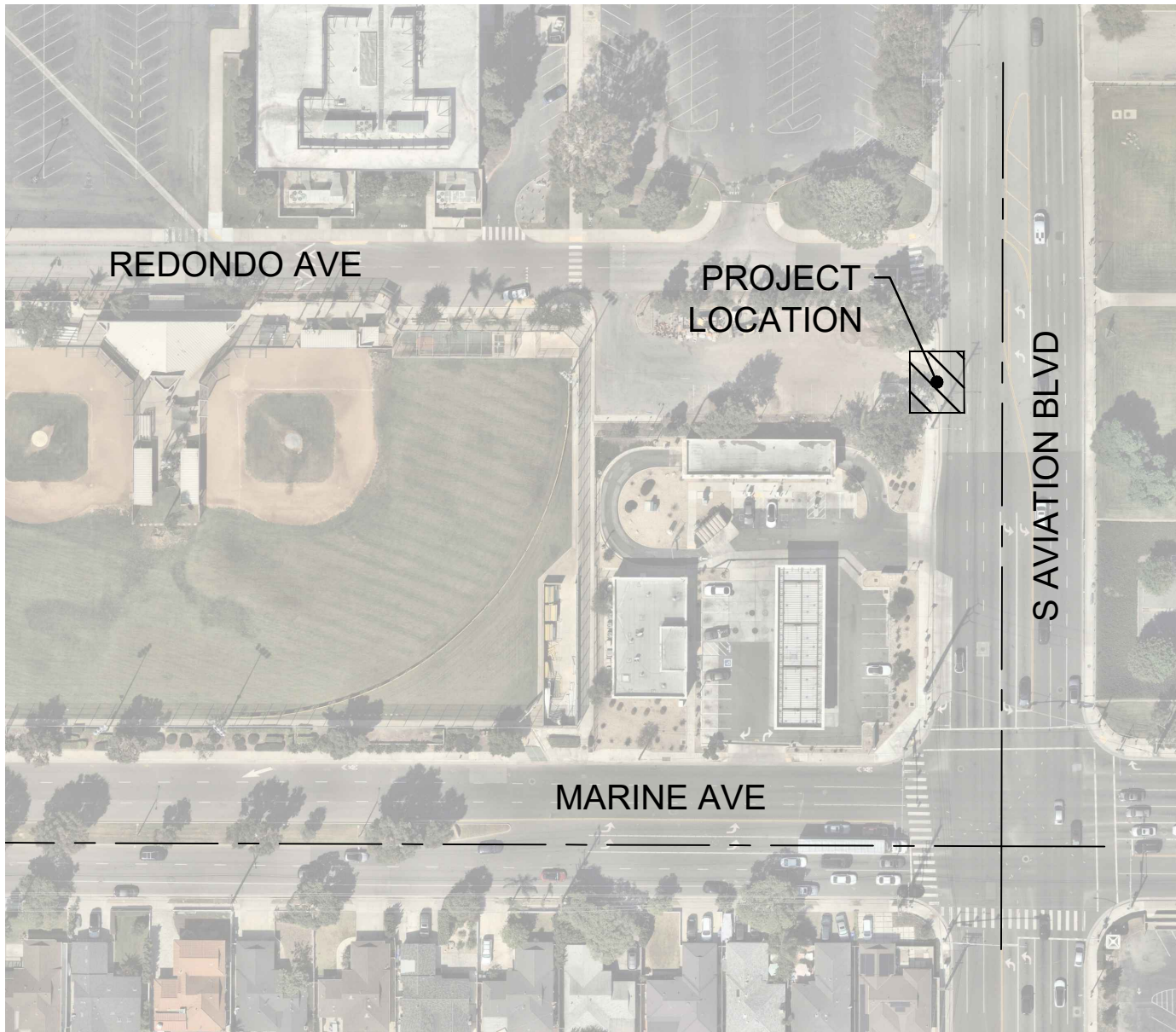


CITY OF MANHATTAN BEACH
STORMWATER TRASH CAPTURE IMPROVEMENTS



LOCATION MAP:
SCALE 1" = 100'

SITE ADDRESS

2301 N AVIATION BLVD
MANHATTAN BEACH, CA 90266
APN: 4138027012

PROJECT TEAM:

OWNER: PUBLIC WORKS DEPARTMENT, CITY OF MANHATTAN BEACH
DESIGN ENGINEER: GEOSYNTEC CONSULTANTS, INC.

Table with 3 columns: SHEET NO., DRAWING NO., SHEET TITLE. Rows include Title Sheet, HDS Site Plan, and ADA Ramp Improvements.

SURVEY DATUM:

HORIZONTAL DATUM: CALIFORNIA COORDINATE SYSTEM OF 1983, CCS83, ZONE 5 (2010)

VERTICAL DATUM: NAVD88; ELEV=83.75 FT

BENCHMARK: LOS ANGELES COUNTY BM "QY11742"

DESCRIPTION: LADPW BM TAG LOCATED AT AN ANGLE POINT IN CURB OF HOTEL PARKING LOT @ SE CORNER OF ROSECRANS AVE AND AVIATION BLVD, 230 FEET SOUTH AND 82 FEET EAST OF THE CENTERLINE INTERSECTION.

DRAFT - CONSTRUCTION DRAWINGS

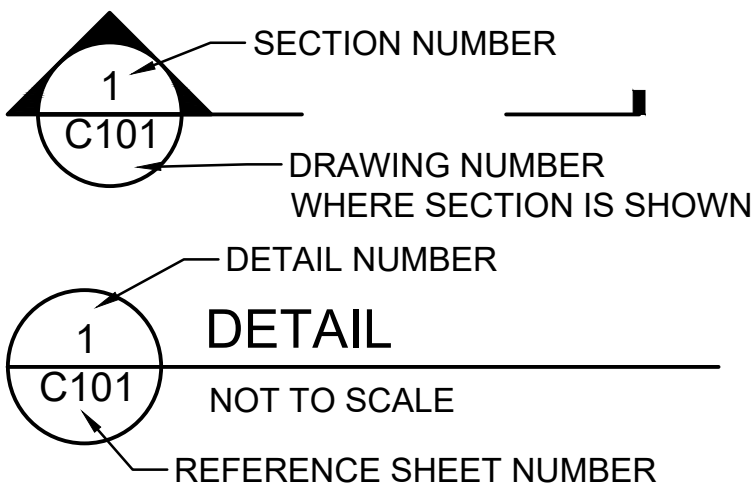
ABBREVIATIONS

Table mapping abbreviations to full names: ACP (Asphalt Concrete), APN (Assessor's Parcel Number), BMP (Best Management Practice), etc.

LEGEND:

Table mapping line styles to features: Dashed line for Property Line, Solid line for Right-of-Way Line, etc.

SYMBOLS:



GENERAL NOTES:

- 1. PRIOR TO START OF CONSTRUCTION, VERIFY ALL EXISTING CONDITIONS INCLUDING UTILITIES AND SUBSURFACE CONDITIONS REQUIRED TO PERFORM WORK.
- 2. SHOULD CONFLICTING INFORMATION BE FOUND ON THE PLANS, NOTIFY THE ENGINEER BEFORE PROCEEDING WITH THE WORK IN QUESTION.

EROSION & SEDIMENT CONTROL NOTES:

- 1. ALL CONSTRUCTION/DEMOLITION, GRADING, AND STORAGE OF BULK MATERIALS MUST COMPLY WITH THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT (SCAQMD) RULE 403 FOR FUGITIVE DUST.
- 2. ALL DEBRIS SHALL BE CLEANED UP DAILY AND SECURED AT THE END OF THE DAY.

SPECIFICATIONS:

- 1. GENERAL: 1.1. ALL WORK SHALL CONFORM TO THE LATEST EDITION AND SUPPLEMENTS OF "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" (GREENBOOK).
- 2. EARTHWORK: 2.1. NO FILL TO BE PLACED UNTIL EXCAVATION BOTTOM HAS BEEN INSPECTED AND APPROVED BY THE ENGINEER.

- AS FILL MATERIAL. SCREENED NATIVE MATERIALS SHALL BE FREE OF ORGANIC MATTER, DELETERIOUS MATERIALS, AND ROCKS OR OTHER OBJECTS LARGER THAN 2 INCHES.
- 2.4. ALL FILL SHALL BE COMPACTED TO THE FOLLOWING MINIMUM RELATIVE COMPACTION CRITERIA: 2.4.1. BASE MATERIAL UNDER ALL PAVEMENT MATERIALS INCLUDING CONCRETE AND ASPHALT CONCRETE: 95 PERCENT
- 3. PIPE AND FITTINGS: 3.1. PIPE BEDDING, WHERE REQUIRED, SHALL BE ONE OF THE FOLLOWING: 3.1.1. SAND 3.1.2. GREENBOOK SECTION 200-1.2.1 1/2 CRUSHED ROCK 3.1.3. UNDISTURBED NATIVE FREE DRAINING MATERIAL

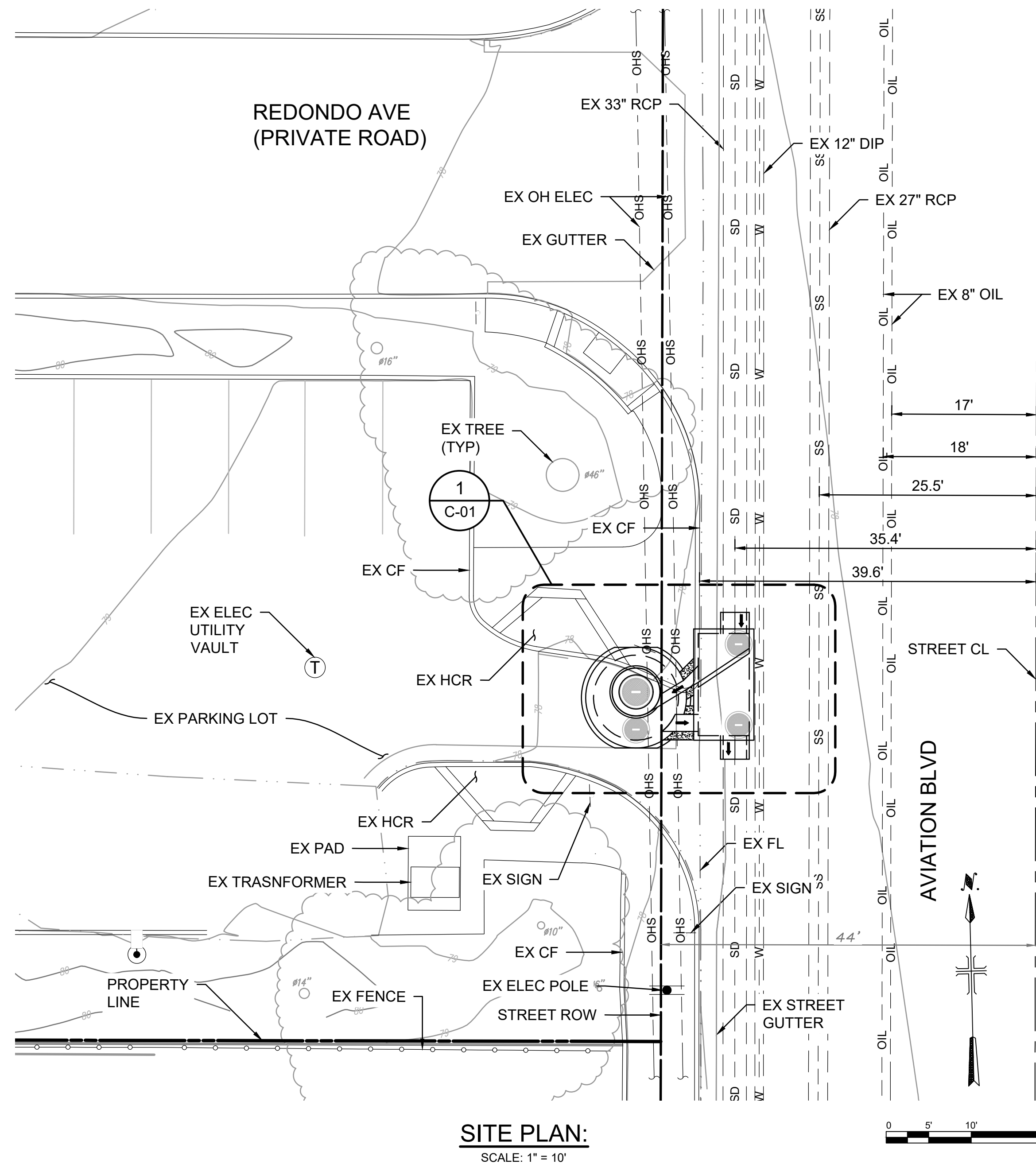


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TWO WORKING DAYS BEFORE YOU DIG

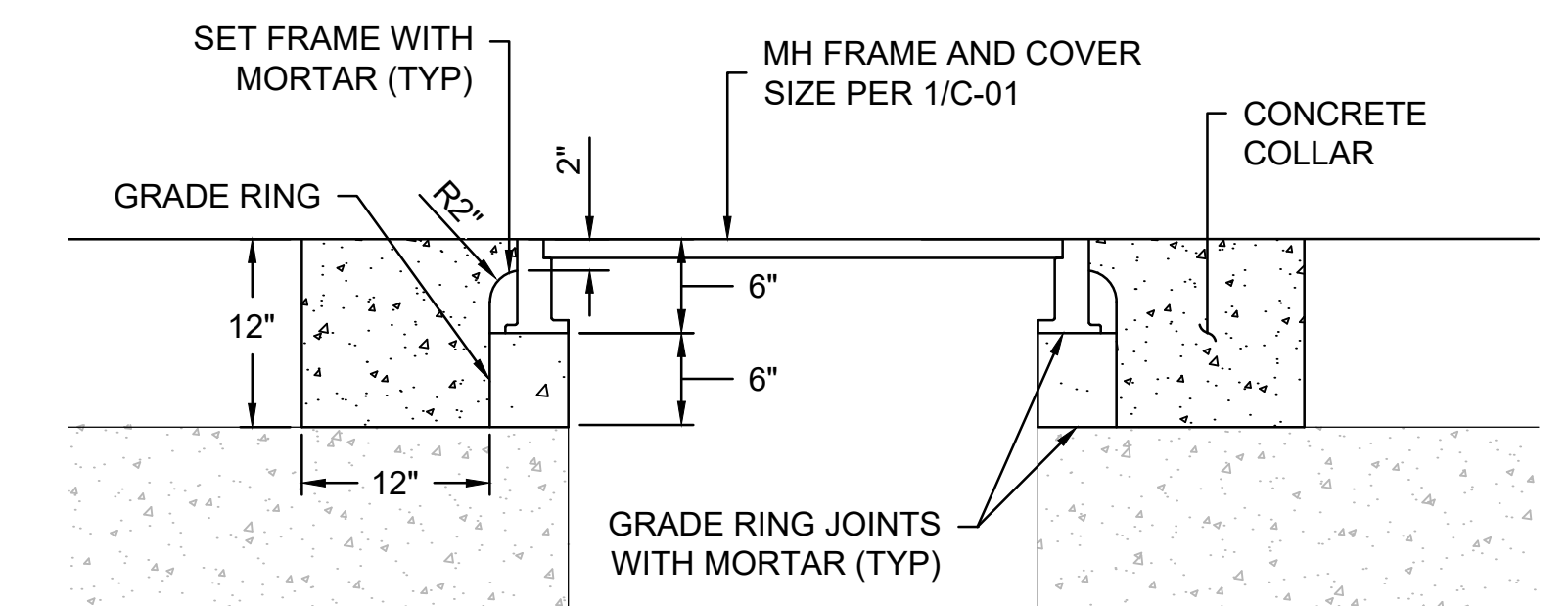
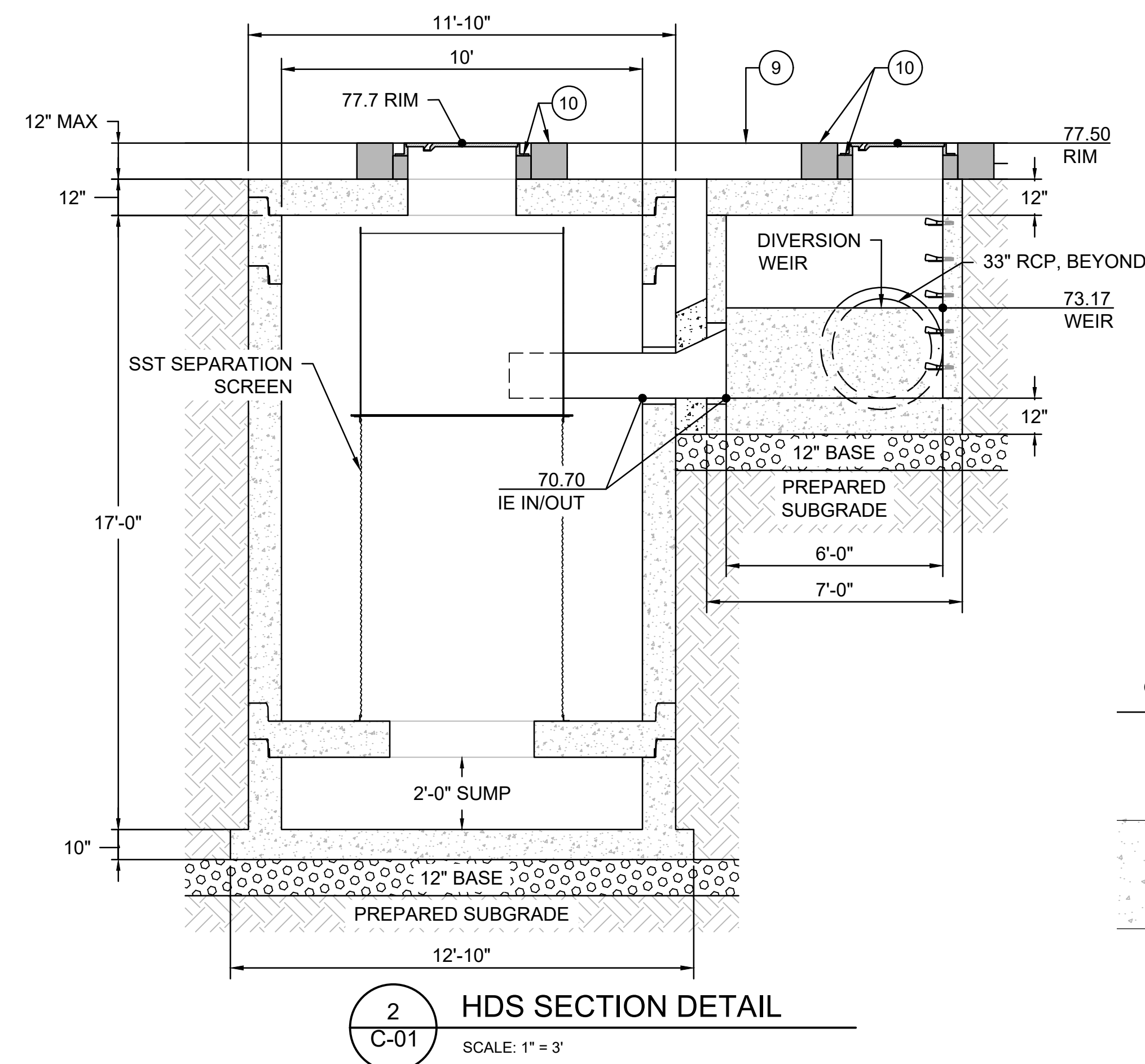
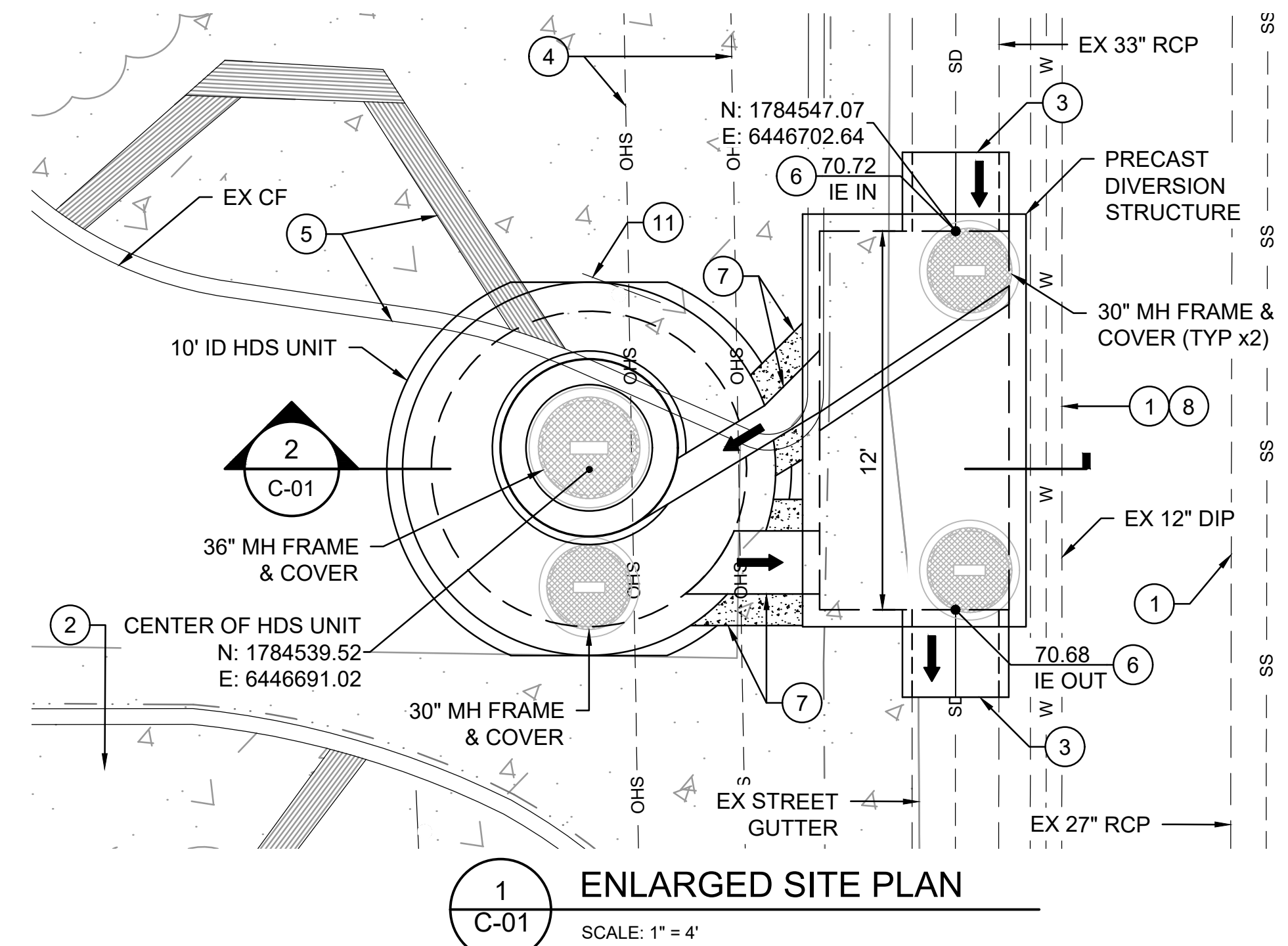
Bottom section containing revision table, project metadata (Designed by, Drawn by, etc.), logos (Geosyntec, City of Manhattan Beach), project title, and job/drawing numbers.





GENERAL NOTES:

1. POTHOLE ALL EXISTING UTILITIES LOCATED WITHIN EXCAVATION FOOTPRINT.
2. FINAL DIVERSION STRUCTURE AND HYDRODYNAMIC SEPARATOR UNIT LOCATION MAY BE FIELD ADJUSTED BY THE ENGINEER.
3. PROTECT IN PLACE ALL UTILITIES ENCOUNTERED NEAR IMPROVEMENT LOCATIONS.
4. LIMITS OF ADA RAMP DEMO AND RECONSTRUCTION PER SHEET C-02.



DEFERRED CONTRACTOR SUBMITTALS:

1. TRAFFIC CONTROL PLANS PREPARED BY A LICENSED ENGINEER
2. SHORING SUBMITTAL PREPARED BY A LICENSED ENGINEER

CONSTRUCTION NOTES:

 SEE CORRESPONDING CONSTRUCTION NOTES BELOW:

1. POTHOLE EX UTILITY, PROTECT IN PLACE.
2. PROTECT IN PLACE EX CURB AND HCR.
3. DEMO AND RECONSTRUCT EX 33" RCP IN KIND TO THE NEAREST JOINT OUTSIDE OF THE DIVERSION STRUCTURE.
4. VERIFY CLEARANCE OF ALL OVERHEAD UTILITIES PRIOR TO MOBILIZATION. LIFT OPERATIONS MUST BE EXECUTED IN COMPLIANCE WITH OSHA REGULATIONS. COORDINATE WITH THE UTILITY PROVIDER, IF NECESSARY.
5. REPAIR ADA CURB & RAMP AFTER INSTALLATION OF HDS PER SHEET C-02.
6. VERIFY INVERT OF EX 33" RCP AT PROPOSED DIVERSION STRUCTURE INLET/OUTLET LOCATION PRIOR TO INSTALLATION OF PROPOSED IMPROVEMENTS. NOTIFY ENGINEER IF THE EX INVERT DEPTH(S) DIFFER FROM PLANS.
7. ENCASE INLET AND OUTLET CONDUITS IN CONCRETE COLLARS.
8. PROVIDE VERTICAL SUPPORTS AND PROTECT IN PLACE THE EX 12" DIP WATER LINE.
9. SEE SHEET C-02 FOR SURFACE RESTORATION LIMITS.
10. PROVIDE GRADE RINGS AND CONCRETE COLLAR AT MANHOLES PER 3/C-01.
11. REMOVE AND REPLACE EX TRAFFIC SIGN.

DRAFT - CONSTRUCTION DRAWINGS

REVISIONS						DESIGNED BY	DLJ
						DRAWN BY	DLJ
						CHECKED BY	JA
						APPROVED BY	JA
	REV	DATE	BY	CHK	APP	DESCRIPTION	
					DATE	JUNE 2025	

DESIGNED BY	DLJ
DRAWN BY	DLJ
CHECKED BY	JA
APPROVED BY	JA
DATE	JUNE 2025



PUBLIC WORKS DEPARTMENT  
CITY OF MANHATTAN BEACH

3621 BELL AVENUE  
MANHATTAN BEACH, CA 90266

# MANHATTAN BEACH STORMWATER TRASH CAPTURE IMPROVEMENTS

HDS SITE PLAN AND DETAILS

JOB NO.	CWR0935
DRAWING NO.	C-01
SCALE	AS SHOWN
SHEET NO.	2 OF 3



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June 16, 2025 - 2:52pm JAVing

GENERAL NOTES:

1. DEMO LIMITS SHOWN ARE APPROXIMATE AND MAY BE ADJUSTED PER CONTRACTOR METHODS AND MEANS.
2. GENERAL DRAINAGE PATTERNS SHALL BE RESTORED TO PRE-CONSTRUCTION CONDITIONS.
3. FOR ASPHALT REPAIR OR RECONSTRUCTION, USE MBSI-133A-0 (ST-10).

DRAFT - CONSTRUCTION DRAWINGS

						DESIGNED BY	JA
						DRAWN BY	JA
						CHECKED BY	DL
						APPROVED BY	DL
						DATE	JUNE 2025
REV	DATE	BY	CHK	APP	DESCRIPTION		



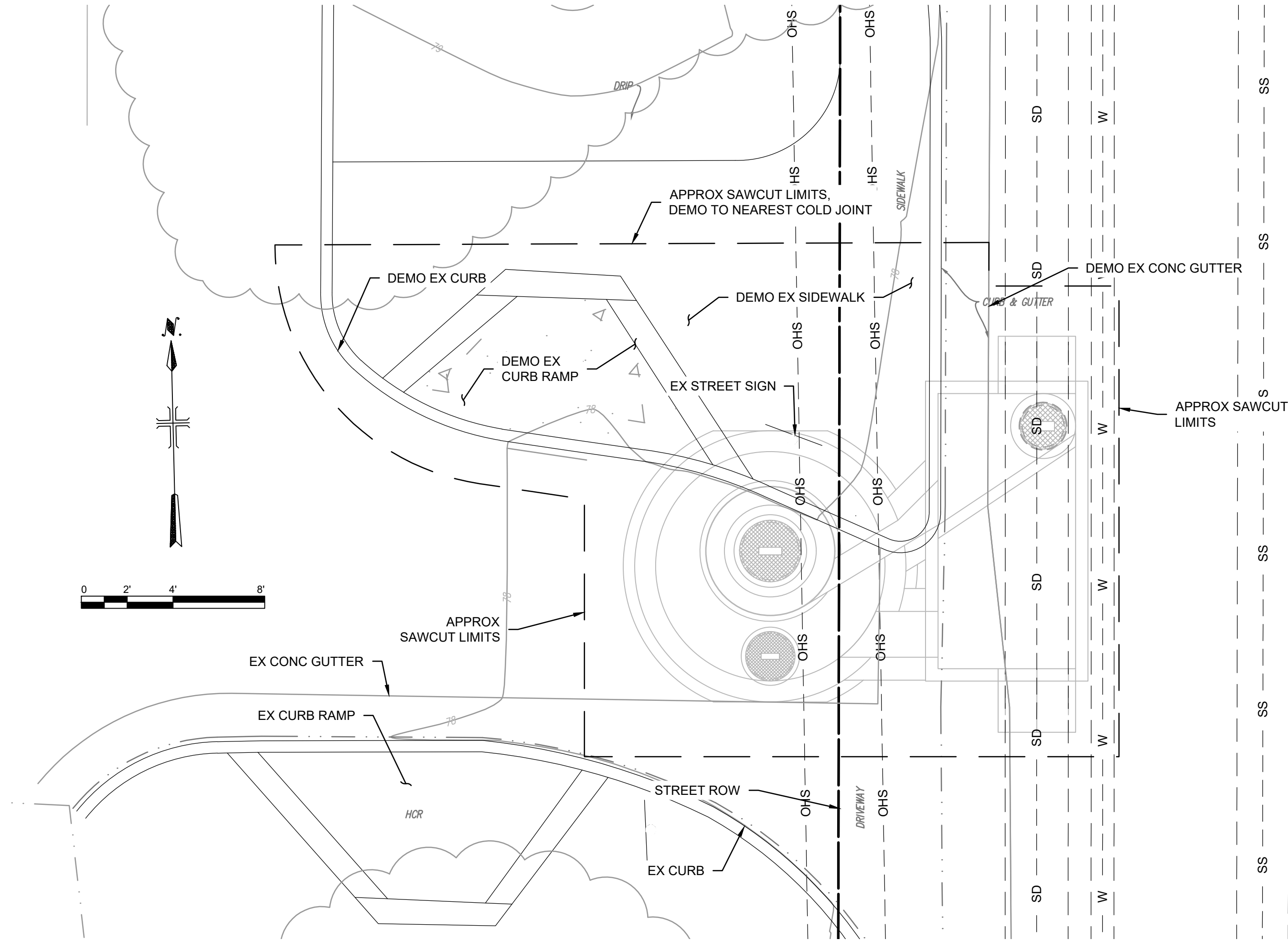
PUBLIC WORKS DEPARTMENT  
CITY OF MANHATTAN BEACH

3621 BELL AVENUE  
MANHATTAN BEACH, CA 90266

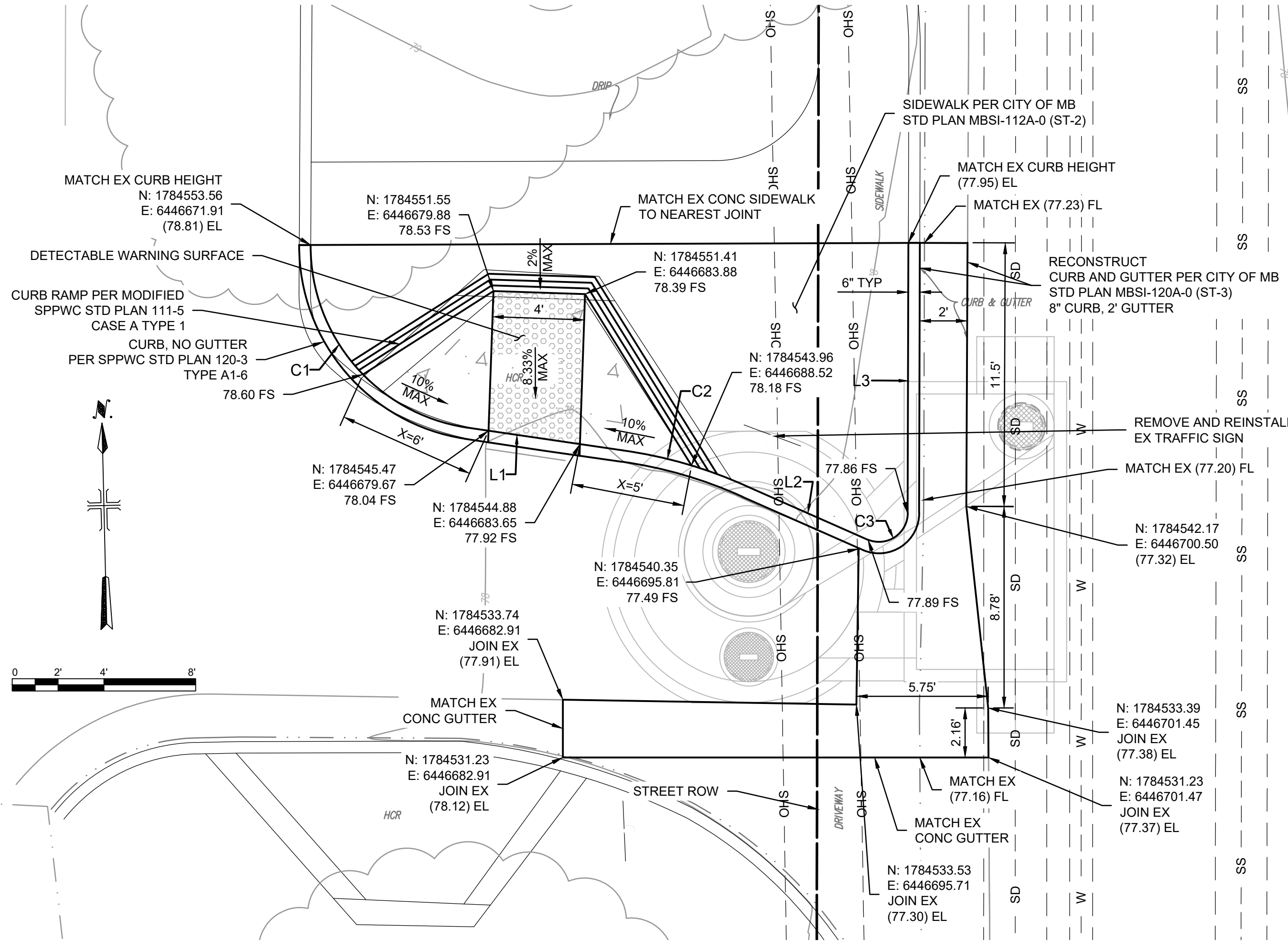
MANHATTAN BEACH STORMWATER  
TRASH CAPTURE IMPROVEMENTS

CURB RAMP DEMO & IMPROVEMENTS PLAN

JOB NO.	CWR0935
DRAWING NO.	C-02
SCALE	AS SHOWN
SHEET NO.	3 OF 3



DEMO SITE PLAN:  
SCALE: 1" = 4'



ADA RECONSTRUCTION SITE PLAN:  
SCALE: 1" = 4'

LINE TABLE				
LINE #	LENGTH (FT)	BEARING	START COORDINATES (N, E)	END COORDINATES (N, E)
L1	6.90	S81° 39' 55.51"E	(1784545.61, 6446678.70)	(1784544.61, 6446685.53)
L2	5.77	S66° 11' 49.94"E	(1784543.04, 6446690.94)	(1784540.71, 6446696.22)
L3	11.76	N00° 08' 39.44"E	(1784541.90, 6446697.94)	(1784553.66, 6446697.97)

CURVE TABLE					
CURVE #	LENGTH (FT)	RADIUS (FT)	DELTA	START COORDINATES (N, E)	END COORDINATES (N, E)
C1	11.40	8.00	081.64	(1784553.56, 6446671.91)	(1784545.61, 6446678.70)
C2	5.65	19.64	016.47	(1784544.61, 6446685.53)	(1784543.04, 6446690.94)
C3	2.48	1.26	112.95	(1784540.71, 6446696.22)	(1784541.90, 6446697.94)







GENERAL NOTES:

1. ALL WORK SHALL CONFORM TO THE STANDARD PLANS AND SPECIFICATIONS OF THE CITY OF MANHATTAN BEACH, LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS (LADCPW), STANDARD PLANS AND SPECIFICATIONS FOR PUBLI 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.
2. WORK NOT DONE IN THE PRESENCE OF THE CITY INSPECTOR IS SUBJECT TO REJECTION.
3. 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.
4. 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.
5. 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).
6. 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, RESPECTIVELY (UNLESS NOTED OTHERWISE).
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CLEARING AND CLEANING OF THE PROPOSED WORK AREA.
8. 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...
9. 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.
10. 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.
11. 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.
12. 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 ULTIMATE DISPOSAL IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REQUIREMENTS.
13. DEWATERING OF CONTAMINATED GROUNDWATER, OR DISCHARGING CONTAMINATED SOILS VIA SURFACE EROSION IS PROHIBITED. DEWATERING REQUIRES A NATIONAL-LEVEL PERMIT AND A NATIONAL DISCHARGE ELIMINATION SYSTEM PERMIT FROM THE RESPECTIVE STATE REGIONAL WATER QUALITY CONTROL BOARD.
14. 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.
15. 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 32).
16. 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.
17. 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.
18. 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.
19. 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 TRAFFIC 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.
20. USE OF TRENCH PLATING MAY BE APPROVED BY THE CITY ENGINEER UPON SUBMITTAL OF A PLATING PLAN AND APPROVAL OF PLANS BY THE CITY ENGINEER. ALL PLATES SHALL BE FIRMLY SUPPORTED ON ADJACENT PAVEMENT OR BE 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 TO 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 SLIPPAGE. 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.
21. 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.
22. 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 INCOMPLETE.
23. 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.
24. 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 THEREFOR FROM THAT AGENCY. THERE MAY BE A FEE THEREFOR PAYABLE BY CONTRACTOR.
25. IN SOME CASES MATCH LINES MAY OVERLAP FROM PLAN SHEET TO PLAN SHEET. CONTRACTOR SHOULD REVIEW PLANS THOROUGHLY.
26. 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 REPAVED 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.
27. 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 SIGNED AS REQUIRED AND PERMIT TO THE ENGINEER PRIOR TO EXCAVATION.

28. 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".
29. 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.
30. CONTRACTOR MUST HOLD A VALID CALIFORNIA CONTRACTOR'S LICENSE FOR THE APPLICABLE SCOPE OF WORK. ALL SUBCONTRACTOR'S MUST BE LICENSED.
31. 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 AND ALL SUCH INSTANCES.
32. 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 POTHOLING. IN THE EVENT OF SUBSTRUCTURE DAMAGE, THE CONTRACTOR SHALL BEAR THE TOTAL COST OF REPAIR OR REPLACEMENT AT NO ADDITIONAL COST TO THE CITY.
33. 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.
34. 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.
35. 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.
36. 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). TRENCH LESS METHOD MAY BE USED TO CROSS UNDER BUS PAD.
37. 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.
38. 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.
39. ABANDONMENT AND/OR REMOVAL OF CONDUITS AND STRUCTURES SHALL BE PER SECTION 306-5 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
40. 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:

1. 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 SAID REGULATIONS AND ORDERS.
2. 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.
3. 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.
4. 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.
5. THE CONTRACTOR SHALL EXERCISE DUE CARE TO AVOID DAMAGE TO EXISTING HARDSCAPE IMPROVEMENTS, UTILITY FACILITIES, AND LANDSCAPING FEATURES THAT ARE NOT AFFECTED BY THESE PLANS.
6. 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.
7. 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.
8. 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.
9. THE CONTRACTOR SHALL PERFORM AND BE RESPONSIBLE FOR ALL CLEARING AND GRUBBING OPERATIONS AS NECESSARY TO COMPLETE THE WORK, INCLUDING TRANSPORTATION AND DISPOSAL OF ALL MATERIALS, AND ALL ASSOCIATED COSTS.
10. DEMOLITION PLAN BY SEPARATE PERMIT.

NPDES NOTES:

1. 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.
2. STOCKPILES OF EARTH AND OTHER CONSTRUCTION RELATED MATERIALS MUST BE PROTECTED FROM BEING TRANSPORTED FROM THE SITE BY THE FORCES OF WIND OR WATER.
3. 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.
4. 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.

811

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.

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.

ENGINEER/ARCHITECT OF RECORD STAMP

DESIGN FIRM NAME, ADDRESS, PHONE NUMBER

DATE SIGNED

REVIEWED BY

BY

DATE

NO.

DESCRIPTION

BY

DATE

REFERENCES

REVIEWED BY

PROJECT MANAGER  
EDUARDO PECH, PE.

DATE

RECOMMENDED BY

CITY ENGINEER  
GILBERT GAMBOA

DATE

DESIGNED BY

ASSOCIATE ENGINEER  
JONATHAN PASCUAL

DATE

SCALE

X"=X'

DATE

07-28-25

SHEET

2

OF

4

DRAWING/PROJECT NO.

X-XXX

SHEET NO.

C-2

5. TRASH AND CONSTRUCTION RELATED SOLID WASTES MUST BE DEPOSITED INTO A COVERED RECEPTACLE TO PREVENT CONTAMINATION BY RAINWATER AND DISPERSAL BY WIND.
6. 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.
7. 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
- WM-1

MATERIAL DELIVERY AND STORAGE

SC-22

VEHICLE AND EQUIPMENT REPAIRS
- WM-2

MATERIAL USE

EC-2

PRESERVATION OF EXISTING VEGETATION
- WM-4

SPILL PREVENTION AND CONTROL

WE-1

WIND EROSION CONTROL
- WM-5

SOLID WASTE MANAGEMENT

SE-8

SAND BAG BARRIER
- WM-8

CONCRETE WASTE MANAGEMENT

SE-10

STORM DRAIN INLET PROTECTION
- WM-9

SANITARY / SEPTIC WASTE MANAGEMENT

UTILITY NOTES:

1. ALL LANDSCAPE IRRIGATION BACKFLOW DEVICES MUST MEET CURRENT CITY REQUIREMENTS FOR PROPER INSTALLATION.
2. PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL CALL DIG ALERT TO IDENTIFY THE LOCATION OF ALL UTILITIES
3. 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.
4. 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 SITES PROPERTY LINES. SEE CITY STANDARD PLAN ST-5. CLEANOUT MUST BE ADDED TO THE SITE PLAN.
5. 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.
6. IF ANY EXISTING SEWER LATERAL IS USED, IT MUST BE TELEVIEWED 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 OF 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.
7. ANY UNUSED WATER OR SANITARY SEWER LATERALS MUST BE ABANDONED AT THE CITY MAIN.
8. 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.
9. 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 OF THE CONTRACTOR TO REPLACE THEM AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR IS ALSO RESPONSIBLE FOR ANY STREET MARKINGS THAT ARE DAMAGED OR REMOVED BY THE CONTRACTOR'S OPERATIONS. CONTACT THE PUBLIC WORKS INSPECTOR FOR SIGN SPECIFICATION AND SUPPLIERS.
10. THE BACK OF DRIVEWAY APPROACH MUST BE SIX INCHES HIGHER THAN THE FLOW LINE ON THE STREET. M.B.M.C. 9.76.030.
11. SIDEWALK, DRIVEWAY, CURB, AND GUTTER REPAIR OR REPLACEMENT MUST BE COMPLETED PER PUBLIC WORKS SPECIFICATIONS. SEE CITY STANDARD PLAN MBSI-110-1(ST-1), MBSI-112A(ST-2), MBSI-120A(ST-3), AND MBSI-132A(ST-10). THE PLANS MUST HAVE A PROFILE OF THE DRIVEWAY, PERCENTAGE (%) OF SLOPE ON DRIVEWAY, AND DRIVEWAY ELEVATIONS FOR EACH SIDE AND THE MIDDLE. IN THE CASE WHERE THE GARAGE LEVEL IS BELOW THE STREET DRAINAGE FLOW LINES, THE COMBINED SLOPE OF PUBLIC AND PRIVATE APPROACH SHALL NOT EXCEED 15% (CITY RECOMMENDS THAT GARAGE FINISH FLOOR ELEVATIONS SLOPE AT 1% MINIMUM TO THE PROPERTY LINE AT THE DRIVEWAY APPROACH WHICH WOULD MINIMIZE POSSIBILITY OF ANY FUTURE FLOODING IN THE GARAGE). CITY PLANS/SURVEYS MUST SHOW ELEVATIONS FOR EACH ADJOINING PROPERTY. NO DEVIATIONS IN ELEVATIONS BETWEEN PROPERTIES SHALL EXCEED MORE THAN ¼".
12. WATER METERS MUST REMAIN ACCESSIBLE FOR METER READERS DURING CONSTRUCTION. WATER METERS MUST BE PLACED NEAR THE PROPERTY LINE AND OUT OF THE DRIVEWAY APPROACH WHENEVER POSSIBLE. WATER METER PLACEMENT SHALL BE SHOWN ON THE PLANS. SEE CITY STANDARD PLAN ST-15.
13. IF WATER METER BOX IS DAMAGED DURING CONSTRUCTION, OR THE CITY DETERMINES THAT IT IS IN NEED OF REPLACEMENT, A NEW WATER METER BOX MUST BE PURCHASED FROM THE CITY. THE WATER METER BOX SHALL HAVE A TRAFFIC RATED LID.
14. ALL STORM WATER, NUISANCE WATER, ETC. DRAIN LINES INSTALLED WITHIN THE STREET RIGHT OF WAY MUST BE CONSTRUCTED OF DUCTILE IRON PIPE AND LABELED ON THE SITE PLAN. DRAINS MUST BE SHOWN ON PLANS.
15. PLAN HOLDER MUST HAVE THE PLANS RECHECKED AND STAMPED FOR APPROVAL BY THE PUBLIC WORKS DEPARTMENT BEFORE THE BUILDING PERMIT IS ISSUED.

GENERAL SIGNAGE AND STRIPING NOTES:

1. ALL REQUIRED STRIPING AND SIGNAGE SHALL CONFORM WITH THE LATEST APPLICABLE CALTRANS STANDARD PLANS AND LATEST CALTRANS STANDARD SPECIFICATIONS, INCLUDING SECTION 84 AND CITY AND COUNTY STANDARDS AND REQUIREMENTS.
2. COMPLY WITH ALL MARKING REQUIREMENTS OF AGENCY HAVING JURISDICTION. PAVEMENT LEGENDS SHALL CONFORM TO CITY OR AGENCY STENCILS. SIGNS, STRIPES, AND PAVEMENT LEGENDS SHALL BE REFLECTORIZED.
3. TRAFFIC STRIPING AND PAVEMENT MARKING SHALL BE THERMOPLASTIC IN ACCORDANCE WITH CALTRANS STANDARD SPECIFICATIONS SECTION 84 AND PROJECT BID DOCUMENTS.
4. REPLACE ALL SIGNAGE AND STRIPING DAMAGED BY THE WORK IN KIND WITH NEW PER CITY, AGENCY, JURISDICTION REQUIREMENTS.



WATER NOTES:

- 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.
  - DUE 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 IN PLACE 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 A.21.51 (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 SUPPORTED AS REQUIRED BY THE ENGINEER AND IN ACCORDANCE WITH APWA 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 DEVIATION 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 NUT 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 SPECIFICALLY APPROVED BY THE CITY ENGINEER.
  - THE CONTRACTOR SHALL PROVIDE AT LEAST A VALVE SLEEVES TO FINISH GRADE OR TOP 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 6" 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.

- POTHOLES/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 OR OTHER UTILITIES WHICH ARE SHOWN OR NOT SHOWN ON THE PLAN UNLESS OTHERWISE DIRECTED BY THE ENGINEER. ANY INFORMATION GATHERED DEVIATING 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 FIRE SERVICE 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.
  - REFER TO CONNECTIONS SHOWN ON 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 PPM INITIAL DOSAGE, WITH NOT LESS THAN 25 PPM 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 ALL BACTERIOLOGICAL TESTING BY A CERTIFIED LABORATORY. THE CONTRACTOR SHALL NOT HAVE CUSTODY OF THE WATER SAMPLES AT ANY TIME. ALL 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 (DWG) FOR THE SEPARATION OF WATER MAINS AD NON-POTABLE PIPELINES (LATEST ADDITION) AND CITY OF MANHATTAN BEACH STD. DWG. ST-26. THE MORE STRINGENT OF THE TWO SHALL GOVERN.

- 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 THERE SHALL NOT BE A PIPE JOINT WITHIN 8 FEET. SEE CITY OF MANHATTAN BEACH STD. DWG. ST-26.
- IN AREAS WHERE THE PIPELINE IS INSTALLED ABOVE AN EXISTING STORM DRAIN, THE CONTRACTOR SHALL 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.
- WHERE THE NEW WATER MAIN ENCLOSED WITH 4 FEET OF AN EXISTING SEWER OUTER DIAMETER SPECIAL CONSTRUCTION WILL BE REQUIRED BY CONSTRUCTING A CASING PIPE FOR THE NEW WATER MAIN. 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. MBSS-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 TUS 0+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 CTD 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 MANHOLE 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 OPERATORS(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 RE 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.
- TRAFFIC STRIPING AND PAVEMENT MARKING REPAIR SHALL BE THERMOPLASTIC AS SPECIFIED, PER CAL TRANS 84 AND PER CITY REQUIREMENTS.
- THICKNESS OF PAVEMENT SHOWN IN THE PAVEMENT RESURFACING SCHEDULE APPLIES WITHIN THE LIMITS OF EXCAVATION. THE CONTRACTOR SHALL NOTE THAT FAILED PCC PAVEMENT SUBGRADE MAY BE PRESENT. THE CONTRACTOR IS RESPONSIBLE FOR DAMAGE TO PAVEMENT OUTSIDE THE LIMITS OF EXCAVATION AS A RESULT OF HEAVY TRAFFIC LOADING AND/OR INADEQUATE SHORING.
- STRAND WALKWAY SHALL BE RECONSTRUCTED IN FULL PANEL FROM JOINT TO JOINT. RESURFACING PAVEMENT SECTION SHALL BE FULLY REINFORCED AND DOWELED INTO EXISTING PAVEMENT WITH #4-EPOXY COATED REBAR @ 12" O.C. EACH WAY (MIN. 6" EMBEDMENT).
- ALL WALKWAY RESURFACING SHALL MATCH EXISTING FINISHES TO THE SATISFACTION OF THE ENGINEER.

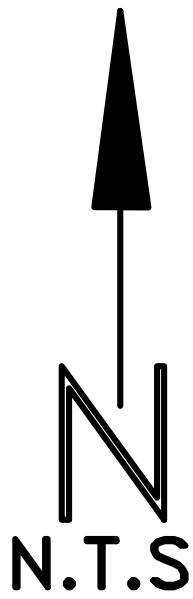
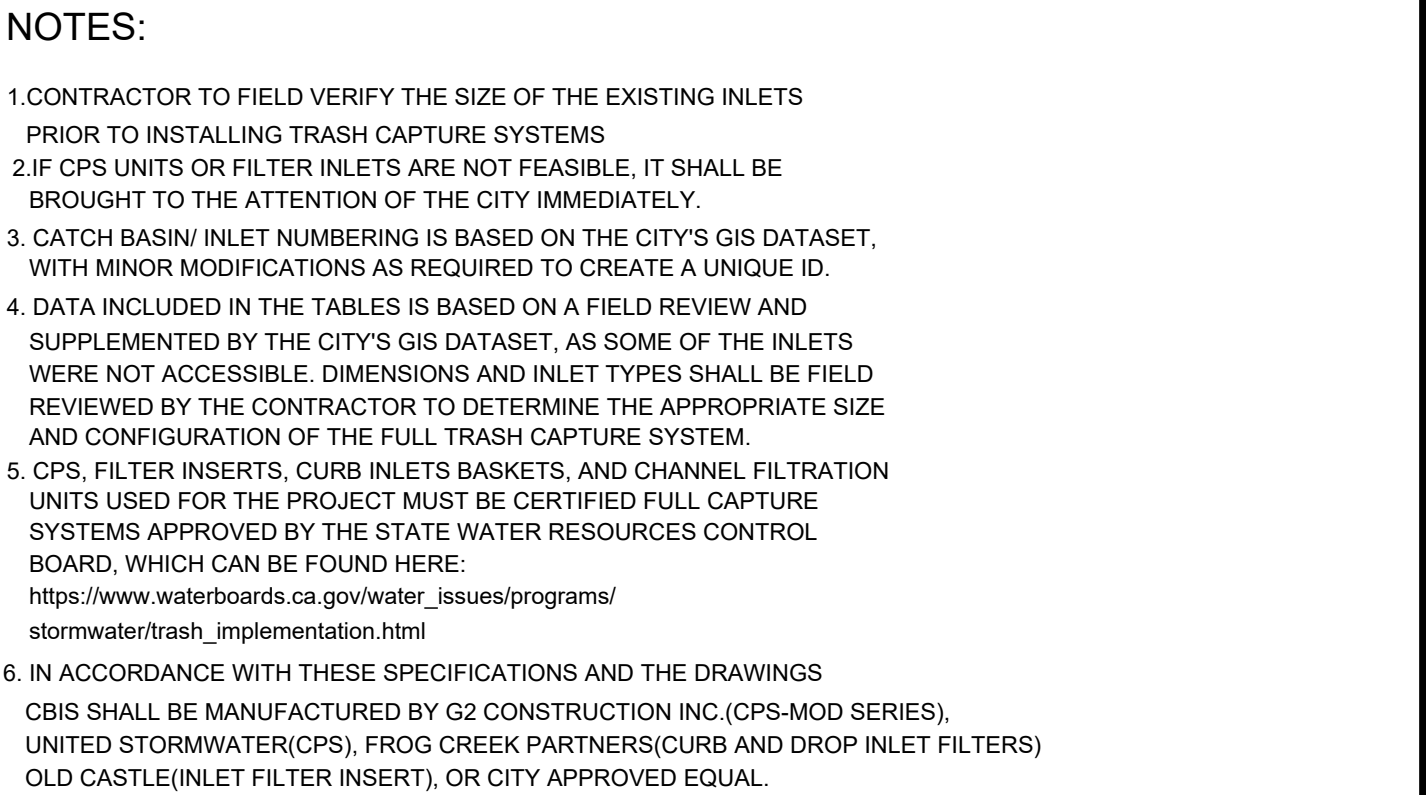
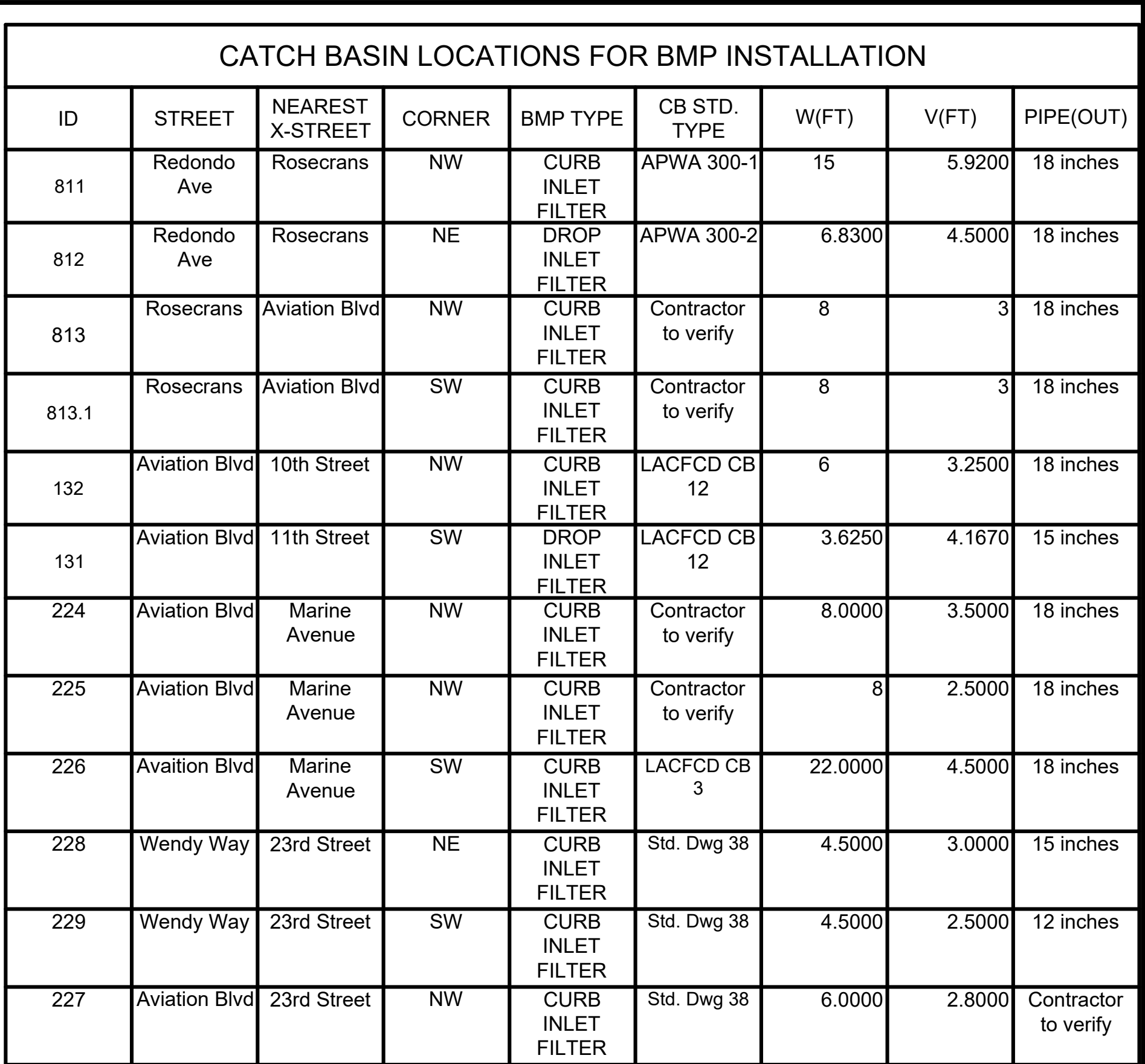
TRAFFIC CONTROL REQUIREMENTS:

- THE CONTRACTOR SHALL OBTAIN A CITY PERMIT FOR WORK PERFORMED IN THE RIGHT-OF-WAY, AND PROVIDE THE CITY WITH GENERAL LIABILITY INSURANCE IN THE AMOUNT OF \$2,000,000.00, NAMING THE CITY AS ADDITIONALLY INSURED.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR PERFORMING WORK ON A PUBLIC STREET TO INSTALL AND MAINTAIN THE TRAFFIC CONTROL DEVICES ACCORDING TO THE "WORK AREA TRAFFIC CONTROL HANDBOOK", LATEST EDITION, OR CALIFORNIA MUTCD, TO INSURE THE SAFE MOVEMENT OF TRAFFIC AND PEDESTRIANS THROUGH OR AROUND THE WORK AREA AND PROVIDE MAXIMUM PROTECTION AND SAFETY TO CONSTRUCTION WORKERS. THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN FOR APPROVAL PRIOR TO START OF WORK FOR ANY CONDITIONS NOT COVERED BY THE WATCH OR CA MUTCD.
- FLASHING ARROW BOARD(S) ARE MANDATORY FOR LANE CLOSURES ON MAJOR STREETS. THEY SHALL OPERATE UNTIL TRAFFIC CONTROL IS REMOVED.
- 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 UNLESS OTHERWISE INDICATED ON PLAN. FLAGGERS MAY BE USED IF ONE LANE IN EACH DIRECTION CAN NOT BE KEPT OPEN WITH THE APPROVAL OF THE ENGINEER. ALL TRAFFIC LANES SHALL BE OPEN BEFORE AND AFTER WORK HOURS.
- ALL OPEN TRENCHES SHALL BE COVERED WITH NON-SKID STEEL PLATES OR TEMPORARY ASPHALT PAVEMENT BEFORE AND AFTER WORK HOURS.
- ALL SIGNS, DELINEATORS, BARRICADES, ETC., SHALL CONFORM TO THE STATE OF CALIFORNIA STANDARD SPECIFICATIONS LATEST EDITION, THE CALIFORNIA DEPARTMENT OF TRANSPORTATION "MANUAL OF TRAFFIC CONTROL FOR CONSTRUCTION AND MAINTENANCE WORK ZONES" (LATEST EDITION), AND THE "WATCH" LATEST EDITION. ALL BARRICADES SHALL BE EQUIPPED WITH FLASHING/STEADY BURN WARNING LAMPS AT NIGHT. ALL CONES, DELINEATORS, BARRICADES, AND "K" RAIL SHALL BE REFLECTORIZED, ALL TRAFFIC CONTROL SHALL BE KEPT IN THEIR PROPER POSITION AT ALL TIMES, AND SHALL BE REPAIRED, REPLACED, OR CLEANED AS NECESSARY TO PRESERVE THEIR APPEARANCE AND CONTINUITY. ANY DEVICES NOT PART OF THE REQUIRED TRAFFIC CONTROL OR DETOURS SHALL BE REMOVED FROM THE VIEW OF THE TRAVELLING PUBLIC IMMEDIATELY.
- THE CONTRACTOR SHALL NOTIFY THE MTA BUS STOPS AND ZONES DISPATCHER AND ANY OTHER AFFECTED TRANSIT SERVICES AT LEAST TWO WORKING DAYS PRIOR TO CONSTRUCTION.
- 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.
- VEHICULAR AND PEDESTRIAN ACCESS TO ADJACENT PROPERTIES SHALL BE PROVIDED AT ALL TIMES. CLOSED SIDEWALKS SHALL BE POSTED WITH "SIDEWALK CLOSED" SIGNS AT EACH APPROACH TO THE CLOSURE AND AN APPROVED ALTERNATE ROUTE PROVIDED.
- PROTECT TRAFFIC SIGNAL DETECTORS IN PLACE OR REPLACE WITHIN 5 CALENDAR DAYS OF FINAL PAVING. ALL DETECTORS DAMAGED BY THE WORK SHALL BE REPLACED TO THE STANDARDS OF THE CITY PUBLIC WORKS DEPARTMENT.
- NOTIFY PUBLIC WORKS INSPECTOR (310) 802-5306, AT LEAST 48 HOURS PRIOR TO ANY CONSTRUCTION IN RIGHT-OF-WAY. NOTIFY FIRE AND POLICE DISPATCH (310) 802-5103 PRIOR TO STARTING WORK OR CLOSING LANES/STREETS EVERY DAY.
- ANY REVISIONS TO THE TRAFFIC CONTROL PLANS OR REQUIREMENTS SHALL BE APPROVED BY THE ENGINEER.

CITY OF MANHATTAN BEACH PUBLIC WORKS DEPARTMENT – ENGINEERING DIVISION									
DOMINGUEZ CHANNEL TMDL HIGH FLOW CAPACITY TRASH TREATMENT CONTROL CITY BMP IMPLEMENTATION									
REVISIONS				REVIEWED BY _____ DATE _____ RECOMMENDED BY _____ DATE _____					
NO.	DESCRIPTION	BY	DATE						
				PROJECT MANAGER EDUARDO PECH, PE. _____ DATE _____ CITY ENGINEER GILBERT GAMBOA _____ DATE _____					
REFERENCES				DESIGNED BY _____ DATE _____					
				SCALE X"=XX' _____ DATE 07-28-25 _____ SHEET NO. _____					
				SHEET 3 of 4 _____ DRAWING/PROJECT NO. X-XXX _____					
ASSOCIATE ENGINEER JONATHAN PASCUAL _____ DATE _____				C-3					

	SUPPLEMENTAL NOTES:		ENGINEER/ARCHITECT OF RECORD STAMP _____  DATE SIGNED _____	DESIGN FIRM NAME, ADDRESS, PHONE NUMBER _____	REVIEWED BY _____	BY _____	DATE _____
	1. THE CONTRACTOR SHALL LOCATE, VERIFY AND PROTECT ALL EXISTING UNDERGROUND UTILITIES. DAMAGED UTILITIES SHALL BE REPLACED IN KIND AT THE CONTRACTOR'S EXPENSE.						
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.	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.				





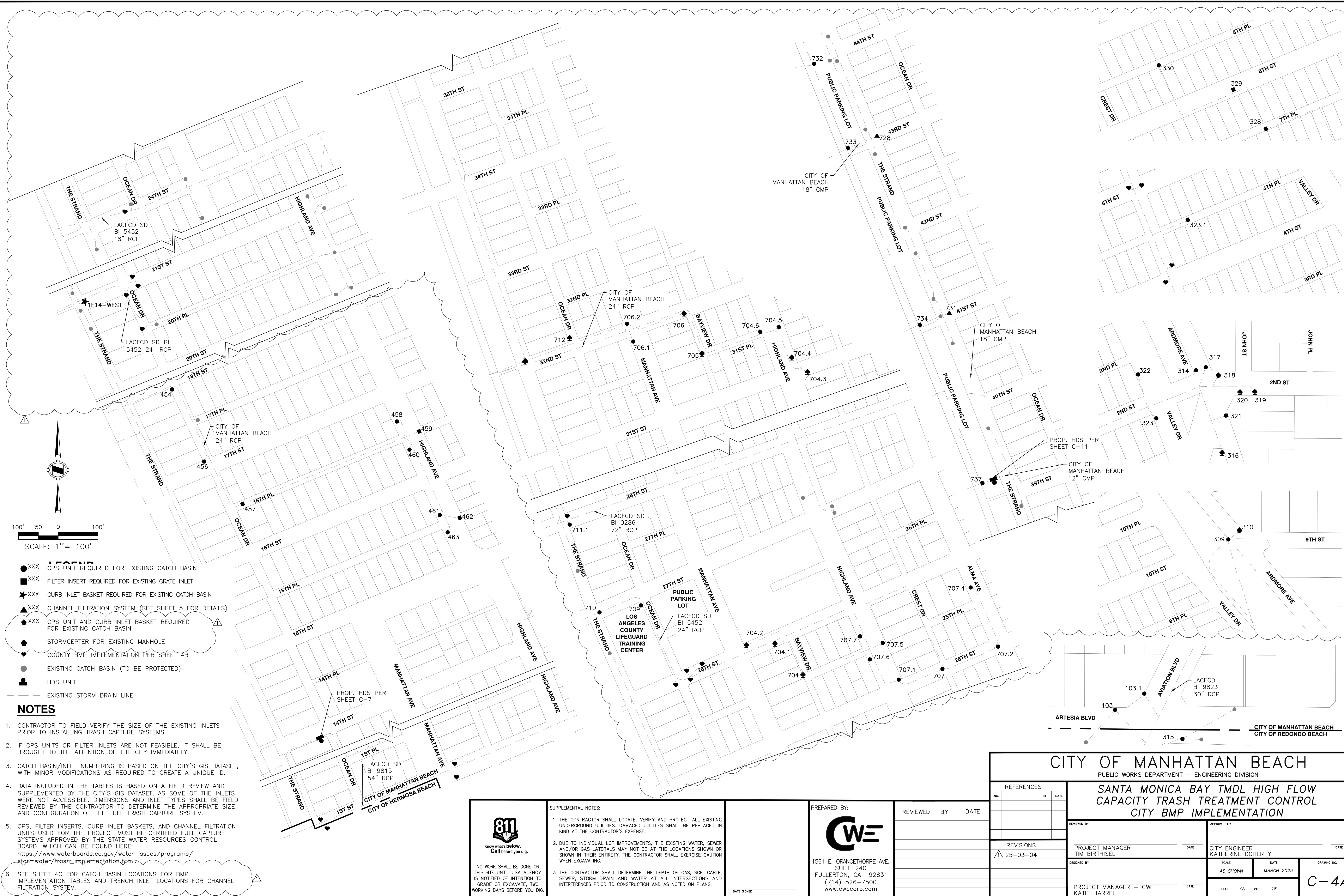
- ## LEGEND
- CURB INLET FILTER REQUIRED FOR EXISTING CATCH BASIN
  - DROP INLET FILTER REQUIRED FOR EXISTING GRATE INLET
  - ★ CPS UNIT REQUIRED FOR EXISTING CATCH BASIN
  - ▬ CHANNEL FILTRATION SYSTEM
  - ♥ COUNTY BMP IMPLEMENTATION
  - EXISTING CATCH BASIN(TO BE PROTECTED)
  - 👤 HDS UNIT
  - EXISTING STORM DRAIN LINE

[illegible]









- LEGEND**
- XXX CPS UNIT REQUIRED FOR EXISTING CATCH BASIN
  - XXX FILTER INSERT REQUIRED FOR EXISTING GRATE INLET
  - ★ XXX CURB INLET BASKET REQUIRED FOR EXISTING CATCH BASIN
  - ▲ XXX CHANNEL FILTRATION SYSTEM (SEE SHEET 5 FOR DETAILS)
  - ◆ XXX CPS UNIT AND CURB INLET BASKET REQUIRED FOR EXISTING CATCH BASIN
  - STORMCEPTER FOR EXISTING MANHOLE
  - COUNTY BMP IMPLEMENTATION PER SHEET 4B
  - EXISTING CATCH BASIN (TO BE PROTECTED)
  - HDS UNIT
  - EXISTING STORM DRAIN LINE

- NOTES**
- CONTRACTOR TO FIELD VERIFY THE SIZE OF THE EXISTING INLETS PRIOR TO INSTALLING TRASH CAPTURE SYSTEMS.
  - IF CPS UNITS OR FILTER INLETS ARE NOT FEASIBLE, IT SHALL BE BROUGHT TO THE ATTENTION OF THE CITY IMMEDIATELY.
  - CATCH BASIN/INLET NUMBERING IS BASED ON THE CITY'S GIS DATASET, WITH MINOR MODIFICATIONS AS REQUIRED TO CREATE A UNIQUE ID.
  - DATA INCLUDED IN THE TABLES IS BASED ON A FIELD REVIEW AND SUPPLEMENTED BY THE CITY'S GIS DATASET, AS SOME OF THE INLETS WERE NOT ACCESSIBLE. DIMENSIONS AND INLET TYPES SHALL BE FIELD REVIEWED BY THE CONTRACTOR TO DETERMINE THE APPROPRIATE SIZE AND CONFIGURATION OF THE FULL TRASH CAPTURE SYSTEM.
  - CPS, FILTER INSERTS, CURB INLET BASKETS, AND CHANNEL FILTRATION UNITS USED FOR THE PROJECT MUST BE CERTIFIED FULL CAPTURE SYSTEMS APPROVED BY THE STATE WATER RESOURCES CONTROL BOARD, WHICH CAN BE FOUND HERE: [https://www.waterboards.ca.gov/water\\_issues/programs/stormwater/trashimplementation.html](https://www.waterboards.ca.gov/water_issues/programs/stormwater/trashimplementation.html).
  - SEE SHEET 4C FOR CATCH BASIN LOCATIONS FOR BMP IMPLEMENTATION TABLES AND TRENCH INLET LOCATIONS FOR CHANNEL FILTRATION SYSTEM.

**811**  
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.

- SUPPLEMENTAL NOTES:**
- 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 GAS, SCE, CABLE, SEWER, STORM DRAIN AND WATER AT ALL INTERSECTIONS AND INTERFERENCES PRIOR TO CONSTRUCTION AND AS NOTED ON PLANS.

DATE SIGNED \_\_\_\_\_

PREPARED BY:  
**CWE**  
1561 E. ORANGETHORPE AVE.  
SUITE 240  
FULLERTON, CA 92831  
(714) 526-7500  
www.cwecorp.com


REVIEWED BY	DATE

<b>CITY OF MANHATTAN BEACH</b> PUBLIC WORKS DEPARTMENT — ENGINEERING DIVISION	
<b>SANTA MONICA BAY TMDL HIGH FLOW CAPACITY TRASH TREATMENT CONTROL CITY BMP IMPLEMENTATION</b>	
REFERENCES NO. BY DATE	DESIGNED BY PROJECT MANAGER — KATIE HARREL
REVISIONS 25-03-04	APPROVED BY CITY ENGINEER KATHERINE DOHERTY
SCALE AS SHOWN	DATE MARCH 2023
SHEET 4A OF 18	DRAWING NO. <b>C-4A</b>



CITY CATCH BASIN LOCATIONS FOR BMP IMPLEMENTATION								
ID	STREET	NEAREST X-STREET	CORNER	BMP TYPE	CB TYPE	W (FT)	V (FT)	PIPE (OUT)
103.1	AVIATION BLVD	ARTESIA BLVD	NW	CPS	SPPWC 300-4	3.5	4.75	18" RCP
103	ARTESIA BLVD	AVIATION BLVD	NW	CPS	LACFCD NO. 6	CONTRACTOR TO VERIFY		18" RCP
315	ARTESIA BLVD	AVIATION BLVD	SE	CPS	SPPWC 300-4	14	UNKNOWN	18" RCP
454	OCEAN DR	18TH ST	SW	CPS	SPPWC 300-4	7	3.5	18" RCP
456	OCEAN DR	17TH ST	NW	CPS	SPPWC 300-4	7	4	18" RCP
457	16TH PL	OCEAN DR	ALLEY	FILTER INSERT	SPPWC 305-4	41"x65"	3.5	24" RCP
458	HIGHLAND AVE	16TH PL	NW	CPS	SPPWC 300-4	7	4	18" RCP
459	HIGHLAND AVE	16TH PL	ALLEY	FILTER INSERT	SPPWC 305-4	41"x78.5"	6	18" RCP
460	HIGHLAND AVE	16TH PL	SW	CPS	SPPWC 300-4	3.5	4	18" RCP
461	HIGHLAND AVE	15TH PL	NW	CPS	SPPWC 300-4	7	4	18" RCP
462	HIGHLAND AVE	15TH PL	ALLEY	FILTER INSERT	SPPWC 305-4	6.5	6	18" RCP
463	HIGHLAND AVE	15TH PL	SW	CPS	SPPWC 300-4	3.5	4	18" RCP
1F14-WEST	THE STRAND	21ST ST	-	CURB INLET FILTER BASKET	LACFCD NO. 2	7	2.58	24" RCP
711.1	THE STRAND	28TH ST	-	CPS	LACFCD NO. 3	4.5	4.67	24" RCP
710	THE STRAND	27TH ST	-	CURB INLET FILTER BASKET	SPPWC 300-4	7	3	18" RCP
732	PARKING LOT	44TH ST & THE STRAND	WEST	CPS	TRENCH INLET	30'L x 2.5'W x 3'D		24" RCP
733	PARKING LOT	43RD ST & THE STRAND	WEST	FILTER INSERT	LACFCD NO. 4	24"x39"	3.67	18" RCP
734	PARKING LOT	41ST ST & THE STRAND	WEST	FILTER INSERT	LACFCD NO. 4	26'x41"	4.33	18" RCP
737	PARKING LOT	39TH ST & THE STRAND	WEST	FILTER INSERT	LACFCD NO. 4	24"x42"	2.83	24" CMP
323	VALLEY DR	2ND ST	SW	CPS	LACFCD NO. 2	7	4	18" RCP
323.1	4TH PL	INGLESIDE DR	SOUTH	FILTER INSERT	LACFCD NO. 5	40"x25"	1'9"	5" PCC
322	VALLEY DR	2ND ST	WEST	CPS	LACFCD NO. 2	8	3'3"	18" RCP
316	GREENBELT PARK	ARDMORE AVE	EAST	CPS AND CURB INLET FILTER BASKET	SPPWC 301-4	14	4'3"	33" RCP
314	ARDMORE AVE	2ND ST	WEST	CPS	SPPWC 300-4	21	12'2"	33" RCP
321	108 ARDMORE AVE	1ST ST	SW	CPS	SPPWC 300-4	7	6	18" RCP
320	118 ARDMORE AVE	2ND ST	NE	CPS AND CURB INLET FILTER BASKET	SPPWC 301-4	6"10"	3'10"	18" RCP
319	2ND ST	ARDMORE AVE	SOUTH	CPS AND CURB INLET FILTER BASKET	SPPWC 301-4	13'10"	3	18" RCP
318	2ND ST	ARDMORE AVE	EAST	CPS AND CURB INLET FILTER BASKET	SPPWC 301-4	7	1'9"	21" RCP
317	2ND ST	ARDMORE AVE	NE	CPS	SPPWC 300-4	7	3'10"	18" RCP
328	7H PL	CREST DR & VALLEY DR	SOUTH	FILTER INSERT	LACFCD NO. 4	40"x25"	3'9"	18" RCP
329	8TH ST	CREST DR & VALLEY DR	SOUTH	FILTER INSERT	LACFCD INLET NO. 1	24" RAD	10"	15" RCP
330	341 8TH PL	CREST DR	SW	CPS	SPPWC 300-4	3.5	2'5"	15" RCP
704.2	26TH ST	MANHATTAN AVE	NE	CPS AND CURB INLET FILTER BASKET	SPPWC 301-4	2'11"	3'7"	18" RCP
704.1	26TH ST	BAYVIEW DR	SW	CPS AND CURB INLET FILTER BASKET	SPPWC 301-4	7	3'5"	18" RCP
704	BAYVIEW DR	25TH PL	WEST	CPS AND CURB INLET FILTER BASKET	LACFCD NO. 6	3	2'9"	21" RCP
MB011	25TH PL	HIGHLAND AVE	WEST	*Not located in field. Records indicate this is an outlet. Omitted from project scope				
707.7	HIGHLAND AVE	25TH PL	NW	CPS	SPPWC 300-4	7	5	18" RCP
707.5	HIGHLAND AVE	25TH PL	EAST	CPS	SPPWC 300-4	3.5	6'5"	UNKNOWN
707.6	HIGHLAND AVE	25TH PL	SW	CPS	SPPWC 300-4	7	2'6"	18" RCP
707.1	HIGHLAND AVE	25TH ST	NE	CPS	SPPWC 300-4	7	6'3"	18" RCP
707	CREST DR	25TH ST	SW	CPS	SPPWC 300-4	3'10"	3'3"	18" RCP
707.4	ALMA AVE	25TH PL	NW	CPS	LACFCD CB 1	3.5	2'5"	12" RCP
707.2	ALMA AVE	25TH ST	SW	CPS	LACFCD CB 1	3	3'3"	12" RCP
712	3120 OCEAN DR	32ND ST	NW	CPS AND CURB INLET FILTER BASKET	LACFCD NO. 3	40"x25"	2'8"	18" RCP
706.2	MANHATTAN AVE	32ND ST	NW	CPS	LACFCD NO. 3	14	4	18" RCP
706.1	MANHATTAN AVE	32ND ST	SW	CPS	LACFCD NO. 1	7'1"	3.5	18" RCP
706	BAYVIEW DR	32ND ST	SW	CPS AND CURB INLET FILTER BASKET	SPPWC 301-4	2'10"	1'10"	15" CMP TO 18" RCP
705	BAYVIEW DR	31ST PL	WEST	CPS AND CURB INLET FILTER BASKET	SPPWC 301-4	2'11"	1'2"	15" CMP
704.6	31ST PL	HIGHLAND AVE	NW	FILTER INSERT	SPPWC 304-4	40"x25"	1'11"	18" RCP
704.5	HIGHLAND AVE	31ST PL	EAST	FILTER INSERT	SPPWC 303-4	40"x25"	1'11"	18" RCP
704.4	31ST ST	HIGHLAND AVE	NE	CPS AND CURB INLET FILTER BASKET	SPPWC 301-4	8	44"	24" RCP
704.3	31ST ST	HIGHLAND AVE	SE	CPS AND CURB INLET FILTER BASKET	SPPWC 301-4	7	2'7"	18" RCP
309	ARDMORE AVE	9TH ST	WEST	CPS	LACFCD NO. 3	7	2'8"	18" RCP
310	ARDMORE AVE	9TH ST	EAST	CPS AND CURB INLET FILTER BASKET	LACFCD NO. 1	2'11"	3.5	18" RCP
709	OCEAN DR	27TH ST	SW	CPS	LACFCD NO. 1	3'5"	4'2"	24" RCP

CITY TRENCH INLET LOCATIONS FOR CHANNEL FILTER SYSTEM								
ID	STREET	NEAREST X-STREET	LOCATION	BMP TYPE	CB TYPE	W (FT)	V (FT)	PIPE (OUT)
728	43RD ST	THE STRAND	END OF THE STREET NEAR THE STRAND	GUTTER BIN CHANNEL FILTRATION SYSTEM WITH MUNDUS BAG WATER FILTER OR APPROVED EQUAL	TRENCH INLET	26'L x 1.5'W x 3'D		18" CMP
731	41ST ST	THE STRAND	END OF THE STREET NEAR THE STRAND	GUTTER BIN CHANNEL FILTRATION SYSTEM WITH MUNDUS BAG WATER FILTER OR APPROVED EQUAL	TRENCH INLET	26'L x 1.5'W x 3'D		18" CMP



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.

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 GAS, SCE, CABLE, SEWER, STORM DRAIN AND WATER AT ALL INTERSECTIONS AND INTERFERENCES PRIOR TO CONSTRUCTION AND AS NOTED ON PLANS.

DATE SIGNED \_\_\_\_\_

PREPARED BY:



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REVIEWED BY	DATE

CITY OF MANHATTAN BEACH

PUBLIC WORKS DEPARTMENT – ENGINEERING DIVISION

REFERENCES

NO.		BY	DATE

REVISIONS

△	25-03-04

SANTA MONICA BAY TMDL HIGH FLOW CAPACITY TRASH TREATMENT CONTROL CITY BMP IMPLEMENTATION TABLE

REVIEWED BY

PROJECT MANAGER  
TIM BIRTHISEL

DESIGNED BY

PROJECT MANAGER – CWE  
KATIE HARREL

APPROVED BY

CITY ENGINEER  
KATHERINE DOHERTY

SCALE  
AS SHOWN

DATE  
MARCH 2023

DRAWING NO.  
C-4C