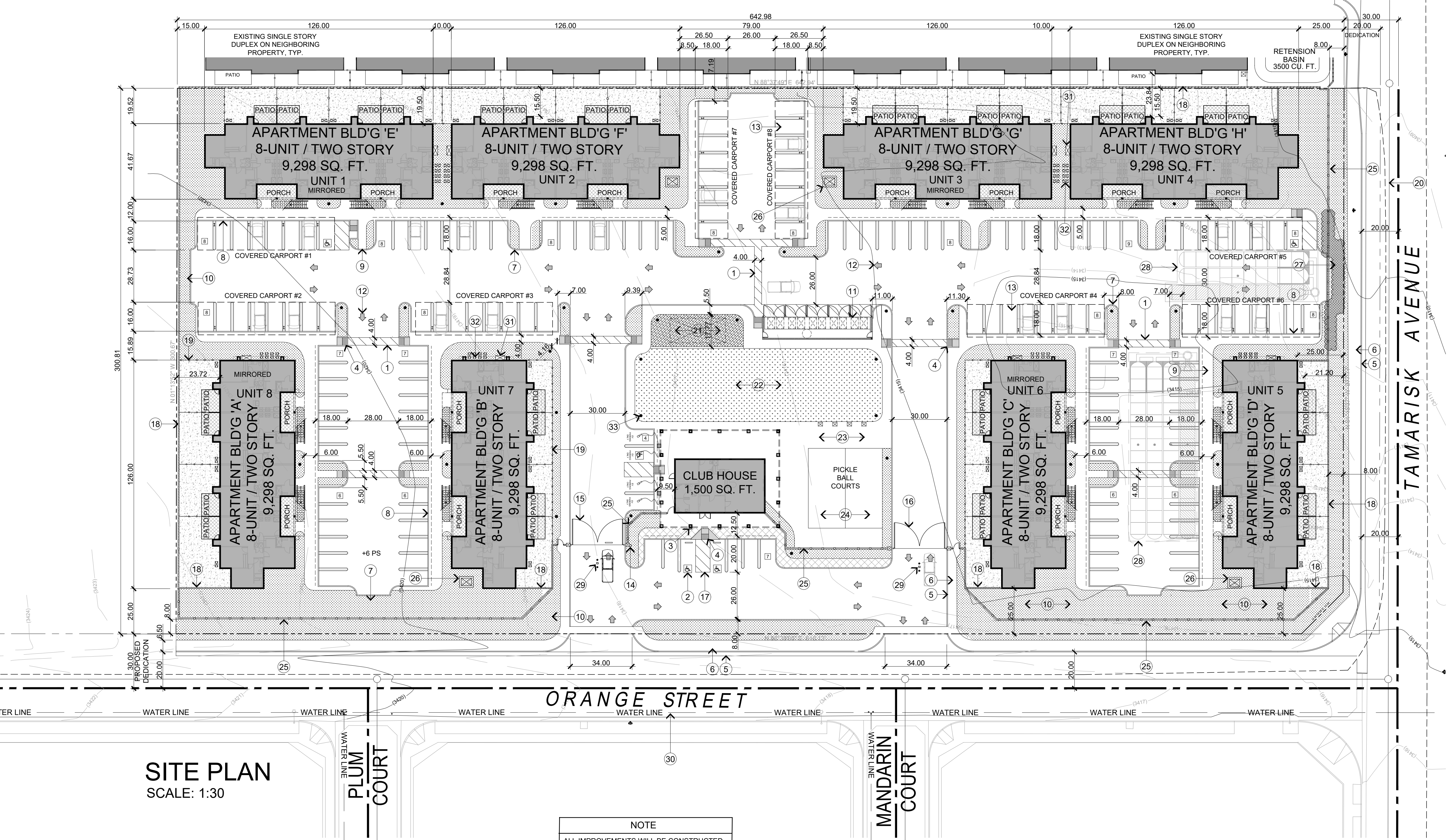


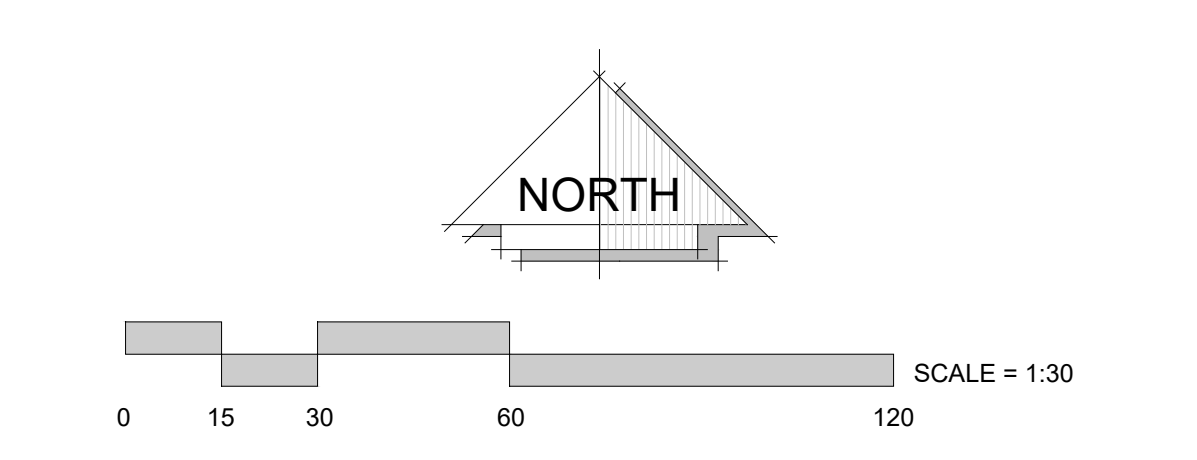
Appendix G

Project Plans

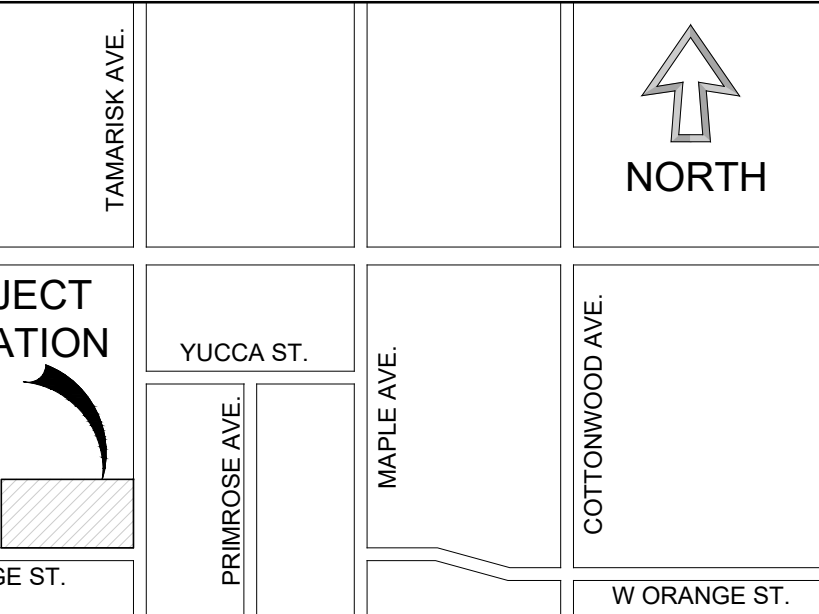
Steenno Designs



SITE PLAN
SCALE: 1:30



VICINITY MAP



PROJECT DATA

ZONE:	MDR - MEDIUM DENSITY RESIDENTIAL
OCCUPANCY'S:	R2(APT), B(OFFICE)
CONSTRUCTION TYPE:	II-A
STORIES:	2 STORY
FIRE SPRINKLERS	YES
APPLICANT / OWNER:	ARCHITECT:
MUNEM MAIDA 13302 RANCHERO RD., OAK HILLS, CA 92344	STEENO DESIGN STUDIO, INC. ARCHITECT: TOM STEENO 11774 HESPERIA RD. SUITE B-1 PH: 760.244.5001 FX: 760.244.1948
CODES:	
BUILDING CODE:	2022 CALIF. BUILDING CODE (C.B.C.)
ELECTRICAL CODE:	2022 CALIF. ELECTRICAL CODE (C.E.C.)
MECHANICAL CODE:	2022 CALIF. MECHANICAL CODE (C.M.C.)
PLUMBING CODE:	2022 CALIF. PLUMBING CODE (C.P.C.)
FIRE CODE:	2022 CALIF. FIRE CODE (C.F.C.)
ENERGY CODE (TITLE 24 - PART 6):	2022 CALIF. ENERGY STANDARDS
ACCESSIBILITY CODE:	2022 CALIF. BUILDING CODE - CHAPTER 11
GREEN CODE (TITLE 24 - PART 11):	2022 CALIF. GREEN BUILDING STANDARDS (C.G.C.)

SITE DATA

A.P.N: _____
3057-121-08-0000

LEGAL DESCRIPTION: _____
THE SOUTH 1/2 OF THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SECTION 24, TOWNSHIP 4 NORTH, RANGE 5 WEST, SAN BERNARDINO BASE AND MERIDIAN, IN THE CITY OF HESPERIA, COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT THEREOF

SITE AREA		
AREA		SQ. FOOTAGE
GROSS LAND AREA (PRIOR ROAD DEDICATIONS)	5.11 ACRES	222,789 S.F.
NET LAND AREA (AFTER ROAD DEDICATIONS)	4.43 ACRES	193,063 S.F.

PROPOSED LAND AREA & COVERAGE		
AREA	SQ. FOOTAGE	% COVERAGE
BUILDING AREA (TOTAL)	39,196	20.3%
A/C PAVING	67,943	35.2%
CONCRETE HARDSCAPE & CURBING	33,628	17.4%
LANDSCAPED AREA	52,296	27.1%
TOTAL NET LAND AREA COVERAGE =	193,063 S.F.	100%
DENSITY PER UNIT ACRE	14.44 UNITS PER ACRE	

BUILDING INFORMATION

BUILDING DATA				
BUILDING TYPE	QUANTITY	ONE BEDRM	TWO BEDRM	THREE BEDRM
QUADPLEX BLDG. (8 TOTAL)	64	-	48	16
REC. BUILDING	1	-	-	-

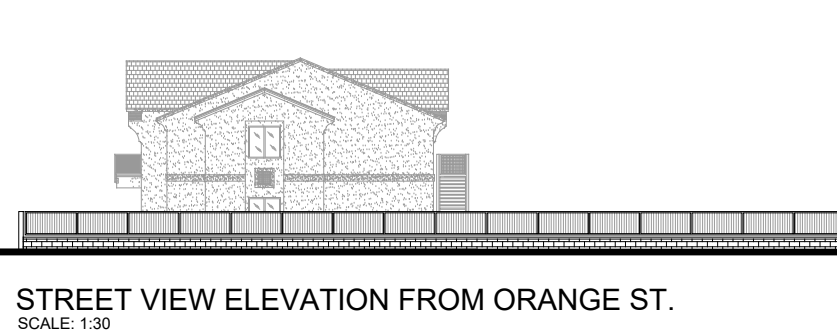
PLAN CHECK NOTE: BUILDINGS 1-8 ARE MULTI-TENANT DWELLING WITH INDIVIDUAL UNITS A & B FORMING THE QUADPLEX THEREFORE THE ACTUAL NUMBER OF UNITS EQUAL 64

PARKING INFORMATION

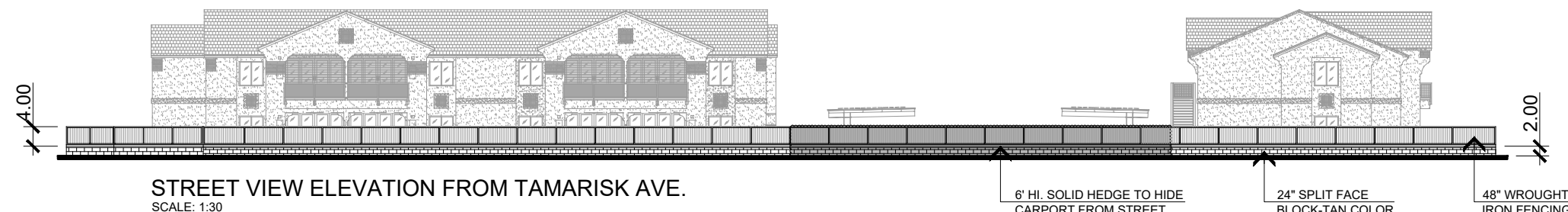
REQUIRED PARKING: NOTE: ALL COVERED PARKING TO BE ASSIGNED SPACES				
AREA	RATIO	COVERED PARKING REQ.	UNCOVERED PARKING REQ.	TOTAL REQ.
2 BEDROOM UNITS (1 COVERED REQUIRED)	2.25 : 1	48	60	108
3 BEDROOM UNITS (1 COVERED REQUIRED)	2.25 : 1	16	20	36
OFFICE @ REC BUILDING 175 SQ. FT.	250 : 1	-	1	1
TOTAL REQUIRED =		64	81	145
TABLE 11B-208.2 26-50 = 2 ACCESSIBLE STALLS REQUIRED				
PROVIDED PARKING:				TOTAL PROVIDED
COVERED SPACES				64
UNCOVERED SPACES				96
(2) ACCESSIBLE PARKING STALLS INCLUDED IN UNCOVERED SPACES				(2)
TOTAL PROVIDED =				160

SHARED OUTDOOR SPACE	
TOT LOT	1,495 SF.
OPEN GRASS SPACE	5,438 SF.
BBQ AREA	675 SF.
PICKET BALL COURT	2,528 SF.
OUTDOOR SPACE @ CLUBHOUSE	3,517 SF.
TOTAL	13,653 SF.
REQUIRED SHARED OUTDOOR SPACE PER UNIT	
64 UNITS TOTAL X 200 SQ. FT. PER UNIT	= 12,800 SQ. FT.
PROVIDED SHARED OUTDOOR SPACE PER UNIT	
13,653 SQ. FT. OF OUTDOOR SPACE / 64 UNITS = 213.3 SF. PER UNIT	

HESPERIA UTILITIES	
WATER (PROPOSED): HESPERIA WATER DISTRICT 9393 SANTA FE AVE. HESPERIA, CA 92345 (760) 947-1400	ELECTRIC (PROPOSED): SOUTHERN CALIFORNIA EDISON CO. 12353 HESPERIA RD. VICTORVILLE, CA 92392 (760) 951-3237
TELEPHONE (PROPOSED): VERIZON 15168 LA PAZ ROAD VICTORVILLE, CA 92392 (800) 772-5153	ADVANCED DISPOSAL INC. 17105 MESA RD. HESPERIA, CA 92345 SEWER HESPERIA WATER DISTRICT 9393 SANTA FE AVE. HESPERIA, CA 92345 (760) 947-1400
GAS (PROPOSED): SOUTHWEST GAS CO. 13471 MARIPOSA ROAD VICTORVILLE, CA 92392 (760) 951-4055	



STREET VIEW ELEVATION FROM ORANGE ST.
SCALE: 1:30



STREET VIEW ELEVATION FROM TAMARISK AVE.
SCALE: 1:30

KEYED NOTES

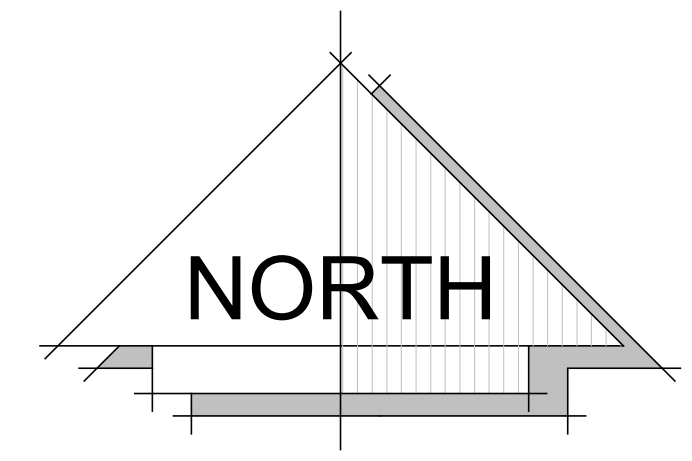
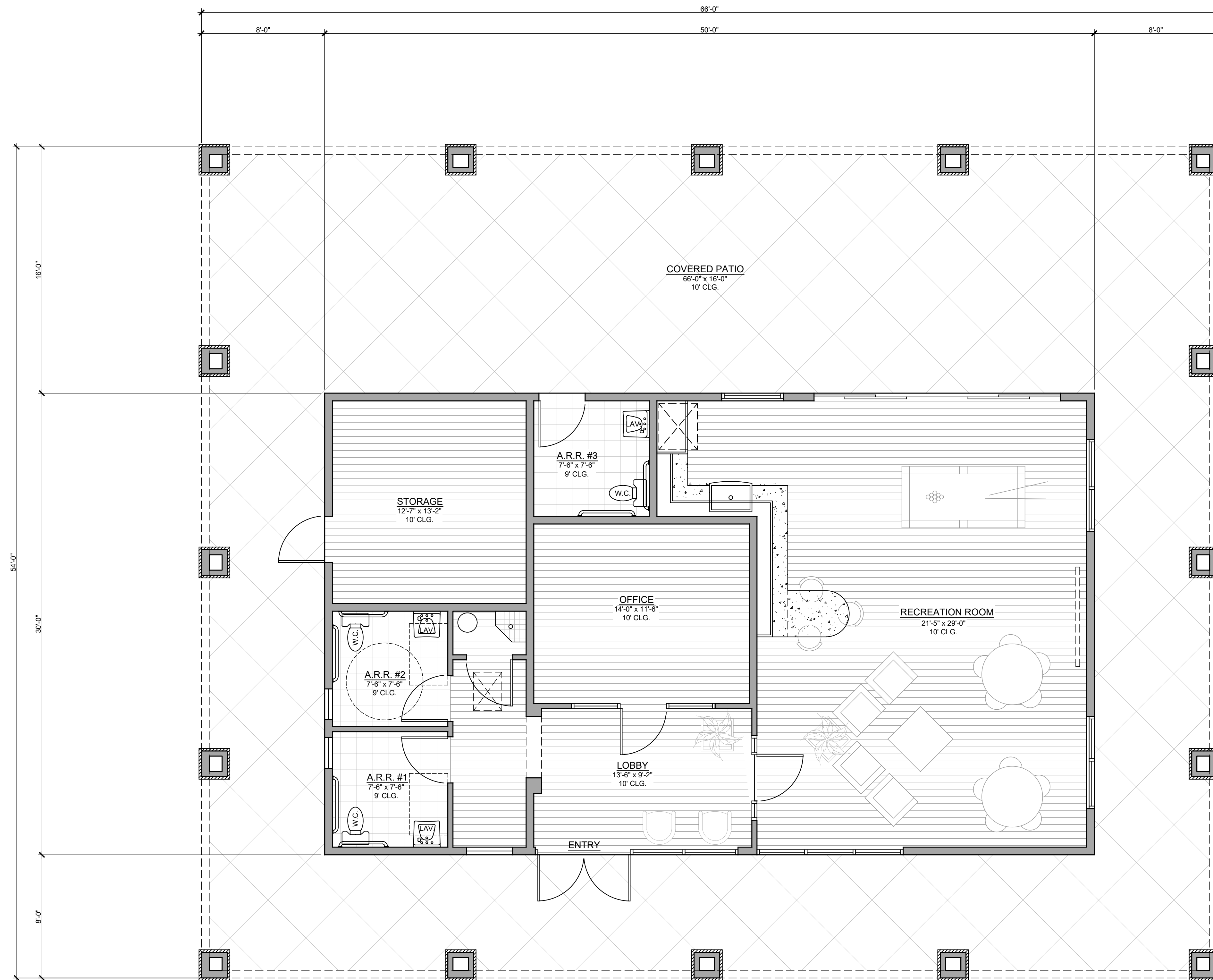
- (X) SYMBOL
- 48" WIDE ACCESSIBILITY ACCESS W/ BLUE STRIPES
 - ALL ACCESSIBLE PARKING SPACES ARE ALSO VAN ACCESSIBLE, TYP. ACCESSIBILITY STALL EMBLEM PAINTED AS SHOWN
 - WARNING SIGNAGE REGARDING UNAUTHORIZED USE OF DISABLED PARKING SPACES
 - A.D.A RAMP NOT TO EXCEED 5% SLOPE IN DIRECTION OF RUN AND 2% MAX CROSS SLOPE TRUNCATED DOMES, 36" DEPT x WIDTH OF RAMP
 - PROPOSED CONC. CURB & GUTTER PER CITY OF HESPERIA STANDARDS
 - PROPOSED 6" WD. CONC. SIDEWALK PER CITY OF HESPERIA STANDARDS
 - 6" WIDE CONCRETE CURB.
 - 6" WIDE CONCRETE CURB. W/ 2" PARKING NOSE OVER
 - 4" NOMINAL THICK CONCRETE WALKWAYS
 - LANDSCAPED AREA SEE LANDSCAPE PLANS
 - 6'-0" HIGH COVERED TRASH ENCLOSURE PER CITY STANDARDS & 8" THK. REINFORCED CONCRETE PAD W/ 2% MAXIMUM SLOPE AWAY FROM TIE
 - TRAFFIC FLOW DIRECTIONAL ARROWS PAINTED ON PAVING AS SHOWN ON PLAN
 - COVERED PARKING (CARPORT) FOR SOLAR PANELS
 - PROPOSED KNOX BOX LOCATION FOR FIRE DEPT. ENTRY
 - DOUBLE WROUGHT IRON SWING ENTRY GATE W/ KEYPAD (MAIN ENTRANCE)
 - DOUBLE WROUGHT IRON SWING ENTRY GATE NO KEYPAD (EXIT)
 - 8'-0" WIDE ACCESSIBILITY ACCESS W/ BLUE STRIPES
 - 6' HI. TAN SPLIT FACE MASONRY WALL
 - 6' HI. VINYL FENCING TYP.
 - EXISTING 12" SEWER
 - TOT LOT
 - OPEN GRASS SPACE
 - BBO AREA
 - PICKLE BALL COURT
 - 2' MASONRY WALL W/ 4' WROUGHT IRON FENCE ABOVE
 - PROP. ELECTRICAL TRANSFORMER
 - 6' HI. SOLID HEDGE TO HIDE CARPORT FROM STREET
 - UNDERGROUND RETENTION PER HYDROLOGY REPORT
 - GATE CONTROL ACCESS STATION
 - EXISTING 8" WATER
 - ELECTRICAL SERVICE - BUILDING
 - HVAC CONDENSING UNIT
 - DECORATIVE SITE LIGHT POST

SHEET INDEX

A-0	SITE PLAN
A-1	FLOOR PLAN
A-2	EXTERIOR ELEVATIONS
A-3	SECTIONS

SCOPE OF WORK

TO OBTAIN PERMITS FOR 8 PROPOSED (2) STORY EIGHTPLEX MULTI-TENANT DWELLING; 8 UNITS PER BUILDING (2) 3 BED-2 BATH UNITS & (6) 2 BED-2 BATH UNITS, AND A 1,500 SF SINGLE STORY CLUB HOUSE



AREA TABULATION	
RECREATION ROOM	= 716 SQ.FT.
OFFICE	= 175 SQ.FT.
LOBBY	= 141 SQ. FT.
STORAGE	= 186 SQ.FT.
A.R.R. 1	= 67 SQ. FT.
A.R.R. 2	= 65 SQ.FT.
A.R.R. 3	= 68 SQ.FT.
HALLWAY	= 66 SQ.FT.
JANITOR CLOSET	= 16 SQ.FT.
TOTAL BUILDING	= 1,500 SQ.FT.
COVERED PATIO	= 2,064 SQ.FT.
GROSS BLDG.	= 3,564 SQ.FT.

CLUB HOUSE

TAMARISK APARTMENT COMPLEX

D E S I G N S T U D I O M C. A R C H I T E C T U R E ♦ S I G N ♦ P L A N N I N G 11774 HESPERIA ROAD, SUITE B-A, HESPERIA, CA. 92345 PHONE: (760) 944-1940 www.steenno.design.com	DATE FINISHED: FEBRUARY 2024
REVISIONS	
THESE PLANS SHALL COMPLY WITH THE 2022 CALIFORNIA BUILDING CODE WHICH INCLUDES THE 2022 CBC, 2022 CPC, 2022 CFC, 2022 ESC AND 2022 ERS. THE 2022 ENERGY STANDARDS.	
THESE DOCUMENTS AND THE DESIGN AND IDEAS INCORPORATED HEREIN ARE AN INSTRUMENT OF PROFESSIONAL SERVICE, ARE THE SOLE PROPERTY OF STEENO DESIGN STUDIO INC. ANY USE, IN WHOLE OR IN PART FOR WHICH THEY WERE NOT PROVIDED SHALL BE UNLAWFUL.	
PROJECT: APARTMENT COMPLEX DEVELOPMENT	TAMARISK APARTMENT COMPLEX-2
PROJECT ADDRESS: APR. 3057/121-68 MUNIMEN MAIDA 10TH AVENUE, HESPERIA, CA 92345	CONTACT INFO: MUNIMEN MAIDA 10TH AVENUE, OAK HILLS, CA 92344
JOB NO.: C23-L27	
SHEET NAME:	
FLOOR PLAN	
PAGE A-1.1	



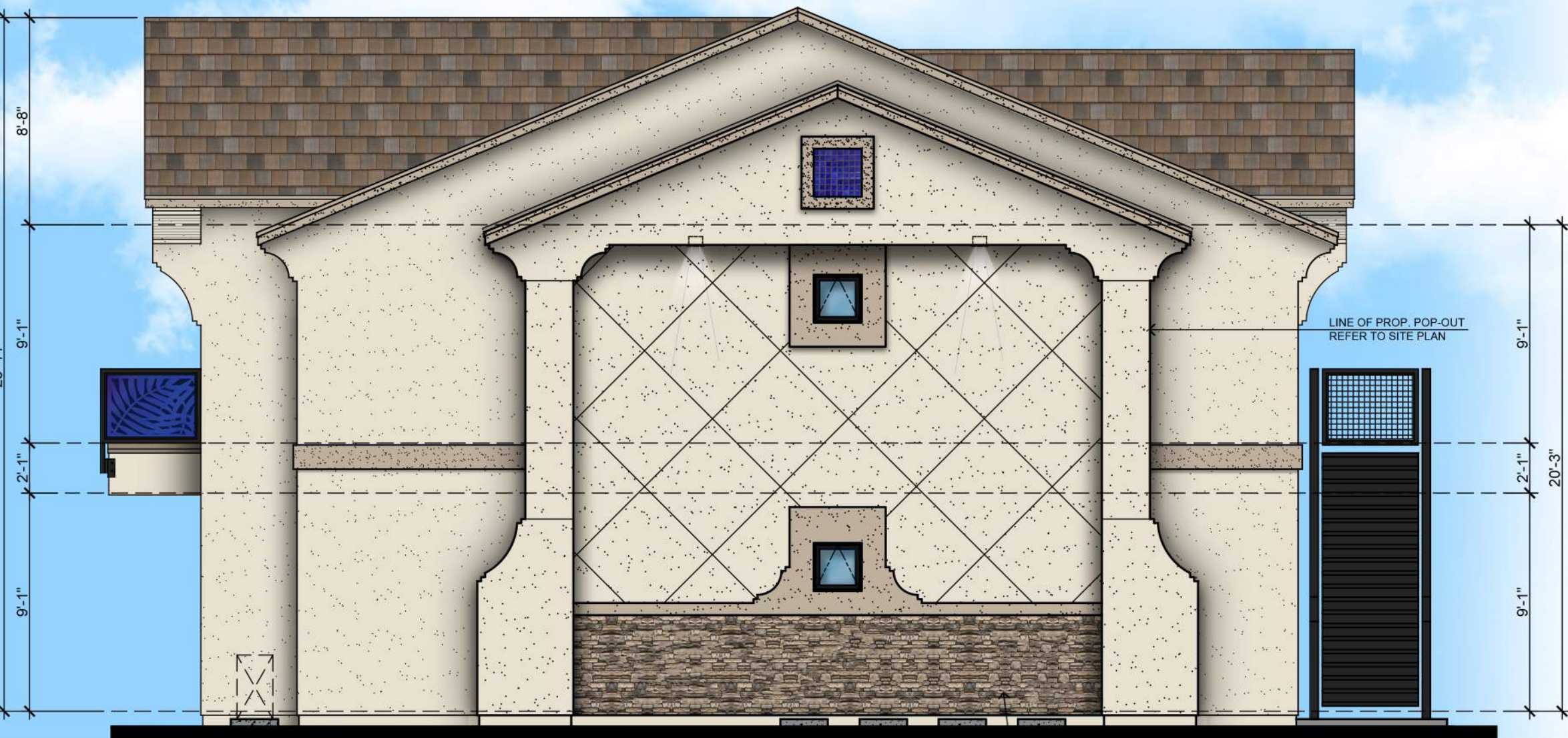
FRONT EXTERIOR ELEVATION
SCALE: 3/16" = 1'-0"



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



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



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

STEENO

DESIGN STUDIO INC.

ARCHITECTURE • DESIGN • PLANNING

11774 HESPERIA ROAD, SUITE 100 • HESPERIA, CA 92345

PHONE (760) 244-5001 • FAX (760) 244-1948

WWW.STEENODESIGN.COM

DATE FINISHED
FEBRUARY 2024

REVISIONS

THESE PLANS SHALL COMPLY WITH THE 2022 CALIFORNIA BUILDING CODE WHICH ADOPTS THE 2022 CMC, 2022 CBC AND CEC, 2022 CDB, 2022 CFC AND THE 2022 ENERGY STANDARDS.

THESE DOCUMENTS AND THE DESIGN AND IDEAS INCORPORATED HEREIN AS AN INSTRUMENT OF A PROFESSIONAL SERVICE ARE THE SOLE PROPERTY OF STEENO DESIGN STUDIO INC. ANY USE, IN WHOLE OR IN PART FOR WHICH THEY WERE NOT PROVIDED SHALL BE UNLAWFUL.

REGISTERED ARCHITECT
THOMAS R. STEENO
C-26448
REV. 2/28/25
STATE OF CALIFORNIA

PROJECT: APARTMENT COMPLEX - MULTI STORY - 8 UNIT
TAMARISK APARTMENT COMPLEX-2

CONTACT INFO:
13302 RANCHERO ROAD
OAK HILLS, CA 92344

PROJECT ADDRESS:
XXXX TAMARISK AVENUE
HESPERIA, CA 92345

JOB NO.
C21-L25

SHEET NAME:
EXTERIOR ELEVATIONS

PAGE
A-2.0

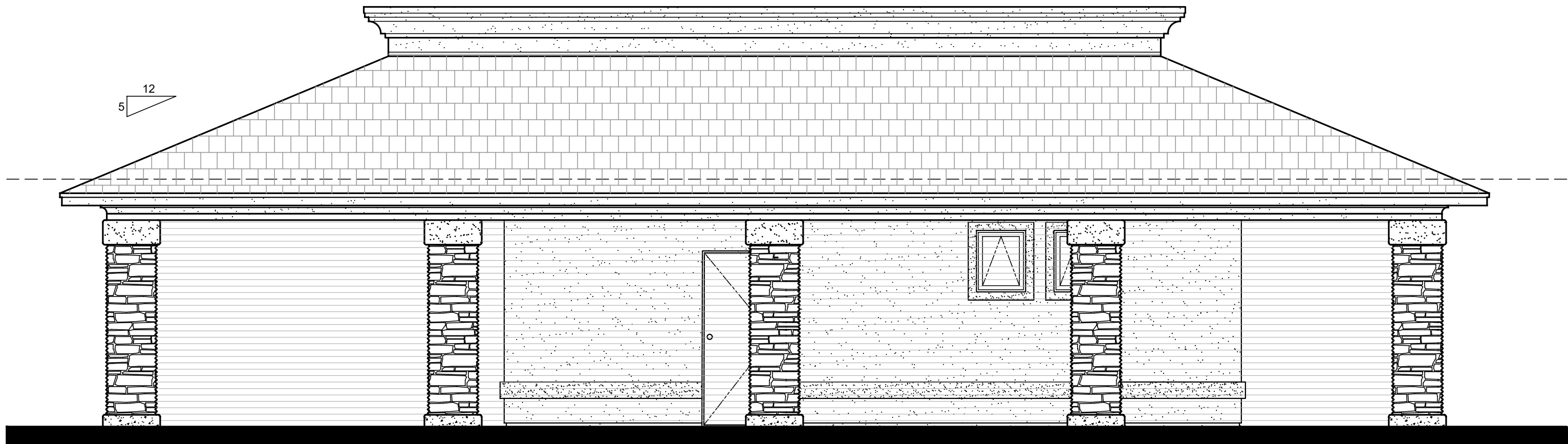


NOTE:
SEE COLOR BOARD FOR COLOR
PALETTE & MATERIALS.

FRONT -SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



REAR -NORTH ELEVATION
SCALE: 1/4" = 1'-0"



LEFT - WEST ELEVATION
SCALE: 1/4" = 1'-0"



RIGHT - EAST ELEVATION
SCALE: 1/4" = 1'-0"

DATE FINISHED
FEBRUARY 2024

REVISIONS
JULY 2024

THESE PLANS SHALL COMPLY
WITH THE 2022 CALIFORNIA
BUILDING CODE WHICH ADOPTS
THE 2022 CBC, 2022 CBC 2005
COR., 2022 COR., 2022 COR. AND
THE 2022 ENERGY STANDARDS

THESE DOCUMENTS AND THE
DESIGN AND IDEAS
INCORPORATED HEREIN AS AN
INSTRUMENT OF A
PROFESSIONAL SERVICE ARE
THE SOLE PROPERTY OF
STEENO DESIGN STUDIO INC.
ANY USE, IN WHOLE OR IN PART,
FOR WHICH THEY WERE NOT
PROVIDED SHALL BE UNLAWFUL.



PROJECT: APARTMENT COMPLEX DEVELOPMENT

TAMARISK APARTMENT COMPLEX-2

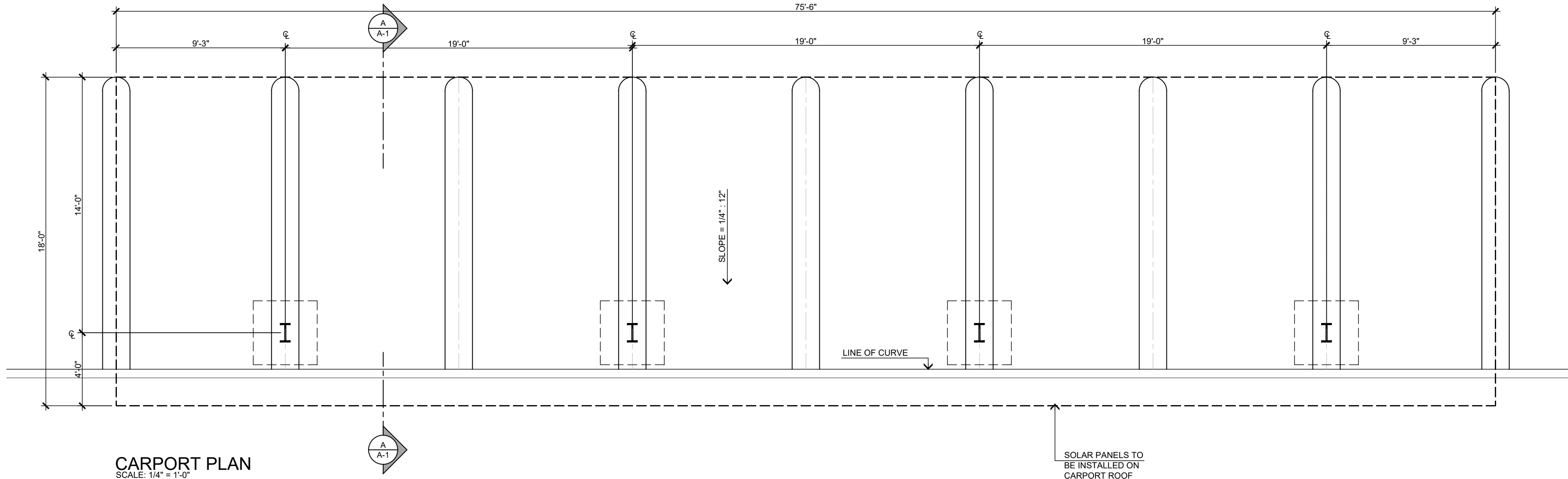
CONTACT INFO:
13302 RANCHERO ROAD
OAK HILLS, CA 92344

PROJECT ADDRESS:
XXXX TAMARISK AVENUE,
HESPERIA, CA 92345

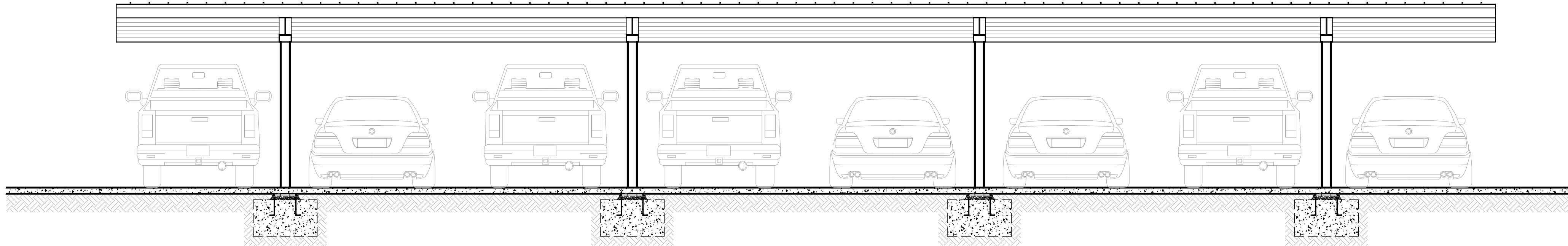
JOB NO.
C23-L27

SHEET NAME:
EXTERIOR
ELEVATIONS

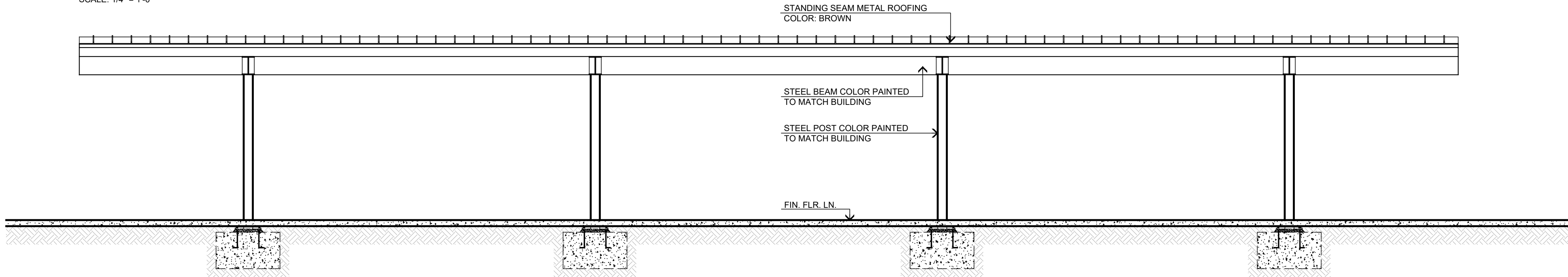
PAGE
A-2.1



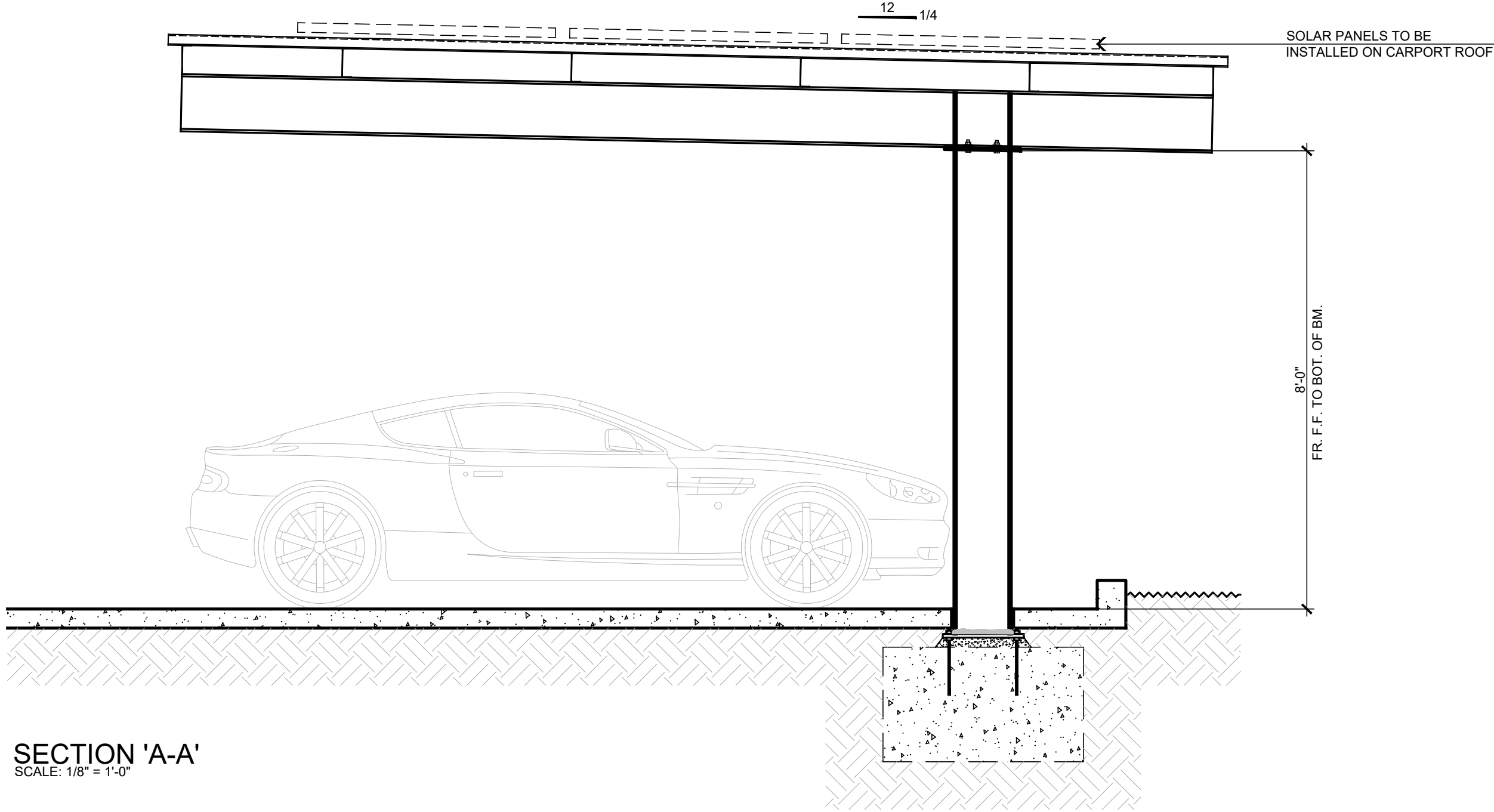
CARPORT PLAN
SCALE: 1/4" = 1'-0"



FRONT ELEVATION
SCALE: 1/4" = 1'-0"



BACK ELEVATION



SECTION 'A-A'
SCALE: 1/8" = 1'-0"

STEENO

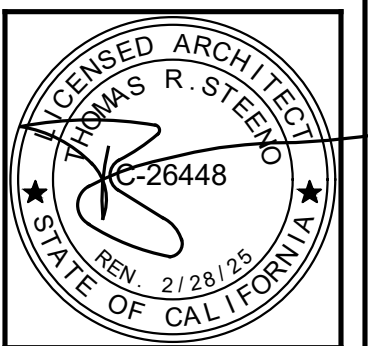
DESIGN STUDIO INC
ARCHITECTURE ♦ DESIGN ♦ PLANNING
11774 HESPERIA ROAD, SUITE B ♦ HESPERIA, CA 92345
PHONE (760) 244-5001 ♦ FAX (760) 244-1948
www.steenodesign.com

DATE FINISHED
FEBRUARY 2024

REVISIONS
JULY 2024

THESE PLANS SHALL COMPLY WITH THE 2022 CALIFORNIA BUILDING CODE WHICH ADOPTS THE 2022 CMC, 2022 CBC, 2022 CFC, 2022 CEC, 2022 CFS, 2022 CMA, AND THE 2022 ENERGY STANDARDS.

THESE DOCUMENTS AND THE DESIGN AND IDEAS INCORPORATED HEREIN AS AN INSTRUMENT OF A PROFESSIONAL SERVICE ARE THE SOLE PROPERTY OF STERNO DESIGN STUDIO INC. ANY USE IN WHOLE OR IN PART FOR WHICH THEY WERE NOT PROVIDED SHALL BE UNLAWFUL.



PROJECT: APARTMENT COMPLEX DEVELOPMENT

TAMARISK APARTMENT COMPLEX-2

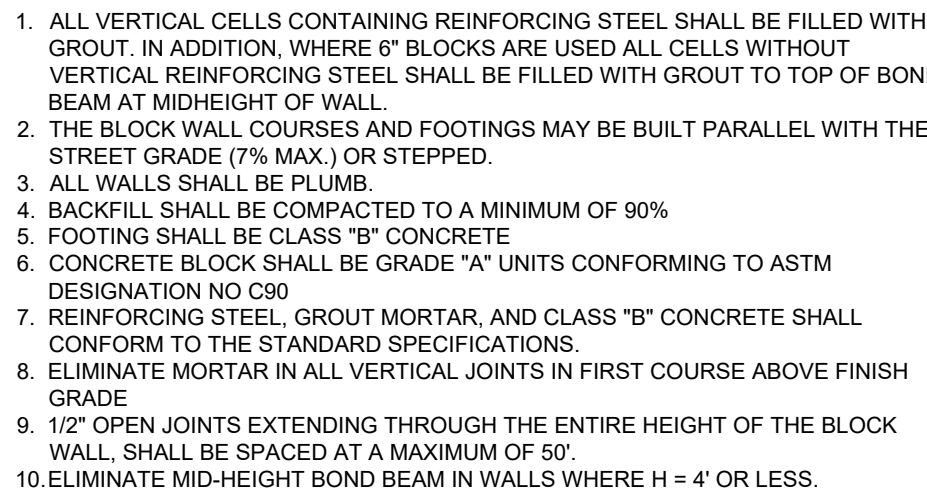
CONTACT INFO:
13302 RANCHERO ROAD
OAK HILLS, CA 92344

PROJECT ADDRESS:
XXXX TAMARISK AVENUE
HESPERIA, CA 92345

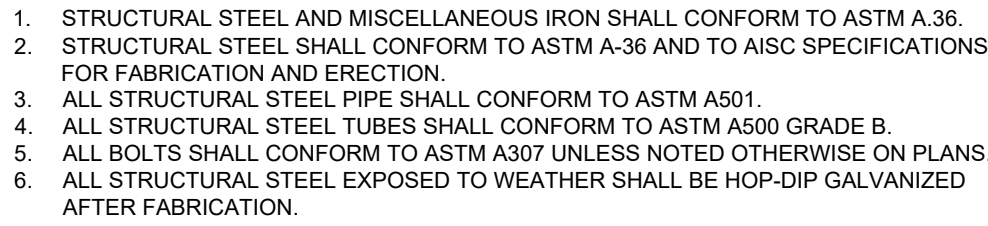
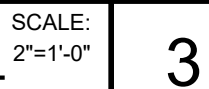
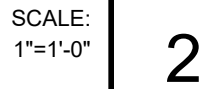
JOB NO.:
C23-L27

SHEET NAME:
CARPORT
PLAN/
ELEVATIONS

PAGE
CP-1



SCALE: NTS	1
---------------	---



1. ALL WELDING OF STRUCTURAL STEEL SHALL BE DONE BY CERTIFIED WELDERS AND CONFORM TO THE AWS CODE. WELDING ELECTRODE SHALL BE E70.

1. CONCRETE TO BE MACHINE MIXED WITH A MAXIMUM OF 7-1/2 GALLONS OF WATER PER SACK OF CEMENT. CONCRETE TO REACH A STRENGTH OF 2,500 PSI MINIMUM 28 DAYS.
2. REINFORCING BARS SHALL CONFORM TO ASTM A 615-40.
3. CONCRETE MASONRY TO BE IN CONFORMANCE W/ CHAPTERS 18, 19 AND 21 OF 2011 C.B.C.
4. CEMENT SHALL CONFORM TO ASTM C-150
5. AGGREGATE SHALL CONFORM TO ASTM C-33.
6. CONC. COMPRESSIVE STRENGTH: 2,500 PSI MIN. ALLOWABLE SOIL BEARING CAPACITY: 2,000 PSF

1. REINFORCING STEEL SHALL CONFORM TO THE ASTM A615, GRADED AS NOTED:
 ALL # 4 BARS - GR-40
 ALL BARS IN SLABS OR SITE WORK - GR-60
 # 4 BARS IN WALLS AND FOUNDATION - GR-60
 # 5 AND LARGER - GR-60
2. ALL REINFORCING STEEL, ANCHOR BOLTS, AND OTHER INSERTS SHALL BE SECURED IN PLACE PRIOR TO PLACING CONCRETE OR GROUTING OF MASONRY.
3. REINFORCING STEEL MAY BE LAP SPICED WITH 50 BAR DIAMETER IN MASONRY OR 40 BAR DIAMETER IN CONCRETE WITH MIN. 18" LAP.
4. PROVIDE THE FOLLOWING CONCRETE COVER:
 SURFACE CAST AGAINST EARTH - 3"
 EXPOSED TO EARTH OR WEATHER - 2"
 NOT EXPOSED TO WEATHER OR EARTH - 1"
 BEAM AND COLUMN - 1.5"
 SLAB ON GRADE - MID DEPTH
5. NUMBER 5 OR LARGER REINFORCING BARS SHALL NOT BE RE-BENT.
6. PROVIDE DOWELS IN FOOTINGS AND / OR GRADE BEAMS THE SAME SIZE AND NUMBER AS VERTICAL WALL OR COLUMN REINFORCING. DOWELS SHALL HAVE A MIN. PROJECTION EQUAL TO STANDARD LAP SPLICE UNLESS NOTED OTHERWISE.

1. ALL BLOCKS SHALL BE GRADE "N" ASTM C 90-03. NOMINAL WIDTH OF UNIT SHALL BE 6" MIN.
2. REINFORCEMENT SHALL BE DEFORMED STEEL BAR CONFORMING TO ASTM A-615 GRADE 60 AND OR GRADE 60.
3. MORTAR TYPE "S" MIX TO BE 1 PART CEMENT TO 1/2 PART LIME TO 3 PARTS LOOSE SAND.
4. GROUT TO BE MIX TO 1 PART CEMENT TO 3 PARTS SAND TO MAXIMUM 1/10 PART LIQUID PORTLAND CEMENT WATER SHOULD BE ADDED TO PRODUCE CONSISTENCY FOR POURING WITHOUT SEGREGATION OF THE CONSTITUENTS. MAY CONTAIN 2 PARTS PEA GRAVEL, (MAX. SIZE 3/8")

MEGA RIB TO BE WELDED TO STEEL ANGLE FRAME @ EA. CONNECTION POINT

4"x4"x1/4" STEEL ANGLE FRAME 4 SIDES EACH GATE

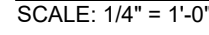
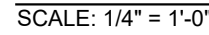
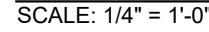
3 HEAVY DUTY HINGES, EACH GATE

1/2" DIA. 8" BARREL BOLT (ONE GATE)

1/2" DIA x 12" CANE BOLT LINE OF STEEL ANGLE BEYOND

3" MAX

SCALE: 2"=1'-0"	4
--------------------	---





MUNEM MAIDA
13302 RANCHERO ROAD
OAK HILLS, CA 92344

STEENO DESIGN STUDIO, INC.
11774 HESPERIA ROAD #B2
HESPERIA, CA 92345
(760) 244-5001

HIGH DESERT MAPPING
16704 NEENACH ROAD
APPLE VALLEY, CA 92307
(760) 508-8555

RAYMOND J. ALLARD, RCE 36052

THE S 1/2, SE 1/4, NW 1/4, NE 1/4, SECTION 24, T4N
R5W, S.B.M.

WATER _____ HESPERIA WATER DISTRICT
9700 SEVENTH AVENUE
HESPERIA, CA 92345
(760) 947-1840

SEWER _____ CITY OF HESPERIA PUBLIC WORKS
9700 SEVENTH AVENUE
HESPERIA, CA 92345
(760) 947-1400

ELECTRIC _____ SOUTHERN CALIFORNIA EDISON
16938 BEAR VALLEY ROAD
VICTORVILLE, CA
(760) 241-3805

TELEPHONE _____ VERIZON
15055 LA PAZ DRIVE
VICTORVILLE, CA

CABLE T.V. _____ CHARTER COMMUNICATIONS
12490 BUSINESS CENTER DRIVE
VICTORVILLE, CA

TRASH SERVICE _____ ADVANCE DISPOSAL CO.
17150 MESA STREET
HESPERIA, CA 92345
(760) 244-9773

GAS _____ SOUTHWEST GAS CORPORATION
13471 MARIPOSA ROAD
VICTORVILLE, CA
(760) 245-9321

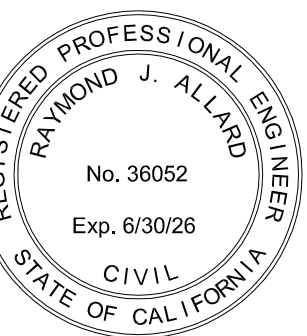
1	TITLE SHEET _____	T-1
2	NOTES & DETAILS _____	N-1
3	TAMARISK AVENUE IMPROVEMENT PLAN _____	ST-1
4	ORANGE STREET IMPROVEMENT PLAN _____	ST-2
5	GRADING PLAN (WEST) _____	G-1
6	GRADING PLAN (EAST) _____	G-2
7	UTILITY PLAN _____	U-1
8	DETAILS _____	D-1
9	DETAILS _____	D-2
10	DETAILS _____	D-3
11	STORMTECH DETAILS (BED 1) _____	SD-1
12	STORMTECH DETAILS (BED 2) _____	SD-2
13	CROSS SECTIONS _____	CS-1

CUT: 1,700 CU. YDS
FILL: 5,420 CU. YDS.

PE	INDICATES PAD ELEVATION
FF	INDICATES FINISHED FLOOR ELEVATION
TC	INDICATES TOP OF CURB
FS	INDICATES FINISHED SURFACE ELEVATION
FL	INDICATES FLOWLINE ELEVATION
HP	INDICATES HIGH POINT
GB	INDICATES GRADE BREAK
TG	INDICATES TOP OF GRATE
INV	INDICATES INVERT ELEVATION
TW	INDICATES TOP OF WALL
TF	INDICATES TOP OF FOOTING
(XXX)	INDICATES EXISTING ELEVATION
---	INDICATES EXISTING 1-FOOT CONTOUR
---	INDICATES EXISTING 5-FOOT CONTOUR
●	INDICATES EXISTING POWER POLE
—○—	INDICATES EXISTING GUY WIRE
✱	INDICATES EXISTING JOSHUA TREE
---	INDICATES PROPOSED FLOWLINE
▒	INDICATES PROPOSED A.C. PAVEMENT
▨	INDICATES EXISTING IMPROVEMENTS TO BE REMOVED

I HEREBY DECLARE THAT IN MY PROFESSIONAL OPINION, THE DESIGN OF THE IMPROVEMENTS AS SHOWN ON THESE PLANS COMPLIES WITH THE CURRENT PROFESSIONAL ENGINEERING STANDARDS AND PRACTICES. AS THE ENGINEER IN RESPONSIBLE CHARGE OF THE DESIGN OF THESE IMPROVEMENTS, I ACCEPT FULL RESPONSIBILITY FOR SUCH DESIGN. I UNDERSTAND AND ACKNOWLEDGE THAT THE LIMITED PURPOSE OF ENSURING THAT THESE PLANS COMPLY WITH THE REQUIREMENTS OF THE APPLICABLE CODES AND ORDINANCES. THE PLAN REVIEW PROCESS IS NOT A DETERMINATION OF THE TECHNICAL ADEQUACY OF THE DESIGN OF THE IMPROVEMENTS. SUCH PLAN CHECK DOES NOT THEREFORE RELIEVE ME OF MY DESIGN RESPONSIBILITY.

LICENSE No. 36052 EXP. 6/30/2026

[illegible]

ALL WORK SHALL BE DONE IN ACCORDANCE WITH THESE PLANS AND THE CITY OF HESPERIA STANDARDS AND SPECIFICATIONS.

PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES TO DETERMINE THE EXACT LOCATION OF ALL UNDERGROUND FACILITIES WHETHER SHOWN OR NOT SHOWN. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT ALL EXISTING FACILITIES FROM DAMAGE DURING CONSTRUCTION.

CALL UNDERGROUND SERVICE ALERT TWO WORKING DAYS BEFORE ANY TRENCHING, ETC. AT 811. THE FOLLOWING AGENCIES SHALL BE CONTACTED BEFORE ANY CONSTRUCTION OR EXCAVATION BEGINS.

THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF THE REMOVAL OR RELOCATION OF ANY AND ALL EXISTING UTILITIES WITH THE RESPECTIVE UTILITY COMPANY. COST OF THIS COORDINATION IS TO BE INCLUDED IN THE PRICE BID FOR THE VARIOUS IMPROVEMENTS TO COMPLETE THE PROJECT.

- ALL EXCAVATIONS SHALL BE BACKFILLED AT THE END OF EACH WORKING DAY AND ROADS OPEN TO VEHICULAR TRAFFIC UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
3. ALL TRAFFIC CONTROL SHALL BE PER 2012 CA. M.U.T.C.D. "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES".
- THE ENGINEER OF RECORD SIGNING THESE PLANS IS RESPONSIBLE FOR THE ACCURACY AND ACCEPTABILITY OF THE WORK. THE ENGINEER OF RECORD IS REQUIRED TO STAMP AND SIGN THE "DECLARATION OF ENGINEER OF RECORD" HEREON.
- CULTURAL RESOURCES: IF CULTURAL RESOURCES ARE FOUND DURING GRADING THEN GRADING ACTIVITIES SHALL CEASE AND THE APPLICANT SHALL CONTRACT WITH A CITY APPROVED ARCHEOLOGIST OR PALEONTOLOGIST TO MONITOR GRADING PRIOR TO RESUMING GRADING. ALL CULTURAL RESOURCES DISCOVERED SHALL BE HANDLED IN ACCORDANCE WITH STATE AND FEDERAL LAW. A REPORT OF ALL RESOURCES DISCOVERED AS WELL AS THE ACTIONS TAKEN SHALL BE PROVIDED TO THE CITY PRIOR TO ISSUING OF A CERTIFICATE OF OCCUPANCY.

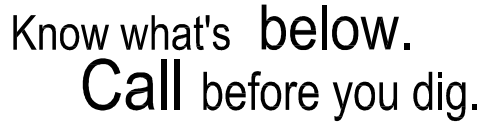
ALL GRADING SHALL CONFORM TO CHAPTER 15.06 OF THE CITY OF HESPERIA MUNICIPAL CODE.

ALL PROVISIONS OF THE PRELIMINARY SOILS REPORT PREPARED BY: ALR ENGINEERING & TESTING PROJECT NUMBER 1711356, DATED DECEMBER 20, 2017, SHALL BE COMPLIED WITH DURING GRADING OPERATIONS.

THIS PLAN IS FOR GRADING PURPOSES ONLY. APPROVAL OF THIS PLAN DOES NOT CONSTITUTE APPROVAL OF DRIVEWAY LOCATIONS OR SIZES, PARKING LOT LAYOUT, BUILDING LOCATIONS, OFFSITE DRAINAGE FACILITIES OR OTHER ITEMS NOT RELATED DIRECTLY TO THE BASIC GRADING OPERATIONS.

CERTIFICATION FROM THE ENGINEER OF RECORD STATING THAT THE GRADING HAS BEEN COMPLETED PER THE APPROVED PLAN AND THE COMPACTION REPORT FROM THE SOILS ENGINEER ON ANY FILL AREAS THAT ARE REQUIRED SHALL BE PROVIDED PRIOR TO BUILDING PERMITS BEING ISSUED.

CONTRACTOR IS RESPONSIBLE FOR EROSION, DUST, AND DRAINAGE CONTROL PER SWPPP AND NPDES CRITERIA UNTIL PROJECT COMPLETION.

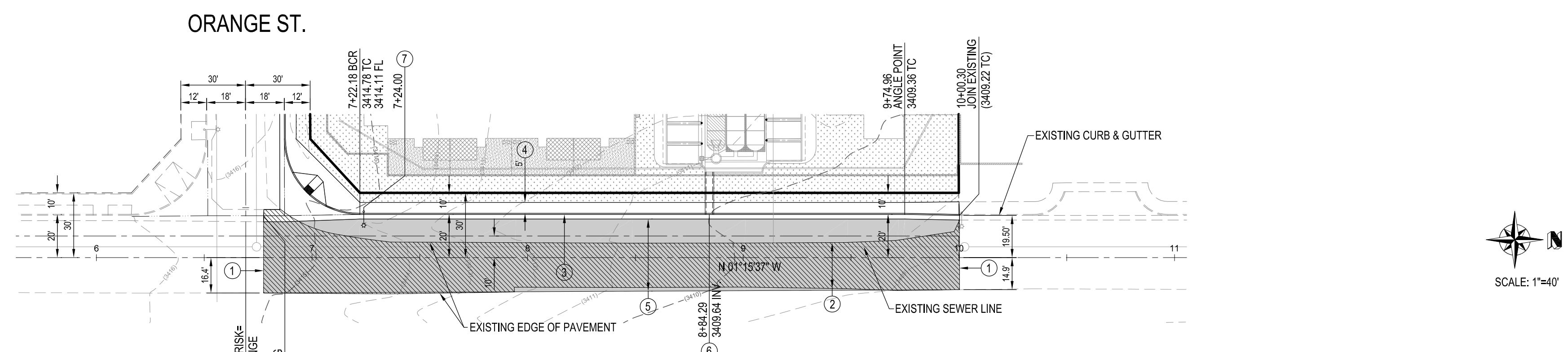


1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THESE PLANS AND THE 2012 CA. M.U.T.C.D. "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND S.P.P.W.C. "GREEN BOOK" STANDARD PLANS AND SPECIFICATIONS TOGETHER WITH ANY MODIFICATIONS THERETO ADOPTED BY THE CITY OF HESPERIA.
2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FAMILIARIZE HIMSELF WITH THE JOB SITE AND THE LOCATION OF ALL UNDERGROUND FACILITIES SHOWN OR NOT SHOWN ON THESE PLANS. NEITHER THE CITY OF HESPERIA NOR THE CITY ENGINEER WILL BE RESPONSIBLE FOR ANY DAMAGE TO UNDERGROUND FACILITIES.
3. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ALL NECESSARY PERMITS.
4. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CALL THE CITY ENGINEERING OFFICE AT (760) 947-1477 FOR INSPECTION 24 HOURS PRIOR TO PERFORMING ANY WORK. WORK PERFORMED WITHOUT CALLING FOR INSPECTION SHALL BE REJECTED AND SHALL BE REMOVED SOLELY AT THE CONTRACTOR'S EXPENSE.
5. UTILITY CONTRACTORS SHALL BE RESPONSIBLE OR OBTAINING COMPACTION TESTS OF ALL TRENCH BACKFILL AND STREET SUBGRADES AND SUBMITTING THEM TO THE CITY ENGINEERING OFFICE. NOTIFY THE CITY ENGINEERING OFFICE AT (760) 947-1477 24 HOURS PRIOR TO TEST.
6. THE STRUCTURAL SECTIONS SHOWN ON THESE PLANS ARE BASED ON R-VALUE TESTS OR CITY MINIMUM STRUCTURAL STANDARDS, WHICHEVER IS GREATER. IN THE EVENT FIELD CONDITIONS VARY FROM INITIAL TEST RESULTS, ADDITIONAL TESTS, MATERIAL REPORTS AND REVISED STRUCTURAL SECTIONS MAY BE REQUIRED TO BE PREPARED AND SUBMITTED BY THE PROJECT ENGINEER OF RECORD TO THE ENGINEERING OFFICE FOR REVIEW AND EVALUATION. APPROVAL WILL BE GIVEN WHEN ALL STRUCTURAL SECTION REQUIREMENTS HAVE BEEN MET. R-VALUE TESTS ARE REQUIRED AND SHALL BE SUBMITTED IN ALL CASES. STRUCTURAL SECTIONS SHALL BE DESIGNED IN ACCORDANCE WITH CALTRANS HIGHWAY DESIGN MANUAL CHAPTER 600.
7. STAKING CUT SHEETS SHALL BE PREPARED BY THE DEVELOPER'S ENGINEER AND SUBMITTED TO THE CITY ENGINEERING OFFICE. NO CONSTRUCTION SHALL BE ALLOWED PRIOR TO THE CITY ENGINEER'S APPROVAL OF THE CUT SHEETS.
8. THE CONTRACTOR SHALL VERIFY THAT ESTIMATED QUANTITIES SHOWN ARE CORRECT BEFORE BIDDING ON ANY ITEM.
9. THE CONTRACTOR SHALL MAINTAIN DUST CONTROL AT ALL TIMES.
10. ALL EXISTING PAVEMENT TO BE REMOVED SHALL BE SAWCUT OR WHEELCUT AND REMOVED TO CLEAN STRAIGHT LINES PER THE CITY INSPECTOR.
11. AT ALL LOCATIONS WHERE NEW PAVEMENT JOINS EXISTING, THE EXISTING PAVEMENT SHALL BE COATED WITH AN ASPHALTIC EMULSION.
12. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL UTILITY VALVES, BOXES AND COVERS, AND ADJUSTING OF ALL UTILITY VALVE BOXES AND COVERS TO FINISH GRADE.
13. THE CONTRACTOR SHALL SET MANHOLE RINGS PER CITY STANDARDS.
14. THE CONTRACTOR SHALL CALL IN A LOCATION REQUEST TO UNDERGROUND SERVICE ALERT (USA) PHONE NUMBER 811, TWO WORKING DAYS BEFORE DIGGING. NO INSPECTION WILL BE PROVIDED BY THE CITY BEFORE DIGGING. NO INSPECTION WILL BE PROVIDED BY THE CITY ENGINEER'S OFFICE AND NO CONSTRUCTION PERMIT ISSUED INVOLVING EXCAVATION FOR UNDERGROUND FACILITIES WILL BE VALID UNLESS THE APPLICANT HAS BEEN PROVIDED AN INQUIRY IDENTIFICATION NUMBER BY USA.
15. CITY APPROVAL OF PLANS DOES NOT RELIEVE THE DEVELOPER FROM THE RESPONSIBILITY FOR THE CORRECTION OF ERRORS AND OMISSIONS DISCOVERED DURING CONSTRUCTION. UPON REQUEST, THE REQUIRED PLAN REVISIONS SHALL BE PROMPTLY SUBMITTED TO THE CITY ENGINEER FOR APPROVAL.
16. CONTRACTOR IS RESPONSIBLE FOR PROVIDING A CONTROL PLAN TO BE REVIEWED AND APPROVED BY THE CITY ENGINEER PRIOR TO CONSTRUCTION. ALL TRAFFIC CONTROL SHALL BE PER 2012 CA. M.U.T.C.D. "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".
17. ALL UTILITIES OR SUBSTRUCTURES OF ANY KIND, AND TELEPHONE POWER POLES, WATER METERS, VALVES, HYDRANTS, ETC., SHOWN OR NOT SHOWN ON THESE PLANS WITHIN THE LIMITS OF THIS DEVELOPMENT OR IN ADJACENT AREAS WHERE IMPROVEMENT WORK IS TO BE DONE SHALL BE REMOVED OR RELOCATED AT DEVELOPER'S EXPENSE, AND AT NO COST TO THE CITY OF HESPERIA. IT SHALL BE THE OWNER'S RESPONSIBILITY TO NOTIFY ALL AGENCIES CONCERNED.
18. ALL CONSTRUCTION TO BE IN CONFORMANCE WITH THE REGULATIONS OF CAL-OSHA.

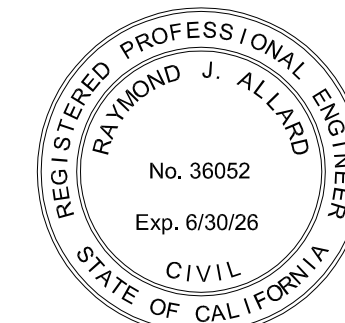
1. MATERIALS AND INSTALLATION SHALL CONFORM TO THE CITY OF HESPERIA STANDARDS AND CURRENT MATERIALS LIST.
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN A CURRENT AND APPROVED SET OF CITY OF HESPERIA STANDARDS AND MATERIALS LIST ON THE JOB SITE AT ALL TIMES. CITY STANDARDS AND MATERIALS LIST ARE AVAILABLE AT THE CITY OF HESPERIA ENGINEERING DEPARTMENT.
3. DISTRIBUTION WATER MAINS SHALL HAVE A MINIMUM OF 48" OF COVER FOR 8" MAIN AND 42" MINIMUM COVER FOR 12" AND LARGER MAINS FROM TOP OF PIPE TO FINAL GRADE. TRANSMISSION WATER MAINS SHALL HAVE A MINIMUM OF 72" OF COVER. RECLAIMED WATER MAINS SHALL HAVE A MINIMUM OF 60" OF COVER.
4. HYDRO TEST AT 200 PSI MINIMUM FOR 2 HOUR DURATION AT LOWEST POINT IN THE WATER LINE.
5. SERVICE LINES TO BE INSTALLED PER STANDARD DWG. W-7.
6. METERS SHALL BE PLACED WITHIN 2 FEET MINIMUM, 5 FEET MAXIMUM, FROM ADJACENT PROPERTY LINE. METER BOXES IN THE SIDEWALK SHALL BE IN TRAFFIC RATED BOXES.
7. 14 GAUGE COPPER COATED WIRE TO BE TAPED TO TOP OF PIPE. ALL SPLICES TO BE MADE WITH 3M CONNECTORS.
8. ALL NEW FIRE HYDRANTS INSTALLED ARE TO BE COVERED AT TIME OF INSTALLATION, UNTIL THE WATER LINE IS ACTIVATED.
9. RESILIENT WEDGE VALVES TO BE MUELLER, AFC, CLOW OR AMERICAN AVK WITH SS STEM AND BUTTERFLY VALVES TO BE MUELLER OR PRATT AS PER CITY OF HESPERIA STANDARDS.
10. ALL NEW FIRE HYDRANTS SHALL BE MUELLER, AFC AMERICAN DARLING, CLOW OR AMERICAN AVK #2780 WITH (1) 4" NOZZLE, (2) 2-1/2" NOZZLES AND 5-1/4" MINIMUM VALVE OPENINGS, AS PER CITY OF HESPERIA STANDARDS AND MATERIALS LIST.
11. ALL VALVES INSTALLED BY THE CONTRACTOR SHALL BE ACCESSIBLE FOR OPERATION WITH COMPLETE VALVE CAP TO GRADE DIRECTLY FOLLOWING CONNECTION TO EXISTING WATER SYSTEM (SEE STD. DWG. W-1).
12. ALL HYDRANTS TO BE OF THE SAME MANUFACTURER AS THE SELECTED VALVES.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATE SIZING OF THRUST BLOCKS BASED ON FIELD CONDITIONS (SEE STD. DWG. W-4).
14. ALL 3-WAY FIRE HYDRANTS TO BE REMOVED SHALL BE SALVAGED AND RETURNED TO CITY OF HESPERIA PUBLIC WORKS' YARD.
15. CONTRACTOR TO CAP EXISTING WATER MAINS AS PER CITY OF HESPERIA INSPECTOR WHEN REQUIRED.
16. BACKFILL COMPACTION AND RESURFACING IN EXISTING STREETS SHALL CONFORM TO CITY STANDARDS OR LATEST REVISION THEREOF. A CERTIFICATION OF COMPACTION SIGNED BY A REGISTERED CIVIL ENGINEER SHALL BE SUBMITTED FOR ALL TRENCH BACKFILLS.
17. ALL SERVICE CHANGEOVERS TO BE THE RESPONSIBILITY OF THE CONTRACTOR. EXISTING SERVICE LINES TO BE REMOVED AT THE TIME OF NEW CONNECTION FROM METER TO MAIN.

1. ALL MATERIALS AND INSTALLATION OF SEWER FACILITIES TO BE CONSTRUCTED SHALL BE IN ACCORDANCE WITH THESE PLANS, MANUFACTURER'S SPECIFICATIONS, CITY OF HESPERIA STANDARDS, AND MATERIAL LISTS.
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN A CURRENT AND APPROVED SET OF CITY OF HESPERIA STANDARDS AND MATERIALS LIST ON THE JOB SITE AT ALL TIMES. CITY STANDARDS AND MATERIAL LISTS ARE AVAILABLE AT THE CITY OF HESPERIA ENGINEERING DEPARTMENT.
3. SEPARATION OF WATER AND SEWER FACILITIES SHALL CONFORM TO THE RULES AND REGULATIONS OF THE CITY OF HESPERIA STANDARDS (SEE STD. DWG. S-1).
4. ALL SEWER PIPE (UNLESS OTHERWISE NOTED) SHALL BE POLYVINYL CHLORIDE (PVC) S.D.R. 35.
5. SEWER PROFILE ELEVATIONS ARE TO THE INVERT OF THE PIPE.
6. SEWER LATERALS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STANDARD LOCATIONS OF WYES AND LATERALS. WHERE NOT SHOWN ON THE PLANS LOCATION IS TO BE DETERMINED IN THE FIELD PRIOR TO CONSTRUCTION. CLEANOUT LOCATIONS SHALL NOT BE INSTALLED IN DRIVEWAY WHERE APPLICABLE. ALL LATERALS ARE TO BE 6" DIAMETER UNLESS OTHERWISE NOTED ON THE PLANS.
7. PRIOR TO CONSTRUCTION OF SEWER, CONTRACTOR SHALL EXPOSE EXISTING SEWER AND VERIFY ITS EXISTING ELEVATION AND LOCATION BEFORE CONNECTING TO EXISTING MANHOLE OR STUB. CONTRACTOR IS RESPONSIBLE TO NOTIFY THE CITY ENGINEER IF ELEVATIONS ARE NOT PER PLAN AND REQUIRE ADJUSTMENTS IN THE FIELD.
8. IT SHALL BE THE SEWER CONTRACTOR'S RESPONSIBILITY TO SET CLEAN-OUTS TO FINISH GRADE.
9. SEWER PIPE ZONE AND TRENCH BACKFILL SHALL BE PLACED IN ACCORDANCE WITH THE CITY OF HESPERIA STANDARDS. (SEE STD. DWG. S-1).
10. MANHOLES SHALL BE ADJUSTED TO GRADE AFTER PLACING SURFACE COURSE ASPHALT CONCRETE.
11. MANHOLE COVERS TO BE LOCK-DOWN TYPE. (SEE STD. DWG. S-8).
12. SEWER LATERALS SHALL BE CONNECTED TO THE MAIN WITH GASKETED WYES.
13. SEWER LINES SHALL BE TESTED PRIOR TO MAKING PERMANENT SERVICE CONNECTION. SEWER TESTING SHALL INCLUDE BALL AND MANDREL, PRESSURE TEST AND VIDEO BEFORE PERMANENT PAVING IS COMPLETED. ALL TRACTS WILL BE REQUIRED TO VIDEO AGAIN PRIOR TO THE RELEASE OF BONDS.

[illegible]



CONSTRUCTION NOTES:		
1	SAWCUT EXISTING PAVEMENT TO A CLEAN STRAIGHT LINE, FEATHER EDGE OVER FOR A SMOOTH TRANSITION 2' MIN.	78 L.F.
2	REMOVE EXISTING IMPROVEMENTS TO THE LIMITS SHOWN	7,550 S.F.
3	CONSTRUCT 8" CURB AND GUTTER PER SPPWC 120-2 (A2-8)	278 L.F.
4	CONSTRUCT SIDEWALK PER CITY STD. ST-4, TYPE A	1,390 S.F.
5	CONSTRUCT 6.5" AC PAVEMENT OVER 9" CLASS II BASE	10,755 S.F.
6	CONSTRUCT PARKWAY DRAIN PER APWA STD. 151-2, W=30"	1 EA.
7	INSTALL STREET LIGHT PER CITY STD. ST-10	2 EA.

[illegible]

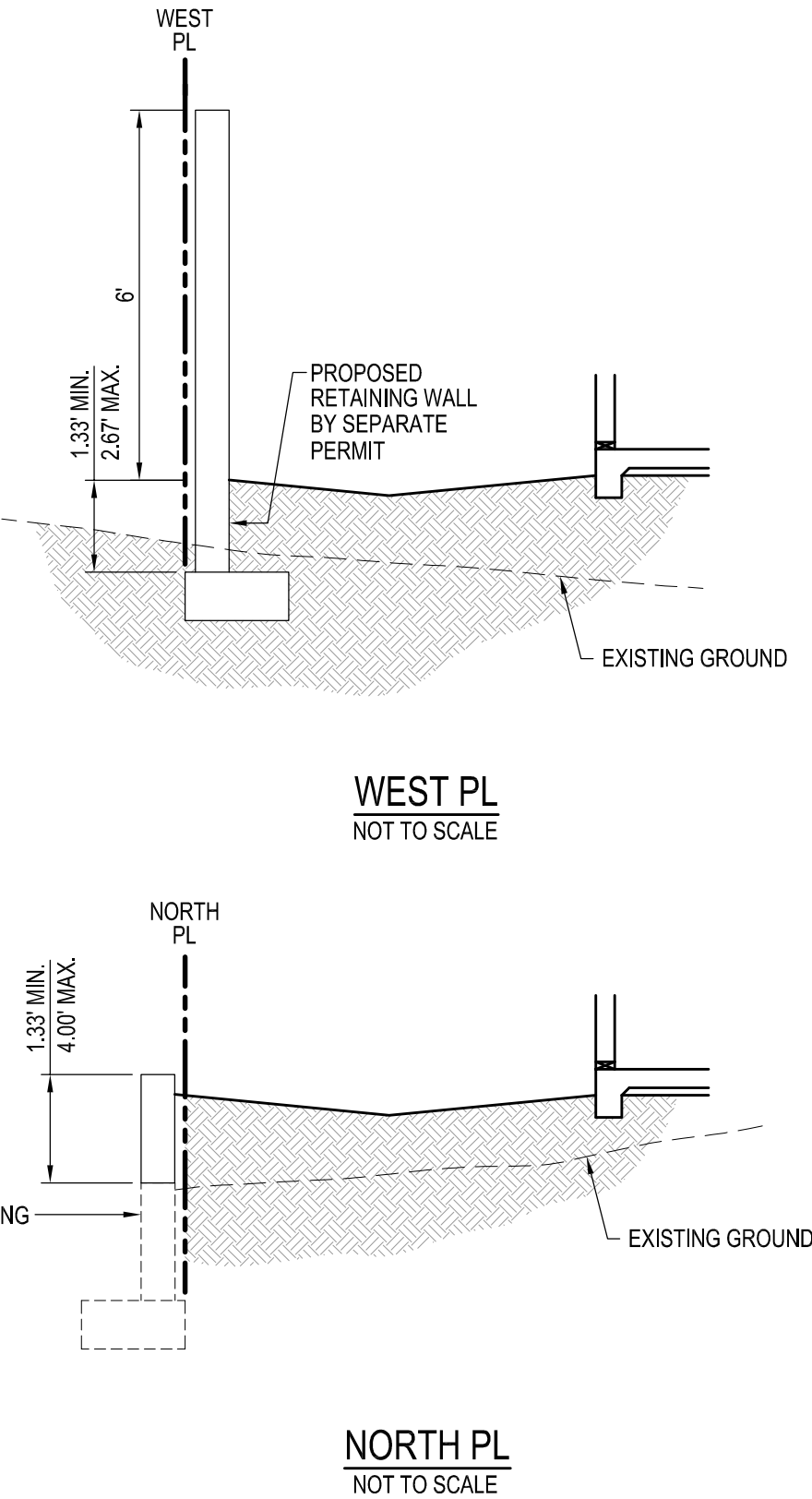
GRADING CONSTRUCTION NOTES:

1. CONSTRUCT 4" A.C. OVER COMPACTED NATIVE SOIL
2. CONSTRUCT 6" CONCRETE CURB PER SPPWC 120-2 (A1-6) PER DETAIL ON SHEET 9
3. CONSTRUCT 6" CONCRETE CURB & GUTTER PER SPPWC 120-2 (A2-6) PER DETAIL ON SHEET 9
4. CONSTRUCT 3" WIDE CONCRETE RIBBON GUTTER PER DETAIL ON SHEET 8
5. CONSTRUCT 4" CONCRETE WITH BROOM FINISH
6. CONSTRUCT 12" WIDE CONCRETE LANDSCAPE STRIP PER DETAIL ON SHEET 8
7. CONSTRUCT CONCRETE BLOCK RETAINING WALL PER SEPARATE PERMIT
8. ADD CONCRETE BLOCK COURSES TO EXISTING RETAINING WALL
9. INSTALL PARKING LOT LIGHT PER SEPARATE PERMIT (REFER TO SITE PLAN)
10. YELLOW DETECTABLE WARNING 36" DP. x WIDTH OF RAMP PER DETAIL ON SHEET 8
11. UNAUTHORIZED VEHICLES IN ACCESSIBLE PARKING SIGNAGE PER DETAIL ON SHEET 8
12. ACCESSIBLE PARKING SPACE SIGNAGE PER DETAIL ON SHEET 8
13. NEW PARKING STRIPING PER DETAIL ON SHEET 8
14. INSTALL BROOKS PRODUCTS 2424 CATCH BASIN W/ NYLOPLAST ENVIROHOOD (OR APPROVED EQUAL) PER DETAIL ON SHEET 8
15. CONSTRUCT ACCESSIBLE RAMP PER DETAIL ON SHEET 8
16. CONSTRUCT TRASH ENCLOSURE PER DETAILS ON SHEET 9
17. INSTALL 6" PVC STORM DRAIN TO ELEVATIONS SHOWN ON PLAN
18. INSTALL 8" PVC STORM DRAIN TO ELEVATIONS SHOWN ON PLAN
19. INSTALL 12" PVC STORM DRAIN TO ELEVATIONS SHOWN ON PLAN
20. INSTALL STORMTECH MC-7200 UNDERGROUND RETENTION SYSTEM PER DETAILS ON SHEET 11 & 12
21. EXISTING JOSHUA TREE TO BE REMOVED OR REPLANTED PER THE APPROVED PROTECTED PLANT PLAN
22. CONSTRUCT PILASTER & GATE PER SEPARATE PERMIT
23. INSTALL 4" WROUGHT IRON FENCE
24. INSTALL 6" HIGH WROUGHT IRON FENCE
25. INSTALL 30" NYLOPLAST DRAIN BASIN PER DETAIL ON SHEET 2
26. INSTALL 6" SQUARE AREA DRAIN (NDS 641 OR APPROVED EQUAL)
27. INSTALL KNOX BOX FOR FIRE DEPT. ENTRY
28. CONSTRUCT 2' HIGH CONCRETE BLOCK WALL PER SEPARATE PERMIT
29. CONSTRUCT COMBO CONCRETE BLOCK RETAINING WALL PER SEPARATE PERMIT



SCALE: 1"=20'

SEE SHEET 6



Know what's below.
Call before you dig.

BENCHMARK:

"H-18"

BRASS DISK IN CONCRETE, LOCATED APPROXIMATELY 22 FEET NORTH OF THE NE COR. BEHIND THE SIDEWALK AT THE INTERSECTION OF MAIN ST. & MAPLE ST.

ELEV=3376.492

DESIGNED BY: D.B.W.

DRAWN BY: D.B.W.

CHECKED BY: R.J.A.

SUBMITTED BY:

RAYMOND J. ALLARD RCE No. 36052

DATE



HIGH DESERT MAPPING

Land Surveying - Civil Design

16704 Neenach Road
Apple Valley, CA 92307
(760) 508-8555

dbw.hdm@gmail.com



CITY OF HESPERIA
ENGINEERING DEPARTMENT

RECOMMENDED FOR APPROVAL BY:

APPROVED BY:

DATE

DATE

CASSANDRA SANCHEZ
R.C.E. 74776 EXP. DATE 12/31/25
CITY ENGINEER

AUTHORIZED SIGNATURE

CITY OF HESPERIA
GRADING PLAN

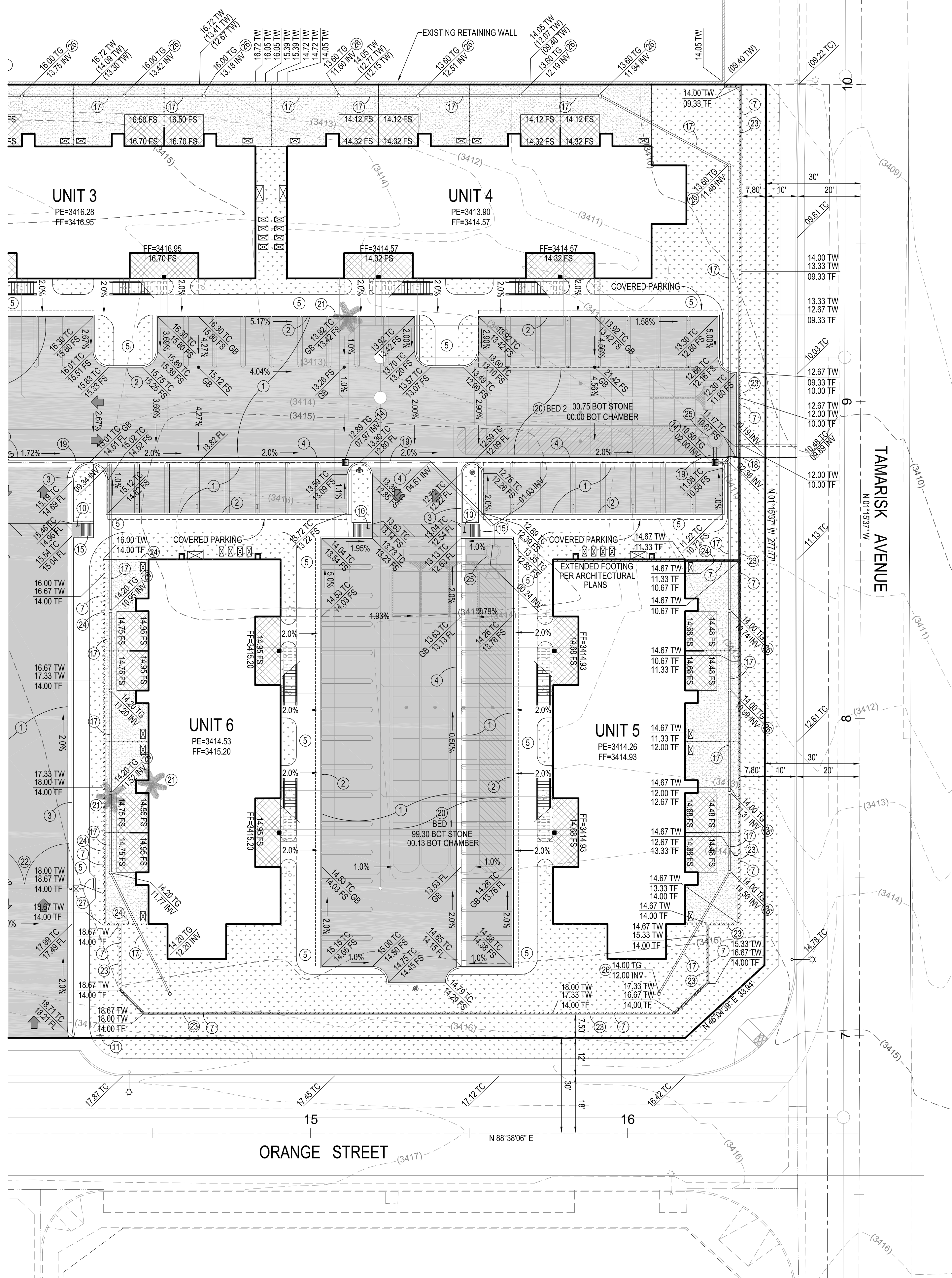
TAMARISK APARTMENTS
MUNEM MAIDA

APN 3057-121-08

SHEET
5
OF
13

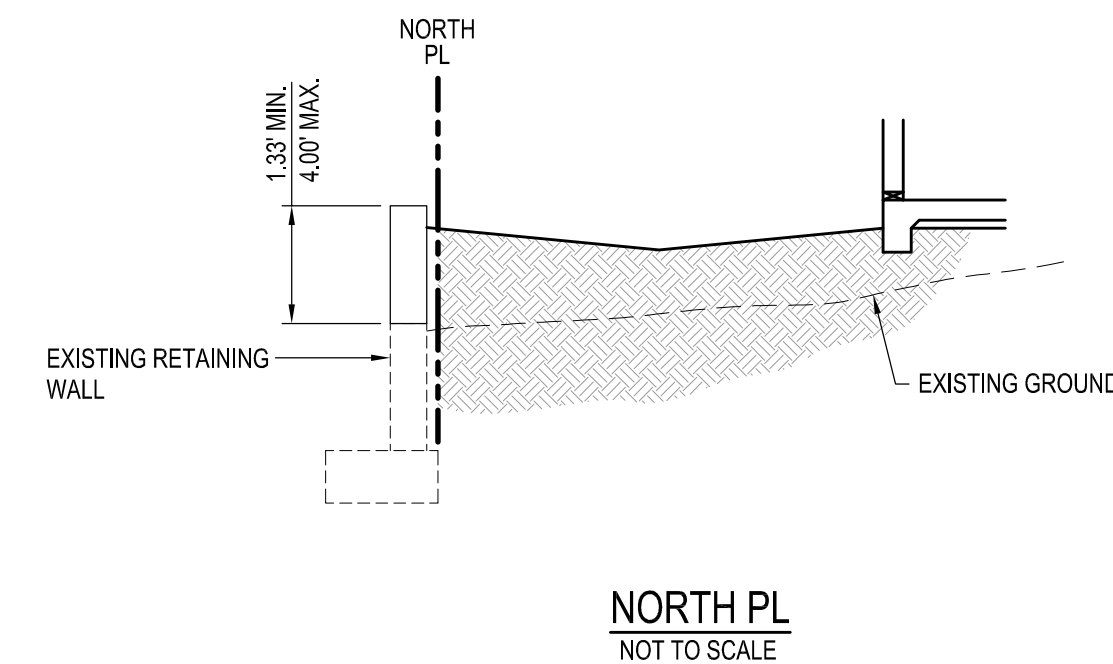
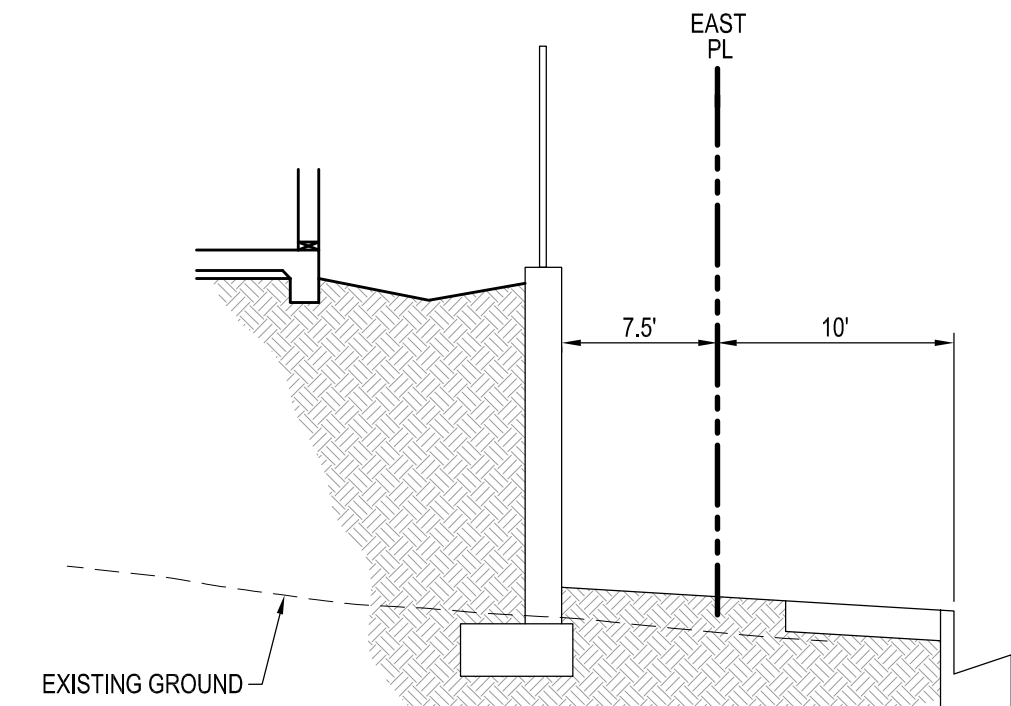
G-1

SEE SHEET 5



GRADING CONSTRUCTION NOTES:

- 1 CONSTRUCT 4" A.C. OVER COMPACTED NATIVE SOIL
- 2 CONSTRUCT 6" CONCRETE CURB PER SPPWC 120-2 (A1-6) PER DETAIL ON SHEET 9
- 3 CONSTRUCT 6" CONCRETE CURB & GUTTER PER SPPWC 120-2 (A2-6) PER DETAIL ON SHEET 9
- 4 CONSTRUCT 3" WIDE CONCRETE RIBBON GUTTER PER DETAIL ON SHEET 8
- 5 CONSTRUCT 4" CONCRETE WITH BROOM FINISH
- 6 CONSTRUCT 12" WIDE CONCRETE LANDSCAPE STRIP PER DETAIL ON SHEET 8
- 7 CONSTRUCT CONCRETE BLOCK RETAINING WALL PER SEPARATE PERMIT
- 8 ADD CONCRETE BLOCK COURSES TO EXISTING RETAINING WALL
- 9 INSTALL PARKING LOT LIGHT PER SEPARATE PERMIT (REFER TO SITE PLAN)
- 10 YELLOW DETECTABLE WARNING 36" DP. x WIDTH OF RAMP PER DETAIL ON SHEET 8
- 11 UNAUTHORIZED VEHICLES IN ACCESSIBLE PARKING SIGNAGE PER DETAIL ON SHEET 8
- 12 ACCESSIBLE PARKING SPACE SIGNAGE PER DETAIL ON SHEET 8
- 13 NEW PARKING STRIPING PER DETAIL ON SHEET 8
- 14 INSTALL BROOKS PRODUCTS 2424 CATCH BASIN WNYLOPLAST ENVIROHOOD (OR APPROVED EQUAL) PER DETAIL ON SHEET 8
- 15 CONSTRUCT ACCESSIBLE RAMP PER DETAIL ON SHEET 8
- 16 CONSTRUCT TRASH ENCLOSURE PER DETAILS ON SHEET 9
- 17 INSTALL 6" PVC STORM DRAIN TO ELEVATIONS SHOWN ON PLAN
- 18 INSTALL 8" PVC STORM DRAIN TO ELEVATIONS SHOWN ON PLAN
- 19 INSTALL 12" PVC STORM DRAIN TO ELEVATIONS SHOWN ON PLAN
- 20 INSTALL STORMTECH MC-7200 UNDERGROUND RETENTION SYSTEM PER DETAILS ON SHEET 11 & 12
- 21 EXISTING JOSHUA TREE TO BE REMOVED OR REPLANTED PER THE APPROVED PROTECTED PLANT PLAN
- 22 CONSTRUCT PLASTER & GATE PER SEPARATE PERMIT
- 23 INSTALL 4" WROUGHT IRON FENCE
- 24 INSTALL 6" HIGH WROUGHT IRON FENCE
- 25 INSTALL 30" NYLOPLAST DRAIN BASIN PER DETAIL ON SHEET 2
- 26 INSTALL 6" SQUARE AREA DRAIN (NDS 641 OR APPROVED EQUAL)
- 27 INSTALL KNOX BOX FOR FIRE DEPT. ENTRY
- 28 CONSTRUCT 2' HIGH CONCRETE BLOCK WALL PER SEPARATE PERMIT
- 29 CONSTRUCT COMBO CONCRETE BLOCK RETAINING WALL PER SEPARATE PERMIT



Know what's below.
Call before you dig.

BENCHMARK:

"H-18"

BRASS DISK IN CONCRETE, LOCATED APPROXIMATELY 22 FEET NORTH OF THE NE COR. BEHIND THE SIDEWALK AT THE INTERSECTION OF MAIN ST. & MAPLE ST.

ELEV=3376.492

DESIGNED BY: D.B.W.

DRAWN BY: D.B.W.

CHECKED BY: R.J.A.

SUBMITTED BY:

RAYMOND J. ALLARD RCE No. 36052

DATE



HIGH DESERT MAPPING

Land Surveying - Civil Design

16704 Neenach Road
Apple Valley, CA 92307
(760) 508-8555

dbw.hdm@gmail.com



CITY OF HESPERIA
ENGINEERING DEPARTMENT

RECOMMENDED FOR APPROVAL BY:

DATE

AUTHORIZED SIGNATURE

APPROVED BY:

CASSANDRA SANCHEZ

DATE

R.C.E. 74776 EXP. DATE 12/31/25
CITY ENGINEER

CITY OF HESPERIA
GRADING PLAN

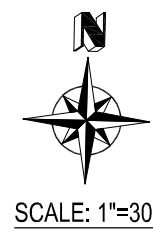
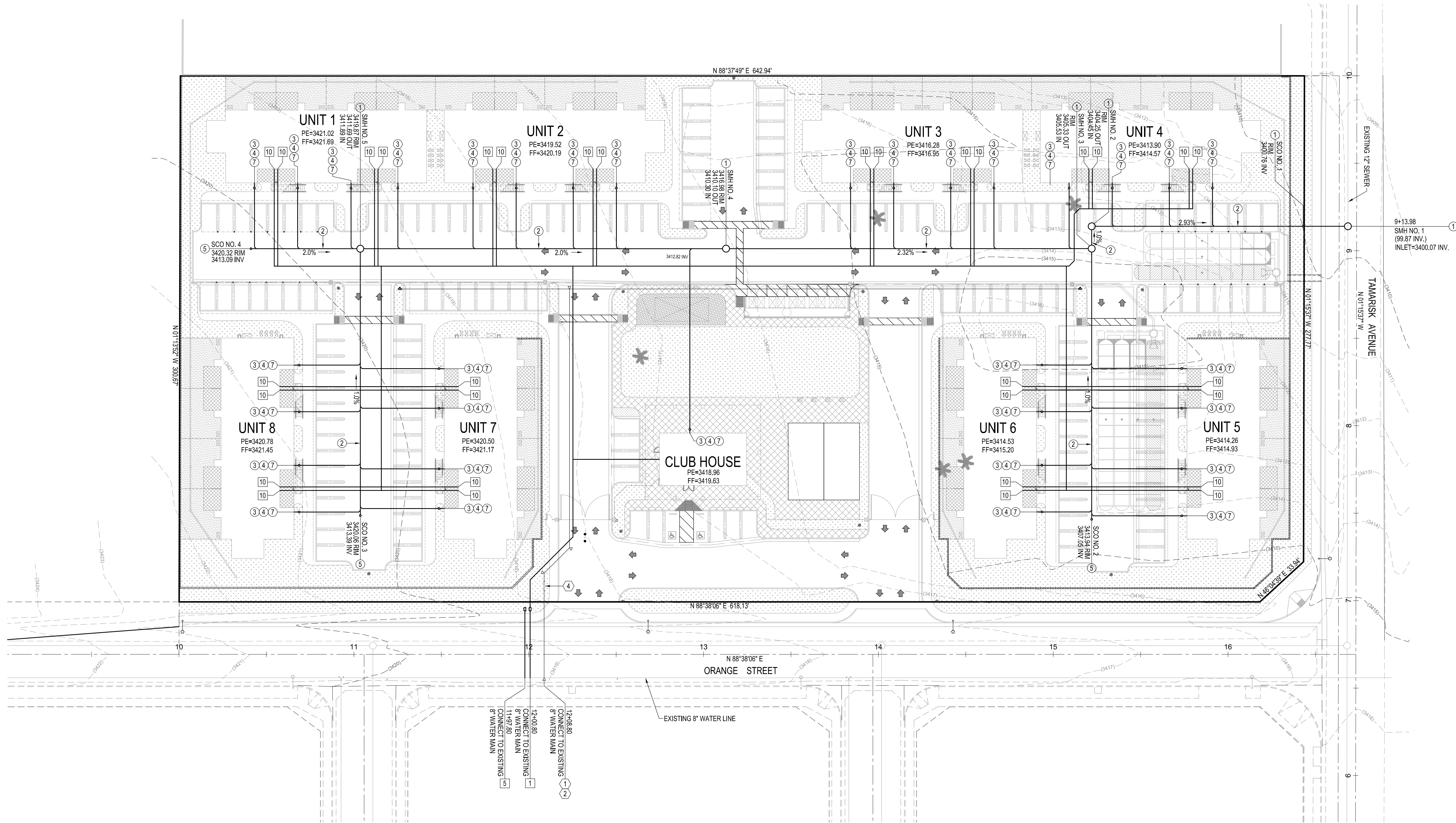
TAMARISK APARTMENTS
MUNEM MAIDA

APN 3057-121-08

SHEET
6
OF
13

G-2





SEWER CONSTRUCTION NOTES:

- | | | |
|---|--|------------|
| 1 | CONSTRUCT STANDARD MANHOLE PER CITY STD. S-4 ON SHEET 10 | 5 EA. |
| 2 | INSTALL 8" PVC SDR-35 SEWER LINE | 1,025 L.F. |
| 3 | INSTALL 8" x 6" PVC SDR-35 WYE | 33 EA. |
| 4 | INSTALL 6" PVC SDR-35 SEWER LATERAL @ 2.0% MIN., PER CITY STD. S-9 ON SHEET 10 | 1,290 L.F. |
| 5 | INSTALL END OF LINE SEWER CLEAN OUT PER CITY STD. S-13 ON SHEET 10 | 3 EA. |
| 6 | INSTALL 8" IN-LINE SEWER CLEAN OUT PER CITY STD. S-14 ON SHEET 10 | 1 EA. |
| 7 | INSTALL TWO-WAY SEWER CLEAN OUT PER DETAIL ON SHEET 8 | 33 EA. |

WATER CONSTRUCTION NOTES:

- | | | |
|----|---|------------|
| 1 | INSTALL 8"x6"x4" TEE | 1 EA. |
| 2 | INSTALL 4" PVC WATER LINE | 1,054 L.F. |
| 3 | INSTALL 2" PVC WATER LINE | 38 L.F. |
| 4 | INSTALL 8"x8"x2" TEE | 1 EA. |
| 5 | INSTALL 4" WATER SERVICE PER CITY STD. W-11 | 1 EA. |
| 6 | INSTALL 1" WATER SERVICE PER CITY STD. W-7 | 1 EA. |
| 7 | INSTALL 4" BEND | 6 EA. |
| 8 | INSTALL 4" x 4" x 1" TEE | 15 EA. |
| 9 | INSTALL 1" PVC WATER LINE | 1,623 L.F. |
| 10 | INSTALL 4" TEE | 3 EA. |
| 11 | INSTALL 4" x 4" x 1" x 1" CROSS | 6 EA. |
| 12 | INSTALL 4" x 1" ELBOW | 2 EA. |

FIRE CONSTRUCTION NOTES:

- | | | |
|---|---|----------|
| 1 | INSTALL 8"x8"x6" TEE | 1 EA. |
| 2 | CONSTRUCT THRUST BLOCK PER CITY STD. W-4 ON SHEET 10 | 4 EA. |
| 3 | INSTALL 6" C900 DR18 PVC FIRE LINE | 613 L.F. |
| 4 | INSTALL 6" D.D.C.A. PER CITY STD. W-15 ON SHEET 10 | 1 EA. |
| 5 | INSTALL 6" BEND | 2 EA. |
| 6 | INSTALL 6" TEE | 1 EA. |
| 7 | CONSTRUCT FIRE HYDRANT ASSEMBLY PER CITY STD. W-2 ON SHEET 10 | 2 EA. |
- HYDRANT TO BE A MINIMUM OF 6" x 4" x 2-1/2" x 2-1/2"

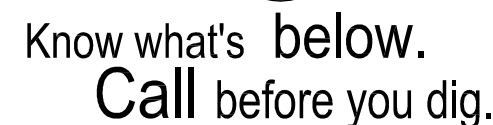
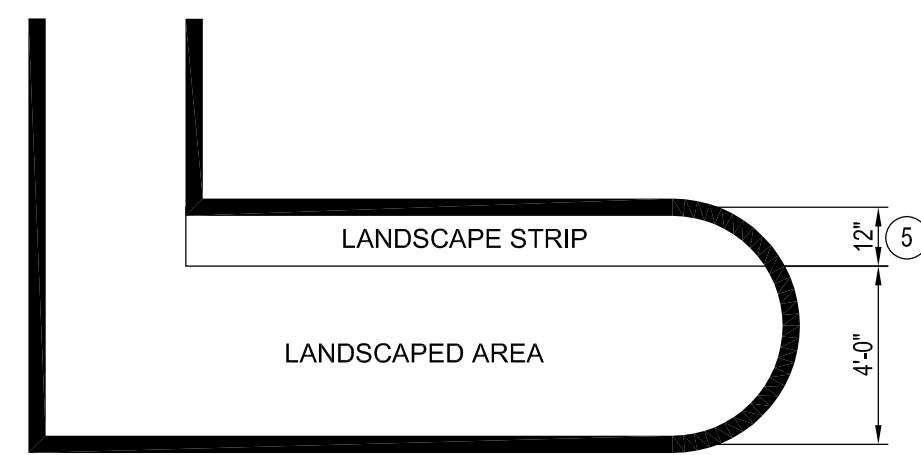


Know what's below.
Call before you dig.



BENCHMARK: "H-18" BRASS DISK IN CONCRETE, LOCATED APPROXIMATELY 22 FEET NORTH OF THE NE COR. BEHIND THE SIDEWALK AT THE INTERSECTION OF MAIN ST. & MAPLE ST. ELEV=3376.492				DESIGNED BY: <u>D.B.W.</u> DRAWN BY: <u>D.B.W.</u> CHECKED BY: <u>R.J.A.</u> SUBMITTED BY: RAYMOND J. ALLARD RCE No. 36052	DATE	HIGH DESERT MAPPING Land Surveying - Civil Design 16704 Neenach Road Apple Valley, CA 92307 (760) 508-8555 dbw.hdm@gmail.com		CITY OF HESPERIA ENGINEERING DEPARTMENT RECOMMENDED FOR APPROVAL BY: DATE AUTHORIZED SIGNATURE		APPROVED BY: CASSANDRA SANCHEZ R.C.E. 74776 EXP. DATE 12/31/25 CITY ENGINEER		CITY OF HESPERIA UTILITY PLAN TAMARISK APARTMENTS MUNEM MAIDA APN 3057-121-08		SHEET 7 OF 13 U-1
--	--	--	--	--	------	--	--	--	--	---	--	--	--	--------------------------------------

1. THE INTERNATIONAL SYMBOL OF ACCESSIBILITY SHALL CONSIST OF A WHITE FIGURE ON A BLUE BACKGROUND. THE BLUE SHALL BE EQUAL TO COLOR NO. 15090 IN FEDERAL STANDARD 599C.
2. EACH PARKING SPACE RESERVED FOR PERSONS WITH DISABILITIES SHALL BE IDENTIFIED BY A REFLECTORIZED SIGN PERMANENTLY POSTED IMMEDIATELY ADJACENT TO AND VISIBLE FROM EACH STALL OR SPACE CONSISTING OF A PROFILE VIEW OF A WHEELCHAIR WITH OCCUPANT IN WHITE ON DARK BLUE BACKGROUND. THE SIGN SHALL NOT BE SMALLER THAN 70 SQUARE INCHES IN AREA AND, WHEN IN A PATH OF TRAVEL, SHALL BE POSTED AT A MINIMUM HEIGHT OF 80" FROM THE BOTTOM OF THE SIGN TO THE PARKING SPACE FINISHED GRADE. (FIGURE "A" BELOW)
3. AN ADDITIONAL SIGN SHALL ALSO BE POSTED, IN A CONSPICUOUS PLACE, AT EACH ENTRANCE TO OFF-STREET PARKING FACILITIES, OR IMMEDIATELY ADJACENT TO AND VISIBLE FROM EACH STALL OR SPACE. THE SIGN SHALL BE NOT LESS THAN 17" X 24" IN SIZE WITH LETTERS NOT LESS THAN 1" IN HEIGHT. (FIGURE "B" BELOW). THE SURFACE OF EACH ACCESSIBLE PARKING SPACE OR STALL SHALL HAVE A SURFACE IDENTIFICATION DUPLICATING EITHER OF THE FOLLOWING SCHEMES:
a. BY OUTLINING OR PAINTING THE STALL OR SPACE IN BLUE AND OUTLINING ON THE GROUND IN THE STALL OR SPACE IN WHITE OR SUITABLE CONTRASTING COLOR A PROFILE VIEW DEPICTING A WHEELCHAIR WITH OCCUPANT, OR BY OUTLINING A PROFILE VIEW OF A WHEELCHAIR WITH OCCUPANT IN WHITE ON BLUE BACKGROUND THE PROFILE VIEW SHALL BE LOCATED SO THAT IT IS VISIBLE TO A TRAFFIC ENFORCEMENT OFFICER WHEN A VEHICLE IS PROPERLY PARKED IN THE SPACE AND SHALL BE 36" HIGH BY 36" WIDE.



CURB RAMPS - DETECTABLE WARNINGS AT CURB RAMPS SHALL EXTEND 36" IN THE DIRECTION OF TRAVEL AND SHALL EXTEND TO THE FULL WIDTH OF THE RAMP RUN LESS 2" MAX EACH SIDE - 118-705.1.2.2. TRUNCATED DOMES WITH A DIAMETER OF NOMINAL 0.9" AT THE BASE TAPERING TO 0.45" AT THE TOP. A MINIMUM OF 100 DOWNS SHALL BE REQUIRED TO COVER EACH SQUARE FOOT. NOMINAL 2.35" IN COMPLIANCE WITH FIGURE 118-705.1.1. THE DETECTABLE WARNING SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES. EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT. THE MATERIAL USED TO PROVIDE CONTRAST SHALL BE AN INTEGRAL PART OF THE WALKING SURFACE.

ONLY 2" NARROW STRIP-WALK-CA DETECTABLE WARNING PRODUCTS AND DIRECTIONAL SURFACE SHALL BE INSTALLED AS PROVIDED IN CCR, TITLE 24, PART 1. ARTICLES 2.3 AND 4.

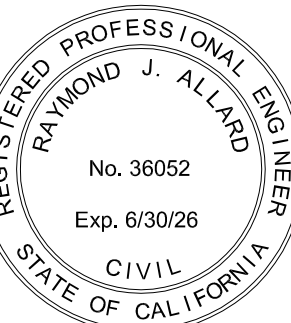
FOR ALL ZERO CURB FACE OR OTHER HAZARDOUS VEHICLE AREAS PER THE 2019 CBC 11B-247.1.2.5 - HAZARDOUS VEHICLE AREAS. IF A WALK CROSSES OR ADJACINS A VEHICULAR WAY, AND THE WALKING SURFACES ARE NOT SEPARATED BY CURBS, RAILINGS, OR OTHER ELEMENTS BETWEEN THE PEDESTRIAN AREAS AND VEHICULAR AREAS, THE BOUNDARY BETWEEN THE AREAS SHALL BE DEFINED BY A CONTINUOUS DETECTABLE WARNING COMPLYING WITH SECTIONS 11B-705.1.1 AND 11B-705.1.2.5

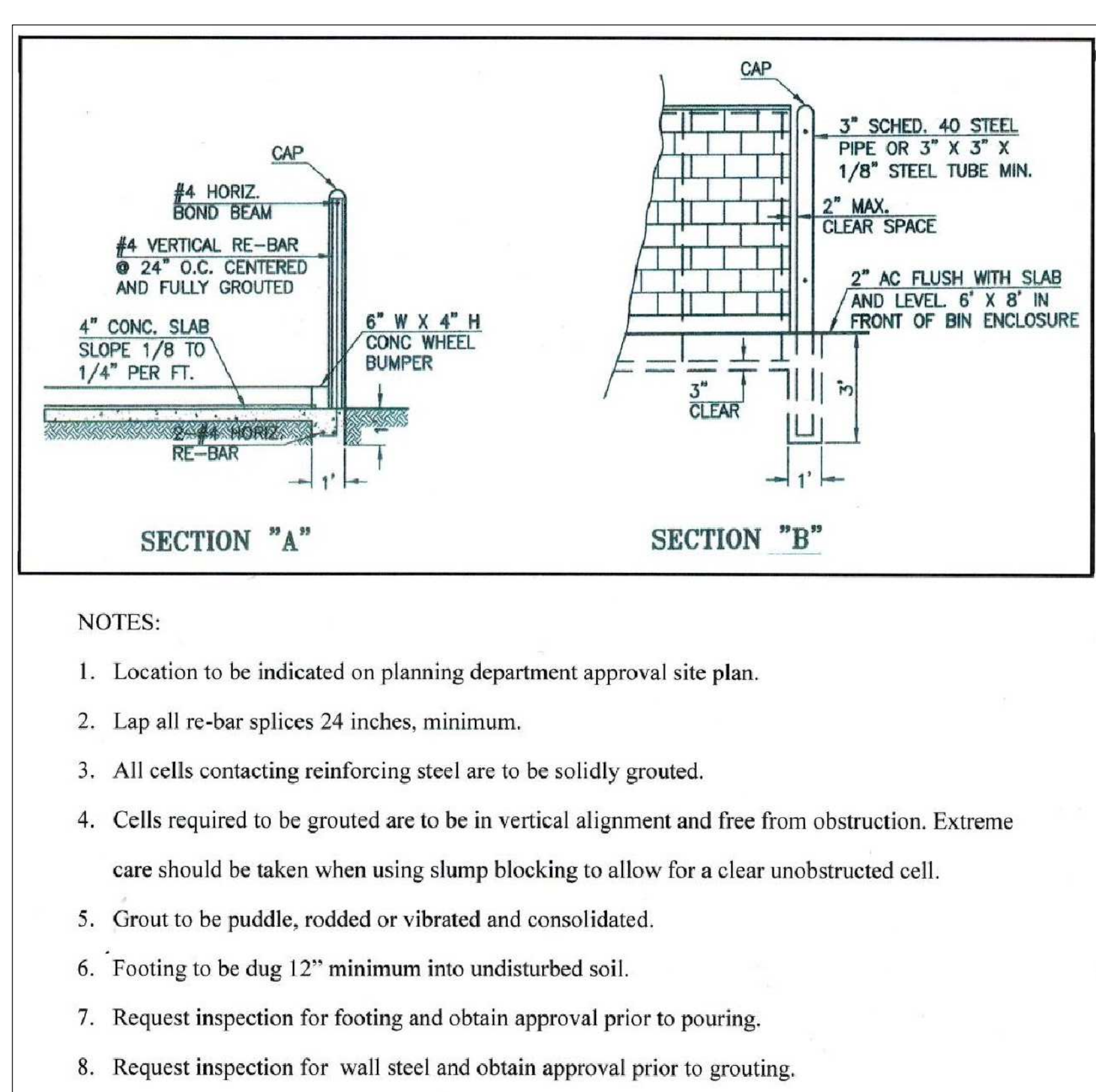
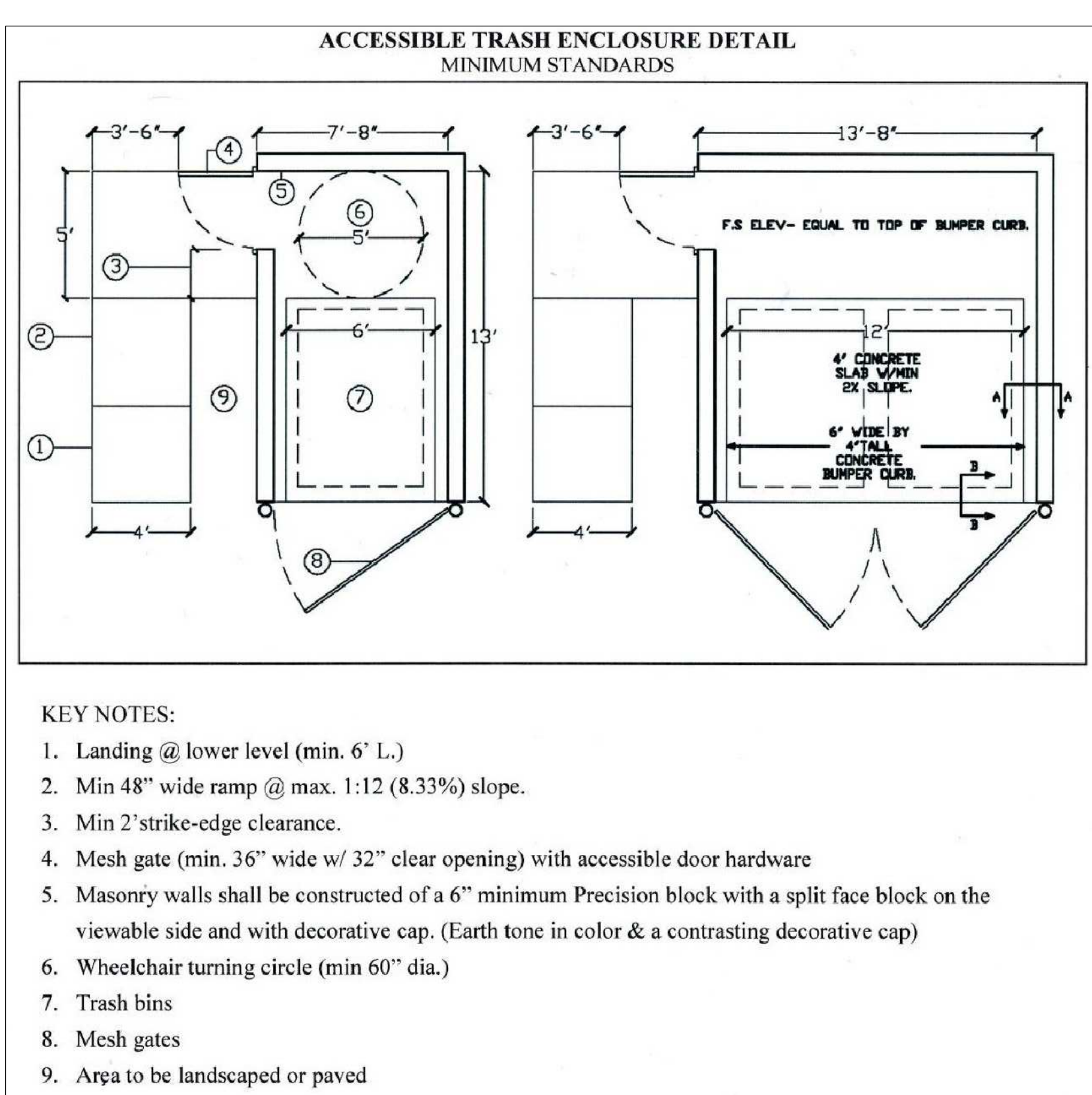
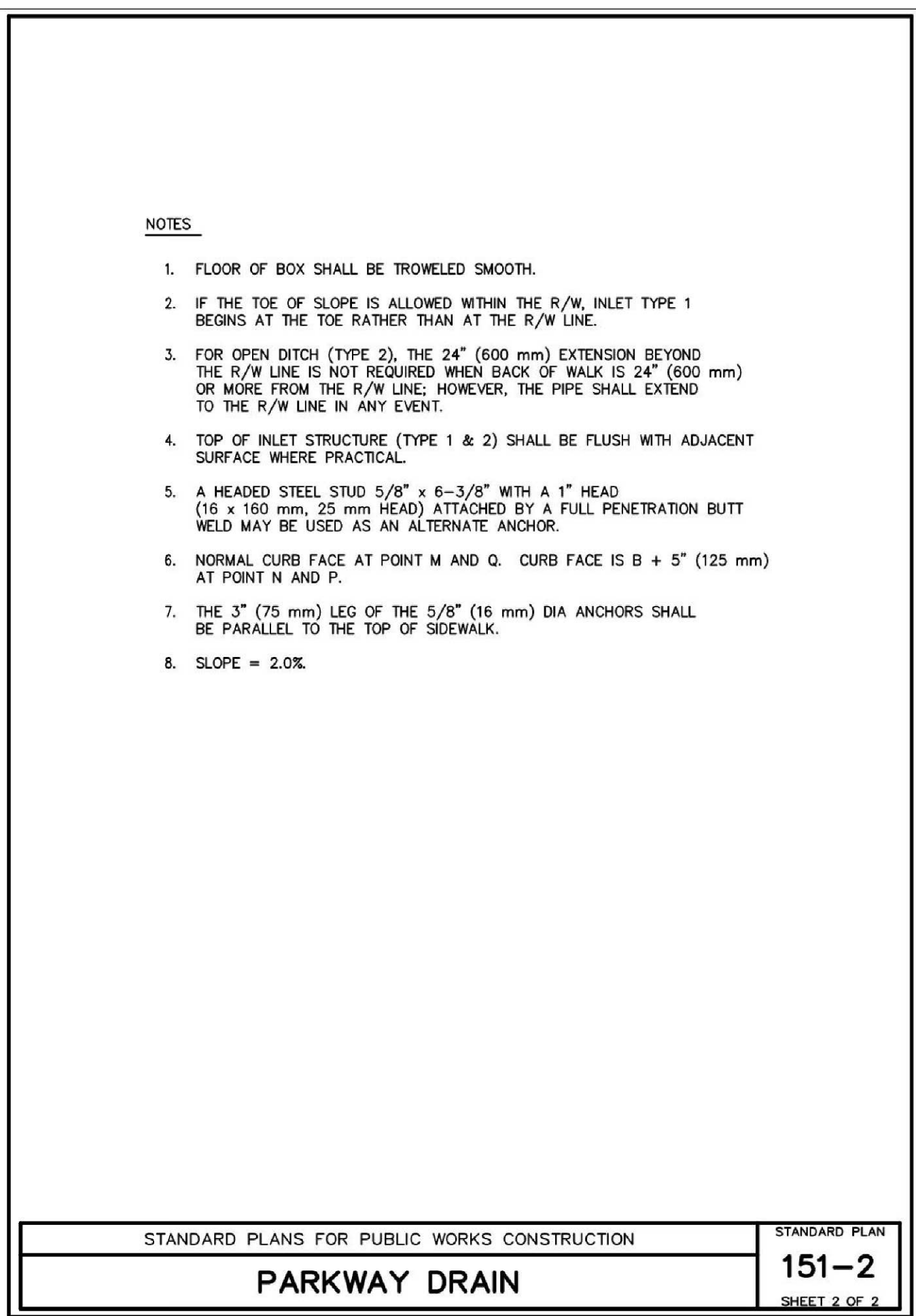
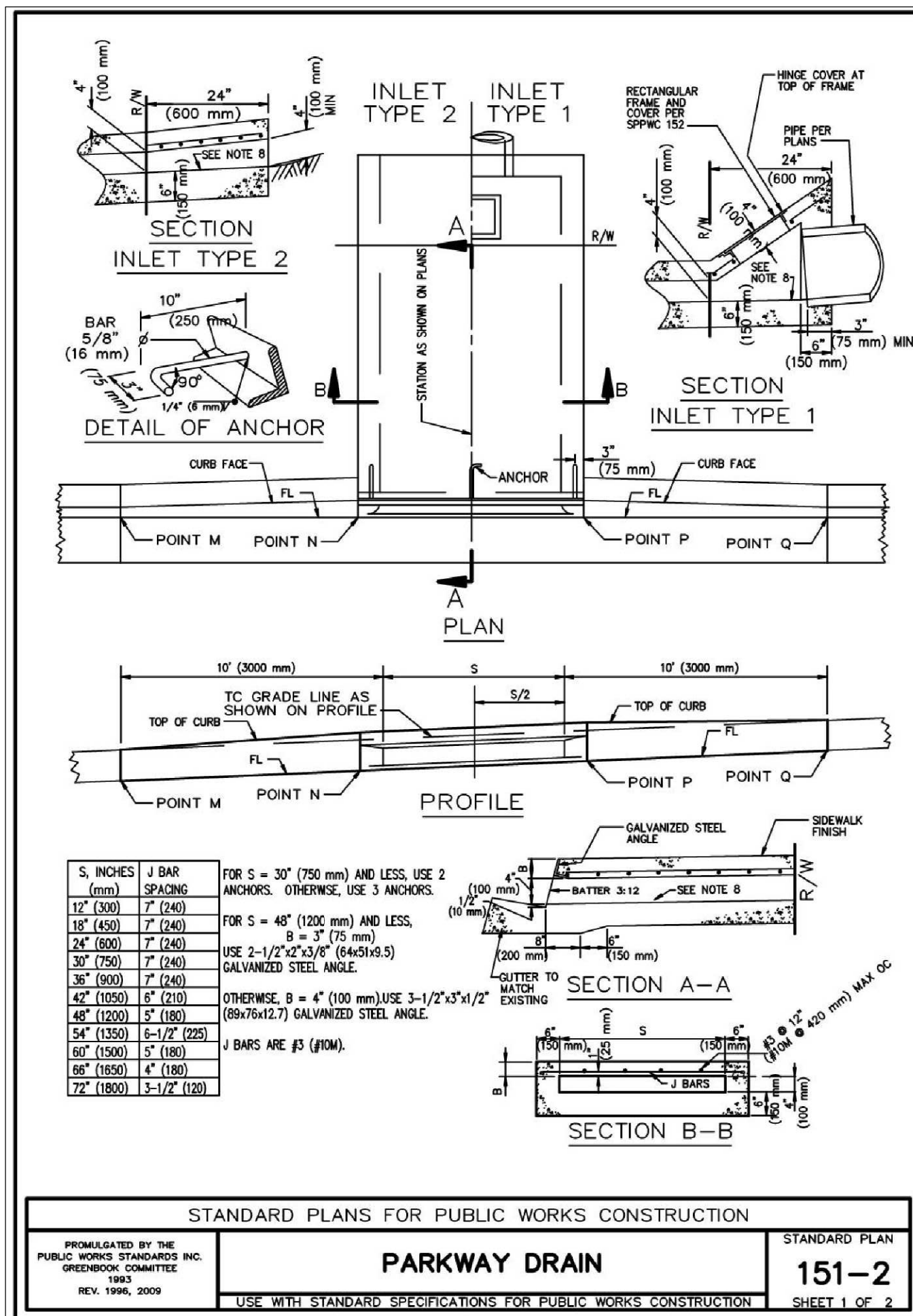
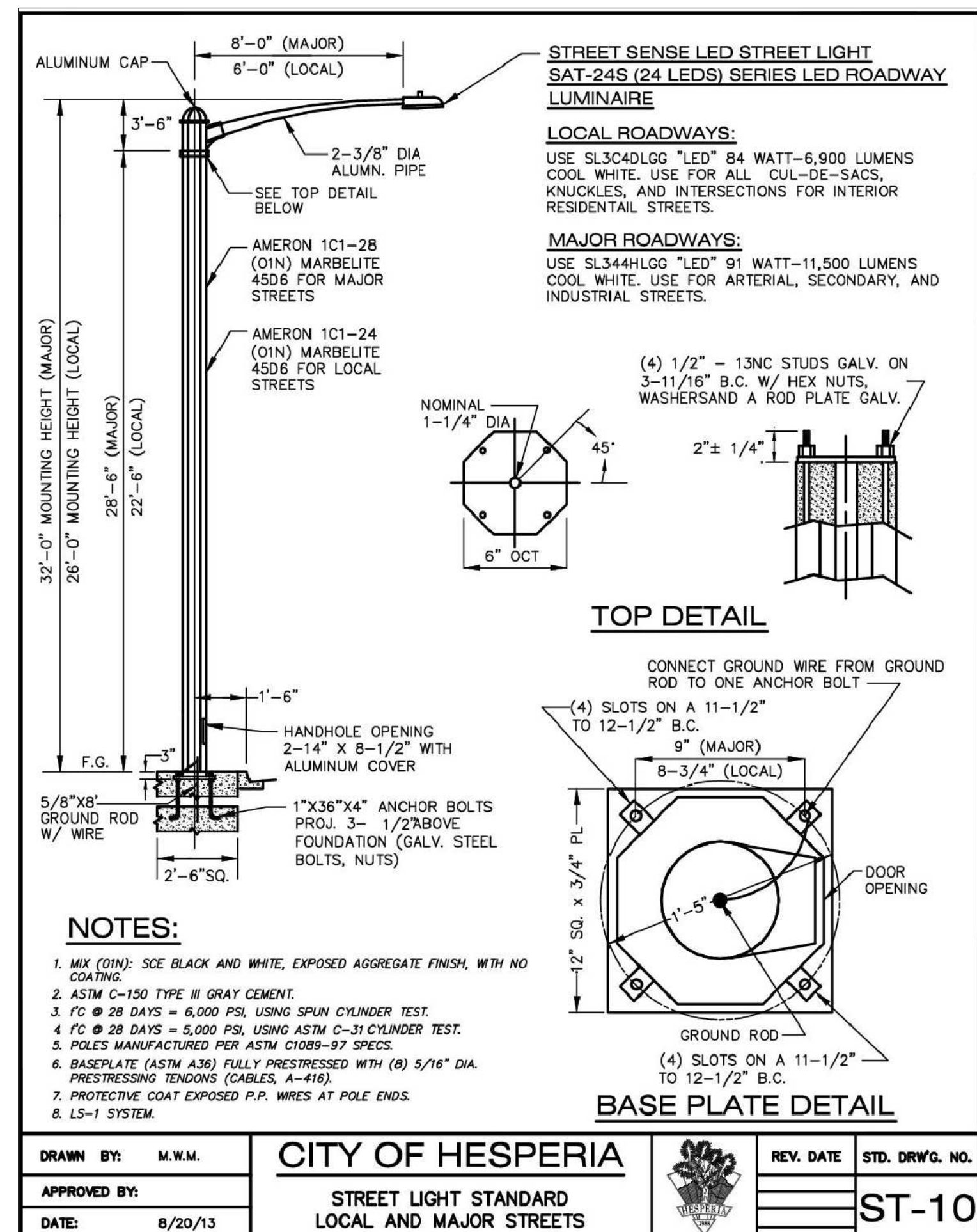
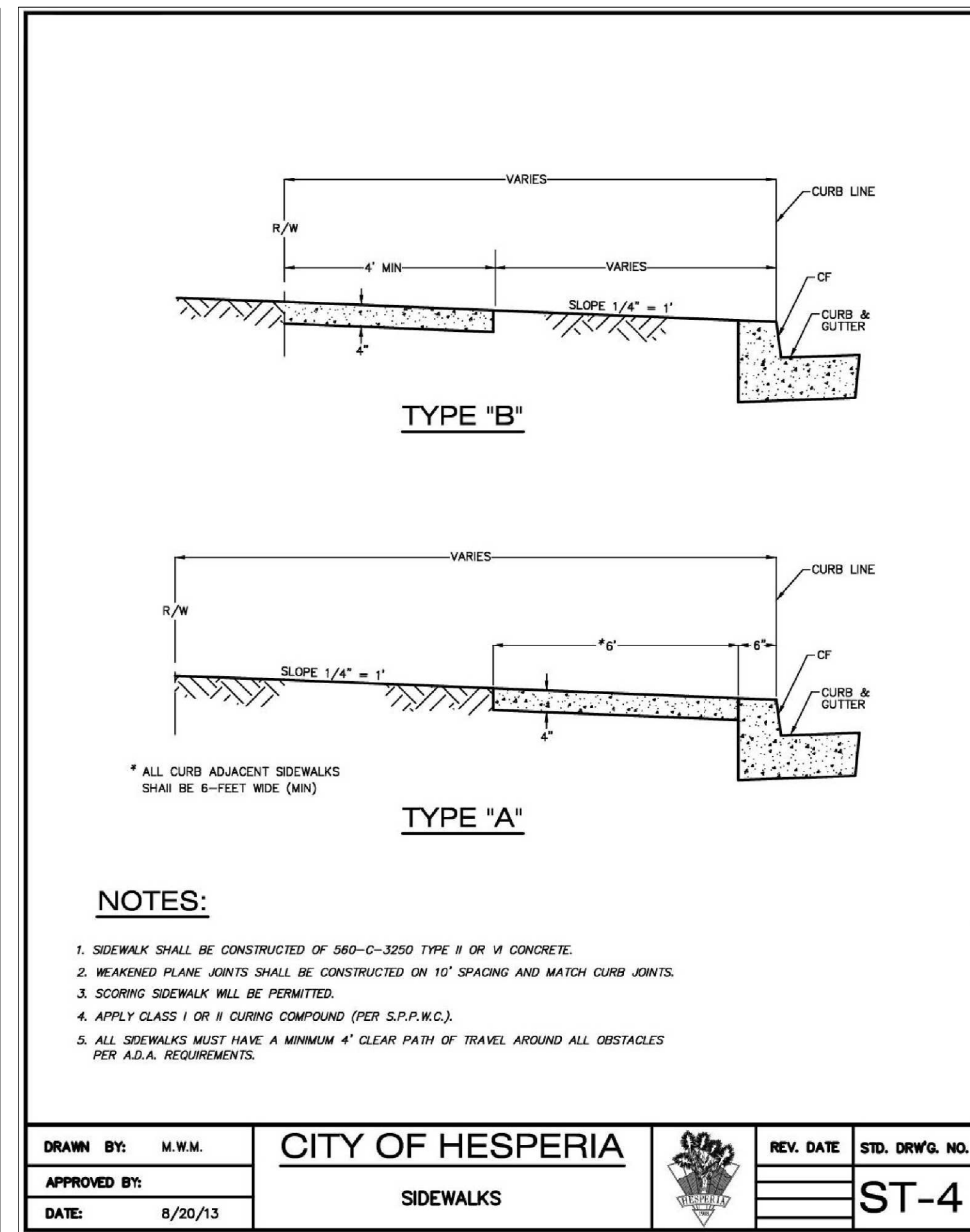
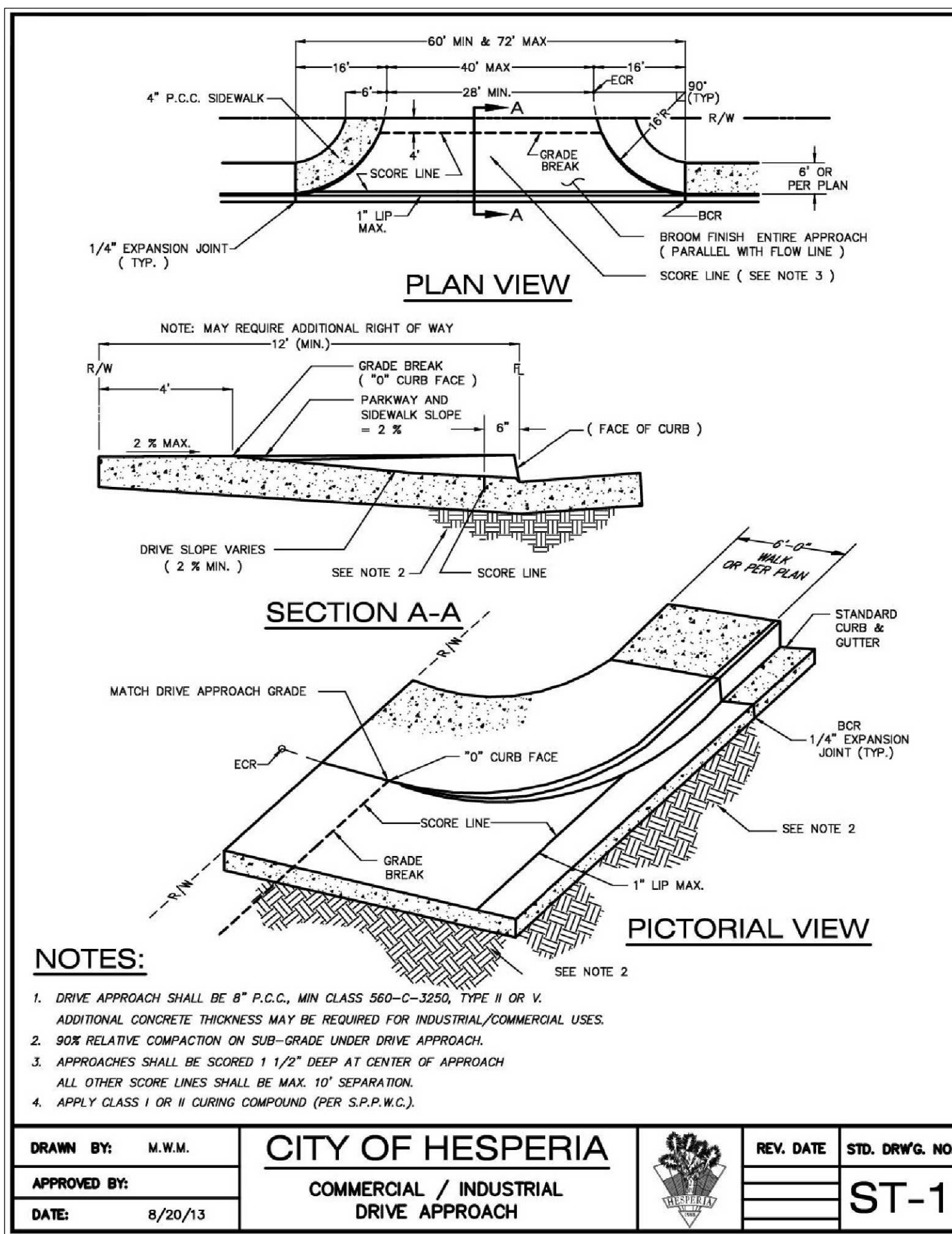
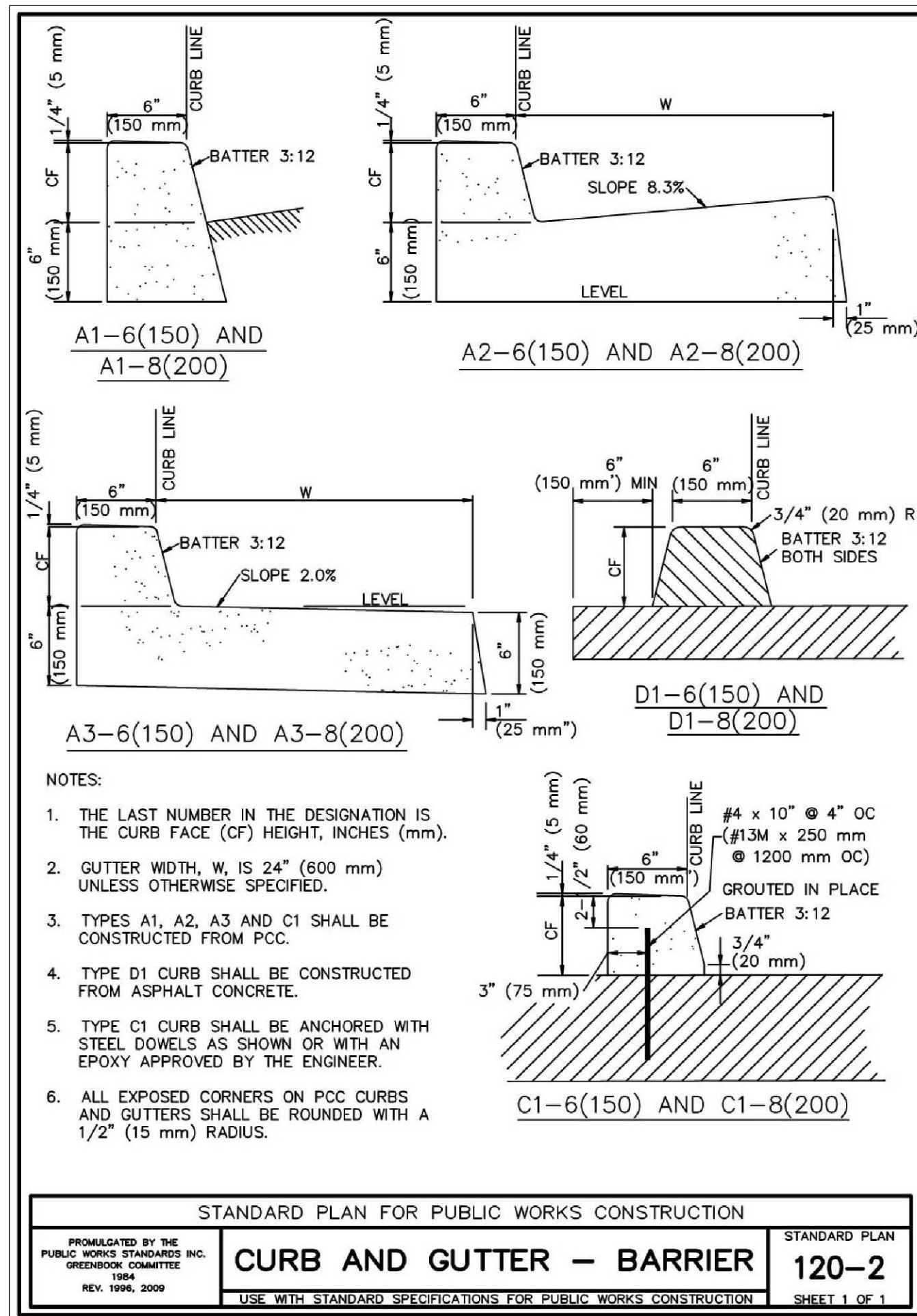
DETECTABLE WARNINGS MUST COMPLY WITH SECTION 11B705.1.1.3.1, THE
DETECTABLE WARNINGS SHALL BE YELLOW CONFORMING TO FS 33538 OF
FEDERAL STANDARD 595C



1. THE EXCAVATED TRENCH FOR THIS CLEAN-OUT DETAIL SHALL BE FILLED TO SUBGRADE WITH ROCK OR GRAVEL WHICH SHALL BE TAMPED UNTIL FIRM AND UNYIELDING.
2. SHOULD A FIRM AND UNYIELDING FOUNDATION BE UNOBTAINABLE BY THIS METHOD A CONCRETE PIPE CRADLE SHALL BE USED.
3. CAST IRON FRAME AND COVER PER SOUTH BAY FOUNDRY #1240, #1241 OR APPROVED EQUAL, WITH 12" DIAMETER COVER MARKED PER SPECIFICATIONS.

DRAWN BY: M.W.M.	CITY OF HESPERIA 	REV. DATE	STD. DRWG. NO.
APPROVED BY:			S-14
DATE: 8/20/13		IN-LINE CLEANOUT DETAIL	

[illegible]



Know what's below.
Call before you dig.

BENCHMARK:

"H-18"
BRASS DISK IN CONCRETE, LOCATED APPROXIMATELY 22 FEET NORTH OF THE NE COR. BEHIND THE SIDEWALK AT THE INTERSECTION OF MAIN ST. & MAPLE ST.
ELEV=3378.492

DESIGNED BY: D.B.W.
DRAWN BY: D.B.W.
CHECKED BY: R.J.A.
SUBMITTED BY:

RAYMOND J. ALLARD RCE No. 36052 DATE



HIGH DESERT MAPPING

Land Surveying - Civil Design
16704 Neenach Road
Apple Valley, CA 92307
(760) 508-8555
dbw.hdm@gmail.com



CITY OF HESPERIA ENGINEERING DEPARTMENT

RECOMMENDED FOR APPROVAL BY: _____ DATE _____
AUTHORIZED SIGNATURE _____
APPROVED BY: _____ DATE _____
CASSANDRA SANCHEZ DATE
R.C.E. 74776 EXP. DATE 12/31/25
CITY ENGINEER

CITY OF HESPERIA DETAILS

TAMARISK APARTMENTS
MUNEM MAIDA
APN 3057-121-08



SHEET
9
OF
13
D-2

SPACE INTENTIONALLY LEFT BLANK

SPACE INTENTIONALLY LEFT BLANK

MC-7200 TECHNICAL SPECIFICATION

NOMINAL CHAMBER SPECIFICATIONS
 SIZE (W X H X INSTALLED LENGTH)
 CHAMBER STORAGE
 MINIMUM INSTALLED STORAGE¹
 WEIGHT (NOMINAL)

NOMINAL END CAP SPECIFICATIONS
 SIZE (W X H X INSTALLED LENGTH)
 END CAP STORAGE
 MINIMUM INSTALLED STORAGE¹
 WEIGHT (NOMINAL)

*ASSUMES 12" (305 mm) STONE ABOVE, 9" (229 mm) STONE FOUNDATION AND BETWEEN CHAMBERS, 12" (305 mm) STONE PERIMETER IN FRONT OF END CAPS AND 40 % STONE POROSITY.

PARTIAL CUT HOLES AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "B"
 PARTIAL CUT HOLES AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"
 END CAPS WITH A PREFABRICATED WELDED STUB END WITH "W"

PART #	STUB	B	C
MC7200EPP06T	6" (150 mm)	42.54" (1081 mm)	0.86" (22 mm)
MC7200EPP08B	8" (200 mm)	40.50" (1029 mm)	---
MC7200EPP08B	8" (200 mm)	---	1.01" (26 mm)
MC7200EPP10T	10" (250 mm)	38.37" (975 mm)	---
MC7200EPP10B	10" (250 mm)	---	1.33" (34 mm)
MC7200EPP12T	12" (300 mm)	35.69" (907 mm)	---
MC7200EPP12B	12" (300 mm)	---	1.55" (39 mm)
MC7200EPP15T	15" (375 mm)	32.72" (831 mm)	---
MC7200EPP15B	15" (375 mm)	---	1.70" (43 mm)
MC7200EPP18T	18" (450 mm)	29.36" (746 mm)	---
MC7200EPP18TW	18" (450 mm)	---	1.97" (50 mm)
MC7200EPP18B	18" (450 mm)	---	---
MC7200EPP24T	24" (600 mm)	23.05" (585 mm)	---
MC7200EPP24TW	24" (600 mm)	---	2.26" (57 mm)
MC7200EPP24B	24" (600 mm)	---	2.95" (75 mm)
MC7200EPP24BW	24" (600 mm)	---	3.32" (83 mm)
MC7200EPP24B	24" (600 mm)	---	3.55" (90 mm)

NOTE: ALL DIMENSIONS ARE NOMINAL

ACCEPTABLE FILL MATERIALS: STORMTECH MC-7200 CHAMBER SYSTEMS

MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEERS PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A
C	INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDED STONE ('B' LAYER) TO 24" (600 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'C' LAYER	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER	AASHTO M145 ¹ A-1, A-2-4, A-3 OR AASHTO M33 ² 3, 357, 4, 467, 5, 56, 57, 6, 61, 66, 7, 8, 89, 9, 10
B	EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE ³	AASHTO M33 ² 3, 357, 4, 467, 5, 56, 57
A	FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE ³	AASHTO M33 ² 3, 357, 4, 467, 5, 56, 57

PLEASE NOTE:
 1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M33) STONE".
 2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
 3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
 4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEERS DISCRETION.
 5. WHERE RECYCLED CONCRETE AGGREGATE IS USED IN LAYERS 'A' OR 'B' THE MATERIAL SHOULD ALSO MEET THE ACCEPTABILITY CRITERIA OUTLINED IN TECHNICAL NOTE 6.20 "RECYCLED CONCRETE STRUCTURAL BACKFILL".

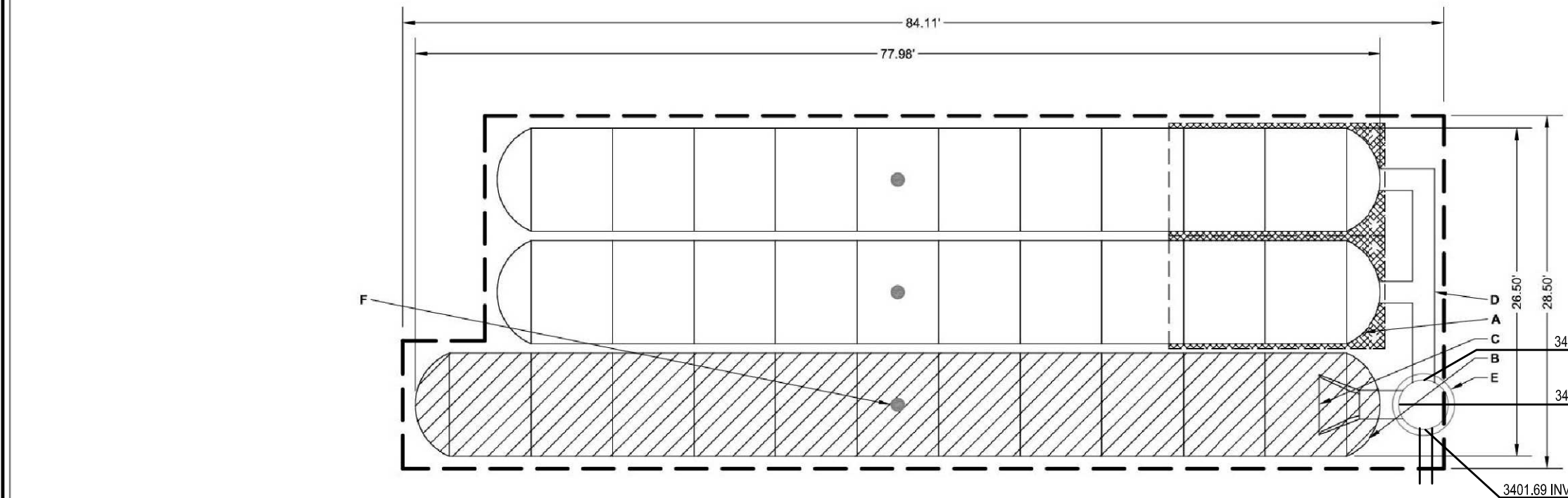
NOTES:

- CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED GALD STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 60x101
- MC-7200 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED GALD STORMWATER COLLECTION CHAMBERS".
- THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
- PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
- REQUIREMENTS FOR HANDLING AND INSTALLATION
 - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
 - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
 - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 450 LBS/FT². % THE ASG IS DEFINED IN SECTION 6.2.8 OF ASTM F2418, AND (B) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

MC-7200 CROSS SECTION DETAIL

[illegible]

PROPOSED LAYOUT: BED 2		CONCEPTUAL ELEVATIONS		PART TYPE		ITEM ON LAYOUT	DESCRIPTION	*INVERT ABOVE BASE OF CHAMBER	MAX FLOW
31	STORMTECH MC-7200 CHAMBERS	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED):	12.75			A	16" BOTTOM PARTIAL CUT END CAP, PART# MC7200EPP18B / TYP OF ALL 16" BOTTOM CONNECTIONS	1.9"	
6	STORMTECH MC-7200 END CAPS	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC):	8.25						
12	STONE ABOVE (B)	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC):	7.75						
8	STONE BELOW (D)	MINIMUM ALLOWABLE GRADE (TOP OF RIGID CONCRETE PAVEMENT):	7.75			B	24" BOTTOM PARTIAL CUT END CAP, PART# MC7200EPP24B / TYP OF ALL 24" BOTTOM CONNECTIONS AND ISOLATOR PLUS ROWS	2.26"	
45	STONE VOID	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT):	7.75						
	INSTALLED SYSTEM VOLUME (V _S) (PERIMETER STONE INCLUDED) (COVER STONE INCLUDED) (BASE STONE INCLUDED)	TOP OF STONE: 3407.50 (8.75) TOP OF MC-7200 CHAMBER: 3406.20 (5.25) 24" ISOLATOR ROW PLUS INVERT: 3401.89 (0.94) 16" x 16" BOTTOM MANIFOLD INVERT: 3404.20 (4.44) BOTTOM OF MC-7200 CHAMBER: 3401.50 (0.75)				C	INST. FLAMP ON 24" ACCESS PIPE / PART# MCFLAMP		
2277	SYSTEM AREA (S _P)					D	16" x 16" BOTTOM MANIFOLD, ADS N-12 (DESIGN BY ENGINEER / PROVIDED BY OTHERS)	1.9"	
226.2	SYSTEM PERIMETER (R)	BOTTOM OF STONE: 3400.75 (0.00) INSPECTION PORT				E	4" SEE DETAIL (TYP 3 PLACES)		11.0 CFS IN



ISOLATOR ROW PLUS (SEE DETAIL)

PLACE MINIMUM 17.5' OF ADSPLUS175 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS

NOTES

1. MANIFOLD SIZE TO BE DETERMINED BY SITE DESIGN ENGINEER. SEE TECH NOTE #0.32 FOR MANIFOLD SIZING GUIDANCE.

2. DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.

3. THE SITE DESIGN ENGINEER MUST REVIEW ELEVATIONS AND IF NECESSARY ADJUST GRADING TO ENSURE THE CHAMBER COVER REQUIREMENTS ARE MET.

4. THIS CHAMBER SYSTEM WAS DESIGNED WITHOUT SITE-SPECIFIC INFORMATION ON SOIL CONDITIONS OR BEARING CAPACITY. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR DETERMINING THE SUITABILITY OF THE SOIL AND PROVIDING THE BEARING CAPACITY OF THE INSITU SOILS. THE BASE STONE DEPTH MAY BE INCREASED OR DECREASED ONCE THIS INFORMATION IS PROVIDED.

5. **NOT FOR CONSTRUCTION:** THIS LAYOUT IS FOR DIMENSIONAL PURPOSES ONLY TO PROVE CONCEPT & THE REQUIRED STORAGE VOLUME CAN BE ACHIEVED ON SITE.

INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT

- INSPECTION PORTS (IF PRESENT)
 - REMOVING COVER LID ON NYLOPLAST INLINE DRAIN
 - REMOVE AND CLEAN FLEXFORM FILTER IF INSTALLED
 - USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
 - LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
 - IF SEDIMENT IS AT, OR ABOVE, 1" (25 mm) PROCEED TO STEP 2; IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR PLUS ROWS**
- REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
 - USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
 - IF SEDIMENT IS AT, OR ABOVE, 1" (25 mm) PROCEED TO STEP 2; IF NOT, PROCEED TO STEP 3.

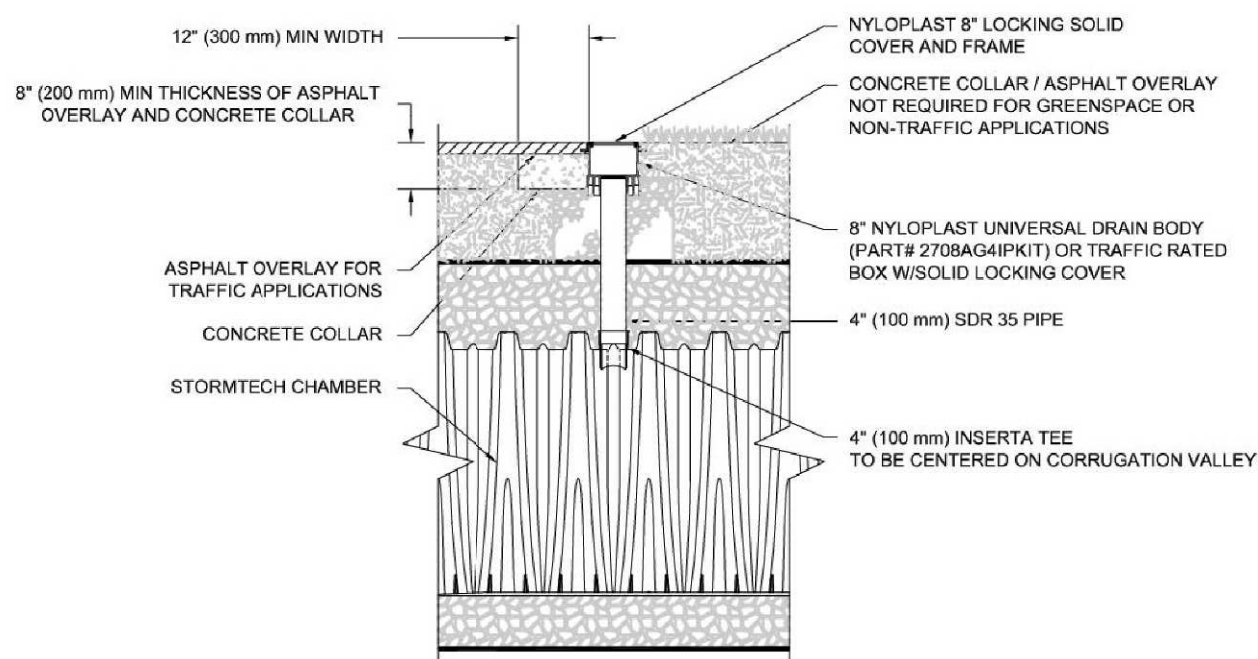
- STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JET/VAC PROCESS**
- A. FIXED ORIENTED CLEANING NOZZLE WITH REAR FACING SPRAY OF 45° (1.1 m) OR MORE IS PREFERRED
 - B. FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
 - C. VACUUM STRUCTURE SUMP AS REQUIRED

- STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.**
- STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.**

NOTES

- INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
- CONDUCT JETTING AND VACUUMING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

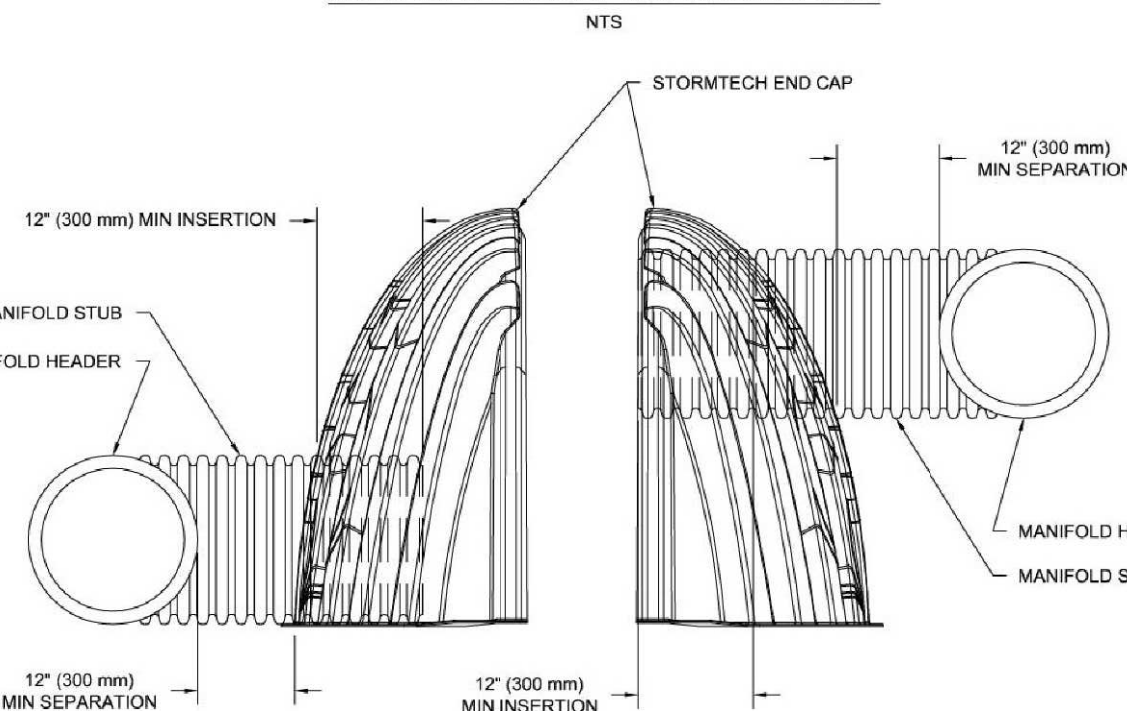
3 MC-7200 ISOLATOR ROW PLUS DETAIL



4" PVC INSPECTION PORT DETAIL (MC SERIES CHAMBER)

4 4" PVC INSPECTION PORT DETAIL (MC SERIES CHAMBER)

MC-SERIES END CAP INSERTION DETAIL



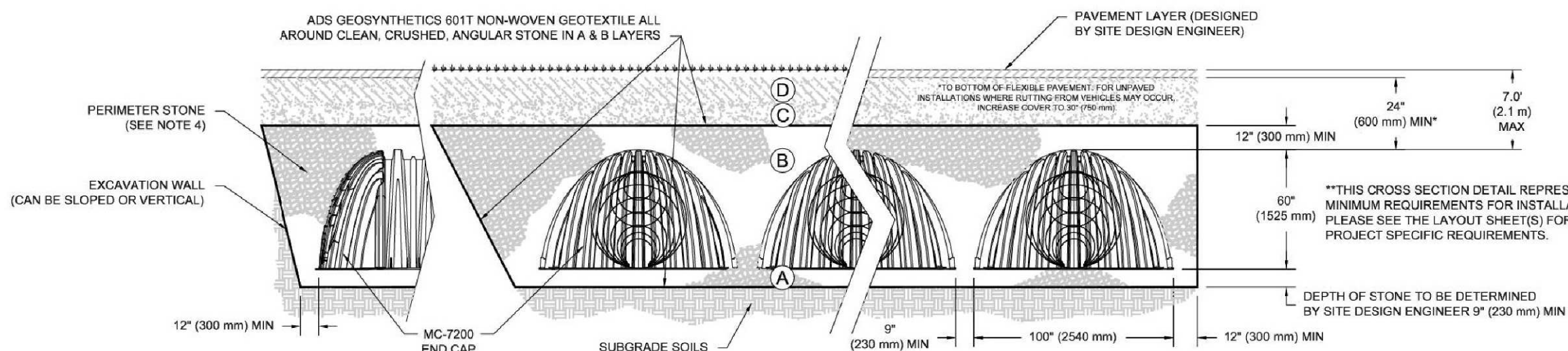
5 MC-SERIES END CAP INSERTION DETAIL

ACCEPTABLE FILL MATERIALS: STORMTECH MC-7200 CHAMBER SYSTEMS

MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SURGRADE REQUIREMENTS.	N/A
C	INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDED STONE 'B' LAYER TO 24" (600 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <5% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145 ¹ A-1, A-2-4, A-3 OR AASHTO M43 ¹ 3, 357, 4, 487, 5, 56, 57, 6, 67, 68, 7, 78, 8, 99, 9, 10
B	EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE (A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE ¹	AASHTO M43 ¹ 3, 357, 4, 487, 5, 56, 57
A	FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SURGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE ¹	AASHTO M43 ¹ 3, 357, 4, 487, 5, 56, 57

PLEASE NOTE:

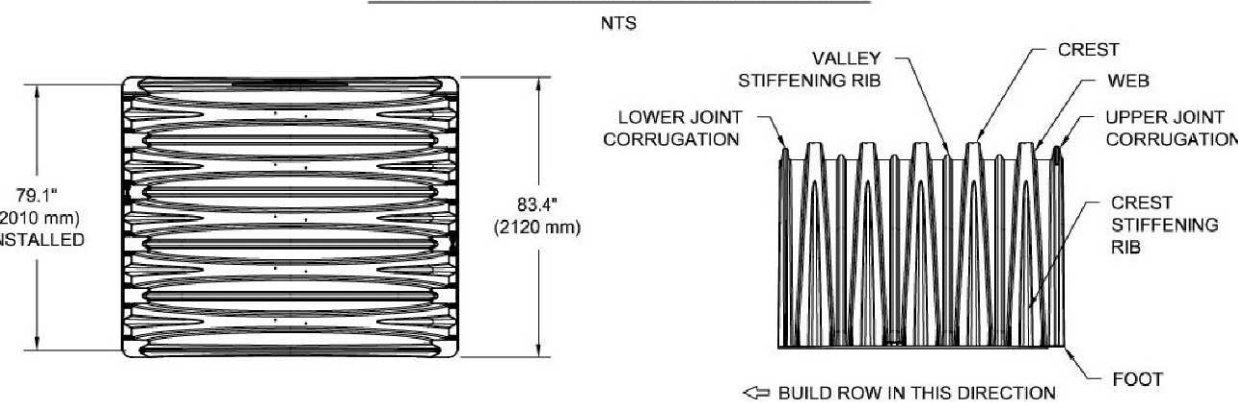
- THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
- STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
- WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
- ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEERS DISCRETION.
- WHERE RECYCLED CONCRETE AGGREGATE IS USED IN LAYERS 'A' OR 'B' THE MATERIAL SHOULD ALSO MEET THE ACCEPTABILITY CRITERIA OUTLINED IN TECHNICAL NOTE 6.20 "RECYCLED CONCRETE: STRUCTURAL BACKFILL".



NOTES:

- CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 60x101.
- MC-7200 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
- PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
- REQUIREMENTS FOR HANDLING AND INSTALLATION:
 - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
 - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
 - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 480 LB/FT³ %; THE AGC IS DEFINED IN SECTION 6.2.8 OF ASTM F2418; AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

MC-7200 TECHNICAL SPECIFICATION



NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)
CHAMBER STORAGE
MINIMUM INSTALLED STORAGE*
WEIGHT (NOMINAL)

NOMINAL END CAP SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)
END CAP STORAGE
MINIMUM INSTALLED STORAGE*
WEIGHT (NOMINAL)

*ASSUMES 12" (305 mm) STONE ABOVE, 9" (229 mm) STONE FOUNDATION AND BETWEEN CHAMBERS, 12" (305 mm) STONE PERIMETER IN FRONT OF END CAPS AND 40 % STONE POROSITY.

PARTIAL CUT HOLES AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"
PARTIAL CUT HOLES AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"
END CAPS WITH A PREFABRICATED WELDED STUB END WITH "W"

PART #	STUB	B	C
MC7200EPP08T	6" (150 mm)	42.54" (1081 mm)	---
MC7200EPP08B	---	---	0.86" (22 mm)
MC7200EPP08T	8" (200 mm)	40.50" (1029 mm)	---
MC7200EPP08B	---	---	1.01" (26 mm)
MC7200EPP10T	10" (250 mm)	38.37" (975 mm)	---
MC7200EPP10B	---	---	1.33" (34 mm)
MC7200EPP12T	12" (300 mm)	35.68" (907 mm)	---
MC7200EPP12B	---	---	1.55" (39 mm)
MC7200EPP15T	15" (375 mm)	32.72" (831 mm)	---
MC7200EPP15B	---	---	1.70" (43 mm)
MC7200EPP18T	18" (450 mm)	29.36" (746 mm)	---
MC7200EPP18TW	---	---	---
MC7200EPP18B	---	---	1.97" (50 mm)
MC7200EPP18BW	---	---	---
MC7200EPP24T	24" (600 mm)	23.05" (585 mm)	---
MC7200EPP24TW	---	---	---
MC7200EPP24B	---	---	2.26" (57 mm)
MC7200EPP24BW	---	---	---
MC7200EPP28BW	30" (760 mm)	---	2.95" (75 mm)
MC7200EPP36BW	36" (900 mm)	---	3.26" (83 mm)
MC7200EPP42BW	42" (1050 mm)	---	3.55" (90 mm)

NOTE: ALL DIMENSIONS ARE NOMINAL

2 MC-7200 TECHNICAL SPECIFICATION

BENCHMARK:

"H-18"

BRASS DISK IN CONCRETE, LOCATED APPROXIMATELY 22 FEET NORTH OF THE NE ECR, BEHIND THE SIDEWALK AT THE INTERSECTION OF MAIN ST. & MAPLE ST.

ELEV=3376.492

DESIGNED BY: D.B.W.

DRAWN BY: D.B.W.

CHECKED BY: R.J.A.

SUBMITTED BY:

RAYMOND J. ALLARD RCE No. 36052

DATE



HIGH DESERT MAPPING

Land Surveying - Civil Design

16704 Neenach Road
Apple Valley, CA 92307
(760) 508-8555

dbw.hdm@gmail.com



CITY OF HESPERIA ENGINEERING DEPARTMENT

RECOMMENDED FOR APPROVAL BY:

APPROVED BY:

DATE

DATE

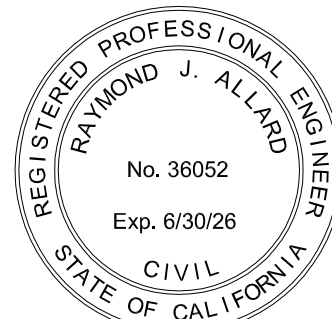
AUTHORIZED SIGNATURE

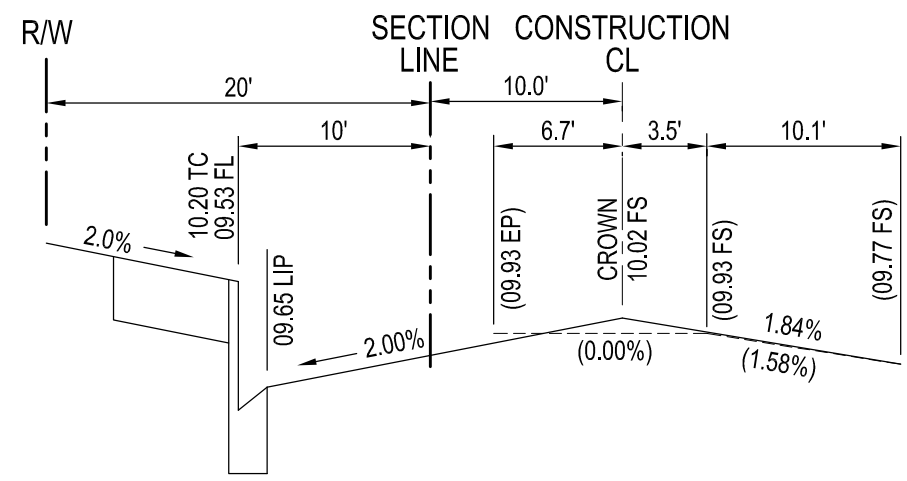
CASSANDRA SANCHEZ
R.C.E. 74776 EXP. DATE 12/31/25
CITY ENGINEER

CITY OF HESPERIA
STORMTECH - BED 2
TAMARISK APARTMENTS
MUNEM MAIDA
APN 3057-121-08

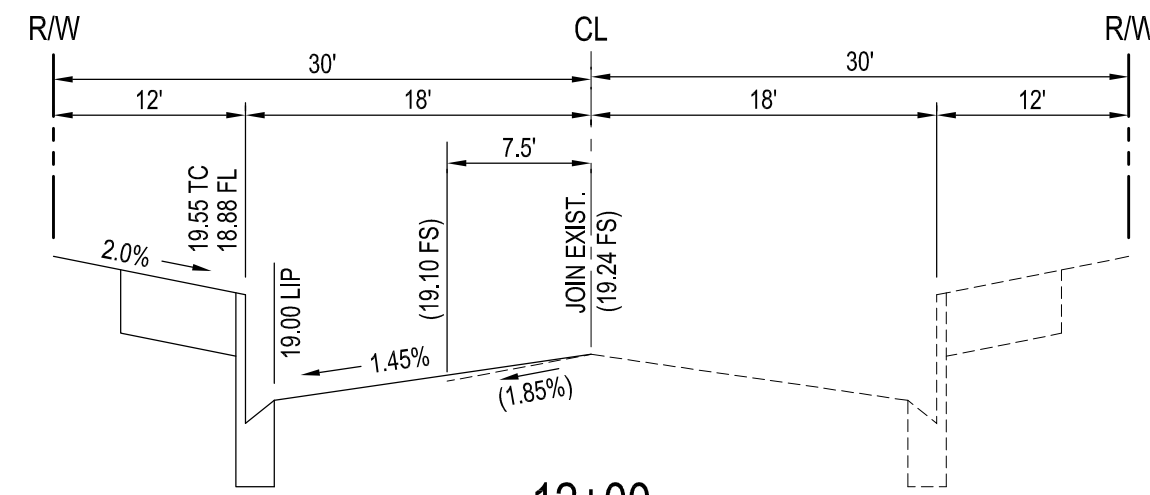
SHEET
12
OF
13

SD-2

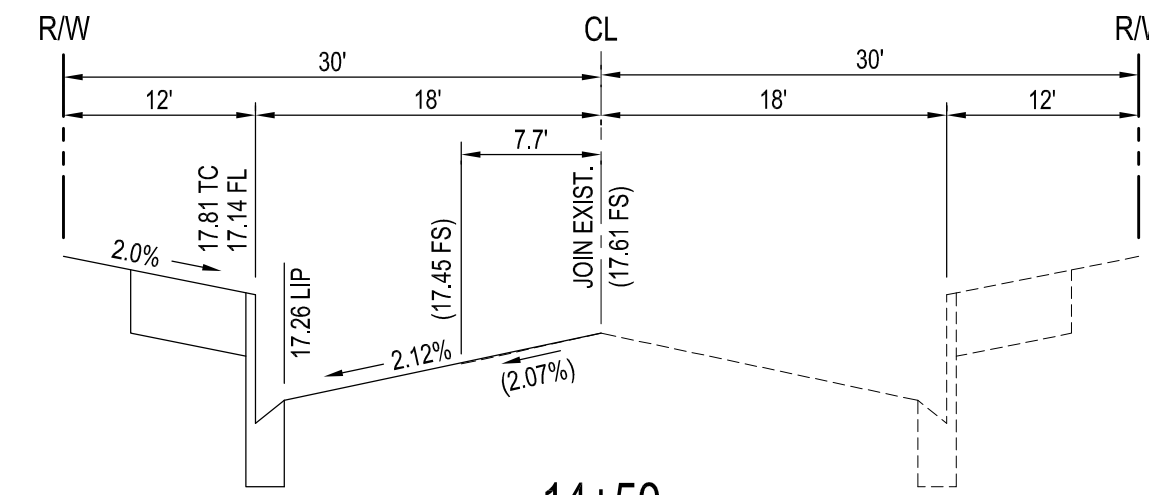




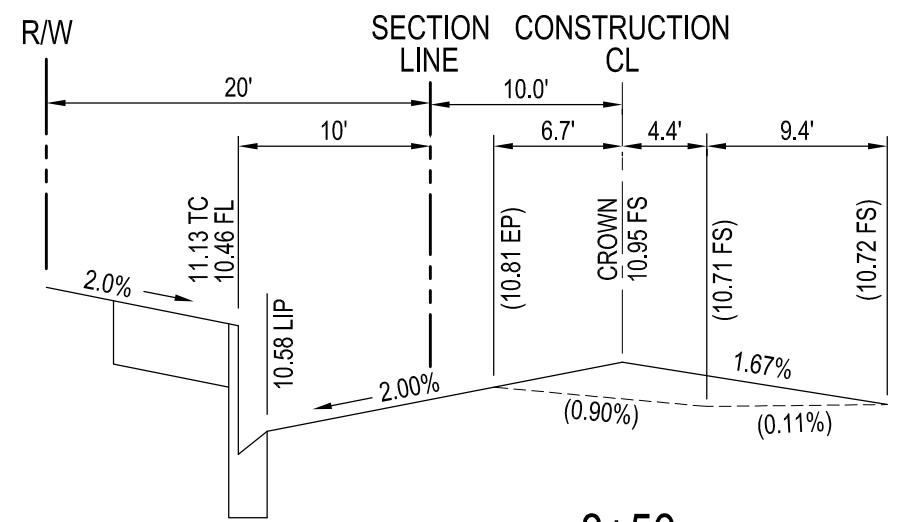
9+00



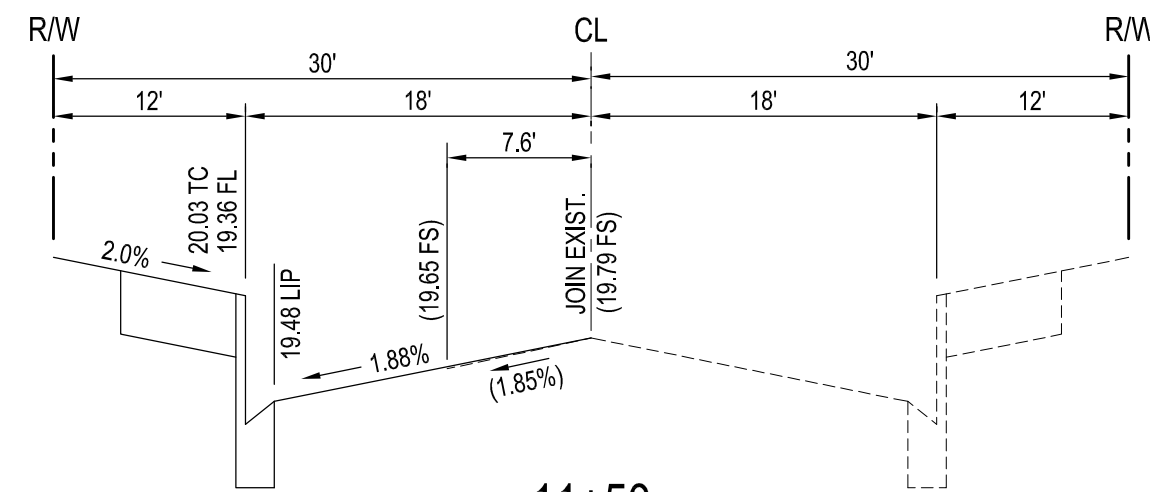
12+00



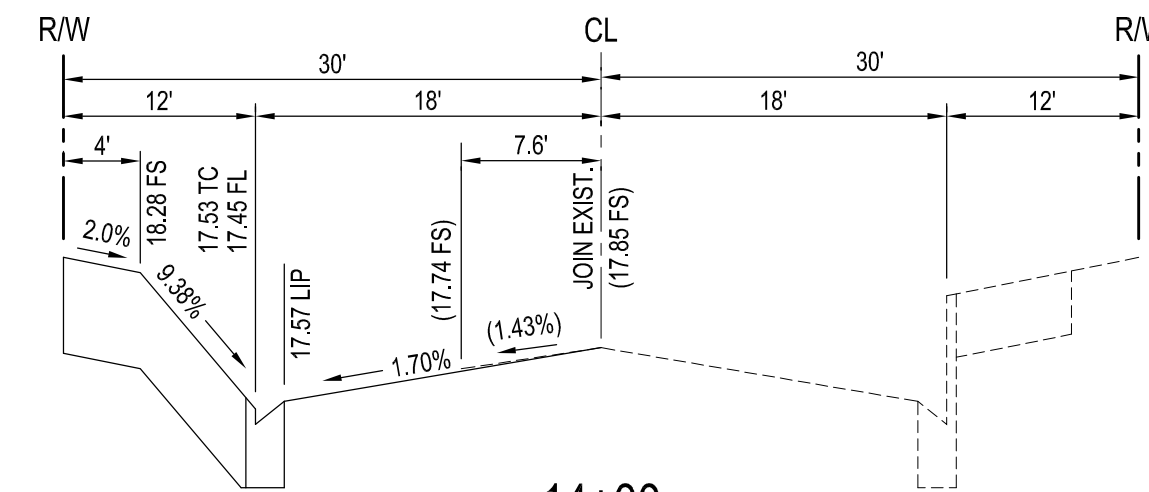
14+50



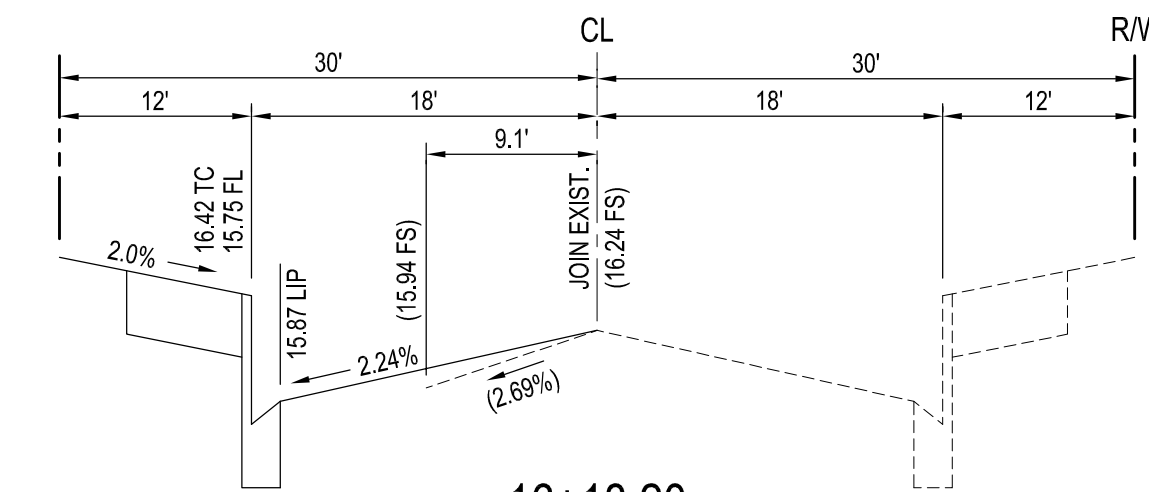
8+50



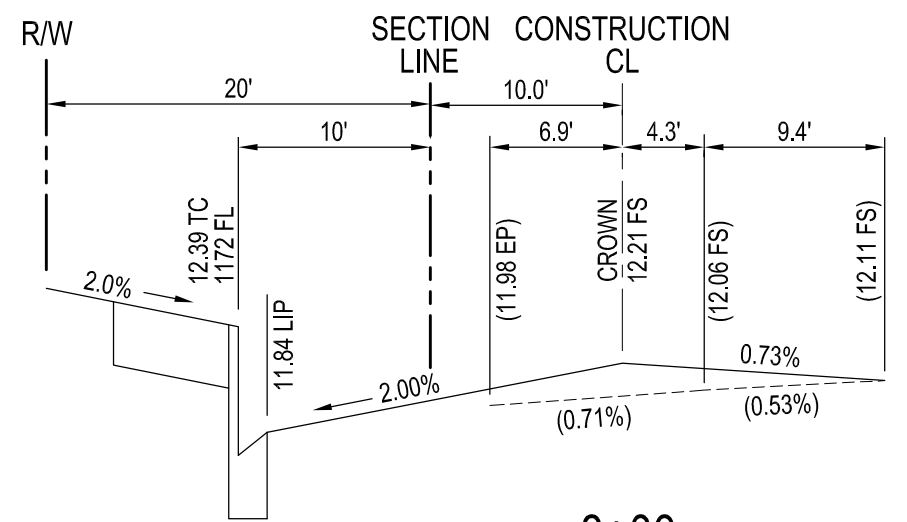
11+50



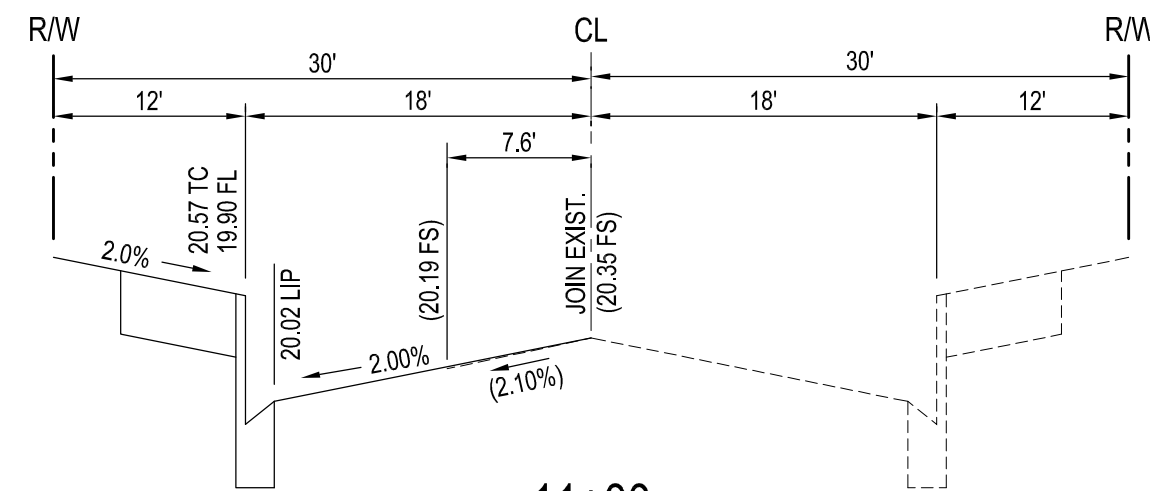
14+00



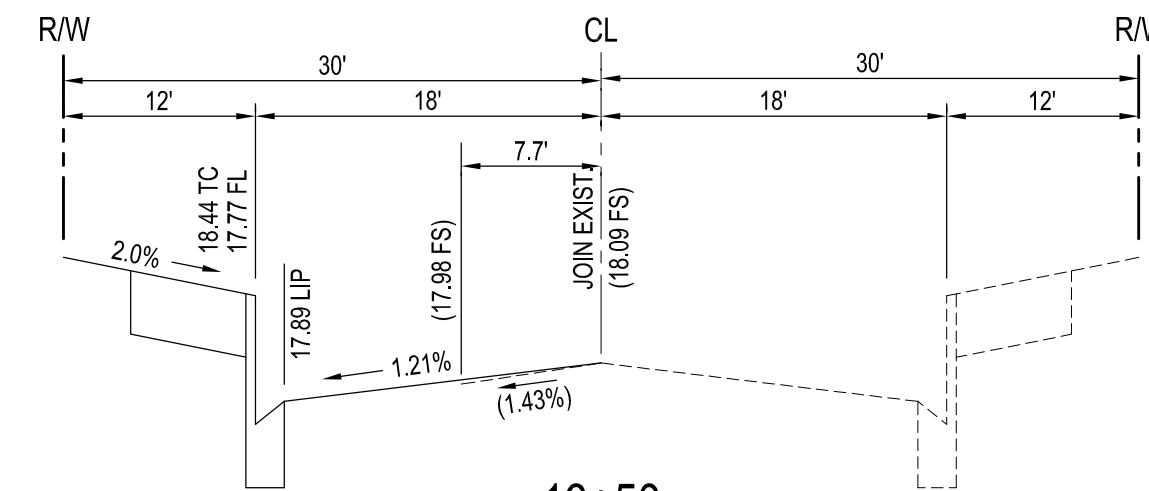
16+18.20



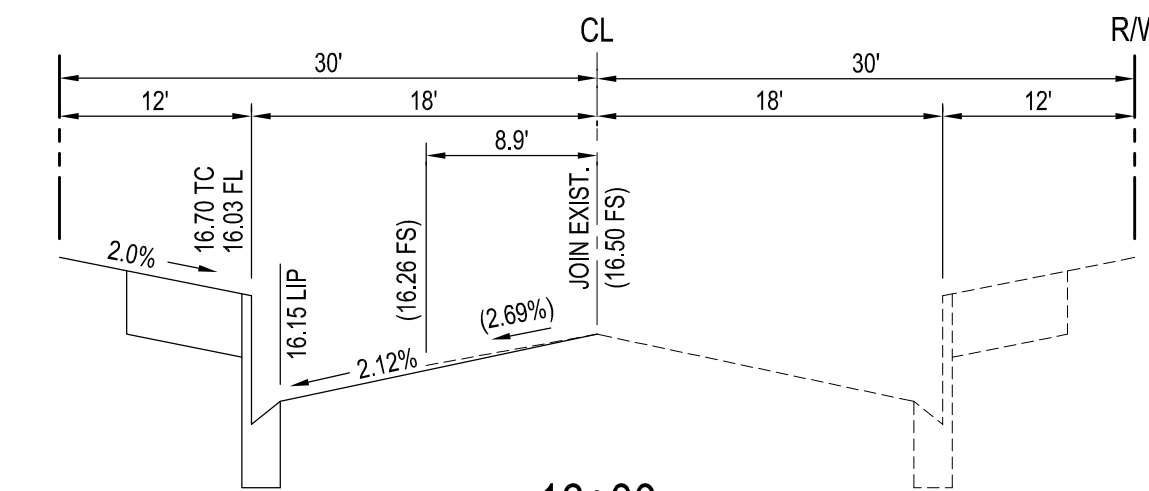
8+00



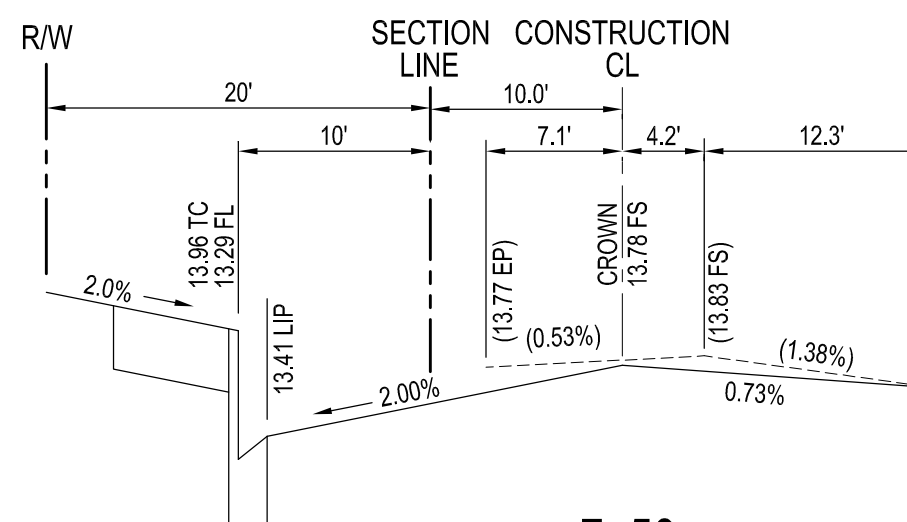
11+00



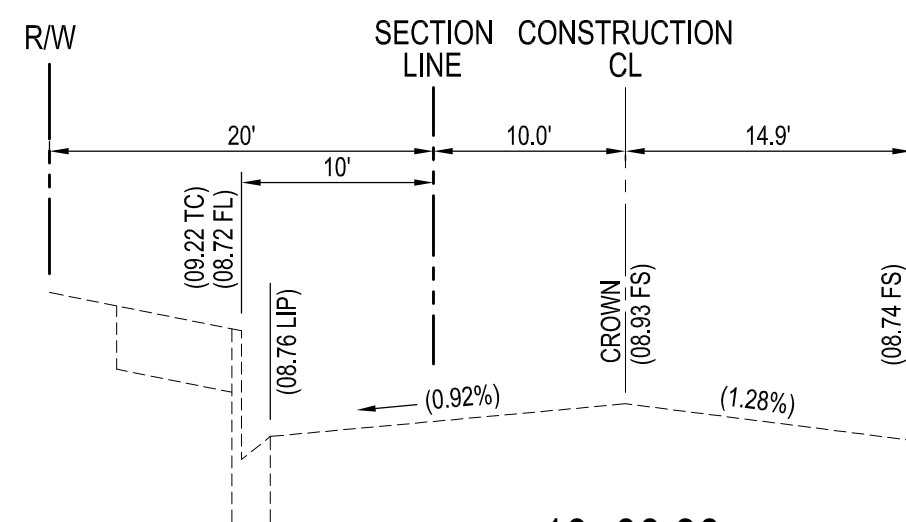
13+50



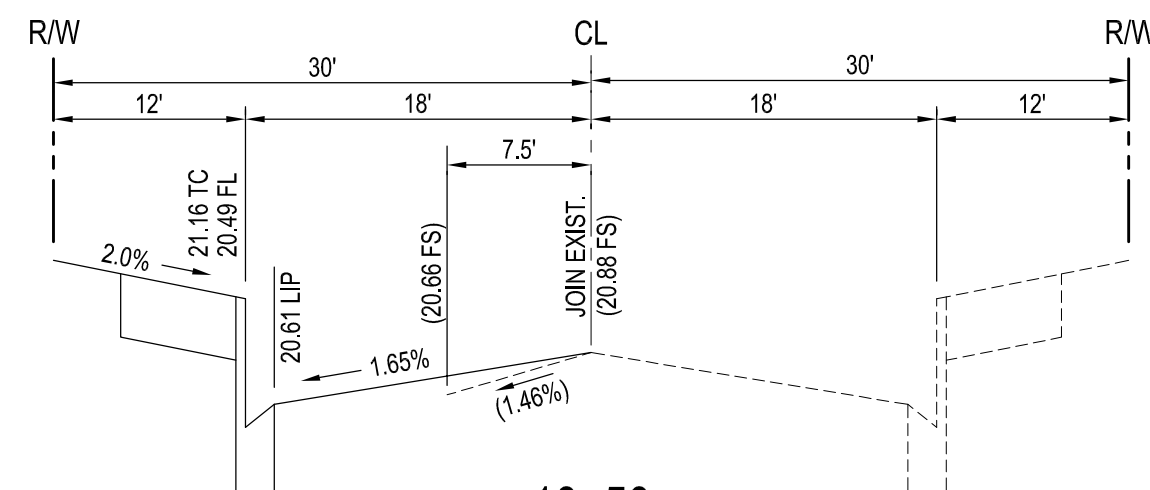
16+00



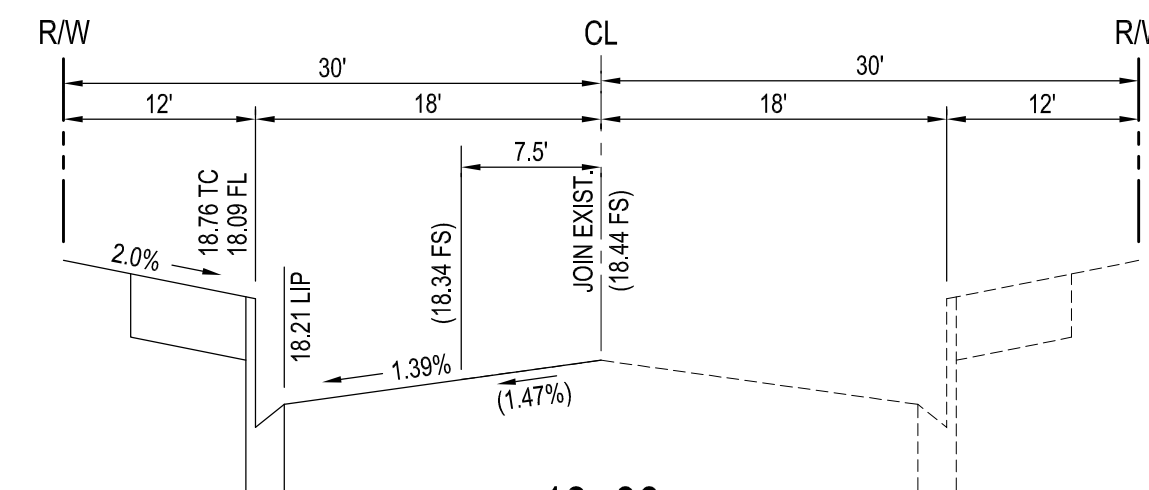
7+50



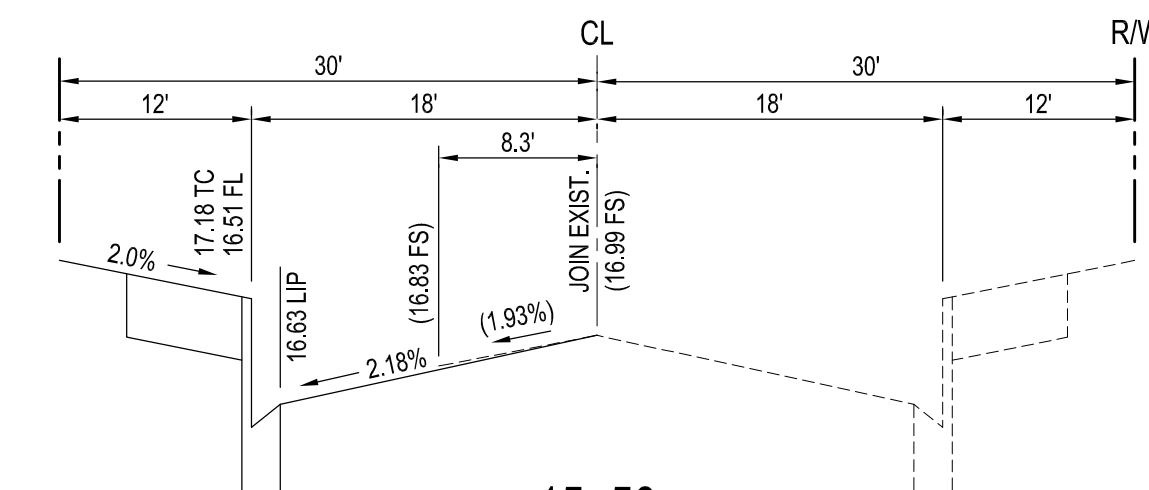
10+00.30



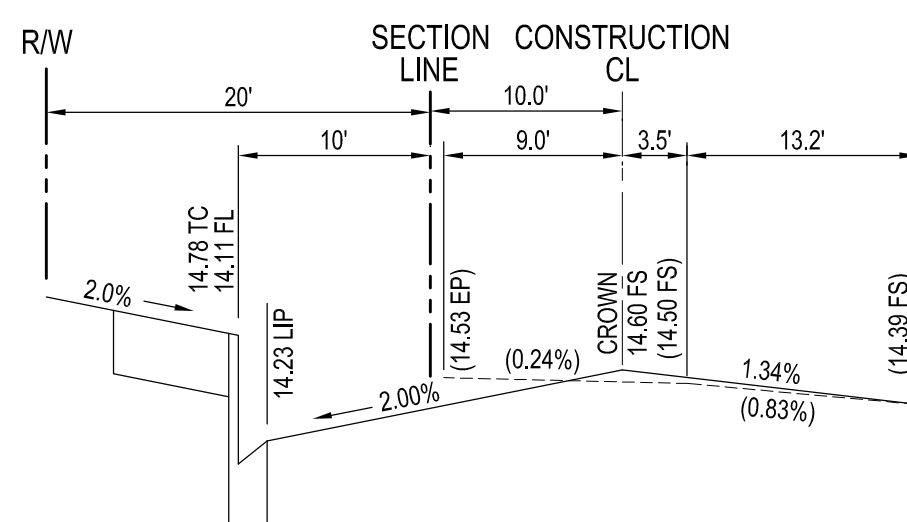
10+50



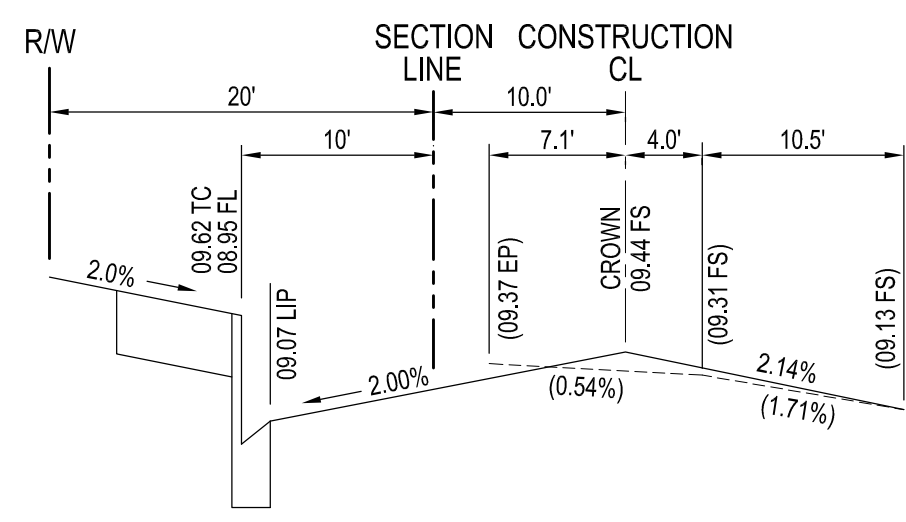
13+00



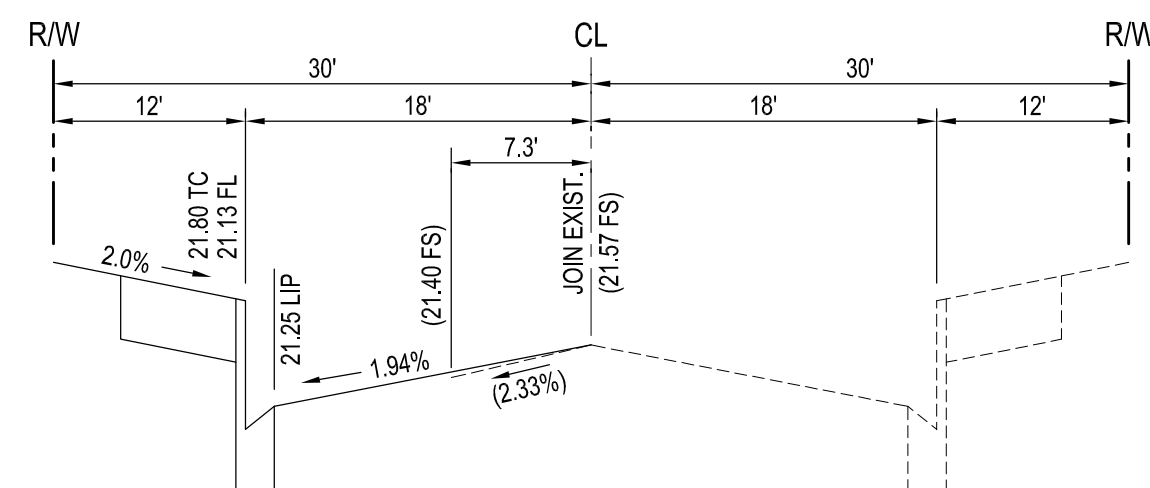
15+50



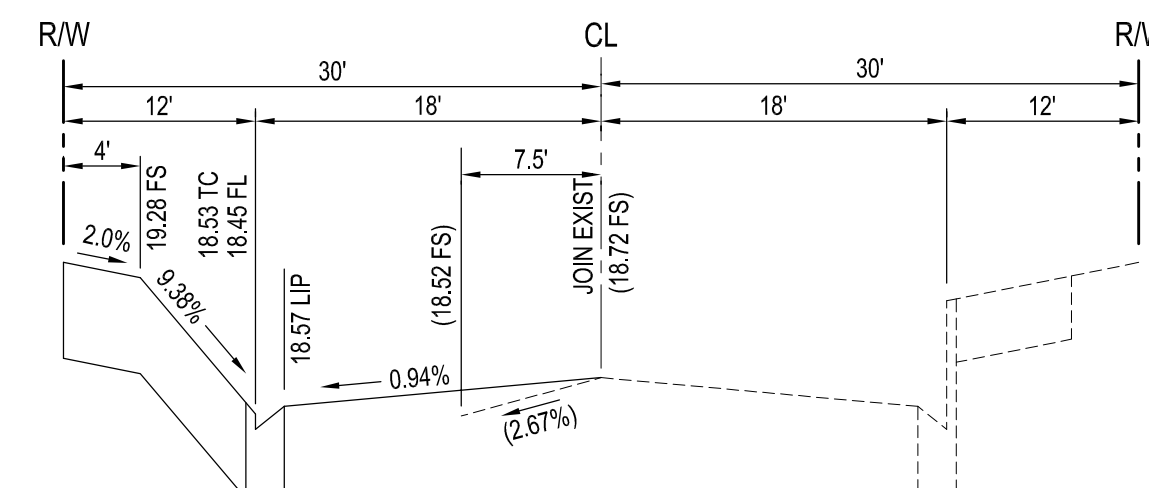
7+22.18



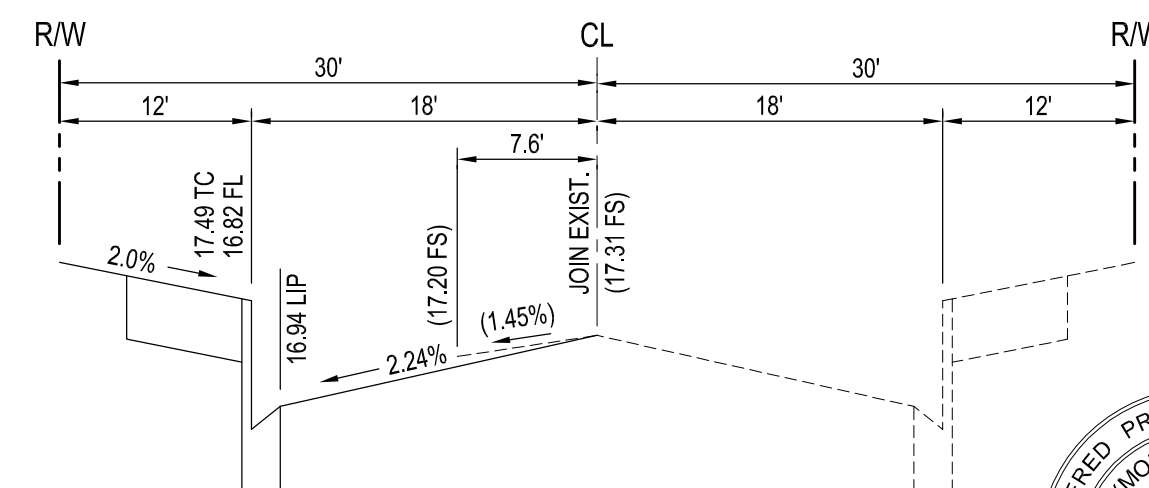
9+50



10+00



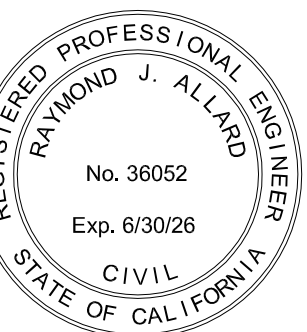
12+50



15+00

TAMARISK AVENUE

ORANGE STREET



REV.	DESCRIPTION	DATE	BY

BENCHMARK:

"H-18"

BRASS DISK IN CONCRETE, LOCATED APPROXIMATELY 22 FEET NORTH OF THE NE COR. BEHIND THE SIDEWALK AT THE INTERSECTION OF MAIN ST. & MAPLE ST.

ELEV=3376.492

DESIGNED BY: D.B.W.

DRAWN BY: D.B.W.

CHECKED BY: R.J.A.

SUBMITTED BY:

RAYMOND J. ALLARD RCE No. 36052

DATE



HIGH DESERT MAPPING

Land Surveying - Civil Design

16704 Neenach Road
Apple Valley, CA 92307
(760) 508-8555

dbw.hdm@gmail.com



CITY OF HESPERIA ENGINEERING DEPARTMENT

RECOMMENDED FOR APPROVAL BY:

APPROVED BY:

DATE

DATE

AUTHORIZED SIGNATURE

CASSANDRA SANCHEZ
R.C.E. 74776 EXP. DATE 12/31/25
CITY ENGINEER

CITY OF HESPERIA CROSS SECTIONS TAMARISK APARTMENTS MUNEM MAIDA APN 3057-121-08

SHEET
13
OF
13

CS-1