

Common Plan SWPPP for Lot 17 Rivers Edge

3787 North Rivers Edge Road

Liberty, Utah 84310

Kim & Karin Chandler

659 East 250 South

Heber City UT, 84032

Cottle Homes

PO Box 1347

Bountiful, UT 84010

Date

April 18, 2018



1. Project Information

Project Name: Lot 17 Rivers Edge
Address: 3787 North Rivers Edge
City: Liberty **State:** UT **Zip:** 84310
Latitude: 41.32740829
Longitude: -111.8529403
UPDES Permit Tracking Number: UTRH85687

Owner: Kim & Karin Chandler
Contact Person: Eric Harper
Address: 659 East 250 South
City: Heber City **State:** UT **Zip:** 84032
Telephone Number: 801-836-4451
Email Address: eharper@cottlehomes.com

General Contractor: Cottle Homes
Contact Person: Sherry Fenn
Address: PO Box 1347
City: Bountiful **State:** UT **Zip:** 84010
Telephone Number: 8016172100
Email Address: sfenn@cottlehomes.com

1.5

Unknown Features (although this may be a law under another program, it's not a permit requirement). **Discovery of Historical, Archaeological or Paleontological Objects, Features, Sites, or Human Remains**

- A. Immediately suspend construction operations in the vicinity (100 foot minimum buffer) of the discovery.
- B. Verbally notify the Public Works Department and provide them the exact location.
- C. Protect the discovery and provide written confirmation of the discovery to the City and State Historic Departments within two calendar days.
- D. Contractor and City follow State mitigation laws.

2. Best Management Practices

2.1 SWPPP Sign(see permit part 1.10, 4.2.11)

Description of construction board is filed in Appendix L

2.2 Sensitive Features Control (see permit part 2.2)

2.2.x Wetlands

N/A – Not a wetland area

2.2.x Water Bodies within or 30' from Disturbance Boundary(see permit part 2.3.5)

N/A – No water bodies within or 30' from disturbance boundary

2.3 Sediment Control (see permit part 2.1.2, 2.1.3 & 2.3)

2.3.x Trap/Filter Sediment at Property Boundary(see permit part 2.1.2)

Cut back of curb to act as sediment catch basin

2.4.x Inlet Protection(see permit part 2.1.3 & 2.3)

Cover storm water inlet on east side of property

2.4.x Steep Slopes (see permit part 2.3.2)

Not applicable

2.4.x Street Maintenance(see permit part 3.2.2)

Machine or manual sweeping will be performed if excessive track out or discharge has occurred

2.4 Top Soil Preservation(see permit part 2.5)

Reuse topsoil

2.5 Dust Control(see permit part)

2.5.x

Water truck to be called in if fugitive dust becomes a problem

2.6 Egress Control(see permit part 2.4)

2.6.x Track Out(see permit part 2.4.1)

During wet conditions contractors will be required to manually clean tires before leaving site and using city streets

2.7 Waste Management Control(see permit part 4.2.6)

2.7.x Solid Waste(see permit part 2.4.3)

All trash and waste will be placed into a dumpster or equivalent receptacle

2.7.x Construction Spoil(see permit part 2.1.1)

All construction spoil will be addressed and hauled off with the offending party

2.7.x Sanitary Waste(see permit part 2.4.4)

The site will be furnished at all times with a portable toilet unit that is staked to the ground to prevent tip over or spill hazards

2.7.x Cement Product Operations(see permit part 2.4.5, 2.9.2)

A plastic line depression will be cut into the lot to allow for concrete wash out and disposal. At the end of the permit the washout will be cleaned and hauled off

2.7.x Concrete Cutting Operations(see permit part 2.9.2)

All concrete cutting will be conducted with a vacuum system to capture fugitive dust

2.7.x Non Aqueous Waste(see permit part 2.8.2)

All contractors will be required to haul off their own non-aqueous waste

2.7.x Construction Wastewater(see permit part 2.7, 2.9, 2.9.4)

If the need arises to pump construction waste water, a retention area will be dug on site to prevent waste water from leaving the property.

2.8 Management of Construction Materials Control

2.8.x Storage of Construction Materials(see permit part 2.8.2)

Construction materials will be stored in a non-permeable portable construction materials container

2.8.x Construction Staging(backfill)(see permit part 2.1.1)

All construction materials will be stage far enough away from property lines or streets to ensure that no material leaves the site. If the occasion arises that it has to be stored closer a silt fence will be implemented to ensure that material stays on site

2.8.x Construction Staging(Landscaping)(see permit part 2.1.1)

Not applicable – no landscaping will be performed

2.9 Final Stabilization(see permit part 2.6)

2.9.x Landscaping Plan

Final landscaping plan will allow for natural vegetation and ground covering to regrow and stabilize disturbed areas

2.9.x Temporary Containment of Sediment

Silt fence and watering will be implemented if the need arises until the 70% vegetation covering is achieved

3. Spill Prevention and Response Plan (see permit part 2.8.3, 2.9.3)

Description of Spill control Plan, details and policy are filed in Appendix L.

Any discharges in 24 hours equal to or in excess of the reportable quantities listed in 40 CFR 117, 40 CFR 110, and 40 CFR 302 will be reported to the National Response Center and the Division of Water Quality (DWQ) as soon as practical after knowledge of the spill is known to the permittee. The permittee shall submit within 14 calendar days of knowledge of the release a written description of: the release (including the type and estimate of the amount of material released), the date that such release occurred, the circumstances leading to the release, and measures taken and/or planned to be taken to the Division of Water Quality (DWQ), 288 North 1460 West, P.O. Box 144870, Salt Lake City, Utah 84114-4870. The Storm Water Pollution Prevention Plan must be modified within 14 calendar days of knowledge of the release to provide a description of the release, the circumstances leading to the release, and the date of the release. In addition, the plan must be reviewed to identify measures to prevent the reoccurrence of such releases and to respond to such releases, and the plan must be modified where appropriate.

Agency	Phone Number
National Response Center	(800) 424-8802
Division of Water Quality (DWQ) 24-Hr Reporting	(801) 538-6146; (801) 536-4123
Utah Department of Health Emergency Response	(801) 580-6681
UFA	911

Minimum spill quantities requiring reporting:

Material	Media Released To	Reportable Quantity
Engine oil, fuel, hydraulic & brake fluid	Land	25 gallons
Paints, solvents, thinners	Land	100 lbs (13 gallons)
Engine oil, fuel, hydraulic & brake fluid	Water	Visible Sheen
Refrigerant	Air	1 lb
Antifreeze, battery acid, gasoline, engine degreasers	Air, Land, Water	100 lbs (13 gallons)

Emphasis to:

- 1st Priority: Protect all people (including onsite staff)
- 2nd Priority: Protect equipment and property
- 3rd Priority: Protect the environment

1. Make sure the spill area is safe to enter and that it does not pose an immediate threat to health or safety of any person.
2. Check for hazards (flammable material, noxious fumes, cause of spill) – if flammable liquid, turn off engines and nearby electrical equipment. If serious hazards are present leave area and call 911. LARGE SPILLS ARE LIKELY TO PRESENT A HAZARD.

3. Stop the spill source and contain flowing spills immediately with spill kits, dirt or other material that will achieve containment.
4. Call co-workers and supervisor for assistance and to make them aware of the spill and potential dangers
5. If spilled material has entered a storm sewer, regardless of containment; contact the Municipal Storm Water Division.
6. Cleanup all spills (flowing or non-flowing) immediately following containment. Clean up spilled material according to manufacturer specifications, for liquid spills use absorbent materials AND DO NOT FLUSH AREA WITH WATER.
7. Properly dispose of cleaning materials and used absorbent material according to manufacturer specifications.
8. Report the reportable quantity to the Municipal Storm Water Division.

Emergency Numbers

Utah Hazmat Response Officer 24 hrs	(801)-538-3745
City Police Department	(801)-778-6602
Municipal Storm Water Division	(801)-745-1792

4. Site Map(s) *(see permit part 4.2.3)*

The SWPPP site maps are filed in Appendix B

5. Record Keeping

See the appendices in Appendix A-K.

SWPPP Inspections-Maintenance-Correction Report (permit part 3.2.1, 3.2.2, 3.3, 3.4, 4.2.12)

Inspections are required every 7 calendar days

Repair or replace BMPs prior to need or by end of week whichever comes first. Update the Inspection-Maintenance-Correction Report weekly.

Section 3.2.2 requires daily maintenance of pavements and site grounds.

See the Inspection-Maintenance-Correction Reports in Appendix E

Changes to the SWPPP(see permit part 4.2.12, 4.2.13)

See the Amendment Log in Appendix F.

Training(see permit part 4.2.7)

Training Logs and Documents are filed in Appendix H.

6. Discharge Information

Receiving Waters (look up <http://wq.deq.utah.gov> to identify your receiving water body)

1. [Pineview Reservoir](#)

Impaired Waters (refer to <http://wq.deq.utah.gov> in the left hand column to determine status of receiving water body).

Impaired Surface Water	Is this surface water impaired?	Pollutant(s) causing the impairment	Has a TMDL been completed?	Pollutant(s) for which there is a TMDL
Water Body Name	<input type="checkbox"/> Yes <input type="checkbox"/> No	See web site above	<input type="checkbox"/> Yes <input type="checkbox"/> No	See web site above

Copy the table above and repeat where there is more than one water body.

7. Certification, Notification and Delegation(see permit part 4.2.9)

Owner Certification: See documents filed in Appendix G.

Operator Certification: See documents filed in Appendix G.

Delegation of Authority:

Subcontractor Certification:

Notice of Permit Transfer Requirements:

SWPPP Appendices

Appendix A: General Location Map

Appendix B: SWPPP Site Maps

Appendix C: UPDES Permit(UTRH00000)

Appendix D: Permits; NOI, MS4 (Including City, County, State, 3rd Party; MS4 Acknowledgements)

Appendix E: Inspection-Maintenance-Correction Report

Appendix F: SWPPP Amendment Log

Appendix G: Certifications, Agreements, Delegation of Authority

Appendix H: Training Log

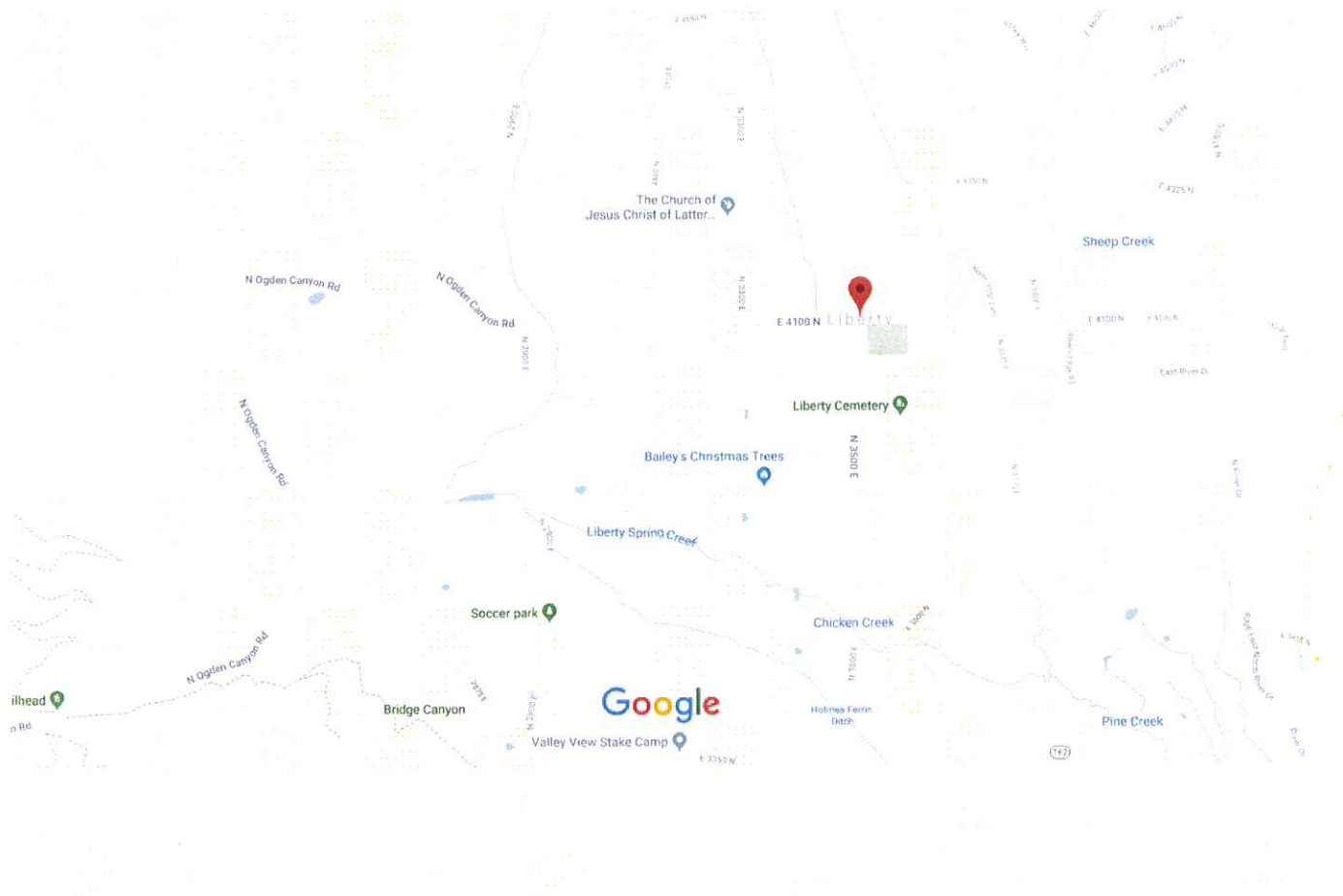
Appendix I: Construction Plans

Appendix J: Additional Information (e.g. Support documents and out of date SWPPP documents, etc.)

Appendix K: BMP Specifications and Details

Appendix A: General Location Map

Google Maps Liberty



Map data ©2018 Google 1000 ft

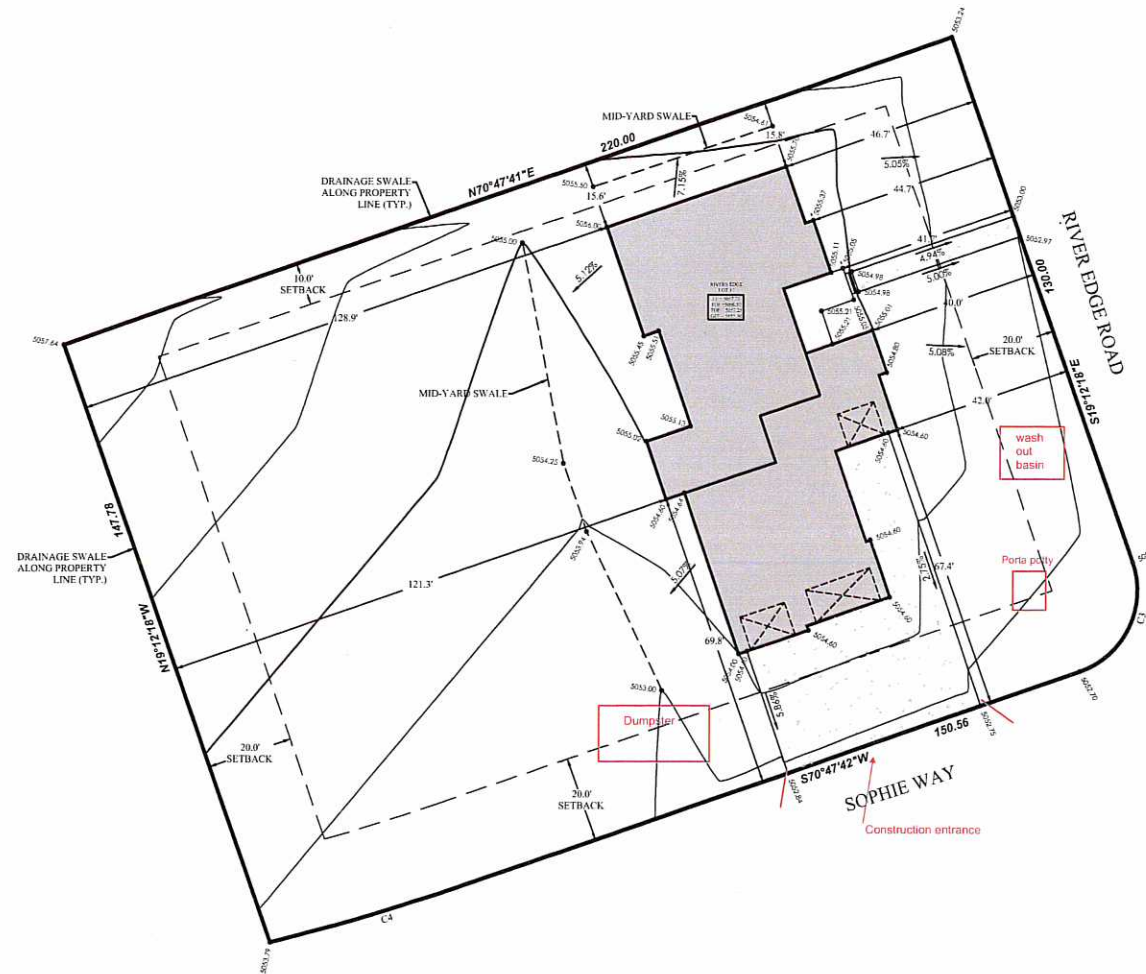
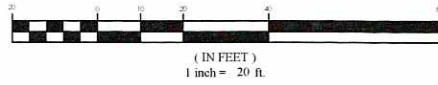


Liberty
Utah 84310

Appendix B: SWPPP Site Map



GRAPHIC SCALE



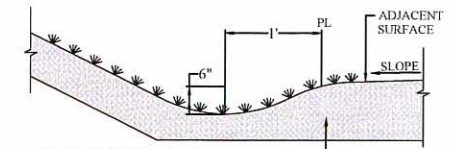
NOTES:

1. DRAINAGE SWALES SHALL BE INSTALLED ALONG THE SIDE AND REAR PROPERTY LINES AND SHALL REMAIN UNALTERED AND MAINTAINED BY THE PROPERTY OWNER. SWALES SHALL BE INSPECTED BY THE CITY PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
2. ALL WINDOW WELLS TO BE 6" BELOW TOP OF FOUNDATION AND A MINIMUM OF 3" ABOVE FINISHED GRADE.
3. ALL CONSTRUCTION TO BE DONE ACCORDING TO CITY STANDARDS AND SPECIFICATIONS.
4. CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
5. THE GRADE AWAY FROM FOUNDATION WALLS SHALL FALL A MINIMUM OF 6 INCHES WITHIN THE FIRST 10 FEET (5.0%) R401.3
6. ROOF DRAINAGE TO BE CONVEYED (AS MUCH AS POSSIBLE) TO THE FRONT OF THE HOUSE AND TO THE STREET.
7. PROVIDE LANDINGS ON BOTH SIDES OF ALL EXTERIOR DOORS. LANDINGS MUST BE 36" DEEP (MIN.) R311.6.2
8. A TRASH DUMPSTER AND PORTABLE CONSTRUCTION TOILET SHALL BE PROVIDED AT ALL NEW CONSTRUCTION SITES.
9. ANY WORK IN THE PUBLIC WAY SHALL CONFORM TO APWA 2012 STANDARD PLANS AND SPECIFICATIONS.
10. IT IS NOT ANTICIPATED THAT ANY CONSTRUCTION IN THE PUBLIC WAY WILL BE REQUIRED FOR THE PROJECT.
11. NOTIFY BLUE STAKES (801) 208-2100 OR BLUESTAKES.ORG

LEGEND:

- FF = FINISHED FLOOR
- TOP = TOP OF FOUNDATION
- TOP = TOP OF PORCH
- GF = GARAGE FLOOR
- BFF = BASEMENT FINISHED FLOOR

Curve Table						
CURVE	LENGTH	RADIUS	DELTA	TANGENT	CHORD DIRECTION	CHORD LENGTH
C3	31.42'	23.00'	90°00'00"	30.00'	S25°47'42"W	26.28'
C4	49.51'	551.91'	5°08'22"	24.77'	S73°21'53"W	49.49'



NOTE: DRAINAGE SWALES TO BE CREATED ALONG LOT LINES TO PREVENT STORM RUN-OFF FROM IMPACTING ADJACENT PROPERTIES.

DRAINAGE SWALE DETAIL
NTS



RIVERS EDGE, LOT 17
LIBERTY, UTAH
SITE PLAN

REVISION BLOCK	
#	DESCRIPTION
1	
2	
3	
4	
5	
6	

SITE PLAN

Scale: 1"=20' Drawn: TS
Date: 03/05/2018 Job #: 18-033
Sheet: **SP-1**



21_201818_18-033 Rivers Edge 17.dwg 18-033.dwg 18-033 Rivers Edge 17.dwg

Appendix C. UPDES Permit (UTRH00000)

General Permit for Storm Water Discharges from Construction Activities

STATE OF UTAH, DEPARTMENT OF ENVIRONMENTAL QUALITY,
DIVISION OF WATER QUALITY

General Storm Water Permit for Construction Activity
Connected with Single Lot Housing Projects
Utah Pollution Discharge Elimination System Permit No. UTRH00000
(Common Plan Permit)

This Permit is issued in compliance with the provisions of the Utah Water Quality Act (Utah Code Annotated 19-5, as amended) the federal Water Pollution Control Act (33 United States 1251 et. seq., as amended by the Water Quality Act of 1987, Public Law 100-4), and the rules and Regulations made pursuant to those statutes.

This permit applies to "construction activity" for a single lot disturbing a total of one acre or less and for construction activities related to residential dwellings. A single lot covered by this permit is part of a common plan of development or sale (see definitions in Part 6).

Issuance of this permit does not authorize any permittee to violate water quality standards. The permittee shall develop best management practices (BMPs) and engage in activities that will protect water quality during the construction project.

This permit shall become effective on February 1, 2016.

This permit and the authorization to discharge expire at midnight on January 31, 2021.

Signed this 20 day of January, 2016



Walter L. Baker, P.E.

Director



DWQ-2016-002081

JS

TABLE OF CONTENTS

1. COVERAGE UNDER THIS PERMIT..... 1

 1.1. Coverage Limitations..... 1

 1.2. Discharges Allowed..... 1

 1.3. Non-Storm Water Discharges..... 1

 1.4. How to Obtain Permit Coverage..... 1

 1.5. Signature on the NOI..... 2

 1.6. Permit Renewal..... 2

 1.7. Start and end of Permit Coverage..... 2

 1.8. Notice of Termination..... 3

 1.9. Water Quality..... 3

 1.10. Requirement to Post a Notice of Permit Coverage..... 3

2. POLLUTION PREVENTION REQUIREMENTS..... 4

 2.1. Structural Controls..... 4

 2.2. Protection of Critical or Sensitive Areas..... 4

 2.3. Managing the Site to Minimize Sediment Transport Off Site..... 4

 2.4. Good Housekeeping Measures..... 5

 2.5. Soil Compaction/Top Soil..... 6

 2.6. Stabilization Requirement..... 6

 2.7. Construction Dewatering..... 7

 2.8. Pollution Prevention Measures..... 7

 2.9. Prohibited Discharges..... 7

3. SELF-INSPECTION REQUIREMENTS..... 9

 3.1. Inspector Qualifications..... 9

 3.2. Self-Inspections..... 9

 3.3. Weekly Self-Inspection Requirements..... 9

 3.4. Weekly Inspection Reports..... 10

 3.5. Corrective Action..... 10

4. STORM WATER POLLUTION PREVENTION PLAN (SWPPP)..... 11

General Storm Water Permit for Construction Activity Connected with Single Lot Housing Projects
UPDES Permit No. UTRH00000

4.1. <u>SWPPP Requirement</u>	11
4.2. <u>Contents of a SWPPP</u>	11
5. STANDARD PERMIT CONDITIONS.....	14
5.1. <u>Duty to Comply</u>	14
5.2. <u>Duty to Reapply</u>	14
5.3. <u>Need to Halt or Reduce Activity not a Defense</u>	14
5.4. <u>Duty to Mitigate</u>	14
5.5. <u>Duty to Provide Information</u>	14
5.6. <u>Other Information</u>	14
5.7. <u>Oil and Hazardous Substance Liability</u>	15
5.8. <u>Property Rights</u>	15
5.9. <u>Severability</u>	15
5.10. <u>Record Retention</u>	15
5.11. <u>Addresses</u>	15
5.12. <u>State Laws</u>	15
5.13. <u>Proper Operation and Maintenance</u>	15
5.14. <u>Inspection and Entry</u>	15
5.15. <u>Reopener Clause</u>	16
5.16. <u>Signatory Requirements</u>	16
6. DEFINITIONS	18

1. COVERAGE UNDER THIS PERMIT. Conditions for coverage under this permit.
 - 1.1. Coverage Limitations. A project site (see definition of a project site in Part 6) is eligible for this permit if it meets the following requirements:
 - 1.1.1. It is found within the State of Utah but is not in Indian Country,
 - 1.1.2. The construction activity is related to residential building on an individual lot or parcel.
 - 1.1.3. It disturbs a total of one acre or less over the duration of the construction project,
 - 1.1.4. *Multiple site coverage:*
 - 1.1.4.a. This permit may apply to multiple lots with the contingency that each lot be covered under a different permit tracking number (separate permit coverage for each lot). Lots do not necessarily need to be located within the same sub-division.
 - 1.1.4.b. If multiple lot coverage is desired under one permit, it may be obtained under the General Permit for Discharges from UPDES Permit No. UTRC00000. Multiple lots may be covered under one tracking number (one permit coverage) provided that UTRC00000 is the controlling permit, and all lots covered under that tracking number are within the same sub-division.
 - 1.2. Discharges Allowed. This permit allows discharges of storm water from construction activity at a project site, provided the storm water discharge meets the requirements within this permit.
 - 1.3. Non-Storm Water Discharges. Other non-storm water discharges that are allowed are:
 - 1.3.1. Flushings from potable or irrigation water sources where they have not been used for a washing or cleaning activity;
 - 1.3.2. Water used for dust control;
 - 1.3.3. Spring water and groundwater that have not been soiled with sediment or other pollutants from construction activity;
 - 1.3.4. Emergency fire-fighting activities, and;
 - 1.3.5. Footing drains that have not been soiled from construction activity.
 - 1.4. How to Obtain Permit Coverage. The permit may be obtained online at the Utah Department of Environmental Quality (DEQ) UPDES Permits website at <http://www.waterquality.utah.gov/UPDES/stormwatercon.htm>. Click on "Application for a Storm Water Permit". Create an account, or if an account has already been created, proceed with providing the information requested. **The notice of intent (NOI) for this permit is the same NOI that is used for the UTRC00000 permit.** To complete the application process the permittee must pay a permit fee. The NOI may be filled out electronically using the online permit application system. The NOI can also be submitted using a paper form obtained from the same website cited above along with the permit fee. The paper form and fee can either be hand delivered to Utah Division of Water Quality [DWQ], 195 North 1950 West, Salt Lake City, Utah, 3rd floor in the MASOB building, or mailed to DWQ, P.O. Box 144870, Salt Lake City, Utah 84114-4870. When a party receives coverage under the permit, they will receive a permit

General Storm Water Permit for Construction Activity Connected with Single Lot Housing Projects
UPDES Permit No. UTRH00000

tracking number and the opportunity to copy the NOI for “proof of coverage.” A copy of this permit may be downloaded from the DEQ website at <http://www.deq.utah.gov/Permits/water/updes/stormwatercon.htm>.

- 1.5. Signature on the NOI. The owner and the general contractor, which in some cases could be the same party, must sign the paper copy of the NOI (see 5.16.1.a) and place it in the storm water pollution prevention plan (SWPPP) (see 4.2.8).
- 1.6. Permit Renewal. This permit must be renewed yearly on the anniversary date of the original permit application. This is done by logging onto the account created at the time of NOI application, refreshing the information on the NOI, and paying the yearly permit fee.
- 1.7. Start and end of Permit Coverage. Permit coverage begins immediately upon completion and submission of an NOI and the permit fee. If the NOI is submitted electronically on-line permit coverage begins on that day. If the NOI is submitted by mail permit coverage begins when the NOI is received and entered into the on-line data base by DWQ staff. For projects within the jurisdiction of a regulated MS4 (see definitions in Part 6; the list of regulated MS4’s is found on <http://www.deq.utah.gov/Permits/water/updes/stormwatermun.htm>), the permittee must also notify and receive approval for the project from the regulated MS4 having jurisdiction before the project may commence (see 4.2.10.). The permit fee is an annual fee that must be paid yearly on the anniversary date of permit issuance. The permit will remain effective until or unless any of the following occurs:
 - 1.7.1. The permittee completes the notice of termination (NOT) process, as outlined in section 1.8,
 - 1.7.2. The permittee fails to submit the yearly permit fee,
 - 1.7.3. Aside from permit coverage, which may be renewed annually by the permittee, as needed, this general permit expires every 5 years and normally is renewed through a public notice process by DWQ. In the event that the permit nears the end of its 5 year cycle, and the year of permit coverage for a construction site extends beyond the expiration date for the permit, the permittee must request continuing coverage through the permit renewal process. Otherwise permit coverage for a construction site will terminate when the general permit expires. Renewal of permit coverage can be done in the online electronic storm water data base up to 12 months prior to the expiration of the permit, or by letter received by DWQ before the expiration date of the specific permit coverage in question where concurrently all entries in the NOI can be updated as needed.
 - 1.7.3.a. If a renewal permit has been issued and is in place at the expiration date of this permit, this permit will terminate and coverage under the renewed permit will begin on the expiration date unless 1.7.1 has been invoked by the permittee.
 - 1.7.3.b. If a renewal permit has not been issued, this permit will be administratively extended until a renewal permit is issued or it is determined that this permit will not be continued. If a renewal permit is issued, and the permittee indicated a desire for continuing coverage under the new permit, coverage

will continue for the permittee under the new permit coverage unless 1.7.1 is invoked. If the permit is discontinued, the permittee must continue coverage under another general permit or an individual permit.

- 1.7.4. Coverage under this permit is rescinded or revoked for administrative reasons. In this case, the permittee will be notified in writing from the Director and will be required to apply for coverage under a different general or individual UPDES permit. This permit is terminated on the day coverage under another permit begins.
- 1.8. Notice of Termination. The permittee must terminate the permit by submitting an NOT when the project is completed. The NOT must be filed and retained for 3 years after the permit has been terminated (see 3.7). To terminate the permit, the permittee must comply with either 1.8.1 or 1.8.2, outlined below, and must comply with 1.8.3 if the project is within the jurisdiction of a regulated MS4 (see <http://www.deq.utah.gov/Permits/water/updes/stormwatermun.htm> for regulated MS4s):
- 1.8.1. The landscaping is completed and the site meets "final stabilization" requirements (see part 6, definitions, for final stabilization).
- 1.8.2. When a project (residential building) is completed but 'final stabilization' is not established, the building must be in process of being sold and ready for homeowners to take possession. If built by the homeowners, they must be in the process of moving in or already have moved in the house. The lot must have perimeter controls on downslope boundaries and surface stabilization controls on all surfaces that are 20 % (1 to 5 slope, or 11.3 deerees) or greater to prevent erosion and soil migration offsite;
- 1.8.3. The permittee must submit a paper copy of a NOT form to the MS4 of jurisdiction and schedule a final inspection (with the MS4). Termination is complete upon approval of the final inspection from the local MS4, or from DWQ if outside the jurisdiction of a regulated MS4.
- 1.9. Water Quality: Through the design of appropriate BMPs, it is expected that the permittee will achieve compliance with water-quality standards. If additional information becomes available indicating a project site is causing or is contributing to a violation of water quality standards or an existing total maximum daily load (TMDL), coverage under this permit may be revoked or rescinded, and the permittee may be required to get coverage under an individual UPDES permit or another UPDES general permit. If this occurs, the owner and the general contractor will be notified in writing by the Director and given instructions on how they must proceed.
- 1.10. Requirement to Post a Notice of Permit Coverage. The permittee must post a sign at the project site that includes the UPDES Permit tracking number, owner or general contractor contact name, a phone number for the owner or general contractor, an email address for the owner or general contractor, and in the case of an electronic SWPPP, a web address or information on how to access the electronic SWPPP. The notice must be posted with lettering large enough to be readable from a public right-of-way.

2. POLLUTION PREVENTION REQUIREMENTS

2.1. Structural Controls. Minimize sediment transport off the site as follows:

- 2.1.1. *Stockpiled Material*. Stockpiled material must not be stored on an impervious surface, except a material that will not be transported with precipitation, such as two-inch graded and washed gravel, unless it will be permanently placed and the holding area will be swept clean the same day it is dropped. If stored temporarily for more than a day, it must be placed as far as feasibly possible from roads or other impervious surfaces, storm water inlets, or water bodies, and with stockpile perimeter runoff controls utilized.
- 2.1.2. *Perimeter Controls*. Perimeter controls such as silt fences, straw wattles, other filter berms, cut back curbs, vegetative buffers, etc., must be properly placed on the downslope sides of the project to prevent sediment from leaving the site during a storm event. As perimeter controls become loaded to 1/3 of capacity, they must be cleaned.
- 2.1.3. *Inlet Protection*. Storm-drain inlets on the project site and on adjacent roads immediately down gradient from the site must be protected if they receive drainage from the active construction site. Protection may be, but is not limited to, rock wattles, sand bags, proprietary devices, or other. Rock wattles and sand bags are not advised for use in winter because they can be destroyed or removed by snow plows.

2.2. Protection of Critical or Sensitive Areas: Critical or sensitive areas such as preservation of the drip line around trees, wetlands, buffer zones by water bodies, etc., must be separated and isolated by clearly marking the areas with environmental fencing.

2.3. Managing the Site to Minimize Sediment Transport Offsite.

- 2.3.1. The total area of soil disturbance at any one time must be minimized by disturbing only the area necessary to complete that stage of construction in the construction process.
- 2.3.2. Soil disturbances on steep slopes must be minimized. For purposes of this permit a steep slope is 70% (or 1 to 1.66, or 35 degrees), or greater. This means avoiding a disturbance of soils on steep slopes or if disturbing the soil surface is necessary providing a robust surface stabilizing cover (such as geomats, environmental blankets, or other robust slope stabilizing control) to prevent erosion.
- 2.3.3. Storm water volume and velocity must be controlled to minimize soil erosion and sediment transport by methods such as allowing or not obstructing infiltration and using velocity-control devices to reduce energy in runoff flowing on slopes.
- 2.3.4. Storm water discharges leaving the site, including both peak flow rates and total storm water volume, must be controlled to minimize channel and stream-bank erosion and scour in the immediate vicinity of discharge points. This may be accomplished using experience, estimates, and good judgement; unless unusual or extraordinary site conditions present a potential for excessive erosion, hillside/impoundment collapse, environmental/safety hazards, or other site problems; for which a professional engineer must be consulted.

- 2.3.5. *Thirty-Foot Vegetative Buffer.* If a waterbody is adjacent to, within 30 feet from, or passing through the project boundaries, a 30-foot natural buffer between the waterbody and construction activity must be provided. If a 30-foot natural buffer cannot be provided, a substitute control measure equivalent to the 30-foot buffer must be provided, or the SWPPP must contain an explanation why neither is feasible. If it is not feasible to maintain a 30-foot natural buffer, as much natural buffer as is possible must be preserved and coupled with placement of additional erosion and sediment controls designed, implemented, and maintained to substitute and be equivalent to the 30-foot natural buffer.

The requirement for a natural buffer or substitute controls does not apply to any area outside of the project boundaries, but if a waterbody is within, for example, 20 feet from the project boundary, there must be 10 feet of natural vegetative buffer or substitute controls, or if within 25 feet from the project boundary, there must be 5 feet of natural vegetative buffer or substitute controls, and so forth.

- 2.3.5.a. Substitution for a natural buffer should be calculated with models such as USDA's RUSLE2 or WEPP, or by using SEDCAD, SEDIMOT, or other similar models. In lieu of using a model for calculation of a substitution buffer, the permittee shall deploy the following:

2.3.5.a.i. For every full 9 feet of natural buffer that is not provided on slopes up to 10 percent, one row of an effective perimeter control, such as a silt fence, staked straw wattle, proprietary or other filter berm, or other perimeter control, must be properly placed. For example, if only 15 feet of natural buffer can be provided, the permittee will substitute one row of a perimeter control in addition to the 15 feet of natural buffer to make up for the 15 feet of buffer that could not be preserved.

2.3.5.a.ii. In addition to the requirements above for substitutions in place of the 30-foot natural buffer, on slopes between 10 percent and 30 percent, five feet of surface stabilization must be placed down gradient of and between each perimeter control substituted. For slopes steeper than 30 percent, 6 feet of surface stabilization must be placed downgradient of and between each perimeter control substituted, such as mulch, hydromulch, wood chips, bark, compost, erosion mat, etc., but excluding tackifiers.

- 2.4. Good Housekeeping Measures. The permittee must address the following:

- 2.4.1. *Track Out.* Track-out pads (see definitions) and or rumble strips (see definitions) must be used to prevent dirt/mud tracked on streets as vehicles leave the site. If traffic onto and off the site is not frequent, a site operator may impose a blanket prohibition of vehicle traffic onto the site, allowing for the occasions to deliver and unload, but afterwards providing sweeping and/or cleaning of tracked out dirt (keep in mind that vehicles leaving a muddy site with no track out protection can track mud for several

- blocks – the operator is liable for all track out from the site except for a dirt stain after sweeping -- see note after 3.2.2.). Dirt or mud tracked out on the street must not be washed or hosed into a storm drain. Tracked out mud or dirt on the street must be swept and/or scraped up as needed every day (see 3.2.2).
- 2.4.2. *Curb Ramps*: This permit prohibits the intentional placement of dirt and/or mud on paved streets or sidewalks. Curb ramps may be crushed rock, wood or steel ramps, or another material that does not wash away with storm water.
- 2.4.3. *Waste and Debris*. The site must be cleaned of waste and debris daily (see daily self-inspection 3.2.2). Waste and debris must be contained and secured adequately to prevent scattering from wind until it is removed from the site and disposed of properly.
- 2.4.4. *Portable Toilet*. Portable toilets must be tied down, staked down, or secured using other measures to prevent turn over, and they must be placed away from a road gutter, storm water inlet, or waterbody.
- 2.4.5. *Washing of Concrete, Stucco, and Paint Equipment*. A plastic film-lined pit or sealed container must be provided for washout of equipment used for concrete, stucco, and water-based paint. After completion of concrete, stucco, and paint tasks, the permittee must dispose of the waste by drying and sending solids to a landfill. Oil-based paint cleanout must be done in containers, taken off-site, and disposed of separately.
- 2.5. Soil Compaction/Top Soil. Topsoil must be preserved and placed on areas to be landscaped or areas planned for receiving vegetative cover, unless infeasible. Soil compaction must be minimized on areas that will not be used for support of structural elements such as roads, parking areas, structures, etc., unless infeasible.
- 2.6. Stabilization Requirement. Stabilization requirements are as follows:
- 2.6.1. *Stabilization requirements for areas that receive 20 inches of rainfall annually or greater*: Stabilization of disturbed areas must, at a minimum, be initiated immediately whenever any clearing, grading, excavating or other earth disturbing activities have permanently ceased on any portion of the site or have temporarily ceased on any portion of the site for greater than 14 calendar days. Stabilization can be sodding, planting, application of mulch (wood chips, rock, gravel, bark, compost, cat tracking on straw, hydromulch, etc.), application of geotextiles or erosion blankets, application of a tackifier, seeding (including preparation for germination and growth), a combination of these methods, or other method.
- 2.6.2. *Stabilization or equivalent requirements for arid and semi-arid areas (areas receiving less than 20 inches of rainfall annually)*: Stabilization for visually flat areas is not required (roughly up to 5 percent, 1 to 20 slope, or 2.3 degrees slope). Areas with slopes up to roughly 20 percent (1 to 5 slope or 11.3 degrees) must have, at minimum, velocity-control devices in every area where storm water collects and flows, spaced close enough across the flow to stop erosion (see also 2.3.3). Soil surface stabilization such as sodding, planting, hydromulch, compost, bark, cat tracking on straw, gravel,

geotextiles, erosion blankets, or other stabilization methods is required on all other sloped areas, increasing the robust nature of stabilizing cover commensurately with increasingly steeper slopes.

- 2.6.3. *Permanent Stabilization for Arid areas.*
- 2.6.3.a. In addition to requirements above (see 2.6.2), permanent stabilization requires seeding on all areas that are not covered with permanent stabilization elements or structural elements such as building structure or pavement, or that are engineered or intended for structural purposes like graveled parking or dirt roads.
- 2.6.3.b. Disturbed areas on projects located outside of populated and developed areas and where no irrigation water is available and where future periodic landscaping maintenance is not planned must be reclaimed with a seed mix of plants indigenous to the area or tolerant to the local climatic conditions that does not include invasive species. Velocity-control devices may be permanent or temporary. If velocity-control devices are intended for temporary use, they must be biodegradable and designed durable enough to withstand extreme weather.
- 2.7. Construction Dewatering. Construction dewatering can occur onsite without an additional UPDES permit if it is infiltrated or contained onsite and is not discharged offsite. Otherwise, construction dewatering discharges must be permitted under the General Permit for Construction Dewatering and Hydrostatic Testing UPDES Permit UTG070000, which can be obtained online through submittal of an NOI at <https://secure.utah.gov/waterquality>.
- 2.8. Pollution Prevention Measures. The permittee must design, install, implement, and maintain effective pollution prevention measures to minimize the discharge of pollutants. At a minimum, such measures must address the following:
- 2.8.1. *Vehicle, Wheel, and Other Washing.* Minimize the discharge of pollutants from equipment and vehicle washing, wheel-wash water, and other wash waters. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge
- 2.8.2. *Exposure to Pollutants.* Minimize the exposure of building materials, building products, construction wastes, trash (see 2.4.3), landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste (see 2.4.4), and other materials present on the site to precipitation and to storm water. Minimization of exposure is not required in cases where the exposure to precipitation and to storm water will not result in a discharge of pollutants, or where exposure of a specific material or product poses little risk of storm water contamination (e.g., final products and materials intended for outdoor use).
- 2.8.3. *Leaks and Spills.* Minimize the discharge of pollutants from spills and leaks and implement chemical spill and leak prevention and response procedures.
- 2.9. Prohibited Discharges. The following discharges are prohibited:
- 2.9.1. Wastewater from washout or cutting of concrete (see 2.4.5),

General Storm Water Permit for Construction Activity Connected with Single Lot Housing Projects
UPDES Permit No. UTRH00000

- 2.9.2. Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds, and other construction materials (see 2.4.5),
- 2.9.3. Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance,
- 2.9.4. Soaps or solvents used in vehicle and equipment washing.

3. SELF-INSPECTION REQUIREMENTS.

- 3.1. Inspector Qualifications. Weekly inspections (see 3.2.1 below) must be done by a qualified person. A qualified person means a person knowledgeable in the principles and practices of erosion and sediment control that possesses the skills to:
 - 3.1.1. Assess conditions at the construction site that could impact storm water quality,
 - 3.1.2. Assess the effectiveness of a storm water control measure selected to control the quality of storm water discharges from the construction activity.
- 3.2. Self-Inspections.
 - 3.2.1. *Weekly Self Inspections:* Self-inspections must occur every 7 days. A written report is required (see 3.4).
 - 3.2.2. *Daily Site Check:* Each day of construction activity, the site must be inspected for dirt in the street and trash on the site. Streets must be swept clean (see note below), if soiled. Dirt must be removed off the street (not swept or washed into the storm drain system). Trash on the site must be picked up and disposed of into trash containers (see 2.4.3.) or disposed of off-site (e.g., municipal/private garbage collection service or construction waste landfill). Sub-contractors must be held responsible by the permit holder to perform these duties in accordance with this paragraph for the activities they are contracted to perform. A written report is not required, however the operator will keep a daily log (for the active construction days) listing the initials of the person doing the site check.

Note: Swept clean means sweeping and scraping. Scraping if there is dirt left behind that is crusted and that sweeping will not pick up. This does not mean removing the microscopic layer of dust or the minute amounts of dirt in the cracks and crevices of the surface left behind staining the pavement.

3.3. Weekly Self-Inspection Requirements.

- 3.3.1. *Areas to check include the following:*
 - 3.3.1.a. Areas that have been cleared, graded, or excavated that are not stabilized,
 - 3.3.1.b. All storm water control measures, including perimeter controls,
 - 3.3.1.c. Material piles, waste-disposal containers, sanitary facilities, loose trash, litter, washout areas, portable toilets, track out pad, egress points (if any), etc.,
 - 3.3.1.d. Storm water conveyances through the site, treatment areas, and drainages,
 - 3.3.1.e. All storm water discharge points, street gutters, storm water inlets,
 - 3.3.1.f. Areas that have been temporarily stabilized,
 - 3.3.1.g. Areas that have been permanently stabilized and are completed do not need further inspections.
- 3.3.2. *Items to check include the following:*
 - 3.3.2.a. All erosion and sediment controls and other pollution prevention controls

General Storm Water Permit for Construction Activity Connected with Single Lot Housing Projects
UPDES Permit No. UTRH00000

have been installed, are operational, and are working as intended to minimize pollutant discharges. Determine if any controls need to be replaced, repaired, or maintained.

3.3.2.b. Identify any locations where new or modified storm water controls are necessary.

3.3.2.c. Signs of visible erosion and sedimentation (i.e., sediment deposits) that have occurred and are attributable to discharges from your site,

3.4. Weekly Inspection Reports. The weekly self-inspection report must be written within 24 hours of inspection and must include:

3.4.1. The initials of the person doing the inspection,

3.4.2. The date of the inspection,

3.4.3. The weather during the inspection,

3.4.4. The problems that were found needing correction (as they pertain to 3.3.1 and 3.3.2 above),

3.4.5. The date when corrective action is completed,

3.4.6. All self-inspection reports must be filed with other permit records regarding the permit. Inspection reports must be available during an oversight inspection.

3.5. Corrective Action: Corrective action must be completed before the next weekly inspection.

3.6. Inspections by an Oversight Authority. A copy of an oversight inspection report must be filed and be available for review during other oversight inspections.

3.7. Record Keeping. Records regarding this permit, the NOI, the NOT, the SWPPP, inspection reports, other related information and documents must be preserved for 3 years after the submission of the NOT (see 5.10).

4. STORM WATER POLLUTION PREVENTION PLAN (SWPPP).

- 4.1. SWPPP Requirement. The permittee must prepare a SWPPP before the NOI for the project is submitted. The SWPPP must address all the applicable requirements in Part 2.
- 4.1.1. *SWPPP Site Design*. The design, installation, and maintenance of erosion and sediment controls must address factors such as the amount, frequency, intensity and duration of precipitation; the nature of resulting storm water runoff; and soil characteristics, including the range of soil particle sizes expected to be present onsite. These may be accomplished using experience, estimates, and good judgement, unless unusual or extraordinary site conditions create hazards for which a professional engineer must be consulted.
- 4.1.2. *Surface Outlets*: When discharging from basins and impoundments, utilize outlet structures that withdraw water from the surface, unless infeasible.
- 4.2. Contents of a SWPPP. A SWPPP must contain the following:
- 4.2.1. *Contacts*. The contacts for the site with contact information (name, address, telephone, email) including owner, general contractor, and any other party that significantly affects the implementation of the SWPPP or has responsibilities over the SWPPP.
- 4.2.2. *Sequence and Estimated Dates of Construction Activities*. Listed in the sequence with estimated dates including the following:
- 4.2.2.a. Start and end of excavation activities, initial excavation, backfill excavation and final grading,
- 4.2.2.b. Any temporary or permanent cessation of earth-disturbing activities,
- 4.2.2.c. Start and end of landscaping if this is done as part of the construction activity before the home is sold.
- 4.2.3. *Site Map or Chart*. A site map may be hand drawn (as close to scale as possible) or may be a copy of an architect drawing including the following information:
- 4.2.3.a. Boundaries of the property,
- 4.2.3.b. Boundaries of soil surface disturbances, including any outside the boundaries of the property,
- 4.2.3.c. Slopes, including areas of steep slopes,
- 4.2.3.d. Locations of stockpiles of soils, storage of construction materials, portable toilets, trash containers, concrete washout pits or containers, egress points, and track out pads,
- 4.2.3.e. Waterbodies, wetlands, and natural buffer areas,
- 4.2.3.f. Locations and types of BMPs or storm water control measures for the control and/or treatment of storm water flowing onto, through, and/or offsite,
- 4.2.3.g. Locations of storm water inlets, storm water discharge points going off site,

- 4.2.3.h. Areas that will be temporarily or permanently stabilized during the construction period.
- 4.2.4. *Thirty-Foot Natural Buffer.* The SWPPP must show the dimensions and placement of the 30-foot natural buffer, the substitute control measures, or a detailed explanation of why a natural buffer or substitute control measure could not be applied.
- 4.2.5. *Pollutants.* A list of construction site pollutants including the pollutant-generating activity, and an inventory of pollutants for each pollutant generating activity (e.g., paints, solvents, form oil, fuels, and other chemicals; applications, materials, and liquids that if released could pollute storm water).
- 4.2.6. *Waste Management.* Waste management procedures including soil removal, clearing debris removal, demolition removal, trash disposal, construction-waste disposal, and sanitary-waste disposal.
- 4.2.7. *Training.* The permittee will ensure that each subcontractor or utility provider is aware of their responsibilities for keeping soil on the site and preventing pollution. The permittee must keep in mind that they are responsible for and may be issued fines for poor performances by their subcontractors and utility providers. Consideration will be given if the permittee can document when and what instructions were given to the subordinate party.
- 4.2.8. *NOI and Permit.* The SWPPP must contain a copy of this permit and a copy of the NOI for the project.
- 4.2.9. *SWPPP Signature and Certification.* The SWPPP must be signed and certified by both the Owner and the General Contractor in accordance with 5.16.1.a.
- 4.2.10. *MS4 Approval of Project.* For areas where projects are within a regulated MS4's jurisdiction (see definitions in Part 6; the list of regulated MS4's is found on <http://www.deq.utah.gov/Permits/water/updes/stormwatermun.htm>), the SWPPP must contain the signature and date of the MS4 reviewer who has approved the proposed project for construction (see 1.7.).
- 4.2.11. *Availability of the SWPPP.* The SWPPP must be available at the construction site covered under this permit during onsite construction activity, unless the SWPPP is available online. If the SWPPP is available online there must be a sign (see 1.10) that describes where the SWPPP can be accessed online. The SWPPP is a plan for the site, and workers must be able to refer to the SWPPP and update it as needed to manage the site (including SWPPPs found on the internet). The SWPPP is not required to be on the site when construction workers leave for the day or when there is no activity occurring on the site, but at all times there must be posted contact information where the SWPPP can be obtained (see Part 1.10). The SWPPP must be made available within 24 hours to DWQ representatives or other oversight inspectors, e.g., U.S. Environmental Protection Agency [EPA] or a local MS4, on request, or immediately during an inspection on the site when there are workers and activity at the site.

General Storm Water Permit for Construction Activity Connected with Single Lot Housing Projects
UPDES Permit No. UTRH00000

- 4.2.12. *Required Modifications of the SWPPP.* The SWPPP must be modified as follows:
 - 4.2.12.a. During inspections when it is determined from observations of site conditions that storm water control measures are:
 - 4.2.12.a.i. Not adequate or not shown in the SWPPP, or
 - 4.2.12.a.ii. Changes in the SWPPP are necessary for compliance with this permit.
 - 4.2.12.b. When an oversight authority determines that the SWPPP is not adequate based on missing a required SWPPP or permit item, not addressing pollutants properly, not being up to date and reflecting current site conditions, or not being clear, thorough, and understandable.
- 4.2.13. *SWPPP Modifications Deadline.* Modifications to the SWPPP from inspections or oversight authority direction must occur before or during the next weekly inspection.

5. STANDARD PERMIT CONDITIONS.

5.1. Duty to Comply.

5.1.1. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Utah Water Quality Act (the Act) and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

5.1.2. *Penalties for Violations of Permit Conditions*

5.1.2.a. *Violations.* The Act provides that any person who violates the Act, Utah wastewater or storm water rules, or conditions of a permit issued under the Act, is subject to a fine of \$10,000 per day.

5.1.2.b. *Willful or Gross Negligence.* The Act provides that any person who discharges a pollutant to waters of the State as a result of criminal negligence or who intentionally discharges is criminally liable and is subject to imprisonment and a fine of up to \$50,000 per day (Utah Code Annotated 19-5-115).

5.1.2.c. *False Statements.* The Act provides that any person who knowingly makes any false material statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under the Act, the rules, or this permit, or who knowingly falsifies, tampers with, or renders inaccurate, any monitoring device or method required to be maintained under the Act shall upon conviction, be punished by a fine of not more than \$10,000 or by imprisonment for 6 months, or by both (Utah Code Annotated 19-5-115(4)).

5.2. Duty to Reapply. If a permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit except as provided in 1.6 and 1.7 of this permit.

5.3. Need to Halt or Reduce Activity not a Defense. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

5.4. Duty to Mitigate. The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.

5.5. Duty to Provide Information. The permittee shall furnish to the Director or an authorized representative, within a reasonable time, any information that is requested to determine compliance with this permit. The permittee must also furnish to the Director or an authorized representative copies of records to be kept by this permit.

5.6. Other Information. When the permittee becomes aware that he or she failed to submit any relevant facts or submitted incorrect information in the NOI or in any other report to the Director, he or she shall promptly submit such facts or information.

General Storm Water Permit for Construction Activity Connected with Single Lot Housing Projects
UPDES Permit No. UTRH00000

- 5.7. Oil and Hazardous Substance Liability. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under the Act.
- 5.8. Property Rights. The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges, nor does it authorize any injury to private property nor any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.
- 5.9. Severability. The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.
- 5.10. Record Retention. The permittee shall retain copies of SWPPPs and all reports required by this permit, and records of all data used to complete the NOI to be covered by this permit, for a period of at least three years from the date that the permit for the site is terminated (see 3.7). This period may be extended by request of the Director at any time.
- 5.11. Addresses. All written correspondence under this permit shall be directed to the DWQ at the following address:
- Department of Environmental Quality
Division of Water Quality
195 North 1950 West
P.O. Box 144870
Salt Lake City, Utah 84114-4870
- 5.12. State Laws. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by Utah Code Annotated 19-5-117.
- 5.12.1. No condition of this permit shall release the permittee from any responsibility or requirements under other environmental statutes or regulations.
- 5.13. Proper Operation and Maintenance. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control and related appurtenances which are installed or used by the permittee to achieve compliance with the conditions of this permit and with the requirements of SWPPPs. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. Proper operation and maintenance requires the operation of backup or auxiliary facilities or similar systems, installed by a permittee only when necessary to achieve compliance with the condition of the permit.
- 5.14. Inspection and Entry. The permittee shall allow, upon presentation of credentials, the Director or an authorized representative to:
- 5.14.1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this permit;

General Storm Water Permit for Construction Activity Connected with Single Lot Housing Projects
UPDES Permit No. UTRH00000

- 5.14.2. Have access to and copy at reasonable times, any records that must be kept under the conditions of this permit.
- 5.14.3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under this permit; and
- 5.14.4. Sample or monitor at reasonable times for the purposes of assuring permit compliance or as otherwise authorized by law, any substances or parameters at any location.

5.15. Reopener Clause.

- 5.15.1. *Reopener Due to Water Quality Impacts.* If there is evidence indicating that the storm water discharges authorized by this permit cause, have the reasonable potential to cause, or contribute to a violation of a water-quality standard, the discharger may be required to obtain an individual permit or an alternative general permit in accordance with 1.7.4 of this permit or the permit may be modified to include different limitations and/or requirements.
- 5.15.2. *Reopener Guidelines.* Permit modification or revocation will be conducted according to Utah Administrative Code R317-8-5.6 and UAC R317-8-6.2.
- 5.15.3. *Permit Actions.* This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification revocation and reissuance, termination, a modification of planned changes or anticipated noncompliance does not stay any permit condition.

5.16. Signatory Requirements.

- 5.16.1. All NOIs, SWPPPs, reports, certifications or information submitted to the Director, or that this permit requires be maintained by the permittee, shall be signed as follows:
 - 5.16.1.a. All NOIs and SWPPPs shall be signed by both the owner or lessee of the project/property and the general contractor.
 - 5.16.1.b. All reports required by the permit and other information requested by the Director or by an authorized representative of the Director shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - 5.16.1.b.i. The authorization is made in writing by a person described above and submitted to the Director; and
 - 5.16.1.b.ii. The authorization specifies either an individual or a position having such as the position of manager, operator, superintendent, or position of equivalent responsibility or an individual or position having overall responsibility for environmental matters for the company. A duly authorized representative may therefore be either a named individual or any individual occupying a named position.
 - 5.16.1.c. *Certification.* Any person signing documents under 5.16 shall make the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations.

- 5.16.2. If a document is to be signed electronically, the Division's rules regarding electronic transactions govern, if applicable.

6. DEFINITIONS

Arid Areas: Areas with an average annual rainfall of 10 inches or less.

Common Plan of Development (or sale): A plan to subdivide a parcel of land into separate parts for separate sale. This can be for a residential, commercial, or industrial development. The plan originates as a single parcel that is separated into parts. This usually goes through an approval process by a local governmental unit, but in some cases, it may not require that process. The original plan is considered the "common plan of development or sale" whether phased or completed in steps.

Additional information related to Common Plan of Development for Permit Purposes:

For UPDES storm water permit purposes, a common plan must have been initiated after October, 1992. A common plan of development or sale remains so until each lot or section of the development has fulfilled its planned purposes (e.g. in a residential development as homes are completed, stabilized, and sold or occupied). As lots or separated sections of the development are completed, the lot or section is stabilized, and the plan purposes are fulfilled for that area, lot, or section, it is no longer part of the common plan of development or sale (e.g. if a home is sold in a development and the owner decides to add a garage somewhere on the lot, that garage project is not part of the common plan of development or sale.

In this process a common plan of development or sale may become reduced in size and/or separated by completed areas which are no longer part of the common plan of development or sale, but all unfinished lots remain part of the same common plan development or sale until they are completed, stabilized, and fulfilled according to the purposes of the plan.

Construction Activity: Earth-disturbing activities, such as the clearing, grading, and excavation of land.

Construction Waste: Discarded material such as packaging materials, scrap construction materials, masonry products, timber, steel, pipe, and electrical cuttings, plastics, and Styrofoam.

Corrective Action: For the purposes of the permit, any action taken to 1) repair, modify, or replace any storm water control used at the site; 2) clean up and dispose of spills, releases, or other deposits found on the site; and 3) remedy a permit violation.

Dewatering: The act of draining rainwater and/or groundwater from building foundations, vaults, and trenches (Note: if dewatering is occurring on a construction site and it causes a discharge to waters of the State, it must be permitted separately under the General Permit for Construction Dewatering and Hydrostatic Testing , UPDES Permit UTG070000).

Director: The director of the Division of Water Quality.

Discharge Point: For the purposes of this permit, the location where collected and concentrated storm water flows are discharged from the construction site.

Final Stabilization: All disturbed areas must be covered by permanent structures such as pavement, concrete slab, building, etc., or for areas not covered by permanent structures but that are receiving 20 inches or more of average annual precipitation, vegetation has been established with a uniform (e.g.,

General Storm Water Permit for Construction Activity Connected with Single Lot Housing Projects
UPDES Permit No. UTRH00000

evenly distributed, without large bare areas) perennial vegetative cover equivalent to 70 percent of the natural background vegetative cover. In the case of areas that are not covered by permanent structures, but that are receiving less than 20 inches of average annual precipitation (arid areas, 0-10 inches; semi-arid areas, 10-20 inches), final stabilization is equivalent to the requirements of 2.6.3 of this permit, including the provisions for permanent stabilization.

Impervious Surface: For the purpose of this permit, any land surface with a low or no capacity for water infiltration including, but not limited to, pavement, sidewalks, parking areas, driveways, or rooftops.

Indian Country: Defined at 40 CFR §122.2 as follows:

1. All land within the limits of any Indian reservation under the jurisdiction of the United States Government, notwithstanding the issuance of any patent, and, including rights-of-way running through the reservation;
2. All dependent Indian communities within the borders of the United States whether within the originally or subsequently acquired territory thereof; and
3. All Indian allotments, the Indian titles to which have not been extinguished, including rights-of-ways running through the same.

Infeasible: Infeasible means not technologically possible or not economically practicable and achievable in light of best industry practices. DWQ notes that it is not intentional for permit storm water control efforts required in the permit to conflict with State water rights law. In the case of conflict, State water rights law supersedes.

Install or Installation: When used in connection with storm water controls, to connect or set in position storm water controls to make them operational.

Municipal Separate Storm Sewer System or MS4: A storm-sewer system owned and operated by a state, city, town, county, district, association, or other public body created by or pursuant to State law having jurisdiction over disposal of storm water that discharges to waters of the State (e.g., Sandy City owns and operates the MS4 within the jurisdiction of Sandy City, or essentially Sandy City is the MS4).

Natural Buffer: For the purposes of this permit, an area of undisturbed natural cover surrounding surface waters within which construction activities are restricted. Natural cover includes the vegetation, exposed rock, or barren ground that exists before earth-disturbing activities begin.

Oversight Authority: Oversight authorities for storm water permits are agents from the EPA, DWQ or the Municipality of jurisdiction, when they are addressing compliance of storm water permits.

Owner: For the purpose of this permit an owner has ownership of a property on which construction activity is taking place, but it also includes ownership of a project for which construction activity is occurring on property that is leased. An owner is the party that has ultimate control over construction plans and specifications, including the ability at the highest level to make modifications to those plans and specifications. "Owner" in this context is the party that has ultimate control over the destiny of a project.

Permittee: The owner and/or the general contractor (those that signed on the NOI), for the project.

General Storm Water Permit for Construction Activity Connected with Single Lot Housing Projects
UPDES Permit No. UTRH00000

Pollutant-Generating Activities: At construction sites, for the purposes of this permit, those activities that lead to or could lead to the generation of pollutants, either as a result of earth-disturbance or a related support activity. Some of the types of pollutants that are typically found at construction sites are as follows:

- Sediment
- Nutrients
- Heavy metals
- Pesticides and herbicides
- Oil and grease
- Bacteria and viruses
- Trash, debris, and solids
- Treatment polymers
- Any other toxic chemicals

Pollution Prevention Measures: Storm water controls designed to reduce or eliminate the addition of pollutants to construction site discharges through analysis of pollutant sources, implementation of proper handling/disposal practices, employee education, and other actions.

Project Site: A project site is not necessarily contained within the property boundaries designated for the final construction objective, or property owned by the owner of the project. The project site includes all areas affected by the construction process where disturbances, storage, or other construction activity occurs. If an area outside of property boundaries is used for the construction process, DWQ assumes the permittee has the right to access and use that area and the permittee must also meet permit requirements in that area.

Receiving Water: A "Water(s) of the State" is as defined in UAC R317-1-1, into which the regulated storm water discharges (see waters of the State listed below).

Rumble Strip: A rigid ramp/track (often made of steel) that vehicles drive over that causes tires to flex and shake for the removal of dirt.

Semi-Arid Areas: Areas with an average annual rainfall of between 10 and 20 inches.

Stabilization: The use of vegetative and/or non-vegetative cover to prevent erosion and sediment loss in areas of disturbed soil exposed from the construction process.

Storm water: Means storm water runoff, snowmelt runoff, and surface runoff and drainage.

Storm Water Control Measures: Refers to any storm water control, BMP, or other method used to prevent or reduce the discharge of pollutants to waters of the state.

General Storm Water Permit for Construction Activity Connected with Single Lot Housing Projects
UPDES Permit No. UTRH00000

Storm Water Inlet: An entrance or opening to a storm water conveyance system, generally placed below grade so as to receive storm water drainage from the surrounding area.

Storm Event: A precipitation event that results in a measurable amount of precipitation.

Track Out Pad: A track out pad is a pad normally made up of 4 to 6 inches of up to 6 inch cobble rocks or gravel of various size (the size is sometimes specified by a local MS4). Sometimes it is underlain with a fabric to keep dirt and mud separated from rock or gravel. It is wide enough to underlay the tires of any/all traffic leaving a construction site as vehicles exit the site. Its function is to flex and shake the tires to dislodge mud and dirt from the tires of vehicles leaving the construction site. Track out pads must be stirred or worked periodically so that mud or dirt collected is moved to the bottom and the rock/gravel on the pad is clean and effective dislodging more mud/dirt.

Waters of the State: All streams, lakes, ponds, marshes, watercourses, waterways, wells, springs, irrigation systems, drainage systems, and all other bodies or accumulations of water, surface and underground, natural or artificial, public or private, that are contained within, flow through, or border upon this state or any portion thereof, except that bodies of water confined to and retained within the limits of private property, and that do not develop into or constitute a nuisance, or a public health hazard, or a menace to fish and wildlife, shall not be considered to be "Waters of the State" under this definition (see Utah Code Annotated, 19-5-102(23)(a) &(b), and UAC R317-1-1).

Appendix D: Permits: NOI

STATE OF UTAH, DEPARTMENT OF ENVIRONMENTAL QUALITY, DIVISION OF WATER QUALITY
195 North 1950 West, P.O. Box 144870, Salt Lake City, Utah 84114-4870 (801) 536-4300

NOI

Notice of Intent (NOI) for Storm Water Discharges Associated with Construction Activity Under the UPDES General Permit UTRH85687
SEE REVERSE FOR INSTRUCTIONS

Submission of this Notice of Intent constitutes notice that the party(s) identified in Section I of this form intends to be authorized by UPDES General Permit No. UTRH85687 issued for storm water discharges associated with construction activity in the State of Utah. Becoming a permittee obligates such discharger to comply with the terms and conditions of the permit. ALL NECESSARY INFORMATION MUST BE PROVIDED ON THIS FORM.

PERMIT PERIOD	Permit Start Date: 04/03/2018 Permit Expiration Date: 04/03/2019
PERMIT TYPE	Construction General Permit (CGP, this permit covers any construction project): <input type="checkbox"/> Common Plan Permit (this only covers single lot residential construction disturbing less than an acre): <input checked="" type="checkbox"/>
Is this NOI seeking continuation for previously expired permit coverage at the same site? Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	If yes, what is the number of the previous permit coverage? Permit No. UTR

I. OWNER INFORMATION
Owner Name: Cottle Homes Phone: 801-617-2100
Address: PO Box 1347 Status of Owner: PRIVATE
City: BOUNTIFUL State: UT Zip: 84011
Contact Person: Eric B Harper Phone: 801-836-4451

GENERAL CONTRACTOR: Cottle Homes Phone: 801-617-2100
Address: PO Box 1347 Status of General Contractor: PRIVATE
City: BOUNTIFUL State: UT Zip: 84011
Contact Person: Eric B Harper Phone: 801-836-4451

II. FACILITY SITE / LOCATION INFORMATION
Name: Rivers Edge lot 17
Project No. (if any): 17
Address: 3787 North Rivers Edge Road County: WEBER
City: LIBERTY State: UT Zip: 84310
Latitude: 41.32740829 Longitude: -111.8529403
Method (check one): USGS Topo Map, Scale EPA Web site GPS Other

Is the facility located in Indian Country?
Y N

III. SITE INFORMATION
Municipal Separate Storm Sewer System (MS4) Operator Name: Weber County
Receiving Water Body: Pine view reservoir guess this is known this is a guess (see <http://wq.deq.utah.gov/>)
Estimate of distance to the nearest water body? 15 miles ft. miles.
Is the receiving water an impaired or high quality water body (see <http://wq.deq.utah.gov/>)? Yes No
List the Number of any other UPDES permits at the site:

IV. THIS SECTION IS ONLY FOR PROJECTS INVOLVED IN DEVELOPMENT OF A SUBDIVISION.
List the lots proposed for the development (please add another sheet of paper if there is not enough room to list all lots).

INSTRUCTIONS

Notice Of Intent (NOI) For Permit Coverage Under the UPDES General Permit For Storm Water Discharges From Construction Activities

Who Must File A Notice Of Intent (NOI) Form State law at UAC R317-8-3.9 prohibits point source discharges of storm water from construction activities to a water body(ies) of the State without a Utah Pollutant Discharge Elimination System (UPDES) permit. The owner and the general contractor of a construction activity that has such a storm water discharge must submit a NOI to obtain coverage under the UPDES Storm Water General Permit. If you have questions about whether you need a permit under the UPDES Storm Water program, or if you need information as to whether a particular program is administered by EPA or a state agency, contact the storm water coordinator at (801) 536-4300.

Where To File NOI Form The preferred method of submitting an NOI to apply for the construction general storm water permit (CGP) is electronically on-line at <http://www.waterquality.utah.gov/UPDES/stormwatercon.htm>. The fee can be submitted on line also. If on-line is not an option for you send a paper form of the NOI to the following address:

Department of Environmental Quality
Division of Water Quality
P.O. Box 144870
Salt Lake City, UT 84114-4870

Beginning of Coverage CGP coverages are issued immediately after submitting an NOI with the permit fee. The permittee should be aware that though you may not have a permit in hand, if you have submitted a completed NOI with the permit fee you are covered by the conditions in the permit and will be expected to comply with permit conditions. You can print a copy of the CGP from the DWQ web site.

Permit Fees. The permit fee is \$150.00 per year. The fee is paid by Visa/Master Card on-line when an NOI is filed (by check if submitted with a paper NOI). If the project continues for more than one year the fee must be submitted again in a renewal process on-line. CGP coverage will not be issued until the fee is paid.

Length of Coverage: CGP coverage starts the day that the NOI and fee is received at DWQ and expires a year from issuance. All CGP coverages must be renewed within 60-days after the yearly expiration date, or be terminated with a notice of termination (NOT) before the expiration date. To terminate the permit the site must meet the permit conditions for final stabilization (see permit definitions), or must continue under a different permit holder. In most cases the DWQ or municipality of jurisdiction will perform a final inspection when a CGP coverage submits an NOT. If the site passes the final inspection the permit is terminated.

The Storm Water General Permit for Construction Activities UTRC00000 will expire on June 30, 2019 – UTRH00000 expires on September 30, 2020. The Clean Water Act requires that all UPDES permits be renewed every 5 years. If a project extends beyond the expiration date of the Permit it must renew the permit and continue coverage under the renewed permit that will subsequently be developed to continue the same or similar permit coverage for construction activity.

SECTION I - FACILITY OPERATOR INFORMATION Supply the legal name(s) of the person(s), firm(s), public organization(s), or any other entity(ies) that qualifies as the owner of the project (see permit definitions). Do the same for the general contractor that conducts the construction operation at the facility or site to be permitted. The owner and the general contractor of the project may be the same.

Enter the complete address and telephone number of the owner and general contractor and a contact person and number for each. Enter the appropriate letter to indicate the legal status of the operator of the facility.

F = Federal M = Public (other than Fed or State) S = State P = Private

SECTION II - FACILITY/SITE LOCATION INFORMATION Enter the facility name or legal name and project number (if any) of the site and complete street address, including city, state and ZIP code. The latitude and longitude of the facility must be included to the approximate centroid of the site, and the method of how the Lat/Long was obtained (USGS maps, GPS, Internet Map sites [such as Google Earth], or other).

Indicate whether the facility is located in Indian Country. If the facility is located in Indian Country, do not complete this NOI, instead submit an application for coverage under a storm water permit to EPA Region VIII except for facilities on the Navajo Reservation or on the Goshute Reservation which should submit an application to EPA Region IX.

SECTION III - SITE ACTIVITY INFORMATION If the storm water discharges to a municipal separate storm sewer system (MS4), enter the name of

the operator of the MS4 (e.g., the name of the City or County of jurisdiction) and the receiving water of the discharge from the MS4 if it is known (if it is not known look it up at <http://wq.deq.utah.gov>). (An MS4 is defined as a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains) that is owned or operated by a state, city, town, county, district, association or other public body which is designed or used for collecting or conveying storm water).

For Impaired Waters: Go to <http://wq.deq.utah.gov> and identify the water body that will receive the storm water discharge from the permitted site, on the map provided at the web site (zoom in for easier resolution). On the left hand side of the page you will see “2010 Assessment” or “2013 Assessment” depending on the year you refer to the web site (the assessment is done every 3 years). The 20XX Assessment will indicate if the water is impaired. If there is nothing after 20XX Assessment or the narrative after does not include the word “impaired”, your receiving water is not impaired.

For High Quality Waters: On the web page referred to in the paragraph above on the left hand side of the page you will see “Anti-Degradation Category”. Under Anti-Degradation Category you will see the category of the water body. Only categories 1 and 2 are high quality water bodies. Some waters may be both categories 1 and 3. If your water body is both category 1 and 3 it means the headwaters of your water body is within Forest Service boundaries, and because it is within Forest Service boundaries it is category 1. If your project is within Forest Service boundaries then your water body is category 1 and it is “high quality”. If your project is not within Forest Service boundaries then your water body is category 3 and is not “high quality”. Again, category 1 waters are high quality waters, category 3 waters are not high quality waters.

SECTION IV – LISTING LOTS FOR SUBDIVISIONS For the sake of tracking lots that are sold (if a developer chooses to sell lots to another party before the building construction for the lot is completed), and permitted under a different owner (which requires a different permit), developers must list lot numbers.

SECTION V - TYPE OF CONSTRUCTION Check each type of construction that applies to this application.

SECTION VI - BEST MANAGEMENT PRACTICES Check each type of best management practice that will be used to control storm water runoff at the job site.

SECTION VII – GOOD HOUSEKEEPING PRACTICES Check each type of good housekeeping practice that you will use on the site any time during construction activities.

SECTION VIII – ADDITIONAL Provide an estimate of the total number of acres of the site on which soil will be disturbed (to the nearest hundredth of an acre). An email address is required of the best contact associated with the project for the communication needs.

SECTION IX – CERTIFICATION State statutes provide for severe penalties for submitting false information on this application form. State regulations require this application to be signed as follows:

For a corporation: by a responsible corporate officer, which means: (i) president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions, or (ii) the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

For a partnership or sole proprietorship: by a general partner or the proprietor; or

For a municipality, state, Federal, or other public facility: by either a principal executive officer or ranking elected official.

POLLUTION PREVENTION PLAN A storm water pollution prevention plan (SWP3) is required to be in hand before the NOI can be submitted. It is important to know SWPPP requirements (contained in the permit) even during the design portion of the project. A copy of the permit can be obtained from the Division of Water Quality’s storm water construction web site. Guidance material for developing a SWPPP can be obtained from the Division of Water Quality’s storm water construction web site.

Appendix E: Inspection-Maintenance-Correction Report

Stormwater Pollution Prevention Plan Template (SWPPP)
Common Plan Permit

Inspection Reports

INSPECTION REPORT		SITE NAME: John Doe Project	
INSPECTION PERIOD: 2012.03.01-2012.03.07		LAST RAIN EVENT: 2012.03.01	
INSPECTOR: id		CURRENT WEATHER: clear	
BMP	DATE	OK/NOT OK?	BMP CONDITION
Are all pollution sources controlled? Do any other problems exist?	3/1/2012	OK	no
4.1 EOL Cutdown	3/1/2012	OK	in place
4.2 SIF Fencing	3/1/2012	not OK	Silt fence at south boundary was buried by excavator.
4.3 Deep Inlet Bags	3/1/2012	OK	Only about 4" of sediment
4.4 Gutter Dams	3/1/2012	OK	Gutter dams are tight to the curb and free of sediment
4.10 1 Day Controls	3/1/2012	OK	Water and hose are ready No wind today
5.1.2 Grave Parking	3/1/2012	no	not scheduled per SWPPP
5.1.3 Post and Tape	3/1/2012	OK	fence post and tape in place
5.1.4 Sign Noise Shovel and Broom	3/1/2012	OK	Minor tracking today
5.2.1 Dumpster	3/1/2012	no	not scheduled per SWPPP
5.2.3 Portable Toilet	3/1/2012	OK	In place
5.2.5 Concrete Washout	3/1/2012	OK	In place About 25% full
5.3.2 Material Storage	3/1/2012	OK	No materials being stored
5.3.3 Construction Staging	3/1/2012	not OK	not scheduled per SWPPP
5.3.4 Soil Waste Limits	3/1/2012	not OK	see 2.3
5.5 Spill Kit	3/1/2012	OK	In place
5.6.3 Portable Swale	3/1/2012	OK	not scheduled per SWPPP

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, accurate, complete, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: [Signature] Title: General Manager
Signature: [Signature] Date: 3/1/2012

Appendix F: SWPPP Amendment Log

Appendix G: Certifications

OWNER CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: Alan Cottle Title: President

4/18/18

Signature:  Date: _____

Company: Cottle, Inc. dba Cottle Homes

Project: Chandler Residence

OPERATOR CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: Eric Harper Title: Operator

Signature: *Eric Harper* Date: 4/18/18

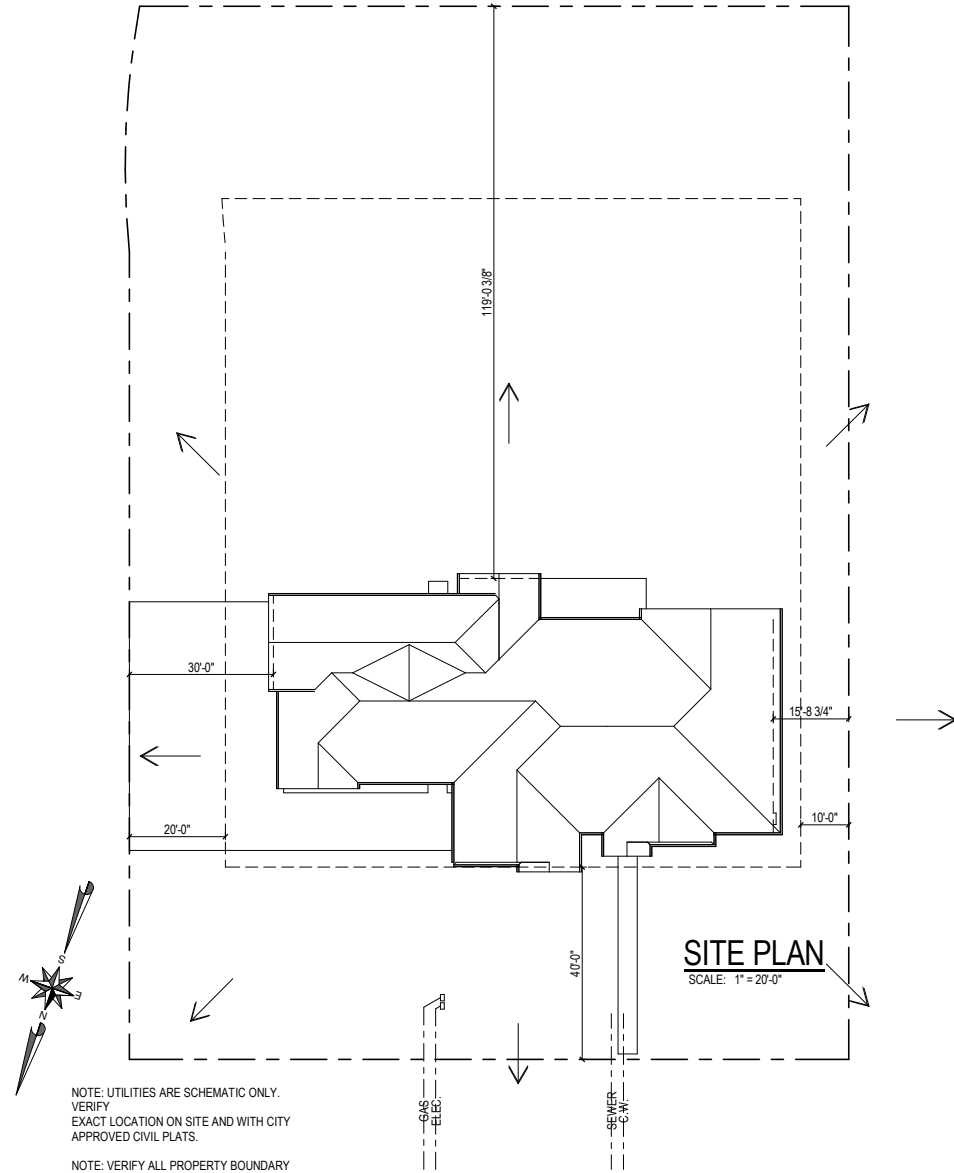
Company: Cottle Homes

Project: Rivers Edge Lot 17

Appendix H: Training Log

Appendix I: Construction Plans

THESE DRAWINGS OR ANY PARTS THEREOF, AS INSTRUMENTS OF SERVICE, REMAIN THE PROPERTY OF THE ARCHITECTS AND MAY NOT BE REPRODUCED OR USED ON OTHER WORK WITHOUT THEIR WRITTEN CONSENT

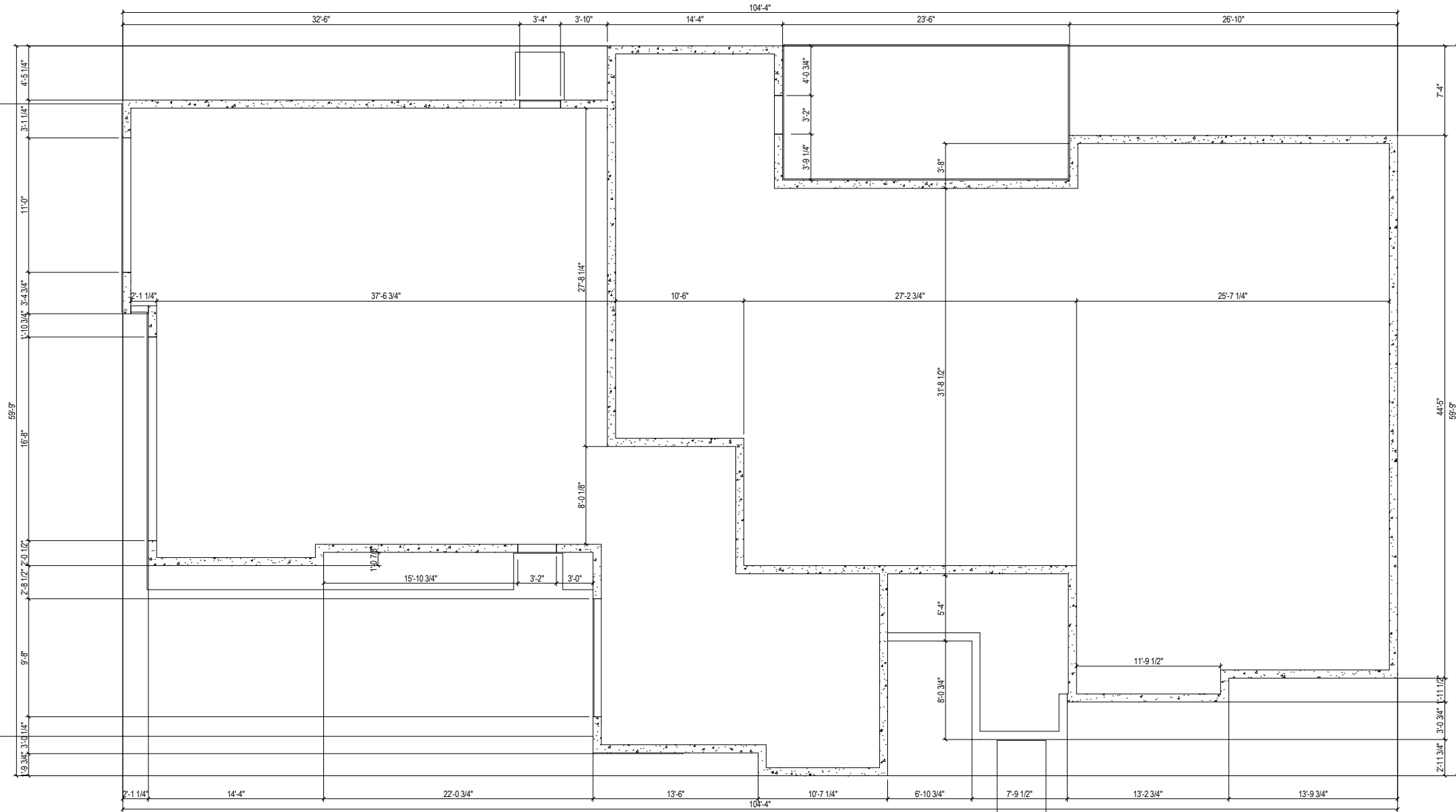


RIGHT CORNER PERSPECTIVE
SCALE:



LEFT CORNER PERSPECTIVE
SCALE:

THESE DRAWINGS OR ANY PARTS THEREOF, AS INSTRUMENTS OF SERVICE, REMAIN THE PROPERTY OF THE ARCHITECTS AND MAY NOT BE REPRODUCED OR USED ON OTHER WORK WITHOUT THEIR WRITTEN CONSENT

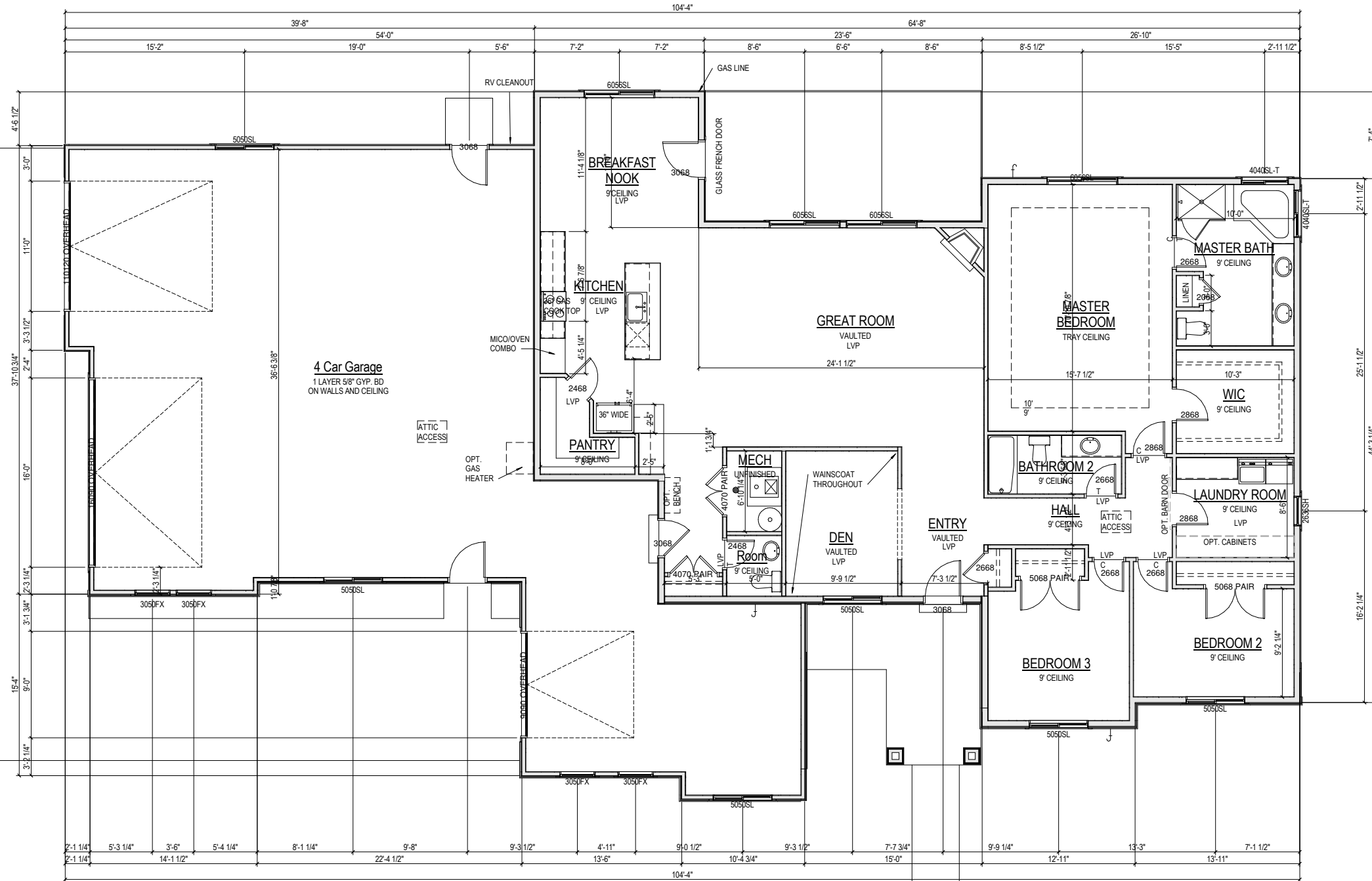


BASEMENT FLOOR PLAN
SCALE: 3/16" = 1'-0"

DOOR SCHEDULE - BASEMENT								
MAR K	WIDTH	HEIGHT	OPERATION	S.LIGHT	TEMP.			
WINDOW SCHEDULE								
MAR K	WIDTH	HEIGHT	HEAD	OPERATION	TEMP.	GRIDS	FINS	QTY.
2636S H	2'-6"	3'-6"	7'-0"	SINGLE HUNG	No	No	No	1
3050F X	3'-0"	5'-0"	7'-0"	FIXED	No	No	No	4
4040S L-T	4'-0"	4'-0"	7'-0"	SLIDER	Yes	No	No	2
5050S L	5'-0"	5'-0"	7'-0"	SLIDER	No	No	No	6
6056S L	6'-0"	5'-6"	7'-6"	SLIDER	No	No	No	4

FINISHED		
MAIN FLOOR		2,478 SF
		2,478 SF
UNFINISHED		
GARAGE		1,920 SF
		1,920 SF
Grand total		4,398 SF

THESE DRAWINGS OR ANY PARTS THEREOF, AS INSTRUMENTS OF SERVICE, REMAIN THE PROPERTY OF THE ARCHITECTS AND MAY NOT BE REPRODUCED OR USED ON OTHER WORK WITHOUT THEIR WRITTEN CONSENT



DOOR SCHEDULE - MAIN FLOOR

MARK	WIDTH	HEIGHT	OPERATION	S.LIGHT	TEMP.
3068	36"	80"	SLIDER	No	No
4040SL-T	40"	80"	SLIDER	Yes	No
5050SL	50"	80"	SLIDER	No	No
6056SL	60"	80"	SLIDER	No	No

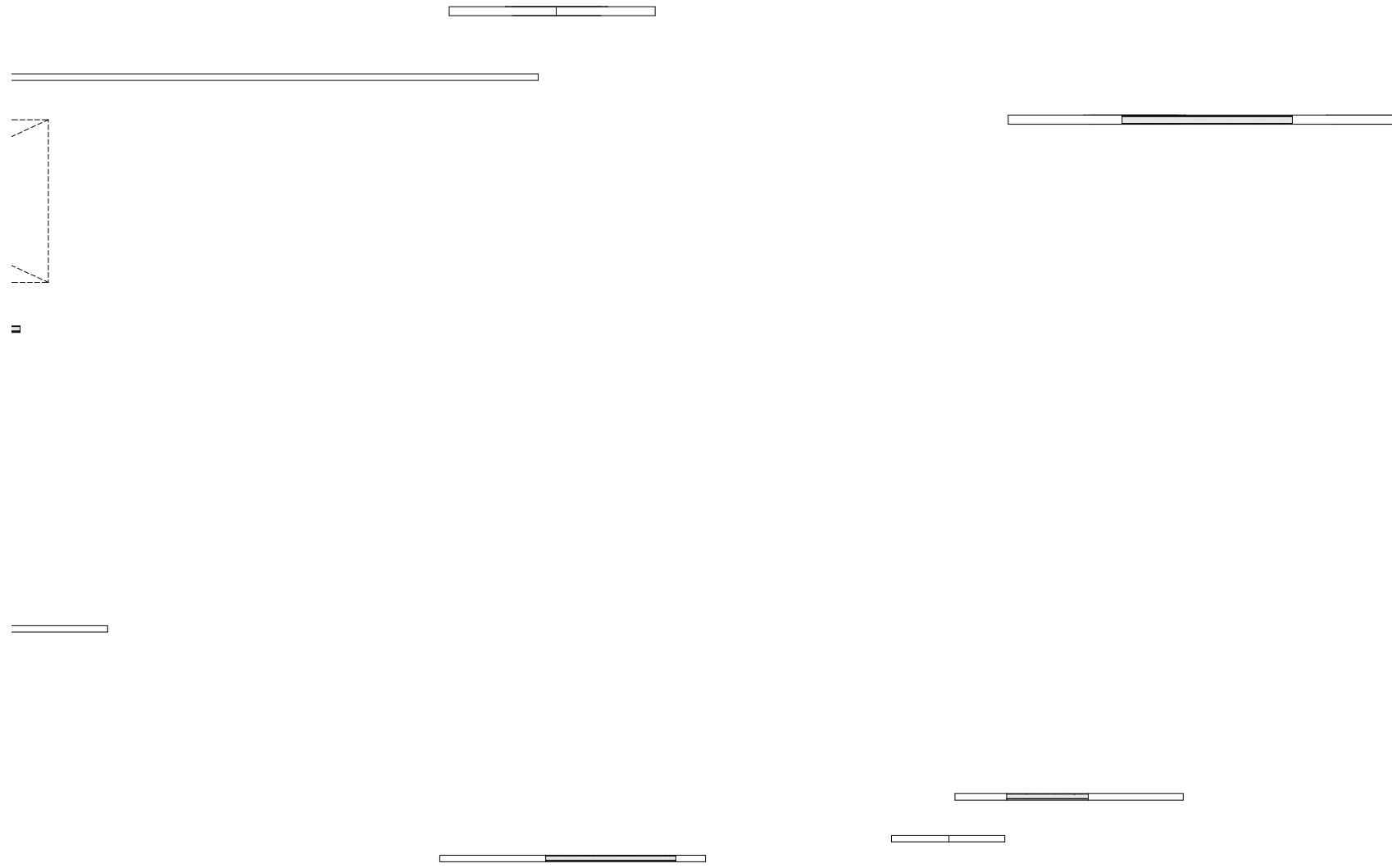
WINDOW SCHEDULE

MARK	WIDTH	HEIGHT	HEAD	OPERATION	TEMP.	GRIDS	FINS	QTY.
2636S	2'-6"	3'-6"	7'-0"	SINGLE HUNG	No	No	No	1
3050F-X	3'-0"	5'-0"	7'-0"	FIXED	No	No	No	4
4040S-L-T	4'-0"	4'-0"	7'-0"	SLIDER	Yes	No	No	2
5050S-L	5'-0"	5'-0"	7'-0"	SLIDER	No	No	No	6
6056S-L	6'-0"	5'-6"	7'-6"	SLIDER	No	No	No	4

FINISHED		
MAIN FLOOR		2,478 SF
UNFINISHED		2,478 SF
GARAGE		1,920 SF
Grand total		4,398 SF

MAIN FLOOR PLAN
SCALE: 3/16" = 1'-0"
MAIN FLOOR SQFT 2478

THESE DRAWINGS OR ANY PARTS THEREOF, AS INSTRUMENTS OF SERVICE, REMAIN THE PROPERTY OF THE ARCHITECTS AND MAY NOT BE REPRODUCED OR USED ON OTHER WORK WITHOUT THEIR WRITTEN CONSENT



UPPER FLOOR PLAN
SCALE: 3/16" = 1'-0"

DOOR SCHEDULE - UPPER FLOOR

MAR K	WIDTH	HEIGHT	OPERATION	S.LIGHT	TEMP.

WINDOW SCHEDULE

MARK	WIDTH	HEIGHT	HEAD	OPERATION	TEMP.	GRIDS	FINS	QTY.
2636S H	2'-6"	3'-6"	7'-0"	SINGLE HUNG	No	No	No	1
3050F X	3'-0"	5'-0"	7'-0"	FIXED	No	No	No	4
4040S L-T	4'-0"	4'-0"	7'-0"	SLIDER	Yes	No	No	2
5050S L	5'-0"	5'-0"	7'-0"	SLIDER	No	No	No	6
6056S L	6'-0"	5'-6"	7'-6"	SLIDER	No	No	No	4

FINISHED	
MAIN FLOOR	2,478 SF
	2,478 SF
UNFINISHED	
GARAGE	1,920 SF
	1,920 SF
Grand total	4,398 SF



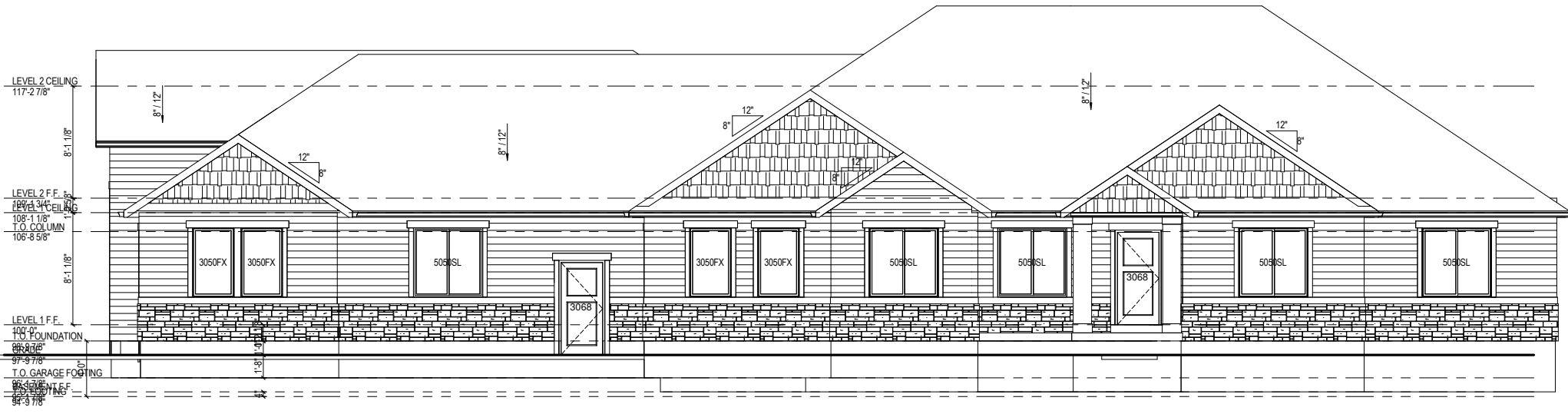
CHANDLER PLAN
UPPER FLOOR PLAN

SUBDIVISION: RIVERS EDGE
CITY: LIBERTY
STATE: UTAH

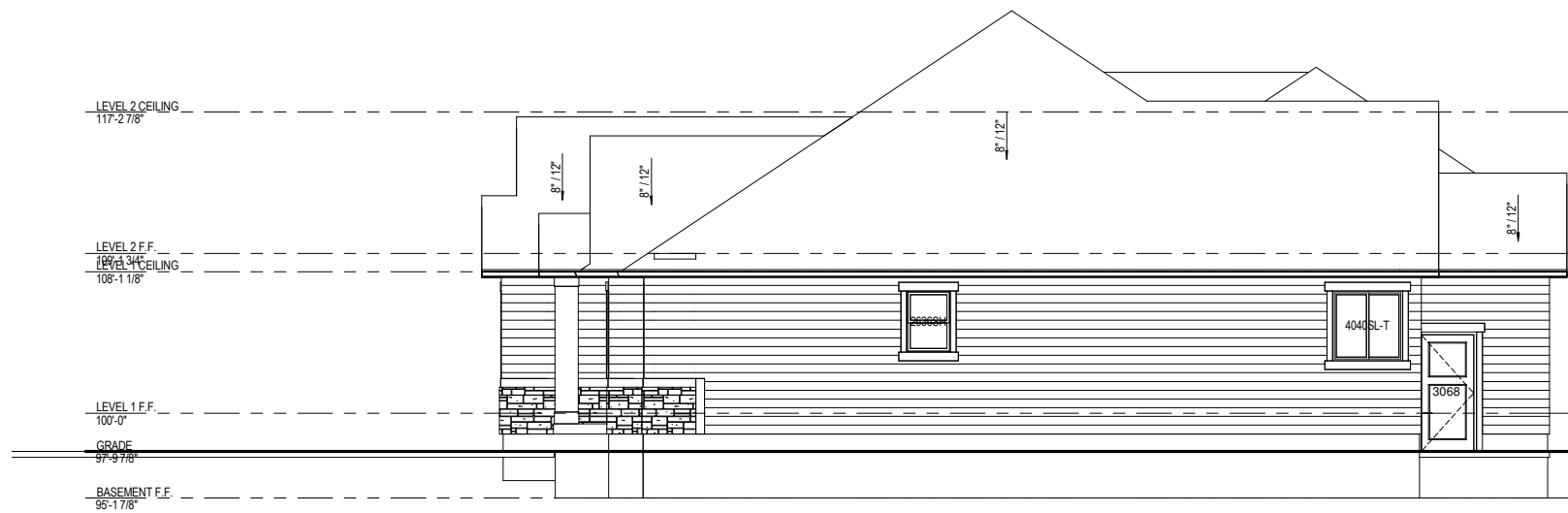
LOT #: _____
PLAN: _____
SHEET: _____

DATE: _____
Issue Date
SHEET #:
A1.2

THESE DRAWINGS OR ANY PARTS THEREOF, AS INSTRUMENTS OF SERVICE, REMAIN THE PROPERTY OF THE ARCHITECTS AND MAY NOT BE REPRODUCED OR USED ON OTHER WORK WITHOUT THEIR WRITTEN CONSENT



FRONT ELEVATION
SCALE: 3/16" = 1'-0"



LEFT SIDE ELEVATION
SCALE: 3/16" = 1'-0"

WINDOW SCHEDULE									
MARK	WIDTH	HEIGHT	HEAD	OPERATION	TEMP.	GRIDS	FINS	QTY.	
2636S H	2'-6"	3'-6"	7'-0"	SINGLE HUNG	No	No	No	1	
3050F X	3'-0"	5'-0"	7'-0"	FIXED	No	No	No	4	
4040S L-T	4'-0"	4'-0"	7'-0"	SLIDER	Yes	No	No	2	
5050S L	5'-0"	5'-0"	7'-0"	SLIDER	No	No	No	6	
6056S L	6'-0"	5'-6"	7'-6"	SLIDER	No	No	No	4	

ELEVATION KEYNOTES (XX)

- E1. CONCRETE FOOTING.
- E2. CONCRETE FOUNDATION.
- E3. WINDOW WELL. PROVIDE LADDER @ BEDROOMS.
- E4. WINDOW WELL WITH GRATE. PROVIDE LADDER AND GRATE OPERABLE FROM INSIDE @ BEDROOMS.
- E5. CONCRETE STEPS AS REQUIRED. VERIFY WITH GRADE.
- E6. WOOD STEPS AS REQUIRED. VERIFY WITH GRADE.
- E7. A/C CONDENSER.
- E8. PRE-CAST CONCRETE CAP.
- E9. 36" HIGH GUARD RAIL. ♦
- E10. TREX DECK.
- E11. DECORATIVE SHUTTER.
- E12. TRIM. SEE MATERIALS LEGEND.
- E13. GABLE END VENT.
- E14. FAUX RAFTER BEAM.
- E15. ALUMINUM FASCIA, VENTED SOFFIT, GUTTERS, AND DOWNSPOUTS.
- E16. ARCHITECTURAL GRADE ASPHALT SHINGLES.

GENERAL NOTES

- REFER TO GENERAL NOTE & DETAIL SHEETS FOR TYPICAL REQUIREMENTS & MATERIALS
- GRADE CONDITIONS MAY VARY FROM SHOWN. BUILDER SHALL VERIFY & COORDINATE PER ACTUAL SITE CONDITIONS
- BUILDER TO PROVIDE ROOF & SOFFIT VENTS
- INSTALL ALL PRE-MANUFACTURED MATERIALS PER MANUFACTURERS REQUIREMENTS, RECOMMENDATIONS & SPECIFICATIONS. INSTALLATION REQUIREMENTS TO BE SPECIFIC TO THIS PROJECT PROVIDED BY BUILDER
- SEE GENERAL NOTES SHEET A6.0 FOR ♦ ITEMS.

MATERIALS LEGEND

- BRICK VENEER
- STONE VENEER
- COMPOSITE LAP SIDING
- COMPOSITE SHINGLES
- COMPOSITE BOARD AND BATTEN - 2 3/4" x 3/4" @ 16" O.C.
- COMPOSITE TRIM - 3/4"
- STUCCO
- STUCCO TRIM - 1"
- STANDING SEAM METAL ROOF



CHANDLER PLAN
FRONT & LEFT SIDE ELEVATIONS

SUBDIVISION: RIVERS EDGE
CITY: LIBERTY
STATE: UTAH
LOT #: _____
PLAN: _____
SHEET: _____

DATE: _____
Issue Date
SHEET #:
A3.1

THESE DRAWINGS OR ANY PARTS THEREOF, AS INSTRUMENTS OF SERVICE, REMAIN THE PROPERTY OF THE ARCHITECTS AND MAY NOT BE REPRODUCED OR USED ON OTHER WORK WITHOUT THEIR WRITTEN CONSENT

WINDOW SCHEDULE									
MARK	WIDTH	HEIGHT	HEAD	OPERATION	TEMP.	GRIDS	FINS	QTY.	
2636S H	2'-6"	3'-6"	7'-0"	SINGLE HUNG	No	No	No	1	
3050F X	3'-0"	5'-0"	7'-0"	FIXED	No	No	No	4	
4040S L-T	4'-0"	4'-0"	7'-0"	SLIDER	Yes	No	No	2	
5050S L	5'-0"	5'-0"	7'-0"	SLIDER	No	No	No	6	
6056S L	6'-0"	5'-6"	7'-6"	SLIDER	No	No	No	4	



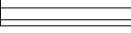
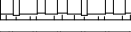
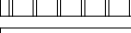
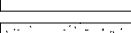
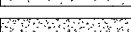
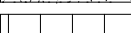

ELEVATION KEYNOTES (XX)

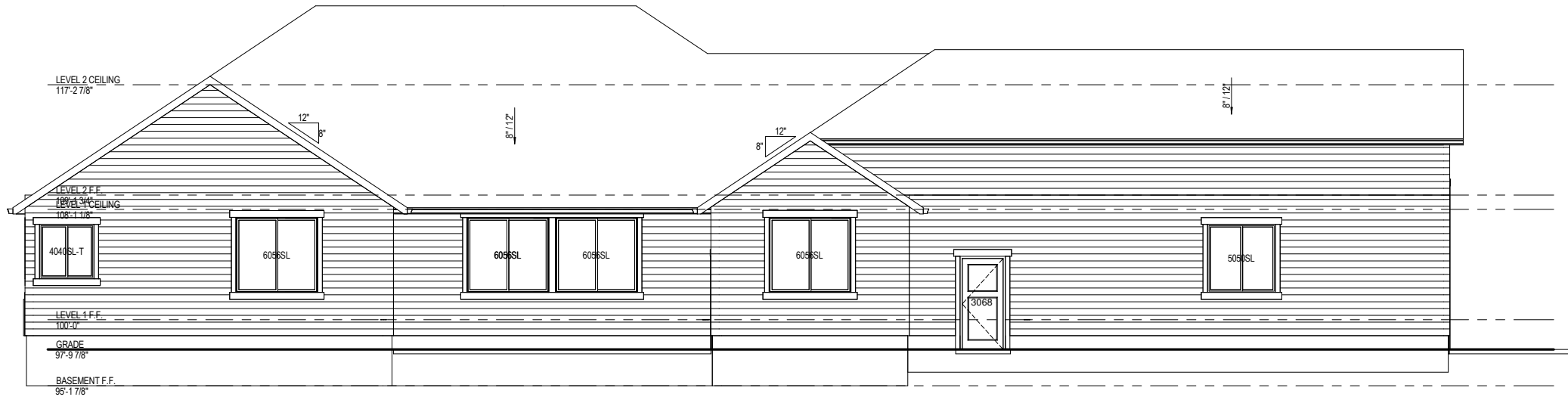
- E1. CONCRETE FOOTING.
- E2. CONCRETE FOUNDATION.
- E3. WINDOW WELL. PROVIDE LADDER @ BEDROOMS.
- E4. WINDOW WELL WITH GRATE. PROVIDE LADDER AND GRATE OPERABLE FROM INSIDE @ BEDROOMS.
- E5. CONCRETE STEPS AS REQUIRED. VERIFY WITH GRADE.
- E6. WOOD STEPS AS REQUIRED. VERIFY WITH GRADE.
- E7. A/C CONDENSER.
- E8. PRE-CAST CONCRETE CAP.
- E9. 36" HIGH GUARD RAIL. ♦
- E10. TREX DECK.
- E11. DECORATIVE SHUTTER.
- E12. TRIM. SEE MATERIALS LEGEND.
- E13. GABLE END VENT.
- E14. FAUX RAFTER BEAM.
- E15. ALUMINUM FASCIA, VENTED SOFFIT, GUTTERS, AND DOWNSPOUTS.
- E16. ARCHITECTURAL GRADE ASPHALT SHINGLES.

GENERAL NOTES

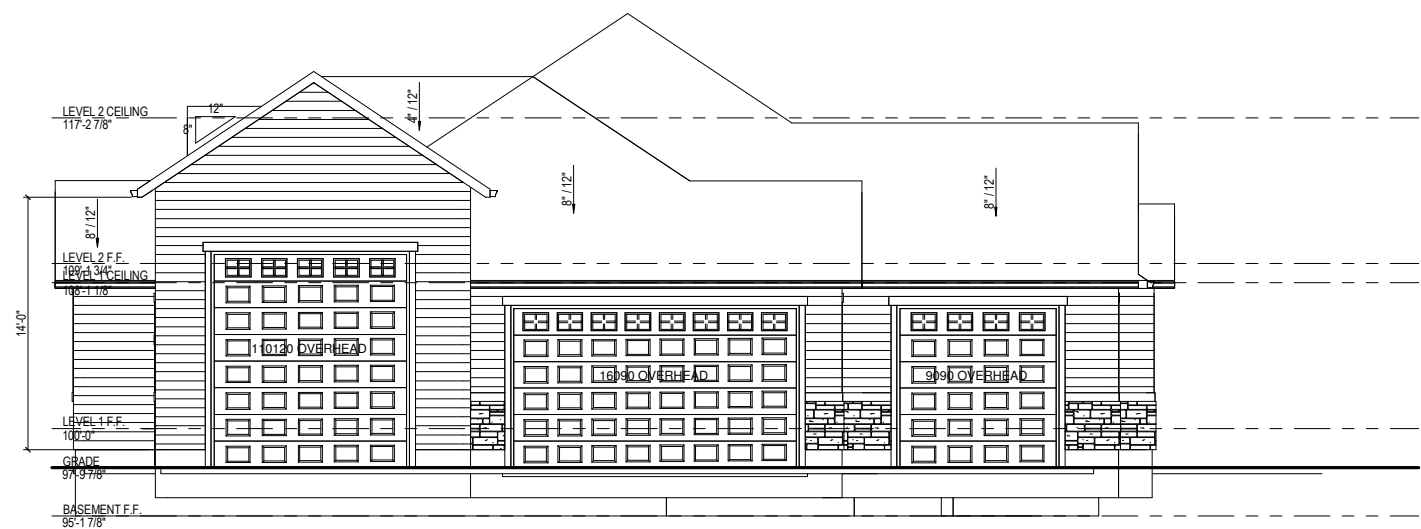
- REFER TO GENERAL NOTE & DETAIL SHEETS FOR TYPICAL REQUIREMENTS & MATERIALS
- GRADE CONDITIONS MAY VARY FROM SHOWN. BUILDER SHALL VERIFY & COORDINATE PER ACTUAL SITE CONDITIONS
- BUILDER TO PROVIDE ROOF & SOFFIT VENTS
- INSTALL ALL PRE-MANUFACTURED MATERIALS PER MANUFACTURERS REQUIREMENTS, RECOMMENDATIONS & SPECIFICATIONS. INSTALLATION REQUIREMENTS TO BE SPECIFIC TO THIS PROJECT PROVIDED BY BUILDER
- SEE GENERAL NOTES SHEET A6.0 FOR ♦ ITEMS.

MATERIALS LEGEND

-  BRICK VENEER
-  STONE VENEER
-  COMPOSITE LAP SIDING
-  COMPOSITE SHINGLES
-  COMPOSITE BOARD AND BATTEN - 2 3/4" x 3/4" @ 16" O.C.
-  COMPOSITE TRIM - 3/4"
-  STUCCO
-  STUCCO TRIM - 1"
-  STANDING SEAM METAL ROOF



REAR ELEVATION
SCALE: 3/16" = 1'-0"



RIGHT SIDE ELEVATION
SCALE: 3/16" = 1'-0"

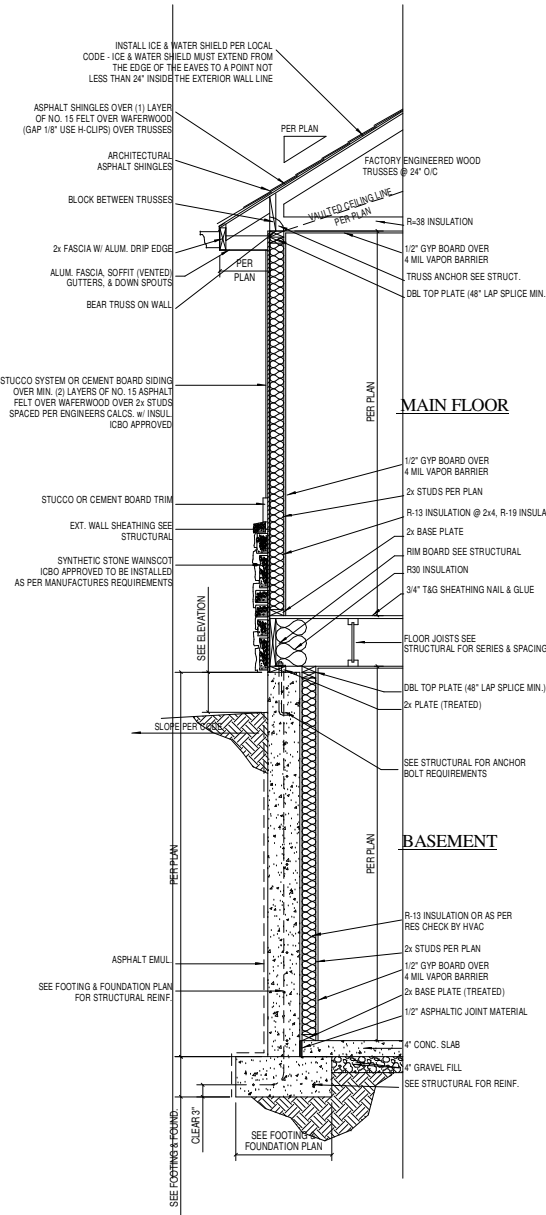


CHANDLER PLAN
REAR & RIGHT SIDE ELEVATIONS

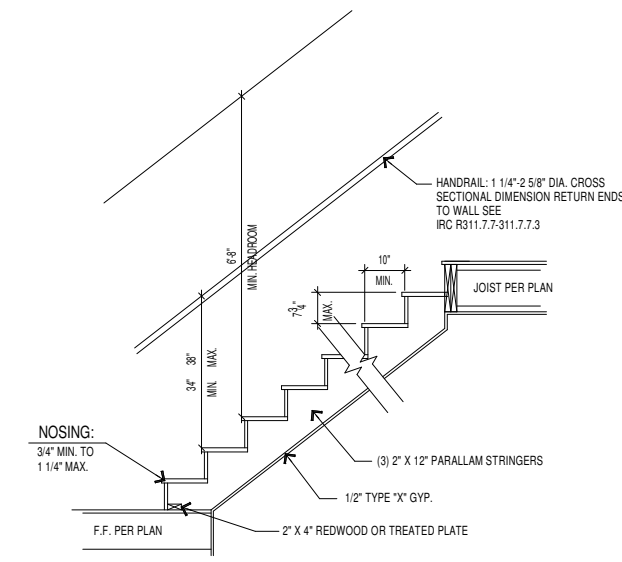
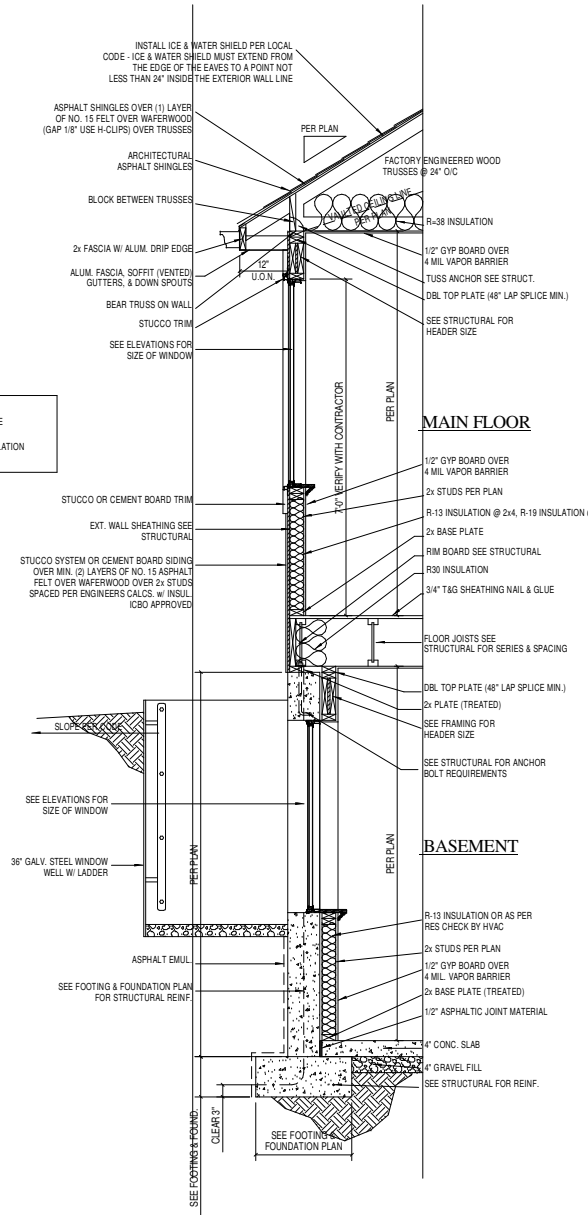
SUBDIVISION: RIVERS EDGE
CITY: LIBERTY
STATE: UTAH
LOT #: _____
SHEET: _____

DATE: _____
Issue Date
SHEET #:
A3.2

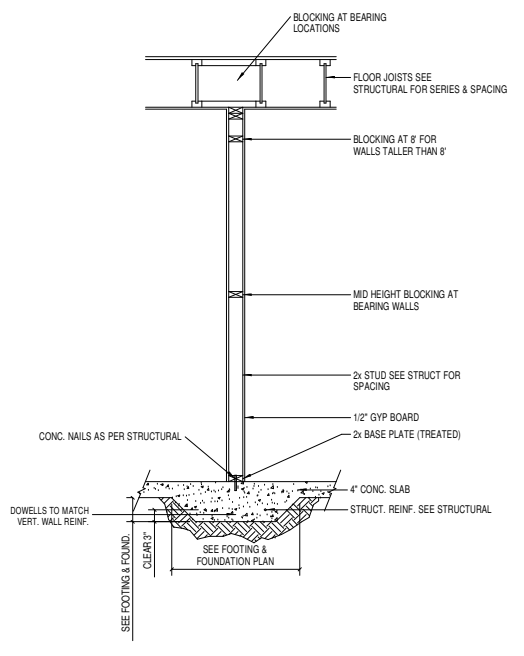
THESE DRAWINGS OR ANY PARTS THEREOF, AS INSTRUMENTS OF SERVICE, REMAIN THE PROPERTY OF THE ARCHITECTS AND MAY NOT BE REPRODUCED OR USED ON OTHER WORK WITHOUT THEIR WRITTEN CONSENT



NOTE:
EXTERIOR WALL FINISHES MUST BE LISTED, LABELED, AND INSTALLED AS PER MANUFACTURER'S INSTALLATION INSTRUCTION GUIDES.



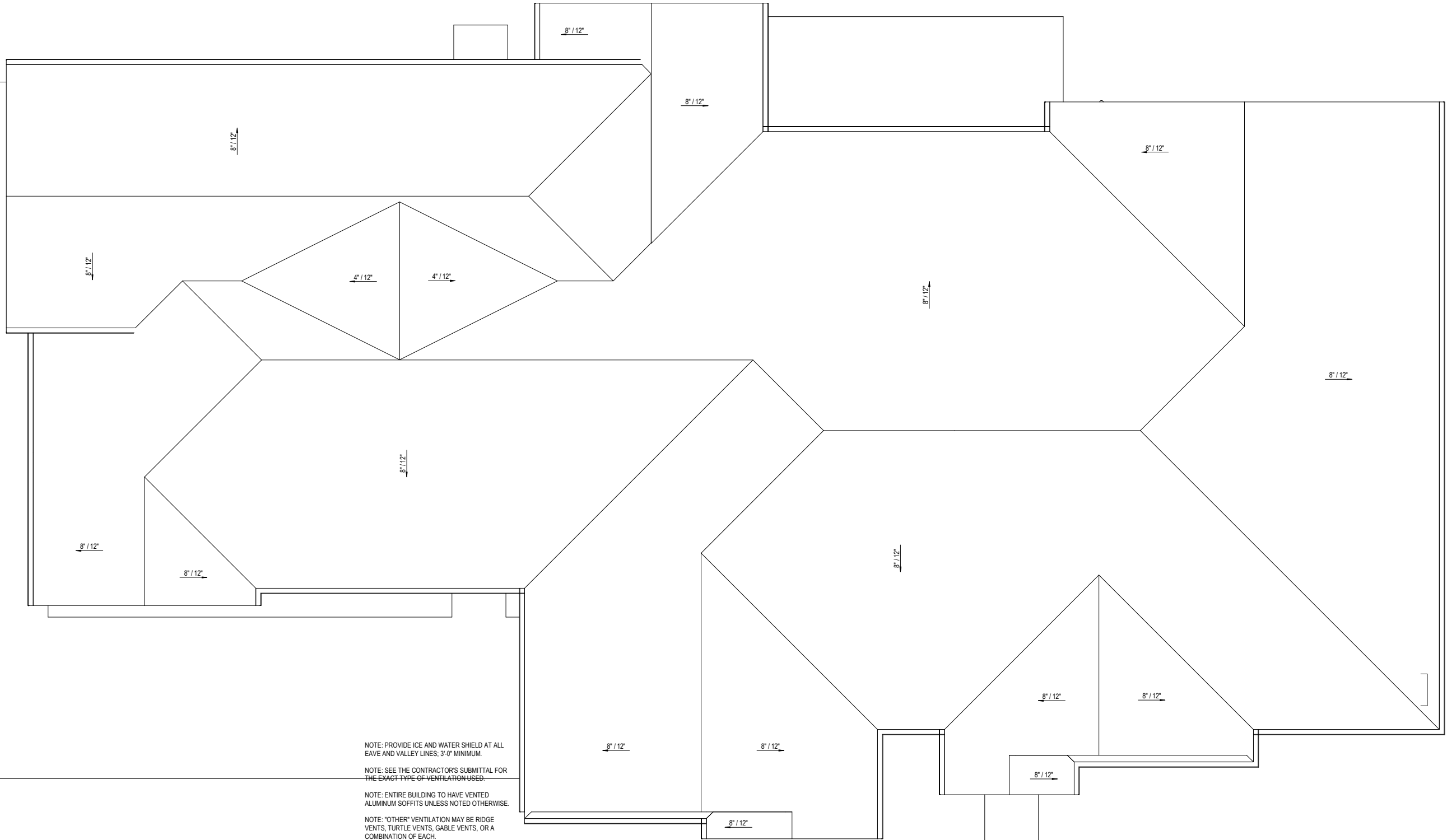
MIN. STAIR REQUIREMENTS
SCALE: 1/2" = 1'-0"



BEARING WALL DETAIL
SCALE: 1/2" = 1'-0"

A TYPICAL WALL SECTION
SCALE: 1/2" = 1'-0"

THESE DRAWINGS OR ANY PARTS THEREOF, AS INSTRUMENTS OF SERVICE, REMAIN THE PROPERTY OF THE ARCHITECTS AND MAY NOT BE REPRODUCED OR USED ON OTHER WORK WITHOUT THEIR WRITTEN CONSENT



- NOTE: PROVIDE ICE AND WATER SHIELD AT ALL EAVE AND VALLEY LINES; 3'-0" MINIMUM.
- NOTE: SEE THE CONTRACTOR'S SUBMITTAL FOR THE EXACT TYPE OF VENTILATION USED.
- NOTE: ENTIRE BUILDING TO HAVE VENTED ALUMINUM SOFFITS UNLESS NOTED OTHERWISE.
- NOTE: "OTHER" VENTILATION MAY BE RIDGE VENTS, TURTLE VENTS, GABLE VENTS, OR A COMBINATION OF EACH.
- NOTE: ROOFING IS TO BE 30 YEAR ARCHITECTURAL SHINGLES, TYP.

ROOF VENTILATION SCHEDULE				
TOTAL ROOF AREA	DIVISOR	VENTILATION REQUIRED		
		SOFFIT	OTHER	TOTAL
2,184 SF	300	3.6 SF	3.6 SF	7.3 SF

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

THESE DRAWINGS OR ANY PARTS THEREOF, AS INSTRUMENTS OF SERVICE, REMAIN THE PROPERTY OF THE ARCHITECTS AND MAY NOT BE REPRODUCED OR USED ON OTHER WORK WITHOUT THEIR WRITTEN CONSENT

SITE PLAN

- 1. Building location must comply with all city zoning regulations.
2. "Height of Building" means the vertical distance between a reference datum and the highest part of the building excluding roof structures such as chimneys, penthouses, towers and steeples.
3. Selected walls closer than 5 feet to property line shall be of one-hour fire resistive construction without doors or windows.
4. Eaves, overhangs and projections shall conform to IRC 2015 Section 302
5. Parapets or special roof construction is required on common walls for townhouses.
6. Building cannot be located on any easement or right of way.
7. Ground slopes may not exceed 2 horizontal to 1 vertical unless retained in an approved manner.
8. Footings of structures located adjacent to slopes steeper than 3 horizontal to 1 vertical must be set back from the slope.
9. Site shall be graded such that the ground slopes away from the foundation dropping at least 6 inches within 10 feet of the foundation.
10. Any retaining walls over 4 feet in height from the bottom of the footing to the top of the wall shall be of an approved design with engineer's details provided.
11. Cuts or fills are not permitted within 2 feet of the property line.
12. Drainage from the property may not exceed that which existed prior to development.
13. The owner/contractor shall verify with the city as to the need of a Soils observation report from a licensed soils engineer.
14. Water meter cannot be located in the driveway, sidewalk or similar area.
15. Homes located in potential flood hazard areas will be required to have elevation certificates prior to construction and after completion.
16. Addresses shall be provided which are plainly visible and legible from the street.

FLOOR PLANS

- 1. Fire separation between house and garage: The garage shall be separated from the residence and its attic area by not less than 1/2" gypsum board applied to the garage side.
2. Any door between the house and garage shall be a tight fitting, solid wood or hollow metal door, 1-3/8" thick or a 20 minute labeled door.
3. Duct penetrations shall be by minimum 26 gauge sheet metal, no openings into the garage are permitted.
4. Under no circumstances shall a garage have any openings into a room used for sleeping purposes.

STAIRWAYS

- 1. Stair treads shall have a maximum RISE of 7.75" and a minimum rise of 4". The minimum RUN shall be 10".
2. Winder treads shall have a minimum tread depth of 10 inches measured as above at a point 12 inches from the side where the treads are narrower.
3. Stairways shall not be less than 36" in width.
4. Every stairway and ramp shall have a landing with a dimension of at least exceed 36" measured in the direction of travel.
5. Stairways with 4 or more risers shall have at least one handrail.
6. Stairs shall have a headroom clearance of not less than 6'-6".
7. Enclosed space under stairs shall have the walls and soffit protected on the enclosed side with 1/2" sheetrock.
8. 36" high guards shall be provided on porches, balconies and raised floor surfaces located more than 30" above the floor or grade below.
9. Guards will have an ornamental pattern such that a sphere 4" in diameter cannot pass through.
10. Ramps slope not to exceed 1 unit vertical in 12 units horizontal.
11. Guardrail connection details shall be adequate to support 200 lbs. Of horizontal force per linear foot acting at a right angle to the top rail.
12. Handrails shall comply with section 1012 of the 2012 IRC

ARCHITECTURE & PLANS

- 1. These drawings or any parts thereof, as instruments of service, remain the Property of Ken Harris Architect and may not be reproduced or used on other work without written consent.
2. Square footages and dimensions are subject to change to comply with city ordinances, site and/or craftsmanship.
3. Verify all dimensions, conditions, and measurements on site prior to construction.

ROOM DIMENSIONS & MISC.

- 1. Ceiling heights of all habitable rooms (hallways, bathrooms, toilet rooms, laundry rooms, and portions of basements containing these spaces shall have a ceiling height of not less than 7 feet.
2. Houses shall have at least one room which shall have not less than 120 sq.ft. of floor area.
3. Habitable rooms other than kitchens shall be not less than 7 in any dimension.
4. There shall be a clear passageway of not less than 3' between counter fronts and appliances or walls.

EXITING FACILITIES

- 1. Houses shall have at least one 3'-0" x 6'-8" swinging type exit door to the exterior.
2. Landings are required on both sides of exterior doors.
3. All Exterior doors and windows shall comply with R612.
4. Hallways shall be not less than 36" wide.
5. Every sleeping room and basement shall have at least one operable, exterior window or door for emergency escape or rescue.
6. Windows whose openings will not allow a 4 inch diameter sphere to pass through the opening when the opening is in its largest opened position.

- 5.1. Minimum net clear opening of 5.7 sq. ft. (opening at grade level floor may be 5.0 sq. ft.)
5.2. Minimum net clear opening height dimension of 24"
5.3. Minimum net clear opening width dimension of 20"
5.4. Maximum finished sill height of 44" above the floor.
5.5. Window wells for emergency escape and rescue windows shall have a net clear opening of 9 sq. ft. with a minimum dimension of 36".
5.6. Emergency escape windows are allowed to be installed under decks and porches provided the location of the deck allows the emergency escape window to be fully opened and provides a path not less than 36 inches in height to a court or yard.
5.7. In dwelling units where the opening of an operable window is located more than 72 inches above the finished grade or surface below, the lowest part of the clear opening of the window shall be a minimum of 24 inches above the finished floor of the room in which the window is located.
5.7.1. Windows whose openings will not allow a 4 inch diameter sphere to pass through the opening when the opening is in its largest opened position.
5.7.2. Openings that are provided with window guards that comply with ASTM F2006 or F2009

LIGHT VENTILATION & SANITATION

- 1. All habitable rooms (bedrooms, living rooms, dining rooms, family rooms, etc.) shall be provided with natural light, from windows with an area of not less than 8% or artificial light producing 6 ft candles throughout.
2. All habitable rooms shall be provided with natural ventilation by means of exterior openings with an area of not less than 4% of the floor area of each room.
3. For the purpose of lighting and ventilation, a room may be considered as a portion of an adjoining room when at least one-half of the area of the common wall is open, unobstructed and provides an opening of not less than 1/10th of the floor area of the interior room or 25 sq.ft. which ever is greater.
4. The operable window area in bathrooms, water closet compartments, and other similar rooms shall not be less than 1-1/2 sq ft unless a mechanical ventilation system capable of producing 50 cfm for intermittent operation or 20 cfm for continuous operation is provided.
5. The house shall have at least one water closet, lavatory, bathtub or shower and kitchen sink equipped with hot and cold running water necessary for normal operation.
6. Enclosed attics and enclosed rafter spaces shall have ventilation for each separate space by ventilating openings protected against rain or snow.
7. An attic access 22"x 30" shall be provided at roof/ceiling areas and shall be located in a corridor, hallway, of other readily accessible location. There shall be 30" of headroom over the opening. If there is less than 30" maximum height in the attic, access need not be provided.
8. An energy analysis should be attached to / or included with the plan when turned into the city. Ken Harris Architecture does not provide this service, it must be provided by the Mechanical or Insulation Contractor. A permanent certificate shall be posted on or in the electrical distribution panel listing the predominant R-values of insulation installed in or on ceiling/roof, walls, foundation, (slab, basement wall, crawlspace wall and/or floor) and ducts outside the conditioned spaces. U-factors of windows, and solar heat gain coefficient of windows. The type and efficiency of heating, cooling and service water heating equipment shall also be listed.

GLAZING

- 1. Glass in doors shall be safety glazed.
2. Glazing adjacent to a door within a 24" arc of either door edge when closed, must be safety glazed if the bottom edge is within 60" of the floor or walking surface.
3. Glazing panels larger than 9 sq. ft. located less than 18" above & within 36" horizontally of a floor or walking surface shall be safety glazed.
4. Glazing in shower and bathtub rooms within 60" above the walking surface, including any walls, windows in walls and doors shall be safety glazed.
5. Glazing within 5' horizontally and 60" vertically of an indoor or outdoor pool or spa deck area shall be safety glazed.
6. Glazing at walls enclosing stairs and landings (and for 5' beyond the top or bottom of the stair) shall be safety glazed if less than 60" above the walking surface.
7. Glass in railings shall be tempered or laminated.
8. Safety glazing material shall be permanently labeled.
9. All Exterior doors and windows shall comply with R612.
10. In dwelling units, where the opening of an operable window is located more than 72 inches (1829 mm) above the finished grade or surface below, the lowest part of the clear opening of the window shall be a minimum of 24 inches (610 mm) above the finished floor of the room in which the window is located.
10.1. Windows whose openings will not allow a 4 inch diameter sphere to pass through the opening when the opening is in its largest opened position.
10.2. Openings that are provided with window fall prevention devices that comply with Section R312.2.1 & 312.2.2.
10.3. Openings that are provided with fall prevention devices that comply with ASTM F2009.
10.4. Windows that are provided with opening limiting devices that comply with Section R312.2.2.

MASONRY

- 1. See IRC Section R606 for general masonry construction.
2. Wood members shall not be used to permanently support the load of any masonry or concrete except nonstructural floor or roof surfacing not more than 4" thick.
3. Brick and stone veneer are only permitted on the first floor above grade unless all provisions of the state amendment for additional bracing are met.
4. Stone units, 5" maximum thickness, may be applied with a 1" minimum grouted backing space which is reinforced by not less than 2"x 2" 16 gao galvanized wire mesh placed over waterproof paper backing and anchored directly to studs spaced no more than 16" on center.
5. Fireplace and Chimney:
5.1. Masonry and concrete fireplaces: see R1001 & R1003
5.2. Factory-built chimneys and fireplaces:
5.2.1. Factory-built chimneys and fireplaces shall be listed by an approved testing agency and have an ICC ES approval number.
5.2.2. Fire blocking with non-combustible material is required at spaces between floors and ceilings through which chimneys pass.
5.2.3. Hearth extensions of listed factory built fireplaces shall conform to the conditions of listing and manufacturers installation instructions.
5.3. Fireplace chimneys shall extend at least 24" above the roof, any opening, or any part of the building within 10'.
6. Masonry and concrete fireplaces: see R1001 & R1003
6.1. Factory-built chimneys and fireplaces:
6.1.1. Factory-built chimneys and fireplaces shall be listed by an approved testing agency and have an ICC ES approval number. They shall be installed in exact accordance with the terms of their listings and the manufacturer's instructions.
6.1.2. Fire blocking with non-combustible material is required at spaces between floors and ceilings through which chimneys pass.
6.1.3. Hearth extensions of listed factory built fireplaces shall conform to the conditions of listing and manufacturers installation instructions.
6.1.4. Fireplace chimneys shall extend at least 24" above the roof, any opening, or any part of the building within 10'.

ROOFING

- 1. Roofing materials must have an approval by an approved testing agency. Roof slope will determine the types of roofing that can be used.
2. Asphalt shingles on roofs less than 4/12 pitch must be over an approved water shield.
3. Step flashing shall be used where the roof meets a vertical surface.
4. Roof slope will determine the types of roofing that can be used. Roofing materials must be installed exactly as intended by the approval.
5. Gas fired furnaces and water heaters shall not be located in a bedroom, bathroom, storage closet, toilet room or in any enclosed space with access only through such a room or space.
6. Water heaters and heating appliances located in garages which generate a glow, spark or flame shall be installed with the pilots, burners or heating elements and switches at least 18" above the floor level.
7. The water heater space and furnace room shall have an opening or door with a continuous passageway at least 2' in width and large enough to permit removal of the largest equipment in the room.
8. It shall be possible to remove water heaters without first removing any permanent part of the structure.
9. An unobstructed working space at least 30" deep and the height of the furnace or water heater (30" minimum) shall be provided along the entire front or firebox side of the furnace.
10. The building shall comply with Chapter 17 of the IRC Section M1701.

ENERGY ANALYSIS (MECH-CHECK)

- 1. An energy analysis should be attached to / or included with the plan when turned into the city. Ken Harris Architecture does not provide this service, it must be provided by the Mechanical or Insulation Contractor. A permanent certificate shall be posted on or in the electrical distribution panel listing the predominant R-values of insulation installed in or on ceiling/roof, walls, foundation, (slab, basement wall, crawlspace wall and/or floor) and ducts outside the conditioned spaces. U-factors of windows, and solar heat gain coefficient of windows. The type and efficiency of heating, cooling and service water heating equipment shall also be listed.
2. A permanent certificate shall be posted on or in the electrical distribution panel listing the predominant R-values of insulation installed in or on ceiling/roof, walls, foundation, (slab, basement wall, crawlspace wall and/or floor) and ducts outside the conditioned spaces. U-factors of windows, and solar heat gain coefficient of windows. The type and efficiency of heating, cooling and service water heating equipment shall also be listed.

CONSTRUCTION DETAILS

- 1. Any trusses to be used must have details provided for the specific house. R602.10. A truss layout indicating locations and orientation of all types of trusses must be provided from the truss manufacturer before a review can be completed.
2. Joist spans shall be in accordance with Table R502.3.1 or designed under IRC criteria.
3. Any product used shall be approved as an alternate by an ICBO Evaluation Report.
4. Walls supporting two floors shall be 2x6 or 3x4 studs at not less than 16" o.c. Stud height in bearing walls cannot exceed 10'. Stud height in non-bearing wall cannot exceed 14' for 2x4s or 20' for 2x6s unless engineered.
5. Subfloor and roof sheathing should be in accordance with R503 and R803.
6. All weather exposed surfaces shall have a weather-resistive barrier to protect the walls under finish material.
7. Stucco system shall be installed in accordance with R703.6 or shall be an approved system with an ICBO Evaluation Service number.
8. Any component of a house which does not fall under the provisions for IRC conventional construction may require structural engineering.
9. A double wrap of rebar is required around all windows and over the tops of all doors in foundations.
10. Individual concrete or masonry piers shall project at least 6" above exposed ground unless the columns or posts which they support are of approved wood with natural resistance to decay or of treated wood.
11. Ridgeboards, hips and valley rafters shall be the same depth as the cut end of the supported rafters.
12. Platforms, catwalks, light, and GFI outlets are required for attic appliances, insulation shall be kept away from attic appliances.

MISCELLANEOUS

- 1. Laundry chutes, 26ga sheet metal with locklapped joints. All openings to the enclosure shall be protected by not less than a self closing wood door 1.3/8" thick or equivalent.
2. A double wrap of rebar is required around all windows and over the tops of all doors in foundations.
3. Waterproofing is required for all foundations enclosing basements below finish grade.
4. Beam pockets in concrete or masonry walls shall be sized to allow a minimum 1/2" air space on the top, sides, and ends of the beam.
5. Provide a 1/2" minimum clearance between top plate of interior partitions and bottom chord of trusses (to ensure that loading will be as designed)
6. Provide a double top plate with a minimum 48" lap splice.
7. Design and details of factory built trusses must be signed by Utah licensed engineer, and are to be on job site for rough inspection.
8. Columns and posts located on concrete or masonry floors or decks exposed to the weather or to water splash or in basements, and which support permanent structures, shall be supported by concrete piers or metal pedestals projecting above floors unless approved wood of natural resistance to decay or related wood is used.
9. Use 9" flashing and caulk for windows, and to have windows installed as per manufactures specs.
10. Individual concrete or masonry piers shall project at least 6" above exposed ground unless the columns or posts which they support are of approved wood with natural resistance to decay or of treated wood.
11. Ridgeboards, hips and valley rafters shall be the same depth as the cut end of the supported rafters.
12. Platforms, catwalks, light, and GFI outlets are required for attic appliances, insulation shall be kept away from attic appliances.

PLUMBING & MECHANICAL

- 1. Each water closet shall be located in a clear space not less than 30" in width (15" from the center to any obstruction) and have a clear space in front of not less than 21".
2. A shower compartment shall be 30" square min. with 24" clear space in front.
3. Cement, fiber-cement or glass mat gypsum backers installed in accordance with manufactures recommendations shall be used as backers for wall tile in tub and shower areas and wall panels in shower areas.
4. All appliances (water heater, boiler, etc.) which require pressure relief valves shall be provided with a full sized drain which shall extend from the valve to an indirect waste, such as a floor drain.
5. Gas fired furnaces and water heaters shall not be located in a bedroom, bathroom, storage closet, toilet room or in any enclosed space with access only through such a room or space.
6. Water heaters and heating appliances located in garages which generate a glow, spark or flame shall be installed with the pilots, burners or heating elements and switches at least 18" above the floor level.
7. The water heater space and furnace room shall have an opening or door with a continuous passageway at least 2' in width and large enough to permit removal of the largest equipment in the room.
8. It shall be possible to remove water heaters without first removing any permanent part of the structure.
9. An unobstructed working space at least 30" deep and the height of the furnace or water heater (30" minimum) shall be provided along the entire front or firebox side of the furnace.
10. The building shall comply with Chapter 17 of the IRC Section M1701.

ELECTRICAL

- 1. Lighting Outlets
1.1. At least one wall switch controlled lighting outlet shall be installed in every habitable room; in bathrooms, hallways, stairways, attached garages and detached garages with electric power, and at outdoor entrances (not including garage overhead or vehicle doors).
1.2. At least one switch controlled, lighting outlet is required at the entry of attic, crawl space, utility room or basement with storage or equipment.
1.3. Lighting is required for all interior and exterior stairways.
1.4. Incandescent fixtures in closets shall be a minimum of 12" from any shelf edge, measured horizontally (6" for fluorescent fixtures).
1.5. All light fixtures and switches in bathroom / shower areas or in damp or wet locations shall comply with the IRC E4003.9 - E4003.11
2. Receptacle Outlets
2.1. Receptacles shall be installed so that no point measured horizontally along the floor line in any wall space is more than 6 feet from a receptacle outlet.
2.2. Kitchen and dining area counter tops shall have receptacle outlets at each counter space wider than 12".
2.3. 125V single phase, 15 or 20 ampere rated receptacle outlet shall be installed at an accessible location for the servicing of heating, air-conditioning and refrigeration equipment.
2.4. Outlets shall be installed in bathrooms within 36" of the outside edge of the basin on the wall adjacent to the basin.
2.5. At least two outlets that are accessible at ground level shall be installed outdoors.
2.6. At least one outlet shall be installed for the laundry.
2.7. At least one outlet, in addition to any provided for laundry, shall be installed in each basement and each attached garage, and in each detached garage with electric power.
2.8. For hallways 10' or more long, one outlet shall be provided.
2.9. Permanent access must be provided to all hot tub and whirlpool tub equipment requiring service.
3. Smoke and multiple station smoke alarms in new construction, the required alarms shall receive their primary power from the building wiring and be equipped with a battery back-up.
4. Detectors shall be wired in series so that an audible alarm sounds in all sleeping areas at the same time.
5. The electrical panel shall have a clear working space 30" wide, 36" deep and 6'-6" high in front.
6. All receptacles serving kitchen countertops, in garages, baths, unfinished basements and outside receptacles shall be GFCI protected.
7. GFCI protection is required at:
7.1. All exterior outlets (must be waterproof and a minimum of one).
7.2. All unfinished basement outlets (minimum of one).
7.3. Attached garage outlets (except dedicated) (minimum of one).
8. Outlet to be shown within 25' of HVAC equipment.
9. A carbon monoxide detector is req'd on each level of the house.
10. All light fixtures above tubs and showers will be rated for damp location.
11. U-FER ground shall be installed as per E3608 and NEC 250.50.
12. Electrical panels must comply with IRC E3405 for 30" by 36" working space and 6'-6" headroom.
13. All 125-volt, single phase, 15- or 20-ampere receptacles installed in garages shall have ground-fault circuit-interrupter protection for personnel.
14. A minimum of 50 percent of the lamps in permanently installed lighting fixtures shall be high-efficiency lamps.

NOTE: REFER TO THE 2015 IRC & 2015 IECC FOR SECTIONS & TABLES.

NOTE: IT IS THE CONTRACTORS RESPONSIBILITY TO COMPLY WITH THE LOCAL JURISDICTIONS CURRENT ADOPTED CODES.

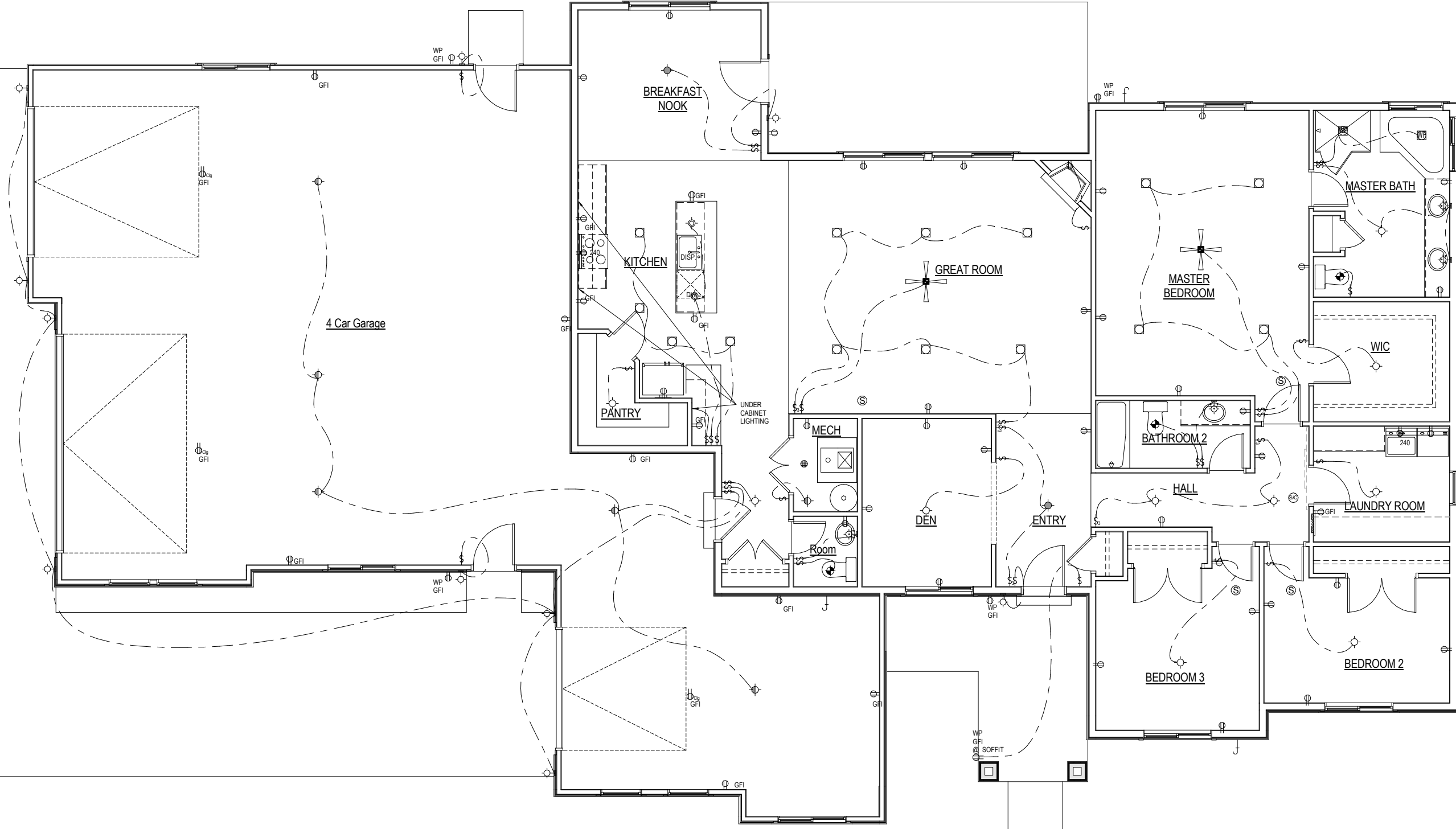


CHANDLER PLAN GENERAL NOTES

LOT #, SUBDIVISION, RIVERS EDGE, CITY, LIBERTY, STATE, UTAH, SHEET:

DATE: Issue Date SHEET #: A6.0

THESE DRAWINGS OR ANY PARTS THEREOF, AS INSTRUMENTS OF SERVICE, REMAIN THE PROPERTY OF THE ARCHITECTS AND MAY NOT BE REPRODUCED OR USED ON OTHER WORK WITHOUT THEIR WRITTEN CONSENT



MAIN ELECTRICAL PLAN
SCALE: 1/4" = 1'-0"

GENERAL NOTES

- ALL RECEPTACLES AT KITCHEN, GARAGE, AND BATHROOM COUNTERTOPS, AT EXTERIOR GRADE LEVEL, AND AT UNFINISHED BASEMENTS ARE TO BE GFI.
- WIRING WITHIN 6'-0" OF ATTIC ACCESS MUST HAVE LUMBER-GUARD STRIP.
- ELECTRICAL IS SCHEMATIC ONLY. VERIFY WITH CONTRACTOR AND OWNER.
- COMBINATION ARC FAULT PROTECTION ARE REQUIRED AT ALL BEDROOM LIGHTS, SWITCHES, SMOKE DETECTORS, LAUNDRY, AND KITCHEN RECEPTACLES.
- RECESSED CAN LIGHTS ABOVE TUBS OR SHOWERS SHALL HAVE LENS GASKET.
- ALL EXTERIOR OUTLETS TO HAVE UL APPROVED IN-USE COVERS.
- ALL ELECTRICAL RECEPTACLES TO BE TAMPER-PROOF.
- A SERVICE OUTLET MUST BE INSTALLED BY THE FURNACE.
- ALL CLOSET LIGHTING MUST BE INSTALLED ON THE CEILING 12" FROM THE NOSING OF THE SHELF AND 12" FROM ANY OPENING EDGE OF THE ATTIC ACCESS.
- ALL HOMES WITH ROOF CRICKETS REQUIRE AN OUTLET TO BE LOCATED NEAR THE TOP OF EACH ROOF CRICKET AND LOCATED 12" ABOVE THE PLANE OF THE ROOF. THESE OUTLETS WILL BE A FEED BY A DIRECT GFI OUTLET LOCATED BELOW THE ELECTRICAL PANEL.
- ALL LIGHTING FIXTURES IN CLOSETS ARE REQUIRED TO BE 12" HORIZONTAL CLEARANCE TO THE NOSING EDGE OF THE SHELF.

ELECTRICAL LEGEND

- | | |
|--|---|
| | SINGLE POLE SWITCH |
| | THREE WAY SWITCH |
| | DIMMER SWITCH |
| | KEYLESS FIXTURE |
| | HANGING LIGHT FIXTURE |
| | CEILING FIXTURE - FLUSH MOUNT |
| | WALL MOUNTED FIXTURE |
| | RECESSED EYEBALL CAN FIXTURE |
| | WATERPROOF RECESSED CAN |
| | PENDANT LIGHT FIXTURE |
| | RECESSED CAN LIGHT FIXTURE |
| | WALL SCONCE |
| | SMOKE DETECTOR - WIRED IN SERIES |
| | CARBON MONOXIDE AND SMOKE DETECTOR COMBINATION (1) AT EACH FLOOR LEVEL CENTRALLY LOCATED PER CODE |
| | EXHAUST FAN |
| | FLOOD LIGHT |
| | CEILING FAN ROUGH-IN |
| | CEILING FAN |
| | WIRING (SCHEMATIC ONLY) |
| | DUPLEX OUTLET |
| | CEILING OUTLET |
| | FLOOR OUTLET |
| | GROUND FAULT INTERRUPTER |
| | RANGE OUTLET |
| | WATERPROOF OUTLET |
| | HIGH VOLTAGE OUTLET (240) |
| | DATA OUTLET |
| | TELEVISION OUTLET |
| | TELEPHONE OUTLET |
| | ELECTRICAL PANEL |
| | MAIN WATER SHUT OFF VALVE |



CHANDLER PLAN
MAIN ELECTRICAL PLAN

SUBDIVISION: RIVERS EDGE
CITY: LIBERTY
STATE: UTAH

DATE: Issue Date
SHEET #: **E1.1**

FOOTING, FOUNDATION AND CONCRETE

3,000 PSI CONCRETE										60,000 PSI STEEL									
MAXIMUM WALL HEIGHT FROM T.O. FOOTING	TOP EDGE SUPPORT	MIN. WALL WIDTH	VERTICAL WALL REIN. SIZE SPACING	HORIZONTAL WALL REIN. SIZE SPACING	ADDITIONAL REIN. FOR OPENINGS			MAX. LINTEL LENGTH	MIN. LINTEL DEPTH	ADDITIONAL FTG. SIZE AND REIN. LENGTH	NOTES	FOUNDATION BOLTS (MIN. 2" EMBEDMENT)							
					ABOVE NO. SIZE	SIDES NO. SIZE	BELOW NO. SIZE												
2'-0" TO 6'-0"	NONE	8"	#4 24" O.C.	#4 18" O.C.	2 #4	1 #4	1 #4	2"	6"	SEE FTG. SCHED.		3/2" x 10" @ 32" O.C.							
5'-1" TO 6'-0"	NONE	8"	#4 18" O.C.	#4 18" O.C.	2 #4	1 #4	1 #4	3"	6"	4 #4 X CONT.	SEE NOTE 8 BELOW	3/2" x 10" @ 32" O.C.							
6'-1" TO 7'-0"	NONE	8"	#4 12" O.C.	#4 18" O.C.	2 #4	1 #4	1 #4	4"	8"	5 #4 X CONT.	SEE NOTE 8 BELOW	3/2" x 10" @ 32" O.C.							
7'-10" TO 8'-0"	FLOOR	8"	#4 24" O.C.	#4 18" O.C.	2 #4	1 #4	1 #4	5"	10"	SEE FTG. SCHED.		3/2" x 10" @ 32" O.C.							
8'-1" TO 9'-0"	FLOOR	8"	#4 16" O.C.	#4 18" O.C.	2 #4	1 #4	1 #4	6"	12"	SEE FTG. SCHED.		3/2" x 10" @ 32" O.C.							
9'-1" TO 10'-0"	FLOOR	8"	#4 12" O.C.	#4 12" O.C.	2 #4	1 #4	1 #4	6"	12"	2 #4 X CONT.	USE MIN F-24 FOOTING	3/2" x 10" @ 24" O.C.							
10'-1" TO 11'-0"	FLOOR	8"	#4 8" O.C.	#4 12" O.C.	2 #4	1 #4	1 #4	6"	12"	2 #4 X CONT.	USE MIN F-24 FOOTING	3/2" x 10" @ 24" O.C.							
> 11'-0"	REQ. ENG.	-	-	-	-	-	-	-	-	-	REQ. ENG.	-							

NOTES:
 1. REBAR TO BE PLACED IN THE CENTER OF THE WALL AND EXTEND TO WITHIN 3" OF THE TOP OF THE WALL.
 2. #4 FOOTING COWELS SHALL EXTEND 24" INTO THE FOUNDATION AND MATCH VERTICAL STEEL.
 3. ONE BAR SHALL BE LOCATED IN THE TOP 3" AND ONE BAR IN THE BOTTOM 3" OF THE FOUNDATION WALL (THE REMAINING EQUALLY SPACED BETWEEN).
 4. BARS SHALL BE PLACED WITHIN 2" OF THE OPENING AND EXTEND 24" BEYOND THE EDGE OF THE OPENING.
 5. THIS TABLE ASSUMES A MINIMUM OF 1500 PSF BEARING CAPACITY, 38 PSF EQUIVALENT FLUID PRESSURE AND A GLOBALLY STABLE SITE.
 6. ALL FOUNDATION STEPS SHALL BE 2'-0" MINIMUM.
 7. USE 3" x 3" x 1/2" WASHERS, IF SLOTTED WASHER IS USED, ADD OUT WASHER.
 8. LARGER FOOTINGS AND INCREASED FOUNDATION RE-INFORCEMENT SPECIFIED ON 5'-1" TO 7'-0" WALLS MAY BE REDUCED TO FOOTING SIZE SPECIFIED ON PLANS (MIN F-20) AND WALL RE-INFORCEMENT PLACED AT 24" O.C. VERTICAL AND 18" O.C. HORIZONTAL PROVIDED ONE OF THE FOLLOWING CONDITIONS EXIST:
 A. 5'-1" TO 7'-0" WALL LENGTH NOT TO EXCEED 15'-0" BEFORE A JOG IN THE FOUNDATION
 B. 5'-1" TO 7'-0" WALL LENGTH NOT TO EXCEED 15'-0" BEFORE IT STEPS BELOW 5'1" IN HEIGHT
 C. UNBALANCED BACKFILL DOES NOT EXCEED 4'
 9. MINIMUM STRENGTH REQUIRES 2,500 PSI CONCRETE; HOWEVER, AS PER IRC 402.2, 3,000 PSI CONCRETE SHALL BE USED

TYPE	WIDTH	LENGTH	THICK	REINFORCEMENT
F-16	16"	CONT.	10"	2: # 4 BARS CONT.
F-18	18"	CONT.	10"	2: # 4 BARS CONT.
F-20	20"	CONT.	10"	2: # 4 BARS CONT.
F-24	24"	CONT.	10"	3: # 4 BARS CONT.
F-30	30"	CONT.	10"	3: # 4 BARS CONT.
F-36	36"	CONT.	10"	4: # 4 BARS CONT.
S-24	24"	24"	10"	3: # 4 BARS EACH WAY
S-30	30"	30"	10"	3: # 4 BARS EACH WAY
S-36	36"	36"	10"	4: # 4 BARS EACH WAY
S-42	42"	42"	12"	5: # 4 BARS EACH WAY
S-48	48"	48"	12"	6: # 4 BARS EACH WAY
S-60	60"	60"	12"	7: # 4 BARS EACH WAY

ALL FOOTINGS ARE BASED ON ALLOWABLE SOIL BEARING PRESSURE OF 1500 PSF. FOOTINGS SHALL BEAR ON UNDISTURBED SOIL OR ENGINEERED GRANULAR FILL COMPACTED TO 95% OF MAXIMUM DENSITY. NO FOOTINGS SHALL BE PLACED IN WATER OR FROZEN GROUND. ALL FOOTINGS TO BE PLACED AT MIN. BELOW LOCAL FROST DEPTH, CONTINUOUS AND MONOLITHIC POUR. CHANGES IN ELEV. SHALL BE STEPPED WITH STEP HEIGHT NOT HIGHER THAN 1/2 THE STEP LENGTH AND NOT GREATER THAN 5 FT. MIN. 6" THICKNESS ON VERT. STEP. FOOTINGS TO HAVE 2 #4 BAR CONTINUOUS. NOTIFY ENGINEER IF GRADE DROPS OVER 8 FEET IN 24 FEET (G.T. 1 TO 3 SLOPE) SO THAT APPROPRIATE DESIGN CHANGES MAY BE MADE TO FOUNDATION AND FOOTINGS.

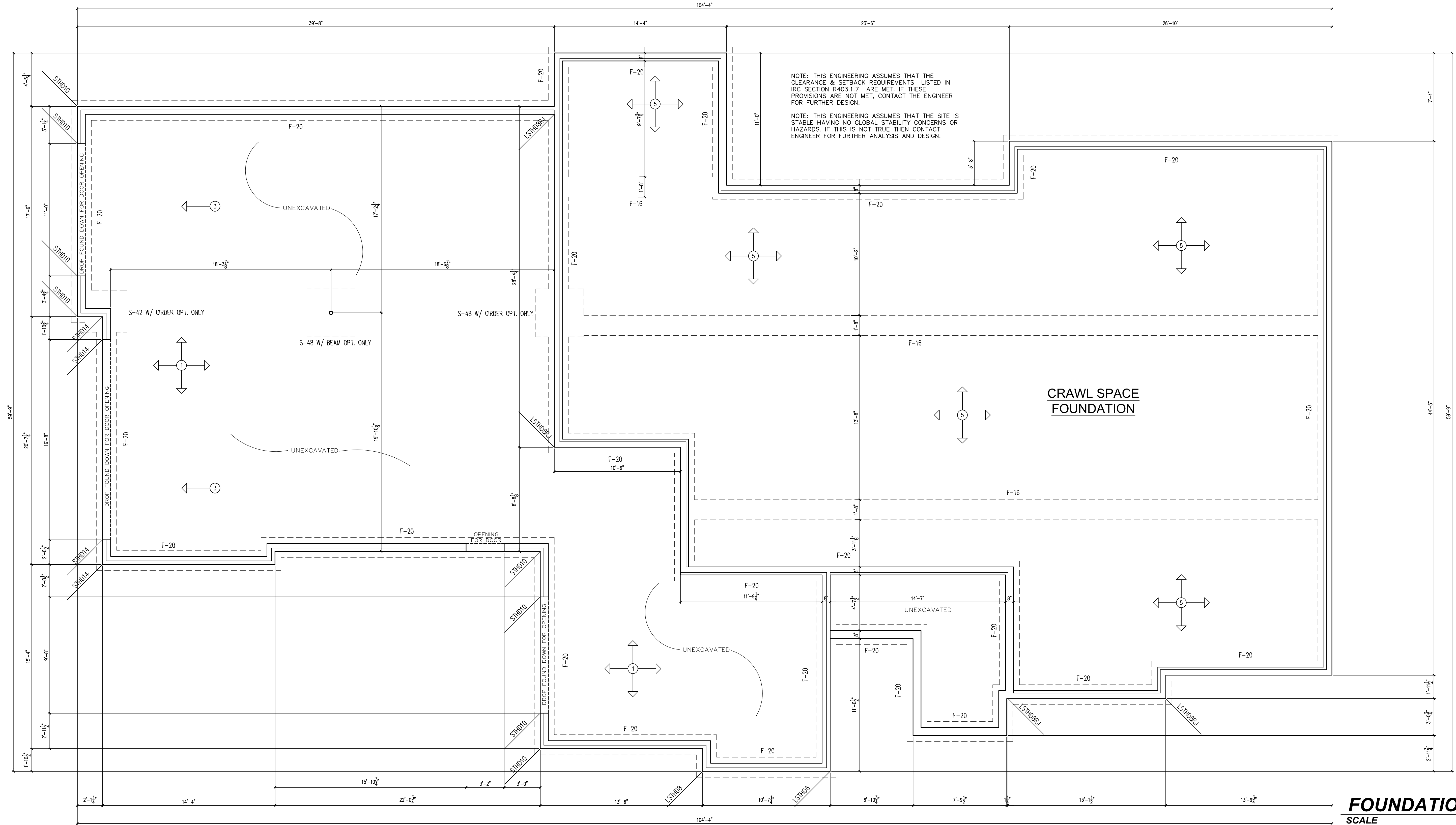
ALL FOOTINGS, FOUNDATIONS, AND INTERIOR SLABS SHALL BE NORMAL WT. CONCRETE WITH A COMPRESSIVE STRENGTH EQUAL TO AT LEAST 2,500 PSI WITHIN 28 DAYS AFTER POURING. THE WATER/CEMENT RATIO SHALL BE NO GREATER THAN .50 WITH A MINIMUM CEMENT CONTENT OF 504 LBS. PER CUBIC YARD ALL CONC WORK SHALL BE PLACED, CURED, STRIPPED, AND PROTECTED AS DIRECTED BY THE SPECIFICATIONS AND ACI STANDARDS AND PRACTICES.

ALL REINFORCING SHALL BE DETAILED AND PLACED IN ACCORDANCE WITH ACI STANDARD 318. REINFORCEMENT SHALL BE FREE FROM MUD AND OIL AND OTHER NON-METALLIC COATINGS THAT HAMPER BONDING CAPACITY. ALL SPLICES IN CONTINUOUS REINFORCING SHALL LAP 30 BAR DIAMETERS.

VERT & HORIZ. #4 BAR (GRADE 60) AS PER FND SCHEDULE. OPENINGS TO HAVE 1 VERT. #4 BAR EA. SIDE OF OPENING TIED TO HORIZ. BAR. 2 #4 BAR ABOVE AND 1 #4 BELOW. WINDOW OPENING EXTENDING 36" BEYOND OPENING. USE ANCHOR BOLTS AS PER FND SCHEDULE USE SIMPSON STRHD(RJ) STRAPS AS NOTED ON DRAWING. OWNER/CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS LISTED ON THE DRAWING. VERIFICATION OF ALL SITE CONDITIONS INCLUDING SITE STABILITY IS THE RESPONSIBILITY OF OTHERS.

ALLOW 14 DAYS FOR CONCRETE TO CURE PRIOR TO BACKFILL.

- FOUNDATION KEY NOTES:**
- 4" CONCRETE SLAB OVER COMPACT FILL
 - FOOTING BELOW FOUNDATION WALL (TYPICAL) (SEE SCHEDULE FOR SIZE AND REBAR PLACEMENT)
 - 2" MIN SLOPE FOR GARAGE SLAB (SLOPE TOWARDS DOOR OPENING)
 - FOOTING BELOW ALL POSTS (TYP.)
 - 6 MIL VAPOR BARRIER OVER COMPACT FILL (TAPE ALL EDGES)
 - FOOTING BELOW ALL BEARING WALLS



FOUNDATION PLAN
SCALE 1/4"

PLAN STATUS
 PRELIMINARY DRAWINGS
 DATED: _____
 1ST DRAFT DATED: _____
 FINAL DRAFT DATED: _____
 PERMIT SET DATED: _____
 2-24-18
REVISIONS:
 DATE: _____
 DATE: _____
 DATE: _____
 DATE: _____

COTTLE HOMES
ADDRESS



PLAN 2473 SIDE LOAD
ADDRESS

PLAN STATUS

PRELIMINARY DRAWINGS
DATED:

1ST DRAFT DATED:

FINAL DRAFT DATED:

PERMIT SET DATED:

2-24-18

REVISIONS:

DATE:

DATE:

DATE:

DATE:

DATE:

COTTLE HOMES
ADDRESS

Structural Design and Analysis
4883 Old Highway 94, Suite A
York, PA 17403
717-801-8762, 3501
York Engineering

PLAN 2473 SIDE LOAD
ADDRESS

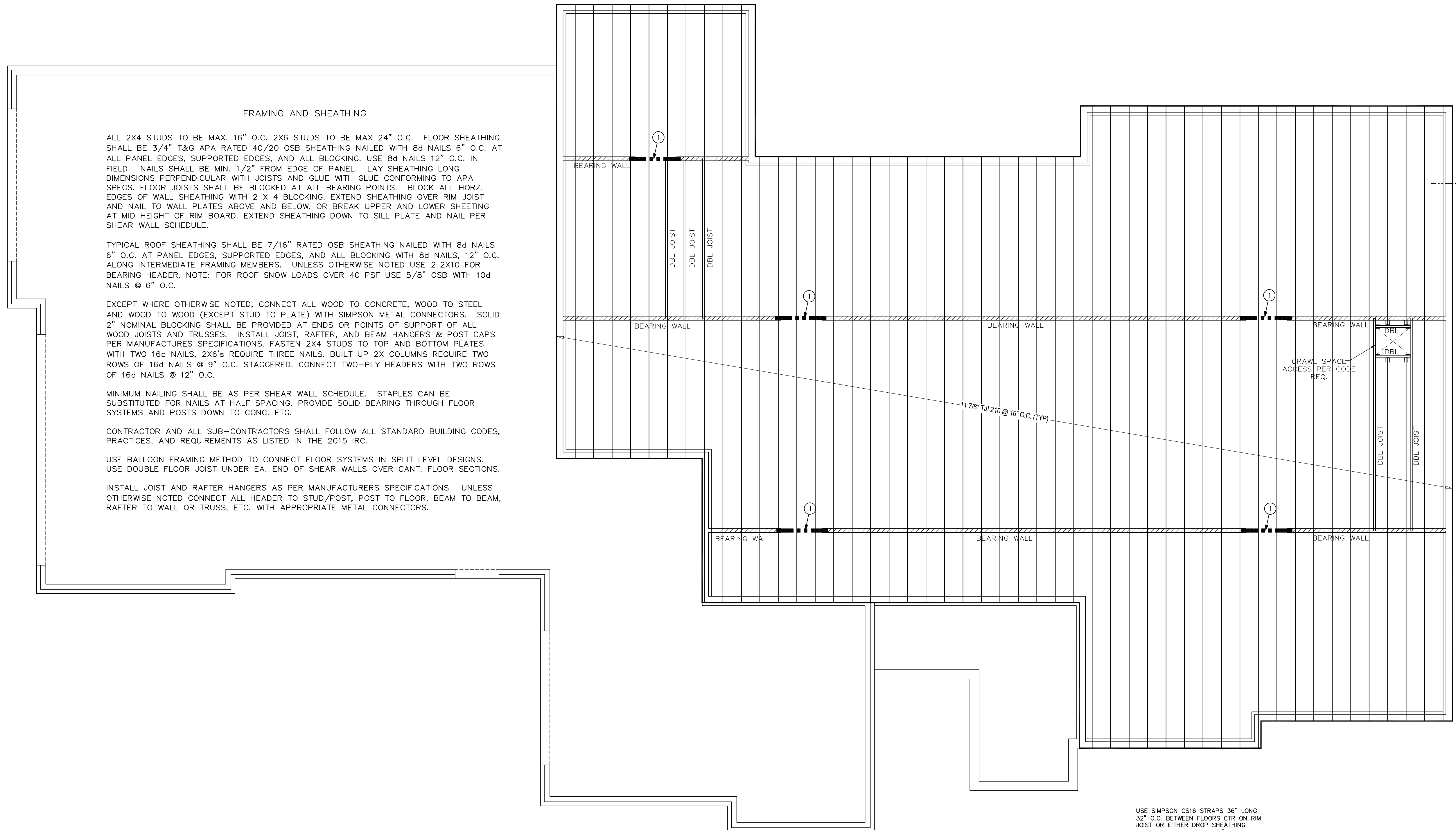
PAGE:

S 2

BEAM SIZES	
1.	(2) 2 x 6

GENERAL FLOOR FRAMING NOTES:

- SUBFLOOR = 3/4" T&G APA OSB (GLUED & NAILED)
- NAIL SUBFLOOR WITH 10D RING-SHANK NAILS @ 6" O.C. (EDGES) AND 12" O.C. (FIELD). SPACE NAILS A MIN. 3/8" FROM OSB EDGE.
- SQUASH BLOCK AND/OR SOLID BLOCK BELOW ALL POINT LOADS AND BEARING WALLS ABOVE.
- 1 1/2" TIMBERSTRAND APA RATED RIM BOARD @ PERIMETER (TYP.)
- SOLID BLOCKING AT ALL CANTILEVERS (IF APPLICABLE)



FRAMING AND SHEATHING

ALL 2X4 STUDS TO BE MAX. 16" O.C. 2X6 STUDS TO BE MAX 24" O.C. FLOOR SHEATHING SHALL BE 3/4" T&G APA RATED 40/20 OSB SHEATHING NAILED WITH 8d NAILS 6" O.C. AT ALL PANEL EDGES, SUPPORTED EDGES, AND ALL BLOCKING. USE 8d NAILS 12" O.C. IN FIELD. NAILS SHALL BE MIN. 1/2" FROM EDGE OF PANEL. LAY SHEATHING LONG DIMENSIONS PERPENDICULAR WITH JOISTS AND GLUE WITH GLUE CONFORMING TO APA SPECS. FLOOR JOISTS SHALL BE BLOCKED AT ALL BEARING POINTS. BLOCK ALL HORZ. EDGES OF WALL SHEATHING WITH 2 X 4 BLOCKING. EXTEND SHEATHING OVER RIM JOIST AND NAIL TO WALL PLATES ABOVE AND BELOW. OR BREAK UPPER AND LOWER SHEETING AT MID HEIGHT OF RIM BOARD. EXTEND SHEATHING DOWN TO SILL PLATE AND NAIL PER SHEAR WALL SCHEDULE.

TYPICAL ROOF SHEATHING SHALL BE 7/16" RATED OSB SHEATHING NAILED WITH 8d NAILS 6" O.C. AT PANEL EDGES, SUPPORTED EDGES, AND ALL BLOCKING WITH 8d NAILS, 12" O.C. ALONG INTERMEDIATE FRAMING MEMBERS. UNLESS OTHERWISE NOTED USE 2:2X10 FOR BEARING HEADER. NOTE: FOR ROOF SNOW LOADS OVER 40 PSF USE 5/8" OSB WITH 10d NAILS @ 6" O.C.

EXCEPT WHERE OTHERWISE NOTED, CONNECT ALL WOOD TO CONCRETE, WOOD TO STEEL AND WOOD TO WOOD (EXCEPT STUD TO PLATE) WITH SIMPSON METAL CONNECTORS. SOLID 2" NOMINAL BLOCKING SHALL BE PROVIDED AT ENDS OR POINTS OF SUPPORT OF ALL WOOD JOISTS AND TRUSSES. INSTALL JOIST, RAFTER, AND BEAM HANGERS & POST CAPS PER MANUFACTURERS SPECIFICATIONS. FASTEN 2X4 STUDS TO TOP AND BOTTOM PLATES WITH TWO 16d NAILS, 2X6's REQUIRE THREE NAILS. BUILT UP 2X COLUMNS REQUIRE TWO ROWS OF 16d NAILS @ 9" O.C. STAGGERED. CONNECT TWO-PLY HEADERS WITH TWO ROWS OF 16d NAILS @ 12" O.C.

MINIMUM NAILING SHALL BE AS PER SHEAR WALL SCHEDULE. STAPLES CAN BE SUBSTITUTED FOR NAILS AT HALF SPACING. PROVIDE SOLID BEARING THROUGH FLOOR SYSTEMS AND POSTS DOWN TO CONC. FTG.

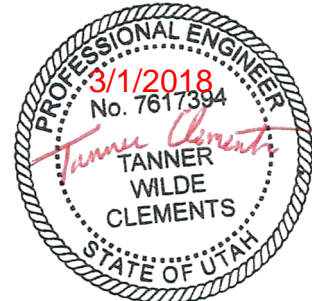
CONTRACTOR AND ALL SUB-CONTRACTORS SHALL FOLLOW ALL STANDARD BUILDING CODES, PRACTICES, AND REQUIREMENTS AS LISTED IN THE 2015 IRC.

USE BALLOON FRAMING METHOD TO CONNECT FLOOR SYSTEMS IN SPLIT LEVEL DESIGNS. USE DOUBLE FLOOR JOIST UNDER EA. END OF SHEAR WALLS OVER CANT. FLOOR SECTIONS.

INSTALL JOIST AND RAFTER HANGERS AS PER MANUFACTURERS SPECIFICATIONS. UNLESS OTHERWISE NOTED CONNECT ALL HEADER TO STUD/POST, POST TO FLOOR, BEAM TO BEAM, RAFTER TO WALL OR TRUSS, ETC. WITH APPROPRIATE METAL CONNECTORS.

USE SIMPSON CS16 STRAPS 36" LONG 32" O.C. BETWEEN FLOORS CTR ON RIM JOIST OR EITHER DROP SHEATHING DOWN OVER RIM JOIST 3/4" ON TOP PLATE BELOW OR CENTER ON SOLID RIM BOARD AND NAIL AS PER SCHEDULE. BLOCK ALL EDGES. EXTEND WAFER ACROSS GABLE END/WALL FRAMING JOINT

MAIN FLOOR FRAMING PLAN
SCALE 1/4"



PLAN STATUS

PRELIMINARY DRAWINGS
DATED:

1ST DRAFT DATED:

FINAL DRAFT DATED:

PERMIT SET DATED:

2-24-18

REVISIONS:

DATE:

DATE:

DATE:

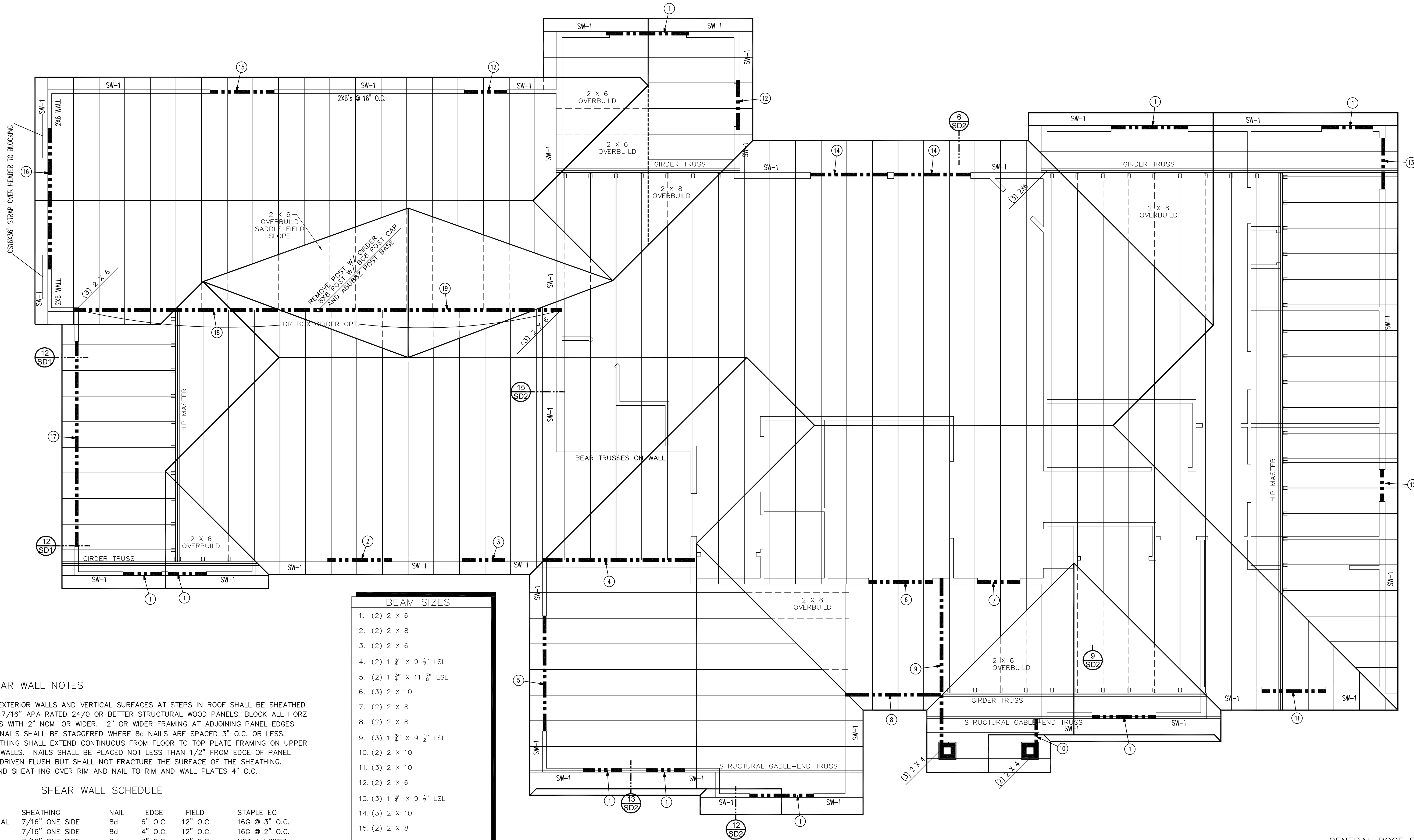
DATE:

TRUSS/ GIRDER CONNECTION

USE SIMPSON H1 OR EQUIV. TIES EACH END OF EA. TRUSS. INSTALL RAFTER HANGERS EA. END OF EA. RAFTER AS PER MANUFACTURE SPECS. INSTALL SOLID BLOCKING BETWEEN TRUSSES ALONG BEARING WALLS. INSTALL H16-2 OR EQUIV. STRAPS TO EA. END GIRDERS IF UPLIFT LESS THAN 1265 LBS. INSTALL VGT OR EQUIV. STRAPS TO EA. END GIRDERS IF UPLIFT LESS THAN 4940 LBS.

HEADER TRIMMER CONNECTION

- FOR HEADERS LESS THAN 5' LONG - NAIL TO KING STUD USING (6)16d NAILS
- FOR HEADERS 5'- 8'-6" LONG - INSTALL TWO ACE EA. END OR 12" LONG CS16 STRAP - USE (2) TRIMMERS
- FOR HEADERS 9'-18' LONG - INSTALL TWO ST18 EA. END - USE (2) TRIMMERS - INSTALL MST48 THROUGH FLOOR DIAPHRAGM IF APPLICABLE - INSTALL LSTHDB OR HTT22 OR HDU TO CONCRETE OR NAIL POST TO WALL SHEATHING



BEAM SIZES					
1.	(2)	2 X 6			
2.	(2)	2 X 8			
3.	(2)	2 X 6			
4.	(2)	1 1/2" X 9 1/2" LSL			
5.	(2)	1 1/2" X 11 3/8" LSL			
6.	(3)	2 X 10			
7.	(2)	2 X 8			
8.	(2)	2 X 8			
9.	(3)	1 1/2" X 9 1/2" LSL			
10.	(2)	2 X 10			
11.	(3)	2 X 10			
12.	(2)	2 X 6			
13.	(3)	1 1/2" X 9 1/2" LSL			
14.	(3)	2 X 10			
15.	(2)	2 X 8			
16.	(2)	1 1/2" X 11 3/8" LSL			
17.	(2)	1 1/2" X 11 3/8" LSL			
18.	(3)	1 1/2" X 18" LVL			
19.	(3)	1 1/2" X 18" LVL			

SHEAR WALL NOTES

ALL EXTERIOR WALLS AND VERTICAL SURFACES AT STEPS IN ROOF SHALL BE SHEATHED WITH 7/16" APA RATED 24/0 OR BETTER STRUCTURAL WOOD PANELS. BLOCK ALL HORZ EDGES WITH 2" NOM. OR WIDER. 2" OR WIDER FRAMING AT ADJOINING PANEL EDGES AND NAILS SHALL BE STAGGERED WHERE 8d NAILS ARE SPACED 3" O.C. OR LESS. SHEATHING SHALL EXTEND CONTINUOUS FROM FLOOR TO TOP PLATE FRAMING ON UPPER EXT. WALLS. NAILS SHALL BE PLACED NOT LESS THAN 1/2" FROM EDGE OF PANEL AND DRIVEN FLUSH BUT SHALL NOT FRACTURE THE SURFACE OF THE SHEATHING. EXTEND SHEATHING OVER RIM AND NAIL TO RIM AND WALL PLATES 4" O.C.

SHEAR WALL SCHEDULE

TYPE	SHEATHING	NAIL	EDGE	FIELD	STAPLE EQ
TYPICAL	7/16" ONE SIDE	8d	6" O.C.	12" O.C.	16G @ 3" O.C.
SW-1	7/16" ONE SIDE	8d	4" O.C.	12" O.C.	16G @ 2" O.C.
SW-2	7/16" ONE SIDE	8d	3" O.C.	12" O.C.	NOT ALLOWED
SW-3	7/16" ONE SIDE	8d	2" O.C.	12" O.C.	NOT ALLOWED

NOTE: 16 GAUGE STAPLES MAY BE SUBSTITUTED FOR 8d NAILS AT 1/2 SPACING ON TYPICAL AND SW-1.
SW-2 AND SW-3 REQUIRE 3X OR (2) 2X ON JOINING PANEL EDGES.

GENERAL ROOF FRAMING NOTES:

- ROOF SHEATHING = 7/16" APA OSB. (INSTALL "H" CLIPS.)
- LAY SHEATHING WITH FACE GRAIN PERPENDICULAR TO FRAMING MEMBERS. STAGGER END JOINTS AND GAP ALL SHEETS 1/8".
- STAPLE SHEATHING TO FRAMING MEMBERS USING 15GA. STAPLES AT 4" O.C. (FIELD) AND 8" O.C. FIELD. SPACE STAPLES 3/8" MIN. FROM PANEL EDGE.



ROOF FRAMING PLAN
SCALE 1/4"

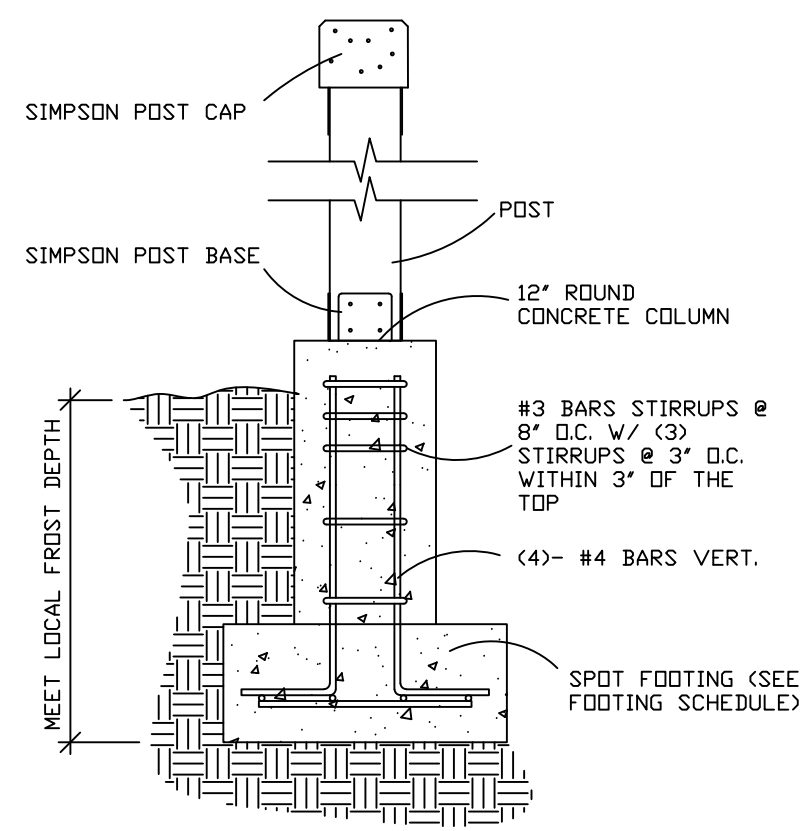
COTTLE HOMES
ADDRESS



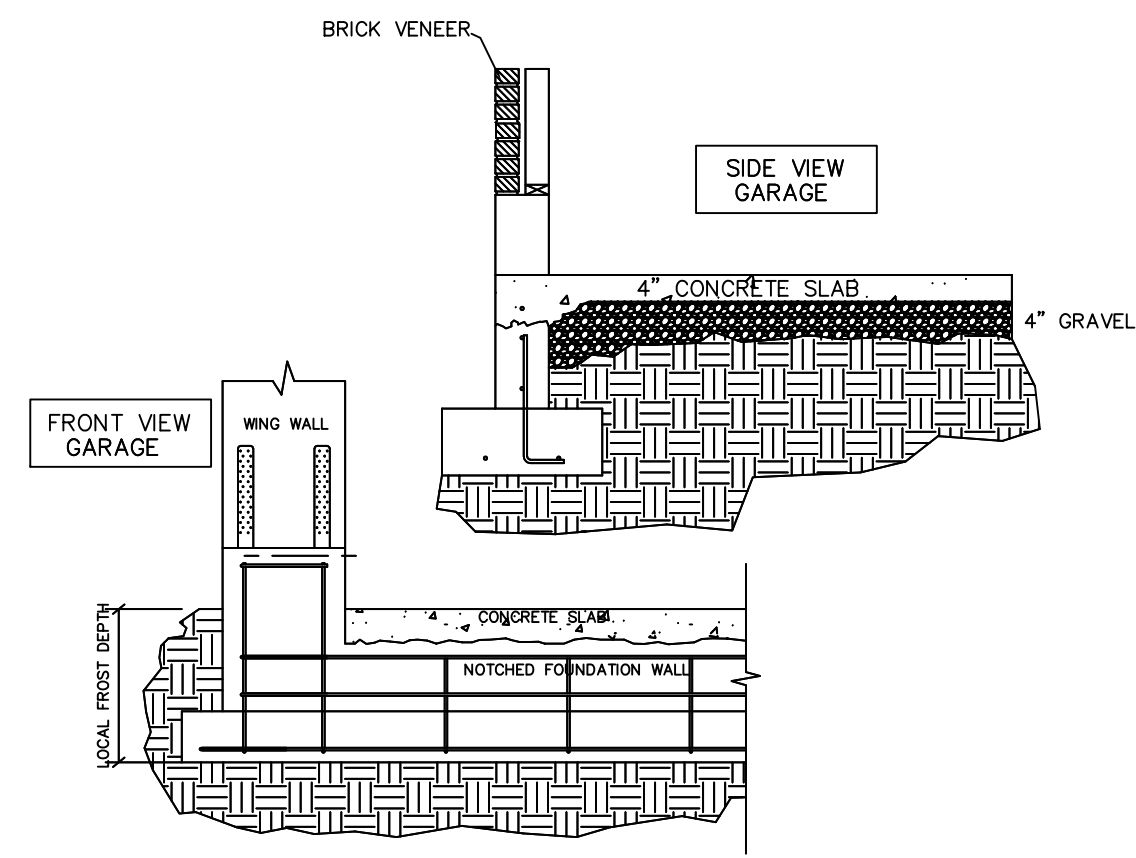
PLAN 2473 SIDE LOAD
ADDRESS

PAGE:

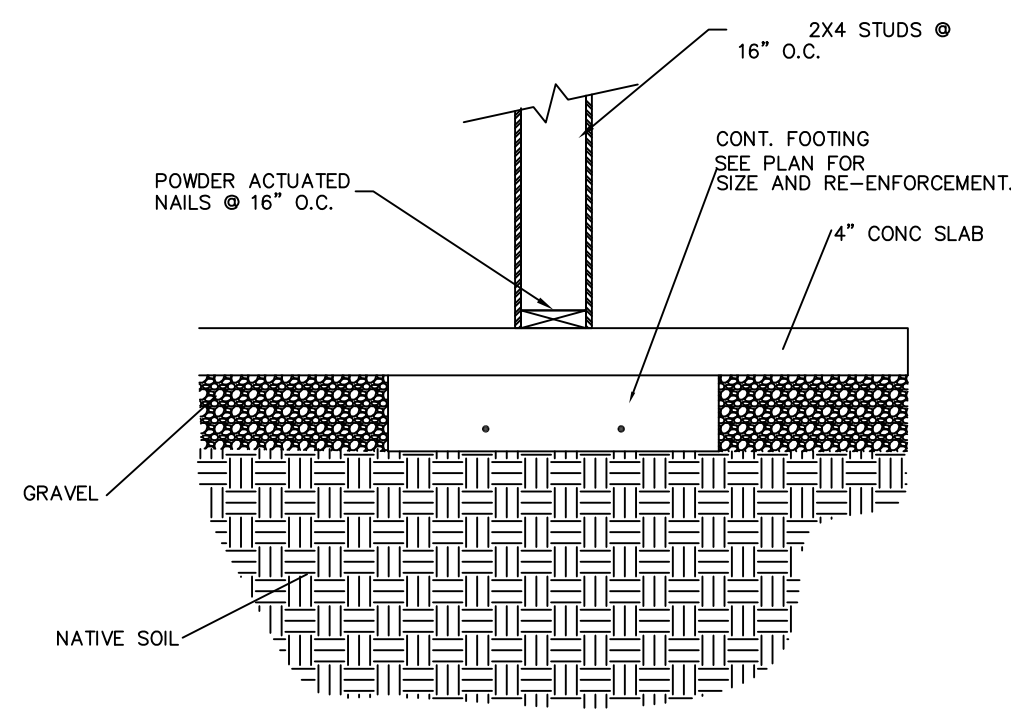
53



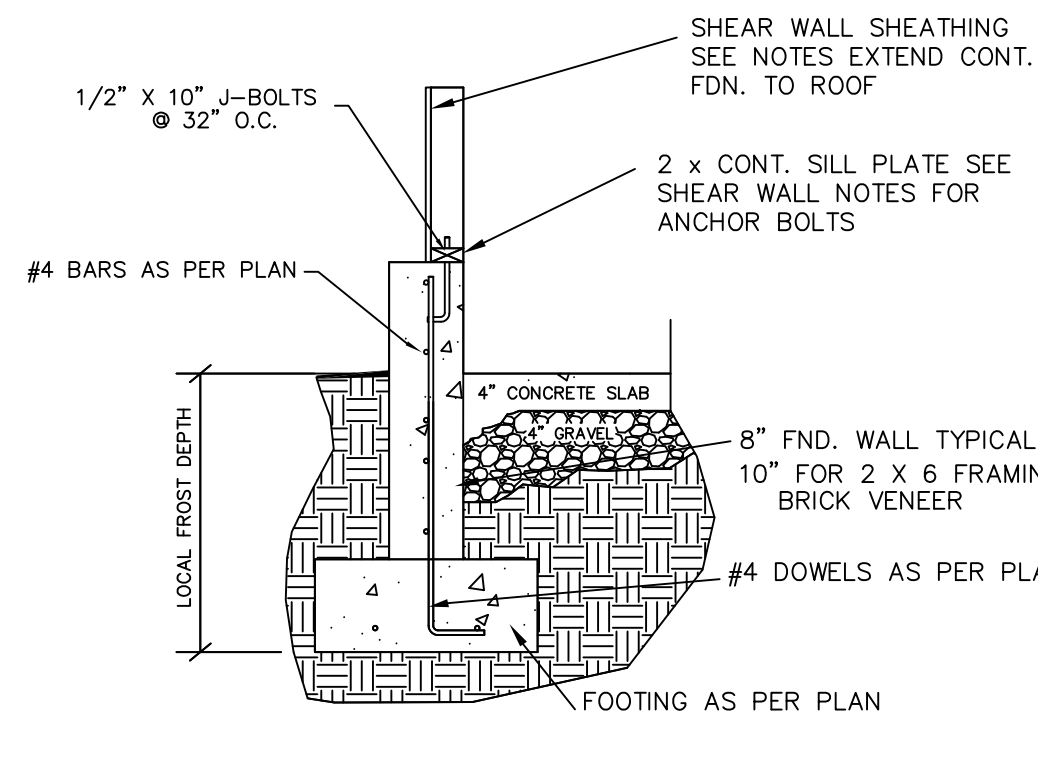
1 PATIO POST FTG. DETAIL
NTS
TYPICAL DETAIL, USE WHEN APPLIES



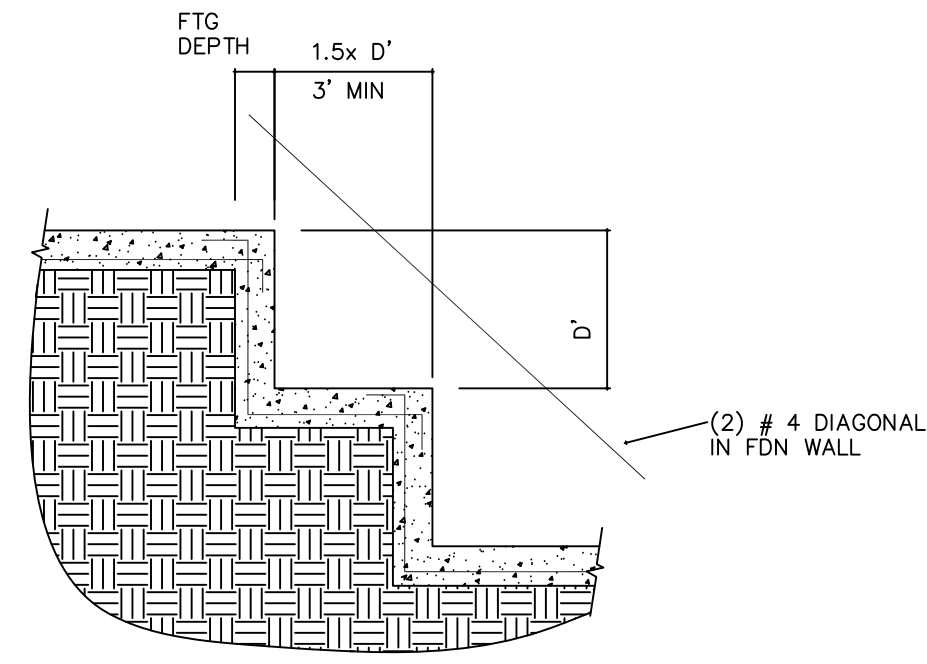
2 GARAGE SLAB TO FOUND. CONNECTION
NTS
TYPICAL DETAIL, USE WHEN APPLIES



3 INTERIOR BEARING WALL
NTS
TYPICAL DETAIL, USE WHEN APPLIES



4 FOUNDATION WALL
NTS
TYPICAL DETAIL, USE WHEN APPLIES



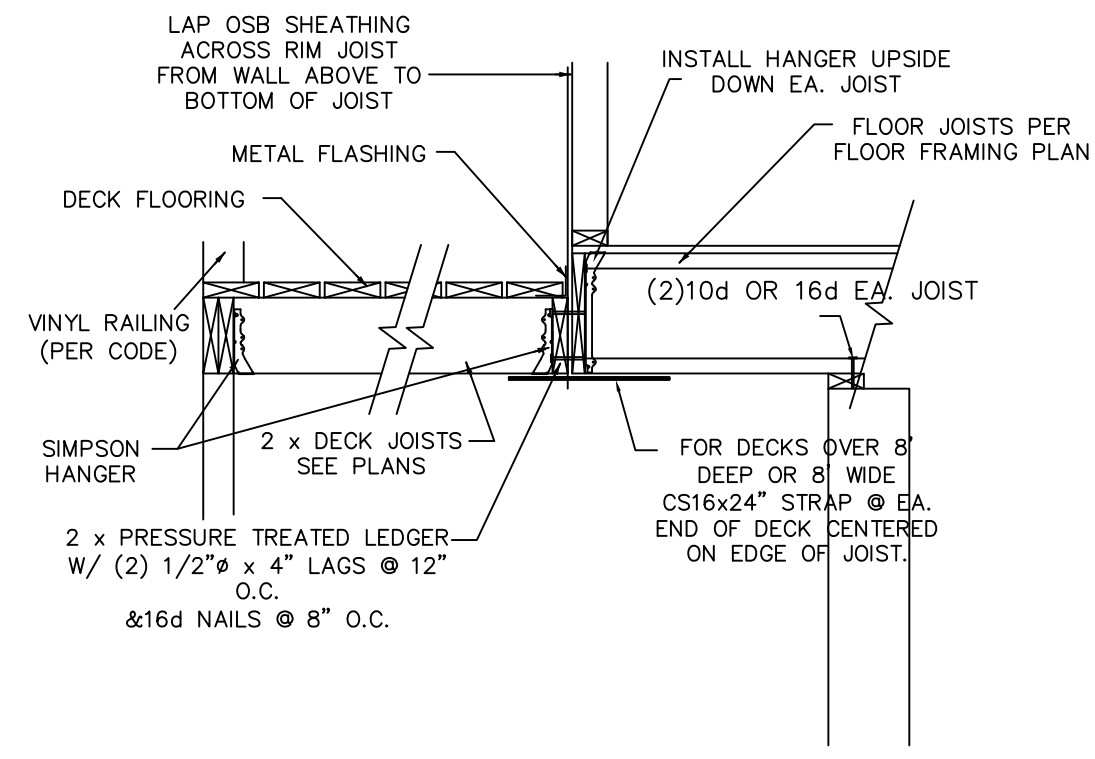
5 FOOTING STEP DETAIL
NTS
TYPICAL DETAIL, USE WHEN APPLIES

BEARING WALLS TO BE CONSTRUCTED AS FOLLOWS:

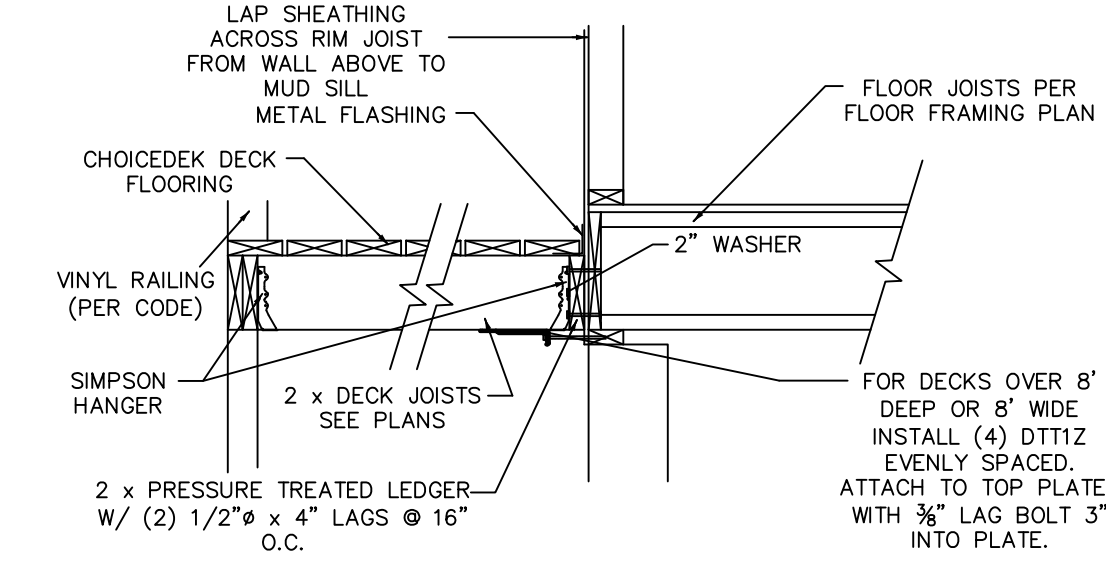
HEIGHT	STUD FRAMING
0' TO 10'	2x4's @ 16" o.c.
10' TO 12'	2x4's @ 12" o.c.
0' TO 12'	2x6's @ 24" o.c.
12' TO 14'	2x6's @ 16" o.c.
14' TO 16'	2x6's @ 12" o.c.
16' TO 20'	2x6 LSL's @ 12" o.c.

WALLS TALLER THAN 20' AND/OR OPENINGS GREATER THAN 6' WIDE TO BE SPECIFIED BY ENGINEER. USE DBL KING STUDS ON ALL WALLS 10' HIGH. USE 2X6 STUDS FOR ALL WALLS SUPPORTING OVER TWO LOADS.

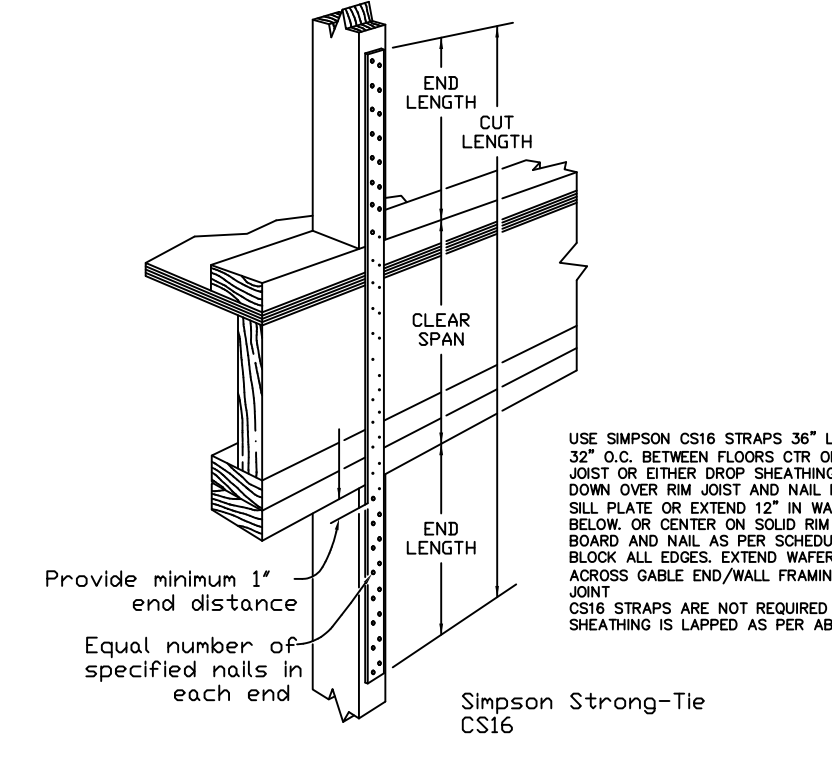
6 STUD HEIGHT/SIZE
NTS
TYPICAL DETAIL, USE WHEN APPLIES



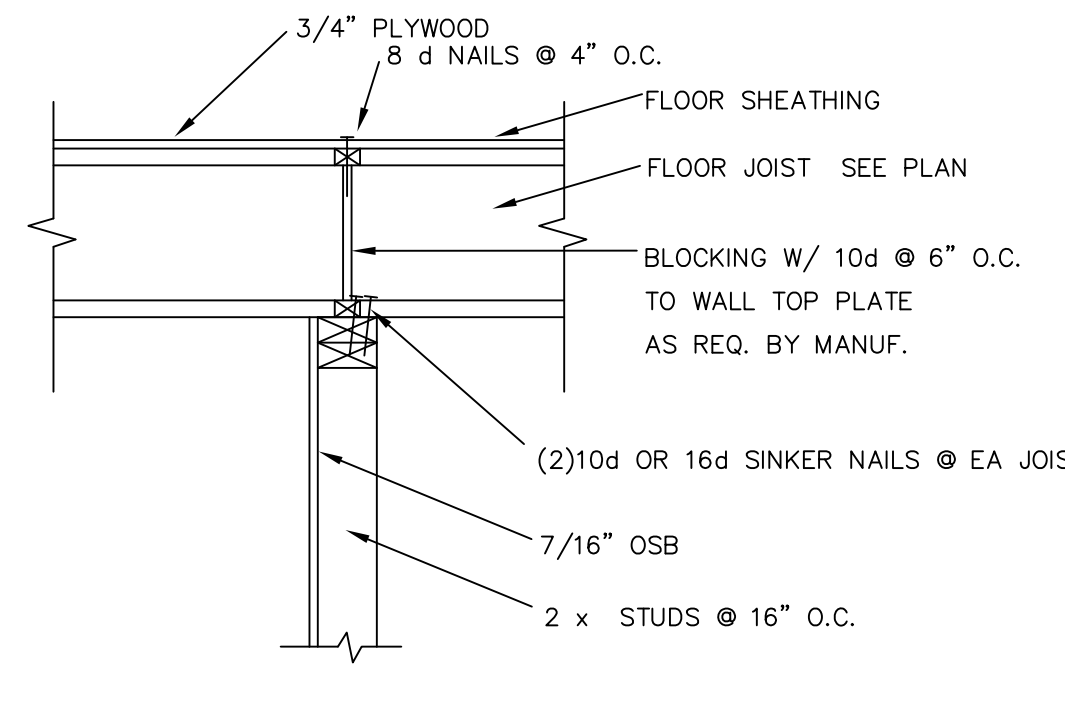
7 DECK LEDGER TO CANT. FLOOR
NTS
TYPICAL DETAIL, USE WHEN APPLIES



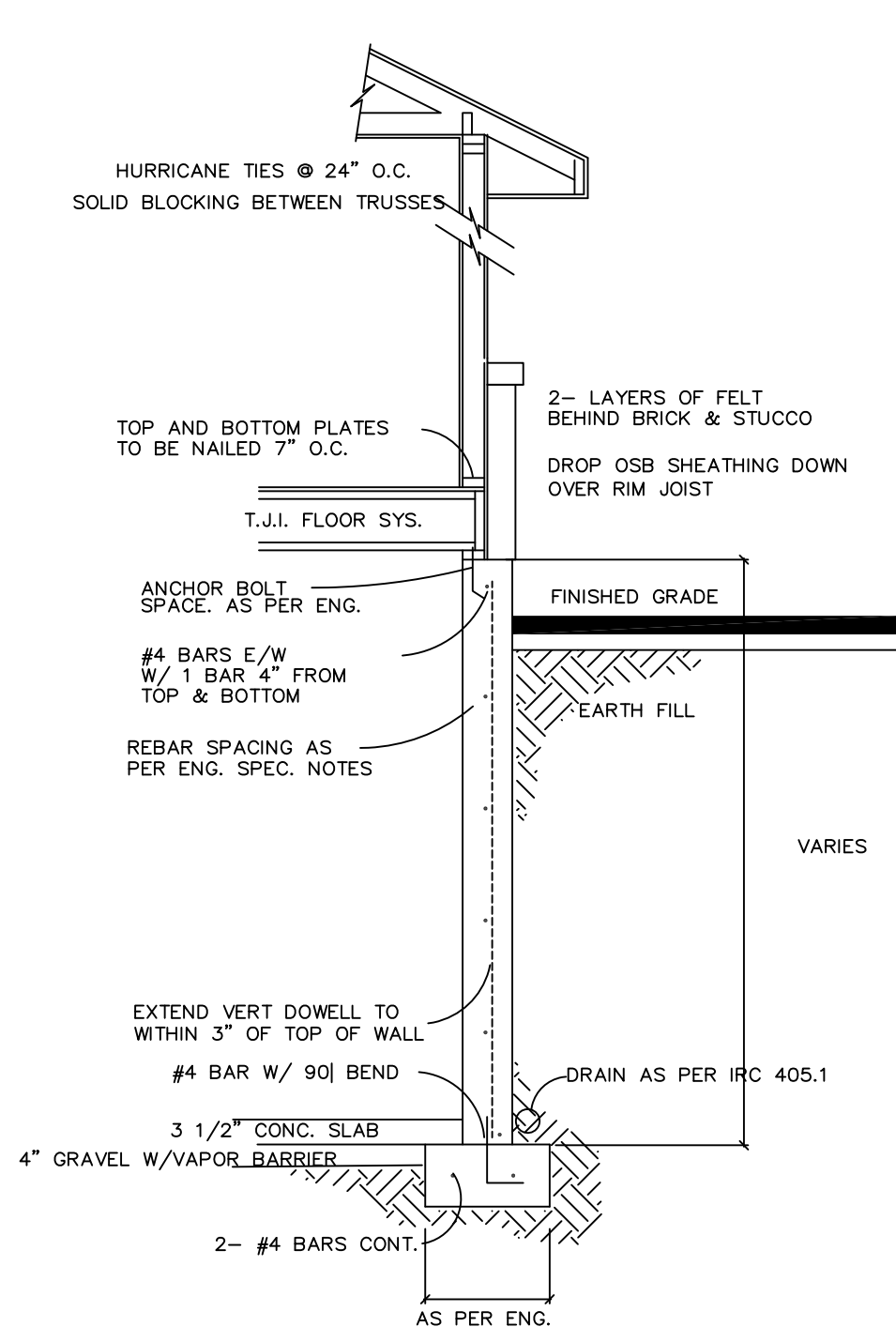
8 DECK ATTACHMENT
NTS
TYPICAL DETAIL, USE WHEN APPLIES



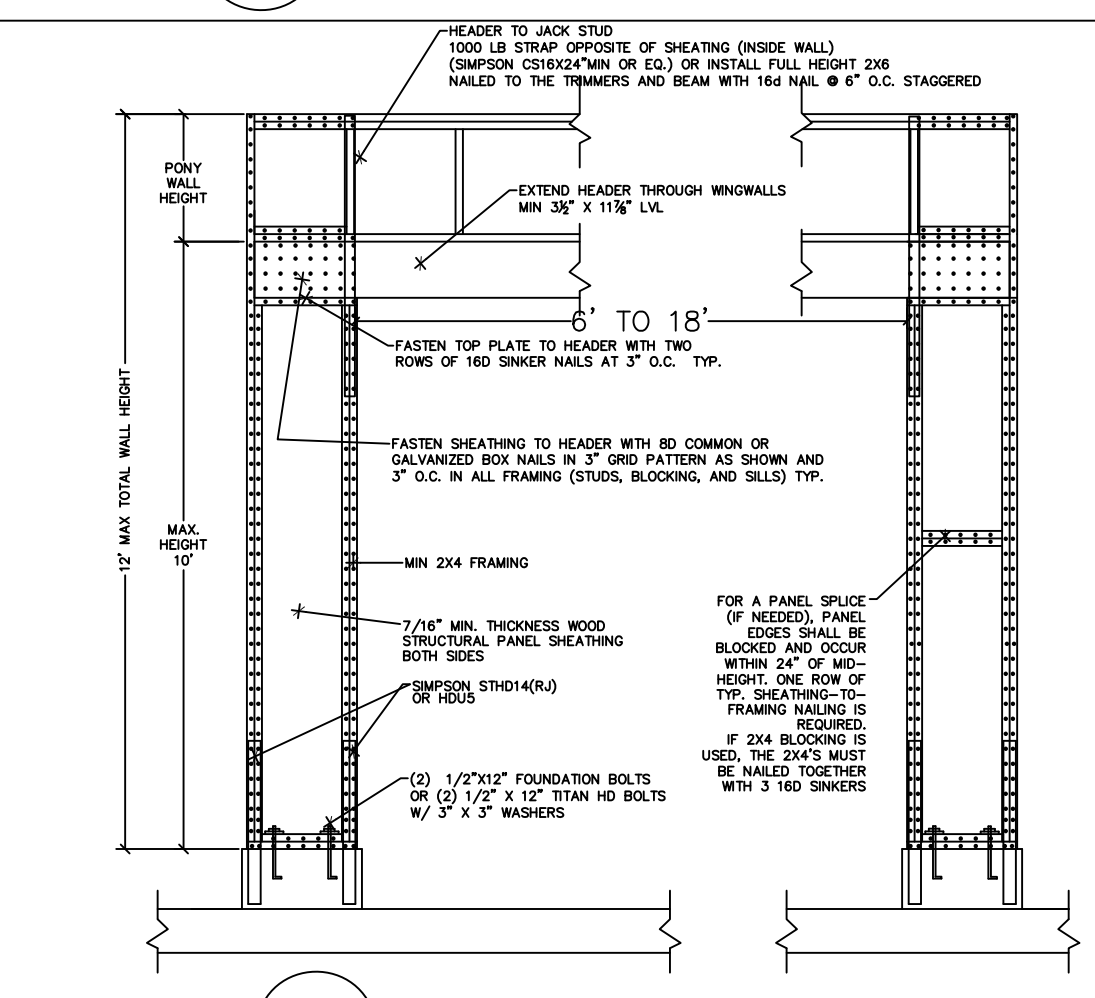
9 TYP. CS16 DETAIL
NTS
TYPICAL DETAIL, USE WHEN APPLIES



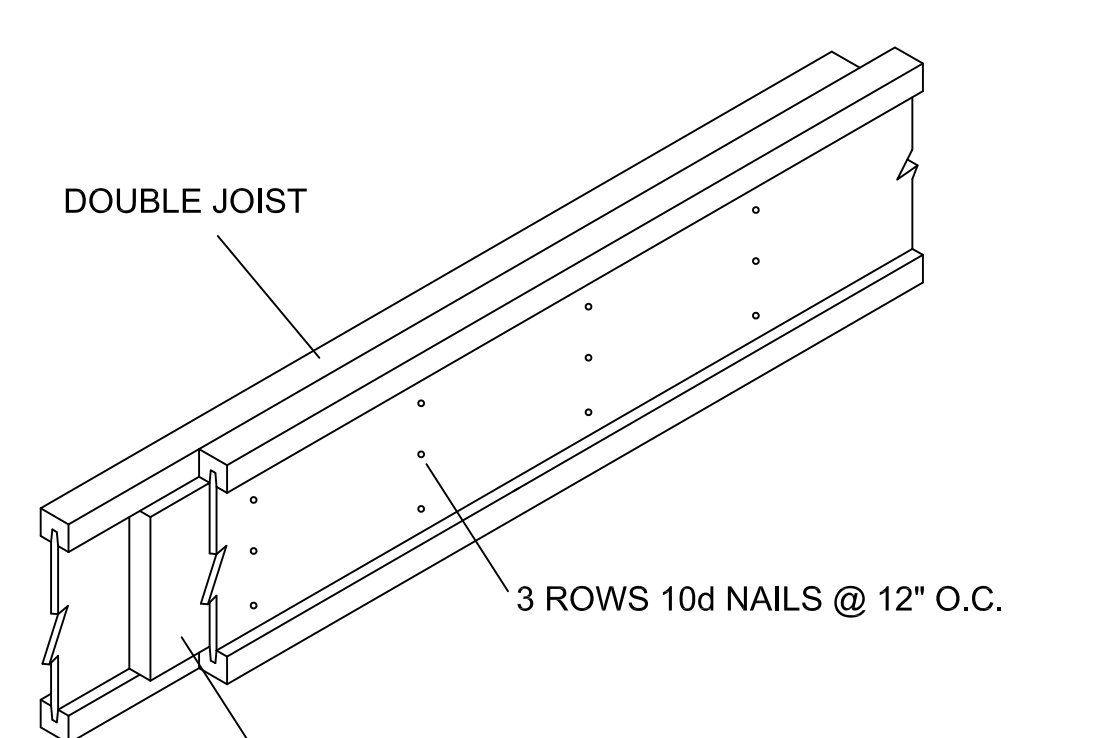
10 INTERIOR SHEAR WALL
NTS
TYPICAL DETAIL, USE WHEN APPLIES



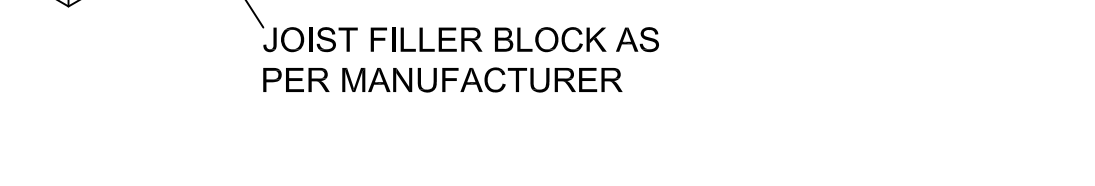
11 TYP. WALL SECTION
NTS



12 PORTAL FRAME 1ST STORY
NTS
USE ONLY IF CALLED OUT ON PLANS



13 TYP. TOP PLATE NAILING
NTS
TYPICAL DETAIL, USE WHEN APPLIES



14 DOUBLE JOIST CONNECTION
NTS
TYPICAL DETAIL, USE WHEN APPLIES

FOOTING, FOUNDATION AND CONCRETE

ALL FOOTINGS ARE BASED ON ALLOWABLE SOIL BEARING PRESSURE OF 1500 PSF. FOOTINGS SHALL BEAR ON UNDISTURBED SOIL OR ENGINEERED GRANULAR FILL COMPACTED TO 95% OF MAXIMUM DENSITY. NO FOOTINGS SHALL BE PLACED IN WATER OR FROZEN GROUND. ALL FOOTINGS TO BE PLACED AT MIN. BELOW LOCAL FROST DEPTH, CONTINUOUS AND MONOLITHIC POUR. CHANGES IN ELEV. SHALL BE STEPPED WITH STEP HEIGHT NOT HIGHER THAN 1/2 THE STEP LENGTH AND NOT GREATER THAN 5 FT. MIN. 6\"/>

ALL FOOTINGS, FOUNDATIONS, AND INTERIOR SLABS SHALL BE NORMAL WT. CONCRETE WITH A COMPRESSIVE STRENGTH EQUAL TO AT LEAST 3,000 PSI WITHIN 28 DAYS AFTER POURING. THE WATER/CEMENT RATIO SHALL BE NO GREATER THAN .50 WITH A MINIMUM CEMENT CONTENT OF 504 LBS. PER CUBIC YARD ALL CONC WORK SHALL BE PLACED, CURED, STRIPPED, AND PROTECTED AS DIRECTED BY THE SPECIFICATIONS AND ACI STANDARDS AND PRACTICES.

ALL REINFORCING SHALL BE DETAILED AND PLACED IN ACCORDANCE WITH ACI STANDARD 318. REINFORCEMENT SHALL BE FREE FROM MUD AND OIL AND OTHER NON-METALLIC COATINGS THAT HAMPER BONDING CAPACITY. ALL SPLICES IN CONTINUOUS REINFORCING SHALL LAP 30 BAR DIAMETERS. VERT & HORIZ. #4 BAR (GRADE 60) AS PER FND SCHEDULE, OPENINGS TO HAVE 1 VERT. #4 BAR EA. SIDE OF OPENING TIED TO HORIZ. BAR. 2 #4 BAR ABOVE AND 1 #4 BELOW WINDOW OPENING EXTENDING 36\"/>

ALLOW 14 DAYS FOR CONCRETE TO CURE PRIOR TO BACKFILL.

FRAMING AND SHEATHING

THE CONTRACTOR SHALL USE THE FOLLOWING LUMBER GRADES UNLESS OTHERWISE NOTED:
JOISTS DOUG FIR #2 & BTR
PARALLAMS DOUG FIR #2 & BTR
HEADERS DOUG FIR #2 & BTR
BEARING WALL STUDS PRE-FAB TRUSSES & JOIST PER MANUF. SPEC.
SILL PLATES DOUG FIR #2 & BTR
POSTS DOUG FIR #1 & BTR
EXT DECK JOIST & BEAMS PRESSURE TREATED DOUG FIR #2 & BTR

EACH PIECE OF STRUCTURAL LUMBER, SHEATHING, AND TIMBER SHALL BE MARKED WITH A COMPETENT AND RELIABLE ORGANIZATION WHOSE REGULAR BUSINESS IS TO ESTABLISH LUMBER GRADES. THE ORGANIZATION, GRADING, AND GRADE MARKING SHALL BE SUBJECT TO APPROVAL BY THE ENGINEER.
THE SIZING AND SURFACING OF ALL LUMBER EXCEPT WHERE SPECIFICALLY NOTED OTHERWISE SHALL BE MILL SIZED AND SURFACED ON 4 SIDES. ALL LUMBER SHALL BE STRAIGHT STOCK FREE FROM WARPS AND SINGLE LENGTH PIECES. SPLICING SHALL NOT BE PERMITTED EXCEPT WHERE NOTED OR APPROVED BY THE ENGINEER.

LUMBER SHALL BE AT LEAST OF THE GRADES NOTED ABOVE UNLESS OTHERWISE NOTED ON THE PLANS. ALL LUMBER SHALL BE FREE OF HEART CENTER. LUMBER SHALL MEET SPECIES AND COMMERCIAL GRADE AS INDICATED ON THE PLANS AND THE DESIGN VALUES FOR VISUALLY GRADED LUMBER IN ACCORDANCE WITH THE NATIONAL DESIGN SPECIFICATION BY THE NATIONAL FOREST PRODUCTS ASSOCIATION, WHEREVER IS GREATER. BASE VALUES SHOWN MAY BE ADJUSTED IN ACCORDANCE WITH THE NATIONAL DESIGN SPECIFICATION. DF INDICATES DOUGLAS FIR, HF INDICATES HEM FIR, RD INDICATES REDWOOD, AND SDF INDICATES SPRUCE PINE FIR.

USE APPROPRIATE SIMPSON TIES/HARDWARE TO CONNECT ALL HEADERS TO POST OR TRIMMERS FOR ALL HEADERS 6' LONG AND LONGER. ALL MULTIPLE BEAMS AND HEADERS SHALL BE NAILED USING 16d @ 12\"/>

ALL 2X4 STUDS TO BE MAX. 16\"/>

TYPICAL ROOF SHEATHING SHALL BE 7/16\"/>

FRAMING AND SHEATHING CONTINUED

LAY SHEATHING WITH FACE GRAIN PERPENDICULAR TO FRAMING UNLESS SHOWN OTHERWISE ON THE PLANS. WHERE SHEATHING IS LAID WITH FACE GRAIN PARALLEL TO FRAMING, 5 PLY MINIMUM SHEATHING SHALL BE USED. SHEATHING SHALL CONFORM TO APA STANDARDS PS-1 AND NER-108 EXPOSURE. USE AS FOLLOWS UNLESS OTHERWISE NOTED IN PLANS.

EXCEPT WHERE OTHERWISE NOTED, CONNECT ALL WOOD TO CONCRETE, WOOD TO STEEL AND WOOD TO WOOD (EXCEPT STUD TO PLATE) WITH SIMPSON METAL CONNECTORS. SOLID 2\"/>

MINIMUM NAILING SHALL BE AS PER SHEAR WALL SCHEDULE. STAPLES CAN BE SUBSTITUTED FOR NAILS AT HALF SPACING. PROVIDE SOLID BEARING THROUGH FLOOR SYSTEMS AND POSTS DOWN TO CONC. FTG.

THE CONTRACTOR SHALL FOLLOW THE MINIMUM NAILING SCHEDULE LISTED IN THE NDS TABLE 3.2.1. USE COMMON NAILS WHEREVER NAILS ARE SPECIFIED FOR SHEAR WALLS OR DIAPHRAGMS. SINKERS MAY BE USED IN ALL OTHER LOCATIONS.

PROVIDE DOUBLE FLOOR JOISTS UNDER ALL BEARING OR SHEAR WALLS PARALLEL TO DIRECTION OF FRAMING. PROVIDE DOUBLE FLOOR JOISTS UNDER WINDOW AND DOOR TRIMMERS AND AT OUTSIDE EDGES OF ALL CANTILEVERED FLOOR SECTIONS.

BOLTS SHALL BE INSTALLED IN HOLES BORED 1/8\"/>

CONTRACTOR AND ALL SUB-CONTRACTORS SHALL FOLLOW ALL STANDARD BUILDING CODES, PRACTICES, AND REQUIREMENTS AS LISTED IN THE 2015 IRC.

USE BALLOON FRAMING METHOD TO CONNECT FLOOR SYSTEMS IN SPLIT LEVEL DESIGNS. USE DOUBLE FLOOR JOIST UNDER EA. END OF SHEAR WALLS OVER CANT. FLOOR SECTIONS.

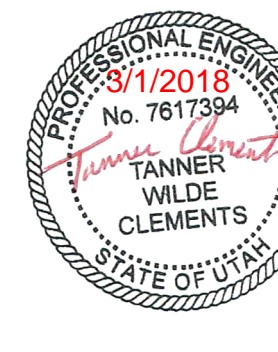
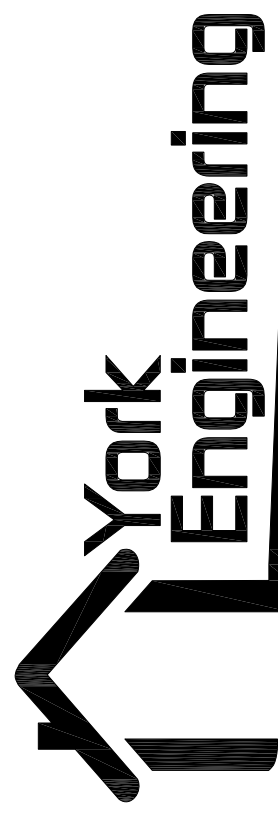
INSTALL JOIST AND RAFTER HANGERS AS PER MANUFACTURERS SPECIFICATIONS. UNLESS OTHERWISE NOTED CONNECT ALL HEADER TO STUD/POST, POST TO FLOOR, BEAM TO BEAM, RAFTER TO WALL OR TRUSS, ETC. WITH APPROPRIATE METAL CONNECTORS. USE METAL HURRICANE CLIPS EACH END OF EACH TRUSS.

ALL ROUGH HARDWARE, JOIST HANGERS, STRAPS, POST CAPS ETC. SHALL BE MANUFACTURED BY SIMPSON COMPANY OR AN APPROVED EQUAL. THE MAXIMUM SIZE AND NUMBER OF FASTENERS SPECIFIED BY THE MANUFACTURER SHALL BE USED UNLESS NOTED OTHERWISE.

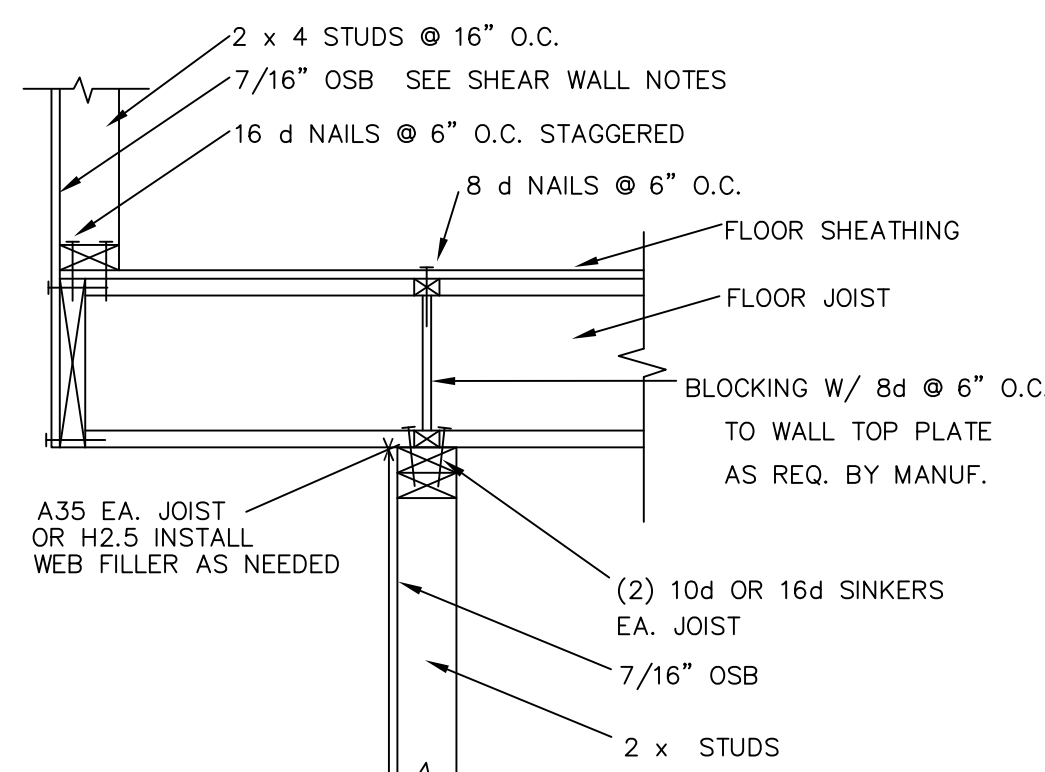
ALL FASTENERS WHICH ARE TO BE INSTALLED IN PRESERVATIVE TREATED WOOD SHALL MEET THE REQUIREMENTS OF IRC 2304.9.5

ALL DETAILS MAY NOT BE APPLICABLE TO YOUR PLANS
IF MARKED TYPICAL, USE ON PLAN ON ALL APPLICABLE AREAS

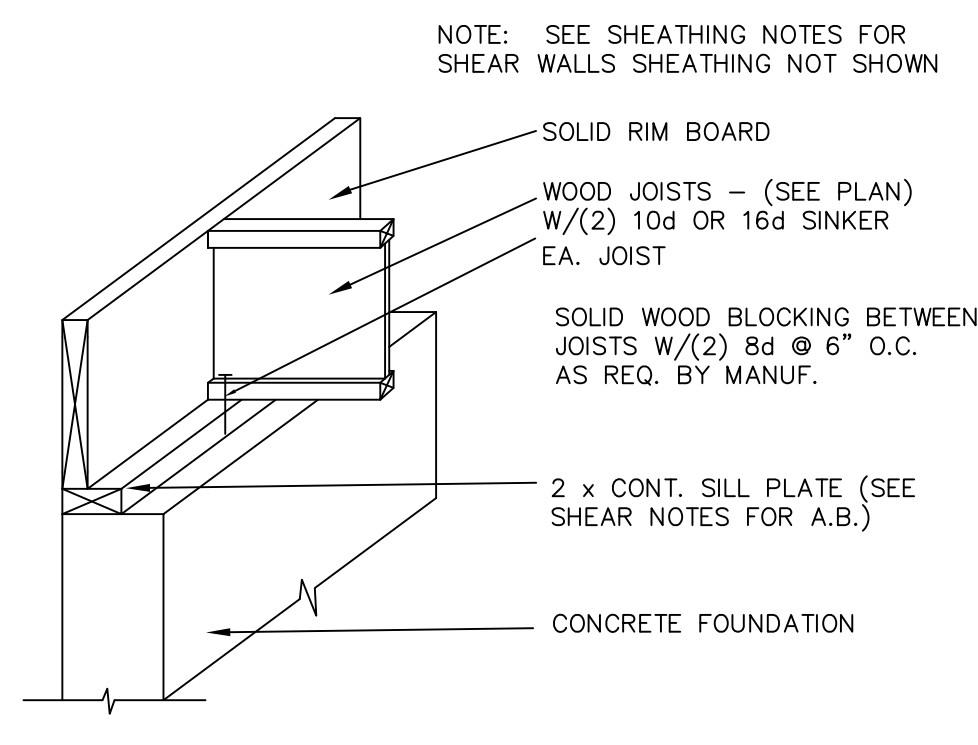
Structural Design and Analysis
4883 Old Highway Rd Suite A
Morgan, Utah 84050
(801) 876-3501



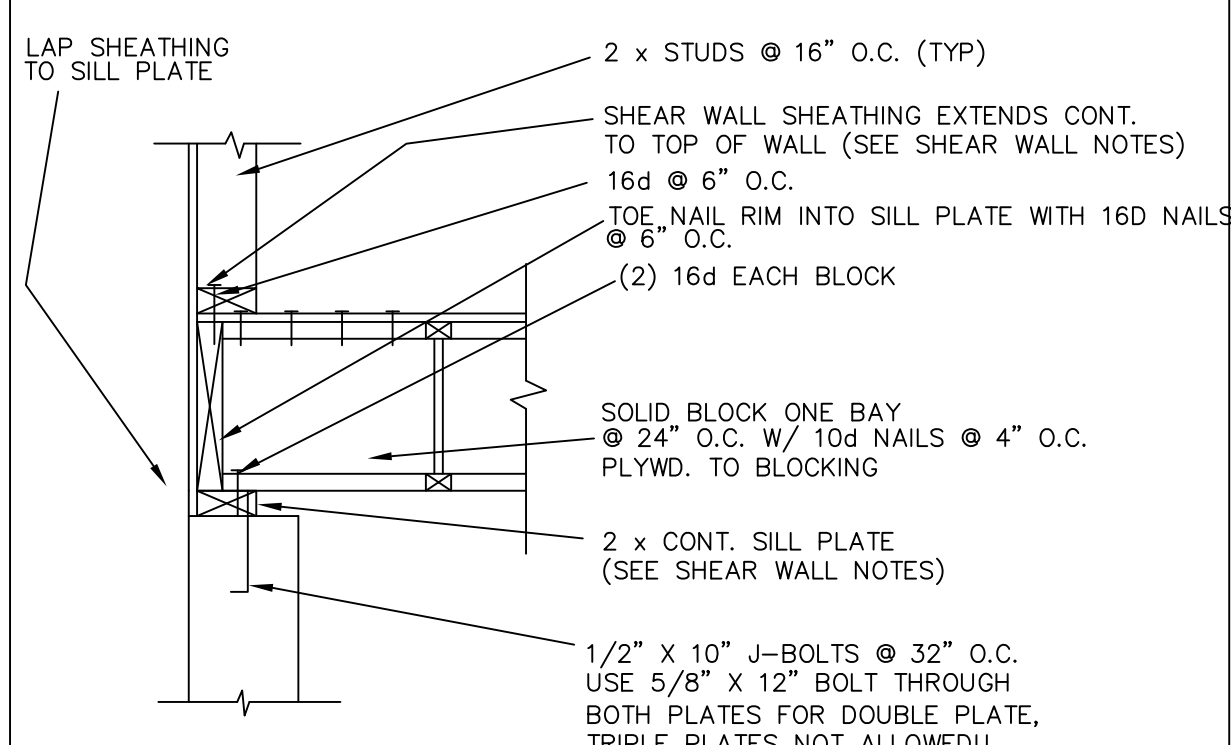
SD1



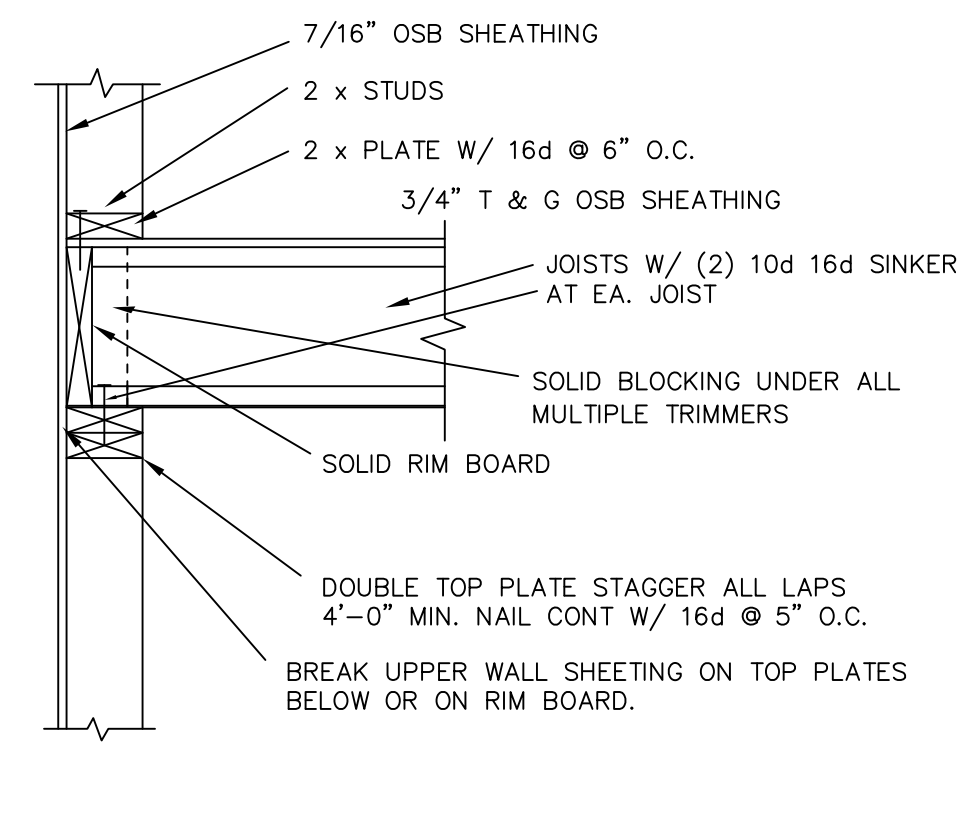
1 CANT. FLOOR FRAMING
NTS
TYPICAL DETAIL, USE WHEN APPLIES



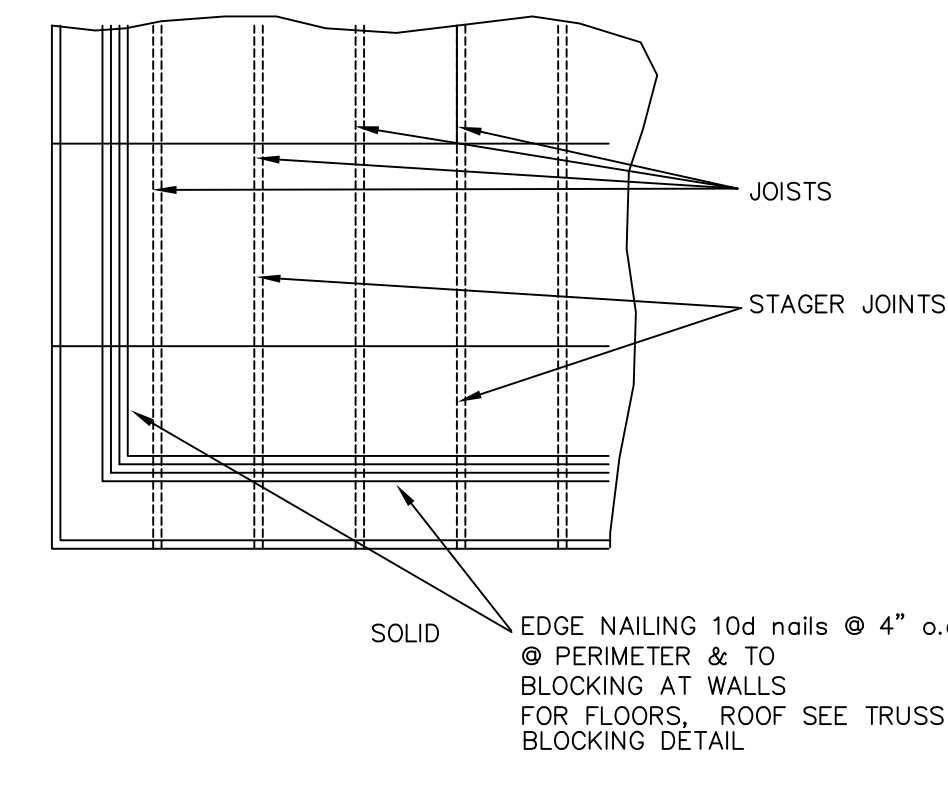
2 WOOD JOIST FRAMING
NTS
TYPICAL DETAIL, USE WHEN APPLIES



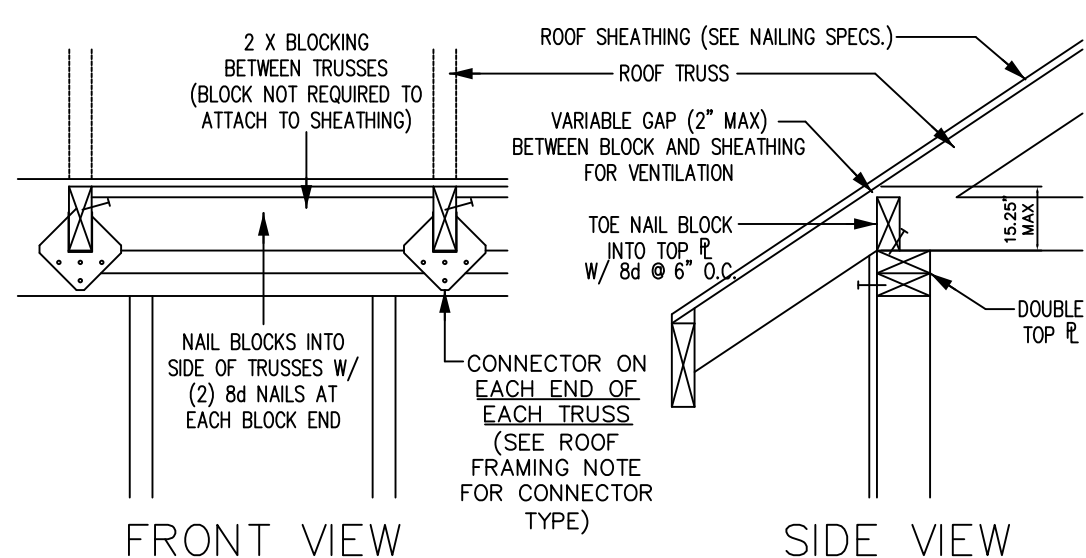
3 WOOD JOIST FRAMING
NTS
TYPICAL DETAIL, USE ON FULL HEIGHT FOUNDATION WALLS



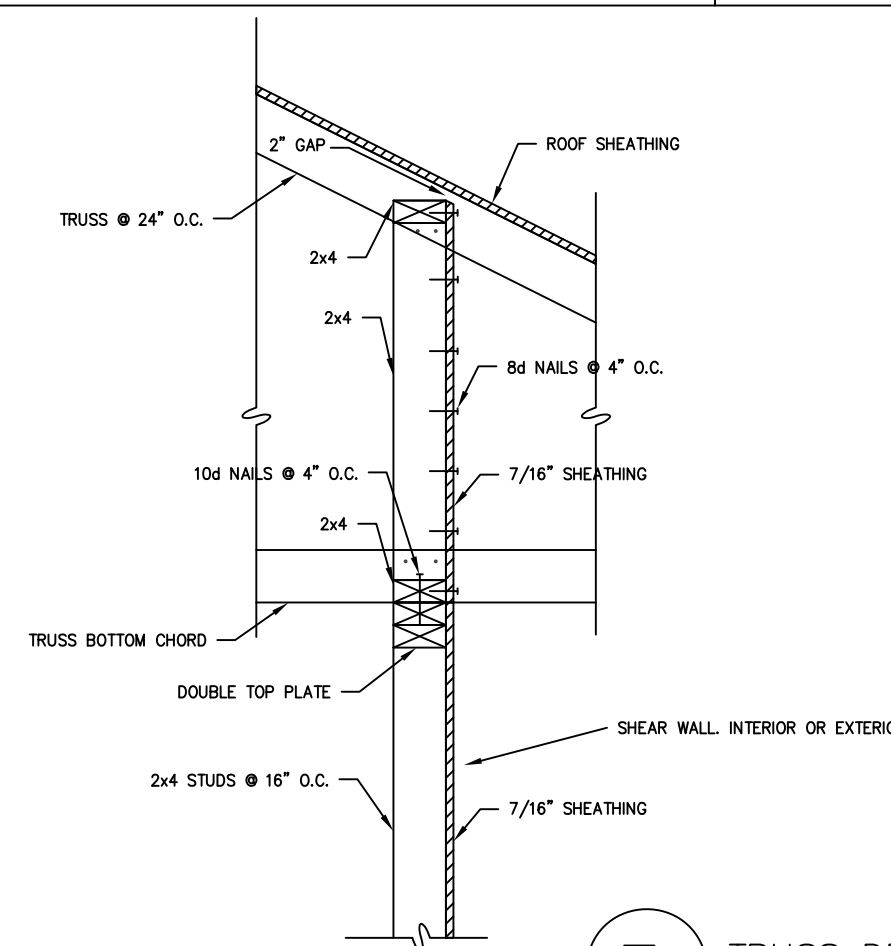
4 WOOD JOIST FRAMING
NTS
TYPICAL DETAIL, USE WHEN APPLIES



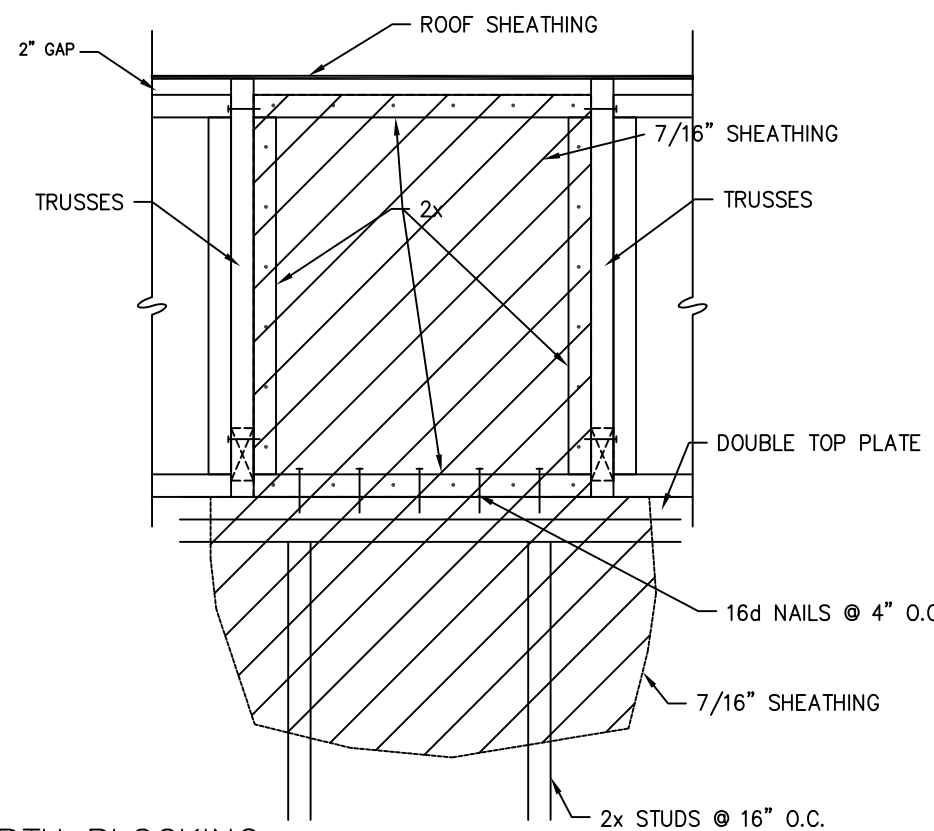
5 HORIZ. SHEATHING LAYOUT
NTS
TYPICAL DETAIL, USE WHEN APPLIES



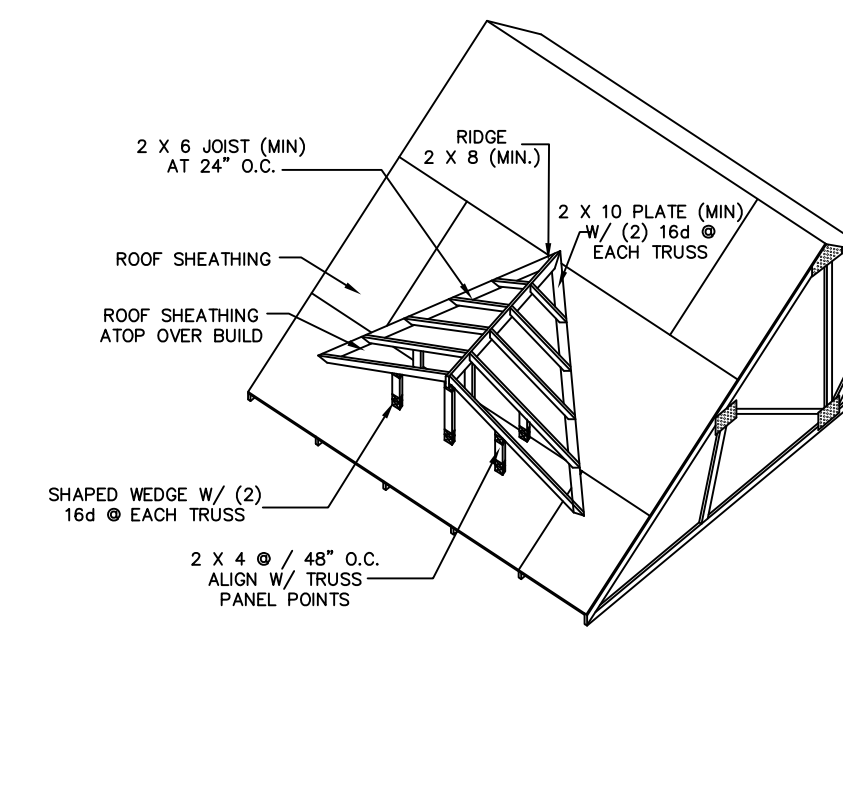
6 TRUSS BLOCK DETAIL
NTS
TYPICAL DETAIL, USE WHEN APPLIES



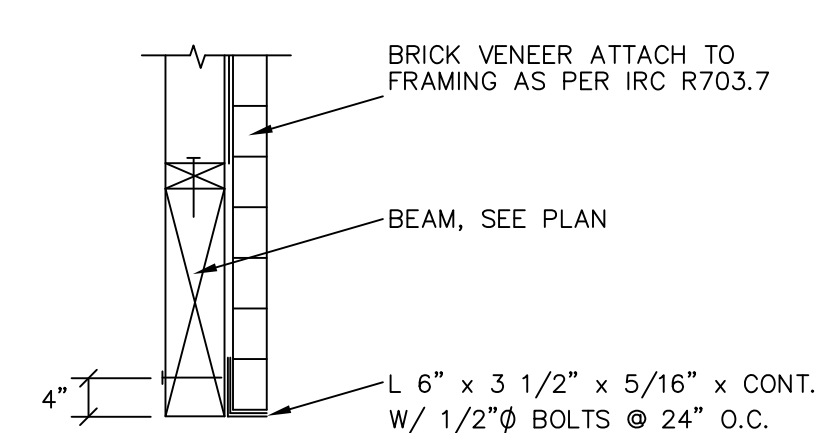
7 TRUSS DEPTH BLOCKING
NTS
TYPICAL DETAIL, USE WHEN APPLIES



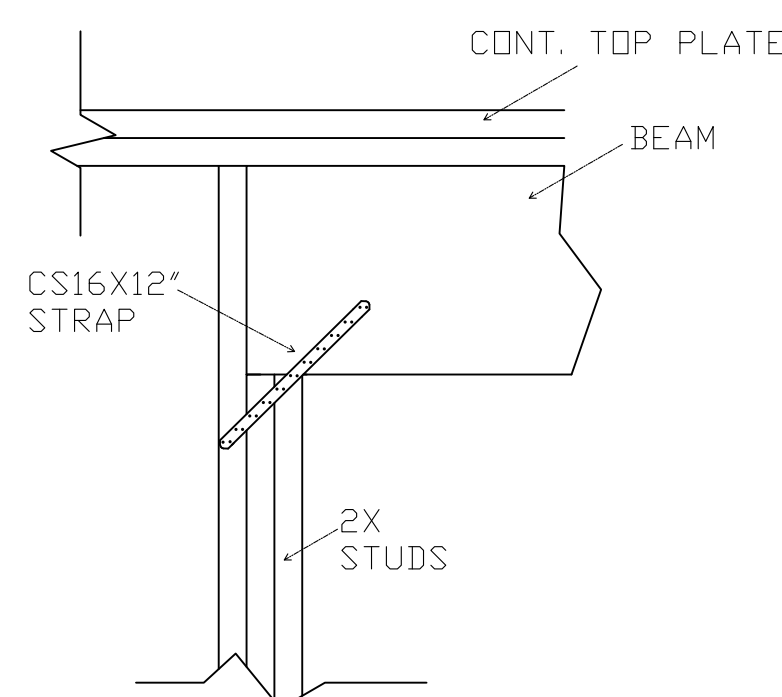
8 LOW ROOF SHEAR WALL
NTS
TYPICAL DETAIL, USE WHEN APPLIES



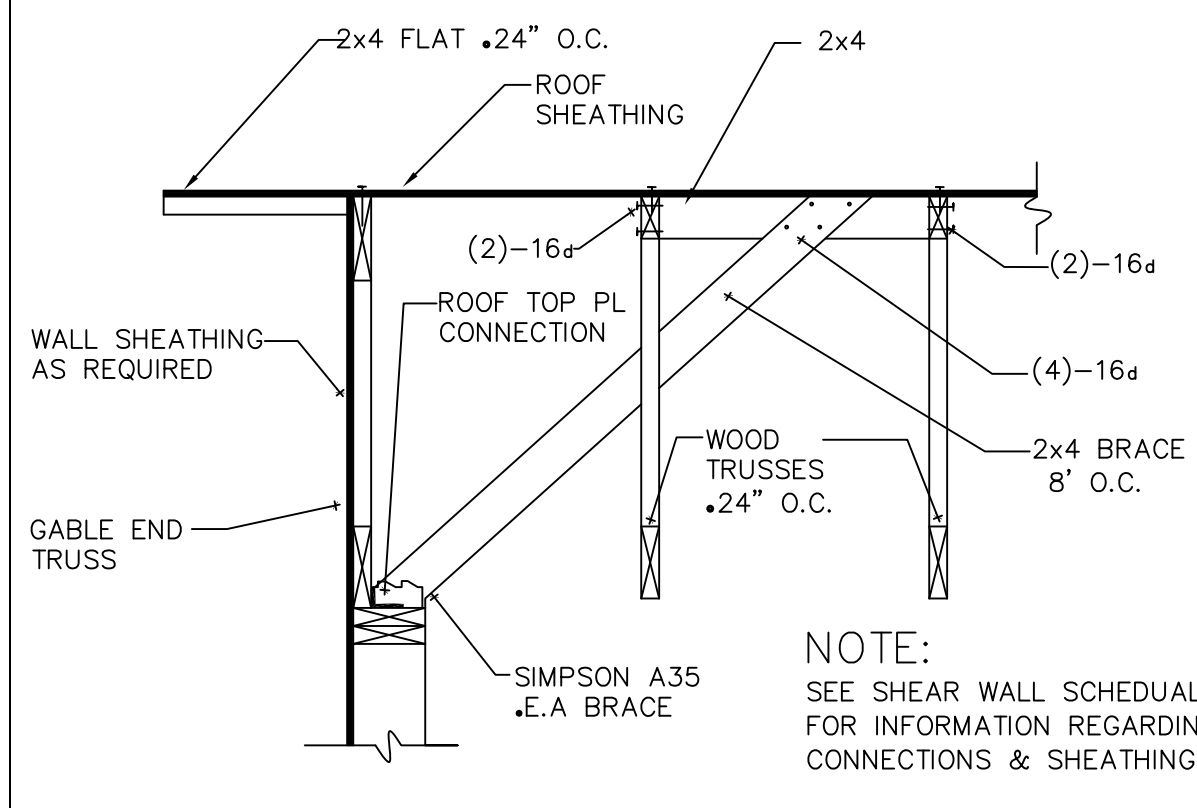
9 ROOF OVERBUILD
NTS
TYPICAL DETAIL, USE WHEN APPLIES



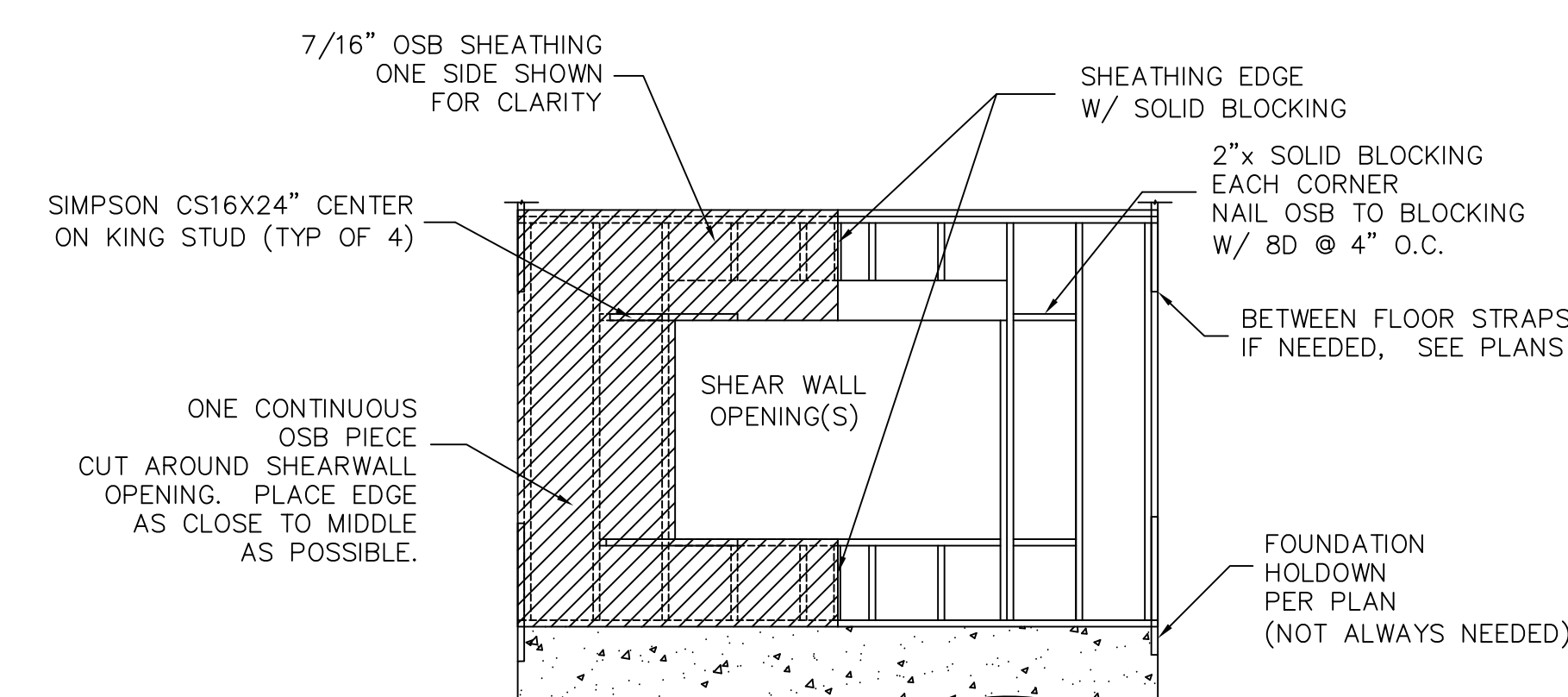
10 BRICK VENEER CONNECTION
NTS
TYPICAL DETAIL, USE WHEN APPLIES



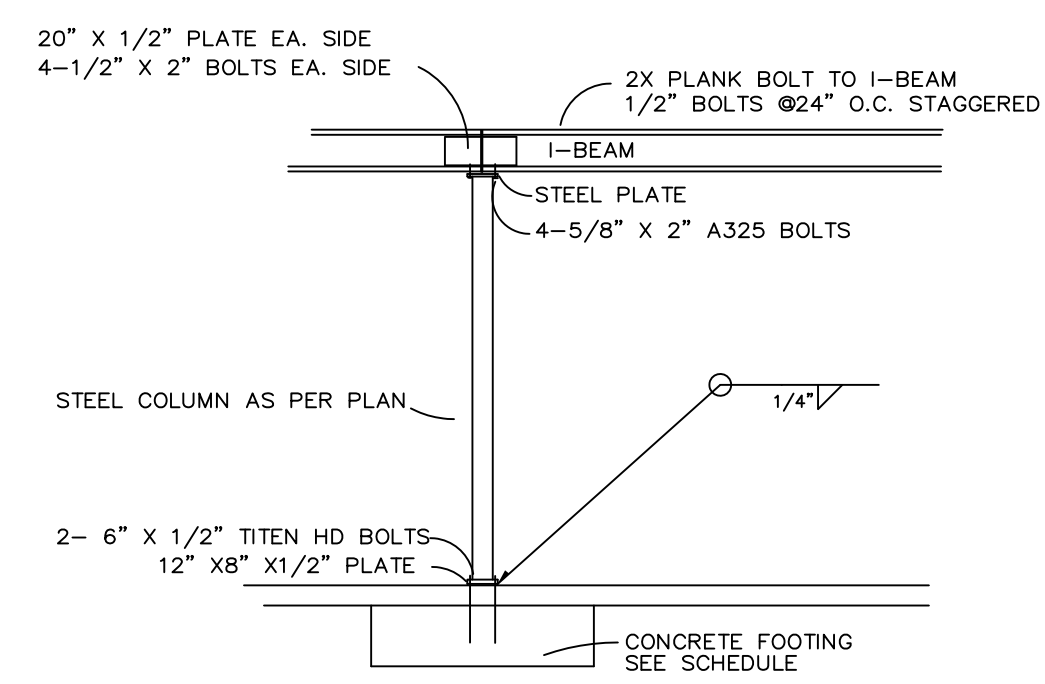
11 HEADER DETAIL
NTS
TYPICAL DETAIL, USE WHEN APPLIES



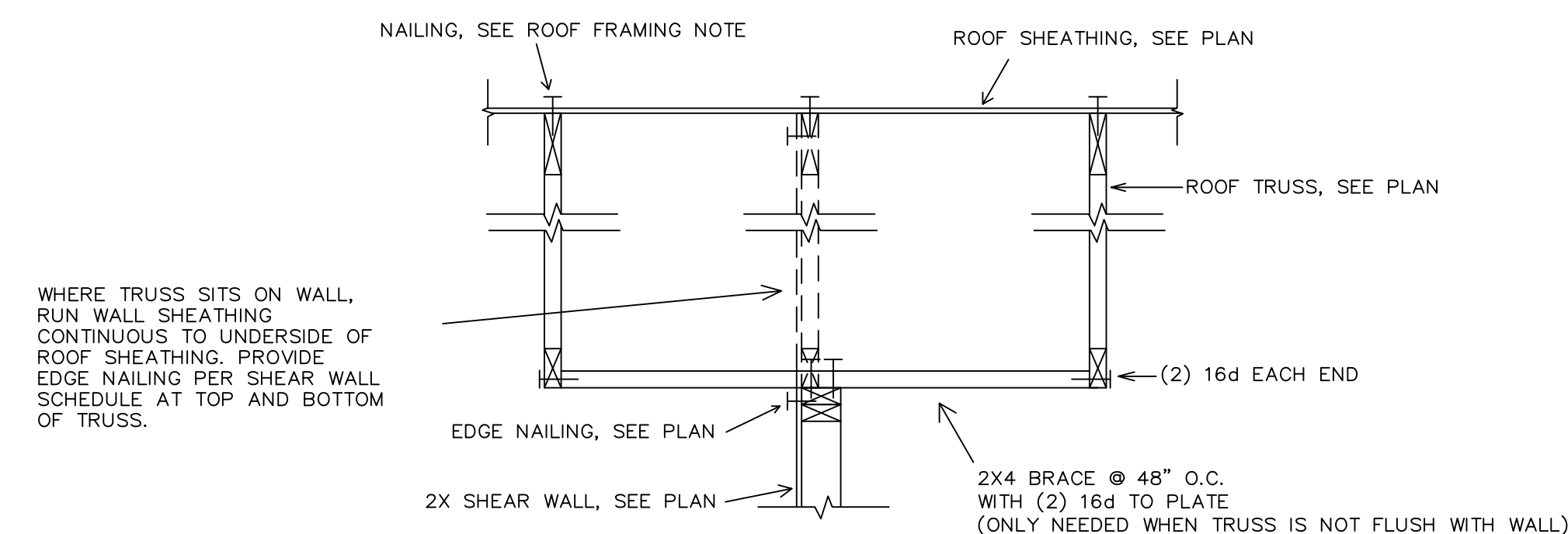
12 GABLE BRACE DETAIL
NTS
TYPICAL DETAIL, USE WHEN APPLIES



13 FORCE TRANSFER SHEAR WALL
NTS
USE ONLY IF CALLED OUT ON PLANS



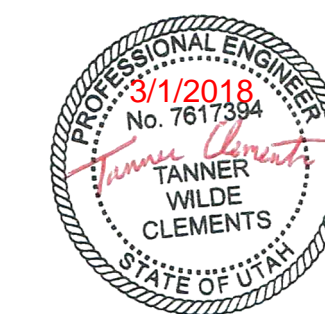
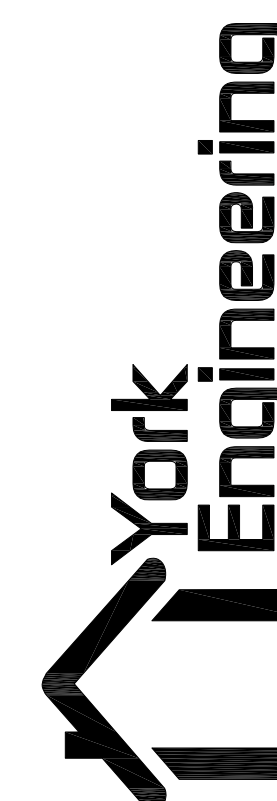
14 I-BEAM / COLUMN
NTS
TYPICAL DETAIL, USE WHEN APPLIES



15 TRUSSES PARALLEL TO SHEAR WALL
NTS
USE ONLY IF CALLED OUT ON PLANS

ALL DETAILS MAY NOT BE APPLICABLE TO YOUR PLANS
IF MARKED TYPICAL, USE ON PLAN ON ALL APPLICABLE AREAS

Structural Design and Analysis
4883 Old Highway Rd Suite A
Morgan, Utah 84050
(801) 876-3501



SD2

Appendix J: Additional Information

SUBCONTRACTOR CERTIFICATION
STORMWATER POLLUTION PREVENTION PLAN

Project Number: RE17

Project Title: CHANDLER RESIDENCE

Operator(s): ERIC HARPER, COTTLE, INC. dba COTTLE HOMES

As a subcontractor, you are required to comply with the Stormwater Pollution Prevention Plan (SWPPP) for any work that you perform on-site. Any person or group who violates any condition of the SWPPP may be subject to substantial penalties or loss of contract. You are encouraged to advise each of your employees working on this project of the requirements of the SWPPP. A copy of the SWPPP is available for your review at the office trailer.

Each subcontractor engaged in activities at the construction site that could impact stormwater must be identified and sign the following certification statement:

I certify under the penalty of law that I have read and understand the terms and conditions of the SWPPP for the above designated project and agree to follow the BMPs and practices described in the SWPPP.

This certification is hereby signed in reference to the above named project:

Company: _____

Address: _____

Telephone Number: _____

Type of construction service to be provided: _____

Signature: _____

Title: _____

Date: _____

Appendix K: BMP Specifications and Details

2.x.x Inlet Protection

Operation or Site Condition: Storm Drain Inlet on east side of property

Instruction: Ensure that no sediment is making it into storm drain and that inlet protection is less than 50% full

Schedule: When reaches 50% capacity

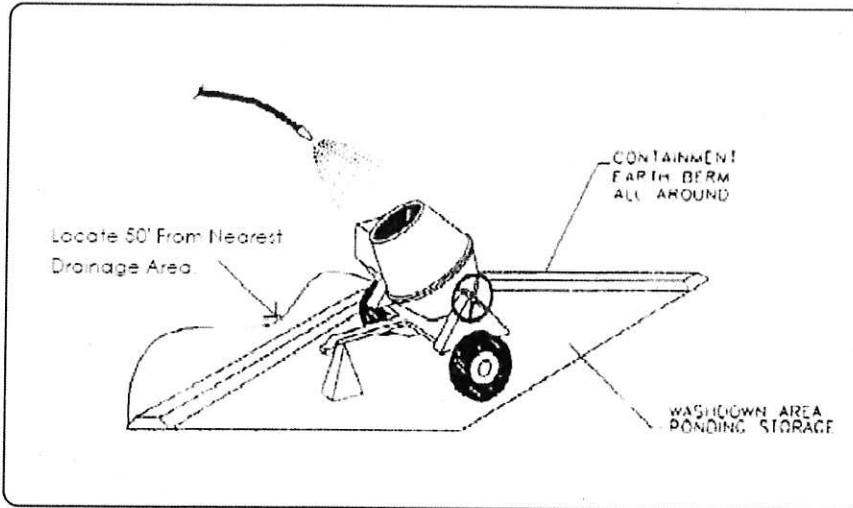
Maintenance: Inspect regularly

Maintenance Personnel: Builder

Applicable Trades: All trades

Detail: Install 2-3 rock socks around the inlet to block sediment flow

The SWPPP accountable person is required to train the workforce, it is recommended to hand deliver this instruction to the applicable tradesmen.



DESCRIPTION:

Prevent or reduce the discharge of pollutants to storm water from concrete waste by conducting washout off-site, performing on-site washout in a designated area, and training employees and subcontractors.

APPLICATIONS:

- ▶ This technique is applicable to all types of sites.

INSTALLATION/APPLICATION CRITERIA:

- ▶ Store dry and wet materials under cover, away from drainage areas.
- ▶ Avoid mixing excess amounts of fresh concrete or cement on-site.
- ▶ Perform washout of concrete trucks off-site or in designated areas only.
- ▶ Do not wash out concrete trucks into storm drains, open ditches, streets, or streams.
- ▶ Do not allow excess concrete to be dumped on-site, except in designated areas.
- ▶ When washing concrete to remove fine particles and expose the aggregate, avoid creating runoff by draining the water within a bermed or level area. (See Earth Berm Barrier information sheet.)
- ▶ Train employees and subcontractors in proper concrete waste management.

LIMITATIONS:

- ▶ Off-site washout of concrete wastes may not always be possible.

MAINTENANCE:

- ▶ Inspect subcontractors to ensure that concrete wastes are being properly managed.
- ▶ If using a temporary pit, dispose hardened concrete on a regular basis.

OBJECTIVES

- Housekeeping Practices
- Contain Waste
- Minimize Disturbed Areas
- Stabilize Disturbed Areas
- Protect Slopes/Channels
- Control Site Perimeter
- Control Internal Erosion



WEBER COUNTY

ENGINEERING DEPARTMENT

2380 Washington Blvd., Suite 240
Ogden, UT 84401
(801) 399-8374

TARGETED POLLUTANTS

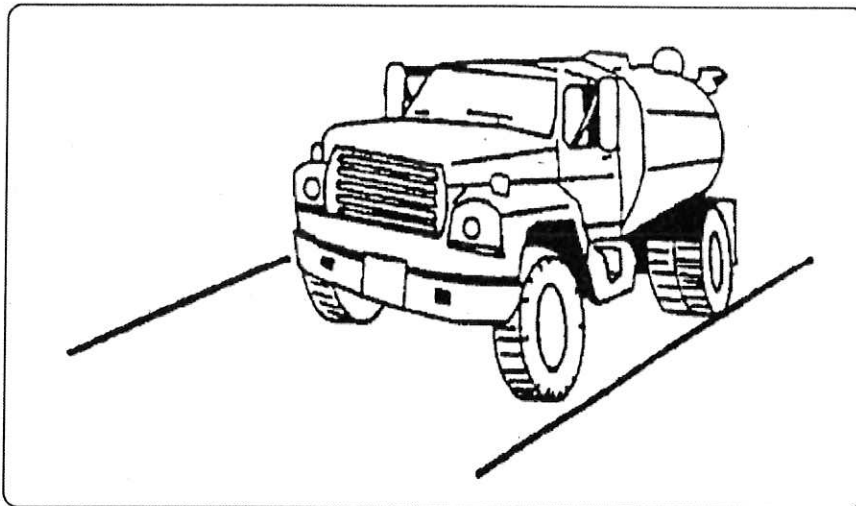
- Sediment
- Nutrients
- Toxic Materials
- Oil & Grease
- Floatable Materials
- Other Construction Waste

- High Impact
- Medium Impact
- Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- Capital Costs
- O&M Costs
- Maintenance
- Training

- High
- Medium
- Low



DESCRIPTION:

Dust control measures are used to stabilize soil from wind erosion, and reduce dust by construction activities.

APPLICATION:

- ▶ Dust control is useful in any process area, loading and unloading area, material handling areas, and transfer areas where dust is generated. Street sweeping is limited to areas that are paved.

INSTALLATION/APPLICATION CRITERIA:

- ▶ Mechanical dust collection systems are designed according to the size of dust particles and the amount of air to be processed. Manufacturers' recommendations should be followed for installation (as well as the design of the equipment).
- ▶ Two kinds of street sweepers are common: brush and vacuum. Vacuum sweepers are more efficient and work best when the area is dry.
- ▶ Mechanical equipment should be operated according to the manufacturers' recommendations and should be inspected regularly.

LIMITATIONS:

- ▶ Is generally more expensive than manual systems.
- ▶ May be impossible to maintain by plant personnel (the more elaborate equipment).
- ▶ Is labor and equipment intensive and may not be effective for all pollutants (street sweepers).

MAINTENANCE:

- ▶ If water sprayers are used, dust-contaminated waters should be collected and taken
- ▶ for treatment. Areas will probably need to be resprayed to keep dust from spreading.
- ▶

OBJECTIVES

- Housekeeping Practices
- Contain Waste
- Minimize Disturbed Areas
- Stabilize Disturbed Areas
- Protect Slopes/Channels
- Control Site Perimeter
- Control Internal Erosion



WEBER COUNTY

ENGINEERING DEPARTMENT

2380 Washington Blvd., Suite 240
Ogden, UT 84401
(801) 399-8374

TARGETED POLLUTANTS

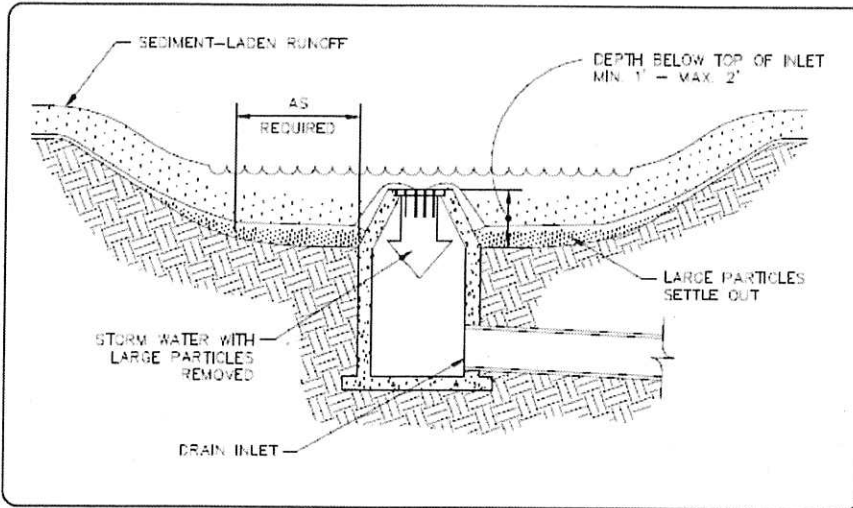
- Sediment
- Nutrients
- Toxic Materials
- Oil & Grease
- Floatable Materials
- Other Waste

- High Impact
- Medium Impact
- Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- Capital Costs
- O&M Costs
- Maintenance
- Training

- High
- Medium
- Low



DESCRIPTION:

An area excavated around a storm drain inlet to impound water below the inlet.

APPLICATION:

- ▶ Construct at storm drainage inlets located downgradient of areas to be disturbed by construction (for inlets in paved areas see other information sheets for inlet protection).

INSTALLATION/APPLICATION CRITERIA:

- ▶ Provide upgradient sediment controls, such as silt fence during construction of inlet.
- ▶ When construction of inlet is complete, excavate adjacent area 1 to 2 feet lower than the grate elevation. Size of excavated area should be based on soil type and contributing acreage.

LIMITATIONS:

- ▶ Recommended maximum contributing drainage area of one acre.
- ▶ Limited to inlets located in open unpaved areas.
- ▶ Requires flat area adjacent to inlet.

MAINTENANCE:

- ▶ Inspect inlet protection following storm event and at a minimum of once monthly.
- ▶ Remove accumulated sediment when it reaches one half of the excavated sump below the grate.
- ▶ Repair side slopes as required.

OBJECTIVES

- Housekeeping Practices
- Contain Waste
- Minimize Disturbed Areas
- Stabilize Disturbed Areas
- Protect Slopes/Channels
- Control Site Perimeter
- Control Internal Erosion



WEBER COUNTY

ENGINEERING DEPARTMENT

2380 Washington Blvd., Suite 240
Ogden, UT 84401
(801) 399-8374

TARGETED POLLUTANTS

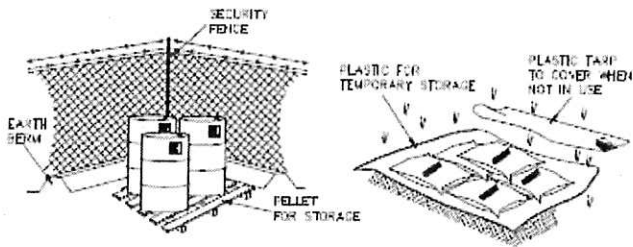
- Sediment
- Nutrients
- Toxic Materials
- Oil & Grease
- Floatable Materials
- Other Waste

- High Impact
- Medium Impact
- Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- Capital Costs
- O&M Costs
- Maintenance
- Training

- High
- Medium
- Low



- ▶ CONTROLLED STORAGE LOCATION
- ▶ BERMED PERIMETER IMPOUNDMENT
- ▶ STORAGE OFF GROUND
- ▶ COVER WHEN NOT IN USE

DESCRIPTION:

Controlled storage of on-site materials.

APPLICATION:

- ▶ Storage of hazardous, toxic, and all chemical substances.
- ▶ Any construction site with outside storage of materials.

INSTALLATION/APPLICATION CRITERIA:

- ▶ Designate a secured area with limited access as the storage location. Ensure no waterways or drainage paths are nearby.
- ▶ Construct compacted earthen berm (See Earth Berm Barrier Information Sheet), or similar perimeter containment around storage location for impoundment in the case of spills.
- ▶ Ensure all on-site personnel utilize designated storage area. Do not store excessive amounts of material that will not be utilized on site.
- ▶ For active use of materials away from the storage area ensure materials are not set directly on the ground and are covered when not in use. Protect storm drainage during use.

LIMITATIONS:

- ▶ Does not prevent contamination due to mishandling of products.
- ▶ Spill Prevention and Response Plan still required.
- ▶ Only effective if materials are actively stored in controlled location.

MAINTENANCE:

- ▶ Inspect daily and repair any damage to perimeter impoundment or security fencing.
- ▶ Check materials are being correctly stored (i.e. standing upright, in labeled containers, tightly capped) and that no materials are being stored away from the designated location.

OBJECTIVES

- Housekeeping Practices
- Contain Waste
- Minimize Disturbed Areas
- Stabilize Disturbed Areas
- Protect Slopes/Channels
- Control Site Perimeter
- Control Internal Erosion



WEBER COUNTY

ENGINEERING DEPARTMENT

2380 Washington Blvd., Suite 240
Ogden, UT 84401
(801) 399-8374

TARGETED POLLUTANTS

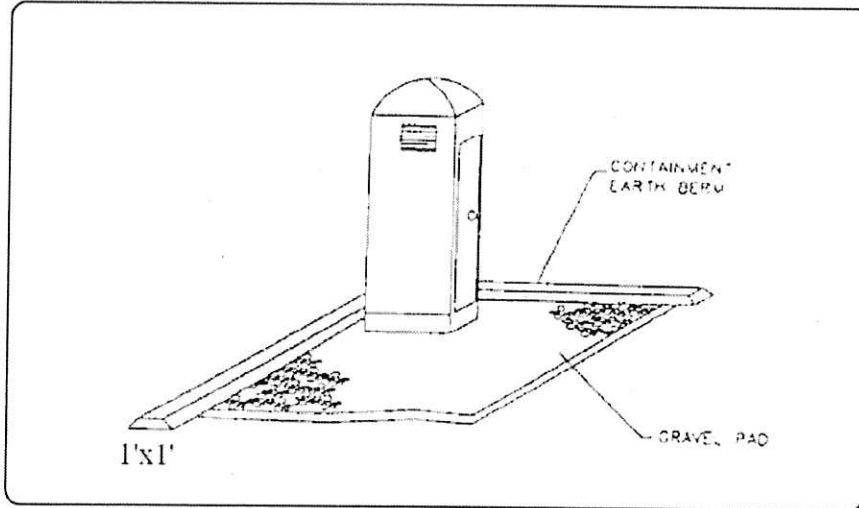
- Sediment
- Nutrients
- Toxic Materials
- Oil & Grease
- Floatable Materials
- Other Construction Waste

- High Impact
- Medium Impact
- Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- Capital Costs
- O&M Costs
- Maintenance
- Training

- High
- Medium
- Low



DESCRIPTION:

Temporary on-site sanitary facilities for construction personnel.

APPLICATION:

- ▶ All sites with no permanent sanitary facilities or where permanent facility is too far from activities.

INSTALLATION/APPLICATION CRITERIA:

- ▶ Locate portable toilets in convenient locations throughout the site.
- ▶ Prepare level, gravel surface and provide clear access to the toilets for servicing and for on-site personnel.
- ▶ Construct earth berm perimeter (See Earth Berm Barrier Information Sheet), control for spill/protection leak.

LIMITATIONS:

No limitations.

MAINTENANCE:

- ▶ Portable toilets should be maintained in good working order by licensed service with daily observation for leak detection.
- ▶ Regular waste collection should be arranged with licensed service.
- ▶ All waste should be deposited in sanitary sewer system for treatment with appropriate agency approval.

OBJECTIVES

- Housekeeping Practices
- Contain Waste
- Minimize Disturbed Areas
- Stabilize Disturbed Areas
- Protect Slopes/Channels
- Control Site Perimeter
- Control Internal Erosion



WEBER COUNTY

ENGINEERING DEPARTMENT

2380 Washington Blvd., Suite 240
Ogden, UT 84401
(801) 399-8374

TARGETED POLLUTANTS

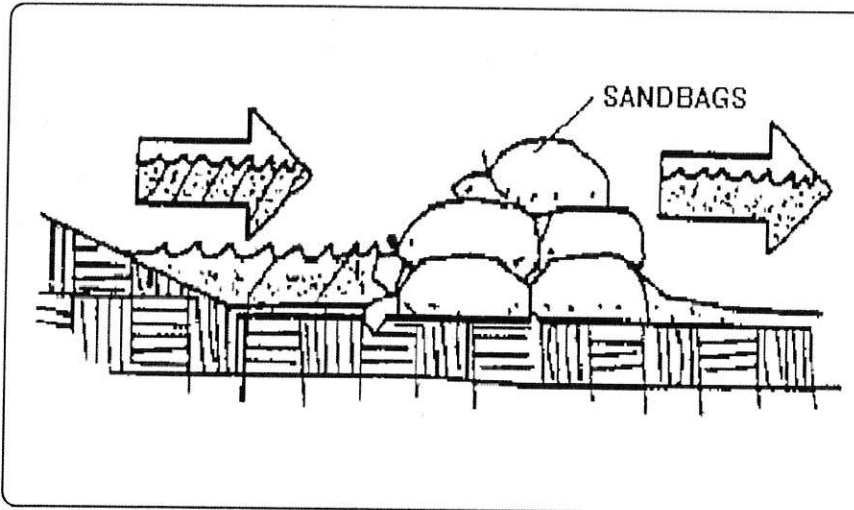
- Sediment
- Nutrients
- Toxic Materials
- Oil & Grease
- Floatable Materials
- Other Construction Waste

- High Impact
- Medium Impact
- Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- Capital Costs
- O&M Costs
- Maintenance
- Training

- High
- Medium
- Low



DESCRIPTION:

Stacking sand bags along a level contour creates a barrier which detains sediment laden water, ponding water upstream of the barrier and promoting sedimentation.

APPLICATION:

- ▶ Along the perimeter of the site.
- ▶ May be used in drainage areas up to 5 acres.
- ▶ Along streams and channels
- ▶ Across swales with small catchments.
- ▶ Around temporary spoil areas.
- ▶ Below the toe of a cleared slope.

INSTALLATION/APPLICATION CRITERIA:

- ▶ Install along a level contour.
- ▶ Base of sand bag barrier should be at least 48 inches wide.
- ▶ Height of sand bag barrier should be at least 18 inches high.
- ▶ 4 inch PVC pipe may be installed between the top layers of sand bags to drain large flood flows.
- ▶ Provide area behind barrier for runoff to pond and sediment to settle.
- ▶ Place below the toe of a slope.

LIMITATIONS:

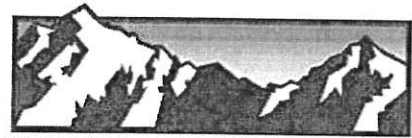
- ▶ Sand bags are more expensive than other barriers, but also more durable.
- ▶ Burlap should not be used.

MAINTENANCE:

- ▶ Inspect after each rain.
- ▶ Reshape or replace damaged sand bags immediately.
- ▶ Replace sediment when it reaches six inches in depth.

OBJECTIVES

- Housekeeping Practices
- Contain Waste
- Minimize Disturbed Areas
- Stabilize Disturbed Areas
- Protect Slopes/Channels
- Control Site Perimeter
- Control Internal Erosion



WEBER COUNTY

ENGINEERING DEPARTMENT

2380 Washington Blvd., Suite 240
Ogden, UT 84401
(801) 399-8374

TARGETED POLLUTANTS

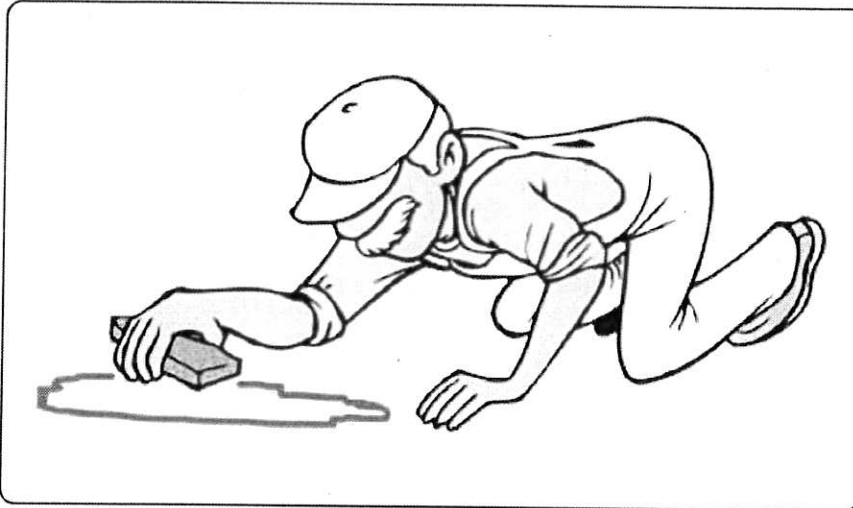
- Sediment
- Nutrients
- Toxic Materials
- Oil & Grease
- Floatable Materials
- Other Waste

- High Impact
- Medium Impact
- Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- Capital Costs
- O&M Costs
- Maintenance
- Training

- High
- Medium
- Low

**DESCRIPTION:**

Practices to clean-up leakage/spillage of on-site materials that may be harmful to receiving waters.

APPLICATION:

- ▶ All sites

GENERAL:

- ▶ Store controlled materials within a storage area.
- ▶ Educate personnel on prevention and clean-up techniques.
- ▶ Designate an Emergency Coordinator responsible for employing preventative practices and for providing spill response.
- ▶ Maintain a supply of clean-up equipment on-site and post a list of local response agencies with phone numbers.

METHODS:

- ▶ Clean-up spills/leaks immediately and remediate cause.
- ▶ Use as little water as possible. **NEVER HOSE DOWN OR BURY SPILL CONTAMINATED MATERIAL.**
- ▶ Use rags or absorbent material for clean-up. Excavate contaminated soils. Dispose of clean-up material and soil as hazardous waste.
- ▶ Document all spills with date, location, substance, volume, actions taken and other pertinent data.
- ▶ Contact local Fire Department and State Division of Environmental Response and Remediation (Phone #536-4100) for any spill of reportable quantity.

OBJECTIVES

- Housekeeping Practices
- Contain Waste
- Minimize Disturbed Areas
- Stabilize Disturbed Areas
- Protect Slopes/Channels
- Control Site Perimeter
- Control Internal Erosion



WEBER COUNTY

ENGINEERING DEPARTMENT

2380 Washington Blvd., Suite 240
Ogden, UT 84401
(801) 399-8374

TARGETED POLLUTANTS

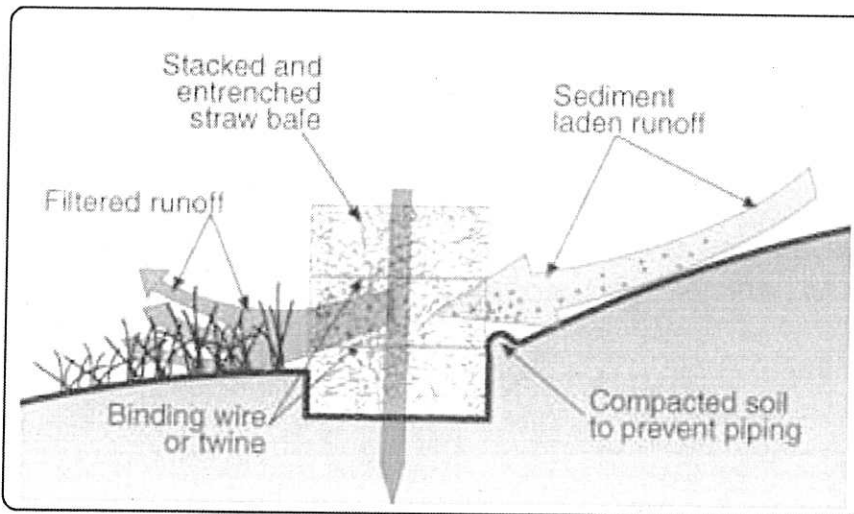
- Sediment
- Nutrients
- Toxic Materials
- Oil & Grease
- Floatable Materials
- Other Construction Waste

- High Impact
- Medium Impact
- Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- Capital Costs
- O&M Costs
- Maintenance
- Training

- High
- Medium
- Low



DESCRIPTION:

Temporary sediment barrier consisting of a row of entrenched and anchored straw bales.

APPLICATION:

- ▶ Perimeter Control: place barrier at downgradient limits of disturbance.
- ▶ Sediment barrier: place barrier at toe of slope or soil stockpile.
- ▶ Protection of existing waterways: place barrier at top of stream bank.
- ▶ Inlet Protection.

INSTALLATION/APPLICATION CRITERIA:

- ▶ Excavate a 4-inch minimum deep trench along contour line, i.e. parallel to slope, removing all grass and other material that may allow underflow.
- ▶ Place bales in trench with ends tightly abutting; fill any gaps by wedging loose straw into openings.
- ▶ Anchor each bale with 2 stakes driven flush with the top of the bale.
- ▶ Backfill around bale and compact to prevent piping, backfill on uphill side to be built up 4-inches above ground at the barrier.

LIMITATIONS:

- ▶ Recommended maximum area of 0.5 acre per 100 feet of barrier
- ▶ Recommended maximum upgradient slope length of 150 feet
- ▶ Recommended maximum uphill grade of 2:1 (50%)

MAINTENANCE:

- ▶ Inspect immediately after any rainfall and at least daily during prolonged rainfall.
- ▶ Look for runoff bypassing ends of barriers or undercutting barriers.
- ▶ Repair or replace damaged areas of the barrier and remove accumulated sediment.
- ▶ Realign bales as necessary to provide continuous barrier and fill gaps.
- ▶ Recompile soil around barrier as necessary to prevent piping.

OBJECTIVES

- Housekeeping Practices
- Contain Waste
- Minimize Disturbed Areas
- Stabilize Disturbed Areas
- Protect Slopes/Channels
- Control Site Perimeter
- Control Internal Erosion



WEBER COUNTY

ENGINEERING DEPARTMENT

2380 Washington Blvd., Suite 240
Ogden, UT 84401
(801) 399-8374

TARGETED POLLUTANTS

- Sediment
- Nutrients
- Toxic Materials
- Oil & Grease
- Floatable Materials
- Other Waste

- High Impact
- Medium Impact
- Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- Capital Costs
- O&M Costs
- Maintenance
- Training

- High
- Medium
- Low



Utah Department of Environmental Quality

195 North 1950 West
Salt Lake City, Utah 84114-4820
Attn: DAQ, Fugitive Dust Control Plan

Fugitive Dust Control Plan Application

Applicants have the option to complete the online dust control plan on the DEQ Online Services webpage or to submit a hard copy application.

Activities regulated by R307-309 may not commence before obtaining approval of the fugitive dust control plan. Therefore, online filing is encouraged because it provides instant approval.

Blank spaces must be completed for the application to be processed. If not applicable, enter N/A.

1. Applicant Information

Name: eric
Address: 446 south 2020 West OREM, UT 84058
Phone: 8018364451
Email: eharper@cottlehomes.com
Applicant Type:

2. Project Information

Project Name: Rivers Edge lot 17
Address: 3787 North Rivers Edge Road WEBER COUNTY (UNINCORPORATED AREA), UT 84310
County: WEBER
Directions: Liberty Utah
Acreage: 0.75
Latitude: 41.32740829
Longitude: -111.8529403

3. Point of Contact

Name: Eric B Harper

Company Name: Cottle Homes

Address: 446 south 2020 West Orem City, UT 84058

Phone: 8018364451

Fax:

Cell:

4. On-site Superintendent/Supervisor/Foreman Contact

Name: Eric B Harper

Company Name: Cottle Homes

On-Site Phone: 8018364451

Cell:

5. By signing this permit application I certify that:

A. I am authorized, on behalf of the individual or company listed in Section 1, as Applicant, to apply for a Fugitive Dust Control Plan and to commit to all of the terms and conditions of the requested plan.

B. Construction activities will be limited to lands that the applicant either owns or is authorized to use for construction activities.

C. The applicant accepts responsibility for assuring that all contractors, subcontractors, and all other persons on the construction site covered by this plan, comply with the terms and conditions of the Fugitive Dust Control Plan.

D. I understand that any false material statement, representation or certification made in this application may invalidate the plan or cause me to be subject to enforcement action pursuant to Utah Code Ann. 19-2-115.

E. Failure to comply with fugitive dust rules may result in compliance action and penalties up to \$10,000 per violation/day.

Date: 04/03/2018

Printed Name: eric

Title: null

Company Name: Cottle Homes

Dust Plan Number: 15477

Dust Suppressants

	Check All that Apply
	Clay additives.
	Calcium chloride.
	Lime (calcium oxide).
	Magnesium chloride.
	Organic non-petroleum products, (ligninsulfonate, tall (pine) oil, and vegetable derivatives).
	Synthetic polymers (for example; polyvinyl acetate and vinyl acrylic).

FUGITIVE DUST CONTROL PLAN

PROJECT ACTIVITIES CHECKLIST INSTRUCTIONS:

PLACE A CHECK MARK NEXT TO EVERY ACTIVITY THAT WILL BE CONDUCTED ON THIS SITE, FOR EACH CHECKED ACTIVITY, COMPLETE THE CORRESPONDING CONTROL MEASURES/BEST MANAGEMENT PRACTICE (BMP) SELECTION PAGE. WHEN COMPLETED, YOU WILL HAVE THE OPTION TO PRINT THE ENTIRE PLAN.

	Project Activity	Check All that Apply
01	Backfilling area previously excavated or trenched.	
02	Blasting soil & rock - drilling and blasting.	
03	Clearing for site preparation and vacant land cleanup.	
04	Clearing forms, foundations, slab clearing and cleaning of forms, foundations and slabs prior to pouring concrete.	
05	Crushing of construction and demolition debris, rock and soil.	
06	Cut and fill soils for site grade preparation.	
07	Demolition - Implosive demolition of a structure, using explosives.	
08	Demolition - mechanical/manual demolition of walls, stucco, concrete, freestanding structures, buildings and other structures.	
09	Disturbed soil throughout project including between structures. THIS ACTIVITY MUST BE SELECTED FOR ALL PROJECTS.	X
10	Disturbed land - long term stabilization and erosion control of large tracts of disturbed land that will not have continuing activity for more than 30 days.	
11	Hauling materials.	
12	Paving/subgrade preparation for paving streets, parking lots, etc.	
13	Sawing/cutting material, concrete, asphalt, block or pipe.	
14	Screening of rock, soil or construction debris.	
15	Staging areas, equipment storage, vehicle parking lots, and material storage areas.	
16	Stockpiles materials (storage), other soils, rock or debris, for future use or export.	
17	Tailings piles, ponds and erosion control.	

18	Trackout Prevention and Cleanup of mud, silt and soil tracked out onto paved roads.	X
19	Traffic - unpaved routes and parking, construction related traffic on unpaved interior and/or access roads and unpaved employee/worker parking areas.	
20	Trenching with track or wheel mounted excavator, shovel, backhoe or trencher.	
21	Truck loading with materials including construction and demolition debris, rock and soil.	X

**Disturbed soil throughout project including between structures. THIS
ACTIVITY MUST BE SELECTED FOR ALL PROJECTS.**

BMP 09

**GENERAL REQUIREMENT: ALL ACTIVITIES MUST MEET OPACITY REQUIREMENTS IN
R307-309-5**

MAKE AT LEAST ONE SELECTION FROM EACH SECTION.

Limit disturbance of soils where possible.

- | | |
|---|---|
| <input type="checkbox"/> 09-01 | Limit disturbance of soils with the use of fencing, barriers, barricades, and/or wind barriers. |
| <input checked="" type="checkbox"/> 09-02 | Limit vehicle mileage and reduce speed. |

Stabilize and maintain stability of all disturbed soil throughout construction site.

- | | |
|---|--|
| <input checked="" type="checkbox"/> 09-03 | Apply water to stabilize disturbed soils. Soil moisture must be maintained such that soils can be worked without generating fugitive dust. |
| <input type="checkbox"/> 09-04 | Apply and maintain a chemical stabilizer. |
| <input type="checkbox"/> 09-05 | Use wind breaks. |
| <input type="checkbox"/> 09-06 | Apply cover (natural or synthetic). |

Trackout Prevention and Cleanup of mud, silt and soil tracked out onto paved roads.

BMP 18

GENERAL REQUIREMENT: ALL ACTIVITIES MUST MEET OPACITY REQUIREMENTS IN R307-309-5

MAKE AT LEAST ONE SELECTION FROM EACH SECTION.

Prevent dust from trackout.

<input type="checkbox"/> 18-01	Clean trackout at the end of the work shift from paved surfaces to maintain dust control
<input type="checkbox"/> 18-02	Maintain dust control during working hours and clean trackout from paved surfaces at the end of the work shift/day.
<input type="checkbox"/> 18-03	Install gravel pad(s), clean, well-graded gravel or crushed rock. Minimum dimensions must be 30 feet wide by 3 inches deep, and, at minimum, 50' or the length of the longest haul truck, whichever is greater. Re-screen, wash or apply additional rock in gravel pad to maintain effectiveness.
<input type="checkbox"/> 18-04	Install wheel shakers. Clean wheel shakers on a regular basis to maintain effectiveness.
<input type="checkbox"/> 18-05	Install wheel washers. Maintain wheel washers on a regular basis to maintain effectiveness.
<input checked="" type="checkbox"/> 18-06	Motorized vehicles will only operate on paved surfaces.
<input type="checkbox"/> 18-07	Install cattle guard before paved road entrance.

All exiting traffic must be routed over selected trackout control device(s).

<input checked="" type="checkbox"/> 18-08	Clearly establish and enforce traffic patterns to route traffic over selected trackout control device(s).
<input type="checkbox"/> 18-09	Limit site accessibility to routes with trackout control devices in place by installing effective barriers on unprotected routes.

Truck loading with materials including construction and demolition debris,
rock and soil.

BMP 21

**GENERAL REQUIREMENT: ALL ACTIVITIES MUST MEET OPACITY REQUIREMENTS IN
R307-309-5**

MAKE AT LEAST ONE SELECTION.

21-01

Pre-water and maintain surface soils in a stabilized condition where loaders,
support equipment and vehicles will operate.

21-02

Apply and maintain a chemical stabilizer on surface soils where loaders,
support equipment and vehicles will operate.

21-03

Empty loader bucket slowly and keep loader bucket close to the truck to
minimize the drop height while dumping.