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City of Goleta
Planning & Environmental Services



FUEL DEPOT

ABBREVIATIONS

| | | | | | |
|-------|--|-------|--------------------------------------|-------|----------------------------------|
| ● | AT | FIN | FINISH | PLAM | PLASTIC LAMINATE |
| d | PENNY | FL | FLOW LEVEL | PLAS | PLASTER |
| dw | ROUND | FLR | FLOOR | PLYWD | PLYWOOD |
| AB | ANCHOR BOLT | FR | FLOOR FINISH | PNT | PAINT |
| AC | ASPHALTIC | FN | FIELD NAILING | PR | PAIR |
| | CONCRETE | FOC | FACE OF CONCRETE | PTDF | PRESSURE TREATED |
| AC | AIR CONDITIONING | FOF | FACE OF FINISH | RD | DOUGLAS FIR |
| ANOD | ANODIZED | FOM | FACE OF MASONRY | RO | ROUGH OPENING |
| BD | BOARD | FOP | FACE OF PLYWOOD | RWD | REDWOOD |
| BLDG | BUILDING | FOS | FACE OF STUD | S | SCHEDULE (D) |
| BLKG | BLOCKING | FT | FOOT OR FEET | SF | SQUARE FEET |
| BN | BOUNDARY | GA | GAUGE | SHTG | SHEATHING |
| | NAILING | GALV | GALVANIZED | SM | SIMILAR |
| BOT | BOTTOM | GYP | GYPSUM | SPEC | SPECIFICATION |
| CB | CATCH BASIN | HB | HOSE BIBB | SQ | SQUARE |
| CI | CAST IRON | HP | HORSE POWER | SSTL | STAINLESS STEEL |
| CLG | CEILING JOIST | HR | HOUR | STD | STANDARD |
| CLR | CLEAR | HTR | HEATER | STL | STEEL |
| CMU | CONCRETE MASONRY UNIT | HVAC | HEATING/VENTILATION/AIR CONDITIONING | TC | TOP OF CURB OR TOP OF CONCRETE |
| CO | COLUMN | HW(R) | HOT WATER (RETURN) | TCV | TOP OF CATCH BASIN |
| COL | CONTINUOUS | INV | INVERT | T&G | TONGUE AND GROOVE |
| CONT | COUNTERSINK | LAM | LAMINATE | TP | TOP OF PAVING |
| CSK | DOUGLAS FIR | LB | LAG BOLT | TW | TOP OF WALL |
| DF | DIA | LT | LIGHT | TYP | TYPICAL |
| DN | DOWN | MAS | MASONRY | UNO | UNLESS NOTED OTHERWISE |
| DS | DOWNSPOUT | MATL | MATERIAL | VCT | VINYL COMPOSITION TILE |
| DWG | DRAWING | MAX | MAXIMUM | VERT | VERTICAL |
| E | EXISTING | MB | MACHINE BOLT | VGDF | VERTICAL GRAIN DOUGLAS FIR |
| EB | EXPANSION JOINT | MEMB | MEMBRANE | VTR | VENT THROUGH ROOF |
| ELEV | ELEVATION | MET | METAL | WC | WATER CLOSET |
| EQ | EQUAL | MFR | MANUFACTURER | WH | WATERHEATER |
| EQUIP | EQUIPMENT | MIN | MINIMUM | WP | WATERPROOF |
| FAU | FORCED AIR UNIT | MISC | MISCELLANEOUS | WS | WOOD SCREW |
| FBO | FURNISHED BY OWNER OR OTHERS TO BE INSTALLED BY CONTRACTOR | N | NORTH | W/W | WELDED WIRE FABRIC WITH/ WITHOUT |
| FD | FIRE EXTINGUISHER (& CABINET) | NEW | NOT IN CONTRACT | | |
| FEIC | FIRE EXTINGUISHER | NTS | NOT TO SCALE | | |
| FF | FINISH FLOOR | OC | ON CENTER | | |
| FG | FINISHED GRADE | OH | ON HEAD OR OVER HEAD | | |
| FH | FLAT HEAD | OPNG | OPENING | | |
| | | PL | PROPOSED PLATE OR PROPERTY LINE | | |

GOVERNING CODES

| | |
|----------------------------|--------------|
| CALIFORNIA BUILDING CODE | 2013 EDITION |
| CALIFORNIA ELECTRICAL CODE | 2013 EDITION |
| CALIFORNIA PLUMBING CODE | 2013 EDITION |
| CALIFORNIA MECHANICAL CODE | 2013 EDITION |
| CALIFORNIA ENERGY CODE | 2013 EDITION |
| CALIFORNIA GREEN CODE | 2013 EDITION |

GENERAL NOTES

- ALL CONSTRUCTION SHALL CONFORM TO ALL CURRENT BUILDING, ELECTRICAL, MECHANICAL AND PLUMBING CODES AND ALL OTHER STATE, COUNTY AND CITY ORDINANCES AND REGULATIONS.
- THE CONTRACTOR SHALL INVESTIGATE, VERIFY AND BE RESPONSIBLE FOR ALL CONDITIONS AND DIMENSIONS OF THE PROJECT AND SHALL NOTIFY THE ARCHITECT OF ANY DISCREPANCIES AND INCONSISTENCIES BETWEEN DRAWINGS, SPECIFICATIONS AND EXISTING CONDITIONS PRIOR TO SUBMITTING BID.
- CONTRACTOR SHALL NOTIFY THE ARCHITECT ABOUT ANY CONDITIONS REQUIRING A MODIFICATION OR CHANGE BEFORE PROCEEDING WITH THE WORK.
- REFER TO STRUCTURAL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR OTHER GENERAL REQUIREMENTS AND COORDINATE WITH THE ARCHITECTURAL DRAWINGS.
- ALL CONSTRUCTION TO PROVIDE A WATERPROOF, WEATHER TIGHT BUILDING. CONTRACTOR SHALL FLASH AND CAULK AS NECESSARY TO ACHIEVE THIS REQUIREMENT.

APPROVAL NOTES:

FIRE SPRINKLERS TO BE APPROVED AND INSTALLED UNDER SEPARATE PERMIT.

SPECIAL INSPECTIONS

THE OWNER OR GENERAL CONTRACTOR SHALL EMPLOY A SPECIAL INSPECTOR TO PROVIDE INSPECTIONS ACCORDING TO UBC SECTION 1701, FOR THE FOLLOWING TYPES OF WORK:

- ANY RETROFIT REINFORCING BARS OR HOLDOWN BOLTS INTO EXISTING SLABS OR FOOTINGS REQUIRING AN EPOXY GROUTED CONNECTION.
- FIELD WELDING FOR STRUCTURAL STEEL CONNECTIONS.
- STRUCTURAL MASONRY

CONSULTANTS

STRUCTURAL ENGINEER:

ENERGY CONSULTANT:

SURVEYOR:

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SHEET INDEX

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| - | SURVEY |
| 17 | TOTAL |

VICINITY MAP



PROJECT DATA

OWNER: FAIRVIEW AUTO LUBE, LP
1550 LA VISTA RD.
SANTA BARBARA, CA 93110
(805) 564-7144

PROJECT ADDRESS: 180 NORTH FAIRVIEW AVE
GOLETA, CA
069-110-054

A.P.N.: SC
ZONE: M
OCCUPANCY: NO
HIGH FIRE: NO
SPRINKLERED: NO
AVG. SITE SLOPE: 2%

EXISTING BUILDING COVERAGE:

| | |
|----------------------------|-----------|
| LOT (069-110-054): | 12,450 SF |
| EXISTING SERVICE STATION: | 1,757 SF |
| BLDG COVERAGE OF THIS LOT: | 14% |

EXISTING PARKING:

BACKGROUND:
PARKING WAS APPROVED WITH ORIGINAL DEVELOPMENT PLAN 66-M-75. THIS ORIGINAL DEVELOPMENT PLAN IN 1966 INCLUDED THE SERVICE STATION ON PARCEL 069-110-054 AS WELL AS THE FAIRVIEW SHOPPING CENTER ON PARCEL 069-110-055. THIS DEVELOPMENT PLAN APPROVED 45 PARKING SPACES AT A RATIO OF 1 SPACE PER 205.8 SF OF COMMERCIAL AREA. PART OF PARCEL 069-110-055 IS ZONED PL, AN OFFICE BLDG WAS LATER ADDED IN 1968 TO THAT PARCEL AND 30 ADDITIONAL PARKING SPACES WERE ADDED AT A RATIO OF 1 SPACE PER 202.9 SF. AN AMENDMENT TO DEVELOPMENT PLAN 66-M-75 WAS APPROVED IN 1999 TO ALLOW A CANOPY OVER THE SERVICE STATION. IN THIS AMENDMENT (66-M-075 AMD001) IT DECLARES THAT THE SERVICE STATION'S REQUIRED PARKING IS PROVIDED BY THE EXISTING PARKING LOT ON THE ADJACENT PARCEL, AND IS ADEQUATE TO MEET THE ON-SITE PARKING REQUIREMENT.

THIS SUBMITTAL REQUESTS TO CREATE A DEVELOPMENT PLAN SPECIFIC TO THIS PARCEL (069-110-054) AND SEVER CONNECTION TO THE ADJACENT PARCEL (069-110-055).

EXISTING DEVELOPMENT

EXISTING BUILDING COVERAGE

| | | |
|------------------|----------|------|
| SERVICE STATION: | 1,757 SF | 100% |
|------------------|----------|------|

EXISTING FOOTAGE

| | |
|--|----------|
| GROSS FOOTAGE OF SERV. STATION/CONV. STORE (NET SAME): | 1,619 SF |
|--|----------|

EXISTING LOT COVERAGE:

| | | |
|--------------------------|-----------|------|
| SERVICE STATION: | 1,757 SF | 14% |
| FUEL CANOPY: | 1,700 SF | 14% |
| HARDSCAPE (LESS CANOPY): | 8,131 SF | 65% |
| LANDSCAPING: | 862 SF | 7% |
| TOTAL: | 12,450 SF | 100% |

EXISTING PARKING:

8 SPACES (FUEL PUMP POSITIONS)

PROPOSED RE-BUILD:

AREA TABULATION OF CONVENIENCE STORE:

| | |
|--|----------|
| GROSS FOOTAGE OF CONVENIENCE STORE (NET SAME): | 2,396 SF |
| FOR REFERENCE: GROSS FOOTAGE ADDED TO (E) SERV. STATION: | 777 SF |

(N) TRASH ENCLOSURE:

128 SF

BUILDING COVERAGE OF RE-BUILD:

| | |
|--|----------|
| BLDG COVERAGE OF ORIGINAL FOOTPRINT: | 1,757 SF |
| BLDG COVERAGE ADDED TO ORIGINAL FOOTPRINT: | 732 SF |
| TRASH ENCLOSURE AS BLDG COVERAGE: | 128 SF |
| TOTAL BLDG COVERAGE OF RE-BUILD: | 2,617 SF |

LOT COVERAGE:

| | | |
|--------------------------------------|-----------|------|
| CONVENIENCE STORE & TRASH ENCLOSURE: | 2,617 SF | 21% |
| FUEL CANOPY: | 1,700 SF | 14% |
| HARDSCAPE (LESS CANOPY): | 6,192 SF | 50% |
| LANDSCAPING: | 1,942 SF | 15% |
| TOTAL: | 12,450 SF | 100% |

PARKING:

| | |
|------------------------------|--|
| REQUIRED PARKING: | 2,396 / 200 = 12 SPACES |
| EXISTING PARKING: | 8 SPACES (FUEL PUMP POSITIONS) |
| NEW PARKING: | 2 SPACES ON SITE |
| | 2 EMPLOYEE SPACES OFF SITE (WITHIN 500 FT) |
| TOTAL PROVIDED: | 12 SPACES TOTAL |
| ACCESSIBLE PARKING PROVIDED: | 1 SPACE |

SCOPE OF WORK

Fairview Auto Lube, LP proposes to demolish the existing 1,619 SF service station/convenience store at 180 North Fairview Avenue and to build a new 2,396 SF convenience store, thereby expanding the structure by 777 SF. The existing 1,700 SF canopy and four fuel dispensers are proposed to remain. The project also would include a new 128 SF covered trash/recycling enclosure. Landscaping would be increased from 862 to 1,942 SF.

We request four setback modifications for this project. Two are existing legal, non-conforming improvements, and two would occur as part of the new development.

- The existing overhead canopy encroaches 13'-10 1/2" into the 20 foot front setback area and therefore requires a modification to remain in place.
- Likewise, two existing fuel pump islands encroach 3'-10 1/4" into the front setback area. We request a modification for this legal, non-conforming improvement.
- The project proposes to place two new parking spaces within the front setbacks as follows: One proposed parking space encroaches 9'-9 1/2" into the west front setback, and 11'-6 1/2" into the north front setback. The proposed accessible parking space encroaches 17'-9 1/2" into the north front setback.
- The project proposes to place a new trash/recycling enclosure which would encroach 16'-4 1/2" into the front setback area.

The setback modifications notwithstanding, the project proposes to increase landscaping on the site from 862 to 1,942 square feet. Paving on site would be reduced from 8,131 to 6,192 square feet.

We propose the service station and convenience store to be open 24 hours a day, seven days a week.

The eight fueling stations would also be used as parking for the convenience store. In addition, three dedicated parking spaces, one of which would be ADA Van Accessible, would be provided on site. Two employee parking spaces would be provided on the applicant's adjacent parcel at 52 N. Fairview Avenue. The project parcel has a General Plan Designation of Commercial Intersection (C) and is zoned SC.



ARCHITECTURE

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FUEL DEPOT
180 North Fairview Ave
Goleta, CA



sheet description
COVER SHEET

date:

1-5-14
2-19-14
2-26-15
3-16-15
4-16-15
5-1-2015
5-21-2015
9-17-2015
11-18-2015
12-30-2015
1-22-2016
7-13-2016
8-17-2016

sheet no:

G-0

Preliminary: NOT FOR CONSTRUCTION

- c. Pictograms shall have text descriptors located directly below the pictogram field. Pictograms shall have a field height of 6" minimum. Characters and Braille shall not be located in the pictogram field
- d. Characters and braille shall be in a horizontal format. Braille shall be positioned below the corresponding text in a horizontal format, flush left or centered. If text is multi-lined, Braille shall be placed below the entire text. Braille shall be separated 3/8" minimum and 1/2" maximum from any other tactile characters and 3/8" minimum from raised borders and decorative elements.
6. Character proportions shall be selected from fonts where the width of the uppercase letter "O" is 60% minimum and 110% maximum of the height of the uppercase letter "I".
7. Characters, symbols and their background shall have a non-glare finish. Characters and symbols shall contrast with their background, either light characters on a dark background, or dark characters on a light background.
8. Characters and numbers on signs shall be sized according to the viewing distance from which they are to be read. Minimum character height shall comply with Table 11B-703.5.5.
9. Braille shall be contracted (Grade 2) and shall comply with Sections 11B-703.3 and 11B-703.4. Braille dimensions shall comply with Table 11B-703.3.1.
10. Pole supported pedestrian traffic control buttons shall be identified with color coding consisting of a textured horizontal yellow band 2 inches in width encircling the pole, and a 1 inch wide dark border band above and below this yellow band. Color-coding should be placed immediately above the control button. Control buttons shall be located no higher than 48 inches above the surface adjacent to the pole.
11. 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 inches by 22 inches in size with lettering not less than 1 inch in height, which clearly and conspicuously states the following:
- *Unauthorized Vehicles Parked In Designated Accessible Spaces
Not Displaying Distinguishing Placards Or License Plates Issued
For Persons With Disabilities Will Be Towed Away At Owner's
Expense. Towed Vehicles May Be Redelivered At _____
Or By Telephoning _____

HAZARDS AND PROTRUDING OBJECTS

1. Abrupt changes in level, except between a walk or sidewalk and an adjacent street or driveway, exceeding 4 inches in a vertical dimension, such as at planters or fountains located in or adjacent to walks, sidewalks, or other pedestrian ways, shall be identified by warning curbs projecting at least 6 inches in height above the walk surface to warn the blind of a potential drop off.
2. A warning curb is not required when a guard or handrail is provided with a guide rail centered 2 inches minimum and 4 inches maximum above the surface of the walk or sidewalk.
3. Objects projecting from walls with their leading edges between 27 inches and 80 inches above the finished floor shall protrude no more than 4 inches into the circulation path.
4. Freestanding objects mounted on posts or pylons may overhang 12 inches maximum from 27 inches to 80 inches above the ground or finished floor.
5. Protruding objects shall not reduce the clear width of an accessible route or maneuvering space.
6. Walks, halls, corridors, passageways, aisles, or other circulation spaces shall have 80 inches minimum clear headroom.
7. Any obstruction that overhangs a pedestrian way shall be a minimum of 80 inches above the walking surface as measured from the bottom of the obstruction.
8. Where a guy support is used parallel to a circulation path, including, but not limited to sidewalks, a guy brace sidewalk guy or similar device shall be used to prevent an overhanging obstruction.

DETECTABLE WARNINGS AT HAZARDOUS VEHICULAR AREAS

1. If a walk crosses or adjoins 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.
2. At transit boarding platforms, the pedestrian access shall be identified with a detectable directional texture complying with Section 11B-705.2.

ELECTRICAL

1. The highest operable part of all controls, dispensers, receptacles and other operable equipment shall be installed at an accessible location meeting the clearances and reach range requirements of section 11B-308.
2. The center of the grip of the operating handle of controls or switches intended to be used by the occupant of the room or area to control lighting and receptacle outlets, appliances, or cooling, heating, and ventilating equipment shall be 48" above the floor or working platform.
3. The center of electrical receptacle outlets on branch circuits of 30 amperes or less shall be installed not more than 48 inches nor less than 15 inches above the floor or working platform.

RESTROOM

1. Elements of accessible restrooms shall comply with CBC Section 11B Division 6.
2. Accessible urinals shall be stall-type or wall-hung with an elongated rim at a maximum of 17" above finish floor. Urinals shall have a 30" x 48" clear floor space to allow a front approach and the flush controls shall be hand-operated with the controls installed no higher than 44" above finish floor.
3. Hot water lines and drain pipes under lavatories shall be insulated or otherwise configured to protect against contact. There shall be no sharp or abrasive surfaces under lavatories.
4. Examples of accessible faucets include: lever operated, push-type, and electronically controlled. If self-closing valves are used, the faucet shall remain open for at least 10 seconds.
5. The diameter or width of the gripping surfaces of a grab bar shall be 1-1/4" to 2" if circular. Grab bars with non-circular cross sections shall have a cross section dimension of 2" maximum and a perimeter dimension of 4" minimum and 4.8" maximum. The space between the wall and the grab bar shall be 1-1/2". The grab bar assembly shall be capable of withstanding bending stresses, shear stresses, shear forces, and tensile forces of up to 250 lbf. Grab bars shall not rotate within their fittings. The grab bar and any wall or other surface adjacent to it shall be free of any sharp or abrasive elements.
6. Mounting heights to operating controls for restroom accessories not specifically called out in the CBC shall comply with the reach ranges specified in CBC Section 11B-308.

SIGNS & IDENTIFICATION

California's standards for signage are more stringent and are significantly larger and wider than federal law, Americans with Disabilities Act (ADA) Section 4.30.

The International Symbol of Accessibility shall be the standard used to identify facilities that are accessible to and usable by physically disabled persons as set forth in Title 24 and as specifically required in this section.

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 595B.
2. All building and facility entrances that are accessible to and usable by persons with disabilities and at every major junction along or leading to an Accessible Route of Travel shall be identified with a sign displaying the International Symbol of Accessibility and with additional directional signs, as required, to be visible to persons along approaching circulation paths.
3. When permanent identification is provided for rooms and spaces of a building or site, raised letters shall be provided in conformance with Section 11B-703.2 and shall be accompanied by braille in conformance with Section 11B-703.3. Signs shall be installed on the wall adjacent to the latch outside of the door. Where there is no wall space on the latch side, including at double leaf doors, signs shall be placed on the nearest adjacent wall, preferably on the right. Tactile characters on signs shall be located 48" minimum above the finish floor or ground surface, measured from the baseline of the lowest Braille cells and 60" maximum above the finish floor or ground surface, measured from the baseline of the highest line of raised characters.
4. Interior and exterior signs identifying permanent rooms and spaces shall comply with Sections 11B-703.1, 11B-703.2, 11B-703.3 and 11B-703.5. Where pictograms are provided as designations of permanent rooms and spaces, the pictograms shall comply with Section 11B-703.6 and shall have text descriptors complying with Sections 11B-703.2 and 11B-703.5.
5. When raised characters are used, they shall conform to the following:
- a. Raised characters shall comply with Section 11B-703.2 and shall be duplicated in Braille complying with Section 11B-703.3. Raised shall be installed in accordance with Section 11B-703.4.
- b. Character height measured vertically from the baseline of the character shall be 5/8" minimum and 2" maximum based on the height of the uppercase letter "I".

FLOORS AND LEVELS

Level area is defined as "a specified surface that does not have a slope in any direction exceeding 1/4 inch in one foot from the horizontal (2.083% gradient)."

1. In building and facilities, floors of a given story shall be a common level throughout, or shall be connected by pedestrian ramps, passenger elevators, or special access lifts.
2. Ground and floor surfaces along accessible routes and in accessible rooms and spaces, including floors, walk, ramps, stairs, and curb ramps, shall be stable, firm, and slip-resistant.
3. Change in level up to 1/4 inch may be vertical and without edge treatment.
4. Change in level between 1/4 inch and 1/2 inch shall be beveled with a slope no steeper than 1:2.
5. If carpet or carpet tile is used on a ground or floor surface, it shall be securely attached; have a firm cushion, pad or padding or no cushion or pad; and have a level loop, textured loop, level cut pile, or level cut/uncut pile texture. The maximum pile height shall be 1/2 inch. Exposed edges of carpet shall be fastened to floor surfaces and have trim along the entire length of the exposed edge. Carpet edge trim shall comply with Section 11B-303.
6. If gratings are located on floors, then they shall have spaces no greater than 1/2 inch wide in one direction. If gratings have elongated openings, they shall be placed so that the long dimension is perpendicular to the dominant direction of travel.

CONTROLS AND OPERATING MECHANISMS

1. Controls and operating mechanisms in accessible spaces, along accessible routes or as part of accessible elements are required to be accessible.
2. Clear floor space complying with Section 11B-305 that allows a forward or parallel approach by a person using a wheelchair shall be provided at controls, dispensers, receptacles, and other operable equipment.
3. The highest and lowest operable part of all controls, dispensers, receptacles, and other operable equipment shall be placed within one of the reach ranges specified in Section 11B-308. Electrical and communication system receptacles on walls shall be mounted no less than 15 inches above the floor.
4. Controls and operating mechanisms shall be operable with one hand and shall not require tight grasping, punching, or twisting of the wrist. The force required to activate controls shall be no greater than 5 pounds of force.
5. For accessible lavatories, faucet controls and operating mechanisms shall be operable with one hand and shall not require grasping, pinching, or twisting of the wrist. The force required to activate faucet controls and operating mechanisms shall be no greater than 5 lbs. Lever-operated, push-type, and electronically controlled mechanisms are examples of acceptable designs. Self-closing valves are allowed if the faucet remains open for at least 10 seconds.

SPACE ALLOWANCE AND REACH RANGES

1. The minimum clear floor or ground space required to accommodate a single, stationary wheelchair and occupant is 30 inches by 48 inches. The minimum clear floor or ground space for wheelchairs may be positioned for forward or parallel approach to an object. Clear floor or ground space for wheelchairs may be a part of the knee space required under some objects.
2. One full-unobstructed side of the clear floor or ground space for a wheelchair shall adjoin or overlap an accessible route or adjoin another wheelchair clear floor space. If a clear floor or grounds space is located in an alcove or otherwise confined on all or part of three sides, additional maneuvering clearances shall be provided in accordance with Sections 11B-305.7.1 & 11B-305.7.2.
3. The space required for a wheelchair to make a 180-degree turn is a clear space of 60" diameter per Section 11B-304.3.1 or a T-shaped space per Section 11B-304.3.2.
4. The minimum clear width required for a wheelchair to turn around an obstruction shall be 36 inches where the obstruction is 48 inches or more in length and 42 inches and 48 inches where the obstruction is less than 48 inches in length.
5. The minimum clear width for single wheelchair passage shall be 32 inches minimum for a distance of 24 inches max., and 36 inches continuously per Section 11B-403.5.
6. The minimum width for two wheelchairs to pass is 60 inches.
7. If the clear floor space only allows forward approach to an object, the maximum high forward reach allowed shall be 48 inches. The minimum low forward reach is 15 inches. See Figure 11B-308.2.1. If the high forward reach is over an obstruction, reach and clearance shall be as shown in Figure 11B-308.2.2.
8. If the clear floor space only allows parallel approach by a person in a wheelchair, the maximum high side reach allowed shall be 48 inches and the low side reach shall be no less than 15 inches above the floor as shown in Figure 11B-308.3.1. If the side reach is over and obstruction, the reach and clearances shall be as shown in figure 11B-308.3.2.

16. Where the ramp surface is not bounded by a wall, the ramp shall comply with the following requirement:
- a) A guide curb a minimum of 2 inches in height shall be provided at each side of the ramp.
17. In existing buildings where the extension of the handrail in the direction of the ramp run would create a hazard, the extension may be turned 90 degrees to the run of the ramp.
18. Ramps more than 30" above the adjacent ground shall be provided with guards that comply with Section 1013. Such guard shall be continuous from the top of the ramp to the bottom of the ramp.

ENTRANCES AND EXITS

1. All entrances and exterior ground floor exit doors to buildings and facilities all be made accessible to persons with disabilities
2. During periods of partial or restricted use of a building or facilities, the entrances used for primary access shall be accessible to and usable by persons with disabilities.
3. Recessed doormats shall be adequately anchored to prevent interference with wheelchair traffic.
4. Every required exit doorway shall be capable of opening at least 90 degrees, shall have a minimum clear opening of 32 inches, and shall be of a size as to permit the installation of a door not less than 3 feet in width and not less than 6'-6" in height.

DOORS

1. Door handles pulls, latches, locks and other operating devices on doors required to be accessible shall not require tight grasping, tight pinching or twisting of the wrist to operate. Manually operated bolts or surface bolts are not permitted. The unlatching of any door or leaf shall not require more than one operation.
2. Latching and locking doors that are hand activated and which are in a path of travel shall be operable with a single effort by lever type hardware, by panic bars, push-pull activating bars, or other hardware designed to provide passage without requiring the ability to grasp the opening hardware.
3. Hand-activated door opening hardware shall be centered between 30" and 44" above the floor.
4. When installed, doorways shall have a minimum clear opening of 32 inches with the door open 90 degrees.
5. For hinged doors, the opening width shall be measured with the door positioned at an angle of 90 degrees from its closed position.
6. There shall be a level and clear floor or landing on each side of a door. The level area shall have a length in the direction of door swing of at least 60" and the length opposite the direction of door swing of 48" as measured at right angles to the plane of the door in the closed position. Where the plane of the doorway is offset or located in an alcove a distance more than 8 inches measured from the plane of the doorway to the face of the wall, the door shall be provided with 60" maneuvering clearance for front approach.
7. The width of the level area on the side to which the door swings shall extend 24 inches past the strike edge of the door for exterior doors and 18 inches past the strike edge for interior doors. Where the plane of the doorway is offset 8 or more inches from any obstruction within 18 inches measured laterally on the latch side, the door shall be provided with maneuvering clearance for front approach.
8. Provide clear space of 12" past strike edge of the door on the opposite side to which the door swings if the door is equipped with both a latch and closer.
9. The floor or landing shall be not more than 1/2" lower than the threshold of the doorway.
10. Maximum effort to operate exterior and interior doors shall not exceed 5 pounds, with such pull or push effort being applied at right angles to hinged doors and at the center plane of sliding or folding doors. Compensating devices or automatic door operators may be utilized to meet the above standards. When fire doors are required, the maximum effort to operate the door may be increased to the minimum allowable by the appropriate administrative authority, not to exceed 15 lbf.
11. When the door has a closer, then the sweep period of the closer shall be adjusted so that from an open position of 70 degrees, the door will take at least 3 seconds to move to a point 3" from the latch, measured to the landing edge of the door.

ACCESSIBLE ROUTE OF TRAVEL

1. Accessible Route of Travel is defined as "a continuous unobstructed path connecting all accessible elements and spaces in an accessible building or facility that can be negotiated by a person with a disability using a wheelchair and that is also safe for and usable by persons with other disabilities, and that is consistent with the definition of "Path of Travel".
2. At least one accessible route shall connect accessible building or facility entrances with all accessible spaces and elements.
3. When a building or portion of a building is required to be accessible or adaptable, an accessible route of travel complying with "11B/Division 4: Accessible Routes" shall be provided to all portions of the building, to accessible building entrances, and between the building and the public way.

RAMPS (EXTERIOR OR INTERIOR)

1. Any path of travel shall be considered a ramp if its slope is steeper than 1 unit vertical in 20 units of horizontal (5 percent slope).
2. The maximum slope of a ramp that serves any exit way, provides access for persons with physical disabilities, or is in the accessible route of travel shall be 1 unit rise in 12 units of horizontal run (8.3 percent gradient). The least possible slope shall be used for any ramp.
3. The cross slope of ramp surfaces shall be no greater than 1:48.
4. Pedestrian ramps shall have a minimum clear width of 48 inches, unless required to be wider by some other provision of this code.
5. Where a pedestrian ramp is the only exit discharge path serving entrances to buildings or when it serves an occupant load of 300 or more, the ramp shall have a minimum clear width of 60 inches.
6. Level landings shall be provided at the top and bottom of each ramp.
7. Top landings shall be not less than 60 inches wide and shall have a length of not less than 60 inches in the direction of ramp run. Landings at the bottom of ramps shall have a dimension in the direction of ramp run of not less than 72 inches.
8. Doors in any position shall not reduce the minimum dimension of the landing to less than 42 inches and shall not reduce the required width by more than 3 inches when fully open.
9. All ramp landings shall be level with maximum slope in any direction not to exceed 1/4" per foot (2.083 percent slope)
10. At bottom and intermediate landings, the width shall be at least the same as required for the ramp.
11. Other intermediate landings shall have a dimension in the direction of ramp run of not less than 60 inches
12. Handrails are required on ramps that provide access if the ramp slope exceeds 1 foot rise in 20 feet of horizontal run (5 percent gradient), except that at exterior door landings, handrails are not required on ramps less than 6 inches rise or 72 inches in length.
13. Handrails shall be placed on each side of each ramp, shall be continuous the full length of the ramp, shall be 34 to 38 inches above the ramp surface to the top of the handrails, shall extend a minimum of 1 foot beyond the top and bottom of the ramp, and shall parallel the floor or ground surface. Handrails shall always be continuous and the ends of handrails shall be either rounded or returned smoothly to the floor, wall or post.
14. The grip portion of handrails shall be not less than 1 1/4" nor more than 2" in cross sectional nominal dimension, or the shape shall provide an equivalent gripping surface, and all surfaces shall be smooth with no sharp corners. Handrails shall not rotate within their fittings.
15. Handrail projecting from a wall shall have a space of 1 1/2" between the wall and the handrail
- a) Handrails may be located in a recess if the recess is
- a
- maximum of 3" deep and extends at least 18 inches above the top of the rail.
- b) Any wall or other surface adjacent to handrails shall be free of sharp or abrasive elements. Edges shall have a minimum radius of 1/8 inch.



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sheet description
ACCESSIBILITY NOTES

date:

1-5-14

2-19-14

2-26-15

3-16-15

4-16-15

5-1-2015

5-21-2015

9-17-2015

11-18-2015

12-30-2015

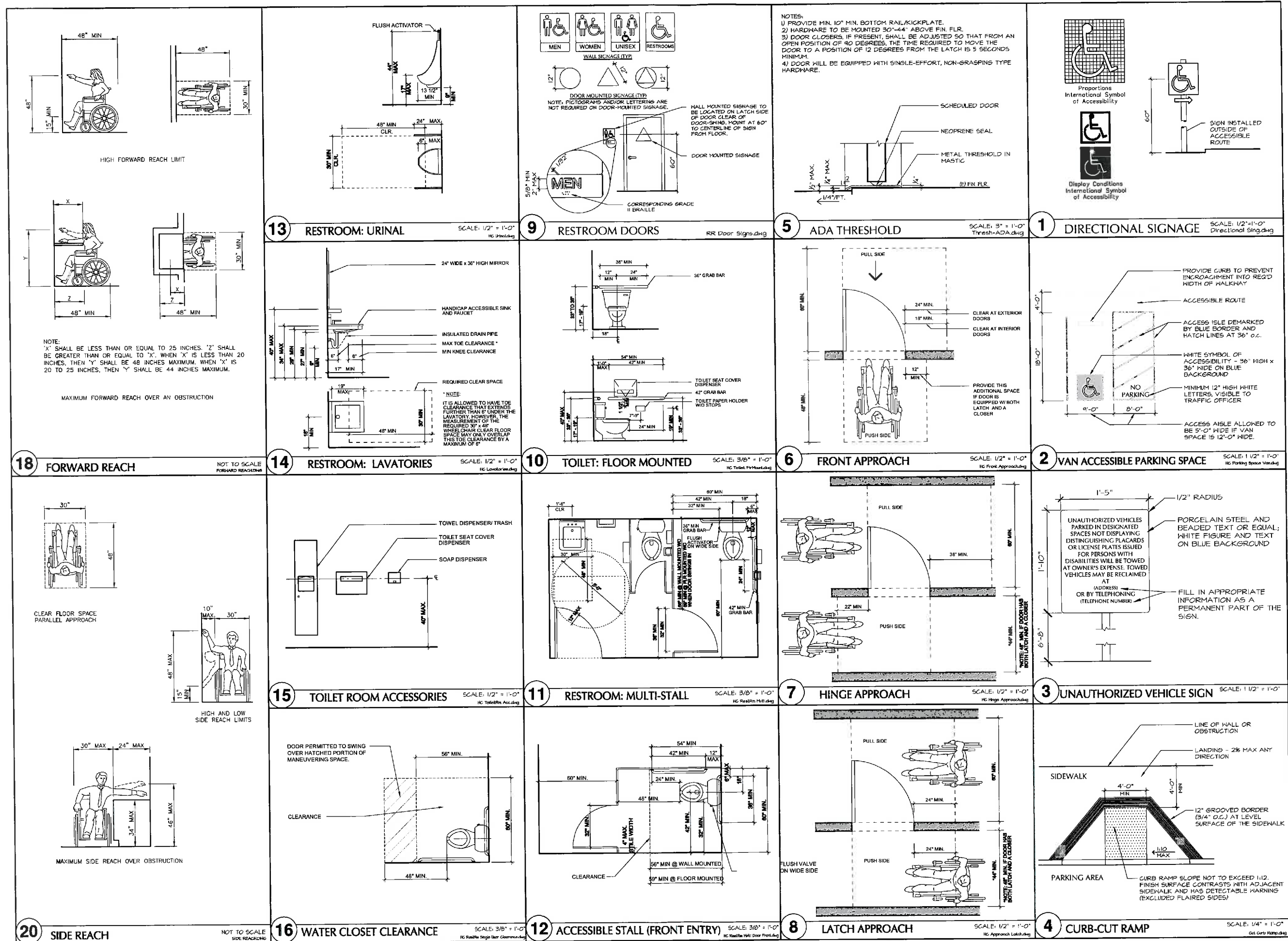
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sheet no:

G-1.0



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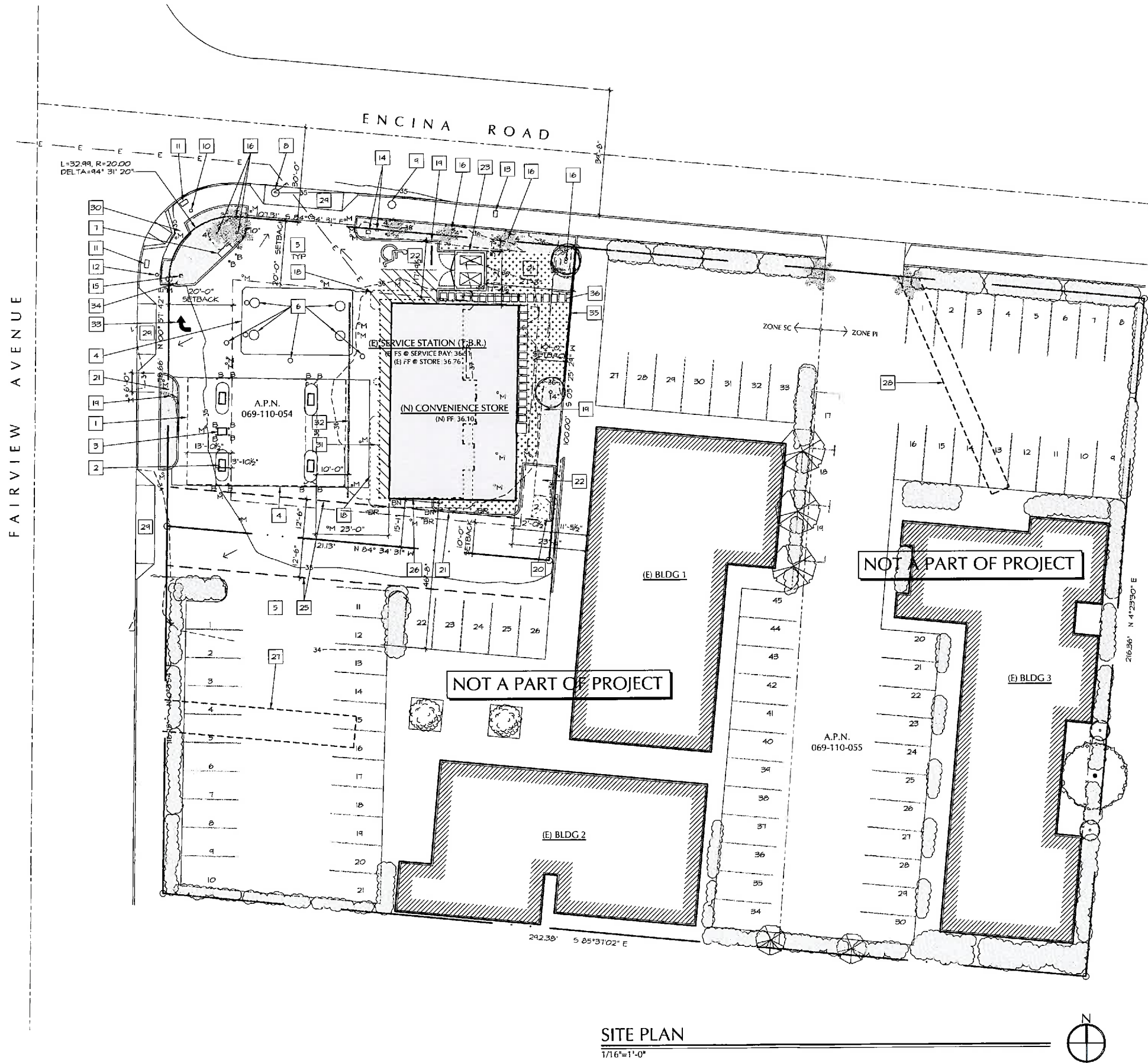
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sheet no:

G-1.1

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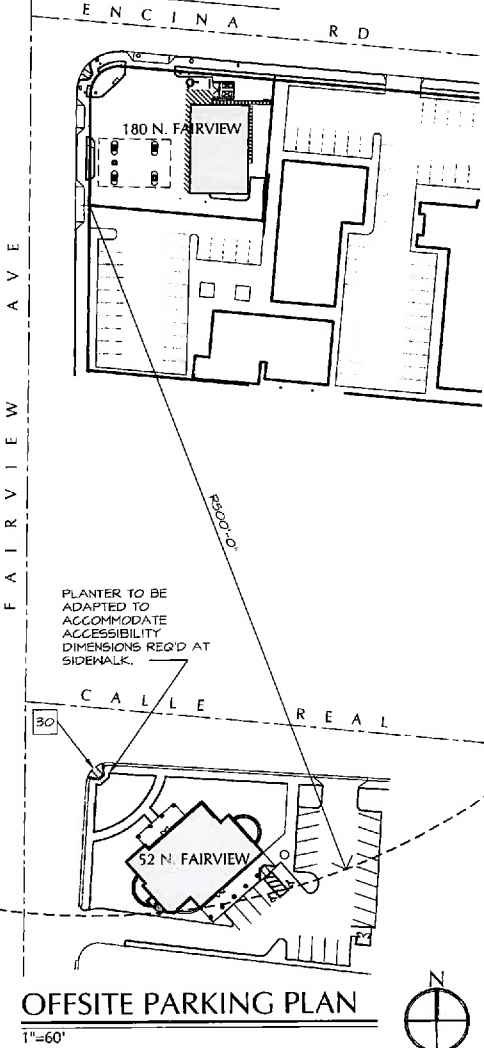
SITE PLAN
1/16"=1'-0"



SITE PLAN NOTES

- KEYNOTES:
- (E) CANOPY.
 - (E) FUEL DISPENSER (TYP OF 4 TOTAL).
 - (E) POINT OF SALE MACHINE.
 - (E) EDGE OF CONCRETE PAD.
 - (E) ASPHALT SURFACE, TYP.
 - (E) FUEL TANK LID.
 - (E) VAPOR BURNER.
 - (E) MANHOLE.
 - (E) STORM DRAIN MANHOLE.
 - (E) CROSS WALK LIGHT POLE.
 - (E) TRAFFIC SIGNAL BOX.
 - (E) TRAFFIC SIGNAL POLE.
 - (E) WATER METER.
 - (E) IRRIGATION CONTROLS.
 - (E) SIGN POLE.
 - (E) TREE, COORDINATE W/ LANDSCAPE PLAN FOR STATUS.
 - (E) PARKING SPACE.
 - (E) CONCRETE CURB/WALK TO BE REMOVED.
 - (E) CONCRETE PLANTER EDGE TO BE REMOVED.
 - (E) SHED TO BE REMOVED.
 - (N) PLANTER AREA OF ADDITIONAL LANDSCAPING. NOTE: AT PLANTER ADJACENT TO BLDG, ROOF WATER TO BE COLLECTED AND DISPERSED IN THIS AREA WHERE FEASIBLE. SEE LANDSCAPE PLANS BY OTHER.
 - NEW PARKING SPACE.
 - NEW COVERED TRASH ENCLOSURE.
 - STANDARD AUTO TURNING RADIUS.
 - LINE OF INGRESS/EGRESS EASEMENT.
 - (E) FOOTPRINT OF BUILDING TO BE REMOVED.
 - 10' SEWER EASEMENT.
 - 6' UTILITY EASEMENT.
 - EXISTING DRIVEWAY ACCESS UPDATED TO BE ADA COMPLIANT. SEE CIVIL.
 - ACCESSIBILITY IMPROVEMENTS TO CORNER/CURB-RAMP. SEE DETAIL 4/G-1.1. ALSO SEE CIVIL DWGS.
 - HATCH INDICATES PATH OF TRAVEL.
 - PAINTED BOUNDARY LINE; PUMP PARKING LIMIT.
 - PAINTED "RIGHT TURN ONLY" ARROW DESIGNATION.
 - RIGHT TURN ONLY SIGN.
 - FENCE TO BE REMOVED.
 - PAVERS, SEE LANDSCAPE PLAN.

- LEGEND:
- INDICATES EXISTING LANDSCAPING
 - INDICATES AREA OF NEW LANDSCAPING
 - INDICATES DIRECTION OF (E) SHEET FLOW (NO CHANGE PROPOSED)
 - INDICATES (E) MAJOR CONTOUR
 - INDICATES (E) MINOR CONTOUR
 - INDICATES EXISTING MONITORING WELL
 - INDICATES EXISTING METAL BOLLARD
 - INDICATES BOLLARD TO BE REMOVED
 - INDICATES NEW BOLLARD



OFFSITE PARKING PLAN
1"=60'

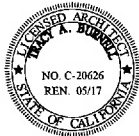


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sheet description
SITE PLAN

date:
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5-21-2015
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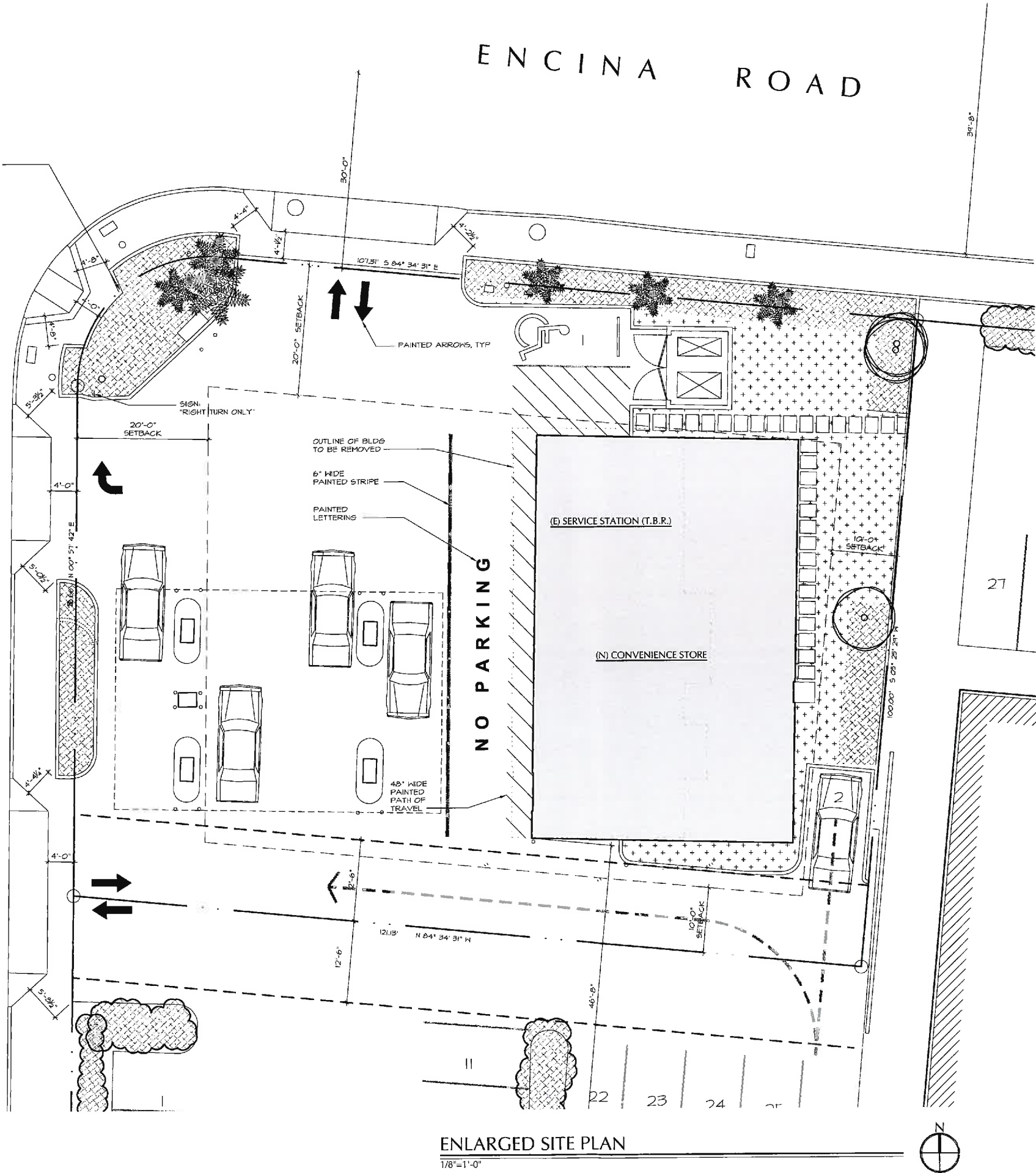
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A.1

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FAIRVIEW AVENUE

L=32.89, R=20.00
DELTA=44° 31' 20"



ENLARGED SITE PLAN
1/8"=1'-0"

SITE PLAN NOTES:

1. THIS PLAN IS FOR ARCHITECTURAL REFERENCE. SEE CIVIL PLANS FOR SPECIFIC GRADING AND DRAINAGE INFORMATION.
2. SEE SITE PLAN, SHEET A.1 FOR NOTES AND INFORMATION.



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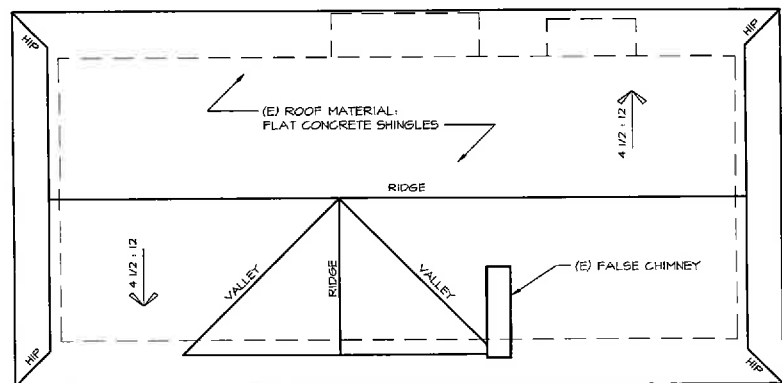


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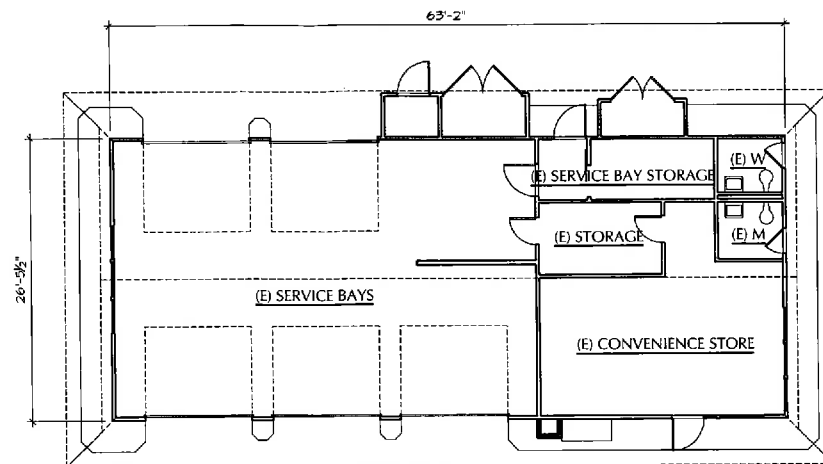
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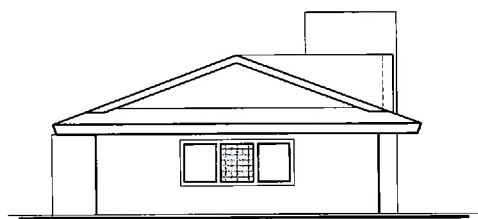
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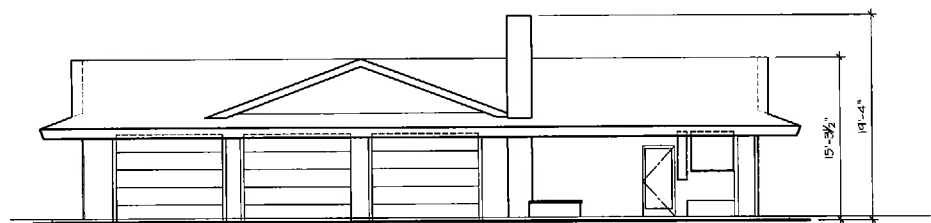
(E) ROOF PLAN
1/8"=1'-0"



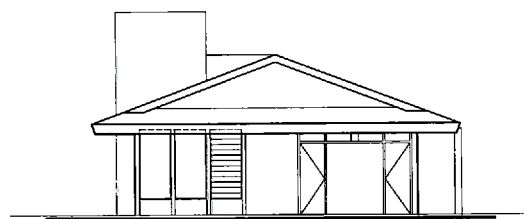
(E) FLOOR PLAN/DEMO PLAN
1/8"=1'-0"



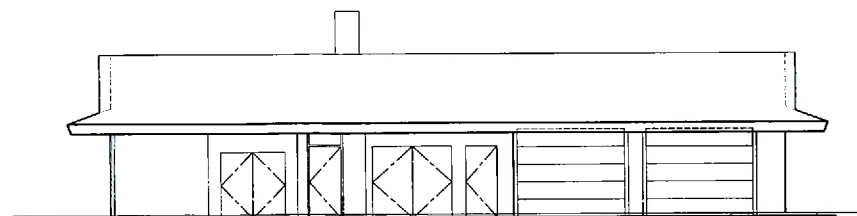
(E) SOUTH ELEVATION
1/8"=1'-0"



(E) WEST ELEVATION
1/8"=1'-0"



(E) NORTH ELEVATION
1/8"=1'-0"



(E) EAST ELEVATION
1/8"=1'-0"



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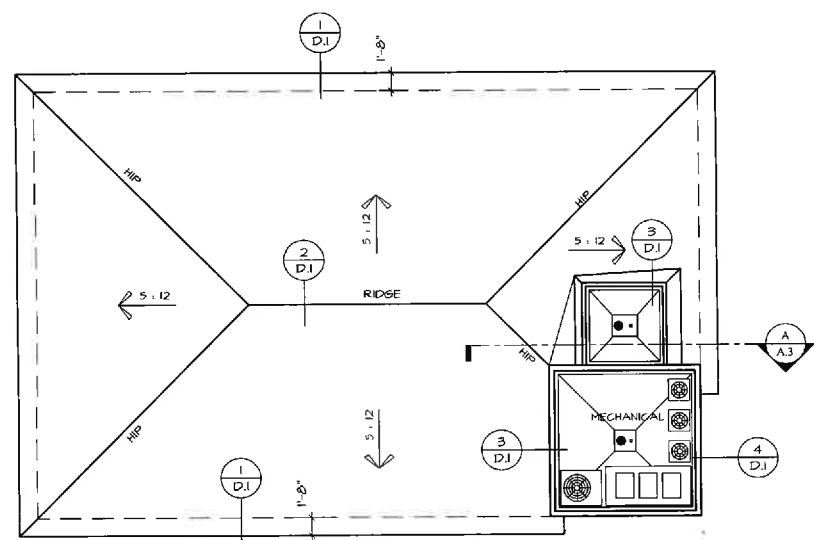


sheet description
EXISTING PLANS & ELEVS

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1-5-14
2-19-14
2-26-15
3-16-15
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5-21-2015
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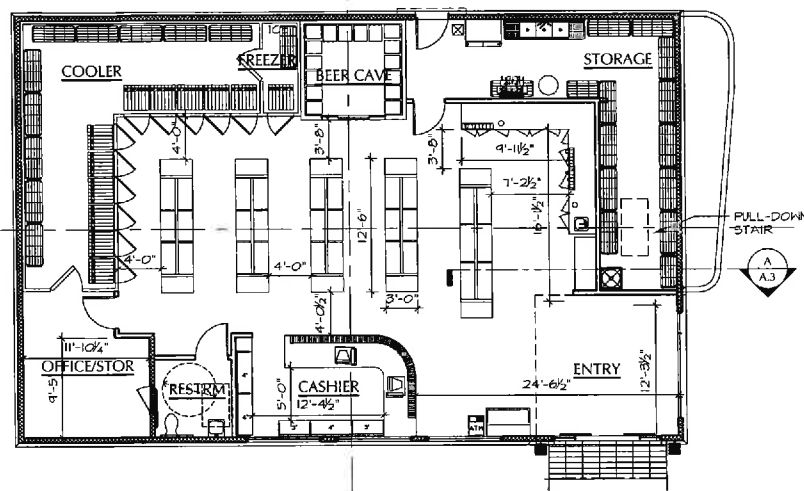
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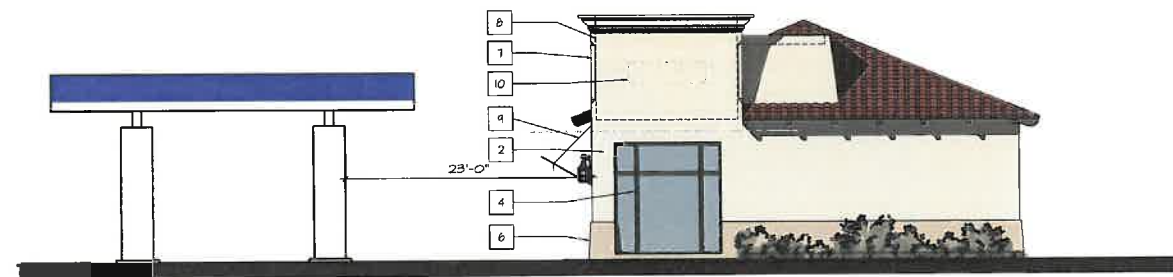
ROOF PLAN

1/8"=1'-0"



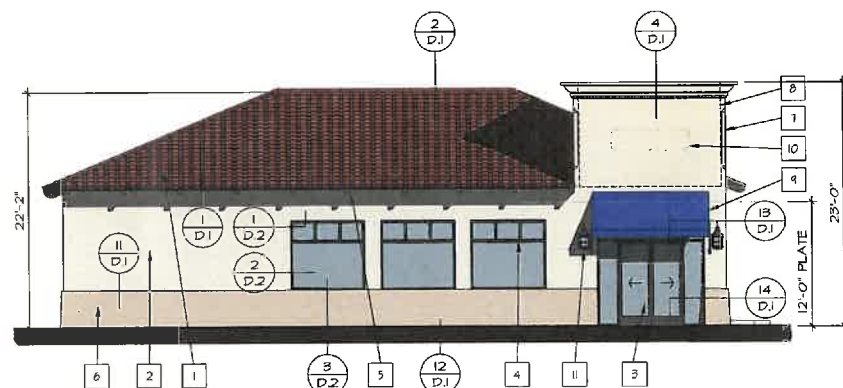
FLOOR PLAN

1/8"=1'-0"



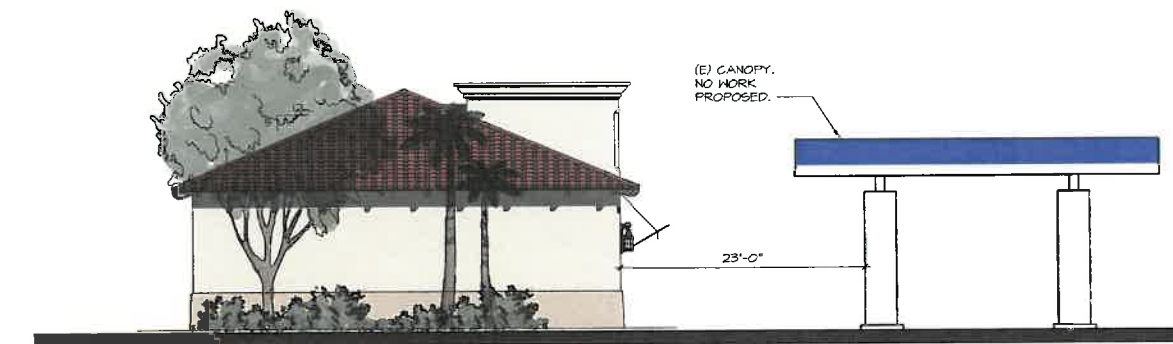
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1/8"=1'-0"



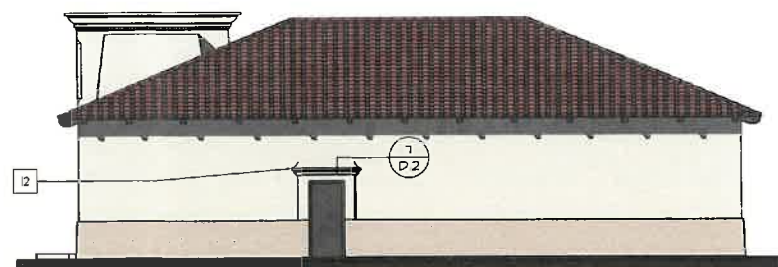
WEST ELEVATION

1/8"=1'-0"



NORTH ELEVATION

1/8"=1'-0"



EAST ELEVATION

1/8"=1'-0"

FLOOR PLAN NOTES:

WALL LEGEND:

- INDICATES EXISTING WALL
- INDICATES WALL TO BE REMOVED
- INDICATES NEW 4" METAL STUD WALL
- INDICATES NEW 6" METAL STUD WALL
- INDICATES NEW 8" CMU WALL

FLOOR AREA:

| | |
|-----------------------------------|----------|
| EXISTING SERVICE STATION (GROSS): | 1,619 SF |
| AREA OF ADDITION (GROSS): | 277 SF |
| TOTAL AFTER ADDITION: | 2,396 SF |

ROOF PLAN NOTES:

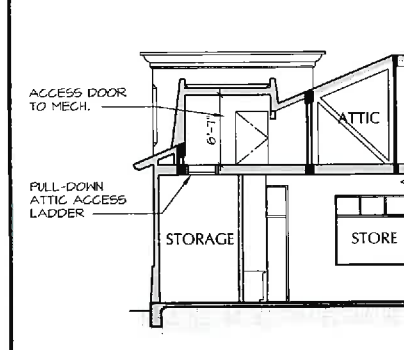
1. ROOF MATERIAL: CONCRETE S-TILE (MATCH ADJACENT BLDGS)
2. SEE ROOF PLAN FOR PITCH.
3. GUTTERS & DOWNSPOUTS TO BE LOCATED AS SHOWN.
4. TRASH ENCLOSURE ROOF: 7/8" CORRUGATED METAL

ELEVATION KEYNOTES

1. ROOF: CLASS 'A' S-TILE (MATCH ADJACENT BUILDINGS). MFR: BORAL STYLE: BARCELONA CLIFFSIDE
2. WALLS: 3/4" EXTERIOR PLASTER w/ SMOOTH FINISH w/ WEATHER BARRIER/ATH.
3. DOORS: ALUMINUM STOREFRONT. COLOR: DARK BRONZE.
4. WINDOWS: ALUMINUM STOREFRONT. COLOR: DARK BRONZE.
5. RAFTER TAILS: WOOD.
6. WAINSCOT: PLASTER. (SEE WALLS)
7. CHAMFERED CORNER
8. MECHANICAL EQUIPMENT WELL
9. CANVAS AWNING w/ BLACK WROUGHT IRON SPEARS. SEE 104D.1
10. PROPOSED AREA FOR FUTURE SIGN
11. EXTERIOR ENTRY LIGHT. SEE 204D.1
12. PLASTER EYEBROW/DOOR SURROUND.

COLORS:

| | |
|----------------------|--------------------------------------|
| WALLS: | BENJAMIN MOORE: MONTEREY WHITE HC-27 |
| WAINSCOT: | BENJAMIN MOORE: MONROE BISQUE HC-26 |
| RAFTERS & WOODWORK: | BENJAMIN MOORE: CLINTON BROWN HC-67 |
| AWNING: | BLUE PMS 288 (MATCH FUEL CANOPY) |
| TRASH ENCLOSURE: | |
| DOORS, POSTS & ROOF: | MS METAL SALES: ANTIQUE BRONZE |



SECTION

1/8"=1'-0"



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sheet description
PROPOSED PLANS & ELEVS

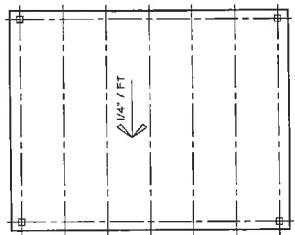
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1-22-2016

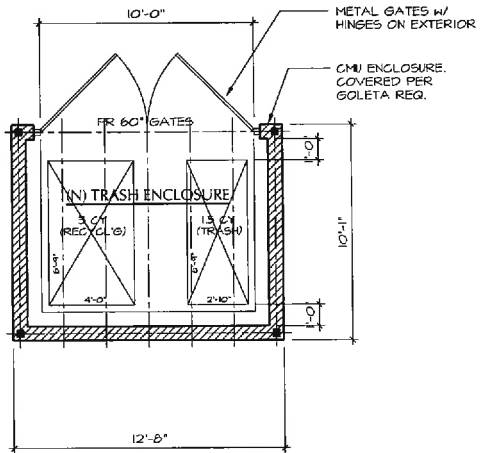
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A.3

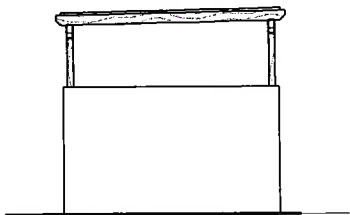
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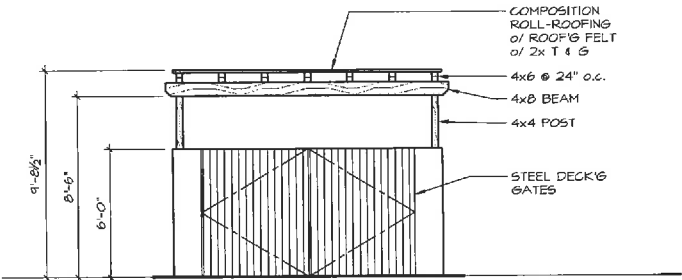
ROOF PLAN
1/4"=1'-0"



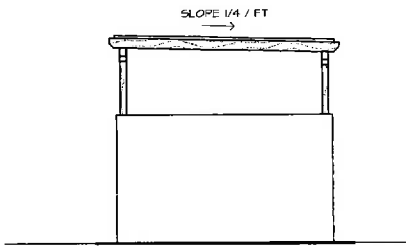
FLOOR PLAN
1/4"=1'-0"



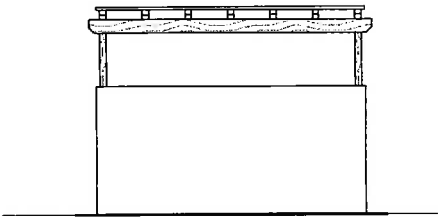
NORTH ELEVATION
1/4"=1'-0"



WEST ELEVATION
1/4"=1'-0"



SOUTH ELEVATION
1/4"=1'-0"



EAST ELEVATION
1/4"=1'-0"



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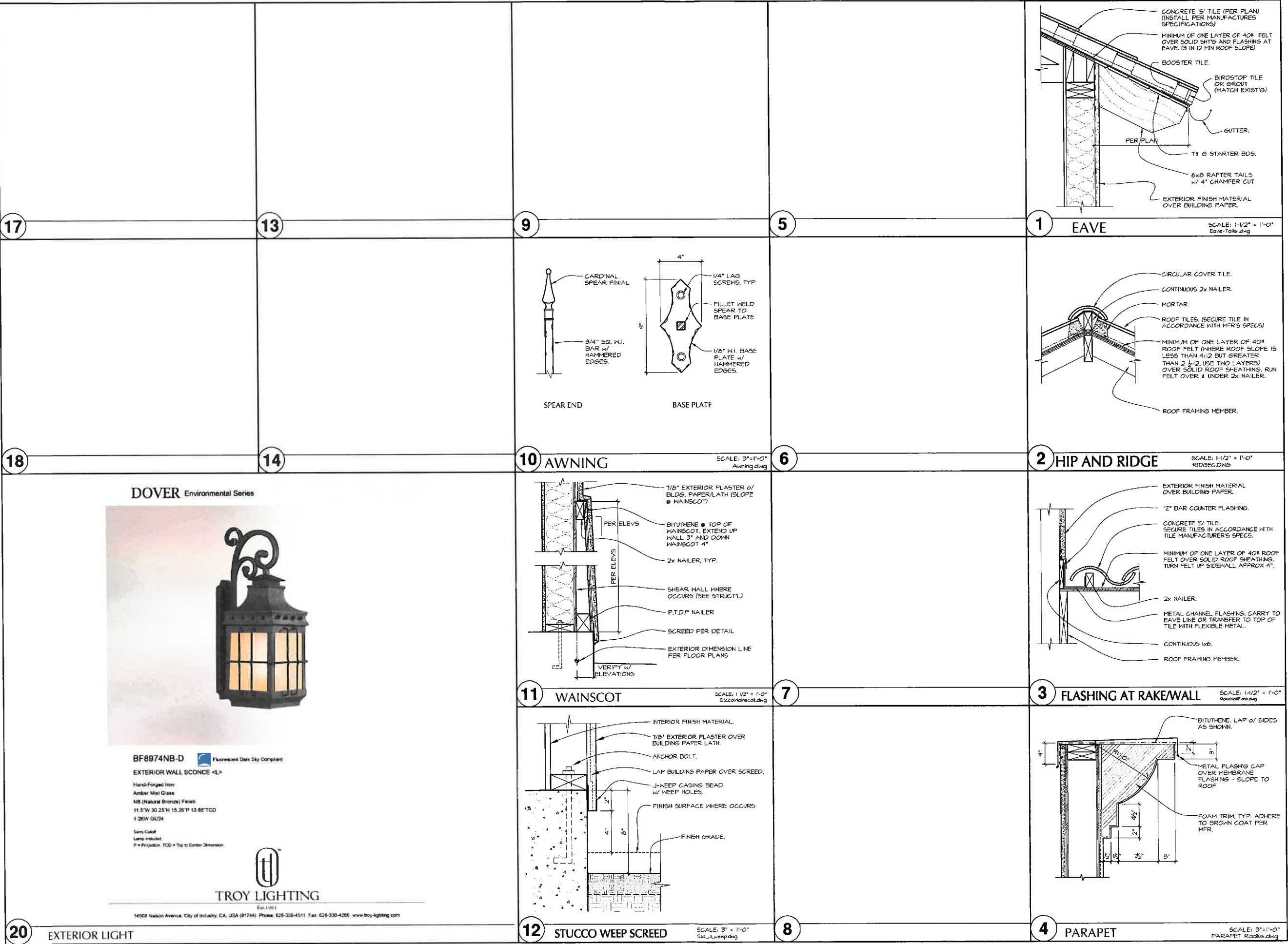
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TRASH ENCLOSURE PLANS

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5-1-2015
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A.4

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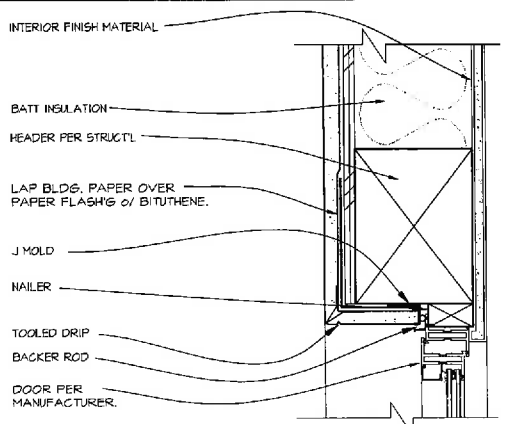
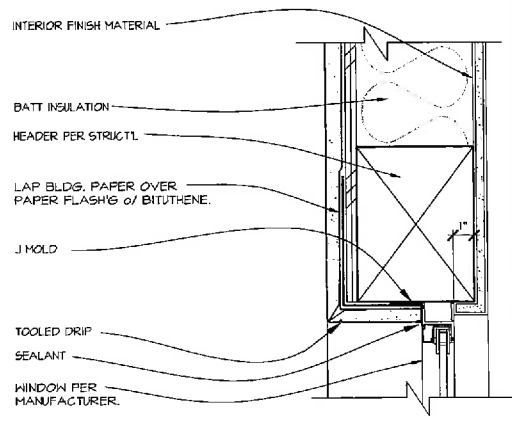
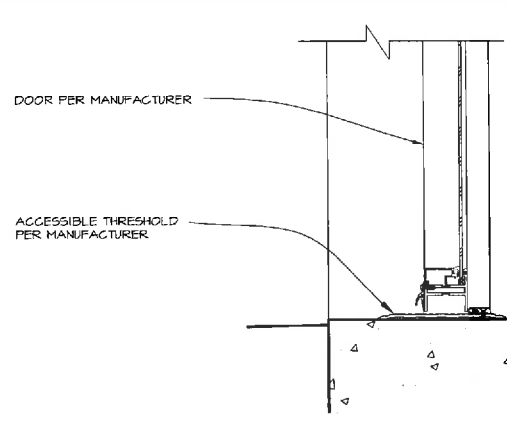
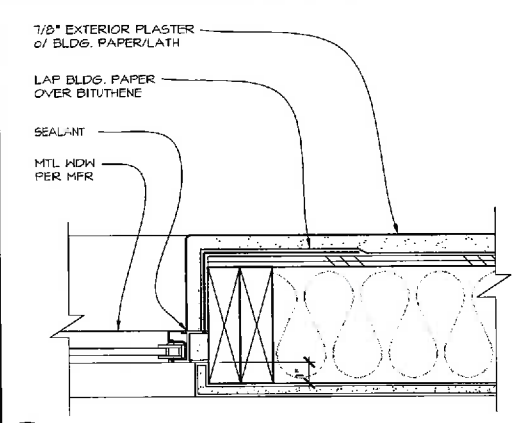
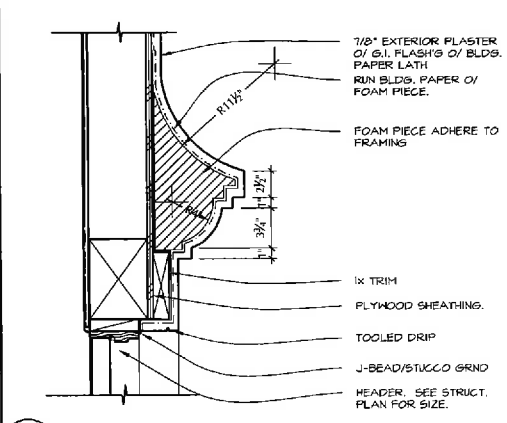
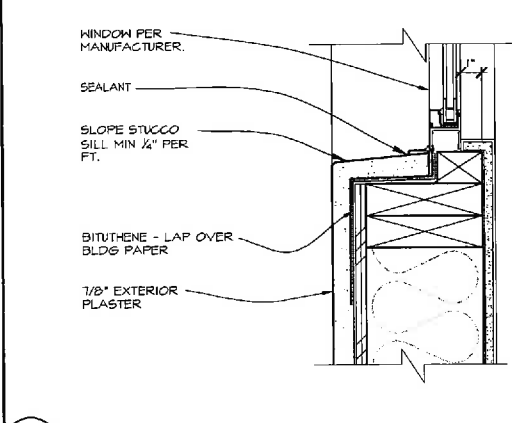
FUEL DEPOT
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sheet description
ARCHITECTURAL DETAILS

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5-21-2015
9-17-2015
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12-30-2015
1-22-2016

sheet no:
D.1

| | | | | |
|----|----|----|---|---|
| | | |  <p>INTERIOR FINISH MATERIAL BATT INSULATION HEADER PER STRUCTL. LAP BLDG. PAPER OVER PAPER FLASHG or BITUTHENE. J MOLD NAILER TOOLED DRIP BACKER ROD DOOR PER MANUFACTURER.</p> <p>SCALE: 3"=1'-0" Stucco-MTL-DOOR-HD REC.dwg</p> |  <p>INTERIOR FINISH MATERIAL BATT INSULATION HEADER PER STRUCTL. LAP BLDG. PAPER OVER PAPER FLASHG or BITUTHENE. J MOLD TOOLED DRIP SEALANT WINDOW PER MANUFACTURER.</p> <p>SCALE: 3"=1'-0" Stucco-MTL-WDN-HD REC.dwg</p> |
| 17 | 13 | 9 | 5 DOOR HEAD | 1 WINDOW HEAD |
| 18 | 14 | 10 |  <p>DOOR PER MANUFACTURER ACCESSIBLE THRESHOLD PER MANUFACTURER.</p> <p>SCALE: 3"=1'-0" Stucco-MTL-DOOR-THRESH.dwg</p> |  <p>1/8" EXTERIOR PLASTER or BLDG. PAPER/LATH LAP BLDG. PAPER OVER BITUTHENE SEALANT MTL WDN PER MFR.</p> <p>SCALE: 3"=1'-0" Stucco-MTL-WDN-JMB REC.dwg</p> |
| 19 | 15 | 11 |  <p>1/8" EXTERIOR PLASTER or G.I. FLASHG or BLDG. PAPER/LATH RUN BLDG. PAPER or FOAM PIECE. FOAM PIECE ADHERE TO FRAMING 1x TRIM PLYWOOD SHEATHING TOOLED DRIP J-BEAD/STUCCO GRND HEADER. SEE STRUCT. PLAN FOR SIZE.</p> <p>SCALE: 1 1/2"=1'-0" Door Eyebrow.dwg</p> |  <p>WINDOW PER MANUFACTURER. SEALANT SLOPE STUCCO SILL MIN 1/4" PER FT. BITUTHENE - LAP OVER BLDG PAPER 1/8" EXTERIOR PLASTER</p> <p>SCALE: 3"=1'-0" Stucco-MTL-WDN-SILL.dwg</p> |
| 20 | 16 | 12 | 7 DOOR EYEBROW | 3 WINDOW SILL |
| | | | 8 | 4 |



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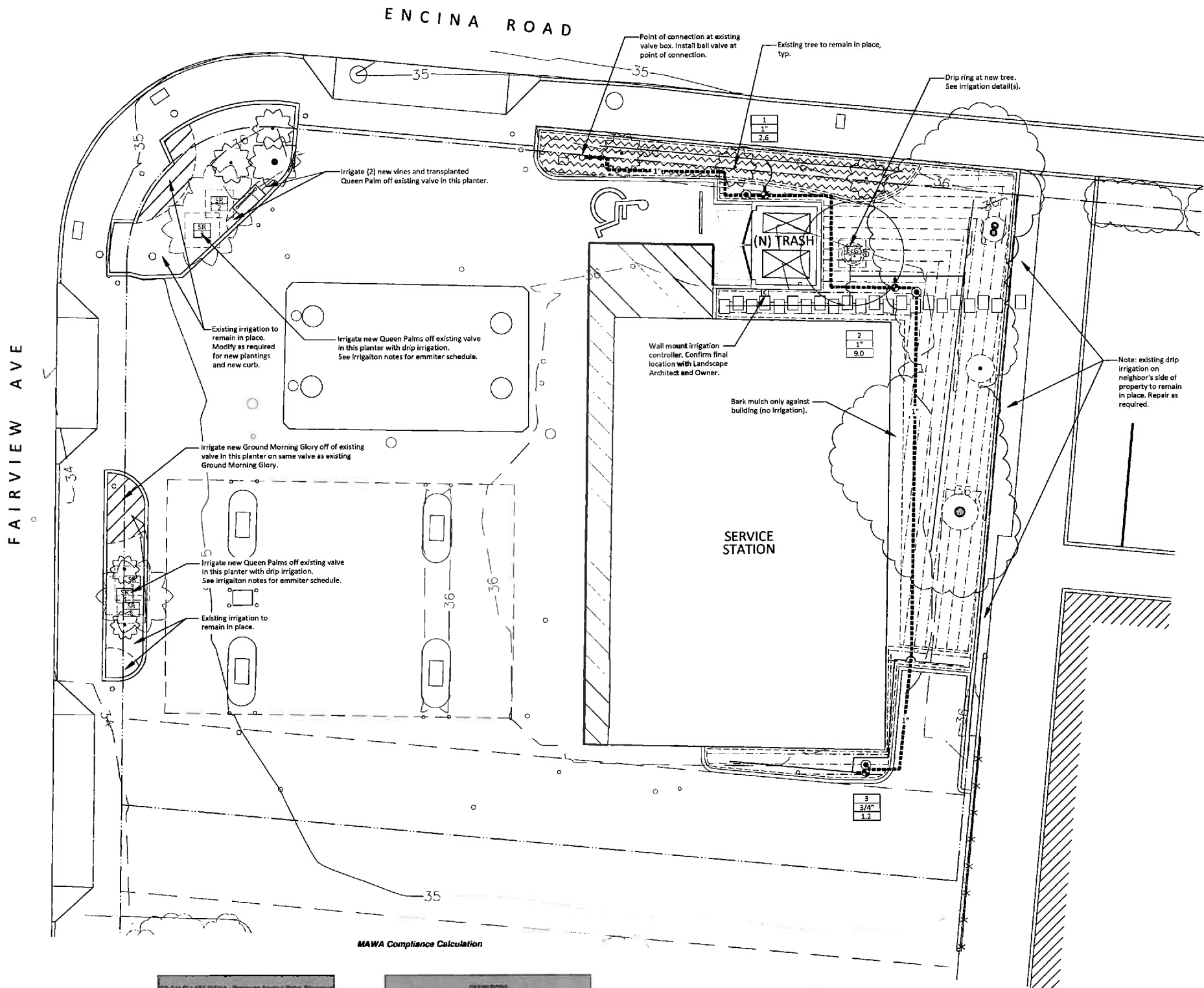
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sheet description
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5-1-2015
5-21-2015
9-17-2015
11-18-2015
12-30-2015
1-22-2016
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sheet no:
D.2



MAWA Compliance Calculation

| TO CALCULATE MAWA - Maximum Allowed Water Allowance | |
|---|--------|
| ET ₀ | 48.1 |
| ET ₁ | 2,295 |
| ET ₂ | 0 |
| MAWA (GROSS) | 47,850 |
| MAWA (NET) (see Note 1) | 33.5 |
| MAWA (GROSS) (see Note 2) | 0.09 |

Maximum Applied Water Allowance Equation:
 $MAWA = (ET_0 + 0.62) [(0.7 \times LA) + (0.3 \times SLA)]$

| TO CALCULATE ET ₀ - Estimated Total Water Use | |
|--|--------|
| ET ₀ | 48.1 |
| ET ₁ (see Note 1) | 2,295 |
| ET ₂ (see Note 2) | 0 |
| ET ₀ (GROSS) | 29,256 |
| ET ₀ (NET) (see Note 1) | 20.4 |
| ET ₀ (GROSS) (see Note 2) | 0.06 |

Estimated Total Water Use Equation:
 $ETW_1 = ET_0 + 0.62 [(0.7 \times HAV) + (0.3 \times SLA)]$

| To Determine Average System "W" (see Note 1) | |
|--|--|
| H.I. | Type |
| 1 | ET ₀ Water Use (see Note 1) |
| 2 | ET ₁ Water Use (see Note 1) |
| 3 | ET ₂ Water Use (see Note 1) |
| 4 | ET ₀ Water Use (see Note 1) |
| 5 | ET ₁ Water Use (see Note 1) |
| 6 | ET ₂ Water Use (see Note 1) |
| 7 | ET ₀ Water Use (see Note 1) |
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| 98 | ET ₁ Water Use (see Note 1) |
| 99 | ET ₂ Water Use (see Note 1) |
| 100 | ET ₀ Water Use (see Note 1) |

Average System IE (IE) is a derivative of DU defined as:
IE = DU x IME Where IME = Irrigation Management Efficiency

Does ETW₀ Exceed? Yes - ETW₀ Does Not Exceed Maximum Allowed

Irrigation Equipment Legend

| Symbol | Item | MFR | Model | Notes |
|-----------|---------------------------------------|--------------|--|---|
| Not Shown | Air Vacuum Relief Valve | Rainbird | AR valve kit | Install in 6" round valve box at the high point of each planter. Multiple ARV's shall be required per RCV. Verify quantity. |
| ▶▶ | Ball Valve | Spears | True Union I-2000 | Match line size. |
| □ | Controller with Weather Station | Weathermatic | SL1600 Smartline controller with Smartline Aircard (flow version) and SLW5 Smartlink wireless weather station. Provide additional expansion modules as required to connect all valves on site. | Exterior wall mount. Mount weather station to building eave where open to sky in non visible location. |
| Not Shown | Direct burial irrigation wire | N.A. | Irrigation control wire #12UF AWG direct burial (U.L. approved). | |
| Not Shown | Drip Emitters (pressure compensating) | Toro | 1.0 and 2.0 GPH | |
| ⊙ | Drip Valve Assembly | Rainbird | XCZ-075-PRF and XCZ-100-PRB-COM | Valve size per plan. |
| --- | Dripline | Dura-Pol | 5/8" Polyethylene tubing. | Stake every 6'. |
| Not Shown | Flush End Valve | AG Products | 5/8" Polyethylene tubing. | Install in round valve box with gravel fill. |
| --- | Lateral Line | Lasco | Schedule 40 PVC | |
| --- | Mainline | Lasco | Schedule 40 PVC mainline (1-1/4" and under), Class 315 PVC (1-1/2" and above). | |
| ⊙ | Quick Coupling Valve | Rainbird | SLRC: 1" locking rubber cover, 1 piece body. | |
| Not Shown | Spin Loc Tee | AG Products | SST "Spin-loc" tee or ell fitting for connection between PVC lateral lines and drip tubing. | |
| --- | Subterranean Dripline | Hunter | Eco-Mat, 0.6 GPH emitters @ 12" O.C. | Install dripline 5" below grade. |
| Not Shown | Xeri Bubbler | Rainbird | SXB-360-025 Xeri-Bubbler, fully open. | See irrigation notes for quantities. |
| 2 | Valve # | | | |
| 1" | Valve size | | | |
| 2.3 | Gallons Per Minute | | | |

Note: existing water meter, backflow preventer, and pressure regulator to remain in place. Landscape contractor shall test all existing irrigation equipment and report any existing irrigation equipment that needs to be replaced or repaired to Landscape Architect.

Irrigation Notes:

- See Irrigation legend for complete descriptions of all symbols shown on irrigation plan.
- Point of connection is at the approximate location shown on plan.
- Install all valves in locking plastic valve boxes in groundcover areas. Install one valve per box. Identify locations and flag on site for Landscape Architect's approval BEFORE excavating for installation.
- Install irrigation system in accordance with manufacturer's specifications, irrigation details, and local codes.
- Indicated pipe locations are schematic. Do not place pipe under paving except where absolutely necessary. Coordinate pipe installation with other trades.
- All piping installed under paving, through walls or footings must be placed inside Schedule 40 PVC sleeves of adequate size to allow free movement of the pipe in the sleeve. All pipe runs in sleeves must be straight, with no bends or angles.
- Locate irrigation controller at approximate location shown on plan. 110-v-j-box by others. Obtain Landscape Architect's approval of location before installing.
- Emitters shall be located on grade and staked a maximum of 6" (six inches) from the center of the plant, or at edge of rootball, whichever is greater.
- Install flush end valves at the ends of all 1/2" polyethylene drip tubing in round valve boxes with gravel fill.
- Install irrigation lines at the following minimum depths:
 - schedule 40 and class 315 PVC mainline: 18" minimum cover
 - schedule 40 PVC lateral line: 12" minimum cover
 - 1/2" polyethylene drip tubing: place on grade with stakes @ 6' O.C.
 - subterranean drip line: install 5" below finish grade per manufacturer's specifications.
 - 1/2" polyethylene micro-tubing: place on grade
 - **Install all rigid pipe as near to edges of planting areas, to avoid conflict with large plants.
- Emitter layout:
 - 4" pot or flatted groundcover: 1 - 1 GPH emitter per plant (flatted groundcover can be watered with microspray emitters).
 - 1 gallon shrub: 2 - 1 GPH emitters per plant.
 - 5 gallon shrub: 2 - 2 GPH emitters per plant.
 - 15 gallon shrubs/trees: 3 - 2 GPH emitters per plant.
 - 24" box tree and palm trees: 3 - Rainbird SXB-360-025 Xeri-Bubblers, fully open.
- In the event of discrepancies in irrigation equipment count, quantities indicated by symbols on the plan prevail.
- In vicinity of existing trees, use discretion to route lateral lines and mainline as necessary to avoid root damage. Under canopies of existing trees, excavate using hand tools, and route pipe under roots with a minimum 4" clearance. Do not cut roots larger than 2" (two inches) in diameter, unless approved by the Landscape Architect.
- Install and adjust all heads and emitters to prevent water contact with all built elements.
- Adjust all heads and emitters to minimize overspray onto paved areas.
- Install check valves at the low end of all irrigation lines to prevent low head drainage.

Lateral Line Pipe Sizing Guidelines:

Schedule 40 lateral line

| | |
|------------|--------|
| 0-4 gpm | 1/2" |
| 5-10 gpm | 3/4" |
| 11-16 gpm | 1" |
| 17-26 gpm | 1-1/4" |
| 27-35 gpm | 1-1/2" |
| 36-50 gpm | 2" |
| 51-80 gpm | 2-1/2" |
| 81-120 gpm | 3" |



FUEL DEPOT
180 North Fairview Ave.

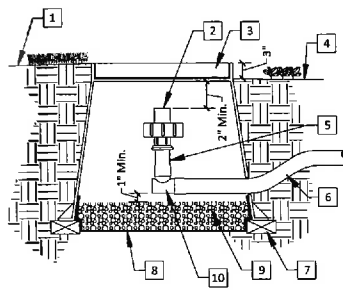
IRRIGATION PLAN

Date/ Issue

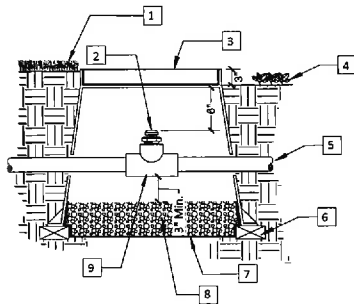
2015.11.23 DRB Submittal

Sheet 1 of 6

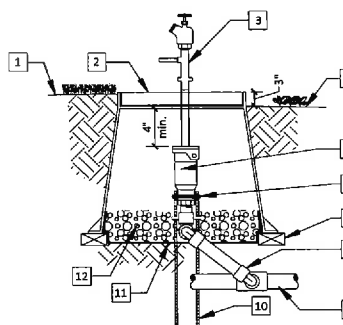
LI-1



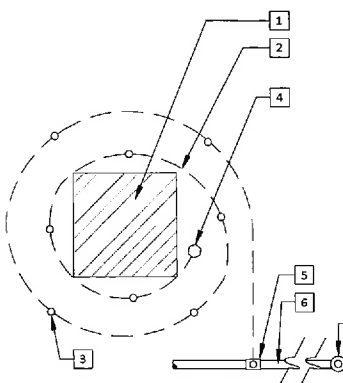
10 DRIP FLUSH VALVE
Scale: 1"=1'-0"



11 DRIP AIR RELIEF VALVE
Not to Scale

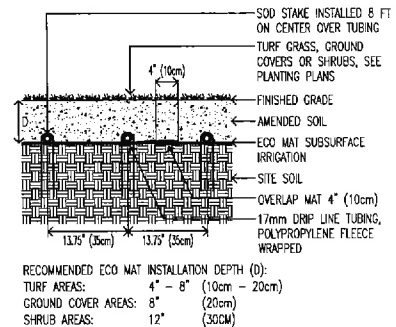


12 QUICK COUPLER VALVE
Not to Scale



13 TREE DRIP RING LAYOUT
Scale: 1"=1'-0"

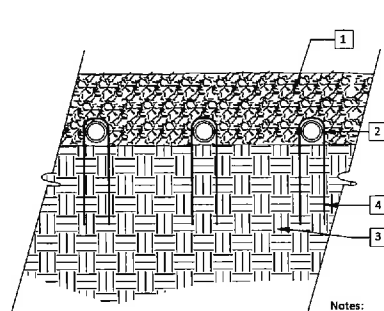
- 1 Finish grade, turf areas.
- 2 Toro FCH-H with DL200 automatic flush valve with DL-75MA-9153 3/4" male adapter.
- 3 Plastic round valve box, 6" size. Heat brand "FV" onto lid.
- 4 Finish grade, shrub areas.
- 5 Drip tubing, length as required.
- 6 Drip tubing, sweep down to enter valve box.
- 7 Brick supports.
- 8 Filter fabric.
- 9 Pea gravel, 3" deep.
- 10 Toro barbed ell (DL-E9018).



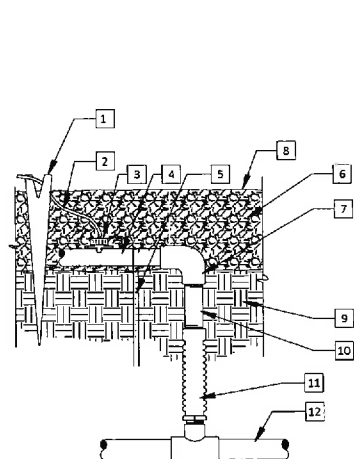
ECO MAT - SECTION

SCALE: N.T.S. Hunter IRRIGATION DETAIL

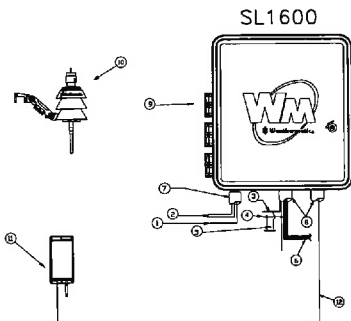
7 HUNTER ECO MAT SUBSURFACE IRRIGATION
Not to Scale



8 DRIPLINE STAKING AND LAYOUT
Not to Scale



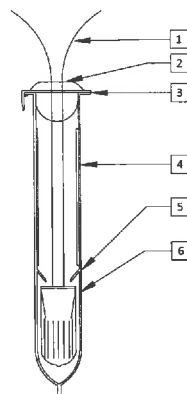
9 EMITTER TO DRIPLINE CONNECTION
Not to Scale



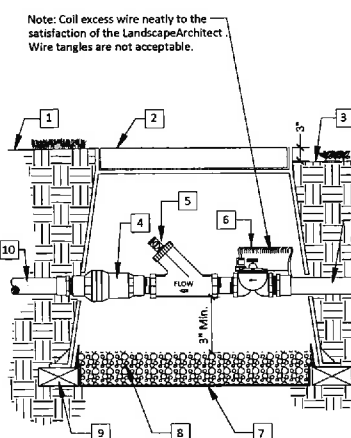
SL1600 SERIES CONTROLLER

NOT TO SCALE

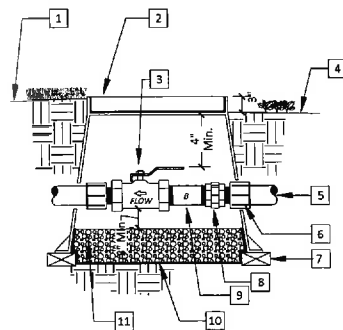
4 WEATHERMATIC SL1600 WALL MOUNT CONTROLLER
Not to Scale



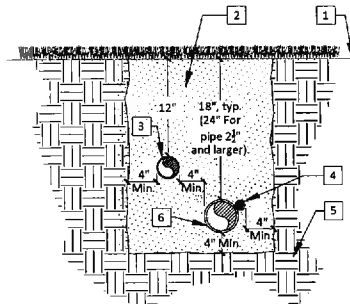
5 WIRE CONNECTION
Not to Scale



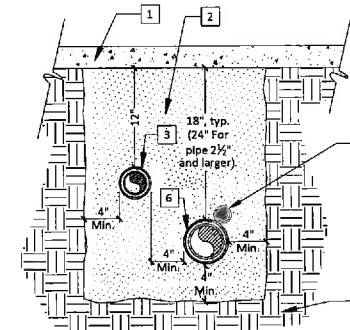
6 DRIP VALVE ASSEMBLY
Not to Scale



1 BALL OR GATE VALVE
Not to Scale



2 PIPE INSTALLATION
Not to Scale



3 PIPE / WIRE SLEEVE INSTALLATION
Not to Scale

- 1 Finish grade in turf areas.
 - 2 Rigid plastic rectangular valve box with bolt down cover. Use stainless bolt, nut and washer. Place box at right angle to edge of pavement. Heat brand "BV" onto lid.
 - 3 Ball or gate valve.
 - 4 Finish grade in shrub areas.
 - 5 Pressure supply line.
 - 6 PVC male adapter.
 - 7 Brick supports.
 - 8 Brass union.
 - 9 Brass nipple.
 - 10 Non-woven filter fabric.
 - 11 Pea gravel, 3" deep.
- Notes:
1. Box to be installed as to allow for proper operation of ball valve. Install valve off-center in box.
 2. Install valve box extensions as required to achieve proper valve installation at mainline depth.

- 1 Finish grade.
- 2 Clean compacted backfill.
- 3 Lateral line.
- 4 Control wire. Tape to mainline @ 4" O.C.
- 5 Undisturbed soil.
- 6 Mainline.

- 1 Paving.
 - 2 Sand backfill compacted to the density of the existing soil.
 - 3 Lateral line in Sch. 40 sleeve.
 - 4 Control wires in Sch. 40 sleeve. Tape to mainline @ 4" O.C.
 - 5 Undisturbed soil.
 - 6 Mainline in Sch. 40 sleeve.
- Note: PVC sleeves to be 2x the diameter of the pipe or wire bundle carried.



105 West De La Guerra Street Unit J
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805.564.5075 www.erinocarroll.com



FUEL DEPOT
180 North Fairview Ave.

IRRIGATION DETAILS

Date/ Issue
2015.11.23 DRB Submittal

Sheet 2 of 6

LI-2

| | |
|---|--|
| SECTION 02810 | |
| IRIGATION | |
| PART 1 - GENERAL | |
| 1.01 RELATED DOCUMENTS | |
| Drawings and general provisions of Contract, including General and Supplementary Conditions and Division -I. Specifications sections, apply to this section. | |
| 1.02 SCOPE OF WORK | |
| Furnish all labor, material, equipment and services necessary to furnish and install the Irrigation System as shown on the Drawings and described herein. | |
| A. Work Specified in this Section: | |
| 1. Automatic Irrigation System including piping, fittings, sprinkler heads and accessories. | |
| 2. Valves, backflow preventer, and fittings. | |
| 3. Controller(s), control wire. | |
| 4. Testing. | |
| 5. Excavating and backfilling Irrigation System Work. | |
| 6. Associated interior and exterior plumbing, and accessories to complete the system. | |
| 7. Pipe sleeves. | |
| B. Related Work Specified in other Sections: | |
| 1. Section 02850 - Landscape Planting | |
| 2. Section 02970 - Landscape Maintenance | |
| C. Definition: The words Landscape Architect as used herein shall refer to the Owner's authorized representative. | |
| 1.03 QUALITY ASSURANCE AND REQUIREMENTS | |
| A. Permits and Fees: Obtain and pay for required permits and inspections. | |
| B. Manufacturer's Directions: Manufacturer's directions and detailed drawings shall be followed in all cases where the requirements of the articles used in this Contract provide direction covering points not shown in the Drawings and Specifications. | |
| C. Ordinances and Regulations: All local, municipal and state laws, rules and regulations governing or relating to any portion of this Work are hereby incorporated into and made a part of these Specifications and Drawings shall take precedence. | |
| D. Explanation of Drawings: | |
| 1. Due to the scale of the Drawings, it is not possible to indicate all offsets, fittings, sleeves, etc., which may be required. The Contractor shall carefully investigate the structural and fielded conditions affecting all of the Work and plan the Work accordingly. Furnishing exact fittings, etc. as may be required to meet such conditions. Drawings are generally diagrammatic and indicative of the Work to be installed. The Work shall be installed in such a manner as to avoid conflicts between irrigation systems and planting and architectural features. | |
| 2. Furnish and install all Work called for on the Drawings by notes or details whether or not specifically mentioned in the Specifications. | |
| 3. Do not install the Irrigation System as shown on the Drawings when it is obvious in the field that obstructions, grade differences or discrepancies in area dimensions exist that might not have been considered in design. Bring such obstructions or differences to the attention of the Landscape Architect. In the event this notification is not performed, the Contractor assumes full responsibility for any action necessary. | |
| 1.04 SUBMITTALS | |
| A. Material List: | |
| 1. Furnish the articles, equipment, materials, or process specified in the Drawings and Specifications. No substitutions will be allowed without approval as required by Division -I "Product Substitutions" section. | |
| 2. Submit complete materials list prior to performing Work. Include the manufacturer, model number and description of all materials and equipment to be used. | |
| 3. Equipment or materials installed or furnished which are not specified on the Drawings may be rejected and the Contractor required to remove such materials from the site at the Contractor's expense. | |
| 4. Approval of any item, alternate or substitute indicates why that the product or products apparently meet the requirements of the Drawings and Specification on the basis of the information or samples submitted. | |
| 5. Manufacturer's warranties shall not release the Contractor of its warranty under the Contract Documents. | |
| B. Record Drawings | |
| 1. Provide and keep up to date and complete a record set of drawings which shall be corrected daily and show every change from the original Drawings and Specifications and the locations, sizes, and kinds of equipment. Prices for this purpose shall be kept on the site and shall be used only as a record set. | |
| 2. These drawings shall also serve as Work progress sheets and shall be the basis for measurement and payment for Work completed. Make neat and legible annotations thereon daily as the Work proceeds, showing the Work as actually installed. These Drawings shall be available at all times for inspection. | |
| 3. Before the date of the final inspection, transfer all information from the record prices to a reproducible plan, prepared from the Landscape Architect. All Work shall be neat and in lot. | |
| 4. Dimension from two (2) permanent points of reference, building corners, sidewalks, or road intersections, etc., the location of the following items: | |
| a. Connection to existing water lines. | |
| b. Connection to existing electrical power. | |
| c. Ball valves. | |
| d. Routing of sprinkler pressure lines (dimension max. 100' along routing). | |
| e. Sprinkler control valves. | |
| f. Routing of control wiring. | |
| g. Quick coupling or garden valves. | |
| h. Other related equipment. | |
| 5. On or before the date of the final inspection, deliver the corrected and completed reproducible to the Landscape Architect. Delivery of the reproducible will not release the Contractor of the responsibility of furnishing required information that may be omitted from the prints. | |
| C. Controller Charts: | |
| 1. Landscape Architect must approve Drawings before controller charts are prepared. | |
| 2. Provide one controller chart for each controller supplied. | |
| 3. The chart shall show the area controlled by the automatic controller and shall be the maximum size which the controller door will allow. | |
| 4. The chart is to be a reduced drawing of the actual system. However, in the event the controller sequence is not legible when the drawing is reduced, it shall be enlarged to a size that will be readable when reduced. | |

| | |
|--|--|
| 5. The chart shall be on a stable (non-folding) paper, and a different color shall be used to indicate the area of coverage for each station. | |
| 6. When completed and approved, laminate the chart between two pieces of plastic. | |
| 7. These charts shall be completed and approved prior to final inspection of the Irrigation System. | |
| D. Operation and Maintenance Manuals: | |
| 1. Prepare and deliver to the Landscape Architect within ten calendar days prior to completion of construction, two binders containing the following information: | |
| a. Index about starting Contractor's address and telephone number, list of equipment with name and address of local manufacturer's representatives. | |
| b. Catalog and parts sheets on every material and equipment installed under this Contract. | |
| c. Guarantee statement. | |
| d. Complete operating and maintenance instruction on all major equipment. | |
| 2. In addition to the above-mentioned maintenance manuals, provide the Owner's maintenance personnel with instructions for major equipment and show evidence in writing to the Landscape Architect at the conclusion of the Project that this service has been rendered. | |
| E. Equipment to be Furnished: | |
| 1. Supply as a part of this Contract the following tools: | |
| a. Two (2) keys for each automatic controller. | |
| b. One (1) quick coupling key and matching hose w/valve for every five (5) or fraction thereof of each type of quick coupling valve installed. | |
| 2. Turn over the above mentioned equipment to the Owner at the conclusion of the Project. Evidence that the Owner has received material must be shown to the Landscape Architect before final project review. | |

| | |
|---|--|
| 1.05 PRODUCT DELIVERY, STORAGE AND HANDLING | |
| Handling of PVC pipe and fittings: Exercise care in handling and storing of PVC pipe and fittings. Transport all PVC as so not to subject it to undue bending or concentrated external load at any point. Any section of pipe that has been dented or damaged will be discarded and, if installed, shall be replaced with new piping. | |

| | |
|--|--|
| 1.06 SUBSTITUTIONS | |
| Comply with Division -I "Product Substitutions" Section. | |

| | |
|--|--|
| 1.07 GUARANTEE | |
| A. The guarantee for the irrigation system shall be made in accordance with the following form. The General Conditions and Supplementary Conditions of these specifications shall be filed with Owner or his representative prior to acceptance of the irrigation system. | |
| B. A copy of the guarantee form shall be included in the operations and maintenance manual. | |
| C. The guarantee form shall be re-typed onto the Contractor's letterhead and contain the following information: | |
| GUARANTEE FOR IRRIGATION SYSTEM | |
| We hereby guarantee that the Irrigation system we furnished and installed is free from defects in materials and workmanship, and work has been completed in accordance with the drawings and specifications, ordinary wear and tear and unusual abuse or neglect excepted. We agree to repair or replace any defects in material or workmanship which may develop during the period of one year from the date of acceptance and also to repair or replace any damage resulting from the repairing or replacing of such defects at no additional cost to the Owner. We shall make such repairs or replacements within a reasonable time, as determined by the Owner, after receipt of written notification. In the event of our failure to make such repairs or replacement within a reasonable time after receipt of written notice from the Owner, we authorize the Owner to proceed to have said repairs or replacements made at our expense and we will pay the cost and charges thereon upon demand. | |

| | |
|--|--|
| PROJECT: CONTRACTOR: ADDRESS: PHONE NUMBER: B/F: DATE OF ACCEPTANCE: | |
|--|--|

| | |
|---|--|
| PART 2 - PRODUCTS | |
| 2.01 MATERIALS | |
| A. General: Use only new materials of brands and types noted on Drawings, specified herein, or approved equals. | |
| B. PVC Pressure Main Line Pipe and Fittings: | |
| 1. Pressure main line piping shall be Duro (or approved equal) PVC Schedule 40 pipe. Pipe shall be made from NSF approved Type I, Grade I PVC compound conforming to ASTM resin specification 1785. All pipe must meet requirements as set forth in Federal Specification PS-21-70. | |
| 2. PVC solvent-weld fittings shall be Schedule 40, 1-2, 1-1/2, 1-1/4 NSF approved conforming to ASTM test procedure D2466. | |
| 3. Solvent cements and primer for solvent-weld and fittings shall be of type and installation methods prescribed by the manufacturer. | |
| 4. All PVC pipe must bear the following markings: | |
| a. Manufacturer's name | |
| b. Nominal pipe size | |
| c. Schedule or class | |
| d. Pressure rating in P.S.I. | |
| e. NSF (National Sanitation Foundation) approval | |
| f. Date of extrusion. | |
| 5. All fittings shall bear the manufacturer's name or trademark, material designation, size, applicable U.P.S. schedule and NSF seal of approval. | |
| C. PVC Non-Pressure Lateral Line Piping: | |
| 1. Non-pressure burial lateral line piping shall be Duro (or approved equal) PVC Schedule 40 PVC pipe with solvent-weld joints. | |
| 2. Pipe shall be made from NSF approved, Type I, Grade B PVC compound conforming to ASTM resin specification D1784. All pipe must meet requirements set forth in Federal Specification PS-22-70 with an appropriate standard dimension ratio. | |
| 3. Except as noted in paragraphs 1 and 2 of Article 2.01B, all requirements for non-pressure lateral line pipe and fittings shall be the same as for solvent-weld pressure main line pipe and fittings as set forth in Article 2.01B of this Section. | |
| D. PVC Pipe Sleeves: All piping installed under paving, through walls or footings shall be placed inside Schedule 40 PVC pipe sleeves of adequate size to allow free movement of the pipe in the sleeve. | |
| E. Copper Pipe and Fittings: Type "L" copper pipe with wrought copper fittings. | |
| F. Quick coupling valves: size and type as indicated on Drawings. | |
| G. Backflow Preventer: existing to remain in place. | |
| H. Pressure Regulator: existing to remain in place. | |
| I. Water Meter: existing to remain in place. | |
| J. Control Wiring: | |

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| 1. Make connections between the automatic controller(s) and the electric control valves with direct copper wire AWG-14F, 600 volt. Ground wires shall always be white in color. Install in accordance with other manufacturer's specifications and wire chart. In no case shall wire size be less than #14. Provide permanent tag identifying valve number on each control wire within controller cabinet. | |
| 2. Wiring shall occupy the same trench and shall be installed along the same route as pressure supply or lateral lines whenever possible. | |
| 3. Where more than one (1) wire is placed in a branch, tape the wiring together at intervals of ten (10) feet. | |
| 4. Provide an expansion cut within three (3) feet of each wire connection. Expansion cut shall be of sufficient length at splice connection at each electric control, so that in case of repair, the harness may be brought to the surface without disconnecting the control wires. Lay the control wires loosely in trench without stress or stretching of control wire connections. | |
| 5. Make all splices with Scotch Lok K0576 Connector Sealing Pads, Ribbed Snap-Tie Wire connector, or approved equal. Use one splice per connector sealing pad. | |
| 6. Field splices between the automatic controller and electrical control valves will not be allowed without prior approval of the Landscape Architect. | |
| K. Automatic Controller: | |
| 1. Automatic controller shall be the type indicated on the Drawings. | |
| 2. Final location of automatic controller shall be approved by Owner. | |
| 3. Unless otherwise noted on the Drawings, the 120-volt electrical power to the automatic controller location shall be furnished by others. The final electrical hook-up shall be the responsibility of the irrigation installer. | |
| L. Electrical Control Valves: | |
| 1. All electric control valves shall be of the size and type shown on the Drawings. | |
| 2. All electric control valves shall have a manual flow adjustment. | |
| 3. Provide and install one control valve box for each electric control valve. | |
| M. Control Valve Boxes: | |
| 1. Use 10" x 10 3/4" round box for all gate valves. Canon Industries #910-118 with green lock-down cover or approved equal. Extension sleeves, where required, shall match box. | |
| 2. Use 9-1/2" x 16" x 13" rectangular box for all electrical control valves, Canon Industries 1419-118 with green-lock down cover or approved equal. | |
| N. Drip Irrigation Equipment: | |
| 1. Drip Emitters: size and type as indicated on Drawings. | |
| 2. Pressure Regulator: size and type as indicated on the Drawings. | |
| 3. Y-Fitter: size and type as indicated on Drawings. | |
| 4. Wire tubing and hose makes and plastic tubing stakes as necessary to locate emitters. | |
| 5. Polyethylene tubing and micro-tubing: | |
| a. Hardie Dura Pol 1/2", 3/4" Polyethylene hose or approved equal. | |
| b. Hardie Dura Pol 1/4" Distribution tubing or approved equal. | |
| 6. Flush End Valve: size and type as indicated on Drawings. | |

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| PART 3 - EXECUTION | |
| 3.01 INSPECTION | |
| A. Site Conditions: | |
| 1. All noted dimensions are approximate. The Contractor shall check and verify all site dimensions and report any discrepancies to the Landscape Architect prior to proceeding with Work in this Section. | |
| 2. Exercise extreme care in excavating and Working near existing utilities. Contractor shall be responsible for damages to utilities which are caused by the Contractor's operations or neglect. Check existing utilities Drawings for existing utility locations. | |
| 3. Coordinate installation of irrigation materials including pipes, so they do not interfere with utilities or other construction or cause difficulty in planting trees, shrubs and groundcovers. | |
| 4. Carefully check grades before starting Work on the Irrigation System. | |

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| 3.02 PREPARATION | |
| A. Physical Layout: | |
| 1. Prior to installation, stake out all pressure supply lines, routing and location of sprinkler heads. | |
| 2. Pipe layout must be approved by Landscape Architect prior to installation. | |
| B. Water Supply: | |
| 1. Connect the Irrigation system to water supply point of connection indicated. | |
| 2. Make connections at approximate locations shown. Contractor is responsible for minor changes caused by actual site conditions. | |
| C. Electrical Supply: | |
| 1. Make electrical connections for automatic controller to electrical points of connection as indicated. | |
| 2. Make connections at approximate locations as shown. Contractor is responsible for minor changes caused by actual site conditions. | |
| 3.03 INSTALLATION | |
| A. Trenching: | |
| 1. Dig trenches straight and support pipe continuously on bottom of trench. Lay pipe to an even grade. Trenching operation shall follow layout indicated on Drawings and as noted. | |
| 2. Provide for a minimum of eighteen (18) inches cover for all pressure supply lines. | |
| 3. Provide for a minimum of twelve (12) inches cover for all non-pressure lines. | |
| 4. Provide for a minimum of six (6) inches cover for all drip irrigation lines unless otherwise specified in the Drawings. | |
| 5. Provide for a minimum of eighteen (18) inches cover for all control wiring. | |
| B. Backfilling: | |
| 1. Do not backfill trenches until all required tests are performed. Carefully backfill trenches with the approved materials approved for backfilling, consisting of earth, loam, sandy clay, sand, or other approved materials, free from large clods of earth or stones. Mechanically compact backfill in individual rows to a dry density equal to adjacent undisturbed soil in planting areas. Backfill will conform to adjacent grades without dips, sags or areas, bumps or other surface irregularities. | |
| 2. Place a fine granular material backfill to a depth of 6" immediately above all lines. No foreign matter larger than one-half (1/2) inch in size will be permitted in the initial backfill. | |
| 3. Flooding of trenches will be permitted only with the approval of the Landscape Architect. | |
| 4. If settlement occurs and subsequent adjustments in pipe, valves, sprinkler heads, lawn or planting, or other construction are necessary, make all required adjustments without cost to the Owner. | |
| C. Trenching and Backfill Under Paving: | |

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| 1. Backfill trenches located under areas where paving will be installed with sand (a layer 6" below the pipe and three inches (3") above the pipe) and compact in layers to 95% compaction, using manual or mechanical tamping device. Compact trenches for paving to reveal the completion of the existing adjacent undisturbed soil and leave in a firm unyielding grade. Set in place, cap and pressure test, all pipes under paving prior to the paving work. | |
| 2. Piping under existing walls is generally done by jacking, boring or hydraulic driving, but where any cutting or breaking of sidewalks and/or concrete is necessary, it shall be done and replaced by the Contractor as a part of the Contract cost. Obtain permission from Landscape Architect to cut or break pavement. No hydraulic driving will be permitted under concrete paving. | |
| 3. Provide for a minimum cover of eighteen inches (18") between the top of the pipe and the bottom of the aggregate base for all pressure and non-pressure piping installed under asphaltic concrete paving. | |
| D. Assemblies: | |
| 1. Routing of irrigation lines as indicated on the Drawings is diagrammatic. Install lines (and various assemblies) in such a manner as to conform with the details. | |
| 2. Install no multiple assemblies in plastic lines. Provide each assembly with its own valve. | |
| 3. Install all assemblies specified herein in accordance with respective details. In absence of detail Drawings or Specifications pertaining to specific items required to complete the Work, perform such Work in accordance with best standard practice with prior approval of the Landscape Architect. | |
| 4. Clean all PVC pipe and fittings before installation. Installation and solvent welding methods shall be as recommended by the pipe and fitting manufacturers. | |
| 5. On PVC to metal connections, work the metal connections first. Use nylon tape, or approved equal, on all threaded PVC, and on all threaded PVC to metal joints. Where threaded PVC connections are required, use threaded PVC adapters into which the pipe may be welded. Do not install male metal to female PVC connections. | |
| E. Line Clearance: All lines shall have a minimum clearance of six inches (6") from each other and from lines of other trades. Parallel lines shall not be installed directly over one another. | |
| F. Automatic Controller: Install per manufacturer's instructions. Connect remote control valves to controller in numerical sequence as shown on the Drawings. | |
| G. Line Voltage Wiring for Automatic Controller: | |
| 1. 120-volt stub-out to controller locations will be provided by electrical installer. | |
| 2. Provide the 120-volt power connection to the automatic controller. | |
| 3. All electrical Work must conform to local codes, ordinances and valve authorities having jurisdiction. | |
| H. Remote Control Valves: | |
| 1. Install where shown on Drawings and details. When grouped together, allow at least twelve (12) inches between valves. Install each remote control valve in a separate valve box. Label each controller and station number at the valve with a 3/4" x 2 3/4" polystyrene I.D. tag attached to the control wire of the valve. | |
| 2. Install drip emitters only after flushing of the system has been accomplished to the satisfaction of the Landscape Architect. | |
| 3. Drip Emitters: | |
| 1. Bring drip emitters to the soil surface with transfer tubing attached with a barb fitting to buried polyethylene tubing. Surface mount and stake emitters with transfer tubing stake. If emitters are located below the soil surface, install a bag cap at the end of each transfer tubing line. Locate emitters equally spaced around the plant at the edge of the rootball or as shown in the detail Drawings. | |

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| 3.04 TEMPORARY REPAIRS | |
| The Owner reserves the right to make temporary repairs as necessary to keep the Irrigation system equipment in operating condition. The exercise of this right by the Owner shall not relieve the Contractor of responsibility under the Contract Documents. | |
| 3.05 EXISTING TREES AND SHRUBS | |
| Where it is necessary to excavate adjacent to existing trees and shrubs, use all possible care to avoid injury to trees, tree roots and shrubs. Excavate by hand only in areas where two inch (2") and larger roots occur. Tunnel under all roots two inches (2") and larger in diameter. Wrap roots in heavy burlap to prevent scarring or excessive drying. Where a ditching machine is run close to trees having roots smaller than two inches (2") in diameter, hand trim the wall of the trench adjacent to the tree, making clean cuts through. Plant roots one inch (1") and larger in diameter with two (2) coats of tree paint. Close trenches adjacent to trees within twenty-four (24) hours, and where this is not possible, shade the side of the trench adjacent to the tree with burlap or canvas. | |

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| 3.06 FIELD QUALITY CONTROL | |
| A. Adjustment of the System: | |
| 1. If it is determined that adjustments in the irrigation equipment will provide proper and more effective coverage, make adjustments prior to planting. Adjustments may also include changes in emitter size as required. | |
| B. Testing of Irrigation System: | |
| 1. Request the presence of the Landscape Architect in writing to be held forty-eight (48) hours in advance of testing. E-mail or fax notification is acceptable. | |
| 2. Test all pressure lines under hydrostatic pressure of 150 pounds per square inch and prove watertight. | |
| 3. Test all piping under proved areas under hydrostatic pressure of 150 pounds per square inch and prove watertight prior to paving. | |
| 4. Soak test pressure in lines for not less than two (2) hours. If leaks develop, replace joints and repeat test until entire system is proven watertight. | |
| 5. Make all hydrostatic tests only in the presence of the Landscape Architect or other duly-authorized representative of the Owner. Do not backfill trenches until it has been duly inspected, tested, and approved. | |
| 6. Furnish force pump and all other necessary test equipment. | |
| 7. When the Irrigation system is completed, perform a coverage test in the presence of the Landscape Architect to determine if the water coverage for planting areas is complete and adequate. Furnish all materials and perform all Work required to correct any inadequacies of coverage due to deviations from Drawings, or after bringing the line to the attention of the Landscape Architect. This test shall be accomplished before any groundcover is planted. | |
| 8. Upon completion of each phase of Work, test and adjust the entire system to meet site requirements. | |

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| 3.07 MAINTENANCE | |
| The entire Irrigation system, with the exception of drip tubing and emitters, must be under full automatic operation prior to any planting. | |
| 3.08 CLEAN-UP | |
| Clean-up as each portion of Work progresses. Remove refuse and excess dirt from the site, sweep all walks and parking clean, and repair any damage done to the Work of others to original conditions. | |
| 3.09 FINAL OBSERVATION PRIOR TO ACCEPTANCE | |
| A. Operate each system in its entirety for the Landscape Architect at time of final observation. Record any items deemed not acceptable by the Landscape Architect to the complete satisfaction of the Landscape Architect. | |
| B. Show evidence to the Landscape Architect that the Owner has received all accessories, charts, record drawings, and equipment as required before final observation can occur. | |
| 3.10 OBSERVATION SCHEDULE | |
| A. Notify the Landscape Architect in advance for the following observation meetings, according to the time indicated: | |

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| 1. Pressure supply line installation and testing: 48 hours | |
| 2. Automatic controller installation and wire installation: 48 hours | |
| 3. Lateral line and emitter installation: 48 hours | |
| 4. Coverage test: 48 hours | |
| 5. Final inspection: 7 days. | |
| B. When observations have been conducted by other than the Landscape Architect, show evidence in writing of when and by whom these observations were made. | |
| C. No site observations will commence without record drawings. In the event that the Contractor calls for a site visit without record drawings, without completing previously noted corrections, or without preparing the system for said visit, he shall be responsible for reimbursing the Owner for the Landscape Architect's time for the site visit at the current billing rates per hour posted to portal (plus transportation cost) for inconvenience. No further site visits will be scheduled until this charge has been paid and received. | |

END OF SECTION



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FUEL DEPOT
180 North Fairview Ave.

IRRIGATION SPECIFICATIONS

Date/ Issue
2015.11.23 DRB Submittal

Sheet 3 of 6

LI-3

1. All plants are identified typical symbols. Plant quantities are approximate and provided for the contractor's convenience. In the event of discrepancies in plant count, quantities indicated by plant symbols on the plan prevail.
2. Take two representative soil samples from the project site and source of any imported topsoil. Locations of soil samples must be approved by the Landscape Architect. Send soil samples to Wallace Soil Testing Laboratory 3104615-0116 or an approved equal for testing of suitability for ornamental planting as specified on the drawings. Request from soils lab that only organic amendments and fertilizers are included in the recommendations. Make adjustments to the rate and analysis of fertilizer & amendments as recommended to provide a suitable backfill mix for planting. Notify the Landscape Architect of any potential problems which may result due to harmful substances found in the soil. Failure to act as specified may result in contractor assuming financial responsibility for any damage to plants.
3. Contractor is responsible for finish grades and for fine grading required for surface drainage and uniformity to the satisfaction of the Landscape Architect. Advise Landscape Architect of drainage problems and make recommendations for solution.
4. Grades and flow lines must be maintained during irrigation and planting operations. Contractor may not alter established grade and flow lines without the knowledge and permission of the Landscape Architect.
5. The Landscape Architect reserves the right to review all plant material at the nursery prior to delivery to job site. In lieu of nursery review the Landscape Architect may request photos and/or specifications of plant material to be provided prior to delivery.
6. Landscape Architect reserves the right to refuse plants delivered to site that are substandard. Replacement plants are to be supplied by contractor at no additional cost to owner.
7. Plant materials and installation to meet highest quality industry standard. Locate and secure all specified plants within two weeks of award of contract and show proof of to Landscape Architect in writing that plants have been secured. Notify Landscape Architect immediately of any plant sourcing difficulty.
8. Include in the contract price a sufficient amount to allow for supply and installation of additional plants to be used at the direction of the Landscape Architect. Include 5 - 15 gallon, 10 - 15 gallon, 20 - 1 gallon. Provide the unit price for such plants in the bid and credit the owner for each plant not installed.
9. Contractor shall maintain all installed plants (on a weekly basis) for a period of 90 days from date of completion of installation. Failure eradicate weeds and maintain areas may result in an extension of the maintenance period. Guarantee plant material 5 gallon or smaller for a period of 90 days from date of final review. Replace dead plants and plants not in vigorous condition, without cost to owner, as determined by Landscape Architect at the end of warranty period. Guarantee 15 gallon plants and larger, for 1 year from date of final review. Trees called out as "transplanted" shall be included in the warranty period.
10. Notify Landscape Architect of intended planting schedule a minimum of two weeks prior to planting.
11. Set out all plant materials as shown on plan. Final locations must be approved by the Landscape Architect prior to planting.
12. Plant crown to be 2" above adjacent grade for 15 gallon and larger plants; 1" above adjacent grade or plants smaller than 15 gallon.
13. Install all plants per details.
14. Stake trees according to industry standards per details. Review with Landscape Architect prior to work.
15. Contact Landscape Architect for decision regarding proposed plant substitutions 4 weeks prior to installation.
16. All plants delivered to the site must have legible identification tags.
17. Plant groundcovers adjacent to shrubs and/or trees 1.5 times the distance of their specified spacing away from the stems of the adjacent shrubs and trees. Groundcovers adjacent to curbs and pavement shall be spaced at specified spacing away from paved areas.
18. Completely eradicate all bermuda, kikuyu grass, ivy, and other weed growth or other visible or alleged invasive weeds from areas within project limits prior to installing planting.
19. Provide and install bark mulch over all shrub and groundcover areas. Use ES-2 mulch sourced from Agromin: (800) 247-6646. Spread mulch evenly over all shrub and groundcover areas to a depth of 3" (three inches). Keep mulch spread from plant stems. Submit mulch samples to Landscape Architect for approval prior to purchase and delivery.
20. Preserve and protect all existing trees unless otherwise noted.
21. Palm trees installed in limited planting spaces that require staking for stability may be supported by a 1" diameter galvanized pipe equal in height to the trunk height of the palm to the base of the first frond. Drive the pipe 48" deep below finish grade and/or 12" into subgrade.

SECTION 0250
LANDSCAPE PLANTING

PART 2 - GENERAL

1.01 GENERAL CONDITIONS
Develop and general provisions of Contract, including General and Supplementary Conditions and Division 1 Specification sections, apply to this section.

1.02 SCOPE OF WORK

- A. Furnish all labor, materials and equipment necessary to provide and install all trees, plants and groundcovers as shown on the Drawings. The Contractor's work shall include:
1. Prepare soil for planting and furnish all soil amendments.
 2. Furnish and install all plant materials per the planting plans.
 3. Prune plants as required.
 4. Stake, tie and guy plant materials as specified.
 5. Dispose of trash, debris and surplus material.
 6. Maintain the planting until such time as the project has been accepted.
- B. Related Work Specified in Other Sections:
1. Section 02810 - Irrigation Systems
 2. Section 02500 - Landscape Planting
- C. Definition: The words Landscape Architect as used herein refer to the Owner's authorized representative.

1.03 QUALITY ASSURANCE

- A. Source Quality Control:
1. Submit documentation to Landscape Architect within fifteen (15) days after award of Contract that all plant material is sourced for the project. Contractor is responsible for all material based on the planting list. Any and all substitutions due to unavailability must be requested in writing prior to confirmation of ordering.
 2. Plants are subject to approval of Landscape Architect at place of growth or upon delivery for conformity to specifications. Such approval will not imply the right of review and rejection during progress of the work. Submit written request for review of plants at place of growth to Landscape Architect. Show the place of growth and quantity

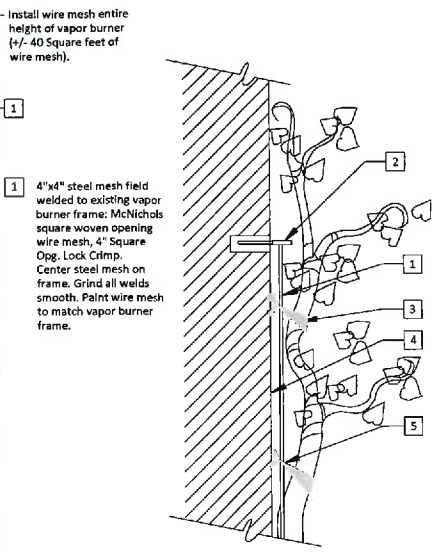
- of materials. Before treating with the addition of organic matter, if soil sulfur is found to be currently deficient, use 1 lb. Brown Soil Sulfur to help maintain grass leaves and aid in nitrogen absorption of plants.
2. Iron sulfate: 20% iron (expressed as metallic iron), derived from ferric and ferrous sulfate, 100% sulfur (expressed as elemental).
 3. Calcium Carbonate: 85% lime as derived from oyster shells.
 4. Byproduct: Agricultural grade product containing 90% minimum calcium sulfate.
 5. Zinc: Agricultural grade zinc sulfate (90% elemental zinc).
 6. Bio-Power Plus (Bacteria Inoculant) with 1.02% soil penetrant and containing of the following percents by weight: Inulinogen, Aspartic acid, Lysine, 70% water, 35% humic acid.
 7. BioLife mycorrhizal transplant inoculant.
 8. BioLife's Horticultural Vinegar.
 9. Corn plaster based pre-emergent weed killer, such as "Safe-n-Simple Pre-emergent Weed Killer".

1.04 PLANT MATERIAL

- A. Plant material shall conform to the California State Department of Agriculture's regulation for nursery inspection, rules and rules. All plants shall have a normal habit of growth and shall be sound, healthy, vigorous and free of insect infestations, plant diseases, nematodes, fresh infestations of the bark, excessive dieback, or other objectionable abnormalities. Trees shall have clearly visible, well defined and vigorous. Remove root systems which are not root - or just barked. In case the sample plants are found to be defective, the Landscape Architect reserves the right to reject the entire lot or lots of plants represented by the defective samples. The Landscape Architect is the sole judge of acceptability. Any defective plants unsuitable for planting will be considered as surplus material at the expense of the Contractor.
- B. The size of the plants will correspond with that normally expected for species and variety of commercially available nursery stock or as specified on Drawings. The minimum acceptable size of all plants measured before pruning with the branches in normal position, shall conform to the measurements, if any, specified on the Drawings in the list of plants to be furnished. Plants larger in size than Specified may be used with the approval of the Landscape Architect, but the use of larger plants will make no change in the Contract price.
- C. All plants not conforming to the requirements herein Specified shall be considered defective. Such plants, whether in place or not, shall be marked as rejected and immediately removed from the site of work and replaced with new plants at the Contractor's expense. The plants shall be of the species, variety, size and condition Specified herein or as shown on the Drawings. Under no conditions will there be any substitutions of plants or size listed on the accompanying plans, except with the expressed consent of the Landscape Architect.



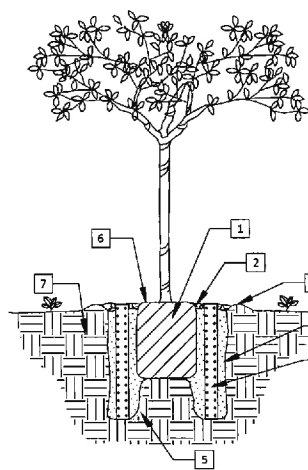
7 WIRE MESH VINE SUPPORT ON EXISTING VAPOR BURNER Not to Scale



4 VINE ATTACHMENT Not to Scale

- 1 12 Gauge copper wire secured to eye bolt.
- 2 Stainless steel eye bolt in 1/2" expansion shield.
- 3 Clear plastic nursery tape.
- 4 Building wall or column.
- 5 Tie vines onto wire supports with plastic tape.

- Notes:
1. For vine attachment to wood posts, use galvanized eye screws and loosely tie vines to eye screws with clear plastic nursery tape.
 2. Landscape Architect will determine wire pattern for vine and espalier attachment in field.
 3. Allow 50 linear feet of 12 gauge galvanized wire and 10 eyebolts for each vine installation.



1 TREE PLANTING W/ DRAIN PIPES Not to Scale

- 1 Rootball: set on firm soil at bottom of pit.
 - 2 Mulch over basin per specifications.
 - 3 Backfill: see specifications.
 - 4 6" High temporary berm.
 - 5 6" Diameter by 18" deep augured holes backfilled with amended soil. Roughen sides of holes to prevent glazing.
- 15 gal trees: 3 holes at outer edge of rootball.
- 24" box & 36" box trees: one hole at each corner and one in the center.
- Larger than 36" box trees: one hole at each corner, one each side, and one in the center (9 total).
- 6 Set rootball with crown 1" above finish grade.
 - 7 Undisturbed soil. If necessary, compact subsoil and form pedestal to prevent settling.
 - 8 4" Diameter perforated PVC pipe with removable plastic cap: (2) per tree for trees 24" box and smaller. (4) per tree for trees 36" box to 60" box. (6) per tree for trees larger than 60" box.

of plants to be replanted. Landscape Architect reserves the right to refuse review at place of growth.

1.04 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Delivery:
1. Deliver fertilizer to site in original unopened containers bearing manufacturer's guaranteed chemical analysis, name, trademark, and conformance to State Law.
 2. Furnish Landscape Architect with copies of receipts for all amendments Specified in Section 2.01 - Materials.
 3. Deliver all plants with legible identification labels. Use durable waterproof labels with water-resistant ink which will remain legible.
 4. Protect plant materials during delivery to prevent damage to root ball, dedication of leaves, or any other defect.
 5. Notify the Landscape Architect seven (7) days in advance of delivery of all plant materials and submit to him/her list of plants to be delivered.
- B. Storage:
1. Store plant material in shade and protect from weather.
 2. Maintain and protect plant material in a healthy, vigorous condition as all times.
- C. Handling:
1. Exercise care in handling, loading, unloading and storing of plant materials. Plant materials that have been damaged in any way will be refused, and must be removed from the site. If refused, such plants will be replaced with undamaged materials at the Contractor's expense.

1.05 JOB CONDITIONS

- A. Site Conditions:
1. Verify the locations of underground utilities prior to excavation. Repair damage to any such utilities resulting from the Contractor's work at Contractor's expense.
 2. Investigate the site for any subsurface drainage or unusual soil conditions which might prove detrimental to the success of the design. Should any such condition exist, notify the Landscape Architect and submit a proposal for corrective measures and their cost. Should the contractor fail to provide such notification, he will be held solely responsible for any corrections deemed necessary by the Owner and the Landscape Architect should damage occur.
- B. Field Conditions:
1. The planting plan is diagrammatic. Stated dimensions are approximate. Prior to proceeding with installation work, verify all dimensions with field conditions and verify

- D. Pruning: At no time shall trees or plant materials be pruned, trimmed or topped prior to delivery. Any alteration of their shape shall be conducted only with the approval and when in the presence of the Landscape Architect.
- E. Plant material shall be true to botanical and common name and variety as Specified in the latest edition of "Annotated Checklist of Woody Ornamental Plants in California, Oregon and Washington", published by the University of California School of Agriculture.
- F. Nursery Grown and Collected Stock:
1. Grown under climatic conditions similar to those in locality of project.
 2. Container-grown stock in vigorous, healthy condition, not root-bound or with root system hardened off.
 3. Use only flatbed or liner stock plant material which is well established in reasonable containers or formed homogeneous soil sections.
 4. Substitute plant material will not be permitted unless specifically approved in writing by the Landscape Architect.

- G. Backfill: Backfill all planting holes (except for oaks) with the following:
1. Organic amendment/Compost: 20% by volume.
 2. Soil: Life mycorrhizal transplant inoculant in backfill mix at the following rates:

| Plant Size | Rate of application in ounces per plant |
|------------|---|
| 1 gallon | 2 cups, 100% rootball |
| 2 gallon | 4 cups, 200% rootball |
| 3 gallon | 6 cups, 300% rootball |
| 4 gallon | 8 cups, 400% rootball |
| 5 gallon | 1 cup, 100% rootball |
| 6 gallon | 2 cups, 200% rootball |
| 7 gallon | 3 cups, 300% rootball |
| 8 gallon | 4 cups, 400% rootball |
| 9 gallon | 5 cups, 500% rootball |
| 10 gallon | 6 cups, 600% rootball |
| 12 gallon | 8 cups, 800% rootball |
| 14 gallon | 10 cups, 1000% rootball |
| 16 gallon | 12 cups, 1200% rootball |
| 18 gallon | 14 cups, 1400% rootball |
| 20 gallon | 16 cups, 1600% rootball |

3. Backfill field-grown palms with washed paver sand topped firm. Over-compact beds as required to stabilize palms.
4. Guying and staking materials: install per plant list.
5. Tree stakes as specified on plan and details.
6. Ties: as specified on plan and details.
7. Tree Guying Systems: as specified on plan and details.
8. Water: Furnished by Owner/transport as required

5. Mulch: as specified on plan and details.

PART 3 - EXECUTION

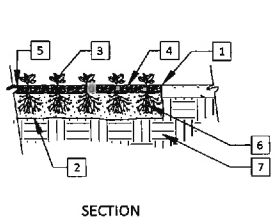
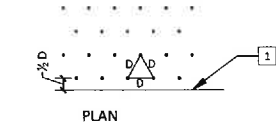
3.01 PREPARATION

- A. Obtain certification that final grades to within .10' have been established prior to commencing planting operations. Provide for inclusion of all amendments, tie-ins, etc. Contractor shall be responsible for staking all planting areas as indicated on plans or as directed by the Landscape Architect.
- B. Inspect trees, shrubs and their stakes for injury, insect infestation and trees and shrubs for improper pruning.
- C. Do not begin planting until deficiencies are corrected or plants replaced.

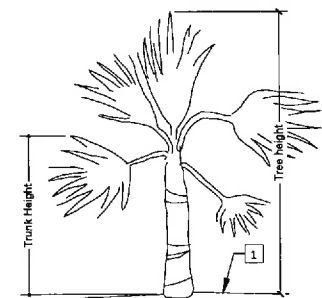
3.02 GRADING AND SOIL PREPARATION

- A. After appropriate finished grades have been established, soil shall be conditioned and fertilized in the following manner. Materials shall, at the following rates, be uniformly spread and cultivated thoroughly by means of mechanical tillage to a depth of 6" and per 1,000 square feet:
- Application Rates:
150 lbs. Gro-Power Plus
1 cubic yard Organic Compost
- ** Additional amendments may be necessary pending the results of a soil analysis. Before starting and preparation, submit results to Landscape Architect for approval and/or changes.
- B. At the time of planting, the upper four (4) inches of all areas to be planted shall be free of stones, stumps, or other deleterious matter. It is the contractor's duty to remove all such material, stumps, or other deleterious matter from the site prior to planting or maintenance.
- C. Final Grades:
1. Minor modifications to grade may be required to establish the final grade.
 2. Final grading shall insure proper drainage of the site as depicted on the Civil Engineer's Grading Plan.
 3. All areas shall be graded so that the final grade will be 2" below adjacent paved areas, sidewalks, walkways, borders, driveways, ditches, manholes, etc., or as indicated on plans.
 4. Surface drainage shall be away from all building foundations.
 5. Eliminate erosion scars prior to commencing maintenance period.
- D. Weed Control:

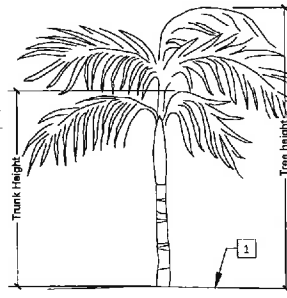
Planting Specifications Continue on Next Sheet



5 GROUNDCOVER PLANTING Not to Scale



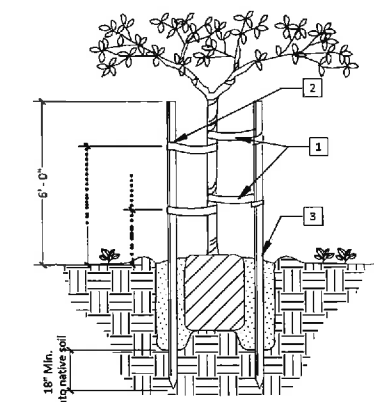
Palmette Palms



Pinnate Palms

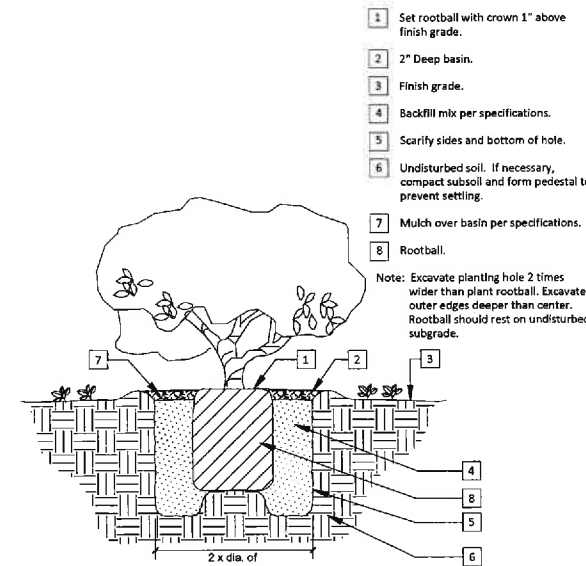
- 1 Finish grade for field dug palms (or top of soil in boxed palms).
- Notes:
1. Trunk height is measured from finish grade to just above second to lowest frond.
 2. No green fronds shall be removed from palm tree prior to delivery.

6 TRUNK HEIGHT DEFINITION Not to Scale



2 TREE STAKING Not to Scale

- 1 Two nylon reinforced ties: 1" Wide figure 8 "Super Tie" tree ties or approved equal. Adjust to allow for tree movement.
 - 2 Attach to stake with galvanized roofing nail.
 - 3 2" Diameter lodgipole. Drive 18" minimum into undisturbed subgrade outside rootball.
- Notes:
1. Refer to planting detail for hole size, backfill, etc.
 2. Modify installation as required for trees in public right of way.
 3. See planting notes for information regarding palm staking.



3 SHRUB PLANTING Not to Scale

- 1 Set rootball with crown 1" above finish grade.
 - 2 2" Deep basin.
 - 3 Finish grade.
 - 4 Backfill mix per specifications.
 - 5 Scarify sides and bottom of hole.
 - 6 Undisturbed soil. If necessary, compact subsoil and form pedestal to prevent settling.
 - 7 Mulch over basin per specifications.
 - 8 Rootball.
- Note: Excavate planting hole 2 times wider than plant rootball. Excavate outer edges deeper than center. Rootball should rest on undisturbed subgrade.



erin o carroll
landscape architect
105 West De La Guerra Street, Unit J
Santa Barbara CA 93101
805.364.5079 www.erinocarroll.com



FUEL DEPOT
180 North Fairview Ave.

PLANTING DETAILS AND SPECIFICATIONS

Date/ Issue
2015.11.23 DRB Submittal

Sheet 5 of 6

LP-2

FAIRVIEW AVENUE

ENCINA ROAD

PRELIMINARY CONSTRUCTION NOTES:
(NUMBERED ITEM BELOW CORRESPONDS TO NUMBER WITHIN HEXAGON ON DRAWING)

- 1 SAWCUT AND REMOVE EXISTING PAVEMENT, CONCRETE APPURTENANCES AND PLANTERS.
- 2 DEMOLISH AND REMOVE EXISTING BUILDING, PAVEMENT, CONCRETE WALKS AND CURBS WHERE SHOWN ON PLAN.
- 3 CONSTRUCT NEW BUILDING, PLANTERS, SIDEWALKS AND CURB IMPROVEMENTS. MATCH EXISTING SURFACE ELEVATIONS.
- 4 ROUTE PROPOSED ROOF GUTTERS / DOWNSPOUTS TO PROPOSED ADJACENT PLANTERS TO EAST.
- 5 PROPOSED NEW A.C. PAVEMENT.

STORMWATER MANAGEMENT:

| | |
|---|------------|
| TOTAL AREA TO BE DISTURBED: | 5,820 S.F. |
| DISTURBED AREA TO BE UTILIZED FOR PLANTERS: | 1,500 S.F. |
| TOTAL PROPOSED NET IMPERVIOUS SURFACE AREA: | 4,320 S.F. |

4,230 S.F. < 5,000: S.F. PROJECT IS TIER 1.

IMPORTANT NOTICE

ALL UTILITY LOCATIONS ARE APPROXIMATE
CONTRACTOR IS TO NOTIFY UNDERGROUND
SERVICE ALERT TWO WORKING DAYS PRIOR
TO STARTING ANY EXCAVATION OR RESUR-
FACING.

CALL TOLL FREE 1-800-422-4133

FUEL DEPOT
PRELIMINARY SITE IMPROVEMENT PLAN
180 N. FAIRVIEW ROAD
CITY OF GOLETA, CALIFORNIA
JULY 31, 2015
REVISED NOVEMBER 23, 2015

FLOWERS & ASSOCIATES, INC.

CML ENGINEERS
201 N. Calle Cesar Chavez, Suite 100 Santa Barbara, CA 93103
Telephone (805) 966-2224

PRELIMINARY
BY: _____ NOT FOR CONSTRUCTION _____ DATE: _____

SCALE: 1" = 10'

GRAPHIC SCALE

FOOTNOTES: Number 75, 8195-14 of 1994

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W.O. 13115

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