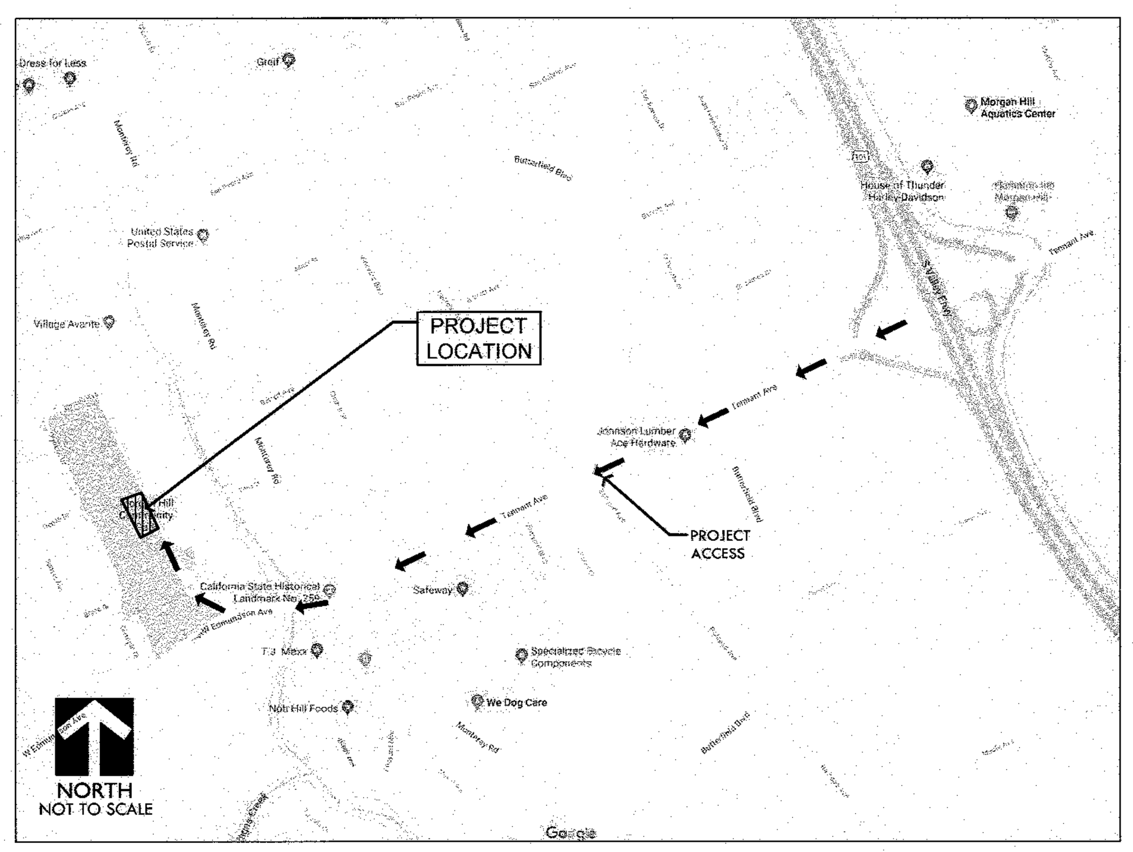
CONSTRUCTION DRAWINGS FOR

MORGAN HILL INCLUSIVE PLAYGROUND / MAGICAL BRIDGE PROJECT

171 W EDMUNDSON AVE, MORGAN HILL, CA 95037
VERDE DESIGN, INC. PROJECT NO. 1818000

VICINITY MAP AND CONSTRUCTION ROUTE



APPLICABLE CODES

1. 2016 CBC CHAPTER 35: PROVIDE ALL THE APPLICABLE/ADOPTED STANDARDS. WHERE A PARTICULAR STANDARD IS REFERENCED IN THE CODE BUT DOES NOT APPEAR AS AN ADOPTED STANDARD IT MAY STILL BE USED. APPLY ONLY THE PORTION OF THE STANDARD THAT IS APPLICABLE TO THE CODE SECTION WHERE THE STANDARD IS REFERENCED, NOT THE ENTIRE STANDARD.

   2016 BUILDING STANDARDS ADMINISTRATIVE CODE, PART 1, TITLE 24 C.C.R.
   2016 CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24 C.C.R.
   (2015 INTERNATIONAL BUILDING CODE VOLUMES 1-2 AND 2015 CALIFORNIA AMENDMENTS)
   2016 CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24 C.C.R.
   (2014 NATIONAL ELECTRICAL CODE AND 2015 CALIFORNIA AMENDMENTS)
   2016 CALIFORNIA MECHANICAL CODE (CMC) PART 4, TITLE 24 C.C.R.
   (2015 UNIFORM MECHANICAL CODE AND 2015 CALIFORNIA AMENDMENTS)
   2016 CALIFORNIA PLUMBING CODE (CDC), PART 5, TITLE 24 C.C.R.
   (2015 UNIFORM PLUMBING CODE AND 2015 CALIFORNIA AMENDMENTS)
   2016 CALIFORNIA ENERGY CODE, PART 6, TITLE 24 C.C.R.
   2016 CALIFORNIA FIRE CODE, PART 9, TITLE 24 C.C.R.
   (2015 INTERNATIONAL FIRE CODE AND 2016 CALIFORNIA AMENDMENTS)
   2016 CALIFORNIA EXISTING BUILDING CODE, PART 10, TITLE 24 C.C.R.
   (2015 INTERNATIONAL EXISTING BUILDING CODE AND 2015 CALIFORNIA AMENDMENTS)
   2016 CALIFORNIA "GREEN" BUILDING REQUIREMENTS OR CAL GREEN, PART 11, TITLE 24 C.C.R.
   2016 CALIFORNIA REFERENCED STANDARDS, PART 12, TITLE 24 C.C.R.
   2016 TITLE 19 C.C.R., PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS.

   LIST OF FEDERAL CODES AND STANDARDS (IF APPLICABLE)
   AMERICANS WITH DISABILITIES ACT (ADA), TITLE II OR TITLE III
   FOR TITLE II: UNIFORM FEDERAL ACCESSIBILITY STANDARDS (UFAS) — 28 CFR 35.151(c)
   OR ADA STANDARDS FOR ACCESSIBLE DESIGN (APPENDIX A OF 28 CFR PART 36)
   FOR TITLE III: ADA STANDARDS FOR ACCESSIBLE DESIGN (APPENDIX A OF 28 CFR PART 36) — 28 CFR 36.406
   2010 AMERICANS WITH DISABILITIES ACT (ADA) STANDARDS FOR ACCESSIBLE DESIGN

   NOTE: TITLE II APPLIES TO PROJECTS FUNDED AND/OR USED BY STATE AND LOCAL GOVERNMENT SERVICES. TITLE III COVERS PUBLIC ACCOMMODATIONS AND COMMERCIAL FACILITIES. DEPENDING ON THE USE AND FUNDING, BOTH TITLE MAY APPLY TO THE PROJECT.

NFPA 13	AUTOMATIC SPRINKLER SYSTEMS	2016 EDITION
NFPA 14	STANDPIPE SYSTEMS	2016 EDITION
NFPA 17	DRY CHEMICAL EXTINGUISHING SYSTEMS	2017 EDITION
NFPA 17A	WET CHEMICAL EXTINGUISHING SYSTEMS	2017 EDITION
NFPA 20	STATIONARY FIRE PUMPS	2016 EDITION
NFPA 24	PRIVATE FIRE SERVICE MAINS	2016 EDITION
NFPA 72	NATIONAL FIRE ALARM AND SIGNALING CODE (CALIFORNIA AMENDED) (NOTE SEE UL STANDARD 1971 FOR "VISUAL DEVICES")	2016 EDITION
NFPA 253	CRITICAL RADIANT FLUX OF FLOOR COVERING SYSTEMS	2015 EDITION
NFPA 2001	CLEAN AGENT FIRE EXTINGUISHING SYSTEMS	2015 EDITION
ASME 17.1	ELEVATOR STANDARD	2016 EDITION

   REFERENCE CODE SECTIONS FOR APPLICABLE STANDARDS - 2016 CALIFORNIA BUILDING CODE (FOR SFM) REFERENCED STANDARDS CHAPTER 35

   ADA STANDARD FOR ACCESSIBLE DESIGN (APPENDIX A OF 28 CFR PART 36)

2. THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS IS THAT WORK OF THE ALTERATION, REHABILITATION OR RECONSTRUCTION IS TO BE IN ACCORDANCE WITH TITLE 24, CALIFORNIA CODE OF REGULATIONS. SHOULD ANY EXISTING CONDITIONS SUCH AS DETERIORATION OR NON-COMPLYING CONSTRUCTION BE DISCOVERED WHICH IS NOT COVERED BY THE CONTRACT DOCUMENTS WHEREIN THE FINISHED WORK WILL NOT COMPLY WITH TITLE 24, CALIFORNIA CODE OF REGULATIONS, A CHANGE ORDER, OR A SEPARATE SET OF PLANS AND SPECIFICATIONS, DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY THE OWNER REPRESENTATIVE BEFORE PROCEEDING WITH THE WORK.

3. ALL EXISTING FIRE EXTINGUISHING SYSTEMS ARE IN COMPLIANCE WITH UL 300, CBC 904.11, CFC 904.11.

PREPARED BY

REGISTERED LANDSCAPE ARCHITECT — DEREK McKEE — DEC. 2021 — STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER — SAMMY S. FERNANDEZ — E16890 — EXP. 06/30/21 — ELECTRICAL — STATE OF CALIFORNIA

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ALL IDEAS, DESIGNS, ARRANGEMENTS, AND PLANS INDICATED OR REPRESENTED BY THIS DRAWING ARE OWNED BY AND THE PROPERTY OF VERDE DESIGN, INC. AND WERE CREATED, EVOLVED, AND DEVELOPED FOR USE ON AND IN CONNECTION WITH THE SPECIFIED PROJECT. NONE OF SUCH IDEAS, DESIGNS, ARRANGEMENTS OR PLANS SHALL BE USED, REPRODUCED, OR PUBLISHED BY ANY METHOD, IN WHOLE OR IN PART, OR DISCLOSED TO ANY PERSON, FIRM, OR CORPORATION FOR ANY PURPOSE WHATSOEVER WITHOUT WRITTEN PERMISSION OF VERDE DESIGN, INC.

SCOPE OF WORK

SITE IMPROVEMENTS INCLUDE: CLEAR, GRUB AND DEMOLITION OF EXISTING HARDSCAPE PAVING, FENCING, PLAY EQUIPMENT, SITE FURNISHINGS AND SOFTSCAPE. CONTRACTOR TO COMPLETE; EARTHWORK, MATERIAL EXPORT, GRADING, SITE DRAINAGE, PARKING LOT, PLAYGROUND AREA, PAVING, SIDEWALK, FENCING, SIGNAGE, WALLS, SITE FURNISHINGS, PLAY EQUIPMENT, IRRIGATION, PLANTING AND ELECTRICAL. PREFABRICATED RESTROOM BUILDING, RESTROOM BUILDING PAD, AND UTILITY CONNECTIONS. CONTRACTOR SHALL COORDINATE ALL WORK WITH THE CITY'S REPRESENTATIVE.

BID ALTERNATES

1. PARK ADD ALTERNATE 1: INSTALLATION OF PREFABRICATED RESTROOM BUILDING (OUTSIDE PLAY AREA), CONCRETE PAD, RELATED UTILITIES, CONCRETE PATHWAY, CONCERTED RAMP AND HANDRAILS.
2. PLAY AREA ADD ALTERNATE 2: WATER ZONE AREA - INSTALLATION OF RUBBERIZED MULCH AND BISON HAND PUMP - REFER TO SPECIFICATIONS
3. PLAY AREA ADD ALTERNATE 3: INSTALLATION OF RETREAT HUTS WITH 6" THICK CONCRETE PAD UNDERNEATH.
4. PLAY AREA ADD ALTERNATE 4: FIRE DEMONSTRATION GARDEN - INSTALLATION OF PLANTING AND IRRIGATION AS PER PLANTING AND IRRIGATION PLAN.
5. PLAY AREA ADD ALTERNATE 5: SAND PLAY AREA - INSTALLATION OF CONCRETE PATHWAY, CONCRETE CURB, CATCH BASIN, DRAIN LINE AND SAND.
6. PLAY AREA ADD ALTERNATE 6: INSTALL SHADE SAILS OVER THE SLIDE MOUND.

GENERAL NOTES

1. PRIOR TO BIDDING, THE GENERAL CONTRACTOR SHALL VISIT & INSPECT THE SITE & FAMILIARIZE THEMSELVES WITH EXISTING CONDITIONS AFFECTING THE NEW WORK. THE GENERAL CONTRACTOR SHALL NOT DISPUTE, COMPLAIN OR ASSERT THAT THERE IS ANY MISUNDERSTANDING IN REGARDS TO LOCATION, EXTENT, NATURE OR AMOUNT OF WORK TO BE PERFORMED UNDER THIS CONTRACT DUE TO THE CONTRACTOR'S FAILURE TO INSPECT THE SITE. CONTRACTOR SHALL NOTIFY THE OWNER OF ANY CONDITIONS, REQUIRING WORK, WHICH ARE NOT COVERED IN THE CONTRACT DOCUMENTS.
2. NO CONSTRUCTION SHALL COMMENCE WITHOUT THE OFFICIAL NOTICE TO PROCEED FROM THE OWNER.
3. THE GENERAL CONTRACTOR & SUBCONTRACTORS ARE RESPONSIBLE FOR LOCATING & VERIFYING ALL EXISTING UNDERGROUND UTILITIES IN ALL AREAS OF NEW WORK PRIOR TO COMMENCEMENT OF EXCAVATION. EXISTING UTILITIES SHOWN ON THE DRAWINGS ARE APPROXIMATE ROUTING LOCATIONS AS BEST DETERMINED FROM EXISTING DRAWINGS AND THE OWNER, BUT SHOULD NOT BE CONSTRUED TO REPRESENT ALL OF THE EXISTING UNDERGROUND UTILITIES. THE CONTRACTOR SHALL POTHOLE ALL EXISTING UTILITIES THAT MAY BE AFFECTED BY NEW FACILITIES IN THIS CONTRACT. VERIFY ACTUAL LOCATION AND DEPTH OF UTILITIES, AND REPORT POTENTIAL CONFLICTS TO THE OWNER PRIOR TO EXCAVATING FOR NEW FACILITIES.
4. CONTRACTOR SHALL TAKE ALL NECESSARY STEPS TO PROTECT ALL EXISTING UTILITIES, WHETHER SHOWN OR NOT, IN THE CONTRACT DOCUMENTS. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES TO EXISTING UTILITIES CAUSED BY ITS OPERATIONS.
5. THE CONTRACTOR SHALL PROTECT ALL EXISTING ITEMS WITHIN SITE IMPROVEMENTS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR ALL DAMAGED AREAS TO THEIR ORIGINAL CONDITION OR BETTER AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
6. DIMENSIONS AND LOCATIONS OF EXISTING FACILITIES ARE APPROXIMATE AND SHALL BE FIELD VERIFIED BY CONTRACTOR. ANY DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER.
7. ALL WORK SHALL CONFORM TO THE LATEST EDITION OF THE CALIFORNIA BUILDING CODE, CALIFORNIA PLUMBING CODE, CALIFORNIA FIRE CODE AND ALL APPLICABLE STATE AND LOCAL CODES AND ORDINANCES, AS WELL AS ADAPTED STANDARDS.
8. ALL NOTES ARE FOR GENERAL REFERENCE IN CONJUNCTION WITH, AND AS A SUPPLEMENT TO, THE WRITTEN SPECIFICATIONS AND DETAILS ASSOCIATED WITH THE CONTRACT DOCUMENTS.
9. THIS DRAWING SET SHALL BE USED IN CONJUNCTION WITH THE CSI FORMAT SPECIFICATIONS PUBLISHED IN BOOK FORM. COMBINED, THEY ARE HEREIN REFERRED TO AS THE "CONTRACT DOCUMENTS".
10. DIMENSIONS ON WORKING DRAWINGS TAKE PRECEDENCE OVER MEASURED ELEMENTS. CONTRACTOR SHALL NOT SCALE DRAWINGS.
11. ALL TYPICAL DETAILS SHALL APPLY UNLESS NOTED OTHERWISE.
12. CONTRACTOR SHALL PROVIDE ADEQUATE DUST CONTROL AND KEEP MUD AND DEBRIS OFF THE PUBLIC RIGHT-OF-WAY AT ALL TIMES.
13. ALL TRENCHES AND EXCAVATIONS SHALL BE CONSTRUCTED IN STRICT COMPLIANCE WITH THE APPLICABLE SECTIONS OF CALIFORNIA AND FEDERAL O.S.H.A. REQUIREMENTS AND OTHER APPLICABLE SAFETY ORDINANCES. CONTRACTOR SHALL BEAR FULL RESPONSIBILITY FOR TRENCH SHORING DESIGN AND INSTALLATION.
14. ANY ALTERATIONS OF EXISTING FACILITIES TO ACCOMMODATE THE INSTALLATION OF NEW WORK SHALL BE REVIEWED BY THE OWNER PRIOR TO COMMENCING WORK.
15. ANY DISRUPTION OF THE UTILITIES MUST BE COORDINATED AND APPROVED BY THE OWNER AND INSPECTOR OF RECORD PRIOR TO COMMENCING WORK.
16. ALL TEMPORARY WORK SHALL BE CONSIDERED A PART OF THIS CONTRACT AND NO EXTRA CHARGES WILL BE ALLOWED. THIS SHALL INCLUDE MINOR ITEMS OF MATERIAL OR EQUIPMENT NECESSARY TO MEET THE REQUIREMENTS AND INTENT OF THE PROJECT.
17. THE PLANS AND SPECIFICATIONS DO NOT UNDERTAKE TO SHOW OR LIST EVERY ITEM TO BE PROVIDED, BUT RATHER TO DEFINE THE REQUIREMENTS FOR A FULL AND WORKING SYSTEM FROM THE STANDPOINT OF THE END USER. FOR THIS REASON, WHEN AN ITEM NOT SHOWN OR LISTED IS CLEARLY NECESSARY FOR PROPER CONTROL/OPERATION OF EQUIPMENT WHICH IS SHOWN OR LISTED, THE CONTRACTOR SHALL PROVIDE AN ITEM WHICH WILL ALLOW THE SYSTEM TO FUNCTION PROPERLY AT NO INCREASE IN PRICE.
18. ALL CONTRACTORS SHALL REMOVE TRASH AND DEBRIS STEMMING FROM THEIR WORK ON A DAILY BASIS. PROJECT SITE SHALL BE MAINTAINED IN A CLEAN AND ORDERLY CONDITION.
19. THE DETAILS REFLECT THE DESIGN INTENT FOR TYPICAL CONDITIONS. THE CONTRACTOR SHALL VERIFY ALL FIELD CONDITIONS AND SHALL INCLUDE, IN HIS SCOPE, THE COST FOR COMPLETE FINISHED INSTALLATIONS, INCLUDING ANOMALIES, OF ALL TRADES.
20. NO WORK SHALL COMMENCE WITH UNAPPROVED MATERIALS. ANY WORK DONE WITH UNAPPROVED MATERIALS AND EQUIPMENT IS AT THE CONTRACTOR'S RISK AND IS SUBJECT TO REJECTION, REMOVED AND REPLACEMENT. SEE SPECIFICATIONS FOR SUBMITTAL AND SUBSTITUTION REQUIREMENTS.
21. CONSTRUCTION MATERIALS STORED ON THE SITE SHALL BE PROPERLY STACKED AND PROTECTED SO AS TO PREVENT DAMAGE OR DETERIORATION UNTIL USED. FAILURE IN THIS REGARD MAY BE CAUSE FOR REJECTION OF MATERIAL AND/OR WORK.
22. ALL EQUIPMENT SHALL BE FABRICATED FROM FIELD VERIFIED DIMENSIONS AND APPROVED SHOP DRAWINGS. COORDINATE MECHANICAL, PLUMBING AND ELECTRICAL EQUIPMENT.
23. CONTRACTOR SHALL PERFORM THEIR CONSTRUCTION AND OPERATIONS IN A MANNER WHICH WILL NOT ALLOW HARMFUL POLLUTANTS TO ENTER THE STORM DRAIN SYSTEM. TO ENSURE COMPLIANCE, THE CONTRACTOR SHALL IMPLEMENT THE APPROPRIATE BEST MANAGEMENT PRACTICE (BMP) AS OUTLINED IN THE BROCHURES ENTITLED "BEST MANAGEMENT PRACTICE FOR THE CONSTRUCTION INDUSTRY" ISSUED BY THE CALIFORNIA STORM WATER QUALITY ASSOCIATION, NONPOINT SOURCE POLLUTION CONTROL PROGRAM, TO SUIT THE CONSTRUCTION SITE AND JOB CONDITION. THE CONTRACTOR SHALL PRESENT HIS PROPOSED BMP AT THE PRECONSTRUCTION MEETING FOR DISCUSSION AND APPROVAL.
24. CONTRACTOR SHALL PROVIDE TEMPORARY CONSTRUCTION FENCING PER CONTRACT DOCUMENTS TO SERVE LIMIT OF WORK AREAS. FENCING MAY BE ADJUSTED DURING CONSTRUCTION BASED ON CONSTRUCTION SEQUENCE OR THE OWNER'S DIRECTION.
25. OVERNIGHT PARKING OF CONSTRUCTION EQUIPMENT IN THE STREET RIGHT-OF-WAY SHALL NOT BE PERMITTED.

CONTACT INFORMATION

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NO.	DESCRIPTION	DATE	BY

Revisions

WORK ACCEPTED: | INSPECTOR: | BY: | DATE:

DRAWN: VERDE | DESIGN: CMES | HOR: N/A
CHECKED: CMES / DM | VERT: N/A
APPROVED: S. C | DATE: 2/10/20 | JOB NUMBER:
SCOTT CREER – CITY ENGINEER RCE#58879 EXP. 9/30/21

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Public Works Department
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COVER SHEET
MORGAN HILL INCLUSIVE PLAYGROUND / MAGICAL BRIDGE PROJECT

FILE NUMBER: 1818000
PRINT DATE: 02/07/20
SHEET NUMBER: C0.0

BID SUBMITTAL - 02-07-20

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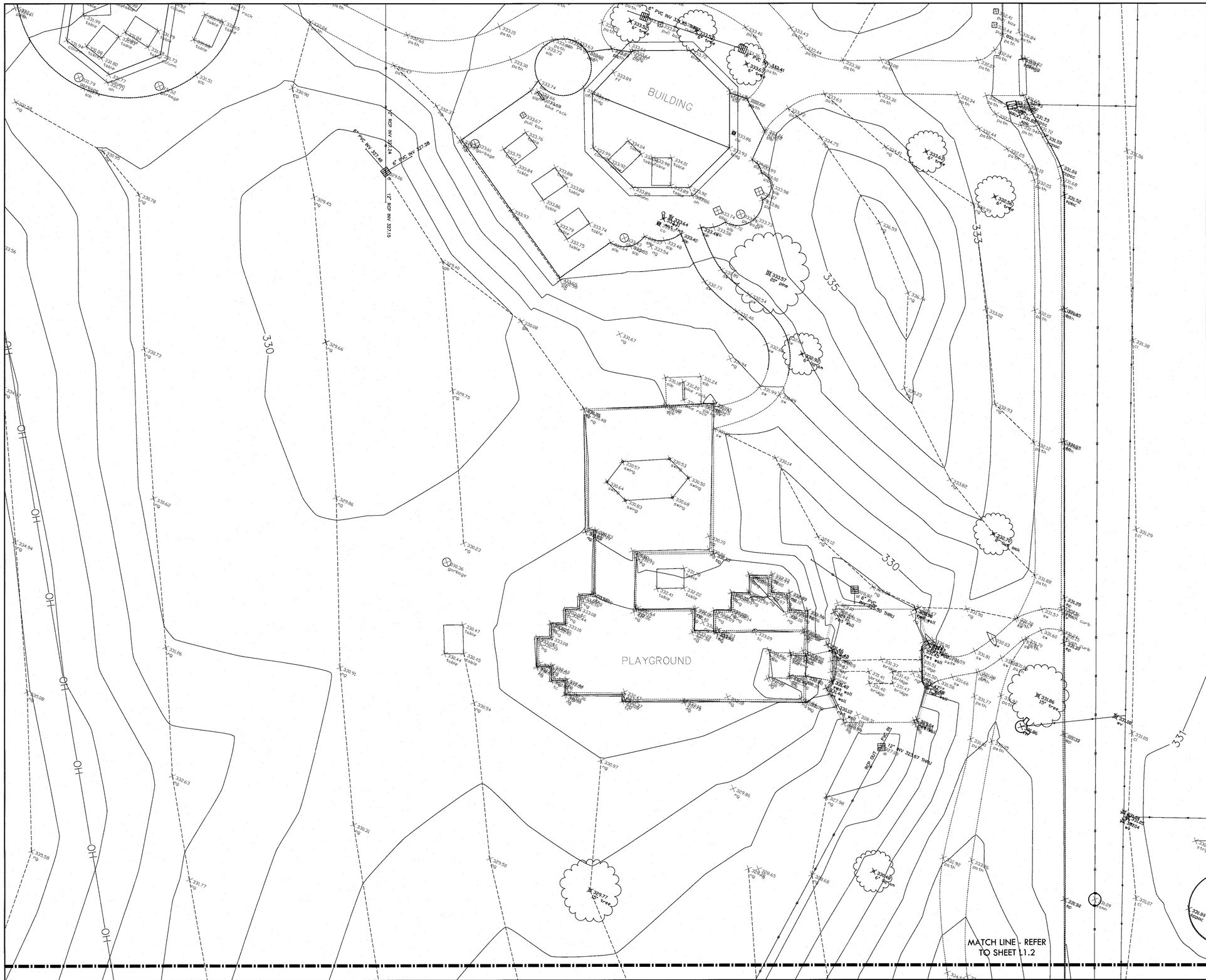
PLOT DATE: 02-06-20 PLOTTED BY: station51



ABBREVIATIONS

	DESCRIPTION
AC	ASPHALT CONCRETE
CL	CENTERLINE
CLF	CHAIN LINKED FENCE
CLSW	CENTERLINE SWALE
CO	SANITARY CLEANOUT
DDCV	DOUBLE DETECTOR CHECK VALVE
DI	DRAIN INLET
ELCT	ELECTROLIER
EP	EDGE OF PAVEMENT
EPANG	EP ANGLE POINT
EPBC	EP BEGIN CURVE
EPEC	EP END OF CURVE
EPPOC	EP POINT ON CURVE
FF	FINISH FLOOR ELEVATION
FH	FIRE HYDRANT
FLG	FLOWLINE OF GUTTER
GB	GRADE BREAK
ICV	IRRIGATION CONTROLLER VALVE
JP	JOINT UTILITY POLE
LIP	LIP OF GUTTER
NG	NATURAL GROUND
OH	OVERHANG
SLB	CONCRETE SLAB
SPK	CONTROL SPIKE
SSMH	SANITARY SEWER MANHOLE
SW	SIDEWALK
TC	TOP OF CURB
TCBC	TC BEGIN CURVE
TCEC	TC END CURVE
TCPOC	TC POINT OF CURVE
WM	WATER METER
WV	WATER VALVE

OH — OH — OVERHEAD LINES

STORM LINE

SANITARY LINE

WATER LINE

WE USED A COMBINATION OF GPS AND OUR TOTAL STATION FOR THIS SURVEY SO I WOULD LIKE TO KEEP ALL THE ELEVATIONS AS THEY ARE NOW. THE SHIFT WOULD BE TO RAISE ALL ELEVATIONS BY 0.16' TO BE ON NAVD88 DATUM IF NEEDED. THIS WILL MAKE IT EASIER TO TAKE FUTURE SHOTS TO BE CONSISTENT WITH OUR CURRENT SURVEY CONTROL.

COORDINATE SYSTEM IS THE CALIFORNIA COORDINATE SYSTEM, ZONE 3, PER THE 1983 NORTH AMERICAN DATUM

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NORTH

0' 5' 10' 20' 30'

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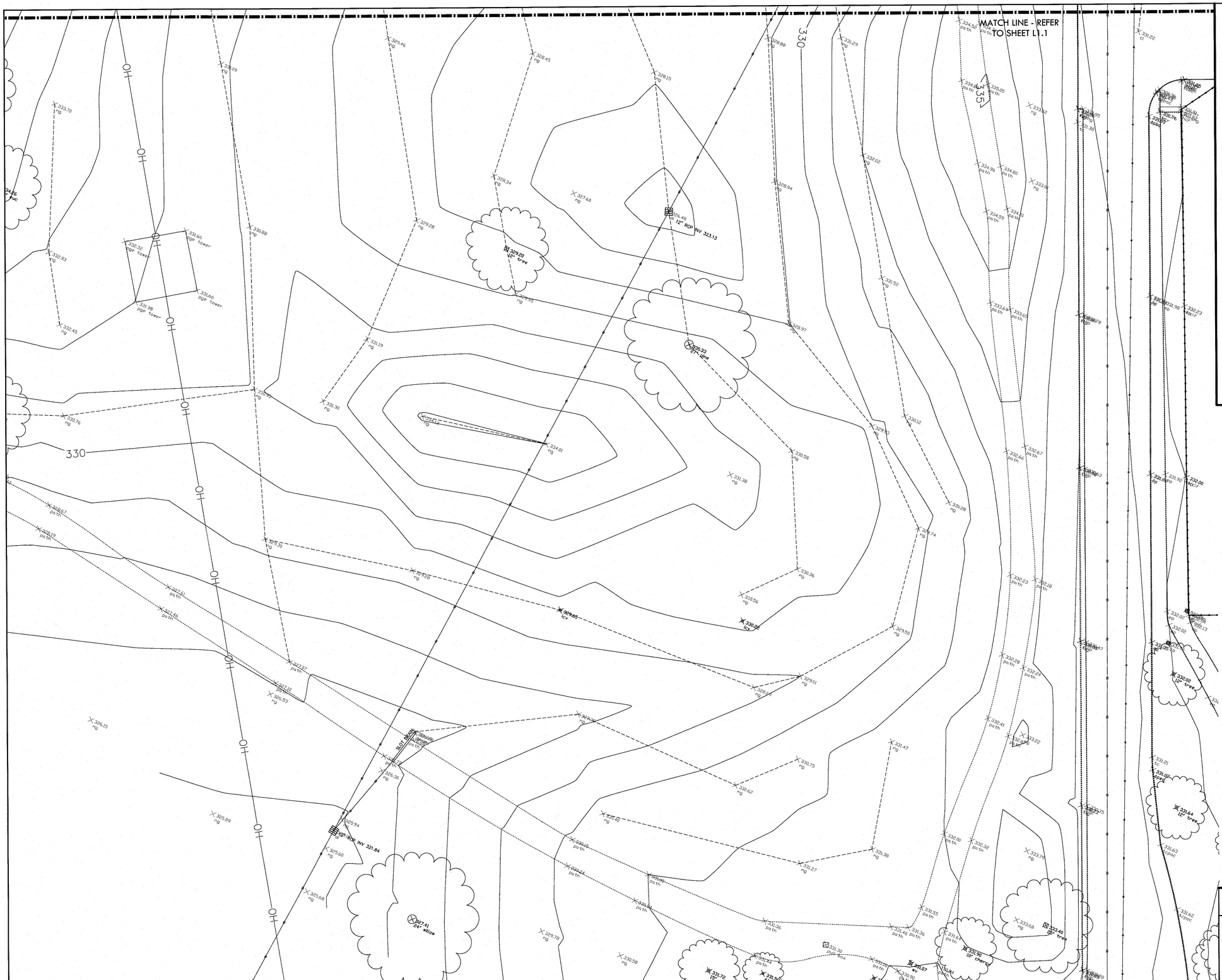
EXISTING CONDITIONS SURVEY PLAN
MORGAN HILL INCLUSIVE PLAYGROUND / MAGICAL BRIDGE PROJECT

FILE NUMBER: 1818000
PRINT DATE: 02/07/20
SHEET NUMBER: L1.1

BID SUBMITTAL - 02-07-20



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EXISTING CONDITIONS SURVEY PLAN
MORGAN HILL INCLUSIVE PLAYGROUND / MAGICAL BRIDGE PROJECT

FILE NUMBER: 1818000
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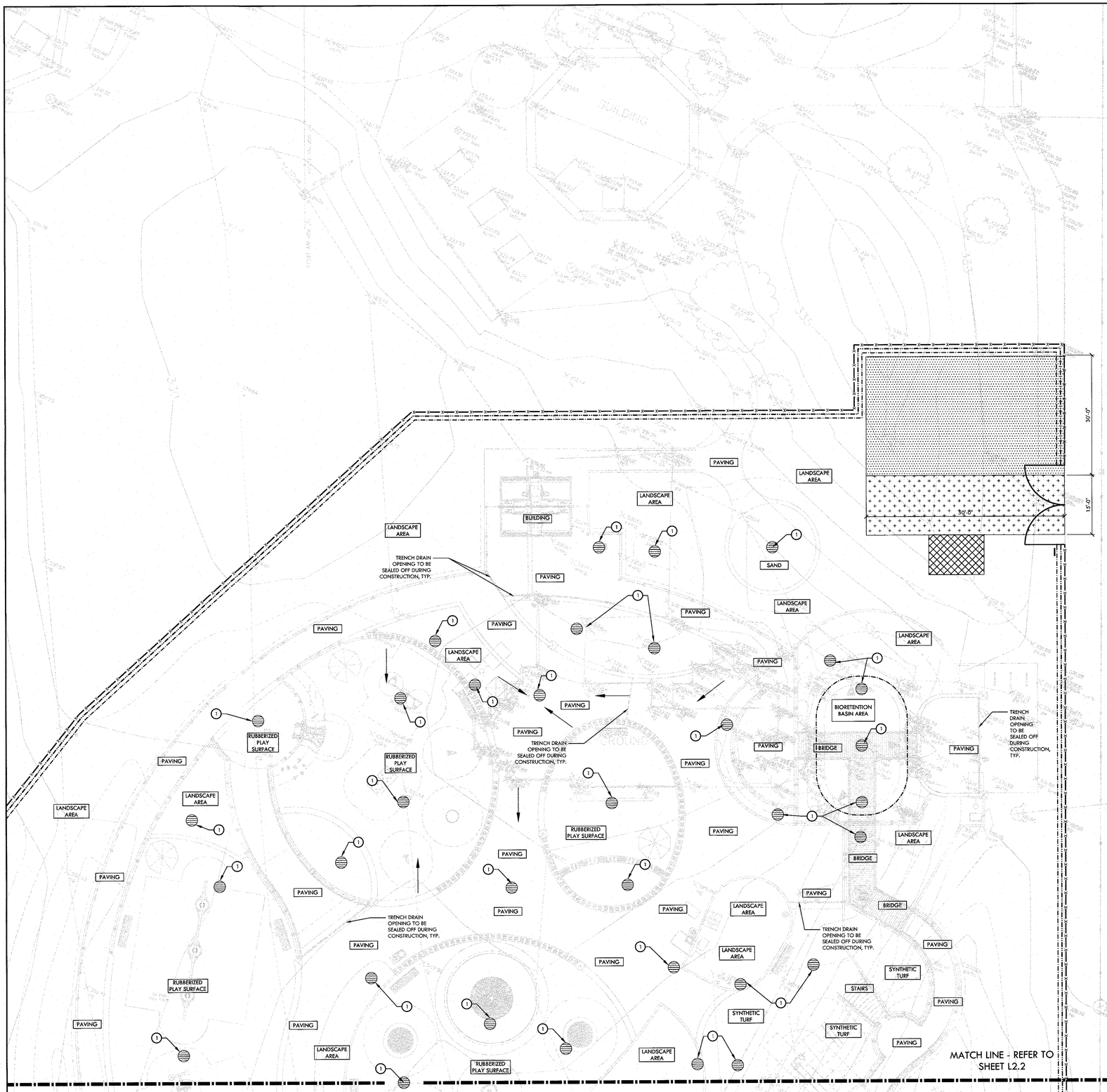
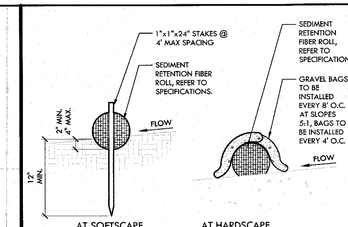
SHEET NUMBER: L1.2

BID SUBMITTAL - 02-07-20

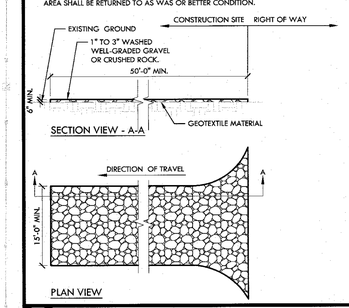




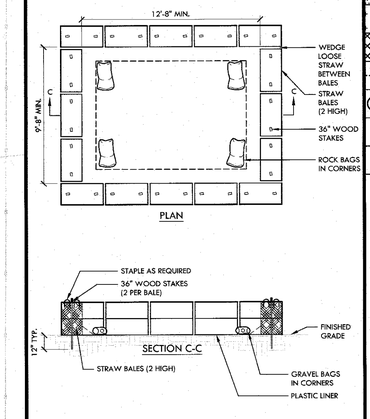
NOTES:
1. INSTALL SEDIMENT RETENTION FIBER ROLLS (FIBER ROLLS / WATTLES) AS LOCATED ON PLANS AND AS REQUIRED PER THE STATE GENERAL PERMIT FOR STORMWATER DISCHARGE.
2. FIBER ROLLS SHALL BE CONSTRUCTED LONG ENOUGH TO EXTEND ACROSS FLOW PATH OF POTENTIAL RUN-OFF AND RUN-ON.
3. PREPARE GRADES REMOVING SURFACE DEVIATIONS, LARGE STONES OR DEBRIS THAT WILL INHIBIT CONTINUOUS CONTACT OF THE FIBER ROLL WITH THE GRADE.
4. PRIOR TO FILTER ROLL INSTALLATION EXCAVATE A CONCAVE TRENCH 2" MIN., 4" MAX. DEEP ALONG THE PROPOSED FIBER ROLL LOCATION.
5. INSTALL FIBER ROLLS WITH CONTINUOUS CONTACT OF THE BOTTOM OF THE EXCAVATED TRENCH.
6. STAKE ROLL ON BOTH SIDES 2' FROM OF ENDS AND AT 4' MAXIMUM SPACING WITH 2"X2"X24" STAKES. DRIVE STAKES IN ON ALTERNATING SIDES OF THE ROLL AND OVERLAP ABUTTING ROLL ENDS 12" MIN.
7. BACKFILLED BOTH SIDES TO WATTLE AND TAMP SOIL TO FIRM AND STABLE.
8. CONTRACTOR SHALL MAKE WEEKLY INSPECTIONS OR AS INDICATED IN STORMWATER POLLUTION PREVENTION PLAN, OR THE STATE GENERAL PERMIT FOR STORMWATER DISCHARGE.

B SEDIMENT RETENTION FIBER ROLL NTS

NOTES:
1. CONSTRUCTION SITE ACCESS SHALL BE CONSTRUCTED OF 1" TO 3" WASHED, WELL-GRADED GRAVEL OR CRUSHED ROCK. MATERIAL SHALL BE PLACED TO A MINIMUM THICKNESS OF 6".
2. LENGTH OF ENTRANCE SHALL BE A MINIMUM OF 50 FEET. WIDTH SHALL BE A MIN. OF 15' OR GREATER IF NECESSARY TO COVER ALL VEHICULAR INGRESS AND EGRESS. PROVIDE AMPLE TURNING RADII.
3. THE ENTRANCE SHALL BE KEPT IN GOOD CONDITION BY OCCASIONAL TOP DRESSING WITH MATERIAL AS SPECIFIED IN NOTE 1.
4. ACCESSES SHALL BE INSPECTED WEEKLY DURING PERIODS OF HEAVY USAGE, MONTHLY DURING NORMAL USAGE, AND AFTER EACH RAINFALL, WITH MAINTENANCE PROVIDED AS NECESSARY. PERIODIC TOP DRESSING SHALL BE DONE AS NEEDED.
5. TEMPORARY ACCESS ROAD SHALL BE REMOVED AT THE END OF THE PROJECT. AFFECTED AREA SHALL BE RETURNED TO AS WAS OR BETTER CONDITION.



C STABILIZED CONSTRUCTION ENTRY NTS



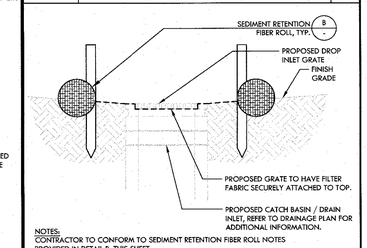
D TEMPORARY CONCRETE WASHOUT FACILITY

EROSION AND SEDIMENT CONTROL NOTES

1. THIS WATER POLLUTION CONTROL PLAN MAY NOT COVER ALL THE SITUATIONS THAT ARISE DURING CONSTRUCTION DUE TO UNANTICIPATED FIELD CONDITIONS. THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES (BMPS) LISTED IN THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP), AND SHALL IMPLEMENT AND MAINTAIN THE SWPPP FOR THE PROJECT IN FULL COMPLIANCE WITH THE REVISED STATE REGULATIONS TO CONTROL THE DISCHARGE OF STORMWATER POLLUTANTS.
2. EROSION AND SEDIMENT CONTROL PLAN SHALL BE CONSTRUCTED DURING FIRST WEEK OF CONSTRUCTION.
3. EROSION AND SEDIMENT CONTROL SHALL REMAIN THROUGHOUT CONSTRUCTION AND REMAIN AND DISPOSED DURING MAINTENANCE PERIOD.
4. EROSION AND SEDIMENT CONTROL MAY BE ADJUSTED THROUGH CONSTRUCTION WITH APPROVAL OR AS DIRECTED BY OWNER'S REPRESENTATIVE.
5. CONTRACTOR TO IMPLEMENT BMPS TO KEEP A CLEAN SITE AND PREVENT RUNOFF POLLUTION.
6. GATHER AND STORE ALL CONSTRUCTION DEBRIS DAILY IN APPROPRIATE CONTAINERS WHICH ARE EMPTIED OR REMOVED ON AN AT-LEAST WEEKLY BASIS. WHEN APPROPRIATE, USE TARPS ON THE GROUND TO COLLECT FALLEN DEBRIS OR SPLATTERS THAT COULD CONTRIBUTE TO STORMWATER POLLUTION.
7. USE A BROOM OR OTHER DRY CLEANUP METHOD TO REMOVE ALL DIRT/MUD, GRAVEL, DEBRIS, REFUSE AND GREEN WASTE FROM ALL PAVED SURFACES AND THE PUBLIC SIDEWALK AND STREET PAVEMENT DAILY AND PRIOR TO RAIN.
8. CLEAN UP LEAKS, DRIPS AND SPILLS IMMEDIATELY.
9. COVER ALL TEMPORARY STOCKPILES SECURELY WITH A TARP, PLASTIC SHEETING OR SIMILAR MATERIAL TO PREVENT WINDBLOWN DISPERSAL OR RUNOFF OF ANY MATERIAL.
10. USE/CREATE A CONTAINED AND COVERED AREA ON THE SITE FOR THE STORAGE OF CEMENT BAGS, PAINTS, FLAMMABLES, OILS, FERTILIZERS, PESTICIDES, OR ANY OTHER MATERIALS USED ON THE PROJECT SITE THAT HAVE THE POTENTIAL FOR BEING DISCHARGED TO THE STORM DRAIN SYSTEM BY WIND, EXPOSURE TO RAINFALL OR IN THE EVENT OF A MATERIAL SPILL.
11. PROVIDE EROSION "PREVENTION" (SOIL STABILIZATION) AND SITE PERIMETER PROTECTION MEASURES SUCH AS FIBER ROLLS, SILT FENCE, AND/OR SEDIMENT TRAPS OR BASINS TO PREVENT ANY SEDIMENT FROM LEAVING THE WORK SITE. MAINTAIN THESE MEASURES TO REMAIN EFFECTIVE.
12. INSTALL AND MAINTAIN A CONSTRUCTION ENTRANCE TO MINIMIZE THE TRACKING OF DIRT, MUD, DUST AND/OR DEBRIS ONTO THE PUBLIC RIGHT-OF-WAY. DURING WET WEATHER, AVOID DRIVING VEHICLES WHERE MUD OR OTHER WASTES CAN BE TRACKED ONTO THE PUBLIC RIGHT-OF-WAY.
13. PROTECT ALL STORM DRAIN INLETS AND PERVIOUS CONCRETE SWALES IN THE VICINITY OF THE WORK SITE USING FILTER MATERIALS SUCH AS GRAVEL BAGS AND FILTER FABRIC. INLET PROTECTIONS SHALL BE INSTALLED PRIOR TO ANY ACTIVITY THAT MAY RESULT IN THE DISCHARGE OF MATERIAL TO THE STORM DRAIN AND AFTER INSTALLATION OF PERVIOUS CONCRETE SWALES. MAINTAIN THESE FILTER MATERIALS TO REMAIN EFFECTIVE AND REMOVE ANY ACCUMULATED SEDIMENT DEPOSITS. REMOVE THESE MATERIALS DURING PROJECT WRAP-UP.
14. DIVERT ON-SITE STORMWATER FLOWS AROUND AREAS OF EXPOSED OR DISTURBED SOIL TO PREVENT EROSION OR SEDIMENT RUNOFF.
15. DESIGN ANY SITE DE-WATERING (I.E., THE REMOVAL OF WATER FROM AN EXCAVATION PIT) EFFORTS TO PREVENT THE DISCHARGE OF ANY SEDIMENT, DEBRIS OR OTHER POLLUTANTS TO THE STREET, SIDEWALK OR STORMWATER DRAINAGE SYSTEM.
16. VACUUM ALL PAVEMENT SAW-CUTTING SLURRY AND REMOVE FROM SITE. DO NOT ALLOW PAVEMENT SAW-CUT SLURRY TO ENTER THE STORMWATER DRAINAGE SYSTEM.
17. AVOID CLEANING OR RINSING ANY MACHINERY, TOOLS, BRUSHES, EQUIPMENT, CONTAINERS, SURFACES, ETC. INTO A STREET, GUTTER, STORM DRAIN OR WATERWAY.
18. ENSURE THAT CONCRETE SUPPLY TRUCKS AND/OR CONCRETE/PLASTER OPERATIONS DO NOT DISCHARGE WASH WATER OR WASTES INTO THE STREET, GUTTERS OR STORM DRAINS. CONCRETE TRUCKS SHALL HAVE A SELF-CONTAINED WASH-OUT SYSTEM OR DISCHARGE TO A DEDICATED, SECURE ON-SITE WASH-OUT.
19. PREVENT THE DISCHARGE OF ANY TREATMENT OR RINSE WATERS FROM SURFACE FINISHING EFFORTS FOR ARCHITECTURAL COPPER, CEMENT, PLASTER, ETC., TO THE STORMWATER DRAINAGE SYSTEM OR ANY WATERWAY.
20. CONTRACTOR SHALL SWEEP STREETS AND PARKING AREAS AFFECTED BY CONSTRUCTION WITH STREET SWEEPER, DAILY OR AS REQUIRED TO KEEP PAVING CLEAN OF CONSTRUCTION DEBRIS.
21. DUST CONTROL REFER TO SPECIFICATIONS.

EROSION AND SEDIMENT CONTROL LEGEND

SYM	DESCRIPTION		DTL REF
	LIMIT OF WORK / CONSTRUCTION FENCING, REFER TO SPECIFICATIONS	ORANGE FENCING, REFER TO SPECIFICATIONS	
	CONSTRUCTION STAGING AREA	CONTRACTOR EQUIPMENT HAUL ROUTE/ ACCESS	
	STABILIZED CONSTRUCTION ENTRY		C
	TEMPORARY CONCRETE WASHOUT FACILITY - PROVIDE A WASHOUT BIN FOR CONSTRUCTION WASHOUT AND REMOVE AT END OF CONSTRUCTION.		D
	SEDIMENT RETENTION FIBER FILTER ROLL BARRIER		B
1	STORM DRAIN INLET FILTER FABRIC TO BE SECURELY ATTACHED TO DRAINAGE STRUCTURE TOP (EXISTING AND PROPOSED) AND PERIMETER WADDLE.		A
	DIRECTION OF SURFACE FLOW		
	CITY STANDARD CONSTRUCTION SIGN AT CONSTRUCTION ACCESS, CONTRACTOR TO COORDINATE WITH THE CITY.		



NOTES:
CONTRACTOR TO CONFORM TO SEDIMENT RETENTION FIBER ROLL NOTES PROVIDED IN DETAIL B, THIS SHEET.

A STORM DRAIN INLET FILTER FOR (E) AND PROPOSED STORM DRAINS NTS

NORTH
0' 5' 10' 20' 30'

REGISTERED LANDSCAPE ARCHITECT
ROBERT MOREE
No. 4148
Signature
EXPIRATION DATE: DEC. 2021
STATE OF CALIFORNIA

NO.	DESCRIPTION	DATE	BY

Revisions

WORK ACCEPTED: INSPECTOR:
BY: DATE:

DRAWN: VERDE | DESIGN: CMES | HOR: N/A
CHECKED: CMES / DM | VERT: N/A
APPROVED: DATE: 2/10/20 | JOB NUMBER:
SCOTT CRIER - CITY ENGINEER
RCE:68879 EXP. 9/30/21

CITY OF MORGAN HILL
City of Morgan Hill
Public Works Department
17575 Peak Ave. Morgan Hill, CA 95037 (408)778-6480, Fax (408)779-7236

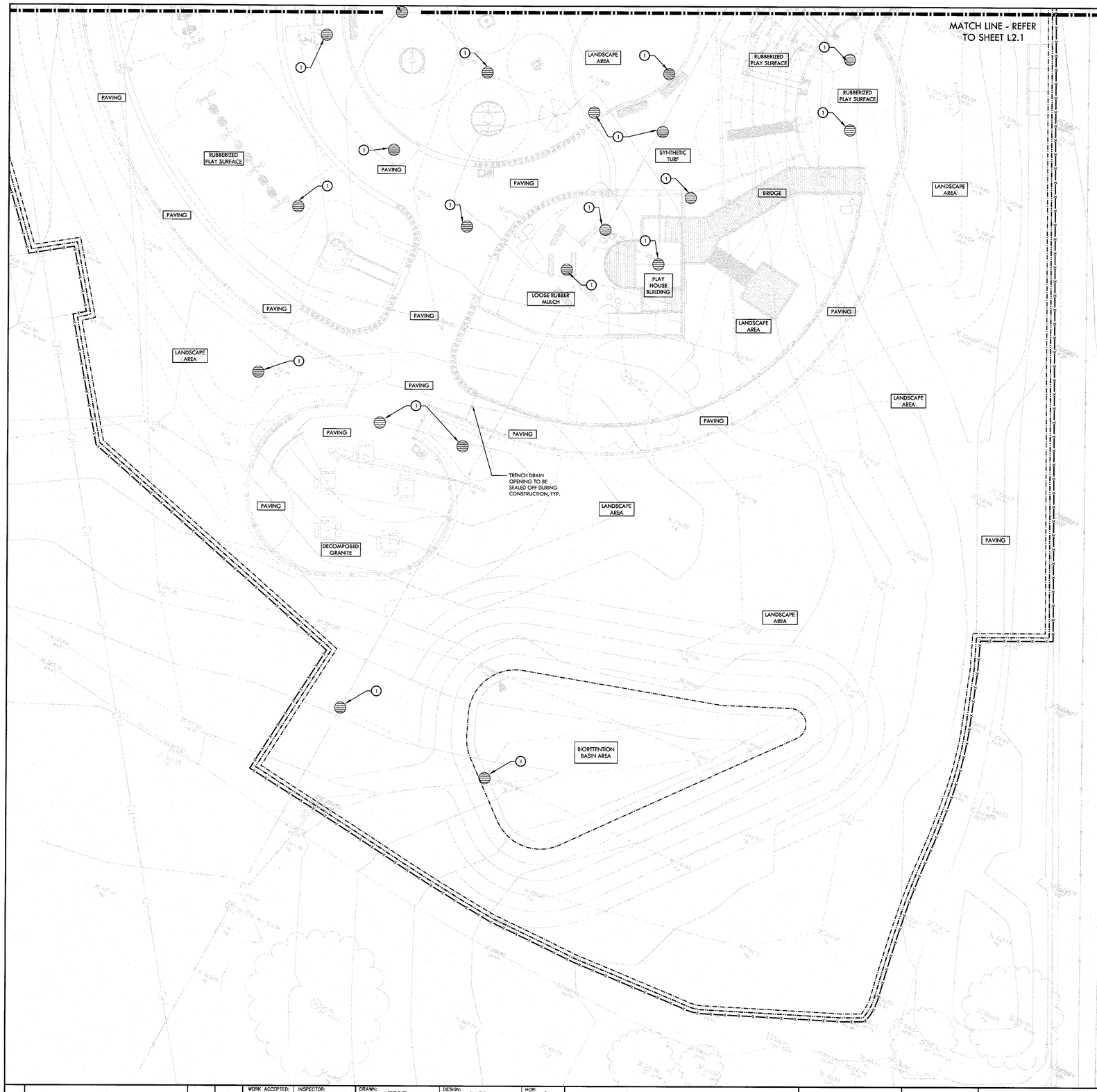
VERDE DESIGN
LANDSCAPE ARCHITECTURE
CIVIL ENGINEERING
SPORT PLANNING & DESIGN
2465 The Alameda, Ste. 209
Santa Clara, California 95050
Tel: 408.982.7200
Fax: 408.985.7260
www.verdedesigninc.com

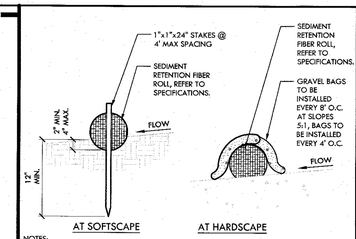
171 W
EDMUNDSON AVE,
MORGAN HILL,
CA 95037

EROSION AND SEDIMENT CONTROL PLAN
MORGAN HILL INCLUSIVE PLAYGROUND / MAGICAL BRIDGE PROJECT

FILE NUMBER: 1818000
PRINT DATE: 02/07/20
SHEET NUMBER: L2.1

BID SUBMITTAL - 02-07-20





AT SOFTSCAPE AT HARDSCAPE

NOTES:
1. INSTALL SEDIMENT RETENTION FIBER ROLLS (FIBER ROLLS / WATTLES) AS LOCATED ON PLANS AND AS REQUIRED PER THE STATE GENERAL PERMIT FOR STORMWATER DISCHARGE.
2. FIBER ROLLS SHALL BE CONSTRUCTED LONG ENOUGH TO EXTEND ACROSS FLOW PATH OF POTENTIAL RUN-OFF AND RUN-ON.
3. PREPARE GRADES REMOVING SURFACE DEVIATIONS, LARGE STONES OR DEBRIS THAT WILL INHIBIT CONTINUOUS CONTACT OF THE FIBER ROLL WITH THE GRADE.
4. PRIOR TO FILTER ROLL INSTALLATION EXCAVATE A CONCAVE TRENCH 2" MIN., 4" MAX. DEEP ALONG THE PROPOSED FIBER ROLL LOCATION.
5. INSTALL FIBER ROLLS WITH CONTINUOUS CONTACT OF THE BOTTOM OF THE EXCAVATED TRENCH.
6. STAKE ROLL ON BOTH SIDES 2' FROM OF ENDS AND AT 4' MAXIMUM SPACING WITH 2"X2"X24" STAKES. DRIVE STAKES IN ON ALTERNATING SIDES OF THE ROLL AND OVERLAP ABUTTING ROLL ENDS 12" MIN.
7. BACKFILLED BOTH SIDES TO WATTLE AND TAMP SOIL TO FIRM AND STABLE.
8. CONTRACTOR SHALL MAKE WEEKLY INSPECTIONS OR AS INDICATED IN STORMWATER POLLUTION PREVENTION PLAN, OR THE STATE GENERAL PERMIT FOR STORMWATER DISCHARGE.

B SEDIMENT RETENTION FIBER ROLL NTS

NOTES:
1. CONSTRUCTION SITE ACCESS SHALL BE CONSTRUCTED OF 1" TO 3" WASHED, WELL-GRADED GRAVEL OR CRUSHED ROCK. MATERIAL SHALL BE PLACED TO A MINIMUM THICKNESS OF 6".
2. LENGTH OF ENTRANCE SHALL BE A MINIMUM OF 50 FEET. WIDTH SHALL BE A MIN. OF 15' OR GREATER IF NECESSARY TO COVER ALL VEHICULAR INGRESS AND EGRESS. PROVIDE AMPLE TURNING RADII.
3. THE ENTRANCE SHALL BE KEPT IN GOOD CONDITION BY OCCASIONAL TOP DRESSING WITH MATERIAL AS SPECIFIED IN NOTE 1.
4. ACCESSES SHALL BE INSPECTED WEEKLY DURING PERIODS OF HEAVY USAGE, MONTHLY DURING NORMAL USAGE, AND AFTER EACH RAINFALL WITH MAINTENANCE PROVIDED AS NECESSARY. PERIODIC TOP DRESSING SHALL BE DONE AS NEEDED.
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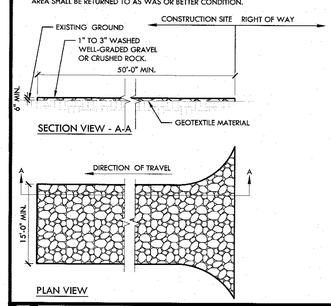
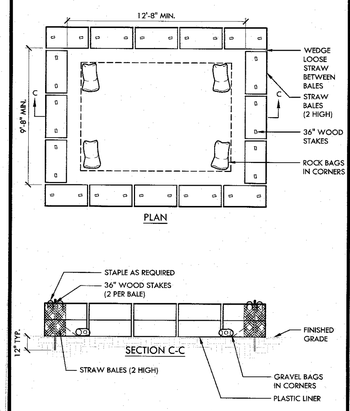


SECTION VIEW - A-A

PLAN VIEW

C STABILIZED CONSTRUCTION ENTRY NTS



PLAN

SECTION C-C

D TEMPORARY CONCRETE WASHOUT FACILITY

EROSION AND SEDIMENT CONTROL NOTES

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2. EROSION AND SEDIMENT CONTROL PLAN SHALL BE CONSTRUCTED DURING FIRST WEEK OF CONSTRUCTION.
3. EROSION AND SEDIMENT CONTROL SHALL REMAIN THROUGHOUT CONSTRUCTION AND REMAIN AND DISPOSED DURING MAINTENANCE PERIOD.
4. EROSION AND SEDIMENT CONTROL MAY BE ADJUSTED THROUGH CONSTRUCTION WITH APPROVAL OR AS DIRECTED BY OWNER'S REPRESENTATIVE.
5. CONTRACTOR TO IMPLEMENT BMPS TO KEEP A CLEAN SITE AND PREVENT RUNOFF POLLUTION.
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7. USE A BROOM OR OTHER DRY CLEANUP METHOD TO REMOVE ALL DIRT/MUD, GRAVEL, DEBRIS, REFUSE AND GREEN WASTE FROM ALL PAVED SURFACES AND THE PUBLIC SIDEWALK AND STREET PAVEMENT DAILY AND PRIOR TO RAIN.
8. CLEAN UP LEAKS, DRIPS AND SPILLS IMMEDIATELY.
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12. INSTALL AND MAINTAIN A CONSTRUCTION ENTRANCE TO MINIMIZE THE TRACKING OF DIRT, MUD, DUST AND/OR DEBRIS ONTO THE PUBLIC RIGHT-OF-WAY. DURING WET WEATHER, AVOID DRIVING VEHICLES WHERE MUD OR OTHER WASTES CAN BE TRACKED ONTO THE PUBLIC RIGHT-OF-WAY.
13. PROTECT ALL STORM DRAIN INLETS AND PERVIOUS CONCRETE SWALES IN THE VICINITY OF THE WORK SITE USING FILTER MATERIALS SUCH AS GRAVEL BAGS AND FILTER FABRIC. INLET PROTECTIONS SHALL BE INSTALLED PRIOR TO ANY ACTIVITY THAT MAY RESULT IN THE DISCHARGE OF MATERIAL TO THE STORM DRAIN AND AFTER INSTALLATION OF PERVIOUS CONCRETE SWALES. MAINTAIN THESE FILTER MATERIALS TO REMAIN EFFECTIVE AND REMOVE ANY ACCUMULATED SEDIMENT DEPOSITS. REMOVE THESE MATERIALS DURING PROJECT WRAP-UP.
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15. DESIGN ANY SITE DE-WATERING (I.E., THE REMOVAL OF WATER FROM AN EXCAVATION PIT) EFFORTS TO PREVENT THE DISCHARGE OF ANY SEDIMENT, DEBRIS OR OTHER POLLUTANTS TO THE STREET, SIDEWALK OR STORMWATER DRAINAGE SYSTEM.
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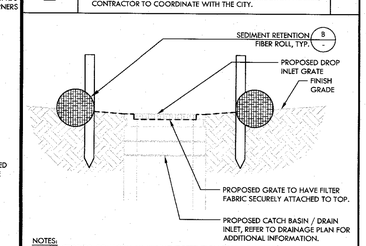
20. CONTRACTOR SHALL SWEEP STREETS AND PARKING AREAS AFFECTED BY CONSTRUCTION WITH STREET SWEEPER, DAILY OR AS REQUIRED TO KEEP PAVING CLEAN OF CONSTRUCTION DEBRIS.
21. DUST CONTROL REFER TO SPECIFICATIONS.

EROSION AND SEDIMENT CONTROL LEGEND

SYM	DESCRIPTION		DTL REF
	LIMIT OF WORK / CONSTRUCTION FENCING, REFER TO SPECIFICATIONS.	ORANGE FENCING, REFER TO SPECIFICATIONS	
	CONSTRUCTION STAGING AREA	CONTRACTOR EQUIPMENT HAUL ROUTE/ ACCESS	
	STABILIZED CONSTRUCTION ENTRY		C
	TEMPORARY CONCRETE WASHOUT FACILITY - PROVIDE A WASHOUT BIN FOR CONSTRUCTION WASHOUT AND REMOVE AT END OF CONSTRUCTION.		D
	SEDIMENT RETENTION FIBER FILTER ROLL BARRIER		B
1	STORM DRAIN INLET FILTER FABRIC TO BE SECURELY ATTACHED TO DRAINAGE STRUCTURE TOP (EXISTING AND PROPOSED) AND PERIMETER WADDLE.		A
	DIRECTION OF SURFACE FLOW		
	CITY STANDARD CONSTRUCTION SIGN AT CONSTRUCTION ACCESS, CONTRACTOR TO COORDINATE WITH THE CITY.		



NOTES:
CONTRACTOR TO CONFORM TO SEDIMENT RETENTION FIBER ROLL NOTES PROVIDED IN DETAIL B, THIS SHEET.

A STORM DRAIN INLET FILTER FOR (E) AND PROPOSED STORM DRAINS NTS

NORTH
0' 5' 10' 20' 30'

REGISTERED LANDSCAPE ARCHITECT
DEREK MORELL
No. 4148
Signature
EXPIRATION DATE: DEC. 2021
STATE OF CALIFORNIA

NO.	DESCRIPTION	DATE	BY

Revisions

WORK ACCEPTED: INSPECTOR:
BY: DATE:

DRAWN: VERDE DESIGN: CMES HOR: N/A
CHECKED: CMES / DM VERT: N/A
APPROVED: DATE: 2/10/20 JOB NUMBER:
SCOTT CRIEER – CITY ENGINEER
RCE#58879 EXP. 9/30/21

CITY OF MORGAN HILL
City of Morgan Hill
Public Works Department
17575 Peak Ave. Morgan Hill, CA 95037 (408)778-6480, Fax (408)779-7236

VERDE DESIGN
LANDSCAPE ARCHITECTURE CIVIL ENGINEERING SPORT PLANNING & DESIGN
2055 The Alameda, Ste 200 San Jose, CA 95050 tel: 408.985.7200 fax: 408.985.7260 www.verdedesigninc.com

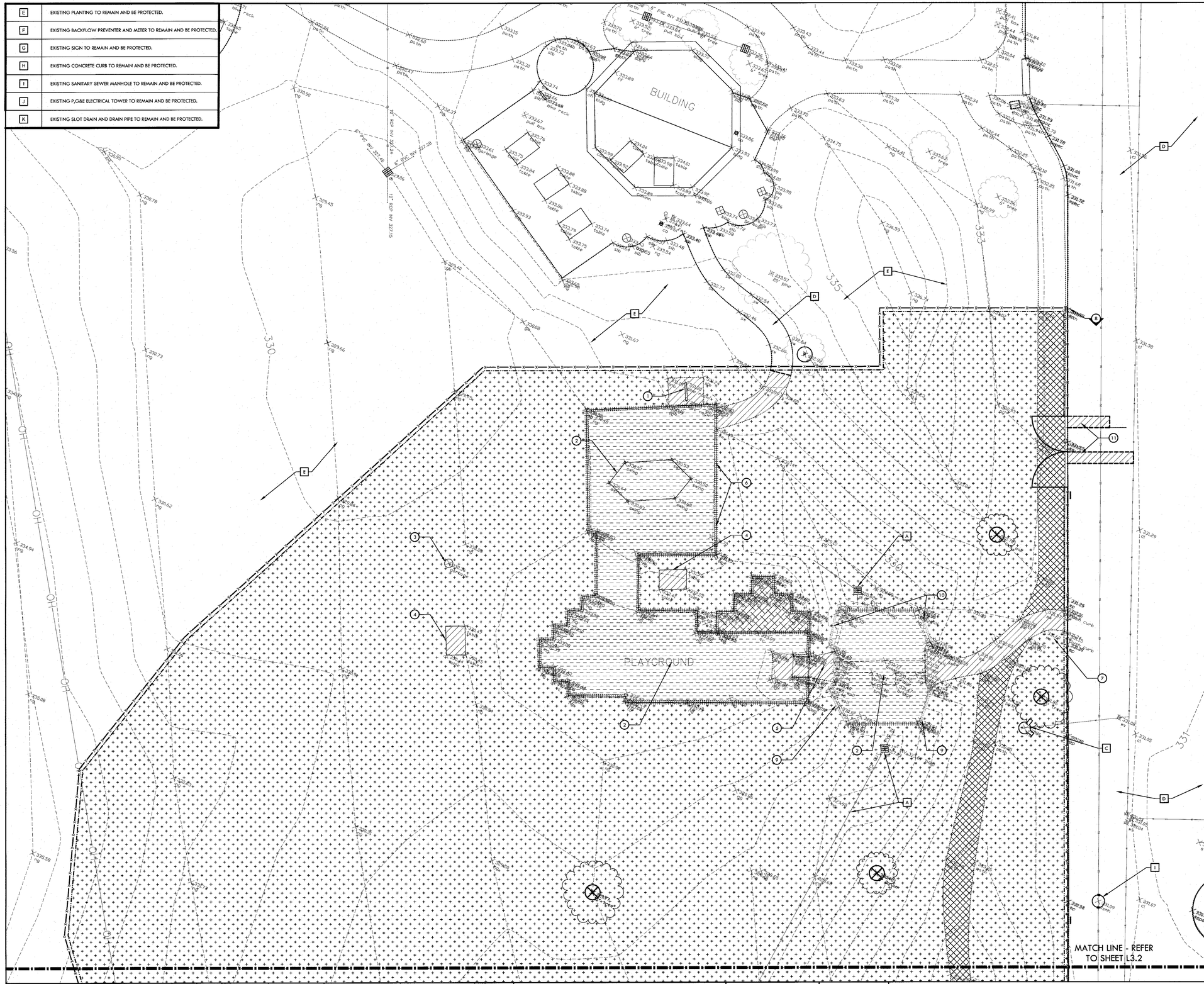
171 W EDMUNDSON AVE, MORGAN HILL, CA 95037

EROSION AND SEDIMENT CONTROL PLAN
MORGAN HILL INCLUSIVE PLAYGROUND / MAGICAL BRIDGE PROJECT

FILE NUMBER: 1818000
PRINT DATE: 02/07/20
SHEET NUMBER: L2.2

BID SUBMITTAL - 02-07-20

E	EXISTING PLANTING TO REMAIN AND BE PROTECTED.
F	EXISTING BACKFLOW PREVENTER AND METER TO REMAIN AND BE PROTECTED.
G	EXISTING SIGN TO REMAIN AND BE PROTECTED.
H	EXISTING CONCRETE CURB TO REMAIN AND BE PROTECTED.
I	EXISTING SANITARY SEWER MANHOLE TO REMAIN AND BE PROTECTED.
J	EXISTING P,G&E ELECTRICAL TOWER TO REMAIN AND BE PROTECTED.
K	EXISTING SLOT DRAIN AND DRAIN PIPE TO REMAIN AND BE PROTECTED.



DEMOLITION NOTES

1. THE CONTRACTOR SHALL PERFORM ALL CLEARING, DEMOLITION, SITE PREPARATIONS AND REMOVAL OF OBSTRUCTIONS NECESSARY FOR THE PROPER EXECUTION OF ALL WORK CONTAINED IN THE CONTRACT DOCUMENTS.
2. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO BID SUBMITTAL TO DETERMINE THE EXACT EXTENT AND DEPTH OF SITE DEMOLITION REQUIRED AND VERIFY COMPLIANCE WITH DRAWINGS. THE OWNER'S REPRESENTATIVE SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES.
3. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES, STRUCTURES, AND SERVICES BEFORE COMMENCING WORK. THE LOCATIONS OF UTILITIES, STRUCTURES, AND SERVICES SHOWN IN THE CONTRACT DOCUMENTS SHALL BE DEEMED TO BE APPROXIMATIONS ONLY. ALL DISCREPANCIES BETWEEN WHAT IS SHOWN AND THE ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE. THE CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT (USA) AT (800) 227-2600 PRIOR TO ANY DEMOLITION OR EXCAVATION. UPON COMPLETION OF USA MARKING OPERATIONS, THE CONTRACTOR SHALL RECORD ALL UTILITY MARKINGS ON A SEPARATE SET OF DRAWINGS AND BE PROVIDED TO OWNER AT COMPLETION OF CONSTRUCTION. THIS SET SHALL BE KEPT ON-SITE FOR REFERENCE FOR DURATION OF CONTRACT. NOTIFY THE OWNER IMMEDIATELY SHOULD CONFLICTS ARISE, AND REDIRECT WORK TO AVOID DELAY.
4. ALL EXISTING ITEMS ARE TO REMAIN UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING OR REPLACING, AT CONTRACTOR'S EXPENSE, ANY EXISTING ITEM DAMAGED OR DESTROYED BY CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR REPAIRING OR REPLACING ANY AND ALL DAMAGES TO ADJACENT PROPERTIES. THE DAMAGED ITEMS SHALL BE RESTORED TO AN "AS-WAS" OR BETTER CONDITION OR REPLACED PER THE DISCRETION OF THE OWNER.
5. PRIOR TO ANY DEMOLITION WORK, THE CONTRACTOR SHALL INSTALL SELF-SUPPORTING INTERLOCKING CHAIN-LINK TEMPORARY CONSTRUCTION FENCING TO ENCLOSE AND SECURE THE PROJECT AREA LIMIT OF WORK. THE FENCING SHALL CONTAIN PEDESTRIAN AND/OR VEHICULAR ACCESS GATES AS NECESSARY AND SHALL BE MINIMUM SIX (6) FEET HIGH, WITH A TOP AND BOTTOM RAIL KNUCKLED TOP AND BOTTOM SELVAGE (NO BARBED WIRE PERMITTED). THE CONSTRUCTION FENCING WORK SHALL BE SUBJECT TO THE DISCRETION OF THE OWNER.
6. PRIOR TO ANY DEMOLITION WORK, THE CONTRACTOR SHALL PROTECT ALL EXISTING PLANT MATERIALS NOT SCHEDULED FOR REMOVAL BY INSTALLING TEMPORARY FOUR (4) FOOT HIGH "BLAZE ORANGE" CONSTRUCTION SAFETY FENCING AT THE TREE DRIP LINES OR THE PERIMETER PERIMETER OF THE TREE GROUPINGS. THE FENCING SHALL BE SECURED WITH DRIVEN METAL STAKES. ALL TREE PROTECTION WORK SHALL BE SUBJECT TO THE DISCRETION OF THE OWNER.
7. THE CONTRACTOR SHALL PROVIDE THE REQUIRED COORDINATION OF ANY EXISTING UTILITY FOR ITS TEMPORARY DISCONNECTION, PROTECTION, REMOVAL AND/OR STORAGE AS MAY BE REQUIRED DURING CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER TO DETERMINE WHETHER TEMPORARY SERVICES ARE NECESSARY.
8. DEMOLITION SHALL INCLUDE THE REMOVAL OF DESIGNATED HARDSCAPE ITEMS AND ANY FOUNDATION, BASE MATERIAL OR STRUCTURAL SUPPORT RELATED TO THE ITEM. FOR PLANT MATERIAL, THIS SHALL INCLUDE STUMPS AND ROOTS OVER TWO (2) INCHES IN DIAMETER. REMOVAL SHALL INCLUDE DISPOSAL OFF-SITE IN A LEGAL MANNER ACCEPTABLE TO THE OWNER AND IN COMPLIANCE WITH ALL FEDERAL, STATE, AND LOCAL CODES AND ORDINANCES.
9. LOCATION OF THE UNDERGROUND UTILITIES IS AN APPROXIMATION AND SHOULD BE FIELD VERIFIED BY THE CONTRACTOR.
10. ANY (E) UTILITIES TO REMAIN SHALL RECEIVE A NEW UTILITY BOX IF LOCATED WITHIN LIMIT OF WORK.

DEMOLITION LEGEND

SYM	DESCRIPTION
	LIMIT OF WORK, REFER TO EROSION CONTROL PLAN
	CONSTRUCTION FENCING - REFER TO SPECIFICATIONS.
	EXISTING AREA TO BE CLEARED AND GRUBBED - REFER TO SPECIFICATIONS.
	EXISTING PLAY AREA FIBAR TO BE REMOVED AND DISPOSED OFF.
	EXISTING CONCRETE / ASPHALT PAVING TO BE DEMOLISHED AND REMOVED.
	EXISTING DECOMPOSED GRANITE PAVING TO BE REMOVED.
	EXISTING PLAY AREA SAND TO BE REMOVED.
	SAWCUT EXISTING PAVING
—	CITY STANDARD CONSTRUCTION SIGN AT CONSTRUCTION ACCESS, CONTRACTOR TO COORDINATE WITH THE CITY. (G 92-3)
⊗	REMOVE EXISTING TREES INCLUDING STUMPS, REFER TO SPECIFICATIONS.
(P)	EXISTING TREES TO REMAIN AND BE PROTECTED. ANY CLEAR AND GRUB WORK WITHIN TREE PROTECTION FENCING TO BE DONE BY HAND ONLY, REFER TO SPECIFICATIONS.
ITEMS TO BE DEMOLISHED AND REMOVED	
1	EXISTING BIKE RACK, INCLUDING FOOTING AND POST TO BE DEMOLISHED AND REMOVED.
2	EXISTING PLAY STRUCTURE AND ALL PLAY STRUCTURE COMPONENTS INCLUDING FOOTING AND POST TO BE DEMOLISHED AND REMOVED.
3	EXISTING GARBAGE CAN TO BE DEMOLISHED AND REMOVED.
4	EXISTING PICNIC TABLE TO BE DEMOLISHED AND REMOVED.
5	EXISTING CONCRETE RAMP / WALK TO BE DEMOLISHED AND REMOVED.
6	EXISTING PLAY AREA CONCRETE CURB TO BE DEMOLISHED AND REMOVED.
7	EXISTING SIGN INCLUDING POLE AND FOOTING TO BE DEMOLISHED AND REMOVED.
8	EXISTING ROAD CONCRETE CURB TO BE DEMOLISHED AND REMOVED.
9	EXISTING GUARDRAIL, POSTS AND FOOTING TO BE DEMOLISHED AND REMOVED.
10	EXISTING RETAINING WALL AND FOOTING TO BE DEMOLISHED AND REMOVED.
11	SAWCUT AND DEMOLISH EXISTING ASPHALT PAVING FOR INSTALLATION ON NEW SANITARY SEWER LINE AND SANITARY SEWER MANHOLE.
ITEMS TO BE PROTECTED OR RELOCATED	
A	EXISTING CATCH BASIN AND STORM DRAIN LINES TO REMAIN AND BE PROTECTED. CONTRACTOR SHALL FLUSH PIPES TO POINT OF CONNECTION TO ENSURE DRAINAGE.
B	EXISTING IRRIGATION VALVE TO REMAIN AND BE PROTECTED.
C	EXISTING FIRE HYDRANT TO REMAIN AND BE PROTECTED.
D	EXISTING PAVING TO REMAIN AND BE PROTECTED.

NORTH
0' 5' 10' 20' 30'

REGISTERED LANDSCAPE ARCHITECT
DEREK MCREE
No. 4148
Signature
EXPIRATION DATE: DEC. 2021
STATE OF CALIFORNIA

NO.	DESCRIPTION	DATE	BY

Revisions

WORK ACCEPTED: INSPECTOR: BY: DATE:

DRAWN: VERDE DESIGN: CMES HOR: N/A
CHECKED: CMES / DM VERT: N/A
APPROVED: DATE: 2/10/20 JOB NUMBER:
SCOTT GREER – CITY ENGINEER
RCE60879 EXP. 9/30/21

City of Morgan Hill
Public Works Department
CITY OF MORGAN HILL
17575 Peak Ave. Morgan Hill, CA 95037 (408)778-6480, Fax (408)779-7236

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171 W EDMUNDSON AVE, MORGAN HILL, CA 95037

DEMOLITION PLAN
MORGAN HILL INCLUSIVE PLAYGROUND / MAGICAL BRIDGE PROJECT

FILE NUMBER: 1818000
PRINT DATE: 02/07/20
SHEET NUMBER: L3.1

BID SUBMITTAL - 02-07-20

E	EXISTING PLANTING TO REMAIN AND BE PROTECTED.
F	EXISTING BACKFLOW PREVENTER AND METER TO REMAIN AND BE PROTECTED.
G	EXISTING SIGN TO REMAIN AND BE PROTECTED.
H	EXISTING CONCRETE CURB TO REMAIN AND BE PROTECTED.
I	EXISTING SANITARY SEWER MANHOLE TO REMAIN AND BE PROTECTED.
J	EXISTING P,G&E ELECTRICAL TOWER TO REMAIN AND BE PROTECTED.
K	EXISTING SLOT DRAIN AND DRAIN PIPE TO REMAIN AND BE PROTECTED.

DEMOLITION NOTES

1. THE CONTRACTOR SHALL PERFORM ALL CLEARING, DEMOLITION, SITE PREPARATIONS AND REMOVAL OF OBSTRUCTIONS NECESSARY FOR THE PROPER EXECUTION OF ALL WORK CONTAINED IN THE CONTRACT DOCUMENTS.
2. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO BID SUBMITTAL TO DETERMINE THE EXACT EXTENT AND DEPTH OF SITE DEMOLITION REQUIRED AND VERIFY COMPLIANCE WITH DRAWINGS. THE OWNER'S REPRESENTATIVE SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES.
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	EXISTING DECOMPOSED GRANITE PAVING TO BE REMOVED.
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NORTH

0' 5' 10' 20' 30'

REGISTERED LANDSCAPE ARCHITECT
DEREK MORGE
No. 4148
Signature
EXPIRATION DATE: DEC. 2021
STATE OF CALIFORNIA

NO.	DESCRIPTION	DATE	BY

Revisions

WORK ACCEPTED: INSPECTOR:
BY: DATE:

DRAWN: VERDE DESIGN: CMES HOR: N/A
CHECKED: CMES / DM VERT: N/A
APPROVED: DATE: 2/10/20 JOB NUMBER:
SCOTT GREER - CITY ENGINEER
RCE 66679 EXP. 9/30/21

CITY OF MORGAN HILL
City of Morgan Hill
Public Works Department
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171 W
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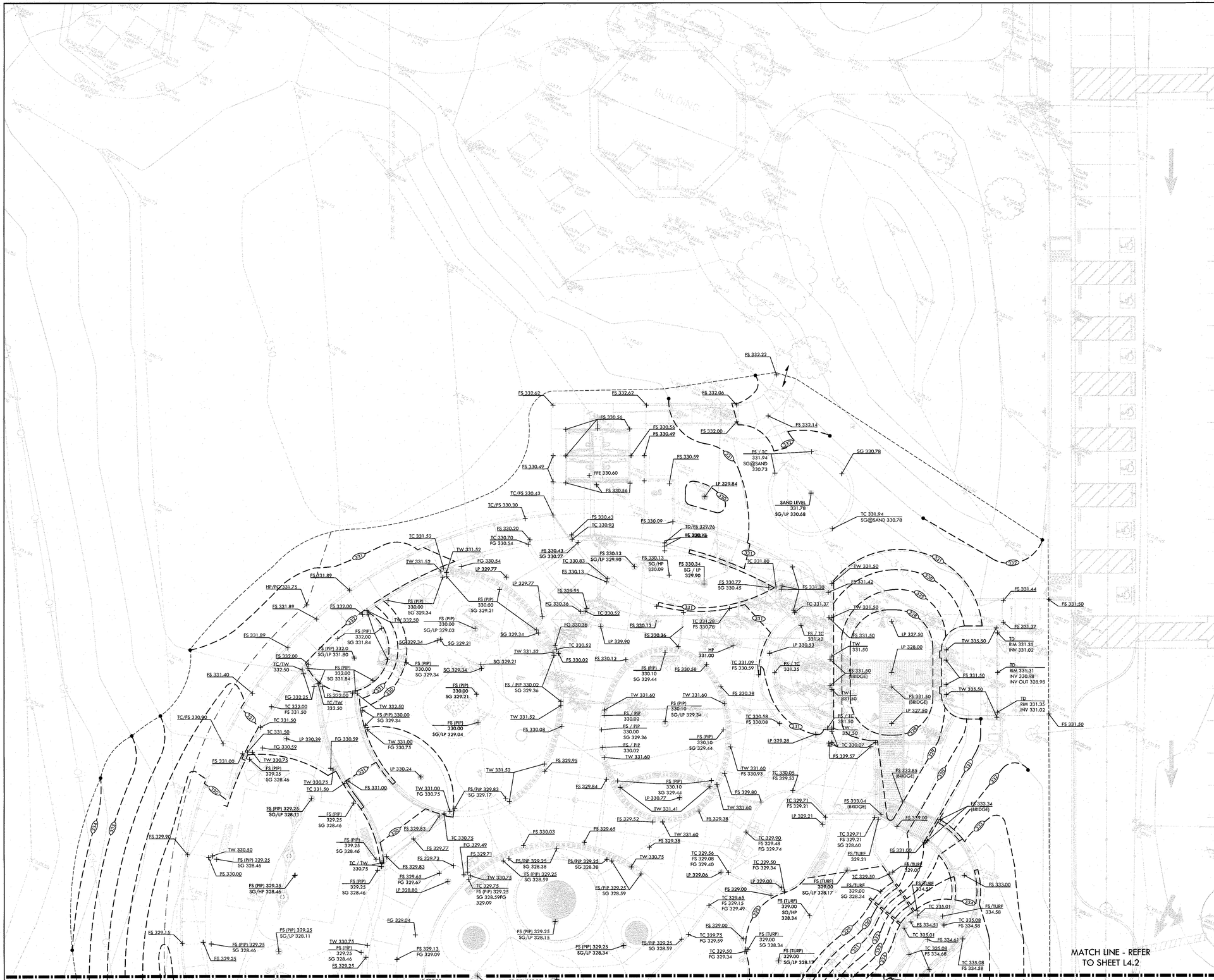
MORGAN HILL,
CA 95037

DEMOLITION PLAN
MORGAN HILL INCLUSIVE PLAYGROUND / MAGICAL BRIDGE PROJECT

FILE NUMBER: 1818000
PRINT DATE: 02/07/20
SHEET NUMBER: L3.2

BID SUBMITTAL - 02-07-20



GRADING NOTES

1. EXISTING GRADES ARE BASED ON INFORMATION PROVIDED BY: UNDERWOOD AND ROSENBLUM, INC. CONTRACTOR SHALL VERIFY EXISTING GRADES FOR ACCURACY PRIOR TO THE START OF GRADING, NOTIFY THE OWNER'S REPRESENTATIVE IMMEDIATELY SHOULD CONFLICTS ARISE AND REDIRECT WORK TO AVOID DELAY.
2. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES, STRUCTURES AND SERVICES BEFORE COMMENCING WORK. THE LOCATIONS OF UTILITIES, STRUCTURES AND SERVICES SHOWN IN THE CONTRACT DOCUMENTS SHALL BE DEEMED TO BE APPROXIMATIONS ONLY. ALL DISCREPANCIES BETWEEN WHAT IS SHOWN AND THE ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE. THE CONTRACTOR SHALL CONTACT UNDER GROUND SERVICE ALERT (USA) AT (800) 227-2600 PRIOR TO ANY DEMOLITION OR EXCAVATION. UPON COMPLETION OF USA MARKING OPERATIONS, CONTRACTOR SHALL RECORD ALL UTILITY MARKINGS ON A SEPARATE SET OF DRAWINGS. THIS SET SHALL BE KEPT ON-SITE FOR REFERENCE FOR DURATION OF CONTRACT.
3. PROPOSED GRADES SHALL MEET EXISTING GRADES WITH A SMOOTH AND CONTINUOUS TRANSITION SO AS TO AVOID TRAPPING WATER. CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE IF PUDDLING IS SUSPECTED AND REDIRECT WORK SO AS TO AVOID DELAY WHILE AWAITING RESPONSE.
4. ALL EXISTING DRAINAGE STRUCTURES, BOXES, UTILITY VAULTS ETC. SHALL BE BROUGHT TO FINAL FINISH GRADE PRIOR TO FINAL SURFACE TREATMENT.
5. BUILDING FOUNDATION DESIGN IS TO BE DEVELOPED BY THE BUILDING MANUFACTURER AND SHALL CONFORM TO THE GEOTECHNICAL REPORT GUIDELINES. ALL SOIL PREPARATION FOR THE BUILDING FOUNDATION IS TO BE BY THE GENERAL CONTRACTOR.
6. CONTRACTOR IS REQUIRED TO TEST ALL SOIL AND MATERIALS AND PROVIDE TEST INFORMATION OBTAINED FOR OWNER REVIEW PRIOR TO REMOVAL FROM THE SITE.
7. CONTRACTOR SHALL SUBMIT DISPOSAL PROCEDURES AND LOCATION PRIOR TO REMOVAL FROM SITE.

GRADING LEGEND

SYM	DESCRIPTION
330	PROPOSED CONTOUR
FG 330.00	PROPOSED FINISH GRADE ELEVATION OF SOFTSCAPE.
FS 330.00	PROPOSED FINISH SURFACE ELEVATION OF HARDSCAPE.
FS (TURF) 330.00	PROPOSED FINISH SURFACE ELEVATION OF TURF.
PIP 330.00	PROPOSED FINISH SURFACE ELEVATION OF RESILIENT RUBBER SURFACING.
SG 328.41	SUBGRADE ELEVATION AT THE TOP OF COMPACTED SUBGRADE
FL 330.00	FLOW LINE ELEVATION
LP/RIM 330.00	LOW POINT/ RIM ELEVATION OF DRAIN
TC 330.00 BC 329.50	TOP OF CURB / BOTTOM OF CURB
TW 330.00 BW 328.50	TOP OF WALL / BOTTOM OF WALL
330	EXISTING CONTOUR
329.09	EXISTING ELEVATION
	CONFORM TO EXISTING GRADE
	SLOPE / FLOW DIRECTION
	LIMIT OF GRADING - CONFORM TO EXISTING GRADES AT THIS LINE
	EARTH SWALE AT SUBGRADE ELEVATION
	RIDGE LINE

NORTH

0' 5' 10' 20' 30'

REGISTERED LANDSCAPE ARCHITECT
DEREK MORSE
No. 4148
Signature
EXPIRATION DATE: DEC. 2021
STATE OF CALIFORNIA

NO.	DESCRIPTION	DATE	BY

Revisions

WORK ACCEPTED: INSPECTOR:
BY: DATE:

DRAWN: VERDE DESIGN: CMES HOR: N/A
CHECKED: CMES / DM VERT: N/A
APPROVED: DATE: 2/6/20 JOB NUMBER:
SCOTT CREER - CITY ENGINEER
RCE58879 EXP. 9/30/21

City of Morgan Hill
Public Works Department
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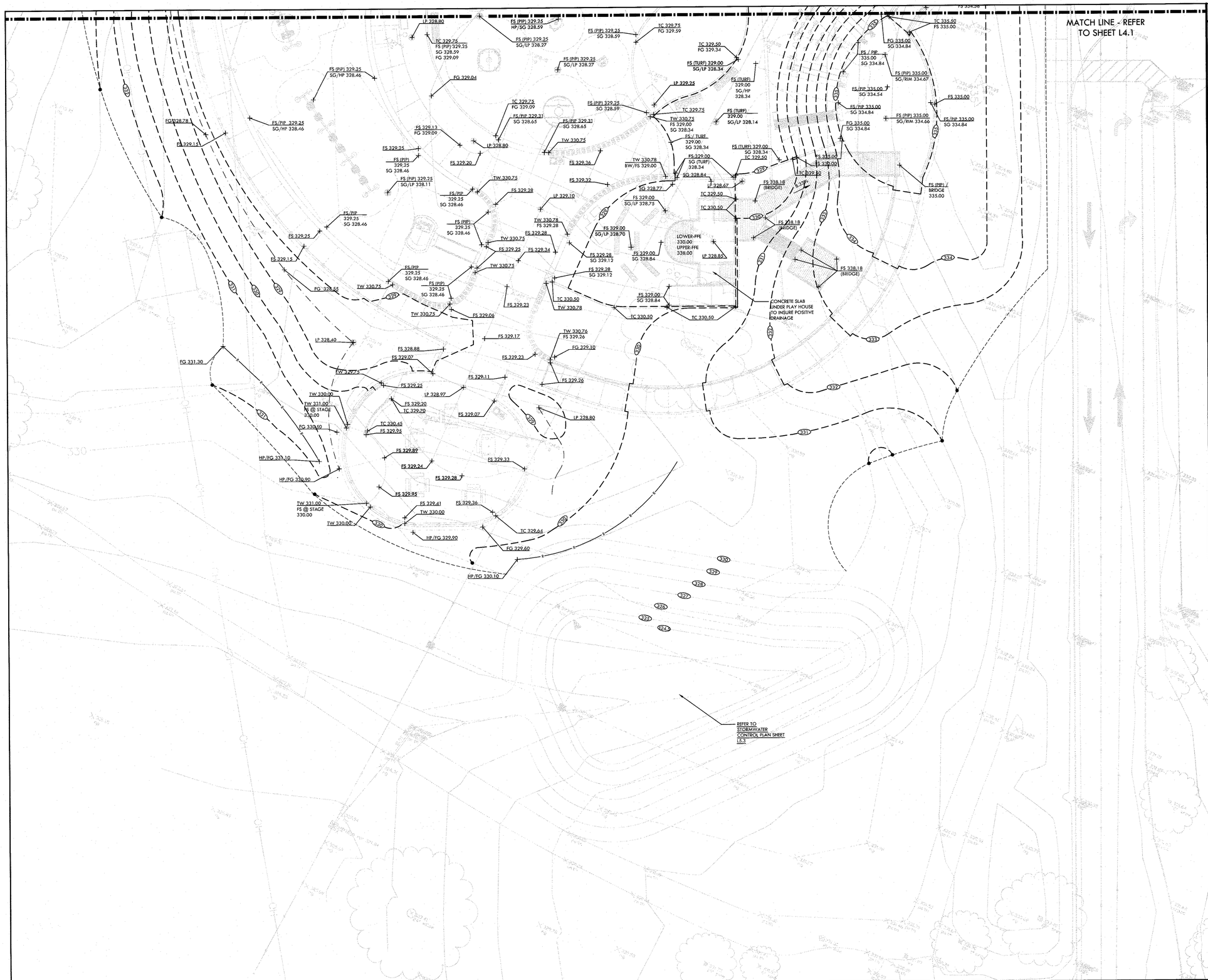
GRADING PLAN

MORGAN HILL INCLUSIVE PLAYGROUND / MAGICAL BRIDGE PROJECT

FILE NUMBER: 1818000
PRINT DATE: 02/07/20
SHEET NUMBER: L4.1

BID SUBMITTAL - 02-07-20



GRADING NOTES

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TW 330.00 BW 328.50	TOP OF WALL / BOTTOM OF WALL
	EXISTING CONTOUR
123.45	EXISTING ELEVATION
	CONFORM TO EXISTING GRADE
	SLOPE / FLOW DIRECTION
	LIMIT OF GRADING - CONFORM TO EXISTING GRADES AT THIS LINE
	EARTH SWALE AT SUBGRADE ELEVATION
R	RIDGE LINE

NORTH

0' 5' 10' 20' 30'

REGISTERED LANDSCAPE ARCHITECT
DEREK MORELL
No. 4148
Signature
EXPIRATION DATE: DEC. 2021
STATE OF CALIFORNIA

NO.	DESCRIPTION	DATE	BY

Revisions

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DRAWN: VERDE
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SCOTT CREER - CITY ENGINEER
RCE 60875 EXP. 9/30/21

HOR: N/A
VERT: N/A
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GRADING PLAN
MORGAN HILL INCLUSIVE PLAYGROUND / MAGICAL BRIDGE PROJECT

FILE NUMBER: 1818000
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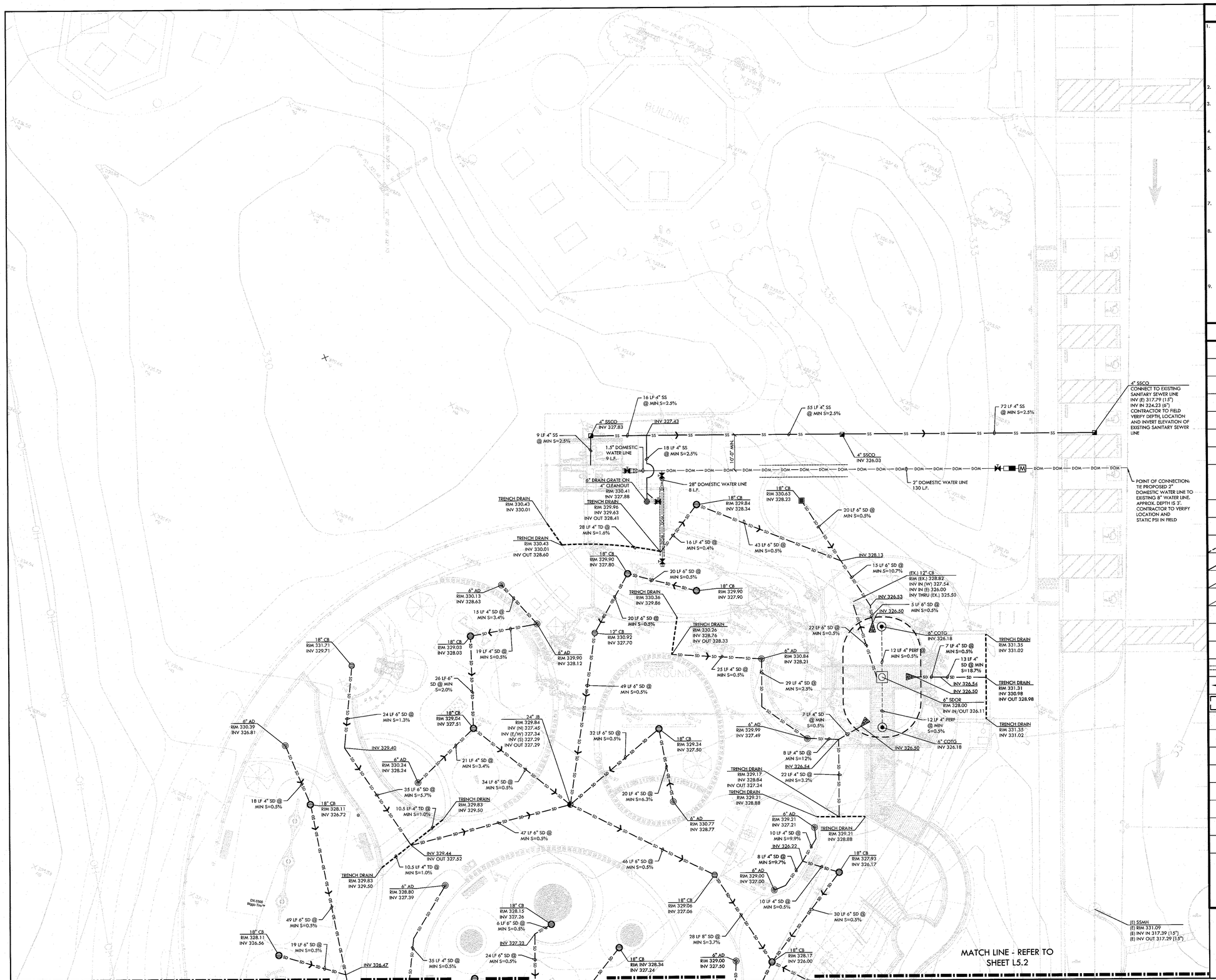
BID SUBMITTAL - 02-07-20



DRAINAGE & UTILITY NOTES

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2. ALL EXISTING DRAINAGE STRUCTURES, BOXES, UTILITY VAULTS ETC. TO REMAIN, SHALL BE BROUGHT TO FINAL FINISH GRADE PRIOR TO FINAL SURFACE TREATMENT.
3. THE CONTRACTOR IS TO PROTECT DRAINAGE SYSTEM FROM DEBRIS, INCLUDING SOIL, ROCK MATERIAL, AND TRASH FROM ENTERING THE PIPE DURING CONSTRUCTION. CONTRACTOR SHALL AVOID PLACING CONSTRUCTION VEHICLES OVER INSTALLED DRAINAGE TRENCHES TO PREVENT CRUSHING OF PIPE.
4. COORDINATE ALL SLEEVING AND UTILITY LOCATIONS AS SHOWN ON THE PLANS AND DETAILS CONTAINED WITHIN THESE CONTRACT DOCUMENTS.
5. THE CONTRACTOR IS TO ENSURE THAT ALL REMAINING ACTIVE AND NEW DRAINAGE AND UTILITY LINES ARE PROTECTED AND UNDAMAGED FROM TRENCHING AND FOOTING EXCAVATIONS FOR NEW FOOTINGS, PARTICULARLY FOR NEW FENCING AND WALLS.
6. ALL ABANDONED STORM LINES SHALL REMAIN IN PLACE UNLESS IN CONFLICT WITH PROPOSED DRAINAGE, UTILITY, OR SUBGRADING OPERATIONS, IN WHICH CASE ABANDONED PIPE IN CONFLICT SHALL BE REMOVED. REMAINING ABANDONED STORM PIPE SHALL BE SEALED WITH APPROPRIATELY SIZED CONCRETE CAP (3 SACK MIX) 6" ENVELOPE OUTSIDE AND INSIDE DIAMETER OF PIPE.
7. PRIOR TO ALL DRAINAGE AND UTILITY WORK, CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL POTENTIAL DRAINAGE CONNECTIONS AND EXISTING UTILITY BY POTHOLING. IN ADDITION, ALL DOWNSTREAM CONNECTIONS TO EXISTING STRUCTURES SHALL BE THE START OF THESE OPERATIONS, AND GRADES SHALL BE VERIFIED.
8. WHEN WORK HAS TO OCCUR UNDER THE DRIPLINE OF EXISTING TREES NOT SCHEDULED FOR REMOVAL, THE CONTRACTOR SHALL USE ALL POSSIBLE CARE TO AVOID INJURY TO THE TREES AND TREE ROOTS. GRADE IN LINES RADIAL TO THE EXISTING TREES RATHER THAN TANGENTIAL. ALL PARTIAL CUTS OR TEARS THROUGH ROOTS TWO INCHES IN DIAMETER AND LARGER SHALL BE CUT CLEAN. TRENCHES ADJACENT TO TREES SHALL BE FILLED WITHIN 24 HOURS AFTER EXCAVATION, BUT WHERE THIS IS NOT POSSIBLE, THE SIDE OF THE TRENCH ADJACENT TO THE TREE, AND ANY EXPOSED ROOTS SHALL BE KEPT SHADED AND MOIST WITH DAMPENED BURLAP OR CANVAS. REFER TO CITY SPECIFICATIONS SECTION ON TREE TRIMMING AND PROTECTION.
9. CONTRACTOR SHALL COORDINATE WITH THE MODULAR BUILDING MANUFACTURER FOR THE BUILDINGS' UTILITY CONNECTIONS FOR PROPER LAYOUT OF SITE UTILITIES.

DRAINAGE & UTILITY LEGEND

SYM	DESCRIPTION	DETAIL NUMBER / SHEET NUMBER
	CLEANOUT IN PLANTING	E / D1.2
	SANITARY SEWER CLEANOUT - TWO WAY	E / D1.1
	OVERFLOW RISER WITH GRATE/STANDPIPE AT BIOINFILTRATION AREA	K / D1.2
	AREA DRAIN IN PLANTER AREA, SIZE PER PLAN	F / D1.2
	CATCH BASIN IN HARDSCAPE, SIZE PER PLAN	I / D1.2
	CATCH BASIN IN SAND PLAY AREA, SIZE PER PLAN	N / D1.2
	CATCH BASIN UNDER SYNTHETIC TURF / RESILIENT SURFACING, SIZE PER PLAN, REFER TO MATERIAL PLAN FOR ADDITIONAL INFORMATION	B,C / D1.2; D,G / D1.2
	JUNCTION BOX, SIZE PER PLAN	N / D1.2
	ENERGY DISSIPATER FROM DRAINAGE LINE	L / D1.2
	TRENCH DRAIN, REFER TO SPECIFICATIONS	A / D1.2
SD	SOLID WALL STORM DRAIN (SD), REFER TO SPECIFICATIONS	A,B,C / D1.1
SS	SANITARY SEWER LINE (SS), HDPE, REFER TO SPECIFICATIONS	F,G / D1.1
DOM	1" DOMESTIC WATER LINE	J,N / D1.2
M	CONCRETE METER BOX, METER BY THE CITY	N / D1.2
	BACKFLOW PREVENTER - FEBCO 825Y	F,H / D3.1
	GATE VALVE - NIBCO, T-113-LF BRONZE GATE VALVE FOR VALVE 2" AND SMALLER IN SIZE	J,N / D1.2
	SLEEVE - CLASS 200 PVC, SIZE AS NOTED, WITH 30" COVER, REFER TO SPECIFICATIONS	J,N / D1.2
	SLOPE / FLOW DIRECTION	
	OUTLINE OF C3 BIORETENTION AREA	K / D1.2
COTG	CLEANOUT TO GRADE	
INV	INVERT	
JB	JUNCTION BOX	
LF	LINEAL FEET	
MIN.	MINIMUM	
SD	STORM DRAIN	
S=0.5%	SLOPE	
(EX)	EXISTING	

NORTH

0' 5' 10' 20' 30'

REGISTERED LANDSCAPE ARCHITECT DEREK MORES No. 4148 Signature EXPIRATION DATE: DEC. 2021 STATE OF CALIFORNIA

NO.	DESCRIPTION	DATE	BY

Revisions

WORK ACCEPTED: INSPECTOR: BY: DATE:

DRAWN: VERDE DESIGN: CMES HOR: N/A
CHECKED: CMES / DM VERT: N/A
APPROVED: DATE: 2/10/20 JOB NUMBER:
SCOTT GREER - CITY ENGINEER RCE#60879 EXP. 9/30/21

City of Morgan Hill
Public Works Department
CITY OF MORGAN HILL
17575 Peak Ave. Morgan Hill, CA 95037 (408)778-6480, Fax (408)779-7236

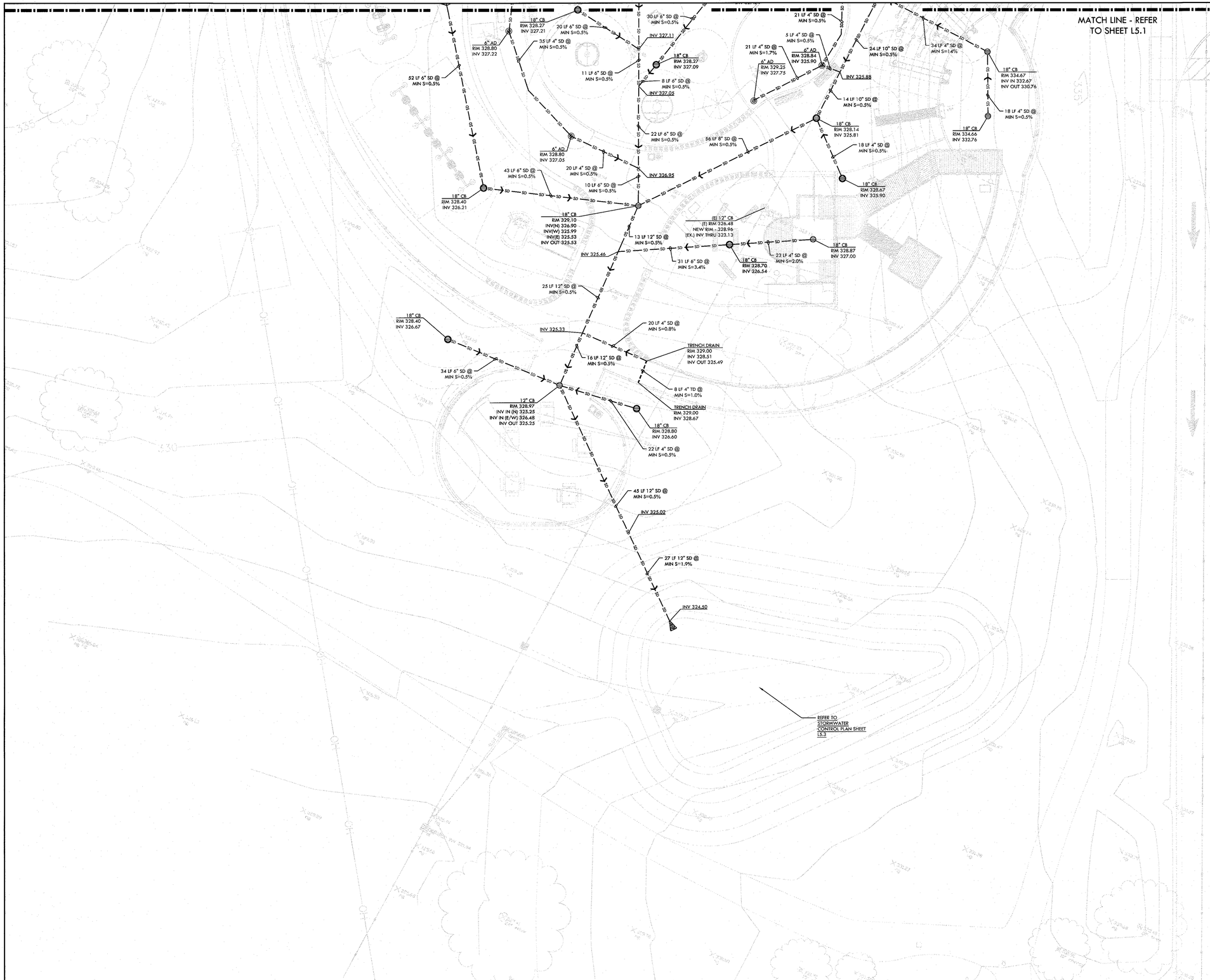
VERDE DESIGN
LANDSCAPE ARCHITECTURE CIVIL ENGINEERING SPORT PLANNING & DESIGN
2495 The Alameda, Ste. 200 Santa Clara, CA 95050 tel: 408.985.7200 fax: 408.985.7300 www.verdedesigninc.com

171 W EDMUNDSON AVE, MORGAN HILL, CA 95037

DRAINAGE AND UTILITIES PLAN
MORGAN HILL INCLUSIVE PLAYGROUND / MAGICAL BRIDGE PROJECT

FILE NUMBER: 1818000
PRINT DATE: 02/07/20
SHEET NUMBER: L5.1

BID SUBMITTAL - 02-07-20



DRAINAGE & UTILITY NOTES

1. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES, STRUCTURES, AND SERVICES BEFORE COMMENCING WORK. THE LOCATIONS OF UTILITIES, STRUCTURES, AND SERVICES SHOWN IN THE CONTRACT DOCUMENTS SHALL BE DEEMED TO BE APPROXIMATIONS ONLY. ALL DISCREPANCIES BETWEEN WHAT IS SHOWN AND THE ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE. THE CONTRACTOR SHALL CONTACT UNDER GROUND SERVICE ALERT (USA) AT (800) 227-2600 PRIOR TO ANY DEMOLITION OR EXCAVATION. UPON COMPLETION OF USA MARKING OPERATIONS, CONTRACTOR SHALL RECORD ALL UTILITY MARKINGS ON A SEPARATE SET OF DRAWINGS. THIS SET SHALL BE KEPT ON-SITE FOR REFERENCE FOR DURATION OF CONTRACT.
2. ALL EXISTING DRAINAGE STRUCTURES, BOXES, UTILITY VAULTS ETC. TO REMAIN, SHALL BE BROUGHT TO FINAL FINISH GRADE PRIOR TO FINAL SURFACE TREATMENT.
3. THE CONTRACTOR IS TO PROTECT DRAINAGE SYSTEM FROM DEBRIS, INCLUDING SOIL, ROCK MATERIAL, AND TRASH FROM ENTERING THE PIPE DURING CONSTRUCTION. CONTRACTOR SHALL AVOID PLACING CONSTRUCTION VEHICLES OVER INSTALLED DRAINAGE TRENCHES TO PREVENT CRUSHING OF PIPE.
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6. ALL ABANDONED STORM LINES SHALL REMAIN IN PLACE UNLESS IN CONFLICT WITH PROPOSED DRAINAGE, UTILITY, OR SUBGRADING OPERATIONS, IN WHICH CASE ABANDONED PIPE IN CONFLICT SHALL BE REMOVED. REMAINING ABANDONED STORM PIPE SHALL BE SEALED WITH APPROPRIATELY SIZED CONCRETE CAP (3 SACK MIX) 6" ENVELOPE OUTSIDE AND INSIDE DIAMETER OF PIPE.
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DRAINAGE & UTILITY LEGEND

SYM	DESCRIPTION	DETAIL NUMBER / SHEET NUMBER
	CLEANOUT IN PLANTING	E D1.2
	SANITARY SEWER CLEANOUT - TWO WAY	E D1.1
	OVERFLOW RISER WITH GRATE/STANDPIPE AT BIOINFILTRATION AREA	K D1.2
	AREA DRAIN IN PLANTER AREA, SIZE PER PLAN	F D1.2
	CATCH BASIN IN HARDSCAPE, SIZE PER PLAN	J D1.2
	CATCH BASIN IN SAND PLAY AREA, SIZE PER PLAN	M D1.2
	CATCH BASIN UNDER SYNTHETIC TURF / RESILIENT SURFACING, SIZE PER PLAN, REFER TO MATERIAL PLAN FOR ADDITIONAL INFORMATION	A,C D1.2 / D,G D1.2
	JUNCTION BOX, SIZE PER PLAN	H D1.2
	ENERGY DISSIPATER FROM DRAINAGE LINE	I D1.2
	TRENCH DRAIN, REFER TO SPECIFICATIONS	A D1.2
SD	SOLID WALL STORM DRAIN (SD), REFER TO SPECIFICATIONS	A,C,E D1.1
SS	SANITARY SEWER LINE (SS), HDPE, REFER TO SPECIFICATIONS	F,G,I D1.1
DOM	1" DOMESTIC WATER LINE	J,N D1.2
M	CONCRETE METER BOX, METER BY THE CITY	N D1.2
	BACKFLOW PREVENTER - FEBCO 825Y	F,H D3.1
	GATE VALVE - NIBCO- T-113-LF BRONZE GATE VALVE FOR VALVE 2" AND SMALLER IN SIZE	J,N D1.2
	SLEEVE - CLASS 200 PVC, SIZE AS NOTED, WITH 30" COVER, REFER TO SPECIFICATIONS	J,N D1.2
	SLOPE / FLOW DIRECTION	
	OUTLINE OF C3 BIORETENTION AREA	K D1.2
COTG	CLEANOUT TO GRADE	
INV	INVERT	
JB	JUNCTION BOX	
LF	LINEAL FEET	
MIN.	MINIMUM	
SD	STORM DRAIN	
S=0.5%	SLOPE	
(EX)	EXISTING	

NORTH

0' 5' 10' 20' 30'

REGISTERED LANDSCAPE ARCHITECT
DEREK MORK
No. 4148
SIGNATURE
EXPIRATION DATE: DEC. 2021
STATE OF CALIFORNIA

NO.	DESCRIPTION	DATE	BY

Revisions

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SCOTT CREER – CITY ENGINEER
RCE#68673 EXP. 9/30/21

CITY OF MORGAN HILL

City of Morgan Hill
Public Works Department

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VERDE DESIGN

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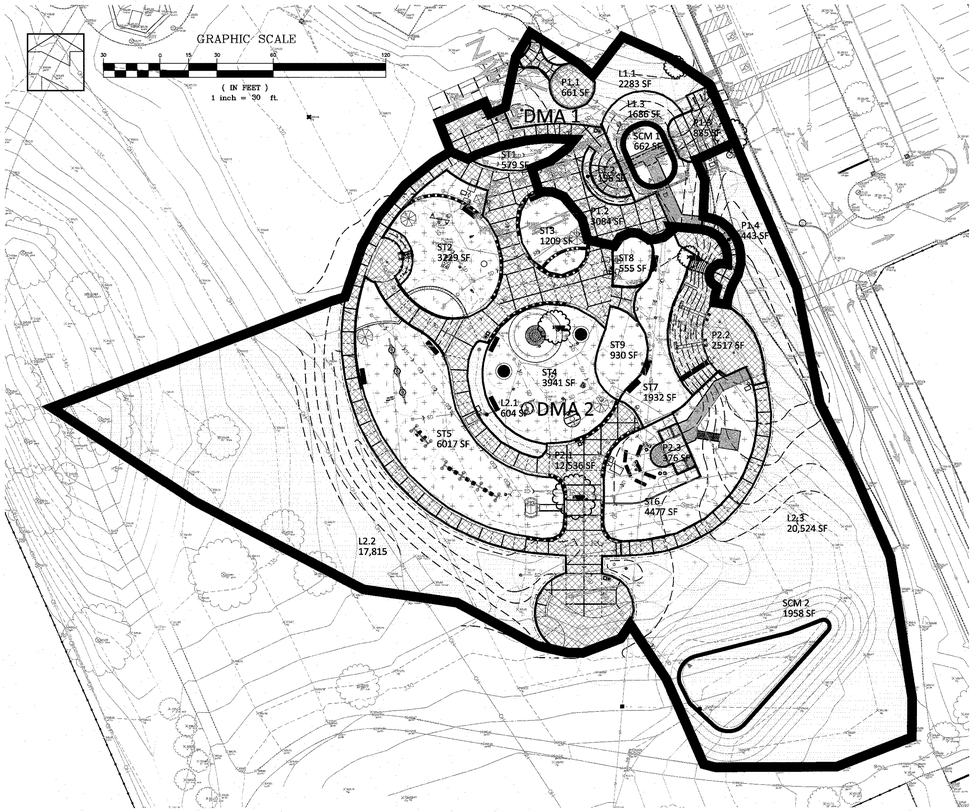
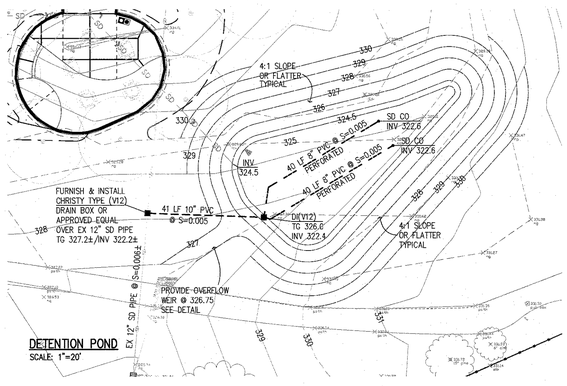
DRAINAGE AND UTILITIES PLAN
MORGAN HILL INCLUSIVE PLAYGROUND / MAGICAL BRIDGE PROJECT

FILE NUMBER: 1818000
PRINT DATE: 02/07/20
SHEET NUMBER: L5.2

BID SUBMITTAL - 02.07.20





DETENTION POND
SCALE: 1"=20'

TABLE 1	FOR BIORETENTION AREAS	ROUTINE MAINTENANCE ACTIVITIES
NO.	MAINTENANCE TASK	FREQUENCY OF TASK
1	REMOVE OBSTRUCTIONS, WEEDS, DEBRIS AND TRASH FROM BIORETENTION AREA AND ITS INLETS AND OUTLETS; AND DISPOSE OF PROPERLY.	QUARTERLY, OR AS NEEDED AFTER STORM EVENTS
2	INSPECT BIORETENTION AREA FOR STANDING WATER. IF STANDING WATER DOES NOT DRAIN WITHIN 2-3 DAYS, TILL AND REPLACE THE SURFACE BIOTREATMENT SOIL WITH THE APPROVED SOIL MIX AND REPLANT.	QUARTERLY, OR AS NEEDED AFTER STORM EVENTS
3	CHECK UNDERDRAINS FOR CLOGGING. USE THE CLEANOUT RISER TO CLEAN ANY CLOGGED UNDERDRAINS.	QUARTERLY, OR AS NEEDED AFTER STORM EVENTS
4	MAINTAIN THE IRRIGATION SYSTEM AND ENSURE THAT PLANTS ARE RECEIVING THE CORRECT AMOUNT OF WATER (IF APPLICABLE).	QUARTERLY
5	ENSURE THAT THE VEGETATION IS HEALTHY AND DENSE ENOUGH TO PROVIDE FILTERING AND PROTECT SOILS FROM EROSION. PRUNE AND WEED THE BIORETENTION AREA. REMOVE AND/OR REPLACE ANY DEAD PLANTS.	ANNUALLY, BEFORE THE WET SEASON BEGINS
6	USE COMPOST AND OTHER NATURAL SOIL AMENDMENTS AND FERTILIZERS INSTEAD OF SYNTHETIC FERTILIZERS, ESPECIALLY IF THE SYSTEM USES AN UNDERDRAIN.	ANNUALLY, BEFORE THE WET SEASON BEGINS
7	CHECK THAT MULCH IS AT APPROPRIATE DEPTH (2 - 3 INCHES PER SOIL SPECIFICATIONS) AND REPLENISH AS NECESSARY BEFORE WET SEASON BEGINS. IT IS RECOMMENDED THAT 2" – 3" OF ARBOR MULCH BE REAPPLIED EVERY YEAR.	ANNUALLY, BEFORE THE WET SEASON BEGINS
8	INSPECT THE ENERGY DISSIPATION AT THE INLET TO ENSURE IT IS FUNCTIONING ADEQUATELY, AND THAT THERE IS NO SCOUR OF THE SURFACE MULCH. REMOVE ACCUMULATED SEDIMENT.	ANNUALLY, BEFORE THE WET SEASON BEGINS
9	INSPECT OVERFLOW PIPE TO ENSURE THAT IT CAN SAFELY CONVEY EXCESS FLOWS TO A STORM DRAIN. REPAIR OR REPLACE DAMAGED PIPING.	ANNUALLY, BEFORE THE WET SEASON BEGINS
10	REPLACE BIOTREATMENT SOIL AND MULCH, IF NEEDED. CHECK FOR STANDING WATER, STRUCTURAL FAILURE AND CLOGGED OVERFLOWS. REMOVE TRASH AND DEBRIS. REPLACE DEAD PLANTS.	ANNUALLY, BEFORE THE WET SEASON BEGINS
11	INSPECT BIORETENTION AREA USING THE ATTACHED INSPECTION CHECKLIST.	ANNUALLY, BEFORE THE WET SEASON

TABLE 1	FOR PERVIOUS PAVEMENT	ROUTINE MAINTENANCE ACTIVITIES
NO.	MAINTENANCE TASK	FREQUENCY OF TASK
1	CHECK FOR SEDIMENT AND DEBRIS ACCUMULATION. PREVENT SOIL FROM WASHING OR BLOWING ONTO THE PAVEMENT. DO NOT STORE SAND, SOIL, MULCH OR OTHER LANDSCAPING MATERIALS ON PERVIOUS PAVEMENT SURFACES.	TWO TO FOUR TIMES ANNUALLY
2	CONDUCT PREVENTATIVE SURFACE CLEANING, USING COMMERCIALLY AVAILABLE REGENERATIVE AIR OR VACUUM SWEEPERS, TO REMOVE SEDIMENT AND DEBRIS.	TWO TO FOUR TIMES ANNUALLY
3	INSPECT FOR ANY SIGNS OF PAVEMENT FAILURE. REPAIR ANY SURFACE DEFORMATIONS OR BROKEN PAVERS. REPLACE MISSING JOINT FILLER IN PICP.	TWO TO FOUR TIMES ANNUALLY
4	CHECK FOR STANDING WATER ON THE PAVEMENT SURFACE WITHIN 30 MINUTES AFTER A STORM EVENT.	TWO TO FOUR TIMES ANNUALLY
5	INSPECT UNDERDRAIN OUTLETS AND CLEANOUTS, PREFERABLY BEFORE THE WET SEASON. REMOVE TRASH/DEBRIS.	TWO TO FOUR TIMES ANNUALLY
6	REMOVE SEDIMENT AND DEBRIS ACCUMULATION ON PERVIOUS PAVEMENT.	TWO TO FOUR TIMES ANNUALLY
7	REMOVE WEEDS. MOW VEGETATION IN GRID PAVEMENTS (SUCH AS TURF BLOCK) AS NEEDED.	AS NEEDED
8	PERFORM RESTORATIVE SURFACE CLEANING WITH A VACUUM SWEEPER, AND/OR RECONSTRUCTION OF PART OF THE PERVIOUS SURFACE TO RESTORE SURFACE PERMEABILITY AS NEEDED. REPLENISH AGGREGATE IN PICP JOINTS OR GRIDS AS NEEDED AFTER RESTORATIVE SURFACE CLEANING.	AS NEEDED
9	POWER WASHING WITH SIMULTANEOUS VACUUMING ALSO CAN BE USED TO RESTORE SURFACE INFILTRATION TO HIGHLY CLOGGED AREAS OF PERVIOUS CONCRETE, POROUS ASPHALT OR PICP, BUT IS NOT RECOMMENDED FOR GRID PAVEMENTS.	AS NEEDED
10	INSPECT PERVIOUS PAVING AREA USING THE ATTACHED INSPECTION CHECKLIST.	QUARTERLY OR AS NEEDED

BIOTREATMENT SOIL REQUIREMENTS

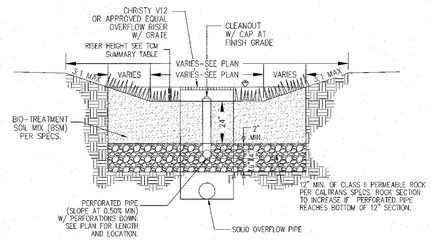
- BIORETENTION SOIL MIX SHALL MEET THE REQUIREMENTS AS OUTLINED IN APPENDIX C OF THE C.3 STORM WATER HANDBOOK AND SHALL BE A MIXTURE OF FINE SAND AND COMPOST MEASURED ON A VOLUME BASIS OF 60–70% SAND AND 30–40% COMPOST. CONTRACTOR TO REFER TO APPENDIX C FOR SAND AND COMPOST MATERIAL SPECIFICATIONS. CONTRACTOR MAY OBTAIN A COPY OF THE C3 HANDBOOK AT : HTTP://WWW.SANJOSECA.GOV/INDEX.ASPX?NID=1761
- PRIOR TO ORDERING THE BIOTREATMENT SOIL MIX OR DELIVERY TO THE PROJECT SITE, CONTRACTOR SHALL PROVIDE A BIOTREATMENT SOIL MIX SPECIFICATION CHECKLIST, COMPLETED BY THE SOIL MIX SUPPLIER AND CERTIFIED TESTING LAB.

LEGEND

- ROOF/CONCRETE/IMPERVIOUS SURFACE
- NATIVE LANDSCAPE/PERMEABLE SURFACE
- EXISTING TURF LANDSCAPE

STORMWATER TREATMENT AREA						
TCM ID	DESCRIPTION OF AREA	TOTAL AREA (SF)	LANDSCAPE AREA (SF)	TREATMENT AREA HARDSCAPE/ROOF (SF)	TREATMENT AREA REQUIRED (SF)	TREATMENT AREA PROVIDED (SF)
DMA 1	NORTH ENTRY & RESTROOMS	9,188	4,165	5,023	543	662 BIORETENTION
DMA 2	CENTRAL & SOUTH PARK & LS AREA	54,372	38,943	15,429	1932	1958 BIORETENTION
ST1–9	PARK PERM AREA	22,869	22,869	0	0	0 SELF TREATING

TOTAL HARDSCAPE TREATED = 20,452 SF



BIORETENTION BASIN W/O LINER
N.T.S.

REGISTERED PROFESSIONAL ENGINEER
Raymond Vaughn Smith
No. 69278
CIVIL
STATE OF CALIFORNIA
2-6-2020

NO.	DESCRIPTION	DATE	BY

PATH — Revisions

WORK ACCEPTED: INSPECTOR: BY: DATE:

DRAWN: AMV DESIGN: AMV HOR: N/A
CHECKED: AMV VERT: N/A
APPROVED: DATE: 2/10/20 JOB NUMBER:
SCOTT CREEK – CITY ENGINEER REGISTERED EXP. 6/30/21

City of Morgan Hill
CITY OF MORGAN HILL
Public Works Department
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171 W
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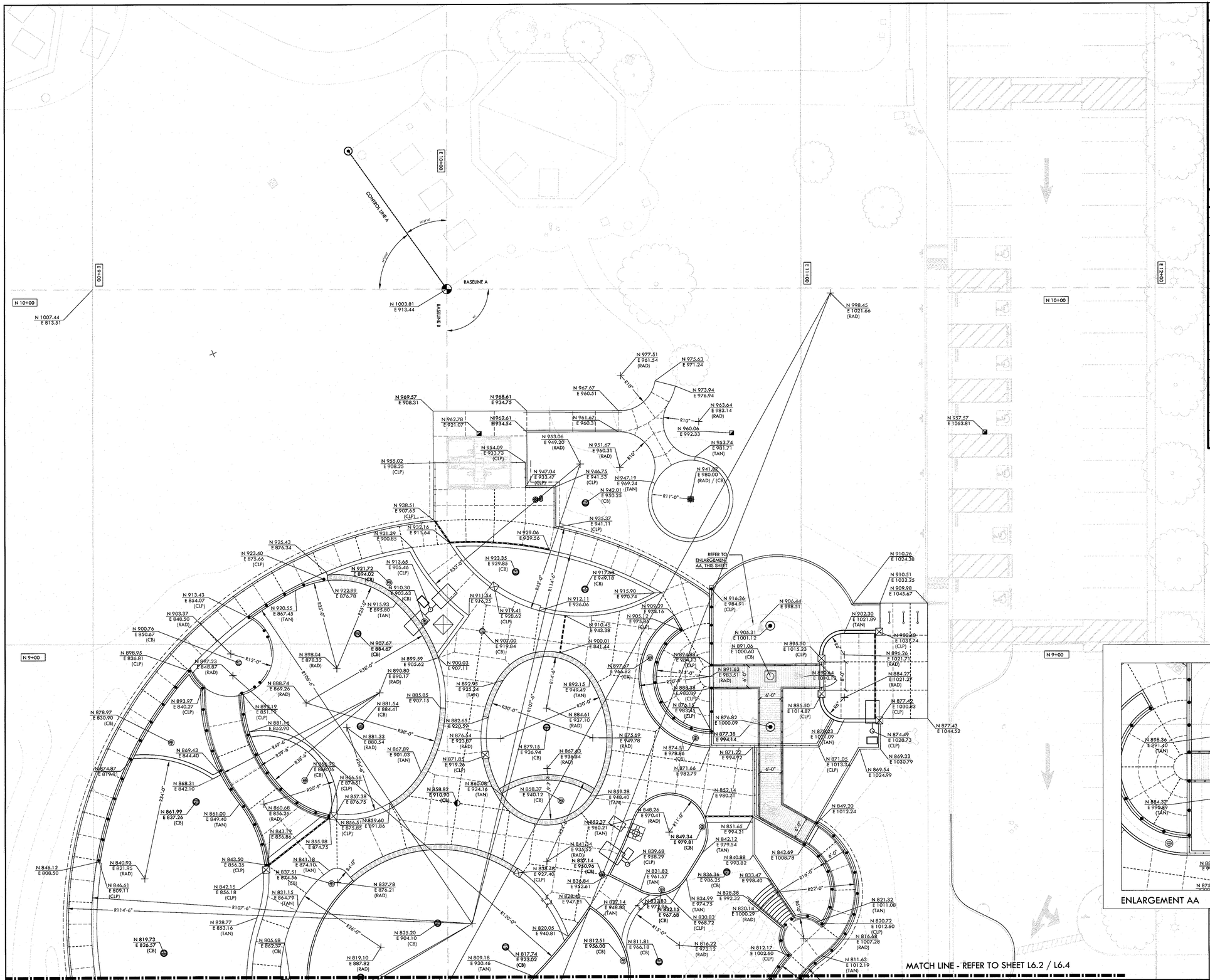
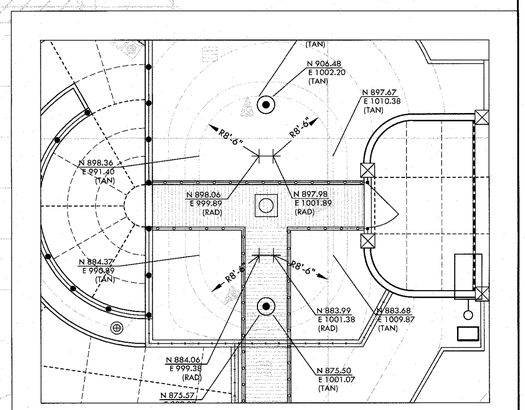
MORGAN HILL,
CA 95037

STORM WATER CONTROL PLAN
MORGAN HILL INCLUSIVE PLAYGROUND / MAGICAL BRIDGE PROJECT

FILE NUMBER: 1818000
PRINT DATE: 02/07/20
SHEET NUMBER: L5.3

SHEET_TITLE_S
PROJECT_TITLE_S





NORTH

0' 5' 10' 20' 30'

LAYOUT NOTES

1. THE CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION ELEMENTS INCLUDING UTILITY LOCATIONS AND REQUIRED SLEEVING PRIOR TO INSTALLATION. VERIFY CRITICAL DIMENSIONS, REFERENCE POINT LOCATIONS AND CONSTRUCTION CONDITIONS PRIOR TO INITIATING CONSTRUCTION. TEMPORARY BENCHMARKS OR REFERENCE POINTS SHALL BE SET BY THE CONTRACTOR AS NECESSARY. NOTIFY THE OWNER'S REPRESENTATIVE IMMEDIATELY SHOULD DISCREPANCY ARISE AND REDIRECT WORK TO AVOID DELAYS.
2. ALL DIMENSIONS SHALL BE VERIFIED IN FIELD AND CHALKED, STRING LINED OR FLAGGED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY MINOR ADJUSTMENTS MADE TO ACHIEVE OVERALL DESIGN LAYOUT SHALL BE ACCEPTED BY THE OWNER PRIOR TO CONSTRUCTION.
3. LAYOUT IS BASED ON THE POINT(S) OF BEGINNING (P.O.B.) AND BASELINE(S) OR GRID SYSTEM AS SHOWN. DIMENSIONS SHOWN ARE ROUNDED TO THE NEAREST INCH.
4. ALL LAYOUT AND GRADES SHALL BE COMPLETED BY A LICENSED SURVEYOR.

LAYOUT NOTE:
A. POINT OF BEGINNING (POB) IS LOCATED AT CORNER OF PICNIC AREA CONCRETE.
B. CONTROL POINT A IS LOCATED AT OTHER END OF CONCRETE PAVING AS SHOWN.
C. BASELINE B IS DETERMINED BY ESTABLISHING THE CONTROL LINE A FROM POB.
D. BASELINE B IS DETERMINED BY ROTATING COUNTERCLOCKWISE 54°32'50" FROM CONTROL LINE A.
E. BASELINE A IS 90° FROM BASELINE B AT POB.
F. GRID IS 100' OFFSETS FROM EACH BASELINE.

LAYOUT LEGEND

SYM	DESCRIPTION
	POINT OF BEGINNING SYMBOL
	CONTROL POINT A & B
R10'	RADIUS POINT / CENTER MARK
90°	PROPOSED ANGLE BETWEEN ELEMENTS
	BASELINE & GRID
	CONTROL LINE
	CENTER LINES
N 12+21.95 E 12+97.08	NORTHING/EASTING LAYOUT COORDINATE CALLOUT
(COD)	CENTER OF DRAIN
(COP)	CENTER OF POST
(POB)	POINT OF BEGINNING FOR GRID LAYOUT
(RAD)	RADIUS POINT
(TAN)	TANGENT POINT

NO.	DESCRIPTION	DATE	BY	WORK ACCEPTED:	INSPECTOR:
				BY:	DATE:

Revisions

DRAWN: VERDE | DESIGN: CMES | HOR: N/A
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LAYOUT PLAN - HARDSCAPE
MORGAN HILL INCLUSIVE PLAYGROUND / MAGICAL BRIDGE PROJECT

REGISTERED LANDSCAPE ARCHITECT
DEREK MEREE
No. 4148
Signature
EXPIRATION DATE: DEC. 2021
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FILE NUMBER: 1818000
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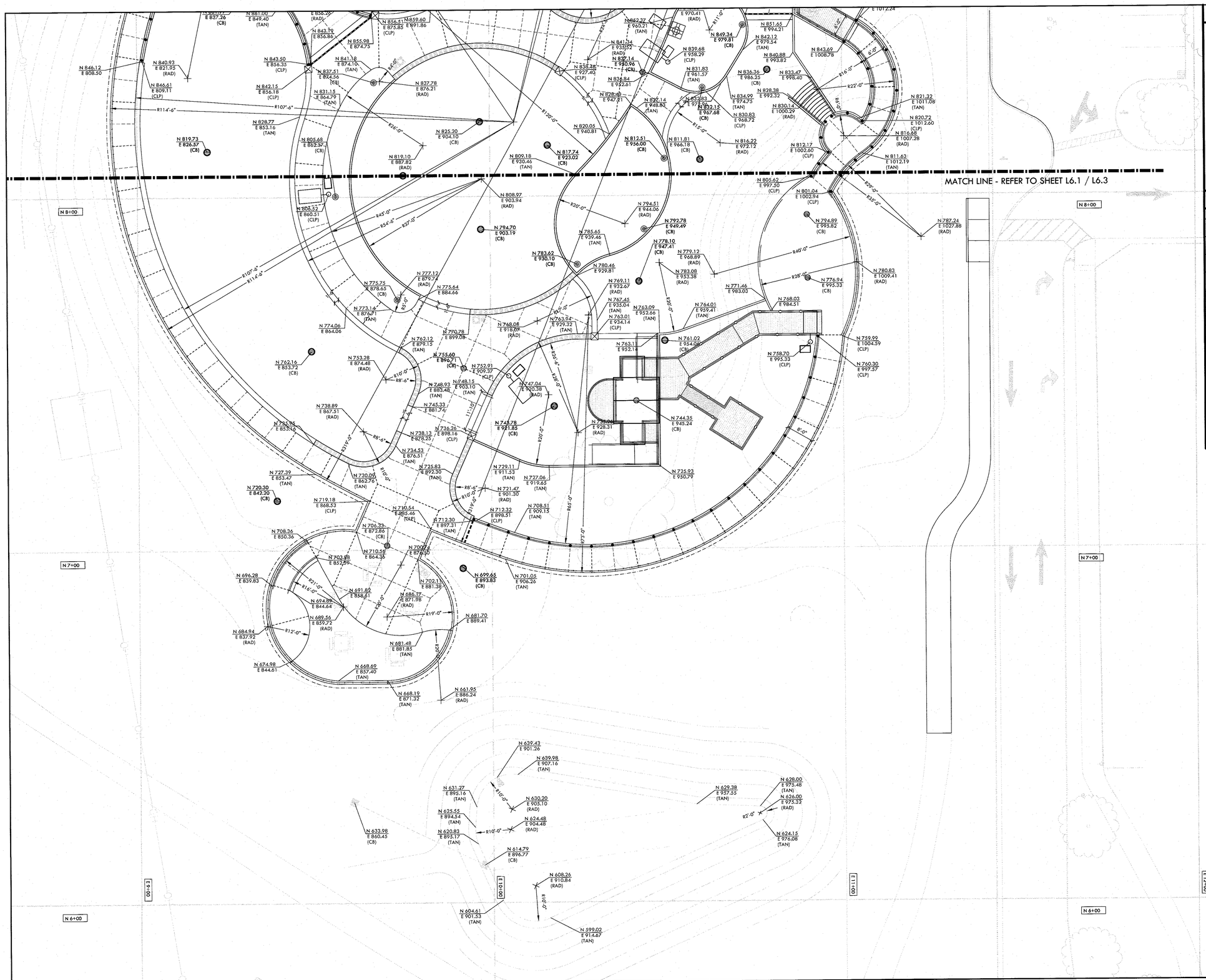

LAYOUT NOTES

1. THE CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION ELEMENTS INCLUDING UTILITY LOCATIONS AND REQUIRED SLEEVING PRIOR TO INSTALLATION. VERIFY CRITICAL DIMENSIONS, REFERENCE POINT LOCATIONS AND CONSTRUCTION CONDITIONS PRIOR TO INITIATING CONSTRUCTION. TEMPORARY BENCHMARKS OR REFERENCE POINTS SHALL BE SET BY THE CONTRACTOR AS NECESSARY. NOTIFY THE OWNER'S REPRESENTATIVE IMMEDIATELY SHOULD DISCREPANCY ARISE AND REDIRECT WORK TO AVOID DELAYS.
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3. LAYOUT IS BASED ON THE POINT(S) OF BEGINNING (P.O.B.) AND BASELINE(S) OR GRID SYSTEM AS SHOWN. DIMENSIONS SHOWN ARE ROUNDED TO THE NEAREST INCH.
4. ALL LAYOUT AND GRADES SHALL BE COMPLETED BY A LICENSED SURVEYOR.

LAYOUT NOTE:
A. POINT OF BEGINNING (POB) IS LOCATED AT CORNER OF PICNIC AREA CONCRETE.
B. CONTROL POINT A IS LOCATED AT OTHER END OF CONCRETE PAVING AS SHOWN.
C. BASELINE B IS DETERMINED BY ESTABLISHING THE CONTROL LINE A FROM POB.
D. BASELINE B IS DETERMINED BY ROTATING COUNTERCLOCKWISE 54°32'50" FROM CONTROL LINE A.
E. BASELINE A IS 90° FROM BASELINE B AT POB.
F. GRID IS 100' OFFSETS FROM EACH BASELINE.

LAYOUT LEGEND

SYM	DESCRIPTION
	POINT OF BEGINNING SYMBOL
	CONTROL POINT A & B
R10'	RADIUS POINT / CENTER MARK
30°	PROPOSED ANGLE BETWEEN ELEMENTS
	BASELINE & GRID
	CONTROL LINE
	CENTER LINES
N 12+21.95 E 12+97.08	NORTHING/EASTING LAYOUT COORDINATE CALLOUT
(COD)	CENTER OF DRAIN
(COP)	CENTER OF POST
(POB)	POINT OF BEGINNING FOR GRID LAYOUT
(RAD)	RADIUS POINT
(TAN)	TANGENT POINT

NORTH
0' 5' 10' 20' 30'

REGISTERED LANDSCAPE ARCHITECT
DEREK MERES
No. 4148
Signature
EXPIRATION DATE: DEC. 2021
STATE OF CALIFORNIA

NO.	DESCRIPTION	DATE	BY

Revisions

WORK ACCEPTED: INSPECTOR:
BY: DATE:

DRAWN: VERDE
DESIGN: CMES
CHECKED: CMES / DM
APPROVED: DATE: 2/10/20
SCOTT CRIER - CITY ENGINEER
RCE#59879 EXP. 9/30/20
HOR: N/A
VERT: N/A
JOB NUMBER:

CITY OF MORGAN HILL
City of Morgan Hill
Public Works Department
17575 Peak Ave. Morgan Hill, CA 95037 (408)778-6480, Fax (408)779-7236

VERDE DESIGN
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171 W
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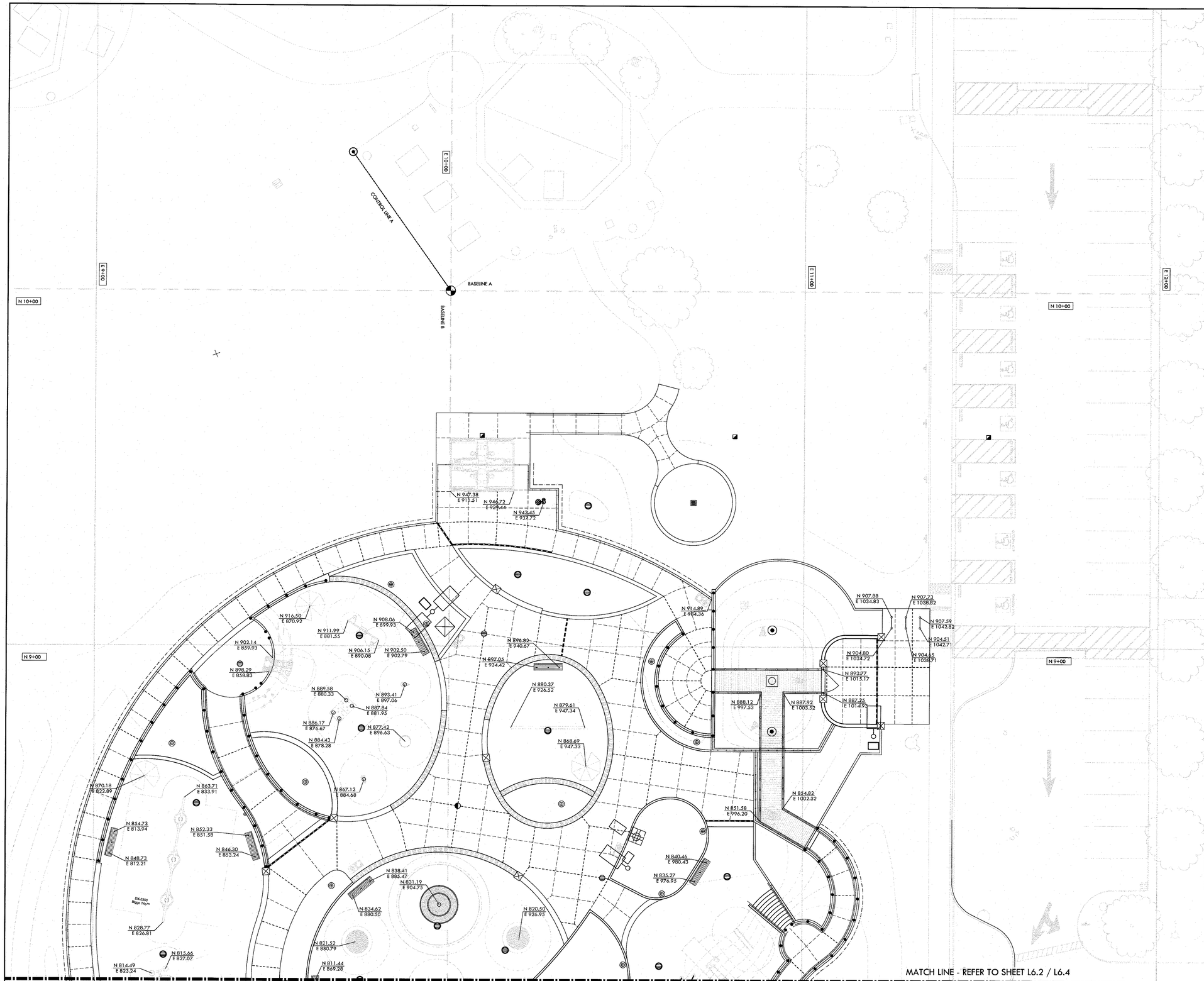
MORGAN HILL,
CA 95037

LAYOUT PLAN - HARDSCAPE
MORGAN HILL INCLUSIVE PLAYGROUND / MAGICAL BRIDGE PROJECT

FILE NUMBER: 1818000
PRINT DATE: 02/07/20
SHEET NUMBER: L6.2

BID SUBMITTAL - 02-07-20



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	POINT OF BEGINNING SYMBOL
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90°	PROPOSED ANGLE BETWEEN ELEMENTS
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(TAN)	TANGENT POINT

NO.	DESCRIPTION	DATE	BY

Revisions

WORK ACCEPTED: INSPECTOR: BY: DATE:

DRAWN: VERDE DESIGN: CMES HOR: N/A
CHECKED: CMES / DM VERT: N/A
APPROVED: DATE: 2/10/20 JOB NUMBER:
SCOTT CHEER - CITY ENGINEER RCE#28879 EXP. 9/30/21

City of Morgan Hill
Public Works Department
CITY OF MORGAN HILL
17575 Peak Ave. Morgan Hill, CA 95037 (408)778-6480, Fax (408)779-7236

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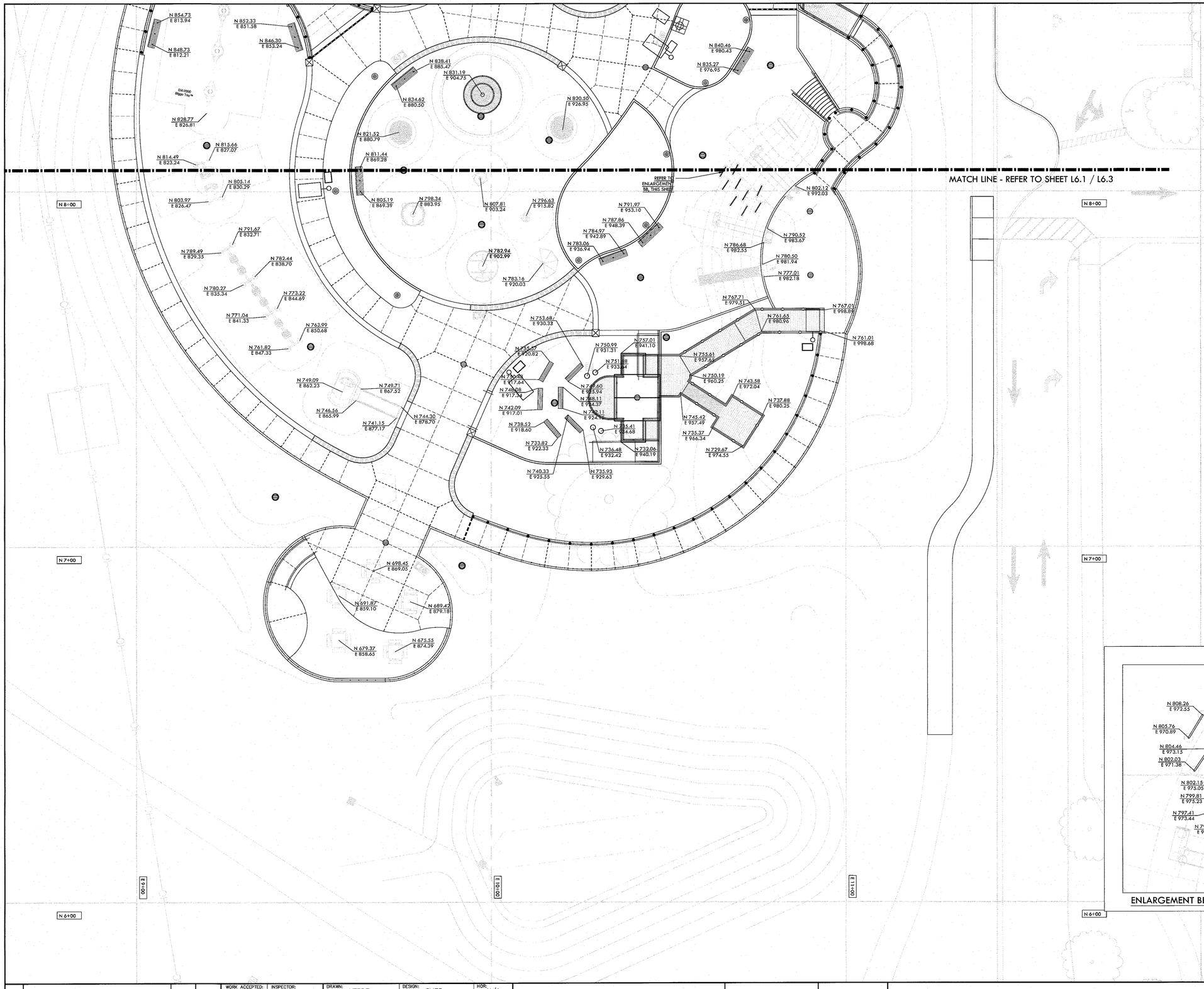
171 W
EDMUNDSON AVE,
MORGAN HILL,
CA 95037

LAYOUT PLAN - SITE FURNISHINGS
MORGAN HILL INCLUSIVE PLAYGROUND / MAGICAL BRIDGE PROJECT

FILE NUMBER: 1818000
PRINT DATE: 02/07/20
SHEET NUMBER: L6.3

REGISTERED LANDSCAPE ARCHITECT
DEREK MOREE
No. 4148
Signature
EXPIRATION DATE: DEC. 2021
STATE OF CALIFORNIA

BID SUBMITTAL - 02-07-20



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SYM	DESCRIPTION
	POINT OF BEGINNING SYMBOL
	CONTROL POINT A & B
810'	RADIUS POINT / CENTER MARK
90°	PROPOSED ANGLE BETWEEN ELEMENTS
	BASELINE & GRID
	CONTROL LINE
	CENTER LINES
N 12+21.95 E 12+97.08	NORTHING/EASTING LAYOUT COORDINATE CALLOUT
(COD)	CENTER OF DRAIN
(COP)	CENTER OF POST
(POB)	POINT OF BEGINNING FOR GRID LAYOUT
(RAD)	RADIUS POINT
(TAN)	TANGENT POINT

REGISTERED LANDSCAPE ARCHITECT
DEREK MORE
No. 4148
SIGNATURE
EXPIRATION DATE: DEC. 2021
STATE OF CALIFORNIA

NO.	DESCRIPTION	DATE	BY

Revisions

WORK ACCEPTED: INSPECTOR:
BY: DATE:

DRAWN: VERDE
DESIGN: CMES
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APPROVED: DATE: 2/10/20
SCOTT CREER – CITY ENGINEER RCE#68875 EXP. 9/30/21
HOR: N/A
VERT: N/A
JOB NUMBER:

City of Morgan Hill
Public Works Department
CITY OF MORGAN HILL
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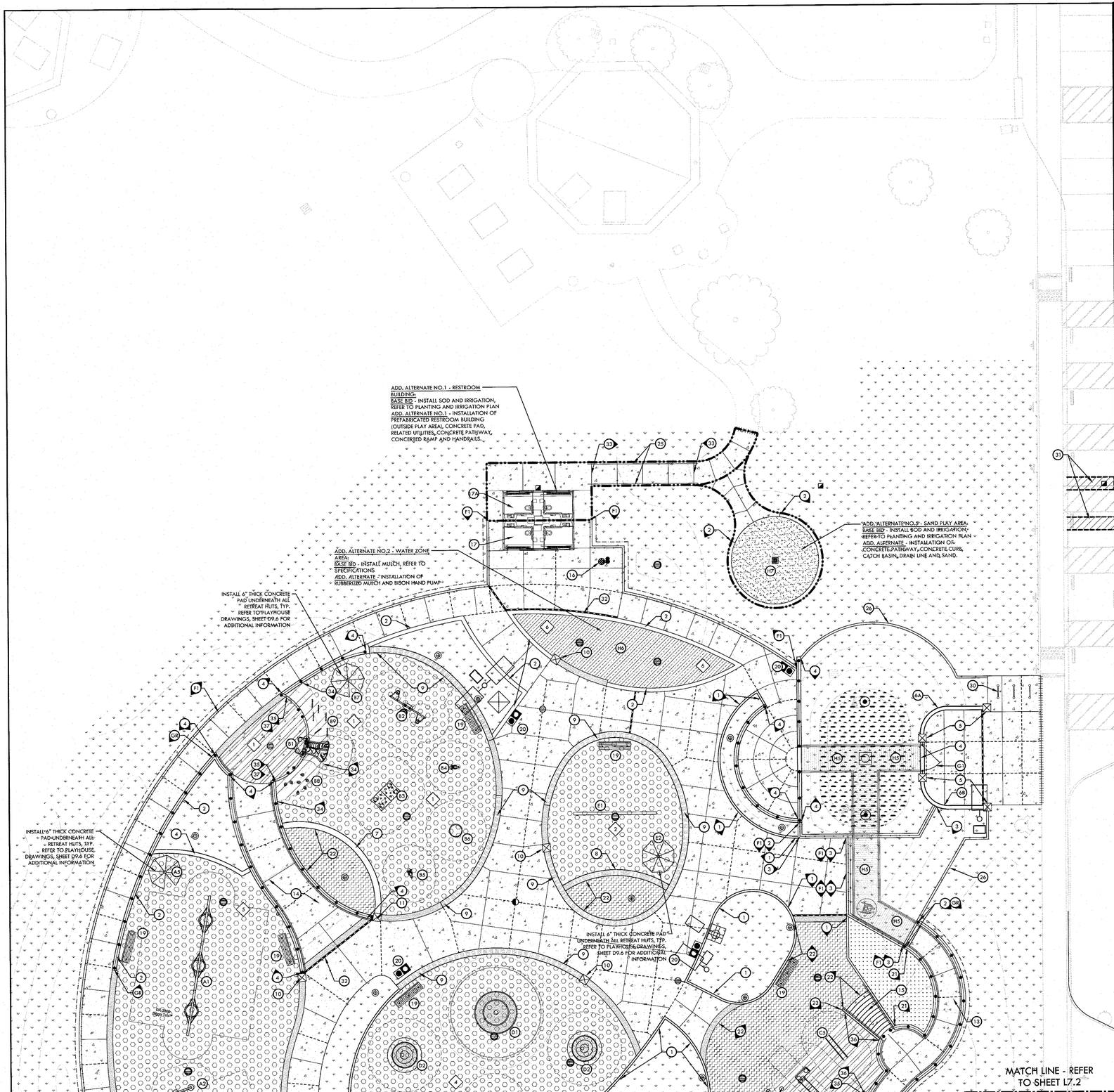
CA 95037

LAYOUT PLAN - SITE FURNISHINGS
MORGAN HILL INCLUSIVE PLAYGROUND / MAGICAL BRIDGE PROJECT

FILE NUMBER: 1818000
PRINT DATE: 02/07/20
SHEET NUMBER: L6.4

BID SUBMITTAL - 02-07-20



SYM	DESCRIPTION	DTL REF
19	BENCH AT PLAY AREA, REFER TO SPECIFICATIONS	B D2.2
20	TRASH & RECYCLING RECEPTACLES, REFER TO SPECIFICATIONS	P D2.3
21	SYNTHETIC TURF CONNECTION AT RAMP / WALKWAY AT SLIDE MOUND TOP	B D2.1
22	SYNTHETIC TURF WITH AGGREGATE BASE AND CONNECTION AT PAVING / WALLS / CURBS/ EDGEBAND	F D2.1
23	RESILIENT SURFACE AND SYNTHETIC PLAY CONNECTION AT SLOPING CONCRETE SLAB	J D2.1
24	RESILIENT SURFACING CONNECTION AT ELEVATED BRIDGE POST	K D2.1
25	RAMP HANDRAIL	K D2.3
26	6" WIDE CONCRETE EDGEBAND	N D2.2
27	SECURITY LIGHTING, REFER TO ELECTRICAL PLANS	
28	CONCRETE STAGE	A D2.1
29	STAIRS WITH HANDRAILS	J D2.2
30	BIKE RACKS, REFER TO SPECIFICATIONS	M D2.3
31	PATCH ASPHALT PAVING AFTER INSTALLATION OF SANITARY SEWER LINE AND SANITARY SEWER MANHOLE.	
32	TRENCH DRAIN, REFER TO DRAINAGE PLAN	
33	ADD. ALTERNATE # 6: PAVING, RAMP WITH HANDRAILS AT SECOND / ADD. ALTERNATE RESTROOM BUILDING	
34	RESILIENT SURFACE CONNECTION AT SLOPING CONCRETE SLAB	I D2.1
35	RESILIENT SURFACE CONNECTION AT SLIDE MOUND TOP	H D2.1
36	RESILIENT SURFACING CONNECTION AT RAMP / WALKWAY AT SLIDE MOUND TOP	J D2.1
37	CUSTOM LSI GUARDRAIL AT SLIDE MOUND TOP	

PLAY STRUCTURE LEGEND

SYM	DESCRIPTION				
	SWING/SWAY ZONE				
A1	DYNAMO - BIGGO TRIO SWINGS*	A D4.1	A4	LANDSCAPE STRUCTURES - SWAY FUN	D D4.1
A2	PLAYWORLD - SWING ALONG*	B D4.1	A5	ADD. ALTERNATE # 3: RETREAT HUTS WITH 6" THICK CONCRETE PAD UNDERNEATH	J D5.6
A3	PLAYWORLD - CUSTOM 4 SWING	B D4.1			
	TOT ZONE				
B1	PLAYWORLD - DOUBLE SLIDE - 3'	B D4.2	B6	PLAYWORLD - BALANCE TRAX - POND	H D4.2
B2	PLAYWORLD - EARLY CHILDHOOD- T-SWING*	G D4.1	B7	ADD. ALTERNATE # 3: RETREAT HUTS WITH 6" THICK CONCRETE PAD UNDERNEATH	J D5.6
B3	PLAYWORLD - PUP TENT CLIMBER*	F D4.2			
B4	PLAYWORLD - SPRING RIDER - PONY MATE*	I D4.1	B8	LANDSCAPE STRUCTURES - SPAGHETTI CLIMBERS	N D4.2
B5	PLAYWORLD - SPRING RIDER - PONY MATE*	F D4.1	B9	LANDSCAPE STRUCTURES - CUSTOM LOOP CLIMBERS	J D4.2
	SLIDES / MOUND AREA				
C1	LANDSCAPE STRUCTURES - ROLLER SLIDE - 7'	C D4.2	C4	LANDSCAPE STRUCTURES - CUSTOM LOOP CLIMBERS	J D4.2
C2	PLAYWORLD - DOUBLE SLIDE - 7'	D D4.2	C5	LANDSCAPE STRUCTURES - PARALLEL BAR CLIMBERS	K D4.2
C3	PLAYWORLD - WIDE SLIDE - 7'	D D4.2			
	SPIN ZONE				
D1	DYNAMO - APOLLO NET SPINNER WITH FLOOR*	H D4.1	D5	GORIC - NEST	G D4.2
D2	GORIC - DISH SPINNER*	I D4.1	D6	PLAYWORLD SYSTEM - COZY COCOON	E D4.2
D3	GORIC - INTERGRATION CAROUSEL*	J D4.1	D7	ADD. ALTERNATE # 3: RETREAT HUTS WITH 6" THICK CONCRETE PAD UNDERNEATH	- D5.6
D4	PLAYWORLD SYSTEM - WHIRL*	A D4.2			
	INNOVATION / MUSIC / SOUND FEATURES ZONE				
E1	LASER HARP	D6.0	E2	ADD. ALTERNATE # 3: RETREAT HUTS WITH 6" THICK CONCRETE PAD UNDERNEATH	D5.6
	OTHER AREAS				
H1	TREE PLAY HOUSE AND RAMP - REFER TO BARBARA BUTLER'S PLANS		H4	LANDSCAPE STRUCTURE - ACORN SEATS	M D4.2
H2	ELEVATED WALKWAY CONNECTION WITH SWAY BRIDGE - REFER TO BARBARA BUTLER'S PLANS		H5	ENTRY BRIDGE - REFER TO BARBARA BUTLER'S PLANS	
			H6	ADD. ALTERNATE # 2: WATER PLAY AREA	I D4.2
H3	LANDSCAPE STRUCTURE - LOG BENCHES	L D4.2	H7	ADD. ALTERNATE # 5: SAND PLAY AREA	

NOTE: ALL PLAY EQUIPMENT SHALL BE INSTALLED AS PER MANUFACTURE'S RECOMMENDATION. CONTRACTOR SHALL PROVIDE GEOTECH REPORT TO ALL PLAY EQUIPMENT MANUFACTURE'S FOR FOOTING DESIGN. REFER TO SHEET D4.1 AND D4.2 FOR PLAY EQUIPMENT INFORMATION. PLAY EQUIPMENT INDICATED WITH * WILL BE PURCHASED BY THE CITY AND MAGICAL BRIDGE FOUNDATION. CONTRACTOR SHALL CONSULT CITY AND MAGICAL BRIDGE FOUNDATION PRIOR PURCHASING OF ANY PLAY EQUIPMENT.

RESILIENT SURFACING COLOR

1	RESILIENT SURFACE - TOT AREA - LIGHT BLUE	4	RESILIENT SURFACE - SPIN ZONE - 60% GREEN AND 40% TAN
2	RESILIENT SURFACE - MUSIC ZONE - 60% TAN AND 40% BLUE	5	RESILIENT SURFACE - SWING ZONE - 60% TAN AND 40% EGG SHELL
3	RESILIENT SURFACE - SLIDE MOUND - 60% GREEN AND 40% TAN	6	RESILIENT SURFACE - 60% ORANGE AND 40% EGG SHELL (WATER PLAY ZONE)

NOTE:

1. ALL CONCRETE PAVING / FLAT WORK IN PLAY AREA SHALL BE DAVIS COLOR ADOBE WITH RETARDED FINISH MERITY3.
2. 42 IN TALL CHAIN LINK FENCE IN PLAY AREA TO BE GALVANIZED PAINT IN FIELD BROWN COLOR.

MATERIAL NOTES

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2. THE INTERFACE OF ALL PROPOSED IMPROVEMENTS TO EXISTING SITE SHALL CONFORM AND BE SMOOTH AND UNIFORM.
3. ALL REINFORCING AND FORMS SHALL BE SECURED IN PLACE AND ACCEPTED BY OWNER'S REPRESENTATIVE PRIOR TO PLACING ANY CONCRETE.
4. CONCRETE FINISHES SHALL BE AS NOTED. CONTRACTOR SHALL PROVIDE 4'X4' SAMPLES OF ALL SPECIFIED FINISHES OF CONCRETE USING THE SAME MATERIALS THAT WILL BE USED IN THE ACTUAL CONSTRUCTION FOR EACH TYPE SPECIFIED. SAMPLES SHALL BE PREPARED WELL ENOUGH IN ADVANCE OF SCHEDULED CONCRETE POUR TO ALLOW FOR REVIEW AND POSSIBLE RE-POURING OF UNACCEPTABLE SAMPLES. UNACCEPTABLE SAMPLES SHALL BE RE-PREPARED UNTIL ACCEPTED BY THE OWNER'S REPRESENTATIVE. ACCEPTED SAMPLES SHALL BE PROTECTED AND REMAIN ON SITE FOR REFERENCE UNTIL FINAL ACCEPTANCE.
5. ALL FENCES AND GATES SHOWN ON PLAN ARE GRAPHIC REPRESENTATIONS; REFER TO DETAILS AND SPECIFICATIONS FOR PRECISE LOCATION.

MATERIAL LEGEND

SYM	DESCRIPTION	DTL REF
F1	42 IN TALL CHAIN LINK FENCE	D D2.3
GR	GUARDRAIL - BROWN COLOR	H D2.3
G1	42" TALL X 6' WIDE ORNAMENTAL SWING GATE	G D2.3
	SYNTHETIC TURF ON SLOPING CONCRETE SLAB	I D2.1
	SYNTHETIC TURF WITH AGGREGATE BASE	F D2.1
	PEDESTRIAN CONCRETE PAVING	A D2.1
	ADD ALTERNATE #5: PLAY AREA SAND, REFER TO SPECIFICATIONS	
	CONCRETE PAVING, TOP CAST EXPOSED AGGREGATE- 3/8" - 3/4" DIA. SIZE - ON CLASS II AGGREGATE BASE, REFER TO SPECIFICATIONS	A D2.1
	RESILIENT SURFACING ON SLOPING CONCRETE SLAB	I D2.1
	RESILIENT SURFACING WITH CONCRETE BASE	E D2.1
	RESILIENT SURFACING WITH AGGREGATE BASE	D D2.1
	BONDED RUBBER SURFACING AT EXISTING TREES (RUBBER MULCH) COLOR SHALL BE 60% DARK BROWN AND 40% LIGHT BROWN.	L D2.2
	STABILIZED DECOMPOSED GRANITE	Q D2.1
	PLANTING AREA - REFER TO PLANTING PLAN	
	ADD. ALTERNATE # 4 - FIRE DEMONSTRATION GARDEN AREA - INSTALLATION OF PLANTING AND IRRIGATION AS PER PLANTING AND IRRIGATION PLAN.	
	BIO-RETENTION AREA - REFER TO DRAINAGE AND PLANTING PLAN	
	REDWOOD HEADER BOARD	J D3.1
	SECURITY LIGHTS, REFER TO ELECTRICAL PLAN	
	TRASH & RECYCLING RECEPTACLES, REFER TO SPECIFICATION	P D2.3
	SCORE JOINT EXPANSION JOINT	B D2.1
	DOWEL JOINT	B D2.1
1	6" WIDE TALL CONCRETE CURB	L D2.1
2	12" WIDE TALL CONCRETE CURB	M D2.1
3	12" WIDE CONCRETE EDGEBAND	P D2.1
4	RETAINING WALL, REFER TO STRUCTURAL PLANS	
5	ENTRY WALL COLUMN	G D2.2
6A	CIRCULAR ENTRY DONOR WALL WITH DONOR TILES AND COLUMN	H D2.2
6B	CIRCULAR ENTRY WALL WITH MAGICAL BRIDGE SIGN AND COLUMN	M D2.2
7	SEAT WALL - 12" TALL (TOT LOT AREA) - COLOR TO BE DAVIS COLOR - BAJA RED - 160	C D2.2
8	SEAT WALL - 14" TALL (TOT LOT AREA) - COLOR TO BE DAVIS COLOR - BAJA RED - 160	C D2.2
9	SEAT WALL - 18" TALL - COLOR TO BE DAVIS COLOR - BAJA RED - 160	C D2.2
10	ENTRY PLINTH PLAY AREA SIGNAGE - SIGN BY THE CITY AND MAGICAL BRIDGE FOUNDATION	D D2.2
11	ENTRY PLINTH PLAY AREA SIGNAGE - AT TOT AREA - SIGN BY THE CITY AND MAGICAL BRIDGE FOUNDATION	E D2.2
12	CONCRETE WALKWAY WITH GUARDRAIL AND HANDRAILS	K D2.2
13	WALKWAY / CONCRETE RAMP WITH GUARDRAIL AND HANDRAIL AT SLIDE MOUND AREA - SECTION	F D2.2 / I D2.3
14	WALKWAY / CONCRETE RAMP WITH GUARDRAIL AND HANDRAIL AT TOT AREA - SECTION	F D2.2 / I D2.3
15	SLIDE MOUND STAIRS AND HANDRAIL FOR PEDESTRIAN ACCESS - REFER TO STRUCTURAL PLANS	J D2.2
16	DRINKING FOUNTAIN, WATER BOTTLE FILLING STATION AND PET STATION - REFER TO SPECIFICATIONS	O D2.3
17	BASE BID: RESTROOM BUILDING - REFER TO RESTROOM BUILDING DRAWINGS, INSTALLATION PROCEDURES, AND GUIDELINES	
17A	ADD ALTERNATE #1: RESTROOM BUILDING - REFER TO RESTROOM BUILDING DRAWINGS, INSTALLATION PROCEDURES, AND GUIDELINES	
18A	ADA PICNIC TABLES, REFER TO SPECIFICATIONS	18B ADA PICNIC TABLES, REFER TO SPECIFICATIONS

NORTH

0' 5' 10' 20' 30'

REGISTERED LANDSCAPE ARCHITECT
DEREK MERRY
No. 4148
Signature
EXPIRATION DATE: DEC. 2021
STATE OF CALIFORNIA

NO.	DESCRIPTION	DATE	BY

Revisions

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CITY OF MORGAN HILL

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Public Works Department
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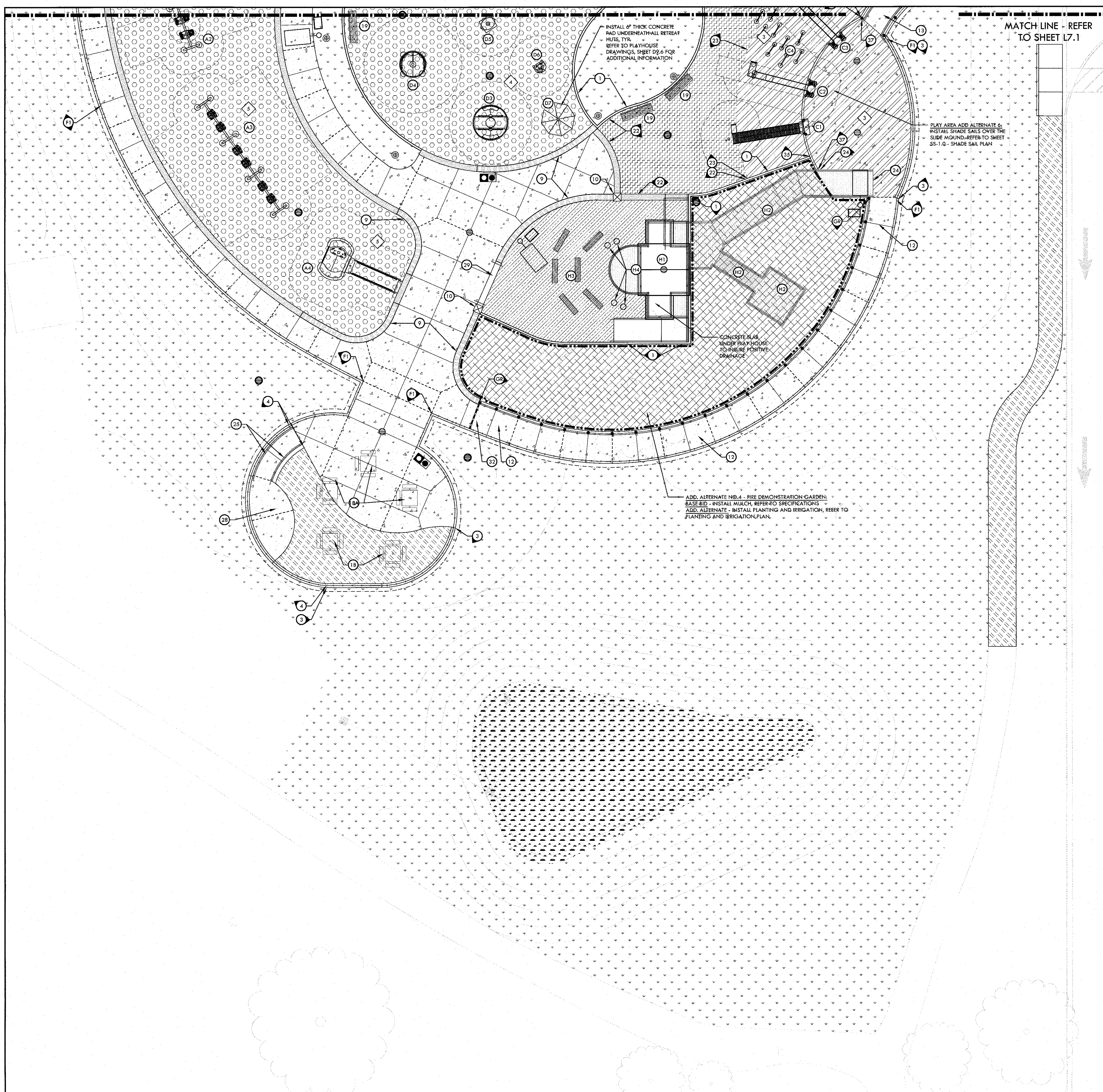
171 W EDMUNDSON AVE, MORGAN HILL, CA 95037

MATERIAL AND DETAIL REFERENCE PLAN
MORGAN HILL INCLUSIVE PLAYGROUND / MAGICAL BRIDGE PROJECT

FILE NUMBER: 1818000
PRINT DATE: 02/07/20
SHEET NUMBER: L7.1

BID SUBMITTAL - 02-07-20



SYM	DESCRIPTION	DTL REF
19	BENCH AT PLAY AREA, REFER TO SPECIFICATIONS	B / D2.2
20	TRASH & RECYCLING RECEPTACLES, REFER TO SPECIFICATIONS	P / D2.3
21	SYNTHETIC TURF CONNECTION AT RAMP / WALKWAY AT SLIDE MOUND TOP	R / D2.1
22	SYNTHETIC TURF WITH AGGREGATE BASE AND CONNECTION AT PAVING / WALLS / CURBS/ EDGEBAND	F / D2.1
23	RESILIENT SURFACE AND SYNTHETIC PLAY CONNECTION AT SLOPING CONCRETE SLAB	I / D2.1
24	RESILIENT SURFACING CONNECTION AT ELEVATED BRIDGE POST	K / D2.1
25	RAMP HANDRAIL	K / D2.3
26	6" WIDE CONCRETE EDGEBAND	N / D2.2
27	SECURITY LIGHTING, REFER TO ELECTRICAL PLANS	
28	CONCRETE STAGE	A / D2.1
29	STAIRS WITH HANDRAILS	J / D2.2
30	BIKE RACKS, REFER TO SPECIFICATIONS	M / D2.3
31	PATCH ASPHALT PAVING AFTER INSTALLATION OF SANITARY SEWER LINE AND SANITARY SEWER MANHOLE.	
32	TRENCH DRAIN, REFER TO DRAINAGE PLAN	
33	ADD. ALTERNATE # 6: PAVING, RAMP WITH HANDRAILS AT SECOND / ADD. ALTERNATE RESTROOM BUILDING	
34	RESILIENT SURFACE CONNECTION AT SLOPING CONCRETE SLAB	I / D2.1
35	RESILIENT SURFACE CONNECTION AT SLIDE MOUND TOP	H / D2.1
36	RESILIENT SURFACING CONNECTION AT RAMP / WALKWAY AT SLIDE MOUND TOP	J / D2.1
37	CUSTOM LSI GUARDRAIL AT SLIDE MOUND TOP	

PLAY STRUCTURE LEGEND

SYM	DESCRIPTION	DTL	SYM	DESCRIPTION	DTL
	SWING/SWAY ZONE				
A1	DYNAMO - BIGGO TRIO SWINGS*	A / D4.1	A4	LANDSCAPE STRUCTURES - SWAY FUN	D / D4.1
A2	PLAYWORLD - SWING ALONG*	E / D4.1	A5	ADD. ALTERNATE # 3: RETREAT HUTS WITH 6" THICK CONCRETE PAD UNDERNEATH	- / D5.6
A3	PLAYWORLD - CUSTOM 4 SWING	B / D4.1			
	TOT ZONE				
B1	PLAYWORLD - DOUBLE SLIDE - 3'	B / D4.2	B6	PLAYWORLD - BALANCE TRAX - POND	H / D4.2
B2	PLAYWORLD - EARLY CHILDHOOD- T-SWING*	G / D4.1	B7	ADD. ALTERNATE # 3: RETREAT HUTS WITH 6" THICK CONCRETE PAD UNDERNEATH	- / D5.6
B3	PLAYWORLD - PUP TENT CLIMBER*	F / D4.2			
B4	PLAYWORLD - SPRING RIDER - PONY MATE*	F / D4.1	B8	LANDSCAPE STRUCTURES - SPAGHETTI CLIMBERS	N / D4.2
B5	PLAYWORLD - SPRING RIDER - PONY MATE*	F / D4.1	B9	LANDSCAPE STRUCTURES - CUSTOM LOOP CLIMBERS	J / D4.2
	SLIDES / MOUND AREA				
C1	LANDSCAPE STRUCTURES - ROLLER SLIDE - 7'	C / D4.2	C4	LANDSCAPE STRUCTURES - CUSTOM LOOP CLIMBERS	J / D4.2
C2	PLAYWORLD - DOUBLE SLIDE - 7'	D / D4.2	C5	LANDSCAPE STRUCTURES - PARALLEL BAR CLIMBERS	K / D4.2
C3	PLAYWORLD - WIDE SLIDE - 7'	D / D4.2			
	SPIN ZONE				
D1	DYNAMO - APOLLO NET SPINNER WITH FLOOR*	H / D4.1	D5	GORIC - NEST	G / D4.2
D2	GORIC - DISH SPINNER*	I / D4.1	D6	PLAYWORLD SYSTEM - COZY COCOON	E / D4.2
D3	GORIC - INTERGRATION CAROUSEL*	J / D4.1	D7	ADD. ALTERNATE # 3: RETREAT HUTS WITH 6" THICK CONCRETE PAD UNDERNEATH	- / D5.6
D4	PLAYWORLD SYSTEM - WHRIL*	A / D4.2			
	INNOVATION / MUSIC / SOUND FEATURES ZONE				
E1	LASER HARP	- / D6.0	E2	ADD. ALTERNATE # 3: RETREAT HUTS WITH 6" THICK CONCRETE PAD UNDERNEATH	- / D5.6
	OTHER AREAS				
H1	TREE PLAY HOUSE AND RAMP - REFER TO BARBARA BUTLER'S PLANS		H4	LANDSCAPE STRUCTURE - ACORN SEATS	M / D4.2
H2	ELEVATED WALKWAY CONNECTION WITH SWAY BRIDGE - REFER TO BARBARA BUTLER'S PLANS		H5	ENTRY BRIDGE - REFER TO BARBARA BUTLER'S PLANS	
			H6	ADD. ALTERNATE # 2: WATER PLAY AREA	I / D4.2
H3	LANDSCAPE STRUCTURE - LOG BENCHES	L / D4.2	H7	ADD. ALTERNATE # 5: SAND PLAY AREA	

NOTE: ALL PLAY EQUIPMENT SHALL BE INSTALLED AS PER MANUFACTURE'S RECOMMENDATION. CONTRACTOR SHALL PROVIDE GEOTECH REPORT TO ALL PLAY EQUIPMENT MANUFACTURE'S FOR FOOTING DESIGN. REFER TO SHEET D4.1 AND D4.2 FOR PLAY EQUIPMENT INFORMATION. PLAY EQUIPMENT INDICATED WITH * WILL BE PURCHASED BY THE CITY AND MAGICAL BRIDGE FOUNDATION. CONTRACTOR SHALL CONSULT CITY AND MAGICAL BRIDGE FOUNDATION PRIOR PURCHASING OF ANY PLAY EQUIPMENT.

RESILIENT SURFACING COLOR

SYM	DESCRIPTION	SYM	DESCRIPTION
1	RESILIENT SURFACE - TOT AREA - LIGHT BLUE	4	RESILIENT SURFACE - SPIN ZONE - 60% GREEN AND 40% TAN
2	RESILIENT SURFACE - MUSIC ZONE - 60% TAN AND 40% BLUE	5	RESILIENT SURFACE - SWING ZONE - 60% TAN AND 40% EGG SHELL
3	RESILIENT SURFACE - SLIDE MOUND - 60% GREEN AND 40% TAN	6	RESILIENT SURFACE - 60% ORANGE AND 40% EGG SHELL (WATER PLAY ZONE)

NOTE:

1. ALL CONCRETE PAVING / FLAT WORK IN PLAY AREA SHALL BE DAVIS COLOR ADOBE WITH RETARDED FINISH MERIT#3.
2. 42 IN TALL CHAIN LINK FENCE IN PLAY AREA TO BE GALVANIZED PAINT IN FIELD BROWN COLOR.

MATERIAL NOTES

1. THE CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION ELEMENTS INCLUDING UTILITY LOCATIONS AND REQUIRED SLEEVING PRIOR TO INSTALLATION. VERIFY CRITICAL DIMENSIONS, REFERENCE POINT LOCATIONS AND CONSTRUCTION CONDITIONS PRIOR TO INITIATING CONSTRUCTION. TEMPORARY BENCHMARKS OR REFERENCE POINTS SHALL BE SET BY THE CONTRACTOR AS NECESSARY. NOTIFY THE OWNER'S REPRESENTATIVE IMMEDIATELY SHOULD DISCREPANCY ARISE AND REDIRECT WORK TO AVOID DELAYS.
2. THE INTERFACE OF ALL PROPOSED IMPROVEMENTS TO EXISTING SITE SHALL CONFORM AND BE SMOOTH AND UNIFORM.
3. ALL REINFORCING AND FORMS SHALL BE SECURED IN PLACE AND ACCEPTED BY OWNER'S REPRESENTATIVE PRIOR TO PLACING ANY CONCRETE.
4. CONCRETE FINISHES SHALL BE AS NOTED. CONTRACTOR SHALL PROVIDE 4'X4' SAMPLES OF ALL SPECIFIED FINISHES OF CONCRETE USING THE SAME MATERIALS THAT WILL BE USED IN THE ACTUAL CONSTRUCTION FOR EACH TYPE SPECIFIED. SAMPLES SHALL BE PREPARED WELL ENOUGH IN ADVANCE OF SCHEDULED CONCRETE POUR TO ALLOW FOR REVIEW AND POSSIBLE RE-POURING OF UNACCEPTABLE SAMPLES. UNACCEPTABLE SAMPLES SHALL BE RE-PREPARED UNTIL ACCEPTED BY THE OWNER'S REPRESENTATIVE. ACCEPTED SAMPLES SHALL BE PROTECTED AND REMAIN ON SITE FOR REFERENCE UNTIL FINAL ACCEPTANCE.
5. ALL FENCES AND GATES SHOWN ON PLAN ARE GRAPHIC REPRESENTATIONS; REFER TO DETAILS AND SPECIFICATIONS FOR PRECISE LOCATION.

MATERIAL LEGEND

SYM	DESCRIPTION	DTL REF
F1	42 IN TALL CHAIN LINK FENCE	D / D2.3
GR	GUARDRAIL - BROWN COLOR	H / D2.3
G1	42" TALL X 6' WIDE ORNAMENTAL SWING GATE	G / D2.3
	SYNTHETIC TURF ON SLOPING CONCRETE SLAB	I / D2.1
	SYNTHETIC TURF WITH AGGREGATE BASE	F / D2.1
	PEDESTRIAN CONCRETE PAVING	A / D2.1
	ADD ALTERNATE #5: PLAY AREA SAND, REFER TO SPECIFICATIONS	
	CONCRETE PAVING, TOP CAST EXPOSED AGGREGATE- ½" - ¾" DIA. SIZE - ON CLASS II AGGREGATE BASE, REFER TO SPECIFICATIONS	A / D2.1
	RESILIENT SURFACING ON SLOPING CONCRETE SLAB	I / D2.1
	RESILIENT SURFACING WITH CONCRETE BASE	E / D2.1
	RESILIENT SURFACING WITH AGGREGATE BASE	D / D2.1
	BONDED RUBBER SURFACING AT EXISTING TREES (RUBBER MULCH) COLOR SHALL BE 60% DARK BROWN AND 40% LIGHT BROWN.	L / D2.2
	STABILIZED DECOMPOSED GRANITE	Q / D2.1
	PLANTING AREA - REFER TO PLANTING PLAN	
	ADD. ALTERNATE # 4 - FIRE DEMONSTRATION GARDEN AREA - INSTALLATION OF PLANTING AND IRRIGATION AS PER PLANTING AND IRRIGATION PLAN.	
	BIO-RETENTION AREA - REFER TO DRAINAGE AND PLANTING PLAN	
	REDWOOD HEADER BOARD	J / D3.1
	SECURITY LIGHTS, REFER TO ELECTRICAL PLAN	
	TRASH & RECYCLING RECEPTACLES, REFER TO SPECIFICATION	P / D2.3
	SCORE JOINT EXPANSION JOINT	B / D2.1
	DOWEL JOINT	B / D2.1
1	6" WIDE TALL CONCRETE CURB	L / D2.1
2	12" WIDE TALL CONCRETE CURB	M / D2.1
3	12" WIDE CONCRETE EDGEBAND	P / D2.1
4	RETAINING WALL, REFER TO STRUCTURAL PLANS	
5	ENTRY WALL COLUMN	G / D2.2
6A	CIRCULAR ENTRY DONOR WALL WITH DONOR TILES AND COLUMN	H / D2.2
6B	CIRCULAR ENTRY WALL WITH MAGICAL BRIDGE SIGN AND COLUMN	M / D2.2
7	SEAT WALL - 12" TALL (TOT LOT AREA) - COLOR TO BE DAVIS COLOR - BAJA RED - 160	C / D2.2
8	SEAT WALL - 14" TALL (TOT LOT AREA) - COLOR TO BE DAVIS COLOR - BAJA RED - 160	C / D2.2
9	SEAT WALL - 18" TALL - COLOR TO BE DAVIS COLOR - BAJA RED - 160	C / D2.2
10	ENTRY PLINTH PLAY AREA SIGNAGE - SIGN BY THE CITY AND MAGICAL BRIDGE FOUNDATION	D / D2.2
11	ENTRY PLINTH PLAY AREA SIGNAGE - AT TOT AREA - SIGN BY THE CITY AND MAGICAL BRIDGE FOUNDATION	E / D2.2
12	CONCRETE WALKWAY WITH GUARDRAIL AND HANDRAILS	K / D2.2
13	WALKWAY / CONCRETE RAMP WITH GUARDRAIL AND HANDRAIL AT SLIDE MOUND AREA - SECTION	F / D2.2; I / D2.3
14	WALKWAY / CONCRETE RAMP WITH GUARDRAIL AND HANDRAIL AT TOT AREA - SECTION	F / D2.2; I / D2.3
15	SLIDE MOUND STAIRS AND HANDRAIL FOR PEDESTRIAN ACCESS - REFER TO STRUCTURAL PLANS	J / D2.2
16	DRINKING FOUNTAIN, WATER BOTTLE FILLING STATION AND PET STATION - REFER TO SPECIFICATIONS	O / D2.3
17	BASE BID: RESTROOM BUILDING - REFER TO RESTROOM BUILDING DRAWINGS, INSTALLATION PROCEDURES, AND GUIDELINES	
17A	ADD ALTERNATE #1: RESTROOM BUILDING - REFER TO RESTROOM BUILDING DRAWINGS, INSTALLATION PROCEDURES, AND GUIDELINES	
18A	ADA PICNIC TABLES, REFER TO SPECIFICATIONS	
18B	ADA PICNIC TABLES, REFER TO SPECIFICATIONS	

NORTH

0' 5' 10' 20' 30'

REGISTERED LANDSCAPE ARCHITECT
DEREK MCKEE
No. 4148
Signature
EXPIRATION DATE: DEC. 2021
STATE OF CALIFORNIA

NO.	DESCRIPTION	DATE	BY

Revisions

WORK ACCEPTED: INSPECTOR: BY: DATE:

DRAWN: VERDE | DESIGN: CMES | HOR: N/A
CHECKED: CMES / DM | VERT: N/A
APPROVED: [signature] | DATE: 2/10/20 | JOB NUMBER:
SCOTT CREER – CITY ENGINEER RCE#58879 EXP. 9/30/21

City of Morgan Hill
Public Works Department
CITY OF MORGAN HILL
17575 Peak Ave. Morgan Hill, CA 95037 (408)778-6480, Fax (408)779-7236

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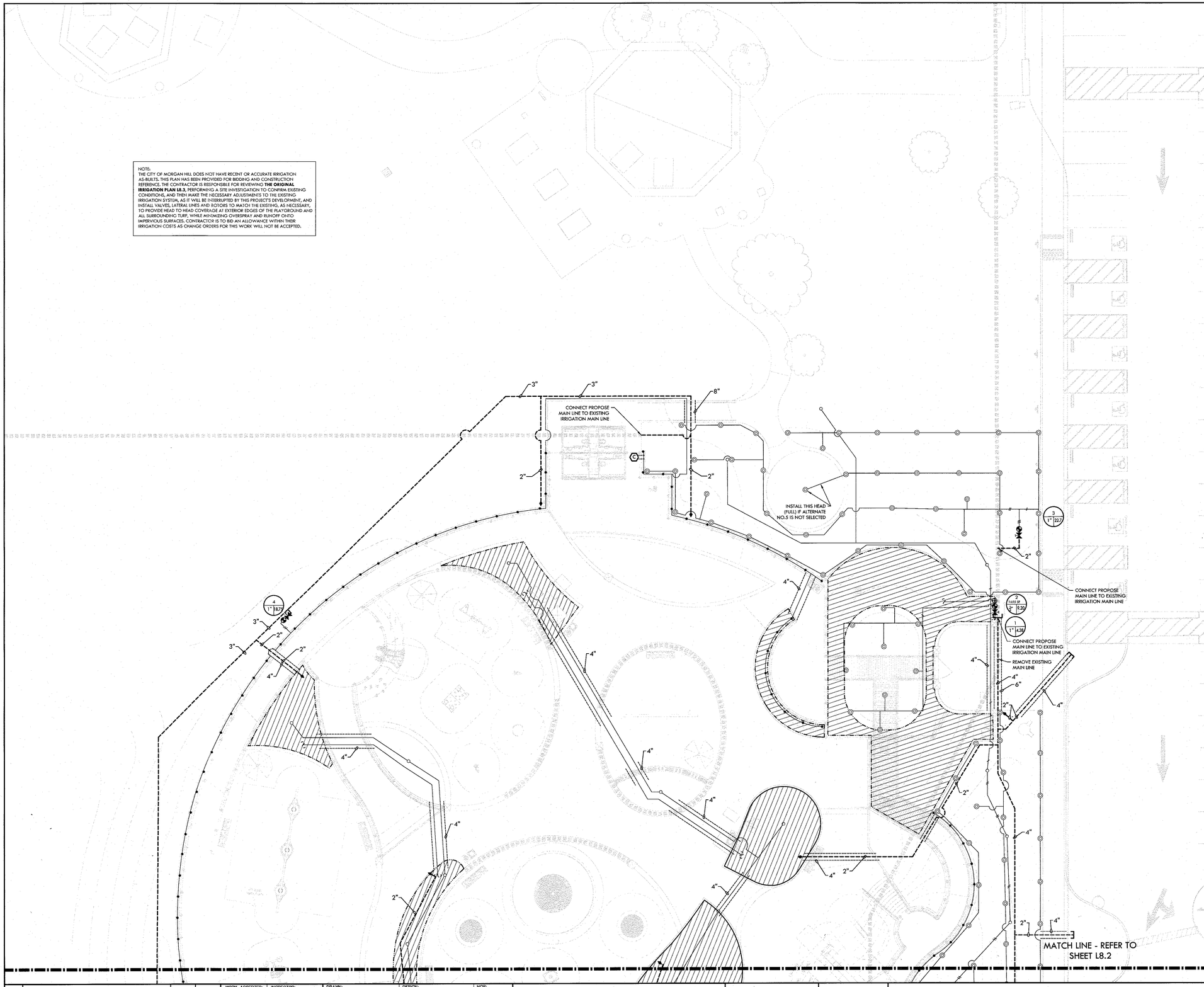
171 W EDMUNDSON AVE, MORGAN HILL, CA 95037

MATERIAL AND DETAIL REFERENCE PLAN
MORGAN HILL INCLUSIVE PLAYGROUND / MAGICAL BRIDGE PROJECT

FILE NUMBER: 1818000
PRINT DATE: 02/07/20
SHEET NUMBER: L7.2

BID SUBMITTAL - 02-07-20

NOTE:
THE CITY OF MORGAN HILL DOES NOT HAVE RECENT OR ACCURATE IRRIGATION AS-BUILTS. THIS PLAN HAS BEEN PROVIDED FOR BIDDING AND CONSTRUCTION REFERENCE. THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING **THE ORIGINAL IRRIGATION PLAN L8.3**, PERFORMING A SITE INVESTIGATION TO CONFIRM EXISTING CONDITIONS, AND THEN MAKE THE NECESSARY ADJUSTMENTS TO THE EXISTING IRRIGATION SYSTEM, AS IT WILL BE INTERRUPTED BY THIS PROJECT'S DEVELOPMENT, AND INSTALL VALVES, LATERAL LINES AND ROTORS TO MATCH THE EXISTING, AS NECESSARY, TO PROVIDE HEAD TO HEAD COVERAGE AT EXTERIOR EDGES OF THE PLAYGROUND AND ALL SURROUNDING TURF, WHILE MINIMIZING OVERSPRAY AND RUNOFF ONTO IMPERVIOUS SURFACES. CONTRACTOR IS TO BID AN ALLOWANCE WITHIN THEIR IRRIGATION COSTS AS CHANGE ORDERS FOR THIS WORK WILL NOT BE ACCEPTED.



IRRIGATION NOTES

1. THIS SYSTEM IS DESIGNED TO OPERATE AT A MAXIMUM FLOW OF (XX) GPM WITH A MINIMUM (XX) STATIC P.S.I. AT THE POINT OF CONNECTION. CONTRACTOR SHALL VERIFY PRESSURE PRIOR TO BEGINNING WORK. CONTACT OWNER'S REPRESENTATIVE IMMEDIATELY SHOULD DISCREPANCY ARISE AND RE-DIRECT WORK TO AVOID DELAY.
2. CONTRACTOR SHALL COORDINATE ELECTRICAL SUPPLY WITH GENERAL CONTRACTOR. GENERAL CONTRACTOR SHALL STUB APPROPRIATE POWER SUPPLY IN VICINITY OF CONTROLLER LOCATION.
3. IRRIGATION SYSTEM DESIGN IS DIAGRAMMATIC. WHERE PIPING, VALVES, QUICK COUPLERS, ETC. ARE SHOWN OUTSIDE PLANTING AREAS, OR LIMIT OF WORK; INTENT IS FOR PIPING, VALVES, ETC., TO BE INSTALLED WITHIN PLANTING AREAS OF PROPERTY. INDICATE EXACT LOCATIONS OF IRRIGATION EQUIPMENT ON RECORD DRAWINGS. REFER TO SPECIFICATIONS.
4. CONTRACTOR SHALL PROGRAM CONTROLLER TO ENSURE PROPER IRRIGATION. BASED ON PLANT TYPE, SOLAR EXPOSURE, SLOPE, SOIL TYPE AND SEASON.
5. CONTRACTOR SHALL USE EXTREME CARE WHERE IT IS NECESSARY TO TRENCH NEAR EXISTING TREES. EXCAVATION IN AREAS EXHIBITING ROOT 2" AND LARGER SHALL BE DONE BY HAND. ROOTS 2" OR LARGER IN DIAMETER DAMAGED IN CONSTRUCTION SHALL BE CLEANLY CUT.
6. EXISTING IRRIGATION HEADS AND VALVES TO BE REMOVED WITHIN THE PLAYGROUND AREA, SHALL BE SALVAGED AND PLACED IN STORAGE ON SITE FOR REMOVAL BY CITY. ALL MAINLINES AND LATERAL LINES THAT ARE IN THE PLAYGROUND AREA SHALL BE REMOVED.
7. WHERE ABANDONED IRRIGATION SYSTEM IS IN CONFLICT WITH IMPROVEMENTS, CONTRACTOR SHALL REMOVE AND DISPOSE OF ABANDONED IRRIGATION MATERIAL.
8. CONTRACTOR TO SPLICE EXISTING CONTROL WIRES TO NEW CONTROL WIRE RUN IN VALVE BOX OR SPECIE BOX. CONTRACTOR TO VERIFY EXISTING CONTROL WIRES TO CONTROL VALVES AND ENSURE SPLICE WILL MAINTAIN FULL OPERATION OF EXISTING CONTROL VALVES TO REMAIN. CONTRACTOR TO COORDINATE RE-NUMBERING OF VALVE STATIONS WITH CITY MAINTENANCE.
9. FOR THE ORIGINAL IRRIGATION SYSTEM DESIGN SEE SHEET L8.3. THIS PLAN IS FOR REFERENCE ONLY, AND DOES NOT NECESSARILY REPRESENT WHAT WAS INSTALLED OR WHAT MAY EXIST AT THIS TIME. SYSTEM COMPONENTS, MANUFACTURE, MODLE NO'S, LOCATION, SIZE AND DEPTH ARE TO BE DETERMINED BY THE CONTRACTOR PRIOR TO COMMENCING ANY CONSTRUCTION WORK. ANY DAMAGE TO THE EXISTING SYSTEM TO REMAIN OR ADDITIONAL WORK INCURRED DUE TO DISCREPANCIES BETWEEN SHEET L8.1 AND EXISTING CONDITIONS OR ACTUAL. THE ASSUMPTION THAT L8.3 IS CORRECT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. THERE WILL BE NO CHANGE ORDERS APPROVED DUE TO THE LACK OF THE CONTRACTORS SITE INVESTIGATION, LOGGING OF PERTINENT INFORMATION, AND MOVING FORWARD WITHOUT DETERMINING THE CORRECT DISPOSITION OF THE EXISTING IRRIGATION SYSTEM.
10. ALL MATERIAL SPECIFIED SHOULD BE, OR "AS APPROVED EQUAL".
11. CONTRACTOR SHALL REFER TO DETAILS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.

IRRIGATION LEGEND

SYM.	ITEM	MANUF. / MODEL NO.	CAT.RAD. /DES.RAD.	GPM	PSI	DTL REF
•	SHRUB BUBBLER	HUNTER: FB-25-PC BUBBLER NOZZLE, 1 PER SHRUB	-	.25	30	1 D3.2
○	TREE BUBBLER	HUNTER: TB-50-PC-BUBBLER NOZZLE, 2 PER 15 GAL, 4 PER 24" BOX, 8 PER 48" BOX	-	.50	30	1 D3.2
O	ROTATOR	HUNTER MP800SR ON PROS-12-PRS40-CV BODY	8'/10'	.23-.43	40	1 D3.2
◎	ROTATOR	HUNTER MP1000 ON PROS-12-PRS40-CV BODY	12'/14'	.21-.84	40	1 D3.2
	REMOTE CONTROL VALVE	HUNTER - ICV - G - AS-ADJ - SIZE AS NOTED				P D3.2
	DRIP CONTROL VALVE KIT	LVCZ100075 - HFHP WITH PRV075HF57V2K PRESSURE REGULATOR				A,B D3.2
	GATE VALVE	NIBCO - GATE VALVES 2" AND SMALLER SHALL BE NIBCO T-113-LF. FOR VALVES ABOVE 2" IN SIZE UTILIZE NIBCO F-619 FLANGED VALVE WITH SQUARE OPERATING NUT.				C D3.1
♦	QUICK COUPLER VALVE	HUNTER - HQ-44-LRC QUICK COUPLER VALVE - IN LANDSCAPE				B D3.1
◊	QUICK COUPLER VALVE	HUNTER - HQ-44-LRC QUICK COUPLER VALVE - IN PAVING				B D3.1
	MAINLINE	PROPOSED IRRIGATION MAIN LINE - CLASS 200 PVC PIPE WITH BELL AND SPIGOT JOINTS AND MECHANICAL RESTRAINT FITTINGS WITH 24" COVER - SIZE AS NOTED				A, I D3.1
	LATERAL LINE	3/4"- SCHEDULE 80 PVC PIPE & SOLVENT WELD FITTINGS, AT 18" MIN. DEPTH. SIZED AS NOTED				A, I D3.1
	LATERAL LINE	1" - SCHEDULE 80 PVC PIPE & SOLVENT WELD FITTINGS, AT 18" MIN. DEPTH. SIZED AS NOTED				A, I D3.1
	LATERAL LINE	1 1/4" - SCHEDULE 40 PVC PIPE & SOLVENT WELD FITTINGS, AT 18" MIN. COVER. SIZED AS NOTED				A, I D3.1
	LATERAL LINE	1 1/2" - SCHEDULE 80 PVC PIPE & SOLVENT WELD FITTINGS, AT 18" MIN. COVER. SIZED AS NOTED				A, I D3.1
	SLEEVE	SCHEDULE 40 PVC, PIPE SIZE TO BE TWICE THE SIZE OF TOTAL PIPE DIAMETERS WITHIN THE SLEEVE, OR AS NOTED, WITH 30" COVER.				A, I D3.1
	CAPPED MAIN LINE	CAPPED MAIN LINE IN IRRIGATION VALVE BOX WITH 30" COIL OF CONTROL WIRES FOR ONE VALVE.				
©	CONTROLLER	HUNTER - IC-600-PED-SS WITH (2) ICM-600, SEE ELECTRICAL PLANS AND COORDINATE WITH ELECTRICAL CONTRACTOR.				O D3.2
	DRIP LINE AREAS	SHRUB AREA DRIP ZONES WITH NETAFIM TLHCVXR3-1201 WITH .53 GPH AND 12" SPACING FOR EMITTERS; TUBING IS TO BE LAID DOWN WITH 12" O.C. SPACING; INSTALL AS PER MANUFACTURER'S RECOMMENDATIONS, DETAILS, AND SPECIFICATIONS				F D3.2
P.O.C.	POINT OF CONNECTION: TIE PROPOSED MAIN LINE TO EXISTING MAIN LINE. CONTRACTOR SHALL VERIFY LOCATION OF EXISTING MAIN LINE AND WATER PRESSURE. PROVIDE STATIC AND DYNAMIC WATER PRESSURE RATING TO OWNER'S REPRESENTATIVE.					

1 — CONTROLLER STATION NUMBER; 1" — CONTROL VALVE SIZE; 13 — APPROX. GPM FLOW THROUGH VALVE

3 — PLANTING ZONE NUMBER FOR SUBSURFACE IRRIGATION VALVES; 3277 SF — NETAFIM ZONE SQUARE FOOTAGE; 2" — CONTROL VALVE SIZE; 8.00 — APPROX. GPH FLOW THROUGH VALVE

NORTH

0' 5' 10' 20' 30'

REGISTERED LANDSCAPE ARCHITECT — DEREK MOREE — No. 4148 — Signature — EXPIRATION DATE: DEC. 2021 — STATE OF CALIFORNIA

NO.	DESCRIPTION	DATE	BY

Revisions

WORK ACCEPTED: BY: DATE:
INSPECTOR:

DRAWN: VERDE
DESIGN: CMES
CHECKED: CMES / DM
APPROVED: DATE: 2/10/20
SCOTT CREER – CITY ENGINEER RCE#58878 EXP. 9/30/21
HOR: N/A
VERT: N/A
JOB NUMBER:

City of Morgan Hill
Public Works Department
CITY OF MORGAN HILL
17575 Peak Ave. Morgan Hill, CA 95037 (408)778-6480, Fax (408)779-7236

VERDE DESIGN
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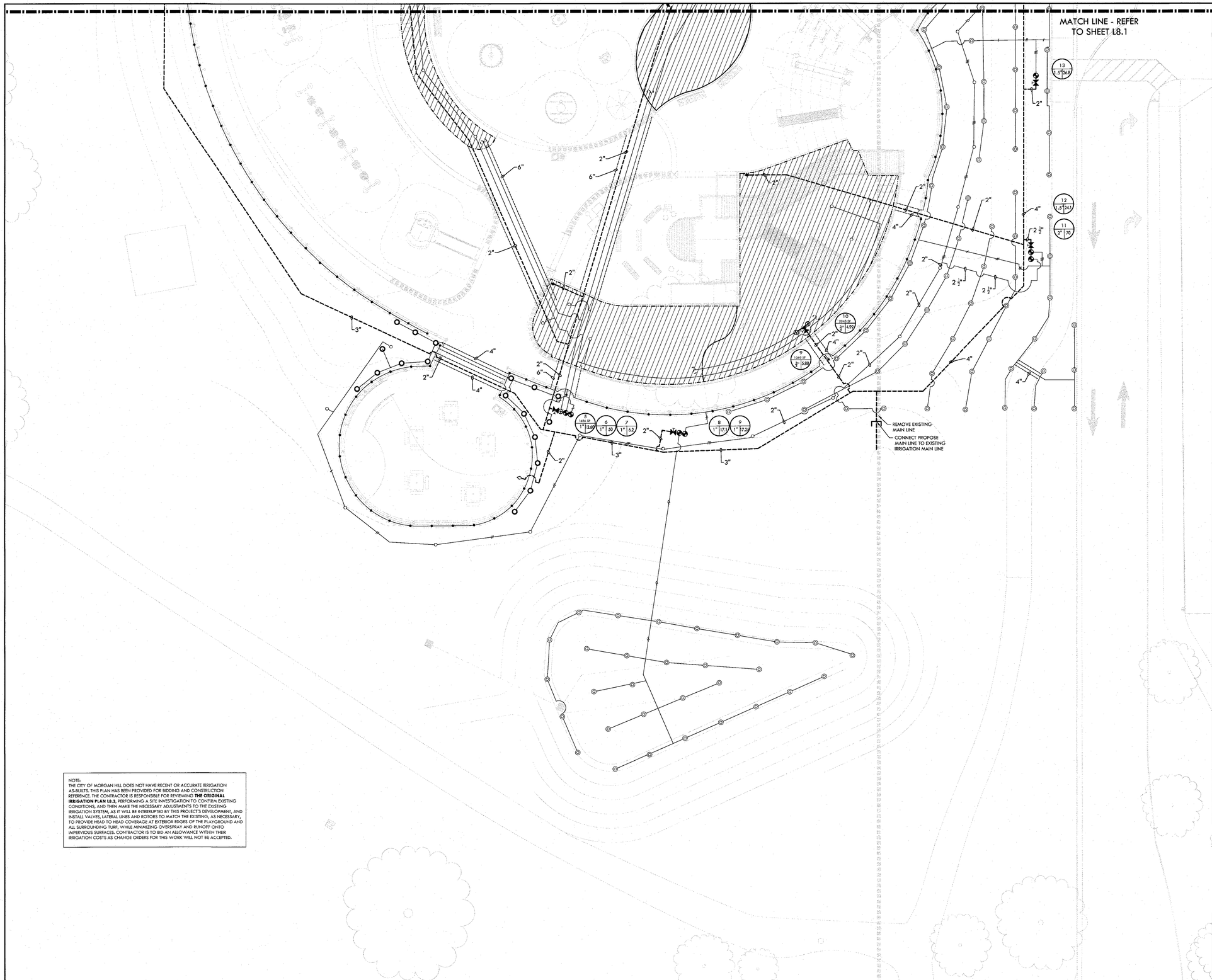
171 W EDMUNDSON AVE, MORGAN HILL, CA 95037

IRRIGATION PLAN
MORGAN HILL INCLUSIVE PLAYGROUND / MAGICAL BRIDGE PROJECT

FILE NUMBER: 1818000
PRINT DATE: 02/07/20
SHEET NUMBER: L8.1

BID SUBMITTAL - 02-07-20



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IRRIGATION NOTES

1. THIS SYSTEM IS DESIGNED TO OPERATE AT A MAXIMUM FLOW OF (XX) GPM WITH A MINIMUM (XX) STATIC P.S.I. AT THE POINT OF CONNECTION. CONTRACTOR SHALL VERIFY PRESSURE PRIOR TO BEGINNING WORK. CONTACT OWNER'S REPRESENTATIVE IMMEDIATELY SHOULD DISCREPANCY ARISE AND RE-DIRECT WORK TO AVOID DELAY.
2. CONTRACTOR SHALL COORDINATE ELECTRICAL SUPPLY WITH GENERAL CONTRACTOR. GENERAL CONTRACTOR SHALL STUB APPROPRIATE POWER SUPPLY IN VICINITY OF CONTROLLER LOCATION.
3. IRRIGATION SYSTEM DESIGN IS DIAGRAMMATIC. WHERE PIPING, VALVES, QUICK COUPLERS, ETC. ARE SHOWN OUTSIDE PLANTING AREAS, OR LIMIT OF WORK; INTENT IS FOR PIPING, VALVES, ETC., TO BE INSTALLED WITHIN PLANTING AREAS OF PROPERTY. INDICATE EXACT LOCATIONS OF IRRIGATION EQUIPMENT ON RECORD DRAWINGS. REFER TO SPECIFICATIONS.
4. CONTRACTOR SHALL PROGRAM CONTROLLER TO ENSURE PROPER IRRIGATION. BASED ON PLANT TYPE, SOLAR EXPOSURE, SLOPE, SOIL TYPE AND SEASON.
5. CONTRACTOR SHALL USE EXTREME CARE WHERE IT IS NECESSARY TO TRENCH NEAR EXISTING TREES. EXCAVATION IN AREAS EXHIBITING ROOT 2" AND LARGER SHALL BE DONE BY HAND. ROOTS 2" OR LARGER IN DIAMETER DAMAGED IN CONSTRUCTION SHALL BE CLEANLY CUT.
6. EXISTING IRRIGATION HEADS AND VALVES TO BE REMOVED WITHIN THE PLAYGROUND AREA, SHALL BE SALVAGED AND PLACED IN STORAGE ON SITE FOR REMOVAL BY CITY. ALL MAINLINES AND LATERAL LINES THAT ARE IN THE PLAYGROUND AREA SHALL BE REMOVED.
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8. CONTRACTOR TO SPLICE EXISTING CONTROL WIRES TO NEW CONTROL WIRE RUN IN VALVE BOX OR SPECIE BOX. CONTRACTOR TO VERIFY EXISTING CONTROL WIRES TO CONTROL VALVES AND ENSURE SPLICE WILL MAINTAIN FULL OPERATION OF EXISTING CONTROL VALVES TO REMAIN. CONTRACTOR TO COORDINATE RE-NUMBERING OF VALVE STATIONS WITH CITY MAINTENANCE.
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10. ALL MATERIAL SPECIFIED SHOULD BE, OR "AS APPROVED EQUAL".
11. CONTRACTOR SHALL REFER TO DETAILS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.

IRRIGATION LEGEND

SYM.	ITEM	MANUF. / MODEL NO.	CAT.RAD. /DES.RAD.	GPM	PSI	DTL REF
•	SHRUB BUBBLER	HUNTER: FB-25-PC BUBBLER NOZZLE, 1 PER SHRUB	-	.25	30	I D3.2
○	TREE BUBBLER	HUNTER: FB-50-PC-BUBBLER NOZZLE, 2 PER 15 GAL, 4 PER 24" BOX, 8 PER 48" BOX	-	.50	30	J D3.2
○	ROTATOR	HUNTER MP800SR ON PROS-12-PRS40-CV BODY	8'/10'	.23-.43	40	L D3.2
◎	ROTATOR	HUNTER MP1000 ON PROS-12-PRS40-CV BODY	12'/14'	.21-.84	40	L D3.2
◉	REMOTE CONTROL VALVE	HUNTER - ICV - G - AS-ADJ - SIZE AS NOTED				P D3.2
⊕	DRIP CONTROL VALVE KIT	LVC210075 - HFHP WITH PRV075HF57V2K PRESSURE REGULATOR				A,B D3.2
⋈	GATE VALVE	NIBCO - GATE VALVES 2" AND SMALLER SHALL BE NIBCO T-113-LF. FOR VALVES ABOVE 2" IN SIZE UTILIZE NIBCO F-619 FLANGED VALVE WITH SQUARE OPERATING NUT.				C D3.1
♦	QUICK COUPLER VALVE	HUNTER - HQ-44-LRC QUICK COUPLER VALVE - IN LANDSCAPE				B D3.1
◊	QUICK COUPLER VALVE	HUNTER - HQ-44-LRC QUICK COUPLER VALVE - IN PAVING				B D3.1
	MAINLINE	PROPOSED IRRIGATION MAIN LINE - CLASS 200 PVC PIPE WITH BELL AND SPIGOT JOINTS AND MECHANICAL RESTRAINT FITTINGS WITH 24" COVER - SIZE AS NOTED				A,1 D3.1
	LATERAL LINE	3/4"- SCHEDULE 80 PVC PIPE & SOLVENT WELD FITTINGS, AT 18" MIN. DEPTH. SIZED AS NOTED				A,1 D3.1
	LATERAL LINE	1" - SCHEDULE 80 PVC PIPE & SOLVENT WELD FITTINGS, AT 18" MIN. DEPTH. SIZED AS NOTED				A,1 D3.1
	LATERAL LINE	1 1/4" - SCHEDULE 40 PVC PIPE & SOLVENT WELD FITTINGS, AT 18" MIN. COVER. SIZED AS NOTED				A,1 D3.1
	LATERAL LINE	1 1/2" - SCHEDULE 80 PVC PIPE & SOLVENT WELD FITTINGS, AT 18" MIN. COVER. SIZED AS NOTED				A,1 D3.1
	SLEEVE	SCHEDULE 40 PVC. PIPE SIZE TO BE TWICE THE SIZE OF TOTAL PIPE DIAMETERS WITHIN THE SLEEVE, OR AS NOTED, WITH 30" COVER.				A,1 D3.1
	CAPPED MAIN LINE	CAPPED MAIN LINE IN IRRIGATION VALVE BOX WITH 30" COIL OF CONTROL WIRES FOR ONE VALVE.				
C	CONTROLLER	HUNTER - IC-600-PED-SS WITH (2) ICM-600, SEE ELECTRICAL PLANS AND COORDINATE WITH ELECTRICAL CONTRACTOR.				G D3.2
	DRIP LINE AREAS	SHRUB AREA DRIP ZONES WITH NETAFIM TLHCVXR3-1201 WITH .53 GPH AND 12" SPACING FOR EMITTERS; TUBING IS TO BE LAID DOWN WITH 12" O.C. SPACING; INSTALL AS PER MANUFACTURER'S RECOMMENDATIONS, DETAILS, AND SPECIFICATIONS				F D3.2
P.O.C.	POINT OF CONNECTION. TIE PROPOSED MAIN LINE TO EXISTING MAIN LINE. CONTRACTOR SHALL VERIFY LOCATION OF EXISTING MAIN LINE AND WATER PRESSURE. PROVIDE STATIC AND DYNAMIC WATER PRESSURE RATING TO OWNER'S REPRESENTATIVE.					

1 — CONTROLLER STATION NUMBER
1" — CONTROL VALVE SIZE
13 — APPROX. GPM FLOW THROUGH VALVE
9 — PLANTING ZONE NUMBER FOR SUBSURFACE IRRIGATION VALVES
1277 SF — NETAFIM ZONE SQUARE FOOTAGE
8.00 — APPROX. GPH FLOW THROUGH VALVE
2" — CONTROL VALVE SIZE

NORTH
0' 5' 10' 20' 30'

REGISTERED LANDSCAPE ARCHITECT
BORIK MOREL
No. 4148
Signature
EXPIRATION DATE: DEC. 2021
STATE OF CALIFORNIA

NO.	DESCRIPTION	DATE	BY

Revisions

WORK ACCEPTED: INSPECTOR:
BY: DATE:

DRAWN: VERDE | DESIGN: CMES | HOR: N/A
CHECKED: CMES / DM | VERT: N/A
APPROVED: | DATE: 2/10/20 | JOB NUMBER:
SCOTT CREER - CITY ENGINEER
RCE#58870 EXP. 9/30/21

CITY OF MORGAN HILL
City of Morgan Hill
Public Works Department
17575 Peak Ave. Morgan Hill, CA 95037 (408)778-6480, Fax (408)779-7236

VERDE DESIGN
LANDSCAPE ARCHITECTURE
CIVIL ENGINEERING
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2493 Olvet Avenue, Ste. 250
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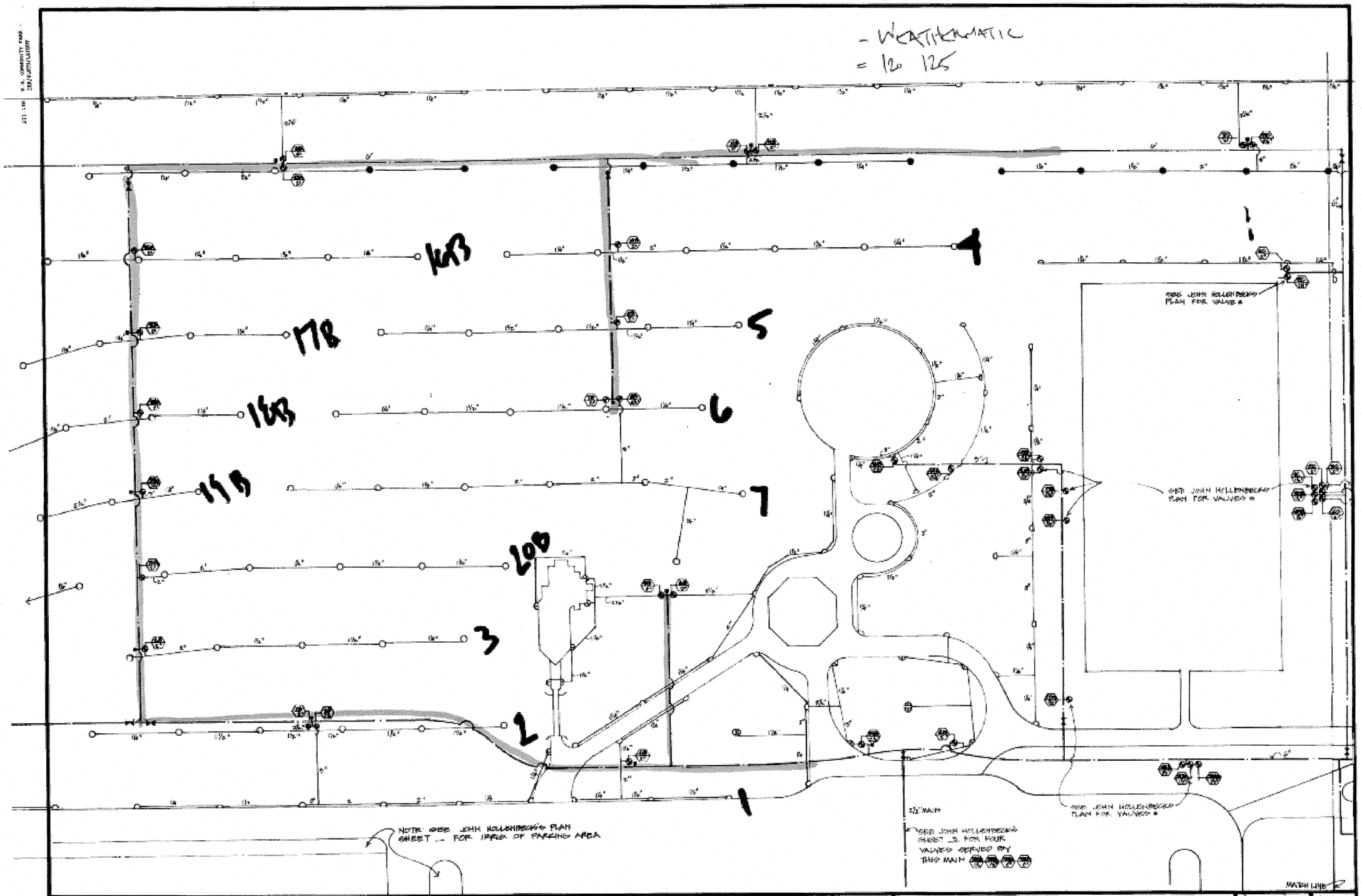
171 W
EDMUNDSON AVE,
MORGAN HILL,
CA 95037

IRRIGATION PLAN
MORGAN HILL INCLUSIVE PLAYGROUND / MAGICAL BRIDGE PROJECT

FILE NUMBER: 1818000
PRINT DATE: 02/07/20
SHEET NUMBER: L8.2

BID SUBMITTAL - 02-07-20



Project: MORGAN HILL COMMUNITY PARK	Singer & Hodges Landscape Architects	250 Forty First Street Oakland, California 94611 Telephone 415/652-0900	Sheet Title: IRRIGATION PLAN	revision	date	sheet no. 2 of _sheets

FOR REFERENCE ONLY

NO.	DESCRIPTION	DATE	BY	WORK ACCEPTED:	INSPECTOR:	DRAWN:	DESIGN:	HOR: N/A
				BY:	DATE:	CHECKED:		VERT: N/A
						APPROVED:	DATE: 2/10/20	JOB NUMBER:
				Revisions		SCOTT CREER – CITY ENGINEER RCE#58879 EXP. 9/30/21		

City of Morgan Hill
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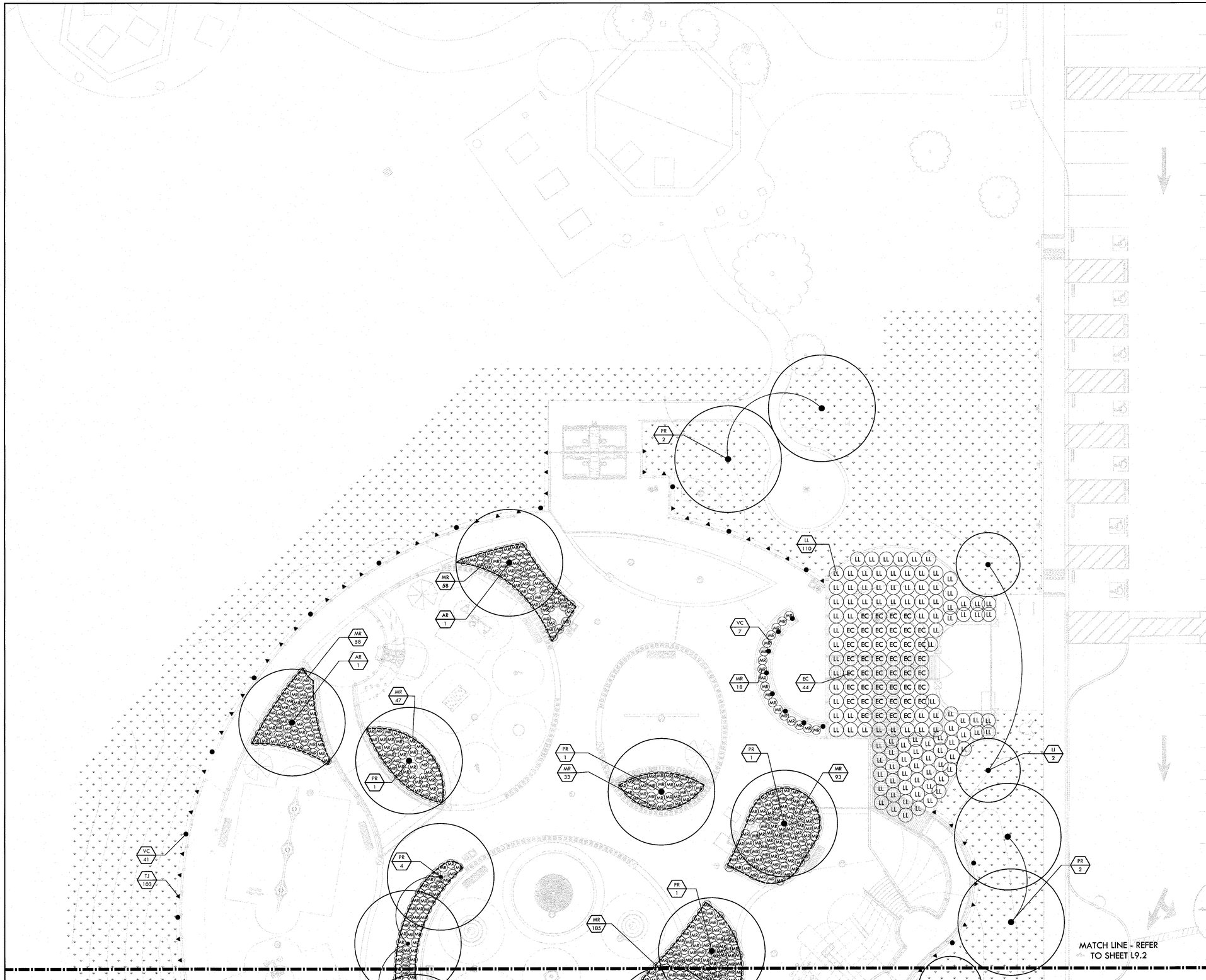
LANDSCAPE ARCHITECTURE CIVIL ENGINEERING SPORT PLANNING & DESIGN
2455 The Alameda, Ste. 200 Santa Clara, CA 95050 tel: 408.985.7200 fax: 408.985.7290 www.verdedesigninc.com

171 W EDMUNDSON AVE, MORGAN HILL, CA 95037

ORIGINAL IRRIGATION PLAN
MORGAN HILL INCLUSIVE PLAYGROUND / MAGICAL BRIDGE PROJECT

FILE NUMBER: 1818000
PRINT DATE: 02/07/20
SHEET NUMBER: L8.3

BID SUBMITTAL - 02-07-20



PLANTING NOTES

1. CONTRACTOR SHALL PROTECT AND MAINTAIN ALL PLANT MATERIAL FROM TIME OF DELIVERY TO TIME OF FINAL ACCEPTANCE. OWNER SHALL NOT BE RESPONSIBLE FOR LOSSES DUE TO VANDALISM, THEFT OR SEVERE WEATHER.
2. CONTRACTOR SHALL PLACE PLANT MATERIALS SO THEY DO NOT INTERFERE WITH IRRIGATION SYSTEM OR INHIBIT REQUIRED COVERAGE. PLANT LOCATIONS MAY BE ADJUSTED AS LONG AS DESIGN INTENT IS NOT COMPROMISED. CONTRACTOR SHALL SET OUT PLANT MATERIAL AS PER PLAN AND RECEIVE ACCEPTANCE FROM OWNER'S REPRESENTATIVE WITH RESPECT TO PLANT HEALTH AND LOCATION PRIOR TO INSTALLATION. CONTRACTOR SHALL GIVE MINIMUM 2 WORKING DAYS NOTICE FOR OBSERVATION AND SHALL HAVE ALL PLANT MATERIAL IN SPECIFIED LOCATIONS FOR REVIEW AT ONE TIME. CONTRACTOR SHALL REPLACE ANY MATERIAL AS REQUESTED BY OWNER'S REPRESENTATIVE.
3. ALL PLANTING AREAS, WITH THE EXCEPTION OF THE BIOFILTRATION AREA, TO RECEIVE SOIL AMENDMENTS AND SOIL PREPARATION PER SPECIFICATIONS UNLESS OTHERWISE NOTED.
4. WHEN WORK HAS TO OCCUR UNDER THE DRIPLINE OF EXISTING TREES NOT SCHEDULED FOR REMOVAL, THE CONTRACTOR SHALL USE ALL POSSIBLE CARE TO AVOID INJURY TO THE TREES AND TREE ROOTS. GRADE IN LINES RADIAL TO THE EXISTING TREES RATHER THAN TANGENTIAL. ALL PARTIAL CUTS OR TEARS THROUGH ROOTS TWO INCHES IN DIAMETER AND LARGER SHALL BE CUT CLEAN. TRENCHES ADJACENT TO TREES SHALL BE FILLED WITHIN 24 HOURS AFTER EXCAVATION, BUT WHERE THIS IS NOT POSSIBLE, THE SIDE OF THE TRENCH ADJACENT TO THE TREE, AND ANY EXPOSED ROOTS SHALL BE KEPT SHADED AND MOIST WITH DAMPENED BURLAP OR CANVAS.
5. ALL PLANTERS, AND PLANT PITS TO RECEIVE SOIL AMENDMENTS AND SOIL PREPARATION PER SPECIFICATIONS UNLESS OTHERWISE NOTED.
6. ALL PLANTING AREAS, WITH THE EXCEPTION OF SOD AREAS, ARE TO RECEIVE A 3" LAYER OF MULCH.
7. CONTRACTOR SHALL REFER TO DETAILS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.

PLANTING LEGEND

SYM	QTY	SIZE	BOTANICAL/COMMON NAME	WUCOLS PF*	SPACING/ COMMENTS	DTL REF
TREES						
CO	6	15 GAL	CERCIS OCCIDENTALIS WESTERN REDBUD	VL	AS SHOWN	J D3.2
LI	7	24" BOX	LAGERSTROEMIA INDICA 'TUSCARORA' TUSCARORA CRAPE MYRTLE	L	AS SHOWN	J D3.2
AR	4	24" BOX	ACER RUBRUM 'ARMSTRONG'	M	AS SHOWN	J D3.2
PR	21	48" BOX	PLATANUS RACEMOSA CALIFORNIA SYCAMORE	M	AS SHOWN	J D3.2
SHRUBS/ GROUNDCOVER						
A	131	1 GAL	ALOE 'JOHNSON'S HYBRID' ALOE	L	1'-6" O.C.	G D3.1
E	29	5 GAL	EPILOBIUM CANUM CALIFORNIA FUCHSIA	L	4'-0" O.C.	G D3.1
CT	25	1 GAL	CEANOTHUS THYRSIFLORUS VAR. GRISEUS DIAMOND HEIGHTS'	VL	5'-0" O.C.	G D3.1
HD	53	1 GAL	HEMEROCALLIS DAYLILY 'YELLOW'	M	3'-0" O.C.	G D3.1
HW	3	5 GAL	HESPEROYUCCA WHIPPLEI 'RBG' [YUCCA] YUCCA WHIPPLEI	L	7'-0" O.C.	G D3.1
LD	60	5 GAL	LAVANDER DENTATA FRENCH LAVENDER	L	4'-0" O.C.	G D3.1
MP	45	5 GAL	MIMULUS AURANTIACUS VAR. PUNICEUS RED BUSH MONKEYFLOWER	L	4'-0" O.C.	G D3.1
MR	586	1 GAL	MUHLENBERGIA RIGEN DEER GRASS	L	30" O.C.	G D3.1
OM	4	5 GAL	OPUNTIA MICRODASYS BUNNY EAR CACTUS	VL	4'-0" O.C.	G D3.1
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VINES						
▲	103	5 GAL	TRACHELOSPERMUM JASMINOIDES STAR JASMINE	M	15" O.C.	
●	41	5 GAL	VITIS CALIFONICA ROGER'S RED	L	15"O.C.	
BIORETENTION SHRUBS						
EC	228	1 GAL	ELYMUS CONDENSATUS "CANYON PRINCE"	L	AS SHOWN	G D3.1
LL	110	1 GAL	LOMANDRA LONGFOLIA "BREEZE" DWARF MAT RUSH	L	AS SHOWN	G D3.1
TURF / MULCH						
			SOD - TO MATCH EXISTING, REFER TO SPECIFICATIONS	L	ROLLS	
			MULCH, REFER TO SPECIFICATION			
MISCELLANEOUS						
			ROOT BARRIER - REFER TO SPECIFICATIONS			K D3.1

NOTES:
* PLANT FACTORS ARE BASED ON WUCOLS IV PLANT LIST.

NORTH

0' 5' 10' 20' 30'

REGISTERED LANDSCAPE ARCHITECT
DEREK MOBLE
No. 4148
SIGNATURE
EXPIRATION DATE: DEC. 2021
STATE OF CALIFORNIA

NO.	DESCRIPTION	DATE	BY

Revisions

WORK ACCEPTED: INSPECTOR: BY: DATE:

DRAWN: VERDE DESIGN: CMES HOR: N/A
CHECKED: CMES / DM VERT: N/A
APPROVED: DATE: 2/10/20 JOB NUMBER:

SCOTT GREER - CITY ENGINEER
RCE#56879 EXP. 9/30/21

City of Morgan Hill
Public Works Department
CITY OF MORGAN HILL
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171 W
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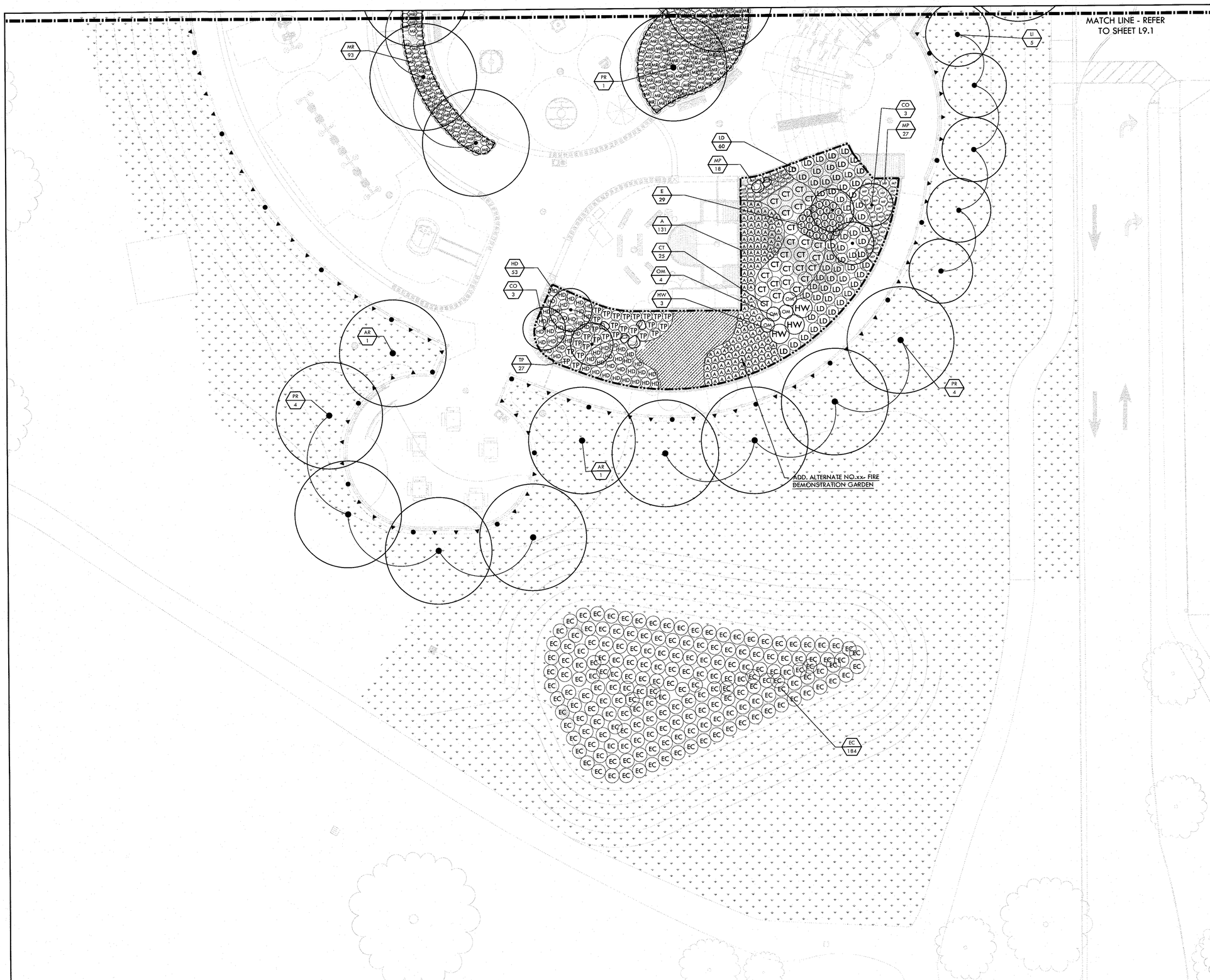
CA 95037

PLANTING PLAN

MORGAN HILL INCLUSIVE PLAYGROUND / MAGICAL BRIDGE PROJECT

FILE NUMBER: 1818000
PRINT DATE: 02/07/20
SHEET NUMBER: L9.1

BID SUBMITTAL - 02-07-20



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TURF / MULCH						
			SOD - TO MATCH EXISTING, REFER TO SPECIFICATIONS	L	ROLLS	
			MULCH, REFER TO SPECIFICATION			
MISCELLANEOUS						
			ROOT BARRIER - REFER TO SPECIFICATIONS			6 / D3.1

NOTES:
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NORTH
0' 5' 10' 20' 30'

REGISTERED LANDSCAPE ARCHITECT
DEREK MOSER
No. 4148
SIGNATURE
EXPIRATION DATE: DEC. 2021
STATE OF CALIFORNIA

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Revisions

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SCOTT CRIER - CITY ENGINEER
RCE#58879 EXP. 9/30/21

HOR: N/A
VERT: N/A
JOB NUMBER:

CITY OF MORGAN HILL
City of Morgan Hill
Public Works Department
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PLANTING PLAN
MORGAN HILL INCLUSIVE PLAYGROUND / MAGICAL BRIDGE PROJECT

FILE NUMBER: 1818000
PRINT DATE: 02/07/20
SHEET NUMBER: L9.2

BID SUBMITTAL - 02-07-20

TESTING

After backfill and compaction of the base rock, all sewer mains, laterals and manholes shall be required to pass an air or water leakage test. The contractor shall furnish all equipment, labor and materials needed to perform the test. A "Mandrel Test" may also be required by the City Engineer.

AIR TEST

The pneumatic test method or "air test" is the preferred test for leakage detection of new sewer lines. Contractor shall furnish all equipment, labor and materials necessary to perform the test. Length of line tested at one time shall be limited to the length between adjacent manholes.

Air test procedure shall be as follows: Pressurize the test section to 3.5 PSI, disconnect the compressor from the hose and time for not less than 5 minutes. If at the end of the test period the pressure is less than 3.0 PSI, the section of pipe has failed. If the new main is below ground water level, the Uni-Bell UNI-B-6 "Recommended Practice for Low-Pressure Air Testing of Installed Sewer Pipe" shall be used.

AIR TEST ON PRESSURE MAIN

Force mains shall hold air pressure that is 50% higher than the normal operating pressure for a period of 3 minutes with pressure drop not to exceed 0.5 psi.

WATER TEST

In lieu of the air test a water test may be performed upon approval of the inspector. Where grades are slight, two or more sections between manholes may be tested at the same time. Where grades are steep, the maximum head on any one section shall not exceed 12 feet. All lines and branches not under test shall be plugged to prohibit overflow.

A section of sewer line prepared as above shall be tested by filling the manhole with water to a height of four feet above the invert at midpoint of the test section, or one foot above the top of pipe in the upstream manhole, whichever is greater. Water should be introduced into the test section at least 6 hours in advance of the official test period to allow pipe and joint material to become saturated with water.
All entrapped air shall be removed from the test section prior to performing the test. At the beginning of the test, the height of water in the upper manhole shall be carefully measured from a point on the manhole rim. After a period of 2 hours or less, with the approval of the inspector, the water height shall be measured from the same point on the manhole rim and loss of water during the test period calculated. Allowable leakage shall not exceed 4 gallons per hour per 1000 feet of line per inch of pipe diameter.

Sewer sections showing leakage in excess of the maximum shall be repaired or reconstructed as necessary to reduce leakage to the maximum specified above.

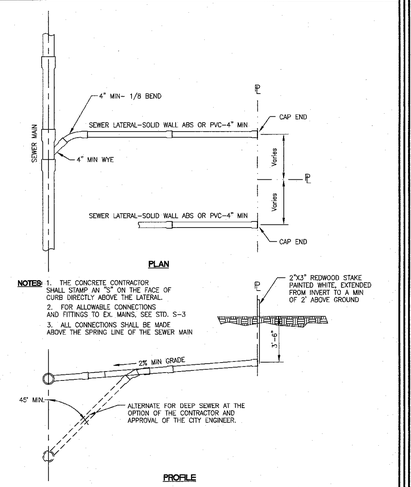
The contractor's attention is directed to the fact that the stipulated maximum leakage shall in no way relieve the contractor of his obligation to correct, stop or otherwise remedy individual leaks in the system due to defective workmanship or material even though such leakage might fall within the maximum.

MANDREL TEST

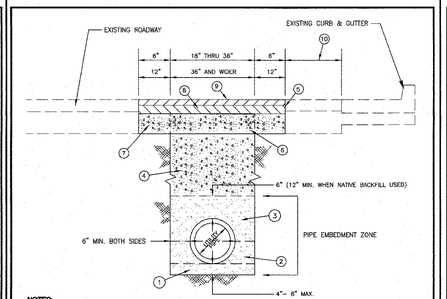
A Mandrel test may be required by the City Engineer. The Mandrel shall be 4% smaller than the inside diameter of the pipe tested.

City of Morgan Hill — Public Works Department
Jim Ashcraft, CITY ENGINEER — 4/1/96 DATE — REVISED
GENERAL NOTES — DRAWING NO. S-II

NOT USED



City of Morgan Hill — Public Works Department
Jim Ashcraft, CITY ENGINEER — 4/1/96 DATE — 3/15/07 REVISED
SEWER LATERAL — DRAWING NO. S-2

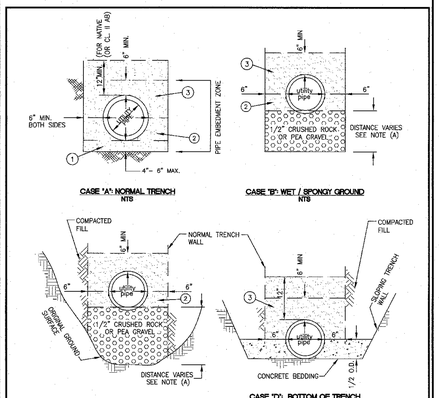


NOTES:

A. PIPE EMBEDMENT SHALL CONFORM TO THE PRACTICE RECOMMENDED FOR CLASS III MATERIAL (SAND) IN ASTM D 2321 "UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY-FLOW APPLICATIONS".

1. SAND BEDDING, HAND PLACED AND COMPACTED TO MIN. 90% RELATIVE COMPACTION, 4" MIN. TO 6" MAX.
2. HAUNCHING; HAND PLACED AND COMPACTED SAND TO MIN. 90% RELATIVE COMPACTION TO SPRING LINE OF PIPE.
3. INITIAL SAND BACKFILL, INSTALL AND COMPACT TO A MINIMUM OF 6" ABOVE PIPE CROWN (12" MIN. FOR NATIVE).
4. 100% CLASS 2 AGGREGATE BASE ROCK BACKFILL COMPACTED IN LIFTS TO 95% RELATIVE COMPACTION. FLOODING OR JETTING SHALL ONLY BE ALLOWED UPON CITY ENGINEER APPROVAL. NATIVE BACKFILL MAY BE USED DURING THE CONSTRUCTION OF NEW STREETS ONLY AND SHALL BE USED ONLY UPON APPROVAL OF THE CITY ENGINEER AND UPON THE RECOMMENDATION OF A QUALIFIED SOILS ENGINEER/SOILS REPORT.
5. SAW CUT EXISTING PAVEMENT, ALL VERTICAL EDGES SHALL BE TACKED PRIOR TO PAVING.
6. 8" (MIN) CLASS 2 AGGREGATE BASE ROCK, COMPACTED TO 95% RELATIVE COMPACTION.
7. AT THE DISCRETION OF THE PROJECT INSPECTOR, THE EXISTING BASE ROCK MAY REMAIN FOR THIS TRENCH WIDTH PROVIDED THAT THE BASE ROCK IS COMPACTED AND IS NOT CONTAMINATED.
8. MATCH EXIST. AC SECTION OR 6" MIN. IN 2 LIFTS. BASE COURSE TO BE 3/4" TYPE B AC, AND SURFACE COURSE TO BE 1/2" TYPE B AC.
9. SURFACE SHALL BE FOG SEALED AFTER PAVING. EXISTING ROADWAY SURFACE SHALL BE REPLACED IN KIND.
10. IF DISTANCE IS LESS THAN 3 FEET, PAVEMENT RESTORATION SHALL EXTEND TO LIP OF GUTTER.

City of Morgan Hill — Public Works Department
Jim Ashcraft, CITY ENGINEER — 4/1/96 DATE — 3/15/07 REVISED
TRENCH RESTORATION/BACKFILL FOR TRENCH WIDTHS GREATER THAN 18" — DRAWING NO. U-3



NOTES:

(A) DISTANCE WILL VARY BASED UPON FIELD CONDITIONS, AND SOILS REPORT RECOMMENDATIONS.

(B) PIPE EMBEDMENT SHALL CONFORM TO THE PRACTICE RECOMMENDED FOR CLASS III MATERIAL (SAND) IN ASTM D 2321 "UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY-FLOW APPLICATIONS".

1. SAND BEDDING, HAND PLACED AND COMPACTED TO MIN. 90% RELATIVE COMPACTION, 4" MIN. TO 6" MAX.
2. HAUNCHING; HAND PLACED AND COMPACTED TO MIN. 90% RELATIVE COMPACTION TO SPRING LINE OF PIPE.
3. INITIAL BACKFILL, INSTALL AND COMPACT TO A MINIMUM OF 6" ABOVE PIPE CROWN (12" MIN. FOR NATIVE).

City of Morgan Hill — Public Works Department
Jim Ashcraft, CITY ENGINEER — 4/1/96 DATE — REVISED
TRENCH BEDDING — DRAWING NO. U-1

SANITARY SEWER

GENERAL

All Sanitary Sewers shall be constructed in accordance with the City of Morgan Hill Standard Details. Materials shall conform to the American Society for Testing and Materials (ASTM), and the American Water Works Association (AWWA), except as modified herein.

SEWER MAINS

Main sewer lines shall be PVC or ABS "composite wall" pipe, PVC solid wall pipe, ABS solid wall pipe, polyurethane lined D.I.P. or PVC C900. Polyurethane D.I.P. (or PVC C900 upon City Engineer approval) shall be used where pipe cover is less than 3 feet but at least 2 feet.

After all testing, backfill and pavement restoration has been completed, the contractor shall flush and clean all sewer lines 24 inches or less in diameter by the "Wayne Ball" method.

TYPES OF SEWER MAIN/LATERALS

POLY-VINYL CHLORIDE (PVC)

Poly-Vinyl Chloride (4" to 12") solid wall pipe, shall conform to ASTM D 3034 (SDR 26) with rubber gasket joints. PVC used for force or shallow mains shall conform to AWWA C900 and installation conform to ASTM D 2774.

ACRYLONITRILE-BUTADIENE-STYRENE (ABS)

Acrylonitrile-Butadiene-Styrene (4" to 12") solid wall pipe, shall conform to ASTM D 2751 (SDR 26).

COMPOSITE WALL PIPE

Double wall, truss type braced, and concrete filled, composite wall pipe, shall conform to ASTM D 2680, SDR 23.5.

DUCTILE IRON PIPE (Polyurethane Lined & Polyethylene Encased)

Polyurethane Lined D.I.P. for force mains or shallow mains, shall be "POLYTHANE Lined Ductile Iron Pipe and Fittings" as manufactured by U.S. Pipe or approved equal. Polyethylene Encasement shall be "GREENSHIELD Polyethylene Film" as manufactured by U.S. Pipe or approved equal, and conform to AWWA C105.

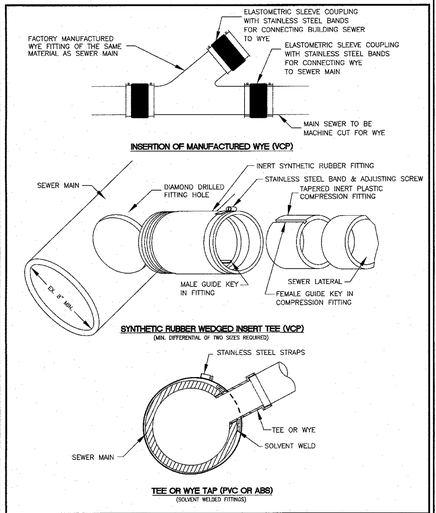
SEWER MAIN/LATERAL INSTALLATION

PVC/ABS solid wall pipe shall be installed per ASTM D2321 using sand as the embedment material. Sand shall conform to CALTRANS Section 19-3.025B.

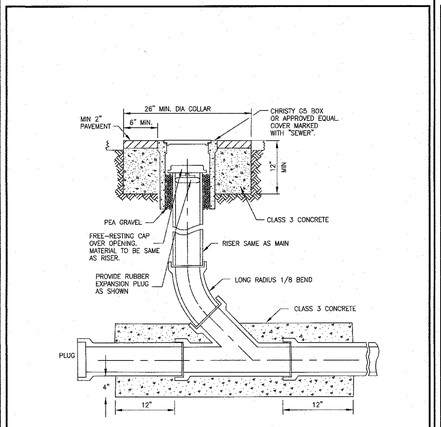
LATERALS

The underground contractor shall keep an accurate record of all manholes and the distance between them and each wye branch lateral and their direction. Laterals shall be laid on a minimum of 2% grade. The end of the lateral shall be marked as shown in Detail S-2, prior to construction of the curb and gutter. The concrete contractor shall stamp an "S" on the face of curb directly above the lateral.

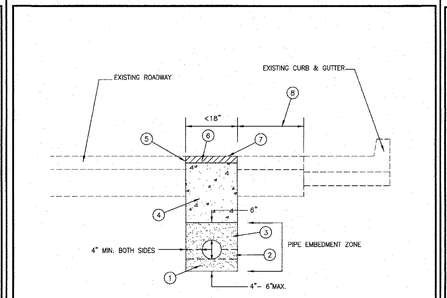
City of Morgan Hill — Public Works Department
Jim Ashcraft, CITY ENGINEER — 4/1/96 DATE — REVISED
GENERAL NOTES — DRAWING NO. S-I



City of Morgan Hill — Public Works Department
Jim Ashcraft, CITY ENGINEER — 4/1/96 DATE — REVISED
SEWER LATERAL CONNECTION OPTIONS — DRAWING NO. S-3



City of Morgan Hill — Public Works Department
Jim Ashcraft, CITY ENGINEER — 4/1/96 DATE — 3/15/07 REVISED
SEWER CLEANOUT — DRAWING NO. S-1



NOTES:

A. PIPE EMBEDMENT SHALL CONFORM TO THE PRACTICE RECOMMENDED FOR CLASS III MATERIAL (SAND) IN ASTM D 2321 "UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY-FLOW APPLICATIONS".

1. SAND BEDDING, HAND PLACED AND COMPACTED TO 90% RELATIVE COMPACTION, 4" MIN. TO 6" MAX.
2. HAUNCHING, HAND PLACED AND COMPACTED TO 90% RELATIVE COMPACTION TO SPRING LINE OF PIPE.
3. INITIAL BACKFILL, INSTALL AND COMPACT TO A MINIMUM OF 6" ABOVE PIPE CROWN.
4. 1.5 SACK CEMENT SLURRY BACK FILL. CEMENT SLURRY BACKFILL TO BE CURED PER MANUFACTURERS REQUIREMENTS PRIOR TO PAVING.
5. SAW CUT EXISTING PAVEMENT, ALL VERTICAL EDGES SHALL BE TACKED PRIOR TO PAVING.
6. 1 1/2" AC (1/2" TYPE B).
7. SURFACE SHALL BE FOG SEALED AFTER PAVING. EXISTING ROADWAY SURFACE SHALL BE REPLACED IN KIND (OIL & SCREENED, SLURRY SEAL, ETC.)
8. IF DISTANCE IS LESS THAN 3 FEET, PAVEMENT RESTORATION SHALL EXTEND TO LIP OF GUTTER.

City of Morgan Hill — Public Works Department
Jim Ashcraft, CITY ENGINEER — 4/1/96 DATE — 3/15/07 REVISED
TRENCH RESTORATION/BACKFILL FOR TRENCH WIDTHS LESS THAN 18" — DRAWING NO. U-2

STORM DRAIN SECTION

All Storm Drains shall be constructed in accordance with the City of Morgan Hill Standard Details and designed in accordance with the City of Morgan Hill Design Standards, the Standard Specifications, State of California, Department of Transportation, Caltrans (CSS), and the Santa Clara Valley Water District (SCVWD). Materials shall conform to the American Society for Testing and Materials (ASTM), and the American National Standards Institute (ANSI), except as modified herein.

Main line storm drains shall be Class 3 R.C.P., or C.M.P. (upon approval of the City Engineer), and have no less than 30" cover from finished grade. Laterals shall be Class 3 R.C.P. (15" min.), and have no less than 24" cover from finished grade.

All R.C.P. shall be Class 3, bell and spigot, rubber gasketed, push on pipe. Tongue and groove, mortared joint pipe will not be allowed. Class 4 or Class 5 R.C.P. may be required when loading conditions vary.

After all backfill, testing and pavement restoration has been completed, the contractor shall clean and flush all storm drain mains, laterals, inlets and man holes, prior to acceptance.

TESTING (If required by the City Engineer)

If the City suspects any damage or breaks in the line, the storm drain may be subject to television inspection and/or required to pass a leakage test. The contractor shall furnish all labor, equipment, and materials needed to perform the test. A televised inspection may be required within the one year warranty period at the contractor's expense. All defects discovered in this inspection shall be corrected by the contractor at his expense.

If the City requires a leakage test on said line, the test shall be a hydrostatic water test in accordance with CSS Section 65-1.08.

TYPES OF STORM DRAIN MAIN

REINFORCED CONCRETE PIPE (R.C.P.)

Reinforced Concrete Pipe (15" Min.), shall be in conformance with ASTM C 76 Class 3 and CSS Section 65, bell and spigot ends with rubber gasket joints.

CORRUGATED METAL PIPE (C.M.P.)

Corrugated Metal Pipe shall be in accordance with CSS Section 66 and used only upon City Engineer approval.

CAST-IN-PLACE-PIPE (C.I.P.P.)

Cast-In-Place-Pipe (concrete) shall be in accordance with CSS Section 63 and used only upon City Engineer approval.

City of Morgan Hill — Public Works Department
Jim Ashcraft, CITY ENGINEER — 4/1/96 DATE — REVISED
GENERAL NOTES — DRAWING NO. SD-I

I SANITARY SEWER GENERAL NOTES

G SEWER LATERAL CONNECTIONS

E SEWER CLEANOUT

C TRENCH RESTORATION/BACKFILL (W. LESS THAN 18")

A STORM DRAIN SECTION GENERAL NOTES

REGISTERED LANDSCAPE ARCHITECT — DEREK MCKEE — No. 4148 — Signature — EXPIRATION DATE: DEC. 2021 — STATE OF CALIFORNIA

NO.	DESCRIPTION	DATE	BY

Revisions

WORK ACCEPTED: INSPECTOR: BY: DATE:

DRAWN: VERDE — DESIGN: CMES — HOR: N/A
CHECKED: CMES / DM — VERT: N/A
APPROVED: — DATE: 2/10/20 — JOB NUMBER:
SCOTT CREER – CITY ENGINEER RCE#56879 EXP. 9/30/21

City of Morgan Hill — Public Works Department
17575 Peak Ave. Morgan Hill, CA 95037 (408)778-6480, Fax (408)779-7236

VERDE DESIGN — LANDSCAPE ARCHITECTURE, CIVIL ENGINEERING, SPORT PLANNING & DESIGN — 2455 The Alameda, Ste. 260, Santa Clara, CA 95050, tel: 408.980.7200, fax: 408.985.7290, www.verdedesigninc.com

171 W EDMUNDSON AVE, MORGAN HILL, CA 95037

DRAINAGE DETAILS
MORGAN HILL INCLUSIVE PLAYGROUND / MAGICAL BRIDGE PROJECT

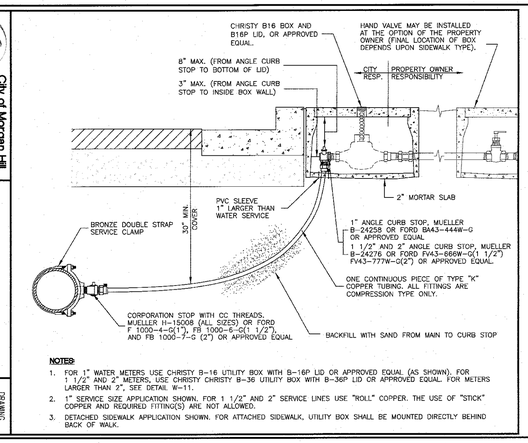
FILE NUMBER: 1818000
PRINT DATE: 02/07/20
SHEET NUMBER: D1.1

BID SUBMITTAL - 02-07-20

City of Morgan Hill
Public Works Department
CITY ENGINEER 4/1/86 DATE
3/15/07 REVISED

TYPICAL WATER SERVICE INSTALLATION

DRAWING NO. W-1



NOTES:
1. FOR 1" WATER METERS, USE CHRISTY B-16 UTILITY BOX WITH B-16P LID OR APPROVED EQUAL (AS SHOWN). FOR 1 1/2" AND 2" METERS, USE CHRISTY B-36 UTILITY BOX WITH B-36P LID OR APPROVED EQUAL. FOR METERS LARGER THAN 2", SEE DETAIL W-11.
2. 1" SERVICE SIZE APPLICATION SHOWN. FOR 1 1/2" AND 2" SERVICE LINES USE "ROLL" COPPER. THE USE OF "STICK" COPPER AND REQUIRED FITTING(S) ARE NOT ALLOWED.
3. DETACHED SIDEWALK APPLICATION SHOWN. FOR ATTACHED SIDEWALK, UTILITY BOX SHALL BE MOUNTED DIRECTLY BEHIND BACK OF WALK.

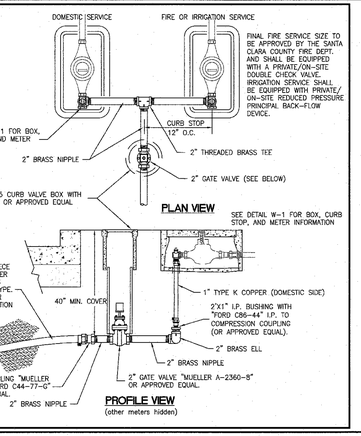
N TYPICAL WATER SERVICE INSTALLATION

City of Morgan Hill
Public Works Department
APPROVED 11/09/00 DATE
3/15/07 REVISED

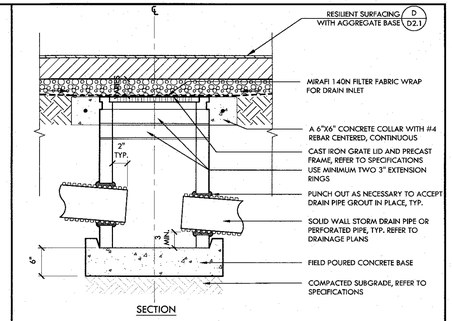
WATER SERVICE MANIFOLD FOR DOMESTIC/FIRE OR DOMESTIC/IRRIGATION (COMM./INDUST. IRRIG. ONLY)

DRAWING NO. W-2

NOTES:
1. STANDARD DETAIL W-1, "RESIDENTIAL WATER SERVICE" IS A PART OF THIS DETAIL EXCEPT AS MODIFIED HEREIN.
2. DESIGN OF WATER SERVICE MANIFOLD DEPENDS ON SITE CONDITIONS. THE CITY ENGINEER SHALL RESOLVE REGARDING THE EXISTING CURB STOP AND LOCATING THE SERVICE LINE TO ACCOMODATE THE RIGHT OF WAY AND THINGS OFF TO AVOID SURFACE INTERFERENCE. MANIFOLDING OR BEHIND THE METER IS PROHIBITED.
3. FOR DOMESTIC/IRRIGATION METERS, 2" MAXIMUM FOR FIRE SERVICES.
4. SEE DETAIL W-3 FOR MANIFOLD CONFIGURATIONS REQUIRING MORE THAN 2 METERS.
5. DETACHED SIDEWALK APPLICATION SHOWN. FOR ATTACHED SIDEWALK, UTILITY BOX SHALL BE MOUNTED DIRECTLY BEHIND BACK OF WALK. DOMESTIC/IRRIGATION COMBINATIONS ARE NOT PERMITTED.

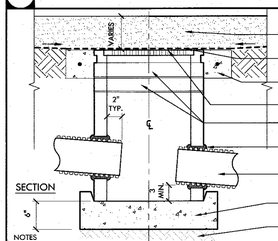


J WATER SERVICE FOR DOMESTIC/ IRRIGATION



NOTES
1. SET CATCH BASIN / JUNCTION BOX RIM FLUSH WITH ADJACENT SURFACE. VERIFY EXACT LOCATION AND RIM PRIOR TO INSTALLATION.
2. POSITIVE DRAINAGE TO INLET SHALL BE VERIFIED BY CONTRACTOR.
3. ALL PIPING ENTRIES AND EXITS INTO DRAINAGE STRUCTURES SHALL BE GROUTED SMOOTH AND WATERTIGHT USING NON-SHRINK GROUT, TYP.
4. ALL RISERS AND EXTENSIONS SHALL BE CONNECTED WITH AN ADHESIVE PRODUCT (RAMNEK OR EQUIVALENT).
5. ALL GRATES SHALL BE FITTED WITH LOCK-DOWN MECHANISMS OR BOLT-DOWN COVERS.

D CATCH BASIN UNDER RESILIENT SURFACING WITH AGGREGATE BASE NTS



NOTES
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2. POSITIVE DRAINAGE TO INLET SHALL BE VERIFIED BY CONTRACTOR.
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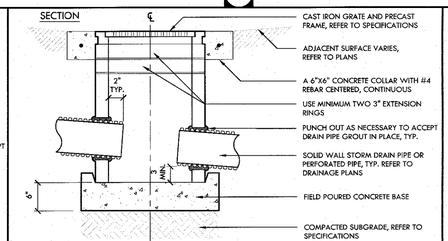
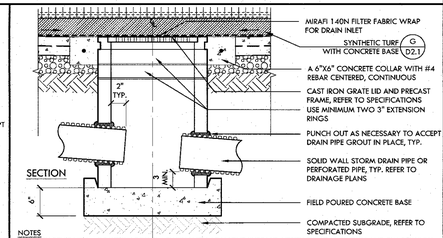
4. ALL RISERS AND EXTENSIONS SHALL BE CONNECTED WITH AN ADHESIVE PRODUCT (RAMNEK OR EQUIVALENT).
5. ALL GRATES SHALL BE FITTED WITH LOCK-DOWN MECHANISMS OR BOLT-DOWN COVERS.

M CATCH BASIN UNDER SAND PLAY AREA NTS



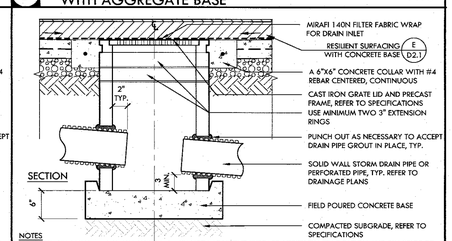
NOTES
1. SET CATCH BASIN RIM FLUSH WITH ADJACENT SURFACE. VERIFY EXACT LOCATION AND RIM PRIOR TO INSTALLATION.
2. POSITIVE DRAINAGE TO INLET SHALL BE VERIFIED BY CONTRACTOR.
3. ALL PIPING ENTRIES AND EXITS INTO DRAINAGE STRUCTURES SHALL BE GROUTED SMOOTH AND WATERTIGHT USING NON-SHRINK GROUT, TYP.
4. ALL RISERS AND EXTENSIONS SHALL BE CONNECTED WITH AN ADHESIVE PRODUCT (RAMNEK OR EQUIVALENT).
5. ALL GRATES SHALL BE FITTED WITH LOCK-DOWN MECHANISMS OR BOLT-DOWN COVERS.

I CATCH BASIN NTS



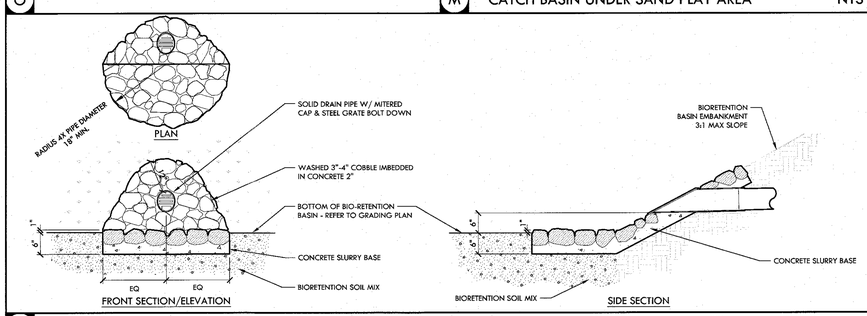
NOTES
1. SET CATCH BASIN / JUNCTION BOX RIM FLUSH WITH ADJACENT SURFACE. VERIFY EXACT LOCATION AND RIM PRIOR TO INSTALLATION.
2. POSITIVE DRAINAGE TO INLET SHALL BE VERIFIED BY CONTRACTOR.
3. ALL PIPING ENTRIES AND EXITS INTO DRAINAGE STRUCTURES SHALL BE GROUTED SMOOTH AND WATERTIGHT USING NON-SHRINK GROUT, TYP.
4. ALL RISERS AND EXTENSIONS SHALL BE CONNECTED WITH AN ADHESIVE PRODUCT (RAMNEK OR EQUIVALENT).
5. ALL GRATES SHALL BE FITTED WITH LOCK-DOWN MECHANISMS OR BOLT-DOWN COVERS.

G CATCH BASIN UNDER SYNTHETIC TURF WITH CONCRETE BASE NTS



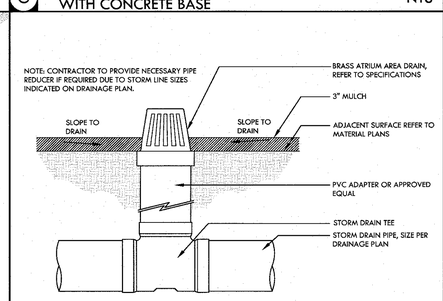
NOTES
1. SET CATCH BASIN / JUNCTION BOX RIM FLUSH WITH ADJACENT SURFACE. VERIFY EXACT LOCATION AND RIM PRIOR TO INSTALLATION.
2. POSITIVE DRAINAGE TO INLET SHALL BE VERIFIED BY CONTRACTOR.
3. ALL PIPING ENTRIES AND EXITS INTO DRAINAGE STRUCTURES SHALL BE GROUTED SMOOTH AND WATERTIGHT USING NON-SHRINK GROUT, TYP.
4. ALL RISERS AND EXTENSIONS SHALL BE CONNECTED WITH AN ADHESIVE PRODUCT (RAMNEK OR EQUIVALENT).
5. ALL GRATES SHALL BE FITTED WITH LOCK-DOWN MECHANISMS OR BOLT-DOWN COVERS.

C CATCH BASIN UNDER RESILIENT SURFACING WITH CONCRETE BASE NTS

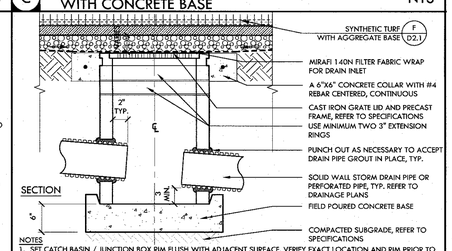


L ENERGY DISSIPATOR NTS

NOT USED

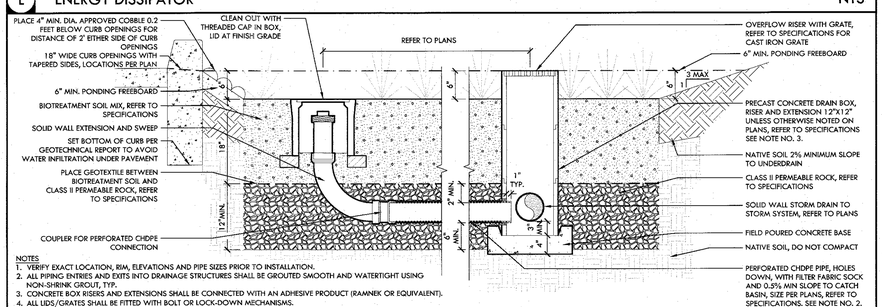


F AREA DRAIN NTS



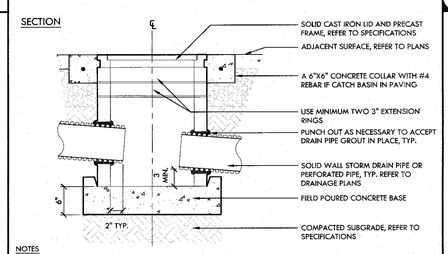
NOTES
1. SET CATCH BASIN / JUNCTION BOX RIM FLUSH WITH ADJACENT SURFACE. VERIFY EXACT LOCATION AND RIM PRIOR TO INSTALLATION.
2. POSITIVE DRAINAGE TO INLET SHALL BE VERIFIED BY CONTRACTOR.
3. ALL PIPING ENTRIES AND EXITS INTO DRAINAGE STRUCTURES SHALL BE GROUTED SMOOTH AND WATERTIGHT USING NON-SHRINK GROUT, TYP.
4. ALL RISERS AND EXTENSIONS SHALL BE CONNECTED WITH AN ADHESIVE PRODUCT (RAMNEK OR EQUIVALENT).
5. ALL GRATES SHALL BE FITTED WITH LOCK-DOWN MECHANISMS OR BOLT-DOWN COVERS.

B CATCH BASIN UNDER SYNTHETIC TURF WITH AGGREGATE BASE NTS



NOTES
1. VERIFY EXACT LOCATION, RIM, ELEVATIONS AND PIPE SIZES PRIOR TO INSTALLATION.
2. ALL PIPING ENTRIES AND EXITS INTO DRAINAGE STRUCTURES SHALL BE GROUTED SMOOTH AND WATERTIGHT USING NON-SHRINK GROUT, TYP.
3. CONCRETE BOX RISERS AND EXTENSIONS SHALL BE CONNECTED WITH AN ADHESIVE PRODUCT (RAMNEK OR EQUIVALENT).
4. ALL LIDS/GRATES SHALL BE FITTED WITH BOLT OR LOCK-DOWN MECHANISMS.

K BIORETENTION AREA AT PARKING LOT/PLANTING AREA NTS



NOTES
1. SET CATCH BASIN RIM FLUSH WITH ADJACENT SURFACE. VERIFY EXACT LOCATION AND RIM PRIOR TO INSTALLATION.
2. POSITIVE DRAINAGE TO INLET SHALL BE VERIFIED BY CONTRACTOR.
3. ALL PIPING ENTRIES AND EXITS INTO DRAINAGE STRUCTURES SHALL BE GROUTED SMOOTH AND WATERTIGHT USING NON-SHRINK GROUT, TYP.
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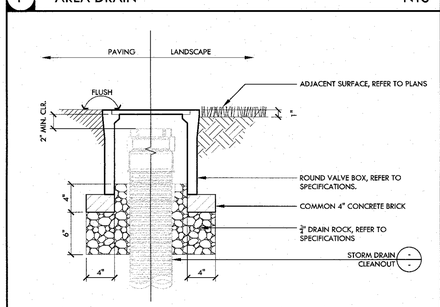
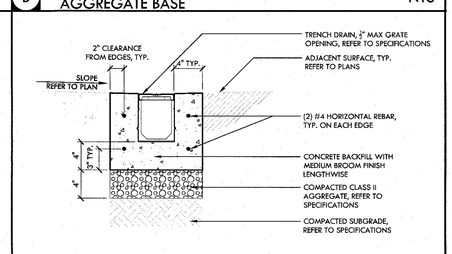
5. ALL GRATES SHALL BE FITTED WITH LOCK-DOWN MECHANISMS OR BOLT-DOWN COVERS.

H JUNCTION BOX NTS



E CLEANOUT IN HARDSCAPE/SOFTSCAPE NTS



NOTES:
1. PROVIDE SAW CUT JOINT 8' ON CENTER AND ALIGN WITH FENCE POSTS.
2. JOINTS TO BE ON BOTH SIDE OF GRATE.
3. SEE TRENCH DRAIN CATCH BASIN DETAIL FOR DRAINAGE OUTLET CONNECTION

A TRENCH DRAIN NTS

REGISTERED LANDSCAPE ARCHITECT
REBECK MINER
No. 4148
Signature
EXPIRATION DATE: DEC. 2021
STATE OF CALIFORNIA

NO.	DESCRIPTION	DATE	BY

Revisions

WORK ACCEPTED: INSPECTOR:
BY: DATE:

DRAWN: VERDE DESIGN: CMES HOR: N/A
CHECKED: CMES / DM VERT: N/A
APPROVED: DATE: 2/10/20 JOB NUMBER:
SCOTT CREDIT – CITY ENGINEER
RCE#58879 EXP. 3/30/21

City of Morgan Hill
Public Works Department
CITY OF MORGAN HILL
17575 Peak Ave. Morgan Hill, CA 95037 (408)778-6480, Fax (408)779-7236

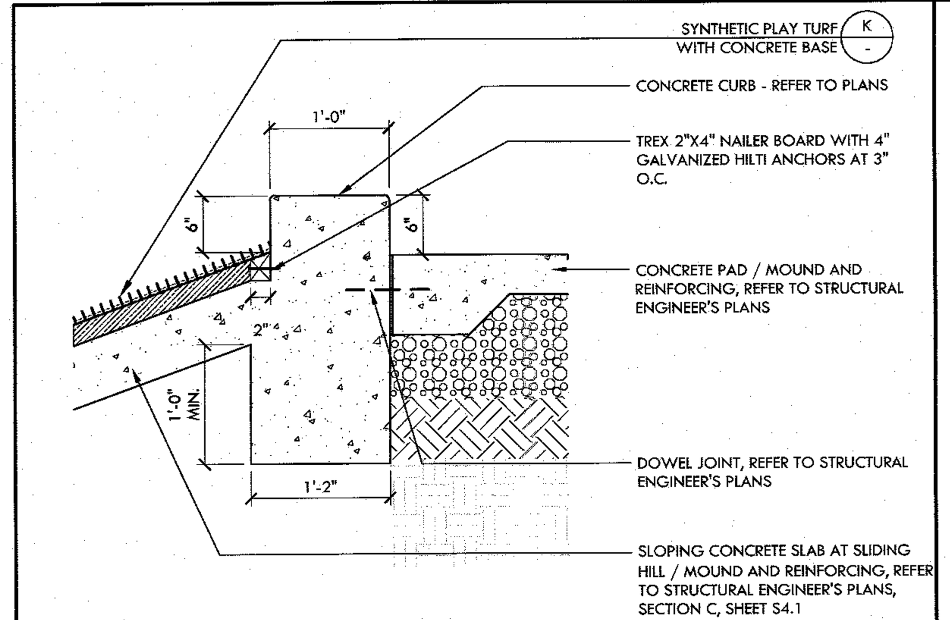
VERDE DESIGN
LANDSCAPE ARCHITECTURE CIVIL ENGINEERING SPORT PLANNING & DESIGN
2455 The Alameda, Ste. 200 San Jose, CA 95126 Tel 408.985.7200 Fax 408.985.7200 www.verdedesigninc.com

171 W EDMUNDSON AVE, MORGAN HILL, CA 95037

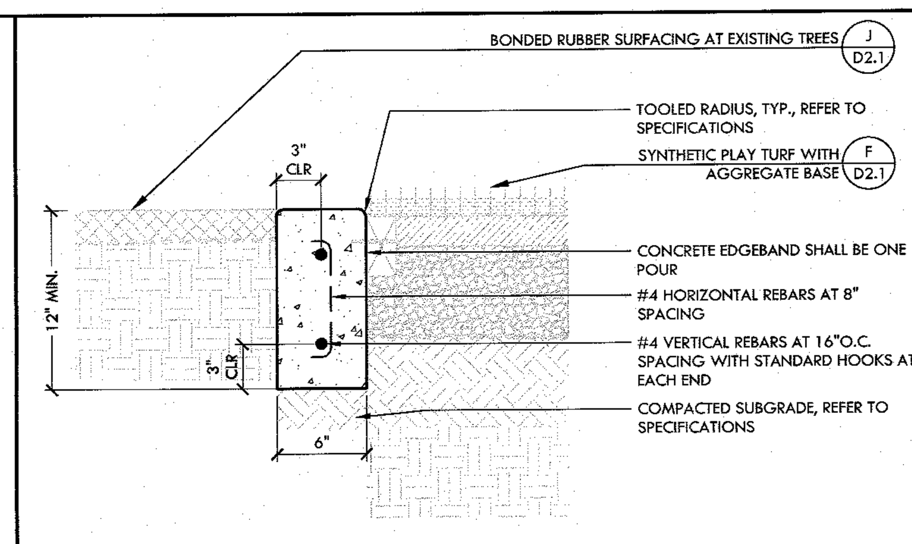
DRAINAGE DETAILS
MORGAN HILL INCLUSIVE PLAYGROUND / MAGICAL BRIDGE PROJECT

FILE NUMBER: 1818000
PRINT DATE: 02/07/20
SHEET NUMBER: D1.2

BID SUBMITTAL - 02-07-20

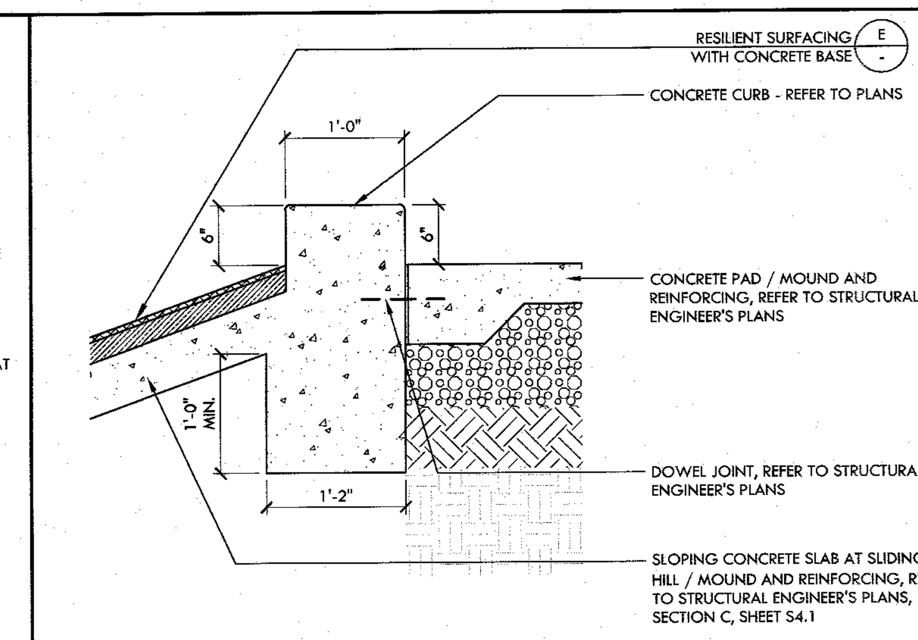


R — SYNTHETIC TURF CONNECTION AT RAMP / WALKWAY AT SLIDE MOUND TOP — NTS

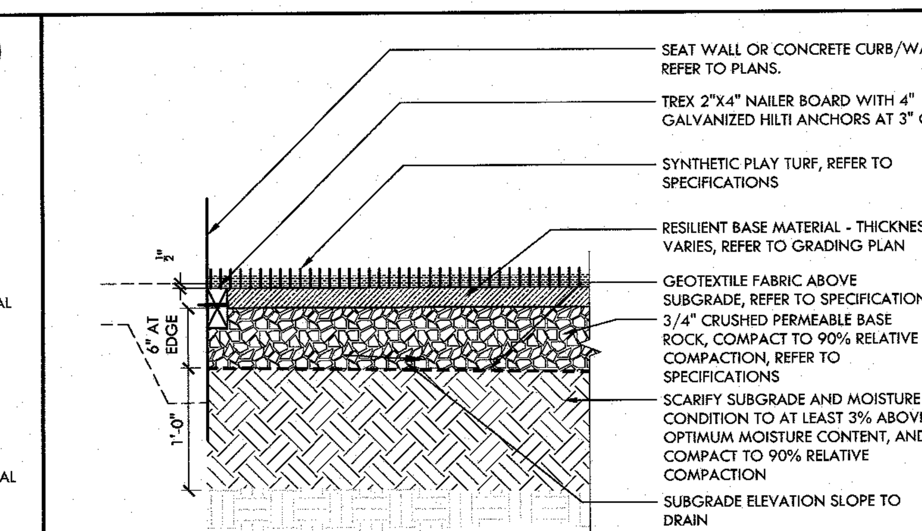


NOTE:
1. INSTALL SCORE JOINTS AT 5' O.C. SPACING AND ALTERNATING EXPANSION JOINTS EVERY 20' ON STRAIGHT RUNS. ON CURVED RUNS, EXPANSION JOINTS SHALL BE SPACED 10' O.C., WITH ALTERNATIVE SCORE JOINTS AT 5' O.C. SPACING.
2. REFER TO EDGEBAND AND TALL CURB NOTES, DETAIL O, THIS SHEET FOR ADDITIONAL INFORMATION

N — 6" WIDE DEEP CONCRETE EDGEBAND — NTS



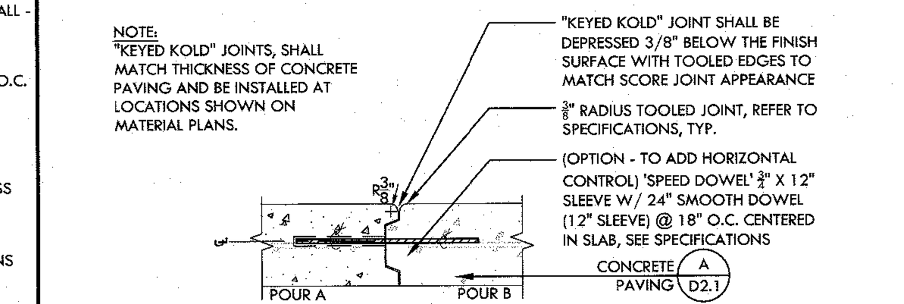
J — RESILIENT SURFACING CONNECTION AT RAMP / WALKWAY AT SLIDE MOUND TOP — NTS



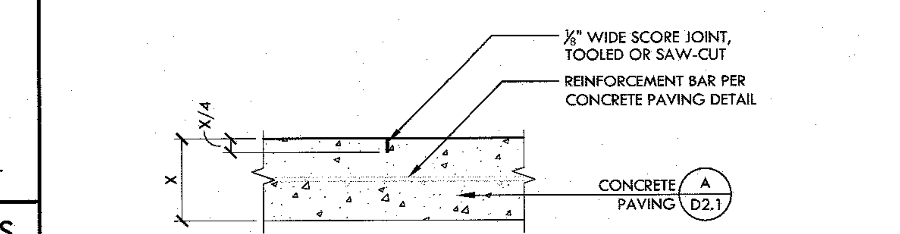
NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH SPECIFICATIONS BY FACTORY AUTHORIZED INSTALLERS.
2. SYNTHETIC TURF AND RESILIENT BASE MATERIAL IS TO BE INSTALLED AS PER MANUFACTURER'S INSTRUCTIONS, WITH THE EXCEPTION OF THE USE OF GRASS SPIKES. CONTRACTOR IS TO STAPLE EDGES TO RECYCLE PLASTIC NAILER BOARD AT 2" O.C., OR BE GLUED TO CONCRETE EDGEBAND WITH MANUFACTURER'S APPROVED ADHESIVE.
3. NAILER BOARD AND RESILIENT BASE MATERIAL SHALL BE 1/2" BELOW ADJACENT CONCRETE PAVING.

F — SYNTHETIC TURF WITH AGGREGATE BASE AND CONNECTION - PLAY AREA — NTS

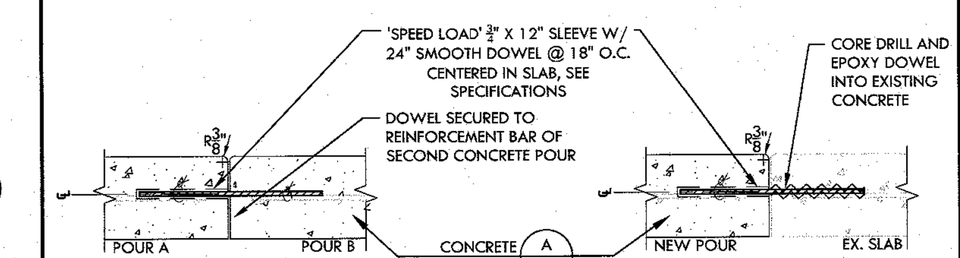
NOTE:
"KEYED KOLD" JOINTS, SHALL MATCH THICKNESS OF CONCRETE PAVING AND BE INSTALLED AT LOCATIONS SHOWN ON MATERIAL PLANS.



KEYED KOLD JOINT - VERTICAL AND LONGITUDINAL CONTROL
SECTION

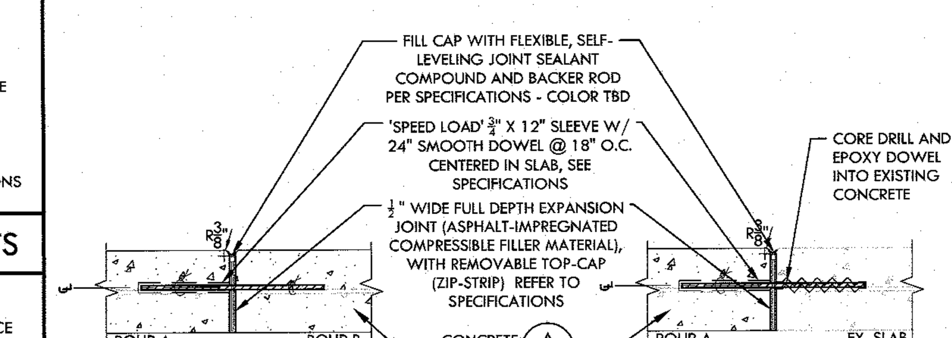


SCORE JOINT
SECTION



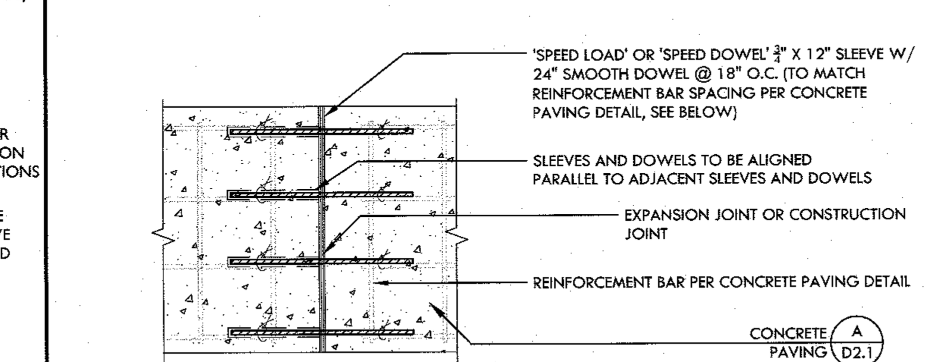
EXPANSION JOINT AT NEW CONCRETE
SECTION

EXPANSION JOINT AT EXISTING CONCRETE
SECTION



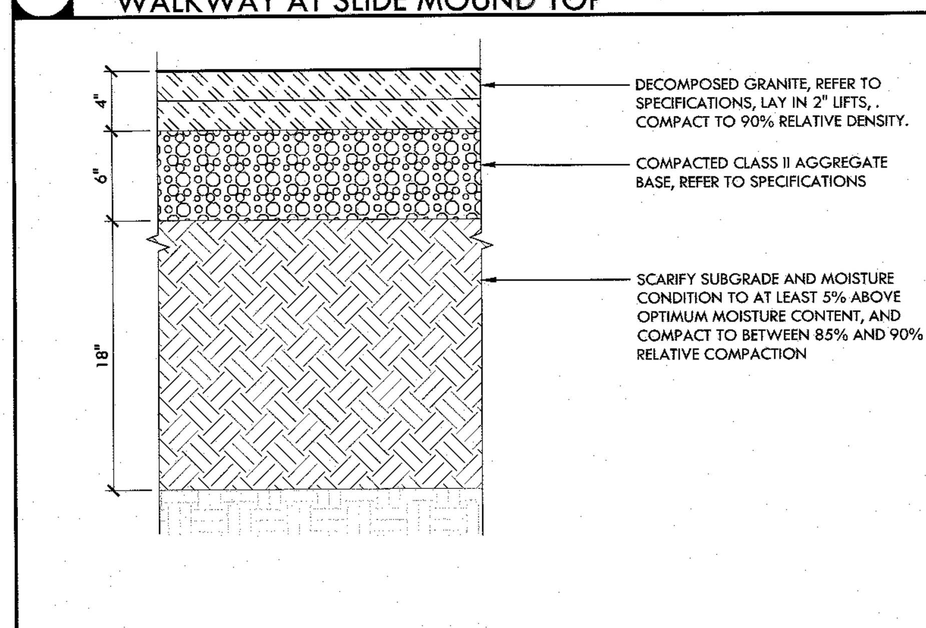
EXPANSION JOINT AT NEW CONCRETE
SECTION

EXPANSION JOINT AT EXISTING CONCRETE
SECTION

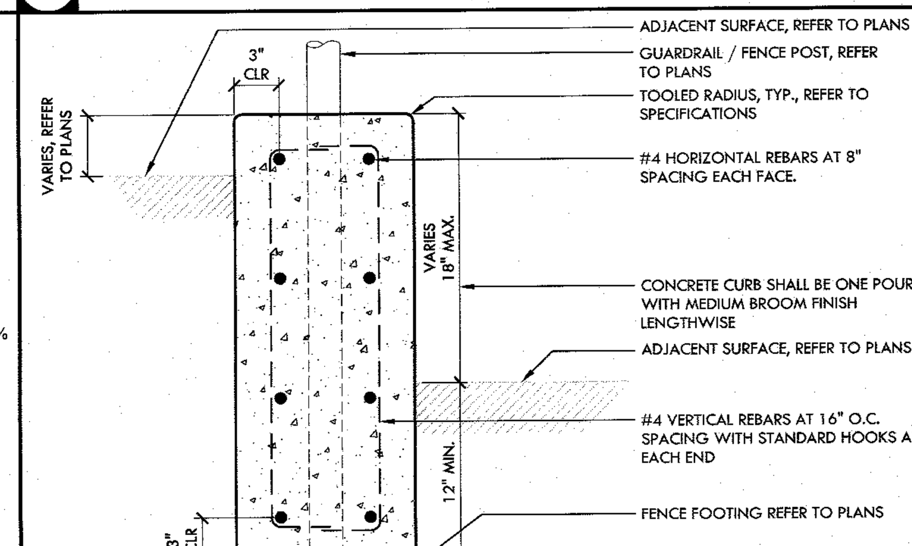


CONSTRUCTION / EXPANSION JOINT
PLAN

B — CONCRETE JOINTS — NTS

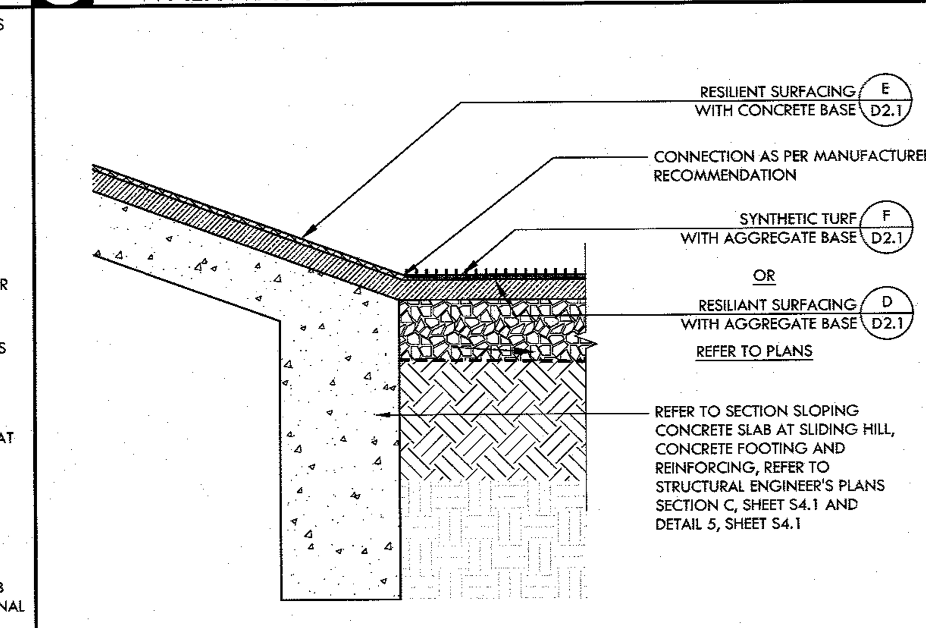


Q — DECOMPOSED GRANITE — NTS

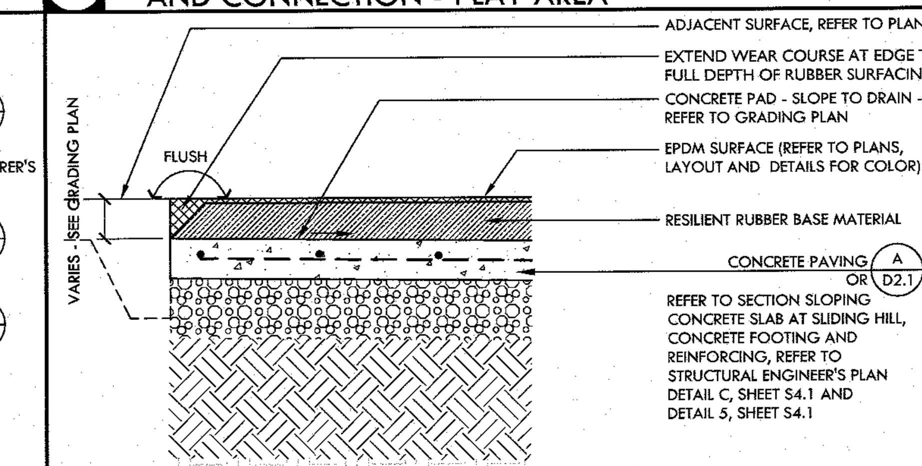


NOTE:
REFER TO EDGEBAND AND TALL CURB NOTES, DETAIL 0, D2.1 FOR ADDITIONAL INFORMATION.

M — 12" WIDE TALL CONCRETE CURB WITH GUARDRAIL / FENCE — NTS

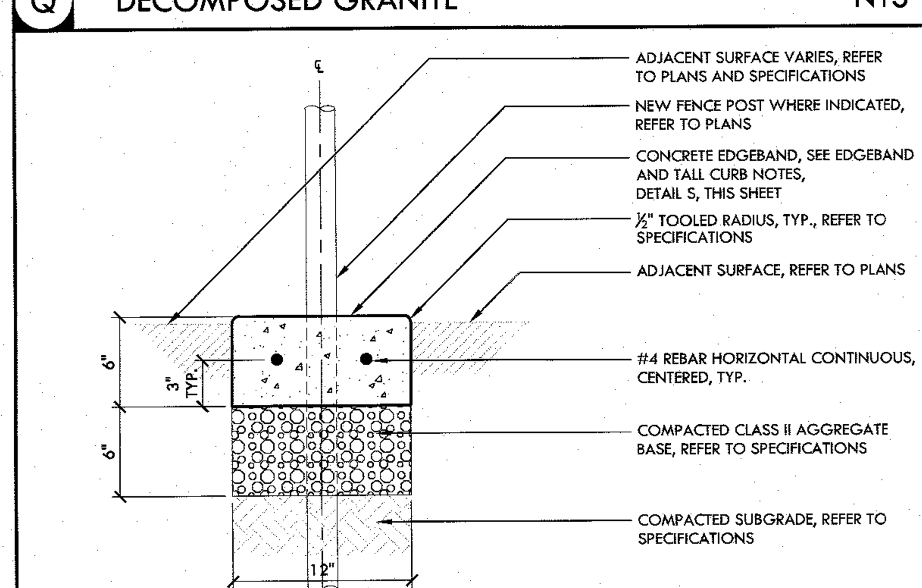


I — RESILIENT SURFACING AND SYNTHETIC TURF CONNECTION AT SLOPING CONCRETE SLAB — NTS



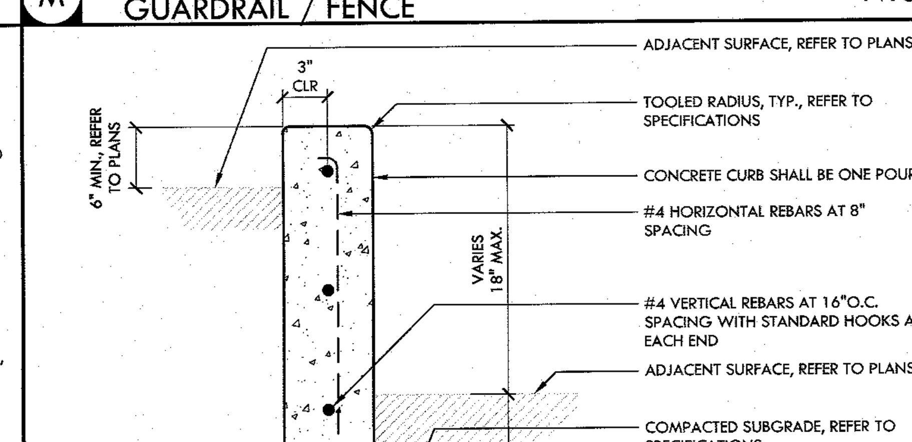
NOTES:
1. TOP OF CONCRETE PLAY CURB, CONCRETE PAVING AND SUBGRADE SHALL BE COORDINATED TO ENSURE POSITIVE DRAINAGE.
2. DEPTH OF RUBBER SURFACING SHALL BE AS RECOMMENDED BY THE CPSC GUIDELINES AND / OR MANUFACTURER, WHICHEVER IS MORE STRINGENT.
3. CONTRACTOR TO CONFIRM MAXIMUM FALL HEIGHT OF ALL THE PLAY EQUIPMENT.
4. WEAR COURSE AT BASE OF SLIDES, SWINGS AND BENEATH HIGH TRAFFIC AREAS IS THICKENED, SEE SPECIFICATIONS FOR THICKNESS, SEE PLAY EQUIPMENT LAYOUT PLAN FOR LOCATIONS.

E — RESILIENT SURFACING WITH CONCRETE BASE — NTS



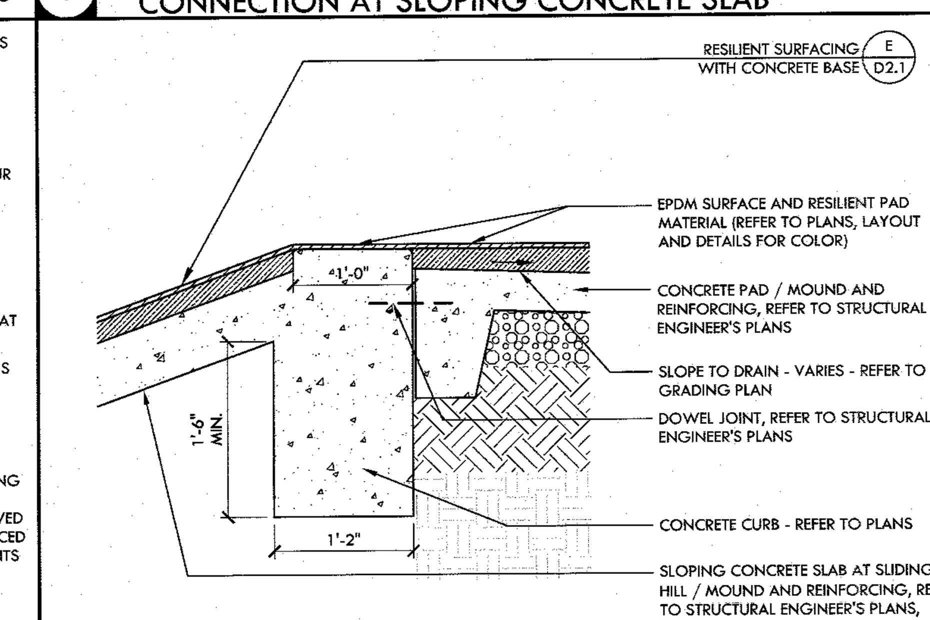
NOTE:
REFER TO EDGEBAND AND TALL CURB NOTES, DETAIL O, THIS SHEET FOR ADDITIONAL INFORMATION

P — 12" CONCRETE EDGEBAND (WITH FENCE) — NTS

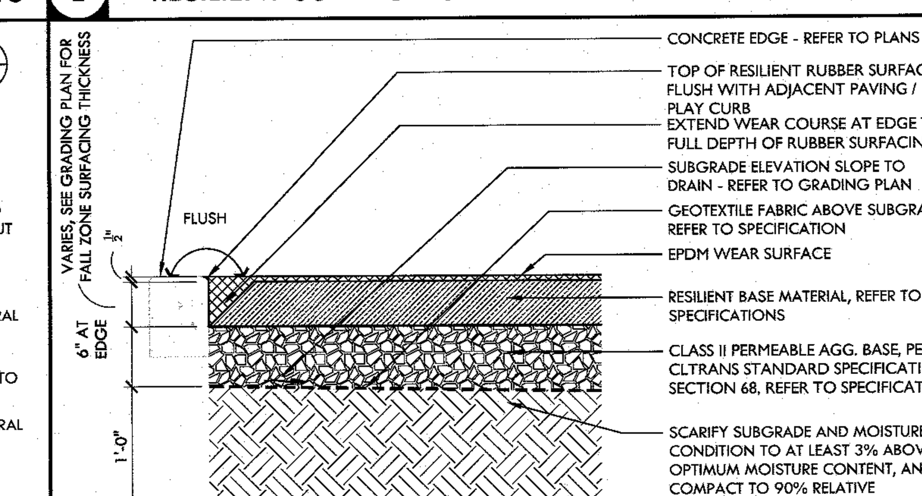


NOTE:
1. INSTALL SCORE JOINTS AT 5' O.C. SPACING AND ALTERNATING EXPANSION JOINTS EVERY 20' ON STRAIGHT RUNS. ON CURVED RUNS, EXPANSION JOINTS SHALL BE SPACED 10' O.C., WITH ALTERNATIVE SCORE JOINTS AT 5' O.C. SPACING.
2. REFER TO EDGEBAND AND TALL CURB NOTES, DETAIL 0, D2.1FOR ADDITIONAL INFORMATION

L — 6" WIDE TALL CONCRETE CURB — NTS



H — RESILIENT SURFACING CONNECTION AT SLIDE MOUND TOP — NTS



NOTES:
1. TOP OF CONCRETE PLAY CURB AND SUBGRADE SHALL BE COORDINATED TO ENSURE POSITIVE DRAINAGE.
2. DEPTH OF RUBBER SURFACING SHALL BE AS RECOMMENDED BY THE CPSC GUIDELINES AND / OR MANUFACTURER, WHICHEVER IS MORE STRINGENT.
3. CONTRACTOR TO CONFIRM MAXIMUM FALL HEIGHT OF ALL THE PLAY EQUIPMENT.
4. WEAR COURSE AT BASE OF SLIDES, SWINGS AND BENEATH HIGH TRAFFIC AREAS IS THICKENED, SEE SPECIFICATIONS FOR THICKNESS, SEE PLAY EQUIPMENT LAYOUT PLAN FOR LOCATIONS.

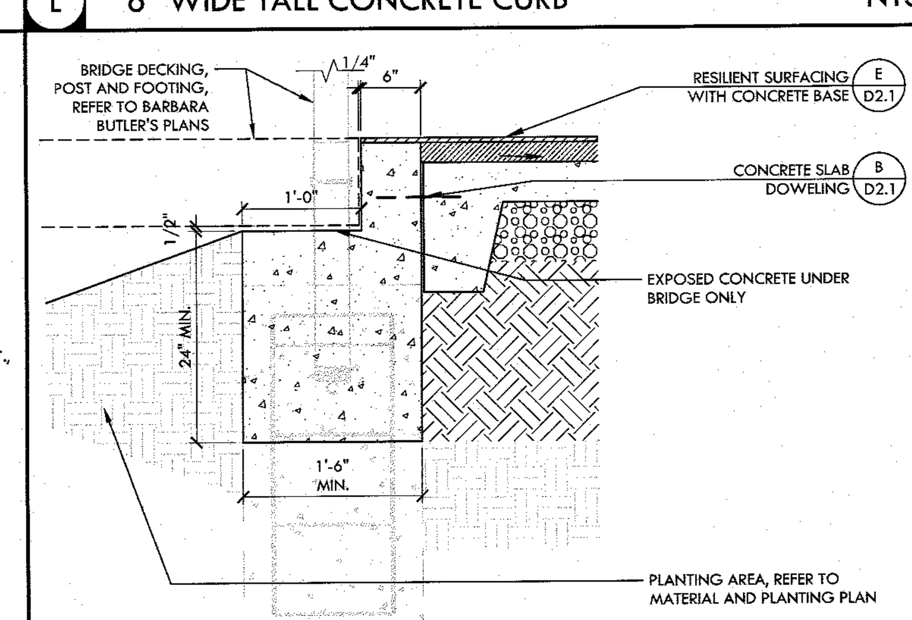
D — RESILIENT SURFACING WITH AGGREGATE BASE — NTS

NOTES PERTAIN TO ALL EDGEBAND AND CURB DETAILS:
1. FOR EDGEBANDS AND CURBS WITH FENCING, INSTALL EXPANSION JOINTS AT ALL CORNERS, BEGINNINGS, AND ENDINGS OF RADII, AND AT ALL FENCE POSTS. INSTALL SCORE JOINTS AT 5' O.C. AND OR EVENLY SPACED AND CENTERED BETWEEN POSTS.
2. FOR EDGEBAND AND CURBS WITHOUT FENCING, INSTALL SCORE JOINTS AT 10' O.C. SPACING AND FIBER EXPANSION JOINTS EVERY 20' ON STRAIGHT RUNS. ON CURVED RUNS, FIBER EXPANSION JOINTS SHALL BE SPACED 10' O.C., WITH ALTERNATING SCORE JOINTS AT 5' O.C. SPACING.
3. ALL EXPANSION JOINTS SHALL BE SEALED, PER SPECIFICATIONS.

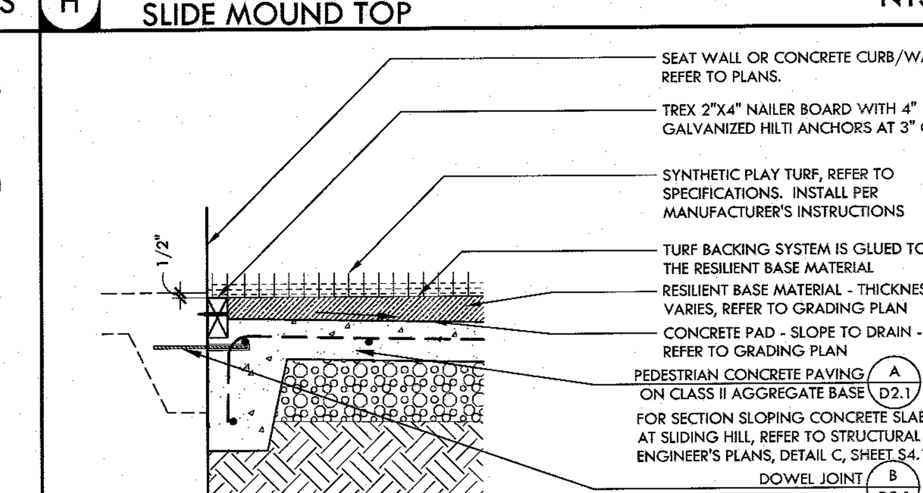
NOTES PERTAIN TO ALL TALL CURB DETAILS:
1. PROVIDE EXPANSION JOINTS AT 16' O.C. SPACING, CENTERED BETWEEN FENCE POSTS.
2. PROVIDE EXPANSION JOINTS AT EACH LOCATION WHERE AN ELEVATION STEP OCCURS BETWEEN CHANGING CURB/EDGEBAND TYPES.
3. AT EXPANSION JOINTS, PROVIDE A 24" LONG #4 DOWEL AT EACH CURB HORIZONTAL REBAR, CENTERED ON THE JOINT., AS PER DETAIL.
4. EXPANSION JOINTS SHALL BE INSTALLED WITH A ½" RADIUS BUILT INTO THE FORM WORK, IN ADDITION TO THE FIBER EXPANSION JOINT MATERIAL.
5. PROVIDE A CONTROL JOINT AT EACH FENCE POST. THE VERTICAL JOINT SHALL BE A ½" RADIUS BUILT INTO THE FORM WORK. THE HORIZONTAL JOINT, ALONG THE TOP OF CURB, SHALL BE A TOOLED SCORE JOINT, ALIGNED WITH AND MATCHING THE VERTICAL RADIUS JOINT.
6. ALL EXPANSION JOINTS SHALL BE SEALED PER SPECIFICATION.
7. NO SCORE JOINTS ARE REQUIRED ON TALL CURBS, EXCEPT AS INDICATED AT EACH FENCE POST IN ITEM #5 ABOVE.

FINISHES
EDGEBANDS AND CURBS: MEDIUM BROOM
WALL AND TALL CURBS: MEDIUM SAND BLAST - TOP AND SIDES

O — EDGEBAND AND TALL CURB NOTES — NTS

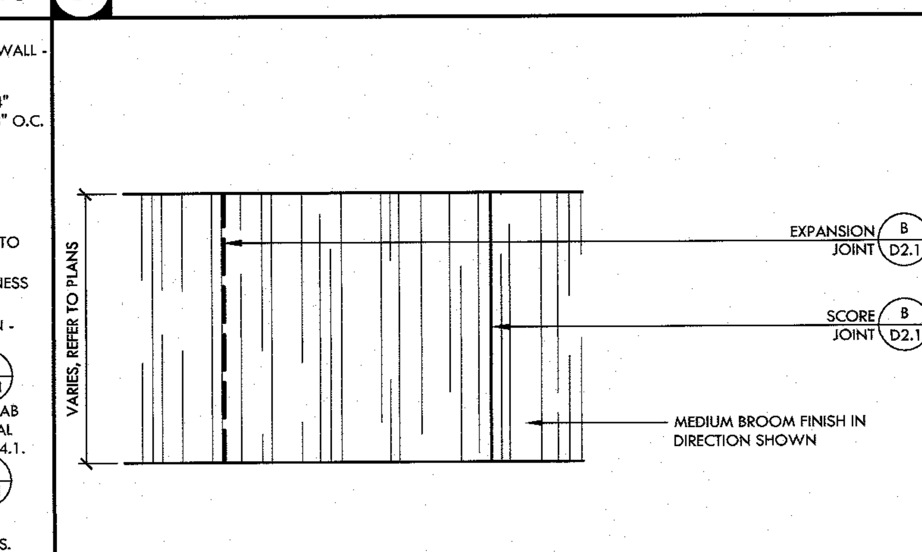


K — RESILIENT SURFACING AT ELEVATED BRIDGE POST — NTS



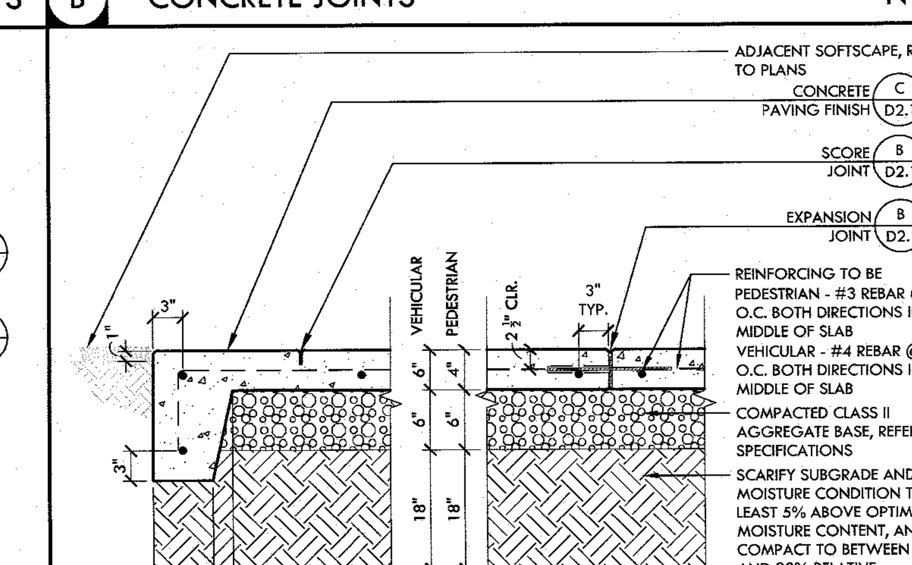
NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH SPECIFICATIONS BY FACTORY AUTHORIZED INSTALLERS.
2. SYNTHETIC TURF AND RESILIENT BASE MATERIAL IS TO BE INSTALLED AS PER MANUFACTURER'S INSTRUCTIONS, WITH THE EXCEPTION OF THE USE OF GRASS SPIKES. CONTRACTOR IS TO STAPLE EDGES TO RECYCLE PLASTIC NAILER BOARD AT 2" O.C., OR BE GLUED TO CONCRETE EDGEBAND WITH MANUFACTURER'S APPROVED ADHESIVE.
3. NAILER BOARD AND RESILIENT BASE MATERIAL SHALL BE 1/2" BELOW ADJACENT CONCRETE PAVING.

G — SYNTHETIC PLAY TURF WITH CONCRETE BASE AND CONNECTION - PLAY AREA — NTS



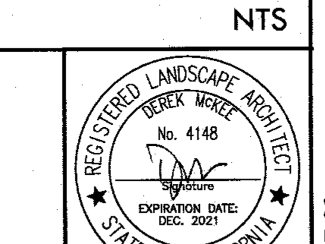
NOTE:
PROVIDE SCORE JOINTS 5' O.C. AND 10' O.C. FOR EXPANSION JOINT UNLESS OTHERWISE NOTED.

C — CONCRETE PAVING FINISH — NTS



NOTE:
1. PROVIDE SCORE JOINTS 5' O.C. AND 10' O.C. FOR EXPANSION JOINT UNLESS OTHERWISE NOTED.
2. REFER TO GEOTECHNICAL REPORT FOR ADDITIONAL CONCRETE EXTERIOR FLATWORK PREPARATIONS.

A — CONCRETE PAVING — NTS



NO.	DESCRIPTION	DATE	BY
	Revisions		

WORK ACCEPTED: INSPECTOR:
BY: DATE:

DRAWN: VERDE — DESIGN: CMES — HOR: N/A
CHECKED: CMES / DM — VERT: N/A
APPROVED: [signature] — DATE: 2/10/20 — JOB NUMBER:
SCOTT CREER – CITY ENGINEER RCE#58879 EXP. 9/30/21

CITY OF MORGAN HILL
City of Morgan Hill
Public Works Department
17575 Peak Ave. Morgan Hill, CA 95037 (408)778–6480, Fax (408)779–7236

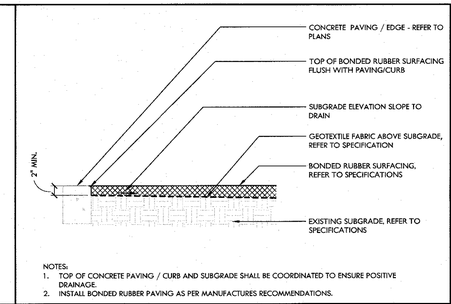
VERDE DESIGN
LANDSCAPE ARCHITECTURE CIVIL ENGINEERING SPORT PLANNING & DESIGN
2455 The Alameda, Ste. 200 Santa Clara, CA 95050 tel: 408.985.7200 fax: 408.985.7260 www.verdedesigninc.com

171 W EDMUNDSON AVE, MORGAN HILL, CA 95037

CONSTRUCTION DETAILS
MORGAN HILL INCLUSIVE PLAYGROUND / MAGICAL BRIDGE PROJECT

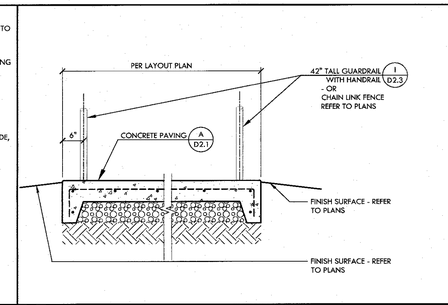
FILE NUMBER: 1818000
PRINT DATE: 02/07/20
SHEET NUMBER: D2.1

BID SUBMITTAL - 02-07-20

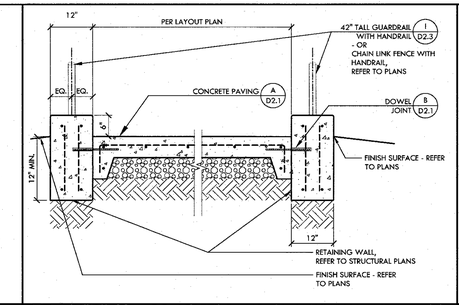


NOTES:
1. TOP OF CONCRETE PAVING / CURB AND SUBGRADE SHALL BE COORDINATED TO ENSURE POSITIVE DRAINAGE.
2. INSTALL BONDED RUBBER PAVING AS PER MANUFACTURES RECOMMENDATIONS.

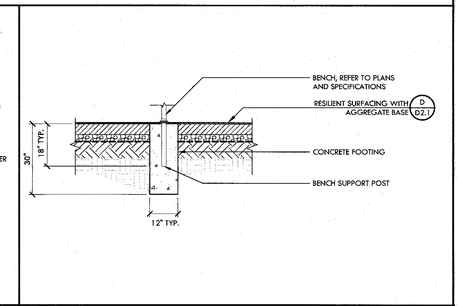
L BONDED RUBBER SURFACING AT EXISTING TREES (RUBBER MULCH) NTS



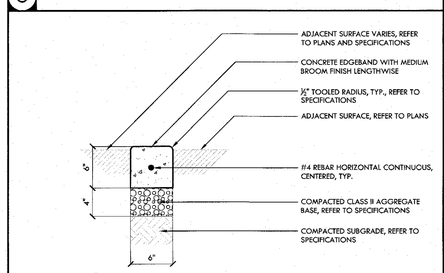
K CONCRETE WALKWAY WITH GUARDRAIL, HANDRAIL AND CHAIN LINK FENCE NTS



F PLAY AREA CONCRETE RAMP / WALKWAY AND GUARDRAIL - RAMP 1 (SECTION) NTS

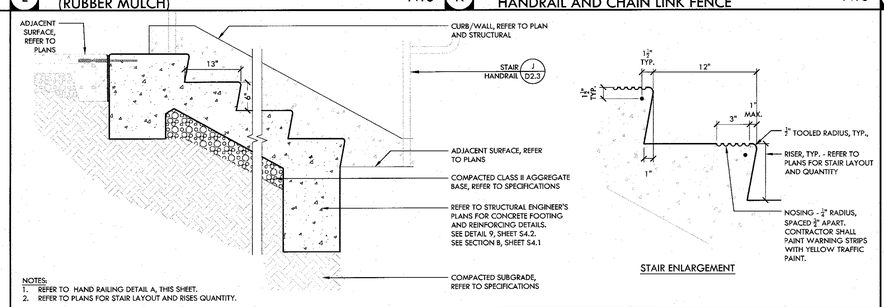


B BENCH AT PLAY AREA NTS



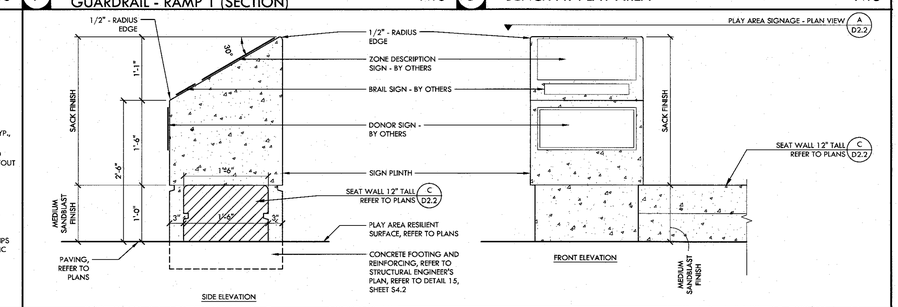
NOTE:
REFER TO EDGEBAND AND TALL CURB NOTES, DETAIL O, SHEET D2.1 FOR ADDITIONAL INFORMATION.

N 6" WIDE CONCRETE EDGEBAND NTS

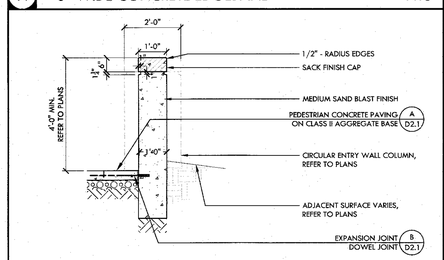


NOTES:
1. REFER TO HAND RAILING DETAIL A, THIS SHEET.
2. REFER TO PLANS FOR STAIR LAYOUT AND RISES QUANTITY.

J SLIDE MOUND STAIRS NTS

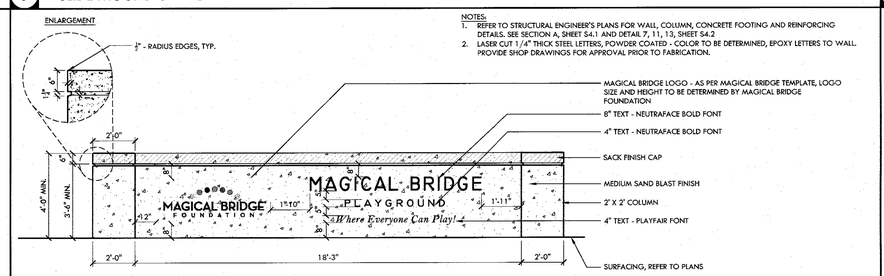


E ENTRY PLINTH PLAY AREA SIGNAGE AND SEAT WALL ELEVATION (AT TOT PLAY AREA) NTS

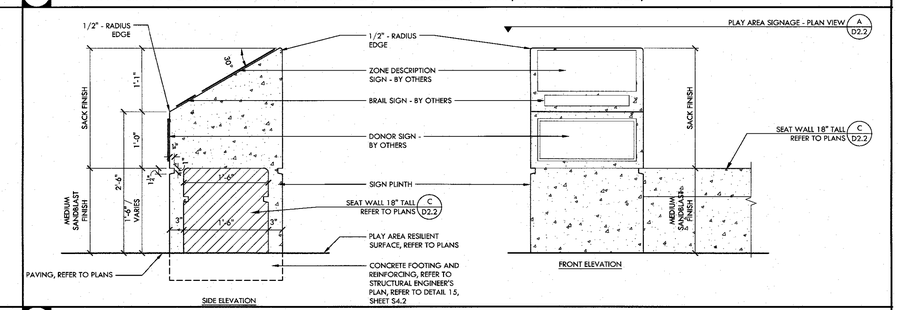


NOTE:
REFER TO STRUCTURAL ENGINEER'S PLANS FOR WALL, COLUMN CONCRETE FOOTING AND REINFORCING DETAILS. SEE SECTION A, SHEET S4.1 AND DETAIL 7, 11, 13, SHEET S4.2.

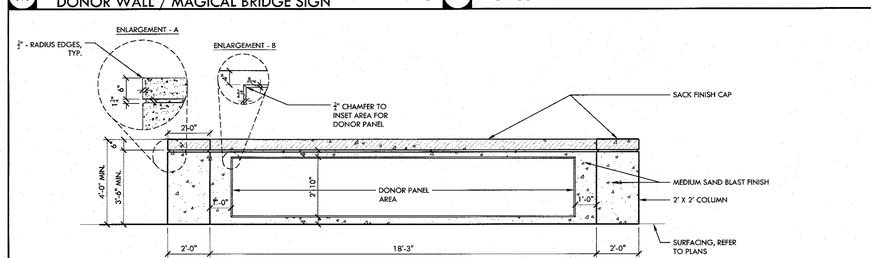
M CIRCULAR ENTRY WALL AND COLUMNS DONOR WALL / MAGICAL BRIDGE SIGN NTS



I CIRCULAR ENTRY WALL WITH MAGICAL BRIDGE SIGN AND COLUMN NTS

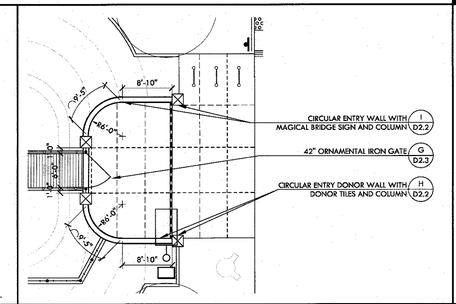


D ENTRY PLINTH PLAY AREA SIGNAGE AND SEAT WALL ELEVATION NTS

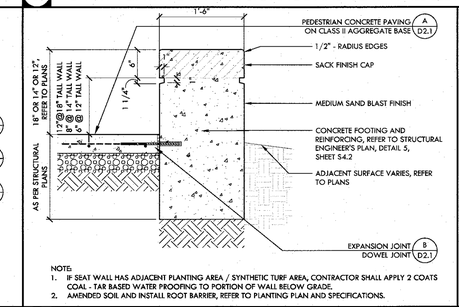


NOTE:
REFER TO STRUCTURAL ENGINEER'S PLANS FOR WALL, COLUMN, CONCRETE FOOTING AND REINFORCING DETAILS. SEE SECTION A, SHEET S4.1 AND DETAIL 7, 11, 13, SHEET S4.2.

H CIRCULAR ENTRY DONOR WALL WITH DONOR TILES AND COLUMN NTS

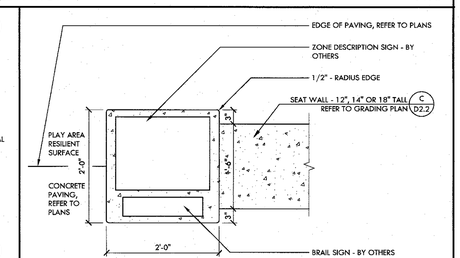


G ENTRY WALL, DONOR WALL AND ENTRY COLUMN PLAN VIEW NTS



NOTE:
1. IF SEAT WALL HAS ADJACENT PLANTING AREA / SYNTHETIC TURF AREA, CONTRACTOR SHALL APPLY 2 COATS COAL - TAR BASED WATER PROOFING TO PORTION OF WALL BELOW GRADE.
2. AMENDED SOIL AND INSTALL ROOT BARRIER, REFER TO PLANTING PLAN AND SPECIFICATIONS.

C SEAT WALL - 18" OR 14" OR 12" TALL NTS



A PLAY AREA SIGNAGE - PLAN VIEW NTS

REGISTERED LANDSCAPE ARCHITECT
REREK MOKEL
No. 4148
Signature
EXPIRATION DATE: DEC. 2021
STATE OF CALIFORNIA

NO.	DESCRIPTION	DATE	BY

Revisions

WORK ACCEPTED: INSPECTOR:
BY: DATE:

DRAWN: VERDE
DESIGN: CMES
CHECKED: CMES / DM
APPROVED: DATE: 2/10/20
SCOTT CRIER - CITY ENGINEER RCE#58879 EXP. 9/30/21

HOR: N/A
VERT: N/A
JOB NUMBER:

City of Morgan Hill
Public Works Department
CITY OF MORGAN HILL
17575 Peak Ave. Morgan Hill, CA 95037 (408)778-6480, Fax (408)779-7236

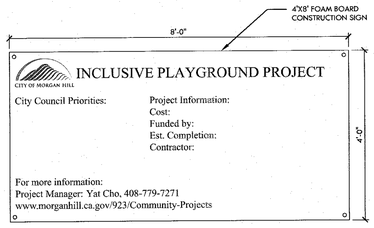
VERDE DESIGN
LANDSCAPE ARCHITECTURE CIVIL ENGINEERING SPORT PLANNING & DESIGN
2455 The Alameda, Ste 200 Santa Clara, CA 95050 tel: 408.985.7200 fax: 408.668.7260 www.verdedesigninc.com

171 W EDMUNDSON AVE, MORGAN HILL, CA 95037

CONSTRUCTION DETAILS
MORGAN HILL INCLUSIVE PLAYGROUND / MAGICAL BRIDGE PROJECT

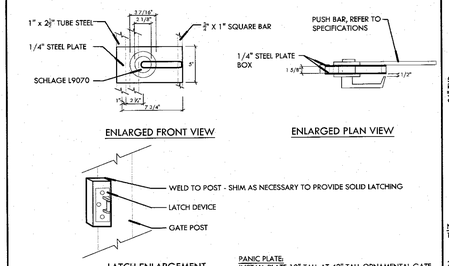
FILE NUMBER: 18818000
PRINT DATE: 02/07/20
SHEET NUMBER: D2.2

BID SUBMITTAL - 02-07-20

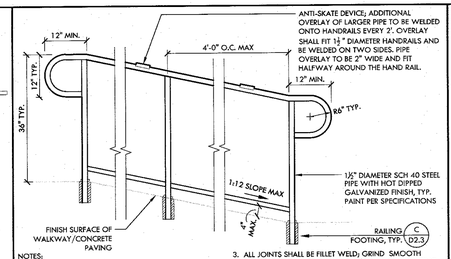


NOTE:
1. CONSTRUCTION SIGN SHALL BE ATTACHED TO TEMPORARY CONSTRUCTION FENCE WITH WIRE TIES AS ALL (4) CORNERS.
2. CONTRACTOR SHALL VERIFY ALL THE INFORMATION WITH THE CITY PRIOR TO MANUFACTURING OF THE SIGN.

Q CONSTRUCTION SIGN NTS

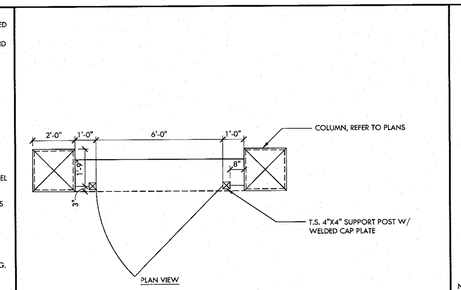


N ACCESSIBLE GATE LEVER WITH PANIC BAR NTS



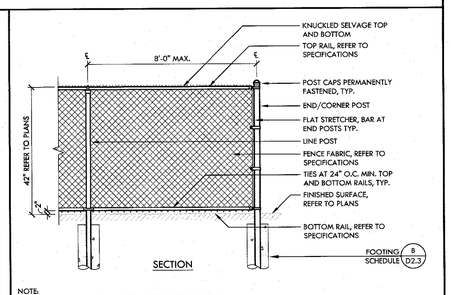
NOTES:
1. THIS DRAWING IS FOR DESIGN INTENT ONLY. SUBMIT SHOP DRAWING TO SHOW MATERIAL, WELDS AND FASTENERS.
2. ALL PIPE TO BE SCHEDULE 40 WITH 1/4" THICKNESS, & SHALL BE GALVANIZED FINISH.
3. ALL JOINTS SHALL BE FILLET WELD; GRIND SMOOTH JOINTS; TREAT ALL FINISHED WELDS WITH GALVANIZING.
4. ALL RAILINGS TO BE SHOP FABRICATED FOR FIELD INSTALLATION.
5. PROVIDE 1½ " FROM OUTSIDE OF HANDRAIL TO CURB/WALL ADJACENT TO HANDRAIL.

K RAMP HANDRAIL NTS



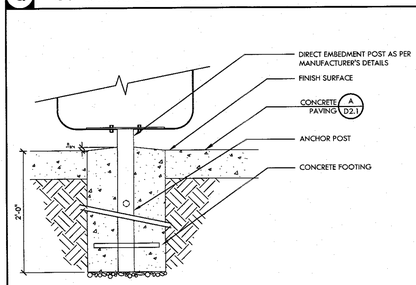
NOTES:
1. ALL FENCE POSTS, HARDWARE, AND GATES TO BE POWDER COATED MEDIUM GREEN.
2. FENCE POSTS, HARDWARE, AND GATES TO RECEIVE ANTI-GRAFFITI COATING, REFER TO SPECIFICATIONS
3. REFER TO FENCE AND GATE NOTES.
4. ADD PANIC BAR TO LATCH ASSEMBLY, SEE DETAIL XX SHEET XX
5. ALL PICKETS ARE WELDED AND GROUND SMOOTH WITH A BUTT JOINT AT THE TOP/BOTTOM RAIL.

G 42" TALL ORNAMENTAL GATE NTS

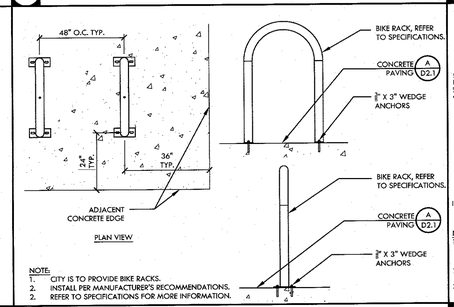


NOTE:
1. SEE GENERAL FENCE & GATE NOTES SHEET D2.3, DETAIL A.

D 42" TALL CHAIN LINK FENCE NTS

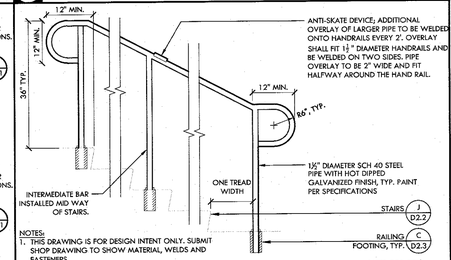


P TRASH AND RECYCLE RECEPTACLES FOOTING NTS



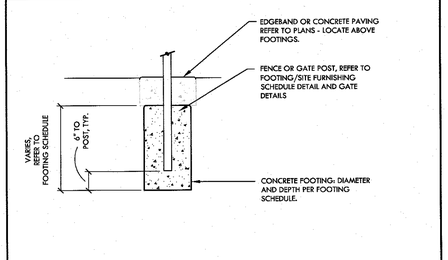
NOTE:
1. CITY IS TO PROVIDE BIKE RACKS.
2. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
2. REFER TO SPECIFICATIONS FOR MORE INFORMATION.

M BIKE RACK NTS



NOTES:
1. THIS DRAWING IS FOR DESIGN INTENT ONLY. SUBMIT SHOP DRAWING TO SHOW MATERIAL, WELDS AND FASTENERS.
2. ALL PIPE TO BE SCHEDULE 40 WITH 1/4" THICKNESS, & SHALL BE GALVANIZED FINISH.
3. ALL JOINTS SHALL BE FILLET WELD; GRIND SMOOTH JOINTS; TREAT ALL FINISHED WELDS WITH GALVANIZING.
4. ALL RAILINGS TO BE SHOP FABRICATED FOR FIELD INSTALLATION.
5. PROVIDE 1½ " FROM OUTSIDE OF HANDRAIL TO CURB/WALL ADJACENT TO HANDRAIL

J STAIR HANDRAIL NTS



C FENCE FOOTING NTS

FENCE POST & FOOTING SCHEDULE

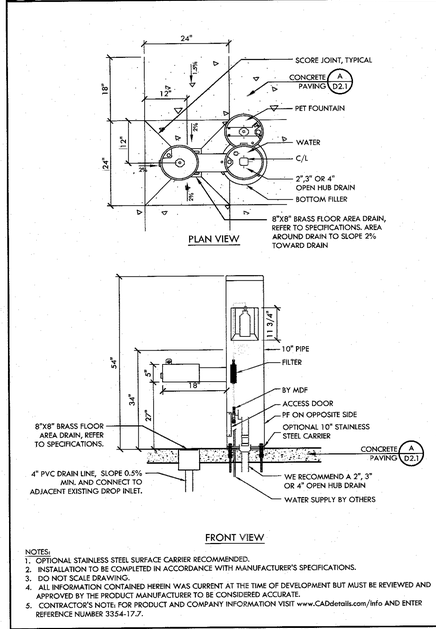
DESCRIPTION	HEIGHT	LINE POST (STD. GALV. PIPE)	CORNER/END POST (STD. GALV. PIPE)	FOOTING DIMENSIONS
CHAIN LINK FENCE	42"	1 5/8" DIA. STD.	2" DIA. STD.	12" DIA. X 3' DEEP

GATE POST FOOTING SCHEDULE

DESCRIPTION	SIZE (H x L)	GATE POST (STD. GALV. PIPE)	FOOTING DIMENSIONS
42" TALL ORNAMENTAL GATE	42" X 6'	HSS 4" X 4" X 1/4"	16" DIA. X 3'-0" DEEP A D2.3

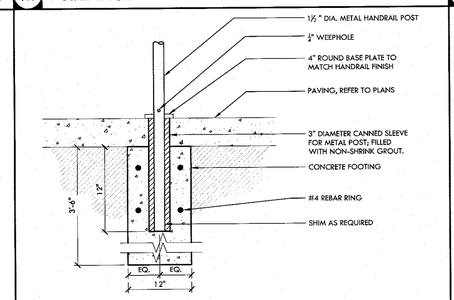
NOTES:
1. REFER TO PLANS & DETAILS FOR POST LOCATIONS AND TOP OF POST FOOTING.
2. REFER TO FENCE FOOTING DETAIL, DETAIL C, THIS SHEET
3. THE PIPE SIZES INDICATED ARE FOR NPS, REFER TO SPECIFICATIONS.

B FOOTING SCHEDULE NTS

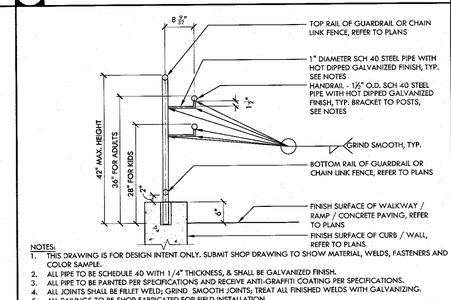


NOTES:
1. OPTIONAL STAINLESS STEEL SURFACE CARRIER RECOMMENDED.
2. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
3. DO NOT SCALE DRAWING.
4. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.
5. CONTRACTOR'S NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.CADdetails.com/info AND ENTER REFERENCE NUMBER 3354-17.7.

O DRINKING FOUNTAIN, WATER BOTTLE FILLING STATION AND PET STATION NTS



L RAILING FOOTING NTS

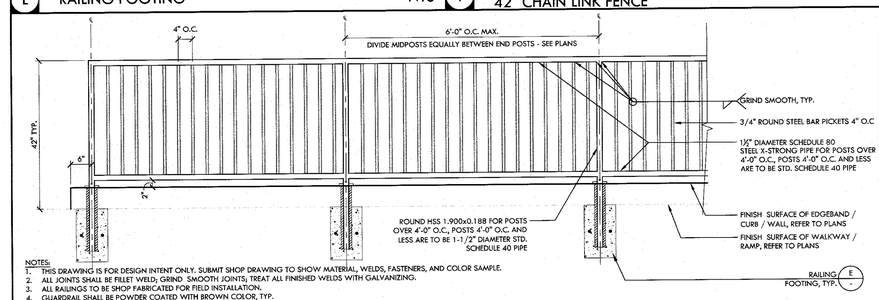


NOTES:
1. THIS DRAWING IS FOR DESIGN INTENT ONLY. SUBMIT SHOP DRAWING TO SHOW MATERIAL, WELDS, FASTENERS AND COLOR SAMPLE.
2. ALL PIPE TO BE SCHEDULE 40 WITH 1/4" THICKNESS, & SHALL BE GALVANIZED FINISH.
3. ALL PIPE TO BE PAINTED PER SPECIFICATIONS AND RECEIVE ANTI-GRAFFITI COATING PER SPECIFICATIONS.
4. ALL JOINTS SHALL BE FILLET WELD; GRIND SMOOTH JOINTS; TREAT ALL FINISHED WELDS WITH GALVANIZING.
5. ALL RAILINGS TO BE SHOP FABRICATED FOR FIELD INSTALLATION.

I HANDRAIL ATTACHED TO 42" GUARD RAIL OR 42" CHAIN LINK FENCE NTS

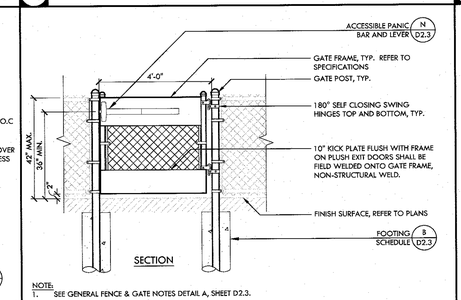
NOT USED

F



NOTES:
1. THIS DRAWING IS FOR DESIGN INTENT ONLY. SUBMIT SHOP DRAWING TO SHOW MATERIAL, WELDS, FASTENERS, AND COLOR SAMPLE.
2. ALL JOINTS SHALL BE FILLET WELD; GRIND SMOOTH JOINTS; TREAT ALL FINISHED WELDS WITH GALVANIZING.
3. ALL RAILINGS TO BE SHOP FABRICATED FOR FIELD INSTALLATION.
4. GUARDRAIL SHALL BE POWDER COATED WITH BROWN COLOR, TYP.
5. GUARDRAIL TO RECEIVE ANTI-GRAFFITI COATING, REFER TO SPECIFICATIONS

H 42" TALL GUARDRAIL NTS



NOTE:
1. SEE GENERAL FENCE & GATE NOTES DETAIL A, SHEET D2.3.

E 42"x4' SWING GATE WITH PANIC HARDWARE NTS

NOTES PERTAIN TO ALL GATE AND FENCE DETAILS:

1. PLACE FENCE FABRIC ON PLAYGROUND SIDE.
2. BOTTOM RAIL TO BE 2" FROM FINISH GRADE, FENCE FABRIC BOTTOM EDGE TO BE 1" FROM FINISH GRADE.
3. SUBMIT SHOP DRAWINGS FOR ACCEPTANCE BY OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
4. GATES IN PATH OF TRAVEL MUST MEET ENTRY AND EXIT DOOR REQUIREMENTS.
5. ALL PEDESTRIAN SWING GATES SHALL RECEIVE A GATE LOCK. SEE DETAIL E AND G, THIS SHEET. PEDESTRIAN GATES ARE NOTED BY HAVING A KICK PLATE ATTACHMENT.
6. REFER TO PLANS FOR EDGEBAND TYPE UNLESS OTHERWISE NOTED.
7. REFER TO DETAIL FOR FENCING WITH CURBS AND CHANGE IN ELEVATIONS.
8. TACK WELD HINGES TO POSTS AT GATES
9. THE PIPE SIZES INDICATED ARE NPS FOR ; STANDARD GALV. PIPE SCHEDULE 40.

A GATE AND FENCE NOTES NTS

REGISTERED LANDSCAPE ARCHITECT
DEREK MOORE
No. 4148
SIGNATURE
EXPIRATION DATE: DEC. 2021
STATE OF CALIFORNIA

NO.	DESCRIPTION	DATE	BY

Revisions

WORK ACCEPTED: INSPECTOR:
BY: DATE:

DRAWN: VERDE DESIGN: CMES HOR: N/A
CHECKED: CMES / DM VERT: N/A
APPROVED: DATE: 2/10/20 JOB NUMBER:
SCOTT CRIER – CITY ENGINEER RCE#58879 EXP. 9/30/21

City of Morgan Hill
Public Works Department
17575 Peak Ave. Morgan Hill, CA 95037 (408)778-6480, Fax (408)779-7236

VERDE DESIGN
LANDSCAPE ARCHITECTURE CIVIL ENGINEERING SPORT PLANNING & DESIGN
2455 The Alameda, Ste. 200 Santa Clara, CA 95050
tel: 408.865.7200
fax: 408.865.7260
www.verdedesigninc.com

171 W EDMUNDSON AVE, MORGAN HILL, CA 95037

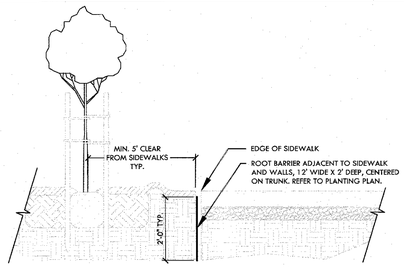
FENCING / SITE FURNISHINGS DETAILS
MORGAN HILL INCLUSIVE PLAYGROUND / MAGICAL BRIDGE PROJECT

FILE NUMBER: 1818000
PRINT DATE: 02/07/20
SHEET NUMBER: D2.3

BID SUBMITTAL - 02-07-20

NOT USED

L NOT USED



K ROOT BARRIER AT PLANTER WALLS AND PAVING NTS

NOTE: THESE NOTES APPLY TO LANDSCAPING WORK. FOR DOMESTIC, COMMERCIAL/INDUSTRIAL APPLICATIONS, SEE "W"–WATER SECTION.

LEGEND

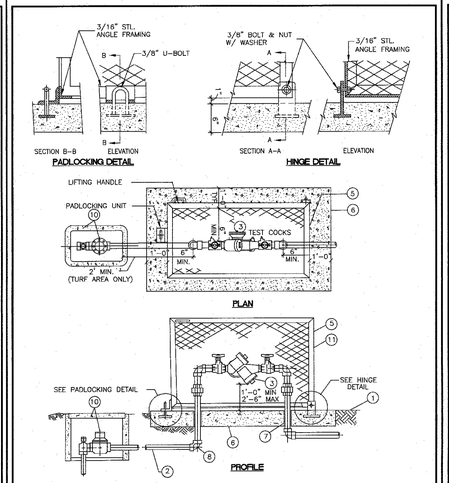
1. Finish Grade.
2. Service size galvanized steel pipe from water meter. Use Ductile Iron Pipe with flange fittings for sizes 2 1/2" and larger.
3. Reduced Pressure Backflow Preventer FEBCO 825Y (or approved equal) for sizes 3/4" through 2", and FEBCO 825 YD (or approved equal) for sizes 2 1/2" to 4".
4. Adustable pipe saddle support, galvanized steel, suitable for supporting general piping 4" and larger.
5. Backflow preventer enclosure manufactured by Lemeur (or approved equal). Enclosure shall be single–swing type for backflow unit sizes 3/4" through 2" and double–swing type ("clam shell") for backflow unit sizes 2 1/2" through 4". Frame shall be 1 1/2" X 1 1/2" X 3/16" steel angle with 1 1/2" #9 expanded metal. Install as shown on plans.
6. 6" concrete enclosure pad, size as shown on the plan.
7. Service size galvanized steel pipe riser with a minimum of two (2) unions for threaded connections (sizes 1" to 2").
8. 90° elbow, flanged or threaded, wrapped with 10 mil PVC tape.
9. Concrete thrust block for service size 4" or larger (see detail W–12).
10. Water meter and service by others (see detail W–1)
11. Two coats of enamel. Color specified per approved plans.

NOTES:

1. Gate valves and test cocks are required.
2. Water supply– no connections or tees are allowed between the water meter and backflow unit.
3. Protection from freeze damage may be required in exposed areas.
4. Device must be accessible for testing and maintenance. Prior to activation, call 776–7333 for backflow device inspection.
5. Wrap buried galvanized pipe with 3M tape or approved equal.

City of Morgan Hill Public Works Department			LANDSCAPE BACKFLOW PREVENTER LEGEND AND NOTES	DRAWING NO.
Jim Ashcraft CITY ENGINEER	8/1/97 DATE	3/15/07 REVISED		L–12

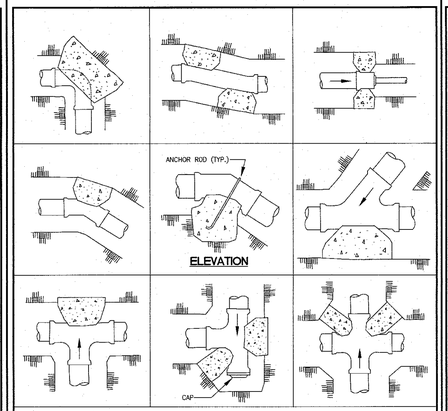
H BACKFLOW PREVENTER NOTES



FOR MEDIAN ISLANDS AND PUBLIC PARKS/FACILITIES (SIZES 1" TO 2")

City of Morgan Hill Public Works Department			R.P. BACKFLOW PREVENTER WITH SINGLE–SWING HINGED ENCLOSURE	DRAWING NO.
Jim Ashcraft CITY ENGINEER	8/1/97 DATE	3/15/07 REVISED		L–10

F BACKFLOW PREVENTER

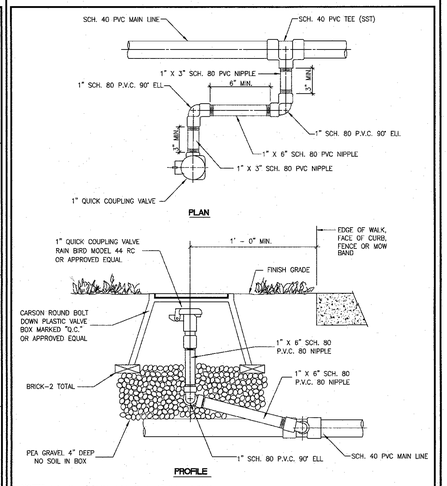


NOTES:

1. ALL PLASTIC PIPE TO BE INSTALLED ACCORDING TO THESE DETAILS UNLESS OTHERWISE NOTED OR DETAILED.
2. THE PORTLAND CEMENT CONCRETE USED FOR THRUST BLOCKS SHALL BE 420–C–2000 CONCRETE.
3. ALL ANCHOR RODS SHALL BE GALVANIZED STEEL, MINIMUM 1/2" DIAMETER, WRAPPED AROUND PIPE.
4. SIZE OF THRUST BLOCKS SHALL BE SPECIFIED ON PLANS.
5. THRUST BLOCKS SHALL BE USED FOR PLASTIC PIPES WITH 3" DIAMETER OR LARGER.
6. FLOW DIRECTION INDICATED BY ⟶
7. ALL VIEWS ARE PLAN VIEW UNLESS OTHERWISE SHOWN.

City of Morgan Hill Public Works Department			THRUST BLOCKS FOR PLASTIC PIPES	DRAWING NO.
Jim Ashcraft CITY ENGINEER	8/6/98 DATE	REVISED		L–13

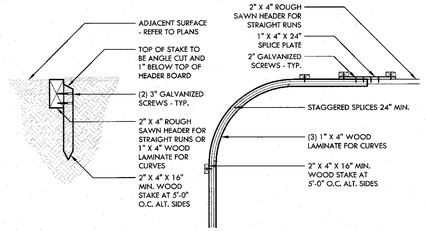
D THRUST BLOCKS FOR PLASTIC PIPES



NOTES: 1. ALL PIPING TUBE TO BE 1" OR LARGER.
2. VALVE BOX LID TO HAVE "Q.C." MOLDED INTO TOP OF LID OR BRASS TAG INSTALLED ON LID MARKED "Q.C.".

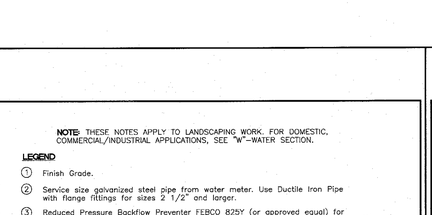
City of Morgan Hill Public Works Department			1" QUICK COUPLING VALVE	DRAWING NO.
Jim Ashcraft CITY ENGINEER	8/6/98 DATE	REVISED		L–7

B 1" QUICK COUPLING VALVE



NOTE:
1. USE CURVED DETAIL WHEN RADIUS IS LESS THAN 30' & BOARD LENGTH IS LESS THAN 16'.
2. ALL WOOD TO BE ROUGH SAWN REDWOOD CONST. GRADE.
3. FINISH GRADE OF PLANTING AREA TO BE 1" BELOW TOP OF HEADER.
4. TAPER FINISH GRADE FROM 1" AT HEADER TO 3" WITHIN 4'-0" OF HEADER BOARD, FOR 3" MULCH LAYER.

J REDWOOD HEADER BOARD NTS



NOTES:

1. SET CROWN 1–1/2" ABOVE FINISH GRADE TO ALLOW FOR SETTLEMENT.
2. WELL DEVELOPED SHRUB ROOTBALL; LIGHTLY SCARIFY PERIMETER.
3. SLOW RELEASE FERTIZER TABLET AS PERSPECIFICATIONS.
4. 4" HIGH BERM TEMPORARY WATER BASIN. INSIDE DIAMETER TO EQUAL ROOTBALL DIAMETER.
5. PLANTING HOLE; TWO TIMES DIAMETER AND DEPTH OF SHRUB ROOTBALL. SCARIFY SIDES AND BOTTOM.
6. MULCH AS PER SPECIFICATIONS.
7. BACKFILL MIXTURE AS PER SPECIFICATIONS.

City of Morgan Hill Public Works Department			SHRUB PLANTING	DRAWING NO.
Jim Ashcraft CITY ENGINEER	8/6/98 DATE	3/15/07 REVISED		L–17

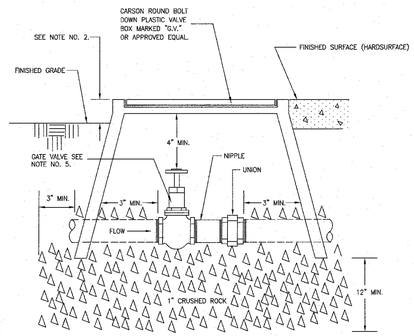
G SHRUB PLANTING

NOTES:

1. CENTER BOX OVER REMOTE CONTROL VALVE TO FACILITATE SERVICING VALVE.
2. SET BOXES 1" ABOVE FINISH GRADE OR MULCH COVER IN GROUND COVER / SHRUB AREA
3. SET RCV AND VALVE BOX ASSEMBLY IN GROUND COVER / SHRUB AREA WHERE POSSIBLE. INSTALL IN LAWN AREA ONLY IF GROUND COVER DOES NOT EXIST ADJACENT TO LAWN.
4. SET BOXES PARALLEL TO EACH OTHER AND PERPENDICULAR TO EDGE.
5. AVOID COMPACTING SOIL AROUND AROUND VALVE BOX EDGES TO PREVENT COLLAPSE AND DEFORMATION OF VALVE BOX SIDES.
6. ALL BOXES SHALL BE "CARSON" OR APPROVED EQUAL, AND BE EQUIPPED WITH BOLT DOWN LIDS.
7. ALL VALVE BOX LIDS SHALL IDENTIFY EQUIPMENT CONTAINED IN BOX BY MOLDING OR BRASS TAG TO LID AS FOLLOWS:
   GATE VALVE – "G.V."
   QUICK COUPLER – "Q.C."
   REMOTE CONTROL VALVE – "R.C.V. STA. #____"
   MISCELANEOUS ELECTRICAL EQUIPMENT – "ELLECTRICAL"
   MISCELANEOUS IRRIGATION EQUIPMENT – "IRRIGATION"

City of Morgan Hill Public Works Department			VALVE BOX LOCATION	DRAWING NO.
Jim Ashcraft CITY ENGINEER	8/6/98 DATE	REVISED		L–14

E VALVE BOX LOCATION



NOTES:

1. AREA AROUND BOX CAN EITHER BE PLANTED, HARDSURFACE OR A COMBINATION.
2. TOP OF BOX:
   1" ABOVE GRADE FOR GROUND COVER OR SHRUBS.
3. CLOSE NIPPLES SHALL NOT BE USED.
4. CRUSHED ROCK SHALL COVER VALVE BOX PIPE OPENINGS TO PREVENT SOIL ENTRY.
5. GATE VALVE SHALL BE "RED & WHITE", OR APPROVED EQUAL.

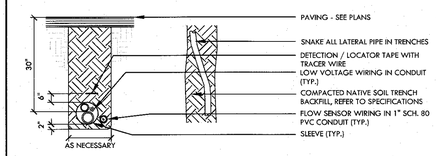
City of Morgan Hill Public Works Department			GATE VALVE	DRAWING NO.
Jim Ashcraft CITY ENGINEER	8/6/98 DATE	REVISED		L–8

C GATE VALVE

NOTES:
1. TAPE AND BUNDLE WIRING AT 10 FOOT INTERVALS.
2. NATIVE BACKFILL AND TOP SOIL TO BE FREE OF ROCK AND DEBRIS.(3/4" MAX. ROCK SIZE)

City of Morgan Hill Public Works Department			IRRIGATION AND DRAIN LINE TRENCH	DRAWING NO.
Jim Ashcraft CITY ENGINEER	8/6/98 DATE	6/8/00 REVISED		L–1

A IRRIGATION AND DRAIN LINE TRENCH



I IRRIGATION PIPE TRENCHING UNDER PAVEMENT NTS

REGISTERED LANDSCAPE ARCHITECT
DEREK MOREE
No. 4148
Signature
EXPIRATION DATE: DEC. 2021
STATE OF CALIFORNIA

NO.	DESCRIPTION	DATE	BY

Revisions

WORK ACCEPTED: INSPECTOR:
BY: DATE:

DRAWN: VERDE | DESIGN: CMES | HOR: N/A
CHECKED: CMES / DM | VERT: N/A
APPROVED: | DATE: 2/10/20 | JOB NUMBER:
SCOTT GREER – CITY ENGINEER RCE58879 EXP. 9/30/21

City of Morgan Hill
Public Works Department
17575 Peak Ave. Morgan Hill, CA 95037 (408)778–6480, Fax (408)779–7236

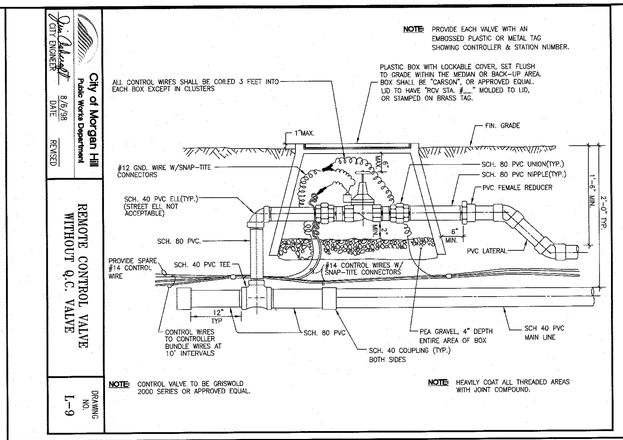
VERDE DESIGN
LANDSCAPE ARCHITECTURE CIVIL ENGINEERING SPORT PLANNING & DESIGN
2465 The Alameda, Ste. 200 Santa Clara, CA 95050 tel: 408.961.7200 fax: 408.985.7360 www.verdedesigninc.com

171 W EDMUNDSON AVE, MORGAN HILL, CA 95037

IRRIGATION AND PLANTING DETAILS
MORGAN HILL INCLUSIVE PLAYGROUND / MAGICAL BRIDGE PROJECT

FILE NUMBER: 1818000
PRINT DATE: 02/07/20
SHEET NUMBER: D3.1

BID SUBMITTAL - 02-07-20

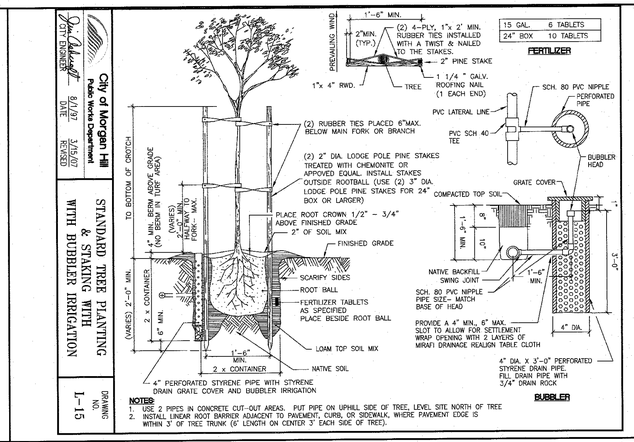


City of Morgan Hill
Public Works Department
CITY ENGINEER 8/6/08 DATE REVISED

REMOTE CONTROL VALVE WITHOUT Q.C. VALVE

DRAWING NO. L-9

P REMOTE CONTROL VALVE

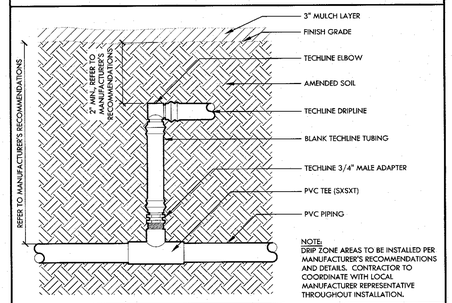


City of Morgan Hill
Public Works Department
CITY ENGINEER 8/1/97 DATE 3/15/07 REVISED

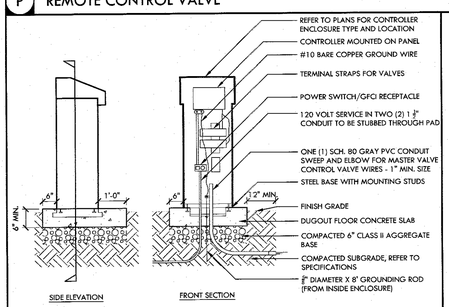
STANDARD TREE PLANTING & STAKING WITH WITH BUBBLER IRRIGATION

DRAWING NO. L-15

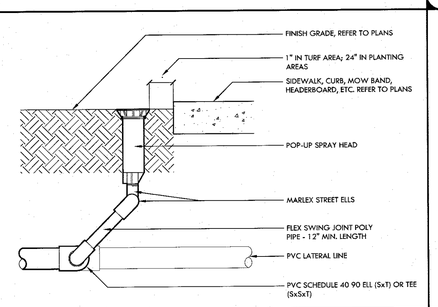
J TREE PLANTING AND STAKING WITH BUBBLER IRRIGATION H



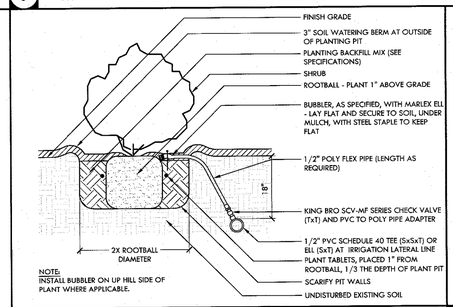
D TECHLINE START CONNECTION (PVC TO ELBOW) NTS



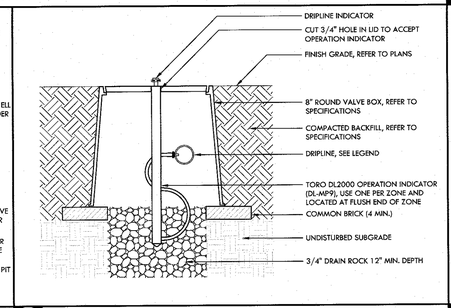
O PEDESTAL MOUNT CONTROLLER NTS



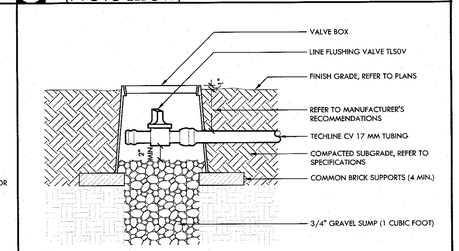
L POP UP AND SWING JOINT NTS



I SHRUB PLANTING WITH BUBBLER NTS



G OPERATION PRESSURE INDICATOR NTS



C MANUAL FLUSH VALVE NTS

NOT USED

N NOT USED

NOT USED

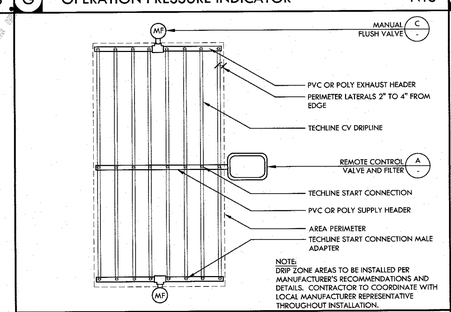
M NOT USED

NOT USED

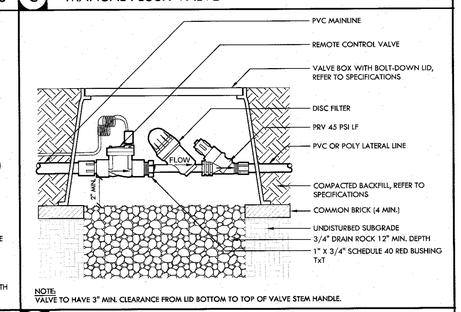
K NOT USED

NOT USED

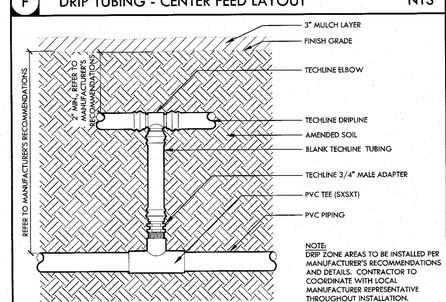
H NOT USED



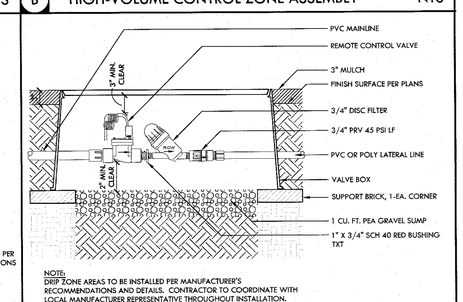
F DRIP TUBING - CENTER FEED LAYOUT NTS



B HIGH-VOLUME CONTROL ZONE ASSEMBLY NTS



E TECHLINE START CONNECTION (PVC TO TEE) NTS



A REMOTE CONTROL VALVE AND FILTER (LOW FLOW) NTS

REGISTERED LANDSCAPE ARCHITECT DEREK MORRE No. 4148 SIGNATURE EXPIRATION DATE: DEC. 2021 STATE OF CALIFORNIA

NO.	DESCRIPTION	DATE	BY

Revisions

WORK ACCEPTED: INSPECTOR: BY: DATE:

DRAWN: VERDE DESIGN: CMES HOR: N/A
CHECKED: CMES / DM VERT: N/A
APPROVED: DATE: 2/10/20 JOB NUMBER:
SCOTT CREER – CITY ENGINEER RCE#58679 EXP. 9/30/21

City of Morgan Hill
Public Works Department
17575 Peak Ave. Morgan Hill, CA 95037 (408)778-6480, Fax (408)779-7236

VERDE DESIGN
LANDSCAPE ARCHITECTURE CIVIL ENGINEERING SPORT PLANNING & DESIGN
2455 The Alameda, Ste. 200 Santa Clara, CA 95050 tel: 408.565.7200 fax: 408.565.7202 www.verdedesigninc.net

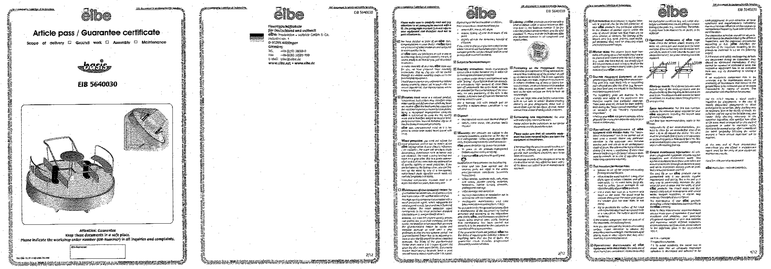
171 W EDMUNDSON AVE, MORGAN HILL, CA 95037

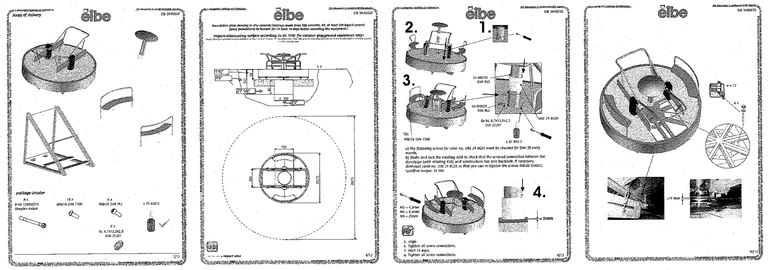
IRRIGATION AND PLANTING DETAILS

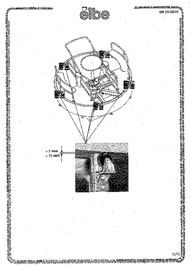
MORGAN HILL INCLUSIVE PLAYGROUND / MAGICAL BRIDGE PROJECT

FILE NUMBER: 1818000
PRINT DATE: 02/07/20
SHEET NUMBER: D3.2

BID SUBMITTAL - 02-07-20

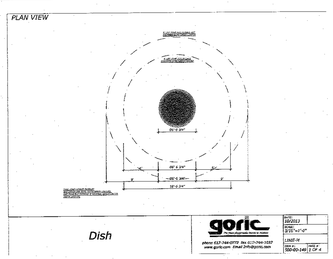


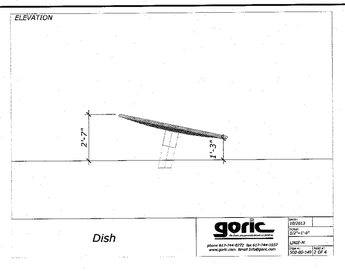


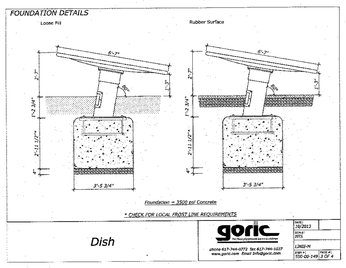


NOTES:
1. MANUFACTURE - GORIC
2. MODEL - INTEGRATION CAROUSEL - E5600300009
3. COLOR -
4. AGES - 2 YEARS PLUS
5. ASTM - F-1487

J GORIC - INTEGRATION CAROUSEL

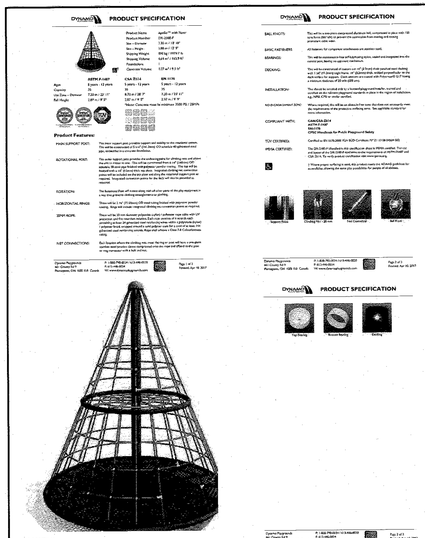






NOTES:
1. MANUFACTURE - GORIC
2. MODEL - DISH - 500-00-149 (WITH SPEED LIMITER)
3. COLOR -
4. AGES - 5 YEARS PLUS
5. ASTM - F-1487

I GORIC - DISH SPINNER



NOTES:
1. MANUFACTURE - DYNAMO
2. MODEL - APOLLO NET WITH FLOOR - DX-2100-F
3. COLOR -
4. AGES - 2 YEARS - 5 YEARS
5. ASTM - F-1487

H DYNAMO - APOLLO NET WITH FLOOR

This swing for children ages 2-5 includes two black, slash-proof infant seats with zinc coated chains

Product Details

Size: 5' 7" x 10' 7" x 7' 2"
Full Height: 8' 0"
Install Hours: 2
Certifications:
ASTM F1487
CPSC PUB.325
CAN/CSA-Z614
EN1176*

Weight: 244 lbs
Capacity: 1

* Indicates compliance with minor changes and/or additions. Please contact your playground professional (https://playworld.com/find-representative) for details.

Prices shown in U.S. Dollars. Prices do not include freight, custom fees, surfacing or installation. Please contact your authorized Playworld Representative for pricing.

Early Childhood T-Swing
Product: 22X0822

81-41S
Ages 2-5

Space Required 24' 4" x 22' 7"
(7.4m x 6.89m)

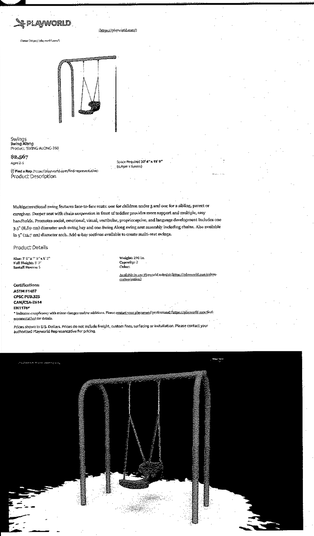
Product Description

NOTES:
1. MANUFACTURE - PLAYWORLD
2. MODEL - T-SWING - ZZXX0822
3. COLOR -
4. AGES - 2 YEARS - 5 YEARS
5. ASTM - F-1487

G PLAYWORLD - T- SWING

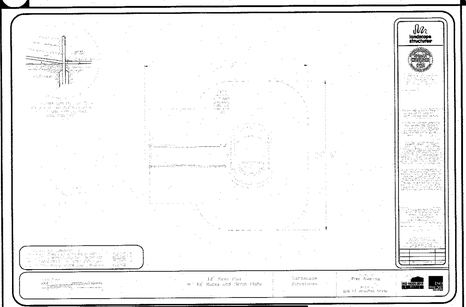
NOTES:
1. MANUFACTURE - PLAYWORLD
2. MODEL - SWING MATES - PONY - ZZXX0725
3. COLOR -
4. AGES - 2 YEARS - 5 YEARS
5. ASTM - F-1487

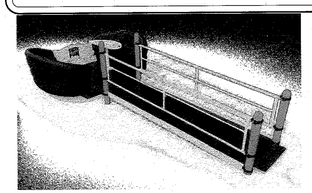
F PLAYWORLD - SPRING RIDERS - PONY



NOTES:
1. MANUFACTURE - PLAYWORLD
2. MODEL - SWING ALONG - 350
3. COLOR -
4. AGES - 2 YEARS - 5 YEARS
5. ASTM - F-1487

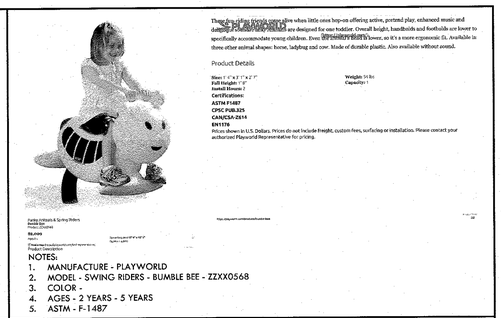
E PLAYWORLD - SWING ALONG





NOTES:
1. MANUFACTURE - LANDSCAPE STRUCTURES
2. MODEL - SWAYFUN - #258372
3. COLOR -
4. AGES - 2 YEARS - 12 YEARS
5. ASTM - CSA

D LANDSCAPE STRUCTURES - SWAY FUN WITH 12' RAMP ASSEMBLEY WITH BERM PLATE

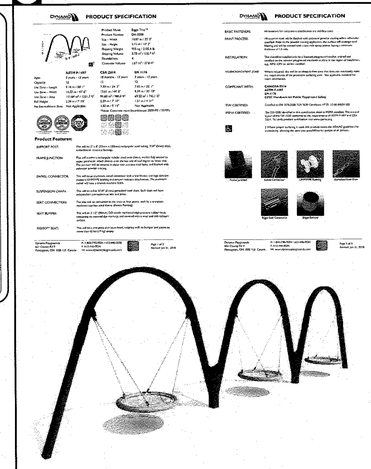


NOTES:
1. MANUFACTURE - PLAYWORLD
2. MODEL - SPRING RIDERS - BUMBLE BEE - ZZXX0568
3. COLOR -
4. AGES - 2 YEARS - 5 YEARS
5. ASTM - F-1487

C PLAYWORLD - SPRING RIDERS - BUMBLE BEE

NOTES:
1. MANUFACTURE - PLAYWORLD
2. MODEL - BASE BID - CUSTOM 6 SWINGS - 4 ADA SEATS, 2 BELT SWINGS
   ADD ALTERNATE # 2 - CUSTOM 8 SWINGS - 4 ADA SEATS, 4 BELT SWINGS
3. COLOR -
4. AGES - 2 YEARS - 12 YEARS
5. ASTM - F-1487

B PLAYWORLD - CUSTOM SWINGS



NOTES:
1. MANUFACTURE - DYNAMO
2. MODEL - BASE BID - BIGGO DUO SWINGS - DX-3200
   ADD ALTERNATE # 1 - BIGGO TRIO SWINGS - DX-3300
3. COLOR -
4. AGES - 2 YEARS - 12 YEARS
5. ASTM - F-1487

A DYNAMO - BIGGO SWINGS

NO.	DESCRIPTION	DATE	BY

Revisions

WORK ACCEPTED: | INSPECTOR: | BY: | DATE:

DRAWN: RK | DESIGN: CMES | HOR: N/A
CHECKED: CMES / DM | VERT: N/A
APPROVED: | DATE: 2/10/20. | JOB NUMBER: XX
SCOTT CHIFER – CITY ENGINEER
RCE: 38875 EXP:06/30/2021

City of Morgan Hill
Public Works Department
17575 Peak Ave. Morgan Hill, CA 95037 (408)778-6480, Fax (408)779-7236

VERDE DESIGN
LANDSCAPE ARCHITECTURE
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Santa Clara, CA 95050
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fax: 408.985.7300
www.verdedesign.com

171 W
EDMUNDSON AVE,
MORGAN HILL,
CA 95037

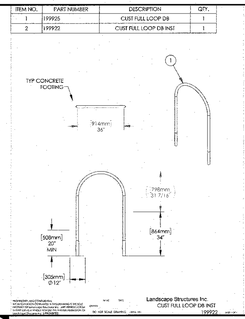
PLAY EQUIPMENT INFORMATION
MAGICAL BRIDGE MORGAN HILL

FILE NUMBER: 1818000
PRINT DATE: 01/23/20
SHEET NUMBER: D4.1

BID SUBMITTAL - 01-23-20

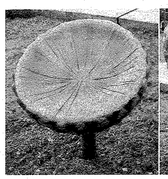
NOTES:
1. MANUFACTURE - LANDSCAPE STRUCTURES
2. MODEL - SPAGHETTI CLIMBERS - CUSTOM
3. COLOR -
4. AGES - 2 YEARS - 12 YEARS
5. ASTM - F1487

N LANDSCAPE STRUCTURES - LOOP CLIMBERS



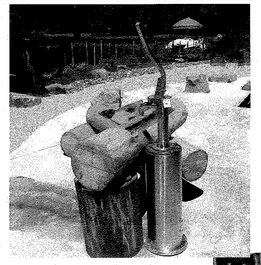
NOTES:
1. MANUFACTURE - LANDSCAPE STRUCTURES
2. MODEL - LOOP CLIMBERS - CUSTOM
3. COLOR -
4. AGES - 5 YEARS - 12 YEARS
5. ASTM - F1487

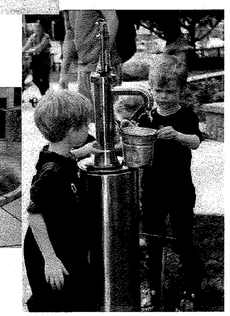
J LANDSCAPE STRUCTURES - LOOP CLIMBERS

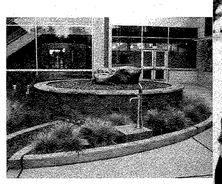


NOTES:
1. MANUFACTURE - LANDSCAPE STRUCTURES
2. MODEL - ACORN SEAT - 186579
3. COLOR -
4. AGES - ALL

M LANDSCAPE STRUCTURES - ACORN SEAT







NOTES:
1. MANUFACTURE - BISON PUMP
2. MODEL - PLAYGROUND HAND PUMPS
3. COLOR - TBD
4. AGES - 2 YEARS
5. ASTM -

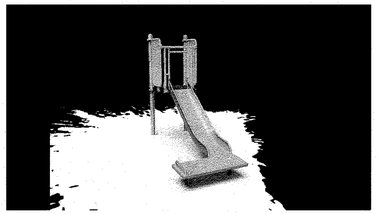
I BISON WATER HAND PUMP - WATER PLAY AREA

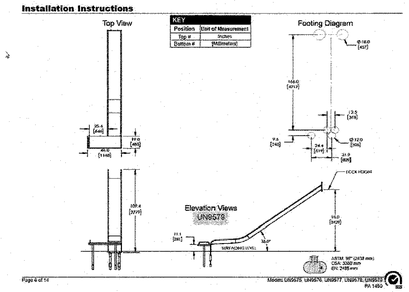
NOTES:
1. MANUFACTURE - GORIC
2. MODEL - SMALL NEST - 500-00-001
3. COLOR - BLUE AND SILVER
4. AGES - 2 YEARS - 12 YEARS
5. ASTM -

G GORIC - NEST

NOTES:
1. MANUFACTURE - PLAYWORLD
2. MODEL - PUP TENT CLIMBER - ZZXX0409
3. COLOR - TBD
4. AGES - 2 YEARS - 12 YEARS
5. ASTM - F1487

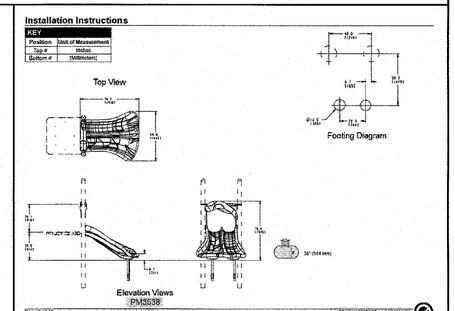
F PLAYWORLD - PUP TENT CLIMBER





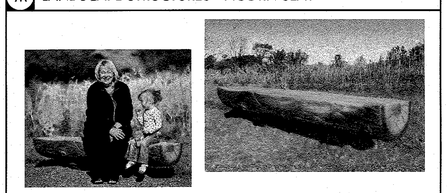
NOTES:
1. MANUFACTURE - PLAYWORLD
2. MODEL - CUSTOM SLIDES
3. COLOR - STAINLESS STEEL
4. AGES - 5 YEARS - 12 YEARS
5. ASTM -

D PLAYWORLD - SLIDES



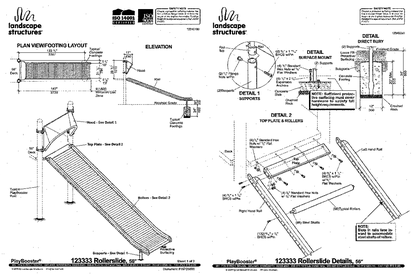
NOTES:
1. MANUFACTURE - PLAYWORLD
2. MODEL - NUVO DOUBLE SLIDE - ZZCH3538
3. COLOR -
4. AGES - 2 YEARS - 5 YEARS
5. ASTM - F-1487

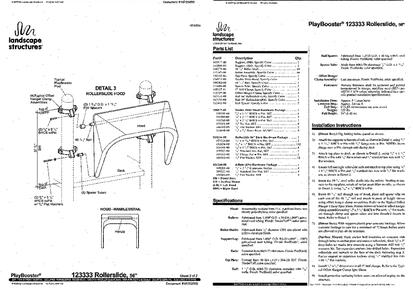
B PLAYWORLD - TOT AREA - DOUBLE SLIDE



NOTES:
1. MANUFACTURE - LANDSCAPE STRUCTURES
2. MODEL - LOG BENCH - 173595
3. COLOR -
4. AGES - ALL

L LANDSCAPE STRUCTURES - LOG BENCH





NOTES:
1. MANUFACTURE - LANDSCAPE STRUCTURES
2. MODEL - CUSTOM ROLLER SLIDE - 7' TALL
3. COLOR -
4. AGES - 5 YEARS - 12 YEARS
5. ASTM - F-879

C LANDSCAPE STRUCTURES - ROLLER SLIDE

6' (1,83m) diameter classic whirl sits flush with the ground
Accommodates up to two wheelchair users, in addition to more kids without mobility devices
Added single seat gives extra support for kids or caregivers
Also available in surface mount

Product Details

Size: 6' 8" x 6' 8" x 2' 8"
Full Height: 7' 3"
Install Hours: 10
Weight: 995 lbs
Capacity: 9
Color:
Available in any Playworld color(s) (https://playworld.com/colors-customization)

Certifications:
ASTM F1487
CPSC PUB.325
CAN/CSA-Z614
EN1176
Prices shown in U.S. Dollars. Prices do not include Freight, custom Fees, surfacing or installation. Please contact your authorized Playworld Representative for pricing.

Motion Play
Accessible Whirl
Product: ZZXX1158

$11,095
Ages 2-12

Space Required **24' 8" x 24' 8"** (7,52m x 7,52m)

Find a Rep (https://playworld.com/find-representative)

Product Description

NOTES:
1. MANUFACTURE - PLAYWORLD
2. MODEL - ACCESSIBLE WHIRL - ZZXX1158
3. COLOR -
4. AGES - 2 YEARS - 12 YEARS
5. ASTM - F-1487

A PLAYWORLD - ACCESSIBLE WHIRL

NOTES:
1. MANUFACTURE - LANDSCAPE STRUCTURES
2. MODEL - RIBBON CLIMBERS - CUSTOM
3. COLOR -
4. AGES - 5 YEARS - 12 YEARS
5. ASTM - F1487

K LANDSCAPE STRUCTURES - RIBBON CLIMBERS

NOTES:
1. MANUFACTURE - PLAYWORLD
2. MODEL - BALANCE TRAX - POND - ZZXX0341
3. COLOR - TBD
4. AGES - 5 YEARS - 12 YEARS
5. ASTM -

H PLAYWORLD - BALANCE TRAX - POND

NOTES:
1. MANUFACTURE - PLAYWORLD
2. MODEL - COZY COCOON - ZZXX0483 - FALL HEIGHT - 1'-2"
3. COLOR - ORANGE AND PLUM
4. AGES - 2 YEARS - 12 YEARS
5. ASTM - F1487

E PLAYWORLD - COZY COCOON

NO.	DESCRIPTION	DATE	BY

Revisions

WORK ACCEPTED: INSPECTOR:
BY: DATE:

DRAWN: VERDE | DESIGN: CMES | HOR: N/A
CHECKED: CMES / DM | VERT: N/A
APPROVED: | DATE: 2/10/20 | JOB NUMBER:
SCOTT CRIER - CITY ENGINEER RCE#58879 EXP. 9/30/21

City of Morgan Hill
Public Works Department
CITY OF MORGAN HILL
17575 Peak Ave. Morgan Hill, CA 95037 (408)778-6480, Fax (408)779-7236

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171 W
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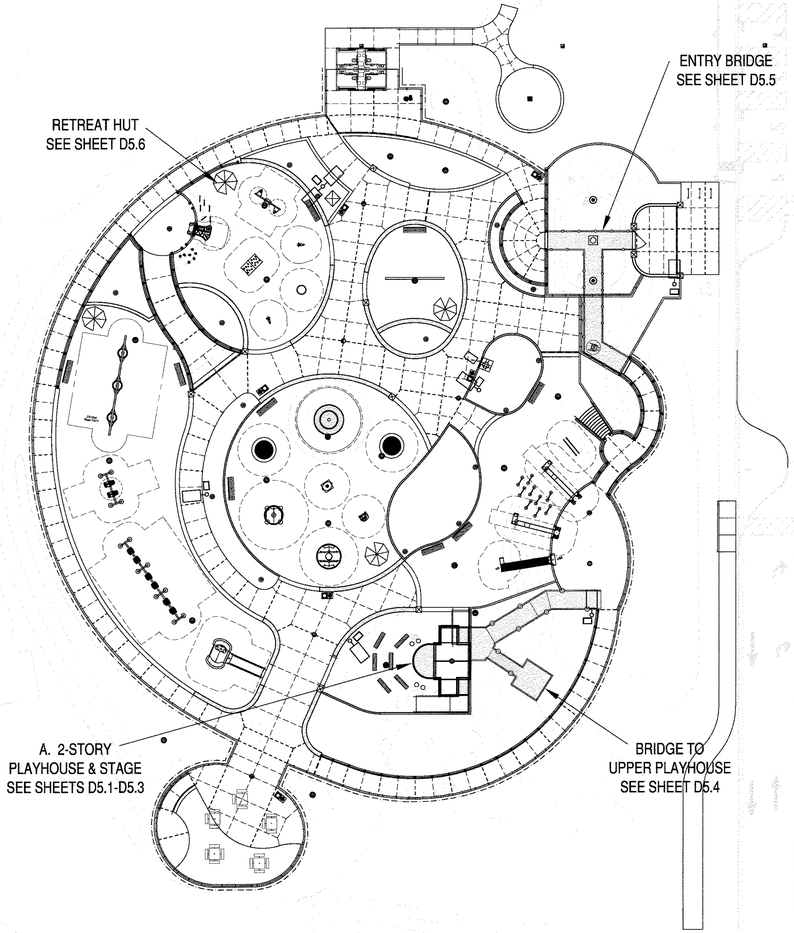
MORGAN HILL,
CA 95037

PLAY EQUIPMENT INFORMATION
MORGAN HILL INCLUSIVE PLAYGROUND / MAGICAL BRIDGE PROJECT

FILE NUMBER: 1818000
PRINT DATE: 02/07/20
SHEET NUMBER: D4.2

BID SUBMITTAL - 02-07-20



NO.	DESCRIPTION	DATE	BY

Revisions

WORK ACCEPTED: INSPECTOR:
BY: DATE:

DRAWN: BB
DESIGN: BB
HOR: N/A
CHECKED: BB
VERT: N/A
APPROVED: DATE: 2/10/20
JOB NUMBER:
SCOTT GREER – CITY ENGINEER
RCE#58879 EXP. 9/30/21

City of Morgan Hill
Public Works Department
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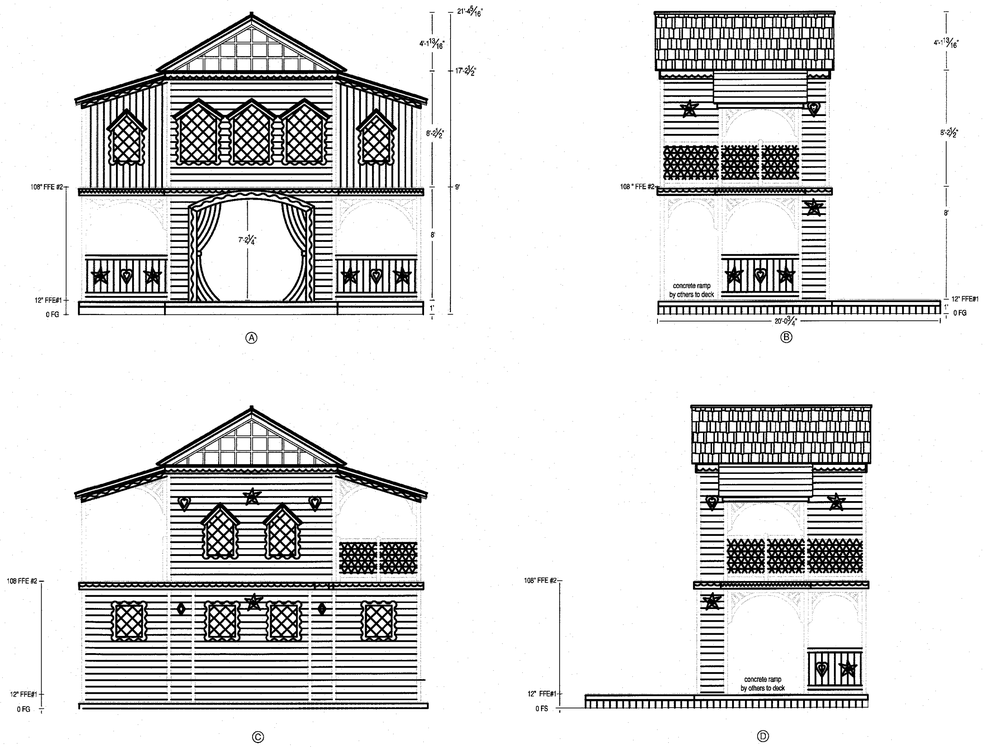
PLAYHOUSE SITE PLAN

MORGAN HILL INCLUSIVE PLAYGROUND / MAGICAL BRIDGE PROJECT

FILE NUMBER: 1518000
PRINT DATE: 02/07/20
SHEET NUMBER: D5.0

BID SUBMITTAL - 02-07-20

A - PLAYHOUSE ELEVATIONS



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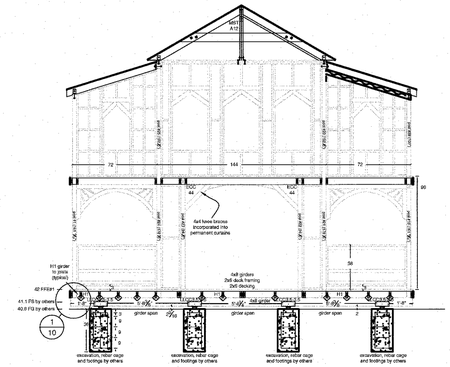
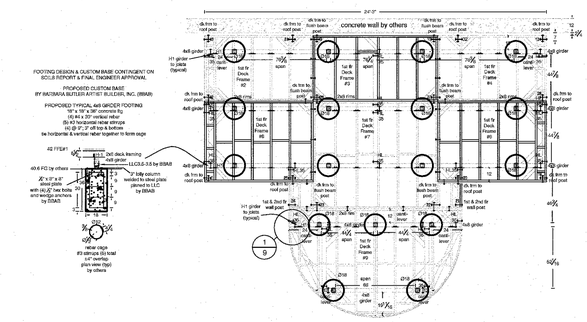
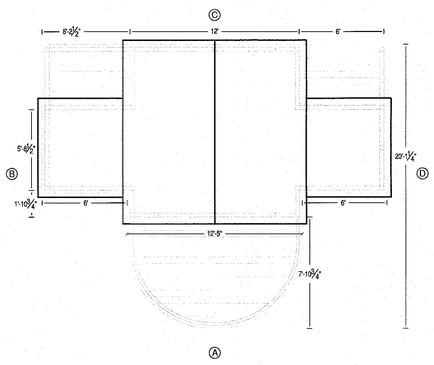
A - PLAYHOUSE FRONT SECTION



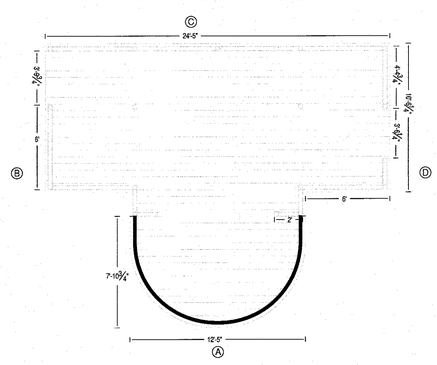
A - PLAYHOUSE FOOTING PLAN



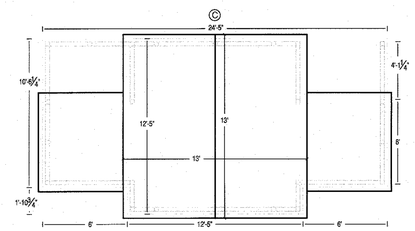
A - PLAYHOUSE 1ST & 2ND FLOOR PLAN



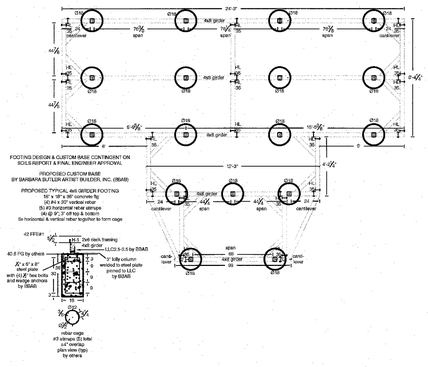
A - PLAYHOUSE 1ST FLOOR PLAN



A - PLAYHOUSE 2nd FLOOR & ROOF PLAN



A - PLAYHOUSE 1st FLOOR GIRDER SYSTEM



NO.	DESCRIPTION	DATE	BY

Revisions

WORK ACCEPTED: INSPECTOR:
BY: DATE:

DRAWN: BB DESIGN: BB HOR: N/A
CHECKED: BB VERT: N/A
APPROVED: DATE: 2/10/20 JOB NUMBER:
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RCE#58879 EXP. 9/30/21

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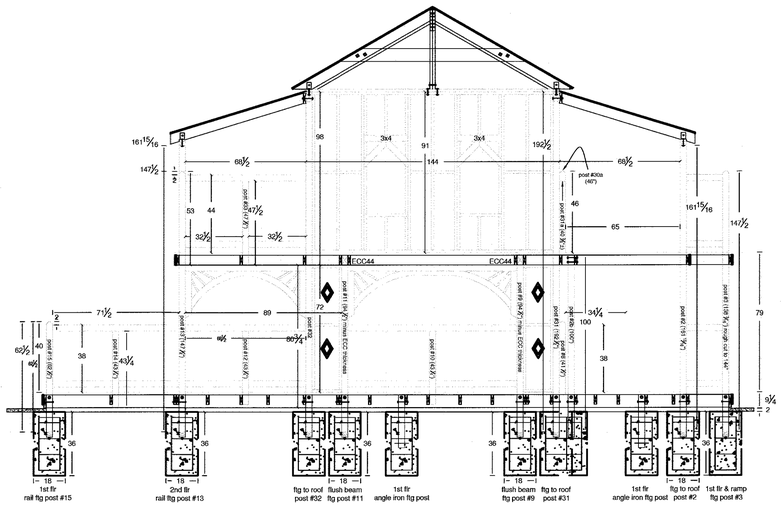
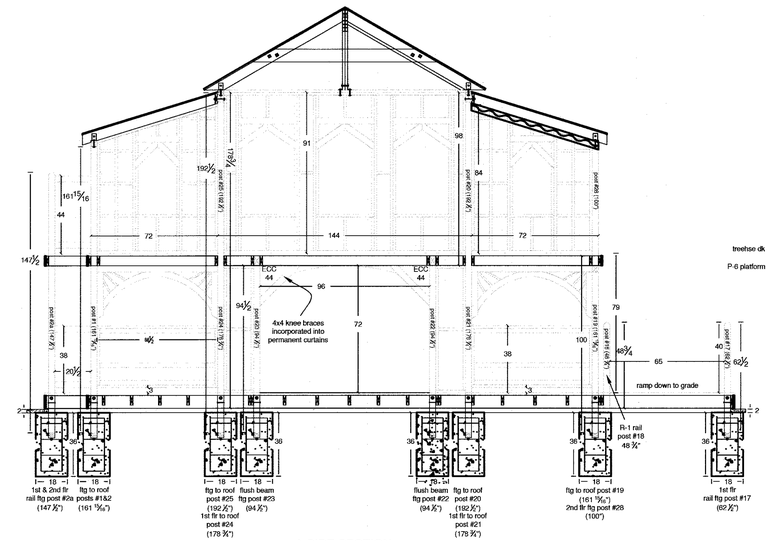
PLAYHOUSE FLOOR PLAN AND ELEVATIONS
MORGAN HILL INCLUSIVE PLAYGROUND / MAGICAL BRIDGE PROJECT

FILE NUMBER: 1818000
PRINT DATE: 02/07/20
SHEET NUMBER: D5.1

BID SUBMITTAL - 02-07-20



C SIDE SECTION



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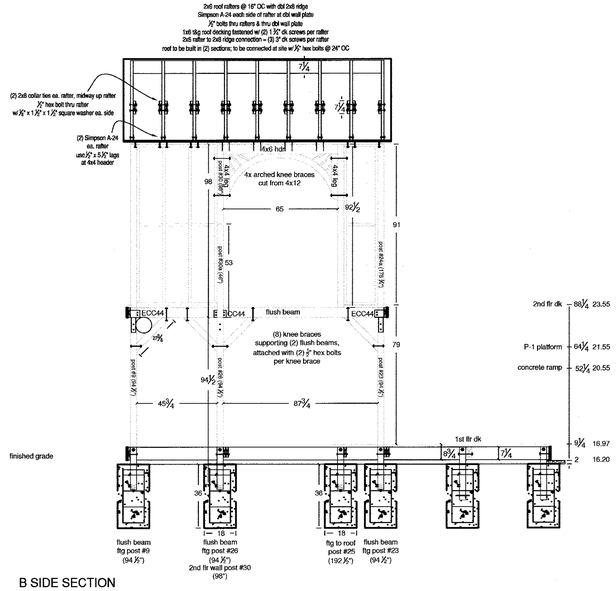

B SIDE SECTION

NO.	DESCRIPTION	DATE	BY

Revisions

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BY: DATE:

DRAWN: BB DESIGN: BB HOR: N/A
CHECKED: BB VERT: N/A
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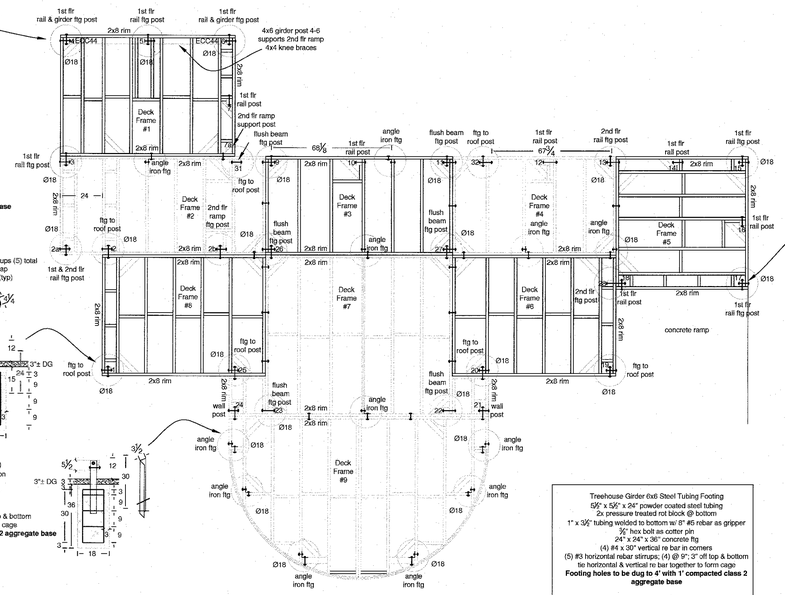
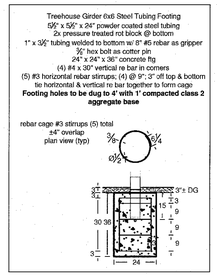
PLAYHOUSE SECTIONS
MORGAN HILL INCLUSIVE PLAYGROUND / MAGICAL BRIDGE PROJECT

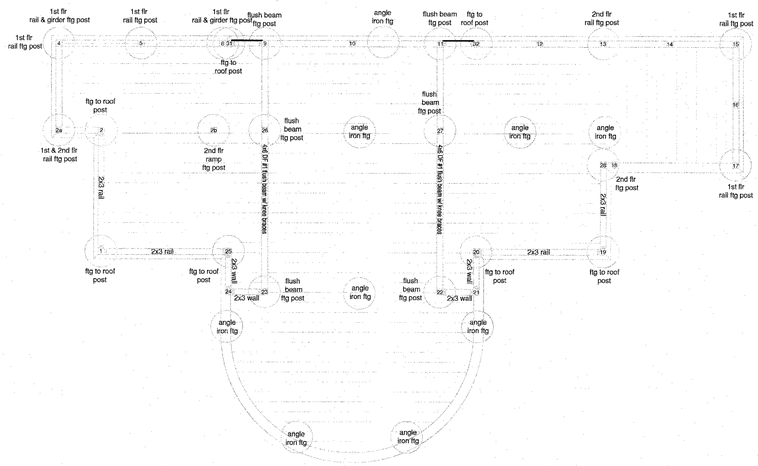
FILE NUMBER: 1818000
PRINT DATE: 02/07/20
SHEET NUMBER: D5.2

BID SUBMITTAL - 02-07-20

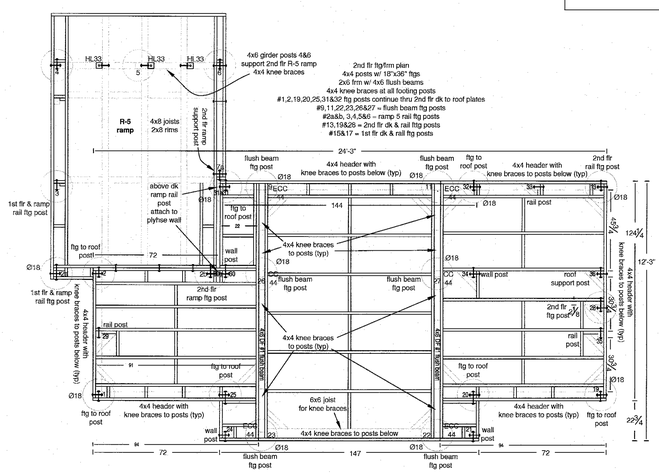


Playhouse - 1st Floor Footings and Framing

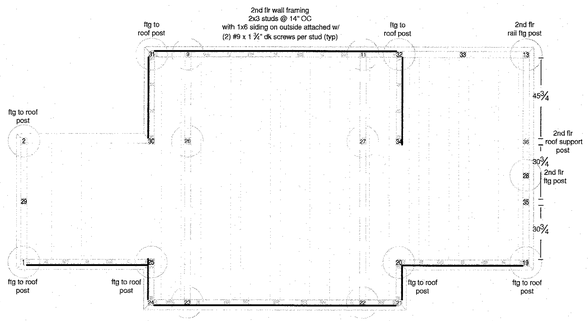




Playhouse - 1st Floor Decking and Railing



Playhouse - 2nd Floor Deck Framing



2nd Floor Decking, Wall & Rail Plan

NO.	DESCRIPTION	DATE	BY

Revisions

WORK ACCEPTED: INSPECTOR: BY: DATE:

DRAWN: BB DESIGN: BB HOR: N/A
CHECKED: BB VERT: N/A
APPROVED: DATE: 2/10/20 JOB NUMBER:
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City of Morgan Hill
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PLAYHOUSE FOOTING AND FRAMING PLAN
MORGAN HILL INCLUSIVE PLAYGROUND / MAGICAL BRIDGE PROJECT

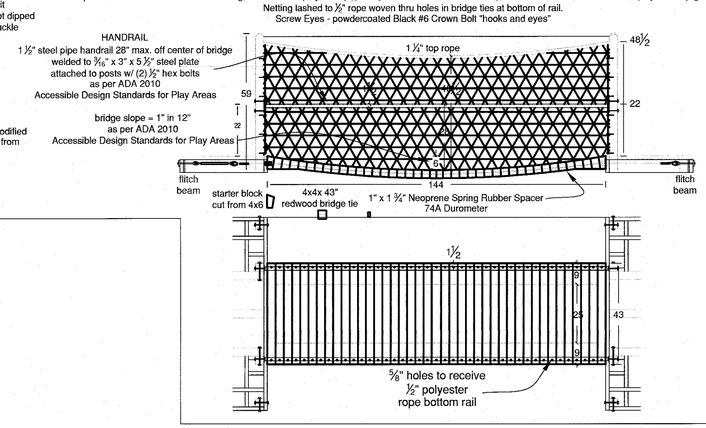
FILE NUMBER: 1818000
PRINT DATE: 02/07/20
SHEET NUMBER: D5.3

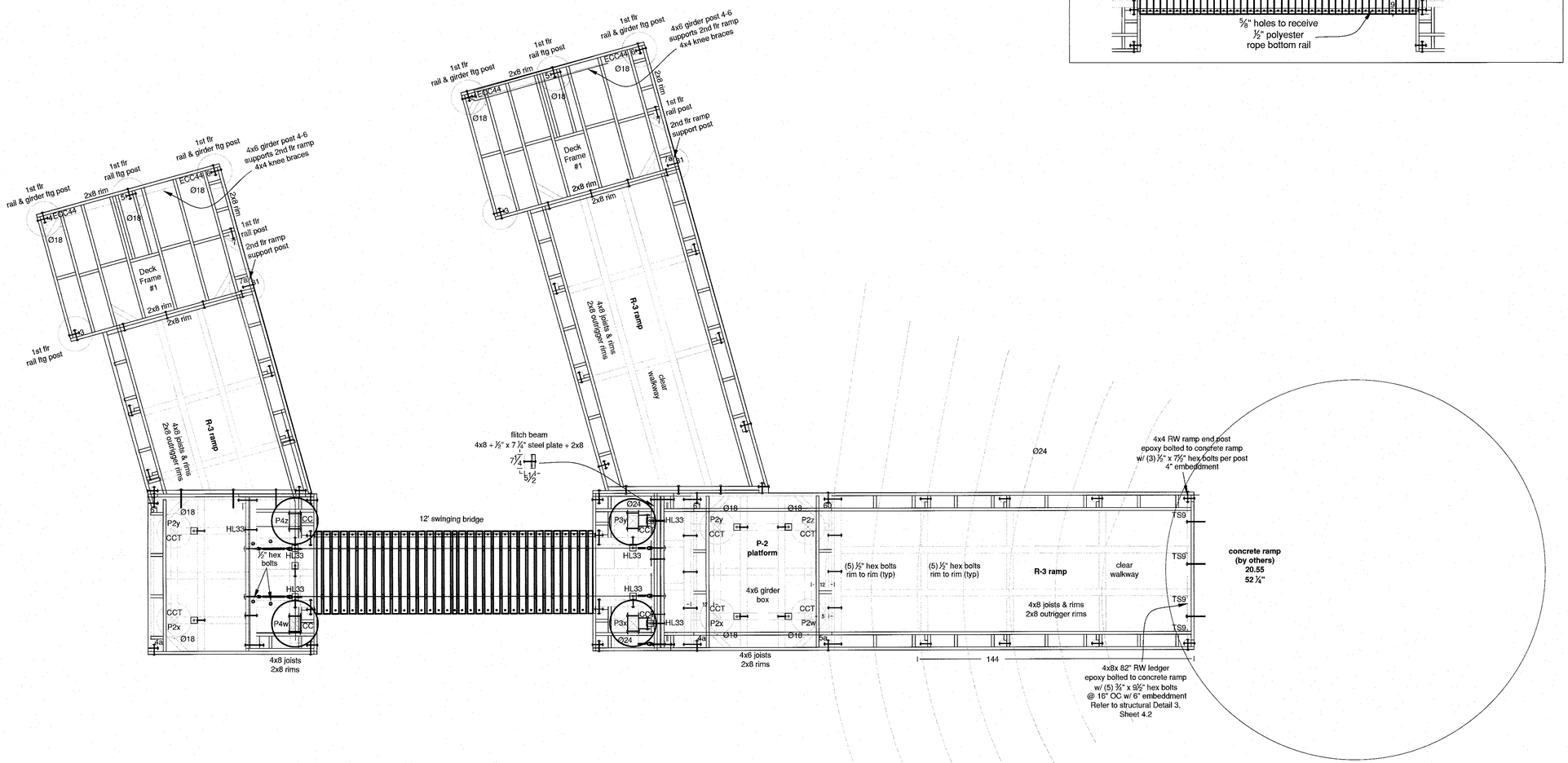
BID SUBMITTAL - 02-07-20

12' SWINGING BRIDGE

- Forged galvanized eyebolt w/ shoulder & nut ½" x 3" long thread w/ 6" shank WLL 2200# (5 to 1 safety factor) #3018T37
- Forged galvanized steel D-shackle w/ safety pin 3/8" material diameter, 2205 lb work load limit 1 ton WLL (6 to 1 safety factor) #3494T14 hot dipped
- 1/2" forged galvanized steel jaw & jaw turnbuckle 11½" to 17½" length WLL 2200 (5 to 1 safety factor) #3556T28
- 1/2" powder coated malleable washers (2) ½" galvanized lock washers
- Hot dipped galvanized steel thimble for 5/16" galvanized wire #3494T14
- Oval copper compression sleeves for 5/16" galvanized wire #3897T11
- White Delrin rod, 1½" diameter, 3" length, modified to be used as cable sleeve to prevent cable from direct contact on structure framing Tensile break of 11,000 PSI #8572K25

Galvanized Commercial Grade Strand Core Steel Wire Rope, 7x19, 5/16", 9800 lb Breaking Strength WLL 2450 lbs. - 3 times length of bridge - #3450T45
Neoprene Washer, 1" Diameter
Redwood Bridge Ties. Typ 3-1/2" x 3-1/2" x 23-7/8" holes drilled at 25" apart on center
Rope Rails - 3" Diamond Handrail Netting, #360 twisted polyester (5/16" to 3/8" diameter - 3640 lbs tensile), machine knotted, lashed to 1 ¼" polyester top guard rail rope
Netting lashed to ½" rope woven thru holes in bridge ties at bottom of rail.
Screw Eyes - powdercoated Black #6 Crown Bolt "hooks and eyes"





Elevated Walkway Connection & Sway Bridge

NO.	DESCRIPTION	DATE	BY

Revisions

WORK ACCEPTED: BY: DATE:
INSPECTOR:

DRAWN: BB
DESIGN: BB
CHECKED: BB
APPROVED: DATE: 2/10/20
SCOTT CREER - CITY ENGINEER RCE#58879 EXP. 9/30/21
HOR: N/A
VERT: N/A
JOB NUMBER:

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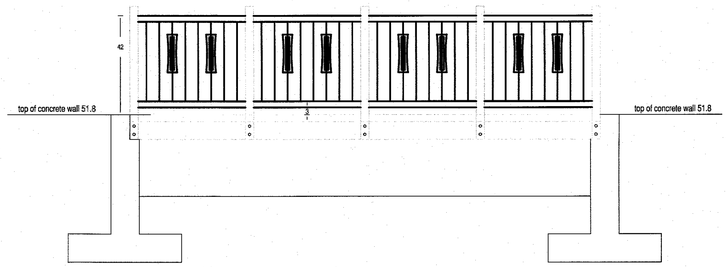
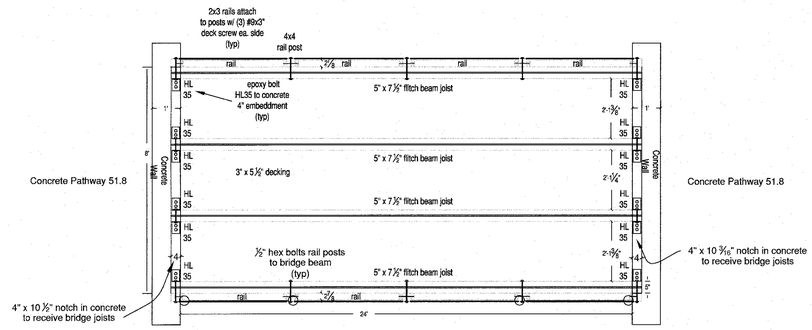
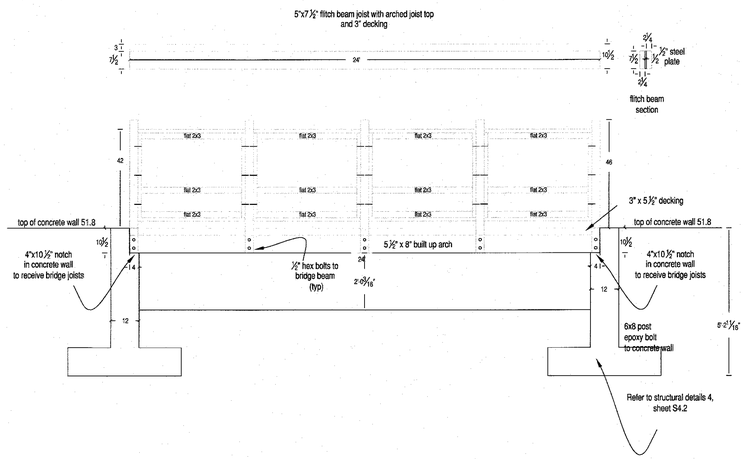
PLAYHOUSE ELEVATED WALKWAY CONNECTION AND SWAY BRIDGE
MORGAN HILL INCLUSIVE PLAYGROUND / MAGICAL BRIDGE PROJECT

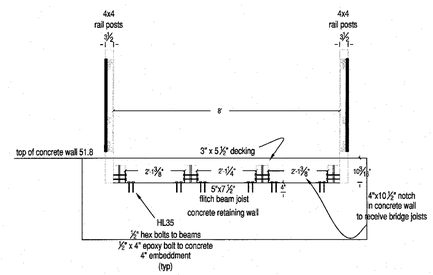
FILE NUMBER: 1818000
PRINT DATE: 02/07/20
SHEET NUMBER: D5.4

BID SUBMITTAL - 02-07-20









Entry Bridge

NO.	DESCRIPTION	DATE	BY

Revisions

WORK ACCEPTED: INSPECTOR:
BY: DATE:

DRAWN: BB DESIGN: BB HOR: N/A
CHECKED: BB VERT: N/A
APPROVED: DATE: 2/10/20 JOB NUMBER:
SOOTT CREEK – CITY ENGINEER
RCE#28579 EXP. 5/30/21

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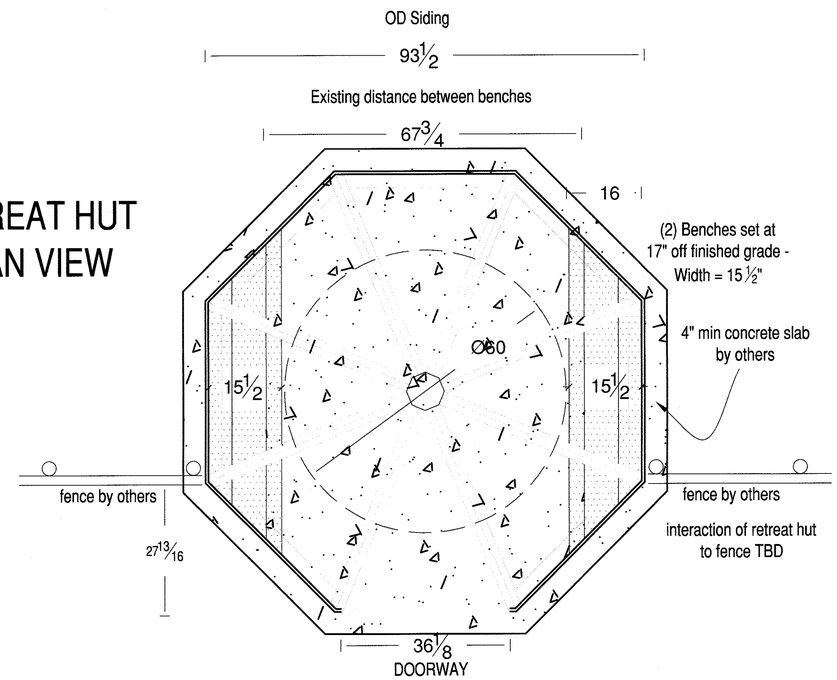
ENTRY BRIDGE
MORGAN HILL INCLUSIVE PLAYGROUND / MAGICAL BRIDGE PROJECT

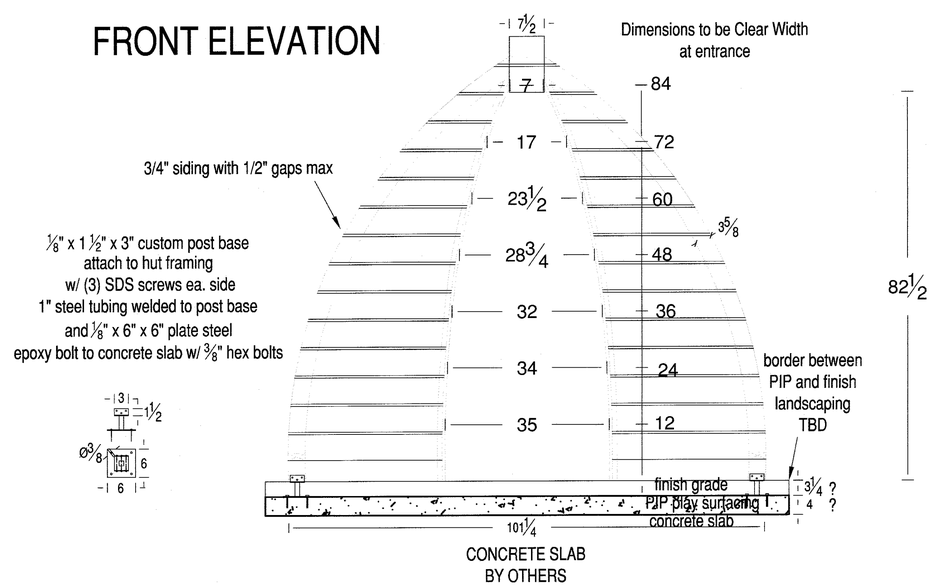
FILE NUMBER: 1818000
PRINT DATE: 02/07/20
SHEET NUMBER: D5.5

BID SUBMITTAL - 02-07-20

RETREAT HUT PLAN VIEW



FRONT ELEVATION



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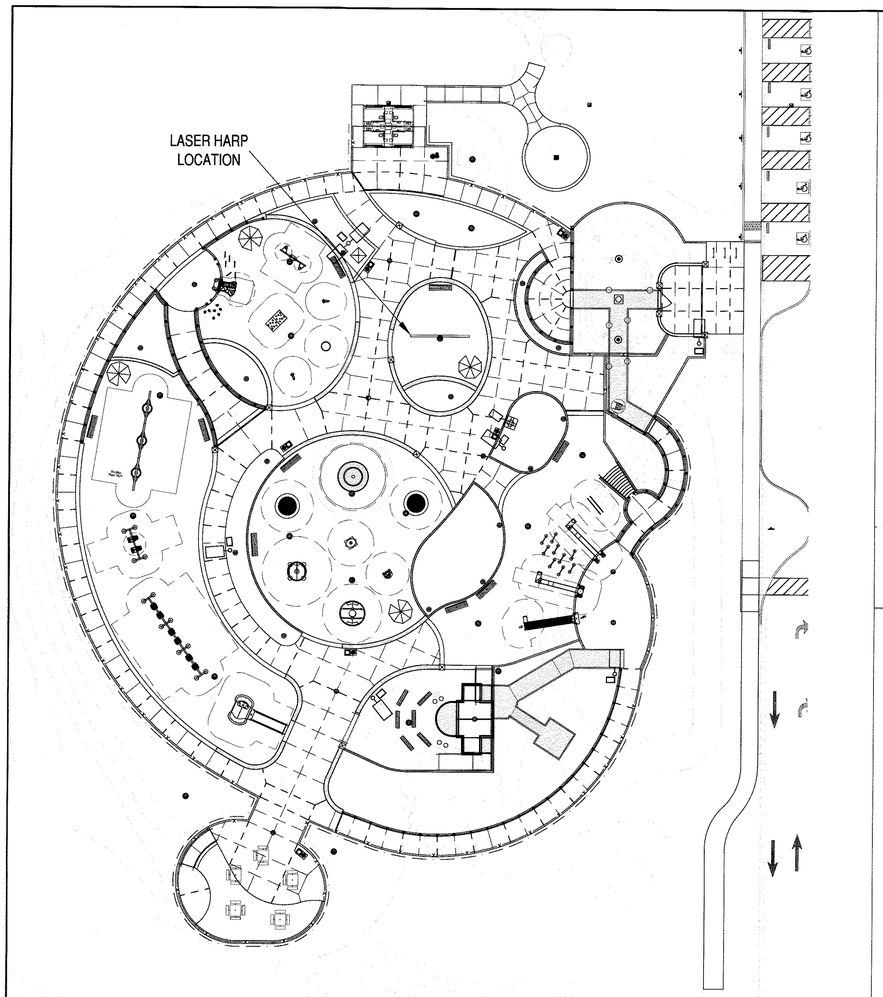
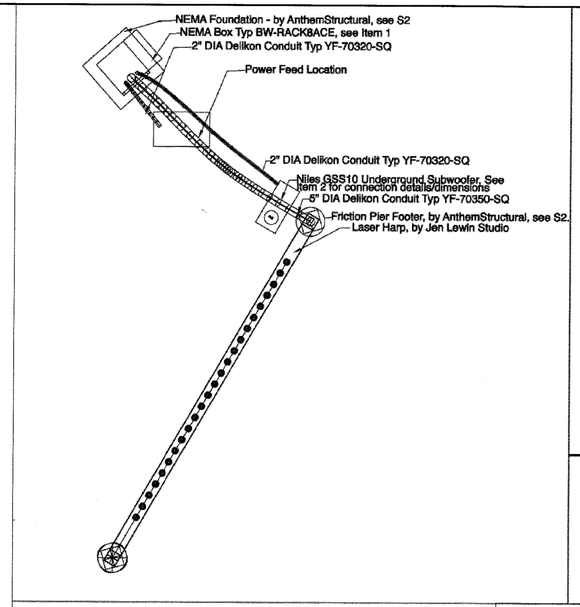
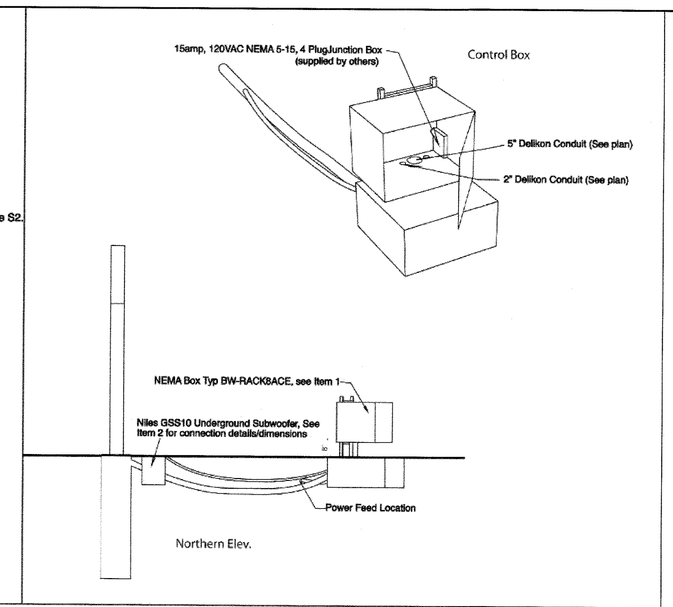
RETREAT HUT PLAN AND ELEVATION
MORGAN HILL INCLUSIVE PLAYGROUND / MAGICAL BRIDGE PROJECT

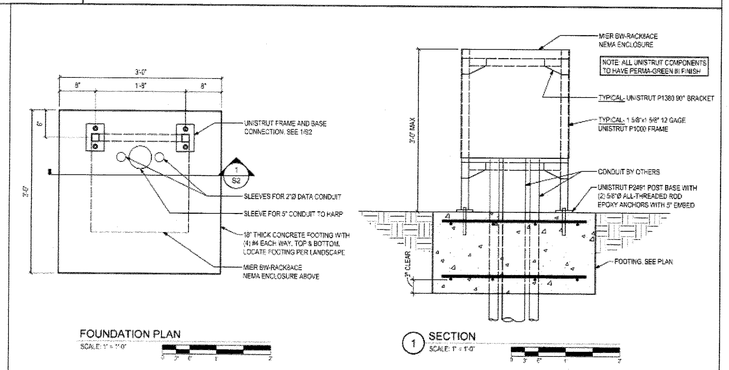
FILE NUMBER: 1818000
PRINT DATE: 02/07/20
SHEET NUMBER: D5.6

BID SUBMITTAL - 02-07-20









STRUCTURAL GENERAL NOTES

GOVERNING CODE: 2013 CALIFORNIA BUILDING CODE (CBC) AND ALL LOCAL AMENDMENTS, EXCEPT AS NOTED

DESIGN LOADS:

RISK CATEGORY: II, Standard

WIND LOADS:
- Basic Wind Speed (3-second gust): 110 mph
- Wind Exposure: C

SEISMIC LOADS:
- Spectral Response Acceleration Coefficients
  - Short Period S_s: 1.559g S_{ds}: 1.039g
  - One Second S_1: 0.688g S_{d1}: 0.688g
- Soils Site Class: D
- Seismic Design Category: D
- Basic Seismic-Force-Resisting System(s): Steel Ordinary Cantilever Column
- Design Base Shear: 250 lbs
- Seismic Response Coefficient(s) (C_s): 0.831
- Response Modification Factor(s) (R): 1.25
- Analysis Procedure: Equivalent Lateral Force Procedure

FOUNDATION DESIGN:

Foundation design is in accordance with recommendations contained in soils investigation Report Number J9754 prepared by Construction Testing Services dated April 11, 2014.

Soil conditions shall be verified by the Geotechnical Engineer prior to placement of formwork or concrete. If different soil conditions exist the structural engineer shall be notified to re-evaluate the foundation design at additional expense to the owner.

FOOTINGS

Footings shall bear on the natural undisturbed soils or approved compacted structural fill.

Exterior footings shall bear minimum 18" below adjacent exterior finished grade.

Design of footings is based on:
- Maximum allowable bearing pressure: 2000 psf

REINFORCED CONCRETE:

Concrete design is based on the American Concrete Institute "Building Code Requirements for Reinforced Concrete" (ACI 318-11) and shall be constructed in accordance with the "Standard Specifications for Structural Concrete" (ACI 301-10).

STRUCTURAL CONCRETE SHALL HAVE THE FOLLOWING PROPERTIES (normal weight concrete unless noted otherwise):

Minimum 28 day compressive strength (f'c) as follows:
- Cement Type: I/II
- Maximum Aggregate Size: 3/4"
- Footings: 3,000 psi (Max W/C Ratio 0.55); Entrained Air 6% (± 1.5%); Slump 5 inches (± 1")

Reinforcing steel shall be fabricated and placed in accordance with ACI 315-99 "Details and Detailing of Concrete Reinforcement."

When cold weather conditions exist, place and cure concrete in accordance with ACI 306.

Deformed reinforcement shall be domestic new billet steel conforming to ASTM A615-04a, Grade 60 including stirrups and ties.

Unless otherwise noted on the structural drawings, lap bars 50 diameters (60"Bar Diameter minimum).

Unless otherwise noted on the drawings, minimum concrete cover over reinforcing shall be as follows:
- Unformed surface cast against and permanently exposed to earth: 3"
- Formed surface exposed to earth or weather: 1-1/2"

Install chairs, bolsters, additional reinforcement, and accessories necessary to support reinforcement at position shown on drawings. Support of reinforcement on wood, brick, or other unacceptable materials shall not be permitted.

Keep reinforcement clean and free of dirt and oil. Oil forms prior to placing reinforcement.

Properly place, accurately position and maintain securely in place all embedded items prior to and during concrete placement.

Anchor bolts and rods for beam and column-bearing plates shall be placed with setting templates.

Epoxy anchors shall be Hilti HY-200 Epoxy with A36 all-thread rod.

METAL FRAMING:

Metal framing and connectors shown shall be manufactured by Unistrut.

Steel channels shall be cold formed from ASTM A1011 SS GR 33 steel into the size and gauge noted.

Installation shall follow all manufacturer's guidelines.

All components shall be protected from corrosion with Unistrut Perma-green III coating.

STRUCTURAL ERECTION AND BRACING REQUIREMENTS:

The structural drawings illustrate and describe the completed structure with elements in their final positions, properly supported, connected, and/or braced.

All work shall be accomplished in a workmanlike manner and in accordance with the applicable codes and local ordinances.

The general contractor is responsible for coordination of all work, including layout and dimension verification, materials coordination, shop drawing review, and the work of subcontractors. Any discrepancies or omissions discovered in the course of the work shall be immediately reported to the architect and structural engineer for resolution. Continuation of work without notification of discrepancies relieves the architect and structural engineer from all consequences.

Unless otherwise specifically indicated, the structural drawings do not describe methods of construction.

The general contractor, in the proper sequence, shall perform or supervise all work necessary to achieve the final completed structure, and to protect the structure, workmen, and others during construction. Such work shall include, but not be limited to temporary bracing, shoring for construction equipment, shoring for excavation, formwork, scaffolding, safety devices and programs of all kinds, support and bracing for cranes and other erection equipment.

Temporary bracing shall remain in place until all floors, walls, roofs and any other supporting elements are in place.

The architect and structural engineer bear no responsibility for the above items, and observation visits to the site do not in any way include inspections of these items.

These plans have been engineered for construction at one specific building site. Builder assumes ALL responsibility for use of these plans at ANY OTHER building site. Plans shall not be used for construction at any other building site without specific review by the engineer.

LETTERS OF CONSTRUCTION COMPLIANCE:

The general contractor shall determine from the local building authority, at the time the building permit is obtained, whether any letters of construction compliance will be requested from the structural engineer.

The contractor shall notify the structural engineer of all such requirements in writing prior to the start of construction.

Seven day advance notice shall be given when requesting site visits necessary as the basis for the compliance letter.

The general contractor shall provide copies of all third-party testing and inspection reports to the architect and structural engineer a minimum of one week prior to the date that the compliance letter is needed.

NO.	DESCRIPTION	DATE	BY

Revisions

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DRAWN: JL DESIGN: JL HOR: N/A
CHECKED: JL VERT: N/A
APPROVED: DATE: 2/10/20 JOB NUMBER:

SCOTT CREER - CITY ENGINEER
RCE#60773 EXP. 9/30/21

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City of Morgan Hill
Public Works Department
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171 W EDMUNDSON AVE, MORGAN HILL, CA 95037

LASER HARP
MORGAN HILL INCLUSIVE PLAYGROUND / MAGICAL BRIDGE PROJECT

FILE NUMBER: 1818000
PRINT DATE: 02/07/20
SHEET NUMBER: D6.0

BID SUBMITTAL - 02-07-20

SYMBOL LIST:

- PLAN, DETAIL OR SECTION DESIGNATION.
- 201 — ROOM NUMBER.
- SHEET REFERENCE SYMBOL - SEE ASSOCIATED NOTE ON SAME SHEET.
- FEEDER SCHEDULE SYMBOL.
- MECHANICAL EQUIPMENT TAG.
- INDICATES FIXTURE TYPE

LUMINAIRE SYMBOLS

- LUMINAIRE - SEE SCHEDULE.
- LUMINAIRE - SEE SCHEDULE.
- LUMINAIRE - SEE SCHEDULE.
- LUMINAIRE - SEE SCHEDULE.
- POLE MOUNTED LUMINAIRE - SEE SCHEDULE.
- POLE MOUNTED LUMINAIRE - SEE SCHEDULE.
- LUMINAIRE - SEE SCHEDULE.
- LUMINAIRE - SEE SCHEDULE.
- LUMINAIRE WALL MOUNTED-SEE SCHEDULE.
- EMERGENCY LUMINAIRE - PROVIDE EMERGENCY BATTERY BALLAST
- EM — EMERGENCY LUMINAIRE - PROVIDE EMERGENCY BATTERY BALLAST
- EMERGENCY LUMINAIRE - PROVIDE EMERGENCY BATTERY BALLAST
- EMERGENCY LUMINAIRE - PROVIDE EMERGENCY BATTERY BALLAST
- EMERGENCY LUMINAIRE WALL MOUNTED- PROVIDE EM. BATTERY BALLAST
- EXIT LIGHT SINGLE FACE - SEE SCHEDULE.
- EXIT LIGHT SINGLE FACE (WITH ARROW)- SEE SCHEDULE.
- EXIT LIGHT (DOUBLE FACED WITH ARROW)- SEE SCHEDULE.
- EMERGENCY BATTERY PACK EXIT LIGHT INSTALL AS DIRECTED.

TYPICAL LUMINAIRE NOMENCLATURE

3a — INDICATES SWITCHING DESIGNATION
INDICATES CIRCUIT NUMBER

SWITCH SYMBOLS

- SINGLE POLE SWITCH, + 48" AFF TO THE TOP OF THE OUTLET BOX UON.
- SINGLE POLE SWITCH, + 48" AFF TO THE TOP OF THE OUTLET BOX, a = CIRCUIT CONTROLLED.
- THREE WAY SWITCH + 48" AFF TO THE TOP OF THE OUTLET BOX UON.
- FOUR WAY SWITCH + 48" AFF TO THE TOP OF THE OUTLET BOX UON.
- MOTOR RATED SWITCH
- WALL MOUNTED LOW VOLTAGE "DATALINE SWITCH =48" FROM TOP OF BOX, UON, a = CIRCUIT CONTROLLED

RECEPTACLE SYMBOLS

- CONVENIENCE RECEPTACLE - DUPLEX AT + 18" AFF UON.
- GFCI CONVENIENCE RECEPTACLE - DUPLEX.
- RECEPTACLE - DOUBLE DUPLEX AT + 18" AFF UON.
- RECEPTACLE - DOUBLE DUPLEX ON CEILING
- SINGLE RECEPTACLE - NEMA 5-20R UON, AT + 18" AFF UON.
- SINGLE RECEPTACLE - NEMA L21 - 208 VOLT, THREE PHASE, 5 WIRE, AT + 18" AFF UON.
- 3-CHANNEL SURFACE RACEWAY, INSTALL AT +36" AFF UON. RACEWAY SHALL BE WIREMOLD #5500.

POWER DISTRIBUTION SYMBOLS

- PANELBOARD - SURFACE OR FLUSH MOUNTED.
- LCP — LIGHTING CONTROL CABINET.
- EM — EMERGENCY POWER INVERTER.
- JUNCTION BOX - CEILING OR WALL MOUNTED, SIZE PER CEC, TAPE AND TAG WIRES.
- MAIN SWITCHBOARD OR DISTRIBUTION PANEL.
- MOTOR
- 30 — RATING AS INDICATED.
- 60 — UNFUSED DISCONNECT SWITCH - RATING AS INDICATED.
- 100 — FUSED DISCONNECT SWITCH - SIZE FUSES PER MOTOR MANUFACTURER'S RECOMMENDATIONS. RATING AS INDICATED.
- MAGNETIC STARTER - NEMA SIZE INDICATED.
- TRANSFORMER - SEE SINGLE LINE FOR REQUIREMENTS.
- GROUND ROD.
- P — IN-GRADE ELECTRICAL PULL BOX WITH TRAFFIC RATED LID.
- L — IN-GRADE LIGHTING PULL BOX WITH TRAFFIC RATED LID.
- S — IN-GRADE SIGANL PULL BOX WITH TRAFFIC RATED LID.

POWER DISTRIBUTION SINGLE LINE SYMBOLS

- DRAW-OUT CIRCUIT BREAKER.
- CIRCUIT BREAKER.
- FUSED SWITCH.
- "PG&E" METER W/ CURRENT TRANSFORMER.
- TRANSFORMER.
- NORMALLY OPENED, AUXILIARY CONTACT.
- NORMALLY CLOSED, AUXILIARY CONTACT.
- AUTOMATIC TRANSFER SWITCH.
- EMERGENCY GENERATOR.

WIRING & CONDUIT RUN SYMBOLS

- CONDUIT - CONCEALED IN WALLS OR CEILING.
- CONDUIT - EXPOSED.
- CONDUIT - IN OR BELOW FLOOR: 3/4"MIN.
- EXISTING CONDUIT, CABLES OR DEVICE
- CONDUIT - HOME RUN TO PANEL, TERMINAL CABINET, ETC. RUNS MARKED WITH CROSSHATCHES INDICATE NUMBER OF #12 AWG WIRES. CROSSHATCH WITH SUBSCRIPT "G" INDICATES GREEN GROUND WIRE. SIZE CONDUIT ACCORDING TO SPECIFICATIONS AND APPLICABLE CODE. CROSSHATCHES WITH "#10" INDICATES WIRE SIZE OTHER THAN #12'S.
- FLEX CONDUIT WITH CONNECTION.
- CONDUIT - STUB UP.
- CONDUIT - STUB DOWN.
- CONDUIT EMERGENCY SYSTEM.
- CAPPED CONDUIT.
- CONDUIT CONTINUATION.

GENERAL NOTES:

1. READ THE COMPLETE SPECIFICATIONS, CONTRACT DOCUMENTS AND COMPLY WITH EACH REQUIREMENTS.
2. THE COMPLETE ELECTRICAL INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF THE N.E.C., AND ALL APPLICABLE STATE AND LOCAL CODES ISSUED BY AUTHORITIES HAVING JURISDICTION.
3. THE CONTRACTOR SHALL BE LICENSED BY THE STATE OF CALIFORNIA C-10 AND SHALL COMPLY WITH ALL APPLICABLE CODES AND REGULATIONS. MATERIALS AND EQUIPMENT SHALL BE U.L. LISTED AND LABELED FOR THE APPLICATION.
4. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS, LICENSES AND INSPECTION FEES REQUIRED BY THIS CONTRACT WORK.
5. PRIOR TO SUBMITTING A BID THE CONTRACTOR SHALL VISIT THE SITE, REVIEW THE EXISTING CONDITIONS AND ALLOW FOR LABOR, MATERIAL AND COORDINATION THAT IS NECESSARY TO PROVIDE A COMPLETE INSTALLATION OF EACH SYSTEM. THE CONTRACTOR SHALL OBTAIN AND BE FAMILIAR WITH ALL OTHER TRADES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ELECTRICAL WORK NOTED AND CALLED OUT ON ALL CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION BETWEEN OTHER TRADES ON PROJECT.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF PERSONS AND PROPERTY AND SHALL PROVIDE INSURANCE COVERAGE AS NECESSARY FOR LIABILITY, PERSONAL, PROPERTY DAMAGE, TO FULLY PROTECT THE OWNER, ARCHITECT AND ENGINEER FROM ANY AND ALL CLAIMS RESULTING FROM THIS WORK.
7. THE CONTRACTOR SHALL MAINTAIN RECORD DRAWINGS AT THE PROJECT SITE INDICATING ALL MODIFICATIONS TO ELECTRICAL SYSTEMS. THE CONTRACTOR SHALL AT THE CONCLUSION OF THE PROJECT PROVIDE ACCURATE "AS-BUILT" DRAWINGS. "AS-BUILT" DRAWINGS SHALL SHOW ACTUAL CHANGES TO ORIGINAL ELECTRICAL DRAWING, SHOW LOCATIONS OF PULLBOXES, CONDUIT RUNS AND WIRING CHANGES.
8. ALL MATERIALS PROVIDED TO THE PROJECT SHALL BE UL OR CSA LISTED AND SHALL BE NEW. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE AND INSTALL ALL INCIDENTAL MATERIALS REQUIRED FOR A COMPLETE INSTALLATION.
9. THE CONTRACTOR SHALL PROVIDE ALL REQUIRED "CUTTING, PATCHING, EXCAVATION, BACKFILL AND REPAIRS" NECESSARY TO RESTORE DAMAGED SURFACES TO EQUAL OR BETTER THAN ORIGINAL CONDITIONS EXISTING AT START OF WORK. THE CONTRACTOR SHALL CONTACT "UNDERGROUND SERVICES ALERT" FOR LOCATION OF EXISTING UTILITIES PRIOR TO COMMENCEMENT OF UNDERGROUND WORK.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PAINTING ALL EXPOSED CONDUITS AND ELECTRICAL EQUIPMENT. REFER TO ARCHITECTS PAINTING SECTION FOR REQUIREMENTS.
11. ALL ELECTRICAL EQUIPMENT INSTALLED OUTDOORS SHALL BE WEATHERPROOF. EXTERIOR CONDUITS RUN INTO BUILDINGS SHALL BE INSTALLED WITH FLASHING, CAULKED AND SEALED. CONDUITS FOR EXTERIOR ELECTRICAL DEVICES SHALL BE RUN INSIDE BUILDING UNLESS OTHERWISE NOTED ON DRAWINGS. ALL EXTERIOR CONDUITS SHALL BE "RSG" UNLESS OTHERWISE NOTED ON DRAWINGS.
12. ALL CONDUITS UNLESS OTHERWISE NOTED ON DRAWINGS SHALL HAVE AS A MINIMUM: TWO (2) #12'S WITH ONE (1) #12 GROUND. "TICK" MARKS SHOWN ON CIRCUITRY ARE FOR "ROUGH" ESTIMATING ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WIRES AND WIRE SIZES REQUIRED BY LATEST CODE.
13. COORDINATE ALL CONDUIT RUNS, ELECTRICAL EQUIPMENT AND PANELS WITH ALL OTHER WORK TO AVOID CONFLICTS.
14. ELECTRICAL EQUIPMENT SHOWN ON THIS DRAWING HAS BEEN SELECTED BASED ON DIMENSIONS TO FIT THE SPACE, THE CONTRACTOR SHALL VERIFY ALL EQUIPMENT DIMENSIONS PRIOR TO ORDERING OF THE EQUIPMENT.
15. CONTRACTOR SHALL REVIEW EQUIPMENT REQUIREMENTS OF OTHER TRADES AND PROVIDE POWER CIRCUITS AND CONNECTIONS TO ELECTRICALLY OPERATED EQUIPMENT.
16. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF UNDERGROUND POWER AND TELEPHONE SERVICES FROM SERVING UTILITIES. FIELD ADJUSTMENTS MAY BE REQUIRED IN INDIVIDUAL SERVICE LOCATIONS.
17. THE CONTRACTOR SHALL CONTACT "UNDERGROUND SERVICES ALERT" FOR LOCATION OF EXISTING UTILITIES PRIOR TO COMMENCEMENT OF UNDERGROUND WORK.
18. NEW DUCT ROUTES ARE APPROXIMATE ONLY AND MAY BE ADJUSTED IN THE FIELD TO CLEAR OTHER UNDERGROUND UTILITIES. PROVIDE AS-BUILT DRAWINGS TO INDICATE ACTUAL LOCATION OF CONDUIT ROUTING.
19. EFFECTIVELY BOND ELECTRICAL CABINETS. ENCLOSURES AND CONDUIT RACEWAYS TO CODE APPROVED GROUND AS PART OF THE CONTINUOUS GROUNDING SYSTEM.
20. FROM ALL NEW PANELS; THE CONTRACTOR SHALL STUB UP INTO ACCESSIBLE CEILING SPACE A MINIMUM OF FOUR (4) 3/4" CONDUITS FOR FUTURE USE.
21. UTILITY SERVICE WORK SHALL BE IN ACCORDANCE WITH THE SERVING UTILITY COMPANY'S RULES, REGULATIONS AND STANDARDS, AND SHALL BE VERIFIED WITH UTILITY COMPANY'S ENGINEERING DRAWINGS AND FIELD SUPERVISOR PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR SHALL DETERMINE EXACT LOCATION OF UNDERGROUND POWER, CATV AND TELEPHONE SERVICES FROM SERVING UTILITIES. FIELD ADJUSTMENTS MAY BE REQUIRED IN INDIVIDUAL SERVICE LOCATIONS. THE CONTRACTOR SHALL REMAIN IN CONTACT WITH UTILITY COMPANY ENGINEERING DEPARTMENTS THROUGHOUT PROJECT TO INSURE COORDINATION AND SCHEDULING OF WORK.
22. THE CONTRACTOR SHALL PROVIDE IN EVERY CONDUIT A DRAW STRING FOR USE IN FUTURE CONSTRUCTION. STRING SHALL BE NYLON PULLSTRING ROPE/STRING.
23. POWER FEEDERS MAY NOT BE SHOWN ON THE DRAWINGS, REFER TO THE SINGLE LINE DIAGRAM FOR CONDUIT AND FEEDER INFORMATION. ALL DRAWINGS ARE DIAGRAMMATIC INDICATING LOCATION OR POSITION OF EQUIPMENT. FIELD VERIFY CONDITIONS PRIOR TO INSTALLATION OF ANY WORK.
24. MANUFACTURER'S RECOMMENDATIONS FOR CONDUCTOR SIZING, CIRCUIT BREAKER OR FUSE PROTECTION OF ELECTRICALLY OPERATED EQUIPMENT MAY DIFFER FROM THOSE INDICATED ON DRAWINGS. CONTRACTOR SHALL CONFIRM RATINGS PRIOR TO ORDERING EQUIPMENT. PROVIDE ELECTRICAL PROTECTION TO EQUIPMENT IN ACCORDANCE TO MANUFACTURER'S SPECIFICATIONS AND PER NATIONAL ELECTRICAL CODE REQUIREMENTS.
25. PROVIDE SEISMIC BRACING FOR ALL PENDANT LIGHT FIXTURES, FREESTANDING ELECTRICAL DISTRIBUTION EQUIPMENT, MOTOR CONTROL CENTERS ETC; AND CONDUIT RACKS PER SEISMIC CRITERIA 2001 CBC REQUIREMENTS INCLUDING ENGINEERED LOAD CALCULATIONS COMPLETE WITH SWAY BRACING CRITERIA.
26. DO NOT SUBSTITUTE SPECIFIED MATERIAL OR EQUIPMENT WITHOUT FIRST OBTAINING APPROVAL FROM THE OWNER OR HIS REPRESENTATIVE.
27. ALL SPACES ON PANELS OR SWITCHBOARDS SHALL BE COMPLETE WITH HARDWARES AND BUSSING FOR FUTURE BREAKER OR SWITCH.
28. ALL ELECTRICAL WORK SHALL COMPLY WITH THE 2016 NATIONAL ELECTRICAL CODE AS AMENDED BY THE 2016 CALIFORNIA ELECTRICAL CODE.
29. SPLICE GROUND WIRE INSIDE ALL METAL ELECTRICAL PULL BOXES AND BOND TO METAL COVER WITH #6 CU GND.

ABBREVIATIONS

A	AMPERE
ABV	ABOVE
AF	AMP FRAME OR AMP FUSE
AFF	ABOVE FINISHED FLOOR
ARCH	ARCHITECTURAL
AS	AMP SWITCH
AT	AMP TRIP
ATS	AUTOMATIC TRANSFER SWITCH
BKR	BREAKER
BLDG	BUILDING
C	CONDUIT
CATV	CABLE TELEVISION
CB	CIRCUIT BREAKER
CD	CANDELAS
CKT	CIRCUIT
CL	CENTER LINE
CLG	CEILING
CO	CONDUIT ONLY
CTR	CENTER
(D)	DEMOLISH
DET	DETAIL
DIM	DIMENSION
DISTR	DISTRIBUTION
DWG	DRAWING
(E)	EXISTING
EM	EMERGENCY
EQPT	EQUIPMENT
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
(F)	FUTURE
FIN	FINISH
FL	FLOOR
G , GND	GROUND
HGT	HEIGHT
HP	HORSEPOWER
IC	INTERCOM
IDF	INTERMEDIATE DISTRIBUTION FRAME
JB	JUNCTION BOX
KAIC	KILOAMPERE INTERRUPTING CAPACITY
KV	KILOVOLT
KVA	KILOVOLT AMPERES
KW	KILOWATT
LTG	LIGHTING
MCM	THOUSAND CIRCULAR MILS
MDF	MAIN DISTRIBUTION FRAME
MECH	MECHANICAL
MH	MANHOLE
MTD	MOUNTED
MTG	MOUNTING
(N)	NEW
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NIEC	NOT IN ELECTRICAL CONTRACT
NO	NUMBER/ NORMALLY OPEN
NTS	NOT TO SCALE
O.C.	ON CENTER
P	POLE CIRCUIT BREAKER
PA	PUBLIC ADDRESS
PB	PULL BOX
PF	POWER FACTOR
PH	PHASE
PNL	PANEL
(R)	EXISTING TO BE RELOCATED
REQD	REQUIRED
REQT	REQUIREMENT(S)
RM	ROOM
RSC	RIGID STEEL CONDUIT
SHT	SHEET
SW	SWITCH
SWBD	SWITCHBOARD
TC	TERMINAL CABINET
TEL	TELEPHONE
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
V	VOLT
W	WATT
WP	WEATHERPROOF
XFMR	TRANSFORMER

FIXTURE SCHEDULE

TYPE	LAMPS	LED DRIVER	MOUNTING	DESCRIPTION	WEIGHT
A	74W LED	N/A	MOUNTED ON A 20' POLE WITH FLUSHED POLE BASE	SINGLE HEAD POLE MOUNTED LED LUMINAIRE WITH A RECTANGULAR 20' POLE. HOUSING TO HAVE DIE CAST ALUMINUM. FIXTURE TO HAVE LED DRIVER THAT ACCEPTS 120V AT 60HZ. DRIVER OUTPUT IS BASED ON THE LED WATTAGE SELECTED. FINISH TO HAVE A FADE AND ABRASION RESISTANT, ELECTROSTATICALLY APPLIED, THERMALLY CURED, TRIGLYCIDAL ISOCYANURATE (TGIC) TEXTURED POLYESTER POWEDCOAT FINISH. POLES SHALL BE 20' HIGH, 4" STRAIGHT SQUARE STEEL. THE POLE SHAFT SHALL BE A SINGLE PIECE 11 GAUGE CARBON STEEL. THE FORMED STEEL PLATE SHALL BE LONGITUDINALLY WELDED PROVIDING MINIMUM YIELD STRENGTH OF 46KSI. THE ANCHOR BASE SHALL BE A-36 STRUCTURAL CARBON STEEL WITH A MINIMUM YEILD STRENGTH OF 36KSI. THE BASE PLATE SHALL TELESCOPE INTO THE POLE SHAFT AND BE CIRCUMFERENTIALLY WELDED ON THE TOP AND BOTTOM. ANCHOR BOLTS SHALL BE PROVIDED WITH THE POLE. ANCHOR BOLTS SHALL MEET OR EXCEED YIELD STRENGTH OF 50,000PSI. EACH ANCHOR BOLT SHALL BE PROVIDED WITH ALL HARDWARE NECESSARY FOR POLE INSTALLATION. BASE COVER SHALL BE TWO PIECE AND CONCEAL THE ENTIRE BASE PLATE AND ANCHORAGE. POLE SHALL BE PROVIDED WITH A HANDHOLE 12" ABOVE THE BASE. HANDHOLE SHALL BE PROVIDED WITH A COVER PLATE AND ATTACHMENT SCREWS. POLE SHALL ALSO BE PROVIDED WITH A POLE TOP CAP. FINISH SHALL BE TGIC POLYESTER POWDER COAT ELECTROSTATICALLY APPLIED AND THERMALLY CURED AND SHALL BE BLACK IN COLOR. POLES SHALL BE FACTORY DRILLED FOR PROPER FIXTURE INSTALLATION. ALL POLES SHALL BE PROPERLY LEVELED AND VERTICAL. LIGHTING FIXTURE HEADS SHALL BE MOUNTED TO THE POLE PER THE MANUFACTURERS RECOMMENDATIONS. GARDCO - PUREFORM P26-48L-500-NW-G2-AR-5W-UNV OR APPROVED EQUAL 120V POLE - KW SSP-20-4-11-TBD-DM10-BC OR APPROVED EQUAL.	38 LBS
AB	74W LED	N/A	MOUNTED ON A 20' POLE WITH FLUSHED POLE BASE	DOUBLE HEAD POLE MOUNTED LED LUMINAIRE WITH A RECTANGULAR 20' POLE. HOUSING TO HAVE DIE CAST ALUMINUM. FIXTURE TO HAVE LED DRIVER THAT ACCEPTS 120V AT 60HZ. DRIVER OUTPUT IS BASED ON THE LED WATTAGE SELECTED. FINISH TO HAVE A FADE AND ABRASION RESISTANT, ELECTROSTATICALLY APPLIED, THERMALLY CURED, TRIGLYCIDAL ISOCYANURATE (TGIC) TEXTURED POLYESTER POWEDCOAT FINISH. POLES SHALL BE 20' HIGH, 4" STRAIGHT SQUARE STEEL. THE POLE SHAFT SHALL BE A SINGLE PIECE 11 GAUGE CARBON STEEL. THE FORMED STEEL PLATE SHALL BE LONGITUDINALLY WELDED PROVIDING MINIMUM YIELD STRENGTH OF 46KSI. THE ANCHOR BASE SHALL BE A-36 STRUCTURAL CARBON STEEL WITH A MINIMUM YEILD STRENGTH OF 36KSI. THE BASE PLATE SHALL TELESCOPE INTO THE POLE SHAFT AND BE CIRCUMFERENTIALLY WELDED ON THE TOP AND BOTTOM. ANCHOR BOLTS SHALL BE PROVIDED WITH THE POLE. ANCHOR BOLTS SHALL MEET OR EXCEED YIELD STRENGTH OF 50,000PSI. EACH ANCHOR BOLT SHALL BE PROVIDED WITH ALL HARDWARE NECESSARY FOR POLE INSTALLATION. BASE COVER SHALL BE TWO PIECE AND CONCEAL THE ENTIRE BASE PLATE AND ANCHORAGE. POLE SHALL BE PROVIDED WITH A HANDHOLE 12" ABOVE THE BASE. HANDHOLE SHALL BE PROVIDED WITH A COVER PLATE AND ATTACHMENT SCREWS. POLE SHALL ALSO BE PROVIDED WITH A POLE TOP CAP. FINISH SHALL BE TGIC POLYESTER POWDER COAT ELECTROSTATICALLY APPLIED AND THERMALLY CURED AND SHALL BE BLACK IN COLOR. POLES SHALL BE FACTORY DRILLED FOR PROPER FIXTURE INSTALLATION. ALL POLES SHALL BE PROPERLY LEVELED AND VERTICAL. LIGHTING FIXTURE HEADS SHALL BE MOUNTED TO THE POLE PER THE MANUFACTURERS RECOMMENDATIONS. GARDCO - PUREFORM P26-48L-500-NW-G2-AR-5W-UNV-PTF2-P26-2-180 OR APPROVED EQUAL 120V POLE - KW SSP-20-4-11-TBD-DM2180-BC OR APPROVED EQUAL.	38lbs.

SHEET NO.	ELECTRICAL SHEET TITLE
E0.1	COVER SHEET
E0.2	TITLE 24 EXTERIOR LIGHTING
E1.0	ELECTRICAL SITE PLAN - ENTIRE PARK
E1.1	ELECTRICAL SITE PLAN
E1.2	WIRELESS ACCESS POINT & SECURITY CAMERA SITE PLAN
E2.1	SINGLE LINE DIAGRAM
E2.2	RISER DIAGRAMS
E4.1	ELECTRICAL DETAILS
E4.2	ELECTRICAL DETAILS

THE CONTRACTOR SHALL BE RESPONSIBLE FOR SITE LOCATING ALL EXISTING UNDERGROUND SYSTEMS IN AREA OF NEW TRENCHING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ALL DAMAGED SYSTEMS TO OWNERS SATISFACTION. EXTREME CARE SHALL BE MAINTAINED DURING TRENCHING AS EXISTING SYSTEMS ARE KNOWN TO EXIST IN AREA. MODIFICATIONS TO EXISTING SYSTEMS MAY BE REQUIRED TO ACCOMMODATE NEW SYSTEM CONFIGURATION AND SHALL BE MADE BY THE CONTRACTOR WITHOUT EXTRA EXPENSE TO THE OWNER THE DRAWINGS AND SPECIFICATIONS ARE FOR THE ASSISTANCE AND GUIDANCE OF THE CONTRACTOR. EXACT LOCATIONS, DISTANCES AND ELEVATIONS WILL BE GOVERNED BY ACTUAL CONDITIONS. THE CONTRACTOR SHALL EXAMINE THE CONTRACT DOCUMENTS AND FIELD CONDITIONS TO DETERMINE EXACT ROUTING AND FINAL TERMINATIONS FOR ALL NEW WORK.

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REGISTERED PROFESSIONAL ENGINEER SALVADOR S. FERNANDEZ E16890 Exp. 06/30/21 ELECTRICAL STATE OF CALIFORNIA

STATE OF CALIFORNIA
Outdoor Lighting
NRCC-LTO-E
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE			NRCC-LTO-E
Project Name:	Magical Bridge Morgan Hill	**Report Page:**	(Page 1 of 7)
Project Address:	171 W Edmunson Avenue	**Date Prepared:**	1/23/2020

A. GENERAL INFORMATION

01	Project Location (city)	Morgan Hill	04	Total Illuminated Hardscape Area (ft²)	37253
02	Climate Zone	4			
03	Outdoor Lighting Zone per Title 24 Part 1 §10.114 or as designated by Authority Having Jurisdiction (AHJ):				
☐	LZ-0: Very Low - Undeveloped Parkland	☐ LZ-2: Moderate - Rural Areas	☐	LZ-4: High - Must be reviewed by CA Energy Commission for Approval	
☐	LZ-1: Low - Developed Parkland	☒ LZ-3: Moderately High - Urban Areas			

B. PROJECT SCOPE

This table includes outdoor lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.7 or §141.0(b)2L for alterations.

My Project Consists of:

01	02	
☒ New Lighting System	Must Comply with Allowances from §140.7	
☐ Altered Lighting System	Is your alteration increasing the connected lighting load (Watts)? ○ Yes ○ No	
03	04	05
% of Existing Luminaires Being Altered[1]	Sum Total of Luminaires Being Added or Altered	Calculation Method
☐ < 10% ☐ >= 10% and < 50% ☐ >= 50%		

Please proceed to Table F. Outdoor Lighting Fixture Schedule to define the project's luminaires.

[1] FOOTNOTES: % of Existing Luminaires Being Altered = (Sum Total of Luminaires Being Added or Altered / Existing Luminaires within the Scope of the Permit Application) x 100.

STATE OF CALIFORNIA
Outdoor Lighting
NRCC-LTO-E
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE			NRCC-LTO-E
Project Name:	Magical Bridge Morgan Hill	**Report Page:**	(Page 2 of 7)
Project Address:	171 W Edmunson Avenue	**Date Prepared:**	1/23/2020

C. COMPLIANCE RESULTS

Results in this table are automatically calculated from data input and calculations in Tables F through I. Note: If any cell on this table says "COMPLIES with Exceptional Conditions" refer to Table D. Exceptional Conditions for guidance or see applicable Table referenced below.

Calculations of Total Allowed Lighting Power (Watts) §140.7 or §141.0(b)2L															Compliance Results			
01		02		03		04		05		06		07		08		09		
General Hardscape Allowance §140.7(d)1 (See Table I)	+	Per Application §140.7(d)2 (See Table J)	+	Sales Frontage §140.7(d)2 (See Table K)	+	Ornamental §140.7(d)2 (See Table L)	+	Per Specific Area §140.7(d)2 (See Table M)	OR	Existing Power Allowance §141.0(b)2L (See Table N)	=	**Total Allowed (Watts)**	≥	**Total Actual (Watts)**		**07 must be >= 08**		
1,475.08	+		+		+		+		OR		=	1,475.08	≥	592		COMPLIES		
Cutoff Compliance (See Table G for Details)																Not Applicable		
Controls Compliance (See Table H for Details)																COMPLIES with Exceptional Conditions		

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

STATE OF CALIFORNIA
Outdoor Lighting
NRCC-LTO-E
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE			NRCC-LTO-E
Project Name:	Magical Bridge Morgan Hill	**Report Page:**	(Page 3 of 7)
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F. OUTDOOR LIGHTING FIXTURE SCHEDULE

For new or altered lighting systems demonstrating compliance with §140.7 all new luminaires being installed and any existing luminaires remaining or being moved within the spaces covered by the permit application are included in the Table below. For altered lighting systems using the Existing Power method per §141.0(b)2L only new luminaires being installed and replacement luminaires being installed as part of the project scope are included (ie, existing luminaires remaining or existing luminaires being moved are not included).

Designed Wattage:

01	02		03	04	05	06	07	08	09	10	
Name or Item Tag	Complete Luminaire Description		Watts per luminaire[1,2]	How is Wattage determined	Total number luminaires[2]	Luminaire Status[3]	Excluded per §140.7(a)	Design Watts	Cutoff Req. > 6,200 initial lumen output §130.2(b)[4]	Field Inspector Pass	Field Inspector Fail
A	74W LED	☐ Linear	74	NA8 Default	8	New	☐	592	NA: < 6200 lumens	☐	☐
							Total Design Watts:	592			

* NOTES: Selections with a * require a note in the space below explaining how compliance is achieved.
EX: Luminaire is lighting a statue; EXCEPTION 2 to §130.2(b)

[1] FOOTNOTES: Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per §130.0(c)
[2] For linear luminaires, wattage should be indicated as W/lf instead of Watts/luminaire. Total linear feet should be indicated in column 05 instead of number of luminaires.
[3] Select "New" for new luminaires in a new outdoor lighting project, or for added luminaires in an alteration. Select "Altered" for replacement luminaires in an alteration. Select "Existing to Remain" for existing luminaires within the project scope that are not being altered and are remaining. Select "Existing Reinstalled" for existing luminaires which are being removed and reinstalled as part of the project scope.
[4] Compliance with mandatory cutoff requirements is required for luminaires with initial lumen output >= 6,200 unless exempted by §130.2(b)

G. CUTOFF REQUIREMENTS (BUG)

This section does not apply to this project.

STATE OF CALIFORNIA
Outdoor Lighting
NRCC-LTO-E
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE			NRCC-LTO-E
Project Name:	Magical Bridge Morgan Hill	**Report Page:**	(Page 4 of 7)
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H. OUTDOOR LIGHTING CONTROLS

This table demonstrates compliance with controls requirements for all new or altered luminaires installed as part of the permit application. For alteration projects, luminaires which are existing to remain (ie untouched) and luminaires which are removed and reinstalled (wiring only) do not need to be included in this table even if they are within the spaces covered by the permit application.
*When an option having a * is selected, the notes section of this table must be completed. The lighting controls section of the Compliance Summary Table on the first page will show "DOES NOT COMPLY" if the notes are left blank.*

Mandatory Controls

01	02	03	04	05	
Area Description	Shut-Off §130.2(c)1	Auto-Schedule §130.2(c)2	Motion Sensor §130.2(c)3	Field Inspector Pass	Field Inspector Fail
Magical Brige Morgan Hill	Astronomical Timer	Yes	Exempt*	☐	☐

* NOTES: Controls with a * require a note in the space below explaining how compliance is achieved.
EX: Not permitted by health & safety to be turned off; EXCEPTION 1 to §130.2(c)

Magical Brige Morgan Hill	Fixture 74W and Under

STATE OF CALIFORNIA
Outdoor Lighting
NRCC-LTO-E
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE			NRCC-LTO-E
Project Name:	Magical Bridge Morgan Hill	**Report Page:**	(Page 5 of 7)
Project Address:	171 W Edmunson Avenue	**Date Prepared:**	1/23/2020

I. LIGHTING POWER ALLOWANCE (per §140.7)

This table includes areas using allowance calculations per §140.7. General Hardscape Allowance is per Table 140.7-A while "Use it or lose it" Allowances are per Table 140.7-B. Indicate which allowances are being used to expand sections for user input. Luminaires that qualify for one of the "Use it or lose it" allowances shall not qualify for another "Use it or lose it" allowance.

01				
☒ General Hardscape Allowance Table I (below)	"Use it or lose it" Allowance (select all that apply) (select all that apply)			
	☐ Per Application Table J	☐ Sales Frontage Table K	☐ Ornamental Table L	☐ Per Specific Area Table M

Calculated General Hardscape Lighting Power Allowance per Table 140.7-A (LZ 0, 1 & 4)

This section does not apply to this project.

Calculated General Hardscape Lighting Power Allowance per Table 140.7-A (LZ 2 & 3)

02	03	04	05	06	07	08	9	10
		Area Wattage Allowance (AWA)			Area Wattage Allowance (AWA)			
Area Description	Surface Type	Illuminated Area (ft²)	Allowed Density (W/ft²)	Area Allowance (Watts)	Perimeter Length (lf)	Allowed Density (W/lf)	Linear Allowance (Watts)	Total General AWA + LWA (Watts)
Magical Bridge Morgan Hill	Asphalt	37253	0.03	931.325	775	0.4	193.75	1125.075
							Initial Wattage Allowance for Entire Site (Watts):	350
							Total General Hardscape Allowance (Watts):	1475.075

J. LIGHTING ALLOWANCE: PER APPLICATION

This section does not apply to this project.

K. LIGHTING ALLOWANCE: SALES FRONTAGE

This section does not apply to this project.

L. LIGHTING ALLOWANCE: ORNAMENTAL

This section does not apply to this project.

M. LIGHTING ALLOWANCE: PER SPECIFIC AREA

This section does not apply to this project.

STATE OF CALIFORNIA
Outdoor Lighting
NRCC-LTO-E
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE			NRCC-LTO-E
Project Name:	Magical Bridge Morgan Hill	**Report Page:**	(Page 6 of 7)
Project Address:	171 W Edmunson Avenue	**Date Prepared:**	1/23/2020

N. EXISTING CONDITIONS POWER ALLOWANCE (alterations only)

This section does not apply to this project.

O. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Selections have been made based on information provided in this document. If any selection have been changed by permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCI/

Yes	No	Form/Title	Field Inspector Pass	Field Inspector Fail
●	○	NRCI-LTO-01-E - Must be submitted for all buildings	☐	☐
○	●	NRCI-LTO-02-E- Must be submitted for a lighting control system, or for an Energy Management Control System (EMCS), to be recognized for compliance.	☐	☐

P. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Selections have been made based on information provided in this document. If any selection have been changed by permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit: http://www.energy.ca.gov/title24/attcp/providers.html

Yes	No	Form/Title	Field Inspector Pass	Field Inspector Fail
●	○	NRCA-LTO-02-A - Must be submitted for all outdoor lighting controls except for alterations where controls are added to <= 20 luminaires.	☐	☐

STATE OF CALIFORNIA
Outdoor Lighting
NRCC-LTO-E
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE			NRCC-LTO-E
Project Name:	Magical Bridge Morgan Hill	**Report Page:**	(Page 7 of 7)
Project Address:	171 W Edmunson Avenue	**Date Prepared:**	1/23/2020

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

Documentation Author Name: Sammy Fernandez	Documentation Author Signature: [signature]
Company: American Consulting Engr. Elec., Inc	Signature Date: 1/23/2020
Address: 1590 The Alameda	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: San Jose, CA, 95126	Phone:

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name:	Responsible Designer Signature: [signature]
Company: American Consulting Engr. Elec., Inc	Date Signed: 2020-01-23
Address: 1590 The Alameda	License:
City/State/Zip: San Jose, CA, 95126	Phone:

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San Jose, Ca 95126 Fax: 408/236-2316
JOB # E19054.00

REGISTERED PROFESSIONAL ENGINEER SAMMY S. FERNANDEZ E16890 Exp. 06/30/21 ELECTRICAL STATE OF CALIFORNIA

NO.	DESCRIPTION	DATE	BY	WORK ACCEPTED:	INSPECTOR:
				BY:	DATE:
	Revisions				

DRAWN: SB	DESIGN: SF
CHECKED: SF	HOR: N/A
APPROVED: [signature]	DATE: 2/10/20
SCOTT CREER – CITY ENGINEER RCE#58879 EXP. 9/30/21	VERT: N/A
	JOB NUMBER:

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Public Works Department
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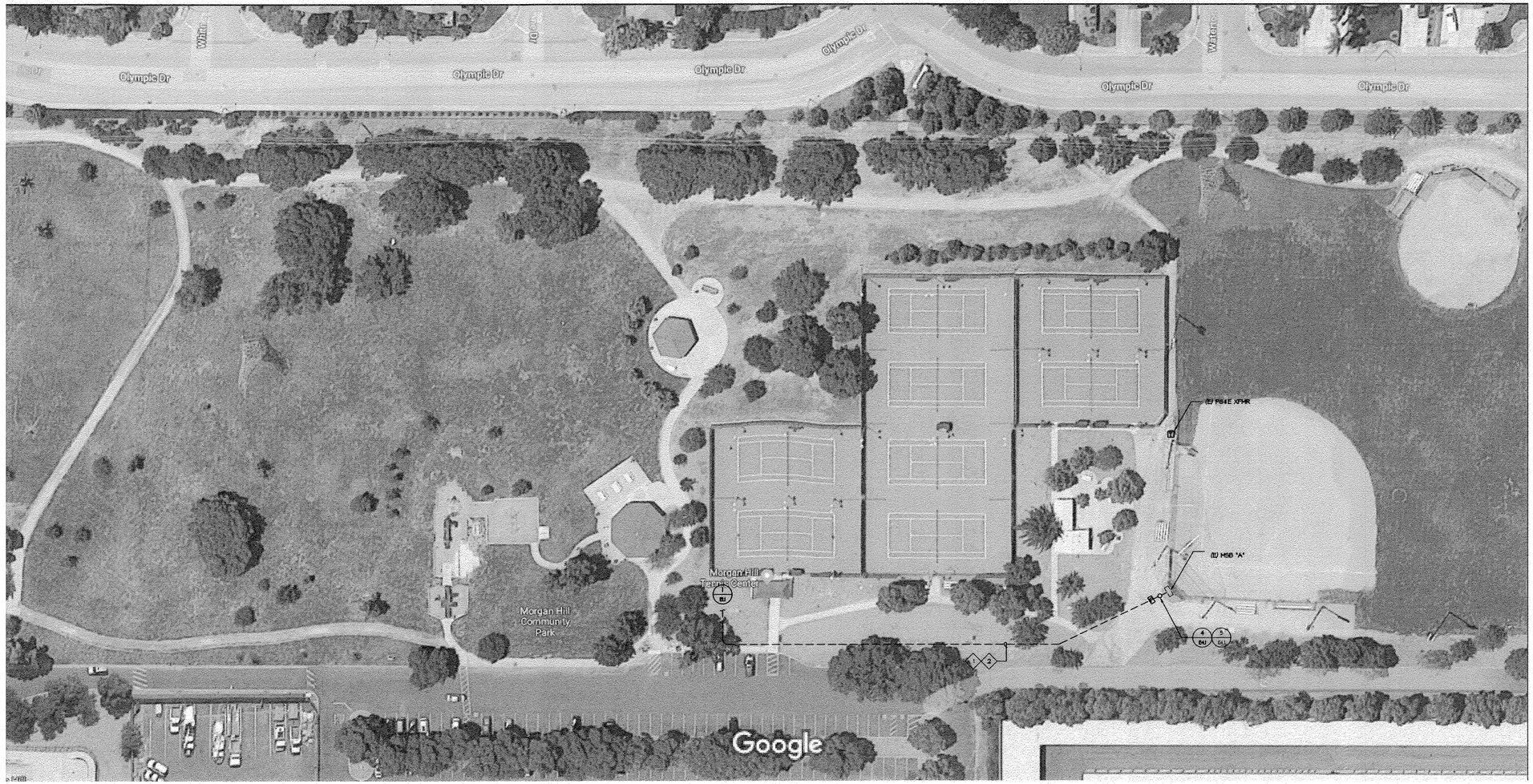
TITLE 24
EXTERIOR LIGHTING
MORGAN HILL INCLUSIVE PLAYGROUND / MAGICAL BRIDGE PROJECT

FILE NUMBER: 1818000
PRINT DATE: 02/07/20
SHEET NUMBER: E0.2

BID SUBMITTAL - 02-07-20



GENERAL NOTES:

1. ALL ELECTRICAL WORK SHALL COMPLY WITH THE 2016 CALIFORNIA ELECTRICAL CODE.
2. CONTRACTOR TO SITE SURVEY EXISTING CONDITIONS AND LOCATIONS OF EXISTING UNDERGROUND SYSTEMS, WHERE (N) WORK OCCURS PRIOR TO BIDDING. CONTRACTOR SHALL TAKE PROPER PRECAUTIONS TO ENSURE (E) UNDERGROUND SYSTEMS/CONDUIT/PIPES ARE NOT DAMAGED DURING INSTALLATION. CONTRACTOR IS RESPONSIBLE FOR ANY REPAIRS REQUIRED IN THE EVENT THE (E) UNDERGROUND SYSTEMS ARE DAMAGED AS A RESULT OF THE (N) WORK.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY SAW CUTTING AND REMOVAL OF EXISTING SURFACES TO FACILITATE UNDERGROUND SYSTEMS. THE CONTRACTOR SHALL PATCH AND REPAIR ALL DAMAGED AND CUT SURFACES TO MATCH ADJACENT. SEE LANDSCAPE DRAWINGS TO COORDINATE THE NEW FIELD SURFACES.
4. CONTRACTOR SHALL COORDINATE UNDERGROUND REQUIREMENTS WITH ALL OTHER TRADES TO AVOID CONFLICT.

CONDUIT SCHEDULE:

1. (N) 4"C - POWER
2. (N) 2"C - SPARE

1 / E1.0 **ELECTRICAL SITE PLAN - ENTIRE PARK**

SCALE: NOT TO SCALE

NORTH

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1590 The Alameda, Suite 200
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REGISTERED PROFESSIONAL ENGINEER SAMAN S. FERNANDEZ 6890 Exp. 06/30/21 ELECTRICAL STATE OF CALIFORNIA

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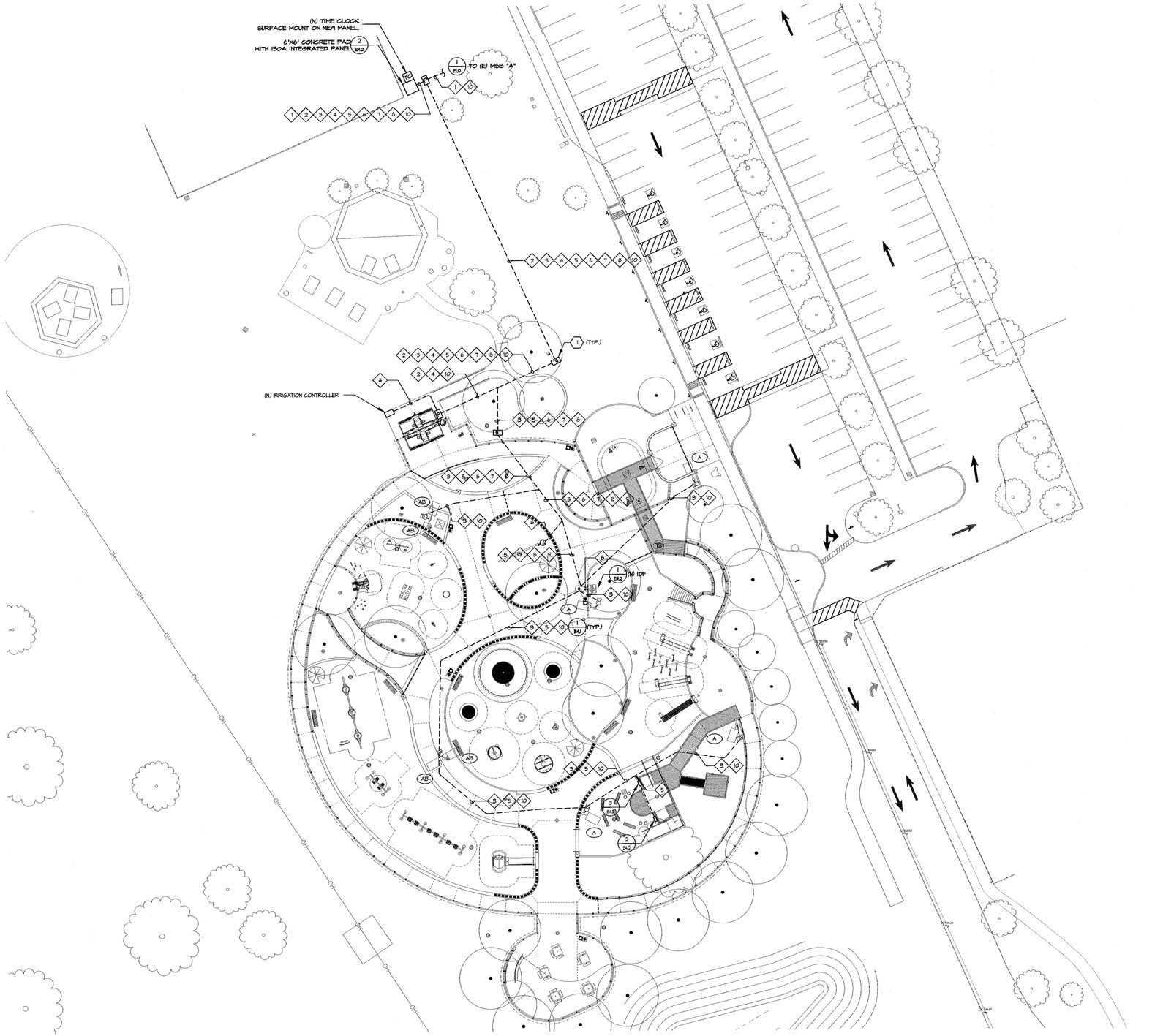
ELECTRICAL SITE PLAN - ENTIRE PARK
MORGAN HILL INCLUSIVE PLAYGROUND / MAGICAL BRIDGE PROJECT

FILE NUMBER: 1818000
PRINT DATE: 02/07/20
SHEET NUMBER: E1.0

BID SUBMITTAL - 02-07-20



1 E1.1 **ELECTRICAL SITE PLAN**

SCALE: 1" = 20'-0"

GENERAL NOTES:

1. SEE SINGLE LINE DIAGRAM FOR POWER CABLE REQUIREMENTS. ALL CABLES ARE DESIGNED AND SIZED FOR VOLTAGE DROPS.
2. CONTRACTOR SHALL HAND DIG WHEN THE TRENCHING IS CLOSE TO THE EXISTING TREES, HEADERS, WALKS, IRRIGATION AND OTHER UTILITIES.
3. PROVIDE TRAFFIC RATED LID FOR ALL PULL BOXES.
4. ELECTRICAL CONTRACTOR SHALL COORDINATE NEW CONDUITS WITH ALL OTHER UTILITIES AND STRUCTURAL FOOTING.
5. ELECTRICAL CONTRACTOR SHALL COORDINATE NEW CONDUITS WITH ALL OTHER UTILITY AND STRUCTURAL FOOTING.

SHEET NOTES:

1. NEW ELECTRICAL PULL BOX. LABEL LID "POWER".

CONDUIT SCHEDULE:

1. (N) 4"C - POWER - DISTRIBUTION BOARD
2. (N) (2) 2"C - POWER - RESTROOM
3. (N) 2"C - POWER - LIGHTING
4. (N) 1 1/4"C - POWER - IRRIGATION CONTROLLER
5. (N) 2"C - POWER - RECEPTACLE
6. (N) 2"C - POWER - LASER HARP
7. (N) (2) 2"C - SPARE
8. (N) 2"C - POWER IDF
9. (N) (2) 2"C - POWER - LIGHTING
10. (N) 2"C - SPARE

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Exp. 06/30/21
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STATE OF CALIFORNIA

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APPROVED: DATE: 2/6/20 JOB NUMBER:
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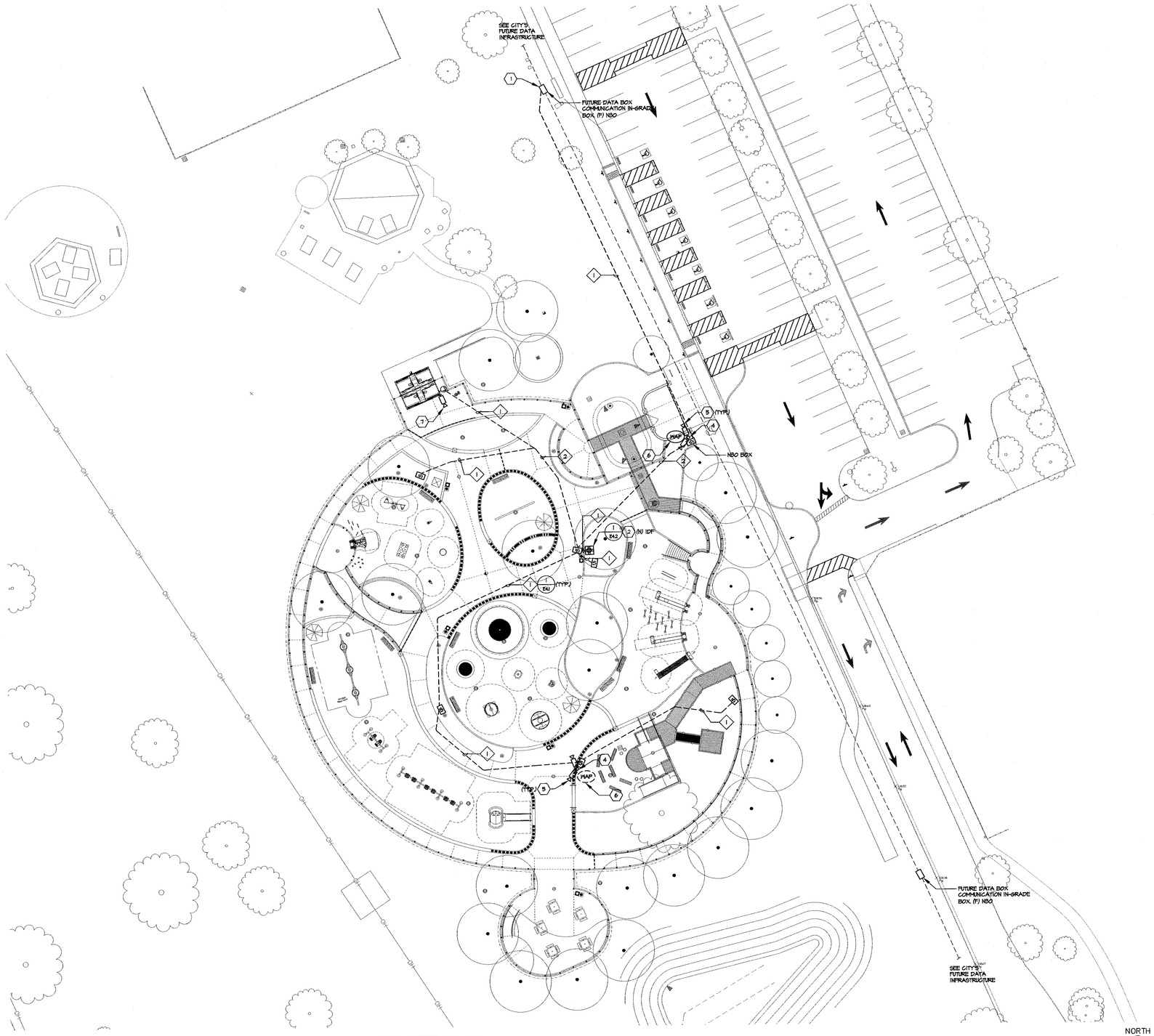
ELECTRICAL SITE PLAN
MORGAN HILL INCLUSIVE PLAYGROUND / MAGICAL BRIDGE PROJECT

FILE NUMBER: 1818000
PRINT DATE: 02/07/20
SHEET NUMBER: E1.1

BID SUBMITTAL - 02-07-20



1 **WIRELESS ACCESS POINT & SECURITY CAMERA SITE PLAN**

E1.2 SCALE: 1" = 20'-0"

GENERAL NOTES:

1. SEE DATA/ SECURITY CAMERA RISER DIAGRAM FOR ADDITIONAL REQUIREMENT.
2. PROVIDE TRAFFIC RATED LID FOR ALL PULL BOXES.

SHEET NOTES:

1. CONDUIT STUB TO FOR (F) N20 BOX DATA FIBER
2. NEMA 3R ENCLOSURE SHOWN ON E1.1 TO HOUSE DATA AND SECURITY EQUIPMENT. SEE DETAIL 8 DATA/ SECURITY RISER FOR REQUIREMENT.
3. NEM M1 PULL BOX. LABEL AS "SIGNAL". STUB NEM 1" CONDUIT FROM SIGNAL PULL BOX INTO LIGHT POLE SIGNAL COMPARTMENT.
4. 20' HIGH LIGHT POLE. SEE E1.1 FOR INSTALLATION REQUIREMENT.
5. NEM SECURITY CAMERA MOUNTED AT 15' ON LIGHT POLE. CONTRACTOR SHALL COORDINATE CAMERA LOCATION AND AIMING WITH TREES TO AVOID VIEW OBSTRUCTION.
6. NEM WIRELESS ACCESS POINT (WAP) MOUNTED ON TOP OF LIGHT POLE.
7. NEM SECURITY CAMERA MOUNTED ON WALL NEM RESTROOM BUILDING.

CONDUIT SCHEDULE:

1. (N) 2" CONDUIT - SIGNAL.
2. (N) (2) 2" CONDUIT - SIGNAL.

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E18590 Exp. 06/30/21 ELECTRICAL STATE OF CALIFORNIA

NO.	DESCRIPTION	DATE	BY

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DESIGN: SF
CHECKED: SF
APPROVED: DATE: 2/10/20
SCOTT CRIDER - CITY ENGINEER RCE#68879 EXP. 9/30/21

HOR: N/A
VERT: N/A
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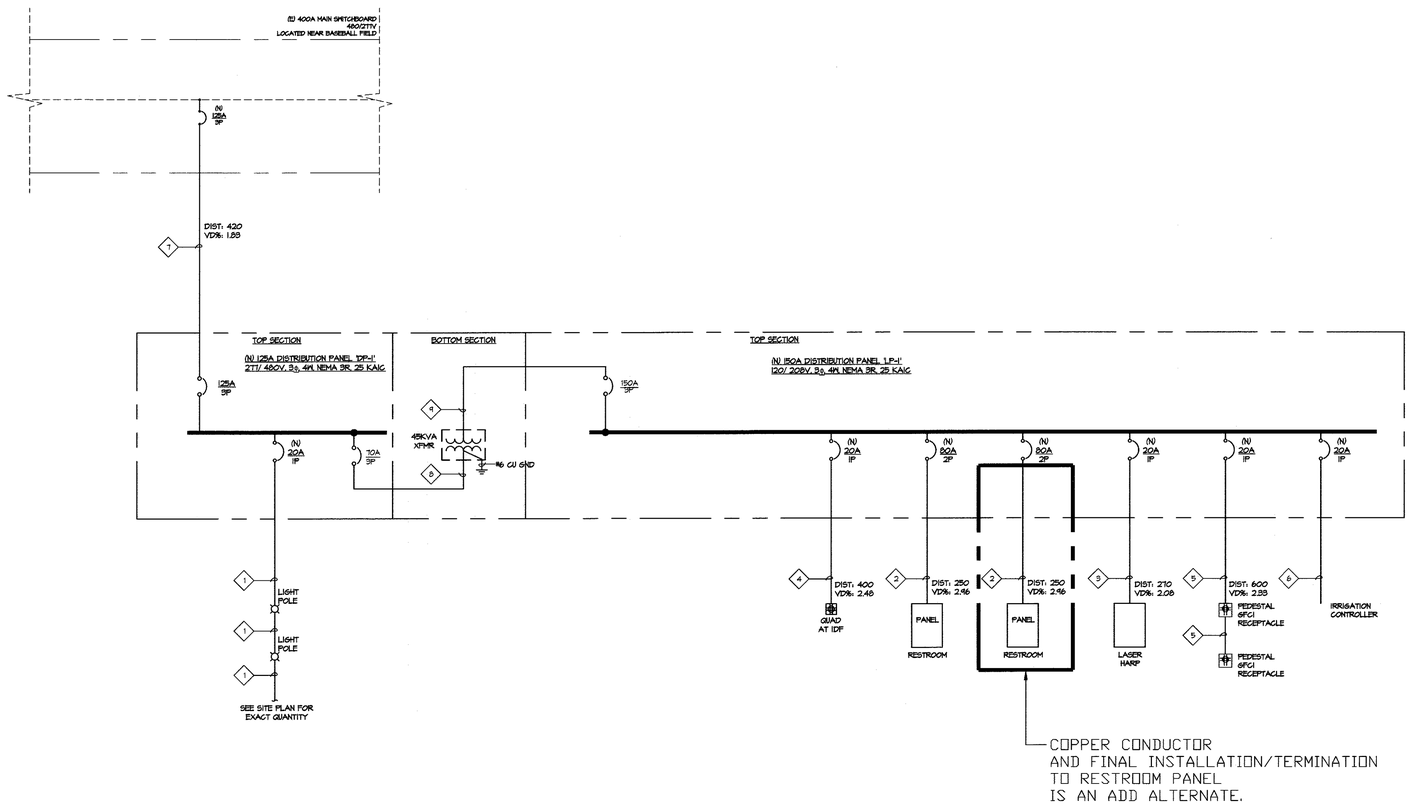
WIRELESS ACCESS POINT
& SECURITY CAMERA SITE PLAN
MORGAN HILL INCLUSIVE PLAYGROUND / MAGICAL BRIDGE PROJECT

FILE NUMBER: 1818000
PRINT DATE: 02/07/20
SHEET NUMBER: E1.2

BID SUBMITTAL - 02-07-20



GENERAL NOTES:

1. THE CONTRACTOR SHALL SUBMIT (N) INTEGRATED PANEL TO PG&E FOR REVIEW. THE CONTRACTOR SHALL OBTAIN A WRITTEN APPROVAL OF THE (N) INTEGRATED PANEL PRIOR TO ORDERING OF THE (N) PEDESTAL METER PANEL.
2. PRIOR TO ANY PG&E RELATED WORK, THE CONTRACTOR SHALL OBTAIN THE PG&E SUBSTRUCTURE PACKAGE FIRST. THE CONTRACTOR SHALL INCLUDE IN THEIR BID ALL REQUIREMENTS TO COMPLETE THE PRIMARY AND SECONDARY CABLE CONNECTIONS.

FEEDER SCHEDULE:

1. (N) 2"C - (2) #6 + (1) #8 CU GND
2. (N) 2"C - (3) #1 + (1) #6 CU GND
3. (N) 2"C - (2) #4 + (1) #8 CU GND
4. (N) 2"C - (2) #10 + (1) #10 CU GND
5. (N) 2"C - (2) #8 + (1) #10 CU GND
6. (N) 1 1/4"C - (2) #10 + (1) #10 GND
7. (N) 4"C - (4) #2/0 + (1) #6 CU GND
8. (N) 1 1/4"C - (3) #4 + (1) #8 GND
9. (N) 2"C - (4) #1/0 + (1) #6 CU GND

1 / E2.1 **SINGLE LINE DIAGRAM**

SCALE: NOT TO SCALE

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JOB # E19054.00

REGISTERED PROFESSIONAL ENGINEER JAMES S. FERNANDEZ E16890 Exp. 06/30/21 ELECTRICAL STATE OF CALIFORNIA

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Revisions

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APPROVED: [signature] | DATE: 2/10/20 | JOB NUMBER:
SCOTT CREER - CITY ENGINEER
RCE#56879 EXP. 9/30/21

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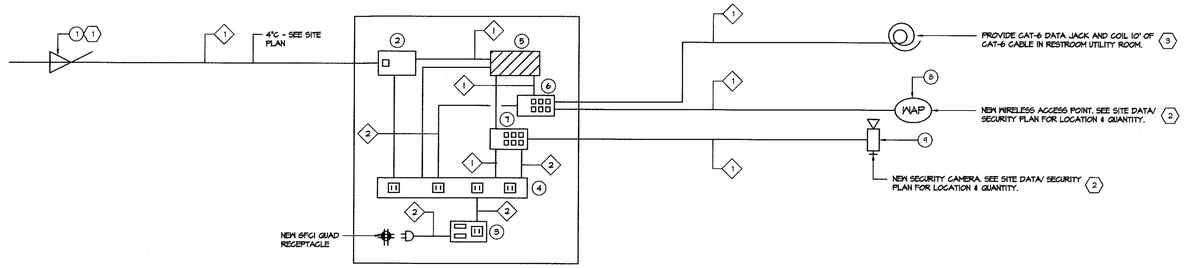
SINGLE LINE DIAGRAM

MORGAN HILL INCLUSIVE PLAYGROUND / MAGICAL BRIDGE PROJECT

FILE NUMBER: 1818000
PRINT DATE: 02/07/20
SHEET NUMBER: E2.1

BID SUBMITTAL - 02-07-20



1 / E2.2 DATA & SECURITY CAMERA RISER DIAGRAM (BID ALTERNATE)

N.T.S.

RISER GENERAL NOTES

1. ALL DATA/TELEPHONE CABLES SHALL INSTALL IN CONDUIT AND/OR J-HOOKS FROM EACH PORT, DATA/TELEPHONE LOCATION WHERE SHOWN ON PLANS TO THE NEAREST DESIGNATED IDF LOCATION, U.O.N. MAKE TERMINATIONS AT BOTH DATA OUTLET AND IDF LOCATION.
2. ALL CABLE SHALL BE ROUTE DIRECTLY FROM STATION TO IDF/MDF LOCATION WITHOUT SPLICE OR INTERRUPTION.
3. ALL CAT 6 CABLES ARE TO BE TESTED FOR COMPLIANCE WITH TRUE CAT 6 PERFORMANCE, USING A HAND HELD NETWORK SCANNER. HARD COPY AND SOFT COPY RESULTS ARE TO BE PROVIDED FOR ALL JACKS TESTED. NETWORK ANALYZER IS TO BE A FLUKE DSP 4500 OR OWNER APPROVED EQUIVALENT. SOFT COPY RESULTS TO BE PROVIDE ON A WINDOW XP OR LATER COMPACT DISK (CD).
4. ALL FIBER OPTIC CABLE RUNS WILL BE TESTED AND DOCUMENTATION PROVIDED TO SHOW THAT EACH STRAND MEETS OR EXCEEDS THE EIA/TIA-455 STANDARDS. PROVIDE RECORDED TEST RESULTS ON ALL CABLES PASSED FOR OWNER'S RECORDS. CONTRACTOR WILL TEST THE FIBER OPTIC CABLE PRIOR TO INSTALLATION TO CHECK FOR DEFECTS. IF THE CONTRACTOR DOES NOT TEST THE FIBER, AND DEFECTS ARE FOUND THAT REQUIRE THE CABLE TO BE REPLACED, THE CONTRACTOR IS RESPONSIBLE FOR THE CABLE. CONTRACTOR WILL TEST THE INSTALLED FIBER OPTIC CABLES AND DOCUMENT EACH STRAND'S RESULT. IF ANY STRANDS ARE FOUND TO BE OUT SPECIFICATION, THE CONTRACTOR WILL REPAIR THE STRANDS TERMINATION AS NEEDED OR REPLACE CABLE IF REQUIRED. THE CONTRACTOR WILL RETEST AFTER REPAIRS.
5. SEE DATA SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

SHEET NOTES:

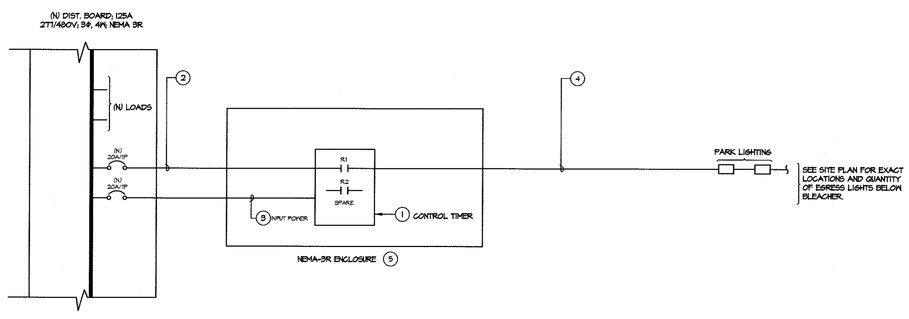
1. CONTRACTOR SHALL COORDINATE FINAL ANTENNA LOCATION AND CONNECTION WITH CITY IT PRIOR TO INSTALLATION.
2. ALL WIRELESS ACCESS POINT (WAP) AND SECURITY CAMERA ARE ESTIMATED TO BE LESS THAN 280 FEET FROM IDF. IF ACTUAL ON-SITE DISTANCE BETWEEN WAP/CAMERA AND IDF IS GREATER THAN 280 FEET, THE CONTRACTOR IS TO INFORM THE CITY IT AND DESIGN TEAM OF THE ACTUAL DISTANCE PRIOR TO INSTALL OF THE WAP/CAMERA.
3. CONTRACTOR SHALL COORDINATE RESTROOM MONITORING CONNECTION WITH CITY IT AND RESTROOM INSTALLER PRIOR TO INSTALLATION.

EQUIPMENT SCHEDULE:

1. OUTDOOR WIRELESS ANTENNA - AIRAYA WIRELESS GRID 300
2. OUTDOOR WIRELESS ANTENNA - AIRAYA WIRELESS GRID 300 - POWER INJECTOR.
3. SURGE PROTECTOR - TRIPP LITE ISOBAR-4-ULTRA WITH 6 FT. POWER CORD.
4. POWER DISTRIBUTION UNIT - TRIPP LITE PDUMH15NET2 WITH 12 FT. POWER CORD.
5. GATEWAY - SONIC WALL TZ300.
6. WIRELESS ACCESS PORT POE SWITCH - PLANET WGS-4215-4P4T2S/ PWR-120-48.
7. SECURITY CAMERA POE SWITCH - PLANET WGS-4215-4P4T2S/ PWR-120-48.
8. WIRELESS ACCESS POINT - AEROHIVE AP1130.
9. SECURITY CAMERA - AREGONT AV12275 DN-NL. SEE SECURITY SITE PLAN FOR CAMERA LENS REQUIREMENT.

CABLE SCHEDULE:

1. DATA - CAT-6 (INDOOR/ OUTDOOR RATED).
2. POWER CORD, PROVIDED WITH THE EQUIPMENT.



NOTES:

1. PROVIDE "INTERMATIC" TIMER CONTROLLER #ET112SCR, 24 HOUR BASIC ELECTRONIC CONTROL WITH 24 HOUR, 7-DAY AND 7-DAY ASTRONOMIC TIME. CONTRACTOR TO COORDINATE WITH CITY PROGRAMMING FOR TIMES OF OPERATION.
2. PROVIDE (2) #6 AND (1) #8 IN 2"C. REFER TO SITE PLAN FOR CONDUIT SIZES AND BOX.
3. PROVIDE MINIMUM (3)#12 IN ¾"C.
4. PROVIDE (2) #6 AND (1) #8 IN 2"C. REFER TO LIGHTING SITE PLAN FOR CONDUIT REQUIREMENTS.
5. CONTRACTOR TO PROVIDE 24" X 16" X 6" NEMA-3R CABINET WITH HINGE TYPE DOOR WITH LOCKABLE HASP. OBTAIN PAD LOCK FROM CITY TO SECURE. PROVIDE OUTDOOR ENGRAVED NAME PLATE AND IDENTIFY AS " PARK LIGHTING"

1 / E3.2 INVERTER AND LIGHTING RISER DIAGRAM

SCALE: NOT TO SCALE

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NO.	DESCRIPTION	DATE	BY

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SCG/6873 EXP. 3/30/21

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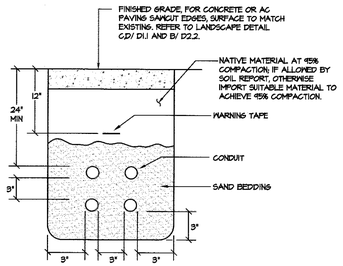
171 W EDMUNDSON AVE, MORGAN HILL, CA 95037

RISER DIAGRAMS
MORGAN HILL INCLUSIVE PLAYGROUND / MAGICAL BRIDGE PROJECT

FILE NUMBER: 1818000
PRINT DATE: 02/07/20
SHEET NUMBER: E2.2

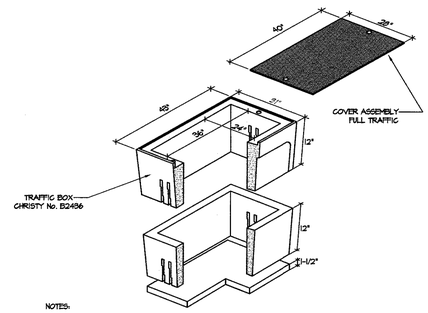
BID SUBMITTAL - 02-07-20



1. COORDINATE TRENCH CONDUIT LAYOUT WITH OTHER CONDUIT SYSTEMS.

1 / E4.1 TYPICAL TRENCH DETAIL

SCALE: NOT TO SCALE

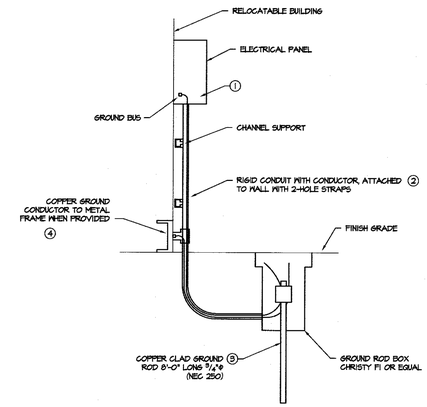


NOTES:

1. HIGH DENSITY REINFORCED CONCRETE BOX WITH NON-SETTING SHOULDERS POSITIONED TO MAINTAIN GRADE AND FACILITATE BACK FILLING. APPROXIMATE DIMENSIONS SHOWN.
2. ALL CONDUITS SHALL ENTER FROM SIDES OF PULL BOX. CONTRACTOR SHALL PROVIDE PULL BOX EXTENSION AS REQUIRED. NO CONDUITS SHALL BE ALLOWED FROM THE BOTTOM OF THE PULL BOX.
3. CONTRACTOR SHALL STACK CONDUITS AS REQUIRED TO MEET THE NEC CODE REQUIREMENTS.
4. PROVIDE BELL ENDS ON ALL CONDUIT.
5. PROVIDE 6" CONCRETE SLURRY AROUND BOX.
6. ALL PENETRATIONS INTO BOXES SHALL BE SEALED WITH GROUT.

2 / E4.1 B2436 ELECTRICAL VAULT

NOT TO SCALE (FULL TRAFFIC COVER)

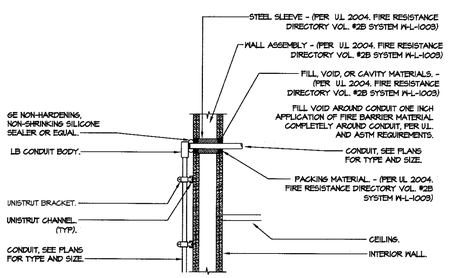


1. SIZE OF CONDUCTORS SHALL COMPLY WITH NEC TABLE 250-66
2. BOND SEPARATE CONDUCTORS FROM GROUND ROD TO ELECTRICAL PANEL AND TO METAL BUILDING FRAME (NEC 250-50). IN ADDITION TO DETAIL ABOVE, BOND THE ELECTRICAL GROUND TO NEAREST METALLIC COLD WATER PIPE. (NEC 250-50)
3. CHECK RESISTANCE TO GROUND, IF RESISTANCE EXCEEDS 25 OHMS, INSTALL ADDITIONAL GROUND RODS AS REQUIRED. (NEC 250-56)
4. ALL MODULES OF METAL FRAME BUILDINGS SHALL BE ELECTRICALLY BONDED TOGETHER. (BOLTING ONLY IS NOT ACCEPTABLE BONDING.)

3 / E4.1 TYPICAL GROUND INSTALLATION

SCALE: NOT TO SCALE

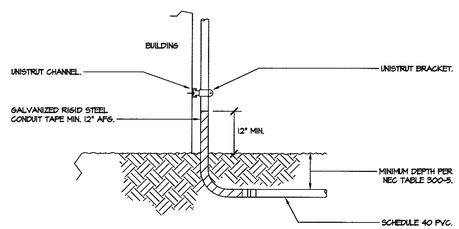
NOTE: GROUNDING TEST MUST BE BY INDEPENDENT LICENSED ELECTRICAL CONTRACTOR OR TESTING LABORATORY. PROJECT CONTRACTOR IS NOT ELIGIBLE TO RUN TEST.



NOTE:
REFERENCE U.L 2004, FIRE RESISTANCE DIRECTORY VOL. #2B SYSTEM W-L-1003.

CONDUIT RISER AND WALL PENETRATION

SCALE: NOT TO SCALE

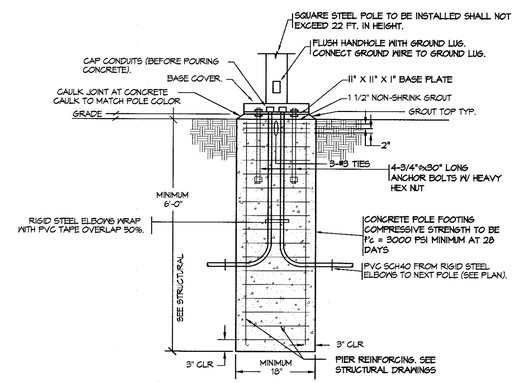


NOTE:

1. FOR WOOD STUD WALL: USE ⅜" LAG BOLT WITH MIN. ¾" EMBEDMENT INTO STUDS. (ONE AT EACH END OF BRACKET)
2. FOR CONCRETE WALL: USE ⅜" WEDGE ANCHOR WITH MIN. 2 ½" EMBEDMENT INTO CONCRETE WALL. (ONE AT EACH END OF BRACKET).

UNDERGROUND CONDUIT RISER DETAIL

NOT TO SCALE



6 / E4.1 FLUSHED POLE BASE DETAIL

NOT TO SCALE

American Consulting Engineers Electrical, Inc.
1390 The Alameda, Suite 200
San Jose, Ca. 95126
JOB # E19054.00
408/236-2312
Fax: 408/236-2316

REGISTERED PROFESSIONAL ENGINEER STEVEN S. FERNANDEZ E18890 Exp. 06/30/21 ELECTRICAL STATE OF CALIFORNIA

NO.	DESCRIPTION	DATE	BY

Revisions

WORK ACCEPTED: INSPECTOR:
BY: DATE:

DRAWN: SB DESIGN: SF
CHECKED: SF
APPROVED: DATE: 2/10/20
SCOTT CREER - CITY ENGINEER RCE#66879 EXP. 9/30/21

HOR: N/A
VERT: N/A
JOB NUMBER:

CITY OF MORGAN HILL
City of Morgan Hill
Public Works Department
17575 Peak Ave. Morgan Hill, CA 95037 (408)778-6480, Fax (408)779-7236

VERDE DESIGN
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ELECTRICAL DETAILS
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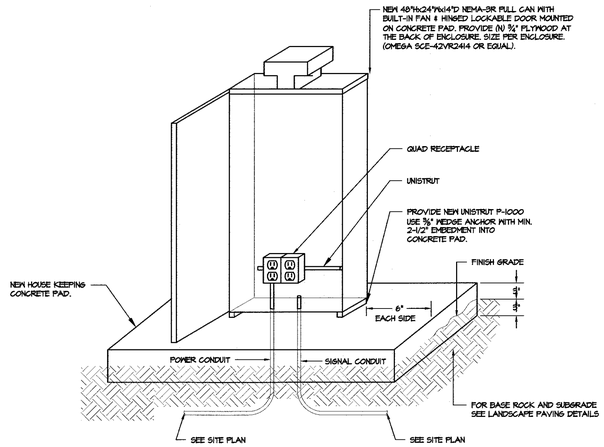
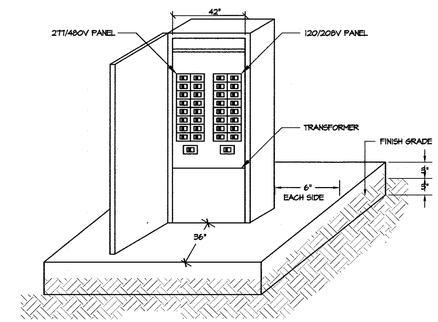


NEMA-3R POWER VENTED OUTDOOR IDF ENCLOSURE MOUNTED ON CONCRETE PAD

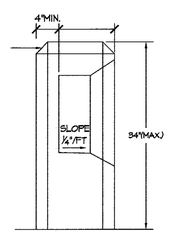
1 / E4.2 SCALE: NOT TO SCALE



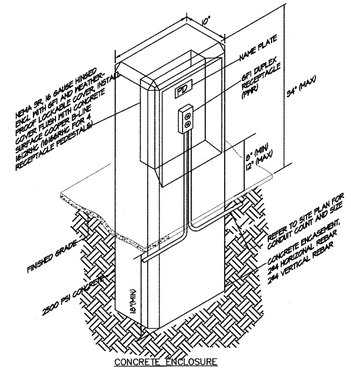
(N) 125A INTEGRATED DISTRIBUTION BOARD FRONT PANEL LAYOUT

2 / E4.2 SCALE: NOT TO SCALE

NOTE:
1. COMPACT BACKFILL MATERIAL AROUND CONCRETE PEDESTAL TO 95% OF MAXIMUM DRAY INTENSITY
2. REFER TO SITE PLAN FOR CONDUIT SIZE AND QUANTITY.
3. CONDUIT SIZE VARIES. REFER TO SITE PLAN FOR SPECIFIC LOCATION AND SIZE.



SIDE VIEW

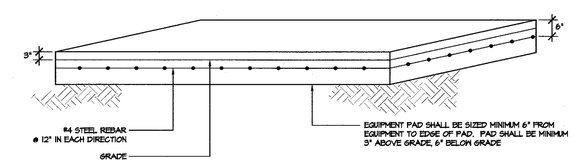


CONCRETE ENCLOSURE

¾" CHAMFER BEVEL ALL EDGES TO FRONT, REAR, SIDES & INSIDE CORNERS (TYP)

OUTDOOR PEDESTAL GFCI RECEPTACLE DETAIL

3 / E4.2 SCALE: NOT TO SCALE



EQUIPMENT PAD

4 / E4.2 NOT TO SCALE

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STATE OF CALIFORNIA

NO.	DESCRIPTION	DATE	BY

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GENERAL

1. ALL CONSTRUCTION SHALL COMPLY WITH THE PROVISIONS OF THE 2016 CALIFORNIA BUILDING CODE (CBC), TITLE 24, PART 2, VOLUMES 1-2 (2015 INTERNATIONAL BUILDING CODE (IBC) WITH 2016 CALIFORNIA AMENDMENTS).

2. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND STRUCTURAL ENGINEER FOR DIRECTION PRIOR TO PROCEEDING.

3. DETAILS OF CONSTRUCTION ARE TYPICAL, UNLESS NOTED OTHERWISE, AND SHALL APPLY AT ALL LOCATIONS OF SIMILAR CONSTRUCTION. TYPICAL DETAILS ARE NOT CUT AT EVERY APPLICABLE LOCATION ON THE PLANS.

4. DO NOT SCALE DRAWINGS FOR DIMENSIONAL INFORMATION.

5. SHORING, TEMPORARY BRACING AND OTHER METHODS AND MEANS OF CONSTRUCTION IS THE RESPONSIBILITY OF THE CONTRACTOR, AND IS NOT INCLUDED IN THE SCOPE OF THE STRUCTURAL DRAWINGS.

6. THE FOLLOWING NOTES ARE FOR GENERAL MATERIAL GRADES AND PROCEDURES. SEE SPECIFICATIONS AND REMAINDER OF DRAWINGS FOR COMPLETE REQUIREMENTS. ITEMS NOTED IN PLANS, SECTIONS AND DETAILS TAKE PRECEDENCE OVER GENERAL NOTES.

7. LOADS:
   A) LIVE:
      ROOF: 20 PSF (REDUCIBLE)
      FLOOR: 60 PSF (WALKWAYS & ELEVATED PLATFORMS - REDUCIBLE)

   B) WIND:
      EXPOSURE C, 110 MPH BASIC WIND SPEED
      DIRECTIONAL PROCEDURE

   C) SEISMIC:
      BUILDING RISK CATEGORY II
      EQUIVALENT LATERAL FORCE PROCEDURE (ASCE 7-10 SEC. 12.8)
      LATITUDE: 37.1143, LONGITUDE: -121.6480
      SEISMIC DESIGN CATEGORY (SDC) D
      SITE CLASS D
      S_S=1.504, S_1=0.600; F_a=1.00, F_v=1.50;
      S_{MS}=1.504, S_{M1}=0.900; S_{DS}=1.002, S_{D1}=0.600
      IMPORTANCE FACTOR: I_e=1.00
      R=3 FOR SELF-SUPPORTING STRUCTURES (RETAINING WALLS)
      C_S=0.334 (STRENGTH), 0.239 (ALLOWABLE STRESS)
      C_V=0.200 (STRENGTH), 0.143 (ALLOWABLE STRESS).

   D) WOOD FRAMING:
      LOAD DURATION FACTOR (C_D) USED, WITH SHORT-TERM INCREASES.
      REPETITIVE MEMBER STRESSES NOT USED.

   E) LOAD COMBINATIONS FOR DESIGN:
      CONCRETE: PER CBC 1605.2 FOR STRENGTH DESIGN.
      FOUNDATIONS: PER CBC 1605.3.2 FOR ALLOWABLE STRESS DESIGN.
      ALL OTHERS: PER CBC 1605.3.1 FOR ALLOWABLE STRESS DESIGN.

STRUCTURAL ABBREVIATIONS

A.B.	ANCHOR BOLT	I.D.	INSIDE DIAMETER
ADJ	ADJACENT	IN	INCH
APPROX	APPROXIMATE	INT	INTERIOR
ARCH	ARCHITECTURAL		
		LAM	LAMINATE
BLDG	BUILDING	LBS	POUNDS
BLK	BLOCK		
BLKG	BLOCKING	KSI	KIPS PER SQ. IN.
BM	BEAM		
B.N.	BOUNDARY NAILING	MAX	MAXIMUM
BOT	BOTTOM	M.B.	MACHINE BOLT
BP	BASEPLATE	MECH	MECHANICAL
BRG	BEARING	MFR	MANUFACTURER
B.S.	BOTH SIDES	MIN	MINIMUM
		MISC	MISCELLANEOUS
C TO C	CENTER TO CENTER		
C.B.	CARRIAGE BOLT	<N>	NEW
CJ	CONTROL JOINT OR CONSTRUCTION JOINT	N.S.	NEAR SIDE
		N.I.C.	NOT IN CONTRACT
C.I.	CAST IRON	NO.	NUMBER
CL	CENTERLINE	NTS	NOT TO SCALE
CLG	CEILING		
CMU	CONCRETE MASONRY UNIT	O.C.	ON CENTER
COL	COLUMN	O.D.	OUTSIDE DIAMETER
CONC	CONCRETE	OPP	OPPOSITE
CONT	CONTINUOUS		
C.P.	COMPLETE PENETRATION	PERP	PERPENDICULAR
CTRD	CENTERED	PL	STEEL PLATE
CTSK	COUNTERSINK	P.P.	PARTIAL PENETRATION
		PLYWD	PLYWOOD
<D>	DEMO	PSF	POUNDS PER SQ. FT.
DBL	DOUBLE	PSI	POUNDS PER SQ. IN.
DIA OR ø	DIAMETER		
DIAG	DIAGONAL	RAD	RADIUS
DO	DITTO	REINF	REINFORCING
DWG	DRAWING	REQD	REQUIRED
		REV	REVISION
EA	EACH	R.O.	ROUGH OPENING
E.F.	EACH FACE	RWD	REDWOOD
ELEC	ELECTRICAL		
ELEV	ELEVATION	S.A.D	SEE ARCH'L DRAWINGS
E.N.	EDGE NAILING	S.M.D.	SEE MECH'L DRAWINGS
EQ	EQUAL	S.L.D.	SEE LANDSCAPE DRAWINGS
E.W.	EACH WAY	S.F.	SQUARE FEET
EXIST OR <E>	EXISTING	SIM	SIMILAR
EXTER	EXTERIOR	SPEC	SPECIFICATION
		SQ	SQUARE
<F>	FUTURE	STD	STANDARD
F.D.	FLOOR DRAIN	STGRD	STAGGERED
FHWS	FLAT HEAD WOOD SCREW	STIFF	STIFFENER
FIN	FINISH	SYM	SYMMETRICAL
F.O.B.	FACE OF BLOCK		
F.O.C.	FACE OF CONCRETE	T&G	TONGUE & GROOVE
F.O.F.	FACE OF FINISH	THRD	THREADED
F.O.S.	FACE OF STUD	T.O.C.	TOP OF CONCRETE
F.P.	FULL PENETRATION	T.O.F.	TOP OF FRAMING
F.S.	FAR SIDE	T.O.S.	TOP OF STEEL
FT	FOOT OR FEET	TS	TUBE STEEL
FTG	FOOTING	TYP	TYPICAL
GA	GAGE	U.N.O.	UNLESS NOTED OTHERWISE
GALV	GALVANIZED		
G.I.	GALVANIZED IRON	VERT	VERTICAL
GLB	GLUE-LAMINATED BEAM		
GYP.BD.	GYPSUM BOARD	W/	WITH
		W/O	WITHOUT
HDR	HEADER	WT	WEIGHT OR STEEL WT SECTION
HORIZ	HORIZONTAL		
HR	HOUR	WWF	WELDED WIRE FABRIC
H.S.	HIGH STRENGTH		
H.S.B.	HIGH STRENGTH BOLT		
HSS	HOLLOW STEEL SECTION		

APPLICABLE CODES

1. 2016 CALIFORNIA ADMINISTRATIVE CODE, PART 1, CCR, TITLE 24.
2. 2016 CALIFORNIA BUILDING CODE (2015 IBC WITH 2016 CALIFORNIA AMENDMENTS), PART 2, CCR, TITLE 24.
3. 2016 CALIFORNIA ELECTRICAL CODE (2014 NEC WITH 2016 CALIFORNIA AMENDMENTS), PART 3, CCR, TITLE 24.
4. 2016 CALIFORNIA MECHANICAL CODE (2015 UMC WITH 2016 CALIFORNIA AMENDMENTS), PART 4, CCR, TITLE 24.
5. 2016 CALIFORNIA PLUMBING CODE (2015 UPC WITH 2016 CALIFORNIA AMENDMENTS), PART 5, CCR, TITLE 24.
6. 2016 CALIFORNIA ENERGY CODE, PART 6, CCR, TITLE 24.
7. 2016 CALIFORNIA FIRE CODE (2015 IFC WITH 2016 CALIFORNIA AMENDMENTS), PART 9, CCR, TITLE 24.
8. 2016 CALIFORNIA GREEN BUILDING STANDARDS CODE, PART 11, CCR, TITLE 24.
9. 2016 CALIFORNIA REFERENCED STANDARDS CODE, PART 12, CCR, TITLE 24.
10. 2016 CALIFORNIA CODE OF REGULATIONS, TITLE 19, PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS.

TITLE 24 C.C.R. ACCESSIBILITY STANDARDS:
AMERICAN WITH DISABILITIES ACT (A.D.A.) FEDERAL ACCESSIBILITY STANDARDS

REFERENCE CODE SECTION FOR NFPA STANDARDS - CBC (SFM) CHAPTER 35 (AS AMENDED BY SFM):
NFPA 13, AUTOMATIC SPRINKLER SYSTEM, 2016 EDITION

STRUCTURAL DESIGN REFERENCES:
ASCE 7-10, MINIMUM DESIGN LOADS FOR BUILDINGS & OTHER STRUCTURES (INCLUDING SUPPLEMENT NO. 1)
AISC MANUAL OF STEEL CONSTRUCTION, 14TH EDITION
AISC SEISMIC DESIGN MANUAL (AISC 341-10, AISC 358-10 + SUPPLEMENT NO. 1)
NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION, 2015 EDITION
AWC SPECIAL DESIGN PROVISIONS FOR WIND AND SEISMIC, 2015 EDITION
ACI 318-14, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
TMS 402-13/ACI 530-13/ASCE 5-13, BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES

GEOTECHNICAL & FOUNDATIONS

1. GEOTECHNICAL CRITERIA USED FOR FOUNDATION DESIGN:
   A) GEOTECHNICAL REPORT BY LAI & ASSOCIATES, OAKLAND, CA.
      REPORT NO. 302.200, DATED 06-06-19.
      GEOTECHNICAL REPORT SHALL BE CONSIDERED PART OF CONSTRUCTION DOCUMENTS. ALL RECOMMENDATIONS DESCRIBED THEREIN SHALL BE IMPLEMENTED IN PROJECT'S CONSTRUCTION, INCLUDING GRADING, STRIPPING OF EXISTING MATERIAL, LOCATION, TYPE AND INSTALLATION OF FILL MATERIAL, AND COMPACTION.

   B) CONTINUOUS & SPREAD FOOTINGS:
      MINIMUM WIDTH: 18"
      MINIMUM EMBEDMENT BELOW LOWEST ADJACENT FINISHED GRADE: 18"

   C) ALLOWABLE SOIL PRESSURES USED FOR FOUNDATION DESIGN:
      DEAD PLUS LIVE LOAD: 2000 PSF
      TOTAL LOAD W/ SEISMIC OR WIND: 2667 PSF
      ALLOWABLE FRICTION COEFFICIENT: 0.30
      ALLOWABLE PASSIVE PRESSURE: 300
      PIER/PILE ALLOWABLE LATERAL PRESSURE: 300 PCF
      IGNORE 1 FT. AT TOP. EFFECTIVE PIER WIDTH: 1 DIAMETER.
      MINIMUM PIER SPACING: 3 DIAMETERS

      CANTILEVERED RETAINING WALL:
      ACTIVE PRESSURE: 50 PCF (LEVEL BACKFILL)
      70 PCF (2H:1V BACKFILL)
      RESTRAINED RETAINING WALL:
      AT-REST PRESSURE: 100 PCF

   D) ENGINEERED FILL AND COMPACTION: PER GEOTECHNICAL REPORT RECOMMENDATIONS

CONCRETE

1. ALL CONCRETE WORK SHALL CONFORM TO CHAPTER 19 OF THE 2016 CALIFORNIA BUILDING CODE (CBC) AND 2014 ACI STANDARD 318 AND ASTM C94, SPECIFICATION FOR READY-MIX CONCRETE. CEMENT SHALL BE PORTLAND CEMENT TYPE II AND SHALL COMPLY WITH ASTM C150. CALCIUM CHLORIDE SHALL NOT BE USED. COARSE AND FINE AGGREGATE SHALL COMPLY WITH ASTM C33. CONCRETE MIX DESIGNS SHALL BE SUBMITTED TO AND APPROVED BY TESTING AGENCY PRIOR TO ORDERING CONCRETE.

2. ALL STRUCTURAL CONCRETE MIXES SHALL HAVE MIN. FIVE (5) SACKS CEMENT PER CU. YARD AND MAX. WATER-TO-CEMENT RATIO OF 0.60. CONCRETE MIX PROPERTIES SHALL BE AS FOLLOWS:
   A) SLABS-ON-GRADE & WALLS:
      28-DAY COMP. STRENGTH: 3,000 PSI
      LARGE AGGREGATE SIZE: 1/2" - 1"
      MAX. SLUMP: 4"
      DENSITY: 145 - 150 PCF (NORMAL WEIGHT, HARD ROCK AGGREGATE)
      EXPOSURE CLASS: C0, S1 (ACI 318 TABLE 19.3.1.1)

   B) FOOTINGS & GRADE BEAMS:
      28-DAY COMP. STRENGTH: 3,000 PSI
      LARGE AGGREGATE SIZE: 1" - 1-1/2"
      MAX. SLUMP: 4"
      DENSITY: 145 - 150 PCF (NORMAL WEIGHT, HARD ROCK AGGREGATE)
      EXPOSURE CLASS: C1, S0 (ACI 318 TABLE 19.3.1.1)

   C) C.I.D.H PIER FOOTINGS:
      28-DAY COMP. STRENGTH: 3,000 PSI
      LARGE AGGREGATE SIZE: 3/4" - 1-1/2"
      MAX. SLUMP: 4"
      DENSITY: 145 - 150 PCF (NORMAL WEIGHT, HARD ROCK AGGREGATE)
      EXPOSURE CLASS: C1, S0 (ACI 318 TABLE 19.3.1.1)

   D) SHOTCRETE:
      28-DAY COMP. STRENGTH: 4,000 PSI
      LARGE AGGREGATE SIZE: 3/8" MAX.
      DENSITY: 145 - 150 PCF (NORMAL WEIGHT, HARD ROCK AGGREGATE)
      EXPOSURE CLASS: C1, S0 (ACI 318 TABLE 19.3.1.1)

   E) NON-STRUCTURAL CONCRETE WALKS ON GRADE:
      28-DAY COMP. STRENGTH: 2,500 PSI
      LARGE AGGREGATE SIZE: 3/8" - 3/4"
      MAX. SLUMP: 5"
      DENSITY: 145 - 150 PCF (NORMAL WEIGHT, HARD ROCK AGGREGATE)

3. STEEL REINFORCING BARS SHALL CONFORM TO ASTM A615, GR. 60 U.N.O. ALTERNATIVELY, #4 AND SMALLER BARS MAY CONFORM TO ASTM A615, GR. 40. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185.

4. GROUT SHALL BE NON-SHRINK GROUT U.N.O. CONFORMING TO ASTM C1107. GROUT SHALL HAVE A 7-DAY COMPRESSIVE STRENGTH 5,000 PSI MIN. GROUT SHALL BE MASTER BUILDERS "MASTERFLOW 928", SIKA SIKAGROUT 212, OR APPROVED EQUAL. FOLLOW MANUFACTURER'S SURFACE PREPARATION RECOMMENDATIONS.

5. BONDING AGENT SHALL BE MASTER BUILDERS "MASTEREMACO ADH 326", SIKA ARMATEC 110 EPOCEM, OR APPROVED EQUAL, AND SHALL BE APPLIED PER MANUFACTURER'S RECOMMENDATIONS.

6. CURING COMPOUND SHALL BE APPROVED BY ENGINEER, AND APPLIED PER MANUFACTURER'S RECOMMENDATIONS.

7. CONSTRUCTION JOINTS SHALL BE ROUGHENED TO FULL 1/4" AMPLITUDE (ICRI CSP 9) WITH BUSH HAMMER OR OTHER APPROVED METHOD. SURFACES SHALL BE CLEANED OF DUST AND DEBRIS IMMEDIATELY PRIOR TO PLACEMENT OF NEWER CONCRETE.

8. REINFORCING STEEL SHALL BE CONTINUOUS WHERE POSSIBLE. SPLICE WITH CONTACT LAP-SPLICES. STAGGER ALL SPLICES. SPLICE LENGTHS SHALL BE 57 BAR-DIAMETERS MINIMUM. WELDED WIRE FABRIC SHALL BE LAPPED TWO (2) FULL SQUARES, BUT NOT LESS THAN 12".

9. EXTEND HORIZONTAL BARS IN FOUNDATIONS AND WALLS INTO INTERSECTING FOUNDATIONS AND WALLS WITH BEND AND 30 BAR DIAMETER EXTENSION, BUT NOT LESS THAN 24" EXTENSION.

10. WELDING OF REINFORCING SHALL NOT BE ALLOWED.

11. UNLESS NOTED OTHERWISE, ANCHOR BOLTS EMBEDDED IN CONCRETE SHALL CONFORM TO ASTM F1554, A307 OR A36, AND SHALL BE ONE OF THE FOLLOWING:
    - MACHINE BOLT WITH STANDARD HEAD AT EMBEDDED END
    - THREADED ROD WITH TIGHTENED DOUBLE-NUT AT EMBEDDED END
    - BENT-BAR ROD WITH 90-DEGREE HOOK & 1-1/2 DIA. EXTENSION AT EMBEDDED END.

12. ANCHOR BOLT PROJECTION SHALL BE ADEQUATE FOR FULL ENGAGEMENT OF PLATES, WASHERS, NUTS, ETC. AND SHALL BE VERIFIED BY CONTRACTOR PRIOR TO PLACEMENT OF CONCRETE OR GROUT. ANCHOR BOLTS SHALL BE FIRMLY SECURED TO FORMS TO PREVENT THEIR MOVEMENT DURING CONCRETE PLACEMENT. WET-SETTING OF ANCHOR BOLTS IS NOT ALLOWED.

13. MAINTAIN THE FOLLOWING MINIMUM CONCRETE COVER FOR REBAR:
    WHERE CONC. IS PLACED AGAINST EARTH = 3"
    WHERE CONCRETE IS FORMED AND EXPOSED TO EARTH OR WEATHER = 2"
    WHERE CONCRETE IS NOT EXPOSED TO EARTH OR WEATHER = 1-1/2"
    SLABS ON GRADE = 3/4"

14. WHERE SIDES OF FOUNDATIONS (FOOTINGS, GRADE BEAMS OR WALLS) ARE CAST AGAINST EARTH WITHOUT FORMS, FOUNDATION SHALL BE WIDENED 1" AT EACH SUCH SURFACE.

15. EXCAVATION FOR FOOTINGS BELOW DEPTHS SHOWN ON DRAWINGS SHALL BE BACKFILLED WITH CONCRETE.

16. NOTIFY ENGINEER AT LEAST 48 HOURS BEFORE ANY CONCRETE IS TO BE PLACED OR FORMS CLOSED TO ALLOW FOR HIS INSPECTION OF EXCAVATIONS AND REINFORCING PLACEMENT. SEE ALSO SPECIAL INSPECTION REQUIREMENTS.

17. CONTRACTOR SHALL, PRIOR TO EXCAVATION, VERIFY FOOTING CONDITIONS AND FINISH GRADE/PAVING ELEVATIONS AT PERIMETER OF BUILDING. VERIFY THAT FOOTINGS HAVE SPECIFIED MINIMUM DEPTH BELOW ADJACENT GRADE AND THAT FOOTINGS DO NOT "DAYLIGHT" OR OTHERWISE INTERFERE WITH INTENDED EXTERIOR CONDITIONS. NOTIFY ENGINEER IF SUCH INTERFERENCE EXISTS PRIOR TO EXCAVATION.

18. IF LOADING OF CONCRETE ELEMENTS PRIOR TO 28-DAY AGE IS ANTICIPATED, CONTRACTOR SHALL NOTIFY ENGINEER PRIOR TO SUBMITTAL OF CONCRETE MIX DESIGNS IN ORDER TO ALLOW SPECIFYING OF PROVISIONS FOR SUCH. PROVISIONS MAY INCLUDE COMPRESSION TEST CYLINDERS BE FIELD-CURED IN CONDITIONS MATCHING SUBJECT CONCRETE ELEMENTS, PLUS USE OF CEMENT TYPES AND/OR ADMIXTURES IN MIX DESIGNS TO PROVIDE THE REQUIRED COMPRESSIVE STRENGTHS AT ANTICIPATED AGES LESS THAN 28 DAYS. LOADING OF CONCRETE ELEMENTS BEFORE CURING FOR 28 DAYS WILL NOT BE APPROVED WITHOUT THESE PROVISIONS BEING SPECIFIED, AND MET BY CONTRACTOR.

19. STRUCTURAL DRAWINGS REPRESENT CONDITIONS CONSISTENT WITH CAST-IN-PLACE CONSTRUCTION METHODS. SHOULD CONTRACTOR UTILIZE THE SHOTCRETE METHOD FOR CONSTRUCTION OF CONCRETE ELEMENTS, ADDED COSTS SPECIFIC TO THE SHOTCRETE METHOD WILL BE PAID FOR BY OWNER, HOWEVER, COSTS FOR SUCH WILL BE BACK-CHARGED TO CONTRACTOR. THESE ADDED REQUIREMENTS/COSTS INCLUDE BUT ARE NOT LIMITED TO:
    * MINIMUM 28-DAY COMPRESSIVE STRENGTH OF SHOTCRETE OF 4,000 PSI
    * CORE EXTRACTION AND TESTING
    * QUALIFICATION OF NOZZLEMEN BY TESTING LAB
    * DESIGN, SUBMITTAL AND REVIEW OF CONSTRUCTION TEST PANEL PROGRAM & DRAWINGS
    * IMPLEMENTATION OF SHOTCRETE-SPECIFIC REINFORCING REQUIREMENTS (STAGGERED REINFG. CURTAINS, MIN. BAR SEPARATION, NON-CONTACT LAPS)

SHOTCRETE

1. SHOTCRETE SHALL COMPLY WITH SECTION 1908 OF THE 2016 CALIFORNIA BUILDING CODE (CBC) AND ALL SECTIONS OF 2005 ACI 506.

2. SHOTCRETE MIX DESIGN SHALL BE PROPORTIONED TO ALLOW FOR PROPER DELIVERY & PLACEMENT AND SHALL RESULT IN FINISHED IN-PLACE HARDENED SHOTCRETE MEETING THE REQUIRED STRENGTH LISTED ABOVE. MIX DESIGNS SHALL BE SUBMITTED TO AND APPROVED BY TESTING AGENCY PRIOR TO ORDERING SHOTCRETE.

3. MINIMUM CLEARANCE BETWEEN PARALLEL BARS SHALL BE 2-1/2" FOR #5 BARS OR SMALLER OR SIX (6) BAR DIAMETERS FOR BARS LARGER THAN #5 BARS.

4. BAR LAP SPLICES IN SHOTCRETE SHALL BE NON-CONTACT SPLICES, WITH MIN. 2" BETWEEN BARS. ACCEPTABLE ALTERNATES ARE APPROVED CONCENTRIC BAR COUPLERS

5. WHEN TWO CURTAINS OF STEEL ARE PROVIDED, THE BARS IN THE CURTAIN NEAREST THE NOZZLE SHALL HAVE A MINIMUM SPACING OF 12 BAR DIAMETERS. THE REMAINING CURTAIN SHALL HAVE A MINIMUM SPACING OF SIX (6) BAR DIAMETERS.

6. NOZZLE OPERATORS WILL BE REQUIRED TO CONTINUALLY DEMONSTRATE ADEQUATE ENCASEMENT OF BARS.

7. SET OF PRECONSTRUCTION TEST PANELS ARE REQUIRED CONSISTING OF TWO (2) SEPARATE TEST PANELS FOR SEPARATE EVALUATIONS - A TEST PANEL FOR THE MIXTURE PROPORTION EVALUATION AND A TEST PANEL FOR THE NOZZLE OPERATOR QUALIFICATION. THE MIXTURE PROPORTION TEST PANEL SHALL BE 24"x24"x3-1/2" WITH FLARED SIDES AND NO REINFORCEMENT. THE NOZZLE OPERATOR QUALIFICATION TEST PANEL SHALL BE PRODUCED FOR EACH NOZZLE OPERATOR BEING EVALUATED AND SHALL BE LARGE ENOUGH TO REPRODUCE THE THICKEST AND MOST CONGESTED AREA SPECIFIED IN THE DESIGN WITH A MINIMUM SIZE OF 30"x30"x3". TEST PANELS SHALL BE REPRESENTATIVE OF THE PROJECT AND SHALL SIMULATE JOB CONDITIONS AS CLOSELY AS POSSIBLE, INCLUDING PANEL THICKNESS, REINFORCING ORIENTATION AND SPACING, AND NOZZLE ANGLE. THE SAME NOZZLEMEN AND EQUIPMENT USED TO PERFORM THE ACTUAL WORK SHALL BE USED TO PRODUCE THE TEST PANELS.

8. CONTRACTOR SHALL SUBMIT PROPOSED PRECONSTRUCTION TEST PANEL PROGRAM TO STRUCTURAL ENGINEER FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTING PANELS.

9. STRUCTURAL DRAWINGS REPRESENT CONDITIONS CONSISTENT WITH CAST-IN-PLACE CONSTRUCTION METHODS. SHOULD CONTRACTOR UTILIZE THE SHOTCRETE METHOD FOR CONSTRUCTION OF CONCRETE ELEMENTS, ADDED COSTS SPECIFIC TO THE SHOTCRETE METHOD WILL BE PAID FOR BY OWNER, HOWEVER, COSTS FOR SUCH WILL BE BACK-CHARGED TO CONTRACTOR. THESE ADDED REQUIREMENTS/COSTS INCLUDE BUT ARE NOT LIMITED TO:
   * MINIMUM 28-DAY COMPRESSIVE STRENGTH OF SHOTCRETE OF 4,000 PSI
   * CORE EXTRACTION AND TESTING
   * QUALIFICATION OF NOZZLEMEN BY TESTING LAB
   * DESIGN, SUBMITTAL AND REVIEW OF CONSTRUCTION TEST PANEL PROGRAM & DRAWINGS
   * IMPLEMENTATION OF SHOTCRETE-SPECIFIC REINFORCING REQUIREMENTS (STAGGERED REINFG. CURTAINS, MIN. BAR SEPARATION, NON-CONTACT LAPS)

CONCRETE MASONRY

1. ALL CONCRETE UNIT MASONRY WORK SHALL CONFORM TO CHAPTER 21 OF THE 2016 CALIFORNIA BUILDING CODE (CBC) AND 2013 EDITIONS OF TMS 402/ACI 530/ASCE 5 AND TMS 602/ACI 530.1/ASCE 6.

2. ALL BLOCK UNITS SHALL BE NORMAL OR MEDIUM WEIGHT UNITS, WITH MINIMUM COMPRESSIVE STRENGTH OF 1,900 PSI, CONFORMING TO ASTM C90. MORTAR SHALL BE TYPE "M" OR "S", CONFORMING TO ASTM C270. GROUT SHALL HAVE MINIMUM COMPRESSIVE STRENGTH OF 2,000 PSI AT 28 DAYS, CONFORMING TO ASTM C476.

3. DESIGN OF MASONRY IS BASED ON COMPRESSIVE STRENGTH OF MASONRY f'm OF 1,500 PSI AND FULL ALLOWABLE STRESSES PER CBC. SPECIAL INSPECTION IS REQUIRED. SEE INSPECTION NOTES FOR ADDITIONAL REQUIREMENTS.

4. f'm COMPLIANCE SHALL BE VERIFIED BY THE "UNIT STRENGTH METHOD" PER TMS 602/ACI 530.1/ASCE 6 ARTICLE 1.4B.2. TEST UNITS PRIOR TO CONSTRUCTION. UNITS AND GROUT SHALL BE TESTED DURING CONSTRUCTION FOR EVERY 5,000 SQ. FEET OF WALL AREA. VERIFY MORTAR TYPE.

5. REINFORCING SHALL BE AS SPECIFIED FOR CONCRETE.

6. LAP ALL BARS 48 BAR-DIAMETERS, BUT NOT LESS THAN 24" AT ALL SPLICES. PROVIDE BEND PLUS 24" EXTENSION ON HORIZONTAL BARS AT ALL WALL INTERSECTIONS.

7. SEE CONCRETE & FOUNDATION NOTES FOR BOLTS EMBEDDED IN MASONRY. ALL ANCHOR BOLTS THROUGH FACE SHELLS OF MASONRY UNITS SHALL BE GROUTED IN PLACE WITH AT LEAST 1" OF GROUT BETWEEN BOLT AND SHELL, ALL AROUND BOLT.

8. REINFORCING BARS AND TIES SHALL BE HELD AT LEAST 1/2" CLEAR FROM MASONRY UNIT FACE SHELLS, EXCEPT BARS MAY BEAR ON CROSS WEBS OF BOND BEAM UNITS. PARALLEL BARS SHALL BE HELD AT LEAST 1" CLEAR BETWEEN, EXCEPT AT CONTACT LAP SPLICES.

9. UNITS SHALL BE LAYED IN RUNNING BOND. USE OF OPEN-END UNITS THROUGHOUT IS ENCOURAGED. USE OF SPEED-BLOCK (NON-GROUTED OPEN-END UNITS) IS NOT ALLOWED. IF OPEN-END UNITS ARE NOT USED, ALL LINTEL HEAD JOINTS SHALL BE FILLED SOLID WITH MORTAR.

10. ALL STARTER (BOTTOM) COURSE UNITS SHALL BE INVERTED BOND-BEAM UNITS, TYPICAL THROUGHOUT. TOPS OF FOOTINGS RECEIVING MASONRY UNITS AND GROUT SHALL BE ROUGHENED TO FULL 1/8" AMPLITUDE (1/4" PEAK-TO-VALLEY), FOR FULL WIDTH OF UNITS.

11. GROUT ALL CELLS SOLID UNLESS NOTED OTHERWISE ON DRAWINGS. NO ITEMS OTHER THAN REBAR, STEEL CONDUIT AND ANCHOR BOLTS SHALL BE EMBEDDED IN CMU. ALL HOLES CREATED FOR EXTRACTION OF TESTING/SAMPLE CORES SHALL BE FILLED SOLID WITH APPROVED NON-SHRINK GROUT AND FINISHED TO MATCH TEXTURE OF ADJACENT FACE SHELL.

12. GROUTING SHALL BE DONE BY THE LOW-LIFT METHOD ONLY (UNITS LAID UP 4'-0" HIGH MAXIMUM AT A TIME, AND 4'-0" HIGH MAXIMUM LIFTS). ANY REQUESTS TO USE HIGH-LIFT GROUTING METHOD SHALL BE MADE AT LEAST TWO (2) WEEKS PRIOR TO LAYING UP OF UNITS, AND WILL BE CONSIDERED A CHANGE TO THE DRAWINGS. ADDITIONAL REQUIREMENTS FOR HIGH-LIFT METHOD WILL BE ISSUED AS A CHANGE ORDER.

13. IF LOADING OF CONCRETE MASONRY ELEMENTS PRIOR TO 28-DAY AGE IS ANTICIPATED, CONTRACTOR SHALL NOTIFY ENGINEER PRIOR TO SUBMITTAL OF GROUT AND/OR MORTAR MIX DESIGNS IN ORDER TO ALLOW SPECIFYING OF PROVISIONS FOR SUCH. PROVISIONS MAY INCLUDE COMPRESSION TEST CYLINDERS TO BE FIELD-CURED IN CONDITIONS MATCHING SUBJECT MASONRY ELEMENTS, PLUS USE OF CEMENT TYPES AND/OR ADMIXTURES IN MIX DESIGNS TO PROVIDE THE REQUIRED COMPRESSIVE STRENGTHS AT ANTICIPATED AGES LESS THAN 28 DAYS. LOADING OF MASONRY ELEMENTS BEFORE CURING FOR 28 DAYS WILL NOT BE APPROVED WITHOUT THESE PROVISIONS BEING SPECIFIED, AND MET BY CONTRACTOR.

STRUCTURAL STEEL

1. ALL STEEL AND MISC. IRON SHALL BE FABRICATED AND ERECTED IN CONFORMANCE WITH A.I.S.C. SPECIFICATIONS FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS.

2. STEEL MATERIAL SHALL BE AS FOLLOWS:
   W SHAPES: ASTM A992
   PLATES, CHANNELS & ANGLES: ASTM A36 UNLESS NOTED OTHERWISE
   RECTANGULAR TUBES (TS OR HSS): ASTM A500 GRADE B, Fy=46 KSI
   PIPES (STD., X-STRG. & XX-STRG.): ASTM A53 GRADE B, Fy=35 KSI
   ROUND TUBES (HSS): ASTM A500 GRADE B, Fy=42 KSI
   HEADED STUDS: ASTM A108 TYPE B, Fy=51 KSI
   MACHINE BOLTS (M.B.): ASTM A307 GRADE A, A563 FOR NUTS, F844 FOR WASHERS
   STAINLESS STEEL (S.S.) MACHINE BOLTS: ASTM F593, ALLOY TYPE 304 OR 316
   ANCHOR BOLTS/RODS (A.B.): ASTM F1554 GRADE 36, A307 GRADE C, OR A36
   THREADED RODS: ASTM A307 OR A36 (MAY BE THREADED FOR ENTIRE LENGTH)
   STAINLESS STEEL (S.S.) THREADED RODS: ASTM F593, ALLOY TYPE 304 OR 316
   STAINLESS STEEL (S.S.) NUTS: ASTM F594
   WELDING ELECTRODES: E70XX

3. UNLESS NOTED OTHERWISE, ANCHOR BOLTS, MACHINE BOLTS AND THREADED ANCHOR RODS THROUGH STEEL AND EMBEDDED IN CONCRETE SHALL CONFORM TO ASTM F1554, A307 OR A36. ANCHOR BOLTS/RODS SHALL HAVE A STANDARD BOLT HEAD OR TIGHTENED DOUBLE NUTS. THREADED RODS SHALL HAVE TIGHTENED DOUBLE NUTS AT END. J-BOLT ANCHOR BOLTS ARE ALLOWED ONLY AT SOLE PLATES OF NON-BEARING, NON-SHEAR WALLS. ANCHOR BOLT PROJECTION SHALL BE ADEQUATE FOR FULL ENGAGEMENT OF PLATES, WASHERS, NUTS, ETC. AND SHALL BE VERIFIED BY CONTRACTOR PRIOR TO PLACEMENT OF CONCRETE OR GROUT.

4. ALL WELDING ON STRUCTURAL STEEL SHALL CONFORM WITH AWS D1.1 CODE AND SHALL BE PRE-QUALIFIED WELDS CONFORMING TO AWS D1.1. UNLESS SPECIFICALLY INDICATED AS FIELD WELDING, ALL WELDS MAY BE PERFORMED IN SHOP OR FIELD.

5. HEADED STUDS SHALL BE WELDED WITH AUTOMATICALLY TIMED STUD WELDING EQUIPMENT. STUDS SHALL NOT BE FILLET- OR BUTT-WELDED UNLESS SPECIFICALLY SHOWN AS SUCH ON DETAILS.

6. ALL COMPLETE AND FULL PENETRATION GROOVE WELDS (DESIGNATED BY "C.P." OR "F.P.") SHALL USE BACK-UP PLATES UNLESS NOTED OTHERWISE. ALL PARTIAL-PENETRATION WELDS (DESIGNATED BY "P.P.") SHALL HAVE LARGEST EFFECTIVE THROAT ALLOWED BY AWS. GROOVE WELDS NOT NOTED WITH "C.P.", "F.P." OR "P.P" SHALL BE COMPLETE PENETRATION WELDS.

7. WELDING PROCEDURE SPECIFICATIONS SHALL BE SUBMITTED TO THE ARCHITECT AND THE TEST AND INSPECTION AGENCY'S WELDING INSPECTOR FOR REVIEW AND APPROVAL PRIOR TO START OF FABRICATION.

STRUCTURAL STEEL NOTES ARE CONTINUED ON COLUMN TO THE RIGHT....

STRUCTURAL STEEL (CONTINUED)

8. MINIMUM SPACING OF ALL BOLTS, 7/8"ø AND SMALLER IN STEEL SHALL BE 3" o.c. AND THE MINIMUM EDGE DISTANCE FROM CENTERLINE OF HOLE TO EDGE OF PLATE OR MEMBER SHALL BE 1-1/2", UNLESS NOTED OTHERWISE ON DRAWINGS. WHERE BOLTS ARE INSTALLED THROUGH FLANGES OF "W" OR SIMILAR SHAPES, THE BOLT GAGE SHALL BE AS RECOMMENDED BY AISC.

9. HOLES FOR BOLTS IN STEEL SHALL BE 1/16" MAXIMUM LARGER IN DIAMETER THAN BOLTS. HOLES FOR ANCHOR BOLTS SHALL NOT BE MORE THAN 5/16" LARGER FOR A.B.'S UP TO 1"ø, AND NOT MORE THAN 1/2" LARGER FOR A.B.'S OVER 1"ø. ALL HOLES SHALL BE DRILLED OR PUNCHED. BURNING OF HOLES IS NOT ALLOWED, WHETHER IN FIELD OR SHOP.

10. BEVELED WASHERS SHALL BE USED WHEN THE SURFACE AGAINST WHICH BOLT HEAD OR NUT BEARS IS SLOPED MORE THAN 1:20. BEVELED WASHERS SHALL BE SQUARE OR RECTANGULAR.

11. WASHERS THAT COVER ENTIRE SLOT SHALL BE USED OVER SMALL SLOTTED HOLES. PLATE WASHERS THAT COVER ENTIRE SLOT SHALL BE USED OVER LONG-SLOTTED HOLES.

12. ALL STRUCTURAL STEEL IN EXTERIOR SPACES OR EXPOSED TO VIEW IN INTERIOR SPACES SHALL BE PAINTED WITH TWO (2) COATS OF ALKYD RED OXIDE PRIMER, COMPLYING WITH SSPC-PAINT 25 OR U.S. FEDERAL SPEC TT-P-645, WITH MIN. DRY THICKNESS OF 2 MILS. SEE ARCHITECTURAL SPECS FOR FINISH PAINTING. STRUCTURAL STEEL IN ENCLOSED SPACES AND NOT EXPOSED TO WEATHER NEED NOT BE PAINTED OR PRIMED UNLESS NOTED OTHERWISE. STEEL TO BE EMBEDDED IN CONCRETE SHALL NOT BE PAINTED.

13. ALL NON-PAINTED STEEL FASTENERS EXPOSED TO WEATHER OR IN UNENCLOSED SPACES SHALL BE HOT-DIPPED GALVANIZED, UNLESS NOTED OTHERWISE. GALVANIZED BOLTS AND NUTS SHALL BE PROVIDED BY SAME MANUFACTURER.

14. ALL STRUCTURAL STEEL SPECIFIED ON DRAWINGS TO BE GALVANIZED SHALL BE HOT-DIPPED ZINC GALVANIZED WITH MIN. 1.8 OZ./SQ. FT. ON ALL SURFACES. GALVANIZING SHALL BE TOUCHED UP AT FIELD-WELDED CONNECTIONS, FIELD-DRILLED HOLES, OR FIELD-CUT EDGES WITH A HIGH-ZINC DUST-CONTENT PAINT.

POST-INSTALLED ANCHORS & DOWELS

A. GENERAL - APPLICABLE TO ALL ANCHORS AND DOWELS:

1. ANCHORS SHALL BE INSTALLED ONLY WHERE SPECIFIED ON DRAWINGS, PER MANUFACTURER'S INSTRUCTIONS, USING MANUFACTURER'S EQUIPMENT, WHERE APPLICABLE. INSTALLER SHALL HAVE ON SITE A COPY OF MANUFACTURER'S INSTALLATION INSTRUCTIONS AND ICC-ES OR IAPMO-UES REPORT.

2. ANCHORS SHALL BE INSTALLED ONLY INTO CURED CONCRETE OR MASONRY GROUT THAT HAS ATTAINED THE MIN. DESIGN COMPRESSIVE STRENGTH AT MIN. 28 DAY AGE. IF INSTALLATION OF ANCHORS INTO CONCRETE OR MASONRY ELEMENTS PRIOR TO 28-DAY AGE IS ANTICIPATED, CONTRACTOR SHALL NOTIFY ENGINEER PRIOR TO INSTALLATION IN ORDER TO ALLOW SPECIFYING OF PROVISIONS FOR SUCH. PROVISIONS MAY INCLUDE COMPRESSION TEST CYLINDERS BE FIELD-CURED IN CONDITIONS MATCHING SUBJECT CONCRETE OR MASONRY ELEMENTS, PLUS USE OF CEMENT TYPES AND/OR ADMIXTURES IN MIX DESIGNS TO PROVIDE THE REQUIRED COMPRESSIVE STRENGTHS AT ANTICIPATED AGES LESS THAN 28 DAYS. INSTALLATION OF ANCHORS INTO CONCRETE OR MASONRY GROUT BEFORE CURING FOR 28 DAYS WILL NOT BE APPROVED WITHOUT THESE PROVISIONS BEING SPECIFIED, AND MET BY CONTRACTOR.

3. WHERE POST-INSTALLED ANCHORS ARE USED TO MITIGATE OMITTED OR MISPLACED CAST-IN-PLACE ANCHORS, ADDED SPECIAL INSPECTION AND TESTING COSTS ASSOCIATED WITH THE POST-INSTALLED ANCHORS WILL BE PAID FOR BY THE OWNER, HOWEVER, SUCH COSTS WILL BE BACK-CHARGED TO THE CONTRACTOR.

4. PRIOR TO DRILLING HOLES FOR ANY POST-INSTALLED ANCHORS INTO NEW OR EXISTING CONCRETE OR MASONRY, ALL REINFORCING BARS IN AREA OF NEW ANCHORAGE HOLES SHALL BE LOCATED WITH PACHOMETER OR OTHER SUITABLE DEVICE AND CLEARLY MARKED IN THE FIELD. NEW ANCHORS SHALL BE INSTALLED NOT LESS THAN 1" CLEAR FROM REINFORCING. WHERE REINFORCING BARS CANNOT BE LOCATED, CARE SHALL BE TAKEN WHILE DRILLING HOLES SO THAT REINFORCING BARS ARE NOT CUT OR DAMAGED AND HOLES SHALL BE REPAIRED & RELOCATED AS REQUIRED. USE OF DRILLS WITH GROUND FAULT INTERRUPTERS (GFI) IS RECOMMENDED.

5. PROVIDE TESTING AND INSPECTIONS OF ANCHOR INSTALLATIONS PER TESTING AND SPECIAL INSPECTION NOTES, THIS SHEET.

6. ANCHORS OTHER THAN THOSE SPECIFIED BELOW MAY BE USED ONLY WHEN <u>CURRENT</u> ICC-ES OR IAPMO-UES REPORT FOR SUCH IS SUBMITTED FOR REVIEW AND APPROVAL IN WRITING. ANCHORS SHALL NOT BE INSTALLED UNTIL ANCHORS ARE APPROVED BY STRUCTURAL ENGINEER, AND TEST LOADS ARE DETERMINED AND ISSUED.

7. ANCHORS IN CONTACT WITH PRESERVATIVE-TREATED AND FIRE-RETARDANT-TREATED WOOD SHALL BE OF HOT-DIPPED ZINC-COATED GALVANIZED STEEL OR STAINLESS STEEL. ANCHORS EXPOSED TO WEATHER OR REQUIRED TO BE CORROSION RESISTANT SHALL BE OF HOT-DIPPED ZINC-COATED GALVANIZED STEEL OR STAINLESS STEEL.

B. EXPANSION ANCHORS:

1. EXPANSION ANCHORS SHALL BE WEDGE TYPE ANCHORS ONLY AND SHALL HAVE ICC-ES OR IAPMO-UES APPROVAL, INCLUDING APPROVAL FOR RESISTANCE TO SEISMIC AND WIND LOADS, PASSING ICC-ES CRITERIA AC193 (CONCRETE) & AC01 (MASONRY). USE ONE OF THE FOLLOWING ICC-ES OR IAPMO-UES APPROVED SYSTEMS:
   CONCRETE:
   a) HILTI KWIK BOLT TZ (ESR-1917), **(TYP. ANCHOR SPECIFIED U.N.O.)**
   b) SIMPSON STRONG-BOLT 2 ANCHORS (ESR-3037),
   c) DEWALT/POWERS POWER-STUD+ SD2, SD4 & SD6 ANCHORS (ESR-2502).
   MASONRY:
   a) HILTI KWIK BOLT 3 (ESR-1385), **(TYP. ANCHOR SPECIFIED U.N.O.)**
   b) SIMPSON WEDGE-ALL ANCHORS (ESR-1396),
   c) DEWALT/POWERS POWER-STUD+ SD1 (ESR-2966)
   d) ITW RED HEAD TRUBOLT+ WEDGE ANCHORS (ESR-4058).
   NOTE: OTHER EXPANSION ANCHORS MAY BE USED ONLY WHEN ICC-ES OR IAPMO-UES REPORT FOR SUCH IS SUBMITTED TO AND APPROVED BY ENGINEER AND TEST LOADS ARE DETERMINED AND ISSUED.

2. EXPANSION ANCHORS SHALL HAVE EMBEDMENT NOT LESS THAN EIGHT (8) ANCHOR DIAMETERS, OR AS OTHERWISE SPECIFIED IN DETAILS. TORQUE ANCHORS DURING INSTALLATION TO THE RECOMMENDED INSTALLATION TORQUE VALUES SPECIFIED IN MANUFACTURER'S ICC-ES OR IAPMO-UES REPORT.

C. SCREW ANCHORS:

1. SCREW ANCHORS SHALL HAVE ICC-ES OR IAPMO-UES APPROVAL, INCLUDING APPROVAL FOR RESISTANCE TO SEISMIC AND WIND LOADS, PASSING ICC-ES CRITERIA AC193 (CONCRETE) & AC106 (MASONRY). USE ONE OF THE FOLLOWING ICC-ES OR IAPMO-UES APPROVED SYSTEMS:
   CONCRETE:
   a) SIMPSON TITEN HD (ESR-2713),
   b) DEWALT/POWERS SCREW-BOLT+ (ESR-3889),
   c) HILTI KWIK HUS-EZ (ESR-3027). **(TYP. ANCHOR SPECIFIED U.N.O.)**
   MASONRY:
   a) SIMPSON TITEN HD (ESR-1056),
   b) HILTI KWIK HUS-EZ (ESR-3056), **(TYP. ANCHOR SPECIFIED U.N.O.)**
   c) DEWALT/POWERS SCREW-BOLT+ (ESR-4042).
   NOTE: OTHER SCREW ANCHORS MAY BE USED ONLY WHEN ICC-ES OR IAPMO-UES REPORT FOR SUCH IS SUBMITTED TO AND APPROVED BY ENGINEER AND TEST LOADS ARE DETERMINED AND ISSUED.

2. SCREW ANCHORS SHALL HAVE EMBEDMENT NOT LESS THAN EIGHT (8) ANCHOR DIAMETERS, OR AS OTHERWISE SPECIFIED IN DETAILS. TORQUE ANCHORS DURING INSTALLATION TO THE RECOMMENDED INSTALLATION TORQUE VALUES SPECIFIED IN MANUFACTURER'S ICC-ES OR IAPMO-UES REPORT.

D. CHEMICAL ADHESIVE ANCHORS AND DOWELS:

1. ALL THREADED RODS AND REBAR DOWELS INSTALLED IN HARDENED CONCRETE OR MASONRY GROUT WITH "ADHESIVE" SHALL BE A TWO-PART NOZZLE-MIXED ICC-ES OR IAPMO-UES APPROVED CHEMICAL ADHESIVE SYSTEM, PASSING ICC-ES CRITERIA AC308 (CONCRETE) & AC58 (MASONRY). USE ONE OF THE FOLLOWING ICC-ES OR IAPMO-UES APPROVED SYSTEMS:
   CONCRETE:
   a) HILTI "HIT-RE 500-V3" ADHESIVE ANCHOR SYSTEM (ESR-3814), **(SPECIFIED U.N.O.)**
   b) SIMPSON "SET-XP" ADHESIVE ANCHOR SYSTEM (ESR-2508),
   c) DEWALT/POWERS "PURE110+" ADHESIVE ANCHOR SYSTEM (ESR-3298),
   d) ITW RED HEAD "G5+" ADHESIVE ANCHOR SYSTEM (ESR-4138).
   MASONRY:
   a) HILTI "HIT" SYSTEM WITH HY-200 ADHESIVE (ESR-3963), **(SPECIFIED U.N.O.)**
   b) SIMPSON "SET-XP" ADHESIVE ANCHOR SYSTEM (IAPMO ER-0265),
   c) DEWALT/POWERS "AC100+ GOLD" ADHESIVE ANCHOR SYSTEM (ESR-3200).
   NOTE: OTHER CHEMICAL ADHESIVE ANCHOR SYSTEMS MAY BE USED ONLY WHEN ICC-ES OR IAPMO-UES REPORT FOR SUCH IS SUBMITTED TO AND APPROVED BY ENGINEER AND TEST LOADS ARE DETERMINED AND ISSUED.

2. ANCHORS SHALL BE INSTALLED ONLY INTO CURED CONCRETE OR MASONRY GROUT OF MIN. 21 DAY AGE. IF INSTALLATION OF ANCHORS INTO CONCRETE OR MASONRY ELEMENTS PRIOR TO 21-DAY AGE IS ANTICIPATED, CONTRACTOR SHALL NOTIFY ENGINEER PRIOR TO INSTALLATION FOR DIRECTION.

3. INSTALLATION OF CHEMICAL ADHESIVE ANCHORS IN OVERHEAD APPLICATIONS AND HORIZONTAL OR OVERHEAD APPLICATIONS WITH SUSTAINED (CONTINUOUS) TENSION LOADS SHALL BE INSTALLED BY AN ACI/CSRI CERTIFIED ADHESIVE ANCHOR INSTALLER.

4. BARS/RODS SHALL HAVE EMBEDMENT IN ADHESIVE NOT LESS THAN TEN (10) NOMINAL BAR/ROD DIAMETERS IN CONCRETE AND NINE (9) NOMINAL BAR/ROD DIAMETERS IN MASONRY, OR AS OTHERWISE SPECIFIED IN DETAILS.

5. INSTALLATION TORQUE FOR ALL ANCHORS SHALL BE REDUCED ACCORDING TO MANUFACTURER'S RECOMMENDATION DUE TO THE VICINITY OF ANCHOR TO EDGE OF CONCRETE.

6. THE BOND STRESSES AS SPECIFIED IN ICC-ES OR IAPMO-UES REPORT SHALL BE BASED ON LONG TERM ELEVATED TEMPERATURES OF NOT LESS THAN 110 DEGREES F.

TESTING AND SPECIAL INSPECTIONS

1. GENERAL
   A) ALL TESTS AND SPECIAL INSPECTIONS SHALL CONFORM TO APPLICABLE REQUIREMENTS OF 2016 CALIFORNIA BUILDING CODE (CBC) SECTION 1701.
   B) TEST AND INSPECTION LAB SHALL BE EMPLOYED AND PAID FOR BY THE OWNER. COSTS OF RE-TESTING MAY BE BACK-CHARGED TO THE CONTRACTOR.
   C) COPIES OF ALL TEST/INSPECTION REPORTS SHALL BE SUBMITTED TO ARCHITECT AND STRUCTURAL ENGINEER.

2. FOUNDATIONS (DRILLED PIERS, FOOTINGS, GRADE BEAMS), WALLS AND SLABS-ON-GRADE:
   A) NOTIFY ENGINEER 48 HOURS BEFORE CONCRETE OR SHOTCRETE IS TO BE PLACED OR FORMS CLOSED TO ALLOW FOR INSPECTION OF EXCAVATIONS AND REINFORCING PLACEMENT.
   B) SPECIAL INSPECTION IS REQUIRED PER CBC SECTION 1705.3.
   C) THE TESTING LAB SHALL PERFORM THE FOLLOWING:
      * REVIEW ALL CONCRETE OR SHOTCRETE MIX DESIGNS. ALL DESIGNS SHALL BE SUBMITTED TO AND APPROVED BY TESTING AGENCY PRIOR TO ORDERING CONCRETE OR SHOTCRETE.
      * FOR EACH CONCRETE OR SHOTCRETE MIX PLACED, AGENCY SHALL CAST (4) TEST CYLINDERS IN ACCORDANCE WITH ASTM C31 FOR EACH 50 CUBIC YARDS OR 2000 SQUARE FEET, OR FRACTION THEREOF, OF CONCRETE OR SHOTCRETE PLACED EACH DAY, AND TRANSPORT CYLINDERS TO LAB. TEST CYLINDERS IN ACCORDANCE WITH ASTM C39. TEST (1) CYLINDER AT 7 DAYS AND (2) CYLINDERS AT 28 DAYS. HOLD LAST TEST CYLINDER FOR 60 DAYS.
      * INSPECT FINAL PLACEMENT OF ALL REINFORCING AS INDICATED ON DETAILS PRIOR TO CONCRETE PLACEMENT.
      * PROVIDE CONTINUOUS INSPECTION OF CONCRETE PLACEMENT.
   D) SEE ITEM 10 BELOW FOR INSPECTIONS BY GEOTECHNICAL ENGINEER.

3. ADDITIONAL SHOTCRETE INSPECTIONS AND TESTING:
   A) SHOTCRETE CORE TEST PER CBC SECTION 1908.10. AFTER SHOTCRETE HAS CURED NOT LESS THAN TWO CORES SHALL BE TAKEN, INSPECTED FOR WORKMANSHIP, GRADED IN ACCORDANCE WITH ACI 506 AND TESTED.

4. CONCRETE UNIT MASONRY. TESTING LAB SHALL:
   A) SPECIAL INSPECTION IS REQUIRED PER CBC SECTION 1705.4.
   B) VERIFY f'm COMPLIANCE PER UNIT STRENGTH METHOD PER CBC SECTION 2105.
   C) VERIFY REINFORCING PLACEMENT.
   D) INSPECT GROUT SPACES
   E) INSPECT PLACEMENT OF GROUT.

5. CONCRETE MASONRY VENEER. TESTING LAB SHALL:
   A) VERIFY PLACEMENT OF VENEER ANCHORS ON A PERIODIC BASIS.

6. POST-INSTALLED ANCHORS IN CONCRETE AND CONCRETE MASONRY:
   A) <u>GENERAL - APPLICABLE TO ALL ANCHORS AND DOWELS:</u>
      1) ALL EXPANSION ANCHOR, SCREW ANCHOR AND ADHESIVE ANCHOR SYSTEMS USED SHALL HAVE ICC-ES OR IAPMO-UES APPROVAL.
      2) PERIODIC SPECIAL INSPECTION IS REQUIRED FOR ALL ANCHORS.
   B) <u>EXPANSION ANCHORS IN CONCRETE & MASONRY:</u>
      1) PULL-TEST OR TORQUE-TEST 100% OF ANCHORS EXCEPT AS NOTED; PULL-TEST OR TORQUE-TEST 10% OF SOLE PLATE ANCHOR BOLTS AND 50% OR ALTERNATE ANCHORS FOR EQUIPMENT ANCHORAGE AND IN NON-STRUCTURAL APPLICATIONS.
      2) PULL-TEST LOAD VALUES SPECIFIED BELOW ARE BASED ON (1-1/4) TIMES THE MAXIMUM DESIGN TENSION STRENGTHS AS PROVIDED IN THE ICC-ES REPORT FOR <u>HILTI KWIK-BOLT TZ (ESR-1917)</u> IN CONCRETE AND (2) TIMES THE MAXIMUM ALLOWABLE TENSION LOADS AS PROVIDED IN THE ICC-ES REPORT FOR <u>HILTI KWIK-BOLT 3 (ESR-1385)</u> IN MASONRY.
      3) PULL-TEST ANCHORS IN TENSION WITH CALIBRATED HYDRAULIC RAM TO VALUES SPECIFIED BELOW.

ANCHOR DIAMETER	NOMINAL EMBEDMENT (CONC./MASONRY)	CONC. TEST LOAD (LBS.)	MASONRY TEST LOAD (LBS.)	INSTALLATION TORQUE (FT.-LBS.)
3/8"	2-5/16" / 2-1/2"	1905	1250	25
1/2"	2-3/8" / 2-1/4"	1955	1005	40
1/2"	3-5/8" / 3-1/2"*(3"**)	4050	1450*(1035**)	40
5/8"	4-7/16" / 4"*(3-1/2"**)	5525	1990*(1365**)	60
3/4"	5-5/16" / 4-3/8"	7150	2630	110

* - AT ANCHOR INSTALLED IN THE FACE OF GROUT-FILLED MASONRY
** - AT ANCHOR INSTALLED IN THE TOP OF GROUT-FILLED MASONRY

      4) ALTERNATIVELY, TORQUE-TEST ANCHORS WITH CALIBRATED TORQUE WRENCH TO VALUES SPECIFIED IN MANUFACTURER'S ICC-ES OR IAPMO-UES REPORT FOR RECOMMENDED INSTALLATION TORQUE WITHIN 1/4 TURN OF THE NUT FOR 3/8"ø SLEEVE ANCHOR ONLY AND WITHIN 1/2 TURN OF THE NUT FOR ALL OTHER ANCHORS.
   C) <u>SCREW ANCHORS IN CONCRETE & MASONRY:</u>
      1) PULL-TEST 100% OF ANCHORS EXCEPT AS NOTED; PULL-TEST 10% OF SOLE PLATE ANCHOR BOLTS AND 50% OR ALTERNATE ANCHORS FOR EQUIPMENT ANCHORAGE AND IN NON-STRUCTURAL APPLICATIONS.
      2) PULL-TEST LOAD VALUES SPECIFIED BELOW ARE BASED ON (1-1/4) TIMES THE MAXIMUM DESIGN TENSION STRENGTHS AS PROVIDED IN THE ICC-ES REPORT FOR <u>HILTI KWIK HUS-EZ (ESR-3027)</u> IN CONCRETE AND (2) TIMES THE MAXIMUM ALLOWABLE TENSION LOADS AS PROVIDED IN THE ICC-ES REPORT FOR <u>HILTI KWIK HUS-EZ (ESR-3056)</u> IN MASONRY.
      3) PULL-TEST ANCHORS IN TENSION WITH CALIBRATED HYDRAULIC RAM TO VALUES SPECIFIED BELOW.

ANCHOR DIAMETER	NOMINAL EMBEDMENT	CONCRETE TEST LOAD (LBS.)	MASONRY TEST LOAD (LBS.)	INSTALLATION TORQUE (FT.-LBS.)
1/4"	2-1/2"	950	1460	18
3/8"	1-5/8"	595	860	19
3/8"	3-1/4"	2730	1940	40
1/2"	4-1/4"	3990	2425*(1080**)	40
5/8"	5"	5280	2780*(2090**)	85
3/4"	6-1/4"	7355	3260	115

* - AT ANCHOR INSTALLED IN THE FACE OF GROUT-FILLED MASONRY
** - AT ANCHOR INSTALLED IN THE TOP OF GROUT-FILLED MASONRY

      4) ALTERNATIVELY, TORQUE-TEST ANCHORS WITH CALIBRATED TORQUE WRENCH TO VALUES SPECIFIED IN MANUFACTURER'S ICC-ES OR IAPMO-UES REPORT FOR RECOMMENDED INSTALLATION TORQUE WITHIN 1/4 TURN OF THE SCREW AFTER INITIAL SEATING OF THE SCREW HEAD.
   D) <u>RODS & DOWELS WITH CHEMICAL ADHESIVE IN CONCRETE & MASONRY:</u>
      1) PULL-TESTING OF RODS INSTALLED IN CHEMICAL ADHESIVE IS REQUIRED FOR ALL ANCHORS. TESTING OF REBAR USED ONLY AS SHEAR DOWELS ACROSS COLD JOINTS IN SLABS-ON-GRADE, WHERE SLAB IS NOT PART OF THE LATERAL FORCE-RESISTING SYSTEM, IS NOT REQUIRED.
      2) PULL-TEST LOAD VALUES SPECIFIED BELOW ARE BASED ON (1-1/4) TIMES THE MAXIMUM DESIGN TENSION STRENGTHS AS PROVIDED IN THE ICC-ES REPORT FOR <u>HILTI HIT-RE 500-V3 (ESR-3814)</u> IN CONCRETE AND (2) TIMES THE MAXIMUM ALLOWABLE TENSION LOADS AS PROVIDED IN THE ICC-ES REPORT FOR <u>HILTI HIT HY-200 (ESR-3963)</u> IN MASONRY.
      3) PULL-TEST ANCHORS IN TENSION WITH CALIBRATED HYDRAULIC RAM TO VALUES SPECIFIED BELOW, BASED ON MIN. EMBEDMENT OF 10ø IN CONCRETE & 9ø IN MASONRY, U.N.O.

ANCHOR/BAR DIAMETER	MIN. EMBEDMENT (CONC./MASONRY)	CONC. TEST LOAD (LBS.)	MASONRY TEST LOAD (LBS.)	INSTALLATION TORQUE (FT.-LBS.)
3/8", #3	3-3/4" / 3-3/8"*	2910	1510*	15
1/2", #4	5" / 4-1/2"*(4"**)	5165	2290*(1760**)	30
5/8", #5	6-1/4" / 5-5/8"*(4"**)	8245	2220*(1960**)	60
3/4", #6	7-1/2" / 6-3/4"*	10150	2720	100
7/8", #7	8-3/4" / ---	12790	---	125
1", #8	10" / ---	15630	---	150
1-1/4", #9	12-1/2" / ---	21840	---	200

* - AT ANCHOR INSTALLED IN THE FACE OF GROUT-FILLED MASONRY
** - AT ANCHOR INSTALLED IN THE TOP OF GROUT-FILLED MASONRY

7. STRUCTURAL STEEL IDENTIFICATION:
   A) TESTING LAB SHALL ENSURE THAT MATERIAL GRADES OF STEEL PROVIDED COMPLY WITH THOSE SPECIFIED ON STRUCTURAL DRAWINGS AND IN PROJECT SPECIFICATIONS.
   B) MATCH MILL CERTIFICATES WITH HEAT NUMBERS ON ALL MEMBERS/BUNDLES. SEOR SHALL BE NOTIFIED OF ANY MATERIAL THAT IS NOT SO IDENTIFIED.

8. WELDING OF STRUCTURAL STEEL. TESTING LAB SHALL:
   A) VERIFY CERTIFICATION OF WELDERS AT START OF WORK.
   B) REVIEW WELDING PROCEDURE SPECIFICATIONS SUBMITTED BY FABRICATOR.
   C) PROVIDE CONTINUOUS INSPECTION OF ALL COMPLETE AND PARTIAL PENETRATION GROOVE WELDS, AND ALL FILLET WELDS 3/8" AND LARGER.
   D) PROVIDE PERIODIC INSPECTION OF ALL FILLET WELDS 5/16" AND SMALLER.
   E) TEST WELDS AS DEEMED NECESSARY BY THE INSPECTION AGENCY TO ENSURE ADEQUACY OF WELDS AND CONFORMANCE TO THE DRAWINGS AND SPECIFICATIONS.

9. ADDITIONAL INSPECTIONS BY STRUCTURAL ENGINEER:
   ARCHITECT AND ENGINEER SHALL BE NOTIFIED AT LEAST 48 HOURS PRIOR TO THE FOLLOWING TO ALLOW FOR INSPECTION OF THE RESPECTIVE WORK PRIOR TO ENCLOSING IN FINISHES:
   A) AT SUBSTANTIAL COMPLETION OF ANY AREA OF FOUNDATION WORK AND RETAINING WALLS PRIOR TO CLOSING OF FORMS OR PLACEMENT OF CONCRETE.
   B) AT SUBSTANTIAL COMPLETION OF ANY AREA OF STRUCTURAL STEEL FRAMING.
   C) AT SUBSTANTIAL COMPLETION OF ANY AREA OF WOOD FRAMING.
   D) SHOTCRETE TEST PANEL: PRIOR TO CONSTRUCTION OF PANEL, SUBMIT TO SEOR PROPOSED CONDITION TO BE CONSTRUCTED. NOTIFY SEOR WHEN REBAR IS PLACED, PRIOR TO SHOOTING PANEL.
   E) AT SUBSTANTIAL COMPLETION OF REINFORCEMENT OF ANY AREA OF CONCRETE WORK ABOVE GRADE, PRIOR TO CLOSING OF FORMS OR PLACEMENT OF CONCRETE.
   F) AT SUBSTANTIAL COMPLETION OF REINFORCEMENT OF ANY AREA OF MASONRY WORK ABOVE GRADE, PLACEMENT OF GROUT.

TESTING AND SPECIAL INSPECTIONS NOTES ARE CONTINUED ON COLUMN TO THE RIGHT....

TESTING AND SPECIAL INSPECTIONS (CONTINUED)

10. INSPECTIONS BY GEOTECHNICAL ENGINEER:
    A) PROVIDE PERIODIC INSPECTION OF SITE PREPARATION & GRADING - STRIPPING OR DISCING OPERATIONS. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL. PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.
    B) PROVIDE CONTINUOUS INSPECTION OF ENGINEERED FILL OPERATIONS. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.
    C) PROVIDE CONTINUOUS INSPECTION OF EXCAVATIONS FOR DRILLED PIER FOOTINGS. VERIFY PLACEMENT LOCATIONS, PLUMBNESS, DIAMETERS AND LENGTHS. RECORD CONCRETE VOLUMES.

SHOP DRAWING SUBMITTALS

1. PROVIDE SHOP DRAWINGS FOR THE FOLLOWING MATERIALS/PRODUCTS:
   A) CONCRETE AND SHOTCRETE MIX DESIGNS (SUBMIT TO TESTING/INSPECTION AGENCY)
   B) CONCRETE AND SHOTCRETE REINFORCING
   C) CONCRETE AND SHOTCRETE SLAB AND WALL CONTROL/CONSTRUCTION JOINT LAYOUT
   D) SHOTCRETE PRECONSTRUCTION TEST PANELS
   E) CONCRETE MASONRY UNITS
   F) CONCRETE MASONRY GROUT MIX DESIGN (SUBMIT TO TESTING/INSPECTION AGENCY)
   G) STRUCTURAL STEEL AND MISC. METALS

2. SEE SPECIFICATIONS FOR OTHER SUBMITTALS AND SUBMITTAL PROCEDURE.

akh
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1505 MERIDIAN AVE, SUITE B SAN JOSE, CALIFORNIA 95125 WWW.AKHSE.COM
PHONE 408.978.1970 FAX 408.267.7919 AKH JOB M18-042

REGISTERED PROFESSIONAL ENGINEER No. S3260 EXP. 3/31/21 STRUCTURAL STATE OF CALIFORNIA

NO.	DESCRIPTION	DATE	BY

Revisions

WORK ACCEPTED: | INSPECTOR:
BY: | DATE:

DRAWN: SRW | DESIGN: SRW | HOR: N/A
CHECKED: TDH | VERT: N/A
APPROVED: [signature] | DATE: 2/10/20 | JOB NUMBER:
SCOTT CREER - CITY ENGINEER RCE#58879 EXP. 9/30/21

City of Morgan Hill
Public Works Department
CITY OF MORGAN HILL
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STRUCTURAL GENERAL NOTES

MORGAN HILL INCLUSIVE PLAYGROUND / MAGICAL BRIDGE PROJECT

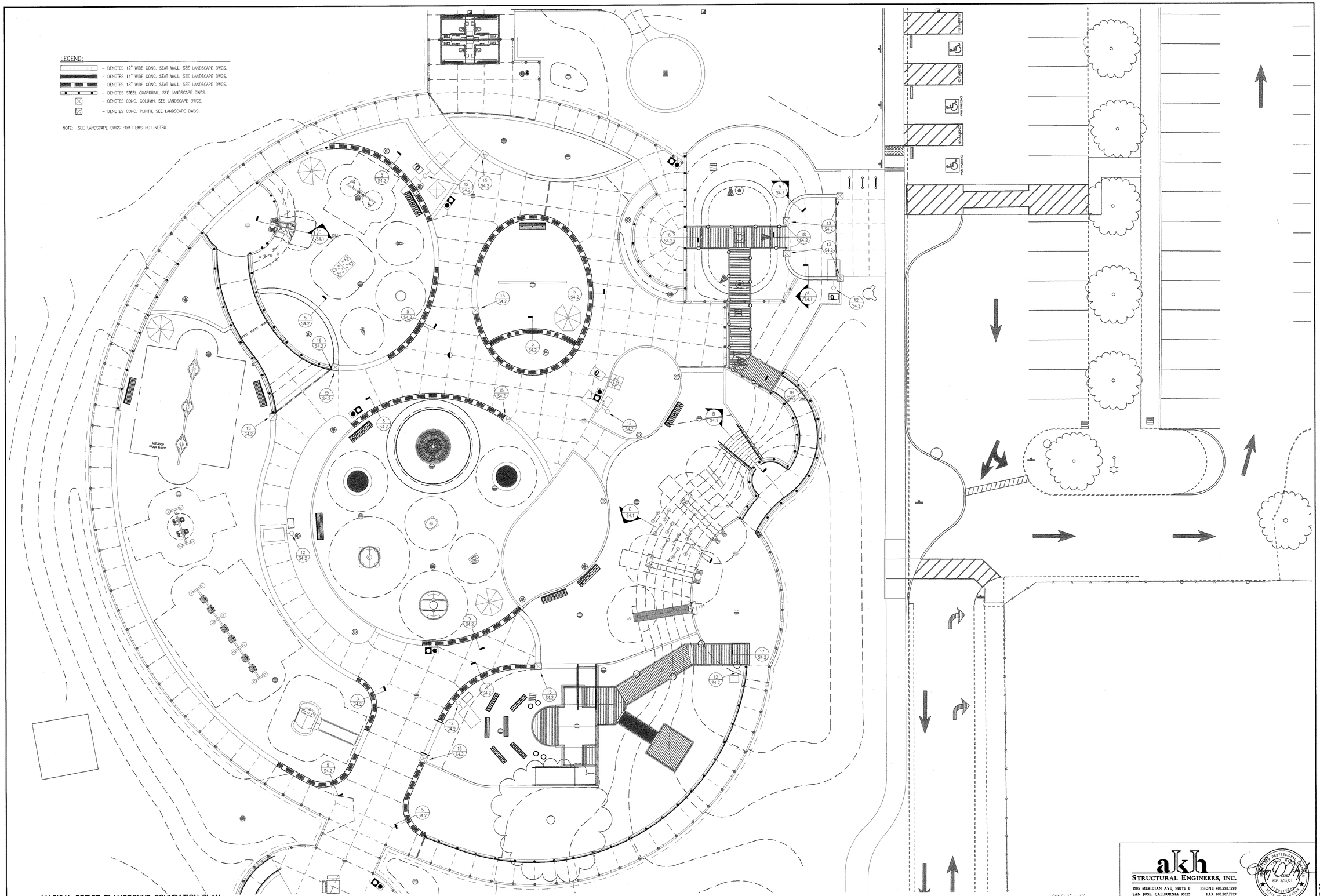
FILE NUMBER: 1818000
PRINT DATE: 02/07/20
SHEET NUMBER: S1.1

BID SUBMITTAL - 02-07-20

LEGEND:

- DENOTES 12" WIDE CONC. SEAT WALL, SEE LANDSCAPE DWGS.
- DENOTES 14" WIDE CONC. SEAT WALL, SEE LANDSCAPE DWGS.
- DENOTES 18" WIDE CONC. SEAT WALL, SEE LANDSCAPE DWGS.
- DENOTES STEEL GUARDRAIL, SEE LANDSCAPE DWGS.
- DENOTES CONC. COLUMN, SEE LANDSCAPE DWGS.
- DENOTES CONC. PLINTH, SEE LANDSCAPE DWGS.

NOTE: SEE LANDSCAPE DWGS FOR ITEMS NOT NOTED.



MAGICAL BRIDGE PLAYGROUND FOUNDATION PLAN

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AKH JOB M18-042

REGISTERED PROFESSIONAL ENGINEER
EXP. 3/31/21
STATE OF CALIFORNIA

NO.	DESCRIPTION	DATE	BY

Revisions

WORK ACCEPTED: INSPECTOR:
BY: DATE:

DRAWN: SRW
DESIGN: SRW
CHECKED: TDH
APPROVED: DATE: 2/10/20
SCOTT CREER - CITY ENGINEER
RCE 60879 EXP. 6/30/21

HOR: N/A
VERT: N/A
JOB NUMBER:

CITY OF MORGAN HILL
City of Morgan Hill
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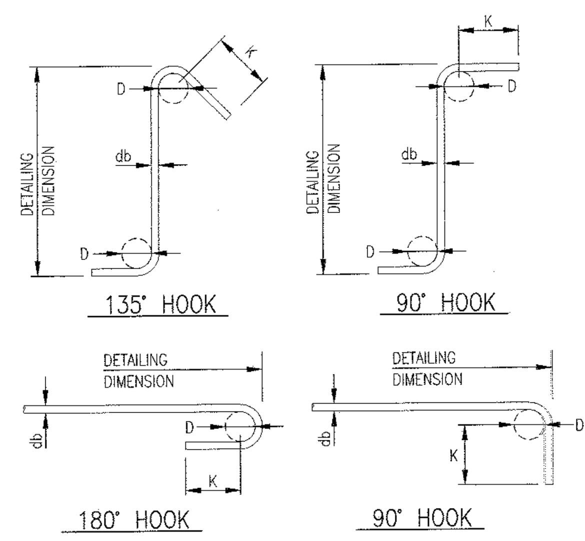
STRUCTURAL FOUNDATION PLAN
MORGAN HILL INCLUSIVE PLAYGROUND / MAGICAL BRIDGE PROJECT

FILE NUMBER: 1818000
PRINT DATE: 02/07/20
SHEET NUMBER: S2.1

BID SUBMITTAL - 02-07-20

1 TYP. REBAR BENDING DETAILS

NO SCALE

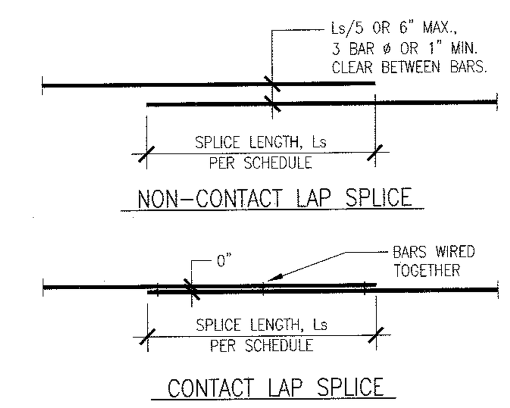


STANDARD HOOKS			
BAR SIZE	"D" IN	180° HOOKS "K"	90° HOOKS "K"
#3	2-1/4"	2-1/2"	4-1/2"
#4	3"	2-1/2"	6"
#5	3-3/4"	2-1/2"	7-1/2"
#6	4-1/2"	3"	9"
#7	5-1/4"	3-1/2"	10-1/2"
#8	6"	4"	12"

STIRRUP AND TIE HOOKS				
BAR SIZE	"D" IN	180° HOOKS "K"	135° HOOKS "K"	90° HOOKS "K"
#3	1-1/2"	2-1/2"	3"	3"
#4	2"	2-1/2"	3"	3"
#5	2-1/2"	2-1/2"	3-3/4"	3-3/4"
#6	4-1/2"	3"	4-1/2"	9"

3 TYP. REBAR LAP SPLICES

NO SCALE

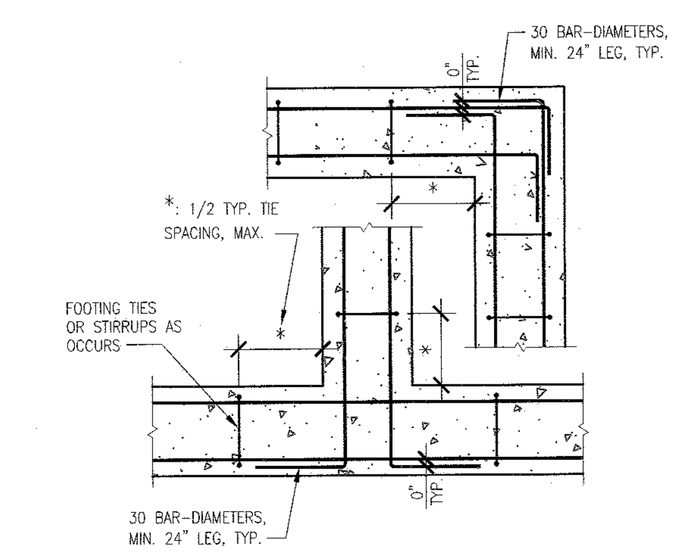


REBAR LAP SPLICE LENGTHS (Ls)			
BAR SIZE	HARD ROCK (REG. WT.) CONCRETE: CLASS B SPLICE TYP., U.N.O.	HARD ROCK (REG. WT.) CONCRETE: TOP BARS (SEE NOTE 1)	GROUTED MASONRY (CMU)
#3	16"	19"	27"
#4	19"	25"	36"
#5	36"	47"	45"
#6	43"	56"	54"
#7	63"	81"	63"
#8	72"	93"	72"
#9	81"	105"	–
#10	90"	116"	–
#11	98"	128"	–

NOTES:
1. TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12" OF FRESH CONCRETE CAST BELOW BARS, IN SAME POUR AS BARS (AS IN DEEP BEAM OR FOOTING POURS, ETC.).
2. STAGGER LAPS IN SUCCESIVE PARALLEL BARS IN SLABS AND WALLS A DISTANCE EQUAL TO THE REQUIRED LAP SPLICE LENGTH, BUT NOT LESS THAN 24" (ALONG LENGTH OF BARS).
3. ALL LAP SPLICES SHALL BE CONTACT OR NON-CONTACT TYPE, AS SHOWN.
4. INCREASE SCHEDULED LAP LENGTHS BY 30% WHEN IN LIGHT WEIGHT CONCRETE.

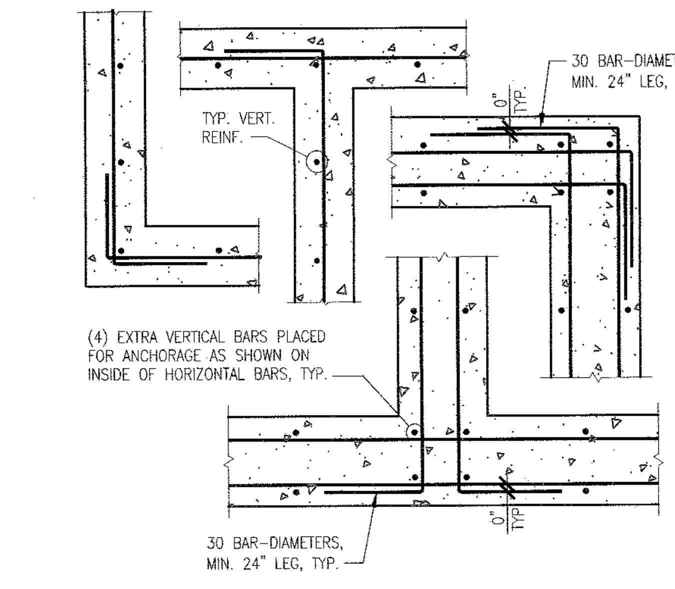
5 TYP. REINFORCING AT FOOTING INTERSECTIONS

N.T.S.



6 TYP. REINFORCING AT WALL INTERSECTIONS

N.T.S.

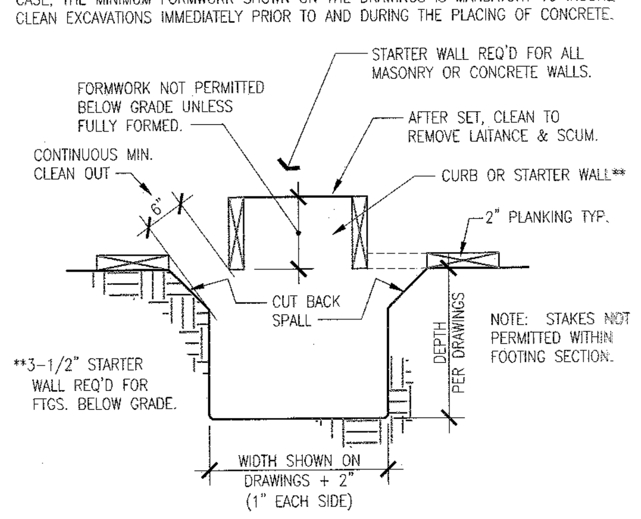


7 TYP. FOOTING TRENCHING

N.T.S.

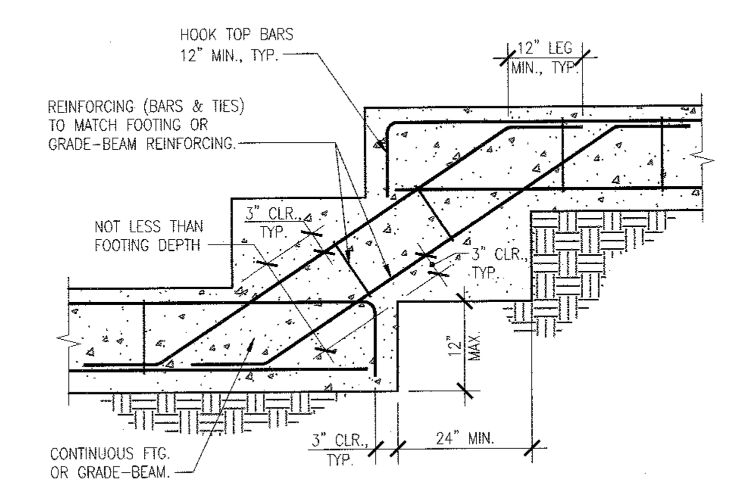
FOUNDATIONS – MANDATORY MINIMUM FORMWORK (UNLESS FULLY FORMED)

FOUNDATION CONCRETE MAY BE PLACED DIRECTLY INTO NEAT EXCAVATIONS PROVIDED THE FOUNDATION TRENCH WALLS ARE STABLE AS DETERMINED BY THE ENGINEER, SUBJECT TO THE APPROVAL OF THE OFFICE OF THE STATE ARCHITECT. IN SUCH CASE, THE MINIMUM FORMWORK SHOWN ON THE DRAWINGS IS MANDATORY TO INSURE CLEAN EXCAVATIONS IMMEDIATELY PRIOR TO AND DURING THE PLACING OF CONCRETE.



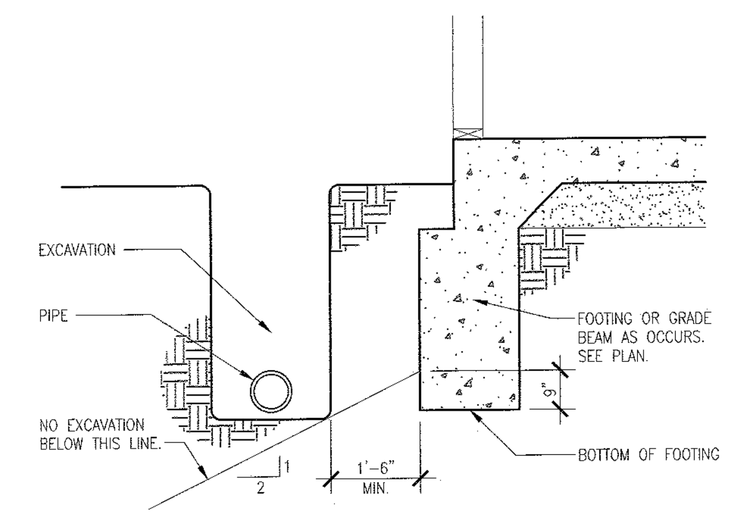
8 TYP. FOOTING STEPS

N.T.S.



9 TYP. EXCAVATIONS & PIPES PARALLEL TO FOOTINGS

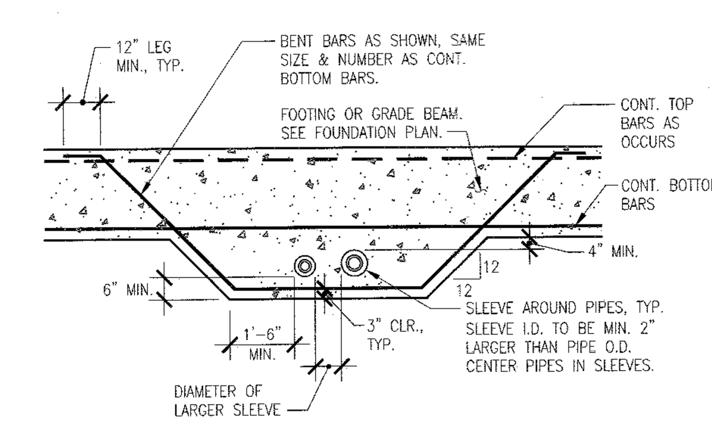
N.T.S.



10 TYP. PIPES PERPENDICULAR TO FOOTINGS

N.T.S.

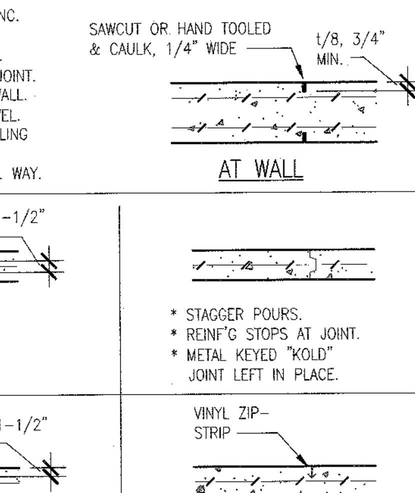
NOTE: AT EXIST. PIPES, INSTALL SCHEDULE 40 PVC PIPE SLEEVE OVER EXIST. PIPE. CUT THE PIPE SLEEVE IN HALF IN ORDER TO INSTALL & BOND SLEEVE TOGETHER WITH PVC CEMENT, TYP.



11 TYP. SLAB & WALL CONTROL JOINTS

NO SCALE

NOTE: SIM. CONDITION AT CONC. WALLS WITH THE FOLLOWING:
* "t" = WALL THICKNESS, TYP.
* REINF'G CONTINUOUS PAST JOINT.
* JOINT ON BOTH SIDES OF WALL.
* PRE-CUT w/ POINTED TROWEL.
* SAWCUT AS SOON AS RAVELLING DOES NOT OCCUR.
* JOINTS AT MAX. 20' o.c. EA. WAY.



* STAGGER POURS.
* REINF'G STOPS AT JOINT.
* FORMED KEY.

* STAGGER POURS.
* REINF'G STOPS AT JOINT.
* METAL KEYED "KOLD" JOINT LEFT IN PLACE.

* REINF'G CONTINUOUS PAST JOINT.
* PRE-CUT w/ POINTED TROWEL.
* SAWCUT AS SOON AS RAVELLING DOES NOT OCCUR AND EQUIPMENT CAN BE SUPPORTED WITHOUT DENTING SLAB.

* REINF'G CONTINUOUS PAST JOINT.
* INSTALL VERTICALLY.

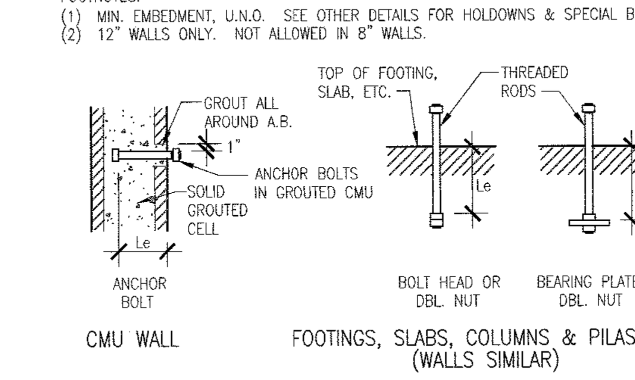
NOTES:
1. "t" = SLAB THICKNESS, TYP.
2. USE ONE OF (4) JOINTS NOTED, AT MAX. 12' o.c. EA. WAY OR AS SHOWN IN PLAN UNLESS NOTED OTHERWISE IN GEOTECHNICAL REPORT. PANELS SHOULD BE APPROX. SQUARE.
3. CONTRACTOR SHALL SUBMIT PROPOSED JOINT LOCATIONS & TYPES USED TO ARCHITECT PRIOR TO PLACING FORMS.

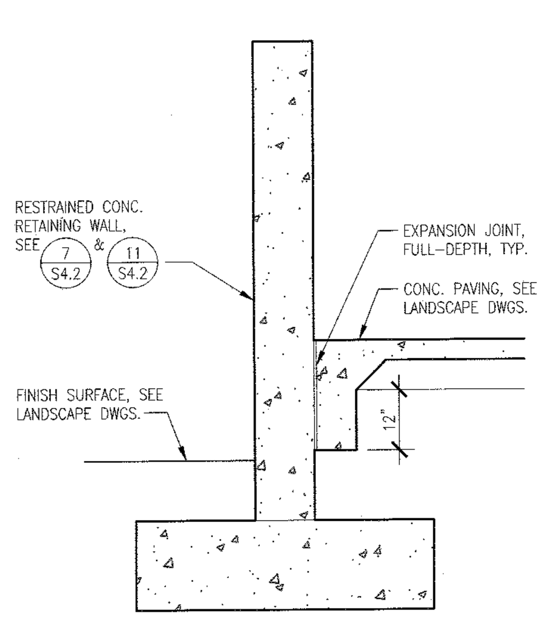
12 TYP. ANCHOR BOLT EMBEDMENTS

NO SCALE

ANCHOR BOLT DIAMETER (ø)	MINIMUM ANCHOR BOLT EMBEDMENT, Le (1): IN TOP OF CONCRETE & MASONRY (CMU) COLUMNS & PILASTERS	IN CONCRETE FOOTINGS, SLABS & WALLS	IN MASONRY (CMU) WALLS
3/8"	6"	4"	4"
1/2"	7"	5"	5-1/2"
5/8"	8"	5"	5-1/2"
3/4"	10"	6"	5-1/2"
7/8"	10"	7"	8" (2)
1" – 1-1/4"	12"	10"	–

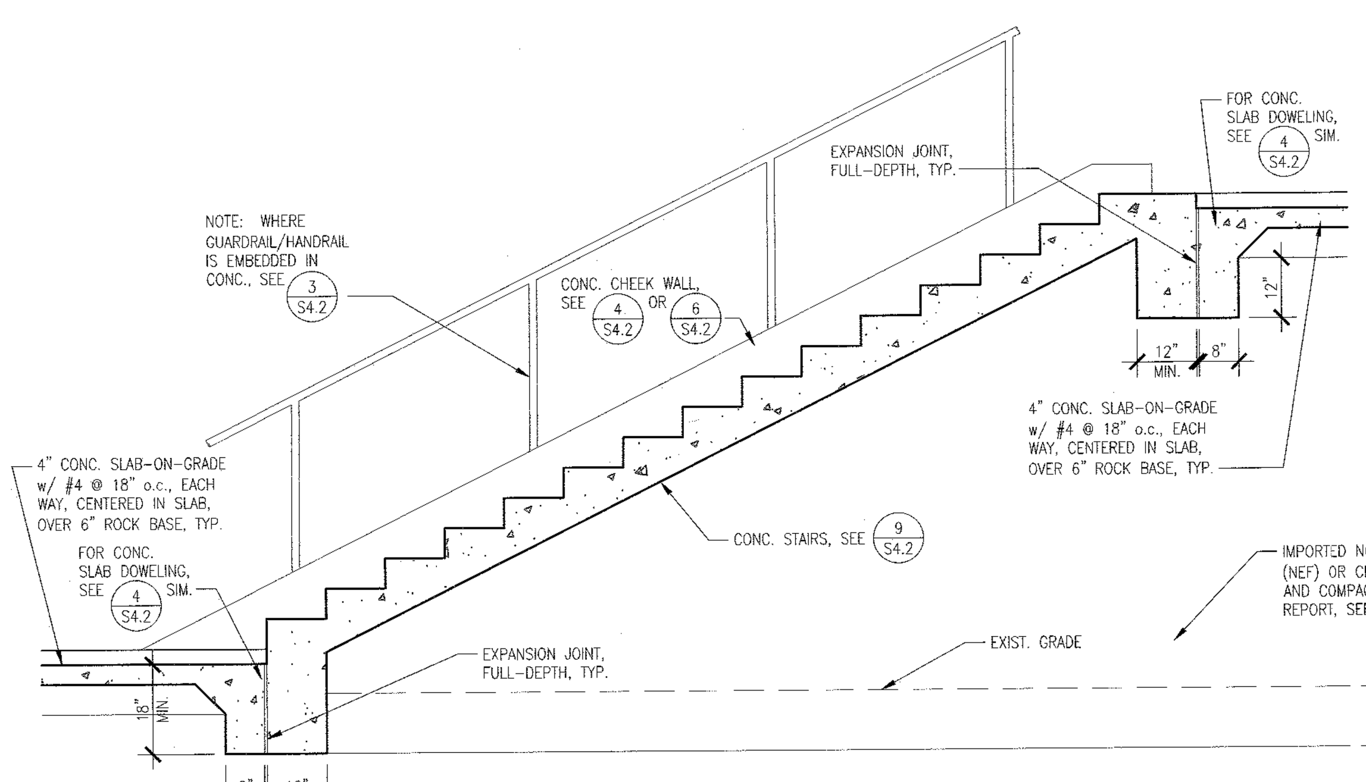
FOOTNOTES:
(1) MIN. EMBEDMENT, U.N.O. SEE OTHER DETAILS FOR HOLDOWNS & SPECIAL BOLTS.
(2) 12" WALLS ONLY. NOT ALLOWED IN 8" WALLS.





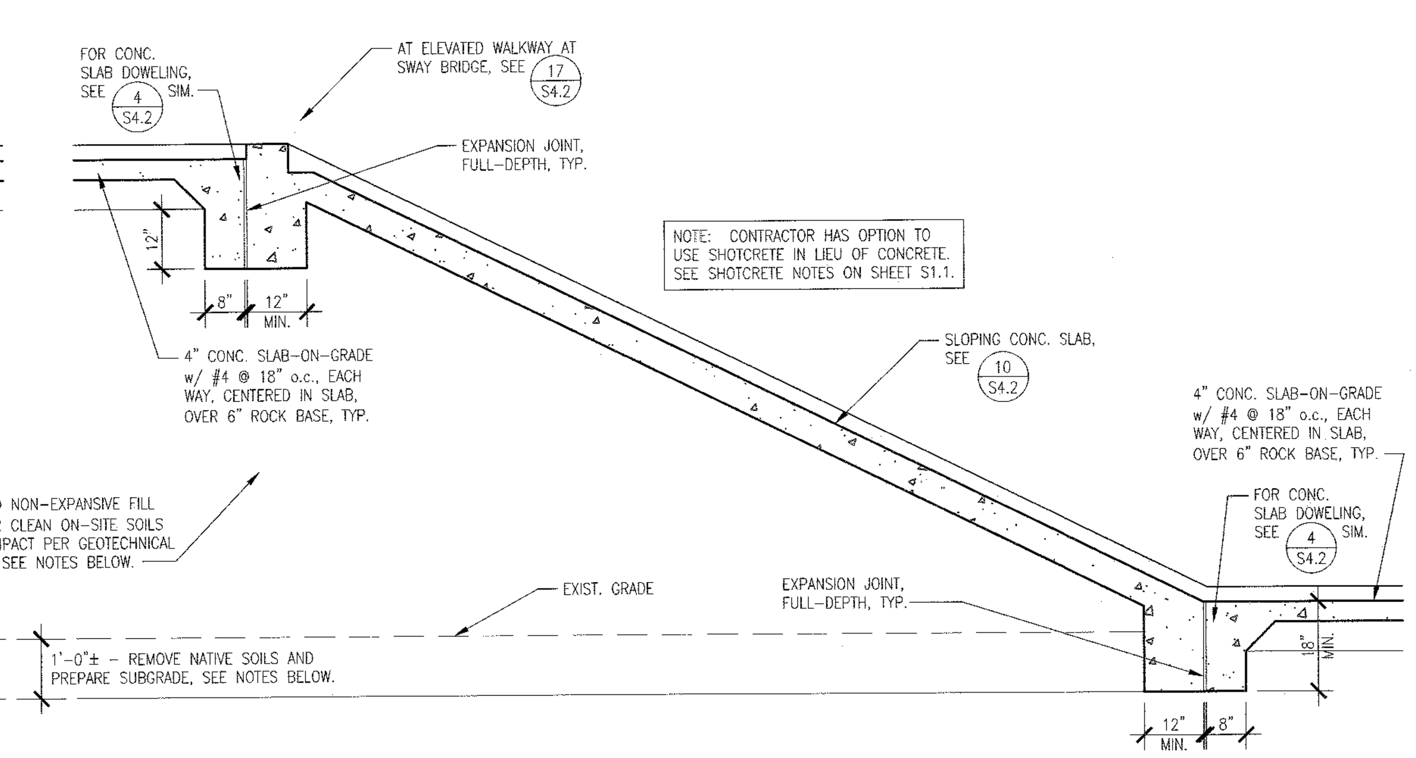
A SECTION THRU DONOR WALL

1/2"=1' 0"



B SECTION THRU CONCRETE STAIRS

1/2"=1' 0"



NOTE: BASED ON GEOTECHNICAL EXPLORATION, UP TO 15 FT. OF EXPANSIVE SOIL CONISISTING OF SILTY CLAY AND SANDY CLAY IS PRESENT BELOW THE FINISH GRADE. TO REMEDIATE THE EXISTING CONDITIONS AND CONSTRUCT THE BASE FOR THE SLIDING HILL, CONTRACTOR IS TO PERFORM THE FOLLOWING PER GEOTECHNICAL REPORT RECOMMENDATIONS:
1. THE NATIVE SOILS SHALL BE SCARIFIED TO A DEPTH OF APPROXIMATELY 12", MOISTURE CONDITIONED TO AT LEAST 5 PERCENT ABOVE OPTIMUM, AND COMPACTED TO 85 TO 90 PERCENT RELATIVE COMPACTION.
2. TO BUILD UP THE SLIDING HILL GRADES, IMPORTED NON-EXPANSIVE FILL (NEF) OR ON-SITE SOILS CLEAN OF DEBRIS, VEGETATION, ROCKS GREATER THAN 4", & OTHER DELETERIOUS MATTER, REFER TO GEOTECHNICAL REPORT, SHALL BE PLACED IN 6" TO 8" LIFTS, MOISTURE CONDITIONED TO AT LEAST 3 PERCENT ABOVE OPTIMUM, AND COMPACTED TO AT LEAST 90 PERCENT RELATIVE COMPACTION.

C SECTION THRU SLOPING CONCRETE SLAB AT SLIDING HILL

1/2"=1' 0"

akh STRUCTURAL ENGINEERS, INC.
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AKH JOB M18-042

REGISTERED PROFESSIONAL ENGINEER TIM D. HYDE No. S3260 EXP. 3/31/21 STRUCTURAL STATE OF CALIFORNIA

NO.	DESCRIPTION	DATE	BY

Revisions

WORK ACCEPTED: INSPECTOR: BY: DATE:

DRAWN: SRW | DESIGN: SRW | HOR: N/A
CHECKED: TDH | VERT: N/A
APPROVED: [signature] | DATE: 2/10/20 | JOB NUMBER:
SCOTT CREER – CITY ENGINEER RCE#58879 EXP. 9/30/21

City of Morgan Hill Public Works Department
CITY OF MORGAN HILL
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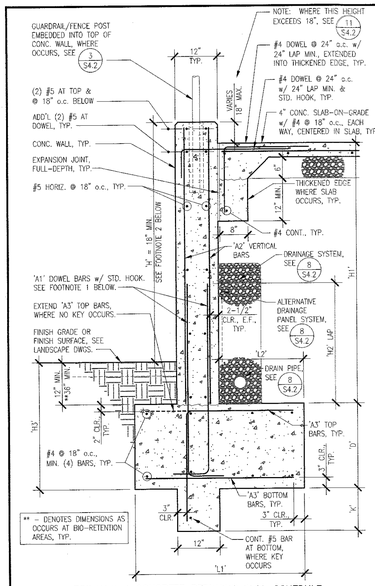
STRUCTURAL DETAILS AND SECTIONS
MORGAN HILL INCLUSIVE PLAYGROUND / MAGICAL BRIDGE PROJECT

FILE NUMBER: 1818000
PRINT DATE: 02/07/20
SHEET NUMBER: S4.1

BID SUBMITTAL - 02-07-20

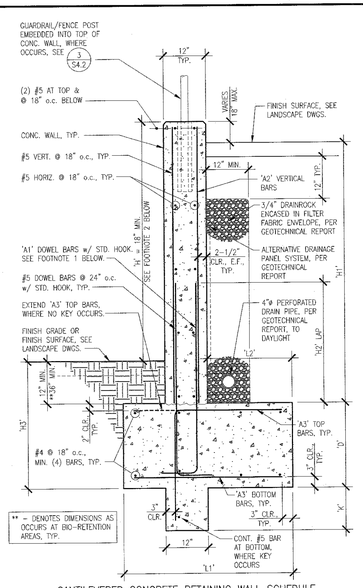


RESTRAINED CONCRETE RETAINING WALL SCHEDULE

H1	H2	H3	L1	L2	D	K	A1 BARS[1]	A2 BARS[1]	A3 BARS
UP TO 2'	–	30" **S4	2'-3"	0'-9"	18"	0"	#5 @ 18" o.c.	#5 @ 18" o.c.	#5 @ 18" o.c.
2' TO 3.5'	36"	30" **S4	3'-6"	1'-9"	18"	0"	#5 @ 18" o.c.	#5 @ 18" o.c.	#5 @ 18" o.c.
3.5' TO 5'	36"	30" **S4	4'-6"	2'-6"	18"	0"	#5 @ 18" o.c.	#5 @ 18" o.c.	#5 @ 18" o.c.

FOOTNOTES:
1. IN LIEU OF 'A2' BARS, CONTRACTOR HAS THE OPTION TO CONTINUE 'A1' BARS UP INTO FULL HEIGHT OF WALL.
2. FOR WALLS WITH 'H' = 18" OR LESS, SEE TALL CURBS ON LANDSCAPE DRAWINGS.

7 RESTRAINED CONCRETE RETAINING WALL
N.T.S.

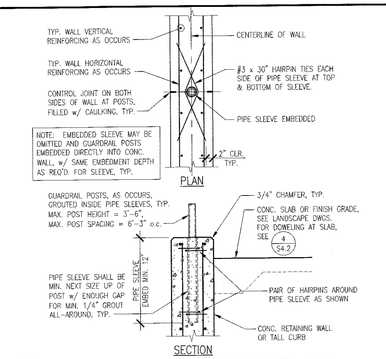


CANTILEVERED CONCRETE RETAINING WALL SCHEDULE

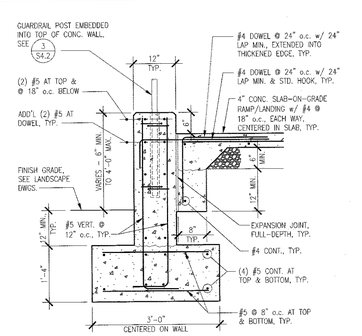
H1	H2	H3	L1	L2	D	K	A1 BARS[1]	A2 BARS[1]	A3 BARS
UP TO 2'	–	30" **S4	2'-0"	0'-6"	18"	0"	#5 @ 18" o.c.	#5 @ 18" o.c.	#5 @ 18" o.c.
2' TO 3.5'	36"	30" **S4	3'-3"	1'-6"	18"	0"	#5 @ 18" o.c.	#5 @ 18" o.c.	#5 @ 18" o.c.
3.5' TO 5'	36"	30" **S4	4'-3"	2'-3"	18"	0"	#5 @ 18" o.c.	#5 @ 18" o.c.	#5 @ 18" o.c.

FOOTNOTES:
1. IN LIEU OF 'A2' BARS, CONTRACTOR HAS THE OPTION TO CONTINUE 'A1' BARS UP INTO FULL HEIGHT OF WALL.
2. FOR WALLS WITH 'H' = 18" OR LESS, SEE TALL CURBS ON LANDSCAPE DRAWINGS.

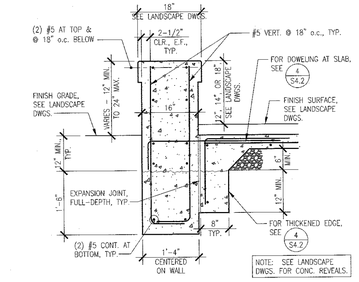
8 CANTILEVERED CONCRETE RETAINING WALL
N.T.S.



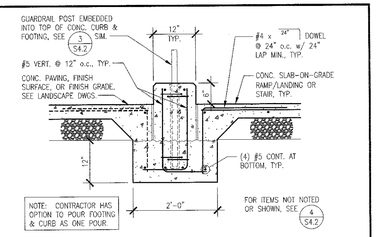
3 TYP. GUARDRAIL POST EMBEDDED INTO CONC.
3/4"=1' 0"



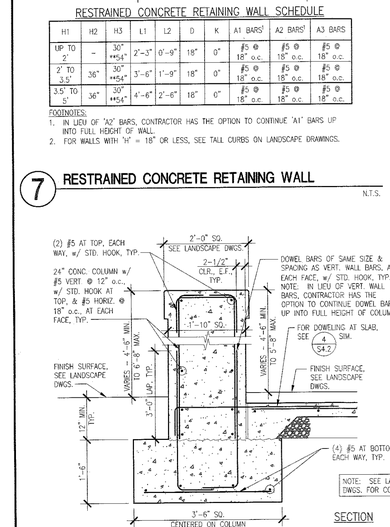
4 SECTION AT CONC. WALL
AT PEDESTRIAN RAMP
3/4"=1' 0"



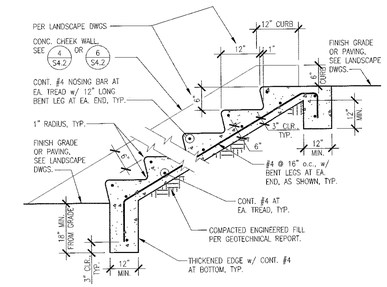
5 SECTION AT SEAT WALL
3/4"=1' 0"



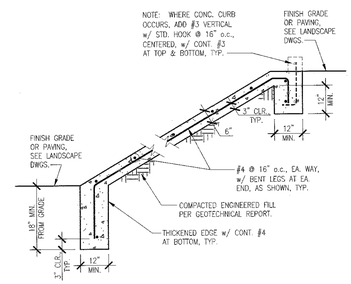
6 SECTION AT CONC. CURB
AT PEDESTRIAN RAMP OR STAIRS
3/4"=1' 0"



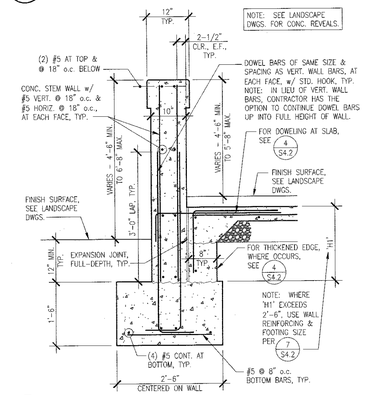
13 CONC. COLUMN & FOOTING
3/4"=1' 0"



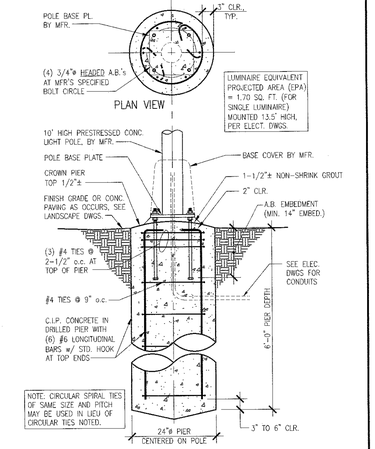
9 TYP. CONC. STAIRS ON GRADE
N.T.S.



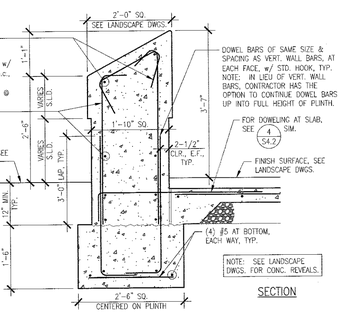
10 TYP. SLOPING CONC. SLAB ON GRADE
N.T.S.



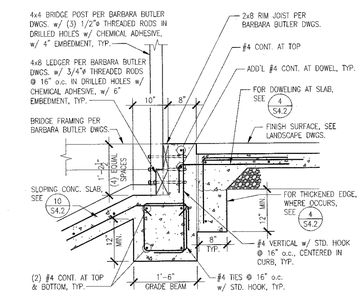
11 FREE-STANDING CANTILEVERED CONC. WALL
3/4"=1' 0"



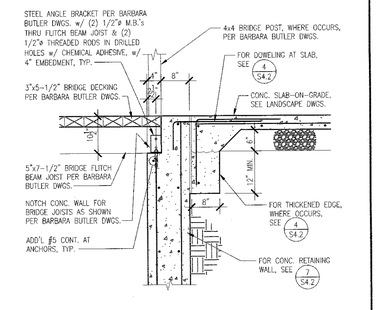
12 13' HIGH LIGHT POLE FOOTING
PEDESTRIAN
3/4"=1' 0"



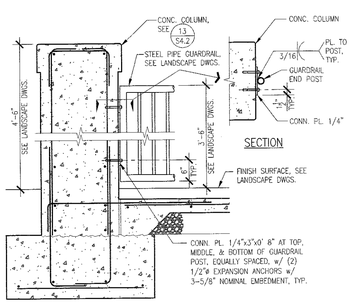
15 CONC. ENTRY PLINTH & FOOTING
3/4"=1' 0"



17 ELEVATED WALKWAY ABUTMENT
AT SWAY BRIDGE
3/4"=1' 0"



18 ENTRY BRIDGE ABUTMENT
3/4"=1' 0"



19 GUARDRAIL END POST CONN.
AT CONC. COLUMN
3/4"=1' 0"

akh
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EXP. 3/31/21
STATE OF CALIFORNIA

NO.	DESCRIPTION	DATE	BY

Revisions

WORK ACCEPTED: INSPECTOR: BY: DATE:

DRAWN: SRW DESIGN: SRW HOR: N/A VERT: N/A
CHECKED: TDH
APPROVED: DATE: 2/10/20
JOB NUMBER:
SCOTT GREER – CITY ENGINEER RCE#68879 EXP. 9/30/21

City of Morgan Hill
Public Works Department
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171 W EDMUNDSON AVE, MORGAN HILL, CA 95037

STRUCTURAL DETAILS
MORGAN HILL INCLUSIVE PLAYGROUND / MAGICAL BRIDGE PROJECT

FILE NUMBER: 18180000
PRINT DATE: 02/07/20
SHEET NUMBER: S4.2

BID SUBMITTAL - 02-07-20

O:\Jobs Active\19 083 Morgan Hill II_Exeloo\19 083 Dwg's Version 11.0\xref\19 083 E- DETAILS FND Package.dwg, 11/12/2019 1:05:11 PM, Anthony

ABBREVIATIONS

Abbreviation	Meaning
AB	ANCHOR BOLT
ABV	ABOVE
ADD'L	ADDITIONAL
ALT	ALTERNATE
ARCH'L	ARCHITECTURAL
ATR	ALL THREADED ROD
BLK(G)	BLOCK(ING)
BLW	BELOW
BM	BEAM
BN	BOUNDARY NAILING
BOB	BOTTOM OF BEAM
BOTT	BOTTOM
B/T	BETWEEN
CALIF	CALIFORNIA
CANT'L	CANTILEVER
CB	CEILING BEAM
"CB"	SIMPSON CONNECTOR (FDN)
"CC" or "ECC"	SIMPSON CONNECTOR (alt. CONTRACTOR MAY USE "CCQ" or "ECCQ")
CCB	COLAPSIBLE CARDBORD
CJ	CEILING JOISTS
CJP	COMPLETE JOINT PENETRATION
℄	CENTERLINE
CLNG	CEILING
CLR	CLEAR(ANCE)
CMU	CONCRETE MASONRY UNIT
CONC	CONCRETE
CONN	CONNECTION
CONT	CONTINUOUS
CT	COLLAR TIE
CTR(D) OR ℄	CENTER(ED)
D	DEEP
DBL	DOUBLE
DCW	DEMAND CRITICAL WELD
DIA OR ø	DIAMETER
DJ	DECK JOIST
DWG	DRAWING
(E)	EXISTING
EA	EACH
EF	EACH FACE
ELEV	ELEVATION
EMBED	EMBEDMENT
EN	EDGE NAILING
ENG	ENGINEER
EQ	EQUAL
EWL	ENTIRE WALL LENGTH
EXP	EXPOSED
EXT	EXTERIOR
FDN	FOUNDATION
FF	FINISH FLOOR
FG	FINISH GRADE
FJ	FLOOR JOIST
FLR	FLOOR
FN	FIELD NAILING
FOC	FACE OF CONCRETE
FOS	FACE OF STUD
FOSH	FACE OF SHEATHING
FRMG	FRAMING
FS	FINISH SLAB
FTG	FOOTING
GA	GAUGE
GALV	GALVANIZED
GB	GRADE BEAM
GLB	GLUE LAMINATED BEAM
HD	HOLDOWN
HDR	HEADER
HGR	HANGER
HORIZ	HORIZONTAL
HT	HEIGHT
INFO	INFORMATION
INT	INTERIOR
ISB	iLEVEL SHEAR BRACE
K	KING POST
LOC	LOCATION(S)
LONG	LONGITUDINAL
LSL	TIMBERSTRAND
MANUF	MANUFACTURER
MAX	MAXIMUM
MB	MACHINE BOLT
MF	MOMENT FRAME
MIN	MINIMUM
ML	MICROLLAM
(N)	NEW
NC	NO CHANGE(S)
NG	NATURAL GRADE
NLR	NAILER
NTS	NOT TO SCALE
N/S	NON-STRUCTURAL
O/	OVER
oc	ON CENTER
OH	OPPOSITE HAND (MIRROR)
PA	POST ABOVE
PERP	PERPENDICULAR
PJP	PARTIAL JOINT PENETRATION
PL or	PLATE
PMW	PRE-MAUFACTURED WALL
PSL	PARALLAM BEAM
P.T.D.F.	PRESSURE TREATED DOUGLAS FIR
RB	ROOF BEAM
REINF	REINFORCING(MENT)
REQ'D	REQUIRED
RET	RETAINING (RETENTION)
RR	ROOF RAFTER
SCHED	SCHEDULE
SHTG	SHEATHING
SIM	SIMILAR
SQ	SQUARE
SS	SELECT STRUCTURAL WOOD BEAM
SS	STAINLESS STEEL
STD	STANDARD
STL	STEEL
STRUCT'L	STRUCTURAL
SW	STRONG WALL (SIMPSON)
T	TRIMMER POST
T&G	TONGUE & GROOVE
TBR	TO BE REMOVED
THK	THICK(NESS)
TO	TOP OF
TOW	TOP OF WALL
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
URM	UNREINFORCED MASONRY
VERT	VERTICAL
VF	VERIFY
VIF	VERIFY IN FIELD
VWA	VERIFY WITH ARCHITECTURAL

SEISMIC:	
Design Procedure:	
Equivalent Lateral Force Analysis	
Importance	:1
Occupancy Category	:2
Sds	:2.00
Sd1	:1.1
Site Class	:D
Seismic Design Cat.	:E
Cs	:0.571
R	:3.5
WIND:	
Basic Wind Speed:	115 mph
Wind Exposure:	C
Internal Presure Coefficient:	±0.18

0400 CONCRETE NOTES FOR COMMERCIAL:

1. Concrete mix design shall be designed by an approved testing laboratory or Licensed Engineer and submitted to the Structural Engineer for approval.
2. Concrete shall have a minimum ultimate compressive strength (f'c) at 28 days as noted at the following locations: [For structures that are three stories and less (latest edition 2016 CBC section 1905)]
3. NOTE: Max water-to-cement ratio of 0.57 shall be used at all locations, Typical (UNO.)

	(f'c)	Hardrock Aggregate Size*	Max Max Slump*	Inspection Req'd.
Footings, stemwalls, slabs & Ret. Walls	3,000 psi	1"	4"	No
Conc. walls and grade beams (see note below)	3,000 psi	1"	4"	Yes
Caisson shafts (In marine Env.)(note#16)	4,000 psi	1"	notes #16	Yes
Topping for steel deck	3,500 psi	1"	4"	Yes
All other concrete	3,000 psi	1"	4"	Yes

*** All slabs connecting to grade beam shall be 3000 psi with special inspection, unless noted otherwise.**
*** Pea Gravel shall not be used unless written approval is obtained from Structural Engineer.**
*** Slump measured without plasticizer. If plasticizer is used a higher final slump may be allowed upon Engineer's review.**

4. Fly Ash, where used, shall be limited to 20% of total cementitious mix.
5. For projects near the beach and/or ocean refer to "Marine Environment" notes for additional constraints. (Project that are ocean front)
6. Portland Cement shall conform to ASTM C-150, Type I or Type II. Aggregate for hardrock concrete shall conform to all requirements and tests of the latest ASTM C-33. Concrete mixing operations, etc., shall conform to ASTM C-94.
7. All phases of concrete work shall conform to the latest approved edition of Building Code Requirements for Reinforced Concrete: ACI-318.
8. Clear concrete coverage for reinforcing bars shall be as follows (U.N.O.):
   a. Concrete cast against and exposed to earth 3" min.
   b. Concrete exposed to earth/weather cast in forms:
      b.a. No. 6 - No. 18 bars = 2"
      b.b. No. 5 bar and smaller = 1½"
   c. Concrete not exposed to weather above grade:
      c.a. Slabs/Walls/Joists:
         c.a.a. No. 14 - No. 18 bars = 1½"
         c.a.b. No. 11 bar and smaller = ¾"
      c.b. Beams/Columns - 1½"
   Refer to "0450 Marine Environment" under general notes for projects near the ocean.
9. Before concrete is poured, check with all trades for proper placement of sleeves, curbs, conduits, etc.
10. All reinforcing bars, anchor bolts, and other concrete inserts shall be well-secured in position prior to placing concrete. Additionally, the concrete should be thoroughly vibrated during placement.
11. Grout or Non-shrink grout called for on the drawing may be:
    a. Embeco or equal-below the slab-on-grade.
    b. Masterflow 713 grout or equal, above slab-on-grade.
12. Concrete shall not fall more than 1.8 m (6 feet).
13. Embedded anchor bolts shall conform to ASTM 1554 (old 325) grade 55 (75ksi tensile), U.N.O. See also "0300 Lumber Notes" and "0450 Marine Environment" under General Notes for more info.
14. Water reducing plasticizers incorporated per manufacturers specifications may be used to achieve design slump at max w/cm ratio noted.
    (1997 Green Book (Standard Specifications for Public Works Construction) specifies in Section 303-1.8.3)
15. Waterproofing beneath slab and foundation per Architect.

0405 DRY PACK/ NON-SHRINK GROUT AND PATCHING

1. Grout or Non-shrink grout called for on the drawing may be:
   a. Embeco or equal-below the slab-on-grade.
   b. Masterflow 713 grout or equal, above slab-on-grade.
2. Non- shrink grout and/or dry pack:
   a. Custom "Pour-Stone"
   b. Five Star "Special Grout 400"
   c. Master Builders "Master Flow 713".
3. Mix with the least water required to place grout without voids.
4. Cement grout and drypack Proportions by volume shall be:
   a. 2 parts sand
   b. 1 part cement and a minimum of water consistent with placing requirements.

0410 REINFORCING STEEL -Concrete & Masonry

Reinforcing steel shall conform to the requirements listed below for use noted:

Use	Bar size	ASTM designation	Grade
Footings, Stemwalls, Slabs, Grade Beams & Retaining walls	All	ASTM A-615	60
All walls, Beams & Columns above Grade	All	ASTM A-615	60
Bars to be welded*	All	ASTM A-706	60

* Refer to 'Welding Requirements' notes for additional information.

1. All reinforcing bar bends shall be made cold. See "Standard hooks, bends & lap" detail on Typical Detail Sheet for more information.
2. All horizontal bars at corners and intersections shall be lapped. See "Typical corner/intersection" detail on Typical Detail Sheet for more information.
3. Refer to "Standard hooks, bends & lap" detail for minimum lap splice lengths.
4. Welded wire fabric shall conform to ASTM A-185. Minimum lap shall be 6" for one full mesh, whichever is greater.
5. All slab-on-grade shall be tied to footings or walls. Verify with soils report where occurs for stricter requirements. Contact Soils Engineer for "floating" slabs
   a. Minimum dowels size and spacing shall match slab reinforcement U.N.O.
6. Reinforcing steel dowel's between footing and walls, columns or pilasters shall be the same grade, size, spacing and number as the vertical reinforcing, respectively..

0000 CODES AND REFERENCES

All general structural notes and specifications reflect the providsions of the **2016 CBC**
2016 California Building Code
ASCE 7-10 (Minimum Design Loads)
AISC 360-10/AISC 341-10/AISC 358-10 (Steel)
ACI 318-11 (Concrete)
ACI 530-11/ASCE5-11/TMS 402-11 (Masonry)
NDS-12/AWC-08 (Wood)

0100 STRUCTURAL GENERAL NOTES

GENERAL

1. The plans provided will be acceptable for building for only two years after the date noted. Afterwards, Thom Hume Consulting Engineers will require a thorough review of the plans and details and make the changes as needed. This additional time will require one month of notice prior to beginning of construction.
2. The General Contractor shall be responsible for coordinating all the work of the Subcontractors indicated on the structural construction drawings and project specifications. The contractor shall verify all dimensions prior to starting construction. The Architect shall be notified of any discrepancies or inconsistencies.
3. All omissions or conflicts between the various elements of the working drawings and/or specifications shall be brought to the attention of the Architect before proceeding with any work so involved.
4. Site preparations and Temporary bracing:
   a. The General Contractor shall investigate the site during clearing and earthwork operations for fill excavations or buried structures such as cesspools, cisterns, foundations, etc. Where such structures are found the Architect shall be notified immediately.
   b. The Contractor shall be solely responsible for all excavation procedures including lagging, shoring and protection of adjacent property, structures, streets and utilities in accordance with all national state and local safety ordinances.
   c. The Contractor shall be responsible for and provide adequate shoring, bracing and guys in accordance with all national state and local safety ordinances. All temporary bracing of structural elements (steel members, masonry, concrete or work walls, etc.) during construction shall conform with all applicable codes and safety requirements of all governing agencies.
   d. Any deviation from approved and permitted conditions must be approved by the local agencies prior to erection.
5. Deviations from the structural design as indicated on the structural construction drawings are not permitted without written approval from the Structural Engineer. It will be the Contractor's responsibility to request written approval, even if the Structural Engineer has provided verbal authorization. Approval from the local governing authority Building Inspector does not constitute authority to deviate from the contract documents.

AUTHORITY OF WORK'

6. All work shall conform to the minimum standards of the latest edition of the California Building Code (2016 CBC) edition and any other regulating agencies which have authority over any portion of the work, including the State of California, Division of Industrial Safety.

CAL O.S.H.A.

7. The General Contractor shall be solely responsible for following, maintaining and being familiar with Cal O.S.H.A. standards and procedures for all aspects of the construction, including, but not limited to, safety of the construction personnel, excavation procedures, temporary shoring or bracing, site safety procedures, etc. All erection procedures shall conform to OSHA Standards. Any deviation must be approved by OSHA prior to erection.

TYPICAL DETAILS

8. All details designated as standard or typical shall occur in addition to any other specific detail. A detail, section, elevation, etc. reference may be indicated only once on a structural construction drawing, but is to be used at all like and similar construction conditions.
9. The work typical adjacent to a detail, section, elevation, etc. reference is implied at each like and similar construction conditions. During the construction period the General Contractor may, at their convenience, request an interpretation and/or clarification of the structural construction drawing and project specifications.

ASTM SPECIFICATION

10. All ASTM specification designations shall be of the latest revision, unless noted otherwise.

SAFETY

11. Nothing contained within the contract documents shall relieve the General Contractor and the subcontractor of:
    a. the responsibility to determine any aspect of how the work is to be performed.
    b. dealing with matters of safety of personnel.
    c. safety of property.
    d. superintending of the work.
12. It is the sole responsibility of the General Contractor to initiate, maintain and supervise:
    a. all safety instructions with regard to personnel
    b. safety precautions with regard to personnel
    c. security of property and construction material in connection with any portion of the work as the work progresses.
    d. During the construction period the Contractor shall be responsible for the safety of the building.

TRADES

13. The Contractor shall be responsible for coordinating the work of all trades and shall check all dimensions. All discrepancies shall be called to the attention of the Architect and be resolved before proceeding with the work.

0200 CONTRACTOR NOTES:

These notes are intended to help the Contractor locate special areas of consideration. They are not to be solely relied on. A complete review of the Construction Documents, including: Structural, Architectural, Mechanical, Electrical and Plumbing is required to construct this project.

1. Per Civil Code § 832. Lateral and subjacent support
   a. If at any time it appears that the excavation is to be of a greater depth than are the walls or foundations of any adjoining building or other structure, and is to be so close as to endanger the building or other structure in any way, then the owner of the building or other structure must be allowed at least 30 days, if he so desires, in which to take measures to protect the same from any damage, or in which to extend the foundations thereof, and he must be given for the same purposes reasonable license to enter on the land on which the excavation is to be or is being made.
2. Special fasteners to Pressure Treated Douglas Fir is required
   a. Refer to General Notes/Lumber/Nailing #5 and Lumber Hardware #4.
3. Drywall and shear sheathing nailing.
   Our office recommends the roof be loaded and drywall stacked 7 days prior to final edge nailing of the sole plate and hanging drywall. This will allow the framing members to "settle" and tighten up and reduce the plaster cracking.
4. Each Contractor responsible for the construction of the main wind or seismic force resisting system designated seismic system or a wind or seismic resisting component listed in the statement of special inspections shall submit a written statement of responsibility to the Building Official and the Owner prior to the commencement of work on the system or component. The Contractor's statement of responsibility shall contain the following:
   a. Acknowledgement of awareness of the special requirements contained in the statement of special inspections.
   b. Acknowledgement that control will be exercised to obtain conformance with the construction documents approved by the Building Official.
   c. Procedures for exercising control within the Contractor's Organization, the method and frequency of reporting and the distribution of the reports.
   d. Identification and qualifications of the Person(s) exercising such control and their position(s) in the organization.

SPECIAL INSPECTION STATEMENT

Project: - Plan Check #: -

Location: -

This Statement of Special Inspections is submitted in fulfillment of the requirements of CBC Sections 1704 and 1705. Included are:

- Schedule of Special Inspections and tests applicable to this project: Special Inspections per Sections 1704 and 1705
- List of the Testing Agencies and other special inspectors that will be retained to conduct the tests and inspections.
- Special Inspections and Testing shall be performed in accordance with the approved plans and specifications, this statement and CBC sections 1704, 1705, 1707, and 1708. The Schedule of Special Inspections summarizes the Special Inspections and tests required. Special Inspectors will refer to the approved plans and specifications for detailed special inspection requirements. Any additional tests and inspections required by the approved plans and specifications will also be performed.
- Interim reports will be submitted to the Building Official and the Registered Design Professional in Responsible Charge in accordance with CBC Section 1704.2.4
- A Final Report of Special Inspections documenting required Special Inspections, testing and correction of any discrepancies noted in the inspections shall be submitted prior to issuance of a Certificate of Use and Occupancy (Section 1704.2.4). The Final Report will document:
  - •• Required special inspections.
  - •• Correction of discrepancies noted in inspections.

The Owner recognizes his or her obligation to ensure that the construction complies with the approved permit documents and to implement this program of special inspections. In partial fulfillment of these obligations, the Owner will retain and directly pay for the Special Inspections as required in CBC Section 1704.2.

This plan has been developed with the understanding that the Building Official will:

- Review and approve the qualifications of the Special Inspectors who will perform the inspections.
- Monitor Special Inspection activities on the job site to assure that the Special Inspectors are qualified and are performing their duties as called for in this Statement of Special Inspection.
- Review Structural Observation reports and insure contractor complied with corrections.
- Review submitted inspection reports.
- Perform inspections as required by the local building code.

Prepared by:

THOM HUME CONSULTING ENGINEERS
Registered Design Professional in Responsible Charge

Signature ____ Date ____ Building Official's Acceptance:

Owner's Authorization:

Owner ____ Building Official

Signature ____ Date ____ Signature ____ Date

SPECIAL INSPECTION SUMMARY

Notation Used in Table:
Column headers:
C Indicates continuous inspection is required.
P Indicates periodic inspections are required. The notes and or contract documents should clarify.
Box entries:
X Is placed in the appropriate column to denote either "C" continuous or "P" periodic inspections.
--- Denotes an activity that is either a one-time activity or one whose frequency is defined in some other manner.
Additional detail regarding inspections and tests are provided in the project specifications or notes on the drawings.

LIST OF WORK & INDIVIDUALS

CONCRETE Table 1705.3 — Refer to General Notes "0400"	C*	P*
1. Inspection of reinforcing steel and placement.		X
2. Verifying use of required design mix.		X
3. At time fresh concrete is sampled to fabricate specimens for strength tests, perform slump and air content tests and determine the temperature of the concrete.	X	
4. Inspection of concrete placement for proper application techniques.	X	
5. Inspection for maintenance of specified curing temperature and techniques.		X
6. Inspect formwork for shape, location, and dimensions of the concrete member being formed.		X

Note: Special inspection is to be provided in addition to the inspections conducted by the Department of Building and Safety and shall not be construed to relieve the owner or his authorized agent from requesting the periodic and called inspections required by Chapter 17 of **2016 CBC**

NO STRUCTURAL OBSERVATION REQUIRED

NO SHOP DRAWING SUBMITTALS

NO DEFERRED SUBMITTALS

NOT FOR CONSTRUCTION
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DETAILS FND Package

NO.	DESCRIPTION	DATE	BY
	PRELIM SET #01	2019-11-12	

Revisions

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CHECKED: CMES
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SCOTT CREER - CITY ENGINEER
RCE 58879 EXP.09/30/2021

HOR: N/A
VERT: N/A
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17575 Peak Ave. Morgan Hill, CA 95037 (408)778-6480, Fax (408)779-7236

HUME ENGINEERS
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MORGANHILL, CA 95037

Engineer: T.N.
Drafter: A.V.

MAGICAL BRIDGE MORGAN HILL

JOB NUMBER: 19 083
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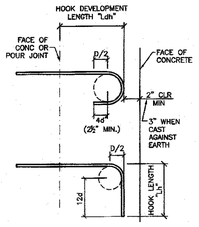
SHEET NUMBER: RS0.1



STANDARD HOOK DEVELOPMENT LENGTH				
	"Ldh" = HOOK LENGTH			
	NOMINAL WEIGHT CONC f'c			
BAR SIZE	"L"	2500 psi	3000 psi	4000 psi
#3	6"	7"	6"	5"
#4	8"	9"	8"	7"
#5	10"	11"	10"	9"
#6	12"	13"	12"	10"
#7	14"	15"	14"	12"
#8	16"	17"	16"	14"
#9	18 1/8"	19"	18"	15"
#10	22"	21"	20"	17"
#11	24 5/8"	24"	22"	19"

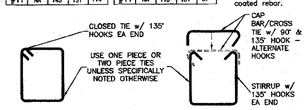
NOTES::
1. All hooked bars shall extend as far as possible with a 2" min end cover & with embedment not less than shown on the schedule, UNO on plans.
2. Side cover = 2 1/2" min.

STANDARD HOOK DEVELOPMENT LENGTH

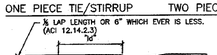
HORIZONTAL BAR LAP SPLICE SCHEDULE				
	"Ls" = LAP SPLICE LENGTH			
	GMU	CONCRETE		
BAR SIZE	f'cm 1500	f'cm 2500	f'cm 3000	f'cm 4000
#3	19"	31"	28"	25"
#4	24"	41"	38"	33"
#5	45"	51"	47"	41"
#6	54"	61"	56"	49"
#7	63"	89"	81"	71"
#8	72"	102"	93"	81"
#9	81"	115"	105"	91"
#10	NA	129"	118"	102"
#11	NA	143"	131"	114"

VERTICAL BAR LAP SPLICE SCHEDULE				
	"Ls" = LAP SPLICE LENGTH			
	GMU	CONCRETE		
BAR SIZE	f'cm 1500	f'cm 2500	f'cm 3000	f'cm 4000
#3	18"	24"	22"	19"
#4	34"	32"	29"	25"
#5	45"	39"	35"	31"
#6	54"	47"	43"	37"
#7	63"	69"	63"	54"
#8	72"	78"	72"	62"
#9	81"	88"	81"	70"
#10	NA	100"	91"	79"
#11	NA	110"	101"	87"

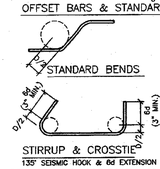
NOTES::
1. "D"=BEND DIAMETER
2. "d"=BAR DIAMETER
3. For horizontal reinforcing placed such that less than 12" of fresh concrete is placed below the bar use the Vertical Bar Lap Splice Schedule.
4. Lap splices in concrete shear walls shall be increased by 1.25 times the scheduled length.
5. All lengths shall be increased by 1.2 times the scheduled lengths for epoxy coated rebar.



ONE PIECE TIE/STIRRUP TWO PIECE TIE/STIRRUP



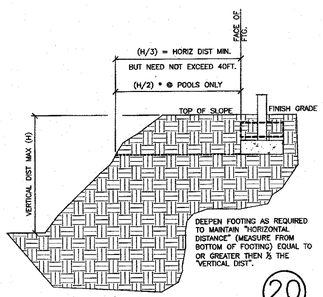
OFFSET BARS & STANDARD LAP



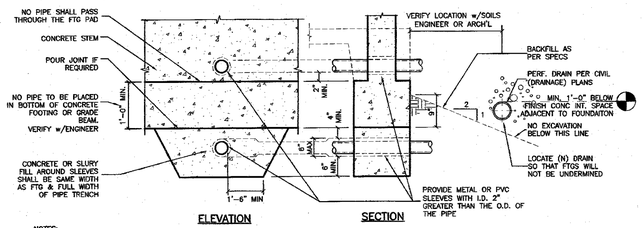
MIN. BEND DIAMETER STIRRUPS & TIES	
BAR SIZE	BEND DIAMETER
#3 THRU #5	D = 4d
MIN. BEND DIAMETER ALL OTHER BARS	
BAR SIZE	BEND DIAMETER
#3 THRU #8	D = 6d
#9 THRU #11	D = 8d

STIRRUP & CROSSTIE
135° SEISMIC HOOK & 6d EXTENSION

STANDARD HOOKS, BENDS & LAPS (15)
PARTIAL SCALE 1"=1'-0"

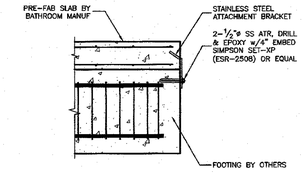


TYPICAL DAYLIGHT REQUIREMENT (20)
PARTIAL SCALE 1"=1'-0"

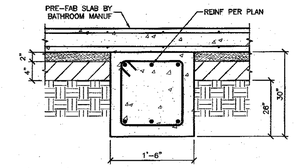


NOTES:
1. DEPTH OF FOOTING MAY BE DETERMINED BY LOCATION OF PIPES.
2. GENERAL CONTRACTOR SHALL REVIEW MECH'L/PLUMBING DRAWINGS AND SPECIFICATIONS AND CONSULT WITH MECH'L CONTRACTOR TO DETERMINE EXACT DEPTH AND LOCATION OF PIPES.
3. MULTIPLE OPENINGS SHALL HAVE A MINIMUM CLEAR SPACE BETWEEN SLEEVES OF 2x THE LARGEST ADJACENT SLEEVE SIZE. (ie 6"ø SLEEVE WILL REQUIRE 1'-0" DISTANCE BETWEEN)

TYPICAL SMALL PENETRATION AT FOOTINGS (12)
NOT TO SCALE

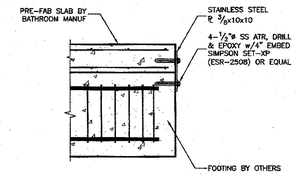


SLAB TO FTG TIE (5)
PARTIAL SCALE 1"=1'-0"



NOTE:
1. THE SUBGRADE (BELOW THE AGGREGATE BASE) SHOULD BE SCARFIED TO A DEPTH OF ABOUT 12 INCHES, MOISTURE CONDITIONED TO AT LEAST 3 PERCENT ABOVE OPTIMUM MOISTURE CONTENT, AND RE-COMPACTED TO AT LEAST 90 PERCENT RELATIVE COMPACTION PER ASTM D-1557.
2. THE BOTTOM OF THE FOOTING EXCAVATION SHOULD BE COMPACTED WITH A JUMPING JACK COMPACTOR WITH AT LEAST 4 PASSES.
3. THE SLAB SHOULD BE UNDERLAIN BY 2 INCHES A MASON SAND (ASTM C-144) COMPACTED WITH A VIBRATORY PLATE OVER A MINIMUM 4 INCHES OF CLASS 2 AGGREGATE BASE COMPACTED TO AT LEAST 95 PERCENT RELATIVE COMPACTION.

FOOTING @ SLAB (1)
PARTIAL SCALE 1"=1'-0"



ALTERNATE SLAB TO FTG TIE (2)
PARTIAL SCALE 1"=1'-0"

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Revisions

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SCOTT CAGER - CITY ENGINEER RCE 58879 EXP.09/30/2021

HOR: N/A VERT: N/A JOB NUMBER: XX

City of Morgan Hill
Public Works Department
CITY OF MORGAN HILL
17575 Peak Ave. Morgan Hill, CA 95037 (408)778-6480, Fax (408)779-7236

HUME ENGINEERS
SDS

171 W EDMUNDSON AVE
MORGANHILL, CA 95037

Engineer: T.N.
Drafter: A.V.

MAGICAL BRIDGE MORGAN HILL

JOB NUMBER: 19 083
PRINT DATE: 11/12/2019
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PAGE ---- OF 03

DETAILS FND Package

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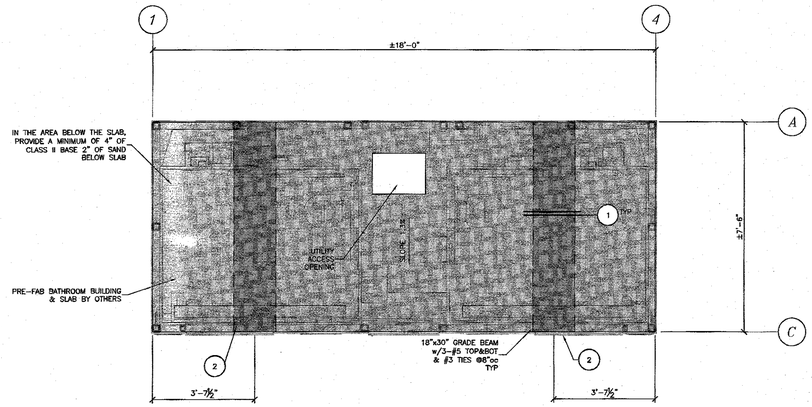

DETAIL & NOTES SHEET SCHEDULE	
SPECIAL INSPECTION NOTES	RS0.1
1 TO 20 REFER TO SHEET	RS1.1

FOUNDATION PLAN

SCALE: 1/2"=1'-0" 6" 3" 1'-0" 2'-0" 4'-0"

DO NOT SCALE FROM DRAWING REFER TO NOTES, SCHEDULES AND DETAILS.

SOILS INFORMATION:
Soils Report prepared by:

Paul Sai-Wing Lai
Lai & Associates
(925) 639-3636 Phone
(000) 000-0000 Fax
paulslai11@gmail.com
318 Harrison Street, Suite 302
Oakland, California 94608

Dated: 06/06/2019
For footing review contact the above Soils Engineer.
For more soils information refer to general notes

FOOTING NOTES:

a. Footing Widths:
   12" (min.) at 1 story
   15" (min.) at 2 story
   18" (min.) at 3 story
   Footing Depths:
   2'-0" exterior below final adjacent grade, UNO
   2'-0" below pad grade
   Footing Bearing Pressure
   2000psf w/Dead & Live Load
   2667psf w/Seismic Load
a. Unless otherwise detailed or noted on plans.
b. Match existing footing depth, unless new depth is greater (where applicable).
c. Refer to the Structural General Notes and project specification for additional material quality control and workmanship requirements.
d. Maintain bottom of footing such that the horizontal distance to daylight is and per Sec 1808.7.2 of current CBC edition.

VENEER:
No veneer allowed.

FOUNDATION

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Engineer: T.N.
Drafter: A.V.

MAGICAL BRIDGE MORGAN HILL

JOB NUMBER: 19 083
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SHEET NUMBER: RS2

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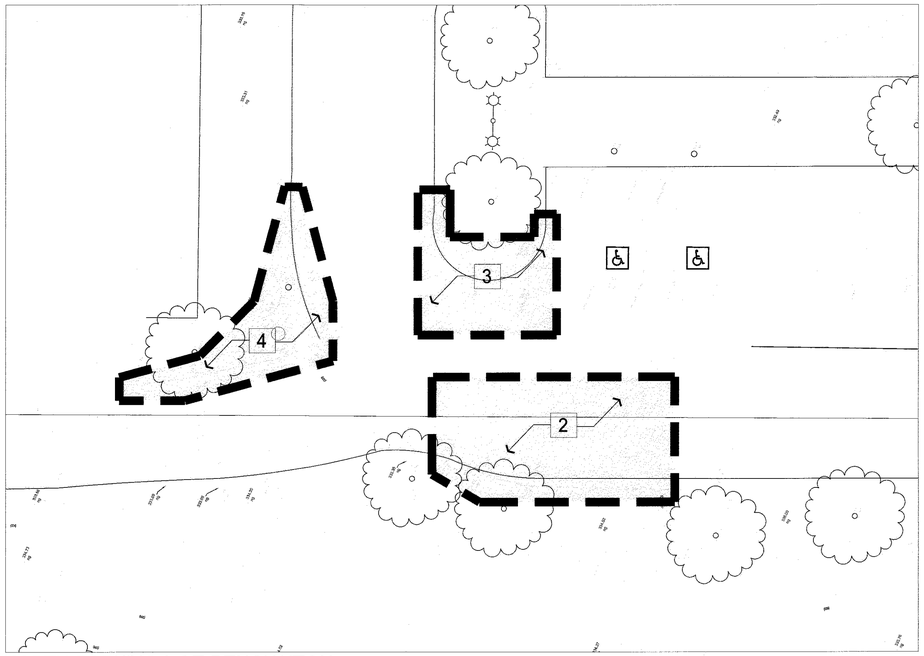


NORTH PARKING LOT RENOVAITON

DEMOLITION LEGEND

SYMBOL	DESCRIPTION
1	DEMOLITION TO INCLUDE: 1. REMOVAL OF EXISTING CONCRETE CURB 2. REMOVAL OF EXISTING ASPHALT 20' FROM FACE OF CURB AS SHOWN ON PLAN 3. REMOVAL OF EXISTING DECOMPOSED GRANITE AND ASSOCIATED SITE SOIL TO 7' FROM BACK OF CURB 4. REMOVE PORTION OF EXISTING GUTTER PAN FOR FUTURE TIE IN
2	DEMOLITION TO INCLUDE: 1. REMOVAL OF EXISTING CONCRETE CURB 2. REMOVAL OF EXISTING ASPHALT 20' FROM FACE OF CURB AS SHOWN ON PLAN 3. REMOVAL OF EXISTING SITE SOIL TO 2' FROM BACK OF CURB AS NECESSARY FOR FINISH GRADING PURPOSES
3	DEMOLITION TO INCLUDE: 1. REMOVAL OF EXISTING CONCRETE CURB 2. REMOVAL OF EXISTING ASPHALT 7' FROM FACE OF CURB AS SHOWN ON PLAN 3. REMOVAL OF ALL BASE MATERIAL IN AREA OF EXPANDED PLANTER
4	DEMOLITION TO INCLUDE: 1. REMOVAL OF EXISTING CONCRETE CURB 2. REMOVAL OF EXISTING ASPHALT 3' FROM FACE OF CURB AS SHOWN ON PLAN 3. RELOCATE EXISTING TRASH RECEPTACLE TO WITHIN THE PARK (PER CITY) AND NO PARKING SIGN TO ADJACENT AREA

DEMOLITION NOTES

1. CONTRACTOR IS RESPONSIBLE TO CALL 811 AND LOCATE ALL UTILITIES ON SITE BEFORE PROCEEDING WITH DEMOLITION.
2. CONTRACTOR IS TO SET UP A SITE MEETING WITH A CITY REPRESENTATIVE AND THE PROJECTS LANDSCAPE ARCHITECT TO REVIEW SCOPE OF DEMOLITION IN THE FIELD BEFORE PROCEEDING.
3. CONTRACTOR TO PROPERLY DISPOSE OF ALL MATERIAL PER CITY REQUIREMENTS.
4. CONTRACTOR IS RESPONSIBLE TO PROTECT ALL EXISTING SITE FEATURES NOT INCLUDED IN THE DEMOLITION PLAN IN PLACE AND IS RESPONSIBLE FOR ALL REPAIRS IF DAMAGED.

TRAFFIC CONTROL REQUIREMENTS

TRAFFIC CONTROL PLANS SHALL BE SUBMITTED BY THE CONTRACTOR AND SHALL CONFORM TO THE CONDITIONS AS SET FORTH IN THE CITY'S TRAFFIC CONTROL REQUIREMENTS

CONTRACTOR AGREES THAT HE SHOULD ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR TRAFFIC CONTROL

DUST CONTROL REQUIREMENTS:

DUST CONTROL - THE CONTROL OF DUST SHALL CONFORM TO THE REQUIREMENTS OF SECTION 10, "DUST CONTROL", OF THE CALTRANS STANDARD SPECIFICATIONS, EXCEPT AS MODIFIED HEREIN.

DUST CONTROL SHALL BE MAINTAINED AT ALL TIMES INCLUDING DURING NON-WORKING DAYS. THE ENGINEER MAY, IF THE DUST IS CONSIDERED TO BE A PUBLIC NUISANCE, STOP ALL WORK UNTIL EFFECTIVE DUST CONTROL IS PROVIDED. ADDITIONALLY, IF THE CONTRACTOR FAILS TO REMOVE THE NUISANCE WITHIN TWO HOURS AFTER THE NOTICE OF THE EXISTENCE OF THE NUISANCE BY THE PROJECT MANAGER, THE CITY MAY ORDER THAT THE WORK OF WATERING THE SITE BE DONE BY OTHERS AND ALL EXPENSES INCURRED IN THE PERFORMANCE OF THIS WORK SHALL BE PAID BY THE CONTRACTOR.

NOISE CONTROL:

NOISE CONTROL - THE CONTRACTOR SHALL ABIDE BY THE CITY'S NOISE CONTROL ORDINANCE

EXISTING UTILITY VERIFICATION REQUIREMENTS:

THE LOCATION OF EXISTING UTILITY MAINS AND LATERAL LINES INCLUDING STORM DRAIN, SANITARY SEWER, WATER, GAS, UNDERGROUND ELECTRICAL AND COMMUNICATION CONDUITS CROSSING THE TRENCH EXCAVATION SHALL BE VERIFIED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING UNDERGROUND SERVICES ALERT (USA) AT 800-642-2444 AT LEAST FIVE (5) WORKING DAYS PRIOR TO BEGINNING UNDERGROUND WORK SO THAT EXISTING UTILITIES CAN BE MARKED IN THE FIELD.

REQUIREMENTS FOR WORK IN CITY RIGHT-OF-WAY:

5-1 NOTIFICATION - THE CONTRACTOR SHALL GIVE AT LEAST ONE (1) WEEK NOTICE IN WRITING INDICATING WHEN THE INITIAL SERVICES OF THE ENGINEER ARE REQUIRED FOR LAYING OUT ANY PORTION OF THE WORK. FOR ALL SUBSEQUENT NOTIFICATIONS, THE CONTRACTOR SHALL PROVIDE A MINIMUM OF TWO (2) WORKING DAYS IN ADVANCE NOTIFICATION.

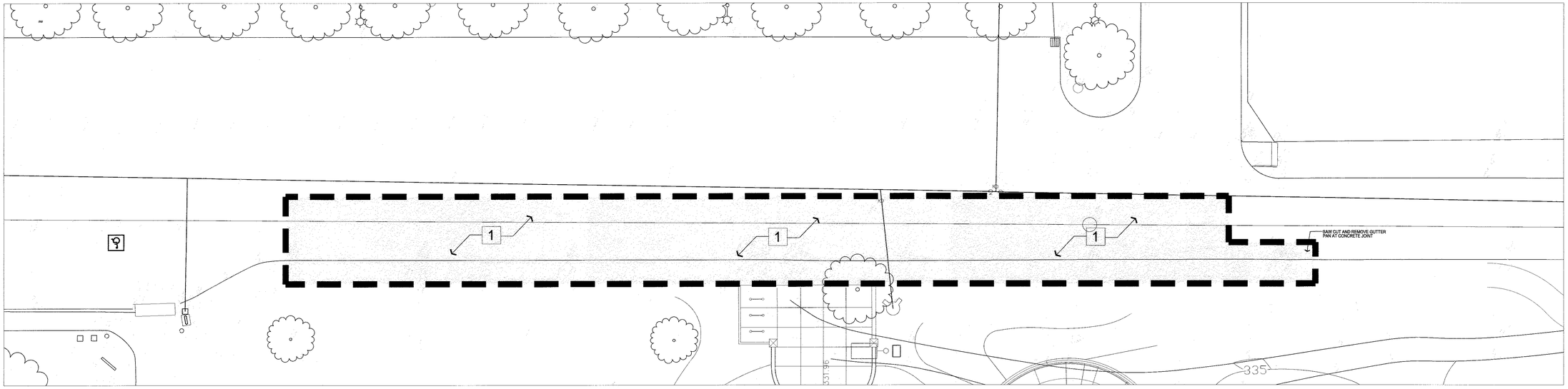
5-2 NOTIFICATION TO THE CITY COMMUNICATIONS DIVISION OF THE POLICE DEPARTMENT - THE CONTRACTOR SHALL KEEP THE COMMUNICATIONS DIVISION OF THE POLICE DEPARTMENT INFORMED DAILY REGARDING THE LOCATION OF EXCAVATIONS, BARRICADES AND DETOURS IN RIGHT-OF-WAY AREAS DURING WORK HOURS. THE CONTRACTOR SHALL LEAVE AN EMERGENCY PHONE NUMBER WITH THE CITY COMMUNICATIONS DIVISION OF THE POLICE DEPARTMENT.

5-3 NOTIFICATION TO UNDERGROUND SERVICES ALERT (USA) - THE CONTRACTOR SHALL NOTIFY USA (1-800-642-2444) A MINIMUM TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION IN THE VICINITY OF ANY UNDERGROUND UTILITY LINES, UNLESS OTHERWISE STATED BY CITY CONTRACT. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXACT LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO EXCAVATION.

5-4 DAMAGE TO EXISTING UTILITIES - THE CONTRACTOR SHALL BEAR FULL RESPONSIBILITY FOR ALL DAMAGES AND COSTS OF REPAIRS TO EXISTING UTILITIES.

5-5 STREET OPENING PERMIT - A STREET OPENING PERMIT SHALL BE OBTAINED BY THE CONTRACTOR FROM THE PUBLIC WORKS DEPARTMENT, ENGINEERING DIVISION, FOR ALL WORK IN THE CITY RIGHT-OF-WAY. THIS DOES NOT APPLY TO CITY-ADMINISTERED PROJECTS.

5-6 ENCROACHMENT PERMIT - AN ENCROACHMENT PERMIT SHALL BE OBTAINED BY THE OWNER OF PRIVATE IMPROVEMENTS, PERMANENT OR TEMPORARY IN NATURE, PLACED WITHIN THE CITY RIGHT-OF-WAY OR ON CITY PROPERTY.



SOUTH PARKING LOT RENOVATION

SCALE: 1" = 10'

UNDERGROUND NOTES

1. STORMDRAIN PIPE SHALL BE SDR-26 P.V.C., A.D.S. N-12 SMOOTH INTERIOR CORRUGATED POLYETHYLENE PIPE OR APPROVED SUBSTITUTE, OR AS NOTED ON PLAN. ALL DRAINAGE PIPE SHALL BE SHIPPED, STORED, AND INSTALLED PER THE PIPE MANUFACTURER'S RECOMMENDATIONS.
2. ALL CONCRETE DRAINAGE INLETS CALLED OUT ON THE PLANS SHALL BE CHRISTY BRAND PRECAST CONCRETE OR EQUIVALENT. ALL STRUCTURES SHALL BE STORED, HANDLED, AND INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS. ALL GRATES IN PAVEMENT AREAS SHALL BE ADA COMPLIANT.
3. ALL CONCRETE DRAINAGE INLETS CALLED OUT ON THE PLANS SHALL HAVE A HEAVY RATED FRAME WITH A ADA COMPLIANT GRATE. CATCH BASINS THAT HAVE SILT AND GREASE TRAPS SHALL BE INCLUDED IN THE PROJECT MONITORING AND MAINTENANCE PLAN.
4. SANITARY SEWER TRENCH BACKFILL SHALL CONFORM TO CITY OF PALO ALTO SEWER PIPE TRENCH DETAIL.
5. JETTING OF BACKFILL MATERIALS TO ACHIEVE COMPACTION IS NOT ALLOWED.
6. ALL THE WATER PIPING SHALL BE AWWA CLASS 150, ALL VALVES , ANGLES, AND THRUST BLOCKS SHALL BE INSTALLED PER CURRENT CPC SPECIFICATIONS.
7. ALL FIRE SERVICE PIPING AND APPURTENANCES SHALL CONFORM TO NFPA STANDARDS AND SPECIFICATIONS
8. ANY EXISTING UTILITIES THAT ARE REQUIRED TO BE RELOCATED AS A PART OF THIS CONSTRUCTION SHALL BE RELOCATED AT THE DEVELOPER'S EXPENSE.

GENERAL NOTES

1. NO CHANGE TO THE PLANS SHALL BE PERMITTED WITHOUT PRIOR WRITTEN APPROVAL BY THE OWNER OR OWNERS REPRESENTATIVES AND THE CITY OF PALO ALTO.
2. CONTRACTOR SHALL VERIFY LOCATIONS, ELEVATIONS AND INVERTS OF EXISTING UTILITY PRIOR TO COMMENCEMENT OF WORK AND SHALL NOTIFY OWNER OR OWNERS REPRESENTATIVES OF VARIANCE FROM THOSE SHOWN ON THE PLANS.
3. UNDERGROUND FACILITIES AND UTILITIES HAVE BEEN SHOWN BASED ON RECORD DRAWINGS AND VISIBLE EVIDENCE FOUND IN FIELD. NO WARRANTY IS MADE REGARDING THE COMPLETENESS OR ACCURACY OF SUCH INFORMATION. PRIOR TO CONSTRUCTION, DETERMINE THE EXACT LOCATION OF UNDERGROUND FACILITIES AND UTILITIES, AND PRESERVE SAME FROM DAMAGE. PRIOR TO CONSTRUCTION, VERIFY LOCATION AND ELEVATION OF EXISTING UNDERGROUND UTILITIES AT THE CROSSING POINTS WITH PROPOSED UTILITIES. THE CONTRACTOR SHALL NOTIFY THE OWNER OR OWNERS REPRESENTATIVES IF CONDITIONS DIFFER FROM THOSE SHOWN ON THE DRAWINGS AND SHALL NOT BEGIN CONSTRUCTION UNTIL THE CHANGED CONDITION HAS BEEN EVALUATED. CONTACT UNDERGROUND SERVICES ALERT (USA) (1-800-227-2600) TWO (2) WORKING DAYS PRIOR TO DIGGING. REPAIR UNDERGROUND UTILITIES DAMAGED BY CONSTRUCTION OPERATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL DAMAGES ASSOCIATED WITH CONTRACTOR'S FAILURE TO EXACTLY LOCATED AND PRESERVE UNDERGROUND FACILITIES AND UTILITIES.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COORDINATION WITH THE UTILITIES AND PUBLIC WORKS DEPARTMENTS TO VERIFY THE EXISTENCE AND/OR LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO COMMENCEMENT OF WORK. AND SHALL NOTIFY U.S.A. @ (800) 227-2600 AT LEAST 48-HOURS IN ADVANCE OF EXCAVATION.
5. IF ANY INDICATIONS OF ARCHEOLOGICAL REMAINS ARE ENCOUNTERED DURING GRADING ACTIVITIES FOR ANY DEVELOPMENT WITHIN THE PROJECT SITE, ALL WORK SHALL BE HALTED WITHIN 200 FOOT RADIUS OF THE FIND. OWNER SHALL RETAIN A QUALIFIED ARCHEOLOGIST RETAINED TO DETERMINE THE NATURE OF THE DISCOVERY AND RECOMMEND APPROPRIATE EVALUATION PROCEDURES.

LICENSED LANDSCAPE ARCHITECT
PETER C. JENSEN
C-5602
10-31-20
Renewal Date
8-4-18
Date
STATE OF CALIFORNIA

NO.	DESCRIPTION	DATE	BY

PATH — Revisions

WORK ACCEPTED: INSPECTOR: BY: DATE:

DRAWN: PJ | DESIGN: PJ | HOR: N/A
CHECKED: PJ | VERT: N/A
APPROVED: | DATE: 2/10/20 | JOB NUMBER: XX

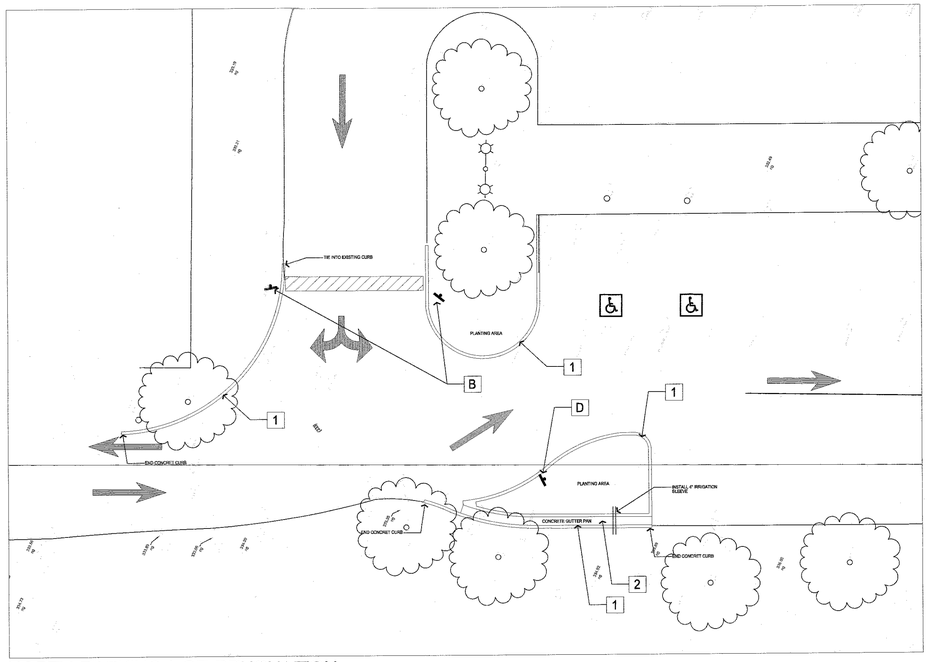
SCOTT CREER - CITY ENGINEER
RCE 58679 EXP 09/30/2021

City of Morgan Hill
Public Works Department
CITY OF MORGAN HILL
17575 Peak Ave. Morgan Hill, CA 95037 (408)778-6480, Fax (408)779-7236

171 W
EDMUNDSON AVE,
MORGAN HILL,
CA 95037

PARKING LOT DEMOLITION PLAN
MAGICAL BRIDGE MORGAN HILL

FILE NUMBER: 1818000
PRINT DATE: 08/23/19
SHEET NUMBER: P1.1



NORTH PARKING LOT RENOVAITON

CONSTRUCTION LEGEND

SYMBOL	DESCRIPTION	DETAIL
1	6" WIDE NATURAL GRAY CONCRETE CURB - SCORE 6' O.C.	'B' L-XX
2	18" WIDE NATURAL GRAY CONCRETE GUTTER PAN - SCORE 4' O.C.	'D' L-XX
3	INSTALL NEW 3" LAYER OF DECOMPOSED GRANITE TO MATCH EXISTING WITH REDWOOD HEADER BOARD - MECHANICALLY COMPACT	'C' L-XX
4	CAST-IN-PLACE NATURAL GRAY CONCRETE ELEVATED WALK	'F' L-XX
5	CAST-IN-PLACE NATURAL GRAY CONCRETE SIDEWALK - SCORE 5' O.C.	'E' L-XX
6	6" WIDE NATURAL GRAY CONCRETE CURB - SCORE 6' O.C.	'B' L-XX
7	ACCESSIBLE PARKING STALL SIGNAGE	'I' L-XX
8	PARKING STALL CONCRETE WHEEL STOP - 7 TOTAL	'H' L-XX
9	6" WIDE NATURAL GRAY CONCRETE "ZERO CURB"	'X' L-XX
10	2' WIDE TRUNCATED DOME PANELS - REFER TO PLAN FOR WIDTH	'G' L-XX
11	CAST-IN-PLACE ELEVATED CONCRETE WALKWAY	'AA' L-XX
12	3' WIDE TRUNCATED DOME PANELS - REFER TO PLAN FOR WIDTH	'G' L-XX
13	20" WIDE STEEL TRENCH DRAIN GRATE - PER CONTRACTOR	'AA' L-XX

SIGNAGE LEGEND

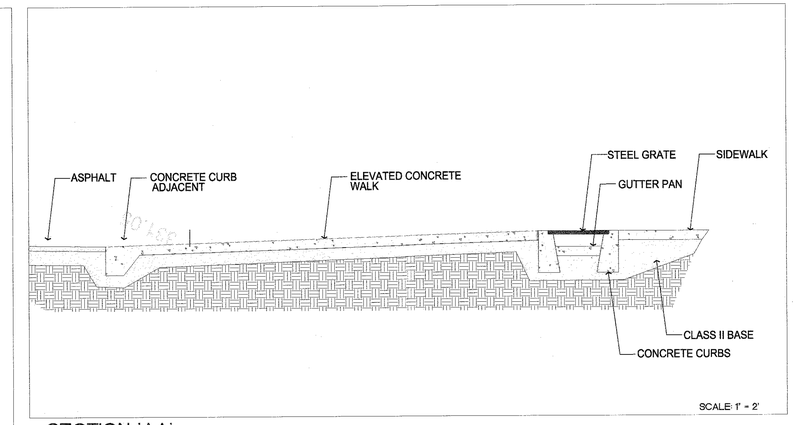
SYMBOL	DESCRIPTION	DETAIL
A	ACCESSIBLE PARKING STALL SIGN	'I' L-XX
B	DO NOT ENTER SIGN	'I' L-XX
C	ONE WAY SIGN	'I' L-XX
D	MILES PER HOUR SIGN	'I' L-XX

CONSTRUCTION NOTES

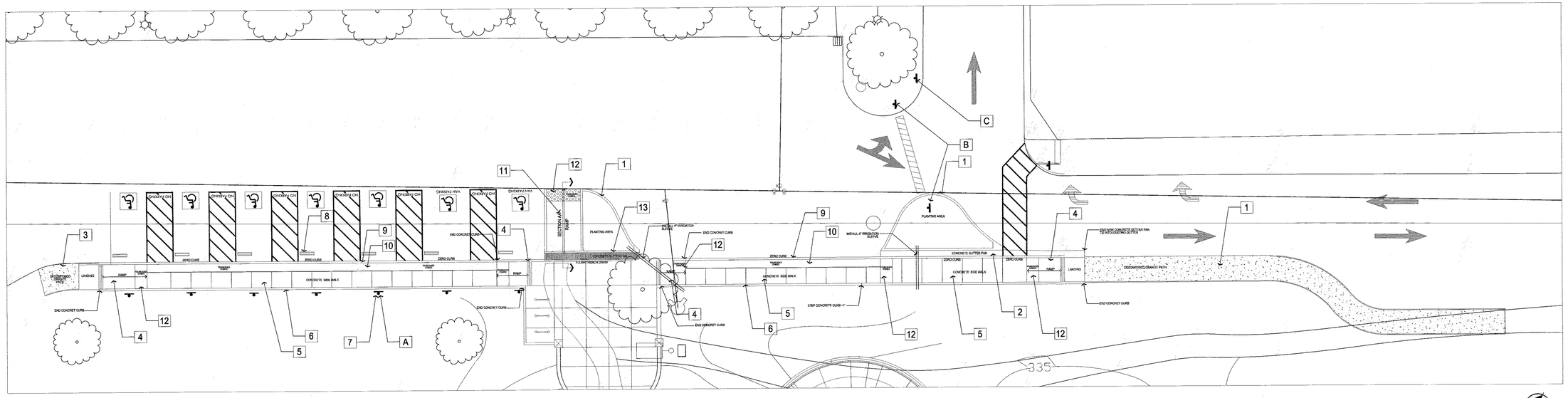
1. CONTRACTOR IS RESPONSIBLE TO CALL 811 AND LOCATE ALL UTILITIES ON SITE BEFORE PROCEEDING WITH DEMOLITION.
2. CONTRACTOR IS TO SET UP A SITE MEETING WITH A CITY REPRESENTATIVE AND THE PROJECTS LANDSCAPE ARCHITECT TO REVIEW SCOPE OF WORK BEFORE PROCEEDING.
3. TIE NEW CONCRETE WALKWAYS INTO EXISTING DECOMPOSED GRANITE WALKWAYS.

STRIPPING NOTES

1. CONTRACTOR TO PAINT PARKING LOT STRIPPING PER PLAN INCLUDING ALL STALL, ADA AND DIRECTIONAL ARROWS.



SECTION 'AA'



SOUTH PARKING LOT RENOVATION

SCALE: 1" = 10'

LICENSED LANDSCAPE ARCHITECT
PETER C. JENSEN
C-5663
10.31.20
Renewal Date
9.4.19
Date
STATE OF CALIFORNIA

NO.	DESCRIPTION	DATE	BY
PATH			

Revisions

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APPROVED: DATE: 2/10/20
SCOTT CREER - CITY ENGINEER
RCE 56679 EXP 09/30/2021

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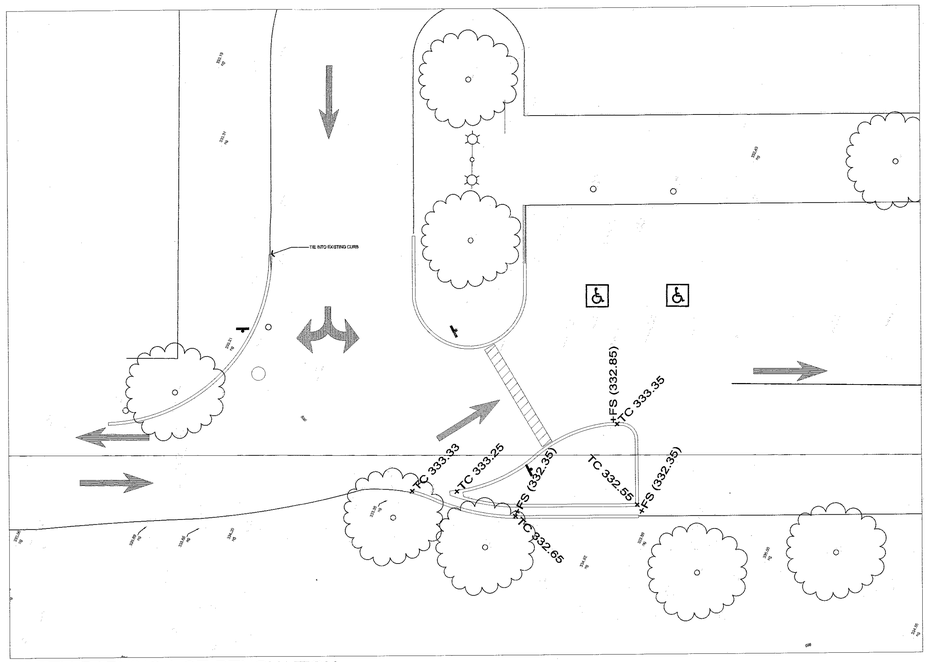
City of Morgan Hill
Public Works Department
17575 Peak Ave. Morgan Hill, CA 95037 (408)778-6480, Fax (408)779-7236

171 W
EDMUNDSON AVE,
MORGAN HILL,
CA 95037

PARKING LOT RENOVATION PLAN
MAGICAL BRIDGE MORGAN HILL

FILE NUMBER: 1818000
PRINT DATE: 08/23/19
SHEET NUMBER: P2.1



NORTH PARKING LOT RENOVAITON

GENERAL GRADING NOTES:

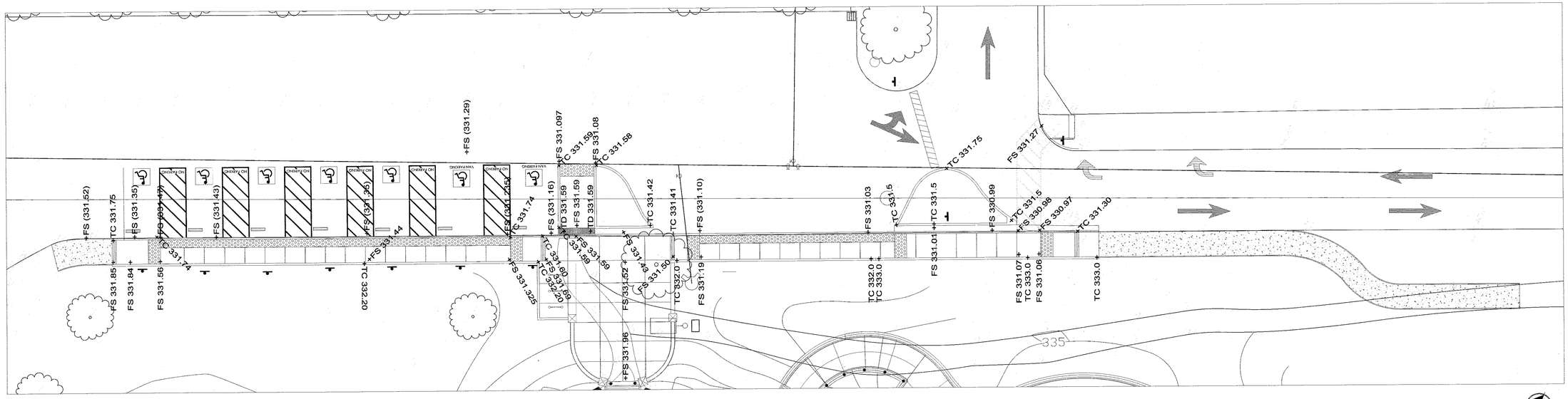
1. ALL WORK SHALL BE IN ACCORDANCE WITH THE PROJECT'S GEOTECHNICAL REPORT.
2. ALL AREAS TO RECEIVE FILL SHALL BE STRIPPED TO A DEPTH TO BE DETERMINED BY THE GEOTECHNICAL ENGINEER. ANY (E) A.C. OR P.C.C. PAVING SHALL BE SCARIFIED & REMOVED & SUBGRADE PREPARED & COMPACTED TO 90% RELATIVE COMPACTION (MINIMUM) AS SHOWN IN THESE PLANS.
3. ALL MATERIAL TO BE USED AS FILL WITHIN BUILDING PAD AREAS & PARKING OR DRIVEWAY AREAS TO BE FREE OF ALL VEGETATION & FOREIGN MATTER AND SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER. BUILDING PAD SHALL BE EXCAVATED TO 36" BELOW EXISTING GRADE, AS PER GEOTECHNICAL REPORT.
4. DRIVEWAY AREAS TO BE COMPACTED TO 95% RELATIVE COMPACTION PER ASTM D1557-91, NATIVE SUBGRADE TO BE REWORKED AND COMPACTED TO A DEPTH OF 6" BELOW AGGREGATE BASE COURSE PER GEOTECH REPORT. PREPARATION TO EXTEND 2' LATERALLY BEYOND EDGE OF PAVING.
5. CONCRETE SLAB-ON-GRADE TO BE UNDERLAIN BY 6" OF CLASS II BASEROCK W/ VAPOR BARRIER (15 MIL)AND COMPACTED TO 95% RELATIVE.
6. AT ALL PERIMETER FOOTINGS, OVER-EX AND RECOMPACT 18" BELOW FINISHED SUBGRADE
7. STRIPPINGS MAY BE PLACED IN PLANTING AREAS; ALL EXCESS STRIPPING SHALL BE HAULED OFF. PAVING DEBRIS SHALL BE HAULED OFF TO AN APPROVED DISPOSAL SITE.
8. ALL WORK SHOWN OR NOTED IN THESE PLANS SHALL BE IN STRICT ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER, ALL LOCAL, STATE AND FEDERAL MINIMUM STANDARDS AND THE LATEST EDITION OF THE UNIFORM BUILDING CODE.
9. CONTRACTOR SHALL PROTECT ALL EXISTING SITE IMPROVEMENTS NOT IDENTIFIED FOR REMOVAL DURING CONSTRUCTION. CONTRACTOR SHALL REPAIR ANY DAMAGE TO AS-NEW CONDITION AT THEIR SOLE EXPENSE.
10. CONTRACTOR SHALL VERIFY ALL EXISTING SITE CONDITIONS, SITE DIMENSIONS AND GRADES PRIOR TO THE START OF CONSTRUCTION.
11. ALL GRADING AND RELATED WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE STANDARD REQUIREMENTS OF THE CITY.
12. GRADING SLOPES FOR BOTH CUT AND FILL SHALL NOT EXCEED 2(H):1(V) UNLESS OTHERWISE DIRECTED BY THE GEOTECHNICAL ENGINEER.
13. ALL SOFTSCAPE GRADES ADJACENT TO (N) BUILDINGS SHALL BE 8" (MIN.) BELOW FINISH FLOOR.
14. CONTRACTOR SHALL GRADE TO ENSURE DRAINAGE FLOWS AWAY FROM (N) BUILDING. MIN SLOPE OF 5% FOR 10' FROM EDGE OF BUILDING.
15. ALL EXCESS EARTHWORK SHALL BE PLACED ON SITE AT AN APPROVED LOCATION. OR HAULED OFF TO AN APPROVED FACILITY.

CONTRACTOR RESPONSIBILITY

CONTRACTOR AGREES THAT HE SHOULD ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY, DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, AND THAT REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED DURING WORKING HOURS. THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE DESIGN PROFESSIONALS 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 OWNER OR DESIGN PROFESSIONAL.

DISCREPANCIES

IF THERE ARE ANY DISCREPANCIES BETWEEN THE CONSTRUCTION DOCUMENTS AND EXISTING CONDITIONS WHICH WILL AFFECT THE WORK, THE CONTRACTOR SHALL BRING SUCH DISCREPANCIES TO THE DESIGN PROFESSIONAL FOR ADJUSTMENT BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER FITTING OF ALL WORK AND FOR THE COORDINATION OF ALL TRADES, SUBCONTRACTORS, AND PERSONS ENGAGED UPON THIS CONTRACT.



SOUTH PARKING LOT RENOVATION

SCALE: 1" = 10'

LICENSED LANDSCAPE ARCHITECT
PETER C. JENSEN
C-3993
Signature
10.31.20
Renewal Date
9.4.19
Date
STATE OF CALIFORNIA

NO.	DESCRIPTION	DATE	BY

PATH

Revisions

WORK ACCEPTED: INSPECTOR:
BY: DATE:

DRAWN: PJ DESIGN: PJ
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APPROVED: DATE: 2/10/20
SCOTT CIRER - CITY ENGINEER
RCE 58679 EXP 09/30/2021

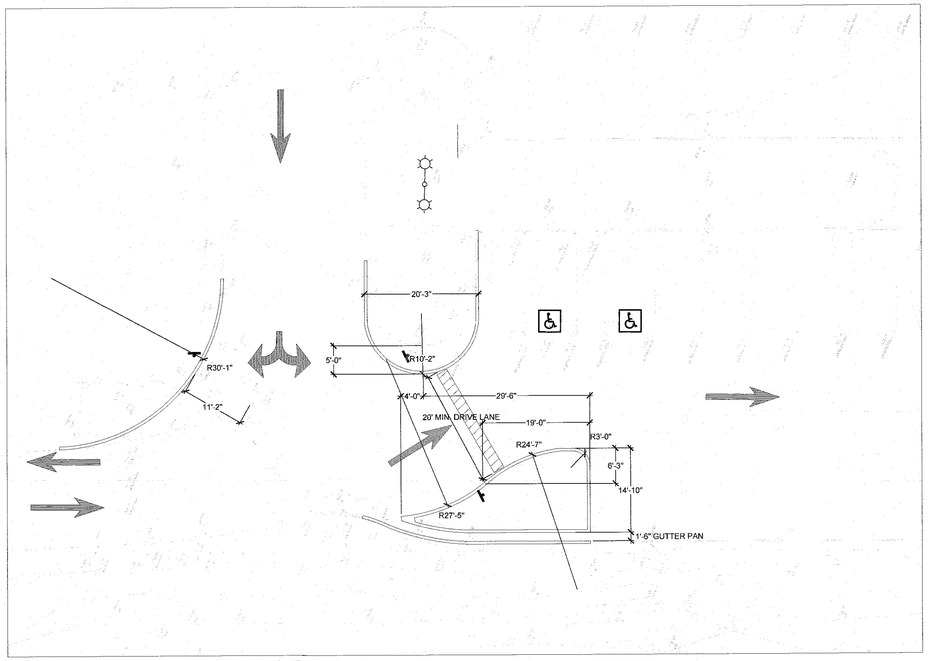
HOR: N/A
VERT: N/A
JOB NUMBER: XX

City of Morgan Hill
Public Works Department
CITY OF MORGAN HILL
17575 Peak Ave. Morgan Hill, CA 95037 (408)778-6480, Fax (408)779-7236

171 W
EDMUNDSON AVE,
MORGAN HILL,
CA 95037

PARKING LOT GRADING PLAN
MAGICAL BRIDGE MORGAN HILL

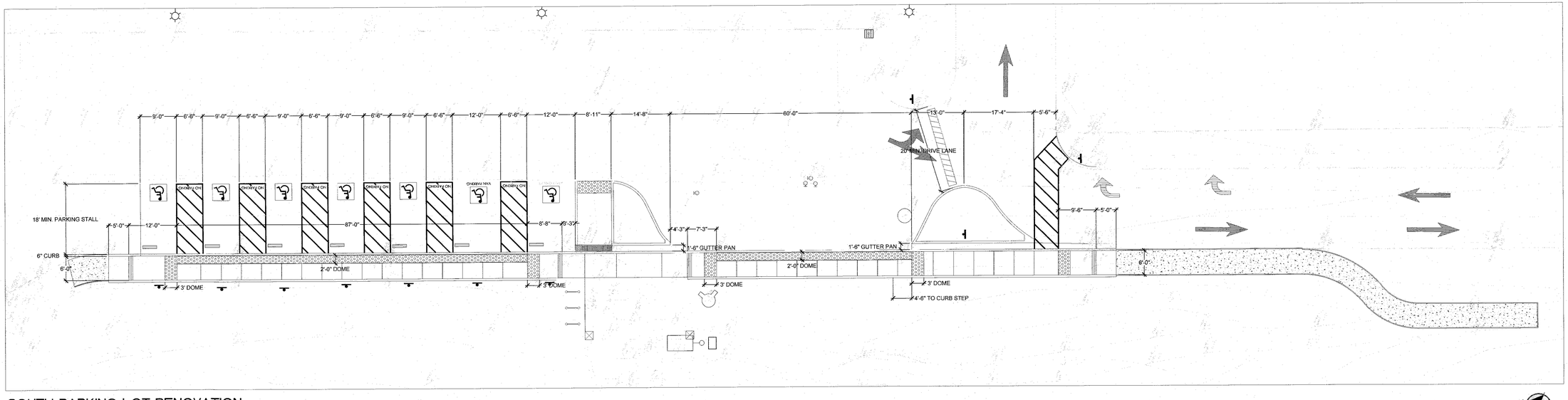
FILE NUMBER: 1818000
PRINT DATE: 08/23/19
SHEET NUMBER: P3.1



NORTH PARKING LOT RENOVAITON

LAYOUT NOTES

1. CONTRACTOR IS TO SET UP A SITE MEETING WITH A CITY REPRESENTATIVE AND THE PROJECTS LANDSCAPE ARCHITECT TO REVIEW LAYOUT IN THE FIELD BEFORE PROCEEDING.



SOUTH PARKING LOT RENOVATION

SCALE: 1" = 10'

LICENSED LANDSCAPE ARCHITECT
PETER C. JENSEN
C-5663
Signature
10.31.20
Renewal Date
9.4.19
Date
STATE OF CALIFORNIA

NO.	DESCRIPTION	DATE	BY

PATH

Revisions

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SCOTT CREER - CITY ENGINEER
RCE 58829 EXP 09/30/2021

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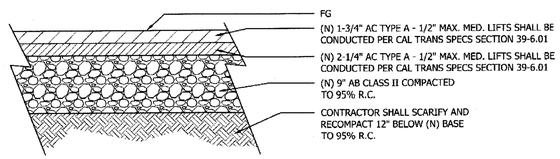
City of Morgan Hill
Public Works Department
CITY OF MORGAN HILL
17575 Peak Ave. Morgan Hill, CA 95037 (408)778-6480, Fax (408)779-7236

171 W
EDMUNDSON AVE,
MORGAN HILL,
CA 95037

PARKING LOT LAYOUT PLAN
MAGICAL BRIDGE MORGAN HILL

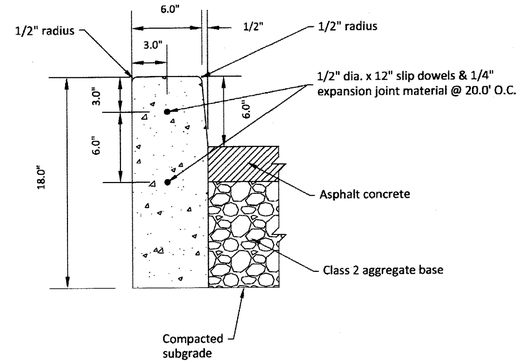
FILE NUMBER: 1818000
PRINT DATE: 08/23/19
SHEET NUMBER: P4.1



NOTES:
1. CONTRACTOR SHALL SAND SEAL ALL AC JOINTS

DETAIL NOT TO SCALE

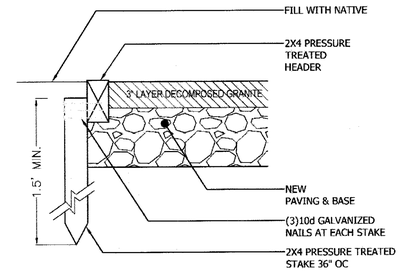
A - ASPHALT PAVING



NOTE:
1. All exposed concrete edges (horizontal and vertical) shall be 1/2" radius

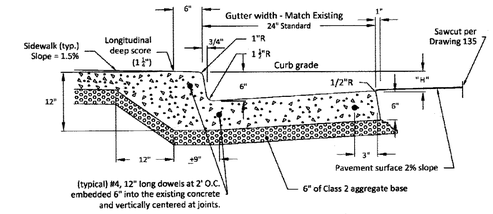
DETAIL NOT TO SCALE

B - VERTICLE CURB



DETAIL NOT TO SCALE

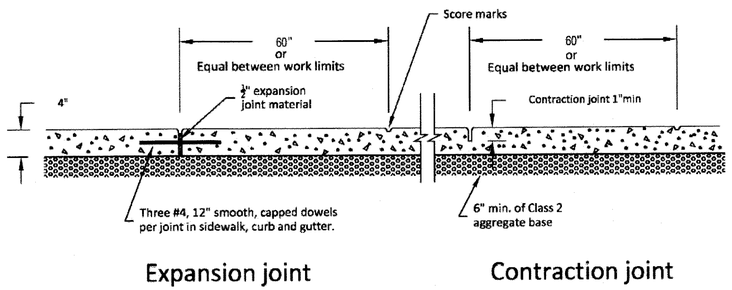
C - DECOMPOSED GRANITE



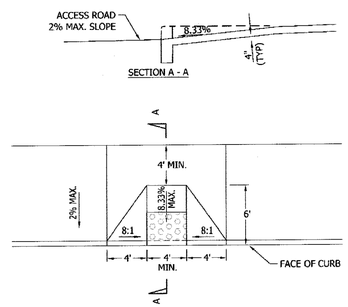
NOTES:
- Use 1/2" wide felt expansion material at each end of curb returns and a maximum of 60" O.C.
- Use #4, 12" long dowels at each expansion joint and at end of pours (3 dowels for 2 ft. and 3 ft. gutters, 5 dowels for 6 ft. gutters).
- Mark contraction joints 1-1/2" deep at 10 ft. centers.
- Surface finish to be light brooming.
- "H" dim = 5" with 1 ft. gutter;
  "H" dim = 4-1/2" with 2 ft. gutter;
  "H" dim = 4" with 3 ft. gutter
  "H" dim = 3" with 6 ft. gutter;
  Existing gutter widths vary (1 ft., 2 ft., 3 ft., or 6 ft.). Match existing.
- All new Asphalt Concrete patches shall be with 3/8" hot mix.
- No saw-cutting permitted parallel to the face of curb within the width of the gutter pan/
- When possible, pour Type A curb and gutter monolithically with sidewalks, driveways and PCC slabs.
- Install longitudinal deep score along entire back of curb.

DETAIL NOT TO SCALE

D - CURB AND GUTTER



LONGITUDINAL SECTIONS



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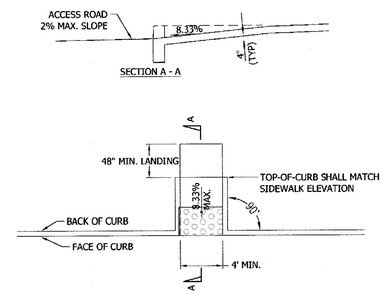

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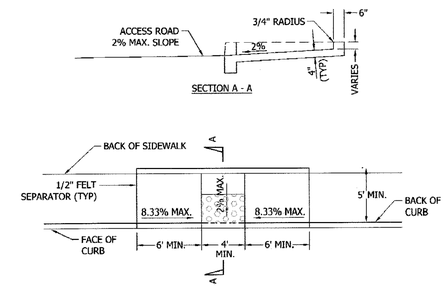


TYPE "C"

NOTES:
1. Sidewalks to be marked per plan.
2. Edges to have a 3/4" radius.
3. Score marks shall be minimum 3/8" deep; contraction joints shall be 1" minimum depth at 10 ft. O.C.
4. Contraction joints may be saw-cut.
5. Sidewalks to have 1.5% slope to street.
6. All new sidewalk shall be doweled at 2 ft. O.C. into existing concrete with #4, 12" long dowels and embedded 6".
7. Saw-cut walk full depth and full width on score marks perpendicular to the curb. No saw-cutting on longitudinal score marks.
8. Install longitudinal deep score along entire back of curb that is monolithic with the sidewalk.

DETAIL NOT TO SCALE

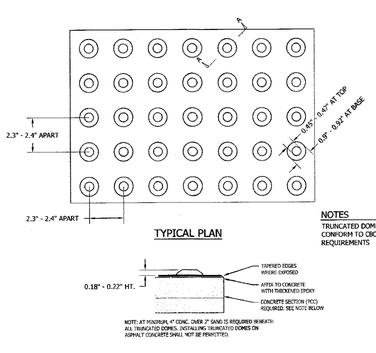
E - CONCRETE SIDEWALK

NOTES:

1. THE SURFACE OF RAMP SHALL HAVE A TRANSVERSE BROOMED SURFACE TEXTURE ROUGHER THAN THE SURROUNDING SIDEWALK, EXCEPT WHEN LOCATED IN CENTER OF CURB RETURN.
2. RAMP SLOPE SHALL NOT EXCEED 8.33% IN THE DIRECTION OF TRAVEL AND 2% PERPENDICULAR TO THE DIRECTION OF TRAVEL.
3. RAMP FLARES (WHEN APPLICABLE) SHALL NOT EXCEED 12.5%
4. CURRENT A.D.A. (AMERICANS WITH DISABILITIES ACT) REQUIREMENTS SHALL GOVERN OVER THIS DRAWING.
5. CONSTRUCT DEEP SCORE JOINTS 1/4" x 1-1/4" MIN.

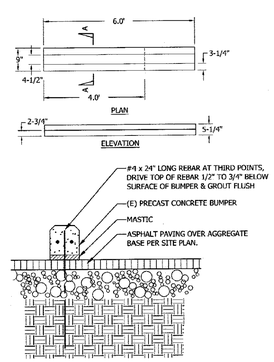
DETAIL NOT TO SCALE

F - ACCESSIBLE RAMPS



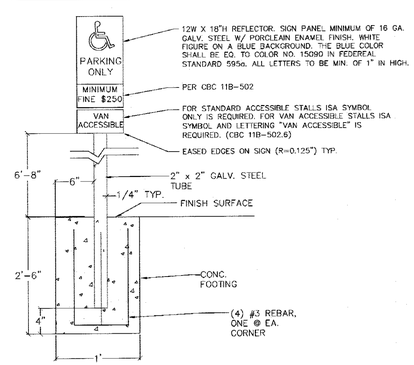
DETAIL NOT TO SCALE

G - TRUNCATED DOME



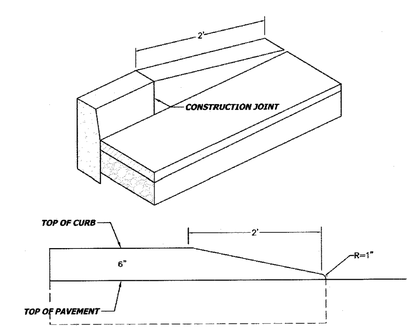
DETAIL NOT TO SCALE

H - WHEEL STOP



DETAIL NOT TO SCALE

I - ACCESSIBLE STALL SIGN



DETAIL NOT TO SCALE

J - TAPPERED CURB

LICENSED LANDSCAPE ARCHITECT
PETER C. JENSEN
C-5663
Signature
10.31.20
Renewal Date
8.4.19
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STATE OF CALIFORNIA

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CITY OF MORGAN HILL
17575 Peak Ave. Morgan Hill, CA 95037 (408)778-6480, Fax (408)779-7236

171 W EDMUNDSON AVE, MORGAN HILL, CA 95037

PARKING LOT RENOVAITON DETAILS
MAGICAL BRIDGE MORGAN HILL

FILE NUMBER: 1818000
PRINT DATE: 08/23/19
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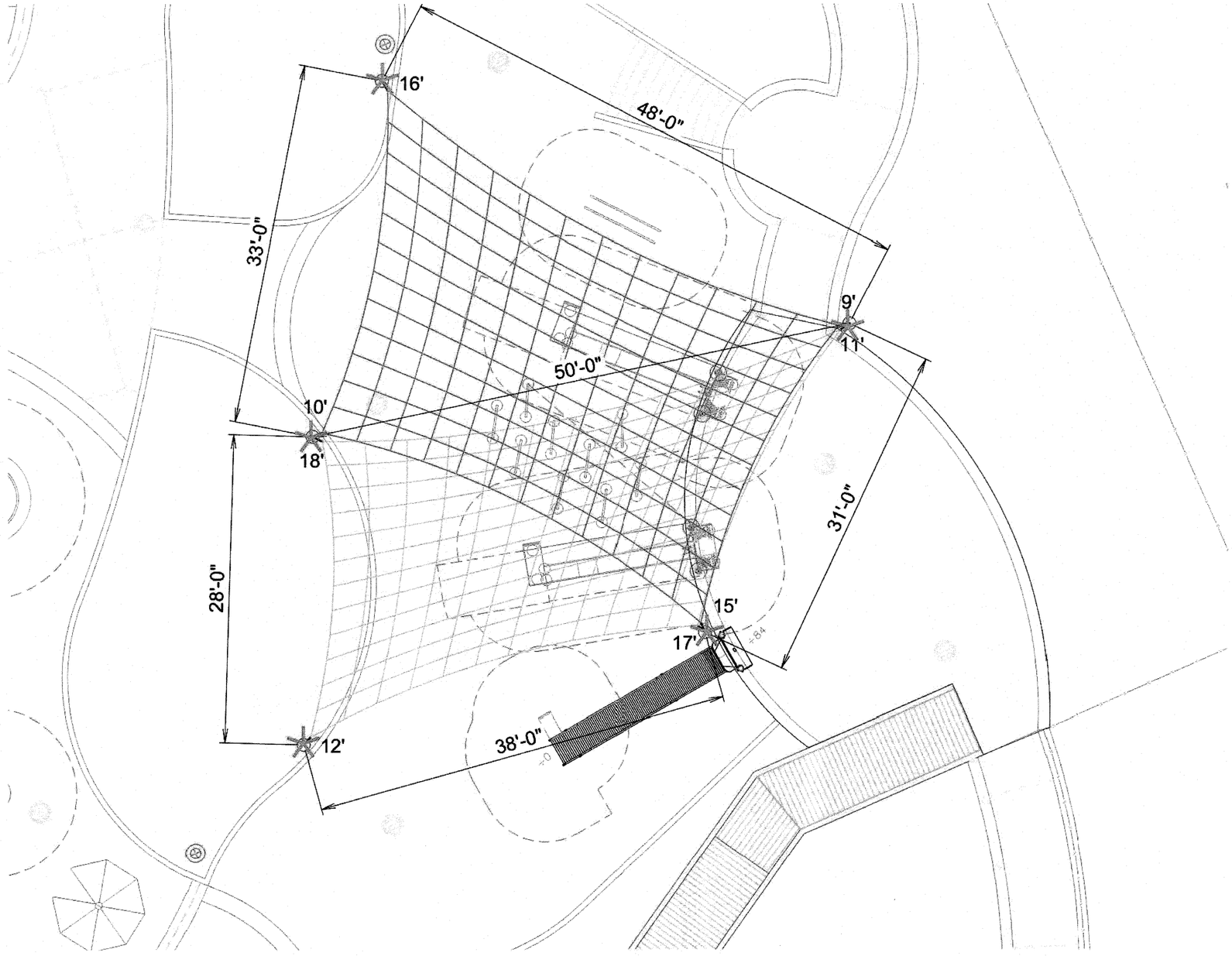

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PATH

Revisions

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BY: DATE:

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SHADE SAIL PLAN - BID ALTERNATE
MORGAN HILL INCLUSIVE PLAYGROUND / MAGICAL BRIDGE PROJECT

FILE NUMBER: 1818000
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