

PROJECT DATA

CLIENT: COSTCO WHOLESAL
 999 LAKE DRIVE
 ISSAQUAH, WA 98027

PROJECT ADDRESS: 22330 HATHAWAY AVE.
 HAYWARD, CA 94541

SITE AREA: 10.87 ACRES (473,566 S.F.)

BOUNDARIES INFORMATION: THIS PLAN HAS BEEN PREPARED BY USING MULVANNY ARCHITECTS SITE PLAN DATED 2/95.

BUILDING DATA:

| | |
|-------------------------------|--------------|
| TOTAL EXIST. BUILDING | 124,287 S.F. |
| DEMOLISH DETACHED TIRE CENTER | 8,580 S.F. |
| REVISED BUILDING TOTAL | 115,707 S.F. |
| INCLUDING: | |
| EXIST. UTILITY ROOMS | 420 S.F. |
| EXIST. MECHANICAL ROOM | 261 S.F. |
| EXIST. BALER/COMPACTOR ROOM | 972 S.F. |
| EXIST. ENCLOSED CANOPY | 1,831 S.F. |
| EXIST. MEZZANINE | 2,427 S.F. |

EXIST. PARKING DATA:

EXISTING PARKING PROVIDED:

| | |
|---------------------------------|------------|
| ⊕ STANDARD STALLS | 435 STALLS |
| ⊕ HANDICAP STALLS (2 VAN STALL) | 16 STALLS |
| ⊕ TRUCK STALLS | 52 STALLS |
| TOTAL PARKING | 503 STALLS |

NO. OF STALLS PER 1000 S.F. OF BUILDING AREA: 4.05 STALLS

(*) PARKING NEEDED TO MAINTAIN 4.00 / 1000 S.F.: 463 STALLS

(*) 1.0 SPACE / 250 S.F. PER CITY OF HAYWARD MUNICIPAL CODE SECTION 10-2.330.

PROPOSED PARKING:

| | |
|---------------------------------|------------|
| ⊕ STANDARD STALLS | 330 STALLS |
| ⊕ HANDICAP STALLS (2 VAN STALL) | 16 STALLS |
| ⊕ TRUCK STALLS | 52 STALLS |
| TOTAL PARKING | 398 STALLS |

NO. OF STALLS PER 1000 S.F. OF BUILDING AREA: 3.44 STALLS

TOTAL PARKING LOST 105 STALLS

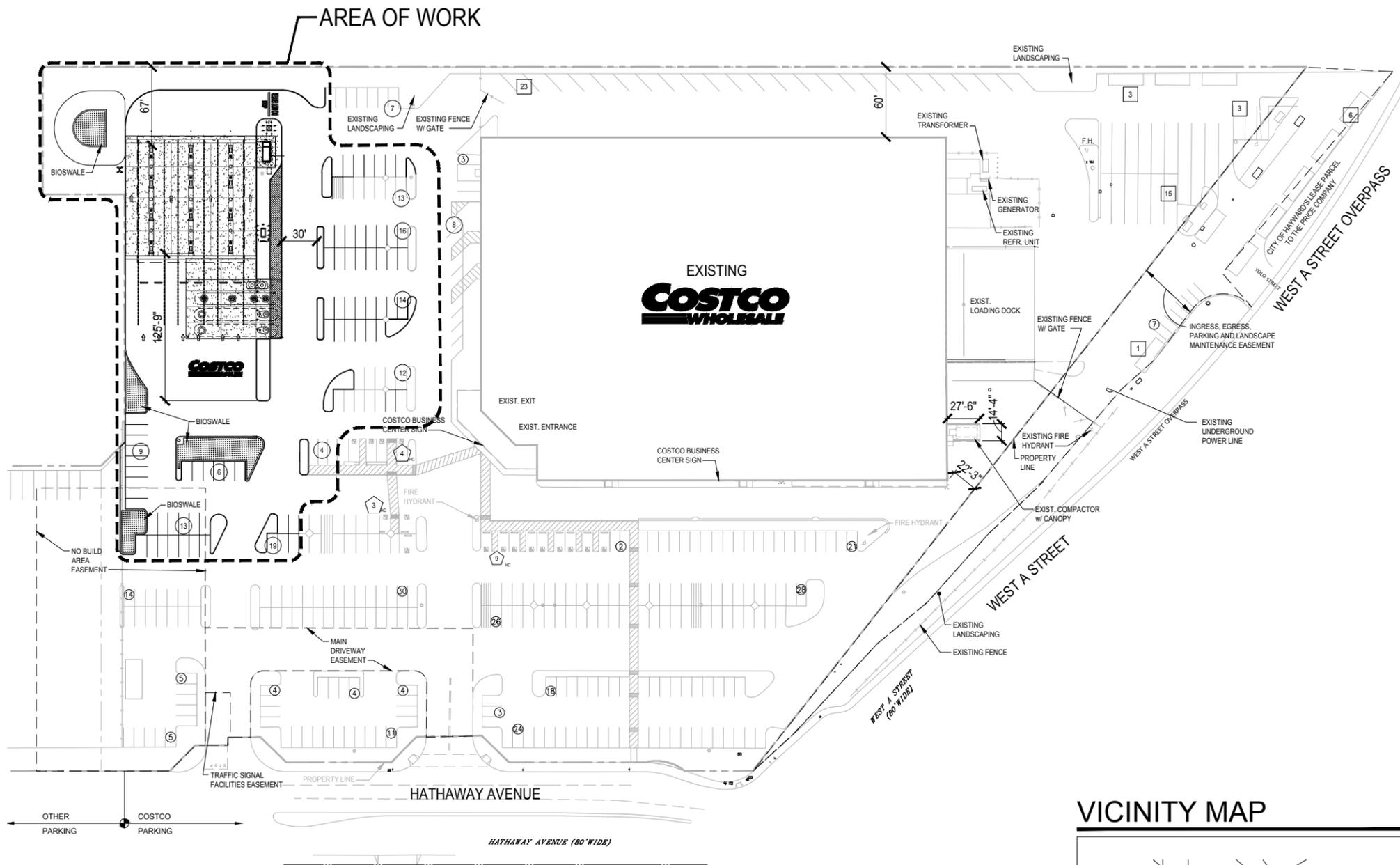
FUEL FACILITY DATA:

OCCUPANCY GROUP: M (MERCANTILE)

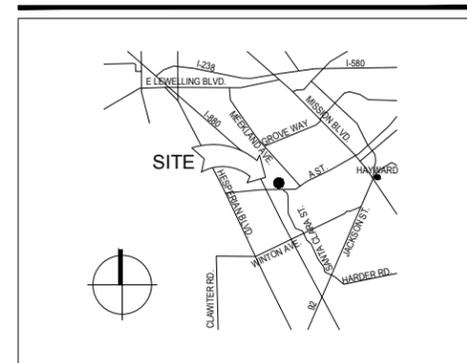
CONSTRUCTION TYPE: II B

FUEL CANOPY AREA: 9,346 SF

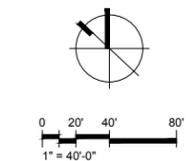
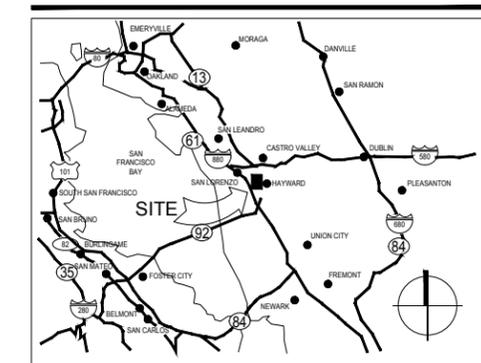
FUEL CANOPY HEIGHT: 17'-6" TO TOP OF CANOPY



VICINITY MAP



REGIONAL MAP



22330 HATHAWAY AVE.
 HAYWARD, CA 94541



94-0360-20
 SEPTEMBER 21, 2018

CONCEPT SITE PLAN

DD11-16

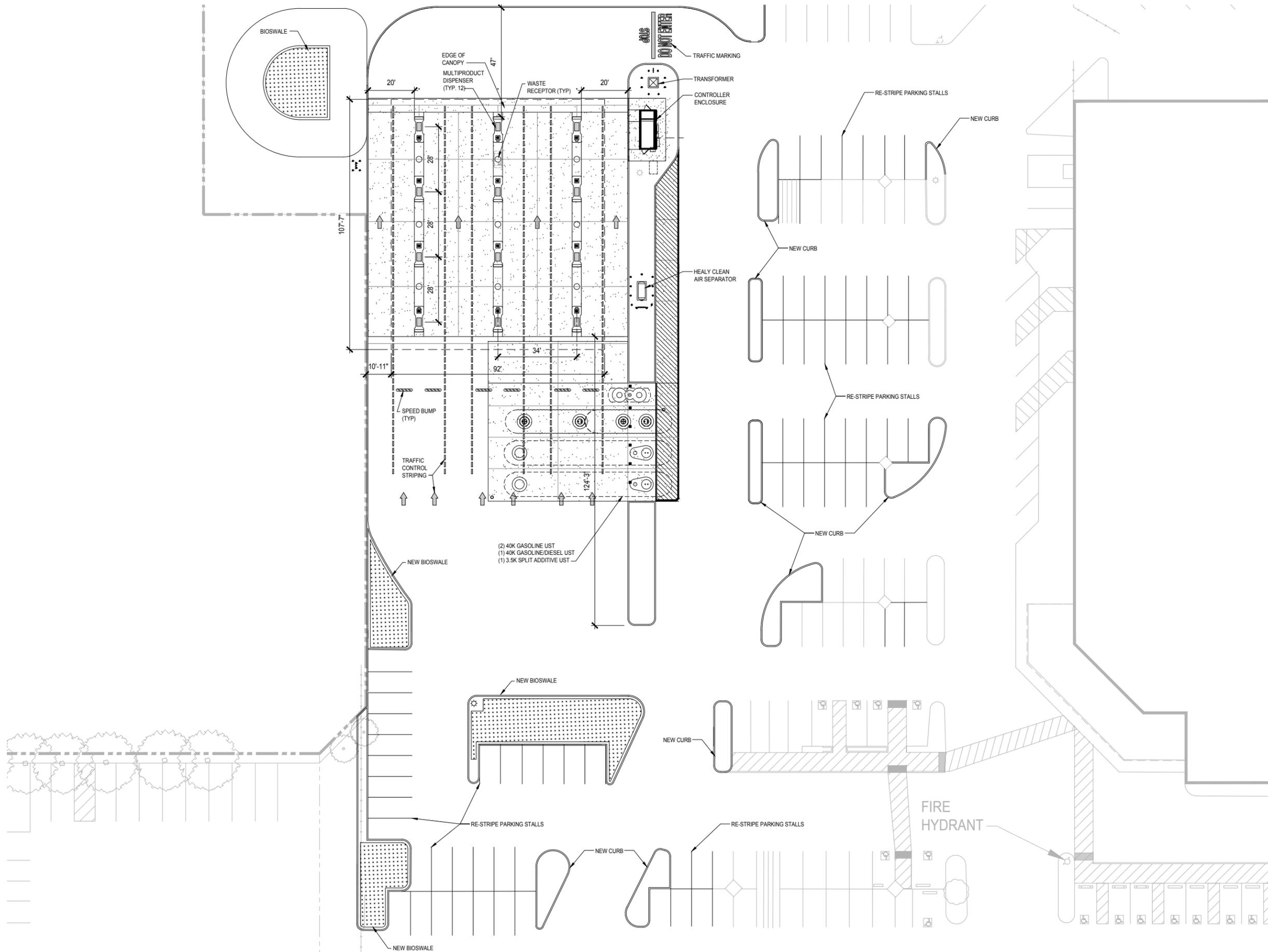
COSTCO WHOLESAL

HAYWARD, CALIFORNIA

CONCEPT SITE PLAN

SEPTEMBER 21, 2018

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COSTCO WHOLESALE

HAYWARD, CALIFORNIA

CONCEPT FLOOR PLAN

SEPTEMBER 21, 2018



0 15' 30' 60'
1" = 15'-0"



HAYWARD, CA
#823

22330 HATHAWAY AVE. HAYWARD,
CA 94541

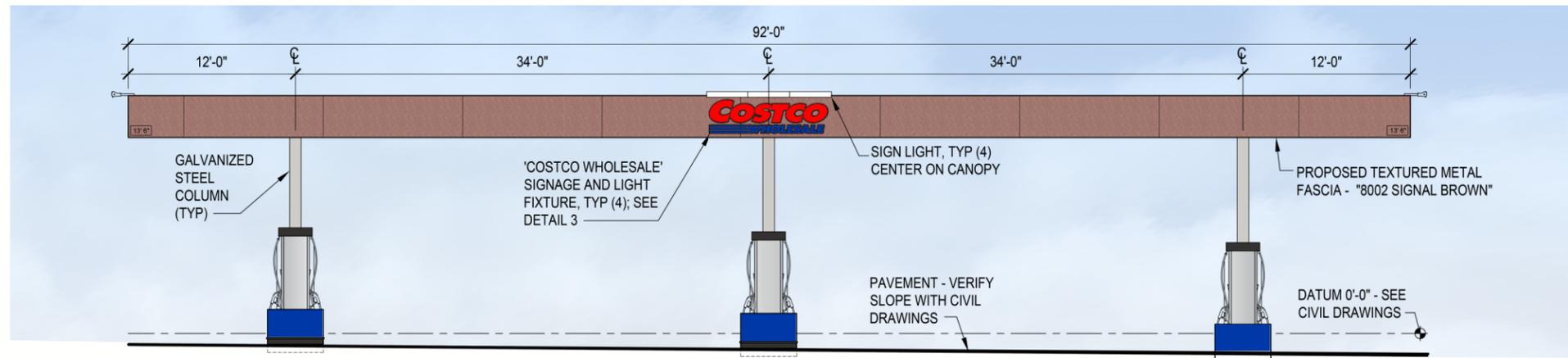


94-0360-20
SEPTEMBER 21, 2018

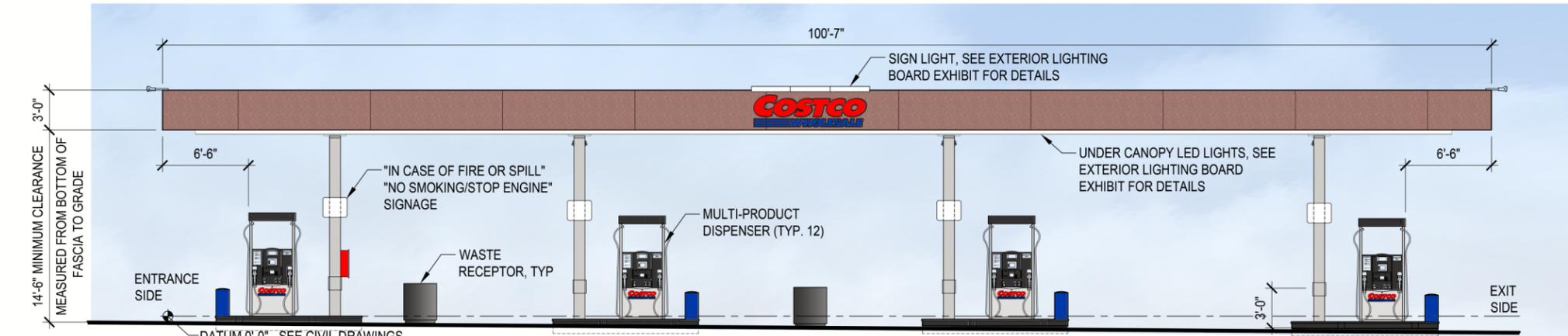
CONCEPT FLOOR
PLAN

DD11-16A

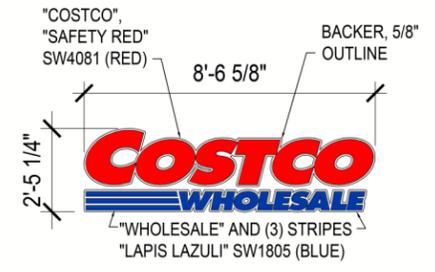
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1 NORTH CANOPY AND DISPENSER ISLANDS (SOUTH ELEV. SIM.)
SCALE: 1/4" = 1'-0" 0417



2 WEST CANOPY AND DISPENSER ISLANDS (EAST ELEV. SIM.)
SCALE: 1/4" = 1'-0" 0417

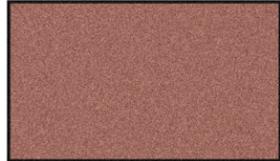


3 CANOPY SIGN
SCALE: 1/2" = 1'-0" (SUPPLIED AND INSTALLED BY CANOPY SUPPLIER)

| SIGNAGE AREA TABULATION (WALL SIGNS) | | | | |
|--------------------------------------|------------------|-----------------------|-----------------|------------|
| QTY. | SIGN | SIZE | AREA (S.F.) EA. | TOTAL S.F. |
| 4 | COSTCO WHOLESALE | 2'-6 1/4" x 8'-6 5/8" | 20.85 S.F. | 82.32 S.F. |
| TOTAL SIGNAGE AREA | | | | 82.32 S.F. |



A 'COSTCO' SIGNAGE
SW 4081 - "SAFETY RED"



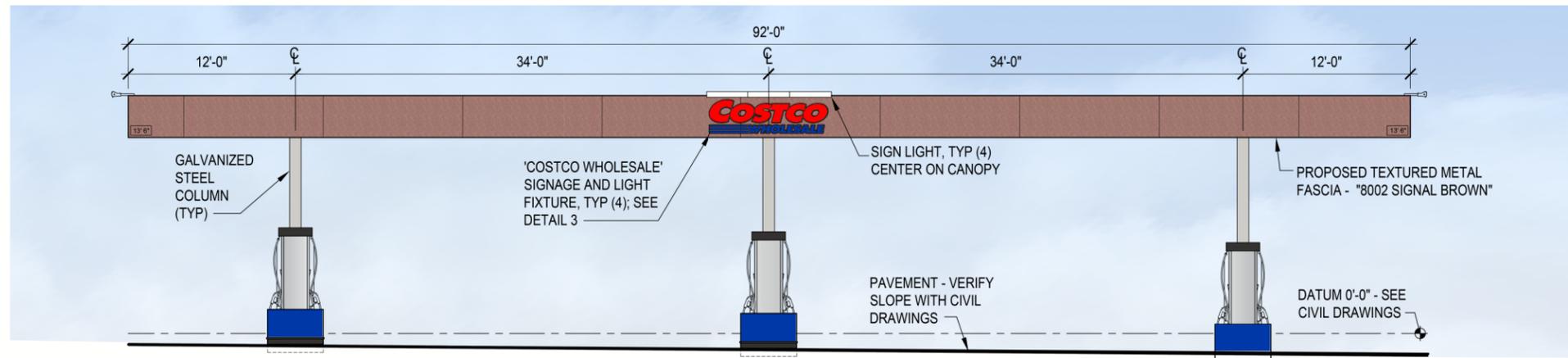
C TEXTURED METAL FASCIA PANEL
SPRAYLAT - 8002 SIGNAL BROWN



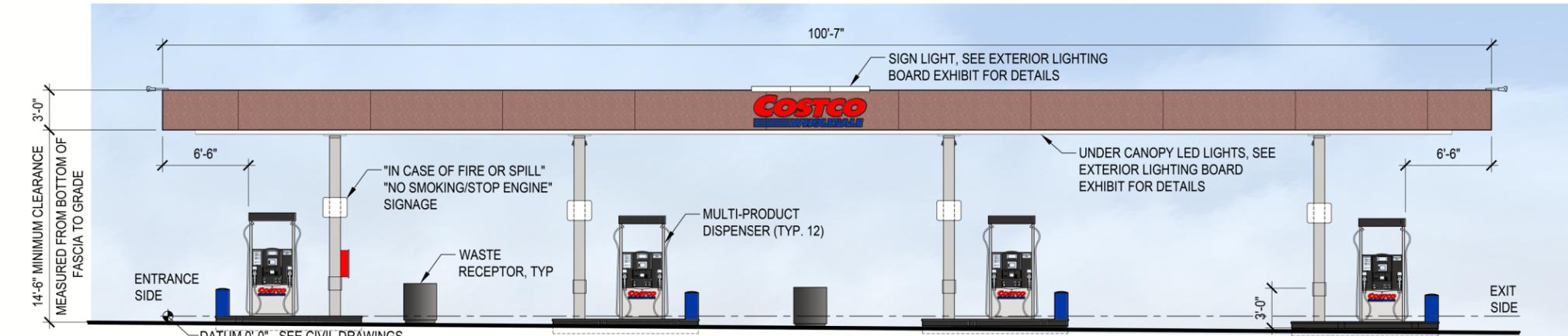
B 'WHOLESALE' SIGNAGE
SW 1805 - "LAPIS LAZULI"



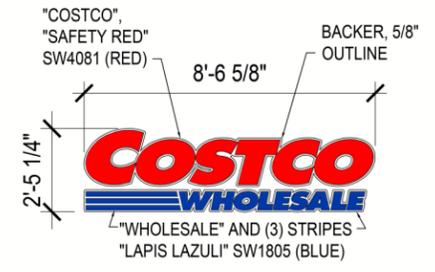
D METAL COLUMN WRAP
SPRAYLAT - 9001 CREAM



1 NORTH CANOPY AND DISPENSER ISLANDS (SOUTH ELEV. SIM.)
SCALE: 1/4" = 1'-0" 0417

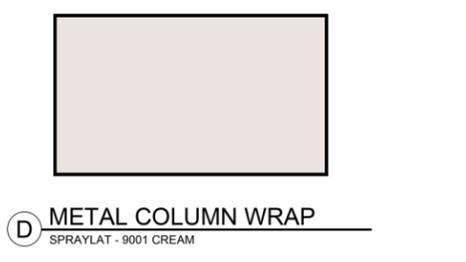
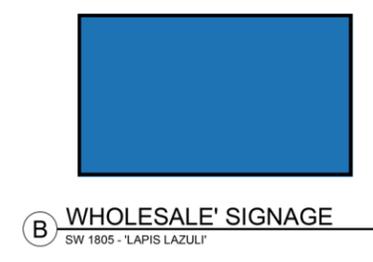
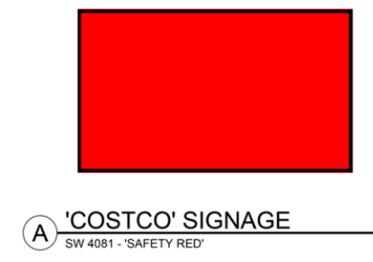


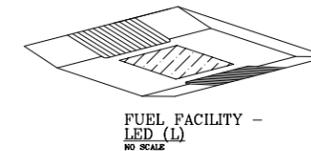
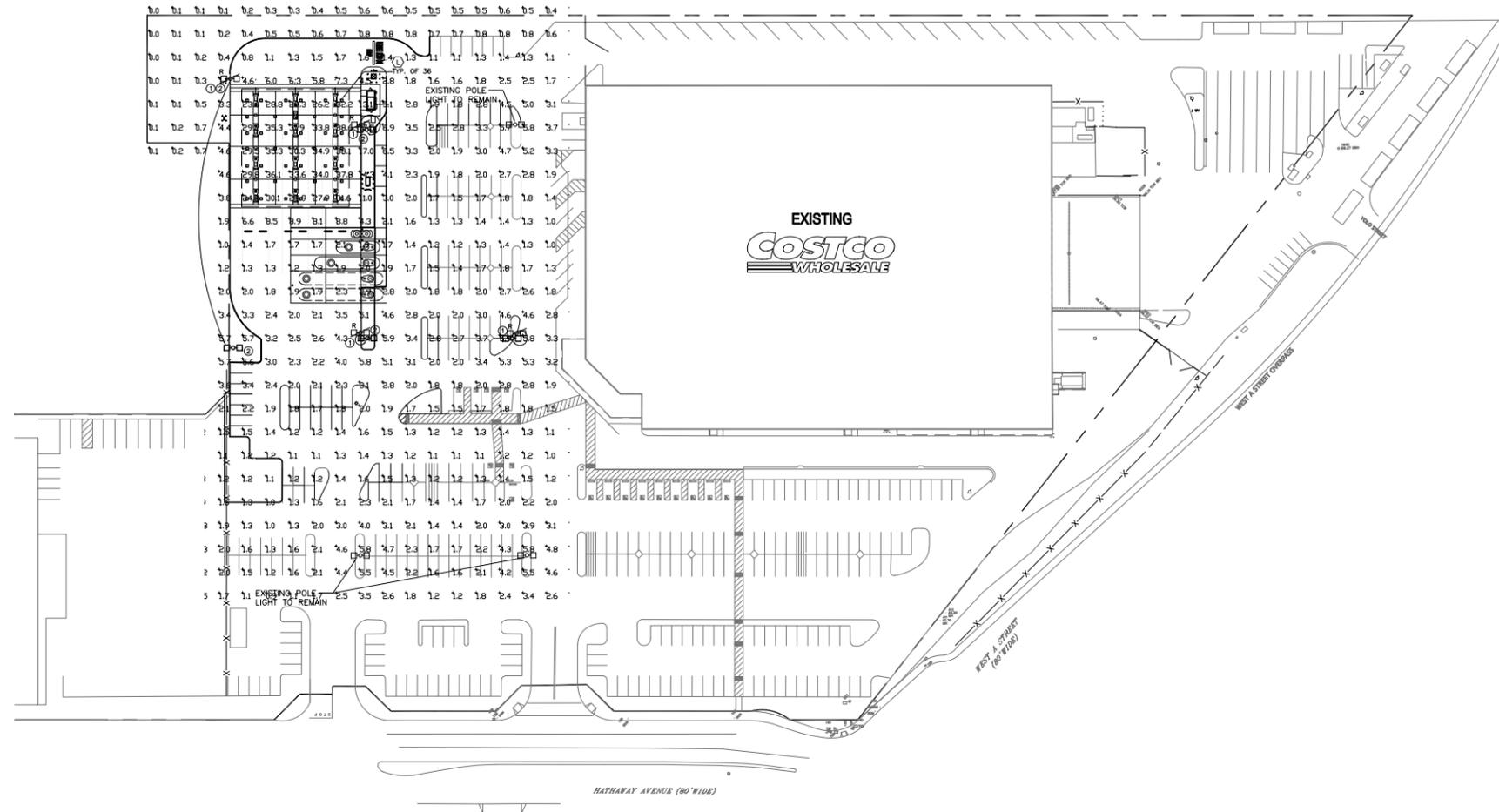
2 WEST CANOPY AND DISPENSER ISLANDS (EAST ELEV. SIM.)
SCALE: 1/4" = 1'-0" 0417



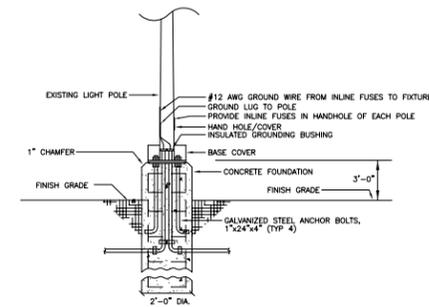
3 CANOPY SIGN
SCALE: 1/2" = 1'-0" (SUPPLIED AND INSTALLED BY CANOPY SUPPLIER)

| SIGNAGE AREA TABULATION (WALL SIGNS) | | | | |
|--------------------------------------|------------------|-----------------------|-----------------|------------|
| QTY. | SIGN | SIZE | AREA (S.F.) EA. | TOTAL S.F. |
| 4 | COSTCO WHOLESALE | 2'-5 1/4" x 8'-6 5/8" | 20.85 S.F. | 82.32 S.F. |
| TOTAL SIGNAGE AREA | | | | 82.32 S.F. |





SITE PLAN
SCALE: 1" = 50'



NOTE: PROVIDE CONCRETE J-BOX AS REQUIRED.
THIS DETAIL IS FOR ELECTRICAL CONDUITS ROUTING ONLY.
SEE STRUCTURAL DRAWINGS FOR CONSTRUCTION DETAIL.

EXISTING POLE BASE DETAIL
NO SCALE

PLAN NOTES:

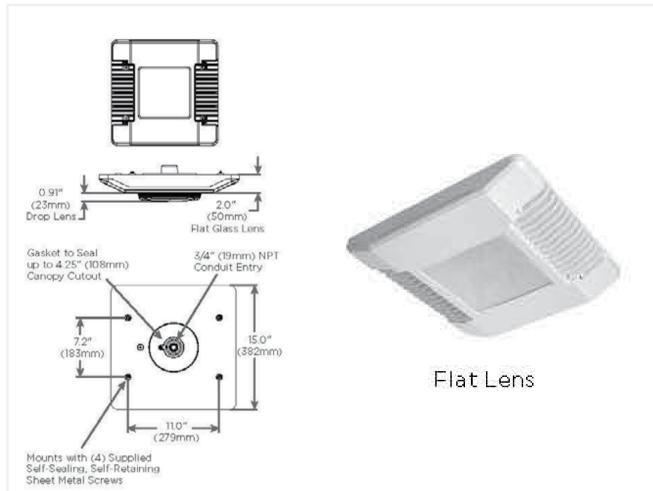
- EXISTING FIXTURE TO BE REMOVED AND RELOCATED. RELOCATED EXISTING POLE AND FIXTURES. DEMOLISH EXISTING BASE. PROVIDE NEW BASE AT NEW LOCATION. INTERCEPT EXISTING FEEDER AWAY FROM NEW FUEL FACILITY. PROVIDE HEAVY DUTY TRAFFIC RATED J-BOX AND EXTEND TO NEW LOCATION. FIELD VERIFY. SEAL CONDUITS PER NEC 514.
- E.C. TO SEAL UNDERGROUND CONDUITS WITHIN 10' OF ENTERING GROUND ON BOTH ENDS. SEAL POLE AND ASSOCIATED J-BOX. PROVIDE EXPLOSION-PROOF RATED J-BOX AND OTHER ELECTRICAL DEVICES NEAR FUELING FACILITY. REFER TO NEC ARTICLE 514.

LIGHTING FIXTURE SCHEDULE

| TYPE | MANUFACTURER | NUMBER | LAMPS | MOUNT | HWT | REMARKS |
|------|--------------|-----------------------------|-------|---------|-----|---------|
| Ⓞ | CREE | CPY250-B-PD-F-B-UL-WH-5000K | LED | SURFACE | 96 | |

CREE CPY250 WITH FLAT LENS

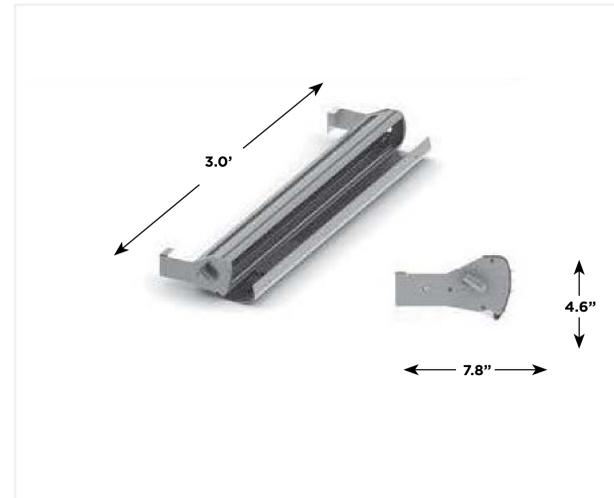
CREE
MODEL NO. CPY250-A-DM-F-B-UL-WH
122 WATTS



Flat Lens

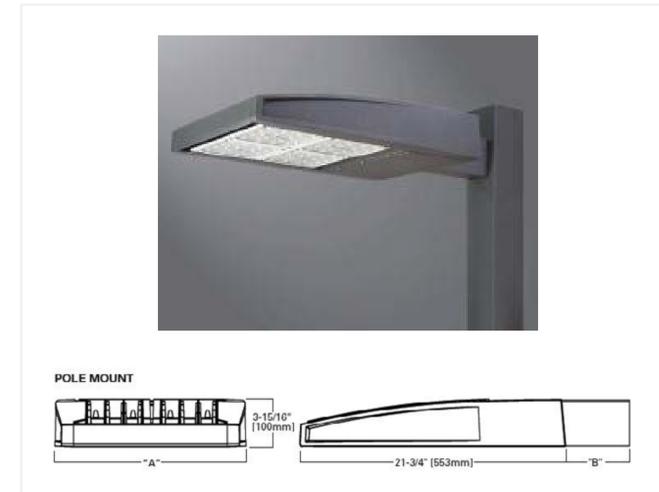
CREE LINEAR FACADE LIGHTER

CREE
MODEL NO. LFL-3-DO-UL-WH
22 WATTS



**GLEON - GALLEON LED
EATON COOPER LIGHTING**

POLE MOUNT LED



1

UNDER CANOPY LIGHTING

CPY250 WITH FLAT LENS

2

SIGN LIGHTING

LFL-3-DO-UL-WH

3

SITE LIGHTING

GLEON - GALLEON LED

PRELIMINARY SITE PLAN

COSTCO WHOLESALE FUEL FACILITY

22330 HATHAWAY AVE, HAYWARD, CA 94541

COSTCO FACILITY #823

LEGEND

| | | | |
|--|-------------------------------------|--|-------------------------------|
| | EXISTING ASPHALT | | PROPOSED ASPHALT |
| | EXISTING CONCRETE | | PROPOSED CONCRETE |
| | EXISTING CURB | | SLURRY SEAL |
| | EXISTING CANOPY DRIPLINE | | PROPOSED CURB |
| | EXISTING EASEMENT | | SAWCUT LINE |
| | EXISTING EDGE OF PAVEMENT | | PROPOSED PVC (STORM) |
| | EXISTING STORM DRAIN | | PROPOSED CANOPY DRIPLINE |
| | EXISTING WATER LINE | | PROPOSED PERFORATED PVC |
| | EXISTING UNDERGROUND TELEPHONE LINE | | PROPOSED INLET |
| | EXISTING UNDERGROUND POWER | | PROPOSED CLEANOUT |
| | EXISTING STORM DRAIN CATCH BASIN | | FLOW PATH |
| | EXISTING STORM CLEANOUT | | PROPOSED SPOT GRADE |
| | EXISTING SPOT ELEVATION | | PROPOSED GRADING SLOPE |
| | | | MATCH EXISTING PAVEMENT GRADE |

DISTURBED AREA SUMMARY:

| | |
|----------------------|-----------|
| TOTAL AREA = | 76,060 SF |
| EXISTING IMPERVIOUS: | 72,455 SF |
| PROPOSED IMPERVIOUS: | 61,814 SF |
| EXISTING PERVIOUS: | 3,605 SF |
| PROPOSED PERVIOUS: | 14,246 SF |

PROJECT TEAM:

OWNER

COSTCO WHOLESALE
999 LAKE DRIVE
ISSAQUAH, WA 98027

CIVIL ENGINEER

BARGHAUSEN CONSULTING ENGINEERS, INC.
18215 72ND AVE. S.
KENT, WA 98032
PHONE: (425) 251-6222
FAX: (425) 251-8782
CONTACT: MEGAN PALMER, P.E.

ARCHITECT

MG2
1101 SECOND AVENUE, SUITE 100
SEATTLE, WA 98101
PHONE: (206) 962-6500
FAX: (206) 962-6499

LANDSCAPE ARCHITECT

BARGHAUSEN CONSULTING ENGINEERS, INC.
18215 72ND AVE. S.
KENT, WA 98032
PHONE: (425) 251-6222
FAX: (425) 251-8782
CONTACT: JEFF VARLEY

SURVEYOR

KIER AND WRIGHT CIVIL ENGINEERS AND SURVEYORS, INC.
2850 COLLIER CANYON ROAD
LIVERMORE, CA 94551
PHONE: (925) 245-8788
FAX: (925) 245-8796
CONTACT: GARY LAMB

CIVIL SHEET INDEX:

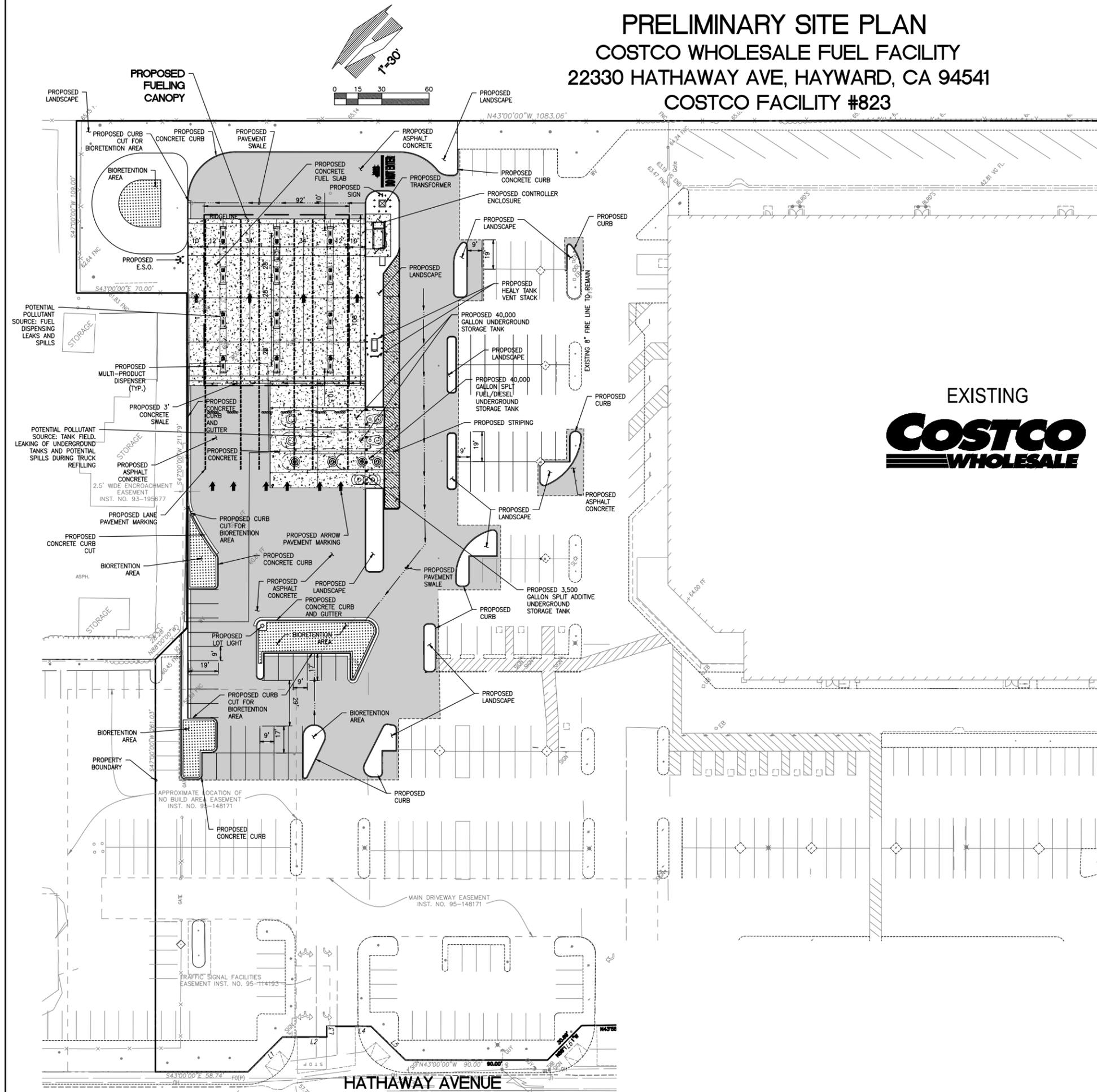
- C1 PRELIMINARY SITE PLAN
- C2 PRELIMINARY DEMOLITION PLAN
- C3 PRELIMINARY GRADING AND UTILITY PLAN
- C4 PRELIMINARY STORMWATER CONTROL PLAN
- C5 PRELIMINARY TREE REMOVAL PLAN

LANDSCAPE SHEET INDEX:

- L1 PRELIMINARY SITE PLAN
- L2 PRELIMINARY SITE PLAN
- L3 PRELIMINARY IRRIGATION PLAN
- L4 IRRIGATION NOTES AND DETAILS

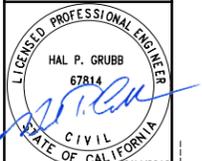
POLLUTANT SOURCE TREATMENT TABLE

| SOURCE | TREATMENT |
|-------------|---------------------|
| UNDERCANOPY | OIL/WATER SEPARATOR |
| TANK FIELD | BIORETENTION |



Title:
PRELIMINARY SITE PLAN
22330 HATHAWAY AVE.
HAYWARD, CA 94541
COSTCO FUEL FACILITY #823

For:
COSTCO GASOLINE
COSTCO WHOLESALE
999 LAKE DRIVE
ISSAQUAH, WA 98027



| | | |
|-----------|-------------------|----------|
| Scale: | Horizontal 1"=30' | Vertical |
| Designed: | Drawn: | Checked: |
| Approved: | Date: | Scale: |

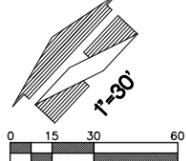
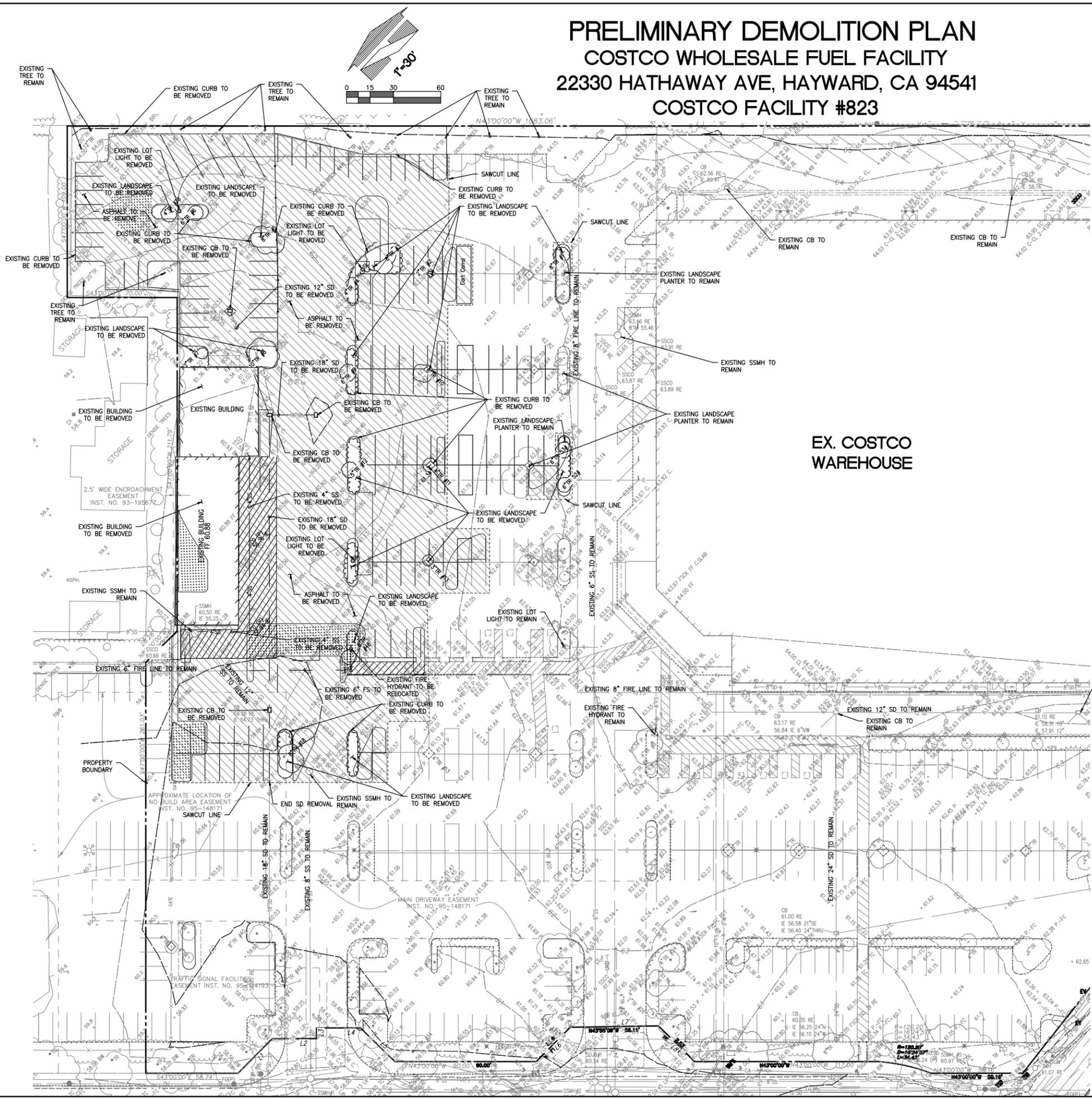
18215 72ND AVENUE SOUTH
KENT, WA 98032
(425) 251-6222
(425) 251-8782 FAX
CIVIL ENGINEERING, LAND PLANNING,
SURVEYING, ENVIRONMENTAL SERVICES



PRELIMINARY DEMOLITION PLAN COSTCO WHOLESALE FUEL FACILITY 22330 HATHAWAY AVE, HAYWARD, CA 94541 COSTCO FACILITY #823

LEGEND

-  EXISTING ASPHALT
-  EXISTING CONCRETE
-  ASPHALT TO BE REMOVED
-  EXISTING CURB
-  EXISTING CANOPY DRIPLINE
-  EXISTING EASEMENT
-  EXISTING EDGE OF PAVEMENT
-  EXISTING STORM DRAIN
-  EXISTING UNDERGROUND TELEPHONE LINE
-  EXISTING UNDERGROUND TELEPHONE LINE
-  EXISTING UNDERGROUND POWER
-  EXISTING STORM DRAIN CATCH BASIN
-  EXISTING STORM CLEANOUT
-  EXISTING SPOT ELEVATION



| No. | Date | By | Check | Appr. | Revision |
|-----|----------|----|-------|-------|-----------------------------|
| 1 | 12/15/19 | TR | MESP | CRJ | OIL/WATER SEPARATOR REQUEST |

Title:
 PRELIMINARY DEMOLITION PLAN
 22330 HATHAWAY AVE.
 HAYWARD, CA 94541
 COSTCO FUEL FACILITY #823

For:
COSTCO GASOLINE
 COSTCO WHOLESALE
 999 LAKE DRIVE
 ISSAQUAH, WA 98027



Scale:
 Horizontal 1"=30'
 Vertical 1"=10'

Designed: TR
 Drawn: TR
 Checked: MESP
 Approved: CRJ
 Date: 6/5/18

18215 72ND AVENUE SOUTH
 KENT, WA 98032
 (425)251-6222
 (425)251-8782 FAX
 CIVIL ENGINEERING, LAND PLANNING,
 SURVEYING, ENVIRONMENTAL SERVICES



Job Number: 6636
 Sheet: 2 of 6

POTENTIAL UTILITY CONFLICT. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING AND NEW UTILITIES PRIOR TO CONSTRUCTION. SEE UTILITY CONFLICT NOTE. THE EXISTING WATER, STORM, AND SANITARY SEWER SERVICE SHOWN IS APPROXIMATE, BASED ON FIELD SURVEYS AND "AS-BUILT" RECORDS. THE GENERAL CONTRACTOR SHALL "POTHOLE" THE EXISTING UTILITIES TO VERIFY THE DIAMETER AND LOCATION (INCL. ELEVATIONS) PRIOR TO CONSTRUCTION. ANY DISCREPANCIES IN THE LOCATION OF THE EXISTING PIPE OR INCOMPATIBILITY OF THE DESIGN SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE OWNERS REPRESENTATIVE, AND BARGHAUSEN CONSULTING ENGINEERS (425-251-6222).

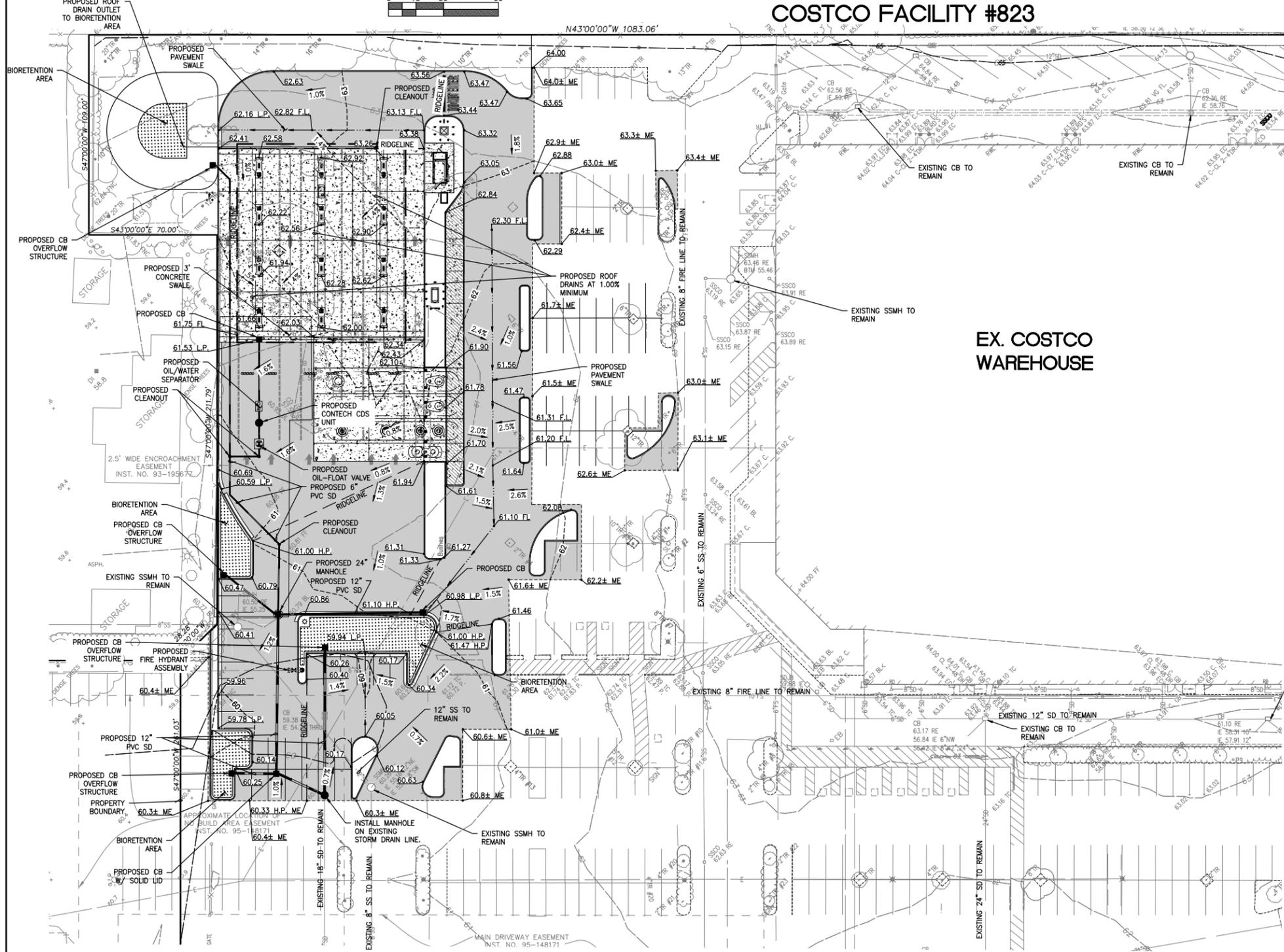
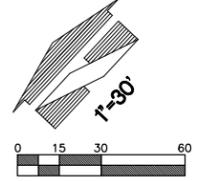
THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, DIMENSION, AND DEPTH OF ALL EXISTING UTILITIES WHETHER SHOWN ON THESE PLANS OR NOT BY POTHOLES THE UTILITIES AND SURVEYING THE HORIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION. THIS SHALL INCLUDE CALLING UTILITY LOCATE @ 1-800-227-2600 AND THEN POTHOLES ALL OF THE EXISTING UTILITIES AT LOCATIONS OF NEW UTILITY CROSSINGS TO PHYSICALLY VERIFY WHETHER OR NOT CONFLICTS EXIST. LOCATIONS OF SAID UTILITIES AS SHOWN ON THESE PLANS ARE BASED UPON THE UNVERIFIED PUBLIC INFORMATION AND ARE SUBJECT TO VARIATION. CONSULTING ENGINEERS, INC. TO RESOLVE ALL PROBLEMS PRIOR TO PROCEEDING WITH

PRELIMINARY GRADING AND UTILITY PLAN

COSTCO WHOLESALE FUEL FACILITY

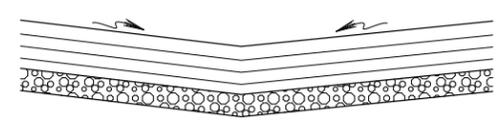
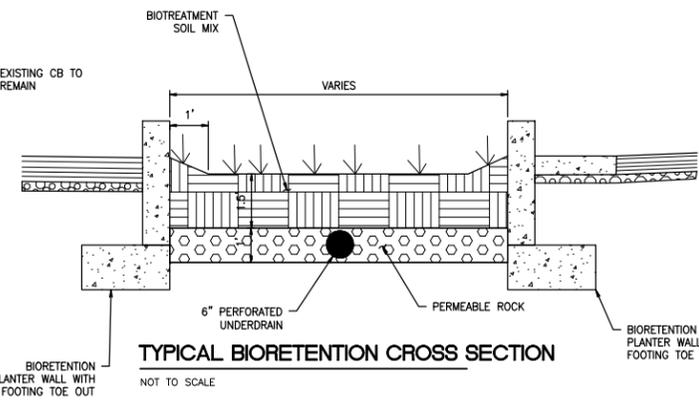
22330 HATHAWAY AVE, HAYWARD, CA 94541

COSTCO FACILITY #823



LEGEND

| | |
|--|-------------------------------------|
| | PROPOSED ASPHALT |
| | PROPOSED CONCRETE |
| | SLURRY SEAL |
| | PROPOSED CURB |
| | SAWCUT LINE |
| | PROPOSED PVC (STORM) |
| | PROPOSED CANOPY DRIPLINE |
| | PROPOSED PERFORATED PVC |
| | PROPOSED INLET |
| | PROPOSED CLEANOUT |
| | FLOW PATH |
| | PROPOSED SPOT GRADE |
| | PROPOSED GRADING SLOPE |
| | MATCH EXISTING |
| | EXISTING ASPHALT |
| | EXISTING CONCRETE |
| | EXISTING CURB |
| | EXISTING CANOPY DRIPLINE |
| | EXISTING EASEMENT |
| | EXISTING EDGE OF PAVEMENT |
| | EXISTING STORM DRAIN |
| | EXISTING WATER LINE |
| | EXISTING UNDERGROUND TELEPHONE LINE |
| | EXISTING UNDERGROUND POWER |
| | EXISTING STORM DRAIN CATCH BASIN |
| | EXISTING STORM CLEANOUT |
| | EXISTING SPOT ELEVATION |



| HYDRANT NUMBER | LOCATION | PRESSURE - PSI | | | DISCHARGE - GPM | | |
|----------------|-----------------------|----------------|----------|-------|-----------------|----------|-------------|
| | | STATIC | RESIDUAL | PITOT | ORIFICE | OBSERVED | 20 PSI CALC |
| 3529-03 | 22330 HATHAWAY AVENUE | 100 | 92 | X | 2.5 | 1491.5 | 5171.2 |
| 3629-01 | 22330 HATHAWAY AVENUE | X | X | 79 | X | X | X |

Title:
 PRELIMINARY GRADING AND UTILITY PLAN
 22330 HATHAWAY AVE.
 HAYWARD, CA 94541
 COSTCO FUEL FACILITY #823

For:
COSTCO GASOLINE
 COSTCO WHOLESALE
 999 LAKE DRIVE
 ISSAQUAH, WA 98027

LICENSED PROFESSIONAL ENGINEER
 HAL P. GRUBB
 67814
 CIVIL
 STATE OF CALIFORNIA

Scale: Horizontal 1"=30' Vertical
 Designed: JTR
 Drawn: JTR
 Checked: MESP
 Approved: JBL
 Date: 6/5/18

18215 72ND AVENUE SOUTH
 KENT, WA 98032
 (425)251-6222
 (425)251-8782 FAX
 CIVIL ENGINEERING, LAND PLANNING,
 SURVEYING, ENVIRONMENTAL SERVICES

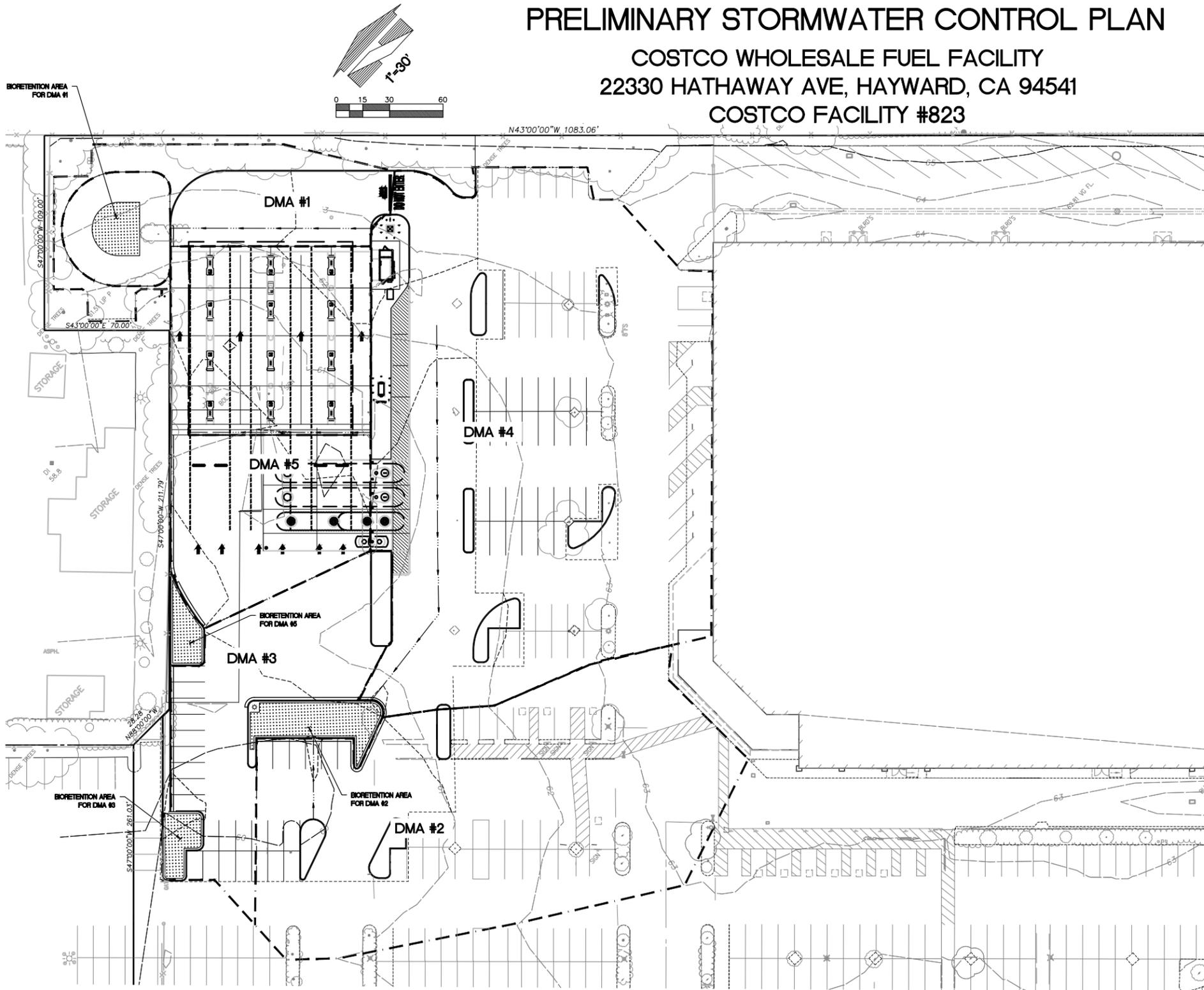


Job Number: 6636
 Sheet: 3 of 6

File: PA\06000a\6636-Prelim Plans\mesp.dwg Date: Times3/19/2019 4:03 PM Scale: 0.009988
 TRALPH Xref:

PRELIMINARY STORMWATER CONTROL PLAN

COSTCO WHOLESALE FUEL FACILITY
22330 HATHAWAY AVE, HAYWARD, CA 94541
COSTCO FACILITY #823



LEGEND

- PROPOSED ASPHALT
- PROPOSED CONCRETE
- SLURRY SEAL
- PROPOSED CURB
- SAWCUT LINE
- PROPOSED PVC (STORM)
- PROPOSED CANOPY DRIPLINE
- PROPOSED PERFORATED PVC
- PROPOSED INLET
- PROPOSED CLEANOUT
- FLOW PATH
- PROPOSED SPOT GRADE
- PROPOSED GRADING SLOPE
- MATCH EXISTING
- EXISTING ASPHALT
- EXISTING CONCRETE
- EXISTING CURB
- EXISTING CANOPY DRIPLINE
- EXISTING EASEMENT
- EXISTING EDGE OF PAVEMENT
- EXISTING STORM DRAIN
- EXISTING WATER LINE
- EXISTING UNDERGROUND TELEPHONE LINE
- EXISTING UNDERGROUND POWER
- EXISTING STORM DRAIN CATCH BASIN
- EXISTING STORM CLEANOUT
- EXISTING SPOT ELEVATION

| | | | | | |
|-----|----------|----|-------|-------|-----------------------------|
| No. | Date | By | Check | Appr. | Request |
| 1 | 12/15/19 | TR | MESP | CRS | OIL/WATER SEPARATOR REQUEST |

Title:
PRELIMINARY STORMWATER CONTROL PLAN
22330 HATHAWAY AVE.
HAYWARD, CA 94541
COSTCO FUEL FACILITY #823

For:
COSTCO GASOLINE
COSTCO WHOLESALE
999 LAKE DRIVE
ISSAQUAH, WA 98027



| | | |
|----------|------------|----------|
| Scale: | Horizontal | Vertical |
| | 1"=30' | 1"=30' |
| Designed | TR | |
| Drawn | TR | |
| Checked | MESP | |
| Approved | CRS | |
| Date | 6/5/18 | |

18215 72ND AVENUE SOUTH
KENT, WA 98032
(425)251-6222
(425)251-8782 FAX
CIVIL ENGINEERING, LAND PLANNING,
SURVEYING, ENVIRONMENTAL SERVICES



Job Number
6636
Sheet
4 of **6**

STORMWATER TREATMENT MEASURES SUMMARY TABLE

| DMA AREA | TREATMENT CONTROL MEASURES | TYPES OF IMPERVIOUS AREA | TOTAL AREA (SF) | PERVIOUS AREA (SF) | IMPERVIOUS AREA (SF) | EFFECTIVE IMPERVIOUS AREA (SF) | EFFECTIVE PERVIOUS AREA (SF) | TREATMENT AREA REQUIRED (SF) | TREATMENT AREA PROVIDED (SF) | DEPTH OF PONDING (INCHES) | TREATMENT TYPE | SIZING METHOD |
|----------|----------------------------|---------------------------|-------------------------|--------------------|----------------------|--------------------------------|------------------------------|------------------------------|------------------------------|---------------------------|----------------|------------------------|
| 1 | BIORETENTION | ASPHALT PAVEMENT/CANOPY | 19208 (9,936 CANOPY) | 4408 | 14800 | 14800 | N/A | 636 | 700 | 6 | BIORETENTION | FLOW BASED (4% METHOD) |
| 2 | BIORETENTION | ASPHALT PAVEMENT | 34792 | 1576 | 33216 | 33216 | N/A | 1344 | 1383 | 6 | BIORETENTION | FLOW BASED (4% METHOD) |
| 3 | BIORETENTION | ASPHALT PAVEMENT | 11764 | 566 | 11198 | 11198 | N/A | 453 | 574 | 6 | BIORETENTION | FLOW BASED (4% METHOD) |
| 4 | NO TREATMENT | ASPHALT PAVEMENT | 51002 | 2933 | 48069 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 5 | BIORETENTION | CONCRETE/ASPHALT PAVEMENT | 11143 | 0 | 11143 | 11143 | N/A | 445 | 518 | 6 | BIORETENTION | FLOW BASED (4% METHOD) |

ALTERNATIVE COMPLIANCE NARRATIVE

TREATMENT OF THE ENTIRE PROJECT AREA IS NOT FEASIBLE BECAUSE THE SITE IS ALREADY DEVELOPED. TREATING THE ENTIRE PROJECT AREA WOULD REQUIRE RE-GRADING THAT WOULD SIGNIFICANTLY INCREASE THE LIMITS OF DISTURBANCE. IN ADDITION, SOME AREAS OF THE PROJECT, SUCH AS THE AREA UNDER THE FUEL CANOPY, ARE HYDRAULICALLY ISOLATED BECAUSE OF INCREASED RISK FOR POLLUTANT CONTAMINATION AND CANNOT BE ROUTED THROUGH BIORETENTION.

IN ORDER TO TREAT THE REQUIRED SQUARE FOOTAGE WITH LID BMPs, THE PROJECT PROPOSES TO TREAT AN EQUIVALENT AREA. MUCH OF DMA #2 DOES NOT FALL WITHIN THE PROJECT SITE, BUT WILL BE TREATED WITH BIORETENTION IN THE PROPOSED CONDITION. WE BELIEVE THIS WOULD BRING THE IMPROVEMENTS INTO COMPLIANCE UNDER THE OFFSITE EQUIVALENT TREATMENT PROVISION DESCRIBED IN CHAPTER 9 OF THE 2016 ALAMEDA TGD.

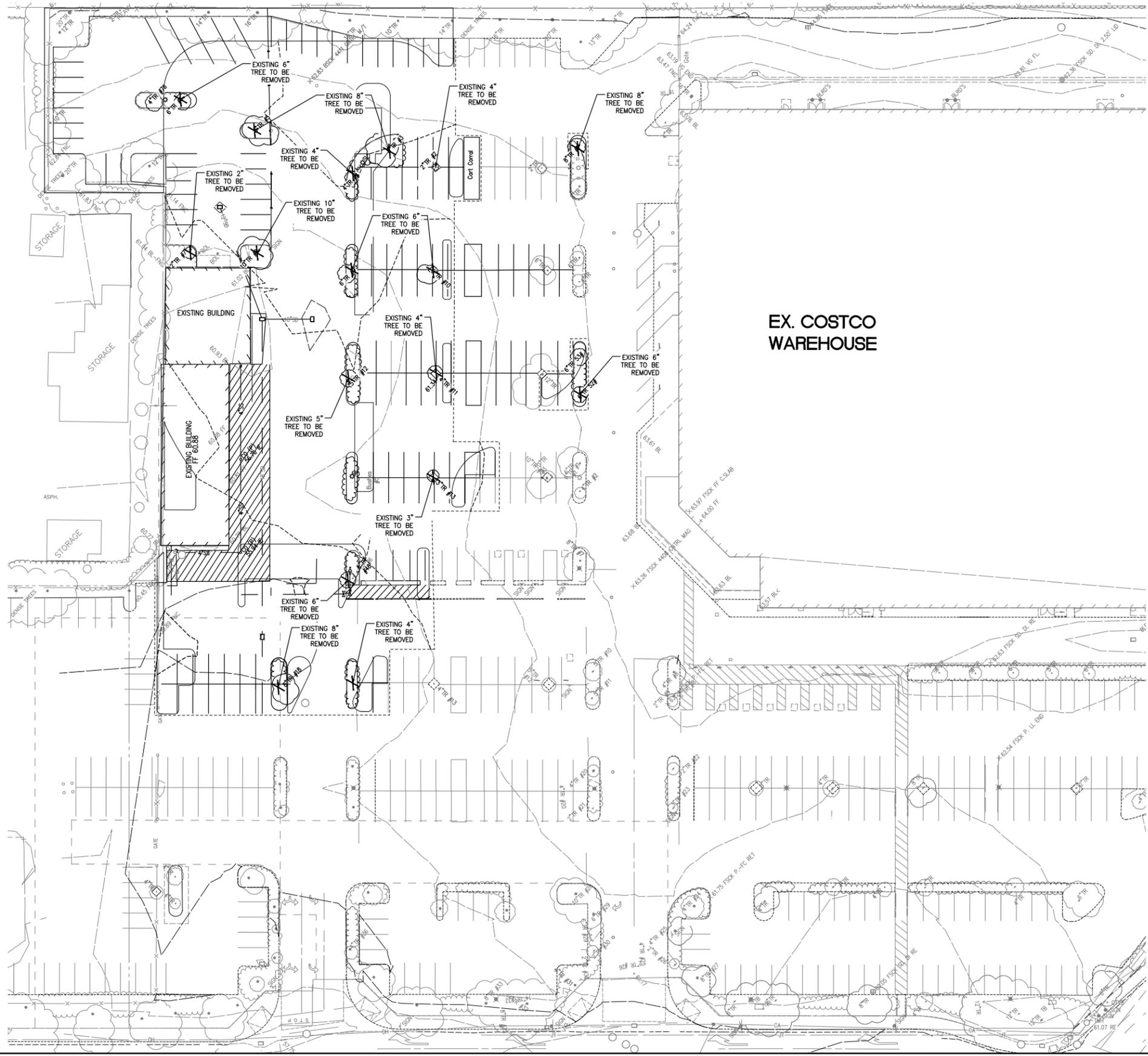
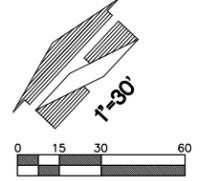
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PRELIMINARY TREE REMOVAL PLAN

COSTCO WHOLESALE FUEL FACILITY

22330 HATHAWAY AVE, HAYWARD, CA 94541

COSTCO FACILITY #823



LEGEND

- EXISTING ASPHALT
- EXISTING CONCRETE
- EXISTING CURB
- EXISTING CANOPY DRIPLINE
- EXISTING EASEMENT
- EXISTING EDGE OF PAVEMENT
- EXISTING STORM DRAIN
- EXISTING UNDERGROUND TELEPHONE LINE
- EXISTING UNDERGROUND TELEPHONE LINE
- EXISTING UNDERGROUND POWER
- EXISTING STORM DRAIN CATCH BASIN
- EXISTING STORM CLEANOUT
- EXISTING SPOT ELEVATION
- EXISTING TREE TO BE REMOVED

PRELIMINARY TREE REMOVAL PLAN
22330 HATHAWAY AVE.
HAYWARD, CA 94541
COSTCO FUEL FACILITY #823

For:
COSTCO GASOLINE
COSTCO WHOLESALE
999 LAKE DRIVE
ISSAQUAH, WA 98027



Scale: Horizontal _____ Vertical _____
 Designed: _____ TR: _____
 Drawn: _____ TR: _____
 Checked: _____ MESP: _____
 Approved: _____ CBL: _____
 Date: 6/5/18

18215 72ND AVENUE SOUTH
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 (425)251-6222
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 SURVEYING, ENVIRONMENTAL SERVICES



CAUTION:
 POTENTIAL UTILITY CONFLICT. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING AND NEW UTILITIES PRIOR TO CONSTRUCTION. SEE UTILITY CONFLICT NOTE. THE EXISTING WATER, STORM, AND SANITARY SEWER SERVICE SHOWN IS APPROXIMATE, BASED ON FIELD SURVEYS AND "AS-BUILT" RECORDS. THE GENERAL CONTRACTOR SHALL "POTHOLE" THE EXISTING UTILITIES TO VERIFY THE DIAMETER AND LOCATION (INCL. ELEVATIONS) PRIOR TO CONSTRUCTION. ANY DISCREPANCIES IN THE LOCATION OF THE EXISTING PIPE OR INCOMPATIBILITY OF THE DESIGN SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE OWNERS REPRESENTATIVE, AND BARGHAUSEN CONSULTING ENGINEERS (425-251-6222).

UTILITY CONFLICT NOTE:
 THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, DIMENSION, AND DEPTH OF ALL EXISTING UTILITIES WHETHER SHOWN ON THESE PLANS OR NOT BY POTHOLING THE UTILITIES AND SURVEYING THE HORIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION. THIS SHALL INCLUDE CALLING UTILITY LOCATE @ 1-800-227-2600 AND THEN POTHOLING ALL OF THE EXISTING UTILITIES AT LOCATIONS OF NEW UTILITY CROSSINGS TO PHYSICALLY VERIFY WHETHER OR NOT CONFLICTS EXIST. LOCATIONS OF SAID UTILITIES AS SHOWN ON THESE PLANS ARE BASED UPON THE UNVERIFIED PUBLIC INFORMATION AND ARE SUBJECT TO VARIATION. IF CONFLICTS SHOULD OCCUR, THE CONTRACTOR SHALL CONSULT BARGHAUSEN CONSULTING ENGINEERS, INC. TO RESOLVE ALL PROBLEMS PRIOR TO PROCEEDING WITH CONSTRUCTION.

Job Number: **6636**
 Sheet: **5** of **6**

Title: PRELIMINARY TREE REMOVAL PLAN
 Date: 12/15/19
 No. 1
 By: MESP
 Checked: CBL
 Approved: _____
 Date: 6/5/18
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PRELIMINARY LANDSCAPE NOTES AND DETAILS

COSTCO WHOLESALE FUEL FACILITY

22330 HATHAWAY AVE, HAYWARD, CA 94541

COSTCO FACILITY #823

LANDSCAPE PLANTING NOTES AND MATERIALS

SCOPE OF WORK
 FURNISH ALL MATERIALS, LABOR, EQUIPMENT AND RELATED ITEMS NECESSARY TO ACCOMPLISH TOPSOIL, TREATMENT AND PREPARATION OF SOIL, FINISH GRADING, PLACEMENT OF SPECIFIED PLANT MATERIALS, FERTILIZER, STAKING, MULCH, CLEAN-UP, DEBRIS REMOVAL, AND 90-DAY MAINTENANCE.

QUALIFICATIONS:
 LANDSCAPE CONTRACTOR TO BE SKILLED AND KNOWLEDGEABLE IN THE FIELD OF WORK AND HAVE A MINIMUM OF FIVE (5) YEAR'S EXPERIENCE INSTALLING SIMILAR WORK. CONTRACTOR TO BE LICENSED TO PERFORM THE WORK SPECIFIED WITHIN THE PRESIDING JURISDICTION.

JOB CONDITIONS:
 IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW THE SITE AND REPORT ANY DISCREPANCIES TO THE OWNER OR THE OWNER'S REPRESENTATIVES. ALL PLANT MATERIAL AND FINISH GRADES ARE SUBJECT TO APPROVAL BY THE OWNER.

PROTECTION:
 SAVE AND PROTECT ALL EXISTING PLANTINGS SHOWN TO REMAIN. DO NOT PLANT UNTIL OTHER CONSTRUCTION OPERATIONS WHICH CONFLICT HAVE BEEN COMPLETED. IF AN IRRIGATION SYSTEM IS TO BE INSTALLED DO NOT PLANT UNTIL THE SYSTEM HAS BEEN INSTALLED, TESTED, AND APPROVED BY THE OWNER. HANDLE PLANTS WITH CARE - DO NOT DAMAGE OR BREAK ROOT SYSTEM, BARK, OR BRANCHES. REPAIR AND/OR REPLACE ITEMS DAMAGED AS A RESULT OF WORK, OR WORK NOT IN COMPLIANCE WITH PLANS AND SPECIFICATIONS, AS DIRECTED BY OWNER AT NO ADDITIONAL COST TO THE OWNER.

REPAIR OF EXISTING PLANTINGS:
 DURING THE COURSE OF WORK, REPAIR ALL EXISTING PLANTING AREAS BY PRUNING DEAD GROWTH, RE-ESTABLISHING FINISH GRADE AND RE-MULCHING TO SPECIFIED DEPTH.

REPAIR OF IRRIGATION SYSTEM:
 DURING THE COURSE OF WORK, REPAIR ANY DAMAGE TO THE IRRIGATION SYSTEM TO MATCH CONDITIONS PRIOR TO THE DAMAGE.

GUARANTEE:
 GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE OF THE JOB BY OWNER.

90-DAY MAINTENANCE:
 CONTRACTOR TO PROVIDE OWNER WITH A SCOPE OF WORK AT TIME OF INITIAL PROJECT BID TO PROVIDE LANDSCAPE AND IRRIGATION MAINTENANCE FOR 90 DAYS FOLLOWING COMPLETION OF PROJECT (ACCEPTANCE) OF FACILITY BY OWNER. WORK TO INCLUDE MAINTENANCE AS DESCRIBED BELOW, IN PLANTING AND IRRIGATION MAINTENANCE.

MATERIALS:

PLANT MATERIALS:
 PLANT MATERIALS TO BE GRADE NO. 1, SIZED IN ACCORDANCE WITH (AAM) AMERICAN STANDARDS FOR NURSERY STOCK, CURRENT EDITION. PRUNE PLANTS RECEIVED FROM THE NURSERY ONLY UPON AUTHORIZATION BY THE LANDSCAPE ARCHITECT. "B & B" INDICATES BALLED AND BURLAPPED; "CONT." INDICATES CONTAINER; "BR" INDICATES BARE ROOT; "GAL" INDICATES GALLON.

A) SPECIFIED PLANT CANOPY SIZE OR CALIPER IS THE MINIMUM ACCEPTABLE CONTAINER OR BALL SIZE AND ESTABLISHES MINIMUM PLANT CONDITION TO BE PROVIDED.

B) QUALITY:
 PLANT MATERIAL TO COMPLY WITH STATE AND FEDERAL LAWS FOR DISEASE INSPECTION, PLANTS TO BE FULLY LIVE, VIGOROUS, WELL FORMED, WITH WELL DEVELOPED FIBROUS ROOT SYSTEMS. ROOT BALLS OF PLANTS TO BE SOLID AND FIRMLY HELD TOGETHER, SECURELY CONTAINED AND PROTECTED FROM INJURY AND DESICCATION. PLANTS DETERMINED BY LANDSCAPE ARCHITECT TO HAVE BEEN DAMAGED; HAVE DEFORMITIES OF STEM, BRANCHES, OR ROOTS; LACK SYMMETRY, HAVE MULTIPLE LEADERS OR "Y" CROTCHES LESS THAN 30 DEGREES IN TREES, OR DO NOT MEET SIZE OR ANSI STANDARDS WILL BE REJECTED. PLANT MATERIAL TO BE FROM A SINGLE NURSERY SOURCE FOR EACH SPECIFIED SPECIES/HYBRID. NURSERY SOURCES TO BE THOSE LOCATED IN THE SAME REGION AS THE JOB SITE.

C) SUBSTITUTION:
 NO SUBSTITUTION OF PLANT MATERIAL, SPECIES OR VARIETY, WILL BE PERMITTED UNLESS WRITTEN EVIDENCE IS SUBMITTED TO THE OWNER FROM TWO QUALIFIED PLANT BROKERAGE OFFICES. SUBSTITUTIONS WHICH ARE PERMITTED TO BE IN WRITING FROM THE OWNER AND LANDSCAPE ARCHITECT. THE SPECIFIED SIZE, SPECIES AND NEAREST VARIETY, AS APPROVED, TO BE FURNISHED. SUBSTITUTIONS MAY REQUIRE SUBMITTAL TO REVISED LANDSCAPE PLAN TO CITY FOR APPROVAL.

SOIL PREPARATION:
 FOR ALL NEW LANDSCAPE BEDS, INCORPORATE COMPOST AT A RATE OF AT LEAST FOUR CUBIC YARDS PER 1,000 SQUARE FEET TO A DEPTH OF SIX INCHES INTO LANDSCAPE AREA (UNLESS CONTRA-INDICATED BY A SOIL TEST).

SOIL AMENDMENTS AND ANY ADDITIONAL SOIL SUPPLEMENTS AND PROCEDURES SHALL BE DONE IN ACCORDANCE WITH A SOIL TEST. LANDSCAPE CONTRACTOR TO PROCURE SOIL TEST AND PROVIDE RESULTS TO LANDSCAPE ARCHITECT.

F) TOPSOIL PLACEMENT:

1. PROVIDE A TOTAL FINISH COURSE OF 4 INCHES OF TOPSOIL FOR LANDSCAPE AREAS AND 1 1/2 INCHES IN PARKING LOT ISLANDS.
2. IN ALL LANDSCAPE AREAS, PLACE 2 INCHES (6 INCHES IN PARKING LOT ISLANDS) OF TOPSOIL MIX WITH AMENDMENTS OVER THE PREPARED SUB-GRADE AND THOROUGHLY ROTOTILL WITH MULTIPLE PASSES INTO THE TOP 6 INCHES OF SUB-GRADE FOR A TOTAL DEPTH OF 8 INCHES IN LANDSCAPE AREAS (12 INCHES IN PARKING LOT ISLANDS). PLACE AN ADDITIONAL 2 INCH LIFT OF TOPSOIL, IN ALL LANDSCAPE AREAS AND A MINIMUM 12 INCH LIFT IN ALL PARKING LOT ISLANDS, FOR THE FINAL TOPSOIL DEPTH OF 4 INCHES IN LANDSCAPE AREAS AND 1 1/2 INCHES IN PARKING LOT ISLANDS.
3. PLACE ADDITIONAL TOPSOIL AND SOIL MIX AS REQUIRED TO MEET FINISH ELEVATIONS.

MULCH (TOPDRESSING):
 ORGANIC RECYCLED CHIP WOOD, DARK BROWN, SIZE SHALL NOT EXCEED 1-1/2 INCH.

GUY MATERIAL:
 1-INCH WIDE POLYETHYLENE CHAIN LOCK TYPE TIES; OR, 3/8" DIAMETER RUBBER, NO WIRE.

TREE STAKE:
 SEE CITY OF HAYWARD STANDARD DETAIL THIS SET.

HERBICIDE:
 HERBICIDE IS NOT RECOMMENDED FOR THE FIRST YEAR AFTER INSTALLATION.

ANTI-DESICCANT:
 "WILT-PROOF," 48 HOURS PRIOR TO SHIPMENT TO SITE FROM JUNE 1 THROUGH SEPTEMBER. THOROUGHLY ROOT WATER PLANTS PRIOR TO DELIVERY. PLANT MATERIAL DELIVERED TO SITE TO BE KEPT CONTINUALLY MOIST THROUGH INSTALLATION.

EXECUTION:

FINISH GRADES:
 FINE GRADE AND REMOVE ROCKS AND FOREIGN OBJECTS OVER 2 INCHES DIAMETER FROM TOP SURFACE OF PREPARED LANDSCAPE AREAS. FINISH ELEVATIONS TO BE DEFINED AS 3 INCHES BELOW CURBS, WALKS AND/OR OTHER ADJACENT HARDSCAPE FOR ALL PLANTING BED AREAS AND 1-INCH BELOW CURBS, WALKS AND/OR OTHER ADJACENT HARDSCAPE FOR ALL LAWN AREAS. FINISH GRADE REFER TO GRADES PRIOR TO INSTALLATION OF MULCH OR LAWN.

TREES AND SHRUBS:
 ARRANGE TREES AND SHRUBS ON SITE IN PROPOSED LOCATIONS PER DRAWINGS. EXCAVATE PIT, PLANT AND STAKE OR GUY, AS CALLED OUT AND DETAILED. ALL TREES, SHRUBS, AND SUPPORTS TO STAND VERTICAL. BACKFILL SHALL BE PIT SPOILS. SETTLE BACKFILL USING WATER ONLY. NO MECHANICAL COMPACTION.

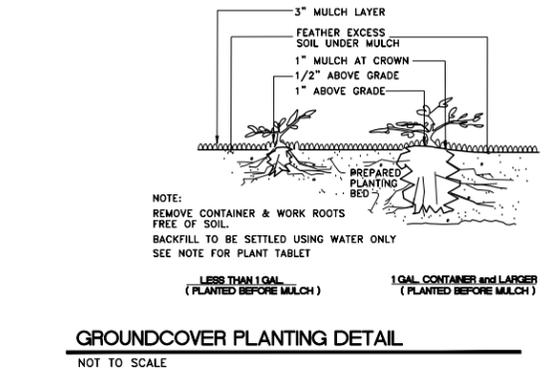
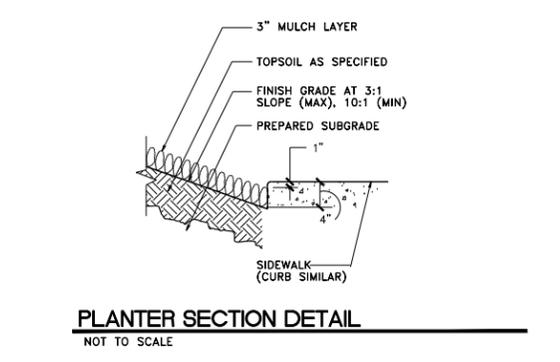
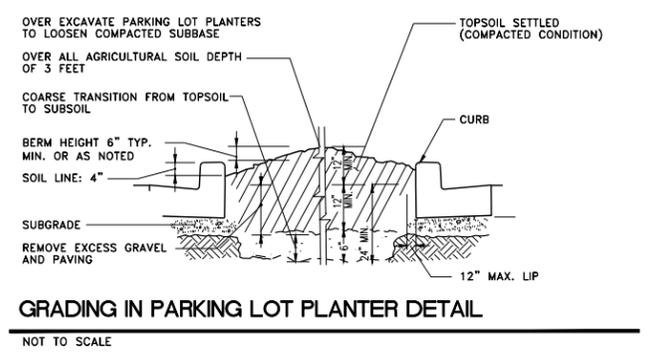
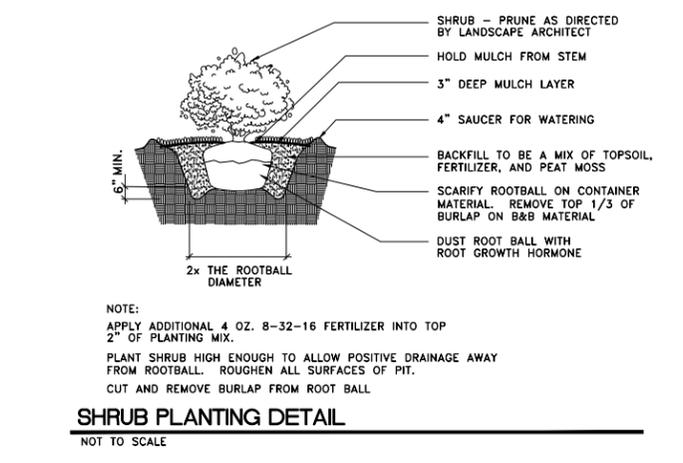
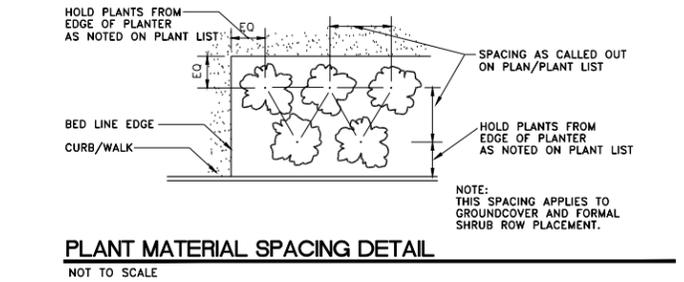
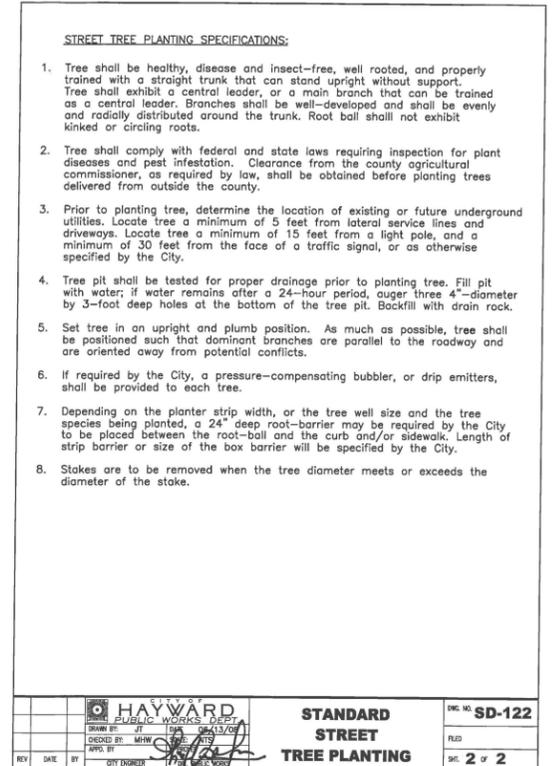
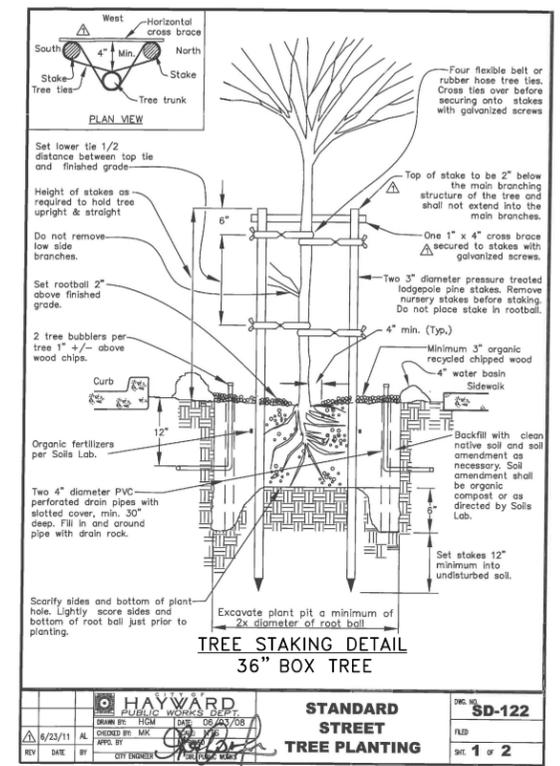
GROUNDCOVERS:
 EXCAVATE PITS TO A MINIMUM OF 3 INCHES BELOW, AND TWICE THE ROOT BALL DIAMETER. WATER THOROUGHLY AND TAKE CARE TO ENSURE THAT ROOT CROWN IS AT PROPER GRADE, AS DETAILED.

MULCH:
 MULCH ALL LANDSCAPE AREAS NOT COVERED BY LAWN AND/OR SEED. APPLY SUFFICIENT QUANTITY TO PROVIDE A 3-INCH DEPTH.

UTILITY CLEARANCES:
 FIELD ADJUST PLANT LOCATIONS FOR 8-FOOT SEPARATION OF TREES/SHRUBS AND 2-FOOT SEPARATION FOR GROUNDCOVER FROM FIRE HYDRANTS AND UTILITY VAULTS.

PLANTING MAINTENANCE:
 CONTRACTOR TO MAINTAIN PLANTINGS THROUGH COMPLETED INSTALLATION, AND UNTIL ACCEPTANCE OF LANDSCAPE INSTALLATION. PLANTING MAINTENANCE TO INCLUDE WATERING, WEEDING, CULTIVATING, TIGHTENING AND REPAIRING OF TREE GUYS, RESETTling PLANTS TO PROPER GRADES OR POSITION, RE-ESTABLISHING SETTLED GRADES, AND MOWING LAWNS WEEKLY AFTER LAWN ESTABLISHMENT. HERBICIDE IS NOT RECOMMENDED FOR ONE YEAR FOLLOWING LANDSCAPE INSTALLATION. INCLUDED IS REPLACEMENT OF DEAD PLANTS AND PLANTS SHOWING LOSS OF 40 PERCENT OR MORE OF CANOPY.

IRRIGATION MAINTENANCE:
 THE IRRIGATION SYSTEM TO BE MAINTAINED INCLUDING ADJUSTMENTS FOR BALANCED WATER DISTRIBUTION AND PRECIPITATION. FAILED OR MALFUNCTIONING IRRIGATION EQUIPMENT SHALL BE REPLACED AND/OR CORRECTED. PLANTING AND IRRIGATION MAINTENANCE TO INCLUDE THOSE OPERATIONS NECESSARY TO THE PROPER GROWTH AND SURVIVAL OF ALL PLANT MATERIALS. CONTRACTOR TO PROVIDE THIS WORK IN ADDITION TO SPECIFIC WARRANTY/GUARANTEES.



Title: PRELIMINARY LANDSCAPE NOTES AND DETAILS
 22330 HATHAWAY AVE.
 HAYWARD, CA 94541
 COSTCO FUEL FACILITY #823

For: COSTCO GASOLINE
 COSTCO WHOLESALE
 999 LAKE DRIVE
 ISSAQUAH, WA 98027

Scale: Horizontal 1"=20'
 Vertical 1"=20'

Designed: BS
 Drawn: BS
 Checked: BS/LW
 Approved: JMW
 Date: 4/28/17

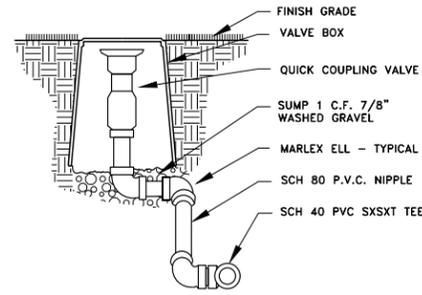
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Job Number: 6636
 Sheet: L2 of 4
 Date: 4/28/17

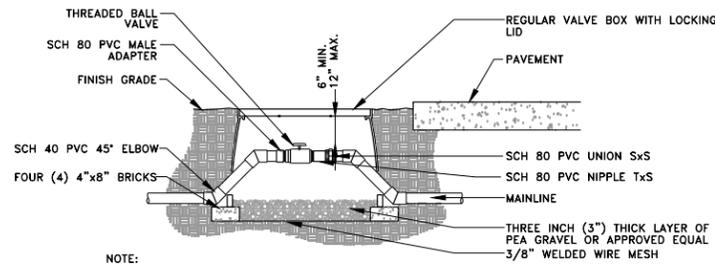
LANDSCAPE IRRIGATION NOTES

- GENERAL CONTRACTOR AND LANDSCAPE CONTRACTOR TO COORDINATE:
 - VERIFICATION OF STATIC WATER PRESSURE AT POINT-OF-CONNECTION (P.O.C.) CONTRACTOR SHALL NOTIFY OWNER AND BARGHAUSEN CONSULTING ENGINEERS, INC. OF ANY VARIATION IN STATIC PRESSURE OVER 5 PSI GREATER/LESS THAN DESIGN PRESSURE.
 - INSTALLATION OF SLEEVING.
- LANDSCAPE CONTRACTOR TO TEST AVAILABLE WATER PRESSURE AND PROVIDE WRITTEN TEST RESULTS TO LANDSCAPE ARCHITECT PRIOR TO BEGINNING ANY WORK.
- ALL WORK PER LOCAL CODE. INSTALLATION PER MANUFACTURER'S WRITTEN SPECIFICATIONS.
- ALL VALVES TO BE PLACED IN "CARSON" GRADE LEVEL BOXES WITH BOLT-LOCK LIDS (OR APPROVED EQUIVALENT). SET BOXES 2 INCHES HIGHER THAN FINISH GRADE IN MULCH AREAS AND FLUSH WITH FINISH GRADE IN LAWN AREAS. JUMBO BOX FOR CHECK VALVE, 10" ROUND BOX FOR GATE/QUICK COUPLER/WIRE SPLICES, AND 12" STANDARD FOR CONTROL VALVES. PROVIDE BOX EXTENSIONS AS REQUIRED.
- MAINLINE PIPE TO BE BURIED 18 INCHES AND LATERALS 12 INCHES BELOW FINISH GRADE. NO ROCK OR DEBRIS TO BE BACKFILLED OVER PIPE.
- IRRIGATION DESIGN SHOWN DIAGRAMMATICALLY FOR PLAN CLARITY. PRIOR TO INSTALLATION OF DRIP IRRIGATION, CONTRACTOR IS REQUIRED TO CONTACT LOCAL NETAJAM REPRESENTATIVE FOR TRAINING ON THE INSTALLATION AND RUN TIME MANAGEMENT OF DRIP SYSTEM AND NOTIFY LANDSCAPE ARCHITECT THAT FACTORY TRAINING HAS OCCURRED PRIOR TO INSTALLATION. CONTACT CALIFORNIA NETAJAM LANDSCAPE & TURF REPRESENTATIVE (888)638-2346. PLEASE GIVE REPRESENTATIVE A MINIMUM TWO WEEK NOTICE.
- DRIP TUBING SHALL BE INSTALLED FOUR (4) INCHES BELOW FINAL GRADE. CONTRACTOR TO RUN EACH ZONE BEFORE COVERING TUBING, TO VERIFY THAT THERE ARE NO CONNECTION LEAKS. TREES TO BE INSTALLED ON A SEPARATE ZONE. SEE IRRIGATION DETAILS FOR ADDITIONAL INFORMATION.
- PROVIDE OWNER WITH TWO (2) SETS "AS-BUILT" DRAWINGS AND (3) SETS OF OPERATOR'S MANUALS UPON COMPLETION. INSTRUCT OWNER AS TO PROPER OPERATION AND WINTERIZATION OF THE IRRIGATION SYSTEM.
- FAMILIARIZE OWNERS FACILITY OPERATOR WITH IRRIGATION SYSTEM FUNCTION, CONTROLLER PROGRAMMING, SYSTEM OPERATION AND MAINTENANCE REQUIREMENTS.
- ALL CONTROL WIRE SPLICES TO BE MADE AT VALVE BOXES WITH WATER TIGHT ELECTRICAL SPLICES, 3M, SCOTT'S LOCK SEAL TACK 3576-78, OR EQUIVALENT.
- EACH VALVE BOX TO CONTAIN A MINIMUM OF TWO (2) SPARE ORANGE CONTROL WIRES JACKETED WIRE. ROUTE SPARE WIRES FROM THE CONTROLLER TO THE LAST VALVE OF EACH MAINLINE BRANCH. COMMON WIRE TO BE WHITE. SINGLE STRAND WIRE TO BE A MINIMUM OF 14 GAUGE.
- ALL ELECTRICAL EQUIPMENT TO BE U.L. TESTED AND APPROVED, AND BEAR THE U.L. LABEL.
- CROSS CONNECTION PROTECTION INSPECTION REQUIRED. THE BACKFLOW DEVICE TO BE TESTED UPON THE ORIGINAL INSTALLATION. THE TESTING TO BE PERFORMED BY A PERSON HOLDING A CURRENT CERTIFICATE AS A BACKFLOW TESTER. THE TEST REPORT TO BE SUBMITTED TO THE LOCAL WATER DISTRICT, OR PURVEYOR, AND OWNER WITH A COPY TO BARGHAUSEN CONSULTING ENGINEERS, INC. CONTRACTOR TO INCLUDE TESTING IN THE SCOPE OF WORK. OWNER IS RESPONSIBLE FOR ANNUAL INSPECTIONS AFTER THE INITIAL INSPECTION.
- CONTRACTOR TO PROVIDE SYSTEM WINTERIZATION/SPRING SERVICE WHEN INSTALLATION HAS BEEN COMPLETED WITHIN 90 DAYS OF NOVEMBER 1 FOR WINTERIZATION, OR MAY 15 FOR SPRING SERVICE. SERVICE TO BE PERFORMED AS NEAR AS PRACTICAL TO THE ABOVE DATES, OR AS FREEZE/PRECIPITATION CONDITIONS DETERMINE SERVICE NEED.
- PROPOSED IRRIGATION SHOWN IN THIS DRAWING SET IS TO CONNECT TO AN EXISTING ESTABLISHED IRRIGATION SYSTEM. LANDSCAPE CONTRACTOR IS TO VERIFY THAT EXISTING SYSTEM, SUCH AS IRRIGATION CONTROLLER AND MAINLINE, HAVE ENOUGH CAPACITY TO HANDLE THE ADDITIONAL COMPONENTS. LANDSCAPE CONTRACTOR TO NOTIFY LANDSCAPE ARCHITECT IF ANY OF THE EXISTING SYSTEM DOES NOT HAVE THE CAPACITY FOR THE PROPOSED ADDITIONS.
- SUBSTITUTION OF IRRIGATION MATERIAL/EQUIPMENT TO BE MADE ONLY UPON WRITTEN APPROVAL OF LANDSCAPE ARCHITECT AND OWNER'S REPRESENTATIVE.
- ALL ZONES TO PASS A MINIMUM DISTRIBUTION UNIFORMITY WATER AUDIT, AS REQUIRED BY THE STATE OF CALIFORNIA'S WATER EFFICIENT LANDSCAPE ORDINANCE, AS ADOPTED BY THE CITY COUNCIL. AN IRRIGATION ASSOCIATION CERTIFIED WATER AUDIT REPORT TO BE PROVIDED TO THE CITY.

PRELIMINARY IRRIGATION NOTES AND DETAILS
COSTCO WHOLESALE FUEL FACILITY
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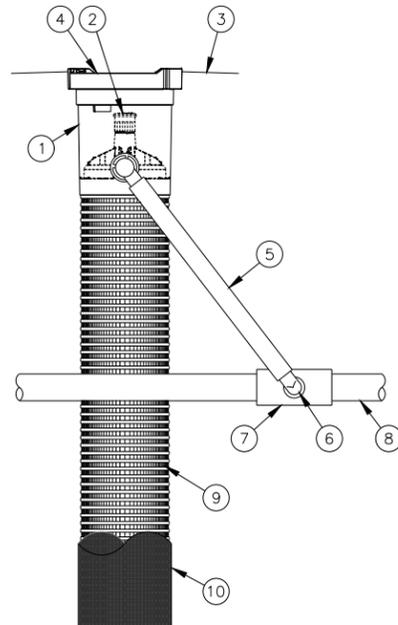


QUICK COUPLING VALVE DETAIL
NOT TO SCALE



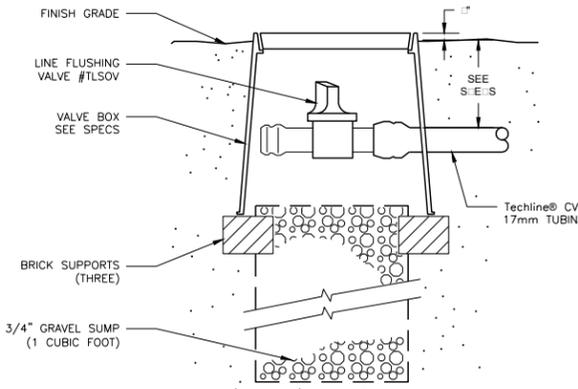
- NOTE:
- LOCATE VALVE BOXES IN PLANTING AREAS.
 - WRAP VALVE BOX WITH A MINIMUM OF 3 MIL THICK PLASTIC AND SECURE IT USING DUCT TAPE OR ELECTRICAL TAPE.
 - ALL THREADED CONNECTIONS TO BE MADE USING TEFLON TAPE.
 - ALL CHANGES IN ELEVATION SHALL BE MADE USING SCH 40 PVC 45° ELBOWS.

BALL VALVE DETAIL
NOT TO SCALE

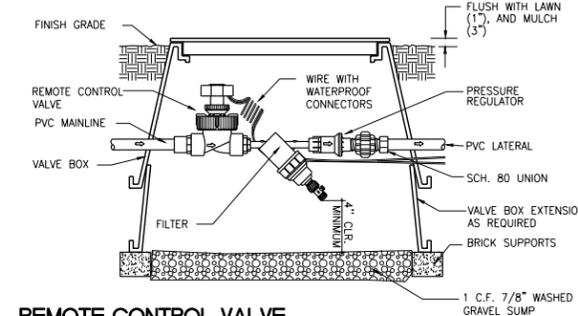


- NOTES:
- 4" (10,2 CM) GRATE IS ALSO AVAILABLE IN PURPLE (RWS-GRATE-P).
 - INSTALL PRODUCT SO THAT THE GRATE IS EVEN WITH FINISH GRADE OR TOP OF MULCH.
 - OPTIONAL SAND SOCK (RWS-SOCK) IS 34" (86,4 CM) IN LENGTH TO COVER MESH BASKET AREA.
 - WHEN INSTALLING IN EXTREMELY HARD OR CLAY SOILS, ADD 3/4" (1,9 CM) GRAVEL UNDER AND AROUND THE UNIT TO ALLOW FASTER WATER INFILTRATION AND ROOT PENETRATION.
 - ONCE RWS HAS BEEN INSTALLED FILL THE BASKET WITH PEA GRAVEL BEFORE LOCKING LID.

ROOT WATER SYSTEM DETAIL
NOT TO SCALE

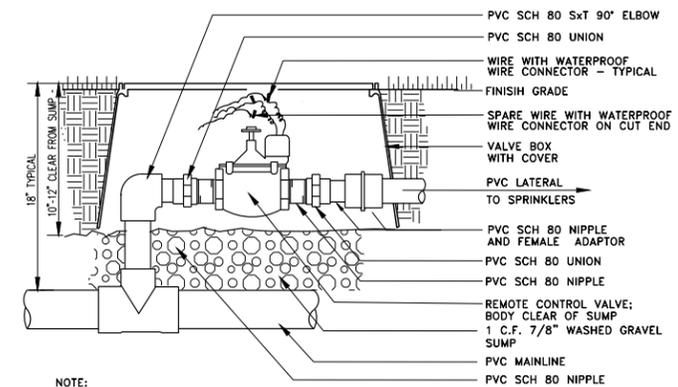


MANUAL LINE FLUSHING VALVE TLISOV PLUMBED TO TUBING
NOT TO SCALE

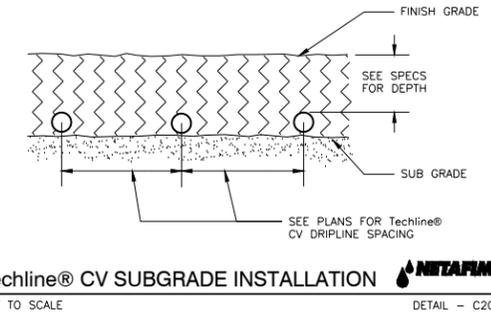


REMOTE CONTROL VALVE, PRESSURE REGULATOR AND FILTER DETAIL
NOT TO SCALE

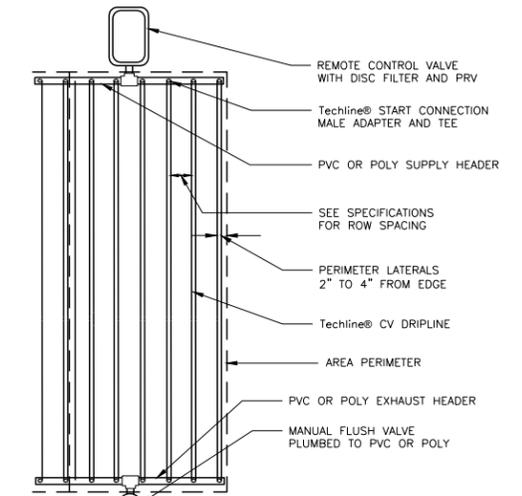
- ROOT WATERING SYSTEM:
RAIN BIRD RWS-B-C-1402 (INCLUDES RETAINER, 36" (91,4 CM) TUBE, 0.5 GPM (1,9 L/M) BUBBLER & INTEGRATED CHECK VALVE, 4" (10,2 CM) GRATE, VERSATILE SWING ASSEMBLY WITH 1/2" (1,3 CM) M NPT INLET)
- BUBBLER: RAIN BIRD 1402 0.5 GPM (1,9 L/M) (INCLUDED)
- FINISH GRADE/TOP OF MULCH
- 4" (10,2 CM) LOCKING GRATE (INCLUDED)
- 12" (30,5 CM) SWING ASSEMBLY (INCLUDED)
- 1/2" (1,3 CM) MALE NPT INLET (INCLUDED)
- PVC SCH 40 TEE OR EL
- PVC OR POLYETHYLENE LATERAL PIPE
- 4" (10,2 CM) WIDE X 36" (91,4 CM) LONG RIGID BASKET WEAVE CANISTER (INCLUDED)
- OPTIONAL SOCK (RWS-SOCK) FOR SANDY SOILS



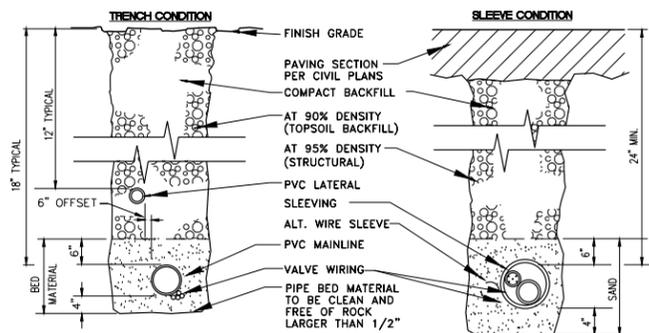
REMOTE CONTROL VALVE ASSEMBLY
NOT TO SCALE



Techline® CV SUBGRADE INSTALLATION
NOT TO SCALE



Techline® CV END FEED LAYOUT
NOT TO SCALE



- NOTE:
- SLEEVING MATERIAL SHALL BE PVC CLASS 160(SDR-26). DIMENSIONS ARE MIN. CLEARANCES.
 - ALL IRRIGATION SLEEVING TRENCH BACKFILL MATERIAL SHALL BE CLASS "B" OR BETTER (MAX. OF 10% PASSING NO.40 SCREEN) AND BE COMPACTED TO MIN. 95% OPTIMUM DENSITY PER ASTM D-1557-70 (MODIFIED PROCTOR)

SLEEVE/TRENCHING DETAIL
NOT TO SCALE

Revision
 No. Date By Cld. I Apr.
 Title: **PRELIMINARY IRRIGATION NOTES AND DETAILS**
22330 HATHAWAY AVE.
HAYWARD, CA 94541
COSTCO FUEL FACILITY #823

Costco GASOLINE
COSTCO WHOLESALE
999 LAKE DRIVE
ISSAQUAH, WA 98027



Scale: Horizontal Vertical 1"=20'
 Designed: BS
 Drawn: BS
 Checked: BS/JM
 Approved: JM
 Date: 4/28/17

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Job Number: **6636**
 Sheet: **L4** of **4**
 File Path: \\060000\6636\preliminary\6636-pl.dwg Date/Time: 10/1/2018 2:13 PM Scale: 0.009988