

HAWAIIAN BROS SITE PLAN WAUKEE, IOWA



building strong communities.

1360 NW 121ST. Street
Clive, Iowa 50325
515-964-1229
fax 515-964-2370

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SITE ADDRESS:

1005 SE ALICES ROAD
WAUKEE, IOWA 50263

OWNER/APPLICANT:

DSDH WAUKEE, LLC
(F/K/A CORALVILLE AAP, LLC)
9251 WILLOW LANE
FREMONT, WISCONSIN 54940
(920)-428-9028

CIVIL ENGINEER:

McCLURE ENGINEERING COMPANY
1360 NW 121ST ST
CLIVE, IOWA 50325
TRENT SMITH
(515) 964-1229
TSMITH@MCCLUREVISION.COM

BUILDING SCHEDULE:

ESTIMATED CONSTRUCTION START: SPRING 2024
ESTIMATED CONSTRUCTION FINISH: FALL 2024

PRINCIPAL USES:

PRINCIPAL USES ARE FOR SPECULATIVE COMMERCIAL SPACE AS PERMITTED IN C-1 ZONING.

LEGAL DESCRIPTION:

WILLIAMS POINTE COMMERCIAL PLAT 3 LOT 2

BUILDING SUMMARY:

BUILDING PRIMARY AND SECONDARY USES: COMMERCIAL
TOTAL NUMBER OF BUILDINGS = 1
TOTAL NUMBER OF STORIES = 1
TOTAL BUILDING S.F. = 2,909 ± S.F.
BUILDING HEIGHT = 21'

PARKING:

REQUIRED = 44 TOTAL STALLS (15 STALL PER 1,000 SF)
= 5 QUEUING SPACES PER DRIVE-THROUGH LANE (15 TOTAL)

PROVIDED = 44 TOTAL STALLS
= 2 ADA STALLS
= 16 QUEUING SPACES

ZONING:

C-1 (COMMUNITY AND HIGHWAY SERVICE COMMERCIAL DISTRICT)

BULK REGULATIONS:

FRONT SETBACK: 30'
REAR SETBACK: 30'
SIDE SETBACK: 0' (EXCEPT ADJACENT TO RESIDENTIAL, THEN 30')

MAX. BLDG. HEIGHT: 40'; 2 STORIES

MIN. LOT AREA: NO MIN.

DEVELOPMENT SUMMARY:

GROSS LAND AREA: = 46,738 ± S.F. (1.07 ± AC.)

PROJECT IMPERVIOUS AREA:
PAVING AREA = 29,606 ± S.F. (63.4%)
BUILDING AREA = 2,909 ± S.F. (6.2%)
TOTAL = 32,515 ± S.F. (69.6%)

PROJECT OPEN SPACE:
REQUIRED = 9,348 ± S.F. (20.0%)
PROVIDED = 14,223 ± S.F. (30.4%)



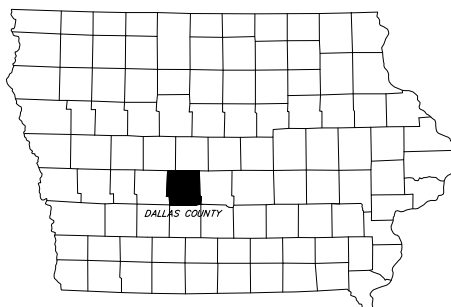
VICINITY SKETCH

NTS

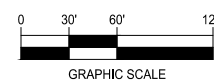
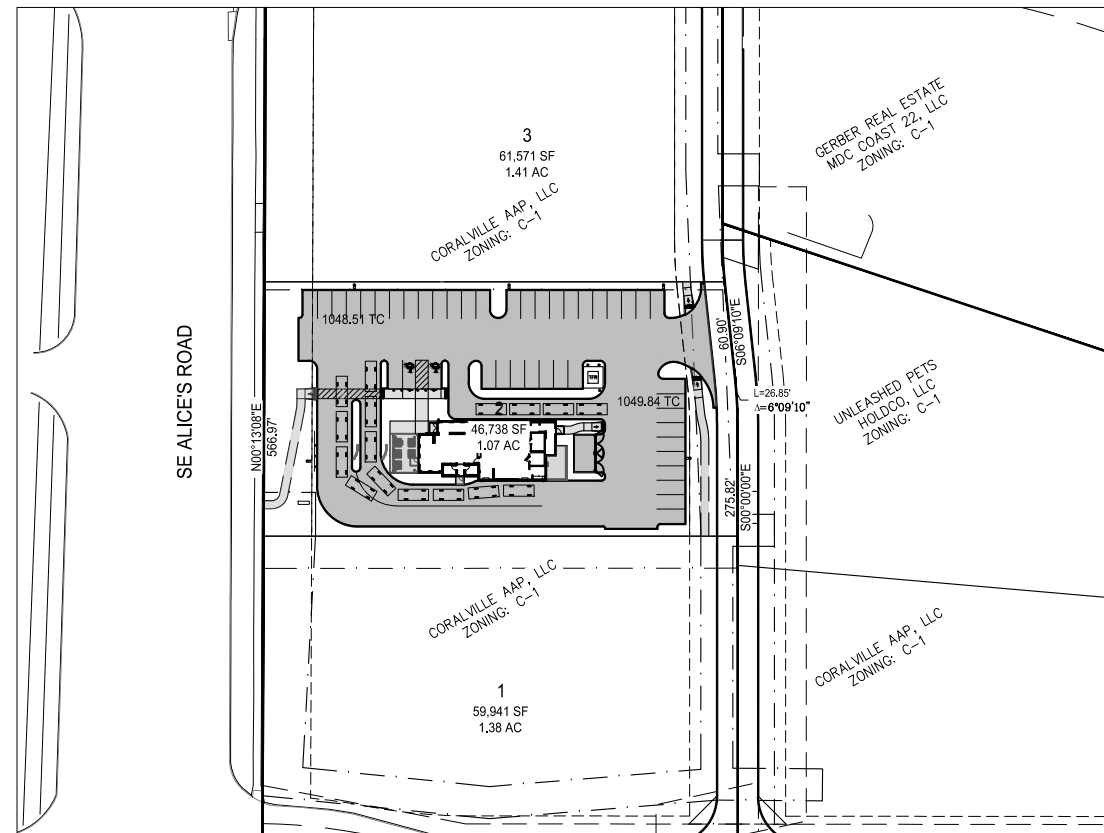
PROJECT LOCATION



NORTH



IOWA STATE MAP
NO SCALE



NORTH

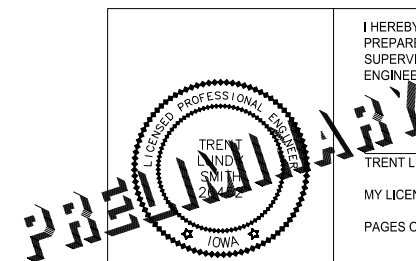


THE CONTRACTOR SHALL NOTIFY IOWA ONE CALL NO LESS THAN 48 HRS. IN ADVANCE OF ANY DIGGING OR EXCAVATION.

WHERE PUBLIC UTILITY FIXTURES ARE SHOWN AS EXISTING ON THE PLANS OR ENCOUNTERED WITHIN THE CONSTRUCTION AREA, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE OWNERS OF THOSE UTILITIES PRIOR TO THE BEGINNING OF ANY CONSTRUCTION. THE CONTRACTOR SHALL AFFORD ACCESS TO THESE FACILITIES FOR NECESSARY MODIFICATION OF SERVICES. UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. IT IS POSSIBLE THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN OR SHOWN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THEIR EXISTENCE AND EXACT LOCATION AND TO AVOID DAMAGE THERETO. NO CLAIMS FOR ADDITIONAL COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR FOR ANY INTERFERENCE OR DELAY CAUSED BY SUCH WORK.

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SUBMITTAL & REVISION TABLE		
SUBMITTAL	DATE	DESCRIPTION
1	03/05/2024	CITY SUBMITTAL #1
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4	05/02/2024	CITY SUBMITTAL #4



I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.

TRENT LUNDY SMITH, PE NO. 26452 DATE: _____
MY LICENSE RENEWAL DATE IS DECEMBER 31, 2024
PAGES OR SHEETS COVERED BY THIS SEAL: _____

COVER SHEET

HAWAIIAN BROS
SITE PLAN

WAUKEE, IOWA
2023001453
MARCH 05, 2024

CURRENT VERSION DATE:
MARCH 29, 2024
APRIL 17, 2024

ENGINEER: T. SMITH
DRAWN BY: T. SMITH
CHECKED BY: _____
FIELD BOOK NO.:

DRAWING NO. GN-01
SHEET NO. 01 / 14

GENERAL NOTES:

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE 2023 WAUKEE STANDARD SPECIFICATIONS AND 2024 EDITION OF THE STATEWIDE URBAN DESIGN AND SPECIFICATIONS (SUDAS).
- AT LEAST ONE WEEK PRIOR TO ANY CONSTRUCTION WITHIN PUBLIC RIGHT-OF-WAY/EASEMENT/ AND OR ANY CONNECTION TO PUBLIC SEWERS, STREETS, OR UTILITIES, THE CONTRACTOR SHALL CONTACT PUBLIC WORKS AND MCCLURE ENGINEERING.
- THE CONTRACTOR IS RESPONSIBLE FOR SETTING UP A PRE-CONSTRUCTION MEETING WITH WAUKEE PUBLIC WORKS AT LEAST ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
- THE CONTRACTOR SHALL VERIFY THE LOCATION AND PROTECT ALL UTILITIES AND STRUCTURES. DAMAGE TO UTILITIES AND STRUCTURES SHALL BE REPAIRED BY THE CONTRACTOR AT THE CONTRACTORS EXPENSE TO THE SATISFACTION OF THE CITY AND OWNER.
- AS-BUILT DRAWINGS SHALL BE PROVIDED TO PUBLIC WORKS THAT INCLUDES ALL UTILITIES, GRADES, FOR DRAINAGE SWALES, OVERFLOWS, ACCESSIBLE RAMPS, AND DETENTION FACILITIES. CONTRACTOR SHALL PROVIDE INFORMATION TO PROJECT ENGINEER FOR INCLUSION ON RECORD AS-BUILT DRAWINGS.
- ALL FIELD TILES ENCOUNTERED SHALL BE REPAIRED AND CONNECTED TO STORM SEWERS WHERE POSSIBLE. LOCATIONS SHALL BE PROVIDED TO THE ENGINEER FOR NOTATION ON AS-BUILT DRAWINGS.
- ALL DIMENSIONS ARE TO BACK OF CURB UNLESS OTHERWISE NOTED.
- ALL ACCESSIBLE RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE W/ THE ADA ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES, PROWAG, AND IOWA CODE. ACCESSIBLE RAMPS SHALL HAVE DETECTABLE WARNING.
- STAKING BY CERTIFIED ENGINEER OR LAND SURVEYOR WITH VERIFICATION BY CONTRACTOR SHALL BE DONE PRIOR TO PLACEMENT OF ANY CONCRETE RAMPS.
- CONTRACTOR SHALL PROVIDE SUBMITTALS ON ALL CONSTRUCTION MATERIALS PRIOR TO CONSTRUCTION.
- CONTRACTOR IS TO PROTECT EXISTING PAVEMENT UNLESS DESIGNATED FOR REMOVAL. DAMAGED PAVEMENT SHALL BE REMOVED AND REPLACED AT CONTRACTORS EXPENSE.
- ALL SEWERS AND DRAINAGEWAYS SHALL BE PROTECTED FROM ANY SLURRY GENERATED BY SAW CUTTING, CONCRETE GRINDING, OR ANY OTHER CONSTRUCTION ACTIVITY.
- ANY DEBRIS THAT SPILLS INTO ROW SHALL BE REMOVED AT THE END OF EACH WORK DAY AND PRIOR TO A RAIN EVENT.
- THE CONTRACTOR SHALL VERIFY THE LOCATION AND PROTECT ALL UTILITIES AND STRUCTURES. DAMAGE TO UTILITIES AND STRUCTURES SHALL BE REPAIRED BY THE CONTRACTOR AT THE CONTRACTORS EXPENSE TO THE SATISFACTION OF THE CITY AND THE OWNER.
- CONTRACTOR TO CONFINE OPERATIONS TO PERMANENT AND TEMPORARY EASEMENTS AND DEVELOPER OWNED PROPERTY.
- ALL TREES AND SHRUBS SHALL BE PROTECTED UNLESS DESIGNATED FOR REMOVAL IN THE PLANS.
- CONTRACTOR SHALL SUBMIT ALL SUBGRADE AND PAVING MATERIAL TEST RESULTS TO THE PROJECT ENGINEER.
- THE CONTRACTOR IS RESPONSIBLE FOR KEEPING AND MAINTAINING A SET OF RECORD DRAWINGS. RECORD DRAWINGS SHALL SHOW ALL CHANGES TO PLANS, AND REPRESENT THE AS-BUILT CONDITION. SUBMIT RECORD DRAWINGS TO ENGINEER PRIOR TO FINAL PAYMENT. ALL PIPE ENDS, UTILITY SERVICES AND CONDUIT ENDS SHALL BE MARKED WITH STEEL FENCE POSTS.
- THE PLANS SHOW UTILITIES LOCATED WITHIN THE LIMITS OF THE WORK UNDER THIS CONTRACT. THE COMPLETENESS OR ACCURACY OF THE INFORMATION SHOWN ON THE PLANS IS IN NO WAY IMPLIED OR GUARANTEED. THE CONTRACTOR SHALL OBTAIN THE LOCATION OF THE UTILITIES AND SERVICES FROM THE VARIOUS PUBLIC UTILITY COMPANIES BEFORE BEGINNING ANY EXCAVATION AND WILL BE HELD RESPONSIBLE FOR ANY DAMAGE TO SAID UTILITIES AND SERVICES RESULTING FROM HIS OPERATIONS. ADDITIONAL COMPENSATION WILL NOT BE ALLOWED FOR THIS WORK AND SHALL BE CONSIDERED INCIDENTAL TO OTHER AREAS OF WORK.
- AT LEAST ONE WEEK PRIOR TO ANY CONSTRUCTION WITHIN PUBLIC R.O.W./EASEMENT AND/OR ANY CONNECTION TO PUBLIC SEWERS AND STREETS, THE CONTRACTOR SHALL CONTACT STORM LAKE TO OBTAIN APPLICABLE CITY PERMITS THAT MAY BE NECESSARY.
- ALL CONSTRUCTION WITHIN PUBLIC R.O.W./EASEMENTS, AND/OR ANY CONNECTION TO PUBLIC SEWERS AND STREETS, SHALL COMPLY WITH CITY OF WAUKEE STANDARD CONSTRUCTION SPECIFICATIONS FOR SUBDIVISIONS AND THE STATEWIDE URBAN DESIGN SPECIFICATIONS.
- RECONNECT ANY FIELD TILE THAT ARE INTERCEPTED DURING UTILITY CONSTRUCTION, TIE INTO STORM SEWER IF POSSIBLE AND NOTE LOCATION/REPAIR ON THE AS-BUILT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING TRAFFIC CONTROL IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
- ALL DIMENSIONS TO BACK-OF-CURB UNLESS NOTED OTHERWISE. ALL DIMENSIONS TO BE FIELD VERIFIED.
- PROVIDE 1" EXPANSION MATERIAL WHERE CONCRETE IS POURED AGAINST BUILDING OR STRUCTURES. SET PRE-MOLDED MATERIAL TIGHT AGAINST BUILDING AND/OR STRUCTURES TO ELIMINATE VOIDS.
- ALL H/C RAMPS IN PUBLIC RIGHT OF WAY SHALL BE CONSTRUCTED IN ACCORDANCE W/THE ADA ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES (ADAAG), AND IOWA CODE. AS-BUILT DOCUMENTS OF H/C RAMPS TO BE SUBMITTED TO PUBLIC WORKS AND ENGINEERING
- CONTRACTOR TO COORDINATE ANY GRADE ADJUSTMENTS WITH DESIGN ENGINEER PRIOR TO PROCEEDING WITH THE WORK.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF WORK OF ALL SUBCONTRACTORS INVOLVED ON THE PROJECT.
- CONTRACTOR TO PROVIDE TRAFFIC CONTROL ACCORDING TO MUTCD STANDARDS AND COORDINATE WITH THE CITY FOR ANY PERMITTING RELATED TO TRAFFIC CONTROL IN THE PUBLIC RIGHT-OF-WAY.
- ALL AREAS DISTURBED BY CONSTRUCTION NOT DESIGNATED AS PLANTED SHALL BE SODDED ACCORDING TO CONSTRUCTION PLANS.
- THE CONTRACTOR SHALL PROVIDE EROSION CONTROL MEASURES NECESSARY TO PROTECT AGAINST SILTATION, EROSION, AND DUST POLLUTION ON THE PROJECT SITE COMPLYING WITH EROSION CONTROL REQUIREMENTS OF THE IOWA CODE, FEDERAL REGULATIONS, AND LOCAL ORDINANCES.
- NO PONDING OF WATER WILL BE ACCEPTED ON ANY NEW PAVEMENT OR OVERLAY AREAS. IT IS THE CONTRACTORS RESPONSIBILITY TO IDENTIFY ANY AREAS OF EXISTING OR PROPOSED PAVEMENT THAT HAVE POTENTIAL TO POND WATER AND MAKE ANY ADJUSTMENTS NECESSARY TO ENSURE THAT WATER WILL POSITIVELY DRAIN ACROSS THE PAVING OR OVERLAY.
- ANY WORK REQUIRED TO COMPLETE THE SCOPE OF THE PROJECT BUT NOT SPECIFICALLY CALLED OUT SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT. NO ADDITIONAL COMPENSATION SHALL BE ALLOWED FOR THE COMPLETION OF THIS WORK.
- REPLACE ANY PROPERTY MONUMENTS REMOVED OR DESTROYED BY CONSTRUCTION. MONUMENTS SHALL BE SET BY A LAND SURVEYOR REGISTERED TO PRACTICE IN THE STATE OF IOWA.
- ALL OPEN EXCAVATIONS SHALL BE PROTECTED.
- SITE CLEAN UP SHALL BE PERFORMED ON A DAILY BASIS, SIDEWALKS, PARKING LOTS, ROADWAYS, ETC. SHALL BE KEPT CLEAN AND MAINTAINED AT ALL TIMES.
- MAINTAIN POSITIVE DRAINAGE ON THE SITE THROUGHOUT THE PROJECT DURATION.
- PROTECT EXISTING UTILITIES DURING CONSTRUCTION.
- THE MEANS OF THE WORK AND THE SAFETY OF THE CONTRACTORS EMPLOYEES ARE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.
- NO WORK SHALL BE PERFORMED BEYOND THE PROJECT LIMITS WITHOUT PRIOR AUTHORIZATION FROM THE OWNER.
- PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL UNCOVER EXISTING UTILITIES AT CRITICAL LOCATIONS TO VERIFY EXACT HORIZONTAL AND VERTICAL LOCATION.
- APPROVED FIRE APPARATUS ACCESS ROADS SHALL BE PROVIDED AS SOON AS CONSTRUCTION COMMENCES. IF PAVING IS NOT INSTALLED PRIOR TO BUILDING CONSTRUCTION COMMENCING AFTER FOOTINGS ARE INSTALLED, AN APPROVED ROUTE AROUND THE EXTERIOR OF THE BUILDING TO EXTEND WITHIN 100-FEET OF ALL PORTIONS OF THE EXTERIOR WALLS SHALL BE PROVIDED AND COMPLY WITH THE REQUIREMENTS OF SECTION 503.2 OF THE IFC.

GRADING NOTES:

- ALL SLOPES IN PAVEMENT SHALL BE UNIFORM TO AVOID PONDING.
- ALL DIMENSIONS TO BACK-OF-CURB UNLESS NOTED OTHERWISE. ALL DIMENSIONS TO BE FIELD VERIFIED.
- CURB INTAKE RIM ELEVATIONS = PAVING TOP OF CURB ELEVATIONS.
- CONTRACTOR TO ADJUST ALL TOP OF CASTING ELEVATIONS WITHIN THE PROJECT LIMITS TO THE FINAL ELEVATIONS SHOWN ON THE PLANS.
- ALL SPOT ELEVATIONS ARE TO THE TOP OF FINISHED GRADE, UNLESS OTHERWISE NOTED.
- ALL SLOPES IN UNPAVED AREAS SHALL BE GRADED TO DRAIN.
- TURF REINFORCEMENT MATS TO BE PLACED ON ALL SLOPES STEEPER THAN 4:1.
- THE CONTRACTOR SHALL HOLD A GENERAL PERMIT NUMBER 2 PRIOR TO CONSTRUCTION ACTIVITIES. THE GENERAL PERMIT NUMBER 2 HOLDER SHALL BE RESPONSIBLE FOR VERIFYING THAT TOP SOIL PRESERVATION REQUIREMENTS HAVE BEEN MET PRIOR TO ISSUANCE OF A CERTIFICATE OF COMPLETION. SAID TOPSOIL REQUIREMENTS ARE LISTED IN SUDAS STANDARD SPECIFICATIONS SECTION 2010.
- DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE SEEDED. THESE AREAS SHALL BE SEEDED NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS.
- CONTRACTORS OR SUBCONTRACTORS WILL BE RESPONSIBLE FOR REMOVING SEDIMENT THAT MAY HAVE COLLECTED IN THE STORM SEWER DRAINAGE SYSTEMS IN CONJUNCTION WITH THE STABILIZATION OF THE SITE.
- SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION CONTROL MEASURES TO PREVENT EROSION.
- ALL STORM SEWER INTAKES THAT RECEIVE STORMWATER RUNOFF FROM DISTURBED AREAS SHALL BE PROVIDED WITH A FILTER SACK.

PLANTING NOTES:

- ALL AREAS ON SITE AND WITHIN THE PUBLIC RIGHT-OF-WAY ARE TO BE SODDED FOR PERMANENT STABILIZATION UNLESS APPROVED OTHERWISE.
- REPAIR ALL EXISTING TURF AREAS WHICH ARE DISTURBED DURING CONSTRUCTION AT NO COST TO THE OWNER. REPAIR GRADE AND SOD AREAS AS SPECIFIED FOR NEW SODDING. ANY ESTABLISHED LAWNS DISTURBED BY CONSTRUCTION ACTIVITIES SHALL BE REPLACED WITH SOD AND WATERED UNTIL ESTABLISHED.
- PLANT QUANTITIES LISTED IN THIS PLAN SET ARE FOR INFORMATIONAL PURPOSES ONLY; DRAWING SHALL PREVAIL IF CONFLICT OCCURS.
- CONTRACTOR SHALL PLACE SHREDDED HARDWOOD MULCH AROUND ALL TREES TO A MINIMUM DEPTH OF 3 INCHES.

UTILITY NOTES:

- ALL UTILITIES ARE PRIVATE UNLESS NOTED OTHERWISE.
 - CONTRACTOR TO ADJUST ALL TOP OF CASTING ELEVATIONS WITHIN THE PROJECT LIMITS TO THE FINAL ELEVATIONS SHOWN ON THE PLANS.
 - ALL UTILITY SERVICES, INCLUDING ELECTRIC, TELEPHONE, AND CABLE TO BE UNDERGROUND.
 - THE CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES TO DETERMINE EXACT POINT OF SERVICE CONNECTION AT EXISTING UTILITY. REFER TO THE BUILDING ELECTRICAL AND PLUMBING DRAWINGS FOR UTILITY SERVICE ENTRANCE LOCATIONS, SIZES, AND CIRCUITING.
 - ALL CONNECTIONS TO EXISTING PUBLIC SEWERS SHALL BE CORE DRILLED AND USE LINKSEAL.
 - ALL MANHOLES SHALL BE INSTALLED SO THAT THE CASTING IS SET OUTSIDE OF THE SIDEWALK SECTION.
 - THE CONTRACTOR SHALL NOTIFY THE CITY PRIOR TO ANY CONNECTION TO PUBLIC UTILITIES.
 - ALL STORM AND SANITARY SEWERS ARE TO BE CLEANED AND TELEVIEWED. ALL SANITARY SEWER MANHOLES ARE TO BE VACUUM TESTED. ALL CLEANING AND TELEVIEWING SHALL BE APPROVED AND WITNESSED BY THE CITY PRIOR TO PAVING. A COPY OF THE VIDEOS AND REPORTS SHALL BE PROVIDED TO THE CITY.
- SANITARY SEWER:**
- ALL SANITARY SEWER SERVICES SHALL BE SDR 23.5.
 - MANHOLE STEPS ARE REQUIRED IN ALL SANITARY SEWER MANHOLES.
 - MANHOLE COVERS SHALL HAVE RAISED DIAMOND ROUGHNESS PATTERN.
- STORM SEWER:**
- OWNER SHALL BE RESPONSIBLE FOR ALL ON-SITE PRIVATE STORM SEWER.
 - ALL INTAKE CASTINGS SHALL HAVE PHASE 2 ENVIRONMENTAL SYMBOLLOGY OR TEXT.
 - THE CONTRACTOR IS RESPONSIBLE FOR CLEANING STORM SEWER WITHIN THE PROJECT AREA AT THE COMPLETION OF THE PROJECT.
 - WHERE RCP STORM SEWER CROSSES THE WATER SERVICE, PROVIDE O-RING GASKETS AT JOINTS ONE FULL LENGTH OF SEWER PIPE ON EITHER SIDE OF THE CROSSING ACCORDING TO SUDAS REQUIREMENTS.
- WATER MAIN:**
- HYDRANTS, MANHOLE COVERS, AND VALVE BOXES SHALL BE SET TO CONFORM TO FINISHED PAVEMENT ELEVATIONS.
 - WATER MAIN SHALL BE AWWA C900 CLASS 150 PVC.
 - HYDRANTS SHALL BE WATROUS WB-67-250 PRODUCTS.
 - WATER MAIN TO HAVE 5' 6" BURY, TYP. EXCEPT AT CRITICAL CROSSINGS IN WHICH IT SHALL BE NO SHALLOWER THAN 5' 6".
 - ALL VALVES SHALL HAVE A VALVE BOX ADAPTER INSTALLED TO MAINTAIN ALIGNMENT.
 - THE CONTRACTOR SHALL REMOVE CHAINS ON ALL HYDRANTS.
 - THE CONTRACTOR SHALL WORK WITH THE CITY OF WAUKEE WHEN OPERATING EXISTING VALVES. WATER SHALL NOT BE TURNED ON WITHOUT PRIOR APPROVAL.
 - WATER CAN NOT BE USED BY THE CONTRACTOR UNLESS IT IS PART OF THE PURIFICATION PROCESS OF THE NEW MAIN. WATER NEEDED FOR ANY REASON AFTER BACTERIA TESTING HAS BEEN COMPLETED AND PASSED WILL NEED PRIOR APPROVAL FROM THE CITY OF WAUKEE.
 - CONTRACTOR SHALL NOTIFY THE CITY OF WAUKEE ONE (1) WEEK PRIOR TO CONSTRUCTION OF WATER MAIN.
 - ALL FIRE PROTECTION RISERS SHALL UTILIZE THRUST BLOCKING AT ALL CHANGES IN DIRECTION AND ELEVATION, ON ALL WATERMAIN. STAINLESS STEEL RODDING SHALL BE EXTENDED ALONG THE NEXT FULL LENGTH PIPE AND ANCHORED ON THE PIPE BELL, OR MECHANICAL FITTING, ADDITIONALLY, AT ALL LOCATIONS OF THRUST BLOCKING. MEGA-LUGS ARE NOT TO BE ALLOWED.
 - WATER MAIN FLUSHING SHALL NOT OCCUR WITHOUT PRIOR APPROVAL FROM THE CITY. SEE 2024 CITY OF WAUKEE SUPPLEMENTAL SPECS.
 - WATER MAIN AND SEWER (SERVICE, SANITARY SEWER, STORM SEWER, OR DRAINAGE TILE) CROSSINGS SHALL HAVE A MINIMUM OF 18 INCHES OF VERTICAL SEPARATION WHERE POSSIBLE UNLESS OTHERWISE NOTED. ALL STORM SEWER PIPE THAT CROSSES OVER THE WATER MAIN SHALL HAVE O-RING GASKETS INSTALLED.
 - IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY THE EXACT LOCATIONS AND DEPTHS OF ALL EXISTING UTILITIES AND WHETHER ADDITIONAL UTILITIES EXIST.
 - CONTACT FIRE DEPARTMENT OF ANY CHANGES THAT AFFECT FIRE/EMERGENCY ACCESS TO THE SITE, BUILDING, FDC'S, PIV'S, HYDRANTS, AND FRONT DOORS.

UTILITY COMPANIES		
SERVICE	SUPPLIER	PHONE
GAS	WAUKEE PUBLIC WORKS DEPARTMENT 805 UNIVERSITY AVENUE WAUKEE, IA 50263 CONTACT: TIM ROYER	515-978-7920
TELEPHONE	CENTURYLINK 2103 EAST UNIVERSITY DES MOINES, IA 50312 CONTACT: TOM STURMER	303-664-8090
ELECTRIC	MID-AMERICAN ENERGY CO. 500 EAST COURT AVENUE DES MOINES, IA 50309 CONTACT: NORM TRENTMANN	515-252-6621
CABLE TV	MEDIACOM CABLE 2205 INGERSOL AVENUE DES MOINES, IA 50312 CONTACT: PAUL MAY	515-246-2252
WATER	WAUKEE PUBLIC WORKS DEPARTMENT 805 UNIVERSITY WAUKEE, IA 50263 CONTACT: TIM ROYER	515-978-7920
SEWER	CITY OF WAUKEE PUBLIC WORKS DEPARTMENT 805 UNIVERSITY AVENUE WAUKEE, IA 50263 CONTACT: TIM ROYER	515-978-7920
ALL	IOWA ONE-CALL	800-292-8989

EXISTING UTILITIES NOTE

THESE EXISTING UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS AND THEREFORE MUST BE CONSIDERED APPROXIMATE ONLY. IT IS POSSIBLE THERE MAY BE OTHERS. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE THEIR EXISTENCE AND EXACT LOCATION AND TO AVOID DAMAGING THEM. NO CLAIMS WILL BE ALLOWED TO THE CONTRACTOR FOR ANY INTERFERENCE OR DELAY CAUSED BY SUCH WORK. PAYMENT WILL BE ALLOWED FOR UNCHARTED UTILITIES PER THE SPECIFICATIONS.

ALL CONSTRUCTION SHALL BE COMPLETED IN ACCORDANCE WITH THE 2023 EDITION OF THE WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS AND THE 2024 VERSION OF SUDAS.



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GENERAL NOTES AND LEGEND

EXISTING / PROPOSED		EXISTING / PROPOSED		EXISTING / PROPOSED	
	SS	SANITARY SEWER MAIN			SANITARY SEWER MANHOLE
	SS	SANITARY SEWER SERVICE			SANITARY SEWER CLEANOUT
	FM	SANITARY SEWER FORCE MAIN			AIR RELEASE MANHOLE/ DRAIN MANHOLE
	ST	STORM SEWER MAIN OR CULVERT			STORM SEWER MANHOLE
	ST	SECONDARY STORM SEWER MAIN			STORM SEWER CLEANOUT
	ST	SECONDARY STORM SEWER SERVICE			STORM SEWER INTAKE
	W	WATER MAIN			STORM SEWER BEEHIVE INTAKE
	W	WATER SERVICE	>	>	FLARED END SECTION
	E	UNDERGROUND ELECTRIC			FIRE HYDRANT
	OHE	OVERHEAD ELECTRIC			WATER VALVE
	T	UNDERGROUND TELEPHONE			WATER VALVE MANHOLE
	FO	UNDERGROUND FIBER OPTIC			CURB STOP
	TV	UNDERGROUND CABLE TV			WATER METER MANHOLE
	G	GAS MAIN OR SERVICE			YARD HYDRANT
		CONTOUR LINES INTERMEDIATE			ELECTRIC MANHOLE / VAULT
		CONTOUR LINES INDEX			ELECTRIC PEDESTAL / TRANSFORMER
		PROPERTY LINE / LOT LINE			OUTDOOR ELECTRIC POWER OUTLET
		SECTION LINE			POWER POLE
		EASEMENT			POWER POLE w/ STREET LIGHT
		GUARD RAIL			STREET LIGHT POLE
		FIELD FENCE			GUY WIRE
		CHAIN LINK FENCE			TRAFFIC SIGNAL
		WOODEN FENCE			TRAFFIC SIGNAL BOX
		ROAD CENTERLINE			TRAFFIC SIGNAL MANHOLE / VAULT
		GRADING LIMITS			RAILROAD CROSSING SIGNAL
		CONSTRUCTION LIMITS			TELEPHONE MANHOLE / VAULT
		AG LINE			TELEPHONE PEDESTAL
		WATERWAY FLOWLINE			CABLE TV MANHOLE / VAULT
		TOP OF SLOPE			CABLE TV PEDESTAL
		BOTTOM OF SLOPE			GAS VALVE
		SILT FENCE			
	DR-1				

ABBREVIATIONS	
T/S	TOP OF SLAB
BC	BACK OF CURB
TC	TOP OF CURB
FL	FLOWLINE
CL	CENTERLINE
C	CUT
F	FILL
⊙	OFFSET
TOP	TOP OF SLOPE
BOT	BOTTOM OF SLOPE
EP	EDGE OF PAVING

HAWAIIAN BROS SITE PLAN

WAUKEE, IOWA
2023001453
MARCH 05, 2024

CURRENT VERSION DATE:
MARCH 29, 2024
APRIL 17, 2024

ENGINEER
T. SMITH

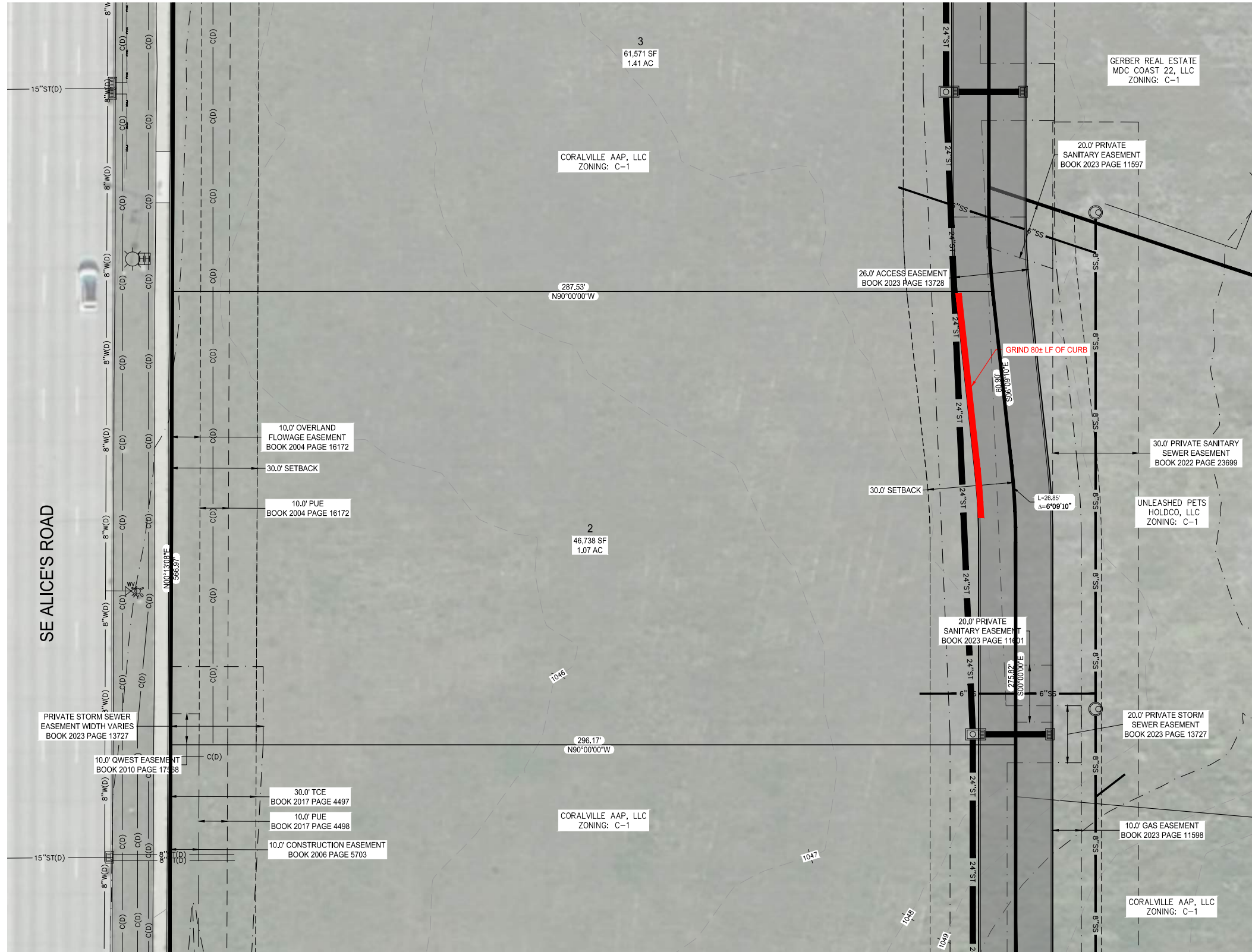
DRAWN BY
T. SMITH

CHECKED BY
FIELD BOOK NO.

DRAWING NO. **GN-02** SHEET NO. **02 / 14**

Control Point Table				
Point No.	Description	Easting	Northing	Elevation
1	CP- MAG NAIL IN CURB	18463280.02	7492599.40	1,051.11
2	CP- MAG NAIL IN CURB	18462815.73	7492638.38	1,046.12
5	CP- MAG NAIL IN CURB	18463570.35	7493106.91	1,053.17
6	CP- MAG NAIL IN CURB	18463502.73	7492618.98	1,055.73
7	CP- 1/2IN REBAR MEC BLUE CAP	18462880.68	7493193.49	1,047.30

NOTE: NOT ALL CONTROL POINTS SHOWN IN TABLE ABOVE ARE DISPLAYED IN PLAN VIEW BELOW.



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EXISTING CONDITIONS & REMOVALS

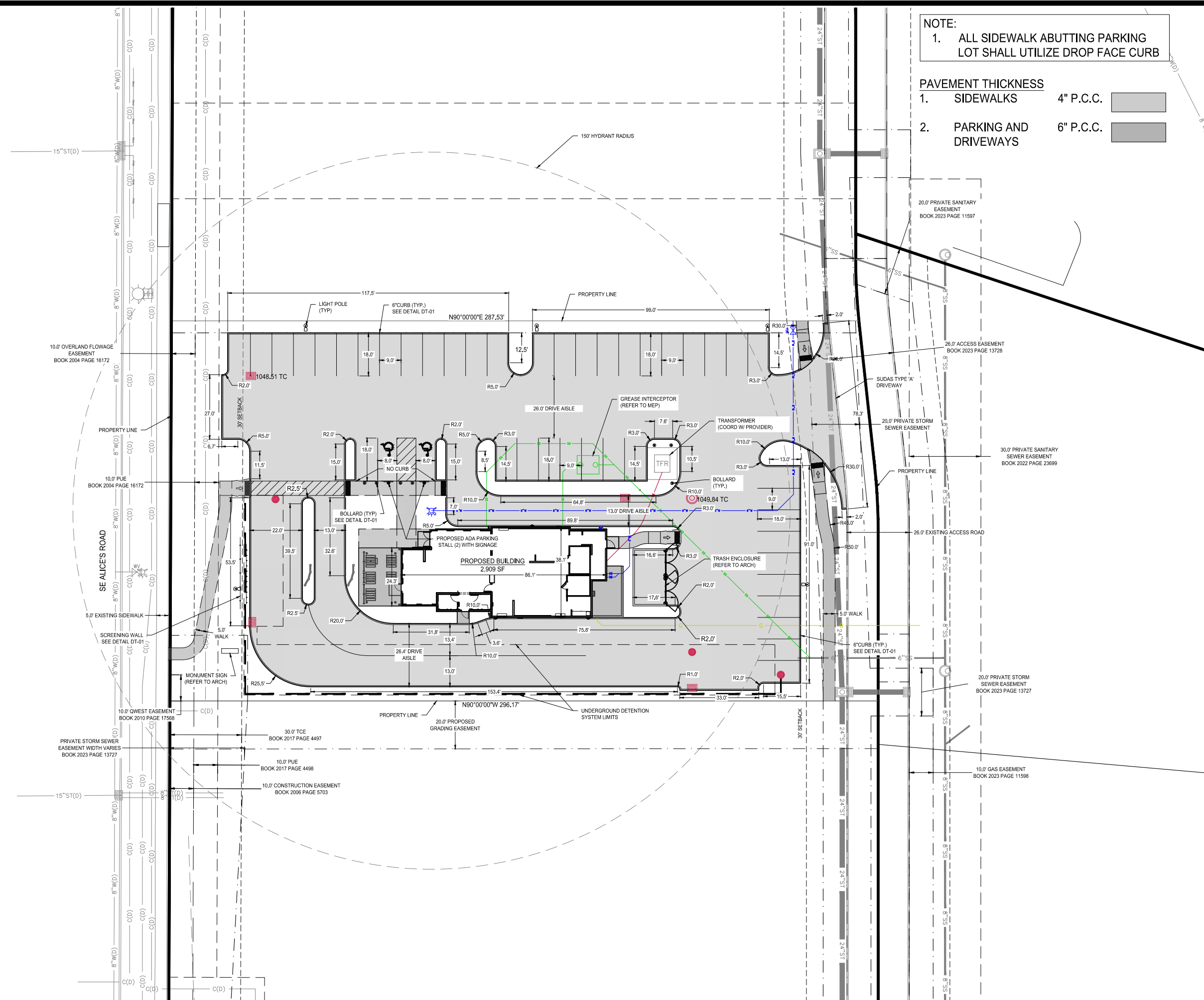


HAWAIIAN BROS
SITE PLAN

WAUKEE, IOWA
2023001453
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T. SMITH
CHECKED BY
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NOTE:
 1. ALL SIDEWALK ABUTTING PARKING LOT SHALL UTILIZE DROP FACE CURB

PAVEMENT THICKNESS
 1. SIDEWALKS 4" P.C.C.
 2. PARKING AND DRIVEWAYS 6" P.C.C.



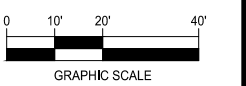
building strong communities.

1360 NW 121ST. Street
 Clive, Iowa 50325
 515-964-1229
 fax 515-964-2370

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SITE LAYOUT



HAWAIIAN BROS SITE PLAN

WAUKEE, IOWA
 2023001453
 MARCH 05, 2024

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 MARCH 29, 2024
 APRIL 17, 2024

ENGINEER T. SMITH
 DRAWN BY T. SMITH
 CHECKED BY FIELD BOOK NO.

DRAWING NO. SP-01
 SHEET NO. 04 / 14

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DISCHARGE POINT SUMMARY

DISCHARGE POINT #1
 TOTAL AREA DISTURBED TO DISCHARGE POINT 1.07 ACRES
 STORAGE VOLUME REQUIRED (1.07 OF ACRES/3600 CU FT) 3,852 CU FT

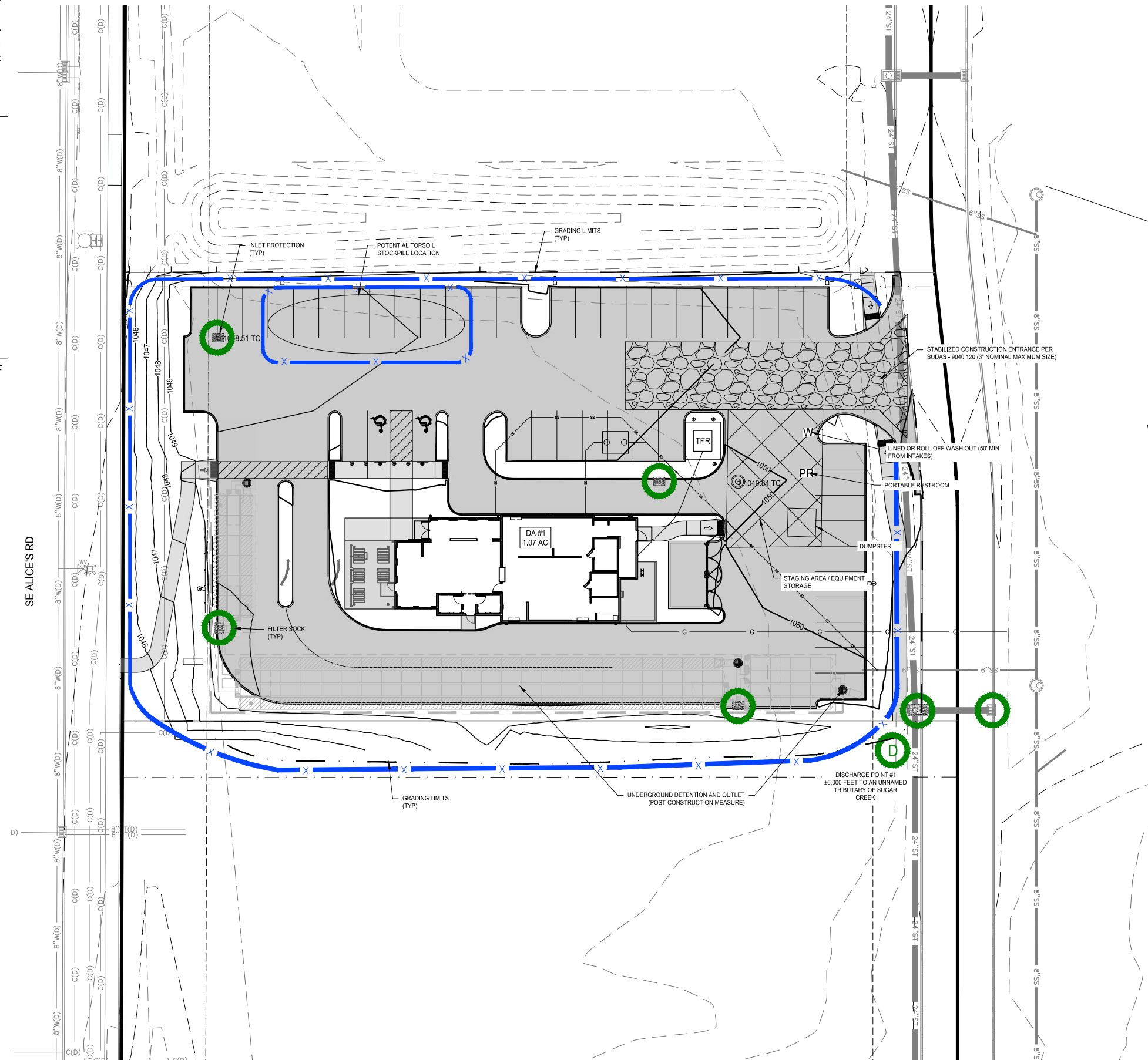
VOL PROVIDED IN SILT FENCE (606 LF @ 4.5 CU FT/LF OF FENCE) 2,727 CU FT
 VOL PROVIDED IN SILT FENCE (160 LF @ 9.0 CU FT/LF OF FENCE) 1,440 CU FT
 TOTAL VOLUME PROVIDED 4,167 CU FT

STABILIZATION QUANTITIES

ITEM	QUANTITY	UNIT
SILT FENCE	958	LINEAR FEET
SILT FENCE OR MULCH LOG	6	EACH
BELOW GRADE INTAKE PROTECTION (POST PAVING)	5	EACH
STAGING AREA	1	EACH
DUMPSTER	1	EACH
PORTABLE RESTROOM	1	EACH
WASH OUT	1	EACH
TYPE 4 SEED / TEMPORARY STABILIZATION	5690	SQ FT
SOD / FINAL STABILIZATION	5690	SQ FT

NOTES

- ALL DEBRIS SPILLED ONTO THE STREET SHALL BE PICKED UP AT THE END OF EACH WORK DAY AND PRIOR TO THE RAIN EVENT.
- MINIMUM TOPOSOIL RESPREAD REQUIREMENT OF GP#2 WILL BE MET WITH SUDAS SPEC 2010 FOR ON-SITE TOPOSOIL.
- CONTRACTOR SHALL USE TYPE 4 SEED FOR ALL DISTURBED AREAS FOR TEMPORARY STABILIZATION.
- CONTRACTOR SHALL USE SOD FOR FINAL STABILIZATION.



LEGEND:

	SILT FENCE
	BELOW GRADE INTAKE PROTECTION (POST PAVING)
	FILTER SOCK
	DISCHARGE LOCATION



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EROSION AND SEDIMENT CONTROL PLAN



NORTH



GRAPHIC SCALE

HAWAIIAN BROS SITE PLAN

WAUKEE, IOWA
 2023001453
 MARCH 05, 2024

CURRENT VERSION DATE:
 MARCH 29, 2024
 APRIL 17, 2024

ENGINEER
 T. SMITH
 CHECKED BY

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 T. SMITH
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DRAWING NO. SHEET NO.
 GR-02 06 / 14

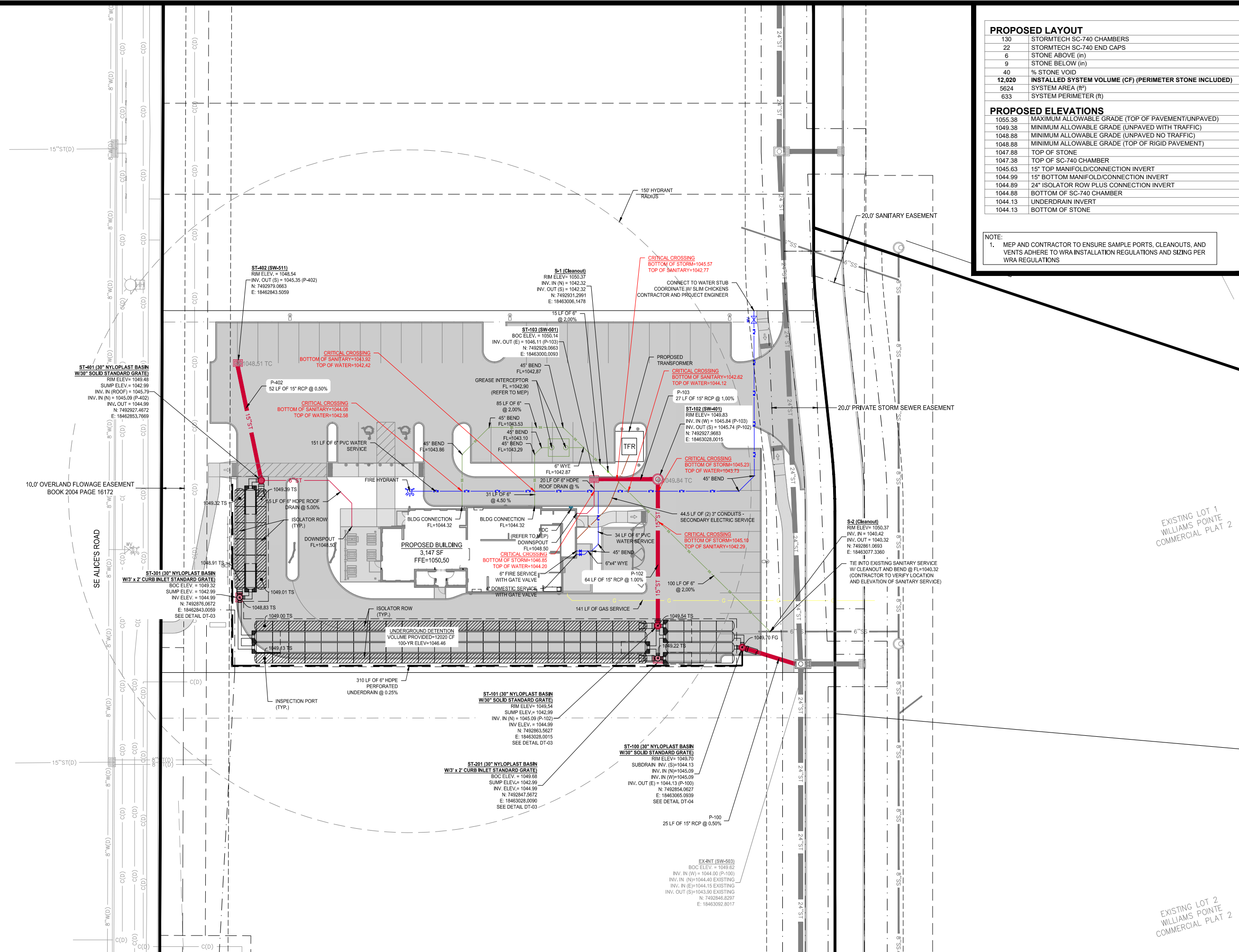
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PROPOSED LAYOUT	
130	STORMTECH SC-740 CHAMBERS
22	STORMTECH SC-740 END CAPS
6	STONE ABOVE (in)
9	STONE BELOW (in)
40	% STONE VOID
12,020	INSTALLED SYSTEM VOLUME (CF) (PERIMETER STONE INCLUDED)
5624	SYSTEM AREA (ft ²)
633	SYSTEM PERIMETER (ft)

PROPOSED ELEVATIONS	
1055.38	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
1049.38	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
1048.88	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
1048.88	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
1047.88	TOP OF STONE
1047.38	TOP OF SC-740 CHAMBER
1045.63	15" TOP MANIFOLD/CONNECTION INVERT
1044.99	15" BOTTOM MANIFOLD/CONNECTION INVERT
1044.89	24" ISOLATOR ROW PLUS CONNECTION INVERT
1044.88	BOTTOM OF SC-740 CHAMBER
1044.13	UNDERDRAIN INVERT
1044.13	BOTTOM OF STONE

NOTE:
1. MEP AND CONTRACTOR TO ENSURE SAMPLE PORTS, CLEANOUTS, AND VENTS ADHERE TO WRA INSTALLATION REGULATIONS AND SIZING PER WRA REGULATIONS

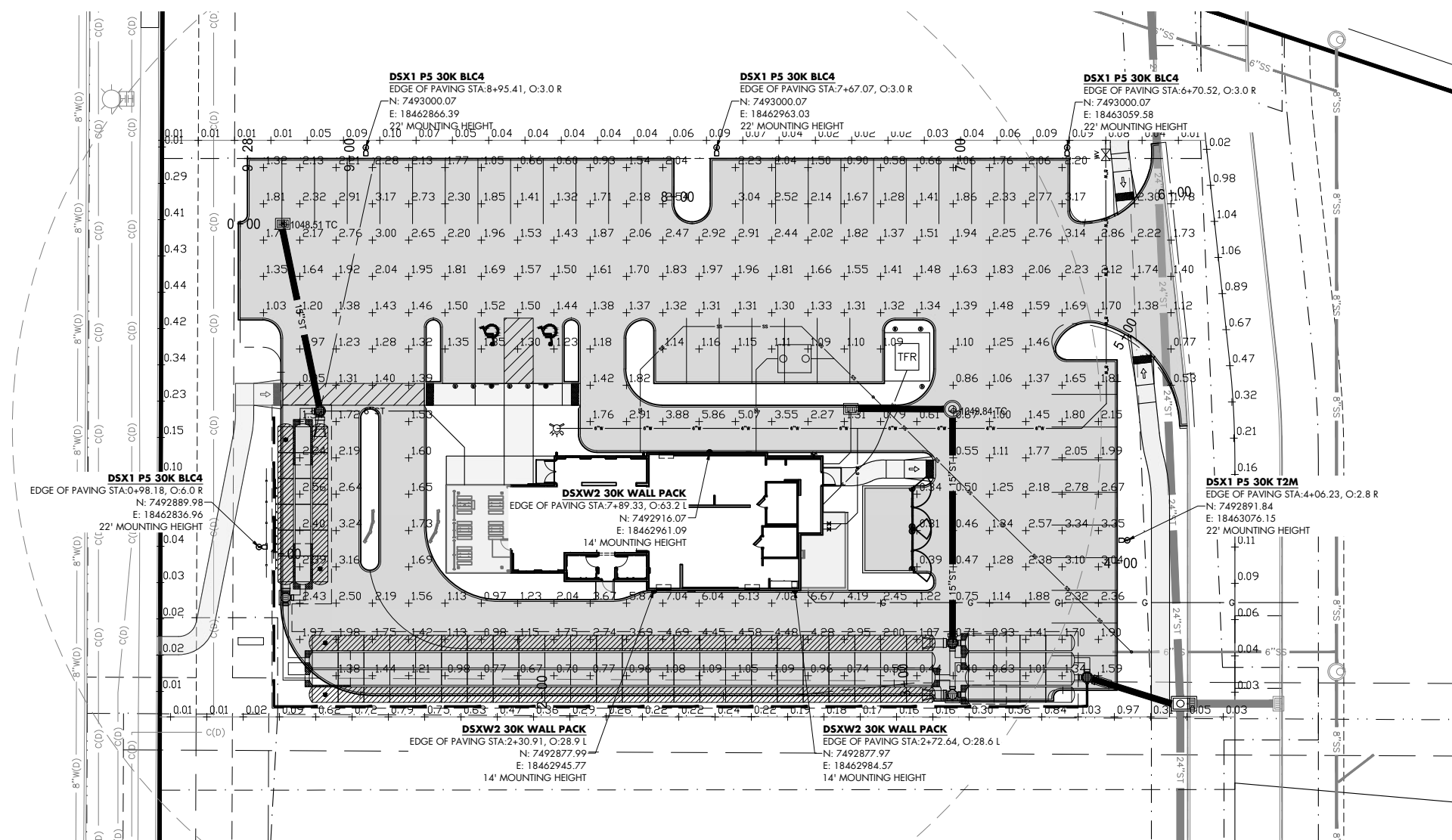


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Statistics				
Description	Avg	Max	Min	Avg/Min
Parking Lot	1.87 fc	7.04 fc	0.31 fc	6.0:1
Property Line	0.24 fc	1.06 fc	0.01 fc	24.0:1

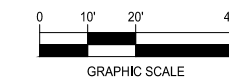
Schedule							
Label	Quantity	Manufacturer	Catalog Number	Description	Lumens Per Lamp	Light Loss Factor	Wattage
DSX1 P5 30K BLC4	4	Lithonia Lighting	DSX1 LED P5 30K 70CRI BLC4	D-Series Size 1 Area Luminaire P5 Performance Package 3000K CCT 70 CRI Type 4 Extreme Backlight Control	12709	0.85	138.16
DSXW2 30K WALL PACK	3	Lithonia Lighting	DSXW2 LED 30C 700 30K T2M MVOLT	DSXW2 LED WITH 3 LIGHT ENGINES, 30 LED's, 700mA DRIVER, 3000K LED, TYPE 2 MEDIUM OPTIC	7403	0.85	71
DSX1 P5 30K T2M	1	Lithonia Lighting	DSX1 LED P5 30K T2M MVOLT HSG1	DSX1 LED P5 30K T2M MVOLT with houseside shield	12015	0.85	138



LIGHTING PLAN



NORTH




**HAWAIIAN BROS
SITE PLAN**

WAUKEE, IOWA
2023001453
MARCH 05, 2024

CURRENT VERSION DATE:
MARCH 29, 2024
APRIL 17, 2024

ENGINEER: T. SMITH
DRAWN BY: T. SMITH
CHECKED BY: FIELD BOOK NO.

DRAWING NO. SHEET NO.
LI-01 08 / 14



D-Series Size 2 LED Wall Luminaire

Specifications Luminaire
Width: 18-1/2" (47.0 cm) Weight: 21 lbs (9.5 kg)
Depth: 10" (25.4 cm)
Height: 7-5/8" (19.4 cm)


Back Box (BBW)
Width: 5-1/2" (14.0 cm) Weight: 1 lbs (0.5 kg)
Depth: 1-1/2" (3.8 cm)
Height: 4" (10.2 cm)

Introduction
The modern styling of the D-Series features a highly refined aesthetic that blends seamlessly with its environment. The D-Series offers the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire.

The photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. D-Series outstanding photometry aids in reducing the number of poles required in area lighting applications with typical energy savings of 65% and expected service life of over 100,000 hours.

Ordering Information EXAMPLE: DSXW2 LED 30C 700 40K T3M MVOLT DDBTXD

Series	LEDs	Color Temperature	Color Rendering Index	Distribution	Voltage	Mounting	Control Options
DSXW2 LED	20C 20 LEDs (two engines)	350 3500K	90	T25 Type II Short	MVOLT 120V-277V ¹	Shipped installed	PERK Seven-pin receptacle only (controls ordered separately) ^{14,15}
	30C 30 LEDs (three engines)	40K 4000K	90	T3M Type III Medium	MVOLT 240V-480V ¹⁶	Shipped separately ¹⁷	PERK Seven-pin receptacle only (controls ordered separately) ^{14,15}
	30C 30 LEDs (three engines)	50K 5000K	90	T3M Type III Medium	MVOLT 277V-480V ¹⁶	Shipped separately ¹⁷	PERK Seven-pin receptacle only (controls ordered separately) ^{14,15}
	30C 30 LEDs (three engines)	50K 5000K	90	T3M Type III Medium	MVOLT 277V-480V ¹⁶	Shipped separately ¹⁷	PERK Seven-pin receptacle only (controls ordered separately) ^{14,15}



D-Series Size 1 LED Area Luminaire


Specifications
EPA: 0.69 ft² (0.06 m²)
Length: 32.71" (83.1 cm)
Width: 14.26" (36.2 cm)
Height H1: 7.88" (20.0 cm)
Height H2: 2.73" (6.9 cm)
Weight: 34 lbs (15.4 kg)

Introduction
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The photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. D-Series outstanding photometry aids in reducing the number of poles required in area lighting applications with typical energy savings of 65% and expected service life of over 100,000 hours.

Ordering Information EXAMPLE: DSX1 LED P7 40K 70CRI T3M MVOLT SPA NLTAIR2 PIRHN DDBTXD

Series	LEDs	Color Temperature	Color Rendering Index	Distribution	Voltage	Mounting	Control Options
DSX1 LED	40K 4000K	70CRI	90	T3M Type III Medium	MVOLT 120V-277V ¹	Shipped installed	PERK Seven-pin receptacle only (controls ordered separately) ^{14,15}
	50K 5000K	70CRI	90	T3M Type III Medium	MVOLT 240V-480V ¹⁶	Shipped installed	PERK Seven-pin receptacle only (controls ordered separately) ^{14,15}
	50K 5000K	70CRI	90	T3M Type III Medium	MVOLT 277V-480V ¹⁶	Shipped installed	PERK Seven-pin receptacle only (controls ordered separately) ^{14,15}



D-Series Size 1 LED Area Luminaire

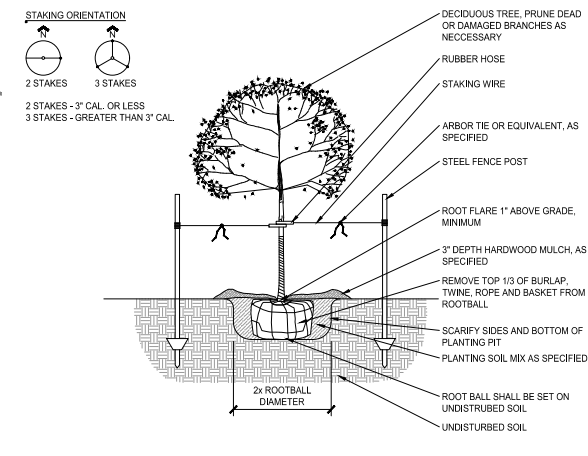
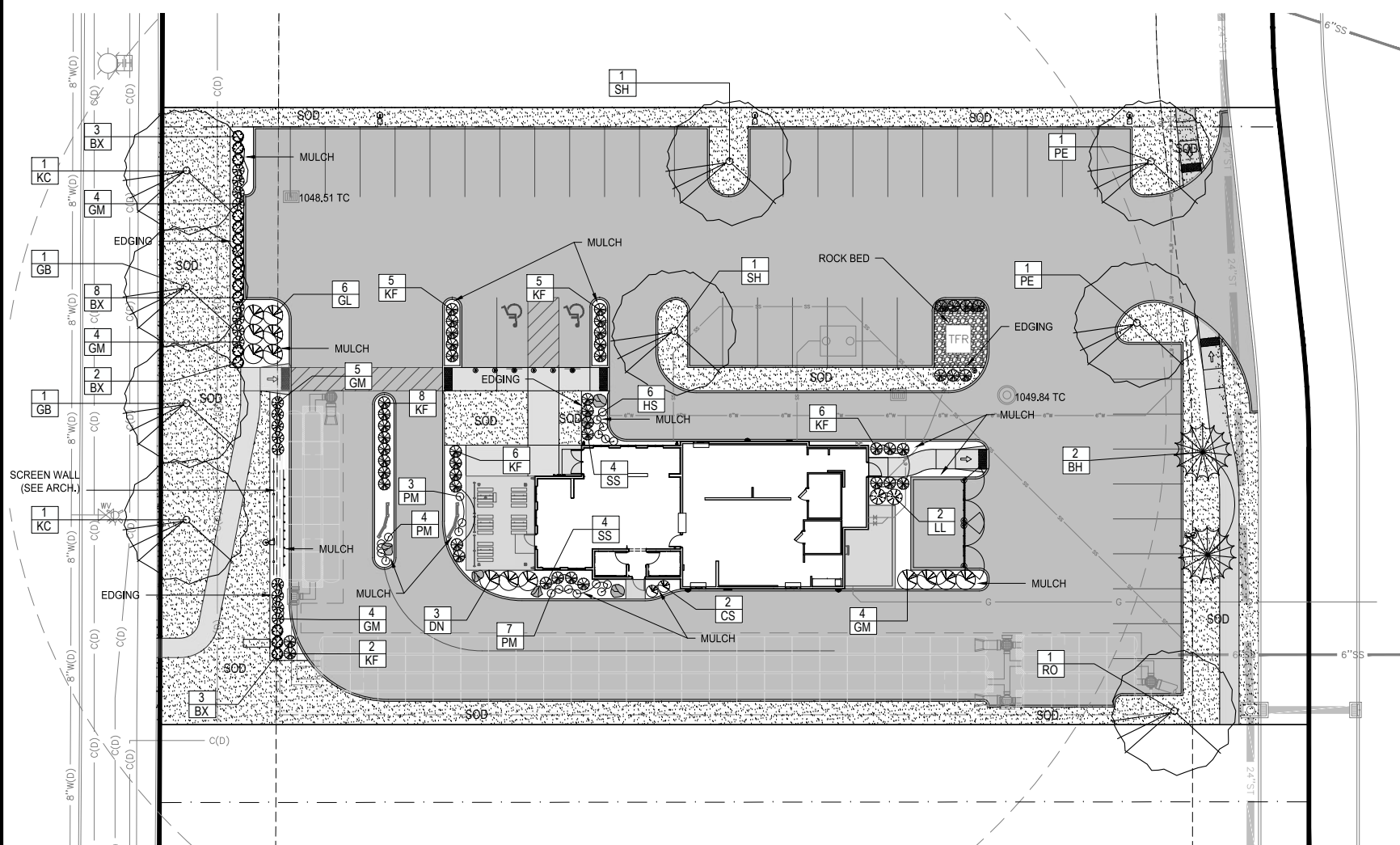
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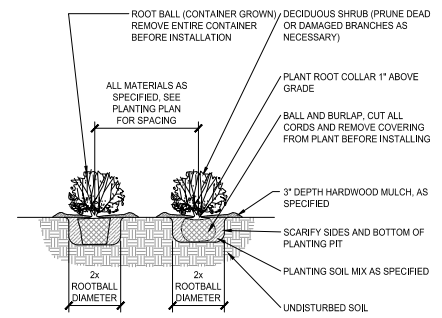
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Ordering Information EXAMPLE: DSX1 LED P7 40K 70CRI T3M MVOLT SPA NLTAIR2 PIRHN DDBTXD

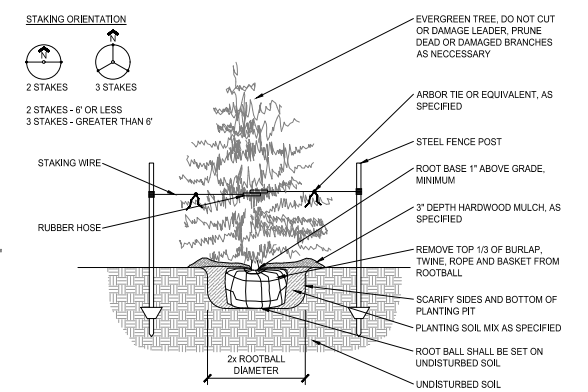
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	50K 5000K	70CRI	90	T3M Type III Medium	MVOLT 240V-480V ¹⁶	Shipped installed	PERK Seven-pin receptacle only (controls ordered separately) ^{14,15}
	50K 5000K	70CRI	90	T3M Type III Medium	MVOLT 277V-480V ¹⁶	Shipped installed	PERK Seven-pin receptacle only (controls ordered separately) ^{14,15}



1 DETAIL: DECIDUOUS TREE PLANTING
1/2" = 1'-0"



2 DETAIL: SHRUB PLANTING
1/2" = 1'-0"



3 DETAIL: EVERGREEN TREE PLANTING
1/2" = 1'-0"

LANDSCAPE NOTES:

- ALL SODDING & LANDSCAPE PLANTINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE URBAN STANDARD SPECIFICATIONS, UNLESS SPECIFIED OTHERWISE.
- SOD ALL DISTURBED AREAS WITHIN THE CONTRACT LIMITS INCLUDING RIGHT-OF-WAY, UNLESS NOTED OTHERWISE. SOD LIMITS SHOWN ON PLAN ARE FOR REFERENCE ONLY. FINAL LIMITS MAY CHANGE BASED ON CONSTRUCTION ACTIVITIES.
- PLANT QUANTITIES ARE FOR CONTRACTORS CONVENIENCE, THE DRAWING SHALL PREVAIL IF A CONFLICT OCCURS.
- IT IS THE CONTRACTORS RESPONSIBILITY TO CALCULATE ALL QUANTITIES FOR THE WORK SHOWN.
- ALL PLANT MATERIAL SHALL CONFORM TO THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1).
- CONTRACTOR SHALL WARRANTY ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR FROM THE DATE OF INITIAL ACCEPTANCE.
- FOR WARRANTY PURPOSES, THE DATE OF INITIAL ACCEPTANCE SHALL BE SUBMITTED IN WRITING TO THE OWNER AND/OR OWNER'S REPRESENTATIVE AFTER ALL PLANT MATERIALS HAVE BEEN INSTALLED AND REVIEWED BY OWNER OR OWNER'S REPRESENTATIVE. PLANT MATERIALS WILL ONLY BE ACCEPTED IF THEY ARE IN AN ALIVE AND THRIVING CONDITION.
- CONDITIONAL ACCEPTANCE OF PLANT MATERIAL MAY BE GIVEN FOR PLANTS INSTALLED IN A DORMANT CONDITION WITH INITIAL ACCEPTANCE OCCURRING THE FOLLOWING SPRING ONCE THEY ARE SHOWN TO BE ALIVE AND THRIVING.
- IT IS THE CONTRACTORS RESPONSIBILITY TO REMOVE IDENTIFICATION TAGS AND CORDS ON ALL PLANT MATERIAL PRIOR TO THE COMPLETION OF THE CONTRACT. IDENTIFICATION TAGS (INCLUDING SIZING INFORMATION) MUST BE LEFT ON UNTIL AFTER ACCEPTANCE BY OWNER OR OWNER'S REPRESENTATIVE.
- CONTRACTOR SHALL PLACE SHREDDED HARDWOOD MULCH AROUND ALL TREES, SHRUBS AND GROUND COVER BEDS TO A DEPTH OF 4 INCHES, UNLESS NOTED.
- STAKING AND GUYING OF TREES SHALL BE AT THE DISCRETION OF THE CONTRACTOR BASED ON CURRENT ACCEPTED NURSERY STANDARDS. GENERALLY, TREES IN LARGE OPEN AREAS SUBJECT TO SIGNIFICANT WIND SHALL BE STAKED. STAKE AND WRAP TREES IMMEDIATELY AFTER PLANTING. CONTRACTOR SHALL ADJUST AND MAINTAIN GUYING TENSION THROUGHOUT THE PLANT ESTABLISHMENT PERIOD. REMOVE ALL STAKES AND GUY WIRES NO MORE THAN ONE YEAR AFTER INSTALLATION.
- THE LANDSCAPING CONTRACTOR SHALL HAVE ALL UTILITIES LOCATED BEFORE STARTING ANY SITE WORK OR PLANTING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING UTILITIES.
- NO LANDSCAPE MATERIAL SHALL BE SUBSTITUTED WITHOUT THE AUTHORIZATION OF THE CITY OF WAUKEE COMMUNITY DEVELOPMENT DEPARTMENT.
- SPADE CUT PLANTING BEDS WHERE INDICATED, CUT 4" DEEP VERTICAL CUT WITH A 45 DEGREE BACK CUT.
- CONTRACTOR SHALL BE RESPONSIBLE MAINTAINING APPROPRIATE LEVEL OF WATERING FOR ALL NEW PLANTS FOR A PERIOD OF 30 DAYS.
- ALL SHRUB AND PERENNIAL PLANTING BEDS SHALL BE MULCHED WITH 4" THICK SHREDDED HARDWOOD MULCH.
- ALL BEDS TO RECEIVE GRANULAR PRE-EMERGENT WEED CONTROL BEFORE AND AFTER MULCH IS INSTALLED.
- AS NOTED ON PLAN, THE PARKING LOT ISLAND AREA ADJACENT TO THE ELECTRICAL TRANSFORMER SHALL INCORPORATE TYPAR 3301 NONWOVEN LANDSCAPE FABRIC (OR SIMILAR) AND 3" THICK LAYER OF WASHED RIVER ROCK (1.5" NOMINAL SIZE).

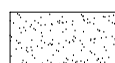
IRRIGATION NOTES:

- FOR BIDDING PURPOSES, THIS PROJECT DOES NOT INCLUDE A SITE IRRIGATION SYTEM.
- CONTRACTOR SHALL SUBMIT TO THE OWNER OR OWNER'S REPRESENTATIVE A SEPARATE PROPOSAL FOR A SITE IRRIGATION SYSTEM. PROPOSAL SHALL BE DESIGN/BUILD FOR A COMPLETE OPERATIONAL IRRIGATION SYSTEM APPROPRIATE FOR THE SITE. IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DESIGN, COORDINATION, TESTING, PERMITS, INSPECTIONS, ETC.

PLANTING SCHEDULE

CODE	QUAN	COMMON NAME	LATIN NAME	SIZE	ROOT	NOTES
OVERSTORY TREES						
GB	2	AMERICAN HORNBEEAM	CARPINUS CAROLINIANA	1.5" CAL	B&B	MATCHED SPECIMENS
SH	2	SKYLINE HONEYLOCUST	GLIEDITSIA TRIACANTHOS INERMIS 'SUNCOLE'	1.5" CAL	B&B	MATCHED SPECIMENS
RO	1	RED OAK	QUERCUS RUBRA	1.5" CAL	B&B	MATCHED SPECIMENS
PE	2	PIONEER ELM	ULMUS X HOLLANDICA	1.5" CAL	B&B	MATCHED SPECIMENS
KC	2	KENTUCKY COFFEETREE	GYMNOCLADUS DIOICUS	1.5" CAL	B&B	MATCHED SPECIMENS
EVERGREEN TREES						
DF	2	BLACK HILLS SPRUCE	PICEA GLAUCA DENSATA	6'	B&B	FULL FORM TO GROUND
SHRUBS						
BX	16	CHICAGO LIND BAYWOOD	BUXUS X 'GLENCOE'	#6	CONT	FULL FORM - MATCHED
CS	2	COOL SPLASH DWARF BUSH HONEYSUCKLE	DIERVILLA LONICERA 'COOL SPLASH'	#6	CONT	FULL FORM - MATCHED
LL	2	LITTLE LIME HYDRANGEA	HYDRANGEA PANICULATA 'LITTLE LIME'	#6	CONT	FULL FORM - MATCHED
DN	3	DIABLO NINEBARK	PHYSCARPUS OPULIFOLIUS 'MONLO'	#6	CONT	FULL FORM - MATCHED
GM	21	GREEN MOUND ALPINE CURRRANT	RIBES ALPINUM 'GREEN MOUND'	#6	CONT	FULL FORM - MATCHED
GL	6	GROW LOW SUMAC	RHUS AROMATICA 'GROW LOW'	#6	CONT	FULL FORM - MATCHED
ORNAMENTAL GRASSES & PERENNIALS						
KF	30	KARL FOERSTER FEATHER REED GRASS	CALAMAGROSIS ACUTIFLORA 'KARL FOERSTER'	#1	CONT	FULLY ROOTED IN CONTAINER
SS	8	SHENANDOAH SWIFT CHGRASS	PANICUM VIRGATUM 'SHENANDOAH'	#1	CONT	FULLY ROOTED IN CONTAINER
HS	6	HOSTA - PATRIOT	HOSTA X 'PATRIOT'	#1	CONT	FULLY ROOTED IN CONTAINER
PM	14	PARDON ME DAYLILY	HEMEROCALLIS X 'PARDON ME'	#1	CONT	FULLY ROOTED IN CONTAINER

NOTE: MINIMUM INSTALLED HEIGHT FOR OVERSTORY TREES IS 8'
MINIMUM INSTALLED HEIGHT FOR UNDERSTORY AND EVERGREEN TREES IS 6'



SOD: PROVIDE AND INSTALL SOD FROM LOCAL SUPPLIERS. AREAS TO BE SODDED MUST BE FREE OF ALL CONSTRUCTION DEBRIS AND ANY DIRT CLUMPS OVER 1" IN DIAMETER. THOROUGHLY WATER SOD UPON INSTALLATION. CONTRACTOR TO MAINTAIN WATERING UNTIL SOD IS ESTABLISHED (ROOTS KNITTED INTO SUBSURFACE)



GRANITE BOULDERS: APPROXIMATE 24"-36" DIAMETER. DO NOT SET DIRECTLY ON FINISHED GRADE, BURY APPROXIMATELY 1/3 OF EACH STONE FOR NATURAL APPEARANCE.

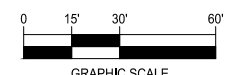
LANDSCAPING OPEN SPACE REQUIREMENTS

REQUIREMENT	CALCULATION	PLANTS REQUIRED	TOTAL PLANTS PROPOSED
1 TREE PER 1,000 SF OF REQ. OPEN SPACE MIN. 50% SHALL BE OVERSTORY MIN. 25% SHALL BE EVERGREEN	$(4,674 / 1,000) = 4.7$ $5 \times 50\% = 2.5$ $5 \times 25\% = 1.2$	= 5 TREES = 3 OVERSTORY = 2 EVERGREEN	5 TREES 3 OVERSTORY 2 EVERGREEN
1 SHRUB PER 1,000 SF OF REQ. OPEN SPACE	$(4,674 / 1,000) = 4.7$	= 5 SHRUBS	5 SHRUBS
1 TREE PER 40 LF OF STREET FRONTAGE *CONTINUOUS SHRUB BUFFER OR 36" BERM REQUIRED ON STREET FACING PARKING STALLS	$(159 LF / 40) = 4.0$	= 4 TREES	4 TREES

LANDSCAPE PLAN



NORTH



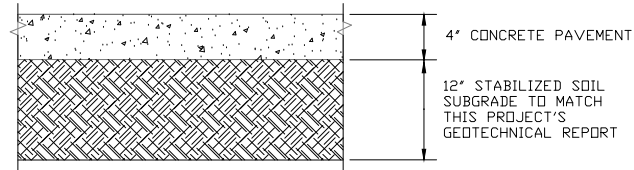
GRAPHIC SCALE

HAWAIIAN BROS SITE PLAN

WAUKEE, IOWA
2023001453
MARCH 05, 2024

CURRENT VERSION DATE:
MARCH 29, 2024
APRIL 17, 2024

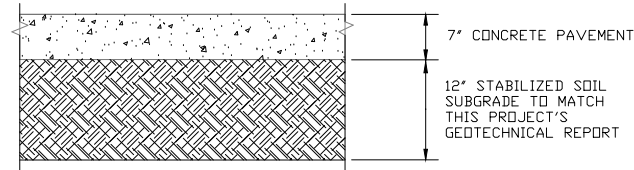
ENGINEER: T. SMITH
DRAWN BY: T. SMITH
CHECKED BY: FIELD BOOK NO.



NOTE:
PAVEMENT CROSS SECTIONS ARE
SUBJECT TO RESULTS OF
GEOLOGICAL REPORT. CONTRACTOR
TO VERIFY PAVING THICKNESS WITH
PROJECT ENGINEER PRIOR TO
INSTALLATION

SIDEWALK CROSS SECTION

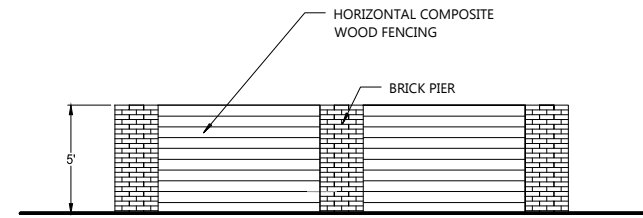
NOT TO SCALE



NOTE:
PAVEMENT CROSS SECTIONS ARE
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GEOLOGICAL REPORT. CONTRACTOR
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INSTALLATION

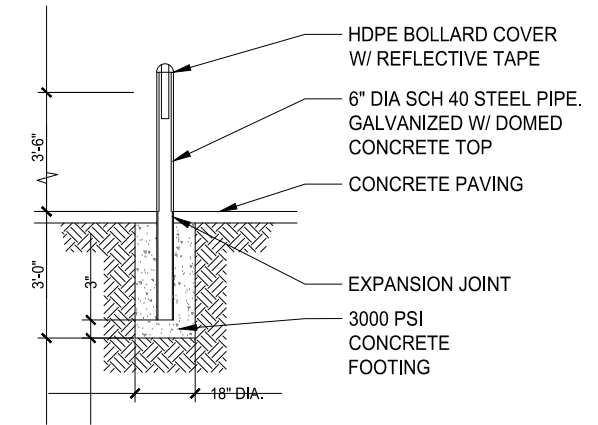
PAVING CROSS SECTION

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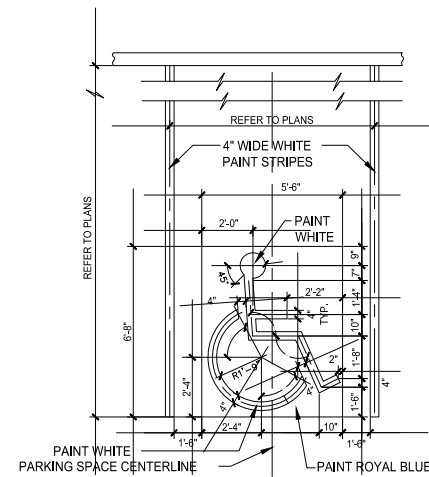
MENU BOARD SCREEN DETAIL

NOT TO SCALE



EXTERIOR BOLLARD DETAIL

NO SCALE

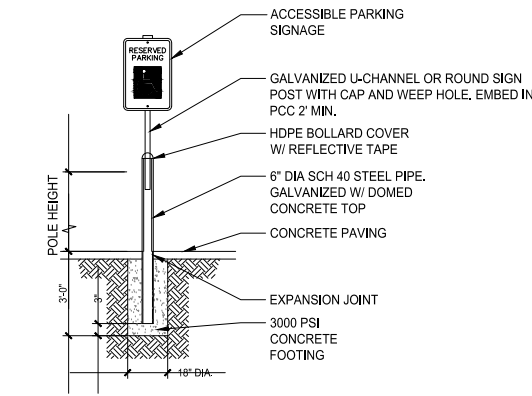


**ACCESSIBLE PARKING SPACE
PAINT DETAIL**

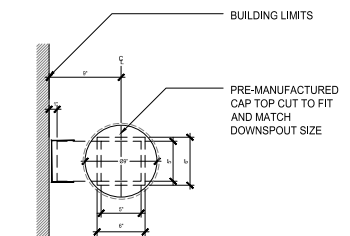
NOTE: CENTER PAINTED SYMBOL IN THE
MIDDLE OF PARKING SPACE OPENING.

HANDICAPPED PARKING SPACE PAINT, ACCESSIBILITY AND SIGN DETAILS

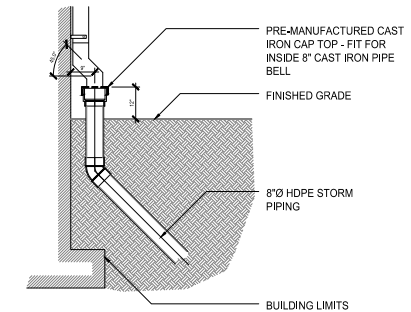
NOT TO SCALE



**ACCESSIBLE PARKING
SIGN DETAIL**



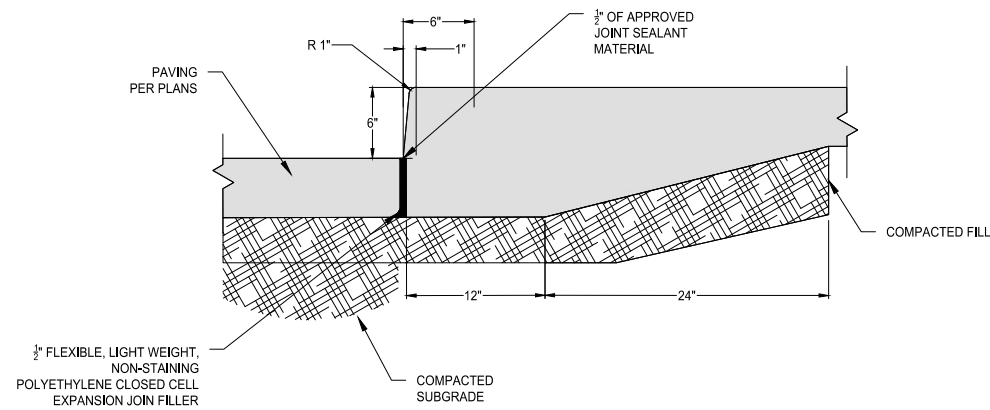
TOP VIEW



SIDE VIEW

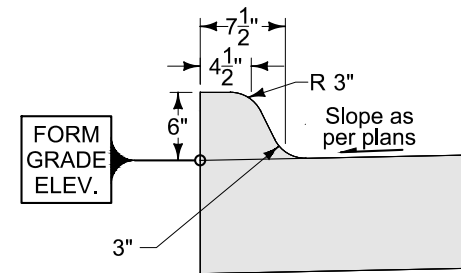
DOWNSPOUT CONNECTION AT BUILDING

NOT TO SCALE



6" DROP FACE CURB

NOT TO SCALE



**6" STANDARD CURB
(SUDAS 7010.102)**

NOT TO SCALE

DETAILS



NORTH



GRAPHIC SCALE

**HAWAIIAN BROS
SITE PLAN**

WAUKEE, IOWA
2023001453
MARCH 05, 2024

CURRENT VERSION DATE:
MARCH 29, 2024
APRIL 17, 2024

ENGINEER
T. SMITH
DRAWN BY
T. SMITH
CHECKED BY
FIELD BOOK NO.

DRAWING NO.
DT-01
SHEET NO.
11 / 14

PROJECT INFORMATION	
ENGINEER	JASON MATHES
PRODUCT	615-257-0092
MANAGER	JASON.MATHES@ADSPPE.COM
ADS SALES REP	CLINTON EHLERS
	319-330-3529
	CLINTON.EHLERS@ADSPPE.COM
PROJECT NO.	538878



HAWAIIAN BROS WAUKEE WAUKEE IA

SC-740 STORMTECH CHAMBER SPECIFICATIONS

- CHAMBERS SHALL BE STORMTECH SC-740
- CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE COPOLYMERS.
- CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORTS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
- THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE ASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE ASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE LIVE LOAD PRESENCES.
- CHAMBERS SHALL BE DESIGNED, TESTED AND ALLOWABLE LOAD CONFIGURATIONS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". LOAD CONFIGURATIONS SHALL INCLUDE: 1) INSTANTANEOUS (<1 MIN) ASHTO DESIGN TRUCK LIVE LOAD ON MINIMUM COVER 2) MAXIMUM PERMANENT (75-YR) COVER LOAD AND 3) ALLOWABLE COVER WITH PARKED (1-WEEK) ASHTO DESIGN TRUCK.
- REQUIREMENTS FOR HANDLING AND INSTALLATION:
 - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
 - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2".
 - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 560 LBS/FT². THE ASC IS DEFINED IN SECTION 6.2.8 OF ASTM F2418. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.
- ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. UPON REQUEST BY THE SITE DESIGN ENGINEER OR OWNER, THE CHAMBER MANUFACTURER SHALL SUBMIT A STRUCTURAL EVALUATION FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE AS FOLLOWS:
 - THE STRUCTURAL EVALUATION SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER.
 - THE STRUCTURAL EVALUATION SHALL DEMONSTRATE THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.56 FOR DEAD LOAD AND 1.76 FOR LIVE LOAD. THE MINIMUM REQUIRED BY ASTM F2787 AND BY SECTIONS 3 AND 12.12 OF THE ASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR THERMOPLASTIC PIPE.
 - THE TEST DERIVED CREEP MODULUS AS SPECIFIED IN ASTM F2418 SHALL BE USED FOR PERMANENT DEAD LOAD DESIGN EXCEPT THAT IT SHALL BE THE 75-YEAR MODULUS USED FOR DESIGN.
- CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.

IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF THE SC-740 SYSTEM

- STORMTECH SC-740 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
- STORMTECH SC-740 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/SC-800/DC-780 CONSTRUCTION GUIDE".
- CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS. STORMTECH RECOMMENDS 3 BACKFILL METHODS:
 - STONESHOOTER LOCATED OFF THE CHAMBER BED.
 - BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
 - BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
- THE FOUNDATION STONE SHALL BE LEVELLED AND COMPACTED PRIOR TO PLACING CHAMBERS.
- JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
- MAINTAIN MINIMUM 6" (150 mm) SPACING BETWEEN THE CHAMBER ROWS.
- EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE 3/4"-2" (20-50 mm).
- THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
- ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

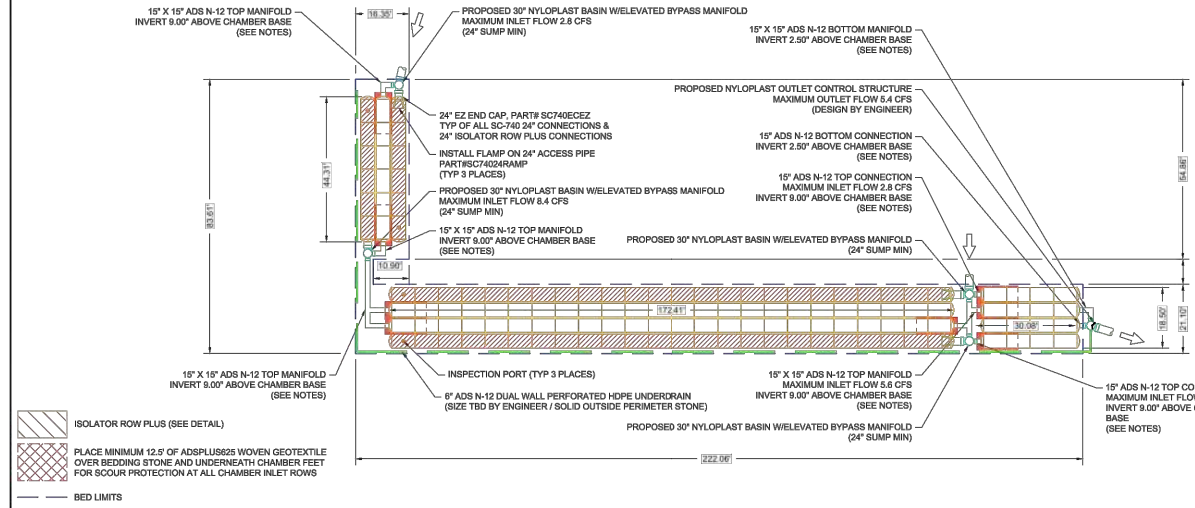
NOTES FOR CONSTRUCTION EQUIPMENT

- STORMTECH SC-740 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/SC-800/DC-780 CONSTRUCTION GUIDE".
- THE USE OF CONSTRUCTION EQUIPMENT OVER SC-740 CHAMBERS IS LIMITED:
 - NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
 - NO RUBBER Tired LOADERS, DUMP TRUCKS, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/SC-800/DC-780 CONSTRUCTION GUIDE".
 - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH SC-310/SC-740/SC-800/DC-780 CONSTRUCTION GUIDE".
- FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING. USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO THE CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.

CONTACT STORMTECH AT 1-888-862-2894 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.

PROPOSED LAYOUT	
150	STORMTECH SC-740 CHAMBERS
22	STORMTECH SC-740 END CAPS
6	STONE ABOVE (IN)
9	STONE BELOW (IN)
40	% STONE VOID
12,029	INSTALLED BY ITEM VOLUME (CF) (PERIMETER STONE INCLUDED)
5624	SYSTEM AREA (SF)
0.93	SYSTEM PERIMETER (ft)
PROPOSED ELEVATIONS	
1055.38	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT UNPAVED)
1049.58	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
1045.88	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
1048.88	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
1047.88	TOP OF STONE
1047.38	TOP OF SC-740 CHAMBER
1045.63	15" TOP MANIFOLD CONNECTION INVERT
1044.89	15" BOTTOM MANIFOLD CONNECTION INVERT
1044.89	24" ISOLATOR ROW PLUS CONNECTION INVERT
1044.89	BOTTOM OF SC-740 CHAMBER
1044.13	UNDERDRAIN INVERT
1044.13	BOTTOM OF STONE

- ### NOTES
- MANIFOLD SIZE TO BE DETERMINED BY SITE DESIGN ENGINEER. SEE TECHNICAL NOTE 6.52 FOR MANIFOLD SIZING GUIDANCE.
 - PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.
 - THIS CHAMBER SYSTEM WAS DESIGNED WITHOUT SITE-SPECIFIC INFORMATION ON SOIL CONDITIONS OR BEARING CAPACITY. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR DETERMINING THE SUITABILITY OF THE SOIL AND PROVIDING THE BEARING CAPACITY OF THE INSTALLED SOILS. THE BASE STONE DEPTH MAY BE INCREASED OR DECREASED ONCE THIS INFORMATION IS PROVIDED.
 - THE SITE DESIGN ENGINEER MUST REVIEW ELEVATIONS AND IF NECESSARY ADJUST GRADING TO ENSURE THE CHAMBER COVER REQUIREMENTS ARE MET.



- ISOLATOR ROW PLUS (SEE DETAIL)
- PLACE MINIMUM 12.5' OF ADSLUS628 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERSTAY CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS
- BED LIMITS

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StormTech Chamber System	
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UNDERDRAIN DETAIL

SC-740 TECHNICAL SPECIFICATION

PART #	STUB	A	B	C
SC740EP001 / SC740EP001PC	6" (150 mm)	10.5" (277 mm)	18.5" (470 mm)	0.6" (13 mm)
SC740EP008 / SC740EP008PC	8" (200 mm)	12.2" (310 mm)	16.5" (419 mm)	0.6" (13 mm)
SC740EP009 / SC740EP009PC	10" (250 mm)	13.4" (340 mm)	14.5" (368 mm)	0.7" (18 mm)
SC740EP010 / SC740EP010PC	12" (300 mm)	14.7" (373 mm)	12.5" (318 mm)	1.2" (30 mm)
SC740EP011 / SC740EP011PC	15" (375 mm)	18.4" (467 mm)	9.0" (229 mm)	1.3" (33 mm)
SC740EP012 / SC740EP012PC	18" (450 mm)	19.7" (500 mm)	5.0" (127 mm)	1.6" (41 mm)
SC740EP013 / SC740EP013PC	24" (600 mm)	18.5" (470 mm)	0.1" (3 mm)	0.1" (3 mm)

MC-SERIES END CAP INSERTION DETAIL

2 FT X 3 FT CURB INLET LOCKING GRATE ASSEMBLY FOR ST-201 & ST-301

DRILL Ø .438 THRU GRATE ONLY COUNTERBORE Ø 1.00 X .275 DP 2 PLACES

DRILL Ø .313 THRU TAP 3/8-16 THREAD 2 PLACES

3/8-16 X 2 1/4" LONG HEX BOLT ZINC-PLATED STEEL 2 PLACES

2' X 3' CURB INLET DIAGONAL LOCKING GRATE 3099CGRDFL

2' X 3' CURB INLET LOCKING FRAME & HOOD 3099CGRFHL

2' X 3' CURB INLET BASE PLATE TO MATCH BASIN O.D.

NOTE: LOCATION OF LOCKING DEVICE MAY VARY

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DRAWN BY	EBC	MATERIAL	
DATE	03-27-06	PROJECT NO./NAME	
REVISED BY	CCA	TITLE	2 FT X 3 FT CURB INLET DIAGONAL LOCKING GRATE ASSEMBLY
DATE	09-05-13	DWG NO.	7002-110-457
DWG SIZE	A	SCALE	1:16 SHEET 1 OF 1

McCLURE ENGINEERING CO.

building strong communities.

1360 NW 121st. Street
Clive, Iowa 50325
515-964-1229
fax 515-964-2370

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NYLOPLAST DRAIN BASIN WITH STANDARD GRATE FOR ST-100, ST-101 & ST-401

(1, 2) INTEGRATED DUCTILE IRON FRAME & GRATE TO MATCH BASIN O.D.

18" MIN WIDTH GUIDELINE

8" MIN THICKNESS GUIDELINE

(3) VARIABLE INVERT HEIGHTS AVAILABLE (ACCORDING TO PLANS/TAKE OFF)

MINIMUM PIPE BURIAL DEPTH PER PIPE MANUFACTURER RECOMMENDATION (MIN. MANUFACTURING REQ. SAME AS MIN. SUMP FOR 8"-30" BASINS, 36" BASINS REQ. 2.25 FT FOR REDUCING CONE)

(4) VARIOUS TYPES OF INLET & OUTLET ADAPTERS AVAILABLE: 4" - 36" FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL, ADS/HANCOR SINGLE WALL), N-12 HP, PVC SEWER (EX: SDR 35), PVC DWV (EX: SCH 40), PVC C900/C905, CORRUGATED & RIBBED PVC

WATERTIGHT JOINT (CORRUGATED HDPE SHOWN)

(5) ADAPTER ANGLES VARIABLE 0° - 360° ACCORDING TO PLANS

(6, 7) TRAFFIC LOADS: CONCRETE SLAB DIMENSIONS ARE FOR GUIDELINE PURPOSES ONLY. ACTUAL CONCRETE SLAB MUST BE DESIGNED TAKING INTO CONSIDERATION LOCAL SOIL CONDITIONS, TRAFFIC LOADING, & OTHER APPLICABLE DESIGN FACTORS. SEE DRAWING NO. 7001-110-111 FOR NON TRAFFIC INSTALLATION.

(3) VARIABLE SUMP DEPTH ACCORDING TO PLANS (6" MIN. ON 8" - 24", 10" MIN. ON 30" & 12" MIN. ON 36" BASED ON MANUFACTURING REQ.)

THE BACKFILL MATERIAL SHALL BE CRUSHED STONE OR OTHER GRANULAR MATERIAL MEETING THE REQUIREMENTS OF CLASS I, CLASS II, OR CLASS III MATERIAL AS DEFINED IN ASTM D2321. BEDDING & BACKFILL FOR SURFACE DRAINAGE INLETS SHALL BE PLACED & COMPACTED UNIFORMLY IN ACCORDANCE WITH ASTM D2321.

1 - 8" - 30" STANDARD GRATES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.

2 - 12" - 30" FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.

3 - 8" & 10" STANDARD GRATES FIT DIRECTLY ONTO DRAIN BASINS WITH THE USE OF A PVC BODY TOP. SEE DRAWING NO. 7001-110-045.

4 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-065.

5 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, & PVC SEWER (4" - 36").

6 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.

7 - 8" & 10" STANDARD GRATES ARE RATED FOR LIGHT DUTY APPLICATIONS ONLY; NO CONCRETE COLLAR NEEDED FOR LIGHT DUTY RATING.

DRAWN BY	EBC	MATERIAL	
DATE	1-23-06	PROJECT NO./NAME	
REVISED BY	NMH	TITLE	DRAIN BASIN WITH STANDARD GRATE QUICK SPEC INSTALLATION DETAIL
DATE	06-12-18	DWG NO.	7001-110-144
DWG SIZE	A	SCALE	1:40 SHEET 1 OF 1

NYLOPLAST DRAIN BASIN WITH DOMESTIC FOUNDRY CURB INLET FOR ST-201 & ST-301

CONCRETE CURB & GUTTER

ASPHALT

DOMESTIC CURB INLET CASTING PROVIDED BY OTHERS (EQUIVALENT TO NEENAH R-3067 OR EAST JORDAN 7030 SHOWN)

18" MIN WIDTH GUIDELINE

8" MIN THICKNESS GUIDELINE

(2) VARIABLE INVERT HEIGHTS AVAILABLE (ACCORDING TO PLANS/TAKE OFF)

MINIMUM PIPE BURIAL DEPTH PER PIPE MANUFACTURER RECOMMENDATION (MIN. MANUFACTURING REQ. SAME AS MIN. SUMP)

(4) ADAPTER ANGLES VARIABLE 0° - 360° ACCORDING TO PLANS

INTEGRATED NYLOPLAST DUCTILE IRON BASE PLATE DESIGNED TO READILY FIT 24", 30" & 36" DRAIN BASINS (PIN: 3024BASERUD)

THE BACKFILL MATERIAL SHALL BE CRUSHED STONE OR OTHER GRANULAR MATERIAL MEETING THE REQUIREMENTS OF CLASS I, CLASS II, OR CLASS III MATERIAL AS DEFINED IN ASTM D2321. BEDDING & BACKFILL FOR SURFACE DRAINAGE INLETS SHALL BE PLACED & COMPACTED UNIFORMLY IN ACCORDANCE WITH ASTM D2321.

(2) VARIABLE SUMP DEPTH ACCORDING TO PLANS (6" MIN ON 24", 10" MIN ON 30" & 12" MIN ON 36" BASED ON MANUFACTURING REQ.)

WATERTIGHT JOINT (CORRUGATED HDPE SHOWN)

(3) VARIOUS TYPES OF INLET & OUTLET ADAPTERS AVAILABLE: 4" - 36" FOR CORRUGATED HDPE (ADS N-12 DUAL WALL, ADS SINGLE WALL), ADS HP, PVC SEWER (EX: SDR 35), PVC DWV (EX: SCH 40), PVC C900/C905, CORRUGATED & RIBBED PVC

24", 30" OR 36" DRAIN BASIN

1 - 3024BASERUD BASE PLATES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.

2 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS.

3 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12), ADS HP, & PVC SEWER.

4 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.

5 - ALL CURB INLET GRATE OPTIONS SHALL MEET H-20 LOAD RATING

DRAWN BY	NMH	MATERIAL	
DATE	03-01-22	PROJECT NO./NAME	
APPD BY	NMH	TITLE	DRAIN BASIN W/ UNIVERSAL BASE PLATE AND DOMESTIC CURB INLET QUICK SPEC INSTALLATION DETAIL
DATE	03-01-22	DWG NO.	7002-110-156
DWG SIZE	A	SCALE	1:30 SHEET 1 OF 1

DETAILS

NORTH

0 10' 20' 40'

GRAPHIC SCALE

HAWAIIAN BROS SITE PLAN

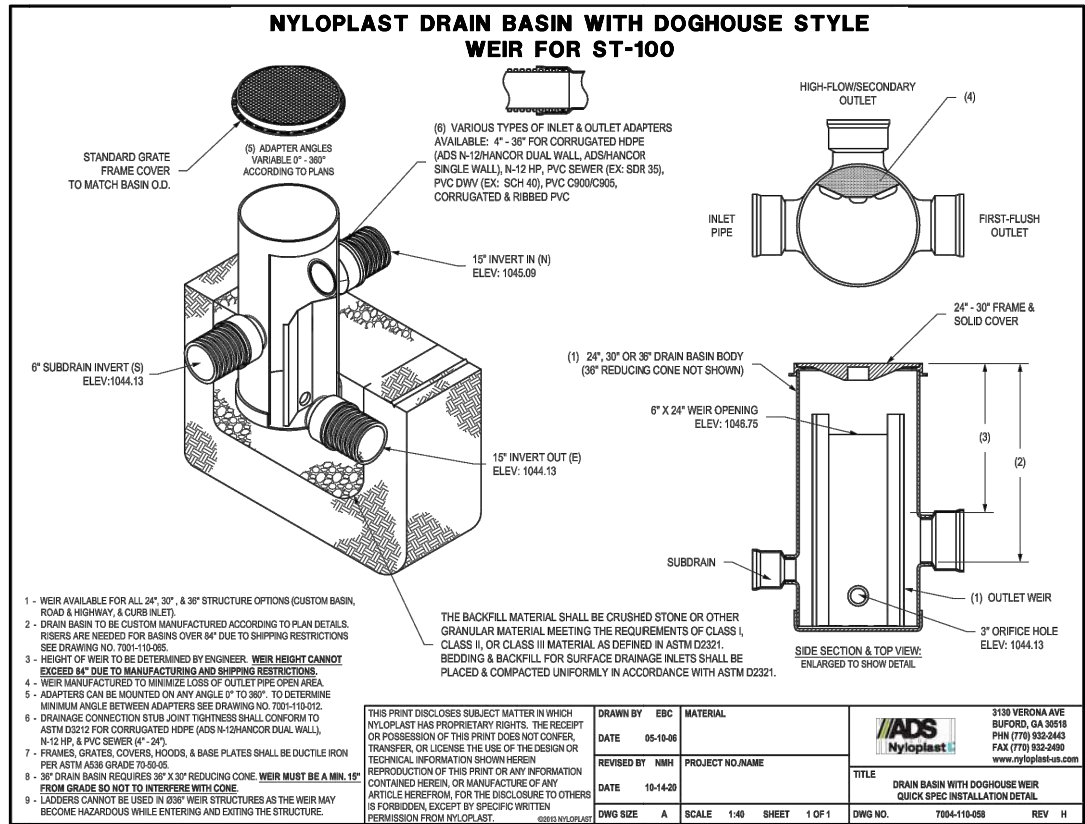
WAUKEE, IOWA
2023001453
MARCH 05, 2024

CURRENT VERSION DATE:
MARCH 29, 2024
APRIL 17, 2024

ENGINEER: T. SMITH
DRAWN BY: T. SMITH
CHECKED BY: FIELD BOOK NO.

DRAWING NO. DT-03
SHEET NO. 13 / 14

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ADS® Nyloplast® Drain Basin Maintenance Guide

The Nyloplast Drain Basin is an engineered PVC surface drainage structure. These drain basins are custom manufactured according to the plans/takeoff specified by the site engineer. Nyloplast Drain Basins have a quick production time, creates watertight connections, and provide simple and quick installations. They ship to the job site ready to install. This allows for fast, easy, hassle free installations with a product built specifically to the engineer's specifications.



Installation shall be in accordance with Nyloplast installation procedures and those issued by local building/construction regulations. The required minimum sump located in the typical installation is for manufacturing purposes. Due to these manufacturing restrictions, the sump may collect sediment over time and the structure could require some maintenance.

Maintenance Recommendations

- Over the span of the first year of a new installation, visually inspect each basin every 2 months or after 2 storm events once the site has stabilized.
- Check for obstructions and debris at the openings of the grate and remove as needed.
- After cleaning the surface of the grate, remove the grate from the frame.
- Once the grate is removed from the frame, check for obstructions and debris inside the basin (including the sump and inlet and outlet pipes) and clean out as needed.
- A vacuum truck is best for the removal of debris when necessary. After the collection of the debris, it shall be disposed of according to the local environment requirements.
- After the maintenance or inspection of the structure completed, set the grate back in the frame so it sits flush and does not rock.
- Once the monitoring period is over, it is best to continually schedule maintenance based on the amount of debris or sediment that accumulates over time.



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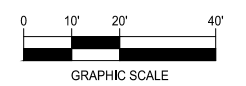
building strong communities.

1360 NW 121st. Street
 Clive, Iowa 50325
 515-964-1229
 fax 515-964-2370

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DETAILS



HAWAIIAN BROS SITE PLAN

WAUKEE, IOWA
 2023001453
 MARCH 05, 2024

CURRENT VERSION DATE:
 MARCH 29, 2024
 APRIL 17, 2024

ENGINEER
T. SMITH

DRAWN BY
T. SMITH

CHECKED BY

FIELD BOOK NO.

DRAWING NO.
DT-04

SHEET NO.
14 / 14