECOND (FPS) IN PVC PIPE. PIPE THROUGH ANCILLARY EQUIPMENT, BRASS AND COPPER PIPE SHALL NOT EXCEED A VELOCITY OF 7-1/2 FPS. ALL ADJUSTMENTS SHALL BE MADE AT NO ADDITIONAL COST TO THE OWNER, UNLESS PREVIOUSLY APPROVED BY THE OWNER.

20. MAINLINE PIPE SIZE DOWNSTREAM OF LAST PIPE SIZE INDICATED TO BE THE SAME AS INLET OF PRODUCT IT SUPPLIES, BUT NOT LESS THAN 1-INCH. LATERAL PIPE SIZES DOWNSTREAM OF LAST PIPE SIZE CALL OUT SHALL BE SAME AS THE LAST PIPE SIZE CALLED OUT, BUT NO LESS THAN 3/4-INCH.

21. ALL IRRIGATION EQUIPMENT SHALL BE AS LISTED OR EQUAL AS APPROVED BY THE OWNER'S REPRESENTATIVE.

22. SEE IRRIGATION DETAILS, TECHNICAL SPECIFICATIONS AND PLANTING PLANS AS PART OF THESE CONSTRUCTION DOCUMENTS.

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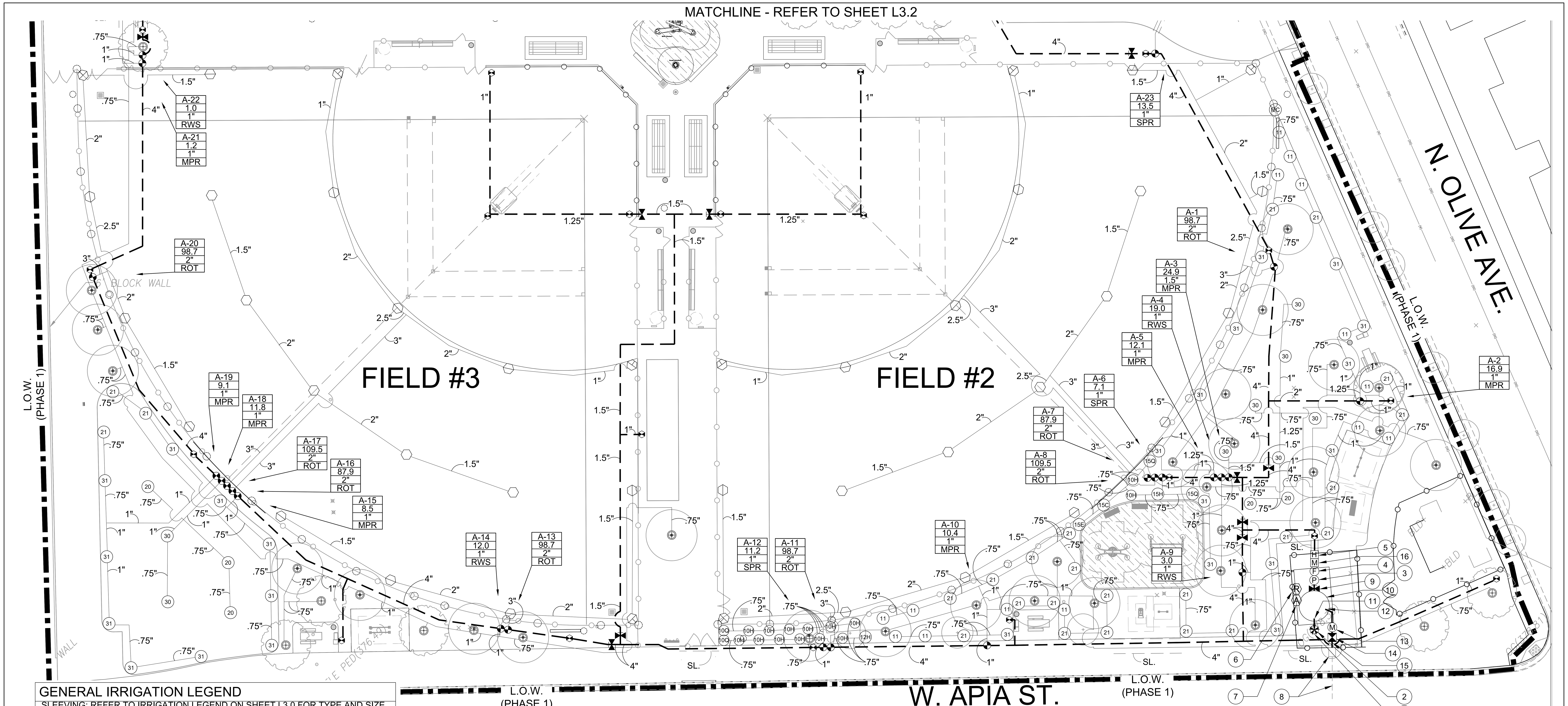



## GENERAL IRRIGATION LEGEND

SLEEVING: REFER TO IRRIGATION LEGEND ON SHEET L3.0 FOR TYPE AND SIZE.

- #M MAINLINE PIPE SLEEVE QUANTITY
- #L LATERAL PIPE SLEEVE QUANTITY
- #S EMPTY SLEEVE QUANTITY
- #W WIRE SLEEVE QUANTITY

VALVE CALLOUT:

- CONTROLLER NUMBER
- GALLONS PER MINUTE
- VALVE SIZE
- RWS - TREE ROOT WATERING SYSTEM
- ROT - POP-UP ROTOR
- MPR - POP-UP STREAM ROTOR
- SPR - POP-UP SPRAY
- BUB - VINE BUBBLER

1-1/2" PIPE SIZING CALL-OUT

## GENERAL NOTES

1. REFER TO THE IRRIGATION EQUIPMENT LEGEND ON L3.0 AND THE GENERAL IRRIGATION NOTES ON SHEET L3.0A FOR ADDITIONAL INFO.
2. REFER TO THE IRRIGATION DETAILS ON SHEETS L3.5, L3.6, L3.7 AND L3.8 FOR ADDITIONAL INFORMATION.
3. REFER TO THE MWELO WATER USE CALCULATIONS AND HYDROZONE CHART ON SHEET L3.9 FOR ADDITIONAL INFORMATION.
4. ALL MAINLINE, LATERAL PIPE, VALVES, AND OTHER IRRIGATION SYSTEM APPURTENANCES SHOWN IN PAVED AREA IS FOR GRAPHICAL CLARITY ONLY. CONTRACTOR TO PLACE MAINLINE, LATERAL PIPE, VALVES AND ALL IRRIGATION APPURTENANCES WITHIN ADJACENT PLANTING AREAS UNLESS NOTED OTHERWISE ON THE PLANS.
5. CONTRACTOR SHALL ROUTE ALL IRRIGATION MAINLINE, LATERAL PIPE AND SLEEVES AROUND ALL SERVICE LINES, UTILITIES, STORM DRAINAGE FACILITIES, ETC. IN ORDER TO AVOID ANY CONFLICTS IN THE FIELD. INSTALL IRRIGATION PIPE BELOW STORM DRAINAGE PIPES WHERE REQUIRED TO MAINTAIN THE MINIMAL DEPTH REQUIREMENTS.

## IRRIGATION KEYED NOTES FOR SHEET L3.1

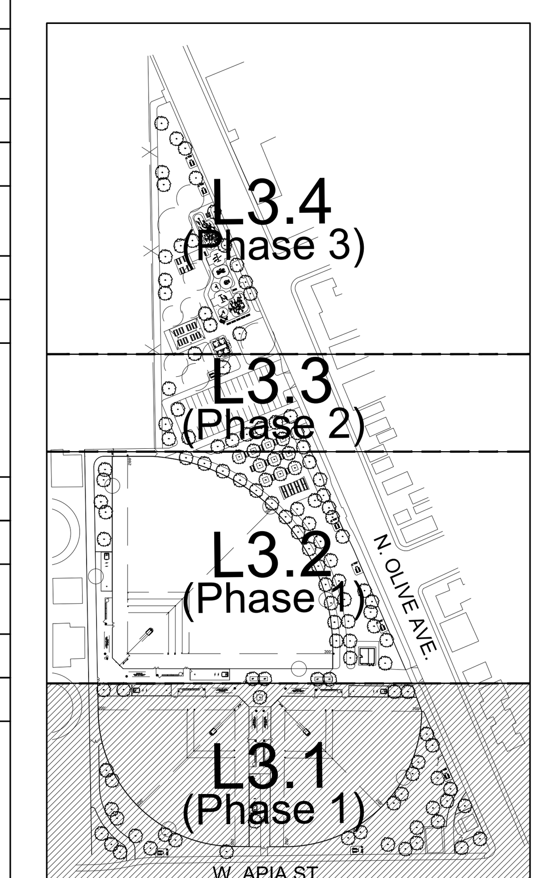
1. IRRIGATION SYSTEM PRIMARY WATER SUPPLY:
   - SOURCE: EXISTING WELL- NO PUMP
   - PUMP TO BE PROVIDED BY WELL SPECIALIST (BY CITY) TO MOVE WATER FROM THE EXISTING WELL INTO THE IRRIGATION STORAGE TANK AT RATE OF 200GPM
   - WELL DISCHARGE PIPE SIZE (BY WELL SPECIALIST): 4"
   - WELL CASING DIAMETER (PER CITY): 14"
   - WELL DEPTH/ DEPTH TO WATER: 550'/ 159'
2. POINT-OF-CONNECTION (POC) TO WELL WATER SUPPLY:
   - CONTRACTOR TO PROVIDE 4" DISCHARGE PIPE FROM EXISTING WELL TO IRRIGATION STORAGE TANK LOCATION. PIPE WILL BE INSTALLED UP SIDE OF TANK AND INTO TOP OF TANK WITH BULKHEAD FITTING. PROVIDE MINIMUM 12" AIR GAP FROM PIPE TO HIGH WATER LEVEL IN TANK. SEE NOTE 11.
3. IRRIGATION BOOSTER PUMP:
   - INSTALL PER DETAILS AND AS REQUIRED BY MANUFACTURER. CONNECT TO NEW 480 VOLT, 3 PHASE POWER SUPPLY PER ELECTRICAL DRAWINGS. BOOSTER PUMP WILL PROVIDE 200GPM @ 85PSI.
4. AUTOMATIC SELF FLUSHING FILTER:
   - INSTALL FILTER ASSEMBLY PER MANUFACTURE'S INSTRUCTIONS. 120 VOLT POWER REQUIRED. 2" CONNECTION TO DRAIN OR GRAVEL SUMP FOR BACK FLUSH CYCLE.
5. OCTAVE ULTRASONIC WATER METER:
   - NO OUTPUT FOR FLOW (METER ONLY). MINIMUM OPERATING FLOW OF 1 GPM AND A MAXIMUM OPERATING FLOW OF 200 GPM. THIS DEVICE WILL RECORD WELL WATER USE.

## IRRIGATION KEYED NOTES- CON'T

6. WIRELESS RAIN SHUT-OFF SENSOR:
   - MOUNT SENSOR ON TOP OF FENCE POST. CONTRACTOR SHALL POSITION SENSOR TO PROVIDE OPTIMAL EXPOSURE TO UNOBSTRUCTED RAIN FALL AS PER MANUFACTURER'S RECOMMENDATIONS.
7. AUTOMATIC IRRIGATION CONTROLLER 'A':
   - APPROXIMATE LOCATION OF PEDESTAL MOUNTED CONTROLLER. CONNECT TO NEW 120V ELECTRICAL POWER SOURCE AS PER ELECTRICAL DRAWINGS. FINAL LOCATION OF CONTROLLER PER CLIENT. REFER TO GENERAL IRRIGATION NOTES FOR ADDITIONAL REQUIREMENTS.
8. PROPOSED 3" DOMESTIC WATER METER FOR IRRIGATION:
   - THIS WATER SUPPLY IS A SECONDARY WATER SOURCE, ONLY TO BE USED IF THERE IS AN ISSUE WITH THE PRIMARY WELL WATER SUPPLY.
   - STATIC PRESSURE AT WATER METER (PER CITY): 54 PSI
   - MINIMUM REQUIRED DESIGN PRESSURE: 85 PSI
   - PEAK FLOW (MAX. DEMAND): 200 GPM
   - IRRIGATION AREA (SF): 172,343
   - ANNUAL USAGE (ACRE-FT): 16.21
9. 4" IRRIGATION SHUT OFF VALVE AT TANK DISCHARGE PIPE:
   - INSTALL GATE VALVE TO BE USED WHEN TANK WATER SUPPLY REQUIRES TO BE SHUT OFF. THIS VALVE WILL REMAIN OPEN IN NORMAL OPERATING CONDITIONS.
10. 5000 GALLON IRRIGATION STORAGE TANK:
    - INSTALL TANK ON 6" REINFORCED CONCRETE PAD AS DETAILED AND AS DIRECTED BY MANUFACTURER.

## IRRIGATION KEYED NOTES- CON'T

11. 4" WELL WATER FILL PIPE TO IRRIGATION STORAGE TANK:
    - LOCATION OF BULKHEAD FITTING AND 12" MINIMUM AIR GAP ABOVE HIGH WATER LINE IN TANK.
12. 4" DOMESTIC WATER FILL PIPE TO IRRIG. STORAGE TANK:
    - LOCATION OF BULKHEAD FITTING AND 12" MINIMUM AIR GAP ABOVE HIGH WATER LINE IN TANK.
13. 4" NORMALLY CLOSED DOMESTIC WATER FILL VALVE:
    - IF FLOAT IN THE TANK REACHES THE LOW LEVEL WATER MARK, THE WELL PUMP WILL BE TURNED OFF AND THIS FILL VALVE WILL BE OPENED FOR THE IRRIGATION CYCLE.
14. 4" REDUCED PRESSURE BACKFLOW PREVENTER:
    - INSTALL AS DETAILED AND AS REQUIRED BY LOCAL CODES.
15. 4" DOMESTIC WATER PIPE FOR SECONDARY WATER SUPPLY:
    - INSTALL PIPE FROM DOMESTIC WATER METER TO BACKFLOW PREVENTER, FROM BACKFLOW PREVENTER TO NORMALLY CLOSED DOMESTIC WATER FILL VALVE AND FROM NORMALLY CLOSED DOMESTIC WATER FILL VALVE TO IRRIGATION STORAGE TANK. SEE NOTE 12.
16. 4" NORMALLY CLOSED MASTER CONTROL VALVE:
    - CONTROLLER OPENS THIS VALVE WHEN EVER THE BOOSTER PUMP START RELAY IS ACTIVATED .




KEYMAP

0 10' 20' 40'

NORTH

DIGALERT
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TEL 714/871-3638 www.migcom.com

CONSULTANT:

PROJECT TEAM:

LANDSCAPE ARCHITECT
**MOORE IACOFANO GOLTSMAN, INC.**

ELECTRICAL ENGINEER
**LRA ENGINEERS**

CIVIL ENGINEER
**BKF**

STRUCTURAL ENGINEER
**ISE**

OLIVE BOWL KAKU PARK

LINDSAY, CA 93247

SHEET TITLE

IRRIGATION PLAN (Phase 1)

| DATE | REVISION |
|---|---|
| 10-18-21 | 50% CD Submittal |
| 12-8-21 | 90% CD Submittal |
| 12-14-22 | 90% CD Submittal |
| 2-13-23 | 100% CD Submittal |
| 10-3-23 | ADDENDUM #1 |
| 10-27-23 | ADDENDUM #3 |
| 6-10-24 | 3 PHASE RE-PACKAGE |

STAMP

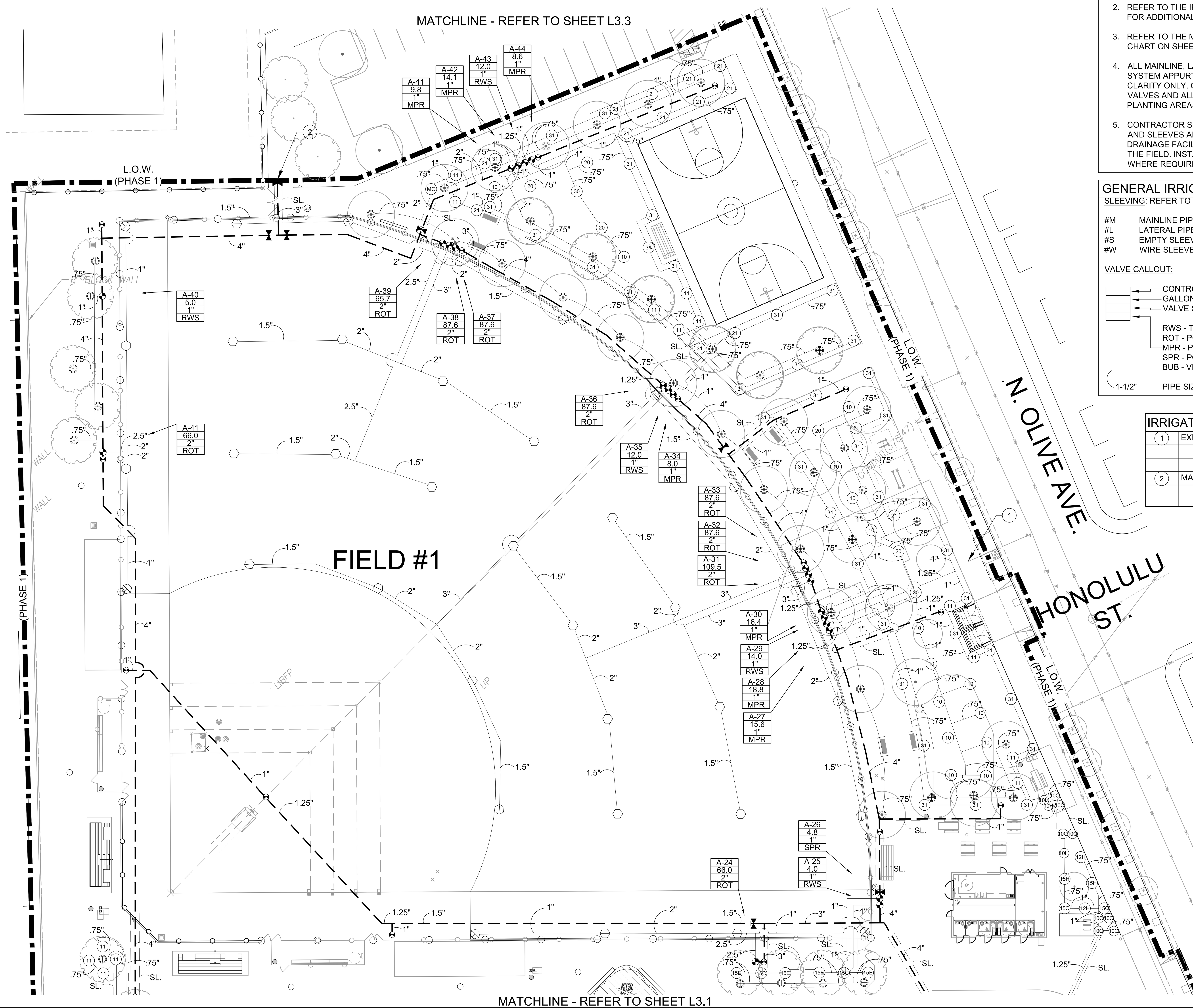
LICENSED LANDSCAPE ARCHITECT, STEVEN N. LANG, SIGNATURE, 11-30-24 RENEWAL DATE, 6-10-24 DATE, STATE OF CALIFORNIA

| CHECKED BY | DATE |
|---|---|
| O.J. | 6-10-24 |
| DRAWN BY | JOB NO. |
| H.D. | 05567.02 |

SHEET

L3.1

SHEET 38 OF 79 SHEETS




## GENERAL NOTES

1. REFER TO THE IRRIGATION EQUIPMENT LEGEND ON L3.0 AND THE GENERAL IRRIGATION NOTES ON SHEET L3.0A FOR ADDITIONAL INFO.
2. REFER TO THE IRRIGATION DETAILS ON SHEETS L3.5, L3.6, L3.7 AND L3.8 FOR ADDITIONAL INFORMATION.
3. REFER TO THE MWELO WATER USE CALCULATIONS AND HYDROZONE CHART ON SHEET L3.9 FOR ADDITIONAL INFORMATION.
4. ALL MAINLINE, LATERAL PIPE, VALVES, AND OTHER IRRIGATION SYSTEM APPURTENANCES SHOWN IN PAVED AREA IS FOR GRAPHICAL CLARITY ONLY. CONTRACTOR TO PLACE MAINLINE, LATERAL PIPE, VALVES AND ALL IRRIGATION APPURTENANCES WITHIN ADJACENT PLANTING AREAS UNLESS NOTED OTHERWISE ON THE PLANS.
5. CONTRACTOR SHALL ROUTE ALL IRRIGATION MAINLINE, LATERAL PIPE AND SLEEVES AROUND ALL SERVICE LINES, UTILITIES, STORM DRAINAGE FACILITIES, ETC. IN ORDER TO AVOID ANY CONFLICTS IN THE FIELD. INSTALL IRRIGATION PIPE BELOW STORM DRAINAGE PIPES WHERE REQUIRED TO MAINTAIN THE MINIMAL DEPTH REQUIREMENTS.

## GENERAL IRRIGATION LEGEND

SLEEVING: REFER TO IRRIGATION LEGEND ON SHEET L3.0 FOR TYPE AND SIZE.

#M MAINLINE PIPE SLEEVE QUANTITY
#L LATERAL PIPE SLEEVE QUANTITY
#S EMPTY SLEEVE QUANTITY
#W WIRE SLEEVE QUANTITY

VALVE CALLOUT:

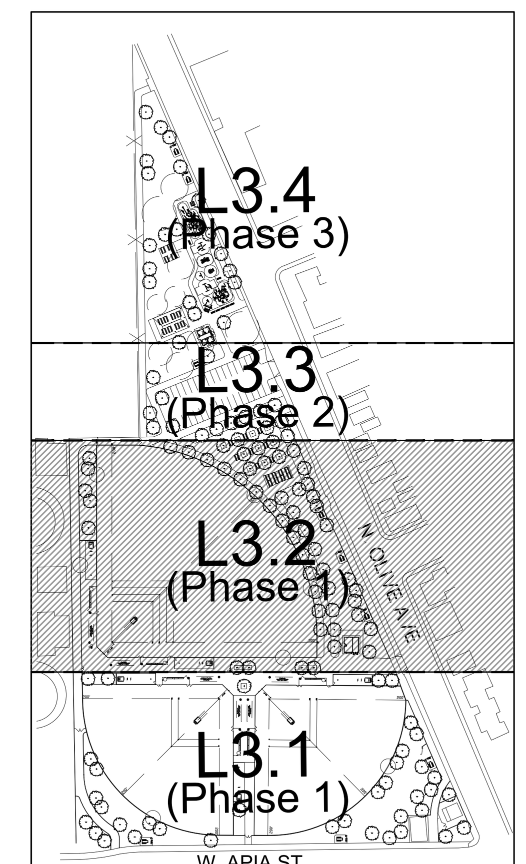
CONTROLLER NUMBER
GALLONS PER MINUTE
VALVE SIZE

RWS - TREE ROOT WATERING SYSTEM
ROT - POP-UP ROTOR
MPR - POP-UP STREAM ROTOR
SPR - POP-UP SPRAY
BUB - VINE BUBBLER

1-1/2" PIPE SIZING CALL-OUT

## IRRIGATION KEYED NOTES FOR SHEET L3.2

| | |
|---|---|
| 1 | EXISTING 2" DOMESTIC WATER METER: REFER TO UTILITY PLANS. |
| 2 | MAIN LINE AND CONTROL WIRE STUB-OUT FOR PHASE 2: LOCATE CONTROL WIRES IN GATE VALVE BOX FOR FUTURE CONNECTION TO MAIN LINE AND WIRES. |




KEYMAP

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**BKF**
STRUCTURAL ENGINEER
**ISE**

# OLIVE BOWL KAKU PARK

LINDSAY, CA
93247

SHEET TITLE

## IRRIGATION PLAN (Phase 1)

| DATE | REVISION |
|---|---|
| 10-18-21 | 50% CD Submittal |
| 12-8-21 | 90% CD Submittal |
| 12-14-22 | 90% CD Submittal |
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STAMP

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|---|---|
| O.J. | 6-10-24 |
| DRAWN BY | JOB NO. |
| H.D. | 05567.02 |

SHEET
L3.2

## GENERAL IRRIGATION LEGEND

SLEEVING: REFER TO IRRIGATION LEGEND ON SHEET L3.0 FOR TYPE AND SIZE.

| | |
|---|---|
| #M | MAINLINE PIPE SLEEVE QUANTITY |
| #L | LATERAL PIPE SLEEVE QUANTITY |
| #S | EMPTY SLEEVE QUANTITY |
| #W | WIRE SLEEVE QUANTITY |

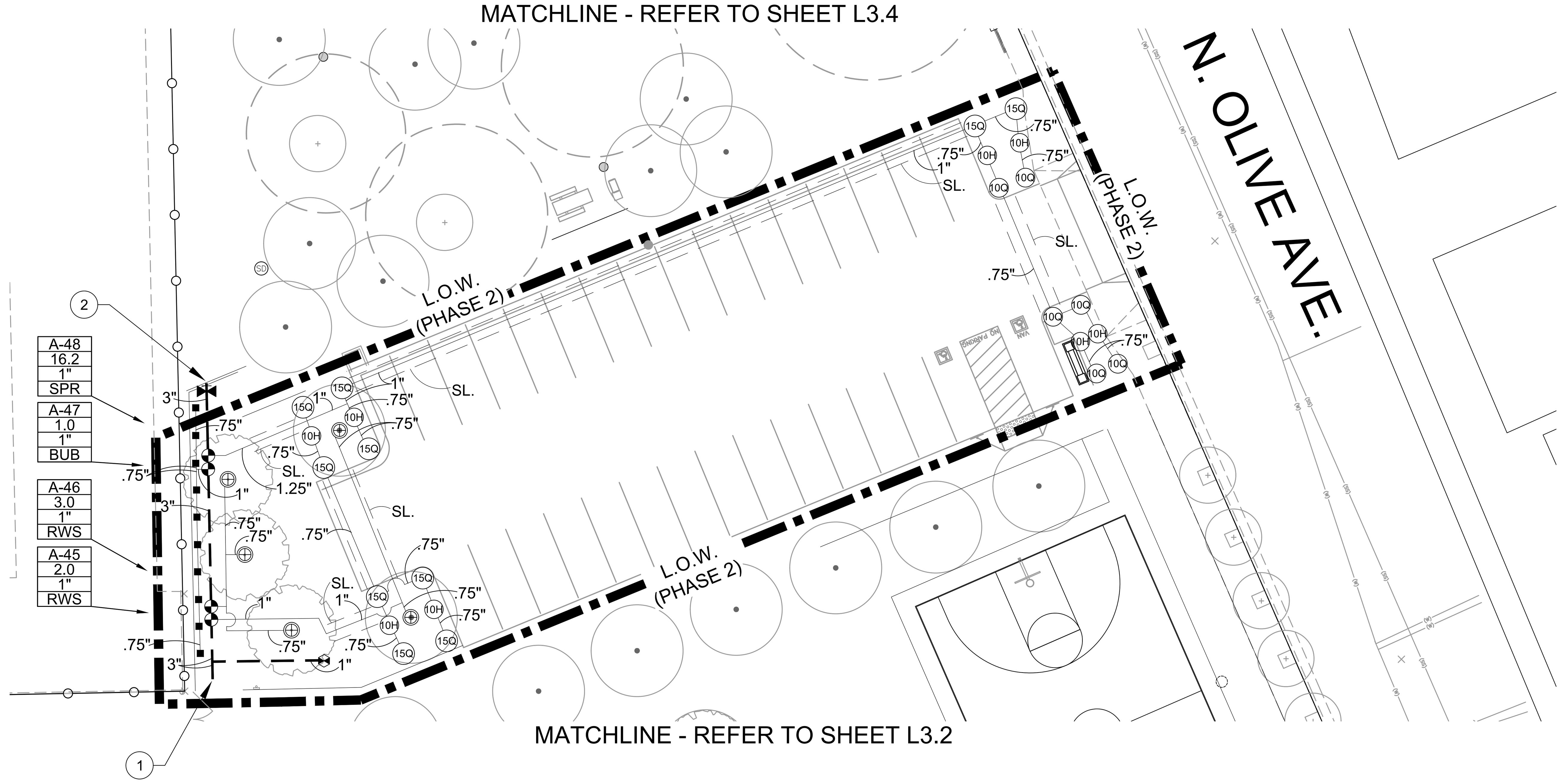
VALVE CALLOUT:

- CONTROLLER NUMBER
- GALLONS PER MINUTE
- VALVE SIZE
- RWS - TREE ROOT WATERING SYSTEM
- ROT - POP-UP ROTOR
- MPR - POP-UP STREAM ROTOR
- SPR - POP-UP SPRAY
- BUB - VINE BUBBLER

1-1/2" PIPE SIZING CALL-OUT

## GENERAL NOTES

1. REFER TO THE IRRIGATION EQUIPMENT LEGEND ON L3.0 AND THE GENERAL IRRIGATION NOTES ON SHEET L3.0A FOR ADDITIONAL INFO.
2. REFER TO THE IRRIGATION DETAILS ON SHEETS L3.5, L3.6, L3.7 AND L3.8 FOR ADDITIONAL INFORMATION.
3. REFER TO THE MWELO WATER USE CALCULATIONS AND HYDROZONE CHART ON SHEET L3.9 FOR ADDITIONAL INFORMATION.
4. ALL MAINLINE, LATERAL PIPE, VALVES, AND OTHER IRRIGATION SYSTEM APPURTENANCES SHOWN IN PAVED AREA IS FOR GRAPHICAL CLARITY ONLY. CONTRACTOR TO PLACE MAINLINE, LATERAL PIPE, VALVES AND ALL IRRIGATION APPURTENANCES WITHIN ADJACENT PLANTING AREAS UNLESS NOTED OTHERWISE ON THE PLANS.
5. CONTRACTOR SHALL ROUTE ALL IRRIGATION MAINLINE, LATERAL PIPE AND SLEEVES AROUND ALL SERVICE LINES, UTILITIES, STORM DRAINAGE FACILITIES, ETC. IN ORDER TO AVOID ANY CONFLICTS IN THE FIELD. INSTALL IRRIGATION PIPE BELOW STORM DRAINAGE PIPES WHERE REQUIRED TO MAINTAIN THE MINIMAL DEPTH REQUIREMENTS.




## IRRIGATION KEYED NOTES FOR SHEET L3.3

| | | |
|---|---|---|
| 1 | CONNECT TO EXISTING STUB-OUT FROM PHASE 1: | |
| | | LOCATE EXISTING GATE VALVE AND CONTROL WIRES INSTALLED UNDER PHASE 1 AND MAKE CONNECTIONS. |
| 2 | MAIN LINE AND CONTROL WIRE STUB-OUT FOR PHASE 3: | |
| | | LOCATE CONTROL WIRES IN GATE VALVE BOX FOR FUTURE CONNECTION TO MAIN LINE AND WIRES. |

## MWELO IRRIGATION DESIGN PLAN REQUIRED NOTES:

1. PRESSURE REGULATING DEVICES ARE REQUIRED IF WATER PRESSURE IS BELOW OR EXCEEDS THE RECOMMENDED PRESSURE OF THE SPECIFIED IRRIGATION DEVICES.
2. CHECK VALVES OR ANTI-DRAIN VALVES ARE REQUIRED ON ALL SPRINKLER HEADS WHERE LOW POINT DRAINAGE COULD OCCUR.

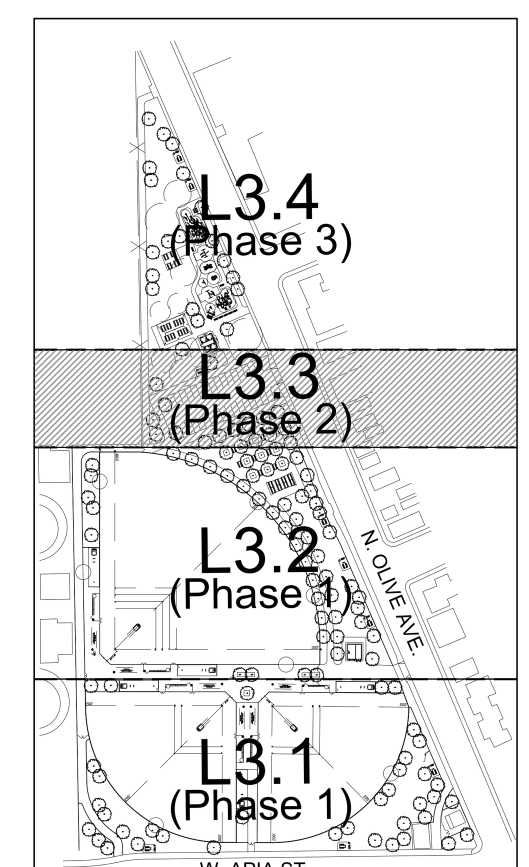
## MWELO REQUIRED STATEMENTS & CERTIFICATION:

1. A DIAGRAM OF THE IRRIGATION PLAN SHOWING HYDROZONES SHALL BE KEPT WITH THE IRRIGATION CONTROLLER FOR SUBSEQUENT MANAGEMENT PURPOSES.
2. A CERTIFICATE OF COMPLETION SHALL BE FILLED OUT AND CERTIFIED BY EITHER THE DESIGNER OF THE LANDSCAPE PLANS, IRRIGATION PLANS, OR THE LICENSED LANDSCAPE CONTRACTOR FOR THE PROJECT.
3. AN IRRIGATION AUDIT REPORT SHALL BE COMPLETED AT THE TIME OF FINAL INSPECTION.

"I AGREE TO COMPLY WITH THE REQUIREMENTS OF THE WATER EFFICIENT LANDSCAPE ORDINANCE AND SUBMIT A COMPLETE LANDSCAPE DOCUMENTATION PACKAGE."

SIGNATURE DATE

"I HAVE COMPLIED WITH THE CRITERIA OF THE ORDINANCE AND APPLIED THEM FOR THE EFFICIENT USE OF WATER IN THE LANDSCAPE DESIGN PLANS."




KEYMAP

0 10' 20' 40'

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CIVIL ENGINEER
**BKF**

STRUCTURAL ENGINEER
**ISE**

OLIVE BOWL KAKU PARK

LINDSAY, CA 93247

SHEET TITLE

IRRIGATION PLAN (Phase 2)

| DATE | REVISION |
|---|---|
| 10-18-21 | 50% CD Submittal |
| 12-8-21 | 90% CD Submittal |
| 12-14-22 | 90% CD Submittal |
| 2-13-23 | 100% CD Submittal |
| 10-3-23 | ADDENDUM #1 |
| 10-27-23 | ADDENDUM #3 |
| 6-10-24 | 3 PHASE RE-PACKAGE |

STAMP

LICENSED LANDSCAPE ARCHITECT STEVEN N. LANG NO. 1271 SIGNATURE 11-30-24 RENEWAL DATE 6-10-24 DATE STATE OF CALIFORNIA

| CHECKED BY | DATE |
|---|---|
| O.J. | 6-10-24 |
| DRAWN BY | JOB NO. |
| H.D. | 05567.02 |

SHEET

L3.3

## GENERAL NOTES

1. REFER TO THE IRRIGATION EQUIPMENT LEGEND ON L3.0 AND THE GENERAL IRRIGATION NOTES ON SHEET L3.0A FOR ADDITIONAL INFO.
2. REFER TO THE IRRIGATION DETAILS ON SHEETS L3.5, L3.6, L3.7 AND L3.8 FOR ADDITIONAL INFORMATION.
3. REFER TO THE MWELO WATER USE CALCULATIONS AND HYDROZONE CHART ON SHEET L3.9 FOR ADDITIONAL INFORMATION.
4. ALL MAINLINE, LATERAL PIPE, VALVES, AND OTHER IRRIGATION SYSTEM APPURTENANCES SHOWN IN PAVED AREA IS FOR GRAPHICAL CLARITY ONLY. CONTRACTOR TO PLACE MAINLINE, LATERAL PIPE, VALVES AND ALL IRRIGATION APPURTENANCES WITHIN ADJACENT PLANTING AREAS UNLESS NOTED OTHERWISE ON THE PLANS.
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## GENERAL IRRIGATION LEGEND

SLEEVING: REFER TO IRRIGATION LEGEND ON SHEET L3.0 FOR TYPE AND SIZE.

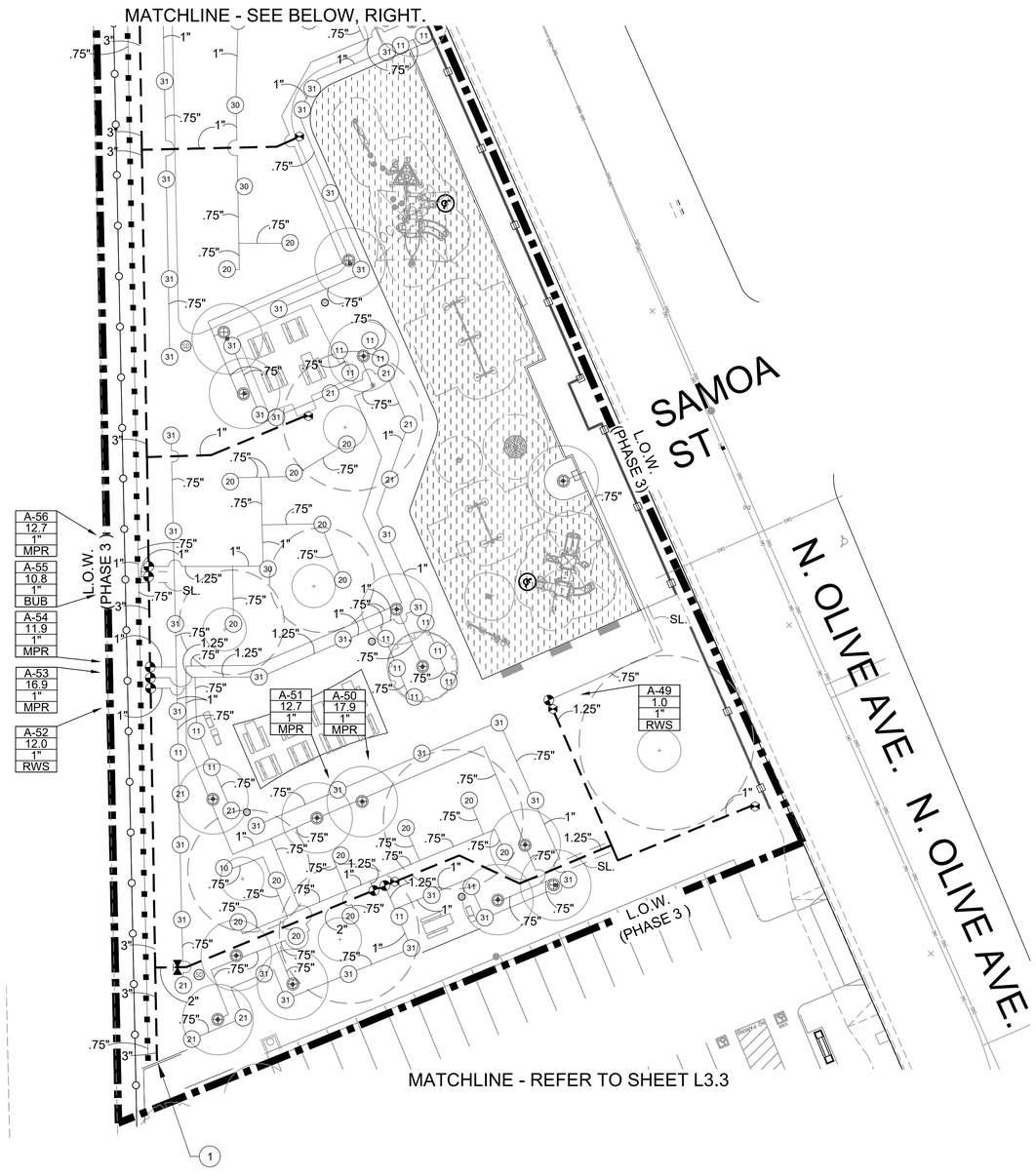
| | |
|---|---|
| #M | MAINLINE PIPE SLEEVE QUANTITY |
| #L | LATERAL PIPE SLEEVE QUANTITY |
| #S | EMPTY SLEEVE QUANTITY |
| #W | WIRE SLEEVE QUANTITY |

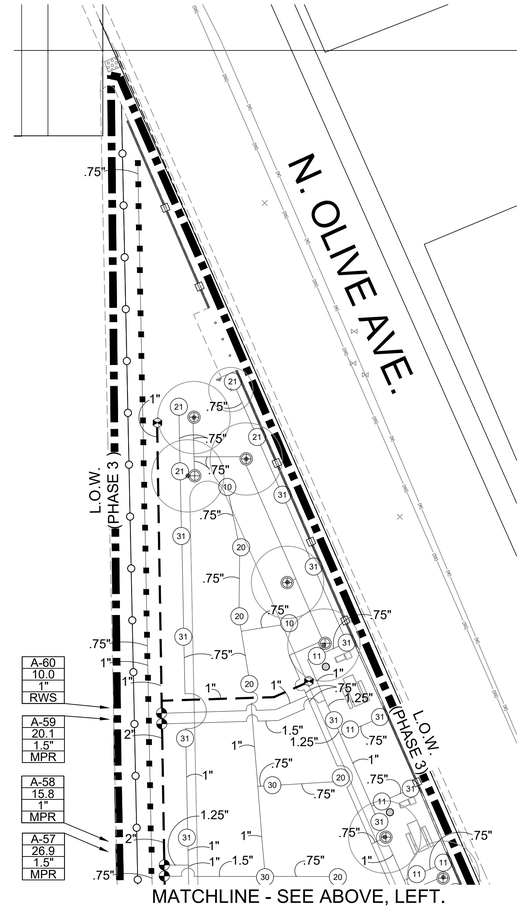
VALVE CALLOUT:

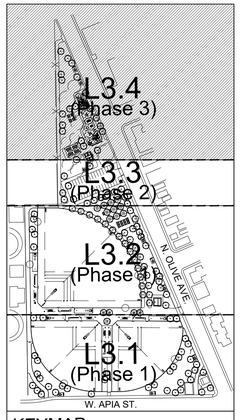
- CONTROLLER NUMBER
- GALLONS PER MINUTE
- VALVE SIZE

RWS - TREE ROOT WATERING SYSTEM
ROT - POP-UP ROTOR
MPR - POP-UP STREAM ROTOR
SPR - POP-UP SPRAY
BUB - VINE BUBBLER

1-1/2" PIPE SIZING CALL-OUT




KEYMAP

## IRRIGATION KEYED NOTES FOR SHEET L3.4

| | |
|---|---|
| | CONNECT TO EXISTING STUB-OUT FROM PHASE 2: |
| | LOCATE EXISTING GATE VALVE AND CONTROL WIRES INSTALLED UNDER PHASE 2 AND MAKE CONNECTIONS. |
| | |

## MWELO IRRIGATION DESIGN PLAN REQUIRED NOTES:

1. PRESSURE REGULATING DEVICES ARE REQUIRED IF WATER PRESSURE IS BELOW OR EXCEEDS THE RECOMMENDED PRESSURE OF THE SPECIFIED IRRIGATION DEVICES.
2. CHECK VALVES OR ANTI-DRAIN VALVES ARE REQUIRED ON ALL SPRINKLER HEADS WHERE LOW POINT DRAINAGE COULD OCCUR.

## MWELO REQUIRED STATEMENTS & CERTIFICATION:

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STRUCTURAL ENGINEER
**ISE**

# OLIVE BOWL KAKU PARK

LINDSAY, CA
93247

SHEET TITLE

## IRRIGATION PLAN (Phase 3)

| DATE | REVISION |
|---|---|
| 10-18-21 | 50% CD Submittal |
| 12-8-21 | 90% CD Submittal |
| 12-14-22 | 90% CD Submittal |
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| 6-10-24 | 3 PHASE RE-PACKAGE |

STAMP

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|---|---|
| O.J. | 6-10-24 |
| DRAWN BY | JOB NO. |
| H.D. | 05567.02 |

SHEET

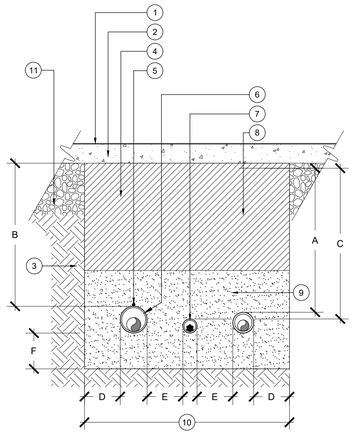
# L3.4

SHEET 41 OF 79 SHEETS

| DEPTH | A | B | C | D | E | F |
|---|---|---|---|---|---|---|
| 4" AND LARGER | N/A | 30" | N/A | 6" | 6" | 6" |
| 3" AND SMALLER | 24" | 24" | N/A | 6" | 6" | 6" |
| 2-1/2" AND SMALLER | 24" | 24" | N/A | 6" | 6" | 6" |
| CONTROL WIRES | N/A | N/A | 24" | 6" | 6" | 6" |

NOTES:

1. DIG SIDES OF TRENCH SQUARE AND CLEAN OF ALL SHARP MATERIAL.
2. NON-PRESSURE PIPES RUNNING PARALLEL TO EACH OTHER MUST HAVE A MIN. CLEARANCE OF 6" FROM EACH OTHER.
3. IRRIGATION PIPES SHALL HAVE A MIN. CLEARANCE OF 24" FROM OTHER TRADES.
4. PROVIDE A 24" LOOP IN ALL WIRING AT CHANGES IN DIRECTION.
5. CONTRACTOR MUST ADJUST MAINLINE AS REQUIRED TO AVOID OTHER ELEMENTS.
6. ALL SLEEVES MUST BE A MIN. OF 2 TIMES THE DIAMETER OF THE PIPE WITHIN
7. ALL SLEEVES MUST EXTEND 12" MIN. DISTANCE PAST CURB OR PAVEMENT EDGES.




SECTION VIEW

1. FINISH GRADE
2. VEHICULAR OR PEDESTRIAN PAVING
3. UNDISTURBED SOIL
4. COMPACTED BACKFILL OVER INITIAL SAND BEDDING:
   - BENEATH VEHICULAR PAVEMENT SHALL BE COMPACTED CLASS II AGG., DEPTH AND COMPACTION PER ENGINEER'S PLANS
   - BENEATH NON-VEHICULAR PAVEMENT SHALL BE NATIVE SITE SOIL. NO PARTICLES GREATER THAN 1". COMPACT PER SPECS.
5. COPPER TRACE WIRE, REFER TO SPECS.
6. PRESSURE MAINLINE PIPE SLEEVE, PER SPECS.
7. CONTROL WIRE SLEEVE, PER SPECS
8. NON-PRESSURE LATERAL LINE SLEEVE, SEE SPECS.
9. INITIAL SAND BACKFILL PER SPECS. PROVIDE 6" BEDDING DEPTH BELOW MAINLINE AND 6" COVER ABOVE MAINLINE. COMPACT PER SPECS.
10. 9" MIN. OR AS NEEDED TO PROVIDE FOR A MINIMUM 6" CLEARANCE BETWEEN PIPES.
11. PAVEMENT SUBGRADE - AS PER ENGINEER'S PLANS

## 2 TRENCHING - BENEATH PAVEMENT

Scale: N.T.S.

| DEPTH | A | B | C | D | E | F |
|---|---|---|---|---|---|---|
| 4" AND LARGER | N/A | 24" | N/A | 6" | 6" | 6" |
| 3" AND SMALLER | 12" | 18" | N/A | 6" | 6" | 6" |
| 2-1/2" AND SMALLER | 12" | 18" | N/A | 6" | 6" | 6" |
| CONTROL WIRES | N/A | N/A | BELOW MAINLINE | 6" | 6" | 6" |

NOTES:

1. DIG SIDES OF TRENCH SQUARE AND CLEAN OF ALL SHARP MATERIAL.
2. NON-PRESSURE PIPES RUNNING PARALLEL TO EACH OTHER MUST HAVE A MIN. CLEARANCE OF 6" FROM EACH OTHER.
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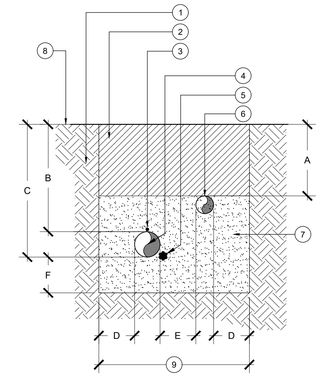
5. CONTRACTOR MUST ADJUST MAINLINE AS REQUIRED TO AVOID OTHER ELEMENTS.

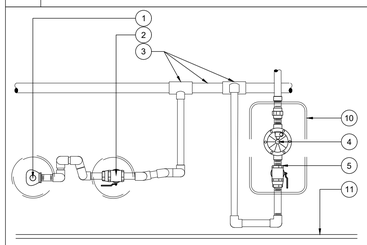



SECTION VIEW

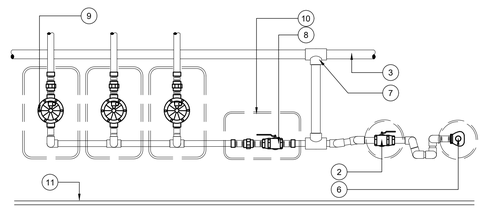
1. UNDISTURBED SOIL
2. COMPACTED BACKFILL OVER INITIAL SAND BEDDING. NO PARTICLES GREATER THAN 1". COMPACT PER SPECS.
3. COPPER TRACE WIRE. REFER TO SPECS.
4. PRESSURE MAINLINE PIPE, PER SPECS.
5. CONTROL WIRES, BUNDLED AND TAPED TO SIDE OF MAINLINE AT 10' O.C. (INSTALL WIRES IN CONDUIT FROM CONTROLLER TO MAINLINE).
6. NON-PRESSURE LATERAL LINE, PER SPECS.
7. INITIAL SAND BACKFILL PER SPECS. PROVIDE 6" BEDDING DEPTH BELOW MAINLINE AND 6" COVER ABOVE MAINLINE. COMPACT PER SPECS.
8. FINISH GRADE
9. 9" MIN. OR AS NEEDED TO PROVIDE FOR A MINIMUM 6" CLEARANCE BETWEEN PIPES.

## 1 TRENCHING - WITHIN PLANTING AREAS

Scale: N.T.S.




INDIVIDUAL QUICK COUPLER VALVE/ REMOTE CONTROL VALVE
PLAN VIEW DIAGRAM




VALVE MANIFOLD
PLAN VIEW DIAGRAM

1. INDIVIDUAL QUICK COUPLER VALVE WHEN VALVE IS NOT GROUPED WITHIN MAINLINE MANIFOLD ASSEMBLY.
2. ISOLATION BALL VALVE
3. PRESSURE MAINLINE AND TEE FITTING(S)
4. INDIVIDUAL REMOTE CONTROL VALVE WITH BALL VALVE WHEN MANIFOLD IS NOT USED
5. ISOLATION BALL VALVE WHEN SINGLE REMOTE CONTROL VALVE IS NOT GROUPED WITHIN MAINLINE MANIFOLD ASSEMBLY.
6. QUICK COUPLER VALVE
7. TEE. MUST BE MAINLINE SIZE.
8. ISOLATION GATE VALVE OR BALL VALVE. VALVE MUST BE MAINLINE SIZE.
9. MANIFOLD VALVES TOGETHER WHEN WITHIN 20 FEET OF EACH OTHER.
10. VALVE BOX, TYP.
11. EDGE OF AREA, ADJACENT PAVING OR CONCRETE CURB

NOTES:

1. ALL THREADED CONNECTIONS MUST HAVE TEFLON TAPE (PVC/ BRASS) OR PASTE (BRASS ONLY).
2. REMOTE CONTROL VALVES SHALL BE INSTALLED WITH THE LARGEST VALVE AND GPM FLOW INSTALLED FIRST ON THE MANIFOLD, WITH THE SMALLER VALVES AND CAPACITIES TRANSITIONING FROM THERE.
3. REFER TO DETAIL # FOR ALL ISOLATION BALL VALVE REQUIREMENTS.
4. REFER TO DETAIL # FOR QUICK COUPLER VALVE REQUIREMENTS.
5. REFER TO DETAIL # FOR REMOTE CONTROL VALVE REQUIREMENTS.
6. REFER TO DETAIL # FOR VALVE BOX LAYOUT REQUIREMENTS.
7. REFER TO DETAIL # FOR PRESSURE MAINLINE AND NON-PRESSURE LATERALS PIPE REQUIREMENTS.

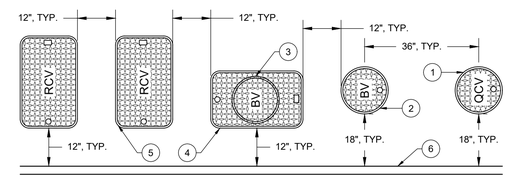
## 4 MANIFOLD INSTALLATION

Scale: N.T.S.

NOTES:

1. INSTALL VALVE BOXES IN GROUND COVER/ SHRUB PLANTING AREAS WHENEVER POSSIBLE.
2. ALL VALVE BOXES MUST BE PERPENDICULAR TO EDGE OF AREA, ADJACENT PAVING OR CONCRETE CURB AND SET PARALLEL TO EACH OTHER.
3. ALL VALVES MUST BE CENTERED AND INSTALLED PLUMB INSIDE VALVE BOX TO FACILITATE ACCESS AND MAINTENANCE.
4. ALL VALVES MUST BE INSTALLED IN ITS OWN VALVE BOX.
5. REFER TO VALVE ASSEMBLY DETAILS FOR VALVE BOXES FINISH ELEVATIONS.
7. AVOID EXCESSIVE COMPACTING AROUND VALVE BOXES TO PREVENT COLLAPSE AND DEFORMATION OF VALVE BOX SIDES.
8. INSTALL VALVE BOX EXTENSIONS BY VALVE MANUFACTURER AS REQUIRED TO COMPLETELY ENCLOSE VALVE ASSEMBLY.
9. LOCATION OF VALVE ASSEMBLIES SHALL BE STAKED FOR APPROVAL BY OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
10. ALL VALVE BOX LIDS MUST BE LABELED BY HOT IRON BRANDING:

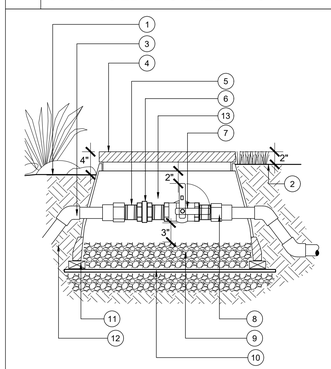
    YS - WYE STRAINER
    CV - CHECK VALVE
    MV - MASTER VALVE
    FS - FLOW SENSOR
    RCV - REMOTE CONTROL VALVE
    QCV - QUICK COUPLER VALVE
    BV - ISOLATION BALL VALVE
    GV - ISOLATION GATE VALVE
    E - PULL BOX/ SPLICE BOX




1. 10" ROUND VALVE BOX PER SPECS FOR QUICK COUPLER VALVE, TYP.
2. 10" ROUND VALVE BOX PER SPECS FOR QUICK COUPLER ISOLATION BALL VALVE, TYP.
3. 10" ROUND VALVE BOX PER SPECS FOR MAINLINE ISOLATION GATE VALVE, TYP.
4. RECTANGULAR VALVE BOX PER SPECS FOR MAINLINE ISOLATION BALL VALVE, TYP.
5. RECTANGULAR VALVE BOX PER SPECS FOR REMOTE CONTROL VALVE ASSEMBLIES, TYP.
6. EDGE OF AREA, SIDEWALK, CONCRETE CURB, ETC., TYP.

## 3 VALVE BOX LAYOUT

Scale: N.T.S.



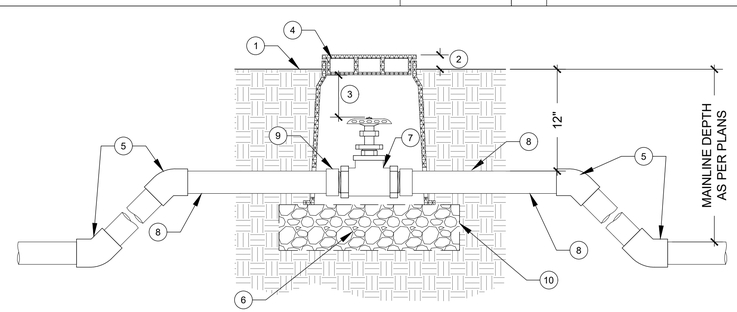

1. FINISH GRADE AT PLANTER
2. FINISH GRADE AT TURF AREA
3. PVC MAINLINE. USE PVC SCH. 80 45° ELL TO DEPTH PER SPECS.
4. RECTANGULAR VALVE BOX W/ BOLT DOWN COVER, AND SS HARDWARE
5. BRASS NIPPLE.3 QTY., TYP
6. BRASS UNION
7. ISOLATION BALL VALVE. REFER TO SPECS.
8. PVC SCH. 80 FEMALE ADAPTER, (2) QTY.
9. 3 CU. FT. 3/8" PEA GRAVEL
10. LANDSCAPE FABRIC AND 1/4" GALV. WIRE MESH, TYP.
11. NATIVE SOIL COMPACTED TO
12. (4) CONCRETE BRICK SUPPORTS, ONE AT EACH CORNER

NOTES:

1. BALL VALVE MUST BE INSTALLED IN VALVE BOX TO ALLOW PROPER OPERATION OF BALL VALVE HANDLE.
2. ALL THREADED FITTINGS MUST HAVE 3/4" TEFLON TAPE OR PASTE.
3. PROVIDE 45° ELLS TO ACHIEVE BALL VALVE HEIGHT PER DETAIL.

## 6 ISOLATION BALL VALVE, 2" & SMALLER

Scale: N.T.S.




1. FINISH GRADE
2. SET TOP OF BOX ABOVE FINISH GRADE: 1/2" IN SEED, 1-1/2" IN SOD, 2-1/2" IN PLANTER.
3. ALLOW 3" BETWEEN TOP OF THE INTERIOR VALVE BOX COVER AND TOP OF VALVE HANDLE.
4. GREEN PLASTIC VALVE BOX WITH BOLT DOWN LOC-KIT; CARSON MODEL 910.
5. 45° FITTING
6. 3/4" CRUSHED ROCK; 3" MINIMUM DEPTH. EXTEND 6" BEYOND VALVE BOX WALL.
7. GATE VALVE (THREADED)
8. MAIN LINE
9. MALE SLIP ADAPTER, (ON EACH SIDE, 2 TOTAL)
10. 1/4" GALVANIZED WIRE CLOTH

NOTES:

1. WHEN THE MAIN LINE IS TERMINATED AT THE VALVE, EXTEND MAIN LINE 48" BEYOND VALVE BOX AND CAP.

## 5 ISOLATION GATE VALVE (2.5" & SMALLER)

Scale: N.T.S.

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CONSULTANT:

PROJECT TEAM:

LANDSCAPE ARCHITECT
**MOORE IACOFANO GOLTSMAN, INC.**

ELECTRICAL ENGINEER
**LRA ENGINEERS**

CIVIL ENGINEER
**BKF**

STRUCTURAL ENGINEER
**ISE**

OLIVE BOWL
KAKU
PARK

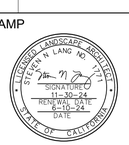
LINDSAY, CA
93247

SHEET TITLE

IRRIGATION DETAILS

| DATE | REVISION |
|---|---|
| 10-18-21 | 50% CD Submittal |
| 12-8-21 | 90% CD Submittal |
| 12-14-22 | 90% CD Submittal |
| 2-13-23 | 100% CD Submittal |
| 10-3-23 | ADDENDUM #1 |
| 10-27-23 | ADDENDUM #3 |
| 6-10-24 | 3 PHASE RE-PACKAGE |

STAMP




| CHECKED BY | DATE |
|---|---|
| O.J. | 6-10-24 |
| DRAWN BY | JOB NO. |
| H.D. | 05567.02 |

SHEET

L3.5

SHEET 42 OF 79 SHEETS

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CONSULTANT:

PROJECT TEAM:

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# OLIVE BOWL KAKU PARK

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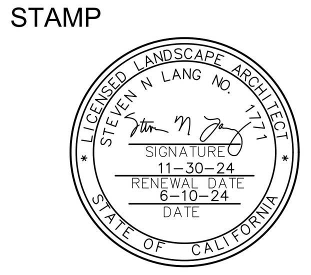
STAMP




| CHECKED BY | DATE |
|---|---|
| O.J. | 6-10-24 |
| DRAWN BY | JOB NO. |
| H.D. | 05567.02 |

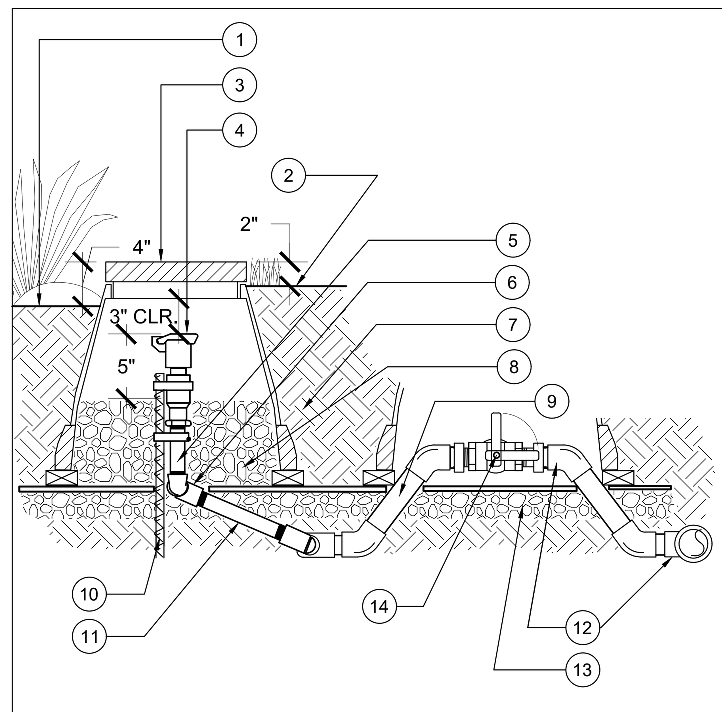
SHEET

# L3.6



## 4 QUICK COUPLER VALVE

Scale: N.T.S



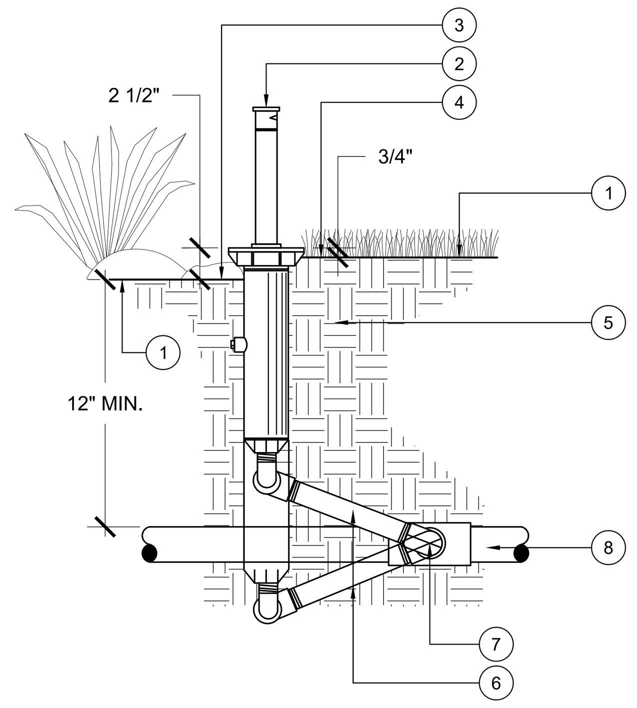

1. FINISH GRADE AT PLANTER
2. FINISH GRADE AT TURF AREA
3. 10" ROUND VALVE BOX W/ BOLT DOWN COVER, AND SS HARDWARE
4. QUICK COUPLER VALVE PER LEGEND AND SPECS.
5. BRASS NIPPLE, TYP.
6. BRASS STREET ELL, TYP.
7. NATIVE SOIL COMPACTED TO
8. 1 CU. FT. 3/8" PEA GRAVEL
9. PRESSURE MAINLINE PER SPECS
10. #4 X 36" REBAR STAKE. SECURE QUICK COUPLER VALVE TO STAKE WITH (2) TWO STAINLESS STEEL CLAMPS
11. BRASS NIPPLE, 10" LENGTH MIN.
12. SCH. 80 PVC MAINLINE TEE OR ELL
13. LANDSCAPE FABRIC AND 1/4" GALV. WIRE MESH, TYP.
14. BRASS BALL VALVE W/ PVC. SCH. 80 MALE ADAPTERS.
15. CONCRETE BRICK SUPPORTS, THREE (3) SPACED EQUALLY ALONG PERIMETER BOTTOM.

NOTES:

1. ALL THREADED FITTINGS MUST HAVE 3/4" TEFLON TAPE.
2. ALL BRASS PIPE TO BE YELLOW BRASS.
3. MINIMUM LINE SIZE SUPPLYING A QUICK COUPLER MUST BE 1-1/2"
4. QUICK COUPLERS MUST BE NO MORE THAN 200' O.C. APART. LOCATE AT RCV MANIFOLDS WHEN POSSIBLE.
5. REFER TO DETAIL # FOR ALL ISOLATION BALL VALVE REQUIREMENTS.

## 3 POP-UP SPRINKLER

Scale: N.T.S.



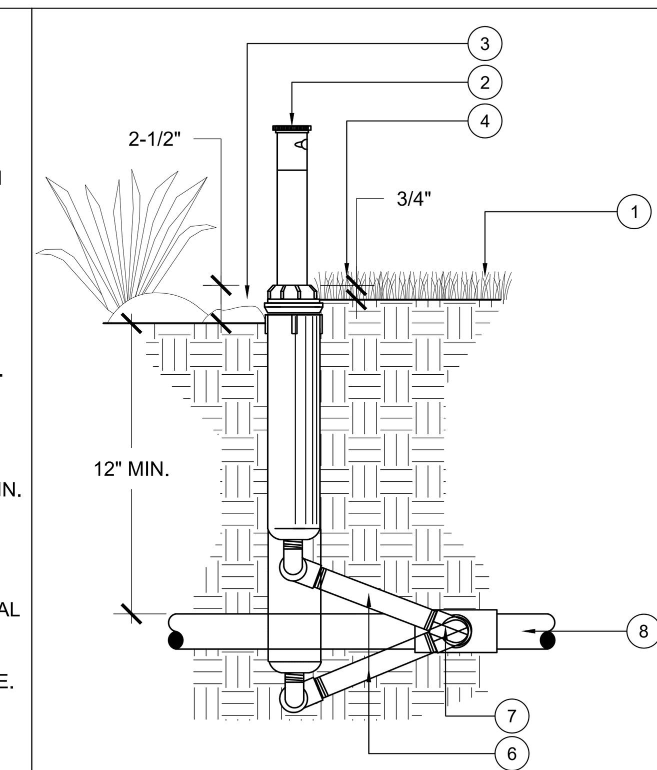

1. FINISH GRADE
2. POP-UP SPRINKLER HEAD., PER IRRIGATION EQUIPMENT LEGEND AND SPECS.
3. INSTALL HEAD 2-1/2" ABOVE FINISH GRADE AT SHRUB AND GROUND-COVER AREAS.
4. INSTALL HEAD 3/4" ABOVE FINISH GRADE AT TURF AREAS.
5. NATIVE SOIL COMPACTED TO ORIGINAL DENSITY AROUND HEAD.
6. TRIPLE SWING JOINT ASSEMBLY. THREADED ENDS SHALL BE SAME SIZE AS SPRINKLER INLET. 8" MIN. LENGTH FOR 6" POP-UP AND 12" MIN. LENGTH FOR 12" POP-UP, SEE SPECS.
7. SCH. 40 PVC FITTING. SxSxT (TEE) OR SxT(ELL) AS REQUIRED, LATERAL X SPRINKLER INLET SIZE.
8. PVC NON-PRESSURE LATERAL LINE. SEE SPECS.

NOTES:

1. USE 3/4" TEFLON TAPE WHERE ELL MEETS TEE/ELL.
2. INSTALL HEADS PERPENDICULARLY PLUMB TO ADJACENT GRADE.
3. ADJUST NOZZLES/HEAD TO PREVENT OVERSPRAY ONTO PAVING, WALLS/FENCES, BUILDINGS, ETC.
4. INSTALL HEADS 4" FROM ALL HARDSCAPE EDGES.
5. INSTALL HEADS 6" FROM WALLS/ FENCES.

## 2 POP-UP ROTOR

Scale: N.T.S.



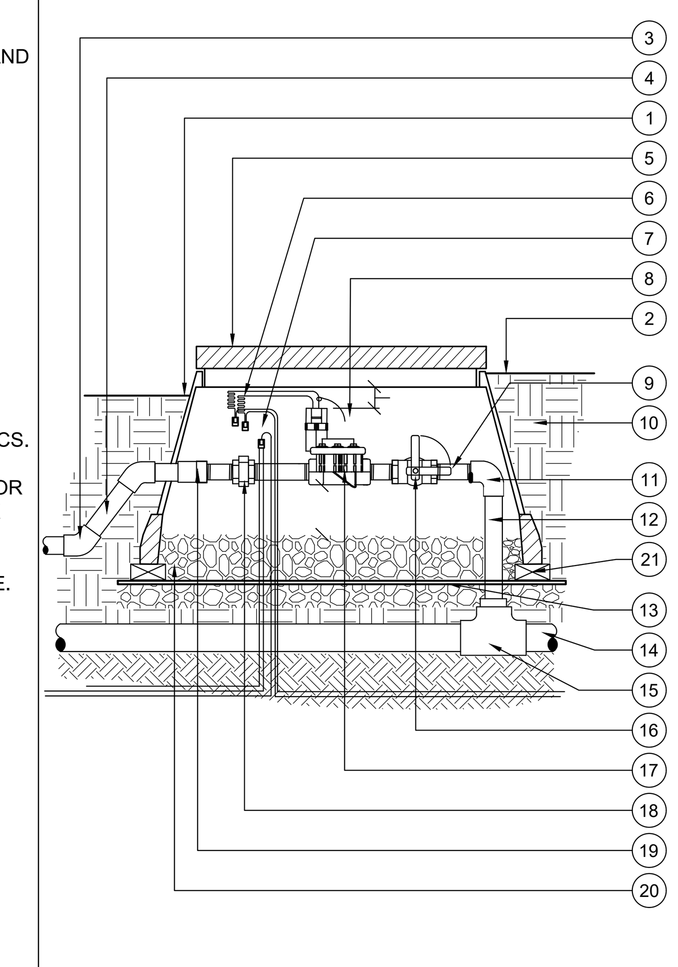

1. FINISH GRADE
2. POP-UP ROTOR HEAD, PER IRRIGATION EQUIPMENT LEGEND AND SPECS.
3. INSTALL HEAD 2-1/2" ABOVE FINISH GRADE AT SHRUB AND GROUND-COVER AREAS.
4. INSTALL HEAD 3/4" ABOVE FINISH GRADE AT TURF AREAS.
5. NATIVE SOIL COMPACTED TO ORIGINAL DENSITY AROUND HEAD.
6. TRIPLE SWING JOINT ASSEMBLY. THREADED ENDS SHALL BE SAME SIZE AS SPRINKLER INLET. 12" MIN. LENGTH FOR 12" POP-UP. SEE SPECS.
7. SCH. 40 PVC FITTING. SxSxT (TEE) OR SxT(ELL) AS REQUIRED, LATERAL X SPRINKLER INLET SIZE.
8. PVC NON-PRESSURE LATERAL LINE. SEE SPECS.

NOTES:

1. USE 3/4" TEFLON TAPE WHERE ELL MEETS TEE/ELL.
2. INSTALL HEADS PERPENDICULARLY PLUMB TO ADJACENT GRADE.
3. ADJUST NOZZLES/HEAD TO PREVENT OVERSPRAY ONTO PAVING, WALLS/FENCES, BUILDINGS, ETC.
4. INSTALL HEADS 4" FROM ALL HARDSCAPE EDGES.
5. INSTALL HEADS 6" FROM WALLS/ FENCES.

## 1 REMOTE CONTROL VALVE

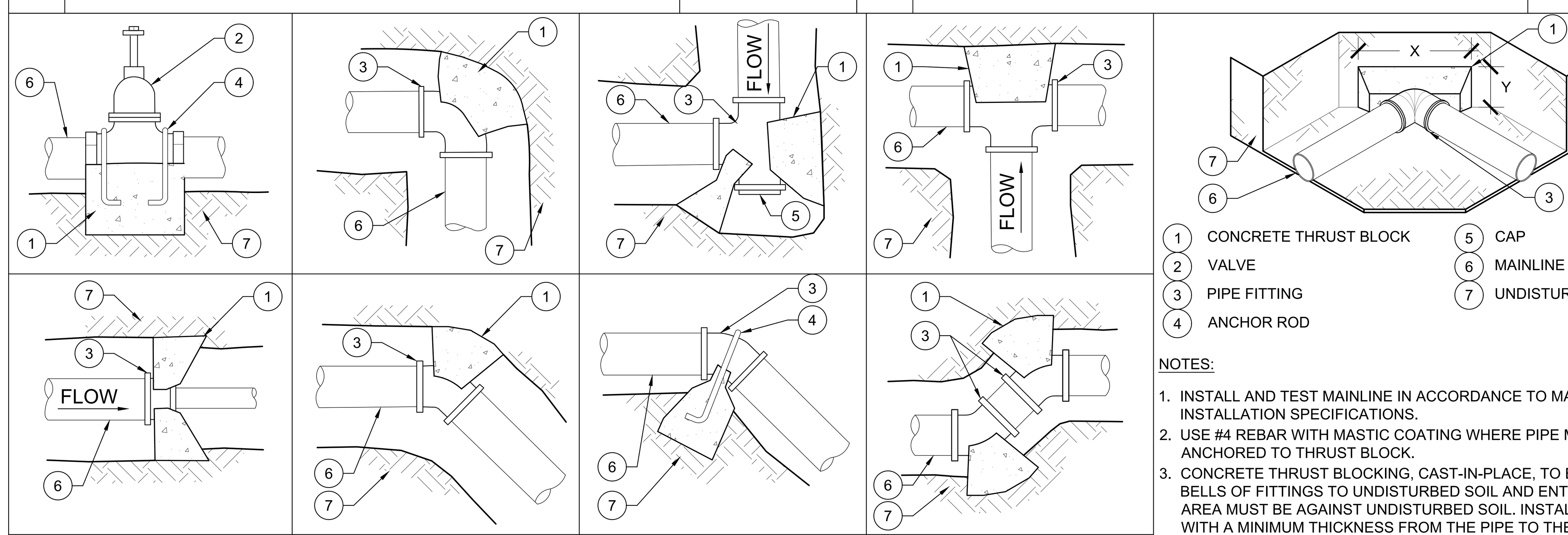
Scale: N.T.S.



1. FINISH GRADE AT PLANTER
2. FINISH GRADE AT TURF AREA
3. PVC MAINLINE. USE PVC SCH. 40 45° ELL TO DEPTH PER SPECS.
4. LATERAL PIPE, PER SPECS.
5. RECTANGULAR VALVE BOX
6. CONTROL WIRING PER SPECS.
7. EXTRA WIRE PER SPECS.
8. TAG. SEE SPECS.
9. SCH. 80 NIPPLE (4X PER VALVE)
10. NATIVE SOIL COMPACTED
11. SLIP X FT SCH. 80 PVC ELL
12. SCH. 80 PVC CUT TO LENGTH
13. LANDSCAPE FABRIC AND 1/4" GALV. WIRE MESH, TYP.
14. PRESSURE MAINLINE, PER SPECS.
15. SCH. 80 MAINLINE FITTING
16. VALVE SIZE BRASS BALL VALVE. OMIT WHEN USED ON MANIFOLD.
17. REMOTE CONTROL VALVE
18. SCH. 80 UNION
19. SCH. 80 FEMALE ADAPTER
20. 3 CU. FT. 3/4" PEA GRAVEL.
21. BRICK SUPPORTS, TYP. OF 4

## 7 THRUST BLOCKS FOR PLASTIC PIPE (3" AND LARGER)

Scale: N.T.S.




1. CONCRETE THRUST BLOCK
2. VALVE
3. PIPE FITTING
4. ANCHOR ROD
5. CAP
6. MAINLINE
7. UNDISTURBED SOIL

NOTES:

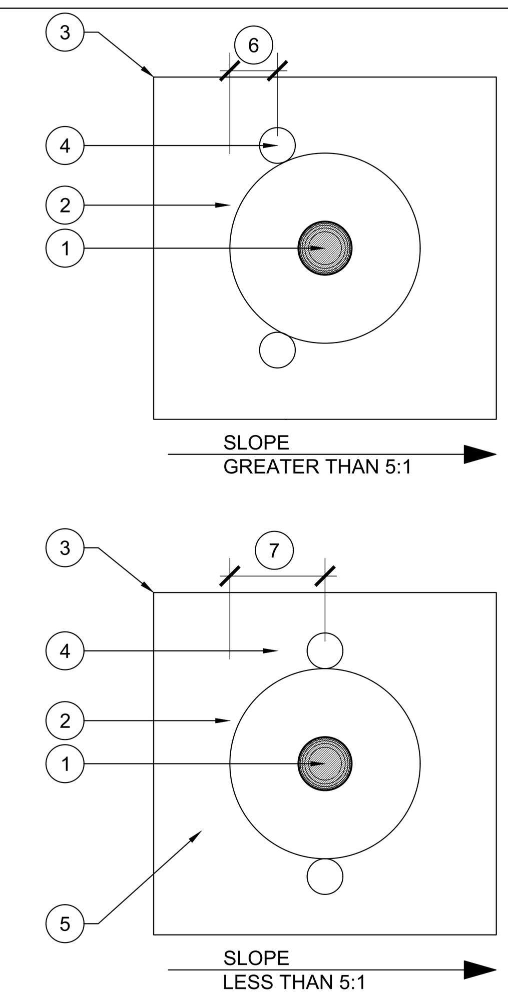
1. INSTALL AND TEST MAINLINE IN ACCORDANCE TO MANUFACTURER'S INSTALLATION SPECIFICATIONS.
2. USE #4 REBAR WITH MASTIC COATING WHERE PIPE MUST BE ANCHORED TO THRUST BLOCK.
3. CONCRETE THRUST BLOCKING, CAST-IN-PLACE, TO EXTEND FROM BELLS OF FITTINGS TO UNDISTURBED SOIL AND ENTIRE BEARING AREA MUST BE AGAINST UNDISTURBED SOIL. INSTALL THRUST BLOCK WITH A MINIMUM THICKNESS FROM THE PIPE TO THE UNDISTURBED SOIL TWO TIMES THE DIAMETER OF THE PIPE.
4. THRUST BLOCK SHALL BE FORMED ON THE SIDES TO ESTABLISH A DEFINITE SHAPE AND LIMIT ON HEIGHT AND WIDTH SUBJECT TO APPROVAL BY OWNER'S REPRESENTATIVE BEFORE ORDERING CONCRETE.
5. THRUST BLOCK SIZING ASSUMES TEST PRESSURE OF 200 PSI, A MAXIMUM VELOCITY OF 5 FPS, AND A HORIZONTAL SOIL BEARING CAPACITY OF 1000 LBS/SQUARE FOOT.
6. SAFE BEARING LOAD OF SOIL FOR HORIZONTAL THRUST SHALL NOT BE EXCEEDED.
7. PROVISIONS SHALL BE MADE TO INSURE THAT PIPE JOINTS, FITTINGS AND VALVES ARE NOT COVERED UNNECESSARILY.

THRUST BLOCK SURFACE AREA (SF) AGAINST UNDISTURBED SOIL (X" x Y")

| FITTING SIZE | 11-1/4" BEND (SF) | 22-1/2" BEND (SF) | 45° BEND (SF) | 90° BEND (SF) | TEE OR DEAD END (SF) |
|---|---|---|---|---|---|
| 3" | 1.0 | 1.0 | 1.0 | 1.4 | 1.0 |
| 4" | 1.0 | 1.0 | 1.2 | 2.3 | 1.6 |
| 6" | 1.4 | 1.4 | 2.7 | 5.0 | 3.6 |
| 8" | 2.3 | 2.3 | 4.5 | 8.3 | 5.9 |

## 6 TREE BUBBLER ASSEMBLY PLAN

Scale: N.T.S.




KEY:

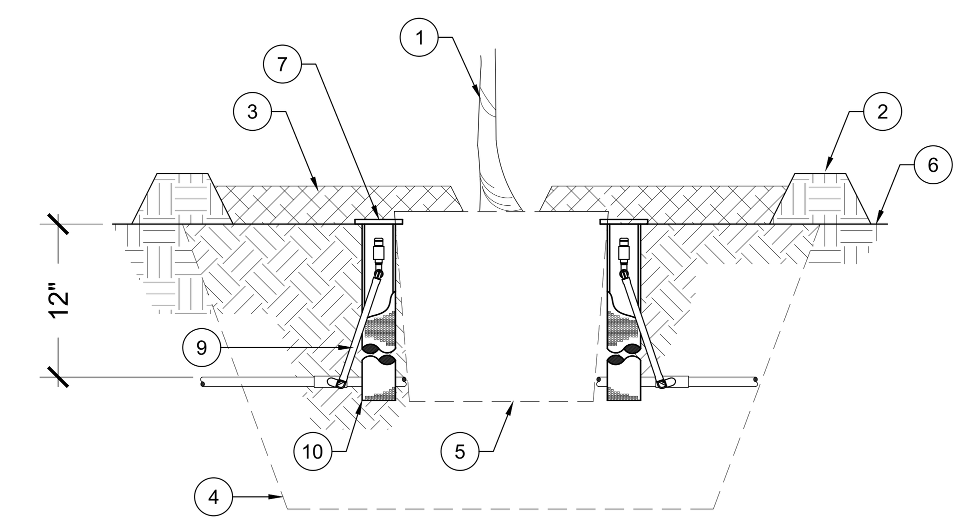
1. TREE
2. TREE ROOTBALL
3. PLANTING PIT
4. DEEP ROOT WATER SYSTEM ON EITHER SIDE OF ROOTBALL - QTY. PER LEGEND.
5. NOT USED
6. 1/4 OF ROOTBALL WIDTH
7. 1/2 OF ROOTBALL WIDTH

## 5 TREE BUBBLER ASSEMBLY SECTION

Scale: N.T.S.

NOTES:

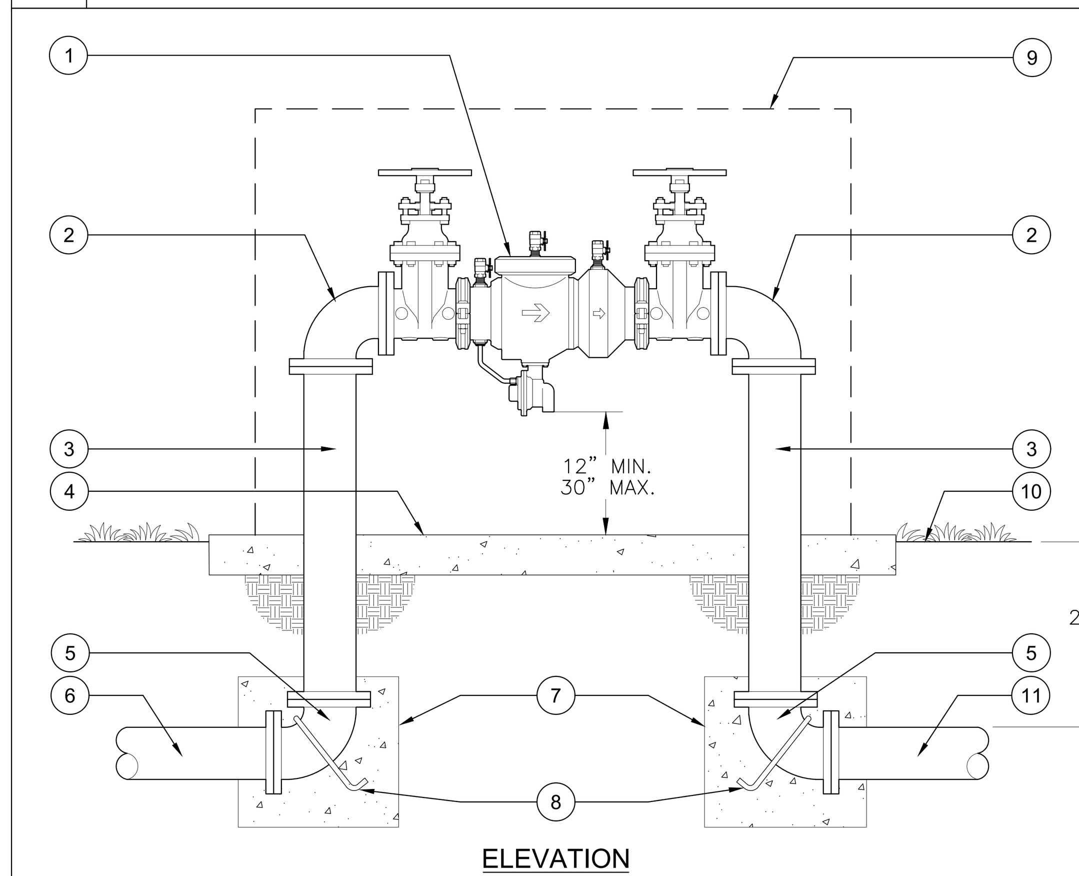
1. REFER TO LANDSCAPE PLANTING DETAILS FOR DEPTH OF MULCH COVER, ETC.




1. TREE
2. BERM
3. MULCH
4. PLANTING PIT
5. TREE ROOTBALL
6. FINISH GRADE
7. ROUND PLASTIC DRAIN GRATE
8. NOT USED
9. SWING PIPE
10. DEEP ROOT WATER SYSTEM

## 9 REDUCED PRESSURE BACKFLOW ASSEMBLY (2-1/2" AND LARGER)

Scale: N.T.S.




LEGEND

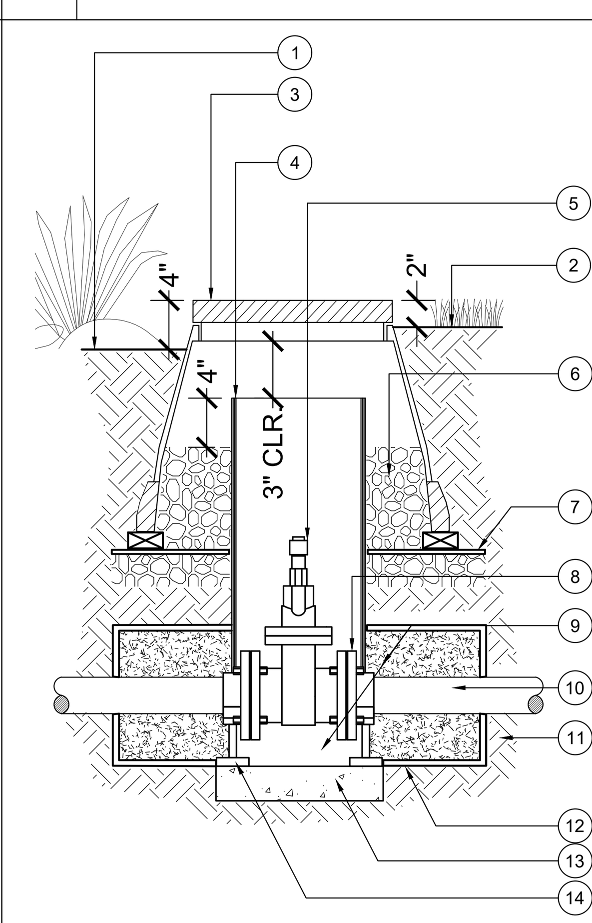
1. REDUCED PRESSURE BACKFLOW ASSEMBLY- REFER TO LEGEND FOR MODEL NUMBER.
2. DUCTILE IRON FLANGED 90 DEGREE ELBOW WITH GASKET AND BOLTS.
3. 48" LONG DUCTILE IRON SPOOL WITH GASKETS AND BOLTS.
4. FINISH SURFACE OF 4" REINFORCED CONCRETE SLAB. INSTALL ONLY IF SECURITY ENCLOSURE IS SPECIFIED. EXTEND 6" BEYOND LIMITS OF ENCLOSURE.
5. DUCTILE IRON FLANGED 90 DEGREE ELBOW WITH GASKET AND BOLTS.
6. DUCTILE IRON SPOOL FROM WATER METER. LENGTH AS REQUIRED. SEE PLAN FOR SIZE.
7. CONCRETE THRUST BLOCK. REFER TO THRUST BLOCK DETAIL.
8. REBAR ANCHOR ROD. REFER TO THRUST BLOCK DETAIL.
9. SECURITY ENCLOSURE (WHEN SPECIFIED). REFER TO IRRIGATION LEGEND.
10. FINISH GRADE, 1" BELOW LEVEL OF CONCRETE SLAB.
11. DUCTILE IRON SPOOL /GASKETED PIPE TO IRRIGATION STORAGE TANK. SEE PLAN FOR SIZE AND LOCATION.

NOTES:

1. INSTALL BACKFLOW PREVENTER AS REQUIRED BY LOCAL CODES AND HEALTH DEPARTMENT. VERIFY LOCAL REQUIREMENTS PRIOR TO INSTALLATION.
2. INSTALL 4" CONCRETE SLAB WHEN ENCLOSURE IS SPECIFIED.

## 8 ISOLATION GATE VALVE (3" - 4")

Scale: N.T.S.




1. FINISH GRADE AT PLANTER
2. FINISH GRADE AT TURF AREA
3. RECTANGULAR VALVE BOX W/ BOLT DOWN COVER, AND SS HARDWARE
4. 8" PVC CL 160 PIPE.
5. ISOLATION GATE VALVE WITH 2" OPERATING NUT PER SPECS AND IRRIGATION LEGEND
6. 3 CU. FT. 3/4" PEA GRAVEL
7. LANDSCAPE FABRIC AND 1/4" GALV. WIRE MESH BELOW BOX, TYP.
8. SCH. 80 FLANGE, BOLT & GASKET, TYP., (2) QTY.
9. ROUNDED PEA GRAVEL OVER DOUBLE WRAPPED PIPING AND VALVE.
10. SOLVENT WELD PVC PIPE PER SPECS AND IRRIGATION LEGEND
11. NATIVE SOIL COMPACTED TO
12. MIRAFY FILTER FABRIC
13. 14" X 14" X 4" CONC. SUPPORT
14. STEEL POWDER COATED VALVE STAND (2) QTY., TYP.

NOTES:

1. CONTRACTOR SHALL PROVIDE (1) 5-FOOT TEE WRENCH WITH 2" SQUARE NUT FOR VALVE OPERATION.

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PLAN VIEW
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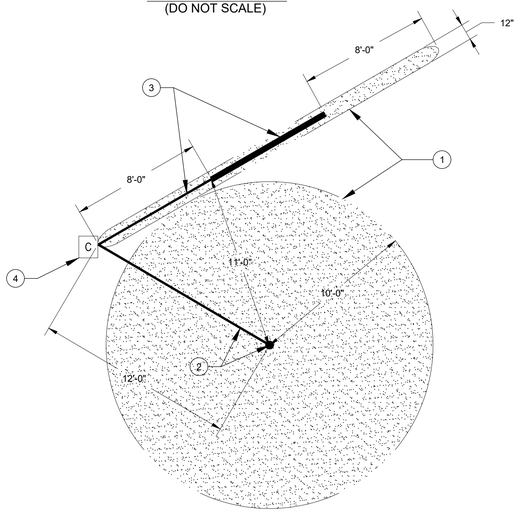
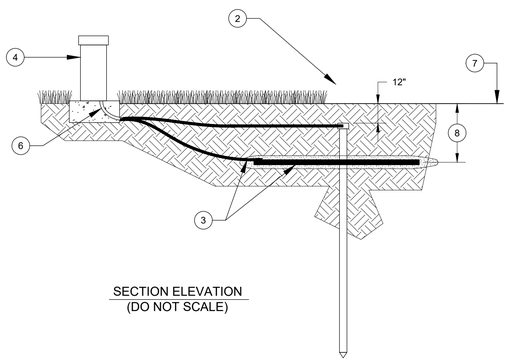



SECTION ELEVATION
(DO NOT SCALE)

1. ELECTRODE SPHERE OF INFLUENCE BOUNDARIES.
2. GROUND ROD WITH PRE-WELDED INSULATED CONDUCTOR (5/8" DIA. X 10' LONG). DRIVE INTO GROUND IN A VERTICAL POSITION OR AN OBLIQUE ANGLE NOT TO EXCEED 45°. USE WHEN POSSIBLE TO DRIVE STAKE INTO GROUND.
3. COPPER GROUND PLATE WITH PRE-WELDED INSULATED CONDUCTOR (SIZE: 4" X 96" X 0.0625"). USE WHEN IMPOSSIBLE TO DRIVE STAKE INTO GROUND OR WHEN DIRECTED BY CONTROLLER MANUFACTURER.
4. AUTOMATIC IRRIGATION CONTROLLER. REFER TO IRRIGATION LEGEND AND DWGS.
5. PVC SWEEP ELL, 1-1/2" MIN.
6. EARTH CONTACT MATERIAL
7. FINISH GRADE
8. 30" MINIMUM OR BELOW FROST LINE, WHICHEVER IS DEEPER.

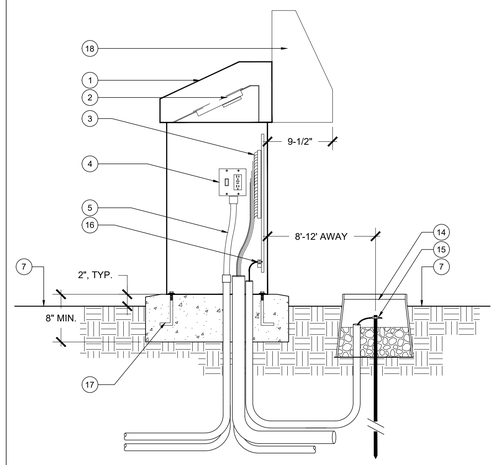
NOTES:

1. THE GROUND GRID COMPONENTS MUST BE INSTALLED WITH THE DIMENSIONAL RELATIONSHIP SHOWN IN THE DETAIL. DO NOT INSTALL ANY OTHER WIRES, CABLES, AND ELECTRONIC EQUIPMENT WITHIN THE SPHERE OF INFLUENCE OF THE GROUNDING ELECTRODES.
2. INSTALLATION OF ALL COMPONENTS AND MUST MEET OR EXCEED THE AMERICAN SOCIETY OF IRRIGATION CONSULTANTS (ASIC) EARTH GROUNDING GUIDELINES AND BE AS APPROVED BY AUTOMATIC IRRIGATION CONTROLLER MANUFACTURER'S.
3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONNECT THE CONTROLLER TO EARTH GROUND IN ACCORDANCE WITH ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE (NEC).
4. WHEN UTILIZING THE COPPER GROUND PLATE METHOD, THE CONTRACTOR SHALL UTILIZE A MINIMUM OF 100 LBS OF EARTH CONTACT MATERIAL. SPREAD MATERIAL SO THAT IT SURROUNDS THE COPPER PLAT EVENLY ALONG ITS LENGTH WITHIN A 6" WIDE TRENCH.
5. SALTS, FERTILIZERS, BENTONITE CLAY, CEMENT, CODE, CARBON, AND OTHER CHEMICALS ARE NOT BE BE USED TO IMPROVED SOIL CONDUCTIVITY.
6. ALL GROUNDING ELECTRODES SHALL BE UL LISTED OR MANUFACTURED TO MEET NEC CODE.
7. NO SPLICES ALLOWED UNLESS USING EXOTHERMIC WELDING PROCESS AND APPROVED BY CITY'S REPRESENTATIVE.
8. INSTALL ALL GROUNDING CIRCUIT COMPONENTS IN STRAIGHT LINES. WHEN NECESSARY TO MAKE A TURN OR BEND, IT SHALL BE DONE IN A SWEEPING CURVE WITH A MINIMUM RADIUS OF 8" AND A MINIMUM INCLUDED ANGLE OF 90°.
9. THE EARTH-TO-GROUND RESISTANCE IS TO BE MEASURED USING A MEGGER OR OTHER SIMILAR INSTRUMENT, AND THE READING IS TO BE NO MORE THAN 10 OHMS. IF THE RESISTANCE IS MORE THAN 10 OHMS, ADDITIONAL GROUND PLATES AND EARTH CONTACT MATERIAL ARE TO BE INSTALLED USING ASIC GUIDELINES.
10. IT IS REQUIRED THAT THE SOIL SURROUNDING COPPER ELECTRODES WITHIN THE SPHERE OF INFLUENCE BE KEPT AT A MNIMUM MOISTURE LEVEL OF 15% (BY VOLUME) AT ALL TIMES.
11. ALL GROUNDING COMPONENTS MUST BE CONNECTED TO THE EQUIPMENT BEFORE ANY OTHER CONNECTION IS MADE.

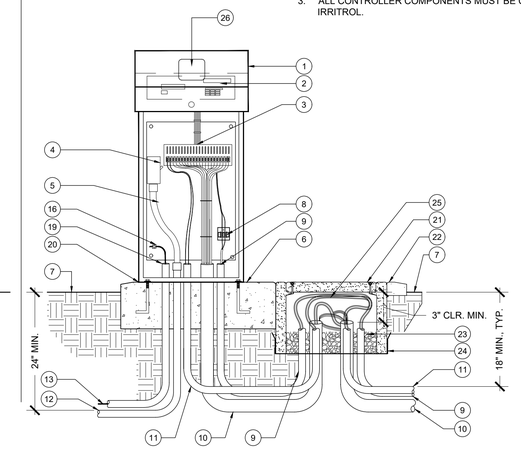
## 2 GROUNDING ROD/PLATE

Scale: N.T.S.

SECTION ELEVATION
(SIDE VIEW)




SECTION ELEVATION
(FRONT VIEW)



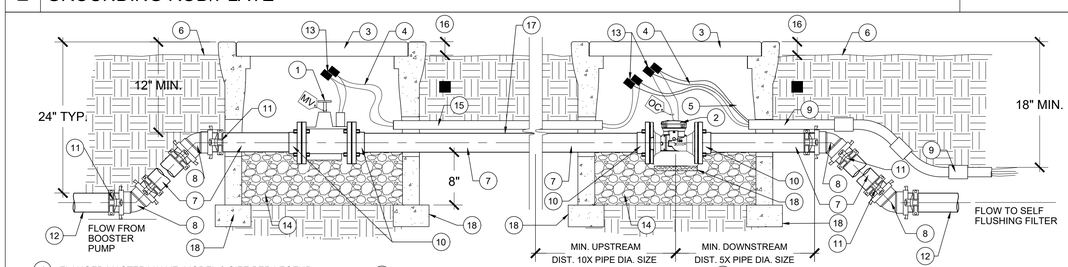

NOTES:

1. CONTRACTOR SHALL ADJUST ALL IRRIGATION TO PREVENT OVERSPRAY ON CONTROLLER ENCLOSURE IF APPLICABLE.
2. CONTACT IRRITROL PRIOR TO ORDERING TO CONFIRM SPECIFIC CONTROLLER MODEL NUMBER AND ASSOCIATED COMPONENTS.
3. ALL CONTROLLER COMPONENTS MUST BE CERTIFIED BY IRRITROL.

1. TOP ENTRY 16" WIDE STAINLESS STEEL NEMA 3R RAINPROOF ENCLOUSRE (UL LISTED). SHOWN WITH TOP IN CLOSED POSITION. ENCLOSURE DIMENSIONS 16" WIDE X 38" HIGH X 15.5" DEEP).
2. CONTROLLER PANEL. MOUNTED FLUSH ON FACE OF ENCLOSURE. ASSEMBLED IN ENCLOSURE BY AUTHORIZED DISTRIBUTOR
3. TERMINAL STRIP FOR REMOTE CONTROL VALVE WIRE CONNECTIONS. ACTUAL STRIP MAY VARY BASED ON CONTROLLER OPTIONS SPECIFIED
4. POWER SWITCH/ GFCI RECEPTACLE
5. ELECTRICAL FLEX CONDUIT FOR POWER
6. 8" MIN. THICK, POURED-IN-PLACE CONCRETE PAD WITH ANCHOR BOLTS PER MANUFACTURER RECOMMENDATIONS. BEVEL EDGES, TYP. (LIGHT BROOM FINISH). SLOPE PAD WAY FROM CONTROLLER TO DRAIN. PAD SIZE TO BE 26" WIDE x 24" DEEP MIN. SIZE
7. FINISH GRADE
8. FLOW SENSOR TERMINAL BOARD
9. 1" SCH. 40 PVC CONDUIT AND SWEEP ELL WITH FLOW SENSOR CABLE
10. 3" SCH. 40 PVC CONDUIT AND SWEEP FOR REMOTE CONTROL WIRES
11. 1" SCH. 40 PVC CONDUIT AND SWEEP ELL WITH MASTER VALVE WIRE
12. 1" SCH. 40 PVC CONDUIT AND SWEEP FOR 110VAC POWER CONDUCTOR. 24" MIN. BURIAL DEPTH. REFER TO ELECTRICAL DWGS.
13. 1" SCH. 40 PVC CONDUIT AND SWEEP ELL FOR GROUND WIRE
14. 10" ROUND VALVE BOX AROUND GROUND ROD. FILL WITH 3/4" WASHED PEA GRAVEL.
15. 5/8" DIAMETER X 8' LONG COPPER CLAD GROUND ROD WITH #6 GROUND WIRE AND CLAMP. LOCATE 8'-12' FROM ENCLOSURE.
16. #6 GROUND WIRE SECURED TO BACKBOARD GROUNDING TERMINAL.
17. ANCHOR BOLTS. SET IN WET CONCRETE FOOTING USING TEMPLATE.
18. LID IN OPEN POSITION
19. SEAL INTERIOR OF CABINET WITH DUCT SEAL
20. SEAL ENDS WITH DUCT SEAL AFTER WIRE INSTALLATION, TYP.
21. #6 PRECAST CONCRETE PULL BOX. LOCATE DIRECTLY ADJACENT TO CONCRETE FOOTING.
22. 6" DEEP CONCRETE COLLAR, TYP. OF (3) EDGES.
23. 3 CU. FT. 3/8" PEA GRAVEL
24. LANDSCAPE FABRIC AND 1/4" GALV. WIRE MESH, TYP.
25. PROVIDE 36" EXPANSION COILS AT ALL WIRE RUNS.
26. PROVIDE CUSTOM DECAL AND CONTROLLER ID ON THE EXTERIOR FRONT FACE OF THE CONTROLLER. REFER TO DETAIL #.

## 1 AUTOMATIC IRRIGATION CONTROLLER (PEDESTAL MOUNT)

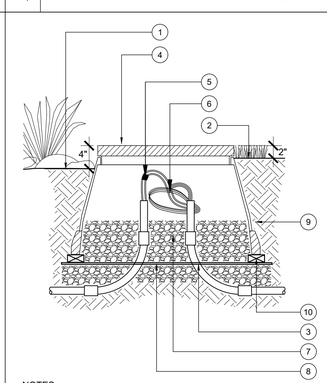
Scale: N.T.S.




1. FLANGED MASTER VALVE: MODEL & SIZE PER LEGEND.
2. ULTRASONIC FLOW SENSOR- SIZE AND MODEL PER LEGEND.
3. PLASTIC RECTANGULAR JUMBO VALVE BOX WITH BOLT DOWN LID. TOP DIMENSION: 24" X 33", OR APPROVED EQ. TOP OF LID SHALL BE PERMANENTLY MARKED "MV" FOR MASTER VALVE AND 'OC' FOR OCTAVE FLOW SENSOR AS REQ'D.
4. 4-#14 WIRES, FROM MASTER CONTROL VALVE AND OCTAVE FLOW METER TO IRRIGATION CONTROLLER. MAKE CONNECTIONS AT APPROPRIATE TERMINALS.
5. LOW VOLTAGE CONTROL WIRES TO CONTROLLER LOCATION.
6. FINISH GRADE.
7. GASKETED PVC PIPE. REFER TO LEGEND. SIZE PER PLAN, LENGTH AS REQUIRED.
8. 4 DUCTILE IRON 45° FITTINGS (4" X 4") FOR USE WITH GASKETED PVC PIPE. SAME SIZE AS INSERTED PIPE.
9. SCH. 40 PVC CONDUIT/COUPLINGS & WIRES TO CONTROLLER, REFER TO CONTROLLER DETAIL.
10. FLANGED CONNECTOR TO PVC GASKETED CONNECTION. SEE LEGEND FOR SIZE.
11. PIPE JOINT RESTRAINTS, TYPICAL AT ALL DUCTILE IRON FITTINGS. REFER TO LEGEND AND SPECIFICATIONS.
12. PVC MAINLINE. REFER TO LEGEND.
13. WATERPROOF ELEC CONNECTOR, PER WIRE SPLICING DETAIL.
14. 6" - 8" OF PEA GRAVEL IN VALVE BOXES.
15. 3/4" SCHEDULE 40 PVC CONDUIT.
16. SET TOP OF BOX ABOVE FINISH GRADE: 1/2" IN SEED, 1-1/2" IN SOD, 2-1/2" IN PLANTER.
17. INSTALL AIR VENT 18" UPSTREAM OF OCTAVE METER..
18. COMMON BRICK UNDER EACH CORNER OF BOX AND PAVER UNDER OCTAVE METER.

## 4 FLANGED MASTER CONTROL VALVE AND OCTAVE FLOW METER (TO MEASURE WELL WATER USE)

Scale: N.T.S.




1. FINISH GRADE AT PLANTER
2. FINISH GRADE AT TURF AREA
3. PVC SCH. 40 ELECTRICAL CONDUIT AND SWEEPS TO DEPTH PER SPECS.
4. RECTANGULAR VALVE BOX W/ BOLT DOWN COVER, AND SS HARDWARE
5. APPROVED WIRE CONNECTOR (IF APPLICABLE)
6. 36" EXPANSION COIL
7. 3 CU. FT. 3/8" PEA GRAVEL
8. LANDSCAPE FABRIC AND 1/4" GALV. WIRE MESH, TYP.
9. NATIVE SOIL COMPACTED TO
10. (4) CONCRETE BRICK SUPPORTS, ONE AT EACH CORNER

NOTES:

1. ALL WIRING MUST CONFORM TO LOCAL CODES.
2. PROVIDE 36" EXPANSION COILS AT EACH WIRE CONNECTION.
3. PROVIDE 3" CLEARANCE BETWEEN WIRES AND LID.
4. NO WIRE SPLICES ARE ALLOWED WITHOUT OWNER'S REPRESENTATIVE APPROVAL.

## 3 PULL BOX

Scale: N.T.S.

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**MOORE IACOFANO GOLTSMAN, INC.**

ELECTRICAL ENGINEER
**LRA ENGINEERS**

CIVIL ENGINEER
**BKF**

STRUCTURAL ENGINEER
**ISE**

# OLIVE BOWL KAKU PARK

LINDSAY, CA
93247

SHEET TITLE

# IRRIGATION DETAILS

| DATE | REVISION |
|---|---|
| 10-18-21 | 50% CD Submittal |
| 12-8-21 | 90% CD Submittal |
| 12-14-22 | 90% CD Submittal |
| 2-13-23 | 100% CD Submittal |
| 10-3-23 | ADDENDUM #1 |
| 10-27-23 | ADDENDUM #3 |
| 6-10-24 | 3 PHASE RE-PACKAGE |

STAMP

LICENSED LANDSCAPE ARCHITECT
STEVEN N. LANG No. 1773
SIGNATURE OF
11-30-24
RENEWAL DATE
6-10-24
DATE
STATE OF CALIFORNIA

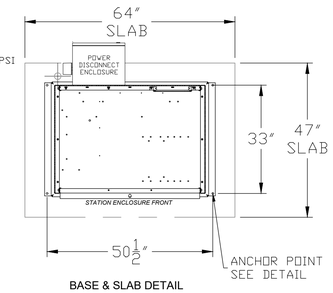
| CHECKED BY | DATE |
|---|---|
| O.J. | 6-10-24 |
| DRAWN BY | JOB NO. |
| H.D. | 05567.02 |

SHEET
L3.7

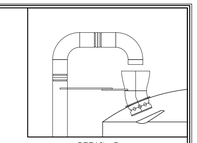
PUMP STATION SPECIFICATIONS:
NAME: ***LINDSAY OLIVE BOWL***
**STATION MODEL:** SHFV-1-5K-20-480-3-200-85
STATION TOTAL PERFORMANCE: 200 GPM @ 85 PSI
***REGULATE PRESSURE: 85 PSI***
***DYNAMIC INLET PRESSURE: 0 PSI (FLOODED)***
***24V PUMP START RELAY CONFIGURATION***
**PUMP HORSEPOWER:**
PUMP NO.1 20HP (3600RPM)
CHECK VALVE SIZES:
PUMP NO.1 3"
ISOLATION VALVE SIZES:
DISCHARGE ISOLATION VALVE SIZE: 3"
DISCHARGE MANIFOLD SIZE: 3"

POWER REQ: 480 V, 60 HZ, 3 PHZ, 36 FLA

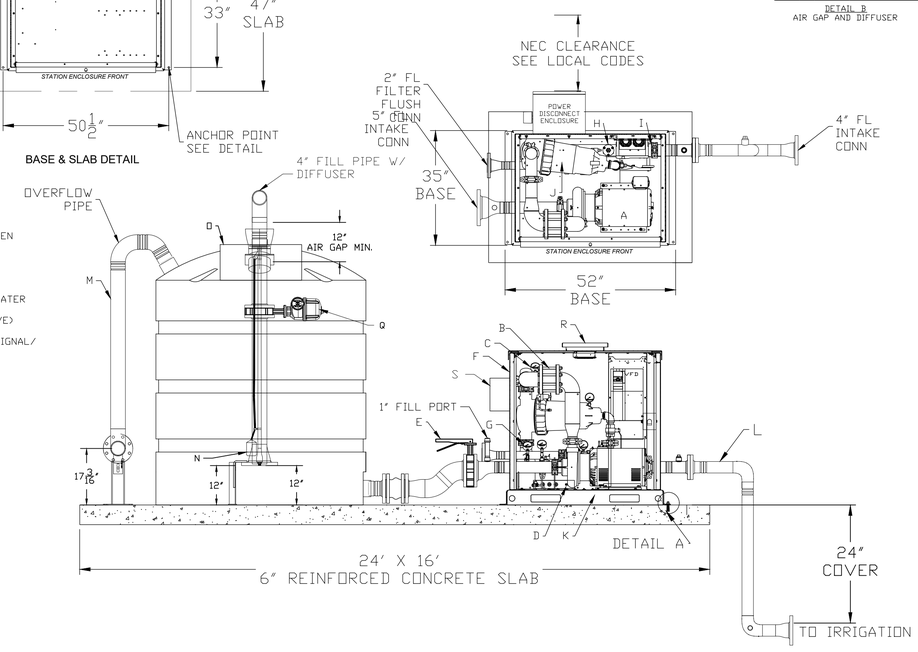
STATION COMPONENTS:
A 20HP PUMP AND MOTOR
B CHECK VALVE
C PRESSURE TRANSDUCER WITH GAUGE
D TEMP SENSOR
E INLET ISOLATION VALVE
F MARINE GRADE ALUMINUM ENCLOSURE (UNPAINTED)
G SUCTION GAUGE
H FLOW SENSOR
I PUMP DISCHARGE ISOLATION VALVE
J V-200PA AUTOMATIC FILTER W/ 200 MICRON SCREEN
K STAINLESS STEEL BASE (UNPAINTED)
L 3" FL X 4" FL DISCHARGE DROP PIPE
M OVER FLOW PIPE 4" FLANGE
N LEVEL SENSOR W/ FLOAT SWITCH
O 5000 GALLON POLY TANK
P 4" TANK FILL PIPE W/ 6" FLG CONNECTION TO WATER SOURCE
Q ELECTRONIC BUTTERFLY VALVE (TANK FILL VALVE)
R STATION FAN (HOOD MOUNTED)
S J-BOX FOR 24V PUMP START RELAY / 24V MV SIGNAL/ OPTOCOUPLER



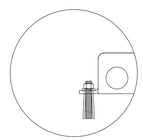

BASE & SLAB DETAIL



DETAIL B
AIR GAP AND DIFFUSER




PIPE SUPPORTS FOR FILL AND OVERFLOW PLUMBING SUPPLIED BY WATERTRONICS



DETAIL A
CONCRETE ANCHOR BOLTS (x4) LOCATIONS

CONCEPT DRAWING ONLY
DRAWING NOT TO SCALE

☐ APPROVED AS SUBMITTED
☐ APPROVED AS NOTED
☐ REVISE AND RESUBMIT
SIGNATURE: _____
NAME: _____
DATE: _____

| NO. | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 7 | | | |
| 6 | | | |
| 5 | | | |
| 4 | | | |
| 3 | | | |
| 2 | | | |
| 1 | | | |

DRAWN BY: IPB DATE: 11/14/2022
CHECKED BY: DATE:

THIS DRAWING AND DESIGN, IS THE PROPERTY OF WATERTRONICS AND IS NOT TO BE REPRODUCED IN WHOLE OR PART, NOR EMPLOYED FOR ANY PURPOSE OTHER THAN SPECIFICALLY PERMITTED IN WRITING BY WATERTRONICS.THIS DRAWING LOANED AND SUBJECT TO RETURN ON DEMAND.

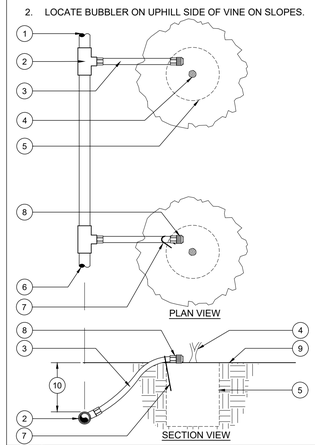
TITLE: LINDSAY OLIVE BOWL
SHFV-1-5K-20-480-3-200-85

**WATERTRONICS**

SCALE: NTS | SHEET 1 OF 1 SHEETS
JOB NO.: . | DRAWING NO. PRSH11489

1 BOOSTER PUMP, SELF FLUSHING FILTER AND STORAGE TANK DETAIL — Scale: N.T.S.

NOTES:
1. LOCATE BUBBLER ON TOP OF VINE ROOT BALL.
2. LOCATE BUBBLER ON UPHILL SIDE OF VINE ON SLOPES.




1. PVC LATERAL LINE PIPE FROM REMOTE CONTROL VALVE.
2. SCHEDULE 40 PVC TEE OR ELL WITH 1/2" FPT CONNECTION.
3. HUNTER FLEXIBLE PVC HOSE RISER WITH 1/2" MPT THREADS, BOTH ENDS. MODEL NUMBER PER LEGEND.
4. TRUNK OF VINE.
5. ROOT BALL OF VINE.
6. PVC LATERAL LINE PIPE TO ADDITIONAL VINE BUBBLERS AS INDICATED ON PLAN.
7. STAKE RISER TO ROOT BALL WITH GALVANIZED STAKE TO HOLD IN PLACE.
8. BUBBLER- ONE PER VINE. MODEL NUMBER PER LEGEND.
9. FINISH GRADE.
10. 12" MINIMUM DEPTH OR AS STATED IN SPECIFICATIONS.

2 VINE BUBBLER — Scale: N.T.S.

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ELECTRICAL ENGINEER
**LRA ENGINEERS**
CIVIL ENGINEER
**BKF**
STRUCTURAL ENGINEER
**ISE**

# OLIVE BOWL KAKU PARK

LINDSAY, CA
93247

SHEET TITLE
## IRRIGATION DETAILS

| DATE | REVISION |
|---|---|
| 10-18-21 | 50% CD Submittal |
| 12-8-21 | 90% CD Submittal |
| 12-14-22 | 90% CD Submittal |
| 2-13-23 | 100% CD Submittal |
| 10-3-23 | ADDENDUM #1 |
| 10-27-23 | ADDENDUM #3 |
| 6-10-24 | 3 PHASE RE-PACKAGE |

STAMP
LICENSED LANDSCAPE ARCHITECT
STEVEN N. LANG No. 1173
SIGNATURE
11-30-24
RENEWAL DATE
6-10-24
DATE
STATE OF CALIFORNIA

| CHECKED BY | DATE |
|---|---|
| O.J. | 6-10-24 |
| DRAWN BY | JOB NO. |
| H.D. | 05567.02 |

SHEET
L3.8
SHEET 45 OF 79 SHEETS

## HYDROZONE CHART/ ZONE TOTALS

| | | | |
|---|---|---|---|
| NAME OF CITY: | Porterville | POC 1 CONTROLLER: | A |
| PROJECT NAME: | Olive Bowl Park | WATER METER SIZE: | 3" |
| WATER TYPE: | Well | REQUIRED WATER PRESSURE: | 60 PSI @ rotor |
| LOCATION: | W. Apia Street | MAXIMUM PEAK DEMAND: | 200 GPM |

### HYDROZONE CHART

| Valve Station Number | Hydrozone | Irrigation Method | Total Valve Circuit Area (SQ. FT.) | % of Total Landscape |
|---|---|---|---|---|
| A1 | ZONE 2 - SLA | ROTOR | 5,336 | 3.10% |
| A2 | ZONE 1 | MULTI-STREAM ROTATOR | 3,580 | 2.08% |
| A3 | ZONE 1 | MULTI-STREAM ROTATOR | 3,130 | 1.82% |
| A4 | ZONE 5 | ROOT WATERING TUBE | 304 | 0.18% |
| A5 | ZONE 1 | MULTI-STREAM ROTATOR | 2,359 | 1.37% |
| A6 | ZONE 6 | SPRAY | 424 | 0.25% |
| A7 | ZONE 2 - SLA | ROTOR | 5,579 | 3.24% |
| A8 | ZONE 2 - SLA | ROTOR | 10,730 | 6.23% |
| A9 | ZONE 5 | ROOT WATERING TUBE | 48 | 0.03% |
| A10 | ZONE 1 | MULTI-STREAM ROTATOR | 2,141 | 1.24% |
| A11 | ZONE 2 - SLA | ROTOR | 5,770 | 3.35% |
| A12 | ZONE 6 | SPRAY | 525 | 0.30% |
| A13 | ZONE 2 - SLA | ROTOR | 5,880 | 3.41% |
| A14 | ZONE 5 | ROOT WATERING TUBE | 192 | 0.11% |
| A15 | ZONE 1 | MULTI-STREAM ROTATOR | 1,589 | 0.92% |
| A16 | ZONE 2 - SLA | ROTOR | 5,570 | 3.23% |
| A17 | ZONE 2 - SLA | ROTOR | 10,730 | 6.23% |
| A18 | ZONE 1 | MULTI-STREAM ROTATOR | 2,317 | 1.34% |
| A19 | ZONE 1 | MULTI-STREAM ROTATOR | 1,820 | 1.06% |
| A20 | ZONE 2 - SLA | ROTOR | 5,247 | 3.04% |
| A21 | ZONE 1 | MULTI-STREAM ROTATOR | 209 | 0.12% |
| A22 | ZONE 5 | ROOT WATERING TUBE | 16 | 0.01% |
| A23 | ZONE 6 | SPRAY | 713 | 0.41% |
| A24 | ZONE 2 - SLA | ROTOR | 5,139 | 2.98% |
| A25 | ZONE 5 | ROOT WATERING TUBE | 64 | 0.04% |
| A26 | ZONE 4 | SPRAY | 307 | 0.18% |
| A27 | ZONE 1 | MULTI-STREAM ROTATOR | 3,344 | 1.94% |
| A28 | ZONE 1 | MULTI-STREAM ROTATOR | 2,339 | 1.36% |
| A29 | ZONE 5 | ROOT WATERING TUBE | 224 | 0.13% |
| A30 | ZONE 1 | MULTI-STREAM ROTATOR | 2,354 | 1.37% |
| A31 | ZONE 2 - SLA | ROTOR | 6,547 | 3.80% |
| A32 | ZONE 2 - SLA | ROTOR | 8,971 | 5.21% |
| A33 | ZONE 2 - SLA | ROTOR | 8,076 | 4.69% |
| A34 | ZONE 1 | MULTI-STREAM ROTATOR | 1,740 | 1.01% |
| A35 | ZONE 5 | ROOT WATERING TUBE | 192 | 0.11% |
| A36 | ZONE 2 - SLA | ROTOR | 6,246 | 3.62% |
| A37 | ZONE 2 - SLA | ROTOR | 4,995 | 2.90% |
| A38 | ZONE 2 - SLA | ROTOR | 8,892 | 5.16% |
| A39 | ZONE 2 - SLA | ROTOR | 6,431 | 3.73% |
| A40 | ZONE 5 | ROOT WATERING TUBE | 80 | 0.05% |
| A41 | ZONE 1 | MULTI-STREAM ROTATOR | 1,631 | 0.95% |
| A42 | ZONE 1 | MULTI-STREAM ROTATOR | 2,465 | 1.43% |
| A43 | ZONE 5 | ROOT WATERING TUBE | 192 | 0.11% |
| A44 | ZONE 1 | MULTI-STREAM ROTATOR | 1,449 | 0.84% |
| A45 | ZONE 5 | ROOT WATERING TUBE | 32 | 0.02% |
| A46 | ZONE 5 | ROOT WATERING TUBE | 48 | 0.03% |
| A47 | ZONE 3 | BUBBLER | 110 | 0.06% |
| A48 | ZONE 4 | SPRAY | 1,020 | 0.59% |
| A49 | ZONE 5 | ROOT WATERING TUBE | 16 | 0.01% |
| A50 | ZONE 1 | MULTI-STREAM ROTATOR | 3,007 | 1.74% |
| A51 | ZONE 1 | MULTI-STREAM ROTATOR | 2,433 | 1.41% |
| A52 | ZONE 5 | ROOT WATERING TUBE | 192 | 0.11% |
| A53 | ZONE 1 | MULTI-STREAM ROTATOR | 2,976 | 1.73% |
| A54 | ZONE 1 | MULTI-STREAM ROTATOR | 1,878 | 1.09% |
| A55 | ZONE 3 | BUBBLER | 924 | 0.54% |
| A56 | ZONE 1 | MULTI-STREAM ROTATOR | 2,476 | 1.44% |
| A57 | ZONE 1 | MULTI-STREAM ROTATOR | 4,924 | 2.86% |
| A58 | ZONE 1 | MULTI-STREAM ROTATOR | 2,867 | 1.66% |
| A59 | ZONE 1 | MULTI-STREAM ROTATOR | 3,393 | 1.97% |
| A60 | ZONE 5 | ROOT WATERING TUBE | 160 | 0.09% |
| | | **TOTAL:** | **172,343** | **100.0%** |

### ZONE TOTALS

| Hydrozone | Hydrozone Description | Plant Factor | Total Square Feet | % of Landscape |
|---|---|---|---|---|
| ZONE 1 | HIGH WATER USE STREAM ROTOR | 0.7 | 56,421 | 32.74% |
| ZONE 2 SLA | HIGH WATER USE ROTOR | 0.7 | 110,139 | 63.91% |
| ZONE 3 | LOW WATER USE BUBBLER | 0.3 | 1,034 | 0.60% |
| ZONE 4 | LOW WATER USE SPRAY | 0.3 | 1,327 | 0.77% |
| ZONE 5 | LOW WATER USE ROOT WATERING TUBE | 0.3 | 1,760 | 1.02% |
| ZONE 6 | HIGH WATER USE SPRAY | 0.7 | 1,662 | 0.96% |
| | | **TOTAL:** | **172,343** | **100.0%** |

## WATER ALLOWANCES/ WATER USE COMPARISON

| POC | CONTROLLER | | | | |
|---|---|---|---|---|---|
| P1 | A | NAME OF CITY: | Porterville | | |
| | | PROJECT NAME: | Olive Bowl Park | WATER METER SIZE: | 3" |
| | | WATER TYPE: | Well | REQUIRED WATER PRESSURE: | 60 PSI @ rotor |
| | | WATER METER LOCATION: | W. Apia Street | MAXIMUM PEAK DEMAND: | 200 GPM |

### MAXIMUM APPLIED WATER ALLOWANCE (MAWA)

FORMULA:

MAWA = (Eto)(0.62)[(0.45 x LA) + (0.55 x SLA) = GALLONS PER YEAR

*NOTE: TOTAL AREA OF SPORTS FIELD TURF HAS BEEN CALCULATATED AS A SPECIAL LANDSCAPE AREA AS IT QUALIFIES UNDER FIELD PLAY AREAS WITHIN THE PARK.*

| | |
|---|---|
| 52.10 | = REFERENCE EVAPOTRANSPIRATION IN INCHES PER YEAR (SOURCE: CIMIS) |
| 0.62 | = CONVERSION FACTOR TO GALLONS PER SQUARE FEET |
| 0.45 | = EVAPOTRANSPIRATION ADJUSTMENT FACTOR AND IRRIGATION EFFICIENCY (ETAF) |
| LA | = LANDSCAPE AREA INCLUDING SLA (SQ. FT.) |
| 0.55 | = ADDITIONAL Eto ADJUSTMENT FACTOR FOR SPECIAL LANDSCAPE AREAS |
| SLA | = SPECIAL LANDSCAPE AREA (SQ. FT.) |

SUMMARY OF LANSCAPE AREA BY IRRIGATION METHOD OR SLA

| | |
|---|---|
| 59,410 | Overhead Irrigation Landscape Area ($ft^2$) |
| 2,794 | Drip/Bubbler Irrigation Landscape Area ($ft^2$) |
| 110,139 | SLA ($ft^2$) |
| Total Landscape Area: 172,343 | |

RESULTS

MAWA = ($Eto_o$) x (0.62) x [(0.45 x LA) + ((1.0 - 0.55) x SLA))] **5,464,282 Gallons**

*730,468.28 Cubic Feet*
*7,304.70 HCF*
*16.77 Acre-feet*
*5.46 Millions of Gallons*

### ESTIMATED TOTAL WATER USE (ETWU)

FORMULA:

ETWU = (Eto) x (0.62) x [(ETAF x Landscape Area)]

| | |
|---|---|
| 52.10 | = REFERENCE EVAPOTRANSPIRATION IN INCHES PER YEAR (SOURCE: CIMIS) |
| 0.62 | = CONVERSION FACTOR TO GALLONS PER SQUARE FEET |
| VARIES | = PF (WUCOLS IV) |
| | 0.3 LOW WATER-USE PLANTS |
| | 0.5 MEDIUM WATER-USE PLANTS |
| | 0.7 HIGH WATER-USE PLANTS |
| VARIES | = IE (IRRIGATION EFFICIENCY) |
| | 0.75 STREAM ROTOR/ SPRAY |
| | 0.81 DRIP/BUBBLER |
| VARIES | = ETAF (ET ADJUSTMENT FOR PLANT FACTORS AND IRRIGATION EFFICIENCY) |
| | SLA ETAF = 1.0 |
| VARIES | = LANDSCAPE AREA FOR SPECIFIC HYDROZONE |

DETAILED SUMMARY BY HYDROZONE TYPE

REFERENCE EVAPOTRANSPIRATION (Eto): 52.10

| Hydrozone Number/ Type | Plant Factor (PF) | Irrigation Method | Irrigation Efficiency (IE) | ETAF (PF/IE) | Lanscape Area ($sf^2$) | ETAF x Area | ETWU |
|---|---|---|---|---|---|---|---|
| Regular Landscape Area | | | | | | | |
| ZONE 1 Passive Turf (High Water-Use) | 0.7 | MULTI STREAM ROTOR | 0.75 | 0.92 | 56,421 | 51,907 | 1,676,710 |
| ZONE 3 Vines (Low Water-Use) | 0.3 | BUBBLER | 0.81 | 0.36 | 1,034 | 370 | 11,958 |
| ZONE 4 Shrubs/GC (Low Water-Use) | 0.3 | SPRAY | 0.75 | 0.39 | 1,327 | 513 | 16,574 |
| ZONE 5 Trees (Low Water-Use) | 0.3 | RWS | 0.81 | 0.36 | 1,760 | 630 | 20,354 |
| ZONE 6 Passive Turf (High Water-Use) | 0.7 | SPRAY | 0.75 | 0.92 | 1,662 | 1,529 | 49,391 |
| | | | | **LANDSCAPE Totals:** | **60,542** | **53,421** | **1,725,597** |

| Special Landscape Areas | | | | | |
|---|---|---|---|---|---|
| ZONE 2 SLA | | 1 | 110,139 | 110,139 | 3,557,710 |
| SPORTS FIELD TURF AREAS | ROTOR | | As Noted Above | | |
| | | **SLA Totals:** | **110,139** | **110,139** | **3,557,710** |

RESULTS

ETWU = (Eto) x (0.62) x [(ETAF x Landscape Area)] **5,283,307 Gallons**

*706,275.41 Cubic Feet*
*7,062.77 HCF*
*16.21 Acre-feet*
*5.28 Millions of Gallons*

**5,464,282 MAWA**
*180,975 Surplus*

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PARK

LINDSAY, CA
93247

SHEET TITLE

MWELO
CALCULATIONS
AND CHARTS

| DATE | REVISION |
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| 10-27-23 | ADDENDUM #3 |
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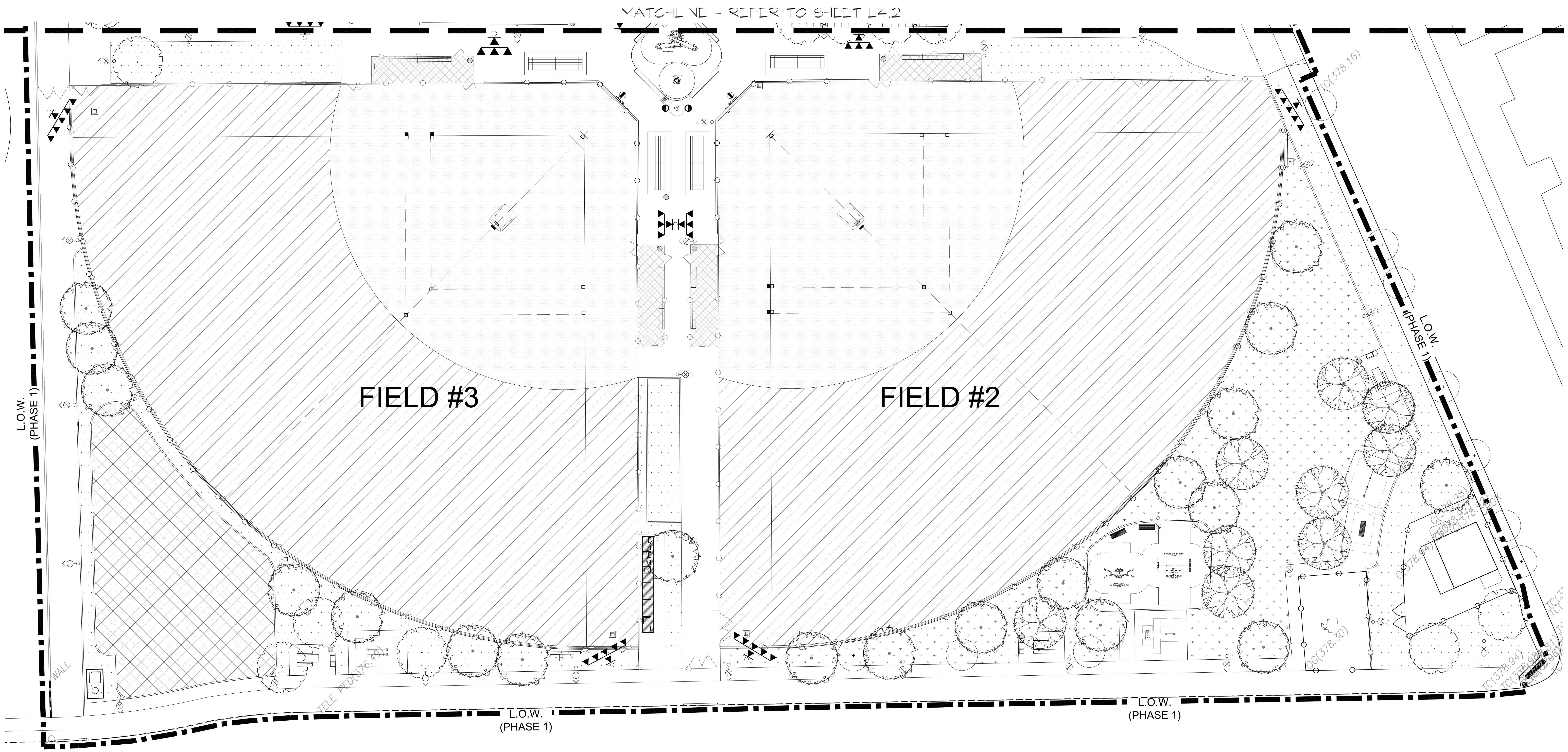
STAMP

LICENSED LANDSCAPE ARCHITECT
STEVEN N. LANG No. 3711
SIGNATURE
11-30-24
RENEWAL DATE
6-10-24
DATE
STATE OF CALIFORNIA

| CHECKED BY | DATE |
|---|---|
| O.J. | 6-10-24 |
| DRAWN BY | JOB NO. |
| H.D. | 05567.02 |

SHEET
L3.9

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3. IRRIGATION SYSTEM SHALL BE INSTALLED PRIOR TO PLANT MATERIALS.
4. TREES AND SHRUBS SHALL BE PLANTED AFTER CONCRETE PLACEMENT, BUT NOT BEFORE IRRIGATION COVERAGE TEST HAS BEEN APPROVED. (SEE SPECIFICATIONS).
5. PLACE TREES BETWEEN IRRIGATION HEADS WHEREVER POSSIBLE.
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## *PLANT MATERIAL LEGEND

TREES

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|---|---|---|---|---|
| | PLATANUS MEXICANA | MEXICAN SYCAMORE | 24" BOX | PER PLAN |
| | ULMUS AMERICANA | AMERICAN ELM | 24" BOX | PER PLAN |
| | QUERCUS ILEX | HOLLY OAK | 24" BOX | PER PLAN |

SHRUBS

| SYMBOL | BOTANICAL NAME | COMMON NAME | SIZE | SPACING |
|---|---|---|---|---|
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| | FICUS PUMILA | CLIMBING FIG | 1 GAL. | PER PLAN |
| | GENERAL TURF HYDROSEED | - | (TBD) CELEBRATION BERMUDA GRASS AVAILABLE FROM A-G SOD. PH:888-800-8483. | |
| | BASIN TURF HYDROSEED | | | |
| | BALLFIELD TURF - SOD | HYBRID BERMUDA - SOD | REFER TO SPECIFICATIONS | |
| | STABILIZED DECOMPOSED GRANITE | - | - | - |

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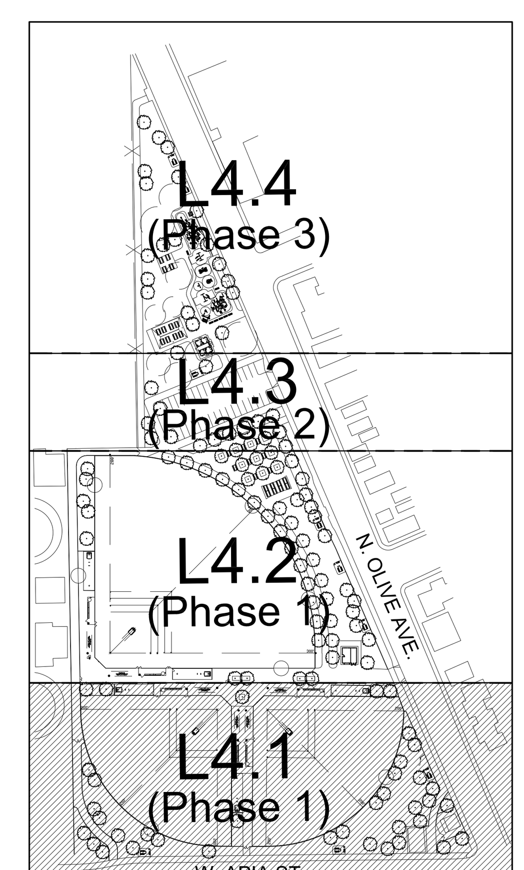

KEYMAP

0 10' 20' 40'

NORTH

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STRUCTURAL ENGINEER
**ISE**

OLIVE BOWL KAKU PARK

LINDSAY, CA 93247

SHEET TITLE

PLANTING PLAN

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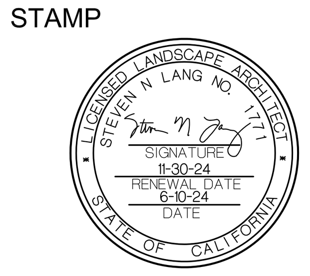
STAMP



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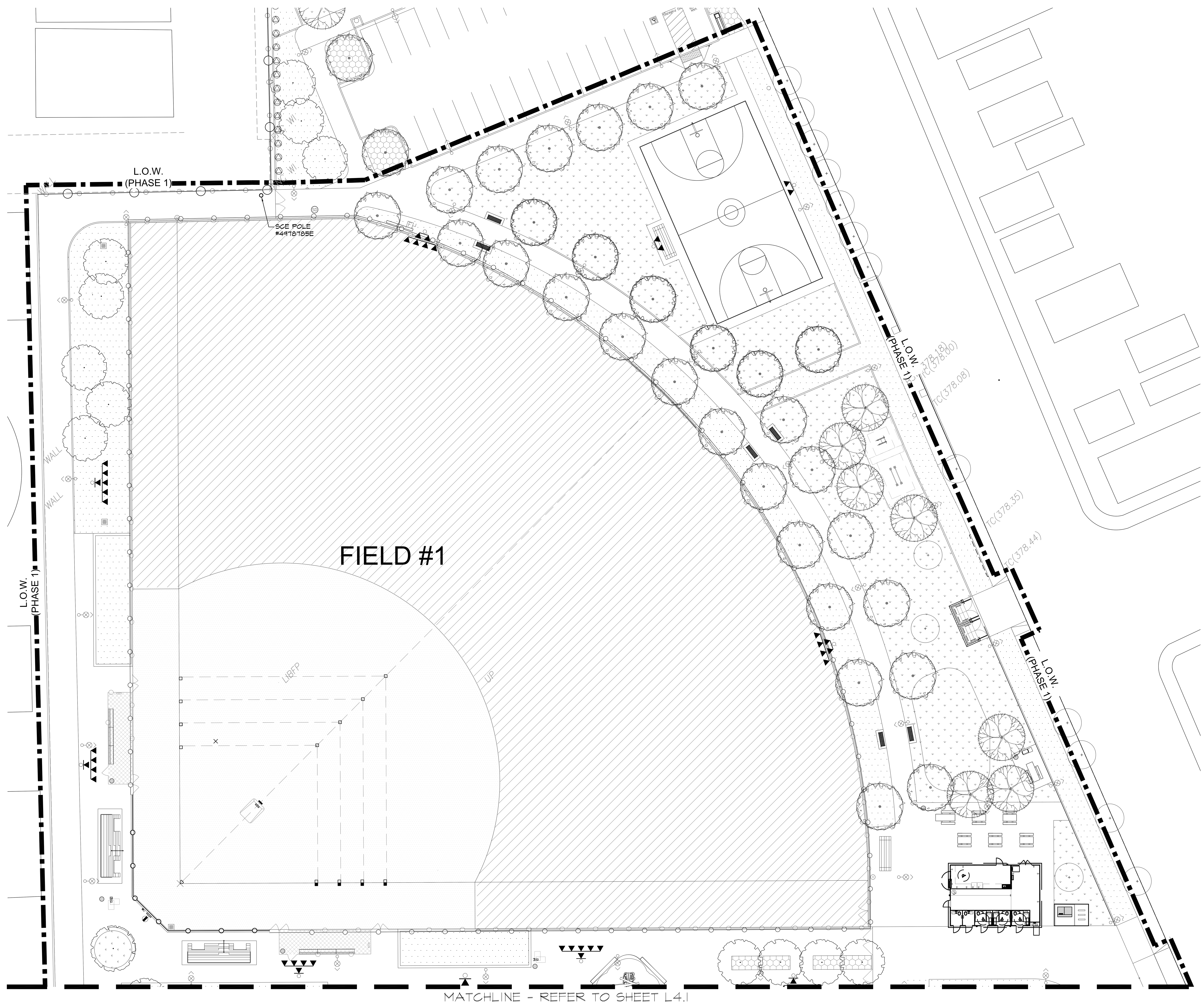
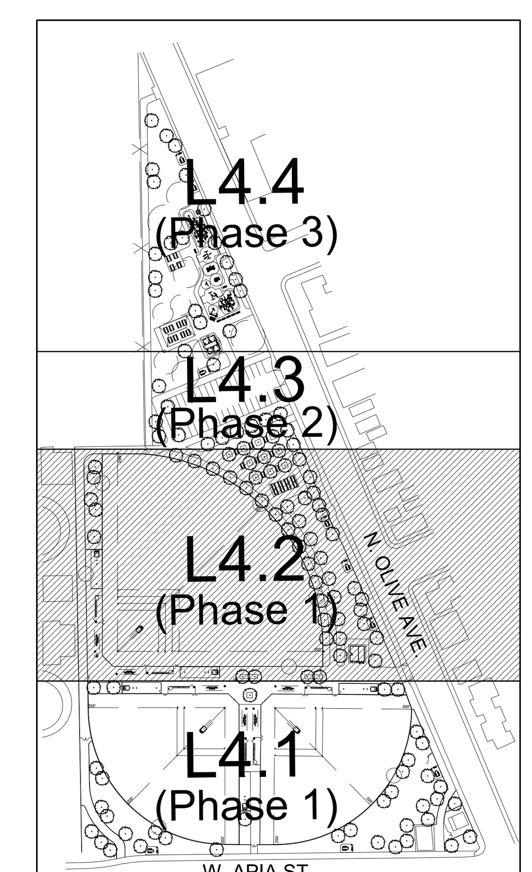
| DRAWN BY | JOB NO. |
| H.D. | 05567.02 |

SHEET

L4.1




REFER TO SHEET L4.1 FOR PLANTING LEGEND AND NOTES.

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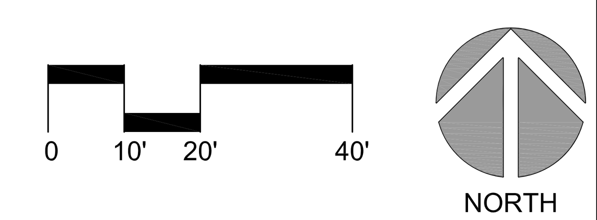


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SHEET TITLE

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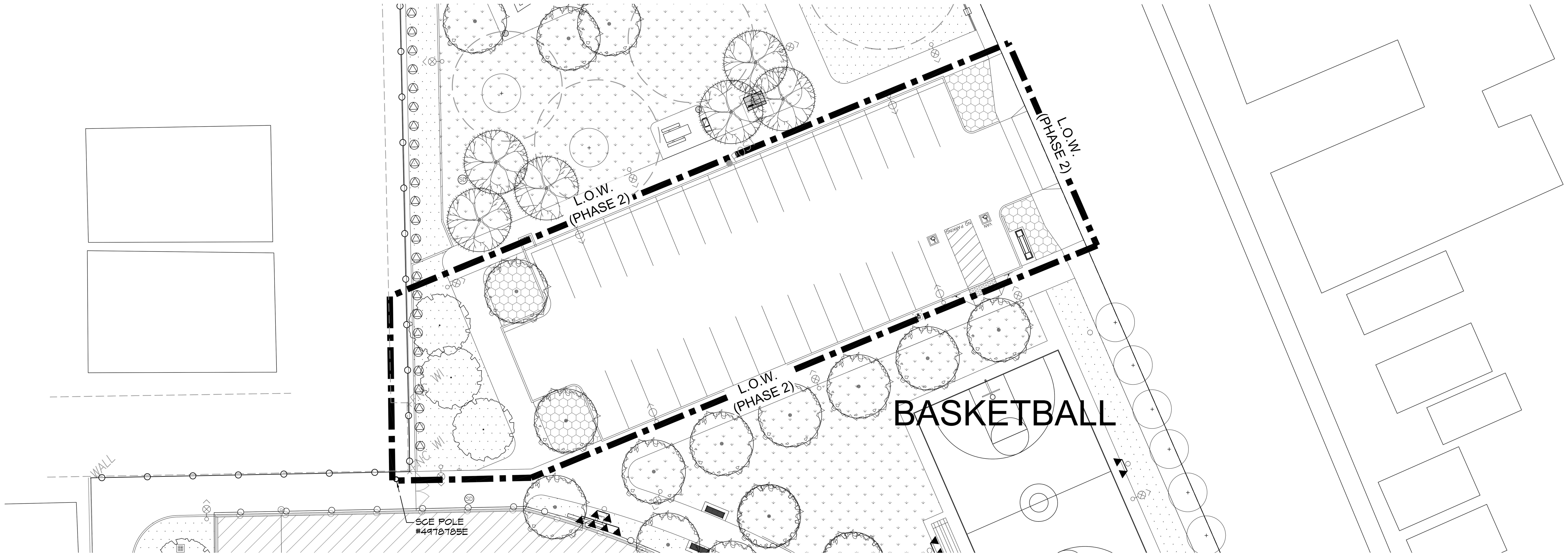
SHEET

L4.2

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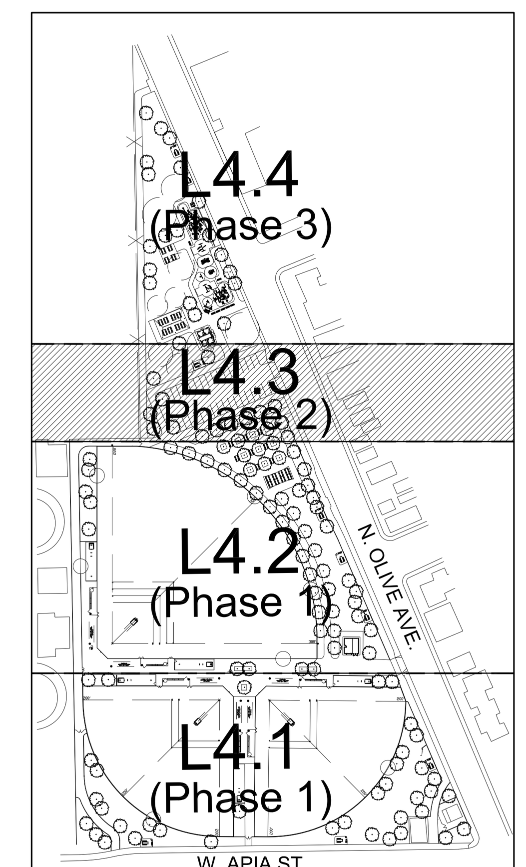


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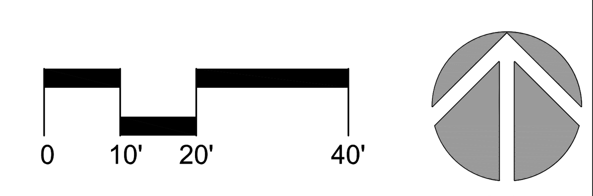


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# OLIVE BOWL KAKU PARK

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93247

SHEET TITLE

## PLANTING PLAN

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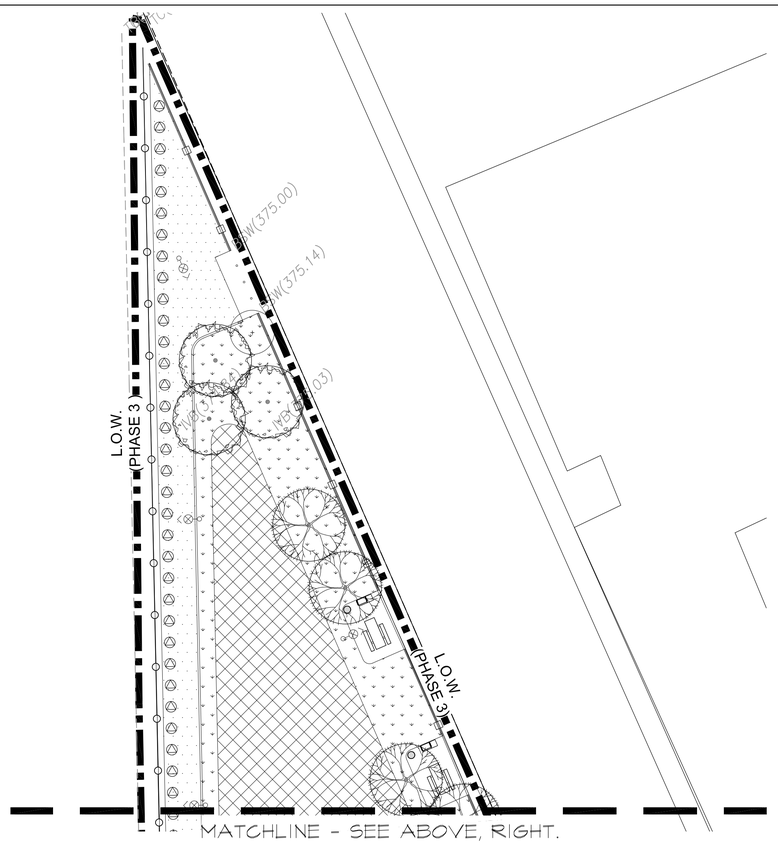
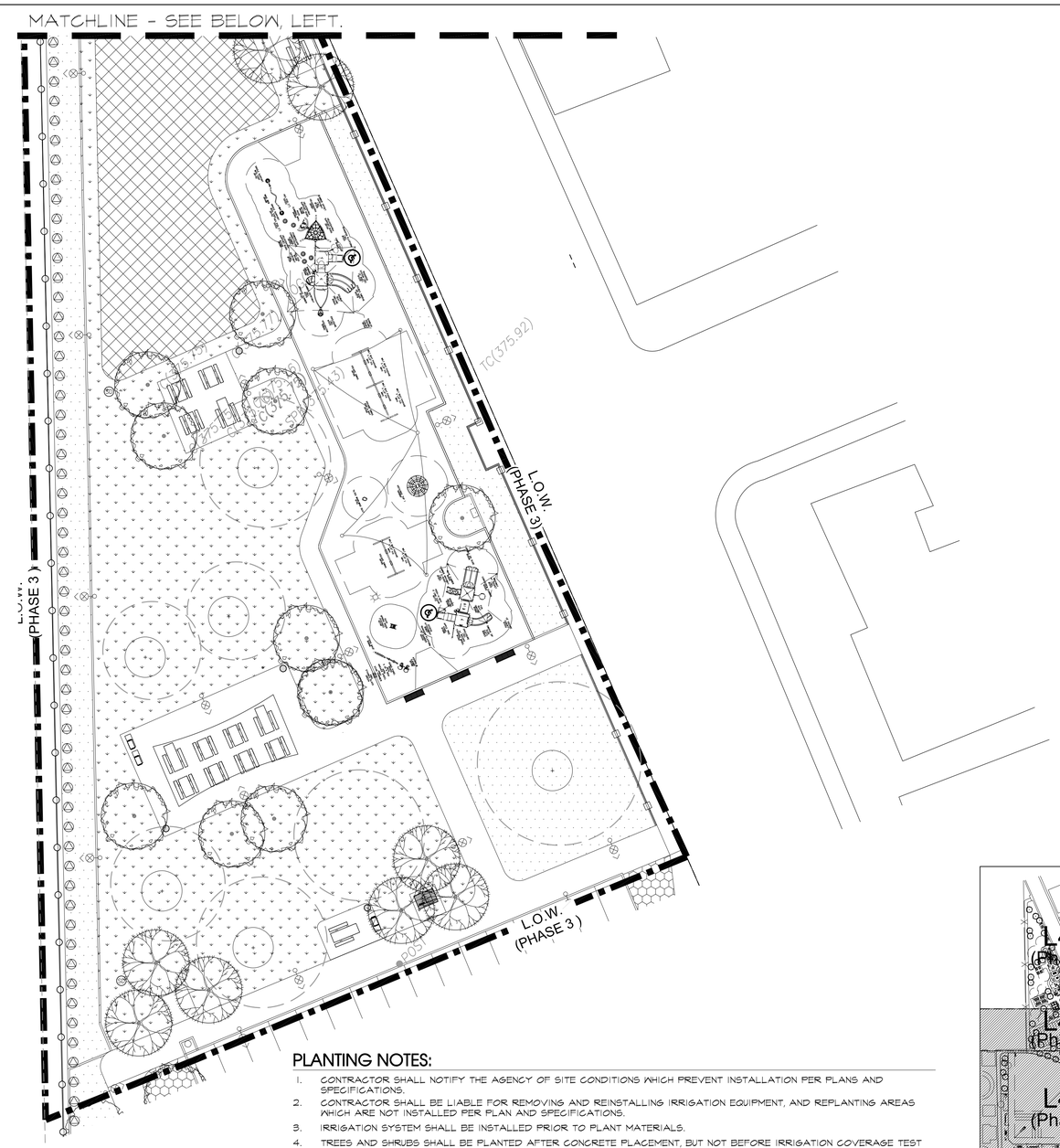
SHEET
**L4.3**

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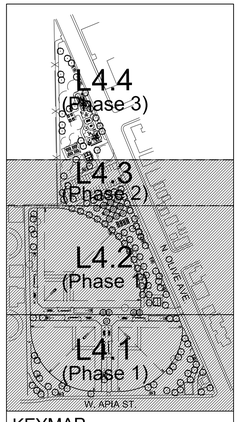


KEYMAP

0 10' 20' 40'

NORTH

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SHEET TITLE

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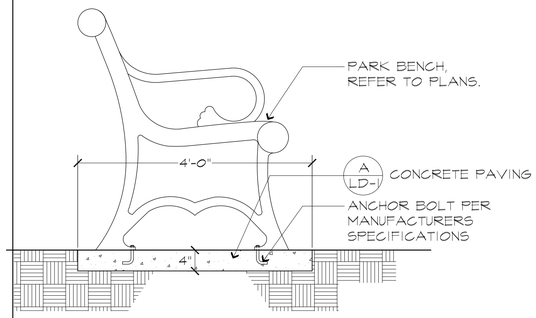
| 12-14-22 | 90% CD Submittal |
| 2-13-23 | 100% CD Submittal |
| 10-3-23 | ADDENDUM #1 |
| 10-27-23 | ADDENDUM #3 |
| 6-10-24 | 3 PHASE RE-PACKAGE |

STAMP

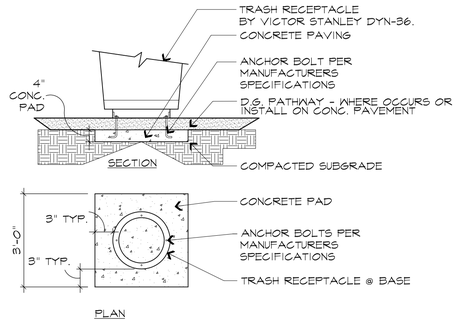
LANDSCAPE ARCHITECT
STEVEN N. LANG
SIGNATURE OF
6-10-24
RENEWAL DATE
6-10-24
DATE
STATE OF CALIFORNIA

| CHECKED BY | DATE |
|---|---|
| O.J. | 6-10-24 |
| DRAWN BY | JOB NO. |
| H.D. | 05567.02 |

SHEET
L4.4

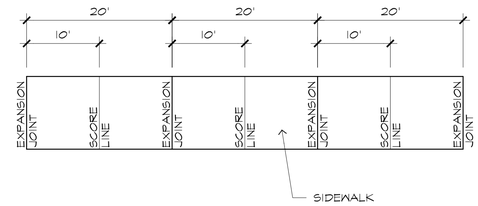



## J PARK BENCH — NO SCALE



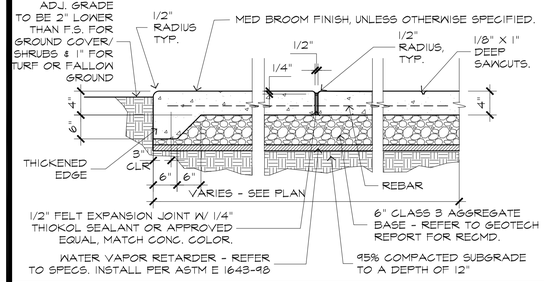

## G TRASH RECEPTACLE PAD — NO SCALE

NOTE:
EXPANSION/TRANSVERSE JOINT SHALL BE SPACED EVERY 20' O.C. SCORE LINES SHALL BE SPACED EVERY 10' O.C. UNLESS SHOWN OTHERWISE. A 2% CROSS SLOPE MAXIMUM SHALL OCCUR ON ALL PAVING. SAWCUT JOINTS TO BE 1/8" WIDE X 1" DEEP SAWCUTS. JOINTS TO OCCUR AT ALL CONCRETE RE-ENTRANT CORNERS.

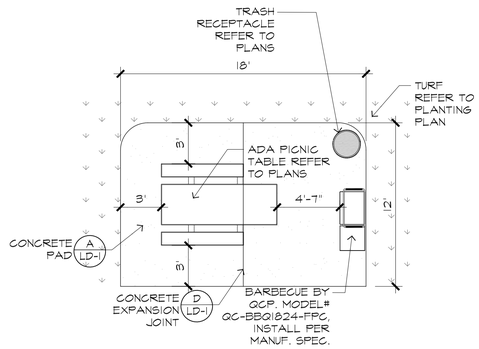



## D SCORE LINE / EXPANSION JOINT LAYOUT — NO SCALE

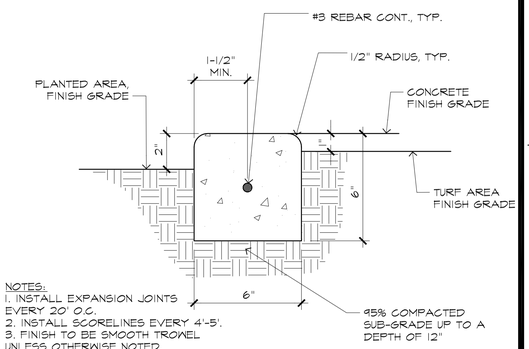
*NOTE:
EXPANSION/TRANSVERSE JOINT SHALL BE SPACED EVERY 16' O.C. SCORE LINES SHALL BE SPACED EVERY 8' O.C. UNLESS SHOWN OTHERWISE. A 2% CROSS SLOPE MAXIMUM SHALL OCCUR ON ALL PAVING. JOINTS TO OCCUR AT ALL CONCRETE RE-ENTRANT CORNERS. APPLY THICKENED EDGE AS REQUIRED PER PLAN. CONCRETE SHALL BE CLASS "A". REFER TO CITY STANDARD ST-9.




## A 4" CONCRETE PAVING — NO SCALE



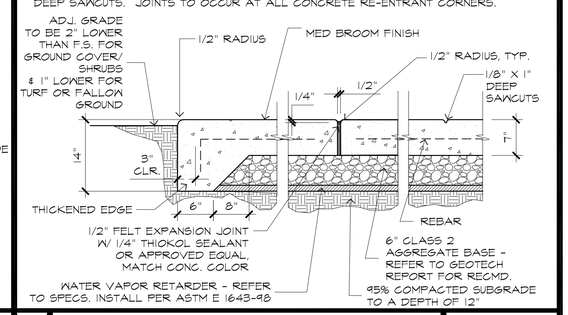

## H PICNIC PAD LAYOUT — NO SCALE



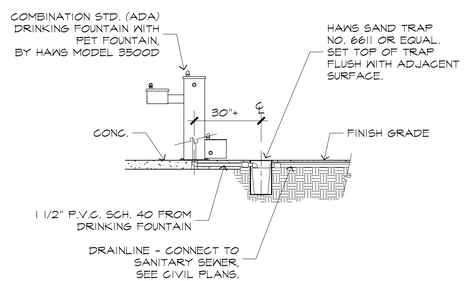

NOTES:
1. INSTALL EXPANSION JOINTS EVERY 20' O.C.
2. INSTALL SCORELINES EVERY 4'-5'.
3. FINISH TO BE SMOOTH TROWEL UNLESS OTHERWISE NOTED.

## E 6" CONC. MOWBAND — NO SCALE

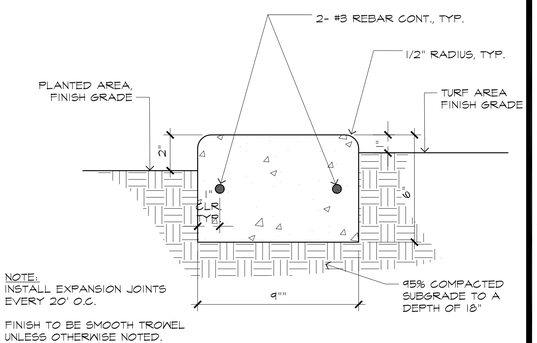
NOTE:
EXPANSION/TRANSVERSE JOINT SHALL BE SPACED EVERY 16' O.C. SCORE LINES SHALL BE SPACED EVERY 8' O.C. UNLESS SHOWN OTHERWISE. A 2% CROSS SLOPE MAXIMUM SHALL OCCUR ON ALL PAVING. SAWCUT JOINTS TO BE 1/8" WIDE X 1" DEEP SAWCUTS. JOINTS TO OCCUR AT ALL CONCRETE RE-ENTRANT CORNERS.




## B 7" CONCRETE PAVING — NO SCALE



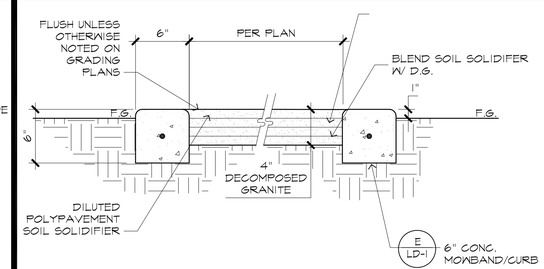

## I DRINKING FOUNTAIN — NO SCALE




NOTE:
INSTALL EXPANSION JOINTS EVERY 20' O.C.

FINISH TO BE SMOOTH TROWEL UNLESS OTHERWISE NOTED.

## F 9" CONC. MOWBAND — NO SCALE




MFG: GAIL MATERIALS
3/8" CALIFORNIA GOLD OR APPROVED EQUAL
TEL: (951) 667-6106
REFER TO SPECS

NOTES:
1. D.G. SHALL HAVE MAX 2% CROSS SLOPE TO DRAIN.
2. D.G. STABILIZER NOT REQUIRED FOR PLANTING AREAS AS INDICATED ON PLANS.

## C STABILIZED DECOMPOSED GRANITE — NO SCALE

## K NOT USED — NO SCALE


MIG
109 W. UNION AVE.
FULLERTON, CA 92832
TEL 714/871-3638
www.migcom.com


CONSULTANT:

PROJECT TEAM:

LANDSCAPE ARCHITECT
**MOORE IACOFANO GOLTSMAN, INC.**

ELECTRICAL ENGINEER
**LRA ENGINEERS**

CIVIL ENGINEER
**BKF**

STRUCTURAL ENGINEER
**ISE**

OLIVE BOWL
KAKU
PARK

LINDSAY, CA
93247

SHEET TITLE

CONSTRUCTION DETAILS

| DATE | REVISION |
|---|---|
| 10-18-21 | 50% CD Submittal |
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| 10-3-23 | ADDENDUM #1 |
| 10-27-23 | ADDENDUM #3 |
| 6-10-24 | 3 PHASE RE-PACKAGE |

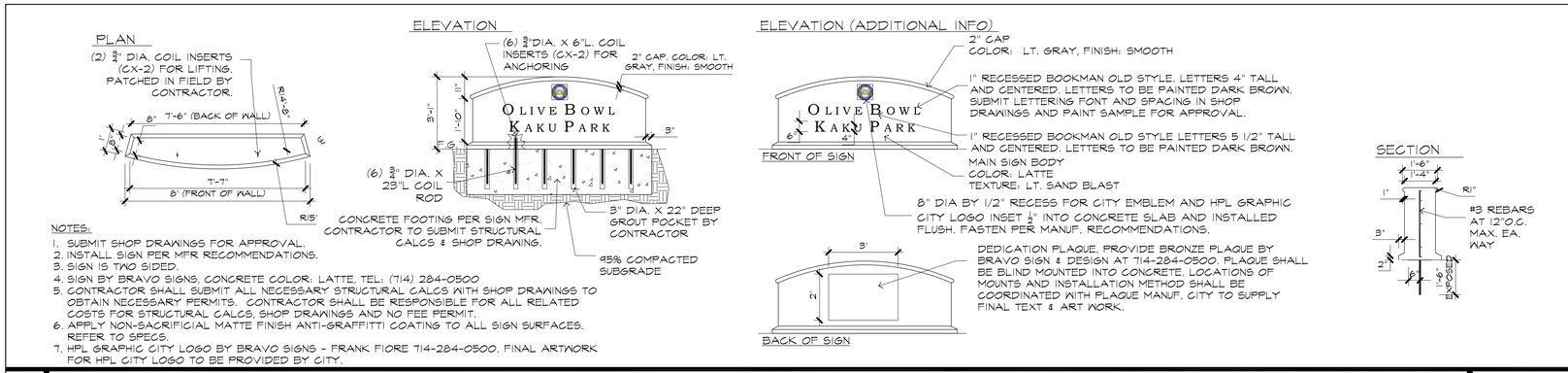
STAMP

LICENSED LANDSCAPE ARCHITECT
STEVEN W. LANG NO. 1771
SIGNATURE
6-10-24
RENEWAL DATE
6-10-24
DATE
STATE OF CALIFORNIA

| CHECKED BY | DATE |
|---|---|
| O.J. | 6-10-24 |
| DRAWN BY | JOB NO. |
| H.D. | 05567.02 |

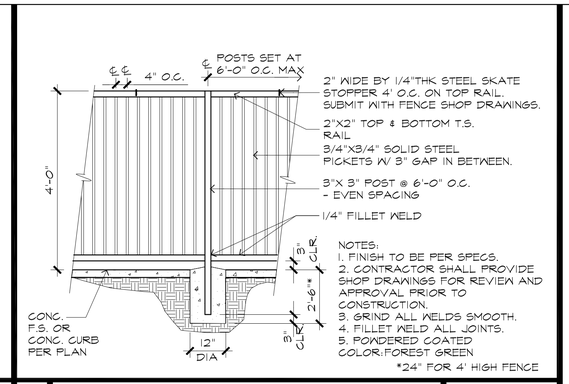
SHEET

LD-1




NOTES:
1. SUBMIT SHOP DRAWINGS FOR APPROVAL.
2. INSTALL SIGN PER MFR RECOMMENDATIONS.
3. SIGN IS TWO SIDED.
4. SIGN BY BRAVO SIGNS, CONCRETE COLOR: LATTE, TEL: (714) 284-0500
5. CONTRACTOR SHALL SUBMIT ALL NECESSARY STRUCTURAL CALCS WITH SHOP DRAWINGS TO OBTAIN NECESSARY PERMITS. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELATED COSTS FOR STRUCTURAL CALCS, SHOP DRAWINGS AND NO FEE PERMIT.
6. APPLY NON-SACRIFICIAL MATTE FINISH ANTI-GRAFFITTI COATING TO ALL SIGN SURFACES. REFER TO SPECS.
7. HPL GRAPHIC CITY LOGO BY BRAVO SIGNS - FRANK FIORE 714-284-0500. FINAL ARTWORK FOR HPL CITY LOGO TO BE PROVIDED BY CITY.

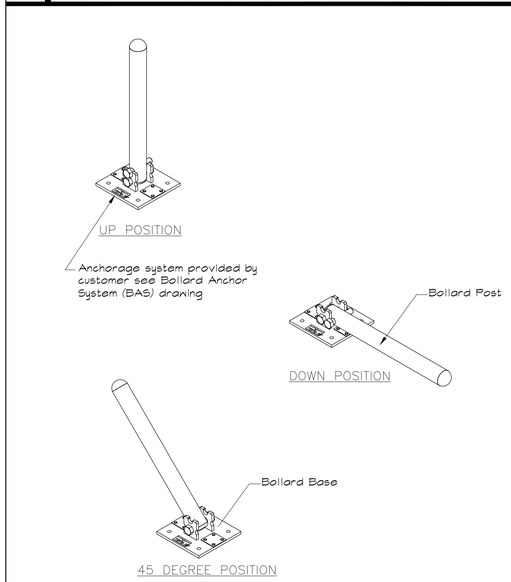
C ENTRY MONUMENT SIGN — NO SCALE




NOTES:
1. FINISH TO BE PER SPECS.
2. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
3. GRIND ALL WELDS SMOOTH.
4. FILLET WELD ALL JOINTS.
5. POWDERED COATED COLOR:FOREST GREEN

*24" FOR 4' HIGH FENCE

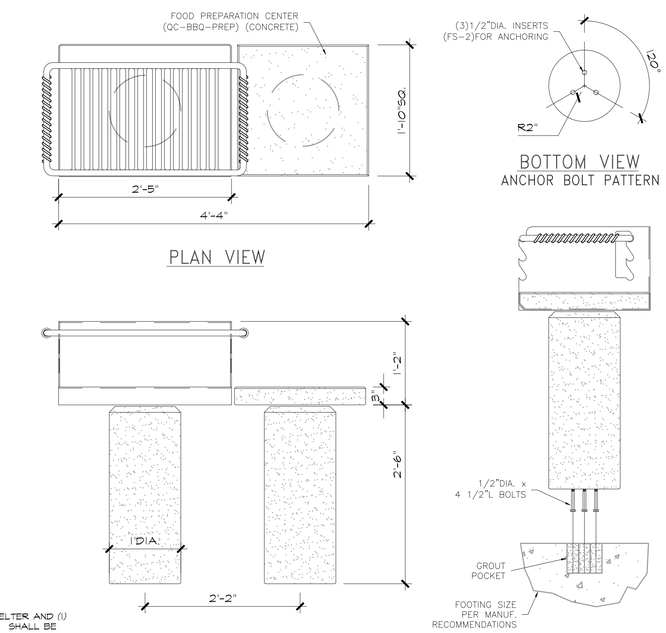
A 4' HIGH TUBE STEEL FENCE — NO SCALE




NOTES
1. COLLAPSIBLE VEHICULAR BOLLARDS BY TRAFFIC GUARD MODEL: HRP36 - SURFACE MOUNT, YELLOW POWDER COATED. BOLLARDS TO BE SPACED 4' ON CENTER. CONTACT: JON SCHRAM WITH TRAFFICGUARD DIRECT, IN. PH: 1-877127-7347

F COLLAPSIBLE BOLLARD — NO SCALE

D NOT USED — NO SCALE




NOTE:
1. (1) BBQ UNIT AT EACH SHELTER AND (1) INDIVIDUAL PICNIC PAD SHALL BE INSTALLED SO THAT THE TOP OF THE COOKING SURFACE IS 34" FROM FINISH SURFACE AT IT'S HIGHEST SETTING.
2. APPLY NON-SACRIFICIAL MATTE FINISH ANTI-GRAFFITTI COATING TO ALL CONCRETE SURFACES. REFER TO SPECS. COLOR: NATURAL TEXTURE: SANTA FE

B BBQ WITH PREP TABLE — NO SCALE

MIG
109 W. UNION AVE.
FULLERTON, CA 92832
TEL 714/871-3638
www.migcom.com

CONSULTANT:

PROJECT TEAM:

LANDSCAPE ARCHITECT
**MOORE IACOFANO GOLTSMAN, INC.**

ELECTRICAL ENGINEER
**LRA ENGINEERS**

CIVIL ENGINEER
**BKF**

STRUCTURAL ENGINEER
**ISE**

OLIVE BOWL
KAKU
PARK

LINDSAY, CA
93247

SHEET TITLE

CONSTRUCTION DETAILS

| DATE | REVISION |
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| 10-27-23 | ADDENDUM #3 |
| 6-10-24 | 3 PHASE RE-PACKAGE |

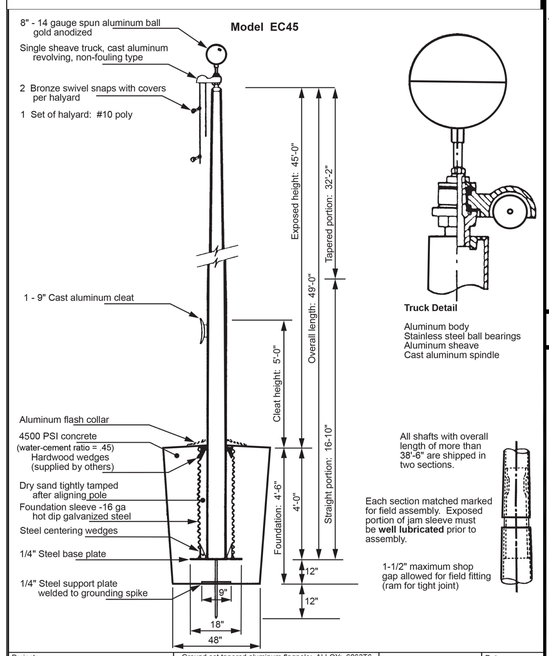
STAMP

LICENSED LANDSCAPE ARCHITECT
STEVEN H. LANG No. 4173
SIGNATURE
6-20-24
RENEWAL DATE
6-10-24
DATE
STATE OF CALIFORNIA

| CHECKED BY | DATE |
|---|---|
| O.J. | 6-10-24 |
| DRAWN BY | JOB NO. |
| H.D. | 05567.02 |

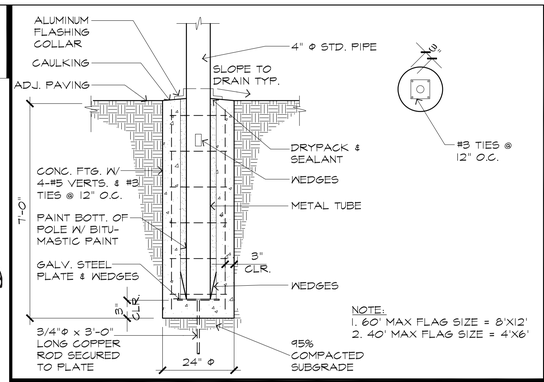
SHEET
LD-2
SHEET 52 OF 79 SHEETS

NOTES:
1. CONTRACTOR TO PROVIDE STRUCTURAL CALCULATIONS FOR FOOTING. FOOTING SHOWN FOR BIDDING PURPOSES ONLY.

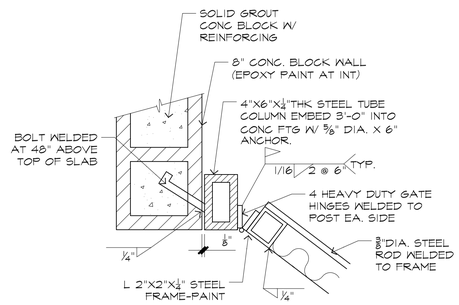



| | | | |
|---|---|---|---|
| Project: | Ground set tapered aluminum flagpole: ALLOY: 6063T6 | | Date: |
| Location: | Exposed height: 45'-0" | Overall height: 49'-0" | Revision: |
| Architect: | Ship in 2 sections | Butt diameter: 8" | |
| Contractor | Top diameter: 3-1/2" | Wall thickness: .188" | |
| Customer: | Finish: 100 grit polish | | Job: |

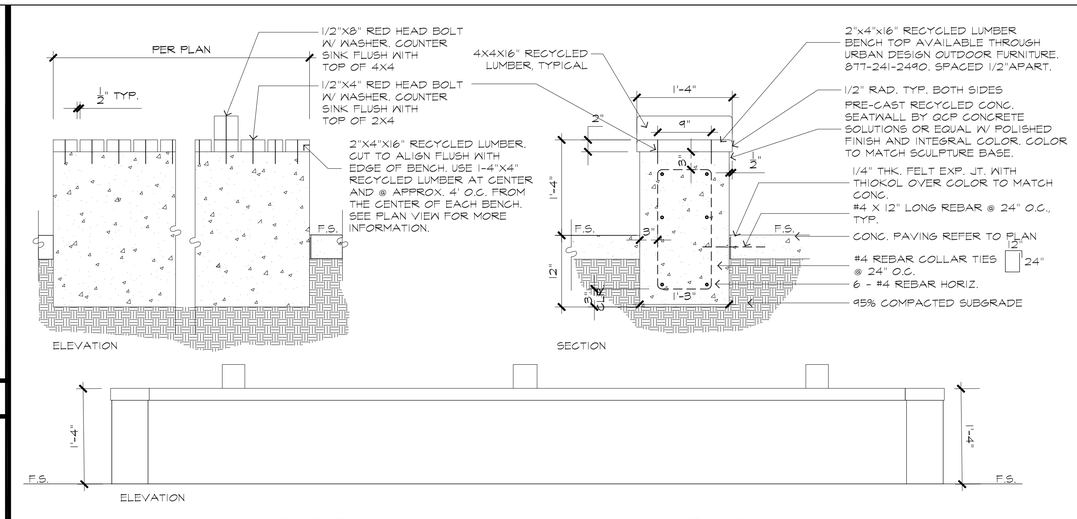
## E FLAG POLE - LA STEELCRAFT — NO SCALE




## C FLAG POLE — NO SCALE

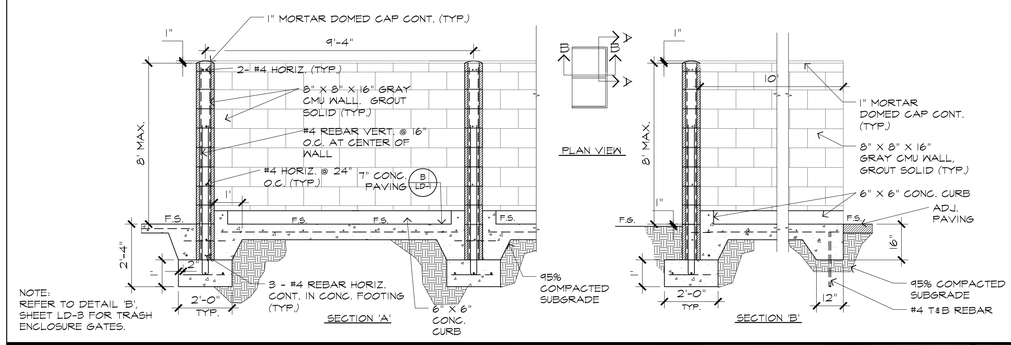



## D TRASH ENCLOSURE JAMB — NO SCALE

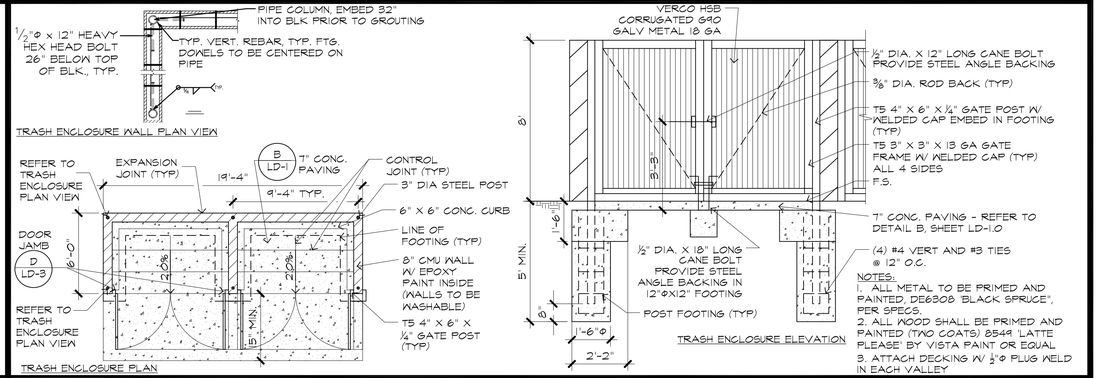



NOTE:
1. APPLY NON-SACRIFICIAL MATTE FINISH ANTI-GRAFFITI COATING TO ALL CONCRETE SURFACES. REFER TO SPECS.

## A CONC. SEATWALL WITH RECYCLED WOOD SLATS — NO SCALE




## F TRASH ENCLOSURE — NO SCALE




NOTES:
1. ALL METAL TO BE PRIMED AND PAINTED, DE6308 'BLACK SPRUCE', PER SPECS.
2. ALL WOOD SHALL BE PRIMED AND PAINTED (TWO COATS) 8549 'LATTE PLEASE' BY VISTA PAINT OR EQUAL
3. ATTACH DECKING W/ 1/2"Φ PLUG WELD IN EACH VALLEY

## B TRASH ENCLOSURE GATES — NO SCALE


MIG
109 W. UNION AVE.
FULLERTON, CA 92832
TEL 714/871-3638
www.migcom.com


CONSULTANT:

PROJECT TEAM:

LANDSCAPE ARCHITECT
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ELECTRICAL ENGINEER
**LRA ENGINEERS**

CIVIL ENGINEER
**BKF**

STRUCTURAL ENGINEER
**ISE**

# OLIVE BOWL KAKU PARK

LINDSAY, CA
93247

SHEET TITLE

## CONSTRUCTION DETAILS

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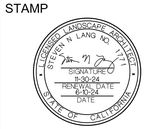
STAMP

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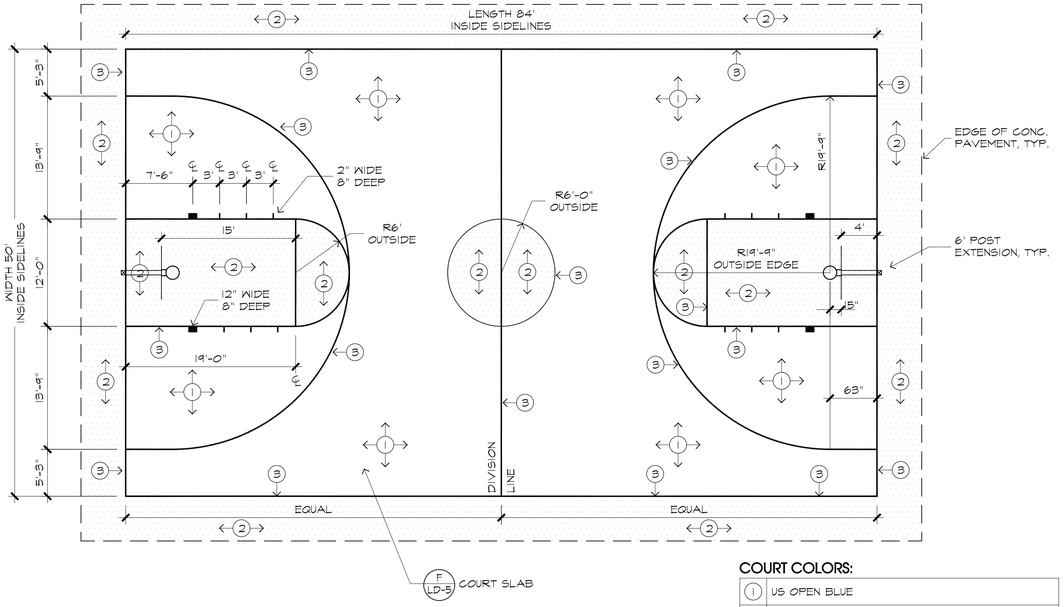
| O.J. | 6-10-24 |
| DRAWN BY | JOB NO. |
| H.D. | 05567.02 |

SHEET

# LD-3

SHEET 53 OF 79 SHEETS



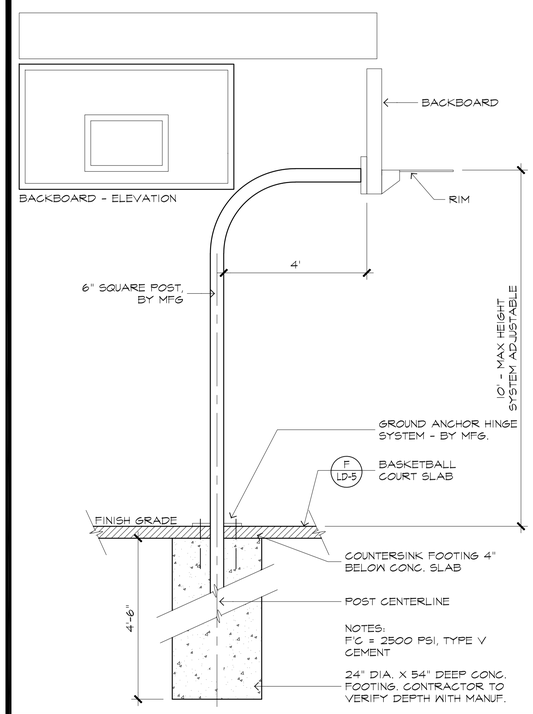

CONSTRUCTION NOTES:
1. ALL LINES SHALL BE 2" WIDE (NEUTRAL ZONES EXCLUDED).
2. END LINES AND SIDELINES SHALL BE A MINIMUM OF 2" IN WIDTH.
3. THE COLOR OF THE LANE SPACE MARKS AND NEUTRAL ZONE MARKS SHALL CONTRAST WITH THE COLOR OF THE BOUNDING LINES.
4. THE 3-POINT LINE SHALL BE THE SAME COLOR AS THE FREE LANE LINE AND SEMICIRCLE.

COURT COLORS:

| | |
|---|---|
| 1 | US OPEN BLUE |
| 2 | CALIFORNIA RED |
| 3 | LINE PAINT - WHITE |
| MANUFACTURER INFO: PLEXIPAVE<br>FINISH: 100% ACRYLIC - ARCRYLOTEC MA<br>TEXTURE: COURSE<br>INSTALLER:<br>MALIBU PACIFIC TENNIS COURTS (818)707-3797<br>CONTACT: PHIL CARTER JR. | |
| NOTE: ONLY CERTIFIED/FACTORY TRAINED INSTALLER SHALL INSTALL PLEXIPAVE SYSTEM | |

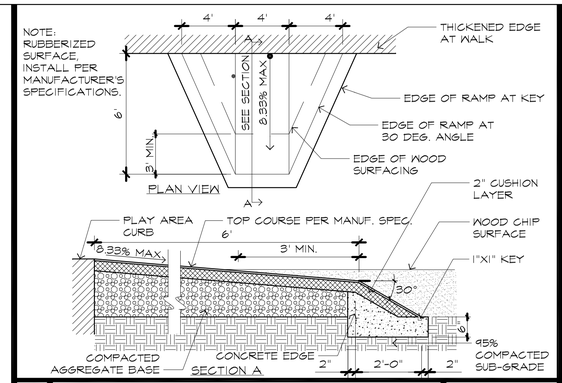
## G BASKETBALL COURT — NO SCALE

NOTE:
LAUNCH PRO BASKETBALL SYSTEM W/ ACRYLIC BACKBOARD AND GS DOUBLE RING STATIC RIM #RK072G3 BY GOALSETTER, PH: 800-362-4625

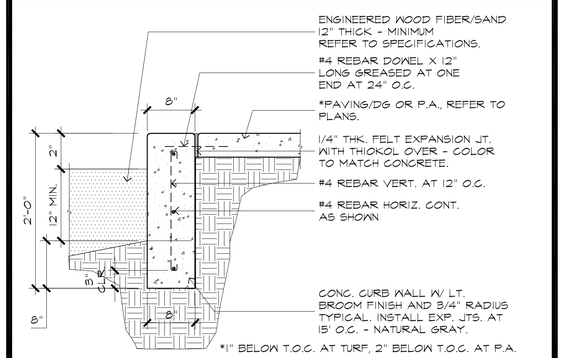



## D BASKETBALL POST / HOOP — NO SCALE

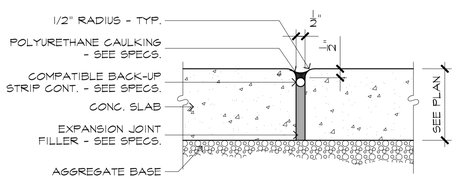
NOTE:
RUBBERIZED SURFACE, INSTALL PER MANUFACTURER'S SPECIFICATIONS.




## A PLAY AREA RAMP — NO SCALE



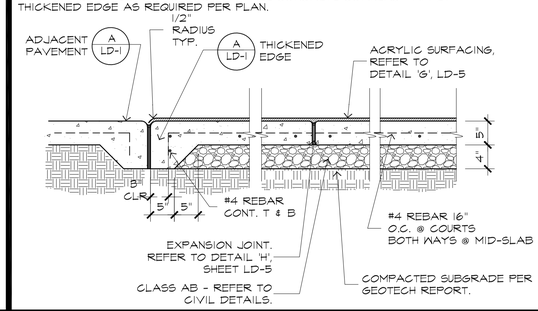

## B PLAY AREA CURB — NO SCALE



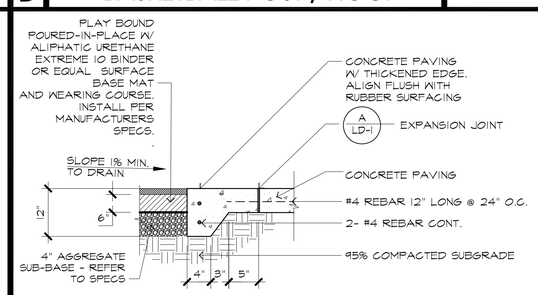

NOTE:
1. REFER TO COURT LAYOUT FOR EXPANSION JOINT LOCATIONS.
2. JOINT SHALL BE PLACED UNDERNEATH THE NETTING LINE, CONTINUOUS

## H COURT EXPANSION JOINT — NO SCALE

NOTE:
EXPANSION/TRANSVERSE JOINT SHALL BE SPACED EVERY 20' O.C. SCORE/SAW CUT LINES SHALL BE SPACED EVERY 10' O.C. UNLESS SHOWN OTHERWISE. A 2% CROSS SLOPE MAXIMUM SHALL OCCUR ON ALL PAVING. SAWCUT JOINTS TO BE 1/8" WIDE X 1" DEEP SAWCUTS. JOINTS TO OCCUR AT ALL CONCRETE CORNERS. APPLY THICKENED EDGE AS REQUIRED PER PLAN.

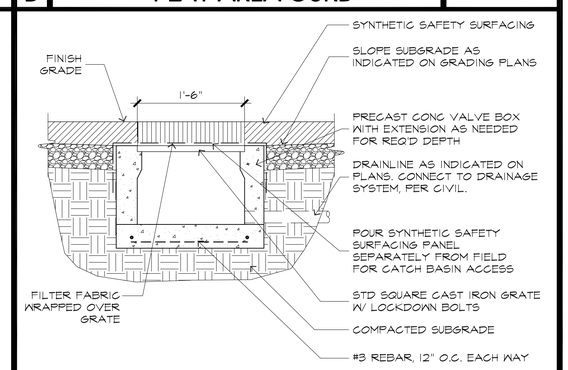



## F COURT SLAB — NO SCALE




NOTE:
1. WEAR COURSE, VERIFY DEPTH WITH PLAY GROUND EQUIPMENT MANUFACTURER FOR FALL HEIGHTS. REFER TO SPECS.
2. SUBMIT COLOR

## E RUBBERIZED SAFETY SURFACING — NO SCALE




## C PLAY AREA SUMP DRAIN — NO SCALE


MIG
109 W. UNION AVE.
FULLERTON, CA 92832
TEL 714/871-3638
www.migcom.com


CONSULTANT:

PROJECT TEAM:

LANDSCAPE ARCHITECT
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PARK

LINDSAY, CA
93247

SHEET TITLE

CONSTRUCTION DETAILS

| DATE | REVISION |
|---|---|
| 10-18-21 | 50% CD Submittal |
| 12-8-21 | 90% CD Submittal |
| 12-14-22 | 90% CD Submittal |
| 2-13-23 | 100% CD Submittal |
| 10-3-23 | ADDENDUM #1 |
| 10-27-23 | ADDENDUM #3 |
| 6-10-24 | 3 PHASE RE-PACKAGE |
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| | |
| | |
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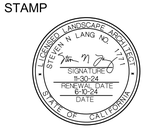
STAMP



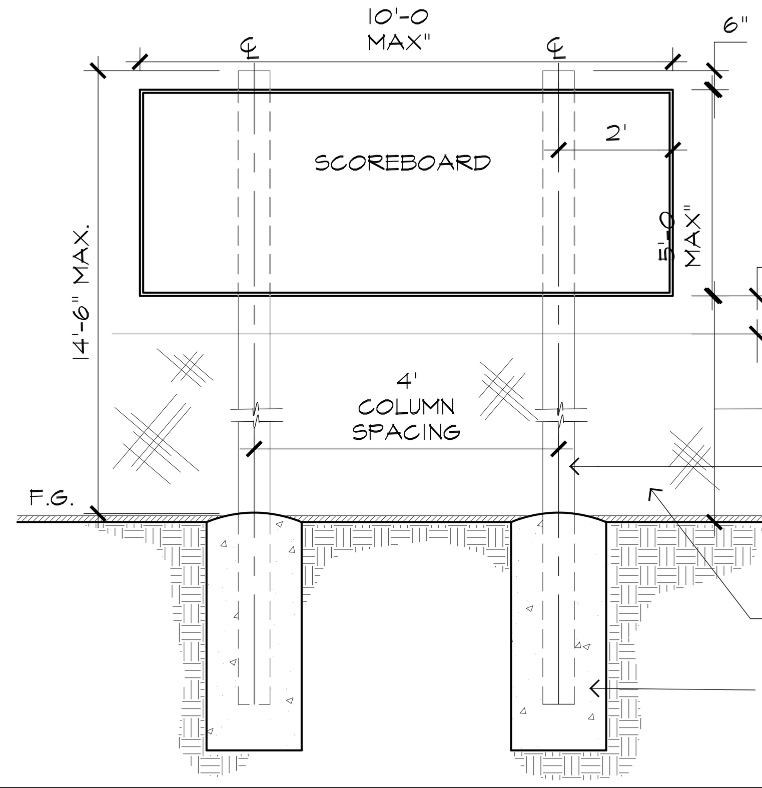

| CHECKED BY | DATE |
|---|---|
| O.J. | 6-10-24 |
| DRAWN BY | JOB NO. |
| H.D. | 05567.02 |

SHEET

LD-5

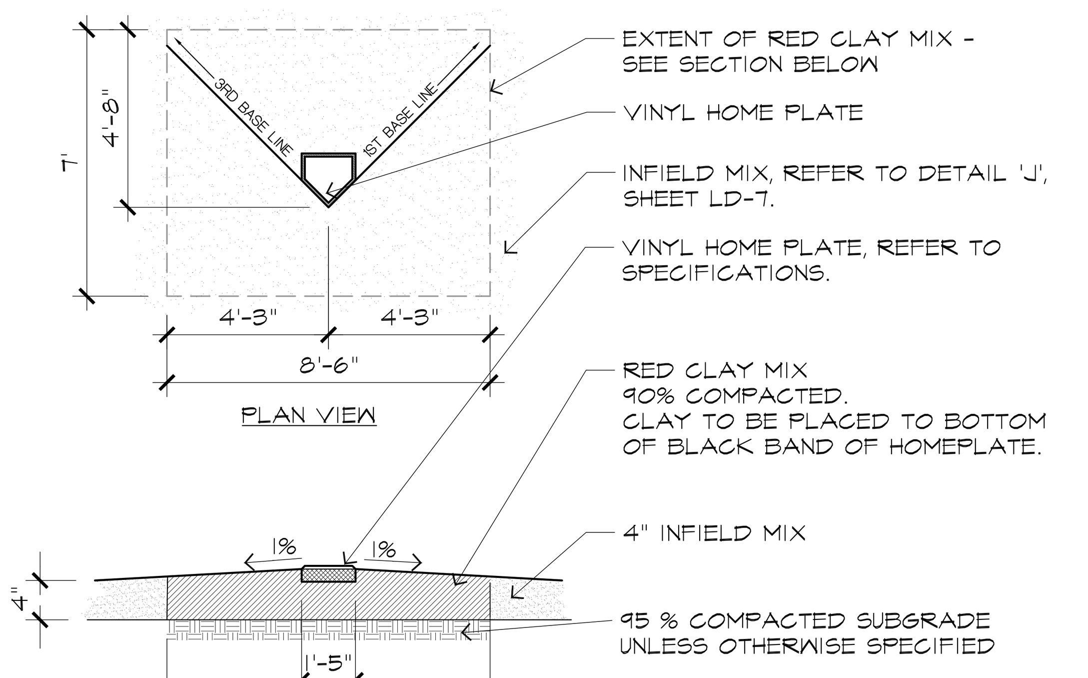
SHEET 54 OF 79 SHEETS

# J — SCOREBOARD (NO SCALE)



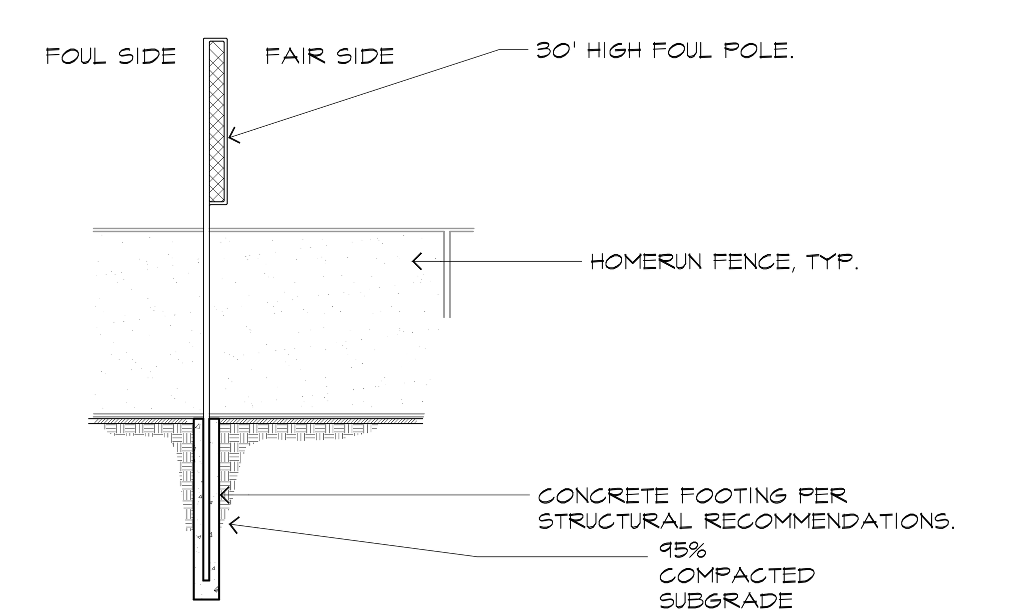

NOTE:
1. INSTALL SCOREBOARD PER MANUFACTURER'S POLE MOUNTED INSTALLATION.
2. REFER TO STRUCTURAL PLANS FOR FOOTING INFO. FOR FIELDS #2 AND #3. CONTRACTOR TO PROVIDE STRUCTURAL FOOTING DESIGN FOR FIELD #1.

# G — HOME PLATE (NO SCALE)




NOTE:
1. REFER TO MANUFACTURER SPEC FOR INSTALLATION.

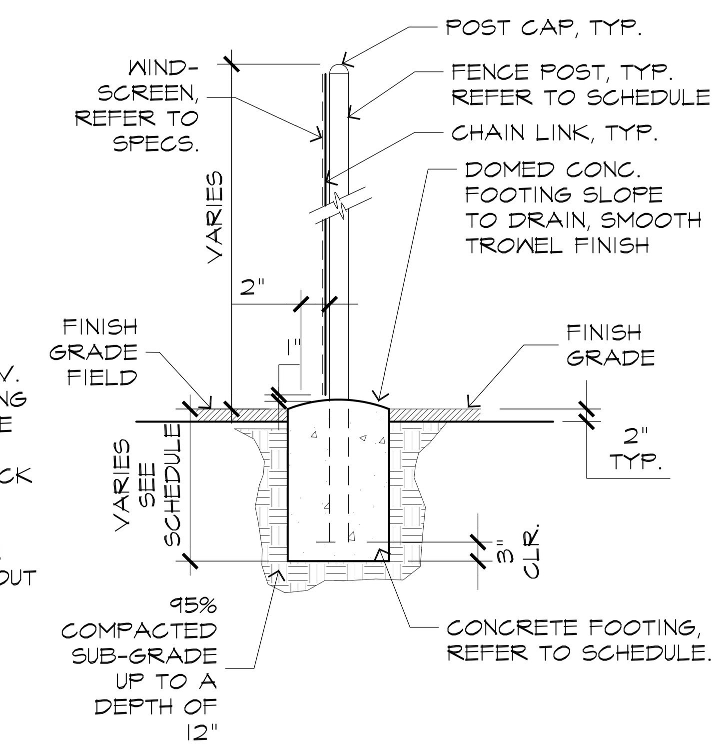
# D — FOUL BALL POLE (NO SCALE)




NOTES:
1. INSTALL PER MANUFACTURER SPECIFICATIONS.
2. INSTALL POLE OUTSIDE OF FIELD AT LOCATION ON PLANS.

# A — CHAINLINK FENCE (NO SCALE)

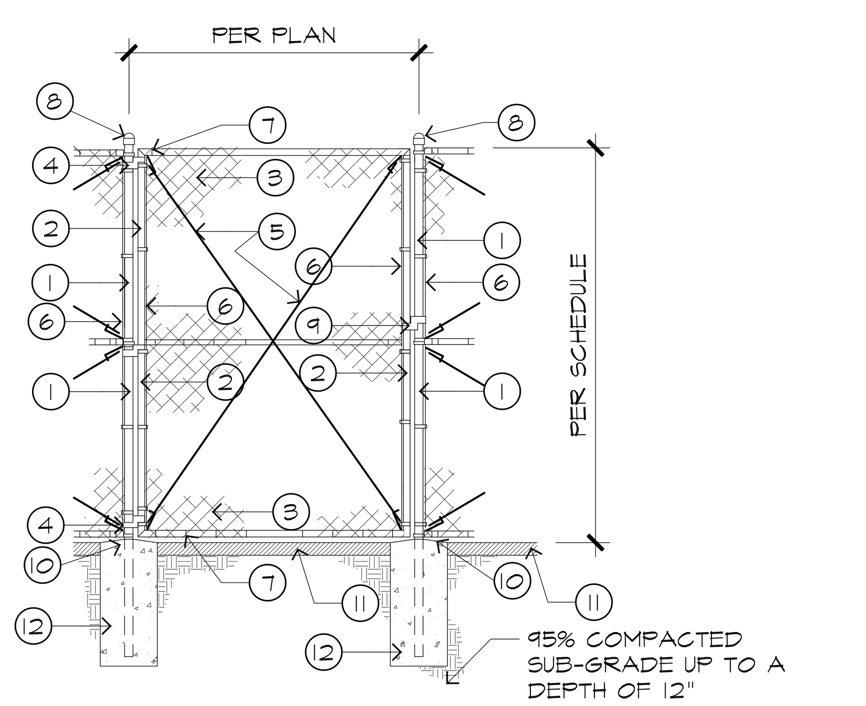
NOTES:
1. ALL CHAIN LINK FENCE SHALL BE 2" MESH 9 GAUGE
2. ALL CHAIN LINK FABRIC SHALL BE KNUCKLED SALVAGE TOP AND BOTTOM
3. ALL CHAIN LINK FENCE TO BE GALV.
4. REFER TO CALL OUT PLAN FOR HEIGHT OF FENCE.
5. SEE SCHEDULE F/LD-6
6. ALL FENCING SHALL HAVE RAILING AT TOP & BOTTOM
7. ALL C.L.F. POST TO BE GALV.
8. INSTALL FENCE POST PADDING AT ALL PROTRUDING 90° ANGLE FENCE TURNS THAT OCCUR IN FIELD OF PLAY. MINIMUM 2" THICK FOAM WITH 18 OZ. VINYL COVERING.
9. INSTALL 6' HIGH WINDSCREEN AT BULLPEN FENCING AND DUGOUT FENCING ON 3 SIDES (2 SHORT SIDES AND 1 LONG SIDE) WITH FIELD SIDE LEFT OPEN. MANUF. BSN SPORTS, MODEL "TUFFY WINDSCREEN" SKU 1285598. COLOR GREEN.




# K — CHAINLINK SINGLE GATE (NO SCALE)

NOTES:
1. REFER TO SPECS. FOR CHAIN LINK FENCE MATERIALS AND INSTALLATION.
2. CONCRETE FOOTINGS TO BE ALLOWED TO SET FOR SEVEN DAYS PRIOR TO INSTALLATION OF GATE.
3. ALL C.L.F. FABRIC TO BE GALV.
4. ALL POSTS AND RAILS TO BE GALV.
5. GATE MATERIALS MANUFACTURERD BY: HOOVER FENCE CO. PH#(800)355-2335 WEBSITE: www.hooverfence.com OR APPROVED EQUAL

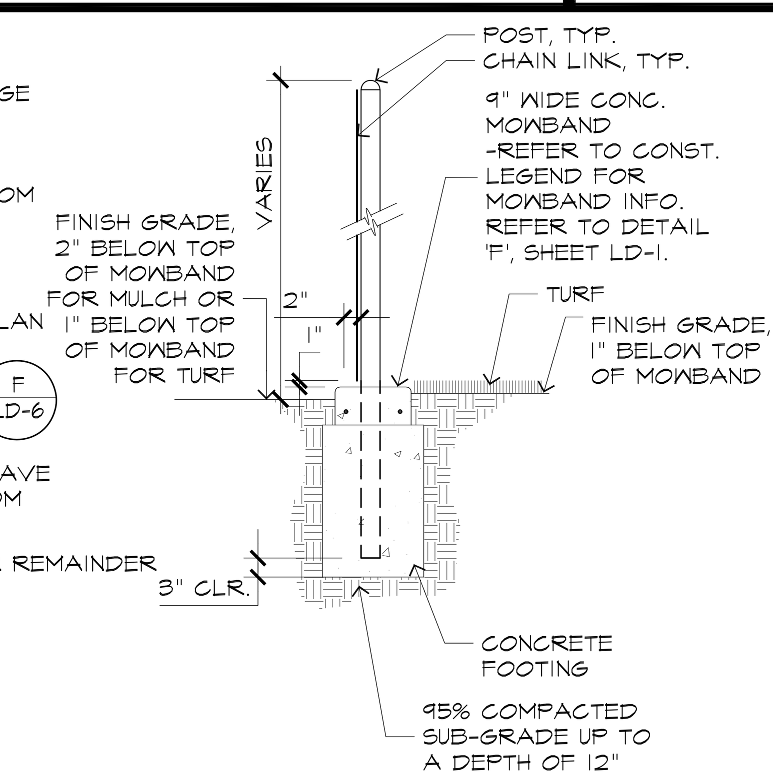
| SCHEDULE | |
|---|---|
| POST HEIGHT | FOOTING |
| 8' HT. | 12"Φ X 3'-6" |
| 10' HT. | 12"Φ X 4'-0" |



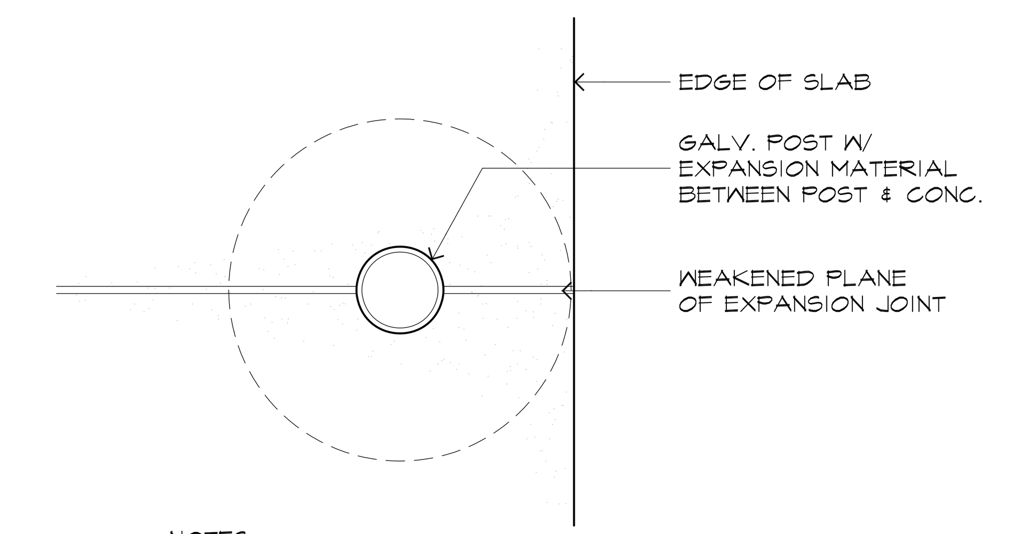

GATE MATERIALS
1. POSTS: POST 3-1/2 IN. O.D., GALV.
2. GATE FRAMES: TOP, BOTTOM AND SIDE MEMBERS 2-3/8 IN. O.D., MID RAIL 1 5/8" O.D. MITER GATE FRAME CORNERS WELD AND GRIND SMOOTH.
3. FABRIC: 9 GAUGE, 2 IN. MESH, KNUCKLE TOP AND BOTTOM, PLACE ON ACTIVITY OR TURF SIDE OF GATES, GALV.
4. HINGES: INDUSTRIAL BULLDOG HINGES (180° SWING), 2 HINGES PER GATE, ONE AT TOP AND BOTTOM.
5. TRUSS ROD: 3/8" DIA. THREADED AT BOTH ENDS AND TENSIONED WITH TWO INDUSTRIAL TRUSS TIGHTENERS SECURED TO GATE FRAME.
6. STRETCHER BAR: 3/16" X 3/4" WITH 1/8" X 1" TENSION BANDS AT 1'-0" O.C.
7. TIE WIRES: 11 GAUGE AT 1'-6" O.C. AT GATE FRAME TOP, BOTTOM AND MID RAILS.
8. POST CAPS SHALL BE CAST ALUMINUM
9. PRESSED STEEL GALV. SINGLE GATE FORK LATCH (LOCKABLE)
10. PROVIDE A 1" CROWN AT TOP OF ALL POST FOOTING
11. PAVING, REFER TO CALL OUT PLAN
12. POST FOOTING REFER TO SCH., THIS DETAIL

# E — CHAINLINK FENCE W/ MOWBAND (NO SCALE)

NOTES:
1. ALL CHAIN LINK FENCE SHALL BE 2" MESH 9 GAUGE
2. ALL CHAIN LINK FENCE SHALL BE KNUCKLED SALVAGE TOP AND BOTTOM
3. ALL CHAIN LINK FENCE TO BE GALV.
4. REFER TO CALL OUT PLAN FOR HEIGHT OF FENCE.
5. SEE C.L.F. SCHEDULE F/LD-6
6. ALL FENCING SHALL HAVE RAILING AT TOP & BOTTOM
7. SEE DETAIL A/LD-6 FOR REMAINDER OF NOTES.



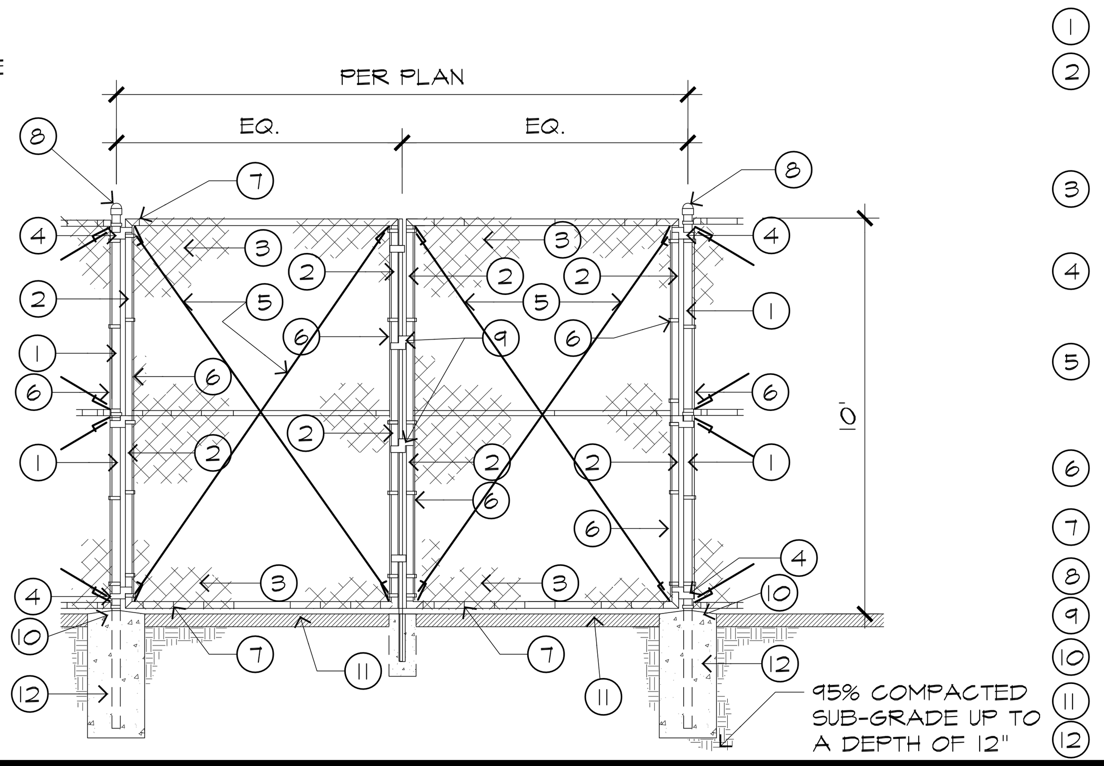

# B — POST TO REBAR CONNECTION (NO SCALE)




NOTES:
1. BALLFIELD SURFACE LOCATION AND MATERIAL AS SPECIFIED ON PLANS.
2. REFER TO SCHEDULE FOR POST SIZE. DETAIL 'F', SHEET LD-2.

# L — CHAINLINK DOUBLE GATE (NO SCALE)

NOTES:
1. REFER TO SPECS. FOR CHAIN LINK FENCE MATERIALS AND INSTALLATION.
2. CONCRETE FOOTINGS TO BE ALLOWED TO SET FOR SEVEN DAYS PRIOR TO INSTALLATION OF GATES.
3. ALL C.L.F. FABRIC TO BE GALV.
4. ALL POSTS & RAILS TO BE GALV.
5. GATE MATERIALS MANUFACTURED BY: HOOVER FENCE CO. PH# (800)355-2335 WEBSITE: www.hooverfence.com OR APPROVED EQUAL.




GATE MATERIALS
1. POSTS: POST 3-1/2 IN. O.D., GALV.
2. GATE FRAMES: TOP, BOTTOM AND SIDE MEMBERS 2-3/8 IN. O.D., MID RAIL 1 5/8" O.D. MITER GATE FRAME CORNERS WELD AND GRIND SMOOTH, GALV.
3. FABRIC: 9 GAUGE, 2 IN. MESH, KNUCKLE TOP AND BOTTOM, PLACE ON ACTIVITY OR TURF SIDE OF GATES, GALV.
4. HINGES: INDUSTRIAL BULLDOG HINGES (180° SWING), 2 HINGES PER GATE, ONE AT TOP AND BOTTOM.
5. TRUSS ROD: 3/8 IN. DIAM. THREADED AT BOTH ENDS AND TENSIONED WITH TWO INDUSTRIAL TRUSS TIGHTENERS SECURED TO GATE FRAME.
6. STRETCHER BAR: 3/16 X 3/4 IN. WITH 1/8 X 1 IN. TENSION BANDS AT 1'-0" O.C.
7. TIE WIRES: 11 GAUGE AT 1'-6" O.C. AT GATE FRAME TOP, BOTTOM AND MID RAILS.
8. POST CAPS SHALL BE CAST ALUMINUM
9. DROP ROD LATCH (LOCKABLE)
10. PROVIDE A 1" CROWN AT TOP OF ALL POST FOOTING
11. PAVING, REFER TO CALL OUT PLAN
12. 12" Φ X 4'-0" DEEP CONC. POST FOOTING

# F — CHAINLINK SCHEDULE (NO SCALE)

| CLASS | POSTS | NOM. DIA. | LBS/ FT. | FOOT'G DEPTH | FOOT'G DIA. |
|---|---|---|---|---|---|
| | CHAINLINK FENCE POST SIZE | | | | |
| 1A | 3'-6" LINE | 1 1/2" | 2.72 | 3'-0" | 1'-0" |
| 1A | 3'-6" END | 1 1/2" | 2.72 | 3'-0" | 1'-0" |
| 1A | 3'-6" CORNER | 1 1/2" | 2.72 | 3'-0" | 1'-0" |
| 1A | 6' LINE | 2" | 3.66 | 3'-0" | 1'-0" |
| 1A | 6' END | 2" | 3.66 | 3'-0" | 1'-0" |
| 1A | 6' CORNER | 2" | 3.66 | 3'-0" | 1'-0" |
| 1A | 8' LINE | 2-1/2" | 5.78 | | |
| 1A | 8' END | 2-1/2" | 5.78 | | |
| 1A | 8' CORNER | 2-1/2" | 5.78 | | |
| 1A | 8' LINE W/ WS | 3-1/2" | 9.12 | | |
| 1A | 8' END W/ WS | 3-1/2" | 9.12 | | |
| 1A | 8' CNR W/ WS | 3-1/2" | 9.12 | | |
| 1A | 10' LINE | 3" | 7.58 | | |
| 1A | 10' END | 3" | 7.58 | | |
| 1A | 10' CORNER | 3" | 7.58 | | |
| 1A | 10' LINE W/WS | 4" | 10.8 | | |
| 1A | 10' END W/ WS | 4" | 10.8 | | |
| 1A | 10' CORNER W/ WS | 4" | 10.8 | | |
| 1A | TOP, MIDDLE, BOTTOM RAIL, HORIZ. BRACE | 1 1/4" | 2.27 | - | - |

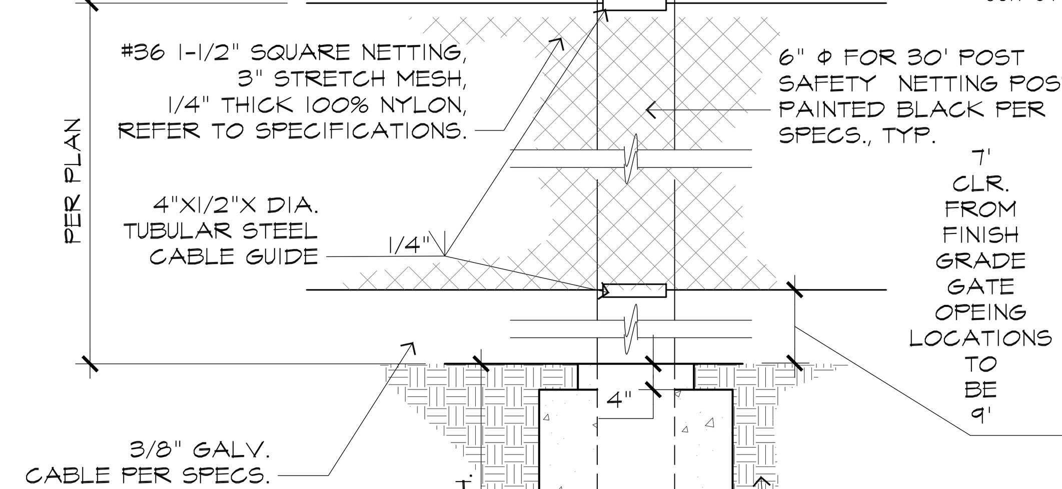
CHAIN LINK FENCE MATERIAL

CHAIN LINK FABRIC - 2" MESH. 9 GA. TRUSS RODS - 3/8" DIA. GALV. ROD STRETCHER BAR 1/4" X 3/4".
CHAIN LINK FABRIC @ BULLPEN - 1" MESH. 9 GA. TRUSS RODS - 3/8" DIA. GALV. ROD STRETCHER BAR 1/4" X 3/4".

NOTES:
1. ALL CHAIN LINK FABRIC TO BE KNUCKLED SELVAGE - TOP AND BOTTOM.
2. ALL CHAIN LINK FENCE SHALL HAVE BOTTOM RAILS.
3. POST DIA. GIVEN AT LEFT, REFER TO STD. NOMINAL PIPE SIZE.
4. ALL CHAIN LINK FABRIC TO BE GALV., UNLESS NOTED.
5. ALL POSTS & RAILS TO BE GALV., UNLESS NOTED
6. FOR CLF W/ WINDSCREEN, REFER TO POST DIA. & FTG. DEPTH & DIA. AT LEFT.
7. ALL POST SHALL BE SPACED AT 8'-0" O.C. MAX.
8. ALL FENCING OVER 8' IN HEIGHT SHALL HAVE MIDDLE RAIL.

ABBRV:
WS — WINDSCREEN
CNR — CORNER
CLF — CHAIN LINK FENCE

# C — SAFETY NETTING POST (NO SCALE)




1) SAFETY NETTING POLES TO ALIGN WITH 8' CLF. CLF SHALL USE SAFETY NETTING POLES FOR CONNECTION AS NECESSARY. SUBMIT SHOP DRAWING FOR APPROVAL.
2) REFER TO STRUCTURAL PLANS FOR ADDITIONAL FOOTING INFO.

| SCHEDULE | |
|---|---|
| POLE HEIGHT | O.C. SPACING |
| 30'/20' HT. | 25' MAX. |

MIG
109 W. UNION AVE. FULLERTON, CA 92832
TEL 714/871-3638 www.migcom.com

CONSULTANT:

PROJECT TEAM:
LANDSCAPE ARCHITECT
**MOORE IACOFANO GOLTSMAN, INC.**
ELECTRICAL ENGINEER
**LRA ENGINEERS**
CIVIL ENGINEER
**BKF**
STRUCTURAL ENGINEER
**ISE**

OLIVE BOWL KAKU PARK

LINDSAY, CA 93247

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| 10-3-23 | ADDENDUM #1 |
| 10-27-23 | ADDENDUM #3 |
| 6-10-24 | 3 PHASE RE-PACKAGE |

STAMP

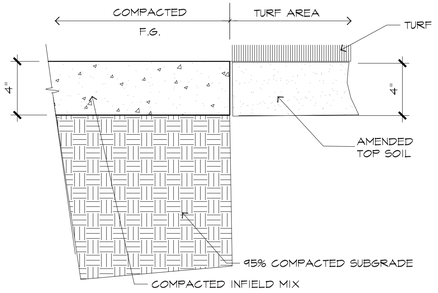
LICENSED LANDSCAPE ARCHITECT — STEVEN N LANG NO. 1771 — SIGNATURE — 11-30-24 RENEWAL DATE — 6-10-24 DATE — STATE OF CALIFORNIA

| CHECKED BY | DATE |
|---|---|
| O.J. | 6-10-24 |
| DRAWN BY | JOB NO. |
| H.D. | 05567.02 |

SHEET

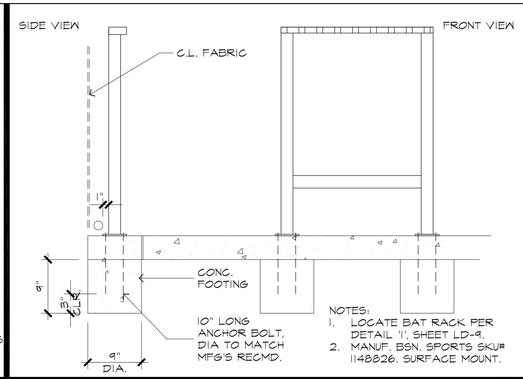
LD-6

SHEET 55 OF 79 SHEETS




NOTE:
1. REFER TO SPECIFCATIONS FOR ALL TYPE, COLOR AND MANUFACTURER APPLICATIONS
2. SEE CONSTRUCTION CALLOUT PLANS FOR LOCATIONS.

## J INFIELD/WARNING TRACK MIX — NO SCALE

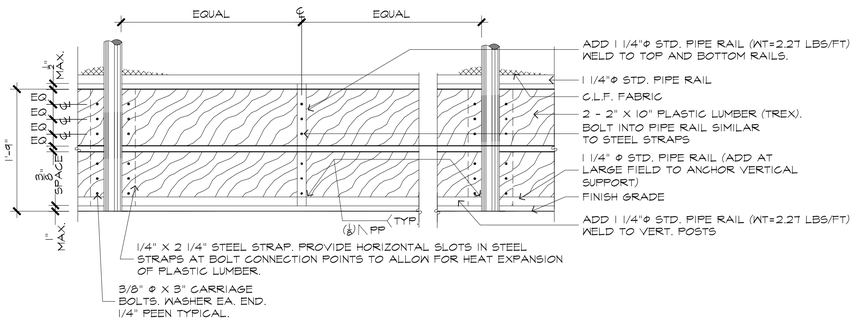



NOTES:
1. LOCATE BAT RACK PER DETAIL '1', SHEET LD-9.
2. MANUF. BSN. SPORTS SKU# 1148826. SURFACE MOUNT.

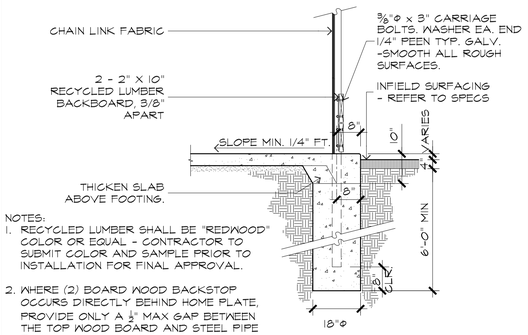
## G BAT RACK — NO SCALE

## - NOT USED — NO SCALE

## A NOT USED — NO SCALE

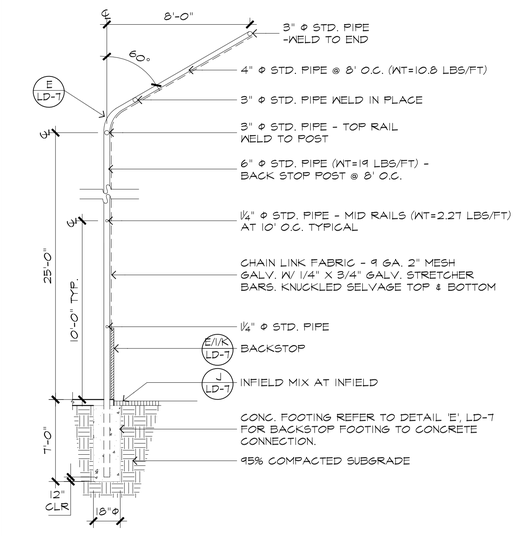



## K BACKSTOP ELEVATION WINGS — NO SCALE



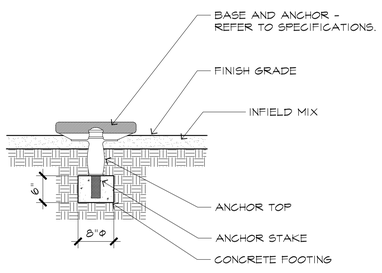

NOTES:
1. RECYCLED LUMBER SHALL BE "REDWOOD" COLOR OR EQUAL - CONTRACTOR TO SUBMIT COLOR AND SAMPLE PRIOR TO INSTALLATION FOR FINAL APPROVAL.
2. WHERE (2) BOARD WOOD BACKSTOP OCCURS DIRECTLY BEHIND HOME PLATE, PROVIDE ONLY A 1/4" MAX GAP BETWEEN THE TOP WOOD BOARD AND STEEL PIPE RAIL.

## E BACKSTOP SECTION — NO SCALE



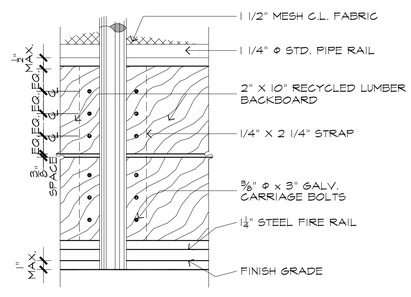

NOTES:
1. PAINT ALL WELDS W/ GALVICON AFTER CLEANING.
2. GRIND SMOOTH ALL WELD AREAS.
3. REFER TO STRUCTURAL PLANS FOR MORE INFO.

## B BACKSTOP HOOD - 30' HIGH — NO SCALE



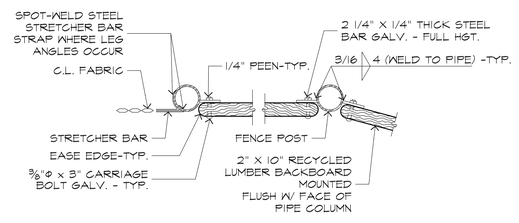

NOTES:
1. REFER TO SPECIFICATIONS FOR MANUFACTURER AND INSTALLATION.

## L BASE ANCHOR — NO SCALE




NOTES:
1. BOLTS TO BE GALVANIZED.

## I WOOD BACKSTOP WINGS — NO SCALE




## F BACKSTOP PLAN — NO SCALE

MIG
109 W. UNION AVE.
FULLERTON, CA 92832
TEL 714/871-3638
www.migcom.com

CONSULTANT:

PROJECT TEAM:

LANDSCAPE ARCHITECT
**MOORE IACOFANO GOLTSMAN, INC.**

ELECTRICAL ENGINEER
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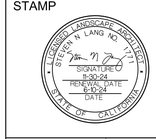


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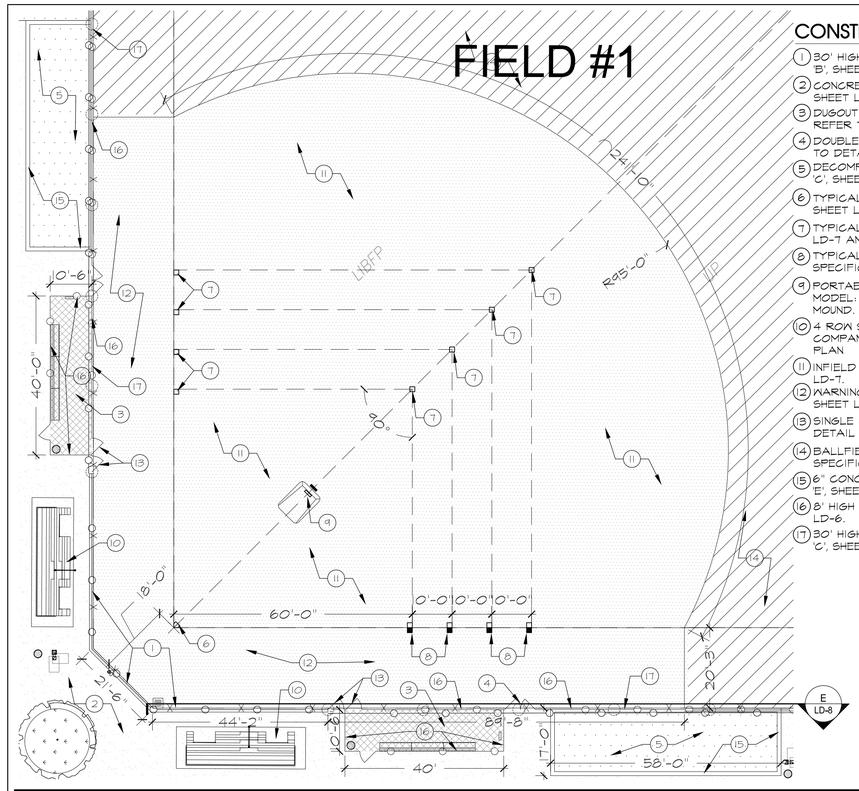
SHEET
LD-7

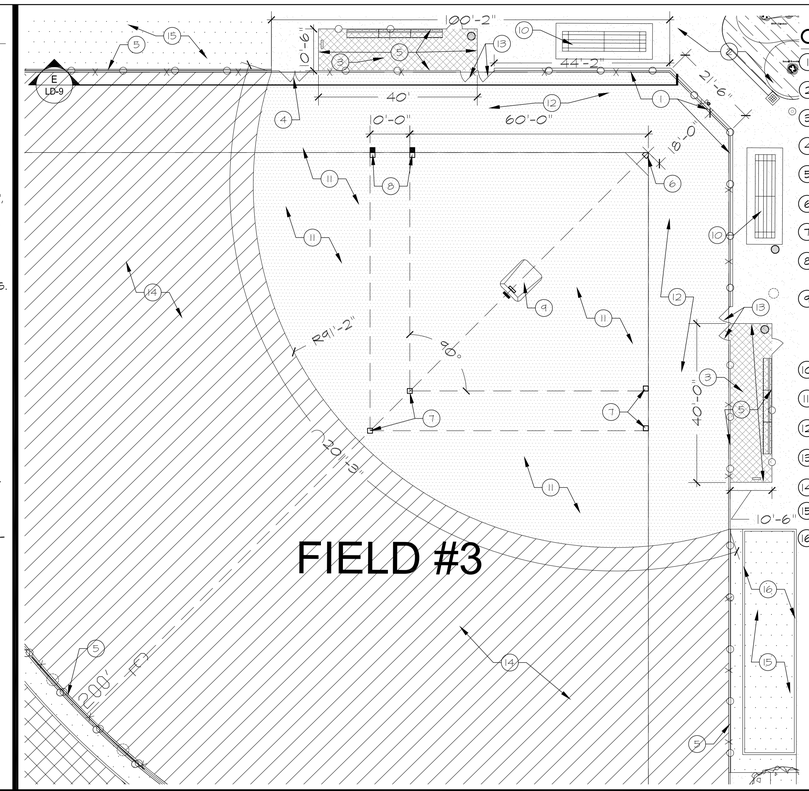
SHEET 56 OF 79 SHEETS




## CONSTRUCTION LEGEND:

1. 30' HIGH CLF BACKSTOP, REFER TO DETAIL 'B', SHEET LD-7.
2. CONCRETE PAVING, REFER TO DETAIL 'A', SHEET LD-1.
3. DUGOUT PLANS, ELEVATION & DETAILS, REFER TO DETAILS 'I' & K', SHEET LD-9.
4. DOUBLE CLF GATE TO BALLFIELD, REFER TO DETAIL L, SHEET LD-6.
5. DECOMPOSED GRANITE. REFER TO DETAIL 'C', SHEET LD-1.
6. TYPICAL HOME PLATE, REFER TO DETAIL 'G', SHEET LD-6 AND SPECS.
7. TYPICAL BASE, REFER TO DETAIL 'L', SHEET LD-7 AND SPECS.
8. TYPICAL DOUBLE FIRST BASE, REFER TO SPECIFICATIONS.
9. PORTABLE PITCHING MOUND BY BSN SPORTS. MODEL: TRUEPITCH PORTABLE - SENIOR MOUND. SKU# BBPORTRE
10. 4 ROW SPECTATOR BLEACHERS W/ ADA COMPANION SEATING, REFER TO CALLOUT PLAN
11. INFIELD MIX, REFER TO DETAIL 'J', SHEET LD-7.
12. WARNING TRACK MIX, REFER TO DETAIL 'J', SHEET LD-7.
13. SINGLE GATE TO BALLFIELD, REFER TO DETAIL 'K', SHEET LD-6.
14. BALLFIELD TURF - REFER TO SPECIFICATIONS AND PLANTING PLANS.
15. 6" CONCRETE MOW BAND, REFER TO DETAIL 'E', SHEET LD-1.
16. 8' HIGH C.L.F. REFER TO DETAIL 'A', SHEET LD-6.
17. 30' HIGH SAFETY NETTING, REFER TO DETAIL 'C', SHEET LD-6.

A — INFIELD #1 ENLARGEMENT — NO SCALE

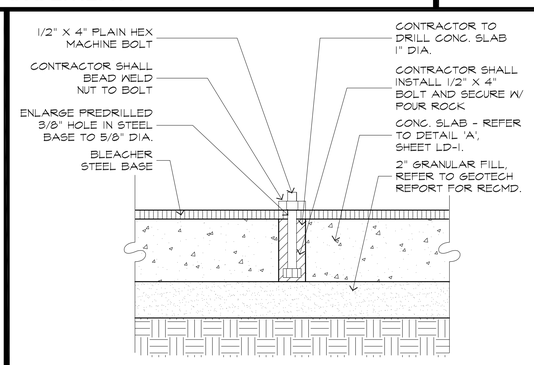



## CONSTRUCTION LEGEND:

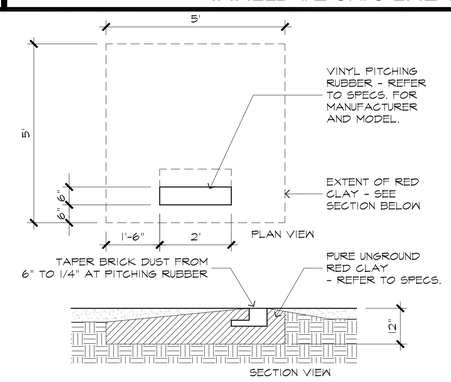
1. 20' HIGH CLF BACKSTOP. REFER TO DETAIL 'E', SHEET LD-9.
2. CONCRETE PAVING, REFER TO DETAIL 'A', SHEET LD-1.
3. DUGOUT PLANS, ELEVATION & DETAILS, REFER TO DETAILS 'I' & K', SHEET LD-9.
4. DOUBLE CLF GATE TO BALLFIELD, REFER TO DETAIL L, SHEET LD-6.
5. 8' HIGH C.L.F. REFER TO DETAIL 'A', SHEET LD-6.
6. TYPICAL HOME PLATE, REFER TO DETAIL 'G', SHEET LD-6 AND SPECS.
7. TYPICAL BASE, REFER TO DETAIL 'L', SHEET LD-7 AND SPECS.
8. TYPICAL DOUBLE FIRST BASE, REFER TO SPECIFICATIONS.
9. PORTABLE PITCHING MOUND BY BSN SPORTS. PROVIDE 2 SETS. SET 1, MODEL: TRUEPITCH PORTABLE MOUND - INTERMEDIATE. SKU#BBPORTPB. SET 2 TRUEPITCH PORTABLE MOUND - LITTLE LEAGUE SKU#BBPORTMD.
10. 3 - ROW SPECTATOR BLEACHERS. REFER TO CALLOUT PLANS.
11. INFIELD MIX, REFER TO DETAIL 'J', SHEET LD-7.
12. WARNING TRACK MIX, REFER TO DETAIL 'J', SHEET LD-7.
13. SINGLE GATE TO BALLFIELD, REFER TO DETAIL 'K', SHEET LD-6.
14. BALLFIELD TURF - REFER TO PLANTING PLANS.
15. DECOMPOSED GRANITE. REFER TO DETAIL 'C', SHEET LD-1.
16. 6" CONCRETE MOW BAND, REFER TO DETAIL 'E', SHEET LD-1.

B — INFIELD #2 & #3 ENLARGEMENT (TYPICAL) — NO SCALE

C — NOT USED — NO SCALE

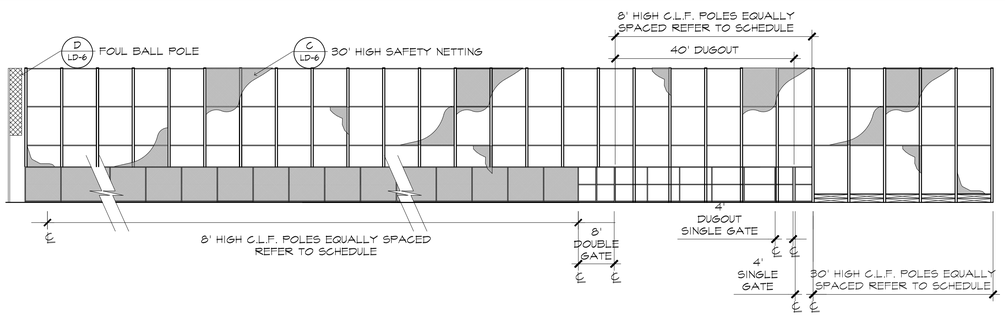



D — BLEACHER CONNECTION — NO SCALE




F — PITCHING RUBBER — NO SCALE

X — NOT USED — NO SCALE




E — FIELD #1 FENCING ELEVATION — NO SCALE


MIG
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CONSULTANT:

PROJECT TEAM:

LANDSCAPE ARCHITECT
**MOORE IACOFANO GOLTSMAN, INC.**

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CIVIL ENGINEER
**BKF**

STRUCTURAL ENGINEER
**ISE**

OLIVE BOWL
KAKU
PARK

LINDSAY, CA
93247

SHEET TITLE

CONSTRUCTION DETAILS

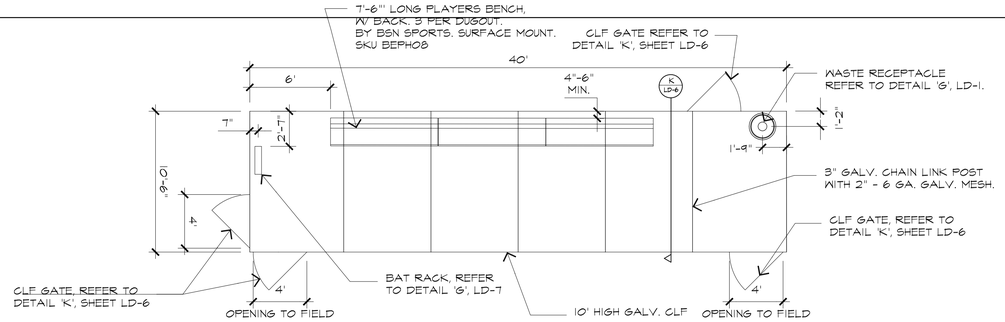
| DATE | REVISION |
|---|---|
| 10-18-21 | 50% CD Submittal |
| 12-8-21 | 90% CD Submittal |
| 12-14-22 | 90% CD Submittal |
| 2-13-23 | 100% CD Submittal |
| 10-3-23 | ADDENDUM #1 |
| 10-27-23 | ADDENDUM #3 |
| 6-10-24 | 3 PHASE RE-PACKAGE |
| | |
| | |
| | |
| | |

STAMP

| CHECKED BY | DATE |
|---|---|
| O.J. | 6-10-24 |
| DRAWN BY | JOB NO. |
| H.D. | 05567.02 |

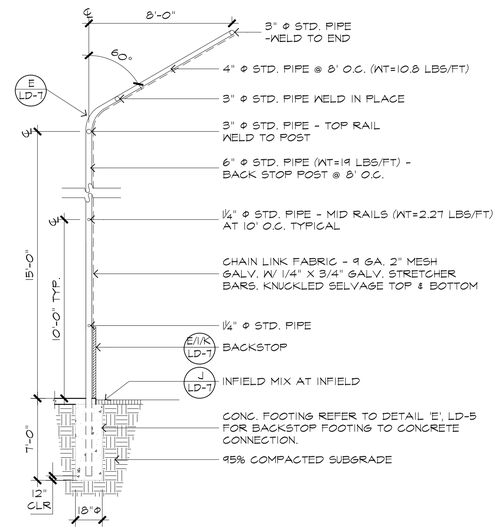
SHEET

LD-8




## I DUGOUT PLAN VIEW

NO SCALE




NOTES:
1. PAINT ALL WELDS W/ GALVICON AFTER CLEANING.
2. GRIND SMOOTH ALL WELD AREAS.
3. REFER TO STRUCTURAL PLANS FOR MORE INFO.

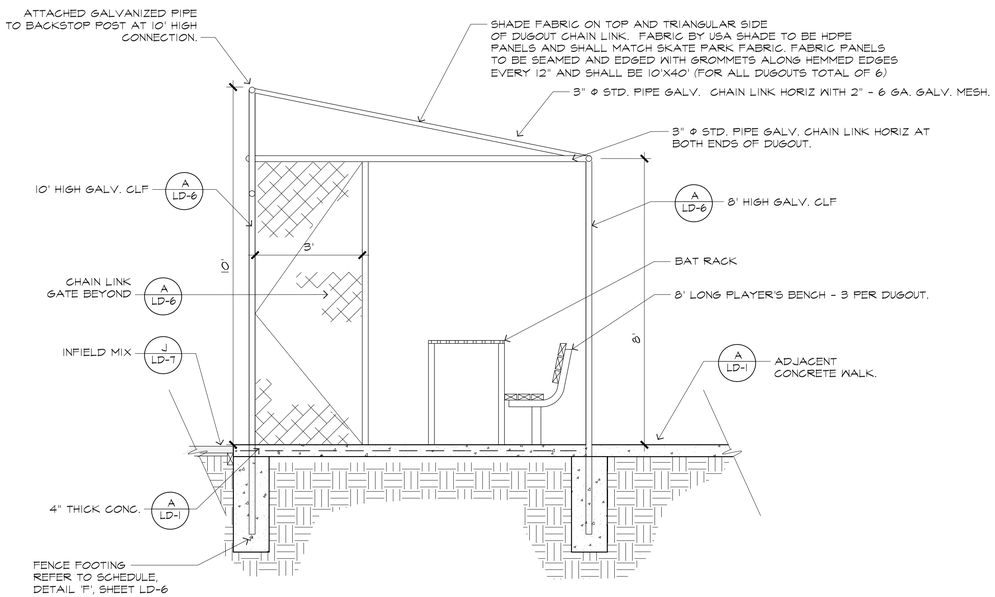
## D BACKSTOP HOOD - 20' HIGH

NO SCALE

## A NOT USED

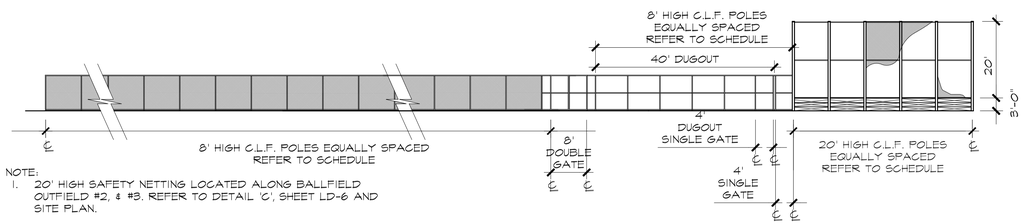
NO SCALE

NOTE: INSTALL 6' HIGH WINDSCREEN AT BULL PEN FENCING AND DUGOUT FENCING ON 3 SIDES (2 SHORT SIDES AND 1 LONG SIDE) WITH FIELD SIDE LEFT OPEN. MANUF. BSN SPORTS, MODEL "TUFFY WINDSCREEN" SKU 1285548. COLOR GREEN.




## K DUGOUT SECTION

NO SCALE




NOTE:
1. 20' HIGH SAFETY NETTING LOCATED ALONG BALLFIELD OUTFIELD #2, & #3. REFER TO DETAIL 'C', SHEET LD-6 AND SITE PLAN.

## E FIELD #2 & 3 FENCING ELEVATION

NO SCALE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KAKU
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93247

SHEET TITLE

CONSTRUCTION DETAILS

| DATE | REVISION |
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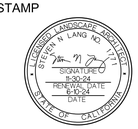
| 2-13-23 | 100% CD Submittal |
| 10-3-23 | ADDENDUM #1 |
| 10-27-23 | ADDENDUM #3 |
| 6-10-24 | 3 PHASE RE-PACKAGE |

STAMP

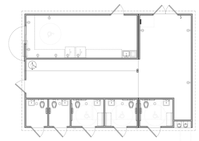



| CHECKED BY | DATE |
|---|---|
| O.J. | 6-10-24 |
| DRAWN BY | JOB NO. |
| H.D. | 05567.02 |

SHEET

LD-9

PROJECT REF#: 11018D-11/22/2022-1



FLOOR PLAN
SCALE: NOT TO SCALE

RESTROOM/ CONCESSION/
STORAGE BUILDING

LINDSAY, CALIFORNIA

# OLIVE BOWL PARK

ARTIST IMPRESSION. 3D RENDERING ONLY FOR ILLUSTRATION. COLORS AND MATERIALS ARE SUBJECT TO CHANGE

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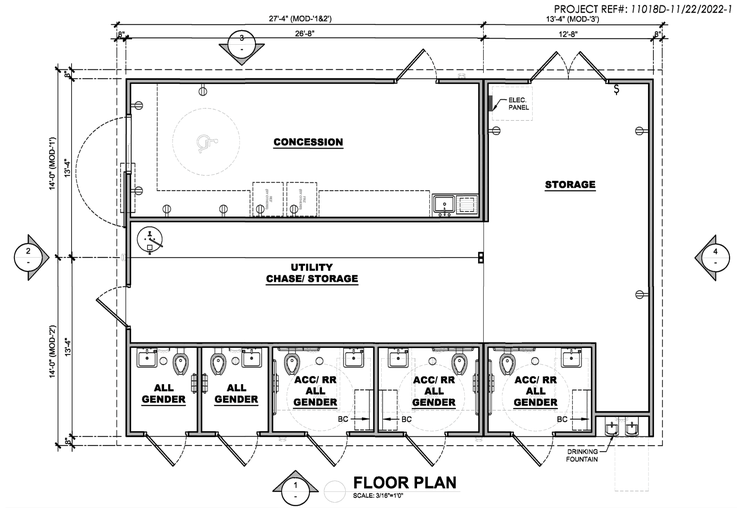
P: 888-888-2060 F: 888-888-1448

PROJECT REF#: 11018D-11/22/2022-1




FLOOR PLAN
SCALE: 3/16"=1'0"

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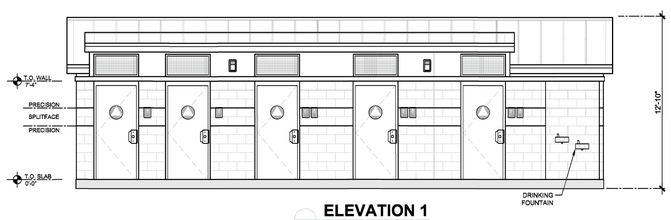
BUILDING TYPE: RESTROOM/ CONCESSION/ STORAGE BUILDING
PROJECT: OLIVE BOWL PARK, LINDSAY, CA

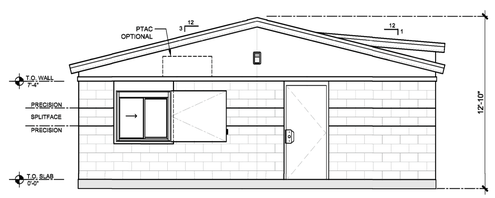
| REVISION # | REVISION DATE: | SHEET# |
|---|---|---|
| 1 | 11/22/2022 | A-1 |
| PROJECT #: 11018D | DRAWN BY: EOR | MAX. PERSON / HOUR: 180 M |
| | START DATE: 5/14/2021 | |
| | DRAWN BY: EOR | |

-NOT FOR CONSTRUCTION - PRELIMINARY DESIGN DRAWING. ONLY - DO NOT SCALE. DIMENSIONS PRESIDE

PROJECT REF#: 11018D-11/22/2022-1




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




ELEVATION 2
SCALE: 3/16"=1'-0"

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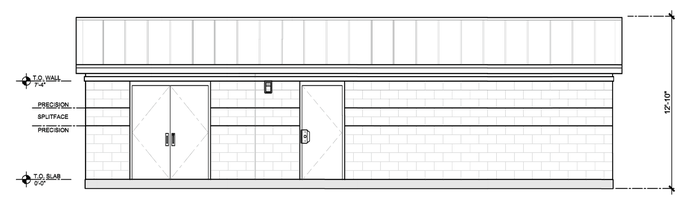
BUILDING TYPE: RESTROOM/ CONCESSION/ STORAGE BUILDING
PROJECT: OLIVE BOWL PARK, LINDSAY, CA

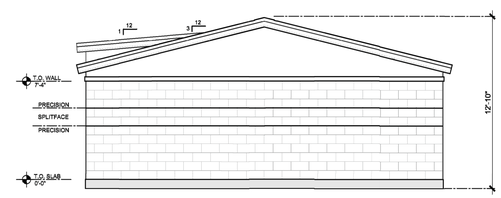
| REVISION # | REVISION DATE: | SHEET# |
|---|---|---|
| 1 | 11/22/2022 | A-2 |
| PROJECT #: 11018D | DRAWN BY: EOR | MAX. PERSON / HOUR: 180 M |
| | START DATE: 5/14/2021 | |
| | DRAWN BY: EOR | |

-NOT FOR CONSTRUCTION - PRELIMINARY DESIGN DRAWING. ONLY - DO NOT SCALE. DIMENSIONS PRESIDE

PROJECT REF#: 11018D-11/22/2022-1




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




ELEVATION 4
SCALE: 3/16"=1'-0"

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BUILDING TYPE: RESTROOM/ CONCESSION/ STORAGE BUILDING
PROJECT: OLIVE BOWL PARK, LINDSAY, CA

| REVISION # | REVISION DATE: | SHEET# |
|---|---|---|
| 1 | 11/22/2022 | A-3 |
| PROJECT #: 11018D | DRAWN BY: EOR | MAX. PERSON / HOUR: 180 M |
| | START DATE: 5/14/2021 | |
| | DRAWN BY: EOR | |

-NOT FOR CONSTRUCTION - PRELIMINARY DESIGN DRAWING. ONLY - DO NOT SCALE. DIMENSIONS PRESIDE

NOTES:

1. CONTRACTOR WILL BE RESPONSIBLE FOR COORDINATING WITH THE PREFAB BUILDING MANUF., PUBLIC RESTROOM COMPANY. PUBLIC RESTROOM COMPANY WILL PROVIDE DEFERRED CONSTRUCTION SUBMITTALS, SIGNED BY THE PUBLIC RESTROOM COMPANIES STRUCTURAL ENGINEER. THOSE SHALL INCLUDE THE FOLLOWING:
   - FOUNDATION DESIGN
   - STRUCTURAL CALCULATIONS FOR VERTICAL AND LATERAL PER ASCE7-16
   - DETAILED CONNECTION FROM FOUNDATION TO PRE FAB STRUCTURE.
   - SHOW HOW DESIGN COMPLIES WITH T-24 DISABLED ACCESS REQUIREMENTS.
2. CONTRACTOR SHALL SUBMIT ALL NECESSARY PLANS (MINIMUM SHEET SIZE 18"X24") AND STRUCTURAL CALCS (CAN BE 8.5"X11" PACKET) FOR PERMITTING AND APPROVAL.
3. APPLY NON-SACRIFICIAL MATTE FINISH ANTI GRAFFITI COATING TO ALL BUILDING SURFACES, EXTERIOR AND INTERIOR, INCLUDING BUT NOT LIMITED TO DOORS, WALLS AND CEILING.

A | RESTROOM / CONCESSION BUILDING/STORAGE | NO SCALE

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109 W. UNION AVE.
FULLERTON, CA 92832
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CONSULTANT:

PROJECT TEAM:

LANDSCAPE ARCHITECT
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ELECTRICAL ENGINEER
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OLIVE BOWL
KAKU
PARK

LINDSAY, CA
93247

SHEET TITLE

CONSTRUCTION DETAILS

| DATE | REVISION |
|---|---|
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| 12-8-21 | 90% CD Submittal |
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| 2-13-23 | 100% CD Submittal |
| 10-3-23 | ADDENDUM #1 |
| 10-27-23 | ADDENDUM #3 |
| 6-10-24 | 3 PHASE RE-PACKAGE |

STAMP

LICENSED LANDSCAPE ARCHITECT
STEPHEN M. LANG NO. 5117
SIGNATURE
6-10-24
RENEWAL DATE
6-10-24
DATE
STATE OF CALIFORNIA

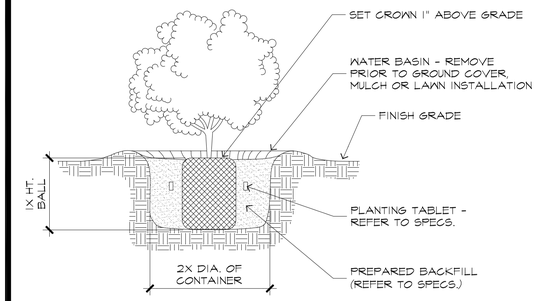
| CHECKED BY | DATE |
|---|---|
| O.J. | 6-10-24 |
| DRAWN BY | JOB NO. |
| H.D. | 05567.02 |

SHEET
LD-10

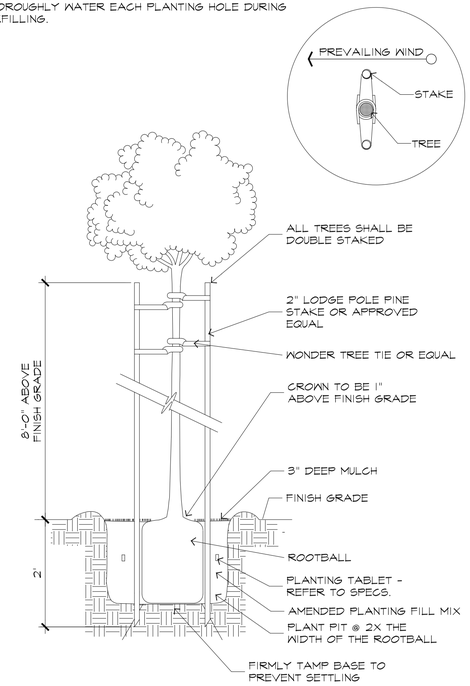
## I NOT USED — NO SCALE

## F NOT USED — NO SCALE

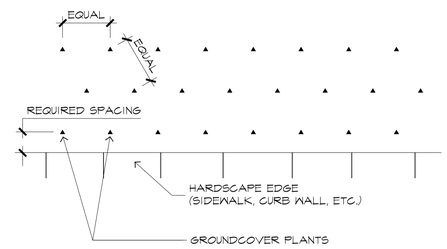
## C SHRUB INSTALLATION — NO SCALE




NOTE:
1. PLACE TREE STAKES PERPENDICULAR TO PREVAILING WIND.
2. THOROUGHLY WATER TREES BEFORE PLANTING.
3. THOROUGHLY WATER EACH PLANTING HOLE DURING BACKFILLING.



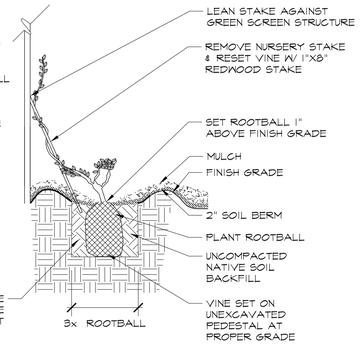

## A TREE INSTALLATION — NO SCALE



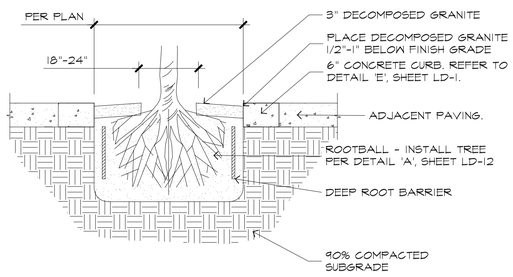

NOTE:
REFER TO PLANTING PLAN FOR REQUIRED SPACING, AND TO SPECIFICATIONS FOR PLANTING METHODS AND MATERIALS

## D GROUNDCOVER INSTALLATION — NO SCALE

NOTES:
1. PLANT PIT TO BE MIN. 3 TIMES THE DIAM. & 1-1/2 TIMES HEIGHT OF ROOTBALL.
2. ROUGHEN SIDES & BOTTOM OF ROOTBALL & PLANT PIT.
3. PLANT VINE STEM AS CLOSE TO FENCE AS POSSIBLE BUT ALLOW 6" MIN. BETW. FENCE AND PLANT.




## E VINE INSTALLATION — NO SCALE




## B TREE INSTALLATION IN D.G. — NO SCALE

## K NOT USED — NO SCALE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CONSULTANT:

PROJECT TEAM:

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93247

SHEET TITLE

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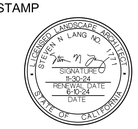
| 6-10-24 | 3 PHASE RE-PACKAGE |

STAMP

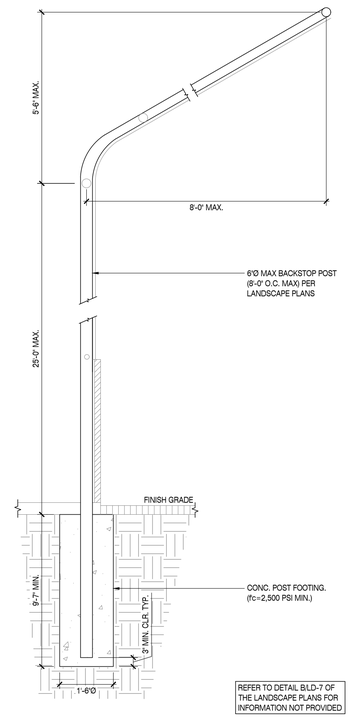



| CHECKED BY | DATE |
|---|---|
| O.J. | 6-10-24 |
| DRAWN BY | JOB NO. |
| H.D. | 05567.02 |

SHEET

LD-12

SHEET 60 OF 79 SHEETS

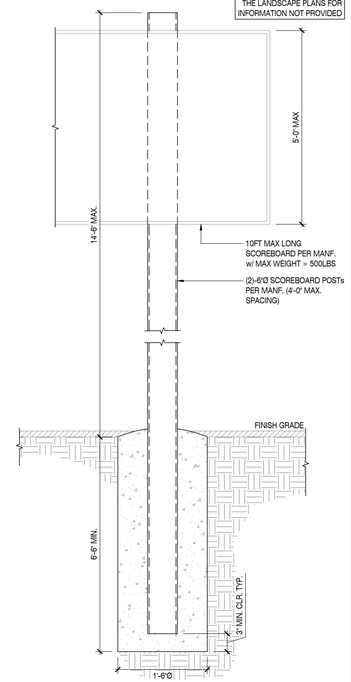



REFER TO DETAIL B/LD-7 OF THE LANDSCAPE PLANS FOR INFORMATION NOT PROVIDED

## BACKSTOP HOOD POST FOOTING — 7

SCALE: N.T.S.

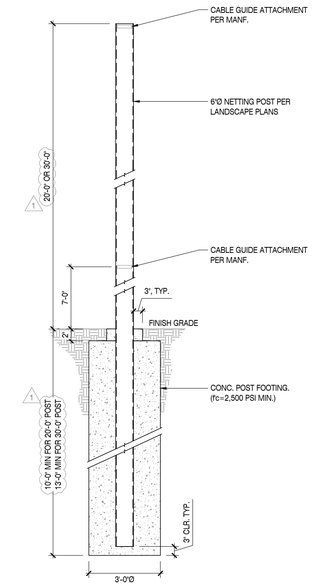
REFER TO DETAIL J/LD-6 OF THE LANDSCAPE PLANS FOR INFORMATION NOT PROVIDED




## SCOREBOARD POST FOOTING — 5

SCALE: N.T.S.

REFER TO DETAIL C/LD-6 OF THE LANDSCAPE PLANS FOR INFORMATION NOT PROVIDED



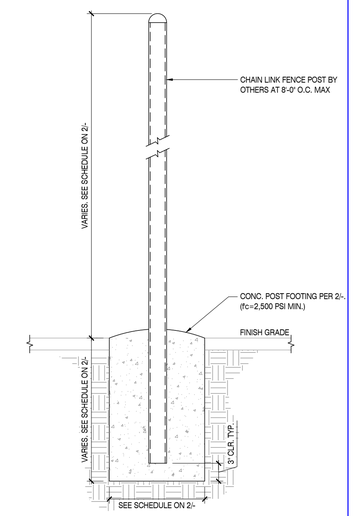

NOTE:

THE PLACEMENT OF BANNERS ON THE NETTING IS EXCLUDED FROM THE DESIGN.

## 20' OR 30' HIGH SAFETY NETTING POST FOOTING — 3

SCALE: N.T.S.

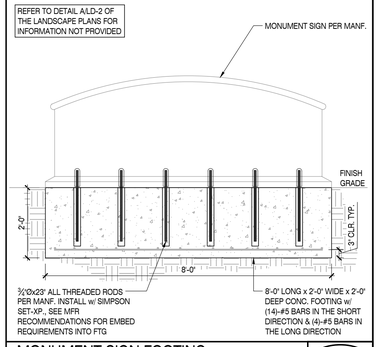
REFER TO DETAIL A/LD-6 OF THE LANDSCAPE PLANS FOR INFORMATION NOT PROVIDED




## CHAIN LINK FENCE POST FOOTING — 1

SCALE: N.T.S.

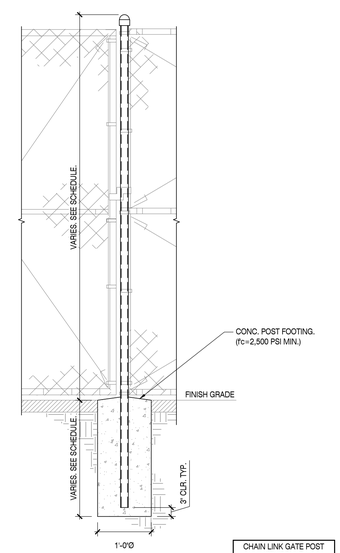
REFER TO DETAIL A/LD-2 OF THE LANDSCAPE PLANS FOR INFORMATION NOT PROVIDED




## MONUMENT SIGN FOOTING — 8

SCALE: N.T.S.

REFER TO DETAIL K&L/LD-6 OF THE LANDSCAPE PLANS FOR INFORMATION NOT PROVIDED

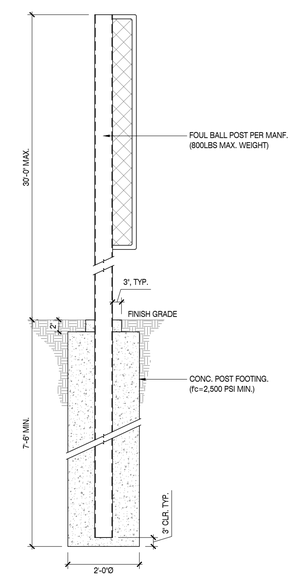



| CHAIN LINK GATE POST SCHEDULE | |
|---|---|
| POST HEIGHT | FOOTG DEPTH |
| 8'-0" | PER DETAIL 2/- |
| 10'-0" | PER DETAIL 2/- |

## CHAIN LINK GATE POST FOOTING — 6

SCALE: N.T.S.

REFER TO DETAIL D/LD-6 OF THE LANDSCAPE PLANS FOR INFORMATION NOT PROVIDED




## FOUL BALL POLE FOOTING — 4

SCALE: N.T.S.

| CHAIN LINK FENCE POST FOOTING SCHEDULE | | | |
|---|---|---|---|
| MAX FENCE HEIGHT | FUTURE SCREEN[2] | FOOTG DEPTH | FOOTG DIA. |
| 3'-6' | NO | 2'-0' | 1'-0' |
| 3'-6' | YES | 3'-6' | 1'-0' |
| 6' | NO | 2'-0' | 1'-0' |
| 6' | YES | 4'-8' | 1'-0' |
| 8' | NO | 2'-3' | 1'-0' |
| 8' | YES | 5'-8' | 1'-0' |
| 10' | NO | 3'-3' | 1'-0' |
| 10' | YES | 6'-5' | 1'-0' |

NOTES:

1. REFER TO DETAIL F/LD-6 FOR ADDITIONAL INFORMATION.
2. WIND SCREEN FOOTING SHOULD BE USED FOR ANY FENCE THAT WILL HAVE OVER 50% BLOCKAGE FROM SIGNAGE OR FABRIC WRAP PREVENTING WIND PASSING THRU OVER THE LIFE OF THE FENCE.

## CHAIN LINK FENCE POST FOOTING SCHEDULE — 2

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CONSULTANT:
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PROJECT TEAM:
LANDSCAPE ARCHITECT
**MOORE IACOFANO GOLTSMAN, INC.**
ELECTRICAL ENGINEER
**LRA ENGINEERS**
CIVIL ENGINEER
**BKF**
STRUCTURAL ENGINEER
**ISE**
SKATEPARK DESIGNER
**SPOHN RANCH**


# OLIVE BOWL KAKU PARK

LINDSAY, CA
93247

SHEET TITLE

## STRUCTURAL DETAILS

| DATE | REVISION |
|---|---|
| 10-18-21 | 50% CD Submittal |
| 12-8-21 | 90% CD Submittal |
| 12-14-22 | 90% CD Submittal |
| 2-13-23 | 100% CD Submittal |
| 6-10-24 | 3 Phase Re-Package |

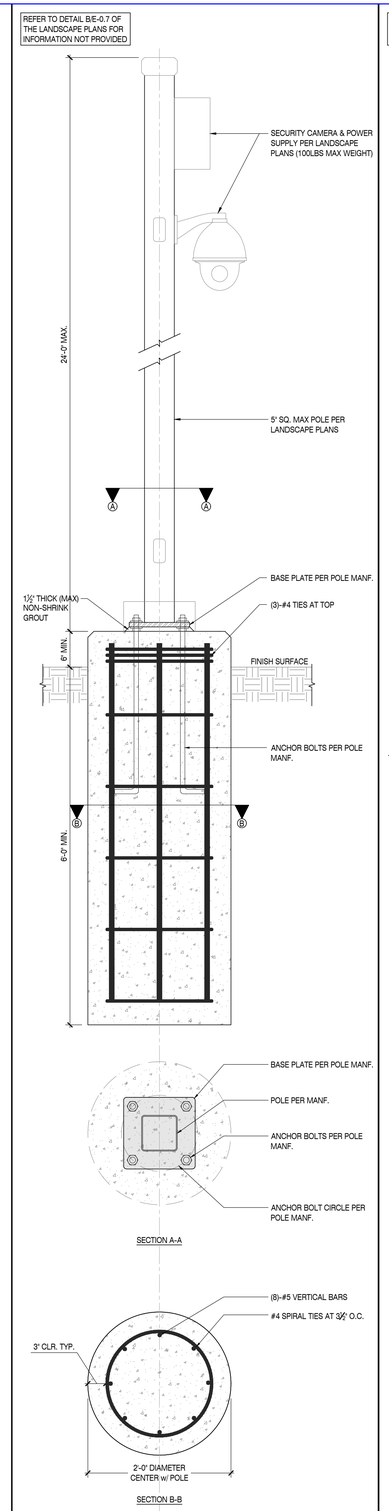
STAMP

REGISTERED PROFESSIONAL ENGINEER
TIMOTHY SCOTT SPOHN
No. 87527
Exp. 6/30/2024
STRUCTURAL
STATE OF CALIFORNIA

| CHECKED BY | DATE |
|---|---|
| TS | 6-10-24 |
| DRAWN BY | JOB NO. |
| VG | 21-6937 |

SHEET

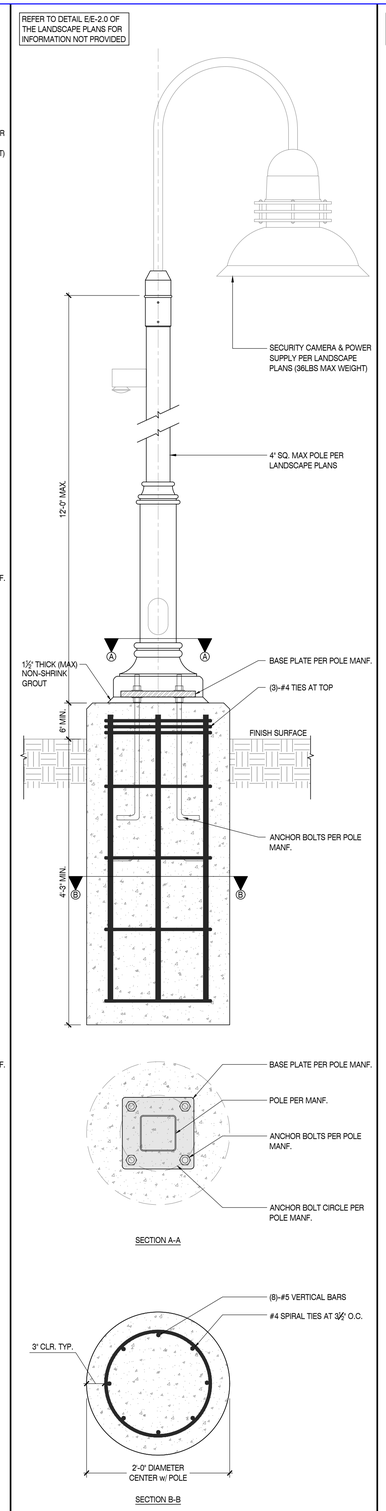
ST-1




POLE MOUNTED SECURITY CAMERA FOOTING

SCALE: N.T.S.

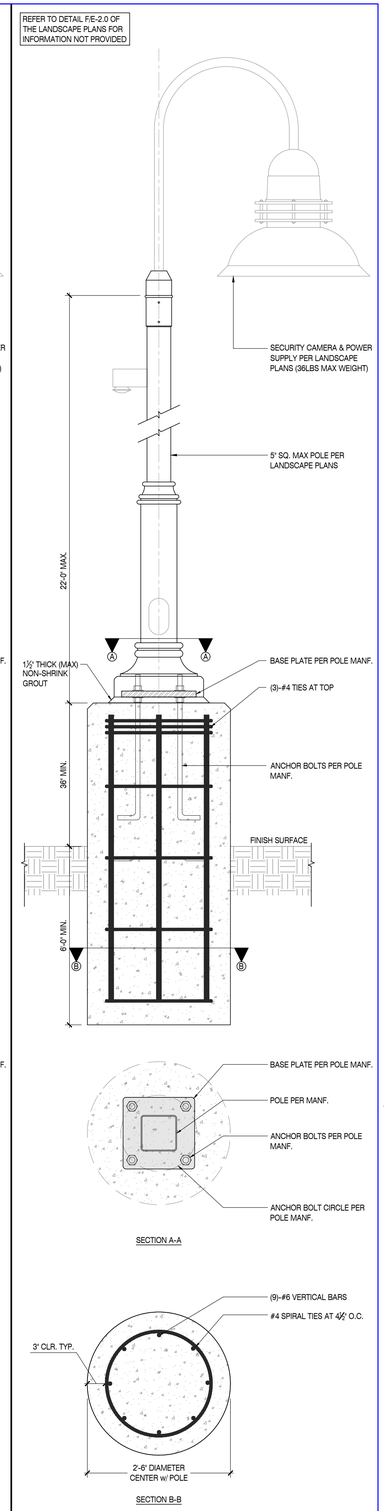
3




WALKWAY LIGHT POLE FOOTING

SCALE: N.T.S.

2




PARKING AREA LIGHT POLE FOOTING

SCALE: N.T.S.

1

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SKATEPARK DESIGNER
**SPOHN RANCH**


# OLIVE BOWL KAKU PARK

LINDSAY, CA
93247

SHEET TITLE

## STRUCTURAL DETAILS

| DATE | REVISION |
|---|---|
| 10-18-21 | 50% CD Submittal |
| 12-8-21 | 90% CD Submittal |
| 12-14-22 | 90% CD Submittal |
| 2-13-23 | 100% CD Submittal |
| 6-10-24 | 3 Phase Re-Package |

STAMP

REGISTERED PROFESSIONAL ENGINEER
CHRIS DAVIS
No. 84227
Exp. 6/30/2024
STRUCTURAL
STATE OF CALIFORNIA

| CHECKED BY | DATE |
|---|---|
| TS | 6-10-24 |
| DRAWN BY | JOB NO. |
| VG | 21-6937 |

SHEET

ST-2

## CONCRETE EXPOSURE REQUIREMENTS

| ACI 318-14 TABLE 19.3.1.1 - EXPOSURE CATEGORIES AND CLASSES | | | |
|---|---|---|---|
| CATEGORY | CLASS | CONDITION | |
| F<br>FREEZING AND THAWING | F0 | CONCRETE NOT EXPOSED TO FREEZING-AND-THAWING CYCLES | |
| | F1 | CONCRETE EXPOSED TO FREEZING-AND-THAWING CYCLES WITH LIMITED EXPOSURE TO WATER | |
| | F2 | CONCRETE EXPOSED TO FREEZING-AND-THAWING CYCLES WITH FREQUENT EXPOSURE TO WATER | |
| | F3 | CONCRETE EXPOSED TO FREEZING-AND-THAWING CYCLES WITH FREQUENT EXPOSURE TO WATER AND EXPOSURE TO DEICING CHEMICALS | |
| S<br>SULFATE | | WATER SOLUBLE SULFATE ($SO_4^{2-}$) IN SOIL, PERCENT BY WEIGHT | DISSOLVED SULFATE ($SO_4^{2-}$) IN WATER, PPM |
| | S0 | $SO_4^{2-} < 0.10$ | $SO_4^{2-} < 150$ |
| | S1 | $0.10 \leq SO_4^{2-} < 0.20$ | $150 \leq SO_4^{2-} < 1500$ OR SEAWATER |
| | S2 | $0.20 \leq SO_4^{2-} \leq 2.0$ | $1500 \leq SO_4^{2-} \leq 10{,}000$ |
| | S3 | $SO_4^{2-} > 2.00$ | $SO_4^{2-} > 10{,}000$ |
| W<br>IN CONTACT WITH WATER | W0 | CONCRETE DRY IN SERVICE<br>CONCRETE IN CONTACT WITH WATER AND LOW PERMEABILITY IS NOT REQUIRED | |
| | W1 | CONCRETE IN CONTACT WITH WATER AND LOW PERMEABILITY IS NOT REQUIRED | |
| C<br>CORROSION PROTECTION OF REINFORCEMENT | C0 | CONCRETE DRY OR PROTECTED FROM MOISTURE | |
| | C1 | CONCRETE EXPOSED TO MOISTURE BUT NOT TO EXTERNAL SOURCES OF CHLORIDES | |
| | C2 | CONCRETE EXPOSED TO MOISTURE AND AN EXTERNAL SOURCE OF CHLORIDES FROM DEICING CHEMICALS, SALT, BRACKISH WATER, SEAWATER, OR SPRAY FROM THESE SOURCES | |

| ACI 318-14 TABLE 19.3.2.1 - REQUIREMENTS FOR CONCRETE BY EXPOSURE CLASS | | | | | | |
|---|---|---|---|---|---|---|
| EXPOSURE CLASS | MAX W/CM | MIN f'c | ADDITIONAL MINIMUM REQUIREMENTS | | | |
| | | | AIR CONTENT | | | LIMITS ON CEMENTITIOUS MATERIALS |
| F0 | N/A | 2500 | N/A | | | N/A |
| F1 | 0.55 | 3500 | PER TABLE 19.3.3.1 | | | N/A |
| F2 | 0.45 | 4500 | PER TABLE 19.3.3.1 | | | N/A |
| F3 | 0.40 (2) | 5000 (2) | PER TABLE 19.3.3.1 | | | 26.4.2.2(b) |
| | | | CEMENTITIOUS MATERIALS - TYPES | | | CALCIUM CHLORIDE ADMIXTURE |
| | | | ASTM C150 | ASTM C595 | ASTM C1157 | |
| S0 | N/A | 2500 | NO TYPE RESTRICTION | NO TYPE RESTRICTION | NO TYPE RESTRICTION | NO RESTRICTION |
| S1 | 0.50 | 4000 | II (4,5) | TYPES IP, IS, OR IT WITH (MS) DESIGNATION | MS | NO RESTRICTION |
| S2 | 0.45 | 4500 | V (5) | TYPES IP, IS, OR IT WITH (HS) DESIGNATION | HS | NOT PERMITTED |
| S3 | 0.45 | 4500 | V PLUS POZZOLAN OR SLAG CEMENT (6) | TYPES IP, IS, OR IT WITH (HS) DESIGNATION PLUS POZZOLAN OR SLAG CEMENT (6) | HS PLUS POZZOLAN OR SLAG CEMENT (6) | NOT PERMITTED |
| | | | | | | |
| W0 | N/A | 2500 | NONE | | | |
| W1 | 0.50 | 4000 | NONE | | | |
| | | | MAXIMUM WATER SOLUBLE CHLORIDE ION ($CL^-$) CONTENT IN CONCRETE, PERCENT BY WEIGHT OF CEMENT (7) | | ADDITIONAL PROVISIONS | |
| | | | NON-PRESTRESSED-ISSUED CONCRETE | PRESTRESSED CONCRETE | | |
| CO | N/A | 2500 | 1.00 | 0.06 | NONE | |
| C1 | N/A | 2500 | 0.30 | 0.06 | NONE | |
| C2 | 0.40 | 5000 | 0.15 | 0.06 | CONCRETE COVER (8) | |

1. THE MAXIMUM W/CM LIMITS IN TABLE 19.3.2.1 DO NOT APPLY TO LIGHTWEIGHT CONCRETE.
2. FOR PLAIN CONCRETE, THE MAXIMUM W/CM SHALL BE 0.45 AND THE MINIMUM f'c SHALL BE 4,500 PSI.
3. ALTERNATIVE COMBINATIONS OF CEMENTITIOUS MATERIALS TO THOSE LISTED IN TABLE 19.3.2.1 ARE PERMITTED WHEN TESTED FOR SULFATE RESISTANCE AND MEETING THE CRITERIA IN 26.4.2.2(c).
4. FOR SEAWATER EXPOSURE, OTHER TYPES OF PORTLAND CEMENTS WITH TRI-CALCIUM ALUMINATE ($C_3A$) CONTENTS UP TO 10 PERCENT ARE PERMITTED IF THE W/CM DOES NOT EXCEED 0.40.
5. OTHER AVAILABLE TYPES OF CEMENT SUCH AS TYPE I OR TYPE III ARE PERMITTED IN EXPOSURE CLASSES S1 OR S2 IF THE $C_3A$ CONTENTS ARE LESS THAN 8 PERCENT FOR EXPOSURE CLASS S1 OR LESS THAN 5 PERCENT FOR EXPOSURE CLASS S2.
6. THE AMOUNT OF THE SPECIFIC SOURCE OF THE POZZOLAN OR SLAG CEMENT TO BE USED SHALL BE AT LEAST THE AMOUNT THAT HAS BEEN DETERMINED BY SERVICE RECORD TO IMPROVE SULFATE RESISTANCE WHEN USED IN CONCRETE CONTAINING TYPE V CEMENT. ALTERNATIVELY, THE AMOUNT OF THE SPECIFIC SOURCE OF THE POZZOLAN OR SLAG CEMENT TO BE USED SHALL BE AT LEAST THE AMOUNT TESTED IN ACCORDANCE WITH ASTM C1012 AND MEETING THE CRITERIA IN 26.4.2.2(c).
7. WATER-SOLUBLE CHLORIDE ION CONTENT THAT IS CONTRIBUTED FROM THE INGREDIENTS INCLUDING WATER, AGGREGATES, CEMENTITIOUS MATERIALS, AND ADMIXTURES SHALL BE DETERMINED ON THE CONCRETE MIXTURE BY ASTM C1218 AT AGE BETWEEN 28 AND 42 DAYS.
8. CONCRETE COVER SHALL BE IN ACCORDANCE WITH 20.6.

| CONCRETE REQUIREMENTS | | | | | |
|---|---|---|---|---|---|
| SULFATE EXPOSURE (EXPOSURE CLASS) | WATER SOLUBLE SULFATE (SO4) IN SOIL, PERCENTAGE BY WEIGHT | SULFATE (SO4) IN WATER, PPM | CEMENT TYPE | MAX W/C RATIO | MIN CONCRETE STRENGTH, f'c |
| NEGLIGIBLE (S0) | 0.00-0.10 | 0-150 | II OR V | 0.65 | 3,000 |
| MODERATE (S1) | 0.10-0.20 | 150-1,500 | II OR V | 0.50 | 4,000 |
| SEVERE (S3) | 0.20-2.00 | 1,500-1,0000 | V | 0.45 | 4,500 |
| VERY SEVERE (S4) | OVER 2.00 | OVER 10,000 | V PLUS POZZOLAN[2] | 0.45 | 4,500 |

NOTES:
1. A LOWER W/C RATIO OR HIGHER STRENGTH MAY BE REQUIRED FOR LOW PERMEABILITY OR FOR PROTECTION AGAINST CORROSION OF EMBEDDED ITEMS OR FREEZING AND THAWING PER ACI 318 TABLE 19.3.2.1.
2. THE AMOUNT OF THE SPECIFIC SOURCE OF THE POZZOLAN OR SLAG CEMENT TO BE USED SHALL BE AT LEAST THE AMOUNT THAT HAS BEEN DETERMINED BY SERVICE RECORD TO IMPROVE SULFATE RESISTANCE.
3. CONCRETE EXPOSURE CLASSES FOR THE CONCRETE STRENGTHS NOTED ABOVE ARE PERMITTED TO BE F0, W0, C0, & C1. IF ANY OTHER EXPOSURE CLASSES ARE PRESENT, THE MIN CONCRETE STRENGTH SHALL BE 5,000 PSI AND THE MAX W/C RATIO SHALL BE 0.40.

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## EARTHWORK AND FOUNDATIONS

1. GEOTECHNICAL REPORT: PERFORM SOILS WORK COMPLYING WITH FOUNDATION DESIGN BASED ON RECOMMENDATIONS IN SOILS REPORT. SEE STRUCTURAL COVER SHEET FOR SOILS REPORT NUMBER AND DATE.
2. ALLOWABLE FOUNDATION DESIGN VALUES PER GEOTECHNICAL REPORT: VALUES BELOW MAY BE INCREASED 33 PERCENT FOR TRANSIENT LOADING.
   A. BEARING CAPACITY: SEE PROJECT DESIGN CRITERIA
   B. PASSIVE LATERAL BEARING PRESSURE: SEE PROJECT DESIGN CRITERIA
   C. COEFFICIENT OF FRICTION: SEE PROJECT DESIGN CRITERIA
3. GRADING, EXCAVATIONS, BACKFILL AND COMPACTION OF BACKFILL: COMPLY WITH GEOTECHNICAL REPORT AND REQUIREMENTS OF GOVERNING CODE AUTHORITY AND PERFORMED ONLY UNDER CONTINUOUS SPECIAL INSPECTION OF GEOTECHNICAL ENGINEER.
4. PREPARATION OF SOIL UNDER BUILDING PAD: SEE GEOTECHNICAL REPORT FOR OVER-EXCAVATION OF EXISTING SOIL AND INSTALLATION OF PROPERLY COMPACTED BACKFILL.
5. FOUNDATION EXCAVATIONS: FOUNDATIONS ARE TO BEAR ON FIRM EXISTING SOIL OR APPROVED COMPACTED FILL AS INDICATED IN GEOTECHNICAL REPORT. EXCAVATIONS ARE TO BE INSPECTED BY GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF REINFORCING STEEL AND FORMWORK. ENSURE EXCAVATIONS ARE CLEANS, DRY AND FREE OF DEBRIS OR LOOSE SOIL. SLOPE SIDES OF EXCAVATION NOT LESS THAN MINIMUM SLOPE INDICATED IN GEOTECHNICAL REPORT. CAST CONCRETE DIRECTLY AGAINST EXCAVATED SURFACES.
6. BACKFILLING OF RETAINING WALLS: PLACE AFTER COMPLETION AND INSPECTION OF WATERPROOFING. ADEQUATELY SHORE RETAINING WALLS DURING BACKFILL OPERATION. UNLESS ADEQUATELY SHORED, DO NOT PLACE BACKFILL BEHIND BUILDING STRUCTURE RETAINING WALLS (EXCLUDING SITE RETAINING WALLS) UNTIL CONCRETE AT ELEVATED FLOOR LEVELS ADJACENT TO WALLS ARE COMPLETELY POURED (IN AREA) AND HAVE CURED FOR AT LEAST 7 DAYS.
7. WATER EXPOSURE AT BUILDING PERIMETER FOOTINGS: AT AREAS WHERE SIDEWALKS OR PAVING DO NOT IMMEDIATELY ADJOIN STRUCTURE, PROVIDE POSITIVE DRAINAGE AWAY FROM STRUCTURE AT BUILDING PERIMETER. LANDSCAPE IRRIGATION IS NOT PERMITTED WITHIN FIVE FEET OF BUILDING PERIMETER FOOTINGS EXCEPT WHEN ENCLOSED IN PROTECTED PLANTERS WITH DIRECT DRAINAGE AWAY FROM STRUCTURE OR WHICH COMPLIES WITH APPLICABLE CODE. DISCHARGE FROM DOWN SPOUTS, ROOF DRAINS AND SCUPPERS IS NOT PERMITTED ONTO UNPROTECTED SOILS WITHIN FIVE FEET OF BUILDING PERIMETER. REFER TO GEOTECHNICAL REPORT FOR COMPLETE REQUIREMENTS.

## CONCRETE

1. CONCRETE COMPRESSIVE STRENGTH: ALL CONCRETE SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH AS SHOWN IN THE TABLE 2 BELOW AT 28 DAYS, U.N.O. ON PLANS. SEE ALSO SULFATE CONTENT NOTES.
2. AGGREGATES IN CONCRETE: SHALL BE NATURAL SAND AND ROCK (150 LB/CU. FT) CONFORMING TO ASTM C33. AGGREGATE SHALL HAVE PROVEN SHRINKAGE CHARACTERISTICS OF LESS THAN 0.04% PER ASTM C-157. DO NOT CHANGE SOURCE OF AGGREGATE DURING COURSE OF WORK WITHOUT WRITTEN CONSENT OF ENGINEER.
3. CEMENT: SHALL BE PORTLAND CEMENT CONFORMING TO ASTM C150. CEMENT SHALL BE TYPE II OR AS REQUIRED TO SATISFY SITE SOIL CONDITIONS. REFER TO TABLE 4 FOR CONCRETE CEMENT REQUIREMENTS ON SOIL CONTAINING SULFATE. REFER TO TABLE 2 FOR MAXIMUM WATER TO CEMENT RATIO.

| CONCRETE STRENGTH | | | |
|---|---|---|---|
| CONDITION | STRENGTH, f'c | WATER / CEMENT RATIO | MAX. SLUMP |
| SIGN AND POLE FOOTINGS | 2,500 PSI | PER MIX DESIGNER | PER MIX DESIGNER |
| | | | |
| | | | |
| | | | |

4. REBAR CLEAR COVER IN CONCRETE: THE FOLLOWING MINIMUM CLEAR DISTANCES BETWEEN REINFORCING STEEL AND FACE OF CONCRETE SHALL BE MAINTAINED UNLESS NOTED OTHERWISE:

| REBAR CLEAR COVER FOR CAST-IN-PLACE CONCRETE MEMBERS | | | |
|---|---|---|---|
| CONCRETE EXPOSURE | MEMBER | REINFORCEMENT | SPECIFIED COVER |
| SLAB ON GRADE | ALL | ALL | CENTER OF SLAB OR 2" MIN |
| CONCRETE AGAINST & PERMANENTLY IN CONTACT WITH GROUND: | ALL | ALL | 3" |
| EXPOSED TO WEATHER OR IN CONTACT WITH GROUND | ALL | No. 6 THROUGH No. 18 BARS | 2" |
| | | No. 5 BAR, W31 OR D31 WIRE, AND SMALLER | 1-1/2" |
| NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND | SLABS, JOISTS, AND WALLS | No. 14 AND No. 18 BARS | 1-1/2" |
| | | No. 11 BAR AND SMALLER | $\frac{3}{4}$" |
| | BEAMS, COLUMNS, PEDESTALS, AND TENSION TIES | PRIMARY REINFORCEMENT, STIRRUPS, TIES, SPIRALS, AND HOOPS | 1-1/2" |

5. VIBRATION: VIBRATION OF CONCRETE SHALL BE IN ACCORDANCE WITH GENERAL PROVISIONS OUTLINED IN PORTLAND CEMENT ASSOCIATION SPECIFICATION ST26.
6. CURING: CONCRETE SHALL BE MAINTAINED AT IN A MOIST CONDITION FOR A MINIMUM OF FIVE DAYS AFTER ITS PLACEMENT. FOR CONCRETE OTHER THAN SLAB ON GRADE, APPROVED CURING COMPOUNDS MAY BE USED IN LIEU OF MOIST CURING. ONLY IF APPROVED BY THE ENGINEER OR ARCHITECT.
7. INSPECTIONS, TESTING & QUALITY ASSURANCE: REFER TO STRUCTURAL NOTE SHEETS FOR DEPUTY SPECIAL INSPECTION, TESTING & STRUCTURAL OBSERVATION REQUIREMENTS. A MINIMUM OF ONE COMPRESSION TEST AT 7 DAYS AND 2 TESTS AT 28 DAYS FOR ALL CONCRETE SAMPLES. TAKE TEST AT A FREQUENCY OF ONCE EVERY 150 CU. YDS OR 5,000 SQ. FT MINIMUM.
8. ANCHOR BOLTS, DOWELS, INSERTS: SHALL BE TIED IN PLACE PRIOR TO POURING CONCRETE.
9. CONSTRUCTION AND POUR JOINTS: LOCATIONS SHALL BE APPROVED BY ENGINEER PRIOR TO POURING CONCRETE.
10. FLY ASH: SHALL NOT BE USED IN CONCRETE.
11. FORMWORK: FORMWORK TOLERANCE SHALL IN ACCORDANCE WITH THE C.B.C. AND A.C.I. STANDARDS.
12. HOT AND COLD WEATHER CONCRETING:
    A. HOT WEATHER CONCRETING: WHEN AIR TEMPERATURE RISES ABOVE 80° F AND HUMIDITY FALLS BELOW 25, THE CONTRACTOR SHALL FOLLOW HOT WEATHER CONCRETING IN ACCORDANCE WITH ACI 305 5-77. CONTRACTOR SHALL BE PREPARED TO USE FOG SPRAY OR OTHER PRECAUTIONS ACCEPTABLE TO ARCHITECT WHEN RATE OF EVAPORATION EQUALS OR EXCEEDS 0.2 POUNDS PER SQUARE FOOT PER HOUR.
    B. COLD WEATHER CONCRETING: ADEQUATE EQUIPMENT SHALL BE PROVIDED FOR HEATING CONCRETE MATERIALS AND PROTECTING CONCRETE DURING FREEZING OR NEAR FREEZING WEATHER. ALL CONCRETE MATERIALS AND ALL REINFORCEMENT, FORMS FILLERS AND GROUND WITH WHICH THE CONCRETE IS TO CONTACT SHALL BE FREE FROM FROST. FROZEN MATERIAL OR MATERIALS CONTAINING ICE SHALL NOT BE USED. COLD WEATHER CONCRETING SHALL BE DONE IN ACCORDANCE WITH ACI 306 R-78. (LATEST EDITION)
13. PIPES IN CONCRETE: PIPES MAY PASS THROUGH STRUCTURAL CONCRETE IN SLEEVES, BUT SHALL NOT BE EMBEDDED THEREIN. PIPES OR DUCTS EXCEEDING ONE-THIRD THE SLAB OR WALL THICKNESS SHALL NOT BE PLACED IN THE STRUCTURAL CONCRETE UNLESS SPECIFICALLY DETAILED.
14. EXPOSED CORNERS: PROVIDE 3/4" CHAMFERS AT ALL EXPOSED CORNERS.
15. ARCHITECTURAL DETAILS: REFER TO ARCHITECTURAL DRAWINGS FOR REVEALS, AREAS OF TEXTURED CONCRETE OR SPECIAL FINISHES, ITEMS REQUIRED TO BE CAST INTO THE CONCRETE, CURBS AND SLAB DEPRESSIONS.
16. DRYPACK OR GROUT: SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2,000 PSI AND BE COMPOSED OF ONE PART PORTLAND CEMENT TO NOT MORE THAN THREE PARTS SAND.

## GENERAL NOTES

1. FIELD VERIFICATION: FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION. PROMPTLY NOTIFY ARCHITECT (STRUCTURAL ENGINEER) IN CASE OF DISCREPANCIES.
2. DESIGN INTENT: CONTRACT DOCUMENTS INDICATE DESIGN INTENT FORE STRUCTURE IN ITS COMPLETED STATE. THEY DO NOT INDICATE METHOD OF CONSTRUCTION. PROMPTLY NOTIFY ARCHITECT (STRUCTURAL ENGINEER), PRIOR TO PROCEEDING WITH WORK, IF DESIGN INTENT REQUIRES FURTHER CLARIFICATION.
3. DEVIATIONS, MODIFICATIONS AND SUBSTITUTIONS TO APPROVED STRUCTURAL DRAWINGS: MUST BE ACCEPTED IN WRITING BY ARCHITECT (STRUCTURAL ENGINEER) AND APPROVED BY GOVERNING CODE AUTHORITY. NO DEVIATION, MODIFICATION OR SUBSTITUTION WILL BE ACCEPTED VIA SHOP DRAWING REVIEW.
4. PROCEDURES OF CONSTRUCTION: CONTRACTOR IS RESPONSIBLE FOR PROCEDURES OF CONSTRUCTION COMPLYING WITH NATIONAL, STATE AND LOCAL SAFETY ORDINANCES. SITE VISITS (INCLUDING STRUCTURAL OBSERVATION) BY ARCHITECT (STRUCTURAL ENGINEER) DO NOT CONSTITUTE SUPERVISIONS OF METHODS OF CONSTRUCTION.
   A. PROTECTION OF UTILITIES: LOCATE EXISTING UTILITIES, INCLUDING THOSE NOT SHOWN ON CONTRACT DOCUMENTS, AND PROTECT THEM FROM DAMAGE. CONTRACTOR BEARS EXPENSE OF REPAIR OR REPLACEMENT OF UTILITIES IN CONJUNCTION WITH EXECUTION OF WORK.
   B. EXCAVATIONS: PROTECT STRUCTURE, ADJACENT STRUCTURES, ADJACENT PROPERTIES, STREETS, AND UTILITIES DURING EXCAVATION UTILIZING LAGGING, SHORING, UNDERPINNING AT SIDES AND RELATED PROCEDURES AS MAY BE REQUIRED. PROVIDE NECESSARY SUPPORTS FOR SOIL EXCAVATIONS. CONTRACTOR AND AFFECTED TRADES SHALL REFER TO GEOTECHNICAL REPORT FOR MORE INFORMATION.
   C. PROTECTION OF STRUCTURE: PROVIDE NECESSARY MEASURES TO PROTECT STRUCTURE DURING EXECUTION OF WORK.
   D. CONTRACTOR PROPOSED REVISIONS: WHERE A REVISION OF STRUCTURAL DESIGN OR CONNECTION IS PROPOSED BY CONTRACTOR TO ACCOMMODATE CONSTRUCTION TOLERANCES, CONSTRUCTION SEQUENCE AND/OR DIMENSION MODIFICATIONS, CONTRACTOR SHALL RETAIN A STRUCTURAL ENGINEER LICENSED IN STATE OF CALIFORNIA TO PERFORM DESIGN. SUBMIT STAMPED AND SIGNED DESIGN DRAWINGS AND CALCULATIONS TO THE ARCHITECT (STRUCTURAL ENGINEER) FOR REVIEW AND THE GOVERNING CODE AUTHORITY FOR APPROVAL.
   E. ERECTION PLANS: DETERMINE PHASES OF WORK REQUIRING ERECTION PLANS ACCORDING TO APPLICABLE SAFETY REGULATIONS. MAINTAIN CERTIFIED COPIES OF ERECTION PLANS AT SITE DURING CONSTRUCTION.
   F. SHORING, BRACING, AND OTHER TEMPORARY SUPPORTS: DESIGN AND ERECT SHORING, BRACING, AND OTHER TEMPORARY SUPPORTS WHERE STRUCTURE HAS NOT ATTAINED DESIGN STRENGTH AND AS REQUIRED FOR SAFE ERECTION. ENSURE FLOOR, ROOF, AND WALL MEMBERS ARE SECURELY SHORED AND BRACED DURING CONSTRUCTION. PROVIDE SHORING AT ELEVATED BEAMS AND SLABS SUPPORTING CONCRETE OR MASONRY WALLS DURING AND AFTER WALL POUR UNTIL WALL ATTAINS DESIGN STRENGTH.
   G. TEMPORARY LOADING: ENSURE CONSTRUCTION LOADS DO NOT EXCEED INDICATED DESIGN LIVE LOAD VALUES. NOTIFY AFFECTED SUB-CONTRACTOR TRADES OF THESE DESIGN LOAD LIMITS.
   H. FABRICATION, SHIPMENT, AND ERECTION OF STRUCTURAL STEEL: ENSURE STRESSES OCCURRING DURING FABRICATION, SHIPMENT, AND ERECTION OF STRUCTURAL STEEL ARE TEMPORARY AND ARE LESS THAN DESIGN AND ALLOWABLE STRESS CAPACITIES OF INDIVIDUAL MEMBERS. DO NOT IMPAIR FULL DESIGN AND LOAD CARRYING CAPACITY OF MEMBERS DUE TO FABRICATION, SHIPMENT, OR ERECTION. CONTRACTOR IS RESPONSIBLE FOR CONTROLLING ERECTION SEQUENCE, ERECTION PROCEDURE, TEMPERATURE DIFFERENTIALS AND WELD SHRINKAGE TO MINIMIZE RESIDUE STRESSES. PROVIDE ADDITIONAL MATERIALS FOR THE ERECTION OF STRUCTURAL STEEL SUCH AS TEMPORARY BRACING AND GUY CABLES AS MAY BE NECESSARY AT NO ADDITIONAL COST. REMOVE THESE MATERIALS UNLESS APPROVED IN WRITING BY OWNER. DO NOT TIGHTEN BOLTS IN TYPICAL BEAM TO COLUMN CONNECTIONS FOR ERECTION PURPOSES.
   I. SECURING REINFORCING STEEL, DOWELS, ANCHOR BOLTS AND EMBEDS: FIRMLY SUPPORT AND ACCURATELY PLACE COMPLYING WITH ACI STANDARDS PRIOR TO CASTING CONCRETE OR GROUT IN MASONRY WALLS. USE TIES AND SUPPORT BARS IN ADDITION TO REINFORCING STEEL SHOWN WHERE NECESSARY. NO WELDING OR REINFORCING STEEL, INCLUDING TACK WELDING, IS PERMITTED UNLESS OTHERWISE ACCEPTED IN WRITING BY ARCHITECT (STRUCTURAL ENGINEER). PROVIDE PLASTIC OR PLASTIC COATED CHAIRS AND SPACERS WHEN RESTING ON EXPOSED SURFACES.
5. COORDINATION RESPONSIBILITY: CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF WORK INCLUDING THAT OF SUB-CONTRACTOR TRADES.
6. SUBMITTALS: SUBMIT TO ARCHITECT (STRUCTURAL ENGINEER) AS INDICATED ON STRUCTURAL DRAWINGS AND SPECIFICATIONS. GENERAL CONTRACTOR SHALL REVIEW SUBMITTAL FOR COMPLETENESS AND COMPLIANCE WITH CONTRACT DOCUMENTS PRIOR TO SUBMISSION.
   A. REQUEST FOR INFORMATION (RFI) SUBMITTALS: ACCOMPANY RFI'S WITH PARTIAL STRUCTURAL FOUNDATION OR FRAMING PLANS SHOWING LOCATION IN QUESTION AND AFFECTED STRUCTURAL MEMBERS. COPY PARTIAL PLAN FROM STRUCTURAL DRAWINGS AND INDICATE GRID LINE LOCATIONS AND FLOOR LEVEL. ALSO PROVIDE PROPERLY DRAWN ENGINEERING SKETCHES ILLUSTRATING ISSUES AND CONTRACTOR'S PROPOSED SOLUTIONS. PHOTOGRAPHS ARE NOT ACCEPTABLE SUBSTITUTES TO ENGINEERING SKETCHES.
7. CONTRACT DOCUMENTS USE: REVIEW CONTRACT DOCUMENTS IN THEIR ENTIRETY BEFORE PERFORMING STRUCTURAL RELATED WORK AND BEFORE DEVELOPING SHOP DRAWINGS. BRING DISCREPANCIES TO THE IMMEDIATE ATTENTION OF ARCHITECT (STRUCTURAL ENGINEER) BEFORE STARTING WORK.
   A. SCALING OF DRAWINGS: NOT PERMITTED.
   B. ADDITIONAL STRUCTURAL REQUIREMENTS: SEE SPECIFICATIONS.
   C. BUILDING GEOMETRY: SEE ARCHITECTURAL DRAWINGS FOR BUILDING GEOMETRY INCLUDING, BUT NOT LIMITED TO, TOP OF FLOOR AND ROOF ELEVATIONS; DEPRESSIONS; SLOPES; CURBS; DRAINS; TRENCHES; SLAB AND DECK EDGE LOCATIONS; WALL OVERALL DIMENSIONS; AND SIZE AND LOCATIONS OF OPENINGS IN FLOORS, ROOF AND WALLS.
   D. NON-STRUCTURAL ITEMS REQUIRING SPECIAL PROVISIONS: SEE ARCHITECTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR NON-STRUCTURAL ITEMS REQUIRING SPECIAL PROVISIONS DURING CONSTRUCTION. THEY INCLUDE, BUT ARE NOT LIMITED TO, NON-STRUCTURAL WALLS; SIZE AND LOCATIONS OF OPENINGS AND SLEEVES PENETRATING STRUCTURE; SIZE AND LOCATION OF CONCRETE CURBS AND PADS; AND SIZE AND LOCATION OF PIPING, DUCTWORK, AND EQUIPMENT ANCHORAGES MOUNTED OR SUSPENDED FROM STRUCTURE. VERIFY EXACT SIZE AND LOCATION OF EQUIPMENT WITH EQUIPMENT MANUFACTURER.
8. MATERIALS: FURNISH AND INSTALL IN COMPLIANCE WITH LEGALLY CONSTITUTED PUBLIC AUTHORITIES HAVING JURISDICTION INCLUDING COUNTY AND LOCAL ORDINANCES AND SAFETY ORDERS OF STATE INDUSTRIAL ACCIDENT COMMISSION, OSHA.
9. PENETRATIONS, EMBEDMENT, AND OPENINGS IN STRUCTURAL MEMBERS: NO PENETRATION, EMBEDMENT, OPENING, SLEEVE, PIPE, OR CONDUIT SHALL OCCUR IN STRUCTURAL MEMBERS INCLUDING FOOTINGS, SLABS, WALLS, COLUMNS, AND BEAMS UNLESS SPECIFICALLY SHOWN OR INDICATED ON STRUCTURAL DRAWINGS.
10. TYPICAL DETAILS: DETAILS ON SD SERIES SHEETS ARE APPLICABLE THROUGHOUT PROJECT WHEREVER THE DESCRIBED CONDITION OCCURS AND MAY OR MAY NOT BE SPECIFICALLY REFERENCED ON STRUCTURAL DRAWINGS. CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING THESE DETAILS AND UNDERSTANDING EXTENT OF THEIR APPLICATION PRIOR TO PERFORMING WORK.
11. WATERPROOFING & DRAINAGE: WATERPROOFING AND DRAINAGE IS OUTSIDE INNOVATIVE STRUCTURAL ENGINEERING'S SCOPE, EXPERIENCE, AND PROFESSIONAL EXPERTISE. INNOVATIVE STRUCTURAL ENGINEERING RECOMMENDS HIRING A WATERPROOFING & DRAINAGE PROFESSIONAL. IF NO WATERPROOFING PROFESSIONAL IS HIRED, OWNER AND CONTRACTOR ASSUME RESPONSIBILITY OF ALL WATERPROOFING & DRAINAGE REQUIREMENTS. INNOVATIVE STRUCTURAL ENGINEERING ACCEPTS NO LIABILITY AND SHALL BE HELD HARMLESS FOR ALL WATERPROOFING AND DRAINAGE REQUIREMENTS.

## SHEET INDEX


ST-0 STRUCTURAL NOTES
ST-1 STRUCTURAL DETAILS
ST-2 STRUCTURAL DETAILS


| PROJECT DESIGN CRITERIA | |
|---|---|
| BUILDING CODE: | 2019 CBC |
| LOCATION (LATITUDE / LONGITUDE): | 36.200953, -119.09525 |
| GEOTECHNICAL PARAMETERS: | |
| SOILS ENGINEER: | BSK ASSOCIATES |
| REPORT NUMBER: | G21-320-11F |
| DATE: | OCTOBER 25, 2021 |
| ALLOWABLE FRICTIONAL RESISTANCE (POLE FOOTINGS) | $53DL^2$ |
| ALLOWABLE PASSIVE PRESSURE: | 300PCF |
| SEISMIC DESIGN PARAMETERS: | |
| RISK CATEGORY: | I |
| SITE CLASS: | D |
| SHORT PERIOD SPECTRAL ACCELERATION, $S_S$: | 0.535 |
| 1s PERIOD SPECTRAL ACCELERATION, $S_1$: | 0.214 |
| SPECTRAL RESPONSE COEFFICIENT, $S_{D1}$: | 0.310 |
| SHORT PERIOD SPECTRAL RESPONSE, $S_{DS}$: | 0.489 |
| SITE COEFFICIENT, $F_a$: | 1.372 |
| SITE COEFFICENT, $F_v$: | 2.172 |
| SEISMIC DESIGN CATEGORY: | D |
| SEISMIC IMPORTANCE FACTOR, $I_e$: | 1.00 |
| WIND DESIGN PARAMETERS: | |
| RISK CATEGORY: | I |
| WIND EXPOSURE CATEGORY: | C |
| ULTIMATE DESIGN WIND SPEED (3-SECOND GUST), $V_{ULT}$: | 89 |
| NOMINAL DESIGN WIND SPEED (3-SECOND GUST), $V_{ASD}$: | 74 MPH |
| INTERNAL PRESSURE COEFFICIENT, $GC_{pi}$: | ±0.18 |

## REINFORCING STEEL

1. REINFORCING STEEL:
   A. ALL BARS, U.N.O.: ASTM A615, GRADE 60
   B. BARS TO BE WELDED: ASTM A706, GRADE 60
   C. ADDITIONAL REQUIREMENTS FOR BARS, EXCLUDING TIES, IN DUCTILE MOMENT RESISTING FRAMES AND BOUNDARY ELEMENTS IN SHEAR WALLS: NO ADDITIONAL REQUIREMENTS IF ASTM A706, GRADE 60 BARS USED. ASTM615, GRADE 60 BARS ARE PERMITTED PROVIDED ACTUAL YIELD STRENGTH BASED ON MILL TESTS DOES NOT EXCEED SPECIFIED YIELD STRENGTH BY MORE THAN 18,000 PSI (RETESTS SHALL NOT EXCEED THIS VALUE BY MORE THAN AN ADDITIONAL 3,000 PSI) AND RATIO OF ACTUAL ULTIMATE TENSILE STRESS TO ACTUAL TENSILE YIELD STRENGTH IS NOT LESS THAN 1.25.
2. WIRE AND SPIRAL REINFORCING:
   A. SMOOTH WELDED WIRE FABRIC (W.W.F.): ASTM A185, FY=65 KSI, FLAT SHEETS ONLY. DO NOT USE ROLLED MESH. LAP SPACES (1 FOOT MINIMUM). OFFSET LAPS IN ADJACENT SHEETS TO AVOID CONTINUOUS LAPS.
   B. DEFORMED WIRE STIRRUPS (D4 AND LARGER ONLY): ASTM A497, FY=65 KSI.
   C. SPIRAL REINFORCING: ASTM A82, GRADE 60
3. SHOP DRAWINGS: ACI 315, PART B. SHOW REINFORCING STEEL PLACEMENT INCLUDING SIZES, QUANTITIES, SPACING, CLEARANCES, SPLICE LOCATIONS, LAP LENGTHS, AND CONCRETE COVERAGE AND SUBMIT TO ARCHITECT (STRUCTURAL ENGINEER). PROMPTLY NOTIFY ARCHITECT (STRUCTURAL ENGINEER) PRIOR TO DEVELOPING SHOP DRAWINGS IF INSUFFICIENT CLEAR DISTANCES BETWEEN REINFORCING STEEL AND OTHER CONGESTION IS ENCOUNTERED. NOTIFY SPECIAL INSPECTOR OF ADJUSTMENTS MADE FORM APPROVED CONTRACT DOCUMENTS WHICH ARE INDICATED ON ACCEPTED SHOP DRAWINGS THAT FACILITATE FIELD PLACEMENT OF REINFORCING STEEL AND CONCRETE.
4. SPLICE LOCATIONS: SPLICE #5 BARS AND LARGER ONLY AT LOCATIONS INDICATED. IF ADDITIONAL SPLICE LOCATIONS ARE PROPOSED, PROMPTLY NOTIFY ARCHITECT (STRUCTURAL ENGINEER) PRIOR TO DEVELOPING SHOP DRAWINGS.
   A. SPLICES IN WALLS: LOCATE SPLICES IN HORIZONTAL BARS AT WELL-STAGGERED LOCATIONS. DO NOT SPLICE VERTICAL BARS EXCEPT AT HORIZONTAL SUPPORTS SUCH AS FLOOR AND ROOF DIAPHRAGMS.
5. MINIMUM CLEARANCES BETWEEN PARALLEL REINFORCING STEEL INCLUDING DISTANCE BETWEEN SETS OF SPLICED BARS: 1" OR 1 db, WHICHEVER IS GREATER. 1 $\frac{1}{2}$" OR 1$\frac{1}{2}$ db WHICHEVER IS GREATER, AT COLUMNS, PIERS, AND PILASTERS ONLY. FOR BUNDLED BARS, MINIMUM CLEAR DISTANCES BETWEEN UNITS OF BUNDLED BARS SHALL BE SAME AS SINGLE BARS EXCEPT BAR DIAMETER IS DERIVED FROM EQUIVALENT TOTAL AREA OF BUNDLE.
7. DOWELS AT CONSTRUCTION JOINTS: PROVIDE DOWELS MATCHING SIZE AND QUANTITY OF REINFORCING STEEL INTERRUPTED AT CONSTRUCTION JOINTS, UNLESS DETAILED OTHERWISE.
8. PLACEMENT OF BARS IN WALLS: PLACE VERTICAL BARS CLOSEST TO WALL SURFACES AT CURTAINS CONTAINING VERTICAL AND HORIZONTAL BARS OF THE SAME SIZE. IN CURTAINS WHICH VERTICAL AND HORIZONTAL BARS ARE OF DIFFERENT SIZES OR SPACING, PLACE LAYER WITH MOST STEEL AREA CLOSEST TO NEAR WALL SURFACE.
9. BARS TERMINATING AT WALLS, COLUMNS, BEAMS, AND FOUNDATIONS: EXTEND BARS TO WITHIN 2" (3" AT CONCRETE POURED AGAINST EARTH) OF FAR FACE OF WALL, COLUMN, BEAM OR FOUNDATION AND PROVIDE STANDARD ACI 90-DEGREE HOOK UNLESS DETAILED OTHERWISE.
10. BARS INTERRUPTED BY STRUCTURAL STEEL: EXTEND BARS TO WITHIN 2" OF STEEL FACE AND PROVIDE STANDARD ACI 90-DEGREE HOOK UNLESS DETAILED OTHERWISE.
11. WELDING: AWS D1.4, EXCEPT AS MODIFIED BY APPLICABLE CODE STANDARD 19-1. SEE RGA #3-77 OF CITY OF LOS ANGELES "R" BOOK FOR ADDITIONAL REQUIREMENTS IF GOVERNING CODE AUTHORITY IS CITY OF LOS ANGELES DEPARTMENT OF BUILDING AND SAFETY.
    A. ACCEPTABLE REINFORCING STEEL FOR WELDING ASTM A706: IF WELDING OF REINFORCING STEEL OTHER THAN A706 IS DESIRED, SUBMIT PROPOSED PROCEDURE, INDICATING CONFORMANCE TO APPLICABLE CODE AND REQUIREMENTS OF GOVERNING CODE AUTHORITY, TO ARCHITECT (STRUCTURAL ENGINEER) FOR ACCEPTANCE AND TO GOVERNING CODE AUTHORITY FOR APPROVAL PRIOR TO EXECUTION.
    B. WELDER CERTIFICATION: GOVERNING CODE AUTHORITY.
12. BENDING: BEND COLD UNLESS OTHERWISE ACCEPTED BY ARCHITECT (STRUCTURAL ENGINEER). DO NOT FIELD-BEND REINFORCING STEEL BARS EMBEDDED IN CONCRETE UNLESS OTHERWISE ACCEPTED IN WRITING BY ARCHITECT (STRUCTURAL ENGINEER).
13. LAP SPLICES: PROVIDE CLASS B SPLICES UNLESS INDICATED OTHERWISE.


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CIVIL ENGINEER
**BKF**
STRUCTURAL ENGINEER
**ISE**
SKATEPARK DESIGNER
**SPOHN RANCH**


OLIVE BOWL KAKU PARK

LINDSAY, CA 93247

SHEET TITLE

STRUCTURAL NOTES

| DATE | REVISION |
|---|---|
| 10-18-21 | 50% CD Submittal |
| 12-8-21 | 90% CD Submittal |
| 12-14-22 | 90% CD Submittal |
| 2-13-23 | 100% CD Submittal |
| 6-10-24 | 3 Phase Re-Package |
| | |
| | |
| | |
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| | |

STAMP

PROFESSIONAL ENGINEER
No. S5627
Exp. 6/30/2024
STRUCTURAL
STATE OF CALIFORNIA

| CHECKED BY | DATE |
|---|---|
| TS | 6-10-24 |
| DRAWN BY | JOB NO. |
| VG | 21-6937 |

SHEET

ST-0

## LIGHTING FIXTURE SCHEDULE

| TYPE | FIXTURE: INCAND. | FIXTURE: FLUOR. | FIXTURE: H.I.D. | FIXTURE: LED | VOLTS | LAMPS: NO. | LAMPS: WATTS AND TYPE | MOUNTING: REC. | MOUNTING: C.L.G. | MOUNTING: PEND. | MOUNTING: POLE | DESCRIPTION & VARIATIONS | MANUFACTURER & CATALOG NUMBER (OR APPROVED EQUAL) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A2 / 60 | | | | • | 277 | 1 | 55W LED 5000K | | | | • | WALKWAY/SECURITY LED LIGHT FIXTURE AND POLE. WITH TYPE 2 DISTRIBUTION AND FLAT CLEAR GLASS LENS. SEE DETAIL "E" ON SHEET E-2.0. | ARCHITECTURAL AREA LTG. FIXTURE: #UGM2-SR-BEL-36L-460-5KT-2-BLT-SLAT-CL-SF-SCP-20F-UNV POLE:#DB6-4R12-226-12'-BLT |
| A4 / 60 | | | | • | 277 | 1 | 55W LED 5000K | | | | • | WALKWAY/SECURITY LED LIGHT FIXTURE AND POLE. WITH TYPE 4N DISTRIBUTION AND FLAT CLEAR GLASS LENS. SEE DETAIL "E" ON SHEET E-2.0. | ARCHITECTURAL AREA LTG. FIXTURE: #UGM2-SR-BEL-36L-460-5KT-4N-BLT-SLAT-CL-SF-SCP-20F-UNV POLE:#DB6-4R12-226-12'-BLT |
| A5 / 60 | | | | • | 277 | 1 | 55W LED 5000K | | | | • | WALKWAY/SECURITY LED LIGHT FIXTURE AND POLE. WITH TYPE 5N DISTRIBUTION AND FLAT CLEAR GLASS LENS. SEE DETAIL "E" ON SHEET E-2.0. | ARCHITECTURAL AREA LTG. FIXTURE: #UGM2-SR-BEL-36L-460-5KT-5N-BLT-SLAT-CL-SF-SCP-20F-UNV POLE:#DB6-4R12-226-12'-BLT |
| B2 / 120 | | | | • | 277 | 1 | 111W LED 5000K | | | | • | PARKING AREA LED LIGHT FIXTURE AND POLE. WITH TYPE 2 DISTRIBUTION AND FLAT CLEAR GLASS LENS. SEE DETAIL "F" ON SHEET E-2.0. | ARCHITECTURAL AREA LTG. FIXTURE: #UCL2-SR-BEL-72L-480-5KT-2-BLT-SLAT(5)-CL-SF-UNV POLE: #DB10-5R22-250-22'-BLT |
| C / 44 | | | | • | 277 | - | 44W LED 5000K | | | | • | IN-GROUND LED FLAGPOLE UP LIGHT. SEE DETAIL "D" ON SHEET E-2.0. | KIM LIGHTING #LTV81FF-SP-36L-5K-UV-SR-RGAB1 |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |

## LIGHTING FIXTURE NOTES

1. ALL LUMINAIRES SHALL MEET THE REQUIREMENTS OF THE 2022 BUILDING ENERGY EFFICIENCY STANDARDS, TITLE 24.
2. SUBMIT LIGHTING FIXTURE CUT SHEETS FOR CITY/ARCHITECT OR ENGINEER'S APPROVAL.
3. THE CONTRACTOR SHALL VERIFY/CHECK THE ANCHOR BOLTS AND POLE BASE DETAILS PREPARED BY THE STRUCTURAL ENGINEER BEFORE ORDERING AND INSTALLING THE ANCHOR BOLTS.
4. ALL EXTERIOR LIGHTING FIXTURES SHALL HAVE THE APPROPRIATE WET LOCATION LABELS PER 2022 C.E.C. 410.10(A).

## UNDERGROUND PULL BOX LEGEND

PA — TRAFFIC RATED UNDERGROUND PULL BOX, 16" X 22" X 12"D REINFORCED CONCRETE BODY WITH STEEL FRAME, 14" X 20" FLUSH STEEL CHECKER PLATE COVER WITH BOLT DOWN LOCKING DEVICE. COVER SHALL BE MARKED "ELECTRIC". CHRISTY #B1017 OR APPROVED EQUAL.

PB — TRAFFIC RATED UNDERGROUND PULL BOX, 19" X 30" X 12"D REINFORCED CONCRETE BODY WITH STEEL FRAME, 16" X 27" FLUSH STEEL CHECKER PLATE COVER WITH BOLT DOWN LOCKING DEVICE. COVER SHALL BE MARKED "ELECTRIC". CHRISTY #B1324 OR APPROVED EQUAL.

PC — TRAFFIC RATED UNDERGROUND PULL BOX, 16" X 22" X 12"D REINFORCED CONCRETE BODY WITH STEEL FRAME, 14" X 20" FLUSH STEEL CHECKER PLATE COVER WITH BOLT DOWN LOCKING DEVICE. COVER SHALL BE MARKED "COMMUNICATION". CHRISTY #B1017 OR APPROVED EQUAL.

PD — TRAFFIC RATED UNDERGROUND PULL BOX, 19" X 30" X 12"D REINFORCED CONCRETE BODY WITH STEEL FRAME, 16" X 27" FLUSH STEEL CHECKER PLATE COVER WITH BOLT DOWN LOCKING DEVICE. COVER SHALL BE MARKED "COMMUNICATION" / "TELEPHONE" (AS REQUIRED). CHRISTY #B1324 OR APPROVED EQUAL.

PEV — TRAFFIC RATED UNDERGROUND PULL BOX, 16" X 22" X 12"D REINFORCED CONCRETE BODY WITH STEEL FRAME, 14" X 20" FLUSH STEEL CHECKER PLATE COVER WITH BOLT DOWN LOCKING DEVICE. COVER SHALL BE MARKED "EV CAPABLE". CHRISTY #B1017 OR APPROVED EQUAL.

NOTES:

1. PULL BOX SHOWN ON PLAN WITHOUT LETTERS ADJACENT SHALL BE TYPE "PA".
2. SEE PULL BOX DETAIL "A" ON SHEET E-2.0.

## ELECTRICAL SYMBOL LIST

SPORT LIGHT POLE AND LUMINAIRES

A1 — POLE NUMBER
HS1-1,3,5 — CIRCUIT NUMBER
A/E-3.0 — DETAIL NO./SHEET NO.

PARKING AREA LIGHT FIXTURE AND POLE

WALKWAY/SECURITY LIGHT FIXTURE AND POLE

IN-GROUND FLAG POLE UP LIGHT

PA — UNDERGROUND PULL BOX, "PA" INDICATES TYPE OF PULL BOX, SEE UNDERGROUND PULL BOX LEGEND ON THIS SHEET

DOME TYPE SECURITY CAMERA, POLE MOUNTED

DUPLEX RECEPTACLE MOUNTED AT +15" TO BOTTOM OF BOX OR AS NOTED, GROUNDING TYPE

GROUND FAULT CIRCUIT INTERRUPTER (GFCI) TYPE DUPLEX RECEPTACLE MOUNTED AS INDICATED ON PLANS

SPECIAL PURPOSE RECEPTACLE AS INDICATED ON PLANS

JUNCTION BOX, STANDARD OUTLET WITH BLANK COVER PLATE, WALL MOUNTED

JUNCTION BOX, CEILING MOUNTED

FUSED DISCONNECT SWITCH, HEAVY DUTY, LOCKABLE TYPE

ENCLOSED CIRCUIT BREAKER

MOTOR STARTER

LIGHTING OR RECEPTACLE PANELBOARD

SWITCHBOARD AS INDICATED ON PLANS

A2 / 60 — LIGHT FIXTURE DESIGNATION, "A2" = FIXTURE TYPE, 60 = TOTAL POWER IN VOLT AMPERES

CONDUIT RUN CONCEALED ABOVE CEILING OR WALL

CONDUIT RUN CONCEALED IN OR BELOW FLOOR OR GRADE

FLEXIBLE CONDUIT

HS1-1,3,5 — HOMERUN TO PANEL "HS1", CIRCUITS #1, 3, 5 WITH WIRES AS NOTED

STUB, CAP AND MARK END OF CONDUIT FOR FUTURE USE. MANDREL CONDUIT WITH INSPECTOR PRESENT AND INSTALL MEASURING/PULLING TAPE, 2500# TENSILE STRENGTH, IN CONDUIT.

2 — PLAN NOTE #2

| | |
|---|---|
| A.F.G. | INDICATES ABOVE FINISHED GRADE |
| A.F.F. | INDICATES ABOVE FINISHED FLOOR |
| C.O. | INDICATES CONDUIT ONLY |
| GFI | INDICATES GROUND FAULT INTERRUPTER |
| U.N.O. | UNLESS NOTED OTHERWISE |
| WP | INDICATES WEATHERPROOF |

NOTE: NOT ALL SYMBOLS MAY BE USED.

## ELECTRICAL SHEET INDEX


| SHEET NO. | DESCRIPTION |
|---|---|
| E-0.1 | ELECTRICAL SYMBOL LIST AND LIGHTING FIXTURE SCHEDULE |
| E-0.2 | ELECTRICAL GENERAL NOTES |
| E-0.3 | SINGLE LINE DIAGRAM |
| E-0.4 | SWITCHBOARD ELEVATIONS |
| E-0.5 | PANELBOARD SCHEDULES |
| E-0.6 | LIGHTING CONTROL DIAGRAMS |
| E-0.7 | SECURITY SYSTEM BLOCK DIAGRAM |
| E-1.0 | PARTIAL ELECTRICAL SITE PLAN |
| E-1.1 | PARTIAL ELECTRICAL SITE PLAN |
| E-1.2 | PARTIAL ELECTRICAL SITE PLAN |
| E-1.3 | PARTIAL ELECTRICAL SITE PLAN |
| E-2.0 | ELECTRICAL DETAILS |
| E-3.0 | SPORTS FIELDS POLE DETAILS |
| E-3.1 | SPORTS FIELDS POLE FOUNDATION DETAILS |
| E-4.0 | SPORTS FIELD LIGHTING PHOTOMETRIC |
| E-5.0 | SITE LIGHTING PHOTOMETRIC |



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CIVIL ENGINEER
**BKF**
STRUCTURAL ENGINEER
**ISE**


OLIVE BOWL
KAKU
PARK

LINDSAY, CA
93247

SHEET TITLE
ELECTRICAL SYMBOL LIST & LIGHTING FIXTURE SCHEDULE

| DATE | REVISION |
|---|---|
| 10-18-21 | 50% CD Submittal |
| 12-8-21 | 90% CD Submittal |
| 12-14-22 | 90% CD Submittal |
| 2-13-23 | 100% CD Submittal |
| 10-3-23 | ADDENDUM #1 |
| 10-27-23 | ADDENDUM #3 |
| 6-10-24 | 3 PHASE RE-PACKAGE |
| | |
| | |
| | |
| | |

STAMP

REGISTERED PROFESSIONAL ENGINEER
DAVID C. REGALADO
No. E16914
Exp. 6-30-25
ELECTRICAL
STATE OF CALIFORNIA

6-25-24

| CHECKED BY | DATE |
|---|---|
| C.R. | 6-10-24 |
| DRAWN BY | JOB NO. |
| LRA | 05567.02 |

SHEET
E-0.1

# ELECTRICAL GENERAL NOTES

1. ALL WORK SHALL COMPLY WITH ALL STATE, COUNTY, LOCAL CODES, RULES AND REGULATIONS OF GOVERNING GOVERNMENT AGENCIES HAVING JURISDICTION AND THE 2022 EDITION OF THE CALIFORNIA ELECTRICAL CODE (CEC).

2. THE CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS, FEES, CHARGES, AND INCIDENTAL COSTS NECESSARY FOR EXECUTION AND COMPLETION OF ELECTRICAL WORK, INCLUDING ALL CHARGES BY STATE, COUNTY LOCAL GOVERNMENT AGENCIES.

3. ALL UTILITY WORK (POWER AND TELEPHONE) SHALL BE IN COMPLIANCE WITH THESE DRAWINGS AND THE REQUIREMENTS OF THE SERVING UTILITY COMPANY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE SERVING UTILITY TO RECEIVE COMPLETE INFORMATION ON THEIR REQUIREMENTS PRIOR TO SUBMISSION OF THE BID. THE ACT OF SUBMITTING THE BID SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO INSTALL SERVICE IN COMPLIANCE WITH THE SERVING UTILITY AND THE CONTRACT DOCUMENTS.

4. ALL ITEMS SUCH AS SERVICE CONDUIT, CONDUCTORS, DUCTS, CONCRETE PADS, TRANSFORMERS, RISERS, MANHOLES, PULL BOXES, AND PROTECTIVE COVERING FROM SERVICE LOCATIONS SHALL BE PROVIDED AND INSTALLED, AND SHALL BE VERIFIED WITH THE SERVING UTILITY COMPANY. THE CONTRACTOR SHALL INSTALL THE SERVICE IN COMPLIANCE WITH THE SERVING UTILITY COMPANY, AND SHALL PAY ALL CHARGES LEVIED BY THE SERVING UTILITY COMPANY FOR HIS SERVICE EXCEPT THE FIRST BILLING DEPOSIT. WHERE THE CONTRACT DOCUMENTS ARE MORE RESTRICTIVE, THE DOCUMENTS SHALL GOVERN.

5. THE CONTRACTOR SHALL VISIT THE SITE INCLUDING ALL AREAS INDICATED ON THE DRAWINGS. HE SHALL THOROUGHLY FAMILIARIZE HIMSELF WITH THE EXISTING CONDITIONS AND BY SUBMITTING A BID, ACCEPTS THE CONDITIONS UNDER WHICH HE SHALL BE REQUIRED TO PERFORM HIS WORK.

6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN A COMPLETE SET OF CONTRACT DOCUMENTS, ADDENDA, DRAWINGS, AND SPECIFICATIONS. HE SHALL CHECK THE DRAWINGS OF THE OTHER TRADES AND SHALL CAREFULLY READ THE ENTIRE SPECIFICATIONS AND DETERMINE HIS RESPONSIBILITIES. FAILURE TO DO SO SHALL NOT RELEASE THE CONTRACTOR FROM DOING THE WORK IN COMPLETE ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS.

7. ALL ELECTRICAL MATERIALS AND EQUIPMENT SHALL BE NEW AND SHALL BE LISTED BY UNDERWRITER'S LABORATORIES (UL) AND BEAR THEIR LABEL, OR LISTED AND CERTIFIED BY A NATIONALLY RECOGNIZED TESTING AUTHORITY WHERE UL DOES NOT HAVE A LISTING. CUSTOM MADE EQUIPMENT SHALL HAVE COMPLETE TEST DATA SUBMITTED BY THE MANUFACTURER ATTESTING TO ITS SAFETY. IN ADDITION, THE MATERIALS, EQUIPMENT, AND INSTALLATION SHALL COMPLY WITH THE REQUIREMENTS OF THE FOLLOWING:

   ALL LOCAL CODES HAVING JURISDICTION
   AMERICAN NATIONAL STANDARD INSTITUTE (ANSI)
   AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)
   AMERICAN STANDARD ASSOCIATION (ASA)
   CALIFORNIA BUILDING CODE (CBC)
   CALIFORNIA BUILDING ENERGY EFFICIENCY STANDARDS
   CALIFORNIA CODE OF REGULATIONS TITLE 24 (CCR)
   CALIFORNIA ELECTRICAL CODE (CEC)
   CALIFORNIA GREEN BUILDING STANDARD CODES (CGBSC)
   INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE)
   INSULATED POWER CABLE ENGINEERS ASSOCIATION (IPCEA)
   NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA)
   NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

8. SHOP DRAWINGS SHALL BE SUBMITTED WITHIN FIFTEEN DAYS AFTER AWARD OF THE CONTRACT. THE CONTRACTOR SHALL SUBMIT SIX COPIES OF A COMPLETE LIST OF MATERIALS AND EQUIPMENT INCLUDING MANUFACTURER AND MODEL NUMBER PROPOSED FOR THE JOB. SHOP DRAWINGS SHALL INCLUDE JOB DESCRIPTION AND ENGINEER IDENTIFICATION, AND ALL DATA WITH CAPACITIES, SIZES, DIMENSIONS, CATALOG NUMBERS, AND MANUFACTURER'S BROCHURES. SHOP DRAWINGS SHALL BE SUBMITTED FOR ITEMS LISTED IN SPECIFICATIONS. PARTIAL, INCOMPLETE, OR UNBOUND SUBMITTALS WILL BE RETURNED WITHOUT REVIEW. CONTRACTOR SHALL SUBMIT A SCHEDULE OF ALL SHOP DRAWINGS AND SUBMITTALS WHICH ARE TO BE REVIEWED WITHIN FIFTEEN DAYS OF CONTRACT AWARD.

9. THE CONTRACTOR SHALL PROVIDE AND KEEP UP-TO-DATE A COMPLETE RECORD SET OF DRAWINGS. THESE PRINTS SHALL BE CORRECTED DAILY AND SHOW EVERY CHANGES FROM THE ORIGINAL DRAWINGS. THIS SET OF DRAWINGS SHALL BE KEPT ON THE JOB SITE AND SHALL BE USED ONLY AS A RECORD SET. THIS SHALL NOT BE CONSTRUED AS AUTHORIZATION FOR THE CONTRACTOR TO MAKE CHANGES IN THE LAYOUT WITHOUT DEFINITE INSTRUCTION IN EACH CASE. UPON COMPLETION OF THE WORK, A SET OF REPRODUCIBLE CONTRACT DRAWINGS SHALL BE OBTAINED FROM THE CITY, AND ALL CHANGES AS NOTED ON THE RECORD SET OF DRAWINGS SHALL BE INCORPORATED THEREON WITH BLACK INK IN A NEAT, LEGIBLE, UNDERSTANDABLE AND PROFESSIONAL MANNER. FAILURE TO KEEP RECORD DRAWINGS UP-TO-DATE SHALL CONSTITUTE CAUSE FOR WITHHOLDING OF PROGRESS PAYMENTS.

10. IN SOME INSTANCES, IT MAY BE NECESSARY TO DEFER WORK IN CERTAIN AREAS AND LOCATIONS UNTIL SUCH TIME AS EXISTING FACILITIES CAN BE TEMPORARILY OR PERMANENTLY REARRANGED BY THE OWNER OR BUILDING AUTHORITY. THEREFORE, WHENEVER IT BECOMES NECESSARY FOR THE CONTRACTOR TO PERFORM WORK UNDER THIS CONTRACT IN EXISTING AREAS IN WHICH THE OWNER'S WORK IS BEING PERFORMED, THE CONTRACTOR SHALL ADVISE THE ARCHITECT AND THE OWNER RELATIVE TO THIS REQUIREMENT AND SHALL FOLLOW CLOSELY THE DIRECTIVE ISSUED BY THE ARCHITECT INSOFAR AS TIME AND PROCEDURE ARE CONCERNED. THE CONTRACTOR SHALL INCLUDE IN HIS BID ALL PREMIUM TIME TO WHICH HE MAY BE SUBJECTED FOR PERFORMING WORK IN SUCH PROCEDURE AND AT SUCH TIMES AS MAY BE NECESSARY TO CAUSE THE LEAST INTERFERENCE WITH THE OPERATIONS OF THE OWNER.

11. ALL INTERRUPTION OF ELECTRICAL POWER SHALL BE KEPT TO A MINIMUM. HOWEVER, WHEN AN INTERRUPTION IS NECESSARY, THE SHUTDOWN MUST BE COORDINATED WITH THE OWNER 14 DAYS PRIOR TO THE OUTAGE. ANY OVERTIME PAY SHALL BE INCLUDED IN THE CONTRACTOR'S BID. WORK IN EXISTING SWITCHBOARDS OR PANELBOARDS SHALL BE COORDINATED WITH THE OWNER PRIOR TO REMOVING ACCESS PANELS OR DOORS.

12. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE TEMPORARY POWER FACILITIES AND CONNECTIONS FOR ALL FEEDERS OR SYSTEM BEING DISCONNECTED IN ORDER TO MAINTAIN SYSTEMS IN OPERATION OR WHERE SAID FEEDERS OR SYSTEMS REQUIRE EMERGENCY STANDBY POWER.

13. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH OTHER TRADES AT THE SITE. ANY COSTS TO INSTALL WORK TO ACCOMPLISH SAID COORDINATION WHICH DIFFERS FROM THE WORK AS SHOWN ON THE DRAWINGS SHALL BE INCURRED BY THE CONTRACTOR. ANY DISCREPANCIES, AMBIGUITIES OR CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT DURING BID TIME FOR CLARIFICATION. ANY SUCH CONFLICTS NOT CLARIFIED PRIOR TO BID SHALL BE SUBJECT TO THE INTERPRETATION OF THE ARCHITECT AT NO ADDITIONAL COST TO THE OWNER.

14. COORDINATE WITH OTHER TRADES AS TO EXACT LOCATION OF THEIR RESPECTIVE EQUIPMENT. SUPPLY POWER AND MAKE CONNECTION TO MOTORS AND EQUIPMENT REQUIRING ELECTRICAL CONNECTIONS AS INDICATED ON THE SINGLE LINE DIAGRAM, ELECTRICAL DRAWINGS, AND DRAWINGS OF OTHER TRADES. REVIEW THE DRAWINGS OF OTHER TRADES FOR CONTROL DIAGRAMS, SIZE AND LOCATION OF EQUIPMENT. DISCONNECT SWITCHES, STARTERS, WIRING, CONTROLS, AND CONDUIT FOR MECHANICAL AND PLUMBING OPERATIONS SHALL BE PROVIDED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING MANUFACTURER'S SHOP DRAWINGS PRIOR TO ROUGHING IN ALL CONDUIT TO THIS EQUIPMENT.

15. ALL FINAL CONNECTIONS TO OWNER FURNISHED EQUIPMENT SHALL BE MADE BY THE CONTRACTOR.

16. WHENEVER A DISCREPANCY IN QUANTITY OR SIZE OF CONDUIT, WIRE, EQUIPMENT DEVICES, CIRCUIT BREAKERS, GROUND FAULT PROTECTION SYSTEMS, MATERIALS, ETC., ARISES ON THE DRAWINGS OR SPECIFICATIONS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL MATERIALS AND SERVICES REQUIRED BY THE STRICTEST CONDITIONS NOTED ON THE DRAWINGS OR IN THE SPECIFICATIONS TO ENSURE COMPLETE AND OPERABLE SYSTEMS AS REQUIRED BY THE CITY AND ENGINEER.

17. DRAWINGS ARE DIAGRAMMATIC ONLY. ROUTING OF RACEWAYS SHALL BE AT THE OPTION OF THE CONTRACTOR UNLESS OTHERWISE NOTED AND SHALL BE COORDINATED WITH OTHER SECTIONS. DO NOT SCALE THE ELECTRICAL DRAWINGS FOR LOCATIONS OF ANY EXISTING ELECTRICAL OR EXISTING FEATURES.

18. REFER TO SINGLE LINE DIAGRAM AND FEEDER SCHEDULES FOR CONDUIT AND CONDUCTOR SIZE TO PANELS, TRANSFORMERS, EQUIPMENT, ETC. CONDUIT RUNS MAY NOT BE SHOWN ON DRAWINGS, BUT ARE PART OF THIS CONTRACT.

19. EXACT METHOD AND LOCATION OF CONDUIT PENETRATION AND OPENINGS IN CONCRETE WALLS OR FLOORS OR STRUCTURAL STEEL MEMBERS SHALL BE AS DIRECTED BY THE STRUCTURAL ENGINEER. PERFORM CORING, SAWCUTTING, PATCHING, AND REFINISHING OF EXISTING WALLS AND SURFACES WHEREVER IT IS NECESSARY TO PENETRATE. OPENINGS SHALL BE SEALED IN AN APPROVED METHOD TO MEET THE FIRE RATING OF THE PARTICULAR WALL, FLOOR, OR CEILING. EXACT METHOD AND LOCATIONS OF CONDUIT PENETRATIONS AND OPENINGS IN CONCRETE WALLS OR FLOORS SHALL BE UL APPROVED.

20. FIRE STOPPING MATERIAL (PENETRATION SEALING) IS REQUIRED FOR EACH PENETRATION THROUGH A FIRE RATED WALL PER CBC/CEC.

21. CONNECTIONS TO VIBRATING EQUIPMENT AND SEISMIC SEPARATIONS:

    LIQUID-TIGHT FLEXIBLE STEEL CONDUIT IN DRY INTERIOR LOCATIONS.
    LIQUID-TIGHT FLEXIBLE STEEL CONDUIT IN AREAS EXPOSED TO WEATHER, DAMP LOCATIONS, CONNECTIONS TO TRANSFORMER ENCLOSURES, AND FINAL CONNECTIONS TO MOTORS.

    PROVIDE A SEPARATE INSULATED EQUIPMENT GROUNDING CONDUCTOR IN FLEXIBLE CONDUIT RUNS. MAXIMUM LENGTH SHALL BE SIX FEET UNLESS OTHERWISE NOTED.

22. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRENCHING, BACKFILLING AND COMPACTION AS REQUIRED TO PERFORM HIS WORK. ATTENTION IS CALLED TO THE FACT THAT THERE ARE EXISTING UNDERGROUND UTILITY LINES. THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN TRENCHING FOR HIS WORK. <u>THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER AND APPROVED REPAIR OF ANY AND ALL DAMAGES CAUSED BY HIM OR HIS WORK.</u> IT IS THE RESPONSIBILITY OF THIS CONTRACTOR TO LOCATE AND PROTECT IN PLACE ALL EXISTING UNDERGROUND CONDUITS WITHIN THE PARK.

23. CONDUITS INSTALLED USING DIRECTIONAL BORING EQUIPMENT SHALL BE APPROVED FOR THE PURPOSE. THE HORIZONTAL DRILLING METHOD OF CONDUIT INSTALLATION SHALL INCLUDE ALL SERVICES, EQUIPMENT, MATERIALS AND LABOR FOR THE COMPLETE AND PROPER INSTALLATION OF UNDERGROUND CONDUITS.

24. RECEPTACLES SHALL BE SPECIFICATION GRADE, 20 AMP, NEMA 5-20R GROUNDING TYPE HUBBELL #5362, OR EQUAL BY PASS AND SEYMOUR OR GENERAL ELECTRIC. COLOR SHALL BE SELECTED BY ARCHITECT.

25. WEATHERPROOF CONVENIENCE OUTLET SHALL CONSIST OF A GROUND FAULT CIRCUIT INTERRUPTER (GFCI), 20 AMP, NEMA 5-20R GROUNDING TYPE DUPLEX RECEPTACLE MOUNTED IN A 4" BOX WITH SINGLE RING OF TYPE AS REQUIRED AND LOCKABLE WHILE-IN USE TYPE COVER.

26. PANELBOARDS SHALL BE COMPLETELY FACTORY BUILT AND TESTED, TOTALLY ENCLOSED, DEAD FRONT, CIRCUIT BREAKER TYPE. SPACES SHALL BE COMPLETE WITH BUS AND HARDWARE READY FOR INSTALLATION OF FUTURE BREAKERS. CIRCUIT BREAKERS SHALL BE BOLT-ON, THERMAL MAGNETIC TYPE WITH A.I.C. RATING AS SHOWN ON THE DRAWINGS. CIRCUIT DIRECTORY FRAME WITH NEATLY TYPED DIRECTORY CARD WITHIN PLASTIC COVERING ON INSIDE DOOR SHALL BE PROVIDED. ALL BUSSINGS SHALL BE COPPER.

27. ALL UNDERGROUND CONDUIT RUNS SHALL BE PVC SCHEDULE 40 WITH RIGID STEEL RISERS. ALL CONDUIT RUNS MADE UP IN PART OR ENTIRELY WITH PVC SHALL CONTAIN A GREEN GROUNDING CONDUCTOR. ALL STUB UPS INTO PANEL CABINET AND LIGHTS SHALL BE RIGID STEEL CONDUIT WITH GROUND BUSHINGS PROPERLY GROUNDED. ALL STUB UPS SHALL BE TERMINATED WITH NON-CEMENTED APPROVED PVC PIPE CAPS. UNDERGROUND CONDUITS SHALL BE INSTALLED 30" MINIMUM DEPTH WHERE SUBJECTED TO VEHICULAR TRAFFIC AND 24" MINIMUM UNDER ANY OTHER CIRCUMSTANCES. A 6" WIDE RED DETECTABLE WARNING TAPE "CAUTION BURIED ELECTRIC LINE BELOW" SHALL BE INSTALLED 6" BELOW FINISHED GRADE IN ALL TRENCHES. CONDUITS EXPOSED TO WEATHER SHALL BE RIGID STEEL WITH STEEL ELLS AND RISERS. ALL ELLS 45 DEGREES AND LARGER SHALL BE FACTORY MADE SWEEP BENDS. ALL EMPTY CONDUIT RUNS FOR FUTURE USE SHALL BE IDENTIFIED WITH CONDUIT MARKER TAG AT BOTH ENDS. MANDREL CONDUIT WITH INSPECTOR PRESENT AND PROVIDE AND INSTALL A MEASURING/PULLING TAPE, 2500 POUNDS TENSILE STRENTH, IN EACH EMPTY CONDUIT.

28. RIGID GALVANIZED STEEL CONDUIT SHALL BE FULL WEIGHT THREADED TYPE. ELECTRICAL METALLIC TUBING (EMT) MAY BE USED IN DRY WALLS OR CEILING SPACES WHERE NOT SUBJECT TO MECHANICAL DAMAGE. PVC SCHEDULE 40 SHALL BE INSTALLED BENEATH SLAB OR BELOW GRADE. FLEXIBLE STEEL CONDUIT MAY BE USED AT FIXTURE AND OUTLET CONNECTIONS WITH NO RUNS LONGER THAN SIX FEET. AN EQUIPMENT GROUNDING CONDUCTORS SHALL BE PROVIDED IN ALL CONDUIT RUNS. METAL-CLAD CABLE TYPE MC IS NOT ACCEPTABLE.

29. RIGID GALVANIZED STEEL CONDUIT FITTINGS SHALL BE THREADED AND THOROUGHLY GALVANIZED. ELECTRICAL METALLIC TUBING (EMT) CONDUIT FITTINGS SHALL BE STEEL, RAINTIGHT THREADLESS COMPRESSION TYPE. DIE CAST, SET SCREW, OR INDENTER TYPES ARE NOT ACCEPTABLE. FLEXIBLE STEEL CONDUIT FITTINGS SHALL BE MALLEABLE IRON CLAMP, SQUEEZE TYPE OR OR STEEL TWIST-IN TYPE WITH INSULATED THROAT. SET SCREW TYPE IS NOT ACCEPTABLE.

30. ALL CONDUCTORS SHALL BE COPPER #12 AWG MINIMUM SIZE, TYPE XHHW-2, CROSS-LINKED POLYETHYLENE (XLPE) INSULATION, 600 VOLTS, 90 DEGREE CELSIUS, WET OR DRY LOCATIONS, UL APPROVED, LISTED AND SHALL BEAR THE UL LABEL, UNLESS NOTED OTHERWISE. CONDUCTORS #12 AWG AND SMALLER SHALL BE SOLID. CONDUCTORS #10 AND LARGER SHALL BE STRANDED.

31. THE EQUIPMENT GROUNDING CONDUCTOR SHOWN ON CONDUIT RUNS SHALL RUN CONTINUOUS FROM PANEL TO LAST OUTLET. THIS WIRE SHALL BE PIGTAILED IN EACH OUTLET FOR CONNECTION TO BOX AND DEVICE SO THAT IF DEVICE IS REMOVED, GROUND WILL NOT BE INTERRUPTED. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL BE INSULATED GREEN CONDUCTORS. ALTERNATE METHODS OF IDENTIFICATION SHALL NOT BE USED. CONTRACTOR SHALL NOTIFY THE CITY TO EXAMINE CONDUCTOR INSTALLATION PRIOR TO INSTALLATION OF DEVICE.

32. STRAIGHT FEEDER, BRANCH CIRCUIT, AND CONDUIT RUNS SHALL BE PROVIDED WITH SUFFICIENT PULL BOXES OR JUNCTION BOXES TO LIMIT THE MAXIMUM LENGTH OF ANY SINGLE CABLE PULL TO 100 FEET. PULL BOXES SHALL BE SIZED PER CODE OR AS INDICATED ON DRAWINGS. LOCATIONS SHALL BE DETERMINED IN THE FIELD OR AS INDICATED ON THE DRAWINGS.

33. WHERE SIZE OF FEEDER AND BRANCH CIRCUIT CONDUCTORS ARE INCREASED TO MEET THE ALLOWED VOLTAGE DROP, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REDUCE THE SIZE OF THE CONDUCTORS BEFORE THE POINT OF TERMINATION TO MATCH THE SIZE OF THE CIRCUIT BREAKER OR EQUIPMENT DISCONNECT SWITCH TERMINAL LUGS. THE AMPACITY OF WIRES AT TERMINATIONS SHALL BE EQUAL OR GREATER THAN THE CIRCUIT BREAKER OR FUSE TRIP AMPERE RATING. PROVIDE JUNCTION BOX OR PULL BOX ADJACENT TO SWITCHBOARDS, PANELBOARDS AND EQUIPMENT DISCONNECT SWITCHES, AS REQUIRED. SPLICES INSIDE THE SWITCHBOARDS, PANELBOARDS AND EQUIPMENT DISCONNECT SWITCHES ARE NOT ALLOWED.

34. EXISTING CONDUIT RUNS SHOWN ON THE DRAWINGS WERE TAKEN FROM EXISTING RECORD DRAWINGS AND ARE NOT ACCURATE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ACTUAL CONDUIT ROUTING.

35. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DISCONNECT AND REMOVE ALL EXISTING ELECTRICAL EQUIPMENT AFFECTED BY THE REMODELED AREA. THIS WILL INCLUDE REROUTING OR THE EXTENSION OF EXISTING CONDUIT AND FEEDERS WHERE NECESSARY TO MAINTAIN CONTINUITY OF SERVICE TO EXISTING REMAINING EQUIPMENT.

36. THE CONTRACTOR SHALL PROTECT IN PLACE ALL EXISTING ELECTRICAL LIGHTING AND POWER PULL BOXES.

37. PARK ELECTRICAL POWER AND LIGHTING SHALL BE OPERABLE DURING CONSTRUCTION.

38. IDENTIFICATION NAMEPLATES SHALL BE MICARTA 1/8 INCH THICK AND OF APPROVED SIZE WITH BEVELED EDGES AND ENGRAVED WHITE LETTERS A MINIMUM OF 1/4 INCH HIGH ON BLACK BACKGROUND. NAMEPLATES SHALL BE PROVIDED FOR ALL CIRCUITS IN THE SERVICE DISTRIBUTION AND POWER DISTRIBUTION SWITCHBOARDS OR PANELBOARDS, LIGHTING DISTRIBUTION PANELBOARDS, LIGHTING CONTROL PANELS, DISCONNECTING SWITCHES, TRANSFORMERS, TERMINAL CABINETS, TELEPHONE CABINETS, ETC. ALL NAMEPLATES SHALL BE ATTACHED WITH SCREWS. PULL BOXES, JUNCTION BOXES, AND DEVICE BOXES SHALL BE MARKED WITH A PERMANENT MARKER.

39. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL MAJOR PIECES OF ELECTRICAL EQUIPMENT BUT NOT LIMITED TO THE FOLLOWING: SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, LIGHTING CONTROL EQUIPMENT, LIGHT FIXTURES, POLES, RECEPTACLES, PULL BOXES, CONDUITS AND WIRES.

40. AFTER ALL REQUIREMENTS OF THE SPECIFICATIONS AND/OR THE DRAWINGS HAVE BEEN FULLY COMPLETED, REPRESENTATIVE OF THE OWNER WILL INSPECT THE WORK. THE CONTRACTOR SHALL PROVIDE COMPONENT PERSONNEL TO DEMONSTRATE THE OPERATION OF ANY ITEM OR SYSTEM TO THE FULL SATISFACTION OF EACH REPRESENTATIVE. FINAL ACCEPTANCE OF THE WORK WILL BE MADE BY THE OWNER AFTER RECEIPT OF APPROVAL AND RECOMMENDATION OF ACCEPTANCE FROM EACH REPRESENTATIVE.

41. PROVIDE THE CITY WITH ONE (1) SET OF COMPLETE ELECTRICAL "AS-BUILT" DRAWINGS AT THE COMPLETION OF THE PROJECT, SHOWING ACTUAL CONDUIT RUNS, DEPTHS AND LOCATIONS.

42. THE CONTRACTOR SHALL FURNISH A ONE YEAR WRITTEN GUARANTEE OF MATERIALS AND WORKMANSHIP FROM THE DATE OF SUBSTANTIAL COMPLETION.


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PROJECT TEAM:

LANDSCAPE ARCHITECT
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CIVIL ENGINEER
**BKF**

STRUCTURAL ENGINEER
**ISE**


OLIVE BOWL
KAKU
PARK

LINDSAY, CA
93247

SHEET TITLE

ELECTRICAL
GENERAL NOTES

| DATE | REVISION |
|---|---|
| 10-18-21 | 50% CD Submittal |
| 12-8-21 | 90% CD Submittal |
| 12-14-22 | 90% CD Submittal |
| 2-13-23 | 100% CD Submittal |
| 10-3-23 | ADDENDUM #1 |
| 10-27-23 | ADDENDUM #3 |
| 6-10-24 | 3 PHASE RE-PACKAGE |
| | |
| | |
| | |
| | |

STAMP

REGISTERED PROFESSIONAL ENGINEER
CHARLES C. REGALADO
No. E16914
Exp. 6-30-25
ELECTRICAL
STATE OF CALIFORNIA

6-25-24

| CHECKED BY | DATE |
|---|---|
| C.R. | 6-10-24 |
| DRAWN BY | JOB NO. |
| LRA | 05567.02 |

SHEET

E-0.2

## LOAD SUMMARY

MAIN SWITCHBOARD "MSA"

| | | | |
|---|---|---|---|
| MSA-1 | TRANSF "T5" | 15.0 | KVA |
| MSA-2 | PANEL "HS1" | 75.1 | KVA |
| MSA-3 | PANEL "HS2" | 72.8 | KVA |
| SUB-TOTAL | | 162.9 | KVA |
| SPARE, 25% | | 40.7 | KVA |
| TOTAL "MSA" | | 203.6 | KVA |
| | | 244.9 AMPS | |
| | | @ 480/277V, 3Φ, 4W | |

MAIN SWITCHBOARD "MSB"

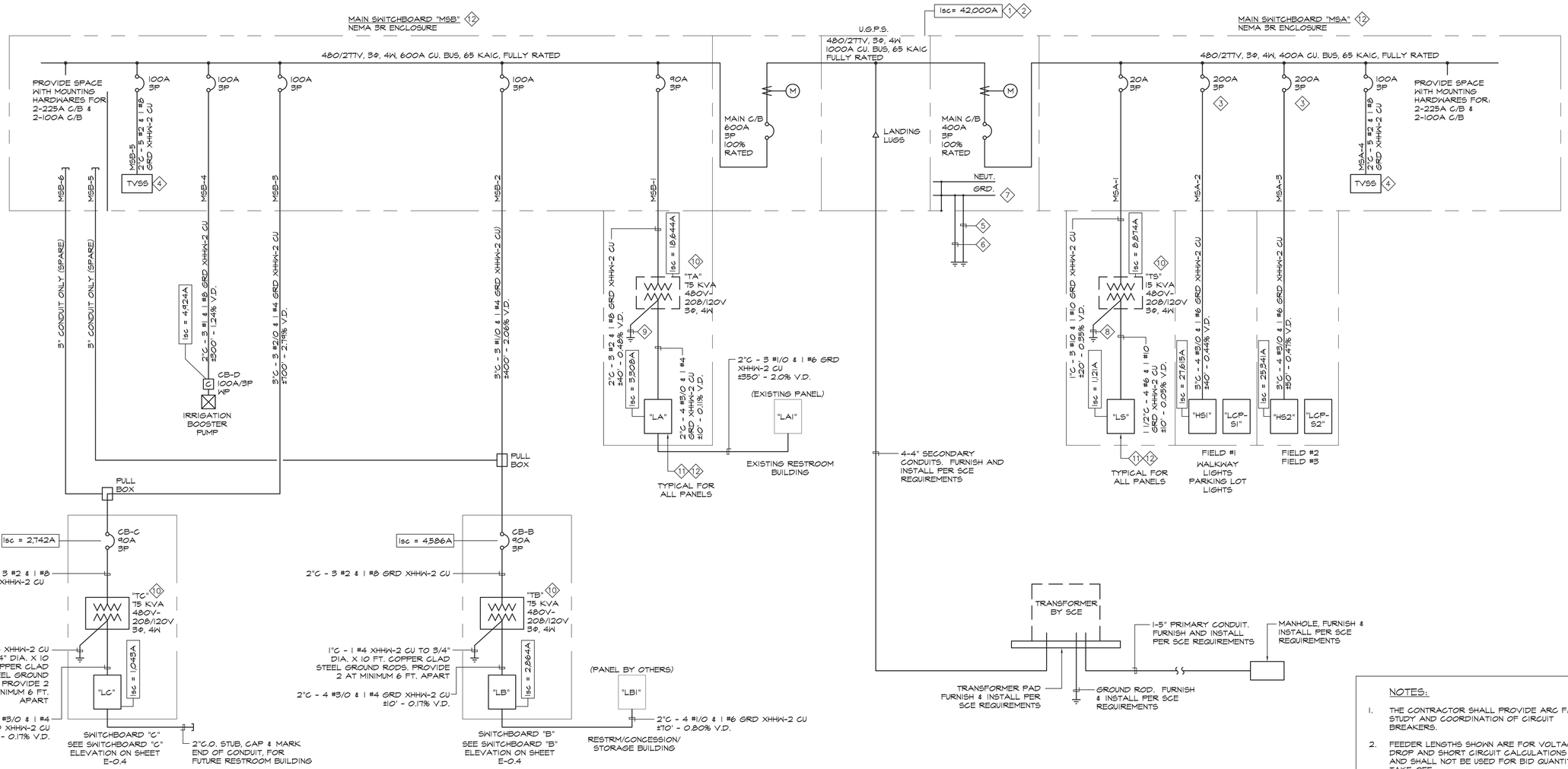
| | | | |
|---|---|---|---|
| MSB-1 | TRANSF "TA" | 75.0 | KVA |
| MSB-2 | TRANSF "TB" | 75.0 | KVA |
| MSB-3 | TRANSF "TC" | 75.0 | KVA |
| MSB-4 | IRRIG. BOOSTER PUMP, 40 HP | 43.2 | KVA |
| SUB-TOTAL | | 268.2 | KVA |
| SPARE, 25% | | 67.1 | KVA |
| 25% OF LARGEST MOTOR | | 10.8 | KVA |
| TOTAL "MSB" | | 346.1 | KVA |
| | | 416.3 AMPS | |
| | | @ 480/277V, 3Φ, 4W | |

UNDERGROUND PULL SECTION "UGPS"

| | | |
|---|---|---|
| MAIN SWITCHBOARD "MSA" | 203.6 | KVA |
| MAIN SWITCHBOARD "MSB" | 346.1 | KVA |
| TOTAL "UGPS" | 549.7 | KVA |
| | 661 AMPS | |
| | @ 480/277V, 3Φ, 4W | |

## SINGLE LINE DIAGRAM NOTES

1. THE MAXIMUM AVAILABLE FAULT CURRENT PER POWER COMPANY IS 42,000 AMPERES.
2. ALL BUSSINGS IN SWITCHBOARD SHALL BE BRACED FOR A MINIMUM OF 65,000 A.I.C.
3. DISTRIBUTION CIRCUIT BREAKERS SHALL BE SERIES RATED WITH THE PANELBOARD CIRCUIT BREAKERS. THE EQUIPMENT ENCLOSURE SHALL BE LEGIBLY MARKED IN THE FIELD TO INDICATE THE EQUIPMENT HAS BEEN APPLIED WITH A SERIES COMBINATION RATING. THE MARKINGS SHALL BE READILY VISIBLE AND STATE "CAUTION - SERIES RATED SYSTEM 42,000 AMPS. AVAILABLE. IDENTIFIED REPLACEMENT COMPONENT REQUIRED."
4. TRANSIENT VOLTAGE SURGE SUPPRESSOR. FURNISH AND INSTALL PER MANUFACTURER'S SPECIFICATIONS.
5. FURNISH AND INSTALL 20 FT. OF 1 #3/0 B.C. TO UFER GROUND. 2" MINIMUM CONCRETE ENCASEMENT AT BOTTOM OF SWITCHBOARD CONCRETE PAD.
6. FURNISH AND INSTALL 1"C - 1 #3/0 XHHW-2 CU TO DRIVEN GROUND RODS. PROVIDE MINIMUM OF FOUR (4) 3/ 4" DIA. X 10 FT. COPPER CLAD STEEL GROUND RODS AT 6 FT. APART MINIMUM.
7. CONTINUOUS COPPER GROUND BUS.
8. FURNISH AND INSTALL 3/4"C - 1 #8 XHHW-2 CU TO MAIN SWBD. "MSA" GROUND BUS.
9. FURNISH AND INSTALL 1"C - 1 #4 XHHW-2 CU TO MAIN SWBD. "MSB" GROUND BUS.
10. ENERGY EFFICIENT DRY TYPE TRANSFORMER, COPPER WINDINGS, 150° RISE. FURNISH AND INSTALL PER MANUFACTURER'S SPECIFICATIONS.
11. ALL PANELBOARDS AND DISCONNECT SWITCHES SHALL BE PERMANENTLY MARKED ON THE OUTSIDE IDENTIFYING THE PANELBOARD AND DISCONNECT SWITCH, VOLTAGE AND SOURCE OR WHERE THE POWER ORIGINATES.
12. SWITCHBOARD, PANELBOARDS, LIGHTING CONTROL PANELS AND DISCONNECT SWITCHES THAT ARE LIKELY TO REQUIRE EXAMINATION, ADJUSTMENT, SERVICING, OR MAINTENANCE WHILE ENERGIZED SHALL BE FIELD MARKED TO WARN QUALIFIED PERSONS OF POTENTIAL ELECTRIC ARC FLASH HAZARDS. THE MARKINGS SHALL BE LOCATED SO AS TO BE CLEARLY VISIBLE TO QUALIFIED PERSONS BEFORE EXAMINATION, ADJUSTMENT, SERVICING, OR MAINTENANCE OF THE EQUIPMENT. 2022 CEC 110.16.




NOTES:

1. THE CONTRACTOR SHALL PROVIDE ARC FAULT STUDY AND COORDINATION OF CIRCUIT BREAKERS.
2. FEEDER LENGTHS SHOWN ARE FOR VOLTAGE DROP AND SHORT CIRCUIT CALCULATIONS ONLY AND SHALL NOT BE USED FOR BID QUANTITY TAKE-OFF.

A

SINGLE LINE DIAGRAM NOT TO SCALE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SINGLE LINE DIAGRAM

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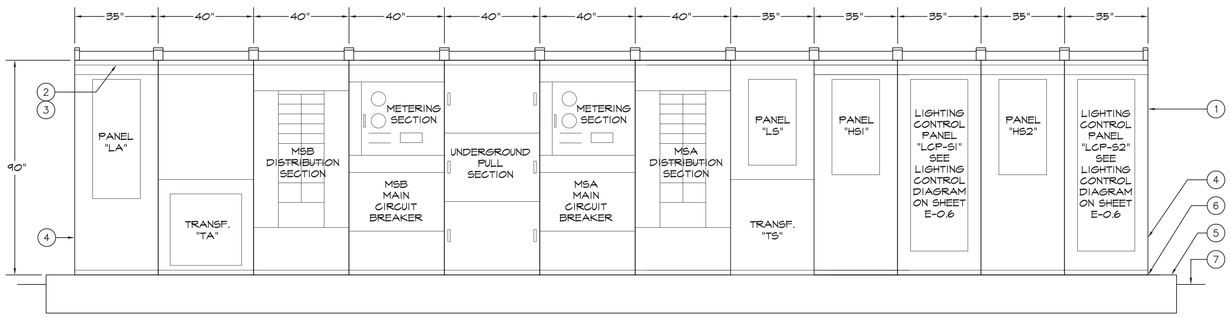
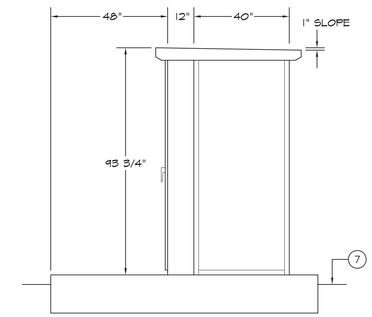
E-0.3

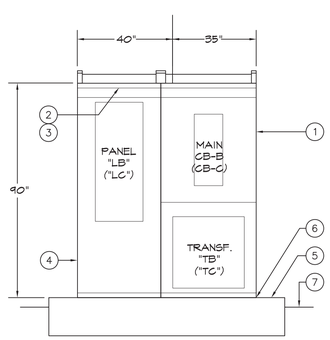



FRONT ELEVATION

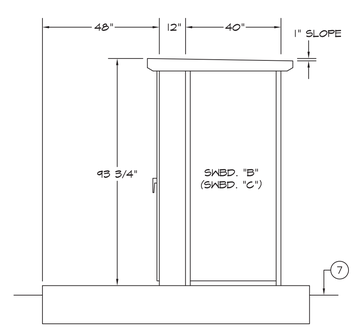



SIDE ELEVATION

A MAIN SWITCHBOARD "MSA"/"MSB" ELEVATIONS NOT TO SCALE




FRONT ELEVATION




SIDE ELEVATION

B TYPICAL SWITCHBOARD "B" & "C" ELEVATIONS NOT TO SCALE

## SWITCHBOARD ELEVATION REFERENCE NOTES

1. NEMA 3R ENCLOSURE. NON-WALK IN TYPE.
2. 4-5/8" X 25" X 4-3/4" HIGH ABUSE LED LIGHTING FIXTURE. LIGHT FIXTURE SHALL BE MOUNTED INSIDE THE SWITCHBOARD HOUSING. PROVIDE ONE LIGHT PER SWITCHBOARD SECTION. NEW STAR LIGHTING #51HA2-LI-40-1-B-12. PROVIDE BRANCH CIRCUIT CONDUIT AND WIRES AND CONNECT TO:
   SWBD. "MSA" - PANEL "LS", CIRCUIT LS-1
   SWBD. "MSB" - PANEL "LA", CIRCUIT LA-1
   SWBD. "B" - PANEL "LB", CIRCUIT LB-2
   SWBD. "C" - PANEL "LC", CIRCUIT LC-1
3. PROVIDE HEAVY DUTY 0 TO 2 HOURS MANUAL TIME SWITCH FOR EACH SWITCHBOARD SECTION OR PER TWO SECTIONS TO CONTROL LIGHT(S).
4. GFI TYPE DUPLEX RECEPTACLE MOUNTED INSIDE THE SWITCHBOARD HOUSING. MOUNT AT 15" FROM TOP OF CONCRETE PAD TO BOTTOM OF RECEPTACLE BOX. PROVIDE BRANCH CIRCUIT CONDUIT AND WIRES AND CONNECT TO:
   SWBD. "MSA" - PANEL "LS", CIRCUIT LS-3
   SWBD. "MSB" - PANEL "LA", CIRCUIT LA-3
   SWBD. "B" - PANEL "LB", CIRCUIT LB-4
   SWBD. "C" - PANEL "LC", CIRCUIT LC-3
5. CAST IN PLACE 16" THICK CONCRETE PAD (4" ABOVE GRADE & 12" BELOW FINISHED GRADE) WITH #4 @12" O.C. EW TOP & BOTTOM. EXTEND MIN. 12" BEYOND OUTSIDE DIMENSION OF EQUIPMENT ENCLOSURE WITH MINIMUM 1.2% SLOPE AWAY FROM ENCLOSURE FOR DRAINAGE.
6. PROVIDE 1/2" DIA. HILTI KB-TZ (STAINLESS) INTO FOOTING. MINIMUM 3 1/4" EFF. EMBEDMENT. PROVIDE A MINIMUM OF 4 ANCHORS PER SWITCHBOARD SECTION.
7. FINISHED GRADE.


MIG
109 W. UNION AVE.
FULLERTON, CA 92832
TEL 714/871-3638
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CONSULTANT:

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Electrical Consulting Engineers
Corona, California 92882
Tel: (951) 737-4569

PROJECT TEAM:

LANDSCAPE ARCHITECT
**MOORE IACOFANO GOLTSMAN, INC.**
ELECTRICAL ENGINEER
**LRA ENGINEERS**
CIVIL ENGINEER
**BKF**
STRUCTURAL ENGINEER
**ISE**


OLIVE BOWL
KAKU
PARK

LINDSAY, CA
93247

SHEET TITLE

SWITCHBOARD ELEVATIONS

| DATE | REVISION |
|---|---|
| 10-18-21 | 50% CD Submittal |
| 12-8-21 | 90% CD Submittal |
| 12-14-22 | 90% CD Submittal |
| 2-13-23 | 100% CD Submittal |
| 10-3-23 | ADDENDUM #1 |
| 10-27-23 | ADDENDUM #3 |
| 6-10-24 | 3 PHASE RE-PACKAGE |

STAMP

REGISTERED PROFESSIONAL ENGINEER
CHARLES C. REGALADO
No. E16914
Exp. 6-30-25
ELECTRICAL
STATE OF CALIFORNIA
6-25-24

| CHECKED BY | DATE |
|---|---|
| C.R. | 6-10-24 |
| DRAWN BY | JOB NO. |
| LRA | 05567.02 |

SHEET
E-0.4

## PANEL "HS1"

MAIN: LO — BUSS: 225A, CU — SERVICE: 480/277V, 3Ø, 4W — LOCATION: SWBD, "MSA" — MOUNTING: SWBD. — A. I. C.: 42,000 OR SERIES RATED.

| DESCRIPTION | VOLT AMPS A | B | C | LTG | RECP | MOT | BKR POLE | AMP | CKT NO. | A B C | CKT NO. | BKR POLE | AMP | LTG | RECP | MOT | VOLT AMPS A | B | C | DESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| POLE A1 | 3200 | | | 2 | | | | 30 | 1 | | 2 | | 20 | 12 | | | | 720 | | WALKWAY LIGHTS |
| FIELD #1 | | 2400 | | 2 | | | | | 3 | | 4 | | | 13 | | | | | 780 | WALKWAY LIGHTS |
| ---- | | | 1600 | 1 | | | 3 | | 5 | | 6 | 3 | | 12 | | | | | | 720 WALKWAY LIGHTS |
| POLE A2 | 1600 | | | 1 | | | | 30 | 7 | | 8 | | 20 | 12 | | | 720 | | | WALKWAY LIGHTS |
| FIELD #1 | | 2400 | | 2 | | | | | 9 | | 10 | | | 13 | | | | | 780 | WALKWAY LIGHTS |
| ---- | | | 3200 | 2 | | | 3 | | 11 | | 12 | 3 | | 13 | | | | | | 780 WALKWAY LIGHTS |
| POLE B1 | 3600 | | | 2 | | | | 30 | 13 | | 14 | | 20 | 2 | | | 240 | | | PARKING LOT LIGHTS |
| FIELD #1 | | 4000 | | 2 | | | | | 15 | | 16 | | | 1 | | | | 120 | | PARKING LOT LIGHTS |
| ---- | | | 2800 | 2 | | | 3 | | 17 | | 18 | 3 | | 1 | | | | | | 120 PARKING LOT LIGHTS |
| POLE B2 | 2800 | | | 2 | | | | 30 | 19 | | 20 | | 20 | | | | - | | | SPARE |
| FIELD #1 | | 3600 | | 2 | | | | | 21 | | 22 | | | | | | | - | | ---- |
| ---- | | | 4000 | 2 | | | 3 | | 23 | | 24 | 3 | | | | | | | - | ---- |
| POLE C1 | 2800 | | | 2 | | | | 30 | 25 | | 26 | 1 | 20 | 2 | | | 200 | | | FLAG POLE UP LIGHTS |
| FIELD #1 | | 2800 | | 2 | | | | | 27 | | 28 | 1 | 20 | | | | | - | | SPARE |
| ---- | | | 4000 | 2 | | | 3 | | 29 | | 30 | 1 | 20 | | | | | | - | SPARE |
| POLE C2 | 4000 | | | 2 | | | | 30 | 31 | | 32 | 1 | - | | | | - | | | SPACE |
| FIELD #1 | | 2800 | | 2 | | | | | 33 | | 34 | 1 | - | | | | | - | | SPACE |
| ---- | | | 2800 | 2 | | | 3 | | 35 | | 36 | 1 | - | | | | | | - | SPACE |
| SPACE | - | | | | | | 1 | - | 37 | | 38 | 1 | - | | | | - | - | - | SPACE |
| SPACE | | - | | | | | 1 | - | 39 | | 40 | 1 | - | | | | | - | | SPACE |
| SPACE | | | - | | | | 1 | - | 41 | | 42 | 1 | - | | | | | | - | SPACE |
| TOTALS: | 18000 | 18000 | 18400 | | | | | | | | | | | | | | 1880 | 1680 | 1620 | |
| | | | | | | | | | | | | | | | | | A | B | C | TOTALS: |

(20,020 X 3) 60,060 V.A. (L.G.L.) X 1.25 = 75,075 V.A.
OTHER LOAD = - V.A.
TOTAL = 75,075 V.A. TOTAL AMPS 90

## PANEL "HS2"

MAIN: LO — BUSS: 225A, CU — SERVICE: 480/277V, 3Ø, 4W — LOCATION: SWBD, "MSA" — MOUNTING: SWBD. — A. I. C.: 42,000 OR SERIES RATED.

| DESCRIPTION | VOLT AMPS A | B | C | LTG | RECP | MOT | BKR POLE | AMP | CKT NO. | A B C | CKT NO. | BKR POLE | AMP | LTG | RECP | MOT | VOLT AMPS A | B | C | DESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| POLE A3 | 1600 | | | | | | | 30 | 1 | | 2 | | 30 | | | | 1200 | | | POLE A4 |
| FIELD #2 | | 1200 | | | | | | | 3 | | 4 | | | 1 | | | | 1600 | | FIELD #3 |
| ---- | | | 2000 | 2 | | | 3 | | 5 | | 6 | 3 | | | 2 | | | | 2000 | ---- |
| POLE A4 | 2000 | | | 2 | | | | 30 | 7 | | 8 | | 30 | 2 | | | 2000 | | | POLE A6 |
| FIELD #2 | | 1200 | | | | | | | 9 | | 10 | | | 1 | | | | 1200 | | FIELD #3 |
| ---- | | | 1600 | | | | 3 | | 11 | | 12 | 3 | | | 1 | | | | 1600 | ---- |
| POLE B3 | 3200 | | | 2 | | | | 30 | 13 | | 14 | | 30 | 2 | | | 3200 | | | POLE B5 |
| FIELD #2 | | 2800 | | 2 | | | | | 15 | | 16 | | | 2 | | | | 2800 | | FIELD #3 |
| ---- | | | 2400 | 2 | | | 3 | | 17 | | 18 | 3 | | 2 | | | | | 2400 | ---- |
| POLE B4 | 2400 | | | 2 | | | | 30 | 19 | | 20 | | 30 | 2 | | | 2400 | | | POLE B6 |
| FIELD #2 | | 2800 | | 2 | | | | | 21 | | 22 | | | 2 | | | | 2800 | | FIELD #3 |
| ---- | | | 3200 | 2 | | | 3 | | 23 | | 24 | 3 | | 2 | | | | | 3200 | ---- |
| POLE P1 | 700 | | | 1 | | | | 20 | 25 | | 26 | | 20 | | | | - | | | SPARE |
| BASKETBALL CT | | 700 | | 1 | | | 2 | | 27 | | 28 | | | | | | | - | | ---- |
| POLE P2 | | | 700 | 1 | | | | 20 | 29 | | 30 | 3 | | | | | | | - | ---- |
| BASKETBALL CT | 700 | | | 1 | | | 2 | | 31 | | 32 | 1 | - | | | | - | | | SPACE |
| SPACE | | - | | | | | 1 | - | 33 | | 34 | 1 | - | | | | | - | | SPACE |
| SPACE | | | - | | | | 1 | - | 35 | | 36 | 1 | - | | | | | | - | SPACE |
| SPACE | - | | | | | | 1 | - | 37 | | 38 | 1 | - | | | | - | | | SPACE |
| SPACE | | - | | | | | 1 | - | 39 | | 40 | 1 | - | | | | | - | | SPACE |
| SPACE | | | - | | | | 1 | - | 41 | | 42 | 1 | - | | | | | | - | SPACE |
| TOTALS: | 10600 | 8700 | 9900 | | | | | | | | | | | | | | 8800 | 8400 | 9200 | |
| | | | | | | | | | | | | | | | | | A | B | C | TOTALS: |

(19,400 X 3) 58,200 V.A. (L.G.L.) X 1.25 = 72,750 V.A.
OTHER LOAD = - V.A.
TOTAL = 72,750 V.A. TOTAL AMPS 88

## PANEL "LS"

MAIN: 50A/3P — BUSS: 100A, CU — SERVICE: 208/120V, 3Ø, 4W — LOCATION: SWBD, "MSA" — MOUNTING: SWBD. — A. I. C.: 10,000

| DESCRIPTION | VOLT AMPS A | B | C | LTG | RECP | MOT | BKR POLE | AMP | CKT NO. | A B C | CKT NO. | BKR POLE | AMP | LTG | RECP | MOT | VOLT AMPS A | B | C | DESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SWBD LTS | 450 | | | | | | 1 | 20 | 1 | | 2 | 1 | 20 | | | | - | | | SPARE |
| SWBD GFI RECEP | | 180 | | | 1 | | 1 | 20 | 3 | | 4 | 1 | 20 | | | | | - | | SPARE |
| LCP-S1 | | | 500 | | | 1 | 1 | 20 | 5 | | 6 | 1 | 20 | | | | | | - | SPARE |
| LCP-S2 | 500 | | | | | 1 | 1 | 20 | 7 | | 8 | 1 | 20 | | | | - | | | SPARE |
| SPARE | | - | | | | | 1 | 20 | 9 | | 10 | 1 | 20 | | | | | - | | SPARE |
| SPARE | | | - | | | | 1 | 20 | 11 | | 12 | 1 | 20 | | | | | | - | SPARE |
| SPACE | - | | | | | | 1 | - | 13 | | 14 | 1 | - | | | | - | | | SPACE |
| SPACE | | - | | | | | 1 | - | 15 | | 16 | 1 | - | | | | | - | | SPACE |
| SPACE | | | - | | | | 1 | - | 17 | | 18 | 1 | - | | | | | | - | SPACE |
| SPACE | - | | | | | | 1 | - | 19 | | 20 | 1 | - | | | | - | | | SPACE |
| SPACE | | - | | | | | 1 | - | 21 | | 22 | 1 | - | | | | | - | | SPACE |
| SPACE | | | - | | | | 1 | - | 23 | | 24 | 1 | - | | | | | | - | SPACE |
| SPACE | - | | | | | | 1 | - | 25 | | 26 | 1 | - | | | | - | | | SPACE |
| SPACE | | - | | | | | 1 | - | 27 | | 28 | 1 | - | | | | | - | | SPACE |
| SPACE | | | - | | | | 1 | - | 29 | | 30 | 1 | - | | | | | | - | SPACE |
| | | | | | | | | | 31 | | 32 | 1 | - | | | | - | | | SPACE |
| | | | | | | | | | 33 | | 34 | 1 | - | | | | | - | | SPACE |
| | | | | | | | | | 35 | | 36 | 1 | - | | | | | | - | SPACE |
| | | | | | | | | | 37 | | 38 | 1 | - | | | | - | | | SPACE |
| | | | | | | | | | 39 | | 40 | 1 | - | | | | | - | | SPACE |
| | | | | | | | | | 41 | | 42 | 1 | - | | | | | | - | SPACE |
| TOTALS: | 450 | 180 | 500 | | | | | | | | | | | | | | - | - | - | |
| | | | | | | | | | | | | | | | | | A | B | C | TOTALS: |

(950 X 3) 2,850 V.A. (L.G.L.) X 1.25 = 3,563 V.A.
OTHER LOAD = - V.A.
TOTAL = 3,563 V.A. TOTAL AMPS 10

## PANEL "LA"

MAIN: 200A/3P — BUSS: 225A, CU — SERVICE: 208/120V, 3Ø, 4W — LOCATION: SWBD, "MSB" — MOUNTING: SWBD. — A. I. C.: 10,000

| DESCRIPTION | VOLT AMPS A | B | C | LTG | RECP | MOT | BKR POLE | AMP | CKT NO. | A B C | CKT NO. | BKR POLE | AMP | LTG | RECP | MOT | VOLT AMPS A | B | C | DESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SWBD LTS | 200 | | | 4 | | | 1 | 20 | 1 | | 2 | 1 | 20 | | | | - | | | SPARE |
| SWBD GFI RECEP | | 180 | | | 1 | | 1 | 20 | 3 | | 4 | 1 | 20 | | | | | - | | SPARE |
| FIELD #1 SCOREBOARD | | | 500 | | | 1 | 1 | 20 | 5 | | 6 | 1 | 20 | | | | | | - | SPARE |
| FIELD #1 GFCI RECEP | 180 | | | | 1 | | 1 | 20 | 7 | | 8 | 1 | - | | | | - | | | SPACE |
| FIELD #2 SCOREBOARD | | 500 | | | | 1 | 1 | 20 | 9 | | 10 | 1 | - | | | | | - | | SPACE |
| FIELD #2 GFCI RECEP | | | 180 | 1 | | | 1 | 20 | 11 | | 12 | 1 | - | | | | | | - | SPACE |
| FIELD #3 SCOREBOARD | 500 | | | | | 1 | 1 | 20 | 13 | | 14 | 1 | - | | | | - | | | SPACE |
| FIELD #3 GFCI RECEP | | 180 | | | 1 | | 1 | 20 | 15 | | 16 | 1 | - | | | | | - | | SPACE |
| IRRIG. CONTROLLER | | | 500 | | | 1 | 1 | 20 | 17 | | 18 | 1 | - | | | | | | - | SPACE |
| SPARE | - | | | | | | 1 | 20 | 19 | | 20 | 1 | - | | | | - | | | SPACE |
| SPARE | | - | | | | | 1 | 20 | 21 | | 22 | 1 | - | | | | | - | | SPACE |
| SPARE | | | - | | | | 1 | 20 | 23 | | 24 | 1 | - | | | | | | - | SPACE |
| SPARE | - | | | | | | 1 | 20 | 25 | | 26 | 1 | - | | | | - | | | SPACE |
| SPARE | | - | | | | | 1 | 20 | 27 | | 28 | 1 | - | | | | | - | | SPACE |
| SPARE | | | - | | | | 1 | 20 | 29 | | 30 | 1 | - | | | | | | - | SPACE |
| SPACE | - | | | | | | 1 | 20 | 31 | | 32 | 1 | - | | | | - | | | SPACE |
| SPACE | | - | | | | | 1 | 20 | 33 | | 34 | 1 | - | | | | | - | | SPACE |
| SPACE | | | - | | | | 1 | 20 | 35 | | 36 | 1 | - | | | | | | - | SPACE |
| SPACE | - | | | | | | 1 | 20 | 37 | | 38 | 1 | - | | | | - | | | SPACE |
| SPACE | | - | | | | | 1 | 20 | 39 | | 40 | 1 | 25 | | 1 | | | 6000 | | PANEL "LA1" |
| SPACE | | | - | | | | 1 | 20 | 41 | | 42 | 2 | | | | | | | 6000 | (E) RESTRM. BLDG. |
| TOTALS: | 880 | 860 | 1180 | | | | | | | | | | | | | | - | 6000 | 6000 | |
| | | | | | | | | | | | | | | | | | A | B | C | TOTALS: |

(7,180 X 3) 21,540 V.A. (L.G.L.) X 1.25 = 26,925 V.A.
OTHER LOAD = - V.A.
TOTAL = 26,925 V.A. TOTAL AMPS 75

## PANEL "LB"

MAIN: 200A/3P — BUSS: 225A, CU — SERVICE: 208/120V, 3Ø, 4W — LOCATION: SWBD, "B" — MOUNTING: SWBD. — A. I. C.: 10,000

| DESCRIPTION | VOLT AMPS A | B | C | LTG | RECP | MOT | BKR POLE | AMP | CKT NO. | A B C | CKT NO. | BKR POLE | AMP | LTG | RECP | MOT | VOLT AMPS A | B | C | DESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| POLE #51 SEC CAMERA | 200 | | | | 1 | 1 | 1 | 20 | 1 | | 2 | 1 | 20 | 2 | | | 100 | | | SWBD LIGHTS |
| POLE #52 SEC CAMERA | | 200 | | | 1 | 1 | 1 | 20 | 3 | | 4 | 1 | 20 | | 1 | | | 180 | | SWBD GFI RECEP |
| POLE #53 SEC CAMERA | | | 200 | | 1 | 1 | 1 | 20 | 5 | | 6 | 1 | 20 | | | 1 | | | 500 | IRRIG. CONTROLLER |
| POLE #54 SEC CAMERA | 200 | | | | 1 | 1 | 1 | 20 | 7 | | 8 | 1 | 20 | | | | - | | | SPARE |
| POLE #55 SEC CAMERA | | 200 | | | 1 | 1 | 1 | 20 | 9 | | 10 | 1 | 20 | | | | | - | | SPACE |
| POLE #56 SEC CAMERA | | | 200 | | 1 | 1 | 1 | 20 | 11 | | 12 | 1 | 20 | | | | | | - | SPARE |
| VIDEO RECORDER | 500 | | | | | 1 | 1 | 20 | 13 | | 14 | 1 | - | | | | - | | | SPACE |
| SPARE | | - | | | | | 1 | 20 | 15 | | 16 | 1 | - | | | | | - | | SPACE |
| SPARE | | | - | | | | 1 | 20 | 17 | | 18 | 1 | - | | | | | | - | SPACE |
| SPACE | - | | | | | | 1 | - | 19 | | 20 | 1 | - | | | | - | | | SPACE |
| SPACE | | - | | | | | 1 | - | 21 | | 22 | 1 | - | | | | | - | | SPACE |
| SPACE | | | - | | | | 1 | - | 23 | | 24 | 1 | - | | | | | | - | SPACE |
| SPACE | - | | | | | | 1 | - | 25 | | 26 | 1 | - | | | | - | | | SPACE |
| SPACE | | - | | | | | 1 | - | 27 | | 28 | 1 | - | | | | | - | | SPACE |
| SPACE | | | - | | | | 1 | - | 29 | | 30 | 1 | - | | | | | | - | SPACE |
| SPACE | - | | | | | | 1 | - | 31 | | 32 | 1 | - | | | | - | | | SPACE |
| SPACE | | - | | | | | 1 | - | 33 | | 34 | 1 | - | | | | | - | | SPACE |
| SPACE | | | - | | | | 1 | - | 35 | | 36 | 1 | - | | | | | | - | SPACE |
| SPACE | - | | | | | | 1 | - | 37 | | 38 | 1 | 0000 | | | 1 | | | | PANEL "LB1" |
| SPACE | | - | | | | | 1 | - | 39 | | 40 | | | | | | | 0000 | | RR/CONC/STO BLDG PNL. |
| SPACE | | | - | | | | 1 | - | 41 | | 42 | 3 | | | | | | | 0000 | |
| TOTALS: | 900 | 400 | 400 | | | | | | | | | | | | | | 1100 | 1080 | 0500 | |
| | | | | | | | | | | | | | | | | | A | B | C | TOTALS: |

(11,000 X 3) 33,000 V.A. (L.G.L.) X 1.25 = 41,250 V.A.
OTHER LOAD = - V.A.
TOTAL = 41,250 V.A. TOTAL AMPS 115

## PANEL "LC"

MAIN: 200A/3P — BUSS: 225A, CU — SERVICE: 208/120V, 3Ø, 4W — LOCATION: SWBD, "C" — MOUNTING: SWBD. — A. I. C.: 10,000

| DESCRIPTION | VOLT AMPS A | B | C | LTG | RECP | MOT | BKR POLE | AMP | CKT NO. | A B C | CKT NO. | BKR POLE | AMP | LTG | RECP | MOT | VOLT AMPS A | B | C | DESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SWBD LIGHTS | 100 | | | 2 | | | 1 | 20 | 1 | | 2 | | 40 | | | 1 | 2500 | | | FUTURE EVSE |
| SWBD GFI RECEP | | 180 | | | 1 | | 1 | 20 | 3 | | 4 | 2 | | | | | | 2500 | | ---- |
| SPARE | | | - | | | | 1 | 20 | 5 | | 6 | | 40 | | | 1 | | | 2500 | FUTURE EVSE |
| SPARE | - | | | | | | 1 | 20 | 7 | | 8 | 2 | | | | | 2500 | | | ---- |
| SPARE | | - | | | | | 1 | 20 | 9 | | 10 | 1 | - | | | | | - | | SPACE |
| SPARE | | | - | | | | 1 | 20 | 11 | | 12 | 1 | - | | | | | | - | SPACE |
| SPACE | - | | | | | | 1 | - | 13 | | 14 | 1 | - | | | | - | | | SPACE |
| SPACE | | - | | | | | 1 | - | 15 | | 16 | 1 | - | | | | | - | | SPACE |
| SPACE | | | - | | | | 1 | - | 17 | | 18 | 1 | - | | | | | | - | SPACE |
| SPACE | - | | | | | | 1 | - | 19 | | 20 | 1 | - | | | | - | | | SPACE |
| SPACE | | - | | | | | 1 | - | 21 | | 22 | 1 | - | | | | | - | | SPACE |
| SPACE | | | - | | | | 1 | - | 23 | | 24 | 1 | - | | | | | | - | SPACE |
| SPACE | - | | | | | | 1 | - | 25 | | 26 | 1 | - | | | | - | | | SPACE |
| SPACE | | - | | | | | 1 | - | 27 | | 28 | 1 | - | | | | | - | | SPACE |
| SPACE | | | - | | | | 1 | - | 29 | | 30 | 1 | - | | | | | | - | SPACE |
| SPACE | - | | | | | | 1 | - | 31 | | 32 | 1 | - | | | | - | | | SPACE |
| SPACE | | - | | | | | 1 | - | 33 | | 34 | 1 | - | | | | | - | | SPACE |
| SPACE | | | - | | | | 1 | - | 35 | | 36 | 1 | - | | | | | | - | SPACE |
| SPACE | - | | | | | | 1 | - | 37 | | 38 | 1 | - | | | | - | | | SPACE |
| SPACE | | - | | | | | 1 | - | 39 | | 40 | 1 | 25 | | 1 | | | 6000 | | PANEL "LC1" |
| SPACE | | | - | | | | 1 | - | 41 | | 42 | 2 | | | | | | | 6000 | FUTURE RESTRM. BLDG. |
| TOTALS: | 100 | 180 | - | | | | | | | | | | | | | | 5000 | 2500 | 2500 | |
| | | | | | | | | | | | | | | | | | A | B | C | TOTALS: |

(5,100 X 3) 15,300 V.A. (L.G.L.) X 1.25 = 19,125 V.A.
OTHER LOAD = - V.A.
TOTAL = 19,125 V.A. TOTAL AMPS 53

| PANEL DIRECTORY | | |
|---|---|---|
| "HS1" | "HS2" | "LS" |
| "LA" | "LB" | "LC" |

A — PANELBOARD SCHEDULES


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**MOORE IACOFANO GOLTSMAN, INC.**
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CIVIL ENGINEER
**BKF**
STRUCTURAL ENGINEER
**ISE**


OLIVE BOWL
KAKU
PARK

LINDSAY, CA
93247

SHEET TITLE

PANELBOARD SCHEDULES

| DATE | REVISION |
|---|---|
| 10-18-21 | 50% CD Submittal |
| 12-8-21 | 90% CD Submittal |
| 12-14-22 | 90% CD Submittal |
| 2-13-23 | 100% CD Submittal |
| 10-3-23 | ADDENDUM #1 |
| 10-27-23 | ADDENDUM #3 |
| 6-10-24 | 3 PHASE RE-PACKAGE |

STAMP

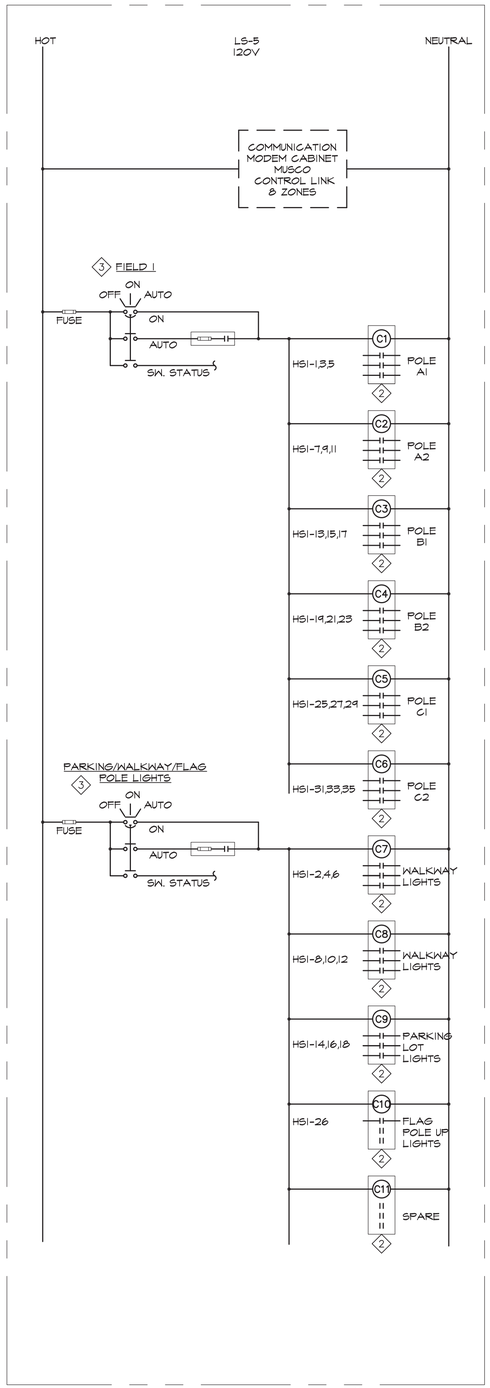
REGISTERED PROFESSIONAL ENGINEER
DAVID C. REGALADO
No. E16914
Exp. 6-30-25
ELECTRICAL
STATE OF CALIFORNIA
6-25-24

| CHECKED BY | DATE |
|---|---|
| C.R. | 6-10-24 |
| DRAWN BY | JOB NO. |
| LRA | 05567.02 |

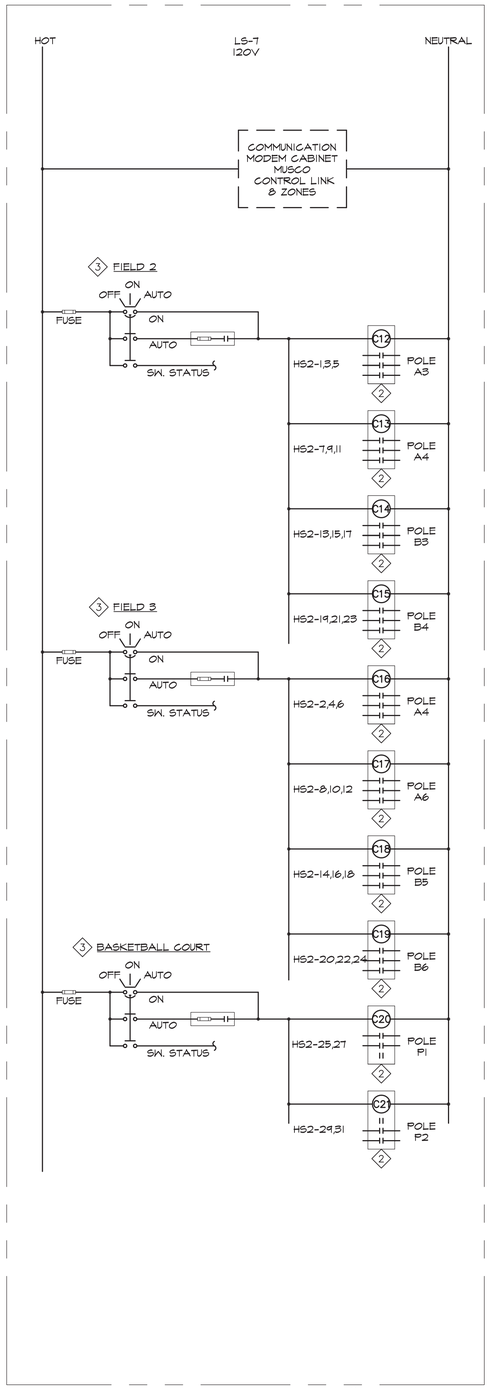
SHEET

E-0.5

SHEET 68 OF 79 SHEETS




FIELD 1, PARKING, WALKWAY & FLAG POLE LIGHTS




FIELD 2, FIELD 3 & BASKETBALL COURT

## REFERENCE NOTES:

1. MUSCO LIGHTING CONTROL AND MONITORING CABINET COMPLETE WITH LIGHTING CONTACTORS. NEMA TYPE 4 ENCLOSURE. ENTIRE ASSEMBLY SHALL BE FACTORY WIRED, PROGRAMMED AND TESTED.
2. 30A, 30 ELECTRICALL HELD CONTACTOR, 100% RATED, 120V COIL.
3. OFF-ON-AUTOMATIC SWITCH MOUNTED ON CABINET DOOR. SWITCH SHALL BE FACTORY WIRED TO TERMINAL BLOCKS. PROVIDE SWITCH WITH NAMEPLATE.

## GENERAL NOTES:

1. PROVIDE NAMEPLATES TO IDENTIFY ALL EQUIPMENT IN THE LIGHTING CONTROL PANELS.
2. LIGHTING CONTROL "ON AND OFF" SCHEDULES SHALL BE AS DIRECTED BY THE CITY OF LINDSAY.

A

SPORTS FIELDS, WALKWAYS, PARKING LOT & FLAG POLE LIGHTING CONTROL DIAGRAMS

NOT TO SCALE


MIG
109 W. UNION AVE.
FULLERTON, CA 92832
TEL 714/871-3638
www.migcom.com

CONSULTANT:

LRA ENGINEERS
Electrical Consulting Engineers
Corona, California 92882
Tel: (951) 737-4569

PROJECT TEAM:

LANDSCAPE ARCHITECT
**MOORE IACOFANO GOLTSMAN, INC.**

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**BKF**

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93247

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LIGHTING CONTROL DIAGRAMS

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| 6-10-24 | 3 PHASE RE-PACKAGE |

STAMP

REGISTERED PROFESSIONAL ENGINEER
CHARLES C. REGALADO III
No. E16914
Exp. 6-30-25
ELECTRICAL
STATE OF CALIFORNIA

6-25-24

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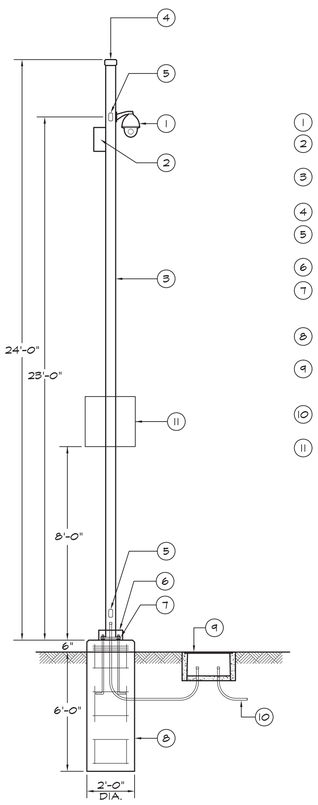



REFERENCE NOTES:

1. DOME TYPE SECURITY CAMERA
2. SECURITY CAMERA POWER SUPPLY, NEMA 4/4X, IP66-11 ENCLOSURE RATED FOR OUTDOOR USE
3. 5" SQUARE OT GA. STRAIGHT GALVANIZED STEEL POLE, LSI #5SQB5-SOTG-24-MSV-GA-5BG
4. GALVANIZED STEEL POLE CAP
5. HANDHOLE WITH GROUNDING LUG AND GASKETED COVER
6. TWO-PIECE ALUMINUM BASE COVER
7. BASE PLATE WITH (4) 1" X 36" X 4" HOT DIPPED GALVANIZED ANCHOR BOLTS, 52" MINIMUM INTO FOOTING
8. 24" DIAMETER CONCRETE BASE. SEE DETAIL 3 ON SHEET ST-2.
9. UNDERGROUND PRECAST CONCRETE PULL BOX. PROVIDE PULL BOX WHERE INDICATED ON ELECTRICAL SITE PLAN
10. SCHEDULE 40 PVC CONDUIT. SEE ELECTRICAL SITE PLAN FOR SIZE.
11. SIGN: "WARNING - CCTV CAMERAS IN OPERATION". PROVIDE COMPLETE WITH POLE MOUNTING STRAPS. MINIMUM 18" X 18" METAL SIGN. MANUFACTURER TO BE APPROVED BY THE CITY. SUBMIT SHOP DRAWINGS FOR APPROVAL.

NOTE:

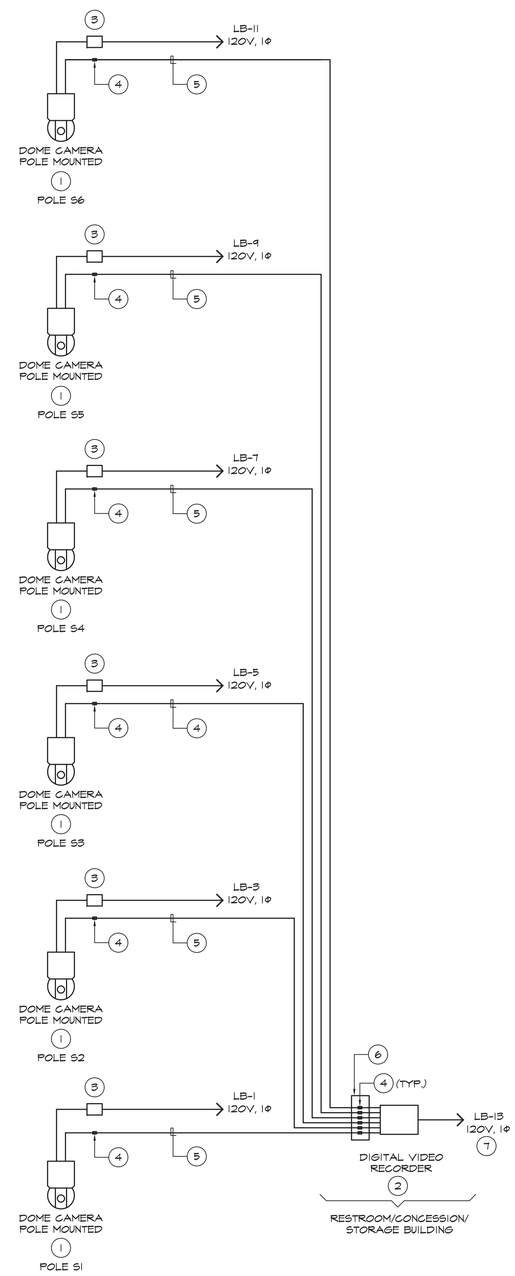
SEE POLE FOUNDATION DETAILS PREPARED BY THE STRUCTURAL ENGINEER PRIOR TO ORDERING AND INSTALLING THE ANCHOR BOLTS. REFER TO DETAIL 3 ON SHEET ST-2.

B SECURITY CAMERA MOUNTING DETAIL NOT TO SCALE

## SECURITY SYSTEM GENERAL NOTES

1. THE CONTRACTOR SHALL FURNISH AND INSTALL COMPLETE AND OPERABLE THE SECURITY / SURVEILLANCE SYSTEM FOR OLIVE BOWL / KAKU PARK. ALL ITEMS REQUIRED TO COMPLETE THE INSTALLATION WHETHER DETAILED IN THIS PLAN OR IN THE SPECIFICATIONS SHALL BE INCLUDED IN THE CONTRACT.
2. PROVIDE ALL EQUIPMENT INCLUDING CONDUITS, OUTLET BOXES, CABLES AND ACCESSORIES AS SHOWN ON PLANS. COORDINATE ALL LOCATIONS AND REQUIREMENTS WITH THE CITY AND SECURITY VENDOR.
3. ALL SECURITY SYSTEM WIRING SHALL BE IN MINIMUM 1 1/2" CONDUIT.
4. CONTRACTOR SHALL COORDINATE ALL WORK WITH THE CITY OF LINDSAY, CA.
5. SECURITY SYSTEM CONTACT / VENDOR:

ELECTRONIC DESIGN SOLUTIONS INC.
41785 ELM STREET, SUITE 201
MURIETTA, CA
TEL. (888) 611-1741




A SECURITY SYSTEM BLOCK DIAGRAM NOT TO SCALE

REFERENCE NOTES:

1. PAN/TILT/ZOOM SPEED DOME CAMERA. OUTDOOR POLE MOUNTED. PROVIDE COMPLETE WITH VANDAL RESISTANT OUTDOOR HOUSING, POLE MOUNTING BRACKET AND ACCESSORIES.

CAMERA MODULE
- 4 MEGAPIXEL RESOLUTION, 1/2.5" PROGRESSIVE SCAN CMOS
- F=4.8-120MM LENS, 25X OPTICAL ZOOM
- TRUE DAY/NIGHT WITH IR RANGE UP TO 328 FT.
- 1 /15-1 /10,000S SHUTTER SPEED
- 3.6S (OPTICAL ZOOM, WIDE TELE)
- HORIZONTAL: 55°~2.4° (WIDE TELE), VERTICAL: 35°~1.4° (WIDE TELE), DIAGONAL: 61.5°~2.8° (WIDE TELE)

PTZ
- 360° ENDLESS PAN RANGE
- PAN SPEED CONFIGURABLE, FROM 0.1~80°/S; PRESET SPEED: 120°/S
- 0° TO 90° TILT RANGE
- TILT SPEED CONFIGURABLE, FROM 0.1°~70°/S; PRESET SPEED: 120°/S
- PROPORTIONAL ZOOM
- 8 CRUISES, UP TO 16 PRESETS FOR EACH CRUISE
- 4 TRACKS, RECORD TIME OVER 3 MINUTES FOR EACH TRACE

NETWORK
- 2560 X 1440 MAXIMUM RESOLUTION
- H.265/H.264/MJPEG VIDEO COMPRESSION
- G.711A/U AUDIO COMPRESSION
- UP TO 6 CHANNELS SIMULTANEOUS LIVE REVIEW
- UP TO 16 USERS, 3 LEVELS: ADMINISTRATOR, ADVANCE USER AND NORMAL USER
- USER AUTHENTICATION (ID AND PW), HOST AUTHENTICATION (MAC ADDRESS); HTTPS ENCRYPTION, IEEE802.1 X PORT-BASED NETWORK ACCESS CONTROL; IP ADDRESS FILTERING

GENERAL
- POWER: DC24V, AC24V OR POE++ (802.3.BT, CLASS 6), (MAX. 34W, INCLUDE IR, HEATER, HEATER, FAN WORKING, MAX 12W FOR IR)
- WORKING CONDITION: -22°F~140°F (-30°C~60°C), 90% RH LESS (NON-CONDENSING), COLD START AT 125°C
- STORAGE CONDITION: -40°F~149°F (-40°~65°C)
- PROTECTION: IP66, 6000V LIGHTNING PROTECTION, SURGE PROTECTION AND VOLTAGE TRANSIENT PROTECTION
- MATERIAL: ALUMINUM ALLOY + PLASTIC
- DIMENSIONS: Φ7.7 INCH X 12.5 IN (Φ196MM X 317MM)
- WEIGHT: APPROX. 8.31 LB (3.7 KG)
- CERTIFICATION: IP66, ROHS, CE, FC

MANUFACTURER
- INNOVATIVE VIDEO TECHNOLOGY MODEL PAR-P4PTZXIR25NH-AI: 4 MEGAPIXEL IP PLUG & PLAY, OUTDOOR PTZ.

2. DIGITAL VIDEO RECORDER COMPLETE WITH 17.2"W X 21"D X 5"H LOCK BOX & WALL MOUNTING ARMS
- SYSTEM: 16 CH NVR WITH 16 PLUG AND PLAY PORTS, 96 MBPS, 10 TERABYTE HARD DRIVE FOR 24/7 RECORDING FOR 43 DAYS
- OS: EMBEDDED LINUX

VIDEO
- NETWORK INPUT: 16 CH IPC INPUT
- NETWORK INPUT RESOLUTION: 8MP/6MP/5MP/4MP/3MP/1080P/1280X1024/960P/720/960H/D1/CIF
- OUTPUT: HDMI X 1:3840 X 2160 /1920 X 1080 /1280 X 1024 /1024 X 768 VGA: 1920 X 1080 /1280 X 1024 /1024 X 768
- COMPRESSION: H.2655 / H.265+ /H.265 /H.264

AUDIO
- NETWORK INPUT: 16 CH AUDIO INPUT
- 2-WAY AUDIO: RCA X 1
- LOCAL OUTPUT: RCA X 1
- COMPRESSION: G.711 (U/A)

RECORD
- RESOLUTION: 8MP/6MP/5MP/4MP/3MP/1080P/1280 X 1024/960P/720P/960H/D1/CIF
- FRAME RATE: N:30FPS; P:25FPS

PLAYBACK
- SIMULTANEOUS PLAYBACK: MAX. 16 CH
- SEARCH: TIME SLICE / TIME / EVENT / TAG SEARCH /SMART SEARCH
- FUNCTION: PLAY, PAUSE, FF, FB, DIGITAL ZOOM, ETC.
- LIVE VIEW / PLAYBACK: 1CH 8MP; 4CH 1080P

ALARM
- MODE: MANUAL, SENDOR, MOTION, EXCEPTION, SMART EVENTS
- INPUT: SUPPORTS IPC ALARM INPUT
- OUTPUT: SUPPORTS IPC ALARM OUTPUT
- TRIGGERING: RECORD, SNAP, PRESET, E-MAIL, ETC.

OTHER FUNCTIONS
- PLATE RECOGNITION: YES
- HUMAN/VEHICLE CLASSIFICATION: YES

NETWORK
- INTERFACE: RJ 45 1000MBPS X 1
- PROTOCOL: TCP / IP, PPPOE, DHCP, DNS, DDNS, UPNP, NTP, SMTP, HTTP, HTTPS, 802.1s, RTSP, SNMP, ONVIF, ETC.
- INCOMING/OUTGOING BANDWIDTH: 96MBPS /96MBPS
- CLIENT CONNECTION: MAX. 10 USERS

MOBILE DEVICE
- IOS, ADROID

MANUFACTURER
- INNOVATIVE VIDEO TECHNOLOGY MODEL PNIA-16X16-2NH: 16 CH NVR WITH 16 PLUG & PLAY PORTS, 10 TERABYTE HARD DRIVE

3. POWER SUPPLYCOMPLETE WITH NEMA 4/4X, IP66-11 ENCLOSURE RATED FOR OUTDOOR USE. 120VAC - 24VAC/28VAC. FURNISH AND INSTALL COMPLETE WITH POLE MOUNTING HARDWARES. ALTRONIX WAYPOINTIOA.
4. LONG RANGE ETHERNET EXTENDER/ADAPTER, RATED 100MBPS, UL LISTED. ALTRONIX PACE1PRMT.
5. (1) CATEGORY 6 DIRECT BURIAL DATA COMMUNICATION CABLE. UL LISTED OR ETL TYPE CMX, CMR, UL 444 & 1666.
6. TERMINAL BOX, SIZE AS REQUIRED, LOCKABLE, WALL MOUNTED.
7. PROVIDE A DEDICATED BRANCH CIRCUIT CONDUIT AND WIRES TO PANEL LC. MINIMUM 1"C - 2 #10 & 1 #10 GRD. XHHW-2. PROVIDE A 20A, 125V, DUPLEX RECEPTACLE WITH LOCKABLE WP WHILE IN USE COVER (ADJACENT TO THE DIGITAL VIDEO RECORDER) AS REQUIRED.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SHEET TITLE

SECURITY
SYSTEM BLOCK
DIAGRAM

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STAMP

REGISTERED PROFESSIONAL ENGINEER
MICHAEL C. REGALADO
No. E16914
Exp. 6-30-25
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STATE OF CALIFORNIA
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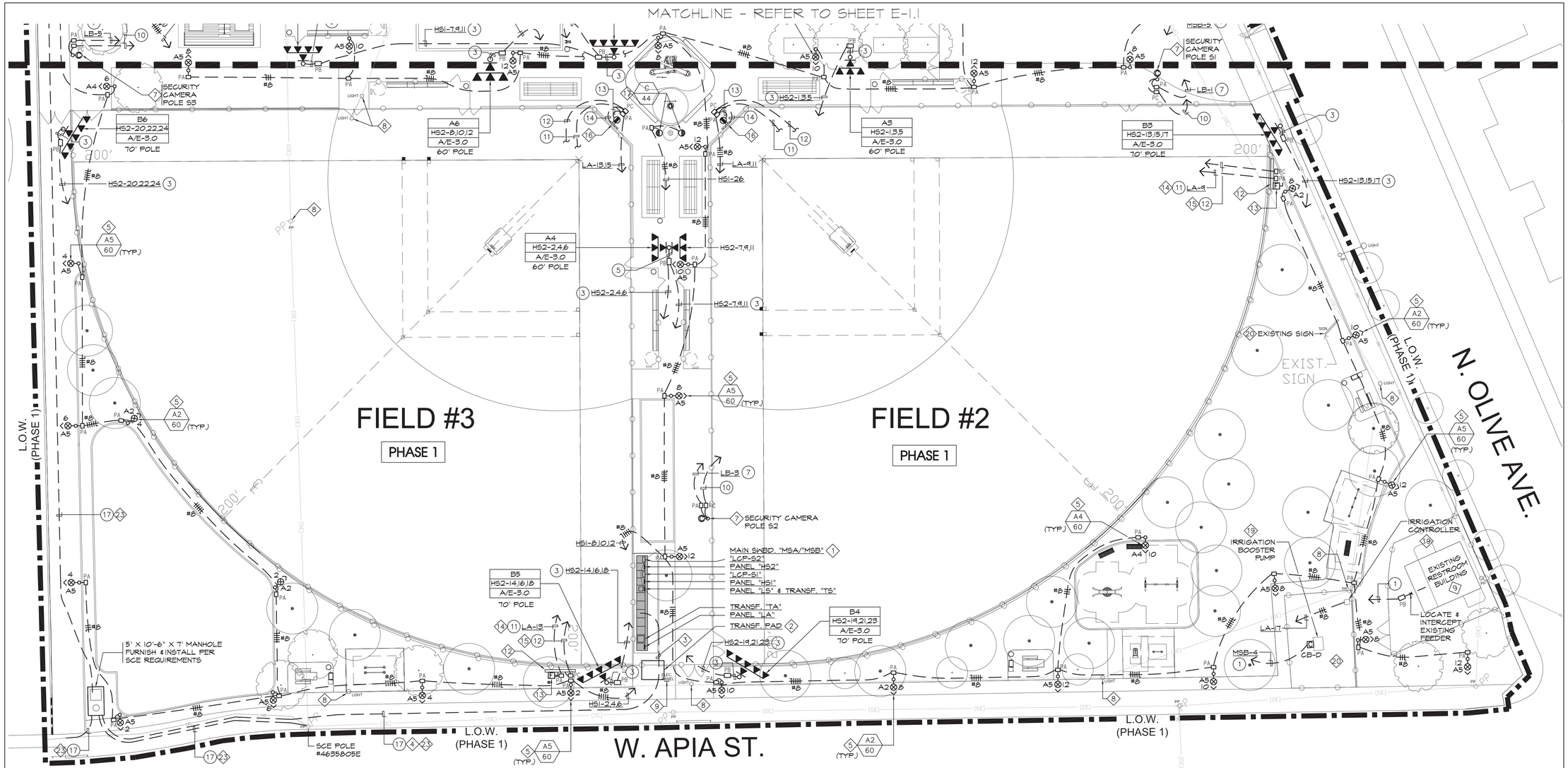



## PLAN NOTES

1. SEE SINGLE LINE DIAGRAM ON SHEET E-0.3 AND SWITCHBOARD ELEVATIONS ON SHEET E-0.4.
2. TRANSFORMER PAD. FURNISH AND INSTALL PER SCE REQUIREMENTS.
3. SECONDARY SERVICE CONDUITS. FURNISH AND INSTALL PER SCE REQUIREMENTS.
4. PRIMARY SERVICE CONDUIT. FURNISH AND INSTALL PER SCE REQUIREMENTS.
5. WALKWAY LIGHT AND POLE. SEE TYPICAL WALKWAY LIGHT AND POLE STANDARD DETAIL "E" ON SHEET E-2.0.
6. PARKING AREA LIGHT AND POLE. SEE TYPICAL PARKING AREA LIGHT AND POLE STANDARD DETAIL "F" ON SHEET E-2.0.
7. POLE MOUNTED SECURITY CAMERA. SEE SECURITY SYSTEM BLOCK DIAGRAM AND DETAIL ON SHEET E-0.7.
8. EXISTING LIGHT, POWER POLE AND CONCRETE FOUNDATION TO BE REMOVED. REMOVE ASSOCIATED CONDUIT AND WIRES. COORDINATE WORK WITH THE CITY AND POWER COMPANY.
9. EXISTING METER AND PANEL TO BE REMOVED. EXISTING ELECTRICAL LOADS TO REMAIN SHALL BE RECONNECTED TO MAIN SWBD. "MSB"/PANEL "LA". PROVIDE TRANSFORMERS, CONDUITS, WIRES, PULL BOXES, LIGHTING CONTROLS AND ACCESSORIES AS REQUIRED. COORDINATE WORK WITH THE CITY AND POWER COMPANY.
10. TELEPHONE SERVICE CONDUIT & PULL BOX. FURNISH AND INSTALL PER TELEPHONE CO. REQUIREMENTS.
11. TELEPHONE TERMINAL CABINET. 24"W X 36"H X 6.75"D, GA. 16 GALV. STEEL COMPLETE WITH 3/4" THICK TREATED PLYWOOD BACKBOARD, DOUBLE DUPLEX RECEPTACLE AND #6 UFER GROUND. FURNISH AND INSTALL PER TELEPHONE CO. REQUIREMENTS. PROVIDE 20A, 120V DEDICATED BRANCH CIRCUIT CONDUIT AND WIRES TO PANEL "LB1".
12. SCOREBOARD. VERIFY EXACT LOCATION WITH THE CITY.
13. 30AS/20AF/IPSN/WP. CONNECT TO SCOREBOARD PER MANUFACTURER'S SPECIFICATIONS.
14. WIRE CIRCUIT VIA "ON-OFF" POWER CONTROL SWITCH AT SCOREBOARD CONTROL CABINET.
15. TO CONTROL JACK AT SCOREBOARD CONTROL CABINET. FURNISH AND INSTALL PER SCOREBOARD MANUFACTURER'S SPECIFICATIONS.
16. SCOREBOARD CONTROL CABINET WITH GFCI TYPE DUPLEX RECEPTACLE. SEE DETAIL "C" ON SHEET E-2.0.
17. FLAG POLE UP LIGHT. SEE DETAIL "D" ON SHEET E-2.0.
18. EXISTING UNDERGROUND ELECTRICAL LINE, PROTECT IN PLACE. SEE CIVIL PLANS.
19. SEE IRRIGATION PLANS.
20. REMOVE EXISTING ELECTRICAL PANEL/LIGHTING CONTROL PANEL/SIGN AND TURN OVER TO THE CITY. REMOVE ASSOCIATED CONCRETE FOOTING, CONDUIT AND WIRES. COORDINATE WORK WITH THE CITY.
21. SEE SECURITY SYSTEM BLOCK DIAGRAM ON SHEET E-0.7.
22. RUN SECURITY SYSTEM DATA CONDUITS THROUGH THIS PULL BOX.
23. CONTRACTOR TO COORDINATE WITH SCE. SCE REQUIRES 48-HOUR ADVANCE NOTICE BEFORE EXCAVATION AND 48-HOUR ADVANCE NOTICE BEFORE OPEN TRENCH INSPECTION. CONTRACTOR TO ALLOW SCE 4 TO 12 WEEKS TO COMPLETE THEIR WORK (INSTALL 12 KV CABLES, SWITCHGEAR, ETC.).
24. CONDUITS AND PULL BOXES FROM SWITCHBOARD/PANELBOARD /SECURITY SYSTEM EQUIPMENT TO LIMIT OF PHASE 1 AND 2 WORK OR AS REQUIRED SHALL BE INCLUDED IN PHASE 1. CONDUITS AND PULL BOXES ALONG SOUTH EDGE OF PARKING LOT SHALL BE INCLUDED IN PHASE 1. STUB, CAP AND MARK END OF CONDUITS.

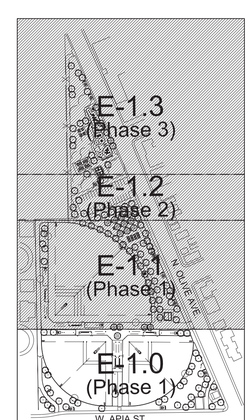
## WIRING LEGEND

1. SEE SINGLE LINE DIAGRAM ON SHEET E-0.3
2. NOT USED
3. 2"C - 4 #8 & 1 #8 GRD XHHW-2 CU
4. 2"C - 4 #6 & 1 #6 GRD XHHW-2 CU
5. 2"C - 8 #8 & 1 #8 GRD XHHW-2 CU
6. 2"C - 4 #8, 4 #6 & 1 #6 GRD XHHW-2 CU
7. 2"C - 2 #8 & 1 #8 GRD XHHW-2 CU
8. 2"C - 3 #8 & 1 #8 GRD XHHW-2 CU
9. 2"C - 6 #8 & 1 #8 GRD XHHW-2 CU
10. 2"C WITH (1) CAT 6 DATA COMMUNICATION CABLE TO DIGITAL VIDEO RECORDER AT CONCESSION/STORAGE BLDG.
11. 1 1/2"C - 2 #8 & 1 #8 GRD XHHW-2 CU (SCOREBOARD POWER)
12. 1 1/2"C WITH SCOREBOARD CONTROL CABLE. FURNISH AND INSTALL PER MANUFACTURER'S SPECIFICATIONS.
13. 1"C - 2 #10 & 1 #10 GRD XHHW-2 CU (SCOREBOARD)
    1"C - 2 #10 & 1 #10 GRD XHHW-2 CU (GFCI RECEPTACLE)
14. 1"C WITH SCOREBOARD CONTROL CABLE
15. 2"C WITH (6) CAT 6 DATA COMMUNICATION CABLES (1) 2"C.O. SPARE
16. (2) 1 1/2" C.O. FOR FUTURE EV SUPPLY EQUIPMENT (EVSE)
17. (1) 5"C.O. FURNISH AND INSTALL PER SCE REQUIREMENTS.

— #10 — 1"C - 2 #10 & 1 #10 GRD XHHW-2 CU
— #8 — 1 1/2"C - 2 #8 & 1 #8 GRD XHHW-2 CU
— #8 — 1 1/2"C - 3 #8 & 1 #8 GRD XHHW-2 CU
— #8 — 1 1/2"C - 4 #8 & 1 #8 GRD XHHW-2 CU
PA — PULL BOX TO TYPE "A2", "A4", "A5" & "B2" LIGHT FIXTURE
1 1/2"C - 2 #10 & 1 #10 GRD XHHW-2 CU

## ELECTRICAL SITE PLAN GENERAL NOTES

1. ALL UTILITY WORK SHALL BE IN COMPLIANCE WITH THE REQUIREMENTS OF THE CITY AND THE SERVING UTILITY COMPANY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE CITY AND THE SERVING UTILITY COMPANY TO RECEIVE COMPLETE INFORMATION ON THEIR REQUIREMENTS PRIOR TO THE SUBMISSION OF THE BID. THE ACT OF SUBMITTING THE BID SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO INSTALL SERVICE IN COMPLIANCE WITH THE CITY, THE SERVING UTILITY COMPANY AND THE CONTRACT DOCUMENTS.
2. ALL ITEMS SUCH AS SERVICE CONDUIT, CONDUCTORS, CONCRETE PADS, PULL BOXES, MANHOLES AND PROTECTIVE COVERING FROM SERVICE LOCATION SHALL BE PROVIDED AND INSTALLED, AND SHALL BE VERIFIED WITH THE SERVING UTILITY COMPANY.




KEYMAP

0 10' 20' 40'

NORTH

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UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA

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PARTIAL ELECTRICAL SITE PLAN

| DATE | REVISION |
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STAMP
REGISTERED PROFESSIONAL ENGINEER
CHRISTOPHER C. REGALADO
No. E18914
Exp. 6-30-25
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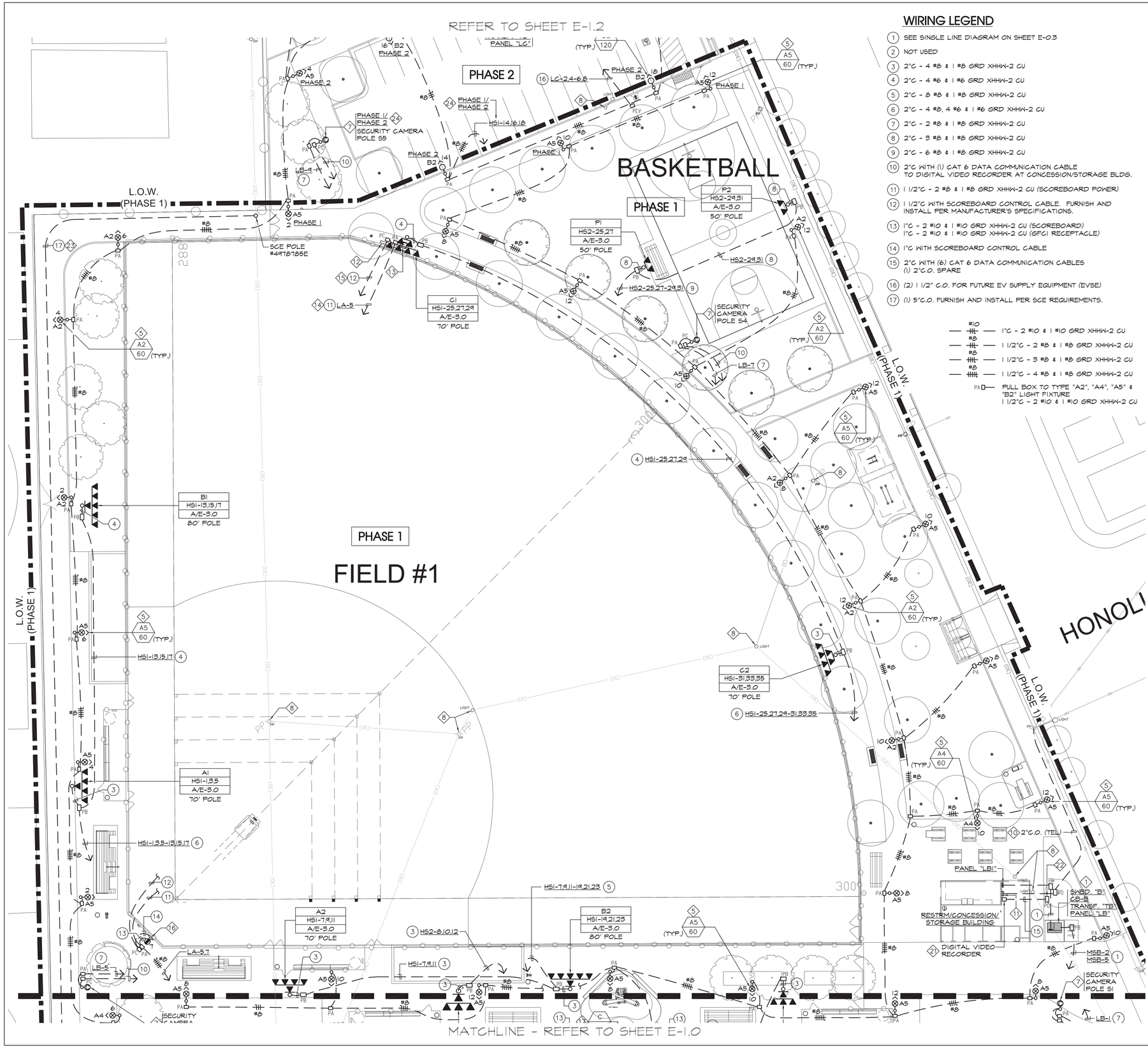


## WIRING LEGEND

1. SEE SINGLE LINE DIAGRAM ON SHEET E-0.3
2. NOT USED
3. 2"C - 4 #8 & 1 #8 GRD XHHW-2 CU
4. 2"C - 4 #6 & 1 #6 GRD XHHW-2 CU
5. 2"C - 3 #8 & 1 #8 GRD XHHW-2 CU
6. 2"C - 4 #8, 4 #6 & 1 #6 GRD XHHW-2 CU
7. 2"C - 2 #8 & 1 #8 GRD XHHW-2 CU
8. 2"C - 3 #8 & 1 #8 GRD XHHW-2 CU
9. 2"C - 6 #8 & 1 #8 GRD XHHW-2 CU
10. 2"C WITH (1) CAT 6 DATA COMMUNICATION CABLE TO DIGITAL VIDEO RECORDER AT CONCESSION/STORAGE BLDG.
11. 1 1/2"C - 2 #8 & 1 #8 GRD XHHW-2 CU (SCOREBOARD POWER)
12. 1 1/2"C WITH SCOREBOARD CONTROL CABLE. FURNISH AND INSTALL PER MANUFACTURER'S SPECIFICATIONS.
13. 1"C - 2 #10 & 1 #10 GRD XHHW-2 CU (SCOREBOARD)
    1"C - 2 #10 & 1 #10 GRD XHHW-2 CU (GFCI RECEPTACLE)
14. 1"C WITH SCOREBOARD CONTROL CABLE
15. 2"C WITH (6) CAT 6 DATA COMMUNICATION CABLES (1) 2"C.O. SPARE
16. (2) 1 1/2" C.O. FOR FUTURE EV SUPPLY EQUIPMENT (EVSE)
17. (1) 5"C.O. FURNISH AND INSTALL PER SCE REQUIREMENTS.

#10 — 1"C - 2 #10 & 1 #10 GRD XHHW-2 CU
#8 — 1 1/2"C - 2 #8 & 1 #8 GRD XHHW-2 CU
#8 — 1 1/2"C - 3 #8 & 1 #8 GRD XHHW-2 CU
#8 — 1 1/2"C - 4 #8 & 1 #8 GRD XHHW-2 CU
PA — PULL BOX TO TYPE "A2", "A4", "A5" & "B2" LIGHT FIXTURE
1 1/2"C - 2 #10 & 1 #10 GRD XHHW-2 CU

## PLAN NOTES

1. SEE SINGLE LINE DIAGRAM ON SHEET E-0.3 AND SWITCHBOARD ELEVATIONS ON SHEET E-0.4.
2. TRANSFORMER PAD. FURNISH AND INSTALL PER SCE REQUIREMENTS.
3. SECONDARY SERVICE CONDUITS. FURNISH AND INSTALL PER SCE REQUIREMENTS.
4. PRIMARY SERVICE CONDUIT. FURNISH AND INSTALL PER SCE REQUIREMENTS.
5. WALKWAY LIGHT AND POLE. SEE TYPICAL WALKWAY LIGHT AND POLE STANDARD DETAIL "E" ON SHEET E-2.0.
6. PARKING AREA LIGHT AND POLE. SEE TYPICAL PARKING AREA LIGHT AND POLE STANDARD DETAIL "F" ON SHEET E-2.0.
7. POLE MOUNTED SECURITY CAMERA. SEE SECURITY SYSTEM BLOCK DIAGRAM AND DETAIL ON SHEET E-0.7.
8. EXISTING LIGHT, POWER POLE AND CONCRETE FOUNDATION TO BE REMOVED. REMOVE ASSOCIATED CONDUIT AND WIRES. COORDINATE WORK WITH THE CITY AND POWER COMPANY.
9. EXISTING METER AND PANEL TO BE REMOVED. EXISTING ELECTRICAL LOADS TO REMAIN SHALL BE REGONNECTED TO MAIN SWBD. "MSB"/PANEL "LA". PROVIDE TRANSFORMERS, CONDUITS, WIRES, PULL BOXES, LIGHTING CONTROLS AND ACCESSORIES AS REQUIRED. COORDINATE WORK WITH THE CITY AND POWER COMPANY.
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11. TELEPHONE TERMINAL CABINET. 24"W X 36"H X 6.75"D, GA. 16 GALV. STEEL COMPLETE WITH 3/4" THICK TREATED PLYWOOD BACKBOARD, DOUBLE DUPLEX RECEPTACLE AND #6 UFER GROUND. FURNISH AND INSTALL PER TELEPHONE CO. REQUIREMENTS. PROVIDE 20A, 120V DEDICATED BRANCH CIRCUIT CONDUIT AND WIRES TO PANEL "LB1".
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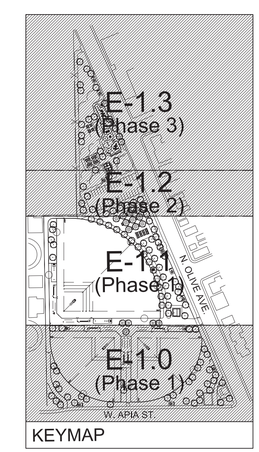


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**MOORE IACOFANO GOLTSMAN, INC.**
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**BKF**
STRUCTURAL ENGINEER
**ISE**


# OLIVE BOWL KAKU PARK

LINDSAY, CA 93247

SHEET TITLE

## PARTIAL ELECTRICAL SITE PLAN

| DATE | REVISION |
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| 12-8-21 | 90% CD Submittal |
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STAMP

REGISTERED PROFESSIONAL ENGINEER
NEIL C. REGALADO
No. E16914
Exp. 6-30-25
ELECTRICAL
STATE OF CALIFORNIA

6-25-24

| CHECKED BY | DATE |
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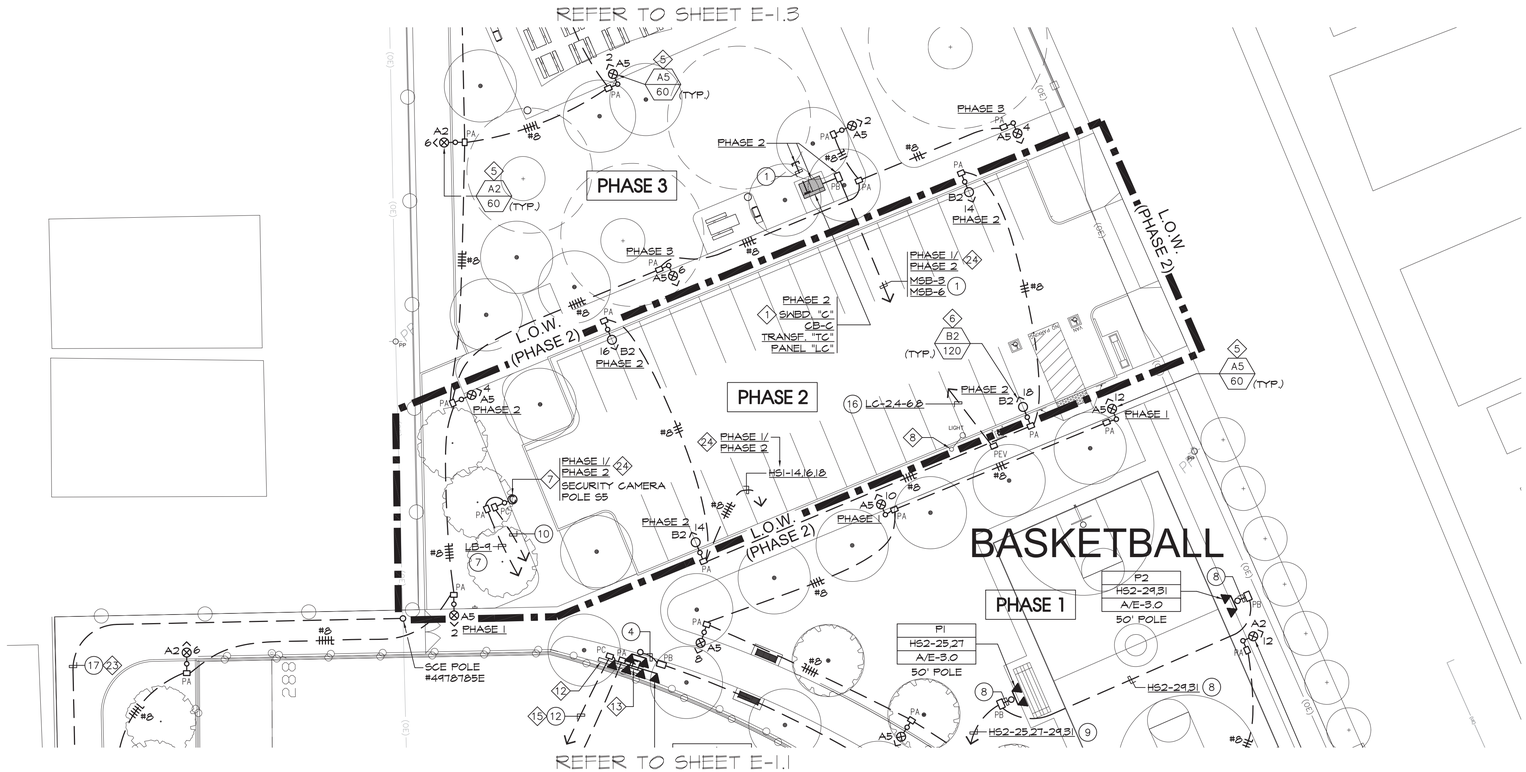
| C.R. | 6-10-24 |
| DRAWN BY | JOB NO. |
| LRA | 05567.02 |

SHEET

# E-1.1

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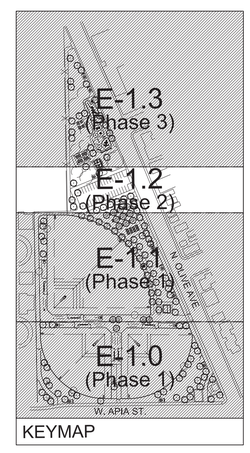

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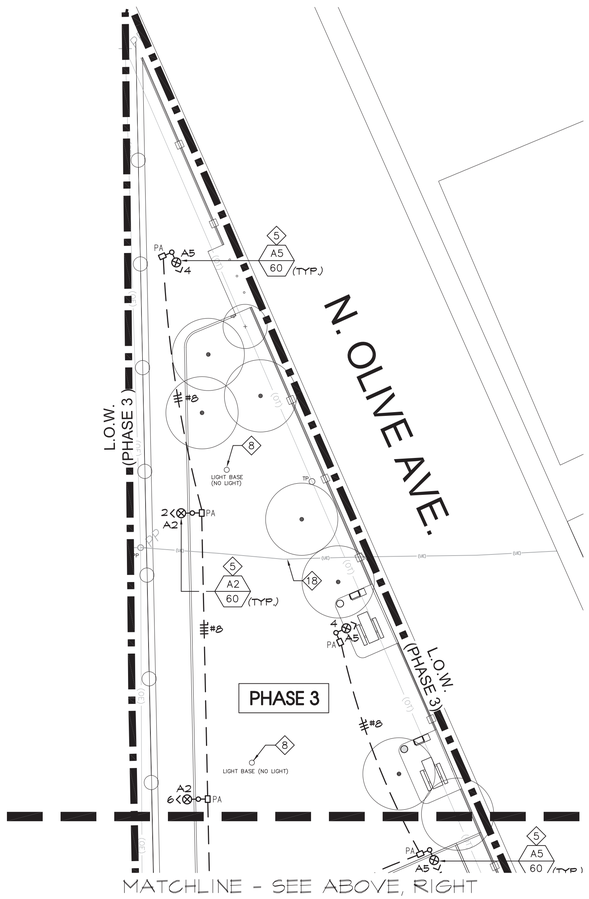
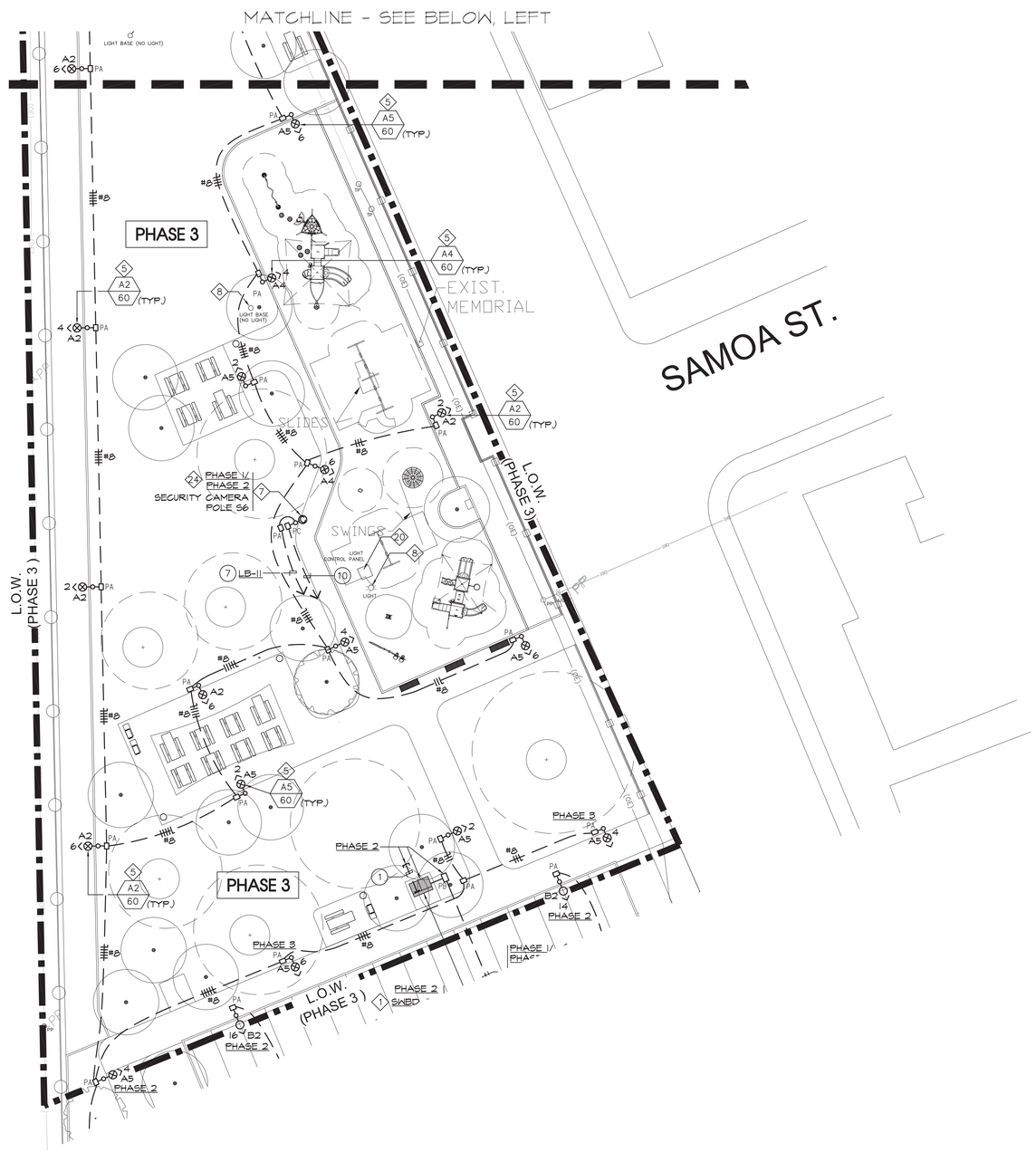
E-1.2

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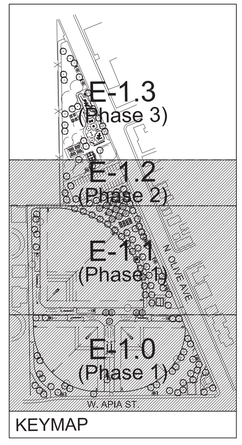


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DAVID C. REGALADO
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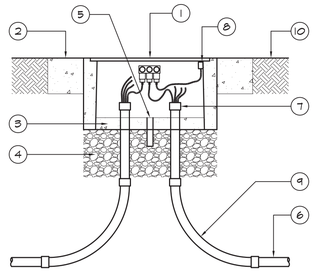
SHEET
E-1.3



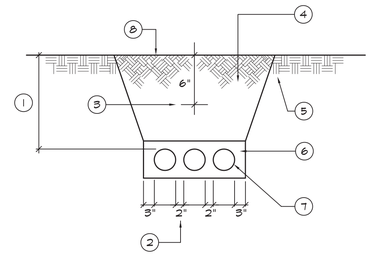

REFERENCE NOTES:

1. TRAFFIC RATED UNDERGROUND PULL BOX. CONCRETE BODY WITH FLUSH STEEL COVER. SIZE AS NOTED ON PLANS.
2. 6" X 6" CONCRETE APRON AROUND THE BOX IF NOT SURROUNDED BY SIDEWALK.
3. 2" THICK MORTAR BED TO SEAL PULL BOX BOTTOM.
4. 3/4" CRUSHED ROCK UNDER BOX, 8" THICK
5. 3/4" PVC DRAIN TO GRAVEL
6. PVC CONDUIT, SIZE AND QUANTITY AS NOTED ON PLANS.
7. CONDUITS MUST BE SEALED AFTER PULLING WIRES (TYPICAL).
8. BOND TO PULL BOX STEEL FRAME AND COVER.
9. 18" MINIMUM RADIUS FOR CONDUITS EXTENDING TO PULL BOXES OR PEDESTALS.
10. FINISHED GRADE.

NOTES:

1. SPLICES IN PULL BOXES SHALL BE MADE WITH MULTI TAP WATERTIGHT CONNECTORS SUITABLE FOR DIRECT BURIAL IN EARTH OR CONCRETE. ILSCO PED-SS SERIES. FURNISH AND INSTALL PER MANUFACTURER'S SPECIFICATIONS.
2. PROVIDE AND INSTALL PULL BOXES AS INDICATED ON THE DRAWINGS.

## A TYPICAL UNDERGROUND PULL BOX DETAIL NOT TO SCALE



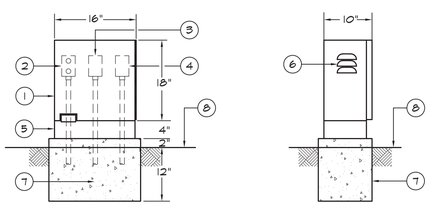

REFERENCE NOTES:

1. 30" MIN. WHERE SUBJECTED TO VEHICULAR TRAFFIC AND MUST BE 24" MIN. UNDER ANY CIRCUMSTANCES.
2. INCREASE TO 12" BETWEEN POWER & SIGNAL/COMMUNICATION CONDUITS.
3. 6" WIDE RED DETECTABLE BURIED WARNING TAPE "CAUTION BURIED ELECTRICAL LINE BELOW".
4. COMPACTED EARTH BACKFILL, FREE FROM LARGE ROCKS AND DEBRIS.
5. UNDISTURBED EARTH
6. 3" MINIMUM SAND
7. SCHEDULE 40 PVC CONDUIT. REFER TO DRAWINGS FOR CONDUIT SIZES & QUANTITIES. SEE NOTE 1 BELOW.
8. FINISHED GRADE

NOTES:

1. REFER TO POWER AND TELEPHONE CO. DRAWINGS FOR UNDERGROUND CONDUIT REQUIREMENTS.
2. PROVIDE UNDERWRITER'S LABORATORIES (UL) LISTED CONDUIT SPACERS AS REQUIRED.

## B TYPICAL UNDERGROUND CONDUIT SECTION NOT TO SCALE

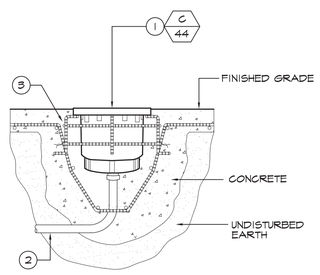



FRONT VIEW SIDE VIEW

REFERENCE NOTES:

1. SCOREBOARD CONTROL CABINET, 16" WIDE X 18" HIGH X 10" DEEP, NEMA 3R, STAINLESS STEEL, VANDAL RESISTANT, LOCKABLE WITH CITY STANDARD PADLOCK, WITH SIDE LOUVERS AND PRE-DRILLED BACKBOARD. V.I.T. PRODUCTS, INC. ENCLOSURE: PART NO. SB-16SSW, PEDESTAL AND BASE: PART NO. PED -16SS
2. 20A, 125V, 2P, 3W GROUNDING TYPE GFCI TYPE DUPLEX RECEPTACLE, SHALL BE LISTED WEATHER-RESISTANT TYPE. PROVIDE WEATHERPROOF WHILE-IN USE COVER PER 2022 CEC 406.9(B)(1) AND UL REQUIREMENTS FOR WET LOCATION. PROVIDE WEATHERPROOF OUTLET BOX.
3. SCOREBOARD POWER "ON-OFF SWITCH", SINGLE POLE, 277VAC, TOGGLE TYPE. PROVIDE WEATHERPROOF COVER AND OUTLET BOX.
4. SCOREBOARD CONTROLLER JACK. FURNISH AND INSTALL PER MANUFACTURER'S SPECIFICATIONS. PROVIDE WEATHERPROOF COVER AND OUTLET BOX.
5. 4" RISER PEDESTAL.
6. SIDE LOUVERS.
7. POURED CONCRETE BASE, EXTEND 4" BEYOND OUTSIDE DIMENSION OF ENCLOSURE WITH MINIMUM 1/2% SLOPE FOR DRAINAGE.
8. FINISHED GRADE.

## C SCOREBOARD CONTROL CABINET DETAIL NOT TO SCALE



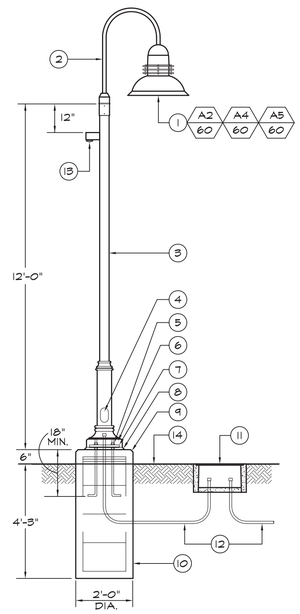

REFERENCE NOTES:

1. LED IN-GROUND UP LIGHT FIXTURE. SEE LIGHTING FIXTURE SCHEDULE ON THIS SHEET.
2. SCHEDULE 40 PVC CONDUIT. SEE ELECTRICAL SITE PLANS FOR WIRING REQUIREMENTS.
3. REBAR CAGE ANCHOR TIES INTO REBAR TO SUPPORT FIXTURE DURING CONCRETE POUR.

## D FLAG POLE UP LIGHT MOUNTING DETAIL NOT TO SCALE

SYMBOLS ON SITE PLAN:

A2 — INDICATES FIXTURE TYPE; INDICATES LAMP ORIENTATION




REFERENCE NOTES:

1. LED WALKWAY/SECURITY LIGHT FIXTURE. SEE LIGHTING FIXTURE SCHEDULE ON SHEET E-0.1.
2. CONTEMPORARY ARM, SLIPS OVER 4" POLE. FINISH TO MATCH LIGHT FIXTURE.
3. 4" O.D. POLE. FINISH TO MATCH LIGHT FIXTURE. SEE LIGHTING FIXTURE SCHEDULE ON SHEET E-0.1.
4. 4" X 6" REINFORCED HANDHOLE WITH GROUNDING LUGS, GASKETED WEATHERPROOF COVER AND TAMPERPROOF SCREWS.
5. PROVIDE 2 NUTS FOR EACH ANCHOR BOLT FOR LEVELING.
6. 15.25" DIA. BASE COVER.
7. 15.25" DIA. X 1" THICK BASE PLATE WITH (4) 3/4" X 24" X 3" GALVANIZED ANCHOR BOLTS BY POLE MANUFACTURER ON 10" DIA. BOLT CIRCLE.
8. GROUT UNDER ENTIRE BASE.
9. 1" CHAMFER ALL AROUND.
10. REINFORCED CONCRETE FOOTING. SEE DETAIL 2 ON SHEET ST-2.
11. PROVIDE PULL BOX AS INDICATED ON PLANS.
12. SCHEDULE 40 PVC CONDUIT. SEE ELECTRICAL SITE PLANS FOR SIZE.
13. SENSOR CONTROL PROGRAMMABLE.
14. TOP OF WALKWAY.

NOTE:

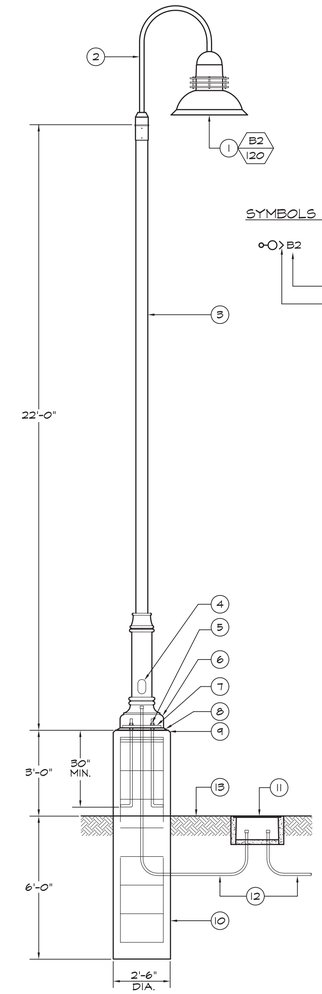
SEE POLE BASE DETAILS PREPARED BY THE STRUCTURAL ENGINEER PRIOR TO ORDERING AND INSTALLING THE ANCHOR BOLTS. REFER TO DETAIL 2 ON SHEET ST-2.

NOT TO SCALE

## E TYPICAL WALKWAY LIGHT AND POLE STANDARD DETAIL

SYMBOLS ON SITE PLAN:

B2 — INDICATES FIXTURE TYPE; INDICATES LAMP ORIENTATION




REFERENCE NOTES:

1. LED PARKING AREA LIGHT FIXTURE. SEE LIGHTING FIXTURE SCHEDULE ON SHEET E-0.1.
2. CONTEMPORARY ARM, SLIPS OVER 5" POLE. FINISH TO MATCH LIGHT FIXTURE.
3. 5" O.D. POLE. FINISH TO MATCH LIGHT FIXTURE. SEE LIGHTING FIXTURE SCHEDULE ON SHEET E-0.1.
4. 4" X 6" REINFORCED HANDHOLE WITH GROUNDING LUGS, GASKETED WEATHERPROOF COVER AND TAMPERPROOF SCREWS.
5. PROVIDE 2 NUTS FOR EACH ANCHOR BOLT FOR LEVELING.
6. 18.625" DIA. BASE COVER.
7. 18" DIA. X 1" THICK BASE PLATE WITH (4) 1" X 36" X 4" GALVANIZED ANCHOR BOLTS BY POLE MANUFACTURER ON 12 1/2" DIA. BOLT CIRCLE.
8. GROUT UNDER ENTIRE BASE.
9. 1" CHAMFER ALL AROUND.
10. REINFORCED CONCRETE FOOTING. SEE DETAIL 1 ON SHEET ST-2.
11. PROVIDE PULL BOX AS INDICATED ON PLANS.
12. SCHEDULE 40 PVC CONDUIT. SEE ELECTRICAL SITE PLANS FOR SIZE.
13. TOP OF PARKING LOT.

NOTE:

SEE POLE BASE DETAILS PREPARED BY THE STRUCTURAL ENGINEER PRIOR TO ORDERING AND INSTALLING THE ANCHOR BOLTS. REFER TO DETAIL 1 ON SHEET ST-2.

NOT TO SCALE

## F TYPICAL PARKING AREA LIGHT & POLE STANDARD DETAIL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LRA ENGINEERS
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Corona, California 92882
Tel: (951) 737-4569

PROJECT TEAM:

LANDSCAPE ARCHITECT
**MOORE IACOFANO GOLTSMAN, INC.**
ELECTRICAL ENGINEER
**LRA ENGINEERS**
CIVIL ENGINEER
**BKF**
STRUCTURAL ENGINEER
**ISE**


# OLIVE BOWL KAKU PARK

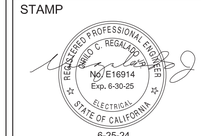
LINDSAY, CA
93247

SHEET TITLE

ELECTRICAL DETAILS

| DATE | REVISION |
|---|---|
| 10-18-21 | 50% CD Submittal |
| 12-8-21 | 90% CD Submittal |
| 12-14-22 | 90% CD Submittal |
| 2-13-23 | 100% CD Submittal |
| 10-3-23 | ADDENDUM #1 |
| 10-27-23 | ADDENDUM #3 |
| 6-10-24 | 3 PHASE RE-PACKAGE |

STAMP



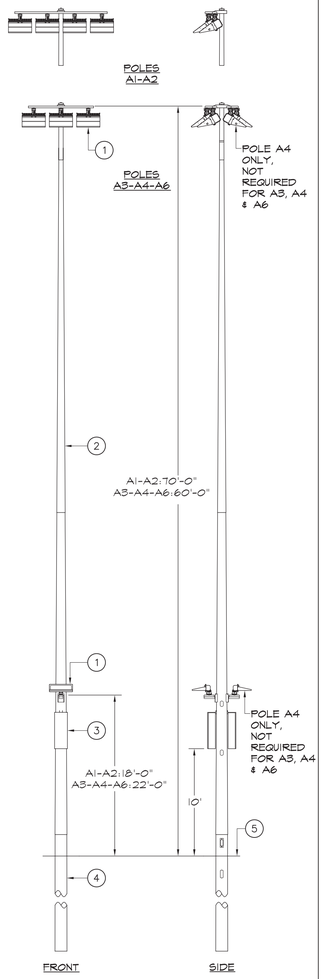

6-25-24

| CHECKED BY | DATE |
|---|---|
| C.R. | 6-10-24 |
| DRAWN BY | JOB NO. |
| LRA | 05567.02 |

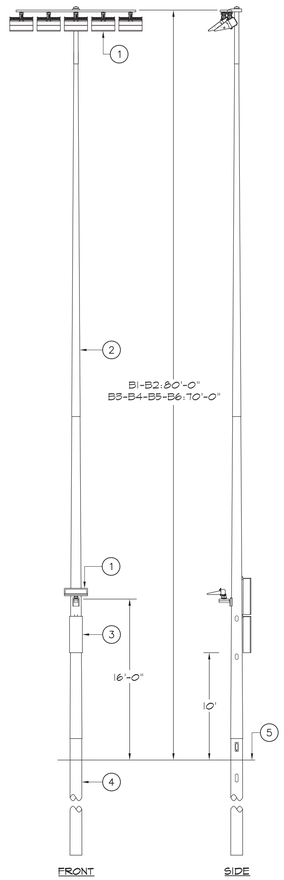
SHEET

E-2.0

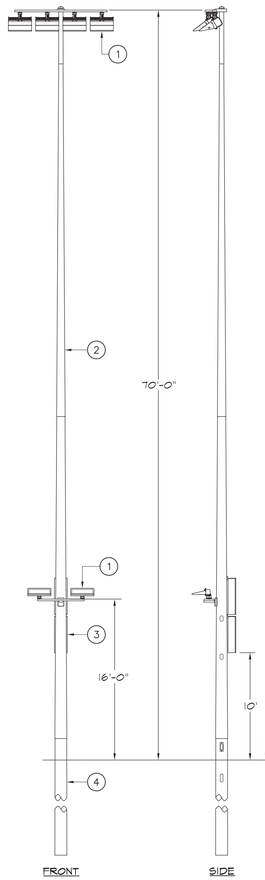
SHEET 75 OF 79 SHEETS



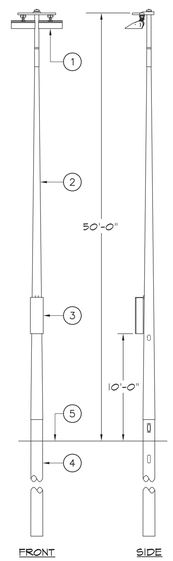

POLES
A1-A2-A3-A4-A6




POLES
B1-B2-B3-B4-B5-B6




POLES
C1-C2




POLES
P1-P2

## POLE DETAILS REFERENCE NOTES:

1. LED SPORTS LIGHT FIXTURES
2. GALVANIZED STEEL POLE (WIRE HARNESS INSIDE POLE)
3. ELECTRICAL COMPONENTS ENCLOSURE (LED DRIVERS, CONTROLLERS, SURGE PROTECTORS, FUSING, PRIMARY LANDING LUGS, DISCONNECT SWITCH, ETC.)
4. CONCRETE FOUNDATION. SEE ELECTRICAL SPECIFICATIONS FOR GROUNDING REQUIREMENTS.
5. GROUND LEVEL

## POLE DETAILS GENERAL NOTES:

1. POLE AND LUMINAIRE DETAILS SHOWN ARE FOR REFERENCE ONLY. FURNISH AND INSTALL POLES, LUMINAIRES, CONCRETE FOUNDATION AND ACCESSORIES PER MUSCO SPORTS LIGHTING'S SPECIFICATIONS.
2. REFER TO SPORTS FIELD POLE & FEEDER SCHEDULE ON THIS SHEET FOR POLE HEIGHT, FIXTURE MOUNTING HEIGHT, TYPE AND QUANTITY OF FIXTURES PER POLE.

A | FIELD #1, #2, #3 & BASKETBALL COURT POLE DETAILS NOT TO SCALE

## SPORTS FIELD LIGHT, POLE & FEEDER SCHEDULE

| POLES | | LUMINAIRES - QUANTITY | | | | | | | | SPORTS FIELD | ELEC. LOAD KVA | FEEDER DESCRIPTION | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| POLE HEIGHT | POLE ID | MTG. HEIGHT | TLC-LED-1500 | TLC-LED-1200 | TLC-LED-900 | TLC-BT-575 | TLC-LED 550 | - | TOTAL | | | PANEL CIRCUIT NO. | WIRE SIZE (XHHW-2, CU) | LENGTH FEET | %V.D. SEGMENT | %V.D. TOTAL |
| 70 FT. | A1 | 70 FT. | | 3 | 1 | | | | 5 | FIELD #1 | 6.8 | HS1-1,3,5 | #8 | 500 | 1.43 | 1.93 |
| | | 18 FT. | | | | 1 | | | | | | | | | | |
| 70 FT. | A2 | 70 FT. | | 3 | 1 | | | | 5 | FIELD #1 | 6.8 | HS1-7,9,11 | #8 | 370 | 1.06 | 1.55 |
| | | 18 FT. | | | | 1 | | | | | | | | | | |
| 60 FT. | A3 | 60 FT. | | 1 | 2 | | | | 4 | FIELD #2 | 4.8 | HS2-1,3,5 | #8 | 310 | 0.53 | 1.04 |
| | | 22 FT. | | | | 1 | | | | | | | | | | |
| 60 FT. | A4 | 60 FT. | | 1 | 2 | | | | 4 | FIELD #2 | 4.8 | HS2-7,9,11 | #8 | 160 | 0.27 | 0.78 |
| | | 22 FT. | | | | 1 | | | | | | | | | | |
| | | 60 FT. | | 1 | 2 | | | | 4 | FIELD #3 | 4.8 | HS2-2,4,6 | #8 | 160 | 0.27 | 0.78 |
| | | 22 FT. | | | | 1 | | | | | | | | | | |
| 60 FT. | A6 | 60 FT. | | 1 | 2 | | | | 4 | FIELD #3 | 4.8 | HS2-8,10,12 | #8 | 270 | 0.46 | 0.97 |
| | | 22 FT. | | | | 1 | | | | | | | | | | |
| 80 FT. | B1 | 80 FT. | 4 | 1 | | | | | 6 | FIELD #1 | 10.4 | HS1-13,15,17 | #6 | 630 | 1.45 | 1.94 |
| | | 16 FT. | | | | 1 | | | | | | | | | | |
| 80 FT. | B2 | 80 FT. | 4 | 1 | | | | | 6 | FIELD #1 | 10.4 | HS1-19,21,23 | #8 | 240 | 0.86 | 1.35 |
| | | 16 FT. | | | | 1 | | | | | | | | | | |
| 70 FT. | B3 | 70 FT. | | 2 | 3 | | | | 6 | FIELD #2 | 7.6 | HS2-13,15,17 | #8 | 340 | 0.97 | 1.48 |
| | | 16 FT. | | | | 1 | | | | | | | | | | |
| 70 FT. | B4 | 70 FT. | | 2 | 3 | | | | 6 | FIELD #2 | 7.6 | HS2-19,21,23 | #8 | 90 | 0.26 | 0.77 |
| | | 16 FT. | | | | 1 | | | | | | | | | | |
| 70 FT. | B5 | 70 FT. | | 2 | 3 | | | | 6 | FIELD #3 | 7.6 | HS2-14,16,18 | #8 | 80 | 0.23 | 0.74 |
| | | 16 FT. | | | | 1 | | | | | | | | | | |
| 70 FT. | B6 | 70 FT. | | 2 | 3 | | | | 6 | FIELD #3 | 7.6 | HS2-20,22,24 | #8 | 320 | 0.91 | 1.42 |
| | | 16 FT. | | | | 1 | | | | | | | | | | |
| 70 FT. | C1 | 70 FT. | | 4 | | | | | 6 | FIELD #1 | 8.0 | HS1-25,27,29 | #6 | 700 | 1.61 | 2.11 |
| | | 16 FT. | | | | 2 | | | | | | | | | | |
| 70 FT. | C2 | 70 FT. | | 4 | | | | | 6 | FIELD #1 | 8.0 | HS1-31,33,35 | #8 | 460 | 1.64 | 2.14 |
| | | 16 FT. | | | | 2 | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| 50 FT. | P1 | 50 FT. | | | | | 2 | | 2 | BASKET-BALL | 1.4 | HS2-25,27 | #8 | 550 | 0.34 | 0.085 |
| 50 FT. | P2 | 50 FT. | | | | | 2 | | 2 | BASKET-BALL | 1.4 | HS2-29,31 | #8 | 650 | 0.41 | 0.92 |
| | TOTAL 15 POLES | | TOTAL 8 | TOTAL 28 | TOTAL 22 | TOTAL 16 | TOTAL 4 | - | TOTAL 78 | | | | | | | |

NOTES :

1. FEEDER LENGTHS SHOWN ARE FOR VOLTAGE DROP CALCULATIONS ONLY AND SHALL NOT BE USED FOR BID QUANTITY TAKE-OFF.
2. LUMINAIRES SHALL BE MUSCO'S "LED LUMINAIRE", 277 VOLTS, COMPLETE WITH LED DRIVERS, CONTROLLERS, SURGE PROTECTORS, FUSING, DISCONNECT SWITCHES, WIRING AND ACCESSORIES.
   TLC-LED-1500 - 5700K, 75 CRI, 1430W, 160,000 LUMENS
   TLC-LED-1200 - 5700K, 75 CRI, 1170W, 136,000 LUMENS
   TLC-LED-900 - 5700K, 75 CRI, 890W, 89,600 LUMENS
   TLC-BT-575 - 5700K, 75 CRI, 575W, 52,000 LUMENS
   TLC-LED-550 - 5700K, 75 CRI, 540W, 67,000 LUMENS
3. SERVICE TO EACH POLE IS 480/277V, 3Φ, 4W (EXCEPT P1 & P2 - 480/277V, 1Φ, 3W) CONNECT THE LUMINAIRES EQUALLY BETWEEN PHASES.

B | SPORTS FIELD LIGHT, POLE & FEEDER SCHEDULE


MIG
109 W. UNION AVE.
FULLERTON, CA 92832
TEL 714/871-3638
www.migcom.com

CONSULTANT:

LRA ENGINEERS
Electrical Consulting Engineers
Corona, California 92882
Tel: (951) 737-4569


PROJECT TEAM:

LANDSCAPE ARCHITECT
**MOORE IACOFANO GOLTSMAN, INC.**

ELECTRICAL ENGINEER
**LRA ENGINEERS**

CIVIL ENGINEER
**BKF**

STRUCTURAL ENGINEER
**ISE**

OLIVE BOWL
KAKU
PARK

LINDSAY, CA
93247

SHEET TITLE

SPORTS FIELD
POLE DETAILS

| DATE | REVISION |
|---|---|
| 10-18-21 | 50% CD Submittal |
| 12-8-21 | 90% CD Submittal |
| 12-14-22 | 90% CD Submittal |
| 2-13-23 | 100% CD Submittal |
| 10-3-23 | ADDENDUM #1 |
| 10-27-23 | ADDENDUM #3 |
| 6-10-24 | 3 PHASE RE-PACKAGE |

STAMP

REGISTERED PROFESSIONAL ENGINEER
DAVID C. REGALADO
No. E16914
Exp. 6-30-25
ELECTRICAL
STATE OF CALIFORNIA
6-25-24

| CHECKED BY | DATE |
|---|---|
| C.R. | 6-10-24 |
| DRAWN BY | JOB NO. |
| LRA | 05567.02 |

SHEET
E-3.0

# POLE FOUNDATION SCHEDULE (SEE LIGHT POLE FOUNDATION DETAIL)

| TYPE | ASD GROUNDLINE FORCES (MAXIMUM) | | | C.I.P. DEEP FOUNDATION | |
|---|---|---|---|---|---|
| | MOMENT (M) KIP–FT | SHEAR (V) KIPS | VERTICAL (P) KIPS * | DIAMETER INCHES | EMBEDMENT FEET |
| LSS60–AA | 27.97 | 0.798 | 0.968 | 30" | 10'–0" |
| LSS60–A | 37.75 | 1.058 | 1.461 | 30" | 10'–0" |
| LSS70–A | 47.15 | 1.090 | 1.557 | 30" | 12'–0" |
| LSS80–A | 67.47 | 1.383 | 2.317 | 30" | 14'–0" |

* VERTICAL FORCE DOES NOT INCLUDE WEIGHT OF PRECAST BASE. VERTICAL (P) LOAD IS THE DRESSED POLE WEIGHT FOR ERECTION PURPOSES.

# PRECAST BASE IDENTIFICATION

| PRECAST BASE TYPE | WEIGHT LBS | OVERALL LENGTH FEET | HEIGHT ABOVE GRADE FEET | EMBEDMENT IN C.I.P. DEEP FOUNDATION FEET | OUTSIDE DIAMETER INCHES |
|---|---|---|---|---|---|
| 2B | 1,840 | 17'–3" | 7'–3" | 8'–0" | 12.00" |
| 3B | 2,670 | 20'–0" | 8'–0" | 10'–0" | 13.375" |
| 4B | 3,710 | 22'–0" | 8'–0" | 12'–0" | 15.750" |

# POLE IDENTIFICATION

| LOCATION MARK | POLE TYPE | PRECAST BASETYPE | FIXTURE CONFIGURATION (MAX # OF FIXTURES PER CROSSARM) | FIXTURE EPA (MAXIMUM) |
|---|---|---|---|---|
| A3, A6 | LSS60–AA | 2B | 3 [2 LED900, 1 LED1200] | 6.9 |
| A4 | LSS60–A | 2B | 6 [3(2 LED900, 1 LED1200)/3(2 LED900, 1 LED1200)] | 10.7 |
| A1, A2 | LSS70–A | 3B | 4 LED1200 | 10.5 |
| B3, B4, B5, B6 | | | 5 LED1200 | |
| C1, C2 | | | 4 LED1500 | |
| B1, B2 | LSS80–A | 4B | 5 LED1500 | 12.5 |

LED 1500 FIXTURE: EPA = 2.5 SQ–FT MAX & WEIGHT = 80 LBS (FIXTURE ALONE), PER MUSCO LIGHTING, INC.

LED 1200 FIXTURE: EPA = 2.4 SQ–FT MAX & WEIGHT = 45 LBS (FIXTURE ALONE), PER MUSCO LIGHTING, INC.

LED 900 FIXTURE: EPA = 2.4 SQ–FT MAX & WEIGHT = 40 LBS (FIXTURE ALONE), PER MUSCO LIGHTING, INC.

# POLE AUXILIARY ATTACHMENTS

| LOCATION MARK | ATTACHMENT TYPE & QUANTITY | ATTACHMENT ELEVATION A.G.L. – FT |
|---|---|---|
| A1, A2, A3, A6, B1, B2, B3, B4, B5, B6 | (1) LED 575 | 15.5 |
| A4 | 2 (1/1) LED 575 | 15.5 |
| C1, C2 | (2) LED 575 | 15.5 |

## GENERAL NOTES

ALL CONSTRUCTION AND WORKMANSHIP SHALL CONFORM TO THE CALIFORNIA BUILDING CODE, 2019 EDITION.

WIND– ASCE 7–16, Vult = 95 MPH (EXPOSURE C); Vasd = 74 MPH (EXPOSURE C), RISK CATEGORY II

SEISMIC – SS=0.535; S1=0.214; SDS=0.489; SD1=0.310; RISK CATEGORY=II; I=1.0; SITE CLASS=D; R=1.5; SEISMIC DESIGN CATEGORY=D; SEISMIC–FORCE–RESISTING–SYSTEM=NON–BUILDING STRUCTURE, NOT SIMILAR TO BUILDINGS; ANALYSIS PROCEDURE=EQUIVALENT LATERAL FORCE PROCEDURE.

REFERENCE POLE LOCATION DRAWING FOR ACTUAL POLE PLACEMENT AND SITE LOCATION.

THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL CONSTRUCTION PROCEDURES AND SAFETY CONDITIONS AT THE JOB SITE.

## SOIL DESIGN PARAMETERS

REFERENCE GEOTECHNICAL ENGINEERING INVESTIGATION PREPARED BY BSK ASSOCIATES, DATED OCTOBER 25, 2021; BSK ASSOCIATES PROJECT NO. G21–320–11F.

ALLOWABLE VERTICAL SOIL CAPACITY – $53DL^2$, WHERE D IS PILE DIAMETER (FEET) AND L IS TOTAL EMBEDMENT LENGTH (FEET). IGNORE UPPER 2–FEET OF SOIL.

ALLOWABLE LATERAL PASSIVE SOIL BEARING PRESSURE: 300 PSF/FT. IGNORE UPPER 2–FEET OF SOIL.

A REPRESENTATIVE OF BSK ASSOCIATES SHOULD BE AVAILABLE AT THE TIME OF THE FOUNDATION INSTALLATION TO VERIFY THE SOIL DESIGN PARAMETERS AND TO PROVIDE ASSISTANCE IF ANY PROBLEMS ARISE IN FOUNDATION INSTALLATION.

ENCOUNTERING SOIL FORMATIONS THAT WILL REQUIRE SPECIAL DESIGN CONSIDERATIONS OR EXCAVATION PROCEDURES MAY EXIST. POLE FOUNDATIONS MAY NEED TO BE REANALYZED ACCORDING TO THE SOIL CONDITIONS THAT EXIST.

IF ANY DISCREPANCIES OR INCONSISTENCIES ARISE, NOTIFY THE ENGINEER OF SUCH DISCREPANCIES. FOUNDATIONS WILL THEN BE REVISED ACCORDINGLY.

ALL PRECAST BASES AND CONCRETE BACKFILL MUST BEAR ON AND AGAINST FIRM, UNDISTURBED SOIL OR AS APPROVED BY A GEOTECHNICAL ENGINEER.

ALL EXCAVATIONS MUST BE FREE OF LOOSE SOIL AND DEBRIS PRIOR TO FOUNDATION INSTALLATION AND PLACEMENT OF CONCRETE BACKFILL. CASING MAY BE REQUIRED IF CAVING OCCURS. IN SUCH A CASE, APPROVAL BY A GEOTECHNICAL ENGINEER IS REQUIRED.

ALL EXCAVATIONS MUST BE FREE OF WATER OR CONCRETE SHALL BE PLACED WITH A TREMIE PIPE IN ACCORDANCE WITH ACI STANDARD 336. CONCRETE PLACED BY THE TREMIE METHOD SHALL HAVE A MINIMUM ULTIMATE STRENGTH OF 1,000 PSI GREATER THAN REQUIRED UNDER "CONCRETE BACKFILL" BELOW.

## CONCRETE BACKFILL

CONCRETE BACKFILL WITHOUT STEEL REINFORCEMENT SHALL HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH AT 28 DAYS OF 3,000 PSI (2,500PSI USED FOR STRUCTURAL DESIGN). SEE STATEMENT OF SPECIAL INSPECTIONS REQUIRED.

CONCRETE BACKFILL SHALL ATTAIN A MINIMUM STRENGTH OF 2,500 PSI PRIOR TO STEEL POLE ERECTION.

USE TYPE II/V PORTLAND CEMENT OR AS RECOMMENDED BY THE ENGINEER.

MIX IN CONFORMANCE WITH ASTM C–94

AGGREGATES PER ASTM C–33. (1" MAX AGG. SIZE). 3/8" MAX AGG. SIZE ACCEPTABLE WHERE PUMP MIXES ARE USED FOR UNREINFORCED CONCRETE BACKFILL.

PLACE CONCRETE IMMEDIATELY AFTER COMPLETION OF EXCAVATION AND INSPECTION BY THE GEOTECHNICAL ENGINEER. NO EXCAVATIONS SHALL BE LEFT UNPROTECTED OR OPEN OVERNIGHT.

CONCRETE SHALL BE PLACED IN ONE CONTINUOUS OPERATION (NO CONSTRUCTION JOINT) TO GRADE, WITH SPECIAL EQUIPMENT, WITH A MAXIMUM FREEFALL OF 5 FT AND TO PREVENT CONCRETE FROM STRIKING THE SIDES OF THE EXCAVATION. VIBRATE TOP 5 FT.

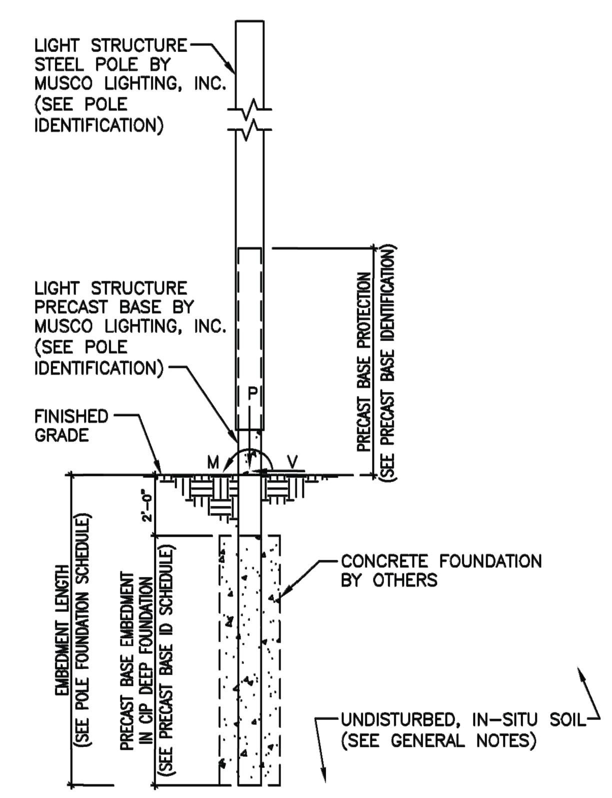
## MISCELLANEOUS

FIXTURES MUST BE LOCATED TO MAINTAIN 10'–0" MINIMUM HORIZONTAL CLEARANCE FROM ANY OBSTRUCTION.

POLES, FIXTURES, PRECAST BASES, ELECTRICAL ITEMS, PLATFORMS, SPECIFICATIONS, AND INSTALLATION PER MUSCO LIGHTING, INC.

| | | |
|---|---|---|
| POLE SUPPORT FOUNDATION | MUSCO LIGHTING, INC.<br>2107 STEWART ROAD<br>MUSCATINE, IOWA 52761<br>MUSCO No. 212337 | DATE<br>11/03/21 |
| OLIVE BOWL<br>KAKU PARK EXPANSION<br>LINDSAY, CA | KNA STRUCTURAL ENGINEERS<br>9931 MUIRLANDS BLVD.<br>IRVINE CA, 92618<br>KNA No. 363.905 | SHEET<br>C1<br>OF 2 |

REGISTERED PROFESSIONAL ENGINEER STRUCTURAL STATE OF CALIFORNIA Exp. 6–30–23




LIGHT POLE FOUNDATION DETAIL

SCALE: NO SCALE

# STATEMENT OF SPECIAL INSPECTIONS*

| ITEM | CONTINUOUS/PERIODIC | SCOPE |
|---|---|---|
| 1. PIER FOUNDATIONS | CONTINUOUS | INSPECT INSTALLATION OF DRILLED PIER FOUNDATIONS. VERIFY DIAMETER, EMBEDMENT DEPTHS AS SCHEDULED, DEPTHS OF FILL, AND BEARING STRATA |
| 2. CONCRETE PLACEMENT | CONTINUOUS | INSPECT PLACEMENT OF CONCRETE FOR PROPER APPLICATION TECHNIQUES. VERIFY THAT CONCRETE CONVEYANCE AND DEPOSITING AVOIDS SEGREGATION OR CONTAMINATION. VERIFY THAT CONCRETE IS PROPERLY CONSOLIDATED. |
| 3. CRETEX PRECAST/ PRESTRESSED CONCRETE BASES | (PCI CERTIFIED) | FABRICATOR EXEMPT.** REFERENCE ICC ESR–3765. |
| 4. STRUCTURAL STEEL | (L.A. CITY APPROVED) | FABRICATOR EXEMPT.** REVIEW CERTIFIED MILL TESTS REPORTS AND IDENTIFICATION MARKINGS. |

* The Special Inspector shall be a qualified person who shall demonstrate competence, to the satisfaction of the Building Official, for inspection of the particular type of construction or operation requiring special inspection.
**Special inspections shall not be required when the work is done on the premises of a fabricator registered and approved by the City to perform such work without special inspection.

| | | |
|---|---|---|
| POLE SUPPORT FOUNDATION | MUSCO LIGHTING, INC.<br>2107 STEWART ROAD<br>MUSCATINE, IOWA 52761<br>MUSCO No. 212337 | DATE<br>11/03/21 |
| OLIVE BOWL<br>KAKU PARK EXPANSION<br>LINDSAY, CA | KNA STRUCTURAL ENGINEERS<br>9931 MUIRLANDS BLVD.<br>IRVINE CA, 92618<br>KNA No. 363.905 | SHEET<br>C2<br>OF 2 |

REGISTERED PROFESSIONAL ENGINEER STRUCTURAL STATE OF CALIFORNIA Exp. 6–30–23


MIG
109 W. UNION AVE. FULLERTON, CA 92832
TEL 714/871-3638 www.migcom.com

CONSULTANT:
LRA ENGINEERS
Electrical Consulting Engineers
Corona, California 92882
Tel: (951) 737-4569

PROJECT TEAM:
LANDSCAPE ARCHITECT
**MOORE IACOFANO GOLTSMAN, INC.**
ELECTRICAL ENGINEER
**LRA ENGINEERS**
CIVIL ENGINEER
**BKF**
STRUCTURAL ENGINEER
**ISE**


OLIVE BOWL
KAKU
PARK

LINDSAY, CA
93247

SHEET TITLE

## SPORTS FIELD POLE FOUNDATION DETAILS

| DATE | REVISION |
|---|---|
| 10-18-21 | 50% CD Submittal |
| 12-8-21 | 90% CD Submittal |
| 12-14-22 | 90% CD Submittal |
| 2-13-23 | 100% CD Submittal |
| 10-3-23 | ADDENDUM #1 |
| 10-27-23 | ADDENDUM #3 |
| 6-10-24 | 3 PHASE RE-PACKAGE |

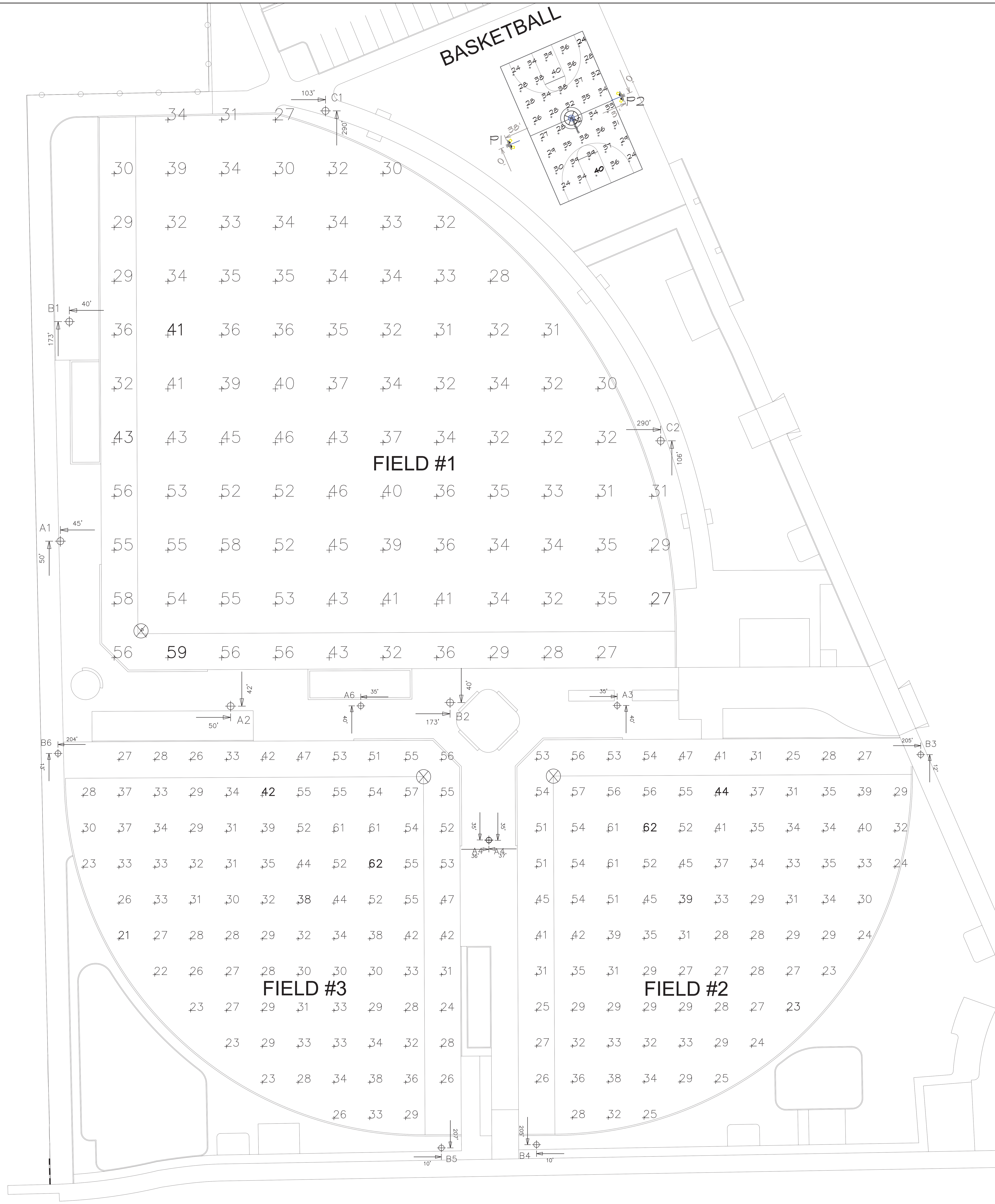
STAMP

6-25-24

| CHECKED BY | DATE |
|---|---|
| C.R. | 6-10-24 |
| DRAWN BY | JOB NO. |
| LRA | 05567.02 |

SHEET

# E-3.1




## GRID SUMMARY
NAME: FIELD #1
SIZE: IRREGULAR 288'/301'/300'
SPACING: 30.0' x 30'
HEIGHT: 3.0' ABOVE GRADE

## ILLUMINATION SUMMARY
MAINTAINED HORIZONTAL FOOTCANDLES

| | INFIELD | OUTFIELD |
|---|---|---|
| GUARANTEED AVERAGE | 50 | 30 |
| SCAN AVERAGE: | 51.22 | 33,46 |
| MAXIMUM: | 59 | 41 |
| MINIMUM: | 43 | 27 |
| AVERAGE / MINIMUM: | 1.20 | 1.26 |
| GUARANTEED MAX / MIN: | 2 | 2.5 |
| MAXIMUM / MINIMUM: | 1.39 | 1.56 |
| UG (ADJACENT POINTS) | 1.32 | 1.33 |
| CU: | 0.75 | |
| NO. OF POINTS: | 25 | 71 |

## GRID SUMMARY
NAME: FIELD #2
SIZE: 200'/200'/200' - BASEPATH 60"
SPACING: 20.0' x 20'
HEIGHT: 3.0' ABOVE GRADE

## ILLUMINATION SUMMARY
MAINTAINED HORIZONTAL FOOTCANDLES

| | INFIELD | OUTFIELD |
|---|---|---|
| GUARANTEED AVERAGE | 50 | 30 |
| SCAN AVERAGE: | 52.65 | 31.26 |
| MAXIMUM: | 62 | 44 |
| MINIMUM: | 39 | 23 |
| AVERAGE / MINIMUM: | 1.35 | 1.36 |
| GUARANTEED MAX / MIN: | 2 | 2.5 |
| MAXIMUM / MINIMUM: | 1.58 | 1.89 |
| UG (ADJACENT POINTS) | 1.21 | 1.44 |
| CU: | 0.68 | |
| NO. OF POINTS: | 25 | 71 |

## GRID SUMMARY
NAME: FIELD #3
SIZE: 200'/200'/200' - BASEPATH 60"
SPACING: 20.0' x 20'
HEIGHT: 3.0' ABOVE GRADE

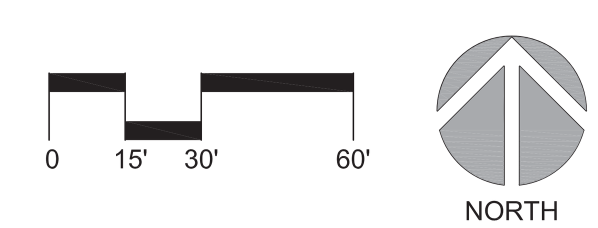
## ILLUMINATION SUMMARY
MAINTAINED HORIZONTAL FOOTCANDLES

| | INFIELD | OUTFIELD |
|---|---|---|
| GUARANTEED AVERAGE | 50 | 30 |
| SCAN AVERAGE: | 52.80 | 30.81 |
| MAXIMUM: | 62 | 42 |
| MINIMUM: | 38 | 21 |
| AVERAGE / MINIMUM: | 1.39 | 1.47 |
| GUARANTEED MAX / MIN: | 2 | 2.5 |
| MAXIMUM / MINIMUM: | 1.63 | 2.02 |
| UG (ADJACENT POINTS) | 1.19 | 1.42 |
| CU: | 0.69 | |
| NO. OF POINTS: | 25 | 71 |

## GRID SUMMARY
NAME: BASKETBALL
SIZE: 84' x 50'
SPACING: 10.0' x 10'
HEIGHT: 3.0' ABOVE GRADE

## ILLUMINATION SUMMARY
MAINTAINED HORIZONTAL FOOTCANDLES

| | ENTIRE GRID |
|---|---|
| SCAN AVERAGE: | 32.63 |
| MAXIMUM: | 40 |
| MINIMUM: | 24 |
| AVERAGE / MINIMUM: | 1.38 |
| MAXIMUM / MINIMUM: | 1.68 |
| UG (ADJACENT POINTS) | 1.51 |
| CU: | 0.49 |
| NO. OF POINTS: | 40 |





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**ISE**


OLIVE BOWL
KAKU
PARK

LINDSAY, CA
93247

SHEET TITLE

SPORTS FIELD
LIGHTING
PHOTOMETRIC

| DATE | REVISION |
|---|---|
| 10-18-21 | 50% CD Submittal |
| 12-8-21 | 90% CD Submittal |
| 12-14-22 | 90% CD Submittal |
| 2-13-23 | 100% CD Submittal |
| 10-3-23 | ADDENDUM #1 |
| 10-27-23 | ADDENDUM #3 |
| 6-10-24 | 3 PHASE RE-PACKAGE |

STAMP

REGISTERED PROFESSIONAL ENGINEER
No. E16914
Exp. 6-30-25
ELECTRICAL
STATE OF CALIFORNIA
6-25-24

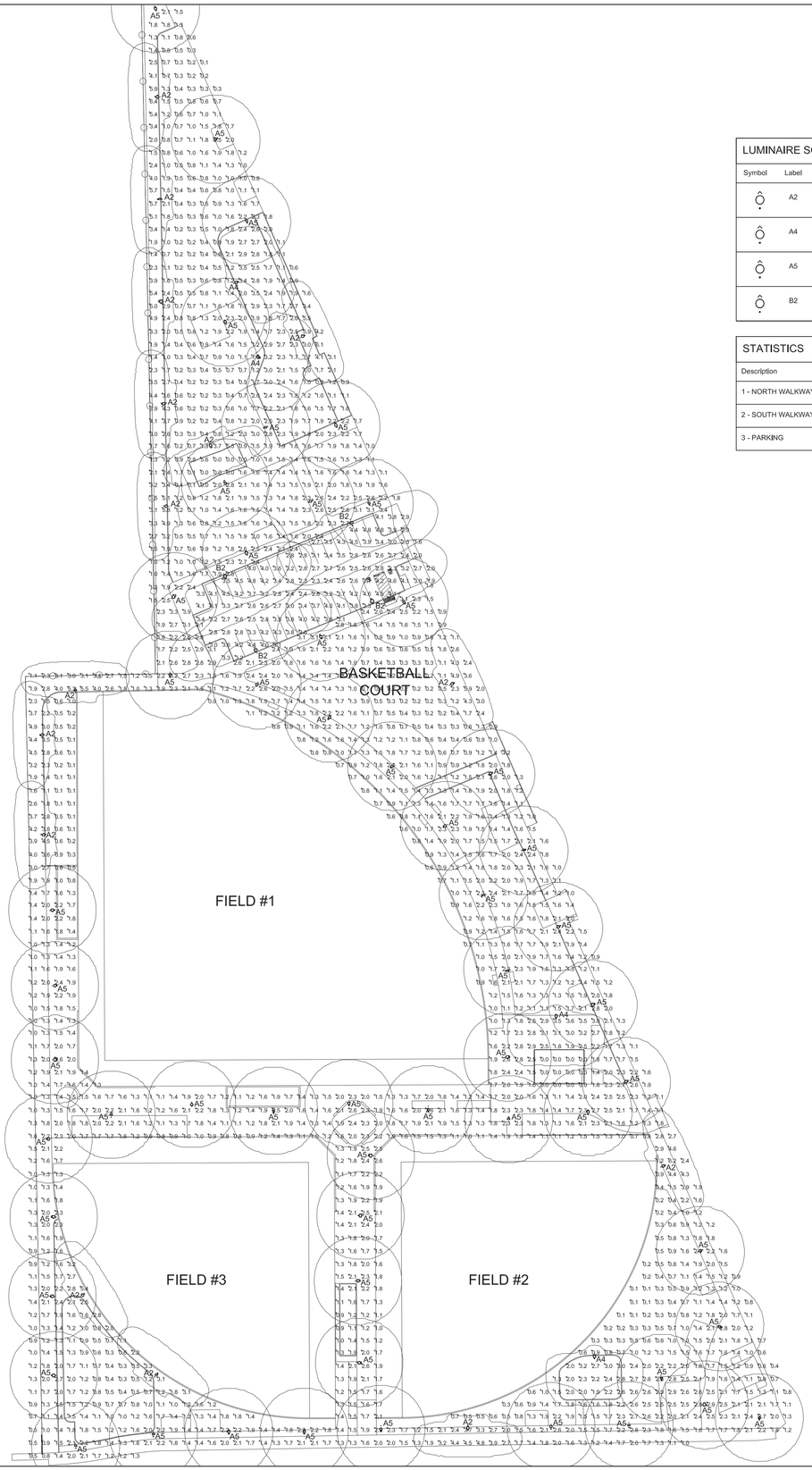
| CHECKED BY | DATE |
|---|---|
| C.R. | 6-10-24 |
| DRAWN BY | JOB NO. |
| LRA | 05567.02 |

SHEET
E-4.0

SHEET 78 OF 79 SHEETS

A

SPORTS FIELD LIGHTING PHOTOMETRIC




## LUMINAIRE SCHEDULE

| Symbol | Label | Qty | Catalog Number | Description | Lamp | File | Lumens | LLF | Watts |
|---|---|---|---|---|---|---|---|---|---|
| | A2 | 15 | UCM2-ANG-36L-460-5K7-2-CL | UNIVERSE COLLECTION MEDIUM 2.0 WITH CLEAR LENS | C-70-CRI DATA SHOWN IS ABSOLUTE. | UCM2-ANG-36L-460-5K7-2-CL.ies | 6145 | 0.91 | 54.9 |
| | A4 | 4 | UCM2-ANG-36L-460-5K7-4W-CL | UNIVERSE COLLECTION MEDIUM 2.0 WITH CLEAR LENS | C-70-CRI DATA SHOWN IS ABSOLUTE. | UCM2-ANG-36L-460-5K7-4W-CL.ies | 6076 | 0.91 | 54.9 |
| | A5 | 56 | UCM2-ANG-36L-460-5K7-5W-CL | UNIVERSE COLLECTION MEDIUM 2.0 WITH CLEAR LENS | C-70-CRI DATA SHOWN IS ABSOLUTE. | UCM2-ANG-36L-460-5K7-5W-CL.ies | 6187 | 0.91 | 54.9 |
| | B2 | 4 | UCL2-ANG-72L-480--5K7-2-CL | UNIVERSE COLLECTION LARGE 2.0 WITH CLEAR LENS | C-70-CRI DATA SHOWN IS ABSOLUTE. | UCL2-ANG-72L-480-5K7-2-CL.ies | 11587 | 0.91 | 110.7 |

## STATISTICS

| Description | Symbol | Avg | Max | Min | Max/Min | Avg/Min |
|---|---|---|---|---|---|---|
| 1 - NORTH WALKWAY | + | 1.6 fc | 6.4 fc | 0.0 fc | N / A | N / A |
| 2 - SOUTH WALKWAY | + | 1.6 fc | 6.2 fc | 0.0 fc | N / A | N / A |
| 3 - PARKING | + | 3.3 fc | 4.8 fc | 1.6 fc | 3.0:1 | 2.1:1 |

## LED LUMINAIRE - LUMENS - EFFICACY - WATTS - BUG SUMMARY

| AAL LIGHTING CATALOG NUMBER | DELIVERED LUMENS | EFFICACY | WATTAGE | BUG RATING |
|---|---|---|---|---|
| UCM2-ANG-36L-460-5K7-2-CL | 6145 | 111.9 | 54.9 | B1-U0-G1 |
| UCM2-ANG-36L-460-5K7-4W-CL | 6076 | 110.7 | 54.9 | B1-U0-G3 |
| UCM2-ANG-36L-460-5K7-5W-CL | 6187 | 112.7 | 54.9 | B3-U0-G1 |
| UCL2-ANG-72L-480-5K7-2-CL | 11587 | 104.7 | 110.7 | B2-U0-G2 |

0 25' 50' 100'

NORTH

MIG
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CIVIL ENGINEER
**BKF**

STRUCTURAL ENGINEER
**ISE**

# OLIVE BOWL KAKU PARK

LINDSAY, CA
93247

SHEET TITLE

## SITE LIGHTING PHOTOMETRIC

| DATE | REVISION |
|---|---|
| 10-18-21 | 50% CD Submittal |
| 12-8-21 | 90% CD Submittal |
| 12-14-22 | 90% CD Submittal |
| 2-13-23 | 100% CD Submittal |
| 10-3-23 | ADDENDUM #1 |
| 10-27-23 | ADDENDUM #3 |
| 6-10-24 | 3 PHASE RE-PACKAGE |

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REGISTERED PROFESSIONAL ENGINEER
RAOUL C. REGALADO
No. E16914
Exp. 6-30-25
ELECTRICAL
STATE OF CALIFORNIA

6-25-24

| CHECKED BY | DATE |
|---|---|
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| DRAWN BY | JOB NO. |
| LRA | 05567.02 |

SHEET

# E-5.0