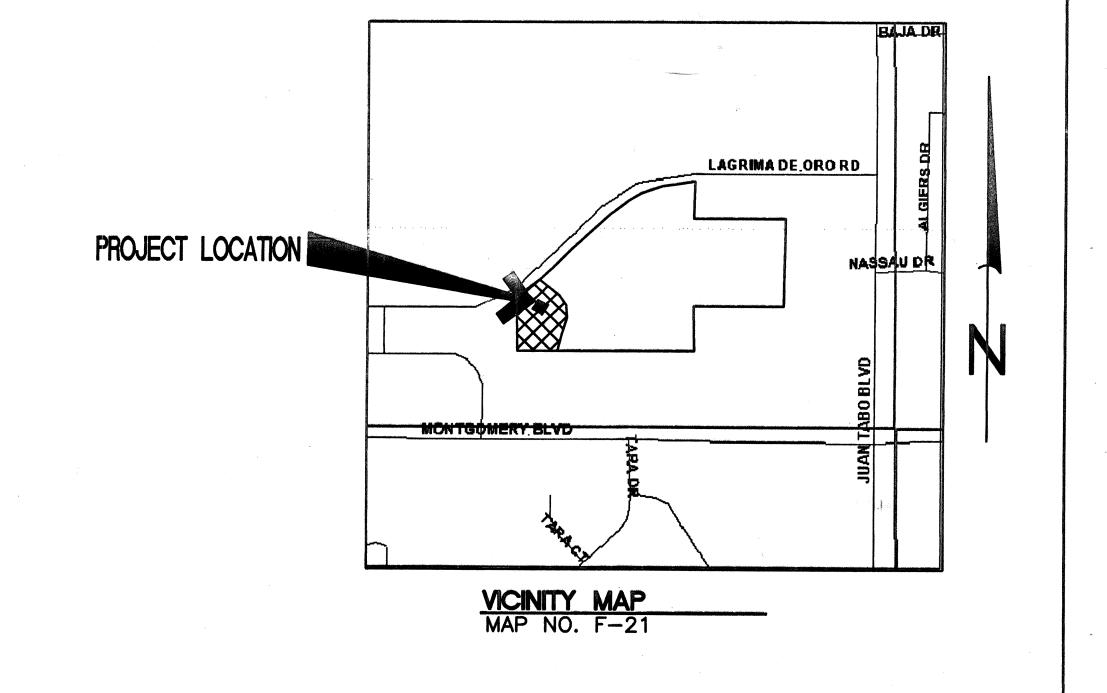




ROADRUNNER LITTLE LEAGUE RESTROOM AND RETAINING WALL MODIFICATIONS

DRAWING LIST

- TITLE SHEET
- 2 GENERAL NOTES, AND DETAILS
- 3 HAHN PARK SITE PLAN
- 4 GRADING PLAN
- 5 TYPICAL TRAFFIC CONTROL AND SIGNING EXAMPLES (REF. M.U.T.C.D.)
- 6 SIGNING AND CONSTRUCTION TRAFFIC CONTROL STANDARDS
- SI GENERAL STRUCTURAL NOTES
- S2 FOUNDATION PLAN AND SECTIONS/RETAINING WALL SECTIONS
- MI HVAC AND PLUMBING PLAN
- E1 ELECTRICAL FLOOR PLAN



APPROVAL OF RECORD DRAWS
CHIEF CONSTRUCTED CONSTRUCTED ON HOLD

REV. SHEETS CITY ENGINEER DATE USER DEPARTMENT DATE USER DEPARTMENT DATE
ENGINEERS STAMP & SIGNATURE APPROVALS ENGINEER DATE APPROVED FOR CONSTRUCTION

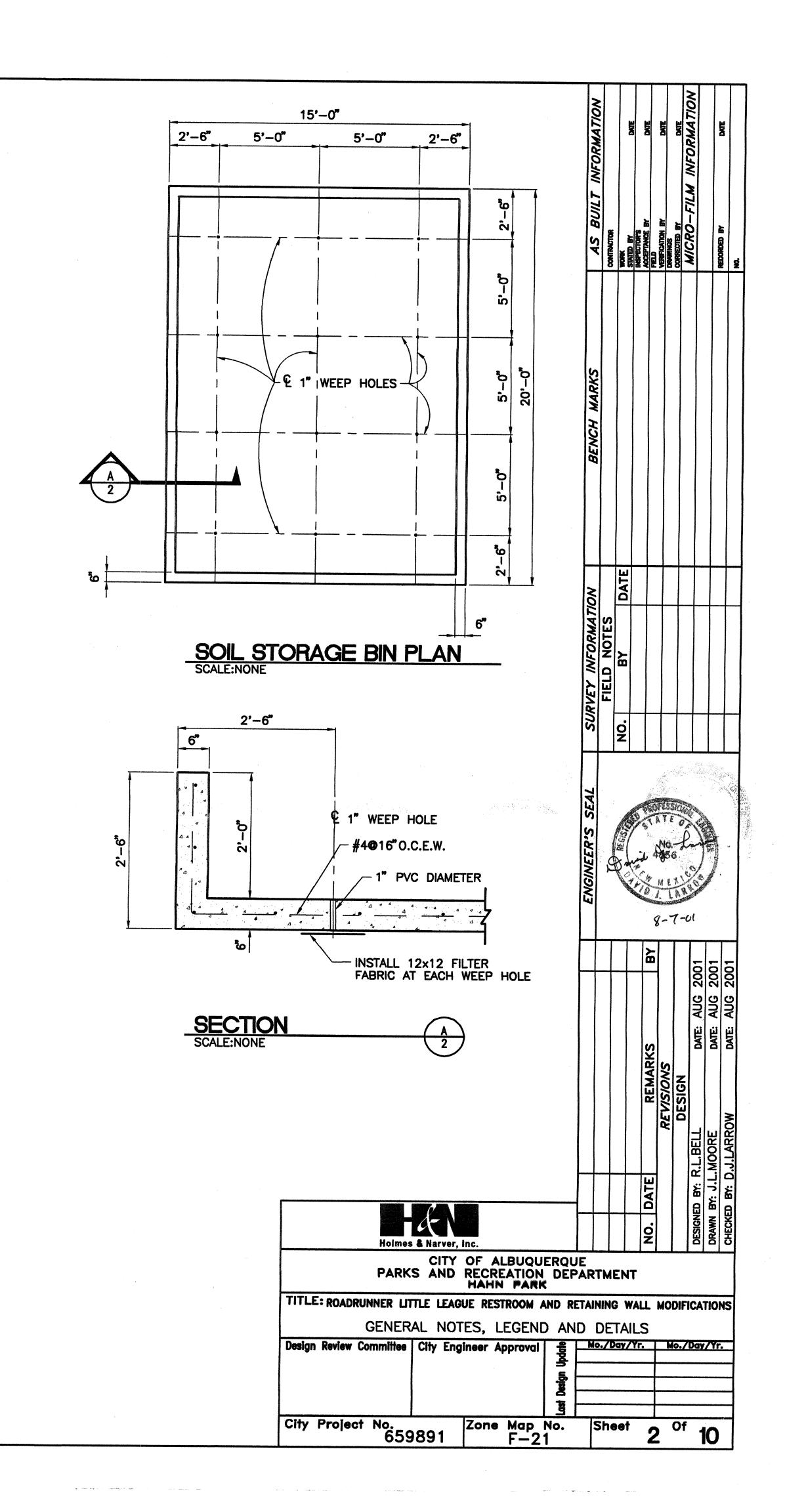
Transportation
Water/Wastewater Billy & Bolding 8-22-01
Hydrology
Parks
Constr. Coord.

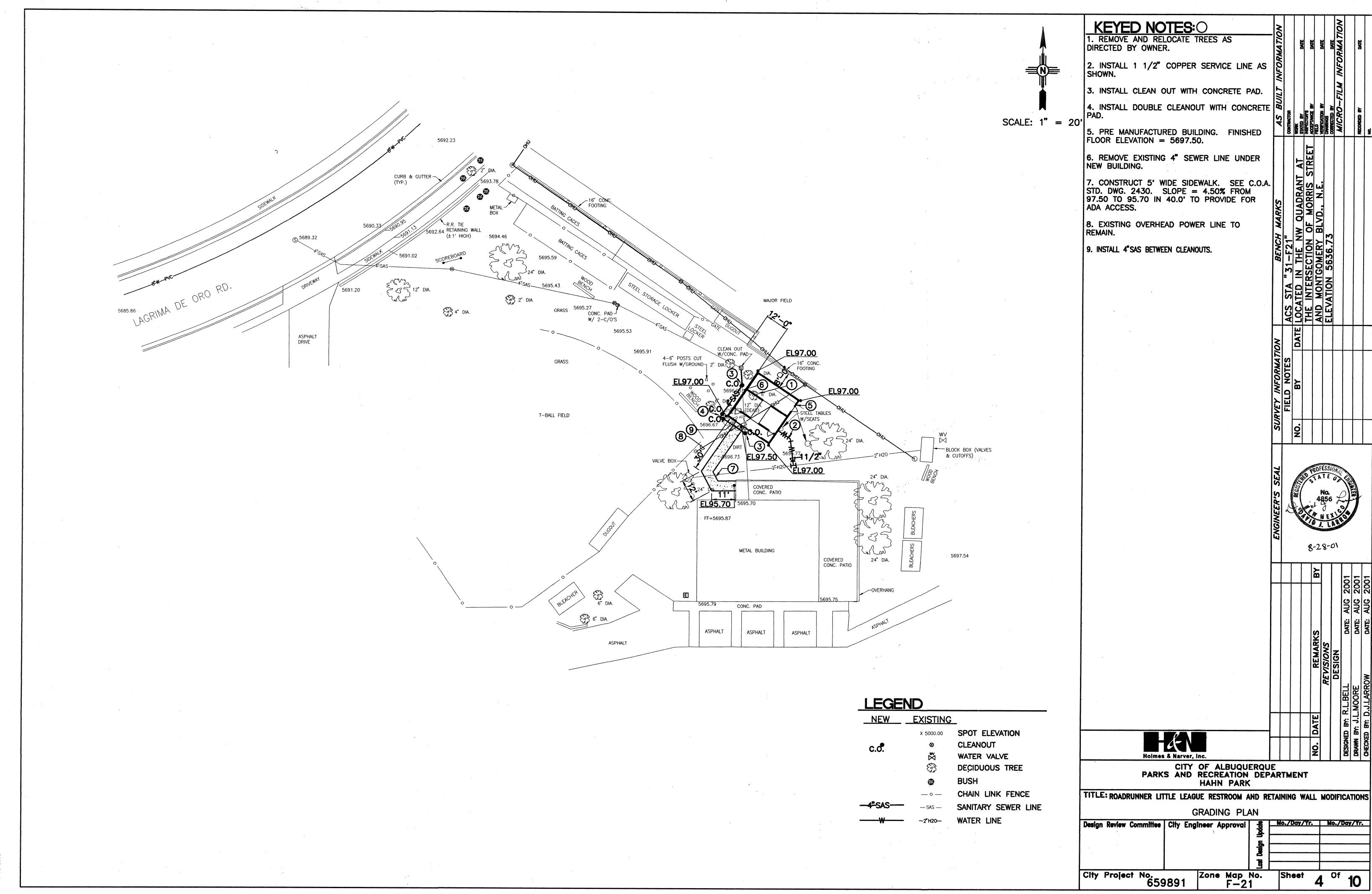
City Engineer Date

JWgs\33/3|C01.dWg Wed Aug 01 09:**16**:

GENERAL NOTES

- 1. ALL WORK DETAILED ON THESE DRAWINGS TO BE PERFORMED UNDER THIS CONTRACT SHALL, EXCEPT AS OTHERWISE STATED, BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986, AS AMENDED THROUGH UPDATES NO. 6, HEREBY REFERRED TO AS THE SPECIFICATIONS. REFERENCES MADE TO STANDARD DRAWINGS IMPLY THAT SECTION OF THE SPECIFICATIONS, WHICH INCLUDES MISCELLANEOUS STANDARD DETAILS.
- 2. LOCATION OF UTILITIES ARE APPROXIMATE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL PERTINENT UTILITIES IN THE FIELD. CALL ONE CALL SYSTEM, INC. AT 260-1990 TWO WORKING DAYS BEFORE ANY EXCAVATION.
- 3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SUPPORT ALL UTILITIES EXPOSED DURING CONSTRUCTION. CONTRACTOR WILL BE RESPONSIBLE FOR DAMAGE TO ALL UTILITIES, INCLUDING SERVICE LINES.
- 4. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE PUBLIC WORKS DEPARTMENT SO THAT THE CONFLICT CAN BE RESOLVED WITH MINIMUM AMOUNT OF DELAY.
- 5. CONTRACTOR SHALL COORDINATE WITH PNM (WARREN ARTHUR 241-3490) WHERE LIP OF TRENCH IS LESS THAN 5' TO POWER POLE. COSTS ASSOCIATED WITH SUPPORT OF EXISTING POLES SHALL BE INCIDENTAL TO THE PROJECT.
- 6. CONTRACTOR SHALL BE CHARGED BY PNM FOR ANY DAMAGE TO PNM CABLES AND FOR SUPPORTING OR MINOR RELOCATIONS OF CABLES DURING CONSTRUCTION. THESE COSTS SHALL BE INCIDENTAL TO THE PROJECT.
- 7. THE CONTRACTOR SHALL PROVIDE TWO PROJECT CONSTRUCTION SIGNS PER THE REQUIREMENTS OF SPECIAL PROVISIONS.
- 8. CONTRACTOR SHALL NOTIFY THE CITY SURVEYOR NOT LESS THAN SEVEN (7) DAYS PRIOR TO STARTING WORK IN ORDER THAT THE CITY SURVEYOR MAY TAKE NECESSARY MEASURES TO INSURE THE PRESERVATION OF SURVEY MONUMENTS. CONTRACTOR SHALL NOT DISTURB PERMANENT SURVEY MONUMENTS WITHOUT THE CONSENT OF THE CITY SURVEYOR AND SHALL NOTIFY THE CITY SURVEYOR AND BEAR THE EXPENSE OF REPLACING ANY THAT MAY BE DISTURBED WITHOUT PERMISSION. REPLACEMENT SHALL BE DONE ONLY BY THE CITY SURVEYOR SECTION. WHEN A CHANGE IS MADE IN THE FINISHED ELEVATION OF THE PAVEMENT OF ANY ROADWAY IN WHICH A PERMANENT SURVEY MONUMENT IS LOCATED, THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, ADJUST THE MONUMENT COVER TO THE NEW GRADE UNLESS OTHERWISE SPECIFIED. REFER TO SECTION 4.4 OF THE GENERAL CONDITIONS.
- 9. FIVE (5) WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT TO THE CONSTRUCTION COORDINATION DIVISION A DETAILED CONSTRUCTION SCHEDULE. TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL OBTAIN A BARRICADE PERMIT FROM THE CONSTRUCTION COORDINATION DIVISION. CONTRACTOR SHALL NOTIFY BARRICADE ENGINEER (768-2551) PRIOR TO OCCUPYING AN INTERSECTION. SEE SECTION 19 OF THE SPECIFICATIONS.
 - 10. ALL EXCAVATION, TRENCHING, AND SHORING ACTIVITIES MUST BE CARRIED OUT IN ACCORDANCE WITH OSHA 29CFR 1926.650 SUBPART P.
 - 11. CONTRACTOR IS ADVISED TO VISIT THE PROJECT SITE PRIOR TO BIDDING AND FAMILIARIZE THEMSELVES WITH FIELD CONDITIONS INCLUDING THE LOCATION OF UTILITIES SHOWN ON THE PLANS AND OTHER UTILITIES/OBSTACLES CLEARLY VISIBLE IN THE FIELD. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PLAN THEIR CONSTRUCTION METHODS TO ADEQUATELY SUPPORT AND/OR AVOID ALL UTILITIES SHOWN ON THE PLANS AND ALL UTILITIES/ OBSTRUCTIONS CLEARLY VISIBLE IN THE FIELD. ANY RELOCATION OF UTILITIES/OBSTACLES SHOWN ON THE PLANS OR VISIBLE IN THE FIELD IN ORDER TO COMPLETE THE REQUIRED WORK WILL BE CONSIDERED TO BE CONTRACTOR CONVENIENCE AND BE THE RESPONSIBILITY OF THE CONTRACTOR, UNLESS THE UTILITY/OBSTRUCTION IS IDENTIFIED ON THE PLANS AS BEING RELOCATABLE AS PART OF THE PROJECT. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ALL REQUIRED RELOCATIONS WITH APPROPRIATE UTILITIES/ INDIVIDUALS.
 - 12. THE BUILDING MANUFACTURER HAS DESIGNED THE BUILDING TO COMPLY WITH ADA ACCESSIBILITY REQUIREMENTS.





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- 2. CONTRACTOR SHALL AT THE TIME OF PERMIT REQUEST, SUBMIT FOR APPROVAL BY CONSTRUCTION COORDINATION, A TRAFFIC CONTROL PLAN DETAILING ALL EXISTING TOPOGRAPHY SUCH AS LANE WIDTHS, DRIVEWAYS. AND BUSINESS/RESIDENTIAL ACCESSES. THE TRAFFIC CONTROL PLAN SHALL INCLUDE ALL PHASES OF WORK AND SCHEDULES INVOLVED IN THE CONSTRUCTION PROJECT. ANY SEPERATE PHASES OF A CONSTRUCTION PROJECT SHALL BE GIVEN AN INDIVIDUAL PERMIT EACH. BLANKET PERMITS WILL NOT BE ISSUED.
- 3. THESE TYPICAL TRAFFIC CONTROL PLANS DO NOT REFLECT THE EXISTING TOPOGRAPHY SUCH AS DRIVEWAYS, LANE WIDTHS, AND BUSINESS/RESIDENTIAL ACCESSES. EVERY LOCATION THAT REQUIRES CONSTRUCTION TRAFFIC CONTROL SHALL HAVE A DETAILED TRAFFIC CONTROL PLAN SHOWING ALL EXISTING TOPOGRAPHY.
- 4. CONSTRUCTION SHALL NOT BEGIN UNLESS A TRAFFIC CONTROL PLAN HAS BEEN APPROVED AND VERIFIED BY CONSTRUCTION COORDINATION.
- 5. CONSTRUCTION COORDINATION SHALL BE NOTIFIED 48 HOURS PRIOR TO ANY TRAFFIC CONTROL CHANGES NEEDED BY CONTRACTOR, THAT WERE NOT PREVIOUSLY APPROVED. THESE TRAFFIC CONTROL CHANGES SHALL BE REQUESTED IN WRITING ACCOMPANIED WITH A TRAFFIC CONTROL PLAN REFLECTING SUCH CHANGES.
- 6. ALL CONSTRUCTION TRAFFIC CONTROL DEVICES SHALL COMPLY TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INSTALL, SERVICE AND MAINTAIN ALL TRAFFIC CONTROL DEVICES. TRAFFIC CONTROL DEVICES SHALL NOT BE REMOVED OR ALTERED IN ANY WAY WITHOUT THE APPROVAL OF CONSTRUCTION COORDINATION, PER SECTION 6A-4 OF THE MUTCD, LATEST EDITION.
- 7. THE CONSTRUCTION TRAFFIC CONTROL INITIAL SET-UP SHALL BE BY AN AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION (ATSSA) CERTIFIED WORKSITE TRAFFIC SUPERVISOR. THE MAINTENANCE AND SERVICING SHALL ALSO BE DONE BY AN ATSSA CERTIFIED WORKSITE TRAFFIC SUPERVISOR OR EQUIVALENT.
- 8. CONTRACTOR IS RESPONSIBLE TO MAINTAIN AND SERVICE ALL TRAFFIC CONTROL DEVICES 24 HOURS A DAY, 7 DAYS A WEEK THROUGHOUT LENGTH OF PROJECT. CONTRACTOR IS RESPONSIBLE THAT ALL TRAFFIC CONTROL DEVICES COMPLY WITH THE MUTCD, LATEST EDITION.
- 9. ALL ADVANCE WARNING SIGNS SHALL BE DOUBLE INDICATED WHENEVER THERE ARE MULTI-LANE TRAFFIC IN ANY ONE GIVEN DIRECTION AND THERE IS SUFFICIENT MEDIAN SPACE.
- 10. ALL BARRICADES IN ALL TAPERS AND TANGENTS SHALL BE PLACED APART, A DISTANCE MEASURED IN FEET. EQUAL TO THAT OF THE POSTED SPEED LIMIT. NO EXCEPTIONS UNLESS APPROVED BY CONSTRUCTION COORDINATION PER MUTCD SECTION 6A-4.
- $\frac{21}{2}$ 11. ALL WORK IN ARTERIAL ROADWAYS SHALL BE ON A CONTINUOUS 24 HOUR PER DAY BASIS UNTIL COMPLETED.
- 12. CONTRACTOR IS RESPONSIBLE TO PROVIDE CONSTRUCTION COORDINATION, A WEEKLY LOG OF DAILY INSPECTIONS OF BARRICADE AND MAINTENANCE SCHEDULES ON PROJECTS THAT ARE OVER ONE WEEK DURATION.
- 13. EQUIPMENT OR MATERIALS SHALL NOT BE STORED WITHIN 15 FEET OF A TRAVELED TRAFFIC LANE DURING NON-WORKING HOURS WITHOUT THE APPROVAL OF CONSTRUCTION COORDINATION.
- 14. CONTRACTOR SHALL PROVIDE AND MAINTAIN A SAFE AND ADEQUATE MEANS OF CHANNELIZING PEDESTRIAN TRAFFIC AROUND AND THROUGH THE CONSTRUCTION AREA.
- 15. CONTRACTOR IS RESPONSIBLE FOR OBLITERATION OF ANY CONFLICTING STRIPING AND RESPONSIBLE FOR ALL TEMPORARY STRIPING.
- 16. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL FACILITIES, BUSINESSES AND/OR RESIDENTS AT ALL TIMES.
- 17. CONTRACTOR SHALL PROVIDE ACCESS SIGNS FOR BUSINESSES LOCATED WITHIN THE CONSTRUCTION AREA UNDER THE SUPERVISION OF CONSTRUCTION COORDINATION. EACH ACCESS SIGN SHALL HAVE 5 INCH, WHITE OPAQUE LETTERING ON BLUE REFLECTORIZED BACKGROUND. ACCESS SIGNS SHALL BE CONSIDERED INCIDENTAL TO THE BID AND NOT PART OF THE CONTRACT UNLESS OTHERWISE STATED. NO MORE THAN 3 BUSINESSES SHALL BE LISTED ON A ACCESS SIGN. SHOPPING CENTERS AND MALLS SHALL BE LISTED AS SUCH.
- 18. ALL ADVANCE WARNING SIGNS SHALL MEET THE MINIMUM REFLECTIVE INTENSITY REQUIREMENTS SET FORTH BY THE CITY OF ALBUQUERQUE. CONSTRUCTION COORDINATION SHALL DETERMINE ALL REQUIREMENTS AND APPROVE OR DISAPPROVE ANY ADVANCE WARNING SIGN PER SECTION 6A-4 OF THE MUTCD, LATEST EDITION.
- 19. 48 HOURS PRIOR TO OCCUPYING OR CLOSING OF A RIGHT-OF-WAY. CONTRACTOR SHALL NOTIFY: POLICE, FIRE DEPARTMENT, SCHOOLS, HOSPITALS, TRANSIT AUTHORITY, BUSINESSES AND/OR RESIDENTS THAT WILL BE AFFECTED BY THE CONSTRUCTION.
- 20. ANY FIELD ADJUSTMENTS SHALL BE APPROVED BY CONSTRUCTION COORDINATION.

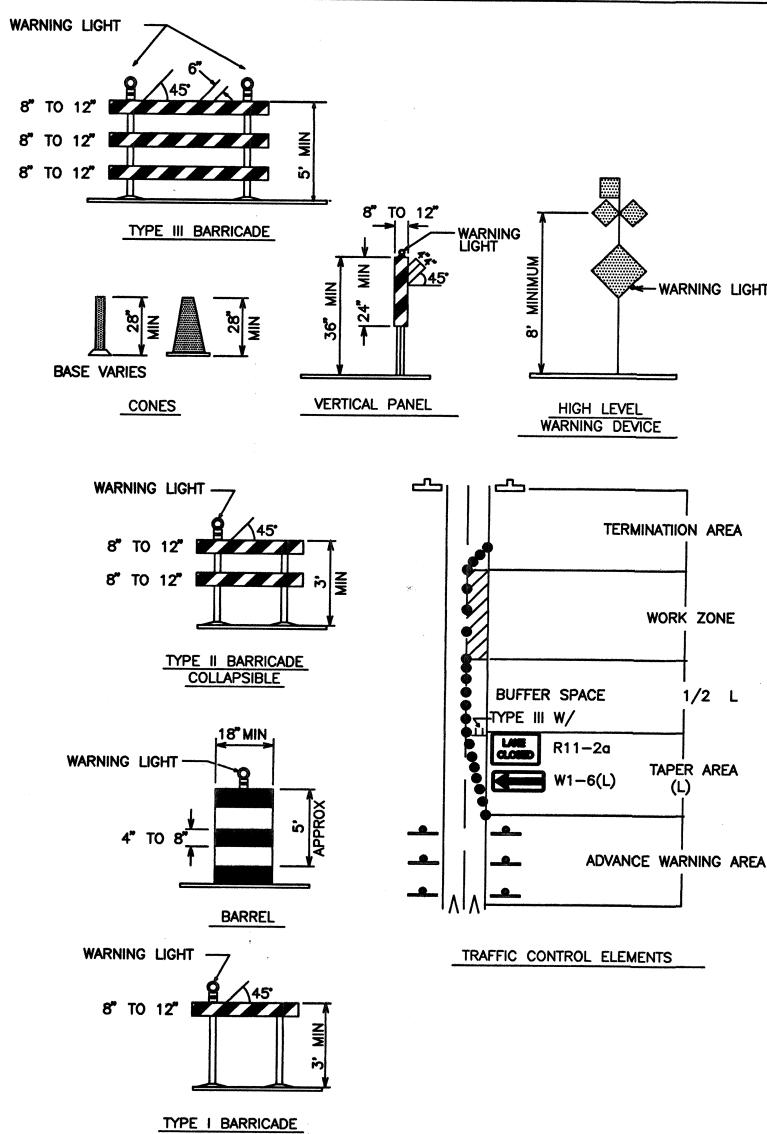
21. EXCAVATIONS SHALL BE PLATED, TEMPORARILY PATCHED OR RESURFACED PRIOR TO OPENING OF TRAFFIC. A MINIMUM OF 11 FEET SHALL BE PROVIDED FOR TRAFFIC IN ANY GIVEN DIRECTION. CONTRACTOR IS RESPONSIBLE FOR ANY WORK INVOLVED IN SATISFYING THESE REQUIREMENTS.

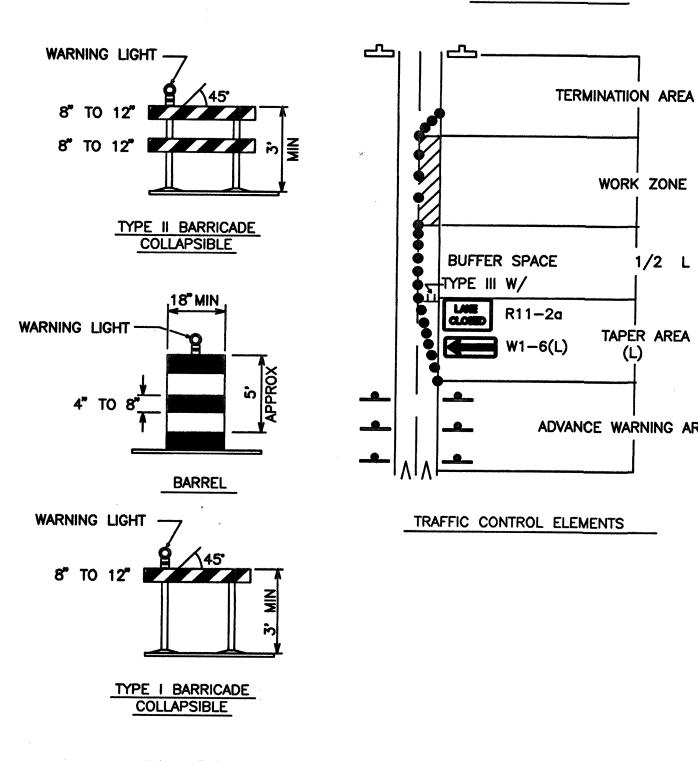
22. CONTRACTOR SHALL AT ALL TIMES COMPLY WITH THE FOLLOWING: 1. STANDARDS AND REQUIREMENTS SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. LATEST EDITION. 2. THE CITY OF ALBUQUERQUE TRAFFIC CODE, LATEST EDITION. 3. SECTION 19 OF THE CITY OF ALBUQUERQUE'S STANDARD SPECIFICATIONS FOR PUBLIC WORK CONSTRUCTION, AS WELL AS OTHER

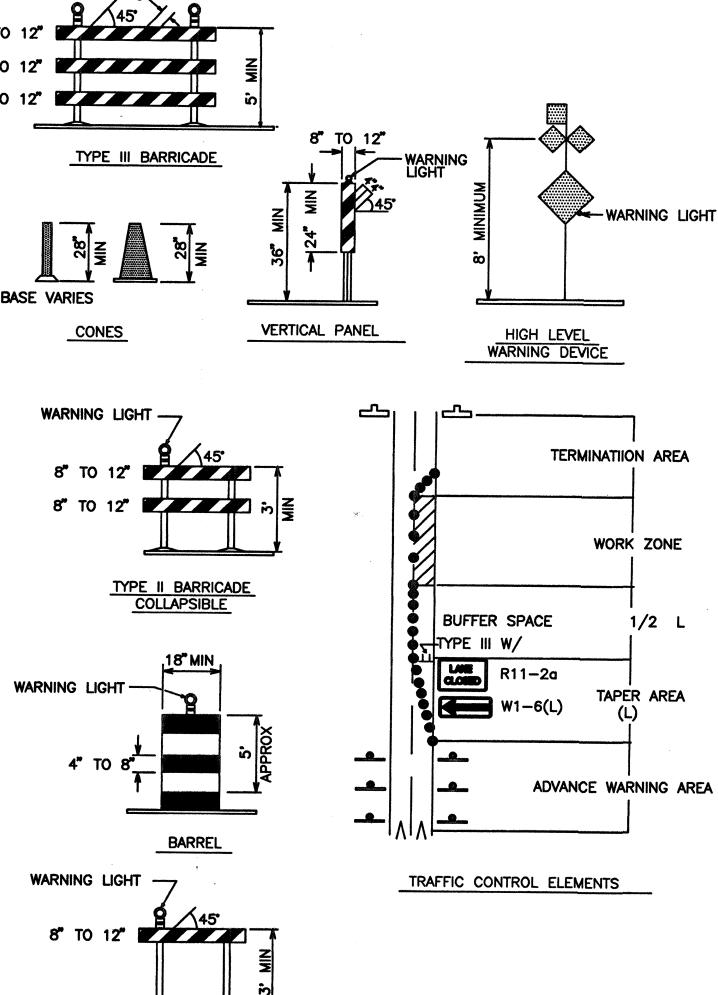
23. FAILURE TO COMPLY WITH ANY OF THE ABOVE MENTIONED, WILL BE ADEQUATE CAUSE TO CEASE ALL WORK ON ANY CONSTRUCTION PROJECT. WORK WILL NOT RESUME UNTIL ALL REQUIREMENTS ARE ADDRESSED AND APPROVED BY CONSTRUCTION COORDINATION.

24. ALL TRAFFIC CONTROL DEVICES SHALL BE KEPT IN NEW-CLEAN CONDITION, WASHING OF EQUIPMENT IS INCIDENTAL TO IT'S PLACEMENT AND MAINTENANCE.

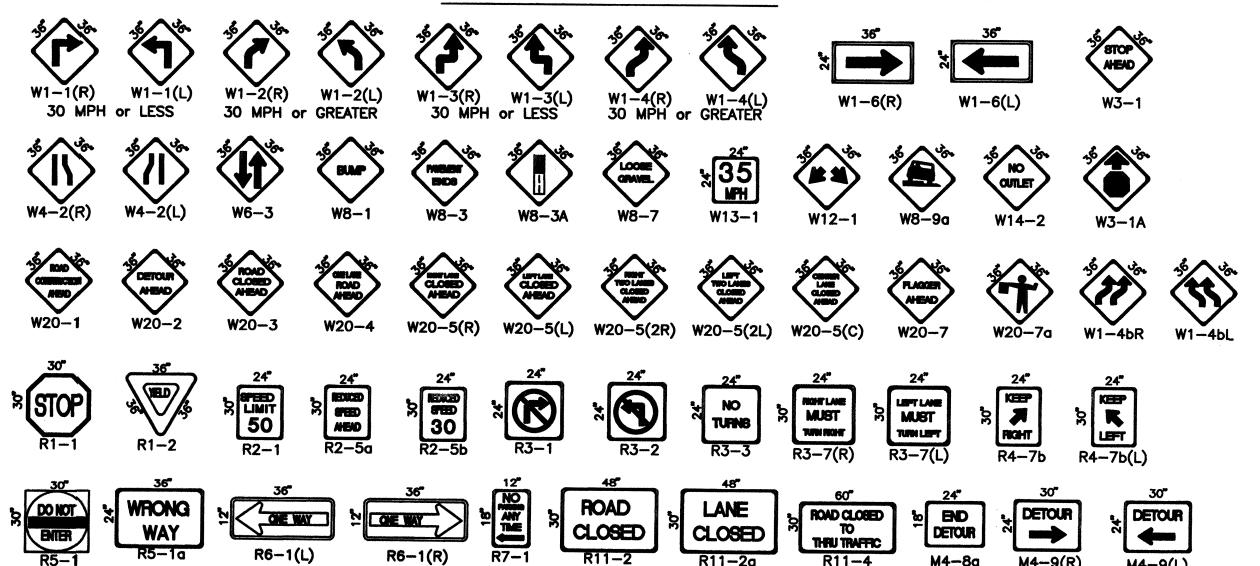
- 25. TRAFFIC CONTROL STANDARDS APPLY ONLY WHERE THE CONSTRUCTION TRAFFIC CONTROL PLANS ARE NOT SPECIFIC.
- 26. ADVANCE WARNING SIGNS SHALL BE 36"x36" MIN. WITH SUPER ENGINEERING GRADE SHEETING OR BETTER. MOUNTING HEIGHT AT TOP OF SIGN SHALL BE THE SAME AS FOR A 48" SIGN AS INDICATED IN THE M.U.T.C.D.
- 4 27. CONTRACTOR SHALL MAINTAIN A GRAFFITI-FREE WORKSITE. ALL GRAFFITI SHALL BE PROMPTLY REMOVED FROM ALL EQUIPTMENT, BOTH PERMANENT AND TEMPORARY.







SIGN FACE DETAILS

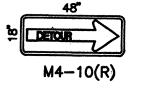


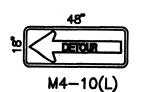






ALL CONSTRUCTIONN WARNING SIGNS SHALL HAVE A BLACK LEGEND ON A ORANGE BACKGROUND.





CONSTRUCTION

LEGEND

WORK AREA

BARRICADE - TYPE I, TYPE II, OR BARREL

BARRICADE - TYPE III

VERTICAL PANEL

WARNING SIGN

DISTANCE BETWEEN SIGNS - A DISTANCE MEASURED IN FEET EQUAL TO A VALUE OF TEN TIMES THE SPEED LIMIT OF THE STREET

FLAGMAN POSITION

SPACING BETWEEN BARRICADES - A DISTANCE MEASURED IN FEET EQUAL TO THE STREET LIMIT OF THE STREET

TAPER LENGTH - SEE CHART BELOW

THE TANGENT LENGTH IS EQUAL TO THE TAPER LENGTH FOR A GIVEN STREET.

TAPER REQUIREMENT

the state of the s	·						
SPEED LIMIT	TAPER LENGTH(L) (FEET)			MINIMUM NUMBER OF	MAXIMUM DEVICE SPACING IN FEET		
(MPH)	10' LANE	11' LANE	12' LANE	DEVICES FOR TAPER	ALONG TAPER	AFTER TAPER	
20	70	75	80	5	20	20	
25	105	115	125	6	25	25	
30	150	165	180	7	30	30	
35	205	225	245	8	35	35	
40	270	295	320	9	40	40	
45	450	495	540	13	45	45	
50	500	550	600	13	50	50	
55	550	605	660	13	55	55	

RECOMMENDED SIGN SPACING(D) FOR ADVANCE WARNING SIGN SERIES

SPEED MINIMUM DISTANCE IN FEET MILES BETWEEN FROM LAST PER HOUR SIGN TO TAPER 10 X SPEED LIMIT 10 X SPEED LIMIT

10 X SPEED LIMIT 10 X SPEED LIMIT 50-60 10 X SPEED LIMIT 10 X SPEED LIMIT

10 X SPEED LIMIT 10 X SPEED LIMIT

10 X SPEED LIMIT 10 X SPEED LIMIT

TAPER CRITERIA

TYPE OF TAPER TAPER LENGTH **UPSTREAM TAPER:** MERGING TAPER L MINIMUM SHIFTING TAPER 1/2 L MINIMUM SHOULDER TAPER

1/2 L MINIMUM TWO-WAY TRAFFIC TAPER 100 FEET MAXIMUM 100 FEET PER LANE

TAPER LENGTH COMPUTATION

DOWNSTREAM TAPERS

SPEED LIMIT

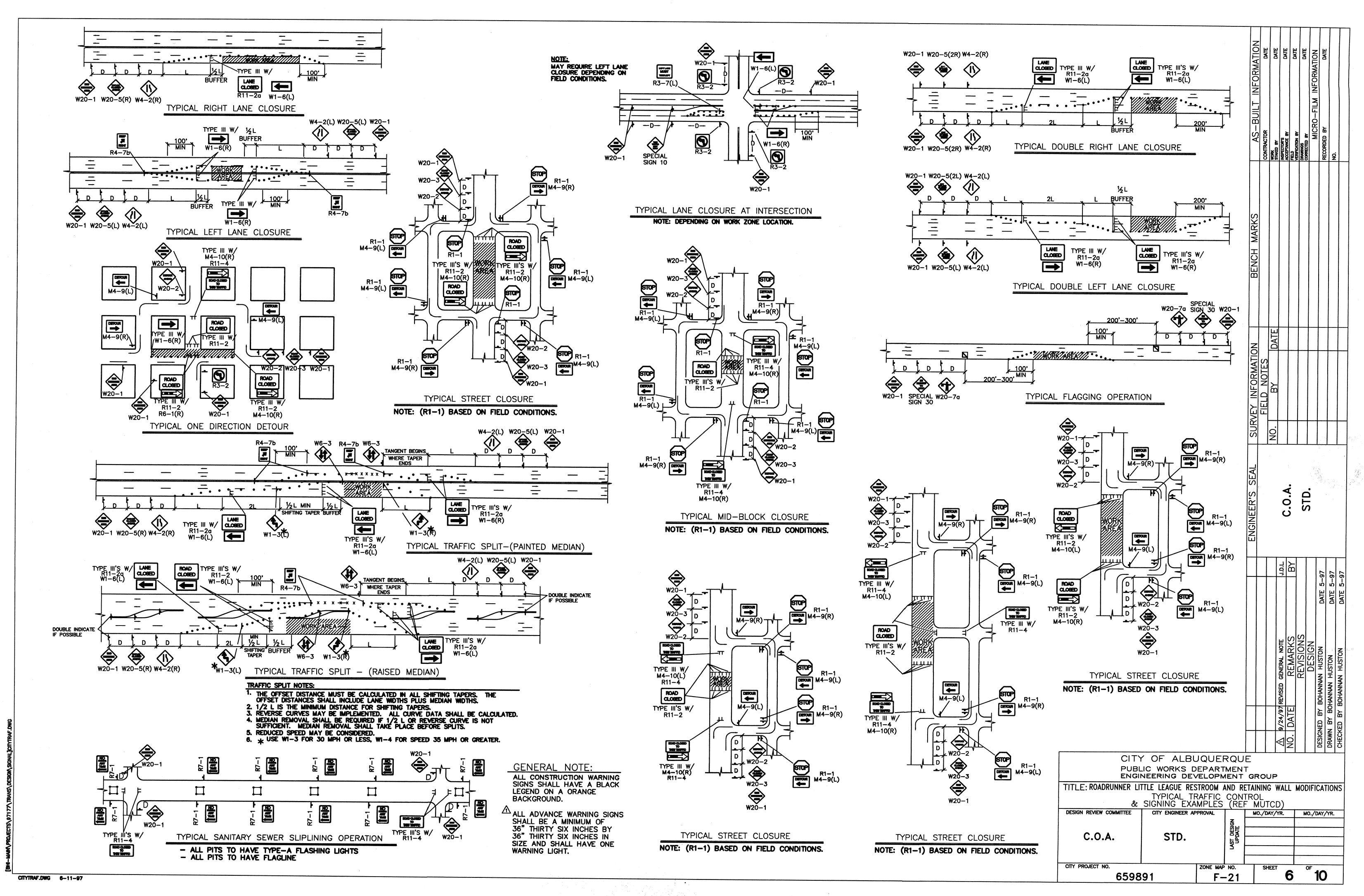
40 MPH OR LESS 40 MPH OR GREATER $L = W \times S$

L = TAPER LENGTH W = WIDTH OF OFFSET IN FEET S = POSTED SPEED OR OFF-PEAK

85-PERCENTILE SPEED IN MPH

CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP TITLE: ROADRUNNER LITTLE LEAGUE RESTROOM AND RETAINING WALL MODIFICATIONS TRAFFIC CONTROL SIGNING AND CONSTRUCTION TRAFFIC CONTROL STANDARDS DESIGN REVIEW COMMITTEE CITY ENGINEER APPROVAL MO./DAY/YR. MO./DAY/YR. STD. CITY PROJECT NO. 659891 F-21

0



GENERAL STRUCTURAL NOTES

I. CODES AND MANUALS UNIFORM BUILDING CODE, 1997 EDITION ACI 318-95

AISC MANUAL OF STEEL CONSTRUCTION 4TH EDITION

2. DESIGN LOADS:

HEIGHT

[0' - 15']

A. VERTICAL: ROOF LIVE LOAD ROOF DEAD LOAD

(PER METAL BUILDING MANUF.)

B. HORIZONTAL: (1) WIND [NORMAL FORCE] P= Ce Cq qs 1

WINDWARD LEEWARD P = 12.3 PSF P = 7.7 PSF

BASIC WIND SPEED = 75 MPH COMBINED HEIGHT, EXPOSURE # GUST FACTOR

PRESSURE COEFFICIENT

Cq = 0.8 WINDWARD Cq = 0.5 LEEWARD

Ce = 1.06 [0'-15']

WIND STAGNATION PRESSURE qs = 14.5 PSF IMPORTANCE FACTOR 1 = 1.0

Ca = 0.28

SEISMIC COEFF. SOIL SD (2) SEISMIC (STATIC FORCE) V = 3.0 Ca W

ZONE 2B SITE COEFF. Z = 0.20IMPORTANCE FACTOR 1 = 1.0

LATERAL FORCE RESISTANCE SYSTEM R = 5.5 ULTIMATE

(I) ALLOWABLE BEARING PRESSURE

aa = 1500 PSF

R = 7.7 SERVICE

3. GENERAL A. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD. B. SHOP DRAWINGS SHALL BE FURNISHED FOR REVIEW BEFORE ANY FABRICATION AND ERECTION IS STARTED.

POORLY EXECUTED SHOP DRAWINGS SHALL BE REJECTED AND RESUBMITTED. C. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING SAFE AND ADEQUATE SHORING FOR ALL PARTS OF THE STRUCTURE DURING CONSTRUCTION.

D. ALL TRADES SHALL COORDINATE AND VERIFY ALL OPENINGS IN FLOORS, ROOF, WALLS, AND BEAMS WITH THE GENERAL CONTRACTOR.

E. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR FOUNDATIONS UNDER MECHANICAL EQUIPMENT AND SHALL COORDINATE SIZE AND LOCATION OF FOUNDATIONS WITH MECHANICAL CONTRACTOR.

4. MATERIALS

A. CAST-IN-PLACE CONCRETE:

HARDROCK CONCRETE (UNIT WT. = 150 PCF) a. f'c = 3000 PSI @ 28 DAYS - ALL CAST-IN-PLACE FOUNDATION CONCRETE INCLUDING SPOT FOOTINGS, STEM WALLS, CONTINUOUS FOOTINGS AND SLABS ON GRADE. USE TYPE I-II CEMENT

B. REINFORCING STEEL

(I) ALL REINFORCING STEEL SHALL CONFORM TO ASTM A615 GRADE 60.

(2) WELDED SMOOTH WIRE FABRIC SHALL CONFORM TO ASTM AISS SPECIFICATION FOR WELDED WIRE FABRIC FOR CONCRETE REINFORCEMENT.

(3) REINFORCING STEEL SHALL BE FABRICATED AND PLACED IN ACCORDANCE WITH THE BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI SIB-95) AND THE STANDARD MANUAL (ACI 315-95).

(4) BAR SUPPORTS AND SPACERS FOR REBAR SHALL BE PROVIDED IN ACCORDANCE WITH ACI 315-95. CHAIRS WITH 22 GA. SAND PLATES SHALL

BE PROVIDED FOR ALL REBAR IN SLABS ON GRADE. (5) WHERE LAPPED SPLICES IN REINFORCING OCCUR, THE MINIMUM LAP SHALL BE MADE AS FOLLOWS UNLESS NOTED OTHERWISE:

a. VERTICAL REINFORCING: 30 BAR DIA, OR 18" MINIMUM.

b. HORIZONTAL REINFORCING: 30 BAR DIA, OR 18" MINIMUM. HORIZONTAL CORNER BARS: 30 BAR DIA. OR

18" MINIMUM. (6) CONCRETE COVER FOR REINFORCING SHALL BE AS

FOLLOWS: FOOTINGS: S" FROM BOTTOM AND SIDES.

STEM WALLS: 2" FROM SIDES AND 2" FROM

TOP AND BOTTOM. C. SLABS ON GRADE: AS SHOWN

(1) THE CONTRACTOR SHALL BE RESPONSIBLE TO SEE THAT ALL REBAR IS PROPERLY ALIGNED AND TIED IN PLACE BEFORE PLACING CONCRETE. ALL COLUMN, MALL DOMELS AND VERTICAL STEEL SHALL BE ACCURATELY LOCATED AND SECURED IN PLACE SO THAT IT REMAINS IN POSITION DURING THE CONCRETE PLACING OPERATION. ANY REBAR FOUND TO BE IMPROPERLY INSTALLED SHALL BE REMOVED AND REPLACED AT NO ADDITIONAL COST TO THE

(8) ALL HORIZONTAL REINFORCING IN FOOTINGS, WALLS AND BEAMS SHALL BE CONTINUOUS AROUND CORNERS OR HAVE CORNER BARS OF THE SAME SIZE AND SPACING AS THE HORIZONTAL BARS AND LAP A MINIMUM OF 30 BAR DIAMETERS OR 18" MINIMUM.

(9) FORM TIES SHALL BE EITHER OF THE THREADED OR SNAP OFF TYPE SO THAT NO METAL WILL BE LEFT WITHIN I" OF THE SURFACE OF THE WALL. FOLLOWING REMOVAL OF FORM TIES, RECESSES ARE TO BE CAREFULLY FILLED AND POINTED WITH MORTAR.

5. SITE GRADING AND EARTHWORK

A. INSPECTION: THE CONTRACTOR SHALL RETAIN THE SERVICES OF A REGISTERED PROFESSIONAL SOILS ENGINEER WHO WILL PROVIDE DENSITY TESTING OF COMPACTED SOIL.

FOUNDATION PREPARATION:

BUILDING AREAS SHALL BE COMPLETELY STRIPPED OF VEGETATION, PAVEMENTS, WALLS, AND SOFT OR MUDDY AREAS.

THE EXISTING SOIL IN THE BUILDING PAD AREAS SHALL BE SCARIFIED TO A DEPTH OF EIGHT INCHES BELOW FOOTINGS AND SLABS & MOISTENED TO A NEAR OPTIMUM MOISTURE CONTENT. THE EXPOSED SOILS SHOULD THEN BE COMPACTED TO A MINIMUM OF 45% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D-1557 PRIOR TO REPLACING WITH NEW COMPACTED FILL.

ALL SCARIFICATION AND REMOVALS SPECIFIED HEREIN SHALL EXTEND TO A DISTANCE OF AT LEAST TWO FEET BEYOND ALL FOOTING EDGES.

SOIL UTILIZED FOR FILLING SHALL CONSIST OF APPROVED ON-SITE OR IMPORTED SOIL.

ANY IMPORTED SOILS SHALL BE APPROVED BY THE SOIL ENGINEER FOR BOTH EXPANSIVE AND STRENGTH QUALITIES PRIOR TO IMPORTATION TO THE PROJECT SITE. FINAL ACCEPTANCE OF ANY IMPORTED SOIL WILL BE BASED ON OBSERVATION OF THE SOIL ACTUALLY DELIVERED TO THE SITE.

ALL FILL SHALL BE COMPACTED TO AT LEAST 45 PERCENT OF MAXIMUM DRY DENSITY.

THE MAXIMUM DENSITY OF ALL SOILS SHALL BE DETERMINED IN ACCORDANCE WITH A.S.T.M. TEST METHOD D-1557.

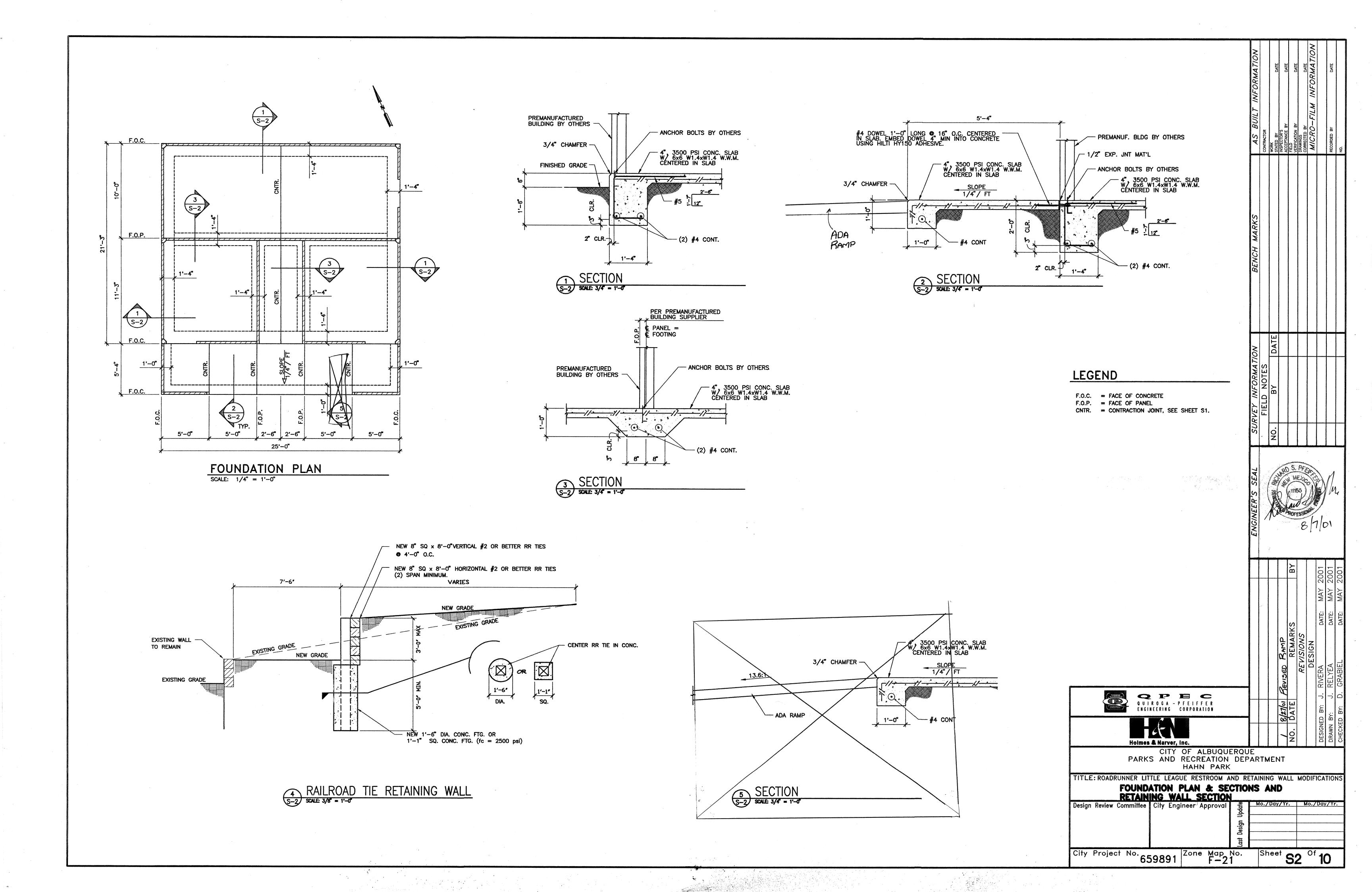
ALL FILL SHALL BE PLACED WITH A MOISTURE CONTENT OF NEAR OPTIMUM

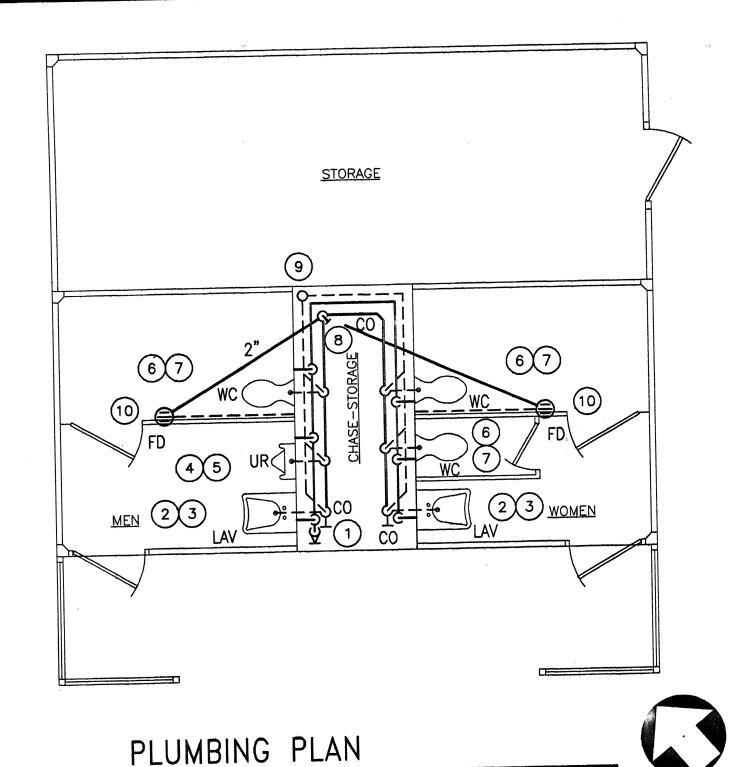
C. SITE DRAINAGE:

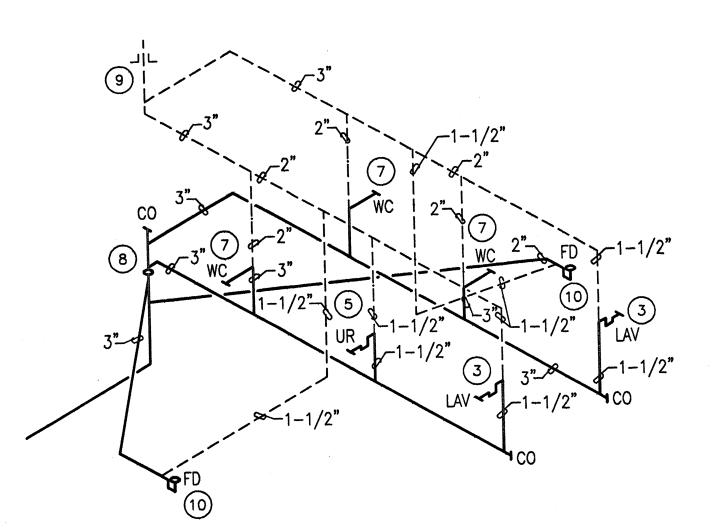
POSITIVE SURFACE DRAINAGE AWAY FROM BOTH EXISTING STRUCTURES AND NEW FOUNDATION EXCAVATIONS SHOULD BE PROVIDED DURING CONSTRUCTION. A MINIMUM OF FOUR PERCENT GRADIENT WITHIN THE FIRST TEN FEET AWAY FROM STRUCTURES IN AREAS NOT PROTECTED BY SIDEWALKS AND PAVEMENT SHALL BE MAINTAINED.

> SLAB REINF. REFER TO SECTIONS SAW CUT OR TOOLED JOINT 1 1 1 1 1 1 1 1 CONTRACTION JOINT (CNTR)

		BENCH MARKS					
		SURVEY INFORMATION FIELD NOTES	NO. BY DATE				
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				REMARKS BY	RE VISIONS DESIGN		DATE: MAY
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City Project No. 659891	Approval Posign Update						

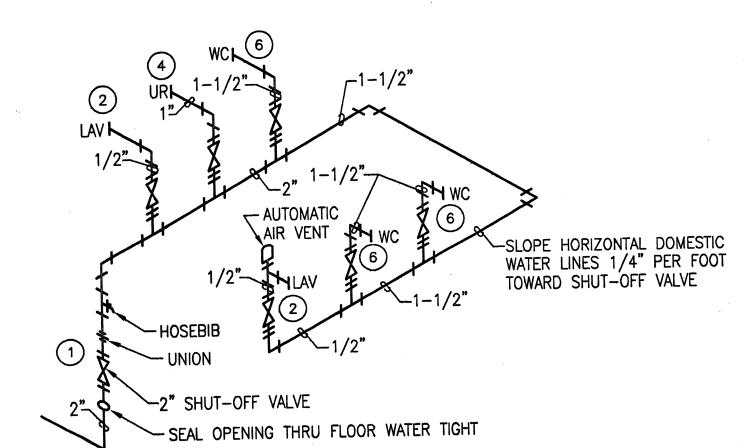






SCALE: 1/4" = 1'-0"

WASTE AND VENT ISOMETRIC



DOMESTIC WATER ISOMETRIC

SCALE: N.T.S.

SCALE: N.T.S.

GENERAL NOTES

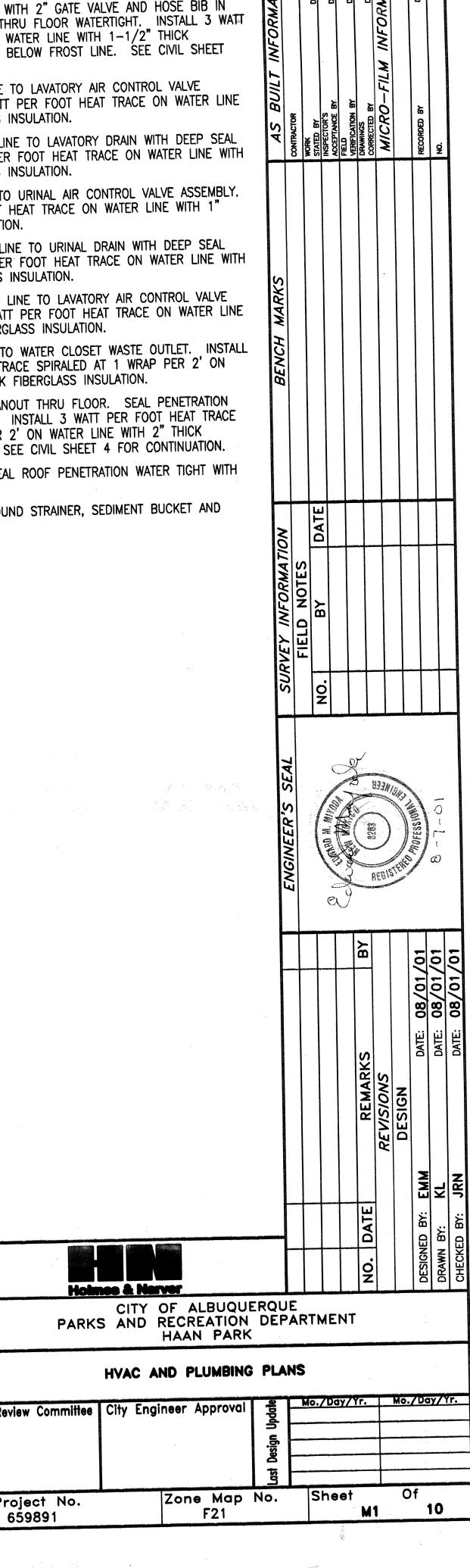
- A. THE CONTRACTOR SHALL THOROUGHLY ACQUAINT HIMSELF WITH DETAILS OF THE BUILDING PLANS AND CONSTRUCTION BEFORE SUBMITTING HIS BID AS NO ALLOWANCE WILL BE MADE BECAUSE OF THE CONTRACTOR'S UNFAMILIARITY WITH THESE DETAILS.
- B. THE MECHANICAL PLANS ARE DIAGRAMMATIC AND ARE INTENDED TO CONVEY SCOPE AND GENERAL ARRANGEMENT ONLY.
- C. THE MECHANICAL PLANS DO NOT GIVE EXACT DETAILS AS TO ELEVATIONS OF PIPING, EXACT LOCATIONS, ETC., AND DO NOT SHOW ALL OFFSETS, CONTROL LINES, PILOT LINES AND OTHER INSTALLATION DETAILS. THE CONTRACTOR SHALL CAREFULLY LAY OUT HIS WORK AT THE SITE TO CONFORM TO ACTUAL PROJECT SITE CONDITIONS.
- D. THE LOCATION OF ALL ITEMS SHOWN ON THE DRAWINGS THAT ARE NOT FIXED BY DIMENSIONS ARE APPROXIMATE. THE EXACT LOCATIONS NECESSARY TO SECURE THE BEST CONDITIONS AND RESULTS MUST BE DETERMINED BY THE PROJECT SITE CONDITIONS AND SHALL HAVE THE APPROVAL OF THE ENGINEER BEFORE BEING INSTALLED. DO NOT SCALE DRAWINGS.
- E. COORDINATE CONSTRUCTION OF MECHANICAL WORK WITH ARCHITECTURAL, STRUCTURAL, CIVIL, ELECTRICAL WORK, ETC., SHOWN ON OTHER CONTRACT DOCUMENT DRAWINGS.
- F. ALL PIPING IN THE FINISHED AREAS OF THE BUILDING SHALL BE RUN CONCEALED CHASES, FURRINGS, ABOVE SUSPENDED CEILINGS UNLESS NOTED OTHERWISE. SHOULD ANY CONDITION ARISE WHICH WOULD CAUSE ANY PIPING OR DUCTWORK TO BE EXPOSED IN FINISHED AREAS, IT SHALL IMMEDIATELY BE CALLED TO THE ENGINEER'S ATTENTION AND THE CONTRACTOR SHALL REARRANGE HIS WORK AS DIRECTED TO FACILITATE ITS CONCEALMENT. IN UNFINISHED SPACES SUCH AS CEILING SPACES AND EQUIPMENT ROOMS, ALL PIPELINES SHALL BE RUN TO A CONTINUOUS GRADE AND SQUARE TO THE BUILDING.
- H. ALL TESTS SHALL BE COMPLETED BEFORE ANY HEAT TRACING OR PIPING INSULATION IS APPLIED.
- I. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT IN STRICT ACCORDANCE WITH ALL DIRECTIONS AND RECOMMENDATIONS FURNISHED BY THE MANUFACTURER. WHERE SUCH DIRECTIONS ARE IN CONFLICT WITH THE PLANS, THE CONTRACTOR SHALL REPORT SUCH CONFLICTS TO THE ARCHITECT-ENGINEER WHO SHALL MAKE A DETERMINATION.
- J. ALL WORK SHALL BE EXECUTED IN ACCORDANCE WITH THE LOCAL AND STATE CODES, ORDINANCES, AND REGULATIONS GOVERNING THE PARTICULAR CLASS OF WORK INVOLVED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FINAL EXECUTION OF THE WORK TO SUIT THESE REQUIREMENTS. CONTRACT DOCUMENTS TAKE PRECEDENCE WHEN THEY ARE MORE STRINGENT THAN CODES, ORDINANCES, STANDARDS AND
- K. LABOR SHALL BE PERFORMED IN A WORKMANLIKE MANNER BY MECHANICS SKILLED IN THEIR PARTICULAR TRADE. PIPE AND EQUIPMENT SHALL BE INSTALLED SQUARE AND PLUMB AND ACCESSIBLE FOR PROPER OPERATION AND SERVICE.
- L. PROVIDE AND MAINTAIN, ON THE JOB, A COMPLETE AND ACCURATE RECORD SET OF PRINTS SHOWING ALL MECHANICAL WORK. KEEP RECORD UP-TO-DATE AS WORK PROGRESSES. INDICATE CLEARLY AND CORRECTLY ALL SERVICE AND UTILITY LINES, WITH SIZE, INVERT ELEVATIONS OR BURIED PIPES, AND LOCATION OF ALL EQUIPMENT. UPON COMPLETION OF WORK, FURNISH TO THE ARCHITECT-ENGINEER OF TWO (2) NEAT LEGIBLE COPIES COPIES OF AS-BUILT DRAWINGS.
- M. PROVIDE AN OPERATING INSTRUCTION AND SERVICE MANUAL FOR THE ENTIRE SYSTEM INCLUDING ALL EQUIPMENT. THE SERVICE MANUALS SHALL BE ASSEMBLED IN HARD COVER THREE RING BINDERS. THE FORM IN, WHICH THE SERVICE MANUAL IS TO BE PRESENTED, SHALL BE SUBJECT TO THE APPROVAL OF THE ARCHITECT-ENGINEER. ALL ITEMS IN THE MANUAL SHALL BE NUMBERED IN SUCCESSION. THE FOLLOWING ITEMS, TOGETHER WITH ANY OTHER NECESSARY PERTINENT DATA, SHALL BE INCLUDED IN THE MANUAL. THIS LIST IS NOT COMPLETE AND IS TO BE USED AS A GUIDE:
- 1. INDEX OF CONTENTS WITH ITEM NUMBER.
- 2. PART NUMBER OF ALL REPLACEMENT PARTS.
- 3. MANUFACTURER'S CATALOG CUTS AND RATING TABLES FOR ALL EQUIPMENT INSTALLED.
- 4. OILING, LUBRICATION, AND GREASING DATA.
- 5. TEST DATA ON ALL EQUIPMENT INSTALLED.
- 6. BELT SIZES, TYPES AND LENGTHS.
- 7. SERIAL NUMBER OF ALL PRINCIPLE PIECES OF EQUIPMENT.
- 8. MANUFACTURER'S SUPPLIERS, AND SUBCONTRACTOR'S NAMES, ADDRESSES AND PHONE NUMBERS.
- 9. WRITTEN GUARANTEES.
- N. AFTER APPROVAL OF A COPY OF THE MANUAL BY THE ARCHITECT-ENGINEER, FOUR (4) COPIES OF EACH MANUAL SHALL BE FURNISHED TO THE OWNER.
- O. FINAL OPERATION
- UPON COMPLETION OF THE INSTALLATION OF THE FIXTURES, THE CONTRACTOR SHALL OPERATE ALL SYSTEMS IN THE PRESENCE OF THE OWNER'S DESIGNATED REPRESENTATIVE, INSTRUCTING THE OWNER'S REPRESENTATIVE ON ALL DETAILS OF OPERATION AND MAINTENANCE.
- UPON REQUEST OF THE OWNER, INSTRUCTIONS FROM THE MANUFACTURER'S REPRESENTATIVES SHALL BE GIVEN DURING THIS PERIOD. ALL ARRANGEMENTS FOR OPERATION PERIODS SHALL BE MADE THROUGH THE OWNER'S REPRESENTATIVE.

GENERAL NOTES (CONTINUED)

- Q. PIPING AND PLUMBING GENERAL NOTES
 - 1. THE INSTALLATION SHALL BE IN CONFORMITY WITH BEST PRACTICE AND SHALL CONFORM TO CODES AND STANDARDS OF THE NATIONAL ENGINEERING SOCIETIES APPLICABLE, AND THE MANUFACTURER'S RECOMMENDATIONS. THE DRAWINGS SHOW GENERAL DESIGN, ARRANGEMENT, AND EXTENT OF THE SYSTEM, AND SHALL NOT BE SCALED FOR ROUGH-IN MEASUREMENTS OR BE USED AS SHOP DRAWINGS.
 - 2. ALL PIPING SYSTEMS SHALL BE INSTALLED SO THAT THEY MAY BE EASILY DRAINED. DRAIN CAPS, PLUGS OR DRAINS SHALL BE INSTALLED AT LOW POINTS.
 - 3. INSTALL PIPING SO THAT ALL VALVES, STRAINERS, UNIONS, TRAPS, FLANGES, AND OTHER APPURTENANCES REQUIRING ACCESS ARE ACCESSIBLE.
 - 4. FURNISH AND INSTALL VALVES AT THE INLET TO EACH FIXTURE, AHEAD OF ALL CONTROL VALVES AND AS SHOWN ON DRAWINGS. ALL VALVES SHALL BE INSTALLED SO THAT VALVE REMAINS IN SERVICE WHEN FIXTURE OR PIPING ON FIXTURE SIDE OF VALVE IS REMOVED.
 - 5. ALL PIPELINES SHALL BE STRAIGHT AND SHALL REMAIN STRAIGHT AGAINST STRAINS. PROVIDE FOR EXPANSION AND CONTRACTION OF ALL PIPING,, USING EXPANSION JOINTS, SWING JOINTS, BALL JOINTS, BENDS, OR OTHER APPROVED METHODS. FURNISH AND INSTALL ANCHORS, WHEN NECESSARY, TO PREVENT THE MOVEMENT OF PIPE. ALL ANCHORS SHALL BE SEPARATE AND INDEPENDENT OF ALL HANGERS AND SUPPORTS AND SHALL BE DESIGNED OF HEAVY FABRICATED STEEL TO PREVENT THE MOVEMENT OF PIPE UNDER THE STRESSES ENCOUNTERED.
 - 6. ALL PIPING MUST BE CLEANED FREE FROM SCALE OR LOOSE DIRT WHEN INSTALLED AND MUST BE KEPT CLEAN DURING THE COMPLETION OF THE INSTALLATION. ALL OPENINGS IN THE PIPING SYSTEM SHALL BE CAPPED OR PLUGGED WHILE AWAITING FURTHER CONNECTIONS.
 - 7. DOMESTIC WATER DISTRIBUTION PIPING IN THE BUILDING SHALL BE TYPE L HARD DRAWN COPPER TUBING WITH SOLDERED WROUGHT COPPER FOR ABOVE GRADE INSTALLATION. SOLDER SHALL BE SILVERBRITE 100. PIPING UNDERGROUND SHALL BE COPPER TYPE K HARD DRAWN COPPER TUBING WITH BRAZED WROUGHT COPPER FITTINGS. PIPING UNDER BUILDINGS SHALL BE TYPE "K" SOFTDRAWN COPPER TUBING WITH NO JOINTS UNDER SLAB. COPPER TUBING SHALL CONFORM TO ASTM B-88. WROUGHT COPPER FITTINGS SHALL CONFORM TO ANSI B 16.18 OR ANSI B UNIONS SHALL CONFORM TO FEDERAL SPECIFICATION WW-U-516, NIBCO 633. SOLDER MATERIALS SHALL BE SILVER BRITE 100 SOLDER.
 - 8. UNDERGROUND SANITARY AND WASTE LINES SHALL BE STANDARD CAST IRON WITH COMPRESSION-TYPE GASKETS.
 - 9. ABOVEGROUND SANITARY AND WASTE LINES SHALL BE STANDARD WEIGHT COMPRESSION JOINTS OR NO-HUB JOINTS. PIPING 3" AND SMALLER TO BE INSTALLED WITH A SLOPE OF NOT LESS THAN 1/4" PER FOOT. LARGER PIPE SHALL BE INSTALLED WITH A SLOPE OF NOT LESS THAN 1/8" PER FOOT. ALL PIPING INSIDE OR UNDER BUILDING SHALL BE INSTALLED WITH A SLOPE OF NOT LESS THAN 1/4" PER FOOT.
 - 10. SANITARY VENT PIPING SHALL BE SERVICE WEIGHT NO-HUB CAST
 - 11. CAST IRON PIPE SHALL CONFORM TO CISPI HS-67 OR CISPI 301-67T. CAST IRON FITTINGS SHALL CONFORM TO ANSI B 16.4. CAST IRON JOINTS SHALL CONFORM TO ASTM C-564 DOUBLE SEAL ELASTOMERIC COMPRESSION-TYPE GASKETS OR CUSP 301, 67T NO-HUB JOINTS.
 - 12. ALL FIXTURES SHALL BE SECURELY BOLTED TO WALL AND FLOORS IN ACCORDANCE WITH THE MANUFACTURER'S ROUGHING-IN AND SEATING REQUIREMENTS. USE CARRIERS WHERE REQUIRED BY
 - 13. PIPE INSULATION SHALL CONFORM TO UNDERWRITER'S LABORATORIES 40, U8.15.19 "PIPE AND EQUIPMENT COVER SYSTEM."
 - 14. WATER LINES AND SEWER LINES SHALL BE INSULATED WITH FIBERGLASS INSULATION. PIPE INSULATION ABOVE GROUND SHALL BE 650° HIGH DENSITY SECTIONAL FIBERGLASS INSULATION (R= 4.35/INCH MINIMUM) WITH FACTORY APPLIED ALL SERVICE VAPOR BARRIER REINFORCED JACKET HAVING SELF SEALING LAPS AND JOINT STRIPS. ELBOWS AND FITTINGS SHALL BE INSULATED WITH PREMOLDED FIBERGLASS FITTINGS HAVING EQUIVALENT THICKNESS TO ADJACENT PIPE. COVER INSULATION WITH PREMOLDED PVC JACKETING AND SEAL EDGES WITH SELF-SEALING JOINT STRIPS. PIPE INSULATION HANGERS SHALL BE HALF OR FULL ROUND CALCIUM SILICATE OF THE SAME THICKNESS AND JACKETING AS THE ADJOINING INSULATION. THE CALCIUM SILICATE SHALL REST ON AN 18 GAUGE GALVANIZED SHEET METAL SHIELD AND EXTEND 2" BEYOND SHIELD LENGTH EACH WAY. INSULATION SHALL BE CONTINUOUS THROUGH WALLS, PARTITIONS FLOOR, AND CEILING.
 - 15. HEAT-TRACING CABLES SHALL BE SELF-REGULATING SUITABLE FOR FREEZE PROTECTION OF METAL OR PLASTIC PIPES. THE CABLE SHALL INCLUDE A PAIR OF PARALLEL NO 16 AWG TINNED COPPER BUS WIRES EMBEDDED IN CROSS-LINKED CONDUCTIVE POLYMER CORE, WHICH VARIES POWER OUTPUT IN RESPONSE TO TEMPERATURE ALONG ITS LENGTH. THE CABLE SHALL BE CAPABLE OF CROSSING OVER ITSELF WITHOUT OVERHEATING. THE HEAT OUTPUT SHALL BE AT LEAST 90% OF RATING OVER A TEMPERATURE RANGE FROM 40° TO 150° F PIPE TEMPERATURE. THE CABLE COVER SHALL BE FABRICATED OF CROSS-LINKED, MODIFIED POLYOLEFIN DIELECTRIC JACKET WITH ULTRAVIOLET INHIBITOR. THE PIPE THERMOSTAT SHALL BE ADJUSTABLE FROM 30° TO 50° F, SNAP ACTION, OPEN ON TEMPERATURE RISE SINGLE POLE SWITCH WITH 25 AMP RATING AND A REMOTE BULB FOR DIRECTLY SENSING PIPE TEMPERATURE.

KEYED NOTES

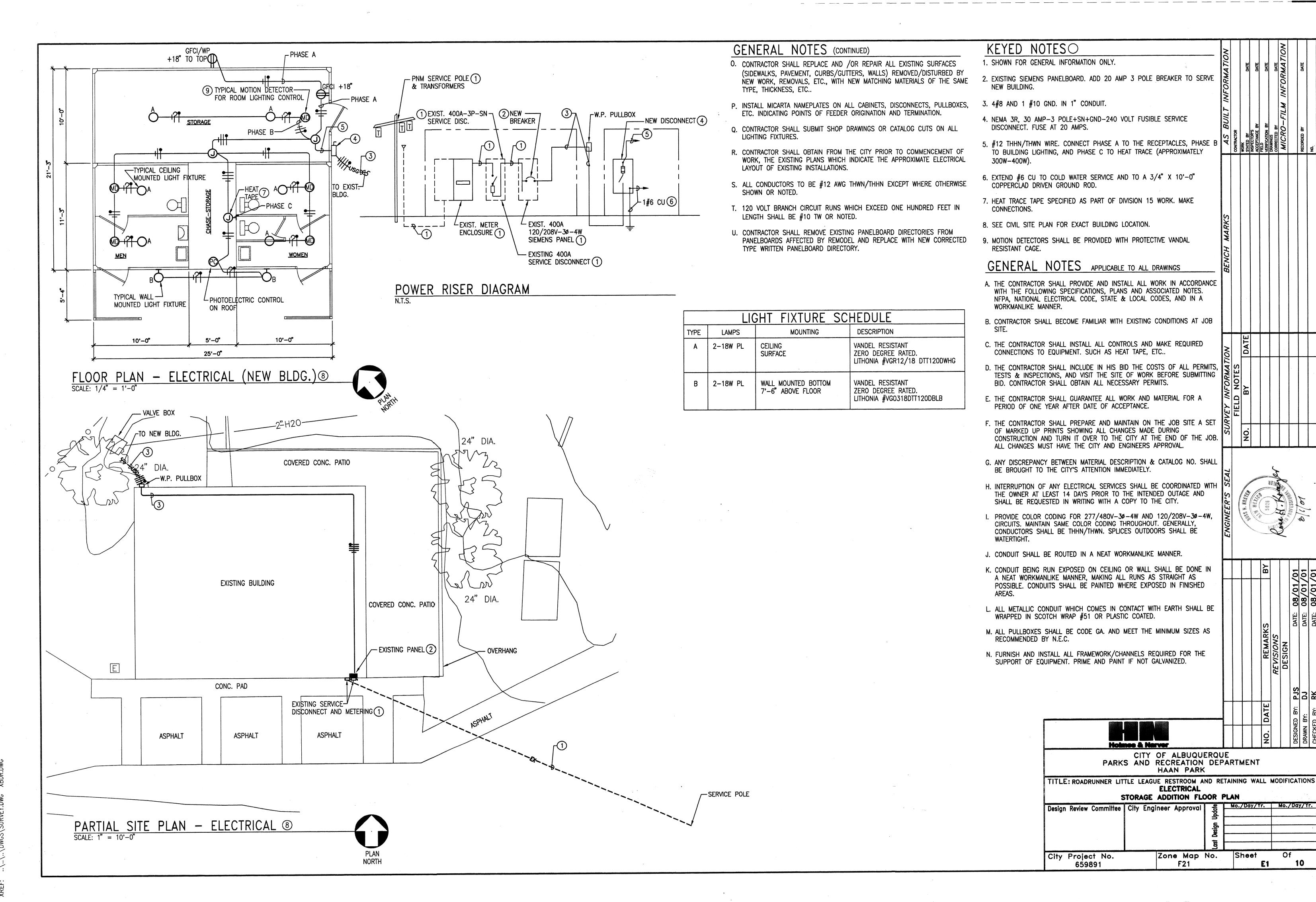
- 1. 2" DOMESTIC WATER RISER WITH 2" GATE VALVE AND HOSE BIB IN LINE. SEAL PENETRATION THRU FLOOR WATERTIGHT, INSTALL 3 WATT PER FOOT HEAT TRACE ON WATER LINE WITH 1-1/2" THICK FIBERGLASS INSULATION TO BELOW FROST LINE. SEE CIVIL SHEET 4 FOR CONTINUATION.
- 2. CONNECT 1/2" WATER LINE TO LAVATORY AIR CONTROL VALVE ASSEMBLY. INSTALL 3 WATT PER FOOT HEAT TRACE ON WATER LINE WITH 1" THICK FIBERGLASS INSULATION.
- CONNECT 1-1/2" WASTE LINE TO LAVATORY DRAIN WITH DEEP SEAL TRAP. INSTALL 3 WATT PER FOOT HEAT TRACE ON WATER LINE WITH 1-1/2" THICK FIBERGLASS INSULATION.
- CONNECT 1" WATER LINE TO URINAL AIR CONTROL VALVE ASSEMBLY. INSTALL 3 WATT PER FOOT HEAT TRACE ON WATER LINE WITH 1" THICK FIBERGLASS INSULATION.
- 5. CONNECT 1-1/2" WASTE LINE TO URINAL DRAIN WITH DEEP SEAL TRAP. INSTALL 3 WATT PER FOOT HEAT TRACE ON WATER LINE WITH 1-1/2" THICK FIBERGLASS INSULATION.
- 6. CONNECT 1-1/2" WATER LINE TO LAVATORY AIR CONTROL VALVE ASSEMBLY. INSTALL 3 WATT PER FOOT HEAT TRACE ON WATER LINE WITH 1-1/2" THICK FIBERGLASS INSULATION.
- . CONNECT 3" WASTE LINE TO WATER CLOSET WASTE OUTLET. INSTALL 3 WATT PER FOOT HEAT TRACE SPIRALED AT 1 WRAP PER 2' ON WATER LINE WITH 2" THICK FIBERGLASS INSULATION.
- 8. 3" WASTE LINE WITH CLEANOUT THRU FLOOR. SEAL PENETRATION THRU FLOOR WATERTIGHT. INSTALL 3 WATT PER FOOT HEAT TRACE SPIRALED AT 1 WRAP PER 2' ON WATER LINE WITH 2" THICK FIBERGLASS INSULATION. SEE CIVIL SHEET 4 FOR CONTINUATION.
- 9. 3" VENT THRU ROOF. SEAL ROOF PENETRATION WATER TIGHT WITH ROOF JACK.
- 10. 2" FLOOR DRAIN WITH ROUND STRAINER, SEDIMENT BUCKET AND DEEP SEAL TRAP.



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PARK	CITY S AND	OF ALBUQUE RECREATION HAAN PARK	DEPARTMEN

TITLE: Design Review Committee

City Project No.



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