

BENCHMARK

VERTICAL AND HORIZONTAL DATUM:

VERTICAL AND HORIZONTAL DATUM INFORMATION WAS TAKEN FROM THE
NGS DATA SHEET FOR PID HS5126.
VERTICAL DATUM: NAVD88
ELEVATION: 120.96'
HORIZONTAL DATUM: NAD83-2011, CALIFORNIA SPCS, ZONE 3

DESCRIPTION: STATION IS LOCATED ON THE EAST SIDE OF LOS BANOS,
AT THE LOS BANOS MUNICIPAL AIRPORT, IN THE MEDIAN OF THE
RUNWAY AND THE PARALLEL TAXI, NEAR THE FRONT VASI FOR RUNWAY
32. TO REACH THE JUNCTION OF STATE HIGHWAY 152 AND WEST I
STREET ON THE WEST SIDE OF LOS BANOS, GO NORTHEAST ON WEST I
STREET FOR 0.06 MI TO A PAVED ROAD LEFT. TURN LEFT, SOUTHWEST,
ON PAVED ROAD FOR 0.25 MI TO A LOCKED GATE ON THE RIGHT. TURN
RIGHT, NORTHEAST, THROUGH GATE, PASSING TO RIGHT OF FUEL PUMPS,
ACROSS APRON FOR 0.05 MI TO THE PARALLEL TAXI. TURN LEFT,
NORTHWEST, ON TAXI FOR 0.06 MI TO THE STATION ON THE RIGHT.
STATION MARK IS SET IN THE TOP OF A 30-CM ROUND CONCRETE
POST FLUSH WITH THE GROUND ON A SLIGHT HUMP IN A BARE AREA.
IT IS 142.1 FT SOUTHWEST OF THE RUNWAY CENTER, 103.3 FT
NORTHEAST OF THE EDGE OF THE APRON/TAXI, 26.6 FT SOUTHWEST OF
THE SOUTH CORNER OF THE CONCRETE PAD FOR THE OUTBOARD VASI,
73.8 FT NORTHWEST OF THE EXTENDED SOUTHEAST WALL OF A HANGAR
AND 1.3 FT NORTHWEST OF A FIBERGLASS WITNESS POST.

UTILITY CONTACTS

PG&E- STEVE MURPHY MAIN (209) 726-6338
3185 M STREET CELL (209) 363-2216
MERCED, CA 95348

AT&T- RENEE BINGHAM MAIN (209) 578-7354
1116 M STREET
MERCED, CA 95354

**PROJECT PLANS FOR CONSTRUCTION OF
MONROE AVE WATERLINE REPLACEMENT
CITY OF LOS BANOS
CIP NUMBER: 24WT0009**

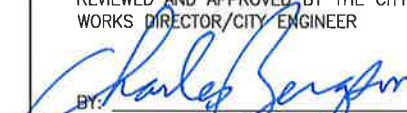


INDEX OF DRAWINGS

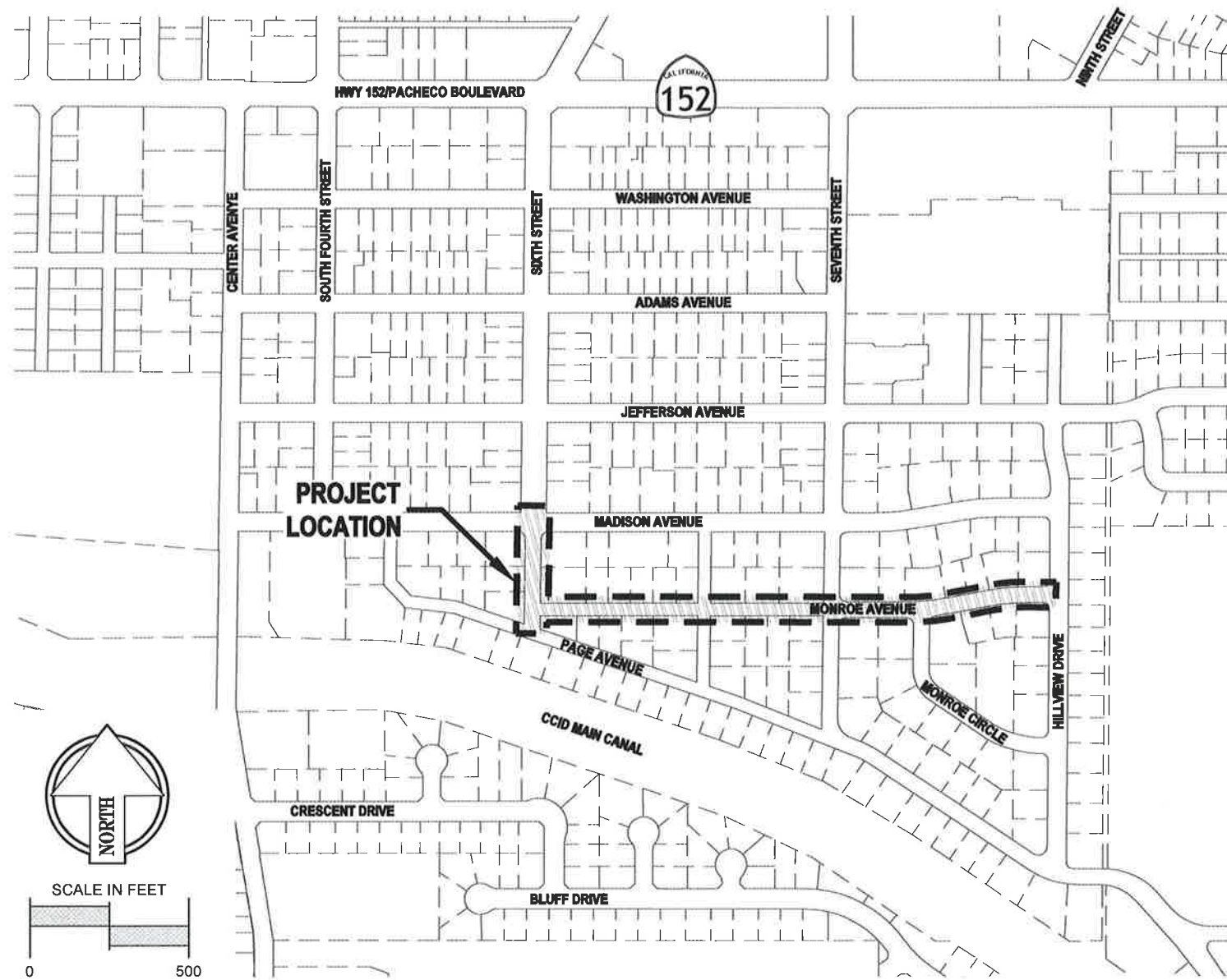
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8	TRENCH BACKFILL AND CONCRETE DETAILS
9	TRAFFIC CONTROL DETAILS

SIGNATURE BLOCK

REVIEWED AND APPROVED BY THE CITY OF LOS BANOS PUBLIC
WORKS DIRECTOR/CITY ENGINEER

BY: 
CHARLES BERGSON, P.E.
PUBLIC WORKS DIRECTOR/CITY ENGINEER

DATE: 17 APR 2024



Plan sheets in this plan set are full size when printed on 11x17 size sheets
without an exaggeration. The bar scale should be used to check plan sheet scale.

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456 Sixth Street • Gustine, California 95322
Telephone (209) 854-3300

CITY OF LOS BANOS

**MONROE AVE WATERLINE REPLACEMENT
LOCATION MAP AND INDEX OF DRAWINGS**

DESIGNED BY R. OROZCO	DATE 04/05/24	DRAWING C-101
DRAWN BY R. OROZCO	DATE 04/05/24	SHEET 1
CHECKED BY M. GOUVEIA	DATE 04/12/24	OF 9 SHEETS
APPROVED M. GOUVEIA	DATE 04/12/24	PROJECT NUMBER 840.06

Apr 17, 2024 - 8:53am
V:\C1B04\000\cag\plans\05\000C-101.dwg

GENERAL NOTES

- PROJECT WORK HOURS ARE:
MON - FRI 7AM - 5PM
- THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES) OF LICENSE AS SPECIFIED IN THE "NOTICE TO BIDDERS."
- SURVEY MONUMENTS ARE NOT LOCATED AS PART OF THE USA CALL BEFORE YOU DIG PROCESS. THE PROJECT SURVEYOR SHALL LOCATE AND MARK THE MONUMENTS WITHIN THE PROJECT ENVELOPE FOR PRESERVATION.
- PURSUANT TO SECTION 8771 OF THE CALIFORNIA BUSINESS AND PROFESSIONS CODE, THE CONTRACTOR IS RESPONSIBLE FOR PROTECTION AND PRESERVATION OF ANY MONUMENTATION FOUND WITHIN OR ADJACENT TO THE PROJECT IMPROVEMENTS. IF PROJECT IMPROVEMENTS ENCR OACH UPON AN AREA WHERE MONUMENTATION IS PRESENT, THE ENGINEER OF RECORD MUST BE CONTACTED AND THE MONUMENT MUST BE PROTECTED AND REMAIN UNDISTURBED BY CONSTRUCTION ACTIVITIES. IF AN EXISTING MONUMENT IS DISTURBED DURING CONSTRUCTION, THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL COSTS RELATED TO RESTORATION OF THE MONUMENT INCLUDING THE DOCUMENTATION, RECORDATION, AND RESETTING OF THE MONUMENT (IF REQUIRED) BY THE ENGINEER OF RECORD.
- EXISTING UTILITY LOCATIONS ARE SHOWN BASED ON USA MARKINGS COLLECTED IN THE FIELD AND RECORD INFORMATION PROVIDED BY THE UTILITY OWNER. ACTUAL BUILT LOCATIONS AND UTILITY DEPTHS MAY VARY. THE ENGINEER DOES NOT GUARANTEE THE LOCATIONS OF EXISTING UTILITIES SHOWN ON THESE PLANS TO BE EITHER TRUE OR EXACT. THE CONTRACTOR SHALL VERIFY ACTUAL DEPTH AND EXACT LOCATION OF EXISTING UTILITIES PRIOR TO EXCAVATION ACTIVITIES TO THE SATISFACTION OF THE UTILITY OWNER. ALL COSTS RELATED TO LOCATING AND PROTECTING EXISTING UTILITIES AS REQUIRED BY THE RESPONSIBLE UTILITY COMPANY AND/OR GOVERNING AGENCY ARE THE RESPONSIBILITY OF THE CONTRACTOR. THESE COSTS INCLUDE ALL LOCATING AND POT HOLE ACTIVITIES REQUIRED BY THE UTILITY OWNER. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHILE EXCAVATING IN AREAS NEAR NATURAL GAS, TV, PHONE, AND OTHER EXISTING UTILITIES AND IS RESPONSIBLE FOR ALL COSTS RELATED TO DAMAGED LINES OR DISRUPTION OF SERVICE CAUSED BY ANY ACTIVITIES AS THEY RELATE TO THIS PROJECT.
- THE CONTRACTOR SHALL BE AWARE OF EXISTING OVERHEAD UTILITY LINES AND SHALL EXERCISE CAUTION WHILE WORKING NEAR SUCH LINES. OVERHEAD UTILITY LINES HAVE BEEN OMITTED FROM PLANS FOR CLARITY PURPOSES.
- THE CONTRACTOR SHALL EXERCISE CARE TO MINIMIZE DAMAGE TO FACILITIES ADJACENT TO PROJECT IMPROVEMENTS SUCH AS EQUIPMENT, FENCING, CONCRETE FLATWORK, LANDSCAPING, LANDSCAPE IRRIGATION, ECT., DESIGNATED TO REMAIN. ANY FACILITIES DAMAGED BY THE CONTRACTOR SHALL BE RESTORED IN KIND AT NO COST TO THE CITY TO THEIR ORIGINAL PRE-CONSTRUCTION CONDITION OR BETTER. DISTURBED AND DAMAGED SURFACES SHALL BE RESTORED AFTER ALL CONSTRUCTION IS COMPLETE AND PRIOR TO CITY ACCEPTANCE.
- EXISTING FIRE HYDRANTS TO BE REMOVED SHALL BE SALVAGED AND BECOME PROPERTY OF THE OWNER.
- WHERE EXCAVATIONS ARE 5 FEET DEEP OR GREATER THE CONTRACTOR IS REQUIRED TO OBTAIN A CAL-OSHA PERMIT AND PREPARE A SHORING PLAN FOR THE EXCAVATION.
- CONSTRUCTION TRENCHES THAT ARE REQUIRED TO REMAIN OPEN OVERNIGHT MUST HAVE STEEL TRAFFIC PLATE(S) WITH A NON-SKID SURFACE SECURELY INSTALLED.
- STEEL PLATES GREATER THAT 5 FEET 3 INCHES WIDE SHALL BE DESIGNED BE A REGISTERED CALIFORNIA CIVIL ENGINEER.
- UTILITY CONFLICTS ARE TO BE WORKED OUT IN THE FIELD WITH THE PROJECT ENGINEER AND CITY REPRESENTATIVE.
- THE CONTRACTOR SHALL CONNECT AND CONCEAL WATERLINE IMPROVEMENTS AT THE END OF EACH WORKING DAY.
- THE CONTRACTOR SHALL MAINTAIN WATER SERVICE TO BUSINESSES AND RESIDENTS AT ALL TIMES EXCEPT WHEN A SHUTDOWN IS REQUIRED FOR INSTALLATION OF THE NEW WATERLINE. SHUTDOWNS SHALL BE COORDINATED WITH THE CITY PUBLIC WORKS DEPARTMENT AND THE EFFECTED CUSTOMER(S) AT LEAST 5 FULL BUSINESS DAYS IN ADVANCE.

GENERAL NOTES (Continued)

- ALL EXISTING WATER SERVICES ARE TO BE TRANSFERRED FROM THE EXISTING LINES EVEN IF NOT SHOWN OR ACCOUNTED FOR IN THE PROJECT PLANS AND SPECIFICATIONS.
- MAINTAIN A MINIMUM VERTICAL CLEARANCE OF 12 INCHES AT ALL UTILITY CROSSINGS. CONTRACTOR SHALL COMPLY WITH WATER AND SEWER SEPARATION REQUIREMENTS PER CITY OF LOS BANOS STANDARDS AND DEPARTMENT OF WATER RESOURCES, DRINKING WATER PROGRAM REGULATIONS UNLESS OTHERWISE NOTED ON THESE PLANS. CONTRACTOR SHALL ALSO COMPLY WITH VARIOUS UTILITY STANDARDS AS REQUIRED BY THE UTILITY OWNER.
- WHERE THE PROPOSED WATERLINE COMES IN CONFLICT WITH EXISTING WET UTILITIES OR DRY UTILITIES, IT IS REQUIRED TO BE DIPPED UNDER THOSE SERVICES UNLESS IT CAN BE ROUTED IN SUCH A WAY AS TO MAINTAIN 30 INCHES OF COVER AND 12 INCHES OF SEPARATION FROM THE CONFLICTING UTILITY PIPE.
- AT THE END OF EACH DAY OR AS DIRECTED BY THE OWNER, THE CONTRACTOR SHALL SWEEP ROADWAYS OF ALL DEBRIS AND EXCESS MATERIAL ATTRIBUTED TO THE CONTRACTOR'S OPERATIONS. UNLESS OTHERWISE APPROVED BY THE OWNER, MECHANICAL STREET SWEEPERS WITHOUT DEBRIS STORAGE COMPARTMENTS WILL NOT BE ALLOWED.
- UNLESS OTHERWISE APPROVED BY THE OWNER, TARPS OR OTHER EFFECTIVE COVERS ARE REQUIRED ON ALL STOCKPILED MATERIAL AND ON ALL HAUL TRUCKS TO MINIMIZE DUST.
- EXISTING WATERLINE ALIGNMENTS ARE SHOWN APPROXIMATE. CONTRACTOR SHALL LOCATE AND VERIFY EXISTING WATERLINE LOCATION AS REQUIRED FOR CONSTRUCTION.
- FOR CLARITY PURPOSES, AC PAVEMENT REPAIR ALONG TRENCH ALIGNMENT HAS BEEN OMITTED FROM THE PLANS.

TRAFFIC MANAGEMENT NOTES

- THE CONTRACTOR SHALL COORDINATE TRAFFIC CONTROL EFFORTS WITH THE PUBLIC WORKS DEPARTMENT, AND THE ENGINEER OF RECORD DURING THE CONSTRUCTION OF THE PROJECT.
- THE CONTRACTOR IS REQUIRED TO MAINTAIN EMERGENCY VEHICLE ACCESS THROUGH THE PROJECT AREA AT ALL TIMES.
- THE CONTRACTOR SHALL MAINTAIN PROPERTY ACCESS AT ALL TIMES. CONSTRUCTION ACTIVITIES SHALL BE COORDINATED IN SUCH A MANNER TO ALLOW BUSINESSES ADJACENT TO THE PROJECT TO HAVE AT LEAST ONE POINT OF ACCESS DURING CONSTRUCTION.
- ALL SIGNS AND TRAFFIC CONTROL DEVICES BEING USED SHALL BE IN ACCORDANCE WITH THE LATEST VERSION OF THE MUTCD. THE EXACT LOCATIONS OF SIGNS SHALL BE DETERMINED BY THE CITY.
- THE CONTRACTOR SHALL HAVE ALL SIGNS, DELINEATORS, BARRICADES, ETC., PROPERLY PLACED PRIOR TO COMMENCING CONSTRUCTION AND SHALL BE SOLELY RESPONSIBLE FOR MAINTAINING THE TRAFFIC CONTROL DEVICES BEING IMPLEMENTED THROUGHOUT THE CONSTRUCTION OF THE PROJECT.
- REFLECTIVE TABS ARE NOT ACCEPTABLE TO BE USED AS TEMPORARY DELINEATION DEVICES.
- THE CONTRACTOR SHALL DIRECT PEDESTRIANS TO USE ALTERNATE ROUTES WHILE CONSTRUCTION IS TAKING PLACE WITHIN PEDESTRIAN ROUTE.
- THE CONTRACTOR SHALL NOTIFY ALL OWNERS WITHIN THE AFFECTED AREA AT LEAST 5 FULL BUSINESS DAYS PRIOR TO ANY ROAD CLOSURE.
- IN AREAS WHERE PARKING WILL BE RESTRICTED DURING CONSTRUCTION, TEMPORARY NO PARKING SIGNS WITH DATES OF RESTRICTION SHALL BE PUT INTO PLACE AT LEAST 3 FULL BUSINESS DAYS PRIOR TO THE IMPLEMENTATION OF RESTRICTED PARKING.

LEGEND

	EXISTING	PROPOSED
COMMUNICATIONS LINE	— COM —	
UNDERGROUND ELECTRICAL LINE	— E —	
POWER POLE		
SERVICE POLE		
STREET LIGHT		
GAS VALVE		
GAS LINE	— G —	
SEWER CLEAN OUT		
SANITARY SEWER MANHOLE		
STORM DRAIN MANHOLE		
DRAIN INLET		
STREET SIGN		
MONUMENT WELL		
SAWCUT LINE		— — — — —
FIRE HYDRANT		
PIPE LINE PLUG/BLIND FLANGE		
WATER VALVE		
WATER METER		
WROUGHT IRON FENCE	— X — X —	
WOOD FENCE	— □ — □ —	
CHAINLINK FENCE	— — — — —	
CONCRETE		
ASPHALT CONCRETE		

FOR CLARITY PURPOSES SYMBOLS SHOWN IN THE LEGEND MAY APPEAR SMALLER THAN SHOWN ON THE PLANS.



Know what's below.
Call before you dig.



REV	DATE	DESCRIPTION	APPR
1			

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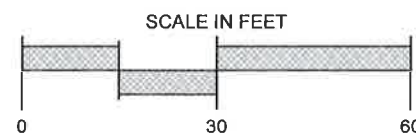
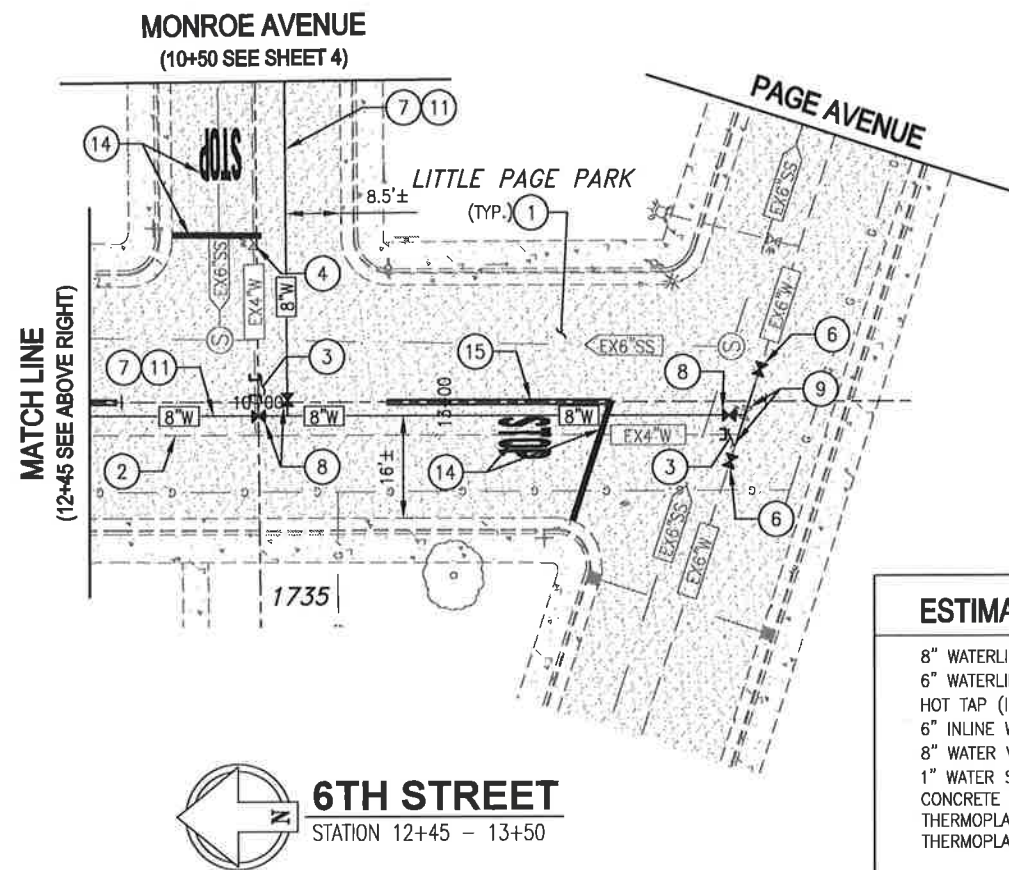
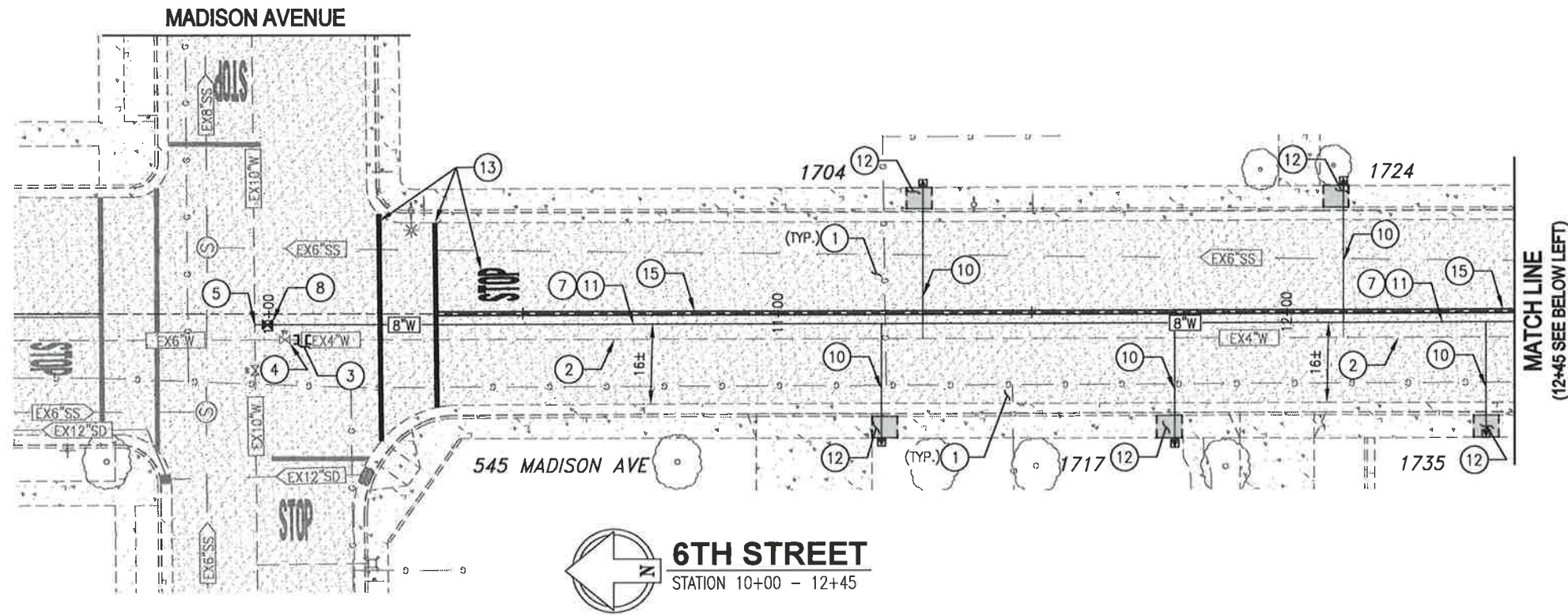


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CITY OF LOS BANOS MONROE AVE WATERLINE REPLACEMENT PROJECT NOTES AND LEGEND

DESIGNED BY R. OROZCO	DATE 04/05/24	DRAWING C-102
DRAWN BY R. OROZCO	DATE 04/05/24	SHEET 2
CHECKED BY M. GOUVEIA	DATE 04/12/24	OF 9 SHEETS
APPROVED M. GOUVEIA	DATE 04/12/24	PROJECT NUMBER 840.06



ESTIMATED QUANTITIES

8" WATERLINE	412	LF
6" WATERLINE	10	LF
HOT TAP (INCLUDES 8" VALVE)	1	EA
6" INLINE WATER VALVE INSERTION	2	EA
8" WATER VALVE	3	EA
1" WATER SERVICE TRANSFER	5	EA
CONCRETE REPAIRS	125	SF
THERMOPLASTIC STRIPING	252	LF
THERMOPLASTIC MARKINGS	174	SF

CONSTRUCTION NOTES

UNDERGROUND IMPROVEMENTS

- LOCATE AND PROTECT EXISTING UTILITIES IN PLACE.
- EXISTING WATERLINE IS TO BE DISCONNECTED FROM THE EXISTING SYSTEM AND ABANDONED IN PLACE AFTER THE PROPOSED WATERLINE IS ACTIVE.

REMOVE OR CRUSH IN PLACE THE EXISTING PIPE SECTION TO ALLOW INSTALLATION OF THE NEW WATERLINE. PROVIDE 12" MINIMUM HORIZONTAL CLEARANCE AS MEASURED FROM THE OUTER WALL OF THE NEW WATERLINE TO THE END OF THE REMOVED OR CRUSHED PIPE SECTION AS REQUIRED. INSTALL CONCRETE PLUG IN THE OPEN END OF THE EXISTING PIPE SECTION TO REMAIN IN PLACE.
- VALVE TO REMAIN AND BE ABANDONED IN PLACE. THE PROCESS FOR ABANDONING THE VALVE IS: 1) THE VALVE IS TO BE PLACED IN THE CLOSED POSITION, 2) THE BOX IS TO BE REMOVED, 3) THE HOLE IS TO BE BACKFILLED AND THE PAVEMENT PATCHED.
- HOT TAP AND CONNECT TO EXISTING 10 INCH WATERLINE.
- INSTALL 6 INCH INLINE VALVE INSERTION.
- INSTALL 8 INCH PVC C900 DR18 WATERLINE.
- INSTALL 8 INCH WATER VALVE.
- REMOVE A 10' SECTION OF 6 INCH PIPE ALONG WITH THE 6 INCH WATER VALVE AND INSTALL 6 INCH PVC C900 DR18 WATERLINE.
- REPLACE SERVICE LINE. NEW 1" SERVICE LINE IS TO BE DIRECTLY CONNECTED FROM EXISTING METER TO NEW WATERLINE.

SURFACE IMPROVEMENTS

- REMOVE AND REPLACE EXISTING AC 12 INCHES BEYOND ALL TRENCH WALLS AND 3 INCHES IN DEPTH. TRENCH AREA EDGES ARE TO BE SAWCUT.
- SAWCUT, REMOVE, AND REPLACE SIDEWALK TO THE PANELS NEAREST SCORE LINE OR TO THE LIMITS SHOWN AS REQUIRED TO ACCOMMODATE THE PROPOSED IMPROVEMENTS.
- REMOVE AND REPLACE THERMOPLASTIC PEDESTRIAN CROSSWALK 12" LIMIT LINES - 10' CLEAR WIDTH - COLOR TO BE WHITE. APPLY "STOP" MARKING.
- REMOVE AND REPLACE THERMOPLASTIC "STOP" MARKING AND STOP BAR.
- APPLY DOUBLE SOLID 4" YELLOW THERMOPLASTIC CENTERLINE. (SEE CALTRANS STANDARD DETAIL 22)



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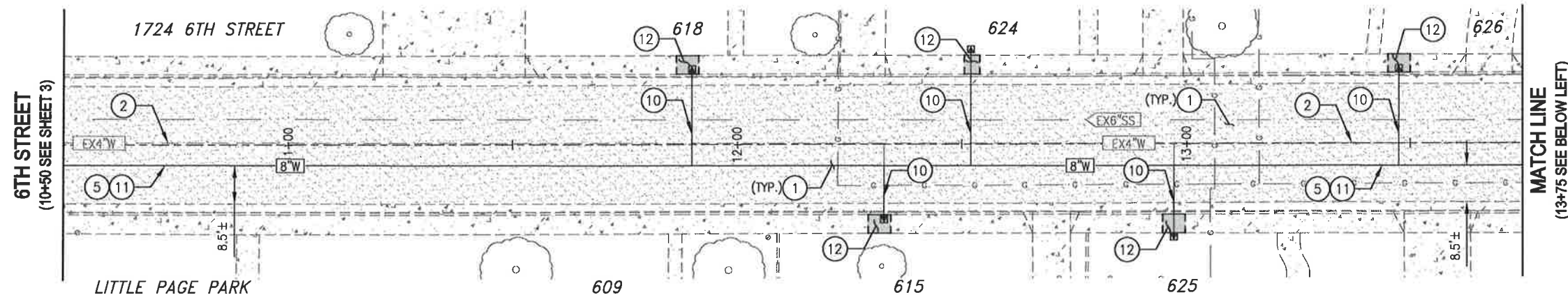
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CITY OF LOS BANOS

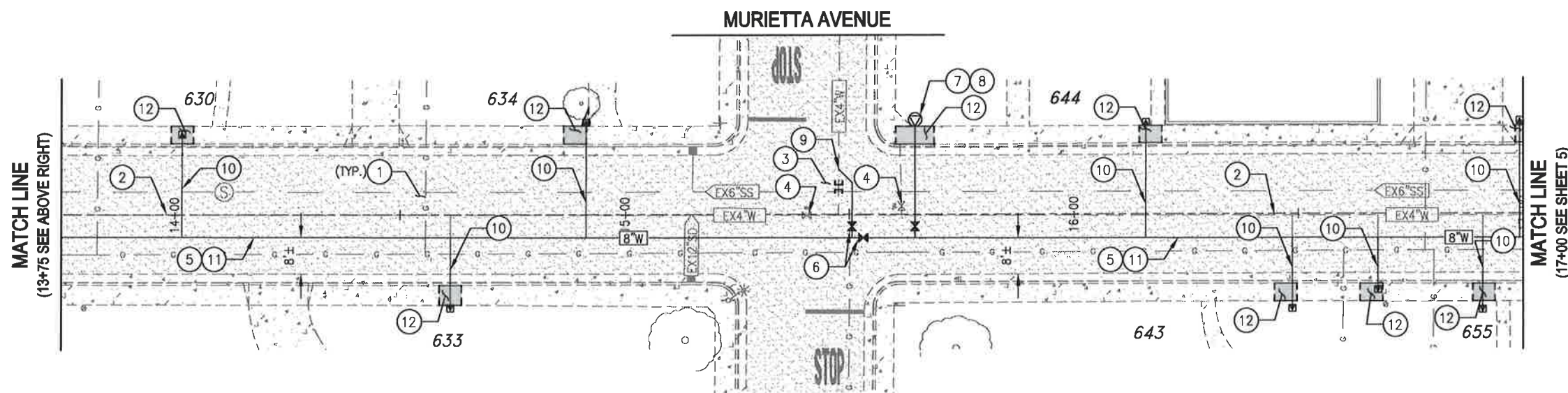
**MONROE AVE WATERLINE REPLACEMENT
6TH STREET IMPROVEMENTS
STA. 10+00 TO 13+50**

DESIGNED BY R. OROZCO	DATE 04/05/24	DRAWING C-103
CHECKED BY M. GOUVEIA	DATE 04/12/24	SHEET 3
APPROVED M. GOUVEIA	DATE 04/12/24	OF 9 SHEETS PROJECT NUMBER 840.06



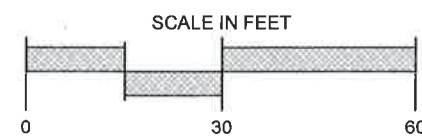
MONROE AVENUE

STATION 10+50 - 13+75



MONROE AVENUE

STATION 13+75 - 17+00



ESTIMATED QUANTITIES

8" WATERLINE	665	LF
8" WATER VALVE	2	EA
FIRE HYDRANT ASSEMBLY	1	EA
1" WATER SERVICE TRANSFER	13	EA
CONCRETE REPAIRS	375	SF

CONSTRUCTION NOTES

UNDERGROUND IMPROVEMENTS

- LOCATE AND PROTECT EXISTING UTILITIES IN PLACE.
- EXISTING WATERLINE IS TO BE DISCONNECTED FROM THE EXISTING SYSTEM AND ABANDONED IN PLACE AFTER THE PROPOSED WATERLINE IS ACTIVE.

REMOVE OR CRUSH IN PLACE THE EXISTING PIPE SECTION TO ALLOW INSTALLATION OF THE NEW WATERLINE. PROVIDE 12" MINIMUM HORIZONTAL CLEARANCE AS MEASURED FROM THE OUTER WALL OF THE NEW WATERLINE TO THE END OF THE REMOVED OR CRUSHED PIPE SECTION AS REQUIRED. INSTALL CONCRETE PLUG IN THE OPEN END OF THE EXISTING PIPE SECTION TO REMAIN IN PLACE.
- VALVE TO REMAIN AND BE ABANDONED IN PLACE. THE PROCESS FOR ABANDONING THE VALVE IS: 1) THE VALVE IS TO BE PLACED IN THE CLOSED POSITION, 2) THE BOX IS TO BE REMOVED, 3) THE HOLE IS TO BE BACKFILLED AND THE PAVEMENT PATCHED.
- INSTALL 8 INCH PVC C900 DR18 WATERLINE.
- INSTALL 8 INCH WATER VALVE.
- REMOVE EXISTING FIRE HYDRANT, CUT AND CAP PIPE 24" BELOW TOP OF ADJACENT SURFACE GRADE.
- INSTALL NEW FIRE HYDRANT ASSEMBLY.
- INSTALL REDUCER AS NEEDED AND CONNECT TO EXISTING WATERLINE.
- REPLACE SERVICE LINE. NEW 1" SERVICE LINE IS TO BE DIRECTLY CONNECTED FROM EXISTING METER TO NEW WATERLINE.

SURFACE IMPROVEMENTS

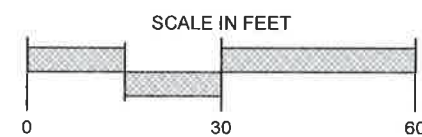
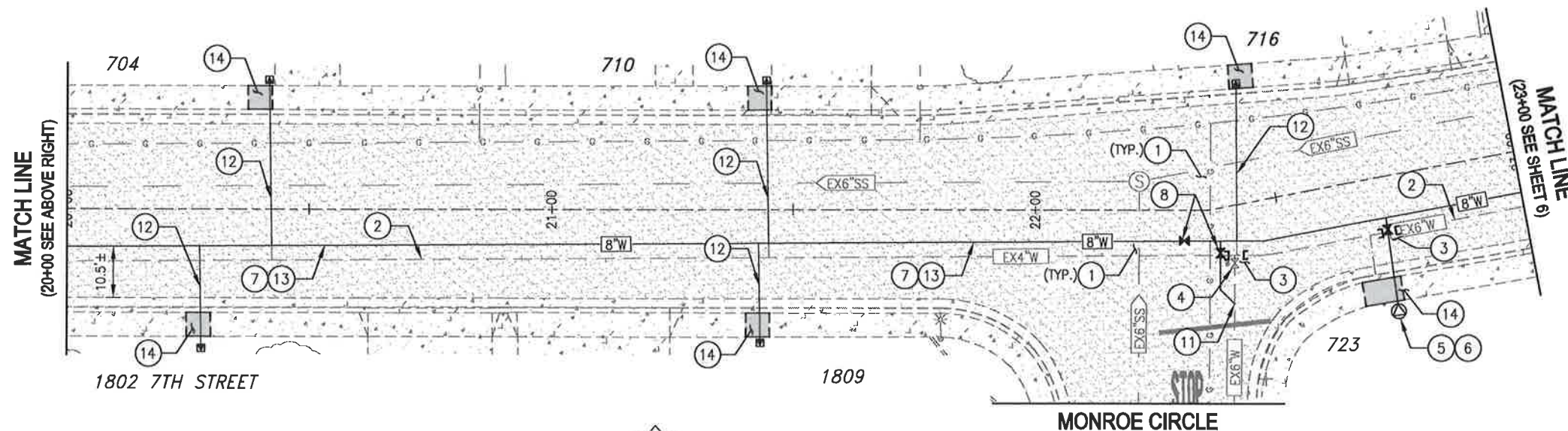
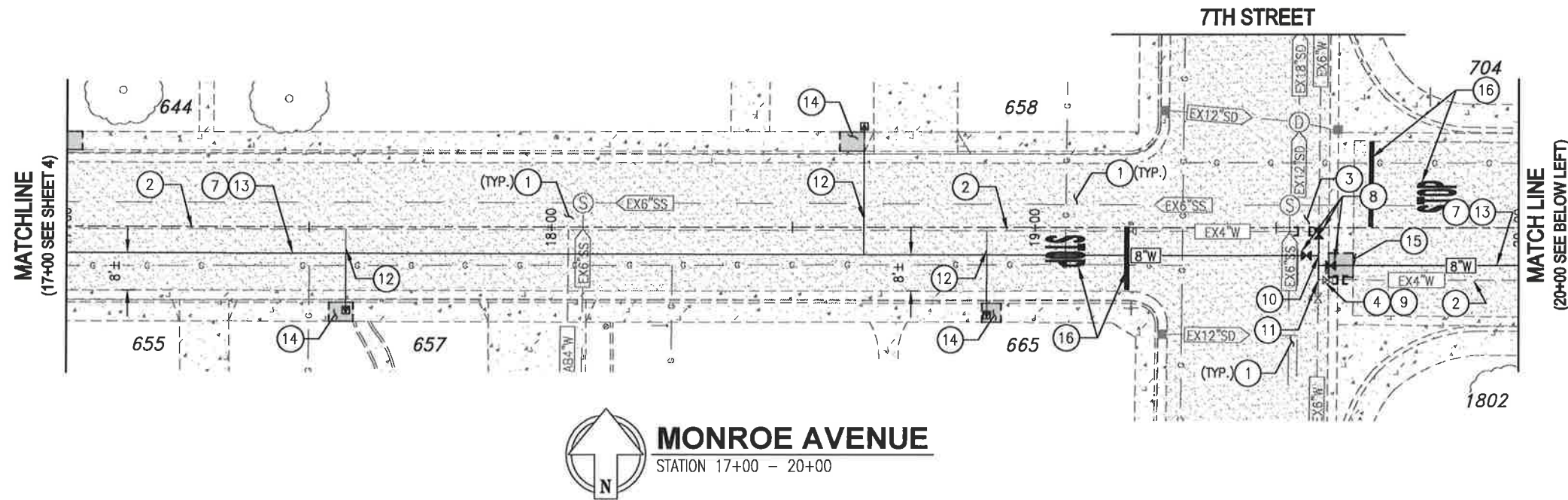
- REMOVE AND REPLACE EXISTING AC 12 INCHES BEYOND ALL TRENCH WALLS AND 3 INCHES IN DEPTH. TRENCH AREA EDGES ARE TO BE SAWCUT.
- SAWCUT, REMOVE, AND REPLACE SIDEWALK TO THE PANELS NEAREST SCORE LINE OR TO THE LIMITS SHOWN AS REQUIRED TO ACCOMMODATE THE PROPOSED IMPROVEMENTS.



CITY OF LOS BANOS

MONROE AVE WATERLINE REPLACEMENT MONROE AVENUE IMPROVEMENTS STA. 10+50 TO 17+00

DESIGNED BY R. OROZCO	DATE 04/05/24	DRAWING C-104
DRAWN BY R. OROZCO	DATE 04/05/24	SHEET 4
CHECKED BY M. GOUVEIA	DATE 04/12/24	OF 9 SHEETS
APPROVED M. GOUVEIA	DATE 04/12/24	PROJECT NUMBER 840.06



ESTIMATED QUANTITIES

8" WATERLINE	630	LF
8" WATER VALVE	5	EA
FIRE HYDRANT ASSEMBLY	1	EA
1" WATER SERVICE TRANSFER	8	EA
CONCRETE REPAIRS	275	SF
THERMOPLASTIC MARKINGS	82	SF

CONSTRUCTION NOTES

UNDERGROUND IMPROVEMENTS

- LOCATE AND PROTECT EXISTING UTILITIES IN PLACE.
 - EXISTING WATERLINE IS TO BE DISCONNECTED FROM THE EXISTING SYSTEM AND ABANDONED IN PLACE AFTER THE PROPOSED WATERLINE IS ACTIVE.
 - REMOVE OR CRUSH IN PLACE THE EXISTING PIPE SECTION TO ALLOW INSTALLATION OF THE NEW WATERLINE. PROVIDE 12" MINIMUM HORIZONTAL CLEARANCE AS MEASURED FROM THE OUTER WALL OF THE NEW WATERLINE TO THE END OF THE REMOVED OR CRUSHED PIPE SECTION AS REQUIRED. INSTALL CONCRETE PLUG IN THE OPEN END OF THE EXISTING PIPE SECTION TO REMAIN IN PLACE.
 - VALVE TO REMAIN AND BE ABANDONED IN PLACE. THE PROCESS FOR ABANDONING THE VALVE IS: 1) THE VALVE IS TO BE PLACED IN THE CLOSED POSITION, 2) THE BOX IS TO BE REMOVED, 3) THE HOLE IS TO BE BACKFILLED AND THE PAVEMENT PATCHED.
 - REMOVE EXISTING FIRE HYDRANT, CUT AND CAP PIPE 24" BELOW TOP OF ADJACENT SURFACE GRADE.
 - INSTALL NEW FIRE HYDRANT ASSEMBLY.
 - INSTALL 8 INCH PVC C900 DR18 WATERLINE.
 - INSTALL 8 INCH WATER VALVE.
 - INSTALL BLIND FLANGE.
 - REMOVE A 12' SECTION OF 6 INCH PIPE ALONG WITH THE 6 INCH WATER VALVE AND INSTALL 8 INCH PVC C900 DR18 WATERLINE.
 - INSTALL REDUCER AS NEEDED AND CONNECT TO EXISTING WATERLINE.
 - REPLACE SERVICE LINE. NEW 1" SERVICE LINE IS TO BE DIRECTLY CONNECTED FROM EXISTING METER TO NEW WATERLINE.
- ##### SURFACE IMPROVEMENTS
- REMOVE AND REPLACE EXISTING AC 12 INCHES BEYOND ALL TRENCH WALLS AND 3 INCHES IN DEPTH. TRENCH AREA EDGES ARE TO BE SAWCUT.
 - SAWCUT, REMOVE, AND REPLACE SIDEWALK TO THE PANELS NEAREST SCORE LINE OR TO THE LIMITS SHOWN AS REQUIRED TO ACCOMMODATE THE PROPOSED IMPROVEMENTS.
 - SAWCUT, REMOVE, AND REPLACE VALLEY GUTTER TO THE PANELS' NEAREST SCORE LINE OR TO THE LIMITS SHOWN AS REQUIRED TO ACCOMMODATE THE PROPOSED IMPROVEMENTS.
 - REMOVE AND REPLACE THERMOPLASTIC "STOP" MARKING AND STOP BAR.



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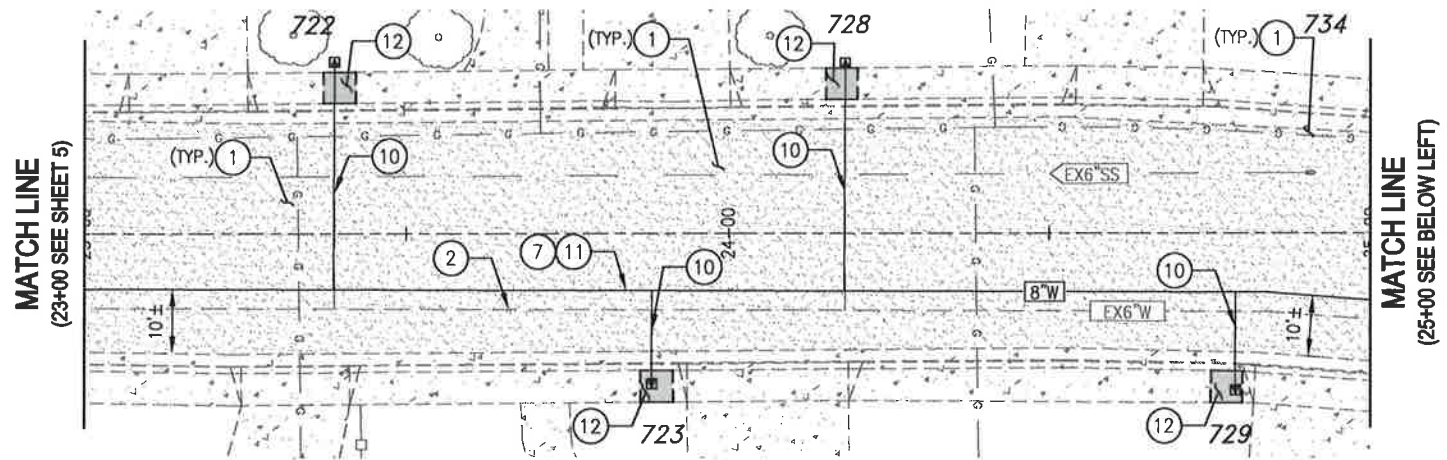
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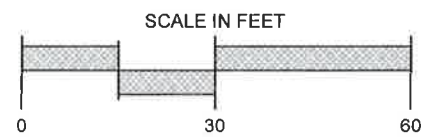
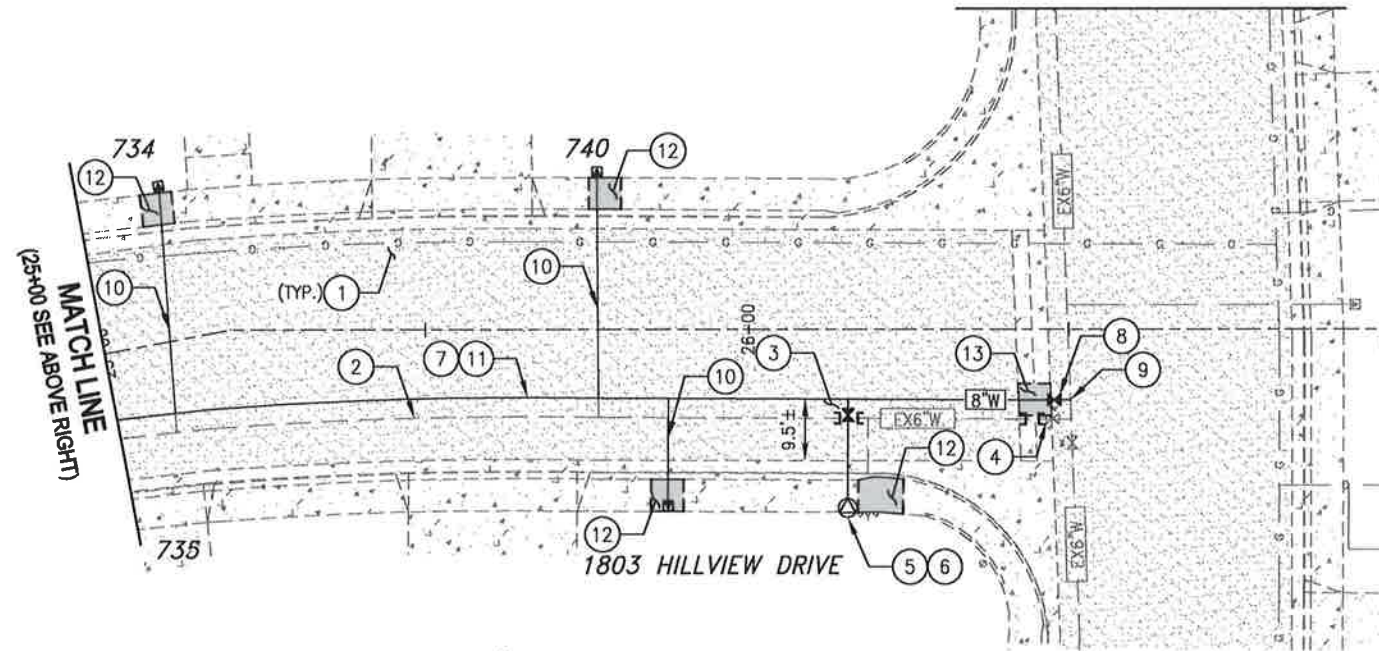
MONROE AVE WATERLINE REPLACEMENT
MONROE AVENUE IMPROVEMENTS
STA. 17+00 TO 23+00

DESIGNED BY
R. OROZCO
DATE
04/05/24
DRAWN BY
R. OROZCO
DATE
04/05/24
CHECKED BY
M. GOUVEIA
DATE
04/12/24
APPROVED
M. GOUVEIA
DATE
04/12/24

DRAWING
C-105
SHEET
5
OF 9 SHEETS
PROJECT NUMBER
840.06



HILLVIEW DRIVE



ESTIMATED QUANTITIES

8" WATERLINE	542	LF
8" WATER VALVE	1	EA
FIRE HYDRANT ASSEMBLY	1	EA
1" WATER SERVICE TRANSFER	7	EA
CONCRETE REPAIRS	250	SF

CONSTRUCTION NOTES

UNDERGROUND IMPROVEMENTS

- 1 LOCATE AND PROTECT EXISTING UTILITIES IN PLACE.
- 2 EXISTING WATERLINE IS TO BE DISCONNECTED FROM THE EXISTING SYSTEM AND ABANDONED IN PLACE AFTER THE PROPOSED WATERLINE IS ACTIVE.

REMOVE OR CRUSH IN PLACE THE EXISTING PIPE SECTION TO ALLOW INSTALLATION OF THE NEW WATERLINE. PROVIDE 12" MINIMUM HORIZONTAL CLEARANCE AS MEASURED FROM THE OUTER WALL OF THE NEW WATERLINE TO THE END OF THE REMOVED OR CRUSHED PIPE SECTION AS REQUIRED. INSTALL CONCRETE PLUG IN THE OPEN END OF THE EXISTING PIPE SECTION TO REMAIN IN PLACE.
- 3 VALVE TO REMAIN AND BE ABANDONED IN PLACE. THE PROCESS FOR ABANDONING THE VALVE IS: 1) THE VALVE IS TO BE PLACED IN THE CLOSED POSITION, 2) THE BOX IS TO BE REMOVED, 3) THE HOLE IS TO BE BACKFILLED AND THE PAVEMENT PATCHED.
- 4 REMOVE EXISTING FIRE HYDRANT, CUT AND CAP PIPE 24" BELOW TOP OF ADJACENT SURFACE GRADE.
- 5 INSTALL NEW FIRE HYDRANT ASSEMBLY.
- 6 INSTALL 8 INCH PVC C900 DR18 WATERLINE.
- 7 INSTALL 8 INCH WATER VALVE.
- 8 INSTALL A TEE AND REDUCERS AS NEEDED FOR CONNECTION TO THE EXISTING WATERLINE.
- 9 REPLACE SERVICE LINE. NEW 1" SERVICE LINE IS TO BE DIRECTLY CONNECTED FROM EXISTING METER TO NEW WATERLINE.

SURFACE IMPROVEMENTS

- 11 REMOVE AND REPLACE EXISTING AC 12 INCHES BEYOND ALL TRENCH WALLS AND 3 INCHES IN DEPTH. TRENCH AREA EDGES ARE TO BE SAWCUT.
- 12 SAWCUT, REMOVE, AND REPLACE SIDEWALK TO THE PANELS NEAREST SCORE LINE OR TO THE LIMITS SHOWN AS REQUIRED TO ACCOMMODATE THE PROPOSED IMPROVEMENTS.
- 13 SAWCUT, REMOVE, AND REPLACE VALLEY GUTTER TO THE PANELS NEAREST SCORE LINE OR TO THE LIMITS SHOWN AS REQUIRED TO ACCOMMODATE THE PROPOSED IMPROVEMENTS.



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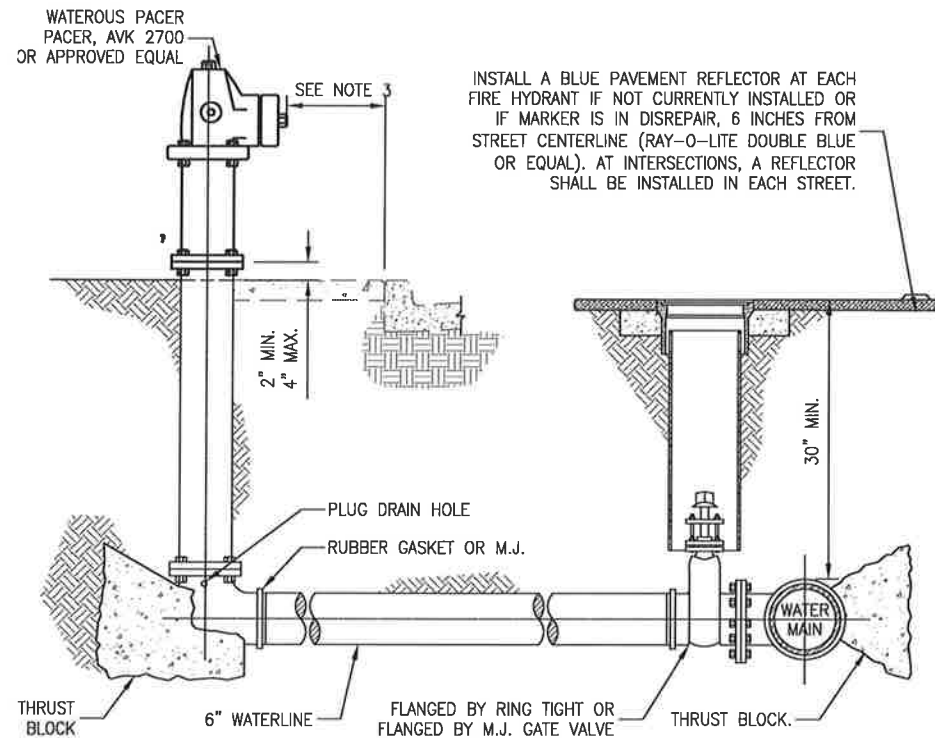
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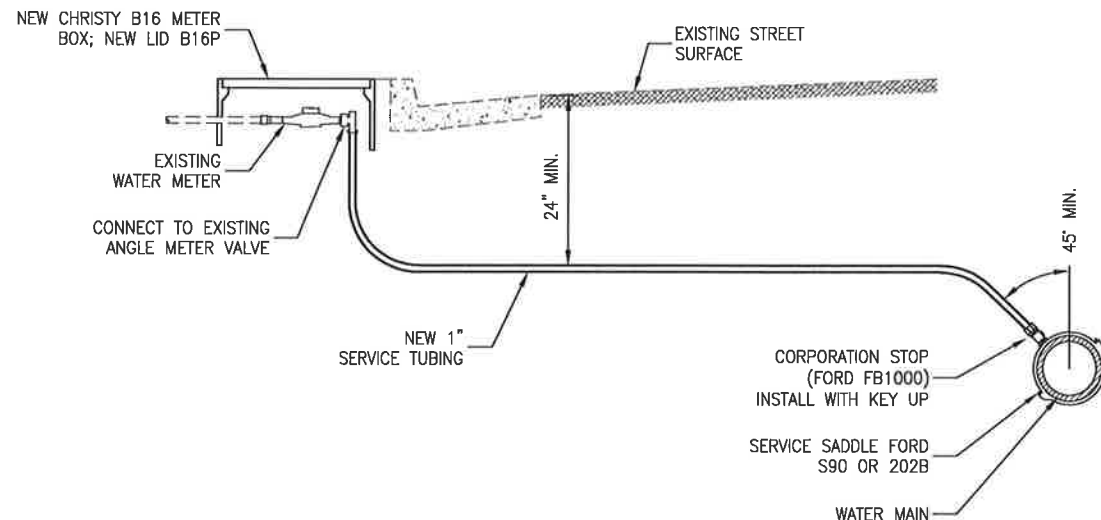
MONROE AVE WATERLINE REPLACEMENT
MONROE AVENUE IMPROVEMENTS
STA. 23+00 TO 27+00

DESIGNED BY	DATE
R. OROZCO	04/05/24
DRAWN BY	DATE
R. OROZCO	04/05/24
CHECKED BY	DATE
M. GOUVEIA	04/12/24
APPROVED	DATE
M. GOUVEIA	04/12/24

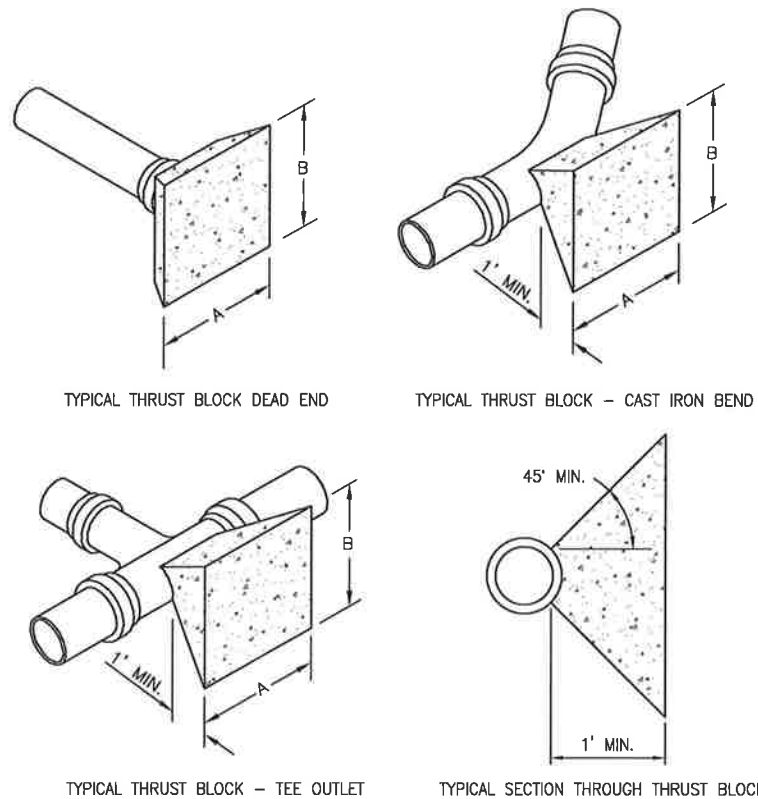
DRAWING	
C-106	
SHEET	
6	
OF 9 SHEETS	
PROJECT NUMBER	
840.06	



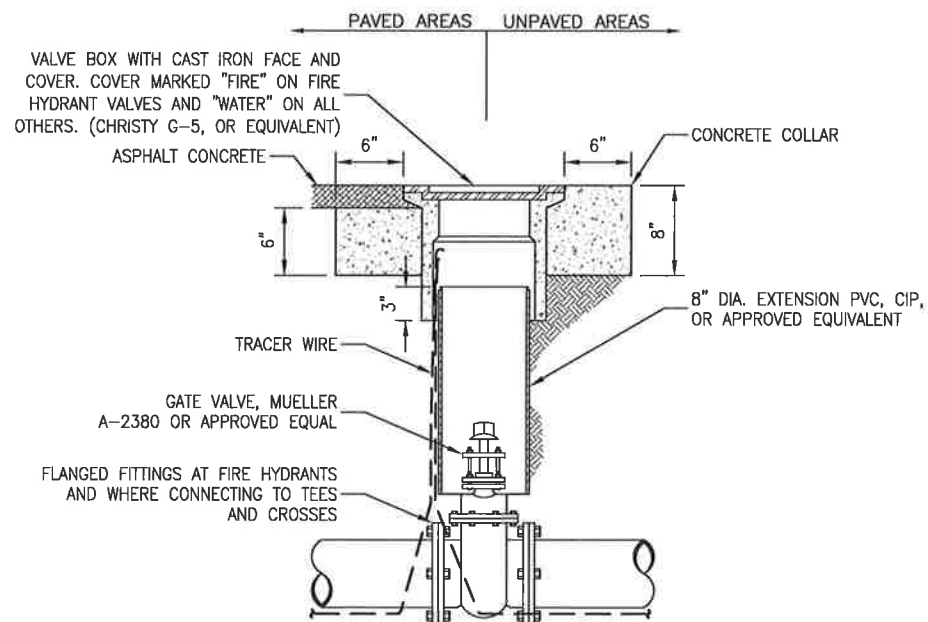
1 FIRE HYDRANT ASSEMBLY
NOT TO SCALE



2 WATER SERVICE CONNECTION
NOT TO SCALE



3 THRUST BLOCKS
NOT TO SCALE



4 WATER VALVE INSTALLATION
NOT TO SCALE

FITTINGS	THRUST BLOCK AREA REQUIRED	
	ALLOWABLE SOIL BEARING VALUE 1,500 LBS. PER SQ. FT.	
6" LINE	"A"	"B"
22-1/2"	1'-6"	1'-0"
45"	2'-0"	1'-3"
90"	3'-0"	1'-6"
TEE OUTLET	2'-0"	1'-6"
DEAD END	2'-0"	1'-6"
8" LINE	"A"	"B"
22-1/2"	1'-6"	1'-6"
45"	2'-6"	1'-6"
90"	4'-0"	2'-0"
TEE OUTLET	2'-9"	2'-0"
DEAD END	2'-9"	2'-0"
10" LINE	"A"	"B"
22-1/2"	2'-3"	1'-6"
45"	3'-0"	2'-0"
90"	5'-0"	2'-6"
TEE OUTLET	3'-3"	2'-6"
DEAD END	3'-3"	2'-6"

DETAIL NOTES

FIRE HYDRANTS

- HYDRANT RUN BETWEEN GATE VALVE AND HYDRANT ELBOW SHALL NOT RISE MORE THAN 1/4-INCH PER FOOT.
- WRAP THE FIRE HYDRANT AND WATER MAIN FITTINGS WITH 6-MIL PLASTIC PRIOR TO POURING THRUST BLOCKS.
- HYDRANT SHALL BE INSTALLED AT THE EDGE OF BACK OF WALK AND A MINIMUM OF 3' PATH OF TRAVEL SHALL BE MAINTAINED.
- HYDRANT TO BE PAINTED FACTORY SILVER ENAMEL FINISH COAT.

WATER SERVICE CONNECTIONS

- SERVICE TUBING SHALL BE 1" CLASS 160 POLYETHYLENE (PE3408, SDR7, PR160 PSI) IN COPPER TUBING SIZES AND SHALL BE SUITABLE FOR TRANSPORTING POTABLE WATER. POLYETHYLENE PIPE SHALL COMPLY WITH ASTM STANDARD D2239. NO JOINTS ARE PERMITTED BETWEEN CORPORATION STOP AND ANGLE METER VALVE.
- STAINLESS STEEL INSERT SHALL BE USED INSIDE P.E. TUBING AT ALL PACK JOINT CONNECTIONS.
- CURB STOPS SHALL BE DIRECTLY OPPOSITE SERVICE SADDLES UNLESS OTHERWISE APPROVED BY THE ENGINEER.
- TRAFFIC LID REQUIRED IF LOCATED IN TRAVELED AREA.

VALVES

- SAME INSTALLATION APPLIES TO BUTTERFLY VALVES.
- IF VALVE OPERATING NUT IS INSTALLED DEEPER THAN 3' BELOW FINISHED GROUND ELEVATION, INSTALL NUT VALVE EXTENSION TO RAISE OPERATING NUT TO WITHIN 2'-FEET FROM FINISHED GROUND ELEVATION. NUT EXTENSION SHALL BE APPROVED BY ENGINEER.

THRUST BLOCKS

- ALL VALUES SHOWN ARE MINIMUM FOR A HYDROSTATIC PRESSURE OF 150 P.S.I. AND A SOIL RESISTANCE OF 1,500 LBS./SQ. FT. WITH A MINIMUM PIPELINE COVER OF 2'-6".
- REDUCTION OF THE THRUST BLOCK SURFACE AREA WILL BE CONSIDERED UPON SUBMITTAL OF APPROVED SOIL BEARING TEST RESULTS GREATER THAN 1,500 LBS./SQ. FT.
- ALL THRUST BLOCKS SHALL BE POURED AGAINST UNDISTURBED SOIL.
- THRUST BLOCKS SHOWN ARE FOR HORIZONTAL THRUST RESTRAINT. FOR VERTICAL THRUST RESTRAINT, DETAILS SHALL BE PROVIDED BY DESIGN ENGINEER.



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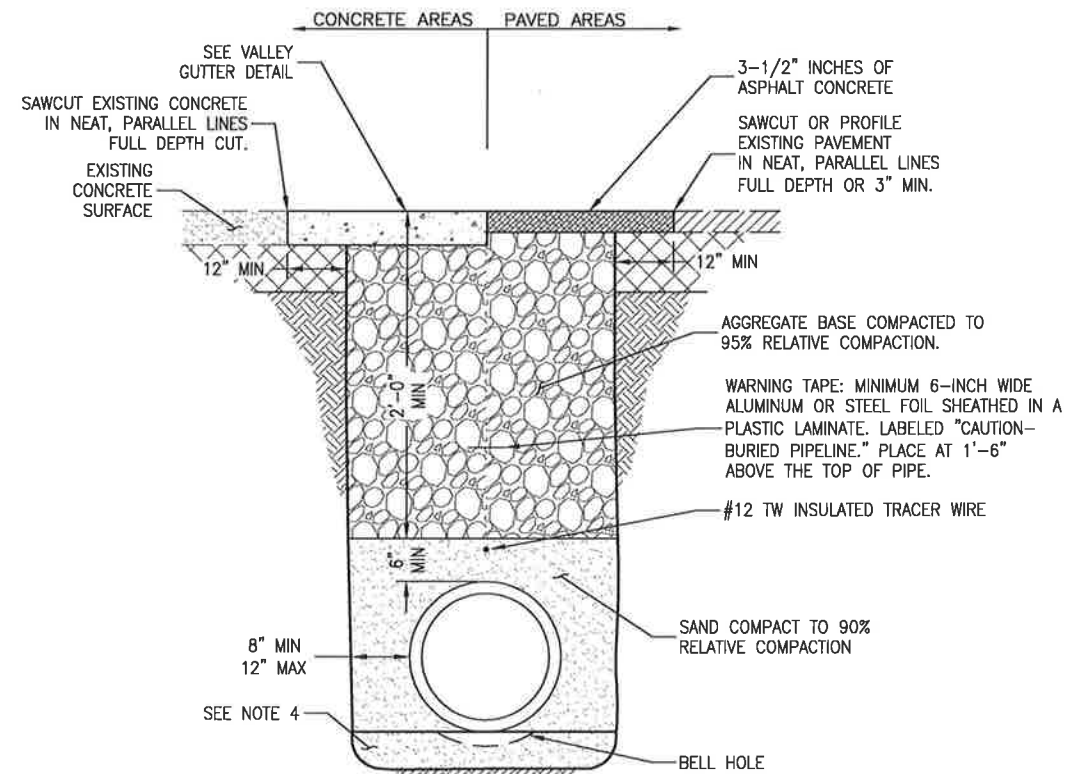


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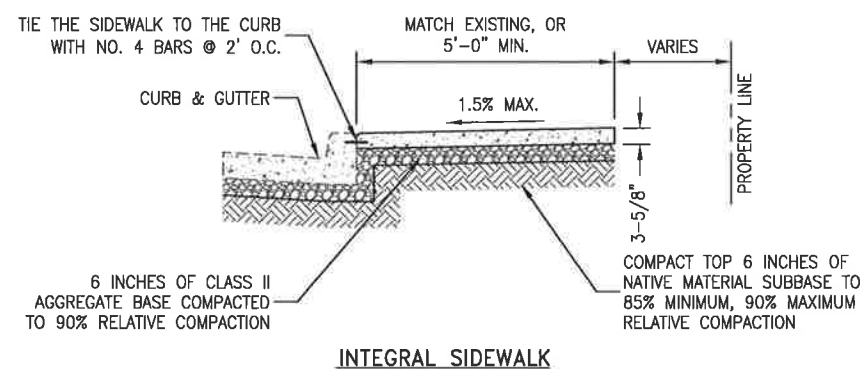
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CITY OF LOS BANOS
MONROE AVE WATERLINE REPLACEMENT
WATER IMPROVEMENT DETAILS

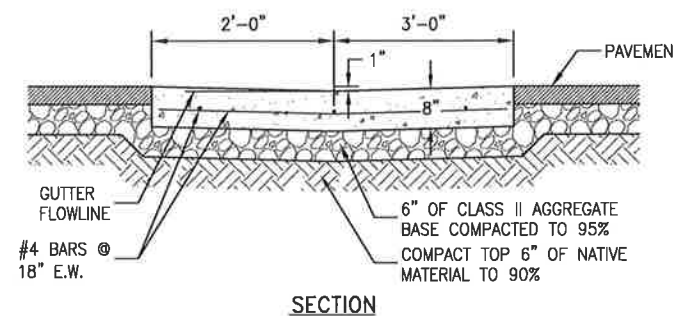
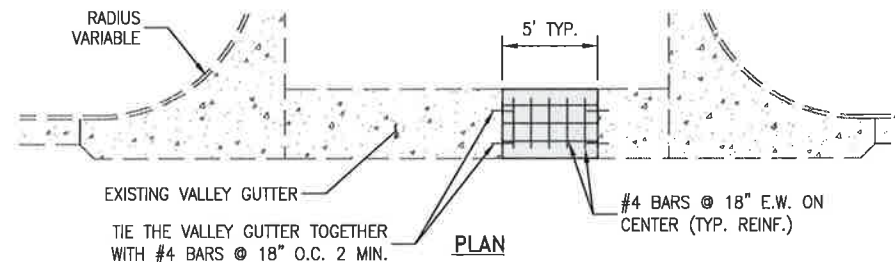
DESIGNED BY R. OROZCO	DATE 04/05/24	DRAWING C-107
DRAWN BY R. OROZCO	DATE 04/05/24	SHEET 7
CHECKED BY M. GOUVEIA	DATE 04/12/24	OF 9 SHEETS
APPROVED M. GOUVEIA	DATE 04/12/24	PROJECT NUMBER 840.06



1 **WATERLINE TRENCH DETAIL**
NOT TO SCALE



2 **SIDEWALK DETAIL**
NOT TO SCALE



3 **VALLEY GUTTER DETAIL**
NOT TO SCALE

DETAIL NOTES

WATERLINE TRENCH

- TRENCH WALL SHOWN VERTICAL FOR CLARITY, EXCAVATE PER OSHA SAFETY REQUIREMENTS.
- IF THE BOTTOM OF TRENCH IS SOFT OR UNSTABLE, IT SHALL BE OVER-EXCAVATED A MINIMUM OF 1 FOOT BELOW GRADE AND BACKFILLED WITH APPROVED IMPORTED MATERIAL.
- FOR PVC PRESSURE PIPE, PROVIDE 4 INCHES OF SAND BEDDING. COMPACT TO 90% MINIMUM RELATIVE COMPACTION.
- SAND SHALL CONFORM TO THE FOLLOWING GRADING REQUIREMENTS:

SIEVE SIZE	PERCENTAGE PASSING
#4	100
#16	0-70
#30	0-15
#200	0-5

- RELATIVE COMPACTION IS EXPRESSED AS A PERCENTAGE OF MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D 1557.

CONCRETE NOTES

- SOIL DENSITIES ARE EXPRESSED AS PERCENTAGE OF MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D 1557.
- CITY SHALL APPROVE SUBGRADE AND AGGREGATE BASE PREPARATION PRIOR TO PLACEMENT OF CONCRETE.
- IMMEDIATELY PRIOR TO PLACEMENT OF CONCRETE, THE GEOTECHNICAL ENGINEER SHALL CERTIFY THE MOISTURE CONTENT OF THE NATIVE MATERIAL SUBBASE HAS A MOISTURE CONTENT OF NOT LESS THAN 3% ABOVE OPTIMUM. IN ADDITION, AGGREGATE BASE SHALL HAVE A MOISTURE CONTENT AS SPECIFIED BY THE DIRECTOR.
- TIE THE SIDEWALK TO THE CURB WITH NO. 4 BARS @ 2' O.C.



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Apr 17, 2024 - 6:55am
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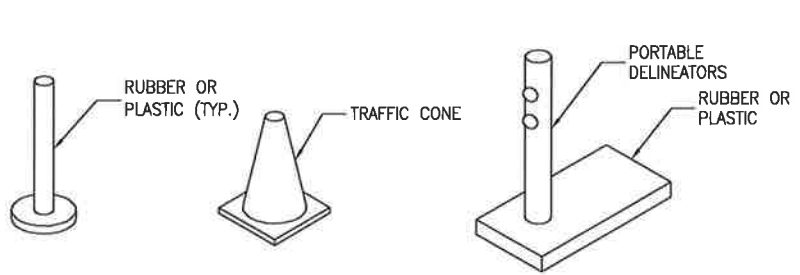
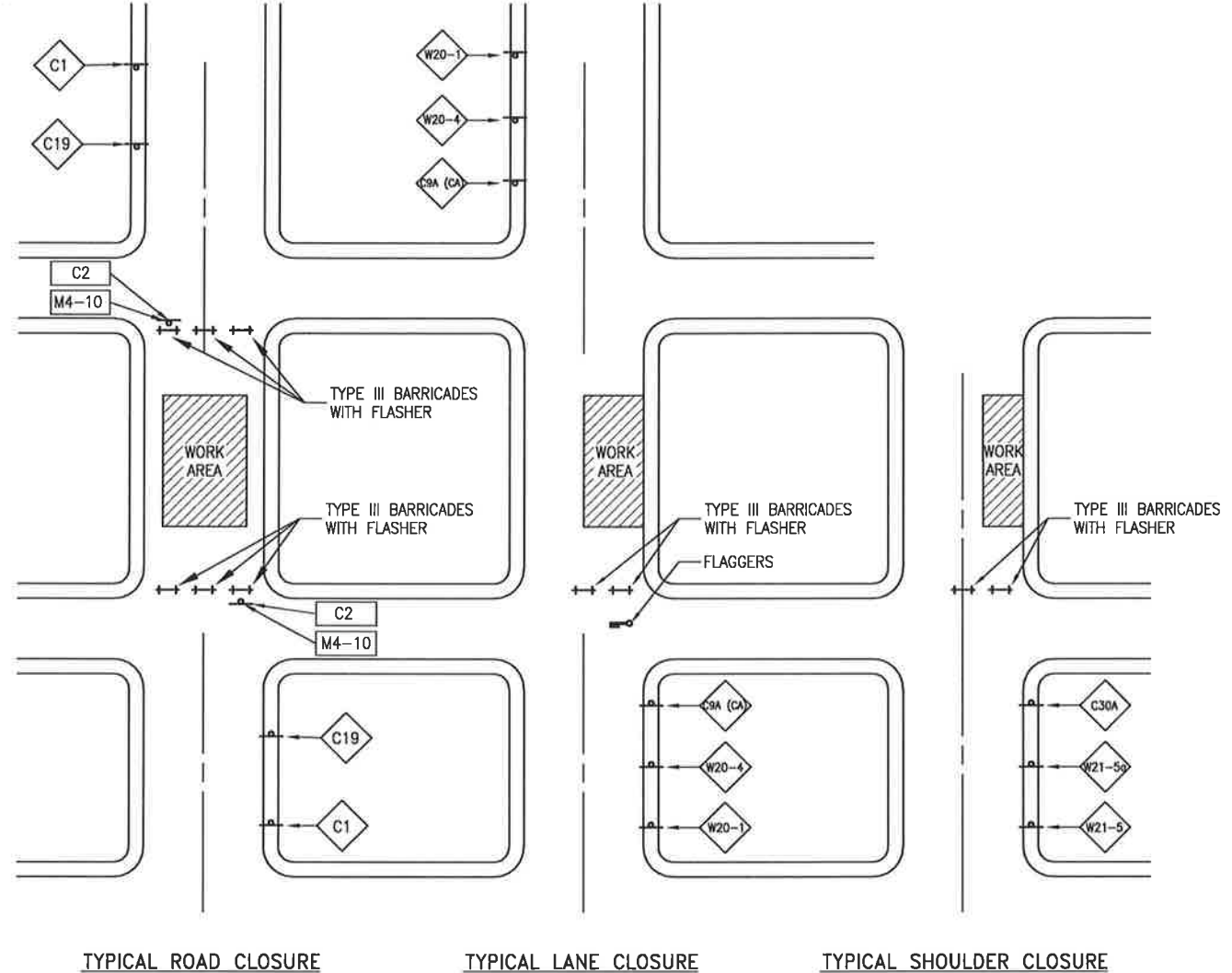
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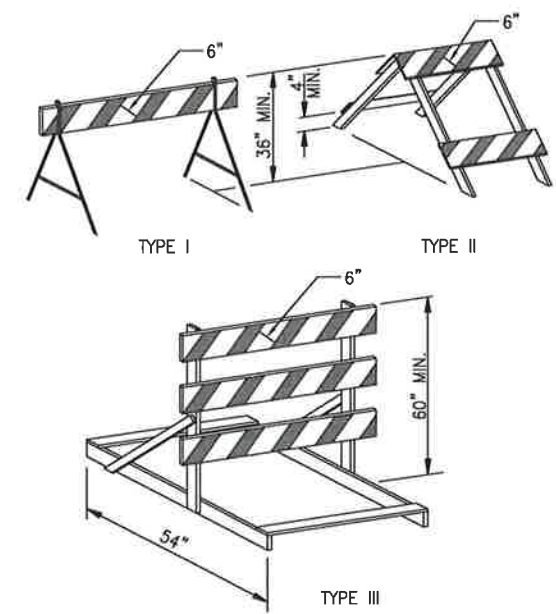
CITY OF LOS BANOS
MONROE AVE WATERLINE REPLACEMENT
TRENCH BACKFILL AND
CONCRETE DETAILS

DESIGNED BY R. OROZCO	DATE 04/05/24
DRAWN BY R. OROZCO	DATE 04/05/24
CHECKED BY M. GOUVEIA	DATE 04/12/24
APPROVED M. GOUVEIA	DATE 04/12/24

DRAWING C-108
SHEET 8
OF 9 SHEETS PROJECT NUMBER 840.08



3 TRAFFIC DELINEATORS
NOT TO SCALE



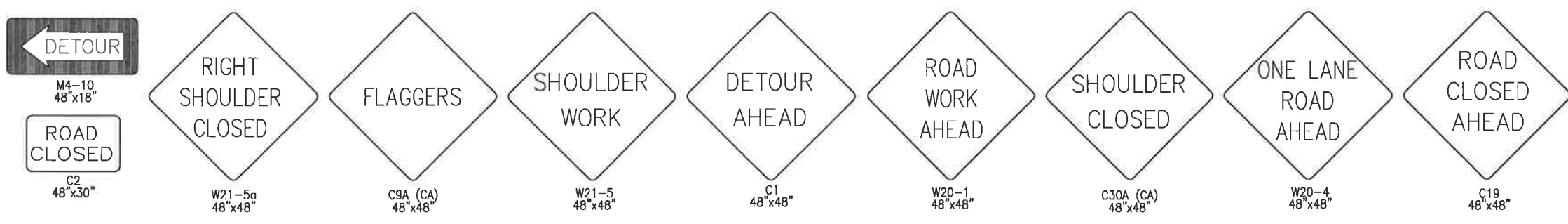
- NOTES
1. PLACEMENT OF BARRICADES SHALL NOT PRECLUDE ENTRANCE OF EMERGENCY VEHICLES.
 2. ADDITIONAL DETOUR SIGNS MAY BE REQUIRED BY THE CITY ENGINEER.
 3. REFLECTORS AS REQUIRED BY THE CITY ENGINEER OR PUBLIC WORKS DIRECTOR.
- OR SIGN PER
- TYPE III BARRICADE PER
- REFERENCE DETAIL
- 2
- 4

BARRICADE AND PORTABLE FLASHER SUPPORT CHARACTERISTICS

TYPE	1	2	3	PORTABLE FLASHER SUPPORT
WIDTH OF RAIL	8" - 12"	8" - 12"	8" - 12"	TOP - 8" - 12" BOTTOM - 4" MIN.
LENGTH OF RAIL	2' MIN.	32" - 4'	3' MIN.	31" MAX.
WIDTH OF STRIPE	6"	6"	6"	4" OR 6"
HEIGHT	3' MIN.	3' MIN.	5' MIN.	30" MIN.
NUMBER OF RAILS FACES REFLECTORIZED	2	4	3 IF FACING TRAFFIC IN ONE DIRECTION. 6 IF FACING TRAFFIC IN TWO DIRECTIONS.	2 IF TOP RAIL IS 12" WIDE. 4 IF TOP RAIL IS LESS THAN 12" WIDE.

1 CLOSURE DETAILS
NOT TO SCALE

4 PORTABLE BARRICADES
NOT TO SCALE



2 TYPICAL CONSTRUCTION SIGNS
NOT TO SCALE



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CITY OF LOS BANOS
MONROE AVE WATERLINE REPLACEMENT
TRAFFIC CONTROL DETAILS

DESIGNED BY R. OROZCO	DATE 04/05/24	DRAWING C-109 SHEET 9 OF 9 SHEETS PROJECT NUMBER 840.06
DRAWN BY R. OROZCO	DATE 04/05/24	
CHECKED BY M. GOUVEIA	DATE 04/12/24	
APPROVED M. GOUVEIA	DATE 04/12/24	