1. 08/21/2023 ZD - COMPLETED DESIGN FOR CLIENT & COUNTY REVIEW.

- 6. 05/21/2024 KH VALVE BOX DETAIL
- 7. 05/31/2024 ZD BOUNDARY REVISIONS
 8. 06/24/2024 ZD UPDATED EASEMENTS



Sheet Index

- Sheet 7 Grading Plan
- Sheet 8 Utility Plan

- Sheet 12 Fire Exhibit
- **Sheet 13 Storm Water Pollution Prevention** Plan Exhibit
- **Plan Details**





General Notes:

- 1. ALL CONSTRUCTION MUST STRICTLY FOLLOW THE STANDARDS AND SPECIFICATIONS SET FORTH BY: GOVERNING UTILITY MUNICIPALITY, GOVERNING CITY OR COUNTY (IF UN-INCORPORATED), INDIVIDUAL PRODUCT MANUFACTURERS, AMERICAN PUBLIC WORKS ASSOCIATION (APWA), AND THE DESIGN ENGINEER. THE ORDER LISTED ABOVE IS ARRANGED BY SENIORITY. IF A CONSTRUCTION PRACTICE IS NOT SPECIFIED BY ANY OF THE LISTED SOURCES, CONTRACTOR MUST CONTACT DESIGN ENGINEER FOR DIRECTION.
- CONTRACTOR TO STRICTLY FOLLOW GEOTECHNICAL RECOMMENDATIONS FOR THIS PROJECT. ALL GRADING INCLUDING BUT NOT LIMITED TO CUT, FILL, COMPACTION, ASPHALT SECTION, SUBBASE, TRENCH EXCAVATION/BACKFILL, SITE GRUBBING, RETAINING WALLS AND FOOTINGS MUST BE COORDINATED DIRECTLY WITH THE PROJECT GEOTECHNICAL ENGINEER. TRAFFIC CONTROL, STRIPING & SIGNAGE TO CONFORM TO CURRENT GOVERNING AGENCIES TRANSPORTATION ENGINEER'S MANUAL
- AND MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. ANY AREA OUTSIDE THE LIMIT OF WORK THAT IS DISTURBED SHALL BE RESTORED TO ITS ORIGINAL CONDITION AT NO COST TO
- OWNER CONSULT ALL OF THE DRAWINGS AND SPECIFICATIONS FOR COORDINATION REQUIREMENTS BEFORE COMMENCING CONSTRUCTION.
- AT ALL LOCATIONS WHERE EXISTING PAVEMENT ABUTS NEW CONSTRUCTION, THE EDGE OF THE EXISTING PAVEMENT SHALL BE SAWCUT TO A CLEAN, SMOOTH EDGE. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE MOST RECENT, ADOPTED EDITION OF ADA ACCESSIBILITY
- GUIDELINES. PRIOR TO STARTING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING SURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED THOROUGHLY REVIEWED PLANS AND OTHER DOCUMENTS APPROVED BY ALL OF THE PERMITTING AUTHORITIES.
- CONTRACTOR IS RESPONSIBLE FOR SCHEDULING AND NOTIFYING ENGINEER OR INSPECTING AUTHORITY 48 HOURS IN ADVANCE OF COVERING UP ANY PHASE OF CONSTRUCTION REQUIRING OBSERVATION. 10. ANY WORK IN THE PUBLIC RIGHT-OF-WAY WILL REQUIRE PERMITS FROM THE APPROPRIATE CITY, COUNTY OR STATE AGENCY
- CONTROLLING THE ROAD, INCLUDING OBTAINING REQUIRED INSPECTIONS. 11. ALL DIMENSIONS, GRADES & UTILITY DESIGNS SHOWN ON THE PLANS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO PROCEEDING WITH CONSTRUCTION FOR
- NECESSARY PLAN OR GRADE CHANGES 12. CONTRACTOR MUST VERIFY ALL EXISTING CONDITIONS BEFORE BIDDING AND BRING UP ANY QUESTIONS BEFOREHAND. 13. SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET
- FORTH BY THE GEOTECHNICAL ENGINEER. 14. CATCH SLOPES SHALL BE GRADED AS SPECIFIED ON GRADING PLANS.
- 15. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FLAGGING, CAUTION SIGNS, LIGHTS, BARRICADES, FLAGMEN, AND ALL OTHER DEVICES NECESSARY FOR PUBLIC SAFETY
- 6. CONTRACTOR SHALL, AT THE TIME OF BIDDING AND THROUGHOUT THE PERIOD OF THE CONTRACT, BE LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED AND SHALL BE BONDABLE FOR AN AMOUNT EQUAL TO OR GREATER THAN THE AMOUNT BID AND TO DO THE TYPE OF WORK CONTEMPLATED IN THE PLANS AND SPECIFICATIONS. CONTRACTOR SHALL BE SKILLED AND REGULARLY ENGAGED IN THE GENERAL CLASS AND TYPE OF WORK CALLED FOR IN THE PLANS AND SPECIFICATIONS.
- 17. CONTRACTOR SHALL INSPECT THE SITE OF THE WORK PRIOR TO BIDDING TO SATISFY HIMSELF BY PERSONAL EXAMINATION OR BY SUCH OTHER MEANS AS HE MAY PREFER OF THE LOCATIONS OF THE PROPOSED WORK AND OF THE ACTUAL CONDITIONS OF AND AT THE SITE OF WORK. IF, DURING THE COURSE OF HIS EXAMINATION, A BIDDER FINDS FACTS OR CONDITIONS WHICH APPEAR TO HIM TO BE IN CONFLICT WITH THE LETTER OR SPIRIT OF THE PROJECT PLANS AND SPECIFICATIONS. HE SHALL CONTACT THE ENGINEER FOR ADDITIONAL INFORMATION AND EXPLANATION BEFORE SUBMITTING HIS BID. SUBMISSION OF A BID BY THE CONTRACTOR SHALL CONSTITUTE ACKNOWLEDGMENT THAT, IF AWARDED THE CONTRACT, HE HAS RELIED AND IS RELYING ON HIS OWN EXAMINATION OF (1) THE SITE OF THE WORK, (2) ACCESS TO THE SITE, AND (3) ALL OTHER DATA AND MATTERS REQUISITE TO THE FULFILLMENT OF THE WORK AND ON HIS OWN KNOWLEDGE OF EXISTING FACILITIES ON AND IN THE VICINITY OF THE SITE OF THE WORK TO BE CONSTRUCTED UNDER THIS CONTRACT. THE INFORMATION PROVIDED BY THE ENGINEER IS NOT INTENDED TO BE A SUBSTITUTE FOR. OR A SUPPLEMENT TO, THE INDEPENDENT VERIFICATION BY THE CONTRACTOR TO THE EXTENT SUCH INDEPENDENT INVESTIGATION OF SITE CONDITIONS IS DEEMED NECESSARY OR DESIRABLE BY THE CONTRACTOR. CONTRACTOR SHALL ACKNOWLEDGE THAT HE HAS NOT RELIED SOLELY UPON OWNER- OR ENGINEER-FURNISHED INFORMATION REGARDING SITE CONDITIONS IN PREPARING AND SUBMITTING HIS BID.
- 18. CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ALL WATER, POWER, SANITARY FACILITIES AND TELEPHONE SERVICES AS REQUIRED FOR THE CONTRACTOR'S USE DURING CONSTRUCTION. 19. CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY FIELD CHANGES MADE WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE
- OWNER, ENGINEER, AND/OR GOVERNING AGENCIES. 20. CONTRACTOR SHALL EXERCISE DUE CAUTION AND SHALL CAREFULLY PRESERVE BENCH MARKS, CONTROL POINTS, REFERENCE POINTS AND ALL SURVEY STAKES, AND SHALL BEAR ALL EXPENSES FOR REPLACEMENT AND/OR ERRORS CAUSED BY THEIR
- UNNECESSARY LOSS OR DISTURBANCE. 1. CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOBSITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER. 22. CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATELY SCHEDULING INSPECTION AND TESTING OF ALL FACILITIES CONSTRUCTED UNDER THIS CONTRACT. ALL TESTING SHALL CONFORM TO THE REGULATORY AGENCY'S STANDARD SPECIFICATIONS. ALL TESTING AND INSPECTION SHALL BE PAID FOR BY THE OWNER; ALL RE-TESTING AND/OR RE-INSPECTION SHALL BE PAID FOR BY THE CONTRACTOR
- 23. IF EXISTING IMPROVEMENTS NEED TO BE DISTURBED AND/OR REMOVED FOR THE PROPER PLACEMENT OF IMPROVEMENTS TO BE CONSTRUCTED BY THESE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXISTING IMPROVEMENTS FROM DAMAGE, COST OF REPLACING OR REPAIRING EXISTING IMPROVEMENTS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEMS REQUIRING REMOVAL AND/OR REPLACEMENT. THERE WILL BE NO EXTRA COST DUE TO THE CONTRACTOR FOR REPLACING OR REPAIRING EXISTING IMPROVEMENTS.
- 24. WHENEVER EXISTING FACILITIES ARE REMOVED, DAMAGED, BROKEN, OR CUT IN THE INSTALLATION OF THE WORK COVERED BY THESE PLANS OR SPECIFICATIONS, SAID FACILITIES SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE WITH MATERIALS EQUAL TO OR BETTER THAN THE MATERIALS USED IN THE ORIGINAL EXISTING FACILITIES. THE FINISHED PRODUCT SHALL BE SUBJECT TO THE APPROVAL OF THE OWNER, THE ENGINEER, AND THE RESPECTIVE REGULATORY AGENCY.
- CONTRACTOR SHALL MAINTAIN A NEATLY MARKED SET OF FULL-SIZE AS-BUILT RECORD DRAWINGS SHOWING THE FINAL LOCATION AND LAYOUT OF ALL STRUCTURES AND OTHER FACILITIES. AS-BUILT RECORD DRAWINGS SHALL REFLECT CHANGE ORDERS, ACCOMMODATIONS, AND ADJUSTMENTS TO ALL IMPROVEMENTS CONSTRUCTED. WHERE NECESSARY, SUPPLEMENTAL DRAWINGS SHALL BE PREPARED AND SUBMITTED BY THE CONTRACTOR. PRIOR TO ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL DELIVER TO THE ENGINEER ONE SET OF NEATLY MARKED AS-BUILT RECORD DRAWINGS SHOWING THE INFORMATION REQUIRED ABOVE. AS-BUILT RECORD DRAWINGS SHALL BE REVIEWED AND THE COMPLETE AS-BUILT RECORD DRAWING SET SHALL BE CURRENT WITH ALL CHANGES AND DEVIATIONS REDLINED AS A PRECONDITION TO THE FINAL PROGRESS PAYMENT APPROVAL AND/OR FINAL ACCEPTANCE
- 26. WHERE THE PLANS OR SPECIFICATIONS DESCRIBE PORTIONS OF THE WORK IN GENERAL TERMS BUT NOT IN COMPLETE DETAIL, IT IS UNDERSTOOD THAT ONLY THE BEST GENERAL PRACTICE IS TO PREVAIL AND THAT ONLY MATERIALS AND WORKMANSHIP OF THE HIGHEST QUALITY ARE TO BE USED. . CONTRACTOR SHALL BE SKILLED AND REGULARLY ENGAGED IN THE GENERAL CLASS AND TYPE OF WORK CALLED FOR IN THE
- PROJECT PLANS AND SPECIFICATIONS. THEREFORE, THE OWNER IS RELYING UPON THE EXPERIENCE AND EXPERTISE OF THE CONTRACTOR. PRICES PROVIDED WITHIN THE CONTRACT DOCUMENTS SHALL INCLUDE ALL LABOR AND MATERIALS NECESSARY AND PROPER FOR THE WORK CONTEMPLATED AND THAT THE WORK BE COMPLETED IN ACCORDANCE WITH THE TRUE INTENT AND PURPOSE OF THESE PLANS AND SPECIFICATIONS. THE CONTRACTOR SHALL BE COMPETENT, KNOWLEDGEABLE AND HAVE SPECIAL SKILLS IN THE NATURE, EXTENT AND INHERENT CONDITIONS OF THE WORK TO BE PERFORMED. CONTRACTOR SHALL ALSO ACKNOWLEDGE THAT THERE ARE CERTAIN PECULIAR AND INHERENT CONDITIONS EXISTENT IN THE CONSTRUCTION OF THE PARTICULAR FACILITIES WHICH MAY CREATE, DURING THE CONSTRUCTION PROGRAM, UNUSUAL OR UNSAFE CONDITIONS HAZARDOUS TO PERSONS, PROPERTY AND THE ENVIRONMENT. CONTRACTOR SHALL BE AWARE OF SUCH PECULIAR RISKS AND HAVE THE SKILL AND EXPERIENCE TO FORESEE AND TO ADOPT PROTECTIVE MEASURES TO ADEQUATELY AND SAFELY PERFORM THE CONSTRUCTION WORK WITH RESPECT TO SUCH HAZARDS.
- 28. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL STRIPING AND/OR PAVEMENT MARKINGS NECESSARY TO TIE EXISTING STRIPING INTO FUTURE STRIPING. METHOD OF REMOVAL SHALL BE BY GRINDING OR SANDBLASTING. 29. CONTRACTOR SHALL PROVIDE ALL SHORING, BRACING, SLOPING OR OTHER PROVISIONS NECESSARY TO PROTECT WORKMEN FOR ALL AREAS TO BE EXCAVATED TO A DEPTH OF 4 FEET OR MORE. FOR EXCAVATIONS 4 FEET OR MORE IN DEPTH, THE CONTRACTOR SHALL COMPLY WITH LOCAL, STATE AND NATIONAL SAFETY CODES, ORDINANCES. OR REQUIREMENTS FOR EXCAVATION
- AND TRENCHES. 30. ALL EXISTING GATES AND FENCES TO REMAIN UNLESS OTHERWISE NOTED ON PLANS. PROTECT ALL GATES AND FENCES FROM DAMAGE

Utility Notes:

- CONTRACTOR SHALL COORDINATE LOCATION OF NEW "DRY UTILITIES" WITH THE APPROPRIATE UTILITY COMPANY, INCLUDING BUT NOT LIMITED TO: TELEPHONE SERVICE, GAS SERVICE, CABLE, POWER, INTERNET. EXISTING UTILITIES HAVE BEEN SHOWN ON THE PLANS USING A COMBINATION OF ON-SITE SURVEYS (BY OTHERS). PRIOR TO
- COMMENCING ANY WORK, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO HAVE EACH UTILITY COMPANY LOCATE IN THE FIELD THEIR MAIN AND SERVICE LINES 48 HOURS IN ADVANCE OF PERFORMING ANY EXCAVATION WORK. THE CONTRACTOR SHALL RECORD THE BLUE STAKES ORDER NUMBER AND FURNISH ORDER NUMBER TO OWNER AND ENGINEER PRIOR TO ANY EXCAVATION. IT WILL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO DIRECTLY CONTACT ANY OTHER UTILITY COMPANIES THAT ARE NOT MEMBERS OF BLUE STAKES. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO PROTECT ALL EXISTING UTILITIES SO THAT NO DAMAGE RESULTS TO THEM DURING THE PERFORMANCE OF THIS CONTRACT. ANY REPAIRS NECESSARY TO DAMAGED UTILITIES SHALL BE PAID FOR BY THE CONTRACTOR. THE CONTRACTOR SHALL BE REQUIRED TO COOPERATE WITH OTHER CONTRACTORS AND UTILITY COMPANIES INSTALLING NEW STRUCTURES, UTILITIES AND SERVICE TO THE PROJECT. CONTRACTOR SHALL POT HOLE ALL UTILITIES TO DETERMINE IF CONFLICTS EXIST PRIOR TO BEGINNING ANY EXCAVATION. NOTIFY
- ENGINEER OF ANY CONFLICTS. CONTRACTOR SHALL VERIFY LOCATION AND INVERTS OF EXISTING UTILITIES TO WHICH NEW UTILITIES WILL BE CONNECTED. PRIOR TO COMMENCING ANY EXCAVATION WORK THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES IN ACCORDANCE WITH THE REQUIRED PROCEDURES. CARE SHOULD BE TAKEN IN ALL EXCAVATIONS DUE TO POSSIBLE EXISTENCE OF UNRECORDED UTILITY LINES. EXCAVATION REQUIRED
- WITHIN PROXIMITY OF EXISTING UTILITY LINES SHALL BE DONE BY HAND. CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING UTILITY LINES OR STRUCTURES INCURRED DURING CONSTRUCTION OPERATIONS AT HIS EXPENSE. ALL VALVES AND MANHOLE COVERS SHALL BE RAISED OR LOWERED TO MEET FINISHED GRADE.
- CONTRACTOR SHALL CUT PIPES OFF FLUSH WITH THE INSIDE WALL OF THE BOX OR MANHOLE. CONTRACTOR SHALL GROUT AT CONNECTION OF PIPE TO BOX WITH NON-SHRINKING GROUT, INCLUDING PIPE VOIDS LEFT BY
- CUTTING PROCESS, TO A SMOOTH FINISH. 8. CONTRACTOR SHALL GROUT WITH NON-SHRINK GROUT BETWEEN GRADE RINGS AND BETWEEN BOTTOM OF INLET LID FRAME AND
- TOP OF CONCRETE BOX 9. SILT AND DEBRIS IS TO BE CLEANED OUT OF ALL STORM DRAIN BOXES. CATCH BASINS ARE TO BE MAINTAINED IN A CLEANED
- CONDITION AS NEEDED UNTIL AFTER THE FINAL BOND RELEASE INSPECTION. 10. CONTRACTOR SHALL CLEAN ASPHALT, TAR OR OTHER ADHESIVES OFF OF ALL MANHOLE LIDS AND INLET GRATES TO ALLOW ACCESS
- 11. EACH TRENCH SHALL BE EXCAVATED SO THAT THE PIPE CAN BE LAID TO THE ALIGNMENT AND GRADE AS REQUIRED. THE TRENCH WALL SHALL BE SO BRACED THAT THE WORKMEN MAY WORK SAFELY AND EFFICIENTLY. ALL TRENCHES SHALL BE DRAINED SO THE PIPE LAYING MAY TAKE PLACE IN DE-WATERED CONDITIONS. 12. CONTRACTOR SHALL PROVIDE AND MAINTAIN AT ALL TIMES AMPLE MEANS AND DEVICES WITH WHICH TO REMOVE PROMPTLY AND TO
- PROPERLY DISPOSE OF ALL WATER ENTERING THE TRENCH EXCAVATION. 13. MAINTAIN A MINIMUM 18" VERTICAL SEPARATION DISTANCE BETWEEN ALL UTILITY CROSSINGS.
- 14. CONTRACTOR SHALL START INSTALLATION AT LOW POINT OF ALL NEW GRAVITY UTILITY LINES. 15. ALL BOLTED FITTINGS MUST BE GREASED AND WRAPPED.
- 16. UNLESS SPECIFICALLY NOTED OTHERWISE, MAINTAIN AT LEAST 2 FEET OF COVER OVER ALL STORM DRAIN LINES AT ALL TIMES (INCLUDING DURING CONSTRUCTION). 17. ALL WATER LINES SHALL BE INSTALLED A MINIMUM OF 60" BELOW FINISHED GRADE.
- 18. ALL SEWER LINES AND SEWER SERVICES SHALL HAVE A MINIMUM SEPARATION OF 10 FEET, PIPE EDGE TO PIPE EDGE, FROM THE WATER LINES. IF A 10 FOOT SEPARATION CAN NOT BE MAINTAINED, THE SEWER LINE AND WATER LINE SHALL BE LAID IN SEPARATE TRENCHES AND THE BOTTOM OF THE WATER LINE SHALL BE AT LEAST 18" ABOVE THE TOP OF THE SEWER LINE. 19. CONTRACTOR SHALL INSTALL THRUST BLOCKING AT ALL WATERLINE ANGLE POINTS AND TEES.
- 20. ALL UNDERGROUND UTILITIES SHALL BE IN PLACE PRIOR TO INSTALLATION OF CURB, GUTTER, SIDEWALK AND STREET PAVING.
- 21. CONTRACTOR SHALL INSTALL MAGNETIC LOCATING TAPE CONTINUOUSLY OVER ALL NONMETALLIC PIPE. 22. THRUST BLOCKS & RESTRAINED JOINTS WITH MEGA-LUG ADAPTERS REQUIRED ON ALL BENDS AND FITTINGS USING BLUE BOLTS. PROTECT ALL BOLTS FROM BEING ENCASED IN CONCRETE. INSTALL PER MANUFACTURER RECOMMENDATIONS.

OF WORK ON THIS PROJECT.

PROCEEDING WITH ANY CONSTRUCTION STAKING

TO THE CONTOURS.

ACCOMMODATE PROJECT PLANNING

INTENT" WITH THE GOVERNING AGENCIES.

Maintenance:

INSPECTIONS KEPT ON SITE.

THE HEIGHT OF BARRIER.

UP, AND DEPOSITING IT TO A CONTAINED AREA.

EXPOSED SLOPES:



DIMENSIONS SHOWN ARE MINIMUM TO OBTAIN THE REQUIRED 720 CF NEEDED FOR EACH DETENTION BASIN. 2. A MINIMUM NUMBER OF 13 IN-LINE DETENTION BASINS

- ARE REQUIRED FOR THIS PROJECT. 3. SLOPES SHALL NOT EXCEED 2:1. 4. A MINIMUM OF A 2' SHOULDER SLOPED AT 2% IS
- BASINS.

STORAGE PROVIDED: 9,360 CF STORAGE REQUIRED: 9,307 CF



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	Ce	enter	line	Curve	e Data	
#	Delta	Radius	Length	Tangent	Chord	CH Length
C1	121°12'07"	90.00'	190.38'	159.73'	N84°43'51"E	156.82'
C2	105°36'57"	88.45'	163.04'	116.56'	N76°56'16"E	140.91'



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Construction Notes:

ALL CONSTRUCTION IS TO CONFORM TO THE CITY STANDARD DRAWINGS AND SPECIFICATIONS.

CULINARY WATER

NOTE:5' MIN. COVER REQUIRED OVER CW LINES

- W/4 4" DIP W/POLY WRAP WATER LINE W/6 - 6" DIP W/POLY WRAP WATER LINE W – 1" TYPE K COPPER SERVICE LATERAL
- <u>STORM_DRAIN</u> SD/15 15" RCP CLASS III STORM DRAIN 15" RCP CULVERTS TO BE INSTALLED AT DRIVEWAY LOCATIONS

Centerline Curve Data

#	Delta	Radius	Length	Tangent	Chord	CH Length
C3	17°56'07"	300.00'	93.91'	47.34'	S59°13'19"E	93.53'
C4	18°06'20"	300.00'	94.80'	47.80'	S59°08'12"E	94.41'



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Construction Notes:

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CULINARY WATER

NOTE:5' MIN. COVER REQUIRED OVER CW LINES

W/4 – 4" DIP W/POLY WRAP WATER LINE W/6 – 6" DIP W/POLY WRAP WATER LINE W – 1" TYPE K COPPER SERVICE LATERAL

STORM DRAIN SD/15 – 15" RCP CLASS III STORM DRAIN 15" RCP CULVERTS TO BE INSTALLED AT DRIVEWAY LOCATIONS

Centerline Curve Data

#	Delta	Radius	Length	Tangent	Chord	CH Length
C5	8°08'51"	500.00'	71.10'	35.61'	S46°00'37"E	71.04'
C6	26 ° 25'34"	150.00'	69.18'	35.22'	S55°08'59"E	68.57'
C7	84 ° 27'19"	100.00'	147.40'	90.76'	S26°08'06"E	134.42'



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ALL CONSTRUCTION IS TO CONFORM TO THE CITY STANDARD DRAWINGS AND SPECIFICATIONS.

CULINARY WATER

NOTE:5' MIN. COVER REQUIRED OVER CW LINES

- W/4 4" DIP W/POLY WRAP WATER LINE W/6 - 6" DIP W/POLY WRAP WATER LINE W – 1" TYPE K COPPER SERVICE LATERAL
- STORM DRAIN SD/15 - 15" RCP CLASS III STORM DRAIN 15" RCP CULVERTS TO BE INSTALLED AT DRIVEWAY LOCATIONS

	Ce	enter	line (Curve	e Data	
#	Delta	Radius	Length	Tangent	Chord	CH Length
C8	94°07'16"	100.00'	164.27'	107.46'	S30°58'05"E	146.41'



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ARROWLEAF **Storm Water Pollution Prevention Plan Exhibit** EDEN, WEBER COUNTY, UTAH FEBUARY, 2023

Notes:

 Describe BMP's to eliminate/reduce contamination of storm water from: Equipment / building / concrete wash areas: To be performed in designated areas only and surrounded with silt fence barriers. Soil contaminated by soil amendments: If any contaminates are found or generated, contact environmental engineer and contacts listed. Areas of contaminated soil:
 g. Equipment storage areas: To be performed in designated areas only and surrounded with silt fence. h. Materials storage areas: To be performed in designated areas only and surrounded with silt fence. i. Waste containment areas: To be performed in designated areas only and surrounded with silt fence. j. Service areas: To be performed in designated areas only and surrounded with silt fence. 3. BMP's for wind erosion: Stockpiles and site as needed to be watered regularly to eliminate / control wind erosion 4. Construction Vehicles and Equipment: a. Maintain all construction equipment to prevent oil or other fluid leaks. – Keep vehicles and equipment clean, prevent excessive build-up of oil and grease. – Regularly inspect on-site vehicles and equipment for leaks, and repair immediately. – Check incoming vehicles and equipment (including delivery trucks, and employee and subcontractor vehicles) for leaking oil and fluids. Do not allow leaking vehicles or equipment on-site. – Segregate and recycle wastes, such as greases, used oil or oil flutes, antifreeze, cleaning solutions, automotive batteries, hydraulic, and transmission fluids. b. Fueling – If fueling must occur on-site, use designated areas away from drainage. – Locate on-site fuel storage tanks within a bermed area designed to hold the tank volume. – Cover retention area with an impervious material and install in in a mannet to ensure that any spills will be contained in the retention area. To catch spills or leaks when removing or changing fluids. – Use drip pans for any oil or fluid changes. c. Washing
 j. Service areas: To be performed in designated areas only and surrounded with silt fence. 3. BMP's for wind erosion: Stockpiles and site as needed to be watered regularly to eliminate / control wind erosion 4. Construction Vehicles and Equipment: a. Maintenance Maintenance Keep vehicles and equipment clean, prevent excessive build-up of oil and grease. Regularly inspect on-site vehicles and equipment for leaks, and repair immediately. Check incoming vehicles and equipment (including delivery trucks, and employee and subcontractor vehicles) for leaking oil and fluids. Do not allow leaking vehicles or equipment on-site. Segregate and recycle wastes, such as greases, used oil or oil filters, antifreeze, cleaning solutions, automotive batteries, hydraulic, and transmission fluids. b. Fueling If fueling must occur on-site, use designated areas away from drainage. Locate on-site fuel storage tanks within a bermed area designed to hold the tank volume. Cover retention area with an impervious material and install in in a manner to ensure that any spills will be contained in the retention area. To catch spills or leaks when removing or changing fluids. Washing
 3. BMP's for wind erosion: Stockpiles and site as needed to be watered regularly to eliminate / control wind erosion 4. Construction Vehicles and Equipment: a. Maintenance Maintain all construction equipment to prevent oil or other fluid leaks. Keep vehicles and equipment clean, prevent excessive build—up of oil and grease. Regularly inspect on—site vehicles and equipment for leaks, and repair immediately. Check incoming vehicles and equipment (including delivery trucks, and employee and subcontractor vehicles) for leaking oil and fluids. Do not allow leaking vehicles or equipment on—site. Segregate and recycle wastes, such as greases, used oil or oil filters, antifreeze, cleaning solutions, automotive batteries, hydraulic, and transmission fluids. b. Fueling If fueling must occur on—site, use designated areas away from drainage. Locate on—site fuel storage tanks within a bermed area designed to hold the tank volume. Cover retention area with an impervious material and install in in a manner to ensure that any spills will be contained in the retention area. To catch spills or leaks when removing or changing fluids. Use drip pans for any oil or fluid changes.
 4. Construction Vehicles and Equipment: a. Maintenance Maintain all construction equipment to prevent oil or other fluid leaks. Keep vehicles and equipment clean, prevent excessive build-up of oil and grease. Regularly inspect on-site vehicles and equipment for leaks, and repair immediately. Check incoming vehicles and equipment (including delivery trucks, and employee and subcontractor vehicles) for leaking oil and fluids. Do not allow leaking vehicles or equipment on-site. Segregate and recycle wastes, such as greases, used oil or oil filters, antifreeze, cleaning solutions, automotive batteries, hydraulic, and transmission fluids. b. Fueling If fueling must occur on-site, use designated areas away from drainage. Locate on-site fuel storage tanks within a bermed area designed to hold the tank volume. Cover retention area with an impervious material and install in in a manner to ensure that any spills will be contained in the retention area. To catch spills or leaks when removing or changing fluids. Use drip pans for any oil or fluid changes.
 Fueling If fueling must occur on-site, use designated areas away from drainage. Locate on-site fuel storage tanks within a bermed area designed to hold the tank volume. Cover retention area with an impervious material and install in in a manner to ensure that any spills will be contained in the retention area. To catch spills or leaks when removing or changing fluids. Use drip pans for any oil or fluid changes. Kashing
LIDD AD UTTID WATER AD DODDIDIO TO AVAIA INDIAUUDA OFEDIOD AND DODTOID TOF TOD WARD AFOA
 Use as intitle water as possible to avoid installing erosion and sediment controls for the wash area. If washing must occur on-site, use designated, bermed wash areas to prevent waste water discharge into storm water, creeks, rivers, and other water bodies. Use phosphate-free, biodegradable soaps. Do not permit steam cleaning on-site.
 5. Spill Prevention and Control a. Minor Spills: Minor spills are those which are likely to be controlled by on-site personnel. After contacting local emergency response agencies, the following actions should occur upon discovery of a minor spill: Contain the spread of the spill. If the spill occurs on paved or impermeable surfaces, clean up using "dry" methods (i.e. absorbent materials, cat litter, and / or rags). If the spill occurs in dirt areas, immediately contain the spill by constructing an earth dike. Dig up and properly dispose of contaminated soil. If the spill occurs during rain, cover the impacted area to avoid runoff.
 Record all steps taken to report and contain spill. Major Spills: On-site personnel should not attempt to control major spills until the appropriate and qualified emergency response staff have arrived at the site. For spills of federal reportable quantities, also notify the National Response Center at (800) 424-8802. A written report should be sent to all notified authorities. Failure to report major spills and be sent to all notified authorities.
 6. Post Roadway / Utility Construction a. Maintain good housekeeping practices. b. Enclose or cover building material storage areas. c. Properly store materials such as paints and solvents. d. Store dry and wet materials under cover, away from drainage areas. e. Avoid mixing excess amounts of fresh concrete or cement on-site. f. Perform washout of concrete trucks offsite or in designated areas only. g. Do not wash out concrete trucks into storm drains, open ditches, streets or streams. h. Do not place material or debris into streams, gutters or catch basins that stop or reduce the flow of runoff water. i. All public streets and storm drain facilities shall be maintained free of building materials, mud and debris caused by grading or construction operations. Roads will be swept within 1000' of construction entrance daily, if necessary. j. Install straw wattle around all inlets contained within the development and all others that receive runoff from the development
 7. Erosion Control Plan Notes a. The contractor will designate an emergency contact that can be reached 24 hours a day 7 days a week. b. A stand-by crew for emergency work shall be available at all times during potential rain or snow runoff events. Necessary materials shall be available on site and stockpiled at convenient locations to facilitate rapid construction of emergency devices when rain or runoff is eminent. c. Erosion control devices shown on the plans and approved for the project may not be removed without approval of the engineer of record. If devices are removed, no work may continue that have the potential of erosion without consulting the engineer of record. If deemed necessary erosion control should be reestablished before this work begins. d. Graded areas adjacent to fill slopes located at the site perimeter must drain away from the top of the slope at the conclusion of each working day. this should be confirmed by survey or other means acceptable to the engineer of record.
 e. All silt and debris shall be removed from all devices within 24 hours after each rain or runoff event. f. Except as otherwise approved by the inspector, all removable protective devices shown shall be in place at the end of each working day and through weekends until removal of the system is approved. g. All loose soil and debris, which may create a potential hazard to offsite property, shall be removed from the site as directed by the engineer of record of the governing agency. h. The placement of additional devices to reduce erosion damage within the site is left to the discretion of the engineer of record. i. Desilting basins may not be removed or made inoperable without the approval of the engineer of record and the governing agency. j. Erosion control devices will be modified as need as the project progresses and plans of these changes submitted for approval by the engineer of record and the governing agency.
 8. Conduct a minimum of one inspection of the erosion and sediment controls every two weeks. Maintain documentation on site. a. Part III.D.4 of general permit UTRC00000 identifies the minimum inspection requirements. b. Part II.D.4.C identifies the minimum inspection report requirements. c. Failure to complete and/or document storm water inspections is a violation of part III.D.4 of Utah General Permit UTR 300000.
50'x20' CONSTRUCTION ENTRANCE W/ 8" CLEAN 2"-4" Ø GRAVEL BASE

Cross Section 50' x 20' Construction Entrance

Perspective View

ab	applications.				
	TAE Recommended Ma: for S	BLE 1: ximum Slope Lengths ilt Fence			
	Slope Steepness	Max. Slope Length			
	(%)	m (ft)			
	<2%	30.5m (100ft)			
	2-5%	22.9m (75ft)			
	5-10%	15.2m (50ft)			
	10-20%	7.6m (25ft)			
	>20%	4.5m (15ft)			

*Excavate a minimum 15.2cm x 15.2cm

- *Adjacent rolls of silt fence should be joined be nesting the end post of one fence into the other. Before nesting the end posts, rotate each post until the geotextile is wrapped completely around the post, then
- obtained.
- fence in the upstream trench and backfill with natural soil, tamping the backfill to provide good compaction and anchorage. Figure 2 illustrates a typical silt fence installation and anchor trench placement.

(6"x6") trench at the desired location.

rainfall, immediately after significant rainfall Make any repairs immediately.

are one-third of the fence height, remove

		PLANT TABLE		
ity	Symbol	Scientific Name	Common Name	Size
	$\langle \rangle$	Acer ginnala 'Flame'	Amur Maple	2" cal.
		Picea pungens 'Fastigiata'	Columnar Blue Spruce	6'Ht
S				
ity	Symbol	Scientific Name	Common Name	Size

	\bigotimes	Cornus sericea 'Insanti'	Insanti Dwarf Dogwood	5 gal.
	0	Potentilla fruiticosa 'Gold Drop'	Gold Drop Cinquefoil	5 gal.
NNIALS				

Intity	Symbol	Scientific Name	Common Name	Size
	\bigcirc	Balsamorhiza sagittata	Arrow-leaved balsamroot	1 gal.
	Contraction of the second s	Nepeta x faassenii 'Walker's Low'	Walker's Low Catmint	1 gal.

••••		
ıbol	Description	Туре
	Turf Grass — Sod Kentucky Bluegrass Mix — 3 Species Minimum	Sod
	Wood Mulch — Medium Chunk Place mulch over 5 ounce Professional weed barrier cloth in all planting beds. Contractor to provide samples to owner for approval prior to delivery.	1" Diameter 3" Depth
	Rock Mulch Place mulch over 5 ounce Professional weed barrier cloth in all planting beds. Contractor to provide samples to owner for approval prior to delivery.	4" Diameter 3" Depth
	Concrete Mow Strip	6"×6"
+ + + + + + + + + + + + + + + + + + +	Seed Mix — Non-Irrigated seed mix — see schedule	Hydroseed

by weight 30
30
25
5
5
5
20
10

Hydroseed 25 lbs of seed per Acre

PLANTING NOTES

- 1. This planting plan is diagrammatic and plant locations are approximate. 2. Field survey, stake, and string the layout and locations of site construction features for approval before actual construction. The layout shall conform to the exact location and grades of the intended work to be done. 3. Coordinate all aspects of the planting plans with the irrigation system and call the attention of the owners representative to any conflict in placement of plants in relation to sprinkler heads, lines and valves at the time the
- landscape installation phase takes place. 4. Finish grade of soil in lawn areas shall be 2" below pads, walks, paving, headers and curbs to accommodate sod. Grades in areas when seeded shall be 1" lower than adjacent edge.
- 5. Native topsoil shall be stockpiled and stored on site whenever possible for use in landscape areas.
- 6. All sod areas shall receive a minimum 4" depth of native topsoil and shrub beds shall receive a minimum of 8" of native topsoil.
- 7. Imported topsoil, when required, shall come from a reputable source, have a loam consistency and be free of weeds and debris. 8. Face each shrub to give the most pleasing look as seen from a line
- perpendicular to the wall or walk to/from which it is viewed. 9. Edging or Curbing shall be installed as shown on the plan to separate grass from shrub beds.
- Shrub beds shall drain properly to prevent standing water from occurring. Call improperly draining planters or planting beds to the attention of the owners representative before planting. Provide positive drainage away from all structures and walls. Slope landscape areas 2% minimum.
- 11. Place mulch in all shrub beds and perennial areas. See schedule for depth and type. Do not crowd out small perennial plants with excessive mulch. 12. Provide a 3' minimum diameter circle "tree ring" around trees that are placed within lawn areas. Place a 3" min. depth of mulch. Use shredded bark mulch or match mulch being used for shrub beds.
- 13. The contractor shall maintain all work until work is complete and accepted by the Owner. The contractor shall maintain and guarantee all work for a period of THIRTY DAYS from the date of final acceptance by the Owner. Maintenance shall include mowing, weeding, fertilizing and irrigating.

	RIPTION Contraction Contracti	TEL: (801) 621–3100 www.reeve.co LAND PLANNERS & CMIL ENGINEERS * LAND SURVEYORS TRAFFIC ENGINEERS * STRUCTURAL ENGINEERS * LANDSCAPE ARCHITECTS
	PATE REVISIONS DATE DESCI	
Reeve & Associates, Inc Solutions You Can Build On	PART OF THE SECTION 18, T.7N., R.1E., S.L.B & M., U.S. SURVEY EDEN, WEBER COUNTY, UTAH	
	NATHAN C. PETERSON 05/16/2024	CHIERCY
	Project Info. Engineer: JEREMY A. DRAPER Drafter: N. PETERSON Begin Date: JUNE 2022 Name: ARROWLEAF	R, P.E.
	Number: <u>7895</u>	01

15 Total Sheets

SPECIAL INSPECTION REQUIREMENTS

 SOILS CONCRETE

- SEE SPECIFIC DISCIPLINE DRAWINGS FOR ADDITIONAL DESIGNATED SEISMIC SYSTEMS REQUIRING SPECIAL INSPECTION WHICH ARE NOT CONTAINED IN THE STRUCTURAL DRAWINGS.
- 1. SPECIAL INSPECTION AND TESTING AS REQUIRED BY THE IBC SHALL BE PROVIDED BY AN INDEPENDENT AGENCY EMPLOYED BY THE OWNER UNLESS WAIVED BY THE BUILDING OFFICIAL. THE CONTRACTOR SHALL COORDINATE AND COOPERATE WITH THE REQUIRED INSPECTIONS/TESTS AS INDICATED BELOW, REFERRING TO THE IBC SECTION INDICATED AS APPROPRIATE SPECIAL INSPECTION REPORTS FROM THE INSPECTOR SHALL BE SENT TO THE ARCHITECT/ENGINEER AND BUILDING OFFICIAL.
- 2.1. BRING ANY DISCREPANCIES TO THE CONTRACTOR'S IMMEDIATE ATTENTION.
- 2.2. NOTIFY THE ENGINEER OF ANY NON-PASSING WORK THAT THE CONTRACTOR CANNOT READILY CORRECT 2.3. ANY UNCORRECTED DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER AND BUILDING OFFICIAL
- PRIOR TO COMPLETION OF THAT PHASE OF THE WORK. 2.4. A FINAL REPORT DOCUMENTING REQUIRED SPECIAL INSPECTIONS AND CORRECTIONS OF ANY DISCREPANCIES SHALL BE PROVIDED. 3. SPECIAL INSPECTORS
- 3.1. SPECIAL INSPECTORS SHALL BE QUALIFIED PERSONS WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.

REQUIRED SPECIAL INSPECTION AND TESTS OF CONCRETE CONSTRUCTION TABLE 1705.3					
ТҮРЕ	FREQUENCY OF INSPECTION		REFERENCE FOR CRITERIA		
	CONTINUOUS	PERIODIC	REFERENCED STANDARD	IBC REFERENCE	
1. INSPECT REINFORCEMENT, INCLUDING PRESTRESSING TENDONS, AND VERIFY PLACEMENT.	-	х	ACI 318: CH. 20, 25.2, 25.3, 26.6.1-26.6.3	1908.4	
 REINFORCING BAR WELDING: a. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706; b. INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM 5/16"; AND c. INSPECT ALL OTHER WELDS 	- X	x x	AWS D1.4, ACI 318: 26.6.4	-	
3. INSPECT ANCHORS CAST IN CONCRETE	-	Х	ACI 318: 17.8.2	-	
 4. INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS a. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS 	x		ACI 318: 17.8.2.4	-	
b. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4.a		Х	ACI 318: 17.8.2.4	-	
5. VERIFY USE OF REQUIRED DESIGN MIX.	-	Х	ACI 318: CH. 19, 26.4.3, 26.4.4	1904.1, 1904.2, 1908.2, 1908.3	
6. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	x	-	ASTM C172 ASTM C31 ACI 318: 26.5, 26.12	1908.10	
7. INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	x	-	ACI 318: 26.5	1908.6, 1908.7, 1908.8	
8. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	-	Х	ACI 318: 26.5.3-26.5.5	1908.9	
 9. INSPECT PRESTRESSED CONCRETE FOR; a. APPLICATION OF PRESTRESSING FORCES; AND b. GROUTING OF BONDED PRESTRESSING TENDONS. 	X X	-	ACI 318: 26.10	-	
10. INSPECT ERECTION OF PRECAST CONCRETE MEMBERS	-	Х	ACI 318: 26.9	-	
11. VERIFY IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST - TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS	-	Х	ACI 318: 26.11.2	-	
12. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED	-	X	ACI 318: 26.11.1.2(b)	-	

FOR SI: INCH = 25.4MM.

a. WHERE APPLICABLE. SEE SECTION 1705.12, SPECIAL INSPECTIONS FOR SEISMIC RESISTANCE. b. SPECIFIC REQUIREMENTS FOR SPECIAL INSPECTION SHALL BE INCLUDED IN THE RESEARCH REPORT FOR THE ANCHOR ISSUED BY AN APPROVED SOURCE IN ACCORDANCE WITH 17.8.2 IN ACI 318, OR OTHER QUALIFICATION PROCEDURES. WHERE SPECIFIC REQUIREMENTS ARE NOT PROVIDED, SPECIAL INSPECTION REQUIREMENTS SHALL BE SPECIFIED BY THE REGISTERED DESIGN PROFESSIONAL AND SHALL BE APPROVED BY THE BUILDING OFFICIAL PRIOR TO THE COMMENCEMENT OF THE WORK.

REQUIRED SPECIAL INSPECTIONS AND TESTS OF SOILS TABLE 1705.6					
TASK	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION			
1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	-	Х			
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	-	X			
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	-	X			
4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	x	-			
5. PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	-	X			

GENERAL NOTES:

1. VISITS TO THE JOB SITE BY REPRESENTATIVES OF THE ENGINEER DO NOT SUBSTITUTE APPROVAL OF THE WORK PERFORMED BY THE CONTRACTOR OR HIS SUBCONTRACTORS AND ARE MERELY FOR THE PURPOSE OF OBSERVING THE WORK PERFORMED.

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- 2. CONTRACTOR SHALL NOTIFY ENGINEER/ARCHITECT OF ANY DISCREPANCIES, OMISSIONS OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND/OR SPECIFICATIONS BEFORE PROCEEDING WITH ANY WORK INVOLVED. IN ALL CASES, UNLESS OTHERWISE DIRECTED, THE MOST STRINGENT REQUIREMENTS SHALL GOVERN AND BE PERFORMED.
- 3. CONTRACTOR SHALL VERIFY ALL CONDITIONS. DIMENSIONS AND ELEVATIONS, ETC., AT THE SITE AND SHALL COORDINATE WORK PERFORMED BY ALL TRADES. SEE ARCHITECT'S PLANS FOR DIMENSIONS. DO NOT SCALE
- DRAWINGS 4. SHOP DRAWINGS SHALL BE REVIEWED BY THE ENGINEER/ARCHITECT PRIOR TO FABRICATION OR ERECTION FOR ANY PREFABRICATED OR MANUFACTURER-DESIGNED COMPONENTS AND SHALL BE STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THIS
- STRUCTURE RESIDES. 5. SIZES, LOCATIONS, LOADS, AND ANCHORAGES OF EQUIPMENT SHALL BE VERIFIED IN THE FIELD WITH EQUIPMENT MANUFACTURERS (SUPPLIERS)
- PRIOR TO FABRICATION OR INSTALLATION OF SUPPORTING STRUCTURES. 6. TEMPORARY BRACING SHALL BE PROVIDED WHEREVER NECESSARY TO TAKE CARE OF ALL LOADS TO WHICH THE STRUCTURE MAY BE SUBJECTED, INCLUDING WIND. SUCH BRACING SHALL BE LEFT IN PLACE AS LONG AS MAY
- BE REQUIRED FOR SAFETY, OR UNTIL ALL THE STRUCTURAL ELEMENTS ARE INSTALLED. 7. DURING AND AFTER CONSTRUCTION THE CONTRACTOR AND/OR OWNER SHALL KEEP LOADS ON THE STRUCTURE WITHIN THE LIMITS OF THE DESIGN
- LOAD 8. CONTRACTOR AND ALL SUBCONTRACTORS SHALL PERFORM THEIR TRADES AND DUTIES IN A MANNER CONFORMING TO THE PROCEDURES AND REQUIREMENTS AS STATED IN THE 2021 INTERNATIONAL BUILDING CODE, (OR LATEST ACCEPTED CODE ADOPTED BY THE LOCAL BUILDING OFFICIALS).
- 9. ANY SPECIAL INSPECTIONS REQUIRED BY THE BUILDING OFFICIAL OR THE INTERNATIONAL BUILDING CODE ARE THE RESPONSIBILITY OF THE OWNER. 10. CONTRACTOR SHALL BE RESPONSIBLE FOR SAFETY AND PROTECTION
- WITHIN AND ADJACENT TO THE JOB SITE.
- FOOTINGS. FOUNDATIONS AND SLAB ON GRADE NOTES: 1. ALL FOOTING SIZES ARE BASED ON AN ALLOWABLE SOIL BEARING PRESSURE AS SHOWN IN THE DESIGN CRITERIA. ANY SOIL CONDITION ENCOUNTERED DURING EXCAVATION THAT IS CONTRARY TO THOSE USED FOR DESIGN OF FOOTINGS AS OUTLINED IN WORKING DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER BEFORE PROCEEDING.
- 2. SOIL PREPARATION UNDER FOOTINGS AND SLABS ON GRADE SHALL BE IN ACCORDANCE WITH THE SOILS REPORT. FOR PROJECTS WITHOUT A SOILS REPORT CONTRACTOR/OWNER IS TO VERIFY ADEQUATE SOIL CONDITIONS ARE PROVIDED.
- 3. ALL FOOTINGS SHALL BEAR ON UNDISTURBED NATIVE SOIL OR ENGINEERED GRANULAR FILL COMPACTED TO 95% OF MAX. DENSITY, BASED ON ASTM D 1557 METHOD OF COMPACTION. FILL SHALL BE PLACED IN LAYERS NOT TO EXCEED SIX INCHES IN DEPTH AFTER COMPACTION AND SHALL EXTEND DOWN TO IN-SITU SOILS. FILL SHALL BE COMPACTED UNDER ALL CONCRETE WORK ON THE SITE.
- 4. NO FOOTINGS SHALL BE PLACED IN WATER, SNOW, FROZEN GROUND, OR UNSTABLE SOILS.
- 5. ALL EXCAVATIONS ADJACENT TO AND BELOW FOOTING ELEVATION FOR OTHER TRADES SHALL BE ACCOMPLISHED PRIOR TO POURING ANY FOOTINGS.
- 6. CONTRACTOR SHALL BE RESPONSIBLE FOR LATERALLY SUPPORTING ALL RETAINING TYPE FOUNDATION WALLS WHILE COMPACTING BEHIND WALLS AND UNTIL ALL SUPPORTING MEMBERS HAVE BEEN PLACED (SUCH AS FLOOR).
- 7. ALL REINFORCEMENTS SHALL BE SECURELY TIED IN PLACE PRIOR TO POURING CONCRETE.
- 8. PROVIDE DOWELS IN FOOTING AND FOUNDATIONS TO MATCH ALL VERTICAL BARS IN WALLS AND COLUMNS ABOVE, UNLESS NOTED OTHERWISE.
- 9. PROVIDE CONTROL JOINTS IN SLABS AT A MAX. OF 15 FT. O.C. EACH WAY AND AS SHOWN ON PLANS. AT EXTERIOR SLABS AND GARAGE FLOORS POUR SLABS BETWEEN CONTROL JOINTS SO THAT ADJACENT POURS ARE STAGGERED AT LEAST TWO DAYS APART.
- 10. ALL EXTERIOR FOOTINGS MUST BEAR AT OR BELOW FROST DEPTH, MEASURED FROM LOWEST ADJACENT FINAL GRADE.
- 11. UNLESS NOTED OTHERWISE, ALL FOOTINGS AT COLUMNS TO BE CENTERED BELOW COLUMNS. 12. UNLESS NOTED OTHERWISE. ALL FOOTINGS SHALL HAVE VERTICAL FACES
- FORMED WITH STANDARD FORMING MATERIALS (WOOD, METAL, ETC.). WITH PRIOR APPROVAL OF ARCHITECT AND ENGINEER, CONCRETE FOR FOOTINGS CAN BE PLACED IN EXCAVATED "SOIL" FORMS PROVIDED THAT THE DIMENSIONS ARE INCREASED 3" ON EACH SIDE.
- 13. SLABS ON GRADE SHALL BE 4 INCHES THICK CONCRETE UNDERLAIN BY FREE DRAINING MATERIAL.

CONCRETE NOTES:

- 1. ALL COLUMNS, RETAINING WALLS AND ALL EXTERIOR FLATWORK, CURBS, GUTTERS, ETC., SHALL BE NORMAL WEIGHT CONCRETE WITH A COMPRESSIVE STRENGTH EQUAL TO AT LEAST 4,000 LBS. PER SQUARE INCH WITHIN 28 DAYS AFTER POURING.
- 2. ALL SUSPENDED SLABS AND BEAMS SHALL BE NORMAL WEIGHT CONCRETE WITH A COMPRESSIVE STRENGTH EQUAL TO AT LEAST 4,500 LBS. PER
- SQUARE INCH WITHIN 28 DAYS AFTER POURING 3. ALL FOOTINGS, FOUNDATIONS, INTERIOR SLABS ON GRADE, AND SUSPENDED SLABS ON DECK SHALL BE NORMAL WEIGHT CONCRETE WITH A COMPRESSIVE STRENGTH EQUAL TO A LEAST 3,000 LBS. PER SQUARE INCH
- WITHIN 28 DAYS AFTER POURING. 4. UNLESS OTHERWISE NOTED, ALL FOUNDATION WALL VERTICAL COLD JOINTS SHALL BE KEYED WITH A KEY 1-1/2" DEEP, A LENGTH 2" LESS THAN THE MEMBER, AND A WIDTH 1/2 OF THE MEMBER. REINFORCING SHALL BE CONTINUOUS THRU JOINT.
- 5. ALL OPENINGS IN CONCRETE WALLS SHALL BE REINFORCED WITH (2) #5 BARS EXTENDING 2'-0" MIN. BEYOND THE EDGE OF THE OPENING AT EACH FACE OF OPENING.
- 6. ALL CONCRETE WORK SHALL BE PLACED, CURED, STRIPPED, AND PROTECTED AS DIRECTED BY THE SPECIFICATIONS AND ACI STANDARDS AND PRACTICES.
- 7. BEFORE CONCRETE IS POURED CHECK WITH ALL TRADES TO INSURE PROPER PLACEMENT OF ALL OPENINGS, SLEEVES, CURBS, CONDUITS, BOLTS, INSERTS, ETC. RELATIVE TO WORK.
- 8. CONTRACTOR IS RESPONSIBLE FOR ALL SHORING AND FORMWORK. REFER TO ARCHITECTURAL DRAWINGS FOR MOLDS, GROOVES, ORNAMENT, CLIPS OR GROUNDS, REQUIRED TO BE ENCASED IN CONCRETE AND FLOOR LOCATION OF FLOOR FINISHES AND SLAB DEPRESSIONS.
- 10.FOR STEPS IN FOUNDATION GREATER THAN 2 FEET, WRAP CORNER W/(2) #4 BARS EXTENDING 18" EACH DIRECTION. 11. STRUCTURAL CONCRETE HAS BEEN DESIGNED AT 2.500 LBS. PER SQUARE
- INCH AND SPECIFIED AT A HIGHER STRENGTH CONCRETE AS STATED ABOVE. NO SPECIAL INSPECTIONS ARE REQUIRED PER IBC SECTION 1705.3.

REINFORCING STEEL NOTES:

- 1. ALL REINFORCING BARS SHALL CONFORM TO ASTM STANDARD A-615 GRADE 60. ALL WELDED WIRE FABRIC SHALL CONFORM TO ASTM STANDARD A-185, SHALL BE SUPPLIED IN FLAT SHEETS AND SHALL HAVE A MIN. SIDE LAP OF 8 INCHES. ADEQUATELY TIE AND SUPPORT ALL REINFORCING STEEL AS SPECIFIED BY ACI 315 TO MAINTAIN EXACT REQUIRED POSITION. ALL FIELD BENT DOWELS SHALL BE GRADE 40 WITH SPACING INDICATED REDUCED BY
- 2. REINFORCEMENT SHALL HAVE THE FOLLOWING CONCRETE COVERAGE: A. CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH B. EXPOSED TO EARTH OR WEATHER:
 - #6 & LARGER
- #5 & SMALLER
- C. NOT EXPOSED TO WEATHER OR EARTH: SLABS, WALLS, JOISTS, #11 & SMALLER
- BEAMS, COLUMNS: MAIN REINFORCING OR TIES
- D. SLAB ON GRADE: PLACE REINFORCING AT CENTER OF SLAB UNLESS INDICATED OTHERWISE.
- 3. EXCEPT WHERE NOTED, CONTINUOUS REINFORCEMENT SHALL BE SPLICED AT POINTS OF MIN. STRESS BY LAPPING 44 BAR DIAMETERS IN CONCRETE AND 50 BAR DIAMETERS IN MASONRY
- 4. ALL VERTICAL REINFORCING SHALL BE DOWELED TO FOOTINGS OR STRUCTURE BELOW WITH DOWELS TO MATCH. SPLICE LENGTHS SHALL COMPLY WITH NOTE 3. DOWELS INTO FOOTINGS SHALL TERMINATE WITH A STANDARD HOOK, AND SHALL EXTEND TO WITHIN 4" OF THE BOTTOM OF THE
- FOOTING, BUT NOT MORE THAN 20" INTO FOOTING. 5. DO NOT WELD REINFORCING EXCEPT AS NOTED ON PLANS. WHERE REINFORCING IS WELDED, USE ASTM A706 REINFORCING.

