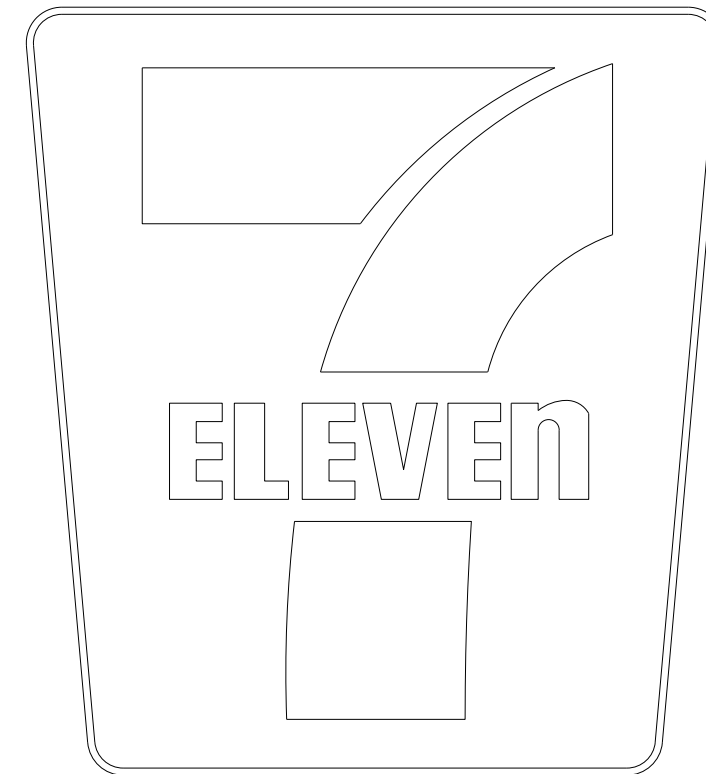


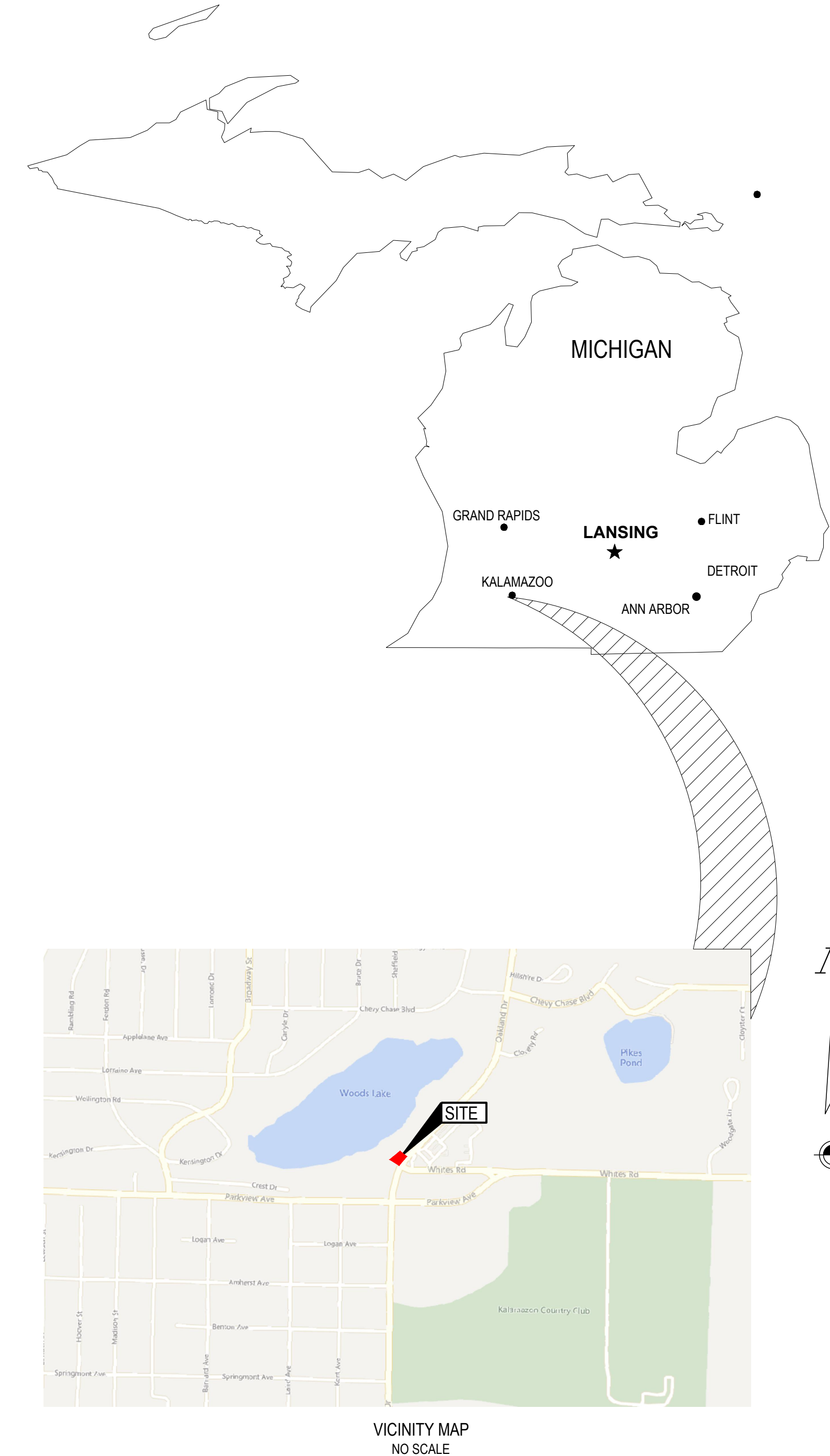
CITY OF KALAMAZOO, KALAMAZOO COUNTY, MICHIGAN CONSTRUCTION PLANS

FOR 7-ELEVEN

3050 OAKLAND DRIVE
KALAMAZOO, MI 49008



Sheet List Table	
Sheet Number	Sheet Title
CV	COVER SHEET
CD	DEMOLITION PLAN
CS	SITE PLAN
CS1	DIMENSION PLAN
CR	CIRCULATION PLAN
CU	UTILITY PLAN
CU1	UTILITY DETAIL
CE	SWPPP PHASE 1
CE1	SWPPP PHASE 2
CE2	SWPPP NOTES & DETAILS
CG	GRADING PLAN
CPC-1	DETAILS
CYE-A	DETAILS
CUD1	DETAILS
DET-1	CONSTRUCTION DETAILS
1 OF 1	TOPOGRAPHIC SURVEY



SURVEY PROVIDED BY:
 GEODETIC DESIGNS, INC.
 2300 N. GRAND RIVER AVE.
 LANSING, MI 48906
 PHONE: 517.908.0008
 DATED: 2022.10.31

CONTRACTOR TO VERIFY EXISTING CONDITIONS PRIOR TO BID AND CONSTRUCTION.

BENCHMARK DATUM: NAVD88
 BM "A" - SITE BM "A"
 TOP OF WESTERLY BOLT ON WEST LEG OF GAS STATION
 916.78

OWNER/DEVELOPER:
 7-ELEVEN (AKA SPEEDWAY LLC)
 3200 HACKBERRY RD
 IRVING, TX 75063
 CONTACT: JAMES HUGHES

CONSTRUCTION MANAGER:
 7-ELEVEN (AKA SPEEDWAY LLC)
 3200 HACKBERRY RD
 IRVING, TX 75063
 CONTACT: KENNETH LETZ
 PHONE: (330) 690-2345

ENGINEER:
 CESO, INC.
 13060 S US HIGHWAY 27
 DEWITT, MI 48820
 PHONE: (517) 212-4185
 CONTACT: MANDY GUASS
 EOR: ZACH FRESHNER

**Site Plan Review
 Revised Plans - Revision #1**
 Received: 3/24/2026
 City of Kalamazoo
 E.Szymanski

GOVERNING AGENCIES AND UTILITY COMPANIES:

SEWER:
 JAMES BAKER, P.E.
 CITY OF KALAMAZOO
 241 W SOUTH STREET
 KALAMAZOO, MI 49007
 EMAIL: COKPUBLICSERVICES@KALAMAZOOCITY.ORG

WATER:
 JAMES BAKER, P.E.
 CITY OF KALAMAZOO
 241 W SOUTH STREET
 KALAMAZOO, MI 49007
 EMAIL: COKPUBLICSERVICES@KALAMAZOOCITY.ORG

STORMWATER:
 JAMES BAKER, P.E.
 CITY OF KALAMAZOO
 241 W SOUTH STREET
 KALAMAZOO, MI 49007
 EMAIL: COKPUBLICSERVICES@KALAMAZOOCITY.ORG

ZONING:
 PETE ELDRIDGE, ZONING ADMINISTRATOR
 CITY OF KALAMAZOO
 241 W SOUTH STREET
 KALAMAZOO, MI 49007
 EMAIL: ELDRIDGE@KALAMAZOOCITY.ORG

PROPERTY DATA:

PARCEL OWNER: 7-ELEVEN (AKA SPEEDWAY LLC)

PARCEL ID: 0454725

ADDRESS: 3050 OAKLAND DRIVE
KALAMAZOO, MI 49008

PROPERTY AREA: 0.65 AC

ZONING: C-NODE

PROPOSED USE: CONVENIENCE STORE / GAS STATION

DEVELOPMENT CONDITIONS:	PERVIOUS	IMPERVIOUS
EXISTING:	0.25 AC	0.40 AC
PROPOSED:	0.25 AC	0.40 AC

BUILDING AREA: 1,685 SF

	REQUIRED	PROPOSED
BUILDING SETBACKS		
FRONTAGE ALONG STREET:	0'	36.8'
SIDE:	0'	10.3'
REAR:	25'	41.3'

FLOODPLAIN DESIGNATION: PARCEL IS LOCATED WITHIN "ZONE X" AS INDICATED BY THE FLOOD INSURANCE RATE MAP (FIRM) COMMUNITY PANEL NUMBER 26077C0188D, EFFECTIVE DATE: 02/17/2010; PUBLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.



3051 Rgby Rd., Suite 300
 Mansfield, OH 43052
 Phone: 937.435.8584 Fax: 888.208.4826



7-ELEVEN- KALAMAZOO
 3050 OAKLAND DRIVE
 KALAMAZOO, MICHIGAN 49008

7-ELEVEN, INC.

Revisions / Submissions		
ID	Description	Date
1	CITY COMMENTS	2025/09/30

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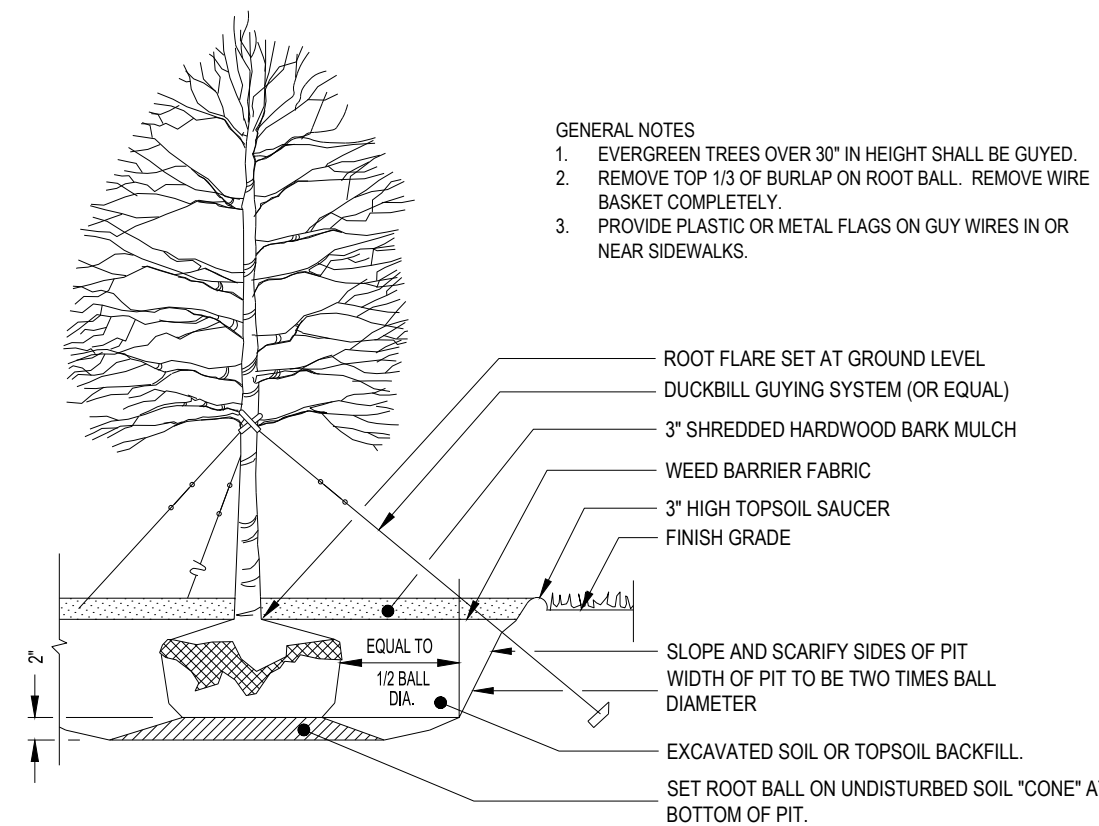
Project Number: 764708
Scale: N/A
Drawn By: TEP
Checked By: JDC
Date: 08/12/2025
Issue: CONSTRUCTION PLANS

Drawing Title:
COVER SHEET

CV

PLANT SCHEDULE					
SYM.	QTY.	PLANT NAME	INSTALLATION SIZE	MATURE HT/SPD	SPACING
CLASS I (SHADE TREE)					
TH	2	THORNLESS HONEYLOCUST - GLEDITSIA TRIACANTHOS	2.5" CAL. B/B	30'/30'	SEE PLAN

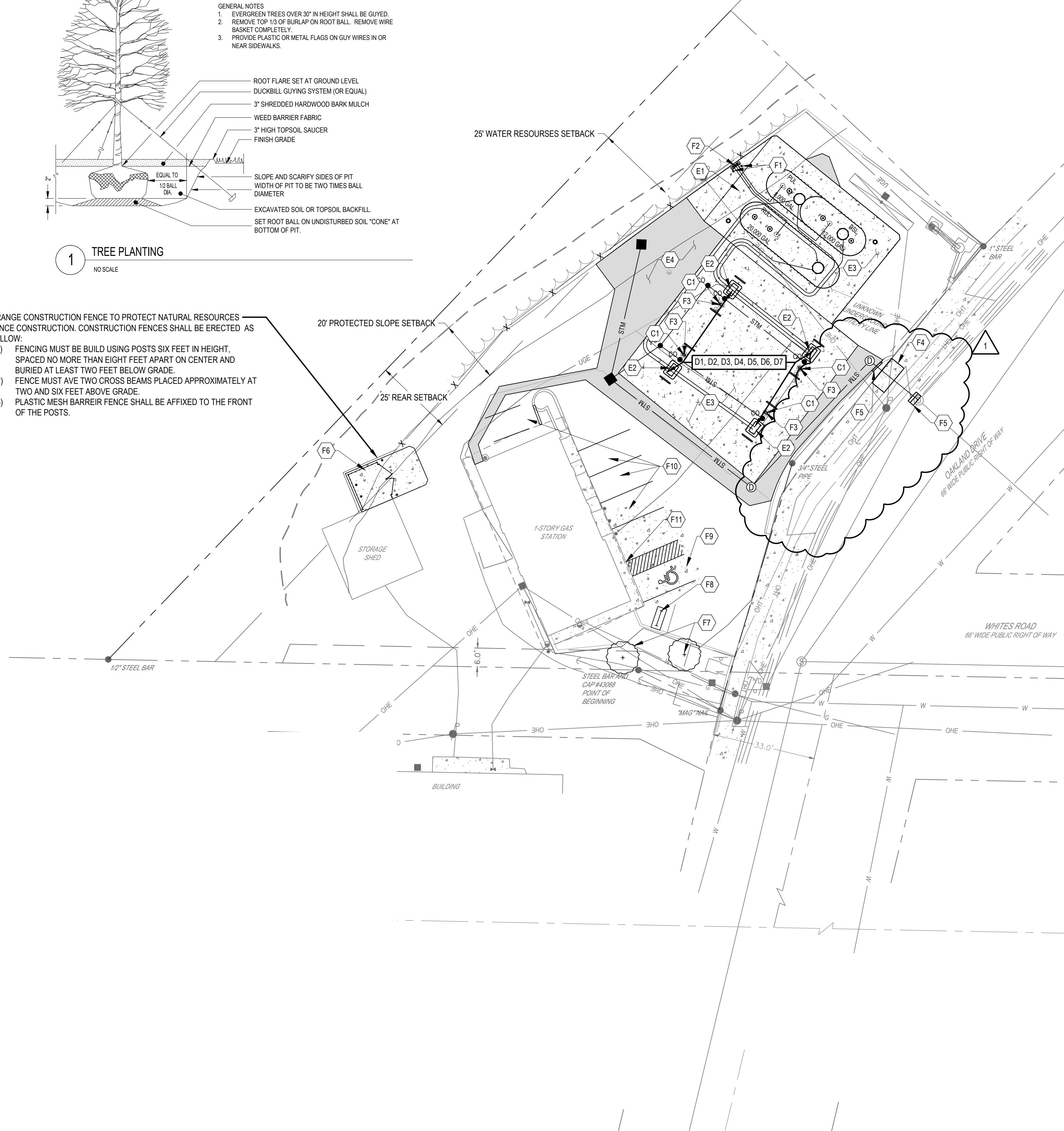
TOTAL SITE AREA		0.97 AC		
LANDSCAPING REQUIREMENTS				
TYPE	REQUIRED	PER ACRE OR FRACTION THERE OF BEYOND THE FIRST ACRE		PROPOSED
SITE LANDSCAPING	1 TREE	0.65 AC / 1 AC = 0.65		2 TREES



1 TREE PLANTING
NO SCALE

ORANGE CONSTRUCTION FENCE TO PROTECT NATURAL RESOURCES FENCE CONSTRUCTION. CONSTRUCTION FENCES SHALL BE ERRECTED AS FOLLOWS:

- FENCING MUST BE BUILT USING POSTS SIX FEET IN HEIGHT, SPACED NO MORE THAN EIGHT FEET APART ON CENTER AND BURIED AT LEAST TWO FEET BELOW GRADE.
- FENCE MUST AVE TWO CROSS BEAMS PLACED APPROXIMATELY AT TWO AND SIX FEET ABOVE GRADE.
- PLASTIC MESH BARREIR FENCE SHALL BE AFFIXED TO THE FRONT OF THE POSTS.



A. GENERAL NOTES

- ALL MATERIAL NOTED ON DRAWINGS WILL BE SUPPLIED BY THE CONTRACTOR UNLESS NOTED OTHERWISE.
- RESTORE TO ORIGINAL OR BETTER CONDITION ALL AREAS DISTURBED BY CONSTRUCTION. UPON COMPLETION, POWER WASH ALL PAVING TO OWNER'S SATISFACTION.
- SHOW ALL MODIFIED PIPING, CONDUIT RUNS, UTILITIES AND ANY MODIFICATIONS MADE TO THE ORIGINAL DRAWINGS ON "AS-BUILT" PRINT AND TURN OVER TO OWNER'S REPRESENTATIVE UPON COMPLETION.
- TURNOVER MANUAL: ON THE DAY OF THE "TURNOVER" THE CONTRACTOR WILL PROVIDE ONE COPY OF THE COMPLETION MANUALS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR LAYOUT OF THE ENTIRE SITE. THE PROPERTY CORNERS SHALL BE MARKED BY OWNER AND PROTECTED AND MAINTAINED BY CONTRACTOR.
- CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL WOODEN FORMS PRIOR TO CONSTRUCTION COMPLETION.

B. BUILDING DETAILS

- NOT USED.

C. CANOPY DETAILS

- EXISTING AUTO CANOPY AND EXISTING COLUMNS TO REMAIN UNDISTURBED THROUGHOUT CONSTRUCTION.

D. DISPENSER DETAILS

- THE CONTRACTOR IS RESPONSIBLE FOR PURGING OF THE FUELING SYSTEM NECESSARY AT START-UP AND DISPENSER CALIBRATION. THE OWNER SHALL PAY FOR (1) THIRD-PARTY LINE TEST FOR EACH PRODUCT LINE AFTER PURGING IS COMPLETE. COST OF ANY ADDITIONAL DISPENSER CALIBRATIONS AND/OR LINE TESTS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR SHALL PURGE SYSTEM PER DISPENSER MANUFACTURER'S INSTRUCTIONS AND OWNER'S SPECIFICATIONS. ALL TESTING TO BE COORDINATED WITH SPEEDWAY COMPLIANCE DEPARTMENT. AFTER PURGING IS COMPLETE, CONTRACTOR SHALL REMOVE SCHRADER VALVES AND JUMPERS. CONTRACTOR SHALL REMOVE AND DISCARD SCREENS AND FACTORY FILTERS AND INSTALL NEW FILTERS (MODEL NOTED BELOW), FURNISHED BY OWNER. INSTALLATION DATES SHALL BE CLEARLY MARKED ON FILTER BY CONTRACTOR. FILTER MODELS ARE (A) AUTO. PETROCLEAR 40510A-AD (B) AUTO-DSL AND K-1: PETROCLEAR 40510W-AD (C) FLEX. CIMTEK 70991 (D) HIGHFLOW DSL. PETROCLEAR 51110W OR 40910W (E) RACING FUEL (CAM2 260 GT). PETROCLEAR 40510A (F) FACING FUEL (CAM2 STANDARD) AND NON ETHANOL. PETROCLEAR 40510W. SPEEDWAY'S MAINTENANCE DEPARTMENT SHALL INSTALL DISPENSER FACE LABELS.
- THE CONTRACTOR SHALL COMPLETE THE WAYNE PROVIDED START-UP CALIBRATION REPORT FORM "W2940136" PRIOR TO START-UP. THE 0.1 TEST MUST BE COMPLETED VIA THE ATG PRIOR TO OPENING FUEL SALES. FORM "917653-003" SHALL BE COMPLETED BY WAYNE'S AUTHORIZED SERVICE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH SPEEDWAY'S PREFERRED AUTHORIZED SERVICE CONTRACTOR (ASC) FOR TRIPS AS FOLLOWS:

TRIP	WAYNE ASC RESPONSIBILITIES	FINANCIAL RESPONSIBILITY
1	PREP DISPENSERS FOR CONTRACTOR TO PURGE PROGRAM EVO AUTOMATIC TANK GAUGE MONITORING SYSTEM	WAYNE
2	REVIEW CONTRACTOR'S PURGE WORK INSTALL EMV KITS REVIEW CONTRACTOR'S COMPLETED WAYNE START-UP CALIBRATION FORM "W2940136" COMPLETE FORM "917653-003" (PRE POS INTEGRATION)	WAYNE
3	COMPLETE FORM "917653-003" (POST POS INTEGRATION)	WAYNE
4	POS INTEGRATION WITH SPEEDWAY IT ANALYST OPENING DAY SUPPORT (SPEEDWAY REQUIREMENT)	CONTRACTOR

- THE CONTRACTOR WILL BE RESPONSIBLE TO HAVE, AT A MINIMUM, THE SITE SUPERINTENDENT, CERTIFIED ELECTRICIAN, AND PETROLEUM START-UP CONTRACTOR ON-SITE AT OPENING FOR A MINIMUM OF (1) HOUR TO ENSURE PROPER OPERATION OF THE FUELING SYSTEM.
- INSTALL (4) NEW WAYNE 4 PRODUCT (3+1) HIGH HOSE DISPENSER WITH CARD READER. INSTALL (8) HOSES, NOZZLES, SWIVELS AND BREAKAWAY FOR GASOLINE DISPENSERS, (8) HOSES, NOZZLES, SWIVELS AND BREAKAWAY FOR DIESEL DISPENSERS AND (2) HOSES, NOZZLES, SWIVELS AND BREAKAWAY FOR ETHANOL FLEX DISPENSER(S). PRODUCT PIPING LINE-UP AND FRONT SIDE "A" (F.S. "A") OF DISPENSERS SHALL BE AS SHOWN.
- INSTALL NEW (1) 1" AND (3) 3/4" CONDUITS FROM WIRE WAY IN BUILDING TO EACH DISPENSER. (1) 1" CONDUIT TO BE USED FOR POWER/DATA. (1) 3/4" CONDUIT TO BE USED FOR DISPENSER SUMP SENSOR. (1) 3/4" CONDUIT TO BE USED FOR INTERCOM AND APPLAUSE MEDIA SYSTEM. OTHER 3/4" CONDUIT TO BE INSTALLED FOR FUTURE USE. PULL NEW WIRE AND WIRE DISPENSER PER MANUFACTURER'S SPECIFICATIONS.
- INSTALL ESCO INTERCOM SYSTEM PER DIRECTION OF OWNER'S REPRESENTATIVE AND DRAWING EIW.
- ADA REQUIRES DISPENSER ISLANDS TO BE A MAXIMUM OF 6" ABOVE GRADE.

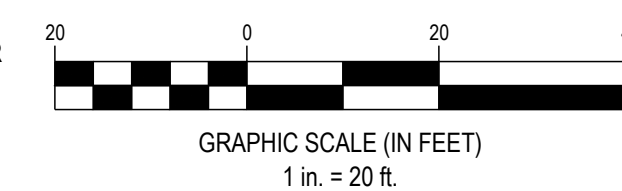
E. PAVING DETAILS

- CONSTRUCT NEW CONCRETE TANK SLAB PER DRAWINGS PQ-4.1 AND CPC-1.
- INSTALL (4) NEW CONCRETE DISPENSER ISLANDS WITH 3' X 5' X 13" ISLAND FORM FOR AUTO DISPENSERS.
- INSTALL HIGH STRENGTH CONCRETE PAVEMENT WITH AN AGGREGATE BASE PER PAVEMENT SECTION ON CPC-1 AND USE THE RECOMMENDATIONS OF GEOTECHNICAL CONSULTANT FOR ALL OTHER SUBSURFACE CONDITIONS ON THIS SITE. NOTIFY THE OWNER'S REPRESENTATIVE IF THERE ARE ANY CONFLICTS.
- INSTALL ASPHALT PAVEMENT WITH AN AGGREGATE BASE PER PAVEMENT SECTION ON CPC-1 AND USE THE RECOMMENDATIONS OF GEOTECHNICAL CONSULTANT FOR ALL OTHER SUBSURFACE CONDITIONS ON THIS SITE. NOTIFY THE OWNER'S REPRESENTATIVE IF THERE ARE ANY CONFLICTS.

CONTRACTOR SHALL REVIEW THE COMPLETE DRAWING SET AND NOTIFY THE DESIGN PROFESSIONAL IN WRITING PRIOR TO CONSTRUCTION, IF ANY DISCREPANCIES ARE FOUND WITHIN THE DRAWINGS OR WITH ACTUAL FIELD CONDITIONS.



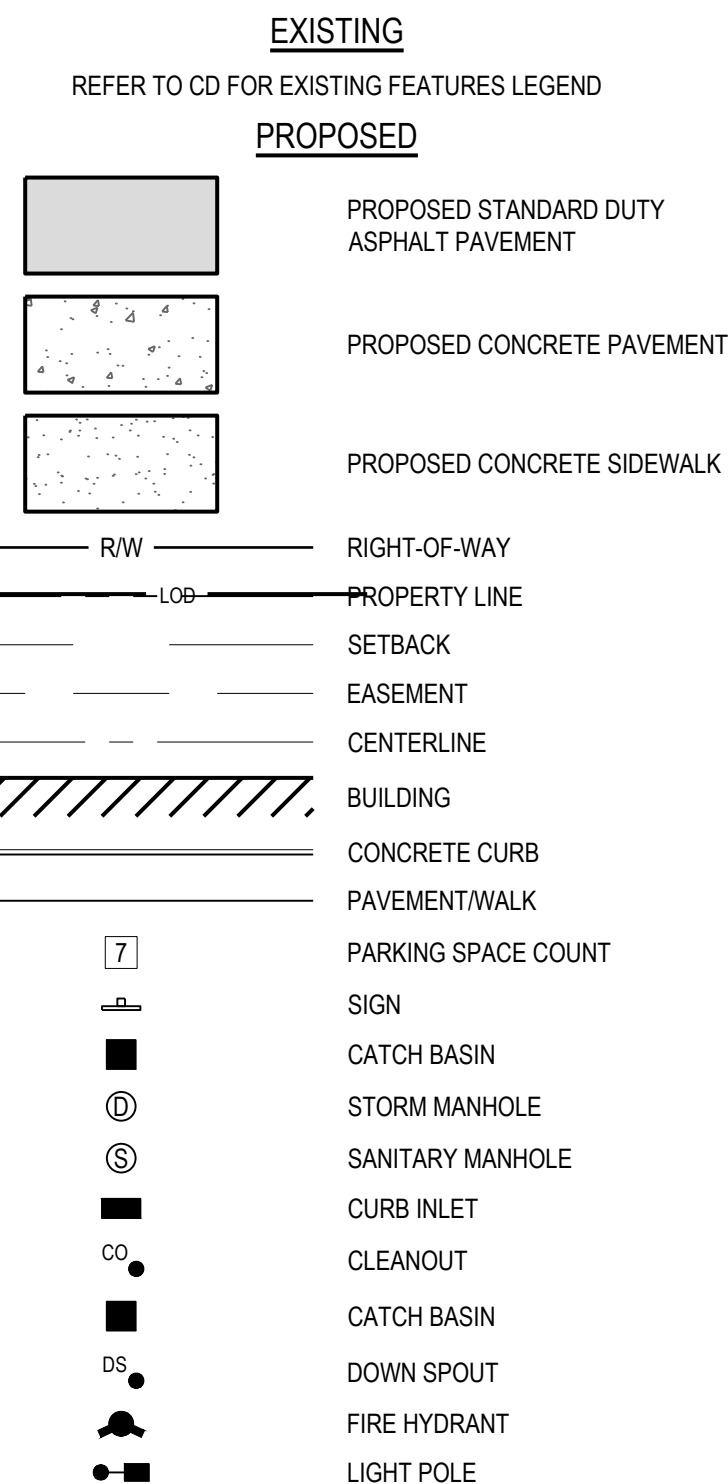
SEVENTY-TWO (72) HOURS BEFORE DIGGING IS TO COMMENCE, THE CONTRACTORS SHALL NOTIFY THE FOLLOWING AGENCIES: MICHIGAN UTILITIES PROTECTION SERVICE AT 811 OR 800-482-7171 AND ALL OTHER AGENCIES WHICH MIGHT HAVE UNDERGROUND UTILITIES INVOLVING THIS PROJECT AND ARE NONMEMBERS OF STATE UTILITIES PROTECTION SERVICE



F. YARD AREA DETAILS

- SUPPLY AND INSTALL (2) 6" BOLLARDS PER AREA YARD GUARDS DETAIL ON DRAWING CYE-A. BOLLARD SHALL BE PAINTED RED PER OWNER'S SPECIFICATIONS.
- INSTALL 3" PVC PIPE TO HOLD TANK STICK PER OWNER'S REPRESENTATIVE.
- PROVIDE AND INSTALL CODE APPROVED FIRE EXTINGUISHERS (1 MINIMUM) WITH PLASTIC BOX HOLDER IN APPROVED LOCATIONS AS REQUIRED BY LOCAL FIRE OFFICIALS. FIRE EXTINGUISHERS ARE OWNER SUPPLIED AND VENDOR INSTALLED, AND SHALL BE LOCATED SUCH THAT AN EXTINGUISHER IS NOT MORE THAN 75 FEET FROM PUMPS, DISPENSERS, OR STORAGE TANK FILL OPENINGS. FIRE EXTINGUISHER MINIMUM RATING SHALL BE 2-A-20-B.C. CONSTRUCT PROPOSED SIDEWALK AFTER STORM SEWER INSTALLATION. CONTRACTOR TO MATCH EXISTING SIDEWALK. CITY OF KALAMAZOO DOES NOT ALLOW ANY WORK WITHIN THE RIGHT-OF-WAY AFTER 11/01/2025.
- CONSTRUCT PROPOSED CURB SECTIONS AFTER STORM SEWER INSTALLATION IF NEEDED. CONTRACTOR TO MATCH EXISTING CURB SECTIONS. CITY OF KALAMAZOO DOES NOT ALLOW ANY WORK WITHIN THE RIGHT-OF-WAY AFTER 11/01/2025.
- PROPOSED DUMPSTER ENCLOSURE WITH 6" OPAQUE WOOD FENCE REFER TO DETAIL ON DET-1.
- PROPOSED TREE. SEE DETAIL ON THIS SHEET.
- PROPOSED BIKE PARKING. REFER TO DETAIL ON SHEET CYE-A.
- PROPOSED (1) ADA PARKING SPACE.
- PROPOSED (4) PARKING SPACES.
- 12' ADDRESS NUMBERS ADDED TO THE FRONT OF THE BUILDING.

SITE LEGEND



7-ELEVEN- KALAMAZOO
3050 OAKLAND DRIVE
KALAMAZOO, MICHIGAN 49008

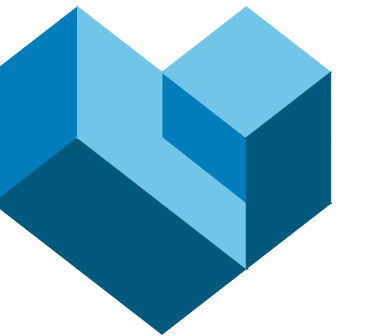
7-ELEVEN, INC.

Revisions / Submissions		
ID	Description	Date
1	CITY COMMENTS	2025/09/30

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Project Number: 764708
Scale: 1"=20'
Drawn By: TEP
Checked By: JDC
Date: 08/12/2025
Issue: CONSTRUCTION PLANS

Drawing Title:
SITE PLAN

CS



CESO
WWW.CESOINC.COM

3051 Rgby Rd., Suite 300
Mansfield, OH 43342
Phone: 937.435.8584 Fax: 937.208.4826



7-ELEVEN-KALAMAZOO
3050 OAKLAND DRIVE
KALAMAZOO, MICHIGAN 49008

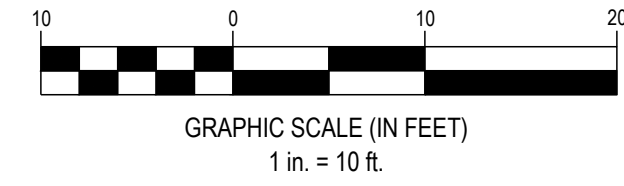
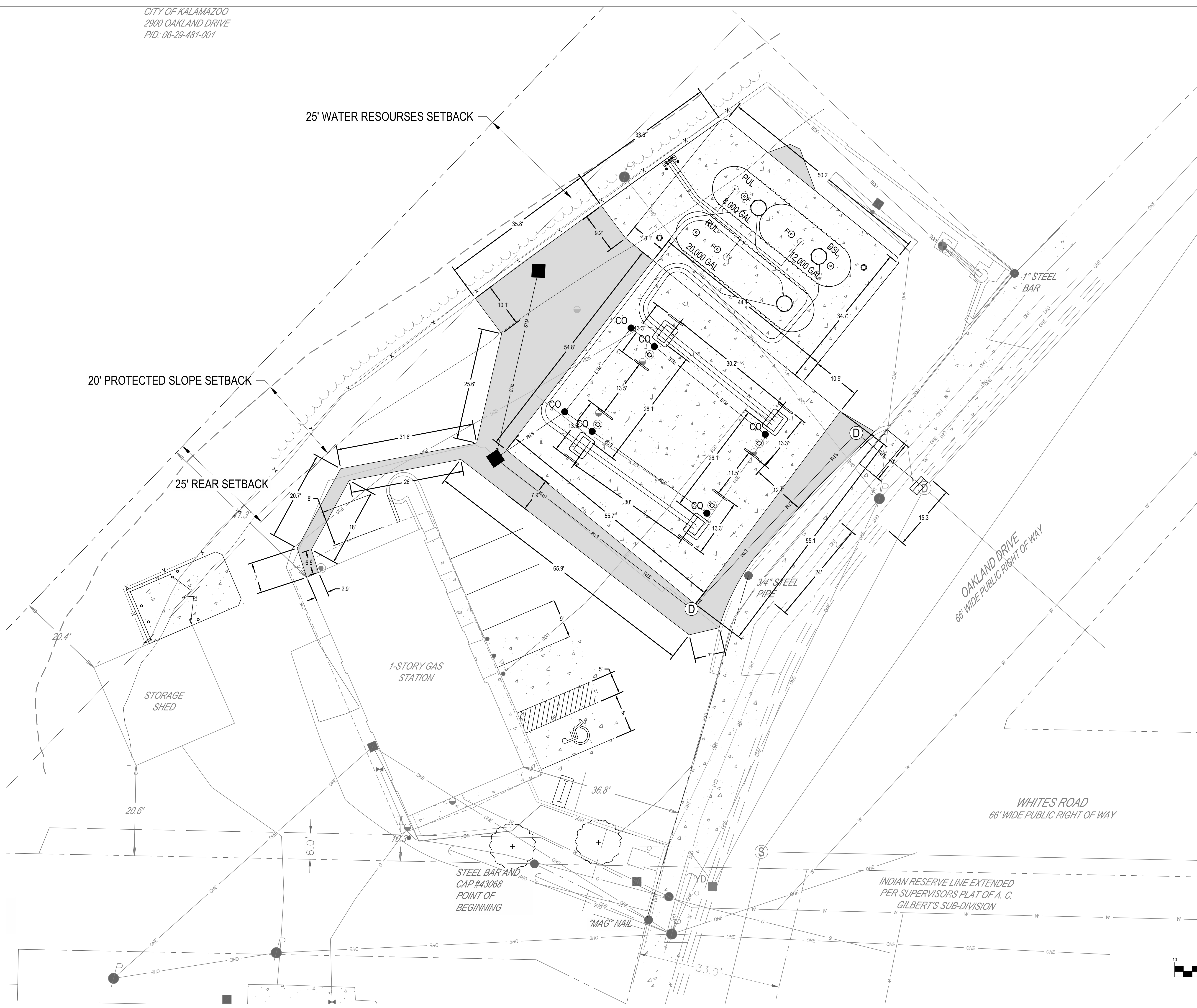
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Revisions / Submissions		
ID	Description	Date
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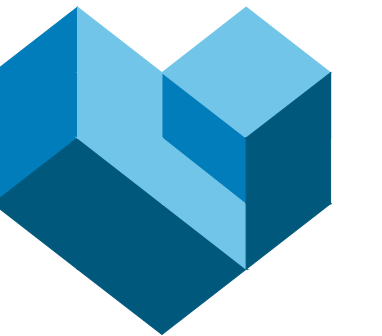
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Project Number: 764708
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Checked By: JDC
Date: 08/12/2025
Issue: CONSTRUCTION PLANS

Drawing Title:
DIMENSION PLAN

CS1



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Mansfield, OH 43342
Phone: 937.435.8584 Fax: 988.208.4826



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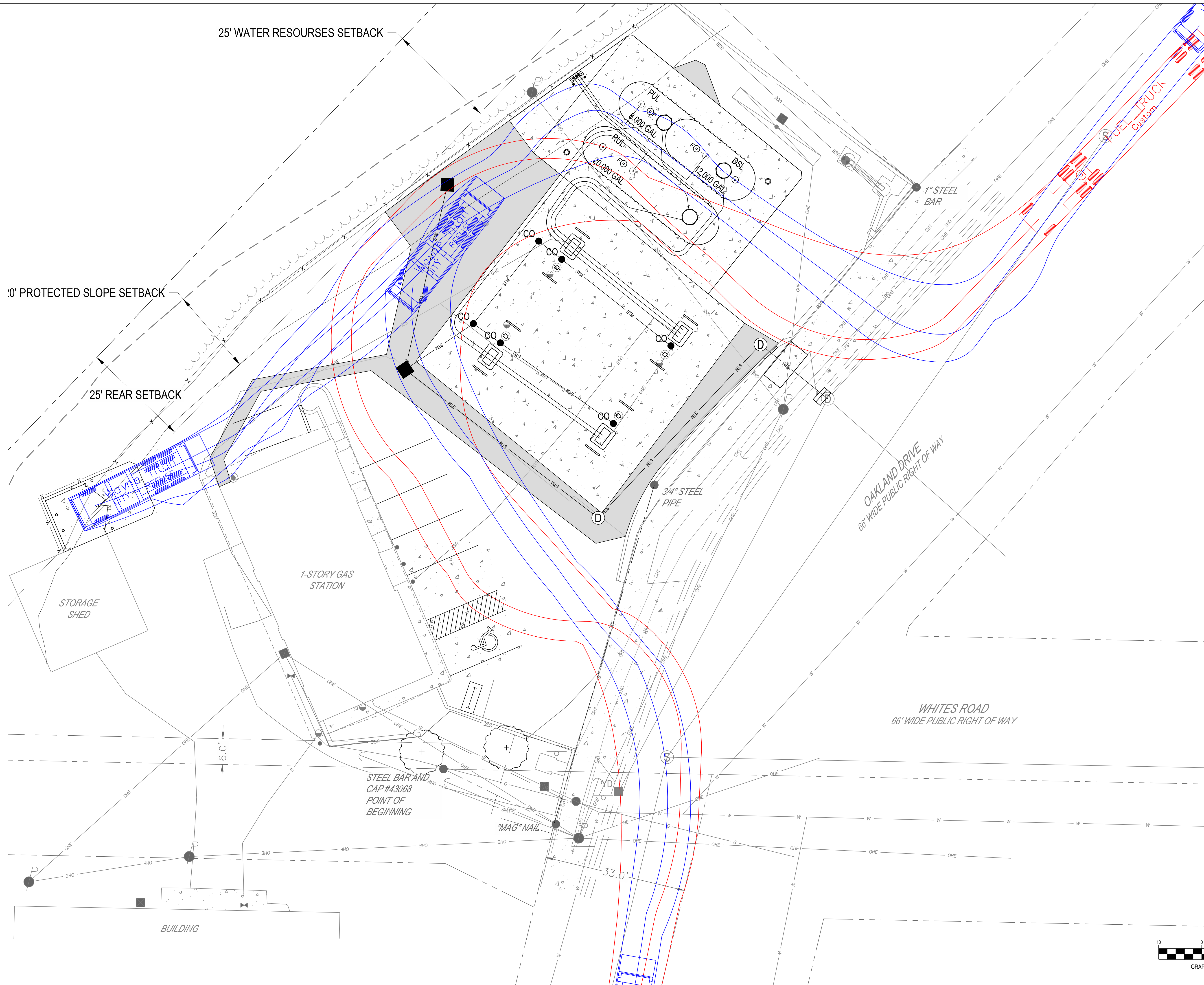
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Revisions / Submissions		
ID	Description	Date
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Drawing Title:
CIRCULATION PLAN

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Revisions / Submissions		
ID	Description	Date
1	CITY COMMENTS	2025/09/30

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Drawing Title:
UTILITY PLAN
CU

UTILITY LEGEND

- EXISTING**
 REFER TO CD FOR EXISTING FEATURES LEGEND
- PROPOSED**
- BUILDING
 - CONCRETE CURB
 - PAVEMENT/WALK
 - STORM SEWER LINE
 - UNDERGROUND ELECTRIC LINE
 - CATCH BASIN
 - STORM SEWER

A. TANKS AND PRODUCT PIPING DETAILS

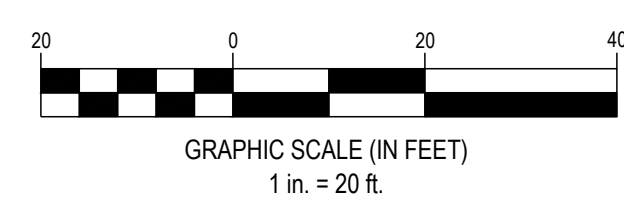
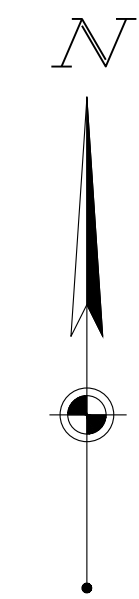
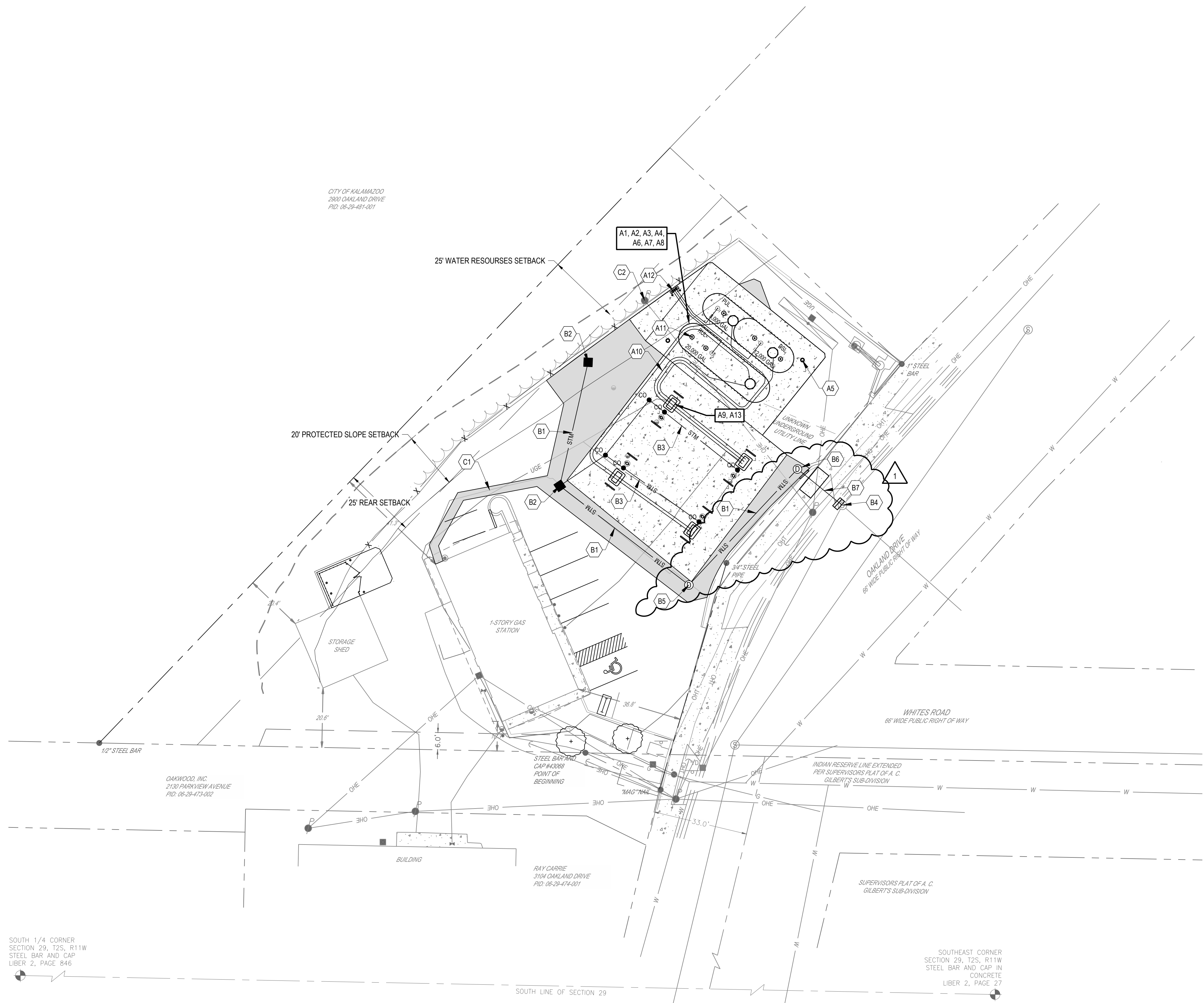
- CONTRACTOR SHALL FURNISH AND INSTALL ALL MATERIAL AS INDICATED ON PQ SERIES DRAWINGS.
- ALL NEW INSTALLATIONS AND MODIFICATIONS TO THE UNDERGROUND STORAGE TANK SYSTEM SHALL COMPLY WITH PEI RP100-05, PEI RP300-09, API RP1615 AND ALL FEDERAL, STATE AND LOCAL CODES AND ORDINANCES.
- TANKS SHALL BE ANCHORED PER STANDARD DRAWING PQ-5.
- BALLAST TANKS TO 90% FULL WITH CLEAN WATER. AFTER THE TANKS HAVE BEEN PROPERLY COVERED BY OVERBURDEN AND BEFORE PRODUCT IS DELIVERED, THE CONTRACTOR SHALL REMOVE ALL WATER. COORDINATE WITH OWNER'S REPRESENTATIVE FOR DELIVERY OF PRODUCT. ANY WATER REMAINING IN TANKS AFTER PRODUCT DELIVERY SHALL BE REMOVED AND DISPOSED OF AT THE CONTRACTOR'S EXPENSE.
- PRIME AND PAINT FILL, VAPOR RECOVERY, AND OBSERVATION WELL MANHOLE COVERS AND RIMS PER COLOR CODE IN SPECIFICATIONS. ANY MANHOLES OR STREET BOXES NOT COLOR SPECIFIED SHALL BE PRIMED AND PAINTED DARK GREY #430C PER SPECIFICATIONS.
- INSTALL TANK CONDUIT FROM TANK TO DISPENSER ELECTRICAL EQUIPMENT INSIDE BUILDING PER PQ SERIES DRAWINGS AND MANUFACTURER'S INSTRUCTIONS.
- INSTALL EVO LINE LEAK DETECTION AND ATG SYSTEM, RELATED MANHOLES, CONDUITS, AND JUNCTION BOXES PER DRAWING EVO-550 AND MANUFACTURER'S INSTRUCTIONS. INSTALL TANK INTERSTITIAL SENSORS FURNISHED BY OWNER. CONTRACTOR TO BE CERTIFIED BY FRANKLIN FUELING.
- INSTALL TANK SUMP SENSORS FURNISHED BY OWNER.
- PRODUCT PIPING LINE-UP AND FRONT SIDE "A" (F.S. "A") OF DISPENSERS SHALL BE AS SHOWN. PIPING AND CONDUIT LOCATION AND SPACING UNDER DISPENSERS SHALL BE PER STD-PQ SERIES DRAWINGS.
- INSTALL 2" COAXIAL FLEXIBLE PRODUCT PIPING (OPW FLEX LOOP SYSTEM) WITHIN 4" ACCESS/CONTAINMENT PIPE PER MANUFACTURER'S RECOMMENDATIONS AND SERIES STD-PQ DRAWINGS. THE PIPE, APPURTENANCES (INCLUDING BULKHEAD ENTRY FITTINGS), AND MISC. MATERIALS NECESSARY TO ASSEMBLE SYSTEM SHALL BE OWNER SUPPLIED.
- INSTALL A SECOND FILL PIPE ON TANKS PER DETAILS ON THE STD-PQ SERIES DRAWINGS.
- SUPPLY AND INSTALL 2" SINGLEWALL FIBERGLASS VENT LINES AND RELATED EQUIPMENT. CONTRACTOR TO LOCATE VENT STACKS A MINIMUM OF 10' AWAY FROM ELECTRICAL EQUIPMENT AND EXISTING BUILDING STRUCTURES.
- FUTURE FUEL LINE TO BE RUN TO EACH DISPENSER. LINE IS TO BE CAPPED AT EACH DISPENSER WHERE THE LINE IS NOT BEING USED (AND IN FUTURE FUEL SUMP).

B. STORM PIPING

- SUPPLY AND INSTALL STORM DRAINAGE PIPING AS SHOWN ON THE PIPE SPECIFICATIONS CHART. REFER TO DETAIL ON CUD-1.
- SUPPLY AND INSTALL (2) CATCH BASIN, WITH SPIDER DRAINS, INCLUDING CONCRETE COLLAR IF IN ASPHALT PAVEMENT.
- SUPPLY AND INSTALL STORM ROOF DRAIN PIPING AS SHOWN PER STANDARD DRAWING SERIES CUD
- CONNECT TO EXISTING STORM SEWER MANHOLE
- SUPPLY AND INSTALL (1) AQUASWIRL XC-2 WATER TREATMENT STRUCTURE. REFER TO UTILITY DETAIL ON SHEET CU1.
- SUPPLY AND INSTALL (1) 48" MANHOLE. REFER TO STANDARD DETAILS ON SHEET CUD-1 FOR SPECIFICATIONS.
- STORM SEWER WITHIN ROW TO BE MODT CLASS E RCP.
- PROPOSED 12" STORM LINE SHALL HAVE A CONNECTION INTO EXISTING MANHOLE IN ACCORDANCE WITH THE CITY OF KALAMAZOO STANDARDS.

C. UTILITIES

- FUELING CONTRACTOR RESPONSIBLE FOR FIELD VERIFYING EXISTING ELECTRICAL ROOM, AND RELOCATING CONDUIT TRENCH AS NEEDED. FUELING CONTRACTOR TO PICK UP CONDUITS AND ROUTE TO FINAL TERMINATION AND FOR PULLING WIRE AND MAKING FINAL TERMINATIONS.
- EXISTING OVERHEAD ELECTRICAL LINE. CONTRACTOR TO VERIFY IF OVERHEAD LINE CAN REMAIN DURING EXISTING TANK REMOVAL AND NEW TANK INSTALLATION. IF, NOT CONTRACTOR TO VERIFY IF LINE CAN BE TEMPORARILY MOVED DURING CONSTRUCTION AND RECONNECTED AFTER INSTALLATION.

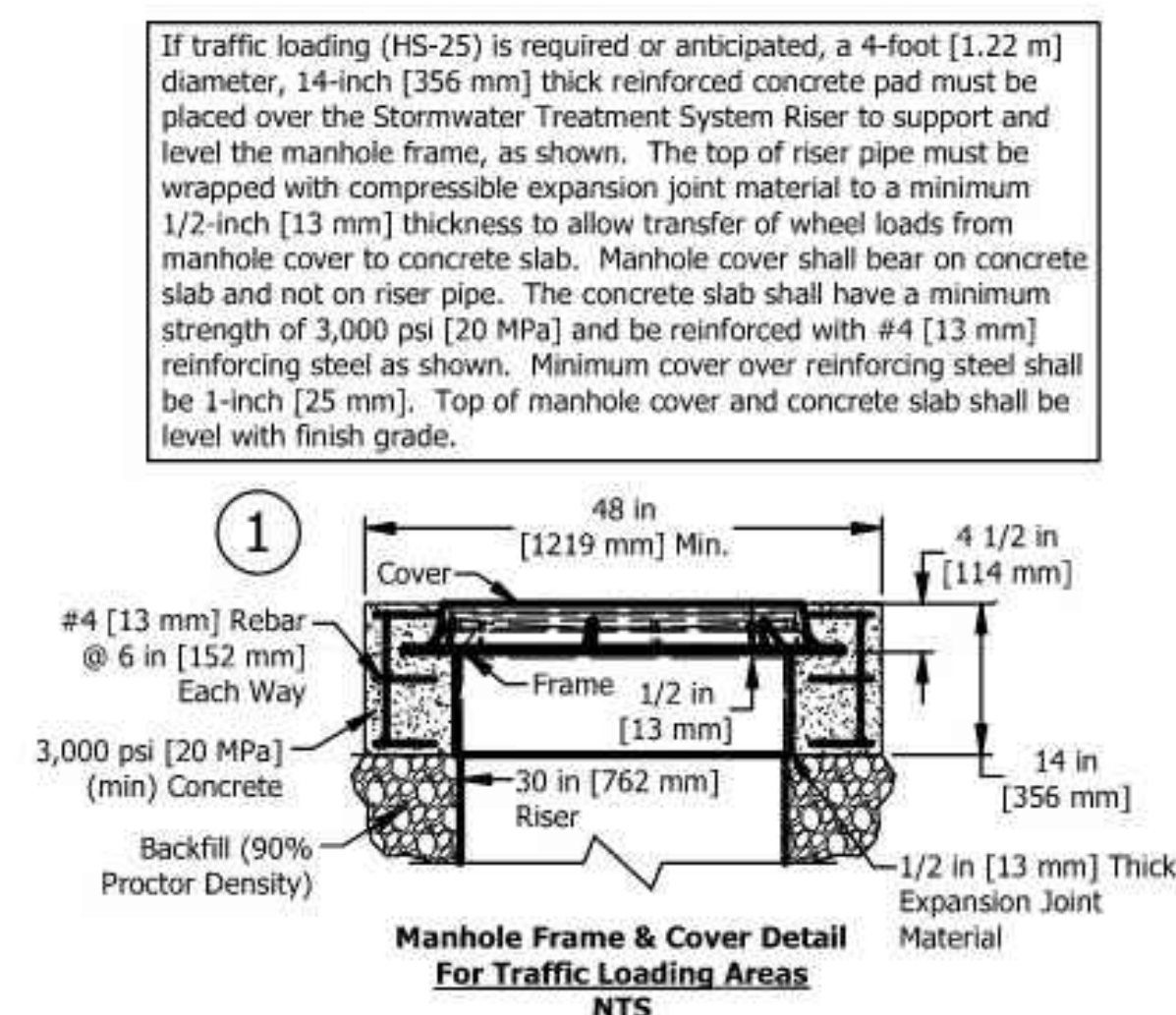
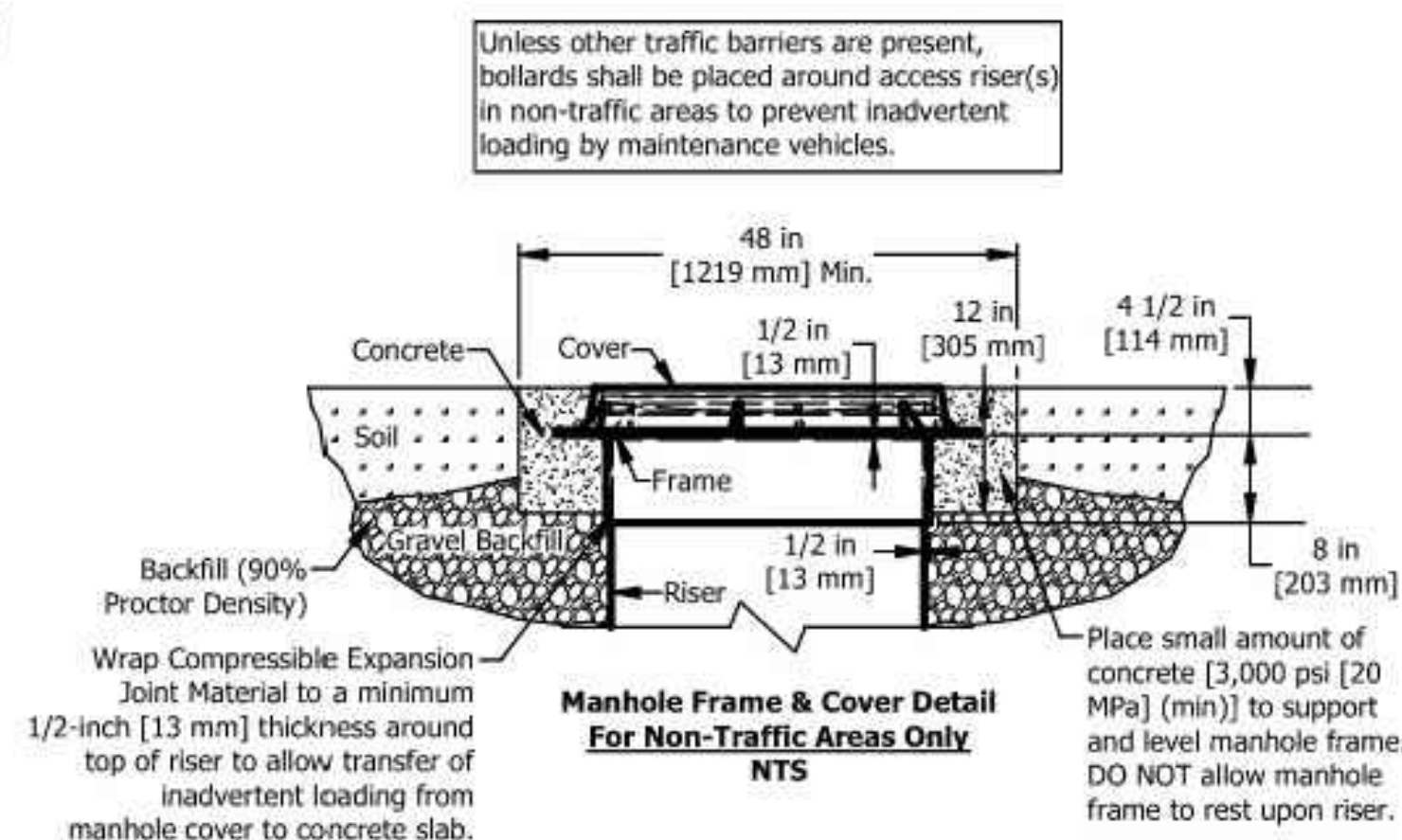


SEVENTY-TWO (72) HOURS BEFORE DIGGING IS TO COMMENCE, THE CONTRACTORS SHALL NOTIFY THE FOLLOWING AGENCIES: MICHIGAN UTILITIES PROTECTION SERVICE AT 811 OR 800-482-7171 AND ALL OTHER AGENCIES WHICH MIGHT HAVE UNDERGROUND UTILITIES INVOLVING THIS PROJECT AND ARE NONMEMBERS OF STATE UTILITIES PROTECTION SERVICE

Aqua-Swirl Polymer Coated Steel (PCS)
Stormwater Treatment System

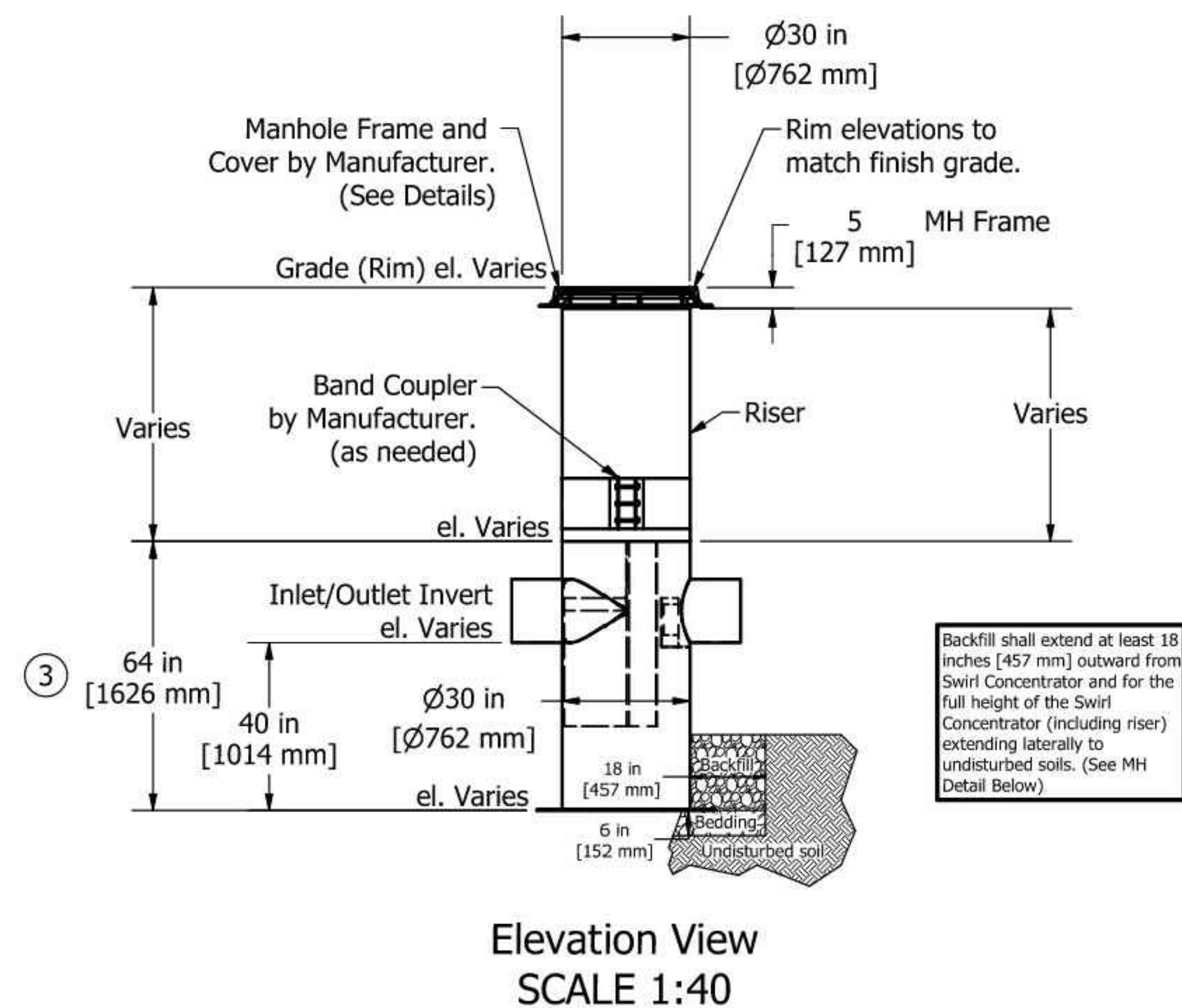
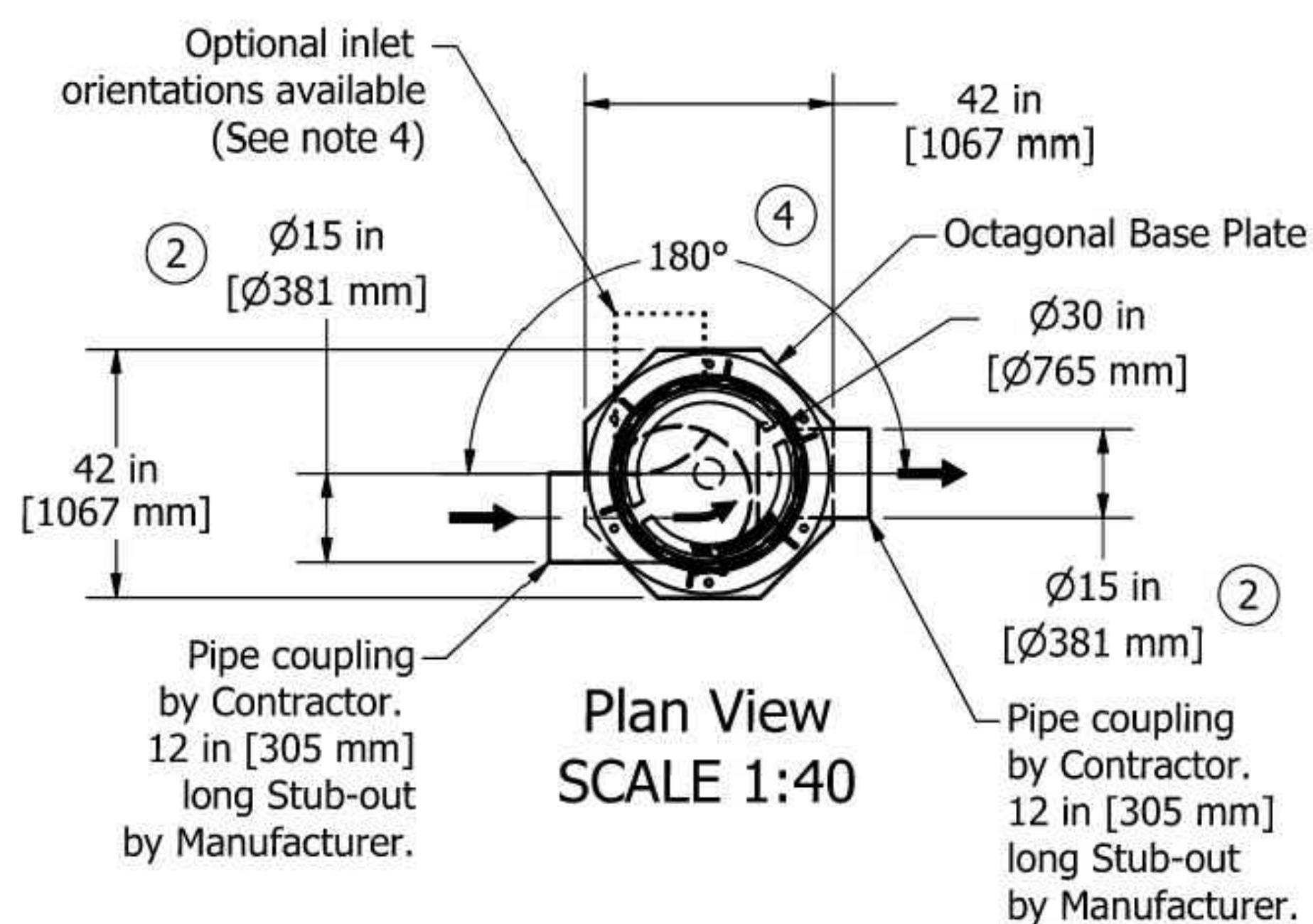


Projected View
SCALE 1:70



Please see accompanied Aqua-Swirl specification notes. See Site Plan for actual System orientation. Approximate dry (pick) weight: 1000 lbs [500 kg].

- ① As an alternative, 42 in [1067 mm] diameter, HS-20/25 rated precast concrete rings may be substituted. 14 in [356 mm] thickness must be maintained.
- ② XC-2 inlet/outlet pipe size ranges up to 15 in [381 mm].
- ③ XC-2 chamber height may vary up to 64 in [1626 mm], depending on inlet/outlet pipe size.
- ④ Orientation may vary from a minimum of 90° to a maximum of 180°. Clockwise or counterclockwise orientation as needed.



ID	Description	Date
1	CITY COMMENTS	2025/09/30

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Project Number: 764708

Scale: 1"=20'

Drawn By: TEP

Checked By: JDC


Date: 08/12/2025

Issue: CONSTRUCTION PLANS

Drawing Title:

UTILITY DETAIL

CU1

 WATER TREATMENT SOLUTIONS 2733 Kanasita Drive, Suite 111, Chattanooga, TN 37343 Phone (888) 344-9044 Fax (423) 826-2112 www.aquashieldinc.com	Aqua-Swirl Xcelerator	Structure #:	XC-2 STD	Rvwed	Rvw. Date
	XC-2 CCW STD	Drawn By:	OFlores		
	Aqua-Swirl Stormwater Treatment System	Scale:	As Shown		
	Standard Detail	Date:	1/30/2020		
U.S. Patent No. 6524473 and other Patent Pending					



3051 Rgby Rd., Suite 300
Mansfield, OH 43042
Phone: 937.435.8584 Fax: 888.208.4826



7-ELEVEN-KALAMAZOO
3050 OAKLAND DRIVE
KALAMAZOO, MICHIGAN 49008

7-ELEVEN, INC.

Revisions / Submissions		
ID	Description	Date
1	CITY COMMENTS	2025/09/30

Project Number: 764708
 Scale: 1"=20'
 Drawn By: TEP
 Checked By: JDC
 Date: 08/12/2025
 Issue: CONSTRUCTION PLANS

Drawing Title:
SWPPP PHASE 1

CE

SWPPP LEGEND

PROPOSED

- MAJOR CONTOUR
- MINOR CONTOUR
- PAVEMENT/WALK
- STORM SEWER
- SILT FENCE
- COMPOST SOCK
- GRADING/SEEDING LIMITS
- LIMIT OF DISTURBANCE
- PERMANENT EROSION CONTROL BLANKET ON ALL 3:1 SLOPES OR STEEPER
- CONSTRUCTION ENTRANCE
- STORAGE AREA
- BASIN SEDIMENT FILTER
- STORM MANHOLE
- CATCH BASIN
- CURB INLET
- STABILIZED CONSTRUCTION ENTRANCE
- TEMPORARY SEEDING
- PERMANENT SOD
- HAZARDOUS WASTE STORAGE AREA
- FUEL STORAGE AREA
- CONCRETE WASHOUT AREA
- INLET PROTECTION
- DANDY CURB (INLET PROTECTION)
- DANDY BAG (INLET PROTECTION)
- TRASH AREA

NOTES

- CONSTRUCTION ENTRANCE. PAVEMENT TO BE MAINTAINED AND TRACKOUT PREVENTED WITH A TRACK OUT MAT IF NEEDED

SEQUENCE OF CONSTRUCTION

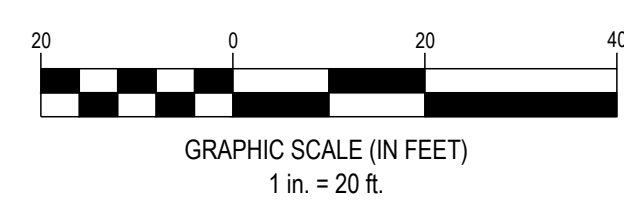
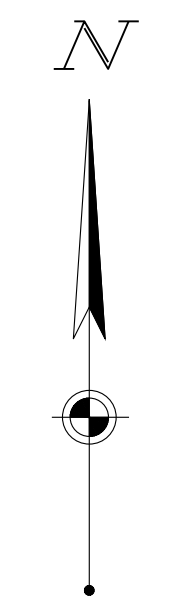
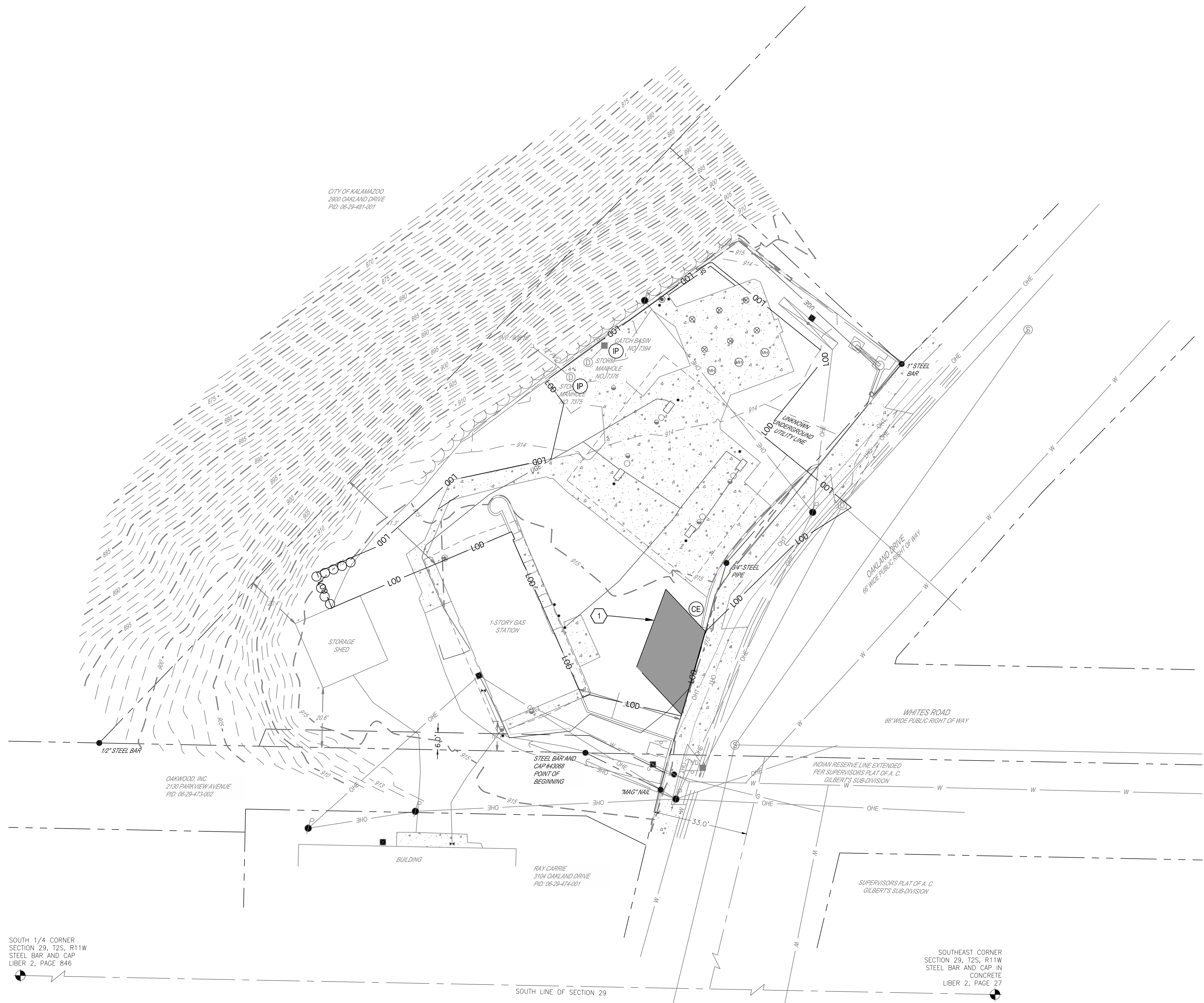
UNLESS NOTED OTHERWISE, THE GENERAL CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL EROSION AND SEDIMENT CONTROL MEASURES IN STRICT ACCORDANCE WITH THE SWPPP THROUGHOUT THE DURATION OF THE PROJECT.

PHASE 1

- NOTIFY CITY/COUNTY ENGINEER BEFORE WORK IS TO BEGIN.
- INSTALL ALL TEMPORARY EROSION CONTROL MEASURES INCLUDING SILT FENCE, CONSTRUCTION EXT, FILTER SACKS, CONCRETE WASHOUT.
- SITE DEMOLITION AND CLEARING.
- ROUGH GRADING. PROVIDE TEMPORARY SEEDING OF DISTURBED AREAS WHICH ARE INACTIVE.
- MASS GRADING AS REQUIRED.

NOTE: IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INSURE THAT ALL EROSION CONTROL MEASURES ARE INSTALLED AND MAINTAINED.

NOTE: CONTRACTOR TO MAINTAIN AND CLEAN OUT ALL TEMPORARY SEDIMENT TRAPS DURING DEMOLITION AND CONSTRUCTION, IN ACCORDANCE WITH MICHIGAN STORMWATER CONTROL AND REGULATIONS.



SEVENTY-TWO (72) HOURS BEFORE DIGGING IS TO COMMENCE, THE CONTRACTORS SHALL NOTIFY THE FOLLOWING AGENCIES: MICHIGAN UTILITIES PROTECTION SERVICE AT 811 OR 800-482-7171 AND ALL OTHER AGENCIES WHICH MIGHT HAVE UNDERGROUND UTILITIES INVOLVING THIS PROJECT AND ARE NONMEMBERS OF STATE UTILITIES PROTECTION SERVICE

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SOUTH 1/4 CORNER
SECTION 29, T2S, R11W
STEEL BAR AND CAP
LIBER 2, PAGE 846

SOUTHEAST CORNER
SECTION 29, T2S, R11W
STEEL BAR AND CAP IN
CONCRETE
LIBER 2, PAGE 27

CITY OF KALAMAZOO
200 OAKLAND DRIVE
PID: 06-28-481-001

OAKWOOD, INC.
2130 PARKVIEW AVENUE
PID: 06-28-474-002

RAY CARRIE
3104 OAKLAND DRIVE
PID: 06-28-474-001

SUPERVISORS PLAT OF A. C.
GILBERT'S SUB-DIVISION

INDIAN RESERVE LINE EXTENDED
PER SUPERVISORS PLAT OF A. C.
GILBERT'S SUB-DIVISION

WHITES ROAD
66' WIDE PUBLIC RIGHT OF WAY

OAKLAND DRIVE
85' WIDE PUBLIC RIGHT OF WAY

UNKNOWN
UNDERGROUND
UTILITY LINE

CATCH BASIN
NO. 7384

STORM
MANHOLE
NO. 7378

CATCH
BASIN
NO. 7375

12" STEEL BAR

12" STEEL PIPE

12" STEEL BAR

12" STEEL BAR

12" STEEL BAR

12" STEEL BAR

12" STEEL BAR

12" STEEL BAR

12" STEEL BAR

12" STEEL BAR

12" STEEL BAR

12" STEEL BAR

12" STEEL BAR

12" STEEL BAR

12" STEEL BAR

12" STEEL BAR



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7-ELEVEN, INC.

7-ELEVEN - KALAMAZOO
3050 OAKLAND DRIVE
KALAMAZOO, MICHIGAN 49008

Revisions / Submissions		
ID	Description	Date
1	CITY COMMENTS	2025/09/30

Project Number: 764708
 Scale: 1"=20'
 Drawn By: TEP
 Checked By: JDC
 Date: 08/12/2025
 Issue: CONSTRUCTION PLANS

Drawing Title:
SWPPP PHASE 2

CE1

SWPPP LEGEND

PROPOSED

- MAJOR CONTOUR
- MINOR CONTOUR
- PAVEMENT/WALK
- STORM SEWER
- SF
- SILT FENCE
- COMPOST SOCK
- GRADING/SEEDING LIMITS
- LOD
- LIMIT OF DISTURBANCE
- PERMANENT EROSION CONTROL BLANKET ON ALL 3:1 SLOPES OR STEEPER
- STABILIZED CONSTRUCTION ENTRANCE
- STORAGE AREA
- BASIN SEDIMENT FILTER
- STORM MANHOLE
- CATCH BASIN
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- CONCRETE WASHOUT AREA
- INLET PROTECTION
- DANDY CURB (INLET PROTECTION)
- DANDY BAG (INLET PROTECTION)
- TRASH AREA

SEQUENCE OF CONSTRUCTION

UNLESS NOTED OTHERWISE, THE GENERAL CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL EROSION AND SEDIMENT CONTROL MEASURES IN STRICT ACCORDANCE WITH THE SWPPP THROUGHOUT THE DURATION OF THE PROJECT.

PHASE 2

INSPECTION OF EROSION CONTROL MEASURES AS OUTLINED IN NOTES, MAINTENANCE, REPAIRS AND/OR REPLACEMENTS SHALL BE MADE AS NECESSARY.

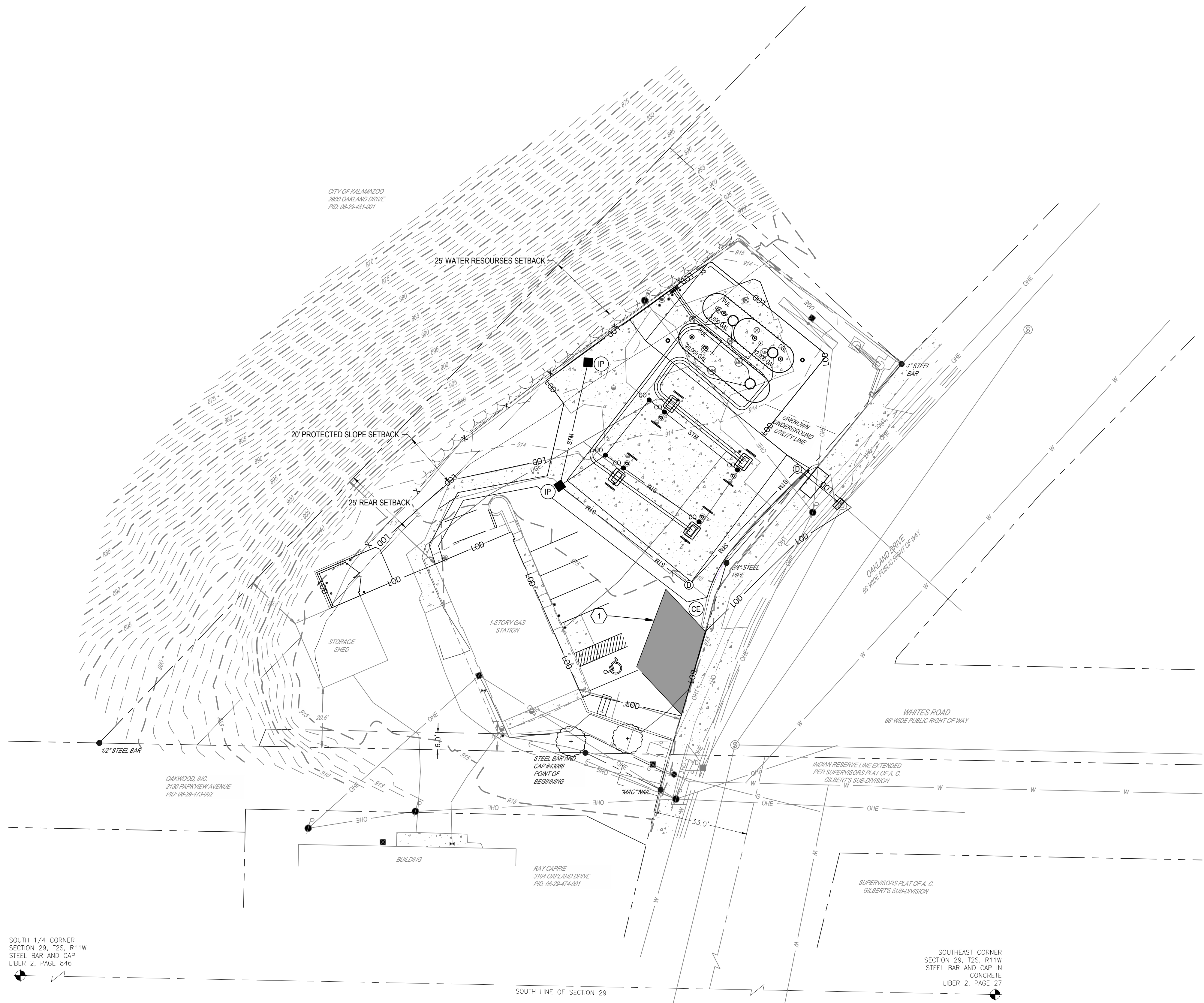
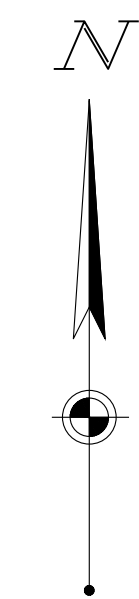
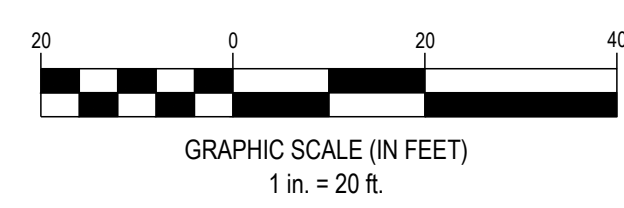
- BEGIN BUILDING CONSTRUCTION.
- INSTALL SANITARY SEWER AND WATER SERVICE.
- INSTALL STORM SEWER SYSTEM AFTER THE CONTRIBUTING DRAINAGE AREAS HAVE BEEN STABILIZED.
- INSTALL ALL PUBLIC UTILITIES (GAS, ELECTRIC, AND TELEPHONE).
- INSTALL ALL PAVEMENT.
- REDISTRIBUTE TOPSOIL PER LANDSCAPE PLAN. ALL AREAS DISTRIBUTED BY CONSTRUCTION THAT WILL NOT BE PAVED SHALL BE GRADED AND HAVE VEGETATION ESTABLISHED PER LANDSCAPE PLAN.
- ONCE 70% STABILIZATION OCCURS, AND PRIOR TO THE REMOVAL OF TEMPORARY BMP DEVICES, ALL ACCUMULATED SEDIMENT SHALL BE REMOVED FROM THE SEDIMENT BASIN AND IT SHALL BE RE-GRADED AS NECESSARY TO ACHIEVE FINAL GRADING AS SHOWN. ONCE 70% OF FINAL STABILIZATION OCCURS AND SEDIMENT BASIN IS TRANSITIONED TO PERMANENT STORMWATER DETENTION, TEMPORARY BMP DEVICES SHALL BE REMOVED.
- REMOVE SOIL EROSION CONTROL MEASURES AFTER PERMANENT VEGETATION HAS BEEN ESTABLISHED. ENSURE NOTICE OF TERMINATION (N.O.T.) IS FIELD.

NOTE: IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INSURE THAT ALL EROSION CONTROL MEASURES ARE INSTALLED AND MAINTAINED.

NOTE: CONTRACTOR TO MAINTAIN AND CLEAN OUT ALL TEMPORARY SEDIMENT TRAPS DURING DEMOLITION AND CONSTRUCTION, IN ACCORDANCE WITH MICHIGAN STORMWATER CONTROL AND REGULATIONS.



SEVENTY-TWO (72) HOURS BEFORE DIGGING IS TO COMMENCE, THE CONTRACTORS SHALL NOTIFY THE FOLLOWING AGENCIES: MICHIGAN UTILITIES PROTECTION SERVICE AT 811 OR 800-482-7171 AND ALL OTHER AGENCIES WHICH MIGHT HAVE UNDERGROUND UTILITIES INVOLVING THIS PROJECT AND ARE NONMEMBERS OF STATE UTILITIES PROTECTION SERVICE



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EROSION AND SEDIMENT CONTROL NARRATIVE

PLAN DESIGNER
CESO, INC.
13060 S US HWY 27
DEWITT, MI 48820

ENGINEER OF RECORD: MANDY GAUSS, P.E.
P: 586-855-8130
E: mandy.gauss@cesoinc.com

EXISTING SITE CONDITIONS:
PROJECT DESCRIPTION: THE SITE CONSISTS OF AN EXISTING SPEEDWAY WITH UNDERGROUND FUEL TANKS & AUTO CANOPY. THE PROJECT IS A DEVELOPMENT OF A PROPOSED 0.65 ACRE PARCEL, INTO A PROPOSED 7-ELEVEN GAS STATION. IMPROVEMENTS WILL INCLUDE A AUTO PARKING, AUTO FUELING.

DISTURBED AREA: ± ACRES

SITE DRAINS TO: **THE SITE WILL SHEET FLOW TO A SERIES OF STORM INLETS. STORM INLETS WILL SHEET FLOW INTO AN OUTLET TO A ROADSIDE DITCH WITH AN EVENTUAL OUTFALL INTO A SERIES OF CITY OWNED STORM INLETS.**

RECEIVING STREAM: UNNAMED TRIBUTARY

SITE BMP'S: FINAL LOCATIONS OF ALL SITE BMP'S INCLUDE DUMPSTER, VEHICLE FUELING AREAS, MATERIAL STORAGE, AND TOPSOIL STOCKPILES SHALL BE DETERMINED BY CONTRACTOR. IF FINAL LOCATION OF BMP'S DIFFER FROM THE LOCATIONS SHOWN, CONTRACTOR SHALL MODIFY SWPPP AND INFORM MICHIGAN EGLE OF NEW LOCATION OF BMP'S.

SOILS ON SITE CONSIST OF: -U_b - URBAN LAND

EROSION AND SEDIMENT CONTROL MEASURES:
PROVIDE INLET PROTECTION OF ALL NEW AND EXISTING DRAINAGE STRUCTURES INDICATED ON THIS PLAN.
ANY OFF-SITE BORROW OR SPOIL AREAS SHALL BE SUBJECT TO THE REQUIREMENTS SET FORTH BY CITY OF WARREN AND/OR MICHIGAN EGLE. ALL EROSION AND SEDIMENT CONTROL MEASURES FOR OFF-SITE AREAS NOT COVERED BY A SEPARATE NOI OR SWP3 SHALL BE COORDINATED WITH THE MICHIGAN EGLE.
ALL TRENCH OR EXCAVATION GROUNDWATER CONTAINING SEDIMENT MUST BE EFFECTIVELY TREATED PRIOR TO DISCHARGE INTO THE STORM SEWER SYSTEM.
USE ALL MEANS NECESSARY TO CONTROL DUST ON THE SITE AND PREVENT TRACKING SOIL OFF SITE.

JURISDICTION: ALL EROSION AND SEDIMENT CONTROL PRACTICES ARE SUBJECT TO FIELD MODIFICATION AT THE DISCRETION OF MACOMB COUNTY AND/OR MICHIGAN EGLE.

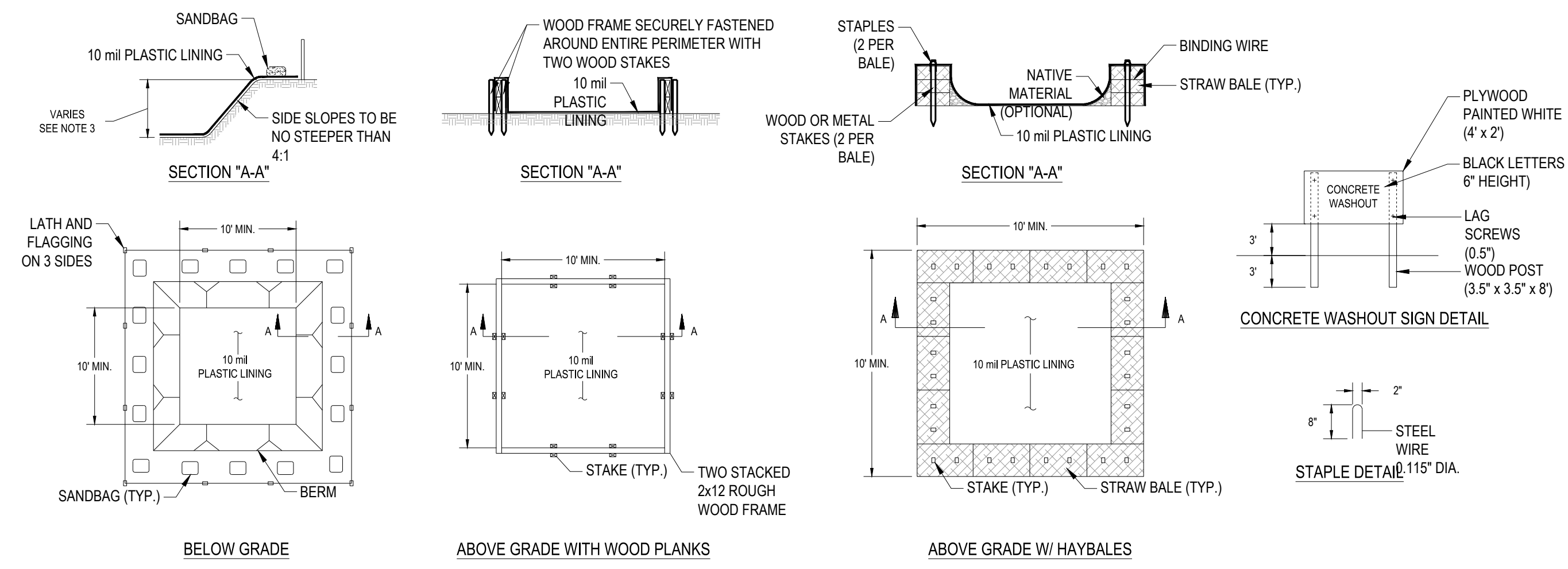
RUNOFF: THE PRE-CONSTRUCTION RUNOFF COEFFICIENT IS C=0.10. THE POST-CONSTRUCTION RUNOFF COEFFICIENT IS C=0.85.

CONSTRUCTION: ESTIMATED START DATE: 1/2026
ESTIMATED COMPLETION DATE: 6/2026

- NOTES:
- SITE EROSION CONTROLS SHALL BE CHECKED AND IF NECESSARY, REPAIR WEEKLY AND WITHIN 24 HOURS AFTER EACH RAINFALL GREATER THAN 1/4". IN THE EVENT OF CONTINUOUS RAINFALL, EROSION CONTROLS SHALL BE CHECKED DAILY.
 - ALL AREAS TO REMAIN BARE > 15 DAYS MUST BE TEMPORARILY STABILIZED.
- PROJECT IS LOCATED WITHIN ZONE X AND AE AS IT APPEARS ON FEMA FLOOD MAP PANEL #26077C0188E DATED 07/31/2024.
- REFER TO CG FOR ALL PROPOSED GRADES
 - REFER TO CE-CE2 FOR FURTHER EROSION CONTROL NOTES AND DETAILS

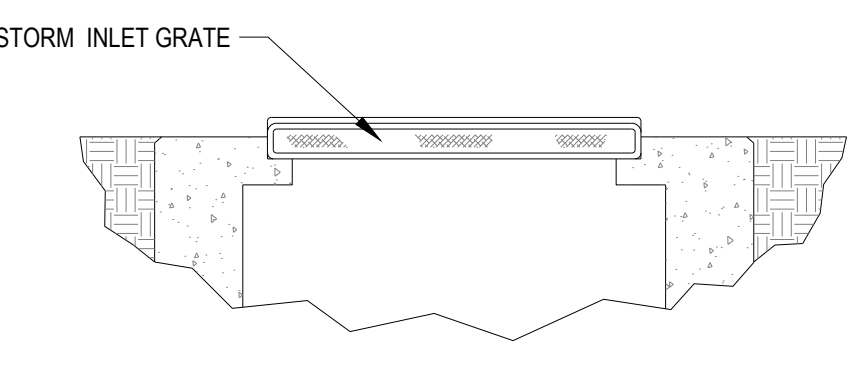
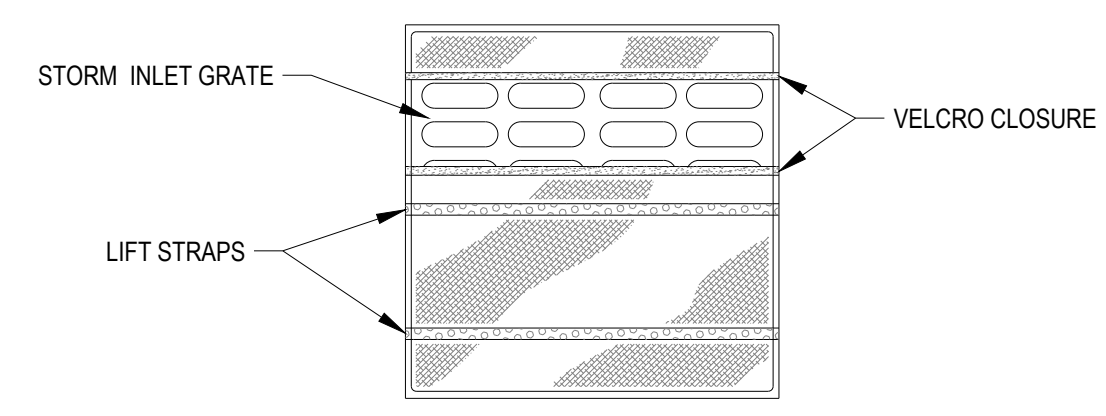
OWNERS REPRESENTATIVE FOR EROSION CONTROL MAINTENANCE:
NAME: DAVE TABBERT
PHONE #: 248-535-1736

SIGNATURE OF OPERATOR _____ DATE _____



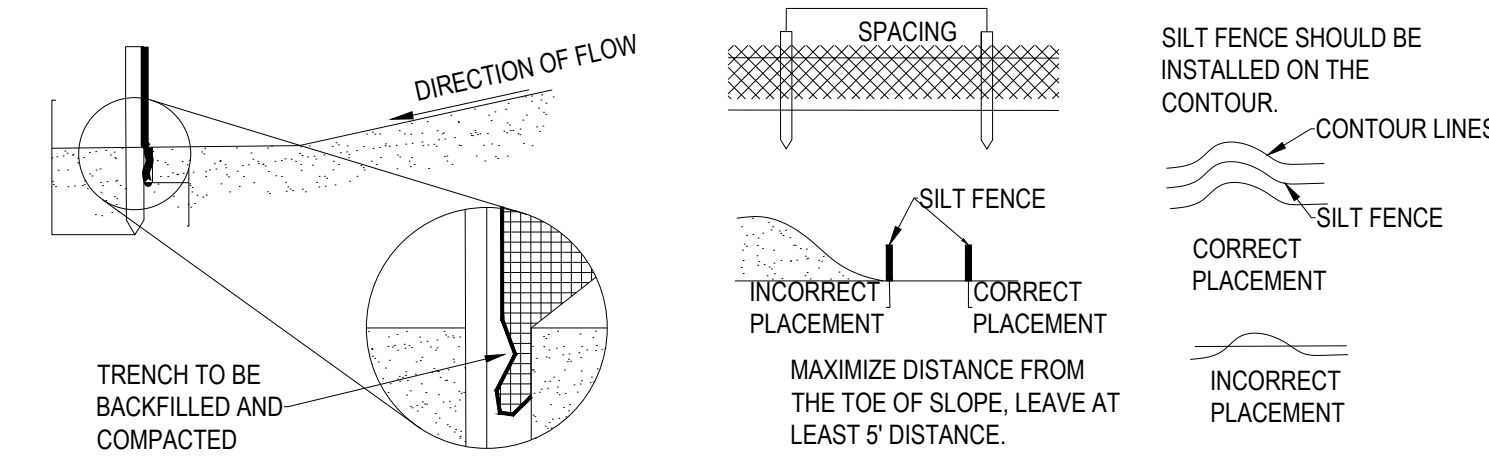
- NOTES:
- ACTUAL LAYOUT DETERMINED IN THE FIELD.
 - THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30' OF THE TEMPORARY CONCRETE WASHOUT FACILITY.
 - THE WASHOUT MUST HAVE SUFFICIENT VOLUME TO CONTAIN ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS INCLUDING BUT NOT LIMITED TO OPERATIONS ASSOCIATED WITH GROUT AND MORTAR.

CONCRETE WASHOUT
NTS



NOTE:
INLET PROTECTION SHALL BE DANDY BAG OR APPROVED OTHER.

INLET PROTECTION
NTS



- NOTES:
- SILT FENCE SHALL BE CONSTRUCTED BEFORE UPSLOPE LAND DISTURBANCE BEGINS.
 - ALL SILT FENCE SHALL BE PLACED AS CLOSE TO THE CONTOUR AS POSSIBLE SO THAT WATER WILL NOT CONCENTRATE AT LOW POINTS IN THE FENCE AND SO THAT SMALL SWALES OR DEPRESSIONS WHICH MAY CARRY SMALL CONCENTRATED FLOWS TO THE SILT FENCE ARE DISSIPATED ALONG ITS LENGTH.
 - TO PREVENT WATER PONDED BY THE SILT FENCE FROM FLOWING AROUND THE ENDS, EACH END SHALL BE CONSTRUCTED UPSLOPE SO THAT THE ENDS ARE AT A HIGHER ELEVATION.
 - WHERE POSSIBLE, SILT FENCE SHALL BE PLACED ON THE FLATTEST AREA AVAILABLE.
 - WHERE POSSIBLE, VEGETATION SHALL BE PRESERVED FOR 5 FT. (OR AS MUCH AS POSSIBLE) UPSLOPE FROM THE SILT FENCE. IF VEGETATION IS REMOVED, IT SHALL BE ESTABLISHED WITHIN 7 DAYS FROM THE INSTALLATION OF THE SILT FENCE.
 - THE HEIGHT OF THE SILT FENCE SHALL BE A MINIMUM OF 16 IN. ABOVE THE ORIGINAL GROUND SURFACE.
 - THE SILT FENCE SHALL BE PLACED IN A TRENCH CUT A MINIMUM 6 IN. DEEP. THE TRENCH SHALL BE CUT WITH A TRENCHER, CABLE LAYING MACHINE, OR OTHER SUITABLE DEVICES WHICH WILL ENSURE ADEQUATE UNIFORM TRENCH DEPTH.
 - THE SILT FENCE SHALL BE PLACED WITH THE STAKES ON THE DOWNSLOPE SIDE OF THE GEOTEXTILE AND SO THAT THE 8 INCHES OF CLOTH ARE BELOW THE GROUND SURFACE. EXCESS MATERIAL SHALL LAY ON THE BOTTOM OF THE 6 IN. DEEP TRENCH. THE TRENCH SHALL BE BACKFILLED AND COMPACTED.
 - SEAMS BETWEEN SECTIONS OF SILT FENCE SHALL BE OVERLAPPED WITH THE END STAKES OF EACH SECTION WRAPPED TOGETHER BEFORE DRIVING INTO THE GROUND.
 - MAINTENANCE - SILT FENCE SHALL ALLOW RUNOFF TO PASS ONLY AS DIFFUSE FLOW THROUGH THE GEOTEXTILE. IF RUNOFF OVERTOPS SILT FENCE, FLOWS UNDER OR AROUND THE ENDS, OR IN ANY OTHER WAY BECOMES A CONCENTRATED FLOW, ONLY OF THE FOLLOWING SHALL BE PERFORMED, AS APPROPRIATE:
 - THE LAYOUT OF THE SILT FENCE SHALL BE CHANGED.
 - ACCUMULATED SEDIMENT SHALL BE REMOVED, OR
 - OTHER PRACTICES SHALL BE INSTALLED.

SILT FENCE
NTS

SPECIFICATIONS FOR SILT FENCE

FABRIC PROPERTIES	VALUES	TEST METHODS
GRAB TENSILE STRENGTH	90 LB. MINIMUM	ASTM D-1682
MULEN BURST STRENGTH	190 PSI MINIMUM	ASTM D-3786
SLURRY FLOW RATE	0.3 GAL/MIN/FT. MAX.	
EQUIVALENT OPENING SIZE	40-80	US STD. SIEVE CW 02215
ULTRAVIOLET RADIATION STABILITY	90% MINIMUM	ASTM - G 26

CRITERIA FOR SILT FENCE MATERIALS

- FENCE POSTS - THE LENGTH SHALL BE A MINIMUM OF 32 INCHES LONG. WOOD POSTS WILL BE 2 IN. X 2 IN. HARDWOOD OF SOUND QUALITY. THE MAXIMUM SPACING BETWEEN POSTS SHALL BE 10 FT.
- SILT FENCE FABRIC (SEE CHART BELOW)



7-ELEVEN-KALAMAZOO
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7-ELEVEN, INC.

Revisions / Submissions

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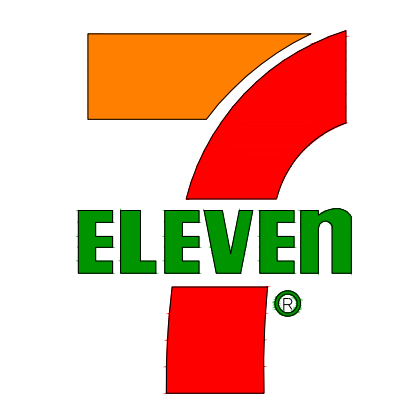
Project Number: 764708
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Checked By: JDC
Date: 08/12/2025
Issue: CONSTRUCTION PLANS

Drawing Title:
SWPPP NOTES & DETAILS

CE2



3601 Regby Rd., Suite 300
Mansfield, OH 43342
Phone: 937.435.8584 Fax: 888.208.4826



7-ELEVEN- KALAMAZOO
3050 OAKLAND DRIVE
KALAMAZOO, MICHIGAN 49008

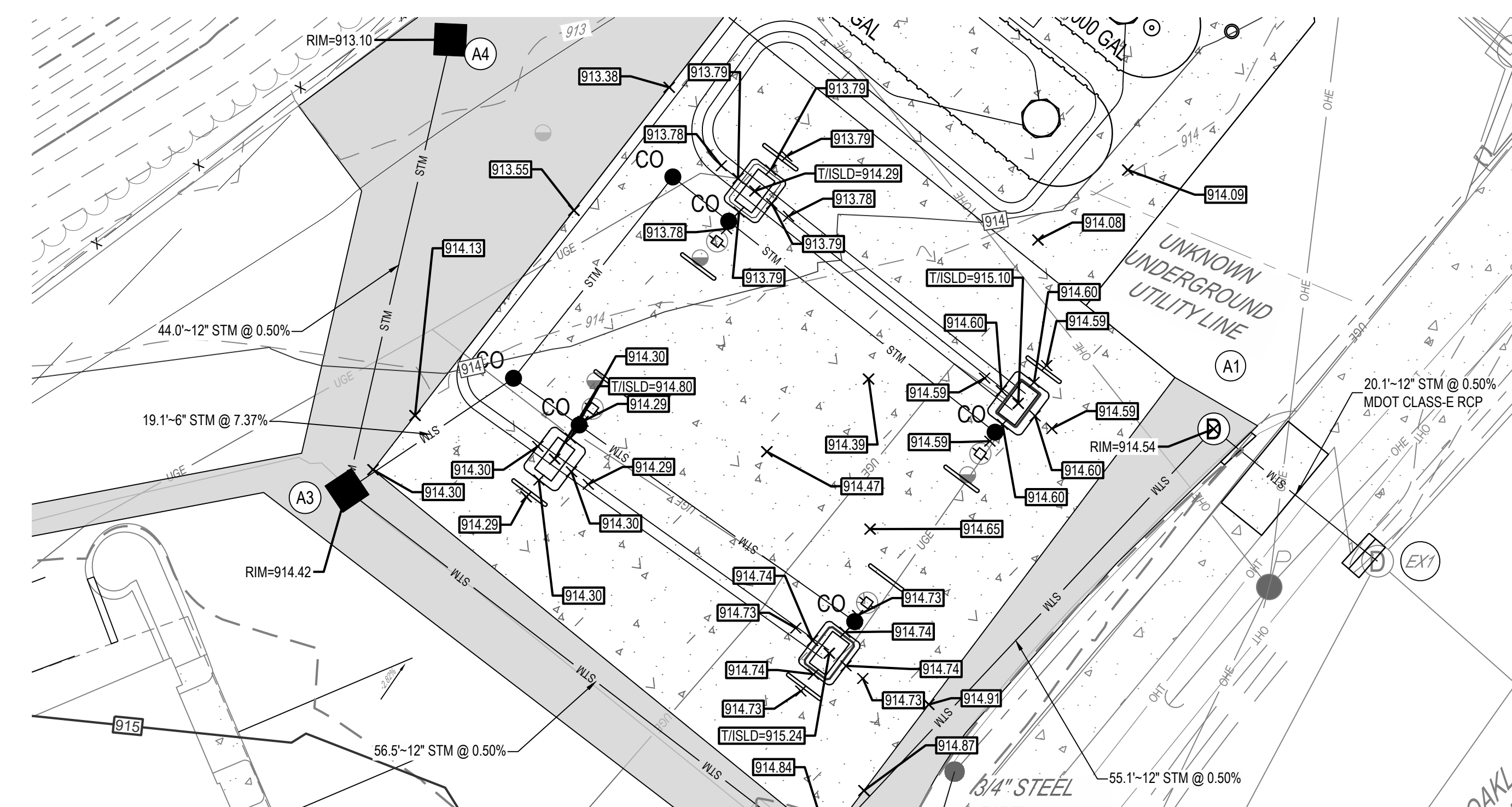
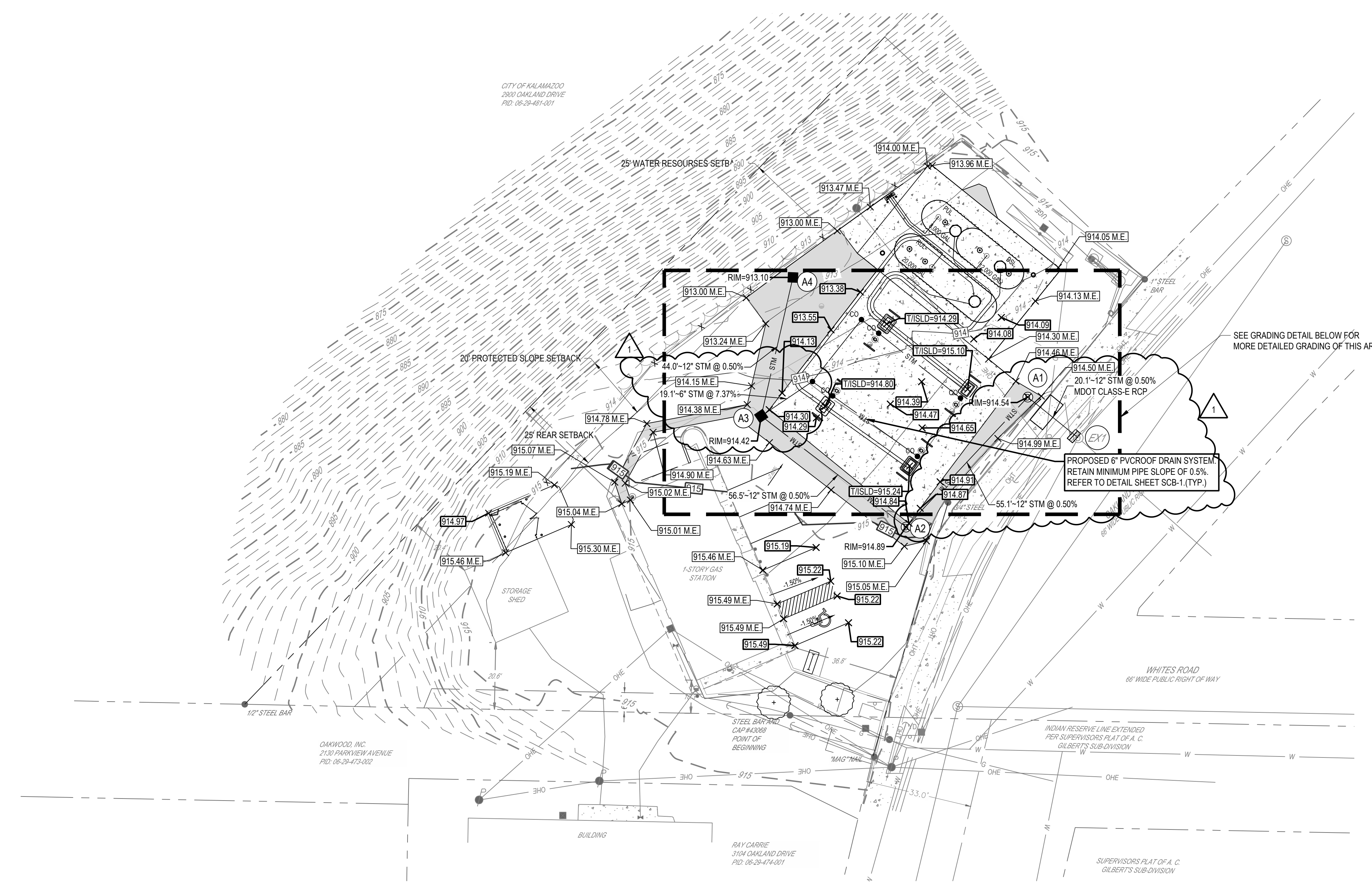
7-ELEVEN, INC.

GRADING LEGEND

- EXISTING**
- REFER TO CD FOR EXISTING FEATURES LEGEND
- PROPOSED**
- R/W — RIGHT-OF-WAY
 - — — PROPERTY LINE
 - — — SETBACK
 - — — EASEMENT
 - ▬ BUILDING
 - ▬ MAJOR CONTOUR
 - ▬ MINOR CONTOUR
 - ▬ GRADE BREAK
 - ▬ FLOW LINE
 - ① STRUCTURE NUMBER
 - CATCH BASIN
 - ⊙ STORM MANHOLE
 - XXX.XX FINISHED GRADE ELEVATION
 - RIM=XXX.XX RIM ELEVATION
 - BC=XXX.XX BACK OF CURB ELEVATION
 - TC=XXX.XX TOP OF CURB ELEVATION
 - FG=XXX.XX FINISHED GRADE ELEVATION
 - TP=XXX.XX TOP OF PAVEMENT ELEVATION
 - FTG=XXX.XX TOP OF FOOTING ELEVATION
 - M.E. MATCH EXISTING ELEVATION
 - X.XX% SLOPE ARROW
 - ➔ FLOOD ROUTE

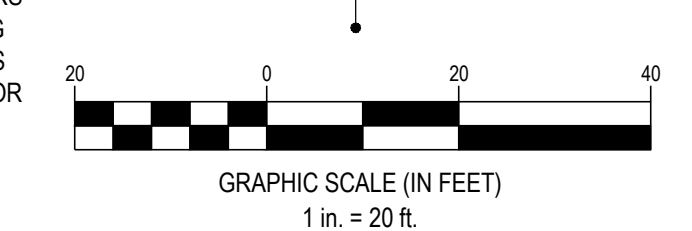
GRADING NOTES:

- CONTRACTOR TO USE EXTREME CAUTION WHEN GRADING IN AND AROUND EXISTING UTILITIES. CONTRACTOR SHALL FIELD VERIFY LOCATION AND DEPTH PRIOR TO START OF CONSTRUCTION.
- EXCAVATE SOILS AS NECESSARY TO COMPLETE PROPOSED CONSTRUCTION. UNLESS OTHERWISE DIRECTED (REFER TO GEOTECHNICAL REPORT), USE ALL EXCAVATED SOILS AS FILL ON SITE. ANY SOILS THAT CANNOT BE UTILIZED ON SITE SHALL BE LOADED DIRECTLY ONTO TRANSPORT TRUCKS AND HAULED TO OWNER'S APPROVED LOCATION. ANY IMPACTED SOILS ENCOUNTERED SHALL BE LOADED SEPARATELY AND SHALL NOT BE COMINGLED WITH CLEAN SOILS. ANY EXCAVATED SOIL OR MATERIALS THAT LEAVE THE SITE MUST GO TO AN APPROVED LANDFILL LOCATION OR BE ACCOMPANIED BY AN APPROVED BILL OF SALE.
- BID AS ALTERNATE A: IMPACTED SOILS SHALL BE PLACED ON MINIMUM 6 MIL. VISQUEEN AND COVERED WITH 40' X 100' SHEETS OF 4 MIL. VISQUEEN. A SAND BERM SHALL BE CONSTRUCTED AROUND ENTIRE PILE OF SOIL TO HOLD THE VISQUEEN DOWN. ALL SEAMS OR OVERLAP (6" MINIMUM) IN THE VISQUEEN COVERING SHALL BE SECURED WITH WEIGHTED MATERIAL.
- BID AS ALTERNATE B: PROVIDE DEWATERING NECESSARY FOR ANY EXCAVATIONS AND TO PREVENT TANKS FROM FLOATING WHILE THE TANKS ARE NOT COVERED BY PROPER OVERBURDEN. DEWATERING SHALL CONSIST OF SUPPLYING EQUIPMENT AND LABOR TO MAINTAIN PUMPING ACTIVITIES AS NECESSARY. COORDINATE WITH OWNER'S REPRESENTATIVE TO DETERMINE WHERE WATER CAN BE PUMPED. IDENTIFY THIS COST AS A SPECIFIC LINE ITEM IN THE BID. DISPOSAL OF CONTAMINATED WATER SHALL BE THE OWNER'S RESPONSIBILITY.
- THE ENVIRONMENTAL CONSULTANT AND THE CONTRACTOR SHALL USE THE "SOILS WORKSHEET" TO ACCOUNT FOR ALL EXCAVATED SOILS.
- A REPORT OF THE SUBSURFACE INVESTIGATION IS MADE AVAILABLE TO THE CONTRACTOR AT TIME OF BIDDING. THE BASE BID SHALL INCLUDE LAND BALANCING ACTIVITIES BASED ON THE ASSUMPTION THAT EXCAVATED SOIL CAN BE REUSED AS NECESSARY FOR CONSTRUCTION. UPON REVIEWING THE SUBSURFACE INVESTIGATION, CONTRACTOR SHALL INCLUDE THE FOLLOWING AS ALTERNATE:
 - A. OVER-EXCAVATE AREAS OF UNSUITABLE SOILS AND STABILIZE AREAS PER THE SUBSURFACE INVESTIGATION. ESTIMATE QUANTITY OF OVER-EXCAVATED AREAS AND REPLACEMENT BACKFILL IN EACH AREA, ALONG WITH THE TYPE OF BACKFILL. ACTUAL QUANTITIES WILL BE VERIFIED DURING CONSTRUCTION PER THE DIRECTION OF THE GEOTECH CONSULTANT AND OWNER'S REPRESENTATIVE, WITH DETAILED CHANGE ORDERS SUBMITTED TO OWNER.
- ANY DISCREPANCIES BETWEEN ELEVATIONS SHOULD BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE AND THE DESIGN ENGINEER.
- CONTRACTOR TO FIELD VERIFY LOCATION OF CANOPY DRAINS AND TIE INTO PROPOSED STORM SEWER.



STORM SEWER STRUCTURE SCHEDULE			
NO.	STRUCTURE	RIM	INVERT
A1	48" MH	913.60	908.99 (12") SW 908.99 (12") SE
A2	AQUA SWIRL XC-2	915.03	909.27 (12") NE 909.27 (12") NW
A3	3X3 CB	914.41	909.55 (12") SE 909.55 (12") N 910.05 (6") NE
A4	3X3 CB	912.88	909.77 (12") S
EX1	48" MH	913.99	908.89 (12") NW 908.39 (12") SE 908.49 (12") SW 908.39 (12") NE

N



SEVENTY-TWO (72) HOURS BEFORE DIGGING IS TO COMMENCE, THE CONTRACTORS SHALL NOTIFY THE FOLLOWING AGENCIES: MICHIGAN UTILITIES PROTECTION SERVICE AT 811 OR 800-482-7171 AND ALL OTHER AGENCIES WHICH MIGHT HAVE UNDERGROUND UTILITIES INVOLVING THIS PROJECT AND ARE NONMEMBERS OF STATE UTILITIES PROTECTION SERVICE

C:\DCC\ACC\des\CES07-Elleven Kalamazoo MI 7785\Project Files\CES03-CIVIL\PLAN\LOT764708 GRADING PLAN.dwg - 10/12/2025 - Lisa Gunter

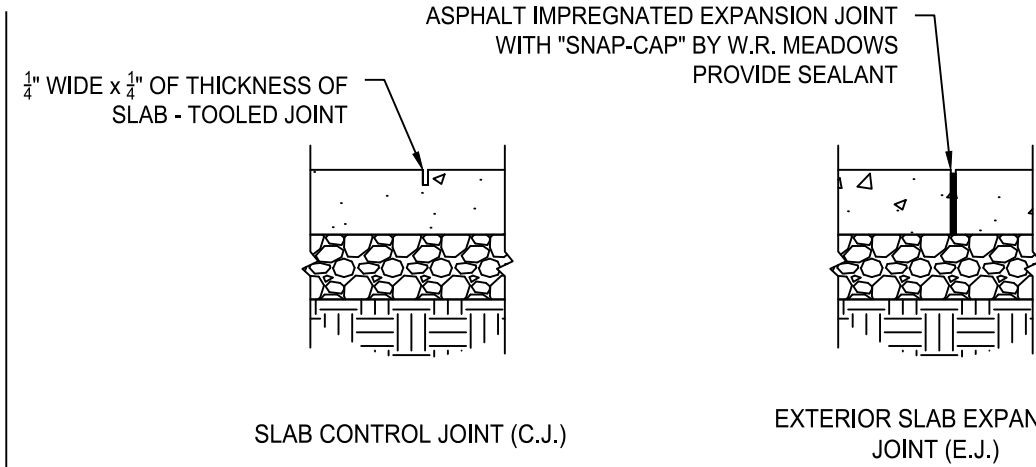
Revisions / Submissions

ID	Description	Date
1	CITY COMMENTS	2025/09/30

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Project Number: 764708
Scale: 1"=20'
Drawn By: TEP
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Drawing Title:
GRADING PLAN

CG



FOR 5' OR 8' WALKS, INSTALL A CONTROL JOINT EVERY 5' AND ONE IN THE CENTER (5' FROM THE BACK OF THE BUILDING FOR EXAMPLE)

DETAILS ONLY APPLY TO BUILDING SIDEWALK. THEY DO NOT APPLY TO INTERIOR SLAB OR SITE CONCRETE.

10 CONCRETE WALK JOINTING SECTIONS

NOT TO SCALE

ASPHALT SEALING

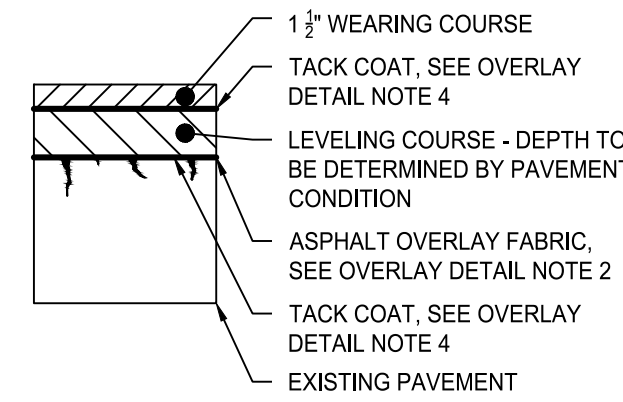
- SURFACE CLEANING**
THE SURFACE TO BE SEALED SHALL BE FREE FROM DIRT AND OTHER FOREIGN MATTER. ANY ACCUMULATIONS OF OIL OR GREASE SHALL BE CLEANED OFF THE PAVEMENT WITH DETERGENT SOLUTION. THE RESIDUE OF WHICH SHALL BE THOROUGHLY WASHED AWAY WITH CLEAN WATER BEFORE SEALANT IS APPLIED.
- SEALING:**
THE SEAL COATING MATERIAL SHALL BE COMPRISED OF A RUBBERIZED COAL-TAR PITCH EMULSION AND SHALL MEET OR EXCEED FEDERAL SPECIFICATION R-P-355a. SUPPLIED IN CONCENTRATED FORM, IT SHALL BE DILUTED A MINIMUM OF 15% AND A MAXIMUM OF 25% WITH FRESH, CLEAN WATER. THE SEALANT MATERIAL SHALL CONTAIN 5-6 LBS. PER GALLON OF FINE, CLEAN, DRY SILICAS AND MEETING THE FOLLOWING GRADATION:

SIEVE SIZE	% PASSING
#16	100
#30	80-100
#50	10-60
#100	0-5

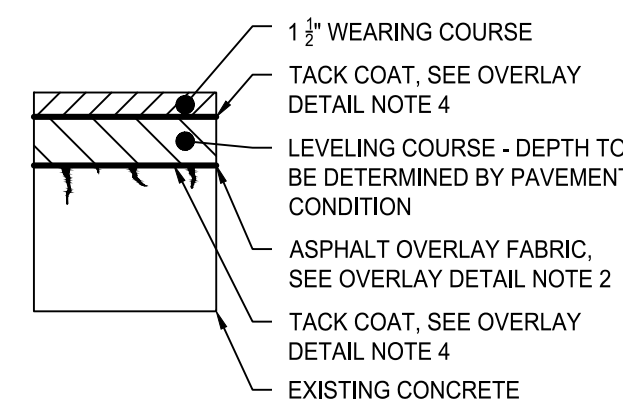
THE SEALANT SHALL BE APPLIED TO THE PAVEMENT IN TWO COATS AT THE RATE OF 0.08 TO 0.12 GALLONS PER SQUARE YARD. A LATEX ADDITIVE MAY ALSO BE ADDED TO THE SEALANT TO ALLOW FOR QUICKER DRYING TIME IN THOSE AREAS SPECIFIED BY OWNER'S REPRESENTATIVE.

7 ASPHALT SEALING NOTES

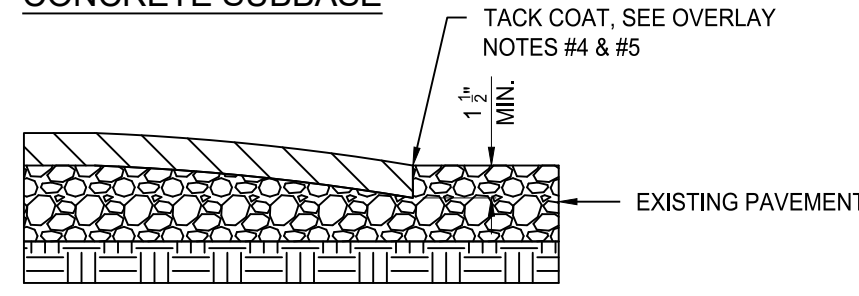
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ASPHALT SUBBASE



CONCRETE SUBBASE



WHERE OVERLAY IS NOT SPECIFIED FOR ENTIRE EXISTING SURFACE, THE INTERFACE BETWEEN THE NEW OVERLAY AND THE OLD PAVEMENT SURFACE SHALL BE PER THE ABOVE DETAIL. FEATHERING OF THE ASPHALT TO MEET THE EXISTING PAVEMENT WILL NOT BE ACCEPTABLE.

EDGE DETAIL

8 ASPHALT OVERLAY PAVEMENT SECTIONS

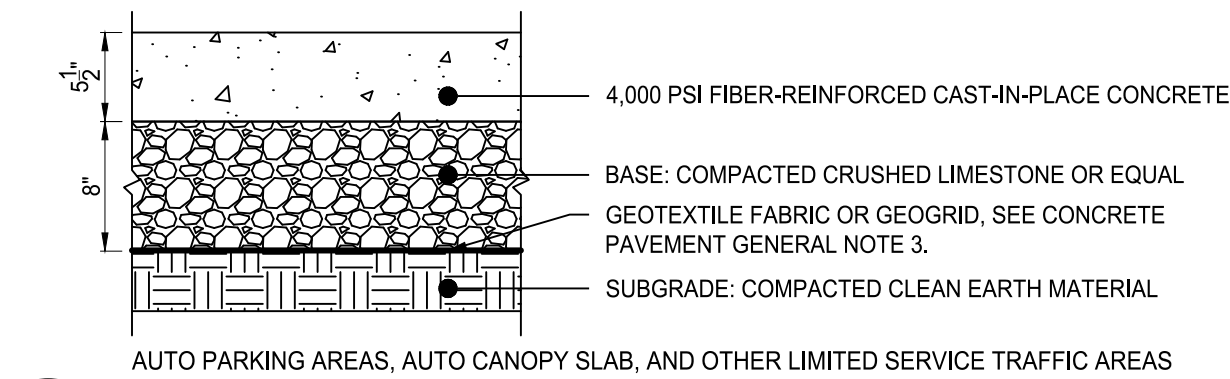
NOT TO SCALE

CONCRETE PAVEMENT JOINT DETAILS

TYPE OF JOINT	USE DESCRIPTION	DETAIL
A. CONTROL JOINT ("SJ" ON FUEL PROTOTYPES) 1. SAWN 2. PREMOLD STRIP 3. HAND FORMED AND SAWN AT CRITICAL JOINTS	USE SPECIFICATION ACI 308R-06 TO PLACE CONTROL JOINTS SO AS TO UNIFORMLY DIVIDE SLABS INTO NOMINAL 12' x 12' (STANDARD-DUTY) OR 16' x 16' (HEAVY-DUTY) SECTIONS. (SEAL CONTROL JOINTS ONLY IF SPECIFIED ON DRAWINGS OR BY OWNER'S REPRESENTATIVE.	
B. EXPANSION JOINT (ISOLATION JOINT)	PLACE AGAINST CONCRETE TANK SLAB, ABUTTING ROADWAY PAVEMENTS AND STRUCTURES (BUILDINGS, CANOPY COLUMNS, CATCH BASINS, ETC.)	
C. CONSTRUCTION JOINT ("CJ" ON FUEL PROTOTYPES)	CONSTRUCTION JOINTS MUST BE APPROVED BY OWNER'S REPRESENTATIVE. PLACE WHEN CONTINUOUS POUR OPERATIONS ARE SUSPENDED FOR MORE THAN 30 MINUTES.	

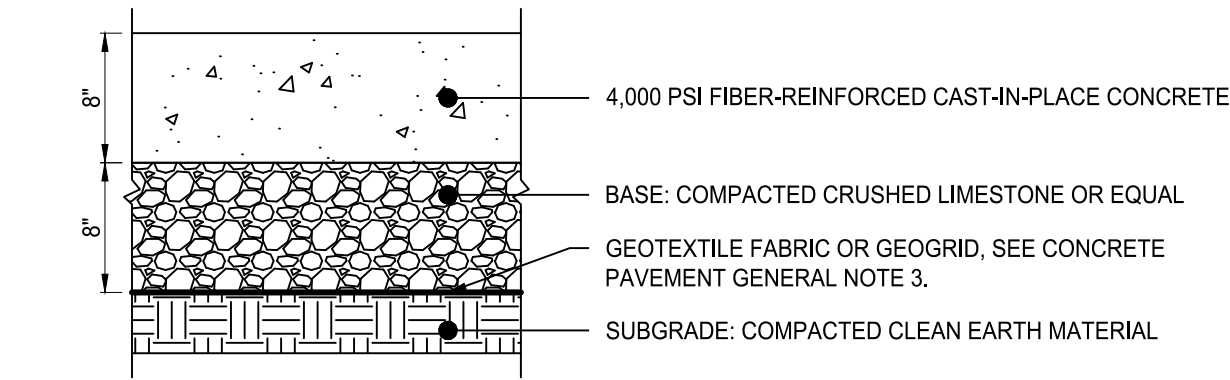
9 CONCRETE PAVEMENT JOINTING SECTIONS

NO SCALE



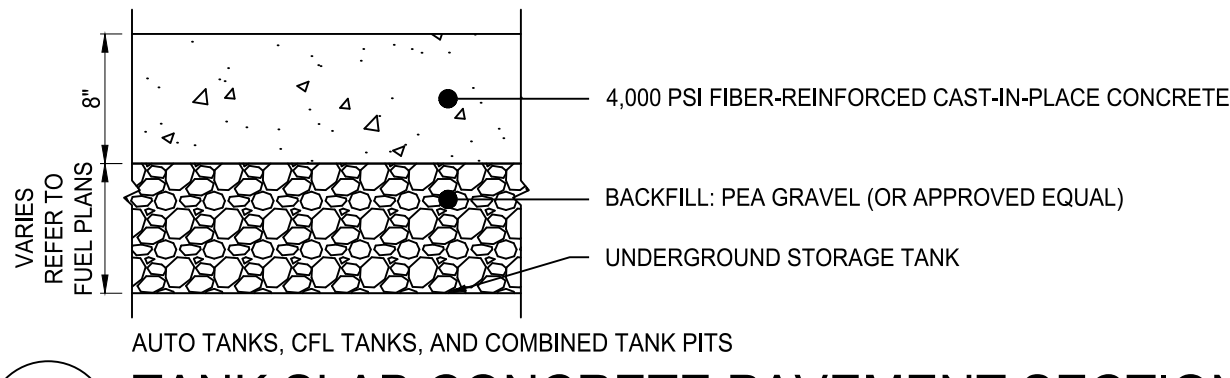
1 STANDARD-DUTY CONCRETE PAVEMENT SECTION

1 1/2" = 1'-0"



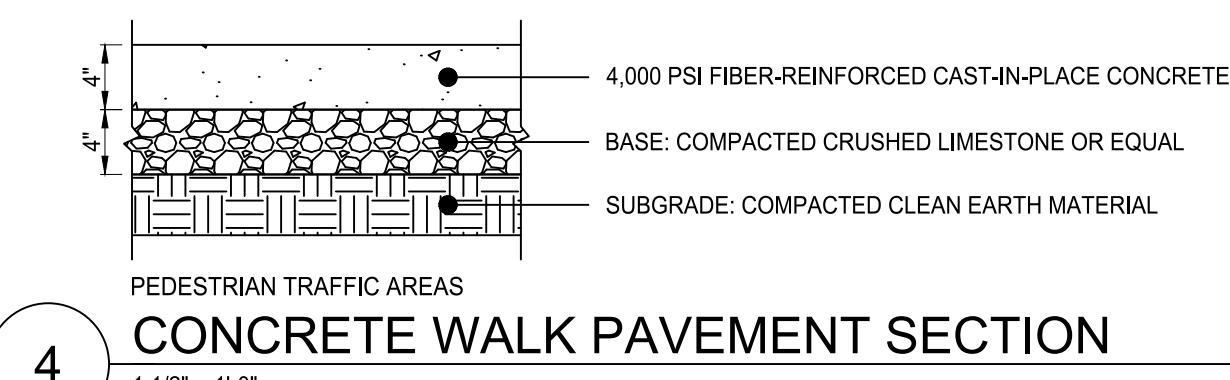
2 HEAVY-DUTY CONCRETE PAVEMENT SECTION

1 1/2" = 1'-0"



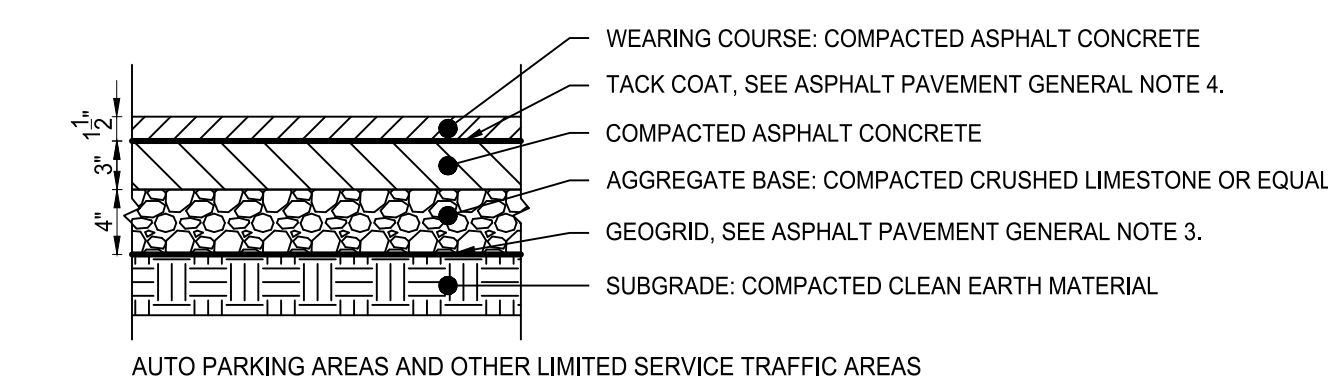
3 TANK SLAB CONCRETE PAVEMENT SECTION

1 1/2" = 1'-0"



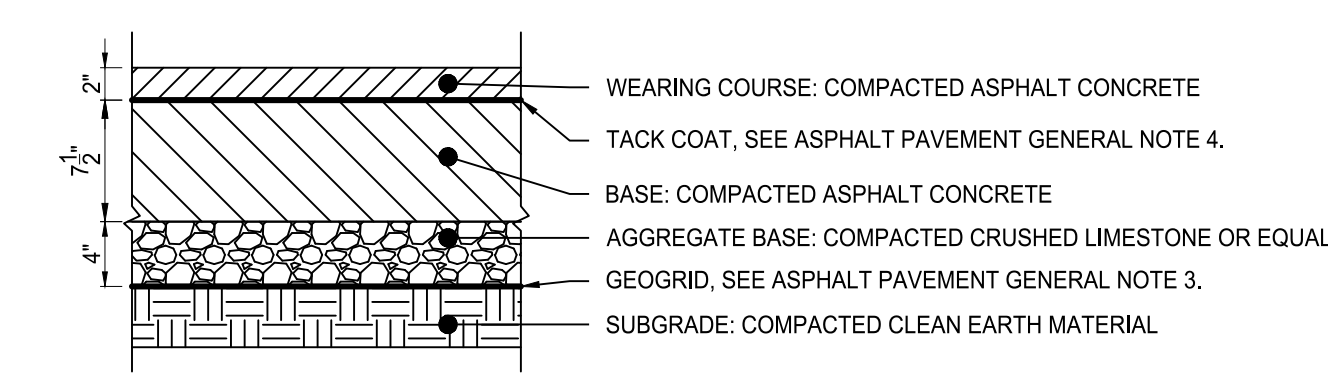
4 CONCRETE WALK PAVEMENT SECTION

1 1/2" = 1'-0"



5 STANDARD-DUTY ASPHALT PAVEMENT SECTION

1 1/2" = 1'-0"



6 HEAVY-DUTY ASPHALT PAVEMENT SECTION

1 1/2" = 1'-0"

PAVING EXECUTION NOTES:

- LOCATE AND INSTALL CONSTRUCTION, ISOLATION, AND EXPANSION JOINTS AS INDICATED OR REQUIRED.
- PLACE CONCRETE IN A CONTINUOUS OPERATION WITHIN PLANNED JOINTS OR SECTIONS. DO NOT ADD WATER TO ADJUST SLUMP.
- FLOAT SURFACES TO TRUE PLANES WITHIN A TOLERANCE OF 1/4 INCH IN 10 FEET.
- TOOL EDGES AND JOINTS TO A RADIUS OF 1/2 INCH FOR SIDEWALKS.
- ALLOW CONCRETE PAVING TO CURE FOR A MINIMUM OF 28 DAYS AND DRY BEFORE STARTING PAVEMENT MARKING.
- APPLY TRAFFIC PAINT WITH MECHANICAL EQUIPMENT TO A MINIMUM WET FILM THICKNESS OF 15 MILS.
- PROTECT CONCRETE PAVING FROM DAMAGE. EXCLUDE TRAFFIC FROM PAVING FOR AT LEAST 14 DAYS.

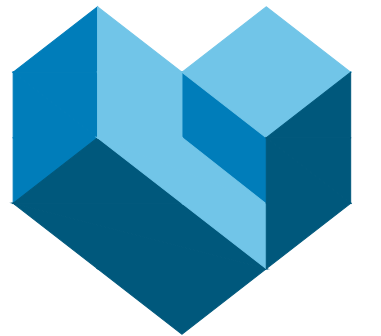
CONCRETE PAVEMENT GENERAL NOTES:

- SEE FUEL PROTOTYPE FOR ADDITIONAL REQUIREMENTS FOR TANK SLABS.
- SEE FUEL PROTOTYPE FOR ADDITIONAL REQUIREMENTS FOR DISPENSER ISLAND SLABS.
- A GEOTEXTILE OR GEOGRID IS ONLY NEEDED WHEN THE GEOTECHNICAL REPORT AND/OR A GEOTECH EXPERT REQUIRES IT FOR THE SPECIFIC SITE'S SOIL CONDITIONS.
- UNDISTURBED SOIL OR COMPACTED BACK FILL, NOT LESS THAN 95% OF MODIFIED PROCTOR DENSITY (ASHTO-T-180).
- REFER TO CIVIL DESIGN GUIDELINES (CDG) FOR PAVEMENT LOCATION GUIDANCE.
- CONTRACTOR REFER TO THE GEOTECH REPORT FOR PAVEMENT AND FOUNDATION DESIGN AND CONSTRUCTION RECOMMENDATIONS IF MORE STRINGENT THAN PROTOTYPE DETAILS.
- COMPACTION IS NOT REQUIRED OVER THE TANK PIT(S).

ASPHALT PAVEMENT GENERAL NOTES:

- ALL WORK SHALL BE IN CONFORMANCE WITH OWNER'S SPECIFICATIONS FOR ASPHALTIC CONCRETE PAVING.
- GEOGRID IS ONLY NEEDED WHEN THE GEOTECHNICAL REPORT AND/OR A GEOTECH EXPERT REQUIRES IT FOR THE SPECIFIC SITE'S SOIL CONDITION.
- FOR SUBSURFACE DRAINAGE OR STABILITY ISSUES DURING CONSTRUCTION (UNDER DIRECTION BY GEOTECH EXPERT):
 - SUBSURFACE DRAINAGE ISSUE - REFER TO GUIDELINES FOR DEWATERING ISSUES TO DERIVE ACCEPTABLE OPTIONS.
 - SUBSURFACE STABILITY ISSUE - INSTALL GEOGRID PER GEOTECH EXPERT RECOMMENDATION.
- THE PAVEMENT SHALL BE THOROUGHLY CLEANED AND A TACK COAT OF ASPHALT SHALL BE APPLIED BEFORE THE OVERLAY IS PLACED.
- REFER TO CIVIL DESIGN GUIDELINES (CDG) FOR PAVEMENT LOCATION GUIDANCE.

CONTRACTOR MUST REFER TO THE GEOTECH REPORT FOR PAVEMENT AND FOUNDATION DESIGN AND CONSTRUCTION RECOMMENDATIONS



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7-ELEVEN, INC.

7-ELEVEN-KALAMAZOO
3050 OAKLAND DRIVE
KALAMAZOO, MICHIGAN 49008

Revisions / Submissions

ID	Description	Date
1	CITY COMMENTS	2025/09/30

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Scale: N/A

Drawn By: TEP

Checked By: JDC

Date: 08/12/2025

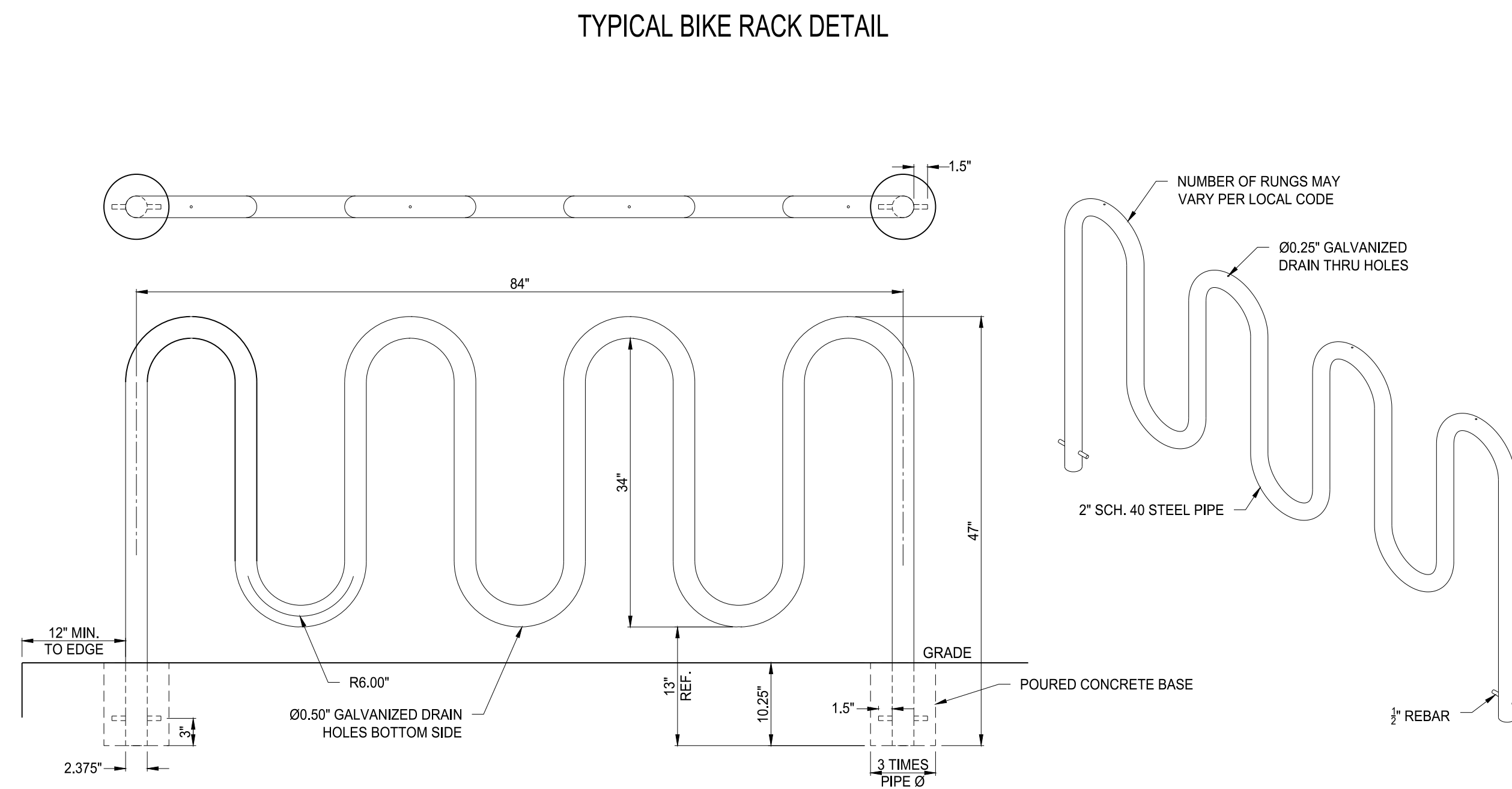
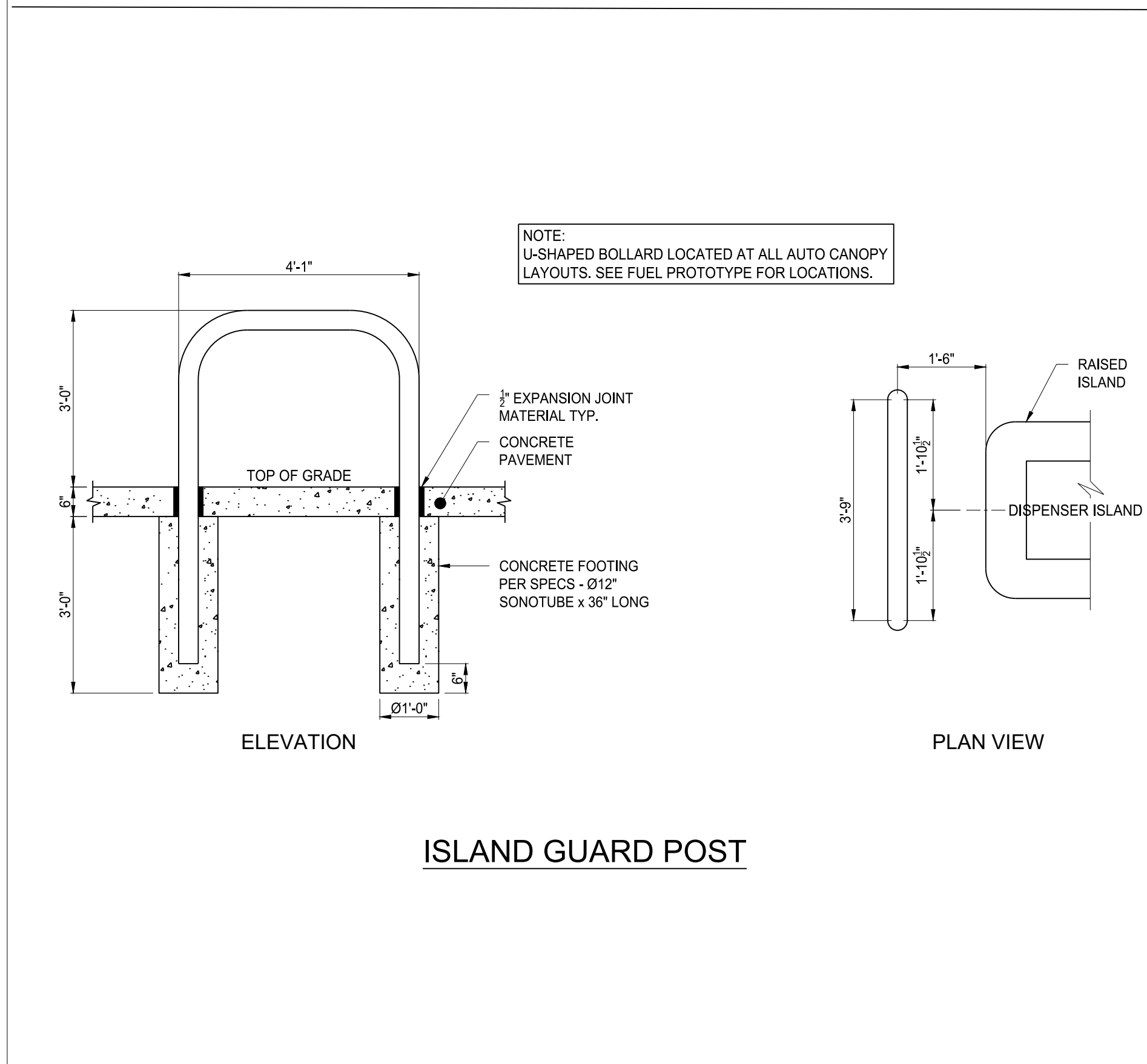
Issue: CONSTRUCTION PLANS

Drawing Title:

DETAILS

CPC-1

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Drawing Title:
DETAILS

CYE-A



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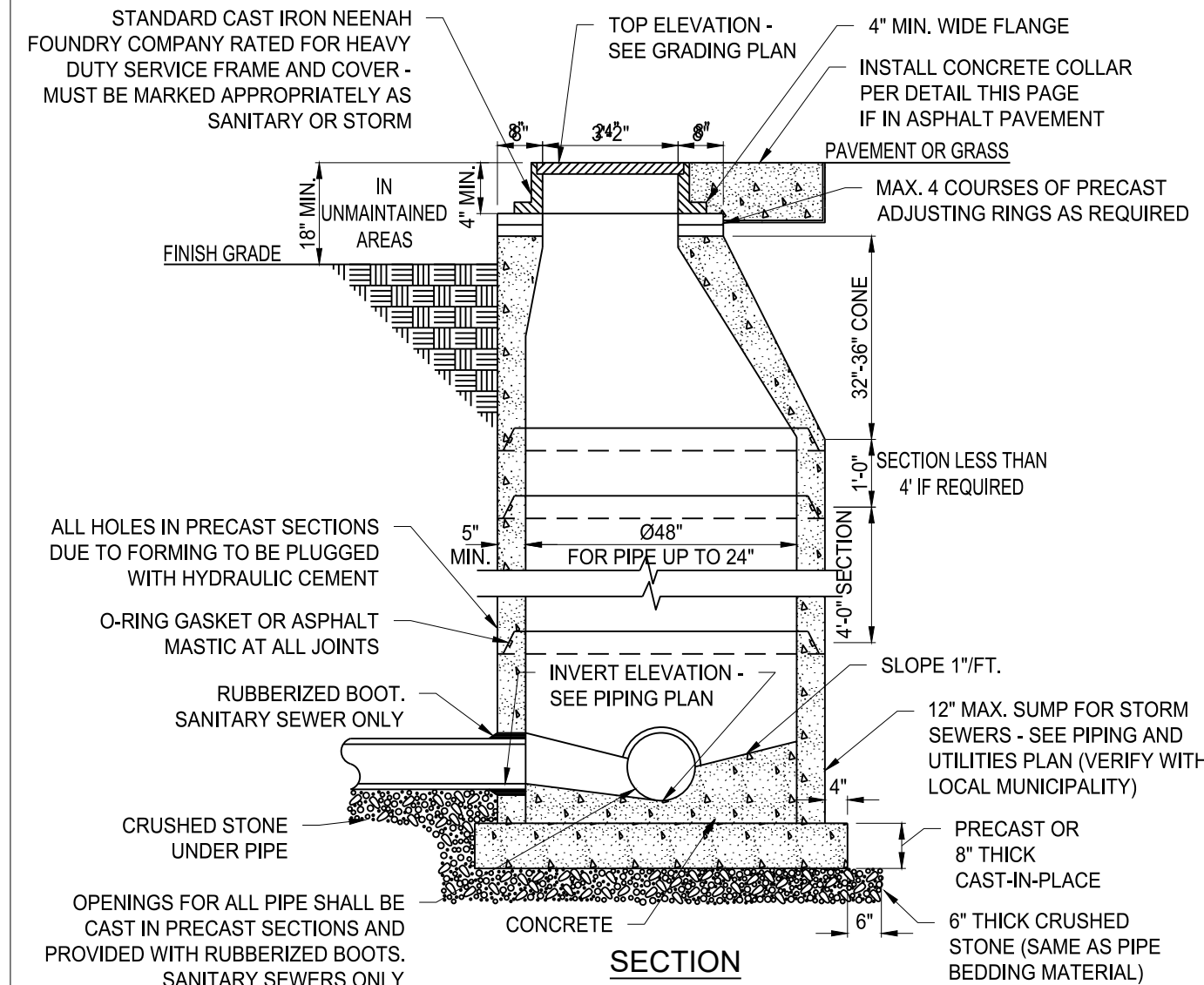
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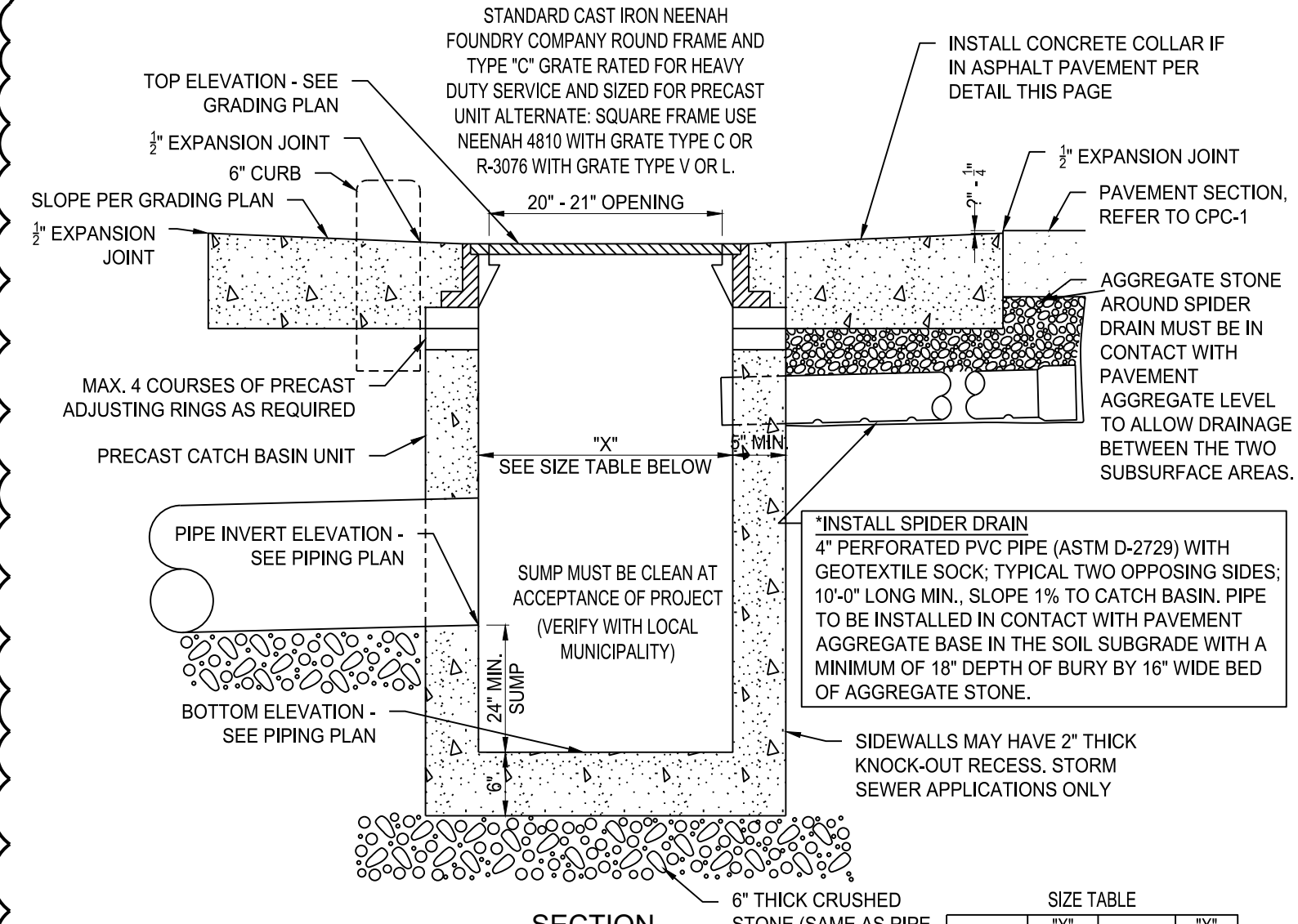
CUD1

DRAINAGE & UTILITY DETAILS & SPECIFICATIONS



- MANHOLES SHOWN ON THE PLOT OR PIPING PLAN SHALL BE PRECAST CONCRETE AND CONSTRUCTED OF MATERIALS AND IN A MANNER MEETING THE SPECIFICATIONS OF ASTM C-478 AND THE PUBLIC AUTHORITY HAVING JURISDICTION.
 - SEE GRADING AND/OR PIPING PLAN FOR TOP AND INVERT ELEVATIONS, SIZE AND ARRANGEMENT OF INLET/OUTLET PIPING.
 - ADDITIONAL MASONRY BRICK OR BLOCK WORK IS NOT PERMITTED TO MEET SURFACE ELEVATION.
 - OBTAIN APPROVAL OF MANUFACTURER'S STRUCTURAL ENGINEER FOR DEPTHS EXCEEDING 10'.
- FOR SANITARY SEWERS ONLY**
- THE BOTTOM OF THE MANHOLE SHALL BE CONTOURED WITH CONCRETE TO CHANNEL THE FLOW THROUGH THE MANHOLE.
 - WHEN SPECIFIED ON THE PLANS, AN EXTERIOR "DROP" MANHOLE SHALL BE CONSTRUCTED PER LOCAL SPECIFICATIONS.

A STANDARD MANHOLE
NOT TO SCALE



- THE PRECAST CATCH BASIN UNIT SHALL CONFORM TO THE APPLICABLE STANDARD STATE D.O.T. SPECIFICATIONS AND ASTM C913. THE UNIT SHALL BE PROPERLY REINFORCED TO PREVENT DAMAGE DURING TRANSPORT AND INSTALLATION.
- SEE GRADING AND/OR PIPING PLAN FOR TOP, INVERT, AND BOTTOM ELEVATIONS, SIZE, AND ARRANGEMENT OF INLET/OUTLET PIPING.
- MORTAR ALL INLET, OUTLET PIPE OPENINGS WITH HYDRAULIC CEMENT GROUT.
- ADDITIONAL MASONRY BRICK OR BLOCK WORK IS NOT PERMITTED TO MEET SURFACE ELEVATION.

LARGEST PIPE DIA.	7" SQUARE C.B.	LARGEST PIPE DIA.	7" ROUND C.B.
21"	24"	15"	30"
33"	36"	24"	42"
42"	48"	30"	48"
54"	60"	36"	60"
66"	72"	48"	72"

NOTE: TRAFFIC RATED REINFORCED PRE-CAST CONCRETE TOP TO BE USED WITH LARGER CATCH BASINS.
VERIFY STRUCTURE SIZE IS ADEQUATE FOR MULTIPLE PIPES AND PIPE ANGLES.

TO BE USED IN STANDARD-DUTY PAVEMENT AREAS ONLY.
2 STANDARD-DUTY CATCH BASIN
NOT TO SCALE

GEOTEXTILE FABRIC SPECIFICATIONS

8 OZ. NONWOVEN NEEDLE PUNCHED FABRIC; AMCCO 4553, PHILLIPS SUPAC 8NP, OR EQUAL

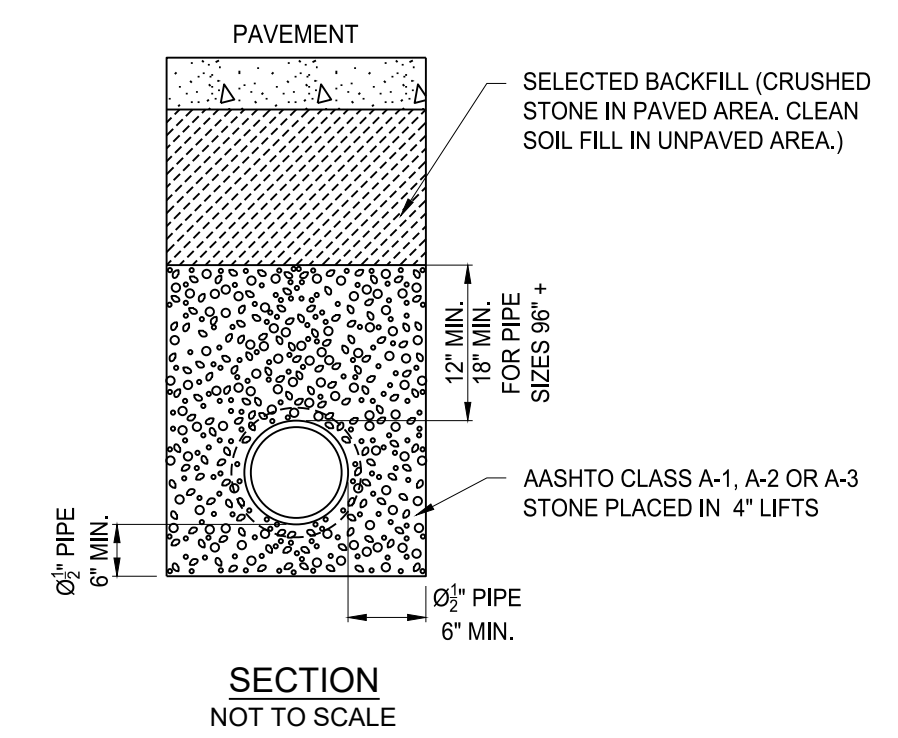
GENERAL NOTES:

- ALL STORM AND SANITARY PIPING SHALL BE THE SIZE AND TYPE SHOWN ON THE GRADING OR PIPING PLAN, AND SHALL CONFORM TO THE ASTM AND AASHTO STANDARD SPECIFICATIONS LISTED HERE, UNLESS OTHERWISE REQUIRED BY GOVERNING AUTHORITIES.
- CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF 7-ELEVEN'S SPECIFICATIONS.
- CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES PRIOR TO STARTING ANY BELOW GRADE WORK TO LOCATE UNDERGROUND FACILITIES.
- ALL SANITARY SEWERS SHALL HAVE "PREMIUM" SEALED JOINTS. STORM SEWERS WITHIN 20' OF HYDROCARBON PRODUCT PIPING OR UNDERGROUND TANKS SHALL HAVE "PREMIUM SEALED JOINTS."
- THE PIPE INVERT SHALL BE STRAIGHT LINE GRADED BETWEEN ELEVATIONS SHOWN ON THE PLAN.
- PIPE SHALL BE LAID FROM THE LOWER ELEVATION TO THE HIGHER ELEVATION.
- CONTRACTOR SHALL VERIFY EXISTING ELEVATIONS PRIOR TO BEGINNING WORK. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE.
- PIPING TO BE MIN. 12" BELOW TOP OF RIGID PAVEMENT, BOTTOM OF FLEXIBLE PAVEMENT, OR FINISHED GRADE IN NON-TRAFFIC AREAS. APPLICABLE AASHTO OR AISI GUIDELINES SHALL OVERRIDE AND GOVERN MINIMUM COVER HEIGHTS WHEN GREATER THAN STATED ABOVE.
- SEE DRAWING # SCB-1 FOR CANOPY DOWNSPOUT DRAIN DETAILS.

MINIMUM DEPTH OF BURY:

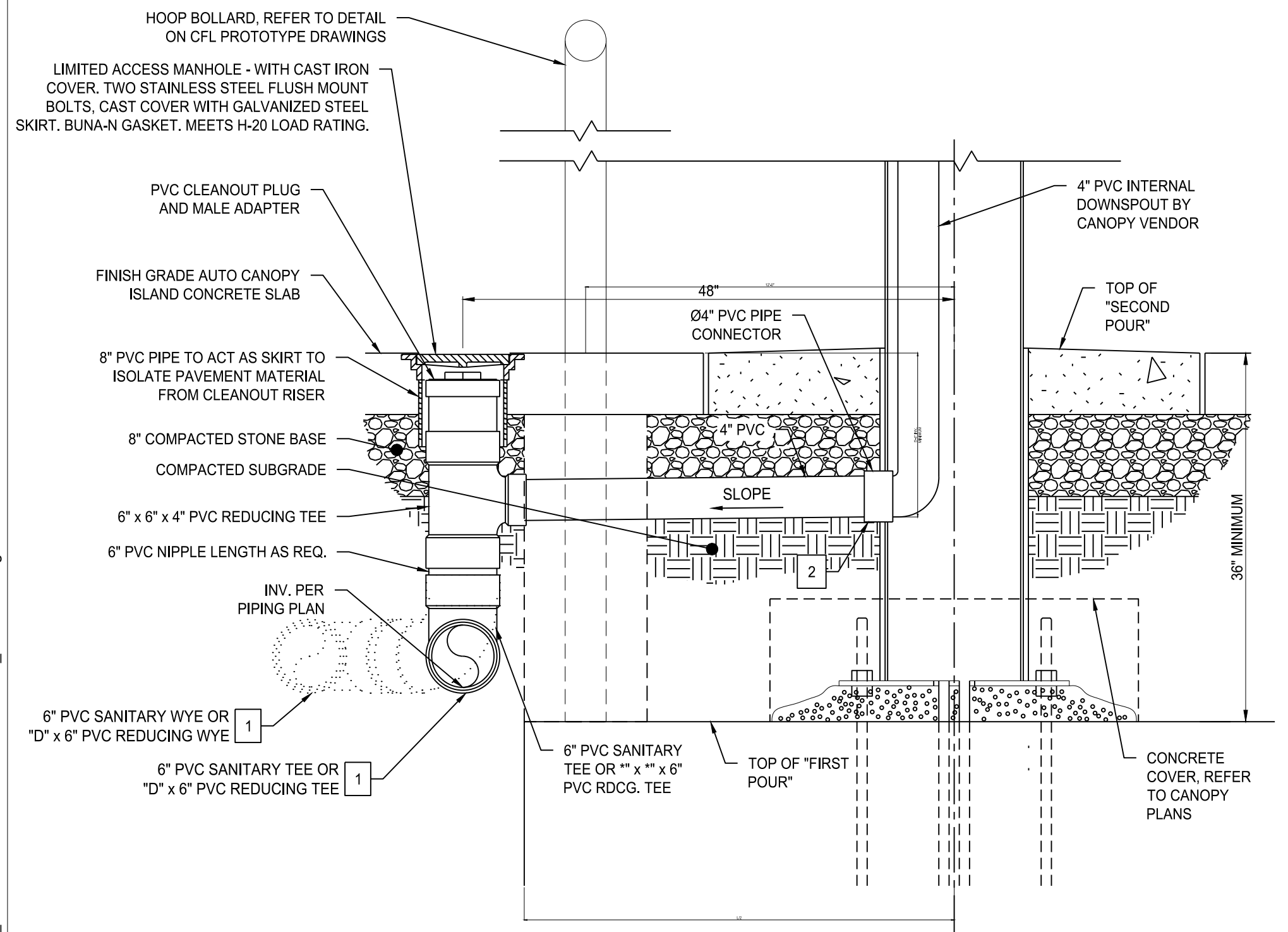
- (SEE NOTE #8)
- PVC.....18"
 - RCP.....12"
 - HDPE.....18"

NOTE: REFER TO GEOTECHNICAL REPORT FOR PLACEMENT RECOMMENDATION. INSTALL WHEN MANHOLE OR CATCH BASIN CASTING OCCURS AT LOW POINTS AND CLAYEY SUBGRADES. SEE DETAIL B AND C THIS SHEET.



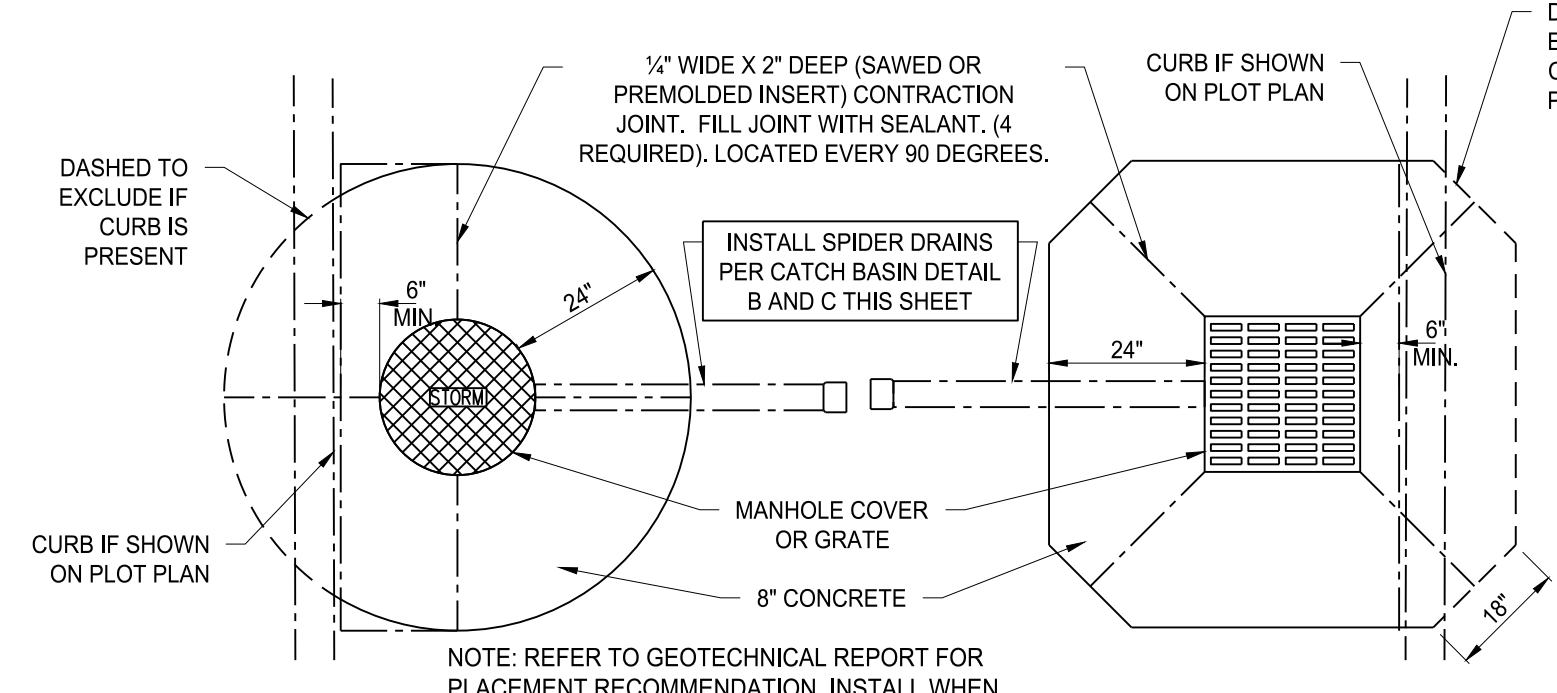
H PIPE BEDDING
NOT TO SCALE

PIPE SPECIFICATIONS							
TYPE OF PIPE	"I" VALUES	SIZES PERMITTED	SERVICE AND USE	PIPE SPECIFICATION	INSTALLATION SPECIFICATION	JOINT SPECIFICATION	PREMIUM JOINTS
POLY-VINYL CHLORIDE (PVC)	0.01	6"	SANITARY SEWER	ASTM D-3034 SDR 35	ASTM D-2321	ASTM D-3212	ASTM F-477
		8" - 12"	STORM DRAINAGE	STANDARD SPECIFICATION FOR TYPE PSM PVC SEWER PIPE AND FITTINGS	STANDARD PRACTICE FOR INSTALLATION OF FLEXIBLE THERMOPLASTIC SEWER PIPE	STANDARD SPECIFICATION FOR JOINTS FOR DRAIN AND SEWER PLASTIC PIPES USING FLEXIBLE ELASTOMERIC SEALS	ELASTOMERIC SEALS FOR JOINING PLASTIC PIPE (OIL RESISTANT) HIGH NITRILE (NBR), EPICHLOROHYDRIN (ECO), NEOPRENE (CR), POLYSULFIDE (T), OR FLUORO ELASTOMER (FPM)
REINFORCED CONCRETE (RCP)	0.013	Ø12" AND LARGER	STORM DRAINAGE	ASTM C-76, ASTM C1479 CLASS 3, WALL B-TONGUE AND GROOVE STANDARD SPECIFICATION FOR REINFORCED CONCRETE CULVERT, STORM DRAIN, AND SEWER PIPE	PIPE BEDDING PER DETAIL	BITUMINOUS MASTIC	ASTM C-443
SMOOTH LINED CORRUGATED HDPE N-12 BY ADVANCED DRAINAGE SYSTEMS (800) 733-8554 SURE-LOK BY HANCOR (800) 537-8520	0.012	8" AND LARGER	STORM DRAINAGE	AASHTO M294-S	ASTM D-2321	STANDARD COUPLERS (PRO LINK)	PVC DOUBLE BELL COUPLER WITH GASKET (PRO LINK 10.8)
		12" AND LARGER	STORM DRAINAGE	AASHTO M294-S	ASTM D-2321	BELL & SPIGOT WITH GASKET (SURE-LOK)	BELL & SPIGOT WITH POLYISOPRENE GASKET (SURE-LOK 10.8)
DUCTILE IRON (DI)	0.012	4" - 12"	SPECIAL	ASTM A-746 CLASS 50 STANDARD SPECIFICATION FOR DUCTILE IRON GRAVITY SEWER PIPE	PIPE BEDDING PER DETAIL	RUBBER GASKET COMPRESSION TYPE JOINT	GASKET TO BE OIL RESISTANT NITRILE-BUTADIENE (NBR)
POLYETHYLENE (PE)	0.010	4" - 6"	UNDERDRAINS AND SEPTIC DISPOSAL FIELDS ONLY	ASTM F-405 STANDARD SPECIFICATION FOR CORRUGATED POLYETHYLENE TUBING AND FITTINGS	SEE UNDERDRAIN DETAIL	STANDARD COUPLINGS	NA
CORRUGATED METAL PIPE (CMP)	0.022	Ø12" AND LARGER	STORM DRAINAGE	ASTM A-780 STANDARD SPECIFICATION FOR CORRUGATED METAL PIPE, METALLIC-COATED FOR SEWERS AND DRAINS	ASTM A-807 STANDARD SPECIFICATION FOR INSTALLING CORRUGATED METAL STRUCTURAL PLATE PIPE FOR SEWERS	STANDARD COUPLINGS	NA
		12" - 60"	STORM DRAINAGE	AASHTO M330 ASTM F2861	ASTM D2321	WATER TIGHT ASTM D-3212	EXTENDED REINFORCED INTEGRAL BELL AND GASKETED SPIGOT



- GENERAL NOTES**
- CANOPY CLEANOUT LOCATIONS PREFERENCES
 - AUTO STARTING GATE - AWAY FROM PRODUCT PIPING OPPOSITE THE BUILDING SIDE COLUMNS
 - AUTO STACKED - AWAY FROM PRODUCT PIPING OPPOSITE BOTH ROWS OF COLUMNS
 - REFER TO FUEL PROTOTYPE DRAWINGS FOR AUTO DISPENSER ISLAND (NOT SHOWN HEREON) DETAILS.
 - REFER TO CIVIL PROTOTYPE DRAWINGS SHEET CPC-1 FOR AUTO CANOPY PAVEMENT DETAIL.
- SECTION "A-A" KEY NOTES**
- "D" = SIZE OF ROOF DRAIN COLLECTOR PIPE. REFER TO PIPING PLAN TO VERIFY SIZE OF COLLECTOR PIPE.
 - REFER TO DIVISION OF WORK FOR G.C. CONNECTION TO ROOF DRAIN AT COLUMN.

1 SECTION "A-A" - INTERNAL DOWNSPOUT (AUTO CANOPY COLUMNS)
1"=1'-0"



F CONCRETE COLLAR - ROUND GRATE & FRAME
NOT TO SCALE

CONCRETE COLLAR - SQUARE GRATE & FRAME
NOT TO SCALE

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