

SITE & PROJECT INFORMATION:

LOT AREA: 13,459 SQ. FT. (0.31 ACRES)

APN: 4179-005-903

LEGAL DESCRIPTION: LOTS 10 THROUGH 14 INCLUSIVE IN BLOCK 92, OF MANHATTAN BEACH NO. 2, IN THE CITY OF MANHATTAN BEACH, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 1, PAGES 95 AND 96 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

ZONING DISTRICT: CD
AREA DISTRICT: III

EXISTING & PROPOSED USE: COMMERCIAL PARKING FACILITY

SCOPE OF WORK:

PROJECT WILL CONSTRUCT AN INTERIM SURFACE PARKING LOT WITH LANDSCAPING, PARKING LOT LIGHTS, EV CHARGING STATIONS AND TRASH ENCLOSURE, SUBJECT TO CITY COUNCIL RESOLUTION NO. 25-0012.

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CODES:

2022 CALIFORNIA BUILDING CODE;
2022 CALIFORNIA MECHANICAL CODE;
2022 CALIFORNIA PLUMBING CODE;
2022 CALIFORNIA ELECTRICAL CODE;
2022 CALIFORNIA GREEN BUILDING STANDARDS CODE; AND
MANHATTAN BEACH MUNICIPAL CODE (MBMC)

STANDARD PLANS:

CITY OF MANHATTAN BEACH	SIDEWALK
MBSI-112A-0(ST-2)	COMMERCIAL DRIVEWAY
MBSI-116A-0	COMMERCIAL DRIVEWAY
MBSI-116D-0	CURB AND GUTTER
MBSI-120A-0(ST-2)	CURB AND GUTTER
MBSI-413A-0	SIGN INSTALLATION
MBSS-200A-0	SEWER LATERAL CONNECTION & CLEANOUT
MBSI-132A-0(ST-10)	STREET EXCAVATION AND PAVEMENT RESTORATION.

APWA	CURB AND GUTTER - BARRIER
120-2	

CALTRANS	CURB RAMPS
A86A	

ABBREVIATIONS

CL	CENTER LINE
CF	CURB FACE
C&G	CURB AND GUTTER
SW	SIDEWALK
GB	GRADE BREAK
EP	EDGE OF PAVEMENT
ECR	END OF CURVE
PB	PULL BOX
FS	FINISHED SURFACE
FL	FLOW LINE
HP	HIGH POINT
LP	LOW POINT
RW	RETAINING WALL
RWM	RECLAIMED WATER METER
PP	POWER POLE
ST. LT.	STREET LIGHT
TC	TOP OF CURB
TC	TOP OF GATE
PL	PROPERTY LINE
WM	WATER METER
TMH	TELEPHONE MANHOLE
EV	ELECTRIC VEHICLE

CITY OF MANHATTAN BEACH

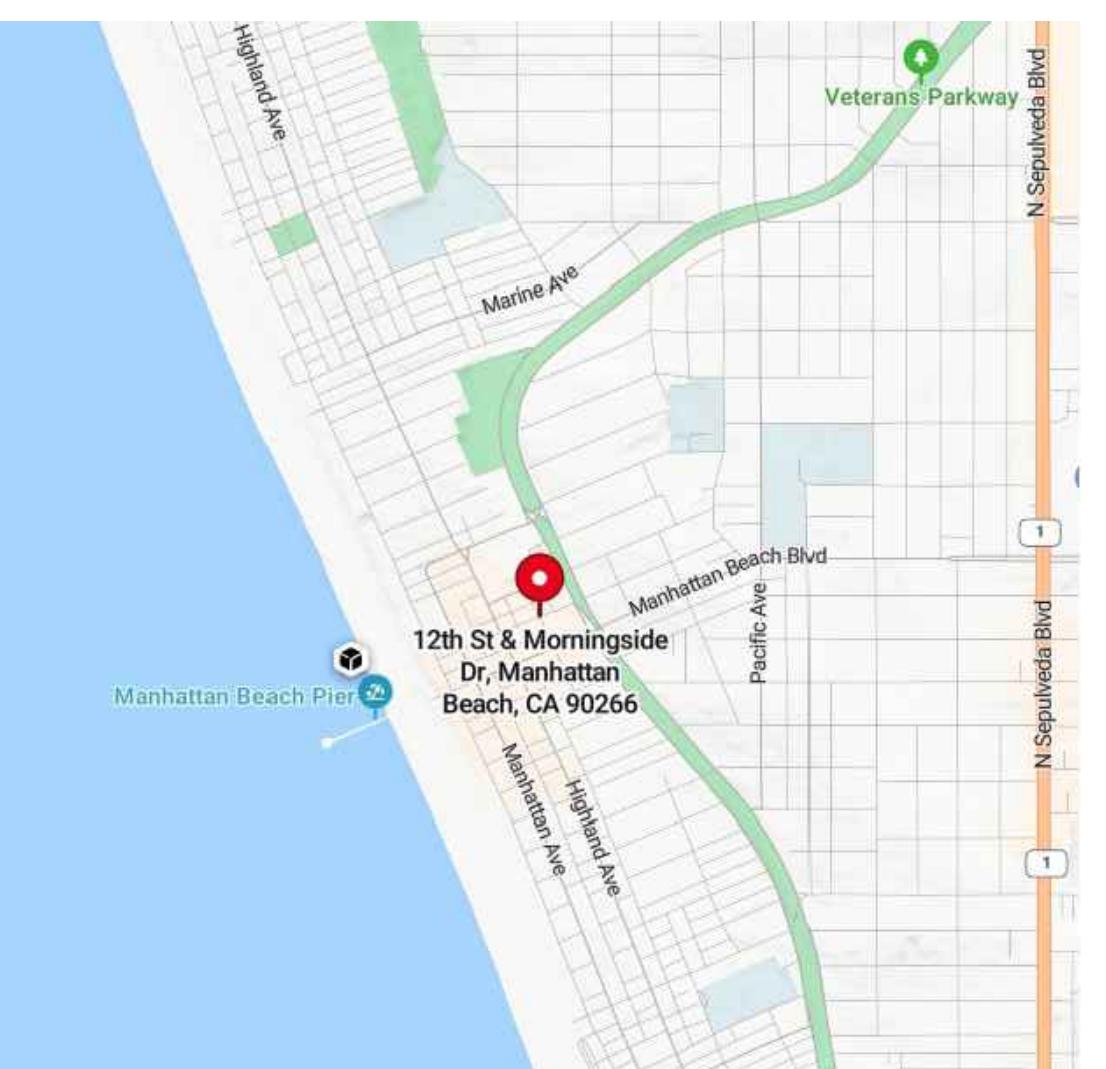
PLANS FOR

INTERIM SURFACE PARKING LOT 3 PROJECT

1155 MORNINGSIDE DR.



PUBLIC WORKS DEPARTMENT
3621 BELL AVENUE
MANHATTAN BEACH, CALIFORNIA 90266



LOCATION MAP
NOT TO SCALE

DECLARATION OF DESIGN ENGINEER OF RECORD

I HEREBY DECLARE THAT THE DESIGN OF THE IMPROVEMENTS AS SHOWN ON THESE PLANS COMPLIES WITH PROFESSIONAL ENGINEERING STANDARDS AND PRACTICES. AS THE ENGINEER IN RESPONSIBLE CHARGE OF THE DESIGN OF THESE IMPROVEMENTS, I ASSUME FULL RESPONSIBLE CHARGE FOR SUCH DESIGN. THE PLAN CHECK IS NOT A DETERMINATION OF THE TECHNICAL ADEQUACY OF THE DESIGN OF THE IMPROVEMENTS. SUCH CHECK DOES NOT, THEREFORE RELIEVE ME OF MY RESPONSIBILITY FOR THE DESIGN OF THESE IMPROVEMENTS. I ALSO HEREBY DECLARE THAT I HAVE COMPARED THESE PLANS WITH ALL APPLICABLE ADA TITLE II REQUIREMENTS FOR DISABILITY ACCESS FOR THIS PROJECT AND THESE PLANS ARE IN FULL COMPLIANCE WITH THOSE REQUIREMENTS.

M. Todd Brouard

SIGNATURE

DATE

3/10/25

 <p>Know what's below. Call before you dig.</p>		SUPPLEMENTAL NOTES <ol style="list-style-type: none"> THE CONTRACTOR SHALL LOCATE, VERIFY AND PROTECT ALL EXISTING UNDERGROUND UTILITIES. DAMAGED UTILITIES SHALL BE REPLACED IN KIND AT THE CONTRACTOR'S EXPENSE. DUE TO INDIVIDUAL LOT IMPROVEMENTS, THE EXISTING WATER, SEWER AND/OR GAS LATERALS MAY NOT BE AT THE LOCATIONS SHOWN OR SHOWN IN THEIR ENTIRETY. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN EXCAVATING. THE CONTRACTOR SHALL DETERMINE THE DEPTH OF THE GAS LINE, CABLE, SEWER, STORM DRAIN AND WATER AT ALL INTERSECTIONS AND INTERFERENCES PRIOR TO CONSTRUCTION AND AS NOTED ON PLANS. 	
<p>NO WORK SHALL BE DONE ON THIS SITE UNTIL USA AGENCY IS NOTIFIED OF INTENTION TO GRADE OR EXCAVATE, TWO WORKING DAYS BEFORE YOU DIG.</p>		 <p>No. C57144 EXP 12-31-2025 CIVIL STATE OF CALIFORNIA</p>	<p>TAIT & ASSOCIATES, INC. 701 N. PARKCENTER DRIVE SANTA ANA, CA 92705 (714) 560-8200</p> <p><i>M. Todd Brouard</i></p> <p>2/10/2025 DATE SIGNED</p>
REVIEWED	BY	DATE	

PROJECT UTILITY CONTACTS		
CITY OF MANHATTAN BEACH (FRONT DESK - 24/7)	.....	(310) 802-5140
CITY OF MANHATTAN BEACH (POLICE DEPARTMENT)	.....	(310) 802-5100
CITY OF MANHATTAN BEACH (FIRE DEPARTMENT)	.....	(310) 802-5203
COUNTY SANITATION DISTRICT (COMPTON)	.....	(310) 638-1161
AT&T (DISTRIBUTION)	.....	(510) 645-2929
AT&T (TRANSMISSION)	.....	(866) 460-6324
WEST BASIN MUNICIPAL WATER DISTRICT - FRANK FUCHS	.....	(310) 220-5475
WEST BASIN MUNICIPAL WATER DISTRICT - INFRAMARK, LLC (RECYCLED WATER PIPELINE MAINTENANCE)	.....	(310) 217-2417
LA COUNTY PUBLIC WORKS (FLOOD MAINTENANCE)	.....	(562) 305-7258
CROWN CASTLE (NEXTGLAVEN)	.....	(800) 654-3110
SHELL OIL	.....	(310) 816-2024
ZENITH ENERGY - STEVEN FRANKS	.....	(562) 216-0675
SOUTHERN CALIFORNIA GAS COMPANY (DISTRIBUTION)	.....	(800) 427-8894
SOUTHERN CALIFORNIA EDISON - AUSTIN STEPHENS	.....	(714) 737-7296
SPECTRUM (TIME WARNER CABLE)	.....	(844) 780-6054
T-MOBILE - WALTER CALLEIAS	.....	(818) 840-0808
FRONTIER COMMUNICATION (PREVIOUSLY VERIZON)	.....	(866) 788-0166

PROFESSIONAL ENGINEER'S NOTE:

THE PLANS AND SPECIFICATIONS HAVE BEEN PREPARED BY THE ENGINEER OF RECORD USING AVAILABLE RECORD PLANS AND MAPS AND BASED ON FIELD RECONNAISSANCE OF EXISTING CONDITIONS. KNOWN UTILITIES AND OWNERS OF OTHER STRUCTURES HAVE BEEN GIVEN WRITTEN NOTICE OF THE PROJECT. HOWEVER, THE ENGINEER OF RECORD AND CITY OF MANHATTAN BEACH ARE NOT RESPONSIBLE FOR THE TOTAL ACCURACY AND/OR CORRECTNESS OF THE SHOWN INFORMATION. THE CONTRACTOR, BY SIGNING THE CONSTRUCTION CONTRACT FOR THIS PROJECT, ACCEPTS AND ASSUMES FULL RESPONSIBILITY FOR THE WORK AND ITS IMPACT ON THE EXISTING FACILITIES WHETHER SHOWN OR NOT ON THESE PLANS AND DESCRIBED IN THE SPECIFICATIONS.

THE CONTRACTOR IS RESPONSIBLE TO MAKE HIS OWN INVESTIGATION AND INSPECTION INCLUDING POTHoling AND SUCH OTHER METHODS HE DEEMS NECESSARY TO ALLOW HIM TO PROCEED ON THE CONSTRUCTION OF THIS PROJECT IN COMPLIANCE WITH THE LAWS, ORDINANCES, REGULATIONS AND CITY STANDARDS APPLICABLE TO THE PROJECT, INCLUDING STATE SAFETY ORDERS AND PROCEDURES OF USA.

THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ANY SURVEYS REQUIRED TO ESTABLISH HORIZONTAL AND VERTICAL CONTROLS PRIOR TO AND DURING CONSTRUCTION, AND TO REPLACE DISTURBED OR COVERED EXISTING SURVEY MONUMENTS AT HIS EXPENSE. MONUMENT RESTORATION/REPLACEMENT TO BE RECORDED.

THE PLANS HAVE BEEN APPROVED BY THE MANHATTAN BEACH DIRECTOR OF PUBLIC WORKS.

CITY OF MANHATTAN BEACH		
PUBLIC WORKS DEPARTMENT - ENGINEERING DIVISION		
INTERIM SURFACE PARKING LOT 3 1155 MORNINGSIDE DR.		
TITLE SHEET		
REVISIONS	BY	DATE
RECOMMENDED BY	RECOMMENDED BY	
PROJECT MANAGER JEFF FUJALKA, PE	CITY ENGINEER KATHERINE DOHERTY	
DESIGNED BY	SCALE	DATE
M. TODD BROUARD, PE TAIT PROJECT ENGINEER	3-10-25	DATE
SHEET 1 OF 22		DRAWING NO.
D-952		

GENERAL NOTES:

- ALL WORK SHALL CONFORM TO THE STANDARD PLANS AND SPECIFICATIONS OF THE CITY OF MANHATTAN BEACH, LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS (LACDPW), STANDARD PLANS AND SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, LATEST EDITION AND CALTRANS STANDARDS AS APPLICABLE. ALL WORK SHALL BE SUBJECT TO THE CITY ENGINEER'S ACCEPTANCE AS A CONDITION OF COMPLETION OF WORK BY THE CONTRACTOR.
- WORK NOT DONE IN THE PRESENCE OF THE CITY INSPECTOR IS SUBJECT TO REJECTION.
- WORK IN PUBLIC STREETS, ONCE BEGUN, SHALL BE COMPLETED WITHOUT DELAY SO AS TO PROVIDE MINIMUM INCONVENIENCE TO ADJACENT PROPERTY OWNERS AND TO TRAVELING PUBLIC.
- THE CONTRACTOR SHALL TAKE ALL NECESSARY AND PROPER PRECAUTIONS TO PROTECT ADJACENT PROPERTIES FROM ANY AND ALL DAMAGE THAT MAY OCCUR FROM STORM WATER RUNOFF AND/OR DEPOSITION OF DEBRIS RESULTING FROM ANY AND ALL WORK IN CONNECTION WITH PROJECT CONSTRUCTION.
- ANY WALLS, FENCE, STRUCTURES AND/OR APPURTENANCE ADJACENT TO THIS PROJECT SHALL BE PROTECTED IN PLACE, IF THE CONTRACTOR'S ACTIVITIES DAMAGE OR ADVERSELY AFFECT SAID ITEMS IN ANY WAY, THE CONTRACTOR IS RESPONSIBLE FOR WORKING OUT AN ACCEPTABLE SOLUTION TO THE SATISFACTION OF THE AFFECTED PROPERTY OWNER(S).
- ALL DAMAGED AND/OR REMOVED DRIVEWAY APPROACH, P.C.C. SIDEWALK OR CURB AND GUTTER SHALL BE RECONSTRUCTED ACCORDING TO THE CITY OF MANHATTAN BEACH STANDARD DRAWINGS MBSI-110C-1(ST-1), MBSI-112A(ST-2), MBSI-120A(ST-3), RESPECTIVELY (UNLESS NOTED OTHERWISE).
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CLEARING AND CLEANING OF THE PROPOSED WORK AREA.
- THE CONTRACTOR IS RESPONSIBLE FOR OVERALL JOBSITE MAINTENANCE; INCLUDING, BUT NOT LIMITED TO: STREET/SITE SWEEPING, TRASH AND/OR CONSTRUCTION-RELATED DEBRIS/WASTE, STORMWATER POLLUTION PREVENTION BMP, ETC.
- NO TRENCHES MAY BE LEFT OPEN OVERNIGHT UNLESS APPROVED IN WRITING BY THE CITY ENGINEER. SHOULD THE CONTRACTOR REQUEST TO LEAVE THE TRENCHES OPEN A PLAN FOR PROTECTING THE TRENCH AND THE PUBLIC SHALL BE SUBMITTED TO THE CITY ENGINEER IN WRITING FOR APPROVAL BEFORE BEING IMPLEMENTED. PLATING IS REQUIRED.
- THE CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT (U.S.A.) AS REQUIRED PRIOR TO THE START OF THE WORK. UPON EXPOSING ANY UTILITY'S UNDERGROUND FACILITY, THE CONTRACTOR SHALL NOTIFY THAT UTILITY IMMEDIATELY. IF ANY UTILITIES OR FACILITIES CONFLICT WITH PROPOSED IMPROVEMENTS, THE CITY ENGINEER SHALL BE NOTIFIED IMMEDIATELY.
- ALL TRAFFIC CONTROL DEVICES AND SIGNS SHALL BE IN PLACE PRIOR TO BEGINNING OF EXCAVATION. TRAFFIC CONTROL SHALL BE APPROVED BY THE CITY ENGINEER. STREET STRIPING SHALL BE COMPLETED PRIOR TO STREET OPENING.
- CONSTRUCTION SITE SHALL BE MAINTAINED IN SUCH A CONDITION THAT AN ANTICIPATED STORM DOES NOT CARRY WASTES OR POLLUTANTS OFF THE SITE. DISCHARGES OF MATERIAL OTHER THAN STORM WATER ARE ALLOWED ONLY WHEN NECESSARY FOR PERFORMANCE AND COMPLETION OF CONSTRUCTION PRACTICES AND WHERE THEY DO NOT: CAUSE OR CONTRIBUTE TO A VIOLATION OF ANY WATER QUALITY STANDARD; CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR NUISANCE; OR CONTAIN A HAZARDOUS SUBSTANCE IN A QUANTITY REPORTABLE UNDER FEDERAL REGULATIONS 40 CFR PARTS 117 AND 302. POTENTIAL POLLUTANTS INCLUDE BUT ARE NOT LIMITED TO: SOLID OR LIQUID CHEMICAL SPILLS; WASTES FROM PAINTS, STAINS, SEALANTS, GLUES, LIMES, PESTICIDES, HERBICIDES, WOOD PRESERVATIVES AND SOLVENTS; ASBESTOS FIBERS; PAINT FLAKES OR STUCCO FRAGMENTS; FUELS, OILS, LUBRICANTS, AND HYDRAULIC, RADIATOR OR BATTERY FLUIDS; FERTILIZERS, VEHICLE/EQUIPMENT WASH WATER AND CONCRETE WASH WATER; CONCRETE, DETERGENT OR FLOATABLE WASTES; WASTES FROM ANY ENGINE/ EQUIPMENT STEAM CLEANING OR CHEMICAL DEGREASING; AND SUPERCHLORINATED POTABLE WATER LINE FLUSHING. DURING CONSTRUCTION, DISPOSAL OF SUCH MATERIALS SHOULD OCCUR IN A SPECIFIED AND CONTROLLED TEMPORARY AREA ON-SITE, PHYSICALLY SEPARATED FROM POTENTIAL STORM WATER RUN-OFF, WITH IMMEDIATE DISPOSAL IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REQUIREMENTS.
- DEWATERING OF CONTAMINATED GROUNDWATER, OR DISCHARGING CONTAMINATED SOILS VIA SURFACE EROSION IS PROHIBITED. DEWATERING OF NON-CONTAMINATED GROUNDWATER REQUIRES A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT FROM THE RESPECTIVE STATE REGIONAL WATER QUALITY CONTROL BOARD.
- THE CONTRACTOR SHALL NOT CONDUCT ANY OPERATIONS OR PERFORM ANY WORK PERTAINING TO THE PROJECT BETWEEN 4:30 P.M. AND 7:30 A.M. ON ANY WEEK DAY AND NOT ON SATURDAY, OR SUNDAY, OR HOLIDAYS AT ANY TIME EXCEPT AS APPROVED IN WRITING BY THE CITY ENGINEER.
- CONTRACTOR SHALL VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITY/SUBSTRUCTURE CROSSINGS AND WITHIN THE ALIGNMENT OF THE PROPOSED IMPROVEMENTS BEFORE CONSTRUCTING ANY UTILITIES. THE CONTRACTOR SHALL PROTECT IN PLACE ALL EXISTING UTILITIES/SUBSTRUCTURES ON THESE PLANS AND THOSE FOUND DURING CONSTRUCTION (SEE GENERAL NOTE NO. 3).
- THE CONTRACTOR IS ADVISED THAT ALL EXCAVATED MATERIALS SHALL BECOME HIS PROPERTY FOR BACKFILL SUBJECT TO APPROVAL OF SOILS ENGINEER AND ANY UNUSED MATERIAL SHALL BE REMOVED FROM THE JOB UNLESS INSTRUCTED BY THE CITY ENGINEER TO DO OTHERWISE.
- THE CONTRACTOR SHALL BE RESPONSIBLE DURING ALL PHASES OF THE WORK TO PROVIDE FOR PUBLIC SAFETY AND CONVENIENCE. THE CONTRACTOR SHALL ESTABLISH ADEQUATE ACCESS TO ALL ENTRIES/DRIVEWAYS/GARAGES AND PARKING LOTS DURING THE WORKING DAY TO THE SATISFACTION OF THE ENGINEER. THE CONTRACTOR SHALL GIVE COURTESY NOTICE (KNOCK ON DOOR) TO AN ADJACENT PROPERTY IMMEDIATELY PRIOR TO BLOCKING ENTRY/DRIVEWAY/GARAGE ACCESS. PEDESTRIAN ACCESS IS TO BE PROVIDED AND MAINTAINED BY THE CONTRACTOR.
- THE CONTRACTOR SHALL ADJUST MANHOLES AND VALVE COVERS TO FINISHED GRADE. THE CONTRACTOR SHALL ADJUST, TIGHTEN AND/OR REPAIR MANHOLES, LIDS AND COVERS BY THE END OF EACH WORKING DAY TO ENSURE MINIMAL IMPACT (NOISE AND OTHERWISE) TO ADJACENT PROPERTY OWNERS.
- THE CONTRACTOR SHALL PROVIDE A TRAFFIC CONTROL PLAN FOR THE COMPLETION OF THE PROPOSED IMPROVEMENTS PER THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) CALIFORNIA (LATEST EDITION) TO THE SATISFACTION OF THE CITY ENGINEER. ALL STREETS IN THE PROJECT SHALL MAINTAIN AT LEAST 2 LANES (1 LANE IN EACH DIRECTION).
- ALL TRAVEL LANES SHALL BE OPEN BETWEEN 5:00 A.M. AND 8:30 A.M. AND BETWEEN 3:30 P.M. AND 9:00 P.M. ONE TRAVEL LANE IN EACH DIRECTION SHALL BE OPEN AT ALL TIMES BETWEEN 8:30 A.M. AND 3:30 P.M. FLAGGERS MAY BE USED IF ONE LANE IN EACH DIRECTION CAN NOT BE KEPT OPEN WITH THE APPROVAL OF THE TRAFFIC ENGINEER. ALL TRAVEL LANES SHALL BE OPEN BEFORE AND AFTER WORK HOURS. WHERE NECESSARY, PROPERLY POST "TEMPORARY NO PARKING ANYTIME" SIGNS AT LEAST 72 HOURS BEFORE START OF WORK. THE CONTRACTOR SHALL NOTIFY THE POLICE DEPARTMENT IMMEDIATELY UPON POSTING SIGNS. REFER TO THE CITY OF MANHATTAN BEACH TRAFFIC CONTROL REQUIREMENTS FOR MORE INFORMATION.
- USE OF TRENCH PLATING MAY BE APPROVED BY THE CITY ENGINEER UPON SUBMITTAL OF A PLATING PLAN AND APPROVAL OF PLAN BY THE CITY ENGINEER. ALL PLATES SHALL BE FIRMLY SUPPORTED ON ADJACENT PAVEMENT OR BEAMS. ALL PLATES IN A.C. PAVEMENT SHALL BE STUDDED INTO PAVEMENT WITH TOP OF PLATES FLUSH WITH PAVEMENT SURFACE. THERE SHALL BE NO OPENINGS BETWEEN PLATES. PLATES SUPPORTED ON BEAMS SHALL BE BOLTED OR WELDED TO BEAMS BY TACK WELDING. TACK WELDING SHALL BE REQUIRED OF CONTIGUOUS PLATES. PLATES SHALL BE SECURED SO AS TO NOT MOVE, SLIP OR SLIDE AND CAPABLE OF CARRYING H-20 LOADING. ALL PLATE SURFACES SHALL BE ROUGHENED OR RAISED TO MINIMIZE TIRE SLIPAGE. FOR CONCRETE SECTION OF STREETS THE PLATES MAY BE PLACED ON SURFACE AND HELD IN PLACE WITH ASPHALT CONCRETE EDGE BERMS AND STUDS INTO DRILLED HOLES.
- THE CONTRACTOR SHALL PROVIDE A 72-HOUR WRITTEN NOTIFICATION TO AFFECTED PROPERTIES (IN A DOOR-HANGER FORMAT), POLICE DEPARTMENT, AND FIRE DEPARTMENT IN THE EVENT OF A STREET CLOSURE TO TRAFFIC AND/OR PUBLIC SAFETY VEHICLES OR IMPLEMENTATION OF PARKING RESTRICTIONS. THE CONTRACTOR SHALL COORDINATE THE PROJECT WORK AND ASSOCIATED PICK-UP ROUTES WITH THE CITY REFUSE COLLECTION COMPANY (WASTE MANAGEMENT) PRIOR TO THE COMMENCEMENT OF WORK.
- THE CONTRACTOR SHALL FURNISH AND OPERATE A SELF-LOADING STREET SWEEPER WITH SPRAY NOZZLES AT LEAST TWICE EACH WORKING DAY TO KEEP PAVED AREAS ACCEPTABLY CLEAN WHEREVER CONSTRUCTION, INCLUDING RESTORATION, IS IN PROGRESS OR COMPLETE.
- ALL PORTLAND CEMENT CONCRETE (P.C.C.) AND ASPHALT CONCRETE (A.C.) SHALL BE REMOVED TO A SAWCUT, COLD JOINT, SCORE MARK OR EDGE OF PAVEMENT. NO "FLOATER" SLABS WILL BE PERMITTED. SAWCUT SLURRY SHALL BE REMOVED WITH A VACUUM MACHINE AND DISPOSED OF PROPERLY. NO SLURRY SHALL BE ALLOWED TO ENTER THE STORM DRAIN SYSTEM.
- A PERMIT IS REQUIRED FOR ALL WORK ON CITY STREETS. THE CITY WILL ISSUE A "NO FEE" PERMIT TO THE CONTRACTOR. SHOULD THE CONTRACTOR OPERATION INVOLVE ANOTHER AGENCY'S JURISDICTION OR INFRASTRUCTURE A PERMIT AND INSPECTION SHOULD BE OBTAINED THEREFROM AT THAT AGENCY. THERE MAY BE A FEE THEREFOR PAYABLE BY CONTRACTOR.
- IN SOME CASES MATCH LINES MAY OVERLAP FROM PLAN SHEET TO PLAN SHEET. CONTRACTOR SHOULD REVIEW PLANS THOROUGHLY.
- ALL PORTIONS OF STREET AFFECTED BY CONSTRUCTION, AS DETERMINED BY CITY ENGINEER, OUTSIDE OF TRENCH INCLUDING T-CUT SHALL BE RESTORED PER CITY OF MANHATTAN BEACH STD DWG MBSI-132A(ST-10). SHOULD ANY LINEAR OR AREA TRENCH JOINT BE LOCATED WITHIN 36" OF AN EXISTING PAVEMENT PATCH AND/OR CURB AND GUTTER ALIGNMENT, THE ADJACENT PAVEMENT SECTION/PATCH MUST BE REMOVED AND PAVED ALONG WITH THE TRENCH PAVEMENT RESTORATION. ALL STRIPING & PAVEMENT MARKING SHALL BE REPLACED IN EXISTING & IN NEW PAVEMENT. GRINDING TO BE PERFORMED PER CITY ENGINEER INSTRUCTION. ALL TRAFFIC SIGNAL LOOPS DAMAGED BY PROJECT WORK SHALL BE REPLACED IN THEIR ENTIRETY BACK TO CONTROL PANEL. CONTRACTOR SHALL TUNNEL UNDER AND PROTECT IN PLACE STAMPED CONCRETE OR PAVERS, CROSSWALKS, CURB & GUTTERS. SHOULD CROSSWALKS BE DAMAGED ENTIRE CROSSWALK FROM CURB TO CURB SHALL BE REPLACED IN KIND WITHOUT ANY ADDITIONAL COMPENSATION TO THE CONTRACTOR.
- CONTRACTOR AND ALL SUBCONTRACTORS PERFORMING WORK SHOWN ON OR RELATED TO THESE PLANS SHALL CONDUCT THEIR OPERATIONS SO THAT ALL EMPLOYEES ARE PROVIDED A SAFE PLACE TO WORK AND THE PUBLIC IS PROTECTED. CONTRACTOR AND ALL SUBCONTRACTORS SHALL COMPLY WITH THE "OCCUPATIONAL SAFETY AND HEALTH REGULATIONS" OF THE U.S. DEPARTMENT OF LABOR, AND WITH THE STATE OF CALIFORNIA DEPARTMENT OF INDUSTRIAL RELATIONS' "CONSTRUCTION SAFETY ORDERS". PRIOR TO COMMENCING THE EXCAVATION OF A TRENCH 5 FEET IN DEPTH OR GREATER AND INTO WHICH A PERSON WILL BE REQUIRED TO DESCEND, THE CONTRACTOR SHALL FIRST OBTAIN A PERMIT TO DO SO FROM THE DIVISION OF INDUSTRIAL SAFETY OF THE STATE OF CALIFORNIA (CAL OSHA) PURSUANT TO 7-10.4.1. CONTRACTOR SHALL SUBMIT A COPY OF THE SHORING PLAN AS REQUIRED AND PERMIT TO THE ENGINEER PRIOR TO EXCAVATION.
- THE CITY ENGINEER SHALL NOT BE RESPONSIBLE IN ANY WAY FOR THE CONTRACTOR'S AND SUBCONTRACTORS' COMPLIANCE WITH THE "OCCUPATIONAL SAFETY AND HEALTH REGULATIONS" OF THE U.S. DEPARTMENT OF LABOR OR WITH THE STATE OF CALIFORNIA DEPARTMENT OF INDUSTRIAL RELATIONS' "CONSTRUCTION SAFETY ORDERS".
- THE LAND SURVEYORS ACT, SECTION 8771 OF THE BUSINESS & PROFESSIONAL CODE, AND SECTIONS 732.05, 1492-5, 1810-5 OF THE STREETS AND HIGHWAY CODE REQUIRE THAT EXISTING SURVEY MONUMENTS SHALL BE PROTECTED AND PERPETUATED. IF DAMAGED THEY ARE TO BE REPLACED AND A RECORD OF SURVEY IS TO BE PREPARED BY THE PROJECT SURVEYOR AND FILED WITH THE CITY ENGINEER AND THE COUNTY SURVEYOR.
- CONTRACTOR MUST HOLD A VALID CALIFORNIA CONTRACTOR'S LICENSE FOR THE APPLICABLE SCOPE OF WORK. ALL SUBCONTRACTOR'S MUST BE LICENSED.
- THERE SHALL BE A MINIMUM OF 1 CERTIFIED EMPLOYEE ON SITE AT ALL TIMES OF CONSTRUCTION WITH RED CROSS FIRST AID TRAINING INCLUDING

CPR TRAINING FOR THIS PROJECT. ALL EMPLOYEES ON THE PROJECT ARE TO HAVE CERTIFIED TRAINING FOR CONFINED SPACE WORK IN VICINITY OF SEWER. COPIES OF THE EMPLOYEE CERTIFICATES SHALL BE PROVIDED TO THE CITY ENGINEER. ALL EQUIPMENT NEEDED TO ENTER CONFINED SPACE/SEWER MANHOLES SHALL BE STORED ON THE PROJECT SITE AND USED FOR ANY AND ALL SUCH INSTANCES.

- BASED ON INFORMATION OBTAINED FROM UTILITY/SUBSTRUCTURE OWNERS POSSIBLE CONFLICT LOCATIONS HAVE BEEN SHOWN ON THE PLANS. HOWEVER, THERE MAY BE OTHER CONFLICT LOCATIONS. THE INFORMATION PROVIDED BY UTILITY/SUBSTRUCTURE OWNERS IN VARIOUS INSTANCES DOES NOT INDICATE DEPTHS TO THEIR FACILITIES. WHERE DEPTH INFORMATION WAS NOT AVAILABLE, ENGINEER HAS PLOTTED THE UTILITIES/SUBSTRUCTURES AT DEPTHS AT WHICH SUCH UTILITIES/SUBSTRUCTURES ARE COMMONLY FOUND; HOWEVER, ENGINEER CANNOT VERIFY SUCH LOCATION AND ENGINEER DID NOT PERFORM ANY POTHOLE. IN THE EVENT OF SUBSTRUCTURE DAMAGE, THE CONTRACTOR SHALL BEAR THE TOTAL COST OF REPAIR OR REPLACEMENT AT NO ADDITIONAL COST TO THE CITY.
- TREES, FOLIAGE, SIGNS, PARKING METERS AND OTHER IMPROVEMENTS SHALL BE PROTECTED IN PLACE AND ANY DAMAGE TO EXISTING IMPROVEMENTS, PUBLIC OR PRIVATE, SHALL BE REPLACED IN KIND.
- THE CONTRACTOR IS ADVISED TO POTHOLE WHERE HE BELIEVES NECESSARY IN ADVANCE OF OPENING A TRENCH TO VERIFY LOCATIONS OF UTILITY/SUBSTRUCTURES AND ADJACENT WALL FOOTINGS AT NO EXTRA COST TO THE CITY.
- ENGINEER HAS NOT OBTAINED PLANS FOR THE UNDERGROUND FACILITIES OF LOOPS, CONDUITS, ETC. NOR HAVE SUCH FACILITIES BEEN FULLY PLOTTED ON THE PLANS. THE CONTRACTOR IS ADVISED TO LOCATE THE TRAFFIC SIGNAL UNDERGROUND FACILITIES BEFORE EXCAVATION OF THE TRENCH AND PROTECT IN PLACE. CONTRACTOR SHOULD CONTACT THE LOS ANGELES COUNTY'S TRAFFIC SIGNAL MAINTENANCE DEPARTMENT AND COORDINATE THE WORK.
- FOR WORK UNDER ANY EXISTING CONCRETE (PCC) BUS PADS THE CONTRACTOR SHALL REMOVE BUS PAD AND REPLACE AFTER INSTALLATION OF SEWER PIPES (SEE SSPWC FOR DETAILS OF REPLACEMENT BUS PAD). TRENCHLESS METHOD MAY BE USED TO CROSS UNDER BUS PAD.
- FOR ANY UNDER CROSSINGS ENTRY OF APPROACHES TO STORM DRAIN CATCH BASINS CONTRACTOR SHALL TUNNEL UNDER THESE AND SUPPORT APPROACH. UPON INSTALLATION OF SEWER AND COMPACTION OF TRENCH A 2 SACK SAND CEMENT SLURRY SHALL BE PLACED UNDER THE APPROACH.
- IN SHOWING UTILITIES ENGINEER HAS PROVIDED INFORMATION RECEIVED FROM THE UTILITIES. IN SOME CASES SERVICE CONNECTIONS ARE SHOWN. HOWEVER PLANS FROM UTILITIES MAY NOT HAVE INCLUDED ALL SERVICE CONNECTIONS AND OTHER FEATURES SUCH AS FIRE HYDRANT LATERALS AND VAULTS AND BOXES. CONTRACTOR SHOULD BE PREPARED TO LOCATE SUCH AND TO PROTECT IN PLACE.
- ABANDONMENT AND/OR REMOVAL OF CONDUITS AND STRUCTURES SHALL BE PER SECTION 306-5 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
- LATERALS FOR STORM DRAIN SYSTEM AND EXISTING SEWER MAY BE CONCRETE ENCASED (OVERPOUR). AS PART OF TRENCHING WORK CONTRACTOR SHALL REMOVE AND REPLACE ENCASEMENT (OVERPOUR) AS PART OF UNIT OR FIXED PRICE FOR INSTALLATION OF SEWER.

PRIVATE ENGINEERS NOTICE TO CONTRACTOR:

- ALL CONTRACTORS AND SUBCONTRACTORS PERFORMING WORK SHOWN OR RELATED TO THESE PLANS SHALL CONDUCT THEIR OPERATIONS SO THAT ALL EMPLOYEES ARE PROVIDED A SAFE PLACE TO WORK AND THE PUBLIC IS PROTECTED. ALL CONTRACTORS AND SUBCONTRACTORS SHALL COMPLY WITH THE "OCCUPATIONAL SAFETY AND HEALTH REGULATIONS" OF THE U.S. DEPARTMENT OF LABOR AND THE STATE OF CALIFORNIA DEPARTMENT OF INDUSTRIAL RELATIONS' "CONSTRUCTION SAFETY ORDERS". THE CIVIL ENGINEER SHALL NOT BE RESPONSIBLE IN ANY WAY FOR THE CONTRACTORS AND SUBCONTRACTORS COMPLIANCE WITH SAME REGULATIONS AND ORDERS.
- CONTRACTOR FURTHER AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB-SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE CIVIL ENGINEER 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 ENGINEER.
- UTILITIES: THE EXISTENCE AND APPROXIMATE LOCATIONS OF ANY UNDERGROUND UTILITIES OR STRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS AND BEST RECOLLECTION OF FACILITY STAFF. THE CIVIL ENGINEER ASSUMES NO LIABILITY AS TO THE EXACT LOCATIONS OF SAID LINES NOR FOR UTILITY OR IRRIGATION LINES WHOSE LOCATIONS ARE NOT SHOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL UTILITY AND IRRIGATION COMPANIES PRIOR TO WORK OR POTHOLE TO DETERMINE THE EXACT LOCATIONS OF ALL LINES AFFECTING THIS WORK, WHETHER OR NOT SHOWN HEREON. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO OR PROTECTION OF ALL EXISTING UTILITY LINES.
- THE CONTRACTOR IS RESPONSIBLE FOR THE DEMOLITION OF THE SITE AND SHALL REMOVE AND DISPOSE OF ALL STRUCTURES ABOVE AND/OR BELOW GROUND UNLESS OTHERWISE NOTED. ANY HAZARDOUS MATERIALS ENCOUNTERED SHALL BE HANDLED AND REMOVED AS REQUIRED BY LOCAL AND/OR STATE LAWS AT NO COST TO THE OWNER.
- THE CONTRACTOR SHALL EXERCISE DUE CARE TO AVOID DAMAGE TO EXISTING HARDCAPE IMPROVEMENTS, UTILITY FACILITIES, AND LANDSCAPING FEATURES THAT ARE NOT AFFECTED BY THESE PLANS.
- ALL JOIN LINES SHALL BE SAWCUT ON A NEAT, STRAIGHT LINE PARALLEL WITH THE JOIN. THE CUT EDGE SHALL BE PROTECTED FROM CRUSHING AND ALL BROKEN EDGES SHALL BE RE-CUT PRIOR TO JOINING.
- ALL EXISTING OBJECTIONABLE MATERIALS THAT CONFLICT WITH PROPOSED IMPROVEMENT INCLUDING, BUT NOT LIMITED TO, BUILDING FOUNDATIONS, UTILITIES AND APPURTENANCES, TREES, SIGNS, AND STRUCTURES, ETC. SHALL BE REMOVED AND DISPOSED BY THE CONTRACTOR AT NO COST TO THE OWNER, UNLESS OTHERWISE INDICATED HEREIN, OR AS DIRECTED BY THE CONSTRUCTION MANAGER.
- THE CONTRACTOR SHALL PROTECT ALL EXISTING STREETS FROM DAMAGES CAUSED BY HIS OPERATIONS. ANY CURBS DAMAGED DURING HIS OPERATIONS SHALL BE SAWCUT AND REPLACED AT NO COST TO THE OWNER. ANY EXISTING PAVING IDENTIFIED AS POTENTIALLY NEEDING TO BE REPLACED SHALL BE BROUGHT TO THE ATTENTION OF THE OWNERS REPRESENTATIVE PRIOR TO THE COMMENCEMENT OF WORK.
- THE CONTRACTOR SHALL PERFORM ALL CLEARING AND GRUBBING OPERATIONS AS NECESSARY TO COMPLETE THE WORK, INCLUDING TRANSPORTATION AND DISPOSAL OF ALL MATERIALS, AND ALL ASSOCIATED COSTS.
- DEMOLITION PLAN BY SEPARATE PERMIT.

NPDES NOTES:

- ERODED SEDIMENTS AND OTHER POLLUTANTS MUST BE RETAINED ON SITE AND MAY NOT BE TRANSPORTED FROM THE SITE VIA SHEET FLOW, SWALES, AREA DRAINS, NATURAL DRAINAGE COURSES, OR WIND.
- STOCKPILES OF EARTH AND OTHER CONSTRUCTION RELATED MATERIALS MUST BE PROTECTED FROM BEING TRANSPORTED FROM THE SITE BY THE FORCES OF WIND OR WATER.
- FUELS, OILS, SOLVENTS, AND OTHER TOXIC MATERIALS MUST BE STORED IN ACCORDANCE WITH THEIR LISTING AND ARE NOT TO CONTAMINATE THE SOIL AND SURFACE WATERS. ALL APPROVED STORAGE CONTAINERS ARE TO BE PROTECTED FROM THE WEATHER. SPILLS MUST BE CLEANED UP IMMEDIATELY AND DISPOSED OF IN A PROPER MANNER. SPILLS MAY NOT BE WASHED INTO THE DRAINAGE SYSTEM.
- EXCESS OR WASTE CONCRETE MAY NOT BE WASHED INTO THE PUBLIC RIGHT-OF-WAY OR ANY OTHER DRAINAGE SYSTEM. PROVISIONS SHALL BE MADE TO RETAIN CONCRETE WASTES ON SITE UNTIL THEY CAN BE DISPOSED OF AS SOLID WASTE. DESIGNATED TRUCK WASHOUT AREA REQUIRED.
- TRASH AND CONSTRUCTION RELATED SOLID WASTES MUST BE DEPOSITED INTO A COVERED RECEPTACLE TO PREVENT CONTAMINATION BY RAINWATER AND DISPERSED BY WIND.
- SEDIMENTS AND OTHER MATERIALS MAY NOT BE TRACKED FROM THE SITE BY VEHICLE TRAFFIC. ACCIDENTAL DEPOSITIONS MUST BE SWEEPED UP IMMEDIATELY AND MAY NOT BE WASHED DOWN BY RAIN OR OTHER MEANS.
- THE FOLLOWING BMP'S AS OUTLINED IN, BUT NOT LIMITED TO, THE CALIFORNIA STORM WATER BEST MANAGEMENT PRACTICE HANDBOOK, CALIFORNIA STORM WATER QUALITY TASK FORCE, SACRAMENTO, CALIFORNIA 2003, OR THE LATEST REVISED EDITION, MAY APPLY DURING CONSTRUCTION (ADDITIONAL MEASURES MAY BE REQUIRED IF DEEMED APPROPRIATE BY INSPECTOR).

NS-2	DEWATERING OPERATIONS	SC-21	VEHICLE AND EQUIPMENT CLEANING
NS-3	PAVING & GRINDING OPERATIONS	SC-20	VEHICLE AND EQUIPMENT FUELING
MM-1	MATERIAL DELIVERY AND STORAGE	SC-22	VEHICLE AND EQUIPMENT REPAIRS
MM-2	MATERIAL USE	EC-2	PRESERVATION OF EXISTING VEGETATION
MM-4	SPILL PREVENTION AND CONTROL	WE-1	WIND EROSION CONTROL
MM-5	SOLID WASTE MANAGEMENT	SE-8	SAND BAG BARRIER
MM-8	CONCRETE WASTE MANAGEMENT	SE-10	STORM DRAIN INLET PROTECTION
		WM-9	SANITARY / SEPTIC WASTE MANAGEMENT

AMERICANS WITH DISABILITIES NOTES

- ALL SLOPES IN DIRECTION OF TRAVEL SHOWN ON THIS PLAN WERE DESIGNED AT OR BELOW MAXIMUM ALLOWED GRADES BY THE AMERICAS WITH DISABILITIES ACT ACCESS GUIDE (ADAAG), AND THE CALIFORNIA BUILDING CODE (CBC). IT IS THE RESPONSIBILITY OF THE CONTRACTORS TO FAMILIARIZE THEMSELVES WITH THESE PLANS, WORK SHOULD CEASE AND THE DESIGN ENGINEER SHALL BE NOTIFIED SO THAT AN ACCEPTABLE SOLUTION CAN BE DETERMINED.
- THE CONTRACTOR IS ADVISED TO CAREFULLY CHECK ALL PHASES OF WORK RELATING TO ADAAG AND CBC ACCESS FOR THIS PROJECT. SINCE THE CODE DOES NOT ALLOW FOR A CONSTRUCTION TOLERANCE, ANY CONSTRUCTION THAT EXCEEDS MAXIMUM OR MINIMUM DIMENSIONS AND SLOPES AS CALLED OUT BY ADAAG AND CBC ARE SUBJECT TO REJECTION BY THE INSPECTOR AND ANY MAY BE REQUIRED TO BE REMOVED AND REPLACED.
- SINCE THE CIVIL ENGINEER OR SURVEYOR CANNOT CONTROL THE EXACT METHODS OR MEANS USED BY THE GENERAL CONTRACTOR OR THEIR SUB-CONTRACTORS DURING THE GRADING AND CONSTRUCTION OF THE PROJECT, THE CIVIL ENGINEER OR SURVEYOR ASSUMES NO RESPONSIBILITY FOR THE FINAL ACCEPTANCE OF ADAAG OR CBC RELATED ITEMS OF THIS PROJECT BY THE INSPECTING AUTHORITY OR OTHER AFFECTED PARTIES.
- COMPLIANCE WITH ADAAG AND CBC CONSTRUCTION REQUIREMENTS AND CALIFORNIA TITLE 24 WILL BE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND HIS SUB-CONTRACTORS.

UTILITY NOTES:

- ALL LANDSCAPE IRRIGATION BACKFLOW DEVICES MUST MEET CURRENT CITY REQUIREMENTS FOR PROPER INSTALLATION.
- PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL CALL DIG ALERT TO IDENTIFY THE LOCATION OF ALL UTILITIES.
- NO DISCHARGE OF CONSTRUCTION WASTEWATER, BUILDING MATERIALS, DEBRIS, OR SEDIMENT FROM THE SITE IS PERMITTED. NO REFUSE OF ANY KIND GENERATED ON A CONSTRUCTION SITE MAY BE DEPOSITED IN RESIDENTIAL, COMMERCIAL, OR PUBLIC REFUSE CONTAINER AT ANY TIME. THE UTILIZATION OF WEEKLY REFUSE COLLECTION SERVICE BY THE CITY'S HAULER FOR ANY REFUSE GENERATED AT THE CONSTRUCTION SITE IS STRICTLY PROHIBITED. FULL DOCUMENTATION OF ALL MATERIALS/TRASH LANDFILLED AND RECYCLED MUST BE SUBMITTED TO THE PERMITS DIVISION IN COMPLIANCE OF THE CITY'S CONSTRUCTION AND DEMOLITION RECYCLING ORDINANCE.
- A CLAY 6" PROPERTY LINE CLEANOUT MUST BE INSTALLED ON A CLAY 6" SANITARY SEWER LATERAL. IF THERE IS NO 6" SEWER LATERAL, THEN A NEW ONE MUST BE INSTALLED. THE PROPERTY LINE CLEANOUT MUST STAY WITHIN THE JOB SITE'S PROPERTY LINES. SEE CITY STANDARD PLAN ST-5. CLEANOUT MUST BE ADDED TO THE SITE PLAN.
- A BACKWATER VALVE IS REQUIRED ON THE SANITARY SEWER LATERAL IF THE DISCHARGES FROM FIXTURES WITH FLOOD LEVEL RIMS ARE LOCATED BELOW THE NEXT UPSTREAM MANHOLE COVER OF THE PUBLIC SEWER. SEE CITY STANDARD PLAN ST-24. MUST BE SHOWN ON THE PLAN IF APPLICABLE.
- IF ANY EXISTING SEWER LATERAL IS USED, IT MUST BE TELESCOPED TO CHECK ITS STRUCTURAL INTEGRITY. THE TAPE MUST BE MADE AVAILABLE FOR REVIEW BY THE PUBLIC WORKS DEPARTMENT AND MUST SHOW PROOF OF THE LOCATION WHERE IT WAS SHOT. THE PUBLIC WORKS DEPARTMENT WILL REVIEW THE TAPE AND DETERMINE AT THAT TIME IF THE SANITARY LATERAL NEEDS REPAIRING, REPLACED, OR THAT IT IS STRUCTURALLY SOUND AND CAN BE USED IN ITS PRESENT CONDITION. VIDEOING OF LATERAL MUST BE IN ITS ORIGINAL STATE. NO CLEANING, FLUSHING OR ALTERING PRIOR TO VIDEOING IS PERMITTED.
- ANY UNUSED WATER OR SANITARY SEWER LATERALS MUST BE ABANDONED AT THE CITY MAIN.
- RESIDENTIAL PROPERTIES MUST PROVIDE AN ENCLOSED STORAGE AREA FOR REFUSE CONTAINERS. THESE AREAS MUST BE CONSTRUCTED TO MEET THE REQUIREMENTS OF M.B.M.C. 5.24.030. THE AREA MUST BE SHOWN IN DETAIL ON THE PLANS BEFORE A PERMIT IS ISSUED.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL THE STREET SIGNS, STREET LAMPS/LIGHTS, PARKING METERS, AND/OR TREES AROUND THE PROPERTY. IF THEY ARE DAMAGED, LOST OR REMOVED, IT IS THE RESPONSIBILITY

WATER NOTES: (MUST USE ALL NOTES ON THIS SHEET FOR ALL PLANS)

GENERAL:

- THE CONTRACTOR SHALL NOTIFY THE ENGINEER, FIRE AND POLICE DEPARTMENT AT LEAST 72 HOURS PRIOR TO SHUTTING DOWN ANY WATER MAINS, FIRE HYDRANTS OR BLOCKING ACCESS TO ANY AREA. FIRE HYDRANT SHALL NOT BE OUT OF SERVICE FOR MORE THAN FOUR (4) HOURS AND NONE SHALL BE OUT OF SERVICE OVERNIGHT OR DURING WEEKENDS.
- THE CONTRACTOR SHALL FIELD VERIFY AND PROTECT ALL EXISTING UNDERGROUND UTILITIES. THE CONTRACTOR SHALL DETERMINE THE DEPTH OF GAS, ELECTRICAL, TELEPHONE, TELEVISION, STORM DRAIN, SEWER AND WATER AT ALL INTERSECTIONS PRIOR TO CONSTRUCTION AND AS NOTED ON PLANS. DAMAGED UTILITIES SHALL BE REPLACED IN KIND UNDER THE SUPERVISION OF THE OWNER AT CONTRACTOR'S EXPENSE.
- DU TO INDIVIDUAL LOT IMPROVEMENTS, THE EXISTING SEWER, GAS LATERALS AND/OR ELECTRICAL UNDERGROUNDING MAY NOT BE AT LOCATIONS SHOWN OR SHOWN IN THEIR ENTIRETY. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN EXCAVATING.
- PRIOR TO SHUT DOWN AND CUTTING OF ANY EXISTING WATER MAIN, ALL EXISTING VALVES SHALL BE EXERCISED BY CITY PERSONNEL. THE CONTRACTOR SHALL NOTIFY THE CITY'S DEPARTMENT OF PUBLIC WORKS, WATER DIVISION INSPECTION SUPERVISOR A MINIMUM OF FOUR DAYS PRIOR TO COORDINATE THE SHUT DOWN OF ANY WATER MAIN.
- CONTRACTOR SHALL PROTECT THE EXISTING SURVEY MONUMENTS DURING WATER MAIN CONSTRUCTION. IF MONUMENTS ARE DESTROYED, THE CONTRACTOR SHALL SURVEY AND RESET RECORDED MONUMENTS.

DUCTILE IRON PIPE:

- ALL D.I.P. WATER LINES AND FITTINGS SHALL BE CEMENT LINED DOUBLE THICKNESS, CLASS 50 PRESSURE CLASS WITH POLYETHYLENE ENCASEMENT AND COMPLY WITH ANSI A21.51 (AWWA C 151).
- STATIC WATER PRESSURE IN VICINITY IS SHOWN FOR LOW AND HIGH ELEVATIONS ON THE PLANS. (REFER TO TOP OR BOTTOM OF SHEETS)
- PIPE MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH THESE CONSTRUCTION DOCUMENTS AND THE MANUFACTURER'S RECOMMENDATIONS.
- ALL WATER MAINS SHALL HAVE A MINIMUM COVER OF 36 INCHES EXCEPT AT POINTS OF CONNECTION TO EXISTING WATER MAINS.
- THE CONTRACTOR MAY VARY THE GRADE IN THE ALIGNMENT OF THE WATERLINE IF FIELD CONDITIONS WARRANT WITH THE APPROVAL OF THE ENGINEER.
- PIPE DEFLECTIONS SHALL NOT EXCEED 80% OF THE MANUFACTURER'S RECOMMENDED ALLOWABLE DEFLECTIONS FOR DUCTILE IRON PIPE AND FITTINGS INSTALLATION.
- A MINIMUM OF 12-INCHES CLEARANCE BETWEEN THE EXISTING UTILITIES AND PROPOSED PIPELINES SHALL BE MAINTAINED AT CROSSINGS. UTILITIES SHALL BE SURVEYED BY THE ENGINEER AND IN ACCORDANCE WITH AWWA STD. DWG. 224-2 AND CITY OF MANHATTAN BEACH STD. DWG. ST-26.
- THE OPEN ENDS OF ALL ABANDONED WATER LINES SHALL BE PLUGGED WITH CONCRETE. THE LOCATION OF THE CONCRETE PLUGS SHALL BE APPROVED BY THE CITY ENGINEER IN THE FIELD.
- ALL EXCAVATIONS FOR THE INSTALLATION OF THE MAIN LINE, PIPE AND SERVICES, INSTALLATION OF COMBINATION AIR VACUUM AND AIR RELEASE VALVES, INSTALLATION OF END OF LINE FLUSH-OUTS, AND ABANDONMENT OF EXISTING WATER MAINS SHALL BE BACKFILLED PER CITY OF MANHATTAN BEACH STD. DWG. MBSI-132A(ST-10).

FITTINGS:

- ALL FITTINGS AND MECHANICAL JOINTS SHALL BE DUCTILE IRON UNLESS OTHERWISE NOTED OR DIRECTED BY THE ENGINEER. ALL RESTRAINED JOINTS AS SHOWN SHALL BE CONSTRUCTED WITH RESTRAINTS (MEGALUG OR FIELD-LOK GASKETS).
- ALL DUCTILE IRON TEES AND CROSSES SHALL BE CLASS 350 FLANGE FITTINGS UNLESS OTHERWISE NOTED ON PLANS. ALL OTHER DUCTILE IRON FITTINGS SHALL BE CLASSED 350 WITH PUSH-ON JOINTS UNLESS OTHERWISE NOTED PLANS. PROVIDED FITTINGS WITH ENDS THAT ARE COMPATIBLE WITH MECHANICAL RESTRAINTS WHERE RESTRAINED JOINTS ARE REQUIRED.
- ALL "TEE" INSTALLATIONS SHALL BE PER CITY STANDARDS, UNLESS SHOWN OTHERWISE ON PLANS.
- CONTRACTOR SHALL FURNISH ALL FITTINGS NECESSARY FOR DIRECTION OF PIPE ALIGNMENT NOT SHOWN ON PLANS.

VALVES:

- ALL VALVES SHALL BE GATE VALVES. VALVE ASSEMBLIES SHALL BE PER CITY STANDARDS.
- GATE VALVES SHALL BE PLACED WITH OPERATING NOT EITHER NORTH OR WEST OF THE WATER MAIN.
- ALL VALVES CONNECTING TO TEES, CROSSES AND REDUCERS SHALL HAVE FLANGED OR FLANGED X PUSH-ON ENDS.
- NO VALVE SHALL BE LOCATED WITH A GUTTER OR OTHER CONCRETE DRAINAGE DEVICE, ALLEY GUTTERS, DRIVEWAY AND ALLEY APPROACHES OR SIDEWALKS, UNLESS OTHERWISE SPECIFIED BY THE CITY ENGINEER.
- THE CONTRACTOR SHALL ADJUST ALL VALVES ALONG TO FINISH GRADE UPON COMPLETION OF REPAVING.
- EXISTING PIPE, TEES, CROSSES AND OTHER FITTINGS WHICH INTERFERE WITH THE PROPOSED WATER SYSTEM IMPROVEMENTS SHALL BE REMOVED AND DISPOSED OF PROPERLY OR SALVAGED AS DIRECTED BY THE ENGINEER.
- EXISTING VALVES SHALL BE SALVAGED UNDER DIRECTION OF THE ENGINEER. VALVE CANS SHALL BE REMOVED, BACKFILLED AND PAVED OVER.

AIR VALVES AND PUMP WELLS:

- THE CONTRACTOR SHALL CONSTRUCT A COMBINATION AIR/VAC AIR RELEASE VALVE ASSEMBLY PER CITY STANDARDS AT ALL HIGH POINTS IN THE ALIGNMENT WHETHER OR NOT SHOWN ON THESE DRAWINGS.
- CONTRACTOR SHALL CONSTRUCT A BLOW-OFF ASSEMBLY PER CITY STANDARDS AT ALL LOW POINTS IN THE ALIGNMENT WHETHER OR NOT SHOWN ON THESE DRAWINGS.

FIRE HYDRANTS:

- ALL FIRE HYDRANTS, VALVES AND OTHER ASSOCIATED FACILITIES SHALL BE LOCATED IN THE FIELD AS DIRECTED BY THE ENGINEER. THE LOCATION SHOWN ON THESE PLANS ARE APPROXIMATE.
- REMOVAL OF THE EXISTING FIRE HYDRANTS WILL INCLUDE CUTTING FIRE HYDRANT BURY TWO FEET (2'-0") BELOW EXISTING GRADE AND BACKFILLING WITH CONCRETE. SALVAGED FIRE HYDRANTS SHALL BE DELIVERED TO THE CITY WATER DIVISION.
- FIRE HYDRANT INSTALLATIONS SHALL INCLUDE NEW 6-INCH LATERALS, VALVES WITH 6" X 6" X 6" OR 8" X 6" X 8" TEE. SEE CITY OF MANHATTAN BEACH STD DWG MBWS-701A(ST-16).

WATER SERVICES AND METERS:

- ALL WATER SERVICES AND FIRE LINES SHALL BE REPLACED FROM THE NEW WATER LINE UP TO THE METER PER DETAILS MODIFIED ST-15 AND ST-22.
- CONTRACTOR SHALL LOCATE AND FIELD VERIFY ALL WATER SERVICE CONNECTIONS AND FIRE LINE SERVICES SIZES AND LOCATIONS PRIOR TO COMMENCING WORK ON PROJECT.
- WATER SERVICE SHALL NOT BE CONSTRUCTED LESS THAN 18 INCHES FROM ANOTHER WATER SERVICE AND WATER MAIN JOINT.
- CONTRACTOR SHALL PROVIDE ALL NECESSARY FITTINGS, ADAPTERS, REDUCERS, AND/OR COUPLINGS NECESSARY TO CONNECT TO EXISTING PIPING AND METERS.

POTHoling/UTILITIES:

- THE CONTRACTOR SHALL POTHOLE ALL TIE IN CONNECTION LOCATIONS, PRIOR TO CONSTRUCTION TO FIELD VERIFY THE ACTUAL SIZE, DEPTH, AND ROUNDNESS OF THE EXISTING WATER SYSTEM. THE TIE IN WILL BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.
- EXISTING UTILITIES SHALL BE MAINTAINED IN PLACE UNLESS OTHERWISE SHOWN.
- THE CONTRACTOR SHALL MAKE EXPLORATORY EXCAVATIONS A MINIMUM DISTANCE OF 200 FEET IN ADVANCE OF WATER MAIN TRENCHING TO DETERMINE THE EXACT LOCATION AND VERIFY THE MATERIAL SIZE, DEPTH AND ROUNDNESS OF ALL PARALLEL AND CROSSING UTILITIES WITHIN THE ALIGNMENTS OF THE NEW WATER MAIN. PIPE JOINTS SHALL BE DEFLECTED A MAXIMUM 80% OF MANUFACTURER'S RECOMMENDATION TO CLEAR INTERFERENCES WITH KNOWN OBSTRUCTIONS. OTHER UTILITIES WHICH ARE SHOWN OR NOT SHOWN ON THE PLANS SHALL BE REMOVED UNLESS OTHERWISE DIRECTED BY THE ENGINEER. ANY INFORMATION OBTAINED DURING TRENCHING FROM PLANS SHALL BE CONVEYED TO THE ENGINEER IN WRITING.
- FAILURE TO COMPLY WITH ANY OF THE ABOVE ITEMS SHALL BE SUFFICIENT CAUSE FOR THE AGENCY TO ARRANGE FOR THE NECESSARY WORK TO BE PERFORMED BY OTHERS. ANY COSTS INCURRED TO COMPLETE THE NECESSARY WORK WILL BE CHARGED TO THE CONTRACTOR.

CONNECTIONS:

- CONTRACTOR SHALL RECONNECT ALL EXISTING SERVICES INCLUDING WATER SERVICE AND FIRE PROTECTION SERVICE CONNECTIONS FROM THE ABANDONED OR REPLACED WATER MAIN TO THE NEW WATER MAIN. THE CONTRACTOR SHALL ALSO PROVIDE ALL REQUIRED TEES, BLIND FLANGES, CAPS, FITTINGS, PIPE AND RESTRAINED JOINT CONNECTIONS REQUIRED TO RECONNECT ALL SERVICES CONNECTIONS TO THE NEW WATER MAIN PER CITY OF MANHATTAN BEACH STANDARDS. WATER AND SEWER CONNECTIONS HAVE NOT BEEN SHOWN IN DETAIL FOR PLAN CLARITY.
- AT CONNECTION POINTS, THE CONTRACTOR SHALL REMOVE INTERFERING EXISTING PIPING AND VALVES AND INSTALL FITTINGS, VALVES AND MAKE UP SPOOL PIECES AND JOIN PIPE ENDS WITH TRANSITION COUPLINGS.
- CONNECTIONS TO EXISTING WATER MAIN SHALL BE ACCORDING TO TYPICAL CITY STANDARDS.
- THRUST BLOCK OR RESTRAINING DEVICES SHALL BE INSTALLED ON BOTH SIDES OF ALL FITTINGS, VALVES, PLUGS, AND DEAD ENDS, AND ALL DIRECTION CHANGES. THRUST BLOCKS SHALL BE PER CITY OF MANHATTAN BEACH STD. DWG. (ST-20). THE REQUIRED RESTRAINED LENGTH FITTINGS SHALL BE PER CITY STANDARDS, UNLESS OTHERWISE DIRECTED BY THE CITY ENGINEER.
- DUAL PURPOSE COUPLING TRANSITION FITTINGS SHALL BE USED FOR CIP/DIP TRANSITIONS FOR 12" OR LARGER.

RESTRAINTS/THRUST BLOCKS:

- THRUST BLOCKS SHALL BE CONSTRUCTED PER CITY OF MANHATTAN BEACH STD. DWG. ST-20.
- ALL NEW AND EXISTING WATER MAINS SHALL BE PROPERLY RESTRAINED BY THE CONTRACTOR DURING CONSTRUCTION AND HYDROSTATIC TESTING.
- ALL FIRE SERVICE CONNECTIONS SHALL BE RESTRAINED.

TESTING/DISINFECTION:

- THE CONTRACTOR SHALL DEMONSTRATE TO THE ENGINEER THAT ALL WATER MAINS HAVE BEEN RELIEVED OF ENTRAPPED AIR BY HOLDING HYDROSTATIC PRESSURE IN PIPELINES BEING TESTED A MINIMUM OF 4 HOURS PER AWWA C600.
- ALL WATER LINE INSTALLATIONS SHALL BE FREE OF DEBRIS AND ORGANIC MATERIALS. THE PIPE SHALL BE PRESSURE AND LEAKAGE TESTED, FLUSHED AND CHLORINATED. CHLORINATING SHALL BE IN ACCORDANCE WITH THE STATE OF CALIFORNIA HEALTH DEPARTMENT, CONSISTING OF NOT LESS THAN 50 PPB INITIAL DOSAGE, WITH NOT LESS THAN 25 PPB RESIDUAL DOSAGE AFTER 24 HOURS. INSTALLATIONS SHALL BE FLUSHED AND A 48 HOUR BACTI TEST SHALL BE REQUIRED PRIOR TO PRESSURE TESTING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR BACTERIOLOGICAL TESTING BY A CERTIFIED LABORATORY. THE CONTRACTOR SHALL NOT HAVE CUSTODY OF THE WATER SAMPLES AT ANY TIME DURING THE TESTING METHODS AND RESULTS SHALL BE SUBJECT TO APPROVAL BY THE ENGINEER PRIOR TO CONNECTING THE NEW WATER MAIN TO THE CITY'S WATER SYSTEM.
- ALL BACTI AND PRESSURE TESTS SHALL BE APPROVED BY THE CITY ENGINEER PRIOR TO PLACEMENT OF PERMANENT RESURFACING.

HIGH LINING (BY-PASS):

- THE CONTRACTOR SHALL INSTALL BY-PASS LINES AS SHOWN AND PER SPECIFICATIONS. THE MINIMUM BY-PASS PIPING SIZE SHALL EQUAL THE SIZE OF THE MAIN TO BE REPLACED.
- BY-PASS WATER PLANS SHALL BE PROVIDED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER FOR ALL WATER MAINS TO BE REMOVED AND REPLACED PER PLAN. ALL BY-PASS PLANS SHALL BE IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND COORDINATED AND APPROVED WITH THE CITY FIRE MARSHALL.

ABANDONMENT:

- WHERE THE NEW WATER MAIN REPLACES AN EXISTING MAIN, THE EXISTING MAIN SHALL BE ABANDONED IN PLACE AND THE ENDS SHALL BE FILLED WITH 2 FEET MINIMUM OF SLURRY, CAPPED OR PLUGGED PROPERLY AND SECURED WITH CONCRETE PRIOR TO BACKFILLING.
- REPLACED WATER SERVICES SHALL BE REMOVED.

SEPARATIONS:

- ALL WATER MAIN SEPARATIONS SHALL COMPLY WITH DEPARTMENT OF HEALTH SERVICES GUIDANCE CRITERIA AND DIVISION OF DRINKING WATER (DDW) FOR THE SEPARATION OF WATER MAINS AND NON-POTABLE PIPELINES (LATEST ADDITION) AND CITY OF MANHATTAN BEACH STD. DWG. ST-26. THE MORE STRINGENT OF THE TWO SHALL GOVERN.

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- WHEREVER A WATER LINE CROSSES A SEWER LINE, VERTICAL SEPARATION SHALL NOT BE LESS THAN 4 INCHES. WHERE THE SEPARATION IS BETWEEN 4 INCHES AND ONE (1) FOOT, THE CONTRACTOR SHALL INSTALL THE WATER MAIN SO THAT A 16 FOOT SECTION OF PIPE IS CENTERED AT THE SEWER LINE, AND IN AREAS WHERE THE PIPE IS INSTALLED IN THE SAME STORM DRAIN, DETERMINE THE SEPARATION. MAINTAIN A MINIMUM VERTICAL CLEARANCE OF 12 INCHES BETWEEN THE TOP OF STORM DRAIN AND THE BOTTOM OF THE PIPELINE. IF A 12 INCH CLEARANCE CANNOT BE MAINTAINED, PIPE SHALL BE CONCRETE ENCASED ACROSS THE STORM DRAIN, PLUS 3 FEET ON BOTH SIDES. SEE CITY OF MANHATTAN BEACH STD. DWG. ST-26.

TRENCHING AND BACKFILLING:

- NO MECHANICAL EQUIPMENT IS PERMITTED TO OPERATE WITHIN THREE FEET OF A GAS LINE AND ANY CLOSER WORK MUST BE DONE BY HAND.

SEWER NOTES:

- THE CONTRACTOR'S ATTENTION IS CALLED TO CONTRACT SPECIFICATION'S SPECIAL PROVISION, PART 3, SECTION 306-1.2.15 CONVEYANCE OF SEWAGE FLOWS.

- THE LOCATIONS OF EXISTING UTILITIES AND HOUSE LATERALS SHOWN ARE BASED ON CCTV INSPECTIONS AND PREVIOUS RECORDS. IT MAY OR MAY NOT BE ACCURATE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY AND EXPOSE ALL EXISTING LATERALS TO DETERMINE EXACT LOCATION AND DEPTHS TO WHICH THE CONNECTIONS ARE TO BE MADE.
- AN EXISTING SEWER TO BE REPLACED SHALL BE CUT AND PLUGGED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS, SECTION 306-5 AND 306-6.
- EXISTING DOWNSTREAM MANHOLES SHALL BE BULKHEADED WITH BRICK AND MORTAR OR PLUGS APPROVED BY THE ENGINEER AT NEW INLET DURING CONSTRUCTION OF NEW UPSTREAM LINES. BRICK AND MORTAR OR PLUG SHALL BE REMOVED IN THE PRESENCE OF THE ENGINEER DURING CLEARING OF THE FIRST UPSTREAM SECTION OF THE NEW SYSTEM.
- THE NEW MAIN AND LATERALS SHALL BE PRESSURE TESTED IN ACCORDANCE WITH SECTION 306.1.4.4 OF THE STANDARD SPECIFICATIONS.
- MANHOLE FRAMES AND COVERS SHALL HAVE NO LOCKING FEATURES AND CONFORM TO THE CITY OF MANHATTAN BEACH STANDARD DWG. MBSI-210A (ST-19). A FOUNDRY IDENTIFICATION MARK SHALL BE LOCATED ON THE BOTTOM OF THE COVER AND INSIDE THE FRAME.
- WHENEVER THE INVERT ELEVATION OF THE EXISTING AND THE NEW SEWER ARE THE SAME, THE LATERALS SHALL BE ANGLED TOWARD THE DOWNSTREAM DIRECTION AT THE MAXIMUM SLOPE POSSIBLE.
- THE CONTRACTOR SHALL ADJUST ALL NEW SEWER MANHOLE FRAME COVERS TO FINISHED PAVEMENT GRADE.
- ALL LATERAL LOCATIONS SHALL BE CLEARLY MARKED WITH A 2 INCH HIGH "S" CHISELED IN THE CURB FACE BY THE CONTRACTOR, WITH EXCEPTION AT PRIVATE IMPROVEMENTS IN ENCROACHMENT AREAS.
- STATIONS SHOWN THIS 04:00 AS SHOWN ON THE PLAN AND PROFILE ARE SEWER STATIONS FROM RECORDED DRAWINGS AND ARE INDEPENDENT OF STREET STATIONS AND ARE STATIONS ALONG CENTERLINE OF SEWER. THESE MAY VARY FROM CCTV DERIVED DISTANCES.

- SEWER LINE DISTANCE SHOWN IN PLAN AND PROFILE IS THE HORIZONTAL DISTANCE MEASURED BETWEEN MANHOLES.

- SEWER MAIN CONSTRUCTION SHALL BE MONITORED BY VIDEOTAPE EQUIPMENT & THE VIDEOTAPE SHALL BE PROVIDED TO CITY ENGINEER. STATIONING IS TO SHOW ON VIDEOTAPE.

- MANHOLE CONES FOR REPLACEMENT MANHOLES SHALL BE SET STRAIGHT SIDE UPSTREAM. MANHOLE STEPS SHALL BE MADE OF STEEL REINFORCED POLYPROPYLENE.

- ALL VCP AND FITTINGS SHALL BE CLASS DESIGNATED "EXTRA-STRENGTH" AND TESTED IN ACCORDANCE WITH ASTM C-700 AND PER CITY STANDARDS.

- IF A POWERPOLE IS WITHIN THREE FEET OF THE SEWER, THE SEWER SHALL BE ENCASED PER LACDPW STANDARD PLAN 2023-2, CASE II, TWO FEET ON EACH SIDE FROM THE POINT OF INTERFERENCE.
- ALL JOINTS BETWEEN VITRIFIED CLAY PIPE AND OR PVC SEWER PIPE SHALL BE MADE WITH A RUBBER SLEEVE JOINT, TYPE "D" (WITH BUSHING IF NECESSARY) PER "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" SECTION 208-2.
- WYE FITTINGS SHALL BE USED FOR LATERAL CONNECTIONS TO THE MAINLINE SEWERS EXCEPT AS NOTED.
- NEW PIPE AND NEW MANHOLE BEDDING SHALL BE INSTALLED PER CITY OF MANHATTAN BEACH STANDARD DWG MBSI-132A (ST-10).
- CONTRACTOR TO COAT OUTSIDE OF ALL NEW SANITARY SEWER MANHOLES WITH WATERPROOF MEMBRANES.
- ALL NEW SANITARY SEWER MANHOLE FRAMES AND COVERS SHALL BE WATERTIGHT.

- PRIOR TO ACCEPTANCE OF ANY SANITARY SEWER LINE BY THE CITY OF MANHATTAN BEACH, AN INSPECTION OF SAID LINE BY VIDEO INCLUDING MANHOLES SHALL BE REQUIRED PER PROVISIONS OF SECTION 500-1.1.15 OF THE SSPWC. THE RESULTS OF THE VIDEO AND MANDREL INSPECTION SHALL BE RECORDED IN DVD FORMAT AND A COPY SHALL BE PROVIDED TO THE CITY. THIS INCLUDES REPAIRED, LINED & REPLACED SEWERS.
- PRIOR TO THE ACCEPTANCE OF ANY SANITARY SEWER LINE BY THE CITY OF MANHATTAN BEACH, AN INSPECTION OF SAID LINE BY VIDEO SHALL BE REQUIRED AS PART OF COST FOR PROJECT TO THE CITY. ALL NEW REPAIRED & LINED SEWERS SHALL BE VIDEO INSPECTED. THE CCTV INSPECTION SHALL BE COMPLETED BY A CERTIFIED NATIONAL ASSOCIATION OF SEWER SERVICE COMPANY (NASSCO) PIPELINE ASSESSMENT AND CERTIFICATION PROGRAM (PACP) SHALL BE PERFORMED BY TRAINED OPERATOR(S) USING ESTABLISHED PACP CODING AND OBSERVATIONS. THE RESULTS OF THE VIDEO INSPECTION SHALL BE RECORDED IN DVD FORMAT AND A COPY SHALL BE PROVIDED TO THE CITY DEPARTMENT OF PUBLIC WORKS FOR REVIEW AND APPROVAL. ANY NOTED DEFICIENCIES SHALL BE CORRECTED, THEN FOLLOWED BY A POST CORRECTION VIDEO TO BE SUBMITTED FOR REVIEW AND APPROVAL. THE CONTRACTOR OF THE PROJECT SHALL NOTIFY THE CITY OF MANHATTAN BEACH IN WRITING AT LEAST 48 HOURS (2 WORKING DAYS) IN ADVANCE OF THE SCHEDULED DATE AND TIME OF ANY VIDEO INSPECTIONS.

- THE CONTRACTOR SHALL CHECK EACH LATERAL FOR THE PRESENCE OF A BACKWATER VALVE, WHICH SHALL BE REPLACED IF DAMAGED.
- THE CONTRACTOR SHALL REVIEW CCTV TO LOCATE EXISTING SEWER LATERALS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- WHERE KNOWN, LOCATIONS OF SEWER LATERALS ARE SHOWN ON PLANS. HOWEVER, CONTRACTOR SHALL RECONNECT ALL FOUND LATERALS.
- AS DIRECTED BY THE ENGINEER, CONTRACTOR SHALL SALVAGE ALL EXISTING MANHOLE COVERS AND FRAMES AND DELIVER THEM TO THE CITY YARD.
- CONNECTION TO EXISTING CITY MANHOLES, WHERE STUBS DO NOT EXIST OF CORRECT SIZE, SHALL BE DONE BY CORE DRILLING.
- MAINTAIN SEWER FLOW AT ALL TIMES DURING CONSTRUCTION IN SEWER MAINS AND LATERALS BY USE OF BYPASS SYSTEM INCLUDING PUMPING.
- ANY EXISTING BACKWATER VALVE BWV SHALL BE REPLACED AS PART OF THIS PROJECT. INSTALL NEW BWV WHERE REQUIRED PER SECTION 710 OF THE PLUMBING CODE.

ROADWAY RECONSTRUCTION GENERAL NOTES:

- CURB AND GUTTER AND RAMP TO BE REPLACED TO MATCH EXISTING AND IN ACCORDANCE WITH CITY STANDARD DRAWING AND "GREEN BOOK" STANDARDS.

- JOIN NEW CURB AND GUTTER TO ASPHALT PAVEMENT PER DETAILS SHOWN OR REFERENCED. CONSTRUCT CURB AND GUTTER PER THE "GREEN BOOK" STD PLAN 120-2 AND CITY REQUIREMENTS UNLESS OTHERWISE SHOWN.

- JOIN NEW ASPHALT PAVING TO CURB AND GUTTER PER DETAILS SHOWN OR REFERENCED. PRIME ALL AREAS TO BE JOINED. SAW CUT ALL CONCRETE AND ASPHALT PAVING TO BE JOINED PRIOR TO DEMOLITION AND REMOVALS.

- ANY NEW CURB AND GUTTER CONSTRUCTED AT EXISTING ASPHALT WEARING COURSE SHALL BE JOINED WITH A MINIMUM SIX INCH NOTCH PER STANDARD DETAIL.

- DRIVEWAY APPROACHES DISTURBED BY THE WORK SHALL BE REPLACED PER DETAILS HEREIN OR GREEN BOOK STANDARDS.

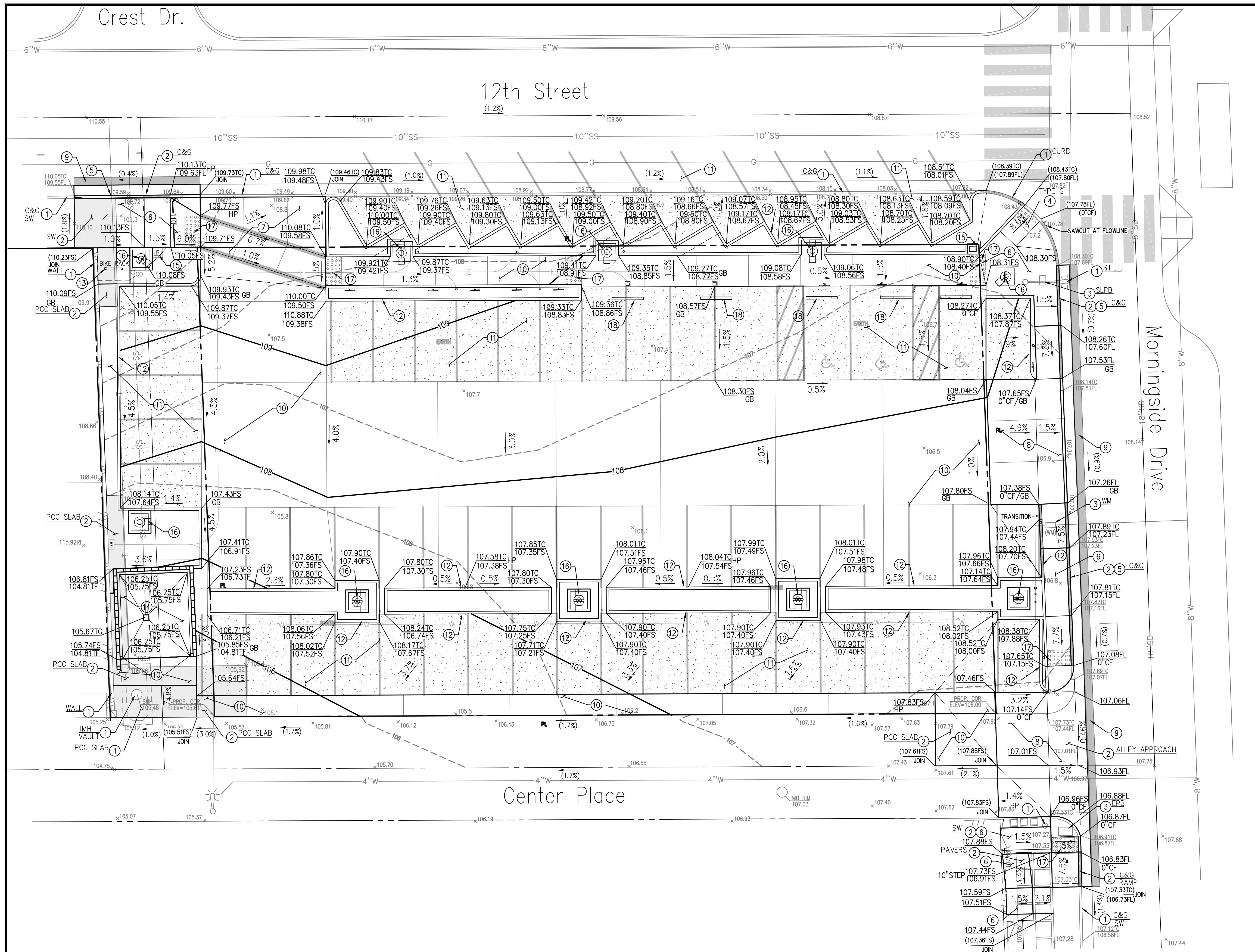
- STREET EXCAVATION AND PAVEMENT RESTORATION SHALL BE PER CITY OF MANHATTAN BEACH STANDARD DRAWING MBSI-132A (ST-10) AND ALL REFERENCED STANDARDS. AC SHALL BE SAW CUT. ALL STREET TRENCHING SHALL BE RESTORED USING "T" CUT.

- PCC STREET EXCAVATION AND PCC PAVEMENT RESTORATION IN PCC ROADWAY AND WALKING STREETS SHALL BE EXTENDED TO THE SCORE LINES IN THE PAVEMENT. ALL SECTIONS TO BE REMOVED SHALL BE SAW CUT PRIOR TO DEMOLITION AND REMOVAL. NEW PCC SHALL BE CONSTRUCTED ON NATIVE SUBGRADE COMPACTED TO 90% FINISH SHALL MATCH CITY SIDEWALK STANDARDS OR AS DIRECTED BY THE ENGINEER. EXPANSION JOINTS AND CONTRACTION JOINTS AS DIRECTED BY THE ENGINEER, AND AT MAXIMUM OF 20 FEET. SCORE PATTERN AS DIRECTED.

- MANHOLE FRAME AND COVERS, UTILITY VAULTS, VALVE BOXES, AND OTHER UTILITY ACCESS STRUCTURES SHALL BE ADJUSTED TO MATCH FINISH SURFACE IN ACCORDANCE WITH STANDARD SPECIFICATIONS, CITY, AND COUNTY REQUIREMENTS.

- BLUE REFLECTORS SHALL BE INSTALLED ON THE ROADWAY SURFACE AT THE REQUIRED LOCATIONS TO INDICATE THE LOCATION OF EACH HYDRANT. REFLECTORS SHALL BE IN ACCORDANCE WITH FIRE DEPARTMENT REGULATIONS.

- THE EXISTENCE AND LOCATION OF MANHOLE, UTILITIES, VAULTS, BOXES, WATER METERS, VALVES AND OTHER STRUCTURES AND UTILITIES HAVE BEEN DETERMINED FROM AVAILABLE RECORDS AND SURFACE SURVEY PERFORMED. THESE ARE TO BE PROTECTED AND RESTORED/REPLACED IF DAMAGED OR DISTURBED AT CONTRACTOR'S SOLE EXPENSE.



CITY OF MANHATTAN BEACH
PUBLIC WORKS DEPARTMENT - ENGINEERING DIVISION

INTERIM SURFACE PARKING LOT 3
1155 MORNINGSIDE DR.

GRADING PLAN

REVISIONS		
NO.	DESCRIPTION	BY DATE

RECOMMENDED BY _____

RECOMMENDED BY _____

PROJECT MANAGER JEFF FIJALKA, PE DATE _____

CITY ENGINEER KATHERINE DOHERTY DATE _____

DESIGNED BY M. TODD BROUARD, PE DATE 3/10/2025

TAIT PROJECT ENGINEER DATE 3-10-25

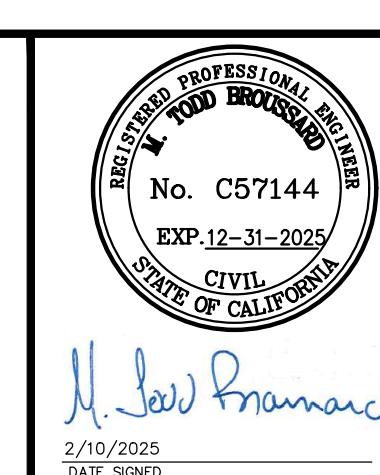
SCALE 1" = 10' DRAWING NO. D-952



NO WORK SHALL BE DONE ON THIS SITE UNTIL USA AGENCY IS NOTIFIED OF INTENTION TO GRADE OR EXCAVATE, TWO WORKING DAYS BEFORE YOU DIG.

SUPPLEMENTAL NOTES

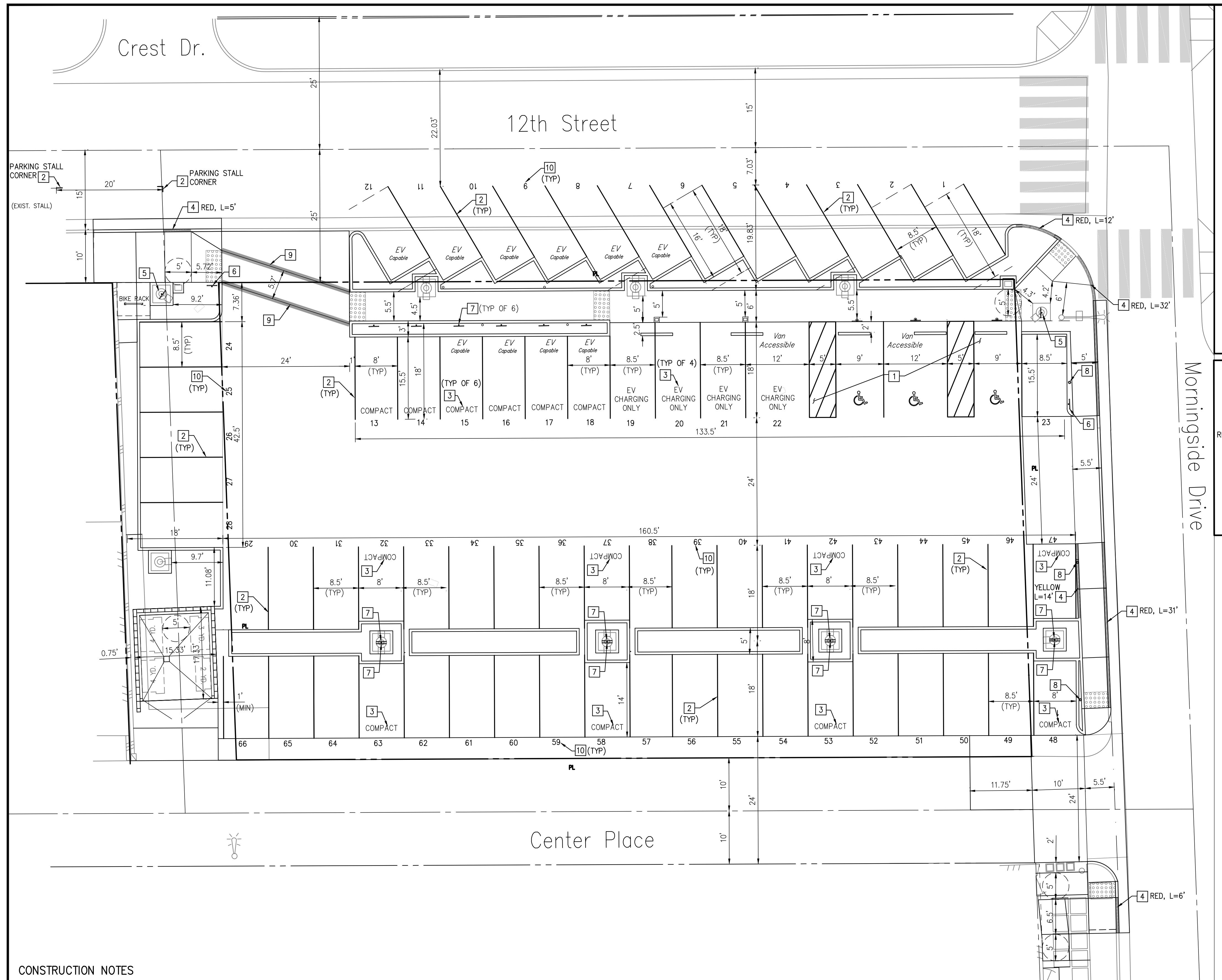
1. THE CONTRACTOR SHALL LOCATE, VERIFY AND PROTECT ALL EXISTING UNDERGROUND UTILITIES. DAMAGED UTILITIES SHALL BE REPLACED IN KIND AT THE CONTRACTOR'S EXPENSE.
2. DUE TO INDIVIDUAL LOT IMPROVEMENTS, THE EXISTING WATER, SEWER AND/OR GAS LATERALS MAY NOT BE AT THE LOCATIONS SHOWN OR SHOWN IN THEIR ENTIRETY. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN EXCAVATING.
3. THE CONTRACTOR SHALL DETERMINE THE DEPTH OF THE GAS SUE, CABLE, SEWER, STORM DRAIN AND WATER AT ALL INTERSECTIONS AND INTERFERENCES PRIOR TO CONSTRUCTION AND AS NOTED ON PLANS.



TAIT & ASSOCIATES, INC.
701 N. PARKCENTER DRIVE
SANTA ANA, CA 92705
(714) 560-8200

REVIEWED BY _____ DATE _____

REFERENCES _____



CONSTRUCTION NOTES

- 1 INSTALL ADA STRIPING AND SIGNAGE PER DETAILS HEREON
- 2 PAINT 4" WIDE, THERMOPLASTIC WHITE STRIPING
- 3 PAINT LETTERING SHOWN, 12" HIGH, THERMOPLASTIC WHITE LETTERING
- 4 PAINT CURB, COLOR PER PLAN. (2-COATS)
- 5 INSTALL "PAY HERE" SIGN ON PARKING LOT LIGHT POLE PER MBSI-413A
- 6 INSTALL "UNAUTHORIZED VEHICLE" SIGN ON SIGN POST PER DETAILS HEREON
- 7 INSTALL "COMPACT CAR PARKING ONLY" SIGN ON PARKING LOT LIGHT POST
- 8 INSTALL SURFACE MOUNT FLEXIBLE ROUND DELINEATOR POST.
- 9 PAINT 12" WIDE, THERMOPLASTIC WHITE STRIPING
- 10 PAINT NUMBERS SHOWN, 6" HIGH, BLACK ON WHITE BACKGROUND.

PARKING COUNT

REGULAR STALLS	52
COMPACT STALLS	14
ADA STALLS	3
<hr/>	
TOTAL STALLS	69
EV STALLS	0.20(69)
EVSE STALLS	0.25(14)
BICYCLE PARK	5



SUPPLEMENTAL

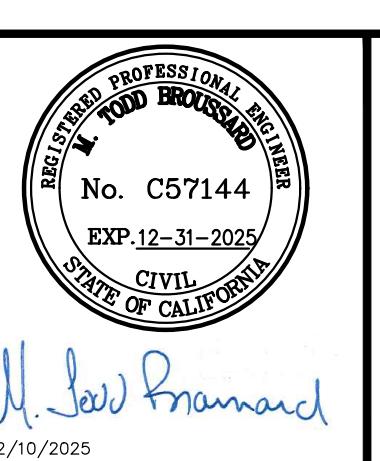
**1. THE CON
UNDERGROUND
KIND AT THE C**

**2. DUE TO I
SEWER AND/OR
SHOWN OR SH
EXERCISE CAU**

NOTES:

TRACTOR SHALL LOCATE, VERIFY AND PROTECT ALL EXISTING UTILITIES. DAMAGED UTILITIES SHALL BE REPLACED IN CONTRACTOR'S EXPENSE.

IVIDUAL LOT IMPROVEMENTS, THE EXISTING WATER, GAS LATERALS MAY NOT BE AT THE LOCATIONS OWN IN THEIR ENTIRETY. THE CONTRACTOR SHALL ON WHEN EXCAVATING.



**TAIT & ASSOCIATES, INC.
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SCALE: 1" = 10'

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100% of the time, the system is in a state where $\hat{p}_i = 1$.

100% of the time

10 of 10

CITY OF MANHATTAN BEACH

PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

**INTERIM SURFACE PARKING LOT 3
1155 MORNINGSIDE DR.**

TRIPPING & SIGNAGE PLAN

RECOMMENDED BY

PROJECT MANAGER **DATE**
JEFF FIJALKA, PE
CITY ENGINEER
KATHERINE DOHERTY

DESIGNED BY _____
M. TODD BROUSSARD, PE
DATE 3-10-25

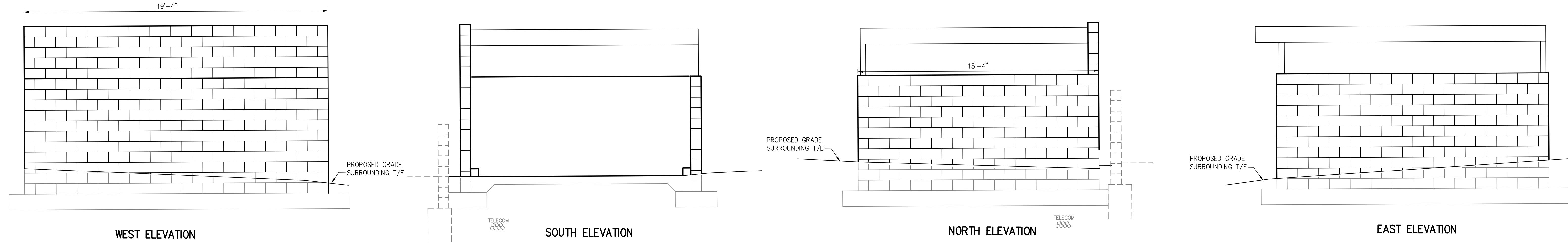
M. TODD BROUSSARD, PE
TAIT PROJECT ENGINEER

3/10/2025
DATE

SHEET 6 OF 22

D —

D-952



WEST ELEVATION

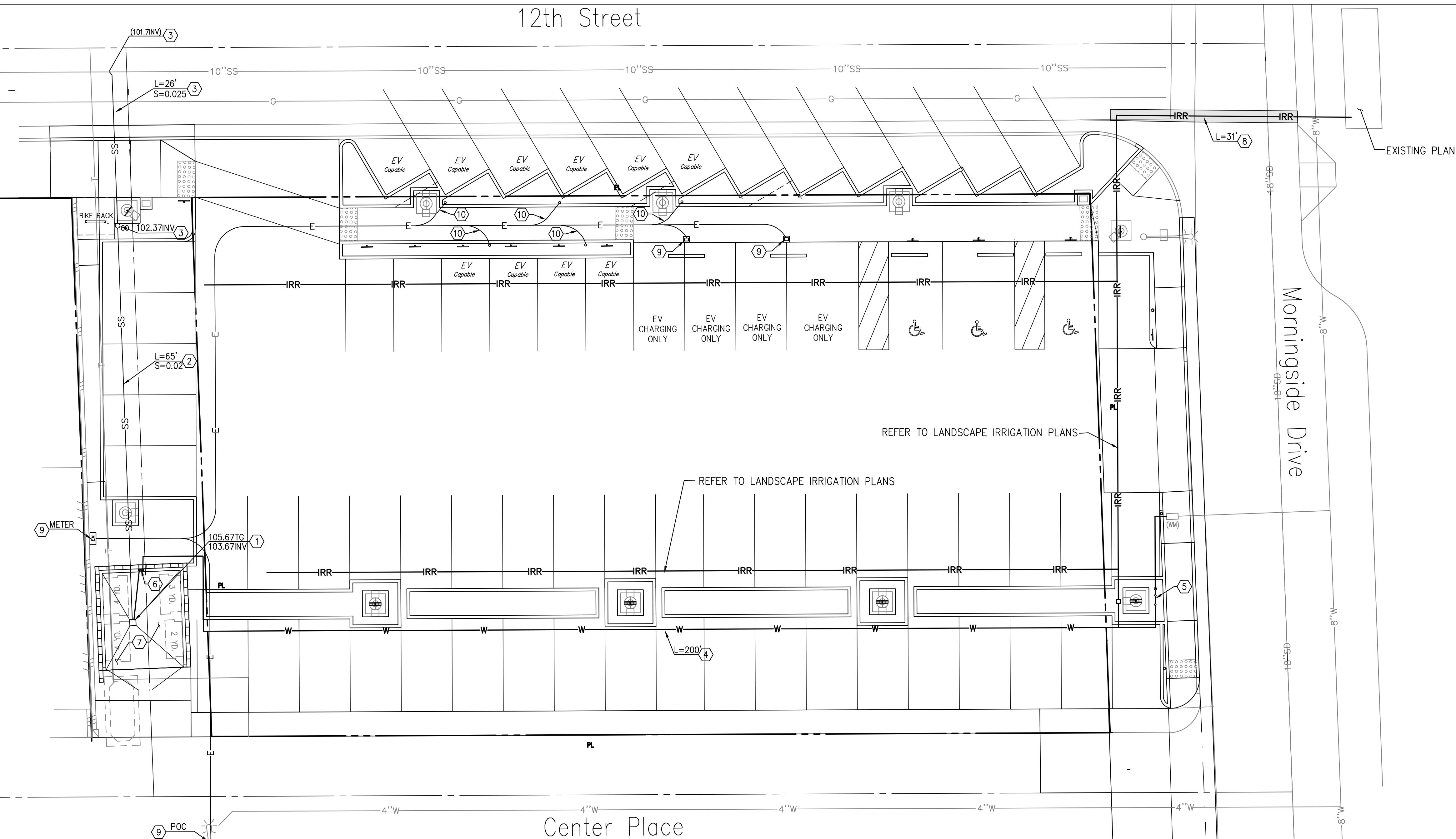
SOUTH ELEVATION

NORTH ELEVATION

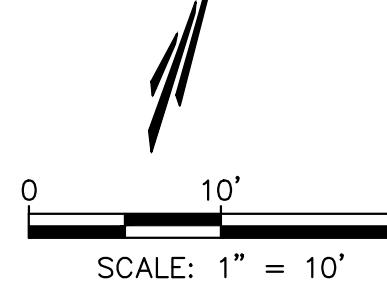
EAST ELEVATION

SEE TRASH ENCLOSURE DETAILS ON THE SHEETS FOLLOWING

12th Street



Center Place

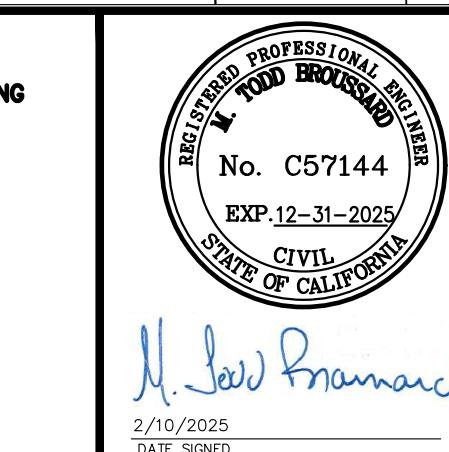


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UNTIL USA AGENCY IS NOTIFIED
OF INTENTION TO GRADE OR EXCAVATE.
TWO WORKING DAYS BEFORE YOU DIG.



SUPPLEMENTAL NOTES

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REVIEWED

BY

DATE

REVISIONS

NO.

DESCRIPTION

BY

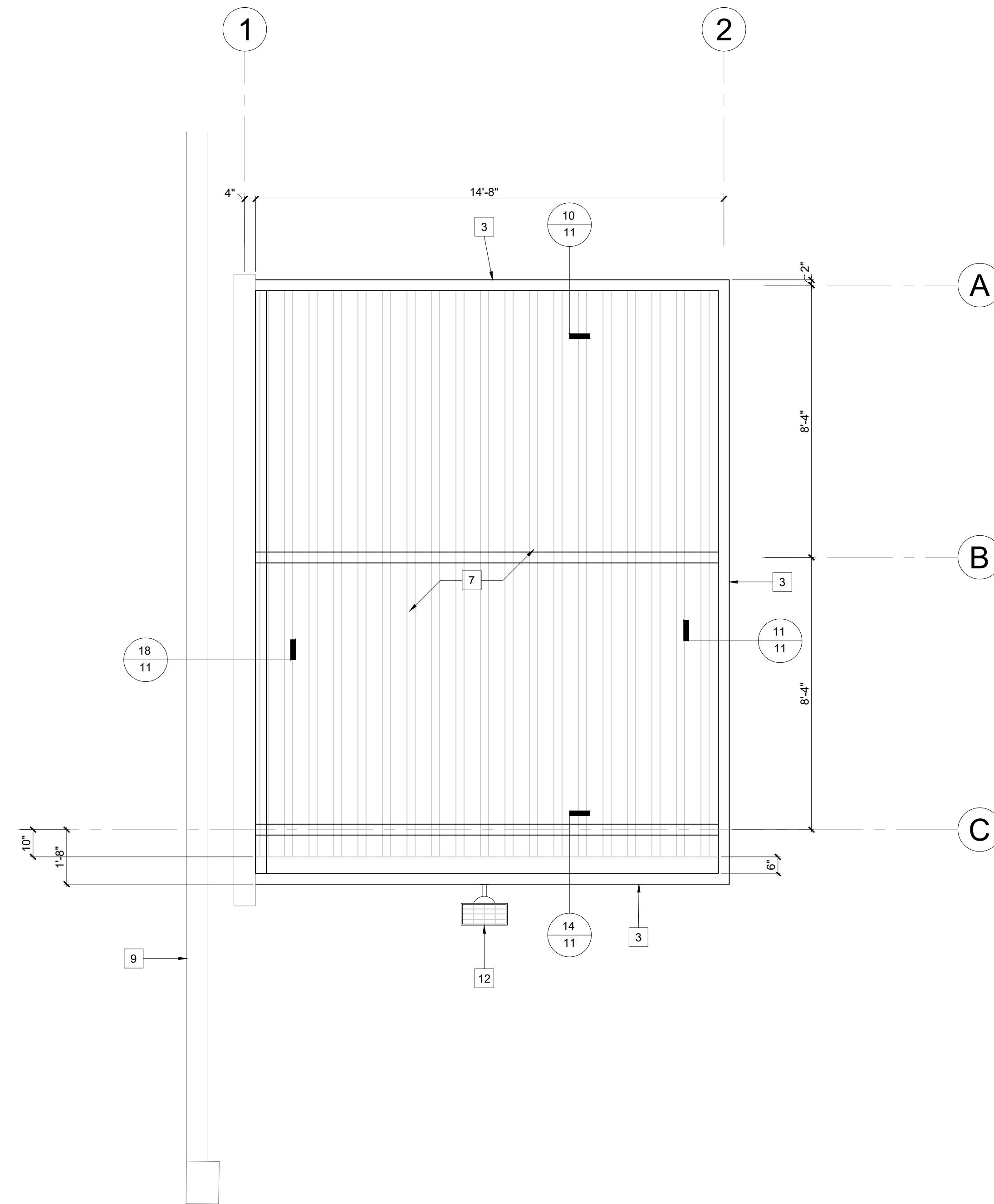
DATE

REFERENCES

CITY OF MANHATTAN BEACH
PUBLIC WORKS DEPARTMENT - ENGINEERING DIVISION
INTERIM SURFACE PARKING LOT 3
1155 MORNINGSIDE DR.

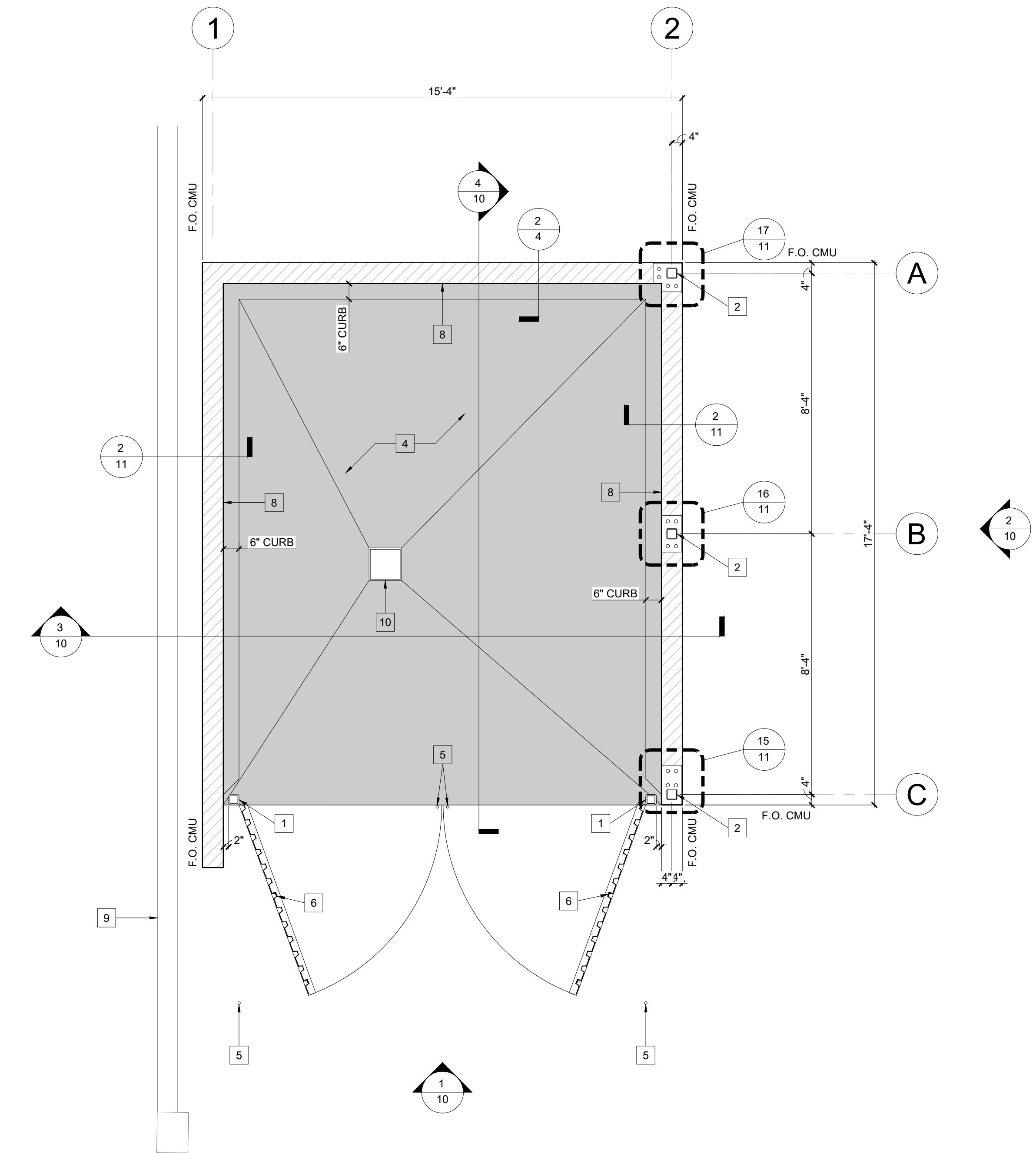
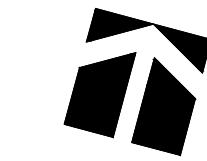
TRASH ENCLOSURE SITE & UTILITY PLAN		
RECOMMENDED BY		RECOMMENDED BY
PROJECT MANAGER JEFF FUJALKA, PE		CITY ENGINEER KATHERINE DOHERTY
DESIGNED BY M. TODD BROUARD, PE TAIT PROJECT ENGINEER	SCALE 3-10-25 DATE 3/10/2025 DRAWING NO.	SCALE 3-10-25 DATE 3/10/2025 DRAWING NO.

D-952



2 ROOF PLAN

SCALE: 3/8" = 1'-0"



1 FLOOR PLAN

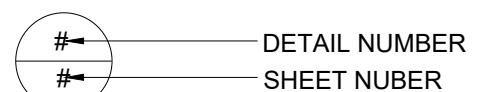


KEYNOTES

SHEET NOTES

- 1 HSS 4X4X1/2 POST. REFER TO DETIALS 5 AND 7/11, PRIME AND PAINT.
- 2 HSS 4X4X1/4 POST. REFER TO DETIALS 15, 16 AND 17/11, PRIME AND PAINT.
- 3 HSS 4X12X3/16 BEAM. REFER TO DETIALS 10, 11 AND 14/11, PRIME AND PAINT.
- 4 5-INCH THK. CONCRETE SLAB, 3,000 PSI WITH NO. 4 REBAR AT 12-INCHES EACH WAY OVER COMPACTED GRADE. SURFACE OF THE CONCRETE SLAB IS TO BE SMOOTH AND SEALED TO BE IMPERVIOUS TO GREASE AND OILS.
- 5 CANE BOLT SLEEVE, SEE DETAIL 13/11.
- 6 6'-6"W x 5'-8"H CORRUGATED METAL GATE WITH DIAGONAL BRACING, CONTINUOUS WELD AT ALL JOINTS; PRIME AND PAINT.
- 7 1 1/2-INCH HSB-36 18 GA. VERCO DECK.
- 8 INTERIOR SURFACE OF ALL WALLS ARE TO BE SMOOTH AND SEALED TO BE IMPERVIOUS TO GREASE AND OILS.
- 9 EXISTING CMU WALL. PROTECT IN PLACE.
- 10 FLOOR DRAIN.
- 11 C 4X12X1/4. REFER TO DETAILS 10, 11 AND 14/11, PRIME AND PAINT.
- 12 SOLAR POWERED SECURITY LIGHT. HALO SBL 250 OR APPROVED EQUAL. INSTALL PER MANUFACTURER'S INSTRUCTIONS.

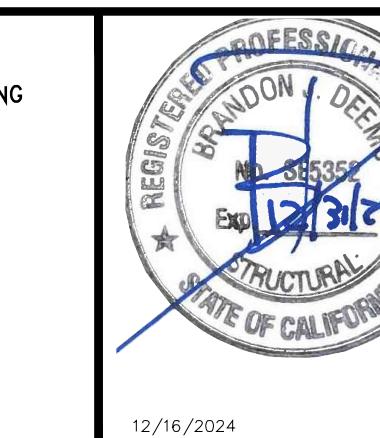
LEGEND



NO WORK SHALL BE DONE ON THE PROPERTY UNTIL USA AGENCY IS NOTIFIED OF INTENTION TO GRADE OR EXCAVATE TWO WORKING DAYS BEFORE YOU COMMENCE WORK.

SUPPLEMENT

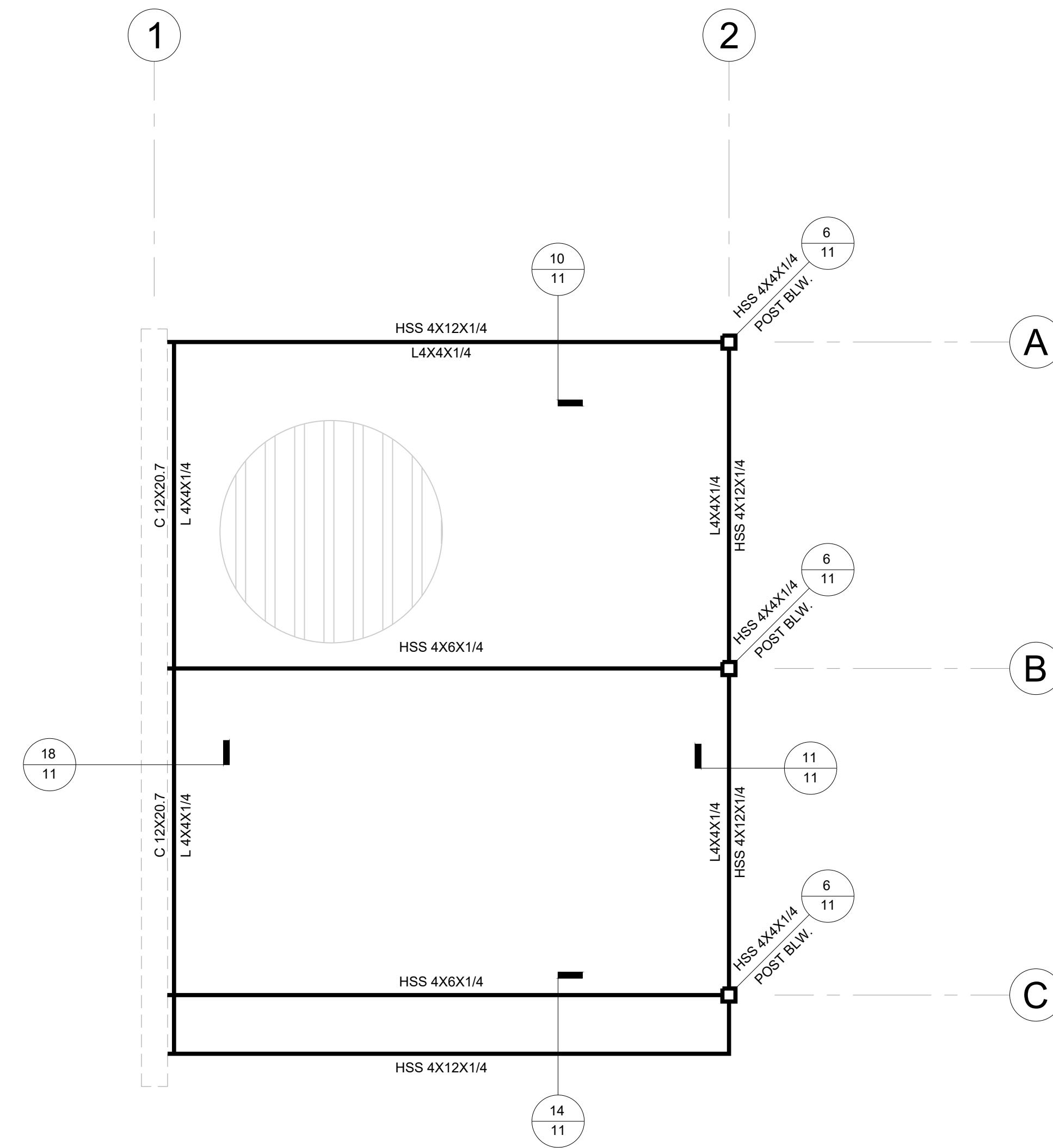
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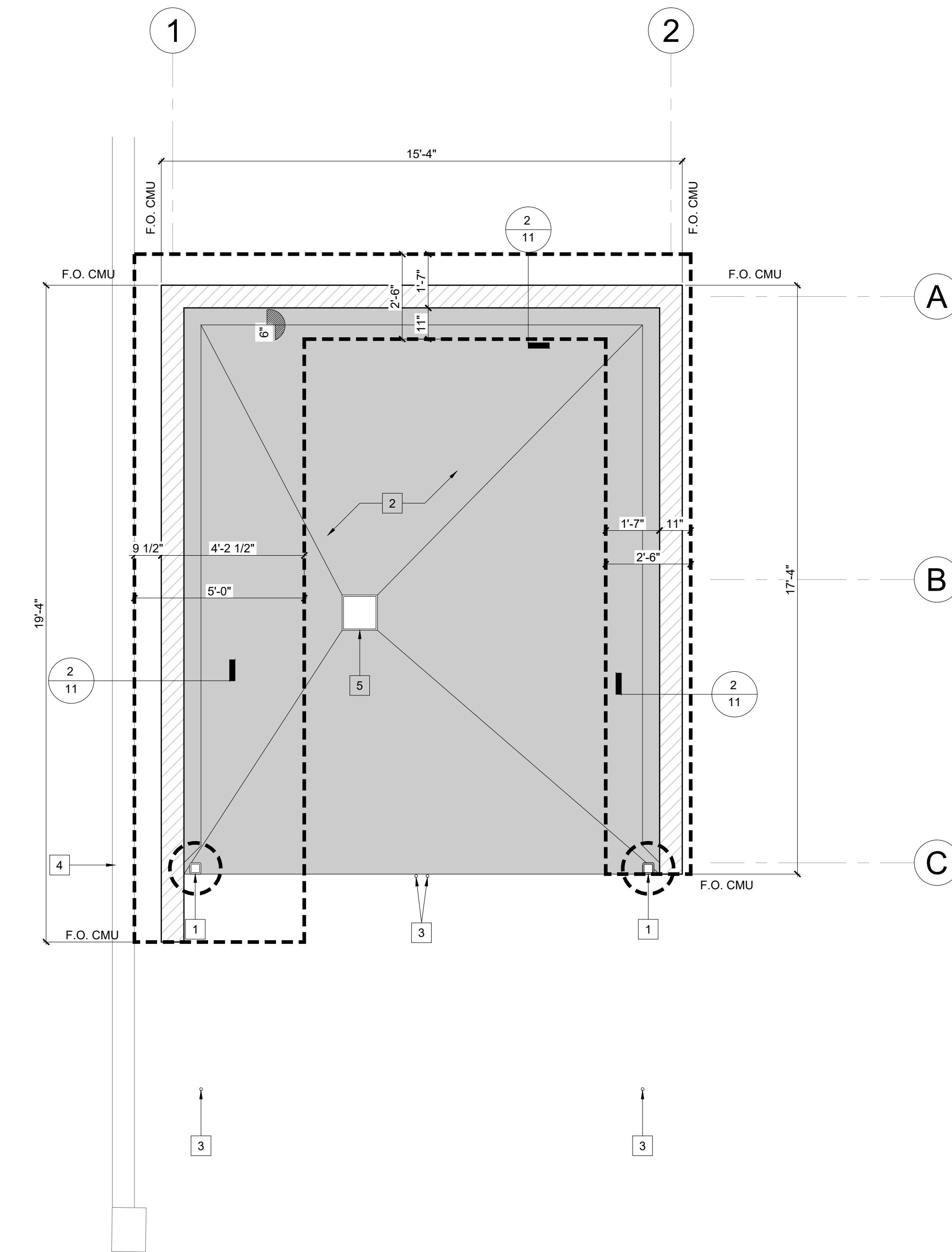
REVISIONS				INTERIM SURFACE PARKING LOT 3 1155 MORNINGSIDE DR. TRASH ENCLOSURE PLANS			
BY	DATE	NO.	DESCRIPTION	BY	DATE	RECOMMENDED BY	
REFERENCES				PROJECT MANAGER JEFF FIJALKA, PE	DATE	CITY ENGINEER KATHERINE DOHERTY	DATE
DESIGNED BY M. TODD BROUSSARD, PE TAIT PROJECT ENGINEER				12/16/2024 DATE	SCALE 11-10-22	DATE 11-10-22	DRAWING NO. D-952
					SHEET 8	OF 22	

D-952



2 ROOF FRAMING PLAN

SCALE: 3/8" = 1'-0"



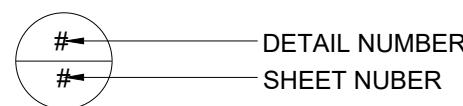
1 FOUNDATION PLAN

SCALE: 3/8" = 1'-0"

SHEET NOTES

1. GRIDLINES ARE THE LOCATION OF CENTERLINES OF STRUCTURAL STEEL COLUMNS AND CENTER OF STRUCTURAL WALLS UNLESS OTHERWISE NOTED.

LEGEND



KEYNOTES

- 1 HSS 4"X4"X1/8" WITH 18-INCH DIA. PIER FOOTING WITH 4'-0" EMBEDMENT INTO GRADE. EMBED HSS COLUMN 2'-7" INTO FOOTING AND PROVIDE (5) NO. 5 VERTICAL BARS AND NO. 3 SPIRAL TIES AT 3-INCHES O.C. AROUND HSS.
- 2 5-INCH THK. CONCRETE SLAB, 3,000 PSI WITH NO. 4 REBAR 12-INCHES O.C. EACH WAY OVER COMPACTED GRADE.
- 3 CAGE BOLT SLEEVE, SEE DETAIL 13/11.
- 4 EXISTING CMU WALL. PROTECT IN PLACE.
- 5 FLOOR DRAIN.



NO WORK SHALL BE DONE ON THIS SITE UNTIL USA AGENCY IS NOTIFIED OF INTENTION TO GRADE OR EXCAVATE, TWO WORKING DAYS BEFORE YOU DIG.

SUPPLEMENTAL NOTES

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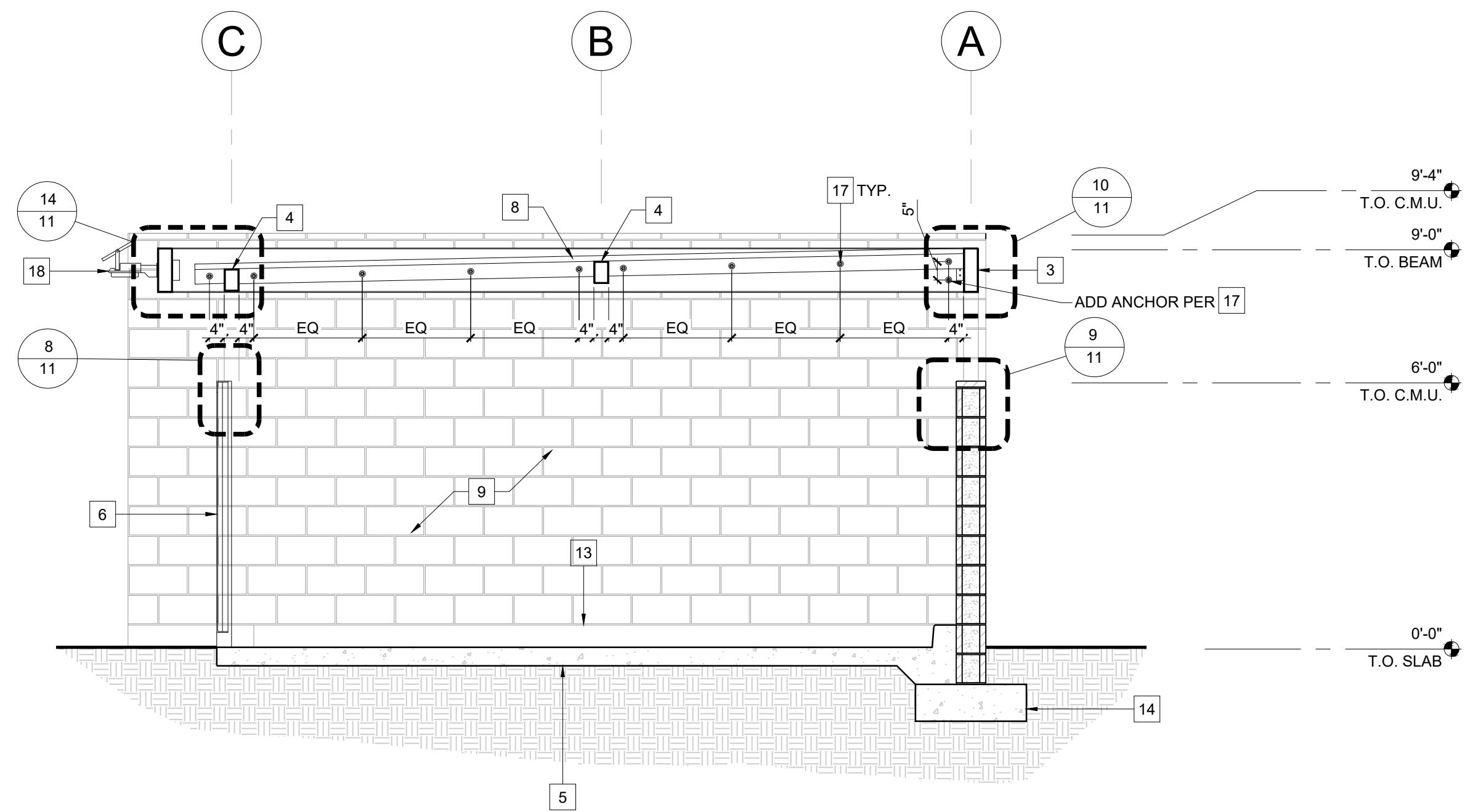


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12/16/2024
DATE SIGNED

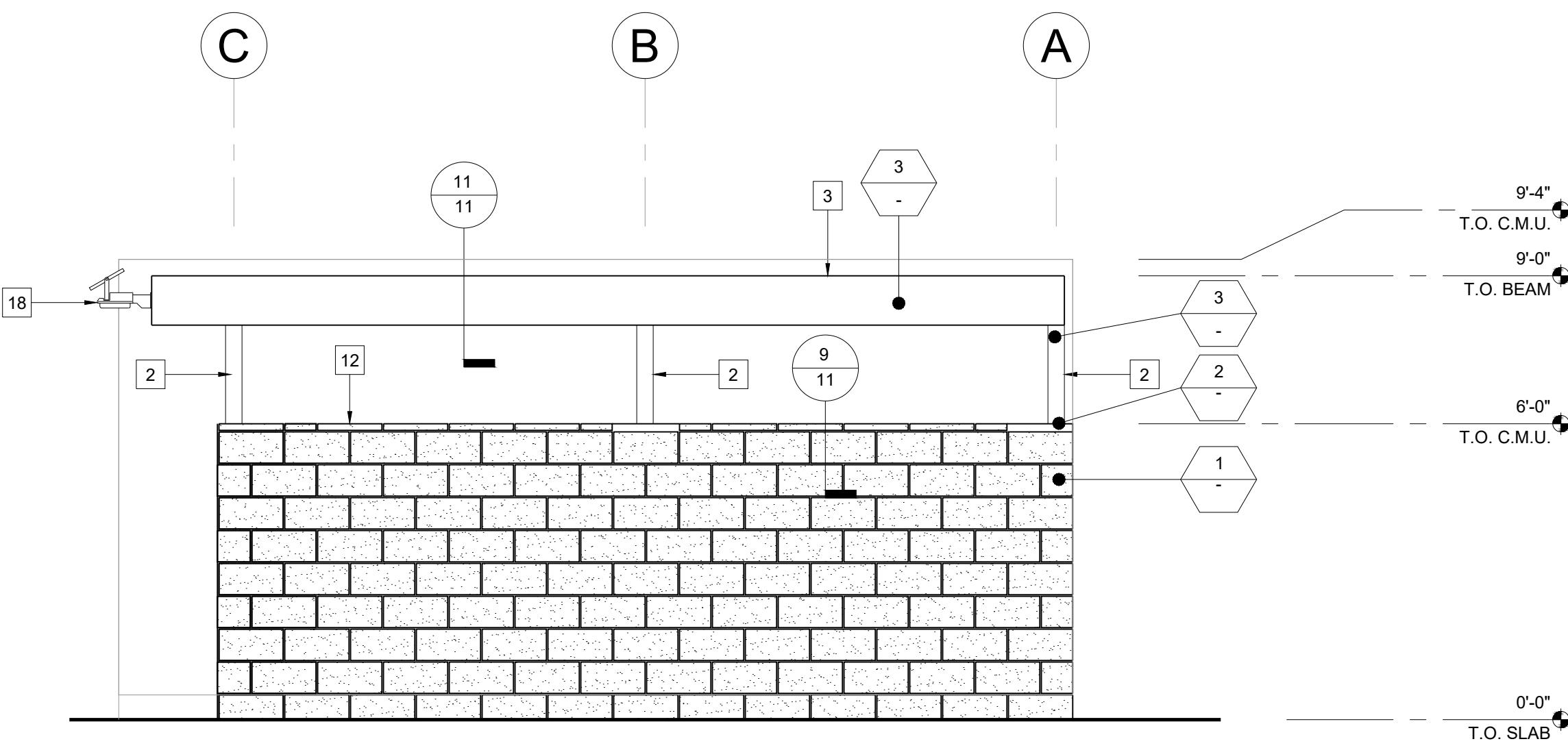
CITY OF MANHATTAN BEACH			
PUBLIC WORKS DEPARTMENT - ENGINEERING DIVISION			
INTERIM SURFACE PARKING LOT 3 1155 MORNINGSIDE DR.			
TRASH ENCLOSURE PLANS			
REVISIONS		RECOMMENDED BY	
NO.	DESCRIPTION	BY	DATE
REFERENCES			
PROJECT MANAGER JEFF FIJALKA, PE		CITY ENGINEER KATHERINE DOHERTY	
DESIGNED BY M. TODD BROUSSARD, PE TAIT PROJECT ENGINEER		SCALE 11-10-22 DATE 12/16/2024 DRAWING NO.	
SHEET 9 OF 22			

D-952



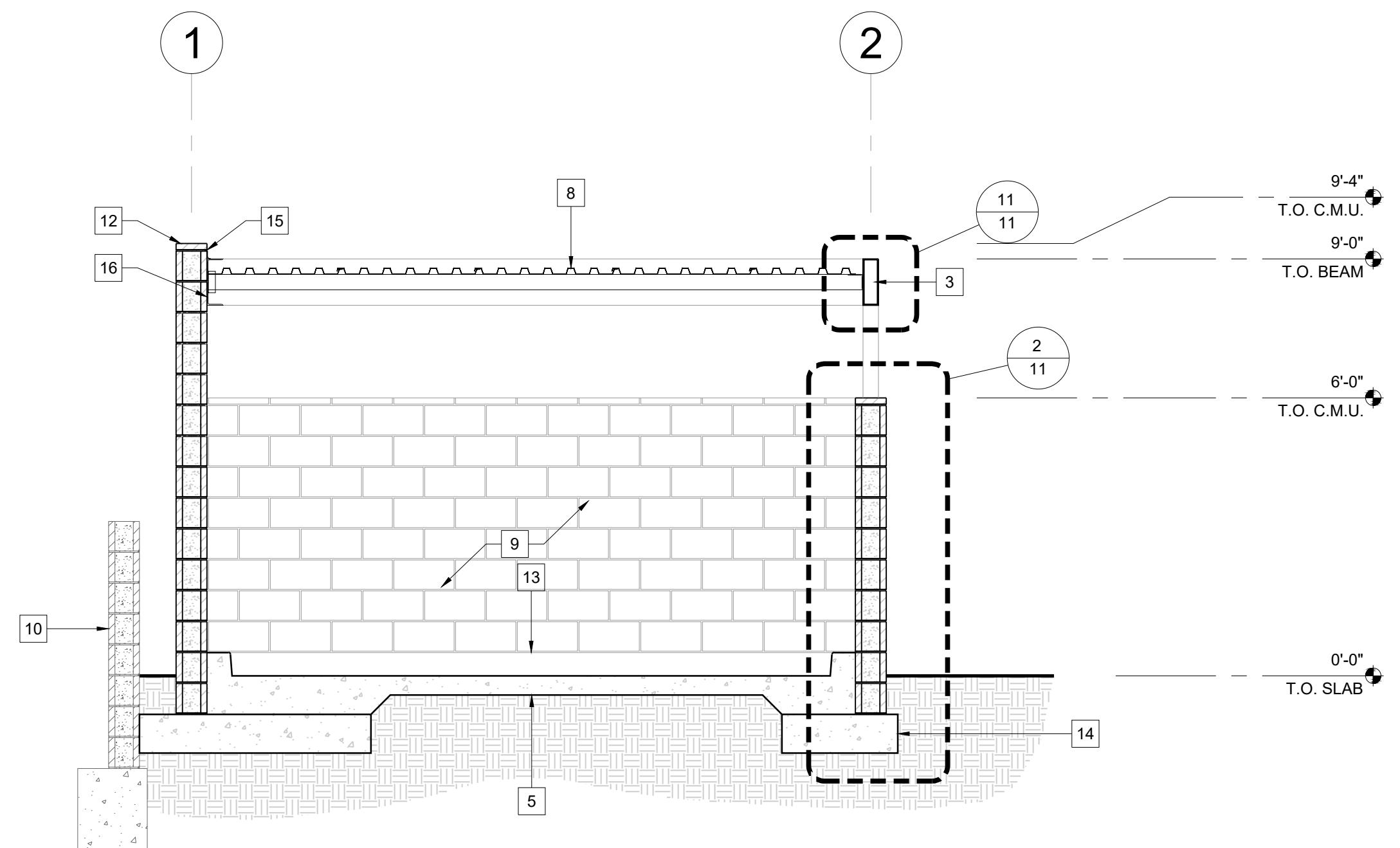
4 SECTION

SCALE: 3/8" = 1'-0"



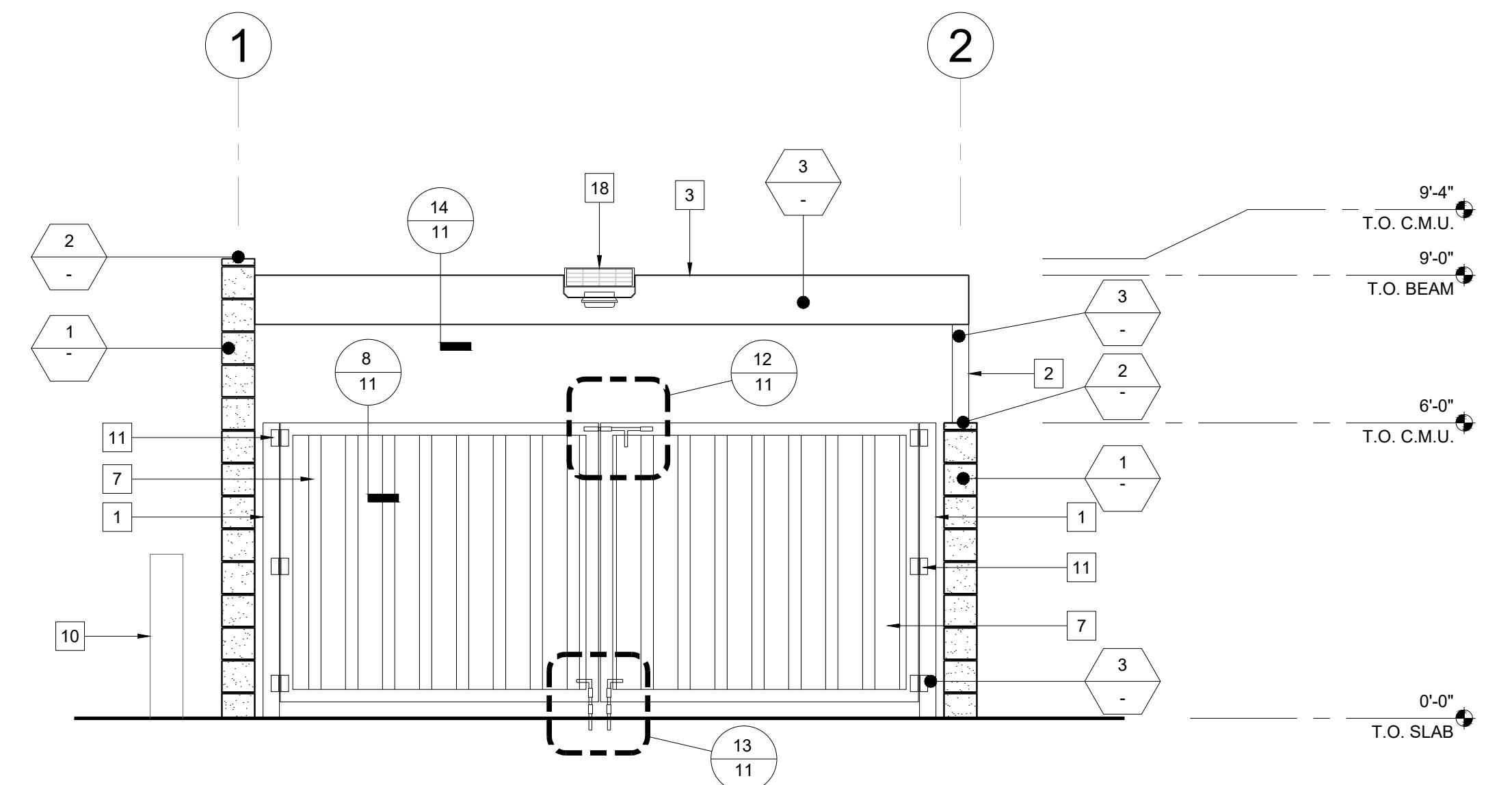
2 EAST ELEVATION

SCALE: 3/8" = 1'-0"



3 SECTION

SCALE: 3/8" = 1'-0"



1 SOUTH ELEVATION

SCALE: 3/8" = 1'-0"

KEYNOTES

- 1 HSS 4X4X1/2 POST. REFER TO DETAILS 5 AND 7/11, PRIME AND PAINT.
- 2 HSS 4X4X1/4 POST. REFER TO DETAILS 15, 16 AND 17/11, PRIME AND PAINT.
- 3 HSS 4X12X3/16 BEAM. REFER TO DETAILS 10, 11 AND 14/11, PRIME AND PAINT.
- 4 HSS 4X6X3/16 BEAM. PRIME AND PAINT.
- 5 5-INCH THK. CONCRETE SLAB, 3,000 PSI WITH NO. 4 REBAR AT 12-INCHES EACH WAY OVER COMPACTED GRADE. SURFACE OF THE CONCRETE SLAB IS TO BE SMOOTH AND SEALED TO BE IMPERVIOUS TO GREASE AND OILS.
- 6 CANE BOLT SLEEVE, SEE DETAIL 13/11.
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- 8 1 1/2-INCH HSB-36 18 GA. VEROCK DECK.
- 9 INTERIOR SURFACE OF ALL WALLS ARE TO BE SMOOTH AND SEALED TO BE IMPERVIOUS TO GREASE AND OILS.
- 10 EXISTING CMU WALL. PROTECT IN PLACE.
- 11 HEAVY DUTY HINGE, WELDED (3) PER POST.
- 12 1 5/8X16 CONCRETE MASONRY CAP.
- 13 6-INCH CONCRETE CURB.
- 14 CONCRETE FOOTING PER 1/9.
- 15 FLASHING WITH DRIP EDGE EMBEDDED INTO GROUT.
- 16 C 12X20.7 REFER TO DETAILS 10, 11 AND 14/11, PRIME AND PAINT.
- 17 5/8" Ø X 6" TITEN HD AT CENTER OF ANGLE AS SOWN.
- 18 SOLAR POWERED SECURITY LIGHT, HALO SBL 250 OR APPROVED EQUAL. INSTALL PER MANUFACTURER'S INSTRUCTIONS.

SHEET NOTES

- 1. GRIDLINES ARE THE LOCATION OF CENTERLINES OF STRUCTURAL STEEL COLUMNS AND CENTER OF STRUCTURAL WALLS UNLESS OTHERWISE NOTED.
- 2. ALL WELDS TO BE GROUND SMOOTH.

LEGEND

DETAIL NUMBER
SHEET NUMBER

- 1 8"X8"X16" CONCRETE MASONRY UNIT
COLOR: NATURAL GRAY
- 2 1 5/8"X8"X16" CONCRETE MASONRY CAP
COLOR: NATURAL GRAY
- 3 SHERWIN WILLIAMS SW6258
"TRICORN BLACK"

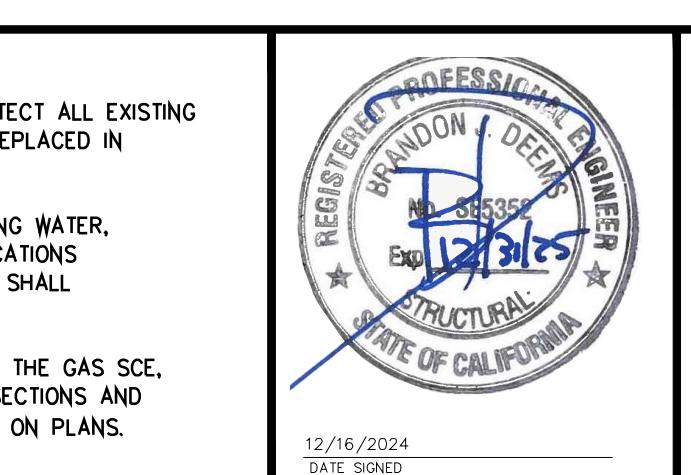
FINISHES

CITY OF MANHATTAN BEACH		
PUBLIC WORKS DEPARTMENT - ENGINEERING DIVISION		
INTERIM SURFACE PARKING LOT 3 1155 MORNINGSIDE DR.		
TRASH ENCLOSURE ELEVATIONS AND SECTIONS		
REVISIONS		
NO.	DESCRIPTION	BY DATE
RECOMMENDED BY		
PROJECT MANAGER JEFF FIJALKA, PE		DATE
CITY ENGINEER KATHERINE DOHERTY		DATE
DESIGNED BY M. TODD BROUARD, PE TAIT PROJECT ENGINEER		DATE
SHEET 10 OF 22		DRAWING NO.
11-10-22		



Know what's below.
Call before you dig.

NO WORK SHALL BE DONE ON THIS SITE
UNTIL USA AGENCY IS NOTIFIED
OF INTENTION TO GRADE OR EXCAVATE.
TWO WORKING DAYS BEFORE YOU DIG.



TAIT & ASSOCIATES, INC.
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(714) 560-8200

REVIEWED BY
DATE

RECOMMENDED BY

PROJECT MANAGER
JEFF FIJALKA, PE

CITY ENGINEER
KATHERINE DOHERTY

DESIGNED BY

M. TODD BROUARD, PE

TAIT PROJECT ENGINEER

D-952

GENERAL STRUCTURAL NOTES

- THE NOTES AND DETAILS ON THE STRUCTURAL DRAWINGS TAKE PRECEDENCE OVER THESE GENERAL STRUCTURAL NOTES. TYPICAL DETAILS SHALL BE USED WHENEVER APPLICABLE AND MAY NOT BE SPECIFICALLY REFERENCED ON THE DRAWINGS.
- DIMENSIONS SHOWN ON DRAWINGS REFER TO FACE OF CONCRETE SURFACES, FACE OF STUDS, FACE OF CONCRETE BLOCK, TOP OF SHEATHING, TOP OF STRUCTURAL STEEL OR TOP OF SLAB, UNLESS OTHERWISE INDICATED.
- ALL OMISSIONS AND CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE DRAWINGS, SPECIFICATIONS OR DRAWINGS OF OTHER DISCIPLINES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER PRIOR TO PROCEEDING WITH ANY EFFECTED WORK.
- ANY WORK CONSTRUCTED IN CONFLICT WITH THE CONTRACT DOCUMENTS SHALL BE CORRECTED BY THE CONTRACTOR AT HIS OWN EXPENSE AND AT NO EXPENSE TO THE OWNER OR ARCHITECT.
- THE CONTRACTOR SHALL DETERMINE THE LOCATION OF THE UTILITY SERVICES IN THE AREA TO BE EXCAVATED PRIOR TO COMMENCING EXCAVATION.
- WHERE A CONSTRUCTION DETAIL IS NOT INDICATED, THE DETAIL SHALL BE THE SAME AS FOR OTHER SIMILAR WORK.
- ALL MATERIAL AND WORKMANSHIP SHALL CONFORM TO THE REQUIREMENTS OF THE 2022 CALIFORNIA BUILDING CODE (CBC). THE FOLLOWING CODES HAVE BEEN ADOPTED BY THE CBC AND HAVE BEEN IMPLEMENTED IN THE DESIGN OF THIS PROJECT:
 - AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE): ASCE 7-16 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES INCLUDING ALL CURRENT SUPPLEMENTS
 - AMERICAN CONCRETE INSTITUTE (ACI): ACI-318-19 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
- THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE ENGINEER FREE AND HARMLESS FROM ALL CLAIMS, DEMANDS AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPT FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE ENGINEER.
- THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING AND SHORING FOR LOADS DUE TO CONSTRUCTION EQUIPMENT AND MATERIAL, ETC. OBSERVATION VISITS TO THE SITE BY THE STRUCTURAL ENGINEER DO NOT INCLUDE INSPECTION OF THE THESE ITEMS.
- CARE SHALL BE TAKEN WHEN STORING CONSTRUCTION MATERIALS. CONSTRUCTION MATERIAL SHALL BE SPREAD OUT IF PLACED ON THE FRAMED ROOF OR FLOOR. LOAD SHALL NOT EXCEED THE DESIGN LIVE LOAD PER SQUARE FOOT. PROVIDE ADEQUATE SHORING AND/OR BRACING WHERE THE STRUCTURE HAS NOT ATTAINED THE REQUIRED DESIGN STRENGTH.

REINFORCED CONCRETE

- CEMENT SHALL CONFORM TO ASTM C150, TYPE II/V.
- AGGREGATES FOR NORMAL WEIGHT CONCRETE SHALL CONFORM TO ASTM C33.
- READY-MIX CONCRETE SHALL BE MIXED AND DELIVERED IN ACCORDANCE WITH ASTM C94.
- CONCRETE WORK SHALL CONFORM TO ALL REQUIREMENTS OF ACI 301, "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS", EXCEPT AS MODIFIED BY THESE NOTES.
- CONCRETE SHALL BE NORMAL WEIGHT (145 PCF). CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS AS FOLLOWS:

ELEMENT	STRENGTH	AGG	W/C RATIO (MAX)
FOOTINGS/ SLAB ON GRADE	3000 PSI	1"	.50
- ADMIXTURES USED IN CONCRETE SHALL CONFORM TO THE FOLLOWING ASTM STANDARDS, SHALL BE USED IN DOSAGES RECOMMENDED BY THE MANUFACTURER AND SHALL NOT CONTAIN MORE CHLORIDE THAN IS FOUND IN THE MUNICIPAL DRINKING WATER SUPPLY. LIQUID VOLUME IN ASTM C494, TYPE C ADMIXTURES SHALL BE ADDED TO WATER CONTENT AND WATER CEMENT RATIO CALCULATIONS.

WATER REDUCERS	ASTM C494, TYPE A
MID-RANGE WATER REDUCERS	ASTM C494, TYPE A/F
HIGH-RANGE WATER REDUCERS	ASTM C494, TYPE F
HYDRATION STABILIZERS (RETARDERS)	ASTM C494, TYPE B AND D
ACCELERATORS	ASTM C494, TYPE C
AIR ENTRAINING AGENTS	ASTM C260
CORROSION INHIBITORS	ASTM C494, TYPE C
SHRINKAGE REDUCING ADMIXTURES	ASTM C494, TYPE F
VISCOSEY MODIFYING ADMIXTURES	ASTM C494, TYPE S
SILICA FUME	ASTM C1240
- FLYASH SHALL CONSIST OF POZZOLANIC ADMIXTURES CONFORMING TO ASTM C6819 F.
- CONTINUOUS SPECIAL INSPECTION IS REQUIRED FOR CONCRETE DESIGN STRENGTHS GREATER THAN 2500 PSI.
- CONCRETE SHALL BE PROPORTIONED SUCH THAT THE 7 DAY STRENGTHS ARE A MINIMUM OF 70% OF THE SPECIFIED 28 DAY STRENGTH FOR ANY CONCRETE CONSTRUCTION REQUIRING SHORING, BRACING, OR TO RECEIVE CONSTRUCTION LOADS. SLABS ON GRADE SHALL HAVE A COMPRESSION STRENGTH OF 1800 PSI MINIMUM AT 3 DAYS IF SUBJECT TO CONSTRUCTION TRAFFIC.
- THE CONTRACTOR SHALL REMOVE AND REPLACE ANY CONCRETE WHICH FAILS TO ATTAIN SPECIFIED STRENGTH IN 28 DAYS IF DIRECTED BY THE STRUCTURAL ENGINEER.
- ADMIXTURES MAY BE USED WITH PRIOR APPROVAL OF THE ENGINEER. ADMIXTURES SHALL COMPLY WITH ASTM C494 & C1017 AND BE OF A TYPE THAT INCREASES THE WORKABILITY OF THE CONCRETE, BUT SHALL NOT BE CONSIDERED TO REDUCE THE SPECIFIED MINIMUM CEMENT CONTENT (CALCIUM CHLORIDE SHALL NOT BE USED).
- ALL REINFORCING STEEL, ANCHOR BOLTS, DOWELS, HOLD-DOWN ANCHORS, AND INSERTS SHALL BE WELL SECURED IN POSITION WITH WIRE POSITIONERS PRIOR TO FOUNDATION INSPECTION AND BEFORE PLACING CONCRETE.
- ANCHOR BOLTS EMBEDDED IN CONCRETE SHALL BE HEAVY HEX.
- DEBRIS SHALL BE ENTIRELY REMOVED FROM FORMS PRIOR TO CONCRETE PLACEMENT.

BASIS OF DESIGN

PROJECT DESCRIPTION: NEW TRASH ENCLOSURE

1. VERTICAL LOADS:

DEAD LOADS:	ROOF	5 PSF
LIVE LOADS: REDUCIBLE UNLESS OTHERWISE NOTED	ROOF	20 PSF

2. LATERAL LOADS:

WIND: PER ASCE 7-16 (CBC 2022)	BASIC WIND SPEED-3 SECOND GUST ($3s V_{ult}$)	94 MPH
TOPOGRAPHIC FACTOR (K_{Zt})	1.0	
RISK CATEGORY	II	
EXPOSURE CATEGORY	C	
ENCLOSURE CLASSIFICATION	ENCLOSED	
INTERNAL PRESSURE COEFFICIENT (G_C)	+/- 0.18	
SEISMIC: PER ASCE 7-16 (CBC 2022)		
RISK CATEGORY	II	
SEISMIC IMPORTANCE FACTOR (I_e)	1.0	
RHO (N-S)	1.0	
RHO (E-W)	1.0	
SITE LOCATION, LATITUDE	33.885613° N	
SITE LOCATION, LONGITUDE	-118.40879° W	
MAPPED SPECTRAL RESPONSE ACCELERATIONS:		
SHORT PERIOD, $S_1 = 1.907g$		
LONG PERIOD, $S_1 = 0.679g$		
SITE CLASS:	D	
SPECTRAL RESPONSE COEFFICIENTS:		
SHORT PERIOD, $S_{ds} = 1.526g$		
LONG PERIOD, $S_{ds} = 0.770g$		
SEISMIC DESIGN CATEGORY	D	
SEISMIC FORCE RESISTING SYSTEMS:		
STEEL ORDINARY CANTILEVER COLUMN SYSTEM		
R= 1.25		
$C_d = 1.25$		
$\Omega = 1.25$		
$C_s = 1.22$ (STRENGTH)		
ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE		

FOUNDATION

- THE SOILS REPORT RECOMMENDATIONS SHALL BE COMPLIED WITH BY THE CONTRACTOR.
- SOILS INFORMATION:

SEE SOILS REPORT BY: CODE MINIMUM

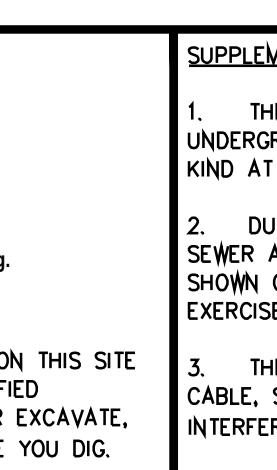
SOIL DESIGN PARAMETERS:

ALLOWABLE BEARING PRESSURE	1500 PSF (+1/3 INCREASE)
LATERAL BEARING (PASSIVE) PRESSURE	250 PCF
COEFFICIENT OF FRICTION	0.35
MINIMUM CONTINUOUS FOOTING WIDTH	12 INCHES
MINIMUM SPREAD FOOTING WIDTH	24 INCHES

BOTTOM OF FOOTINGS SHALL BE AT LEAST 12 INCHES BELOW LOWEST ADJACENT PAD GRADE.
- ALL FOUNDATION WORK SHALL BE FOUNDED ON FIRM UNDISTURBED NATURAL SOILS OR APPROVED COMPAKTED SOILS.
- CONTRACTOR SHALL INVESTIGATE THE SITE, DURING CLEARING AND EARTHWORK OPERATIONS, FOR FILLED EXCAVATIONS OR BURIED STRUCTURES, SUCH AS CESSPOOLS, CISTERNS, FOUNDATIONS, ETC. IF ANY SUCH STRUCTURES ARE FOUND, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY.
- THE FINISH EXCAVATION FOR FOUNDATIONS SHALL BE NEAT & TRUE TO LINE.
- FOUNDATION EXCAVATIONS SHALL BE KEPT FREE OF LOOSE MATERIAL AND STANDING WATER AND SHALL BE CHECKED AND APPROVED BY THE SOILS ENGINEER BEFORE THE PLACEMENT OF ANY CONCRETE.
- THE TESTING LAB SHALL SUBMIT COMPACTION REPORTS FOR ALL FILL TO THE ENGINEER BEFORE REQUESTING FOUNDATION INSPECTION. ALL LOOSE SOIL AND FILL DIRT, INCLUDING BACKFILL BEHIND RETAINING WALLS, SHALL BE COMPAKTED TO AT LEAST 95% OF MAXIMUM DENSITY, OR GREATER AS REQUIRED BY THE SOILS REPORT.



Know what's below.
Call before you dig.



BRANDON J. DEEPEE
PROFESSIONAL ENGINEER
REGISTRATION NO. 100-000000
STATE OF CALIFORNIA
12/16/2024
DATE SIGNED

NO WORK SHALL BE DONE ON THIS SITE UNTIL USA AGENCY IS NOTIFIED OF INTENTION TO GRADE OR EXCAVATE, TWO WORKING DAYS BEFORE YOU DIG.

REINFORCING STEEL

- REBAR SHALL BE ASTM A615, GRADE 60 DEFORMED BARS.
- WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185 AND SHALL BE LAPPED 12" MINIMUM.
- MINIMUM LAP SPLICES OF REINFORCING BARS SHALL BE AS SPECIFIED IN THE DRAWINGS.
- VERTICAL BARS IN WALLS SHALL BE ACCURATELY POSITIONED AT THE CENTER OF THE WALL UNLESS OTHERWISE NOTED ON PLANS AND DETAILS.
- REINFORCING DETAILING, BENDING, AND PLACING SHALL BE IN ACCORDANCE WITH ACI 315 "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT".
- ALL REINFORCING STEEL, ANCHOR BOLTS, DOWELS, HOLD DOWN ANCHORS AND INSERTS SHALL BE WELL SECURED IN POSITION WITH WIRE POSITIONERS PRIOR TO FOUNDATION INSPECTION AND BEFORE PLACING CONCRETE OR GROUT.
- 180 DEGREE HOOKS MAY BE USED IN LIEU OF 90-DEGREE HOOKS IF DESIRED BY THE CONTRACTOR.
- CLEAR DISTANCES, STEEL TO FORMS, UNLESS NOTED OTHERWISE:

SLABS NOT EXPOSED TO WEATHER, JOISTS, INTERIOR WALL SURFACES	3/4 "
EXTERIOR WALL SURFACES, SLABS EXPOSED TO WEATHER, #5 AND SMALLER	1-1/2"
EXTERIOR WALL SURFACES, SLABS EXPOSED TO WEATHER, #6 AND LARGER	2"
- SLABS ON ROLLED GRADE
- FORMED SURFACES IN CONTACT WITH EARTH
- UNFORMED SURFACES IN CONTACT WITH EARTH

ABBREVIATIONS

FN	FIELD(FACE)NAIL	PBS	PREMIER BUILDING SYSTEMS
FND	FOUNDATION	PC	PRECAST CONCRETE
FO	FACE OF	PCDT	PRECAST DOUBLE TEE
FOC	FACE OF CONCRETE	PERP	PERPENDICULAR
FOM	FACE OF MASONRY	PEN	PENETRATION
FOS	FACE OF STUD	PH	PAN HEAD
FOW	FACE OF WALL	PL	PLATE
ALT	ALTERNATE	PLF	POUNDS PER UNLOAD FOOT
ARCH	ARCHITECT	PLV	PARALAM BEAM
ARCHL	ARCHITECTURAL	PT	PRE-STRESSED
ASD	ALLOWABLE STRESS DESIGN	PTDF	FIRE-RETARDANT TREATED DF
(B)	BOTTOM	PTF	PRE-STRESSED
BTDF	BRACED FRAME	FTG	FOOTING
BLDG	BUILDING	FV	FIELD VERIFY
BLK	BLOCK	GA	GAUGE
BLKG	BLOCKING	GalV	GAZED
BLW	BELLOW	GR	GRADE BEAM
BM	BEAM	GC	GENERAL CONTRACTOR
BN	BOUNDARY NAILING	REF	REFERENCE
BO	BOTTOM OF	REQ'D	REQUIRED
BOF	BOTTOM OF FOOTING	RO	ROUGH OPENING
BR	BRACE	GSM	GAZED SHEET METAL
BRDG	BRIDGE(ING)	GWB	GYPSUM WALLBOARD
BRG	BARING	HD	HORIZONTAL
BTWN	BETWEEN	HDU	HEADER Top Units
C	CAMBERED	HDR	HEADER
CANT	CANTILEVERED	HORIZ	HORIZONTAL
CF	CUBIC FEET(FOOT)	HSB	HIGH STRENGTH BOLT
CG	CENTER OF GRAVITY	SHT	SHEET
CIP	CAST IN PLACE	SIM	SIMILAR
CJ	CEILING JOIST	SKW	SKewed
CJT	CONSTRUCTION JOINT	ID	INSIDE DIAMETER
CL	CENTER LINE	IE	INVERT ELEVATION
CLG	CEILING	SO	SQUARE
CLR	CLEAR	SS	SELECT STRUCTURAL
CMU	CONC MASONRY UNIT	SSB2	SIMPSON STRONG BOLT 2
COL	COLUMN	STD	STANDARD
CONN	CONCRETE	STG	STRONG
CONTR	CONSTRUCTION	STGR	STAGGERED
CONT	CONTINUOUS	STIFF	STIFFENER(S)
CTR	CENTERED	STIR	STIRRUP(S)
CTSK	COUNTERSINK	STL	STEEL
CY	CUBIC YARD	STRU	STRUCTURAL
LGHT	LENGTH	SYM	SYMMETRICAL
d	PENNY(NAILS)	SYM	SYMMETRICAL
DBL	DOUBLE	T	TOP
DF	DOUGLAS FIR	T & B	TOP AND BOTTOM
DIA	DIAMETER	T & G	TONGUE AND GROOVE
DIAPH	DIAPHRAGM	TEMP	TEMPERATURE
DIM	DIMENSION	THRD	THREADED
DL	DEAD LOAD	MF	MOMENT FRAME
DN	DOWN	MAS	MASONRY
DP(D)	DEPTH(DEPTH)	MATL	MATERIAL
DWG	DRAWINGS(S)	MAX	MAXIMUM
DWL	DOWEL(S)	MECH	MECHANICAL
(E)	EXISTING	MEZZ	MEZANINE
EF	EACH FACE	MFR	MANUFACTURER
EJ	EXPANSION JOINT	TS	TOP OF STEEL
ELEC	ELECTRICAL	TRANS	TRANSVERSE
ELEV	ELEVATION	TYP	TYPE
EMBED	EMBEDMENT	UN	UNLESS OTHERWISE NOTED
EN	EDGE NAIL	VERT(V)	VERTICAL
ENG	ENGINEER	WIF	VERIFY IN FIELD
EOD	EDGE OF DECK	(W)	WIDE(WIDTH)
EOS	EDGE OF SLAB	NS	NEAR SIDE
EQ	EQUAL	NTS	NOT TO SCALE
EQPT	EQUIPMENT	W/O	WITHOUT
OC	ON CENTER	WD	WOOD
OD	OUTSIDE DIAMETER	WF	WIDE FLANGE BEAM
OF	OUTSIDE FACE	WHB	WELDED HEADED STUD
OH	OPPOSITE HAND	WP	WORK POINT
OPNG	OPENING	WPJ	WEAKENED PLANE JOINT
OPT	OPTIONAL	WS	WOOD SCREW(S)
ORNT	ORIENTATE(ION)	WT	WEIGHT
OWI	OPEN WEB JOISTS	WWF	WELDED WIRE FABRIC
OWS	OPEN WEB STEEL JOISTS	X-STG	EXTRA STRONG
FLG	FLANGE	PA	PURLIN ANCHOR
FLR	FLOOR	XX-STG	DOUBLE EXTRA STRONG
PAR //	PARALLEL	YD	YARD

CITY OF MANHATTAN BEACH																					
PUBLIC WORKS DEPARTMENT – ENGINEERING DIVISION																					
INTERIM SURFACE PARKING LOT 3 1155 MORNINGSIDE DR.																					
STRUCTURAL NOTES																					
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REQUIRED SPECIAL INSPECTIONS OF STEEL CONSTRUCTION

VISUAL INSPECTIONS PRIOR TO WELDING		ACTION	
WELDER QUALIFICATION RECORDS AND CONTINUITY RECORDS		P	
WELDING PROCEDURES SPECIFICATIONS (WPS) AVAILABLE		C	
MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE		C	
MATERIAL IDENTIFICATION (TYPE/GRADE)		P	
WELDER IDENTIFICATION SYSTEM ¹		P	
FIT-UP OF GROOVE WELDS (INCLUDING JOINT GEOMETRY)	<ul style="list-style-type: none"> • JOINT PREPARATION • DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL) • CLEANLINESS (CONDITION OF STEEL SURFACES) • TACKING (TACK WELD QUALITY AND LOCATION) 	P	
FIT-UP OF CJP GROOVE WELDS OF HSS T-, Y- & K- JOINTS WITHOUT BACKING (INCLUDING JOINT GEOMETRY)	<ul style="list-style-type: none"> • JOINT PREPARATIONS • DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL) • CLEANLINESS (CONDITION OF STEEL SURFACES) • TACKING (TACK WELD QUALITY AND LOCATION) @ BACKING TYPE & FIT (IF AVAILABLE) • BACKING TYPE AND FIT (IF APPLICABLE) 	P	
CONFIGURATION AND FINISH OF ACCESS HOLES		P	
FIT-UP OF FILLET WELDS	<ul style="list-style-type: none"> • DIMENSIONS (ALIGNMENT, GAPS AT ROOT) • CLEANLINESS (CONDITION OF STEEL SURFACES) • TACKING (TACK WELD QUALITY AND LOCATION) 	P	
VISUAL INSPECTION TASKS DURING WELDING		ACTION	
CONTROL AND HANDLING OF WELDING CONSUMABLES		P	
<ul style="list-style-type: none"> • PACKAGING • EXPOSURE CONTROL 			
NO WELDING OVER CRACKED TACK WELDS		P	
ENVIRONMENTAL CONDITIONS	<ul style="list-style-type: none"> • WIND SPEED WITHIN LIMITS • PRECIPITATION AND TEMPERATURE 	P	
WPS FOLLOWED	<ul style="list-style-type: none"> • SETTINGS ON WELDING EQUIPMENT • TRAVEL SPEED • SELECTED WELDING MATERIALS • SHIELDING GAS TYPE/FLOW RATE • PREHEAT APPLIED • INTERPASS TEMPERATURE MAINTAINED (MIN./MAX.) • PROPER POSITION (F, V, H, OH) • INTERMIX OF FILLER METALS AVOIDED UNLESS APPROVED (SFRS) 	P	
WELDING TECHNIQUES	<ul style="list-style-type: none"> • INTERPASS AND FINAL CLEANING • EACH PASS WITHIN PROFILE LIMITATIONS • EACH PASS MEETS QUALITY REQUIREMENTS 	P	
PLACEMENT AND INSTALLATION OF STEEL HEADED STUD ANCHORS		C	
USE OF QUALIFIED WELDERS		P	
VISUAL INSPECTION TASKS AFTER WELDING		TASK	DOCUMENT
WELDS CLEANED		P	N/A
SIZE, LENGTH AND LOCATION OF WELDS		C	N/A
WELDS MEET VISUAL ACCEPTANCE CRITERIA			
<ul style="list-style-type: none"> • CRACK PROHIBITION • WELDBASE-METAL FUSION • CRATER CROSS SECTION • WELD PROFILES • WELD SIZE • UNDERCUT • POROSITY 		C	D
ARC STRIKES		C	D
K-AREA ²		C	D
WELD ACCESS HOLES ROLLED HEAVY SHAPES AND BUILT-UP HEAVY SHAPES ³		C	D
BACKING REMOVED AND WELD TABS REMOVED (IF REQ'D)		C	D
REPAIR ACTIVITIES		C	D
DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT OR MEMBER		C	D
NO PROHIBITED WELDS HAVE BEEN ADDED WITHOUT THE APPROVAL OF THE EOR		P	D
REPLACEMENT OF REINFORCING OR CONTOURING FILLET WELDS. IF REQ'D (SFRS)		C	D
BACKING REMOVED, WELD TABS REMOVED AND FINISHED AND FILLET WELDS ADDED (IF REQ'D)		C	D
SPECIAL INSPECTION TASKS PRIOR TO BOLTING		TASK	DOCUMENT
MANUFACTURER'S CERTIFICATIONS AVAILABLE FOR FASTNER MATERIALS		P	N/A
FASTNERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS		O	N/A
CORRECT FASTNERS SELECTED FOR THE JOINT DETAIL (GRADE, TYPE, BOLT LENGTH IF THREADS ARE TO BE EXCLUDED FROM SHEAR PLANE)		O	N/A
CORRECT BOLTING PROCEDURE SELECTED FOR JOINT DETAIL		O	N/A
CONNECTING ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS.		O	N/A
PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENTED FOR FASTNER ASSEMBLIES AND METHODS USED		O	D
PROPER STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS AND OTHER FASTNER COMPONENTS		O	N/A
SPECIAL INSPECTION TASKS DURING TO BOLTING		TASK	DOCUMENT
FASTNER ASSEMBLIES PLACED IN ALL HOLES AND WASHERS (IF REQ'D) ARE POSITIONED AS REQ'D		O	N/A
JOINT BROUGHT TO THE SNUG-TIGHT CONDITION PRIOR TO THE PRETENSIONING OPERATION		O	N/A
FASTNER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING		O	N/A
FASTNERS ARE PRETENSIONED IN ACCORDANCE WITH THE RCSC SPECIFICATION, PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT TOWARD FREE EDGES		O	N/A
SPECIAL INSPECTION TASKS AFTER TO BOLTING		TASK	DOCUMENT
DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS		P	D

SPECIAL INSPECTION REQUIREMENTS FOR CONCRETE MASONRY

MINIMUM VERIFICATION

VERIFICATION	REQUIRED			REFERENCE FOR CRITERIA	
	LEVEL 1	LEVEL 2	LEVEL 3	TMS 602	
1. PRIOR TO CONSTRUCTION:					
a. VERIFICATION OF COMPLIANCE OF SUBMITTALS	NR	R	R	ART. 1.5	
b. VERIFICATION OF $f'm$ EXCEPT WHERE SPECIFICALLY EXEMPTED BY THE CODE	NR	R	R	ART. 1.4 B	
2. DURING CONSTRUCTION:					
a. VERIFICATION OF SLUMP FLOW AND VISUAL STABILITY INDEX (VSI) WHEN SELF CONSOLIDATING GROUT IS DELIVERED TO THE PROJECT SITE.	NR	R	R	ART. 1.5 & 1.6.3	
b. VERIFICATION OF $f'm$ EVERY 5,000 SQ. FT.	NR	NR	R	ART. 1.4 B	
c. VERIFICATION OF PROPORTIONS OF MATERIALS AS DELIVERED TO THE PROJECT SITE FOR PREMIXED OR PREBLENDED MORTAR AND GROUT OTHER THAN SELF-CONSOLIDATING GROUT.	NR	NR	R	ART. 1.4 B	
MINIMUM SPECIAL INSPECTION					
INSPECTION TASK	FREQUENCY			REFERENCE FOR CRITERIA	
	LEVEL 1	LEVEL 2	LEVEL 3	TMS 402	
1. AS MASONRY CONSTRUCTION BEGINS, VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE:					
a. PROPORTIONS OF SITE PREPARED MORTAR	NR	P	P	--	ART.2.1, 2.6 A, 2.6 C
b. GRADE, TYPE AND SIZE OF REINFORCEMENT, CONNECTORS AND ANCHOR BOLTS	NR	P	P	--	ART. 3.4, 3.6 A
2. PRIOR TO GROUTING, VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE:					
a. GROUT SPACE	NR	P	C	--	ART. 3.2 D, 3.2 F
b. PLACEMENT OF REINFORCEMENT, CONNECTORS AND ANCHOR BOLTS	NR	P	C	SEC. 6.1, 6.3.1, 6.3.6, 6.3.7	ART. 3.2 E, 3.4
c. PROPORTIONS OF SITE-PREPARED GROUT	NR	P	P	--	ART. 2.6 B, 2.4 G,1.b
3. VERIFY DURING CONSTRUCTION:					
a. MATERIALS AND PROCEDURES WITH THE APPROVED SUBMITTALS	NR	P	P	--	ART. 1.5
b. PLACEMENT OF MASONRY UNITS AND MORTAR JOINT CONSTRUCTION	NR	P	P	--	ART. 3.3 B
c. SIZE AND LOCATION OF STRUCTURAL MEMBERS	NR	P	P	--	ART. 3.3 F
d. TYPE, SIZE AND LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES OR OTHER CONSTRUCTION	NR	P	C	SEC. 1.2.1(e), 6.2.1, 6.3.1	--
e. WELDING OF REINFORCEMENT	NR	C	C	SEC. 6.1.6.1.2	--
f. PREPARATION, CONSTRUCTION AND PROTECTION OF MASONRY DURING COLD WEATHER (TEMP. BELOW 40°F) OR HOT WEATHER (TEMP. ABOVE 90°F)	NR	P	P	--	ART. 1.8 C, 1.8 D
4. OBSERVE PREPARATION OF GROUT SPECIMENS, MORTAR SPECIMENS AND/OR PRISMS					
	NR	P	C	--	ART. 1.4 B.2.a.3, 1.4 B.2.b.3, 1.4 B.2.c.3, 1.4 B.3, 1.4 B.4

1. R = REQUIRED, NR = NOT REQUIRED
2. SHADED COLUMN INDICATES LEVEL OF INSPECTION REQUIRED FOR THIS PROJECT

NOTES:

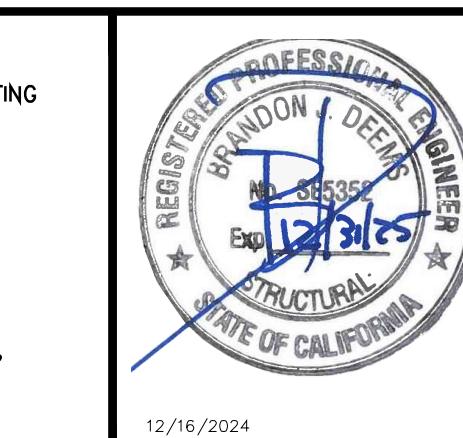
1. THE FABRICATOR OR ERECTOR, AS APPLICABLE, SHALL MAINTAIN A SYSTEM BY WHICH A WELDER WHO HAS WELDED A JOINT OR MEMBER CAN BE IDENTIFIED. STAMPS, IF USED SHALL BE THE LOW STRESS TYPE.
2. WHEN WELDING OF DOUBLER PLATES, CONTINUITY PLATES OR STIFFENERS HAS BEEN PERFORMED IN THE K-AREA, VISUALLY INSPECT THE WEB K-AREA FOR CRACKS WITHIN 3 IN. (75mm) OF THE WELD. THE VISUAL INSPECTION SHALL BE PERFORMED NO SOONER THAN 48 HOURS FOLLOWING COMPLETION OF WELDING.
3. AFTER ROLLED HEAVY SHAPES (SEE AISC 360 SECTION A3.1c) AND BUILT-UP HEAVY SHAPES (AISC 360 SECTION A3.1d) ARE WELDED, VISUALLY INSPECT THE WELD ACCESS HOLE FOR CRACKS.



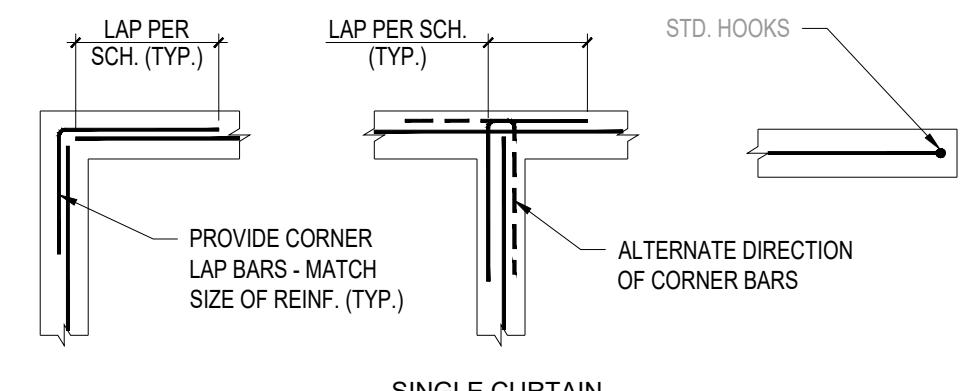
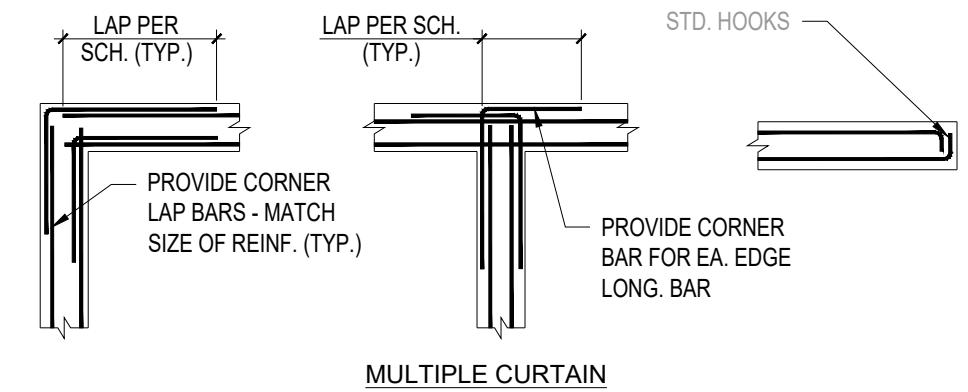
WORK SHALL BE DONE ON THIS SITE
TIL USA AGENCY IS NOTIFIED
INTENTION TO GRADE OR EXCAVATE,
2 WORKING DAYS BEFORE YOU DIG.

SUPPLEMENTAL NOTES:

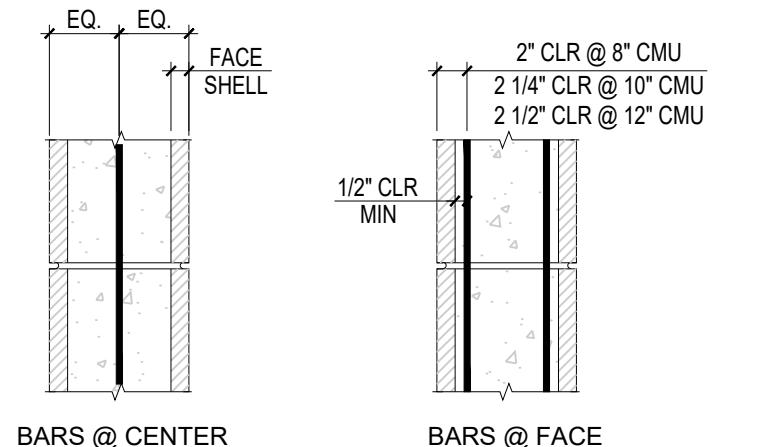
1. THE CONTRACTOR SHALL LOCATE, VERIFY AND PROTECT ALL UNDERGROUND UTILITIES. DAMAGED UTILITIES SHALL BE REPLACED KIND AT THE CONTRACTOR'S EXPENSE.
2. DUE TO INDIVIDUAL LOT IMPROVEMENTS, THE EXISTING WATER SEWER AND/OR GAS LATERALS MAY NOT BE AT THE LOCATIONS SHOWN OR SHOWN IN THEIR ENTIRETY. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN EXCAVATING.
3. THE CONTRACTOR SHALL DETERMINE THE DEPTH OF THE GAS CABLE, SEWER, STORM DRAIN AND WATER AT ALL INTERSECTIONS. INTERFERENCES PRIOR TO CONSTRUCTION AND AS NOTED ON PLANS.



TAIT & ASSOCIATES, INC.
701 N. PARKCENTER DRIVE
SANTA ANA, CA 92705
(714) 560-8200

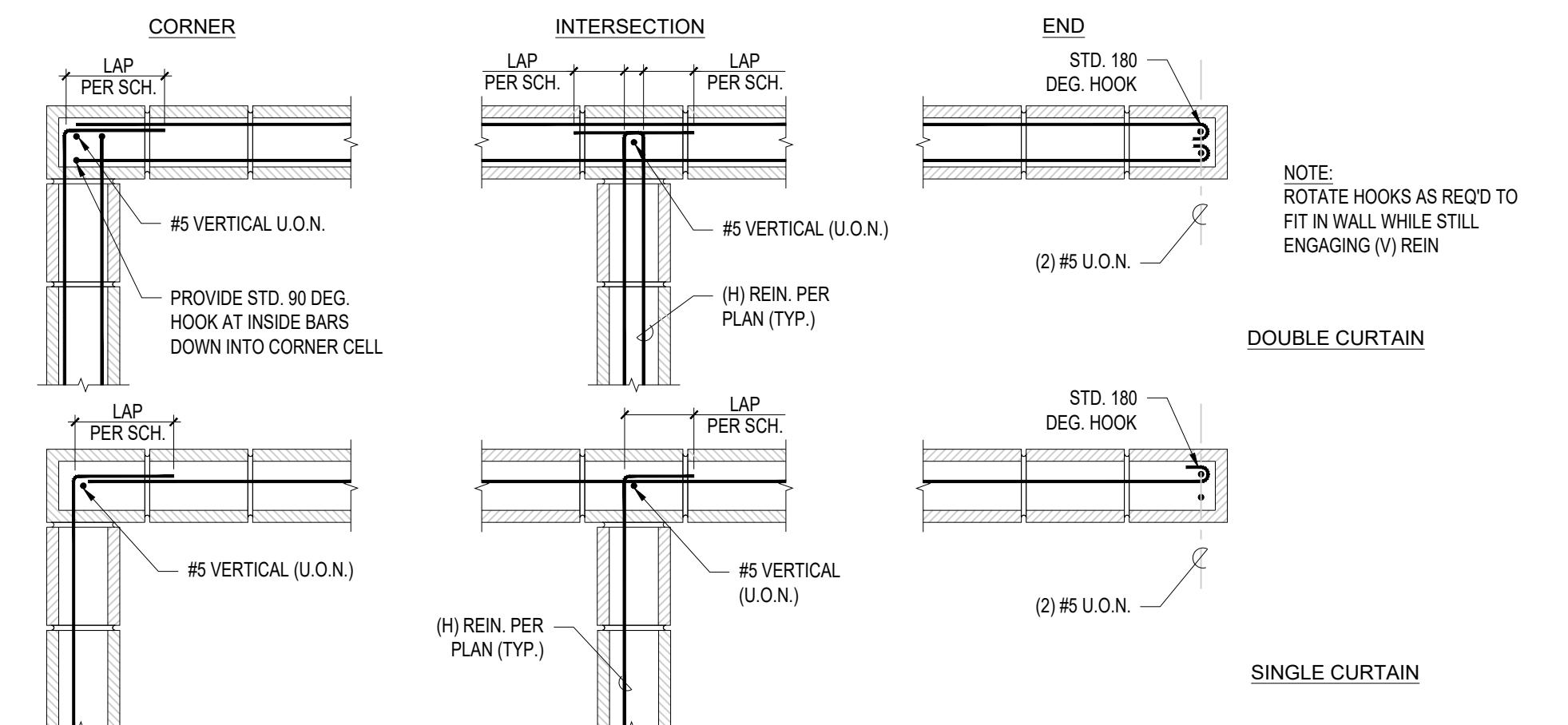


1 TYPICAL CONCRETE FOOTING INTERSECTIONS



BAR SIZE	8" CMU		10" CMU		12" CMU	
	CENTER	FACE	CENTER	FACE	CENTER	FACE
#4	1'-0"	1'-8"	1'-0"	1'-6"	1'-0"	1'-4"
#5	1'-6"	2'-7"	1'-2"	2'-4"	1'-0"	2'-1"
#6	2'-10"	4'-6"	2'-2"	4'-3"	1'-3"	3'-10"
#7	3'-11"	5'-3"	3'-0"	5'-3"	2'-5"	5'-3"
#8	5'-11"	6'-0"	4'-7"	6'-1"	3'-9"	6'-1"
#9	-	-	5'-10"	6'-10"	4'-9"	6'-10"

CMU REBAR LAP SCHEDULE (f'm=2500psi)



3 TYPICAL MASONRY BLOCK INTERSECTIONS

CITY OF MANHATTAN BEACH					
PUBLIC WORKS DEPARTMENT - ENGINEERING DIVISION					
INTERIM SURFACE PARKING LOT 3 1155 MORNINGSIDE DR.					
TYPICAL STRUCTURAL DETAILS					
REVISIONS			RECOMMENDED BY		
NO.	DESCRIPTION	BY	DATE		
REFERENCES			RECOMMENDED BY		
DESIGNED BY			CITY ENGINEER		
M. TODD BROUSSARD, PE TAIT PROJECT ENGINEER			KATHERINE DOHERTY		
SCALE			DATE		
11-10-22			12/16/2024		
DRAWING NO.					
SHEET 14 OF 22					

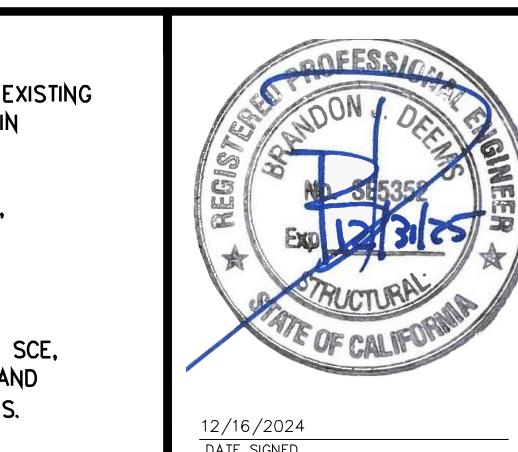
D-952



NO WORK SHALL BE DONE ON THIS SITE
UNTIL USA AGENCY IS NOTIFIED
OF INTENTION TO GRADE OR EXCAVATE.
TWO WORKING DAYS BEFORE YOU DIG.

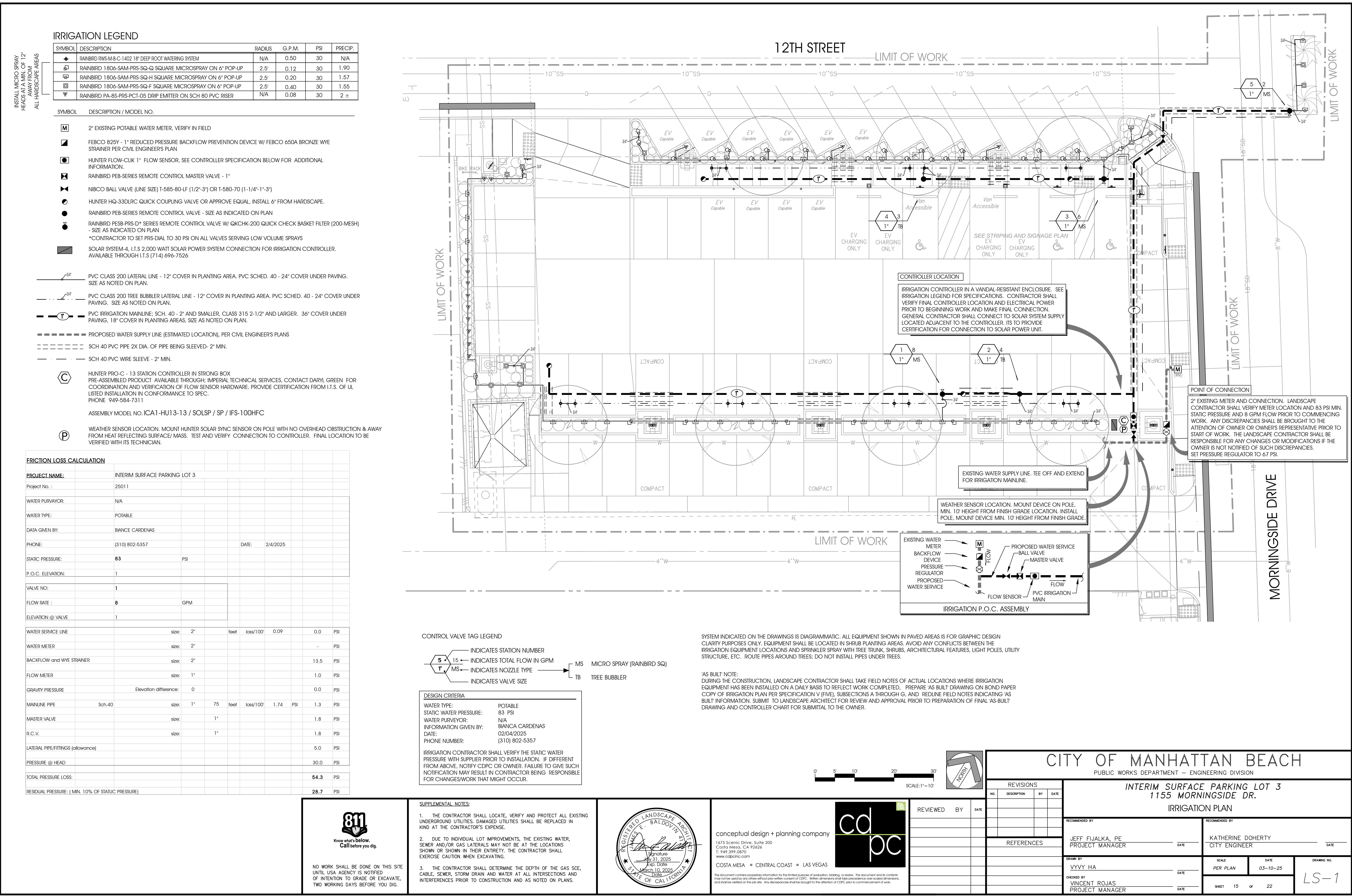
SUPPLEMENTAL NOTES:

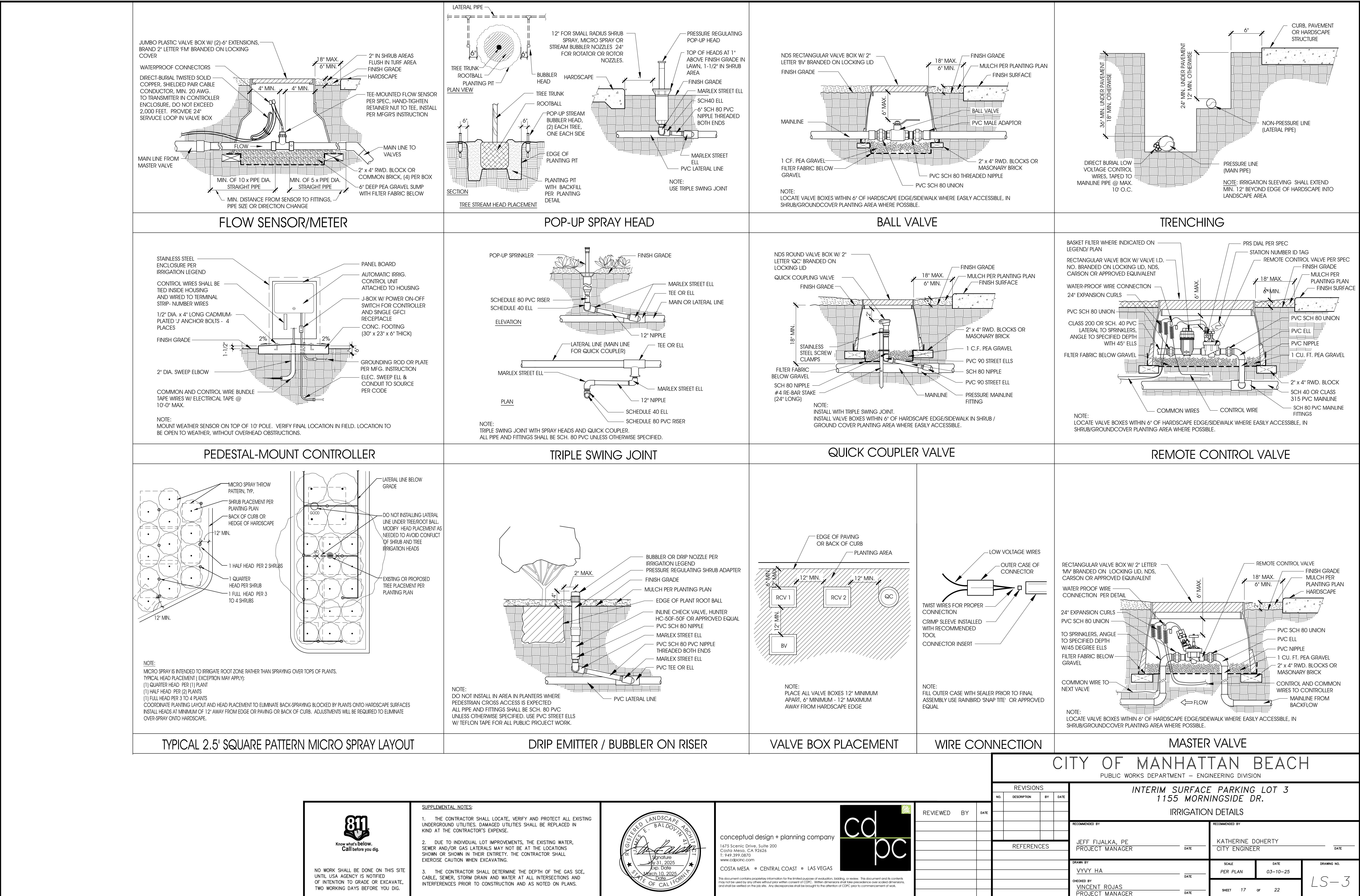
1. THE CONTRACTOR SHALL LOCATE, VERIFY AND PROTECT ALL EXISTING UNDERGROUND UTILITIES. DAMAGED UTILITIES SHALL BE REPLACED IN KIND AT THE CONTRACTOR'S EXPENSE.
2. DUE TO INDIVIDUAL LOT IMPROVEMENTS, THE EXISTING WATER, SEWER AND/OR GAS LATERALS MAY NOT BE AT THE LOCATIONS SHOWN OR SHOWN THEREIN ENTIRELY. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN EXCAVATING.
3. THE CONTRACTOR SHALL DETERMINE THE DEPTH OF THE GAS SCE, CABLE, SEWER, STORM DRAIN AND WATER AT ALL INTERSECTIONS AND INTERFERENCES PRIOR TO CONSTRUCTION AND AS NOTED ON PLANS.



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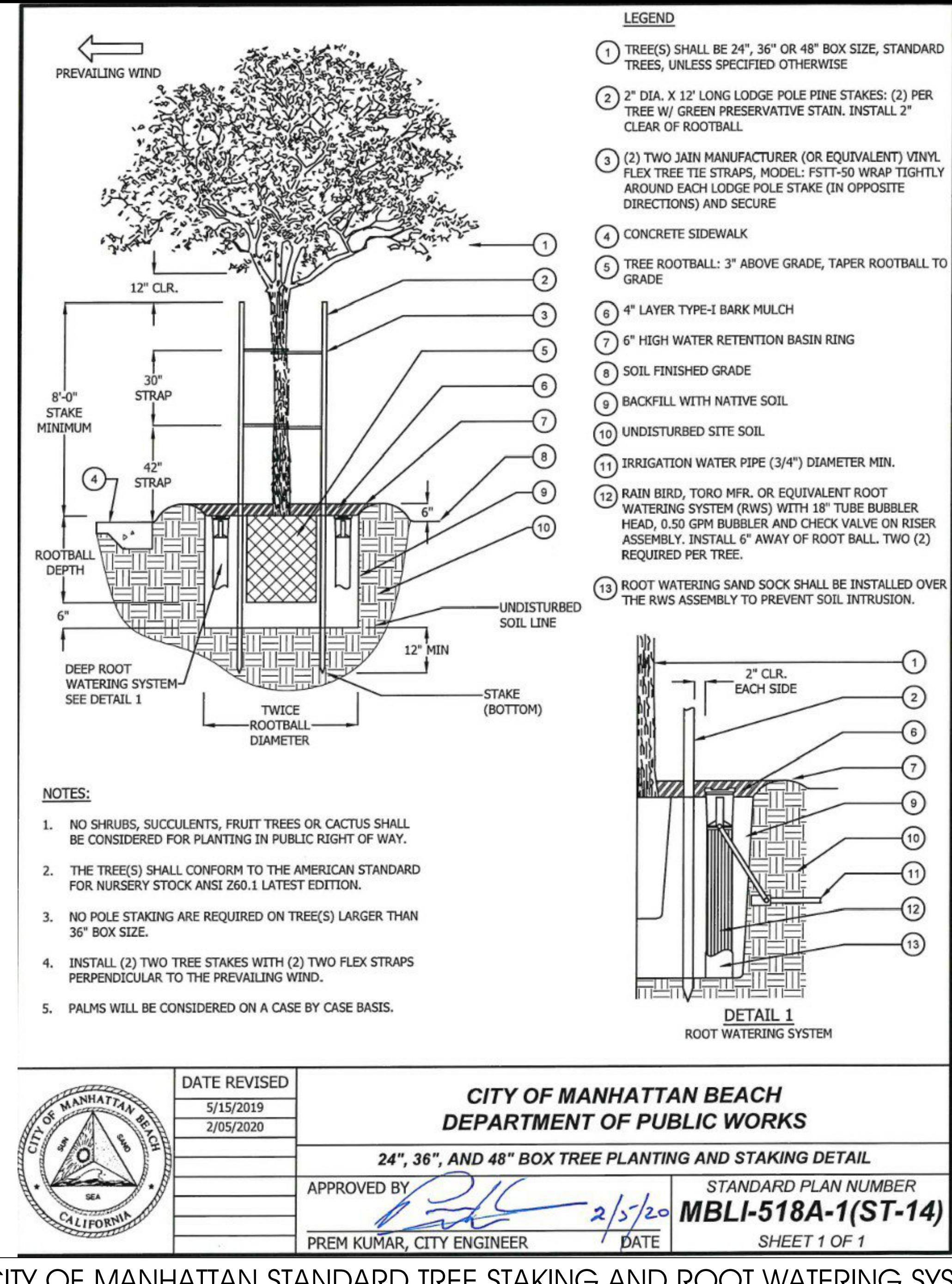


PLANTING NOTES

1. EXISTING UTILITIES: INFORMATION ON THE DRAWINGS RELATING TO ALIGNMENT OF EXISTING UTILITY LINES AND SERVICES WAS PROVIDED BY OTHERS AND IS FROM THE BEST SOURCE AVAILABLE. ALL SUCH INFORMATION IS FURNISHED ONLY FOR INFORMATION AND IS NOT GUARANTEED. THE CONTRACTOR SHALL EXCAVATE TEST PITS AS REQUIRED TO DETERMINE EXACT LOCATIONS OF ALL EXISTING UTILITIES. CALL UTILITY LOCATING SERVICE AND OBTAIN PRECISE UTILITY LOCATIONS MINIMUM OF 48 HOURS PRIOR TO BEGINNING ANY WORK. UNDERGROUND SERVICE ALERT (800)227-2600.
2. UTILITY REQUIREMENTS: THE CONTRACTOR SHALL NOTIFY THE FOLLOWING AGENCIES AT LEAST 48 HOURS IN ADVANCE OF EXCAVATING AROUND ANY OF THEIR STRUCTURES. THE UTILITY COMPANIES LISTED BELOW SHALL BE CONTACTED:
 - CITY/COUNTY PUBLIC WORKS/ ENGINEERING DEPARTMENT
 - GAS COMPANY
 - TELEPHONE COMPANY
 - ELECTRICAL POWER COMPANY
 - CABLE TELEVISION COMPANY
 - WATER SUPPLY COMPANY
- THE CALIFORNIA PUBLIC UTILITIES COMMISSION MANDATES THAT, IN THE INTEREST OF PUBLIC SAFETY, MAIN LINE GAS VALVES BE MAINTAINED IN A MANNER TO BE READILY ACCESSIBLE AND IN GOOD OPERATING CONDITION. THE CONTRACTOR SHALL NOTIFY THE GAS COMPANY'S HEADQUARTERS PLANNING OFFICE AT LEAST TWO (2) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING HIMSELF FAMILIAR WITH ALL UNDERGROUND UTILITIES, PIPES AND STRUCTURES. CONTRACTOR SHALL TAKE SOLE RESPONSIBILITY FOR ANY COST INCURRED DUE TO DAMAGE OF SAID UTILITIES.
4. DO NOT WILLFULLY PROCEED WITH PLANTING AS DESIGNED WHEN IT IS OBVIOUS THAT UNKNOWN OBSTRUCTIONS, GRADE DIFFERENCES AND/OR AREA DIFFERENCES EXIST THAT MAY NOT HAVE BEEN KNOWN DURING DESIGN. SUCH CONDITIONS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ALL NECESSARY REVISIONS DUE TO FAILURE TO GIVE SUCH NOTIFICATION.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH ANY SUBCONTRACTORS AS REQUIRED TO ACCOMPLISH LANDSCAPE INSTALLATION OPERATIONS.
6. CONTRACTOR SHALL NOTIFY OWNER'S AUTHORIZED REPRESENTATIVE 48 HOURS PRIOR TO COMMENCEMENT OF WORK TO SCHEDULE A PRE-CONSTRUCTION MEETING AND COORDINATE PROJECT REVIEWS.
7. SEE SPECIFICATIONS FOR PLANTING REQUIREMENTS, MATERIALS AND EXECUTION. SEE DETAILS AND SPECIFICATIONS FOR STAKING METHOD, PLANT PIT DIMENSIONS AND BACKFILL REQUIREMENTS.
8. CONTRACTOR TO PROVIDE A MINIMUM OF 2% POSITIVE DRAINAGE IN ALL PLANTING AREAS. IN NO CASE SHALL WATER DRAIN TOWARDS BUILDINGS.
9. LANDSCAPE CONTRACTOR TO RECEIVE SITE GRADED TO +/-0.10 FOOT. CONTRACTOR SHALL OBTAIN LETTER OF GRADE CERTIFICATION FROM OWNER PRIOR TO PROJECT EXECUTION.
10. WEED AND EXISTING GRASS CONTROL: WEED AND GRASS TYPES SHOULD BE IDENTIFIED BY AN APPROVED LICENSED PEST CONTROL ADVISOR TO ENSURE COMPATIBILITY WITH CHEMICALS AND SEASON OF THE APPLICATION. DO NOT USE CHEMICAL/METHOD THAT WOULD ADVERSELY EFFECT NEW PLANTINGS. REMOVE EXISTING PERENNIAL WEEDS FROM SITE BY MOWING AND GRUBBING. FOLLOWING SOIL PREPARATION AND INSTALLATION OF ALL SPECIMEN TREES, PERFORM WEED ABATEMENT PROCEDURE AS FOLLOWS:
 - a. APPLY 100 LBS. 46-0-0 COMMERCIAL FERTILIZER PER ACRE ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
 - b. WATER FOUR TIMES DAILY FOR 14 CONSECUTIVE DAYS TO PROMOTE EXISTING WEED/SEED GERMINATION.
 - c. CEASE WATERING FOR THREE DAYS.
 - d. SPRAY AREA WITH A NON-SELECTIVE/NON-RESIDUAL SYSTEMIC HERBICIDE TO ERADICATE GERMINATED WEEDS.
 - e. LET WEEDS DIE FOR A PERIOD OF SEVEN DAYS MINIMUM WITHOUT IRRIGATION.
 - f. REMOVE ALL WEEDS FROM SITE BY HOEING AND RAKING TO A MINIMUM DEPTH OF 1/2" BELOW SOIL SURFACE.
 - g. IF WEEDS PERSIST, THE ABOVE ERADICATION PROCEDURE SHALL BE REPEATED.
11. SOIL TESTING: THE CONTRACTOR SHALL OBTAIN A SOILS TEST FOR AGRICULTURAL SUITABILITY AND FERTILITY PREPARED BY AN APPROVED AGRICULTURAL TESTING LABORATORY. SOIL TESTING SHALL OCCUR AFTER ALL SOIL HAS BEEN IMPORTED TO THE SITE AND ROUGH GRADE ESTABLISHED, BUT PRIOR TO SOIL PREPARATION. REPORT SHALL CONTAIN RECOMMENDATIONS FOR SOIL PREPARATION AND BACKFILL MIX. REPORT SHALL CONTAIN STANDARD SOIL TESTING DATA AND SHALL ALSO INCLUDE SOIL INFILTRATION RATE, SOIL TEXTURE, PH, TOTAL SOLUBLE SALTS, SODIUM AND % OF ORGANIC MATERIAL CONTENT FOR EACH SAMPLE, AND RECOMMENDATIONS FOR SOIL PREPARATION AND BACKFILL MIX.. THIS REPORT SHALL BE FURNISHED TO THE OWNER AND OWNER'S REPRESENTATIVE FOR REVIEW PRIOR TO IMPLEMENTATION. TWO (2) SAMPLES SHALL BE TAKEN AT EACH OF THE MINIMUM OF TWO (2) LOCATIONS. FROM ONE LOCATION, TAKE (1) SAMPLE AT 10" DEEP AND (1) SAMPLE FROM 24" TO 36" DEEP. EACH SAMPLE SHALL CONTAIN APPROXIMATELY ONE QUART OF SOIL AND BE LABELED PER LOCATION AND DEPTH, AND TESTED SEPARATELY. SEE PLANTING PLAN FOR SAMPLE LOCATIONS.
12. SOIL PREPARATION: FOR BID PURPOSES, ASSUME THE ROTOTILLING OF THE FOLLOWING AMENDMENTS INTO THE SOIL AT RATES INDICATED PER 1,000 SQUARE FEET:
 - 5 C.Y. NITROGEN STABILIZED REDWOOD SHAVINGS
 - 150 LBS. GYPSUM
 - 125 LBS. GRO POWER PLUS
13. BACKFILL: FOR BID PURPOSES, FOLLOW THE PLANTING SPECIFICATIONS SECTION VIII, H.
14. ABOVE SOIL PREPARATION AND BACKFILL SPECIFICATIONS ARE FOR BIDDING PURPOSE ONLY. CONTRACTOR TO AMEND SOIL AND PREPARE BACKFILL IN ACCORDANCE WITH APPROVED SOIL FERTILITY ANALYSIS RECOMMENDATIONS.
15. UNDER NO CIRCUMSTANCES, CONCRETE AND OTHER DEBRIS MAY BE CRUSHED AND REUSED AS FILL IN PLANTING AREA. SHOULD IMPORT SOIL BE NECESSARY, INDICATE SOURCE LOCATION. SOIL SHALL BE SANDY LOAM CONTAINING NO TOXIC CHEMICALS. SUBMIT AGRICULTURAL SUITABILITY AND FERTILITY TESTING FOR THIS IMPORT TO OWNER'S REPRESENTATIVE FOR APPROVED PRIOR TO SOIL IMPORTATION. TEST REPORT SHALL INCLUDE SOIL AMENDMENT RECOMMENDATIONS AND BE DONE BY AN APPROVED CALIFORNIA ASSOCIATION OF AGRICULTURAL LABORATORIES MEMBER.
16. AFTER AMENDING SOIL, BUT PRIOR TO PLANTING, CONTRACTOR SHALL PERFORM PERCOLATION TEST AT SELECTED LOCATION(S) SHOWN ON TREE PLANTING PLAN. NOTIFY LANDSCAPE ARCHITECT 48 HOURS PRIOR TO THE TEST. TEST AS FOLLOWS. CONTRACTOR SHALL RECORD THE RESULT AND SUBMIT TO LANDSCAPE ARCHITECT:
 - DIG 24" BOX-SIZE PIT AND SCARIFY THE SIDES; FILL WITH CLEAN WATER BY HOSE AT THE BOTTOM OF THE PIT AND LET IT DRAIN.
 - IMMEDIATELY AFTER IT DRAINS COMPLETELY, REFILL 12" DEEP WITH CLEAN WATER AND RECORD THE WATER LEVEL AS IT DRAINS.

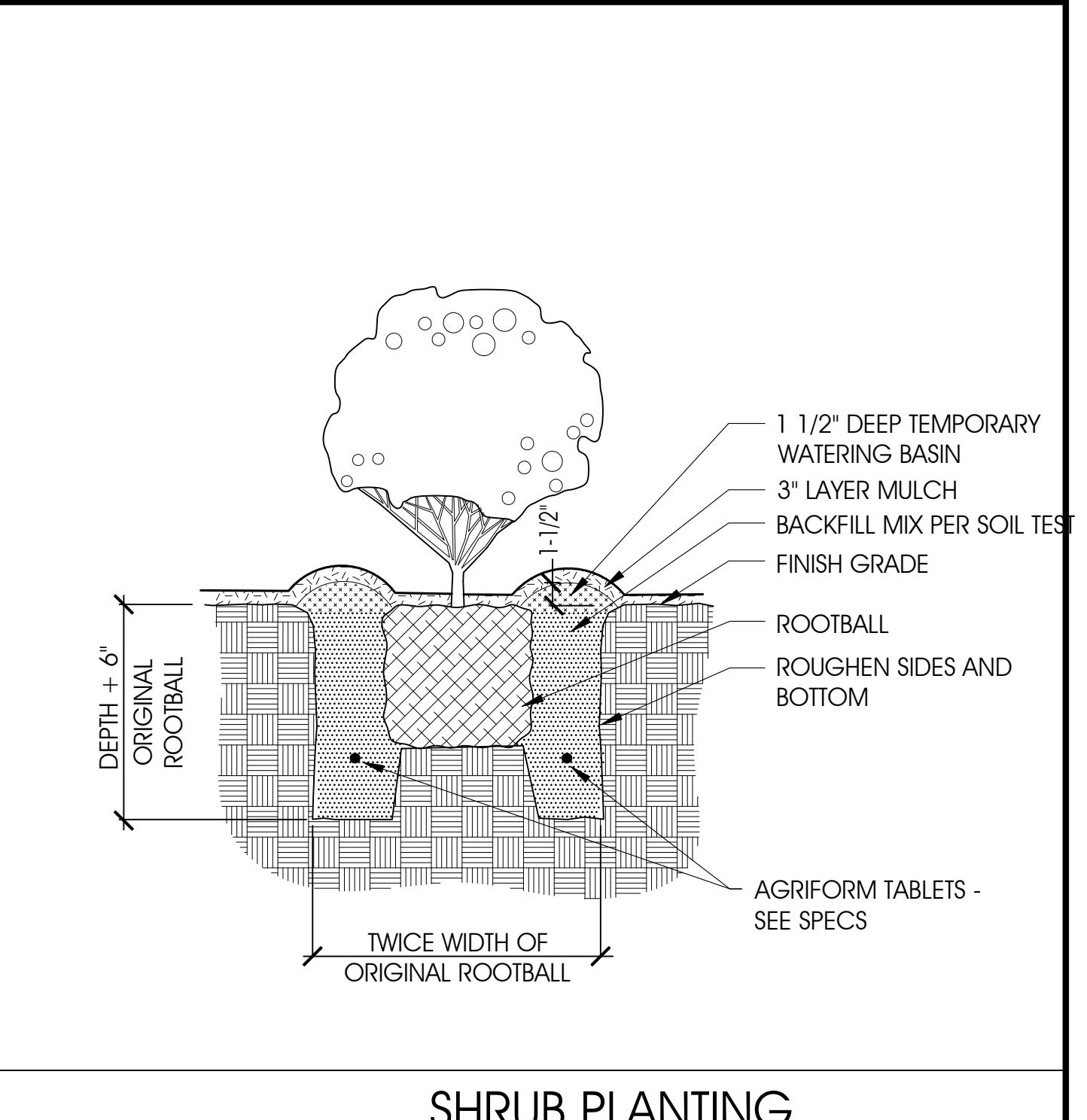
IF THE SECOND REFILLED WATER DRAINS 2 INCHES PER ONE HOUR OR FASTER,

17. CONTRACTOR'S INITIAL BID SHALL INCLUDE DRAIN SUMP WITH COST ITEMIZED. IF THE TEST PROVES THAT IT IS NOT NECESSARY, SUPPLY CREDIT TO THE OWNER.
18. ALL SHRUB/GROUNDCOVER AREAS SHALL BE TOP DRESSED WITH A 3" DEEP LAYER OF SHREDDED, COMPOSTED WOOD FIBER MULCH 'FOREST FLOOR' (1/2" TO 1-1/2" PIECES) BY AGUINAGA FERTILIZER COMPANY (949)786-9558 OR APPROVED EQUAL.
19. CONCRETE MOWSTRIP, REDWOOD HEADERBOARD OR STEEL EDGING SHALL BE INSTALLED PER DETAIL WHEREVER GROUNDCOVER AREAS MEET TURF AREAS AS INDICATED ON THE DRAWINGS.
20. PLANT MATERIAL APPROVAL: AFTER OBTAINING APPROVAL FOR AGRICULTURAL SOILS REPORT AND AMENDMENTS, AND TWO WEEKS PRIOR TO PLANTING, CONTRACTOR SHALL SUBMIT TO LANDSCAPE ARCHITECT ONE PRINTED COLOR PHOTOGRAPH OF EACH SPECIES AND SIZE PLANT MATERIAL SPECIFIED ON PLAN FOR APPROVAL. PHOTOGRAPHS SHALL INCLUDE A PERSON OF AVERAGE HEIGHT FOR SCALE PURPOSES. ALL PLANT MATERIAL SHALL BE OF QUALITY AS DETERMINED BY THE OWNER'S REPRESENTATIVE. IF REQUESTED BY OWNER, LANDSCAPE ARCHITECT WILL TAG THE TREE MATERIAL. MATERIAL FOUND UNSUITABLE FOR THE DESIGN OR SPECIFICATION INTENT WILL BE REPLACED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
21. ALL PLANT MATERIAL OF A GIVEN SPECIES SHALL HAVE MATCHING FORM UNLESS OTHERWISE SPECIFIED. ALL BOXED TREES SHALL BE OF QUALITY AS DETERMINED BY THE OWNER'S REPRESENTATIVE.
22. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FURNISH PLANT MATERIAL FREE FROM PESTS OR PLANT DISEASES. PRE-SELECTED OR 'TAGGED' MATERIAL MUST BE INSPECTED BY THE CONTRACTOR AND CERTIFIED TO BE PEST AND DISEASE FREE PRIOR TO SHIPMENT. IT IS THE CONTRACTOR'S OBLIGATION TO PROVIDE ANY REQUIRED CERTIFICATIONS AND WARRANTY FOR ALL PLANT MATERIAL PER THE SPECIFICATIONS.
23. FINAL LOCATION OF ALL PLANT MATERIAL SHALL BE SUBJECT TO THE APPROVAL OF THE OWNER'S AUTHORIZED REPRESENTATIVE.
24. CONTRACTOR SHALL VERIFY PLANT MATERIAL QUANTITIES ON THE PLAN. GRAPHIC SYMBOLS TAKE PRECEDENCE OVER WRITTEN QUANTITIES.
25. CONTRACTOR TO PROVIDE A MINIMUM OF 2% POSITIVE DRAINAGE IN ALL PLANTING AREAS. IN NO CASE SHALL WATER DRAIN TOWARDS BUILDINGS.
26. AT EDGES OF PLANTING AREAS, THE CENTER LINE OF THE LAST ROW OF SHRUBS AND/OR GROUNDCOVER SHALL BE LOCATED NO FARTHER FROM THE EDGE THAN ONE-HALF THE SPECIFIED ON-CENTER SPACING UNLESS OTHERWISE INDICATED ON PLANS. GROUNDCOVER SHALL BE TRIANGULARLY SPACED.
27. IN AREAS WITH EXISTING TURF OR GROUNDCOVER, CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF BARE SPOTS AND ALL SCARS DUE TO IRRIGATION INSTALLATION OR RE-GRADING, AND SHALL MATCH EXISTING PLANTING TO ACHIEVE A UNIFORM OVERALL APPEARANCE.
28. LOCATION OF EXISTING TREES ARE APPROXIMATE. IF DURING GRADING OPERATION, EXISTING GRADE CANNOT BE MAINTAINED WITHIN DRIPLINE OF TREES, CONTACT THE OWNER'S REPRESENTATIVE FOR DIRECTION PRIOR TO GRADING.
29. CONTRACTOR SHALL OBTAIN COPY OF THE LATEST PARKING LOT STRIPING PLAN. TREES THAT ARE INTENDED TO BE PLACED IN LINE WITH PARKING STRIPES SHALL CORRESPOND WITH THIS PLAN. CONTACT OWNER'S REPRESENTATIVE IMMEDIATELY IF CONFLICTS OCCUR BETWEEN TREES AND LIGHT STANDARDS.
30. ANNUAL COLOR SHALL BE SELECTED BY OWNER'S REPRESENTATIVE AT TIME OF INSTALLATION.
31. EXCAVATION AROUND EXISTING TREES TO BE PRESERVED: THE CONTRACTOR SHALL USE ALL POSSIBLE CARE TO AVOID INJURY TO TREES AND TREE ROOTS. EXCAVATION SHALL BE DONE BY HAND WHERE ROOTS THAT ARE TWO (2) INCHES OR LARGER IN DIAMETER OCCUR. ALL ROOTS TWO (2) INCHES AND LARGER IN DIAMETER, EXCEPT DIRECTLY IN THE PATH OF PIPE OR CONDUIT, SHALL BE TUNNELED UNDER AND SHALL BE HEAVILY WRAPPED WITH WET BURLAP TO PREVENT SCARRING OR EXCESSIVE DRYING. WHERE A TRENCHING MACHINE IS RUN CLOSE TO TREES HAVING ROOTS SMALLER THAN TWO (2) INCHES IN DIAMETER, THE WALL OF THE TRENCH ADJACENT TO THE TREE SHALL BE HAND-TRIMMED, MAKING CLEAN-CUTS THROUGH, WITH EQUIPMENT THAT HAS BEEN CLEANED AND DISINFECTED PRIOR TO USE. ON-SITE ROOTS ONE (1) INCH AND LARGER IN DIAMETER SHALL BE PAINTED WITH TWO COATS OF TREE SEAL OR EQUAL. TRENCHES ADJACENT TO TREES SHALL BE CLOSED WITHIN TWENTY FOUR (24) HOURS; AND WHERE THIS IS NOT POSSIBLE, THE SIDE OF THE TRENCH ADJACENT TO THE TREE SHALL BE KEPT SHADED WITH BURLAP OR CANVAS AND KEPT DAMP.
32. PROTECTION OF EXISTING TREES: CONSTRUCT 4' HIGH CHAINLINK FENCE OR OTHER APPROVED PROTECTIVE FENCING AROUND THE TREE PER ARBORISTS RECOMMENDATIONS. CONTACT OWNER'S REPRESENTATIVE FOR LOCATION OF THE FENCE IF NOT SHOWN ON THE PLAN. DO NOT ENTER, OR PLACE OBJECTS WITHIN FENCED AREA. PLACE 3" LAYER OF MULCH WITHIN THE FENCED AREA, BUT KEEP MULCH OFF TRUNK. POST AT LEAST THREE (3) LEGIBLE SIGNS ON THE FENCE STATING, 'DO NOT ENTER. NO DUMPING. DO NOT PLACE OBJECT INSIDE THE FENCE'. CONTRACTOR SHALL MAINTAIN FENCED AREA CLEAR OF OBJECTS AT ALL TIMES. WASH FOLIAGE ONCE A WEEK AFTER CONSTRUCTION ACTIVITY HAS STOPPED FOR THE DAY.

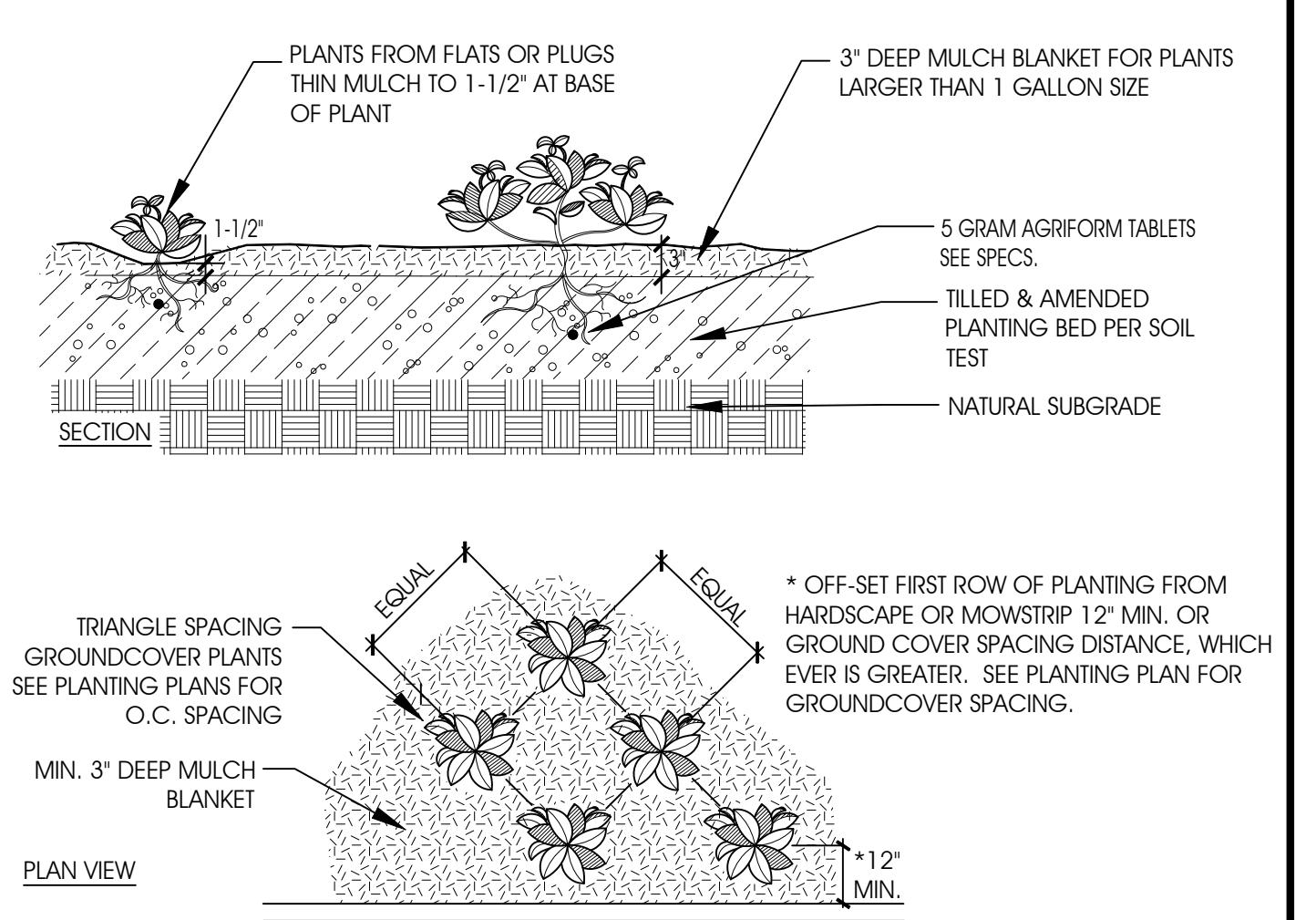


CITY OF MANHATTAN STANDARD TREE STAKING AND ROOT WATERING SYSTEM

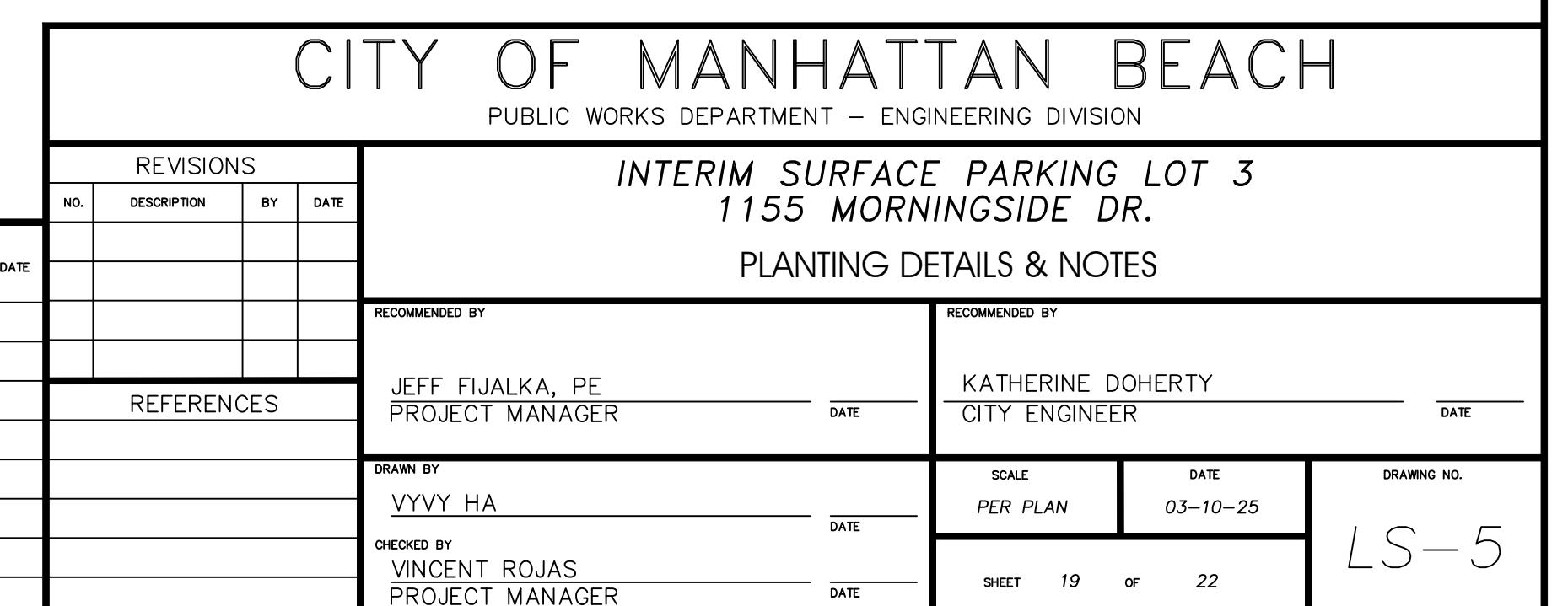
CITY OF MANHATTAN STANDARD TREE STAKING AND ROOT WATERING SYSTEM



SHRUB PLANTING



GROUND COVER PLANTING



GENERAL CONDITIONS

- A. CONTRACT DOCUMENTS: Shall consist of specifications and its general conditions and the drawings. The intent of these documents is to include all labor, materials, and services necessary for the proper execution of the work. The documents are to be considered as one. Whatever is called for by any parts shall be as binding as if called for in all parts.
- B. VERIFICATION: The Contractor shall verify measurements on the drawings before beginning work. In case of error or discrepancy in the drawings or specifications or in the work of others affecting his work, he shall notify the Owner's Representative immediately. The Contractor shall be held responsible for any damages or loss due to his failure to observe these instructions.
- C. MATERIALS, MACHINERY, EMPLOYEES: Except as otherwise noted, the Contractor shall provide and pay for all materials, labor, tools, and other items necessary and incidental to the completion of his work.
- D. SURVEYS, PERMITS, REGULATIONS: The Owner shall furnish an adequate survey of the property. The Contractor shall obtain and pay for all permits and comply with all laws and ordinances bearing on the operation or conduct of the work as drawn and specified. If the Contractor observes that a variance exists therewith he shall promptly notify the Owner's Representative in writing and any necessary changes shall be adjusted as provided in the contract for changes in the work.
- E. PROTECTION OF WORK, PROPERTY AND PERSON: The Contractor shall adequately protect the work, adjacent property, and the public, and shall be responsible for any damages or injury due to his actions.
- F. CHANGES IN THE WORK: The Owner may order changes in the work, and the contract sum being adjusted accordingly. All such orders and adjustments plus claims by the Contractor for extras must be made in writing before executing the work involved.
- G. CORRECTION OF WORK: The Contractor shall re-execute any work that fails to conform to the requirements of the contract and shall remedy defects due to faulty materials or workmanship upon written notice from the Owner's Representative for a period of ninety (90) days from the date of completion of the contract.
- H. LANDSCAPE COORDINATOR STATUS: The Landscape Coordinator acts as the authorized representative of the Owner in conjunction with the project manager, and has authority to accept or reject materials or workmanship and to make minor changes in the work not involving extra cost. He will also interpret the meaning of the contract documents and may stop the work if necessary to ensure its proper execution.
- I. CLARIFICATION OF DRAWINGS BEFORE BIDDING: After reviewing the drawings thoroughly it is the Contractor's responsibility to clarify with the Owner's Representative any questions the Contractor may have regarding the method of construction, quantities, or quality of materials included or called out. If the Contractor cannot contact the Owner's Representative, the Contractor must qualify his bid or accept the interpretation of the Owner's Representative on the questionable areas as they develop during construction.
- J. SAMPLES: The Owner's Representative reserves the right to take and analyze samples of materials for conformity to specifications at any time. The Contractor shall furnish samples upon request by the Owner's Representative. Rejected materials shall be immediately removed from the site and replaced at the Contractor's expense. The cost of testing materials not meeting specifications shall be paid by the Contractor.
- K. PRE-CONSTRUCTION CONFERENCE: Schedule a pre-construction meeting with the Owner's Representative at least seven (7) days before beginning work. The purpose of this conference is to review any questions the Contractor may have regarding the work, administrative procedures during construction and project work schedule.

IRRIGATION SPECIFICATIONS

- I. SCOPE OF WORK:
 - A. The Contractor shall provide all labor, tools, machinery, and processes necessary to install a complete irrigation system as shown on the drawings and/or specified herein. When completed the irrigation system shall be a 100% coverage system in total functioning manner.
- II. GENERAL REQUIREMENTS:
 - A. VERIFICATION OF DIMENSIONS: All scaled dimensions are approximated. Before proceeding with any work, the Contractor shall carefully check and verify all dimensions. Spacing of irrigation heads, locations of valves and backflow preventers, and proposed P.O.C. shall be as indicated on the drawings. Any deviation from the plans must have the approval of the Owner's Representative.
 - B. VERIFICATION OF FINISH GRADE: The Contractor shall inspect the site and check all finish grades within the work area to ensure the proper soil coverage (as specified) of the irrigation system pipes.
 - C. WATER SUPPLY: The Contractor shall verify and be familiar with the source of water supply to the irrigation system as indicated on the drawings.
 - D. PERMITS AND FEES: The Contractor shall apply and pay for all necessary permits required in the pursuit of his work as required by the governing codes.
 - E. CARE OF EXISTING BUILDINGS AND STEPS: The Contractor shall be held responsible for the care and preservation of all existing buildings and structures on the property and adjacent premises and contiguous property. Any part of these properties injured, damaged or disturbed because of his work shall be repaired, replaced or cleared by the Contractor at his expense.
 - F. REVIEW OF DRAWINGS: It is the Contractor's responsibility to review irrigation drawings and note any areas he believes additional heads or valves are required prior to submitting a bid. If no changes are submitted, the Contractor is responsible for full coverage of equipment as necessary at the Contractor's expense.

G. GOVERNING REGULATION: All local, municipal and state laws, rules and regulations governing or relating to any portion of this work and hereby incorporated into and made part of these specifications, and their provisions shall be carried out by the Irrigation Contractor.

H. DIAGRAMMATIC DESIGN: The design is diagrammatic. All pipe, valves, etc., shown within paved areas are for design clarifications only and shall be installed in planted areas where possible. Never install the backflow preventers in lawn area; always in shrub areas.

I. INSTALLATION: All irrigation materials shall be installed in accordance with the techniques and specifications set forth by each respective manufacturer. All pertinent descriptive literature issued by these manufacturers become a part of these specifications after having been approved by the authorized Owner's Representative. Such installation practices shall be followed only if the directions of the irrigation drawings and specifications do not thoroughly and completely order the methods or techniques to be followed. Install all equipment and materials as shown per details.

J. SITE PROBLEMS: The Irrigation Contractor shall not willfully install the irrigation system as indicated on the drawings when it is obvious in the field that there are unknown obstructions, grade differences, and/or discrepancies in the area dimensions until such conditions are brought to the attention of the Owner's Representative.

III. MATERIALS:

A. Irrigation materials and equipment shall be of type, size and location as noted and indicated on the drawings. Landscape Contractor shall be responsible for submittal to the Landscape Architect for approval prior to installation; (5) copies of printed or a bound PDF of cut-sheets (product information sheets) of each specified materials and equipment prior to installation. Materials and equipment shall be new and in perfect condition, no deviation from the specifications shall be allowed unless approved by the Landscape Architect. If material specified in this Construction Document is to be substituted, submit the product information at this time.

IV. INSTALLATION:

A. EXCAVATION

1. The Contractor shall verify locations of all existing subsurface utilities (mechanical and electrical) prior to excavation. Any utilities, A.C. paving, concrete work, plant material, etc., destroyed or damaged by any work under this contract shall be repaired or replaced at the Contractor's expense.
2. Trenches for pipe shall be cut to required grade line at a true gradient to provide uniform support for the length of the pipe.
3. Depth of trenches shall be sufficient to provide a minimum cover above the top of the pipe as noted on the drawings.

B. JOINING PIPE

1. The Contractor is responsible to be familiar with the methods of assembling, joining, and installing the various types of pipes to be used. He will adhere in strict accordance with the manufacturer's recommended procedures.
2. PVC pipe shall not be threaded and all transition from PVC to metal piping shall be by PVC male threaded adaptor fittings.

C. BACKFLOW PREVENTER: The backflow prevention device specified herein shall be verified with local plumbing and health codes. In the event of any conflict on the device or the installation methods, the Owner's Representative shall be notified PRIOR TO BID OPENING.

D. TESTS

1. All main lines and lateral lines which have glued joints under paving in the system shall be capped and pressure tested at 150 PSI.
2. Pressure shall be sustained in the lines for not less than four (4) hours. If leaks develop, the joints shall be replaced and the test repeated until the entire system is watertight.

3. Test shall be observed and approved by the Owner's Representative prior to backfill.

4. When the irrigation system has been completed (and before planting has begun), the Contractor, in the presence of the approved Owner's Representative, shall test the coverage of water afforded to the lawn and planting areas as complete and adequate. The Contractor shall furnish all materials and perform all work required to correct any inadequacies of coverage.

5. The Contractor shall inform the approved Owner's Representative of any deviations from the plan required by wind, plantings, soils, or site conditions that affect present irrigation coverage.

E. IRRIGATION HEAD INSTALLATION:

1. Shrub and ground cover spray heads adjacent to curbs or walks shall be installed 12" away from the curb or walk and the heads shall be pop-up models as indicated on the drawings.



NO WORK SHALL BE DONE ON THIS SITE
UNTIL USA AGENCY IS NOTIFIED
OF INTENTION TO GRADE OR EXCAVATE,
TWO WORKING DAYS BEFORE YOU DIG.

SUPPLEMENTAL NOTES:

1. THE CONTRACTOR SHALL LOCATE, VERIFY AND PROTECT ALL EXISTING UNDERGROUND UTILITIES. DAMAGED UTILITIES SHALL BE REPLACED IN KIND AT THE CONTRACTOR'S EXPENSE.
2. DUE TO INDIVIDUAL LOT IMPROVEMENTS, THE EXISTING WATER, SEWER AND/OR GAS LATERALS MAY NOT BE AT THE LOCATIONS SHOWN OR SHOWN IN THEIR ENTIRETY. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN EXCAVATING.
3. THE CONTRACTOR SHALL DETERMINE THE DEPTH OF THE GAS SCE, CABLE, SEWER, STORM DRAIN AND WATER AT ALL INTERSECTIONS AND INTERFERENCES PRIOR TO CONSTRUCTION AND AS NOTED ON PLANS.

2. Shrub spray heads adjacent to building, fences, or similar structures shall be installed 1" away from the structure and the nozzle shall be 6" minimum above finish grade. Shrub spray heads not near paving or structures shall be set 8" above finish grade.

3. All irrigation heads are to have triple swing joints as detailed.

4. Install all irrigation heads per details.

F. IRRIGATION HEAD ADJUSTMENTS:

1. The Irrigation Contractor shall flush and adjust all irrigation heads for optimum performance and to prevent overspray onto walks and buildings as much as possible. This shall include selecting the best degree of arc to fit existing site situations. This also includes using the appropriate radius reduction equipment.

G. CLOSING OF UNINSPECTED WORK:

1. The Contractor shall not allow or cause any of his work to be covered or enclosed until it has been inspected, tested and approved by the authorized Owner's Representative. Should any of his work be enclosed or covered before such inspection and test, he shall uncover the work at his own expense and after it has been inspected, tested, and approved, he shall make all repairs with like materials necessary to restore all his work and that of other Contractors to its original condition.

H. BACKFILLING:

1. Backfill shall not be placed until the installed irrigation system has been inspected and approved by the Owner's Representative.
2. Trenches shall be backfilled with a minimum of 4" of fine, granular materials to protect the pipe from the clods or rocks. The remaining excavated dirt can be used as backfill. The Contractor shall not place detrimental subsoil or rocks in the top 6" of backfill.

3. If settlement occurs and adjustments in pipe, valves, irrigation heads, or any other irrigation device becomes necessary to bring the system to proper working order, the Contractor shall, as a part of his work under this contract, make all the necessary adjustments without extra cost to the Owner.

I. AUTOMATIC CONTROLLER VALVES:

1. A 120 volt electrical power outlet to the controller shall be provided by others. (Provided the Landscape Contractor has not included the electrical connection in his scope of work). The Irrigation Contractor shall be responsible for making the hookup from the outlet to the controller.

2. All wires from the controller to electric control valves shall be solid copper U.F. #14-600 volt direct burial. Use white for common control wire, blue for lawn systems, black for shrub systems and red for moisture sensors wire. Install in common trench with main line pipe where possible. Tape control wire at 10' O.C. to main line pipe. Provide minimum 18" backfill cover, 36" under pavement.

3. Wire connections shall be made with "Scotch-Lok" wire connector sealing packs #3576 or Spears "Dit-Splice" with sealant DS 300 or approved equal.

4. There shall be a control wire from each control valve running to the controller, and each control valve shall be connected to the common ground wire.

5. All electrical work shall comply with the applicable codes.

6. Install all valves per details, and manufacturer's recommendations.

J. MOISTURE SENSOR INSTALLATION (if applicable):

1. Installations and wiring are to be done by the Contractor in compliance with installation and operating instructions enclosed with the moisture sensor and included with these special instructions.

2. The Contractor shall furnish 2-AWG-UF #14 (or larger) wires from the controller to the moisture sensor control stations, locations shown on drawings. Provide additional 10' expansion lead to each station for finally locating of sensors. All sensors are to be wired in parallel (see wire color note above).

3. Ametek 6" extension boxes No. 10-170-003 covered by Ametek green cover No. IVC-10-173-004, or approved equal, shall be installed as detailed.

4. All wiring connections at valve locations shall be water proof.

5. One service unit will be purchased to properly prepare and service the moisture sensor. The service unit along with all printed operating instructions are to be furnished to the Owner by the Contractor at final inspection.

6. Moisture Sensor operating and service instruction and operations manual is to be placed in the controller.

7. Special depth and placement information to augment Moisture Sensor Installation and Operation Instruction, is to be provided by the Specified Manufacturer.

8. Installation must be inspected and accepted by the Manufacturer's Representative.

V. DRAWINGS OF RECORD (AS-BUILT):

A. GENERAL: The Contractor shall provide and keep up to date, in accordance with this section, a complete set of record "as-built" black line prints which shall be corrected daily and show every change from the original drawings and specifications and the exact "as-built" locations, sizes, depths and kinds of equipment. Prints for this purpose may be obtained from the Owner. This set of drawings shall be kept on the site and shall be used only as a record set. These drawings shall also serve as work progress sheets and the Contractor shall make neat and legible notations thereon daily, as the work proceeds, showing the work as actually installed. These drawings shall be available at the times for inspection and shall be kept in a location designated by the Owner's Representative.

B. REQUIRED NOTATIONS:

1. The Contractor shall indicate, in red, installed locations of the following items on plan and dimension from two (2) permanent reference points, such as building corners, back of curb, fire hydrant, etc. or road intersections:

- a. All valves: master, remote control, quick coupler, ball and gate valves
- b. The routing of the irrigation mainlines
- c. Water meter and backflow device, connection to the existing water supply
- d. Controller and sensors (rain, moisture and flow sensors)
- e. Booster pump

2. The drawing shall show approved substitutions of sizes, materials, and manufacturer's name and catalog number.

C. DELIVERY OF DRAWINGS OF RECORD: On or before the date of final inspection, the Contractor shall deliver the corrected and complete field as-builts to the Owner's Representative. Delivery of these drawings will not relieve the Contractor of the responsibility of furnishing required information that may be omitted from the prints. Once the Owner's Representative has reviewed the field as-builts and contractor has made the required corrections, Contractor shall prepare final "as-built" drawings in a neat and professional manner. Submit to Owner's Representative or Landscape Architect for approval prior to preparation of controller charts.

D. CONTROLLER CHARTS:

1. As-built drawings shall be received and approved by the Owner's Representative prior to preparing controller charts.
2. Provide one controller chart for each controller supplied.
3. The chart shall be drawn on a reduced drawing of the actual as-built system to fit a 11" x 17" sheet format, using a different color to indicate the area of coverage for each station.
4. When the chart is completed and approved by the Owner's Representative, it shall be hermetically sealed and placed in the controller box.

VI. CLEAN UP:

A. SCOPE AND FREQUENCY: After installation operations have been completed, remove all trash, excess soil and rubbish from property. All soars, ruts, or other marks in the area caused by this work shall be repaired and the ground left in a neat and orderly condition throughout the site. The Contractor shall pick up all trash resulting from his work no less than each Friday before leaving the site, once a week and/or the last working day of each week. All trash shall be removed completely from the site.

VII. GUARANTEE:

A. SCOPE: The entire irrigation system shall be guaranteed by the Contractor as to materials and workmanship, including setting of backfill areas below grade for a period of one (1) year following the date of final acceptance of the work. If, within one (1) year from date of completion, setting occurs, and adjustments in pipes, valves, and irrigation heads, sod, irrigation devices, or paving is necessary to bring the system, sod or paving to the proper level of the permanent grades, the Contractor, as part of the work under this contract, shall make all adjustments without extra cost to the Owner, including the complete restoration of all damaged planting, paving or other improvements of any kind.

B. RESPONSIBILITY: Should any difficulties in connection with the operation of the irrigation system occur within the specified guarantee period—which is in the opinion of the Owner's Representative due to inferior material and/or workmanship—said difficulties shall be immediately corrected by the Contractor to the satisfaction of the Owner's Representative at no additional cost to the Owner, including any and all other damage caused by such defects.

C. INSTRUCTIONS: After the irrigation system has been completed and the connections made, the Contractor shall instruct the Owner, or his representative, in the operation and maintenance of the system.

PLANTING SPECIFICATIONS

I. SCOPE OF WORK:

- A. Furnish all labor, materials and equipment necessary to provide and install plant materials as shown on the drawings or as specified herein.
- B. Work included in this section (items included but not limited to):

B. TOP SOIL

1. Topsoil consists of a fertile, friable natural loam of uniform quality, free from subsoil, stiff clay, hard clods, hard pan, sod, partially disintegrated debris, or other undesirable materials.
2. Topsoil shall not contain obnoxious weeds, such as morning glory, sorrel, oxalis, spurge, annual poa, nut grass or bermuda grass.

C. PLANT MATERIALS:

1. Plant names in the Plant List conform to "Standardized Plant Names" by American Joint Committee of Horticultural Nomenclature, except in cases not covered therein. In these instances the established custom of the nursery trade shall be followed.
2. Plants shall be sound, healthy, vigorous, free from disease and weeds, insect pests or their eggs and shall have healthy, normal root systems, well filling their container, but not to the point of being root bound.

3. Plants shall not be pruned prior to delivery except as authorized by the Owner's Representative.
4. All plant materials shall be subject to approval of size, health, quality, character, etc., by the Owner's Representative.

5. The height and spread of all plant materials shall be measured with branches in their normal position.
6. The caliper of all trees shall be measured 4' above the surface of the ground.

7. Where caliper or other dimensions of any plant materials are omitted from the plant list, it shall be understood that these plant materials shall be normal stock for the type listed.
8. Plant material shall be symmetrical, typical for variety and species, and shall conform to measurements specified in the Plant List/Legend.

9. Plant material larger than those specified may be supplied if complying in all other respects and at no additional cost to the Owner, upon approval of the Owner's Representative.

10. All plant materials must have been previously inspected at the nursery by the County Horticultural Department and shall be subject to acceptance as to quality by the Owner's Representative.

11. Substitutions will be permitted only as indicated, or if proof is submitted that any plant specified is not available, a proposal will be considered for the use of the nearest equivalent size or variety with an equitable adjustment of the contract price.

12. Quantities shown on the call outs on the Planting Plan are for the convenience of the Contractor only. Quantities drawn on the plan (whether by circles, dots or triangles) are

<p>D. SEED MATERIALS:</p> <ol style="list-style-type: none"> Seed shall be clean, fresh, new crop seed and shall be the mixture as noted on the Planting Plan. Seed shall be mixed by the dealer and furnished with the dealer's guarantee statement of composition and percentage of purity which shall be furnished to the Owner's Representative. Seed tags shall be delivered to the Owner's Representative at the time of installation. <p>E. STAKES: All stakes shall be per details.</p> <p>IV. OBSTRUCTIONS BELOW GROUND:</p> <ol style="list-style-type: none"> CONTRACTOR'S RESPONSIBILITY: the Contractor is responsible for verifying the location of all utility lines and other underground obstructions so that proper precautions may be taken not to disturb or damage such improvements. In the event of a conflict between such lines and plant locations, the Contractor shall promptly notify the Owner's Representative, who shall arrange for the relocation of one or the other. Failing to follow this procedure, the Contractor shall at his own expense make any and all repairs for damages resulting from his work. <p>V. FINISH GRADING:</p> <ol style="list-style-type: none"> TILLING: Till all planting areas as specified herein. UNIFORM GRADE: After tilling, all areas shall be brought to uniform grade by floating or hand raking. GRADE RELATIONSHIPS: Finish grade of planting areas after application of soil amendments shall be 1" below top of concrete walks and curb grades and 6" below finish floor of building or as noted by spot elevations. SLOPE FROM BUILDINGS: soil areas adjacent to buildings shall slope away from the building at 2% minimum for 10 feet and shall continue to slope at a minimum of 1% until water drains to street or storm system. ROCKS OR CLODS: No rocks or clods over 3/4" in diameter shall be top of prepared planting beds. <p>VI. WEED CONTROL:</p> <ol style="list-style-type: none"> KILLING WEEDS: Contractor shall germinate and destroy existing weed seeds before preparing areas for planting. Sufficient water shall be applied to cause weed seed to sprout. Young weeds shall then be destroyed and removed before they have opportunity to set seed. ADDITIONAL REQUIREMENTS: For additional weed killing refer to Planting Notes on the Planting Plan. <p>VII. SOIL PREPARATION:</p> <ol style="list-style-type: none"> IMPORT SOIL REPORT: Should import soil be placed in planting areas, Contractor shall have import soils tested by an approved California Association of Agricultural Laboratories member and submit to the Owner and Owner's Representative for approval prior to placing the soil on site. The report shall also have soil amendment recommendations. SITE SOIL REPORT: Prior to starting soil preparation the Contractor shall have site soils tested by an approved California Association of Agricultural Laboratories member and submit to the Owner and Owner's Representative prior beginning of landscape work. Follow the Surface Soil Preparation recommendations for all planting areas and Tree and Shrub Backfill Mix recommendations for tree and shrub planting. COMPACTED AREAS: Soil areas that are compacted to more than 90% during site preparation shall be ripped to a minimum of 12" prior to beginning soil preparation. METHOD OF MIXING: If the slope is under 2 to 1, the soil preparation materials should be broadcast uniformly over all landscape areas and worked to a depth of 6" by rototiller or other acceptable mechanical means to obtain a uniform blend in the soil. If the slope is greater than 2 to 1, the amendments shall be hydraulically applied for areas over 1000 square feet and raked in for small areas. For the soil amendment bid mix refer to the Planting Notes on the Planting Plan. EXTRANEIOUS MATERIALS: In addition to the work specified above, the Contractor shall remove all extraneous materials that are exposed on the surface and grade to facilitate run-off of surface water. DELIVERY SLIPS: Supply delivery slips from the supplier for the soil amendments to the site and empty bags for fertilizer to the Superintendent of the job and the Owner's Representative at first field review. Bulk loads of soil amendments from the Contractor's yard will not be accepted. <p>VIII. SHRUB AND TREE PLANTING</p> <ol style="list-style-type: none"> CORRELATION: Trees and shrubs shall not be planted until all operations in conjunction with the installation of the irrigation system have been completed, final grades have been established, and the planting beds properly prepared by cultivation and fertilization as covered in these specifications. PLANTING TIME: No planting shall take place during extremely hot, dry, windy or freezing weather. LOCATIONS: Relative positions of all plants and trees are subject to approval of the Owner's Representative and they shall, if necessary, be relocated at his direction as part of this contract. Trees shall normally be located a minimum of 5' from buildings, site amenities and walkways. DISTRIBUTION: No more plants shall be distributed about the landscape area than can be planted and watered on the same day. CONTAINER REMOVAL: Plant containers shall be removed when planting the plants. Container may be split on both sides, however, without use of axe or spade. All containers shall be removed from the site. PLANTING PITS: Excavate all tree and shrub pits at least twice the rootball diameter. Pit depth shall be the same as the height of the rootball with a minimum of 6" additional depth at perimeter of plant pit. For planting in clay soil, see applicable details. Roughen sides and bottom of pit prior to placing the rootball, see details. Perform percolation test prior to tree planting per Planting Notes. Install drain sump pipe if soil fails percolation test per tree planting detail. <p>G. PLACING: Plants shall be placed and held during backfill in an upright position in the center of the pit. Plants shall be held at, or slightly above nursery level. The earth ball shall be kept intact. Any exposed roots shall be spread out. Injured roots shall be pruned.</p> <p>H. BACKFILL: Contractor shall refer to Soils Report for final recommendations. (For bidding purposes only). Plant pit backfill soil shall consist of 1 part nitrogen stabilized wood shavings to 2 parts topsoil. Materials shall be thoroughly mixed before placement. In addition to backfill, commercial fertilizer 20-10-5 Agriform 21-gram tablets shall be added to plant pits at the following rates:</p> <table border="1"> <tr><td>1 tablet per 1 gallon container</td></tr> <tr><td>2 tablets 5 gallon container</td></tr> <tr><td>3 tablets per 15 gallon container</td></tr> <tr><td>4 tablets per 24" box</td></tr> <tr><td>5 tablets per 30" box</td></tr> <tr><td>6 tablets per 36" box</td></tr> <tr><td>7 tablets per 42" box</td></tr> <tr><td>8 tablets per 48" box and those box sizes which are larger</td></tr> </table> <p>No paks to be used for seasonal color areas. See Section XI below.</p> <p>I. WATERING: When the pit has been backfilled to three quarters of its depth water shall be poured about the roots. Air pockets shall be eliminated and backfill continued until the backfill is brought to grade level.</p> <p>J. COMPACTING: Backfill shall not be compacted around the roots or ball of the plant during or after planting. The backfill on which the plant ball rests shall be lightly compacted.</p> <p>K. SETTLEMENT: Plants which settle shall be raised to the required level or replaced at the option of the Contractor. Raised plants which fail to grow shall be replaced.</p> <p>L. STAKING: Stakes shall be driven to sufficient depth to hold the tree rigid. Trees shall be supported by at least two ties (see details).</p> <p>M. PRUNING: Pruning shall be done only as directed by the Owner's Representative, and shall comply with ANSI A300 Standard Practices for Trees, Shrubs and Other Woody Plant Maintenance. In no instance shall topping, flush pruning cuts or other damaging actions be acceptable; any final cuts for removal of a lateral branch shall be made close to the trunk or parent limb, but without cutting into the branch bark ridge, collar, or leaving a stub.</p> <p>N. PLANTING BEDS: Planting beds shall be edged and cultivated to the line separating areas as shown. Beds shall be brought to a smooth even surface conforming to established grades after full settlement has occurred.</p> <p>IX. GROUND COVER AREAS:</p> <ol style="list-style-type: none"> REFERENCE: Refer to Paragraph V, VI, VII, for finish grading, weed control, and soil preparation. SOIL PREPARATION: Amend the site soil in all planting areas per Surface Soil Preparation section of the Agricultural Soils Report as specified on the planting notes. GRADING: Areas shall be raked and floated smooth to provide a true and uniform surface. PLANT PITS AND FERTILIZER: Planting pits for ground cover shall be 4' x 4' or adequate to accept plant material from flats or 4' pots without crushing or deforming the rootball. Place a 20-10-5 Agriform 5 gram fertilizer tablet in each individual ground cover pit. SPACING: Plant according to spacing in areas indicated on the drawings. Soil shall be firmly tamped around each plant, and the excess soil removed from the crown. WATERING: Each section of ground cover shall be immediately watered upon completion of planting, and thereafter as required. SPACING FROM EDGE: The first row of ground cover should be placed at the half distance of the plant size shown on plan from the edge of planting area and triangle-spaced. <p>X. SEASONAL COLOR (IF APPLICABLE):</p> <ol style="list-style-type: none"> REFERENCE: Refer to Paragraph V, VI, VII, for finish grading, weed control, and soil preparation. SOIL PREPARATION: Prepare the soil as per these specifications and the Planting Notes on the Planting Plan. GRADING: Areas shall be raked and floated smooth to provide a true and uniform surface. QUALITY OF PLANTS: Plants shall be healthy annual plant material in bloom in the size indicated on the drawings. PLANT PITS AND FERTILIZER: Each plant pit for seasonal color shall be 6' x 6', or adequate to accept material in the required size, with one teaspoon of bone meal mixed into the backfill mix (shrub backfill mix should be used, but without the Agriform plant tablets). SPACING: Plant at spacing and in areas indicated on the drawings. Soil shall be firmly tamped around each plant, and the excess soil removed from the crown. <p>Y. SOD LAWN MATERIALS AND PLANTING (IF APPLICABLE):</p> <ol style="list-style-type: none"> REFERENCE: Refer to Paragraph V, VI, VII, for finish grading, weed control, and soil preparation. PREPARATION: Sod area prior to planting shall be rolled lightly and watered to a depth of 6" the day prior to planting. If any air pockets are found, the area shall be regraded as necessary. Lightly water the area to be planted just prior to planting. QUALITY: Sod shall be #1 Grade, machine cut at uniform thickness of 5/8" excluding top growth and thatch, weed free and shall be no less than eight months nor more than sixteen months old. TIMING: Installation shall take place within 24 hours after harvesting. INSTALLATION: Sod shall be laid in a staggered pattern, with tight joints and in the same direction each time. On all slopes greater than 3:1, sod shall be installed from the bottom up and the newly installed sod should be protected by walking on boards as installer moves upward. On such slopes, pin the sod down with wooden pegs. No metal staples will be allowed. No sod of less than 18" in length will be allowed. JOINTS: Adjoin the sections of sod firmly together. If air spaces occur between sections of sod they must be filled with sand or the sod re-laid. ROLLING: Roll sod with an adequately weighted roller to smooth out the sod bed. PROTECTION OF EDGES: Regrade to protect the edges from drying if mowing edge is not used. WATERING: After installation sod must be kept thoroughly watered to a depth of 6". No foot traffic shall be allowed for 2 to 3 weeks from the date of installation. INSPECTION BY SUPPLIER: If there are any questions regarding the quality of sod installation a representative of the supplier shall be requested to inspect the installation and the Contractor shall call out the supplier's representative. <p>XI. SOD LAWN PLANTING (IF APPLICABLE):</p> <ol style="list-style-type: none"> REFERENCE: Refer to Paragraph V, VI, VII, for finish grading, weed control, and soil preparation. PREPARATION: Cultivate to a depth of 2" below finish grade, remove stones, foreign growth of any kind and extraneous matter, and grade to remove ridges and depressions so that areas after settlement will conform to the finish grade. Roll and rake lightly until the surface is smooth, friable and of uniform fine texture. SOWING: Sow lawn seed in the area designated on the drawings at the rate as designated on the Planting Plans. Sow the lawn in two directions. TOP DRESSING: Rake lightly, spread 1/4" of Par-5 top dressing with a mechanical spreader, roll with a 200 lbs. roller and water with a fine spray. <p>XII. HYDROSEEDING SPECIFICATIONS (IF APPLICABLE):</p> <ol style="list-style-type: none"> GENERAL: The hydromulch shall be applied in the form of a slurry consisting of wood cellulose fiber, seed, chemical additives, commercial fertilizer and water. When hydraulically sprayed on the soil surface, the hydromulching shall form a blotter like ground cover impregnated uniformly with seed and fertilizer and shall allow the absorption of moisture and rainfall to percolate to the underlying soil. EQUIPMENT: Hydraulic equipment used for the application of the fertilizer, seed, and slurry of prepared wood pulp shall be of the "super hydro-seeder" type as approved by the Owner's Representative. APPLICATION: The operator shall spray the area with a uniform visible coat by using the green color of the wood pulp as a guide. The slurry shall be applied in a sweeping motion in a arched stream so as to fall like rain allowing the wood fibers to build on each other until a good coat is achieved and the material is spread at the required rate per acre. TIME LIMIT: All slurry mixture which has not been applied within four hours after mixing will be rejected and removed from the project at the Contractor's expense. PROTECTION: Special care should be exercised by the Contractor in preventing any of the slurry being sprayed inside any reservoir basin or onto drainage ditches and channels which may impede the free flow of rain or irrigation water. Any slurry spilled into restricted areas shall be cleaned up at the Contractor's expense to the satisfaction of the Owner or Owner's Representative. Maintenance AND IRRIGATION: Once the slurry mulch has been applied and allowed to set for one day, the slope shall then be irrigated. There is no set irrigation requirements in gallons per minute. Duration of time and number of gallons to be applied will vary from day to day and system to system depending on the rate of growth and climatic conditions encountered. As a rule of thumb, the soil surface must be kept moist at all times, particularly during the seedling germination period (approximately 30 days). <p>G. WATERING: Each section of seasonal color shall be immediately watered upon completion of planting, and thereafter as required.</p> <p>H. SPACING FROM EDGE: The first row of seasonal color shall be within 6" of the edge of the planting area.</p> <p>G. RESeeding: All bare spots shall be reseeded (sodded, if hydroseed is turf mix), by the Contractor within 45 days providing the lack of cover growth or mulch is not due to inadequate irrigation or erosion caused by excessive watering by the Owner.</p> <p>XV. REPLACEMENTS:</p> <ol style="list-style-type: none"> GENERAL: The Contractor shall immediately replace any and all materials which for any reason die or are damaged while under the Contractor's care. Replacements shall be made with plant of like kind and size in the same manner as specified for the original planting (see guarantee "XVII-D" for definition of death and replacement). <p>XVI. CLEAN-UP:</p> <ol style="list-style-type: none"> GENERAL: After all installation operations have been completed, all trash, excess soil, empty plant containers and rubbish shall be removed from the property. All scars, ruts or other marks in the area caused by this work shall be repaired and the ground left in a neat and orderly condition throughout the site. Contractor shall pick up all trash resulting from this work no less than each Friday before leaving the site, once a week and/or the last working day each week. All trash shall be removed completely from the site. TOP SOIL: Excess topsoil shall be removed from the site. NEATNESS: Leave the sidewalks and street in a neat and clean condition at the end of each working day. REMOVAL OF TAGS: Remove all tags, labels, nursery stakes and ties from all plants unless otherwise directed, and only at the end of all installations. <p>XVII. PROTECTION:</p> <ol style="list-style-type: none"> GENERAL: At all times during construction, adequate protection shall be provided for all areas against damage of any kind, until final acceptance by the Owner's Representative. RESPONSIBILITY: the Contractor shall be held responsible for the care and preservation of all existing buildings and structures on the property and adjacent premises. Any part of them injured, damaged or disturbed because of his work shall be repaired, replaced or cleaned by the Contractor at his expense. <p>XVIII. GUARANTEE:</p> <ol style="list-style-type: none"> SHRUBS: All shrubs shall be guaranteed as to growth and health for a period of ninety (90) days after completion of the specified maintenance period and/or final acceptance by the Owner or Owner's Representative. TREES: Trees shall be guaranteed to live and grow in an acceptable upright position for one (1) year after the specified maintenance period and/or final acceptance by the Owner or Owner's Representative. The Owner must provide adequate maintenance to ensure the extended guarantee on trees. DEFINITION OF DEATH: Plants which die or lose more than 30% of their original leaves shall be replaced. REPLACEMENT: The Contractor, within seven (7) days of written notification by the Owner or Owner's Representative, shall remove and replace all guaranteed plant materials which for any reason fail to meet the requirements of this guarantee. Replacement shall be made with plant material as indicated or specified from the original planting and all such replacement materials shall be guaranteed as specified for the original guaranteed material. <p>XIX. MAINTENANCE:</p> <ol style="list-style-type: none"> SCOPE: After all work indicated on the drawings or herein specified has been completed, inspected, and approved by the Owner or Owner's Representative, the Contractor shall maintain all planted areas by means of continuous watering (including monitoring and adjusting irrigation schedule), weeding, rolling, mowing, pest control, reseeding, edging and/or any other operations necessary for their care and upkeep for a period of not less than ninety (90) days. At the end of the maintenance period, all plant materials shall be in a healthy, growing condition. WEED CONTROL: All planted areas shall be kept free of debris and shall be weeded at not more than seven (7) day intervals. Areas that do not have a pre-emergent weed killer shall also be cultivated at not more than seven (7) day intervals. FERTILIZING: All planted areas shall receive a fertilizer as required per soils report recommendations. For bid purposes only, application rate shall be 20 pounds per 1,000 square feet of Gro-Power 45 days following the beginning of maintenance. Water in thoroughly after application. CONDITION OF SITE: During the maintenance period, keep the project neat and free from debris at all times. Obtain the Owner's approval for on-site storage of equipment or maintenance materials. PEST MANAGEMENT: Maintain surveillance for pests to minimize damage to plants and irrigation equipment. Eliminate pests by certified pest control professionals who prioritize non-chemical, biological, cultural or physical control methods to minimize health, environmental and financial risks. <p>XX. FINAL CONSTRUCTION AND FINAL MAINTENANCE INSPECTION:</p> <p>A. FINAL CONSTRUCTION INSPECTION:</p> <p>When all landscape improvements have been installed in accordance with the plans and specifications, the Contractor shall notify the Owner's Representative and request a "Final Construction" inspection. If the Owner's Representative determines the work to be substantially complete and in conformance with plans and specifications, the Contractor will be advised that the basic ninety (90) day maintenance period is started.</p> <ol style="list-style-type: none"> In order to be substantially complete, at least the following must have been finished: <ol style="list-style-type: none"> All fine grading, including elimination of low points that hold standing water (exclude bio retention areas after rain) and water run-off onto non-permeable surfaces. A complete and operable irrigation system. Installation of all plant materials. Seeding of all seeded areas. Minor pick-up items may be completed during the basic maintenance period. These items will be determined as Minor solely by the Owner's Representative. <p>B. STABILIZER WATERING: Evenly spread material in 2' lifts and grade smooth. Thoroughly water entire area so that the entire depth of the material is moist. After a period of 6 hours, compact the final lift with a mechanical compactor. Allow for a sufficient curing period of 4 days prior to use.</p>		1 tablet per 1 gallon container	2 tablets 5 gallon container	3 tablets per 15 gallon container	4 tablets per 24" box	5 tablets per 30" box	6 tablets per 36" box	7 tablets per 42" box	8 tablets per 48" box and those box sizes which are larger	<p>minimum depth of 4" mechanically compacted. For planting area as landscape mulch, use decomposed granite without binder. Decomposed granite shall be placed to at depth of 2", moderately compacted.</p> <p>IV. OBSTRUCTIONS BELOW GROUND:</p> <p>A. CONTRACTOR'S RESPONSIBILITY: the Contractor is responsible for verifying the location of all utility lines and other underground obstructions so that proper precautions may be taken not to disturb or damage such improvements. In the event of a conflict between such lines and plant locations, the Contractor shall promptly notify the Owner's Representative, who shall arrange for the relocation of one or the other. Failing to follow this procedure, the Contractor shall at his own expense make any and all repairs for damages resulting from his work.</p> <p>V. FINISH GRADING:</p> <p>A. TILLING: Till all planting areas as specified herein.</p> <p>B. UNIFORM GRADE: After tilling, all areas shall be brought to uniform grade by floating or hand raking.</p> <p>C. GRADE RELATIONSHIPS: Finish grade of planting areas after application of soil amendments shall be 1" below top of concrete walks and curb grades and 6" below finish floor of building or as noted by spot elevations.</p> <p>D. SLOPE FROM BUILDINGS: soil areas adjacent to buildings shall slope away from the building at 2% minimum for 10 feet and shall continue to slope at a minimum of 1% until water drains to street or storm system.</p> <p>E. ROCKS OR CLODS: No rocks or clods over 3/4" in diameter shall be top of prepared planting beds.</p> <p>VI. WEED CONTROL:</p> <p>A. KILLING WEEDS: Contractor shall germinate and destroy existing weed seeds before preparing areas for planting. Sufficient water shall be applied to cause weed seed to sprout. Young weeds shall then be destroyed and removed before they have opportunity to set seed.</p> <p>B. ADDITIONAL REQUIREMENTS: For additional weed killing refer to Planting Notes on the Planting Plan.</p> <p>VII. SOIL PREPARATION:</p> <p>A. IMPORT SOIL REPORT: Should import soil be placed in planting areas, Contractor shall have import soils tested by an approved California Association of Agricultural Laboratories member and submit to the Owner and Owner's Representative for approval prior to placing the soil on site. The report shall also have soil amendment recommendations.</p> <p>B. SITE SOIL REPORT: Prior to starting soil preparation the Contractor shall have site soils tested by an approved California Association of Agricultural Laboratories member and submit to the Owner and Owner's Representative prior beginning of landscape work. Follow the Surface Soil Preparation recommendations for all planting areas and Tree and Shrub Backfill Mix recommendations for tree and shrub planting.</p> <p>C. COMPACTED AREAS: Soil areas that are compacted to more than 90% during site preparation shall be ripped to a minimum of 12" prior to beginning soil preparation.</p> <p>D. METHOD OF MIXING: If the slope is under 2 to 1, the soil preparation materials should be broadcast uniformly over all landscape areas and worked to a depth of 6" by rototiller or other acceptable mechanical means to obtain a uniform blend in the soil. If the slope is greater than 2 to 1, the amendments shall be hydraulically applied for areas over 1000 square feet and raked in for small areas. For the soil amendment bid mix refer to the Planting Notes on the Planting Plan.</p> <p>E. EXTRANEIOUS MATERIALS: In addition to the work specified above, the Contractor shall remove all extraneous materials that are exposed on the surface and grade to facilitate run-off of surface water.</p> <p>F. DELIVERY SLIPS: Supply delivery slips from the supplier for the soil amendments to the site and empty bags for fertilizer to the Superintendent of the job and the Owner's Representative at first field review. Bulk loads of soil amendments from the Contractor's yard will not be accepted.</p> <p>VIII. SHRUB AND TREE PLANTING</p> <p>A. CORRELATION: Trees and shrubs shall not be planted until all operations in conjunction with the installation of the irrigation system have been completed, final grades have been established, and the planting beds properly prepared by cultivation and fertilization as covered in these specifications.</p> <p>B. PLANTING TIME: No planting shall take place during extremely hot, dry, windy or freezing weather.</p> <p>C. LOCATIONS: Relative positions of all plants and trees are subject to approval of the Owner's Representative and they shall, if necessary, be relocated at his direction as part of this contract. Trees shall normally be located a minimum of 5' from buildings, site amenities and walkways.</p> <p>D. DISTRIBUTION: No more plants shall be distributed about the landscape area than can be planted and watered on the same day.</p> <p>E. CONTAINER REMOVAL: Plant containers shall be removed when planting the plants. Container may be split on both sides, however, without use of axe or spade. All containers shall be removed from the site.</p> <p>F. PLANTING PITS: Excavate all tree and shrub pits at least twice the rootball diameter. Pit depth shall be the same as the height of the rootball with a minimum of 6" additional depth at perimeter of plant pit. For planting in clay soil, see applicable details. Roughen sides and bottom of pit prior to placing the rootball, see details. Perform percolation test prior to tree planting per Planting Notes. Install drain sump pipe if soil fails percolation test per tree planting detail.</p> <p>G. PLACING: Plants shall be placed and held during backfill in an upright position in the center of the pit. Plants shall be held at, or slightly above nursery level. The earth ball shall be kept intact. Any exposed roots shall be spread out. Injured roots shall be pruned.</p> <p>H. BACKFILL: Contractor shall refer to Soils Report for final recommendations. (For bidding purposes only). Plant pit backfill soil shall consist of 1 part nitrogen stabilized wood shavings to 2 parts topsoil. Materials shall be thoroughly mixed before placement. In addition to backfill, commercial fertilizer 20-10-5 Agriform 21-gram tablets shall be added to plant pits at the following rates:</p> <table border="1"> <tr><td>1 tablet per 1 gallon container</td></tr> <tr><td>2 tablets 5 gallon container</td></tr> <tr><td>3 tablets per 15 gallon container</td></tr> <tr><td>4 tablets per 24" box</td></tr> <tr><td>5 tablets per 30" box</td></tr> <tr><td>6 tablets per 36" box</td></tr> <tr><td>7 tablets per 42" box</td></tr> <tr><td>8 tablets per 48" box and those box sizes which are larger</td></tr> </table> <p>No paks to be used for seasonal color areas. See Section XI below.</p> <p>I. WATERING: When the pit has been backfilled to three quarters of its depth water shall be poured about the roots. Air pockets shall be eliminated and backfill continued until the backfill is brought to grade level.</p> <p>J. COMPACTING: Backfill shall not be compacted around the roots or ball of the plant during or after planting. The backfill on which the plant ball rests shall be lightly compacted.</p> <p>K. SETTLEMENT: Plants which settle shall be raised to the required level or replaced at the option of the Contractor. Raised plants which fail to grow shall be replaced.</p> <p>L. STAKING: Stakes shall be driven to sufficient depth to hold the tree rigid. Trees shall be supported by at least two ties (see details).</p> <p>M. PRUNING: Pruning shall be done only as directed by the Owner's Representative, and shall comply with ANSI A300 Standard Practices for Trees, Shrubs and Other Woody Plant Maintenance. In no instance shall topping, flush pruning cuts or other damaging actions be acceptable; any final cuts for removal of a lateral branch shall be made close to the trunk or parent limb, but without cutting into the branch bark ridge, collar, or leaving a stub.</p> <p>N. PLANTING BEDS: Planting beds shall be edged and cultivated to the line separating areas as shown. Beds shall be brought to a smooth even surface conforming to established grades after full settlement has occurred.</p> <p>IX. GROUND COVER AREAS:</p> <ol style="list-style-type: none"> REFERENCE: Refer to Paragraph V, VI, VII, for finish grading, weed control, and soil preparation. SOIL PREPARATION: Amend the site soil in all planting areas per Surface Soil Preparation section of the Agricultural Soils Report as specified on the planting notes. GRADING: Areas shall be raked and floated smooth to provide a true and uniform surface. PLANT PITS AND FERTILIZER: Planting pits for ground cover shall be 4' x 4' or adequate to accept plant material from flats or 4' pots without crushing or deforming the rootball. Place a 20-10-5 Agriform 5 gram fertilizer tablet in each individual ground cover pit. SPACING: Plant according to spacing in areas indicated on the drawings. Soil shall be firmly tamped around each plant, and the excess soil removed from the crown. WATERING: Each section of ground cover shall be immediately watered upon completion of planting, and thereafter as required. SPACING FROM EDGE: The first row of ground cover should be placed at the half distance of the plant size shown on plan from the edge of planting area and triangle-spaced. <p>X. SEASONAL COLOR (IF APPLICABLE):</p> <ol style="list-style-type: none"> REFERENCE: Refer to Paragraph V, VI, VII, for finish grading, weed control, and soil preparation. SOIL PREPARATION: Prepare the soil as per these specifications and the Planting Notes on the Planting Plan. GRADING: Areas shall be raked and floated smooth to provide a true and uniform surface. QUALITY OF PLANTS: Plants shall be healthy annual plant material in bloom in the size indicated on the drawings. PLANT PITS AND FERTILIZER: Each plant pit for seasonal color shall be 6' x 6', or adequate to accept material in the required size, with one teaspoon of bone meal mixed into the backfill mix (shrub backfill mix should be used, but without the Agriform plant tablets). SPACING: Plant at spacing and in areas indicated on the drawings. Soil shall be firmly tamped around each plant, and the excess soil removed from the crown. <p>Y. SOD LAWN MATERIALS AND PLANTING (IF APPLICABLE):</p> <ol style="list-style-type: none"> REFERENCE: Refer to Paragraph V, VI, VII, for finish grading, weed control, and soil preparation. PREPARATION: Cultivate to a depth of 2" below finish grade, remove stones, foreign growth of any kind and extraneous matter, and grade to remove ridges and depressions so that areas after settlement will conform to the finish grade. Roll and rake lightly until the surface is smooth, friable and of uniform fine texture. SOWING: Sow lawn seed in the area designated on the drawings at the rate as designated on the Planting Plans. Sow the lawn in two directions. TOP DRESSING: Rake lightly, spread 1/4" of Par-5 top dressing with a mechanical spreader, roll with a 200 lbs. roller and water with a fine spray. <p>XII. HYDROSEEDING SPECIFICATIONS (IF APPLICABLE):</p> <ol style="list-style-type: none"> GENERAL: The hydromulch shall be applied in the form of a slurry consisting of wood cellulose fiber, seed, chemical additives, commercial fertilizer and water. When hydraulically sprayed on the soil surface, the hydromulching shall form a blotter like ground cover impregnated uniformly with seed and fertilizer and shall allow the absorption of moisture and rainfall to percolate to the underlying soil. EQUIPMENT: Hydraulic equipment used for the application of the fertilizer, seed, and slurry of prepared wood pulp shall be of the "super hydro-seeder" type as approved by the Owner's Representative. APPLICATION: The operator shall spray the area with a uniform visible coat by using the green color of the wood pulp as a guide. The slurry shall be applied in	1 tablet per 1 gallon container	2 tablets 5 gallon container	3 tablets per 15 gallon container	4 tablets per 24" box	5 tablets per 30" box	6 tablets per 36" box	7 tablets per 42" box	8 tablets per 48" box and those box sizes which are larger
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